

1550 and 1650 Backhoes



TECHNICAL MANUAL 1550 and 1650 Backhoes

TM1245 (01NOV81) English

TM1245 (01NOV81)

LITHO IN U.S.A.
ENGLISH



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INTRODUCTION

This technical manual is part of a twin concept of service:

FOS Manuals—for reference

Technical Manuals—for actual service

The two kinds of manuals work as a team to give you both the general background and technical details of shop service.

Fundamentals of Service (FOS) Manuals cover basic theory of operation, *fundamentals* of trouble shooting, *general* maintenance, and *basic* types of failures and their causes. FOS Manuals are for training new people and for reference by experienced technicians.

Technical Manuals are concise service guides for a specific machine. Technical Manuals are on-the-job guides containing only the vital information needed by an experienced technician.

Use FOS Manuals for Reference

Some features of this technical manual:


Table of contents at front of manual

Exploded views showing parts relationship

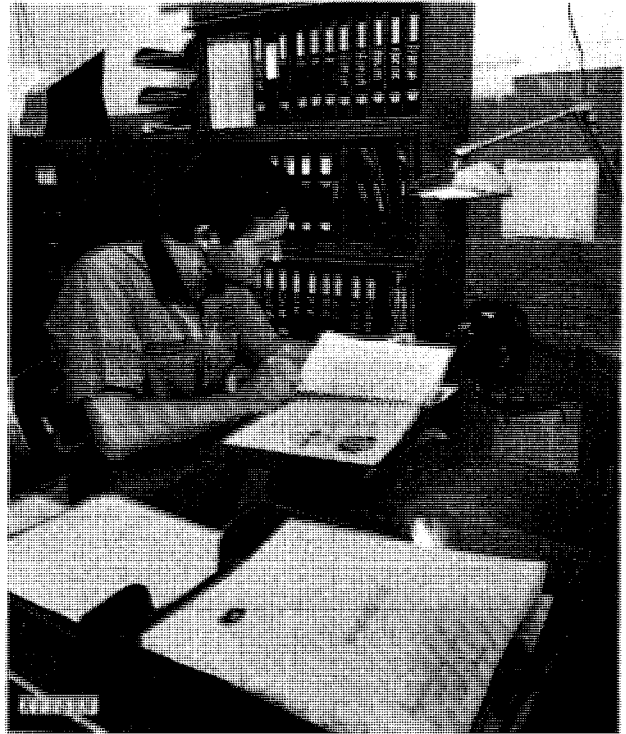
Photos showing service techniques

This technical manual was planned and written for you—an experienced technician. Keep it in a permanent binder in the shop where it is handy. Refer to it whenever in doubt about correct service procedures or specifications.

Using the technical manual as a guide will reduce error and costly delay. It will also assure you the best in finished service work.

 This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

Use Technical Manuals for Actual Service



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**Thanks very much for your reading,
Want to get more information,
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manual**

JustClickHere 

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click on it.**

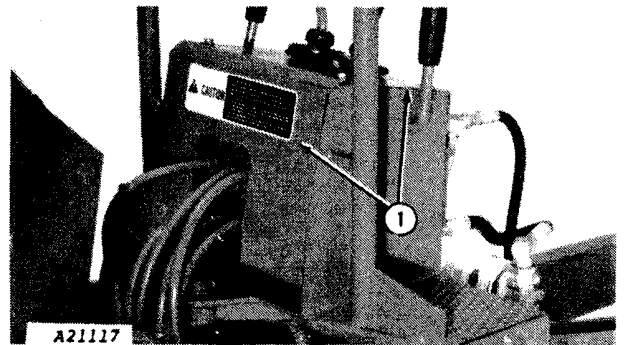
**Have any questions please write to me:
admin@servicemanualperfect.com**

REMOVE VALVE

Relieve hydraulic pressure before removing valve.

⚠ CAUTION: Escaping hydraulic oil under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and that lines, pipes and hoses are not damaged. Hydraulic oil escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than your hands, to search for suspected leaks.

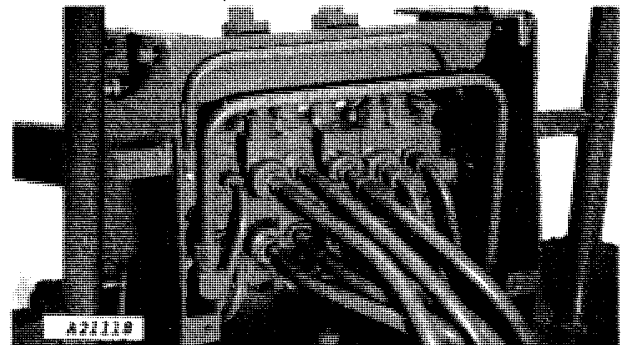
If injured by escaping hydraulic oil, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.



1. Remove covers.

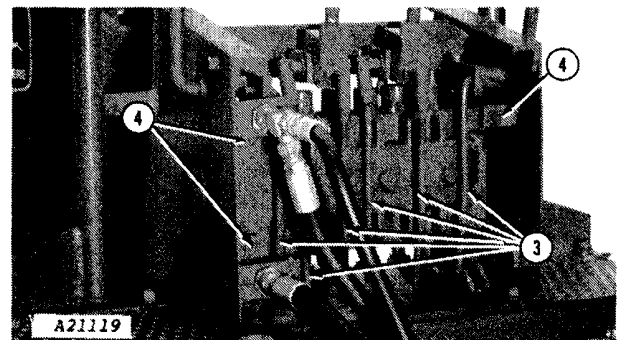
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2. Identify and remove hoses and tubes.



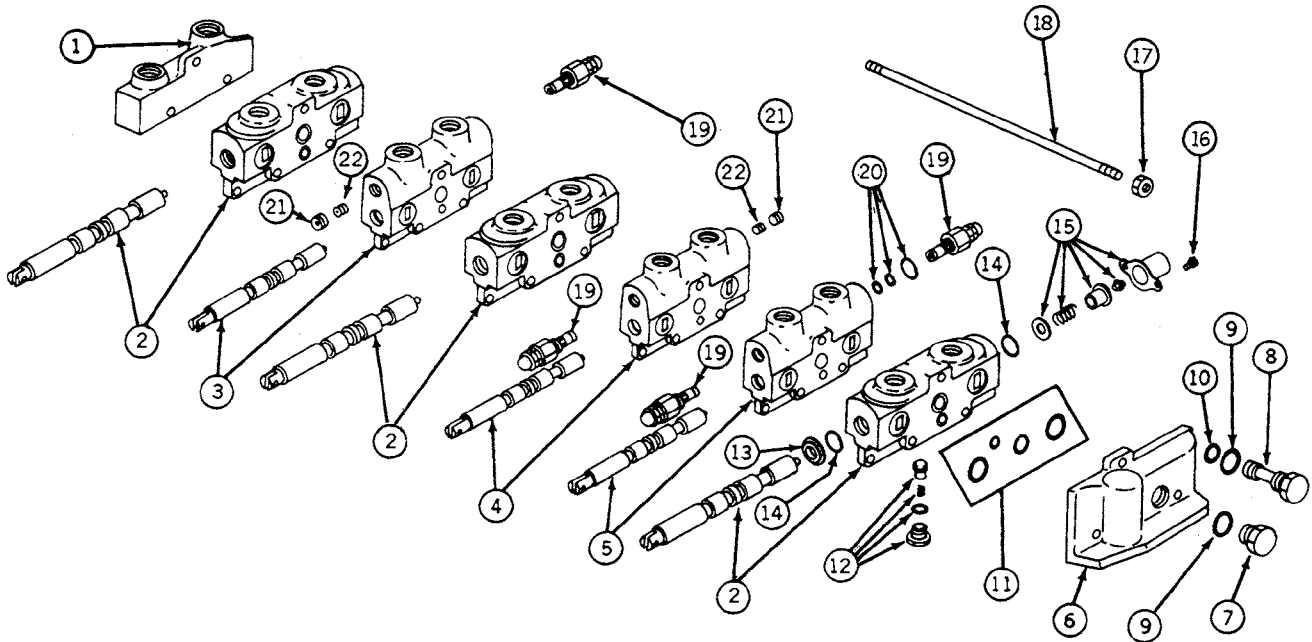
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3. Disconnect linkage from spools.
4. Remove mounting bolts.



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REPAIR VALVE



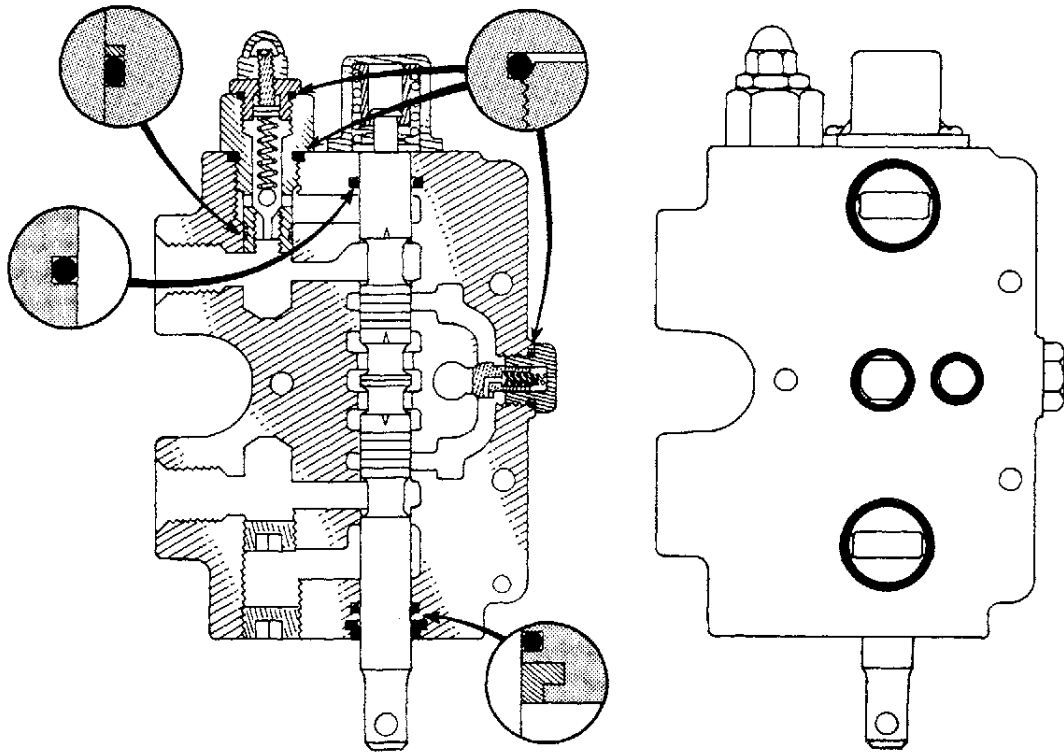
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- | | | | |
|---|---------------------------------|-----------------------------------|-------------------------------------|
| 1—Inlet/Outlet | 6—End Cap | 12—Load Check (6 used) | 17—Nut (6 used) |
| 2—Stabilizer and Bucket
Section (3 used) | 7—Open Center Plug | 13—Spool Wiper (6 used) | 18—Tie Rod (3 used) |
| 3—Dipper Section | 8—Closed Center Plug | 14—O-Ring (12 used) | 19—Circuit Relief Valve
(4 used) |
| 4—Boom Section | 9—O-Ring | 15—Centering Assembly
(6 used) | 20—Relief Seal Kit |
| 5—Swing Section | 10—O-Ring | 16—Screw (12 used) | 21—Pipe Plug (4 used) |
| | 11—Section Seal Kit
(7 used) | | 22—Pipe Plug (4 used) |

Disassemble section(s) that require repair. Discard all seals and replace with new. Clean seal grooves thoroughly.

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Component Repair

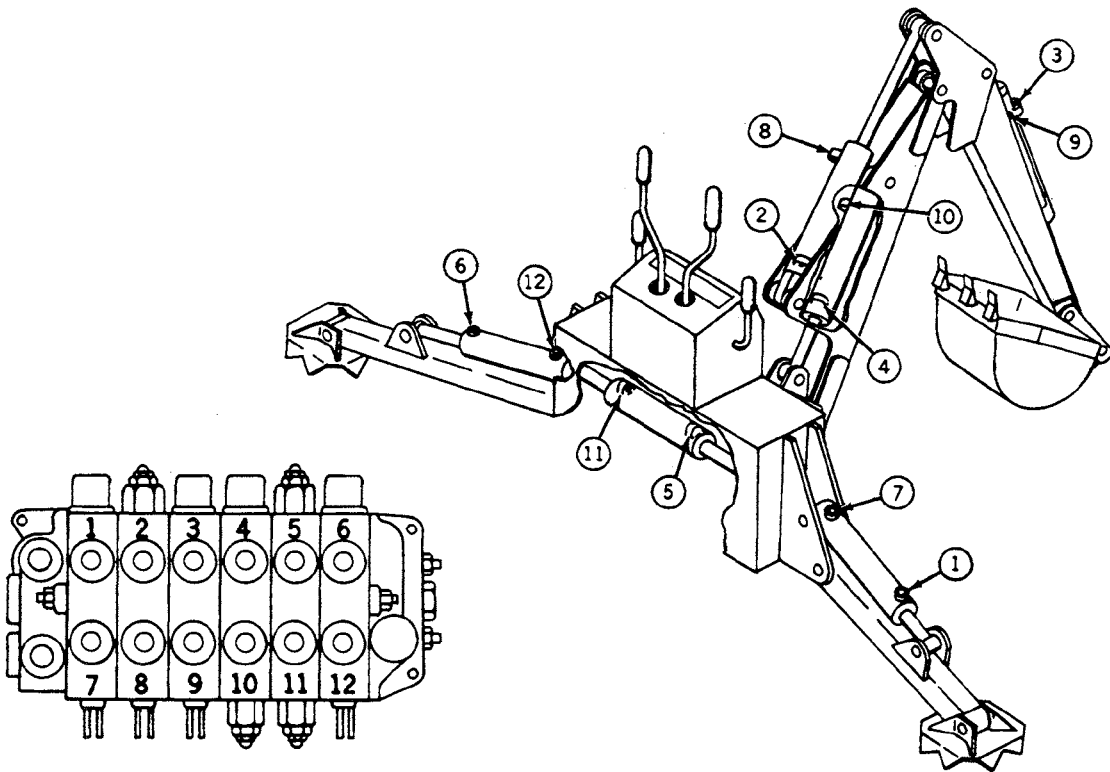


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Coat all parts in seal kit with hydraulic oil for assembly.
Torque tie rod nuts to (22 N.m) 16 lb-ft.
Install valve.

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Component Repair



A21090

1—Right Stabilizer Rod Port
2—Dipper Piston Port
3—Bucket Piston Port

4—Boom Rod Port
5—Right Swing Port
6—Left Stabilizer Rod Port

7—Right Stabilizer Piston Port
8—Dipper Rod Port
9—Bucket Rod Port

10—Boom Piston Port
11—Left Swing Port
12—Left Stabilizer Piston Port

Connect hoses and linkages.

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REPAIR CYLINDERS

Relieve hydraulic pressure before removing cylinders.

⚠ CAUTION: Escaping hydraulic oil under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and that lines, pipes and hoses are not damaged. Hydraulic oil escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than your hands, to search for suspected leaks.

If injured by escaping hydraulic oil, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

Remove cylinders.

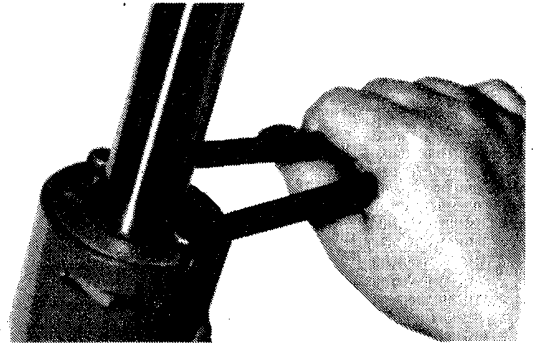
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IMPORTANT: Do not place cylinder barrel into vise. Place a holding pin into vise and position cylinder onto pin.

Rotate gland with a face spanner wrench until retainer can be pried outward from slot. Continue rotating gland until retainer is removed.

Remove rod assembly.

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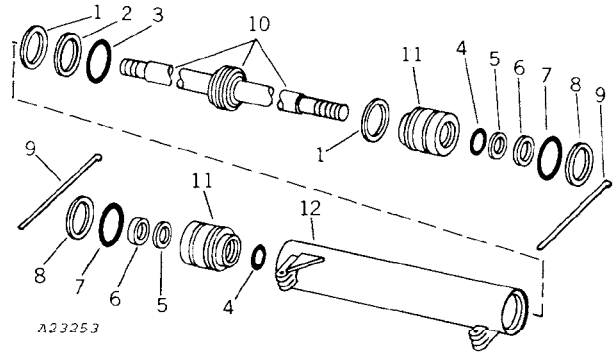


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Component Repair

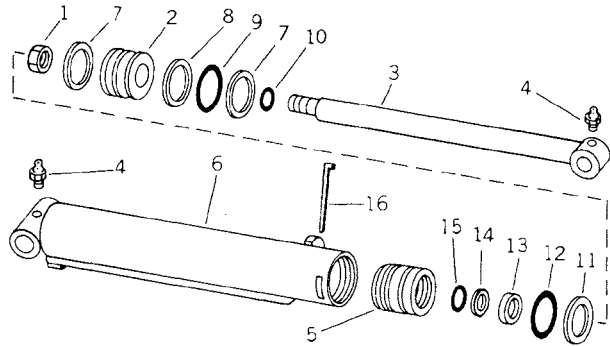
Disassemble cylinder.
 Inspect for damaged parts.
 Check for play between retainer and retaining slots in the tube and gland.
 Discard all seals, and replace with new seal kit.
 Install cylinder rod so longer threaded end is on the left hand side.

- | | |
|---------------------------|---------------------------|
| 1—Back-Up Washer (2 used) | 7—O-Ring (2 used) |
| 2—Piston Ring | 8—Back-Up Washer (2 used) |
| 3—O-Ring | 9—Retainer (2 used) |
| 4—O-Ring | 10—Rod |
| 5—Back-Up Washer (2 used) | 11—Gland (2 used) |
| 6—Rod Wiper (2 used) | 12—Tube |



Swing Cylinder

- | | |
|---------------------------|-------------------|
| 1—Lock Nut | 9—O-Ring |
| 2—Piston | 10—O-Ring |
| 3—Rod | 11—Back-Up Washer |
| 4—Grease Fitting (2 used) | 12—O-Ring |
| 5—Gland | 13—Rod Wiper |
| 6—Tube | 14—Back-Up Washer |
| 7—Back-Up Washer (2 used) | 15—O-Ring |
| 8—Back-Up Washer | 16—Retainer |

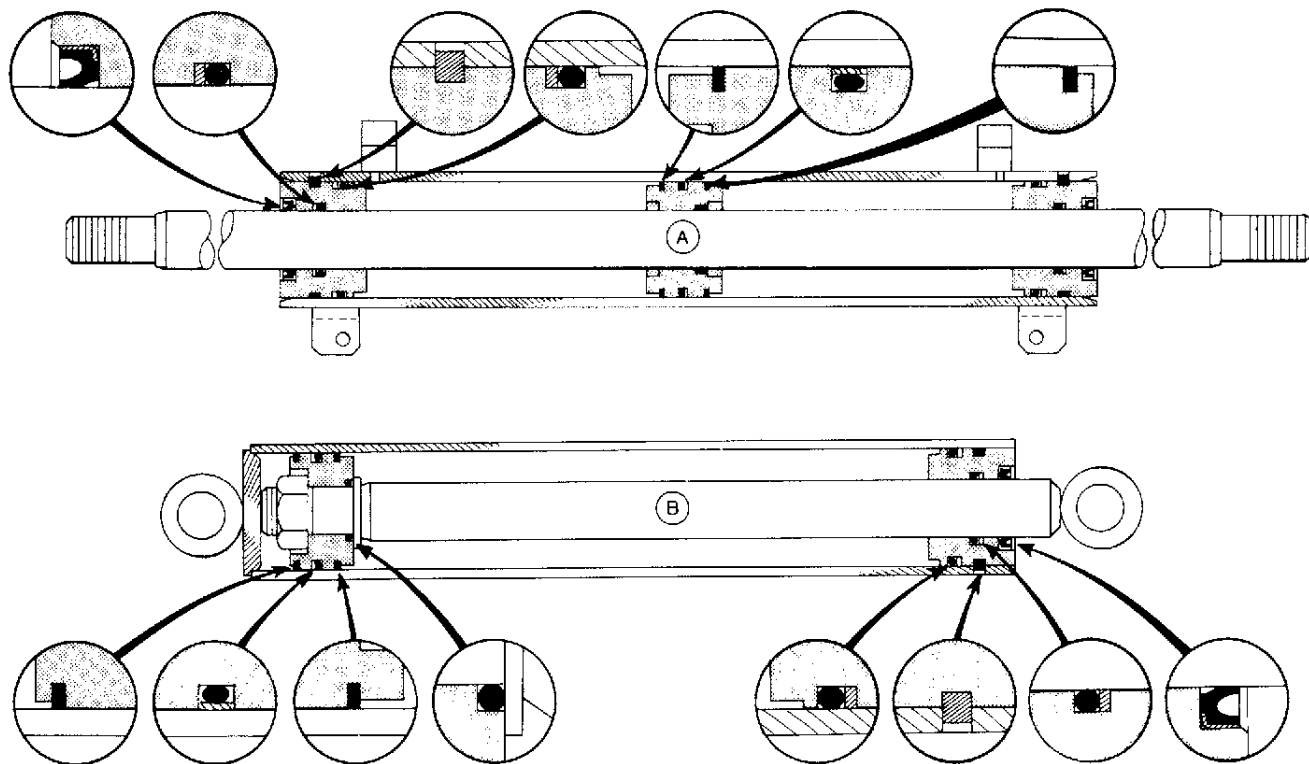


Stabilizer, Boom, Dipper or Bucket Cylinder

NOTE: To eliminate bucket rod failure and end cap breakage, relief valve kit GT52906 and return tube fuse assembly GT53164 are available for 1550 Backhoes below serial number 010562GT and 1650 Backhoes below serial number 005966GT.

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Component Repair



A21125

A—Swing Cylinder
(1550 Shown)

B—Stabilizer, Boom, Dipper
or Bucket Cylinder

Coat all parts in seal kit with hydraulic oil for assembly.

Install cylinder.

NOTE: Install swing cylinder on 1650 Backhoes with the ports down.

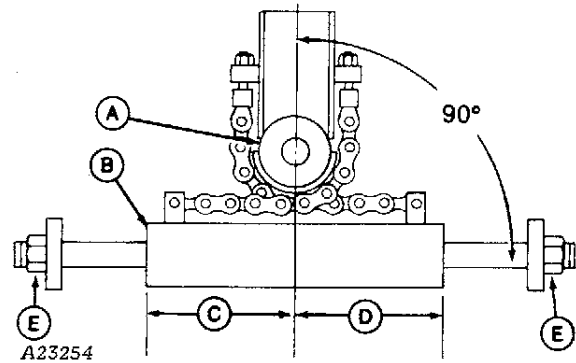
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ADJUST SWING CYLINDER CHAIN

Locate swing post (A) in straight ahead position.

Center cylinder (B) on swing post so dimensions (C) and (D) are the same. Loosen and tighten adjustment nuts (E) as needed.

As a check, swing backhoe 90 degrees to the left and right. See if swing cylinder interferes with main frame. Adjust nuts if necessary.



- A—Swing Post
- B—Cylinder
- C—Dimension "C"
- D—Dimension "D"
- E—Adjustment Nuts

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REPAIR HYDRAULIC RETURN LINE FUSE

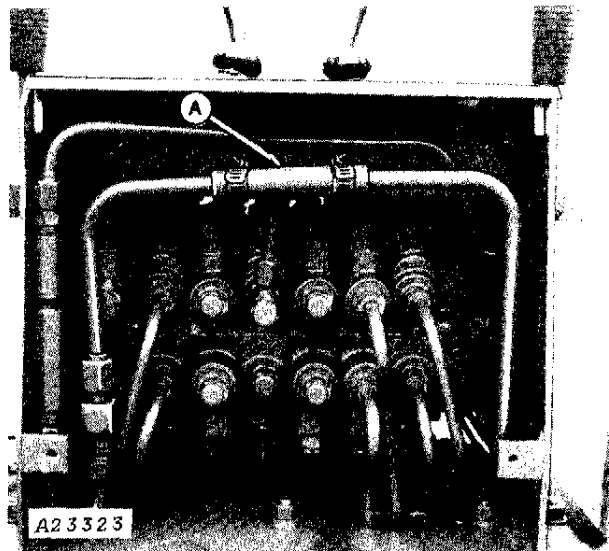
Shut off tractor engine and remove front cover from backhoe.

Install fuse (A) on return line and tighten hose clamp. Torque hose clamp to 55 in-lbs (6.2 N-m).

Replace front cover.

NOTE: Before resuming operation, check return line to tractor for restriction.

Be sure to check tractor hydraulic oil reservoir and replace oil, if necessary.



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