An Oshkosh Corporation Company

Service and Maintenance Manual

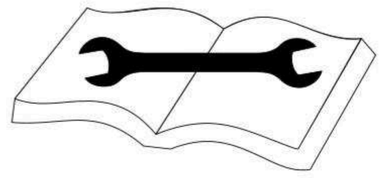
Model
510AJ Series II

S/N E300001114
to Present

P/N - 3121293

February 12, 2015

ANSI



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SECTION NO.	TITLE	PAGE NO.
SECTION A - INTRODUCTION - MAINTENANCE SAFETY PRECAUTIONS		
A	General	A-1
B	Hydraulic System Safety	A-1
C	Maintenance	A-1
SECTION 1 - SPECIFICATIONS		
1.1	Operating specifications and Performance Data	1-1
1.1	Reach Specifications	1-1
1.2	Dimensional Data	1-1
1.3	Chassis	1-1
1.4	Capacities	1-1
1.5	Function Speeds	1-2
	Machine Orientation When Doing Speed Tests	1-2
	Test Notes	1-2
1.6	Torque Requirements	1-2
1.7	Tires	1-3
1.8	Engine	1-3
1.9	Major Component Weights	1-3
1.10	Hydraulic Oil	1-3
1.11	Serial Number Location	1-5
1.10	Operator Maintenance	1-6
SECTION 2 - GENERAL		
2.1	Machine Preparation, Inspection, and Maintenance	2-1
	General	2-1
	Preparation, Inspection, and Maintenance	2-1
	Pre-Start Inspection	2-1
	Pre-Delivery Inspection and Frequent Inspection	2-1
	Annual Machine Inspection	2-1
	Preventative Maintenance	2-1
2.2	Service and Guidelines	2-2
	General	2-2
	Safety and Workmanship	2-2
	Cleanliness	2-2
	Components Removal and Installation	2-2
	Component Disassembly and Reassembly	2-3
	Pressure-Fit Parts	2-3
	Bearings	2-3
	Gaskets	2-3
	Battery	2-3
	Bolt Usage and Torque Application	2-3
	Hydraulic Lines and Electrical Wiring	2-3
	Hydraulic System	2-3
	Lubrication	2-3
2.3	Lubrication and Information	2-4
	Hydraulic System	2-4
	Hydraulic Oil	2-4
	Changing Hydraulic Oil	2-4
	Lubrication Specifications	2-4
2.4	Cylinder Drift Test	2-4
	Platform Drift	2-4
	Cylinder Drift	2-4
2.5	Pins and Composite Bearing Repair Guidelines	2-5
2.6	Welding on JLG Equipment	2-5
	Do the Following When Welding on JLG Equipment	2-5
	Do NOT Do the Following When Welding on JLG Equipment	2-5

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SECTION NO.	TITLE	PAGE NO.
SECTION 3 - CHASSIS & TURNTABLE		
3.1	TIRES AND WHEELS	3-1
	Tire Inflation	3-1
	Tire Damage	3-1
	Pneumatic Tires	3-1
	Polyurethane Foam Filled Tires	3-1
	Tire Replacement	3-1
	Wheel Replacement	3-1
	Wheel Installation	3-2
3.2	Torque Hub	3-3
	Oil Information	3-3
	Roll and Leak Testing	3-3
	Tightening and Torquing Bolts	3-3
	Main Disassembly for "B" Drives	3-7
	Hub-Spindle Disassembly	3-8
	Cover Disassembly	3-8
	Carrier Disassembly	3-8
	Assemble Carrier	3-9
	Cover Sub-Assembly	3-10
	Hub-Spindle Sub-Assembly	3-12
	Main Assembly	3-14
	Tool List	3-19
3.3	Re-Align Torque Hub Input Coupling	3-20
	Equipment Required	3-20
	Procedure	3-20
3.4	Drive Motor	3-20
	Description	3-20
	Shaft Seal Replacement	3-21
	Loop Flushing Valve	3-21
	Troubleshooting	3-22
	Disassembly	3-23
	Inspection	3-27
	Assembly	3-29
	Initial Start-Up Procedures	3-33
3.5	Adjustment Procedure For Lockout Valve	3-35
3.6	Oscillating Axle Bleeding Procedure and Lockout Test	3-35
	Lockout Cylinder Bleeding (Ram Cylinders)	3-35
	Oscillating Axle Lockout Test	3-36
3.7	Swing Bearing	3-36
	Description	3-36
	Removal	3-36
	Disassembly	3-38
	Assembly	3-40
	Installation	3-40
	Turntable Bearing Mounting Bolt Checks	3-42
	Check Frame To Bearing Bolts	3-42
	Check Turntable To Bearing Bolts	3-42
	Wear Tolerance	3-42

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SECTION NO.	TITLE	PAGE NO.
3.8	Swing Motor	3-43
	Preparation Before Disassembly	3-43
	Removal	3-44
	Preparation Before Disassembly	3-44
	Disassembly and Inspection	3-46
	Assembly	3-53
	One Piece Stator Assembly	3-59
	Two Piece Stator Assembly	3-60
	Final Checks	3-60
	Installation	3-60
3.9	Generator	3-62
	Every 250 hours	3-62
	Every 500 hours	3-62
	Overload Protection	3-62
	Brushes and Slip Rings	3-62
3.10	Deutz Engine	3-64
	Check Oil Level	3-64
	Change Engine Oil	3-64
	Change Oil Filter	3-64
	Replace Fuel Filter	3-65
	Clean Fuel Strainer	3-65
3.11	Deutz EMR 2	3-66
3.12	Bio Fuel in Deutz Engines	3-78
	General	3-78
	Bio Fuel	3-78
	Biological Contamination In Fuels	3-78
3.13	DGC DIAGNOSTIC SUPPORT AND TROUBLE CODE DEFINITIONS	3-80
	Section Layout	3-80
	Fault Code Broadcast	3-82
	Diagnostic Trouble Codes	3-82
	CAN	3-82
	MIL Output	3-82
	Diagnostic Calibration Configuration and Corrective Actions	3-82
	Fault/Diagnostic Trouble Code Interaction	3-83
	DBW Diagnostic Test	3-86
3.14	Diagnostic Trouble Code Fault Descriptions	3-89
	DTC 116- ECT Higher Than Expected Stage 1	3-89
	DTC 117- ECT/CHT Low Voltage	3-90
	DTC 118- ECT/CHT High Voltage	3-91
	DTC 122- TPS1 Signal Voltage Low	3-94
	DTC 123- TPS1 Signal Voltage High	3-96
	DTC 217- ECT Higher Than Expected 2	3-98
	DTC 219- RPM Higher Than Max Allowed Governed Speed	3-99
	DTC 336- Crank Signal Input Noise	3-100
	DTC 337- Loss of Crank Input Signal	3-102
	DTC 521- Oil Pressure Sender/Switch High Pressure	3-103
	DTC 524- Oil Pressure Low	3-106
	DTC 562- Battery Voltage (VBat) Low	3-110
	DTC 563- Battery Voltage (VBat) High	3-112
	DTC 601- Microprocessor Failure - FLASH	3-114
	DTC 604- Microprocessor Failure - RAM	3-116
	DTC 606- Microprocessor Failure - COP	3-118
	DTC 642- 5 Volt External Low Voltage	3-119
	DTC 643- 5 Volt External High Voltage	3-120
	DTC 1612- Microprocessor Failure - RTI 1	3-121
	DTC 1613- Microprocessor Failure - RTI 2	3-121
	DTC 1614- Microprocessor Failure - RTI 3	3-123
	DTC 1615- Microprocessor Failure - A/D	3-125

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SECTION 1. SPECIFICATIONS

1.1 OPERATING SPECIFICATIONS AND PERFORMANCE DATA

Table 1-1. Operating Specifications

Unrestricted Rated Capacity ANSI CE & Australia	 500 lb (227 kg) 500 lb (230 kg)
Maximum Travel Grade (Gradeability) with Boom retracted and approximately horizontal. Tower Boom fully lowered (if equipped). 4WD	 45%
Maximum Travel Grade (Sideslope) with Boom retracted and approximately horizontal. Tower Boom fully lowered (if equipped) - ANSI Markets.	5°
Maximum Travel Grade (Sideslope) with Boom retracted and approximately horizontal. Tower Boom fully lowered (if equipped) - CE & Australia Markets.	4°
Ground Bearing Pressure	84 psi (5.9 kg/cm^2)
Maximum Drive Speed:	4.5 mph (7.2 km/h)
Maximum Hyd. Operating Pressure	4500 psi (310 bar)
Electrical System Voltage	12 VDC

1.1 REACH SPECIFICATIONS

Table 1-2. Reach Specifications

Max. Platform Height	51 ft (15.81 m)
Max. Horizontal Reach	31 ft - 1 in (9.48 m)
Up & Over Height	25 ft - 2 in (7.67 m)
Jib Length	4.5 ft (1.24 m)
Jib Angle	135° (+70°, -65°)

1.2 DIMENSIONAL DATA

Table 1-3. Dimensional Data

Overall Width	7 ft - 8.25 in (2.34 m)
Tailswing	0
Stowed Height	7 ft - 6 in (2.29 m)
Stowed Length	25 ft - 1 in (7.68 m)
Wheel base	7 ft-8 in (2.34 m)
Ground Clearance	11.5 in (0.29m)

1.3 CHASSIS

Table 1-4. Chassis Specifications

Swing	360° Non-Continuous
Rated Gradeability	45%
Max. Tire Load	8000 lb (3629 kg)
Axle Oscillation	8 in (0.2 m)
System Voltage	12 VDC
Max. Hydraulic System Operating Pressure	4500 psi (310 bar)
Gross Machine Weight	16,104 lb (7305 kg)

1.4 CAPACITIES

Table 1-5. Capacities

Fuel Tank	17 gal (64.3 L)
Hydraulic Tank	27 gal (102 L) 23.6 gal (89 L) to the mid point of upper sight window (cold)
Drive Hub	23.75 oz (0.7 L)
Drive Brake	2.7 oz (.08 L)

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Fault group	Fault no. (in SERDIA)	Fault locality/ Fault description	SPN	FMI	Cause	Remarks	Help
Functional fault warning	30	Oil pressure warning	100	1	Oil pressure below speed-dependent warning line characteristic	Fault message (disappears when oil pressure is again above recovery limit). After a delay time - fill limitation.	Check engine (oil level, oil pump). Check oil pressure sensor and cable. Check oil pressure warning line characteristic.
	31	Coolant temperature warning	110	0	Coolant temperature has exceeded warning level.	Fault message (disappears when coolant temperature again drops below recovery level). After a delay time - fill limitation.	Check coolant. Check coolant temperature sensor and cable.
	32	Charge air temperature warning	105	0	Charge air temperature has exceeded warning level.	Fault message (disappears when charge air temperature gain drops below recovery level). After a delay time - fill limitation.	Check charge air. Check charge air-temperature sensor and cable.
	34	Coolant level warning	111	1	Switch input "Low coolant level" is active.	Fault message.	Check coolant level. Check coolant level sensor and cable.
	35	Speed warning (with thrust mode operation).	SID 190	14	revolutions was/is above (top) revolution speed limit "Thrust mode" function is active. Check PID setting. Check rods. Check actuator and replace if required. Check cable to actuator. Check speed sensor (impulses on incorrect speed). Check No. of teeth. For vehicles check for possible thrust mode.		Check parameters. Check speed settings
	36	Fuel temperature warning	174	0	Fuel-temperature has exceeded warning level.	Fault message (disappears when fuel temperature again drops below recovery level).	Check fuel. Check fuel temperature sensor and cable.

NOTE: SID is equal to 512. To get SPN #, add 512 + number. For example, SID 254 would be 512+254 or an SPN of 766.

Figure 3-54. EMR2 Fault Codes - Sheet 2 of 5

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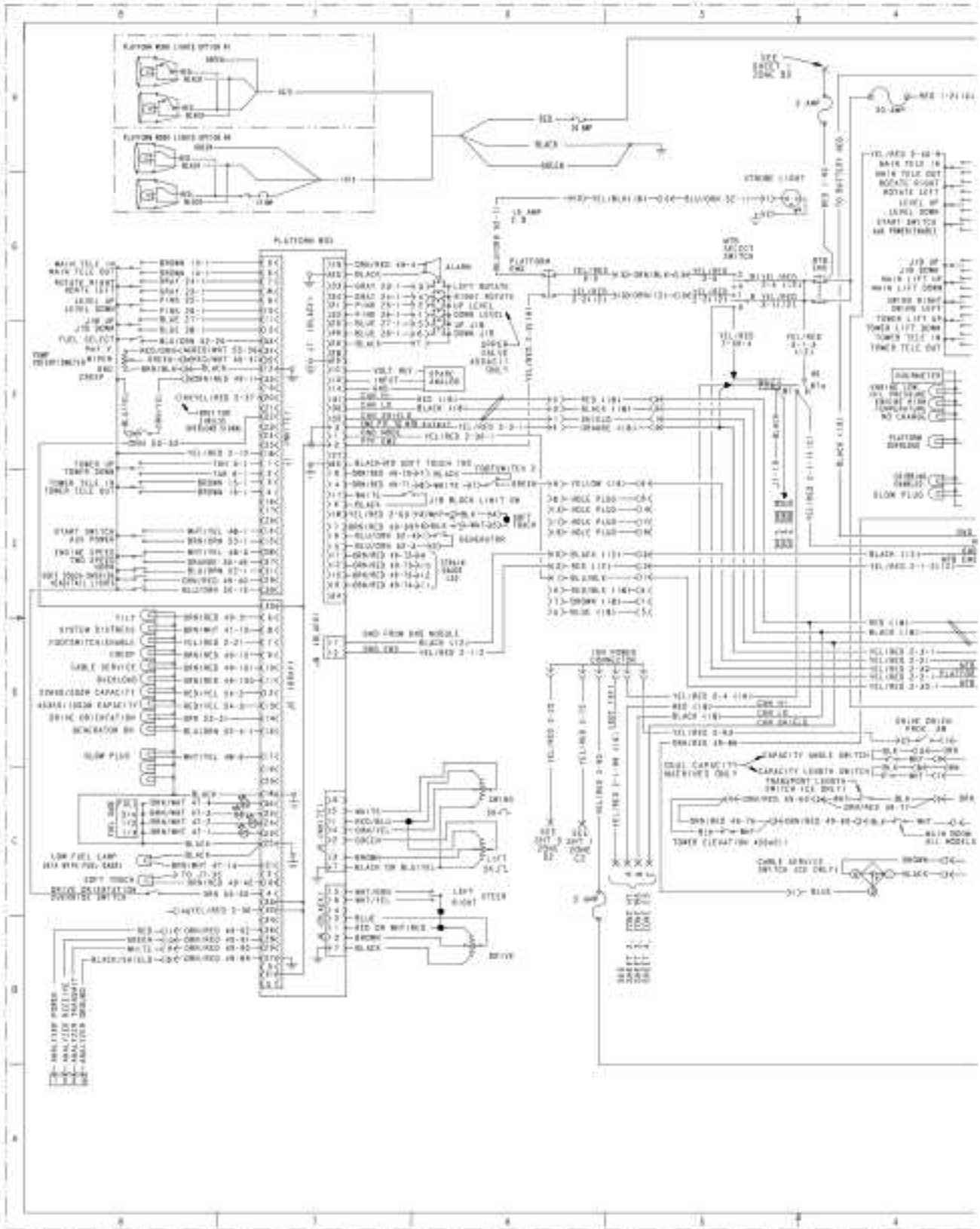
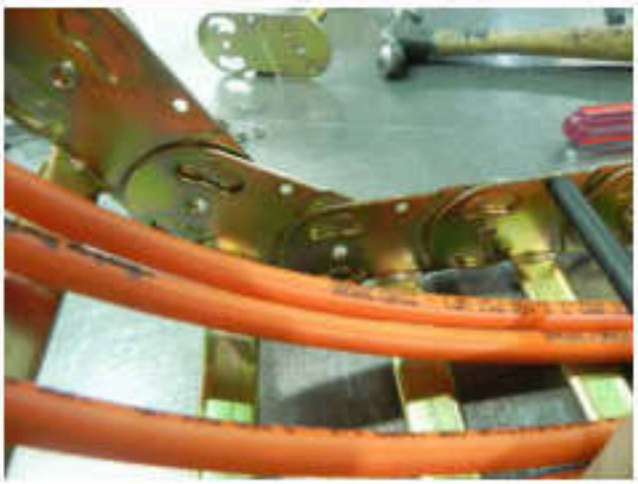


Figure 7-28. Chassis/Platform Electrical Schematic - Sheet 1 of 2

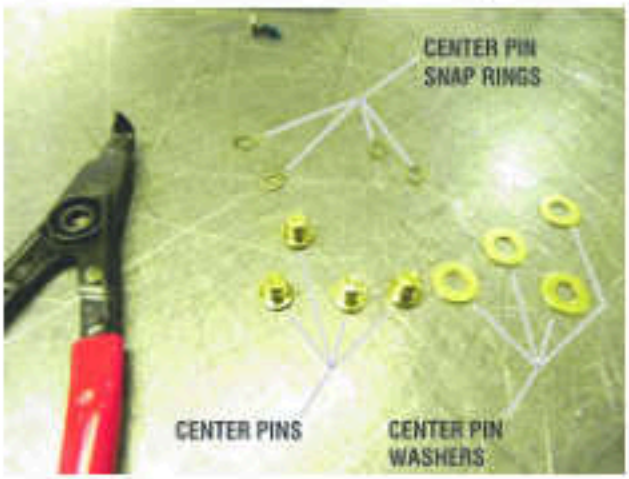
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4. Pull moving end over track so new connection is positioned in curve of powertrack. Round half-shears will rotate into cut-outs.





5. Parts shown below connect new link to powertrack.



6. Push pin through center hole then slide washer on pin.





7. Install snap ring in groove on pin. Repeat pin installation steps for all center holes with rivets removed.



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AMP Mate-N-Lok

Follow manufacturer installation instructions.

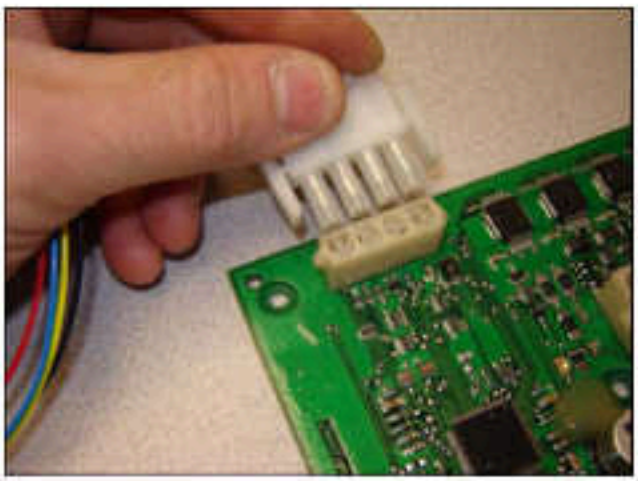


Figure 7-9. AMP Mate-N-Lok Connector

DIN Connectors

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



Figure 7-10. DIN Connector

Exclusions

Some connectors do not require or may be permanently damaged by application of dielectric grease. Dielectric grease may not be required in properly sealed enclosures.

NOTICE

DO NOT USE DIELECTRIC GREASE ON BRAD HARRISON/PHOENIX CONTACT M12 OR AMP JUNIOR TIMER CONNECTORS. LOW-FORCE CONTACTS CANNOT DISPLACE DIELECTRIC GREASE AND CREATE ELECTRICAL CONTACT.

BRAD HARRISON/PHOENIX CONTACT M12

This connector uses gold contact material to resist corrosion and an O-ring seal for moisture integrity. Low-force contacts cannot displace dielectric grease to achieve electrical contact. Once contaminated, replacement of female contacts is required. The JLG Load Sensing System and 1250AJP Rotary Angle Sensors are examples of components with the M12 connector system.



Figure 7-11. Brad Harrison/Phoenix Connectors

AMP JUNIOR TIMER

This type of connector uses back-seals to keep out moisture. Low-force contacts cannot displace dielectric grease and create electrical contact. Use solvents (i.e. contact cleaner or mineral spirits) to remove dielectric grease. The Deutz EMR2 engine control module uses this connector.



Figure 7-12. AMP Junior Timer

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