An Oshkosh Corporation Company

Service and Maintenance Manual

Models
E400Anarrow
E400AJPnarrow

PVC 2001

31215010

December 23, 2019 - Rev A

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1.5 LUBRICATION SPECIFICATIONS

Refer to Section 1.10, Maintenance and Lubrication, for specific lubrication procedures.

Hydraulic Oil

Hydraulic System Operating Temperature Range	S.A.E. Viscosity Grade
+0° to + 180° F (-18° to +83° C)	10W
+0° to + 210° F (-18° to +99° C)	10W-20, 10W30
+50° to + 210° F (+10° to +99° C)	20W-20

NOTE: *Hydraulic oils must have anti-wear qualities at least to API Service Classification GL-3, and sufficient chemical stability for mobile hydraulic system service.*

NOTE: *Aside from JLG recommendations, it is not advisable to mix oils of different brands or types, as they may not contain the same required additives or be of comparable viscosities. If use of hydraulic oil other than standard UTTO is desired, contact JLG Industry for proper recommendations.*

Table 1-1. Mobil DTE 10 Excel 15 Specs

ISO Viscosity Grade	#15
Pour Point, Max	-65°F (-54°C)
Flash Point, Min.	360°F (182°C)
Viscosity	
at 40° C	15.8 cSt
at 100° C	4.07 cSt
at 100° F	15.8 cSt
at 212° F	4.07 cSt
Viscosity Index	168
Density (Kg/l) @ 15°C	0.8375
Density (lb/in3) @ 60° F	0.0302

Table 1-2. Mobil EAL H 32 Specs

Type	Synthetic Biodegradable
ISO Viscosity Grade	32
Density (Kg/l) @ 15° C	0.869
Pour Point, Max	-38°F (-39°C)
Flash Point, Min.	514°F (268°C)
Viscosity	
at 40° C	33.1 cSt
at 100° C	6.36 cSt
Viscosity Index	147

Table 1-3. Mobil EAL Envirosyn SHC 32 Specs

Type	Synthetic Biodegradable
ISO Viscosity Grade	32
Density (Kg/l) @ 15° C	0.936
Pour Point, Max	-27°F (-33°C)
Flash Point, Min.	540°F (282°C)
Viscosity	
at 40° C	33.1 cSt
at 100° C	6.2 cSt
Viscosity Index	152

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Table 3-2. Swing Motor Troubleshooting

Trouble	Cause	Remedy
Oil Leakage	1. Hose fittings loose, worn or damaged.	Check & replace damaged fittings or "O" Rings. Torque to manufacturers specifications.
	2. Oil seal rings (4) deteriorated by excess heat.	Replace oil seal rings by disassembling unit.
	3. Special bolt (1, 1A, 1B or 1C) loose or its sealing area deteriorated by corrosion.	(a) Loosen then tighten single bolt to torque specification. (b) Replace bolt.
	4. Internal shaft seal (16) worn or damaged.	Replace seal. Disassembly of motor unit necessary.
	5. Worn coupling shaft (12) and internal seal (16).	Replace coupling shaft and seal by disassembling unit.
Significant loss of speed under load	1. Lack of sufficient oil supply	(a) Check for faulty relief valve and adjust or replace as required. (b) Check for and repair worn pump. (c) Check for and use correct oil for temperature of operation.
	2. High internal motor leakage	Replace worn rotor set by disassembling unit.
	3. Severely worn or damaged internal splines.	Replace rotor set, drive link and coupling shaft by disassembling unit.
	4. Excessive heat.	Locate excessive heat source (usually a restriction) in the system and correct the condition.
Low mechanical efficiency or undue high pressure required to operate unit	1. Line blockage	Locate blockage source and repair or replace.
	2. Internal interference	Disassemble unit, identify and remedy cause and repair, replacing parts as necessary.
	3. Lack of pumping pressure	Check for and repair worn pump.
	4. Excessive binding or loading in system external to motor unit.	Locate source and eliminate cause.

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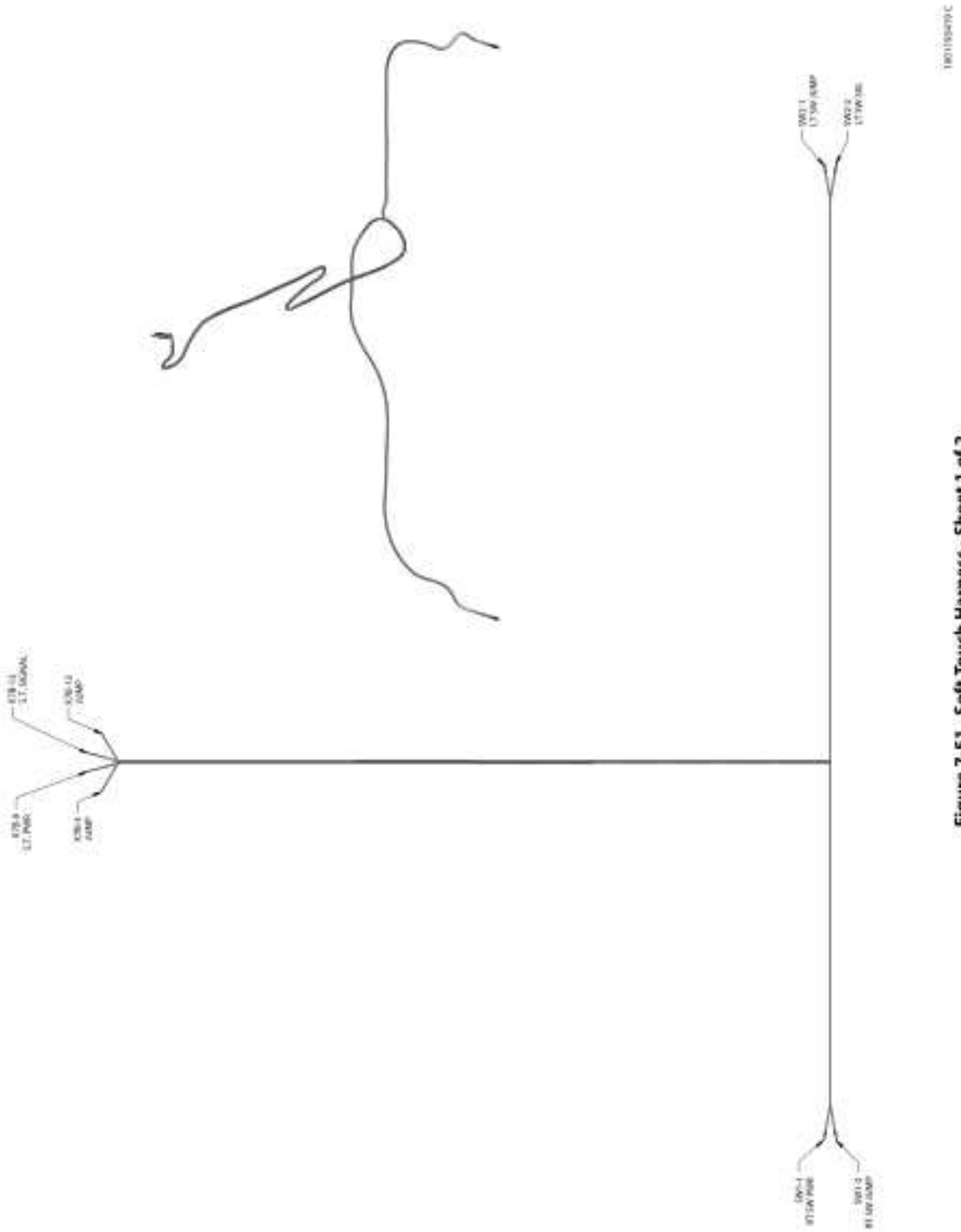
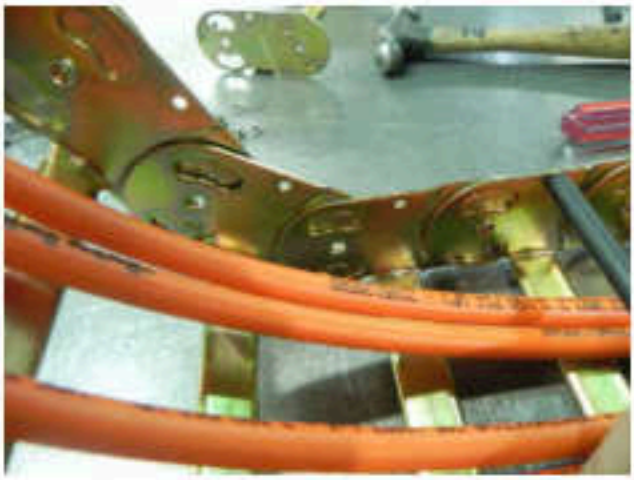


Figure 7-51. Soft Touch Harness - Sheet 1 of 2

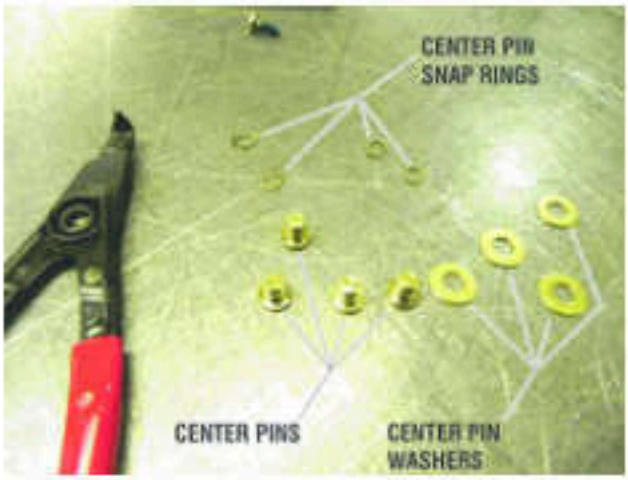
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4. Pull the moving end out over the track so that the new connection is positioned in the curve of the powertrack. In this position the round half-shears will rotate into the peanut cut outs.





5. The parts shown below will be used to connect the new link to the powertrack.



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





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C01-J8					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	BLK	4-0-1 BASTR GND	12 AWG	GXL	X2-B (3)
2	YEL	5-10-1-1 SWITCHED PWR	12 AWG	GXL	S541 (1)
3	BLK	PLAT GND	12 AWG	GXL	X4-A (16)
4	YEL	PLATFORM PWR	12 AWG	GXL	X4-A (12)

MS423-1 - CAN					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
A	YEL	CAN1 HI	20 AWG	J1939 CABLE	X4-A (3)
B	GRN	CAN1 LO	20 AWG	J1939 CABLE	X4-A (2)
C					

C01-J12					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1					
2					
3	YEL	83-1-1 CAN2 HIGH	20 AWG	J1939 CABLE	X756 (2)
4	GRN	84-1-1 CAN2 LOW	20 AWG	J1939 CABLE	X756 (3)
5					
6					
7					
8	WHT	80-0 MS50	18 AWG	GXL	X3-A (7)

LB86-AMB BEACON					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	WHT	2-12 STROBE	18 AWG	GXL	S653 (1)
2	BLK	1-7-1 GND	18 AWG	GXL	S796 (1)

S593					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	YEL	CAN1 HI	18 AWG	GXL	C01-J7 (13)
1	YEL	CAN1 HI	18 AWG	GXL	X2-B (11)
2	YEL	CAN1 HI	18 AWG	GXL	MS423-2 (A)

S594					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	GRN	CAN1 LO	18 AWG	GXL	C01-J7 (24)
1	GRN	CAN1 LO	18 AWG	GXL	X2-B (12)
2	GRN	CAN1 LO	18 AWG	GXL	MS423-2 (B)

S542					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	YEL	5-2-1 IGN MODE	18 AWG	GXL	X3-A (4)
1	YEL	5-2-5 IGN	18 AWG	GXL	X4-A (15)
2	YEL	5-2-2 IGN	18 AWG	GXL	X2-B (4)

X649 - BLUE BEACON					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	WHT	300-1 ALERT PWR	18 AWG	GXL	C01-J1 (2)
2	BLK	300-2 ALERT GND	18 AWG	GXL	C01-J1 (4)

S650					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	WHT	82-1 PLAT TX	18 AWG	GXL	C01-J7 (2)
1	WHT	82-2 PLAT TX	18 AWG	GXL	C01-J7 (1)
2	WHT	82-0 PLAT TX	18 AWG	GXL	X4-A (4)

S794					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	RED	3-0-1 CONSTANT 12V	12 AWG	GXL	X3-A (1)
2	RED	3-0 CONSTANT 12V	12 AWG	GXL	X2-B (1)
2	RED	3-0-2 CONSTANT 12V	18 AWG	GXL	X793 (1)

S795					
CONN POS	WIRE COLOR	WIRE LABEL	GAUGE	JACKET	TO
1	YEL	5-11-1 IGN PLAT	18 AWG	GXL	X3-A (5)
2	YEL	5-11-1-1 IGN PLAT	18 AWG	GXL	X4-A (9)
2	YEL	5-11-1-2 IGN PLAT	18 AWG	GXL	X793 (4)

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