Form No.
908275

SL7600
SL7800
Skid Steer Loader

Service Manual

GEHL®

Loader Stability - A skid loader's stability is determined by its wheel base. The following elements can affect stability: terrain, engine speed, load being carried or dumped, and sudden control movements.

DISREGARDING ANY OF THESE FACTORS CAN CAUSE THE LOADER TO TIP, POSSIBLY RESULTING IN DEATH OR SERIOUS INJURY. Therefore, ALWAYS have the operator restraint bar lowered and wear the seat belt. Operate the controls only from the operator's seat. Operate the controls smoothly and gradually at an appropriate engine speed that matches the operating conditions.

DO NOT exceed the rated operating load of the machine. For additional stability when operating on inclines or ramps, ALWAYS travel with the heavier end of the loader toward the top of the incline.

ALWAYS look to the rear before backing up.

When parking machine, before leaving seat, check restraint bar for proper operation. The restraint bar, when raised, applies parking brake and deactivates lift/tilt controls and auxiliary hydraulics.

Keyswitch - NEVER attempt to bypass the keyswitch to start the engine. Use the jump-starting procedure detailed in the *Service* chapter of your Operator's Manual.

Hydraulic Fluid Leaks - NEVER use hands to search

for hydraulic fluid leaks. Instead, use paper or cardboard. Fluid under pressure can be invisible, penetrate the skin and cause a serious injury. If any fluid is injected into skin, see a doctor at once. Injected fluid MUST be surgically removed by a doctor or gangrene may result.

Wear Safety Glasses - ALWAYS wear safety glasses

with side shields when striking metal against metal. In addition, it is recommended that a softer (chip-resistant) material be used to cushion the blow. Failure to heed could lead to serious injury to eye(s) or other parts of the body.

ALWAYS wear safety glasses when searching for hydraulic leaks or when working near batteries.

Loaded Bucket/Fork - DO NOT raise or drop a loaded bucket or fork suddenly. Abrupt movements under load can cause serious loader instability.

NEVER push the lift control into the "float" position with the bucket or attachment loaded or raised, because this will cause the liftarm to lower rapidly.

DO NOT drive too close to an excavation or ditch. BE SURE that the surrounding ground has adequate strength to support the weight of the loader and the load.

DO NOT smoke or have any spark producing equipment in the area while filling the fuel tank or while working on the fuel or hydraulic systems.

Exhaust Gases - Exhaust fumes can kill. DO NOT operate this machine in an enclosed area unless there is adequate ventilation.

Engine - NEVER use ether or starting fluid.

People - NEVER carry riders. DO NOT allow others to ride on the machine or attachment, because they could fall or cause an accident.

BE SURE all persons are away from the machine and give a warning before starting the engine.

ALWAYS face machine and use hand holds and steps when getting on or off. DO NOT jump off machine.

Wear appropriate ear protection for prolonged exposure to excessive noise.

ALWAYS perform a daily inspection of the machine BEFORE using it. Look for damage, loose or missing parts, leaks, etc.

Remove trash and debris from the machine and engine compartment each day to minimize risk of fire.

New operators MUST operate loader in an open area away from bystanders. Practice with controls until loader can be operated safely and efficiently.

Mandatory Safety Shutdown Procedure

BEFORE cleaning, adjusting, lubricating, servicing the unit or leaving it unattended:

1. Move the drive control handle(s) to the NEUTRAL position.

2. Lower the liftarm and attachment completely. Also, see Step 4 below.

3. Move the throttle to the low idle position, shut off the engine and remove the key.

4. If the liftarm MUST be left in the "raised" position, BE SURE to properly engage the liftarm support device instead of performing Step 2.

Only after these precautions can you be sure it is safe to proceed. Failure to follow the above procedure could lead to death or serious injury.

Cooling System Drain Procedures

Gehl SL76/7800 skid loaders use a split radiator design to help keep the engine (with anti-freeze coolant) and hydraulic oil from overheating. Many procedures in this Service Manual require you to partially or fully drain one or both to perform those procedures.

WARNING

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

- ❑ **Shut off the engine and allow to cool.**

(For detailed instructions, refer to the *Safety* chapter of this manual).

Anti-freeze Coolant Drain Procedure

1. Open engine access cover, lower tailgate and remove left engine side cover. **Fig. 3-11**
2. Remove the radiator cap.
3. A drain cock is located on back left side of radiator with a drain hose attached. Open drain cock and drain coolant into a suitable container. **Fig. 3-12**
4. Below engine oil filter, find another coolant drain cock and drain coolant into a suitable container. **Fig. 3-13**
5. Close both drain cocks.

Hydraulic Oil Drain Procedure (Fig. 3-2)

1. Remove small rear access panel underneath loader near the left rear tire.
2. Place a 15 gallon (56,8 L) catch pan under the hydraulic oil drain plug.
3. Remove the drain plug and drain oil.
4. Replace the drain plug.

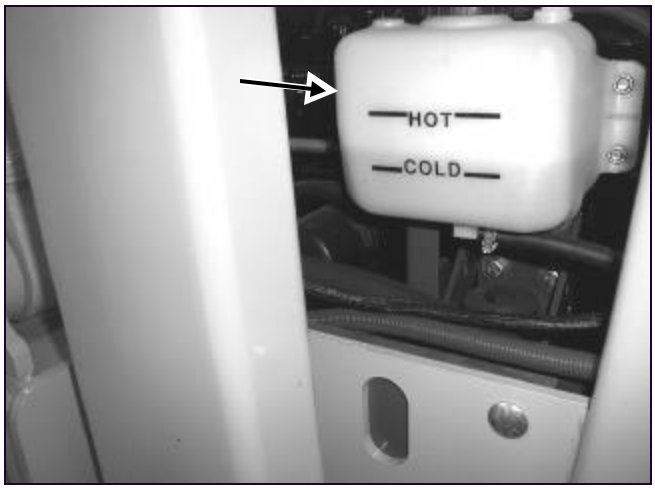


Fig. 3-11 Coolant recovery tank location.

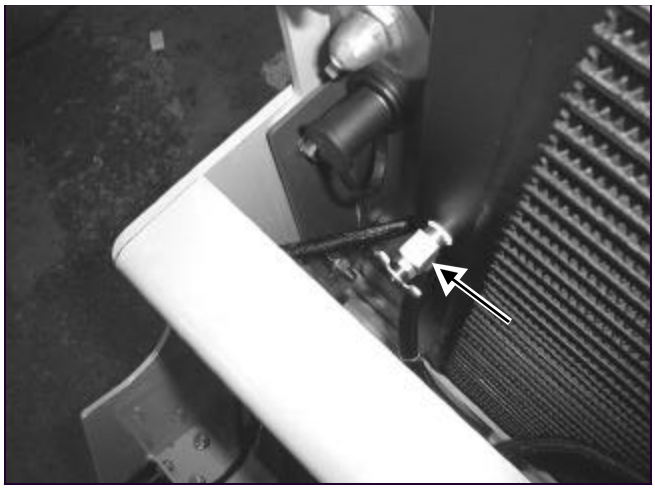


Fig. 3-12 Location of the radiator coolant drain cock.

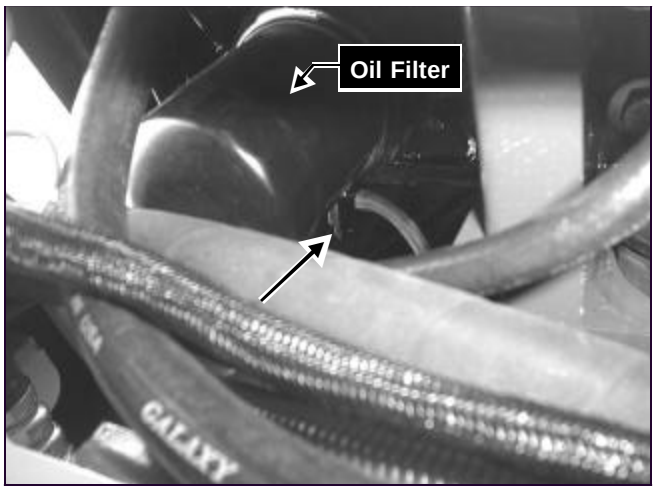


Fig. 3-13 Location of the engine coolant drain cock underneath the oil filter on the engine.

All-Tach™ Hitch Components

1 - Hex Nut
2, 3, 4 - Washer
5, 6 - Pivot Pin
7, 8 - Shim
9 - Handle
10 - Spring Stop Link
11 - Spring Slide Link
12 - Adjustable Link
13 - Pin Link
14 - Latch Link
15 - Latch Pin
16 - Grease Cap
17 - Pin Plate
18, 19, 20 - Spring Pin
21 - Handle Pivot
22 - Stop Pin
23 - All-Tach™
24 - Grease Fitting
25 - Capscrew
26 - Capscrew
27 - Capscrew
28 - Capscrew
29 - Stalk Guide Spring

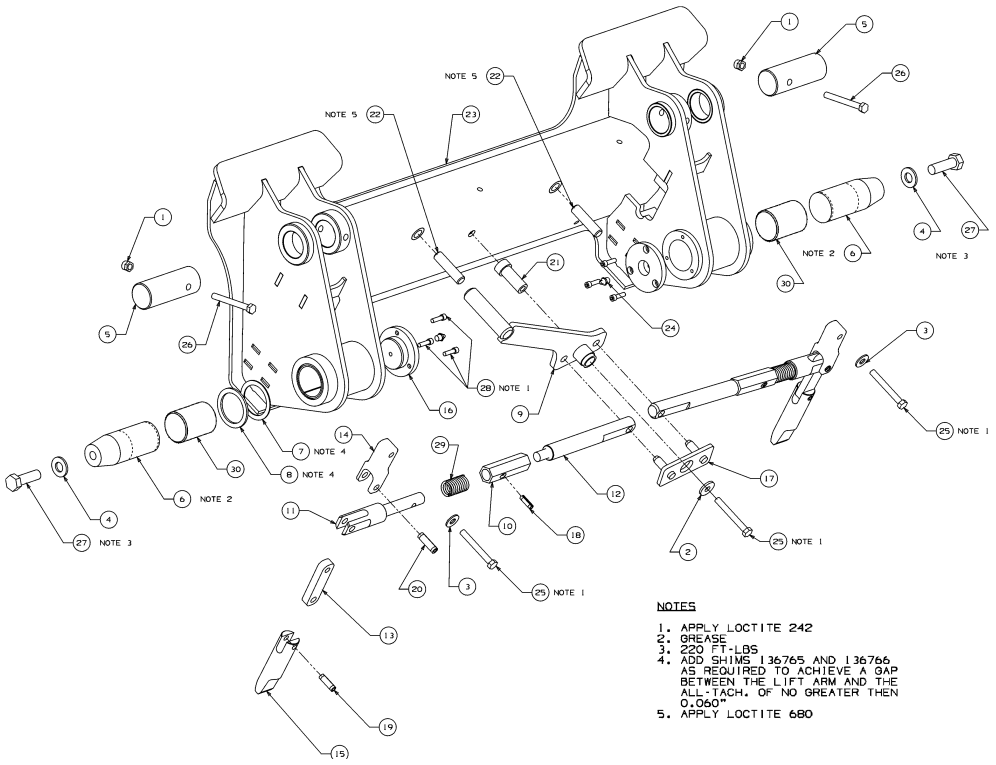


Fig. 4-26 Assembly view of the All-Tach™ hitch.

Liftarm Components

1 - Hex Nut
2 - Hex Nut
3 - Locknut
4 - Washer
5 - Timing Link
6 - Thrust Washer
7 - Timing Link Pin
8 - Pivot Pin
9 - Liftarm
10 - Timing Link Pin
11 - Rear Arm Pivot Pin
12 - Rear Link
13 - Liftarm Support
14 - Grease Fitting
15 - Capscrew
16 - Capscrew
17 - Capscrew
18 - Capscrew
19 - Capscrew
20 - Spring Bushing
21 - Spring Bushing
22 - Spring Bushing

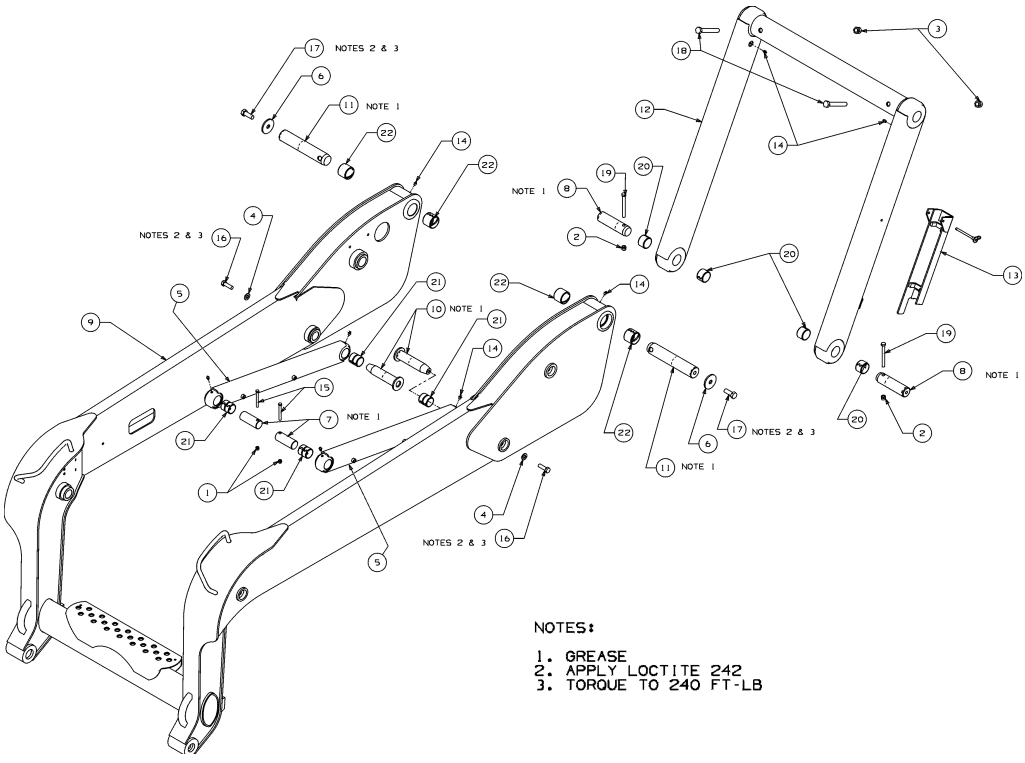


Fig. 4-27 Assembly view of the liftarm.

Control Console Removal and Installation

The lower control consoles may be removed for access to handle assemblies and connections to control take-up rods.

WARNING

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

- ❑ **Raise liftarm, engage liftarm support device.**
- ❑ **Shut off the engine.**
- ❑ **Roll ROPS back until lock engages.**

(For detailed instructions, refer to the *Safety* chapter of this manual).

Removal Procedure

1. Unscrew and remove the following on right lower console: set screw on the flow control knob, throttle handle and high flow auxiliary hand lever (High Flow Models only). **Figs. 4-63, 4-64**
2. Remove four screws securing right lower console. Remove console up and over right control handle. **Figs. 4-65, 4-66**
3. Remove four screws securing left lower console. Remove console up and over left control handle.

Installation Procedure - Follow all WARNINGS first, then reverse the removal steps

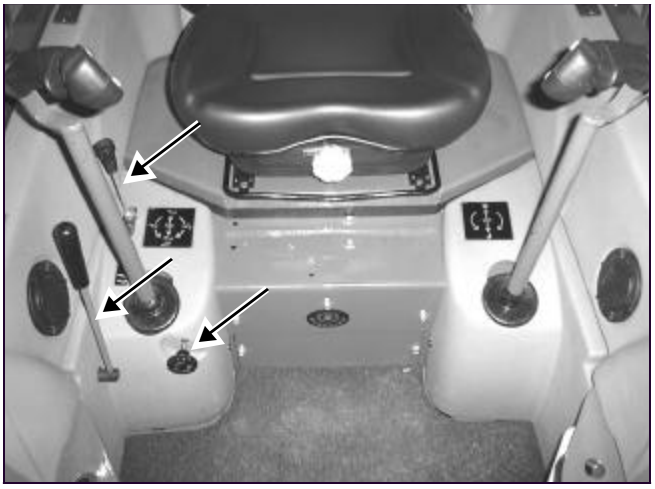


Fig. 4-63 Parts to unscrew on the right control console to facilitate the removal of that console. (High Flow Model shown).

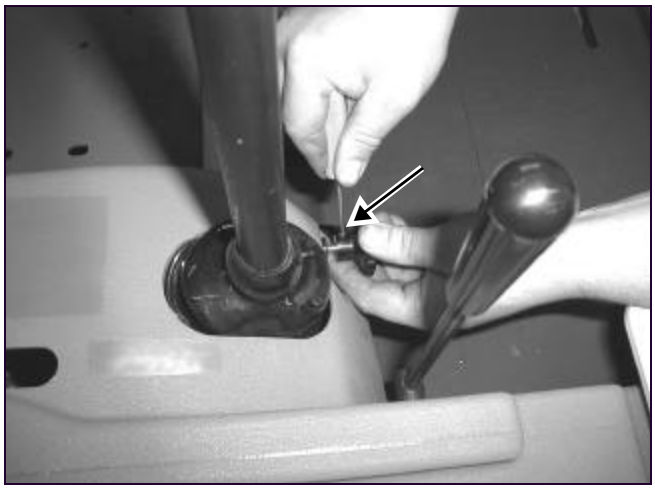


Fig. 4-64 Remove the set screw securing the flow control knob to the flow rod.

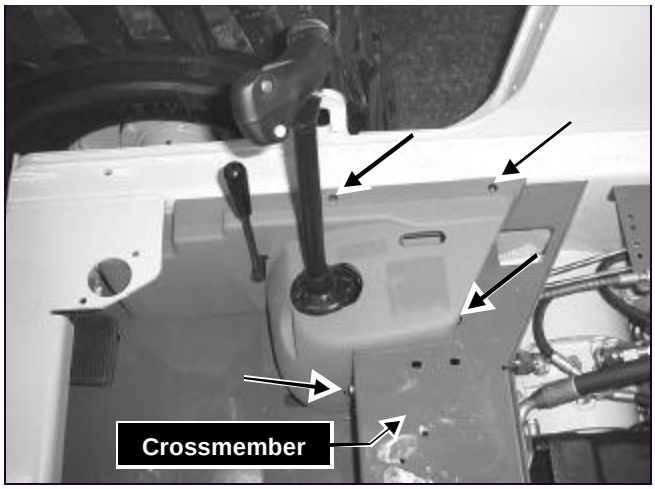


Fig. 4-65 Remove four screws securing both consoles to the crossmember.

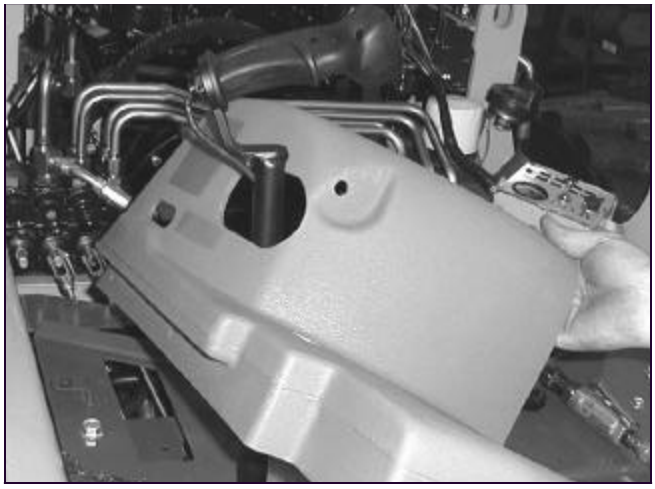


Fig. 4-66 Remove the console over the control handle.

Drive Chain Removal and Installation

Removal Procedure

WARNING

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

- ❑ **Shut off the engine.**
- ❑ **Raise and securely block the loader so all four tires are off the ground.**

(For detailed instructions, refer to the *Safety* chapter of this manual).

1. Remove wheels and tires on side of loader being serviced. Wheel nut torque is 180 ft-lbs (244 N•m).
2. Remove 18 machine screws on chaincase access cover to gain access to drive chain.
3. For each drive chain: Loosen eight locknuts on axle assembly attached to chain. Slide axle assembly in its slots to loosen chain tension. **Fig. 5-7**
4. Supporting the axle with a suitable hoist, pull axle housing out of chaincase to allow axle housing sprocket to drop inside chaincase. **Fig. 5-8**
5. Slip drive chain off axle housing sprocket. Then, slip drive chain off drive motor sprocket. **Fig. 5-9**
6. Remove drive chain from chaincase.

Installation Procedure - Follow Removal Procedure WARNINGS first

NOTE: When installing left and right side drive chains of loader, install inside chain first.

1. Wrap chain around sprocket of axle.
2. Wrap chain around drive motor sprocket.
3. Adjust drive chain to proper tension per the procedure in this chapter.
4. Refill chaincase oil level until oil is up to oil level check plug. Then install chaincase access covers using oil-resistant RTV sealant (or equivalent) between covers and chaincase.

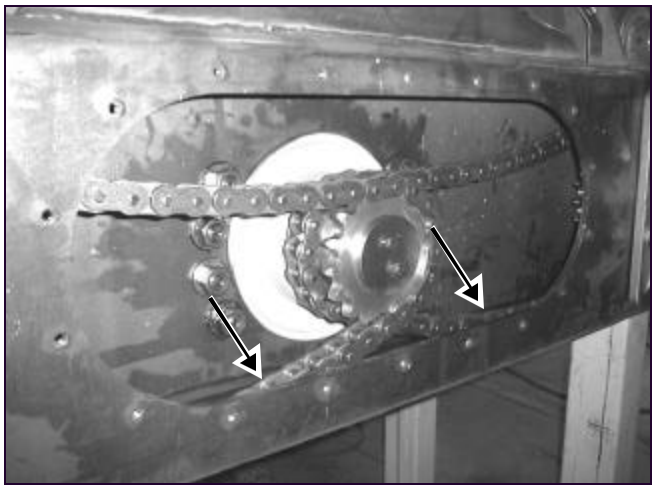


Fig. 5-7 After loosening the axle housing locknuts and sliding the axle inward, slack appears in the chain, resting on the floor of the chaincase.

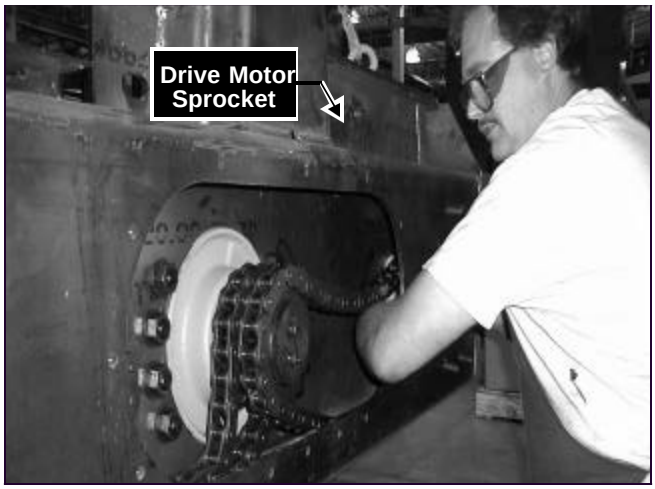


Fig. 5-8 Reach in to slip off the drive chain over the axle housing sprocket.

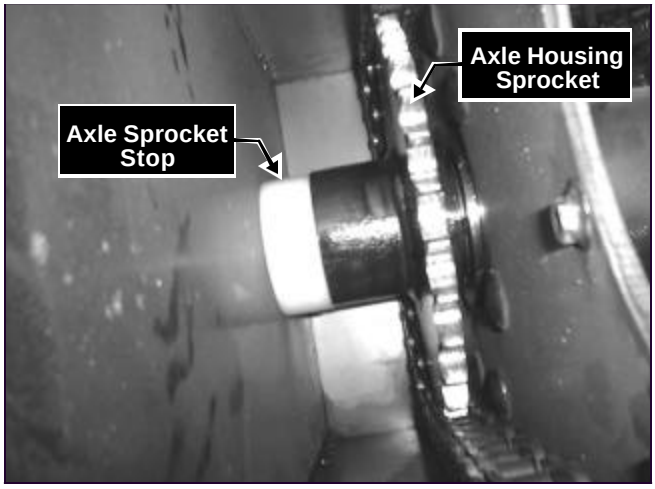


Fig. 5-9 Remove the chain on the drive motor sprockets.

Control Handle Removal and Installation

WARNING

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

- ❑ **Raise liftarm, engage liftarm support device.**
- ❑ **Shut off the engine.**
- ❑ **Roll ROPS back until lock engages.**

(For detailed instructions, refer to the *Safety* chapter of this manual).

Removal Procedure

1. Remove control consoles per the procedure in the *Mainframe* chapter.
2. Disconnect electrical connector in control handle from wiring harness.

IMPORTANT

Note the wire terminal connections in the electrical connector for assembling the control handle if replacing the handle's electrical cable.

3. Remove locknuts to disconnect studded rod end(s) on control rod(s) from control handle assemblies on handle(s) being removed. **Figs. 6-7, 6-8, 6-9**
4. Remove two capscrews, washers and locknuts on elastomeric rod ends attaching control handle assembly to chassis crossmember. Remove assembly. **Figs. 6-7, 6-8, 6-9**

Installation Procedure - Follow all WARNINGS first, then reverse removal steps (see NOTE below)

NOTE: When the control handle is installed, and if the control rod(s) are adjusted correctly, the control handle shafts are vertically straight, up and down. If changes are needed, refer to the "Control Handle Position Adjustment" procedure in this chapter.

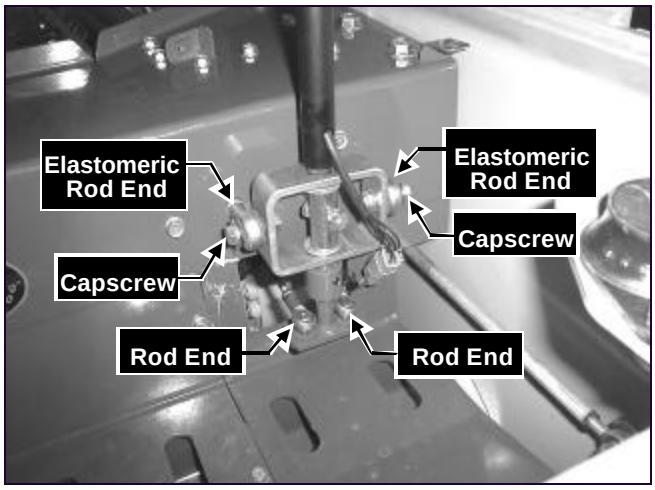


Fig. 6-7 Left T-Bar control handle.

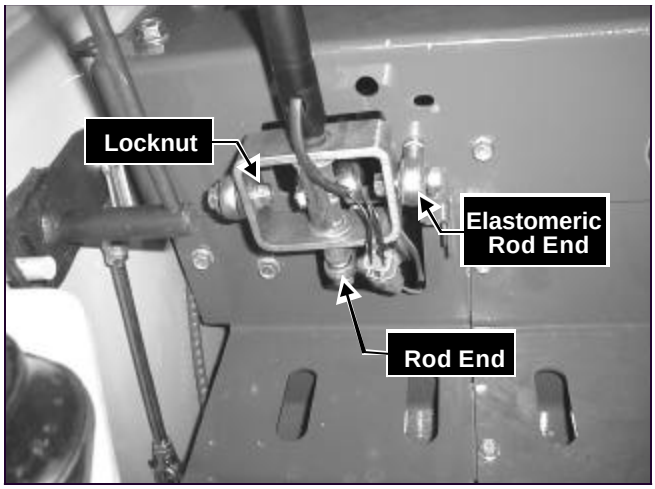


Fig. 6-8 Right T-Bar control handle.

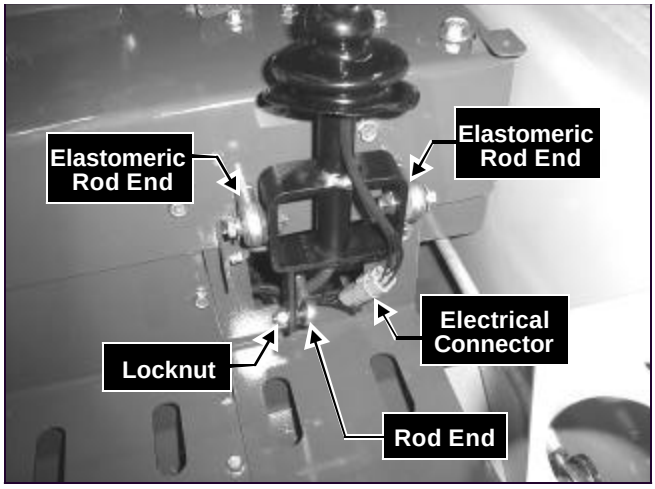


Fig. 6-9 Left Dual Hand control handle (other side similar).

Pivot Tube Removal and Installation - T-Bar, Hand/Foot and Dual Hand

Pivot tube assembly views are a good reference for pivot tube's removal/installation procedures. Refer to views for names of components and locations in assemblies.

RemovalProcedure

WARNING

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

- ❑ **Raise liftarm, engage liftarm support device.**
- ❑ **Shut off the engine.**
- ❑ **Roll ROPS back until lock engages.**

(For detailed instructions, refer to the *Safety* chapter of this manual).

1. Remove the control consoles per the procedure in the *Mainframe* chapter.
2. Remove the crossmember per the procedure in the *Mainframe* chapter.

NOTE: If loader is equipped with a backup alarm, remove two capscrews and locknuts securing alarm switch bracket to crossmember. Set them aside.

NOTE: It's recommended that good notes be taken to aid in reassembly. If necessary, mark holes on levers.

3. Remove one control rod from pivot tube, and one from arm assembly. **Fig. 6-38**
4. Remove two front hex nuts on two centering devices. Allow centering devices to hang from their brackets.
5. Remove hex head machine screws: **Fig. 6-42**
   a. **Hand/Foot and Dual Hand:** Six screws on two right control brackets. Slide control brackets, two washers and arm assembly off pivot shaft. Bronze bearings are pressed into control brackets, if not, remove from pivot shaft.
   b. **T-Bar**: Three screws on one right control bracket. Slide control bracket, two washers and arm assembly off pivot shaft. Bronze bearing is pressed into control bracket, if not, remove from pivot shaft.

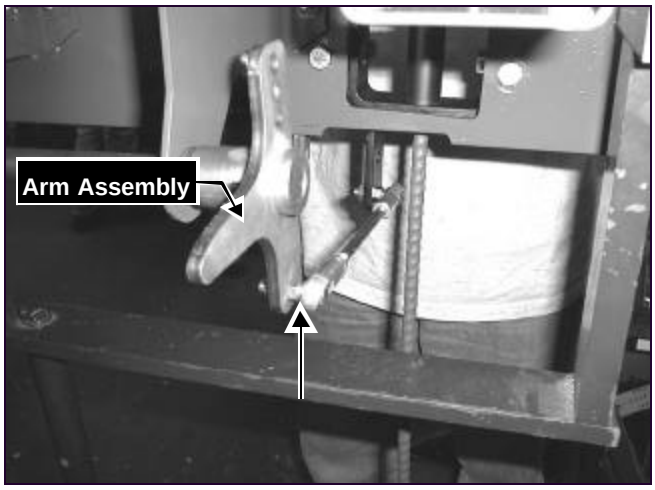


Fig. 6-38 Disconnect control rod at the arm assembly.

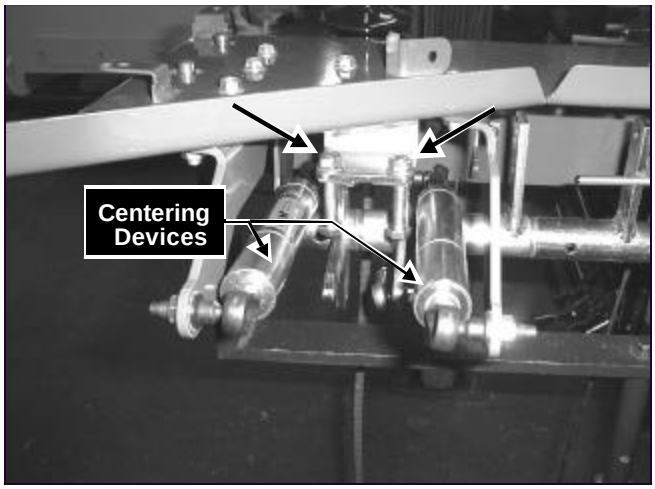


Fig. 6-39 Location of two adjustment capscrews between the centering devices.

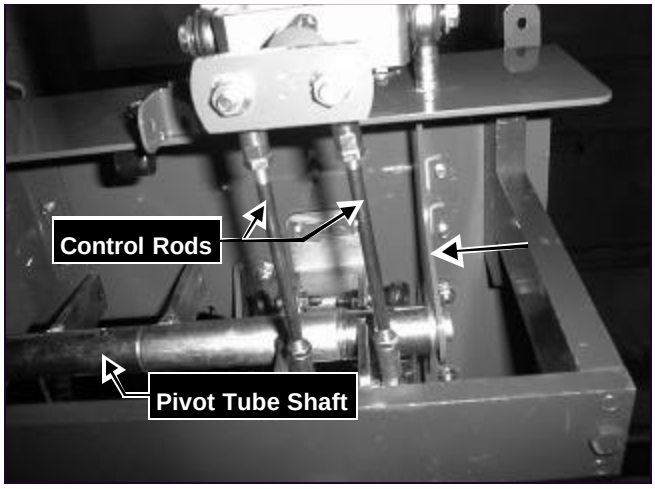


Fig. 6-40 Location of the left control bracket.

Auxiliary Hydraulics Cable Removal and Installation - T-Bar and Dual Hand

Refer to the exploded view as a reference in identifying parts and components.

RemovalProcedure

⚠ WARNING

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

- ❑ **Raise liftarm, engage liftarm support device.**
- ❑ **Shut off the engine.**
- ❑ **Roll ROPS back until lock engages.**

(For detailed instructions, refer to the *Safety* chapter of this manual).

1. Disconnect auxiliary yoke end on control valve. **Fig. 6-65**
2. Remove u-bolt securing cable to cable bracket. **Fig. 6-65**
3. Remove toe plate at front of chassis. **Fig. 6-66**
4. Disconnect rod end on cable from auxiliary pedal assembly. **Fig. 6-67**
5. Loosen control cable jam nut securing the cable to the welded bracket. **Fig. 6-67**
6. Remove cable. If replacing cable, remove yoke end, rod end and jam nuts from old cable.

Installation Procedure - T-Bar and Dual Hand Controls - Follow all WARNINGS first, then reverse the removal steps*

* For cable adjustment, refer to "Auxiliary Hydraulics Cable Adjustment" procedure in this chapter.

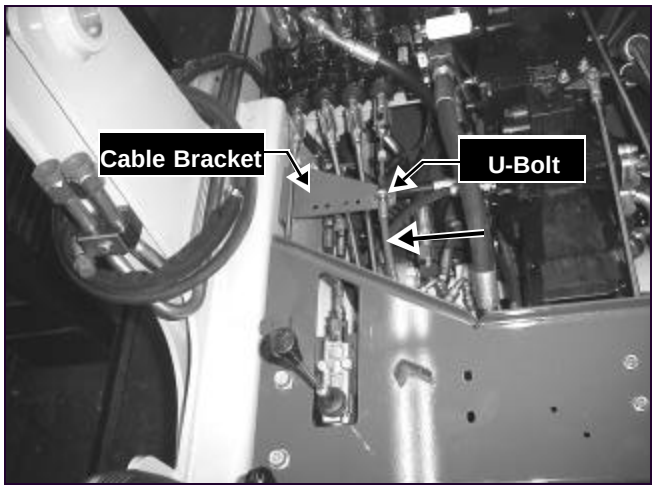


Fig. 6-65 The auxiliary hydraulics cable is located farthest out on the control cable bracket.

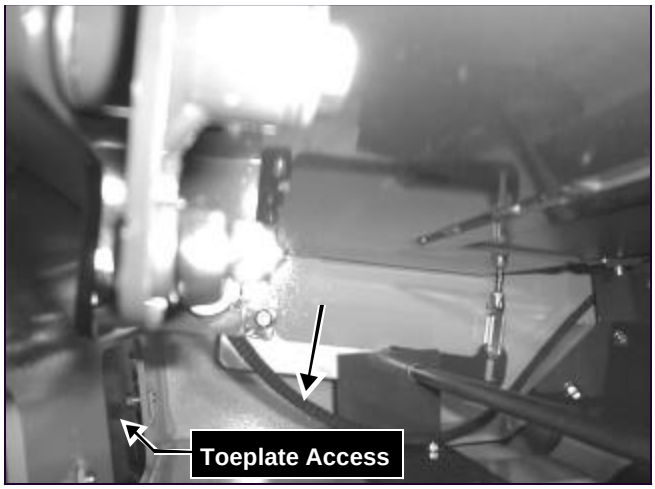


Fig. 6-66 The auxiliary cable routing underneath the floor plate.

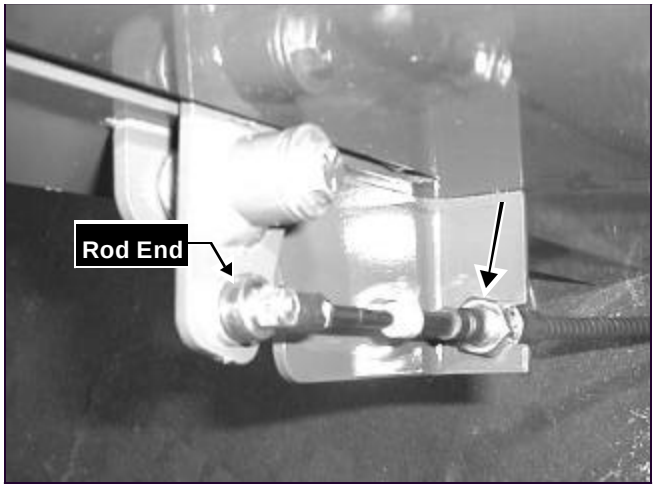


Fig. 6-67 Location of the control cable jam nut securing cable to welded bracket.

NOTES

Hydrostatic Pump Drive Coupling Removal and Installation

RemovalProcedure

WARNING

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

- ❑ **Raise liftarm, engage liftarm support device.**
- ❑ **Shut off the engine.**
- ❑ **Roll ROPS back until lock engages.**

(For detailed instructions, refer to the *Safety* chapter in this manual).

1. Remove hydrostatic pump per the procedure in this chapter.
2. Remove 12 capscrews securing flywheel housing to the engine. **Fig. 7-17**
3. Remove eight capscrews attaching coupling plate to flywheel. **Fig. 7-18**

Installation Procedure - Follow all WARNINGS first, then reverse the removal steps

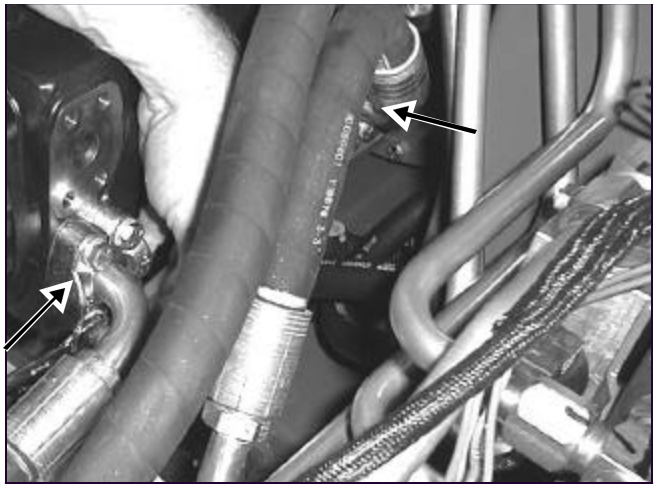


Fig. 7-13 Hoses to remove off hydrostatic pump for pump removal. There is a second set of these hoses on pump closer to engine.

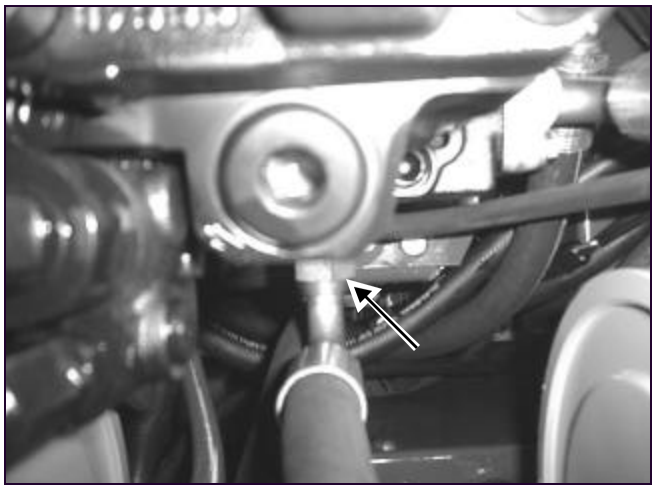


Fig. 7-14 There are two hoses that route out of the bottom of the hydrostatic pump to disconnect.

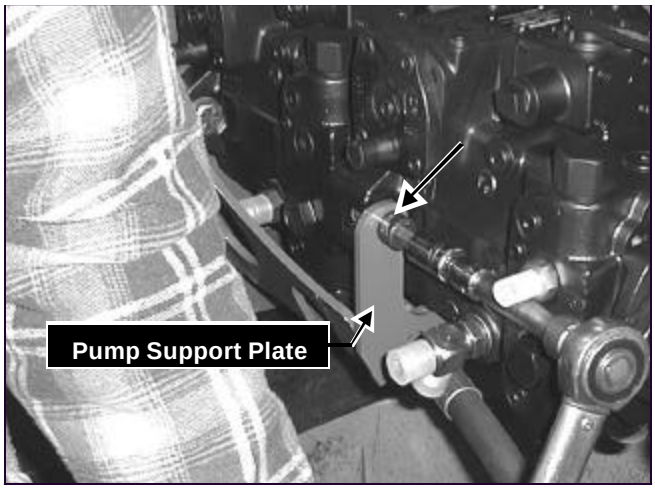


Fig. 7-15 Disconnect the pump support plate from the hydrostatic pump.

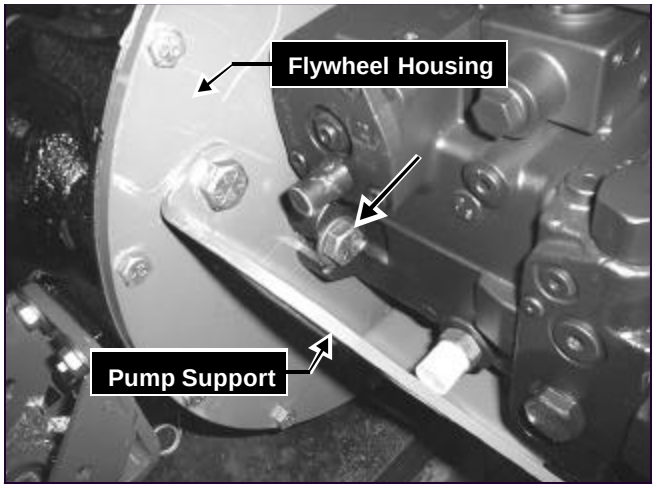
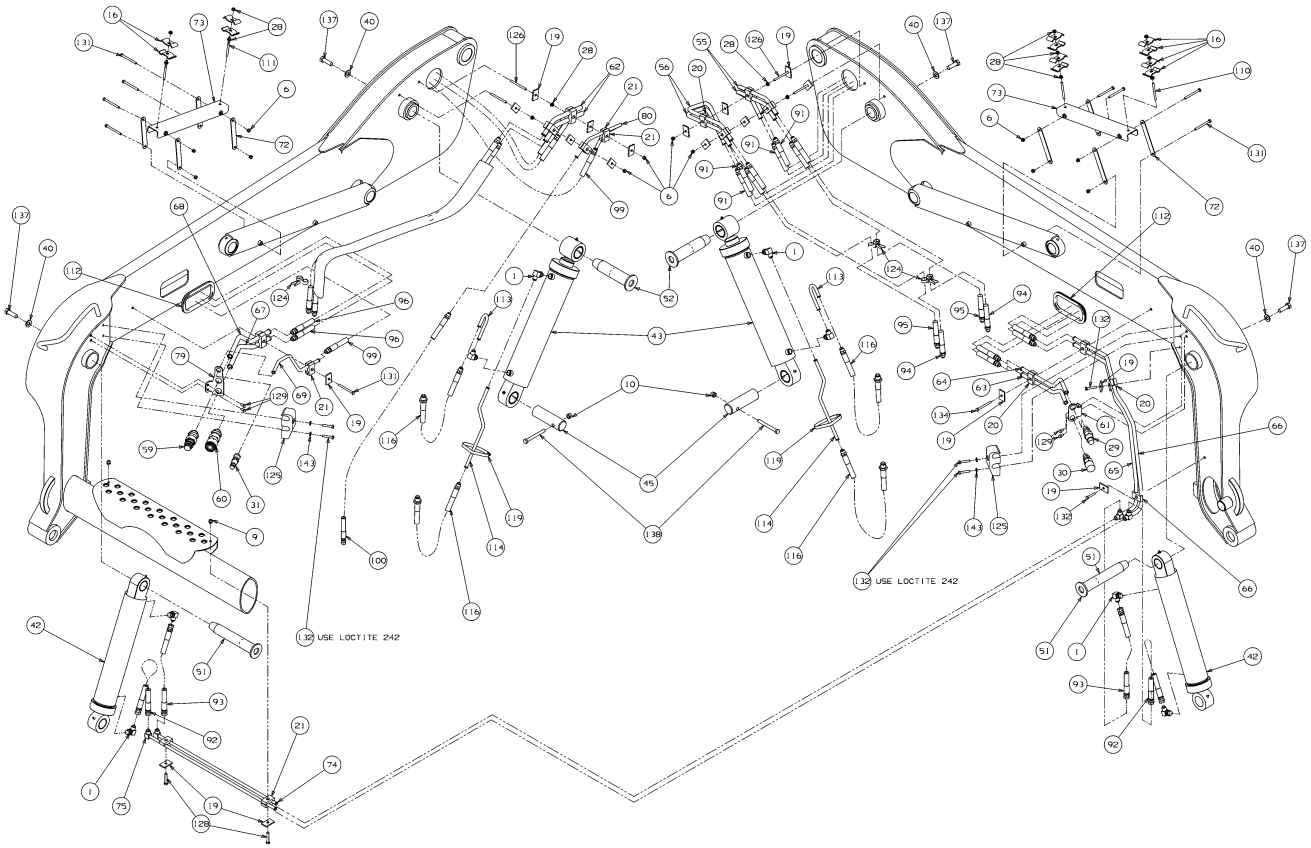


Fig. 7-16 Disconnect two capscrews securing the hydrostatic pump from the flywheel housing.

Hydraulic System - High Flow Auxiliary



72 - Hose Pivot Linkage Bar	91 - Pressure Hose	110 - Threaded Stud	129 - Capscrew
73 - Hose Pivot	92 - Pressure Hose	111 - Threaded Stud	130 - Capscrew
74 - R. Crossmember Tube	93 - Pressure Hose	112 - Trim Stip	131 - Capscrew
75 - F. Crossmember Tube	94 - Pressure Hose	113 - L. Cylinder Base Tube	132 - Capscrew
76 - Safety Lock Valve	95 - Pressure Hose	114 - L. Cylinder Rod Tube	133 - Capscrew
77 - Special Flange Kit	96 - Pressure Hose	115 - Riser Tube	134 - Capscrew
78 - Special Flange Kit	97 - Pressure Hose	116 - Pressure Hose	135 - Carriage Bolt
79 - HF Coupler Bracket	98 - Pressure Hose	117 - 90° Fitting	136 - Machine Screw
80 - Case into Liftarm Tube	99 - Pressure Hose	118 - Breather	137 - Capscrew
81 - Front Auxiliary Tube	100 - Pressure Hose	119 - Hose Clamp	138 - Capscrew
82 - Rear Auxiliary Tube	101 - Pressure Hose	120 - Manifold	139 - Carriage Bolt
83 - Front Tilt Tube	102 - Pressure Hose	121 - Pressure Hose	140 - Hex Nut
84 - Rear Tilt Tube	103 - Pressure Hose	122 - Pressure Hose	141 - Hex Nut
85 - Tilt Tube	104 - Suction Hose	123 - Pressure Hose	142 - Jam Nut
86 - Tilt Tube	105 - Pressure Hose	124 - Dual Clamp Tie	143 - Flat Washer
87 - Tilt Tube	106 - Pressure Hose	125 - Rub Block	144 - Hex Nut
88 - 90° Fitting	107 - Pressure Hose	126 - Threaded Stud	145 - Filter Element
89 - Valve Mount Plate	108 - Pressure Hose	127 - Capscrew	146 - Service Indicator
90 - 90° Block Fitting	109 - 90° Elbow Fitting	128 - Capscrew	147 - Filter Element

Fig. 8-4 As sem bly view of the high flow hydraulic sys tem.

coat of oil to new element gasket, then install it on filter head. **Fig. 8-29**

7. Hand tighten element until gasket contacts filter head. Turn element another 3/4 turn to seat gasket.
8. Refill hydraulic reservoir. Refer to the *Lubrication* chapter in this manual for hydraulic fluid requirements and specifications.

⚠ WARNING

NEVER use your hands to search for hydraulic fluid leaks. Use a piece of cardboard or paper. Escaping fluid under pressure can be invisible and penetrate the skin causing serious injury. If any fluid is injected into your skin, see a doctor at once. Injected fluid MUST be surgically removed by a doctor familiar with this type of injury or gangrene may result.

ALWAYS wear safety glasses when checking for hydraulic fluid leaks. Escaping fluid under pressure can be invisible and can cause permanent eyesight damage if safety glasses are not worn.

9. ALWAYS check for hydraulic fluid leaks after assembling components of the hydraulic system.

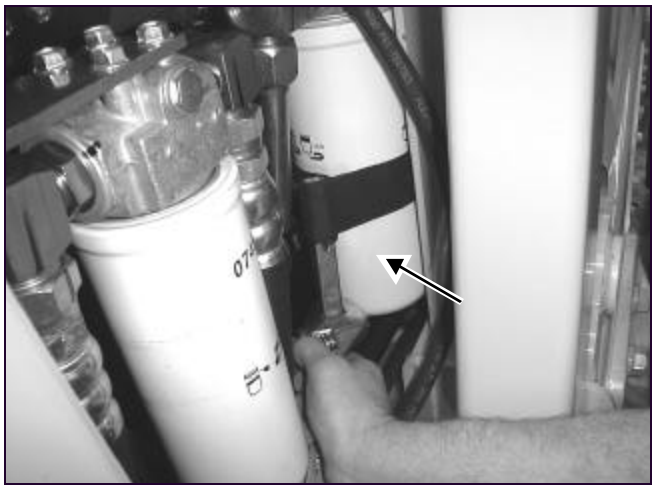


Fig. 8-27 Location of the forward hydraulic filter. Replace this filter when the restriction indicator light on the left instrument panel lights.

Fig. 8-28 Location of the rear hydraulic filter. Replace this filter when the service indicator above it shows, or reads, red.

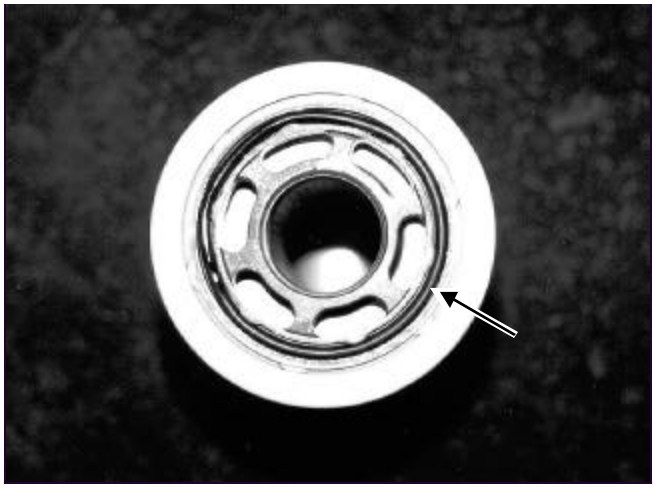


Fig. 8-29 Apply a light coat of new oil to the rubber seal on the new filter element before installing in the skid loader.

Self-Leveling Valve Removal and Installation

RemovalProcedure

WARNING

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

- ❑ **Raise liftarm, engage liftarm support device.**
- ❑ **Shut off the engine.**
- ❑ **Relieve hydraulic system pressure.**
- ❑ **Roll ROPS back until lock engages.**

(For detailed instructions, refer to the *Safety* chapter in this manual).

NOTE: Cap or plug hydraulic hoses and fittings after disconnecting to prevent fluid loss and contamination of the hydraulic system.

1. Disconnect two electrical connectors from safety lock valve attached to the self-leveling valve. Remove two hydraulic tubes from safety lock valve. **Figs. 8-57, 8-58, 8-59**
2. Remove two locknuts securing safety lock valve to valve mounting plate. Slide safety lock valve off mounting plate. **Fig. 8-60**
3. Disconnect four total hydraulic tubes and hoses from hydraulic fittings on self-leveling valve. **Fig. 8-61**
4. Remove two capscrews securing self-leveling valve and valve mounting plate to chassis. **Fig. 8-62**
5. Remove the self-leveling valve.

NOTE: After removing and/or replacing any component in the hydraulic system, ALWAYS check the level of hydraulic fluid in the reservoir. Add fluid if necessary. Refer to the *Lubrication* chapter for fluid requirements and specifications.

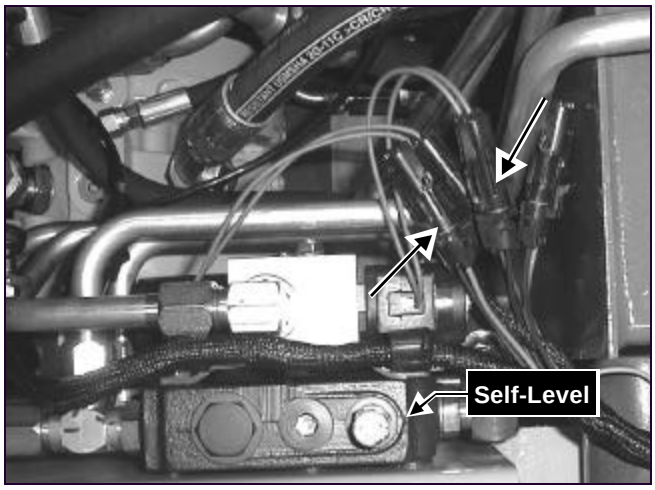


Fig. 8-57 Location of two electrical connectors on the tilt safety lock valve.

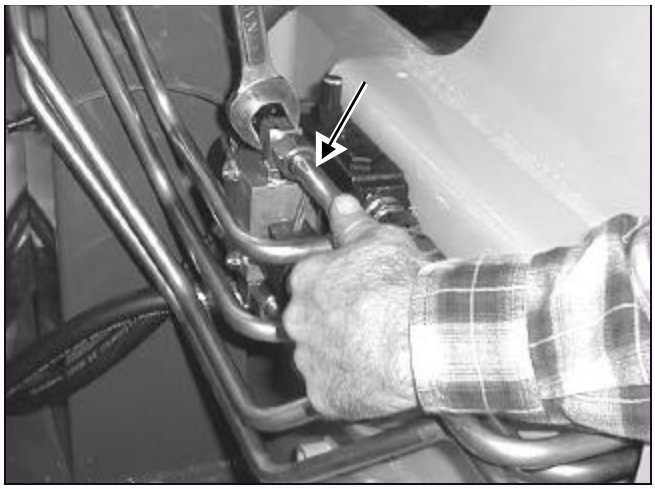


Fig. 8-58 Remove hydraulic tubes from safety lock valve.

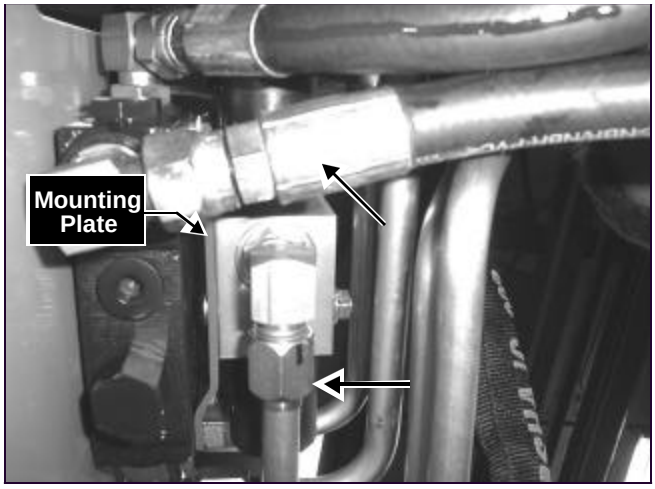


Fig. 8-59 Location of hose and tube connections underneath the safety lock and self-level valves.

Control Valve Disassembly and Assembly

The main control valve is made up of serviceable spool sections. These sections may be removed for service. The control valve also contains load-sense shuttles that may be cleaned during this procedure, and that procedure follows this procedure on the next page.

DisassemblyProcedure

1. Remove main control valve per the procedure in this chapter.
2. Remove three hex nuts on outside of end cover. **Fig. 8-84**
3. Pull end cover off three long valve stack bolts. **Fig. 8-85**
4. Lift each section off the valve stack bolts as needed, being sure to account for all o-rings and three shims. **Figs. 8-86, 8-87**
5. Check condition of o-rings on each section removed.

AssemblyProcedure-Reversethedisassemblysteps.

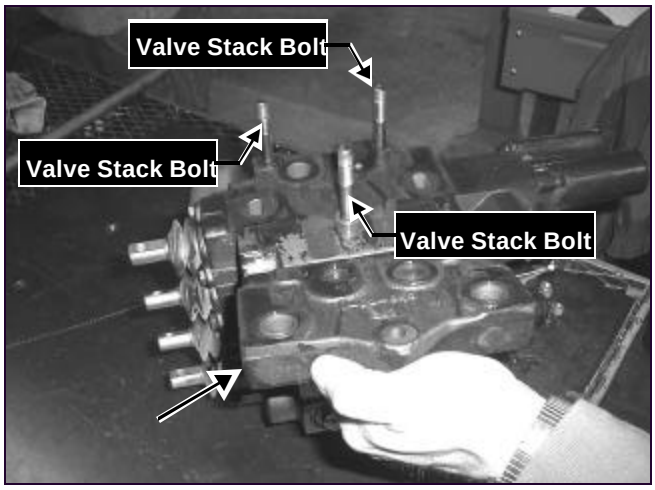


Fig. 8-85 View of end cover removed from valve stack bolts.

Fig. 8-86 One section of the control valve lifted off the valve stack bolts.

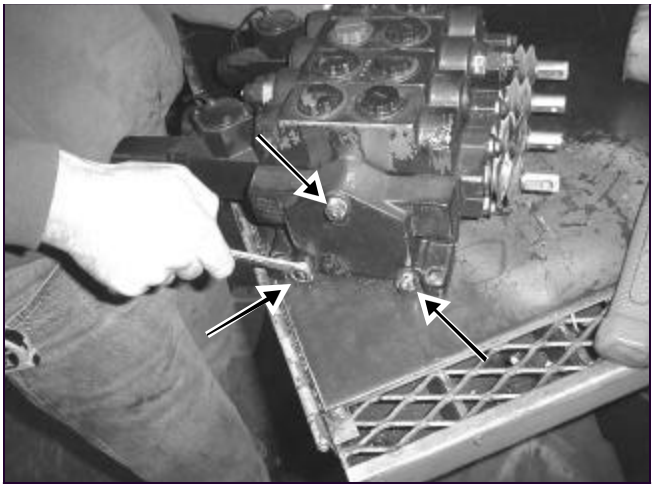


Fig. 8-84 Location of three hex nuts on end cover.

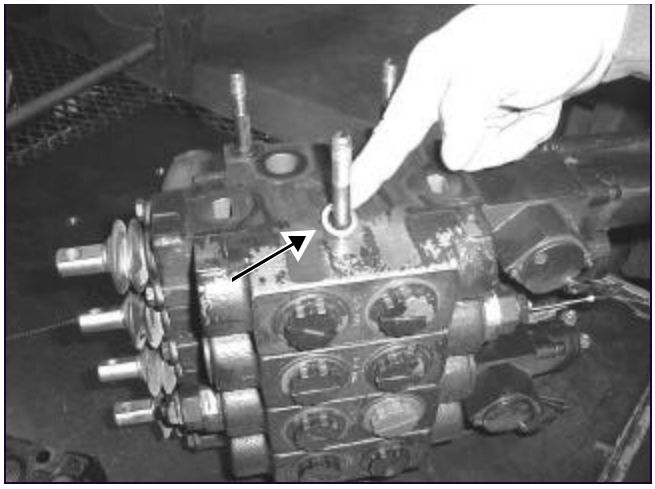


Fig. 8-87 Keep track of these important shims on each section of the control valve.

Left Instrument Panel

The left instrument panel for Gehl SL76/7800 skid loaders houses the manual parking brake switch and light indicator. More standard or optional switches, power ports and light indicators are also on this panel.

1. Two-Speed Indicator Lamp - it lights when skid loader's two-speed option is engaged.
2. Hydraglide™ Ride Control Indicator Lamp - it lights when loader's ride control option is engaged.
3. Fan Switch - controls the heater and/or air conditioning package installed in select skid loaders.
4. 12 VDC Power Outlet - a plug-in outlet with rubber boot used for external electrical connections.
5. Power All-Tach™ Switch - controls the electrically-driven attachment engagement system option installed in select skid loaders.

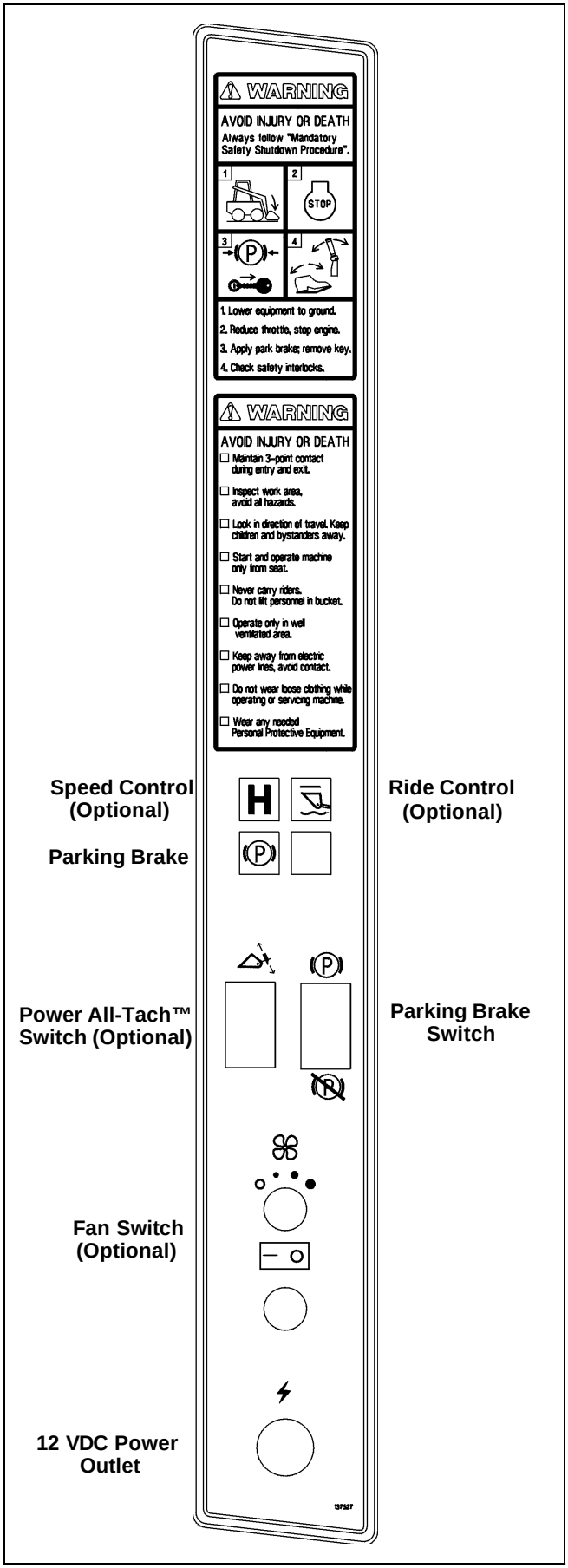


Fig. 9-2 Left instrument panel (not to scale).

Power All-Tach is a trademark of the Gehl Company.

Interlock Control Module Test

The following procedure can be used to test interlock control module inside the left instrument panel.

WARNING

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

- ❑ **Shut off the engine.**

(For detailed instructions, refer to the *Safety* chapter in this manual).

1. Remove four Phillips-head screws securing left instrument panel to ROPS. It should be possible to expose wiring and interlock control module without disconnecting any wires from panel.
2. Most module troubleshooting can be done by observing green diagnostic LED indicators.
   - Disconnect 12-pin and 6-pin connectors and inspect terminals. Be sure no pins are bent on module and no sockets are damaged on harness. Replace damaged components and reconnect harness to control module.
3. Refer to truth table (**Fig. 9-22**) to analyze functionality of module. The module controls operation of components listed in OUTPUTS section of truth table. The ON or OFF state of various outputs is determined by ON or OFF state of various input conditions listed in INPUTS section of truth table. The keyswitch must be in ON position.
   - **Example 1** (initial keyswitch ON): At initial keyswitch ON, input LED "12 VDC In" should light, output LED "Fuel Solenoid" should light, and internal seat belt alarm should sound for five seconds.
   - **Example 2** (low engine oil pressure condition): At initial keyswitch ON, allow seat belt alarm condition to time out. Input LED "12 VDC In" and "Oil Pressure Switch" should be lit. In output section, internal "Engine Shut Down Alarm" will sound intermittently and output LED "Fuel Solenoid" will shut OFF after 30 seconds.
4. The truth table section "Diagnostic LED States" specifies active (ON) state of each input and output.
   - **Example:** Active (ON) state of engine oil pressure switch input (connector #1, pin #8) is a low or grounded input. Active state of seat switch input (connector #1, pin #3) is a high or 12 VDC input.

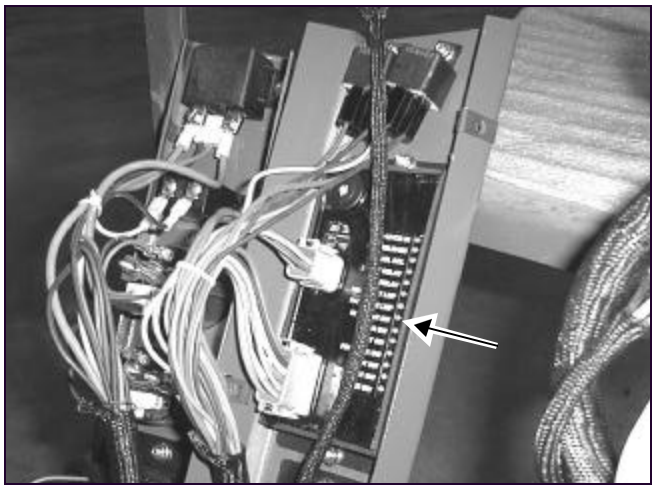


Fig. 9-20 View of the interlock control module.

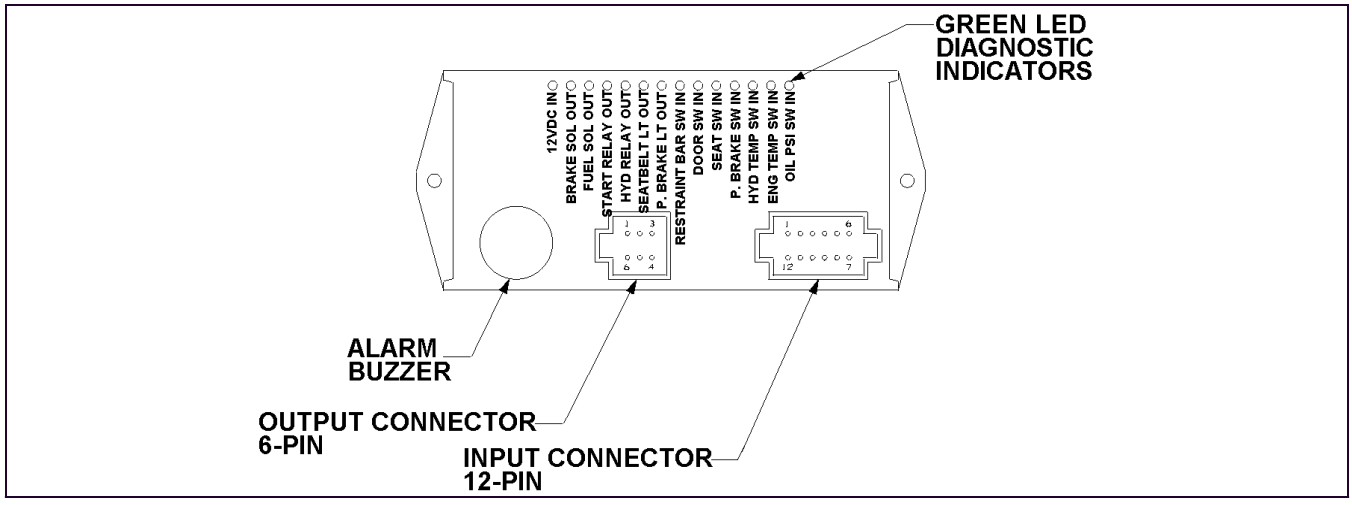
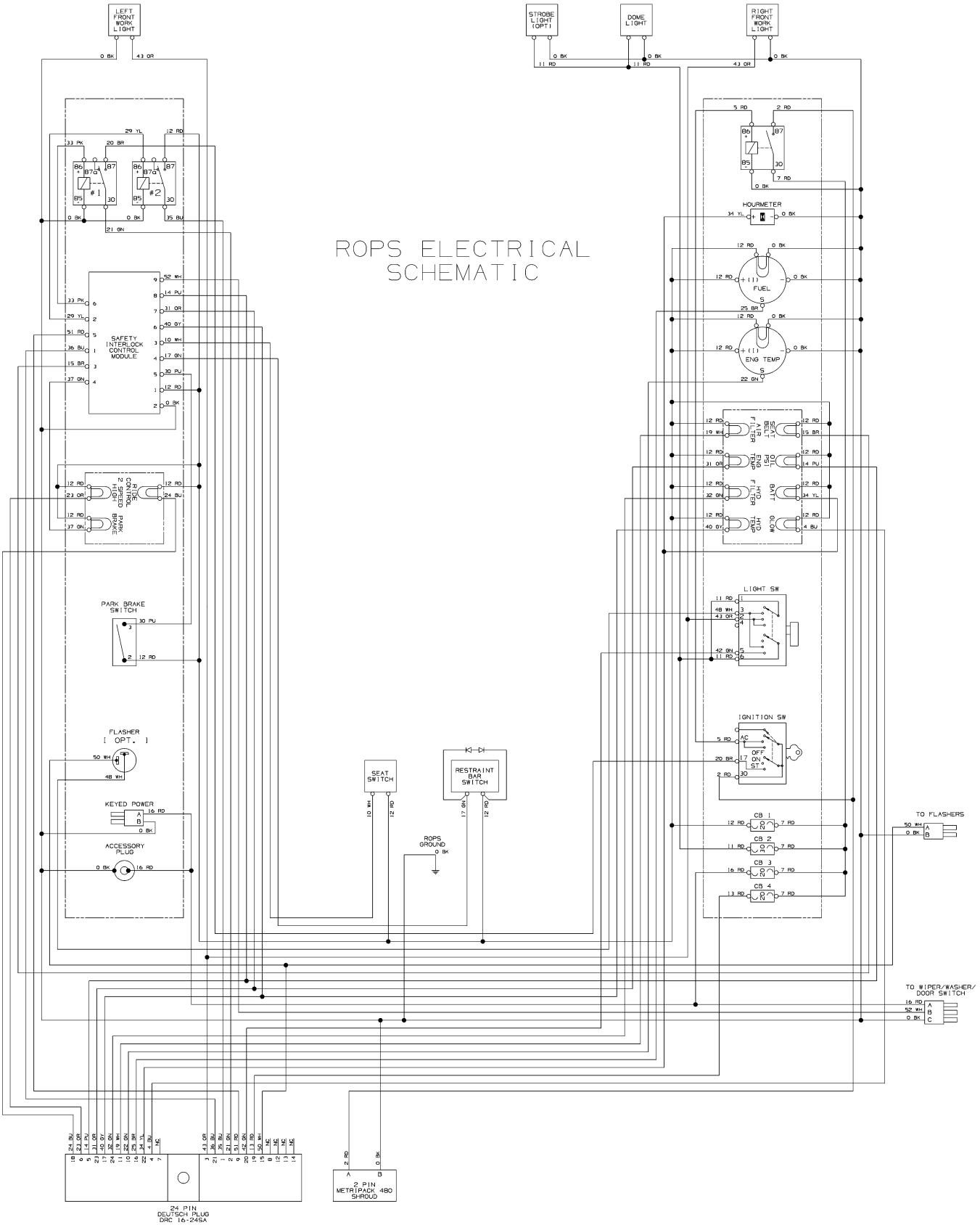


Fig. 9-21 Illustration of the interlock control module.

Electrical System Schematic



Battery Removal and Installation

Removal Procedure

WARNING

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

- ❑ **Shut off the engine.**
- ❑ **Roll ROPS back until lock engages.**
- ❑ **Turn engine disconnect switch to OFF.**

(For detailed instructions, refer to the *Safety* chapter of this manual).

WARNING

Review the following safety considerations before working on or around the battery.

- ❑ **Keep sparks and flames away from battery. Gas given off by the battery's electrolyte solution is extremely explosive.**
- ❑ **Avoid contact with battery electrolyte; wash off any electrolyte immediately.**
- ❑ **Wear safety glasses when working near battery.**
- ❑ **Do not tip battery more than 45° to avoid spilling electrolyte solution.**
- ❒ **To avoid injury from spark or short circuit, disconnect negative (-) battery cable before servicing electrical system.**

1. **T-Bar/Dual Hand:** Remove floor mat and unscrew four hex head machine screws on battery cover assembly. **Hand/Foot:** Unscrew four hex head machine screws on battery cover assembly. **Figs. 10-12, 10-13**
2. Remove battery cover assembly.
3. Unscrew four hex head machine screws on cover plate and place to the side. **Fig. 10-14**
4. Disconnect and remove negative (-) battery cable from battery. **Fig. 10-15**
5. Disconnect and remove positive (+) battery cable from battery. **Fig. 10-16**

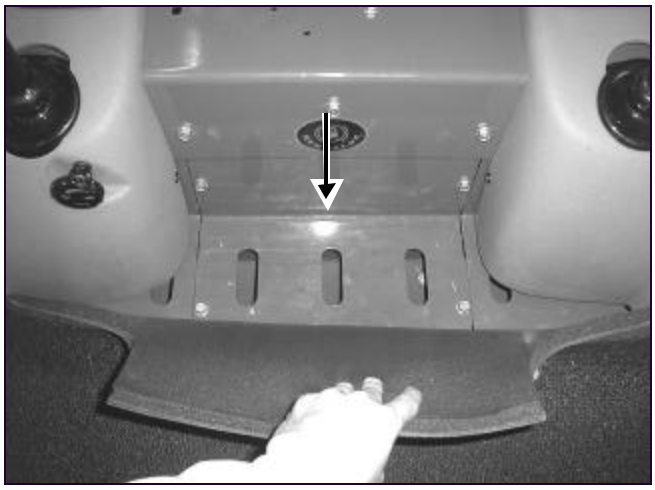


Fig. 10-12 On T-Bar/Dual Hand models, the floor cover pulled back reveals the first battery cover and four hex head machine screws securing it to the floor.

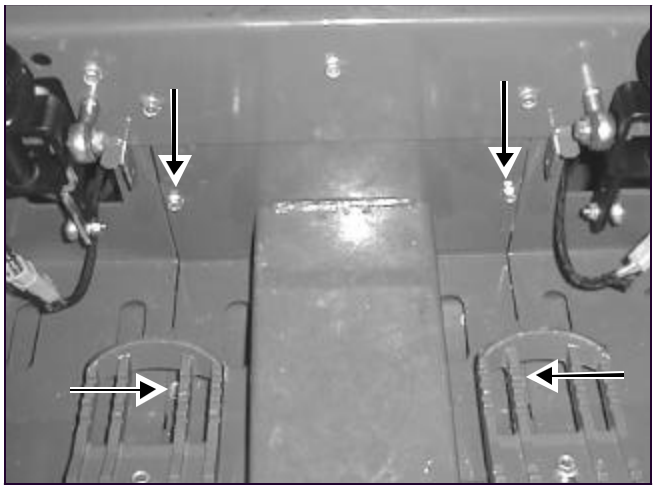


Fig. 10-13 Location of four hex head machine screws securing the first battery cover to the floor.

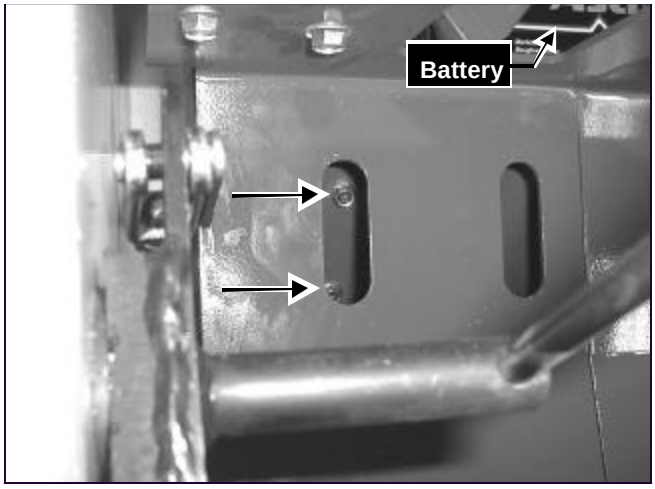


Fig. 10-14 Location of two of four (2 of 4) hex head machine screws below the hand throttle securing the second battery cover (cover plate) to the chassis.

9. Remove fan shroud assembly per the procedure in this chapter.

10. Loosen hose clamp and disconnect and cap fuel return hose from engine. Loosen hose clamp and disconnect and cap fuel inlet hose. **Figs. 10-39, 10-40**

11. Remove shoulder screw and locknut to disconnect throttle link tube from fuel injector arm on engine. **Fig. 10-41**

NOTE: The following two steps include disconnection of hydraulic hoses. If hoses cannot be capped/plugged to prevent fluid loss, the hydraulic reservoir should be drained BEFORE disconnecting hoses. Refer to the *Hydraulic System* chapter for the procedure.

NOTE: ALWAYS clean area around hydraulic fittings BEFORE disconnecting any hydraulic hose or tube.

12. Disconnect the following:

- **a.** Remote Oil Drain
- **b.** Hydraulic Lock Solenoids
- **c.** Parking Brake Solenoid
- **d.** Two-Speed Solenoid (optional on SL7600)
- **e.** Air Filter Restriction Switch
- **f.** Engine Temperature Sensors/Switch
- **g.** Starter
- **h.** Alternator
- **i.** Electrical Engine Panel
- **j.** Fuel Tank Sensor
- **k.** Fuel Shutoff Solenoid

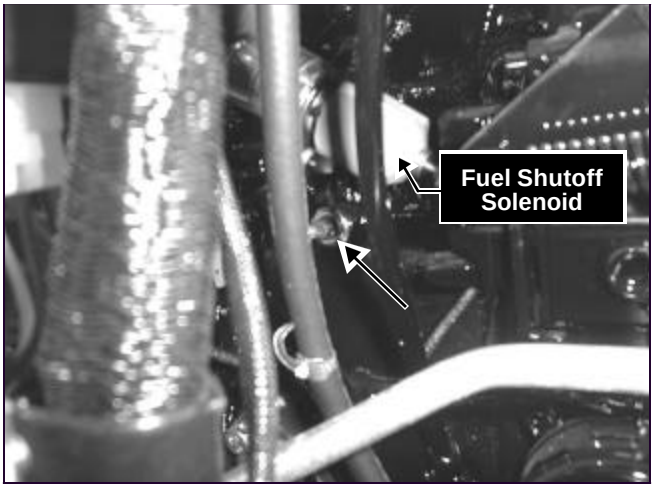


Fig. 10-42 Some of the disconnect locations on the engine prior to removing the engine from the skid loader.

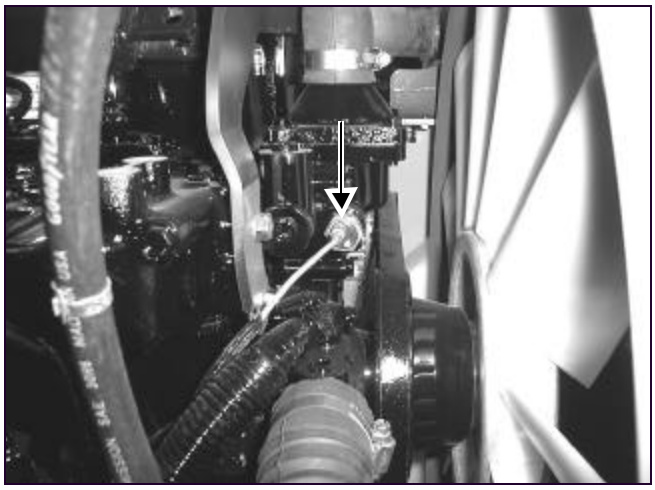


Fig. 10-43 Some of the disconnect locations on the engine prior to removing the engine from the skid loader.

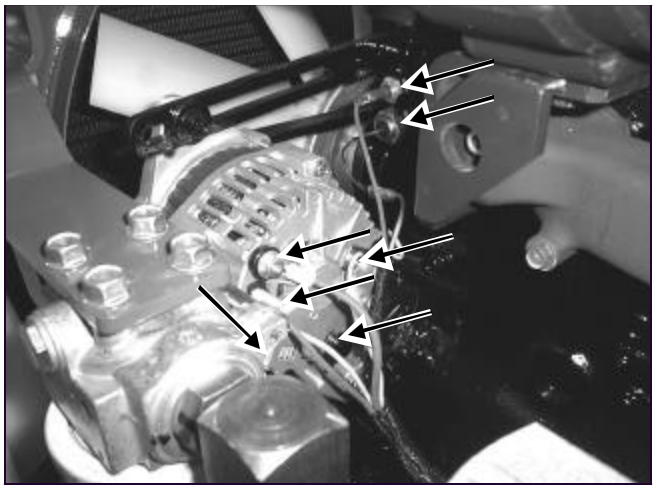


Fig. 10-44 Some of the disconnect locations on the engine prior to removing the engine from the skid loader.

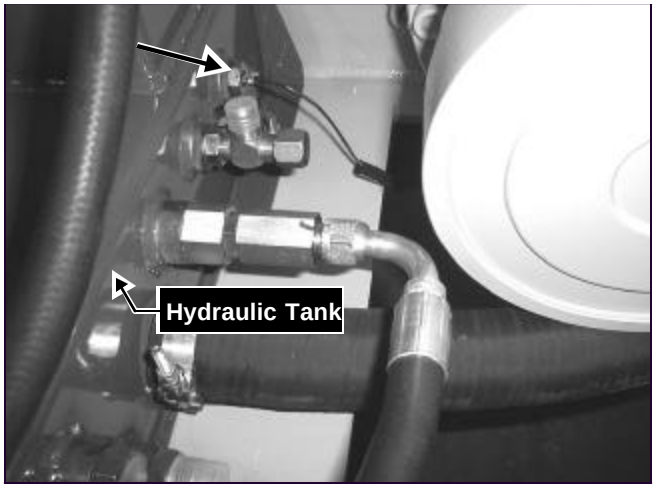


Fig. 10-45 Some of the disconnect locations on the engine prior to removing the engine from the skid loader.