

Ditch Witch[®]

JT4020 Mach 1 All Terrain Tier 3

ISSUE NO. 18PL-05/19
For Replacement Copy Order **P/N 053-1043**

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This manual contains information concerning the following models:
JT4020 Mach 1 All Terrain Tier 3 Directional Drilling System

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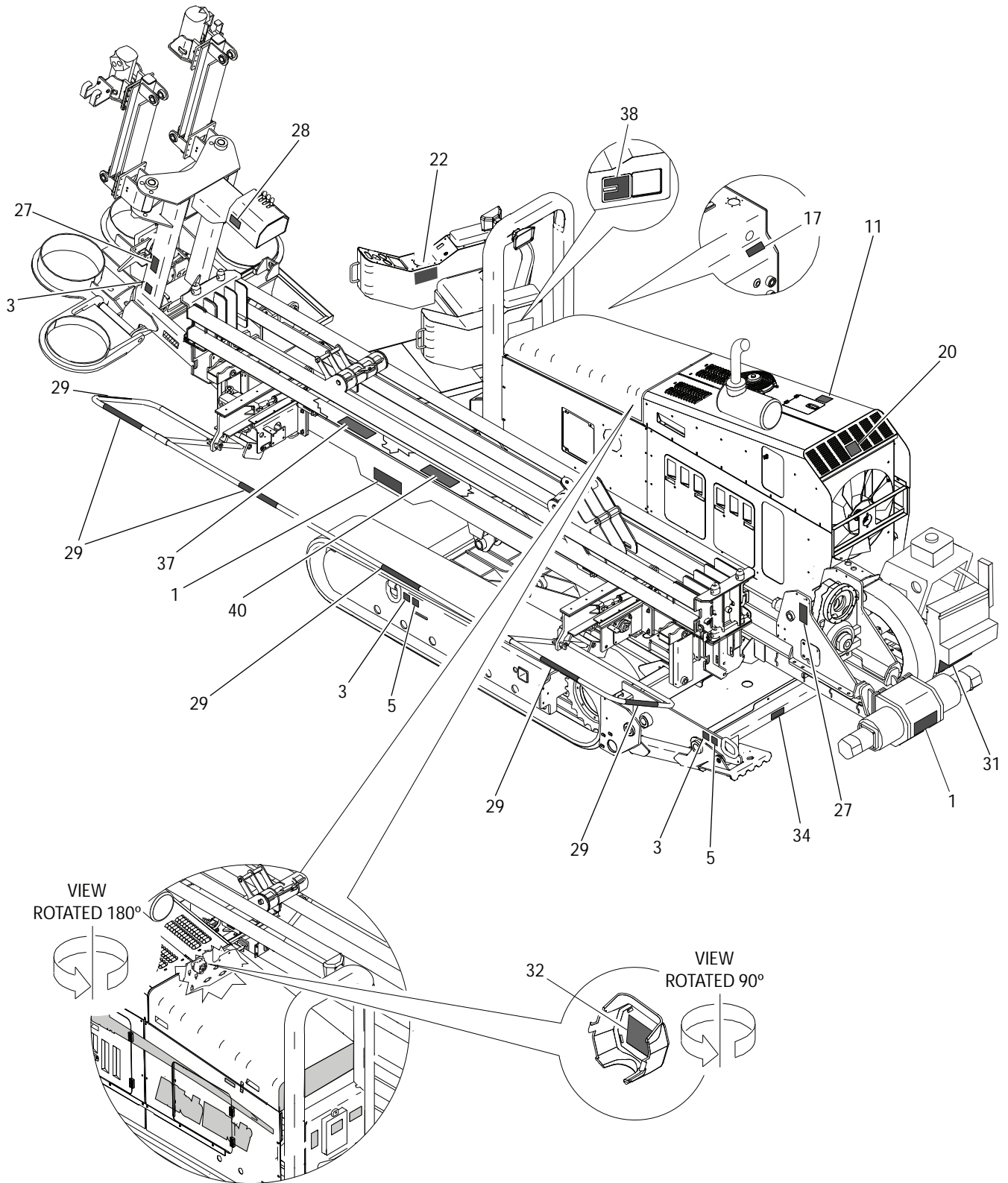
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DECAL LOCATION AT/JT42T3



FAN & SHROUD ASSEMBLY

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	195-1004	1	CAC/RAD/HOC	
2	300-1124	1	FAN SHROUD ASSEMBLY	
3	194-134	1	FAN (26.0" OD, 2.50" BC)	
4	194-1000	1	FAN HUB	
5	300-1418	1	ACCESS SHIELD	
6	364-487	1	FUEL FILL BRACKET	
7	501-153	9	FLG LK BOLT (3/8-NC X 5/8")	
8	106-724	4	FLG SCREW (M10-1.50 X 25MM)	
9	150-1051	1	HYDRAULIC MOTOR	
10	105-894	2	LOCKNUT(M10-1.50,PRV TRQ,10.9)	
11	106-162	4	FLG SCREW (M8-1.25 X 20MM, GD8)	
12	106-383	2	FLG LK SCREW (M10-1.50 X 30MM)	
13	105-806	4	SCREW (M8-1.25 X 25MM)	TORQUE TO 20 FT/LBS
14	195-1049	1	FAN GUARD (27")	
15	300-1119	1	FAN MOTOR MOUNT ASSEMBLY	
16	105-834	3	FLG LOCKNUT (3/8-NC)	
17	106-396	2	WASHER (M10, HARDENED)	
18	105-091	4	LOCK WASHER (5/16")	
19	105-117	4	WASHER (5/16")	
20	306-602	1	ALARM	SEE FOOTNOTE 1
21	106-551	2	CLIP NUT (M8-1.25)	
22	106-991	2	FLG LK SCREW (M8-1.25 X 20MM)	
24	115-686	AR	BULK EDGE (5/32",SOLD PER 1")	USE 1 @ 5"
25	115-686	1	BULK EDGE (5/32",SOLD PER 1")	USE 1 @ 10"

NOT SHOWN:

FOOTNOTES:

- | | | | |
|----|---------|---|------------------------|
| 1. | 214-104 | 1 | PACKARD MALE TERMINAL |
| | 214-103 | 2 | (2-WAY) MALE CONNECTOR |
| | 157-645 | 2 | WEATHER-PAC SEAL |

NOTE:

ENGINE OIL DRAIN

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	153-166	1	CONNECTOR (M18-1.50-08J90)	
2.	150-1261	1	HOSE (08JFX-8.5"-2000)	
3.	154-393	1	BK CONNECTOR (08J-08J90BK)	
4.	154-327	1	CAP (080F)	
5.	194-662	-	ENGINE, CUMMINS QSB6.7	
6.	300-1563	-	ENGINE SKID	

NOT SHOWN:

FOOTNOTES:

NOTE:
REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

DEAREATION JT4020 T3

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	195-1004	-	RADIATOR	
2.	155-162	2	S/O COUPLER (04N-05H)	USE 567 LOCTITE
3.	155-164	2	S/O COUPLER (04N-05H90)	USE 567 LOCTITE
4.	110-249	4	WORM CLAMP (1/4" TO 5/8")	
5.	116-108	AR	BULK HOSE (5/16", SOLD PER 1")	USE 1 @ 16"
6.	116-108	AR	BULK HOSE (5/16", SOLD PER 1")	USE 1 @ 29"
7.	213-366	1	COOLENT LEVEL SWITCH	USE 567 LOCTITE
8.	155-136	1	S/O COUPLER (16N-16H)	USE 567 LOCTITE
9.	110-353	2	WORM CLAMPS (3/4" TO 1-1/2")	
10.	150-1333	1	S/O COUPLER (12N-16H90)	USE 567 LOCTITE
11.	116-094	AR	BULK HOSE (1" SOLD PER 1")	USE 1 @ 36"

NOT SHOWN:

FOOTNOTES:

NOTE:

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GAUGE PANEL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-1342	1	INSTRUMENT PANEL ASSEMBLY	
2	211-1013	1	2.06" CAN ENG OIL PRESS GAUGE (BLACK)	
3	211-1012	1	2.06" CAN COOLANT TEMP GAUGE (BLACK)	
4	211-1002	1	3.5" CAN TACHOMETER W/ DISPLAY (BLACK)	
5	211-1003	1	2.06" VOLTMETER GAUGE (BLACK)	
6	211-1020	1	FUEL GAUGE BLACK (VOLTAGE)	
7	220-664	2	INDICATOR ASSEMBLY	
8	217-907	2	ROCKER SWITCH (DPDT) ON-ON	
9	214-301	1	ACCESSORY SOCKET	
10	110-560	8	POP RIVET (3/16" X 1/2", ALUM)	
11	306-603	1	AUDIO ALARM	
12	117-383	1	CONTROL HANDLE SEAL	
13	111-112	1	PLUG (1.00)	
14	215-1015	1	MOMENTARY PUSH BUTTON SWITCH	SEE FOOTNOTE 1
15	107-393	4	SCREW (M4-0.70 X 16MM, BX)	
16	107-358	4	WELLNUT (M4-0.7 X 12.67MM LG)	
17	310-126	1	SEAL BACK-UP PANEL	
18	116-489	AR	BULK EDGE (1/8";SOLD PER FT)	USE 1 @ 32.5"

NOT SHOWN:

FOOTNOTES:

1 217-291 2 TERMINAL SOCKET
 217-290 1 CONNECTOR
 217-289 1 SECONDARY LOCK

NOTE:

TRACK GROUP

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	106-066	16	LUG NUT (5/8-NF)	
2.	107-010	4	FLG LOCK SCREW (M12-1.75 X 30mm)	
3.	106-397	4	WASHER (M12, HARDENED)	
4.	354-480	2	RUBBER TRACK (400MM,82P,72MM)	
5.	166-417	2	PLANETARY GEARBOX	SEE NOT SHOWN
	500-1755	-	INPUT SHAFT	
	500-2157	-	DISENGAGE SPRING	
	500-2156	-	THRUST WASHER	
6.	354-861	14	ROLLER	
7.	350-757	1	LEFT ROLLER FRAME	
8.	349-314	2	SLIDE PAD	
9.	141-578	2	SPROCKET (20T)	
10.	354-517	2	YOKE	
11.	354-860	2	IDLER PARTS ASS'Y	
12.	117-164	2	COMPRESSION SPRING	COMPRESSED LENGTH 18" +0 -1/4" TO KEEP TRACKS TIGHT
13.	354-531	1	RIGHT GREASE CYLINDER	
	354-530	1	LEFT GREASE CYLINDER	
14.	105-970	16	FLG BOLT (5/8-NC X 2-1/2")	USE 242 LOCTITE
15.	107-773	4	SCREW (1/2-NC X 4.25", GD8)	USE 242 LOCTITE; TORQUE TO 130 FT LB
16.	153-592	1	HYDRAULIC MOTOR	RIGHT SIDE, USE SEAL KIT 500-752
	153-593	1	HYDRAULIC MOTOR	LEFT SIDE
17.	106-442	16	FLG LKNUT (M16-2.00, PRV TRQ, 10.9)	TORQUE SPECS.: SEE FOOTNOTE 1
18.	105-070	4	LOCK WASHER (.500")	
19.	155-768	2	O-RING (155 D70)	
20.	350-758	1	RIGHT ROLLER FRAME	
21.	106-616	20	SCREW (M16-2.00 X 55mm, 10.9)	
22.	106-545	27	LOCKNUT (M16-2.00,PRV TRQ, 10.9)	
23.	354-529	2	SPRING GUIDE	
24.	107-598	16	SCREW (M16 X 60MM 10.9)	
25.	153-767	2	COUNTERBALANCE MANIFOLD	
	158-020	2	HYDRAULIC VALVE	
26.	107-739	8	SCREW (3/8-NF X 5.25", GD 5)	
27.	105-072	8	LOCK WASHER (3/8")	
28.	106-390	8	WASHER (M10)	
29.	354-569	1	LEFT TRACK GUARD	
30.	106-398	56	WASHER (M16, HARDENED)	
31.	105-597	14	BOLT (1-NC X 7.50", GD8)	USE 242 LOCTITE
32.	105-919	14	FLG NUT (1-NC)	
33.	354-570	1	RIGHT TRACK GUARD	
34.	350-831	1	ROPS SUPPORT PLATE	

NOT SHOWN:

PLANETARY BRAKE SECTION USE 500-2009 O-RING/GASKET KIT
 PLANETARY SEAL KIT 500-2208

FOOTNOTES:

1. APPLY LOCTITE 242;TIGHTEN ALL TRACK-MAIN FRAME JOINT FASTENERS TO 150 FT LB AND FINAL TORQUE OF 225 FT LB AT NUT; OR INITIAL TORQUE TO 125 FT LB AND FINAL TORQUE TO 185 FT LB AT BOLT HEAD. DO NOT DRAW MATING SURFACES TOGETHER WITH A SINGLE NUT-BOLT COMBINATION.

NOTE:

FUEL TANK

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-214	5	FLG SCREW (#10-24 X 1/2")	
2.	217-568	1	FUEL SENDER	
3.	165-704	1	GASKET	
4.	110-010	1	FUEL CAP (1-1/2")	
5.	364-659	1	FILLER NECK	
6.	364-487	1	FUEL FILL BRACKET	
7.	110-134	2	WORM CLAMP (2-1/16" TO 2-3/4")	
8.	105-1110	1	FUEL HOSE (12-1/2")	
9.	110-217	4	WORM CLAMP (7/16" TO 1")	
10.	106-162	6	FLG SCREW (M8-1.25 X 20mm)	
11.	115-152	1	PLUG (12N, SQ, FM)	
12.	300-1949	1	FUEL TANK	
13.	116-322	AR	BULK HOSE (1/2", SOLD PER 1")	USE 1 @ 16"
14.	150-1231	2	S/O COUPLER (M12-1.5-08H90)	
15.	195-1035		PRIMARY FUEL FILTER	
	195-1036		SECONDARY FUEL FILTER	
16.	118-062	1	ABRASION SLEEVE (1.00" X 62")	
17.	155-708	1	O-RING (218-D70)	
18.	150-1229	2	PICKUP TUBE (08H90)	
19.	117-412	1	ABRASION SLEEVE (1.00" X 34")	
20.	116-322	AR	BULK HOSE (1/2", SOLD PER 1")	USE 1 @ 36"
21.	116-322	AR	BULK HOSE (1/2", SOLD PER 1")	USE 1 @ 63"
22.	364-663	1	FILLER NECK SCREEN	
23.	106-205	4	WASHER (.191")	INSTALL ON POP RIVET 110-253
24.	354-973	2	TANK CLAMP	
25.	106-632	4	FLG LK SCREW (M12-1.75 X 35mm, SER)	
26.	106-685	6	LOCKNUT (M12-1.75, PRV TRQ, 10.9)	
27.	110-253	4	POP RIVET (3/16" X 1/2")	
28.	105-117	6	WASHER 5/16")	
29.	106-561	6	LOCKNUT (M8-1.25, PRV TRQ, 10.9)	
30.	106-391	4	WASHER (M12)	
31.	116-789	AR	RUBBER EDGE TRIM (1/8", SOLD PER FT.)	USE 1 @ 15", SEE FOOTNOTE 1
32.	106-469	2	SCREW (M12-1.75 X 30mm)	

NOT SHOWN:

FOOTNOTES:

1. START EDGING 8" FROM END OF TANK AND USE LOCTITE 401.

NOTE:

AUGER ANCHOR BASE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	310-362	-	ANCHOR ATTACHMENT FRAME	
	327-1059	-	ANCHOR ATTACHMENT FRAME	SEE FOOTNOTE I
2.	313-592	1	ANCHOR BASE	
3.	343-548	2	PIVOT	
4.	106-470	2	FLG SCREW (M16-2.00 X 40mm)	
5.	184-973	2	PIN	
6.	115-483	4	KLIP RING (1.25")	
7.	343-445	2	PIN (31.75MM X 262MM)	
8.	110-128	2	SPRING CLIP PIN (5/32" X 1")	
9.	181-975	2	TAPERED INSERT (1.75")	
10.	179-239	2	TAPERED PIN (44.4mm X 288mm)	
11.	350-371	2	LATCH	
12.	106-332	4	SCREW (M10-1.50 X 70mm)	
13.	115-580	2	TORSION SPRING	
14.	105-894	4	LOCKNUT (M10-1.50,PRV TRQ, 10.9)	
15.	350-516	2	PIN	
16.	309-209	2	ARM	
17.	106-798	8	SCREW (M20-2.50 X 55MM, 10.9)	USE LOC TITE 242
18.	106-356	8	FLG LOCKNUT (M20-2.50,10.9,PRV TRQ)	
19.	106-399	8	WASHER (M20, HARDENED)	
20.	105-884	6	WASHER (.531")	
21.	106-551	4	CLIP NUT (M8-1.25)	
22.	110-228	2	LYNCH PIN (7/16" X 2")	
23.	350-989	1	FLOOR TREADS	
24.	106-991	4	FLG LK SCREW (M8-1.25 X 20MM)	

NOT SHOWN:

FOOTNOTES:

I. USE ON 4020 WITH RACK AND PINION

NOTE:

LEFT AUGER ANCHOR DRIVE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	149-895	1	HYD MOTOR	
	500-390		SEAL REPAIR KIT - REAR	
	500-391		SEAL REPAIR KIT - SHAFT	
	502-177		SHAFT AND BEARING ASS'Y	
	107-792		BOLT (5/16"X 1-5/8", DBL HEX)	
	165-900		KEY (7/16" SQ X 1.250")	
	105-917		CASTLE NUT (1-1/4-NF)	SEE FOOTNOTE 1
	500-2123		FRONT RETAINER (ANCHOR MOTOR)	
2.	150-747	2	CYLINDER ASSEMBLY	
3.	125-771	2	COMPOSITION BUSHING (1.25")	
4.	183-765	2	TAPERED PIN (31.7MM X 110MM)	
5.	181-982	2	TAPERED INSERT (1.25")	
6.	106-469	2	FLG SCREW (M12-1.75 X 30MM)	USE LOCTITE 242
7.	359-799	1	MAST	
8.	106-685	23	LOCKNUT(M12-1.75,PRV TRQ,10.9)	
9.	106-471	4	FLG SCREW (M16-2.00 X 30MM)	USE LOCTITE 242
10.	309-194	4	CLAMP PLATE	
11.	309-195	8	GLIDE STRIP	
12.	309-203	4	CARRIAGE SPACER BAR	
13.	106-335	14	SCREW (M12-1.75 X 70MM)	
14.	309-206	1	BULKHEAD PLATE	
15.	125-773	2	COMPOSITION BUSHING (1.75")	
16.	309-209	1	ARM	
17.	106-700	2	SCREW (M12-1.75 X 80MM)	
18.	309-204	1	BULKHEAD PLATE	
19.	309-582	-	FLANGED HEX DRIVER	
20.	178-881	1	FLANGE	
21.	105-245	8	SCREW (M10-1.50 X 25MM)	USE LOCTITE 242
22.	106-397	9	WASHER (M12, HARDENED)	
23.	105-279	1	CARRIAGE BOLT (1/2-NC X 3")	
24.	105-501	1	COTTER PIN (1/8" X 2")	
25.	105-071	1	WASHER (1/2")	
26.	105-833	1	FLG LOCKNUT (1/2-NC)	
27.	110-531	1	HANDLE (1/2-NC, BLACK)	USE LOCTITE 242
28.	309-602	1	ANCHOR HANGER	
29.	106-333	2	SCREW (M12-1.75 X 40MM, 8.8)	
30.	106-594	4	SCREW (M12-1.75 X 60MM)	
31.	309-207	1	MOTOR MOUNT	
32.	179-239	1	TAPERED PIN (44.4MM X 288MM)	
33.	181-975	1	TAPERED INSERT (1.75")	
34.	106-470	1	FLG SCREW (M16-2.00 X 40MM)	USE LOCTITE 242

NOT SHOWN:

FOOTNOTES:

1. TORQUE NUT TO 375 FT. LB. DRY OR 275 FT. LB. LUBED

NOTE:

AUTO-LUBER ASSEMBLY

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	350-400	1	COVER WELDMENT	
2	350-399	1	BASE	
3	105-297	2	BOLT (1/4-NC X 3-1/4")	
4	106-378	4	FLG LK SCREW (M6-1.00 X 12MM)	
5	195-339	2	WING NUT (1/4-NC)	
6	350-1932	1	TOOL JOINT LUBE FOLLOWER	
7	350-398	1	GREASE PUMP PARTS	
8	256-1005	1	TOOL JOINT LUBE, 2 GAL, ENVTL FRIENDLY	METAL FREE, ALL WEATHER
	259-858	AR	TOOL LNT LUBE, STD SPRY, 2 GAL	
	256-031	AR	TOOL LNT LUBE, SUMR SPRY, 2 GAL	

NOT SHOWN:

FOOTNOTES:

NOTE:

PIVOT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	350-724	1	PIVOT	
2.	151-066	2	CYL (4" X 2" X 5")	
3.	151-070	2	CYL (3" X 1.75" X 8")	
4.	179-220	1	TAPERED PIN (50.8mm X 585mm)	
5.	125-754	6	COMPOSITION BUSHING (2")	
6.	184-064	4	TAPERED INSERT (2.00")	
7.	106-798	5	SCREW (M20-2.50 X 55MM, 10.9)	
8.	183-768	2	TAPERED PIN (44.4mm X 205mm)	
9.	181-975	4	TAPERED INSERT (1.750")	
10.	106-470	4	FLG SCREW (M16-2.00 X 40mm)	
11.	179-221	1	TAPERED PIN (57.1mm X 425mm)	
12.	184-031	1	TAPERED INSERT (2.250")	
13.	125-773	4	COMPOSITION BUSHING (1.75")	
14.	179-077	2	TAPERED PIN (50.8mm X 170mm)	
15.	125-781	2	COMPOSITION BUSHING (2.259")	
16.	183-882	2	TAPERED PIN (44.4mm X 228.6mm)	
17.	154-276	4	CONNECTOR (040-08S90)	
18.	106-399	5	WASHER (M20, HARDENED)	
19.	179-248	1	2.0" X 22.04" PIN	
20.	154-226	2	CONNECTOR (040-06S90)	
21.	154-220	2	CONNECTOR (040-06S)	
22.	110-168	4	MACHINERY BUSHING (2.00")	

FOOTNOTES

NOTE
REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

THRUST IDLER

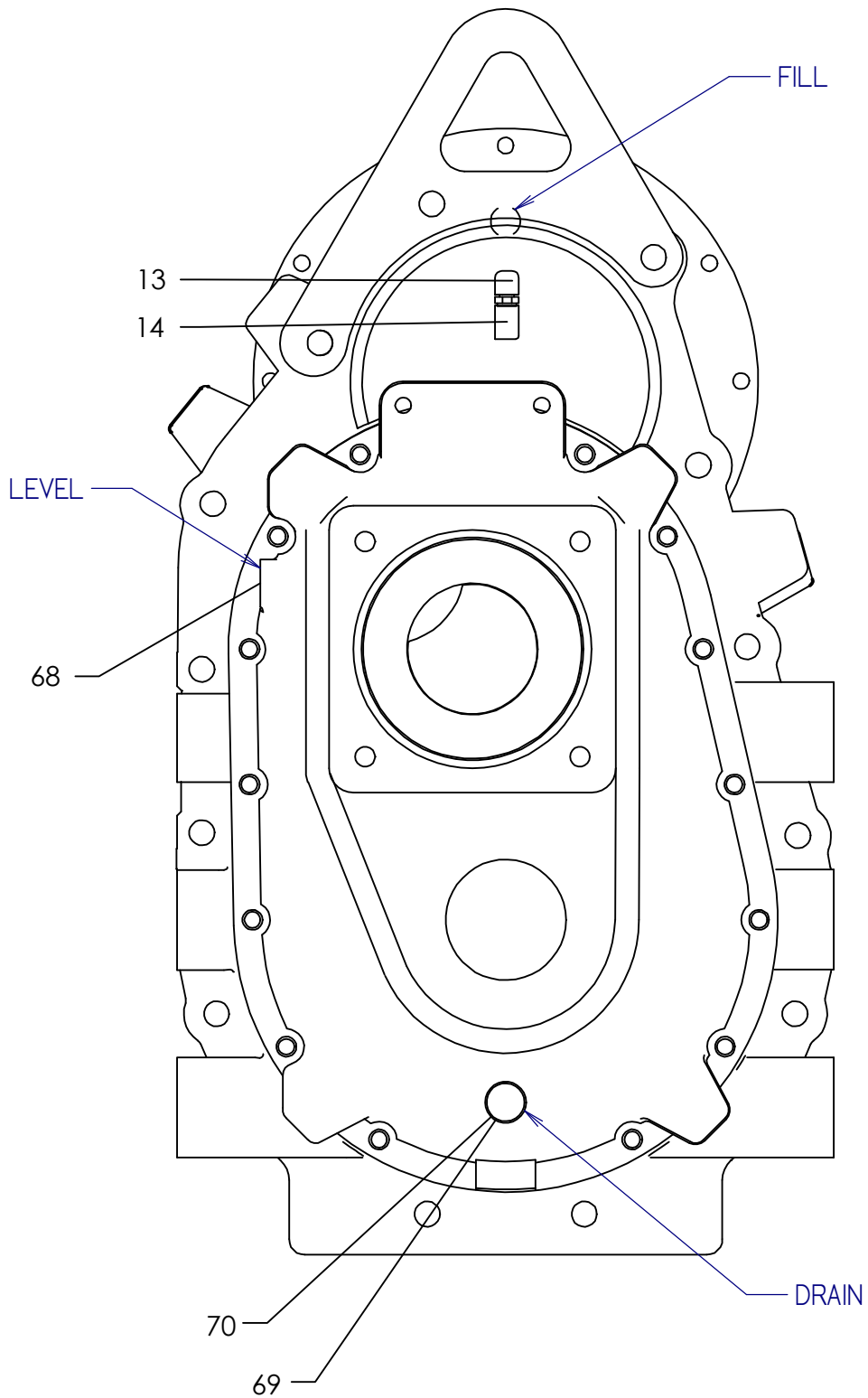
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	125-523	2	PILLOW BLOCK BEARING (2.930")	
	125-558	-	ADAPTER SLEEVE KIT (125-523)	
2.	166-473	1	IDLER SHAFT	BEGINS WITH SN 2W0295; SEE FOOTNOTE 2
	167-319	-	IDLER SHAFT	
	101-133	1	THRUST IDLER KIT	INCL. REF. NO.'S 2 - (166-473), 4 - (115-453) & REF. 12
3.	174-028	1	SPROCKET, THRUST DRIVE, SPLINE	SAME AS THRUST DRIVE
4.	118-044	2	EXTERNAL SNAP RING (4.250")	REQUIRED WITH SHAFT 167-319
	115-453	2	EXTERNAL SNAP RING (4")	BEGINS WITH SN 2W0295; SEE FOOTNOTE 2
5.	308-775	1	THRUST IDLER HOUSING	
6.	308-767	2	ADJUSTMENT PLATE	KEEP BOTH SIDES ON SAME NOTCH WHEN ADJUSTING
7.	151-165	1	GREASE CYLINDER	SEE FOOTNOTE 1
8.	106-470	2	FLG SCREW (M16-2.00 X 40mm)	
9.	106-633	4	BOLT (M20-2.50 X 130mm)	
10.	105-460	8	WASHER (13/16")	
11.	106-665	4	LOCKNUT (M20-2.50, 10.9)	
12.	179-489	2	INPUT SHIM 4.002 X 4.750 X .135	BEGINS WITH SN 2W0295; SEE FOOTNOTE 2

FOOTNOTES

1. WHEN ADJUSTING, RELEASE PRESSURE AFTER POSITIONING ADJUSTMENT PLATES
2. WHEN REPLACING IDLER SHAFT (167-319),
ORDER 101-133 WHICH INCLUDES:

115-453	2	EXTERNAL SNAP RING
166-473	1	IDLER SHAFT
179-489	2	INPUT SHIM 4.002 X 4.750 X .135

ROTATION GEARBOX
JT4020 ALL TERRAIN ONLY
BEGINS WITH S/N: CMWA40T3K70000018



HOSE TRACK
ENDS WITH S/N: CMWA40T3PB0000138
CMWJ40T3CB0000136

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-047	8	LOCKNUT (3/8-NC)	
2.	105-117	6	WASHER (5/16")	
3.	105-600	4	CARRIAGE BOLT (3/8-NC X 1")	
4.	150-1787	-	HOSE BAG FOR 150-1750	4020 WITH RACK AND PINION ONLY
	117-919	-	HOSE BAG W/ELECT HARN PCK	USED ON 117-881 ONLY.
	117-991	-	HOSE BAG	
5.	150-1750	1	HOSE TRACK 4020 R&P	4020 WITH RACK AND PINION ONLY
	117-969	1	HOSE CARRIER	INCLUDES REF NO. 4 & 8.
	499-606	-	REPAIR SECTION, 4-LINK	SEE FOOTNOTE 1. FOR 117-969 AND 150-1750.
	499-604	-	BAR KIT	SEE FOOTNOTE 2. FOR 117-969 AND 150-1750.
	499-605	-	HARDWARE KIT	SEE FOOTNOTE 3. FOR 117-969 AND 150-1750.
	499-607	-	EXTENDER KIT	SEE FOOTNOTE 4. FOR 117-969 AND 150-1750.
	499-608	-	EASY OUT BAR KIT	SEE FOOTNOTE 6. FOR 117-969 AND 150-1750.
	499-567	-	MOUNTING BRACKET KIT	SEE FOOTNOTE 5.
	117-881	1	HOSE CARRIER	OBSOLETE
	499-563	-	REPAIR SECTION, 4-LINK	SEE FOOTNOTE 1. FOR 117-881 ONLY.
	499-564	-	BAR KIT	SEE FOOTNOTE 2. FOR 117-881 ONLY.
	499-565	-	HARDWARE KIT	SEE FOOTNOTE 3. FOR 117-881 ONLY.
	499-566	-	EXTENDER KIT	SEE FOOTNOTE 4. FOR 117-881 ONLY.
	499-568	-	EASY OUT BAR KIT	SEE FOOTNOTE 6. FOR 117-881 ONLY.
6.	107-566	4	CARRIAGE BOLT (3/8-NC X 1.50")	
7.	117-995	1	ABRASION SLEEVE (2.07" X 156")	SEE FOOTNOTE 7.
8.	110-333	1	BOLT-ON CLAMP (1")	SEE FOOTNOTE 7.
9.	117-378	1	BULK HOSE, LOW PRESSURE (-12)	USE 147.0". SEE FOOTNOTE 7.
10.	105-814	6	FLG LOCKNUT (3/8-NC)	
11.	300-8896	1	LEFT MOUNT BRACKET	
12.	300-8895	1	RIGHT MOUNT BRACKET	
13.	362-1408	2	CAP PLATE	
14.	362-1407	1	CENTER PLATE	
15.	105-081	6	BOLT (3/8-NC X 3-1/4")	

NOT SHOWN:

150-1701	A	HOSE (060FX-280"-3000)	
150-1700	B	HOSE (040FX45-282"-3000)	
150-1980	C	HOSE (040FX-282"-3000)	
150-1979	D	HOSE (080FX-289"-3000)	
150-1700	E	HOSE (040FX45-282"-3000)	AT ONLY
150-1709	F	HOSE(060FX45-302"-3000)	
215-1358	G	HOSE TRACK HARNESS	
150-1702	H	HOSE (160FX90S-299"-6000)	
150-1705	J	HOSE(200FX90L-300"-3000)	
150-1708	K	HOSE(200FX90S-283"-3000)	
150-1704	L	HOSE(200FX90S-287"-3000,SPEC)	
150-1702	M	HOSE (160FX90S-299"-6000)	

FOOTNOTES:

- 4-LINK REPAIR SECTION SUPPLIED ASSEMBLED WITH 8X LINK PINS AND SNAP RINGS SHIPPED LOOSE
- KIT CONTENTS: 8X ALUMINUM FLAT BARS, 32X 10-24 UNC SCREWS
- KIT CONTENTS: 8X LINK PINS, 8X LINK PIN SNAP RINGS
- KIT CONTENTS: 8X WINDOW EXTENDERS, 8X 1/4-20 UNC SCREWS AND NUTS
- KIT CONTENTS: 2X RIGHT AND LEFT MOUNTING BRACKETS, 8X LINK PINS, 8X LINK PIN SNAP RINGS
- KIT CONTENTS: 10X EASY-OUT BAR
- NOT USED ON 4020 WITH RACK AND PINION.

NOTE:

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PIPE LOADER SYSTEMS

PIPE LOADER GRIPPER

JT42 T3, AT42 T3

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	313-683	1	FRONT SHUTTLE	
	313-684	1	REAR SHUTTLE	
2.	105-065	4	LOCK NUT (1/2-NC)	
3.	105-503	4	ROLL PIN (1/4" X 2")	
4.	105-555	4	ROLL PIN (3/8" X 2-1/2")	
5.	313-705	2	GRIPPER PAD	USE WITH AT PIPE
6.	313-686	1	FRONT GRIPPER	
	313-687	1	REAR GRIPPER	
7.	307-614	2	ROLLER	
8.	107-613	4	SHLD BLT M12 X 40MM, M10-1.50,SP	LOCTITE 277
9.	313-704	2	SHUTTLE PAD	USE WITH AT PIPE
10.	105-300	2	BOLT (1/2-NC X 3-1/4")	
11.	105-472	2	BOLT (1/2-NC X 5")	
12.	354-354	2	SPACER	
13.	191-161	2	GRIPPER CYLINDER	
14.	319-369	2	GRIPPER PAD	USE WITH JT PIPE
15.	319-368	2	SHUTTLE PAD	USE WITH JT PIPE

NOT SHOWN:

FOOTNOTES:

NOTE:

PIPE BOX

JT42T2 PIPE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	310-361		LARGE PIPE BOX	PARTS ASSEMBLY, INCLUDES ITEMS 1-11
	309-912		SMALL PIPE BOX	PARTS ASSEMBLY, INCLUDES ITEMS 1-10
1.	308-084	1	LIFT PIN	
2.	110-228	5	LYNCH PIN (7/16"X2")	
3.	308-082	1	PIPE BOX	PART OF 310-361
	309-709	1	PIPE BOX	PART OF 309-912
4.	308-083	1	LIFT PIN BLOCK	
5.	178-445	2	REAR PIN	
6.	308-091	1	FRONT PIN	
7.	308-086	4	SUPPORT PIN	
8.	308-868	1	SINGLE PIPE GUIDE	
9.	275-326	4	WARNING CRUSHING WEIGHT	USE 701-326 IN ALL FOREIGN KITS
10.	275-184	4	WARNING MOVING PARTS	USE 701-184 IN ALL FOREIGN KITS
11.	273-538	1	MODEL ID W/ LOGOTYPE	

FOOTNOTES

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FLUID PUMP PLUMBING

70 GPM

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	158-434	1	FLUID PUMP	
2.	157-419	1	HOSE (24JFX-240FX-32"-1250)	
3.	149-646	1	CYLINDER MOUNT (32N-24J)	
4.	151-211	1	CYL (1.25" X .50" X 4.00")	
5.	149-076	1	SHUT-OFF (32NF-32NF)	
	191-069	-	BALL VALVE REPAIR KIT	
6.	106-334	1	SCREW (M12-1.75 X 50MM)	
7.	106-685	1	LOCKNUT(M12-1.75,PRV TRQ,10.9)	
8.	306-388	1	VALVE ARM	
9.	106-391	2	WASHER (M12)	
10.	105-512	1	COTTER PIN (3/32" Xf")	
11.	515-679	1	ELBOW (20NF-20NF90)	
12.	157-418	1	NIPPLE (20N-8")	
13.	514-106	1	CAP (08NF)	
14.	115-161	1	NIPPLE (08N, 3-1/2")	
15.	115-207	1	NIPPLE (20N-2")	
16.	159-088	1	QDC BODY (08-08SF)	
17.	155-706	1	O-RING (908 D90)	
18.	156-732	1	CONNECTOR (08J-08O)	
19.	154-490	1	CONNECTOR (12N-08090)	
20.	114-004	1	STREET ELBOW (32N-32NF90)	
21.	159-485	1	FHC BODY (32-32N)	
22.	149-120	1	DUST PLUG (32 FHC)	
23.	114-024	1	REDUCER (40N-32NF)	
24.	155-208	1	REDUCER (20N-12NF)	
25.	106-018	1	JAM NUT (3/8-NF)	
26.	216-047	1	SPEED PICKUP	
27.	216-026	1	FLEX-GUARD (.250")	
28.	215-224	1	3-WAY WP MALE CONNECTOR	
29.	214-104	3	PACKARD MALE TERMINAL	
30.	157-645	3	WEATHER-PAC SEAL (2.80MM)	
31.	178-969	AR	SHIM (.062)	REFER TO SERVICE BULLETIN 052-596 FOR INSTALLATION
32.	178-970	AR	SHIM (.100)	REFER TO SERVICE BULLETIN 052-596 FOR INSTALLATION
33.	313-759	1	LANYARD	
34.	515-678	1	REDUCER (32N-20NF)	

NOT SHOWN:

FOOTNOTES:

NOTE:

1. REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

PUMP MOUNT

70GPM & 120GPM FLUID PUMPS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	319-544	1	PUMP MOUNT	USED WITH 70 GPM & 120 GPM PUMPS
2.	106-470	AR	FLG SCREW (M16-2.00 X 40MM)	USE 4 W/70 GPM & 3 W/120 GPM PUMPS
3.	106-381	1	FLG LK SCREW (M8-1.25 X 25MM)	USED WITH 70 GPM & 120 GPM PUMPS
4.	211-041	1	CONNECTOR CLIP	USED WITH 70 GPM & 120 GPM PUMPS
5.	106-386	1	FLG LOCKNUT (M8-1.25)	USED WITH 70 GPM & 120 GPM PUMPS
6.	106-632	1	FLG LK SCR (M12-1.75X35MM,SER)	USED WITH 70 GPM & 120 GPM PUMPS
7.	106-685	1	LOCKNUT(M12-1.75,PRV TRQ,10.9)	USED WITH 70 GPM & 120 GPM PUMPS
8.	106-398	8	WASHER (M16, HARDENED)	USED WITH 70 GPM PUMP
	105-398	6	WASHER (1/2")	USED WITH 120 GPM PUMP
9.	106-545	3	LOCKNUT (M16-2.0,PRV TRQ,10.9)	USED WITH 70 GPM & 120 GPM PUMPS
10.	105-400	5	BOLT (5/8-NC X 1-1/4")	USED WITH 70 GPM PUMP
	106-341	3	SCREW (M16-2.0 X 70MM)	USED WITH 120 GPM PUMP
11.	108-100	1	SCREW (M16-2 X 80MM, 10.9)	USED WITH 120 GPM PUMP
12.	106-545	1	LOCKNUT (M16-2.0,PRV TRQ,10.9)	USED WITH 70 GPM PUMP

NOT SHOWN:

FOOTNOTES:

NOTE:

OIL COOLER HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	153-389	-	COOLER BY-PASS	
2.	327-383	-	FRONT ENGINE MOUNT	
3.	150-1334	-	COOLER SUPPLY TUBE	
4.	150-1277	1	SPECIAL ELBOW (20S-24H, XL)	
5.	105-224	2	BOLT (1/4-NC X 2-1/2")	
6.	154-265	1	UNION RUN TEE (040FX-040-040)	
7.	159-156	1	QDC ADAPTER (02-040F)	
8.	157-037	2	O-RING (011 D90)	
9.	117-897	1	BULK HOSE (1-1/2", SOLD PER 1")	USE 1 @ 4.75"
10.	117-897	1	BULK HOSE (1-1/2", SOLD PER 1")	USE 1 @ 8.0"
11.	318-890	4	T-BLT CLP BRIDG 1.875 - 2.188	
12.	111-008	2	BOLT-ON CLAMP (1-1/2", SET)	
13.	322-362	2	BACKUP SPACER	
14.	300-2573	1	HARDLINE MOUNT BRACKET	
15.	106-724	2	FLG SCREW (M10-1.50 X 25mm)	
16.	106-387	2	FLG LOCKNUT (M10-1.50)	
17.	107-283	2	BOLT (1/4-NC X 3")	
18.	106-076	2	WASHER (1/4")	
19.	105-085	2	LOCKNUT (1/4 NC)	
20.	154-255	1	UNION (040-040FX90)	

NOT SHOWN:

FOOTNOTES:

NOTE:

MAINFRAME BULKHEADS

ENDS WITH S/N CMWA40T3C7000014
ENDS WITH S/N CMWJ40T3L7000025

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	115-899	1	ABRASION SLEEVE (2.54" X 54")	
2.	154-651	-	HOSE (040FX-66"-3000)	TO HARD LINE TO SERIES PARALLEL VALVE
3.	515-141	-	HOSE (080FX90-82"-3000)	TO PIPE LOADER VALVE
4.	153-395	1	BK CONNECTOR (200-20045)	
5.	154-448	1	BK CONNECTOR (120-12045BK)	
6.	515-750	-	HOSE (060FX-210"-3000)	FROM ROTATION MOTOR CASE DRAIN
7.	154-309	2	BK CONNECTOR (100-100BK)	
8.	515-671	-	HOSE (100FX45-52"-3000)	SEE GRAPHICS
9.	154-285	1	BK CONNECTOR (040-04045BK)	
10.	514-242	1	BK CONNECTOR (160-16045BK)	
11.	157-499	-	HOSE (200FX-47"-3000, SPECIAL)	TO THRUST VALVE, SUPPLY
12.	515-655	-	HOSE (160FX90-47"-3000)	FROM THRUST VALVE, RETURN
13.	154-815	-	HOSE (160FX-48"-4000)	TO RETURN LINE (BEFORE FILTERS)
14.	154-290	1	UNION (160-160FX90)	
15.	157-754	-	HOSE (200FX45-27"-3000, SPEC)	FROM LOAD SENSE PUMP
16.	514-422	1	CONNECTOR (200-200FX90)	
17.	515-690	-	HOSE (100FX90L-58"-3000)	TO COOLER TUBE
18.	154-393	2	BK CONNECTOR (080-08045BK)	
19.	515-454	-	HOSE (100FX90L-20"-3000)	FROM LOAD SENSE PUMP
20.	155-470	-	HOSE (120FX90M-90"-3000)	TO UPPER COOLER TUBE
21.	515-140	-	HOSE (080FX90-56"-3000)	FROM HYDRAULIC CONTROL VALVE ON HYD TANK
22.	154-692	-	HOSE (040FX-54"-3000)	FROM THRUST SHIFT SOLENOID VALVE
23.	105-431	1	JAM NUT (9/16-NF)	
24.	154-459	1	REDUCER STEM (060)	
25.	154-271	1	REDUCER NUT (120F)	
26.	515-741	1	HOSE (080FX90S-112"-3000)	FROM DRAIN ON LOADER VALVE
27.	154-739	1	HOSE (080FX-32"-3000)	

NOT SHOWN:

FOOTNOTES:

NOTE:

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

TRACK 2-SPEED ROTATION FLUSHING (AT) BEGINS WITH S/N

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-224	1	CONNECTOR (06S-06045)	
2.	515-587	1	HOSE (060FX45-20"-3000)	
3.	154-345	1	RUN TEE (06S-060-060)	
4.	106-574	2	CLIP NUT (M6-1.00)	
5.	106-076	2	WASHER (1/4")	
6.	106-945	2	SCREW (M6-1.0 X 100MM)	
7.	158-627	1	SOLENOID VALVE	
	500-756	1	SEAL REPAIR KIT	
	217-770	1	SOLENOID COIL	
	158-636	1	SOLENOID VALVE CARTRIDGE	
8.	153-315	1	HOSE (060FX90S-36"-3000)	
9.	154-806	1	HOSE (060FX-54"-3000)	
10.	154-344	1	UNION RUN TEE (060FX-060-060)	
11.	150-1097	-	SPECIAL CROSS (F060-060-080-060)	
12.	117-395	1	ABRASION SLEEVE (1.25" X 50")	
13.	117-328	1	ABRASION SLEEVE (1.00" X 18")	
14.	154-221	2	CONNECTOR (06S-060)	
15.	117-412	1	ABRASION SLEEVE (1.00" X 34")	
16.	150-1158	1	FLUSHING VALVE	
17.	150-3688	1	CONNECTOR (06S-060, 0.081 ORF)	
18.	153-768	1	HOSE (060FX90S-18"-3000)	
19.	154-726	1	HOSE (040FX90S-15"-3000)	
20.	149-827	1	HOSE (040FX90S-24"-3000)	
21.	154-343	1	UNION (06S-060FX90)	
22.	153-771	1	HYDRAULIC VALVE	OBSOLETE
	150-4086	1	HYDRAULIC VALVE	USE REPLACEMENT COIL 500-2488, WILL NOT FIT OBS VALVES.
23.	154-255	1	UNION (040-040FX90)	
24.	154-220	2	CONNECTOR (040-06S)	
25.	154-226	1	CONNECTOR (040-06S90)	
26.	154-379	1	UN BR TEE (040FX-040-040)	
27.	159-156	1	QDC ADAPTER (02-040F)	
	159-148	-	DUST CAP (1/8")	
28.	153-340	1	HYDRAULIC PUMP	
29.	154-226	2	CONNECTOR (040-06S90)	
30.	159-157	1	QDC ADAPTER (02-060F)	
	159-148	-	DUST CAP (1/8")	
31.	154-348	1	UN BRANCH TEE (060FX-060-060)	
32.	154-355	1	BK CONNECTOR (040-04090BK)	
33.	153-730	1	HOSE (040FX-116"-6000)	
34.	154-373	2	REDUCER (040-060F)	
35.	515-437	1	HOSE (040FX90-21"-3000)	
36.	117-566	2	ABRASION SLEEVE (1.25" X 11")	
37.	354-466	1	BULKHEAD PLATE	

NOT SHOWN:

FOOTNOTES:

NOTE:

INNER/OUTER SPINDLE DRIVE CASE DRAIN ENDS WITH S/N CMWA40T3C70000014

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	153-768	1	HOSE (060FX90S-18"-3000)	
2.	117-328	1	ABRASION SLEEVE (1.00" X 18")	
3.	156-174	1	CONNECTOR (06S-060)	AT ONLY
4.	153-769	1	HOSE (060FX90L-33"-3000)	AT ONLY
5.	105-818	2	BOLT (1/4-NC X 1-1/2")	AT ONLY
6.	322-289	1	BACKUP (BOLT-ON)	AT ONLY
7.	110-411	1	BOLT-ON CLAMP (3/4", SET)	AT ONLY
8.	154-229	1	BK CONNECTOR (060-06090BK)	
9.	515-750	1	HOSE (060FX-210"-3000)	
10.	117-416	1	ABRASION SLEEVE (1.00" X 50")	
11.	154-271	1	REDUCER NUT (120F)	
12.	154-459	1	REDUCER STEM (060)	
13.	154-448	1	BK CONNECTOR (120-12045BK)	
14.	153-770	1	REDUCER (12S-08SF)	
15.	514-051	1	BRANCH TEE (08S-060-060)	AT ONLY
	157-381	-	CONNECTOR (08S-06090S)	JT ONLY
16.	117-411	1	ABRASION SLEEVE (1.00" X 32")	AT ONLY

NOT SHOWN:

FOOTNOTES:

NOTE:

TRACK SHIFT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-797	1	HOSE (060FX-48"-3000)	
2.	514-049	2	CONNECTOR (04S-06090)	
3.	154-344	1	UNION RUN TEE (060FX-060-060)	
4.	154-806	1	HOSE (060FX-54"-3000)	
5.	153-767	-	COUNTERBALANCE MANIFOLD	SERVICE CARTRIDGE

NOT SHOWN:

FOOTNOTES:

NOTE:

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

LOAD SENSE HYDRAULICS

BEGINS WITH S/N CMWJ40T3P70000020

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-345	2	RUN TEE (06S-060-060)	
2.	154-326	3	CAP (060F)	
3.	158-600	2	HYD SHUTTLE VALVE	NOT SERVICABLE PER SUPPLIER
4.	354-466	-	BULKHEAD PLATE	
5.	514-409	2	UNION (06J-060FX)	
6.	154-348	2	UNION BR TEE (060FX-060-060)	
7.	154-228	1	CONNECTOR (060-060FX90)	
8.	159-157	1	QDC ADAPTER (02-060F)	
	159-148	-	DUST CAP (1/8")	
9.	154-221	1	CONNECTOR (06S-060)	
10.	154-344	1	UNION RUN TEE (060FX-060-060)	
11.	149-559	1	HOSE (060FX90M-20"-3000)	
12.	157-440	-	THRUST VALVE (ELECTRIC)	SEE FOOTNOTE 3
	150-1458	-	THRUST VALVE (ELECTRIC)	SEE FOOTNOTE 4
	500-1290	-	THRUST VALVE COIL	
13.	153-639	-	HYD CONTROL VALVE	SEE FOOTNOTE 5
	217-897		SOLENOID COIL (LARGE)	
	214-434		SOLENOID COIL (SMALL)	
	149-565		3-WAY CARTRIDGE VALVE	
	150-1525		PROPORTIONAL VALVE	
	150-2032		PRESSURE COMPENSATOR VALVE	
	150-2033		SEAL KIT	
	500-2196		SPOOL CAP (O-RING)	
14.	158-661	1	HYD CONTROL VALVE	
	500-757	-	SEAL REPAIR KIT	
	214-491	-	COIL, 12V	
15.	154-342	1	CONNECTOR (06S-06090)	
16.	106-237	2	LOCKNUT (M6-1.00,PRV TRQ,NLK)	
17.	154-738	1	HOSE (060FX90-34"-3000)	
18.	154-229	1	BK CONNECTOR (060-06090BK)	
19.	154-411	2	CONNECTOR (04S-060)	
20.	117-702	1	ABRASION SLEEVE (1.00" X 68")	
21.	155-705	2	O-RING (906 D90)	
22.	153-328	1	HYDRAULIC VALVE	SEE FOOTNOTE 2
23.	117-411	1	ABRASION SLEEVE (1.00" X 32")	
24.	153-305	1	HOSE (060FX-31"-3000)	
25.	154-373	1	REDUCER (040-060F)	

NOT SHOWN:

FOOTNOTES:

1. VALVE MOUNT BRACKET BOLTS DOWN TO FRAME ALONG WITH GROUND DRIVE VALVE BRACKET HARDWARE.
2. AT THRUST RELIEF ADJUSTMENT MUST BE SCREWED IN COMPLETELY FOR JT MACHINES TO OPERATE PROPERLY.
3. ENDS WITH S/N: CMWJ42T2J60000023; CMWA42T2E60000029; CMWA40T3P60000002; CMWJ40T3P60000001.
4. BEGINS WITH S/N: CMWA40T3K60000003; CMWJ40T3P60000002.
5. 153-639 HYD CONTROL VALVE IS SUPERSEDED BY 150-1815 HYD CONTROL VALVE.

NOTE:

THRUST/TRACK DRIVE PUMP HYDRAULICS

ENDS WITH S/N CMWA40T3C70000014

ENDS WITH S/N CMWJ40T3L70000025

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	350-614	-	HYDRAULIC RESERVOIR	
2.	153-899	1	RUN TEE (20S-16SF-16SF)	
3.	154-377	1	CONNECTOR (12S-16090)	
4.	157-498	1	HOSE (160FX-22"-212)	
5.	153-393	1	MANIFOLD BLOCK	
6.	514-097	1	CONNECTOR (20S-200)	
7.	154-249	1	REDUCER STEM (080)	
8.	154-340	1	REDUCER NUT (160F)	
9.	157-754	1	HOSE (200FX45-27"-3000, SPEC)	
10.	154-290	1	UNION (160-160FX90)	
11.	154-815	1	HOSE (160FX-48"-4000)	
12.	350-740	-	BULKHEAD PLATE	
13.	514-242	1	BK CONNECTOR (160-16045BK)	
14.	514-010	1	CONNECTOR (120-20S90)	
15.	318-890	-	T-BLT CLP BRIDG 1.875-2.188	
16.	153-370	-	S/O COUPLER (24S-24H45)	
17.	153-892	1	PUMP INLET MANIFOLD	
18.	154-347	1	BRANCH TEE (16S-160-160)	
19.	154-341	1	REDUCER STEM (080)	
20.	157-128	1	O-RING (225 D90)	
21.	105-110	4	BOLT (1/2-NC X 4-1/2")	
22.	105-070	4	LOCK WASHER (.500")	
23.	157-015	1	O-RING (232 D70)	
24.	154-371	1	CONNECTOR (12S-16045)	
25.	514-196	1	CONNECTOR (160-20S90)	
26.	106-381	6	FLG LK SCREW (M8-1.25 X 25MM)	
27.	106-561	6	LOCKNUT (M8-1.25, PRV TRQ, 10.9)	
28.	159-158	2	QDC ADAPTER (02-080FX)	
	159-148		DUST CAP (1/8")	
29.	153-908	1	UNION (16S-160FX90)	
30.	153-903	1	CHECK VALVE	
31.	105-118	6	WASHER (3/8")	
32.	157-755	1	HOSE (160FX-20"-212)	
33.	154-271	1	REDUCER NUT (120F)	
34.	514-422	2	CONNECTOR (200-200FX90)	AT ONLY
	514-177	-	CAP (200F)	JT ONLY
35.	153-395	1	BK CONNECTOR (200-20045)	
36.	105-385	4	LOCK WASHER (5/8")	
37.	105-943	4	BOLT (5/8-NC X 2-3/4")	
38.	514-142	1	UN RUN TEE (200FX-200-200)	
39.	157-753	1	HOSE (200FX-26"-3000, SPEC)	AT ONLY
40.	153-904	1	CHECK VALVE	
41.	153-938	1	HOSE (160FX90S-30"-200)	
42.	117-296	1	ABRASION SLEEVE (2.07" X 30")	
43.	110-333	1	BOLT-ON CLAMP (1")	

NOT SHOWN:

FOOTNOTES:

NOTE:

1. REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

TRACK DRIVE HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	153-593	1	HYDRAULIC MOTOR	LEFT TRACK
2.	154-270	4	CONNECTOR (12S-12090)	
3.	153-758	2	HOSE (120FX90S-14"-3000)	
4.	154-247	2	CONNECTOR (10S-120)	
5.	154-273	2	CONNECTOR (10S-12090)	
6.	153-759	1	HOSE (120FX90M-16"-3000)	
7.	153-592	1	HYDRAULIC MOTOR	RIGHT TRACK, USE SEAL KIT 500-752
8.	149-847	-	CROSS (06S-060-060-080)	
9.	154-757	1	HOSE (060FX-86"-3000)	
10.	106-079	4	SCREW (M10-1.50 X 30mm)	
11.	106-396	4	WASHER (M10, HARDENED)	
12.	105-894	4	LOCKNUT (M10-1.50, PRV TRQ, 10.9)	
13.	153-639	1	HYD CONTROL VALVE	SEE FOOTNOTE 1
	500-2196		SPOOL CAP (O-RING)	
14.	117-398	1	ABRASION SLEEVE (1.00" X 86")	
15.	153-767	2	COUNTERBALANCE MANIFOLD	
16.	154-344	1	UN RUN TEE (060FX-060-060)	
17.	515-583	-	HOSE (060FX90-12"-3000)	
18.	156-174	1	CONNECTOR (06S-060)	BACK PORT (NOT SHOWN)
19.	153-928	1	HOSE (120FX90L-16"-3000)	

NOT SHOWN:

FOOTNOTES:

1. 153-639 HYD CONTROL VALVE IS SUPERSEDED BY 150-1815 HYDRAULIC CONTROL VALVE

NOTE:

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

WRENCH ROTATE HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	153-410	-	HYDRAULIC VALVE	
2.	151-031	-	CYL (2.0" X 1.0" X 8.0")	
3.	514-049	2	CONNECTOR (04S-06090)	
4.	154-227	-	CONNECTOR (060-08S90)	
5.	154-996	1	HOSE (060FX-58"-3000)	
6.	154-797	1	HOSE (060FX-48"-3000)	
7.	117-326	1	ABRASION SLEEVE (1.00" X 58")	
8.	117-416	1	ABRASION SLEEVE (1.00" X 50")	

FOOTNOTES

NOTES
REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

RIGHT ANCHOR THRUST CYLINDER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-276	2	CONNECTOR (040-08S90)	
2.	309-205	1	BULKHEAD PLATE	
3.	154-728	2	HOSE (040FX90-36"-3000)	
4.	117-655	1	ABRASION SLEEVE (1.59" X 38")	
5.	154-424	1	BK RUN TEE (040-040-040BK)	
6.	154-265	1	UNION RUN TEE (040FX-040-040)	
7.	154-403	2	CONNECTOR (04S-040, XL)	
8.	154-252	2	CONNECTOR (04S-04090)	
9.	515-054	1	HOSE (040FX-74"-3000)	
10.	515-683	1	HOSE (040FX90-28"-3000)	
11.	117-684	1	ABRASION SLEEVE (1.00" X 26")	
12.	117-657	1	ABRASION SLEEVE (1.59" X 54")	
13.	117-676	1	ABRASION SLEEVE (1.00" X 30")	
14.	150-747	2	CYLINDER ASSEMBLY	
15.	515-682	1	HOSE (040FX90M-48"-3000)	
16.	158-064	-	HYD CONTROL VALVE (4-SPOOL)	

NOT SHOWN:

FOOTNOTES:

NOTE:

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

SHUTTLE STOP HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	354-466	1	BULKHEAD PLATE	
2.	154-355	2	BK CONNECTOR (040-04090BK)	
3.	515-161	2	HOSE (040FX-160"-3000)	
4.	117-741	1	ABRASION SLEEVE (1.59" X 145")	
5.	154-401	2	CONNECTOR (04S-04090, ORF)	
6.	150-727	1	CYL (1.0" X .500" X 4.0")	
7.	117-789	-	HOSE BAG (4.000" X 36")	
8.	515-447	2	HOSE (040FX90S-48"-3000)	
9.	154-226	2	CONNECTOR (040-06S90)	
10.	149-882	-	HYD CONTROL VALVE (5-SPDOL)	

FOOTNOTES

NOTE
REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR THE REPLACEMENT OF O-RINGS.

GRIPPER HYDRAULICS

1.	150-731	2	CYL ASS'Y	
2.	154-474	2	CONNECTOR (04S-04090,XL)	
3.	154-252	2	CONNECTOR (04S-04090)	
4.	157-362	2	HOSE (040FX90L-11"-3000)	
5.	515-598	2	HOSE (040FX90-12"-3000)	
6.	154-355	2	BK CONNECTOR (040-04090BK)	
7.	154-275	2	BK CONNECTOR (040-040BK)	
8.	313-684	-	REAR SHUTTLE	
9.	157-037	4	O-RING (011 D90)	
10.	154-255	2	UNION (040-040FX90)	
11.	153-365	4	HOSE (040FX90S-34"-3000)	
12.	306-746	2	HOSE TRACK	
13.	117-412	4	ABRASION SLEEVE (1.25" X 34")	
14.	313-683	-	FRONT SHUTTLE	
15.	153-671	1	HYD LINE	TOP
16.	153-672	1	HYD LINE	BOTTOM
17.	153-667	1	SPECIAL TEE (06S,ORF-060-060)	
18.	154-344	1	UN RUN TEE (060FX-060-060)	
19.	156-067	1	CONNECTOR (06S-060, ORF .031")	
20.	157-764	-	HYDRAULIC VALVE	
21.	149-427	1	HYD LINE	TOP
22.	149-428	1	HYD LINE	BOTTOM
23.	110-998	6	CLAMP HALVES (3/8") PAIR	
24.	105-117	2	WASHER (5/16")	
25.	105-197	2	BOLT (1/4-NC X 1")	
26.	106-640	8	SCREW (M6-1.00 X 20MM, BUT SOC)	
27.	105-284	16	WASHER (3/16")	
28.	106-237	8	LOCKNUT (M6-1.00,PRV TRQ,NLK)	
29.	106-598	2	WASHER (9/16" HARDENED)	

HYDRAULIC CYLINDER

3" X 1.75" X 8"

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-070		CYL (3.0" X 1.75" X 8.0")	INCL REF NO.'S 1 THRU 7
1.	190-172	1	SEAL REPAIR KIT (3.0" X 1.75")	INCL REF NO.'S 4 THRU 5
2.	150-911	1	LOCK RING (3")	
3.	152-014	1	CYLINDER BARREL (3")	
4.	106-122	1	BOLT (7/8-NC X 2-1/4", GD8)	SEE FOOTNOTE 1
5.	105-363	1	WASHER (7/8")	
6.	150-765	1	CYLINDER PISTON (3" X 1.75")	INCL MOLDED-ON WEAR RING
7.	150-763	1	CYLINDER HEAD (3" X 1.75")	
8.	150-436	1	CYLINDER ROD (1.75")	

NOT SHOWN:

259-040	U-SEAL INSTALLER (1.5" - UP)
259-238	WIPER INSTALLER (1.75")
259-065	PISTON SEAL INSTALLER (3")
259-066	PISTON INSTALLER (3")
259-188	CYL HEAD SPANNER - TWO PIN

FOOTNOTES:

1. CLEAN & DRY THREADS. APPLY RED LOCTITE (RC 271 OR RC 272). TORQUE TO 410-460 FT-LBS (560-625 N.M.)

NOTE:

BATTERY

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	215-262	2	BATTERY (12V, 925 AMP)	
2.	116-717	2	BATTERY PAD	
3.	347-857	1	DUAL BATTERY STRAP	
4.	106-154	6	FLG LOCKNUT (1/4-NF)	
5.	361-484	2	BRAKE ROD	
6.	105-044	1	JAM NUT (1/2-NC)	
7.	105-070	1	LOCK WASHER (1/2").	
8.	217-819	1	BAT DISCONNECT SWITCH	
9.	215-1106	1	BATTERY CABLE	
10.	215-1096	1	BATTERY CABLE	
11.	215-1098	1	PRIMARY CABLE	
12.	215-1095	1	BATTERY CABLE	
13.	106-076	2	WASHER (1/4")	

NOT SHOWN:

FOOTNOTES:

NOTE:

CAB

CAB ELECTRIC

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	106-397	2	WASHER (M12, HARDENED)	
2	107-358	2	WELLNUT (M4-0.7 X 12.67MM LG)	
3	108-105	2	SCREW (M4-0.7 X 40MM, CSK, BLK)	
4	107-580	19	SCREW (M4-0.70 X 16MM, BUT SOC)	
5	108-092	2	SCREW #10-24 X 1/2 BUT SOC HD	
6	213-214	1	DIRECTIONAL LIGHT	
7	214-414	1	RIG RF CABLE 4270MM	
8	105-1466	2	GROMMET (5/16")	
9	215-1789	2	ROCKER SWITCH (TCI ON-ON)	LIGHT SWITCH
10	215-1791	1	ROCKER SWITCH (ONI-ON)	WIPER SWITCH
11	107-859	2	NUT, LOCK, #6-32, NYLON INSERT	
12	106-058	2	BOLT (#6-32 X 1-1/8", RD SLT)	
13	105-284	2	WASHER (3/16")	
14	211-310	1	BK/AMI 60 AMP FUSE	
15	217-701	1	RELAY	
16	106-049	2	BOLT (#10-24 X 3/4", PLPS)	
17	106-048	4	LOCKNUT (#10-24)	
18	217-057	2	WORKING LIGHT - CLEAR	
19	363-714	1	MODIFIED FUSE PANNEL ASSEMBLY	
20	107-516	19	CLIP NUT (M4-.7)	
21	217-710	1	MICRO RELAY (SPDT)	

NOT SHOWN:

215-1957	1	CAB HARNESS	
215-1954	1	BAT CABLE (4GA X 92", RED)	
215-1955	1	BAT CABLE (4GA X 164", BLK)	
157-645	4	WEATHER-PAC SEAL (2.80MM)	USED ON 217-057
214-047	2	2-WAY WEATHER-PAC FEMALE CONN	USED ON 217-057
214-103	2	(2-WAY) MALE CONNECTOR	USED ON 217-057
214-104	4	PACKARD MALE TERMINAL	USED ON 217-057
214-133	2	TERMINAL PIN (DEUTSCH)	USED ON 213-214
215-1770	1	LOCK, DEUTSCH CONNECTOR	USED ON 213-214
215-1769	1	CONNECTOR, DEUTSCH	USED ON 213-214

FOOTNOTES:

NOTE:

FLUID MIXING ACCESSORIES

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	259-195	1	VISCOSITY FUNNEL	
2.	259-196	1	VISCOSITY CUP	
3.	259-804	AR	BENTONITE, QUIK-GEL (50 LB)	
4.	259-805	AR	LIQUID POLYMER, EZ-MUD (5 GAL)	
5.	259-807	AR	BENTONITE, BORE-GEL (50 LB)	
6.	259-808	AR	VISCOSIFIER, LIQUI-TROL (5 GAL)	
7.	259-809	AR	POWDER POLYMER, QUIK-TROL (20 LB)	
8.	259-810	AR	WET AGENT, CON-DET (5 GAL)	
9.	259-821	AR	'PAC-R' FILTRATION CONTROL	
10.	259-822	AR	'BARAZAN D+' VISCOSIFIER	
11.	259-832	AR	'NO SAG' (20# BOX/10-2#BAGS)	

NOT SHOWN:

191-158	1	DRILLING FLUID TEST KIT
259-487	1	SHEAROMETER

FOOTNOTES:

NOTE:

TOOL BOX

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	308-794	-	OPERATOR FRAME	
	313-778	-	PLATE	SEE FOOTNOTE 1.
2.	313-777	1	BRACKET	
3.	313-776	1	TOOL BOX	
4.	106-471	2	FLG SCREW (M16-2.00 X 30MM)	
5.	106-442	2	FLG LOCKNUT (M16-2.00,PRV TRQ)	
6.	116-789	AR	RUBBER EDGE TRIM 1/8" (FT)	USE 1 AT 18"
7.	116-789	AR	RUBBER EDGE TRIM 1/8" (FT)	USE 2 AT 10"
8.	116-789	AR	RUBBER EDGE TRIM 1/8" (FT)	USE 1 AT 19"

FOOTNOTES

1. EARLY MACHINES WILL REQUIRE THIS PART TO BE WELDED TO OPERATOR CONSOLE.

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