Service Manual

Model

1075

PVC 1911

31211483

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An Oshkosh Corporation Company

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Menu	Sub-Menu	Description	Access Level
Brake Pedal Pos	Brake Pedal Pos Yes: enter, no: esc	Allowed to calibrate the brake pedal position sensor; press ENTER to confirm or ESC to exit	Access Level 2
	Release Brake Pedal	Allowed to release brake pedal for 0%; press ENTER to calibrate or ESC to exit	
	Depress Brake Pedal	Allowed to depress brake pedal for 100%; press ENTER to calibrate or ESC to exit	
	Calibration Complete	Brake Pedal Position 0% and 100% > 0.5V or < 4.50V; Brake Pedal Position 0% - 100% > 0.25V; calibration was successful; press ESC key to exit	
	Calibration Failed	Brake Pedal Position 0% / 100% were improper; press ESC key to exit	
	Calibration Sensor Fault	DTC 23167 or 23168 was active and calibration could not succeed; press ESC key to exit	

Error Messages

Error messages screen displays up to 25 recently logged Diagnostic Trouble Code (DTC)/Diagnostics Message 1 (DM1) fault codes along with a text description. The fault codes are displayed in the order in which they are received. Active fault codes are shown with an asterisk symbol.

Menu	Description
DTC Messages	**DTC messages display all machine related fault codes. The DTC message consists of a three to five digit number and corresponding message.** ***Note:*** *The DTC error code "32766" is considered as "Blank" message and the corresponding row is hidden on the screen.* Refer to Section 6, "Fault Codes", for the complete list of codes.
DM1 Messages	**DM1 messages display all engine related fault codes. The DM1 message consists of the Suspect Parameter Number (SPN) and Fault Mode Indicator (FMI) component.** **Refer to Section 6, "Fault Codes", for the complete list of codes.**

Note: *If there is no DTC/DM1 message, the screen with "No DTC Messages" or "No DM1 Messages" is displayed.*

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7.4 TORQUE VALUES

7.4.1 Cylinder Torque Specifications

Lift/Lower Cylinder

Head	Piston	Piston Nut	Grub Screw	CB Valve	Test Port Plug
488-597.4 ft lbs (662-810 Nm)	651-796 ft lbs (883-1079 Nm)	1237.6-1512 ft lbs (1678-2050 Nm)	12.3-14.5 ft lbs (16,7-19,6 Nm)	19 ft lbs (26 Nm)	22-24.3 ft lbs (30-33 Nm)

Extend/Retract Cylinder

Head	Piston	Piston Nut	Grub Screw	CB Valve	Test Port Plug
1106 ft lbs (1500 Nm)	1106 ft lbs (1500 Nm)(1)	N/A	17.70 ft lbs (24 Nm)	19 ft lbs (26 Nm)	9.58 (13 Nm)(2)

Note:
1. Torque Piston and Rod Eye/End at same time to this value.
2. G1/8A bleeder screw on rod eye.

Tilt Cylinder

Head	Piston	Piston Nut	Grub Screw	CB Valve	Test Port Plug	
					TE	V2
488-596 ft lbs (662-808 Nm)	1237.63-1512 ft lbs (1678-2050 Nm)	N/A	12.52-14.46 ft lbs (16.7-19.6 Nm)	44.25-51.63 ft lbs (60-70 Nm)	10.33-11.06 ft lbs (14-15 Nm)	99.57-101.78 ft lbs (135-138 Nm)

Outrigger Cylinder

Head	Piston	Piston Nut	Grub Screw	CB Valve		Test Port Plug
						V2, V3, V5
686.67-758.95 ft lbs (931-1029 Nm)	1237.6-1512 ft lbs (1678-2050 Nm)	N/A	32.45-36.14 ft lbs (44-49 Nm)	Rod End	33.2 - 36.9 ft lbs (45 - 50 Nm)	30 -35 ft lbs (41 - 47 Nm)
				Barrel End	32.5 - 38.4 ft lbs (44 - 52 Nm)	

RAS

Head	Piston	Piston Nut	Grub Screw	CB Valve	Test Port Plug	
					V1, V2	V3
686.67-758.95 (931-1029 Nm)	1237.63-1512 ft lbs (1678-2050 Nm)	N/A	32.45-36.14 ft lbs (44-49 Nm)	62.5 ft lbs (85 Nm)	45 - 50 ft lbs (61 - 68 Nm)	45 - 50 ft lbs (61 - 68 Nm)ft lbs

Sway

Head	Piston	Piston Nut	Grub Screw	CB Valve	Test Port Plug
686.67-758.95 (931-1029 Nm)	1237.63-1512 ft lbs (1678-2050 Nm)	N/A	32.45-36.14 ft lbs (44-49 Nm)	33.2-36.9 ft lbs (45-50 Nm)	10.33-11.06 ft lbs (14-15 Nm)

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3. Lift engine/transmission and slowly push and lower into engine compartment. Have an assistant ensure that engine/transmission clears frame, hose and harness components during engine/transmission installation. Position engine/transmission brackets over frame mounts.
4. Align engine mount holes and install front mounting bolts.
5. Align engine mount holes and install rear mounting bolts.
6. Lower engine onto isolators.
7. Install flat washer and nut on front two mounting bolts.
8. Remove lifting chains.
9. Torque engine /transmission mounting bolts (**9**) to 232 ft lbs (315 Nm).
10. Install air cleaner. Refer to Section , "Air Cleaner Assembly Installation".
11. Install exhaust pipe. Refer to Section 9.5.13, "Engine Exhaust System".
12. Install radiator assembly. Refer to Section 9.5.7, "Radiator Assembly Replacement".
13. Install drive shaft assemblies. Refer to Section 9.2.3, "Drive Shafts".
14. Connect and secure all the previously labeled hydraulic hoses, fuel lines and electrical wire connections on engine and transmission.
15. If equipped, install heater and cooling hoses to engine and tighten clamps.
16. Properly connect battery(s). Refer Section 9.10.1, "Battery", for procedure.
17. Check that all hydraulic system, electrical system, cooling system, fuel system and exhaust system connections are correct and connected tightly.

Note: *Have an assistant stand by with a Class B fire extinguisher.*

18. Check for proper fluid levels prior to startup. Refer to Section 2.4.6, "Capacities".
19. Start engine and run to normal operating temperature then shut off engine. While engine is cooling, check for leaks.
20. Allow engine to cool. Check radiator coolant level. Add coolant as required.
21. Check for leaks from engine, main hydraulic pump and lines, transmission, hydraulic reservoir and fuel tank. Check levels of all fluids and lubricants. Fill as required.

Note: *During full throttle check:*
DO NOT *operate any hydraulic function.*
DO NOT *steer or apply any pressure to the steering wheel.*
Keep transmission in (N) NEUTRAL.

22. Check engine rpm at full throttle.
23. Purge the hydraulic system of air by operating all boom functions through their entire range of motion several times.
24. Check hydraulic oil level. If oil is warm, oil level should be visible in gauge window.
25. Check for proper operation of all components.
26. Turn engine OFF.
27. Install front cover (**4**), end covers (**3**), belly pan (**2**) and hood (**1**) at the engine compartment and adjust if necessary.
28. Close and secure engine cover.
29. Remove Do Not Operate Tag from ignition key switch and steering wheel.

9.5.4 Surge Tank Cap

A 17.4 psi (1,2 bar) cap is used on the surge tank.
An incorrect or malfunctioning cap can result in the loss of coolant and a hot running engine.

9.5.5 Thermostat Replacement

Before considering thermostat replacement, check the coolant level, fan belt tension and instrument cluster temperature indicator.

- If engine seems to take a long time to warm up, thermostat may be stuck in the open position and requires replacement.
- If engine runs hot, check temperature of upper radiator hose.
- If hose is not hot, thermostat may be stuck in closed position.
- If engine has overheated, performance may suffer, indicating other damage including a leaking cylinder head gasket, cracked cylinder head or block, and/or other internal engine damage.

Thermostat 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 ignition key switch and steering wheel.
3. Open engine cover. Allow system fluids to cool.
4. Properly disconnect battery. Refer Section 9.10.1, "Battery", for procedure.
5. Slowly turn surge tank cap to first stop and allow any pressure to escape. Remove surge tank cap.
6. Place a funnel at base of radiator to channel drained coolant into container. Loosen the drain plug and slowly remove to allow coolant to drain. Transfer coolant into a properly labeled

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AMP Faston

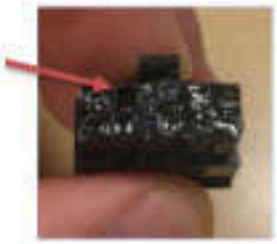
This connector system is typically used on operator switches at JLG. Follow the general guidance for installation.


Improper


Proper

AMP Micro-Fit

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


Improper


Proper

AMP Mini Fit Jr.

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


Improper


Proper

Mini Fit Sr.

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


Improper


Proper

DIN Connectors

This connector is typically used on hydraulic valves. Follow the installation instructions.


Improper


Proper

Exceptions

Some waterproof connector applications do benefit from dielectric grease, and some non waterproof connectors do not benefit from dielectric grease.

In the exceptions below, we have found dielectric grease is not needed for some applications, and in some cases can interfere with the intended connection. Dielectric grease shall be used as an exception in other applications.

Enclosures

Application of dielectric grease is not required in properly sealed enclosures. To meet criteria, the enclosure must be rated to at least IP56 (dust protected; protected from powerful jets of water).

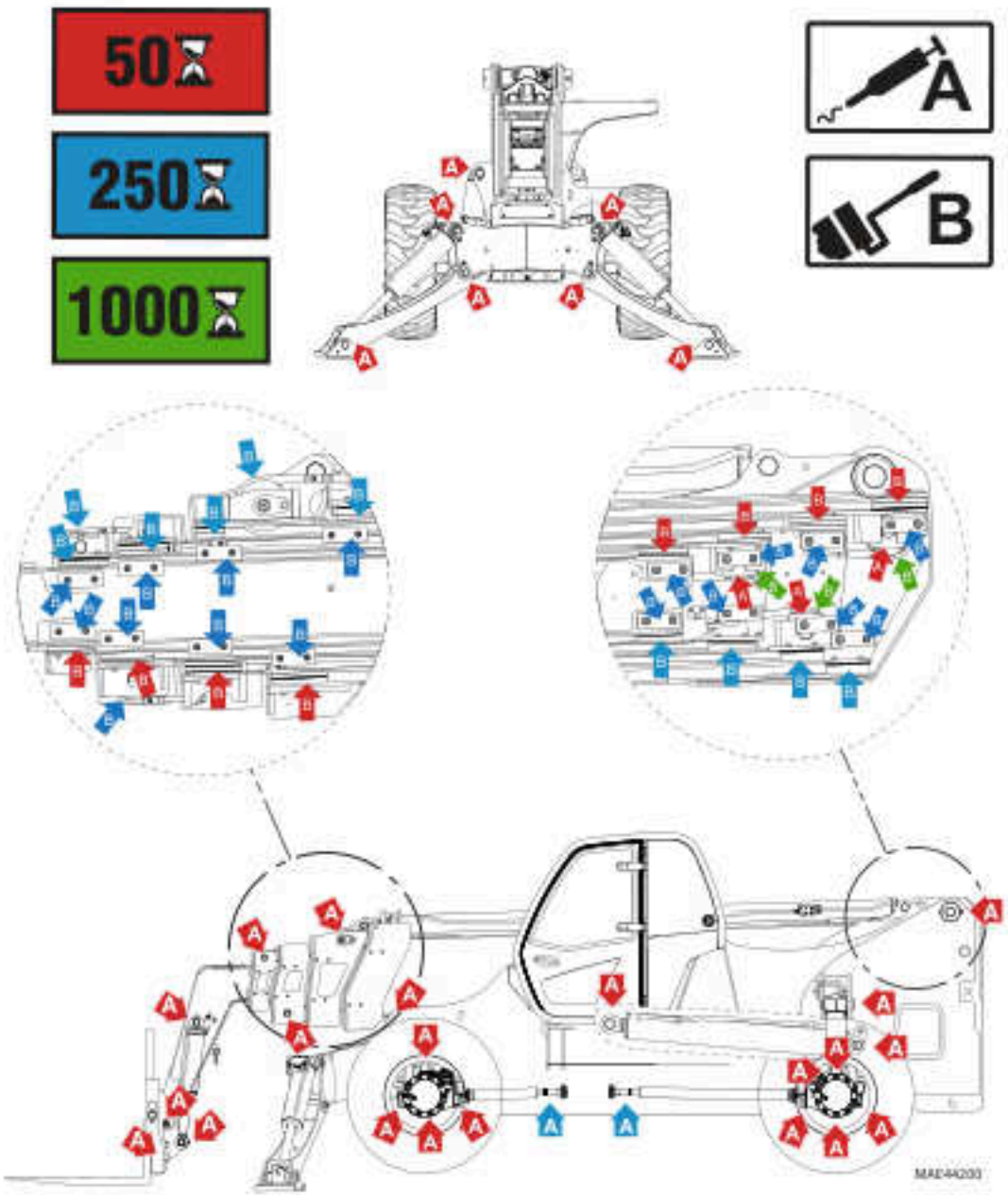
Carling Switch Connectors

Carling switches may experience high impedance, or discontinuity, due to silicone dielectric grease ingress when switching inductive loads. Therefore, dielectric grease shall not be applied to Carling switch mating connectors unless specifically noted.

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2.4.7 Lubrication Schedule

50, 250 and 1000 Hour



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