

## 9 . TROUBLESHOOTING

### 1. ENGINE SYSTEM

| Trouble symptom  | Probable cause   | Remedy  |
|--|--|---|
| Oil pressure warning lamp fails to go out.                     | <ul style="list-style-type: none"> <li>• Low oil level in oil pan.</li> <li>• Oil filter element clogged.</li> <li>• Loose or worn oil pipe joint leaks oil.</li> </ul>  | <ul style="list-style-type: none"> <li>• Add oil.</li> <li>• Replace element.</li> <li>• Check and repair.</li> </ul>   |
| Radiator pressure valve spouts steam.                          | <ul style="list-style-type: none"> <li>• Lack of cooling water or water leakage.</li> <li>• Loosen fan belt.</li> <li>• Dust and scale accumulated in cooling system.</li> </ul>   | <ul style="list-style-type: none"> <li>• Add water or repair.</li> <li>• Adjust belt.</li> <li>• Change water and clean the interior of cooling system.</li> </ul>                              |
| Water temp gauge indicates red range, on right.                | <ul style="list-style-type: none"> <li>• Radiator fin clogged or fin damaged.</li> <li>• Thermostat or water temp gauge faulty.</li> <li>• Radiator filler cap loosening.</li> </ul>   | <ul style="list-style-type: none"> <li>• Clean or repair.</li> <li>• Replace</li> <li>• Retighten cap or replace packing.</li> </ul>  |
| Water temp gauge indicates red range, on left.                 | <ul style="list-style-type: none"> <li>• Thermostat faulty.</li> <li>• Water temperature gauge faulty.</li> </ul>  | <ul style="list-style-type: none"> <li>• Replace</li> <li>• Replace</li> </ul>  |
| Engine fails to start.   | <ul style="list-style-type: none"> <li>• Lack of fuel.</li> <li>• Air mixed in fuel system.</li> <li>• Fuel injection pump or nozzle defective.</li> <li>• Starting motor rotates slowly.</li> <li>• Engine compression insufficient.</li> <li>• Valve clearance out of adjustment.</li> </ul> | <ul style="list-style-type: none"> <li>• Add fuel.</li> <li>• Repair.</li> <li>• Replace.</li> <li>• See "Electrical system."</li> <li>• Adjust clearance</li> </ul>                            |
| Engine emits whitish or bluish smoke.                          | <ul style="list-style-type: none"> <li>• Excessive quantity of oil in oil pan.</li> <li>• Poor quality of fuel.</li> </ul>   | <ul style="list-style-type: none"> <li>• Reduce oil quantity.</li> <li>• Replace with specified fuel.</li> </ul>  |
| Engine emits blackish smoke.                                   | <ul style="list-style-type: none"> <li>• Air cleaner element clogged.</li> </ul>   | <ul style="list-style-type: none"> <li>• Clean or replace element.</li> </ul>   |
| Irregular fuel feeding sound heard.                            | <ul style="list-style-type: none"> <li>• Fuel feed pump faulty.</li> </ul>   | <ul style="list-style-type: none"> <li>• Replace pump.</li> </ul>   |
| Abnormal sound heard.<br>(Fuel combustion or mechanical sound) | <ul style="list-style-type: none"> <li>• Poor quality of fuel.</li> <li>• Overheating</li> <li>• Muffler interior damaged.</li> <li>• Excessively large valve clearance.</li> </ul>  | <ul style="list-style-type: none"> <li>• Replace with specified fuel.</li> <li>• See Symptom "Radiator pressure valve spouts steam".</li> <li>• Replace</li> <li>• Adjust clearance.</li> </ul> |

## 2. ELECTRICAL SYSTEM

| Trouble symptom  | Probable cause   | Remedy  |
|--|--|---|
| Lamps dimming even at maximum engine speed.  | <ul style="list-style-type: none"> <li>Faulty wiring.</li> </ul>   | <ul style="list-style-type: none"> <li>Check for loose terminal and disconnected wire.</li> </ul> |
| Lamps flicker during engine operation.   | <ul style="list-style-type: none"> <li>Improper belt tension.</li> </ul>   | <ul style="list-style-type: none"> <li>Adjust belt tension.</li> </ul>                            |
| Charge lamp does light during normal engine operation.   | <ul style="list-style-type: none"> <li>Charge lamp defective.</li> <li>Faulty wiring.</li> </ul>                   | <ul style="list-style-type: none"> <li>Replace.</li> <li>Check and repair.</li> </ul>             |
| Alternator makes abnormal sounds.  | <ul style="list-style-type: none"> <li>Alternator defective.</li> </ul>  | <ul style="list-style-type: none"> <li>Replace</li> </ul>   |
| Starting motor fails to run.   | <ul style="list-style-type: none"> <li>Faulty wiring.</li> <li>Insufficient battery voltage.</li> </ul>            | <ul style="list-style-type: none"> <li>Check and repair.</li> <li>Recharge battery.</li> </ul>    |
| Starting motor pinion repeats going in and out.  | <ul style="list-style-type: none"> <li>Insufficient battery voltage.</li> </ul>                                    | <ul style="list-style-type: none"> <li>Recharge battery.</li> </ul>                               |
| Excessively low starting motor speed.  | <ul style="list-style-type: none"> <li>Insufficient battery voltage.</li> <li>Starting motor defective.</li> </ul> | <ul style="list-style-type: none"> <li>Recharge battery.</li> <li>Replace</li> </ul>              |
| Starting motor comes to a stop before engine starts up.  | <ul style="list-style-type: none"> <li>Faulty wiring.</li> <li>Insufficient battery voltage.</li> </ul>            | <ul style="list-style-type: none"> <li>Check and repair.</li> <li>Recharge battery.</li> </ul>    |
| Heater signal does not become red.<br>* Heater functions only when the coolant temperature is below 0°C.             | <ul style="list-style-type: none"> <li>Faulty wiring.</li> <li>Glow plug damaged.</li> </ul>                       | <ul style="list-style-type: none"> <li>Check and repair.</li> <li>Replace</li> </ul>              |
| Engine oil pressure warning lamp does not light when engine is stopped (with starting switch left in "ON" position). | <ul style="list-style-type: none"> <li>Caution lamp defective.</li> <li>Caution lamp switch defective.</li> </ul>  | <ul style="list-style-type: none"> <li>Replace</li> <li>Replace</li> </ul>                        |

### 3. TORQUE FLOW SYSTEM

| Trouble symptom  | Probable cause   | Remedy   |
|--|--|--|
| <b>1. Excessive oil temperature rise</b><br>1) Torque converter<br><br><br><br><br><br><br><br><br><br><br>2) Transmission | <ul style="list-style-type: none"> <li>· Improper oil level.</li> <li>· Impeller interfering with surroundings.</li> <li>· Stator and free wheel malfunctioning.</li> <li>· Air sucked in.</li> <li>· Water intruding into transmission case.</li> <li>· Bearing worn or seizing.</li> <li>· Gauge malfunctioning.</li> <li>· Clutch dragging.</li> <li>· Bearing worn or seized.</li> </ul>   | <ul style="list-style-type: none"> <li>· Check oil level. Add or drain oil as necessary.</li> <li>· After draining oil from oil tank and transmission, check and replace interfering parts.</li> <li>· Check engine (stalling) speed. If necessary, replace.</li> <li>· Check the inlet side joint or pipe. If necessary, retighten joint or replace gasket.</li> <li>· Check drained oil. If necessary, change oil.</li> <li>· Disassemble, inspect, repair or replace.</li> <li>· Check and, if necessary, replace.</li> <li>· Check to see whether or not truck moves even when transmission is placed in neutral position. If so, replace clutch plate.</li> <li>· Disassemble, check and replace.</li> </ul>  |
| <b>2. Noise operation</b><br>1) Torque converter<br><br><br><br><br><br><br><br><br><br><br>2) Transmission                | <ul style="list-style-type: none"> <li>· Cavitation produced.</li> <li>· Flexible plate damaged.</li> <li>· Bearing damaged or worn.</li> <li>· Gear damaged.</li> <li>· Impeller interfering with surroundings.</li> <li>· Bolt loosening.</li> <li>· Spline worn.</li> <li>· Noise gear pump operation.</li> <li>· Dragging caused by seizing clutch.</li> <li>· Bearing worn or seizing.</li> <li>· Gear damaged.</li> <li>· Bolt loosening.</li> <li>· Spline worn.</li> </ul> | <ul style="list-style-type: none"> <li>· Change oil, replace parts leaking air.</li> <li>· Listen to rotating sound at lowspeed operation. If necessary, replace flexible plate.</li> <li>· Disassemble, check and replace.</li> <li>· Disassemble, check and replace.</li> <li>· Check impeller or check drained oil for mixing of foreign matter. If necessary, change oil.</li> <li>· Disassemble and check. If necessary, retighten or replace.</li> <li>· Disassemble, check and replace.</li> <li>· Disassemble, check and replace.</li> <li>· Check to see whether or not machine moves even when transmission is in neutral position. If so, replace clutch plate.</li> <li>· Disassemble, check and replace</li> <li>· Disassemble, check and replace</li> <li>· Disassemble, check and retighten or replace</li> <li>· Disassemble, check and replace</li> </ul> |

| Trouble symptom                                   | Probable cause   | Remedy  |
|---|--|---|
| <b>3. Low output power</b><br>1) Torque converter | <ul style="list-style-type: none"> <li>· Insufficient hydraulic pressure :               <ul style="list-style-type: none"> <li>- Low oil level.</li> <li>- Air sucked in.</li> </ul> </li> <li>- Oil filter clogging.</li> <li>- Oil pump worn.<br/>(Low delivery flow)</li> <li>- Regulator valve coil spring fatigued.</li> <li>- Control valve spool malfunctioning.</li> <li>- Piston or O-ring worn.</li> <li>· Stator free wheel cam damaged.</li> <li>· Stator free wheel seizing.</li> <li>· Impeller damaged for interfering with the surroundings.</li> <li>· Flexile plate deformed</li> <li>· Use of poor quality of oil or arising of air bubbles.               <ul style="list-style-type: none"> <li>- Air sucked in from inlet side.</li> </ul> </li> <li>- Low torque converter oil pressure accelerates generation of air bubbles.</li> <li>- Oil mixing with water.</li> <li>- Inching rod out of adjustment.</li> <li>· Clutch slipping               <ul style="list-style-type: none"> <li>- Lowering of power.</li> <li>- Piston ring or O-ring worn.</li> </ul> </li> <li>- Clutch piston damaged.</li> <li>- Clutch plate seizing or dragging.</li> </ul> | <ul style="list-style-type: none"> <li>- Check oil level and add oil</li> <li>- Check joints and pipes.<br/>If necessary, retighten joint or replace packing.</li> <li>- Check and replace</li> <li>- Check oil pressure. If necessary replace pump.</li> <li>- Check spring tension. If necessary, replace.</li> <li>- Disassemble, check and repair or replace.</li> <li>- Disassemble, check measure and replace.</li> <li>- Check stalling speed.<br/>(Increased engine load will cause excessive drop of stalling speed.)</li> <li>- Check oil temperature rise.<br/>If any, replace free wheel.</li> <li>- Check temperature plate.<br/>(No-load will cause temperature rise)</li> <li>- Replace free wheel if a drop of starting output is found.</li> <li>- Check drained oil for foreign matter.<br/>If any, change oil.</li> <li>· Replace flexible plate</li> <li>- Check and change oil.</li> <li>- Check joints and pipes.<br/>If necessary, retighten joint or replace packing.</li> <li>- Check oil pressure.</li> <li>- Check drained oil and change oil.</li> <li>- Check and adjust.</li> <li>- Check oil pressure.</li> <li>- Disassemble, check, measure and replace.</li> <li>- Disassemble, check and replace.</li> <li>- Check to see whether or not machine moves even when transmission is in neutral position. If so, replace.</li> </ul> |
| 2) Transmission                                   |  |   |

| Trouble symptom  | Probable cause   | Remedy  |
|--|--|---|
| <b>4. Unusual oil pressure</b><br>1) Oil pressure is high<br><br><br><br><br><br><br><br><br><br><br>2) Oil pressure is low<br><br><br><br><br><br><br><br><br><br><br>3) Transmission | <ul style="list-style-type: none"> <li>Control valve malfunctioning.</li> <li>Cold weather. (high oil viscosity)</li> <li>Use of improper oil.</li> <li>Gear pump malfunctioning (worn).</li> <li>Oil leaks excessively :               <ul style="list-style-type: none"> <li>(1) Control valve oil spring defective.</li> <li>(2) Control valve spool defective.</li> </ul> </li> <li>Air sucked in.</li> <li>Low oil level.</li> <li>Oil filter clogging.</li> <li>Oil leaks excessively.</li> </ul>  | <ul style="list-style-type: none"> <li>(1) Check for spool operation.<br/>If necessary, replace valve.</li> <li>(2) Check for clogging of small hole in valve body. If necessary, clean or repair.</li> <li>When atmospheric temp is below freezing point<br/>(when normal oil pressure is recovered if heated to 60~80°C), change oil.</li> <li>Check and change oil.</li> <li>Disassemble, check and replace.</li> <li>Check spring tension (see spring specification).<br/>If necessary replace.</li> <li>Disassemble, check, and repair or replace valve.</li> <li>Check joints and pipes. If necessary, retighten joint or replace packing.</li> <li>Check oil level and add oil.</li> <li>Check and replace.</li> <li>Disassemble, check (piston ring and O-ring for wear and other defects), and replace.</li> </ul>   |
| <b>5. Power is not transmitted</b><br>1) Torque converter<br><br><br><br><br><br><br><br><br><br><br>2) Transmission   | <ul style="list-style-type: none"> <li>Clutch plate damaged.</li> <li>Low oil level.</li> <li>Oil pump driving system faulty.</li> <li>Shaft broken.</li> <li>Lack of oil pressure.</li> <li>Low oil level.</li> <li>Inching valve and link lever improperly positioned.</li> <li>Forward/reverse spool and link lever improperly positioned.</li> <li>Clutch fails to disengage :               <ul style="list-style-type: none"> <li>(1) Clutch case piston ring defective.</li> <li>(2) Main shaft plug slipping out.</li> </ul> </li> <li>Clutch seizing.</li> <li>Shaft broken off.</li> <li>Clutch drum damaged (spring groove).</li> <li>Clutch snap ring broken.</li> </ul> | <ul style="list-style-type: none"> <li>Check for damage by listening to abnormal sounds at a low converter speed and replace.</li> <li>Check oil level and add oil</li> <li>Disassemble and check for wear of pump gear, shaft and spline.<br/>Replace defective parts.</li> <li>Check and replace.</li> <li>Check oil pump gear for wear and for oil suction force.<br/>If necessary, replace pump.</li> <li>Check oil level and add oil.</li> <li>Check measure and adjust.</li> <li>Check and adjust.</li> <li>Disassemble, check and replace</li> <li>Disassemble, check and repair or replace</li> <li>Check to see whether or not machine moves even then transmission is in neutral position. If so, replace.</li> <li>Disassemble, check(main shaft, etc.), and replace.</li> <li>Disassemble, check and replace.</li> <li>Disassemble, check and repair or replace.</li> </ul> |

| Trouble symptom  | Probable cause  | Remedy  |
|--|---|---|
| <b>5. Power is not transmitted</b><br>(Continue)             | <ul style="list-style-type: none"> <li>• Foreign matter intruding into oil passage to clutch.</li> <li>• Shaft spline worn.</li> </ul>  | <ul style="list-style-type: none"> <li>• Disassemble, check and repair or replace.</li> <li>• Disassemble, check and replace.</li> </ul>  |
| <b>6. Oil leakage</b><br>(Transmission and torque converter) | <ul style="list-style-type: none"> <li>• Oil leaks from oil seal.</li> <li>• Oil leaks from case joining surfaces.</li> <li>• Oil leaks from joint or pipe.</li> <li>• Oil leaks from drain plug.</li> <li>• Oil leaks from a crack.</li> </ul> | <ul style="list-style-type: none"> <li>• Disassemble and check for wear of seal lips and mating sliding surfaces (pump boss, coupling etc.)<br/>Replace oil seal, pump boss, coupling, etc.</li> <li>• Check and retighten or replace packing.</li> <li>• Check and repair or replace gasket.</li> <li>• Check and retighten or gasket.</li> <li>• Check and replace cracked part.</li> </ul> |

## 4. STEERING SYSTEM

| Trouble symptom   | Probable cause   | Remedy  |
|---|--|---|
| 1. Steering wheel drags.  | <ul style="list-style-type: none"> <li>• Low oil pressure.</li> <li>• Bearing faulty.</li> <li>• Spring spool faulty.</li> <li>• Reaction plunger faulty.</li> <li>• Ball-and-screw assembly faulty.</li> <li>• Sector shaft adjusting screw excessively tight.</li> <li>• Gears poorly meshing.</li> <li>• Flow divider coil spring fatigued.</li> <li>• Brake valve spool malfunctioning.</li> </ul> | <ul style="list-style-type: none"> <li>• Check locknut. Repair.</li> <li>• Clean or replace.</li> <li>• Clean or replace.</li> <li>• Replace.</li> <li>• Clean or replace.</li> <li>• Adjust.</li> <li>• Check and correct meshing.</li> <li>• Replace.</li> <li>• Clean or replace.</li> </ul> |
| 2. Steering wheel fails to return smoothly.   | <ul style="list-style-type: none"> <li>• Bearing faulty.</li> <li>• Reaction plunger faulty.</li> <li>• Ball-and-screw assy faulty.</li> <li>• Gears poorly meshing.</li> </ul>  | <ul style="list-style-type: none"> <li>• Clean or replace.</li> <li>• Replace.</li> <li>• Clean or replace.</li> <li>• Check and correct meshing.</li> </ul>  |
| 3. Steering wheel turns unsteadily.<br>Steering system makes abnormal sound or vibration. | <ul style="list-style-type: none"> <li>• Locknut loosening.</li> <li>• Metal spring deteriorated.</li> <li>• Gear backlash out of adjustment.</li> <li>• Locknut loosening.</li> <li>• Air in oil circuit.</li> </ul>  | <ul style="list-style-type: none"> <li>• Retighten.</li> <li>• Replace.</li> <li>• Adjust.</li> <li>• Retighten.</li> <li>• Bleed air.</li> </ul>   |
| 4. Abnormal sound heard when steering wheel is turned fully                               | <p>Valve</p> <ul style="list-style-type: none"> <li>• Faulty. (Valve fails to open.)</li> </ul> <p>Piping</p> <ul style="list-style-type: none"> <li>• Pipe (from pump to power steering cylinder) dented or clogged.</li> </ul>   | <ul style="list-style-type: none"> <li>• Adjust valve set pressure and check for specified oil pressure.</li> <li>• Repair or replace.</li> </ul>   |
| 5. Piping makes abnormal sounds.  | <p>Oil pump</p> <ul style="list-style-type: none"> <li>• Lack of oil.</li> <li>• Oil inlet pipe sucks air.</li> <li>• Insufficient air bleeding.</li> </ul>  | <ul style="list-style-type: none"> <li>• Add oil.</li> <li>• Repair.</li> <li>• Bleed air completely.</li> </ul>  |
| 6. Valve or valve unit makes abnormal sounds.   | <p>Oil pump</p> <ul style="list-style-type: none"> <li>• Oil inlet pipe sucks air.</li> </ul> <p>Valve</p> <ul style="list-style-type: none"> <li>• Faulty. (Unbalance oil pressure)</li> </ul> <p>Piping</p> <ul style="list-style-type: none"> <li>• Pipe (from pump to power steering) dented or clogged.</li> <li>• Insufficient air bleeding.</li> </ul>  | <ul style="list-style-type: none"> <li>• Repair or replace.</li> <li>• Adjust valve set pressure and check specified oil pressure.</li> <li>• Repair or replace.</li> <li>• Bleed air completely.</li> </ul>  |
| 7. Insufficient or variable oil flow.   | <ul style="list-style-type: none"> <li>• Flow control valve orifice clogged.</li> </ul>  | <ul style="list-style-type: none"> <li>• Clean.</li> </ul>  |
| 8. Insufficient or variable discharge pressure.   | <p>Piping</p> <ul style="list-style-type: none"> <li>• Pipe (from tank to pipe) dented or clogged.</li> </ul>  | <ul style="list-style-type: none"> <li>• Repair or replace.</li> </ul>  |

## 5. BRAKE SYSTEM

| Trouble symptom  | Probable cause  | Remedy  |
|--|---|---|
| 1. Insufficient braking force  | <ul style="list-style-type: none"> <li>Hydraulic system leaks oil.</li> <li>Hydraulic system has air in line.</li> <li>Friction plate worn.</li> <li>Brake valve or brake piston mal-functioning.</li> <li>Hydraulic system clogged.</li> </ul>   | <ul style="list-style-type: none"> <li>Repair and add oil.</li> <li>Bleed air.</li> <li>Replace.</li> <li>Repair or replace.</li> <li>Clean.</li> </ul>   |
| 2. Brake acting unevenly.<br>(Machine is turned to one side during braking.) | <ul style="list-style-type: none"> <li>Tires unequally inflated.</li> <li>Brake out of adjustment.</li> <li>Friction plate worn.</li> <li>Disc worn or damaged (distortion or rusting).</li> <li>Piston in axle mal-functioning.</li> <li>Hydraulic system clogged.</li> </ul>          | <ul style="list-style-type: none"> <li>Adjust tire pressure.</li> <li>Adjust(Refer to service manual).</li> <li>Replace.</li> <li>Replace.</li> <li>Repair or replace.</li> <li>Clean.</li> </ul> |
| 3. Brake trailing.   | <ul style="list-style-type: none"> <li>Pedal has no play.</li> <li>Piston in axle mal-functioning.</li> <li>Return spring damaged.</li> <li>Parking brake fails to return or out of adjustment.</li> <li>Brake valve return port clogged.</li> <li>Hydraulic system clogged.</li> </ul> | <ul style="list-style-type: none"> <li>Adjust.</li> <li>Repair or replace.</li> <li>Relace.</li> <li>Repair or adjust.</li> <li>Clean.</li> <li>Clean.</li> </ul>                                 |
| 4. Brake chirps  | <ul style="list-style-type: none"> <li>Brake trailing.</li> <li>Piston fails to return.</li> <li>Friction plate worn.</li> </ul>  | <ul style="list-style-type: none"> <li>See 3. Brake trailing.</li> <li>Replace.</li> <li>Replace.</li> </ul>  |
| 5. Brake noise   | <ul style="list-style-type: none"> <li>Incorrect axle oil.</li> <li>Oil change interval passed.</li> <li>Friction plate worn.</li> </ul>  | <ul style="list-style-type: none"> <li>Replace with approved oil.</li> <li>Replace.</li> <li>Replace.</li> </ul>  |
| 6. Large pedal stroke  | <ul style="list-style-type: none"> <li>Brake out of adjustment.</li> <li>Hydraulic line sucking air.</li> <li>Oil leaks from hydraulic line, or lack of oil.</li> <li>Friction plate worn.</li> </ul>   | <ul style="list-style-type: none"> <li>Adjust.</li> <li>Bleed air.</li> <li>Check and repair or add oil.</li> <li>Replace.</li> </ul>   |
| 7. Pedal dragging.   | <ul style="list-style-type: none"> <li>Twisted push rod caused by improperly fitted brake valve.</li> <li>Brake valve seal faulty.</li> <li>Flow control valve orifice clogged.</li> <li>Lack of grease on pivot</li> </ul>   | <ul style="list-style-type: none"> <li>Adjust.</li> <li>Replace.</li> <li>Clean or replace.</li> <li>Add grease</li> </ul>  |



## 6. HYDRAULIC SYSTEM

| Trouble symptom                            | Probable cause  | Remedy  |
|--|---|---|
| 1. Large fork lowering speed.              | <ul style="list-style-type: none"> <li>Seal inside control valve defective.</li> <li>Oil leaks from joint or hose.</li> <li>Seal inside cylinder defective.</li> </ul>  | <ul style="list-style-type: none"> <li>Replace spool or valve body.</li> <li>Replace.</li> <li>Replace packing.</li> </ul>  |
| 2. Large spontaneous tilt of mast.         | <ul style="list-style-type: none"> <li>Tilting backward : Check valve defective.</li> <li>Tilting forward : Tilt lock valve defective.</li> <li>Oil leaks from joint or hose.</li> <li>Seal inside cylinder defective.</li> </ul>   | <ul style="list-style-type: none"> <li>Clean or replace.</li> <li>Clean or replace.</li> <li>Replace.</li> <li>Replace seal.</li> </ul>   |
| 3. Slow fork lifting or slow mast tilting. | <ul style="list-style-type: none"> <li>Lack of hydraulic oil.</li> <li>Hydraulic oil mixed with air.</li> <li>Oil leaks from joint or hose.</li> <li>Excessive restriction of oil flow on pump suction side.</li> <li>Relief valve fails to keep specified pressure.</li> <li>Poor sealing inside cylinder.</li> <li>High hydraulic oil viscosity.</li> <li>Mast fails to move smoothly.</li> <li>Oil leaks from lift control valve spool.</li> <li>Oil leaks from tilt control valve spool.</li> </ul> | <ul style="list-style-type: none"> <li>Add oil.</li> <li>Bleed air.</li> <li>Replace.</li> <li>Clean filter.</li> <li>Adjust relief valve.</li> <li>Replace packing.</li> <li>Change to SAE10W, class CF engine oil.</li> <li>Adjust roll to rail clearance.</li> <li>Replace spool or valve body.</li> <li>Replace spool or valve body.</li> </ul> |
| 4. Hydraulic system makes abnormal sounds. | <ul style="list-style-type: none"> <li>Excessive restriction of oil flow pump suction side.</li> <li>Gear or bearing in hydraulic pump defective.</li> </ul>  | <ul style="list-style-type: none"> <li>Clean filter.</li> <li>Replace gear or bearing.</li> </ul>   |
| 5. Control valve lever is locked           | <ul style="list-style-type: none"> <li>Foreign matter jammed between spool and valve body.</li> <li>Valve body defective.</li> </ul>  | <ul style="list-style-type: none"> <li>Clean.</li> <li>Tighten body mounting bolts uniformly.</li> </ul>  |
| 6. High oil temperature.                   | <ul style="list-style-type: none"> <li>Lack of hydraulic oil.</li> <li>High hydraulic oil viscosity.</li> <li>Oil filter clogged.</li> </ul>  | <ul style="list-style-type: none"> <li>Add oil.</li> <li>Change to SAE10W, class CF engine oil.</li> <li>Clean filter.</li> </ul>   |