

(b) (5)

U.S. Department of Labor Occupational Safety and Health Administration
5807 Breckenridge Pkwy
Suite A
Tampa, FL 33610



10/24/2022

GUYMANN CONSTRUCTION OF FLORIDA, INC.
and its successors
305 SW 3RD STREET
Cape Coral, FL 33991

Dear Employer:

Enclosed you will find citations for violations of the Occupational Safety and Health Act of 1970 (the Act) which may have accompanying proposed penalties. Also enclosed is a booklet entitled, "Employer Rights and Responsibilities Following an OSHA Inspection", (OSHA 3000-04R) revised 2018, which explains your rights and responsibilities under the Act. If you have any questions about the enclosed citations and penalties, I would welcome further discussions in person or by telephone. Please contact me at (813) 626-1177.

You will note on page 6 of the booklet that, for violations which you do not contest, you must (1) notify this office promptly by letter that you have taken appropriate corrective action within the time set forth on the citation; and (2) pay any penalties assessed. Please inform me of the abatement steps you have taken and of their dates together with adequate supporting documentation; e.g., drawings or photographs of corrected conditions, purchase/work orders related to abatement actions, air sampling results. This information will allow us to close the case.

As indicated on page 3 of the booklet, you may request an informal conference with me during the 15-working-day notice of contest period. During such an informal conference you may present any evidence or views which you believe would support an adjustment to the citation or the penalty.

If you are considering a request for an informal conference to discuss any issues related to this Citation and Notification of Penalty, you must take care to schedule it early enough to allow time to contest after the informal conference, should you decide to do so. Please keep in mind that a written letter of intent to contest must be submitted to the Area Director within 15 working days of your receipt of the citation. The running of this contest period is not interrupted by an informal conference.

If you decide to request an informal conference, please complete the attached notice at the bottom of this letter and post it next to the Citations as soon as the time, date and the place of the informal conference have been determined. Be sure to bring to the conference with you any and all supporting documentation of existing conditions as well as of any abatement steps taken thus far. If conditions warrant, we can enter into an informal settlement agreement which amicably resolves this matter without litigation or contest.

You should be aware that OSHA publishes information on its inspection and citation activity on the Internet under the provisions of Electronic Freedom of Information Act. The information related to these alleged violations will be posted when our system indicates that you have received this citation. You are encouraged to review the information concerning your establishment at www.osha.gov. If you have any dispute with the accuracy of the information displayed, please contact this office.

Sincerely,

**DANELLE
JINDRA**

Digitally signed by DANELLE
JINDRA
Date: 2022.10.24 14:32:18 -04'00'

Danelle Jindra
Area Director

Enclosures

U.S. Department of Labor

Occupational Safety and Health Administration
5807 Breckenridge Pkwy
Suite A
Tampa, FL 33610



Citation and Notification of Penalty

To:
GUYMANN CONSTRUCTION OF FLORIDA, INC.
and its successors
305 SW 3RD STREET
Cape Coral, FL 33991

Inspection Number: 1594857
Inspection Date(s): 05/09/2022 - 10/24/2022
Issuance Date: 10/24/2022

Inspection Site:
Burnt Store Rd.
Punta Gorda, FL 33955

The violation(s) described in this Citation and Notification of Penalty is (are) alleged to have occurred on or about the day(s) the inspection was made unless otherwise indicated within the description given below.

This Citation and Notification of Penalty (this Citation) describes violations of the Occupational Safety and Health Act of 1970. The penalty(ies) listed herein is (are) based on these violations. You must abate the violations referred to in this Citation by the dates listed and pay the penalties proposed, unless within 15 working days (excluding weekends and Federal holidays) from your receipt of this Citation and Notification of Penalty **you either call to schedule an informal conference (see paragraph below) or** you mail a notice of contest to the U.S. Department of Labor Area Office at the address shown above. Please refer to the enclosed booklet (OSHA 3000) which outlines your rights and responsibilities and which should be read in conjunction with this form. Issuance of this Citation does not constitute a finding that a violation of the Act has occurred unless there is a failure to contest as provided for in the Act or, if contested, unless this Citation is affirmed by the Review Commission or a court.

Posting - The law requires that a copy of this Citation and Notification of Penalty be posted immediately in a prominent place at or near the location of the violation(s) cited herein, or, if it is not practicable because of the nature of the employer's operations, where it will be readily observable by all affected employees. This Citation must remain posted until the violation(s) cited herein has (have) been abated, or for 3 working days (excluding weekends and Federal holidays), whichever is longer.

Informal Conference - An informal conference is not required. However, if you wish to have such a conference you may request one with the Area Director during the 15 working day contest period by calling (813) 626-1177. During such an informal conference, you may present any evidence or views which you believe would support an adjustment to the citation(s) and/or penalty(ies).

If you are considering a request for an informal conference to discuss any issues related to this Citation and Notification of Penalty, you must take care to schedule it early enough to allow time to contest after the informal conference, should you decide to do so. Please keep in mind that a written letter of intent to contest must be submitted to the Area Director within 15 working days of your receipt of this Citation. The running of this contest period is not interrupted by an informal conference.

If you decide to request an informal conference, please complete, remove and post the Notice to Employees next to this Citation and Notification of Penalty as soon as the time, date, and place of the informal conference have been determined. Be sure to bring to the conference any and all supporting documentation of existing conditions as well as any abatement steps taken thus far. If conditions warrant, we can enter into an informal settlement agreement which amicably resolves this matter without litigation or contest.

Right to Contest – You have the right to contest this Citation and Notification of Penalty. You may contest all citation items or only individual items. You may also contest proposed penalties and/or abatement dates without contesting the underlying violations. **Unless you inform the Area Director in writing that you intend to contest the citation(s) and/or proposed penalty(ies) within 15 working days after receipt, the citation(s) and the proposed penalty(ies) will become a final order of the Occupational Safety and Health Review Commission and may not be reviewed by any court or agency.**

Penalty Payment – Penalties are due within 15 working days of receipt of this notification unless contested. (See the enclosed booklet and the additional information provided related to the Debt Collection Act of 1982.) Make your check or money order payable to “DOL-OSHA”. Please indicate the Inspection Number on the remittance. You can also make your payment electronically at www.pay.gov. At the top of the [pay.gov](http://www.pay.gov) homepage, type “OSHA” in the Search field and select Search. From **OSHA Penalty Payment Form** search result, select Continue. The direct link is:

<https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334>

You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check, money order, or electronic payment for less than the full amount due, and will process the payments as if these restrictions or conditions do not exist.

Notification of Corrective Action – For each violation which you do not contest, you must provide *abatement certification* to the Area Director of the OSHA office issuing the citation and identified above. This abatement certification is to be provided by letter within 10 calendar days after each abatement date. Abatement certification includes the date and method of abatement. If the citation indicates that the violation was corrected during the inspection, no abatement certification is required for that item. The abatement certification letter must be posted at the location where the violation appeared and the corrective action took place or employees must otherwise be effectively informed about abatement activities. A sample abatement certification letter is enclosed with this Citation. In addition, where the citation indicates that *abatement documentation* is necessary, evidence of the purchase or repair of equipment, photographs or video, receipts, training records, etc., verifying that abatement has occurred is required to be provided to the Area Director.

Employer Discrimination Unlawful – The law prohibits discrimination by an employer against an

employee for filing a complaint or for exercising any rights under this Act. An employee who believes that he/she has been discriminated against may file a complaint no later than 30 days after the discrimination occurred with the U.S. Department of Labor Area Office at the address shown above.

Employer Rights and Responsibilities – The enclosed booklet (OSHA 3000) outlines additional employer rights and responsibilities and should be read in conjunction with this notification.

Notice to Employees – The law gives an employee or his/her representative the opportunity to object to any abatement date set for a violation if he/she believes the date to be unreasonable. The contest must be mailed to the U.S. Department of Labor Area Office at the address shown above and postmarked within 15 working days (excluding weekends and Federal holidays) of the receipt by the employer of this Citation and Notification of Penalty.

Inspection Activity Data – You should be aware that OSHA publishes information on its inspection and citation activity on the Internet under the provisions of the Electronic Freedom of Information Act. The information related to these alleged violations will be posted when our system indicates that you have received this citation. You are encouraged to review the information concerning your establishment at www.osha.gov. If you have any dispute with the accuracy of the information displayed, please contact this office.

U.S. Department of Labor
Occupational Safety and Health Administration



NOTICE TO EMPLOYEES OF INFORMAL CONFERENCE

An informal conference has been scheduled with OSHA to discuss the citation(s) issued on 10/24/2022. The conference will be held by telephone or at the OSHA office located at 5807 Breckenridge Pkwy, Suite A, Tampa, FL 33610 on _____ at _____ . Employees and/or representatives of employees have a right to attend an informal conference.

CERTIFICATION OF CORRECTIVE ACTION WORKSHEET

Inspection Number: 1594857

Company Name: GUYMANN CONSTRUCTION OF FLORIDA, INC.
Inspection Site: Burnt Store Rd., Punta Gorda, FL 33955
Issuance Date: 10/24/2022

List the specific method of correction for each item on this citation in this package that does not read "Corrected During Inspection" and return to: **U.S. Department of Labor – Occupational Safety and Health Administration, 5807 Breckenridge Pkwy, Suite A, Tampa, FL 33610.**

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

I certify that the information contained in this document is accurate and that the affected employees and their representatives have been informed of the abatement.

Signature

Date

Typed or Printed Name

Title

NOTE: 29 USC 666(g) whoever knowingly makes any false statements, representation or certification in any application, record, plan or other documents filed or required to be maintained pursuant to the Act shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment of not more than 6 months or both.

POSTING: A copy of completed Corrective Action Worksheet should be posted for employee review

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1594857
Inspection Date(s): 05/09/2022 - 10/24/2022
Issuance Date: 10/24/2022



Citation and Notification of Penalty

Company Name: GUYMANN CONSTRUCTION OF FLORIDA, INC.
Inspection Site: Burnt Store Rd., Punta Gorda, FL 33955

Citation 1 Item 1 Type of Violation: **Serious**

29 CFR 1926.21(b)(2): The employer did not instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his/her environment to control or eliminate any hazards or other exposure to illness or injury:

- a. On or about May 6, 2022, on Burnt Store Road, in Punta Gorda, Florida, employees, working in an unsupported trench that was 17 to 20 feet long and approximately 7 feet deep with vertical walls, in Class C soil, were not adequately trained in the recognition of hazards associated with trenching and excavations.
- b. On or about May 9, 2022, on Burnt Store Road, in Punta Gorda, Florida, employees, working in an unsupported trench that was 17 to 20 feet long and approximately 7 feet deep with vertical walls, in Class C soil, were not adequately trained in the recognition of hazards associated with trenching and excavations.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:
Proposed Penalty:

November 18, 2022
\$10,151.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1594857
Inspection Date(s): 05/09/2022 - 10/24/2022
Issuance Date: 10/24/2022



Citation and Notification of Penalty

Company Name: GUYMANN CONSTRUCTION OF FLORIDA, INC.
Inspection Site: Burnt Store Rd., Punta Gorda, FL 33955

Citation 2 Item 1 Type of Violation: **Willful - Serious**

29 CFR 1926.652(a)(1): Each employee in an excavation was not protected from cave-ins by an adequate protective system designed in accordance with 29 CFR 1926.652 (b) or (c):

- a. On or about May 6, 2022, on Burnt Store Road, in Punta Gorda, Florida, employees were exposed to cave-in hazards when working without a protective system in a trench that was 17 to 20 feet long and was approximately 7 feet deep with vertical walls, in Class C soil.
- b. On or about May 9, 2022, on Burnt Store Road, in Punta Gorda, Florida, employees were exposed to cave-in hazards when working without a protective system in a trench that was 17 to 20 feet long and was approximately 7 feet deep with vertical walls, in Class C soil.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:
Proposed Penalty:

November 18, 2022
\$145,027.00

DANELLE
JINDRA

Digitally signed by DANELLE
JINDRA
Date: 2022.10.24 14:33:04
-04'00'

Danelle Jindra
Area Director

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration
5807 Breckenridge Pkwy
Suite A
Tampa, FL 33610



INVOICE / DEBT COLLECTION NOTICE

Company Name: GUYMANN CONSTRUCTION OF FLORIDA, INC.
Inspection Site: Burnt Store Rd., Punta Gorda, FL 33955
Issuance Date: 10/24/2022

Summary of Penalties for Inspection Number: 1594857

Citation 1 Item 1, Serious	\$10,151.00
Citation 2 Item 1, Willful - Serious	\$145,027.00

TOTAL PROPOSED PENALTIES: **\$155,178.00**

To avoid additional charges, please remit payment promptly to this Area Office for the total amount of the uncontested penalties summarized above. Make your check or money order payable to: "DOL-OSHA". Please indicate OSHA's Inspection Number (indicated above) on the remittance. You can also make your payment electronically at www.pay.gov. At the top of the pay.gov homepage, type "OSHA" in the Search field and select Search. From the **OSHA Penalty Payment Form** search result, select Continue. The direct link is: <https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334>. You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check, money order, or electronic payment for less than the full amount due, and will cash the check or money order as if these restrictions or conditions do not exist.

If a personal check is issued, it will be converted into an electronic fund transfer (EFT). This means that our bank will copy your check and use the account information on it to electronically debit your account for the amount of the check. The debit from your account will then usually occur within 24 hours and will be shown on your regular account statement. You will not receive your original check back. The bank will destroy your original check, but will keep a copy of it. If the EFT cannot be completed because of insufficient funds or closed account, the bank will attempt to make the transfer up to two times.

Pursuant to the Debt Collection Act of 1982 (Public Law 97-365) and regulations of the U.S. Department of Labor

(29 CFR Part 20), the Occupational Safety and Health Administration is required to assess interest, delinquent charges, and administrative costs for the collection of delinquent penalty debts for violations of the Occupational Safety and Health Act.

Interest: Interest charges will be assessed at an annual rate determined by the Secretary of the Treasury on all penalty debt amounts not paid within one month (30 calendar days) of the date on which the debt amount becomes due and payable (penalty due date). The current interest rate is one percent (1%). Interest will accrue from the date on which the penalty amounts (as proposed or adjusted) become a final order of the Occupational Safety and Health Review Commission (that is, 15 working days from your receipt of the Citation and Notification of Penalty), unless you file a notice of contest. Interest charges will be waived if the full amount owed is paid within 30 calendar days of the final order.

Delinquent Charges: A debt is considered delinquent if it has not been paid within one month (30 calendar days) of the penalty due date or if a satisfactory payment arrangement has not been made. If the debt remains delinquent for more than 90 calendar days, a delinquent charge of six percent (6%) per annum will be assessed accruing from the date that the debt became delinquent.

Administrative Costs: Agencies of the Department of Labor are required to assess additional charges for the recovery of delinquent debts. These additional charges are administrative costs incurred by the Agency in its attempt to collect an unpaid debt. Administrative costs will be assessed for demand letters sent in an attempt to collect the unpaid debt.

DANELLE
JINDRA

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JINDRA
Date: 2022.10.24 14:33:41
-04'00'

Danelle Jindra

Area Director

Date

U.S. Department of Labor – Occupational Safety and Health Administration

Inspection Report

October 24, 2022 1:18 PM

RID	CSHO ID	Supervisor ID	Inspection Number	Optional Report Number	Case Closed Date
0420600	(b) (7)(C)	T8858	1594857		

Establishment Name		GUYMANN CONSTRUCTION OF FLORIDA, INC.		Doing Business As (DBA)			
Ownership Type	Private Sector	Type of Business	Corporation	Primary NAICS	237110 - Water and Sewer Line and Related Structures Construction		
Site Address	Burnt Store Rd. Punta Gorda, FL 33955	Site Phone		Extn		Site FAX	
Business Address	305 SW 3RD STREET Cape Coral, FL 33991	Business Phone	(239) 574-4174	Business FAX			
Mailing Address	305 SW 3RD STREET Cape Coral, FL 33991	E-mail		Mobile Phone		USA	
Site Activity	Utilities and excavation	Site NAICS	237110			Days on Site	2
Federal EIN	650507332	DUNS		Temporary or Fixed Site?	Y		
State Estab Id		DUNS plus4		CAGE Code			
Construction Type	Highways/Streets/Bridges						

Parent Company Legal Name			Parent Company Trade Name/DBA		
Parent Company Address		Phone Number		Extn	
TIN / EIN			DUNS		

CAGE Code	DUNS plus4
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Entry	05/09/2022	07:40 PM	First Closing Conference	05/10/2022	06:45 PM
Opening Conference	05/09/2022	07:45 PM	Second Closing Conference	10/24/2022	02:30 PM
Walkaround	05/10/2022	12:00 PM	Exit	05/10/2022	07:00 PM

Inspection Initiating Type	Fatality/Catastrophe	Secondary Type	
Other Initiating Type		Inspection Category	Safety
Scope of Inspection	Comprehensive	Reason No Inspection	
Migrant Farm Worker	N	Expln. for No Insp.	
State Strategic Initiatives			
National Emphasis	TRENCH		
State/Local Emphasis			
Primary Emphasis			

Additional Codes			
Type	ID	Value	Description

Employed in Establishment	(b) (4)	Walkaround?	Y	Advance Notice?	N
Covered By Inspection		Interviewed?	Y	Flag for Follow-up	N
Controlled By Employer		Union?	N	Reason for Follow-up	
Is this Company a current federal contractor?		Unknown			

Related UPA		
Activity Number	Activity Type	Establishment Name
1892422	FAT/CAT	GUYMANN CONSTRUCTION OF FLORIDA, INC.

Related Inspections		
Inspection Number	Related Inspection Type	Establishment Name

SVEP Information			
SVEP Case?	Post Citation SVEP Action	Post Citation SVEP Action Date	Is this inspection related to a previous SVEP inspection?
N			N
Is an Imminent Danger Notice included in this case?	Date Imminent Danger Notice was issued	Were Enhanced Settlement Provisions Used?	Did the company implement a SHMS program?
N			

Employer Representatives Contacted					
Name	Jeffrey Colburn	Job Title	Foreman	Occupation	
Address	(b) (7)(C)			Interviewed?	Y
Home		Mobile	(b) (7)(C)	Fax	
Email				Participation	Credentials, Opening Conference, Walk Around

Employer Representatives Contacted					
Name	Aaron Huny-Branch	Job Title	Senior Project Manager	Occupation	
Address				Interviewed?	Y
Home		Mobile		Fax	
Email				Participation	Credentials, Opening Conference, Other

Employees Contacted					
Name	(b) (7)(C)			Occupation	
Address				Interviewed?	N
Home		Mobile		Fax	
Email				Participation	

Employees Contacted					
Name	Brandon Colburn	Job Title	Tailman	Occupation	
Address				Interviewed?	N
Home		Mobile		Fax	
Email			Participation		
Employees Contacted					
Name	(b) (7)(C)			Occupation	
Address	(b) (7)(C)			Interviewed?	Y
Home	(b) (7)(C)			Fax	
Email			Participation		
Employees Contacted					
Name	(b) (7)(C)			Occupation	
Address	(b) (7)(C)			Interviewed?	Y
Home	(b) (7)(C)			Fax	
Email			Participation		

Penalty Adjustment Factors			
Size Reduction	30%	Size Justification	System set it to 30% based on the number of employees controlled.
Good Faith Reduction	0%	Good Faith Justification	
History Reduction	0 %	History Justification	

Denial of Entry			
Denial Date/Time	Stage	Reason	Re-entry Date/Time

Page 5

GUYMANN CONSTRUCTION OF FLORIDA, INC.

Inspection Nr 1594857

U.S. Department of Labor

Occupational Safety and Health Administration

Fatality/Catastrophe Report

May 9, 2022 4:38 PM

Receipt Information

RID	Office Name	Activity Number	Receipt Date	Receipt Time	Receipt Type	Received By
0420600	Tampa Area Office	1892422	05/09/2022	04:15 PM	Phone	(b) (7)(C)

Establishment Name	GUYMANN CONSTRUCTION OF FLORIDA, INC.	Doing Business As (DBA)	
Site NAICS	237110 - Water and Sewer Line and Related Structures Construction	Primary NAICS	237110 - Water and Sewer Line and Related Structures Construction
Site Address	Burnt Store Road and Scham Road PUNTA GORDA, FL 33955		
Site Phone		Site Fax	
Business Address	305 SW 3RD STREET Cape Coral, FL 33991		
Business Phone	(239) 574-4174	Business Fax	
Mailing Address	305 SW 3RD STREET Cape Coral, FL 33991		
Management Official	Bob Russell	Phone	(b) (7)(C)
		E-mail	
Type of Business	Construction	Type of Site Activity	Underground Utility
Number of Employees	(b) (4)	Ownership	Private Sector

FAT/CAT Info

Event Date	05/09/2022	Event Time	03:30 PM	Do Insp	Yes	Reason No Insp	
No. Hospitalized	0	No. Unaccounted	1	No. Fatalities	1	No. Non-Hospitalized	0
Classification	Fatality		Employer Report Date	05/09/2022		Employer Report Time	04:15 PM

Source Information 1

Source Name	Source Type	Source Phone
Detective (b) (7)(C)	State/Local Government	(b) (7)(C)

Source Information 2

Source Name	Source Type	Source Phone
(b) (7)(C)	Employer/Employer Representative	(b) (7)(C)

Incident Type	Trench Collaps
Preliminary Description (Hazard Description and Location)	(a) Workers were engulfed while in a 7 ft trench installing water main utility pipe at intersection of Burnt Store Rd and Scham Rd in Punta Gorda Florida.

Program Information	
National Emphasis	TRENCH
Local/State-Emphasis	
State Strategic Initiatives	

Additional Codes			
Code Type	Code ID	Code Value	Code Description

UPA 109-422
Guy Man Construction Cape Coral, FL 33911
↳ (b) (7)(C) 305 SW 3rd St
Burnt Store Rd & Shamm Road 5/8/22

Installing underground utility
pipe (utility Mains). 2 Men
Were in the hole (permanent EE).

* GC Guy Man Co → off road 5-11-4174
(b) (7)(C)

* Caller (b) (7)(C)
(b) (7)(C)

* Occured at or around 3-3³⁰ PM
Called in 4:30
Cape Coral / ~~Lee~~ Charlotte County Fire Dept.
* Supervisor Aaron Branch

↳ Call (b) (7)(C) said they could

(b) (7)(C)



SAFETY NARRATIVE

Inspection Number	1594857
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COVERAGE INFORMATION

Guymann Construction of Florida, Inc. is subject to the Interstate Commerce Act of 1887 as it purchases / utilizes and provides materials / equipment which have been manufactured, transported, received, delivered stored or handled from other states or foreign countries, such as but not limited to excavators and equipment manufactured through the United States.

NATURE AND SCOPE

Guymann Construction of Florida, Inc. (herein thereafter "Guymann") is a privately held company with the principal address located at 305 S.W. 3rd St., Cape Coral, Florida. This employer operates in the Underground Utility Construction Industry and has been operating for approximately 35 years. The company employs (b) (4) people. The company has previous OSHA history in the past 5 years; however, none of the citations were related to trenching hazards.

Check Applicable Boxes and Explain Findings:

- ☐ Complaint Items
- ☒ Referral Items
- ☐ Accident Investigation Summary & Findings
- ☐ LEP
- ☐ Planned Inspection
- ☐ Follow-up Inspection

NATURE AND SCOPE -- UNUSUAL CIRCUMSTANCES (Mark X and explain all that apply:)

- ☒ None
- ☐ Denial of entry (see denial memo)
- ☐ Delays in conducting the inspection
- ☐ Strikes

→ DETECTIVE (b) (7)(C) (b) (7)(C)
(b) (7)(C)

1 confirmed → 1

→ ODDS are still - 10' -

→ Fire dept →



☐ Jurisdictional Issues

☐ Trade Secrets

☐ Other

Comments:

OPENING CONFERENCE NOTES:

CSHO presented credentials and business card and explained the reason for the inspection to the company Attorney Phillip Russel, President Fred Russel, PE and VP - Bob Russel, Senior Project Manager Aaron Hunt, in accordance with the FOM. They were cooperative during the inspection.

RECORDKEEPING PROGRAMS

(29 CFR 1904 requirements)

OSHA 300 logs for the last 5 years?

☒ Yes ☐ No

Comments -

300 logs completed correctly/completely?

☒ Yes ☐ No

Comments-

Applicable OSHA 301 forms (or equivalent) available and completed?

☐ Yes ☒ No

Comments-

RECORDKEEPING PROGRAMS

(Other than 29 CFR 1904 requirements)

Does the employer have a recordkeeping program relating to any occupational health issues (monitoring, medical, training, respirator fit tests, ventilation measurements, etc.)?

☐ Yes ☐ No



Are any programs required by OSHA health standards?

☐ Yes ☐ No

WALKAROUND OBSERVATIONS/UNUSUAL OCCURRENCES:

INCIDENT DESCRIPTION:

On May 9, 2022, Mr. Marcos Santiz-Lopez, a 42-year-old pipe layer, and Mr. Brandon Colburn, a 25-year-old tail man, were working inside a 7-foot-deep trench installing a water main utility pipe at the intersection of Burnt Store Rd. and Scham Rd. in Punta Gorda, Florida when the walls caved in engulfing the employees.

INVESTIGATION FINDINGS:

On May 9, 2022, Guymann's crew consisted of ⁰¹⁰ employees, which consisted of Foreman/Excavator operator, Jeffrey Colbourn, (b) (7)(C) and the two decedents, who were in the trench working as the pipe layer and tail man. The crew was working on an underground utilities project, which started in February 2022 and involved running new watermain lines, irrigation lines, and force main lines alongside a public road. At the time of the incident, the crew was installing a 16-inch PVC watermain pipe. They would dig a continuous trench, install the pipe, and would cover with soil as needed to install and bury the new section of the pipe alongside Burnt Store Rd.

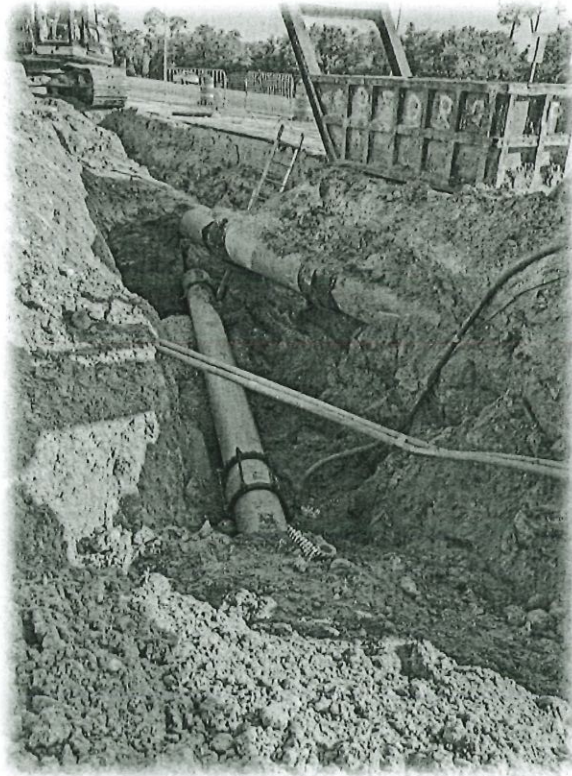
The Foreman, Jeffrey Colburn, stated that he controlled the site and provided instructions to his men. He stated that the trench was 4.5 to 5 feet wide by 7 feet deep. He stated that they were working at hard soil, and that he did not look at the soil survey and did not know if it was done. He stated that he was the competent person, but did not know the soil type and did not know when cave-in protection was needed. The OSHA soil sample taken on site was determined to be Type C soil.

At the time of the event, Mr. Colburn was digging the trench using the excavator. He was removing soil from the area in front of the excavator and spreading the soil and compacting it into a ditch to the rear of the excavator to keep the excavator tracks leveled. He stated that the incident occurred after lunch, on the West side of the storm drain, and he did not know they were working in the trench, because he was operating the excavator, and his back was to the trench. When he spun around, he saw the soil had collapsed, and saw a hard hat, and that is what alerted him to the collapse and that personnel were in the trench. He stated that he did not tell either man not to go into the trench after lunch, because both men were outside the trench bolting fittings together on the pipe. He stated that they were in the East side trench in the morning, it was 7 feet deep, and cave in protection was not used, but that he sloped it on both sides. He did not know the slope ratio he used and did not know the required sloping ratio or where to find the information and said he could Google it. Mr. Colburn stated that they had one trench box on site, which is 24 feet long by 5 feet high. He stated that they also had two road plates on site they could use when they could not use the trench box. The road plate dimension was 8 foot wide by 16 feet long. He stated that the plates could

be installed long ways or standing up depending on the obstacles. The plates are pushed into the ground with the excavator, and they are pushed in at least 8 feet into the ground.



View from Excavator cab of the trench



View from opposite end of trench

When the incident occurred, employees grabbed shovels and began digging to take the employees out. In addition, police and fire rescue were dispatched to aid with rescue of the trapped. According to the statements taken from the crew, all members stated the depth of the trench was 7 feet deep, which requires the use of cave-in protection. The evidence gathered confirmed that cave-in protection was not used.

On 5/10/22, Mr. Aaron Hunt-Branch, the Project Manager stated the following:

- "The default we use is type C soil, and for this project we consider this type C soil for the purpose of shoring shielding or sloping."
- "The area of the trench in question where the incident occurred would not permit sloping on the roadside, and the opposite side of the trench had a drainage pipe running through it so it would not permit sloping either."
- "We are estimating that they were at a depth of seven feet when/where the incident occurred, and we had two steel plates on site they could use in this area, and once we had passed this area of conflict, where a trench box would not work, because of piping conflicts, then we would use the one trench box we had on site."

On 05/10/2022, Mr. Jeffery Colburn, the Foreman, stated the following:

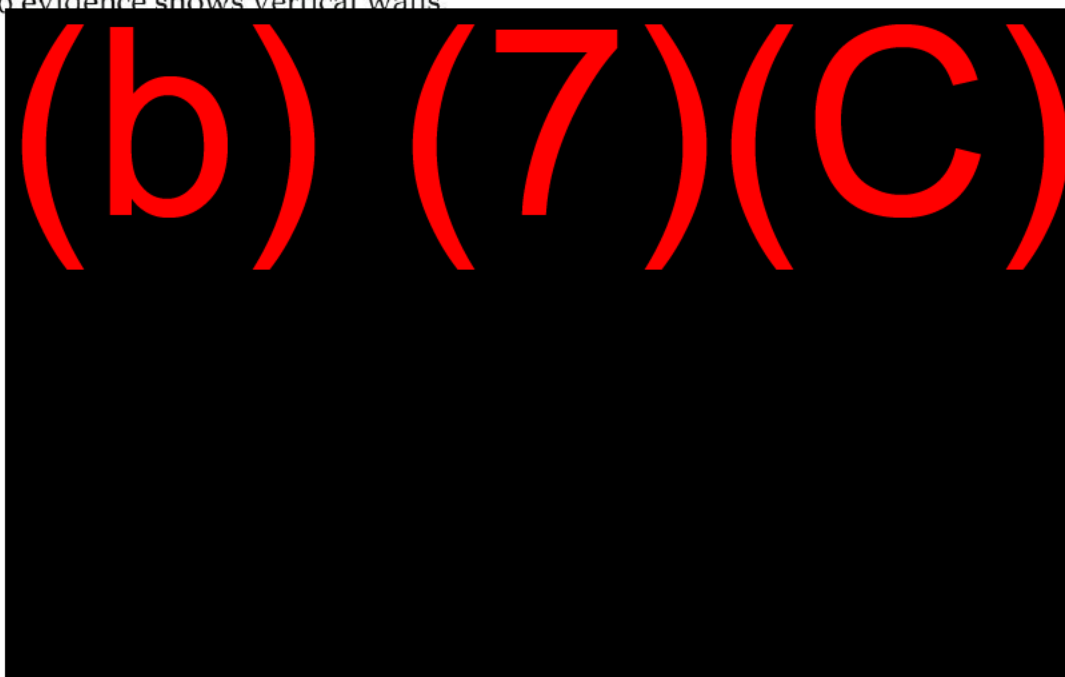
- "The trench was four and a half feet to five feet wide and seven feet deep, but I did not shoot/

measure the depth, but I know it was at least seven feet deep, and got shallower towards me/ the excavator so at least four feet deep at the excavator."

- "One man, Brandon was at 7 feet, and the other man, Marcus was that a shallower depth, because he was close to me/ the excavator."
- "Both men were working in the trench prior to lunch on the east side of the storm drain, and the depth was the same about 7 feet deep."

The District 22 Medical Examiner cause of death for Mr. Santiz-Lopez was Blunt Force Chest and Neck Trauma. The District 22 Medical Examiner cause of death for Mr. Brandon Colburn was Compressional Asphyxia.

Evidence of past incompliance: Video evidence was provided to OSHA by a family member of the decedent. The video is from the decedent's phone, which indicates that employees were in a trench, in the same vicinity of the collapse, on May 6, 2022, without cave-in protection. This video evidence was shown and discussed on an interview with Mr. Colburn and his attorney. Mr. Colburn admitted that the trench was 7.5 to 8 feet deep and protection was not used. He stated that he sloped, but the video evidence shows vertical walls



Mr. Colburn, Foreman, completed NUCA Excavation Safety Competent Person Training on March 1, 2008, and has been an excavator operator for 28 years. Mr. Colburn stated that he did not know if Mr. Santiz-Lopez had training, but he did know that his son, Brandon Colburn, did not have excavation and trench training. He stated he did not know why he did not have training. Brandon Colburn worked for the company for 4 years and Mr. Santiz-Lopez worked for the company for 24 years. Attorney, Phillip Russel, stated he had no evidence of training for either man. The employer provided "General Safety Rules for Employees of Guymann Construction and Subcontractors Working on Guymann Job Sites" and "Company Safety Policy" to decedents Brandon Colburn and



Marcos Lopez on 11/16/2020. There are 45 various safety rules covered to include hardhats, PPE, tool handling, forklift safety, etc. however, nothing specific regarding excavation and trenching.

The incident could have been prevented if the employer had utilized a protective system to prevent soil cave-ins and employees had been properly trained in excavation and trenching hazards.

EDUCATION AND TRAINING PROGRAM

Does the employer have an education and training program? Yes, but there were deficiencies, in that, the decedents were not trained as stated by the employer.

☒ Yes ☐ No

Are any programs required by OSHA health standards (other than the Hazard Communication Standard)?

☐ Yes ☒ No

Were any deficiencies noted on content or frequency?

☒ Yes ☐ No

COMPLIANCE PROGRAMS

(Engineering controls, PPE, regulated areas, emergency procedures, compliance plans, etc.)

Address any relevant compliance efforts regarding potential health hazards covered by the scope of the inspection.

EVALUATION OF EMPLOYER'S OVERALL SAFETY AND HEALTH PROGRAM

General Industry:

☐ Yes ☐ No Employer has a Safety & Health Program

☐ Yes ☐ No Written

☐ Yes ☐ No Copy Attached

Construction Industry:

☐ Yes ☒ No Accident Prevention Program



☐ Yes ☒ No Written

☐ Yes ☒ No Copy Attached

Evaluation of Safety and Health Program

(0=Nonexistent 1=Inadequate 2=Average 3=Above average)

☐ 1 Written S&H Program

☐ 1 Communication to Employees

☐ 1 Enforcement

☐ 1 Safety Training Program

☐ N/A Health Training Program

☐ N/A Accident Investigation Performed

☐ Preventive Action Taken

Comments:

CLOSING CONFERENCE NOTES:

CSHO held closing conference with the attorney, Lauren Lenhart, in accordance with the FOM.

Were any unusual circumstances encountered such as, but not limited to, abatement problems, expected contest and/or negative employer attitude? If yes, explain below.

☐ Yes ☒ No

19. Closing Conference Checklist ("x" as appropriate)

☒ No Violations Observed

☒ Gave Copy Employer Rights

☒ Reviewed Hazards & Standards

☒ Discuss Employer Rights/Obligations

**U.S. Department of Labor
Occupational Safety and Health Administration**

Violation Worksheet

Print Date: 10/20/2022

		Inspection Number		1594857	
		Opt. Insp. Number			
Establishment Name	GUYMANN CONSTRUCTION OF FLORIDA, INC.				
DBA Name					
Type Of Violation	Serious	Citation Number	1	Item/Group	1
Standard	1926.21(b)(2)				
Alleged Violation Description	29 CFR 1926.21(b)(2): The employer did not instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his/her environment to control or eliminate any hazards or other exposure to illness or injury: a. On or about May 06, 2022 and May 9, 2022- on Burnt Store Road, in Punta Gorda Florida, employees working in an unsupported trench that was 17 to 20 feet long and was approximately 7 feet deep with vertical walls, in Class C soil were not adequately trained in the recognition of hazards associated with trenching and excavations.				
Recommended Abatement Action					
# Instances	2	# Exposed	(b) (4)		
Special Enforcement Type		Related Event Code (REC)			
General Duty Key Words		Employer's Relation to Hazard	All		
Photo/Video Number		Substance Codes			

Penalty

Severity	High		
Severity Justification	Crushing injuries, internal injuries, broken bones, and or permanent disabling injuries.		
Probability	Greater		
Probability Justification	Multiple exposed employees, previously disturbed type C soil, vertical walls.		
Gravity	High	Size	30%
Gravity based Penalty	\$14,502.00	Good Faith	0%
# Times Repeated		History	0%
Multiplier		Quick Fix	0%
Calculated Penalty	\$10,151.00	Proposed Penalty	\$10,151.00
Proposed Penalty			

Justification	
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Abatement Details

# Days to Abate	15 working days	Abatement Status	
Abatement Due Date		Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description			

Multi-Step Abatement

Type/Other Type	# Days to Abate	Abatement Due Date	Completed (Status)	Verify Date
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Employee Exposure

Violation Instance	# Exposed to Instance	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	(b) (4)	GUYMANN CONSTRUCTION OF FLORIDA, INC.	Marcos Santiz-Lopez Home Phone: Personal Mobile:	24 Year(s)	8 hours Daily	In the danger zone
a		GUYMANN CONSTRUCTION OF FLORIDA, INC.	Brandon Colburn Home Phone: Personal Mobile:	4 Year(s)	8 hours Daily	In the danger zone

Worksheet Details

A) **Hazards-Operation/Condition-Accident:** On or about May 6 and May 9, 2022, two employees were not adequately trained and were working in an excavation (cut, cavity, trench or depression), greater than 5 feet in depth.

B) **Equipment:** None

C) **Location:** Burnt Store Road, Punta Gorda Florida.

D) **Injury/Illness (and Justifications for Severity and Probability):** (b) (7)(C) = Classification Serious: In accordance with the OSHA Field Operations Manual, there is substantial probability that death, or injuries involving permanent disability or chronic irreversible illnesses, or injuries involving temporary reversible illnesses resulting in hospitalization, or injuries involving temporary reversible illnesses not resulting in hospitalization could result from the alleged violation.

Severity High: The most serious injuries or illnesses that could reasonably be expected to result from this hazard

exposure or absence of hazard control would be death, or injuries involving permanent disability or chronic irreversible illnesses, such as but not limited to; blunt force trauma, multiple fractures, traumatic brain injury/ TBI and/ or crushing,

Probability: Was determined to be either Greater or Lesser based on likelihood of injury judged to be either High or Low.

The likelihood of injury was based on the following risk factors:

1. Number exposed to Instance (b) (4)
2. Proximity: Within/ at immediate proximity of hazard/ danger zone.
3. Cave-in protection: Not used.
4. Soil: Type C.

In addition, this investigation was initiated in response to a report of two employees having been trapped/ buried in an excavation due to a collapse/ cave-in, and one of the employees having been seriously injured and the other employee having been fatality injured.

Therefore, the probability of injury is judged Greater.

E) **Measurements:** (b) (7)(C) = Using a laser distance meter, the depth of the excavation was measured to be between approximately 8 feet and 11 feet.

Soil sample results from SLTC: Percent Sand and Gravel, Greater than 85%, Granular, Type C soil.

F) **Employer Knowledge:** On 09/21/2022, Mr. Colburn, Foreman stated "I know Brandon didn't have excavation training. He worked for us for 4 years. I don't know why he didn't get training. We go to certain safety meetings and training. Brandon didn't attend any. I don't know if Marcos had training." On 09/21/2022, Aaron Hunt-Branch, Senior Project Manager, stated "I would say Brandon didn't have training. Marcos has been with us for 24 years." On 09/21/2022, Phillip Russell, Attorney stated that he did not find evidence of Excavation and Trenching training.

On 05/10/2022, Mr. Aaron Hunt-Branch, the Project Manager indicated the following to CSHO (b) (7)(C)

1. I do have the soil survey available on site electronically, and have had the survey since this morning, when it was sent to me by our third-party sub-contractor, and is dated April 7th, 2022, and does not show the type of soil, just soil density.
2. The default we use is type C soil, and for this project we consider this type C soil for the purpose of shoring shielding or sloping.
3. The sloping ratio for type C soil is two to one.
4. The area of the trench in question where the incident occurred would not permit sloping on the roadside, and the opposite side of the trench had a drainage pipe running through it so it would not permit sloping either.
5. We are estimating that they were at a depth of seven feet when/ where the incident occurred, and we had two steel plates on site they could use in this area, and once we had passed this area of conflict, where a trench box would not work, because of piping conflicts, then we would use the one trench box we had on site.
6. I do not think we have engineering data for the use of road plates as cave in protection and have never seen engineering data for the use of these road plates as cave in protection.
7. I am a competent person for the purpose of these excavations, and know I need cave in protection at depths greater than five feet, in the means of egress at depths greater than four feet.
8. I am a registered professional engineer in the state of Florida.
9. The last time we were cited/ inspected for trenching by OSHA was around 2010.

On 05/10/2022, Mr. Jeffery Colburn, the Foreman, indicated the following to CSHO (b) (7)(C)

1. I control the job site, give instructions to my men, and operate an excavator and backhoe.
2. Including me, there are (b) (4) men on my crew.
3. I am the competent person for this excavation, as is the project manager Aaron, when he is on site, and Aaron was not on site at the time of the incident.

4. The trench was four and a half feet to five feet wide and seven feet deep, but I did not shoot/ measure the depth, but I know it was at least seven feet deep, and got shallower towards me/ the excavator so at least four feet deep at the excavator.
5. The soil was hard, and nobody ever presented a soil survey to me, and I would not be able to classify the soil, and do not know what classification the soil is for this trench.
6. I would need a means of egress below/ deeper than 36 inches.
7. I do not know at what depth I would need cave in protection.
8. One man, Brandon was at 7 feet, and the other man, Marcus was that a shallower depth, because he was close to me/ the excavator.
9. Both men were working in the trench prior to lunch on the east side of the storm drain, and the depth was the same about 7 feet deep.
10. They were installing 16-inch water pipe before lunch, from about 7:00 AM until noon, on the east side of the storm drain, and I was operating that excavator, and I knew that both men were in the trench, and there was no cave in protection, but I did slope the trench on both sides, but I don't know the slope ratio required, off hand, and don't have the tools to measure the slope ratio.
11. Prior to stopping for lunch, they did not need cave-in protection in the area of the trench they were working in, because I sloped the east side of the trench.
12. The incident occurred after lunch, on the West side of the storm drain, and I did not know they were working in the trench, because I was operating the excavator, and my back was to the trench, and when I spun around, I saw the soil had collapsed, and saw a hard hat, and that is what alerted me to the incident, the collapse.
13. I did not tell either man not to go into the trench after lunch, because both men were outside the trench bolting fittings together on the pipe.
14. We have one trench box on site which is 24 feet long by 5 feet high. The maximum depth the box would fit/ protect was only five feet deep.
15. When we have existing storm drains and conduit to navigate around in the trench, we use road plates for cave in protection which are eight feet wide by 16 feet long, and I have two road plates on site. We use the plates both vertically and horizontally depending upon the obstacles, and the plates are pushed into the ground with the excavator, but nothing between the plates to brace the plates, but if we could use braces, we would instead use a trench box.
16. The plates are driven into the ground at least eight feet.

(b) (7)(C), (b) (7)(D)

(b) (7)(C), (b) (7)(D)

G) Comments:

H) Other Employer Information:

**U.S. Department of Labor
Occupational Safety and Health Administration**

Violation Worksheet

Print Date: 10/20/2022

		Inspection Number		1594857	
		Opt. Insp. Number			
Establishment Name	GUYMANN CONSTRUCTION OF FLORIDA, INC.				
DBA Name					
Type Of Violation	Serious	Citation Number	1	Item/Group	2
Standard	1926.651(k)(1)				
Alleged Violation Description	29 CFR 1926.651(k)(1):Daily inspections of excavations, the adjacent areas, and protective systems were not made by a competent person for evidence of a situation that could have resulted in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. a. On or about May 09, 2022 - on Burnt Store Road, in Punta Gorda Florida, employees were exposed to cave-in hazards when working without a protective system in a trench that was 17 to 20 feet long and was approximately 7 feet deep with vertical walls, in Class C soil and an inspection of the trench was not conducted by a competent person. b. On or about May 06, 2022 - on Burnt Store Road, in Punta Gorda Florida, employees were exposed to cave-in hazards when working without a protective system in a trench that was 17 to 20 feet long and was approximately 7 feet deep with vertical walls, in Class C soil and an inspection of the trench was not conducted by a competent person.				
Recommended Abatement Action					
# Instances	2	# Exposed	(b) (4)		
Special Enforcement Type		Related Event Code (REC)			
General Duty Key Words		Employer's Relation to Hazard	All		
Photo/Video Number		Substance Codes			

Penalty

Severity	High		
Severity Justification	Crushing injuries, internal injuries, broken bones, and or permanent disabling injuries.		
Probability	Greater		
Probability Justification	Multiple exposed employees, previously disturbed type C soil, vertical walls.		
Gravity	High	Size	30%

Gravity based Penalty	\$14,502.00	Good Faith	0%
# Times Repeated		History	0%
Multiplier		Quick Fix	0%
Calculated Penalty	\$10,151.00	Proposed Penalty	\$10,151.00
Proposed Penalty Justification			

Abatement Details

# Days to Abate	15 working days	Abatement Status	
Abatement Due Date		Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description			

Multi-Step Abatement

Type/Other Type	# Days to Abate	Abatement Due Date	Completed (Status)	Verify Date
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Employee Exposure

Violation Instance	# Exposed to Instance	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a and b	(b) (4)	GUYMANN CONSTRUCTION OF FLORIDA, INC.	Jeffrey Colburn (b) (7)(C)	4 Day(s)	8 hours daily	near the danger zone
a and b		GUYMANN CONSTRUCTION OF FLORIDA, INC.	Marcos Santiz-Lopez Home Phone: Personal Mobile:	4 Day(s)	8 hours Daily	In the danger zone
a and b		GUYMANN CONSTRUCTION OF FLORIDA, INC.	Brandon Colburn Home Phone: Personal Mobile:	4 Day(s)	8 hours daily	In the danger zone

Worksheet Details

A) **Hazards-Operation/Condition-Accident:** On or about May 6 and May 9, 2022, two employees were

working in an excavation (cut, cavity, trench or depression), greater than 5 feet in depth, which was not inspected by a competent person.

B) Equipment: None

C) Location: Burnt Store Road, Punta Gorda Florida.

D) Injury/Illness (and Justifications for Severity and Probability): (b) (7)(C) = Classification Serious: In accordance with the OSHA Field Operations Manual, there is substantial probability that death, or injuries involving permanent disability or chronic irreversible illnesses, or injuries involving temporary reversible illnesses resulting in hospitalization, or injuries involving temporary reversible illnesses not resulting in hospitalization could result from the alleged violation.

Severity High: The most serious injuries or illnesses that could reasonably be expected to result from this hazard exposure or absence of hazard control would be death, or injuries involving permanent disability or chronic irreversible illnesses, such as but not limited to; blunt force trauma, multiple fractures, traumatic brain injury/ TBI and/ or crushing,

Probability: Was determined to be either Greater or Lesser based on likelihood of injury judged to be either High or Low.

The likelihood of injury was based on the following risk factors:

1. Number exposed to Instance: (b) (4)
2. Proximity: Within/ at immediate proximity of hazard/ danger zone.
3. Cave-in protection: Not used.
4. Soil: Type C.

In addition, this investigation was initiated in response to a report of two employees having been trapped/ buried in an excavation due to a collapse/ cave-in, and one of the employees having been seriously injured and the other employee having been fatality injured.
Therefore, the probability of injury is judged Greater.

E) Measurements: (b) (7)(C) = Using a laser distance meter, the depth of the excavation was measured to be between approximately 8 feet and 11 feet.

Soil sample results from SLTC: Percent Sand and Gravel, Greater than 85%, Granular, Type C soil.

F) Employer Knowledge: On 05/10/2022, Mr. Aaron Hunt-Branch, the Project Manager indicated the following to CSHO (b) (7)(C):

1. I do have the soil survey available on site electronically, and have had the survey since this morning, when it was sent to me by our third-party sub-contractor, and is dated April 7th, 2022, and does not show the type of soil, just soil density.
2. The default we use is type C soil, and for this project we consider this type C soil for the purpose of shoring shielding or sloping.
3. The sloping ratio for type C soil is two to one.
4. The area of the trench in question where the incident occurred would not permit sloping on the roadside, and the opposite side of the trench had a drainage pipe running through it so it would not permit sloping either.
5. We are estimating that they were at a depth of seven feet when/ where the incident occurred, and we had two steel plates on site they could use in this area, and once we had passed this area of conflict, where a trench box would not work, because of piping conflicts, then we would use the one trench box we had on site.
6. I do not think we have engineering data for the use of road plates as cave in protection and have never seen engineering data for the use of these road plates as cave in protection.
7. I am a competent person for the purpose of these excavations, and know I need cave in protection at depths greater than five feet, in the means of egress at depths greater than four feet.
8. I am a registered professional engineer in the state of Florida.

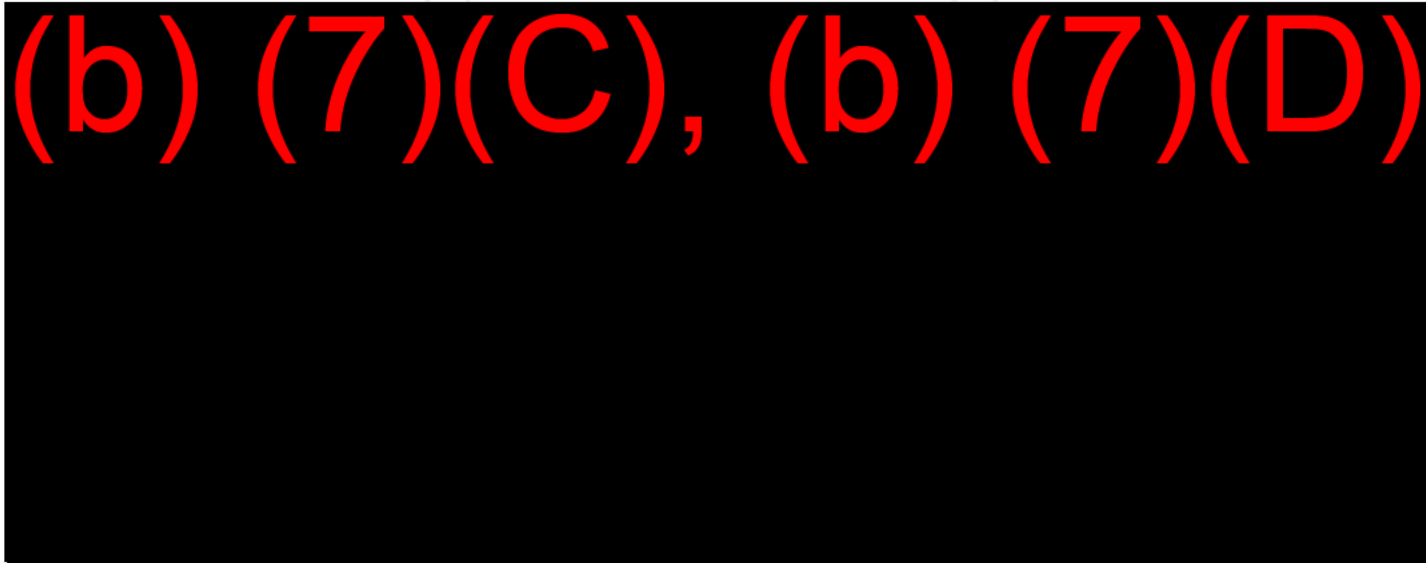
9. The last time we were cited/ inspected for trenching by OSHA was around 2010.

On 05/10/2022, Mr. Jeffery Colburn, the Foreman, indicated the following to CSHO (b) (7)(C):

1. I control the job site, give instructions to my men, and operate an excavator and backhoe.
2. Including me, there are (b) (4) men on my crew.
3. I am the competent person for this excavation, as is the project manager Aaron, when he is on site, and Aaron was not on site at the time of the incident.
4. The trench was four and a half feet to five feet wide and seven feet deep, but I did not shoot/ measure the depth, but I know it was at least seven feet deep, and got shallower towards me/ the excavator so at least four feet deep at the excavator.
5. The soil was hard, and nobody ever presented a soil survey to me, and I would not be able to classify the soil, and do not know what classification the soil is for this trench.
6. I would need a means of egress below/ deeper than 36 inches.
7. I do not know at what depth I would need cave in protection.
8. One man, Brandon was at 7 feet, and the other man, Marcus was that a shallower depth, because he was close to me/ the excavator.
9. Both men were working in the trench prior to lunch on the east side of the storm drain, and the depth was the same about 7 feet deep.
10. They were installing 16-inch water pipe before lunch, from about 7:00 AM until noon, on the east side of the storm drain, and I was operating that excavator, and I knew that both men were in the trench, and there was no cave in protection, but I did slope the trench on both sides, but I don't know the slope ratio required, off hand, and don't have the tools to measure the slope ratio.
11. Prior to stopping for lunch, they did not need cave-in protection in the area of the trench they were working in, because I sloped the east side of the trench.
12. The incident occurred after lunch, on the West side of the storm drain, and I did not know they were working in the trench, because I was operating the excavator, and my back was to the trench, and when I spun around, I saw the soil had collapsed, and saw a hard hat, and that is what alerted me to the incident, the collapse.
13. I did not tell either man not to go into the trench after lunch, because both men were outside the trench bolting fittings together on the pipe.
14. We have one trench box on site which is 24 feet long by 5 feet high. The maximum depth the box would fit/ protect was only five feet deep.
15. When we have existing storm drains and conduit to navigate around in the trench, we use road plates for cave in protection which are eight feet wide by 16 feet long, and I have two road plates on site. We use the plates both vertically and horizontally depending upon the obstacles, and the plates are pushed into the ground with the excavator, but nothing between the plates to brace the plates, but if we could use braces, we would instead use a trench box.
16. The plates are driven into the ground at least eight feet.

(b) (7)(C), (b) (7)(D)

(b) (7)(C), (b) (7)(D)



G) Comments:

H) Other Employer Information:

**U.S. Department of Labor
Occupational Safety and Health Administration**

Violation Worksheet

Print Date: 10/20/2022

		Inspection Number		1594857	
		Opt. Insp. Number			
Establishment Name	GUYMANN CONSTRUCTION OF FLORIDA, INC.				
DBA Name					
Type Of Violation	Willful - Serious	Citation Number	2	Item/Group	1
Standard	1926.652(a)(1)				
Alleged Violation Description	29 CFR 1926.652(a)(1): Each employee in an excavation was not protected from cave-ins by an adequate protective system designed in accordance with 29 CFR 1926.652 (b) or (c): a. On or about May 09, 2022 - on Burnt Store Road, in Punta Gorda Florida, employees were exposed to cave-in hazards when working without a protective system in a trench that was 17 to 20 feet long and was approximately 7 feet deep with vertical walls, in Class C soil. b. On or about May 06, 2022 - on Burnt Store Road, in Punta Gorda Florida, employees were exposed to cave-in hazards when working without a protective system in a trench that was 17 to 20 feet long and was approximately 7 feet deep with vertical walls, in Class C soil.				
Recommended Abatement Action					
# Instances	2	# Exposed	(b) (4)		
Special Enforcement Type		Related Event Code (REC)	FAT/CAT/Accident		
General Duty Key Words		Employer's Relation to Hazard	All		
Photo/Video Number		Substance Codes			

Penalty

Severity	High		
Severity Justification	Crushing injuries, internal injuries, broken bones, and or permanent disabling injuries.		
Probability	Greater		
Probability Justification	Multiple exposed employees, previously disturbed type C soil, vertical walls, multiple days		
Gravity	High	Size	0%
Gravity based Penalty	\$145,027.00	Good Faith	0%

# Times Repeated		History	0%
Multiplier		Quick Fix	0%
Calculated Penalty	\$145,027.00	Proposed Penalty	\$145,027.00
Proposed Penalty Justification			

Abatement Details

# Days to Abate	15 working days	Abatement Status	
Abatement Due Date		Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description			

Multi-Step Abatement

Type/Other Type	# Days to Abate	Abatement Due Date	Completed (Status)	Verify Date
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Employee Exposure

Violation Instance	# Exposed to Instance	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a and b	(b) (4)	GUYMANN CONSTRUCTION OF FLORIDA, INC.	Marcos Santiz-Lopez Home Phone: Personal Mobile:	4 Day(s)	8 hours Daily	In the danger zone
a and b		GUYMANN CONSTRUCTION OF FLORIDA, INC.	Brandon Colburn Home Phone: Personal Mobile:	4 Day(s)	8 hours Daily	In the danger zone

Worksheet Details

A) Hazards-Operation/Condition-Accident: On or about May 6 and May 9, 2022, two employees were working in an excavation (cut, cavity, trench or depression), greater than 5 feet in depth, which was not protected from cave-ins by a protective system designed in accordance with 29 CFR 1926.652(c), nor had the employer complied with the provisions of 29 CFR 1926.652(b)(1)(i), in that the excavation/ trench was dug into type C soil, to a depth of approximately 7 to 8 feet ($\leq$ 20 feet deep), and was approximately 8 feet wide and was approximately 17 to 20 feet long, and where (Option 1) the excavation/ trench was not sloped at one and one-half horizontal to one vertical/ 34 degrees measured from the horizontal, nor was (Option 2) the excavation/ trench sloped using Appendices A and B, nor was (Option 3) the excavation/ trench sloped using other tabulated data, nor was (Option 4) the excavation/ trench sloped per the design of a registered professional engineer. In addition, the excavation/ trench did not contain a support/ shoring systems, shield systems, or other protective

systems; per (Option 1) designed using appendices A and C for timber shoring, nor per (Option 2) designed using Manufacturer's Tabulated Data or appendix D if no Manufacturer's Data exists for aluminum hydraulic shoring, nor per (Option 3) designed using other tabulated data, nor per (Option 4) designed by a registered professional engineer, therefore exposing the employees to caught between hazards, and asphyxiation injuries/death.

B) Equipment: Cave-in protection system.

C) Location: Burnt Store Road, Punta Gorda Florida.

D) Injury/Illness (and Justifications for Severity and Probability): (b) (7)(C) = Classification Serious: In accordance with the OSHA Field Operations Manual, there is substantial probability that death, or injuries involving permanent disability or chronic irreversible illnesses, or injuries involving temporary reversible illnesses resulting in hospitalization, or injuries involving temporary reversible illnesses not resulting in hospitalization could result from the alleged violation.

Severity High: The most serious injuries or illnesses that could reasonably be expected to result from this hazard exposure or absence of hazard control would be death, or injuries involving permanent disability or chronic irreversible illnesses, such as but not limited to; blunt force trauma, multiple fractures, traumatic brain injury/TBI and/ or crushing,

Probability: Was determined to be either Greater or Lesser based on likelihood of injury judged to be either High or Low.

The likelihood of injury was based on the following risk factors:

1. Number exposed to Instance: (b) (7)(C)
2. Proximity: Within/ at immediate proximity of hazard/ danger zone.
3. Cave-in protection: Not used.
4. Soil: Type C.

In addition, this investigation was initiated in response to a report of two employees having been trapped/ buried in an excavation due to a collapse/ cave-in, and one of the employees having been seriously injured and the other employee having been fatality injured.

Therefore, the probability of injury is judged Greater.

E) Measurements: (b) (7)(C) = Using a laser distance meter, the depth of the excavation was measured to be between approximately 8 feet and 11 feet.

Soil sample results from SLTC: Percent Sand and Gravel, Greater than 85%, Granular, Type C soil.

F) Employer Knowledge: On 05/10/2022, Mr. Aaron Hunt-Branch, the Project Manager indicated the following to CSHO (b) (7)(C)

1. I do have the soil survey available on site electronically, and have had the survey since this morning, when it was sent to me by our third-party sub-contractor, and is dated April 7th, 2022, and does not show the type of soil, just soil density.
2. The default we use is type C soil, and for this project we consider this type C soil for the purpose of shoring shielding or sloping.
3. The sloping ratio for type C soil is two to one.
4. The area of the trench in question where the incident occurred would not permit sloping on the roadside, and the opposite side of the trench had a drainage pipe running through it so it would not permit sloping either.
5. We are estimating that they were at a depth of seven feet when/ where the incident occurred, and we had two steel plates on site they could use in this area, and once we had passed this area of conflict, where a trench box would not work, because of piping conflicts, then we would use the one trench box we had on site.
6. I do not think we have engineering data for the use of road plates as cave in protection and have never seen engineering data for the use of these road plates as cave in protection.

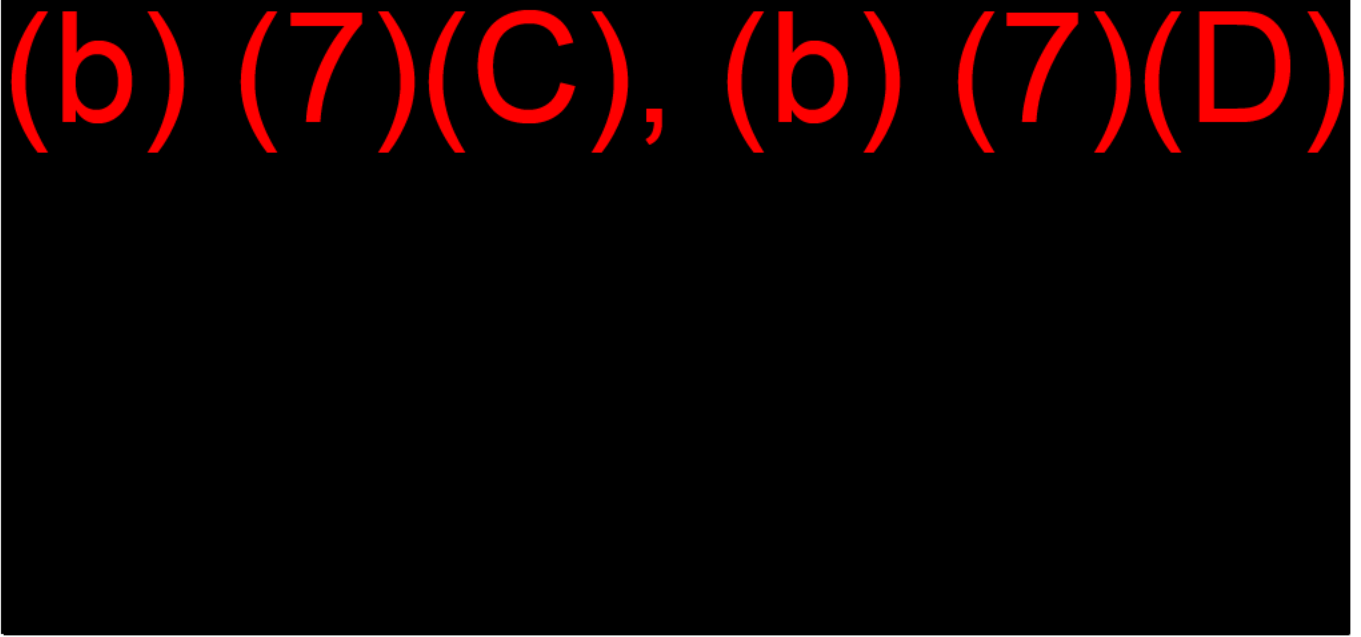
7. I am a competent person for the purpose of these excavations, and know I need cave in protection at depths greater than five feet, in the means of egress at depths greater than four feet.
8. I am a registered professional engineer in the state of Florida.
9. The last time we were cited/ inspected for trenching by OSHA was around 2010.

On 05/10/2022, Mr. Jeffery Colburn, the Foreman, indicated the following to CSHO (b) (7)(C)

1. I control the job site, give instructions to my men, and operate an excavator and backhoe.
2. Including me, there are five men on my crew.
3. I am the competent person for this excavation, as is the project manager Aaron, when he is on site, and Aaron was not on site at the time of the incident.
4. The trench was four and a half feet to five feet wide and seven feet deep, but I did not shoot/ measure the depth, but I know it was at least seven feet deep, and got shallower towards me/ the excavator so at least four feet deep at the excavator.
5. The soil was hard, and nobody ever presented a soil survey to me, and I would not be able to classify the soil, and do not know what classification the soil is for this trench.
6. I would need a means of egress below/ deeper than 36 inches.
7. I do not know at what depth I would need cave in protection.
8. One man, Brandon was at 7 feet, and the other man, Marcus was that a shallower depth, because he was close to me/ the excavator.
9. Both men were working in the trench prior to lunch on the east side of the storm drain, and the depth was the same about 7 feet deep.
10. They were installing 16-inch water pipe before lunch, from about 7:00 AM until noon, on the east side of the storm drain, and I was operating that excavator, and I knew that both men were in the trench, and there was no cave in protection, but I did slope the trench on both sides, but I don't know the slope ratio required, off hand, and don't have the tools to measure the slope ratio.
11. Prior to stopping for lunch, they did not need cave-in protection in the area of the trench they were working in, because I sloped the east side of the trench.
12. The incident occurred after lunch, on the West side of the storm drain, and I did not know they were working in the trench, because I was operating the excavator, and my back was to the trench, and when I spun around, I saw the soil had collapsed, and saw a hard hat, and that is what alerted me to the incident, the collapse.
13. I did not tell either man not to go into the trench after lunch, because both men were outside the trench bolting fittings together on the pipe.
14. We have one trench box on site which is 24 feet long by 5 feet high. The maximum depth the box would fit/ protect was only five feet deep.
15. When we have existing storm drains and conduit to navigate around in the trench, we use road plates for cave in protection which are eight feet wide by 16 feet long, and I have two road plates on site. We use the plates both vertically and horizontally depending upon the obstacles, and the plates are pushed into the ground with the excavator, but nothing between the plates to brace the plates, but if we could use braces, we would instead use a trench box.
16. The plates are driven into the ground at least eight feet.

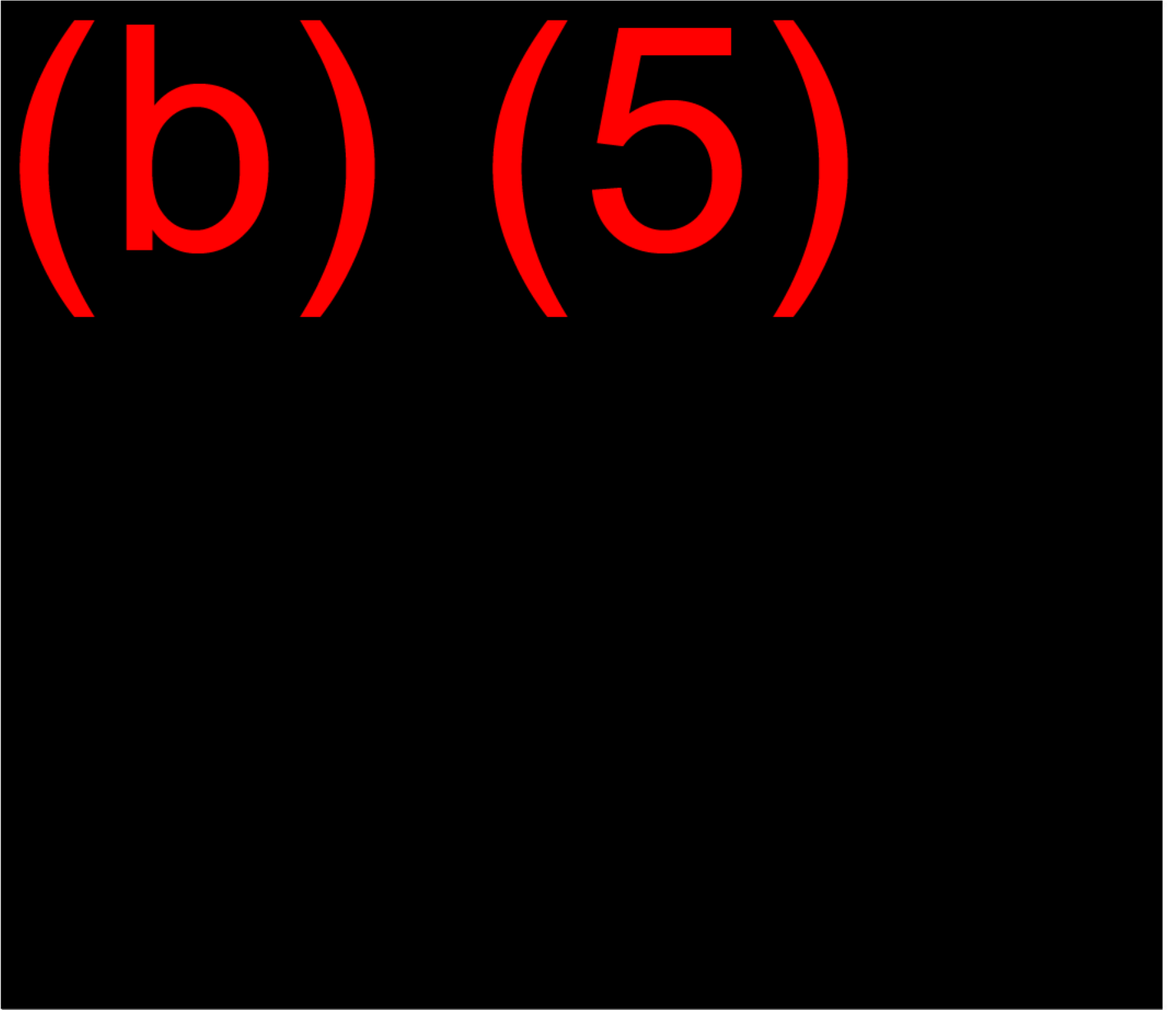
(b) (7)(C), (b) (7)(D)

(b) (7)(C), (b) (7)(D)



The contract agreement between the owner, Tucker Point 1 Limited Partnership and Guymann stated on page 2 of 5 "Trade Contractor to provide all shoring, sheeting, and bracing necessary to protect workers, adjacent structures, utilities, existing pavement, or to minimize trench width."

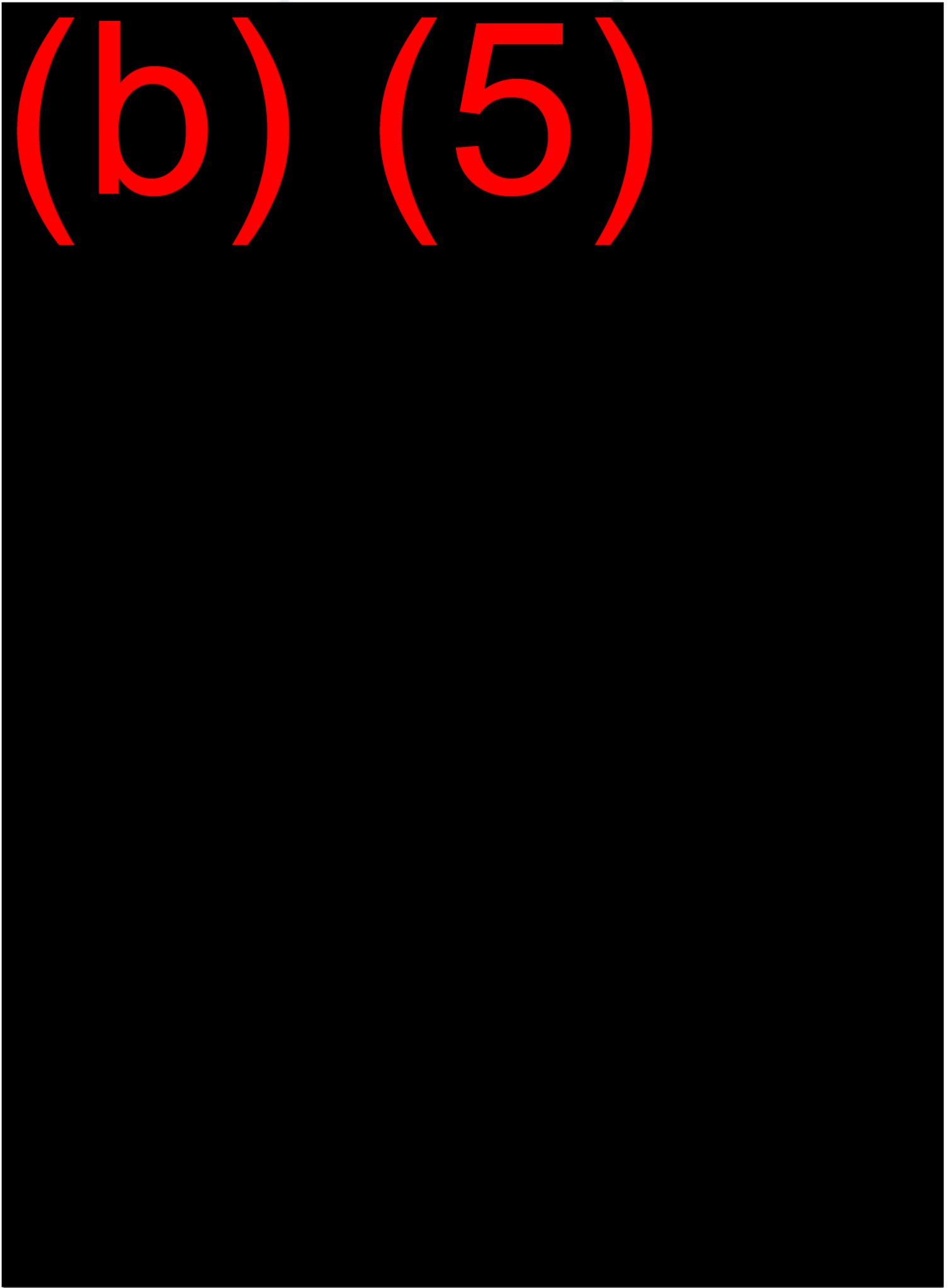
(b) (5)



(b) (5)



(b) (5)



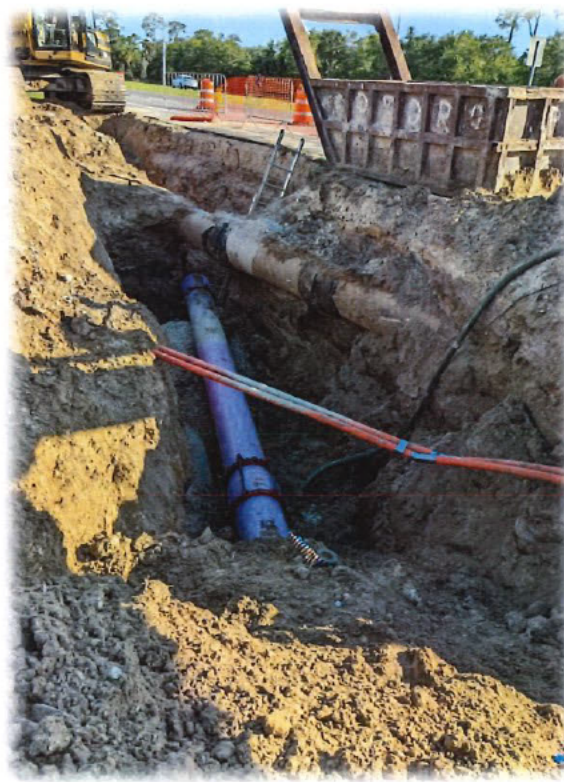
(b) (5)

(b) (5)

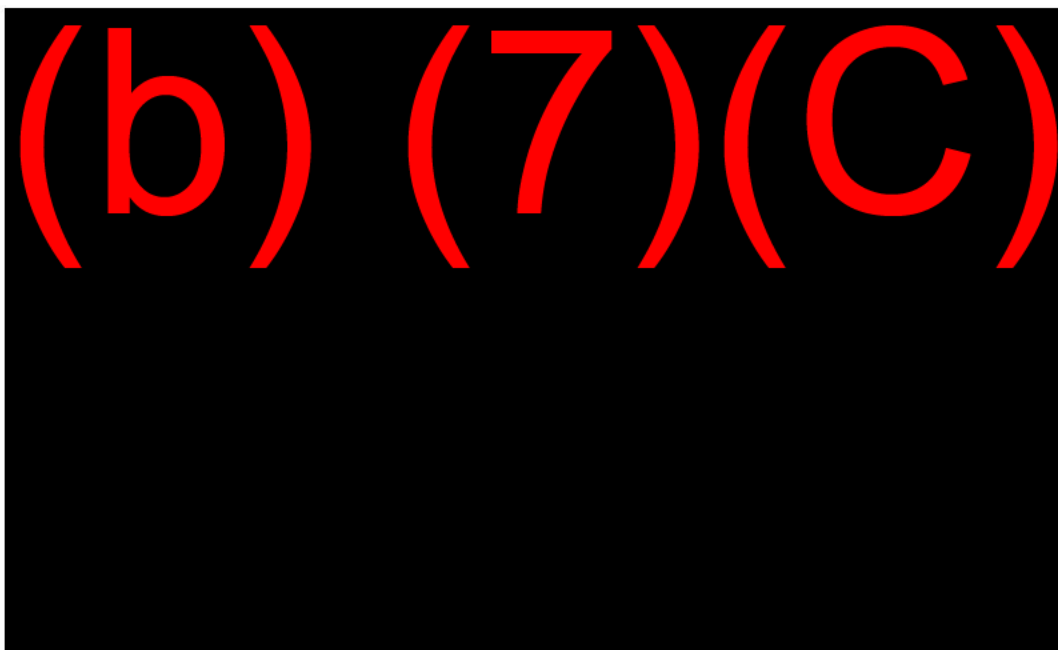




View from Excavator cab of the trench



View from opposite end of trench



Screenshot from video of employee inside the trench on May 6, 2017.

United States of America
Department of Labor
Occupational Safety and Health Administration



(**THIS STATEMENT DOES NOT APPLY TO MANAGEMENT.***) I understand that this statement will be held in confidence until such time as I may be called to testify in a court proceeding, at which time it may be produced upon demand of opposing counsel. Additionally, this statement may be made available to other agencies if it will assist them in the performance of their statutory functions. This statement may be subject to disclosure only in accordance with applicable statute(s) and agency policy. _____ Initial (**THIS STATEMENT DOES NOT APPLY TO MANAGEMENT.***)

11(c)(1) of OSH Act: No person shall discharge or in any manner discriminate against any employee because such employee has filed any complaint or instituted or caused to be instituted any proceeding under or related to this Act or has testified or is about to testify in any such proceeding or because of the exercise by such employee on behalf of himself or others of any right afforded by this Act. _____ Initial (Applies to all)

Name: Jeffrey Colburn Address: _____

City: _____ State: _____ Zip: _____ Phone/Email: _____

I am/was (circle one) employed by: Guyman From: May 2000 to: Present

Position: Foreman Time in Position: 18 yrs Supervisor: Arion Hunt - Branch

I hereby swear or affirm and say:

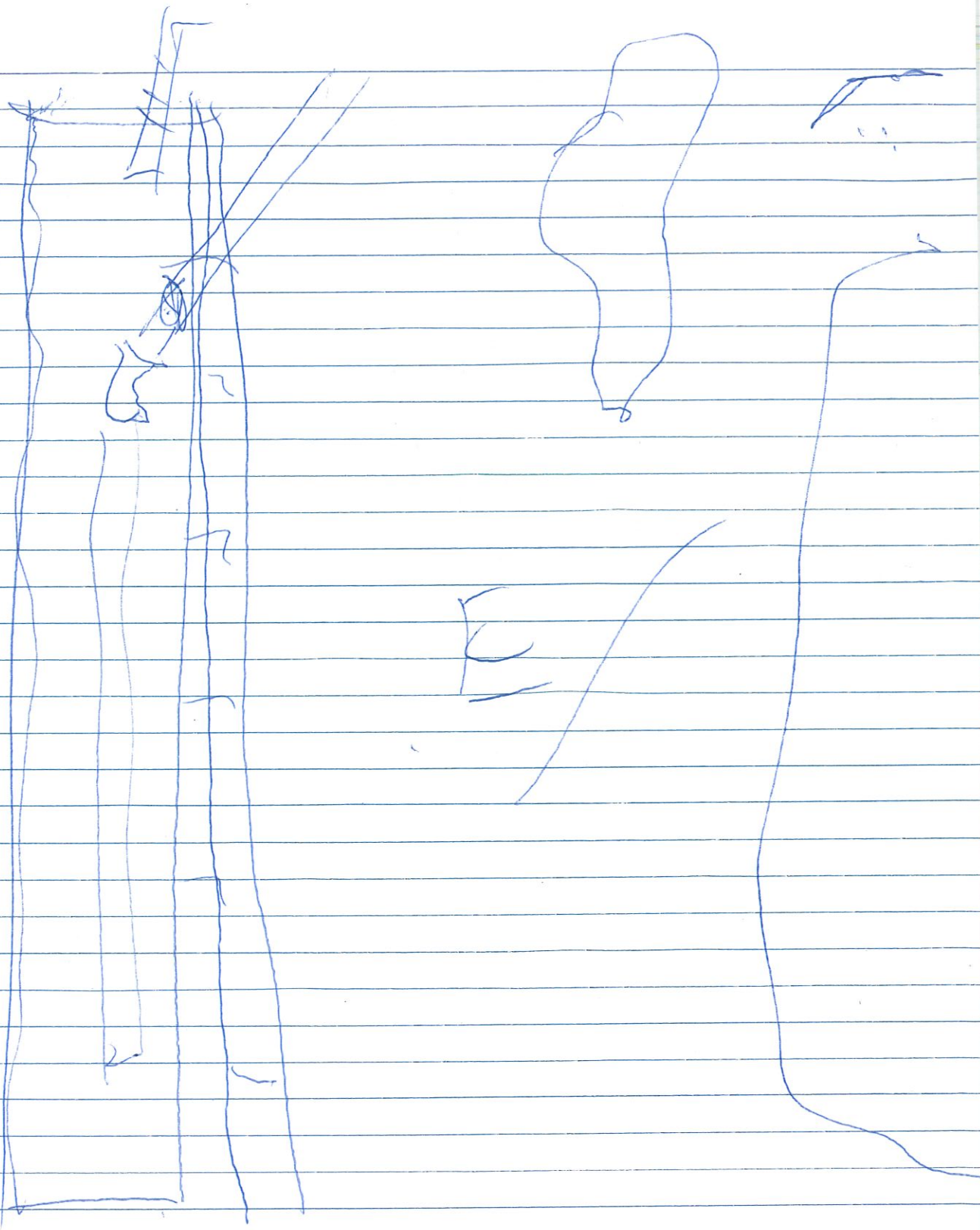
1. As a foreman I control Site, operate the Excavator
2. and give instructions to my men. I direct 5
3. employees. This company provides Safety, and
4. first aid training. ~~later~~ Such as ladder use
5. OSHA training or seminar was 2 days long 8 hours
6. each day, it included trench Safety. I am
7. the Competent Person for this Excavation, if
8. (b) (7)(C) is on-site. The seminar was last year
9. (b) (7)(C) was not on site at the time of the
10. accident. The Trench was 4.5 to 5 feet wide
11. by 7 feet deep; I determine the depth, we did
12. not shoot the depth, it was shallower towards the

1. Excavator at at least 4 feet at the excavator,
2. We were working at hard soil, hard enough.
3. I did not look at the Soil Survey, I don't know
4. if Survey of Soil were done, that happens before
5. we start. I don't know the soil type.
6. Egress is depending on soil, is required as
7. soon you get below 36 inches. Cave in protection,
8. ~~is not~~ I don't know when is needed. One
9. employee, Brandon was at 7 feet the other
10. one, Marcos was toward the excavator. Cave
11. in protection was required, I did not get a
12. chance to tell my guys, it already happened
13. I did not know my son was in there. We
14. were inside the other trench in the morning
15. on the East Side of the storm drain. We
16. started working from 7:00 am until noon on
17. the east side of the storm drain. I was on the
18. excavator, I knew they were inside the trench in
19. the morning, it was about 7 feet. We did not
20. use cave protection, but I slope it to on
21. both sides, I don't know at which ratio, I
22. don't know the needed ratio. I don't know
23. how to or where to find the information to
24. find the ratio, Google it. I never took
25. the Competent Person for Excavation course,
26. I became a Competent Person when I got Foreman.
27. Cave in protection was not needed cave in
28. protection on the trenches they were working
29. prior to lunch on the east side of the storm pipe.
30. I don't know if the trench has been changed
31. because I have not been back. I did not know
32. They were in the trench in the morning.

1. I was digging the trench I was patting the
2. dirt behind me to keep me level, when I spun
3. around that when I saw the hard hat inside.
4. I don't remember telling anyone to tell the
5. loader operator to get the pipe. We
6. place the that allows the employees to get in
7. and out quickly. We have one trench box
8. on this site. The maximum depth for the trench
9. box is 5 feet. We have Road plates, we
10. use them where we can't use the trench box.
11. The Road plates dimension is 8 feet wide by
12. 16 feet long. I have Two plates on site.
13. We install the plates long ways or standing up
14. depending upon the obstacles. The plates we push
15. them into the ground with the ~~see~~ Excavator and
16. we push them at least 8 foot into the ground.
17. You don't want to push them into the ground
18. more than 8 feet or you will never get them
19. out.

2

Buntader



107

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

Choose one of the first two (2) statements:

____ **Initial** I have read and understand the foregoing statement of ____ pages. I have been given the opportunity to make corrections. Each page is numbered. I have initialed each correction and initialed or signed each page.

OR

____ **Initial** The foregoing statement of ____ pages has been read to me. I have been given the opportunity to make corrections. Any corrections have been read back to me. Each page is numbered. I have initialed each correction and initialed or signed each page.

AND

____ **Initial (Applies to all)** I declare under penalty of perjury under the laws of the United States of America that this statement is true and correct to the best of my knowledge. I understand it is a felony under 18 U.S.C. § 1001 to knowingly and willfully make a false statement or omit material facts in relation to a federal investigation.

Review this statement with each witness: I request that my statement be kept confidential to the extent allowed by law – **OR** – initial here _____ to waive confidentiality.

Signature of Interviewee

Date

Investigator Signature

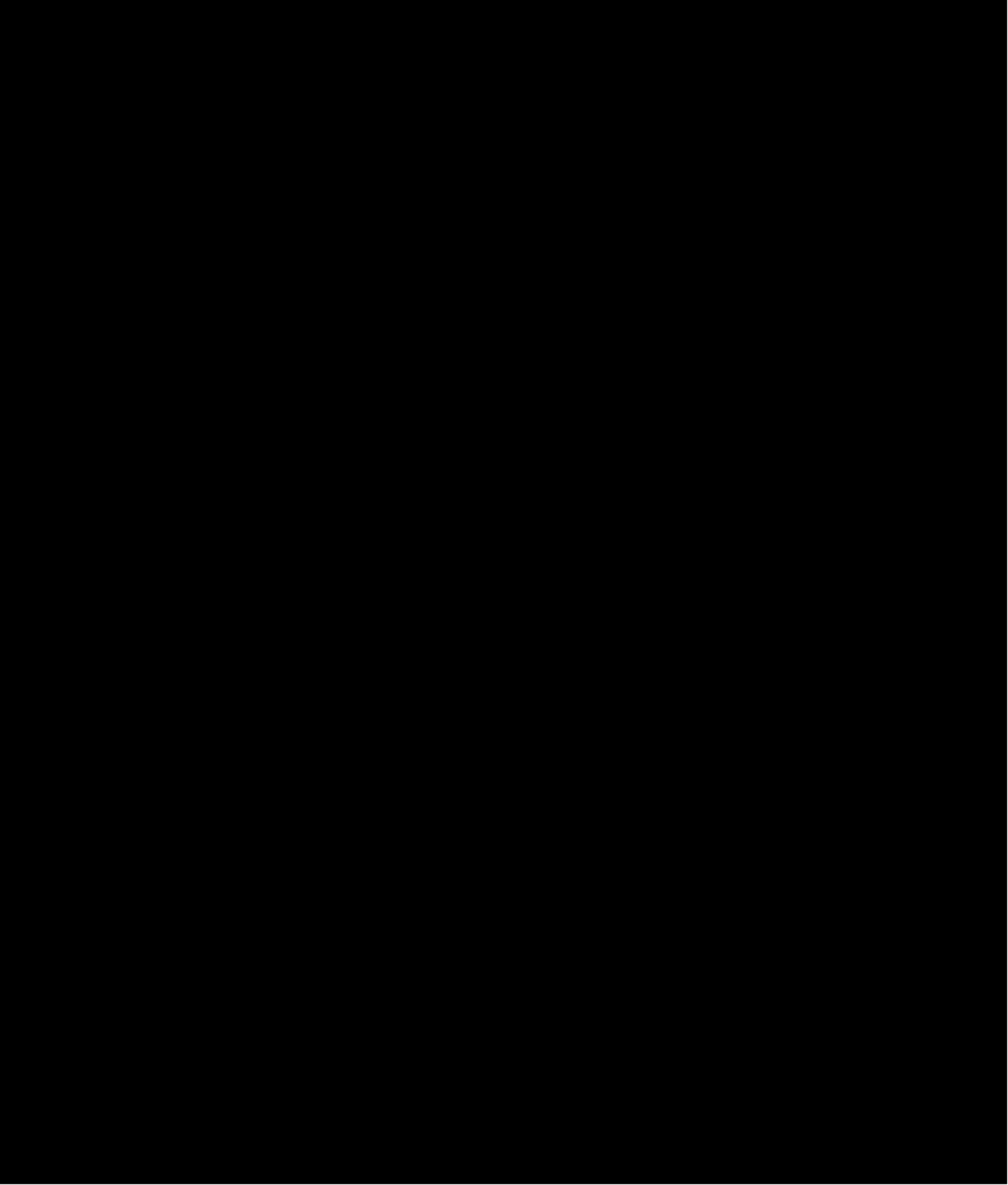
Date

Trench or Excavation
Trench - Deeper than wide

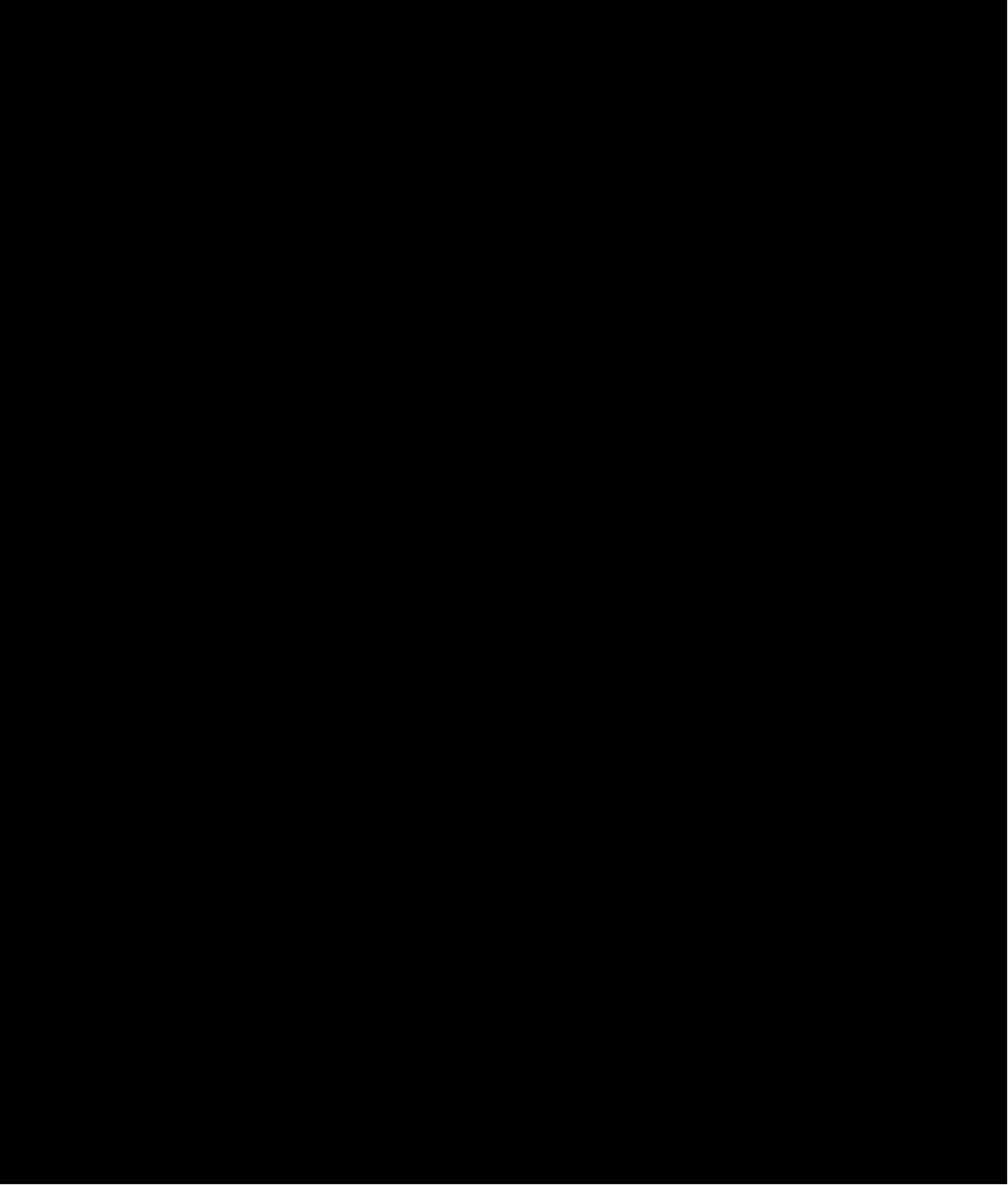


Competent Person?

(b) (7)(C), (b) (7)(D)



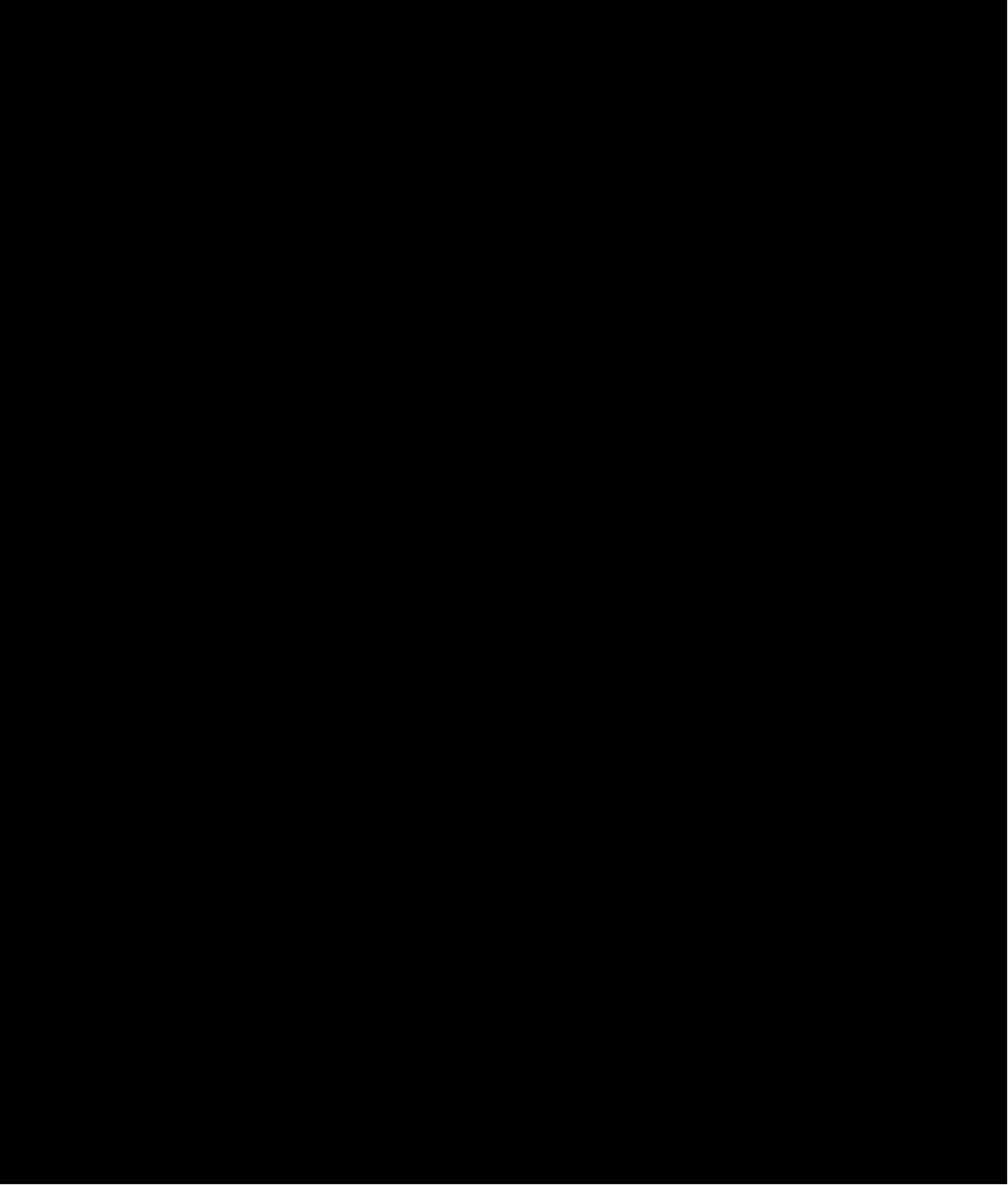
(b) (7)(C), (b) (7)(D)



(b) (7)(C), (b) (7)(D)

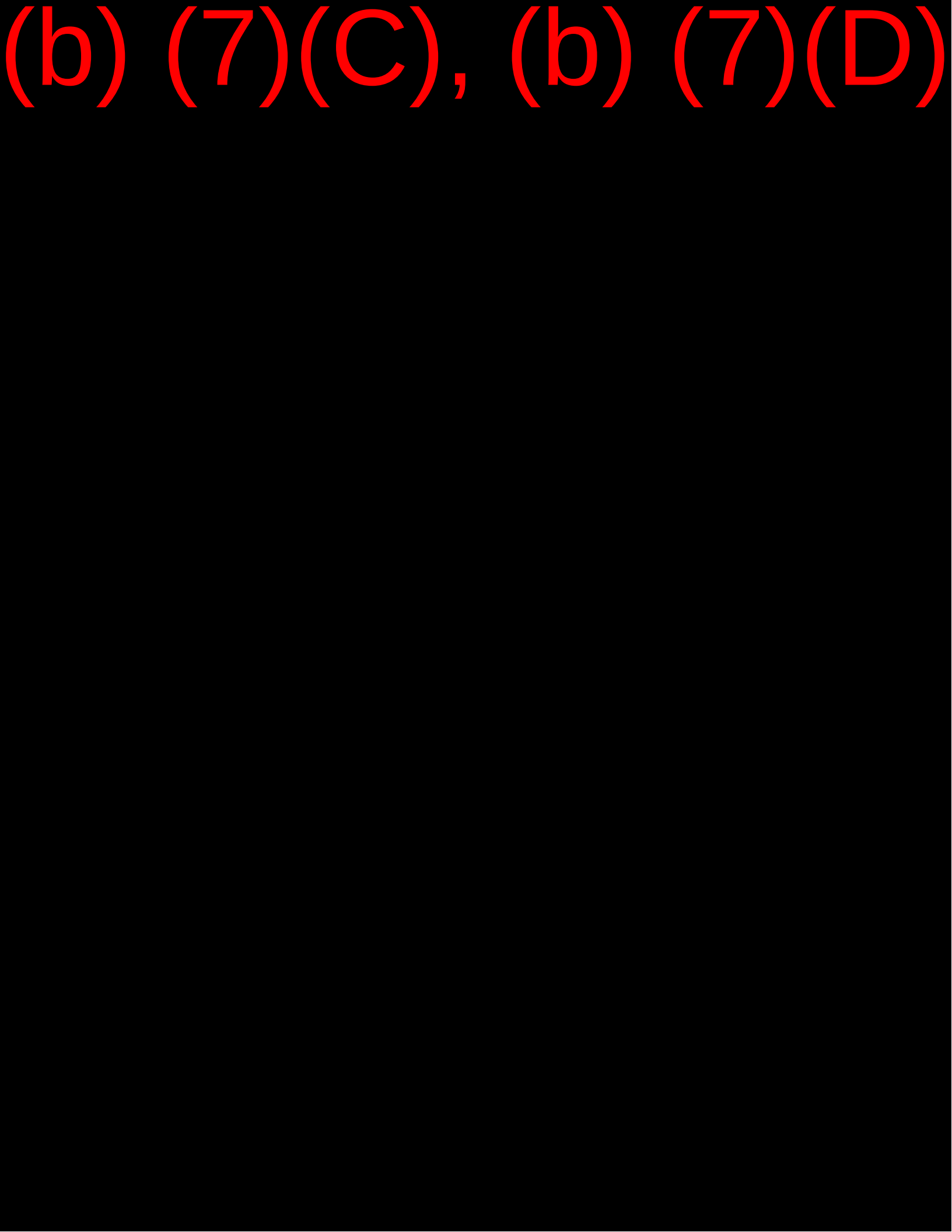
(b) (7)(C), (b) (7)(D)

(b) (7)(C), (b) (7)(D)

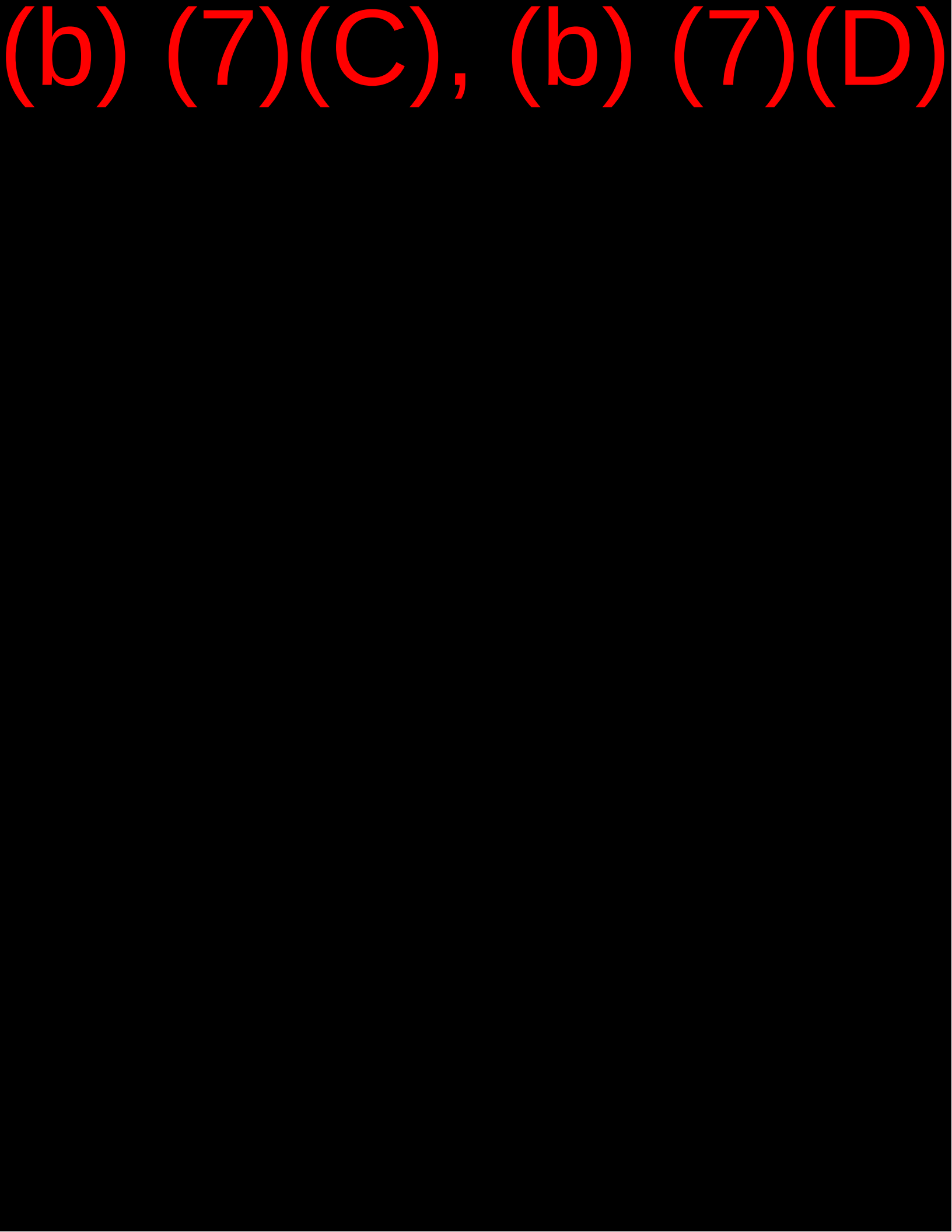


(b) (7)(C), (b) (7)(D)

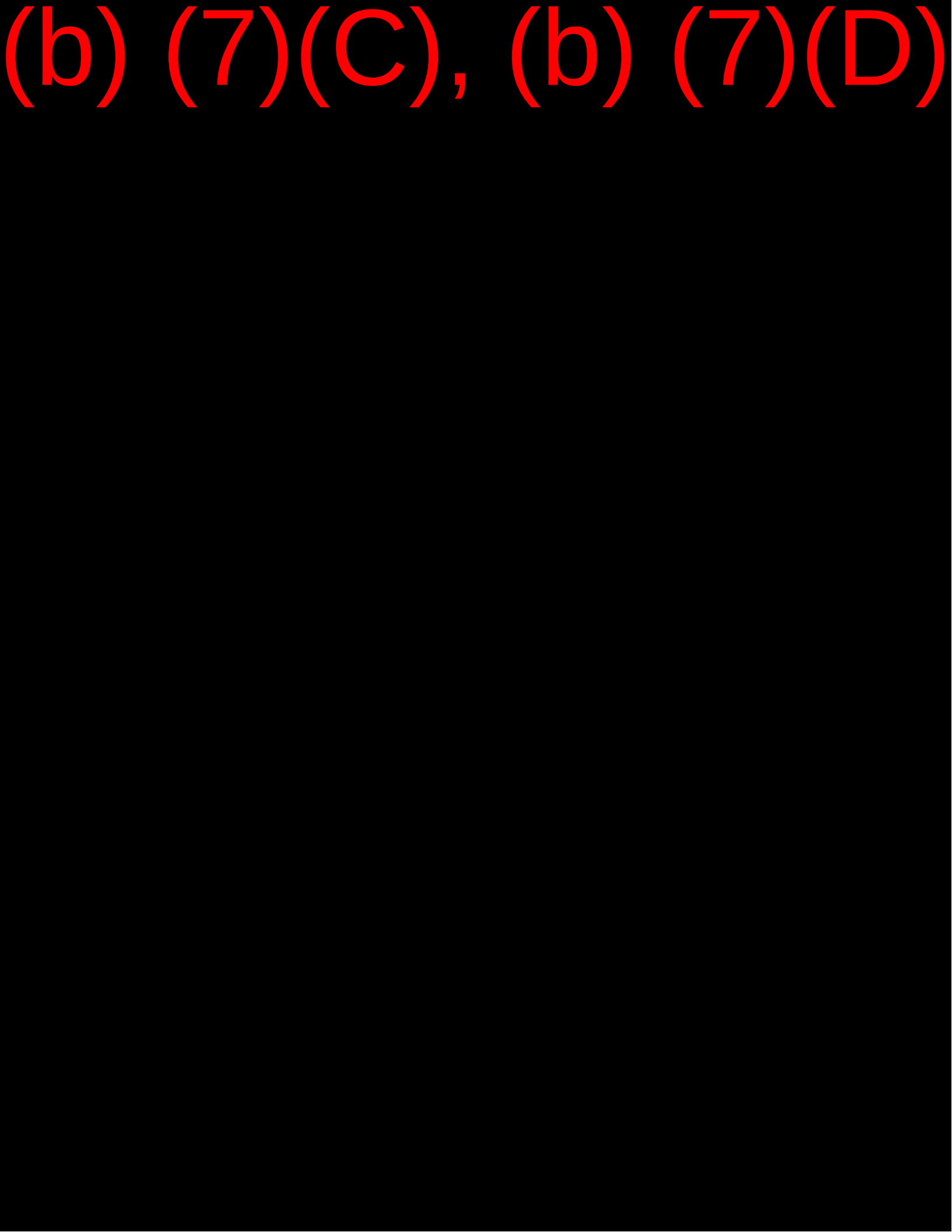
(b) (7)(C), (b) (7)(D)



(b) (7)(C), (b) (7)(D)

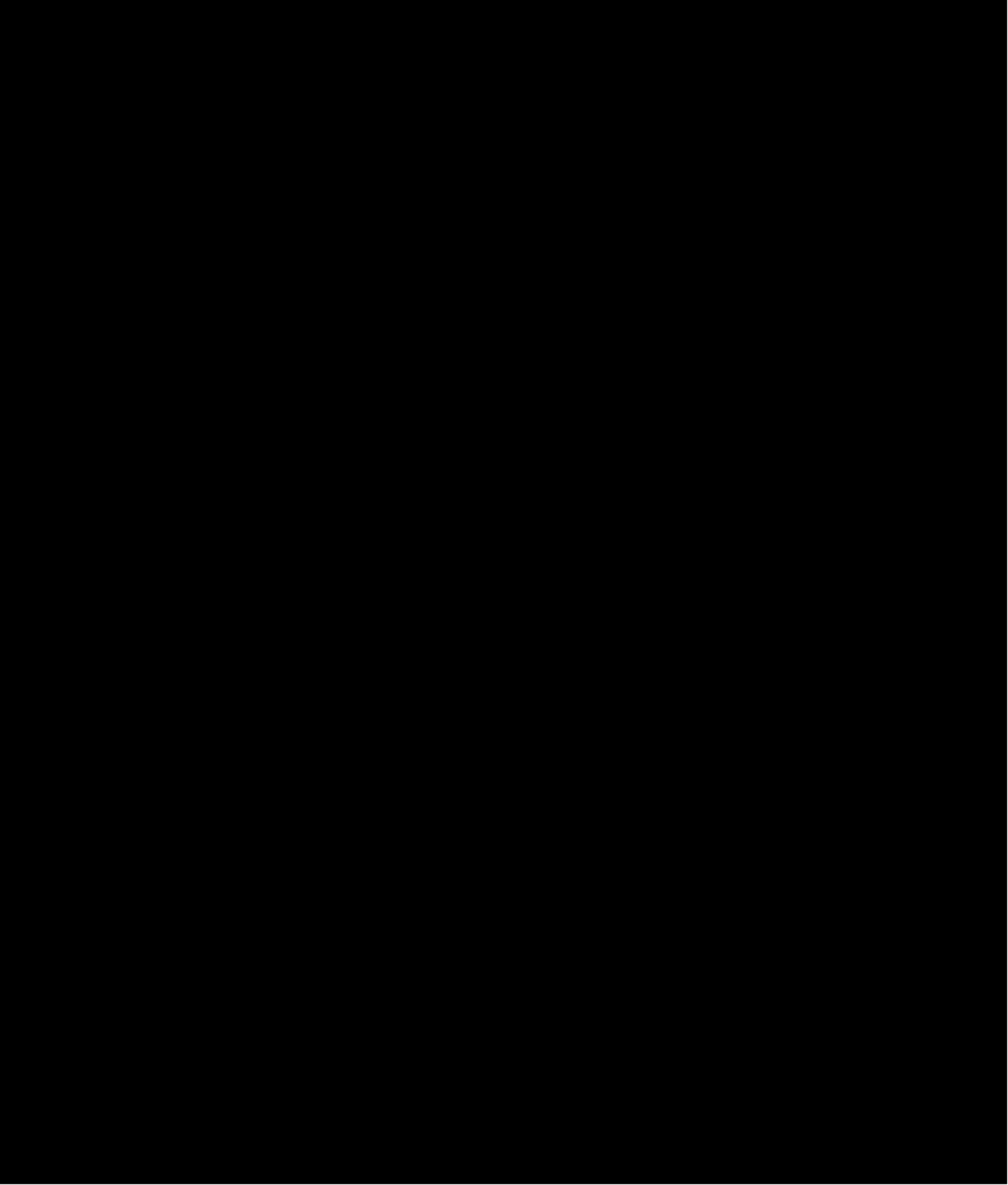


(b) (7)(C), (b) (7)(D)

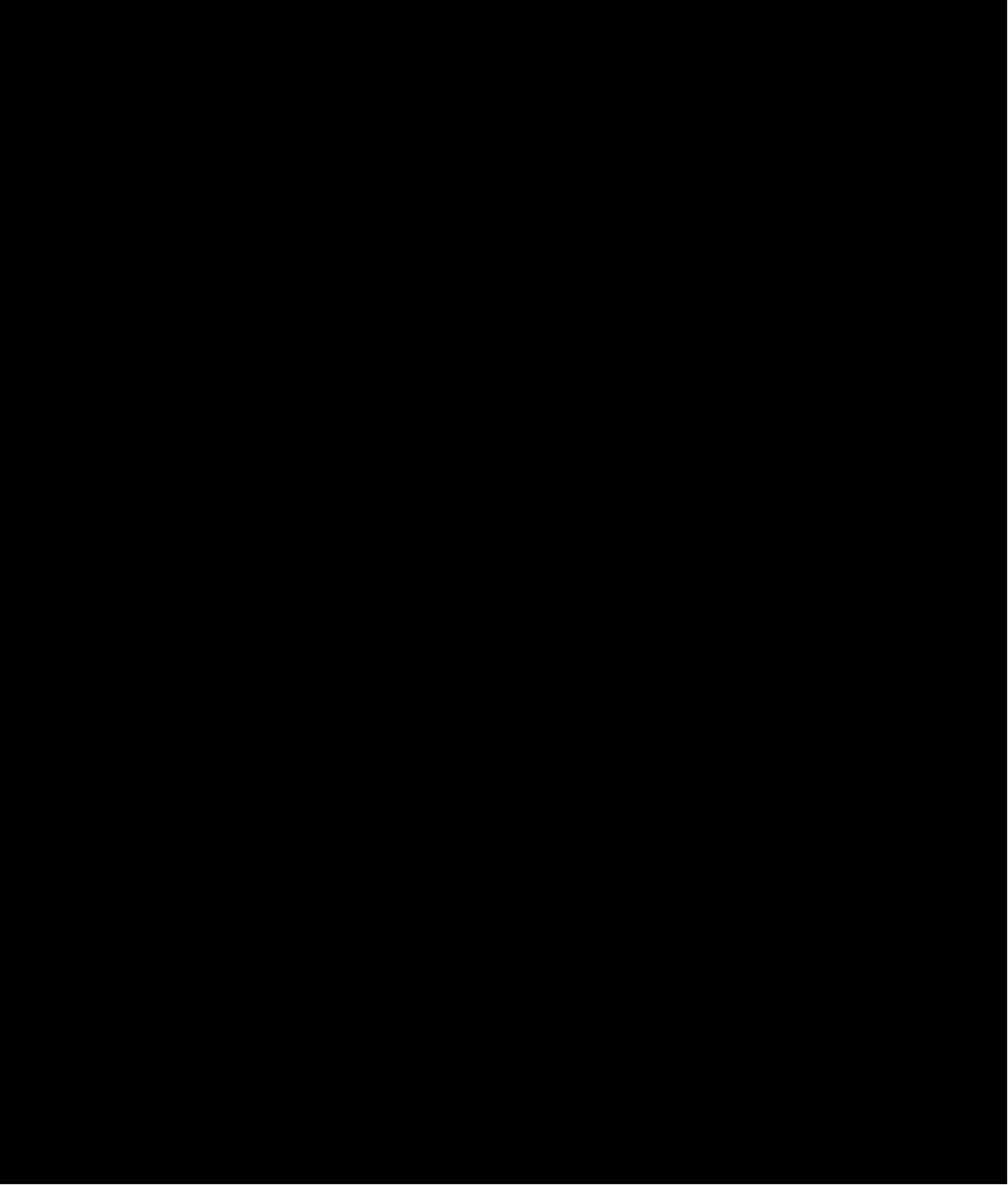


(b) (7)(C), (b) (7)(D)

(b) (7)(C), (b) (7)(D)



(b) (7)(C), (b) (7)(D)



(b) (7)(C), (b) (7)(D)

(b) (7)(C), (b) (7)(D)

Back-H C.P.

Forism = Jeffery Corburn
C.P. = Brad Corburn

(b) (7)(C)

Interview notes
taken by

(b) (7)(C)

who was
accompanying
CSO Elvin Santiago

① Let's go forward / unwind = traded or exchanged

Brutal / unwind = unwind in to trades unwind

Saved 11/30 Back = P.M.

② What do you get then of the traded fee

③ Do you have units of shares

④ why trade for shares traded back

⑤ at what rate do you have current price
- Back

⑥ what type loan is the

⑦ Do you have a loan unwind

~~There~~ was possibly a loan
error

monthly / 15

11/30 -- 1/2000 = 30

1450 - 1451

account / B

Aaron Hunt-Branch, Project Manager, 05/10/2022:

I do have the soil survey available on site electronically, and have had the survey since this morning, when it was sent to me by our third-party sub-contractor, and is dated April 7th, 2022, and does not show the type of soil, just soil density.

The default we use is type C soil, and for this project we consider this type C soil for the purpose of shoring shielding or sloping.

The sloping ratio for type C soil is 2 to one.

The area of the trench in question where the incident occurred would not permit sloping on the roadside, and the opposite side of the trench had a drainage pipe running through it so it would not permit sloping either.

We are estimating that they were at a depth of seven feet when the incident occurred, and we had two steel plates on site they could use in this area, and once we had passed this area of conflict, right wrench box would not work, because of conflicts, then we would use the one trench box we had on site.

I do not think we have engineering data for the use of road plates as cave in protection and have never seen engineering data for the use of these road plates as cave in protection.

I am a competent person for the purpose of these excavations, and no I need cabin protection at depths greater than five feet, in the means of egress at depths greater than four feet.

I am a registered professional engineer in the state of Florida.

The last time we were cited slash inspected for trenching by OSHA was around 2010.

Jeffery Colburn, Foreman, 05/10/2022:

I control the job site, given instructions to my men, and operate an excavator and backhoe.

Including me, there are five men on my crew.

I am the confident person for this excavation, as is the project manager Aaron, when he is on site, in the air and was not on site at the time of the incident.

The trench was four and a half feet to five feet wide and seven feet deep, but I did not shoot the depth, but I know it was at least seven feet deep, and got shallower towards the excavator so at least four feet deep at the excavator.

The soil was hard, and nobody ever presented a soil survey to me, and I would not be able to classify the soil, and do not know what classification the soil is for this trench.

I would need a means of egress below 36 inches.

I do not know at what depth I would need cave in protection.

One man Brandon was at 7 feet, and the other man Marcus was that a shower depth, because he was close to the excavator.

Both men were working in the trench prior to lunch on the east side of the storm drain, and the depth was the same about 7 feet deep.

They were installing 16-inch water pipe before lunch, I'm about 7:00 AM until noon, on the east side of the storm drain, and I was operating that excavator in new both men were in the trench, and there was no cave in protection, but I did slope the trench on both sides, but I don't know the slope ratio required, off hand, and don't have the tools to measure the slope ratio.

Prior to stopping for lunch, they did not need cave-in protection in the area of the trench they were working in, because I sloped the east side of the trench.

The incident occurred after lunch, on the West side of the storm drain, and I did not know they were working in the trench, because I was operating the excavator, and my back was to the trench, and when I spun around, I saw the soil had collapsed, and saw a hard hat, and that is what alerted me to the incident, the collapse.

I did not tell either man not to go into the trench after lunch, because both men were outside the trench bolting fittings together on the pipe.

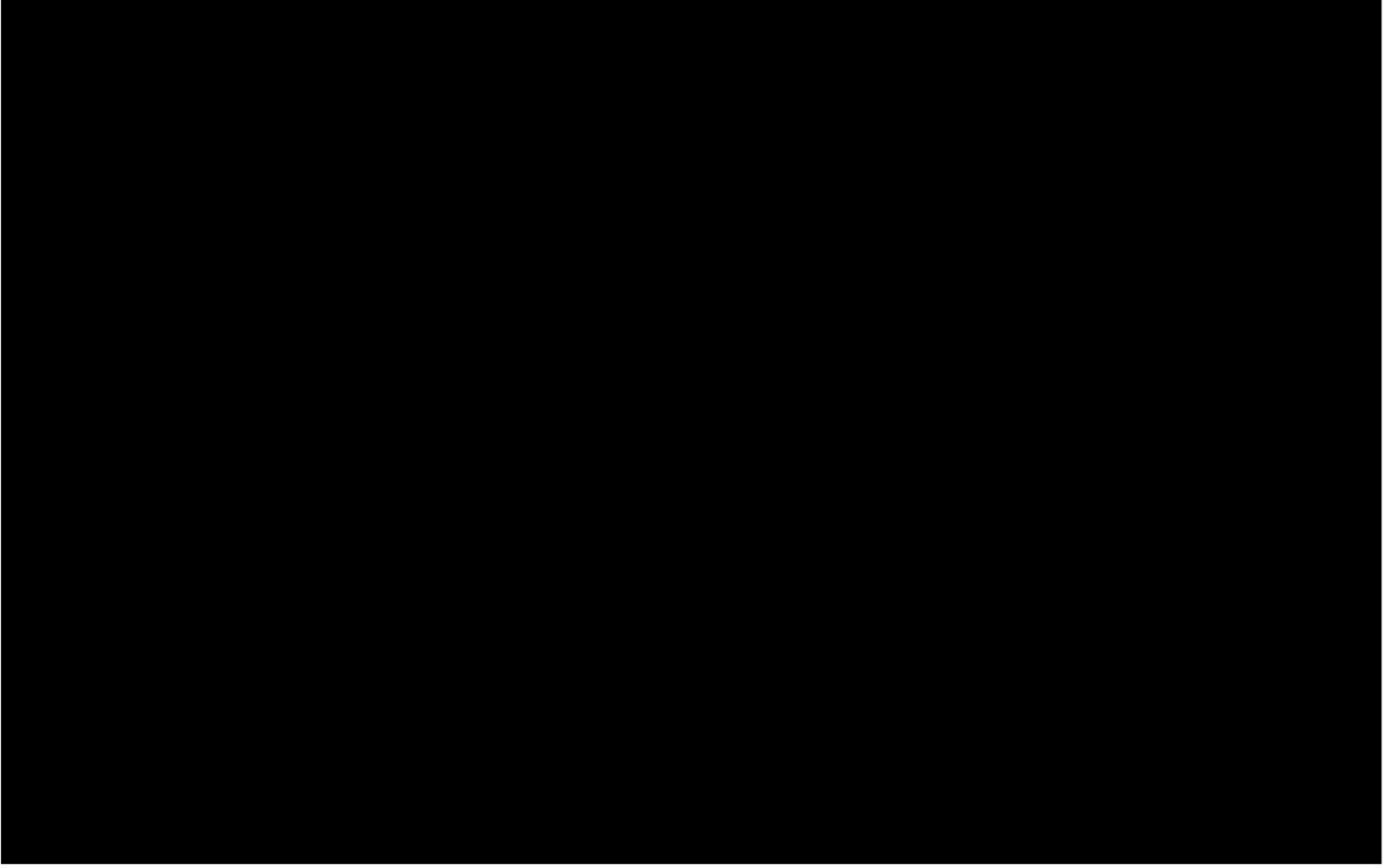
We have one trench box on site which is 24 feet long by 5 feet high. The maximum depth box would fit was only five feet deep.

So, when we have existing storm drains and conduit to navigate around in the trench, we use road plates for cave in protection which are eight feet wide by 16 feet long, and I have two road plates on site. We use the plates Both vertically and horizontally depending upon the obstacles, and the plates are pushed into the ground with the excavator, but nothing between the plates to brace the plates, but if we could use braces, we would use a trench box.

The plates are driven into the ground at least eight feet.

(b) (7)(C), (b) (7)(D)

(b) (7)(C), (b) (7)(D)



United States of America
Department of Labor
Occupational Safety and Health Administration



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Name: David H. Ar-Berk Address: _____

City: (b) (7)(C)

I am/was (circle one) employed by: Guymon Co. ST. From: 05/2007 to: Present

Position: Project Manager Time in Position: 8 yrs Supervisor: Bob Russell
V.P. of company

I hereby swear/affirm and declare:

1. I do have the soil survey available at the
2. location, and have the survey site this
3. morning, with it was sent to me by our 3rd party
4. soil company, and is dated April 10th 2012, and the
5. shows type soil, just soil density.
- 6.
7. The default we use is type 'C' soil, and for
8. this project we used this type 'C' for
9. the purpose of stability, strength, and slip.
- 10.
11. The slope for type 'C' soil is 2:1.

1. This area of the truck I checked under
2. The front wheel would be under slightly of
3. The road side, at the opposite side had a
4. drainage pipe.

5.
6. were the estimate they were at a depth of
7. 7 feet when the accident occurred, and we had
8. two other places of site they could use in
9. this area, and also we had passed this area
10. of collision, where a truck box would be
11. work, because of collision, that we would
12. use the old truck box as a place of work.

13.
14. I don't think we have adequate data for
15. the use of road passes as cause of accident,
16. but have data from other sources for the
17. use of these road passes as cause of accident

18.
19. I am a competent person for the purpose
20. of these investigations, and know I have caused
21. provided no data given that the (acc.)
22. at this at this time.

23.
24. I am a registered professional engineer in the
25. State of Florida

26.
27. The last time we were cited / stopped for
28. this was about 2010.

29.
30.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

Choose one of the first two (2) statements:

____ **Initial** I have read and understand the foregoing statement of ____ pages. I have been given the opportunity to make corrections. Each page is numbered. I have initialed each correction and initialed or signed each page.

OR

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AND

____ **Initial (Applies to all)** I declare under penalty of perjury under the laws of the United States of America that this statement is true and correct to the best of my knowledge. I understand it is a felony under 18 U.S.C. § 1001 to knowingly and willfully make a false statement or omit material facts in relation to a federal investigation.

Review this statement with the Interviewee: I request that my statement be kept confidential to the extent allowed by law

– OR –

____ (Interviewee's Initials) I waive confidentiality.

Interviewee's Signature

Date

(b) (7)(C)

5/10/22
Date

United States of America
Department of Labor
Occupational Safety and Health Administration



(**THIS STATEMENT DOES NOT APPLY TO MANAGEMENT.***) I understand that this statement will be held in confidence until such time as I may be called to testify in a trial or court proceeding, at which time it may be produced upon demand of opposing counsel. Additionally, this statement may be made available to other agencies if it will assist them in the performance of their statutory functions. This statement may be subject to disclosure only in accordance with applicable statute(s) and agency policy. _____ Initial (**THIS STATEMENT DOES NOT APPLY TO MANAGEMENT.***)

11(c)(1) of OSH Act: No person shall discharge or in any manner discriminate against any employee because such employee has filed any complaint or instituted or caused to be instituted any proceeding under or related to this Act or has testified or is about to testify in any such proceeding or because of the exercise by such employee on behalf of himself or others of any right afforded by this Act. _____ Initial (Applies to all)

Name: Jeffrey Colburn Address: (b) (7)(C)
City: (b) (7)(C)

I am/was (circle one) employed by: Guyard Corp. From: 11/2000 to: present
Position: General Time in Position: 18 yrs Supervisor: David H. DeBenedictis
Project Manager

I hereby swear/affirm and declare:

1. I admit the tubing, cable demands to my mind, as
2. operator and excavator/backhoes.
3. _____
4. with me, that me the end of my case.
5. _____
6. I am the competent person for the excavator, as
7. is the P.M. and will be is of some, as and was
8. at work at the time of the accident.
9. _____
10. The trench was 4 1/2 to 5 feet wide and 7 feet
11. deep, but I do not have the report, but I know

1. IT WAS AT LEAST 7 FEET DEEP, AND GOT STUCK
2. TOWNS THE EXCAVATOR, SO AT LEAST 4 FEET
3. DEEP AT THE EXCAVATOR
- 4.
5. THE SOIL WAS HARD, AND DORRIS NEVER REQUESTED
6. A SOIL SURVEY TO ME, AND WOULD NOT BE ABLE TO
7. CLIMB THE SOIL, AND DIDN'T KNOW WHAT CLASS, FEEL
8. LIKE SOIL IS FOR THE TRUCK
- 9.
10. I WOULD NEED A ROAD OF GRADE BELOW 36"
- 11.
12. I DIDN'T KNOW AT WHAT DEPTH I WOULD NEED CLOSURE
13. A PROTECTION.
- 14.
15. ONE WAS AT ROAD ^{BRIDGE} ^{MASS} ^{FEET} AND ONE WAS AT
16. A SIGNATURE DEPTH, BECAUSE IT WAS CLOSE TO
17. THE EXCAVATOR
- 18.
19. ROAD WAS MORE WIDE IN THE TRUCK, PRIOR TO
20. LIFT OF THE SOIL SIDE OF THE ROAD PAVED, AND
21. THE DEPTH WAS THE SAME ABOUT 7 FEET DEEP.
- 22.
23. THEY WERE AROUND THE 36" LONG PIRE BEFORE
24. LIFT, FROM ABOUT 7:00 AM UNTIL LIFT, AND THE OVER
25. SIDE OF THE ROAD PAVED, AND I WAS UPSTAIRS
26. THE EXCAVATOR AND LOW BACK AND WERE IN THE
27. TRUCK, AND THERE WAS NO CAUSE OF PROBLEM, BUT
28. I DID SLOPED THE DITCH ON BOTH SIDES, BUT I
29. DIDN'T HAVE THE SLOPE RATIO REQUESTED, OF 1:1, AND
30. DIDN'T HAVE THE ROSS TO MEASURE THE SLOPE RATIO.

1. PRIOR TO STOPPING FOR LUNCH, THEY DID AS I HAD CALLED
2. PERSONAL, AS I WAS GOING TO A GYM THAT WAS NEXT, I
3. THE AREA OF THE TRUCK, THEY WERE WORKING, BECAUSE
4. I SLOPED THE EAST SIDE OF THE TRUCK.
- 5.
6. THE INCIDENT OCCURRED AFTER LUNCH ON THE WEST
7. SIDE OF THE SOUTH TRAIL, AND I DID AS I WAS ASKED
8. WAS I THE TRUCK, BECAUSE I WAS OPERATING THE
9. EXCAVATOR, AND MY BACK WAS TO THE TRUCK, AND
10. WHEN I STOPPED, I SAW THE SOIL WAS COMPACTED
11. AND SAW A HARD HAT, AND THINGS UNDER MY FEET
12. WENT TO THE INCIDENT/LOCATION.

Choose one of the first two (2) statements:

___ **Initial** I have read and understand the foregoing statement of ___ pages. I have been given the opportunity to make corrections. Each page is numbered. I have initialed each correction and initialed or signed each page.

OR

___ **Initial** The foregoing statement of ___ pages has been read to me. I have been given the opportunity to make corrections. Any corrections have been read back to me. Each page is numbered. I have initialed each correction and initialed or signed each page.

AND

___ **Initial (Applies to all)** I declare under penalty of perjury under the laws of the United States of America that this statement is true and correct to the best of my knowledge. I understand it is a felony under 18 U.S.C. § 1001 to knowingly and willfully make a false statement or omit material facts in relation to a federal investigation.

Review this statement with the Interviewee: I request that my statement be kept confidential to the extent allowed by law

— OR —

____ (Interviewee's Initials) I waive confidentiality.

Interviewee's Signature

Date

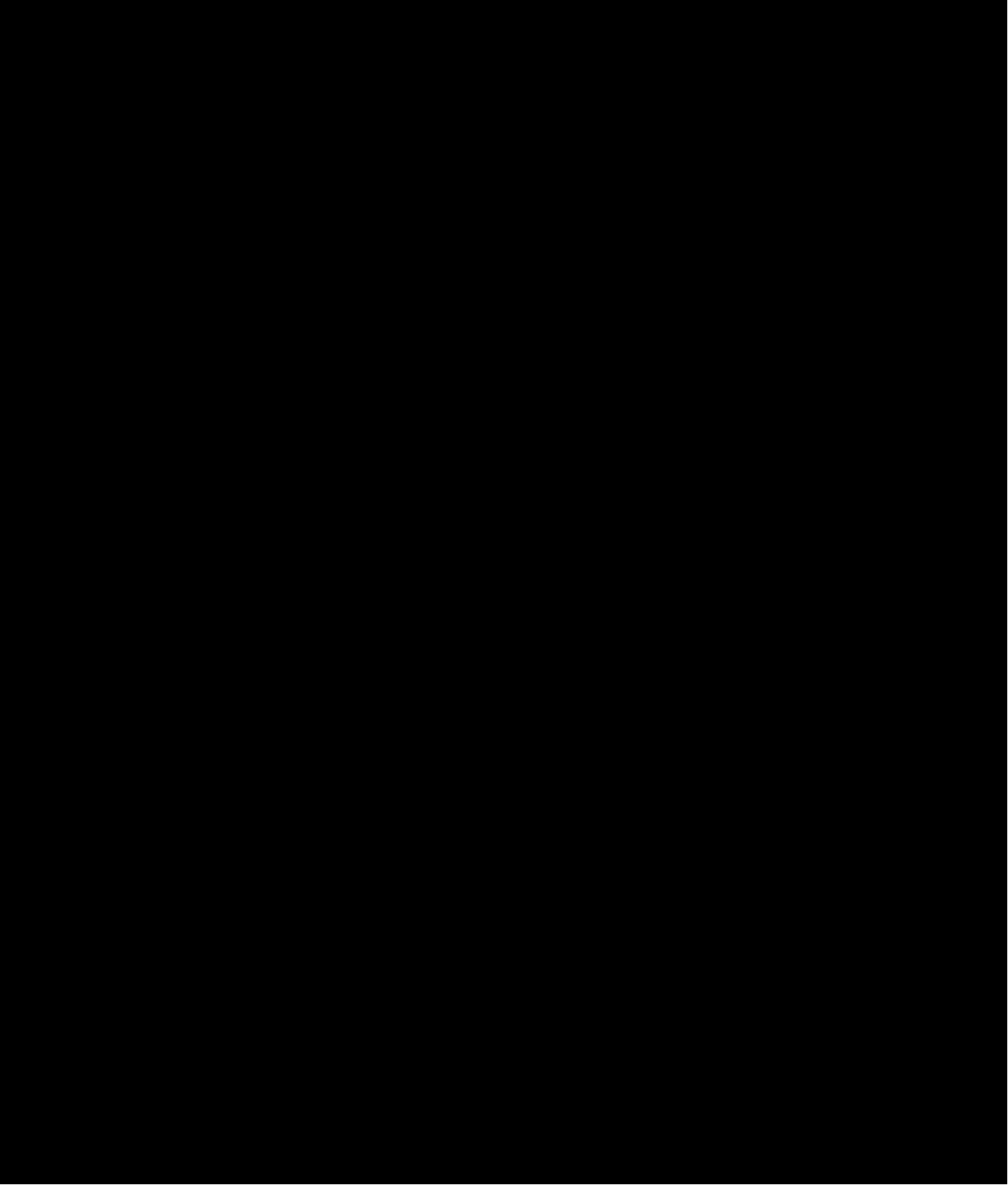
(b) (7)(C)

5/19/22
Date

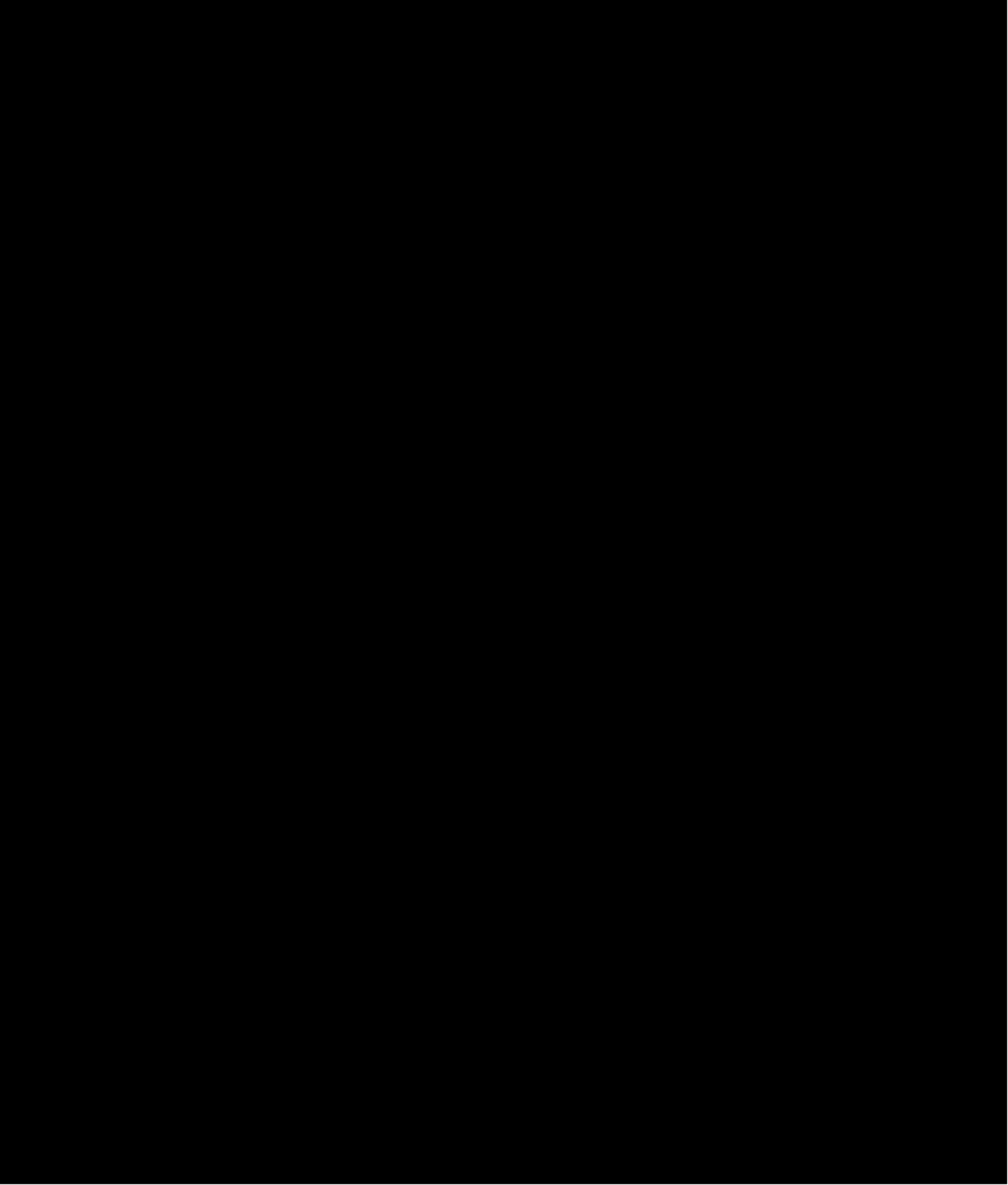
1. I did for the strike and to go into the truck
2. after lunch, because the truck was over the
3. about 300 ft. from the truck.
- 4.
5. we have the truck box above, 24' x 5' H
- 6.
7. The maximum depth the box would fit was only
8. 5 feet, deep
- 9.
10. So with us having already seen that a
11. cabinet to deliver that we use road
12. process for cause in process, which are
13. 5' x 16' long, and it has two road plates
14. of steel, we use 1/4 inch the plates both
15. vertical to horizontal, parallel up, the boxes,
16. and the plates are pushed into the ends with
17. the excavator, but actually remove the plates
18. to bring the plates, but if we could use
19. process, ^{we} would use a truck box, the plates
20. are driven into the ends at least 500 feet
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.

JEFFREY COLBURN

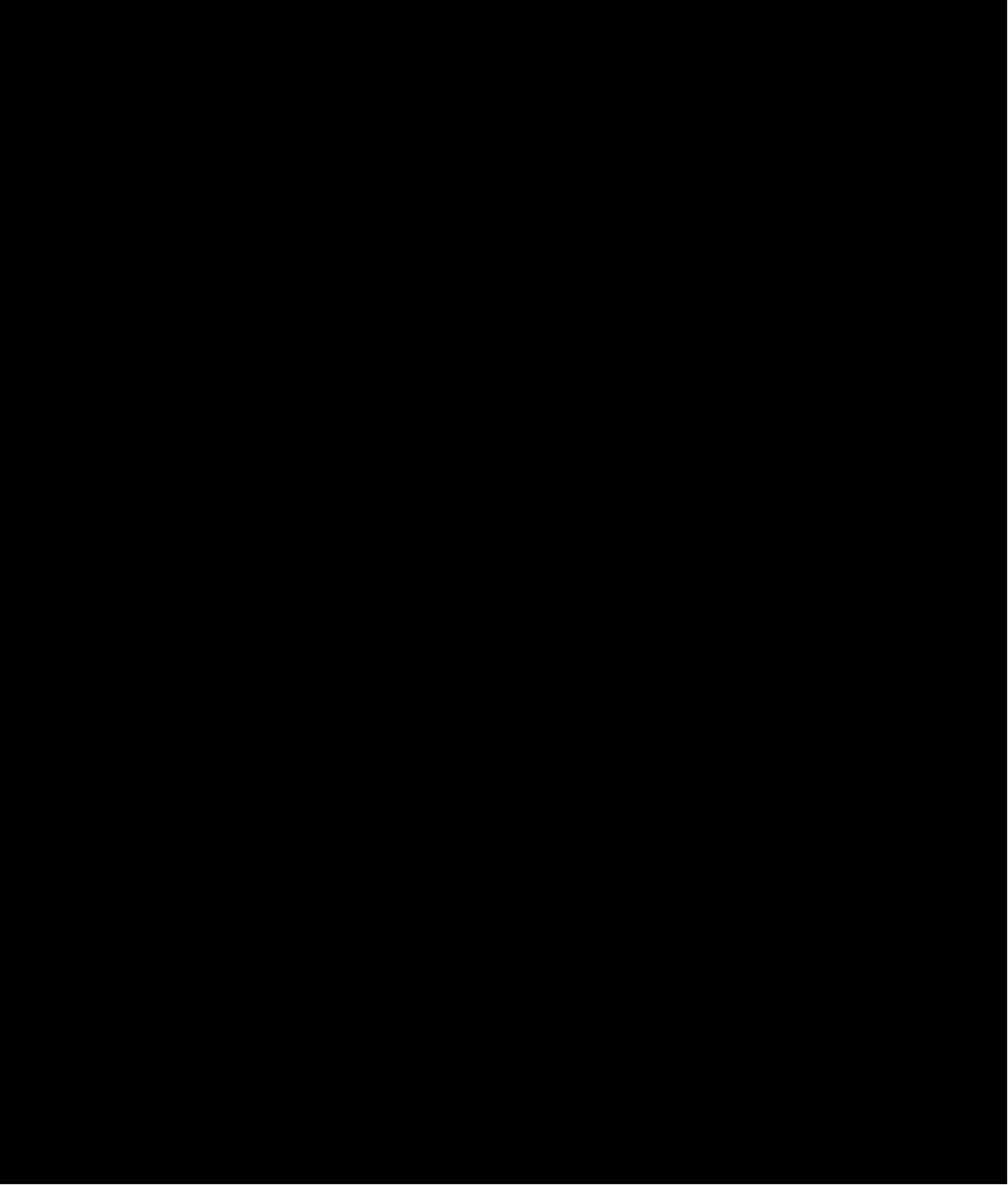
(b) (7)(C), (b) (7)(D)



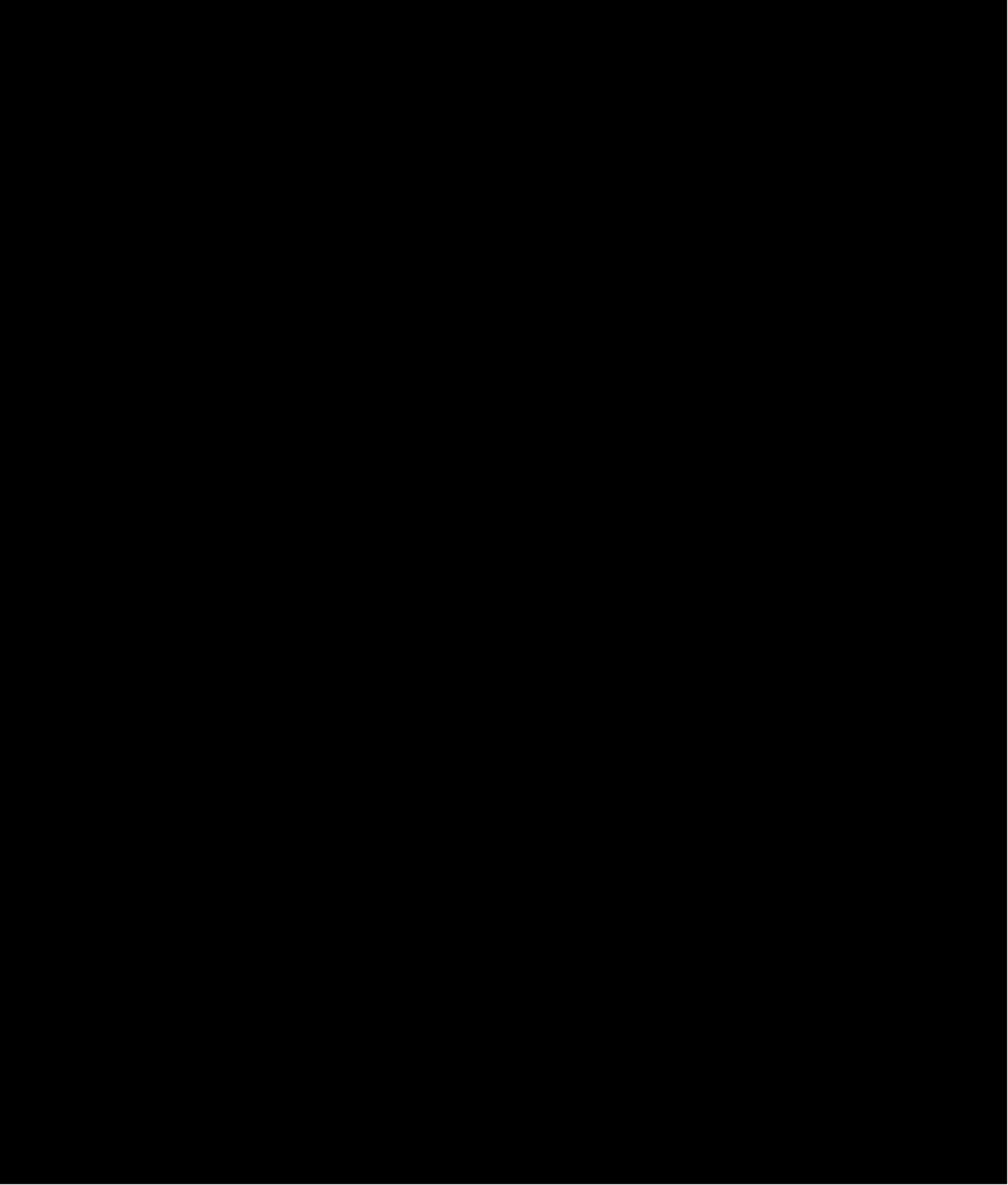
(b) (7)(C), (b) (7)(D)



(b) (7)(C), (b) (7)(D)

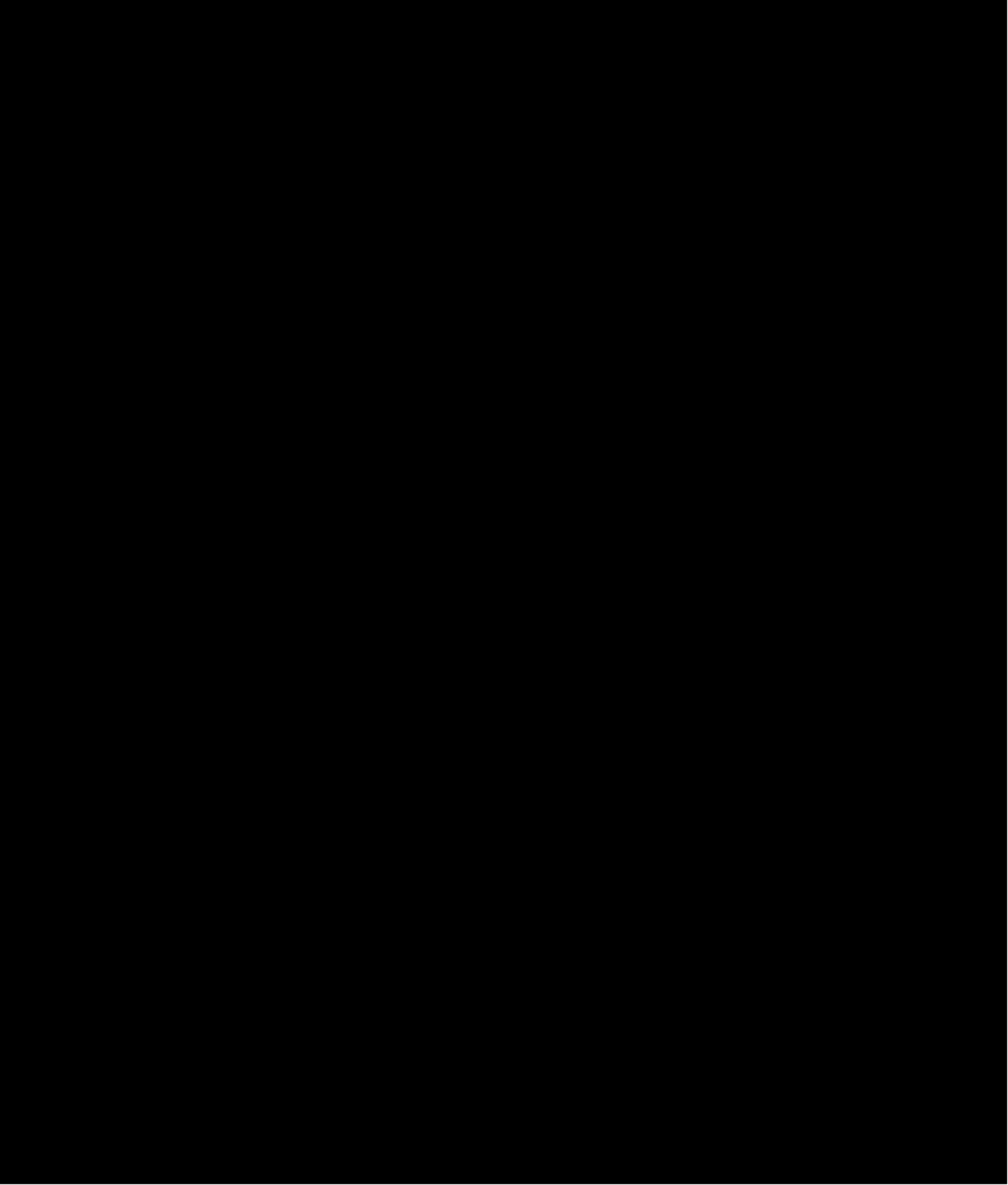


(b) (7)(C), (b) (7)(D)



(b) (7)(C), (b) (7)(D)

(b) (7)(C), (b) (7)(D)



9/21/22 9:00 am
Jeffrey Colburn

VIA TEAMS
Phillip Russell
Lauren Lenhart
Aaron Hunt-Bronch-
↳ Senior Project Manager
(b) (7)(C)

(b) (7)(C)

Basically, they asked if I would talk to OSHA.
I was in shock still. It was the 2nd day after the incident.

I am the foreman. I had (b) (4) employees on site with me. (b) (7)(C)

Brandon was the tail man, and Marcos was the pipe layer. I was the competent person on site. I was in charge of the job. I received training - safety meetings that we took. I received training on excavation & trenching. As the competent person I am allowed to stop work. We were working in Type C soil. Basically, Florida is pretty much Type C - dirt.

We were putting pressure pipe - we were laying water, irrigation and force main. ^{blue} on the day of the incident it was 16" pipe irrigation line. - purple pipe ^{purple}

We were in that particular location for about 2 weeks. In the general vicinity. We were laying 3 lines within 8 feet apart of each other.

I am the backhoe operator for this crew.

Brandon and Marcos always work with me.

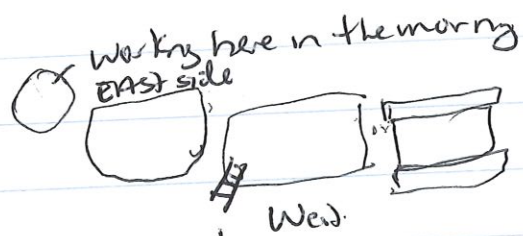
On the day of the incident - we started at 5:00 am

I started operating the excavator around 7:30 am.

I can't answer ~~at what~~ ^{the first} time an employee entered the trench.

The collapse happened around 2:30 - 3:00 pm.

I was working on the east side of the accident in the morning.



Share: DSC02594.SPG

View ~~excavation~~ excavation

Incident occurred in the west trench opening

They never work in this opening

The ladder was placed

I ~~used~~ pushed a ^{random} pipe from the east side to bore a hole. It creates an opening between the east and west trench. The trench ^{East} was 7.5 to 8 feet deep. The west trench was 7.5 to 8 feet deep. We used the pipe to bore a hole earlier that day. It was in the morning.

Ent



I used a ^{Random} pipe a day or 2 before to run a Road ^(west side) hole under the RCP = ^{Reinforced} Concrete Pipe storm drain.

We ran the pipe from east to west. To create a void. We put 16" reclaim pipe

The depth was 7 to 8 feet on the east

The depth was 7 to 8 feet deep on the west.

We were taking shots on the east side to make

Sure I had my clearance.

Employees were in on the east side.

They were guiding the pipe at the angle I needed

and I would push the pipe to the west side.

The ladder was on the west side of the trench.

on the east side ~~I~~ ~~to~~ didn't need protection because

I could slope back. It was a wide area.

It was coming in at a right angle. The bottom of the trench was about 8 feet wide

The west side was 7 feet deep

I sloped the east side.

- Ratio to slope is 1.5 to 1.

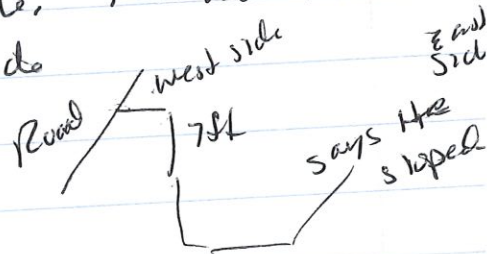
I knew this at the time of the accident.

I don't know how far to slope

1.5 to 1 for every 1 foot deep. I should have 1.5 out

The photo is disturbed. ~~I can~~ The photo looks

like they layed the plywood.





We sloped the west side to the side walk area.

I didn't make it to slope it out to the side walk.

It's not sloped 1.5 to 1.

We use plates if we can't use a trench box.

2 days before - when we ~~were~~^{They} in the trench I inspected the trench. I do not keep a daily checklist.

There was a touch of water, we had a 2" ^{water} pump.

It kept it dry. It was a wet area in the vicinity.

It we had a well set on the back side of the back hole. That was keeping everything dry.

On the day of the incident they were in the East side of the trench from the morning until about 2:30.

The ladder was on the east side.

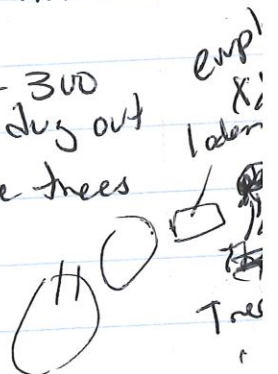
The depth was 7.5 to 8 feet at that time.

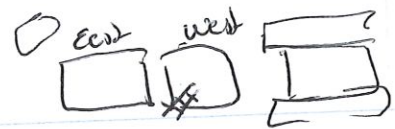
I did an inspection prior to them going in.

I did not find anything wrong with the trench.

There was no cave in protection at that time.

The West section was dug out around 2:30 - 3:00
When I was digging they were somewhere by the trees
to the east behind the loader





I think they put the ladder in the hole after they measured the road then they went to proceed to bolt a fitting onto a pipe which was back by the trees.

I was ~~excavating~~ excavating the ditch

I started excavating - I already dug a hole. so when ~~they~~ ~~was~~ - I pushed the pipe earlier in the day there is less resistance.

There was a ditch behind me. The dirt I was digging I spun around to the left side and spreading the dirt I was putting behind me. When I swung around ~~or~~ I didn't see my son but I saw a pipe layer.

I have been an excavator operator for 28 years

I had a good amount of dirt I turned around. ~~I~~ ~~packed it in. it spread it out. I~~

I spun around. I spread it. I packed it in. I am leveling it with the bucket. It could take 5-6 minutes when I grabbed the dirt no one was in the trench. No one had been in the west side of the trench that day.

When I turned around the road side collapsed. No one else was around.



as I was turning I looked through and I saw the pipe layers hard hat. - Marcos.

I could only see the hard hat

The bank was within 2 inches. I barely saw Marcos ~~then I saw the collapsed~~. It had already collapsed and I caught a glimpse of him.

- The ditch was wide that's why I didn't use the road plates. The banks were 7-8 ft away from these guys.

- I was not aware of being behind

- NOTE Aaron says we are ahead of schedule.

- I know ~~had~~ Brandon didn't have excavation training ~~he~~ worked for us for 4 years.

I don't know why he didn't get training

- We go to ~~some~~ certain safety meetings and training. Brandon didn't attend any.

- I don't know if Marcos had training.

Aaron comes out and said he is on site

Aaron comes out every day.

He comes at random times

Those trenches are about the same 7.5 to 8 foot.
We used it because there was existing storm drain
We didn't want water to come out from the existing pipe
Use it to keep it from causing a void under the
road. We used it to protect the road and in
case something let loose and wouldn't hurt the guys

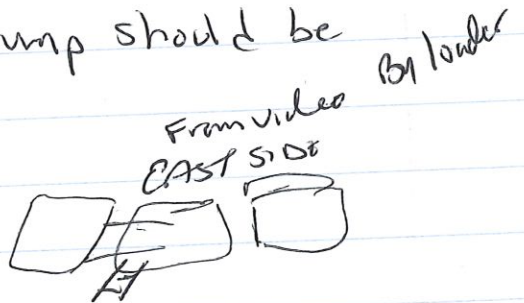
The ladder - the water. I can't tell its water
~~The well - 6" and its the~~

We have a 6" well, 8ft deep and its taking out the
water. Its on the other side and it takes the water
out. But there is also a 2" green pipe

The water seeps into the ground

I can't answer the question if the water should be
there. I can't answer if the pump should be
in place.

A trench box could not be used



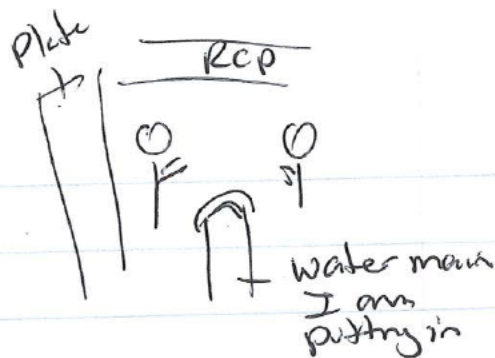
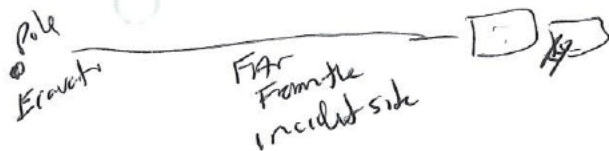


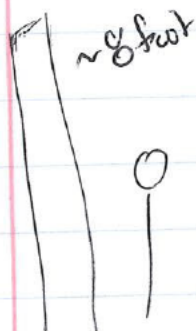
Photo shown - Marcos and Brandon

Blue pipe is water

This is from the same side.

This is in a swale where I was using a plate to protect the road side from blowing out.

This area is - 7.5 to 8 ft.



~8 foot
MARCO was 4'9"

Brandon was about 5'11"

They existed by climbing out

I think (b) (7)(C) took this photo - The inspector

(b) (7)(C) works for JP Wisc man - The construction

managers on the project

I am assuming he took it

This was early April time frame, ~~the~~ Early April

No questions for me.

I am still operating an excavator

Cave in protection is needed when deeper than 5 feet.

~~Now we use~~ I do back fill. I am not digging the

trench. Now everyone is gone. ~~There~~ ^{I am} just filling dirt

back in.

9/21/22

Aaron →

Aaron Hunt - Senior Project Manager
Civil Engineer

on this particular job I am supervising & scheduling
the crews. more of on site project management
I was there on site prior to the accident
They were working on the east side. somewhere
behind the east side. we had 3 conflicts
48" concrete pipe, 2 fiber optic cables, 18" drainage
I was there around 11:00 am
I wasn't there when they were in the ~~east~~^{west} opening
I had competent person training

Video
show picture from May 6th -
incident was May 9th

The person in the opening was Maria
This photo is the area near the ~~pot~~ loader
The trench is about 7-8 feet
In the video their walls do not look sloped.
I can't answer why we didn't use the plates.
I would make the determination to use the plates.
We had 2 plates on site.
I can't answer when I would use them.
I have used the plates before on site.
We used it further up on Burnt Store.
We used a plate by a well.

I saw them on the receiving end of the pipe
They had things sloped better when I was there.

The road plates were by where the loader was

Jeff would determine when to use it

They were there at this site

There was 3, but 1 is used to cover the trench box

I didn't see the plates in place

maybe a day prior they had the plates around the existing form

They would use it when you can't slope, wet ground

In the video - a plate would be helpful

video doesn't look like it was sloped

it would be required in the video

• We have a 6" ^{Vacuum} pump running within 20 feet of the excavation
- The hole area is being dewatered. This is the residual.

• I feel the 2" pump was going to be dropped in.
You move the small pump as you keep the pipe clean.

• I saw they guys in the excavation that was 7-8 feet
For majority of the job we used trench box, plates, and sloping.

• You can't slope around the RCP because the existing pipe RCP has 8 foot joints. we need dirt supporting the pipes

• Marcos has been with us for 24 years - NOT
I would say Brandon didn't have training.

Now we do more training for all the crews

we have (b) (4) crews - on different site

we had (b) (4) pipe crew on site and (b) (4) grading crew

We had 2 other subs. doing pipe work.

We are reviewing our trenching & shoring plan

we are hiring a consultant

We are ~~going to~~ have started - more safety meetings,

Job Hazard Analysis we will be implementing. we are

creating the forms, we did not have a checklist

for competent person inspection at the time of

the incident. We are developing it.

We need to work on documenting

Every bucket is different

We typically treat it as Type C soil,

our lab does density & compaction testing different

than OSHA



Fatality Checklist & Field Notes

Inspection Number: 1594857
Fatality Number: _____
Assignment Number: 1892422
Report Number: _____
CSHO-ID **(b) (7)(C)**

General Procedure

Date: 05/09/2022 Time: 7:40 P

- ☐ Contact agent in charge:
 - o Name: _____ Title: _____
- ☐ Present credentials:
 - o Presented to: _____ Title: _____
- ☐ OSHA- agency/regulations/inspections.
 - o Enforcement agency
 - o Stages of an inspection
- ☐ Unusual circumstances: _____ denial _____ delay _____ strike _____ jurisdictional issue
_____ trade secret additional information: _____

Opening Conference Checklist

Date: 5/10/22 Time: 11:20A

- ☐ Ask for any employee representation that should have to be at the opening conference. (unions, etc.)
- ☐ Explain the category, purpose and the scope of the inspection.
 - o Category: X Safety _____ Health
 - o Purpose:
- _____ Complaint (if so)
 - OSHA-7 presented to: _____ title: _____
- X Referral _____ Imminent danger _____ Follow up
- _____ Program Related:
 - Local Emphasis Program
 - _____ Falls in Construction X Trench / excavations _____ Silica (S&H)
 - _____ Overhead-Power lines _____ Landscaping and Horticultural
 - Regional Emphasis Program
 - _____ Scrap Metal Recycling
 - National Emphasis Program
 - _____ Crystalline Silica _____ Amputations _____ Lead _____ Combustible dust
 - _____ Ship breaking _____ Trenching _____ Petroleum Refinery (PSM)
- _____ ARRA Related
 - o Scope:
 - Items in the complaint and any condition that is at an open-view will be addressed during the inspection process.
 - Inspection process includes; private employee interviews, physical inspection of the workplace and records, taking pictures.
 - After the inspection theirs a possibility of issuing citations and/or penalties, referrals.
- ☐ Provide with the Freedom of Information Act
- ☐ Ask about:
 - o Potential worksite exposures and list of hazardous substance (as well as any air monitoring results)
 - o Requirement before entering the job site (example: PPE)
 - o Process description (PLANT OR PROCESS LAYOUT)
- ☐ Request documentation:

Union NO

Exit



Fatality Checklist & Field Notes

Inspection Number: _____
Fatality Number: _____
Assignment Number: 1892422
Report Number: _____
CSHO-ID: (b) (7)(C)

- ☐ Request a copy of the written certification that a hazard assessment has been performed.
- ☐ Recordkeeping And Posting:
 - ☐ Ask for copies of the OSHA-300 Log and OSHA-300A for current year plus 2018 thru 2022. (Verify SIC code for exception on Recordkeeping)
 - ☐ Verify that the OSHA-300A is posted in a conspicuously place (February, 1-April, 30)
 - ☐ Yes; Where: _____
 - ☐ No
 - ☐ Additional Notes: _____

11:45A
Late

Walk-around Checklist

Date: _____ Time: _____

- ☐ Walk-around representative:
 - ☐ Name: _____ Title: _____
 - ☐ Name: _____ Title: _____
- ☐ Verify if the availability of the OSHA Poster: ☐ Yes; Where: _____ ☐ No
- ☐ Program Availability and Review:
 - ☐ Hazard Communication: ☐ Yes ☐ No
 - ☐ First-Aid & Bloodborne Pathogens: ☐ Yes ☐ No
 - ☐ Respiratory Protection: ☐ Yes ☐ No
 - ☐ LOTO: ☐ Yes ☐ No
 - ☐ Forklift: ☐ Yes ☐ No
 - ☐ Fire Safety & Evacuation Process: ☐ Yes ☐ No

Discipline Program ☐
Safety Training (Trenching) ☐
Competent Person (Trench) ☐
Safety Program ☐
Safety Trench program ☐
Soil Testing Trench Box OP ☐

Closing Conference Checklist

Date: _____ Time: _____

- ☐ Closing conference representative:
 - ☐ Name: _____ Title: _____
 - ☐ Name: _____ Title: _____
- ☐ Describe what happens after inspections take place using the OSHA-3000 as reference.
 - ☐ Review
 - ☐ Hazards than can result in possible citations and/or violations.
 - ☐ Citation and penalty procedure.
- ☐ Employee rights under the Section 11(c).
- ☐ Inform about the USF Consultation Program.
- ☐ Provide and discuss the publications:
 - ☐ OSHA-3000 Employer Right and Responsibilities Following an OSHA Inspection attached with business card.
 - ☐ OSHA-3195 Derechos y Responsabilidades Del Empleador tras una inspección de OSHA attached with business card.
 - ☐ Letter explaining the right of a small business that believes they have been treated unfairly by OSHA to file a written, signed complaint with Small Business Administration Ombudsman.
 - ☐ Other OSHA-Publications (general or specific to the type of industry)
 - ☐ _____
 - ☐ _____
 - ☐ _____
 - ☐ _____

Assumed that Type C" ☐
Engineering Plan for Cave in protection ☐
Soil Survey ☐
Engineering Data for Road plates ☐
Operators Manual for Excavator. ☐
Accident Investigation ☐
Unannounced Safety Site Visits ☐
Accident Info ☐
Trench Inspections ☐
Tabulated Data (Trench) ☐
Process operating Procedures ☐



Fatality Checklist & Field Notes

Inspection Number: _____
Fatality Number: _____
Assignment Number: 1892422
Report Number: _____
CSHO-ID: **(b) (7)(C)**

Establishment Information

Establishment Name: Guymann Construction Of Florida, Inc.
Site Address: Burnt Store Rd., Punta Gorda FL 33955
Mailing Address: See Card
Phone Number: _____ Fax Number: _____
Number of Employees: _____ in establishment **(b) (4)** covered by inspection controlled by employer **(b) (4)**
(including employer) **(b) (4)**
Additional Information: Phillip Russell

Employer

Employer Representative: Jeffrey Colburn Job Title: Foreman
Street **(b) (7)(C)** **(b) (7)(C)**
City **(b) (7)(C)**
Employer Representative: _____ Job Title: _____
Street Address: _____ Phone: _____
City: _____ State: _____ Zip code: _____

Victims Personal Data

Name: Aaron Job Title: SR Project Manager
Street **(b) (7)(C)** Phone: **(b) (7)(C)**
City: **(b) (7)(C)**
Age: _____ Sex: _____ Nationality: _____
Date of Employment: _____ Time in position: _____
Job being done at the time of the incident: _____

Training provided: _____

Status of employee: _____

Nature of Injury: _____

Union

Exit



Fatality Checklist & Field Notes

Inspection Number: _____
Fatality Number: _____
Assignment Number: 1892422
Report Number: _____
CSHO-ID: **(b) (7)(C)** _____

Interview Employees Information

(b) (7)(C)

Time working: Additional Information:

Interviewed is a witness: ☒ Yes ☐ No

Name: **(b) (7)(C)**
Street: **(b) (7)(C)**
City: **(b) (7)(C)**

Time working: Additional Information:

Interviewed is a witness: ☒ Yes ☐ No

Name:	Job Title:
Street Address:	Phone:
City: State: Zip code:	

Time working: Additional Information:

Interviewed is a witness: ☐ Yes ☐ No

Name:	Job Title:
Street Address:	Phone:
City: State: Zip code:	

Time working: Additional Information:

Interviewed is a witness: ☐ Yes ☐ No

Name:	Job Title:
Street Address:	Phone:
City: State: Zip code:	

Time working: Additional Information:

Interviewed is a witness: ☐ Yes ☐ No



Fatality Checklist & Field Notes

Inspection Number: _____
Fatality Number: _____
Assignment Number: 1892422
Report Number: _____
CSHO-ID: (b) (7)(C)

Trailer 26074 Notre Dame Blvd. Foster Gorda

Opening

Phillip Russell Attorney ~~Phone~~

Fred Russell President

Bob Russell P.E. VP

Aaron Hunt-Brarck P.E. Sr. Project Manager

Employee

E.

(b) (7)(C)

Ed. Maldonado Foreman

(b) (7)(C)

Jeff Colburn Foreman (father)

Surveyor Meridian Group of South Florida Inc.

Joseph Trott - President

(b) (7)(C)

Almost daily, we stay above ground, the Foreman measures
The top of the pipe was between 0 and 1
1/2" pipe

Union

Exit

7:35 Enter

Guyman Construction
Foreman/Operator Jeffrey Colburn (Father)

Brandon Colburn ~~20/99~~ 25 yrs Top (Laborer)
Marcos Santiz-Lopez 42 yrs Pipe Layer

Robert Russell V.P.
Guyman Construction of Florida

(b) (7)(C)

(b) (7)(C)

(b) (7)(C)

Competent Persons Jeff (Foreman)

7 Mile Job

About

(b) (7)(C)

2. Muy engañosa y enojosa, fue despedido, cuando se fue Nikie, Trajeron El diablo (Foreman) hijos de Nikie
3. Tomaba mucho alcohol, el le daba "rides" al trabajo, siempre estaba drogado. Es conflictivo, Muchas empleados se fueron por el Foreman.
4. Marcos sabía el trabajo mejor, Marcos le decía
5. (b) (7)(C) dijo que el accidente fue creado por la Maquina
6. (b) (7)(C) a buscar un tubo, Enrique fue enviado al baño a buscar al hijo del Foreman
7. (b) (7)(C) dijo que El Foreman (El Diablo) regreso hace como 6 años
8. (b) (7)(C)
9. La Caja Nunca estaba puesta, yo le decía que se fuera del trabajo. Enrique tenía videos.
10. Brandon era el ayudante de Marcos
11. El Foreman guiaba muy rápido
12. No se porque le dicen el Diablo, el hijo le decian el Diablito.
13. Algunas Empleados dicen que la Compañia es buena, pero otros dicen que no siguen las reglas

14. Aaron hablo con Marcos varias veces, porque queria
despedir al Diablo (Foreman)

7/5/22

Spoke w/ NOK

(b) (7)(C)

(b) (7)(C)

7/22/22 10:36 AM

Detective (b) (7)(C)

Police Report not ready (2 more weeks)

District 22 941-625-1111

(b) (7)(C) (Front Desk) Charlotte County.

(b) (7)(C)

1st Broken Neck

2nd Suffocation by Compression

12:30P Requested ME Reports

(b) (7)(C) 8/4/2022 2:01AM

Dect.

stated the Police Report was completed.

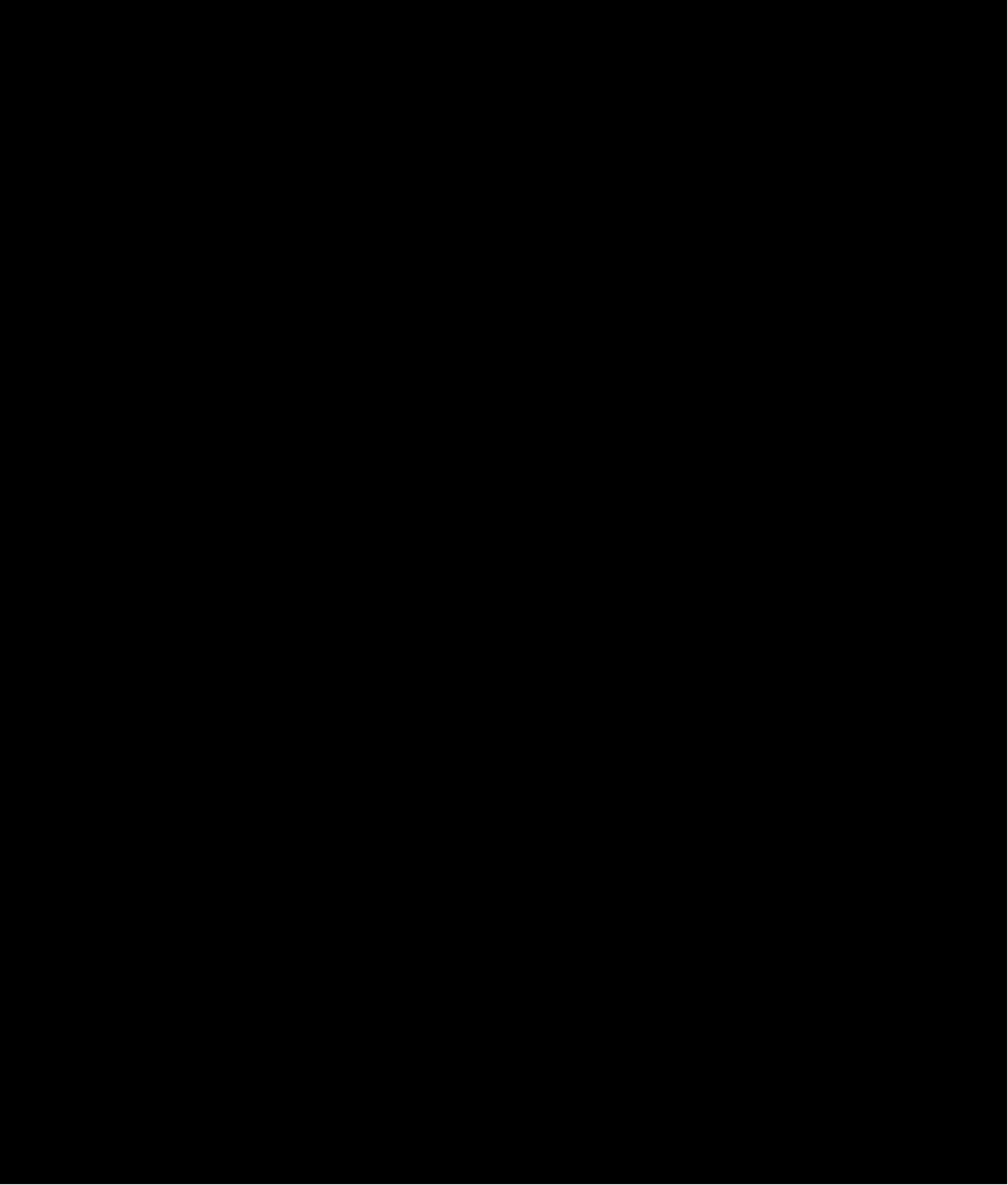
- Requested Police Report - via email

8/8/22

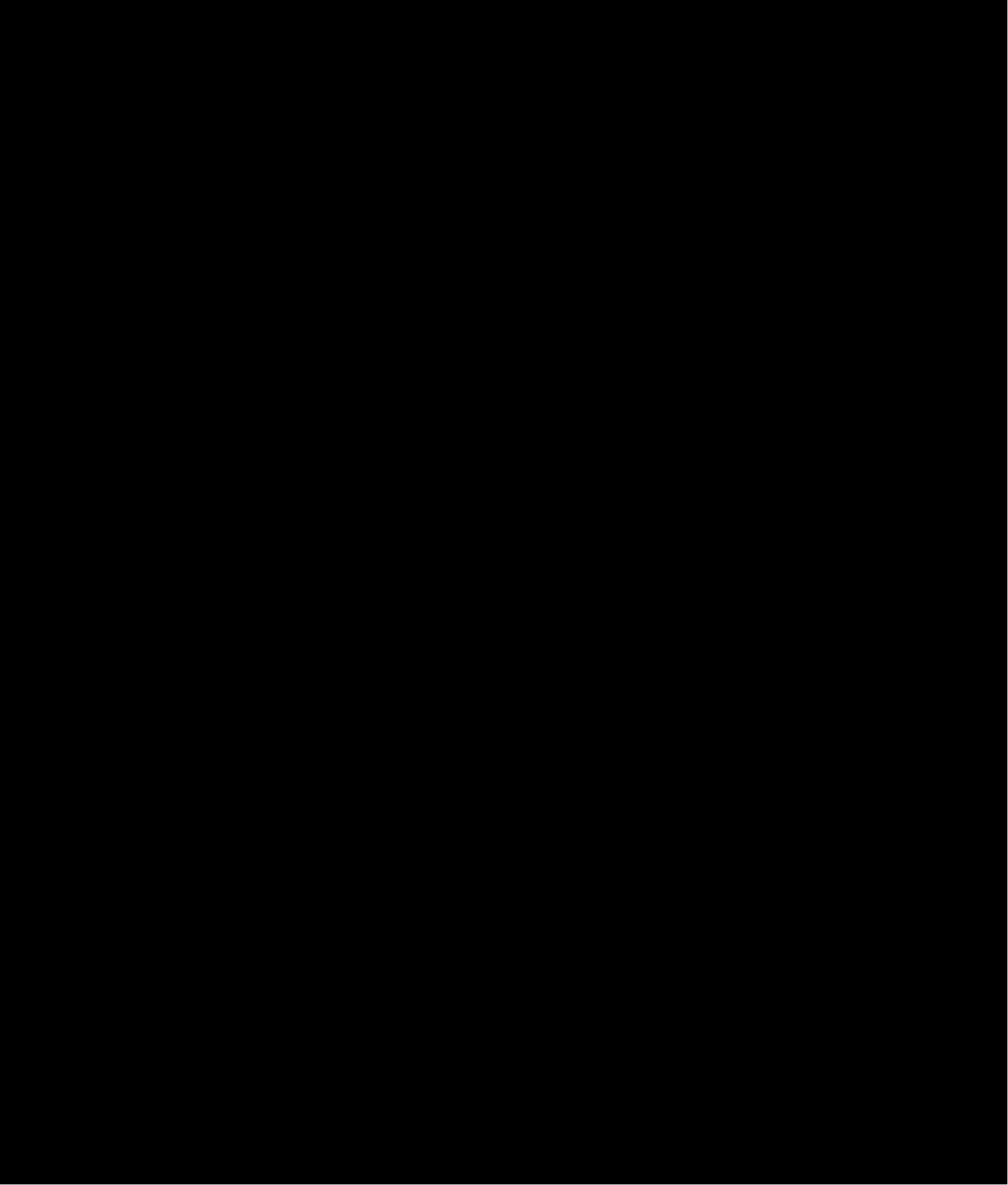
3:06 PM

(b) (7)(C)

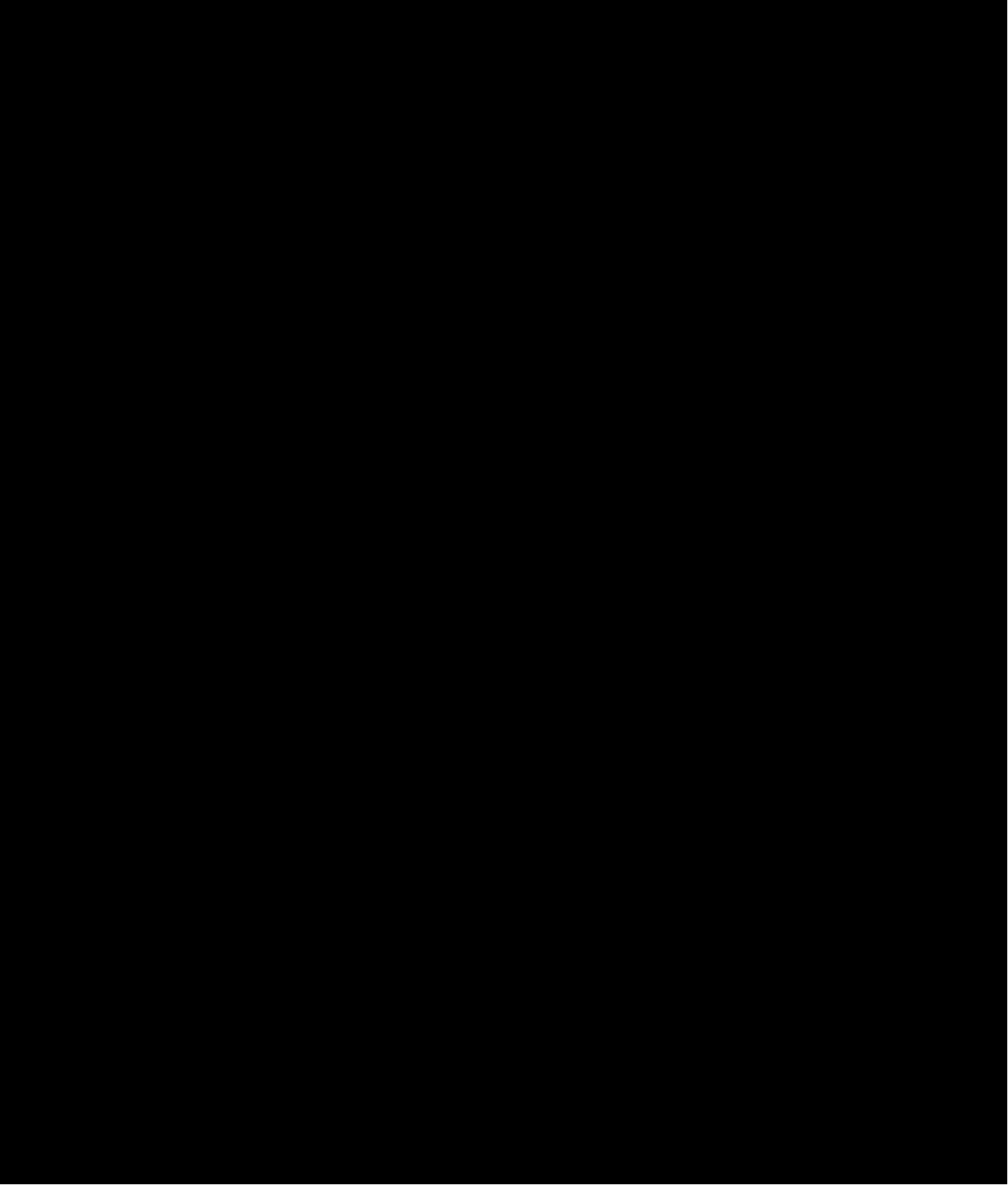
(b) (7)(C), (b) (7)(D)



(b) (7)(C), (b) (7)(D)



(b) (7)(C), (b) (7)(D)



Bulk Sampling Worksheet

U.S. Department of Labor Occupational Safety and Health Administration

May 11, 2022 9:31 AM

Reporting ID	Activity/Visit Number	OIS Sampling Sheet Number	
0420600	1594857	399360	
Establishment Name		Sampling Date	Shipping Date
GUYMANN CONSTRUCTION OF FLORIDA, INC.		05/09/2022	05/11/2022
CSHO/Consultant Signature	Print CSHO/Consultant Last Name	CSHO/Consultant Id	
	Santiago	(b) (7)(C)	
Employee (Name, Address, Telephone Number) or Area Information		Exposure Information	
Trench Soil Pile		# Employees Exposed	2
		Exposure Duration	30 Minute(s)
		Exposure Frequency	various

Job Title/ Occupation	Weather Conditions	Photo(s)
Pipe Layer and Labor/Pipelayer		

PPE (Type and Effectiveness)				
PPE Category	PPE Subcategory	PPE Effectiveness	Worn?	Description

Additional Exposure Controls				
Control Category	Control Subcategory	Used?	Control Effectiveness	Description

Job Description, Operation, Work Location(s) and Ventilation

Bulk Sampling Data					
Sampling Type	Bulk Unknown	Sample Purpose	Compliance assessment	Sample Status	Ready For Lab
Sample Submission No.		Location			
B		edges of soil pile			
A		edges of soil pile			

Analyze Samples for: <i>(Indicate Which Samples to Include in Calculations)</i>
Substance
S777 Soil

Interference and IH Comments to the Lab	Chain of Custody	Initials	Date
	Seals Intact ?		
	Received in Lab?		

Interference and IH Comments to the Lab	Chain of Custody	Initials	Date
	Received by Analyst		
	Analysis Complete		
	Calculation Checked		
	Supervisor OK'd		
	Case File Page		

Lab Results				
Sample Submission No.	Substance	Value	Units	Lab Result Type

Exposure Assessment										
ID	Substance	Value	Units	Type	Severity	OEL	SAE	UCL	LCL	Status

Calculations and Notes
Shipping Method: USPS Tracking Number: 9114901496450152184956 General Comments:

Air, Bulk and Wipe Samples should be sent to the following address:

**OSHA Salt Lake Technical Center
8660 S. Sandy Parkway
Sandy, UT 84070**

1. Reporting ID 420600	2. Inspection Number 1594857	3. Sampling Number 399360
4. Establishment Name GUYMANN CONSTRUCTION OF FLORIDA, INC.		
5. OSHA ID (b) (7)(C)	6. Sampling Date 09 MAY 2022	7. Shipping Date 10 MAY 2022
		8. Date Result Received June 1, 2022
9. Job Title Not applicable		10. Occupational Code
11. Number Exposed		
12. Frequency of Exposure		

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA	Over Exp	Eng	PPE	Trng	Med	OTH

TWA calculated on actual time sampled

The I. H. is free to make changes on the Form 91B and submit them directly to IMIS

26. Analyst's Comments OSHA ID-194
(Analytical Method)27. Chain of Custody
a. Seals IntactInit. Date
Y

b. Rec'd In Lab

KAS 16 MAY 2022

c. Rec'd by Anal.

SEA 23 MAY 2022

d. Anal. Completed

SEA 26 MAY 2022

e. Calc. Checked

DJH 31 MAY 2022

f. Supr. OK'd

DJ 01 JUN 2022

F15488 S777 Classification of F15488:

Granular, Type C*

*Percent sand and gravel > 85 %

F15489 S777 Classification of F15489:

Granular, Type C*

*Percent sand and gravel > 85 %

28 Submission
number

B

A

29 Lab Sample No. F15488 F15489
(Minutes/Type)

B

B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

S777 Soil

N

N

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value

S777

L MILLIGRAMS PER LITER (URINE)

D MICROGRAMS PER DECILITER (BLOOD)

C PICO CURIES PER LITER (RADON GAS)

P PARTS PER MILLION

Sampling Number: 399360

F	FIBERS PER CUBIC CENTIMETER	X	MICROGRAMS
M	MILLIGRAMS PER CUBIC METER	%	PERCENT
Y	MILLIGRAMS	E	FIBERS PER MM2
N	NONE	G	MILLION PARTICLES PER CUBIC FOOT (MPPCF)
BM/S	Bar Meters per Second	mcg/l	Micrograms per Cubic Meter

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. if there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

We value your comments regarding the customer support provided by the Salt Lake Technical Center Industrial Hygiene Chemistry Laboratory. You may leave comments (either positive or negative) with us at feedback.SLTC.IHC@dol.gov.

For questions regarding a specific case, please contact the Chromatography Group Manager, or the Spectroscopy and Physical Measurements Group Manager listed at <http://intranet.osha.gov/dts/LAP/sltc.html>.

Permissible Exposure Limit Summary

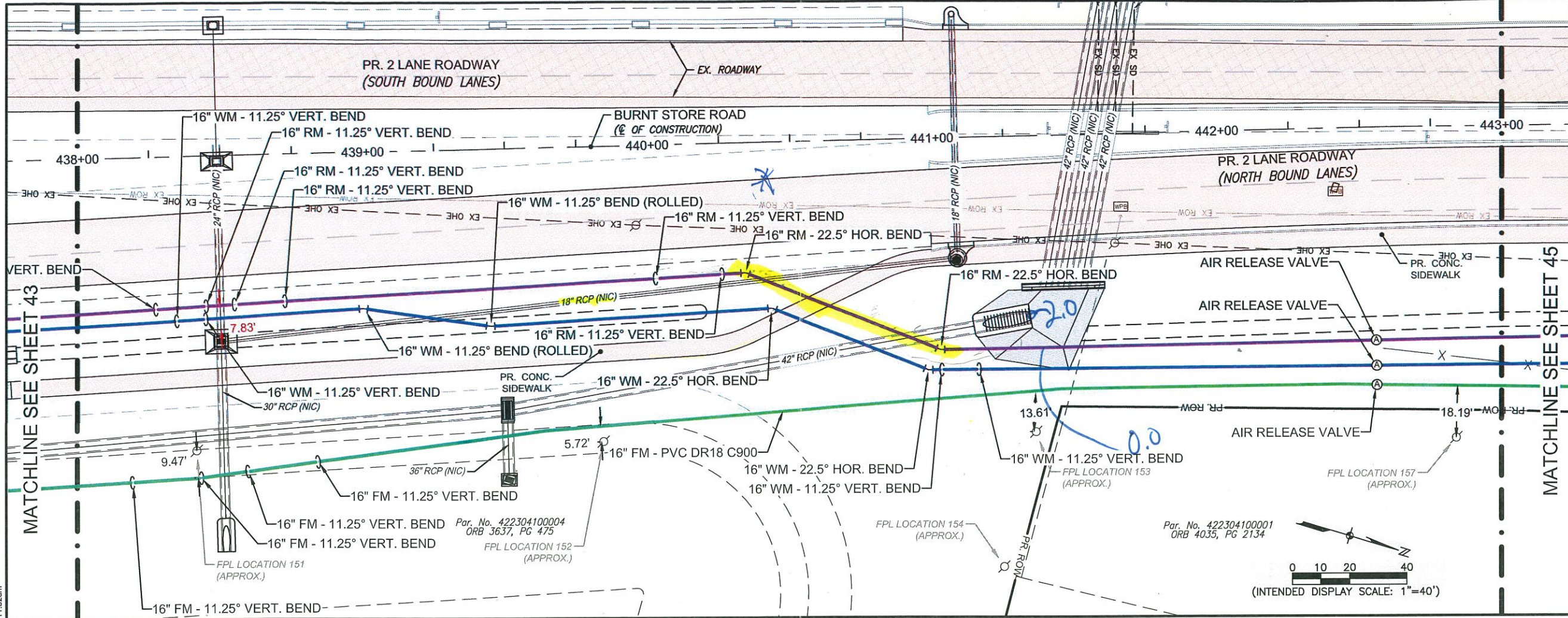
Office ID	Inspection Number	Sampled Establishment	Sampling Number
420600	1594857	GUYMANN CONSTRUCTION OF FLORIDA, INC.	399360

Analyte Code	Req	Sample Type	Exposure Type	Exposure	Unit	PEL	PEL Severity
--------------	-----	-------------	---------------	----------	------	-----	--------------

The following potentially applicable occupational exposure limits (OELs) are provided for reference only. OELs are not to be cited as OSHA standards. OELs referenced below can be a useful part of identifying the existence of a hazardous condition, but may not be sufficient alone to provide evidence of either hazard recognition or potential means of abatement.

Analyte Code	Req	Sample Type	Exposure Type	Exposure	Unit	REL	REL Severity
Analyte Code	Req	Sample Type	Exposure Type	Exposure	Unit	TLV	TLV Severity

\\FTMS01\Drawings\2015\20150177-000\Utilities\Drawings\20150177-000_PP_SEGMENT 2 ONLY.dwg (PP (44)) lpm Jun 22, 2021 - 11:32am



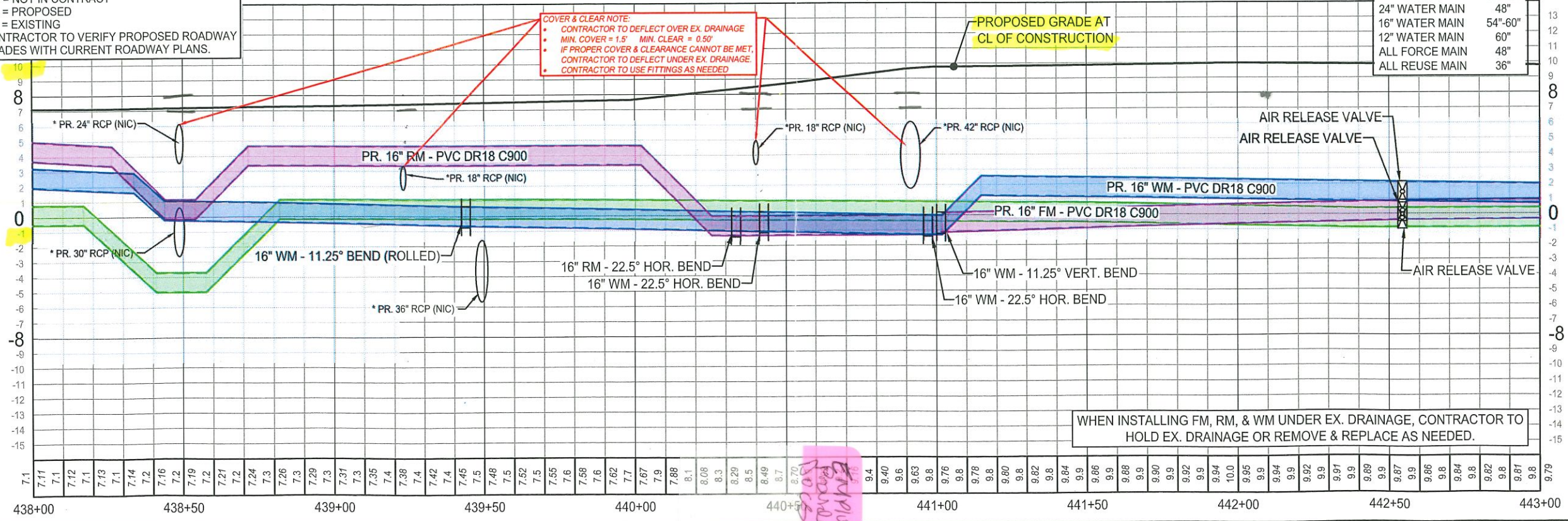
- NOTES & LEGENDS:
- 1. NIC = NOT IN CONTRACT
 - 2. PR. = PROPOSED
 - 3. EX. = EXISTING
 - 4. CONTRACTOR TO VERIFY PROPOSED ROADWAY GRADES WITH CURRENT ROADWAY PLANS.

PROPOSED BURNT STORE CL CONSTRUCTION (Sta: 438+00 to Sta: 443+00)

COVER & CLEAR NOTE:
CONTRACTOR TO DEFLECT OVER EX. DRAINAGE
MIN. COVER = 1.5' MIN. CLEAR = 0.50'
IF PROPER COVER & CLEARANCE CANNOT BE MET,
CONTRACTOR TO DEFLECT UNDER EX. DRAINAGE.
CONTRACTOR TO USE FITTINGS AS NEEDED.

PROPOSED GRADE AT CL OF CONSTRUCTION

UTILITY COVER CHART:	
UTILITY	COVER
24" WATER MAIN	48"
16" WATER MAIN	54"-60"
12" WATER MAIN	60"
ALL FORCE MAIN	48"
ALL REUSE MAIN	36"



WHEN INSTALLING FM, RM, & WM UNDER EX. DRAINAGE, CONTRACTOR TO HOLD EX. DRAINAGE OR REMOVE & REPLACE AS NEEDED.

Scale: 1" = 40' Hor., 1" = 8' Vert.

DAVID BRICE TROUTHEAD, PE
FL License No. 69783

Charlotte County Utilities

100% Construction Plans for
Burnt Store Road - Phase 2
Utility Improvements
Charlotte County, Florida

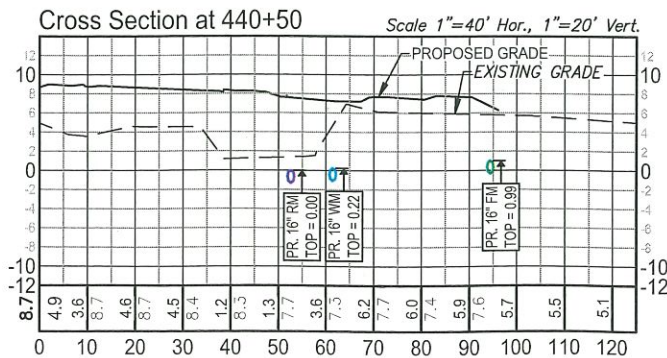
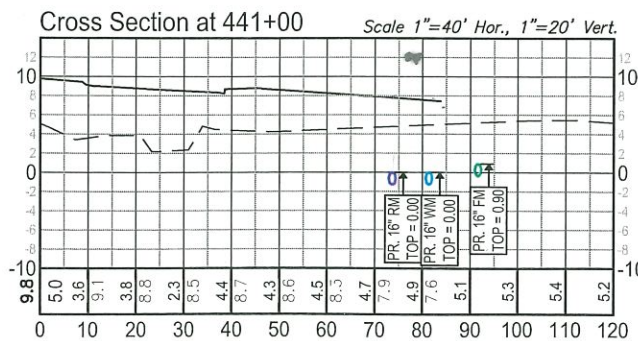
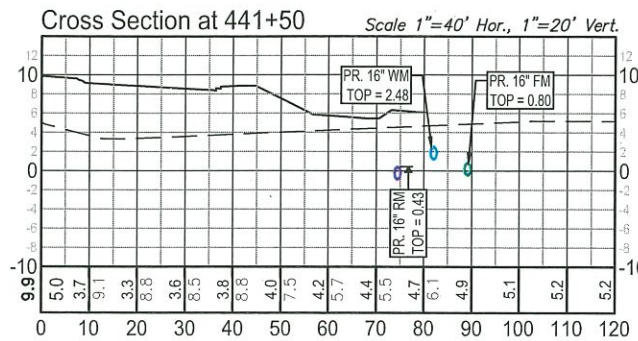
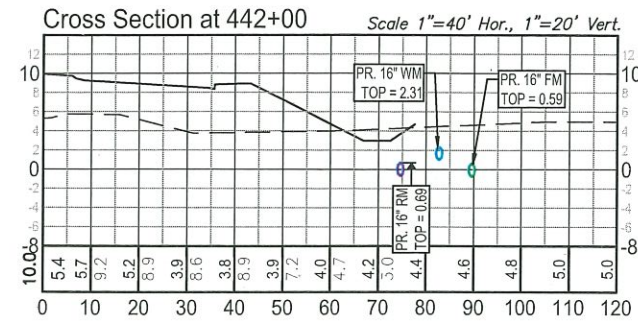
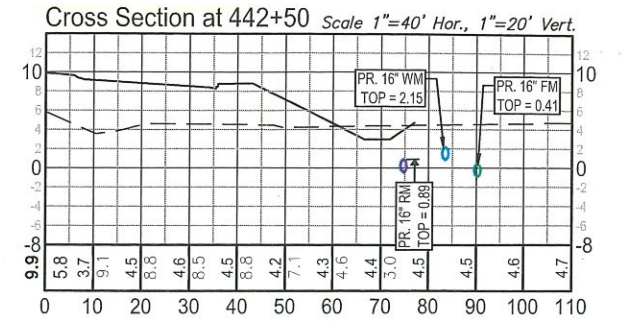
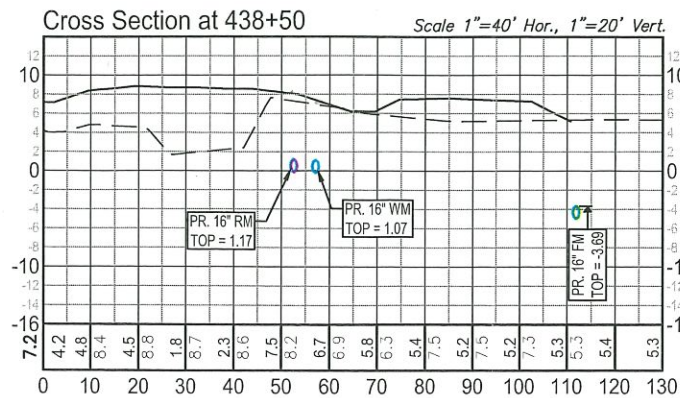
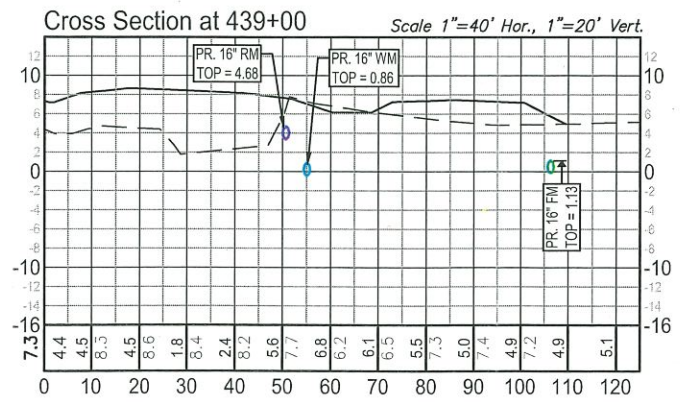
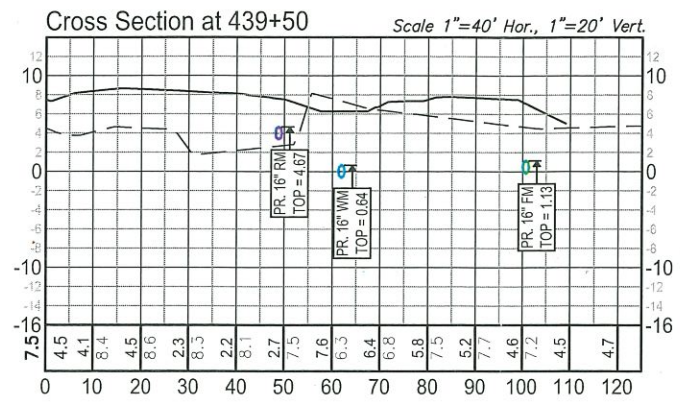
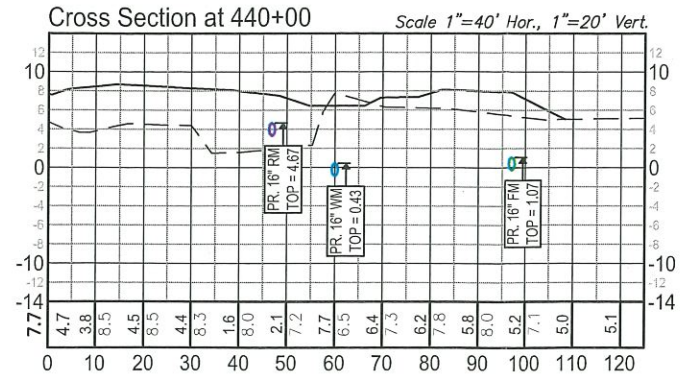
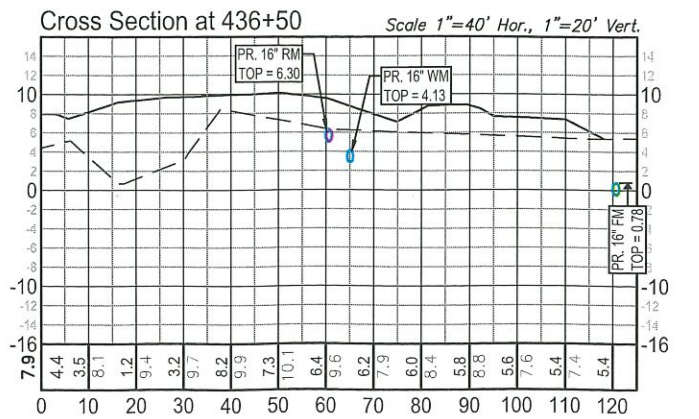
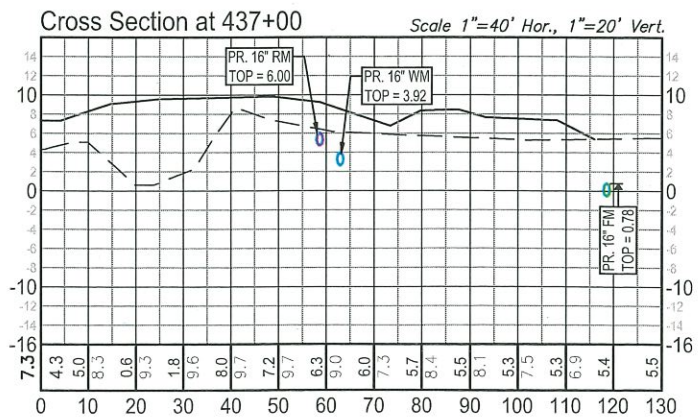
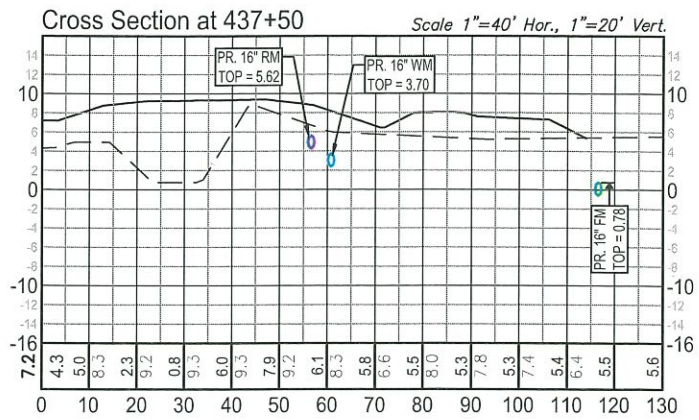
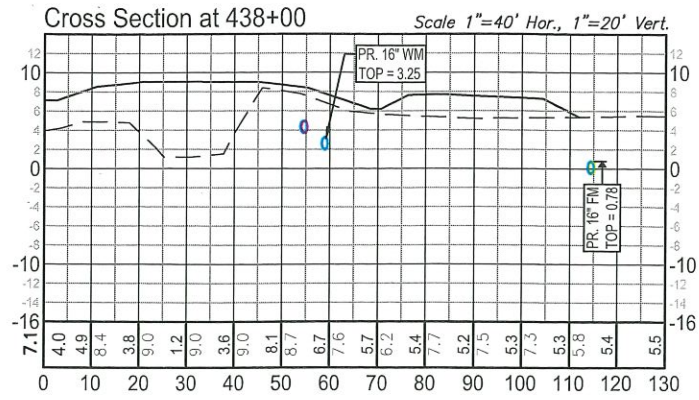
REVISIONS	
NO.	DESCRIPTION
01	UPDATED PIPE SIZES & RV ALIGNMENT

DATE:	JUNE 22, 2021
PROJECT NO.	20150177-000
FILE NO.	4-42-23
SCALE:	As Shown

Burnt Store Road
Sta 438+00 to 443+00

SHEET NUMBER

\\FMS01\Drawings\2015\20150177-000\Utilities\Drawings\20150177-000_CX.dwg (44) tpm Jun 22, 2021 - 12:03pm



(Typical Section)

UTILITY COVER CHART:

UTILITY	COVER
24" WATER MAIN	48"
16" WATER MAIN	54"-60"
12" WATER MAIN	60"
ALL FORCE MAIN	48"
ALL REUSE MAIN	36"

JOHNSON
ENGINEERING
2122 JOHNSON STREET
P.O. BOX 1550
FORT MYERS, FLORIDA 33902-1550
PHONE: (239) 334-0046
FAX: (239) 334-3661
E.B. #642 & L.B. #642

DAVID BRICE TROTEAU, PE
FL License No. 69783

Charlotte County Utilities

100% Construction Plans for
Burnt Store Road - Phase 2
Utility Improvements
Charlotte County, Florida

NO.	REVISIONS	DESCRIPTION	DATE
01		UPDATED PIPE SIZES & RM ALIGNMENT	6/02/2021

DATE: JUNE 22, 2021
PROJECT NO. 20150177-000
FILE NO. 4-42-23
SCALE: As Shown

Burnt Store Road
Utility Cross Sections
Sta 436+50 to Sta 442+50

SHEET NUMBER

CX-44

TABLE OF CONTENTS

	OSHA Request	Client Response	Bates Number	Date of Response
A	OSHA 300 Logs from 2018 until present – 300/300A	OSHA 300 & 300A's 2018 – 2021 OSHA 300 2022	[GUYMANN to OSHA000001-000008] [GUYMANN to OSHA000009-000010]	5/16/22
B	OSHA 301's related to event	OSHA 301 Marcos Lopez OSHA 301 Brandon Colburn	[GUYMANN to OSHA000011] [GUYMANN to OSHA000012]	5/16/22
*	Unannounced site safety audits (3 months)	Guymann does not have written safety audits from this site		
C	Disciplinary Program	Disciplinary Program	[GUYMANN to OSHA000013]	5/27/22
D	Disciplinary action records (last 6 months)	Disciplinary action records	[GUYMANN to OSHA000014-000016]	5/27/22
looks incomplete	Safety & Health Program	Safety Plan General Silica Confined Trench	[GUYMANN to OSHA000017-000023]	5/27/22
F	Map or layout of workplace (mark event site)	Layout of Workplace BSR	[GUYMANN to OSHA000024-000025]	5/27/22
	Accident investigation, include all information (interviews, photos, etc.)	Will produce once finalized		
*	Operating procedures for task performed during event, include excavator, loader, and all workers procedures	No written operating procedure for tasks performed during event		

OSHA Request	Client Response	Bates Number	Date of Response
G - Training records for the whole crew (include decedents) and superintendent	Training Records for Whole Crew with Orientation Foreman Training – Jeff Colburn Aaron Branch OSHA 10 HR We do not have anything for Brandon Colburn	[GUYMANN to OSHA000026-000052] [GUYMANN to OSHA000053] [GUYMANN to OSHA000054]	5/27/22
* Work plan (event site)	Guymann does not have a written work plan.		
H - Trench Safety Plan	Safety Plan General Silica Confined Trench	[GUYMANN to OSHA000020-000023]	5/27/22
I - Evidence of training for all Trench Competent Persons	Foreman Training – Jeff Colburn Competent Persons Training Cards	[GUYMANN to OSHA000053] [GUYMANN to OSHA000055-000058]	5/27/22
J - Engineering system and plan for cave-in protection	Engineering Data for Trench Box	[GUYMANN to OSHA000059-000060]	5/27/22
* Task Hazard Analysis related to the event	Guymann does not have a written Task Hazard Analysis.		
K - Soil survey	Tuckers Point Soil.pdf	[GUYMANN to OSHA000061-000064]	5/10/22 5/27/22
L - All training evidence for the Foreman	Foreman Training – Jeff Colburn	[GUYMANN to OSHA000053]	5/27/22
M - Operator manual for Excavator	CAT 330 Operating Manual.pdf	[GUYMANN to OSHA000065-000193]	5/27/22

OSHA Request	Client Response	Bates Number	Date of Response
Operator manual and engineering data for Trench Box	Engineering Data for Trench Box	[GUYMANN to OSHA000059-000060]	5/27/22
* Operator manual and engineering data for road steel plates.	Not available		
* Trench Inspections (6 months).	Guymann does not have a written record of Trench Inspections.		
- Tabulated data	Engineering Data for Trench Box	[GUYMANN to OSHA000059-000060]	5/27/22
- Decedents job description and information.	Job Descriptions & Information.pdf	[GUYMANN to OSHA000194]	5/27/22
* Process used to rig pipes, and lay pipes.	Guymann does not have a written procedure on this process.		
* Rigging equipment inspections	Guymann does not have written inspection reports.		
- Copy of the contract, including safety plan, from the hiring entity	850 Agreement between Owner & Guymann 9-24-Final	[GUYMANN to OSHA000195-000240]	5/27/22

NO
MANUAL
✗

NO
✗

NO
SAFETY PLAN
✗

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 2018



U.S. Department of Labor
Occupational Safety and Health Administration
Form approved OMB no. 1218-0175

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	1	1	0
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
0	7
(K)	(L)

Injury and Illness Types

Total number of... (M)

(1) Injury	5	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Condition	0	(6) All Other Illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: U.S. Department of Labor, OSHA, Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name GUYMANN CONSTRUCTION OF FL INCStreet 305 SW 3RD STCity CAPE CORAL State FLORIDA Zip 33981Industry description (e.g., Manufacture of motor truck trailers)
UNDERGROUND UTILITIES

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)

OR North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment information

Annual average number of employees

Total hours worked by all employees last year

(b) (4)

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

[Signature]
Company executive

VICE PRESIDENT
Title

239-574-4174

Phone

2/11/19
Date

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 2019U.S. Department of Labor
Occupational Safety and Health Administration
Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	0	1	0
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
0	10
(K)	(L)

Injury and Illness Types

Total number of...
(M)

(1) Injury	6	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Condition	0	(6) All Other Illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 60 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name GUYMANN CONSTRUCTION OF FL INCStreet 305 SW 3RD STCity CAPE CORAL State FLORIDA Zip 33991Industry description (e.g., Manufacture of motor truck trailers)
UNDERGROUND UTILITIES

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)

OR North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment information

Annual average number of employees

Total hours worked by all employees last year

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

[Signature]
Company executive

239-574-4174

Phone

VICE PRESIDENT
Title

2/12/20
Date

OSHA's Form 300 (Rev. 01/2004)

Log of Work-Related Injuries and Illnesses

You must record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year 2019



U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Establishment name GUYMANN CONSTRUCTION OF FL INCCity CAPE CORAL State FLORIDA

Identify the person			Describe the case		Classify the case				Enter the number of days the injured or ill worker was:						Check the "injury" column or choose one type of illness:					
(A) Case No.	(B) Employee's Name	(C) Job Title (e.g., Welder)	(D) Date of injury or onset of illness (mo./day)	(E) Where the event occurred (e.g. Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g. Second degree burns on right forearm from acetylene torch)	CHECK ONLY ONE box for each case based on the most serious outcome for that case:				Away From Work (days)		On job transfer or restriction (days)	(M) Check the "injury" column or choose one type of illness:							
						Death	Days away from work	Remained at work		Away From Work (days)	On job transfer or restriction (days)	Injury (1)	Skin Disorder (2)	Respiratory Condition (3)	Poisoning (4)	Hearing Loss (5)	All other illnesses (6)			
						(G)	(H)	Job transfer or restriction	Other recordable cases									(I)	(J)	(K)
	(b) (7)(C)		2/5/2019	LEE COUNTY JOBSITE	Slipped off a pipe and hurt his back															
	(b) (7)(C)		2/6/19	LEE COUNTY JOBSITE	L knee strain from tripping on something on site															
	(b) (7)(C)		2/9/19	ALICO RD SHOP	L eye irritation from working on a machine															
	JOSE GALEANO	FOREMAN	5/30/19	LEE COUNTY JOBSITE	Felt something pinch in his back while working in a manhole				X			10								
	(b) (7)(C)		8/1/19	LEE COUNTY JOBSITE	L knee strain while working in a manhole															
	(b) (7)(C)		2/15/19	LEE COUNTY JOBSITE	Both hands started locking up doing well points															
Page totals						0	0	1	0	0	10	6	0	0	0	0	0	0		

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

Page 1 of 1

(1) (2) (3) (4) (5) (6)

GUYMANN to OSHA-000004

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 2020

U.S. Department of Labor
Occupational Safety and Health Administration
Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	1	1	0
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
1	20
(K)	(L)

Injury and Illness Types

Total number of... (M)			
(1) Injury	4	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Condition	0	(6) All Other Illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name GUYMANN CONSTRUCTION OF FL INCStreet 305 SW 3RD STCity CAPE CORAL State FLORIDA Zip 33991Industry description (e.g., Manufacture of motor truck trailers)
UNDERGROUND UTILITIES

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)

OR North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment information

Annual average number of employees

Total hours worked by all employees last year

(b) (4)

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.


Company executive

VICE PRESIDENT
Title

239-574-4174

Phone

2/5/21
Date

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Form approved OMB no. 1218-0176

City CAPE CORAL State FLORIDA

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Page 1 of 1

GUYMANN to OSHA-000006

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 2021

U.S. Department of Labor

Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	2	2	0
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
35	19
(K)	(L)

Injury and Illness Types

Total number of...
(M)

(1) Injury	6	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Condition	0	(6) All Other Illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name GUYMANN CONSTRUCTION OF FL INCStreet 305 SW 3RD STCity CAPE CORAL State FLORIDA Zip 33991Industry description (e.g., Manufacture of motor truck trailers)
UNDERGROUND UTILITIES

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)

OR North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment information

Annual average number of employees

Total hours worked by all employees last year

(b) (4)

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

[Signature]
Company executive

VICE PRESIDENT
Title

239-574-4174

Phone

7/15/22
Date

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



Form approved OMB no. 1218-0176

Establishment name GUYMANN CONSTRUCTION OF FL INC

City CAPE CORAL State FLORID

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

Page 1 of 1

(1)	(2)	(3)	(4)	(5)	(6)
-----	-----	-----	-----	-----	-----

GUYMANN to OSHA-000008

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 2022

U.S. Department of Labor
Occupational Safety and Health Administration
Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
<u>0</u>	<u>0</u>
(K)	(L)

Injury and Illness Types

Total number of... (M)			
(1) Injury	<u>0</u>	(4) Poisoning	<u>0</u>
(2) Skin Disorder	<u>0</u>	(5) Hearing Loss	<u>0</u>
(3) Respiratory Condition	<u>0</u>	(6) All Other Illnesses	<u>0</u>

Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 55 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name GUYMANN CONSTRUCTION OF FL INC
 Street 305 SW 3RD ST
 City CAPE CORAL State FLORIDA Zip 33991
 Industry description (e.g., Manufacture of motor truck trailers)
UNDERGROUND UTILITIES
 Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
 OR North American Industrial Classification (NAICS), if known (e.g., 338212)

Employment information

Annual average number of employees
 Total hours worked by all employees last year

(b) (4)

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive

239-574-4174

Phone

VICE PRESIDENT

5/17/22
 Date

U.S. Department of Labor
Occupational Safety and Health Administration

Log of Work-Related Injuries and Illnesses

You must record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

City CAPE CORAL State FLORIDA

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Page 1 of 1

(1)	(2)	(3)	(4)	(5)	(6)
Injury	Skin Disorder	Respiratory Condition	Poisoning	Hearing Loss	All other illnesses

OSHA's Form 301

Injuries and Illnesses Incident Report

ADMINISTRATIVELY CONTROLLED INFORMATION-RESTRICTED TRADE INFORMATION-TRADE SECRET-BUSINESS CONFIDENTIAL

employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Information about the employee

- 1) Full Name MARCOS LOPEZ
- 2) Street 12 ROANOKE DR
City FORT MYERS State FL Zip 33905
- 3) Date of birth 3/20/1980
- 4) Date hired 12/2/1999
- 5) ☒ Male
☐ Female

Information about the physician or other health care professional

- 6) Name of physician or other health care professional

- 7) If treatment was given away from the worksite, where was it given?
Facility _____
Street _____
City _____ State _____ Zip _____
- 8) Was employee treated in an emergency room?
☐ Yes
☒ No
- 9) Was employee hospitalized overnight as an in-patient?
☐ Yes
☒ No

Information about the case

- 10) Case number from the Log 1 (Transfer the case number from the Log after you record the case.)
- 11) Date of injury or illness 5/9/2022
- 12) Time employee began work 7:00 AM AM/PM
- 13) Time of event 3:00 PM AM/PM ☐ Check if time cannot be determined

*Please do not include any personally identifiable information (PII) pertaining to worker(s) involved in the incident (e.g., no names, phone numbers, or SSNs) in the following fields.

- *14) What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment or material the employee was using. Be specific. Examples: "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."
Worker was out of trench to the east of the excavation.

- *15) What happened? Tell us how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."
Trench wall collapse from west side of trench wall struck worker while worker was inside of trench.

- *16) What was the injury or illness? Tell us the part of the body that was affected and how it was affected. Examples: "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."

Fatality

- *17) What object or substance directly harmed the employee? Examples: "concrete floor"; "chlorine"; "radial arm saw." If this question does not apply to the incident, leave it blank.
Soil from trench wall.

- 18) If the employee died, when did death occur? Date of death 5/9/2022

Comp	(b) (7)(C)
Title	(b) (7)(C)
Phone	(b) (7)(C)

Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

OSHA's Form 301

Injuries and Illnesses Incident Report

ADMINISTRATIVELY CONTROLLED INFORMATION-RESTRICTED TRADE INFORMATION-TRADE SECRET-BUSINESS CONFIDENTIAL

employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

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Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Information about the employee

- 1) Full Name BRANDON COLBURN
- 2) Street 7960 GAGE WAY
City NORTH FORT MYERS State FL Zip 33917
- 3) Date of birth 1/20/1998
- 4) Date hired 11/23/2019
- 5) ☒ Male
☐ Female

Information about the physician or other health care professional

- 6) Name of physician or other health care professional

- 7) If treatment was given away from the worksite, where was it given?
Facility _____
Street _____
City _____ State _____ Zip _____
- 8) Was employee treated in an emergency room?
☐ Yes
☒ No
- 9) Was employee hospitalized overnight as an in-patient?
☐ Yes
☒ No

Information about the case

- 10) Case number from the Log 2 (Transfer the case number from the Log after you record the case.)
- 11) Date of injury or illness 5/9/2022
- 12) Time employee began work 7:00 AM AM/PM
- 13) Time of event 3:00 PM AM/PM ☐ Check if time cannot be determined

*Please do not include any personally identifiable information (PII) pertaining to worker(s) involved in the incident (e.g., no names, phone numbers, or SSNs) in the following fields.

- *14) What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment or material the employee was using. Be specific. Examples: "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."

Worker was out of trench to the east of the excavation.

- *15) What happened? Tell us how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."
- Trench wall collapse from west side of trench wall struck worker while worker was inside of trench.

- *16) What was the injury or illness? Tell us the part of the body that was affected and how it was affected. Examples: "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."

Fatality

- *17) What object or substance directly harmed the employee? Examples: "concrete floor"; "chlorine"; "radial arm saw." If this question does not apply to the incident, leave it blank.
- Soil from trench wall.

- 18) If the employee died, when did death occur? Date of death

5/9/2022

Com	(b) (7)(C)
Title	(b) (7)(C)
Phone	(b) (7)(C)

Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.



LAND DEVELOPMENT & UNDERGROUND CONSTRUCTION

I understand the following infractions are grounds for an employee write up and/or termination:

- Excessive phone use while on the job (outside of emergencies)
- No call, no show
- Safety violations
- Excessive absences/tardiness
- Insubordination
- Fighting or ANY threats of violence on job sites

*These are the most common reasons for employee write up and/or termination, not a comprehensive listing. Guymann Construction reserves the right to write up and/or terminate an employee for violating any Company policy at any time.

A black rectangular box redacting the signature of the employee.

Employee Signature

5-2-19

Date



Employee Reprimand

Employee 	Work Location <i>AKerman 508</i>	Date of Discipline Action Given <i>1-17-22</i>
Employee ID # (if any)	Date of Occurrence <i>12-30-21</i>	Issuing Supervisor <i>EARNEST RIVERA</i>

Violation Statement

Place of Violation: *Living*Date of Violation: *12-30-21*

Description of Violation:

unauthorized use of phone to upload

Picture for insurance
I did not
write ER

Disciplinary Action

- ☐ - Administrative Leave w/Pay
☐ - Sent Home w/Pay
☐ - None

- ☐ - Recommendation for Termination
☐ - Suspension Without Pay ___ Days
☐ - Other

Corrective Actions

Description of Corrective Actions to be Taken:

LAST WARNING. Next Time Termination

☒ - I have read this Notice of Discipline and understand it.

Employee's Signature

Print Name

Date

☐ - Employee refused to sign this form and all attached documentation.

Supervisor's Signature

Print Name

Date


*EARNEST RIVERA**1-17-22*

GUYMANN

CONSTRUCTION

Employee Reprimand

Employee 	Work Location Ft Myers	Date of Discipline Action Given 3/7/22 Took day off without pay
Employee ID # (if any)	Date of Occurrence 3/4/22	Issuing Supervisor

Violation Statement

Place of Violation: Royal Palm SquareDate of Violation: 3/4/22Description of Violation: No show No call

Disciplinary Action

☐ - Administrative Leave w/Pay☐ - Sent Home w/Pay☐ - None☐ - Recommendation for Termination☒ - Suspension Without Pay 1 Days☐ - Other _____

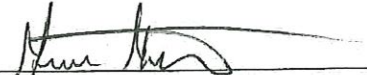
Corrective Actions

Description of Corrective Actions to be Taken:

☐ - I have read this Notice of Discipline and understand it.Employee's Signature 

Print Name

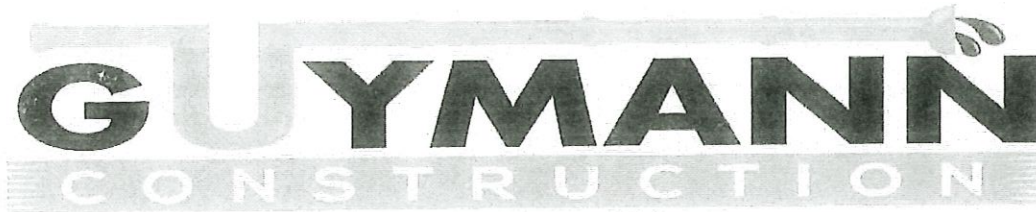
Date

☐ - Employee refused to sign this form and all attached documentation.Supervisor's Signature Print Name Gorman GDate 3/4/22

Supervisor's Signature

Print Name

Date



Employee Reprimand

Employee 	Work Location Royal Palm Square BLVD	Date of Discipline Action Given 3/10/22
Employee ID # (if any) 	Date of Occurrence 3/10/22	Issuing Supervisor

Violation Statement

Place of Violation: Royal Palm Square
 Date of Violation: 3/10/22
 Description of Violation: No call No show

Disciplinary Action

- ☐ - Administrative Leave w/Pay ☐ - Recommendation for Termination
☐ - Sent Home w/Pay ☒ - Suspension Without Pay 1 Days
☐ - None ☐ - Other _____

Corrective Actions

Description of Corrective Actions to be Taken:

☐ - I have read this Notice of Discipline and understand it.

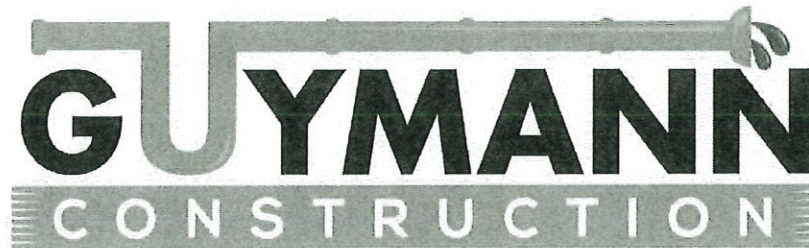


Employee's Signature _____ Print Name _____ Date _____

☐ - Employee refused to sign this form and all attached documentation.

Hein Hein German G. 3/10/22
 Supervisor's Signature Print Name Date

Safety Plan



Guymann Construction of Florida, Inc.
305 SW 3rd St
Cape Coral, FL 33991

A handwritten signature in cursive script, appearing to read "Bob Russell".

Bob Russell – Vice President

January 3, 2022

1.0 INTRODUCTION

1.1 Purpose

The purpose of this plan is to provide guidance necessary to implement the Guymann Construction Safety program. Guymann Construction has achieved an enviable safety record in an industry that lends itself to exposure to accidents and injury. The Company continues to maintain this record only by placing a high interest in the prevention of hazards and by properly training and making employees accident conscious on the work site.

1.2 Organization of the Guymann Construction Safety Program

Guymann Construction maintains a comprehensive safety and health program at all of its project sites. The primary document which establishes the safety program is the **National Underground Utility Contractor's (NUCA) Safety Manual**. This Safety and Health Plan will identify how the NUCA Manual will be implemented at the project level.

In addition to the NUCA Manual, Guymann Construction maintains other program manuals which establish safety and health related programs. These manuals are the **Injury and Illness Recordkeeping Procedures, HAZ COM Manual and Respirable Crystalline Silica Program**. These manuals establish how Guymann Construction assures how injury and illness records are generated and maintained and how to treat and prevent injury associated with materials associated with our construction activities. This plan will also refer to these manuals when appropriate.

1.3 Organization of this Safety and Health Plan.

This plan is written to assure that safe work practices are maintained while performing work on projects using Guymann Construction employees and subcontractors. This plan will not restate new programs which are located in the NUCA Manual; rather, the plan will refer to the proper section of the manual, or to other documents where the required information is located.

This plan is, at a minimum, based on the following regulations:

Code of Federal Regulations (CFR):

- 29 CFR 1910 OSHA General Industry Safety and Health Standards

- 29 CFR 1926 OSHA Construction Industry Standards
- 29 CFR 1926.1153 Respirable Crystalline Silica Construction Standard

Local Standards

Company Standards

- NUCA Safety Manual
- Respirable Crystalline Silica Program (attached)

This plan provides for:

- Safety training, orientation, and certification
- Regularly scheduled safety meetings
- A system of regular inspections to identify and correct hazardous situations
- Effective coordination with the Owner and Prime Contractor

2.0 POLICY

2.1 NUCA Safety Manual

Purpose

Guymann Construction policy is to provide a safe and healthy work place for its employees and to be a good corporate citizen.

Policy

Guymann Construction is committed to a proactive concept in safety. Guymann Construction fully supports, and requires strict compliance with, all laws and regulations promulgated by federal, state, and local governmental agencies.

To formalize this commitment and carry out the policy stated above, Guymann Construction adopts the following principles for guidance, and accordingly will:

- Make a fundamental and continuing commitment to sound safety practices and management of project operations.

Trench/Excavation Safety Plan

Guymann Construction of Florida, Inc.
305 SW 3rd St.
Cape Coral, FL 33991

(January 13, 2015)

TRENCH/EXCAVATION SAFETY PLAN

Index

1.0 Introduction	3
2.0 Purpose	3
3.0 Responsibilities	3
4.0 Procedures	3

TRENCH/EXCAVATION SAFETY PLAN

1.0 Introduction

Excavation safety is an essential part of the Guymann Construction safety program. All employees are responsible for safety.

2.0 Purpose

The purpose of this plan is to provide guidance for excavation safety in order to comply with OSHA construction standards of excavations (29 CFR Part 1926.650-.652, Subpart P) and to protect Guymann Construction and subcontractor employees from performing unsafe working practices and to negate unsafe working conditions.

2.0 Responsibilities

2.1 The Project Manager (PM), Site Superintendent and Foremen are responsible for excavation safety.

2.2 Competent person (s)

2.2.1 Competent persons will be designated. Training course completion and field experience are minimum requirements.

2.2.2 Competent persons will have the authority to stop work and take prompt corrective action to resolve any noncompliance prior to work commencement.

2.1.3 The competent person will inspect the work site prior to the start of work and as required through out the shift.

2.1.4 Additional inspections will be conducted by the competent person if any hazard-increasing occurrences take place such as rain or any occurrences that may reclassify the soil prior to the workers reentering the excavation.

2.1.5 The competent person will classify the soil using at least one visual and one manual test and reclassify the soil if conditions change.

2.1.6 Competent persons are required if workers will be entering the excavation but not if the work is being performed from above the excavation.

2.1.7 For additional competent person duties refer to OSHA regulation 1926.650

3.0 Procedures

3.1 General Excavation requirements

3.1.1 Inspect area to be excavated for conditions requiring precautionary measures.

3.1.2 Ensure all underground utilities have been identified and action has been taken to avoid conflicts.

3.1.3 Identify access and egress locations and types. A ladder or other means of egress should be provided no more than 25 feet away from any worker.

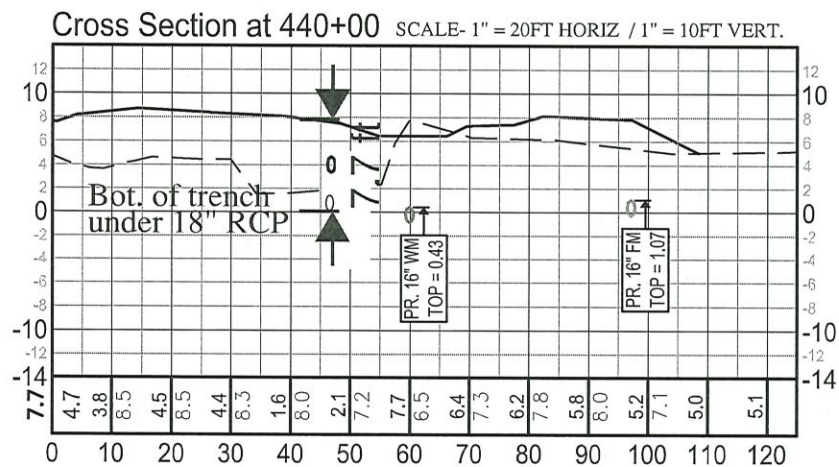
3.1.4 Identify vehicular traffic control requirements.

3.1.5 Ensure a warning system is in place for safe working equipment distances from the excavation

TRENCH/EXCAVATION SAFETY PLAN

- 3.1.6 Ensure possible hazardous atmospheres are tested if the excavation is 4 feet or more.
 - 3.1.7 Ensure areas with water accumulation are dewatered and safe for employees working in and around excavations
 - 3.1.8 Ensure excavations near structures have been identified and evaluated for stability.
 - 3.1.9 During excavation ensure the spoils are deposited no closer than two feet from the edge of the excavation.
- 3.2 Protective Systems
- 3.2.1 Sloping and benching
 - 3.2.1.1 For deep excavations this method of protection should if at all possible be avoided as it involves massive excavation operations and excess land utilization. (see OSHA standard for further requirement details)
 - 3.2.2 Shoring and shielding
 - 3.2.1.3 Utilize OSHA standard appendices to classify soils.
 - 3.2.1.4 For timber shoring utilize OSHA specifications for design and material requirements.
 - 3.2.1.5 For prefabricated hydraulic or protective shielding, utilize manufactures specifications for determining protection types and suitability.
 - 3.2.1.6 For excavations over 20 feet a registered engineer must design the protective system.



AS-BUILT ELEV.**440+14: RCWM Incident Location**

 **Certificate of Completion**
 This certificate confirms that
(b) (7)(C)
 has completed the
 NUCA Excavation Safety &
 Competent Person Training Program
 and received 0.8 CEU's (8 Credit Hours)
 on March 1, 2008
 Instructor [REDACTED]
Issued by
 The National Utility Contractors Association

 **Certificate of Completion**
 This certificate confirms that
(b) (7)(C)
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 Instructor Julie Carter-Simon, CSP, CMAA
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813-994-1195
usfotiec-cards@health.usf.edu

OSHA recommends Outreach Training Courses as an orientation to occupational safety and health for workers. Participation is voluntary. Workers must receive additional training on specific hazards of their job. This course completion card does not expire.

Use or distribution of this card for fraudulent purposes, including false claims of having received training, may result in prosecution under 18 U.S.C. 1001. Potential penalties include substantial criminal fines, imprisonment up to 5 years, or both.

To verify this training scan the QR code with your mobile device.



Rev. 4/2019



20-006072699

This card acknowledges that the recipient has successfully completed:

10-hour Construction Safety and Health

This card issued to:

Jeff Colburn

Trainer Name

5/18/2019

Date Issued

**GUYMANN CONSTRUCTION OF FLORIDA, INC.
LAND DEVELOPMENT & UNDERGROUND CONSTRUCTION**

**GENERAL SAFETY RULES FOR EMPLOYEES OF GUYMANN CONSTRUCTION AND
SUBCONTRACTORS WORKING ON GUYMANN CONSTRUCTION JOB SITES**

- 1.** Report ALL unsafe conditions to your immediate supervisor.
- 2.** Promptly report ANY/ALL injuries to your immediate supervisor.
- 3.** Wear hard hats on the job site where posted and required by the Project Superintendent.
- 4.** Wear safety goggles where there is danger from flying objects or particles, such as when grinding, sawing, hammering, chipping or welding.
- 5.** Dress properly. Wear appropriate work clothes, gloves and boots. Loose clothing and jewelry should not be worn. SHIRTS MUST BE WORN AT ALL TIMES. SHORTS OR TENNIS SHOES ARE NOT PERMITTED.
- 6.** Never operate any machine unless all guards and safety devices are in place and in proper operating condition.
- 7.** Keep all tools in safe working condition. Never use defective tools or equipment. Report any defective tools or equipment to your immediate supervisor.
- 8.** Properly care for and be responsible for all personal protective equipment.
- 9.** Be alert and keep out from under overhead loads. Equipment operators shall not carry loads over employees.
- 10.** Do not operate machinery if you are not an authorized operator.
- 11.** Do not leave any materials in roads, walkways, driveways, etc.
- 12.** Keep your work area clean and free of debris.
- 13.** Riding forklift booms or any other moving equipment is strictly prohibited. Do not stand or sit on the sides of moving equipment.
- 14.** Place ladders on a substantial base and do not use ladders with broken, split or missing rungs or rails. All ladders are to extend at least three feet above the landing platform and be securely fastened. Proper ladder placement is: $\frac{1}{4}$ total height equals base length.

15. Gasoline must be stored and transported in proper safety containers only. Engines must be shut off when refueling and no smoking anywhere near flammable liquids.
16. Compressed gas cylinders (oxygen, Acetylene, etc.) must be secured in an upright position. When not in use, caps must be securely in place.
17. When burning or welding is being done, a fire extinguisher must be close at hand at all times.
18. Any use of illegal drugs or alcohol while on the job is prohibited.
19. All posted safety rules must be obeyed and must not be removed except by management's authorization.
20. Always comply with all know Federal, State and Local safety laws, employer regulations and policies.
21. Horseplay causes accidents and will not be tolerated. Violations of any of these rules may be cause for immediate disciplinary action, including employee termination.
22. When a motorized piece of equipment is left unattended, the bucket, forks, etc. Must be lowered so that all controls are in the neutral position, the motor stopped, and the brakes set.
23. Lift properly. Bend knees and use legs. Get help for heavy loads.
24. Pull out or bend down any nails that are sticking out.
25. Protect against concrete burns. Cleanse your hands and clothes.
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27. No smoking near flammables.
28. Ask for assistance when you are unsure of how to do a task.
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31. Do not store materials withing 10' of a building.
32. Do not store materials under electrical wires because the next person may not notice the danger above.
33. Operators shall wear hard hats when not on equipment.
34. No cell phone use while on the job (outside of emergencies) or while operating equipment.
35. Foremen and Supervisors are responsible for enforcing the rules listed above.

11-16-20

DATE

In the case that I am injured, I shall immediately report to one of Guymann Construction's Superintendents. I understand that failure to comply with any requirements or safety rules shall be cause for dismissal.

Brandon Colburn
EMPLOYEE SIGNATURE

Brandon Colburn
PRINT NAME

*Where injury is caused by the knowing refusal of an employee to use safety precautions or obey safety rules, Worker's Compensation benefits can be reduced by 25%. (Florida Statute 440.09[4]. *

**GUYMANN CONSTRUCTION OF FLORIDA, INC.
LAND DEVELOPMENT & UNDERGROUND CONSTRUCTION**

COMPANY SAFETY POLICY

This company is committed to safety and has developed a policy to protect you from injury on the job. Your help is vital for your own protection. Please always observe the following safety rules.

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3. All non-emergency treatment for accidents must be approved by your supervisor first.
4. Wear seat belts always when operating company vehicles or machinery.
5. Keep your work area neat and free of debris.
6. Do not remove or bypass any guards on any machinery at any time.
7. Ask your supervisor if you need any additional equipment or instruction to get the job done safely.
8. Lift with your legs, not your back. Get assistance with any loads over 50 lbs.
9. Advise your supervisor of any hazardous conditions.
10. Follow all other written and spoken safety rules.

I have read, understand and will obey these rules for my own benefit.

Brandon Colburn
EMPLOYEE SIGNATURE

Brandon Colburn 11-16-20
PRINT NAME & DATE

GUYMANN CONSTRUCTION SUPERVISOR/HUMAN RESOURCES

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**GUYMANN CONSTRUCTION OF FLORIDA, INC.
LAND DEVELOPMENT & UNDERGROUND CONSTRUCTION**

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16/11/20

DATE

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(b) (7)(C)

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LAND DEVELOPMENT & UNDERGROUND CONSTRUCTION**

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7. Ask your supervisor if you need any additional equipment or instruction to get the job done safely.
8. Lift with your legs, not your back. Get assistance with any loads over 50 lbs.
9. Advise your supervisor of any hazardous conditions.
10. Follow all other written and spoken safety rules.

I have read, understand and will obey these rules for my own benefit.

(b) (7)(C)

16/4/20

PRINT NAME & DATE

GUYMANN CONSTRUCTION SUPERVISOR/HUMAN RESOURCES

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APPLICATION FOR EMPLOYMENT

Guymann Construction Company is an Equal Opportunity Employer

NAME: Jeff ColburnPosition(s) Applied for: Operator Salary Desired: ████████

Please answer all questions. Resumes are not accepted in lieu of completion of this application. Note: This application was designed for use with several types of positions. Some questions may not be completely applicable to the position you are seeking; however, we ask that you answer all questions.

Colburn JEFF J ████████ 5/2/11
 Last Name (Please Print) First Middle SS Number Date

31 N.E. 13th Ave CAPE CORAL FL 33909 ████████
 Present Address: Street City/State Zip Code Telephone#

Only U.S. Citizens or aliens who have a legal right to work in the U.S. are eligible for employment. Can you, upon employment, submit documentation verifying your identity and your legal right to work in the U.S.? ☒ Yes ☐ No

Have you been convicted of any crime within the past 5 years? ☐ Yes ☒ No
 If yes, give dates and explain. (Attach separate paper if necessary.) A conviction will not necessarily disqualify you from employment.

Are you over 18 years of age? ☒ Yes ☐ No

EDUCATIONAL DATA

SCHOOL	Print Name, Number, Street Address, City, State, and Zip Code of each School	No. of Years Completed	Degree	Major Course
High School	<u>Riverside Ave</u>			
College				
Graduate School				
Trade, Bus., Night, or Corres.				
Other				

Other skills: List any other job related skills, qualifications, or licenses that support your application. First Aid trained, CPR trained
Excavation Confined SPACE trained

In order to permit a check of your work and educational work records, should we be made aware of any changes of name or assumed name that you previously used? ☐ Yes ☒ No If Yes, identify names and relevant dates.

EMPLOYMENT EXPERIENCE

List each job held. Start with you present or last job. Include military experience. If known by any other name, please indicate.

1. Employer <u>ROADLINK</u>	Dates		work performed
	From	To	
Address <u>INDIANA</u> <u>Bluffton</u>	<u>Oct.</u> <u>2011</u>	<u>March</u> <u>2011</u>	<u>UNLOADING Surplus</u> <u>trucks</u>
Job Title <u>Forklift</u> <u>Operator</u>	Salary		
	Start	Final	
Supervisor <u>Brian</u>	<u>[REDACTED]</u>	<u>[REDACTED]</u>	
Reason for Leaving <u>Low PAY</u>			
May we make inquiries of this employer? ☒ Yes ☐ No			
2. Employer <u>Guy Mann</u>	Dates		work performed
	From	To	
Address <u>Cape Coral</u>	<u>2000</u>	<u>2009</u>	<u>Operator</u>
Job Title <u>Operator</u>	Salary		
	Start	Final	
Supervisor <u>Galen</u>	<u>[REDACTED]</u>	<u>[REDACTED]</u>	
Reason for Leaving <u>LAID OFF</u>			
May we make inquiries of this employer? ☐ Yes ☐ No			
3. Employer	Dates		work performed
	From	To	
Address			
Job Title	Salary		
	Start	Final	
Supervisor			
Reason for Leaving			
May we make inquiries of this employer? ☒ Yes ☐ No			

Membership in Organizations/Professional groups which, in your opinion, have a direct bearing on the position you are seeking.

Are you a veteran of the U.S. Military Service? ☐ Yes ☒ No If Yes, what branch of Service?

If Yes, beginning date and ending date of active duty: From:
To: year/month year/month

Date of Discharge from Military Service:

GUYMANN CONSTRUCTION OF FLORIDA, INC.

LAND DEVELOPMENT & UNDERGROUND CONSTRUCTION

GENERAL SAFETY RULES FOR EMPLOYEES OF GUYMANN CONSTRUCTION, INC. AND SUBCONTRACTORS WORKING ON GUYMANN CONSTRUCTION JOB SITES

1. Report **ALL** unsafe conditions to your immediate supervisor.
2. Promptly report **ALL** injuries to your immediate supervisor.
3. Wear hard hats on jobsites that are posted and required by the superintendent.
4. Wear safety goggles when there is a danger from flying objects or particles, such as grinding, sawing, hammering, chipping, welding, etc.
5. Dress properly. Wear appropriate work clothes, gloves, and shoes or boots. Loose clothing and jewelry **SHOULD NOT** be worn. Shirts **MUST** be worn **AT ALL TIMES**. Shorts & sneakers **ARE NOT ALLOWED**.
6. **NEVER** operate **ANY** machine unless **ALL** guards and safety devices are in place **AND** in working order.
7. Keep all tools in working condition. **NEVER** use defective tools or equipment, and always report any defects to you immediate supervisor.
8. Maintain your personal p-protective equipment; you are responsible for it.
9. **BE ALERT!!** Do not walk under any overhead loads. Equipment Operators: **NEVER** carry loads over employees' heads!!
10. **DO NOT** operate any machinery unless you are an authorized operator!
11. **DO NOT** leave any material in the aisles, roads, walkways, stairways, etc.
12. Keep your work area clean at all times.
13. Riding fork lift booms or any other moving equipment is **PROHIBITED**. **DO NOT** stand or sit on the sides of moving equipment.
14. Place ladders on a substantial base and **DO NOT** use ladders that have any broken parts to them.
15. Gasoline **MUST** be stored and transported in the proper safety containers **ONLY**.
16. Compresses gas cylinders **MUST** be stored in the **UPRIGHT** position. (Oxygen, Acetylene, etc.)
17. If you are burning or welding, **MAKE SURE** there is a fire extinguisher nearby.
18. **DRUGS OR ALCOHOL USE WHILE YOU ARE ON THE CLOCK IS STRICTLY PROHIBITED.**
19. Employees must read and obey **ALL** safety rules and regulations.

305 SW 3RD ST. CAPE CORAL, FL 33991 239-574-4174 239-574-4091 FAX

GUYMANN CONSTRUCTION OF FLORIDA, INC.

LAND DEVELOPMENT & UNDERGROUND CONSTRUCTION

20. **HORSEPLAY WILL NOT BE TOLERATED.** Any violations of safety rules and regulations may result in immediate disciplinary action, including termination of employment.
21. If you leave any motorized equipment unattended, make sure it is turned off, and all booms are lowered.
22. Lift properly!! Bend knees and use legs...get help for heavy loads.
23. Pull out or bend down any nails that are sticking out.
24. Protect against concrete burns. Cleanse your hands & clothes.
25. Use ear protection when needed.
26. **NO SMOKING** near flammables.
27. If you are unsure about something, ASK!!
28. Handle all tools properly & **DO NOT** lower tools with extension cords!!
29. Keep electrical cords overhead and out of walkways.
30. **DO NOT** store materials within 10' of a building or under electrical cords.
31. Foremen and superintendents are responsible for enforcing the rules listed above.

DATE

5/2/11

In the case that I am injured, I shall report immediately to one of Guymann Construction's Superintendents. I understand that if I fail to comply with any requirements or safety rules shall be cause for dismissal.

SIGNED

EMPLOYEE OF

Jeff Colburn
Guymann Const.

GUYMANN CONSTRUCTION OF FLORIDA, INC.

305 SW 3RD STREET

CAPE CORAL, FL 33991

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305 SW 3RD ST. CAPE CORAL, FL 33991 239-574-4174 239-574-4091 FAX

GUYMANN to OSHA-000041

GUYMANN CONSTRUCTION OF FLORIDA, INC.
LAND DEVELOPMENT & UNDERGROUND CONSTRUCTION

COMPANY SAFETY POLICY

- Report any injuries to your supervisor **IMMEDIATELY**.
- Drugs & Alcohol are **PROHIBITED** any where, any time while you are on the clock.
- All non emergency treatment for accidents must be approved by your supervisor first.
- When driving a company vehicle, wear seatbelts at **ALL TIMES**.
- Keep work areas neat & clean.
- Advise your supervisor of any hazardous conditions.

I have read and understand these rules, and will obey them for my own benefit.

SIGNATURE

Jeff Colburn

DATE

5/2/11

**GUYMANN CONSTRUCTION OF FLORIDA, INC.
LAND DEVELOPMENT & UNDERGROUND CONSTRUCTION**

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EMPLOYEE SIGNATURE

JEFF Colburn 11/16/2020

PRINT NAME & DATE

GUYMANN CONSTRUCTION SUPERVISOR/HUMAN RESOURCES

**GUYMANN CONSTRUCTION OF FLORIDA, INC.
LAND DEVELOPMENT & UNDERGROUND CONSTRUCTION**

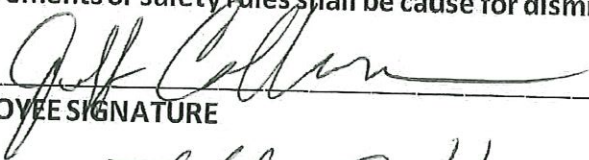
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11-16-2020

DATE

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(b) (7)(C)

PRINT NAME

*Where injury is caused by the knowing refusal of an employee to use safety precautions or obey safety rules, Worker's Compensation benefits can be reduced by 25%. (Florida Statute 440.09[4]. *

**GUYMANN CONSTRUCTION OF FLORIDA, INC.
LAND DEVELOPMENT & UNDERGROUND CONSTRUCTION**

COMPANY SAFETY POLICY

This company is committed to safety and has developed a policy to protect you from injury on the job. Your help is vital for your own protection. Please always observe the following safety rules.

1. Drugs and alcohol are prohibited on the job at any time.
2. Report all accidents/injuries to your immediate supervisor IMMEDIATELY.
3. All non-emergency treatment for accidents must be approved by your supervisor first.
4. Wear seat belts always when operating company vehicles or machinery.
5. Keep your work area neat and free of debris.
6. Do not remove or bypass any guards on any machinery at any time.
7. Ask your supervisor if you need any additional equipment or instruction to get the job done safely.
8. Lift with your legs, not your back. Get assistance with any loads over 50 lbs.
9. Advise your supervisor of any hazardous conditions.
10. Follow all other written and spoken safety rules.

I have read, understand and will obey these rules for my own benefit.

(b) (7)(C)

11-16-2020

PRINT NAME & DATE

GUYMANN CONSTRUCTION SUPERVISOR/HUMAN RESOURCES

*Where injury is caused by the knowing refusal of the employee to use safety appliances or obey safety rules, Worker's Compensation benefits can be reduced by 25%. (Florida Statute 440.09[4]. *

H

Trench/Excavation Safety Plan

Guymann Construction of Florida, Inc.
305 SW 3rd St.
Cape Coral, FL 33991

(January 13, 2015)

TRENCH/EXCAVATION SAFETY PLAN

Index

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TRENCH/EXCAVATION SAFETY PLAN

1.0 Introduction

Excavation safety is an essential part of the Guymann Construction safety program. All employees are responsible for safety.

2.0 Purpose

The purpose of this plan is to provide guidance for excavation safety in order to comply with OSHA construction standards of excavations (29 CFR Part 1926.650-.652, Subpart P) and to protect Guymann Construction and subcontractor employees from performing unsafe working practices and to negate unsafe working conditions.

2.0 Responsibilities

2.1 The Project Manager (PM), Site Superintendent and Foremen are responsible for excavation safety.

2.2 Competent person (s)

2.2.1 Competent persons will be designated. Training course completion and field experience are minimum requirements.

2.2.2 Competent persons will have the authority to stop work and take prompt corrective action to resolve any noncompliance prior to work commencement.

2.1.3 The competent person will inspect the work site prior to the start of work and as required through out the shift.

2.1.4 Additional inspections will be conducted by the competent person if any hazard-increasing occurrences take place such as rain or any occurrences that may reclassify the soil prior to the workers reentering the excavation.

2.1.5 The competent person will classify the soil using at least one visual and one manual test and reclassify the soil if conditions change.

2.1.6 Competent persons are required if workers will be entering the excavation but not if the work is being performed from above the excavation.

2.1.7 For additional competent person duties refer to OSHA regulation 1926.650

3.0 Procedures

3.1 General Excavation requirements

3.1.1 Inspect area to be excavated for conditions requiring precautionary measures.

3.1.2 Ensure all underground utilities have been identified and action has been taken to avoid conflicts.

3.1.3 Identify access and egress locations and types. A ladder or other means of egress should be provided no more than 25 feet away from any worker.

3.1.4 Identify vehicular traffic control requirements.

3.1.5 Ensure a warning system is in place for safe working equipment distances from the excavation

TRENCH/EXCAVATION SAFETY PLAN

- 3.1.6 Ensure possible hazardous atmospheres are tested if the excavation is 4 feet or more.
 - 3.1.7 Ensure areas with water accumulation are dewatered and safe for employees working in and around excavations
 - 3.1.8 Ensure excavations near structures have been identified and evaluated for stability.
 - 3.1.9 During excavation ensure the spoils are deposited no closer than two feet from the edge of the excavation.
- 3.2 Protective Systems
- 3.2.1 Sloping and benching
 - 3.2.1.1 For deep excavations this method of protection should if at all possible be avoided as it involves massive excavation operations and excess land utilization. (see OSHA standard for further requirement details)
 - 3.2.2 Shoring and shielding
 - 3.2.1.3 Utilize OSHA standard appendices to classify soils.
 - 3.2.1.4 For timber shoring utilize OSHA specifications for design and material requirements.
 - 3.2.1.5 For prefabricated hydraulic or protective shielding, utilize manufactures specifications for determining protection types and suitability.
 - 3.2.1.6 For excavations over 20 feet a registered engineer must design the protective system.

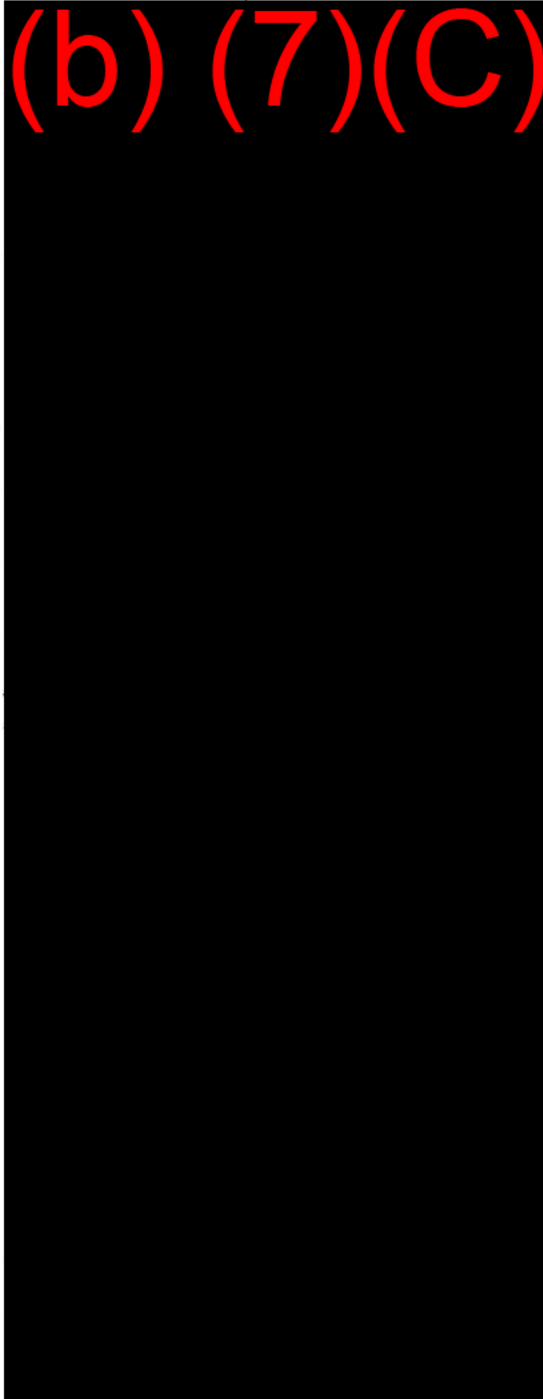
 **Certificate of Completion**
This certificate confirms that
(b) (7)(C)
has completed the
NUCA Excavation Safety &
Competent Person Training Program
and received 0.8 CEU's (8 Credit Hours)
on March 1, 2008
Instructor [REDACTED]
Issued by
The National Utility Contractors Association

 **Certificate of Completion**
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on March 1, 2008
Instructor [REDACTED]
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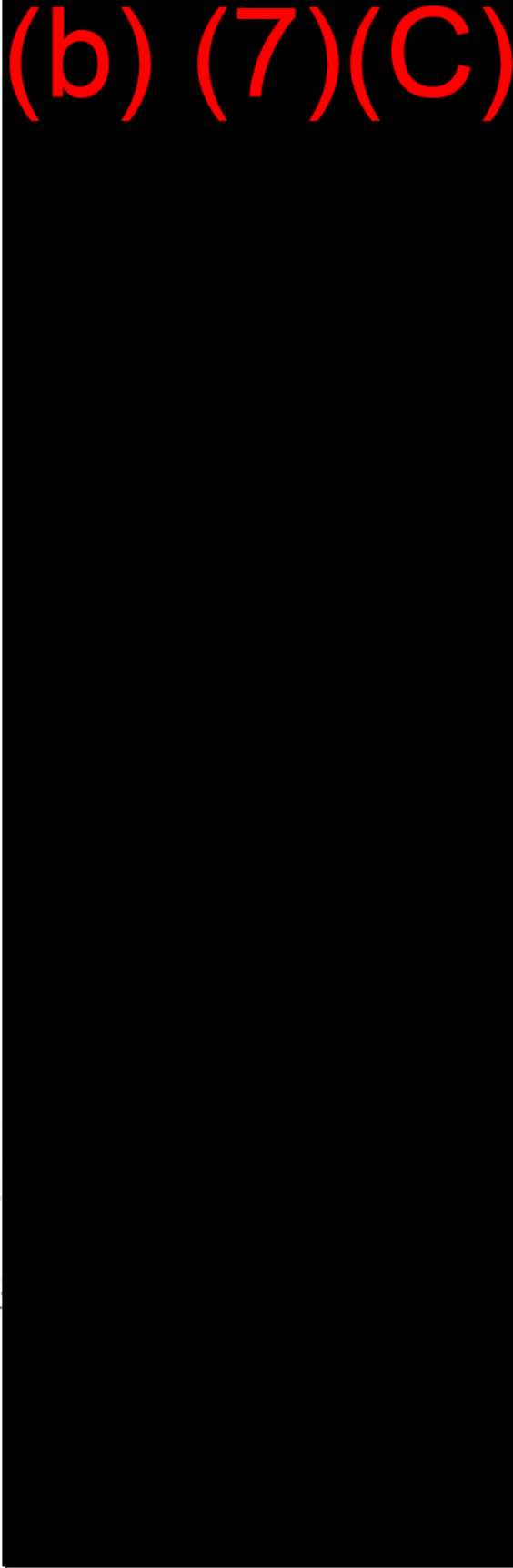
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Competent Person Training Program
and received 0.8 CEU's (8 Credit Hours)
on March 1, 2008
Instructor **(b) (7)(C)**
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The National Utility Contractors Association

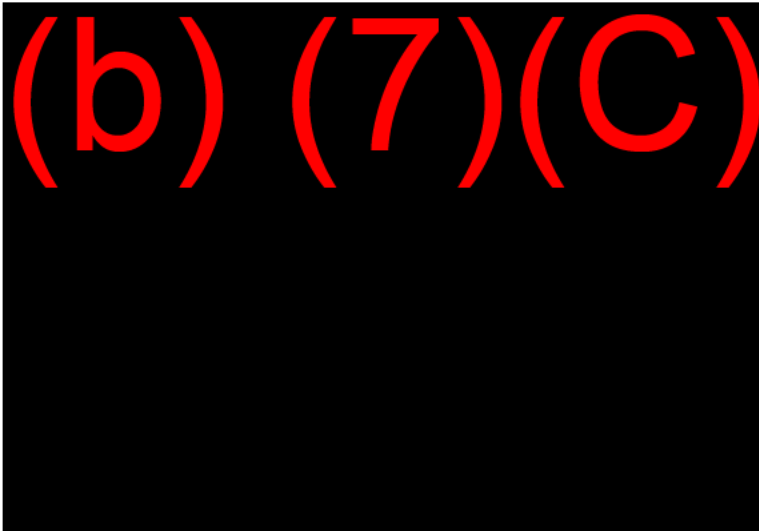
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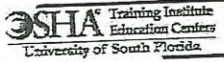
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813-994-1195
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OSHA recommends Outreach Training Courses as an orientation to occupational safety and health for workers. Participation is voluntary. Workers must receive additional training on specific hazards of their job. This course completion card does not expire.

Use or distribution of this card for fraudulent purposes, including false claims of having received training, may result in prosecution under 18 U.S.C. 1001. Potential penalties include substantial criminal fines, imprisonment up to 5 years, or both.

To verify this training scan the QR code with your mobile device.



Rev. 4/2019



20-006072699

This card acknowledges that the recipient has successfully completed:

10-hour Construction Safety and Health

This card issued to:

Jeff Colburn

Sean Yakicic

Trainer Name

5/18/2019

Date Issued



Certificate of Completion

This certificate confirms that

Jeff Colburn

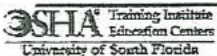
has completed the
NUCA Excavation Safety &
Competent Person Training Program
and received 0.8 CEU's (8 Credit Hours)

on **March 1, 2008**

Instructor **Julie Carter-Simon, CSP, CHST**

Issued by

The National Utility Contractors Association



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usfoitec-cards@health.usf.edu

OSHA recommends Outreach Training Courses as an orientation to occupational safety and health for workers. Participation is voluntary. Workers must receive additional training on specific hazards of their job. This course completion card does not expire.

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20-006072705

This card acknowledges that the recipient has successfully completed:

10-hour Construction Safety and Health

(b) (7)(C)

Sean Yalcicig

Trainer Name

5/18/2019

Date Issued

2010/08/06

Mounting And Dismounting (SEBU6941-05)

SMCS - 6700, 7000

i04027420

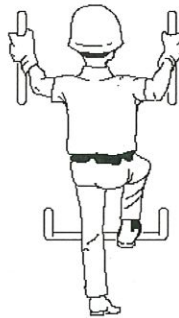


Illustration 1

g00037860

Use steps and handholds whenever you mount the machine. Use steps and handholds whenever you dismount the machine. Before you mount the machine, clean the step and the handholds. Inspect the step and handholds. Make all necessary repairs.

Face the machine whenever you mount the machine and whenever you dismount the machine. Maintain a three-point contact with the step and with handholds.

Note: Three-point contact can be two feet and one hand. Three-point contact can also be one foot and two hands.

Do not mount a moving machine. Do not dismount a moving machine. Never jump off the machine. Do not try to mount the machine when you carry tools or supplies. Do not try to dismount the machine when you are carrying tools or supplies. Use a hand line to pull equipment onto the platform. Do not use any controls as handholds when you enter the operator compartment or when you exit the operator compartment.

Machine Access System Specifications

The machine access system has been designed to meet the intent of the technical requirements in "ISO 2867 Earth-moving Machinery – Access Systems". The access system provides for operator access to the operator station and to conduct the maintenance procedures described in Maintenance section.

1011-UP, 1021-UP, 1031-UP, 1041-UP, 1CS1-UP, 1DL1-UP, 1ES1-UP, 1HW1-UP, 1YS1-UP, 2021-UP, 2141-UP, 2201-UP, 2241-UP, 2251-UP, 2401-UP, 2411-UP, 2B21-UP, 2BW1-UP, 2JR1-UP, 2NW1-UP, 2PZ1-UP, 2RS1-UP, 2WZ1-UP, 2X41-UP, 2XG898-UP, 2YW1-UP, 3011-UP, 3021-UP, 3201-UP, 3241-UP, 3981-UP, 3A61-UP, 3AR1-UP, 3B41-UP, 3DS1-UP, 3H21-UP, 3JN1510-UP, 3M61-UP, 3MR1-UP, 3PN2027-UP, 3PR1-UP, 3RN4015-UP, 3TZ1-UP, 3XR1-UP, 3YW1-UP, 4111-UP, 4191-UP, 4201-UP, 4211-UP, 4221-UP, 4231-UP, 4251-UP, 4421-UP, 4491-UP, 4521-UP, 4531-UP, 4661-UP, 4671-UP, 4681-UP, 4691-UP, 4701-UP, 4711-UP, 4721-UP, 4731-UP, 4751-UP, 4771-UP, 4791-UP, 4801-UP, 4961-UP, 4AZ1-UP, 4B51-UP, 4DN1-UP, 4GZ1-UP, 4M61-UP, 4MR1-UP, 4MW1-UP, 4NR1-UP, 4NS1-UP, 4SS1-UP, 4TM4014-UP, 4XN1-UP, 4XW1-UP, 4XZ1-UP, 4YK1-UP, 4YR1-UP, 5031-UP, 511511-UP, 5211-UP, 522522-UP, 5321-UP, 5411-UP, 5511-UP, 5521-UP, 5991-UP, 5AZ1-UP, 5BR1-UP, 5ER1-UP, 5F51-UP, 5GW1-UP, 5JR1-UP, 5SS1-UP, 5WM6021-UP, 5WS1-UP, 5WW1-UP, 5XR1-UP, 5YW1-UP, 6361-UP, 6371-UP, 6551-UP, 6681-UP, 6711-UP, 6951-UP, 6961-UP, 6971-UP, 6981-UP, 6991-UP, 6CR1-UP, 6DR1-UP, 6MW1-UP, 6PW1-UP, 6SZ1-UP, 6T51-UP, 6TL1-UP, 6TN1-UP, 6XS1-UP, 6YS1-UP, 6ZN1-UP, 7CS1-UP, 7G81-UP, 7HN1-UP, 7M21-UP, 7M31-UP, 7M41-UP, 7M61-UP, 7ML1-UP, 7W21-UP, 7W31-UP, 7W41-UP, 7W61-UP, 7W81-UP, 7WZ1-UP, 7XM1-UP, 8AS1-UP, 8BM1-UP, 8ES1-UP, 8GN1-UP, 8KW1-UP, 8RW1-UP, 8XZ1-UP, 9CS1-UP, 9CW1-UP, 9EM1-UP, 9GS1-UP, 9KR1-UP, 9LS1-UP, 9P71-UP, 9PP1-UP, 9PZ1-UP, 9SD1-UP, 9TZ1-UP, 9XG1-UP, 9YZ1-UP, A3P1-UP, A5D1-UP, A5P1-UP, A661-UP, A6P1-UP, A751-UP, A7P1-UP, A8A1-UP, ABB1-UP, AC41-UP, AC61-UP, ACM1-UP, AED1-UP, AF51-UP, AFB1-UP, AFS1-UP, AFW1-UP, AFX1-UP, AGC1-UP, AGD1-UP, AGF1-UP, AGP1-UP, AGS1-UP, AGY1-UP, AKE1-UP, ALB1-UP, ALX1-UP, AMC1-UP, AMG1-UP, AMH1-UP, AN61-UP, AN71-UP, ANB1-UP, ANF1-UP, ANR1-UP, ANS1-UP, AP51-UP, AP61-UP, APA1-UP, APB1-UP, APX1-UP, ASJ1-UP, ASK1-UP, ATY1-UP, AWC1-UP, AWE1-UP, AWK1-UP, AWR1-UP, AXM1-UP, AXT1-UP, AYC1-UP, AYF1-UP, AYN1-UP, AYP1-UP, AZZ1-UP, B1K1001-UP, B1R1-UP, B1W1-UP, B2G1-UP, B2H1-UP, B3F1-UP, B3F2310-UP, B3H1-UP, B3M1001-UP, B3W1-UP, B4G1-UP, B4N1001-UP, B5D1-UP, B5E1-UP, B5M1-UP, B5P1-UP, B661-UP, B6G1-UP, B6K1-UP, B6N1-UP, B861-UP, BBB1-UP, BCA1-UP, BCM1-UP, BCZ1-2000, BCZ2001-UP, BDA1-UP, BDC1-UP, BDH1-UP, BDK1-2000, BDK2001-UP, BDM1-2000, BDM2001-UP, BDR1-2000, BDR2001-UP, BDW1-UP, BDX1-2000, BDX2001-UP, BDY1-2000, BDY2001-UP, BEB1-2000, BEB2001-UP, BEC1-UP, BER1-UP, BFA1-UP, BFE1-UP, BFK1-UP, BGB1-UP, BGR1-UP, BKF1-UP, BKJ1-UP, BKK1-UP, BKM1-UP, BKW1-UP, BKW254-255, BKW264-265, BKW326-255, BKX1-UP, BLP1-UP, BLX1-UP, BLY1-UP, BMM1-UP, BNE1-UP, BNW1-UP, BPA1-UP, BPH1-UP, BPW1-UP, BRW1-UP, BTD1-UP, BTM1-UP, BWH1-UP, BWM1-UP, BWN1-UP, BWY1-UP, BXH1-UP, BXJ1-UP, BXL1-UP, BXW1-UP, BY61-UP, BYC1-UP, BYG1-UP, BYJ1-UP, BYT1-UP, BZH1-UP, BZK1-UP, BZK2160-UP, BZL1-UP, BZL2210-UP, BZM1-UP, BZM2260-UP, BZN1-UP, BZZ1-UP, C241-UP, C2B1-UP, C3A1-UP, C3C1-UP, C3D1-UP, C3E1-UP, C3F1-UP, C3N1-UP, C3R1-1000, C3R1001-UP, C4B1-UP, C4F1-UP, C4H1-UP, C4J1-UP, C4X1-UP, C561-UP, C5F1-UP, C5J1-UP, C5K1-UP, C5R1-UP, C5W1-UP, C5Y1-UP, C681-UP, C6D1-UP, C8M1-UP, CA41-UP, CA61-UP, CAM1-UP, CB51-UP, CBA1-UP, CBR1-UP, CBY1-UP, CC31-UP, CCD1-UP, CDF1-UP, CDG1-UP, CDR1-UP,

1997/04/21

Alternate Exit (SEBU6941-05)

SMCS - 7310

i00529104



Excavator and Material Handler

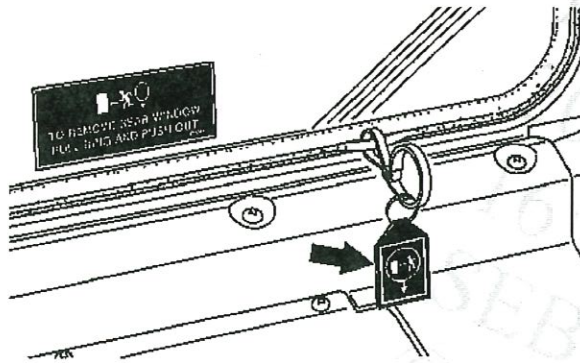


Illustration 1

g00101073

The rear window serves as an alternate exit.

To remove the rear window, pull the ring and push out the glass.

Remove the O-ring seal from the glass support seal. This will provide enough clearance so that the seal can hinge. Now, the glass can pass outward.

Forest Machine

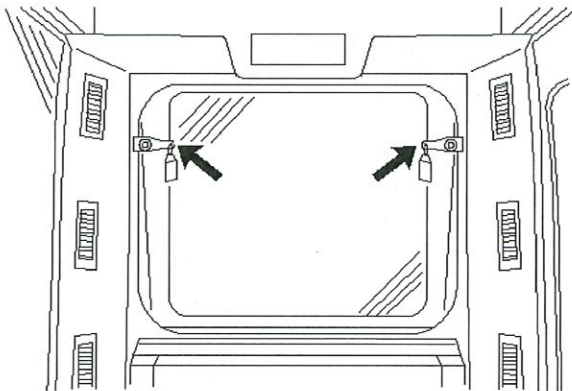


Illustration 2

g00107413

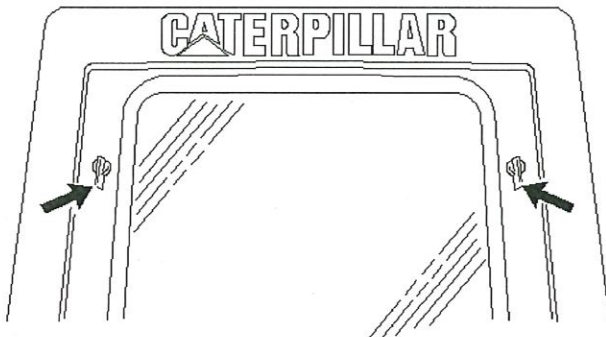


Illustration 3

The rear window serves as an alternate exit.

g00107414

Rotate the levers in order to open the rear window from the inside or from the outside. When the levers have passed by the retainer, push the window or pull the window in order to open the window.

1YS1-UP, 2JR1-UP, 6DR1-UP

PPS-00001E8B

2022/05/24

16:43:44-04:00

i00107565

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Confidential Green

2003/08/01

Seat (SEBU6941-05)

SMCS - 5258, 7312, 7324, 7327

i01957305



Put the hydraulic lockout control in the LOCKED position. For further details on this procedure, refer to Operation and Maintenance Manual, "Hydraulic Lockout Control". Do this procedure before you adjust the seat and the console. This will prevent any possibility of unexpected movement of the machine.

Adjust the seat at the beginning of each work period and adjust the seat when you change operators.

Always use the seat belt when you operate the machine. For further details on this procedure, refer to Operation and Maintenance Manual, "Seat Belt".

The seat should be adjusted so that full pedal travel is allowed.

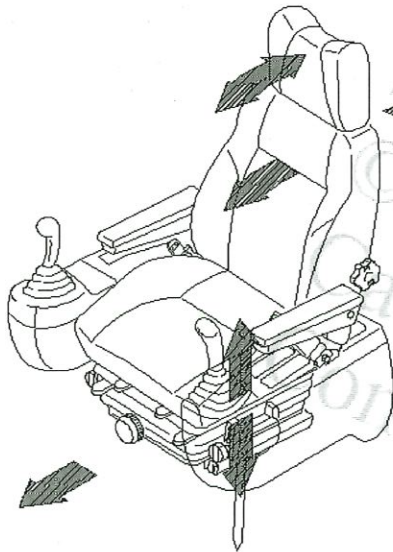


Illustration 1

g00101115

The operator can adjust the seat position forward or backward. The seat position can be adjusted up and down. The operator may also adjust the seat back tilt. Select the desired position in order to allow full pedal travel and full lever travel.

The right console and the left console can be adjusted vertically.

The seat and the consoles can also slide as one unit.

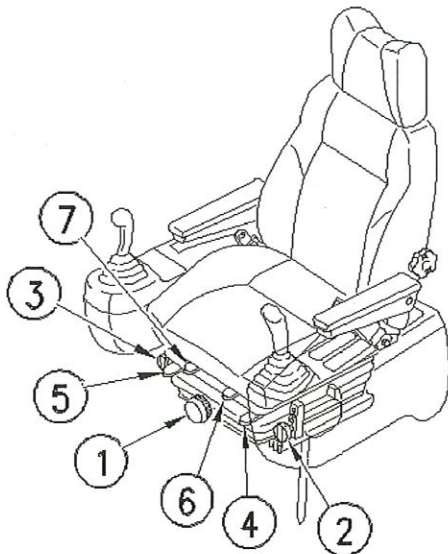


Illustration 2

g00101116

To adjust the seat suspension, turn operator weight adjustment knob (1) (if equipped) until the dial indicator shows the approximate weight of the operator. The adjustment knob has a range of 50 kg to 120 kg (110 lb to 265 lb). Turning the adjustment knob clockwise increases the reading. Turning the adjustment knob counterclockwise decreases the reading.

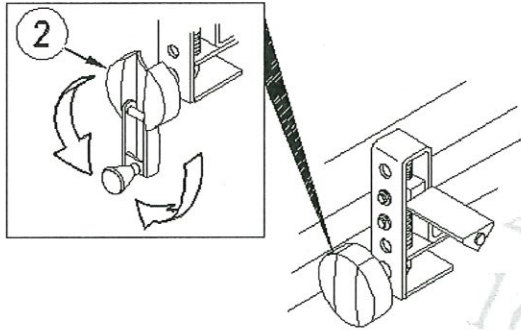


Illustration 3

g00101117

Turn knob (2) (if equipped) in order to tilt the left console to the desired height.

Turn knob (3) (if equipped) in order to tilt the right console to the desired height.

Use the two-position adjustment lever (4) in order to adjust the height of the seat. Pull up lever (4) into the first position. The angle of the seat can now be changed. Only the rear of the seat will tilt. Hold the seat in the desired position. Release the lever. To adjust the height of the seat, pull up lever (4) through the first position and into the second position. The front of the seat and the rear of the seat will raise simultaneously. The front of the seat and rear of the seat will lower simultaneously. Hold the seat in the desired position. Release the lever.

To adjust the seat back tilt to the desired position, turn knob (5).

To move the seat, the left console, and the right console forward or backward as one unit, pull up lever (6) and hold the lever. Hold the seat in the desired position. Release the lever in order to lock the seat, the left console, and the right console.

To adjust the seat forward or backward, pull up lever (7) and hold the lever. Move the seat to the desired position. To lock the seat in the selected position, release the lever.

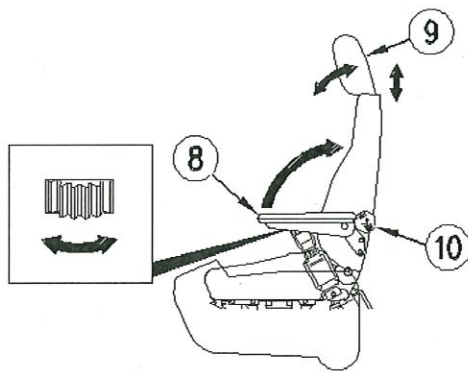


Illustration 4

g00101126

To adjust the angle of the armrest, operate dial (8). A dial is on the bottom of each armrest. Place the armrests in the upright position when you enter the machine or when you exit the machine.

The operator can adjust the height of headrest (9) (if equipped) and the angle of the headrest. To adjust the headrest, hold the headrest with both hands. Move the headrest forward or backward and move the headrest up and down. Release the headrest when the desired position is attained. The headrest will remain in the desired position.

The lumbar support is located in the back of the seat. Turn knob (10) (if equipped) counterclockwise in order to increase the force of the lumbar support. Turn the knob clockwise in order to decrease the force of the lumbar support.

AKX1-UP, ALD1-UP, AMD1-UP, AMJ1-UP, AMN1-UP, AYR1-UP, 1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1PZ1-UP, 1SW1-UP, 1XS1-UP, 1ZS1-UP, 2AS1-UP, 2DW1-UP, 2ES1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2SW1-UP, 2WZ1-UP, 3AW1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4SS1-UP, 4XW1-UP, 4XZ1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 5WS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LS1-UP, 6LW1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7JR1-UP, 7KS1-UP, 7KZ1-UP, 7RZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9PZ1-UP, 9TZ1-UP, 9WS1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGD1-UP, AGS1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMD1-UP, AME1-UP, AMJ1-UP, AMN1-UP, ANJ1-UP, ANS1-UP, APB1-UP, AYR1-UP, BFG1-UP, BKF1-UP, BKX1-UP, BLY1-UP, CCC1-UP, CDY1-UP, CFJ1-UP, CLS1-UP, CTY1-UP, DCW1-UP, DER1-UP, DET1-UP, FDL1-UP, FEE1-UP, JMB1-UP, MYA1-UP, PEG1-UP, RCD1-UP, SDL1-UP

PPS-00001E8B

2022/05/24

16:44:14-04:00

i00127055

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Caterpillar:

Confidential Green

2011/01/11

Seat Belt (SEBU6941-05)

SMCS - 7327

i04200349



Note: This machine was equipped with a seat belt when the machine was shipped from Caterpillar. At the time of installation, the seat belt and the instructions for installation of the seat belt meet the SAE J386 and ISO 6683 standards. Consult your Cat dealer for all replacement parts.

Always check the condition of the seat belt and the condition of the mounting hardware before you operate the machine.

Seat Belt Adjustment for Non-Retractable Seat Belts

Adjust both ends of the seat belt. The seat belt should be snug but comfortable.

Lengthening the Seat Belt

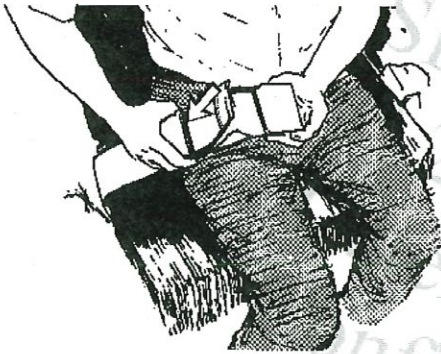


Illustration 1

g00100709

1. Unfasten the seat belt.

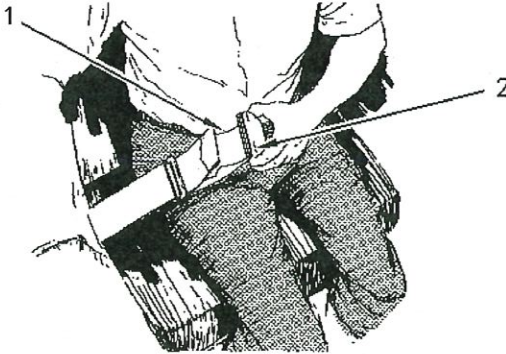


Illustration 2

g00932817

2. To remove the slack in outer loop (1), rotate buckle (2). This will free the lock bar. This permits the seat belt to move through the buckle.
3. Remove the slack from the outer belt loop by pulling on the buckle.
4. Loosen the other half of the seat belt in the same manner. If the seat belt does not fit snugly with the buckle in the center, readjust the seat belt.

Shortening the Seat Belt



Illustration 3

g00100713

1. Fasten the seat belt. Pull out on the outer belt loop in order to tighten the seat belt.
2. Adjust the other half of the seat belt in the same manner.
3. If the seat belt does not fit snugly with the buckle in the center, readjust the seat belt.

Fastening The Seat Belt



Illustration 4

g00932818

Fasten the seat belt catch (3) into the buckle (2). Make sure that the seat belt is placed low across the lap of the operator.

Releasing The Seat Belt

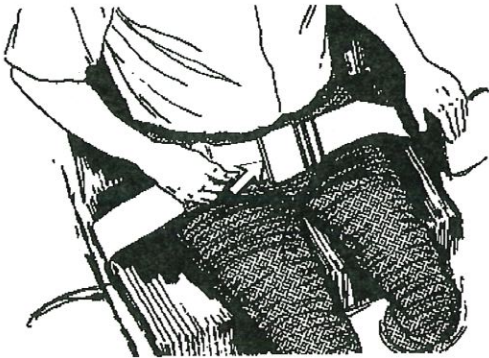


Illustration 5

g00100717

Pull up on the release lever. This will release the seat belt.

Seat Belt Adjustment for Retractable Seat Belts

Fastening The Seat Belt

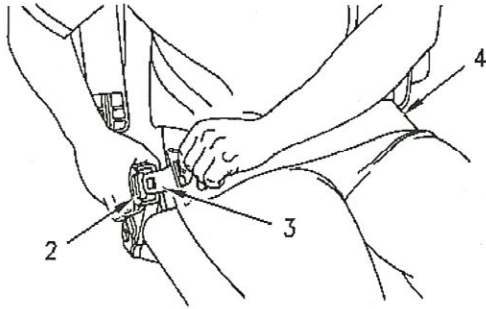


Illustration 6

g00867598

Pull seat belt (4) out of the retractor in a continuous motion.

Fasten seat belt catch (3) into buckle (2). Make sure that the seat belt is placed low across the lap of the operator.

The retractor will adjust the belt length and the retractor will lock in place. The comfort ride sleeve will allow the operator to have limited movement.

Releasing The Seat Belt

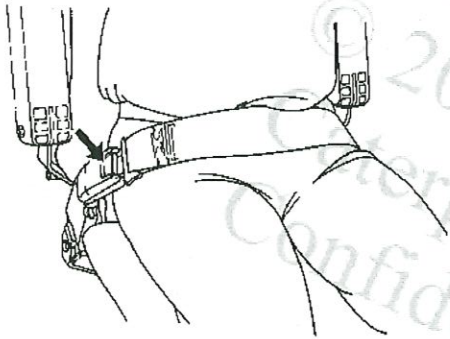


Illustration 7

g00039113

Push the release button on the buckle in order to release the seat belt. The seat belt will automatically retract into the retractor.

Extension of the Seat Belt

WARNING

When using retractable seat belts, do not use seat belt extensions, or personal injury or death can result.

The retractor system may or may not lock up depending on the length of the extension and the size of the person. If the retractor does not lock up, the seat belt will not retain the person.

Longer, non-retractable seat belts and extensions for the non-retractable seat belts are available.

Caterpillar requires only non-retractable seat belts to be used with a seat belt extension.

Consult your Cat dealer for longer seat belts and for information on extending the seat belts.

1DL1-UP, 4YR1-UP, 6SZ1-UP, 7MB5000-UP, 8LJ1-UP, 9XG1-UP, A4G1-UP, ADZ1-UP, AWK1-UP, AXT1-UP, C7G1000-UP, CEH1-UP, CEN1-UP, CES1-UP, CEX1-UP, CLR1-UP, DBB1-UP, DBC1-UP, DBD1-UP, DFA1-UP, DFJ1-UP, PAK1-UP, PBK1-UP, W1B1-UP, W1C1-UP, X7C100-UP, 1241-UP, 1251-UP, 1261-UP, 1CR1-UP, 1CS1-UP, 1CW1-UP, 1DL1-UP, 1ER1-UP, 1ES1-UP, 1EW1-UP, 1FR1-UP, 1JR1-UP, 1JW1-UP, 1MR1-UP,

1NR1-UP, 1PR1-UP, 1PZ1-UP, 1RR1-UP, 1SZ1-UP, 1TR1-UP, 1WR1-UP, 1WS1-UP, 1XR1-UP, 1YR1-UP, 1YS1-UP, 1ZN140-UP, 1ZR1-UP, 2141-UP, 2201-UP, 2211-UP, 2241-UP, 2251-UP, 2401-UP, 2411-UP, 2AR1-UP, 2B91-UP, 2BR1-UP, 2CR1-UP, 2CZ1-UP, 2DR1-UP, 2DS1-UP, 2FZ1-UP, 2JM1000-UP, 2JR1-UP, 2JS1-UP, 2KR1-UP, 2KZ1-UP, 2L51-UP, 2L61-UP, 2L71-UP, 2L81-UP, 2LM1-UP, 2NW1-UP, 2RS1-UP, 2RZ1-UP, 2SR1-UP, 2T31-UP, 2T41-UP, 2T51-UP, 2TN360-UP, 2TW1-UP, 2WZ1-UP, 2YW1-UP, 2YZ1-UP, 2ZN1750-UP, 3201-UP, 3451-UP, 3461-UP, 3471-UP, 3981-UP, 3AR1-UP, 3BS1-UP, 3DS1-UP, 3F31-UP, 3F41-UP, 3F51-UP, 3GZ1-UP, 3JN1510-UP, 3JR1-UP, 3JW1-UP, 3KR1-UP, 3KZ1-UP, 3L51-UP, 3MR1-UP, 3PN2027-UP, 3PR1-UP, 3PW1-UP, 3RN4015-UP, 3SW1-UP, 3T31-UP, 3T41-UP, 3T51-UP, 3T91-UP, 3TM1300-UP, 3TZ1-UP, 3WZ171-UP, 3XR1-UP, 3YW1-UP, 3ZS1-UP, 4421-UP, 4631-UP, 4731-UP, 4751-UP, 4771-UP, 48W1-UP, 4961-UP, 4AR1-UP, 4AZ1-UP, 4B41-UP, 4BS1-UP, 4CS1-UP, 4DJ1-UP, 4DN1-UP, 4HZ1-UP, 4JZ139-UP, 4KN1-UP, 4L51-UP, 4LN1-UP, 4MR1-UP, 4MW1-UP, 4NR1-UP, 4NS1-UP, 4NZ1-UP, 4PN1-UP, 4PW1-UP, 4SS1-UP, 4TM4014-UP, 4WW1-UP, 4XN1-UP, 4XW1-UP, 4XZ1-UP, 4YR1-UP, 4YS1-UP, 4YZ1-UP, 4ZN1-UP, 511511-UP, 5211-UP, 522522-UP, 5251-UP, 5321-UP, 5351-UP, 5411-UP, 5451-UP, 5511-UP, 5521-UP, 5AS1-UP, 5B41-UP, 5BR1-UP, 5BZ159-UP, 5ER1-UP, 5FW1-UP, 5FZ1-UP, 5GN1-UP, 5GW1-UP, 5HN1-UP, 5JN1-UP, 5JR1-UP, 5KN1-UP, 5L51-UP, 5LZ1-UP, 5MW1-UP, 5RS1-UP, 5SK1-UP, 5SS1-UP, 5SZ1-UP, 5WM6021-UP, 5WS1-UP, 5WW1-UP, 5XD1-UP, 5YN1-UP, 5YW1-UP, 6AW1-UP, 6B91-UP, 6BZ1-UP, 6CR1-UP, 6DR1-UP, 6EN160-UP, 6EW1-UP, 6GZ1-UP, 6HM1-UP, 6HW1-UP, 6LZ1-UP, 6MW1-UP, 6NS1-UP, 6P21-UP, 6PS1-UP, 6PW1-UP, 6S61-UP, 6SZ1-UP, 6TL1-UP, 6TN1-UP, 6WS1-UP, 6XN1-UP, 6XS1-UP, 6YS1-UP, 6ZJ1-UP, 6ZN1-UP, 6ZS1-UP, 7BS1-UP, 7BW1-UP, 7CS1-UP, 7EK1-UP, 7ES1-UP, 7HN1-UP, 7KK1-UP, 7LS1-UP, 7MB5000-UP, 7ML1-UP, 7MZ1-UP, 7P61-UP, 7PZ1-UP, 7TL852-UP, 7WJ1-UP, 7WN1-UP, 7XM1-UP, 8801-UP, 8AS1-UP, 8BM1-UP, 8BS1-UP, 8ES1-UP, 8GN1-UP, 8JW1-UP, 8KW1-UP, 8LJ1-UP, 8RN1-UP, 8RS1-UP, 8RW1-UP, 8TK1-UP, 8TN1-UP, 8XW1-UP, 8XZ1-UP, 9861-UP, 9CM1-UP, 9CS1-UP, 9CW1-UP, 9DN1-UP, 9EM1-UP, 9GS1-UP, 9GW1-UP, 9HS1-UP, 9JN1-UP, 9KN1-UP, 9KR1-UP, 9LS1-UP, 9MW1-UP, 9PP1-UP, 9PZ1-UP, 9RS1-UP, 9SD1-UP, 9TR1-UP, 9TZ1-UP, 9XG1-UP, 9XL300-UP, 9XR1-UP, 9YZ1-UP, 9ZW1-UP, A3P1-UP, A3R1-UP, A4G1-UP, A4W1-UP, A5D1-UP, A5P1-UP, A6D1-UP, A6F1-UP, A6G1-UP, A6J1-UP, A6P1-UP, A7A1-UP, A7D1-UP, A7G1-UP, A7J1-UP, A7P1-UP, A8F1-UP, A8J1-UP, A9F1-UP, A9H1-UP, A9J1-UP, A9P1-UP, AAA1-UP, AAE1-UP, AAF1-UP, AAH1-UP, AAK1-UP, AAT1-UP, AAW1-UP, AAX1-UP, ABB1-UP, ABJ1-UP, ABK1-UP, ACJ1-UP, ACL1-UP, ACM1-UP, ACS1-UP, ADE1-UP, ADW1-UP, ADZ1-UP, AEC1-UP, AED1-UP, AEM1-UP, AEP1-UP, AF91-UP, AFB1-UP, AFD1-UP, AFG1-UP, AFM1-UP, AFW1-UP, AFX1-UP, AGD1-UP, AGF1-UP, AGG1-UP, AGM1-UP, AGN1-UP, AGP1-UP, AGS1-UP, AKD1-UP, AKE1-UP, AKJ1-UP, AKM1-UP, AKP1-UP, AKT1-UP, AKX1-UP, ALB1-UP, ALD1-UP, ALH1-UP, ALR1-UP, ALX1-UP, ALY1-UP, ALZ1-UP, AMA1-UP, AMC1-UP, AMD1-UP, AMH1-UP, AMJ1-UP, AMN1-UP, AMP1-UP, AMX1-UP, AMZ1-UP, ANB1-UP, ANF1-UP, ANR1-UP, ANS1-UP, ANT1-UP, ANY1-UP, ANZ1-UP, AP41-UP, APA1-UP, APB1-UP, APM1-UP, APN1-UP, ARL1-UP, AS21-UP, ASA1-UP, ASB1-UP, ASD1-UP, ASE1-UP, ASF1-UP, ASG1-UP, ASH1-UP, ASJ1-UP, ASL1-UP, ASM1-UP, ASN1-UP, ASR1-UP, AST1-UP, ASW1-333, ASW334-UP, ASX1-UP, ASY1-UP, ASZ1-UP, AT21-UP, AT51-UP, ATS1-UP, AWF1-UP, AWH1-UP, AWK1-UP,AWN1-UP, AWP1-UP, AWR1-UP, AWS1-UP, AWW1-UP, AWW1-UP, AWW1-UP, AWW1-UP, AX91-UP, AXB1-UP, AXC1-UP, AXE1-UP, AXG1-UP, AXJ1-UP, AXK1-UP, AXL1-UP, AXM1-UP, AXN1-UP, AXP1-UP, AXR1-UP, AXS1-UP, AXT1-UP, AXW1-UP, AXX1-UP, AXY1-UP, AY41-UP, AYA1-UP, AYB1-UP, AYD1-UP, AYE1-UP, AYF1-UP, AYG1-UP, AYH1-UP, AYL1-UP, AYP1-UP, AYR1-UP, AYS1-UP, AYT1-UP, AZP1-UP, AZW1-UP, AZX1-UP, AZZ1-UP, B1K1-1000, B1K1001-UP, B1L1-UP, B1M1-UP, B1N1-UP, B1P1-UP, B1R1-UP, B1W1-UP, B2D1-UP, B2G1-UP, B2L1-UP, B321-UP, B341-UP, B361-UP, B371-UP, B381-UP, B3M1-1000, B3M1001-UP, B461-UP, B4G1-UP, B4L1-UP, B4N1-1000, B4N1001-UP, B541-UP, B551-UP, B561-UP, B571-UP, B591-UP, B5D1-UP, B5E1-UP, B5M1-UP, B5P1-UP, B661-UP, B6G1-UP, 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C5J1-UP, C5K1-UP, C5P1-UP, C5R1-UP, C5S1-UP, C5W1-UP, C5Y1-UP, C681-UP, C6D1-UP, C6G1000-UP, C6P1-UP, C6S1-UP, C6W1-UP, C6X100-UP, C7F1-UP, C7G1000-UP, C7K1-UP, C7L1-UP, C8B1-UP, C8F1-UP, C8L1-UP, C8M1-UP, C8S1-UP, C9M1-UP, CA41-UP, CA61-UP, CAB1-UP, CAD1-UP, CAF1-UP, CAM1-UP, CAP1-UP, CB21-UP, CB51-UP, CB81-UP, CBA1-UP, CBC1-UP, CBD1-UP, CBF1-UP, CBJ1-UP, CBK1-UP, CBL1-UP, CBS1-UP, CBT1-UP, CBY1-UP, CCA1-UP, CCC1-UP, CCD1-UP, CCG1-UP, CCK1-UP, CCP1-UP, CCS1-UP, CD21-UP, CD31-UP, CDF1-UP, CDG1-UP, CDR1-UP, CE81-UP, CEB1-UP, CEC1-UP, CED1-UP, CEG1-UP, CEH1-UP, CEN1-UP, CES1-UP, CEX1-UP, CFB1-UP, CFC1-UP, CFF1-UP, CFH1-UP, CFJ1-UP, CFK1-UP, CFN1-UP, CFP1-UP, CFT1-UP, CFX1-UP, CGZ1-UP, CH31-UP, CH51-UP, CH91-UP, CJ21-UP, CJC1-UP, CJN1-UP, CJX1-UP, CJZ1-UP, CK31-UP, CKE1-UP, CKG1-UP, CKR1-UP, CKT1-UP, CLA1-UP, CLD1-UP, CLM1-UP, CLR1-UP, CLS1-UP, CLT1-UP, CLZ1-UP, CMB1-UP, CMK1-UP, CML1-UP, CMM1-UP, CMP1-UP, CMR1-UP, CMX1-UP, CNC1-UP, CNG1-UP, CNH1-UP, CNN1-UP, CNT1-UP, CNX1-UP, CNY1-UP, CPH1-UP, CR61-UP, CR71-UP, CRB1-UP, CRD1-UP, CSJ1-UP, CSX1-UP, CTY1-UP, CWG1-UP, CXK1-UP, CXM1-UP, CXP1-UP, CXR1-UP, CXY1-UP, CY21-UP, CYA1-UP, CYC1-UP, CYD1-UP, CYE1-UP, CYW1-UP, CYX1-UP, CYZ1-235, CYZ236-UP, CZF1-UP, D2W1-UP, D3C1-UP, D3D1-UP, D3S1-UP, D3X1-UP, D4M1-UP, D5L1-UP, D5X1-UP, D6H1-UP, D6W1-UP, D8W1-UP, D9A1-UP, D9G1-UP, D9T1-UP, D9W1-UP, D9X1-UP, DAA1-UP, DAC1-UP, DAD1-UP, DAE1-UP, DAF1-UP, DAG1-UP, DAH1-UP, DAJ1-UP, DAK1-UP, DAM1-UP, DAN1-UP, DAR1-UP, DAX1-UP, DAY1-UP, DBB1-UP, DBC1-UP, DBD1-UP, DBG1-UP, DBH1-UP, DBL1-UP, DBN1-UP, DBT1-UP, DC81-UP, DC91-UP, DCH1-UP, DCJ1-UP, DCL1-UP, DCW1-UP, DDA1-UP, DDD1-UP,

DDT1-UP, DDW1-UP, DER1-UP, DET1-UP, DFA1-UP, DFG1-UP, DFJ1-UP, DFM1-UP, DFP1-UP, DFR1-UP, DFY1-UP, DFZ1-UP, DGE1-UP, DGF1-UP, DGR1-UP, DHA1-UP, DHC1-UP, DHE1-UP, DHK1-UP, DHP1-UP, DJ41-UP, DJA1-UP, DJD1-UP, DJE1-UP, DJF1-UP, DJG1-UP, DJK1-UP, DJL1-UP, DJM1-UP, DJR1-UP, DJT1-UP, DJX1-UP, DJY1-UP, DKD1-UP, DKF1-UP, DKH1-UP, DKN1-UP, DKW1-UP, DKY1-UP, DLK1-UP, DLM1-UP, DLN1-UP, DLP1-UP, DLW1-UP, DLZ1-UP, DMA1-UP, DMK1-UP, DN21-UP, DN31-UP, DN71-UP, DN81-UP, DNM1-UP, DNP1-UP, DNS1-UP, DNW1-UP, DPJ1-UP, DPL1-UP, DPS1-UP, DPX1-UP, DPY1-UP, DR31-UP, DS31-UP, DS41-UP, DS51-UP, DS81-UP, DS91-UP, DSC1-301, DSC302-UP, DSG1-UP, DSH1-UP, DSN1-UP, DST1-UP, DSW1-UP, DSX1-UP, DT21-UP, DT41-UP, DT51-UP, DT81-UP, DTD1-UP, DTF1-UP, DTG1-UP, DTS1-UP, DTT1-UP, DTZ1-UP, DW91-UP, DWC1-UP, DWD1-UP, DWJ1-UP, DWK1-UP, DWR1-UP, DWS1-UP, DXR1-UP, DXZ1-UP, DYN1-UP, DYR1-UP, DZF1-UP, DZW1-UP, E4K1-UP, E8X1-UP, E921-UP, E931-UP, E941-UP, E951-UP, E961-UP, E971-UP, E9S1-UP, E9W1-UP, E9Y1-UP, E9Z1-UP, EAA1-UP, EAB1-UP, EAD1-UP, EAE1-UP, EAG1-UP, EAH1-UP, EAM1-UP, EAR1-UP, EAS1-UP, EAT1-UP, EAW1-UP, EAX1-UP, EB21-UP, EB31-UP, EB41-UP, EB51-UP, EB61-UP, EB71-UP, EB91-UP, EBF1-UP, EBK1-UP, EBL1-UP, EBM1-UP, EBP1-UP, EBY1-UP, ECH1-UP, ECN1-UP, ECZ1-UP, EDA1-UP, EDF1-UP, EDX1-UP, EEH1-UP, EF31-UP, EFT1-UP, EGA1-UP, EGL1-UP, EHP1-UP, EJ21-UP, EJ41-UP, EJC1-UP, EJJ1-UP, EJK1-UP, EJT1-UP, EJX1-UP, EKT1-UP, EL51-UP, EL71-UP, ELB1-UP, ELC1-UP, ELR1-UP, ELS1-UP, ELY1-UP, EMM1-UP, EMR1-UP, EN21-UP, EN31-UP, EN41-UP, EN51-UP, EN61-UP, EN81-UP, EN91-UP, ENF1-UP, ENH1-UP, ENJ1-UP, ENK1-UP, ENL1-UP, ENM1-UP, ENT1-UP, ERK1-UP, ERL1-UP, ERN1-UP, ERP1-UP, ESD1-UP, ESG1-UP, ESL1-UP, ESX1-UP, ETC1-UP, ETE1-UP, EWC1-UP, EWX1-UP, EX71-UP, EXL1-UP, EXW1-UP, EYF1-UP, EYM1-UP, F2W1-UP, F2Z1-UP, F3D1-UP, F4A1-UP, F4D1-UP, F5G1-UP, F5L1-UP, F6N1-UP, F6P1-UP, F7B1-UP, F7C1-UP, F7D1-UP, F7G1-UP, F8B1-UP, F9B1-UP, F9M1-UP, FA21-UP, FAA1-UP, FAB1-UP, FAC1-UP, FAJ1-UP, FAL1-UP, FAP1-UP, FAR1-UP, FAT1-UP, FB21-UP, FB31-UP, FB41-UP, FB51-UP, FB61-UP, FB71-UP, FB81-UP, FB91-UP, FBH1-UP, FBN1-UP, FBR1-UP, FBT1-UP, FBW1-UP, FC21-UP, FCP1-UP, FCS1-UP, FCT1-UP, FDC1-UP, FDG1-UP, FDH1-UP, FDL1-UP, FDP1-18399, FDP18400-UP, FDS1-UP, FDT1-UP, FDW1-UP, FEA1-UP, FEB10001-UP, FED1-UP, FEE1-UP, FEH1-UP, FEN1-UP, FEP1-UP, FEX1-UP, FEY1-UP, FFK1-UP, FFT1-UP, FGH1-UP, FH81-UP, FJB1-UP, FJH1-UP, FKB1-UP, FKC1-UP, FKD1-UP, FKE1-UP, FKJ1-UP, FKK1-UP, FKW1-UP, FKZ1-UP, FLA1-UP, FLC1-UP, FLD1-UP, FLK1-UP, FLY1-UP, FM21-UP, FM41-UP, FME1-UP, FMH1-UP, FNZ1-UP, FPC1-UP, FPS1-UP, FR31-UP, FRP1-UP, FRR1-UP, FSA1-UP, FSH1-UP, FTD1-UP, FWL1-UP, FXK1-UP, FYC1-UP, G1L1-999, G1L1001-UP, G441-UP, GAC1-UP, GAD1-UP, GAG1-UP, GAJ1-UP, GAP1-UP, GAX1-UP, GAY1-UP, GB61-UP, GBA1-UP, GBB1-UP, GBC1-UP, GBR1-UP, GBT1-UP, GCA1-UP, GCL1-UP, GCP1-UP, GCS1-UP, GCT1-UP, GDP1-UP, GE81-UP, GEB1-UP, GF81-UP, GGE1-UP, GGH1-UP, GGJ1-UP, GHS1-UP, GHT1-UP, GJA1-UP, GJB1-UP, GJD1-UP, GKD1-UP, GKF1-UP, GKL1-UP, GKP1-UP, GKS1-UP, GKT1-UP, GKX1-UP, GKZ1-UP, GLA1-UP, GLK1-UP, GMD1-UP, GMK1-UP, GMT1-UP, GMX1-UP, GMY1-UP, GNG1-UP, GNN1-UP, GNW1-UP, GNY1-UP, GNZ1-UP, GPA1-UP, GPB1-UP, GPH1-UP, GPK1-UP, GRT1-UP, GSZ1-UP, GTA1-UP, GTF1-UP, GTJ1-UP, GTN1-UP, GWC1-UP, GWN1-UP, GXM1-UP, GXR1-UP, GYF1-UP, H2A1-UP, H2B1-UP, H2C1-UP, H2D1-UP, H2E1-UP, H2F1-UP, H2G1-UP, H3C1-UP, H3D1-UP, H3K1-UP, H3N1-UP, H4C1-UP, H6W1-UP, H6X1-UP, H6Y1-UP, H6Z1-UP, H8M1-UP, H9K1-UP, HAA1-UP, HAH1-UP, HAS1-UP, HBC1-UP, HBE1-UP, HBH1-UP, HBK1-UP, HBN1-UP, HBP1-UP, HBS1-UP, HBT1-UP, HCA1-UP, HCD1-UP, HCL1-UP, HCK1-UP, HCP1-UP, HCR1-UP, HCW1-UP, HDC1-UP, HDK1-UP, HDM1-UP, HDW1-UP, HEK1-UP, HEN1-6749, HEN6750-UP, HER1-UP, HHK1-UP, HJC1-UP, HJD1-UP, HJR1-UP, HJX1-UP, HKA1-UP, HKE1-UP, HKT1-UP, HL91-999, HL91000-UP, HLB1-UP, HLD1-UP, HLS1-UP, HM41-UP, HMS1-UP, HNG1-UP, HP51-UP, HPB1-UP, HPD1-UP, HPL1-UP, HPS1-UP, HR21-UP, HR71-999, HR71000-UP, HRH1-UP, HRX1-UP, HSE1-UP, HSF1-UP, HSM1-UP, HSP1-UP, HSS1-UP, HST1-UP, HTB1-UP, HTG1-UP, HWA1-UP, HWB1-UP, HWC1-UP, HWD1-UP, HWE1-UP, HWG1-UP, HWH1-UP, HWK1-UP, HWN1-UP, HWP1-UP, HWR1-UP, HWS1-UP, HXC1-UP, HYD1-UP, J2F1-UP, J3A1-UP, J4D1-UP, J4W1-UP, J5B1-UP, J5E1-UP, J5J1-UP, J5R1-UP, J5T1-UP, J681-UP, J691-UP, J6B1-UP, J6D1-UP, J6J1-UP, J6N1-UP, J8B1-UP, J8D1-UP, J9D1-UP, J9T1-UP, JAB1-UP, JAD1-UP, JAE1-UP, JAH1-UP, JAL1-UP, JAN1-UP, JAP1-UP, JAT1-UP, JAY1-UP, JBB1-UP, JBC1-UP, JBF1-UP, JBP1-UP, JBT1-UP, JC41-UP, JC51-UP, JCD1-UP, JCM1-UP, JCP1-UP, JCS1-UP, JCZ1-UP, JDL1-UP, JEA1-UP, JEB1-UP, JEE1-UP, JEG1-UP, JEK1-UP, JEL1-UP, JEN1-UP, JEX10001-UP, JEY1-UP, JFG1-UP, JFL1-UP, JFM1-UP, JFR1-UP, JFT1-UP, JFZ1-UP, JGB1-UP, JGK1-UP, JGS1-UP, JGZ1-UP, JHA1-UP, JHB1-UP, JHF1-UP, JHJ1-UP, JJ41-UP, JJ51-UP, JJA1-UP, JJJ1-UP, JJJ1-UP, JJW1-UP, JKF1-UP, JKM1-UP, JKN1-UP, JKR1-UP, JKW1-UP, JL41-UP, JLC1-UP, JLD1-UP, JLG1-UP, JLH1-UP, JLK1-UP, JLM1-UP, JLP1-UP, JLR1-UP, JLS1-UP, J LX1-UP, JMB1-UP, JMH1-UP, JMP1-UP, JMS1-UP, JNJ1-UP, JNK1-UP, JNR1-UP, JNS1-UP, JNW1-UP, JPA1-UP, JPB1-UP, JPD1-UP, JPH1-UP, JPL1-UP, JR81-UP, JRJ1-UP, JRK1-UP, JRL1-UP, JRW1-UP, JRX1-UP, JSB1-UP, JSP1-UP, JSR1-UP, JTG1-UP, JTI1-UP, JTM1-UP, JTN1-UP, JTR1-UP, JTY1-UP, JWD1-UP, JWF1-UP, JWJ1-UP, JWK1-UP, JWR1-UP, JXE1-UP, JXL1-UP, JXM1-UP, JXR1-UP, JZA1-UP, JZC1-UP, JZR1-UP, JZZ1-UP, K2L1-UP, K3D1-UP, K3G1-UP, K3J1-UP, K4Y1-UP, K5E1-UP, K5K1-UP, K6K1-UP, K9X1-UP, KA51-UP, KAY1-UP, KB31-UP, KBB1-UP, KBC1-UP, KBD1-UP, KBE1-UP, KBJ1-UP, KBN1-UP, KBP1-UP, KBS1-UP, KBX1-UP, KBY1-UP, KBZ1-UP, KC41-UP, KC51-UP, KCD1-UP, KCE1-UP, KCN1-UP, KCP1-UP, KCR1-UP, KCS1-UP, KCW1-UP, KCX1-UP, KCZ1-UP, KDD1-608, KDD609-UP, KDG1-UP, KDJ1-UP, KEA1-UP, KED1-UP, KER1-UP, KES1-UP, KFA1-UP, KFH1-UP, KFM1-UP, KFT1-UP, KFX1-UP, KGB1-UP, KGF1-UP, KGG1-UP, KGH1-UP, KGL1-UP, KGP1-UP, KGX1-UP, KGY1-UP, KHB1-UP, KHC1-UP, KHN1-UP, KHR1-UP, KHS1-UP, KHY1-UP, KJA1-UP, KJB1-UP, KJH1-UP, KJL1-UP, KJR1-UP, KK21-UP, KK31-UP, KK41-UP, KK61-UP, KKJ1-UP, KKK1-UP, KKT1-UP, KLE1-UP, KLM1-UP, KLM1-UP, KLN1-UP, KLS1-UP, KLT1-UP, KMK1-UP, KMW1-UP, KNE1-UP, KNP1-UP, KNW1-UP, KPM1-UP, KPZ1-UP, KRE1-UP, KRM1-UP, KSB1-UP, KSD1-UP, KSF1-UP, KSN1-UP, KTE1-UP, KTF1-UP, KWB1-UP, KWM1-UP, KXD1-UP, KZF1-UP, KZL1-UP, KZN1-UP, L2K1-UP, L4D1-UP, L4E1-UP, L4F1-UP, L4Y1-UP, L5G1-UP, L5H1-UP, L5K1-UP, L5R1-UP, L5X1-UP, L5Z1-UP, L681-UP, L6W1-UP, L6X1-UP, L6Y1-UP, L6Z1-UP, L8S1-UP, L8X1-UP, L9R1-UP, LAB1-UP, LAE1-UP, LAH1-UP, LAK1-UP, LAL1-UP, LAM1-UP, LAR1-1000, LAR1001-UP, LAY1-UP, LBA1-UP, LBD1-UP, LBE1-UP, LBF1-UP, LBH1-UP, LBL1-UP, LBN1-UP, LBP1-UP, LBS1-UP, LBX1-UP, LCA1-UP, LCC1-UP, LCG1-UP, LCL1-UP, LCP1-UP, LCS1-UP, LCW10001-UP, LCY10001-UP, LDG1-UP, LDH1-UP, LDX1-UP, LDY1-UP, LEM1-UP, LFB1-UP, LFF1-UP, LFH1-UP, LFJ1-UP, LFK1-UP, LFL1-UP, LFM1-UP, LFN1-UP, LGP1-UP, LHB1-UP, LHD1-UP, LHE1-UP, LHF1-UP, LHG1-UP, LHH1-UP, LHJ1-UP, LHK1-UP, LHL1-UP, LHM1-UP, LHN1-UP, LJB1-UP, LJE1-UP, LJJ1-UP, LJR1-UP, LJT1-UP, LJY1-UP, LKA1-UP, LKH1-UP, LKJ1-UP, LKM1-UP, LKR1-UP, LKY1-UP, LMA1-UP, LMD1-UP, LMG1-UP, LMS1-UP, LNH1-UP, LNR1-UP, LNX1-UP, LP91-UP, LRH1-UP, LRK1-UP, LRM1-UP, LRT1-UP, LT61-UP, LTG1-UP, LTL1-UP, LTP1-UP, LTT1-UP, LW41-UP, LWA1-UP, LWN1-UP, LWS1-UP, LWT1-UP, LWX1-UP, LWY1-UP, LWZ1-UP, LXD1-UP, LYA1-UP, LYB1-UP, LYC1-UP, LYD1-UP, LYE1-UP, LYF1-UP, LYG1-UP, LYJ1-UP, LYK1-UP, LYL1-UP, LYR1-UP, LYS1-UP, LZF1-UP, M1G1-UP, M2H1-1000, M2H1001-UP, M2K1-999, M2K1001-UP, M2R1-UP, M3E1-UP, M3F1-UP, M3G1-UP, M3K1-UP, M3M1-UP, M3N1-UP, M3W1-UP, M431-UP, M4C1-UP, M4P1-UP, M4R1-UP, M4S1-UP, M4T1-UP, M5C1-UP, M5G1-UP, M5K1-UP, M5R1-UP, M5T1-UP, M6N1-UP, M8D1-UP, M921-UP, M941-UP, M9C1-UP, M9D1-UP, M9E1-UP, M9H1-UP, M9J1-UP, M9K1-UP, M9P1-UP, MAB1-UP, MAC1-UP, MAL1-UP, MAN1-UP, MAR1-UP, MAS1-UP, MAT1-UP, MB81-UP,

MBB1-UP, MBE1-UP, MBH1-UP, MBM1-UP, MBP1-UP, MBR1-UP, MBT1-UP, MBX1-UP, MC21-UP, MC51-UP, MCA1-UP, MCC1-UP, MCF1-UP, MCH1-UP, MCL1-UP, MCP1-UP, MCS1-UP, MCX1-UP, MCY1-UP, MDB1-UP, MDE1-UP, MDG1-UP, MDH1-UP, MDJ1-UP, MDR1-UP, MDS1-UP, MDT1-UP, MDW1-UP, MDY1-UP, MEH1-UP, MEJ1-UP, MEM1-UP, MEN1-UP, MER1-UP, MES10001-UP, MET1-UP, MEW1-UP, MEY1-UP, MFA1-UP, MFG1-UP, MFL1-UP, MFY1-UP, MG51-UP, MGF1-UP, MGG1-UP, MGJ1-UP, MGM1-UP, MGW1-UP, MGY1-UP, MH81-UP, MHG1-UP, MHL1-UP, MHS1-UP, MHT1-UP, MJC1-UP, MJD1-UP, MJF1-UP, MJH1-10574, MJH10575-UP, MKE1-UP, MKL1-UP, MKM1-UP, MKR1-UP, MLK1-UP, MLN1-UP, MLW1-UP, MM91-UP, MMA1-UP, MN31-UP, MNB1-UP, MND1-UP, MNZ1-UP, MP71-UP, MPC1-UP, MPG1-UP, MPL1-UP, MPP1-UP, MPZ1-UP, MRK1-UP, MRT1-UP, MS21-UP, MSD1-UP, MSF1-UP, MSG1-UP, MSL1-UP, MST1-UP, MTE1-UP, MTJ1-UP, MTL1-5074, MTL5075-UP, MTM1-UP, MTP1-UP, MTR1-UP, MTT1-UP, MTW1-UP, MW51-UP, MWD1-UP, MWP1-UP, MXB1-UP, MXF1-UP, MXK1-UP, MXL1-UP, MYA1-UP, MYD1-UP, MYG1-UP, MYP1-UP, MZD1-UP, MZH1-UP, MZJ1-UP, MZW1-UP, MZX1-UP, N1A1-UP, N4A1-UP, N941-UP, N951-UP, N9A1-UP, N9B1-UP, N9D1-UP, N9E1-UP, N9F1-UP, N9G1-UP, N9J1-UP, N9K1-UP, N9L1-UP, N9M1-UP, N9P1-UP, N9R1-UP, N9S1-UP, N9T1-UP, N9Y1-UP, N9Z1-UP, NAC1-UP, NAD1-UP, NAH1-UP, NAJ1-UP, NAS1-UP, NAZ1-UP, NBD1-UP, NBE160-190, NBF1-UP, NBH1-UP, NBL1-UP, NBN1-UP, NBS1-UP, NBT1-UP, NBX1-UP, NCF1-UP, NCM1-UP, NCW1-UP, NDC1-UP, NDE1-UP, NDJ1-UP, NEG1-UP, NES1-UP, NFJ1-UP, NHD1-UP, NJ51-UP, NJB1-UP, NJD1-UP, NJH1-UP, NJN1-UP, NKZ1-UP, NL81-UP, NLG1-UP, NLJ1-UP, NLK1-UP, NLM1-UP, NN41-UP, NN51-UP, NN61-UP, NNF1-UP, NNW1-UP, NPB1-UP, NPE1-UP, NPP1-UP, NRF1-UP, NRK1-UP, NSB1-UP, NSL1-UP, NTR1-UP, NZF1-UP, P271-UP, P2D1-UP, P2T1-UP, P3H1-UP, P3W1-UP, P4K1-UP, P5D1-UP, P5J1-UP, P5S1-UP, P5T1-UP, P5W1-UP, P6B1-UP, P6G1000-UP, P6K1-UP, P6X100-UP, P721-UP, P731-UP, P7F1-UP, P7P1-UP, P8F1-UP, P8L1-UP, P8P1-UP, P9M1-UP, PAB1-UP, PAC1-UP, PAD1-UP, PAK1-UP, PAL1-UP, PAN1-UP, PAP1-UP, PAR1-UP, PAS1-UP, PAT1-UP, PAX1-UP, PBA1-UP, PBB1-UP, PBD1-UP, PBE1-UP, PBK1-UP, PBM1-UP, PBT1-UP, PC81-UP, PCA1-UP, PCH1-UP, PCL1-UP, PCM1-UP, PCW1-UP, PCX1-UP, PDF1-UP, PDP1-UP, PDT1-UP, PED1-UP, PEG1-UP, PEL1-UP, PER1-UP, PEZ1-UP, PF41-UP, PF81-UP, PFB1-UP, PFD1-UP, PFE1-UP, PFL1-UP, PFS1-UP, PGR1-UP, PGW1-UP, PGY1-UP, PHC1-UP, PHH1-UP, PHN1-UP, PHX1-UP, PJA1-UP, PJB1-UP, PJF1-UP, PJM1-UP, PJP1-UP, PJW1-UP, PKE1-UP, PLB1-UP, PLD1-UP, PLR1-UP, PLW1-UP, PNJ1-UP, PNL1-UP, PNW1-UP, PPN1-UP, PPP1-UP, PRA1-UP, PRF1-UP, PRG1-UP, PT71-UP, PTB1-UP, PTE1-UP, PTR1-UP, PTY1-UP, PWK1-UP, PWM1-UP, PWP1-UP, PWW1-UP, PXR1-UP, PYR1-UP, PYT1-UP, PZE1-UP, PZG1-UP, PZL1-UP, R2D1-UP, R5A1-UP, R5C1-UP, R5K1-UP, R7B1-UP, R7C1-UP, R7H1-UP, R9A1-UP, R9B1-UP, R9C1-UP, R9G1-UP, R9H1-UP, R9J1-UP, R9L1-UP, R9M1-UP, R9N1-UP, R9P1-UP, R9S1-UP, R9T1-UP, R9W1-UP, RAB1-UP, RAC1-UP, RAE1-UP, RAF1-UP, RAJ1-UP, RAK1-UP, RAL1-UP, RAN1-UP, RAP1-UP, RAR1-UP, RAS1-UP, RAW1-UP, RAX1-UP, RB71-UP, RBA1-UP, RBB1-UP, RBC1-UP, RBD1-UP, RBF1-UP, RBH1-UP, RBJ1-UP, RBR1-UP, RBS1-UP, RBW1-UP, RCB1-UP, RCD1-UP, RCK1-UP, RCM1-UP, RCN1-UP, RCW1-UP, RCY1-UP, RD51-UP, RDE10001-UP, RDF1-UP, RDX1-UP, RDZ1-UP, REC1-UP, RED1-UP, REE1-UP, REX1-UP, RFC1-UP, RFL1-UP, RG91-999, RG91000-UP, RGA1-UP, RGD1-UP, RGG1-UP, RGH1-UP, RGP1-UP, RGS1-UP, RH41-UP, RHL1-UP, RJG1-UP, RJK1-UP, RJM1-UP, RJN1-UP, RJP1-UP, RJS1-UP, RK81-UP, RKB1-UP, RKF1-UP, RKG1-UP, RKN1-UP, RKP1-UP, RKR1-UP, RLD1-UP, RLL1-6799, RLL6800-UP, RLN1-UP, RLS1-UP, RLT1-UP, RLW1-UP, RM21-UP, RM31-UP, RM51-UP, RM61-UP, RMX1-UP, RMY1-UP, RNL1-UP, RPR1-UP, RRR1-UP, RRS1-UP, RSK1-UP, RSL1-UP, RST1-UP, RTA1-UP, RTB1-UP, RTD1-UP, RTT1-UP, RXA1-UP, RXZ1-UP, RYB1-UP, RYF1-UP, RZA1-UP, S2C1-UP, S3H1-UP, S3M1-999, S3M1001-UP, S3P1-UP, S4A1-UP, S4P1-UP, S5M1-UP, S6T1-UP, S6X1-UP, S6Y1-UP, SAH1-1000, SAH1001-UP, SAW1-UP, SBE1-UP, SBN1-UP, SBP1-UP, SBR1-UP, SC61-UP, SCD1-UP, SCG1-UP, SCH1-2474, SCH2475-UP, SCL1-UP, SCN1-UP, SCP1-4599, SCP4600-UP, SCR1-UP, SCY1-UP, SD21-UP, SDC1-UP, SDH1-UP, SDL1-UP, SDM1-UP, SDZ1-UP, SED1-UP, SEJ1-UP, SER1-UP, SEY1-UP, SFG1-UP, SFW1-UP, SFZ1-UP, SG71-UP, SGB10001-UP, SGG1-UP, SGH1-UP, SGJ1-UP, SGW1-UP, SHA1-UP, SHJ1-UP, SHW1-UP, SHX1-UP, SJE1-UP, SJM1-UP, SJN1-UP, SJP1-UP, SJR1-UP, SJW1-UP, SJY1-UP, SKA1-UP, SKL1-UP, SKR1-UP, SL31-UP, SL51-UP, SL91-UP, SLA1-UP, SLB1-UP, SLC1-UP, SLD1-UP, SLE1-UP, SLF1-UP, SLG1-UP, SLH1-UP, SLJ1-UP, SLK1-7299, SLK7300-UP, SLL1-UP, SMC1-UP, SMG1-UP, SMJ1-UP, SMX1-UP, SNA1-UP, SNL1-UP, SNY1-UP, SP51-UP, SPC1-UP, SPG1-UP, SPN1-UP, SRS1-UP, SRT1-UP, SSA1-UP, SSB1-UP, SSH1-UP, SSL1-UP, SSN1-UP, SSS1-UP, SSZ1-UP, ST61000-UP, STN1-UP, STT1-UP, SWC1-UP, SWF1-UP, SWH1-UP, SXE1-UP, SXR1-UP, SXT1-UP, SYG1-UP, SYM1-UP, SYW1-UP, SZK1-UP, SZL1-UP, SZM1-UP, SZN1-UP, SZP1-UP, SZS1-UP, SZW1-UP, T1F1-UP, T1Y1-UP, T1Z1-UP, T2D1-UP, T2E1-UP, T2F1-UP, T2S1-UP, T2Y1-UP, T3Z1-UP, T4P1-UP, T4R1-UP, T4S1-UP, T5X1-UP, T6X1-UP, T8E1-UP, T8F1-UP, TAD1-UP, TAE1-UP, TAH1-UP, TAJ1-UP, TAL1-UP, TAN1-UP, TAR1-UP, TBA1-UP, TBC1-UP, TBD1-UP, TBE1-UP, TBR1-1000, TBR1001-UP, TDG1-UP, TDH1-UP, TDN1-UP, TDR1-UP, TDT1-UP, TDW1-UP, TDY1-UP, TDZ1-UP, TEC1-UP, TEG1-UP, TEN1-UP, TEW1-UP, TEX1-UP, TFB1-UP, TFF1-UP, TFG1-UP, TFH1-UP, TFJ1-UP, TFK1-UP, TFM1-UP, TFN1-UP, TFW1-UP, TFX1-UP, TFZ1-UP, TGH1-UP, TGJ1-UP, TGY1-UP, THJ1-UP, THW1-UP, TJA1-UP, TJE1-UP, TJF1-UP, TJL1-UP, TJY1-UP, TKN1-UP, TLE1-UP, TLF1-UP, TLH1-UP, TLX1-UP, TLY1-UP, TMC1-UP, TMF1-UP, TMJ1-UP, TMR1-UP, TMS1-UP, TMW1-UP, TMZ1-UP, TNG1-UP, TNJ1-UP, TNK1-UP, TNW1-UP, TPB1-UP, TPE1-UP, TPM1-UP, TRA1-UP, TRH1-UP, TRS1-UP, TSL1-UP, TSM1-UP, TSN1-UP, TST1-UP, TTK1-UP, TTT1-UP, TW41-UP, TWC1-UP, TWG1-UP, TWR1-UP, TWX1-UP, TWY1-UP, TWZ1-UP, TXA1-UP, TXN1-UP, TYE1-UP, TZA1-UP, TZL1-UP, TZS1-UP, W1B1-UP, W1C1-UP, W2S1-4999, W2S5000-UP, W2T1-4999, W2T5000-UP, W3H1-4999, W3H5000-UP, W3K1-UP, W531-UP, W5M1-4999, W5M5000-UP, W6A1-4999, W6A5000-UP, W8H1-UP, W8J1-UP, W8P1-4999, W8P5000-UP, W8R1-4999, W8R5000-UP, W921-UP, W931-UP, W941-UP, W951-UP, W961-UP, W981-UP, W9D1-UP, W9E1-UP, WAC1-UP, WAG1-UP, WAK1-UP, WAP1-UP, WAW1-UP, WBA1-UP, WBC1-UP, WBF1-UP, WBJ1-UP, WBK1-UP, WBN1-UP, WBT1-UP, WBX1-UP, WBY1-UP, WCB1-UP, WCF1-UP, WCG1-UP, WCL1-UP, WCM1-UP, WCS1-UP, WDC1-UP, WDE1-UP, WDJ10001-UP, WDK1-UP, WDM1-UP, WDT1-UP, WDZ1-UP, WEC1-UP, WEP1-UP, WET1-UP, WEY1-UP, WFH1-UP, WGB1-UP, WGC1-UP, WGF1-UP, WGL1-UP, WGR1-UP, WGS1-UP, WGX1-UP, WHJ1-UP, WHZ1-UP, WJK1-UP, WLB1-UP, WLG1-UP, WLM1-UP, WLN1-UP, WLT1-UP, WMB1-UP, WMR1-UP, WNA1-UP, WNB1-UP, WNE1-UP, WPK1-UP, WRA1-UP, WRE1-UP, WRG1-UP, WRK1-UP, WSN1-UP, WTD1-UP, WTZ1-UP, WWA1-UP, WWC1-UP, WWD1-UP, WXZ1-UP, WYA1-UP, WZS1-UP, WZX1-UP, WZY1-UP, X7C100-UP, XAA1-UP, XAC1-UP, XAD1-UP, XAH1-UP, XAJ1-UP, XAL1-UP, XAM1-UP, XAN1-UP, XBA1-UP, XBB1-UP, XBD1-UP, XBH1-UP, XBK1-UP, XBR1-UP, XCC10001-UP, XCF1-UP, XCK1-UP, XDB1-UP, XDR10001-UP, XFK1-UP, XGK1-UP, XGS1-UP, XHR1-UP, XJA1-UP, XLW1-UP, XWH1-UP, XWL1-UP, Y4P1-UP, Y921-UP, Y9A1-UP, Y9B1-UP, Y9C1-UP, Y9D1-UP, YAE1-UP, YAG1-UP, YBF1-UP, YBH1-UP, YBJ1-UP, YBK1-UP, YBM1-UP, YCA1-UP, YCE1-UP, YCF1-UP, YCR1-UP, YCW1-UP, YDL1-UP, YDR1-UP, YDS1-UP, YEA1-UP, YEC1-UP, YEE1-UP, YEG1-UP, YEJ1-UP, YEP1-UP, YFD1-UP, YFW1-UP, YHA1-UP, YHT1-UP, YJX1-UP, YRP1-UP, YSD1-UP, YYZ1-UP, YZZ1-UP, Z2K1-999, Z2K1000-UP, Z2N1-999, Z2N1000-UP, Z2P1-999, Z2P1000-UP, Z4D1-UP, Z4Z1-UP, Z6A1-999, Z6A1000-UP,

Z8D1-UP, Z8Z1-UP, Z9K1-UP, ZAA1-UP, ZAC1-UP, ZAE1-UP, ZBD1-UP, ZBF1-UP, ZBH1-UP, ZBJ1-UP, ZBM1-UP, ZCA1-UP, ZCD1-UP, ZCM1-UP, ZCS1-UP, ZCT1-UP, ZDA1-999, ZDA1000-UP, ZEB1-UP, ZEN1-UP, ZGB1-UP, ZGS1-UP, ZGZ1-UP, ZJB1-UP, ZJT1-UP, ZKJ1-UP, ZKP1-UP, ZLJ1-UP, ZLK1-UP, ZMF1-UP, ZML1-UP, ZMX1-UP, ZSA1-UP

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2003/12/02

Operator Controls (SEBU6941-05)

SMCS - 7300, 7301, 7451

i02013271



Note: Your machine may not be equipped with all of the controls that are described in this topic.

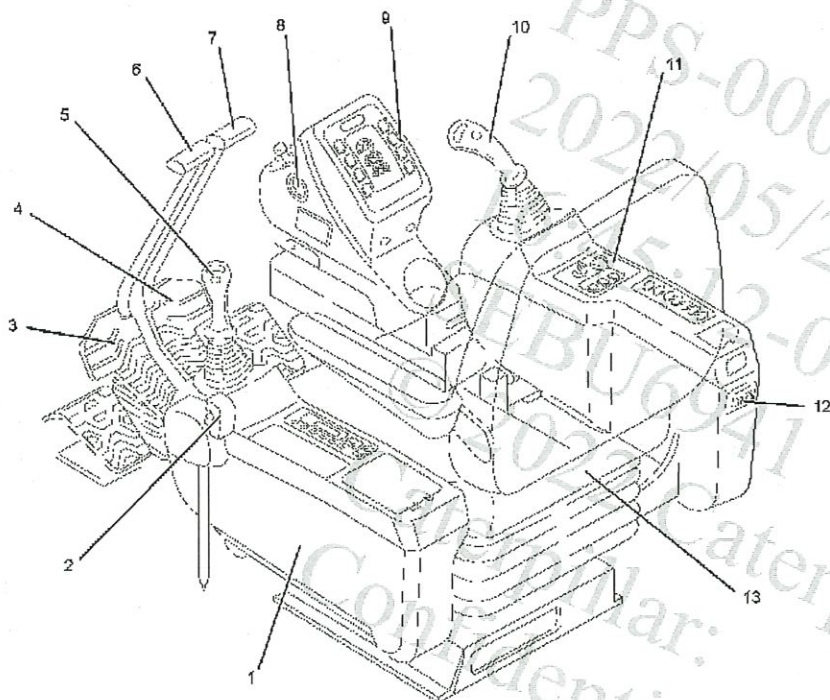


Illustration 1

g01041007

- (1) Left Console
- (2) Hydraulic Lockout Control
- (3) Left Travel Pedal
- (4) Right Travel Pedal
- (5) Left Joystick
- (6) Left Travel Lever
- (7) Right Travel Lever
- (8) Service Hour Meter
- (9) Monitor
- (10) Right Joystick
- (11) Right Console
- (12) Backup Controls
- (13) Operator's Seat

2NW1-UP, 4SS1-UP, 6DR1-UP, 6LS1-UP, 7RZ1-UP, 9GS1-UP, 9JS1-UP, AGS1-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMD1-UP, AME1-UP, AMJ1-UP, AMN1-UP, AYR1-UP, CCC1-UP, DCW1-UP, DET1-UP, FEE1-UP

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Battery Disconnect Switch (SEBU6941-05)

SMCS - 1411

i01039307

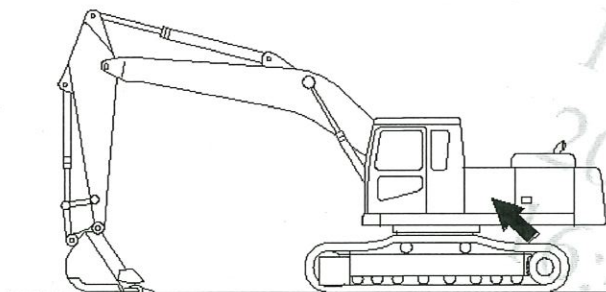


Illustration 1

g00100862

The battery disconnect switch is on the left side of the machine behind the front access door.

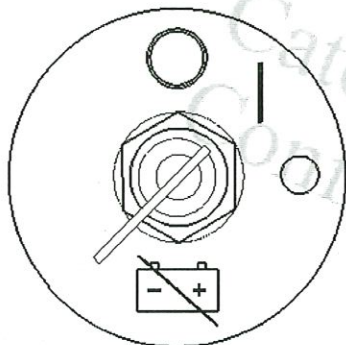


Illustration 2

g00406959



ON - To activate the electrical system, insert the disconnect switch key and turn the battery disconnect switch clockwise. The battery disconnect switch must be turned to the ON position before you start the engine.



OFF - To deactivate the electrical system, turn the battery disconnect switch counterclockwise to the OFF position.

The battery disconnect switch operates differently than the engine start switch. When the battery disconnect switch is in the OFF position, the electrical system is disabled. When the engine start switch is turned to the OFF position and the battery disconnect switch is turned to the ON position, the battery remains connected to the entire electrical system.

Turn the battery disconnect switch to the OFF position and remove the disconnect switch key when you service the electrical system or other components on the machine.

Turn the battery disconnect switch to the OFF position and remove the disconnect switch key if you do not operate the machine for an extended period of a month or more. This will prevent drainage of the battery.

NOTICE

Never move the battery disconnect switch to the OFF position while the engine is operating. Serious damage to the electrical system could result.

BKM1-UP, BLP1-UP, 1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 2JR1-UP, 2NW1-UP, 2RR1-UP, 2SW1-UP, 2WZ1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4SS1-UP, 4XW1-UP, 4XZ1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5WS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6LS1-UP, 6LW1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7JR1-UP, 7KS1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9GS1-UP, 9HN1-UP, 9JS1-UP, 9KR1-UP, 9PZ1-UP, 9TZ1-UP, 9WS1-UP, A3R1-UP, A6F1-UP, A8F1-UP, A9F1-UP, ABD1-UP, AED1-UP, AGD1-UP, AGS1-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMC1-UP, AMD1-UP, AMJ1-UP, AMN1-UP, ANB1-UP, ANS1-UP, AWN1-UP, AXK1-UP, AYR1-UP, AZP1-UP, B6H1-UP, BBL1-UP, BCN1-UP, BDC1-UP, BDE1-UP, BEA1-UP, BER1-UP, BFC1-UP, BFG1-UP, BFK1-UP, BGR1-UP, BKF1-UP, BKJ1-UP, BKM1-UP, BKX1-UP, BLP1-UP, BLY1-UP, BMZ1-UP, BPR1-UP, BRX1-UP, BTK1-UP, BTM1-UP, BWY1-UP, BYC1-UP, BYE1-UP, BYM1-UP, BYS1-UP, BZP1-UP, CAP1-UP, CCC1-UP, CCD1-UP, CFJ1-UP, CGZ1-UP, CJX1-UP, CLS1-UP, CWG1-UP, CXY1-UP, CYA1-UP, CYD1-UP, CYW1-UP, CYZ1-235, CZF1-UP, DBG1-UP, DBH1-UP, DCW1-UP, DER1-UP, DET1-UP, DFM1-UP, DFP1-UP, DGR1-UP, DHE1-UP, DHK1-UP, DHP1-UP, DJF1-UP, DKW1-UP, DKY1-UP, DNP1-UP, DNS1-UP, DTG1-UP, DTS1-UP, DTZ1-UP, EAG1-UP, EAH1-UP, EBM1-UP, EBP1-UP, EBY1-UP, ECH1-UP, EDX1-UP, EEH1-UP, EF31-UP, EFT1-UP, EGL1-UP, EJC1-UP, EJT1-UP, EKT1-UP, ELR1-UP, ELS1-UP, EMR1-UP, ERK1-UP, ERN1-UP, ESD1-UP, ESG1-UP, ESX1-UP, EX71-UP, FAJ1-UP, FAL1-UP, FAR1-UP, FBT1-UP, FDL1-UP, FEE1-UP, FEX1-UP, FEY1-UP, FFK1-UP, FKC1-UP, FKK1-UP, FLA1-UP, FLC1-UP, FLD1-UP, FPC1-UP, FXK1-UP, GAG1-UP, GAX1-UP, GBA1-UP, GBC1-UP, GBR1-UP, GCL1-UP, GDP1-UP, GGE1-UP, GGH1-UP, GJA1-UP, GKF1-UP, GKL1-UP, GKX1-UP, GLA1-UP, GMX1-UP, GNG1-UP, GPA1-UP, GPB1-UP, GPH1-UP, GPK1-UP, GTF1-UP, GWX1-UP, HAA1-UP, HAS1-UP, HBC1-UP, HBH1-UP, HBK1-UP, HDM1-UP, HEK1-UP, HHK1-UP, HJC1-UP, HKT1-UP, HM41-UP, HSP1-UP, J2F1-UP, JAB1-UP, JAT1-UP, JBF1-UP, JBT1-UP, JCD1-UP, JEE1-UP, JEG1-UP, JEX10001-UP, JFG1-UP, JFL1-UP, JFM1-UP, JFZ1-UP, JGB1-UP, JGZ1-UP, JHJ1-UP, JGG1-UP, JKN1-UP, JKW1-UP, JLG1-UP, JLP1-UP, JMB1-UP, JNK1-UP, JPD1-UP, JTG1-UP, JTN1-UP, JWR1-UP, JZA1-UP, JZR1-UP, KAV1-UP, KBE1-UP, KBS1-UP, KBX1-UP, KCE1-UP, KDD1-608, KDG1-UP, KDJ1-UP, KER1-UP, KFH1-UP, KGF1-UP, KGY1-UP, KHN1-UP, KHR1-UP, KHS1-UP, KJB1-UP, KKT1-UP, KLB1-UP, KLM1-UP, KTB1-UP, KTF1-UP, KZF1-UP, L5H1-UP, LAB1-UP, LAH1-UP, LAL1-UP, LAM1-UP, LBX1-UP, LCA1-UP, LCW10001-UP, LFL1-UP, LJE1-UP, LKY1-UP, LMA1-UP, LMG1-UP, LRM1-UP, LYS1-UP, M3E1-UP, M3F1-UP, M3M1-UP, M3N1-UP, M4T1-UP, MAB1-UP, MAR1-UP, MBP1-UP, MCA1-UP, MCH1-UP, MCL1-UP, MDE1-UP, MDJ1-UP, MDS1-UP, MDY1-UP, MEH1-UP, MEN1-UP, MEY1-UP, MFA1-UP, MGG1-UP, MGW1-UP, MLK1-UP, MNB1-UP, MND1-UP, MPL1-UP, MWP1-UP, MYA1-UP, MYG1-UP, MYP1-UP, MZD1-UP, MZH1-UP, NAC1-UP, NAH1-UP, NBD1-UP, NBF1-UP, NBH1-UP, NBN1-UP, NBT1-UP, NBX1-UP, NDE1-UP, NEG1-UP, NES1-UP, NLM1-UP, NNF1-UP, NZF1-UP, PAB1-UP, PAL1-UP, PBB1-UP, PBE1-UP, PBM1-UP, PBT1-UP, PCM1-UP, PCX1-UP, PEG1-UP, PFD1-UP, PFE1-UP, PGW1-UP, PHX1-UP, PJM1-UP, PJP1-UP, PJW1-UP, PKE1-UP, PPN1-UP, PRF1-UP, PTB1-UP, PTE1-UP, PYT1-UP, PZG1-UP, R2D1-UP, RAC1-UP, RAE1-UP, RAJ1-UP, RAN1-UP, RAR1-UP, RAS1-UP, RAW1-UP, RBH1-UP, RBJ1-UP, RCD1-UP, RCK1-UP, RDZ1-UP, REC1-UP, RGA1-UP, RGD1-UP, RGG1-UP, RSK1-UP, S5M1-UP, SBN1-UP, SCN1-UP, SCR1-UP, SCY1-UP, SDC1-UP, SDM1-UP, SDZ1-UP, SED1-UP, SFW1-UP, SHJ1-UP, SPC1-UP, SPN1-UP, STN1-UP, SYM1-UP, SYW1-UP, SZK1-UP, T2D1-UP, T2S1-UP, T2Y1-UP, TAE1-UP, TAH1-UP, TAJ1-UP, TBA1-UP, TDG1-UP, TDH1-UP, TDN1-UP, TDT1-UP, TDZ1-UP, TGJ1-UP, THJ1-UP, THW1-UP, TLY1-UP, TMC1-UP, TMF1-UP, TMJ1-UP, TNG1-UP, TPM1-UP, TPY1-UP, TRH1-UP, TSN1-UP, TZL1-UP, W3K1-UP, WBC1-UP, WBF1-UP, WBN1-UP, WBY1-UP, WDC1-UP, WDE1-UP, WDJ10001-UP, WDK1-UP, WDT1-UP, WEC1-UP, WET1-UP, WGC1-UP, WGT1-UP, WLT1-UP, WNE1-UP, WRK1-UP, WTD1-UP, XAC1-UP, XAM1-UP, XAN1-UP, XBA1-UP, XBB1-UP, XBH1-UP, XBK1-UP, XCC10001-UP, XCK1-UP, XDB1-UP, XDR10001-UP, YAE1-UP, YAG1-UP, YBJ1-UP, YBK1-UP, YCF1-UP, YCR1-UP, YDS1-UP, YEA1-UP, YEE1-UP, YFW1-UP, YSD1-UP, ZAE1-UP, ZBD1-UP, ZBF1-UP, ZBH1-UP, ZBM1-UP, ZCS1-UP, ZCT1-UP, ZGB1-UP, ZKP1-UP, ZMF1-UP, ZML1-UP

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Engine Start Switch (SEBU6941-05)

SMCS - 1416

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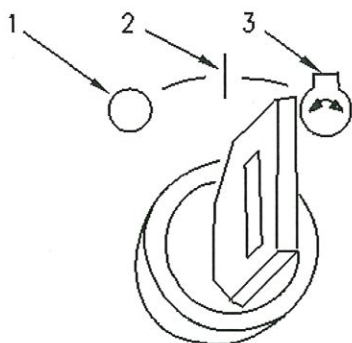


Illustration 1

(1) OFF position. (2) ON position. (3) START position.

For details, see the Operation and Maintenance Manual, "Engine Starting".

g00822102

BTG1-UP, CLS1-UP, CTY1-UP, DAH1-UP, FAA1-UP, FDL1-UP, MYA1-UP, 1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 1XS1-UP, 1ZS1-UP, 2AS1-UP, 2DW1-UP, 2ES1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2SW1-UP, 2WZ1-UP, 3AW1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4SS1-UP, 4XW1-UP, 4XZ1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 5WS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LS1-UP, 6LW1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7JR1-UP, 7KS1-UP, 7KZ1-UP, 7RZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9HZ1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9PZ1-UP, 9TZ1-UP, 9WS1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGD1-UP, AGS1-UP, AKE1-UP, AKG501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, ALX1-UP, AMC1-UP, AMD1-UP, AME1-UP, AMH1-UP, AMJ1-UP, AMN1-UP, ANB1-UP, ANF1-UP, ANJ1-UP, ANS1-UP, APA1-UP, AXK1-UP, AYR1-UP, B1K1-1000, B2L1-UP, B3M1-1000, B4N1-1000, BBL1-UP, BCN1-UP, BDC1-UP, BDE1-UP, BEA1-UP, BER1-UP, BFE1-UP, BFG1-UP, BFK1-UP, BGN1-UP, BGR1-UP, BKF1-UP, BKJ1-UP, BKM1-UP, BKW1-UP, BKX1-UP, BLP1-UP, BLX1-UP, BLY1-UP, BMM1-UP, BMZ1-UP, BNN1-UP, BPR1-UP, BRX1-UP, BTD1-UP, BTG1-UP, BTM1-UP, BWH1-UP, C3N1-UP, CAP1-UP, CBT1-UP, CCC1-UP, CCD1-UP, CDY1-UP, CFB1-UP, CFJ1-UP, CFT1-UP, CGZ1-UP, CJC1-UP, CLD1-UP, CLM1-UP, CLS1-UP, CLZ1-UP, CRB1-UP, CSJ1-UP, CTY1-UP, CYA1-UP, D3D1-UP, DAA1-UP, DAH1-UP, DBG1-UP, DBN1-UP, DCW1-UP, DER1-UP, DET1-UP, DKY1-UP, DTF1-UP, EAG1-UP, EGA1-UP, EGL1-UP, EMR1-UP, FAA1-UP, FDL1-UP, FED1-UP, FEE1-UP, GAG1-UP, GKX1-UP, GLA1-UP, GNG1-UP, GPA1-UP, HAA1-UP, HBC1-UP, HEK1-UP, HKT1-UP, JAB1-UP, JCD1-UP, JLC1-UP, JLD1-UP, JMB1-UP, JNK1-UP, JPL1-UP, JTG1-UP, KDD1-608, KGA1-UP, KHB1-UP, KJA1-UP, MAB1-UP, MAC1-UP, MAR1-UP, MCA1-UP, MDY1-UP, MKM1-UP, MSD1-UP, MYA1-UP, PAB1-UP, PAC1-UP, PCA1-UP, PEG1-UP, RAW1-UP, RBH1-UP, S2C1-UP, SBN1-UP, SJY1-UP, SNY1-UP, TKA1-UP, TKB1-UP, TKC1-UP, TKD1-UP, TKE1-UP

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2003/12/03

Monitoring System (SEBU6941-05)

SMCS - 7400, 7402, 7450, 7451, 7490

i02018393

**NOTICE**

When the monitor provides a warning, immediately check the monitor and perform the required action or maintenance as indicated by the monitor.

The monitor indicator does not guarantee that the machine is in a good condition. Do not use the monitor panel as the only method of inspection. Maintenance and inspection of the machine must be performed on a regular basis. See the Maintenance Section of this Operation and Maintenance Manual.

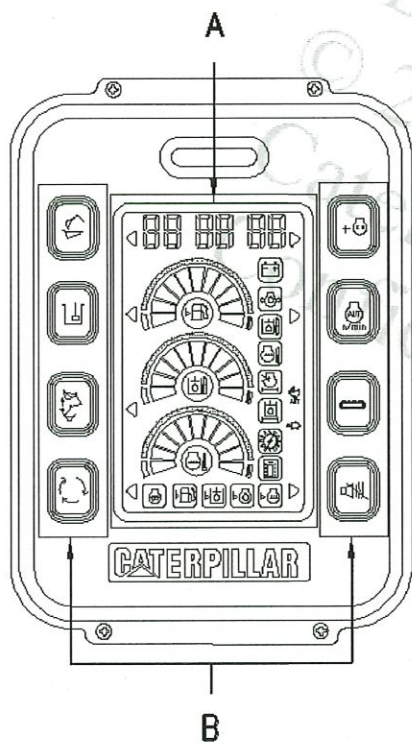


Illustration 1

g00101077

(A) Indicators and gauges

(B) Switches

The electronic monitor panel consists of indicators (A) and switches (B). Indicators and gauges (A) are used to display the status of various machine systems. Switches (B) are used to set the work mode, the power mode, the automatic engine speed control (AEC), the travel speed, and the travel alarm. Refer to the corresponding portion of this manual for more information on these topics.

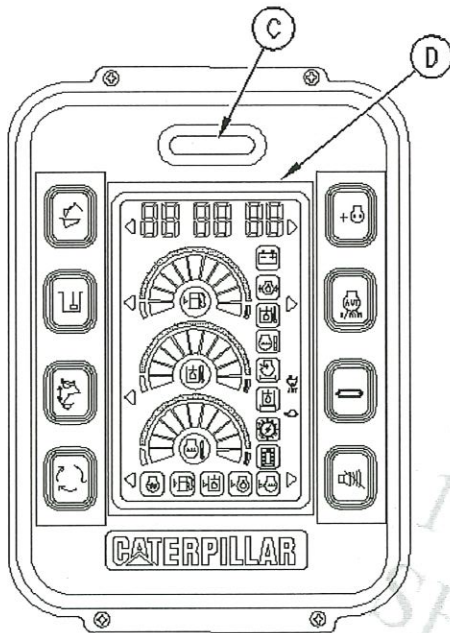


Illustration 2
(C) Action light

g00101078

(D) Monitor panel

The electronic monitor panel consists of an action alarm, action light (C), and monitor panel (D). The monitor panel has individual alert indicators for each machine system that is listed on the monitor panel.

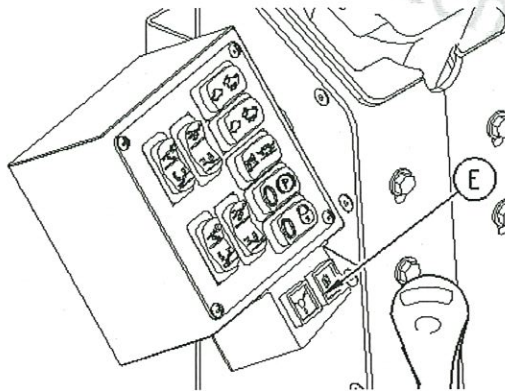


Illustration 3

g00751884

Two individual alert indicators are located at the bottom of the control panel on the left side of the steering column. Individual alert indicators (E) are in addition to the individual alert indicators on the electronic monitor panel.

The monitor panel is designed to alert the operator of an immediate problem or of an impending problem. The problem could be in more than one of the machine systems that are listed.

Prestart Monitoring Function

To activate the prestart monitoring function, the engine start switch must be in the ON position for at least two seconds before the engine is started. After this period of time, the monitoring system checks the fluid levels of the coolant, the engine oil, and the hydraulic oil. The fluid level indicator lights will come on if the corresponding fluid level is too low. These indicator lights will remain on until the engine start switch is turned off.

If the engine start switch is not maintained in the ON position for more than two seconds and the engine is started immediately, the system does not check the fluid levels. In this case, the fluid level indicator lights will flash for five seconds before turning off.

Note: The prestart monitoring function does not monitor the fluid levels after the engine is started. Therefore, the prestart monitoring function is not intended to detect leaks.

Note: The prestart monitoring function only works at the initial start-up or after waiting at least five minutes between engine stop and the engine restart. This is especially applicable to checking the engine oil level. While the engine is running, oil is pumped out of the crankcase and into the engine. After the engine is stopped, several minutes are required for the oil to drain out of the engine and back into the crankcase. If an engine is restarted before the oil drains back to the crankcase, the prestart monitoring function will mistakenly detect a low engine oil level. Therefore, wait at least five minutes before restarting the engine if a fluid level check is desired.

Note: The prestart monitoring function monitors the engine oil pressure continuously while the engine is running. Any warnings concerning the engine oil pressure should be taken seriously. Refer to "Warning Category 3" for more information on the warning for the engine oil pressure.

To ensure proper operation, check the system daily. The prestart monitoring function can be part of the starting procedure for the engine. For details on starting procedures for the engine, see Operation and Maintenance Manual, "Engine Starting".

Warning Categories

The electronic monitor panel provides three warning categories. The first warning category requires only operator awareness. The second warning category requires an operator response. The third warning category requires immediate shutdown of the machine systems.

Warning Category 1

In this category, only the alert indicator comes on. This category alerts the operator that the machine system needs attention. Failure of these systems will not endanger the operator. Failure of these systems will not cause serious damage to the machine components.

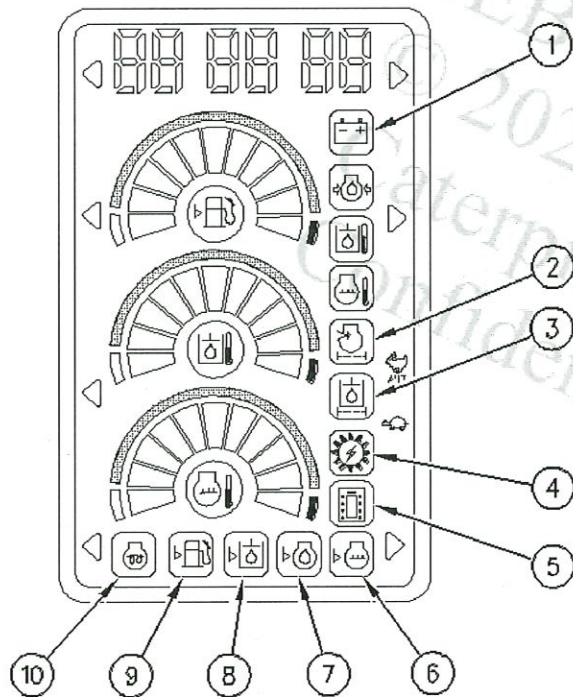


Illustration 4

g00101085

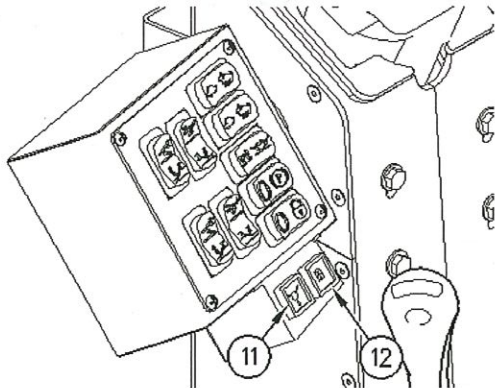


Illustration 5

g00751965

 **Alternator (1)** - This alert indicator indicates that the electrical charging system is malfunctioning. The machine can be operated while the alternator indicator light is on. However, if the electrical accessories are used, the batteries will discharge rapidly. Perform any necessary repairs.

 **Restricted Air Filter (2)** - This indicator indicates that the air filter is restricted. If the air filter is restricted, then engine output will be decreased. Immediately inspect the air filter. Clean the air filter. Inspect the condition of the air filter. Replace the air filter, if necessary. Perform any necessary repairs. Refer to Operation and Maintenance Manual, "Engine Air Filter Primary Element - Clean/Replace".

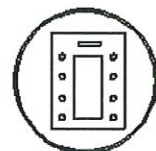
 **Restricted Hydraulic Return Filter (3)** - This indicator indicates that the hydraulic return filter (capsule filter) is restricted. A restricted hydraulic return filter will cause hydraulic components to malfunction. Immediately replace the return filter cartridge. Examine the condition of the restricted hydraulic filter. Perform additional repairs, if necessary. Refer to Operation and Maintenance Manual, "Hydraulic System Oil Filter (Return) - Replace".

 **Electronic Controller (4)** - When an electronic problem occurs, this indicator light will be activated. The problem may not exist in the electronic controller.

Stop the engine and restart the engine after a few minutes. If the indicator light does not come on, this indicates that a problem does not exist. If the indicator light comes on again, there is a problem in the electrical system. Consult your Caterpillar dealer for any necessary repairs.

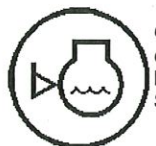
Make necessary repairs as soon as possible. If you cannot make immediate repairs, you can operate the machine by placing the backup switch in the MANUAL position. When the backup switch is in the MANUAL position, the power to the electronic monitor panel will be switched off. The monitor panel will not function. Refer to Operation and Maintenance Manual, "Backup Controls".

The backup switch is only a temporary procedure. Perform any necessary repairs as soon as possible.

 **Monitor Panel (5)** - If the indicator light comes on, a problem may exist in the monitor panel. The problem might also exist in the data communication lines. Consult your Caterpillar dealer for the necessary repairs.

The machine can be operated, but the electronic monitor panel will not function. Perform any necessary repairs as soon as possible.

Note: If electronic controller (4) and monitor panel (5) come on at the same time, there is a malfunction. This malfunction is in the communication between the electronic controller and the monitor panel. In this case, consult your Caterpillar dealer for any necessary repairs.

 **Coolant Level (6)** - If this indicator is activated, the coolant level is below the specified level. Add coolant. Refer to Operation and Maintenance Manual, "Cooling System Coolant Level - Check".

Note: When the prestart monitoring function is activated, the coolant level is checked. Refer to "Prestart Monitoring Function" for further information on the prestart monitoring function.



Engine Oil Level (7) - If this indicator is activated, the engine oil level is below the specified level. Add engine oil. Refer to Operation and Maintenance Manual, "Engine Oil Level - Check".

Note: When the prestart monitoring function is activated, the engine oil level is checked. Refer to "Prestart Monitoring Function" for further information on the prestart monitoring function.



Hydraulic Oil Level (8) - If this indicator is activated, the hydraulic oil level is below the specified level. Add hydraulic oil. Refer to Operation and Maintenance Manual, "Hydraulic System Oil Level - Check".

Note: When the prestart monitoring function is activated, the hydraulic oil level is checked. Refer to "Prestart Monitoring Function" for further information on the prestart monitoring function.

Note: In order to check levels (6), (7) and (8), park on a level surface, and check the levels at least 30 minutes after the engine has been stopped.



Fuel Level (9) - If the fuel in the tank is below the specified level, this indicator will come on. Add fuel.



Air Inlet Heater (10) (If Equipped) - If the engine coolant temperature is too low, the air inlet heater will be activated. The indicator will come on when the engine starter is turned on. The engine can be started after the indicator goes off. Refer to Operation and Maintenance Manual, "Air Inlet Heater Starting Aid" for more information on the operation of the air inlet heater.



Low Transmission Pressure (11) - This alert indicator will come on when low transmission pressure is detected. The parking brake is applied automatically. Stop the machine immediately. Investigate the cause. Do not operate the machine until the cause has been corrected.



Transmission Problem (12) - This alert indicator will come on if the transmission filter is restricted. This alert indicator will come on if the command pressure for the transmission is low. This alert indicator will come on if the oil sump temperature of the transmission is high. Examine the condition of each component. Perform additional repairs, if necessary.

Warning Category 2

In this category, the alert indicator and the action light come on. This category requires a change in machine operation in order to reduce excessive temperature in one of the machine systems or more.

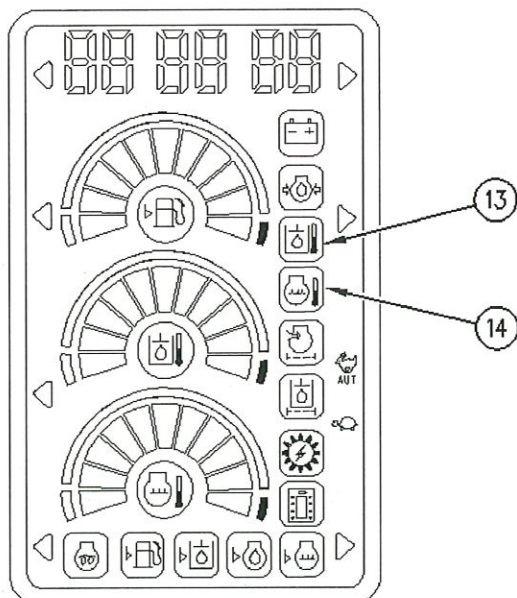


Illustration 6

g00751987



Hydraulic Oil Temperature (13) - This alert indicator indicates excessive hydraulic oil temperature. If this alert indicator comes on, reduce the operating speed of the machine. Keep the engine at low idle until the hydraulic oil temperature decreases to the correct level. If the indicator stays on after restarting machine operation, stop the engine. Check the hydraulic oil level. Perform any necessary repairs as soon as possible.



Coolant Temperature (14) - This alert indicator indicates excessive coolant temperature. If this alert indicator comes on, reduce the operating speed of the machine. Keep the engine at low idle until the engine is cooled down. If the indicator stays on after running the engine at low idle, stop the engine. Check the coolant level. Refer to Operation and Maintenance Manual, "Cooling System Coolant Level - Check". Check the fan drive belts for the water pump and fan blade. Refer to Operation and Maintenance Manual, "Belts - Inspect/Adjust/Replace". Make any necessary repairs.

Warning Category 3

In this category, the alert indicator and the action light will come on and the action alarm sounds. This category requires immediate shutdown of the machine in order to prevent injury to the operator and/or severe damage to the machine.

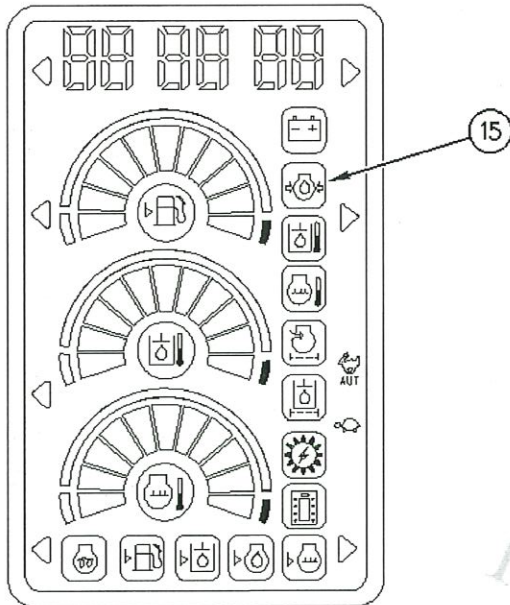


Illustration 7

g00751991



Engine Oil Pressure (15) - This alert indicator indicates low engine oil pressure. If this alert indicator comes on, stop the machine immediately. Stop the engine and investigate the cause of the problem. Do not operate the machine until the cause of the problem has been corrected.

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2RR1-UP, 2WZ1-UP, 3ES1-UP, 3FS1-UP, 3MR1-UP, 3NR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LW1-UP, 5MS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6LS1-UP, 6LW1-UP, 7EN1-UP, 7JR1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9GR1-UP, 9HN1-UP, 9HR1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9WS1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, BGN1-UP

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Gauges (SEBU6941-05)

SMCS - 7450, 7451, 7490

i01496570

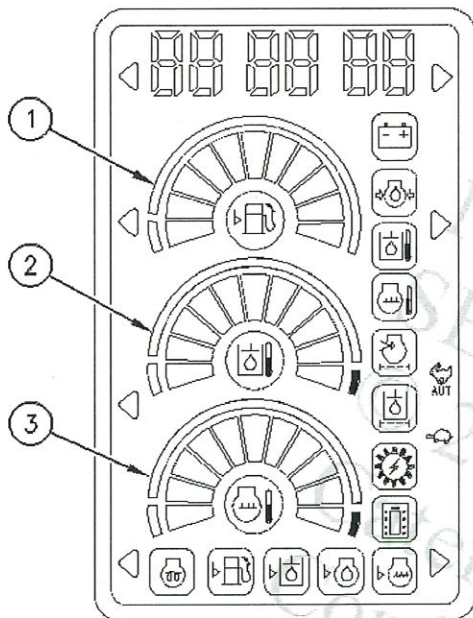


Illustration 1

g00304463

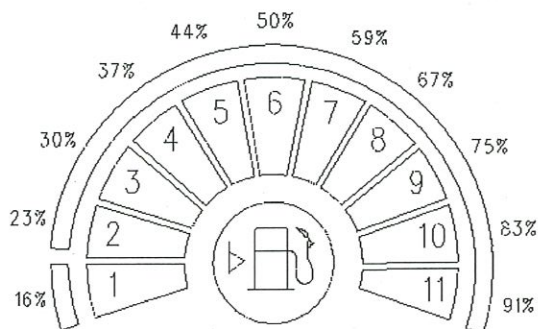


Illustration 2

g00304126



Fuel Level (1) - This gauge indicates fuel tank levels. By using this gauge, an operator can determine the amount of fuel that is in the tank. Use illustration 2 as a reference in order to determine the amount of fuel that is in the fuel tank. Each section of the fuel gauge will illuminate or each section will turn off when the specified percentage that is shown in illustration 2 is reached. Each section of the fuel gauge represents an approximate 8 percent change in the fuel level. When the fuel gauge indicates that the fuel level is in the white range, add fuel immediately.



Hydraulic Oil Temperature (2) - This gauge indicates the temperature of the hydraulic oil. The normal operating range is the green range. If the gauge reaches the red range, reduce the load on the system. If the gauge stays in the red range, stop the machine and investigate the cause of the problem.



Engine Coolant Temperature (3) - This gauge indicates the temperature of the engine coolant. The green range is the normal operating temperature. The red range indicates overheating.

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2DW1-UP, 2ES1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2SW1-UP, 2WZ1-UP, 3AW1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4SS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 5WS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LS1-UP, 6LW1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7JR1-UP, 7KS1-UP, 7KZ1-UP, 7RZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9WS1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGS1-UP, AKG501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMD1-UP, AME1-UP, AMJ1-UP, AMN1-UP, ANJ1-UP, APB1-UP, AYR1-UP, BFG1-UP, BGN1-UP, CCC1-UP, CDY1-UP, DCW1-UP, DET1-UP, FEE1-UP, KGA1-UP

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2000/11/13

Clock Adjustment (SEBU6941-05)

SMCS - 7450, 7603

i01432973

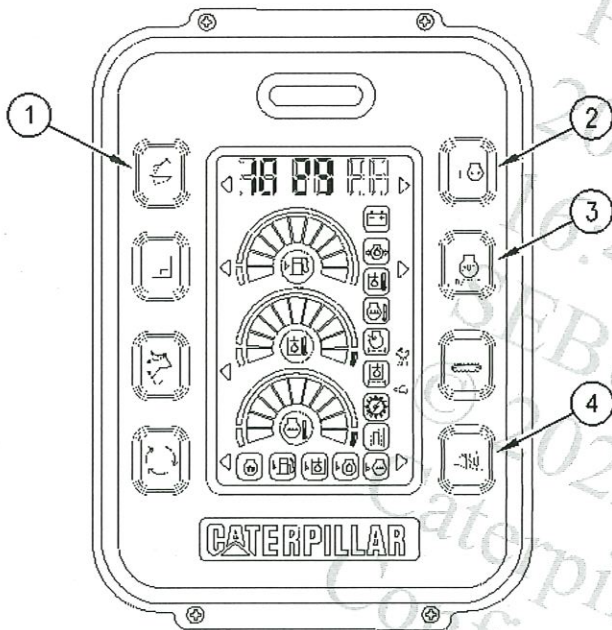


Illustration 1

The display shows a time of "10:29".

g00304481

Turn the disconnect switch to the OFF position or remove the batteries in order to reset the clock to "1:00". The following two methods can be used in order to adjust the clock.

- In order to change the setting for the hour, simultaneously press switch (1) for the boom priority mode and alarm cancel switch (4). In order to change the minutes, simultaneously press power mode switch (2) and alarm cancel switch (4). When you push the switches, the unit of time advances by one increment. Hold down the switches in order to continuously change settings.
- When you hold down alarm cancel switch (4), press AEC switch (3). This sets the clock to "00" minutes. If the time that is displayed is 30 minutes or less, the clock will display the preceding hour. If the time that is displayed is more than 30 minutes, the clock will display the succeeding hour.

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2DW1-UP, 2ES1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2RR1-UP, 2WZ1-UP, 3AW1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 5WS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LS1-UP, 6LW1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7JR1-UP, 7KZ1-UP, 7RZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9CZ1001-UP, 9GR1-UP, 9HN1-UP, 9HR1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9WS1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGS1-UP, AGK501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMD1-UP, AME1-UP, AMJ1-UP, AMN1-UP, ANJ1-UP, APB1-UP, AYR1-UP, BGN1-UP, CCC1-UP, CDY1-UP, DCW1-UP, DET1-UP, FEE1-UP, KGA1-UP

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1997/01/02

Service Hour Meter (SEBU6941-05)

SMCS - 7480

i00116845

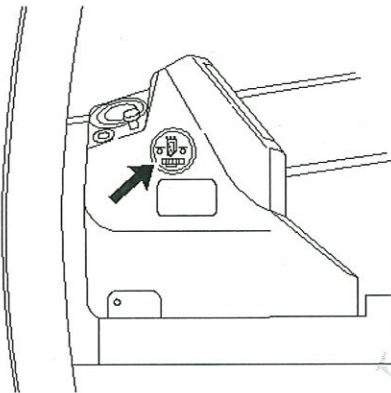


Illustration 1

g00107389



Service Hour Meter - This display indicates the total operating hours of the engine. Use the display to determine the service hour maintenance intervals.

1YS1-UP, 2JR1-UP, 2NW1-UP, 4SS1-UP, 6DR1-UP, 6LS1-UP, 7RZ1-UP, 9GS1-UP, 9JS1-UP, AGS1-UP, ALB1-UP, AME1-UP, ANJ1-UP, APB1-UP, BGN1-UP, CCC1-UP, CDY1-UP, DCW1-UP, DET1-UP, FEE1-UP

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1998/02/12

Travel Alarm - If Equipped (SEBU6941-05)

SMCS - 7429

i00762969

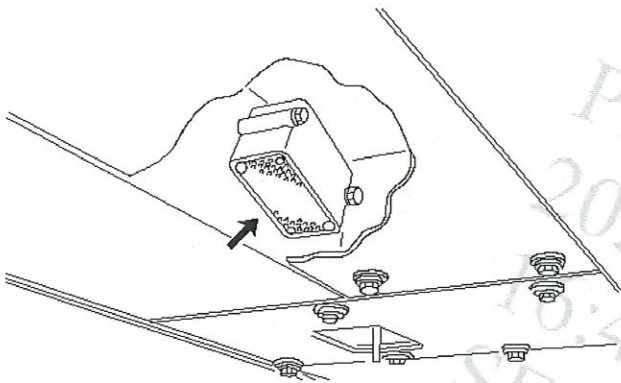


Illustration 1

g00102243

The travel alarm is located under the engine. The travel alarm will sound when the travel lever or the travel pedal is activated.

Travel Alarm Cancel Switch

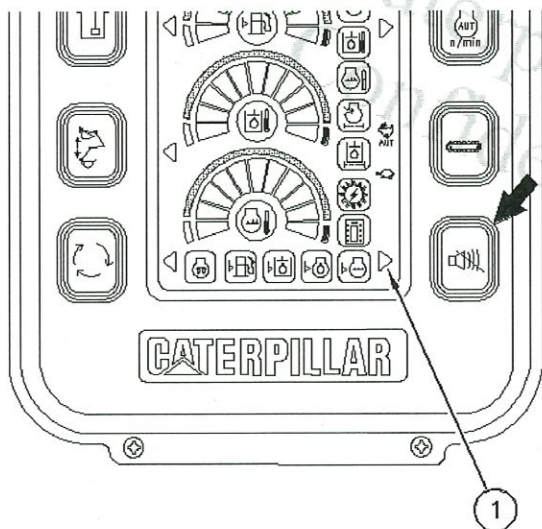


Illustration 2

(1) Indicator lamp

g00100931



Travel Alarm Cancel Switch - This switch is used to stop the travel alarm from sounding. Press the switch in order to stop the alarm. Indicator lamp (1) comes on.

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2WZ1-UP, 3ES1-UP, 3FS1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4SS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LS1-UP, 6LW1-UP, 7EN1-UP, 7JR1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9WS1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGS1-UP, AKG501-UP, ALB1-UP, AME1-UP, ANJ1-UP, APB1-UP, BGN1-UP, CCC1-UP, CDY1-UP, DCW1-UP, FEE1-UP, KGA1-UP

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1997/09/25

Storage Box (SEBU6941-05)

SMCS - 7268

i00659894



Interior Storage Box

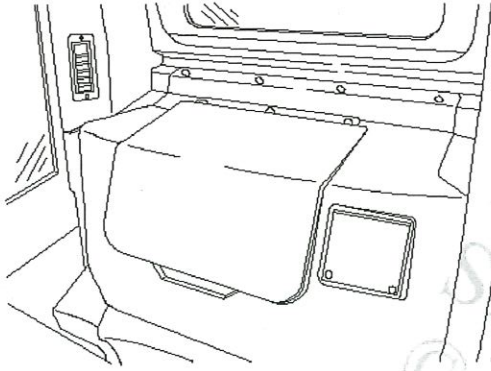


Illustration 1

g00107780

The storage box is used to store miscellaneous items such as a first aid kit or a lunch box.

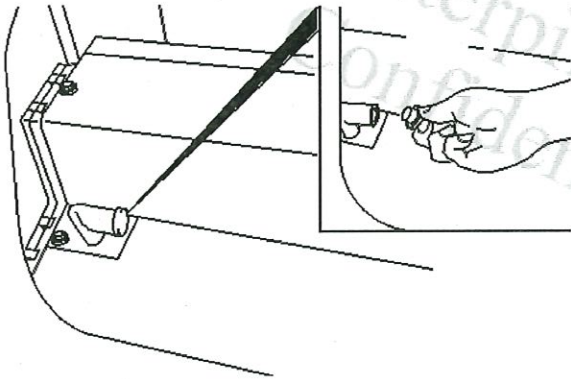


Illustration 2

g00107781

Note: There is a plugged hole inside the storage box. Install the plug that is supplied with the machine into the hole in order to block the air that is coming from the air conditioner or from the heater.

Exterior Storage Box



Illustration 3

g00104582



Pull - Pull the handle in order to open the storage box. The storage box is used to store the refueling pump. The storage box is also used to store miscellaneous tools.

1YS1-UP, 2JR1-UP, 2NW1-UP, 4SS1-UP, 6DR1-UP, 9GS1-UP, AGS1-UP, ALB1-UP, AME1-UP, ANJ1-UP, APB1-UP, CCC1-UP, CDY1-UP, DCW1-UP, DET1-UP, FEE1-UP

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2001/05/01

Air Conditioning And Heating Control (SEBU6941-05)

SMCS - 7304, 7320, 7337

i01457044



The automatic temperature control unit adjusts the temperature inside the cab automatically.

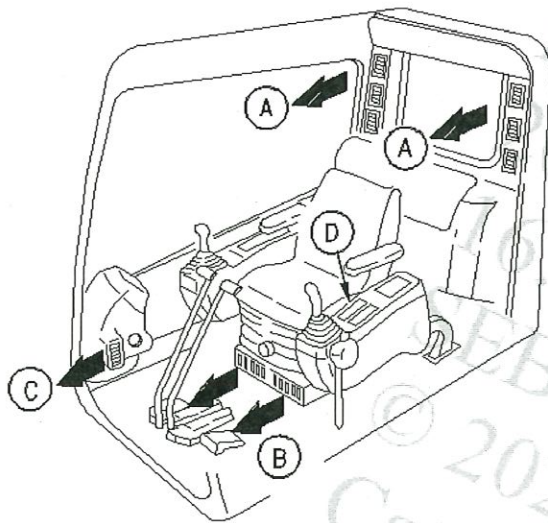


Illustration 1
Typical example
(A) Air outlet
(B) Air outlet
(C) Air outlet
(D) Control panel

g00101001

The automatic temperature control unit is located behind the operator seat.

Redirect the louvers for air outlets (A) and (C) by hand to the desired direction. The louvers for air outlet (B) cannot be redirected.

The heating and air conditioning controls are on control panel (D).

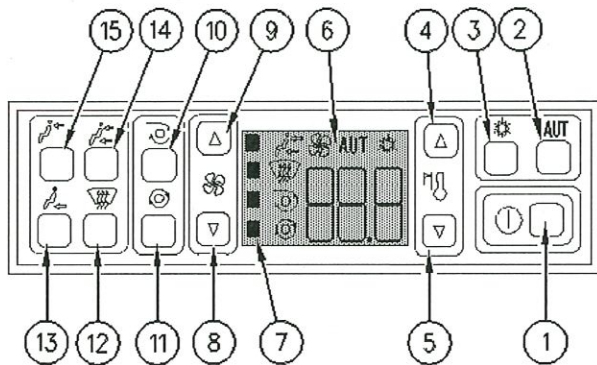


Illustration 2

g00333238



On/Off Switch (1) - If the heating and air conditioning system is off, pushing this switch will turn on the heating and air conditioning system. If the heating and air conditioning system is on, pushing this switch will turn off the heating and air conditioning system.



Temperature Selection Switches - These switches control the temperature of the air that is coming from the air outlets in order to achieve the preset temperature. This preset temperature appears on display (6). If the heating and air conditioning system is in the automatic mode, pushing these switches changes the preset temperature.



Increase (4) - Push this switch in order to increase the temperature of the air that is coming out of the air outlets or push this switch in order to increase the preset temperature.



Decrease (5) - Push this switch in order to decrease the temperature of the air that is coming out of the air outlets or push this switch in order to decrease the preset temperature.



Fan Speed Switches - The fan speed switch directly controls the fan speed if only the fan is being operated. If the heating and air conditioning system is operating in the automatic mode, pushing this switch overrides the automatically selected fan speed.



Increase (9) - Push this switch in order to increase the fan speed.

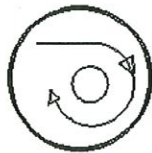


Decrease (8) - Push this switch in order to decrease the fan speed.

Air Inlet Selection Switches - These switches select the position of the air inlet.



RECIRCULATE (11) - When this position is selected, the air inlet is closed. The air will recirculate inside the cab.



FRESH AIR (10) - When this position is selected, the air inlet is open. Fresh air will circulate into the cab.

Note: If the heating and air conditioning system is in the automatic mode at engine start-up and the temperature inside the cab is too warm or too cool, the damper for fresh air ventilation may automatically close for a few minutes. This will help to bring the air temperature to the preset temperature more quickly.

Air Outlet Selection Switches - This switch selects the position of each air outlet. Each switch controls a separate air outlet.



Upper Body (15) - Depressing this switch directs the air flow out of air outlet (A).



Upper Body and Under Seat (14) - Depressing this switch directs the air flow out of air outlet (A) and air outlet (B).



Under Seat (13) - Depressing this switch directs the air flow out of air outlet (B).



Defrost (12) - Depressing this switch directs the air flow out of air outlet (A) and air outlet (C).

Preset Temperature Display (6) - This display shows the set temperature.

With the display ON, press the temperature selection switch (increase) (4), the temperature selection switch (decrease) (5) and the On/Off switch (1) simultaneously. This will toggle the display between Degrees Celsius and Degrees Fahrenheit.



Air Conditioning Override Switch (3) - If the heating and air conditioning system is in the automatic mode, pushing this switch causes the compressor to run continuously while the compressor tries to maintain the preset temperature. If the heating and air conditioning system is set for operation of the fan only, this switch has no function. The compressor may be operated intermittently during heater operation in order to remove excess humidity from the cab. To cancel this override mode, push switch (3) again.



Automatic Temperature Control Switch (2) - Pushing this button causes the heating and air conditioning system to toggle between the mode for automatic temperature control and the mode for the fan only.

Note: If the fan speed is manually selected and/or the override for the air conditioner is selected, the "AUT" switch must be pushed twice in order to make the fan speed automatic again.

Note: If the heating and air conditioning system is set for operation of the fan only, pressing the temperature selection switch returns the heating and air conditioning system to the automatic mode and the preset temperature will change. This will set the speed of the fan to the mode of fan only.

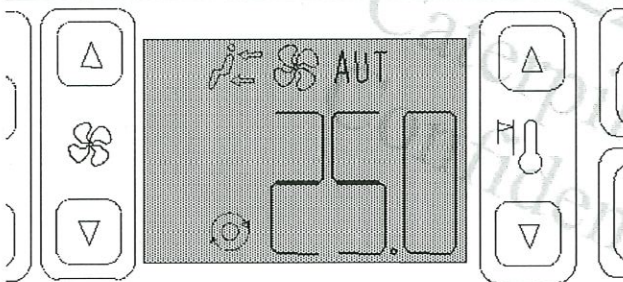


Illustration 3

This is an example of the display during the fully automatic mode.

g00449660



Illustration 4

g00102108

To fully take advantage of the automatic function of the heating and air conditioning system, always keep the direct sunlight sensor clean. Do not put objects near the direct sunlight sensor that will affect the function of the sensor.

In cool weather, operate the compressor weekly in order to prevent leakage of the refrigerant gas. This will also help to maintain the compressor in optimum working order.

Consult with your Caterpillar dealer for periodic maintenance of the heating and air conditioning system.

AGS1-1717, ALB1-339, ANJ1-UP, ANS1-317, APB1-256, CDY1-312, DCW1-310, 6DR1-UP, AGS1-1717, ALB1-339, AME1-UP, ANJ1-UP, ANS1-317, APB1-256, CCC1-UP, CDY1-312, CLS1-UP, DCW1-310, DET1-UP, FDL1-UP, FEE1-UP, MYA1-UP, RCD1-UP

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2008/04/04

Window (Front) (SEBU6941-05)

SMCS - 7310, 7340

i02998743



Note: The sun visor (if equipped) must be down before the front window is raised. The front window will not lock in the overhead storage position with the sun visor in the raised position.

To provide full ventilation inside the cab, the upper window and the lower window can be fully opened.

**WARNING**

When opening or closing the windows, be extra careful to prevent any personal injury. The hydraulic lockout control must be in the LOCKED position in order to prevent any possibility of sudden movement of the machine due to inadvertent contact with the hydraulic control(s).

Do not change the position of the window until the following items have been done:

- Park the machine on a level surface.
- Lower the equipment to the ground.
- Move the lever for the hydraulic lockout control to the LOCKED position.
- Stop the engine.

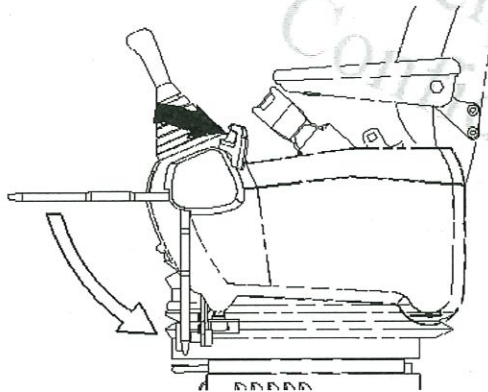


Illustration 1

g00543871

The lever for the hydraulic lockout control is shown in the LOCKED position. For further details on this procedure, refer to Operation and Maintenance Manual, "Hydraulic Lockout Control".

Perform Step 1 through Step 2 in order to open the upper window.

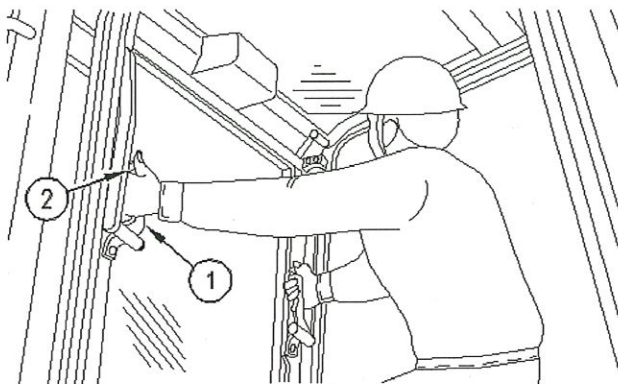


Illustration 2

g00107354

- (1) Grip
(2) Latch

1. Hold both grips (1), and push both latches (2) in order to unlatch the window.

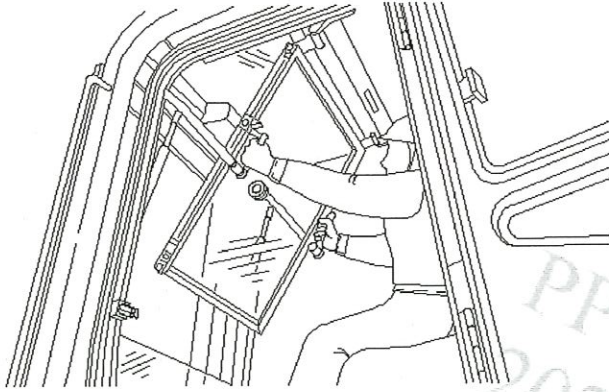
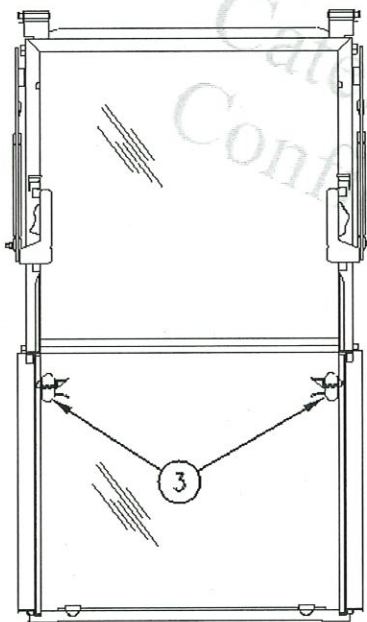


Illustration 3

g00107355

2. Lift the window upward until the window is securely latched in the overhead storage position.
Perform Step 3 in order to close the upper window.
3. Push both latches (2) in order to unlatch the window and lower the window into position until the latches engage.
Perform Step 4 through Step 7 in order to open the lower window.

Illustration 4
(3) Latch

g00555029

4. Push both latches (3) in order to unlatch the lower window.
5. Raise the lower window to the top of the upper window frame.
6. Hold both grips (1) and release both latches (2).
7. Raise both windows until the windows are latched in the overhead storage position.
Perform Step 8 through Step 11 in order to lower the windows.
8. Push both latches (2) in order to unlatch the window.
9. Lower the windows until latches (2) engage.

10. Push both latches (3) in order to unlatch the lower window.

11. Lower the lower window until latches (3) engage.

1XS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 2SW1-UP, 3YR1-UP, 3YZ1-UP, 4DS1-UP, 4RS1-UP, 5BS1-UP, 5LR1-UP, 5LS1-UP, 5MS1-UP, 5SW1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LW1-UP, 7JR1-UP, 7KS1-UP, 8FN1-UP, 9PZ1-UP, 9TZ1-UP, 9WS1-UP, 9WW1-UP, ADC1-UP, AEJ1-UP, AGS1-UP, ALB1-UP, AME1-UP, ANJ1-UP, APB1-UP, BFG1-UP, CCC1-UP, CDY1-UP, CLD1-UP, CLS1-UP, CTY1-UP, DCW1-UP, DER1-UP, DET1-UP, FDL1-UP, FEE1-UP, JMB1-UP, MYA1-UP, PEG1-UP, RCD1-UP, SDL1-UP, SJY1-UP

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Window Wiper And Washer Control (SEBU6941-05)

SMCS - 7305, 7306

i01137810

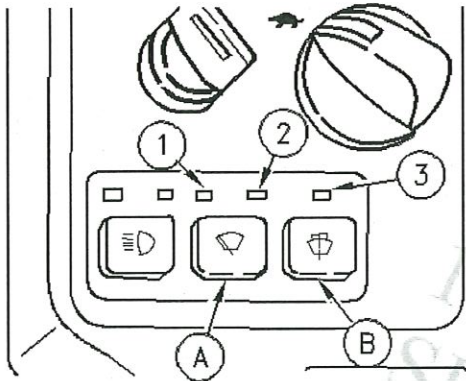


Illustration 1

g00100945



Window Wiper (A) - Push the switch in order to activate the window wiper. Whenever the switch is depressed, the mode of the window wiper will change according to the indicator light that is illuminated.

When indicator light (1) is on, the window wiper operates intermittently at every five second intervals. When indicator light (2) is on, the window wiper operates continuously.

NOTICE

If the wiper does not operate with the switch in the ON position, turn the switch off immediately. Check the cause. If the switch remains on, motor failure can result.



Window Washer (B) - Push the switch in order to activate the window washer. While the switch is depressed, indicator light (3) will come on and washer fluid will spray from the nozzle. The window wiper will also operate while the switch is depressed. After the switch is released for approximately three seconds, the window wiper will stop.

NOTICE

If the washer is used continuously for more than 20 seconds or used when no washer solution comes out, motor failure can result.

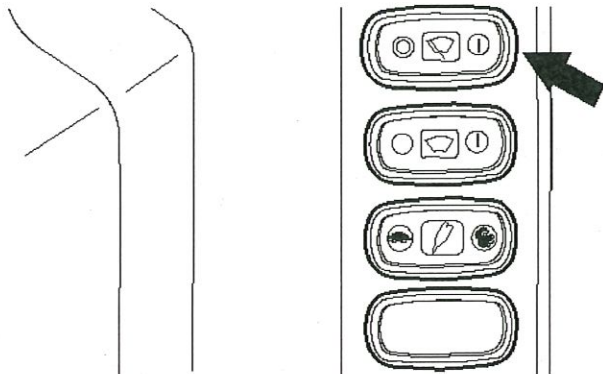


Illustration 2

g00100949



Lower Window Wiper (If Equipped) - Push down the right half of the switch in order to turn on the lower window wiper. Push down the left half of the switch in order to turn off the lower window wiper.

NOTICE

If the wiper does not operate with the switch in the ON position, turn the switch off immediately. Check the cause. If the switch remains on, motor failure can result.

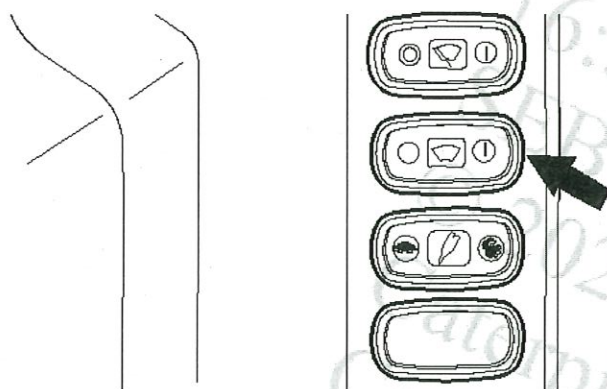


Illustration 3

g00100952



Lower Window Washer (If Equipped) - Push down the right half of the switch and keep the switch depressed in order to activate the lower window washer. While the switch is depressed, the washer fluid will spray from the nozzle. The window wiper will also function. When you release the switch, the window washer will stop. The window wiper will continue to function.

NOTICE

If the washer is used continuously for more than 20 seconds or used when no washer solution comes out, motor failure can result.

1AS1-346, 1CS1-484, 1ES1-UP, 1GS1-143, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-214, 1YS1-UP, 2DW1-251, 2JR1-UP, 2RR1-425, 2WZ1-299, 3AW1-989, 3MR1-4978, 3NR1-306, 4MR1-715, 4NR1-175, 4XW1-UP, 5BR1-1638, 5CR1-263, 5EZ1-252, 5GW1-UP, 5LW1-UP, 6CR1-2901, 6DR1-UP, 7EN1-302, 8ES1-UP, 8GM1-298, 8MR1-189, 8NR1-243, 8PR1-261, 8RR1-385, 8SR1-417, 8TR1-UP, 9CS1-UP, 9HN1-398, 9KR1-UP, ABD1-UP, AED1-UP, AGS1-UP, ALB1-UP, AME1-UP, ANJ1-UP, APB1-UP, BGN1-UP, CCC1-UP, CDY1-UP, DCW1-UP, DET1-UP, FEE1-UP

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Cab Door (SEBU6941-05)

SMCS - 7308

i01192496



Illustration 1

g00101071

Push the knob of the cab door latch forward in order to open the cab door. For additional ventilation, open the cab door all the way and secure the cab door to the catch on the wall of the cab.

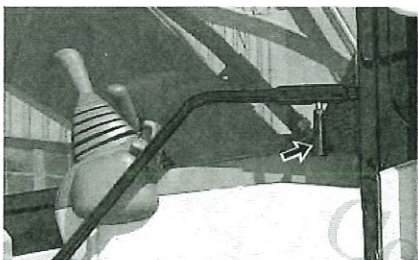


Illustration 2

g00101072

To disengage the cab door from the catch, move the cab door release lever away from the operator.

Side Window

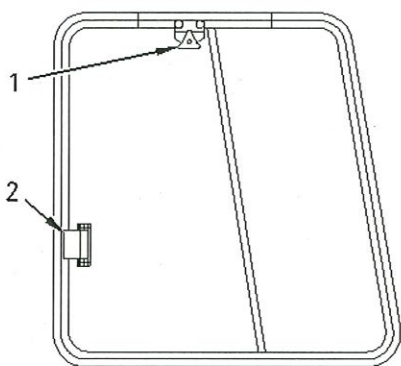


Illustration 3

g00637925

Turn knob (1) counterclockwise in order to allow the side window to be adjusted. Release latch (2) in order to open the side window. Slide the side window to the desired position. Turn knob (1) clockwise in order to secure the side window.

Loosen knob (1) in order to close the side window. Slide the side window until latch (2) is engaged.

6DR1-UP, AGS1-UP, ALB1-UP, AME1-UP, ANJ1-UP, APB1-UP, BGN1-UP, CCC1-UP, CDY1-UP, DCW1-UP, DET1-UP, FEE1-UP

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2000/11/07

Travel Control - Straight Travel Pedal (If Equipped) (SEBU6941-05)

SMCS - 5462

i01447292

**WARNING**

With certain attachment combinations, the third pedal can have different functions. Always check for third pedal function before using the third pedal. Improper operation of the third pedal could result in serious injury or death.

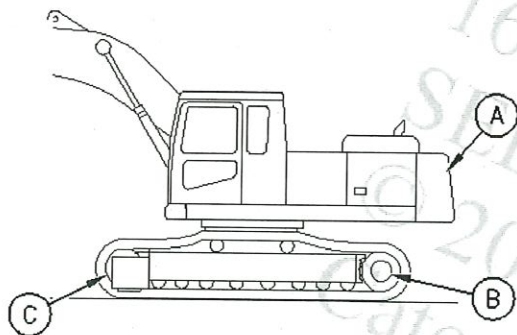


Illustration 1
Position for normal travel
(A) Rear of machine
(B) Final drive
(C) Idler

g00753277

When you travel, make sure that final drive sprockets (B) are under the rear of the machine.

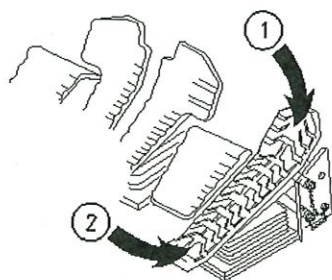


Illustration 2
(1) Forward Travel
(2) Reverse Travel

g00757775

The third pedal is to the right of the right travel pedal. The third pedal controls the forward and backward movement of the machine.

Note: If the third pedal is depressed and a travel pedal or a travel lever is operated, the machine will turn accordingly.

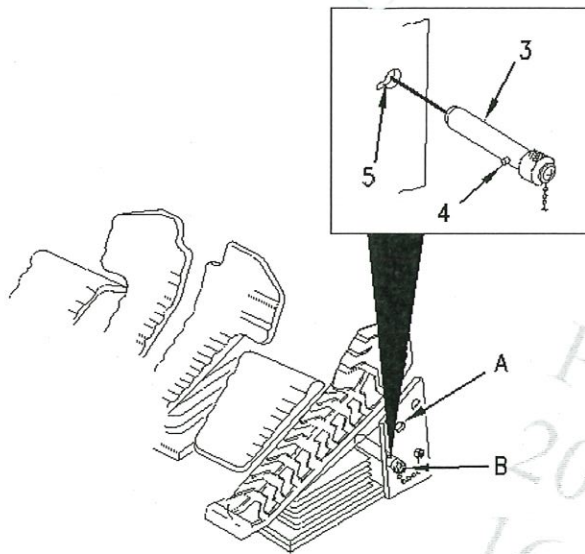


Illustration 3

(3) Lock pin

(4) Pin

(5) Notch

(A) LOCKED position

(B) UNLOCKED position (STORAGE position)

g00555934

When the machine is not operated with the third pedal, install lock pin (3) at the LOCKED position in order to prevent accidental operation.

Note: To prevent lock pin (3) from being pulled out, insert pin (4) through notch (5) and turn lock pin (3) counterclockwise by 1/4 turn.

B1K1-1000, B2L1-1000, B3M1-1000, B4N1-1000, 1AS1-UP, 1GS1-UP, 1HS1-UP, 1YS1-UP, 2JR1-UP, 2SW1-UP, 3NR1-UP, 4XZ1-UP, 5CR1-UP, 5LW1-UP, 6DR1-UP, 7EN1-UP, 7KS1-UP, 8GM1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 9PZ1-UP, 9TZ1-UP, A3R1-UP, A6F1-UP, A8F1-UP, A9F1-UP, A9J1-UP, ABD1-UP, ADC1-UP, AEJ1-UP, AGD1-UP, AGS1-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, ALX1-UP, AMC1-UP, AMD1-UP, AMH1-UP, AMJ1-UP, AMN1-UP, ANB1-UP, ANS1-UP, AP41-UP, APA1-UP, APB1-UP, AT21-UP, AWN1-UP, AWS1-UP, AXK1-UP, AYF1-UP, AYR1-UP, AZP1-UP, B1K1-1000, B2L1-1000, B361-UP, B3M1-1000, B4N1-1000, B6H1-UP, BBL1-UP, BCN1-UP, BDC1-UP, BDE1-UP, BEA1-UP, BER1-UP, BFC1-UP, BFE1-UP, BFG1-UP, BKF1-UP, BKJ1-UP, BKM1-UP, BKW1-UP, BKX1-UP, BLP1-UP, BLX1-UP, BLY1-UP, BMH1-UP, BMM1-UP, BMZ1-UP, BRB1-UP, BTD1-UP, BTK1-UP, BTM1-UP, BYE1-UP, BYP1-UP, BYS1-UP, BZ21-UP, BZH1-UP, BZN1-UP, BZP1-UP, BZY1-UP, C4H1-UP, C5K1-UP, C7K1-UP, C8L1-UP, C9M1-UP, CAP1-UP, CCC1-UP, CCD1-UP, CFJ1-UP, CGZ1-UP, CJN1-UP, CJX1-UP, CLD1-UP, CLM1-UP, CLS1-UP, CLZ1-UP, CMR1-UP, CRB1-UP, CSJ1-UP, CTY1-UP, CXY1-UP, CYA1-UP, CYW1-UP, CZF1-UP, D3S1-UP, DAA1-UP, DAY1-UP, DBG1-UP, DBH1-UP, DCW1-UP, DER1-UP, DET1-UP, DFG1-UP, DFM1-UP, DFP1-UP, DFY1-UP, DGE1-UP, DGR1-UP, DHK1-UP, DJE1-UP, DJF1-UP, DKF1-UP, DKY1-UP, DNM1-UP, DNP1-UP, DNS1-UP, DPJ1-UP, DPX1-UP, DSW1-UP, DTF1-UP, DTG1-UP, DTS1-UP, DTZ1-UP, DWK1-UP, DYR1-UP, DZF1-UP, DZW1-UP, E4K1-UP, EAH1-UP, EAM1-UP, EAR1-UP, EAW1-UP, EBF1-UP, EBK1-UP, EBM1-UP, EBP1-UP, ECH1-UP, ECZ1-UP, EDA1-UP, EDX1-UP, EEH1-UP, EF31-UP, EFT1-UP, EGA1-UP, EGL1-UP, EJC1-UP, EKT1-UP, ELC1-UP, ELR1-UP, ELS1-UP, ERK1-UP, ERL1-UP, ERN1-UP, ESG1-UP, ESX1-UP, ETC1-UP, EWC1-UP, EX71-UP, EYF1-UP, F5G1-UP, F5L1-UP, FA21-UP, FAJ1-UP, FAL1-UP, FAR1-UP, FBR1-UP, FBT1-UP, FDL1-UP, FED1-UP, FEE1-UP, FEH1-UP, FEP1-UP, FEX1-UP, FEY1-UP, FFK1-UP, FFT1-UP, FJB1-UP, FJH1-UP, FKC1-UP, FKK1-UP, FLA1-UP, FLC1-UP, FLD1-UP, FMH1-UP, FPC1-UP, G1L1-999, GAC1-UP, GAD1-UP, GAG1-UP, GAX1-UP, GAY1-UP, GBA1-UP, GBC1-UP, GBR1-UP, GCL1-UP, GDP1-UP, GF81-UP, GGE1-UP, GGH1-UP, GGJ1-UP, GHT1-UP, GJA1-UP, GKX1-UP, GLA1-UP, GMY1-UP, GNY1-UP, GPA1-UP, GPB1-UP, GPH1-UP, GPK1-UP, GTJ1-UP, GWC1-UP, H3K1-UP, HAA1-UP, HAH1-UP, HAS1-UP, HBH1-UP, HBK1-UP, HBP1-UP, HBS1-UP, HBT1-UP, HCA1-UP, H CJ1-UP, HCK1-UP, HCP1-UP, HDM1-UP, HDW1-UP, HEK1-UP, HER1-UP, HHK1-UP, HJD1-UP, HLB1-UP, HM41-UP, HNG1-UP, HPD1-UP, HSM1-UP, HSP1-UP, J2F1-UP, JAB1-UP, JAT1-UP, JBF1-UP, JBT1-UP, JCD1-UP, JCM1-UP, JCZ1-UP, JEA1-UP, JEB1-UP, JEE1-UP, JEG1-UP, JEX10001-UP, JEY1-UP, JFG1-UP, JFL1-UP, JFM1-UP, JFR1-UP, JFZ1-UP, JGB1-UP, JGK1-UP, JGS1-UP, JGZ1-UP, JHA1-UP, JHF1-UP, JHJ1-UP, J JG1-UP, JKN1-UP, JKR1-UP, JLC1-UP, JLD1-UP, JLP1-UP, JLS1-UP, JMB1-UP, JNK1-UP, JPD1-UP, JPL1-UP, JRJ1-UP, JTG1-UP, JTN1-UP, JWR1-UP, JZA1-UP, JZR1-UP, K2L1-UP, KBC1-UP, KBD1-UP, KBE1-UP, KBJ1-UP, KBP1-UP, KBS1-UP, KBX1-UP, KBY1-UP, KBZ1-UP, KCE1-UP, KCN1-UP, KCS1-UP, KCZ1-UP, KDD1-608, KDG1-UP, KDJ1-UP, KEA1-UP, KED1-UP, KER1-UP, KFA1-UP, KFH1-UP, KFM1-UP, KFT1-UP, KFX1-UP, KGB1-UP, KGF1-UP, KGH1-UP, KGY1-UP, KHN1-UP, KHR1-UP, KHS1-UP, KJB1-UP, KKK1-UP, KKT1-UP, KLM1-UP, KLT1-UP, KMK1-UP, KNE1-UP, KRM1-UP, KTE1-UP, KTF1-UP, KZF1-UP, L2K1-UP, L5H1-UP, L681-UP, LAB1-UP, LAH1-UP, LAK1-UP, LAL1-UP, LAM1-UP, LBN1-UP, LBX1-UP, LCA1-UP, LCG1-UP, LCL1-UP, LCW10001-UP, LDG1-UP, LEM1-UP, LHN1-UP, LJE1-UP, LJY1-UP, LKY1-UP, LMA1-UP, LMG1-UP, LRM1-UP, LRT1-UP, LTP1-UP, LYS1-UP, M2K1-999, M2R1-UP, M3E1-UP, M3F1-UP, M3M1-UP, M3N1-UP, M3W1-UP, M4T1-UP, MAB1-UP, MAC1-UP, MBP1-UP, MBX1-UP, MCA1-UP, MCH1-UP, MCL1-UP, MCS1-UP, MCY1-UP, MDE1-UP, MDJ1-UP, MDR1-UP, MDS1-UP, MDT1-UP, MDY1-UP, MEH1-UP, MEM1-UP, MEW1-UP, MEY1-UP, MFA1-UP, MFL1-UP, MFY1-UP, MGF1-UP, MGG1-UP, MGW1-UP, MJD1-UP, MKM1-UP, MLK1-UP, MMA1-UP, MNB1-UP, MND1-UP, MPG1-UP, MPL1-UP, MPZ1-UP, MSD1-UP, MTE1-UP, MTW1-UP, MWP1-UP, MYA1-UP, MYG1-UP, MYP1-UP, MZD1-UP, MZH1-UP, MZW1-UP, NAC1-UP, NAH1-UP, NAJ1-UP, NAS1-UP, NAZ1-UP, NBD1-UP, NBF1-UP, NBH1-UP, NBL1-UP, NBN1-UP, NBS1-UP, NBT1-UP, NBX1-UP, NCW1-UP, NDC1-UP, NDJ1-UP, N FJ1-UP, NHD1-UP, NLG1-UP, NLM1-UP, NZF1-UP, PAB1-UP, PAC1-UP, PAL1-UP, PAP1-UP, PAR1-UP, PAS1-UP, PAX1-UP, PBB1-UP, PBD1-UP, PCM1-UP, PCX1-UP, PEG1-UP,

PEL1-UP, PFE1-UP, PFL1-UP, PGW1-UP, PHX1-UP, PJA1-UP, PJM1-UP, PJP1-UP, PKE1-UP, PLB1-UP, PLW1-UP, PNL1-UP, PNW1-UP, PPN1-UP, PRF1-UP, PRG1-UP, PT71-UP, PTB1-UP, PTE1-UP, PTY1-UP, PYT1-UP, PZL1-UP, R2D1-UP, RAJ1-UP, RAP1-UP, RAR1-UP, RAS1-UP, RAW1-UP, RAX1-UP, RBC1-UP, RBD1-UP, RBF1-UP, RBH1-UP, RBJ1-UP, RBS1-UP, RBW1-UP, RCD1-UP, RCK1-UP, RCN1-UP, RDX1-UP, RDZ1-UP, REC1-UP, REE1-UP, RGA1-UP, RGD1-UP, RGG1-UP, RGH1-UP, RJK1-UP, RJP1-UP, RKB1-UP, RLD1-UP, RSK1-UP, RZA1-UP, S3M1-999, S5M1-UP, SBE1-UP, SBN1-UP, SCN1-UP, SCR1-UP, SCY1-UP, SD21-UP, SDL1-UP, SDZ1-UP, SFG1-UP, SFW1-UP, SFZ1-UP, SGB10001-UP, SGH1-UP, SGJ1-UP, SHJ1-UP, SHX1-UP, SJY1-UP, SPC1-UP, SPG1-UP, SPN1-UP, SSL1-UP, SSN1-UP, STN1-UP, SXE1-UP, SYM1-UP, SZK1-UP, T2D1-UP, T2E1-UP, T2F1-UP, T2S1-UP, T2Y1-UP, T3Z1-UP, TDH1-UP, TDN1-UP, TDT1-UP, TDW1-UP, TDZ1-UP, TEG1-UP, TEW1-UP, TEX1-UP, TFG1-UP, TFX1-UP, TGJ1-UP, THJ1-UP, THW1-UP, TJE1-UP, TLF1-UP, TLY1-UP, TMC1-UP, TMF1-UP, TMJ1-UP, TMR1-UP, TMZ1-UP, TNJ1-UP, TPM1-UP, TRH1-UP, TSN1-UP, TST1-UP, TXA1-UP, TYE1-UP, TZA1-UP, TZL1-UP, TZS1-UP, W3K1-UP, WAG1-UP, WAP1-UP, WAW1-UP, WBA1-UP, WBC1-UP, WBF1-UP, WBJ1-UP, WBK1-UP, WBN1-UP, WBT1-UP, WBX1-UP, WBY1-UP, WCF1-UP, WDC1-UP, WDJ10001-UP, WDK1-UP, WDT1-UP, WET1-UP, WEY1-UP, WGL1-UP, WGR1-UP, WHZ1-UP, WJK1-UP, WLT1-UP, WNA1-UP, WRA1-UP, WRK1-UP, WTZ1-UP, WYA1-UP, WZS1-UP, WZY1-UP, XAA1-UP, XAD1-UP, XAH1-UP, XAJ1-UP, XAL1-UP, XAM1-UP, XAN1-UP, XBA1-UP, XBB1-UP, XBD1-UP, XBH1-UP, XBK1-UP, XCC10001-UP, XCF1-UP, XDB1-UP, XDR10001-UP, XFK1-UP, XGS1-UP, XLW1-UP, Y4P1-UP, YAE1-UP, YBF1-UP, YBH1-UP, YBJ1-UP, YBK1-UP, YBM1-UP, YCA1-UP, YCE1-UP, YCF1-UP, YCR1-UP, YDL1-UP, YEA1-UP, YEC1-UP, YEE1-UP, YEG1-UP, YEJ1-UP, YEP1-UP, YFD1-UP, YFW1-UP, YHA1-UP, YHT1-UP, YJX1-UP, YRP1-UP, YZZ1-UP, ZBD1-UP, ZBF1-UP, ZBH1-UP, ZBJ1-UP, ZBM1-UP, ZCA1-UP, ZCD1-UP, ZCS1-UP, ZCT1-UP, ZGZ1-UP, ZKJ1-UP, ZKP1-UP, ZML1-UP

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Travel Control (SEBU6941-05)

SMCS - 5462

i02171505

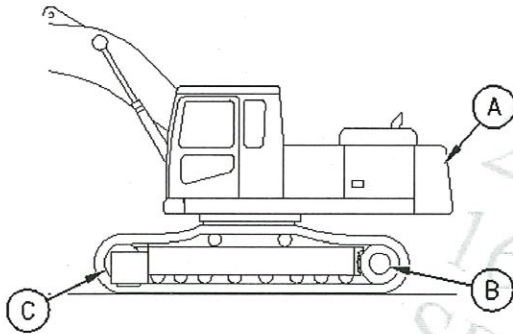


Illustration 1
Position for normal travel
(A) Rear of machine
(B) Final drive
(C) Idler

g00753277

When you travel, make sure that final drive sprockets (B) are under the rear of the machine.

Directional changes at full engine speed are possible. However, decelerating and/or braking is recommended for operator comfort. Decelerating and/or braking will also help to achieve the maximum service life of the transmission components.

If the travel alarm (if equipped) does not sound, consult your Caterpillar dealer.

Stop - Release the travel levers/pedals in order to stop the machine. When you release the travel levers/pedals from any position, the travel levers/pedals will return to the CENTER position. This applies the travel brakes.

Move both of the travel levers or both of the travel pedals equally in the same direction in order to travel straight.

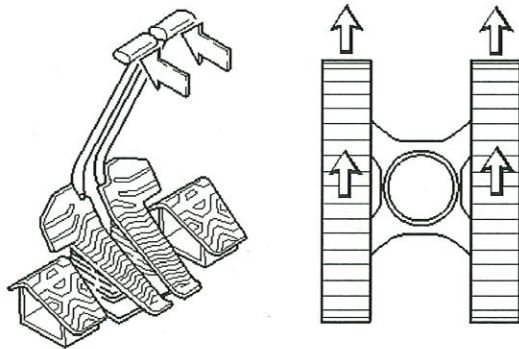


Illustration 2
Forward Travel

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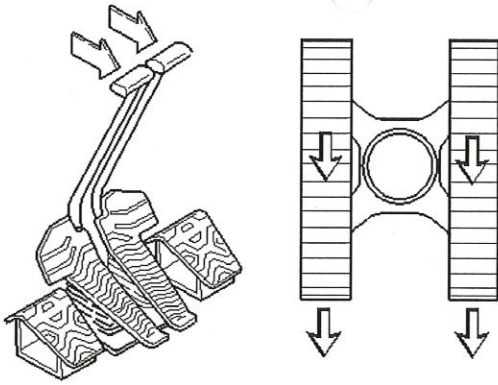


Illustration 3
Reverse Travel

g00731543

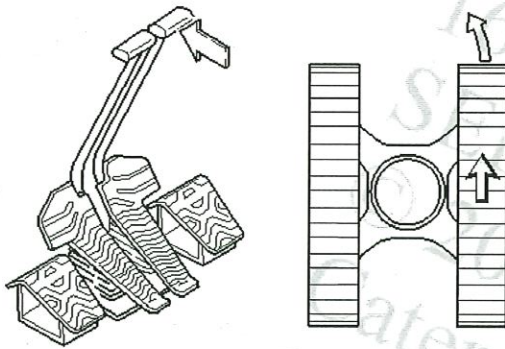


Illustration 4
Pivot Left Turn (Forward)

g00731472

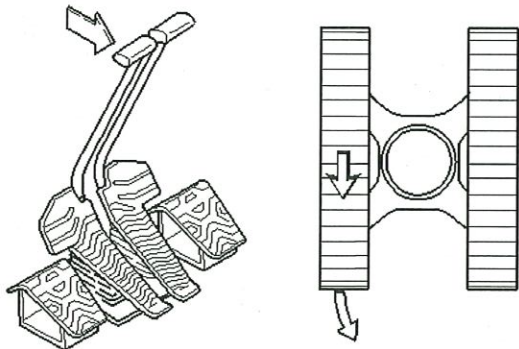


Illustration 5
Pivot Left Turn (Reverse)

g00731478

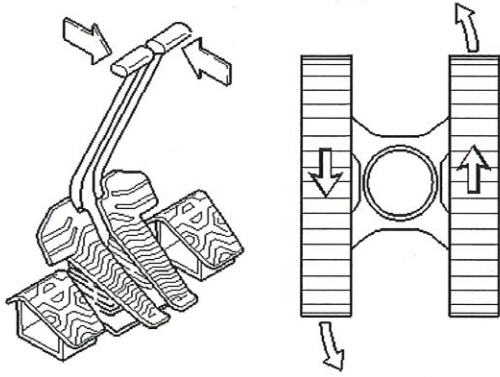


Illustration 6
Counterrotate Turn (Left)

g00731476

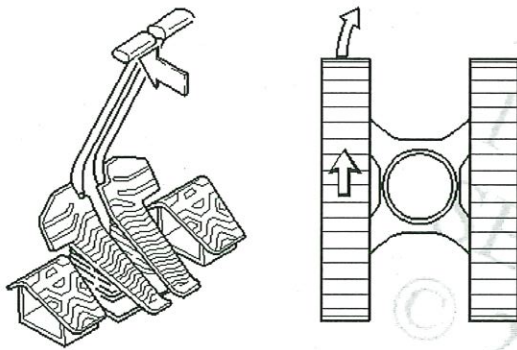


Illustration 7
Pivot Right Turn (Forward)

g00731471

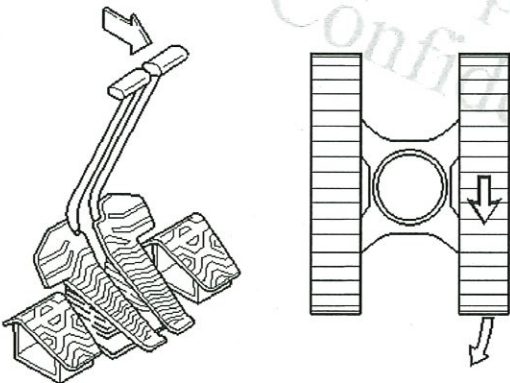


Illustration 8
Pivot Right Turn (Reverse)

g00731479

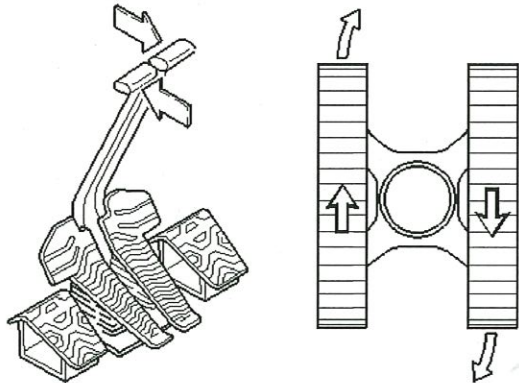


Illustration 9
Counterrotate Turn (Right)

g00731477

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2SW1-UP, 2WZ1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4SS1-UP, 4XW1-UP, 4XZ1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LW1-UP, 7EN1-UP, 7JR1-UP, 7KS1-UP, 7KZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9KR1-UP, 9MR1-UP, 9PZ1-UP, 9TZ1-UP, 9WS1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AFB1-UP, AGD1-UP, AGS1-UP, AKG501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, ALX1-UP, AMC1-UP, AMD1-UP, AMH1-UP, AMJ1-UP, AMN1-UP, ANB1-UP, ANS1-UP, APA1-UP, APB1-UP, AXK1-UP, AYR1-UP, BBL1-UP, BCM1-UP, BCN1-UP, BDC1-UP, BDE1-UP, BEA1-UP, BER1-UP, BFE1-UP, BFG1-UP, BFK1-UP, BGB1-UP, BGR1-UP, BKF1-UP, BKJ1-UP, BKK1-UP, BKM1-UP, BKW1-UP, BKW254-255, BKW264-265, BKW326-255, BKX1-UP, BLP1-UP, BLX1-UP, BLY1-UP, BMM1-UP, BMZ1-UP, BNE1-UP, BPR1-UP, BRX1-UP, BTD1-UP, BTG1-UP, BTM1-UP, BWY1-UP, CAP1-UP, CCC1-UP, CCD1-UP, CFJ1-UP, CGZ1-UP, CKE1-UP, CLD1-UP, CLM1-UP, CLS1-UP, CLZ1-UP, CRB1-UP, CSJ1-UP, CTY1-UP, CYA1-UP, DAA1-UP, DAH1-UP, DAX1-UP, DBG1-UP, DCW1-UP, DER1-UP, DET1-UP, DHP1-UP, DKY1-UP, DTF1-UP, EAG1-UP, EAM1-UP, EDA1-UP, EGA1-UP, EGL1-UP, ELC1-UP, EMR1-UP, ESD1-UP, FAA1-UP, FDL1-UP, FED1-UP, FEE1-UP, G1L1-999, GAD1-UP, GAG1-UP, GKX1-UP, GLA1-UP, GNG1-UP, GPA1-UP, HAA1-UP, HBC1-UP, HEK1-UP, HKT1-UP, JAB1-UP, JCD1-UP, JCM1-UP, JLC1-UP, JLD1-UP, JMB1-UP, JNK1-UP, JPL1-UP, JTG1-UP, KBB1-UP, KBC1-UP, KCR1-UP, KCX1-UP, KDD1-608, KGA1-UP, KGB1-UP, KGL1-UP, KHB1-UP, KJA1-UP, KKK1-UP, M2K1-999, M3W1-UP, MAB1-UP, MAC1-UP, MAR1-UP, MCA1-UP, MCF1-UP, MCS1-UP, MCY1-UP, MDY1-UP, MEM1-UP, MKM1-UP, MMA1-UP, MNZ1-UP, MSD1-UP, MYA1-UP, PAB1-UP, PAC1-UP, PAD1-UP, PAR1-UP, PCA1-UP, PEG1-UP, PJW1-UP, RAW1-UP, RBH1-UP, RCD1-UP, S3M1-999, SAH1-1000, SBE1-UP, SBN1-UP, SDL1-UP, SJY1-UP, SNY1-UP, T2E1-UP, T2F1-UP, TAJ1-UP, TBA1-UP, TBR1-1000, TDG1-UP, WAW1-UP, WDE1-UP, Y4P1-UP

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Engine Speed Control (SEBU6941-05)

SMCS - 1915

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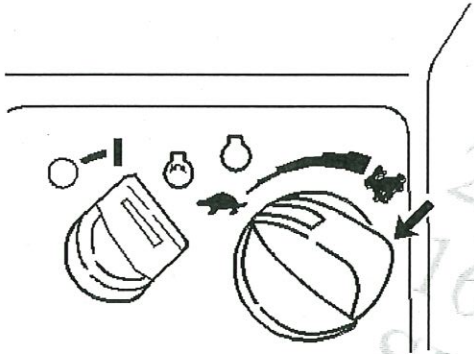


Illustration 1

g00101553



Engine Speed - Turn the engine speed dial in order to control the engine speed (engine rpm). Select the desired position from the ten available positions. The selected position of the engine speed dial is indicated on the seven segment display on the electronic monitor panel.



Decrease - Turn the engine speed dial counterclockwise in order to decrease the engine speed (engine rpm).



Increase - Turn the engine speed dial clockwise in order to increase the engine speed (engine rpm).

Backup Method for Controlling Engine Speed

If the control system does not work due to a malfunction and the engine speed cannot be adjusted by the engine speed dial, the following method will allow you to adjust the engine speed temporarily. Make repairs as soon as possible.

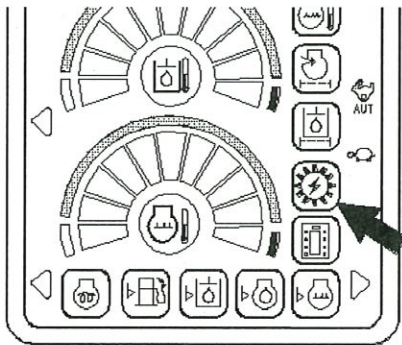


Illustration 2

g00101670

Check the indicator for the electronic controller. If the indicator light is on, there is a problem in the electronic controller. See Operation and Maintenance Manual, "Electronic Controller System Backup Switches".

If the engine speed cannot be adjusted by the engine speed dial and the indicator for the electronic controller does not come on, see Operation and Maintenance Manual, "Electronic Controller System Backup Switches".

If you cannot adjust the engine speed, the motor for the governor is probably malfunctioning. Use the following backup method to adjust the engine speed.

Note: Even if you cannot control the engine speed, you can turn the engine on and off with the engine start switch.

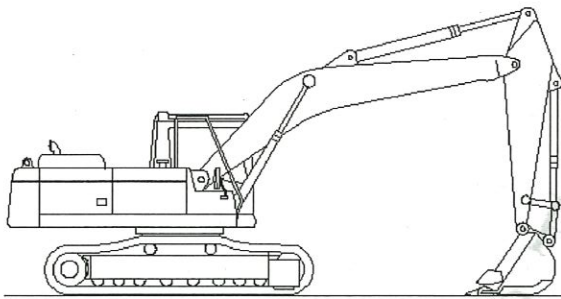


Illustration 3

g00101671

1. Stop the engine after you place the machine in the servicing position, as shown.
2. Open the engine hood.

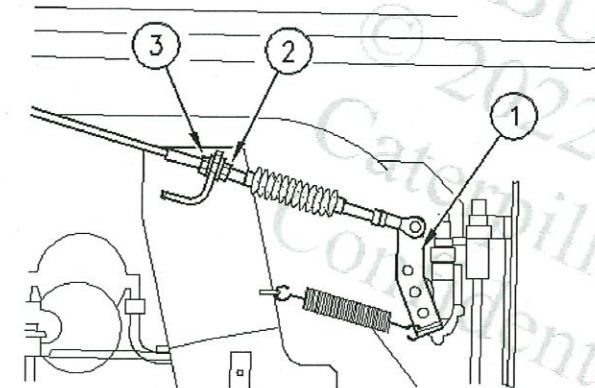


Illustration 4

g00101672

3. To increase the engine speed, loosen locknut (2) of the accelerator cable completely to the end of the threads. Use a 14 mm spanner wrench.
4. Tighten adjusting nut (3) clockwise so that lever (1) contacts the stopper. This is the maximum speed position of the lever.
5. Secure the lever at the maximum speed position by tightening locknut (2).

Note: The engine speed will rapidly reach high idle or a similar speed when you start the engine.

To decrease the engine speed, repeat the procedure above, but turn adjusting nut (3) counterclockwise in order to set the lever at a lower speed position.

1AS1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 2JR1-UP, 2RR1-UP, 2SW1-UP, 3NR1-UP, 3YR1-538, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4RS1-350, 4YW1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5LR1-321, 5LS1-206, 5LW1-UP, 5MS1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LW1-UP, 7EN1-UP, 7JR1-UP, 7KS1-UP, 8FN1-UP, 8GM1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8SR1-UP, 8TR1-UP, 9HN1-UP, 9WS1-UP, 9VW1-UP, ABD1-UP, ADC1-UP, AEJ1-UP, BFG1-UP

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Travel Speed Control (SEBU6941-05)

SMCS - 7490

i01584893

**WARNING**

Do not change the setting of the travel speed control switch while you travel. Machine stability may be adversely affected.

Personal injury can result from sudden changes in machine stability.

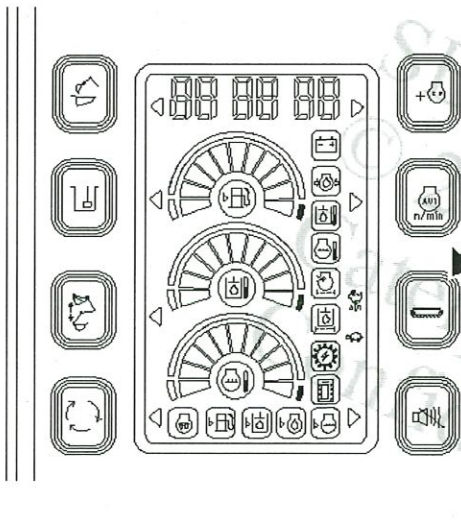
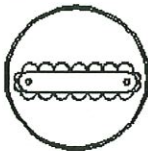


Illustration 1

g00823936



Travel Speed Control Switch - Press the travel speed control switch in order to select high travel speed or low travel speed. When the engine start switch is on, the travel speed control switch is always set at the LOW SPEED position. Whenever the travel speed control switch is pressed, the travel speed changes.

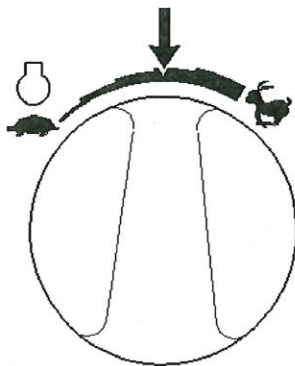


Illustration 2

g00824132



Low Speed - Select the LOW SPEED position if you travel on rough surfaces or on soft surfaces or if you require a great drawbar pull. Also, select the LOW SPEED position if you are loading a machine onto a trailer or you are unloading a machine from a trailer.



High Speed - If you travel on a hard, level surface at a fast speed, select the HIGH SPEED position.

Continuous driving at high speed should be limited to two hours. If you need to continue driving at high speed for more than two hours, stop the machine for ten minutes. This will cool down the travel drives before you resume driving.

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1XS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2SW1-UP, 2WZ1-UP, 3ES1-UP, 3FS1-UP, 3MR1-UP, 3NR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4SS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LW1-UP, 5MS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6LW1-UP, 7EN1-UP, 7JR1-UP, 7KS1-UP, 7RZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9KR1-UP, 9MR1-UP, 9WS1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGS1-UP, AKG501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMD1-UP, AMJ1-UP, AMN1-UP, ANJ1-UP, APB1-UP, AYR1-UP, BFG1-UP, CCC1-UP, CDY1-UP, DCW1-UP, DET1-UP, FEE1-UP, KGA1-UP, TKA1-UP, TKB1-UP, TKC1-UP, TKD1-UP, TKE1-UP

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Power Mode Control (SEBU6941-05)

SMCS - 7451, 7490

i01588941

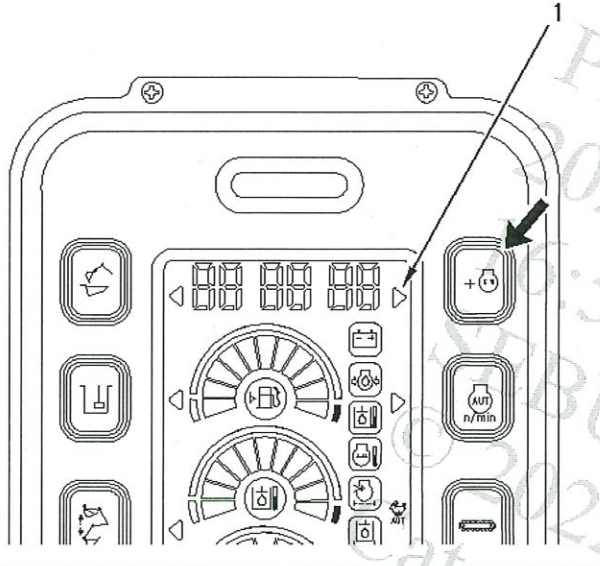
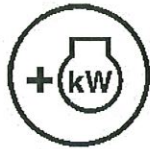


Illustration 1

g00823940



Power Mode Switch - Push this switch in order to change the power mode to ON or to OFF. Select a power mode that is suitable for the working conditions.

When you turn the engine start switch to the OFF position, the previous switch setting is maintained. The power mode is preset to the previous setting when the engine start switch is turned to the ON position again.

Power Mode ON - When the power mode switch is pushed to the ON position, indicator lamp (1) comes on. This power mode is suitable for heavy-duty work that requires a high operating speed. Changing the switch to this position provides maximum power to the machine.

Power Mode OFF - When the power mode switch is pushed to the OFF position, indicator lamp (1) turns off. This power mode is suitable for ordinary work. This power mode provides sufficient power in most applications. This power mode will minimize noise and fuel consumption.

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2DW1-UP, 2ES1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2SW1-UP, 2WZ1-UP, 3AW1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4SS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 5WS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LS1-UP, 6LW1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7JR1-UP, 7KS1-UP, 7KZ1-UP, 7RZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9WS1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGS1-UP, AKG501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMD1-UP, AME1-UP, AMJ1-UP, AMN1-UP, ANJ1-UP, APB1-UP, AYR1-UP, BFG1-UP, BGN1-UP, CCC1-UP, CDY1-UP, DCW1-UP, DET1-UP, FEE1-UP, KGA1-UP, TKA1-UP, TKB1-UP, TKC1-UP, TKD1-UP, TKE1-UP

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SMCS - 7490

i00796141

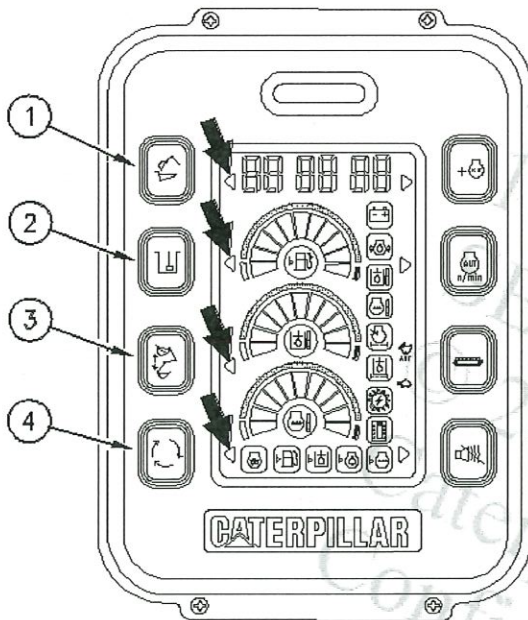


Illustration 1

g00101234

(1) Boom priority mode

(2) Swing priority mode

(3) Fine control mode

(4) User mode

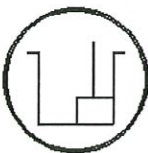
There are four work mode switches on the left side of the monitor panel. Each work mode switch is set for different attachment speeds or for different swing speeds.

Only one work mode can be selected at a time. If a new work mode is selected, the previous work mode is deactivated automatically.

When you turn the engine start switch to the ON position, the previous switch setting is maintained. Select a suitable work mode for the type of work that will be performed. The selected work mode is identified by an indicator lamp to the right of each work mode switch.



Boom Priority Mode (1) - This work mode provides oil flow priority to the boom circuit. This will raise the boom quickly in applications such as loading a truck and deep trenching. In these applications, the raising of the boom is a major portion of the total cycle time. This work mode is the preferred work mode in most applications that involve digging.



Swing Priority Mode (2) - This work mode provides oil flow priority to the swing circuit. Because the hydraulic flow from one of the two main pumps is guaranteed to the swing circuit, swing movement will be easy and consistent regardless of the other hydraulic functions that are being used. This work mode is preferred for applications that require a smooth trench or a smooth trench wall. This work mode is also used when the angle of the swing position is at least 180 degrees.



Fine Control Mode (3) - This work mode limits the oil flow to the circuit that moves the stick inward. Normally, the oil flow to the circuit that moves the stick inward is available from both pumps. This moves the stick quickly. When the fine control mode is used, the oil flow is limited to one pump. This will slow the stick movement, which allows more control. This work mode is used most often when you finish a slope. This work mode is also used for lifting applications or for fine grading.



User Mode (4) - To select the sub-mode, press this switch repeatedly until the desired sub-mode is displayed in the right two positions of the liquid crystal display. This work mode has the following three sub-modes:

- Tamping mode "U1" is suitable for simple forming of surfaces, for compacting, or for similar operations that use the bottom of the bucket. When this mode is selected, the boom raises smoothly and the boom lowers smoothly in order to avoid bumping of the boom and lifting of the machine.
- Mode "U2" provides optional hydraulic power for special attachments. The "U2" mode is set by your Caterpillar dealer only for use in special circumstances.
- Customer mode "U3" allows the operator to choose the preferred modes with a single switch. The operator can set the work mode, the power mode, the pump flow, and the Automatic Engine Speed Control (AEC) according to preset settings. This mode offers the advantage of customizing these settings in order to meet the operator's specific needs.

For example, the customer mode is useful during lifting applications. The fine control mode is the most appropriate conventional mode for lifting applications, but the engine speed and the stick cylinder speed decrease when the machine is not loaded. If the customer mode is used, the engine speed can be set at 100 percent and the pump flow can be set at 70 percent. With the presetting in the customer mode, the machine would achieve the same precise operation as the fine control mode during lifting applications, but the stick cylinder speed would be faster during no-load conditions.

The function of the customer mode cannot be fully utilized unless the parameters are set. The settings of the parameters must be memorized. Consult your Caterpillar dealer if you encounter difficulty in setting the parameters.

For further details, see Operation and Maintenance Manual, "User Mode Control".

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 1YS1-UP, 2DW1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2WZ1-UP, 3AW1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3ZZ1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4SS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5SW1-UP, 5WS1-UP, 6CR1-UP, 6DR1-UP, 6DZ1-UP, 6LS1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7KZ1-UP, 7RZ1-UP, 8ES1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGS1-UP, AKG501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMD1-UP, AMJ1-UP, AMN1-UP, APB1-UP, AYR1-UP, CCC1-UP, DCW1-UP, DET1-UP, FEE1-UP, KGA1-UP

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User Mode Control (SEBU6941-05)

SMCS - 7490

i01157837



The user mode cannot be fully utilized unless the parameters are set. Operational parameters for the user mode are set by using the six-digit liquid crystal display (LCD) and the switches on the electronic monitor panel.

Consult your Caterpillar dealer if you have difficulty in setting the parameters.

Activating Memory

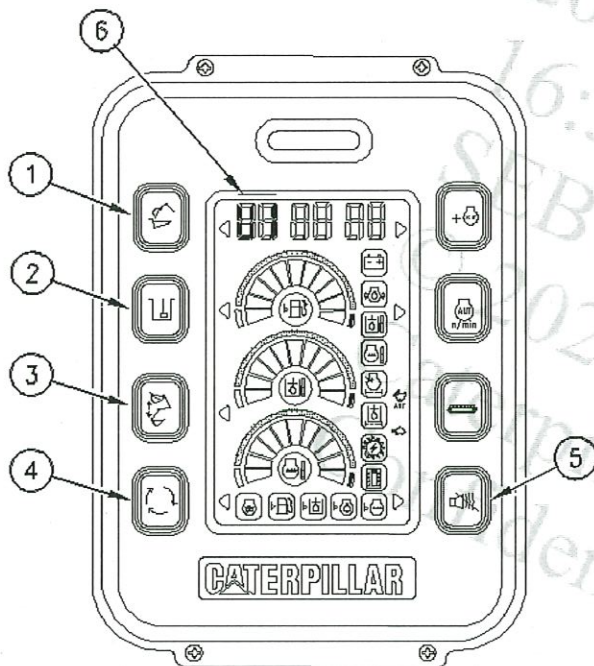


Illustration 1

g00103165

Press alarm cancel switch (5) and switch (4) for user mode simultaneously for more than two seconds. When display (6) flashes, the customer mode can be set by using the following switches.

Switch (1) for Boom Priority Mode - The flashing value in the LCD will increase when this switch is pressed.

Switch (2) for Swing Priority Mode - The flashing value in the LCD will decrease when this switch is pressed.

Switch (3) for Fine Control Mode - The selected flashing position on the LCD will move by one position to the right when this switch is pressed.

Switch (4) for User Mode - The selected flashing position on the LCD will move by one position to the left when this switch is pressed.

Values can be entered only in the position that is flashing on the LCD. Use switch (3) and switch (4) to move the flashing position to the right or to the left.

To return to the normal operating mode, push alarm cancel switch (5) and switch (4) for mode simultaneously for more than two seconds. Display (6) will show the time of day and the position of the engine speed dial.

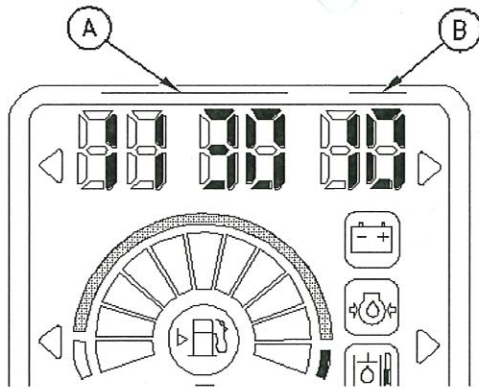


Illustration 2

g00103167

Illustration 2 indicates that time of day (A) is 11:30 and the position of the engine speed dial is "10".

Selecting a Sub-mode

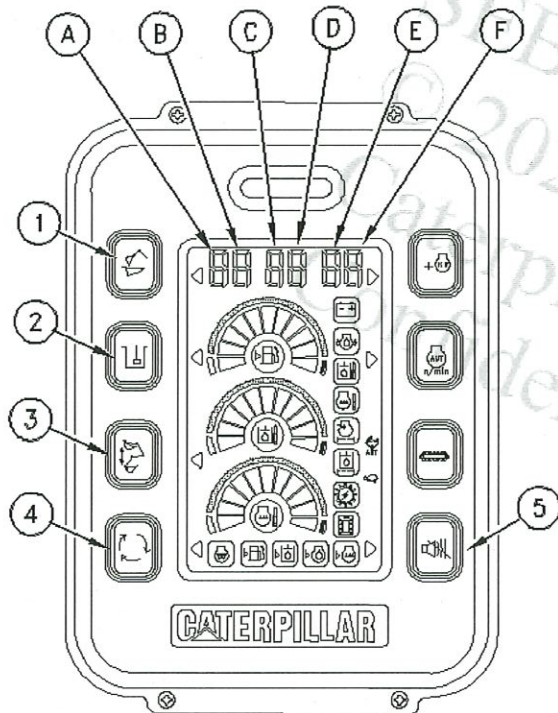


Illustration 3

g00103168

Position (A) and position (B) indicate the sub-mode.

- "U1" indicates the tamping mode. No setting is required for the tamping mode.
- "U2" indicates mode U2. No setting is required for mode U2.
- "U3" indicates the customer mode. The settings for the customer mode can now be set.

If the appropriate sub-mode is not displayed on the LCD, use switch (3) or switch (4) to move the flashing character to position (B). Use switch (1) or switch (2) to change the designation of the sub-mode.

Setting the Customer Mode

To set the user mode, the character in position (B) must be a "3".

Position (C) is used to select one of the four parameters. Positions (D), (E), and (F) are used to set the function of the parameter.

Refer to the following table in order to determine the values of the positions that will achieve the desired function of the hydraulic excavator while you are operating the machine in the user mode.

Positions (A) and (B)		Position (C)	Positions (D), (E), and (F)	
Setting		Function	Setting	Function
"U3" Customer Mode	"1"	Select work mode.	"--1"	Select boom priority mode.
			"--2"	Select swing priority mode.
			"--3"	Select fine control mode.
	"2"	Select power mode.	"--1"	Power mode is off.
			"--2"	Power mode is on.
	"3"	Select the stage of AEC.	"--1"	Select the first stage of AEC.
			"--2"	Select the second stage of AEC.
	"5"	Set the time delay for the AEC.	"---	The increment is 0.1 second and the range is 0.1 second to 20 seconds. The initial factory setting for the delay time is 3 seconds. The LCD shows "U3:5-30".
	"6"	Set engine speed in the second stage of AEC.	"---	The increment is 10 rpm and the range is 800 rpm to 2200 rpm. The initial factory setting is 1300 rpm. If the LCD shows "US:6-95", engine speed in the second stage of AEC is set to 950 rpm.
	"7"	Limit the maximum engine speed dial.	"---	The upper limit of engine speed dial can be set from 1 to 10. The initial factory setting is 10. The LCD shows "US:7-10".
	"8"	Set hydraulic horsepower at position 10 on the engine speed dial.	"---	When the engine speed dial is set to position 10 the hydraulic horsepower can be set as a percent of the maximum hydraulic power. The increment is 1 percent and the range is 0 to 100 percent. The initial factory setting is 70 percent. The LCD shows "U3:8-70".

Table 1

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 1XS1-UP, 1ZS1-UP, 2AS1-UP, 2DW1-UP, 2ES1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2SW1-UP, 2WZ1-UP, 3AW1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4SS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 5WS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LS1-UP, 6LW1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7JR1-UP, 7KS1-UP, 7KZ1-UP, 7RZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9WS1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGS1-UP, AKG501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMD1-UP, AME1-UP, AMJ1-UP, AMN1-UP, ANJ1-UP, APB1-UP, AYR1-UP, BFG1-UP, BGN1-UP, CCC1-UP, CDY1-UP, DCW1-UP, DET1-UP, FEE1-UP, KGA1-UP

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Backup Controls (SEBU6941-05)

SMCS - 5258, 7000, 7301

i01584900

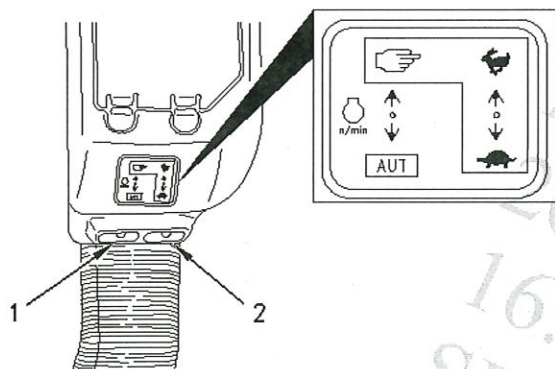


Illustration 1

g00822272

The backup switches are located on the back of the right console.



Engine Speed Control - By utilizing these switches, the engine speed can be controlled manually by the operator or the engine speed can be controlled automatically by the electronic controller.



Automatic - When the electronic control system is functioning properly, backup switch (1) should be in the AUTOMATIC position.



Manual - If a problem occurs in the electronic control system, move backup switch (1) to the MANUAL position in order to disconnect the controller circuit of the electronic controller system. In this condition, the machine can be operated at a reduced ratio of pump output on a temporary basis. At the same time, the power supply to the monitor is cut off and all displays on the monitor panel turn off.



Fast Engine Speed - Move backup switch (2) to this position in order to increase the engine speed. This backup switch will not operate if backup switch (1) is not in the MANUAL position. When the switch is released the switch returns to the NEUTRAL position and the machine will maintain the engine speed. This switch overrides the function of the engine speed dial.



Slow Engine Speed - Move backup switch (2) to this position in order to decrease the engine speed. This backup switch will not operate if backup switch (1) is not in the MANUAL position. When the switch is released the switch returns to the NEUTRAL position and the machine will maintain the engine speed. This switch overrides the function of the engine speed dial.

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1YS1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2WZ1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3ZZ1-UP, 4MR1-UP, 4NR1-UP, 4SS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LW1-UP, 5SW1-UP, 5WS1-UP, 6CR1-UP, 6DR1-UP, 6DZ1-UP, 6LS1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7KZ1-UP, 7RZ1-UP, 8ES1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AKG501-UP, AME1-UP, ANJ1-UP, BGN1-UP, CDY1-UP, TKA1-UP, TKB1-UP, TKC1-UP, TKD1-UP, TKE1-UP

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Fine Swing Control (SEBU6941-05)

SMCS - 5258, 5700

i00134187

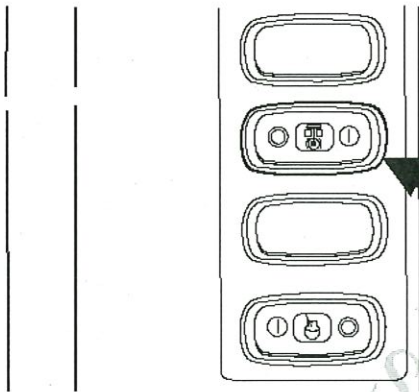


Illustration 1

g00118190

The switch for fine swing control is on the right console.



Switch for Fine Swing Control - Push down on the right side of the switch in order to activate the fine swing control. This improves swing control during deceleration of a swing.

Push down on the left side of the switch in order to turn off the fine swing control. Operate the machine with the switch in the OFF position when great swing forces are required. For example, digging on a sidewall requires great swing force. Operate the machine with the switch in the OFF position in order to control the motion with the swing brake.

1YS1-UP, 2JR1-UP, 6DR1-UP, AME1-UP, ANJ1-UP, BGN1-UP, CDY1-UP

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2005/02/08

Hydraulic Lockout Control (SEBU6941-05)

SMCS - 5001, 5258

i02287957

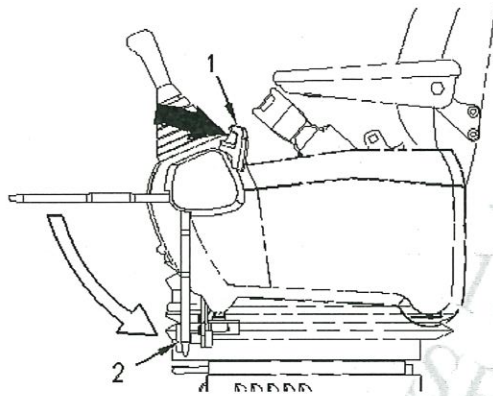


Illustration 1

g00536416

The lever for the hydraulic lockout control is located on the left console.



Locked - Move the travel levers and move the work tool control lever to the center HOLD position. Move the lever for the hydraulic lockout control (1) backward to the LOCKED position. Crossbar (2) will move down. This makes all of the factory installed hydraulic controls inoperable.

Note: Make sure that the lever for the hydraulic lockout control is in the LOCKED position before attempting to start the engine. If the lever is in the UNLOCKED position, the engine start switch will not function.

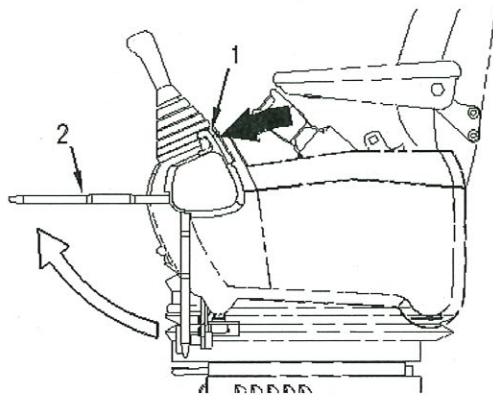


Illustration 2

g00536457



Unlocked - Move the lever for the hydraulic lockout control (1) forward to the UNLOCKED position. Crossbar (2) will move up. This makes all of the factory installed hydraulic controls operable.

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 1YS1-UP, 2DW1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2SW1-UP, 2WZ1-UP, 3AW1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3ZZ1-UP, 4MR1-UP, 4NR1-UP, 4SS1-UP, 4XW1-UP, 4XZ1-UP, 4YW1-UP, 5BR1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LW1-UP, 5WS1-UP, 6CR1-UP, 6DR1-UP, 6LS1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7KS1-UP, 7KZ1-UP, 8ES1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9PZ1-UP, 9TZ1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGD1-UP, AGS1-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMD1-UP, AME1-UP, AMJ1-UP, AMN1-UP, ANJ1-UP, ANS1-UP, APB1-UP, AYR1-UP, BFG1-UP, BGN1-UP, BKF1-UP, BKX1-UP, BLY1-UP, CCC1-UP, CDY1-UP, CFJ1-UP, CLD1-UP, CLS1-UP, CTY1-UP, DCW1-UP, DER1-UP, DET1-UP, FDL1-UP, FEE1-UP, JMB1-UP, MYA1-UP, PEG1-UP, RCD1-UP, SDL1-UP, SJY1-UP

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2003/09/09

Hammer Control (SEBU6941-05)

SMCS - 5705

i01956578

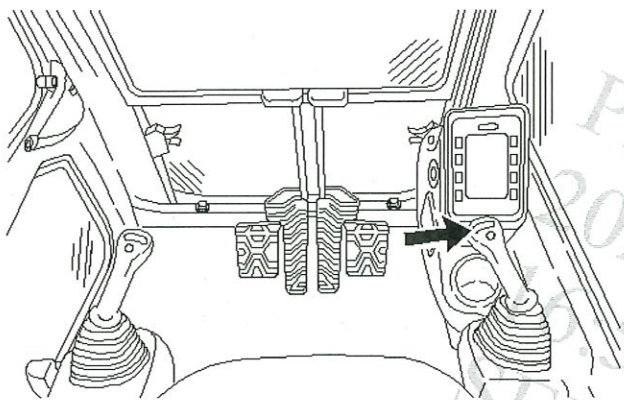


Illustration 1

g00110396

The hydraulic hammer control is located on the right joystick.

Hydraulic Hammer ON - Push down the top left button on the right joystick in order to activate the hydraulic hammer.

Hydraulic Hammer OFF - Release the top left button on the right joystick in order to deactivate the hydraulic hammer.

1YS1-UP, 2JR1-UP, 6DR1-UP

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2001/04/02

Joystick Controls Alternate Patterns - If Equipped (SEBU6941-05)

SMCS - 5059, 5137

i01521986

**WARNING**

Whenever a change is made to the machine control pattern, also exchange the pattern card in the cab to match the new pattern.

Check the machine control pattern for conformance to the pattern on the card in the cab. If the pattern does not match, change the card to match the machine control pattern before you operate the machine. Failure to do so could result in personal injury.

The machine control pattern can easily be changed to the SAE system or to the standard backhoe loader hydraulic system (BHL) by changing the position of the two-way valve (if equipped). Use the following procedure to change the position of the two-way valve.

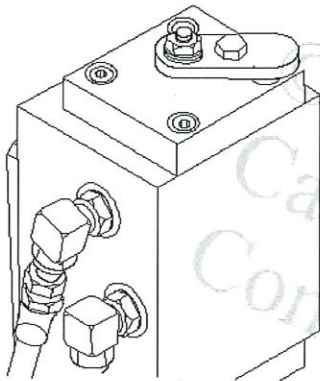


Illustration 1

g00101286

The two-way valve is located at the front left of the swing drives.

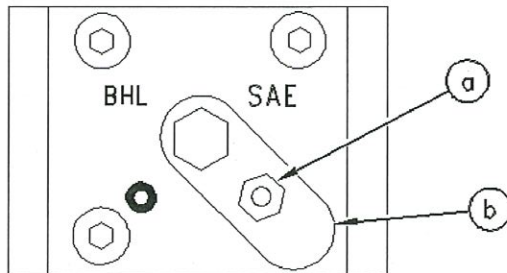


Illustration 2

g00104103

(a) Bolt
(b) Lever

1. Loosen bolt (a) and move lever (b) to the SAE position or to the BHL position.

Note: Illustration 2 shows that the two-way valve is in the SAE position.

2. After you set the machine control pattern, tighten bolt (a) in order to secure lever (b).

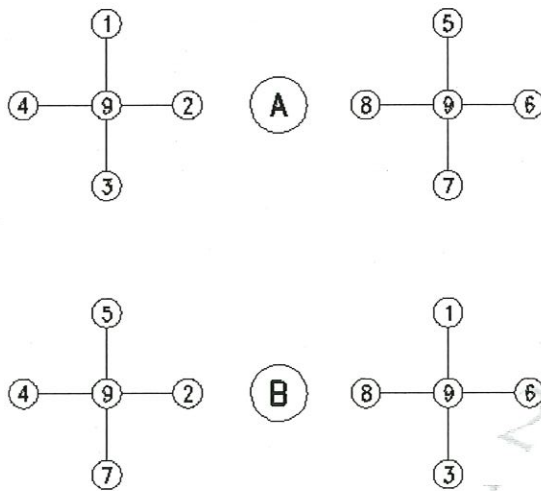


Illustration 3

(A) SAE machine control pattern

(B) Machine control pattern for standard backhoe

The patterns on the left side of Illustration 3 show the possible configurations for the left control lever. The patterns on the right side of the illustration show the possible configurations for the right control lever.



Stick Out (1) - Move the control lever to this position in order to move the stick outward.



Swing Right (2) - Move the control lever to this position in order to swing the upper structure to the right.



Stick In (3) - Move the control lever to this position in order to move the stick inward.



Swing Left (4) - Move the control lever to this position in order to swing the upper structure to the left.



Boom Lower (5) - Move the control lever to this position in order to lower the boom.



Bucket Dump (6) - Move the control lever to this position in order to dump the bucket.



Boom Raise (7) - Move the control lever to this position in order to raise the boom.



Bucket Close (8) - Move the control lever to this position in order to close the bucket.

HOLD (9) - When the control lever is released from any position, the control lever will return to the HOLD position. Movement of the upper structure will stop.

Two functions may be performed at the same time by moving a control lever diagonally.

If the machine is equipped with a hydraulic hammer, the functions of positions (6) and (8) are different.

Hydraulic Hammer Raise (6) - Move the control lever to this position in order to raise the hydraulic hammer.

Hydraulic Hammer Lower (8) - Move the control lever to this position in order to lower the hydraulic hammer.

1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 2JR1-UP, 2NW1-UP, 3YR1-UP, 3YZ1-UP, 4DS1-UP, 4RS1-UP, 4SS1-UP, 5BS1-UP, 5LR1-UP, 5LS1-UP, 5MS1-UP, 6DN1-UP, 6DR1-UP, 6LW1-UP, 7JR1-UP, 8FN1-UP, 9GS1-UP, 9WS1-UP, AGS1-UP, ALB1-UP, BFE1-UP, BKJ1-UP, BWY1-UP, CCC1-UP, DCW1-UP, DET1-UP, DHP1-UP, DKY1-UP, FEE1-UP, HEK1-UP, TBA1-UP, WDE1-UP

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Work Tool Flow Mode Control - If Equipped (SEBU6941-05)

SMCS - 7490

i01956588



The combined hydraulic attachment circuit is capable of providing single action or double action. An electronic controller, an electronic switch, and a manual ball valve are provided in the main circuit and in the pilot circuit of the double action hydraulic attachment circuit. The position of the ball valve selects the single action hydraulic attachment circuit or the double action hydraulic attachment circuit. The electronic switch is used to select the flow modes for each of the hydraulic attachment circuits.

When the machine is equipped with a double action hydraulic attachment circuit, the operator can choose from four flow modes: two for the single action hydraulic attachment circuit and two for the double action hydraulic attachment circuit. The flow modes limit the maximum engine speed and pump flow. The flow modes are set by selecting a position for the ball valve and for the electronic switch. The dealer programs the electronic controller for the following reasons:

- Provide the proper flow rates for the attachment.
- Provide the proper engine speeds for the attachment.

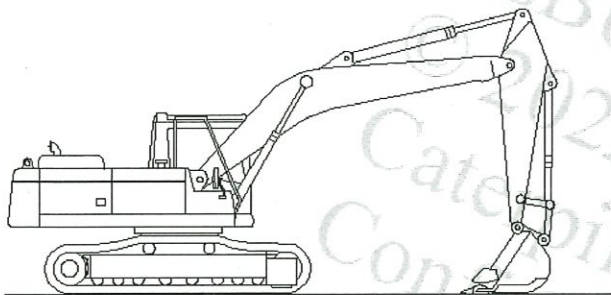


Illustration 1

g00101347

Before you change the flow mode of the hydraulic attachment circuit, place the machine in the servicing position, as shown. Stop the engine.

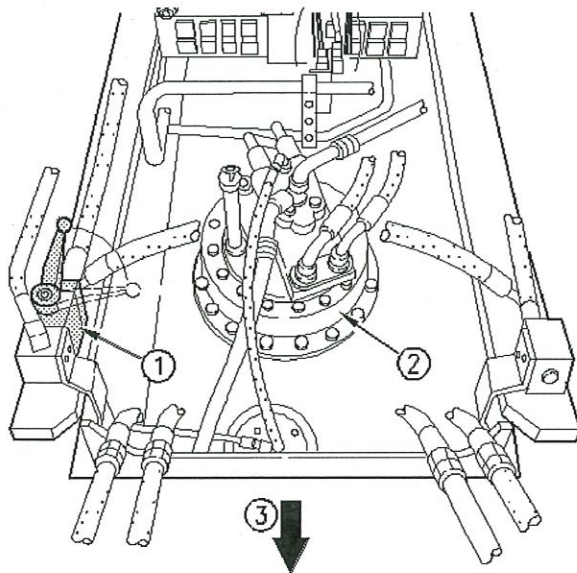


Illustration 2

g00104483

- (1) Ball valve
- (2) Swing drive
- (3) Front of the machine

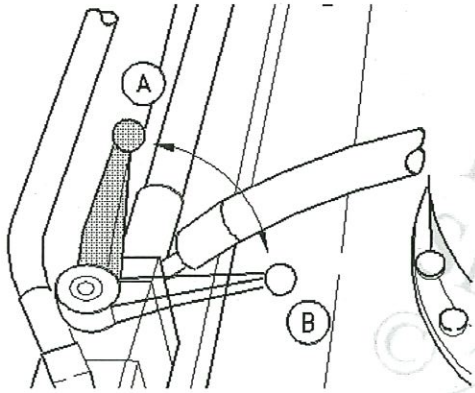


Illustration 3
Ball Valve
(A) One-way flow
(B) Two-way flow

g00104484

Use the manual lever to turn the ball valve. Make sure that you fully turn the ball valve until the ball valve stops.

For one-way flow (operation of the hydraulic hammer), position the manual lever parallel to the hydraulic line.

For two-way flow (operation of the clamshell or of the shear), position the manual lever so that the lever is perpendicular to the hydraulic line.

Never use the manual lever as a step when the manual lever is attached to the ball valve. Remove the manual lever from the ball valve after adjusting the ball valve.

1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 2JR1-UP, 3YR1-UP, 3YZ1-UP, 4DS1-UP, 4RS1-UP, 5BS1-UP, 5LR1-UP, 5LS1-UP, 5MS1-UP, 6DN1-UP, 6DR1-UP, 6LW1-UP, 7JR1-UP, 8FN1-UP, 9WS1-UP

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Fuel Tank Shutoff And Drain Control (SEBU6941-05)

SMCS - 1273

i01956596



Excavator and Material Handler

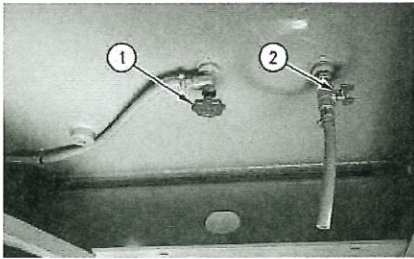


Illustration 1

g00104591

The Fuel Shutoff and the Fuel Tank Drain Valves are located underneath the fuel tank.

Fuel Shutoff Valve (1) - To shut off the fuel supply, turn fuel shutoff valve (1) clockwise. To turn on the fuel supply, turn fuel shutoff valve (1) counterclockwise.

Fuel Tank Drain Valve (2) - To drain the water and sediment from the fuel tank, turn fuel drain valve (2) counterclockwise. To close fuel tank drain valve (2), turn the drain valve clockwise.

Note: For more detailed information that pertains to draining the water and sediment from the fuel tank, refer to Operation and Maintenance Manual, "Fuel Tank Water and Sediment - Drain".

Forest Machine

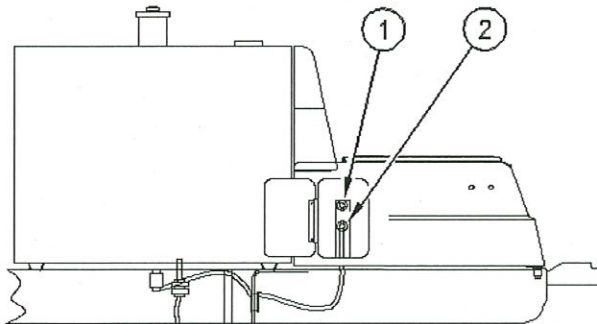


Illustration 2

g00104621

Open the access panel on the right side of the storage box in order to access the controls for the Fuel Tank Drain Valve and the Fuel Shutoff Valve.



Fuel Tank Drain Valve OPEN - To drain the water and sediment from the fuel tank, pull handle (1).



Fuel Tank Drain Valve CLOSED - To shut off the fuel drain valve, push in handle (1).

Note: For more detailed information that pertains to draining the water and sediment from the fuel tank, refer to Operation and Maintenance Manual, "Fuel Tank Water and Sediment - Drain".



Fuel Shutoff Valve CLOSED - To shut off the fuel supply, pull handle (2).



Fuel Shutoff Valve OPEN - To turn on the fuel supply, push in handle (2).

6DR1-UP

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Engine Starting (SEBU6941-05)

SMCS - 1000, 1090, 1456, 7000

i01954542

**NOTICE**

The engine start switch must be in the ON position and the engine must be running in order to maintain electrical functions and hydraulic functions. This procedure must be followed in order to prevent serious machine damage.

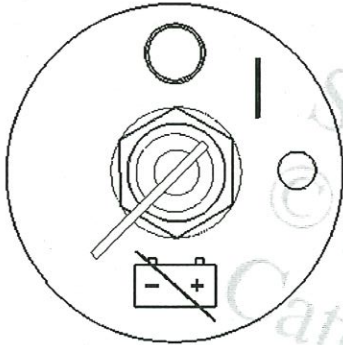


Illustration 1

g00406959

1. Turn the battery disconnect switch to the ON position.
2. Make sure that the reset buttons for the circuit breakers remain depressed. Refer to Operation and Maintenance Manual, "Circuit Breakers - Reset".

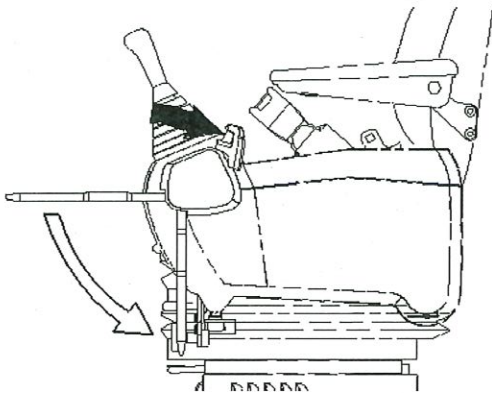


Illustration 2

g00543871

3. Move the hydraulic lockout control to the LOCKED position.
This machine is equipped with an engine neutral start system. The system only allows the engine to start when the hydraulic lockout control is in the LOCKED position.
4. Move the joystick controls to the HOLD position.

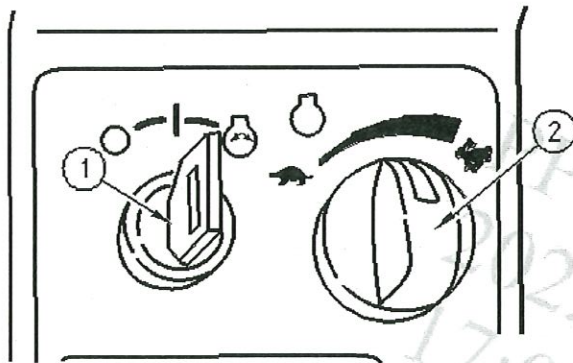


Illustration 3

g00103355

- (1) Engine start switch
(2) Engine speed dial

5. Turn engine start switch (1) to the ON position.
6. Leave the engine start switch in the ON position for more than two seconds in order to activate the prestart monitoring function. Refer to Operation and Maintenance Manual, "Monitoring System" for more information on the prestart monitoring function.
If the fluid level is too low, add the corresponding fluid to the specified level. Add the fluid before you start the engine.
7. Turn engine speed dial (2) to speed position "5" or speed position "6".

NOTICE

Do not crank the engine for more than 30 seconds. If the engine does not start, allow the starter to cool for two minutes before cranking again. The engine start switch must be turned to the OFF position before trying to restart.

8. Turn engine start switch (1) to the START position.
9. Release the engine start switch key after the engine starts.

1AS1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2RR1-UP, 3ES1-UP, 3FS1-UP, 3NR1-UP, 3ZZ1-UP, 4YW1-UP, 5CR1-UP, 5EZ1-UP, 5LW1-UP, 6DR1-UP, 7EN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8SR1-UP, 8TR1-UP, 9GR1-UP, 9HN1-UP, 9HR1-UP, 9MR1-UP, ABD1-UP, ADC1-UP, AEJ1-UP, AGS1-UP, ALB1-UP, AME1-UP, ANJ1-UP, APB1-UP, BGN1-UP, CCC1-UP, CDY1-UP, DCW1-UP, DET1-UP, FEE1-UP

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Engine And Machine Warm-Up (SEBU6941-05)

SMCS - 1000, 7000

i02287983

**NOTICE**

Keep the engine speed slow until the indicator light for the engine oil pressure goes out.

If the light does not go out within ten seconds, stop the engine and investigate the cause before starting the engine again. Failure to correct the problem can cause engine damage.

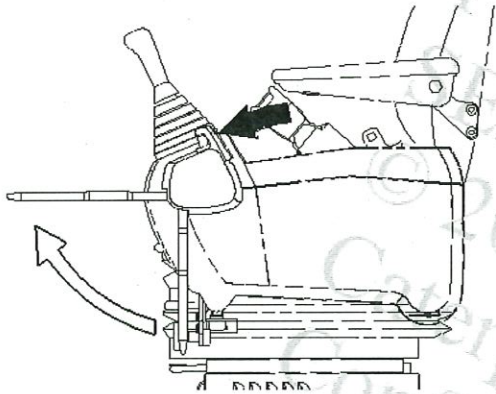


Illustration 1

g00536688

Note: The lever for the hydraulic lockout control must be in the UNLOCKED position before the hydraulic controls will function.

1. Allow the engine to warm up at low idle for at least five minutes. Engage the work tool controls and disengage the work tool controls. This will speed up the warm-up of the hydraulic components.

When you idle the machine for warm-up, observe the following recommendations:

- If the temperature is greater than 0°C (32°F), warm up the engine for approximately 15 minutes.
- If the temperature is less than 0°C (32°F), warm up the engine for approximately 30 minutes.
- If the temperature is less than -18°C (0°F) or if hydraulic functions are sluggish, additional time may be required.

2. To warm up the hydraulic oil, turn the engine speed dial to the medium engine speed. Run the engine for approximately five minutes and move the joystick intermittently from the BUCKET DUMP position to the HOLD position.
3. Turn the engine speed dial to the maximum engine speed and repeat Step 2.
This allows the oil to attain relief pressure, which causes the oil to warm up more rapidly.
4. Cycle all controls in order to circulate warm oil through all hydraulic cylinders and through all hydraulic lines.
5. Observe the gauges and the indicators frequently during the operation.

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 1XS1-UP, 1ZS1-UP, 2AS1-UP, 2DW1-UP, 2ES1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2WZ1-UP, 3AW1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4XW1-UP, 4XZ1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 5WS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LS1-UP, 6LW1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7JR1-UP, 7KZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9PZ1-UP, 9TZ1-UP, 9WS1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGD1-UP, AGS1-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMD1-UP, AME1-UP, AMJ1-UP, AMN1-UP, ANJ1-UP, ANS1-UP, AYR1-UP, BGN1-UP, BKF1-UP, BKX1-UP, BLY1-UP, CCC1-UP, CDY1-UP, CFJ1-UP, CLD1-UP, CLS1-UP, CTY1-UP, DCW1-UP, DER1-UP, DET1-UP, FDL1-UP, FEE1-UP, JMB1-UP, MYA1-UP, PEG1-UP, RCD1-UP, SDL1-UP, SJY1-UP

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2003/08/05

Operation Information (SEBU6941-05)

SMCS - 7000

i01954582



Note: Operating Temperature Range for the Machine The machine must function satisfactorily in the anticipated ambient temperature limits that are encountered during operation. The standard machine configuration is intended for use within an ambient temperature range of -18°C (0°F) to 43°C (109°F). Special configurations for different ambient temperatures may be available. Consult your Caterpillar dealer for additional information on special configurations of your machine.

Make sure that no personnel are on the machine or near the machine in order to prevent any personal injury. Keep the machine under control at all times in order to prevent injury.

Reduce the engine speed when you maneuver the machine in tight quarters and when you drive over an incline.

Select the necessary travel speed range before you drive downgrade. Do not change the travel speed range while you drive downhill.

Use the same travel speed on a downgrade and on an upgrade.

When you travel for any distance, keep the stick inward and carry the boom in a low position.

When you drive up a steep grade, keep the boom as close to the ground as possible.

When you travel uphill or you travel downhill, keep the boom on the uphill side of the machine.

1. Adjust the operator seat.
2. Fasten the seat belt.

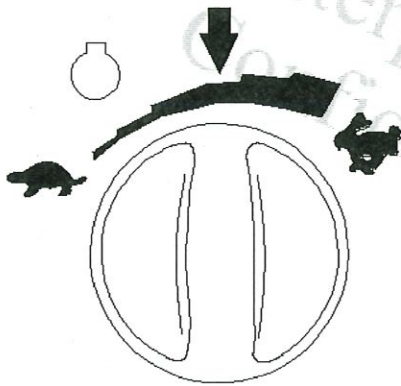


Illustration 1

g00103398

3. Turn the engine speed dial to the operating range.
4. Move the hydraulic lockout control to the UNLOCKED position.

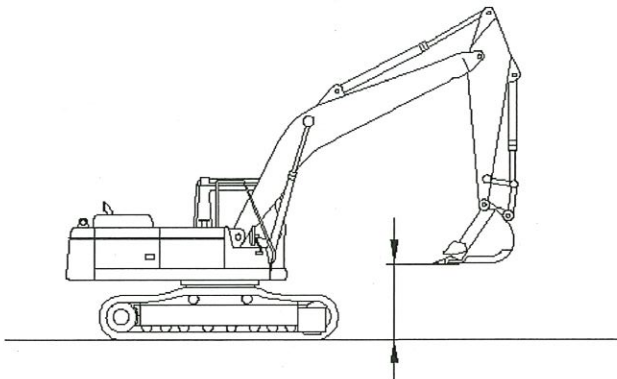


Illustration 2

g00101463

5. Raise the boom enough in order to provide sufficient ground clearance.

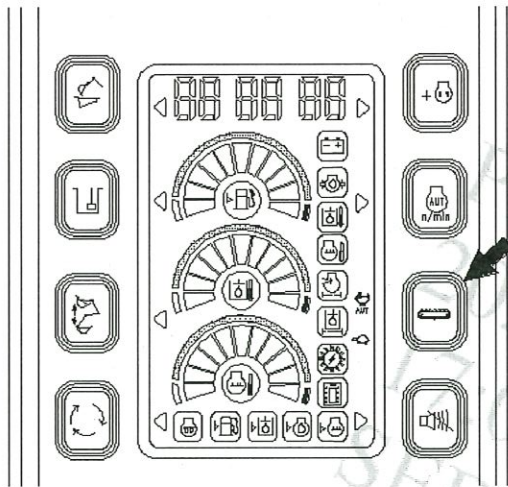


Illustration 3

g00101464

6. Select the desired travel speed by operating the travel speed control switch.

7. Make sure that the position of the upper structure and of the undercarriage is known before you move the machine. The drive sprockets should be at the rear of the machine.

Note: The directional steering controls will operate normally if the drive sprockets are at the rear of the machine and the idlers are at the front of the machine and under the cab. When the sprockets are under the cab, the travel controls will operate backward.

8. Turn the engine speed dial in order to increase the engine speed (rpm) to the desired speed.

9. Push both travel levers forward at the same time in order to travel forward. If both travel levers are pushed farther, the travel speed at the selected engine speed (rpm) will be faster.

Note: If the machine does not operate or if the machine does not travel in a straight line, consult your Caterpillar dealer.

10. See Operation and Maintenance Manual, "Travel Control" for information about spot turning and about pivot turns.

11. When you make turns in soft material, travel in a forward direction occasionally in order to clear the tracks.

12. Slowly move both of the travel levers or both of the travel pedals to the CENTER position in order to stop the machine.

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1YS1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2WZ1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3ZZ1-UP, 4MR1-UP, 4NR1-UP, 4SS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LW1-UP, 5SW1-UP, 6CR1-UP, 6DR1-UP, 6DZ1-UP, 7EN1-UP, 7KZ1-UP, 7RZ1-UP, 8ES1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9KR1-UP, 9MR1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGS1-UP, AKG501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, AMD1-UP, AMJ1-UP, AMN1-UP, AYR1-UP, DCW1-UP, DET1-UP, KGA1-UP

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Changing Direction And Speed (SEBU6941-05)

SMCS - 1000, 7000

i00117458



Directional changes at full engine speed are possible. However, decelerating is recommended for operator comfort. Decelerating will also help to achieve the maximum service life of the machine components.

If the travel alarm does not sound, consult your Caterpillar dealer.

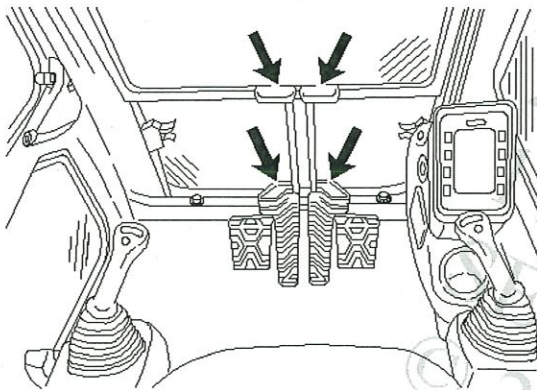


Illustration 1

g00107517

1. Slowly move both of the travel levers or both of the travel pedals toward the rear until the STOP position is reached and the machine stops.
2. Then, move both of the travel levers or both of the travel pedals rearward from the STOP position. If you move the travel levers or the travel pedals farther toward the rear, the travel speed at the selected engine speed will be faster.
3. Slowly move both of the travel levers or both of the travel pedals to the STOP position in order to stop the machine.

1YS1-UP, 2JR1-UP, 2NW1-UP, 4SS1-UP, 6DR1-UP, 6LS1-UP, 7RZ1-UP, 9GS1-UP, 9JS1-UP, AGS1-UP, ALB1-UP, AME1-UP, APB1-UP, CCC1-UP, DCW1-UP, DET1-UP, FEE1-UP

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Equipment Lowering With Engine Stopped (SEBU6941-05)

SMCS - 7000

i02018465



To lower the boom, turn the engine start switch to the ON position and place the hydraulic lockout control in the UNLOCKED position. Move the joystick to the Boom Lower position. If the accumulator is still charged, the boom will lower.

If the boom does not lower, the accumulator is empty. Use one of the following methods to lower the boom.

Machine without a Boom Lowering Control Valve



WARNING

Be sure no one is under or near the implements before manually lowering the boom. Keep all personnel away from the boom drop area when lowering the boom with the engine stopped in order to avoid possible personal injury

When you must manually lower the boom due to engine shutdown, use the following procedure.

Note: Keep all personnel away from the boom when you are lowering the boom.

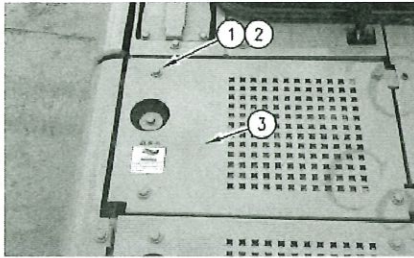


Illustration 1

g00101544

1. Remove four bolts (1), four washers (2), and the cover (3) from the top of the hydraulic tank.

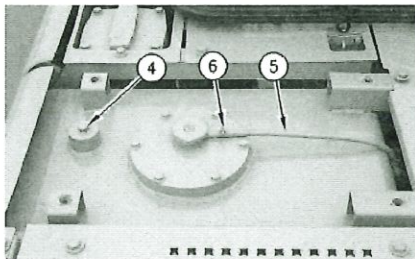


Illustration 2

g00101546

2. Slowly loosen fill/vent plug (4) on the top of the hydraulic tank until internal pressure in the hydraulic tank has been completely relieved. Remove fill/vent plug (4).
3. Loosen clamp (6) and disconnect hose (5) from the side of the hydraulic tank.

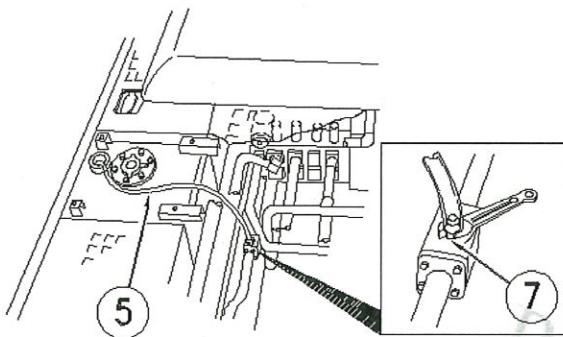


Illustration 3

g00101548

4. Connect an end of hose (5) to screw (7). Put the other end of hose (5) into the filler plug opening.
5. Slowly loosen screw (7) by a maximum of 1/2 turn. This allows the hydraulic oil in the boom circuit to drain into the hydraulic tank. The boom will now start to lower.
6. Make sure that the work tool has lowered all the way to the ground. Tighten screw (7) to a torque of $13 \pm 2 \text{ N}\cdot\text{m}$ ($9 \pm 1 \text{ lb}\cdot\text{ft}$).
7. Disconnect hose (5) from screw (7). Do not allow the oil that is contained in hose (5) to spill.
8. Connect hose (5) to the original position on the hydraulic tank and install fill/vent plug (4) securely.

After completion of the manual boom lowering, make necessary repairs before you operate the machine again.

Machine with a Boom Lowering Control Valve

WARNING

Boom load may cause cylinder oil pressure to reach relief pressure of the boom lowering control device when the boom is supported by one cylinder. Boom can lower suddenly.

Be sure no one is under or near the implements before manually lowering the boom.

Keep all personnel away from the boom drop area when lowering the boom with the engine stopped.

If the engine is shut down or the hydraulic system is disabled, the operator can still lower the boom. Use the following procedure if the machine is equipped with a boom lowering control valve.

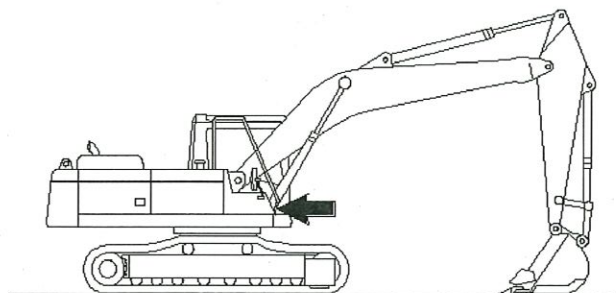


Illustration 4

g00101574

The boom lowering control valve is at the back of the base of the boom. The boom lowering control valve allows the operator to manually lower the boom if the engine is stopped. The boom lowering control valve also ensures that the boom does not fall suddenly if there is an oil leak in the hydraulic line of the boom.

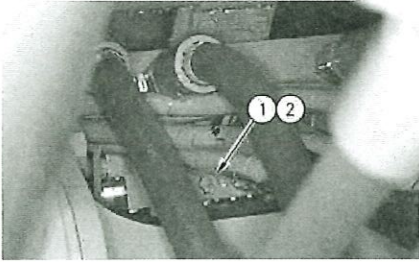


Illustration 5

g00101604

1. Loosen locknut (1) .
2. Slowly turn check valve (2) counterclockwise until the check valve stops. The boom will lower to the ground.
3. Make sure that the work tool has been completely lowered onto the ground. Turn check valve (2) to the Closed position.
4. Tighten locknut (1) to a torque of $55 \pm 10 \text{ N}\cdot\text{m}$ ($41 \pm 7 \text{ lb ft}$).
5. Before you begin operating the machine, make any necessary repairs.

For additional information, consult your Caterpillar dealer.

1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 2JR1-UP, 2SW1-UP, 3YR1-UP, 3YZ1-UP, 4DS1-UP, 4RS1-UP, 5BS1-UP, 5LR1-UP, 5LS1-UP, 5MS1-UP, 6DN1-UP, 6DR1-UP, 6LW1-UP, 7JR1-UP, 7KS1-UP, 8FN1-UP, 9WS1-UP, BFG1-UP

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2012/10/08

Operating Technique Information (SEBU6941-05)

SMCS - 7000

i05125989

**WARNING**

Know the maximum height and the maximum reach of your machine. Serious injury or death by electrocution can occur if the machine or the work tools are not kept a safe distance from electrical power lines. Keep a distance of at least 3000 mm (118 inch) plus an additional 10 mm (0.4 inch) for each 1000 volts over 50000 volts.

For safety, one of the following may require a greater distance:

- Local codes
- State codes
- Requirements of the job site

NOTICE

When swinging into a ditch, do not use the ditch to stop the swinging motion. Inspect the machine for damage if the boom is swung into a bank or an object.

Repeated stopping by an object can cause structural damage if the boom is swung into a bank or an object.

With certain boom-stick-bucket combinations, the bucket or worktool can hit the cab and/or the front structure of the machine. Always check for interference when first operating a new bucket or a new work tool. Keep the bucket or work tool away from the cab and away from the front structure during operation.

Whenever the tracks of the machine raise off the ground while digging, lower the machine back to the ground smoothly. DO NOT DROP OR CATCH IT WITH THE HYDRAULICS. Damage to the machine can result.

With certain combinations of work tools, the third pedal can have different functions. Always check the function of the third pedal before you use the third pedal.

Know the location of any buried cables. Mark the locations clearly before you dig.

Consult your Caterpillar dealer for special work tool tips that are available for use in severe applications.

Move the machine whenever the position for operating the machine is not efficient. The machine can be moved forward or backward during the operating cycle.

When you operate the machine in close places, utilize the bucket or the other work tool in order to perform the following functions:

- Pushing the machine
- Pulling the machine
- Lifting the tracks

Use a comfortable travel speed while you operate the machine.

Operating efficiency can be increased by using more than one machine control to perform a task.

Never swing a load over a truck cab or workers.

Position the truck so that material can be loaded from the rear of the truck or from the side of the truck. Load the truck evenly so that the rear axles are not overloaded.

An oversize bucket or a bucket that is equipped with side cutters should not be used in rocky material. These types of buckets slow down the cycle. Damage to the bucket and to other machine components could result.

Restricted Operation

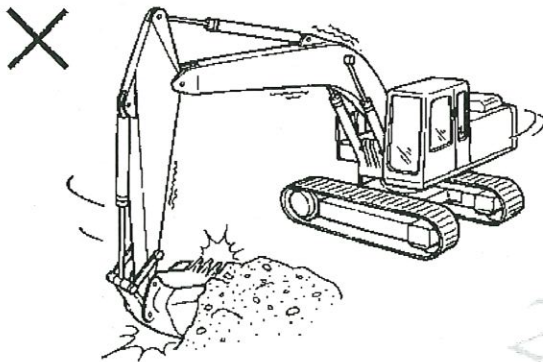


Illustration 1

g00529436

Do not use the swing force to perform the following operations:

- Soil compaction
- Ground breaking
- Demolition

Do not swing the machine while the bucket tips are in the soil.

These operations will damage the boom, the stick, and the work tool and the operations will reduce the life of the equipment.

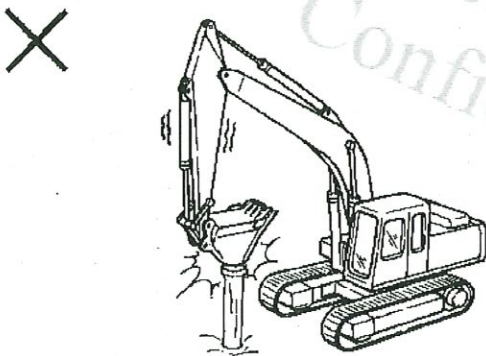


Illustration 2

g00529457

Do not use the dropping force of the bucket or work tool as a hammer. This will bring excessive force on the rear of the machine. Possible damage to the machine could result.

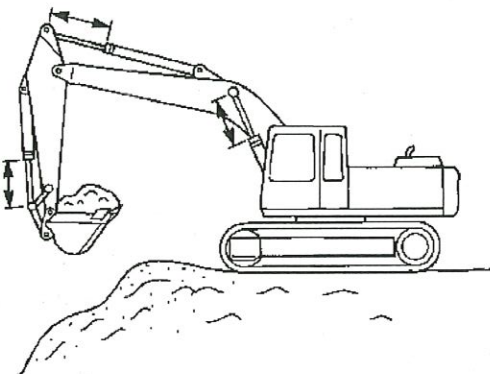


Illustration 3

g00529458

If the cylinder is operated at the end of the stroke during operations, excessive force will occur on the stopper on the inside of the cylinder. This will reduce the life of the cylinder and structures. To avoid this problem, always leave a small margin of play when the cylinder is operated.

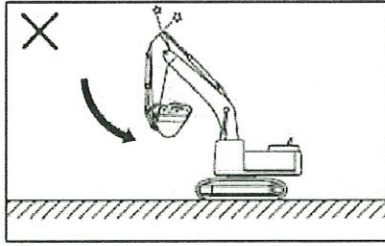


Illustration 4

g03286378

If the stick IN function is operated at full speed with a fully loaded bucket or heavy work tool attachment to the end of the cylinder stroke, excessive force will occur inside the stick cylinder. This action will reduce the life of the stick cylinder. To avoid this problem, always operate a stick IN function with moderate speed towards the end of cylinder stroke.

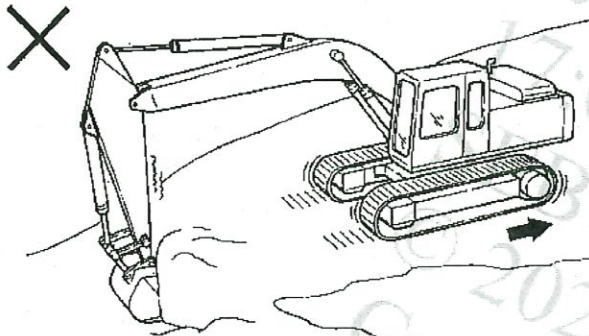


Illustration 5

g00529459

While the bucket is in the ground, do not use the travel force for any excavation. This operation will cause excessive force on the rear of the machine.

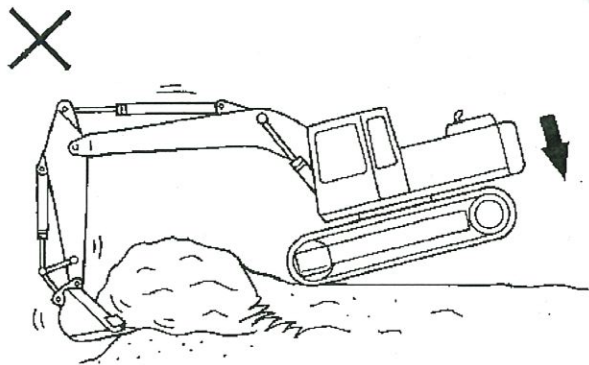


Illustration 6

g00529460

Do not use the dropping force of the rear of the machine for excavation. This operation will damage the machine.

Operating Precaution

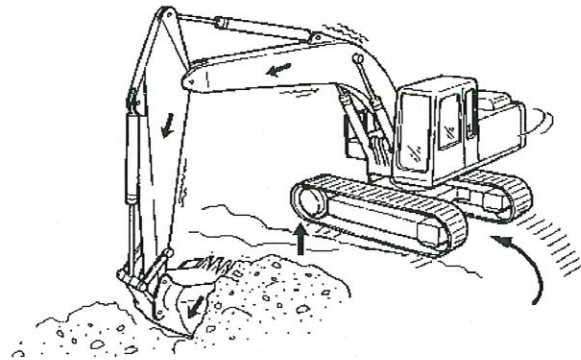


Illustration 7

g01250228

NOTICE

Do not allow the machine to swing from the force of traveling when you use the bucket, the stick, or the boom to assist in travel. If the force from traveling causes the machine to swing, damage may occur to the swing motor and to the swing drive.

Do not use the force of the bucket, the stick, or the boom to assist in turning the machine while the machine is traveling. This technique is referred to as "jump steering". This technique will damage the swing motor and the swing brake.

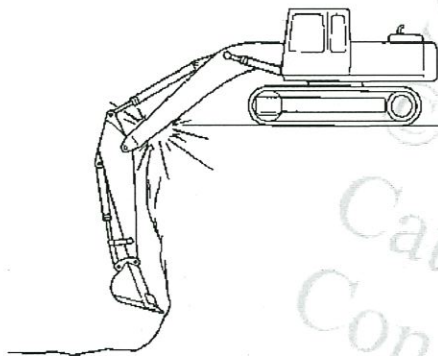


Illustration 8

g00529462

When deep holes are dug, do not lower the boom so that the bottom side of the boom touches the ground.

When deep holes are dug, do not allow the boom to interfere with the tracks.

CLS1-UP, DKF1-UP, FDL1-UP, MYA1-UP, RCD1-UP, TJE1-UP, ZBJ1-UP, 1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2DW1-UP, 2ES1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2NW1-UP, 2RR1-UP, 2SW1-UP, 2WZ1-UP, 3AW1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4RW1-UP, 4SS1-UP, 4XW1-UP, 4XZ1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5CW1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 5WS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6KZ1-UP, 6LW1-UP, 6MW1-UP, 6XS1-UP, 7DZ1-UP, 7EN1-UP, 7JR1-UP, 7KS1-UP, 7KZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9KR1-UP, 9MR1-UP, 9WS1-UP, 9WW1-UP, A3R1-UP, A6F1-UP, A8F1-UP, A9F1-UP, A9J1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AEX1-UP, AFB1-UP, AGD1-UP, AGS1-UP, AKE1-UP, AKG501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, ALX1-UP, AMD1-UP, AMH1-UP, AMJ1-UP, AMN1-UP, ANF1-UP, ANS1-UP, AP41-UP, APA1-UP, AT21-UP, AVN1-UP, AWS1-UP, AXK1-UP, AYF1-UP, AYR1-UP, AZP1-UP, B1K1-1000, B2L1-UP, B3M1-1000, B4N1-1000, B6H1-UP, BAS1-UP, BBL1-UP, BCM1-UP, BCN1-UP, BDE1-UP, BEA1-UP, BFC1-UP, BFE1-UP, BFG1-UP, BFK1-UP, BGR1-UP, BKF1-UP, BKJ1-UP, BKM1-UP, BKW1-UP, BKW254-255, BKW264-265, BKW326-255, BKX1-UP, BLP1-UP, BLX1-UP, BLY1-UP, BMH1-UP, BMM1-UP, BMZ1-UP, BNE1-UP, BNN1-UP, BPR1-UP, BRB1-UP, BRW1-UP, BRX1-UP, BTD1-UP, BTG1-UP, BTK1-UP, BTM1-UP, BW21-UP, BWH1-UP, BWW1-UP, BWY1-UP, BYC1-UP, BYE1-UP, BYJ1-UP, BYM1-UP, BYP1-UP, BYS1-UP, BZ21-UP, BZF1-UP, BZH1-UP, BZP1-UP, BZY1-UP, CAP1-UP, CBA1-UP, CBT1-UP, CCC1-UP, CE21-UP, CE81-UP, CFB1-UP, CFJ1-UP, CFT1-UP, CGZ1-UP, CJC1-UP, CJX1-UP, CKE1-UP, CLA1-UP, CLD1-UP, CLM1-UP, CLS1-UP, CLZ1-UP, CMR1-UP, CRB1-UP, CSJ1-UP, CWG1-UP, CXY1-UP, CY21-UP, CYA1-UP, CYD1-UP, CYW1-UP, CYZ1-235, CYZ236-UP, CZF1-UP, DAA1-UP, DAH1-UP, DAX1-UP, DAY1-UP, DBG1-UP, DBH1-UP, DBN1-UP, DCW1-UP, DDW1-UP, DET1-UP,

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TYE1-UP, TZA1-UP, TZL1-UP, W3K1-UP, W8S1-UP, WAG1-UP, WAP1-UP, WBA1-UP, WBC1-UP, WBF1-UP, WBJ1-UP, WBK1-UP, WBN1-UP, WBT1-UP, WBY1-UP, WDC1-UP, WDE1-UP, WDJ10001-UP, WDK1-UP, WDT1-UP, WEC1-UP, WET1-UP, WEY1-UP, WGC1-UP, WGL1-UP, WHJ1-UP, WHZ1-UP, WJK1-UP, WLN1-UP, WLT1-UP, WNA1-UP, WNE1-UP, WPK1-UP, WRA1-UP, WRK1-UP, WTD1-UP, WTZ1-UP, WZS1-UP, WZX1-UP, WZY1-UP, XAA1-UP, XAC1-UP, XAD1-UP, XAJ1-UP, XAM1-UP, XAN1-UP, XBA1-UP, XBB1-UP, XBH1-UP, XBK1-UP, XCC10001-UP, XCF1-UP, XCK1-UP, XDB1-UP, XDR10001-UP, XFK1-UP, XGK1-UP, XHR1-UP, XLW1-UP, YAE1-UP, YAG1-UP, YBH1-UP, YBJ1-UP, YBK1-UP, YBM1-UP, YCA1-UP, YCE1-UP, YCF1-UP, YCR1-UP, YCW1-UP, YDL1-UP, YDS1-UP, YE21-UP, YEA1-UP, YEC1-UP, YEE1-UP, YEG1-UP, YEJ1-UP, YEP1-UP, YFD1-UP, YFW1-UP, YHA1-UP, YHT1-UP, YJX1-UP, YRP1-UP, YSD1-UP, YZZ1-UP, ZAA1-UP, ZAE1-UP, ZBD1-UP, ZBF1-UP, ZBH1-UP, ZBJ1-UP, ZBM1-UP, ZCA1-UP, ZCD1-UP, ZCS1-UP, ZCT1-UP, ZGB1-UP, ZGC1-UP, ZGS1-UP, ZGZ1-UP, ZJT1-UP, ZKP1-UP, ZMF1-UP, ZML1-UP

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Travel In Water And Mud (SEBU6941-05)

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**NOTICE**

When working in or around any body of water, around a stream or river, or in conditions of heavy mud, be careful that the swing bearing, the swing drive gear, and the swivel joint do not dip into water, mud, sand, or gravel. If the swing bearing dips into water, mud, sand, or gravel, immediately grease the swing bearing until the used grease leaks from the outer circle of the swing bearing. Failure to carry out this procedure may cause premature wear in the swing bearing.

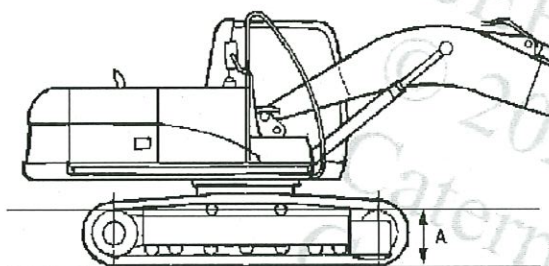


Illustration 1

g00807842

Depth of water to the center of the track carrier roller

The following guidelines pertain to travel across water and travel through mud, sand, or gravel.

The machine can travel across a river only under the following conditions:

- The bed of the river is flat.
- The flow of the river is slow.
- The machine dips into the water only to the center of the track carrier roller (dimension A).

NOTICE

Do not allow the fan on the engine to contact the water while the machine travels through the water. Do not allow the fan on the engine to contact the water during a swing while the machine is in the water. Damage to the fan may occur if the fan contacts the water.

While you cross the river, carefully confirm the depth of the water with the bucket. Do not move the machine into an area that has a water depth that is greater than Dimension A.

The machine may sink gradually on soft ground. Therefore, you should frequently check the height of the undercarriage from ground level and the depth of water on the ground.

Check the swing gear by looking through the port for inspection that is on the upper frame. If there is water in the swing gear, contact your Cat dealer for the required maintenance on the swing gear.

After you travel through water, carefully clean the machine in order to remove any salt, sand, or other foreign matter.

Procedure for Removing the Machine from Water or Mud

NOTICE

Do not allow the machine to swing from the force of traveling when you use the bucket, the stick, or the boom to assist in travel. If the force from traveling causes the machine to swing, damage may occur to the swing motor and to the swing drive.

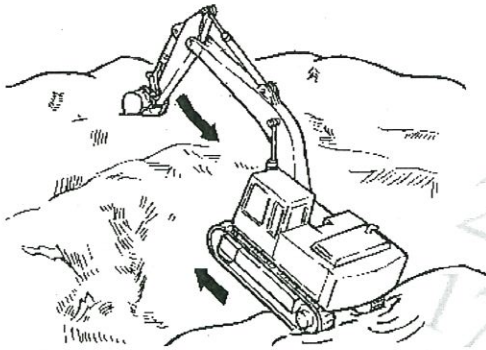


Illustration 2

g00808148

1. You may not be able to move the machine by using the travel controls only. In this case use both the travel control levers/pedals and the stick to pull the machine out of the water or ground.

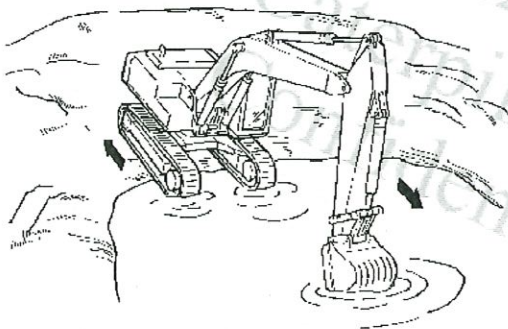


Illustration 3

g00808151

2. The machine may slip because of a steep slope. The procedure in Step 1 may not work. In this case, first rotate the upper structure by 180°. Then use both the travel control levers/pedals and the stick to move the machine up the slope.

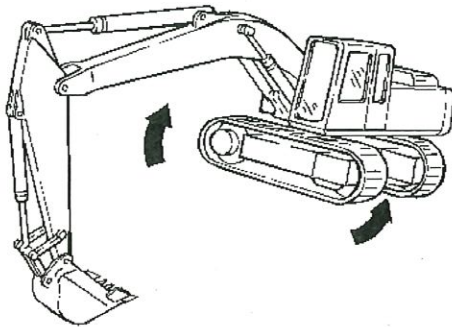


Illustration 4

g00808152

3. It may be impossible to travel because the bottom of the frame comes into contact with the ground or the undercarriage is clogged with mud or gravel. In this case, operate the boom and the stick together. Raise the track and rotate the track forward and backward in order to remove

the mud and the gravel.

1CS1-UP, 1ES1-UP, 2NW1-UP, 2WZ1-UP, 3MR1-UP, 4MR1-UP, 4NR1-UP, 4SS1-UP, 4XW1-UP, 5BR1-UP, 5GW1-UP, 6CR1-UP, 6DR1-UP, 6LS1-UP, 8ES1-UP, 9CS1-UP, 9GS1-UP, 9JS1-UP, 9KR1-UP, A3R1-UP, A6F1-UP, A8F1-UP, A9F1-UP, A9J1-UP, AED1-UP, AGS1-UP, AKE1-UP, ALB1-UP, ALX1-UP, AMH1-UP, ANS1-UP, AP41-UP, APA1-UP, AT21-UP, AWW1-UP, AWS1-UP, AXK1-UP, AYF1-UP, AZP1-UP, B1K1-1000, B1K1001-UP, B2L1-UP, B3M1-1000, B3M1001-UP, B4N1-1000, B4N1001-UP, B6H1-UP, BBL1-UP, BCM1-UP, BCN1-UP, BDE1-UP, BEA1-UP, BFC1-UP, BFE1-UP, BFK1-UP, BGB1-UP, BGR1-UP, BKF1-UP, BKJ1-UP, BKK1-UP, BKM1-UP, BKW1-UP, BKW254-255, BKW264-265, BKW326-255, BKX1-UP, BLP1-UP, BLX1-UP, BLY1-UP, BMH1-UP, BMM1-UP, BMZ1-UP, BNE1-UP, BPH1-UP, BPR1-UP, BRB1-UP, BRW1-UP, BRX1-UP, BTD1-UP, BTK1-UP, BTM1-UP, BW21-UP, BWW1-UP, BWY1-UP, BYC1-UP, BYE1-UP, BYJ1-UP, BYM1-UP, BYP1-UP, BYS1-UP, BZ21-UP, BZF1-UP, BZH1-UP, BZN1-UP, BZP1-UP, BZY1-UP, C3R1-1000, C3R1001-UP, C7K1-UP, C8L1-UP, C9M1-UP, CAM1-UP, CAP1-UP, CBA1-UP, CBY1-UP, CCC1-UP, CE21-UP, CE81-UP, CFB1-UP, CFT1-UP, CGZ1-UP, CJC1-UP, CJN1-UP, CJX1-UP, CKE1-UP, CLA1-UP, CLD1-UP, CLM1-UP, CLS1-UP, CLZ1-UP, CMR1-UP, CRB1-UP, CSJ1-UP, CWG1-UP, CXY1-UP, CY21-UP, CYA1-UP, CYD1-UP, CYW1-UP, CYZ1-235, CYZ236-UP, CZF1-UP, DAA1-UP, DAX1-UP, DAY1-UP, DBG1-UP, DBH1-UP, DCW1-UP, DDW1-UP, DFG1-UP, DFM1-UP, DFP1-UP, DFY1-UP, DGE1-UP, DGF1-UP, DGR1-UP, DHE1-UP, DHK1-UP, DHP1-UP, DJE1-UP, DJF1-UP, DKD1-UP, DKF1-UP, DKW1-UP, DKY1-UP, DLP1-UP, DNM1-UP, DNP1-UP, DNS1-UP, DPJ1-UP, DPX1-UP, DSG1-UP, DSW1-UP, DTF1-UP, DTG1-UP, DTS1-UP, DTZ1-UP, DWR1-UP, DYR1-UP, DZF1-UP, DZW1-UP, E4K1-UP, EAB1-UP, EAG1-UP, EAH1-UP, EAM1-UP, EAR1-UP, EAW1-UP, EAX1-UP, EBF1-UP, EBK1-UP, EBM1-UP, EBP1-UP, EBY1-UP, EC21-UP, ECH1-UP, ECN1-UP, ECZ1-UP, EDA1-UP, EDX1-UP, EEH1-UP, EF31-UP, EFT1-UP, EGL1-UP, EJC1-UP, EJT1-UP, EKT1-UP, ELC1-UP, ELR1-UP, ELS1-UP, EMR1-UP, ERK1-UP, ERL1-UP, ERN1-UP, ESD1-UP, ESG1-UP, ESX1-UP, ETC1-UP, EWC1-UP, EX71-UP, F5G1-UP, F5L1-UP, F8C1-UP, FA21-UP, FAB1-UP, FAJ1-UP, FAL1-UP, FAP1-UP, FAR1-UP, FBR1-UP, FBT1-UP, FDL1-UP, FDS1-UP, FEB10001-UP, FED1-UP, FEE1-UP, FEH1-UP, FEN1-UP, FEP1-UP, FEX1-UP, FEY1-UP, FFK1-UP, FFT1-UP, FJB1-UP, FJH1-UP, FJX1-UP, FKC1-UP, FKE1-UP, FKK1-UP, FLA1-UP, FLC1-UP, FLD1-UP, FMH1-UP, FPC1-UP, FXK1-UP, FYC1-UP, G1L1-999, G1L1001-UP, GAC1-UP, GAD1-UP, GAG1-UP, GAJ1-UP, GAP1-UP, GAX1-UP, GAY1-UP, GBA1-UP, GBC1-UP, GBJ1-UP, GBR1-UP, GBT1-UP, GCL1-UP, GDP1-UP, GF81-UP, GGE1-UP, GGH1-UP, GGJ1-UP, GHT1-UP, GJA1-UP, GJD1-UP, GKF1-UP, GKL1-UP, GKS1-UP, GKX1-UP, GLA1-UP, GMD1-UP, GMX1-UP, GMY1-UP, GNG1-UP, GNY1-UP, GPA1-UP, GPB1-UP, GPH1-UP, GPK1-UP, GTF1-UP, GTJ1-UP, GTN1-UP, GWN1-UP, H1Y1-2499, H1Y2500-UP, H3K1-UP, HAA1-UP, HAH1-UP, HAM1-UP, HAS1-UP, HBH1-UP, HBK1-UP, HBP1-UP, HBS1-UP, HBT1-UP, HCA1-UP, HCJ1-UP, HCK1-UP, HCP1-UP, HCW1-UP, HDK1-UP, HDM1-UP, HDW1-UP, HEK1-UP, HEL1-UP, HHK1-UP, HJC1-UP, HJD1-UP, HJX1-UP, HKT1-UP, HLB1-UP, HM41-UP, HNG1-UP, HPD1-UP, HSM1-UP, HSP1-UP, J2F1-UP, JAB1-UP, JAT1-UP, JBC1-UP, JBE1-UP, JBF1-UP, JBT1-UP, JC51-UP, JCD1-UP, JCM1-UP, JCZ1-UP, JEA1-UP, JEB1-UP, JEE1-UP, JEG1-UP, JEX10001-UP, JEY1-UP, JFG1-UP, JFL1-UP, JFM1-UP, JFR1-UP, JFT1-UP, JFZ1-UP, JGB1-UP, JGK1-UP, JGS1-UP, JGZ1-UP, JHA1-UP, JHF1-UP, JHJ1-UP, JIG1-UP, JKN1-UP, JKR1-UP, JLC1-UP, JLD1-UP, JLG1-UP, JLP1-UP, JLS1-UP, JNK1-UP, JPD1-UP, JRJ1-UP, JSN1-UP, JTG1-UP, JTN1-UP, JWR1-UP, JZA1-UP, JZR1-UP, KBB1-UP, KBC1-UP, KBD1-UP, KBE1-UP, KBJ1-UP, KBP1-UP, KBS1-UP, KBX1-UP, KBY1-UP, KBZ1-UP, KC51-UP, KC91-UP, KCD1-UP, KCE1-UP, KCN1-UP, KCR1-UP, KCS1-UP, KCW1-UP, KCX1-UP, KCZ1-UP, KDD1-608, KDG1-UP, KDJ1-UP, KEA1-UP, KED1-UP, KER1-UP, KES1-UP, KFA1-UP, KFH1-UP, KFM1-UP, KFT1-UP, KFX1-UP, KGB1-UP, KGF1-UP, KGH1-UP, KGY1-UP, KHB1-UP, KHN1-UP, KHR1-UP, KHS1-UP, KJA1-UP, KJB1-UP, KKK1-UP, KKT1-UP, KLE1-UP, KLH1-UP, KLM1-UP, KLT1-UP, KMK1-UP, KNE1-UP, KRM1-UP, KTE1-UP, KTF1-UP, KXD1-UP, KZF1-UP, L2K1-UP, L5H1-UP, L681-UP, LAB1-UP, LAH1-UP, LAK1-UP, LAL1-UP, LAM1-UP, LAR1-1000, LAR1001-UP, LBN1-UP, LBX1-UP, LCA1-UP, LCG1-UP, LCL1-UP, 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YEE1-UP, YEG1-UP, YEJ1-UP, YEP1-UP, YFD1-UP, YFW1-UP, YHA1-UP, YHT1-UP, YJX1-UP, YRP1-UP, YSD1-UP, YZZ1-UP, ZAA1-UP, ZAE1-UP, ZBD1-UP, ZBF1-UP, ZBH1-UP, ZBJ1-UP, ZBM1-UP, ZCA1-UP, ZCD1-UP, ZCS1-UP, ZCT1-UP, ZGB1-UP, ZGC1-UP, ZGS1-UP, ZGZ1-UP, ZJT1-UP, ZKJ1-UP, ZKP1-UP, ZMF1-UP, ZML1-UP

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Boom, Stick And Bucket Operation (SEBU6941-05)

SMCS - 5000, 7000

i08504177



Digging

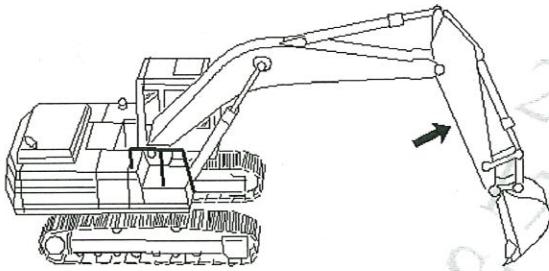


Illustration 1

g00101523

1. Position the stick at a 70 degree angle to the ground.

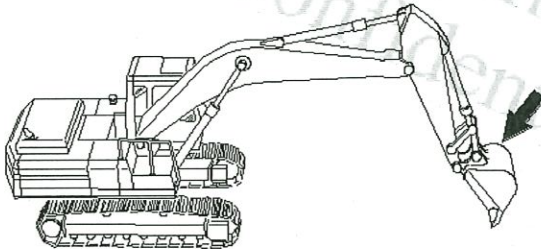


Illustration 2

g00101525

2. Position the bucket cutting edge at a 120 degree angle to the ground. Maximum breakout force can now be exerted with the bucket.

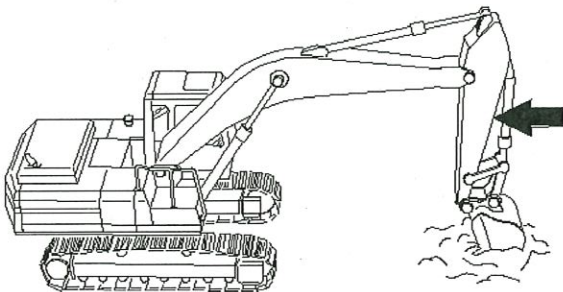


Illustration 3

g00101526

3. Move the stick toward the cab and keep the bucket parallel to the ground.

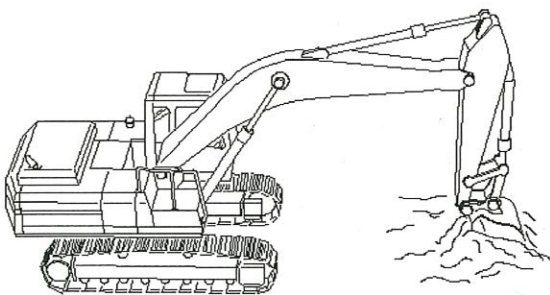


Illustration 4

g00101527

4. If the stick stops due to the load, raise the boom and/or perform a curl in order to adjust the depth of the cut.
5. To apply the greatest force at the cutting edge, decrease the down pressure as you move the stick toward the cab.
6. Maintain a bucket attitude that ensures a continuous flow of material into the bucket.
7. Continue the pass in a horizontal direction so that material peels into the bucket.

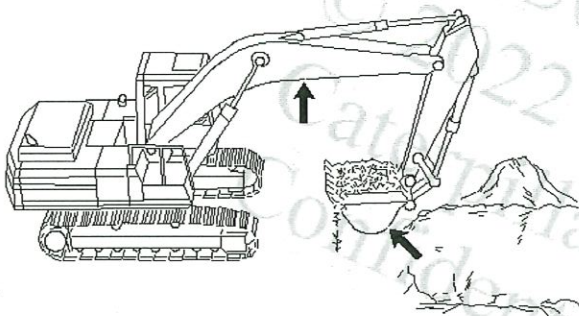


Illustration 5

g00101528

8. Close the bucket and raise the boom when the pass has been completed.

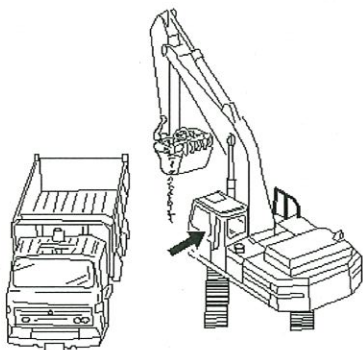


Illustration 6

g00101529

9. Engage the swing control when the bucket is clear of the excavation.

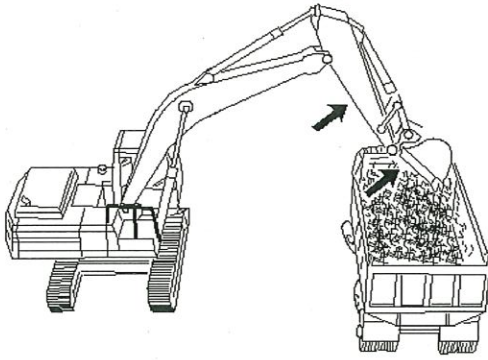


Illustration 7

g00101530

10. To dump a load, move the stick outward and open the bucket in a smooth motion.

Lifting Objects

WARNING

To prevent injury, do not exceed the rated load capacity of the machine. If the machine is not on level ground, load capacities will vary.

NOTICE

Damage to bucket cylinder, bucket or linkage could result if slings are placed incorrectly.

There may be local regulations and/or government regulations that govern the use of machines which lift heavy objects. Obey all local and government regulations.

Regional regulations may require the use of an overload warning device and boom and stick lowering control valves when used to lift objects.

Japan regulations require some machines to use a shovel crane configuration in order to lift certain objects.

Contact your Cat dealer for additional information.

Short slings will prevent excessive load swing.

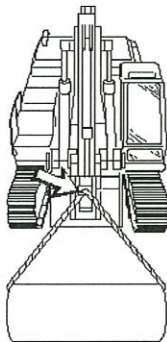


Illustration 8

g00101531

Use the lifting eye that is provided on the linkage to lift objects.

If the lifting eye is used, the connection must be made with a sling or with a shackle.

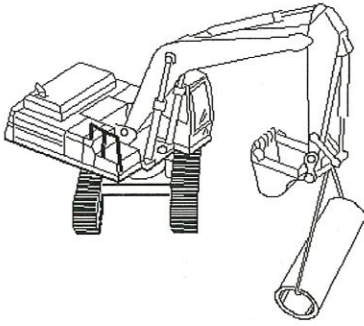


Illustration 9

g00101532

An unstable condition can exist if a load exceeds the machine load rating or if a heavy load is swung over an end or over a side.

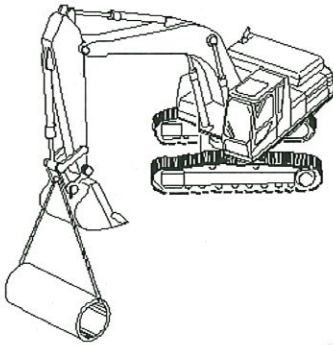


Illustration 10

g00101533

The most stable lifting position is over a corner of the machine.

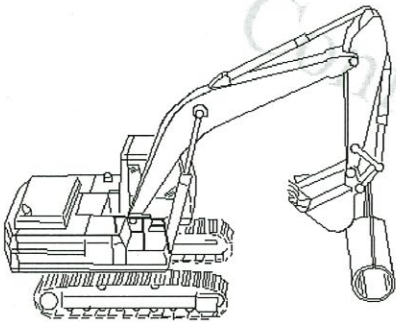


Illustration 11

g00101534

For the best stability, carry a load close to the machine and to the ground.

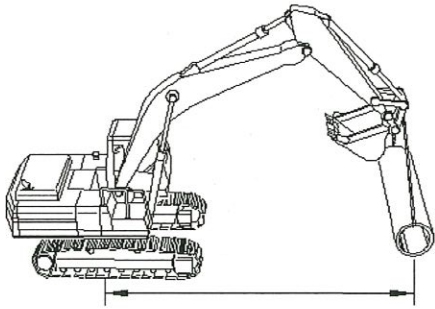


Illustration 12

g00101535

Lift capacity decreases as the distance from the swing centerline is increased.

Machines that are Equipped with a Long Reach Configuration

Machines with a long reach configuration require larger swing drift than standard machines when stopping, because inertial force in time of swing is large. Taking this into account, adjustments are made in timing for applying the swing brakes and speed of swinging.

Machines with a long reach configuration could be damaged and stability of the machine would be adversely affected if a control was suddenly operated, because inertial force of work tool is large.

4SS1-UP, 9GS1-UP, 1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2RR1-UP, 2SW1-UP, 2WZ1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4RW1-UP, 4SS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5CW1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 5WS1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6KZ1-UP, 6LW1-UP, 6MW1-UP, 6XS1-UP, 7DZ1-UP, 7EN1-UP, 7JR1-UP, 7KS1-UP, 7KZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9CZ1001-UP, 9GR1-UP, 9GS1-UP, 9HN1-UP, 9HR1-UP, 9KR1-UP, 9MR1-UP, 9WS1-UP, 9WW1-UP, A3R1-UP, A9J1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AEX1-UP, AFB1-UP, AGS1-UP, AKE1-UP, AKG501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, ALX1-UP, AMD1-UP, AMH1-UP, AMJ1-UP, AMN1-UP, ANF1-UP, AP41-UP, APA1-UP, AT21-UP, AWN1-UP, AWS1-UP, AXK1-UP, AYF1-UP, AYR1-UP, AZP1-UP, B6H1-UP, BAS1-UP, BBL1-UP, BCM1-UP, BCN1-UP, BDE1-UP, BEA1-UP, BFC1-UP, BFE1-UP, BFG1-UP, BFK1-UP, BGR1-UP, BKJ1-UP, BKM1-UP, BKW1-UP, BKW254-255, BKW264-265, BKW326-UP, BLP1-UP, BLX1-UP, BMH1-UP, BMM1-UP, BMZ1-UP, BNE1-UP, BNN1-UP, BPR1-UP, BRX1-UP, BTD1-UP, BTG1-UP, BTK1-UP, BTM1-UP, BWH1-UP, BWY1-UP, BYC1-UP, BYE1-UP, BYJ1-UP, BYM1-UP, BYP1-UP, BYS1-UP, BZ21-UP, BZH1-UP, BZN1-UP, BZY1-UP, C7K1-UP, C8L1-UP, C9M1-UP, CAP1-UP, CBA1-UP, CBT1-UP, CCC1-UP, CE21-UP, CE81-UP, CFB1-UP, CFT1-UP, CGZ1-UP, CJC1-UP, CJN1-UP, CJX1-UP, CKE1-UP, CLA1-UP, CLM1-UP, CLZ1-UP, CMR1-UP, CRB1-UP, CSJ1-UP, CWG1-UP, CYA1-UP, CYD1-UP, CYW1-UP, CZF1-UP, DAA1-UP, DAH1-UP, DAX1-UP, DAY1-UP, DBG1-UP, DBH1-UP, DBN1-UP, DCW1-UP, DDW1-UP, DFG1-UP, DFP1-UP, DFY1-UP, DGE1-UP, DGR1-UP, DHP1-UP, DJE1-UP, DJF1-UP, DKD1-UP, DKF1-UP, DKW1-UP, DKY1-UP, DLP1-UP, DNM1-UP, DPJ1-UP, DPX1-UP, DSG1-UP, DSW1-UP, DTG1-UP, DTS1-UP, DTZ1-UP, DWR1-UP, DYR1-UP, DZF1-UP, DZW1-UP, EAG1-UP, EAH1-UP, EAM1-UP, EAR1-UP, EAW1-UP, EBF1-UP, EBK1-UP, EBM1-UP, EBP1-UP, EC21-UP, ECH1-UP, ECN1-UP, ECZ1-UP, EDA1-UP, EDX1-UP, EEH1-UP, EF31-UP, EFT1-UP, EGL1-UP, EJC1-UP, ELC1-UP, ELR1-UP, ELS1-UP, EMR1-UP, ERK1-UP, ERL1-UP, ERN1-UP, ESD1-UP, ETC1-UP, EWC1-UP, EX71-UP, F5G1-UP, F5L1-UP, F8C1-UP, FA21-UP, FAA1-UP, FAJ1-UP, FAR1-UP, FBR1-UP, FBT1-UP, FDS1-UP, FED1-UP, FEE1-UP, FEH1-UP, FEP1-UP, FEX1-UP, FFK1-UP, FFT1-UP, FJB1-UP, FJH1-UP, FJX1-UP, FKE1-UP, FLA1-UP, FMH1-UP, FPC1-UP, FYC1-UP, GAC1-UP, GAG1-UP, GAJ1-UP, GAX1-UP, GAY1-UP, GBC1-UP, GBJ1-UP, GBR1-UP, GBT1-UP, GCL1-UP, GGE1-UP, GGH1-UP, GGJ1-UP, GHT1-UP, GJA1-UP, GJD1-UP, GKF1-UP, GKX1-UP, GLA1-UP, GMD1-UP, GMY1-UP, GNG1-UP, GNY1-UP, GPA1-UP, GPB1-UP, GPH1-UP, GPK1-UP, GTF1-UP, GTJ1-UP, GTN1-UP, H1Y1-2499, H1Y2500-UP, H1Y3500-UP, HAA1-UP, HAH1-UP, HAM1-UP, HAS1-UP, HBC1-UP, HBH1-UP, HBK1-UP, HBP1-UP, HBS1-UP, HBT1-UP, HCA1-UP, HCJ1-UP, HCK1-UP, HCP1-UP, HCW1-UP, HDK1-UP, HDW1-UP, HEK1-UP, HEL1-UP, HHK1-UP, HJD1-UP, HJX1-UP, HKT1-UP, HLB1-UP, HM41-UP, HNG1-UP, HPD1-UP, HSM1-UP, HSP1-UP, J2F1-UP, JAB1-UP, JAT1-UP, JBC1-UP, JBE1-UP, JBF1-UP, JBT1-UP, JC51-UP, JCD1-UP, JCM1-UP, JCZ1-UP, JEA1-UP, JEB1-UP, JEE1-UP, JEY1-UP, JFG1-UP, JFL1-UP, JFR1-UP, JFT1-UP, JGB1-UP, JGK1-UP, JGS1-UP, JGZ1-UP, JHA1-UP, JHF1-UP, JHJ1-UP, JJG1-UP, JKN1-UP, JKR1-UP, JLC1-UP, JLD1-UP, JLG1-UP, JLP1-UP, JLS1-UP, JNK1-UP, JRJ1-UP, JSN1-UP, JTG1-UP, JTN1-UP, JWR1-UP, JZR1-UP, KBB1-UP, KBC1-UP, KBD1-UP, KBE1-UP, KBJ1-UP, KBP1-UP, KBY1-UP, KBZ1-UP, KC51-UP, KC91-UP, KCD1-UP, KCN1-UP, KCR1-UP, KCS1-UP, KCW1-UP, KCX1-UP, KCZ1-UP, KDD1-608, KDG1-UP, KDJ1-UP, KEA1-UP, KED1-UP, KER1-UP, KES1-UP, KFA1-UP, KFH1-UP, KFM1-UP, KFT1-UP, KFX1-UP, KGA1-UP, KGB1-UP, KGH1-UP, KGL1-UP, KGY1-UP, KHB1-UP, KHS1-UP, KJA1-UP, KJB1-UP, KKK1-UP, KKT1-UP, KLE1-UP, KLH1-UP, KLT1-UP, KMK1-UP, KNE1-UP, KRM1-UP, KTE1-UP, KXD1-UP, L5H1-UP, LAB1-UP, LAH1-UP, LAK1-UP, LAL1-UP, LAM1-UP, LBN1-UP, LBX1-UP, LCG1-UP, LCL1-UP, LCW10001-UP, LDG1-UP, LFL1-UP, LHN1-UP, LJE1-UP, LJY1-UP, LKA1-UP, LKR1-UP, LKY1-UP, LMG1-UP, LRK1-UP, LRM1-UP, LRT1-UP, LTP1-UP, LYS1-UP, LZF1-UP, M3M1-UP, M3N1-UP, M3W1-UP, M4T1-UP, MAC1-UP, MAR1-UP, MBP1-UP, MBX1-UP, MC51-UP, MCA1-UP, MCF1-UP, MCL1-UP, MCS1-UP, MCY1-UP, MDE1-UP, MDR1-UP, MDS1-UP, MDT1-UP, MDY1-UP, MEH1-UP, MEM1-UP, MEN1-UP, MES10001-UP, MEW1-UP, MEY1-UP, MFA1-UP, MFL1-UP, MFY1-UP, MGF1-UP, MGJ1-UP, MGW1-UP, MJD1-UP, MKR1-UP, MLK1-UP, MMA1-UP, MNB1-UP, MND1-UP, MPG1-UP, MPL1-UP, MPP1-UP, MPZ1-UP, MTW1-UP, MWP1-UP, MY21-UP, MYG1-UP, MYP1-UP, MZH1-UP, MZW1-UP, NAC1-UP, NAH1-UP, NAJ1-UP, NAS1-UP, NAZ1-UP, NBD1-UP, NBL1-UP, NBN1-UP,

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2022/05/24

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1996/09/26

Implement Changing (SEBU6941-05)

SMCS - 6522

i00072923



Manual quick change couplers are equipped only on certain machines.

Implement Securing

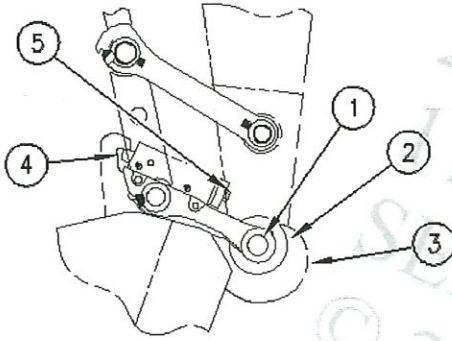


Illustration 1

g00101481

1. Move the implement control lever to the STICK IN position in order to move stick pin (1) into hook (3) on the implement. Make sure that two guide collars (2) are between the plates.
2. Use the BUCKET CLOSE position in order to extend the bucket cylinder until the implement starts to move. Move the implement control lever to the BOOM RAISE position in order to lift the boom slowly while you continue to extend the bucket cylinder. Lift the boom until the implement is hanging from the stick and retracting wedges (4) are pointing downward.
3. Move the hydraulic activation control lever to the LOCKED position.
4. Turn screws (5) in order to extend wedges (4). Make sure that the coupler is fully engaged.

Implement Releasing

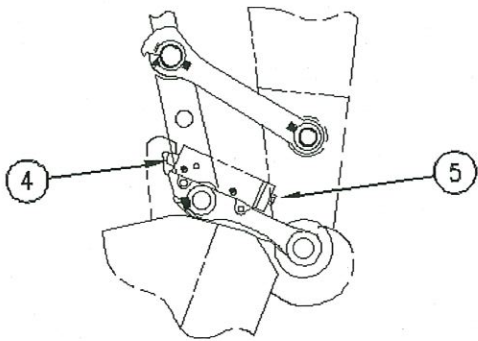


Illustration 2

g00101483

1. Place the implement in a safe position before you disengage the coupler.
2. Move the hydraulic activation control lever to the LOCKED position.
3. Turn screws (5) in order to retract wedges (4).
4. Move the hydraulic activation control lever to the UNLOCKED position.
5. Use the BUCKET OPEN position to slowly retract the bucket cylinder. Make sure that the implement remains stationary and that the implement is properly positioned.

6. After the coupler and the link are disengaged, slowly disengage the nose of the stick from the implement hook.

1YS1-UP, 2JR1-UP, 6DR1-UP

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2022/05/24

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2003/11/26

Stopping The Machine (SEBU6941-05)

SMCS - 7000

i02014194

**NOTICE**

Park on a level surface. If it is necessary to park on a grade, chock the tracks securely.

Note: The swing parking brake is automatically applied when the machine is stopped. The swing parking brake is released when the engine is running and the joystick controls are activated.

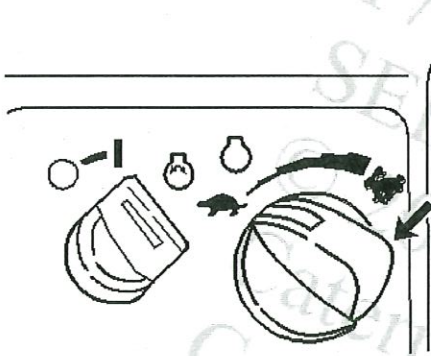


Illustration 1

g00101553

1. Turn the engine speed dial counterclockwise in order to reduce engine speed.

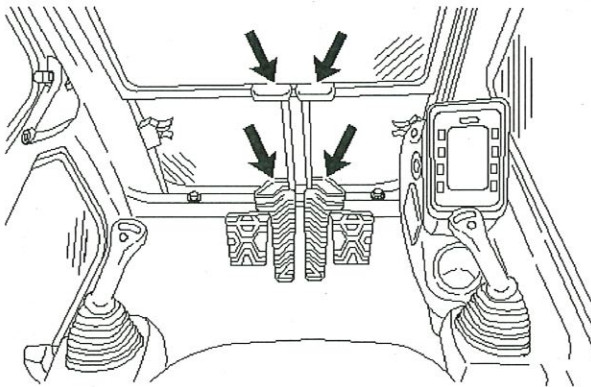


Illustration 2

g00107517

2. Release the travel levers and the travel pedals in order to stop the machine.
3. Lower the work tool to the ground. Apply a slight downward pressure.

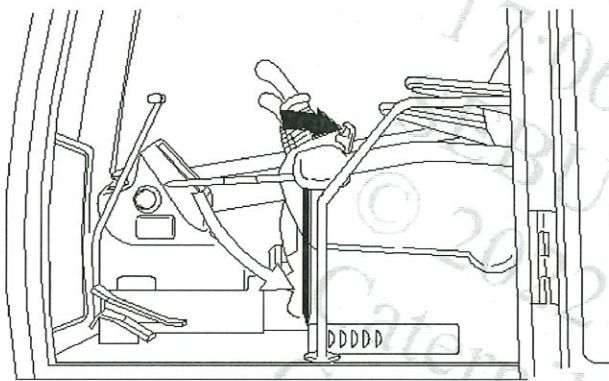


Illustration 3

g00107416

4. Move the hydraulic lockout control to the LOCKED position.

1YS1-UP, 2JR1-UP, 2NW1-UP, 4SS1-UP, 6DR1-UP, 9GS1-UP, AGS1-UP, ALB1-UP, APB1-UP, CCC1-UP, DCW1-UP, FEE1-UP

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2022/05/24

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SMCS - 1000, 7000

i02014192

**NOTICE**

Stopping the engine immediately after it has been working under load can result in overheating and accelerated wear of the engine components.

Refer to the following stopping procedure, to allow the engine to cool, and to prevent excessive temperatures in the turbocharger center housing, (if equipped) which could cause oil coking problems.

1. Stop the machine and run the engine at low idle for five minutes.

NOTICE

Never turn the battery disconnect switch to the OFF position while the engine is running. Serious damage to the electrical system may result.

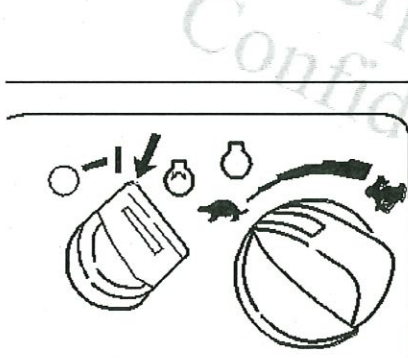


Illustration 1

g00101567

2. Turn the engine start switch to the OFF position and remove the engine start switch key.

Stop the Engine if an Electrical Malfunction Occurs

Turn the engine start switch to the OFF position. If the engine does not stop, perform the following procedure.

1. Unlatch the engine hood and raise the engine hood.

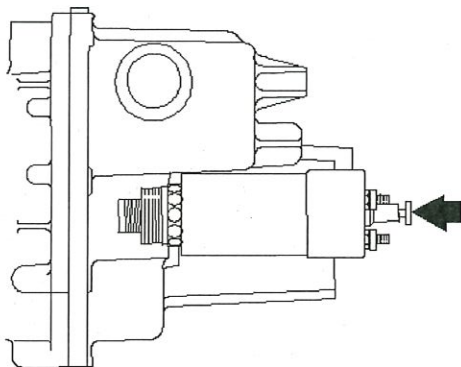


Illustration 2

g00101608

2. Push the end of the fuel shutoff valve inward in order to stop the engine.
3. Close the engine hood and latch the engine hood.

Note: Do not operate the machine again until the malfunction has been corrected.

1AS1-UP, 1GS1-UP, 1HS1-UP, 1XS1-UP, 1ZS1-UP, 2AS1-UP, 2ES1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 4DS1-UP, 4RS1-UP, 5BS1-UP, 5CR1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LW1-UP, 7EN1-UP, 7JR1-UP, 8FN1-UP, 8GM1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 9WS1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AEJ1-UP, BGN1-UP

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1997/08/20

Leaving The Machine (SEBU6941-05)

SMCS - 7000

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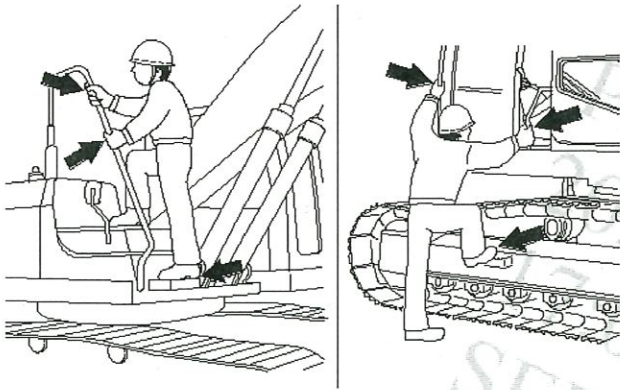


Illustration 1

g00103309

The above illustration shows an operator that is properly dismounting an excavator.



Illustration 2

g00104763

Dismounting points for a forest machine.

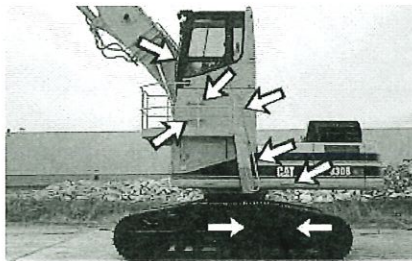


Illustration 3

g00270118

Dismounting points for a material handler.

1. Use the steps and the handholds when you dismount. When you dismount, face the machine and use both hands. Be sure that you clean any debris from the steps.
2. Inspect the engine compartment for debris. Clean out any debris in order to avoid a fire hazard.
3. Remove all flammable debris from the front bottom guard through the access doors in order to reduce a fire hazard. Discard the debris properly.
4. When the machine is left for an extended period of one month or longer, turn the key for the battery disconnect switch to the OFF position. Remove the key. This will help to prevent a battery short circuit. Removing the key will also help to protect the battery from vandalism and from the current draw that is made by certain components.
5. Lock all vandalism covers and all compartments.

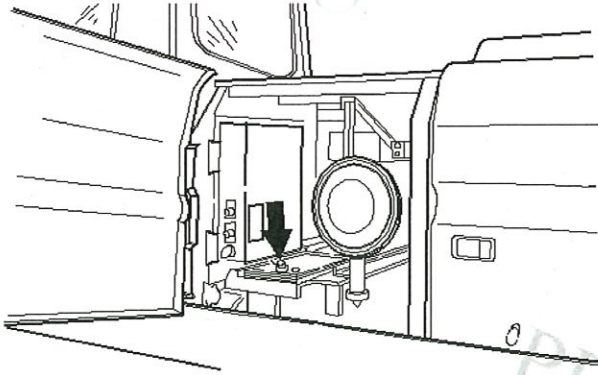


Illustration 4

g00101577

6. Remove the bolt that holds the vandalism guards in place. Remove the vandalism guards from the storage area.

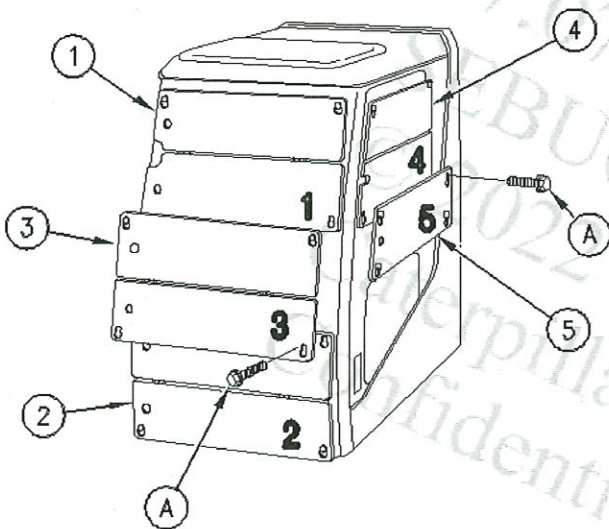


Illustration 5

g00101578

7. Install the vandalism guards on the front window and on the cab door. An identification number is stamped on each of the vandalism guards. Install the vandalism guards in the correct sequence. Use bolts (A) only for vandalism guard (3) and for vandalism guard (5).

Storing Vandalism Guards

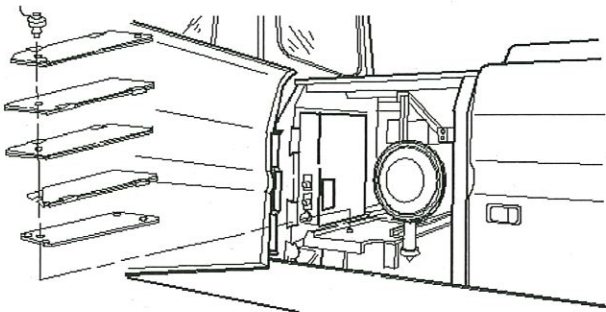


Illustration 6

g00101581

Note: When you are storing the vandalism guards, make sure that you place the guards in the storage area in sequential order, as shown. The vandalism guards will only fit in the storage area in this manner.

6DR1-UP

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2020/08/05

Shipping The Machine (SEBU6941-05)

SMCS - 7000, 7500

i08163556



WARNING

Automatic Engine Speed Control (AEC) will increase engine speed automatically when you operate the control levers and/or travel pedals with AEC switch on.

When loading and unloading the machine from the truck or working in close quarters always turn AEC switch off to prevent any possibility of sudden movement of machine, which could result in serious injury or death.

Set the travel speed control switch to LOW before loading the machine. Never operate this switch when loading the machine on a trailer.

Investigate the travel route for overpass clearances. Make sure that there will be adequate clearance for the machine.

Remove ice, snow, or other slippery material from the loading dock and from the truck bed before you load the machine onto the transport machine. Removing ice, snow, or other slippery material will help to prevent the machine from slipping in transit.

Note: Obey all laws that govern the characteristics of a load (height, weight, width, and length). Observe all regulations that govern wide loads. Certain regions may require the removal of door hooks and cab bumpers, if equipped. Consult all local and regional regulations.

Choose the flattest ground when you load the machine or when you unload the machine.

1. Before you load the machine, chock the trailer wheels or the rail car wheels.
2. When you use loading ramps, make sure that the loading ramps have adequate length, adequate width, adequate strength, and an adequate slope.
3. Maintain the slope of the loading ramps within 15 degrees of the ground.
4. Position the machine so that the machine can drive straight up the loading ramps. The final drives should be toward the rear of the machine. Do not operate the control levers while the machine is on the loading ramps.
5. When you drive over the loading ramp joint areas, maintain the balance point of the machine.
6. Lower the work tool to the bed or to the floor of the transport machine.
7. To prevent rolling of the machine or sudden movement of the machine, perform the following items:
 - Chock both tracks.
 - Install sufficient tie-downs at several locations.
 - Fasten wire cables.
8. If equipped, remove door hooks, cab bumpers, and fuel tank step as necessary. Refer to local regulations.

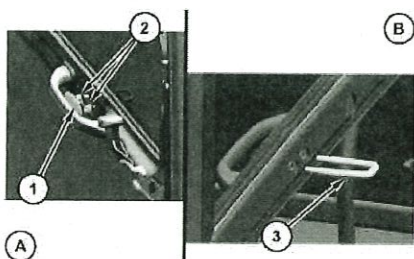


Illustration 1
Typical example of door hook
(A) Inside
(B) Outside
(1) Cover
(2) Nuts
(3) Door Hook

g06516462

- a. Remove cover (1) and nuts (2) to remove door hook (3).

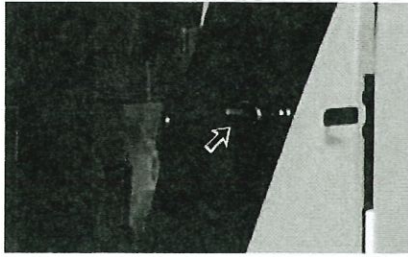


Illustration 2
Typical example of cab bumper

g06516469

- b. Remove any bumpers on your cab.

NOTICE

Do not allow the chrome surface of the bucket cylinder rod to touch any part of the trailer. Damage to the rod can occur from impact with the trailer during transport.

Note: Refer to Operation and Maintenance Manual, "Specifications".

Shipping a Machine that is not Completely Assembled

If the machine must be shipped when the boom, stick, or counterweight is not assembled on the machine, follow the instructions in Operation and Maintenance Manual, "Operation".

WARNING

The ROPS structural certification depends on the support of the boom, stick, and counterweight in the event of a machine tip over or a machine rollover incident.

When the machine needs to be moved without the boom, stick, or counterweight being installed, avoid any machine operations which could affect machine stability as a machine tip over or a machine rollover incident could result in serious injury or death.

The machine should be operated slowly on flat, stable ground or pavement by qualified operators.

EAM1-UP, HJX1-UP, JCM1-UP, KBC1-UP, KCD1-UP, KGB1-UP, KKK1-UP, M3W1-UP, MMA1-UP, PHH1-UP, SBE1-UP, T2F1-UP, 1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 1YS1-UP, 2DW1-UP, 2JR1-UP, 2NW1-UP, 2RR1-UP, 2WZ1-UP, 3AW1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3ZZ1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4SS1-UP, 4XW1-UP, 4XZ1-UP, 4YW1-UP, 5BR1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5WS1-UP, 6CR1-UP, 6DR1-UP, 6LS1-UP, 6MW1-UP, 6XS1-UP, 7EN1-UP, 7KZ1-UP, 7RZ1-UP, 8ES1-UP, 8GM1-UP, 8KW1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8RW1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CW1-UP, 9CZ1001-UP, 9GS1-UP, 9HN1-UP, 9JS1-UP, 9KR1-UP, 9PZ1-UP, 9TZ1-UP, A3R1-UP, A6F1-UP, A8F1-UP, A9F1-UP, A9J1-UP, ABD1-UP, AED1-UP, AGD1-UP, AGS1-UP, AKE1-UP, AKG501-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, ALX1-UP, AMC1-UP, AMD1-UP, AMH1-UP, AMJ1-UP, AMN1-UP, ANB1-UP, ANF1-UP, ANS1-UP, AP41-UP, APA1-UP, APB1-UP, AT21-UP, AWN1-UP, AWS1-UP, AXK1-UP, AYF1-UP, AYR1-UP, AZP1-UP, B1K1-1000, B1K1001-UP, B2L1-UP, B321-UP, B341-UP, B371-UP, B3M1-1000, B3M1001-UP, B4N1-1000, B4N1001-UP, B6H1-UP, BBL1-UP, BCN1-UP, BDC1-UP, BDE1-UP, BEA1-UP, BER1-UP, BFC1-UP, BFE1-UP, BFK1-UP, BGB1-UP, BGR1-UP, BKF1-UP, BKJ1-UP, BKK1-UP, BKM1-UP, BKW1-UP, BKW254-255, BKW264-265, BKW326-255, BKX1-UP, BLP1-UP, BLX1-UP, BLY1-UP, BMH1-UP, BMM1-UP, BMZ1-UP, BNN1-UP, BPH1-UP, BPR1-UP, BR41-UP, BR61-UP, BR91-UP, BRB1-UP, BRX1-UP, BTD1-UP, BTG1-UP, BTK1-UP, BTM1-UP, BW21-UP, BWH1-UP, BWW1-UP, BWY1-UP, BYC1-UP, BYE1-UP, BYM1-UP, BYP1-UP, BYS1-UP, BZ21-UP, BZF1-UP, BZH1-UP, BZP1-UP, BZY1-UP, C3N1-UP, C3R1-1000, C3R1001-UP, C7K1-UP, C8L1-UP, C9M1-UP, CAM1-UP, CAP1-UP, CBT1-UP, CBY1-UP, CCD1-UP, CFB1-UP, CFJ1-UP, CFT1-UP, CGZ1-UP, CJC1-UP, CJX1-UP, CLD1-UP, CLM1-UP, CLS1-UP, CLZ1-UP, CMR1-UP, CRB1-UP, CSJ1-UP, CTY1-UP, CWG1-UP, CXY1-UP, CY21-UP, CYA1-UP, CYD1-UP, CYW1-UP, CYZ1-235, CYZ236-UP, CZF1-UP, D3D1-UP, DAA1-UP, DAH1-UP, DAX1-UP, DAY1-UP, DBG1-UP, DBH1-UP, DBN1-UP, DC81-UP, DCW1-UP, DER1-UP, DET1-UP, DEZ1-UP, DFG1-UP, DFM1-UP, DFP1-UP, DFY1-UP, DGE1-UP, DGR1-UP, DHE1-UP, DHK1-UP, DHP1-UP, DJF1-UP, DKD1-UP, DKF1-UP, DKJ1-UP, DKS1-UP, DKW1-UP, DKY1-UP, DNM1-UP, DNP1-UP, DNS1-UP, DPL1-UP, DPX1-UP, DPY1-UP, DSG1-UP, DSW1-UP, DTF1-UP, DTG1-UP, DTZ1-UP, DWF1-UP, DWL1-UP, DYG1-UP, DYJ1-UP, DYR1-UP, DYS1-UP, DYT1-UP, DYZ1-UP, DZF1-UP, DZW1-UP, E4K1-UP, EAG1-UP, EAH1-UP, EAM1-UP, EAR1-UP, EAW1-UP, EAX1-UP, EBF1-UP, EBJ1-UP, EBK1-UP, EBM1-UP, EBP1-UP, EBY1-UP, EBZ1-UP, ECH1-UP, ECN1-UP, ECZ1-UP, EDA1-UP, EDX1-UP, EEC1-UP, EEH1-UP, EF31-UP, EFB1-UP, EFH1-UP,

EFT1-UP, EGA1-UP, EGL1-UP, EJC1-UP, EJT1-UP, EKT1-UP, ELC1-UP, ELR1-UP, ELS1-UP, ELW1-UP, EMR1-UP, ERF1-UP, ERK1-UP, ERL1-UP, ERW1-UP, ESD1-UP, ESG1-UP, ESX1-UP, ETC1-UP, EWC1-UP, EX71-UP, F5G1-UP, F5L1-UP, FA21-UP, FAA1-UP, FAJ1-UP, FAL1-UP, FAR1-UP, FAY1-UP, FBR1-UP, FBT1-UP, FDL1-UP, FED1-UP, FEH1-UP, FEK1-UP, FEL1-UP, FEN1-UP, FEP1-UP, FEX1-UP, FEY1-UP, FFK1-UP, FFT1-UP, FGE1-UP, FJA1-UP, FJB1-UP, FJH1-UP, FJM1-UP, FKK1-UP, FKN1-UP, FKS1-UP, FLA1-UP, FLC1-UP, FLK1-UP, FMH1-UP, FMS1-UP, FPC1-UP, FTY1-UP, FXK1-UP, G1L1-999, G1L1001-UP, GAC1-UP, GAD1-UP, GAG1-UP, GAX1-UP, GAY1-UP, GBA1-UP, GBR1-UP, GCL1-UP, GDP1-UP, GDW1-UP, GDY1-UP, GDZ1-UP, GF81-UP, GGH1-UP, GGJ1-UP, GHT1-UP, GJA1-UP, GJC1-UP, GKF1-UP, GKH1-UP, GKL1-UP, GKS1-UP, GKW1-UP, GKX1-UP, GLA1-UP, GMD1-UP, GMJ1-UP, GMX1-UP, GMY1-UP, GNG1-UP, GNY1-UP, GPA1-UP, GPB1-UP, GPH1-UP, GPK1-UP, GSF1-UP, GTF1-UP, GTJ1-UP, GTN1-UP, GWC1-UP, GWP1-UP, GWX1-UP, GYF1-UP, GYT1-UP, GYX1-UP, H3K1-UP, HAA1-UP, HBC1-UP, HBH1-UP, HBK1-UP, 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RAN1-UP, RAP1-UP, RAR1-UP, RAW1-UP, RAZ1-UP, RBC1-UP, RBD1-UP, RBH1-UP, RBJ1-UP, RBN1-UP, RBS1-UP, RBV1-UP, RBW1-UP, RBY1-UP, RCD1-UP, RCK1-UP, RCN1-UP, RDL1-UP, RDX1-UP, RDZ1-UP, REC1-UP, REE1-UP, REK1-UP, RGA1-UP, RGD1-UP, RGG1-UP, RGH1-UP, RGJ1-UP, RGM1-UP, RGN1-UP, RHB1-UP, RJP1-UP, RKB1-UP, RLD1-UP, RMX1-UP, RSK1-UP, RWX1-UP, RYB1-UP, RYG1-UP, RYM1-UP, RZA1-UP, S3M1-999, S3M1001-UP, S3P1-UP, S5M1-UP, SAH1-1000, SAH1001-UP, SBE1-UP, SBN1-UP, SCN1-UP, SCR1-UP, SCY1-UP, SCZ1-UP, SDC1-UP, SDL1-UP, SDM1-UP, SDZ1-UP, SED1-UP, SFW1-UP, SFZ1-UP, SGD1-UP, SGJ1-UP, SHJ1-UP, SHX1-UP, SJY1-UP, SKT1-UP, SP91-UP, SPC1-UP, SPG1-UP, SPN1-UP, SRT1-UP, SSL1-UP, SSN1-UP, STN1-UP, SWF1-UP, SXE1-UP, SYH1-UP, SYL1-UP, SYM1-UP, SYR1-UP, SYT1-UP, SYW1-UP, SZH1-UP, SZK1-UP, SZT1-UP, T2D1-UP, T2F1-UP, T2S1-UP, T3Z1-UP, TAE1-UP, TAH1-UP, TAJ1-UP, TAZ1-999, TAZ1000-UP, TBA1-UP, TBR1-1000, TBR1001-UP, TDG1-UP, TDH1-UP, TDN1-UP, TDT1-UP, TDW1-UP, TDZ1-UP, TEG1-UP, TEL1-UP, TEW1-UP, TEX1-UP, TFG1-UP, TFX1-UP, TGJ1-UP, THW1-UP, TJE1-UP, TJH1-UP, TJT1-UP, TLF1-UP, TLY1-UP, TMC1-UP, TMF1-UP, TMJ1-UP, TMK1-UP, TML1-UP, TMR1-UP, TMZ1-UP, TNG1-UP, TNJ1-UP, TNX1-UP, TPK1-UP, TPM1-UP, TPN1-UP, TPY1-UP, TRH1-UP, TSN1-UP, TST1-UP, TWH1-UP, TXA1-UP, TYE1-UP, TYH1-UP, TYS1-UP, TZA1-UP, TZE1-UP, TZL1-UP, W3K1-UP, WAG1-UP, WAP1-UP, WAW1-UP, WBA1-UP, WBC1-UP, WBF1-UP, WBJ1-UP, WBK1-UP, WBN1-UP, WBT1-UP, WBY1-UP, WCF1-UP, WCH1-UP, WCR1-UP, WDC1-UP, WDE1-UP, WDJ10001-UP, WDK1-UP, WDN1-UP, WDP1-UP, WDT1-UP, WEC1-UP, WEY1-UP, WFF1-UP, WFK1-UP, WGC1-UP, WGF1-UP, WGL1-UP, WGT1-UP, WHZ1-UP, WJK1-UP, WKX1-UP, WLT1-UP, WME1-UP, WNA1-UP, WNE1-UP, WRA1-UP, WRK1-UP, WTD1-UP, WTZ1-UP, WXB1-UP, WZS1-UP, WZX1-UP, WZY1-UP, XAA1-UP, XAC1-UP, XAD1-UP, XAM1-UP, XAN1-UP, XAR1-UP, XBA1-UP, XBB1-UP, XBE1-UP, XBH1-UP, XBJ1-UP, XBK1-UP, XBZ1-UP, XCC10001-UP, XCF1-UP, XCK1-UP, XCZ1-UP, XDB1-UP, XDR10001-UP, XFK1-UP, XNB1-UP, XRC1-UP, XTL1-UP, XWL1-UP, Y4P1-UP, YAE1-UP, YAG1-UP, YBH1-UP, YBJ1-UP, YBK1-UP, YBL1-UP, YBM1-UP, YBN1-UP, YBP1-UP, YCA1-UP, YCE1-UP, YCF1-UP, YCP1-UP, YCR1-UP, YCS1-UP, YCW1-UP, YDE1-UP, YDK1-UP, YDL1-UP, YDS1-UP, YDW1-UP, YEA1-UP, YEC1-UP, YEE1-UP, YEG1-UP, YEJ1-UP, YEP1-UP, YFD1-UP, YFW1-UP, YHA1-UP, YHT1-UP, YHW1-UP, YJX1-UP, YRP1-UP, YSD1-UP, YTF1-UP, YZZ1-UP, ZAE1-UP, ZBD1-UP, ZBF1-UP, ZBH1-UP, ZBJ1-UP, ZBM1-UP, ZBN1-UP, ZBT1-UP, ZCA1-UP, ZCD1-UP, ZCF1-UP, ZCM1-UP, ZCP1-UP, ZCS1-UP, ZCT1-UP, ZDB1-UP, ZFC1-UP, ZGB1-UP, ZGZ1-UP, ZJT1-UP, ZKP1-UP, ZMF1-UP, ZML1-UP, ZRJ1-UP, ZSE1-UP

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Securing The Machine (SEBU6941-05)

SMCS - 7000

i01958288



Comply with any laws that govern the characteristics of a load (length, width, height, and weight).

NOTICE

Never transport the machine with the engine running. If the fine swing control (if equipped) is left ON with the engine running, the swing parking brake (if equipped) will stay disengaged.

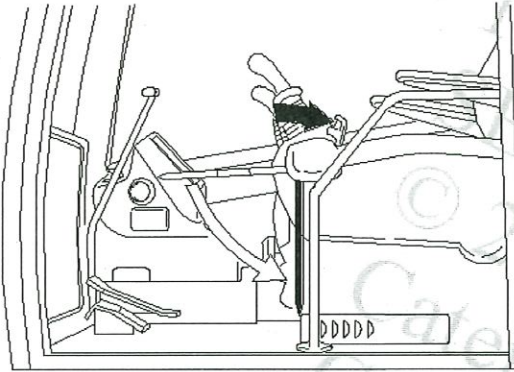


Illustration 1

g00107416

1. Move the hydraulic lockout control to the LOCKED position.
2. Turn the engine start switch to the OFF position in order to stop the engine. Remove the engine start switch key.
3. Turn the battery disconnect switch to the OFF position and remove the disconnect switch key.
4. Lock the door and the access covers. Attach any vandalism protection.
5. Cover the exhaust opening.

NOTICE

Do not allow the turbocharger to rotate while the engine is not operating. Damage to the turbocharger can result.

Note: Before you remove the machine from the transport machine, remove the protective covering from the exhaust opening.

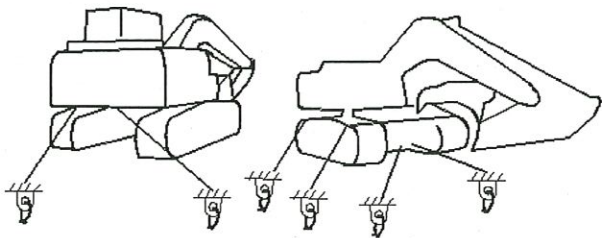


Illustration 2

g00101371

6. Chock the tracks and secure the machine with tie-downs. Make sure that you use the proper rated wire cable.

Use the front towing eyes on the lower frame, the rear towing eyes on the lower frame, and the rear towing eye that is on the upper frame.

Securely fasten all loose parts and all removed parts to the trailer or to the rail car.

When the engine is stopped, the swing parking brake is automatically applied. This prevents the upper structure from swinging.

NOTICE

In freezing weather, protect the cooling system with antifreeze, to the lowest outside expected temperature on the travel route. Or, drain the cooling system completely.

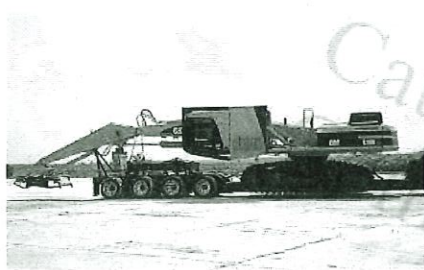


Illustration 3

g00101756

7. Tilt the cab by using the instructions in Operation and Maintenance, "Cab Tilting".

Note: The cab must be tilted or the cab must be in the LOWER position before transporting.

6DR1-UP, 6LS1-UP, 9JS1-UP

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Mirror Installation (SEBU6941-05)

SMCS - 7319

i00703722



Note: Before you transport the machine, remove the rearview mirror or reposition the rearview mirror inward.

After you transport the machine, reinstall the rearview mirror or return the rearview mirror to the proper position. Use the following procedure.

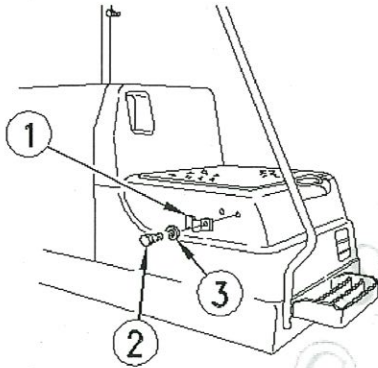


Illustration 1

g00101689

1. Use two bolts (2) and two washers (3) to install bracket (1) on the right side of the storage box.

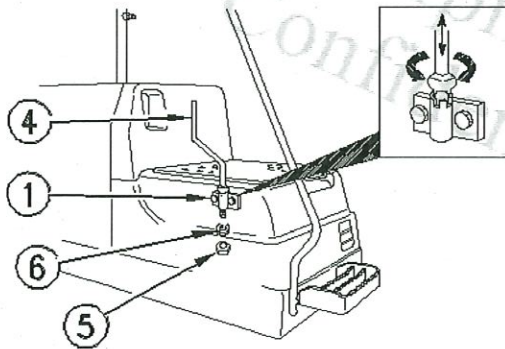


Illustration 2

g00101690

2. Put bar (4) into bracket (1). Align the notches at the lower part of the bar so that the bar faces outward. Secure the bar by tightening nut (5) and washer (6) on the bar.

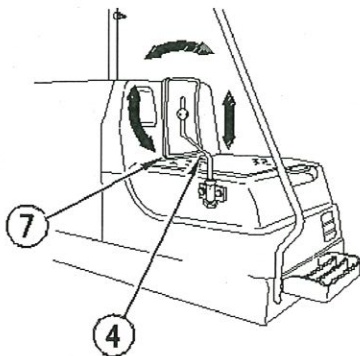


Illustration 3

g00101693

3. Install mirror (7) to bar (4). Rotate the mirror by hand to the desired angle.

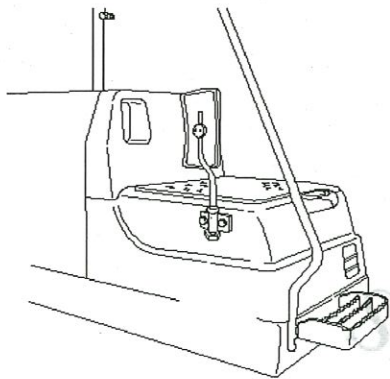


Illustration 4

g00101700

Reposition the rearview mirror inward before you transport the machine.

1AS1-346, 1CS1-484, 1ES1-UP, 1GS1-143, 1HS1-UP, 1JS1-484, 1KS1-UP, 1SW1-214, 2DW1-251, 2LS1-197, 2MS1-200, 2NS1-155, 2RR1-425, 2WZ1-299, 3AW1-989, 3ES1-209, 3FS1-254, 3MR1-4978, 3NR1-306, 3ZZ1-UP, 4MR1-715, 4NR1-175, 4SS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-1638, 5CR1-263, 5EZ1-252, 5GW1-UP, 5LW1-UP, 6CR1-2901, 7EN1-302, 8ES1-UP, 8GM1-298, 8GR1-460, 8HR1-1100, 8JR1-1007, 8MR1-189, 8NR1-243, 8PR1-261, 8RR1-385, 8SR1-417, 8TR1-485, 9CS1-UP, 9GR1-412, 9GS1-UP, 9HN1-398, 9HR1-2931, 9KR1-UP, 9MR1-UP, ABD1-UP, AED1-UP, 1AS1-346, 1CS1-484, 1ES1-UP, 1GS1-143, 1HS1-UP, 1JS1-484, 1KS1-UP, 1SW1-214, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2DW1-251, 2ES1-UP, 2JR1-UP, 2LS1-197, 2MS1-200, 2NS1-155, 2RR1-425, 2SW1-UP, 2WZ1-299, 3AW1-989, 3ES1-209, 3FS1-254, 3MR1-4978, 3NR1-306, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-715, 4NR1-175, 4RS1-UP, 4SS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-1638, 5BS1-UP, 5CR1-263, 5EZ1-252, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 5WS1-UP, 6CR1-2901, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6LW1-UP, 6MW1-UP, 6XS1-UP, 7EN1-302, 7JR1-UP, 7KS1-UP, 8ES1-UP, 8FN1-UP, 8GM1-298, 8GR1-460, 8HR1-1100, 8JR1-1007, 8KW1-UP, 8MR1-189, 8NR1-243, 8PR1-261, 8RR1-385, 8RW1-UP, 8SR1-417, 8TR1-485, 9CS1-UP, 9CW1-UP, 9GR1-412, 9GS1-UP, 9HN1-398, 9HR1-2931, 9KR1-UP, 9MR1-UP, 9WS1-UP, 9WW1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AGS1-UP, ALB1-UP, AME1-UP, BFG1-UP, BWY1-UP, BYC1-UP, BYM1-UP, CCC1-UP, CWG1-UP, CYD1-UP, DCW1-UP, DET1-UP, DHP1-UP, DKW1-UP, EEH1-UP, ELS1-UP, ESD1-UP, FEE1-UP, FLA1-UP, FPC1-UP, GAX1-UP, GCL1-UP, GKF1-UP, GPH1-UP, GTF1-UP, JGB1-UP, JKN1-UP, JLG1-UP, KFH1-UP, KHS1-UP, KLH1-UP, L5Z1-UP, LFL1-UP, LKY1-UP, LYS1-UP, MEN1-UP, MLK1-UP, NDE1-UP, NEG1-UP, NES1-UP, NLM1-UP, NNF1-UP, P271-UP, PBE1-UP, PBM1-UP, PBT1-UP, PFD1-UP, PJW1-UP, PZG1-UP, RAC1-UP, RAE1-UP, RAJ1-UP, RAN1-UP, RBJ1-UP, RGD1-UP, RGG1-UP, S5M1-UP, SDC1-UP, SDM1-UP, SED1-UP, SPC1-UP, TAH1-UP, TAJ1-UP, TBA1-UP, TDG1-UP, WDE1-UP, WEC1-UP, WGC1-UP, WNE1-UP, WTD1-UP, XAC1-UP, YAE1-UP, YAG1-UP, YEE1-UP, YSD1-UP, ZAE1-UP, ZMF1-UP

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Lifting And Tying Down The Machine (SEBU6941-05)

SMCS - 7000, 7500

i01958294

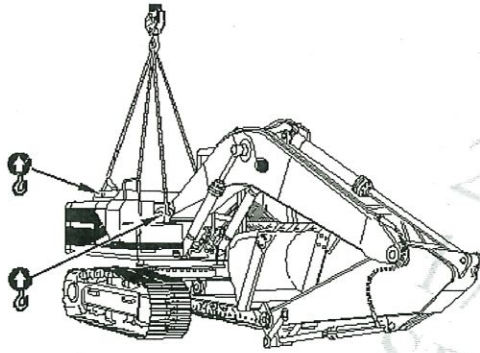


Illustration 1

g00101709

NOTICE

Improper lifting and improper tie-downs can allow the load to shift and cause injury or damage.

The weight and the instructions that are given herein describe the machine as the machine is manufactured by Caterpillar.

Refer to the Operation and Maintenance Manual, "Specifications" for specific weight information.

1. Use proper rated cables and slings for lifting. The crane should be positioned so that the machine is lifted parallel to the ground.
2. To prevent contact with the machine, lifting cables should have sufficient length.
3. Use the rear eyes and the front eyes that are provided on the lower frame to fasten tie-downs. Use corner protectors for sharp corners.
4. Move the hydraulic lockout control to the LOCKED position.

Lifting the Machine Segments

Bucket

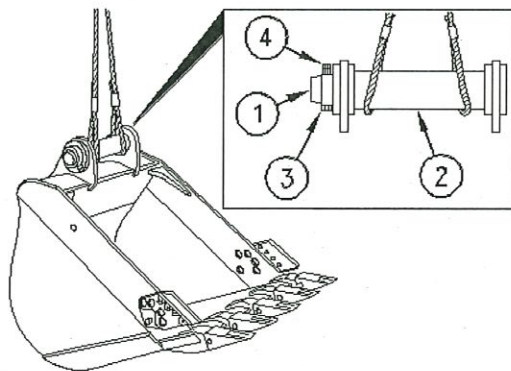


Illustration 2

g00115251

(1) Pin, (2) Sleeve, (3) Bolts, (4) Nuts.

Install pin (1) and install sleeve (2) in the brackets of the bucket. The previous illustration indicates the method to secure pin (1) with bolts (3) and nuts (4). Fasten two proper rated wire cables to pin (1).

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 2DW1-UP, 2RR1-UP, 2WZ1-UP, 3AW1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3ZZ1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5CR1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 6CR1-UP, 6DR1-UP, 7EN1-UP, 7KZ1-UP, 8ES1-UP, 8GM1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9HN1-UP, 9KR1-UP, ABD1-UP, AED1-UP

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2020/01/28

Towing The Machine (SEBU6941-05)

SMCS - 7000

i08033331

**WARNING**

Personal injury or death could result when towing a disabled machine incorrectly.

Block the machine to prevent movement before final drives are disengaged. The machine can roll free if it is not blocked. With final drives disengaged, the machine cannot be stopped or steered.

Follow the recommendations below, to properly perform the towing procedure.

Relieve the hydraulic tank and line pressure before any disassembly.

Even after the machine has been turned off, the hydraulic oil can still be hot enough to burn. Allow the hydraulic oil to cool before draining.

NOTICE

To tow the machine, both final drives must be disengaged.

Do not operate the travel motors with the final drives disengaged. Damage could result.

These towing instructions are for moving a disabled machine for a short distance at low speed. Move the machine at a speed of 2 km/h (1.2 mph) or less to a convenient location for repair. Always haul the machine if long distance moving is required.

Shields must be provided on both machines. This will protect the operator if the tow line or the tow bar breaks.

Do not allow an operator to be on the machine that is being towed.

Before you tow the machine, make sure that the tow line or the tow bar is in good condition. Do not use a wire rope that is kinked, twisted, or damaged. Make sure that the tow line or the tow bar has enough strength for the towing procedure that is involved. The strength of the tow line or of the tow bar should be at least 150 percent of the gross weight of the towed machine. This requirement is for a disabled machine that is stuck in the mud and for being towed on a grade.

Do not use a chain for pulling a disabled machine. A chain link can break. This may cause personal injury. Use a wire rope with ends that have loops or rings. Put an observer in a safe position in order to watch the pulling procedure. The observer can stop the procedure if the wire rope starts to break. Stop pulling whenever the towing machine moves without moving the towed machine.

During towing, do not allow anyone to step between the towing and the towed machines.

Do not allow the wire rope to be straddled while the machine is being towed.

Keep the tow line angle to a minimum. Do not exceed a 30 degree angle from the straight ahead position.

Avoid towing the machine on a slope.

Quick machine movement could overload the tow line or the tow bar. This could cause the tow line or the tow bar to break. Gradual, steady machine movement will be more effective.

Prior to releasing the brake of the final drive, firmly lock both tracks in order to prevent the machine from moving suddenly. When the machine is ready to be towed, release the brake of the final drive. Refer to Operation and Maintenance Manual, "Final Drive Ring Gear Removal".

Normally, the towing machine should be as large as the disabled machine. Make sure that the towing machine has enough brake capacity, enough weight, and enough power. The towing machine must be able to control both machines for the grade that is involved and for the distance that is involved.

You must provide sufficient control and sufficient braking when you are moving a disabled machine downhill. This may require a larger towing machine or additional machines that are connected to the rear of the disabled machine. This will prevent the machine from rolling away out of control.

All situation requirements cannot be listed. Minimal towing machine capacity is required on smooth, level surfaces. Maximum towing machine capacity is required on an incline or on a surface that is in poor condition.

Do not tow a loaded machine.

Consult your Cat dealer for the equipment that is necessary for towing a disabled machine.

Retrieval and Towing of Machine

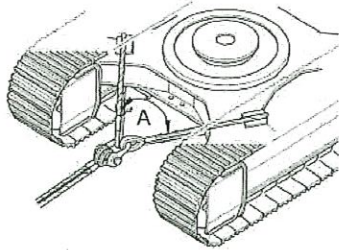


Illustration 1

g02533437

Note: Shackles must be used for towing the machine. The wire rope should be horizontal and straight to the track frame.

Install a properly rated wire rope to the lower frame of the towing machine and the lower frame of the towed machine. The permissible force for the lower frame is 100 percent of the gross weight of the towed machine.

Note: In order to prevent damage to the wire rope or the lower frame of the machines, use protective sleeves on the corners of the lower frame.

Retrieve the disabled machine carefully. The applied load for each wire rope should be equal. The angle (A) between each wire rope should be 60 degree maximum. Operate the machine at a low speed.

Lightweight Towing

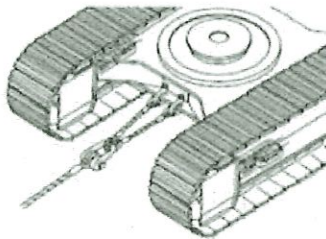


Illustration 2

g03589894

The maximum load for lightweight towing is 101400 N·m (74789 lb ft).

Shackles must be used for towing the machine. The wire rope should be horizontal and straight to the track frame.

Install a properly rated wire rope to the lower frame of the towing machine and the lower frame of the towed machine. Operate the machine at a low speed.

1AS1-UP, 1CS1-UP, 1ES1-UP, 1GS1-UP, 1HS1-UP, 1JS1-UP, 1KS1-UP, 1SW1-UP, 1XS1-UP, 1YS1-UP, 1ZS1-UP, 2AS1-UP, 2DW1-UP, 2ES1-UP, 2JR1-UP, 2LS1-UP, 2MS1-UP, 2NS1-UP, 2RR1-UP, 2WZ1-UP, 3AW1-UP, 3ES1-UP, 3FS1-UP, 3LR1-UP, 3MR1-UP, 3NR1-UP, 3YR1-UP, 3YZ1-UP, 3ZZ1-UP, 4DS1-UP, 4MR1-UP, 4NR1-UP, 4RS1-UP, 4RW1-UP, 4XW1-UP, 4YW1-UP, 5BR1-UP, 5BS1-UP, 5CR1-UP, 5CW1-UP, 5EZ1-UP, 5GW1-UP, 5LR1-UP, 5LS1-UP, 5LW1-UP, 5MS1-UP, 5SW1-UP, 6CR1-UP, 6DN1-UP, 6DR1-UP, 6DZ1-UP, 6KZ1-UP, 6LS1-UP, 6LW1-UP, 7DZ1-UP, 7EN1-UP, 7JR1-UP, 7KZ1-UP, 7RZ1-UP, 8ES1-UP, 8FN1-UP, 8GM1-UP, 8GR1-UP, 8HR1-UP, 8JR1-UP, 8MR1-UP, 8NR1-UP, 8PR1-UP, 8RR1-UP, 8SR1-UP, 8TR1-UP, 9CS1-UP, 9CZ1001-UP, 9GR1-UP, 9HN1-UP, 9HR1-UP, 9HZ1-UP, 9JS1-UP, 9KR1-UP, 9MR1-UP, 9WS1-UP, 9WW1-UP, A3R1-UP, A6F1-UP, A8F1-UP, A9F1-UP, ABD1-UP, ADC1-UP, AED1-UP, AEJ1-UP, AEX1-UP, AFB1-UP, AKE1-UP, AKG501-UP, ALX1-UP, AMC1-UP, AMH1-UP, ANB1-UP, ANF1-UP, APA1-UP, AWN1-UP, AXK1-UP, AYF1-UP, AZP1-UP, B6H1-UP, B6N1-UP, BAS1-UP, BBL1-UP, BCM1-UP, BCN1-UP, BDC1-UP, BDE1-UP, BEA1-UP, BER1-UP, BFC1-UP, BFE1-UP, BFK1-UP, BGB1-UP, BGR1-UP, BKJ1-UP, BKK1-UP, BKM1-UP, BKW1-UP, BKW254-255, BKW264-265, BKW326-UP, BLP1-UP, BLX1-UP, BMM1-UP, BMZ1-UP, BNE1-UP, BNN1-UP, BPR1-UP, BRB1-UP, BRX1-UP, BTD1-UP, BTG1-UP, BTK1-UP, BTM1-UP, BW21-UP, BWH1-UP, BWW1-UP, BYE1-UP, BYJ1-UP, BYS1-UP, BZF1-UP, BZH1-UP, BZN1-UP, BZP1-UP, C3N1-UP, CAP1-UP, CBA1-UP, CBT1-UP, CCD1-UP, CFB1-UP, CFT1-UP, CGZ1-UP, CJC1-UP, CJN1-UP, CJX1-UP, CKE1-UP, CLM1-UP, CLZ1-UP, CRB1-UP, CSJ1-UP, CXY1-UP, CXZ1-UP, CY21-UP, CYA1-UP, CYD1-UP, CYW1-UP, CYZ1-235, CYZ236-UP, CZF1-UP, D3D1-UP, DAA1-UP, DAH1-UP, DAX1-UP, DAY1-UP, DBG1-UP, DBH1-UP, DBN1-UP, DCJ1-UP, DCK1-UP, DFM1-UP, DFP1-UP, DFY1-UP, DGR1-UP,

DGT1-UP, DHE1-UP, DHK1-UP, DJF1-UP, DKW1-UP, DKY1-UP, DLP1-UP, DMA1-UP, DNP1-UP, DNS1-UP, DPJ1-UP, DSA1-UP, DTF1-UP, DTG1-UP, DTS1-UP, DTZ1-UP, EAG1-UP, EAH1-UP, EAW1-UP, EAX1-UP, EBM1-UP, EBP1-UP, EBY1-UP, ECH1-UP, EDX1-UP, EF31-UP, EFT1-UP, EGL1-UP, EJC1-UP, EJT1-UP, EKT1-UP, ELR1-UP, EMR1-UP, ERK1-UP, ERN1-UP, ESG1-UP, ESX1-UP, EX71-UP, FAA1-UP, FAJ1-UP, FAL1-UP, FAR1-UP, FBT1-UP, FDS1-UP, FED1-UP, FEP1-UP, FEX1-UP, FEY1-UP, FFK1-UP, FKC1-UP, FKK1-UP, FLC1-UP, FLD1-UP, FLZ1-UP, FMH1-UP, FXK1-UP, G1L1-999, GAD1-UP, GAG1-UP, GAJ1-UP, GBA1-UP, GBC1-UP, GBR1-UP, GDP1-UP, GF81-UP, GGE1-UP, GGH1-UP, GJA1-UP, GKL1-UP, GKS1-UP, GKX1-UP, GLA1-UP, GMX1-UP, GNG1-UP, GNY1-UP, GPA1-UP, GPB1-UP, GPK1-UP, GTN1-UP, H3D1-UP, H3N1-UP, HAA1-UP, HAH1-UP, HAS1-UP, HBC1-UP, HBH1-UP, HBK1-UP, HBP1-UP, HCW1-UP, HDM1-UP, HDW1-UP, HEK1-UP, HER1-UP, HHK1-UP, HJC1-UP, HJX1-UP, HKT1-UP, HM41-UP, HSP1-UP, J2F1-UP, JAB1-UP, JAT1-UP, JBC1-UP, JBF1-UP, JBT1-UP, JCD1-UP, JEA1-UP, JEB1-UP, JEE1-UP, JEG1-UP, JEX10001-UP, JFG1-UP, JFL1-UP, JFM1-UP, JFZ1-UP, JGS1-UP, JGZ1-UP, JHA1-UP, JHJ1-UP, JJG1-UP, JLC1-UP, JLD1-UP, JLP1-UP, JNK1-UP, JPD1-UP, JTG1-UP, JTN1-UP, JWR1-UP, JZA1-UP, JZR1-UP, KBB1-UP, KBD1-UP, KBE1-UP, KBS1-UP, KBX1-UP, KBZ1-UP, KCD1-UP, KCE1-UP, KCR1-UP, KCX1-UP, KDD1-608, KDG1-UP, KDJ1-UP, KER1-UP, KES1-UP, KFM1-UP, KGA1-UP, KGF1-UP, KGH1-UP, KGL1-UP, KGY1-UP, KHB1-UP, KHN1-UP, KHR1-UP, KJA1-UP, KJB1-UP, KJR1-UP, KKT1-UP, KLE1-UP, KLM1-UP, KNE1-UP, KRM1-UP, KTF1-UP, KXD1-UP, KZF1-UP, L5H1-UP, L681-UP, LAB1-UP, LAH1-UP, LAL1-UP, LAM1-UP, LBX1-UP, LCA1-UP, LCW10001-UP, LJE1-UP, LKR1-UP, LMA1-UP, LMG1-UP, LRK1-UP, LRM1-UP, LTP1-UP, M2K1-999, M3M1-UP, M3N1-UP, M4T1-UP, MAB1-UP, MAC1-UP, MAR1-UP, MBP1-UP, MCA1-UP, MCF1-UP, MCH1-UP, MCL1-UP, MDE1-UP, MDJ1-UP, MDS1-UP, MDT1-UP, MDY1-UP, MEH1-UP, MES10001-UP, MEY1-UP, MFA1-UP, MGG1-UP, MGJ1-UP, MGW1-UP, MKM1-UP, MKR1-UP, MNB1-UP, MND1-UP, MPG1-UP, MPL1-UP, MPP1-UP, MSD1-UP, MSG1-UP, MSL1-UP, MTM1-UP, MTW1-UP, MWP1-UP, MXH1-UP, MYG1-UP, MYP1-UP, MZD1-UP, MZH1-UP, NAC1-UP, NAD1-UP, NAH1-UP, NAJ1-UP, NAS1-UP, NBD1-UP, NBF1-UP, NBH1-UP, NBN1-UP, NBT1-UP, NBX1-UP, NCM1-UP, NDJ1-UP, NRF1-UP, NZF1-UP, PAB1-UP, PAC1-UP, PAD1-UP, PAL1-UP, PBB1-UP, PBD1-UP, PBM1-UP, PCA1-UP, PCM1-UP, PCX1-UP, PDP1-UP, PFE1-UP, PFL1-UP, PGW1-UP, PHH1-UP, PHX1-UP, PJM1-UP, PJP1-UP, PKE1-UP, PLD1-UP, PPN1-UP, PRF1-UP, PTB1-UP, PTE1-UP, PYT1-UP, R2D1-UP, RAR1-UP, RAS1-UP, RAW1-UP, RBH1-UP, RBW1-UP, RCK1-UP, RDZ1-UP, REC1-UP, RGA1-UP, RHL1-UP, RHP1-UP, RJP1-UP, RKF1-UP, RKN1-UP, RMX1-UP, RNL1-UP, RSK1-UP, RXZ1-UP, RZA1-UP, S3M1-999, SAH1-1000, SAH1001-UP, SBN1-UP, SBP1-UP, SCR1-UP, SCY1-UP, SDC1-UP, SDZ1-UP, SFW1-UP, SGB10001-UP, SGJ1-UP, SHJ1-UP, SKA1-UP, SMD1-UP, SNY1-UP, SPN1-UP, SRT1-UP, SSL1-UP, SSZ1-UP, STN1-UP, SWF1-UP, SYG1-UP, SYM1-UP, SZK1-UP, T2D1-UP, T2S1-UP, T2Y1-UP, TAE1-UP, TBR1-1000, TBR1001-UP, TDH1-UP, TDN1-UP, TDT1-UP, TDZ1-UP, TGJ1-UP, TGY1-UP, THJ1-UP, THW1-UP, TJY1-UP, TKA1-UP, TKB1-UP, TKC1-UP, TKD1-UP, TKE1-UP, TLE1-UP, TLY1-UP, TMC1-UP, TMF1-UP, TMJ1-UP, TPM1-UP, TRH1-UP, TSN1-UP, TXA1-UP, TXN1-UP, TYK1-UP, TZL1-UP, TZS1-UP, W3K1-UP, WBC1-UP, WBF1-UP, WBJ1-UP, WBN1-UP, WBY1-UP, WDC1-UP, WDJ10001-UP, WDK1-UP, WDT1-UP, WET1-UP, WGR1-UP, WHJ1-UP, WLN1-UP, WLT1-UP, WPK1-UP, WRK1-UP, XAA1-UP, XAH1-UP, XAM1-UP, XAN1-UP, XBA1-UP, XBB1-UP, XBH1-UP, XBK1-UP, XCC10001-UP, XCK1-UP, XDB1-UP, XDR10001-UP, XER1-UP, XGK1-UP, XGS1-UP, XHR1-UP, Y4P1-UP, YBH1-UP, YBJ1-UP, YBK1-UP, YCA1-UP, YCF1-UP, YCR1-UP, YDS1-UP, YEA1-UP, YFW1-UP, YJX1-UP, ZBD1-UP, ZBF1-UP, ZBH1-UP, ZBM1-UP, ZCA1-UP, ZCS1-UP, ZCT1-UP, ZGB1-UP, ZGZ1-UP, ZKJ1-UP, ZKP1-UP, ZML1-UP

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1997/02/13

Final Drive Ring Gear Removal (SEBU6941-05)

SMCS - 4050

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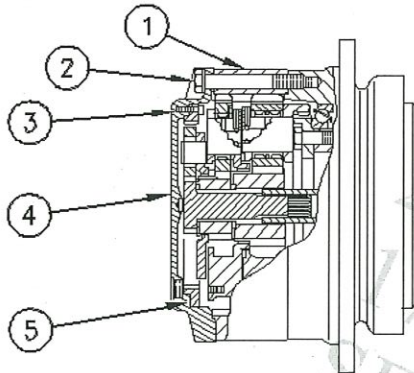


Illustration 1

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(1) Ring gear. (2) Cover bolt. (3) Bolt. (4) Final drive cover. (5) Ring gear.

1. Thoroughly clean the area around the final drive. Make sure that you also clean the track shoes that are positioned above the final drive.
Note: Refer to Operation and Maintenance Manual, "General Hazard Information" for information on containing fluid spillage.
2. Drain the final drive oil into a suitable container. See Operation and Maintenance Manual, "Final Drive Oil - Change" for the procedure.
3. Remove eighteen of twenty cover bolts (2) from final drive cover (4). Do not leave a bolt in the top hole of the cover.
4. Insert an alignment dowel through the top hole of the cover and into the threads in the final drive housing. This is necessary in order to support ring gear (1) while you are removing the final drive cover.
5. Remove one track shoe in order to allow access to the face between final drive cover (4) and ring gear (1).
6. Loosen remaining two cover bolts (2).
7. Use a hammer and a wedge to separate final drive cover (4) and ring gear (1). Make sure that ring gear (1) stays in place.
8. Remove remaining two cover bolts (2) and final drive cover (4).
9. Remove twelve bolts (3) and ring gear (5) from final drive cover (4).
10. Install final drive cover (4) and all twenty cover bolts (2).
11. Fill the final drive with new oil. See Operation and Maintenance Manual, "Final Drive Oil - Change" for the procedure.
12. Repeat Steps 1 through 11 for the other final drive.
13. Refer to the Service Manual for information on the installation of the final drive ring gear.

**WARNING**

Without the ring gear in place, the brakes are ineffective. Personal injury or death could result. Provide other means to hold or stop the machine.

1JS1-UP, 1KS1-UP, 2RR1-UP, 3YR1-UP, 3ZZ1-UP, 4RS1-UP, 4YW1-UP, 5EZ1-UP, 5LR1-UP, 5LS1-UP, 6DR1-UP, 8SR1-UP, 8TR1-UP, 9HN1-UP

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2014/10/31

Engine Starting With Jump Start Cables - If Equipped (SEBU6941-05)

SMCS - 1000, 1401, 7000

i05974849

**WARNING**

Failure to properly service the batteries may cause personal injury.

Prevent sparks near the batteries. They could cause vapors to explode. Do not allow the jump start cable ends to contact each other or the machine.

Do not smoke when checking battery electrolyte levels.

Electrolyte is an acid and can cause personal injury if it contacts skin or eyes.

Always wear eye protection when starting a machine with jump start cables.

Improper jump start procedures can cause an explosion resulting in personal injury.

Always connect the battery positive (+) to battery positive (+) and the battery negative (-) to battery negative (-).

Jump start only with an energy source with the same voltage as the stalled machine.

Turn off all lights and accessories on the stalled machine. Otherwise, they will operate when the energy source is connected.

NOTICE

To prevent damage to engine bearings and to electrical circuits when you jump-start a machine, do not allow the stalled machine to touch the machine that is used as the electrical source.

Turn on (close) the battery disconnect switch prior to the boost connection to prevent damage to electrical components on the stalled machine.

Use only equal voltage for starting. Check the battery and starter voltage rating of your machine. Use only the same voltage for jump starting. Use of a welder or higher voltage will damage the electrical system.

Severely discharged maintenance free batteries do not fully recharge from the alternator after jump starting. The batteries must be charged to proper voltage with a battery charger. Many batteries thought to be unusable are still rechargeable.

Refer to Special Instruction, [SEHS7633](#), "Battery Test Procedure" for complete testing and charging information. This publication is available from your Cat dealer.

When the auxiliary start receptacles are not available, use the following procedure.

1. Lower the equipment to the ground. Move all controls to the HOLD position. Move the hydraulic lockout control to the LOCKED position.
2. Turn the start switch on the stalled machine to the OFF position. Turn off all accessories.
3. Turn the battery disconnect switch on the stalled machine to the ON position.
4. Move the machine that is being used as an electrical source near the stalled machine so that the jump-start cables reach the stalled machine.
Do not allow the machines to contact each other.
5. Stop the engine of the machine that is being used as an electrical source. If you are using an auxiliary power source, turn off the charging system.

6. Ensure that battery caps on both machines are tight and correctly placed. Ensure that batteries in the stalled machine are not frozen. Make sure that the batteries have enough electrolyte.

Note: The positive terminal of the 24 V system of the source and the negative terminal of the 24 V system of the source must be identified correctly before the jumper cables are connected. The positive terminal of the 24 V system of the discharged battery must be identified correctly before the jumper cables are connected.

7. The positive ends of the jump-start cable are red. Connect one positive end of the jump-start cable to the positive cable terminal of the discharged battery. Some machines have battery sets.

Note: Batteries that are in series may be in separate compartments. Use the terminal that is connected to the starter solenoid. This battery or battery set is normally on the same side of the machine as the starter.

Do not allow the positive cable clamps to contact any metal except for the battery terminals.

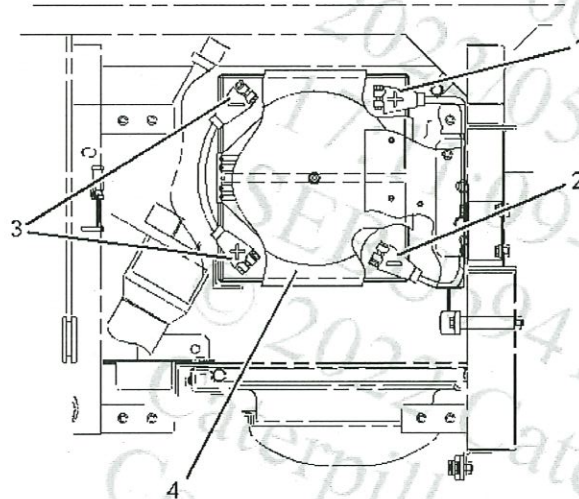


Illustration 1

Typical example of the location of the batteries in an excavator

- (1) Red positive post to starter
(2) The black negative post connects to the battery disconnect switch.
(3) Do not use these two connections for jump starting. The red positive post is connected in series to the black negative post.
(4) Cover

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8. Connect the other positive end of the jump-start cable to the positive cable terminal of the electrical source.
9. Connect one negative end of the jump-start cable to the negative cable terminal of the electrical source.
10. Finally, connect the other negative end of the jump-start cable to the frame of the stalled machine. Do not connect the jump-start cable to the battery post. Do not allow the jump-start cables to contact the battery cables, the fuel lines, the hydraulic lines, or any moving parts.
11. Start the engine of the machine that is being used as an electrical source or energize the charging system on the auxiliary power source.
12. Wait at least two minutes before you attempt to start the stalled machine. This will allow the batteries in the stalled machine to partially charge.
13. Attempt to start the stalled engine. See Operation and Maintenance Manual, "Engine Starting" for the correct starting procedure.
14. Immediately after you start the stalled engine, disconnect the jump-start cables in reverse order.

BCZ1001-2000, BDK1001-2000, BDM1001-2000, BDR1001-2000, BDX1001-2000, BDY1001-2000, BEB1001-2000, DKF1-UP, PEG1-UP, TJE1-UP, ZBJ1-UP, 1CS1-UP, 1ES1-UP, 1YS1-UP, 1ZN140-UP, 2JM1000-UP, 2JR1-UP, 2NW1-UP, 2TN360-UP, 2WZ1-UP, 3MR1-UP, 3TM1300-UP, 3WZ171-UP, 4JZ139-UP, 4MR1-UP, 4NR1-UP, 4SS1-UP, 4XW1-UP, 5BR1-UP, 5BZ159-UP, 5GW1-UP, 6CR1-UP, 6DR1-UP, 6EN160-UP, 8ES1-UP, 9CS1-UP, 9GS1-UP, 9KR1-UP, 9XL300-UP, A3R1-UP, A6F1-UP, A8F1-UP, A9F1-UP, A9J1-UP, AED1-UP, AGS1-UP, AKE1-UP, AKJ1-UP, AKX1-UP, ALB1-UP, ALD1-UP, ALX1-UP, AMC1-UP, AMD1-UP, AME1-UP, AMH1-UP, AMJ1-UP, AMN1-UP, ANB1-UP, ANF1-UP, ANJ1-UP, ANS1-UP, AP41-UP, APA1-UP, APB1-UP, AT21-UP, AWN1-UP, AWS1-UP, AXK1-UP, AYF1-UP, AYP1-UP, AYR1-UP, AZP1-UP, B1K1001-UP, B321-UP, B341-UP, B361-UP, B381-UP, B3M1001-UP, B4N1001-UP, B6H1-UP, B6N1-UP, BBL1-UP, BCM1-UP, BCN1-UP, BCZ1001-2000, BCZ2001-UP, BDC1-UP, BDE1-UP, BDK1001-2000, BDK2001-UP, BDM1001-2000, BDM2001-UP, BDR1001-2000, BDR2001-UP, BDX1001-2000, BDX2001-UP, BDY1001-2000, BDY2001-UP, BEA1-UP, BEB1001-2000, BEB2001-UP, BER1-UP, BFC1-UP, BFE1-UP, BFK1-UP, BGB1-UP, BGR1-UP, BKF1-UP, BKJ1-UP, BKK1-UP, BKW1-UP, BKW254-255, BKW264-265, BKW326-255, BXX1-UP, BLY1-UP, BMH1-UP, BMZ1-UP, BNE1-UP, BPH1-UP, BPR1-UP, BRB1-UP, BRW1-UP, BRX1-UP, BTD1-UP, BTG1-UP, BTK1-UP, BW21-UP, BWH1-UP, BWW1-UP, BWY1-UP, BYC1-UP, BYE1-UP,

BYJ1-UP, BYM1-UP, BYP1-UP, BYS1-UP, BZ21-UP, BZF1-UP, BZH1-UP, BZN1-UP, BZP1-UP, BZY1-UP, C3R1-1000, C3R1001-UP, C4H1-UP, C5K1-UP, C7K1-UP, C8L1-UP, C9M1-UP, CA41-UP, CA61-UP, CAM1-UP, CAP1-UP, CBA1-UP, CBY1-UP, CCC1-UP, CCD1-UP, CDY1-UP, CFB1-UP, CFT1-UP, CGZ1-UP, CH31-UP, CH51-UP, CH91-UP, CJC1-UP, CJN1-UP, CJX1-UP, CKE1-UP, CLA1-UP, CLD1-UP, CLM1-UP, CLS1-UP, CLZ1-UP, CMR1-UP, CRB1-UP, CSJ1-UP, CTY1-UP, CWG1-UP, CXY1-UP, CY21-UP, CYD1-UP, CYW1-UP, CYZ1-235, CYZ236-UP, CZF1-UP, D2W1-UP, D3C1-UP, D3S1-UP, D3X1-UP, D6W1-UP, D8W1-UP, D9X1-UP, DAH1-UP, DAX1-UP, DAY1-UP, DBG1-UP, DBH1-UP, DBN1-UP, DC81-UP, DCJ1-UP, DCW1-UP, DDW1-UP, DET1-UP, DFG1-UP, DFM1-UP, DFP1-UP, DFY1-UP, DGE1-UP, DGF1-UP, DGR1-UP, DHE1-UP, DHK1-UP, DHP1-UP, DJE1-UP, DJF1-UP, DKD1-UP, DKF1-UP, DKN1-UP, DKW1-UP, DKY1-UP, DLP1-UP, DNM1-UP, DNP1-UP, DNS1-UP, DPJ1-UP, DPL1-UP, DPX1-UP, DPY1-UP, DSG1-UP, DSW1-UP, DTF1-UP, DTG1-UP, DTS1-UP, DTZ1-UP, DWK1-UP, DWR1-UP, DYR1-UP, DZF1-UP, DZW1-UP, E4K1-UP, EAB1-UP, EAG1-UP, EAH1-UP, EAM1-UP, EAR1-UP, EAW1-UP, EAX1-UP, EBF1-UP, EBK1-UP, EBM1-UP, EBP1-UP, EBY1-UP, ECH1-UP, ECN1-UP, ECZ1-UP, EDA1-UP, EDF1-UP, EDX1-UP, EEH1-UP, EF31-UP, EFT1-UP, EGA1-UP, EGL1-UP, EJC1-UP, EJT1-UP, EKT1-UP, ELC1-UP, ELR1-UP, ELS1-UP, EMR1-UP, EN21-UP, EN31-UP, EN81-UP, EN91-UP, ERK1-UP, ERL1-UP, ERN1-UP, ESD1-UP, ESG1-UP, ESX1-UP, ETC1-UP, ETE1-UP, EWC1-UP, EX71-UP, EYF1-UP, F4A1-UP, F5G1-UP, F5L1-UP, F6N1-UP, FA21-UP, FAA1-UP, FAB1-UP, FAJ1-UP, FAL1-UP, FAP1-UP, FAR1-UP, FBR1-UP, FBT1-UP, FDL1-UP, FDS1-UP, FEB10001-UP, FEE1-UP, FEH1-UP, FEX1-UP, FEY1-UP, FFK1-UP, FFT1-UP, FH81-UP, FJB1-UP, FJH1-UP, FKC1-UP, FKE1-UP, FKK1-UP, FLA1-UP, FLC1-UP, FLD1-UP, FMH1-UP, FPC1-UP, FXK1-UP, FYC1-UP, G1L1-999, G1L1001-UP, GAC1-UP, GAD1-UP, GAJ1-UP, GAP1-UP, GAX1-UP, GAY1-UP, GBA1-UP, GBC1-UP, GBR1-UP, GBT1-UP, GCL1-UP, GDP1-UP, GE81-UP, GF81-UP, GGE1-UP, GGH1-UP, GGJ1-UP, GHT1-UP, GJA1-UP, GJD1-UP, GKF1-UP, GKL1-UP, GKS1-UP, GLA1-UP, GMD1-UP, GMX1-UP, GMY1-UP, GNG1-UP, GNY1-UP, GPA1-UP, 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2003/12/03

Daily Inspection (SEBU6941-05)

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**WARNING**

Hot oil and hot components can cause personal injury. Do not allow hot oil or hot components to contact skin.

At operating temperature, the engine coolant is hot and under pressure.

Steam can cause personal injury.

Check the coolant level only after the engine has been stopped and the cooling system pressure cap is cool enough to touch with your bare hand.

Remove the cooling system pressure cap slowly to relieve pressure.

Cooling system conditioner contains alkali. Avoid contact with the skin and eyes to prevent personal injury.

NOTICE

Accumulated grease and oil on a machine is a fire hazard. Remove this debris with steam cleaning or high pressure water, at least every 1000 hours or each time any significant quantity of oil is spilled on a machine.

For maximum service life of the machine, perform a thorough daily inspection before you mount the machine and before you start the engine.

First 100 Hours

Daily, perform the procedures that are applicable to your machine:

- Operation and Maintenance Manual, "Boom and Stick Linkage - Lubricate"
- Operation and Maintenance Manual, "Bucket Linkage (C Family) - Lubricate"
- Operation and Maintenance Manual, "Bucket Linkage (D Family) - Lubricate"

Severe Applications

Daily, perform the procedures that are applicable to your machine:

- Operation and Maintenance Manual, "Bucket Linkage (C Family) - Lubricate"
- Operation and Maintenance Manual, "Bucket Linkage (D Family) - Lubricate"

Daily Basis

Daily, perform the procedures that are applicable to your machine:

- Operation and Maintenance Manual, "Cooling System Coolant Level - Check"
- Operation and Maintenance Manual, "Engine Oil Level - Check"
- Operation and Maintenance Manual, "Fuel System Water Separator - Drain"
- Operation and Maintenance Manual, "Fuel Tank Water and Sediment - Drain"
- Operation and Maintenance Manual, "Hydraulic System Oil Level - Check"
- Operation and Maintenance Manual, "Indicators and Gauges - Test"
- Operation and Maintenance Manual, "Seat Belt - Inspect"

- Operation and Maintenance Manual, "Track Adjustment - inspect"
- Operation and Maintenance Manual, "Travel Alarm - Test"
- Operation and Maintenance Manual, "Undercarriage - Check"

Refer to the Maintenance Section for the detailed procedures. Refer to the Maintenance Interval Schedule for a complete list of scheduled maintenance.

Note: Watch closely for leaks. If you observe a leak, find the source of the leak and correct the leak. If you suspect a leak or you observe a leak, check the fluid levels more frequently.

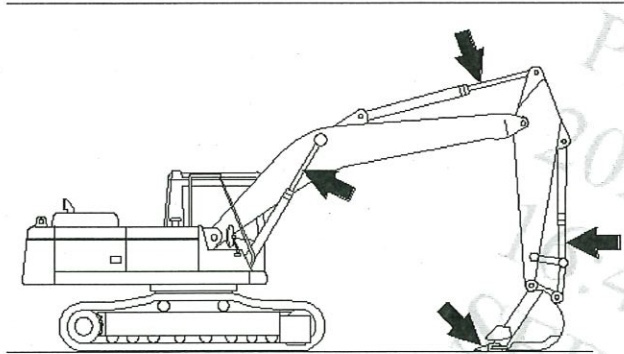


Illustration 1

g00101867

Inspect the attachment control linkage, attachment cylinders, and attachment for damage or excessive wear. Make any necessary repairs.

Inspect the lights for broken bulbs and for broken lenses. Replace any broken bulbs and any broken lenses.

Inspect the engine compartment for any trash buildup. Remove any trash buildup from the engine compartment.

Inspect the cooling system for any leaks, for faulty hoses and for any trash buildup. Correct any leaks. Remove any trash from the radiator.

Inspect all of the belts for the engine attachments. Replace any belts that are worn, frayed, or broken.

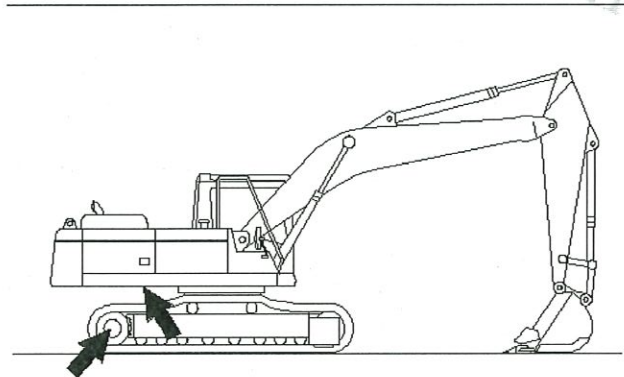


Illustration 2

g00101870

Inspect the hydraulic system for leaks. Inspect the tank, cylinder rod seals, hoses, tubes, plugs, connections, and fittings. Correct any leaks in the hydraulic system.

Inspect the differential and the final drives for leaks. Make any necessary repairs.

Inspect the swing drive for leaks.

Make sure that all covers and guards are securely attached. Inspect the covers and the guards for damage.

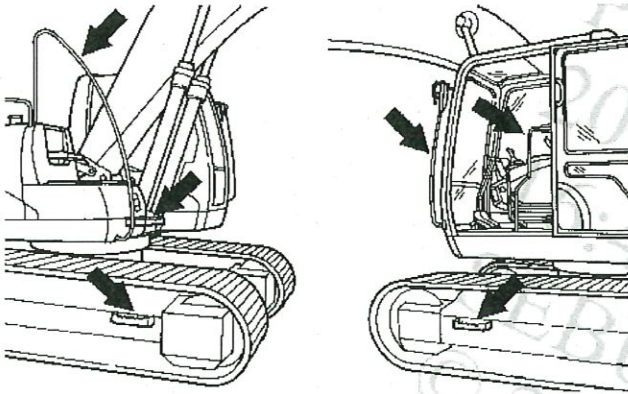


Illustration 3

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Inspect the steps, the walkways, and the handholds. Clean the steps, the walkways, and the handholds. Make any necessary repairs.

Inspect the operator compartment for trash buildup. Check for trash buildup under the floorplate and on the crankcase guard. Keep these areas clean.

Adjust the mirrors in order to achieve the best visibility.

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CEN1-UP, CEP1-UP, CFB1-UP, CFJ1-UP, CFT1-UP, CH31-UP, CH51-UP, CJC1-UP, CJN1-UP, CKE1-UP, CKR1-UP, CLA1-UP, CLD1-UP, CLM1-UP, CLS1-UP, CLZ1-UP, CMX1-UP, CPH1-UP, CRB1-UP, CSJ1-UP, CTY1-UP, CWF1-UP, CXM1-UP, CXR1-UP, CYA1-UP, D2W1-UP, D3C1-UP, D3D1-UP, D3S1-UP, D3X1-UP, D4M1-UP, D6F1-UP, D6W1-UP, D8A1-UP, D8W1-UP, D9X1-UP, DAA1-UP, DAR1-UP, DAS1-UP, DAY1-UP, DBN1-UP, DCH1-UP, DCW1-UP, DDN1-UP, DDW1-UP, DER1-UP, DET1-UP, DFK1-UP, DGF1-UP, DHP1-UP, DJM1-UP, DK91-UP, DKH1-UP, DKN1-UP, DLB1-UP, DLM1-UP, DLP1-UP, DLS1-UP, DLY1-UP, DMA1-UP, DMK1-UP, DNW1-UP, DPJ1-UP, DPS1-UP, DSC1-301, DSC302-UP, DSG1-UP, DST1-UP, DTA1-UP, DTM1-UP, DTT1-UP, DWC1-UP, DWM1-UP, DWR1-UP, DXR1-UP, E5T1-UP, E7K1-UP, E8R1-UP, E991-UP, EAA1-UP, EAB1-UP, EAD1-UP, EAS1-UP, EAW1-UP, ECM1-UP, ECX1-UP, EED1-UP, EEH1-UP, EFS1-UP, EGA1-UP, EHP1-UP, ELS1-UP, EMR1-UP, END1-UP, ENT1-UP, EPM1-UP, EPO1-UP, ESD1-UP, EXD1-UP, EXL1-UP, EXW1-UP, EYG1-UP, F2W1-UP, F2Z1-UP, F4A1-UP, F4D1-UP, F5M1-UP, F671-UP, F6N1-UP, F6P1-UP, F7B1-UP, F7C1-UP, F7D1-UP, F7G1-UP, F7T1-UP, F8B1-UP, FA41-UP, FAB1-UP, FAC1-UP, FAP1-UP, FB21-UP, FB31-UP, FB41-UP, FB51-UP, FB61-UP, FB71-UP, FB81-UP, FB91-UP, FBW1-UP, FDB1-UP, FDL1-UP, FDS1-UP, FEA1-UP, FEB10001-UP, FED1-UP, FGH1-UP, FKB1-UP, FKJ1-UP, FKW1-UP, FKZ1-UP, FLA1-UP, FM21-UP, FM41-UP, FM61-UP, FME1-UP, FMH1-UP, FPC1-UP, FRA1-UP, FRR1-UP, FT51-UP, FT81-UP, FTF1-UP, FTS1-UP, FYC1-UP, G1L1001-UP, GAD1-UP, GAG1-UP, GAJ1-UP, GAP1-UP, GAX1-UP, GBB1-UP, GBT1-UP, GCA1-UP, GCL1-UP, GJB1-UP, GKF1-UP, GKT1-UP, GKX1-UP, GLB1-UP, GLK1-UP, GMT1-UP, GNN1-UP, GNW1-UP, GNZ1-UP, GPA1-UP, GPH1-UP, GRA1-UP, GRB1-UP, GRC1-UP, GRT1-UP, GT71-UP, GTN1-UP, GWN1-UP, GXM1-UP, GXR1-UP, H2A1-UP, H2B1-UP, H2C1-UP, H2D1-UP, H2E1-UP, H2F1-UP, H2G1-UP, HAA1-UP, HAB1-UP, HAE1-UP, HAF1-UP, HAG1-UP, HAH1-UP, HBC1-UP, HBP1-UP, HCB1-UP, HCD1-UP, HCW1-UP, HDC1-UP, HEK1-UP, HJX1-UP, HKE1-UP, HM31-UP, HP51-UP, J2T1-UP, J321-UP, J3A1-UP, J3W1-UP, J4W1-UP, J5B1-UP, J5R1-UP, J5W1-UP, J631-UP, J681-UP, J691-UP, J6B1-UP, J6K1-UP, J971-UP, J9T1-UP, JA61-UP, JAB1-UP, JAJ1-UP, JBB1-UP, JBC1-UP, JC41-UP, JDL1-UP, JEB1-UP, JEK1-UP, JGB1-UP, JGS1-UP, JH91-UP, JHA1-UP, JHZ1-UP, JJ31-UP, JJM1-UP, JJN1-UP, JKN1-UP, JLC1-UP, JLD1-UP, JLK1-UP, JLM1-UP, JMB1-UP, JNW1-UP, JPL1-UP, JRP1-UP, JS91-UP, JSB1-UP, JSM1-UP, JSR1-UP, JWK1-UP, JWS1-1999, JWS2000-UP, JXE1-UP, JXL1-UP, JXP1-UP, K3D1-UP, K3H1-UP, K3J1-UP, K5E1-UP, K751-UP, K8X1-UP, KA21-UP, KA31-UP, KA41-UP, KA51-UP, KA71-UP, KBD1-UP, KBN1-UP, KCD1-UP, KCX1-UP, KD21-UP, KDD1-608, KDD609-UP, KDH1-UP, KDP1-UP, KDZ1-UP, KE31-UP, KE41-UP, KE51-UP, KE61-UP, KE71-UP, KE81-UP, KEG1-UP, KES1-UP, KEX1-UP, KFH1-UP, KFM1-UP, KGE1-UP, KGX1-UP, KH21-UP, KH41-UP, KHB1-UP, KHC1-UP, KHS1-UP, KJA1-UP, KL31-UP, KLE1-UP, KLH1-UP, KN71-UP, KN91-UP, KNC1-UP, KNW1-UP, KPA1-UP, KRM1-UP, KSK1-UP, KT41-UP, KWA1-UP, KXD1-UP, KYD1-UP, KZD1-UP, L4D1-UP, L4E1-UP, L4F1-UP, L5R1-UP, L751-UP, LAR1-1000, LAR1001-UP, LCY10001-UP, LEM1-UP, LFB1-UP, LFM1-UP, LGP1-UP, LJ91-UP, LJB1-UP, LKA1-UP, LKR1-UP, LKY1-UP, LP91-UP, LR21-UP, LR61-UP, LRK1-UP, LTS1-UP, LTX1-UP, LYS1-UP, M2H1-1000, M2H1001-UP, M2K1001-UP, M2R1-UP, M361-UP, M3E1-UP, M3F1-UP, M451-UP, M4C1-UP, M4P1-UP, M4S1-UP, M8D1-UP, M941-UP, MAB1-UP, MAC1-UP, MAN1-UP, MAP1-UP, MAR1-UP, MAT1-UP, MCA1-UP, MCX1-UP, MDW1-UP, MDY1-UP, MEJ1-UP, MEN1-UP, MES10001-UP, MGJ1-UP, MH61-UP, MJS1-1999, MJS2000-UP, MKM1-UP, MKR1-UP, ML61-UP, MLK1-UP, MN61-UP, MPC1-UP, MPP1-UP, MRT1-UP, MSD1-UP, MSG1-UP, MSL1-UP, MTE1-UP, MTJ1-UP, MTM1-UP, MW51-UP, MWH1-1999, MWH2000-UP, MYA1-UP, N661-UP, NA91-UP, NAD1-UP, NBJ1-UP, NCM1-UP, NED1-UP, NEG1-UP, NEK1-UP, NET1-UP, NJ91-UP, NJB1-UP, NJX1-UP, NLK1-UP, NLM1-UP, NM91-UP, NMA1-UP, NNF1-UP, NNN1-UP, NNW1-UP, NPB1-UP, NRF1-UP, NRG1-UP, NSG1-UP, NSL1-UP, NTR1-UP, NTT1-UP, P1C1-UP, P1M1-UP, P271-UP, P2D1-UP, P2T1-UP, P3H1-UP, P3W1-UP, P451-UP, P4K1-UP, P5D1-UP, P5J1-UP, P651-UP, P6K1-UP, P7C1-UP, P8L1-UP, P9M1-UP, PAB1-UP, PAC1-UP, PAD1-UP, PBT1-UP, PCA1-UP, PDP1-UP, PEG1-UP, PEL1-UP, PFD1-UP, PHH1-UP, PJW1-UP, PLD1-UP, PNJ1-UP, PNM1-UP, PRW1-UP, PTR1-UP, PWP1-UP, PZG1-UP, R2B1-UP, R521-UP, R5K1-UP, R661-UP, RAE1-UP, RAJ1-UP, RAN1-UP, RAT1-UP, RAW1-UP, RBH1-UP, RBJ1-UP, RBM1-UP, RCA1-UP, RCD1-UP, RCM1-UP, RCY1-UP, RCZ1-UP, RDD1-UP, RDE10001-UP, RDN1-UP, RDR1-1999, RDR2000-UP, RFC1-UP, RFM1-1999, RFM2000-UP, RGD1-UP, RGG1-UP, RH41-UP, RH81-UP, RHL1-UP, RJK1-UP, RJM1-UP, RJP1-UP, RJZ1-UP, RKF1-UP, RKN1-UP, RLB1-UP, RLM1-UP, RLS1-UP, RMA1-UP, RMD1-UP, RME1-UP, RMH1-UP, RMX1-UP, RNL1-UP, RPB1-UP, RRD1-UP, RSL1-UP, RTT1-UP, RXZ1-UP, S2C1-UP, S3M1001-UP, S5M1-UP, SAH1-1000, SAH1001-UP, SBN1-UP, SBP1-UP, SBR1-UP, SCN1-UP, SDB1-UP, SDL1-UP, SDM1-UP, SGB10001-UP, SGL1-UP, SJE1-UP, SJN1-UP, SJP1-UP, SJR1-UP, SJY1-UP, SKA1-UP, SLW1-UP, SNY1-UP, SPC1-UP, SPX1-UP, SSZ1-UP, SWB1-UP, SWF1-UP, SYG1-UP, T1F1-UP, T2A1-UP, T4P1-UP, T4R1-UP, T4S1-UP, T4Y1-1999, T4Y2000-UP, T5A1-1999, T5A2000-UP, T5F1-1999, T5F2000-UP, T5S1-1999, T5S2000-UP, T5T1-1999, T5T2000-UP, T5W1-1999, T5W2000-UP, T5X1-UP, T6Y1-UP, T6Z1-UP, TAB1-UP, TAD1-UP, TAH1-UP, TAJ1-UP, TB41-UP, TB71-UP, TBA1-UP, TBC1-UP, TBR1-1000, TBR1001-UP, TDG1-UP, TDJ1-UP, TDS1-UP, TEN1-UP, TFB1-UP, TFM1-UP, TFZ1-UP, TGH1-UP, TGY1-UP, TJ51-UP, TJF1-UP, TJY1-UP, TLE1-UP, TLW1-UP, TNM1-1999, TNM2000-UP, TNW1-UP, TPS1-UP, TRS1-UP, TWA1-UP, TWB1-UP, TXN1-UP, TZS1-UP, W2S1-4999, W2S5000-UP, W2T1-4999, W2T5000-UP, W3H1-4999, W3H5000-UP, W5M1-4999, W5M5000-UP, W6A1-4999, W6A5000-UP, W8P1-4999, W8P5000-UP, W8R1-4999, W8R5000-UP, WA31-UP, WA41-UP, WA61-UP, WA71-UP, WAK1-UP, WBD1-UP, WBE1-UP, WBG1-UP, WBH1-UP, WBJ1-UP, WCB1-UP, WDE1-UP, WE81-UP, WEC1-UP, WGR1-UP, WHJ1-UP, WHY1-UP, WLN1-UP, WM21-UP, WM31-UP, WM41-UP, WM51-UP, WM71-UP, WM81-UP, WMA1-UP, WPB1-UP, WPK1-UP, WRG1-UP, WTD1-UP, WWA1-UP, WWC1-UP, WWD1-UP, WZX1-UP, XAC1-UP, XAH1-UP, XB41-UP, XB61-UP, XBR1-UP, XC31-UP, XGK1-UP, XGS1-UP, XHR1-UP, XRD1-UP, XS31-UP, XSB1-UP, XW61-UP, YAE1-UP, YAG1-UP, YEE1-UP, YES1-UP, YRD1-UP, Z2X1-UP, ZAA1-UP, ZAE1-UP, ZCA1-UP, ZGZ1-UP, ZKJ1-UP, ZLK1-UP, ZPM1-UP

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2022/05/24

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Caterpillar:

Confidential Green

Decedents Job Description and Information:

Marcos Lopez

Job Description: Pipelayer

Date of Hire: 12/2/1999

Address: 12 Roanoke Dr.

Fort Myers, FL 33905

Phone Number: 239-324-2567

Age: 42

Brandon Colburn

Job Description: Tailman

Date of Hire: 11/23/2019

Address: 7960 Gage Way

North Fort Myers, FL 33917

Phone Number: 239-772-0378

Age: 24

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Tampa OSHA UPA Diary Sheet (Optional)



Establishment Name & Address	Guymann Construction Of Florida, Inc. Burnt Store Road And Scham Road ; Punta Gorda, FL 33955
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UPA Activity #	Received Date	Received by
1892422	May 9, 2022	

DATE	ACTION	INITIALS
5/9/2022	Rcvd report of trench collapse 1 confirmed dead, 1 missing. Scene still active.	(b) (7)(C)
5/9/2022	Assigned to 7569 to be opened 5/9/2022	
5/9/22	Opened an investigation	
5/10/22	Returned to Site	
5/11/22	All NOK's Sent to AAD	
5/11/22	Document Request sent to Phillip Russell	
5/17/22	Received OSHA 300 Logs	
5/17/22	(b) (7)(C)	
9/21/22	Held interview with foreman, Project manager, & attorneys present.	
10/20/22	emailed attorney the supervisor statement from 9/21/22 interview	
10/20/22	Spoke to (b) (7)(C)	
	explained citations and mailed 2nd NOK letter	
10/31/22	Green card Received	
11/14/22	IC CONDUCTED AT TAO - NOTES TAKEN and PROVIDED TO RAO for consideration	

Company: Guyman Construction of Florida, Inc Inspection: 1594857

(Phone ☐) <i>Informal Conference Worksheet</i>			
Date/Time: <u>11/14/22</u>	FC Date: <u>11/18/22</u>	Supervisor ID: <u>T8558</u>	CSHO ID: <u>(b) (7)(C)</u>
Abatement Documentation/Certification Provided ☐ Yes ☒ No PMA Discussed ☐ Yes ☒ No		Union Participation ☒ N/A ☐ Yes ☐ No If No, Why?	
<i>Items for Discussion at Conference</i>			
Purpose ☒	Rights of Participants ☐	Contest Rights ☒	Limitations ☐
Positing Notification ☒	Other Relevant Info _____		WB Rights ☒
<i>Informal Conference Notes</i>			
OSHA Representatives:	Company Representatives:	Legal / Union Representatives:	
<u>Peter Piciano AAO</u>	<u>Fred Russell - President - Guyman.</u>		
	<u>Kevin Hunt Branch - SR Project Manager</u>		
	<u>Bob Russell - VP - Guyman -</u>		
	<u>Lucas Lehnert - Oglethorpe</u>	<u>→ X</u>	
	<u>Phillip Russell - Oglethorpe</u>	<u>→ X</u>	
<i>Conclusion of Conference</i>			
Settlement Ltr ☐	ISA Drafted ☐ Yes ☒ No	Reduction > 50% ☐ Yes ☐ No	
No Settlement Ltr ☐	Contested ☐ Yes ☒ No	Who approved?	
<i>Reason for Settlement</i>			
The AD or designee will document and summarize all main issues and potential courses of action, including, but not limited to: citation settlement, classification, penalty reductions, enhancements, etc. Justification for any changes made to the penalty, classification and/or citation(s) must be included. This information will be placed in the case file.			

Small - company
Utility Construction (b) (4) SS's - family owned - couple sons -
incident hit hard - personally
impact - significant
- Abatement measures Goal - nothing like this happens again
- Since Day 1.
(b) (7)(C)

Company: _____

Inspection: _____

Informal Conference Notes (continued):

Tough in ~~the morning~~ -

Jeff Cohen - OP - 1 of 2 son -

- Result not first time - fairly independent -

What he heard - going forward

* Fred - 4 yrs now had anything like this happen - new facility
Day + Underground work - Devs starting to all of it -
want to see come - keep going - give circumstances - want
to keep it going -

* BINDER - given - ELECTRONIC -

JOB - DESIGN - Existing - structure - utilities - Took Designer
to eliminate threat - initial to eliminate at Ex site -
Directional Bore -

* - 1st order - To REDESIGN and move away from Road - Eliminated
conflicts - ABOVE PIPE - instead of Below -
Duct Lines PIPE - eliminate PVC - Acile Angles -
- site did not have alot of choices to complete work - now
BB's have better choices note:

REDESIGN - Path of Pipe to install -

Value - Berman - Doing Redesign working w/ city - working to increase
Area of work with officials -

- Daily trench inspections - now if something occurs - then work
stops - SUPERVISORS are called - site can be changed to accommodate
Trench Box - works with other utilities to get down -

Company: _____

Inspection: _____

Informal Conference Notes (continued):

COST OVER 200K ON THIS PROJECT TO implement more insulation methods- Ductwork- Directional Drilling - + ADDITIONAL CURRENT A-Joints-

5-9 initial 5/10- initial 5/11/12 - SAFETY STANDDOWN B72 BR/SR Rules

→ claim- DID NOT know 2 in Trench- Training- EB know to not get in Trench- until cleared- DID NOT know in Hole- Marcus: 24- should have known not to get into trench.

- DID RFI- , Trench DATA VERIFICATION - ORDERED 6x24 TO SUPPLEMENT DEFICENCY IN DEEPER TRENCH,

- Foreman- competent- assist- Now all EB's are TRAINED COMPETENT PERSON Aug 19- New Hires - Trained:

- No one to Enter Trench- unless EYB contact with Foreman/competent

- STEEL PLATES- Hired Licensed PE Engineer - To SPATULATE STEEL Plate DATA FOR use where no Trench Box can be installed- only cantilevered-

- call in location- before installing -

- SAFETY SOLUTIONS- consultant Hired TO OVERSEE all programs

- DEVELOPING SAFETY Audit Policies - five weekly (ER) AND UNANNOUNCED monthly visits to get data-

- New Policy - Trained and signed by Supervisors/Foreman

- Each site HAS copies of Policy onsite

- formalized - completed PERSON DOCUMENTATION added w/ Foreman/supervisor onsite

3RD PARTY SAFETY Audits - Reason - monthly

Company: _____

Inspection: _____

Informal Conference Notes (continued):

- TUNN IN ABATE certifying
- Reckless - 2-1 - From willful -> serious
- #1 - not 100% covered - willful - good argument,
 - Human Argument - not did not intentionally put down in this way
- Had sell - JCH -
- Better Result - 68's 65% (same over 10 yrs)
- 1-1 same -
- 2-1 - will -> serious - same penalty - Guyman Eden - not about money its about chance to implement changes - consideration, to correct -
- > Nothing to Hide - increased scrutiny - Provide Lists of Admin for a minimum of 6 months - To Be Provided Prior,
- ACTUAL sites for Trenching -
- Need To get in writing Grand Pre - for Agreement -
- ⊗ IF more Time needed - will allow construction going -
- not pushing to get work Done -
- ATDerry wants to keep Dialogue open up to FDC -

U.S. Department of Labor

Occupational Safety and Health Administration
Tampa Area Office
5807 Breckenridge Pkwy, Suite A
Tampa, FL 33610



October 28, 2022

(b) (7)(C)

Dear (b) (7)(C)

I am writing to share with you the findings of the recent Occupational Safety and Health Administration (OSHA) inspection into the death of Marcos Santiz-Lopez.

Mr. Santiz-Lopez was working inside a 7-foot-deep trench installing a water main utility pipe at the intersection of Burnt Store Road and Scham Road in Punta Gorda, Florida when the walls caved in. Cave in protection was not being utilized.

Enclosed is a copy of the citations and proposed penalties against Guymann Construction of Florida, Inc. OSHA citations state the alleged violations of safety and health standards at the worksite. They also note which alleged violations OSHA has determined to be specifically associated with Mr. Santiz-Lopez death.

I would like to emphasize that, under the Occupational Safety and Health Act, civil penalties that OSHA proposes are not based on the occurrence of a fatality. Instead, the gravity of the violation is the primary consideration in determining penalty amounts. The penalty for each violation is determined by combining the severity of injury and the probability of occurrence. In some cases, penalties may be reduced from the maximum allowable by law based on the company's size and history of previous violations. Enclosed is a brief fact sheet that further explains OSHA's citation and penalty.

We know that no amount of money or compensation can measure the loss you and your family have suffered, and that your lives have been changed forever because of this tragedy. I would like to express to you my deepest sympathy. If you have any questions about our inspection or any of the information enclosed, please contact me:

Danelle Jindra
USDOL/OSHA
5807 Breckenridge Pkwy, Suite A
Tampa, FL 33610

Telephone: (813) 626-1177
E-Mail: Jindra.danelle@dol.gov

The Freedom of Information Act (FOIA) governs the release of information concerning incident

inspections conducted by OSHA. Upon written request, OSHA will provide you with the portions of the inspection file that may be released under FOIA.

Sincerely,

ERIN

SANCHEZ

Digitally signed by
ERIN SANCHEZ
Date: 2022.10.28
15:00:52 -04'00'

for Danelle Jindra
Area Director

Enclosures

(Enclosure)

OSHA CITATIONS AND PENALTIES

OSHA citations state the specific safety and health standards the company is alleged to have violated. They note, both by number and name, the individual sections of OSHA standards that the employer allegedly failed to follow. (A complete listing of OSHA standards is available for review at the OSHA area office or can be accessed on the agency's Internet site at www.osha.gov under "Standards.")

Citations specify the location in the facility or on the work site where the violation occurred and the circumstances surrounding the violation. The Area Director of the local OSHA office that conducted the inspection signs and issues the citations. Citations must be issued within six months following identification of the alleged violations. Even if the employer disagrees with the findings, employers must post a copy of each citation at or near the place where an alleged violation occurred or where workers can see the citations for three days or until the violation is abated, whichever is longer.

Citations identify required abatement dates (the dates when the hazards must be corrected) and proposed penalties for each alleged violation. For violations that are easy to fix, immediate abatement may be appropriate. If an employer must purchase equipment or significantly modify the workplace, a longer period is permitted.

OSHA proposes citations when a standard has been violated. The civil penalty amounts, if any, associated with citations are adjusted based on employer size, good faith on the part of the employer (those implementing the safety and health program), and inspection history. The maximum penalty amounts can be found at <https://www.osha.gov/penalties>.

Violations are classified as willful if OSHA has evidence that the employer intentionally disregarded the requirements of the Occupational Safety and Health Act of 1970 (OSH Act) and/or was plainly indifferent to the safety of employees. Violations are identified as serious if there is substantial probability that death or serious physical harm could result and that the employer knew, or should have known, of the hazard. A violation that has a direct relationship to job safety and health, but probably would not cause death or serious physical harm, is classified as other-than-serious. Violations may also be characterized as repeat if OSHA has cited the company for a substantially similar hazard within the past five years.

OSHA proposes penalties as a result of violations, but does not actually have the authority to impose fines. That authority is granted by law to the Occupational Safety and Health Review Commission (OSHRC), an administrative review board that is completely separate from OSHA and the United States Department of Labor. Employers can contest (challenge) alleged violations, proposed penalties, or abatement dates before this board. If the employer decides to challenge any part of OSHA's findings, they must do so within 15 working days after the employer receives the citations.

Employers may request a meeting with OSHA to discuss the issued citations and possibly to enter into an informal settlement of the case. In some cases, penalties may be reduced when a

company secures prompt correction of hazards and is able to provide documentation of actions aimed at securing sustainable improvements in order to protect other employees at the work site, and when a company is willing to evaluate and potentially implement these sustainable improvements at other locations. OSHA's primary concern remains prevention of injuries, illnesses, and deaths rather than collection of funds. (All penalty monies go directly to the United States Treasury; they are not part of OSHA's budget or credited to the agency.)

If an employer acknowledges the violations, agrees to pay the proposed penalties, and certify the hazard has been corrected then the citations as issued or amended automatically become a final order of OSHRC. The employer pays the penalties and the case is closed. The employer may also contest a part of a citation and pay part of the penalties assessed, or contest the entire case. Contested cases proceed through an administrative review process at the OSHRC. The employer or OSHA may further appeal the case in the appropriate United States Court of Appeals, if dissatisfied with the OSHRC's decision.

When an employer willfully violation of an OSHA standard and the alleged violation was the direct cause of, or a contributing factor to, an employee's death, OSHA may refer the case to the United States Department of Justice to seek criminal prosecution of the employer. These are difficult cases to prove; few cases reach court, and convictions are rare. However, should an employer be convicted, he or she could face a fine of up to \$250,000 individually and/or a jail term of up to six months. A corporation could receive a fine of as much as \$500,000.

(Enclosure)

OSHA FATALITY INSPECTIONS

Congress enacted the Occupational Safety and Health Act of 1970 (OSH Act) to assure safe and healthful working conditions for working men and women. The Occupational Safety and Health Administration (OSHA) was established under the OSH Act to provide for the enforcement of standards developed under the Act. There are both Federal and State OSHA programs.

OSHA inspects the worksites where fatalities have occurred to determine whether a violation of OSHA safety and health standards occurred. These inspections are often comprehensive in nature, but at times may be limited to the area in which the fatality occurred. If OSHA finds that the employer violated safety and health standards, the agency may issue citations and seek civil penalties against the employer, and may also refer the case to the United States Department of Justice for possible criminal prosecution.

OSHA does not issue citations solely because there was a workplace fatality. However, if during any inspection, OSHA finds that the employer violated safety and health standards, the agency may issue citations and seek civil or criminal penalties against the employer.

Upon written request, OSHA will provide you with the portions of the inspection file that may be released under the Freedom of Information Act (FOIA). In an effort to keep the next of kin apprised of developments during an inspection, OSHA sends them copies of citations (the formal notice of alleged hazards in the workplace), appeal letters (the employer's notice of disagreement with the issued citations), and informal settlements (a binding agreement between OSHA and the employer to settle the case) as soon as the documents are issued. Furthermore, OSHA is committed to the exchange of information with the next of kin as follows:

- Any time during the inspection or the resulting litigation, the next of kin may contact the local OSHA office to inquire about the status of the case or to ask questions.
- If the next of kin has information or evidence that can assist in the inspection, they are encouraged to take a proactive role and share this information by writing, calling, or e-mailing the local OSHA office.
- The next of kin is encouraged to follow up and inquire about any information they have sent to OSHA or on information received from OSHA. In such cases, they are free to write or call the local OSHA office.
- Upon issuance of the final order, the next of kin will be afforded the opportunity to meet with the Area Director to answer questions and explain the settlement decision.

OSHA will notify the next of kin when the case is closed. At that time, the portions of the file that can be released under FOIA will be made available to family members, at no charge, upon written request.

(b) (5)

7018 0360 0001 5313 0262

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

10/25

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- ☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total Postage and

\$

Sent To

Street and Apt. No.

City, State, ZIP+4®

GuyMann Construction of Florida, Inc
and its successors
305 SW 3rd Street
Cape Coral, FL 33991
1594857

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece.

1.

GuyMann Construction of Florida, Inc
and its successors
305 SW 3rd Street
Cape Coral, FL 33991
1594857



9590 9402 7319 2028 8920 72

2. Article Number (Transfer from service label)

7018 0360 0001 5313 0262

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

(b) (7)(C)

☒ Agent

☐ Addressee

X

B. Received by (Printed Name)

C. Date of Delivery

10-27-22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
☐ Adult Signature Restricted Delivery
☐ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

(b) (5)

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U.S. Department of Labor

Occupational Safety and Health Administration
Tampa Area Office
5807 Breckenridge Pkwy, Suite A
Tampa, FL 33610



May 11, 2022

(b) (7)(C)

Dear (b) (7)(C)

Please accept my heartfelt condolences on the tragic death of Marcos Santiz-Lopez.

The Occupational Safety and Health Administration (OSHA) is investigating the circumstances surrounding the death of Marcos Santiz-Lopez. The investigation may take up to six months. We will share the results of our findings, when our inspection is complete.

Enclosed is some information about OSHA fatality inspections. If you believe you, another family member, or friend may have information to assist in our investigation, please contact us so that we can discuss this with you.

If you have any questions about our inspection or any of the information enclosed, please contact me:

Danelle Jindra
USDOL/OSHA
5807 Breckenridge Pkwy, Suite A
Tampa, FL 33610

Telephone: (813) 626-1177
E-Mail: Jindra.Danelle@dol.gov

Again, please accept my heartfelt condolences and let us know if we can be of any assistance to you, your family, or friends.

Sincerely,
**DANELLE
JINDRA**

Danelle Jindra
Area Director

 Digitally signed by DANELLE JINDRA
Date: 2022.05.11 16:24:51 -04'00'

Enclosures

(Enclosure)

OSHA CITATIONS AND PENALTIES

OSHA citations state the specific safety and health standards the company is alleged to have violated. They note, both by number and name, the individual sections of OSHA standards that the employer allegedly failed to follow. (A complete listing of OSHA standards is available for review at the OSHA area office or can be accessed on the agency's Internet site at www.osha.gov, under "Standards.")

Citations specify the location in the facility or on the work site where the violation occurred and the circumstances surrounding the violation. The Area Director of the local OSHA office that conducted the inspection signs and issues the citations. Citations must be issued within six months following identification of the alleged violations. Even if the employer disagrees with the findings, employers must post a copy of each citation at or near the place where the alleged violation occurred or where workers can see the citations for three days or until the violation is abated, whichever is longer.

Citations identify required abatement dates (the dates when the hazards must be corrected) and proposed penalties for each alleged violation. For violations that are easy to fix, immediate abatement may be appropriate. If an employer must purchase equipment or significantly modify the workplace, a longer period is permitted.

OSHA proposes citations when a standard has been violated. The civil penalty amounts, if any, associated with citations are adjusted based on employer size, good faith on the part of the employer (those implementing the safety and health program), and inspection history. The maximum penalty amounts can be found at <https://www.osha.gov/penalties>.

Violations are classified as willful if OSHA has evidence that the employer intentionally disregarded the requirements of the Occupational Safety and Health Act of 1970 (OSH Act) and/or was plainly indifferent to the safety of employees. Violations are identified as serious if there is substantial probability that death or serious physical harm could result and that the employer knew, or should have known, of the hazard. A violation that has a direct relationship to job safety and health, but probably would not cause death or serious physical harm, is classified as other-than-serious. Violations may also be characterized as repeat if OSHA has cited the company for a substantially similar hazard within the past five years.

OSHA proposes penalties as a result of violations, but does not actually have the authority to impose fines. That authority is granted by law to the Occupational Safety and Health Review Commission (OSHRC), an administrative review board that is completely separate from OSHA and the United States Department of Labor. Employers can contest (challenge) alleged violations, proposed penalties, or abatement dates before this board. If the employer decides to challenge any part of OSHA's findings, they must do so within 15 working days after the employer receives the citations.

Employers may request a meeting with OSHA to discuss the issued citations and possibly to enter into an informal settlement of the case. In some cases, penalties may be reduced when a company secures prompt correction of hazards and is able to provide documentation of actions aimed at securing sustainable improvements in order to protect other employees at the work site, and when a company is willing to evaluate and potentially implement these sustainable improvements at other locations. OSHA's primary concern remains prevention of injuries, illnesses, and deaths rather than collection of funds. (All penalty monies go directly to the United States Treasury; they are not part of OSHA's budget or credited to the agency.)

If an employer acknowledges the violations, agrees to pay the proposed penalties, and certify the hazard has been corrected then the citations as issued or amended automatically become a final order of OSHRC. The employer pays the penalties and the case is closed. The employer may also contest a part of a citation and pay part of the penalties assessed, or contest the entire case. Contested cases proceed through an administrative review process at the OSHRC. The employer or OSHA may further appeal the case in the appropriate United States Court of Appeals, if dissatisfied with the OSHRC's decision.

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U.S. Department of Labor

Occupational Safety and Health Administration
Tampa Area Office
5807 Breckenridge Pkwy, Suite A
Tampa, FL 33610



May 11, 2022

(b) (7)(C)

Estimada **(b) (7)(C)**

Por favor, acepte mi más sentido pésame por la trágica muerte de Marcos Santiz-Lopez.

La Administración de Seguridad y Salud Ocupacional (OSHA, por sus siglas en inglés) está investigando las circunstancias que rodean la muerte del Sr. Santiz-Lopez. La investigación puede durar hasta seis meses. Compartiremos los resultados de nuestros hallazgos, cuando nuestra investigación esté completa.

Adjuntamos información sobre las inspecciones de muertes de OSHA. Si considera que usted, otro miembro de la familia o un amigo pueden tener información que ayude a nuestra investigación, póngase en contacto con nosotros para que podamos discutirlo con usted.

Si tiene alguna pregunta sobre nuestra inspección o la información adjuntada, por favor comuníquese conmigo:

Danelle Jindra
USDOL/OSHA
5807 Breckenridge Pkwy, Suite A
Tampa, FL 33610

Teléfono: (813) 626-1177
Correo electrónico: Jindra.Danelle@dol.gov

Una vez más, por favor acepte mis sinceras condolencias y háganos saber si le podemos ayudarle de alguna forma a usted o su familia, o amigos, por favor no dude en contactarnos.

Sinceramente,

Danelle Jindra
Director del Área

CITACIONES Y SANCIONES DE OSHA

Las citaciones de OSHA establecen las normas específicas de seguridad y salud que se alega que la compañía ha violado. Anotan, tanto por número como por nombre, las secciones individuales de las normas de OSHA que el empleador supuestamente no siguió. (La lista completa de las normas de OSHA está disponible para su revisión en la oficina de área de OSHA o se puede acceder a la misma en el sitio de Internet de la agencia en www.osha.gov bajo “Standards”).

Las citaciones especifican la ubicación en la instalación o en el lugar de trabajo donde ocurrió la infracción y las circunstancias que rodearon la infracción. El Director de Área de la oficina local de OSHA que llevó a cabo la inspección, firma y emite las citaciones. Las citaciones deben emitirse dentro de los seis meses posteriores a la identificación de las presuntas violaciones. Incluso si el empleador no está de acuerdo con los hallazgos, los empleadores deben publicar una copia de cada citación en o cerca del lugar donde ocurrió la supuesta infracción o donde los trabajadores puedan ver las citaciones durante tres días o hasta que la infracción disminuya, lo que tarde más en ocurrir.

Las citaciones identifican las fechas de mitigación requeridas (las fechas en las que se deben corregir los peligros) y las sanciones propuestas para cada presunta infracción. En el caso de infracciones que sean fáciles de corregir, puede ser apropiado eliminarlas de inmediato. Si un empleador debe comprar equipo o modificar significativamente el lugar de trabajo, se permite un período más largo.

OSHA propone citaciones cuando se haya violado una norma. De haberlos, los montos de las multas civiles relacionados con las citaciones se ajustarían según el tamaño del empleador, la buena fe por parte del empleador (los que implementan el programa de seguridad y salud) y su historial de inspecciones. Los montos máximos de las multas se pueden encontrar en <https://www.osha.gov/penalties>.

Las infracciones se clasifican como intencionales si OSHA tiene evidencia de que el empleador ignoró intencionalmente los requisitos de la Ley de Seguridad y Salud Ocupacional de 1970 (Ley OSH, por sus siglas en inglés) y/o fue claramente indiferente a la seguridad de los empleados. Las infracciones se identifican como graves si existe una probabilidad sustancial de que se produzca la muerte o un daño físico grave y si el empleador sabía, o debería haber sabido, del peligro. Una infracción que tiene una relación directa con la seguridad y la salud en el trabajo, pero que probablemente no causaría la muerte o daños físicos graves, se clasifica como no grave. Las infracciones también se pueden caracterizar como repetidas si OSHA ha citado a la compañía por un riesgo sustancialmente similar en los últimos cinco años.

OSHA propone sanciones como resultado de violaciones, pero en realidad no tiene la autoridad para imponer multas. Esa autoridad se otorga por ley a la Comisión de Revisión de Salud y Seguridad Ocupacional (OSHRC), una junta de revisión administrativa que está completamente separada de OSHA y del Departamento de Trabajo de los Estados Unidos. Los empleadores pueden disputar (impugnar) presuntas infracciones, sanciones propuestas o

fechas de reducción ante esta junta. Si el empleador decide impugnar cualquier parte de los hallazgos de OSHA, debe hacerlo dentro de los 15 días hábiles posteriores a la recepción de las citaciones por parte del empleador.

Los empleadores pueden solicitar una reunión con OSHA para discutir las citaciones emitidas y posiblemente llegar a un acuerdo informal sobre el caso. En algunos casos, las sanciones pueden reducirse cuando una empresa asegure la corrección inmediata de los peligros y pueda proporcionar documentación de las acciones destinadas a asegurar mejoras sostenibles a fin de proteger a otros empleados en el lugar de trabajo, y cuando una empresa está dispuesta a evaluar y potencialmente implementar estas mejoras sostenibles en otros lugares. La principal preocupación de OSHA sigue siendo la prevención de lesiones, enfermedades y muertes en lugar de la recaudación de fondos. (Todo el dinero de las multas va directamente al Tesoro de los Estados Unidos; no forman parte del presupuesto de OSHA ni se acreditan a la agencia).

Si un empleador reconoce las violaciones, acepta pagar las multas propuestas y certifica que el peligro ha sido corregido, las citaciones emitidas o enmendadas se convertirán automáticamente en una orden final de OSHRC. El empleador paga las multas y el caso se cierra. El empleador también puede impugnar una parte de una citación y pagar parte de las sanciones impuestas, o impugnar todo el caso. Los casos impugnados pasan por un proceso de revisión administrativa en la OSHRC. El empleador u OSHA pueden apelar el caso en el Tribunal de Apelaciones de los Estados Unidos correspondiente, si no están satisfechos con la decisión de OSHRC.

Cuando un empleador viola intencionalmente una norma de OSHA y la supuesta violación fue la causa directa o un factor que contribuyó a la muerte de un empleado, OSHA puede remitir el caso al Departamento de Justicia de los Estados Unidos para buscar el enjuiciamiento penal del empleador. Estos son casos difíciles de probar; pocos casos llegan a los tribunales y las condenas son raras. Sin embargo, si un empleador es condenado, podría enfrentar una multa de hasta \$250,000 individualmente y/o una pena de cárcel de hasta seis meses. Una corporación podría recibir una multa de hasta \$500,000.

INSPECCIONES DE MUERTES POR PARTE DE OSHA

El Congreso promulgó la Ley de Salud y Seguridad Ocupacional de 1970 (Ley OSH) para garantizar condiciones de trabajo seguras y saludables de trabajadores y trabajadoras. La Administración de Salud y Seguridad Ocupacional (OSHA) fue establecida bajo la Ley OSH para proveer el cumplimiento de las normas desarrolladas bajo la Ley. Hay programas de OSHA tanto federales como estatales.

OSHA inspecciona los lugares de trabajo donde han ocurrido muertes para determinar si ocurrió una violación de las normas de seguridad y salud de OSHA. Estas inspecciones son a menudo de naturaleza completa, pero a veces pueden limitarse al área en la que ocurrió la muerte. Si OSHA encuentra que el empleador violó las normas de seguridad y salud, la agencia puede emitir citaciones y buscar sanciones civiles contra el empleador, y también puede remitir el caso al Departamento de Justicia de los Estados Unidos para un posible proceso penal.

OSHA no emite citaciones únicamente porque hubo una muerte en el lugar de trabajo. Sin embargo, si durante cualquier inspección, OSHA encuentra que el empleador violó las normas de seguridad y salud, la agencia puede emitir citaciones y buscar sanciones civiles o penales contra el empleador.

Si lo solicita por escrito, OSHA le proporcionará las partes del archivo de inspección que pueden publicarse en virtud de la Ley de Libertad de Información (FOIA, por sus siglas en inglés). En un esfuerzo por mantener informados a los familiares de los desarrollos durante una inspección, OSHA les envía copias de citaciones (el aviso formal de supuestos peligros en el lugar de trabajo), cartas de apelación (el aviso del empleador de desacuerdo con las citaciones emitidas) y acuerdos informales (un acuerdo vinculante entre OSHA y el empleador para resolver el caso) tan pronto como se emitan los documentos. Además, en OSHA están comprometidos con el intercambio de información con los familiares más cercanos de la siguiente manera:

- En cualquier momento durante la inspección o el litigio resultante, los familiares más cercanos pueden comunicarse con la oficina local de OSHA para preguntar sobre el estado del caso o hacer preguntas.
- Si el pariente más cercano tiene información o evidencia que pueda ayudar en la inspección, se les anima a tomar un papel proactivo y compartir esta información escribiendo, llamando o enviando un correo electrónico a la oficina local de OSHA.
- Se anima a los familiares más cercanos a hacer un seguimiento y preguntar sobre cualquier información que hayan enviado a OSHA o sobre la información recibida de OSHA. En tales casos, pueden escribir o llamar a la oficina local de OSHA.

- Tras la emisión de la orden final, los familiares más cercanos tendrán la oportunidad de reunirse con el Director de Área para responder preguntas y explicar la decisión del acuerdo.

OSHA notificará a los familiares más cercanos cuando se cierre el caso. En ese momento, las partes del archivo que se puedan divulgar conforme a la FOIA se pondrán a disposición de los miembros de la familia, sin cargo, previa solicitud por escrito.

*Asst. Secretary
Lester*

(b) (7)(C)

Dear (b) (7)(C)

Please accept my heartfelt condolences on the tragic death of your husband, Marcos Santiz-Lopez.

Please be assured OSHA is investigating the circumstances surrounding Mr. Santiz-Lopez's death. We realize that the results of this investigation are very important to you, so we will inform you of our findings as soon as the investigation is completed.

OSHA is committed to preventing injuries and illnesses on the job. Given our mission of assuring employers provide safe workplaces, we understand that each worker's death is a personal loss and tragedy.

Since your husband's death occurred in FL, which is part of OSHA's Region 04, our investigators from the region will be handling the investigation. If you have any questions about the investigation (ref: OSHA Inspection No. 1594857), or any information you think might be helpful, please do not hesitate to contact Danelle Jindra, Area Director, at the following address:

Danelle Jindra
5807 Breckenridge Pkwy, Suite A
Tampa, FL 33610
Phone: (813) 626-1177
Fax: (813) 868-5222

Again, please accept my sincere sympathy and condolences for your loss. If OSHA can be of any assistance to you or your family, please do not hesitate to contact us.

Sincerely,

Douglas L. Parker
Assistant Secretary of Labor

U.S. Department of Labor

Occupational Safety and Health Administration
Tampa Area Office
5807 Breckenridge Pkwy, Suite A
Tampa, FL 33610



May 11, 2022

Jeffrey Colburn

(b) (7)(C)

Dear Jeffrey Colburn:

Please accept my heartfelt condolences on the tragic death of Brandon Colburn.

The Occupational Safety and Health Administration (OSHA) is investigating the circumstances surrounding the death of Brandon Colburn. The investigation may take up to six months. We will share the results of our findings, when our inspection is complete.

Enclosed is some information about OSHA fatality inspections. If you believe you, another family member, or friend may have information to assist in our investigation, please contact us so that we can discuss this with you.

If you have any questions about our inspection or any of the information enclosed, please contact me:

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Telephone: (813) 626-1177
E-Mail: Jindra.Danelle@dol.gov

Again, please accept my heartfelt condolences and let us know if we can be of any assistance to you, your family, or friends.

Sincerely,

**DANELLE
JINDRA**

Danelle Jindra
Area Director

Digitally signed by
DANELLE JINDRA
Date: 2022.05.11 16:23:03
-04'00'

Enclosures

(Enclosure)

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Congress enacted the Occupational Safety and Health Act of 1970 (OSH Act) to assure safe and healthful working conditions for working men and women. The Occupational Safety and Health Administration (OSHA) was established under the OSH Act to provide for the enforcement of standards developed under the Act. There are both Federal and State OSHA programs.

OSHA inspects the worksites where fatalities have occurred to determine whether a violation of OSHA safety and health standards occurred. These inspections are often comprehensive in nature, but at times may be limited to the area in which the fatality occurred. If OSHA finds that the employer violated safety and health standards, the agency may issue citations and seek civil penalties against the employer, and may also refer the case to the United States Department of Justice for possible criminal prosecution.

OSHA does not issue citations solely because there was a workplace fatality. However, if during any inspection, OSHA finds that the employer violated safety and health standards, the agency may issue citations and seek civil or criminal penalties against the employer.

Upon written request, OSHA will provide you with the portions of the inspection file that may be released under the Freedom of Information Act (FOIA). In an effort to keep the next of kin apprised of developments during an inspection, OSHA sends them copies of citations (the formal notice of alleged hazards in the workplace), appeal letters (the employer's notice of disagreement with the issued citations), and informal settlements (a binding agreement between OSHA and the employer to settle the case) as soon as the documents are issued. Furthermore, OSHA is committed to the exchange of information with the next of kin as follows:

- Any time during the inspection or the resulting litigation, the next of kin may contact the local OSHA office to inquire about the status of the case or to ask questions.
- If the next of kin has information or evidence that can assist in the inspection, they are encouraged to take a proactive role and share this information by writing, calling, or e-mailing the local OSHA office.
- The next of kin is encouraged to follow up and inquire about any information they have sent to OSHA or information received from OSHA. In such cases, they are free to write or call the local OSHA office.
- Upon issuance of the final order, the next of kin will be afforded the opportunity to meet with Area Director to answer questions and explain the settlement decision.
- OSHA will notify the next of kin when the case is closed. At that time, the portions of the file that can be released under FOIA will be made available to family members, at no charge, upon written request.

Mr. Jeffrey Colburn

(b) (7)(C)

Dear Mr. Colburn:

Please accept my heartfelt condolences on the tragic death of your son, Brandon Colburn.

Please be assured OSHA is investigating the circumstances surrounding Mr. Colburn's death. We realize that the results of this investigation are very important to you, so we will inform you of our findings as soon as the investigation is completed.

OSHA is committed to preventing injuries and illnesses on the job. Given our mission of assuring employers provide safe workplaces, we understand that each worker's death is a personal loss and tragedy.

Since your Son's death occurred in FL, which is part of OSHA's Region 04, our investigators from the region will be handling the investigation. If you have any questions about the investigation (ref: OSHA Inspection No. 1594857), or any information you think might be helpful, please do not hesitate to contact Danelle Jindra, Area Director, at the following address:

Danelle Jindra
5807 Breckenridge Pkwy, Suite A
Tampa, FL 33610
Phone: (813) 626-1177
Fax: (813) 868-5222

Again, please accept my sincere sympathy and condolences for your loss. If OSHA can be of any assistance to you or your family, please do not hesitate to contact us.

Sincerely,

Douglas L. Parker
Assistant Secretary of Labor