

Ditch Witch[®]


JT4020 Mach 1 All Terrain Tier 2

ISSUE NO. 13PL-05/19
For Replacement Copy Order **P/N 053-137**

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This manual contains information concerning the following models:
JT4020 Mach 1 All Terrain Tier 2 Directional Drilling System

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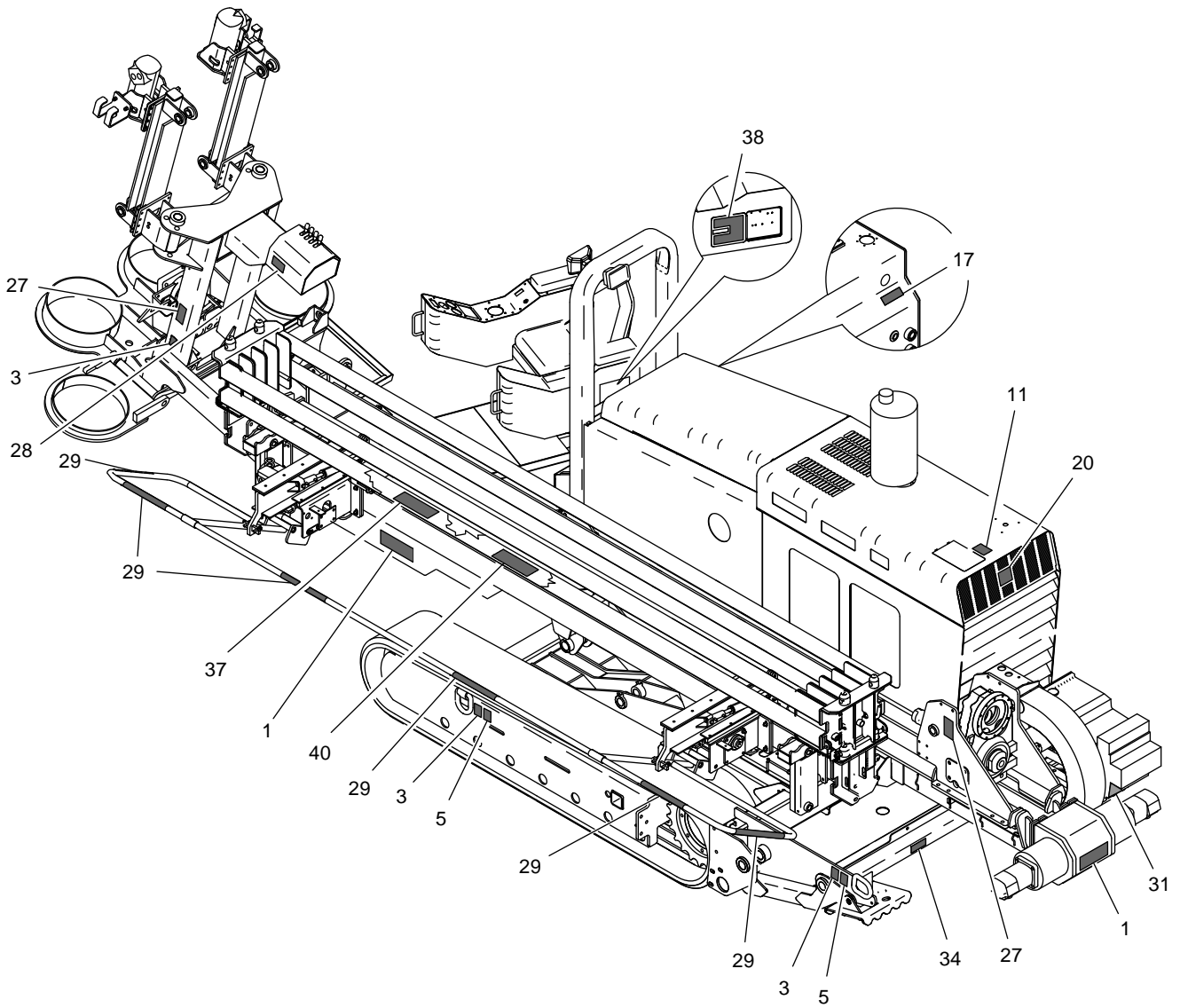
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DECAL LOCATION AT/JT42T2



FAN CLUTCH

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	194-294	-	ENGINE, 6068HF275185JD	OBSOLETE
2.	323-161	1	FAN DRIVE	SEE NOT SHOWN FOR SERVICE PART.
3.	184-404	1	COOLING FAN SPACER	
4.	194-134	1	FAN (26.0" OD, 2.50" BC)	
5.	184-190	1	FAN SPACER (SPACING 2.50)	
6.	106-473	4	SCREW (M8-1.25 X 130MM)	
7.	106-998	1	FLG LK SCREW (M10-1.50 X 70MM)	
8.	179-461	1	SLEEVE	
9.	170-372	1	IDLER PULLEY	
10.	179-462	1	SPACER	
11.	105-245	1	SCREW (M10-1.50 X 25MM)	
12.	106-390	1	WASHER (M10)	
13.	110-126	1	BOLT-ON CLAMP (1/2")	
14.	106-497	4	FLG SCREW (M10-1.50 X 35MM)	
15.	155-705	1	O-RING (906 D90)	
16.	214-895	1	TEMPERATURE SWITCH	
17.	105-091	4	LOCK WASHER (5/16")	

NOT SHOWN:

500-1220 FAN CLUTCH

FOOTNOTES:

1. FAN MUST BE CENTERED IN DIAMETER OF RADIATOR SHROUD OPENING, INSTALL WITH NOTCHES TOWARD RADIATOR.
2. REMOVE O-RING FROM PLUG AND INSTALL ON WATER TEMPERATURE SENDER WHEN ASSEMBLING.

NOTE:

ENGINE OIL DRAIN

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-467	1	CONNECTOR (M18-1.50-08J90)	
2.	154-576	1	HOSE (08JFX-22.5"-2000)	
3.	154-148	1	BK CONNECTOR (08J-08J90BK)	
4.	154-089	1	CAP (08JF)	
5.	194-294	-	ENGINE, 6068HF275185JD	OBSOLETE
6.	320-849	-	ENGINE SKID	

NOT SHOWN:

FOOTNOTES:

NOTE:

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

DEAERATION

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	194-499	-	RADIATOR	
2.	155-202	1	REDUCER (12N-08NF)	USE 567 LOCTITE
3.	514-285	1	S/O COUPLER (08N-10H90)	USE 567 LOCTITE
4.	110-217	2	WORM CLAMP (7/16" TO 1")	
5.	116-750	AR	BULK HOSE (5/8",SOLD PER FT)	USE 1 @ 31"
6.	153-160	1	S/O COUPLER (18M-10H45)	
7.	155-162	2	S/O COUPLER (04N-05H)	USE 567 LOCTITE
8.	155-164	2	S/O COUPLER (04N-05H90)	USE 567 LOCTITE
9.	110-249	4	WORM CLAMP (1/4" TO 1")	
10.	116-108	AR	BULK HOSE (5/16", SOLD PER 1")	USE 1 @ 23"
11.	116-108	AR	BULK HOSE (5/16", SOLD PER 1")	USE 1 @ 49"
12.	115-286	1	REDUCER (08N-1/4-NF)	USE 567 LOCTITE
13.	106-570	1	SCREW (M8-1.25 X 60MM)	
14.	349-816	1	SPACER	
15.	110-333	1	BOLT-ON CLAMP (1")	
16.	106-390	2	WASHER (M10)	
17.	106-561	1	LOCKNUT (M8-1.25,PRV TRQ,10.9)	
18.	110-259	1	BOLT-ON CLAMP (.625")	
19.	106-724	1	FLG SCREW (M10-1.50 X 25MM)	
20.	106-387	1	FLG LOCKNUT (M10-1.50)	

FOOTNOTES

NOTE:

BATTERY COVERS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	309-190	-	2-POST ROPS	
2.	116-421	AR	BULK EDGE (1/8", SOLD PER 1')	USE 1 @ 21.5"
3.	354-467	1	RELAY BOARD COVER	BEFORE S/N
	320-998	-	RELAY COVER	
4.	116-489	AR	BULK EDGE (1/8", SOLD PER 1')	USE 1 @ 22"
5.	354-880	1	BATTERY COVER	BEFORE S/N
	320-999	-	BATTERY COVER	
6.	354-469	1	BATTERY SIDE PANEL (LEFT)	BEFORE S/N
	322-370	-	BATTERY SIDE PANEL (LEFT)	
7.	105-825	2	FLG LK BOLT (3/8-NC X 3/4")	
8.	354-468	1	BATTERY SIDE PANEL (RIGHT)	BEFORE S/N
	322-371	-	BATTERY SIDE PANEL (RIGHT)	
9.	217-819	-	BATTERY DISCONNECT SWITCH	
10.	105-180	2	WING NUT (3/8-NC)	
11.	309-189	1	COVER PLATE	
12.	106-381	4	FLG LK SCREW (M8-1.25 X 25MM)	
13.	105-117	4	WASHER (5/16")	
14.	106-561	4	LOCKNUT (M8-1.25, PRV TRQ, 10.9)	
15.	106-988	4	FLG LK SCREW (M6-1.00 X 20MM)	
16.	105-117	4	WASHER (5/16")	
17.	106-538	4	LOCKNUT (M6-1.00,PRV TRQ,10.9)	
18.	106-991	12	FLG LK SCREW (M8-1.25 X 20mm)	
19.	106-551	4	CLIP NUT (M8-1.25)	
20.	106-205	3	WASHER (.191")	
21.	318-588	1	MANUAL COMPARTMENT	
22.	110-560	4	POP RIVET (3/16" X 1/2", ALUM)	

FOOTNOTES

NOTE:

OPERATOR STATION

ENDS WITH S/N:

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	313-733	1	OPERATOR FRAME	SEE FOOTNOTE 1
2.	117-156	1	TORSION SPRING	
3.	354-454	1	HANDLE SPACER	
4.	125-813	2	COMPOSITION BUSHING (1")	
5.	319-499	1	HANDLE	
6.	106-345	2	SCREW (M20-2.50 X 50mm)	
7.	105-423	1	WASHER (3/4")	
8.	111-001	2	WASHER (M51.2)	
9.	125-754	1	COMPOSITION BUSHING (2")	
10.	179-226	1	TAPERED PIN (50.8mm X 272mm)	
11.	105-245	2	SCREW (M10-1.50 X 25mm)	
12.	106-396	1	WASHER (M10, HARDENED)	
13.	110-084	2	BRASS BUSHING (1-5/32")	
14.	125-771	1	COMPOSITION BUSHING (1.25")	
15.	181-981	1	TAPERED INSERT (1")	
16.	151-031	1	CYL (2" X 1" X 8")	
17.	125-770	1	COMPOSITION BUSHING (1")	
18.	184-064	1	TAPERED INSERT (2")	
19.	350-989	2	FLOOR TREADS	SEE FOOTNOTE 1
20.	106-561	5	LOCKNUT (M8-1.25, PRV TRQ, 10.9)	
21.	106-399	1	WASHER (M20, HARDENED)	
22.	106-336	1	SCREW (M12-1.75 X 90mm)	
23.	217-007	1	WORKING LIGHT (CLEAR, RECT)	
24.	105-503	1	ROLL PIN (1/4" X 2")	
25.	110-093	2	MACHINERY BUSHING (1-1/4", 18GA)	
26.	179-225	1	PIN (31.75mm X 60mm)	
27.	350-988	1	CHANNEL COVER	
28.	183-767	1	TAPERED PIN (25.4mm X 60mm)	
29.	106-538	2	LOCKNUT (M6-1.00, PRV TRQ, 10.9)	SEE FOOTNOTE 1
30.	106-551	11	CLIP NUT (M8-1.25)	
31.	106-685	1	LOCKNUT (M12-1.75, PRV TRQ, 10.9)	
32.	106-381	5	FLG LK SCREW (M8-1.25 X 25MM)	
33.	106-992	6	FLG LK SCREW (M8-1.25 X 25MM)	SEE FOOTNOTE 1
34.	354-488	1	STEP	
35.	354-500	1	WIRE COVER	SEE FOOTNOTE 2
36.	314-723	1	COVER	SEE FOOTNOTE 2
37.	106-595	2	SCREW (M6-1.00 X 60mm)	SEE FOOTNOTE 2
38.	106-388	4	WASHER (M6)	SEE FOOTNOTE 2
39.	105-223	1	WASHER (3/8")	
40.	192-006	1	HIGH FREQUENCY HORN	
	192-005	1	HORN BRACKET	
	306-609	1	HIGH FREQUENCY HORN-----	
41.	214-416	1	HORN (ELECTRIC)	
42.	106-991	5	FLG LK SCREW (M8-1.25 X 20MM)	

NOT SHOWN:

FOOTNOTES:

NOTE:

ROLLER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	354-861		ROLLER	INCLUDES REF NO.'S 1 - 3
1	167-336	1	SHAFT	
2	125-138	2	BALL BEARING (1.250")	
3	170-341	1	ROLLER SHELL	

NOT SHOWN:

FOOTNOTES:

NOTE:

DRILLFRAME COVERS/LCKS/SWITCHES

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	211-026	1	DIODE PACK (DEUTSCH)	
2.	106-162	4	FLG SCREW (M8-1.25 X 20MM)	
3.	110-034	2	EYE PIN (7/16" X 3")	
4.	110-033	2	HAIR CLIP PIN (1/8" X ")	
5.	106-991	8	FLG LK SCREW (M8-1.25 X 20MM)	
6.	106-561	4	LOCKNUT (M8-1.25, PRV TRQ, 10.9)	
7.	305-948	1	VALVE COVER	
8.	305-949	1	VALVE COVER	
9.	305-947	1	VALVE COVER	
10.	116-863	1	COVER FLAP	
11.	354-562	1	DRILL FRAME STIFF LEG	
12.	354-980	2	CYLINDER LOCK	
13.	350-514	1	CLAMP PLATE	
14.	107-465	6	SCREW (M5-0.80 X 30MM, SOC)	
15.	215-1175	3	PROXIMITY SWITCH	
16.	106-850	10	LOCKNUT (M5-0.80)	
17.	106-542	4	SCREW (M5-0.80X16MM, PAN PLPS)	
18.	211-025	-	IN-LINE DIODE PACK	

NOT SHOWN:
 107-451 AR SHIM (.135")
 213-103 AT/JT42M1 REAR STOP HARNESS

FOOTNOTES:

NOTE:

FRONT PIPE GUIDE. ALL TERRAIN ONLY

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	157-196	1	ROD WIPER	
2.	110-228	2	LYNCH PIN (7/16" X 2")	
3.	313-592	1	ANCHOR BASE	
4.	314-732	1	WIPER MOUNT	
5.	310-366	1	COVER	
6.	310-362	1	ANCHOR ATTACHMENT FRAME	
	327-1059	1	ANCHOR ATTACHMENT FRAME	SEE FOOTNOTE I
7.	319-747	1	GUIDE BEARING MOUNT	
8.	106-381	1	FLG LK SCREW (M8-1.25 X 25MM)	
9.	115-003	1	ZERK (1/4-NF, STR)	
10.	106-397	4	WASHER (M12, HARDENED)	
11.	106-602	4	SCREW (M8-1.25 X 80MM)	
12.	106-561	5	LOCKNUT (M8-1.25, PRV TRQ, 10.9)	
13.	105-117	8	WASHER (5/16")	
14.	107-307	4	BOLT (M12-1.75 X 45MM)	
15.	106-685	4	LOCKNUT (M12-1.75, PRV TRQ, 10.9)	
16.	211-084	1	CURRENT TRANSFORMER	
17.	314-359	2	GUIDE BLOCK (4.13)	
18.	314-387	1	BLOCK RETAINER	
19.	178-863	1	PIVOT PIN	
20.	115-503	2	KLIP RING (.750")	
21.	314-744	1	HOOK	
22.	350-400	-	COVER	

NOT SHOWN:

214-542	CURRENT COIL CABLE
211-042	VOLTAGE LIMITER
215-799	VOLTAGE STAKE

FOOTNOTES:

I. USE ON 4020 WITH RACK AND PINION. USE UPPER SET OF HOLES TO MOUNT 319-747.

NOTE:

ANCHOR

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	309-250	-	ANCHOR SHAFT	INCL REF NO'S 1-4
1.	178-513	1	COLLAR	
2.	106-685	1	LOCKNUT (M12-1.75, PRV TRQ, 10.9)	
3.	106-645	1	SCREW (M12-1.75 X 110MM, 10.9)	
4.	308-902	1	ANCHOR STAKE	
5.	309-750	1	CENTERING CAP	SHORT - USED IN SIDE POSITIONS
6.	308-903	1	CENTERING CAP	TALL - USED IN FRONT POSITIONS
7.	183-860	AR	ROLL PIN (1/2" X 1-7/8")	
8.	356-366	AR	AUGER (150MM)	
	356-365	AR	AUGER (225MM)	
	356-364	AR	AUGER (380MM)	
9.	369-438	AR	3.5" CAP ANCHOR BIT	ROCK BITS
	136-113	-	INSERT BIT - CARBIDE TIPPED	REPLACEMENT BIT FOR 369-438
	131-259	-	INSERT BIT - CARBIDE TIPPED	
	136-112	-	CLIP RETAINER	REPLACEMENT CLIP FOR 369-438
10.	357-330	AR	STAKE POINT	DIRT BITS

FOOTNOTES

APPLICATOR

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	305-911	2	BRACKET, APPLICATOR	
2.	106-385	2	FLG LOCKNUT (M6-1.00)	
3.	306-423	1	WIPER PARTS ASS'Y	
	116-937	1	APPLICATOR	
	107-394	4	WASHER (.375", ALUMINUM)	
	107-395	2	RIVET (.156 X .500) SEMI-TUBUL	
4.	305-912	1	BASE, APPLICATOR	
5.	106-093	2	SCREW (M6-1.00 X 45MM)	

NOT SHOWN:

FOOTNOTES:

NOTE:

CARRIAGE

AT42M1 & AT42T2 ONLY

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	107-003	2	FLG LK SCREW (M12-1.75 X 35MM)	
2.	153-773	1	HYDRAULIC VALVE	USES SEAL KIT 500-2312, 500-2313 & 500-2314
3.	106-354	2	FLANGE NUT (M12-1.75)	
4.	105-245	2	SCREW (M10-1.50 X 25MM)	
5.	106-090	2	LOCK WASHER (M10)	
6.	316-958	1	VALVE MOUNT PLATE	
7.	314-580	1	BRACKET	
8.	106-398	12	WASHER (M16, HARDENED)	
9.	106-666	12	SCREW (M16-2.00 X 65MM, 10.9)	USE 277 LOCTITE; TORQUE TO 225 FT LBS
10.	313-958	-	CARRIAGE	
11.	105-826	4	FLG LOCK BOLT (3/8-NC X 1")	USE 242 LOCTITE, AT ONLY
12.	106-390	2	WASHER (M10)	
13.	318-731	1	CARRIAGE COVER	
14.	106-469	2	FLG SCREW (M12-1.75 X 30MM)	
15.	106-391	5	WASHER (M12)	
16.	106-685	5	LOCKNUT(M12-1.75, PRV TRQ, 10.9)	
17.	107-683	3	CARRIAGE BOLT(M12-1.75 X 30MM)	

NOT SHOWN:

FOOTNOTES:

NOTE:

ROTATION GEARBOX JT42M1 & JT42T2 ONLY

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
36.	168-035	1	IDLER GEAR	
37.	126-170	2	TAPERED BEARING (2.250")	
38.	126-171	2	TAPERED RACE (3.740")	
39.	166-152	1	ROTATION GEARBOX PLANETARY	SEE FOOTNOTE 1
40.	168-034	1	INPUT PINION	
41.	125-308	1	TAPERED BEARING (3.000")	
42.	125-309	1	TAPERED RACE (5.000")	
43.	115-025	1	PLUG (08N, SQ FM, MAG)	
44.	115-162	1	NIPPLE (08N-4")	
45.	115-155	1	COLLAR (08NF)	
46.	153-638	1	INTERNAL SEAL	
47.	106-755	14	SCREW (M10-1.50 X 30MM, SOC)	
48.	157-285	1	O-RING (238 D75 VITON)	

NOT SHOWN:

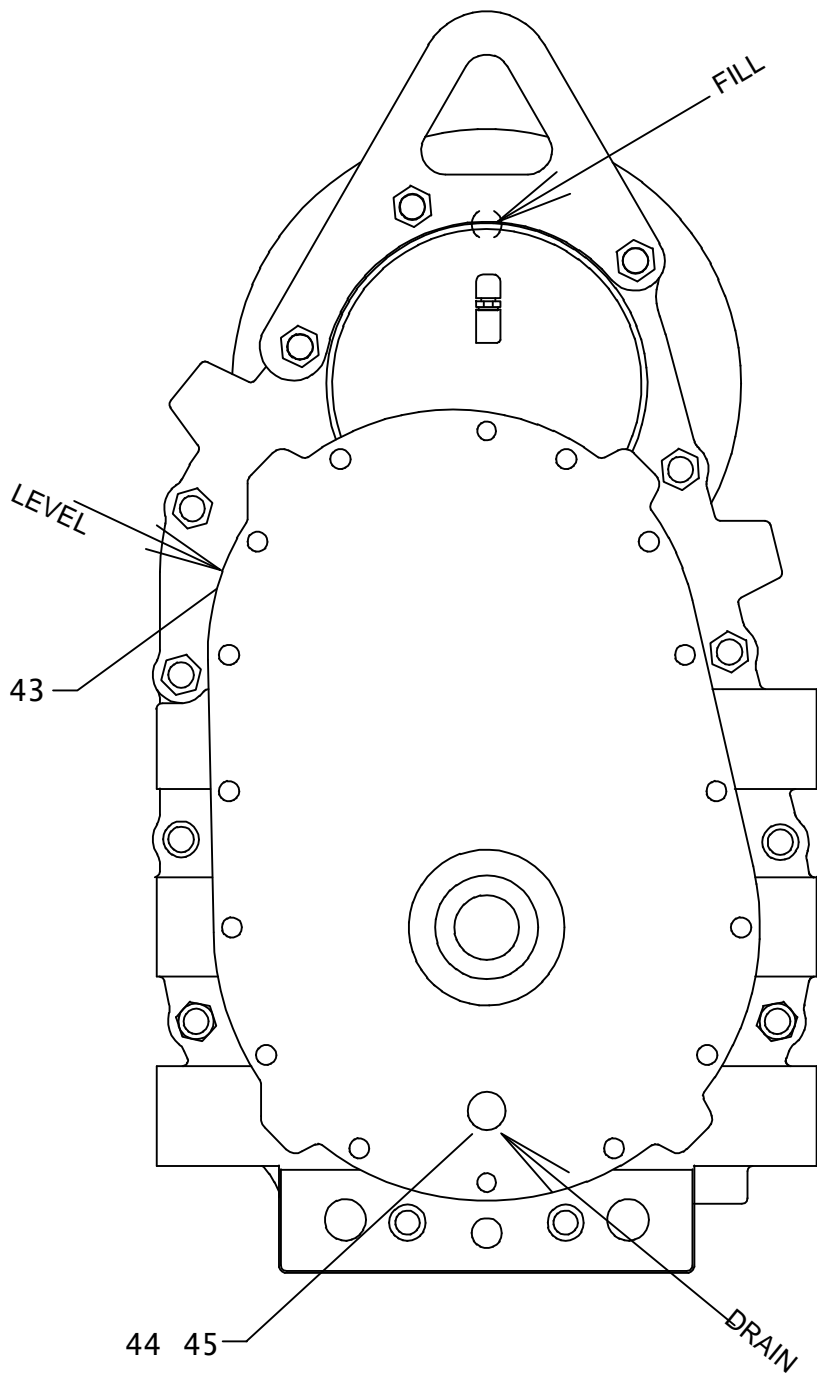
FOOTNOTES:

1. APPLY LOCTITE SUPERFLEX RED HIGH TEMP RTV OR EQUIVALENT - 3/16 DIA. MIN. BEAD.
2. THIS ITEM WILL COME IN GEARBOX. REMOVE AND INSTALL ITEMS 44,45,& 49.
3. 126-172 SUPERSEDED BY 125-1009. TIMKEN® 32222M WILL NOT WORK IN THIS APPLICATION.

NOTE:

ROTATION GEARBOX

JT4020 MACH 1 ONLY



WRENCH PIPE GUIDE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	313-716	-	STATIONARY CLAMP	
2.	313-761	1	BLOCK RETAINER	
3.	314-359	2	GUIDE BLOCK (4.13)	AT PIPE
	314-360	2	GUIDE BLOCK (3.50)	JT PIPE
4.	316-742	1	BRACKET, SPRAY	
5.	313-760	1	WRENCH GUIDE FRAME	
6.	106-724	4	FLG SCREW (M10-1.50 X 25MM)	
7.	106-387	4	FLG LOCKNUT (M10-1.50)	
8.	106-806	4	FLG LK SCREW (M12-1.75 X 25MM)	
9.	346-061	1	PIN	
10.	318-854	1	BRACKET, SPRAY	
11.	110-410	1	SAFETY CLIP & LANYARD	

FOOTNOTES

PIPE LOADER LIFTERS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	313-792	1	FRONT BOX SUPPORT	
2.	313-791	1	REAR BOX SUPPORT	
3.	313-783	2	LIFTER OUTER TUBE	
4.	313-805	2	PIPE LIFTER	
	327-1069	2	PIPE LIFTER	SEE FOOTNOTE 2
5.	354-338	4	MOUNT PLATE	
6.	151-031	2	CYL (2.0" X 1.00" X 8.000")	
7.	125-770	2	COMPOSITION BUSHING (1")	
8.	125-771	2	COMPOSITION BUSHING (1.25")	
9.	183-863	2	TAPERED PIN (31.7MM X 128MM)	
10.	181-982	2	TAPERED INSERT (1.25")	
11.	105-273	2	SCREW (M12-1.75 X 30mm)	
12.	356-297	1	STABILIZER CAP	REAR LIFTER
13.	106-551	4	CLIP NUT (M8-1.25)	
14.	106-991	4	FLG LK SCREW (M8-1.25 X 20mm)	
15.	106-340	10	SCREW (M16-2.00 X 50mm)	
16.	106-398	10	WASHER (M16, HARDENED)	
17.	106-442	10	FLG LOCKNUT (M16-2.00, PRV TRQ)	
18.	106-620	8	SCREW (M12-1.75 X 150mm)	
19.	106-685	8	LOCKNUT (M12-1.75, PRV TRQ, 10.9)	
20.	179-024	2	TAPERED PIN (25.4MM X 117MM)	
21.	181-981	2	TAPERED INSERT (1.00")	
22.	105-245	2	SCREW (M10-1.50 X 25mm)	
23.	106-397	18	WASHER (M12, HARDENED)	
24.	180-559	2	PULL PIN (1" X 4.625")	
25.	110-128	2	SPRING CLIP PIN (5/32" X 1")	
26.	106-396	2	WASHER (M10, HARDENED)	
27.	178-446	2	PIPE ROTATION PIN	JT ONLY
28.	106-477	4	SCREW (M12-1.75 X 45MM, 10.9)	
29.	154-252	-	CONNECTOR (04S-04090)	
30.	515-179	-	HOSE (040FX90-11"-3000)	
31.	154-403	-	CONNECTOR (04S-040, XL)	
32.	154-275	-	BK CONNECTOR (040-040BK)	
33.	306-741	1	CAP	FRONT LIFTER
34.	313-782	2	PIPE LIFTER INSERT	SEE FOOTNOTE 1
	300-7416	2	PIPE LIFTER INSERT	SEE FOOTNOTE 1 & 2
35.	106-341	6	SCREW (M16-2.00 X 70MM)	
36.	106-545	6	LOCKNUT (M16-2.0, PRV TRQ, 10.9)	

NOT SHOWN:

FOOTNOTES:

1. PIPE LIFTER INSERT IS REVERSABLE. SIDE W/ 3 NOTCHES IS FOR THE AT, SIDE W/ 4 NOTCHES IS FOR JT.
2. USE ON 4020 WITH RACK AND PINION.

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SHUTTLE STOP

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	327-1063	-	FRONT SHUTTLE SUPPORT	SEE FOOTNOTE 1
2.	308-344	1	STOP TUBE WELDMENT	
3.	105-065	2	LOCKNUT (1/2-NC)	
4.	105-002	1	BOLT (1/2-NC X 2-1/4")	
5.	106-630	1	U-BOLT (#10-24 X 5/16")	
6.	196-286	1	CONTROL CABLE	
7.	150-727	1	CYL (1.0" X .500" X 4.0")	
8.	105-067	1	BOLT (1/2-NC X 2-3/4")	
9.	106-138	2	NUT (M5-0.80)	
10.	105-186	2	NUT (#10-24)	

NOT SHOWN:

FOOTNOTES:

1. USE ON 4020 WITH RACK & PINION

NOTE:

GUARD LOCK PIN

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	354-571		GUARD LOCK PIN	INCL REF NO.'S 1 THRU 7
1.	105-561	1	ROLL PIN (3/8" X 2-3/4")	
2.	354-566	1	PIN HOUSING	
3.	106-992	2	FLG LK SCREW (M8-1.25 X 25mm)	
4.	105-503	1	ROLL PIN (1/4" X 2")	
5.	106-561	2	LOCKNUT (M8-1.25, PRV TRQ, 10.9)	
6.	115-560	1	COMPRESSION SPRING	
7.	178-095	1	LOCKOUT PIN	

FOOTNOTES

FLUID PUMP (FLUID END)

120 GPM

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	191-054	1	VALVE REPAIR KIT	INCLUDES PARTS FOR ALL VALVES IN PUMP. SEE FOOTNOTE 1.
2.	191-1008	1	PACKING REPAIR KIT	
3.	499-041	3	CUP HOLDER	
4.	499-039	3	PLUNGER NUT	
5.	499-089	3	CYL (2.750")	
6.	499-042	3	CYLINDER GASKET	
7.	157-191	3	O-RING (233 D90)	
8.	157-202	3	O-RING (042 D70)	
9.	157-031	3	O-RING (234 D90)	
10.	499-116	3	O-RING (014 D70)	

NOT SHOWN:

500-2199 | FLUID CYLINDER

FOOTNOTES:

KIT INCLUDES ALL PARTS, O-RINGS, GASKETS AND PLUNGER NUTS TO REBUILD ALL CYLINDERS.

NOTE:

ANTIFREEZE TANK

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	211-097	1	ADAPTER	USE WITH AT PIPE (OD = 4.125")
	194-244	1	ADAPTER	USE WITH JTMI PIPE (OD = 3.50")
2.	155-136	1	S/O COUPLER (16N-16H)	
3.	110-353	3	WORM CLAMP (3/4" TO 1-1/2")	
4.	116-897	AR	BULK TUBING (1", SOLD PER 1')	USE 1 @ 72"
5.	364-515	1	WATER TANK (8 GAL)	
	190-053	-	POLY-PATCH TANK REPAIR KIT	
	110-707		TANK CAP (96NF)	
6.	105-836	4	FLG LOCK BOLT (1/4-NC X 1/2")	
7.	319-546	1	TANK MOUNT	
8.	115-085	1	REDUCER (32N-16NF)	SEE FOOTNOTE 1
	153-335	1	REDUCER BUSHING (48N-16NF)	SEE FOOTNOTE 2
9.	155-137	1	S/O COUPLER (16N-16H90)	
10.	116-460	AR	BULK HOSE (1", SOLD PER 1')	USE 1 @ 20" FOR 70 GPM PUMP
	116-460	AR	BULK HOSE (1", SOLD PER 1')	USE 1 @ 22" FOR 70 GPM PUMP
11.	514-318	1	SHUT-OFF (16NF-16NF)	ROTATE HANDLE TO SIDE, POINTED DOWN.
12.	114-011	1	ALL THREAD (16N)	
13.	115-440	1	STREET ELBOW (16N-16NF90)	
14.	106-387	4	FLG LOCKNUT (M10-1.50)	
15.	514-400	1	BK CONN (16NF-16NFBK, NYL)	
16.	106-164	4	FLG LK SCREW (M10-1.50 X 30MM)	
17.	106-551	3	CLIP NUT (M8-1.25)	
18.	310-694	1	COVER	
19.	106-991	3	FLG LK SCREW (M8-1.25 X 20MM)	
20.	120-074	1	SHUT-OFF VALVE (16S-16S)	
21.	217-907	1	ROCKER SWITCH (DPDT) ON-ON	
22.	514-121	1	CONNECTOR (16N-16S)	
23.	514-088	1	S/O COUPLER (16S-16H)	
24.	114-024	1	REDUCER (40N-32NF)	SEE FOOTNOTE 1
25.	101-134	1	ANTI-FREEZE RECLAIMER	USE W/ AT PIPE; INCLUDES REF. #'S 1, 3, 4, 20, 22, 23
	101-137	1	ANTI-FREEZE RECLAIMER	USE W/ JT PIPE; INCLUDES REF. #'S 1, 3, 4, 20, 22, 23

NOT SHOWN:

153-255 FHC PLUG (1-56)

USE TO PLUG FHC FEMALE INLET ON MUD PUMP.

FOOTNOTES:

1. USED WITH 158-434 (70 GPM MUD PUMP)
2. USED WITH 149-396 (120 GPM MUD PUMP)

NOTE:

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

OIL RETURN HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	514-135	1	S/O COUPLER (24S-24H90)	
2.	105-825	6	FLG LK BOLT (3/8-NC Xf")	
3.	157-766	1	FILTER HEAD (20SF-20SF)	
4.	318-890	8	T-BLT CLP BRIDG 1.875 - 2.188	
5.	157-486	2	FILTER ELEMENT (10 MICRON)	
6.	157-327	1	COOLER RETURN TUBE	
7.	157-453	1	S/O COUPLER (20S-24H, LONG)	COOLER RETURN
8.	354-464	-	TOP REAR COOLANT BRACKET	
9.	514-138	1	S/O COUPLER (24S-24H)	
10.	153-436	1	FLOW CHECK (16SF-16SF)	FLOW ARROW ON CHECK VALVE MUST POINT UPWARD
11.	117-897	AR	BULK HOSE (1-1/2",SOLD PER 1")	USE 1 @ 10.0"
12.	117-897	AR	BULK HOSE (1-1/2", SOLD PER 1')	USE 1 @ 5.50"
13.	117-897	AR	BULK HOSE (1-1/2",SOLD PER 1")	USE 1 @ 9.00"
14.	153-370	1	S/O COUPLER (24S-24H45)	
15.	322-362	2	BACKUP SPACER	
16.	111-008	2	BOLT-ON CLAMP (1-1/2", SET)	
17.	105-085	4	LOCKNUT (1/4-NC)	
18.	107-283	4	BOLT (1/4-NC X 3")	
19.	514-441	1	S/O BR TEE (160-24H-24H)	
20.	155-470	1	HOSE (12OFX90M-90"-3000)	
21.	115-924	1	ABRASION SLEEVE (1.59" X 88")	
22.	155-748	1	O-RING (916 D90)	
23.	157-017	1	O-RING (018 D90)	
24.	117-897	AR	BULK HOSE (1-1/2",SOLD PER 1")	USE 1 @ 9.0"
25.	318-481	1	SUPPORT	
26.	217-765	1	INDICATOR SWITCH	
27.	106-076	6	WASHER (1/4")	
28.	323-359	1	BRACKET	
29.	323-360	1	BRACKET	
30.	107-565	2	FLG LK SCREW (M12-1.75 X 40MM)	
31.	106-709	1	FLG LK NUT (M12-1.75)	
32.	106-724	2	FLG SCREW (M10-1.50 X 25MM)	
33.	106-387	2	FLG LOCKNUT (M10-1.50)	

FOOTNOTES

NOTE:

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

STATION GAUGE VALVE

JT4020 ALL TERRAIN ONLY

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	153-340	-	HYDRAULIC PUMP	
2.	159-157	1	QDC ADAPTER (02-060F)	
	159-148	-	DUST CAP (1/8")	
3.	154-344	1	UN RUN TEE (060FX-060-060)	
4.	154-221	1	CONNECTOR (06S-060)	
5.	159-147	1	QDC ADAPTER (02-06S)	
	159-148	-	DUST CAP (1/8")	
6.	154-343	1	UNION (06S-060FX90)	
7.	154-220	1	CONNECTOR (040-06S)	
8.	153-771	1	HYDRAULIC VALVE	OBSOLETE
	150-4086	4	HYDRAULIC VALVE	USE REPLACEMENT COIL 500-2488. WILL NOT FIT OBS VALVES.
9.	154-226	1	CONNECTOR (040-06S90)	
10.	515-437	1	HOSE (040FX90-21"-3000)	
11.	354-466	-	BULKHEAD PLATE	
12.	153-730	-	HOSE (040FX-116"-6000)	
13.	117-792	-	ABRASION SLEEVE (1.00" X 115")	
14.	154-355	1	BK CONNECTOR (040-04090BK)	
15.	117-566	1	ABRASION SLEEVE (1.25" X 11")	

NOT SHOWN:

FOOTNOTES:

NOTE:

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

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 CASE DRAIN HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	153-593	-	HYDRAULIC MOTOR	
2.	153-767	-	COUNTERBALANCE MANIFOLD	
3.	154-252	2	CONNECTOR (04S-04090)	
4.	154-265	1	UN RUN TEE (040FX-040-040)	
5.	154-728	2	HOSE (040FX90-36"-3000)	
6.	153-592	-	HYDRAULIC MOTOR	USE SEAL KIT 500-752
7.	117-718	1	ABRASION SLEEVE (1.00" X 36")	

NOT SHOWN:

FOOTNOTES:

NOTE:

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

ANCHOR SUPPLY HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-318	1	BRANCH TEE (10S-100-100)	
2.	515-454	1	HOSE (100FX90L-20"-3000)	
3.	153-393	1	MANIFOLD BLOCK	
4.	154-309	2	BK CONNECTOR (100-100BK)	
5.	515-690	1	HOSE (100FX90L-58"-3000)	
6.	150-2180	-	HYDRAULIC PUMP LS	
	190-1371	-	PUMP SEAL KIT	
7.	157-128	-	O-RING (225 D90)	
8.	115-903	1	ABRASION SLEEVE (1.59" x 50")	
9.	153-389	-	COOLER BY-PASS	
10.	159-159	1	QDC ADAPTER (02-100FX)	
	159-148	1	DUST CAP (1/8")	

NOT SHOWN:

FOOTNOTES:

NOTE:

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

LEFT ANCHOR THRUST CYLINDER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-261	1	CONNECTOR (040-08S)	
2.	154-276	1	CONNECTOR (040-08S90)	
3.	515-593	1	HOSE (040FX90-38"-3000)	
4.	515-093	1	HOSE (040FX90-42"-3000)	
5.	115-737	1	ABRASION SLEEVE (1.59" X 40")	
6.	154-255	2	UNION (040-040FX90)	
7.	154-424	1	BK RUN TEE (040-040-040BK)	
8.	154-265	1	UNION RUN TEE (040FX-040-040)	
9.	154-403	2	CONNECTOR (04S-040, XL)	
10.	154-252	2	CONNECTOR (04S-04090)	
11.	515-054	1	HOSE (040FX-74"-3000)	
12.	515-683	1	HOSE (040FX90-28"-3000)	
13.	117-684	1	ABRASION SLEEVE (1.00" X 26")	
14.	117-657	1	ABRASION SLEEVE (1.59" X 54")	
15.	515-682	1	HOSE (040FX90M-48"-3000)	
16.	117-676	1	ABRASION SLEEVE (1.00" X 30")	
17.	150-747	2	CYLINDER ASSEMBLY	
18.	309-206	1	BULKHEAD PLATE	
19.	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.

FRAME TILT HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-355	4	BK CONNECTOR (040-04090BK)	
2.	117-603	1	ABRASION SLEEVE (1.59" X 62")	
3.	117-656	1	ABRASION SLEEVE (1.59" X 45")	
4.	515-424	2	HOSE (040FX-56"-3000)	
5.	154-681	2	HOSE (040FX-62"-3000)	
6.	154-424	4	BK RUN TEE (040-040-040BK)	
7.	115-777	1	ABRASION SLEEVE (1.59" X 15")	
8.	117-679	1	ABRASION SLEEVE (1.59" X 32")	
9.	154-672	1	HOSE (040FX-15"-3000)	
10.	515-735	1	HOSE (040FX-22"-3000)	
11.	154-668	1	HOSE (040FX-32"-3000)	
12.	154-653	1	HOSE (040FX-40"-3000)	
13.	154-226	6	CONNECTOR (040-06S90)	
14.	154-220	2	CONNECTOR (040-06S)	
15.	154-276	4	CONNECTOR (040-08S90)	
16.	154-911	1	HOSE (040FX-36"-3000AR)	
17.	515-509	1	HOSE (040FX-28"-3000)	
18.	155-484	1	HOSE (040FX-16"-3000)	
19.	154-719	1	HOSE (040FX-10"-3000)	
20.	115-776	1	ABRASION SLEEVE (1.59" X 7")	
21.	117-708	1	ABRASION SLEEVE (1.59" X 28")	
22.	354-466	-	BULKHEAD PLATE	
23.	515-447	4	HOSE (040FX90S-48"-3000)	
24.	151-066	2	CYL (4.0 X 2.0 X 5.0)	
25.	151-070	2	CYL (3.0" X 1.75" X 8.000")	
26.	149-882	-	HYD CONTROL VALVE (5-SPOOL)	
27.	117-789	1	HOSE BAG (4.000" X 36")	ALL HOSES FROM VALVE (149-882) GO INTO HOSE BAG.
28.	502-184	1	VALVE BLOCK	SEE FOOTNOTE 1
29.	500-478	2	COUNTERBALANCE CARTRIDGE KIT	SEE FOOTNOTE 1 & 2
30.	154-226	2	CONNECTOR (040-06S90)	SEE FOOTNOTE 1
31.	154-220	2	CONNECTOR (040-06S)	SEE FOOTNOTE 1
32.	154-726	2	HOSE (040FX90-15"-3000)	SEE FOOTNOTE 1
33.	154-255	2	UNION (040-040FX90)	SEE FOOTNOTE 1
34.	106-570	1	SCREW (M8-1.25 X 60MM)	SEE FOOTNOTE 1
35.	105-117	1	WASHER (5/16")	SEE FOOTNOTE 1
36.	106-386	1	FLG LOCKNUT (M8-1.25)	SEE FOOTNOTE 1

NOT SHOWN:

FOOTNOTES:

1. USE ON 4020 WITH RACK AND PINION
2. TURN ADJUSTMENT SCREW COMPLETELY OUT

NOTE:

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

GREASE HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	149-827	2	HOSE (040FX90S-24"-3000)	
2.	153-320	1	HOSE (060FX90L-17"-3000)	
3.	149-825	1	HOSE (060FX90L-28"-3000)	
4.	310-591	1	VALVE ASS'Y	SEE FOOTNOTE 3
5.	117-211	2	ABRASION SLEEVE (1.25" X 90")	
6.	154-724	2	HOSE (040FX-82"-3000)	
7.	318-607	1	BRACKET, WIPER	SEE FOOTNOTE 4
8.	106-724	2	FLG SCREW (M10-1.50 X 25MM)	
9.	106-387	2	FLG LOCKNUT (M10-1.50)	
10.	154-252	3	CONNECTOR (04S-04090)	
11.	157-764	-	HYDRAULIC VALVE	SEE FOOTNOTE 3
12.	514-414	1	CONNECTOR (04S-06045)	
13.	153-424	1	HOSE (060FX-236"-3000)	
14.	401-155	1	SPRAY NOZZLE	
	191-258	1	SPRAY NOZZLE HANDLE KIT	
	153-096	1	CAP GASKET, NYLON	
15.	514-163	1	BK CONNECTOR (060-060BK)	
16.	318-854	-	BRACKET, SPRAY	
17.	117-684	1	ABRASION SLEEVE (1.00" X 26")	
18.	154-342	3	CONNECTOR (06S-06090)	
19.	105-297	1	BOLT (1/4-NC X 3-1/4")	
20.	117-194	1	ABRASION SLEEVE (1.00" X 16")	
21.	350-398	-	GREASE PUMP	
22.	350-400	-	COVER	
23.	350-399	-	BASE	
24.	256-1005	-	TOOL JNT LUBE, 2 GAL, ENVTL FRIENDLY	METAL FREE, ALL WEATHER
	256-031	-	TOOL JNT LUBE, SUMR SPRY 2 GAL	
	259-858	-	TOOL JNT LUBE, STD SPRY 2 GAL	
25.	154-344	1	UN RUN TEE (060FX-060-060)	
26.	105-117	1	WASHER (5/16")	
27.	154-224	1	CONNECTOR (06S-06045)	SEE FOOTNOTE 1
28.	514-165	1	CONNECTOR (06S-060, ORF .078")	SEE FOOTNOTE 2
29.	154-401	1	CONNECTOR (04S-04090, ORF)	
30.	154-278	1	CONNECTOR (04S-040)	
31.	154-326	1	CAP (060F)	
32.	154-221	1	CONNECTOR (06S-060)	
33.	149-956	1	HYD LINE	
34.	149-957	1	HYD LINE	
35.	157-037	2	O-RING (011 D90)	
36.	110-998	1	CLAMP HALVES (3/8") PAIR	

NOT SHOWN:

FOOTNOTES:

1. TO SPRAY NOZZEL.
2. TO REAR APPLICATOR.
3. FOR PARTS BREAKDOWN OF SELECTOR VALVE & APPLICATOR, SEE SPECIFIC PARTS PAGES.
4. USE SCREWS WITH APPLICATOR TO ATTACH TO BRACKET.

NOTE:

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

HYDRAULIC CYLINDERS (4.0" X 2.0")

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	149-698	-	CYL (4.0 X 2.0 X 4.0)	SEE FOOTNOTES 1 & 2
1	149-768	1	CYLINDER BARREL (4.0 X 4.0)	
2	153-021	1	CYLINDER ROD (2.00 X 4.0)	
	151-066	-	CYL (4.0 X 2.0 X 5.0)	SEE FOOTNOTES 1 & 2
1	152-012	1	CYLINDER BARREL (4.0 X 5.0)	
2	150-440	1	CYLINDER ROD (2.00 X 5.0)	
	149-699	-	CYL (4.0 X 2.0 X 6.0)	SEE FOOTNOTES 1 & 2
1	152-062	1	CYLINDER BARREL (4.0 X 6.0)	
2	149-735	1	CYLINDER ROD (2.00 X 6.0)	
	149-700	-	CYL (4.0 X 2.0 X 8.0)	SEE FOOTNOTES 1 & 2
1	152-030	1	CYLINDER BARREL (4.0 X 8.0)	
2	149-736	1	CYLINDER ROD (2.00 X 8.0)	
	149-701	-	CYL (4.0 X 2.0 X 10.0)	SEE FOOTNOTES 1 & 2
1	149-769	1	CYLINDER BARREL (4.0 X 10.0)	
2	153-016	1	CYLINDER ROD (2.00 X 10.0)	
	151-088	-	CYL (4.0 X 2.0 X 12.0)	SEE FOOTNOTES 1 & 2
1	150-298	1	CYLINDER BARREL (4.0 X 12.0)	
2	150-429	1	CYLINDER ROD (2.00 X 12.0)	
	149-702	-	CYL (4.0 X 2.0 X 16.0)	SEE FOOTNOTES 1 & 2
1	152-007	1	CYLINDER BARREL (4.0 X 16.0)	
2	149-737	1	CYLINDER ROD (2.00 X 16.0)	
	149-703	-	CYL (4.0 X 2.0 X 20.0)	SEE FOOTNOTES 1 & 2
1	149-770	1	CYLINDER BARREL (4.0 X 20.0)	
2	149-738	1	CYLINDER ROD (2.00 X 20.0)	
	149-704	-	CYL (4.0 X 2.0 X 24.0)	SEE FOOTNOTES 1 & 2
1	152-063	1	CYLINDER BARREL (4.0 X 24.0)	
2	149-739	1	CYLINDER ROD (2.00 X 24.0)	
3	149-006	1	CYLINDER HEAD (4.0 X 2.00)	
4	149-303	1	LOCK RING (4.0)	
5	149-307	1	CYLINDER PISTON (4.0 X 2.00)	
6	106-145	1	BOLT (1-NC X 2-1/4", GD8)	SEE FOOTNOTE 3
7	157-035	1	O-RING (342 D90)	
8	157-036	1	BACKUP RING (342 D90)	
9	157-559	1	U-SEAL (2.000")	
10	157-558	1	WIPER SEAL (2.000")	
11	125-793	1	WEAR RING	
12	157-570	1	BACKUP RING (238 D90)	
13	157-044	1	O-RING (238 D90)	
14	106-144	1	WASHER (1")	

FOOTNOTES

- REF. #1 & #2 ARE SPECIFIC TO EACH CYLINDER, REF. #3 THRU #14 ARE COMMON FOR ALL THE ABOVE LISTED CYLINDERS.
- SEAL REPAIR KIT P/N: 190-189
- APPLY LOCTITE 277 OR EQUIVALENT, TORQUE TO 630-700 FT-LBS

NOT SHOWN:

- 259-040 U-SEAL INSTALLER (1.5" - UPI)
- 259-239 WIPER/SEAL INSTALLER (2")
- 259-246 PISTON SEAL INSTALLER (4")
- 259-247 PISTON INSTALLER (4")
- 259-188 CYL HEAD SPANNER - TWO PIN

PANEL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	214-979	1	PREHEAT SOLENOID	
2.	106-986	2	FLG LK SCREW (M6-1.00 X 12MM)	
3.	106-574	2	CLIP NUT (M6-1.00)	
4.	322-551	1	FIREWALL	
5.	106-389	3	WASHER (M8)	
6.	310-448	1	FRONT ENGINE PANEL (RIGHT)	
7.	106-989	1	FLG LK SCREW (M8-1.25 X 35MM)	
8.	106-551	6	CLIP NUT (M8-1.25)	
9.	106-106	2	NUT (M6-1.00)	
10.	320-996	1	J-BOX MOUNT	
11.	213-061	1	CAN MULTIPORT MODULE	
12.	107-025	2	SCREW (M6-1.00 X 50MM)	
13.	184-870	1	SPACER	
14.	106-991	2	FLG LK SCREW (M8-1.25 X 20MM)	
15.	107-872	3	SCREW (M8-1.25 X 65MM)	
16.	105-214	1	FLG SCREW (#10-24 X 1/2")	
17.	118-258	1	ABRASION SLEEVE (.750" X 12")	

NOT SHOWN:

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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