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General Information

The above safety alert symbol means: ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! It stresses an attitude of "Heads Up for Safety" and can be found throughout this service manual and on the decals on the machine.

Before operating or working on this machine, read and study the following safety information. In addition, be sure that every individual who operates or works with this equipment is familiar with these safety precautions. It is essential to have competent and careful operators, who are not physically or mentally impaired, and who are thoroughly trained in the safe operation of the machine and the handling of loads. It is recommended that the operator be capable of obtaining a valid motor vehicle operator's license.

The use of skid steer loaders is subject to certain hazards that cannot be eliminated by mechanical means, but only by exercising intelligence, care and common sense. Such hazards include, but are not limited to, hillside operation, overloading, instability of the load, poor maintenance and using the equipment for a purpose for which it is not intended or designed.

The Mustang Company ALWAYS considers the operator's safety when designing its machinery and guards exposed moving parts for the operator's protection. However, some areas cannot be guarded or shielded in order to assure proper operation. Furthermore, the Operator's Manual and the decals on the machine warn of additional hazards and should be read and observed closely.

This section of the manual includes procedures, which when followed, will allow safe performance of service procedures: Mandatory Safety Shutdown Procedure, Lift Cylinder Liftarm Support Device, Roll Over Protective Structure (ROPS)/Falling Object Protective Structure (FOPS) Lock Mechanism, Loader Raising and Lowering Procedures, and Relieving Hydraulic Pressure.

Signal Words

DANGER

"DANGER" indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

"WARNING" indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

"CAUTION" indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. May also alert against unsafe practices.

Additional Safety Reminders



Read and understand the Service Manual and all decals before maintaining, adjusting or servicing this equipment.

Doors, Guards and Shields - Some photographs in this manual may show doors, guards and shields open or removed for illustrative purposes only. BE SURE all doors, guards and shields are in their proper operating positions BEFORE starting engine to operate unit.

Damaged or Worn-out Parts - For safe operation, replace damaged or worn-out parts with genuine Mustang service parts, BEFORE operating this equipment.

Attachments - Mustang loaders are designed and intended to be used only with Mustang Company attachments or approved referral attachments. The Mustang Company cannot be responsible for operator safety if the loader is used with a non-approved attachment.



Battery Safety - To avoid injury from a spark or short circuit, disconnect the negative battery cable (-) before servicing any part of the electrical system. Do not tip battery more than 45° to avoid spilling electrolyte.

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SPECIFICATIONS

	2095	2105
Make of Engine	Yanmar	Yanmar (Turbo)
Model	4TNE106	4TNE106T
Fuel	Diesel	Diesel
Displacement	269 CID (4,41 L)	269 CID (4,41 L)
Horsepower - Net	90 hp (67,1 kW) @ 2500 rpm	110 hp (82 kW) @ 2500 rpm
Peak Torque	240 lbf-ft (325 N•m) @ 1600 rpm	301 lbf-ft (408 N•m) @ 1600 rpm
*SAE Rated Operating Load	3150 lbs (1429 kg)	3600 lbs (1633 kg)
Operating Weight	9745 lbs (4420 kg)	9955 lbs (4515 kg)
Shipping Weight	8040 lbs (3650 kg)	8175 lbs (3710 kg)

Specifications below apply to all 2095 and 2105 models	
Capacities	
Hydraulic Reservoir	15 US gal (56,8 L)
Chaincases (each)	3 US gal (11,4 L)
Engine Oil	14.8 US qts (14 L)
Fuel Tank	29.5 US gal (112 L)
Electrical	
Battery	12 volt DC with 950 CCA
Starter	12 volt DC (2,3 kW)
Alternator	55 A
Hydraulic System	
Hydraulic System Pressure	3300 psi (228 bar)
Standard Auxiliary Flow Rate (Single)	2-29 gpm (8-110 L/min)
High-Flow Auxiliary Flow Rate (Dual)	40 gpm (151 L/min)
Travel Speed - Single Speed	0 to 8.0 mph (0 to 13 km/h)
Travel Speed - Two-Speed (optional on 2095)	0 to 14 mph (0 to 22,5 km/h)

Tire Options	
14 x 17.5	Foam-Filled tires
14 x 17.5 - 12 ply	High Clearance Flotation tires
33 x 15.5 x 16.5 - 12 ply	Extra Wide Heavy Duty tires
12 x 35	Solid Rubber tires

Buckets and Capacities			
Width - inches (millimeters)	**Bucket Description**	**Capacity (Heaped)**	
82 inches (2083 mm)	Dirt/Construction	21.0 cubic feet	0,59 cubic meters
82 inches (2083 mm)	Dirt/Construction	27.0 cubic feet	0,76 cubic meters
48 inches (1219 mm)	Pallet Fork	N/A	N/A

*Operating load rated with a 82 inch (2083 mm) dirt/construction bucket in accordance with SAE J818.

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Troubleshooting Guide

The following troubleshooting guide lists potential hydrostatic system problems, as well as possible causes and remedies, for Mustang 2095/2105 skid loaders.

When a problem occurs, don't overlook simple causes. A malfunction can be caused by something as simple as low oil level. After a mechanical failure has been corrected, be sure to locate and correct the cause of the problem.

IMPORTANT

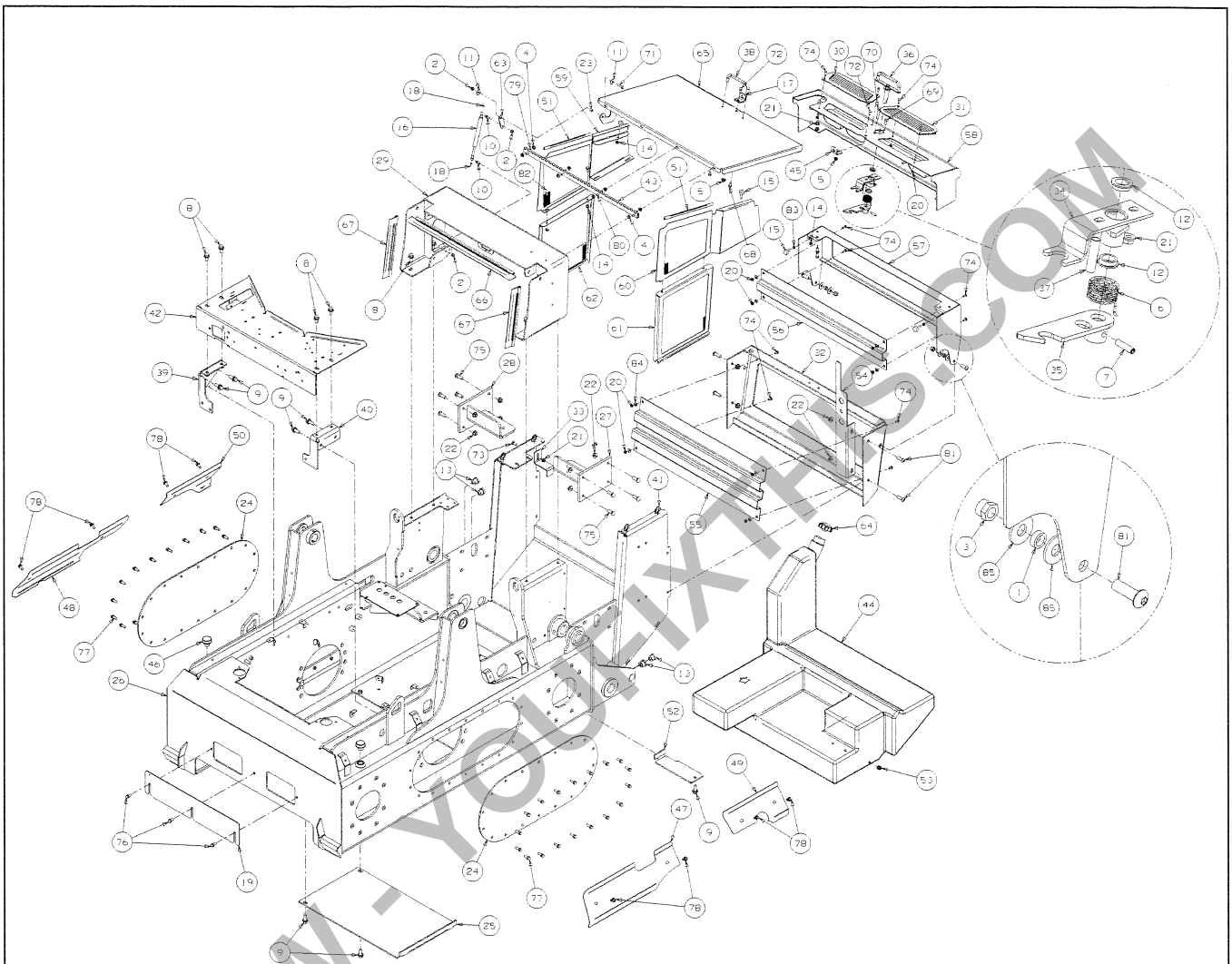
DO NOT attempt to service or repair major hydrostatic system components, such as the hydrostatic pumps or drive motors, unless authorized to do so by your Mustang dealer. Any unauthorized repair will void the warranty.

Problem	Possible Cause	Remedy
No response from the hydrostatic drive or the lift/tilt systems.	Hydraulic oil viscosity is too high.	Allow longer warm-up or replace oil with the proper viscosity oil.
	Hydraulic oil supply is too low.	Check for low oil level in reservoir. Add oil as needed.
	Hydrostatic pump drive is disconnected. Drive coupling failure.	Check for broken or worn pump Drive Coupling and replace, as needed.
Traction drive will not operate in either direction.	Parking brake is engaged.	Disengage parking brake.
	Hydraulic oil supply too low.	Check for low oil level in reservoir. Add oil if necessary.
	Control rod linkage disconnected.	Check linkage connection at control levers and neutral centering mechanisms. Reconnect linkage.
	Low or no charge pressure.	See hydrostatic pump manual.
	Hydrostatic pump relief valves are malfunctioning.	Inspect and clean the relief valves. Replace them as needed.
Drive wheels do not turn in proper direction for T-bar movement.	High pressure hydraulic hoses between hydrostatic pump and drive motors are connected wrong.	Reconnect hoses to proper ports on the drive motors. Refer to schematic and figures in hydrostatic chapter.

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Chassis, Covers, Floor Plates and Rear Grille Components



1 - Spacer	22 - Locknut	43 - Piano Hinge	64 - Fuel Cap
2 - Hex Nut	23 - Spacer	44 - Fuel Tank	65 - Engine Cover
3 - Locknut	24 - Chaincase Cover	45 - Bracket	66 - Clip-on Gasket
4 - Hex Nut	25 - Floor Plate	46 - Breather	67 - Clip-on Gasket
5 - Hex Nut	26 - Chassis	47 - Front Cover	68 - Capscrew
6 - Torsion Spring	27 - Engine Mount	48 - Front Cover	69 - Capscrew
7 - Roll Pin	28 - Engine Mount	49 - Rear Cover	70 - Capscrew
8 - Locking Capscrew	29 - Engine Cover	50 - Rear Cover	71 - Capscrew
9 - Locking Capscrew	30 - Door Assembly	51 - Trim Strip	72 - Carriage Bolt
10 - Ball Stud	31 - Door Assembly	52 - Cover Plate	73 - Carriage Bolt
11 - Belleville Washer	32 - Bottom Door	53 - Plug	74 - Carriage Bolt
12 - Bronze Bearing	33 - Tank Bracket	54 - Shroud Plate	75 - Carriage Bolt
13 - Plug	34 - Guide Assembly	55 - Lower Plate	76 - Machine Screw
14 - Locknut	35 - Latch Assembly	56 - Upper Plate	77 - Machine Screw
15 - Bumper	36 - Handle Assembly	57 - Bottom Door	78 - Thread Screw
16 - Gas Spring	37 - Threaded Spacer	58 - Top Door	79 - Phillips Screw
17 - Lock Bracket	38 - Engine Cover Handle	59 - Engine Panel	80 - Phillips Screw
18 - Gas Spring Clip	39 - Crossmember Support	60 - Engine Panel	81 - Button Head Capscrew
19 - Toeplate Cover	40 - Crossmember Support	61 - Side Cover	82 - Machine Screw
20 - Locknut	41 - Lock Handle	62 - Side Cover	83 - Jam Nut
21 - Locknut	42 - Crossmember	63 - Pivot Link	84, 85 - Washer

Fig. 4-5 Assembly view of the chassis, chassis control covers, and rear grille.

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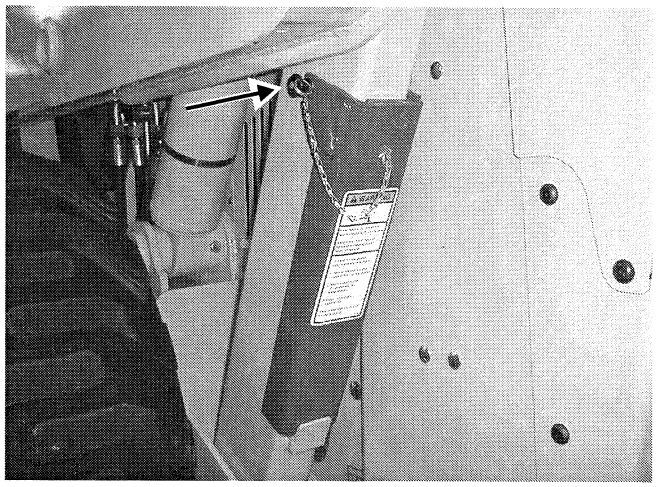


Fig. 2-1 The lock pin secures the liftarm support device on the rear link of the liftarm.



Fig. 2-2 Press in and hold the lock pin button and pull it out of the rear link.

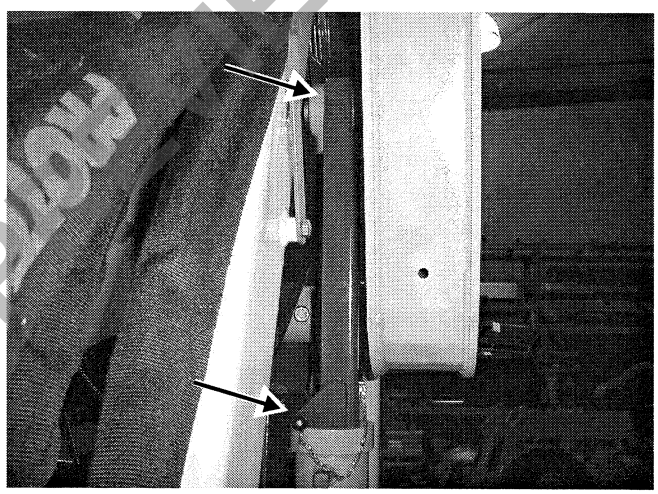


Fig. 2-3 The liftarm support device rests on top of the lift cylinder base on one end and, cradles the rod end of the lift cylinder on the other end.

Liftarm Support Device

⚠ WARNING

BEFORE leaving the operator's compartment to work on the loader with the liftarm raised, ALWAYS engage the liftarm support device. Turn the keyswitch to OFF, remove the key and take it with you.

Many service procedures require a raised liftarm to allow easier access to loader components. For operator and service personnel safety, a liftarm support device is standard on Mustang skid loaders. Used as a cylinder block, it helps prevent a raised liftarm from unexpectedly lowering.

BE SURE to engage liftarm support device whenever the liftarm is raised. When the device is not being used, secure it to left side of the timing link using the lock pin and cradle provided.

The liftarm support device is a safety device which must be kept in proper operating condition at ALL times.

The following procedures outline the correct way to engage and disengage the liftarm support device.

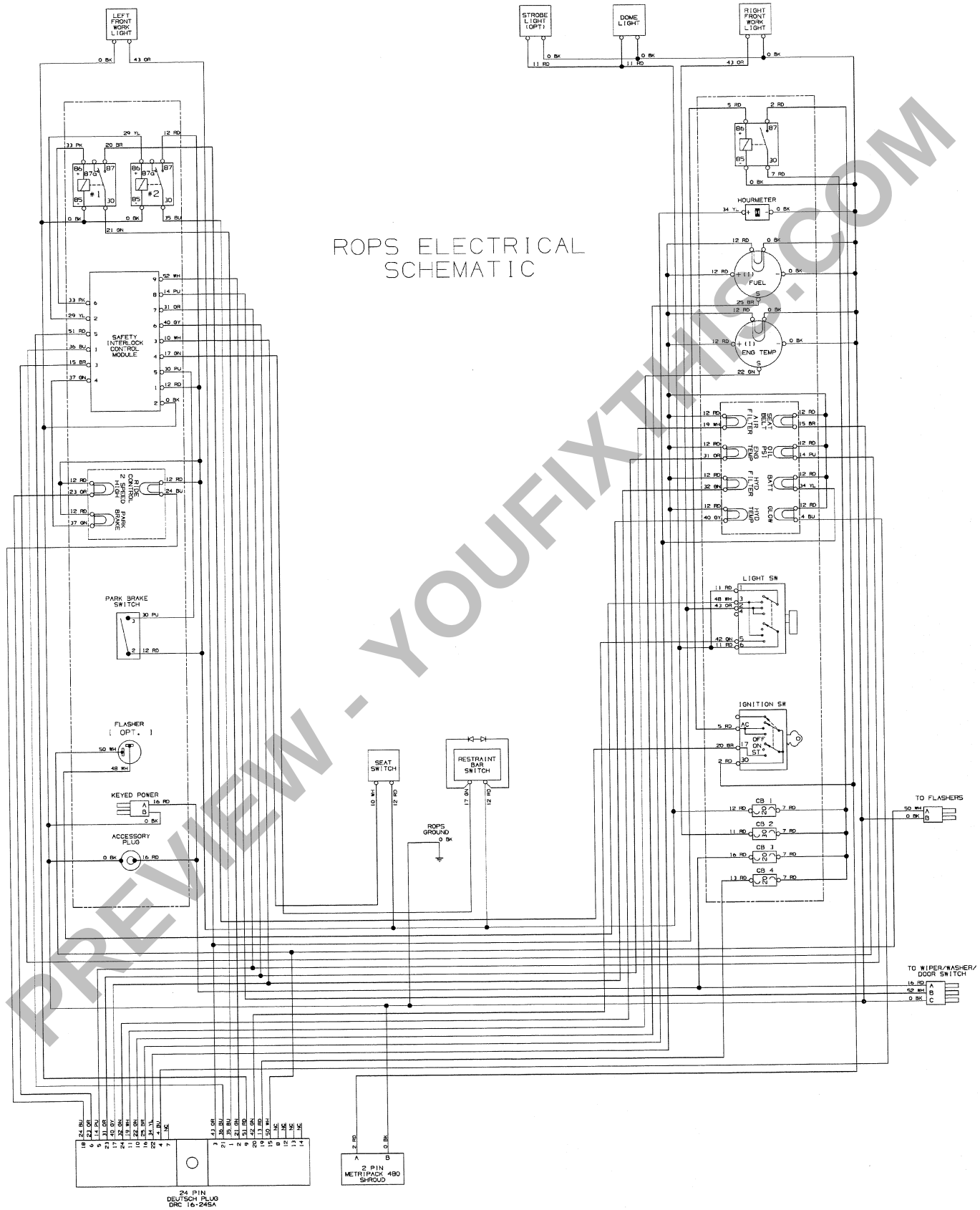
Liftarm Support Device Engagement

1. Lower liftarm until contact with loader frame.
2. Turn the keyswitch to the OFF position to stop the engine.
3. Leave operator's compartment. Press in and hold lock pin button to release its locking mechanism. Remove lock pin holding support device against timing link. Remove support device. **Figs. 2-1, 2-2**
4. Return to operator's compartment and restart engine. Use lift control to completely raise liftarm. Turn keyswitch to the OFF position to stop engine.
5. Leave operator's compartment. Vertically install support device around lift cylinder rod with u-shaped end up and out. Secure support device to lift cylinder rod with attached lock pin. **Fig. 2-3**
6. Return to operator's compartment and restart engine. Lower liftarm against support device. Then, stop the loader engine, remove the key and leave the operator's compartment.

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Electrical System Schematic



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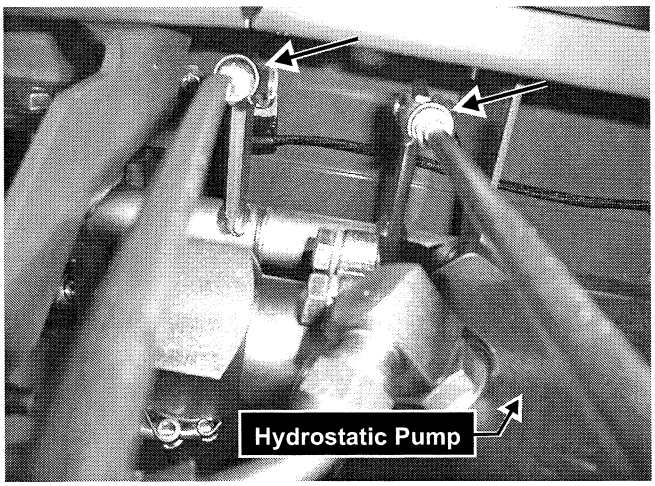


Fig. 4-74 Disconnect wheel drive control rods underneath the crossmember.

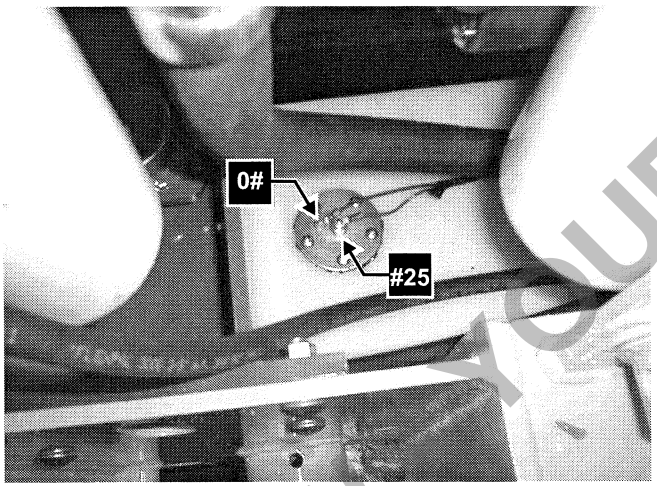


Fig. 4-75 Disconnect two wires on the fuel sensor.

Fuel Sensor Removal and Installation

Removal Procedure

⚠ WARNING

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

❑ Shut off the engine.

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

1. Drain fuel tank into a clean approved container. Drain fuel below sensor mounting (½ full).
2. Disconnect two wires from sensor. **Fig. 4-75**
3. Remove five screws securing sensor, then remove sensor and gasket from tank. **Fig. 4-76**

Installation Procedure

1. Clean old gasket adhesive off fuel tank.
2. Install new gasket using Form-A-Gasket #765-1211 (or equivalent) to seal sensor opening on fuel tank. **Fig. 4-77**
3. With float to rear of fuel tank, install sensor in fuel tank.
4. Install five screws through sensor into fuel tank. DO NOT OVERTIGHTEN.
5. Attach #25 (brown) wire to center stud with a nut and #0 (black) wire to ground stud with a nut.

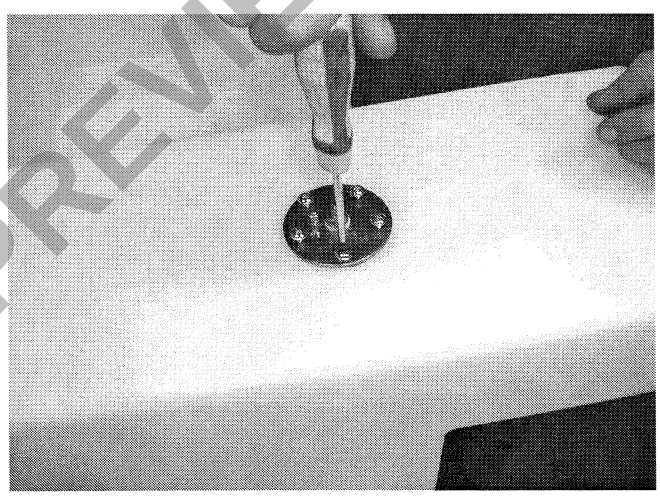


Fig. 4-76 Remove five screws remaining on the fuel sensor.

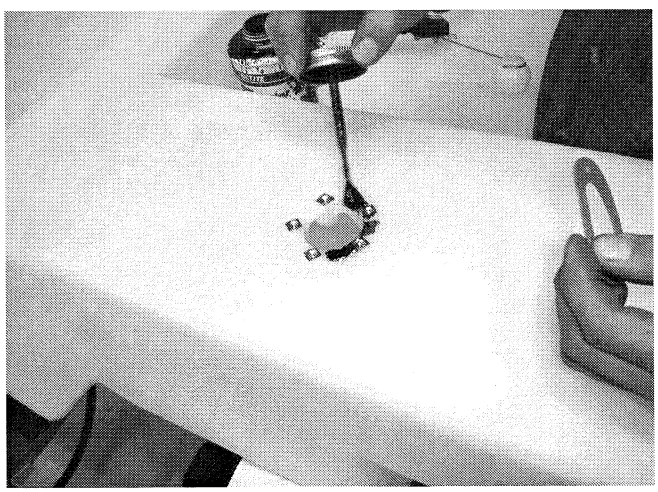


Fig. 4-77 Use Form-A-Gasket for new gasket seal on fuel tank.

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Auxiliary Hydraulics Cable Removal and Installation - Hand/Foot

Removal Procedure - Hand/Foot Controls

⚠ 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 capscrew, locknut and two washers on rod end inside control handle. Loosen jam nut on cable and remove rod end from cable. **Fig. 6-71**
2. Remove jam nut on cable in lower handle of control handle. **Fig. 6-72**
3. Pull auxiliary cable down through control handle.
4. Remove u-bolt securing cable to cable bracket. **Fig. 6-73**
5. Loosen jam nut and disconnect yoke end on cable from valve spool on main control valve. **Fig. 6-73**
6. Remove auxiliary control cable from loader.

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

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

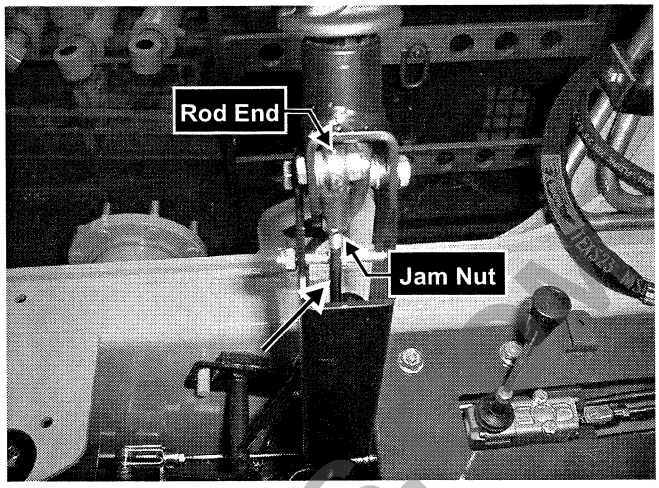


Fig. 6-71 Location of the auxiliary hydraulics cable in the control handle.

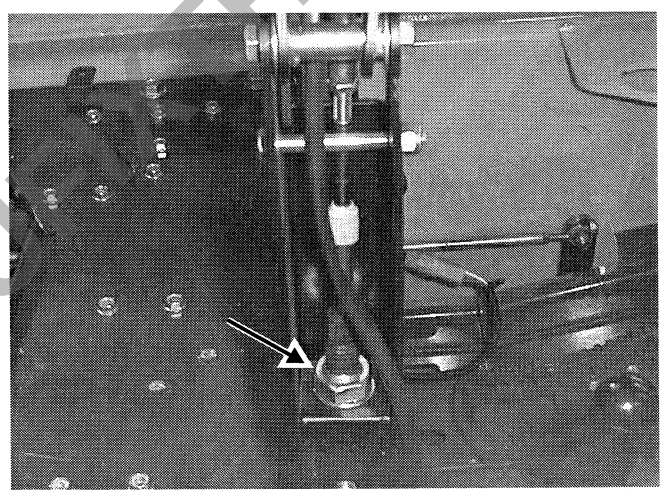


Fig. 6-72 Location of jam nut on cable in lower handle.

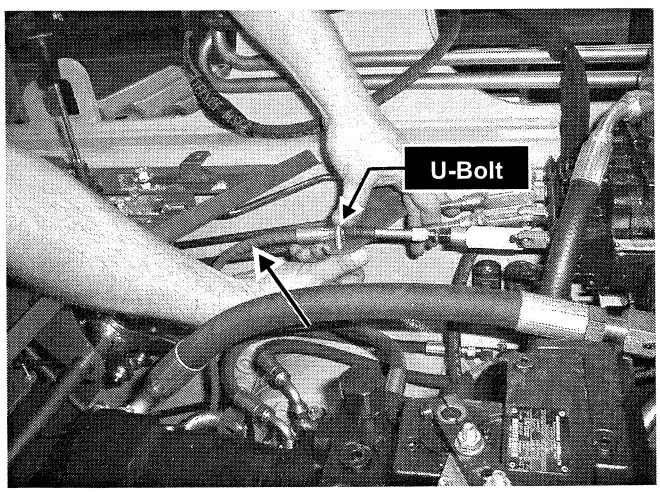


Fig. 6-73 The auxiliary hydraulics cable is located farthest out on the control cable bracket.

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3. Position lower end of tilt cylinder and insert pivot pin through cylinder and attachment mount. Secure pivot pin with a capscrew and locknut.

NOTE: The grease fitting on rod end of tilt cylinder should face inward as installed.

4. Remove plugs/caps and attach upper and lower tilt cylinder hoses to cylinder and then connect hoses to tubes on top of crossmember.

NOTE: After removing and/or replacing any component in hydraulic system, ALWAYS check level of hydraulic fluid in reservoir. Add fluid if necessary. 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 paper or cardboard. 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 cause permanent eyesight damage if safety glasses are not worn.

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

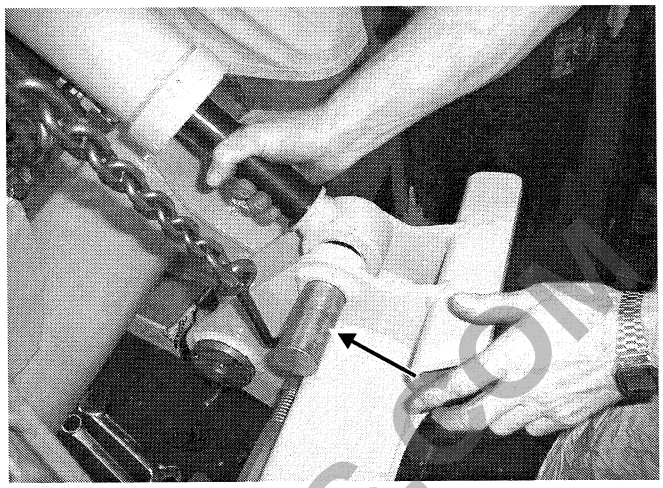


Fig. 8-33 Lower tilt cylinder pin driven out of cylinder rod end and the attachment plate.

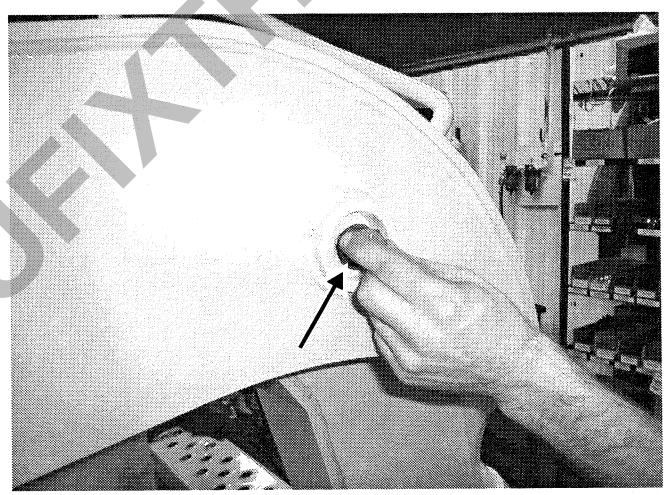


Fig. 8-34 Location of capscrew and washer securing the upper tilt cylinder pin to the liftarm.

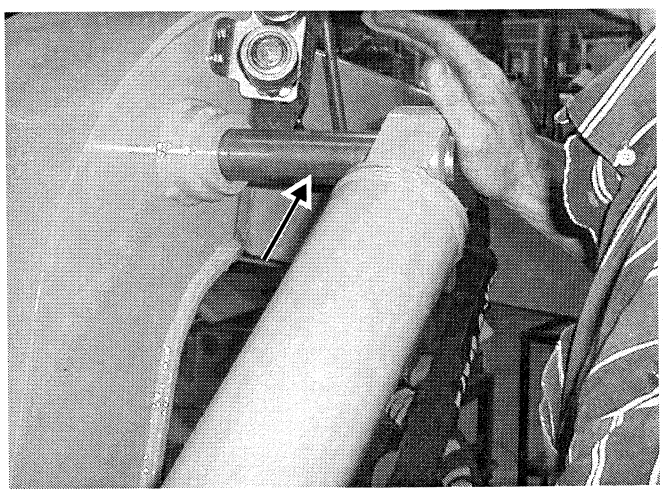
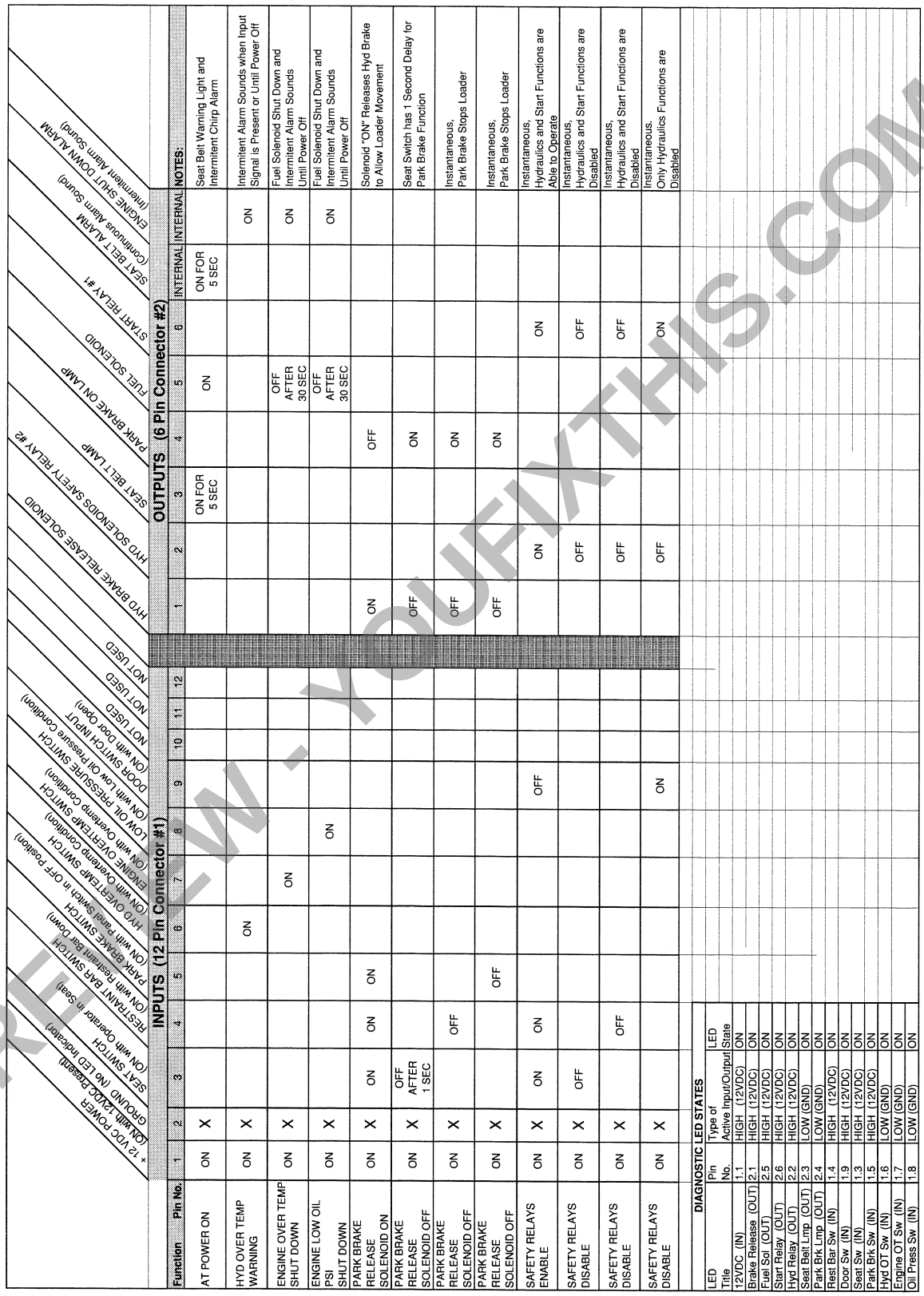


Fig. 8-35 The upper tilt cylinder pin and tilt cylinder.

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Interlock Control Module Truth Table



Function	Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	INTERNAL	INTERNAL	NOTES:
		INPUTS (12 Pin Connector #1)												OUTPUTS (6 Pin Connector #2)								
AT POWER ON		ON	X													ON FOR 5 SEC		ON		ON FOR 5 SEC		Seat Belt Warning Light and Intermitent Chirp Alarm
HYD OVER TEMP WARNING		ON	X				ON														ON	Intermitent Alarm Sounds when Input Signal is Present or Until Power Off
ENGINE OVER TEMP SHUT DOWN		ON	X					ON										OFF AFTER 30 SEC			ON	Fuel Solenoid Shut Down and Intermitent Alarm Sounds Until Power Off
ENGINE LOW OIL PSI SHUT DOWN		ON	X						ON									OFF AFTER 30 SEC			ON	Fuel Solenoid Shut Down and Intermitent Alarm Sounds Until Power Off
PARK BRAKE RELEASE SOLENOID ON		ON	X	ON	ON	ON								ON			OFF					Solenoid "ON" Releases Hyd Brake to Allow Loader Movement
PARK BRAKE RELEASE SOLENOID OFF		ON	X	OFF AFTER 1 SEC										OFF			ON					Seat Switch has 1 Second Delay for Park Brake Function
PARK BRAKE RELEASE SOLENOID OFF		ON	X		OFF									OFF			ON					Instantaneous, Park Brake Stops Loader
PARK BRAKE RELEASE SOLENOID OFF		ON	X			OFF								OFF			ON					Instantaneous, Park Brake Stops Loader
SAFETY RELAYS ENABLE		ON	X	ON	ON					OFF					ON				ON			Instantaneous, Hydraulics and Start Functions are Able to Operate
SAFETY RELAYS DISABLE		ON	X	OFF											OFF				OFF			Instantaneous, Hydraulics and Start Functions are Disabled
SAFETY RELAYS DISABLE		ON	X		OFF										OFF				OFF			Instantaneous, Hydraulics and Start Functions are Disabled
SAFETY RELAYS DISABLE		ON	X							ON					OFF				ON			Instantaneous. Only Hydraulics Functions are Disabled

DIAGNOSTIC LED STATES			
LED Title	Pin No.	Type of Active Input/Output	LED State
12VDC (IN)	1.1	HIGH (12VDC)	ON
Brake Release (OUT)	2.1	HIGH (12VDC)	ON
Fuel Sol (OUT)	2.5	HIGH (12VDC)	ON
Start Relay (OUT)	2.6	HIGH (12VDC)	ON
Hyd Relay (OUT)	2.2	HIGH (12VDC)	ON
Seat Belt Lmp (OUT)	2.3	LOW (GND)	ON
Park Brk Lmp (OUT)	2.4	LOW (GND)	ON
Rest Bar Sw (IN)	1.4	HIGH (12VDC)	ON
Door Sw (IN)	1.9	HIGH (12VDC)	ON
Seat Sw (IN)	1.3	HIGH (12VDC)	ON
Park Brk Sw (IN)	1.5	HIGH (12VDC)	ON
Hyd OT Sw (IN)	1.6	LOW (GND)	ON
Engine OT Sw (IN)	1.7	LOW (GND)	ON
Oil Press Sw (IN)	1.8	LOW (GND)	ON

Fig. 9-22 Truth table for the interlock control module.

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