An Oshkosh Corporation Company

Service Manual

Models

3614RS

4017RS

Prior to SN E160000141
excluding E160000120, E160000126,
1160008774, 1160008775 & 1160008777

31200940

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An Oshkosh Truck Corporation Company

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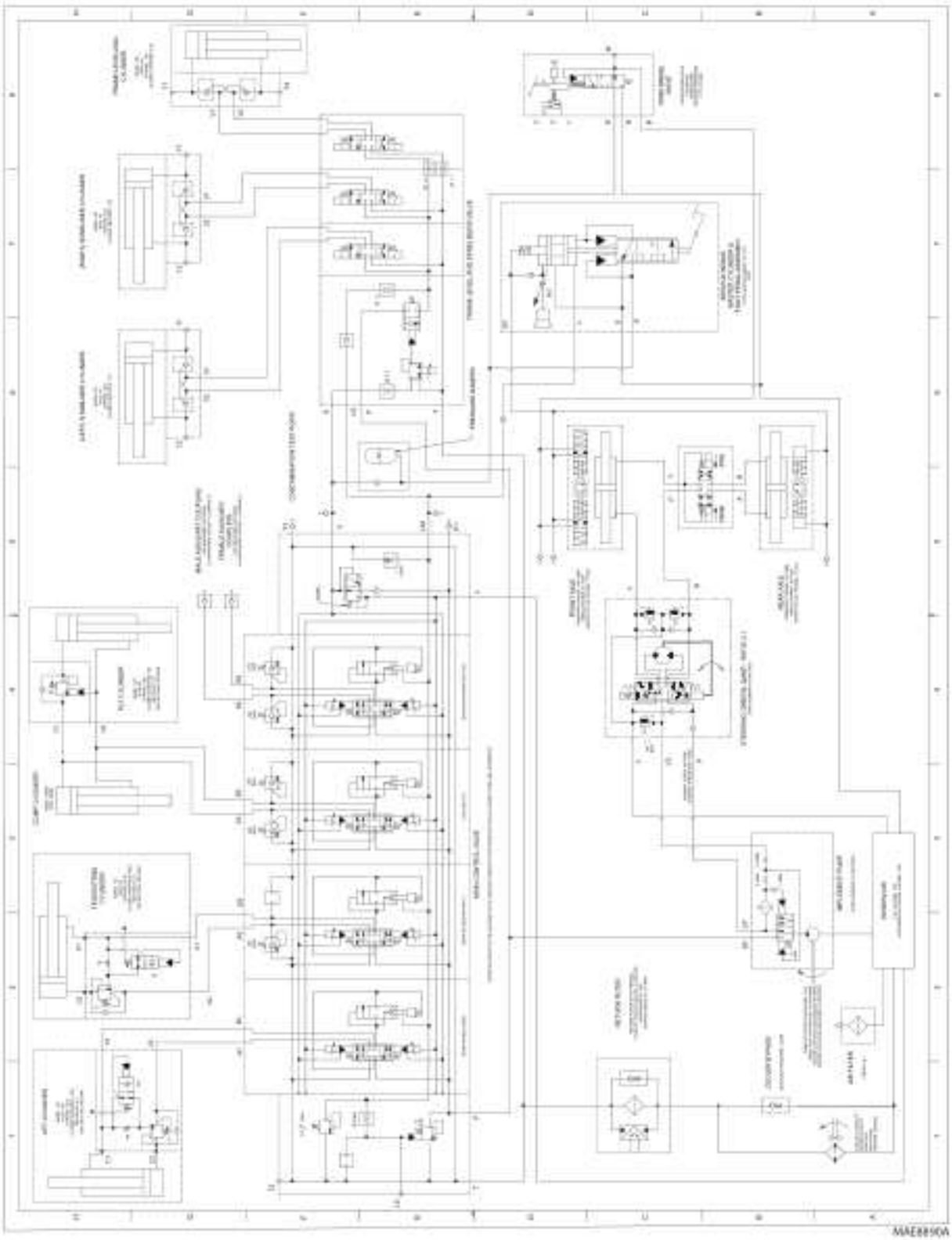
3.21 TROUBLESHOOTING

This section provides an easy reference guide covering the most common problems that occur during operation of the boom.

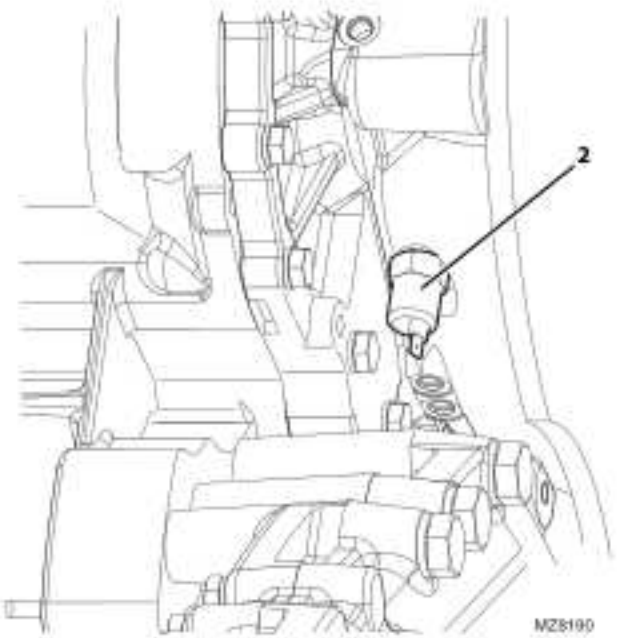
Problem	Possible Causes	Remedy
1. Boom will not extend or retract	1. Broken hydraulic hose(s) or tube(s) and/or connections leaking.	1. Locate break, replace hose(s) or tube(s), tighten connections.
	2. Extend/retract hydraulic system not operating properly.	2. Refer to Section 8.5, "Hydraulic Circuits".
	3. Faulty extend/retract cylinder.	3. Repair cylinder. Refer to Section 8.10.1, "General Cylinder Removal Instructions".
2. Boom shifts to right or left when extending.	1. Boom side wear pads improperly shimmed or worn.	1. Shim wear pads to correct gap. Replace wear pads as needed. Refer to Section 3.16, "Boom Wear Pads".
3. Excessive pivot pin noise and/or wear.	1. Insufficient lubrication.	1. Lubricate at regular intervals. Refer to Section 2.5, "Lubrication Schedule". Replace worn pins as needed.
	2. Worn bearing(s).	2. Replace bearing(s) and lubricate at regular intervals. Refer to Section 2.5, "Lubrication Schedule".
4. Excessive Compensation cylinder pivot pin noise and/or wear.	1. Insufficient lubrication.	1. Lubricate at regular intervals. Refer to Section 2.5, "Lubrication Schedule". Replace worn pins as needed.
	2. Worn bushing(s).	2. Replace bushing(s) and lubricate at regular intervals.
5. Boom will not raise or lower.	1. Broken hydraulic hoses or tubes and/or connection leaks.	1. Locate break, replace hose(s) or tube(s), tighten connections.
	2. Lift/lower hydraulic system not operating properly.	2. Refer to Section 8.5, "Hydraulic Circuits".
	3. Faulty lift/lower cylinder.	3. Repair cylinder. Refer to Section 8.10.1, "General Cylinder Removal Instructions".
	4. Seized boom pivot pin bushing.	4. Replace bushing.

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b. If equipped for 55,0 kW engine



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5. Unplug transmission oil temperature switch connector from wiring harness connector.
6. The switch is threaded into transmission housing. Remove the switch.

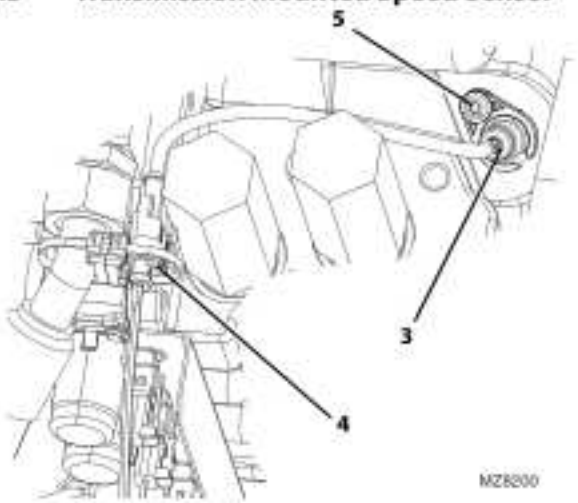
b. Transmission Oil Temperature Switch Inspection and Replacement

Inspect switch and wiring harness connector terminals for continuity. Replace a defective or faulty switch with a new part.

c. Transmission Oil Temperature Switch Installation and Testing

1. Thread transmission oil temperature switch into transmission housing snugly, then connect switch connector to wiring harness connector.
2. Properly connect battery. Refer to Section 9.8, "Battery", for procedure.
3. Check for proper fluid level.
4. Start engine, allow it to reach operating temperature and observe operator display cluster for warning indication. If switch is not defective, problem could be elsewhere; possibly in a shorted wire, damaged transmission, improper or low fluid, etc.
5. Close and secure the engine cover.
6. Remove Do Not Operate Tag from ignition key switch and steering wheel.

9.10.3 Transmission Mounted Speed Sensor



Transmission speed sensor (**3**) is located on the side of the transmission bell housing.

a. Transmission Mounted Speed Sensor Removal

1. Park machine on a firm, level surface, level machine, fully retract boom, lower boom, place transmission in (N) NEUTRAL, engage park brake and shut engine OFF.
2. Place a Do Not Operate Tag on both the ignition key switch and steering wheel.
3. Open engine cover. Allow system fluids to cool.
4. Properly disconnect battery. Refer to Section 9.8, "Battery", for procedure.
5. Unplug the speed sensor connector (**4**) from the wiring harness connector.
6. Loosen screw (**5**) holding clamp and remove sensor.

b. Transmission Mounted Speed Sensor Inspection and Replacement

Inspect sensor and wiring harness connector terminals for continuity. Replace a defective or faulty sensor with a new part.

c. Transmission Mounted Speed Sensor Installation and Testing

1. Install sensor in transmission, install clamp on sensor. Secure with screw removed earlier.
2. Connect sensor plug to wire harness.
3. Properly connect battery. Refer to Section 9.8, "Battery", for procedure.
4. Close and secure engine cover.
5. Remove Do Not Operate Tag from ignition key switch and the steering wheel.

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3. AMP Mate-N-Lok



MAE3270

This connector system is widely used inside enclosures for general-purpose interconnect. Follow the general guidance for installation.

4. DIN Connectors



MAE3280

This connector system is typically used on hydraulic valves at JLG. Follow the general guidance for installation.

9.6.2 Exclusions

1. M12 with Gold Contact Material



MAE3290



MAE3300

The connector uses gold contact material to resist corrosion and an o-ring seal for moisture integrity. If dielectric grease is mistakenly applied to this connector system, the low-force contacts cannot displace the grease to get electrical contact. Once contaminated, there is no practical way to remove the dielectric grease (replacement of female contacts required). The JLG Load Sensing System and 1250AJP Rotary Angle Sensors are examples of components with the M12 connector system.

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