An Oshkosh Corporation Company

Service and Maintenance Manual

Model
1500AJP

PN - 3121735

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Values for Zinc Yellow Chromate Fasteners (Ref 4150707)

Size	PITCH	Tensile Stress Area	CLASS 8.8 METRIC (HEX/SOCKET HEAD) BOLTS CLASS 8 METRIC NUTS						CLASS 10.9 METRIC (HEX HEAD) BOLTS CLASS 10 METRIC NUTS CLASS 12.9 SOCKET HEAD CAP SCREWS M3 - M5*				
			Clamp Load	Torque (Dry or Loctite® 263™)	Torque (Lub)	Torque (Loctite® 262™ OR Vibra-TITE™ 131)	Torque (Loctite® 242™ or 271™ OR Vibra-TITE™ 111 or 140)	Clamp Load	Torque (Dry or Loctite® 263™) K = 0.20	Torque (Lub OR Loctite® 242™ or 271™ OR Vibra-TITE™ 111 or 140) K= 0.18	Torque (Loctite® 262™ OR Vibra-TITE™ 131) K=0.15
		84 mm	KN	(N.m)	(N.m)	(N.m)	(N.m)	KN	(N.m)	(N.m)	(N.m)
3	0.5	5.03	2.19	1.3	1.0	1.2	1.4	3.13			
3.5	0.6	6.78	2.95	2.1	1.6	1.9	2.3	4.22			
4	0.7	8.78	3.82	3.1	2.3	2.8	3.4	5.47			
5	0.8	14.20	6.18	6.2	4.8	5.6	6.8	8.85			
6	1	20.10	8.74	11	7.9	9.4	12	12.5			
7	1	28.90	12.6	18	13	16	19	18.0	26	23	19
8	1.25	36.60	15.9	26	19	23	28	22.8	37	33	27
10	1.5	58.00	25.2	50	38	45	55	36.1	70	65	55
12	1.75	84.30	36.7	88	66	79	97	52.5	125	115	95
14	2	115	50.0	140	105	126	154	71.8	200	180	150
16	2	157	68.3	219	164	197	241	97.8	315	280	235
18	2.5	192	83.6	301	226	271	331	119.5	430	385	325
20	2.5	245	106.5	426	320	383	469	152.5	610	550	460
22	2.5	303	132.0	581	436	523	639	189.0	830	750	625
24	3	353	153.5	737	553	663	811	222.0	1065	960	800
27	3	459	199.5	1080	810	970	1130	288.0	1545	1390	1160
30	3.5	561	244.0	1460	1100	1320	1530	349.5	2095	1885	1575
33	3.5	694	302.0	1990	1490	1790	2090	432.5	2855	2570	2140
36	4	817	355.5	2560	1920	2300	2680	509.0	3665	3300	2750
42	4.5	1120	487.0	4090	3070	3680	4290	698.0	5865	5275	4395

1. THESE TORQUE VALUES DO NOT APPLY TO CADMIUM PLATED FASTENERS
2. ALL TORQUE VALUES ARE STATIC TORQUE MEASURED PER STANDARD AUDIT METHODS TOLERANCE = ±10%
*3. ASSEMBLY USES HARDENED WASHER OR FASTENER IS PLACED AGAINST PLATED STEEL OR RAW ALUMINUM
4. CLAMP LOAD LISTED FOR SHCS IS SAME AS GRADE 8 OR CLASS 10.9 AND DOES NOT REPRESENT FULL STRENGTH CAPABILITY OF SHCS. IF HIGHER LOAD IS REQUIRED, ADDITIONAL TESTING IS REQ

NO. 9900659 REV. K

Figure 1-5. Torque Chart - Sheet 4 of 5 - (METRIC Fasteners)

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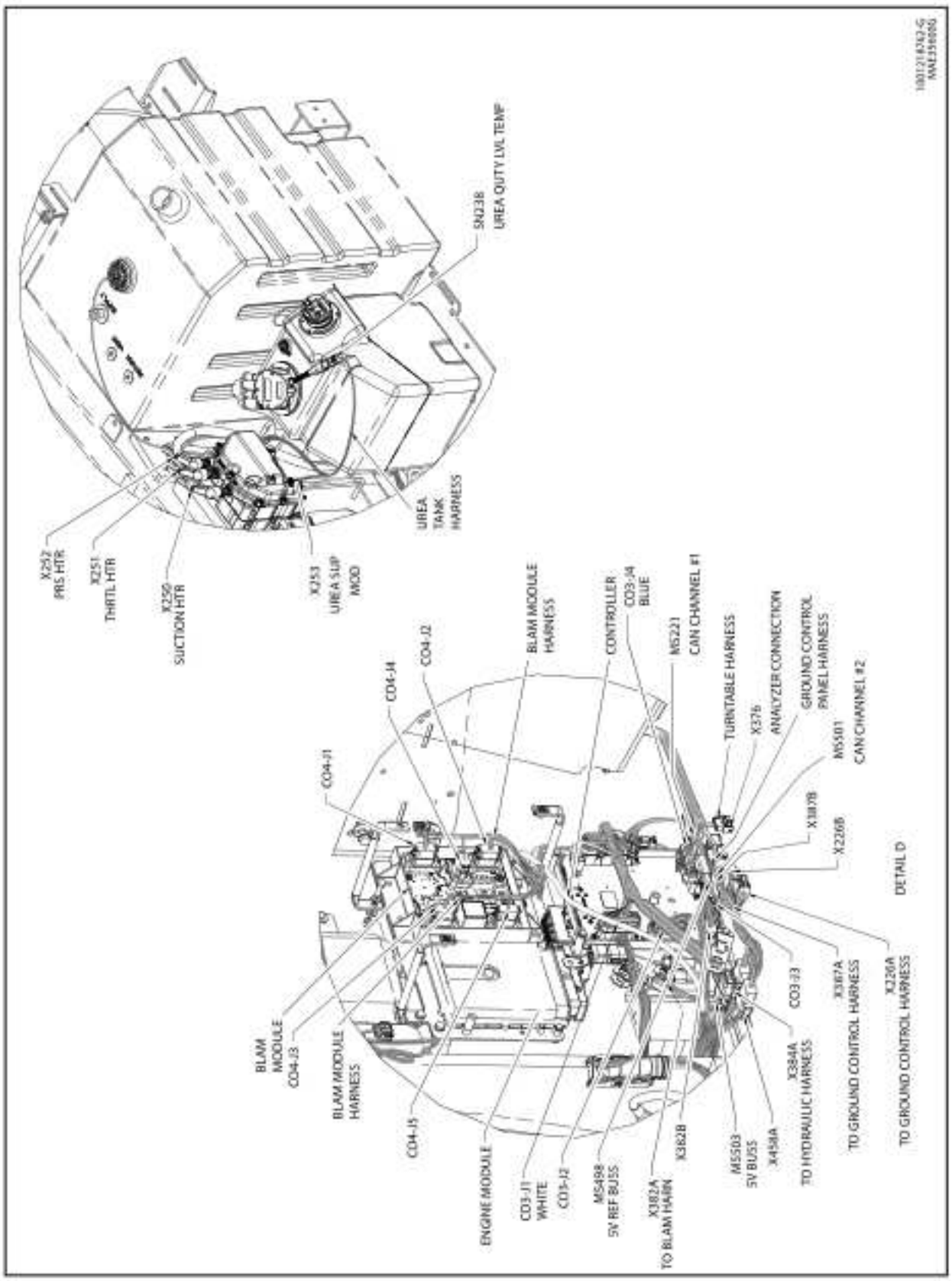


Figure 7-49. Chassis & Turntable Electrical Installation (HRC) - Sheet 3 of 11

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S272					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	YEL	2-68-2	1mm²	FURYW	X212 (67)
1	YEL	2-68-3	0.75mm²	FURYW	X241 (A)
2	YEL	2-68-1	1mm²	FURYW	X217B (1)

S285					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	WHT	148-38-3 STRT REQ	0.75mm²	FURYW	X212 (64)
2	WHT	148-38-2 STRT REQ	0.75mm²	FURYW	X218B (2)
2	WHT	148-38-4 STRT REQ	0.75mm²	FURYW	FC248 (A10)

S485					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	RED	1-30-1	3.0mm²	FURYW	FC248 (A1)

S486					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	RED	1-31-1	3.0mm²	FURYW	FC248 (A2)

X260 (SYS B+)					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	--	--	16 AWG	FUSIBLE LINK	S486 (2)
1	--	--	16 AWG	FUSIBLE LINK	S485 (2)

IP481 (30A ATO)					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	RED	1-20	8mm²	FURYW	S280 (1)
2	RED	1-20	8mm²	FURYW	X491 (1)

X491 (SYS B+)					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	RED	1-20	8mm²	FURYW	IP481 (2)

Figure 7-189. Engine T4F Harness - Sheet 8 of 15

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4. Remove the wear pads from the front of the mid boom section.





5. Pull the fly section from the mid section. Ensure the cables do not get tangled in the mid section as the fly section is being removed.



6. Remove the wire ropes from the boom fly section.





7. Support the weight of the boom base section.



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BRAD HARRISON / PHOENIX CONTACT M12

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 achieve 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 1500AJP Rotary Angle Sensors are examples of components with the M12 connector system.



Figure 7-7. Brad-Harrison M12



Figure 7-8. Phoenix Contact M12

ENGINE CONTROL UNIT CONNECTORS

These connectors use back-seals for moisture integrity. However, the low-force contacts cannot displace dielectric grease and create electrical contact. It is possible to use solvents (i.e. contact cleaner or mineral spirits) for the removal of improperly applied dielectric grease. The EMR4 engine control module from Deutz employs this connector system (for example).



SEALED ENCLOSURES

Application of dielectric grease is not required in properly sealed enclosures. To meet criteria, the enclosure must be rated to at least IP66 (dust tight; protected from powerful jets of water). The enclosure must be fitted with a high quality, continuous gasket and all wiring must pass through cable entrances.



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