1-1. CAPACITIES.

- **Hydraulic Oil Tank.**
  - Approximately 64.4 liters w/15% air space.
- **Battery Charger - Battery Powered Machine.**
  - 220 Volts - 50 Hertz input.
  - 24 Volts DC - 25 Amp output w/auto timer.

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INDEX NO.	COMPONENT	NUMBER/TYPE LUBE POINTS	LUBE & METHOD	INTERVAL (HOURS)

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2-1. GENERAL.

a. This section provides information necessary to perform maintenance on the sizzor lift. Descriptions, techniques and specific procedures are designed to provide the safest and most efficient maintenance for use by personnel responsible for ensuring the correct installation and operation of machine components and systems.

CAUTION

WHEN AN ABNORMAL CONDITION IS NOTED AND PROCEDURES CONTAINED HEREIN DO NOT SPECIFICALLY RELATE TO THE NOTED IRREGULARITY, WORK SHOULD BE STOPPED AND TECHNICALLY QUALIFIED GUIDANCE OBTAINED BEFORE WORK IS RESUMED.

b. The maintenance procedures included consist of servicing and component removal and installation, disassembly and assembly, inspection, lubrication and cleaning. Information on any special tools or test equipment is also provided where applicable.

2-2. SERVICING AND MAINTENANCE GUIDELINES.

a. General.

The following information is provided to assist you in the use and application of servicing and maintenance procedures contained in this chapter.

b. Safety and Workmanship.

Your safety, and that of others, is the first consideration when engaging in the maintenance of equipment. Always be conscious of weight. Never attempt to move heavy parts without the aid of a mechanical device. Do not allow heavy objects to rest in an unstable position. When raising a portion of the equipment, ensure that adequate support is provided.

c. Cleanliness.

(1). The most important single item in preserving the long service life of a machine is to keep dirt and foreign materials out of the vital components. Precautions have been taken to safeguard against this. Shields, covers, seals, and filters are provided to keep air, fuel, and oil supplies clean; however, these items must be maintained on a scheduled basis in order to function properly.

(2). At any time when air, fuel, or oil lines are disconnected, clear adjacent areas as well as the openings and fittings themselves. As soon as a line or component is disconnected, cap or cover all openings to prevent entry of foreign matter.

(3). Clean and inspect all parts during servicing or maintenance, and assure that all passages and openings are unobstructed. Cover all parts to keep them clean. Be sure all parts are clean before they are installed. New parts should remain in their containers until they are ready to be used.

d. Components Removal and Installation.

(1). Use adjustable lifting devices, whenever possible, if mechanical assistance is required. All slings (chains, cables, etc.) should be parallel to each other and as near perpendicular as possible to top of part being lifted.

(2). Should it be necessary to remove a component on an angle, keep in mind that the capacity of an eyebolt or similar bracket lessens, as the angle between the supporting structure and the component becomes less than 90 degrees.

(3). If a part resists removal, check to see whether all nuts, bolts, cables, brackets, wiring, etc., have been removed and that no adjacent parts are interfering.

e. Component Disassembly and Reassembly.

When disassembling or reassembling a component, complete the procedural steps in sequence. Do not partially disassemble or assemble one part, then start on another. Always recheck your work to assure that nothing has been overlooked. Do not make any adjustments, other than those recommended, without obtaining proper approval.

f. Pressure-Fit Parts.

When assembling pressure-fit parts, use an "anti-seize" or molybdenum disulfide base compound to lubricate the mating surface.

g. Bearings.

(1). When a bearing is removed, cover it to keep out dirt and abrasives. Clean bearings in nonflammable cleaning solvent and allow to drip dry. Compressed air can be used but do not spin the bearing.

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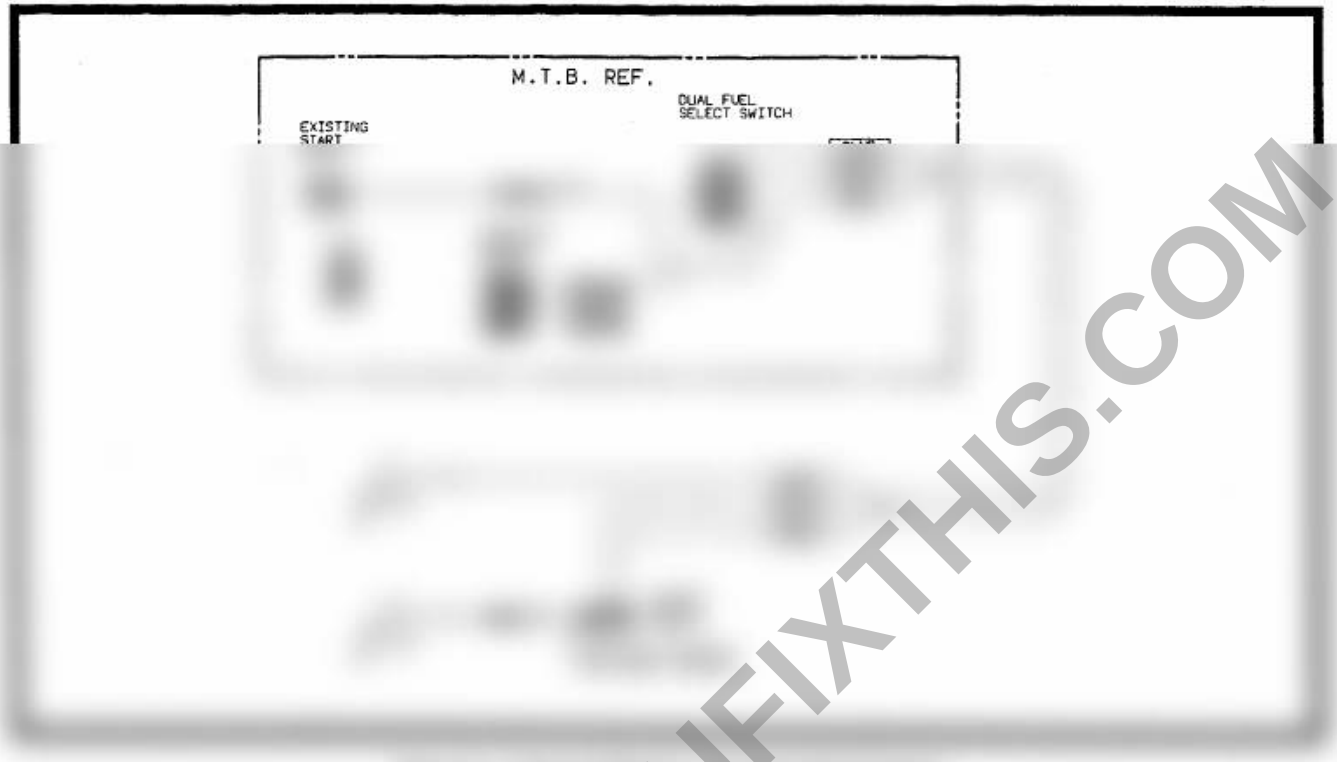
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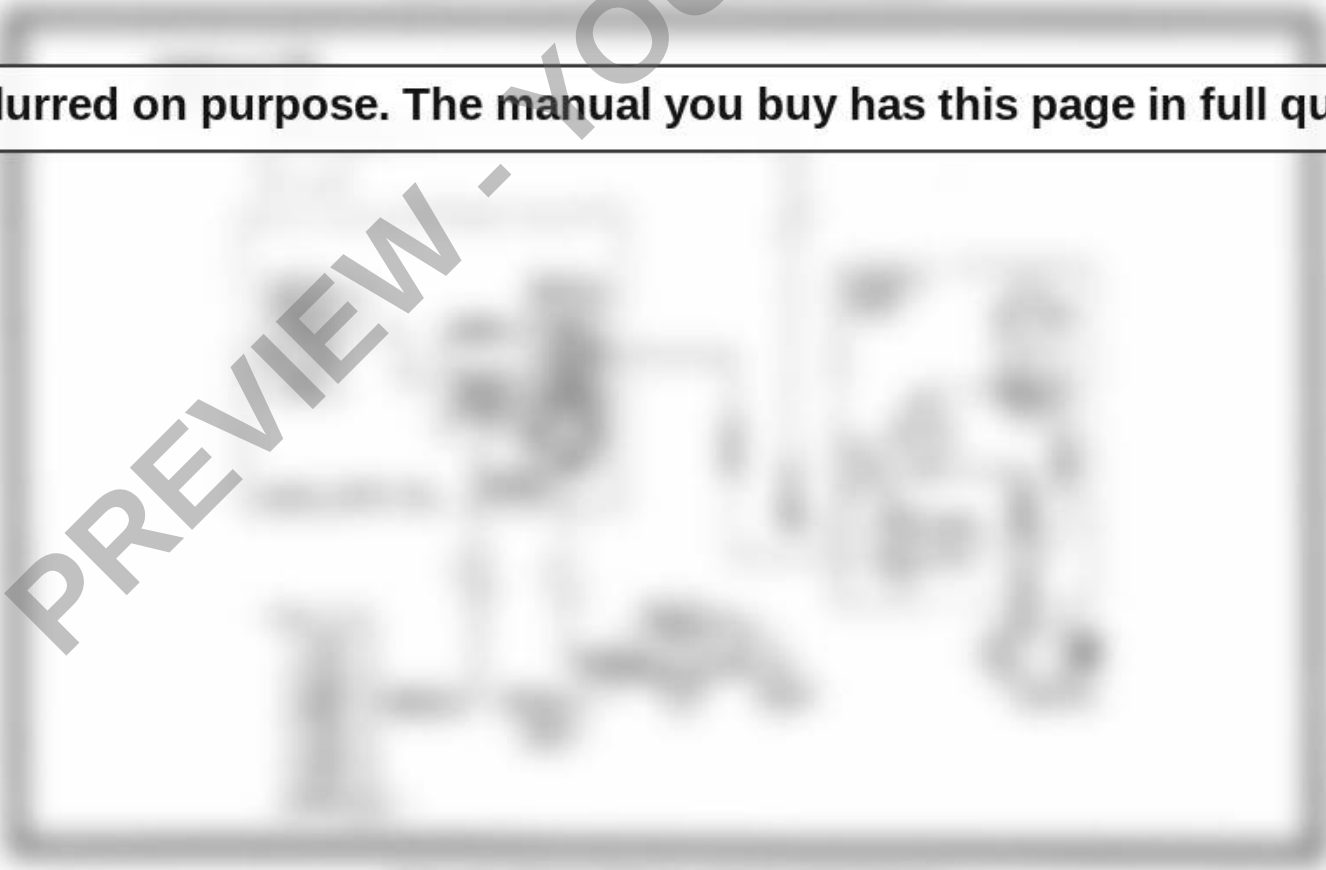
Table 3-1. Platform Elevation System Troubleshooting.

TROUBLE	PROBABLE CAUSE	REMEDY
Platform Elevation System.		
No response to control switch.	LIFT control switch inoperative.	Repair or replace control switch.
	Hydraulic system oil low.	Replenish oil as necessary.
	No power supply.	See wiring diagram.
	Restricted or broken supply line on valve bank or hydraulic pump.	Clean, repair or replace line.
	Control valve not functioning properly.	Repair or replace valve.
	Defective dump valve on cylinder.	Repair or replace dump valve.
	Lift cylinder not functioning properly.	Repair or replace cylinder.
	Hydraulic pump not functioning properly.	Repair or replace pump.
Platform will not raise.	Load capacity exceeded. (Personnel and/or equipment on platform.)	Reduce load. (Refer to capacity placard.)
	Load capacity exceeded, overload cut-out activated. (French Specifications)	Reduce load. (Refer to capacity placard.)
	Hydraulic system oil low.	Replenish oil as necessary.
	Broken or binding pivot pin.	Repair or replace pivot pin.
	Restricted or broken hydraulic line or fitting.	Clean, repair, or replace line or fitting.
	Control valve not functioning properly.	Repair or replace valve.
	Lift cylinder not functioning properly.	Repair or replace cylinder.
	Pump does not respond when LIFT control switch is moved to UP position.	Refer to Electrical System Troubleshooting Chart. No response to control switch.
	No electrical signal being sent to LIFT UP control valve cartridge.	Refer to Electrical System Troubleshooting Chart. No response to control switch.
Platform will not lower.	Load capacity exceeded, overload cut-out activated. (French Specifications)	Reduce load. (Refer to capacity placard.)
	Pump does not respond when LIFT control switch is moved to DOWN position.	Refer to Electrical System Troubleshooting Chart. No response to control switch.
	No electrical signal sent to LIFT DOWN control valve cartridge.	Refer to Electrical System Troubleshooting chart. No response to control switch.
	LIFT DOWN control valve cartridge not functioning properly.	Repair or replace LIFT DOWN control valve cartridge.
	Lift cylinder not functioning properly.	Repair or replace cylinder.

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(j). Remove bleeder valve from its brake port.

(3). Leak test unit at a pressure of 0.4 kg/cm^2 for 2 to 3 minutes.

(4). Remove the twelve grade 8 bolts (12) and four shoulder bolts (13) from cover (6).

(5). Remove flatwashers (14) from cover.

(6). Remove cover from hub (107).

(7). If necessary, disassemble cover as follows:

(a). Remove pipe plug (308) from cover if it has not already been removed.

(b). Set cover down so that its open end faces up. Remove o-ring (5) from counterbore in cover. Discard o-ring.

(c). Turn cover over. Remove two bolts (303) that hold disconnect cap (304) in place.

(d). Remove disconnect cap from cover.

(e). Remove two remaining bolts (303) that hold cover cap (302) in place.

(f). Remove cover cap from cover.

(g). Remove disconnect rod (305) from cover cap.

(h). Remove o-ring (306) from groove inside cover cap. Discard o-ring.

(i). Remove o-ring (307) from outside of cover cap. Discard o-ring.

(8). Remove thrust washer (11) from carrier assembly (3).

(9). Remove thrust spacer (10) from input shaft assembly (7).

(10). Remove ring gear (4) from mesh with carrier assembly.

(11). Remove carrier assembly from hub.

(12). If necessary, disassemble carrier assembly as follows:

(a). Locate roll pin (207) in carrier housing (201). Drive roll pin down into planet shaft (206) until it bottoms against carrier houswing. If roll pin is not completely driven into planet shaft, damage to carrier could occur when shaft is removed.

(b). Drive roll pin out of planet shaft. Roll pin must come out through side of planet shaft that it originally went into.

(c). Remove planet shaft from carrier housing. Two thrust washers (202) and cluster gear (205) will slide off.

(d). Remove needle rollers (203) and spacer (204) from inside cluster gear.

(e). Repeat steps (a) through (d) to remove two remaining cluster gears.

(13). Remove input gear (8) from input shaft assembly.

(14). Remove thrust spacer (9) from input shaft assembly.

(15). Remove input shaft assembly from spindle/brake.

(16). If necessary, disassemble input shaft as follows:

(a). Remove retaining ring (402) from input shaft. Discard retaining ring.

(b). Slide spacer (404), spring (403), and other spacer (404) off of input shaft.

(17). Remove thrust washer (11) from bottom of internal gear (2).

(18). Remove internal gear from hub.

(19). Remove o-ring (5) from counterbore in hub. Discard o-ring.

(20). Using a screwdriver or chisel and hammer, straighten out tang on lockwasher (109) which has been bent into notch in locknut (110).

(21). Using an N-13 locknut wrench (tool no. T-141863), loosen locknut. Remove locknut from spindle/brake and discard.

(22). Remove lockwasher from spindle/brake and discard.

(21). Remove tongued washer (108) from spindle/brake.

(22). Lift bearing cone (106) out of hub.

(23). Lift hub off of spindle/brake.

(24). Using a slide hammer, remove seal (102) from small end of hub. Discard seal.

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