5635/6635

SX/DX/Turbo

Skid Loaders

Form No.
907285



SHOP MANUAL

GEHL®

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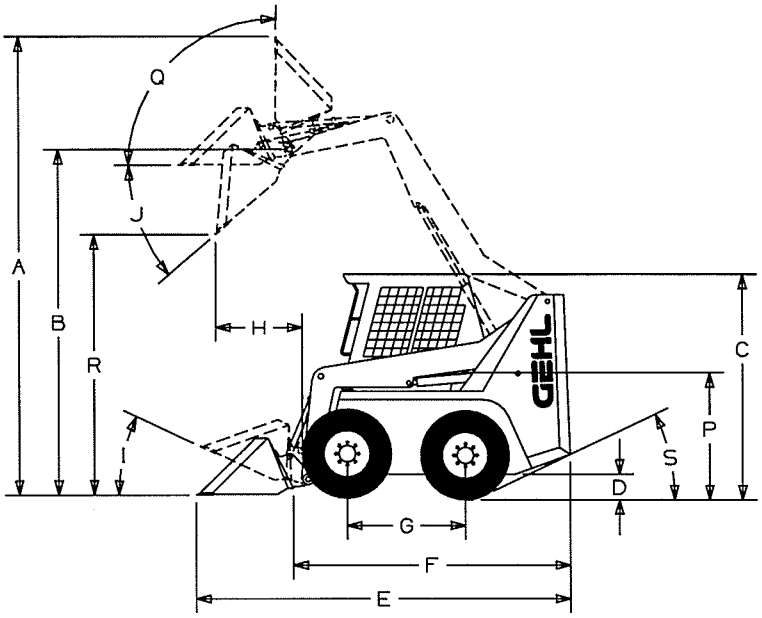
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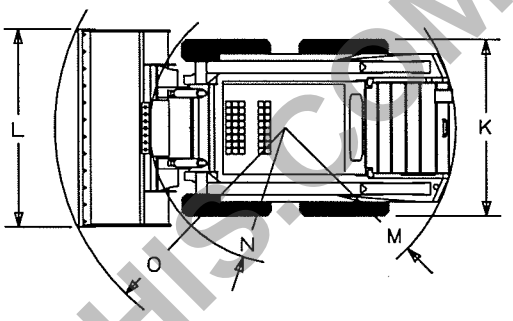
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General Specifications

		SL5635SX/DX inch	SL5635SX/DX (mm)	SL6635SXT/DXT inch	SL6635SXT/DXT (mm)
A	Overall Operation Height -Fully Raised	163.00	(4140)	163.00	(4140)
B	Height to Hinge Pin- Fully Raised	122.75	(3118)	122.75	(3118)
C	Overall Height- Top of ROPS	79.25	(2013)	79.25	(2013)
D	Ground Clearance-to Chassis (Between Wheels)	8.75	(222)	8.75	(222)
	Ground Clearance-to-Chassis (Below Chaincase)	7.50	(191)	7.50	(191)
E	Overall Length (w/68" Dirt/Construction Bucket Down)	133.00	(3378)	139.00	(3531)
F	Overall Length (less Bucket)	100.75	(2559)	106.75	(2712)
G	Wheel Base	42.00	(1069)	48.00	(1219)
H	Dump Reach-w/68" Dirt/Const. Bucket (full height)	31.25	(794)	31.25	(794)
	Dump Reach-w/68" Dirt/Const. Bucket (119" height)	32.25	(819)	32.25	(819)
	Dump Reach-w/68" Dirt/Const. Bucket (116" height)	33.00	(838)	33.00	(838)
	Dump Reach-w/72" Dirt/Const. Bucket (full height)	33.50	(851)	33.50	(851)
	Dump Reach-w/72" Dirt/ Const. Bucket (119" height)	34.30	(871)	34.30	(871)
	Dump Reach-w72" Dirt/Const. Bucket (116" height)	35.00	(889)	35.00	(889)
	Dump Reach-w/72" Utility Bucket (full height)	35.50	(902)	35.50	(902)
I	Rollback at Ground	30°		30°	
J	Dump Angle	40°		40°	
K	Overall Width-less Bucket (w/8.25 x 15 Tires)	61.00	(1549)	61.00	(1549)
	Overall Width-less Bucket (w/12.00 x 16.5 Tires)	66.25	(1683)	66.25	(1683)
	Overall Width-less Bucket (w/33 x 15.5 x 16.5 Tires)	72.50	(1842)	72.50	(1842)
L	Bucket Width (Dirt-Const. Bucket)-Overall	69.88	(1775)	69.88	(1775)
M	Clearance Circle - Rear	61.00	(1549)	64.00	(1626)
N	Clearance Circle - Front (less Bucket)	48.00	(1219)	51.00	(1295)
O	Clearance Circle - Front (w/68" Dirt/Const. Bucket)	82.00	(2083)	85.00	(2159)
	Clearance Circle - Front (w/72" Dirt/Const. Bucket)	82.80	(2108)	82.80	(2108)
P	Seat to Ground Height	37.75	(959)	37.75	(959)
Q	Rollback at Full Height	97°		97°	
R	Dump Height	93.75	(2381)	93.75	(2381)
S	Departure Angle	25°		25°	
	Reach Maximum (Bucket Tipped)	25.00	(635)	25.00	(635)
	Reach Maximum (Bucket Flat)	58.25	(1480)	58.25	(1480)
	Dump Height at Maximum Reach (Floor to Cut Edge)	30.00	(762)	30.00	(762)
	Height to Top of Riser	72.50	(1842)	72.50	(1842)
	Maximum Back Grading Angle	95°		95°	

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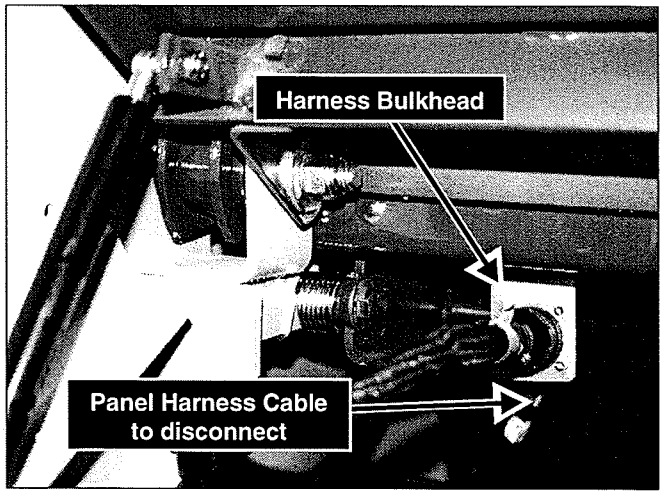


Fig. 4-6 The Harness Bulkhead is where the Harness Assembly meets the Instrument Panel Harness. Remove Harness at front of Bulkhead.

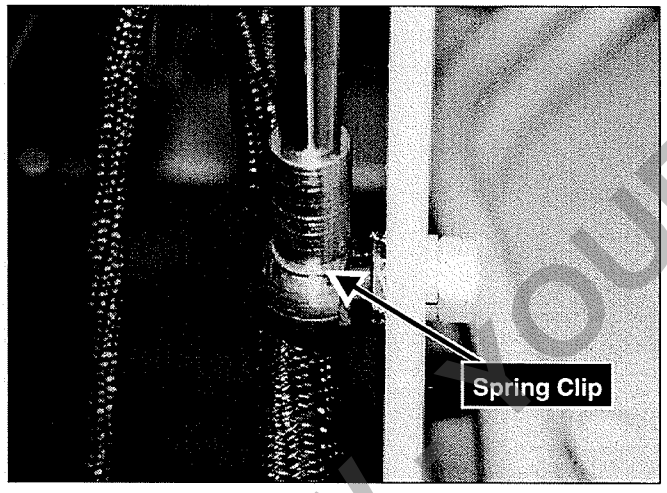


Fig. 4-7 Spring Clip location on the Gas Springs. Other end of Gas Spring is identical.

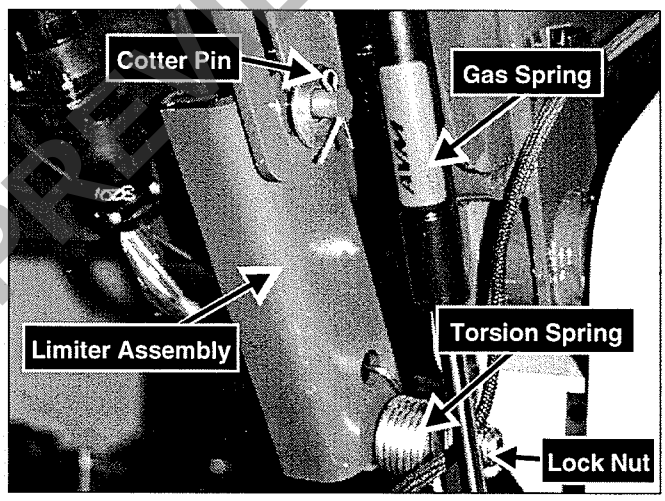


Fig. 4-8 ROPS Lock Mechanism engaged.

ROPS Removal and Installation

WARNING

BEFORE beginning this service procedure, perform the following SAFETY procedures.

❑ Shutdown the Engine.

For detailed instructions on this procedure, refer to the Safety Chapter of this manual.

Removal Procedure

1. Remove the Engine Access Cover as per "Engine Access Cover Removal" procedure.
2. Disconnect the Negative (-) Battery Cable from the Battery.
3. Remove the Lock Nut, Cap Screw, and Washers on each side of the ROPS at the front. **Fig. 4-5**
4. Disconnect the Engine Wiring Harness Connector at the Harness bracket attached to the rear of the ROPS (**Fig. 4-8**), then roll the ROPS back until it seats securely and locks. **Fig. 4-6**
5. With the ROPS rolled and locked back, attach a hoist so that it is supporting the weight of the ROPS.

NOTE: The hoist must be situated precisely above the ROPS or else performing the following steps may cause the ROPS to swing as the bolts are removed. This could cause serious bodily injury and/or damage the Loader.

6. Remove two (2) two Spring Clips which secure the Gas Springs to the ROPS Ball Stud, then pull the Springs off the Ball Studs. **Fig.4-7**
7. Disassemble the ROPS Lock Mechanism by removing the Lock Nut, Torsion Spring, Cotter Pin and two (2) Washers. Remove the Limiter assembly from the ROPS. **Fig. 4-8**
8. Carefully remove two (2) Lock Nuts, Cap Screws, Washers, and Pivot Bushings which attach the rear of the ROPS to the Chassis. **Fig. 4-9**
9. Lift the ROPS off the Loader.

Installation Procedure - Follow all WARNINGS first, then reverse the Removal Steps

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Seat Removal and Installation

WARNING

BEFORE beginning this service procedure, perform the following SAFETY procedures:

- ❑ **Raise Lift Arm, engage Mechanical Lock.**
- ❑ **Shutdown the Engine.**
- ❑ **Roll ROPS back until lock engages.**

For detailed instructions on the above, refer to the Safety Chapter in this manual.

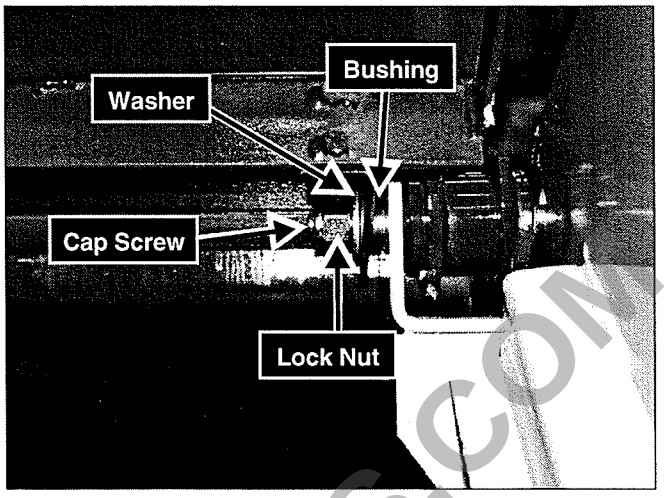


Fig. 4-9 Hardware securing the ROPS to the Chassis.

Removal Procedure

1. Remove four (4) Nuts from extending studs attaching the Seat to the Seat Pan underneath the ROPS. **Fig. 4-10**
2. Release the Lock Mechanism and lower the ROPS. Disconnect the Seat Switch from the Wiring Harness. **Fig. 4-11**
3. Lift the Seat from the Seat Pan.

Installation Procedure - Follow all WARNINGS first, then reverse the Removal Steps

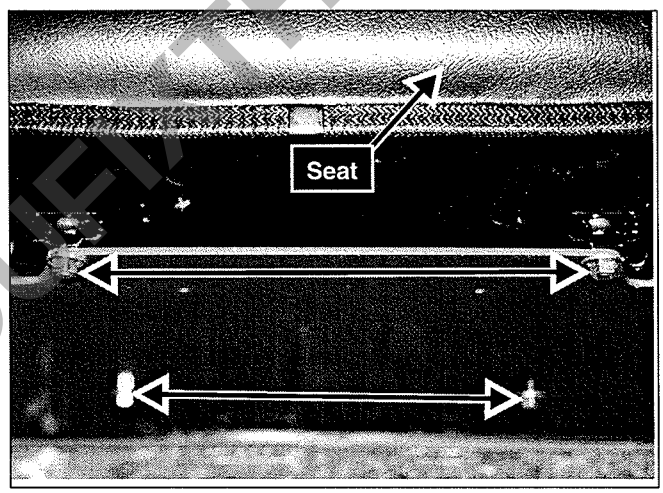


Fig. 4-10 Four (4) Nuts attached to extending studs and securing the Seat to the Seat Pan.

Seat Slide Replacement

Replacement Procedure

1. Remove the Seat per the procedure in this chapter.
2. Remove four (4) Screws attaching Seat Slide to Seat. **Fig. 4-11**
3. Replace with new Slides using existing screws.

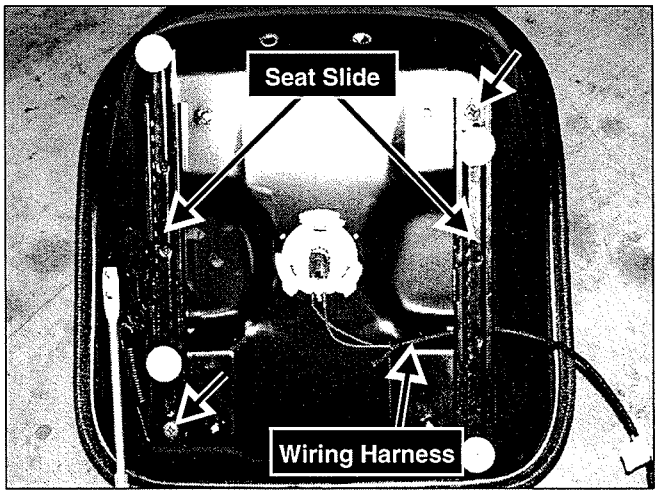


Fig. 4-11 Two of four (2 of 4) Seat Slide Screws. The other two are hidden from view by the Slide mechanism.

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Throttle Tension Adjustment

Hand Throttle tension should be tight enough to maintain a desired Engine RPM, but loose enough to allow easy operation. The Hand Throttle tension can be INCREASED or DECREASED.

Adjustment Procedure

⚠ WARNING

BEFORE beginning this service procedure, perform the following SAFETY procedures:

- ❑ **Raise Lift Arm, engage Mechanical Lock.**
- ❑ **Shutdown the Engine.**
- ❑ **Roll the ROPS back until lock engages.**

For detailed instructions on the above, refer to the Safety Chapter of this manual.

NOTE: The Belleville-type Washers (**Fig. 6-89**) must be installed properly to provide tension against the Hand Throttle.

1. To **INCREASE TENSION** tighten the Cap Screw and Lock Nut which attaches the Hand Throttle to the Throttle Bracket. **Fig. 6-90**
2. To **DECREASE TENSION** loosen the Cap Screw and Lock Nut which attaches the Hand Throttle to the Throttle Bracket. **Fig. 6-90**

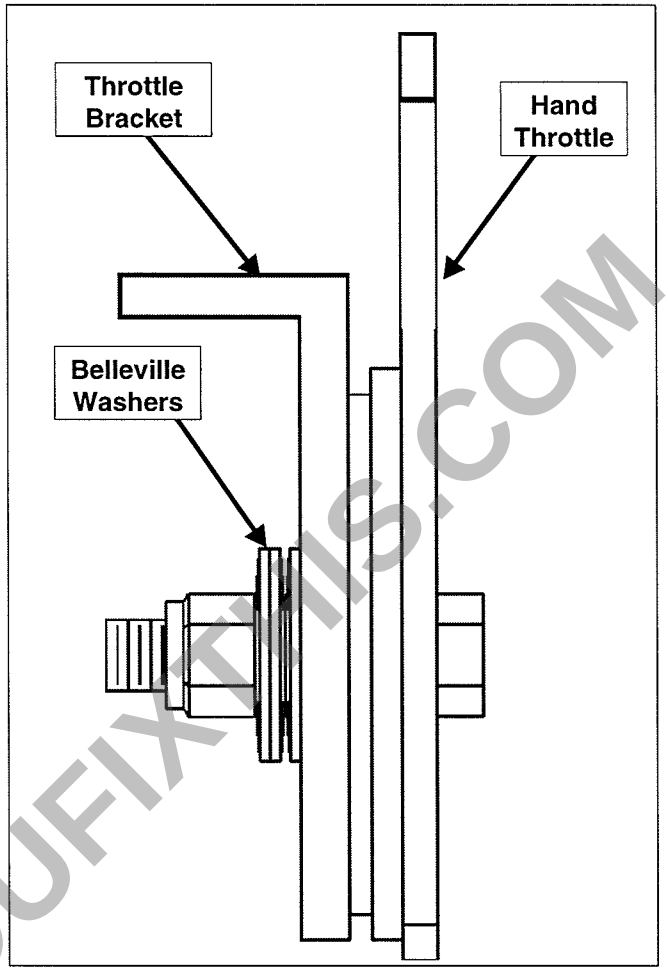


Fig. 6-89 Diagram of the Hand Throttle assembly.

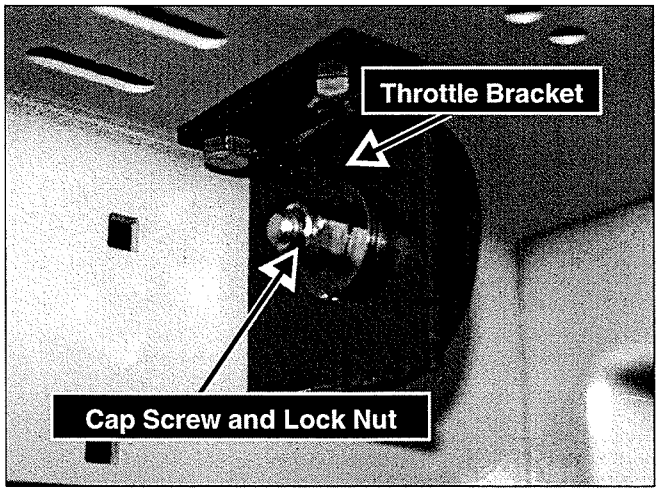


Fig. 6-90 Throttle Bracket underneath the Crossmember.

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Lift Cylinder Removal and Installation

Removal Procedure

1. Remove any Bucket or Attachment connected to the Attachment assembly.

⚠ WARNING

BEFORE continuing this service procedure, perform the following SAFETY procedure:

- ❑ **Shutdown the Engine.**
- ❑ **Relieve Hydraulic System pressure.**

For detailed instructions on the above, refer to the Safety Chapter in this manual.

2. Attach a suitable hoist to the Attachment assembly (either Universal or Gehl Quick-Tach) and raise Lift Arm to a position where access to Tubes and Hoses on the Lift Cylinder is maximized.
3. Remove the Clamp that secures the Hydraulic Tubes to the Lift Cylinder. **Fig. 8-38**

NOTE: To aid in correct reassembly of Hydraulic Hoses/Tubes, mark the Hoses/Tubes to be removed BEFORE disassembly in Step 3.

4. Disconnect two (2) Hydraulic Hoses from the two (2) Hydraulic Tubes on the Cylinder. BE SURE to install plugs/caps in the Hoses/Tubes to prevent fluid loss and contamination of the Hydraulic System. **Fig. 8-39**
5. Remove the Cap Screw and Lock Nut securing the front Lift Cylinder Pivot Pin. Then drive the Pivot Pin out to release the Rod End of the Lift Cylinder. **Fig. 8-40**

NOTE: To remove rear Lift Cylinder Pivot Pins, the Muffler may have to be moved on the right side. **Figs. 8-42 and 8-43.** Refer to the the Muffler Removal Procedure in the Engine Chapter of this manual.

6. While supporting the weight of the Lift Cylinder, remove the Cap Screw and Lock Nut securing the rear Lift Cylinder Pivot Pin. Drive the Pivot Pin through the hole on the outside of the Chassis. Remove the Lift Cylinder from the Chassis. **Fig. 8-41**

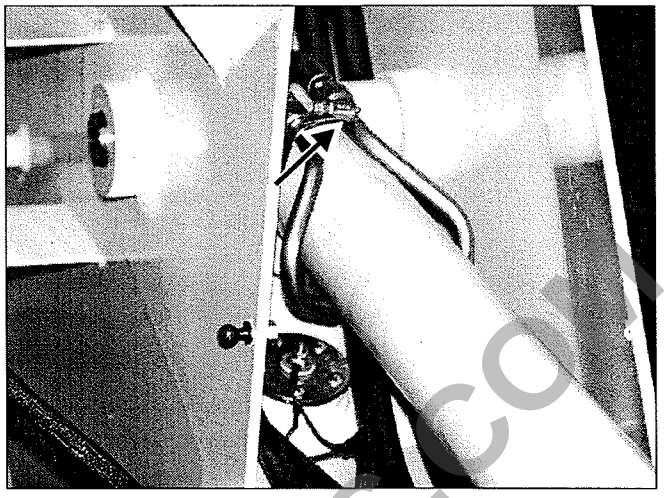


Fig. 8-38 Clamp securing the Hydraulic Tubes to the Lift Cylinder.

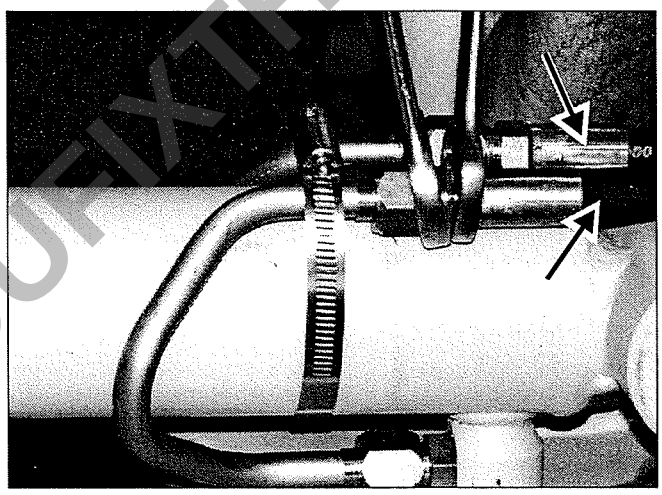


Fig. 8-39 Two (2) Hydraulic Hoses connected to the Hydraulic Tubes on the Lift Cylinder.

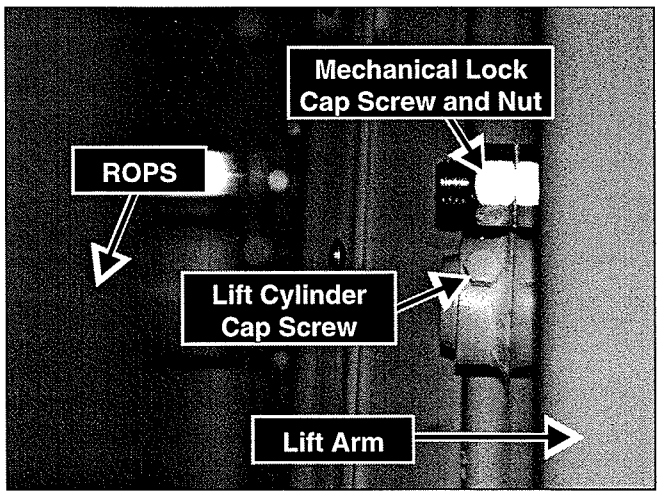


Fig. 8-40 Location of the Cap Screw and Lock Nut securing the Rod End of the Lift Cylinder Pivot Pin to the Lift Arm.

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NOTES

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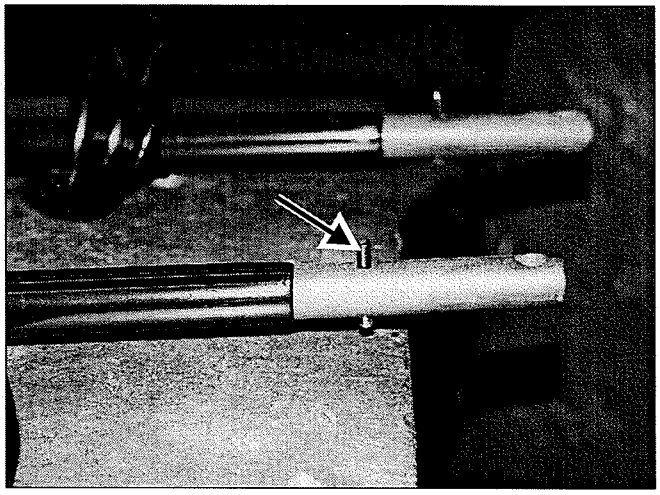


Fig. 6-11 Spring Pin driven into the Control Handle.

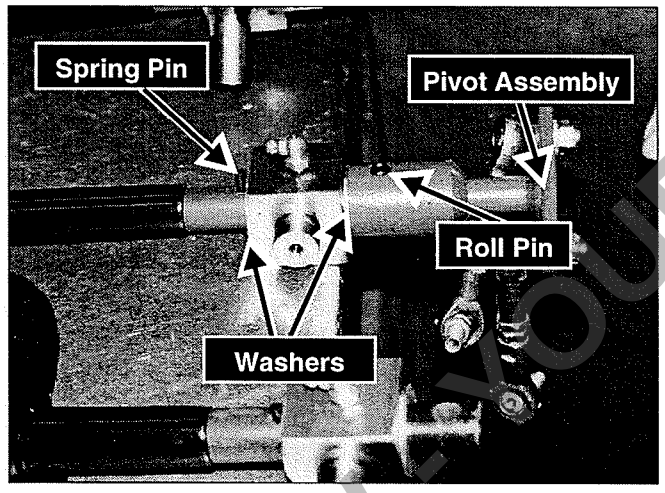


Fig. 6-12 Pivot assembly secured with Roll Pin.

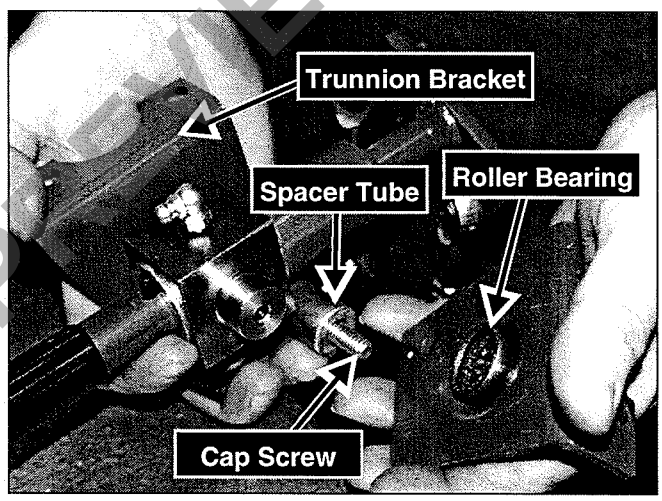


Fig. 6-13 View of the Cap Screw, two (2) Trunnion Brackets, Spacer Tube and Roller Bearing.

Left Control Handle Assembly

Assembly Procedure - T-Bar Control

The left T-Bar Control Handle operates the Traction functions for the left and right side of the Skid Loader. **Fig. 6-17**

1. Slide Boot up T-Bar Control Handle until it is above the small hole in the shaft. Then drive the Spring Pin into the small hole on Handle shaft. (**Fig. 6-29**) Some of the Spring Pin should extend from each side of Handle. **Fig. 6-11**
2. Press or drive two (2) Needle Bearings into the holes on the Trunnion. The Seals on the Bearings go toward the outside. If driving the Needle Bearings, use a driver similar to the one shown in **Fig. 6-14**.
3. Place Washer on Control Handle and slide Trunnion on until it bottoms out on Spring Pin. Slide another Washer on Control Handle, below Trunnion. **Fig. 6-12**
4. Slide the Pivot assembly on the Control Handle and secure with the Roll Pin. **Fig. 6-12**
5. Use a driver to install a Roller Bearing in each Trunnion Bracket. **Figs. 6-14 and 6-21**
6. Place Cap Screw in one side of Trunnion Bracket. Slip Spacer Tube over the Cap Screw. Secure both Trunnion Brackets on Trunnion with an untightened Lock Nut on the Cap Screw. **Fig. 6-13**
7. Install the T-Bar Control Handle on the Chassis per the procedure in this chapter.
8. With the Control Handle attached to Chassis, tighten Cap Screw and Lock Nut holding the Trunnion Brackets together and test the Handle's operation.

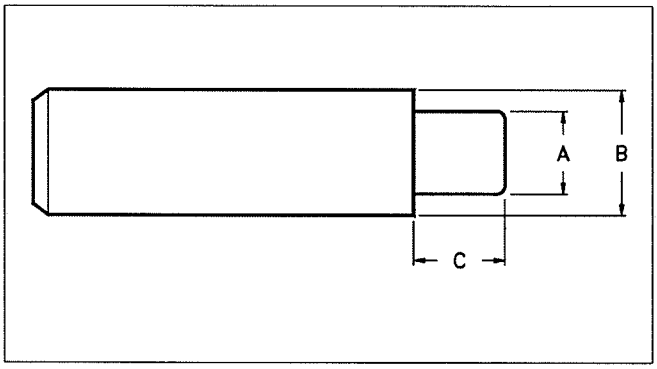


Fig. 6-14 Drawing of a Bearing Driver Head.

Dim. "A"	.73"	(185mm)
Dim. "B"	1.25"	(317mm)
Dim. "C"	.50"	(127mm)

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Assembly Procedure - Hand/Foot Control

The left Hand/Foot Control Handle operates the Traction functions for the left side of the Skid Loader. **Fig. 6-18**

1. Liberally apply a silicone lubricant to the Control Grip and slip it over the Control Handle shaft until it is seated properly. **Fig. 6-22**
2. Use a driver to install a Roller Bearing in each Trunnion Bracket. **Figs. 6-14 and 6-21**
3. Place Cap Screw in one side of Trunnion Bracket. Slip the Spacer Tube over the Cap Screw. Secure both Trunnion Brackets on the Trunnion with a Lock Nut on the Cap Screw. DO NOT fully tighten the Nut. **Figs. 6-23 and 6-24**
4. Install the Hand/Foot Control Handle on the Chassis per the procedure in this chapter.
5. With the Control Handle attached to the Chassis, tighten the Cap Screw and Lock Nut holding the Trunnion Brackets together and test the Handle's operation.

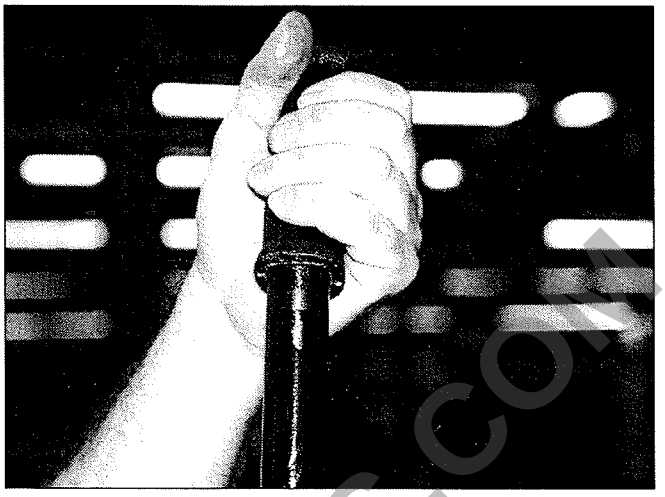


Fig. 6-22 Control Grip slipped over Control Handle after silicone lubricant has been applied to the Grip.

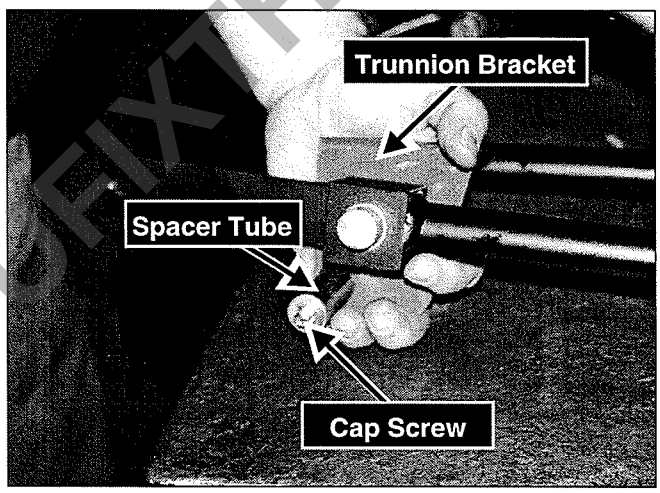


Fig. 6-23 Spacer Tube placed on Cap Screw which has been inserted through one of the two (1 of 2) Trunnion Brackets.

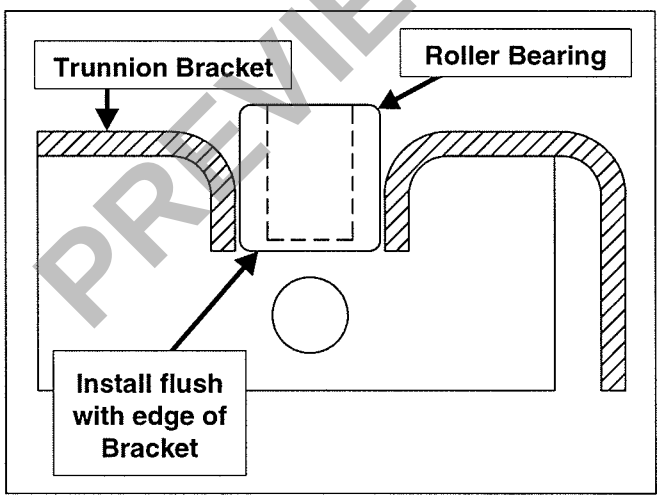


Fig. 6-21 Cut-away view of Trunnion Bracket showing Bearing installation.

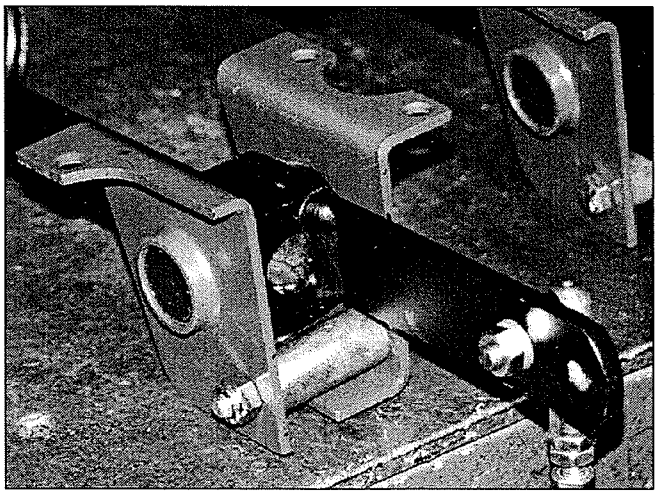


Fig. 6-24 Assembled left side Hand/Foot Control Handle assembly.

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Hydraulic Oil Filter Element Replacement

Replacement Procedure

WARNING

BEFORE beginning this service procedure, perform the following SAFETY procedure:

❑ Shutdown the Engine.

For detailed instructions on the above, refer to the Safety Chapter in this manual.

1. Lift Engine Access Cover and open the Rear Grille.
2. Remove Hydraulic Reservoir Drain Plug and drain oil (into a suitable container) to a level BELOW the point where the Filter attaches to the Reservoir. **Fig. 8-25**
3. Reinstall the Drain Plug.
4. Using a filter wrench, turn the Filter Element counterclockwise to remove it from the Filter Head. **Fig. 8-27**
5. Install correct capacity Filter Element (refer to GEHL Service Parts Manual). BEFORE INSTALLATION, apply a light coat of oil to the new Element Gasket, then install it on Filter Head. **Figs. 8-26 and 8-28**
6. Hand tighten the Element until the Gasket contacts the Filter Head. Turn the Element another 3/4 turn to seat the Gasket.
7. Refill the Hydraulic Reservoir. Refer to the Lubrication Chapter in this manual for Hydraulic Fluid requirements and specifications.

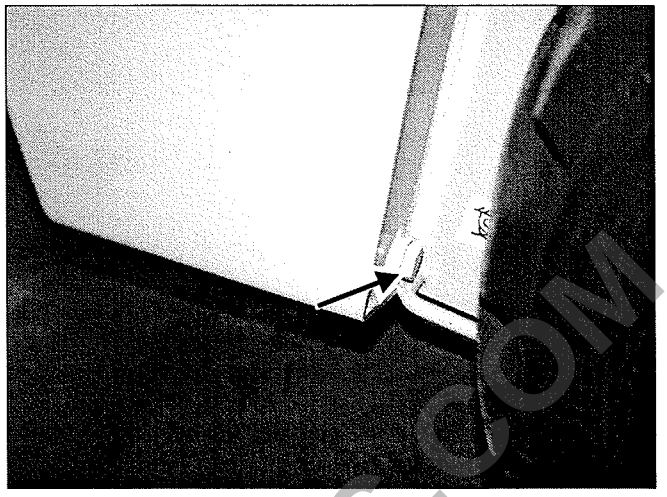


Fig. 8-25 Hydraulic Reservoir Drain Plug located behind right rear tire.

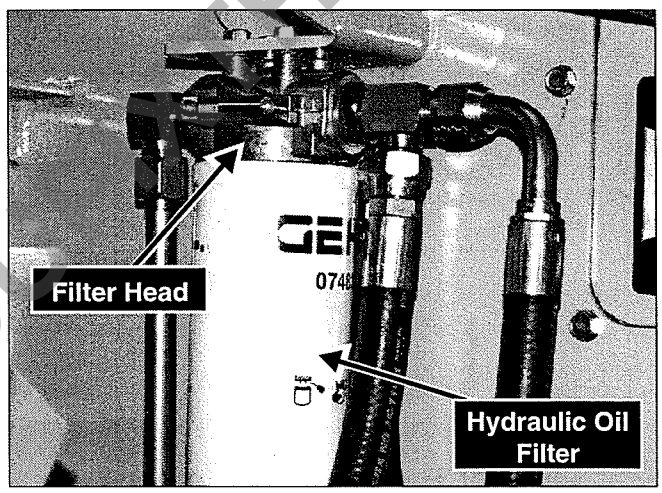


Fig. 8-26 Location of Hydraulic Oil Filter and Filter Head on the inside right Riser.

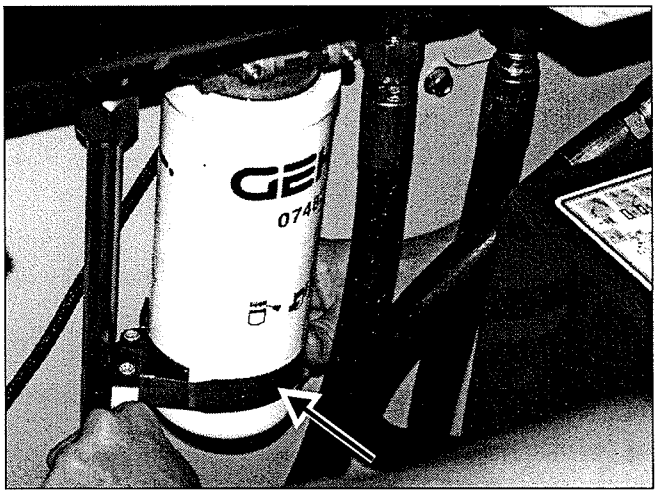


Fig. 8-27 Filter wrench on Hydraulic Oil Filter.

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