An Oshkosh Corporation Company

Service & Maintenance Manual

Models

R2632
R3246

PVC 1910

31215091

November 22, 2019 - Rev A

ANSI CE CSA AS/NZS GB

An Oshkosh Corporation Company

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SECTION 1. SPECIFICATIONS

1.1 OPERATING SPECIFICATION

Machine Specification

DESCRIPTION	R3246	R2632
PLATFORM		
Maximum Working Height	38 ft. (11.6 m)	31.5 ft. (9.6 m)
Platform Lift Time (No Load) Lift Up: Lift Down:	 43-51 sec 40-48 sec	 28-38 sec 32-40 sec
Platform Lift Time (Rated Load) Lift Up: Lift Down:	 46-54 sec 33-41 sec	 32-46 sec 24-34 sec
Ground Clearance PHP Deployed PHP Retracted Breakover Angle (Retracted)	 0.91 in. (23 mm) 3.9 in. (98 mm) 12°	 0.91 in. (23 mm) 3.9 in. (98 mm) 12°
Occupied Floor Area	30.1 ft² (2.80 m²)	21.0 ft² (1.95 m²)
Electronic Arm Guard Pause Height (CE/GB only)	73 in. (1.85 m)	66 in. (1.68 m)
Electronic Arm Guard Height Lift Down Time (CE/GB only)	6 sec (approx.)	5 sec (approx.)
DRIVING		
Maximum Operating Slope *(platform fully elevated)* Front to Back: Side to Side:	 3.5° 1.5°	
High Drive Speed (FWD/REV)	2.2 mph (3.5 kph)	2.0 mph (3.2 kph)
Elevated Drive Speed (FWD/REV)	0.5 mph (0.8 kph)	
Elevated Drive Platform Height	62 in. (1.57 m)	55 in. (1.40 m)
Maximum Stowed Travel Grade (Side slope)	8.75% (5°)	
Gradeability	25% / (14°)	
Turning Radius Inside: (Curb to Curb) Outside: (Wall to Wall) Outside:	 0 in. (0 cm) 88.5 in. (2.25 m) 93.3 in. (2.37 m)	 0 in. (0 cm) 82.2 in. (2.09 m) 86.9 in. (2.21 m)
CHASSIS		
Approximate Gross Machine Weight All Markets: AUS Only: GB Only:	 5410 lb (2454 kg) 5510 lb (2499 kg) 5480 lb (2486 Kg)	 4280 lb (1941 kg) 4280 lb (1941 kg) 4335 lb (1966 Kg)
Maximum Tire Load (per wheel)	2150 lb (975 kg)	1373 lb (623 kg)
Ground Bearing Pressure	131 psi (9.03 bar)	92 psi (6.34 bar)
Maximum Hydraulic Pressure Main Relief: Steer Relief: Lift Relief:	 3200 psi (220.6 bar) 1150 psi (79.3 bar) 2550 psi (175.8 bar)	

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Table 7-1. Diagnostic Trouble Codes (DTC)

DTC	Help Message	Alarm	Flash Code	Action	Trigger	R3246
9957	POWER MODULE FAILURE – INTERNAL ERROR	None	9_9	• Drive State = PREVENTED • Lift Up State = PREVENTED	**Curtis Code 68: VCL Run Time Error** **Set:** Runtime VCL code error condition **Effect:** ShutdownMotor,ShutdownMainContactor,ShutdownEMBrake, ShutdownThrottle, Shutdown Interlock, Shutdown Drivers1-4, ShutdownPD, FullBrake, ShutdownPump **Possible Cause:** • VCL code encountered a runtime VCL error • See Monitor menu>>Controller. This error can then be compared to the runtime VCL module ID and error code definitions found in the specific OS system information file.	X
9958	POWER MODULE FAILURE – INTERNAL ERROR	None	9_9	• Drive State = PREVENTED • Lift Up State = PREVENTED	**Curtis Code 91: VCL/OS Mismatch** **Set:** VCL and OS software do not match; when KSI cycles, a check is made to verify that they match and a fault isssued when they do not. **Effect:** ShutdownMotor,ShutdownMainContactor,ShutdownEMBrake, ShutdownThrottle, Shutdown Interlock, Shutdown Drivers1-4, ShutdownPD, FullBrake, ShutdownPump **Possible Cause:** • The VCL software in the controller does not match the OS software in the controller.	X
9959	POWER MODULE FAILURE – INTERNAL ERROR	None	9_9	• Drive State = PREVENTED • Lift Up State = PREVENTED	**Curtis Code 44: Pump Throttle Wiper Low** **Set:** Pot2 wiper voltage is lower than the low fault threshold (can be changed with the VCL funciton Setup_Pot_Faults()) **Effect:** ShutdownPump (if Lift_Switch_Only_Enable=Off'), ShutdownPD (If Lower_Switch_Only_Enable=Off) **Possible Cause:** • See Monitor Menu>> Inputs: Pot2 Raw • Pot2 wiper voltage too low	X
23196	PRESSURE SENSOR 1 OUT OF RANGE HIGH		2_3	• Overload State= TRUE	A short to Battery was detected on the PRSTR_SIG1 or reading was >22mA. The Ground module should disable the VSHORT FET to protect the board components. • Only applicable if (MACHINE SETUP-> LOAD = CUTOUT ALL or CUTOUT PLTM)	X
23197	PRESSURE SENSOR 1 OUT OF RANGE LOW		2_3	• Lift Up State = PREVENTED	The Pressure1RawValue is considered out of range low since it is <3.5mA. • Only applicable if (MACHINE SETUP-> LOAD = CUTOUT ALL or CUTOUT PLTM)	X
23198	PRESSURE SENSOR 2 OUT OF RANGE HIGH		2_3	• Overload State= TRUE	A short to Battery was detected on the PRSTR_SIG2 or reading was >22mA. The Ground module should disable the VSHORT FET to protect the board components. • Only applicable if (MACHINE SETUP-> LOAD = CUTOUT ALL or CUTOUT PLTM)	X

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8.7 ELECTRICAL SCHEMATICS

R2632/R3246 ELECTRICAL SCHEMATICS

SHEET 2 :

HARNESS, CHASSIS
HARNESS, LIFT DOWN
KIT, BATTERY CABLE
CABLE, PUMP POS
CABLE, PUMP NEG

SHEET 3 :

CABLE, PLATFORM /AC
CABLE, PLATFORM CONTROL
CABLE, PLATFORM CONTROL(COILED)
CABLE, PLATFORM CONTROL W/FTSW
CABLE, PLATFORM CONTROL(COILED) W/FTSW
HARNESS, PLATFORM BOX
HARNESS, OVERHEAD PROTECTION

SHEET 4 :

BEACON (DUAL)
CHARGER INTERLOCK DELTA-Q
CHARGER DC CONNECTION DELTA-Q
CHARGER DC CONNECTION GREEN / EAGLE
INVERTER
- INVERTER HARNESS
- BATT+ TO INV CONTACTOR CABLE
- PUMP CTRL B- TO INV
- INV CONTACTOR TO INV+ CABLE
- INVERTER TO AC FILTER
- AC FILTER TO AC PLUG

HARNESS, MOBILE CONTROL
HARNESS, REMOTE TOW

1001233001-B
MAF102308

Figure 8-14. Electrical Schematic - Sheet 1 of 7

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1.12 TORQUE CHARTS

SAE Fastener Torque Chart

Values for Zinc Yellow Chromate Fasteners (Ref 4150707)												
SAE GRADE 5 BOLTS & GRADE 2 NUTS												
Size	TPI	Bolt Dia	Tensile Stress Area	Clamp Load	Torque (Dry)		Torque Lubricated		Torque (Loctite® 242™ or 271™ or Vibra-TITE™ 111 or 140)		Torque (Loctite® 262™ or Vibra-TITE™ 131)	
		In	Sq In	LB	IN-LB	[N.m]	IN-LB	[N.m]	IN-LB	[N.m]	IN-LB	[N.m]
4	40	0.1120	0.00604	380	8	0.9	6	0.7				
	48	0.1120	0.00661	420	9	1.0	7	0.8				
6	32	0.1380	0.00909	580	16	1.8	12	1.4				
	40	0.1380	0.01015	610	18	2.0	13	1.5				
8	32	0.1640	0.01400	900	30	3.4	22	2.5				
	36	0.1640	0.01474	940	31	3.5	23	2.6				
10	24	0.1900	0.01750	1120	43	4.8	32	3.5				
	32	0.1900	0.02000	1285	49	5.5	36	4				
1/4	20	0.2500	0.0318	2020	96	10.8	75	9	105	12		
	28	0.2500	0.0364	2320	120	13.5	86	10	135	15		
		In	Sq In	LB	FT-LB	[N.m]	FT-LB	[N.m]	FT-LB	[N.m]	FT-LB	[N.m]
5/16	18	0.3125	0.0524	3340	17	23	13	18	19	26	16	22
	24	0.3125	0.0580	3700	19	26	14	19	21	29	17	23
3/8	16	0.3750	0.0775	4940	30	41	23	31	35	48	28	38
	24	0.3750	0.0878	5600	35	47	25	34	40	54	32	43
7/16	14	0.4375	0.1063	6800	50	68	35	47	55	75	45	61
	20	0.4375	0.1187	7550	55	75	40	54	60	82	50	68
1/2	13	0.5000	0.1419	9050	75	102	55	75	85	116	68	92
	20	0.5000	0.1599	10700	90	122	65	88	100	136	80	108
9/16	12	0.5625	0.1820	11600	110	149	80	108	120	163	98	133
	18	0.5625	0.2030	12950	120	163	90	122	135	184	109	148
5/8	11	0.6250	0.2260	14400	150	203	110	149	165	224	135	183
	18	0.6250	0.2560	16300	170	230	130	176	190	258	153	207
3/4	10	0.7500	0.3340	21300	260	353	200	271	285	388	240	325
	16	0.7500	0.3730	23800	300	407	220	298	330	449	268	363
7/8	9	0.8750	0.4620	29400	430	583	320	434	475	646	386	523
	14	0.8750	0.5090	32400	470	637	350	475	520	707	425	576
1	8	1.0000	0.6060	38600	640	868	480	651	675	918	579	785
	12	1.0000	0.6630	42200	700	949	530	719	735	1000	633	858
1 1/8	7	1.1250	0.7630	42300	800	1085	600	813	840	1142	714	968
	12	1.1250	0.8560	47500	880	1193	660	895	925	1258	802	1087
1 1/4	7	1.2500	0.9690	53800	1120	1518	840	1139	1175	1598	1009	1368
	12	1.2500	1.0730	59600	1240	1681	920	1247	1300	1768	1118	1516
1 3/8	6	1.3750	1.1550	64100	1460	1979	1100	1491	1525	2074	1322	1792
	12	1.3750	1.3150	73000	1680	2278	1260	1708	1750	2380	1506	2042
1 1/2	6	1.5000	1.4050	78000	1940	2630	1460	1979	2025	2754	1755	2379
	12	1.5000	1.5800	87700	2200	2983	1640	2224	2300	3128	1974	2676

NOTES: 1. THESE TORQUE VALUES DO NOT APPLY TO CADMIUM PLATED FASTENERS 50000598

2. ALL TORQUE VALUES ARE STATIC TORQUE MEASURED PER STANDARD AUDIT METHODS TOLERANCE = ±10%

3. * ASSEMBLY USES HARDENED WASHER

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8.4 DIELECTRIC GREASE APPLICATION

Dielectric grease helps to prevent corrosion of electrical contacts and improper conductivity between contacts from moisture intrusion. Non-waterproof connectors benefit from the application of dielectric grease.

Installation

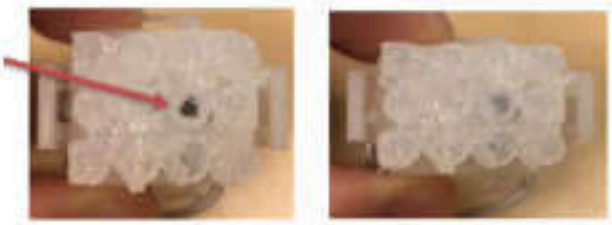
The following is general guidance for the installation of dielectric grease in a connector system.

- Use dielectric grease in a tube for larger connection points or apply with a syringe for small connectors.
- Apply dielectric grease to plug/male connector housing which typically contains sockets contact/female terminals.
- Leave a layer of dielectric grease on the mating face of the connector, completely covering each connector terminal hole. Refer the pictures shown below.
- Assemble the connector system immediately to prevent moisture ingress or dust contamination.

The following connector systems are specifically addressed because of their widespread use at JLG. However, this guidance may be applied to similar devices.

AMP Mate-N-Lok

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



Improper Proper

AMP Faston

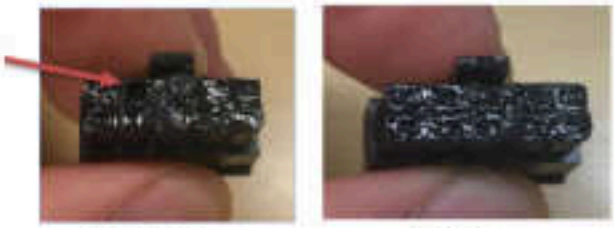
This connector system is typically used on operator switches at JLG. Follow the general guidance for installation.



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

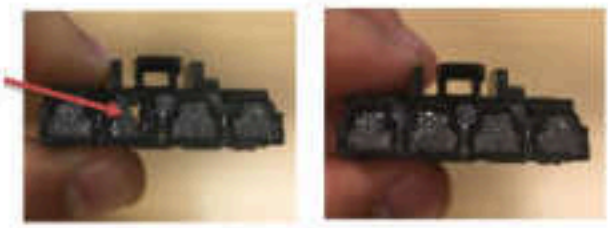
This connector system is typically used on control modules at JLG. Follow the general guidance for installation.



Improper Proper

Mini Fit Sr

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



Improper Proper

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