

# ***Ditch Witch***<sup>®</sup>

## **M500 Series**

ISSUE NO. 12PL-12/12

For Replacement Copy Order **P/N 053-430**

**Attachments for - 5110 & 7610**

This manual contains information concerning the following models:  
**M510, M511, M512 Digging, M530 Plow, M552 Combo & RLCR50 Reel Carrier Attachments**

Copyright 1994, 1995, 1996, 1999, 2004, 2006, 2008, 2012 by The Charles Machine Works, Inc.



**Ditch Witch**<sup>®</sup>, Ditch Witch, CMW, AutoCrowd, Jet Trac, Roto Witch, Subsite, Fluid Miser, Power Pipe, Super Witch, Pierce Arrow, The Underground, The Underground Authority Worldwide, and Zahn are registered trademarks of The Charles Machine Works, Inc.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: [www.heydownloads.com](http://www.heydownloads.com) by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL



# DECAL LOCATION M530

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	275-676		DECAL KIT	
1.	274-037	1	WARNING CRUSHING WEIGHT	
2.	274-318	2	TIE-DOWN LOCATIONS	
3.	274-418	2	M530 MODEL ID	
4.	275-023	2	OIL LEVEL	
5.	275-184	2	WARNING MOVING PARTS	
6.	275-284	1	AMPLITUDE CHART	
7.	274-442	4	LIFTING POINTS	

FOOTNOTES

NOTE

CONTROL VALVE DECAL P/N 274-197 NOT PART OF KIT, MUST BE ORDERED SEPARATELY.

# ATTACHMENT FRAME M512

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-021	1	NUT (1/2-NC)	
2.	105-814	10	FLG LOCKNUT (3/8-NC)	
3.	105-048	1	BOLT (1/2-NC X 1-1/2")	
4.	106-632	3	FLG LK BOLT (M12-1.75 X 35MM)	ENDS WITH S/N -----
	105-831	3	FLG LK BOLT (1/2-NC X 1-1/2 ")	BEGINS WITH S/N -----
5.	105-874	10	FLG LK BOLT (3/8-NC X 1-1/2")	
6.	105-830	4	FLG LK BOLT (1/2-NC X 1-1/4")	
7.	105-347	4	BOLT (7/8-NC X 7")	
8.	105-348	4	NUT (7/8-NC)	
9.	116-175	1	DEFLECTOR FLAP	
10.	116-177	1	DEFLECTOR FLAP	
11.	181-505	4	MOUNTING BOSS SPACER	
12.	311-216	1	DIFFERENTIAL SHIELD	
13.	311-767	1	ATTACHMENT FRAME	
14.	311-344	1	SUPPORT BAR	
15.	311-346	1	SUPPORT BAR	
16.	105-934	4	BOLT (7/8-NC X 11")	SEE FOOTNOTE 1
17.	311-351	1	RIGHT SHIELD	
18.	184-031	1	TAPERED INSERT (2.25")	
19.	106-122	1	BOLT (7/8-NC X 2-1/4", GD8)	

FOOTNOTES

1. THESE PARTS ARE REQUIRED WHEN TIRES (16.5L X 16.1) ARE USED ON A 6510.

# HIGH HEADSHAFT PIVOT M510

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	125-791	2	SPRING BUSHING	
2.	105-919	2	FLG NUT (1-NC)	
3.	105-496	2	BOLT (1-NC X 7")	
4.	105-274	3	BOLT (M10-1.5 X 20MM)	ENDS WITH S/N _____
	105-181	3	BOLT (3/8-NC X 1/2")	BEGINS WITH S/N _____
5.	105-534		DOWEL PIN (3/8" X 7/8")	SEE FOOTNOTE 1
6.	105-421	3	BOLT (3/4-NC X 3-1/2", GD8)	
7.	311-338	AR	SHIM	
8.	105-953	6	FLG LOCKNUT (3/4-NC, GD8)	
9.	105-384	AR	WASHER (3/4")	
10.	105-497	16	CAM LOCK WASHER (5/8")	
11.	105-423	2	WASHER (3/4")	
12.	105-961	3	BOLT (3/4-NC X 2", GD8)	
13.	105-970	8	FLG BOLT (5/8-NC X 1-3/4", GD8)	
14.	105-961	2	BOLT (3/4-NC X 2", GD8)	
15.	110-058	AR	MACHINERY BUSHING (18GA X 1")	
16.	110-078	AR	MACHINERY BUSHING (14GA X 1")	
17.	110-211	4	MACHINERY BUSHING (2-1/4")	
18.	115-002	2	ZERK (02N)	
19.	314-503	1	PIVOT CAP	ALL REPLACEMENTS
20.	125-258	2	TAPERED RACE (4.125")	
21.	125-259	2	TAPERED BEARING (2.25")	
22.	142-009	1	SPROCKET (3.067"A10)	SEE FOOTNOTE 2
	142-010	1	SPROCKET (2.0"A14)	SEE FOOTNOTE 2
	140-717	1	SPLIT SPROCKET (3.067"A10)	SEE FOOTNOTE 3
	140-732	1	SPLIT SPROCKET (2.0"A14)	SEE FOOTNOTE 3
23.	145-475	2	WASHER (3", NYLON)	
24.	145-476	1	WASHER (5", NYLON)	
25.	145-910	1	12" PIVOT	
26.	145-722	1	GUARD PLATE	
27.	145-977	1	PIVOT SLEEVE	
28.	155-703	2	O-RING (311-D70)	
29.	155-805	2	INTERNAL SEAL (3")	
30.	167-044	1	12" HEADSHAFT	
31.	175-632	1	DRIVE SPROCKET (1.25"B38)	
	175-635	1	DRIVE SPROCKET (1.25"B32)	
	175-637	1	DRIVE SPROCKET (1.25"B32)	
32.	180-071	2	PIVOT BEARING BACKUP	
33.	180-057	2	SEAL SPACER	
34.	181-500	1	SPROCKET HUB	
35.	106-090	3	LOCK WASHER (M10)	ENDS WITH S/N _____
NOT SHOWN:				
	259-009		PLUG WRENCH (1/2" DRIVE)	
	110-013		HAND GRIP (1", BLACK)	

## FOOTNOTES

- REPLACEMENT DOWEL PIN, REF NO. 41, MUST BE PRESSED INTO POSITION, LEAVING 3/8" EXTENDING.
- IMPORTANT: WHEN INSTALLING NEW HEADSHAFT SPROCKET, MAKE SURE SPROCKET, HUB AND BOLT HOLES ARE FREE OF GREASE AND DIRT. USE CORRECT LENGTH BOLTS (BOLTS SHOULD NOT EXTEND ALL THE WAY THROUGH HUB) WITH CAM LOCK WASHERS. TORQUE BOLTS TO 260 FT LBS. (353 N m). RE-TORQUE BOLTS AFTER ONE DAY OF OPERATION.
- REFER TO SERVICE BULLETIN 052-712; SEE FOOTNOTE 2.

# PIVOT CLAMP

H510 H512 H610 H612 M510 M512 H812

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-293	5	BOLT (1/2-NC X 3/4")	
2.	105-340	6	FLG LOCKNUT (3/4-NC)	
3.	105-371	6	BOLT (3/4-NC X 6-1/2")	
4.	314-531	1	PIVOT CLAMP	
5.	314-532	1	WEAR STRIP	

FOOTNOTES

# SPOILS FLAP M750 M552

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-115	1	JAM NUT (5/16-NF)	
2.	105-213	1	NUT (5/16-NF)	
3.	105-512	1	COTTER PIN (3/32" X 3/4")	
4.	105-826	2	FLG LK BOLT (3/8-NC X 1.00")	
5.	110-150	1	CLEVIS PIN (5/16" X 1")	
6.	115-480	1	GRIP RING (.750")	
7.	115-780	1	KLIP RING (.625")	
8.	116-351	1	BUMPER	
9.	160-335	1	BALL JOINT (5/16-NF)	
10.	184-048	1	BUSHING	
11.	196-124	1	CABLE	
12.	314-526	1	ARM	
13.	312-612	1	SPOILS FLAP	
14.	105-359	AR	WASHER (5/8")	

FOOTNOTES

# HEADSHAFT

## M552

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	311-318	1	IDLER ADJUSTING PLATE	
2.	110-112	AR	MACHINERY BUSHING (1.000")	
3.	181-394	1	SPACER	
4.	125-282	1	TAPERED BEARING/RACE (1.000")	
5.	175-628	1	IDLER SPROCKET (100A14)	
6.	115-009	1	ZERK (1/4-NF, STR)	
7.	181-495	1	SPACER	
8.	105-368	1	BOLT (1-NC X 5", GD8)	
9.	130-452	1	ROLLER CHAIN (#100, 70 P)	
	130-401		CONNECTOR LINK (#100)	
	130-402		OFFSET LINK (#100)	
	130-409		ROLLER LINK (#100)	
10.	145-476	1	WASHER (5", NYLON)	
11.	105-961	2	BOLT (3/4-NC X 2")	
12.	105-423	2	WASHER (3/4")	
13.	110-211	4	MACHINERY BUSHING (2.250")	
14.	175-633	1	DRIVE SPROCKET (100B32)	STANDARD
	100-803	1	DRIVE SPROCKET KIT (100B32)	INCL REF NO.'S 1-9 & 14
15.	184-027	2	SEAL SPACER	
16.	145-475	2	WASHER (3", NYLON)	
17.	155-805	2	INTERNAL SEAL (3")	
18.	125-259	2	TAPERED BEARING (2.25")	
19.	125-258	2	TAPERED RACE (4.125")	
20.	180-071	2	PIVOT BEARING BACKUP	
21.	167-275	1	HEADSHAFT (12")	
22.	105-970	8	FLG LK BOLT (5/8-NC X 1-3/4")	
23.	105-497	16	CAM WASHER (5/8")	
24.	105-961	1	BOLT (3/4-NC X 2")	
25.	105-423	1	WASHER (3/4")	
26.	110-058	AR	MACH BSHG (1.000", 18GA)	
27.	110-078	AR	MACH BSHG (1.000", 14GA)	
28.	105-384	AR	WASHER (3/4")	
29.	142-009	1	SPROCKET (3.067"A10)	
30.	181-499	1	SPROCKET HUB	

NOT SHOWN:

FOOTNOTES:

NOTE:

# HYDRAULICS

# PLOW LIFT HYDRAULICS

## M530 5110

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	514-017	2	CONNECTOR (040-08S, ORF)	
2.	154-276	2	CONNECTOR (040-08S90)	
3.	515-257	1	HOSE (040FX90S-54"-3000)	
4.	151-085	1	CYL (3.5" X 1.75" X 16")	
5.	117-714	2	ABRASION SLEEVE (1.00" X 54")	
6.	515-180	1	HOSE (040FX-48"-3000)	
7.	154-911	2	HOSE (040FX-36"-3000AR)	
8.	154-335	2	CONNECTOR (040-040)	
9.	117-676	2	ABRASION SLEEVE (1.00" X 30")	
10.	110-248	2	CABLE TIE (1/16" TO 1-1/4")	

NOT SHOWN:

FOOTNOTES:

**NOTE:**

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

# BLADE STEER HYDRAULICS

## M552 5110

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-261	2	CONNECTOR (040-08S)	
2.	154-911	2	HOSE (040FX-36"-3000AR)	
3.	154-335	2	CONNECTOR (040-040)	
4.	515-468	2	HOSE (040FX45-120"-3000AR)	
5.	117-195	2	ABRASION SLEEVE (1.00" X 125")	
6.	110-930	-	SPIRAL WRAP (1-1/2", SOLD PER 1')	SEE FOOTNOTE 1
7.	154-424	2	BK RUN TEE (040-040-040BK)	
8.	154-701	2	HOSE (040FX-14"-3000)	
9.	117-194	2	ABRASION SLEEVE (1.00" X 16")	
10.	154-252	4	CONNECTOR (04S-04090)	
11.	154-668	2	HOSE (040FX-32"-3000)	
12.	117-718	2	ABRASION SLEEVE (1.00" X 36")	
13.	151-057	2	CYL (2" X 1.25" X 8")	

### FOOTNOTES

1. SEE PARTS PAGE TITLED "VIBRATOR DRIVE HYDRAULICS" FOR THE M552.

### NOTE:

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

# TRENCH CLEANER HYDRAULICS

## M512

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	100-005		HYD CLEANER KIT 42" TUBE	
	100-006		HYD CLEANER KIT 54.5" TUBE	
	100-007		HYD CLEANER KIT 67" & 92" TUBE	
1.	151-032	1	CYL (2" X 1.25" X 12")	
2.	125-800	2	COMPOSITION BUSHING (1.000")	
3.	154-252	2	CONNECTOR (04S-04090)	
4.	154-811	1	HOSE (040FX-116"-3000)	USE WITH KIT NO. 100-006
	155-487	1	HOSE (040FX-106"-3000)	USE WITH KIT NO. 100-005
	154-950	1	HOSE (040FX-150"-3000)	USE WITH KIT NO. 100-007
5.	154-742	1	HOSE (040FX-130"-3000)	USE WITH KIT NO. 100-006
	154-811	1	HOSE (040FX-116"-3000)	USE WITH KIT NO. 100-005
	515-090	1	HOSE (040FX-180"-3000)	USE WITH KIT NO. 100-007
6.	115-320	1	GROMMET (1-1/2")	
7.	154-695	2	HOSE (040FX-38"-3000)	
8.	110-270	2	BOLT-ON CLAMP (9/16", HALF)	
9.	154-285	2	CONNECTOR (040-04045)	
10.	311-223	1	BACKUP SPACER	
11.	105-047	1	LOCKNUT (3/8-NC)	
12.	105-070	2	LOCKNUT (1/2-NC)	
13.	305-256	1	BACKUP SPACER	
14.	105-162	1	BOLT (3/8-NC X 2-1/4")	
15.	105-002	2	BOLT (1/2-NC X 2-1/4")	
16.	110-031	2	CABLE TIE (1-1/2" TO 7")	
17.	110-030	10	CABLE TIE (1/16" TO 4")	
18.	154-223	2	CONNECTOR (040-08S45)	
19.	154-261	2	CONNECTOR (040-08S)	
20.	155-990	2	QDC ADAPTER (08-08SF)	
	190-127		SEAL REPAIR KIT	
21.	155-989	2	QDC BODY (08S-08SF)	
	190-127		SEAL REPAIR KIT	
22.	154-222	2	CONNECTOR (060-08S)	
23.	154-826	2	HOSE (060FX-12"-3000)	
24.	311-320	1	PIGTAIL	

### FOOTNOTES

1. KIT INCL REF NO.'S 1-8, 10-24.

### NOTE

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

## TRENCH CLEANER CYLINDERS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	150-034		CYL (2" X 1.18" X 22.062")	SHOE, INCL REF NO'S 1-3 & 6-8; SEE FOOTNOTE 5
	150-035		CYL (2.0" X 1.5" X 12.187")	SLIDE, INCL REF NO'S 1-3 & 6-8; & SEE FOOTNOTE 5
	150-086		CYL (2.0" X 1.18" X 8.6")	SHOE, INCL REF NO'S 1-3 & 6-8; SEE FOOTNOTE 6
	150-109		CYL (2.0" X 1.18" X 17.68")	TRENCH CLEANER, INCL REF NO'S 1-3 & 6-8
1.	150-155	1	CYLINDER BARREL	SHOE; SEE FOOTNOTE 6
	150-158	1	CYLINDER BARREL	SLIDE; SEE FOOTNOTE 5
	150-210	1	CYLINDER BARREL	SHOE; SEE FOOTNOTE 5
	150-225	1	CYLINDER BARREL	
2.	150-325	1	CYLINDER ROD	SHOE; SEE FOOTNOTE 5
	150-326	1	CYLINDER ROD	SLIDE; SEE FOOTNOTE 5
	150-356	1	CYLINDER ROD	SHOE; SEE FOOTNOTE 6
	150-372	1	CYLINDER ROD	
3.	150-831	1	CYLINDER HEAD	SLIDE; SEE FOOTNOTE 3 & 5
	150-796	1	CYLINDER HEAD	SLIDE; SEE FOOTNOTE 4 & 5
	150-850	1	CYLINDER HEAD	SHOE; SEE FOOTNOTE 3 & 6
	150-800	1	CYLINDER HEAD	SHOE; SEE FOOTNOTE 4 & 6
	150-863	1	CYLINDER HEAD	SHOE; SEE FOOTNOTE 3 & 5
	150-802	1	CYLINDER HEAD	SHOE; SEE FOOTNOTE 4 & 5
	150-842	1	CYLINDER HEAD	SEE FOOTNOTE 3
	150-798	1	CYLINDER HEAD	SEE FOOTNOTE 4
4.	150-904	1	SMOOTH BACKUP PISTON	SEE FOOTNOTE 7
5.	150-906	1	GROOVED PISTON	SEE FOOTNOTE 7
6.	150-912	1	LOCK RING (2")	
7.	190-101	1	SEAL REPAIR KIT	SEE FOOTNOTE 1
	190-158	1	SEAL REPAIR KIT	SEE FOOTNOTE 2
8.	150-999	1	PISTON	SEE FOOTNOTE 7 & 8
NOT SHOWN:				
	259-100		ROD U-SEAL INSTALLER	
	259-310		PISTON SEAL INSTALLATION TOOL	

## FOOTNOTES

- THIS SEAL REPAIR KIT IS NO LONGER AVAILABLE. USE SEAL REPAIR KIT 190-158.
- USE ROD O-RING AND BACKUP COMBINATION FOR CYLINDER HEADS WITH .208" INTERNAL GROOVE. USE ROD U-SEAL FOR HEADS WITH .28" INTERNAL GROOVE. REFER TO INSTALLATION DIAGRAM 050-023 AND PISTON REPLACEMENT DIAGRAM 052-144.
- THIS HEAD HAS .208" INTERNAL GROOVE DESIGNED FOR USE WITH O-RING AND BACKUP RING COMBINATIONS. THIS HEAD IS REPLACED BY HEAD WITH .28" INTERNAL GROOVE AND ROD U-SEAL.
- THIS HEAD HAS .28" INTERNAL GROOVE DESIGNED FOR USE WITH ROD U-SEAL.
- THESE CYLINDERS ARE USED ON DOUBLE CYLINDER ACTION TRENCH CLEANERS.
- USED ON AR12/R100DA WITH SINGLE CYLINDER ACTION TRENCH CLEANERS.
- SINGLE PIECE 2" PISTON (REF NO 8) REPLACES TWO PIECE 2" PISTON (REF NO'S 4 & 5).
- ADDED O-RING TO FACE OF PISTON. P/N 157-050 (216 D70) WILL BE INCLUDED IN SEAL REPAIR KIT.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: [www.heydownloads.com](http://www.heydownloads.com) by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

## HYDRAULIC CYLINDER

### 3.0" ID BARREL X 1.75" OD ROD X 12.0" STROKE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-042		CYL (3" X 1.75" X 12")	INCLUDES REF NO.'S 1 THRU 7
1.	190-172	1	SEAL REPAIR KIT (3.0" X 1.75")	
2.	150-911	1	LOCK RING (3")	
3.	150-293	1	CYLINDER BARREL	
4.	106-122	1	BOLT (7/8-NC X 2-1/4", GD8)	SEE FOOTNOTE I
5.	105-363	1	WASHER (7/8")	
6.	150-765	1	CYLINDER PISTON	INCLUDES MOLD-ON WEAR RING
7.	150-763	1	CYLINDER HEAD	
8.	150-425	1	CYLINDER ROD	

#### NOT SHOWN:

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

#### FOOTNOTES

I. CLEAN AND DRY THREADS. APPLY RED LOCTITE (RC 271 OR 277). TORQUE TO 410-460 FT-LBS (550-650 NM.)

#### NOTE:

# GREASE CYLINDERS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	151-052		GREASE CYL (2" X 1.5" X 7")	INCL REF NO.'S 3 THRU 8, SEE FOOTNOTE 1
2.	151-051		GREASE CYL (2.5" X 2.5" X 7")	INCL REF NO.'S 7 THRU 13, SEE FOOTNOTE 1
	190-178		SEAL REPAIR KIT (2.5" X 2.5")	INCL REF NO.'S 11 THRU 13
3.	152-002	1	CYLINDER BARREL (2.0")	
4.	157-078	1	O-RING (222 D70)	
5.	155-712	1	BACKUP RING (222 D90)	
6.	150-433	1	CYLINDER ROD (1.5")	
7.	115-024	1	ZERK (02N, 5000PSI)	
	115-019	1	ZERK (02N)	EARLY STYLE STANDARD CYLINDER
	115-012	1	ZERK (04N)	EARLY STYLE HEAVY DUTY CYLINDER
8.	155-016	1	RELIEF PLUG (04S)	
9.	150-627	1	CYLINDER ROD (2.5")	
10.	152-001	1	CYLINDER BARREL(2.5")	
11.	157-560	1	PISTON SEAL (1.975")	
12.	157-561	1	ROD WIPER (2.492")	
13.	157-562	1	RETAINER RING (2.625")	

NOT SHOWN:

FOOTNOTES:

- I. CYLINDER 151-051 HAS BEEN SUPERSEDED BY 150-749 AND CYLINDER 151-052 HAS BEEN SUPERSEDED BY 150-748. SEE PARTS PAGES 807-617 FOR A VIEW OF COMPONENTS BELONGING TO 150-748 AND 150-749

NOTE:

# AUGER 2P

## M552

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-021	8	NUT (1/2-NC)	
2.	105-043	4	BOLT (1/2-NC X 1-1/4")	
3.	105-391	2	BOLT (3/4-NC X 4-1/2")	
4.	105-953	4	LOCKNUT (3/4-NC)	
5.	115-001	2	ZERK (02N)	
6.	125-620	2	FLANGE BEARING (1.750")	
7.	142-031	1	AUGER SPROCKET (2.000"A14)	
8.	105-082	4	BOLT (1/2-NC X 2-1/2")	
9.	145-109	1	RIGHT AUGER	
10.	145-110	1	LEFT AUGER	
11.	145-244	1	DOUBLE AUGER SHAFT	
12.	145-245	1	SINGLE AUGER SHAFT	
13.	145-290	2	AUGER BEARING PLATE (2P)	
14.	184-076	4	ZERK GUARD BUSHING	
15.	143-021	2	ZERK GUARD	
16.	178-119	2	SPACER	
17.	184-188	1	SPACER	
18.	184-189	1	SPACER	
19.	107-314	2	BOLT (3/4-NC X 7-1/2", GD8)	
20.	105-340	2	FLANGE LOCKNUT (3/4-NC)	TORQUE TO 600 - 650 FT-LBS
21.	145-317	-	BOOM CLAMP PLATE	
22.	140-540	-	2P BOOM STUB	
23.	312-817	-	PIVOT	

NOT SHOWN:  
 181-831 1 REPLACEMENT SLEEVE SEE FOOTNOTE 1

FOOTNOTES:  
 I. USED WHEN INSTALLING ONLY ONE AUGER ON DOUBLE AUGER SHAFT.

NOTE:

## BOOM

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	140-124		BOOM PARTS ASS'Y (42.8 2P)	
	140-125		BOOM PARTS ASS'Y (58.8 2P)	
	140-330		BOOM PARTS ASS'Y (70.9 2P)	
	140-126	2	BOOM PARTS ASS'Y (83.0 2P)	
	140-129	2	BOOM PARTS ASS'Y (83.0 3P)	
1.	140-765	1	SLIDE AND STOP	FOR 2" P
	140-766	2	SLIDE AND STOP SIDE PLATE	
	140-758	1	SLIDE AND STOP	FOR 3" P
	140-751	2	SLIDE PLATE	
2.	105-367	1	LOCKNUT (1-NC)	
3.	105-419	1	BOLT (1-NC X 4")	
4.	140-114	1	BOOM (44")	
	140-267	2	SIDE PLATE	WELD-ON
	140-121	2	ROCK GUARD	WELD-ON
	140-115	1	BOOM (60.5")	
	140-120	2	SIDE PLATE	WELD-ON
	140-328	1	BOOM (70-7/8")	
	140-116	1	BOOM (83")	

# ROLLER (19" OD)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	190-183		BEARING/SEAL REPAIR KIT	
				INCL REF NO.'S 4-6, 8-11 & 13
1.	105-377	1	JAM NUT (1-1/2-NF)	
2.	115-001	1	ZERK (02N)	NON-SELF TAPPING
	115-003	1	ZERK (1/4-NF, STR)	SELF TAPPING
3.	115-152	1	PLUG (12N, SQ FM)	
4.	115-470	2	INTERNAL SNAP RING (3.250")	
5.	125-216	2	TAPERED RACE (3.265")	
6.	125-265	2	TAPERED BEARING (1.5")	
7.	142-757	1	LT ROLLER (3.067"P, 19")	
8.	145-589	2	SPACER	
9.	155-852	2	EXTERNAL SEAL (2.250")	
10.	181-697	1	BEARING SPACER	
11.	181-699	2	SEAL SLEEVE	
12.	166-437	1	TAIL SHAFT	
13.	184-067	2	SEAL SPACER	INCL REF NO.'S 2 & 3 ENDS WITH S/N

NOT SHOWN:

FOOTNOTES:

NOTE:

# PERSONNEL RESTRAINT 3" PITCH

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-473	4	BOLT (3/4-NC X 5", GD8)	
2.	105-340	4	FLG LOCKNUT (3/4-NC)	
3.	106-191	2	BOLT (5/8-NC X 6", GD8)	TORQUE TO 250 FT LBS
4.	141-040	1	3' PERSONNEL RESTRAINT BAR (60")	
	141-041	1	4' PERSONNEL RESTRAINT BAR (68")	
	141-042	1	4' PERSONNEL RESTRAINT BAR (75")	
	141-043	1	5' PERSONNEL RESTRAINT BAR (81")	
5.	141-321	1	LEFT RESTRAINT BRACKET (3P)	
6.	141-322	1	RIGHT RESTRAINT BRACKET (3P)	
7.	105-994	2	FLG LOCKNUT (5/8-NC)	

FOOTNOTES

# GREASE CYLINDER BRACKET WEAR BAR BOOMS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-340	5	FLG LOCKNUT (3/4-NC)	USE LOCTITE 609
2.	105-473	5	BOLT (3/4-NC X 5")	USE LOCTITE 609
3.	105-829	4	FLG LOCK BOLT (1/2-NC X 1")	
4.	105-884	4	WASHER (.531")	
5.	143-001	1	LEFT GREASE CYL PLATE	
6.	143-002	1	RIGHT GREASE CYL PLATE	
7.	150-749	1	GREASE CYL (2.5" X 2.5" X 7")(HD)	SEE FOOTNOTE 1
	150-748	1	GREASE CYL (2"X1.5"X7")(STD)	SEE FOOTNOTE 1
8.	183-641	1	ROD PIN	
9.	183-642	1	BARREL PIN	
10.	184-089	5	BOOM CROSSBOLE WASHER (.781")	

FOOTNOTES

- WEAR BAR BOOM PARTS ASSEMBLIES CONTAIN ALL PARTS ON THIS PAGE EXCEPT THE GREASE CYLINDER, WHICH MUST BE ORDERED SEPARATELY. REFER TO PARTS PAGE TITLED "GREASE CYLINDER".

# TRENCH CLEANER

## 2P

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	100-150		MECH CLEANER CONV KIT (ROLLER BOOM)	INCL REF NO'S 1-4,8-10,12,13 & DECAL; SEE F/N 1
	100-151		MECH CLEANER CONV KIT (STD BOOM)	
1.	105-065	3	LOCKNUT (1/2-NC)	
2.	105-071	2	WASHER (1/2")	
3.	183-179	4	PIN	
4.	105-279	2	CARRIAGE BOLT (1/2-NC X 3")	
5.	105-386	2	BOLT (5/8-NC X 4-1/2")	
	106-191	2	BOLT (5/8-NC X 6", GD8)	M552
	106-480	2	SCREW (M16-2.0 X 110mm, 10.9)	H313, H314, H514
6.	105-994	4	FLG LOCKNUT (5/8-NC)	M552 LOWER MOUNT BRACKET ONLY; TORQUE TO 650 FT-LBS
	105-340	2	FLG LOCKNUT (3/4-NC)	
	106-442	4	FLG LOCKNUT (M16-2.00,PRV TRQ)	H313, H314, H514 (2)
	106-851	2	LOCKNUT (M18-2.5)	H514 LOWER MOUNTING BOLTS
7.	106-191	2	BOLT (5/8-NC X 6", GD8)	
	105-464	2	BOLT (3/4-NC X 7", GD8)	M552
	107-337	2	SCREW (M16-2.00 X 150mm, 10.9)	H313, H314
	107-720	2	SCREW (M18-2.5 X 160mm, 10.9)	H514, SEE FOOTNOTE 4
8.	115-503	8	KLIP RING (3/4")	
9.	115-602	2	EXTENSION SPRING	EARLY STYLE
	117-008	2	EXTENSION SPRING (7.250")	
10.	141-109	2	REAR LINK	
11.	141-215	1	CLEANER SHOE 4"	
	141-134	1	CLEANER SHOE 6"	
	141-135	1	CLEANER SHOE 8"	
	141-136	1	CLEANER SHOE 10"	
	141-137	1	CLEANER SHOE 12"	
12.	141-209	1	SHOE BEAM (LTS)	ROLLER BOOMS
	141-101	1	SHOE BEAM (STD)	STANDARD BOOMS
13.	141-211	1	FRONT LINK	ROLLER BOOMS
	141-132	1	FRONT LINK	STANDARD BOOMS
14.	141-270	1	3' LOWER CLEANER BAR (2.000" P)	ROLLER BOOMS; SEE FOOTNOTE 3
	143-149	1	3' LOWER CLEANER BAR (2.000" P)	ROLLER BOOMS; SEE FOOTNOTE 2
	141-346	1	3' LOWER CLEANER BAR (2.000" P)	STANDARD BOOM; SEE FOOTNOTE 2
	141-272	1	4' LOWER CLEANER BAR (2.000" P)	ROLLER BOOMS; SEE FOOTNOTE 3
	143-151	1	4' LOWER CLEANER BAR (2.000" P)	ROLLER BOOMS; SEE FOOTNOTE 2
	141-347	1	4' LOWER CLEANER BAR (2.000" P)	STANDARD BOOM; SEE FOOTNOTE 2
	141-349	1	5' LOWER CLEANER BAR (2.000" P)	STANDARD BOOM; SEE FOOTNOTE 2
15.	141-276	1	LEFT MOUNT BRACKET	
	141-371	1	LEFT MOUNT BRACKET (12")	3610
	141-373	1	LEFT MOUNT BRACKET (16")	3610
16.	141-277	1	RIGHT MOUNT BRACKET	
	141-372	1	RIGHT MOUNT BRACKET (12")	3610
	141-374	1	RIGHT MOUNT BRACKET (16")	3610
17.	141-280	3	SUPPORT SPACER	M552
18.	106-949	4	WASHER (3/4", HARDENED)	H514, SEE FOOTNOTE 4

### FOOTNOTES:

- REFER TO INSTALLATION DIAGRAM 050-926
- H311 BEGINS WITH S/N 8K0126  
H411 BEGINS WITH S/N 3M0693  
H313
- H312, H412, H314, H514, H450, H552, M552
- EARLY PRODUCTION UNITS USED 107-688 WITH TWO HARDENED WASHERS. CURRENT PRODUCTION UNITS USE 107-720 WITH FOUR HARDENED WASHERS

### NOTE:

## DIG CHAIN 2P50K4PS RR 4 PITCH SPACING-RAISED RIVET

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-043	AR	BOLT (1/2-NC 1-1/4")	
	105-066	AR	BOLT (1/2-NC X 1-3/4")	
	105-067	AR	BOLT (1/2-NC X 2-3/4")	
	105-082	AR	BOLT (1/2-NC X 2-1/2")	
	105-229	AR	BOLT (1/2-NC X 2")	
2.	105-065	AR	LOCKNUT (1/2-NC)	
3.	135-351	AR	DIG CHAIN PIN (50K)	
4.	135-358	AR	LOCK KEY (3/32" X 1/2")	
5.	135-964	AR	TOOTH SPACER (1/4")	
6.	135-952	AR	CHAIN SPACER	
7.	135-912	AR	TOOTH ADAPTER (8")	
	135-950	AR	TOOTH ADAPTER (10")	
	135-913	AR	TOOTH ADAPTER (12")	
	135-914	AR	TOOTH ADAPTER (16")	
8.	135-924	AR	LEFT DIGGING TOOTH	OBSOLETE
	135-1233	AR	DURATOOTH, LEFT 1/4 50K	
	135-1234	AR	DURATOOTH C2X, LEFT 1/4 50K	
9.	135-925	AR	RIGHT DIGGING TOOTH	OBSOLETE
	135-1236	AR	DURATOOTH, RIGHT 1/4 50K	
	135-1237	AR	DURATOOTH C2X, RIGHT 1/4 50K	
10.	136-137	AR	LH 2.000 VEE TEETH	OBSOLETE
11.	136-138	AR	RH 2.000 VEE TEETH	OBSOLETE
12.	138-203	AR	ROLLER LINK (50K)	
13.	138-210	AR	DIG CHAIN - 4P (2' 0")	LESS TEETH
	138-211	AR	DIG CHAIN - 4P (2' 8")	LESS TEETH
	138-212	AR	DIG CHAIN - 4P (4' 0")	LESS TEETH
	138-213	AR	DIG CHAIN - 4P (11' 4")	LESS TEETH
	138-214	AR	DIG CHAIN - 4P (12' 0")	LESS TEETH
14.	138-370	AR	MASTER LINK KIT-TOOTH (50K)	
15.	138-380	AR	MASTER LINK KIT-TOOTH (50K)	INCL REF NO'S 3, 4 AND 15
16.	136-031	AR	CHAIN SPACER (.650")	
17.	136-032	AR	CHAIN SPACER (1.200")	
18.	105-002	AR	BOLT (1/2-NC 2-1/4")	
	105-076	AR	BOLT (1/2-NC X 3")	
	105-111	AR	BOLT (1/2-NC X 4")	
	105-275	AR	BOLT (1/2-NC X 6")	

NOT SHOWN:

FOOTNOTES:

NOTE:

## PRM CHAIN ALGTR 3P70K2PS RR PR 2 PITCH SPACING-BOLT ON-RAISED RIVET

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-322	AR	BOLT (3/4-NC X 5-1/2")	USE WITH TWO (2) ADAPTERS ON OUTSIDE
2.	105-365	AR	BOLT (3/4-NC X 4")	USE WITH ADAPTER ON INSIDE
3.	105-372	AR	LOCKNUT (3/4-NC)	
4.	105-391	AR	BOLT (3/4-NC X 4-1/2")	
5.	135-1187	AR	70K PREMIUM REPAIR STATION KIT	
6.	136-008	AR	RETAINER RING	
7.	139-701	AR	2'-1" CHAIN (8 P)	LESS ADAPTERS
	139-702	AR	4'-1" CHAIN (16 P)	LESS ADAPTERS
	139-707	AR	14'-6" CHAIN (56 P)	LESS ADAPTERS
	139-704	AR	16'-1" CHAIN (62 P)	LESS ADAPTERS
8.	136-100	AR	BIT (CARBIDE CAP)	INCL REF NO 17
	136-101	AR	BIT (CARBIDE INSERT)	INCL REF NO 17
	136-102	AR	HEAVY DUTY BIT (CARBIDE INSERT)	INCL REF NO 17
9.	135-973	AR	BIT ADAPTER	LEFT OUTSIDE
10.	135-974	AR	BIT ADAPTER	RIGHT OUTSIDE
11.	135-975	AR	BIT ADAPTER	LEFT INSIDE AND RIGHT OUTSIDE
12.	135-976	AR	BIT ADAPTER	RIGHT INSIDE AND LEFT OUTSIDE
13.	135-979	AR	CHAIN SPACER (2.156")	USED WITH ONE OR TWO ADAPTERS ON OUTSIDE
14.	135-980	AR	CHAIN SPACER (1.405")	USED WITH ONE ADAPTER INSIDE
15.	137-501	AR	DIG CHAIN PIN (70K)	
16.	135-402	AR	LOCK KEY (5/16" X 3/4")	

## NOT SHOWN:

259-001 BIT PULLER - HAMMER  
 259-002 BIT PULLER - SLIDE HAMMER  
 259-150 BIT PUNCH - SLIDE HAMMER  
 259-140 CHAIN JAWS (1-1/8" DRIVE)  
 135-957 BIT BLOCK

FOR REF NO.'S 9-12

## FOOTNOTES:

## NOTE:

FOR PARTS AND PATTERN FOR A SPECIFIC CHAIN REFER TO THE CHAIN GUIDE 050-700. REFER TO BOOM, CHAIN AND CLEANER OPTIONS 052-190 FOR RECOMMENDED COMBINATIONS OF CHAIN AND BOOM.

## ALLIGATOR CHAIN 3P 110K 2PS 2 PITCH SPACING-WELD ON-RAISED RIVET

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	135-402	AR	LOCK KEY (5/16" X 3/4")	
2.	138-491	AR	ROLLER LINK (110K)	
3.	136-105	AR	CAP BIT (4.5", 6", 9.5" SEG)	OBSOLETE, INCL REF NO 5 (CARBIDE CAP)
	131-290	AR	FLARED CAP BIT	
	136-106	AR	INSERT BIT	OBSOLETE, INCL REF NO 5 (HEAVY DUTY CARBIDE INSERT)
	136-222	AR	INSERT BIT	
4.	136-107		BIT BLOCK	
5.	136-108	AR	RETAINER RING	
6.	136-140	AR	NO.1 TOP PLATE ASSEMBLY	
7.	136-141	AR	NO.2 TOP PLATE ASSEMBLY (RH)	
	136-142	AR	NO.2 TOP PLATE ASSEMBLY (LH)	
8.	136-143	AR	NO.3 TOP PLATE ASSEMBLY (RH)	
	136-144	AR	NO.3 TOP PLATE ASSEMBLY (LH)	
9.	136-145	AR	NO.4 TOP PLATE ASSEMBLY (RH)	
	136-146	AR	NO.4 TOP PLATE ASSEMBLY (LH)	
10.	136-147	AR	BLOCK PLATE ASSEMBLY (RH)	
	136-148	AR	NO.5 TOP PLATE ASSEMBLY (LH)	
11.	136-149	AR	NO.6 TOP PLATE ASSEMBLY (D)	
	136-150	AR	NO.7 TOP PLATE ASSEMBLY (D)	
12.	137-401	AR	DIG CHAIN PIN (110K)	
13.	138-492		WELD-ON SIDEBAR-KEY (110K)	OBSOLETE, KEYSIDE, SLOTTED HOLES
14.	138-493		WELD-ON SIDEBAR-HEAD (110K)	OBSOLETE, HEAD SIDE, ROUND HOLES
15.	138-494	AR	DIG CHAIN WELD-ON-2P (1' 6")	LESS BITS
	138-495	AR	DIG CHAIN WELD-ON-2P (2' 1")	LESS BITS
	138-498	AR	DIG CHAIN WELD-ON-2P (14' 4")	LESS BITS

## NOT SHOWN:

259-001	BIT PULLER - HAMMER
259-002	BIT PULLER - SLIDE HAMMER
259-140	CHAIN JAWS (1-1/8" DRIVE)
259-150	BIT PUNCH - SLIDE HAMMER

## FOOTNOTES:

## NOTE:

FOR PARTS AND PATTERN FOR A SPECIFIC CHAIN REFER TO THE CHAIN GUIDE 050-700. REFER TO BOOM, CHAIN AND CLEANER OPTIONS 052-190 FOR RECOMMENDED COMBINATIONS OF CHAIN AND BOOM.

## SPECIAL TOOLS - ALIG BIT PUNCH

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	259-150		BIT PUNCH - SLIDE HAMMER	INCL REF NO.'S 1 THRU 8
1.	105-708	2	SET SCREW (3/8-NC X 3/8", NLK)	
2.	105-964	1	WASHER (.656")	
3.	105-994	1	FLG LOCKNUT (5/8-NC)	
4.	183-072	1	SLIDE HAMMER ROD	
5.	259-003	1	SLIDE HAMMER	
6.	259-151	1	HEAVY BIT PUNCH-SLIDE HAMMER	
7.	259-152	1	LIGHT BIT PUNCH-SLIDE HAMMER	
8.	259-153	1	PUNCH ADAPTER-SLIDE HAMMER	
9.	105-357	1	LOCKNUT (5/8-NC)	

FOOTNOTES

NOTE:

# SAE Bolt and Nut Torque Value Chart

## Grade 5: UNC or UNF Thread

Size	Hex nut, or bolt tapped into hex nut, or d&t hole		Hex top deformed locknut		Flange nut, locknut, or bolt tapped into flange nut or d&t* hole	
	ft•lb	N•m	ft•lb	N•m	ft•lb	N•m
1/4	12	16	8	11	20	27
5/16	25	34	15	20	45	60
3/8	40	54	25	34	75	100
7/16	65	90	40	55	125	170
1/2	100	135	60	80	190	260
9/16	150	200	90	125	270	370
5/8	200	270	120	165	370	500
3/4	350	475	210	285	650	880
7/8	560	760	340	460	1250	1425
1	840	1140	500	680	1580	2145
1-1/8	1030	1400	320	840	1950	3645
1-1/4	1460	1980	880	1195	2760	3475

## Grade 8: UNC or UNF Thread

Size	Hex nut, or bolt tapped into hex nut, or d&t hole		Hex top deformed locknut		Flange nut, locknut, or bolt tapped into flange nut or d&t* hole	
	ft•lb	N•m	ft•lb	N•m	ft•lb	N•m
1/4	14	19	10	14	24	33
5/16	30	40	18	25	50	70
3/8	55	73	35	50	90	125
7/16	85	115	50	70	140	190
1/2	130	175	80	110	220	300
9/16	190	260	110	150	310	420
5/8	260	355	160	245	430	585
3/4	450	610	270	365	750	1015
7/8	730	990	440	600	1210	1640
1	1090	1480	650	880	1320	2465
1-1/8	1550	2100	930	1260	2580	3500
1-1/4	2180	2955	1310	1780	3640	4935

\*drilled and tapped

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: [www.heydownloads.com](http://www.heydownloads.com) by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL