

CHALLENGER[®]



OWNER'S MANUAL

4700 SERIES

INSTALLATION, OPERATION, MAINTENANCE & PARTS

**NOTE: MANUAL including SPECIFICATIONS, subject to change without notice
All ratings specified are based on structural factors only,
not vehicle capacities or capabilities.**

CHALLENGER[®]

Miller Industries Towing Equipment Inc.
8503 Hilltop Drive
Ooltewah, Tennessee 37363

FORM NO. 0500745
02 / 95

Phone (423) 238-4171 • FAX (423) 238-5371

PRICE \$25.00

LIMITED WARRANTY

MILLER INDUSTRIES TOWING EQUIPMENT INC., hereinafter referred to as MILLER, warrants to the original purchaser that each new MILLER wrecker or other MILLER products will be free from defects in material and workmanship for a period of twelve (12) months from date placed in service, but in no event shall such warranty period exceed twenty-four (24) months from date of manufacture by MILLER. The purchaser must promptly notify MILLER in writing of any failure in material or workmanship. In no event shall MILLER accept such notification later than twenty-four (24) months from date of delivery or twelve (12) months from date placed in service, whichever is earlier.

MILLER's obligation under this warranty, statutory or otherwise, is limited to the repair or replacement at the MILLER factory, or at a point designated by MILLER, of such part or parts as shall appear upon inspection by MILLER to be defective in material or workmanship. New or remanufactured parts will be used for any replacement at MILLER's option. This warranty is not transferable. This warranty does not obligate MILLER to bear the cost of labor or transportation charges in connection with the repair or replacement of any parts found to be defective, nor shall it apply to a product upon which repairs or alterations have been made unless authorized by MILLER.

EXCEPT AS EXPRESSLY SET FORTH IN THIS WARRANTY, MILLER MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND HEREBY DISCLAIMS ALL OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. MILLER shall in no event be liable for claimed downtime, claimed loss of profits or goodwill, or any other special, incidental, indirect, or consequential damages concerning or relating to any product or parts, whether based on negligence, strict liability, breach of contract, breach of warranty, misrepresentation or any other legal theory, regardless of whether the loss resulted from any general or particular requirement which MILLER knew or had reason to know about at the time of sale.

MILLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE FINISHED PRODUCTS MANUFACTURED OR SUPPLIED BY ANOTHER MANUFACTURER AND SUPPLIED BY MILLER TO PURCHASER, including, but not limited to, any vehicle to which a MILLER product may be affixed or any accessories or wire rope, and MILLER EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AS TO SUCH EQUIPMENT OR PRODUCTS. This language shall in no way affect or diminish the rights of the purchaser to rely on such warranties as are extended by such manufacturers or suppliers. MILLER shall, to the extent permitted under applicable law, pass on to the purchaser such manufacturer's or seller's warranty.

MILLER, whose policy is one of continuous improvement, reserves the right to improve its products through changes in design or materials as it may deem desirable without being obligated to incorporate such changes in products previously sold. This warranty is not intended to cover or include the following items, which are set forth by way of example and not limitation:

- A. Normal deterioration of trim, paint, lettering, and appearance items due to wear or exposure to weather, road conditions, road treatments, etc.
- B. Any damage or defect due to accident, misuse, abuse, improper or unauthorized repairs, failure to provide reasonable and necessary maintenance, or uses for which the equipment was not designed or intended.
- C. Alterations or modifications that affect performance, operation or reliability.
- D. Normal maintenance parts including, but not limited to, wear pads, bushings, wire rope, mud flaps, fenderettes, light bulbs, hydraulic oil, filters, and tow sling belts.

IT IS EXPRESSLY UNDERSTOOD THAT MILLER MAKES NO IMPLIED WARRANTY THAT MILLER PRODUCTS SHALL BE FIT FOR THE PURPOSE OF LIFTING OR MOVING PEOPLE OR FOR ANY OTHER IMPROPER USE.



Miller Industries Towing Equipment Inc.
8503 Hilltop Drive
Ooltewah, Tennessee 37363

SERIAL NUMBER

Telephone (423) 238-4171

Section VI - PARTS

This Section is provided by the manufacturer for the purpose of ordering any component part of the **CHALLENGER 4700 Series Wrecker** that may be required when part replacement is necessary. Be certain to use only original equipment replacement parts for warranty purposes as well as for keeping your **CHALLENGER 4700 Series Wrecker** in its original state and optimum operating capacities.

When ordering replacement or spare parts be sure to provide the following information to the manufacturer's **Parts Department**.

1. **Manual Number & Date of Publication**
2. **Manual Page Number**
3. **Page Title**
4. **Reference Number of Part Desired**
5. **Part Number**
6. **Part Description**
7. **Quantity of Part Desired**

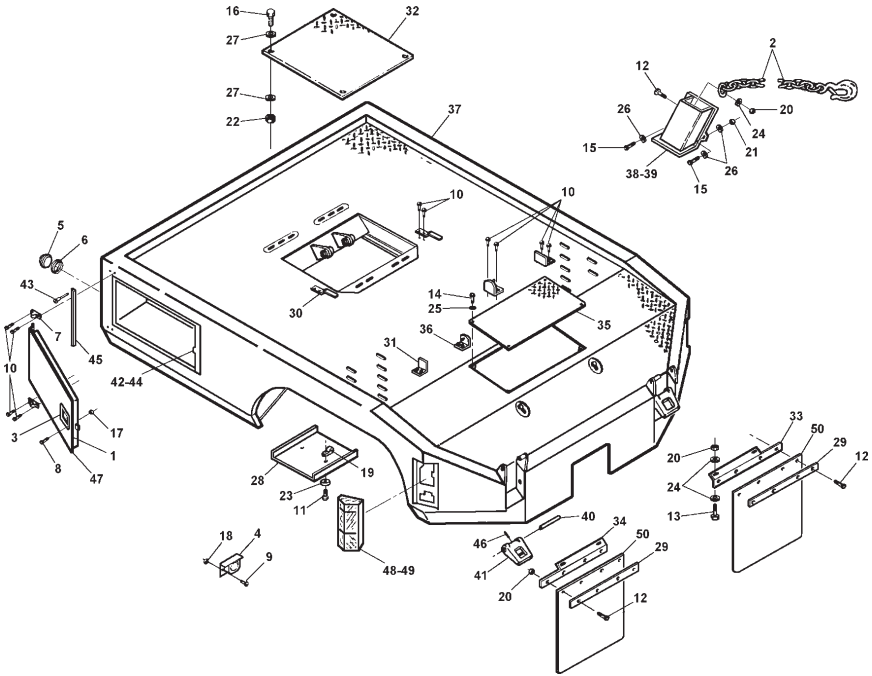
Providing this information will help ensure that the correct parts will be delivered to you in an expedient manner without delay. Should additional information be required for repair or replacement of certain components, contact your Wrecker Manufacturer Authorized Representative.

The Manufacturer reserves the right, without notice or obligation, to improve or modify their products, which may change the specifications, models and feature availability.

Section VI - PARTS

4700 SERIES BODY ASSEMBLY

(Continued on Page VI-4)



Section VI - PARTS

4700 SERIES BODY ASSEMBLY

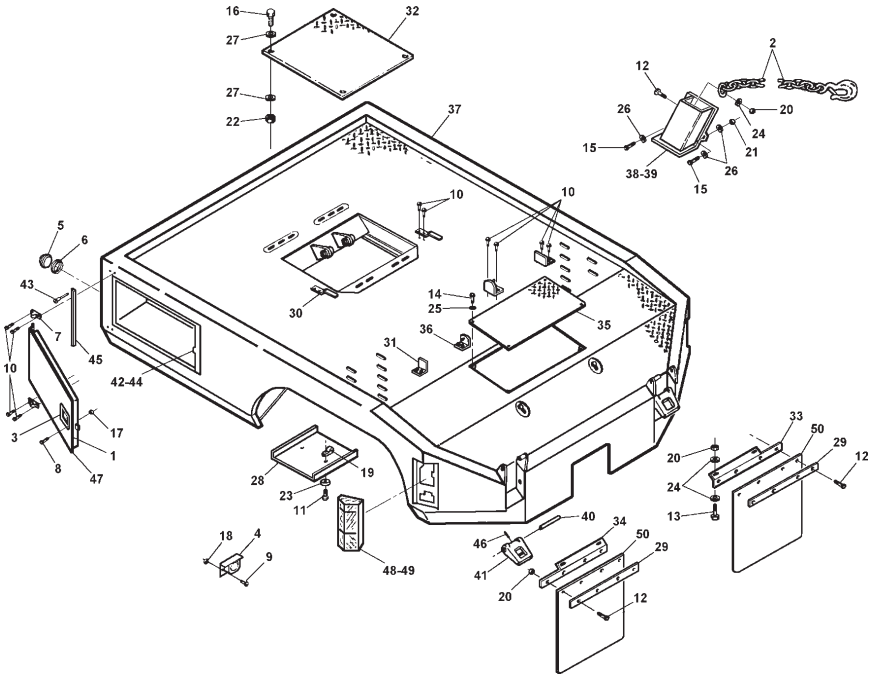
(Continued on Page VI-5)

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	8 FT.*	0300844	SPONGE, 3/4" X 1/8" W/ ADHBK
2	2	0301932	5/16" X 10' CHAIN ASSEMBLY
3	1*	0302855	LATCH, TOOL COMPARTMENT DOOR
4	1	0303061	BACK UP ALARM
5	2	0303126	LIGHT, SEALED MARKER, AMBER
6	2	0303127	GROMMET, MARKER LIGHT
7	2*	0304264	HINGE, DOOR
8	4*	0400021	SCREW, #8-32 X 1/2" RD HD PHILLIPS
9	2	0400057	SCREW, 1/4-20 X 1-1/4" HEX HD CAP
10	16	0400062	SCREW, 1/4"-20 X 3/4" TYPE "F" THD CUT
11	4	0400066	SCREW, 1/4-20 X 3/4" HEX HD CAP
12	10	0400122	SCREW, 3/8"-16 X 1-1/4" HEX HD CAP
13	4	0400126	SCREW, 3/8"-16 X 1" HEX HD CAP
14	4	0400154	SCREW, 3/8"-16 X 1/2" HEX HD CAP
15	4	0400181	SCREW, 1/2"-13 X 1-1/2" HEX HD CAP
16	4	0400284	SCREW, 3/4"-10 X 2-1/4" HEX HD CAP
17	4*	0400351	NUT & STAR WASHER, #8-32 HEX
18	2	0400367	NUT, 1/4"-20 NYLOK HEX
19	4	0400370	CLIP, 1/4" "U" TYPE TINNEMAN
20	14	0400392	NUT, 3/8"-16 NYLOK HEX
21	4	0400408	NUT, 1/2"-13 NYLOK HEX
22	4	0400430	NUT, 3/4"-10 NYLOK HEX
23	4	0400452	LOCKWASHER, 1/4" HELICAL
24	10	0400480	WASHER, 3/8" FLAT
25	4	0400482	LOCKWASHER, 3/8" HELICAL
26	8	0400492	WASHER, 1/2" FLAT

Section VI - PARTS

4700 SERIES BODY ASSEMBLY

(Continued from Page VI-2)

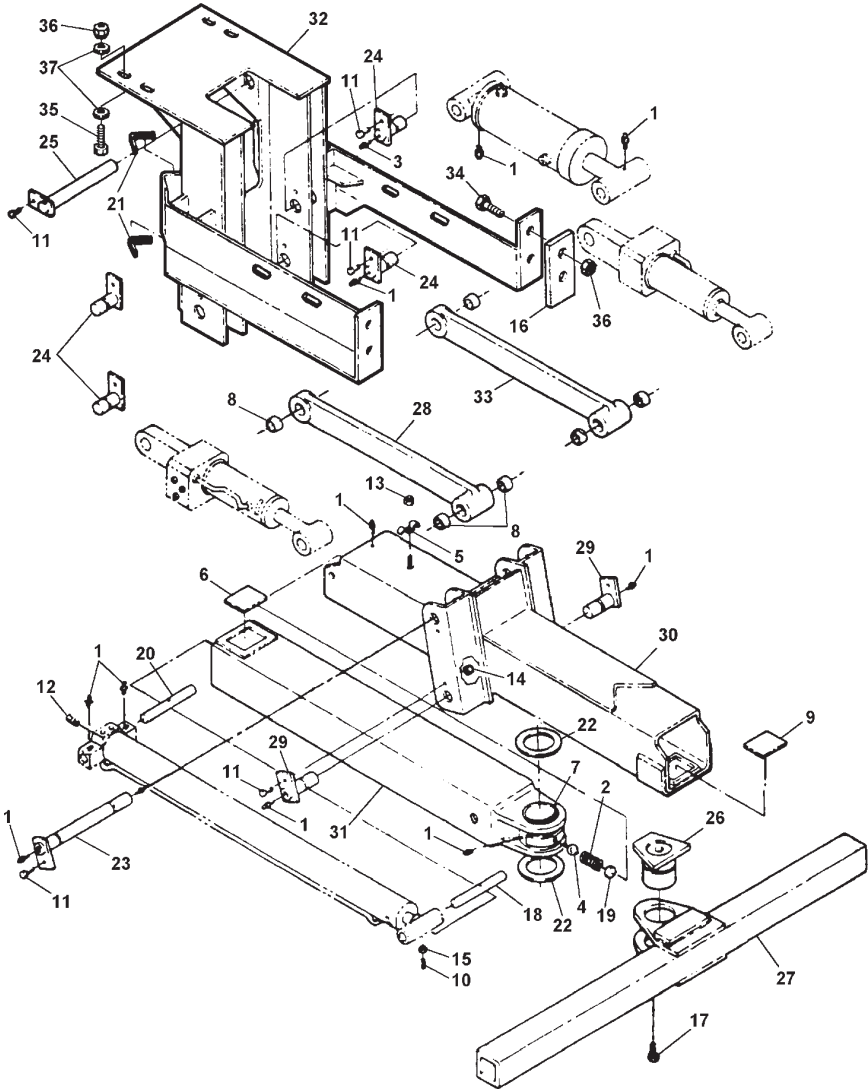


Section VI - PARTS
4700 SERIES BODY ASSEMBLY
(Continued from Page VI-3)

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
27	8	0400510	WASHER, 3/4" FLAT
28	2	0704516	GUARD, CONTROL STATION
29	2	0705092	BAR, MUDFLAP
30	2	0707510	BRACKET, STORAGE
31	2	0707522	STORAGE ANGLE
32	1	0708084	COVER (4705 ONLY)
33	1	0708809	MUDFLAP MOUNTING ANGLE, RIGHT
34	1	0708810	MUDFLAP MOUNTING ANGLE, LEFT
35	1	0708953	ACCESS COVER, VALVE
36	2	0802184	STORAGE BRACKET
37	1	0802686	BODY WELDMENT, 60 C.A. - LT BOX ONLY
		0803008	BODY WELDMENT, 60 C.A. - LT & RT BOX
38	1	0802687	LT CHAIN BOX WELDMENT
39	1	0802688	RT CHAIN BOX WELDMENT
40	2	BA0259	PIN, "D" RING
41	2	BA0283	"D" RING
42	1*	CP285	PLATE, LATCH RETAINER
43	4*	DE1580	RIVET, 5/16" X 3/8" RBL
44	--	H25163	PLATE, ADJUSTMENT, DOOR KEEPER ASSY
45	1*	HB73	ANGLE, DOOR SPLASH GUARD
46	2	HD0106	SPRING PIN, 1/4" X 1-3/4"
47	1*	HF56	SMALL DOOR WELDMENT
48	1	JH71	TAILLIGHT, RIGHT
49	1	JH72	TAILLIGHT, LEFT
50	2	VA0587	MUDFLAP, BLACK W/ RWL

Section VI - PARTS (cont'd)

I-400 WHEEL LIFT ASSEMBLY



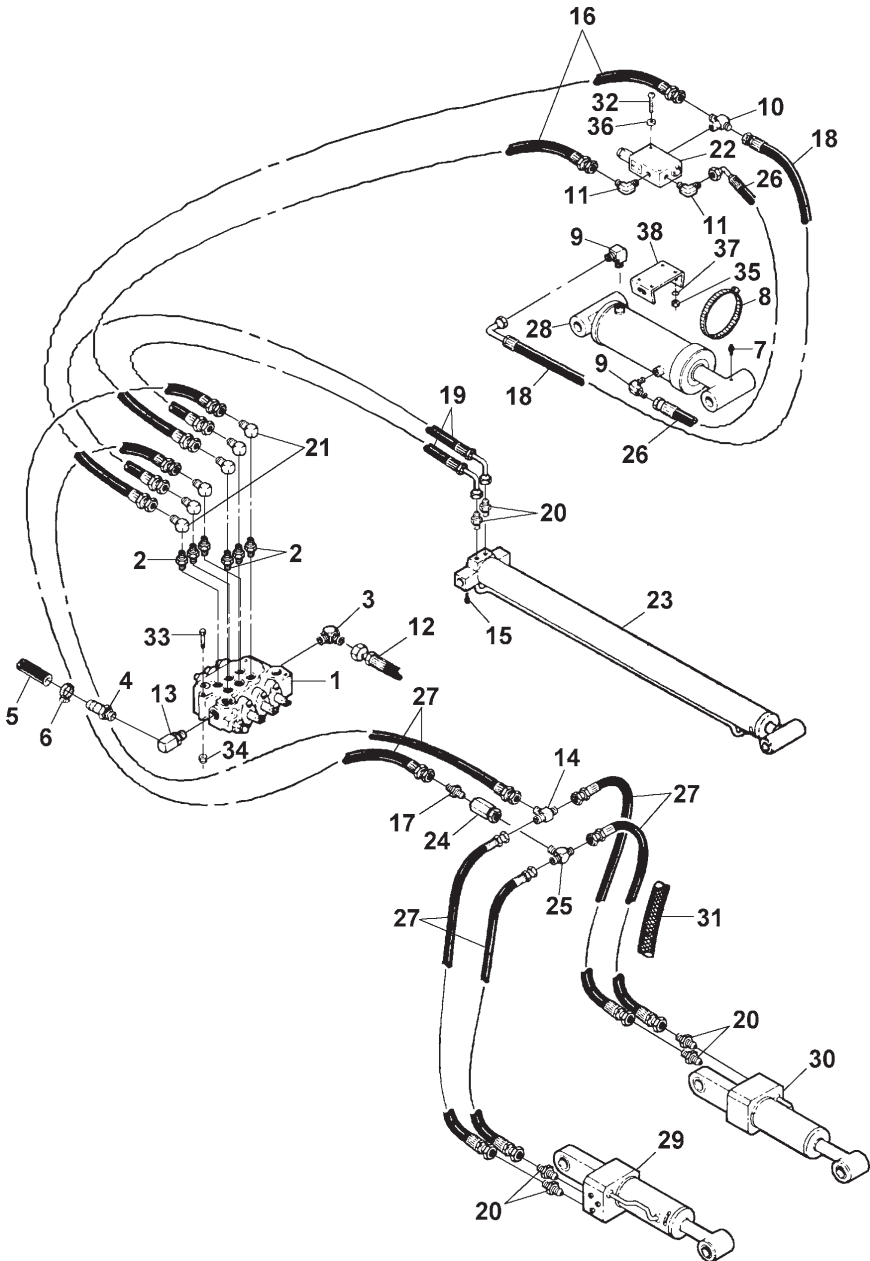
Section VI - PARTS (cont'd)

I-400 WHEEL LIFT ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	11	0300113	GREASE FITTING, ALEMITE
2	1	0301197	SPRING, DETENT
3	2	0301397	GREASE FITTING, ALEMITE
4	1	0301398	BALL, DETENT
5	2	0301601	CLAMP
6	1	0301850	SLIDE PAD, NYLATRON
7	1	0301914	BUSHING
8	6	0303016	BUSHING
9	1	0303018	SLIDE PAD, NYLATRON
10	1	0400139	SCREW, 3/8"-16 X 1-1/2" ALLEN HD SET
11	8	0400141	SCREW, 3/8"-16 X 7/8" HEX HD CAP SET
12	1	0400353	SCREW, 3/8"-16 X 3/4" CUP PT ALLEN HD
13	1	0400366	NUT, 1/4"-20 HEX
14	8	0400392	NUT, 3/8"-16 NYLOK HEX
15	1	0400398	NUT, 3/8"-16 HEX JAM
16	*	0701941	WHEEL LIFT MOUNTING SPACER
17	2	0701956	SCREW, 1/2"-13 X 1" HEX HD CAP
18	1	0702131	SHAFT, CYLINDER
19	1	0702546	SPACER, DETENT BALL
20	1	0703345	SHAFT, EXTEND CYLINDER
21	4	0703422	HOSE GUARD
22	2	0703640	THRUST WASHER
23	1	0801009	UPPER SHAFT WELDMENT, BOOM
24	4	0801011	SHAFT WELDMENT, ARM
25	1	0802820	PIN WELDMENT, LIFT CYLINDER BASE
26	1	0801073	PIN, CROSSTUBE PIVOT
27	1	0802310	CROSSBAR, INNER WELDMENT
28	2	0801157	UPPER ARM WELDMENT
29	2	0801448	LOWER SHAFT WELDMENT, BOOM
30	1	0801687	OUTER BOOM WELDMENT
31	1	0802480	INNER BOOM WELDMENT
32	1	0802610	FRAME WELDMENT
33	2	0902835	UPPER ARM ASSY - INCLUDES ITEMS 8 & 28
--	--	0902835	WHEEL LIFT MOUNTING HARDWARE
34	4	0400260	SCREW, 5/8"-11 X 2" HEX HD CAP
35	4	0400264	SCREW, 5/8"-11 X 2-1/4" HEX HD CAP
36	8	0400421	NUT, 5/8"-11 NYLOK HEX
37	8	0400506	WASHER, 5/8" FLAT

Section VI - PARTS (cont'd)

I-400 WHEEL LIFT HYDRAULICS



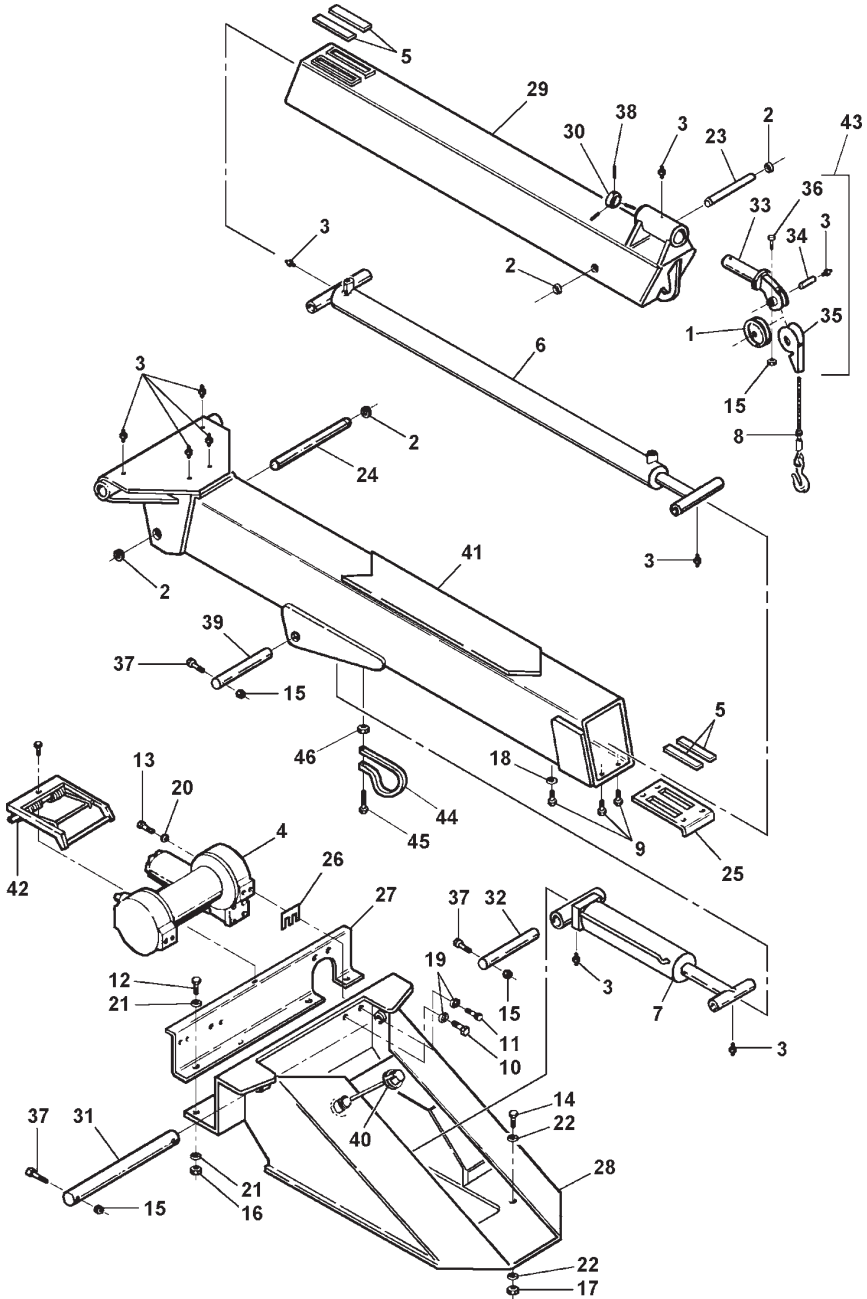
Section VI - PARTS (cont'd)

I-400 WHEEL LIFT HYDRAULICS

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300010	3-SPOOL VALVE
2	6	0300044	CONNECTOR, 6MJ-8MB
3	1	0300052	ELBOW, 8MJ-10MB90
4	1	0300055	HOSEBARB, 12C4-12MP
5	4 FT.	0301674	HOSE, 3/4" RETURN
6	1	0300071	CLAMP, HOSE 1"
7	2	0300113	GREASE FITTING, ALEMITE
8	1	0300133	CLAMP, HOLDING VALVE
9	2	0300142	ELBOW, 6MJ-4MP90
10	1	0300206	BRANCHTEE, 6MJ-6MJ-4MP
11	2	0300209	ELBOW, 6MJ-6MP90
12	1	0300660	HOSE ASSEMBLY, 120"
13	1	0301375	ELBOW, 12MB-12FP90
14	1	0301377	TEE, 6MJ-6MJ-6MJ
15	2	0301397	GREASE FITTING, ALEMITE 90°
16	2	0301402	HOSE, LIFT CYL, 45"
17	1	0301425	CONNECTOR, 6MJ-6MP
18	1	0301473	HOSE ASSEMBLY, 18"
19	2	0301485	HOSE ASSEMBLY, 81"
20	6	0301522	CONNECTOR, 6MJ-6MB
21	6	0301696	ELBOW, 6MJ-6FJX90
22	1	0301731	HOLDING VALVE, 4000 PSI
23	1	0301825	CYLINDER, EXTEND
24	1	0301854	VALVE, RESTRICTOR
25	1	0301855	TEE, 6MJ-6MJ-6MP
26	1	0301900	HOSE ASSEMBLY, 18"
27	6	0301902	HOSE ASSEMBLY, 35"
28	1	0302341	CYLINDER, LIFT
29	1	0302904	CYLINDER, TILT, L.H.
30	1	0302905	CYLINDER, TILT, R.H.
31	20 FT.	0303193	SKUFF JACKET
32	2	0400069	SCREW, 1/4"-20 X 2" RD HD SLOTTED
33	2	0400140	SCREW, 3/8"-16 X 4" HEX HD CAP
34	2	0400362	NUT, 3/8"-16 NYLOK HEX
35	2	0400366	NUT, 1/4"-20 HEX
36	2	0400451	WASHER, 1/4" FLAT
37	2	0400452	LOCKWASHER, 1/4" HELICAL
38	1	0703001	BRACKET, CHECK VALVE MOUNTING

Section VI - PARTS (cont'd)

WRECKER ASSEMBLY - 4711



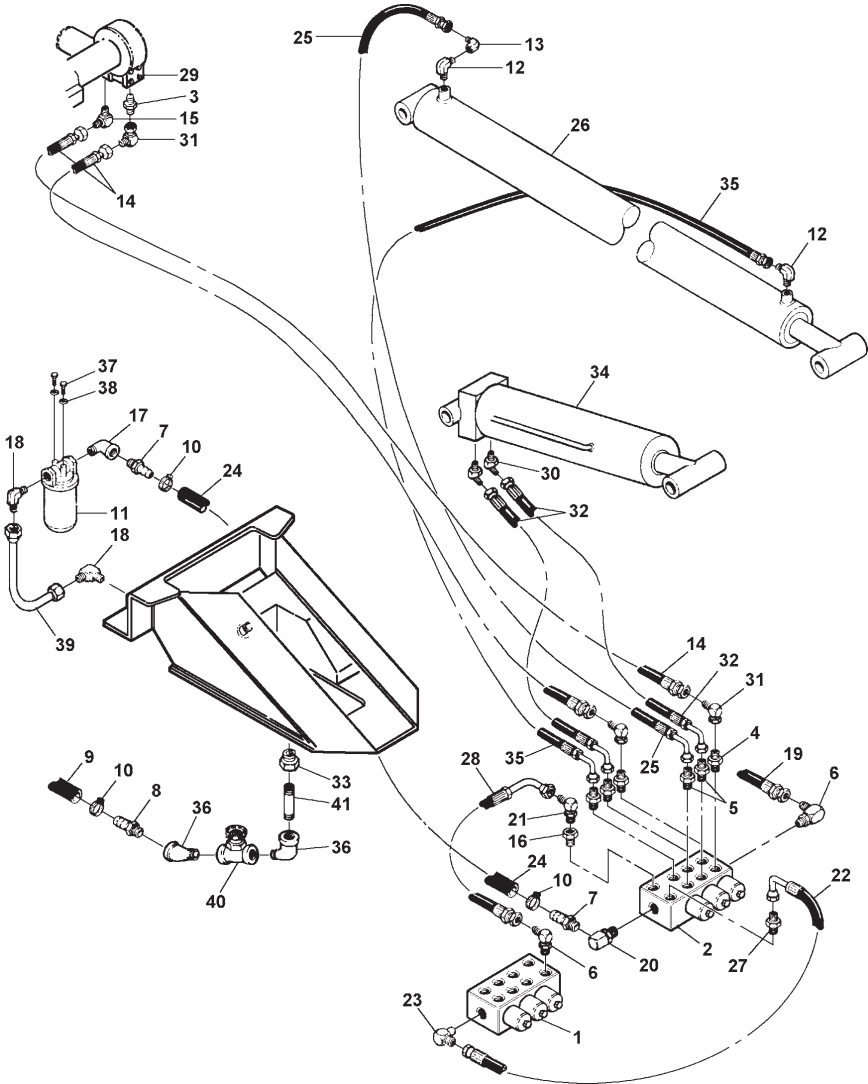
Section VI - PARTS (cont'd)

WRECKER ASSEMBLY - 4711

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300022	SHEAVE, 6" COMPLETE
2	4	0300110	SNAP RING, 1"
3	10	0300113	GREASE FITTING, ALEMITE
4	1	0300251	WINCH, HLC-246, LEFT REAR
5	4	0300679	BEARING PAD, NYLATRON
6	REF.	0301755	CYLINDER, BOOM EXTENSION
7	REF.	0302966	CYLINDER, BOOM LIFT
8	1	0303051	WIRE ROPE, 3/8" X 100", 6 X 19 IPS
9	4	0400060	SCREW, 1/4"-20 X 1/2" HEX HD CAP
10	6	0400122	SCREW, 3/8"-16 X 1-1/4" HEX HD CAP
11	2	0400141	SCREW, 3/8"-16 X 7/8" HEX HD CAP
12	4	0400181	SCREW, 1/2"-13 X 1-1/2" HEX HD CAP
13	2	0400196	SCREW, 1/2"-13 X 1-1/4" SOCKET HD CAP
14	10	0400284	SCREW, 3/4"-10 X 2-1/4" HEX HD CAP
15	4	0400392	NUT, 3/8"-16 NYLOK HEX
16	4	0400408	NUT, 1/2"-13 NYLOK HEX
17	10	0400430	NUT, 3/4"-10 NYLOK HEX
18	4	0400452	LOCKWASHER, 1/4" HELICAL
19	16	0400482	LOCKWASHER, 3/8" HELICAL
20	2	0400491	LOCKWASHER, 1/2" HELICAL
21	8	0400492	WASHER, 1/2" FLAT
22	20	0400510	WASHER, 3/4" FLAT
23	1	0703082	PIN, EXTEND CYLINDER ROD
24	1	0703137	SHAFT, EXTEND CYLINDER BASE
25	1	0703965	PAD RETAINER, BOLT-ON
26	--	0706668	SHIM, WINCH MOUNTING
27	1	0709037	WINCH MOUNTING BRACKET - 4711
28	1	0802683	MAST WELDMENT - 4711
29	1	0804518	INNER BOOM WELDMENT - 4711
30	1	BA0175B	COLLAR
31	1	CP0004	PIN, BOOM PIVOT
32	1	CT0278	PIN, LIFT CYLINDER BASE
33	1	CT0410	BOOM END SWIVEL WELDMENT
34	1	CT0411	PIN, BOOM END SWIVEL
35	1	CT0412	CABLE GUIDE WELDMENT
36	1	DE455	SCREW, 3/8"-16 X 2-3/4" HEX HD CAP
37	3	DE475	SCREW, 3/8"-16 X 3-1/4" CHS
38	3	HD0127	PIN, 5/16" X 3/4" ROLL
39	1	WG0225	PIN, LIFT CYLINDER, ROD END
40	1	WG0330	RESERVOIR CAP (DIPSTICK)
41	1	WG0344	OUTER BOOM WELDMENT
42	1	124001567	CABLE TENSIONER (OPTIONAL)
43	1	CT0415	BOOM END SWIVEL ASSEMBLY (COMPLETE)
44	1	0301533	TIE DOWN STRAP, 15" W/O HOOKS
45	1	0400078	SCREW, 1/4"-20 X 2" HEX HD CAP
46	1	0400367	NUT, 1/4"-20 NYLOK HEX

Section VI - PARTS (cont'd)

WRECKER HYDRAULICS - 4711



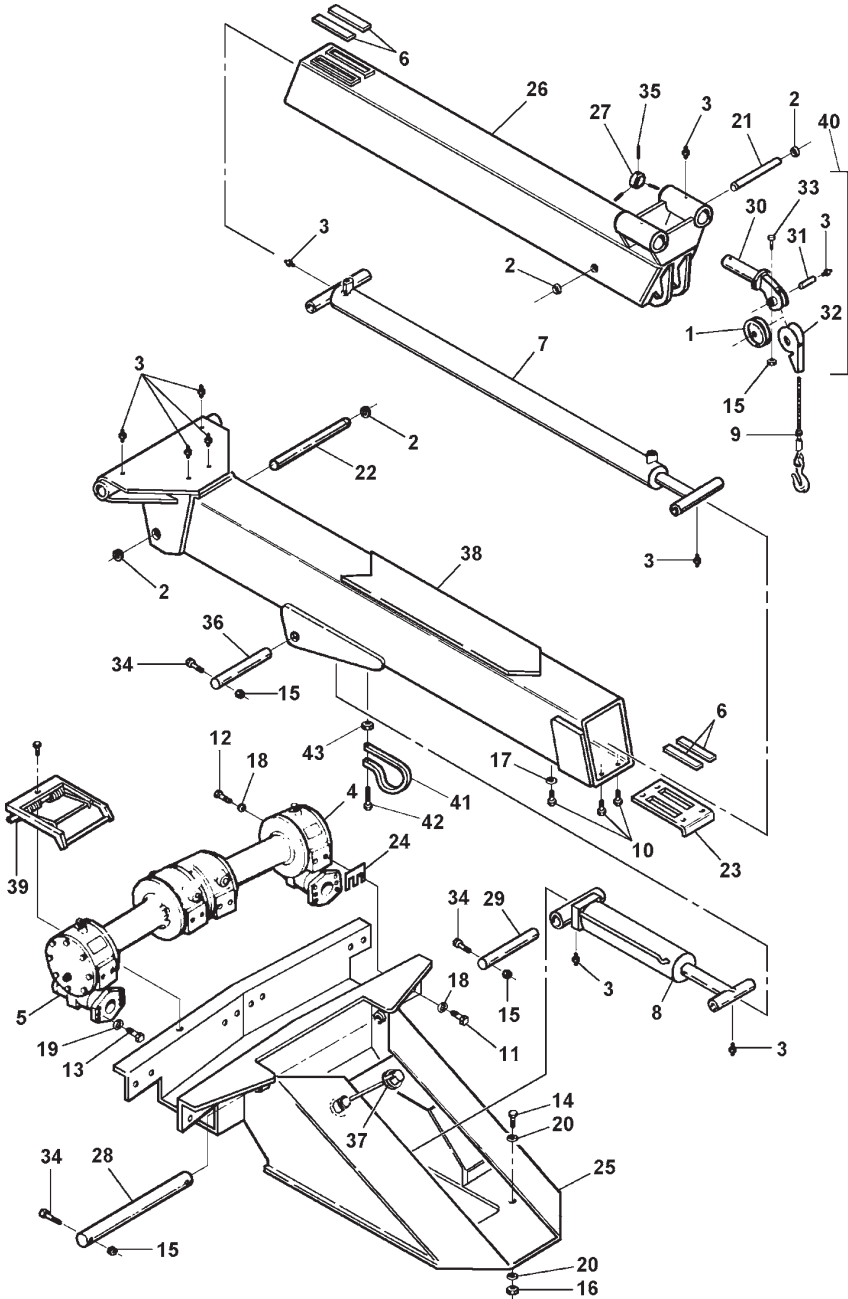
Section VI - PARTS (cont'd)

WRECKER HYDRAULICS - 4711

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	REF.	0300010	VALVE, 3-SPOOL, CONTROL
2	1	0300010	VALVE, 3-SPOOL, CONTROL
3	1	0300040	CONNECTOR, 8MJ-8MP
4	2	0300041	CONNECTOR, 8MJ-8MB
5	4	0300044	CONNECTOR, 6MJ-8MB
6	2	0300052	ELBOW, 8MJ-10MB90
7	2	0300055	HOSEBARB, 12C4-12MP
8	1	0300056	BARB, 16C4-16MP
9	9 FT.	0300058	HOSE, 1" SUCTION 16C4
10	4	0300071	CLAMP, HOSE 1"
11	1	0300136	FILTER ASSEMBLY, RETURN LINE
12	2	0300142	ELBOW, 6MJ-4MP90
13	1	0300147	ELBOW, STREET 4MP-4FP90
14	2	0300212	HOSE ASSEMBLY, 115" LONG
15	1	0300229	ELBOW, 8MJ-8MP90
16	1	0300286	FITTING, H.P.C.O.
17	1	0300288	ELBOW, 3/4" STREET 90°
18	2	0300615	ELBOW, 12MJ-12MP90
19	1	0300660	HOSE ASSEMBLY, 120" LONG
20	1	0301375	ELBOW, 12MB-12FP90
21	1	0301388	ELBOW, 8MJ-8MB90
22	1	0301471	HOSE ASSEMBLY, 30" LONG
23	1	0301547	ELBOW, 8MJ-12MB90
24	7 FT.	0301674	HOSE, 3/4" RETURN
25	1	0301695	HOSE ASSEMBLY, 91" LONG
26	REF.	0301755	CYLINDER, BOOM EXTENSION
27	1	0301780	CONNECTOR, 8MJ-12MB
28	1	0301790	HOSE ASSEMBLY, 15" LONG
29	1	0302148	MOTOR, HYDRAULIC
30	2	0302321	ELBOW, 8MJ-8MB45
31	3	0302488	ELBOW, 8MJ-8FJX90
32	2	0302816	HOSE ASSEMBLY, 62" LONG
33	1	0302953	BUSHING, 24MP-16FP BLACK
34	REF.	0302966	CYLINDER, BOOM ELEVATION
35	1	0302991	HOSE ASSEMBLY, 156" LONG
36	2	0303099	ELBOW, STREET 45°, 1" MALLEABLE BLACK
37	2	0400066	SCREW, 1/4"-20 X 3/4" HEX HD CAP
38	2	0400452	LOCKWASHER, 1/4" HELICAL
39	1	HC0815	TUBE ASSEMBLY, 8-3/4" LONG
40	1	HC1338	GATE VALVE, 1" BRASS
41	1	IT74	PIPE NIPPLE, 1" X 6" NPT

Section VI - PARTS (cont'd)

WRECKER ASSEMBLY - 4712



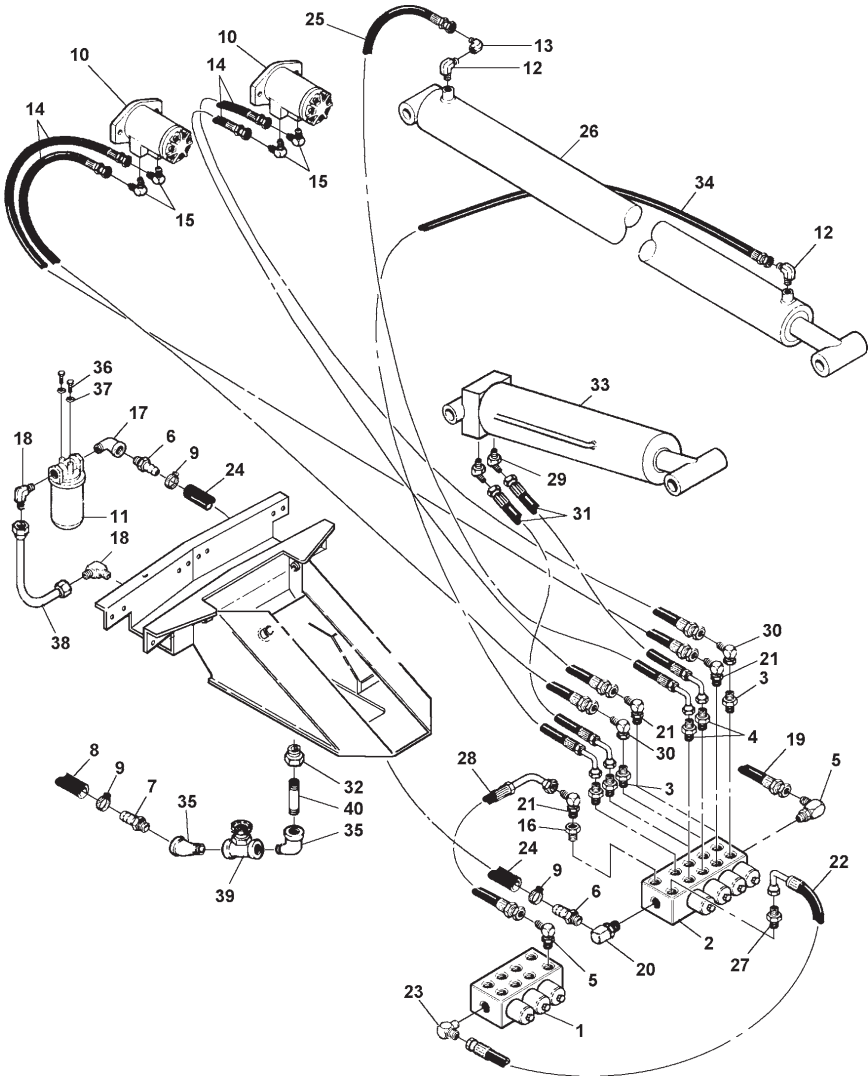
Section VI - PARTS (cont'd)

WRECKER ASSEMBLY - 4712

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	2	0300022	SHEAVE, 6" COMPLETE
2	4	0300110	SNAP RING, 1"
3	12	0300113	GREASE FITTING, ALEMITE
4	1	0300250	WINCH, HLC-246, RIGHT REAR
5	1	0300251	WINCH, HLC-246, LEFT REAR
6	4	0300679	BEARING PAD, NYLATRON
7	REF.	0301755	CYLINDER, BOOM EXTENSION
8	REF.	0302966	CYLINDER, BOOM LIFT
9	2	0303051	WIRE ROPE, 3/8" X 100", 6 X 19 IPS
10	4	0400060	SCREW, 1/4"-20 X 1/2" HEX HD CAP
11	12	0400122	SCREW, 3/8"-16 X 1-1/4" HEX HD CAP
12	4	0400141	SCREW, 3/8"-16 X 7/8" HEX HD CAP
13	4	0400196	SCREW, 1/2"-13 X 1-1/4" SOCKET HD CAP
14	10	0400284	SCREW, 3/4"-10 X 2-1/4" HEX HD CAP
15	5	0400392	NUT, 3/8"-16 NYLOK HEX
16	10	0400430	NUT, 3/4"-10 NYLOK HEX
17	4	0400452	LOCKWASHER, 1/4" HELICAL
18	16	0400482	LOCKWASHER, 3/8" HELICAL
19	4	0400491	LOCKWASHER, 1/2" HELICAL
20	20	0400510	WASHER, 3/4" FLAT
21	1	0703082	PIN, EXTEND CYLINDER ROD
22	1	0703137	SHAFT, EXTEND CYLINDER BASE
23	1	0703965	PAD RETAINER, BOLT-ON
24	--	0706668	SHIM, WINCH MOUNTING
25	1	0802681	MAST WELDMENT - 4712
26	1	0804519	INNER BOOM WELDMENT - 4712
27	2	BA0175B	COLLAR
28	1	CP0278	PIN, BOOM PIVOT
29	1	CT0278	PIN, LIFT CYLINDER BASE
30	2	CT0410	BOOM END SWIVEL WELDMENT
31	2	CT0411	PIN, BOOM END SWIVEL
32	2	CT0412	CABLE GUIDE WELDMENT
33	2	DE455	SCREW, 3/8"-16 X 2-3/4" HEX HD CAP
34	3	DE475	SCREW, 3/8"-16 X 3-1/4" CHS
35	6	HD0127	PIN, 5/16" X 3/4" ROLL
36	1	WG0225	PIN, LIFT CYLINDER, ROD END
37	1	WG0330	RESERVOIR CAP (DIPSTICK)
38	1	WG0344	OUTER BOOM WELDMENT
39	2	124001567	CABLE TENSIONER (OPTIONAL)
40	2	CT0415	BOOM END SWIVEL ASSEMBLY (COMPLETE)
41	2	0301533	TIE DOWN STRAP, 15" W/O HOOKS
42	2	0400078	SCREW, 1/4"-20 X 2" HEX HD CAP
43	2	0400367	NUT, 1/4"-20 NYLOK HEX

Section VI - PARTS (cont'd)

WRECKER ASSEMBLY - 4712



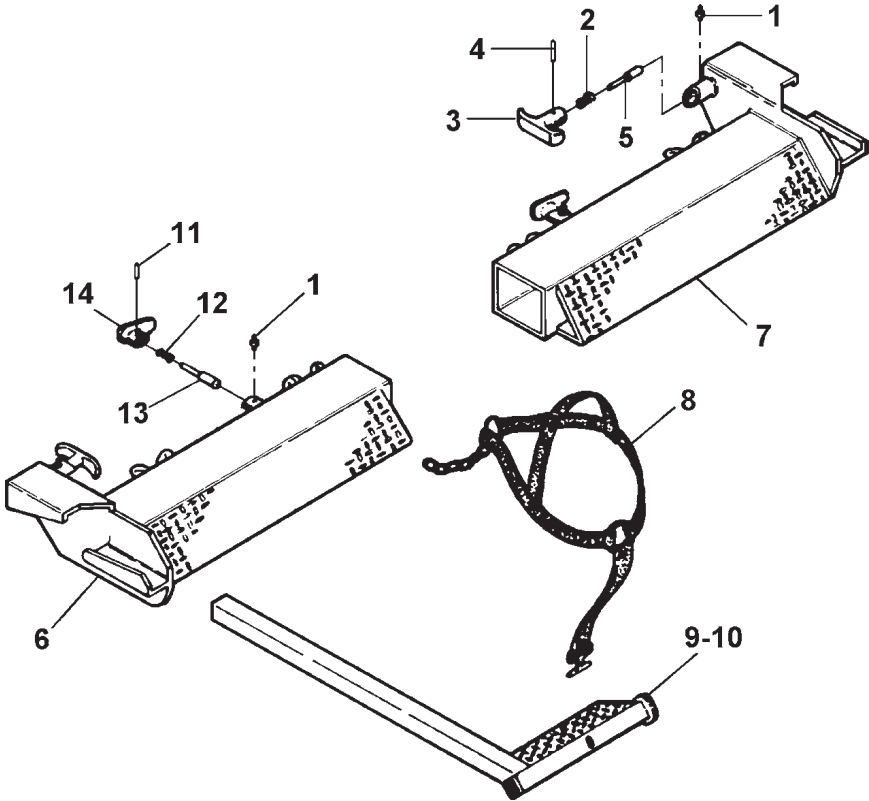
Section VI - PARTS (cont'd)

WRECKER ASSEMBLY - 4712

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	REF.	0300010	VALVE, 3-SPOOL, CONTROL
2	1	0300011	VALVE, 4-SPOOL, CONTROL
3	2	0300041	CONNECTOR, 8MJ-8MB
4	4	0300044	CONNECTOR, 6MJ-8MB
5	2	0300052	ELBOW, 8MJ-10MB90
6	2	0300055	HOSEBARB, 12C4-12MP
7	1	0300056	BARB, 16C4-162MP
8	9 FT.	0300058	HOSE, 1" SUCTION 16C4
9	4	0300071	CLAMP, HOSE 1"
10	2	0300090	MOTOR, CHAR-LYNN HYDRAULIC
11	1	0300136	FILTER ASSEMBLY, RETURN LINE
12	2	0300142	ELBOW, 6MJ-4MP90
13	1	0300147	ELBOW, STREET 4MP-4FP90
14	4	0300212	HOSE ASSEMBLY, 115" LONG
15	4	0300229	ELBOW, 8MJ-8MP90
16	1	0300286	FITTING, H.P.C.O.
17	1	0300288	ELBOW, 3/4" STREET 90°
18	2	0300615	ELBOW, 12MJ-12MP90
19	1	0300660	HOSE ASSEMBLY, 120" LONG
20	1	0301375	ELBOW, 12MB-12FP90
21	3	0301388	ELBOW, 8MJ-8MB90
22	1	0301471	HOSE ASSEMBLY, 30" LONG
23	1	0301547	ELBOW, 8MJ-12MB90
24	7 FT.	0301674	HOSE, 3/4" RETURN
25	1	0301695	HOSE ASSEMBLY, 91" LONG
26	REF.	0301755	CYLINDER, BOOM EXTENSION
27	1	0301780	CONNECTOR, 8MJ-12MB
28	1	0301790	HOSE ASSEMBLY, 15" LONG
29	2	0302321	ELBOW, 8MJ-8MB45
30	2	0302488	ELBOW, 8MJ-8FJX90
31	2	0302816	HOSE ASSEMBLY, 62" LONG
32	1	0302953	BUSHING, 24MP-16FP BLACK
33	REF.	0302966	CYLINDER, BOOM ELEVATION
34	1	0302991	HOSE ASSEMBLY, 156" LONG
35	2	0303099	ELBOW, STREET 45°, 1" MALLEABLE BLACK
36	2	0400066	SCREW, 1/4"-20 X 3/4" HEX HD CAP
37	2	0400452	LOCKWASHER, 1/4" HELICAL
38	1	HC0815	TUBE ASSEMBLY, 8-3/4" LONG
39	1	HC1338	GATE VALVE, 1" BRASS
40	1	IT74	PIPE NIPPLE, 1" X 6" NPT

Section VI - PARTS (cont'd)

OUTER CROSSTUBE & TIRE RESTRAINT ASSEMBLY



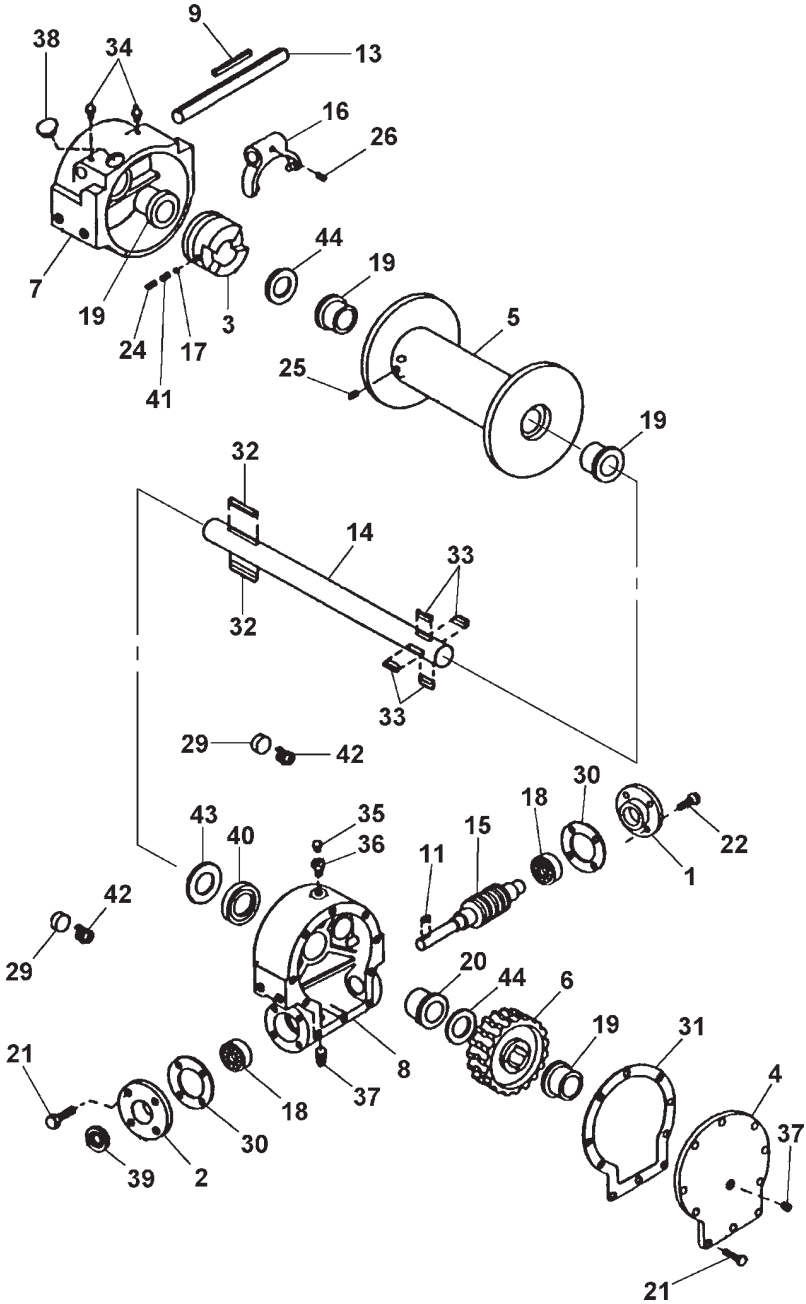
Section VI - PARTS (cont'd)

OUTER CROSSTUBE & TIRE RESTRAINT ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
--	1	0902786	"L" ARM RECEIVER ASSY, LEFT (COMPLETE)
--	1	0902787	"L" ARM RECEIVER ASSY, RIGHT (COMPLETE)
1	4	0300113	GREASE FITTING, ALEMITE
2	2	0302641	SPRING, PLUNGER PIN
3	2	0302648	"T" HANDLE
4	2	0400560	PIN, 5/32" X 1" ROLL
5	2	0707505	PIN, PLUNGER
6	1	0802570	"L" ARM RECEIVER WELDMENT, LEFT
7	1	0802571	"L" ARM RECEIVER WELDMENT, RIGHT
8	2	0902382	1" NYLON POLY COAT STRAP
9	1	0903476	TIRE RESTRAINT, LEFT
10	1	0903477	TIRE RESTRAINT, RIGHT
11	2	HD0125	PIN, 5/32" X 1-3/8" SPRING
12	2	HD1203	SPRING, PLUNGER PIN
13	2	RB0296	PIN, PLUNGER PULL LOCK
14	2	RB0357	HANDLE, PULL GRIP

Section VI - PARTS (cont'd)

HYDRAULIC WINCH ASSEMBLY

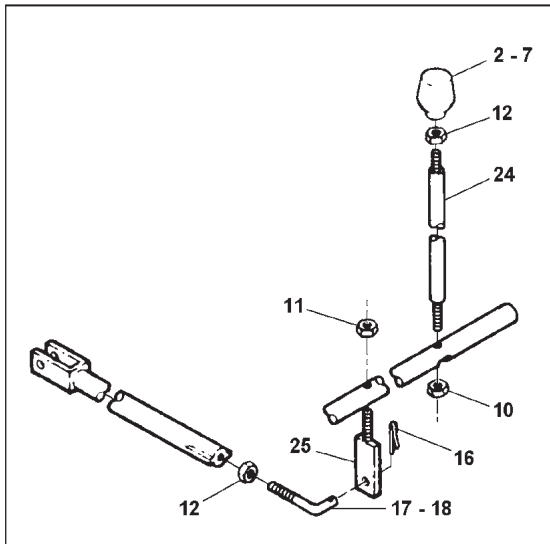
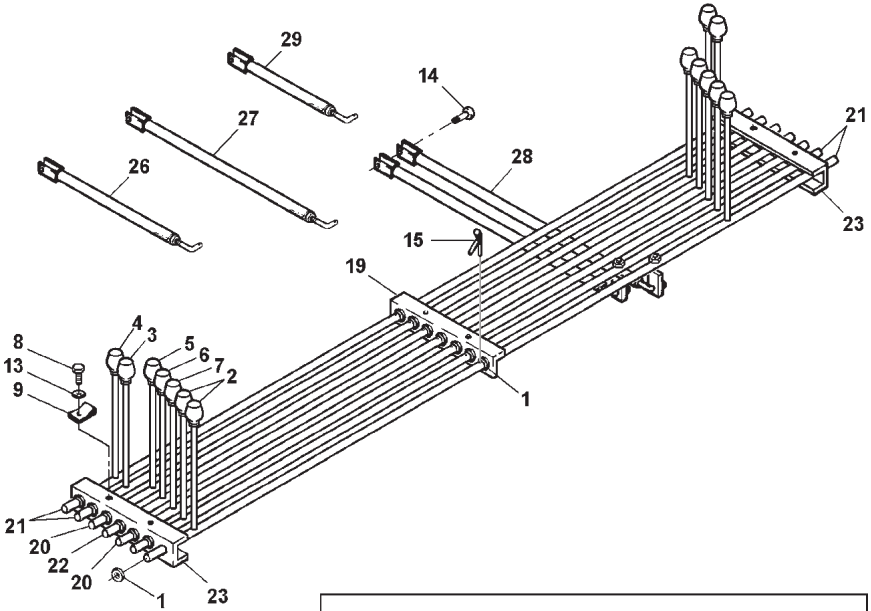


Section VI - PARTS (cont'd)

HYDRAULIC WINCH ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	316083	BEARING CAP
2	1	316084	BEARING CAP
3	1	324161	JAW CLUTCH
4	1	328134	COVER
5	1	332007	DRUM "Y"
6	1	334164	GEAR L.H. 46:1
7	1	338003	HOUSING, CLUTCH
8	1	338273	HOUSING, GEAR
9	1	342018	KEY
10	1	342024	KEY
11	1	342027	KEY
12	1	344008	LEVER, SHIFTER
13	1	356902	SHAFT, SHIFTER
14	1	357480	SHAFT, DRUM "Y"
15	1	368009	WORM L.H. 46:1
16	1	370001	YOKE
17	1	400001	BALL, POPPET
18	2	402002	BEARING, BALL
19	4	412003	BUSHING
20	1	412045	BUSHING
21	10	414038	SCREW, 1/4-20 X 3/4" HEX HD CAP
22	8	414045	SCREW, 1/4-20 X 7/8" HEX HD CAP
23	4	414282	SCREW, 3/8-16 X 3/4" HEX HD CAP
24	1	416040	SCREW, 1/4-20 X 1-1/4" SKT HD LESS SET
25	1	416059	SCREW, 3/8-16 X 3/8" SKT HD LESS SET
26	1	416084	SCREW, 1/4-20 X 1/2" SQ HD SET
27	1	416109	SCREW, 5/16-18 X 1/2" SQ HD SET
28	4	418177	LOCKWASHER, 3/8 MED SECT
29	2	438014	DRAG BRAKE
30	2	442184	GASKET
31	1	442205	GASKET
32	2	450006	KEY, BARTH
33	4	450016	KEY, BARTH
34	2	45006	FITTING, LUBE
35	1	45008	FITTING, RELIEF
36	1	468002	REDUCER
37	2	468011	PIPE PLUG
38	1	472013	PLASTIC PLUG
39	1	486009	OIL SEAL
40	4	486017	OIL SEAL
41	1	494001	SPRING, POPPET
42	2	494002	SPRING
43	1	518014	THRUST WASHER
44	2	518015	THRUST WASHER

Section VI - PARTS (cont'd) CONTROL & CROSSROD ASSEMBLY



Section VI - PARTS (cont'd)

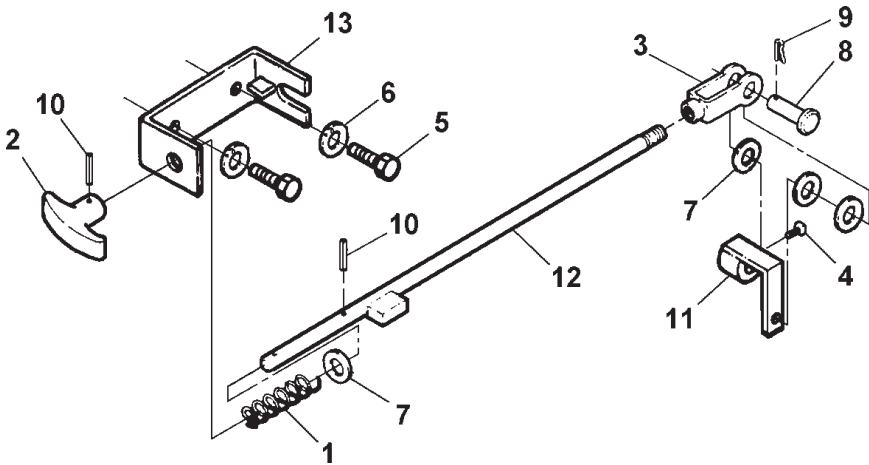
CONTROL & CROSSROD ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	21	0300122	GROMMET, SPLIT PLASTIC
2	4	0300834	KNOB, CABLE "IN-OUT" (RED)
3	2	0300835	KNOB, WRECKER BOOM "UP-DN" (BLACK)
4	2	0300837	KNOB, WRECKER BOOM "IN-OUT" (BLACK)
5	2	0302856	KNOB W/L "TILT" (GRAY)
6	2	0302917	KNOB, W/L "IN-OUT" (GRAY)
7	2	0302967	KNOB, W/L "UP-DN" (GRAY)
8	6	0400066	SCREW, 1/4"-20 X 3/4" HEX HD CAP
9	6	0400370	CLIP, 1/4" TINNERMAN
10	14	0400390	NUT, 3/8"-16 HEX JAM ESLOK
11	7	0400392	NUT, 3/8"-16 HEX NYLOK
12	21	0400393	NUT, 3/8"-16 HEX JAM
13	6	0400452	LOCKWASHER, 1/4" HELICAL
14	7	0400527	CLEVIS PIN, 5/16" X 5/8" COTTERLESS
15	14	0400542	COTTER PIN, 3/16" X 1-1/4"
16	7	0400543	COTTER PIN, 1/8" X 3/4"
17	2	0701099	EXTENSION, CONTROL ROD LONG
18	4	0701927	EXTENSION, CONTROL ROD SHORT
19	1	0703501	ANGLE, CROSSROD BEARING
20	2	0704528	CROSSROD - W/L
21	4	0704529	CROSSROD - WRECKER
22	1	0704530	CROSSROD - TILT
23	2	0704517	CHANNEL, CROSS ROD BEARING
24	14	0704527	LEVER, CONTROL
25	7	0800604	ARM, CROSS CONTROL
26	2	0801309	CONTROL ROD, SHORT
27	3	0801310	CONTROL ROD, MEDIUM
28	1	0801311	CONTROL ROD, LONG
29	1	0802385	SHIFTER ROD WELDMENT

Section VI - PARTS (cont'd)

WINCH CLUTCH CONTROL - 4711

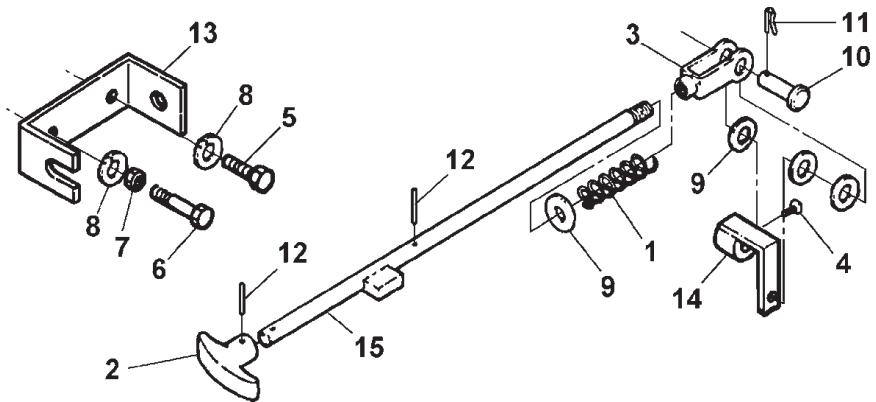
(SINGLE WINCH)



REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300845	SPRING, COMPRESSION
2	1	0301532	"T" HANDLE
3	1	0301588	ADJUSTING YOKE
4	1	0400116	SCREW, 5/16"-18 X 1/2" SQ HD SET
5	2	0400122	SCREW, 3/8"-16 X 1-1/4" HEX HD CAP
6	2	0400482	LOCKWASHER, 3/8" HELICAL
7	4	0400492	WASHER, 1/2" FLAT
8	1	0400537	PIN, 1/2" X 1-1/2" CLEVIS
9	1	0400546	PIN, 1/8" X 1-1/4" COTTER
10	2	0400560	PIN, 5/32" X 1" ROLL
11	1	0800779	WELDMENT, BELL CRANK
12	1	0800780	CONTROL ROD, SINGLE WINCH
13	1	0800976	MOUNTING CHANNEL

Section VI - PARTS (cont'd)

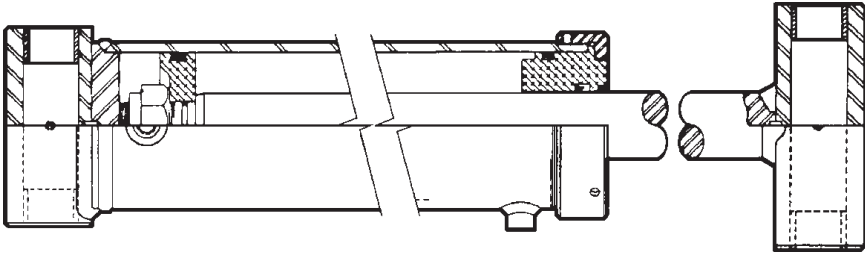
WINCH CLUTCH CONTROL - 4712 (DUAL WINCH)



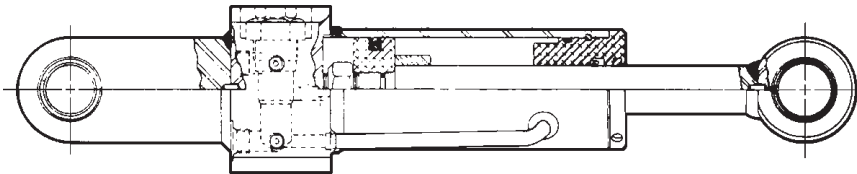
REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300845	SPRING, COMPRESSION
2	1	0301532	"T" HANDLE
3	1	0301588	ADJUSTING YOKE
4	1	0400116	SCREW, 5/16"-18 X 1/2" SQ HD SET
5	1	0400126	SCREW, 3/8"-16 X 1" HEX HD CAP
6	1	0400150	SCREW, 3/8"-16 X 2-1/2" HEX HD CAP
7	1	0400393	NUT, 3/8"-16 JAM
8	2	0400482	LOCKWASHER, 3/8" HELICAL
9	4	0400492	WASHER, 1/2" FLAT
10	1	0400537	PIN, 1/2" X 1-1/2" CLEVIS
11	1	0400546	PIN, 1/8" X 1-1/4" COTTER
12	2	0400560	PIN, 5/32" X 1" ROLL
13	1	0702408	MOUNTING CHANNEL
14	1	0800779	WELDMENT, BELL CRANK
15	1	0800781	CONTROL ROD, DUAL WINCH

Section VI - PARTS (cont'd)

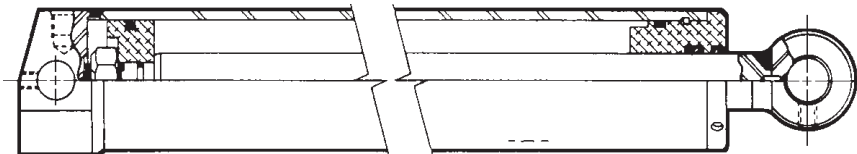
HYDRAULIC CYLINDERS - WHEEL LIFT



REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0302341	HYDRAULIC CYLINDER, LIFT (COMPLETE)
2	1	0304498	SEAL KIT, LIFT CYLINDER



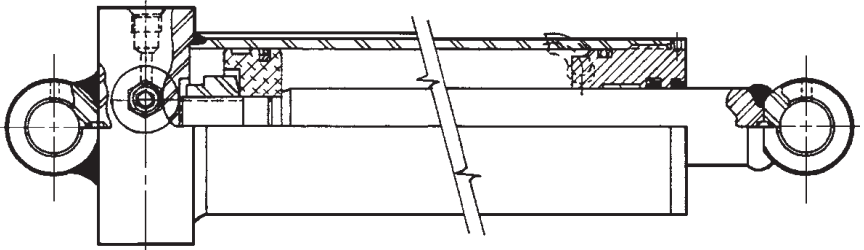
REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0302904	HYDRAULIC CYL., TILT (COMPLETE) L.H.
2	1	0302905	HYDRAULIC CYL., TILT (COMPLETE) R.H.
3	2	0304498	SEAL KIT, TILT CYLINDER



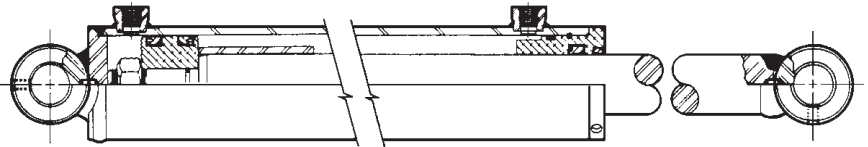
REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0301825	HYDRAULIC CYL., EXTEND (COMPLETE)
2	1	0304086	SEAL KIT, EXTEND CYLINDER

Section VI - PARTS (cont'd)

HYDRAULIC CYLINDERS - WRECKER



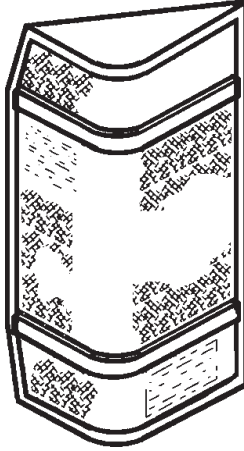
REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0302966	HYDRAULIC CYLINDER, LIFT (COMPLETE)
2	1	0304516	SEAL KIT, LIFT CYLINDER



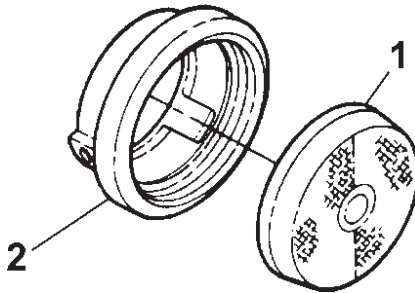
REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0301755	HYDRAULIC CYL., EXTEND (COMPLETE)
2	1	0300624	SEAL KIT, EXTEND CYLINDER

Section VI - PARTS (cont'd)

LIGHT KIT

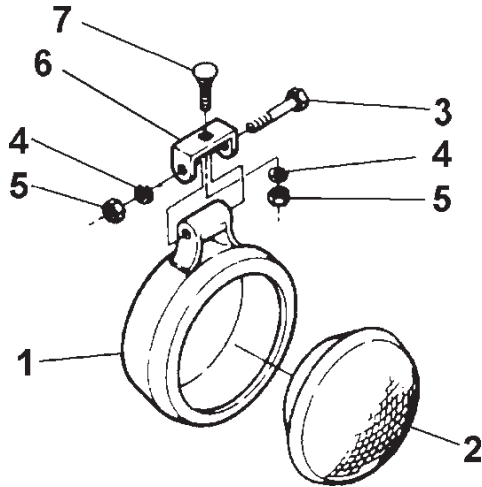


REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	JH71	TAIL LIGHT, RIGHT
2	1	JH72	TAIL LIGHT, LEFT
3	6 FT.	0300844	3/4" X 1/8" SPONGE W/ ADHBK



REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	2	0303126	LIGHT, SEALED MARKER, AMBER
2	6	0303127	GROMMET, MARKER

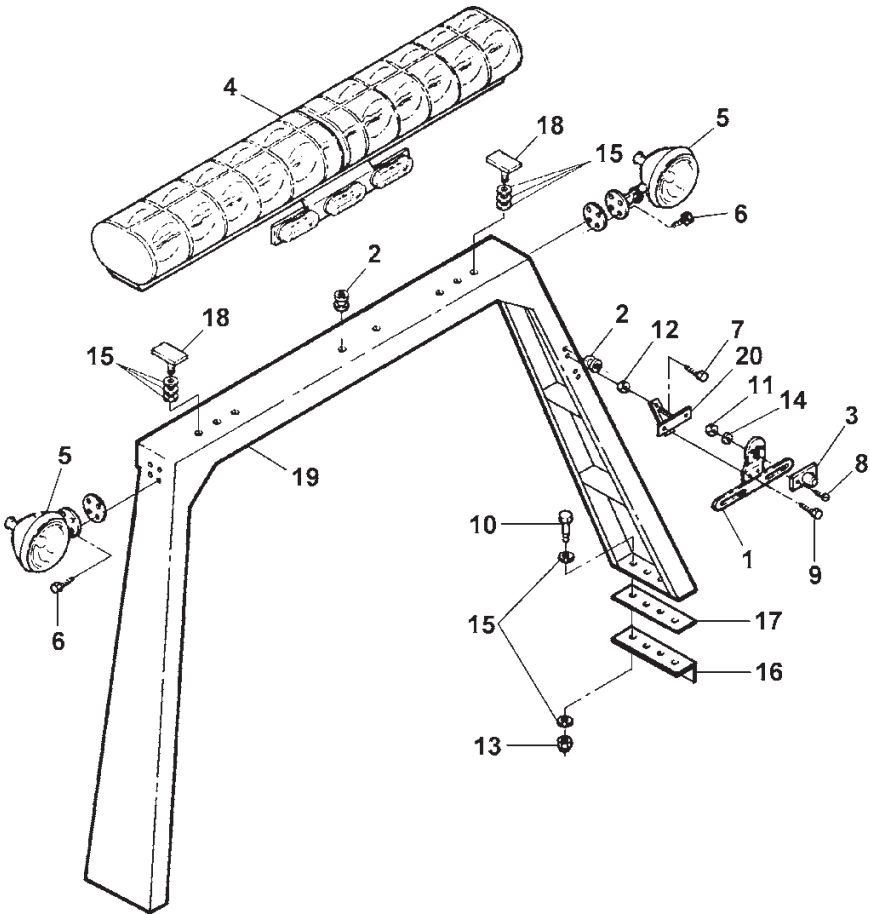
Section VI - PARTS (cont'd) LIGHT KIT (cont'd)



REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0304147	HOUSING
2	1	0304152	BULB
3	1	0304151	PIVOT SCREW
4	2	0304150	LOCKWASHER
5	2	0304153	NUT
6	1	0304148	MOUNTING BRACKET
7	1	0304149	MOUNTING SCREW
--	1	0301505	LOWER WORK LIGHT (COMPLETE)

Section VI - PARTS (cont'd)

LIGHTING ACCESSORIES



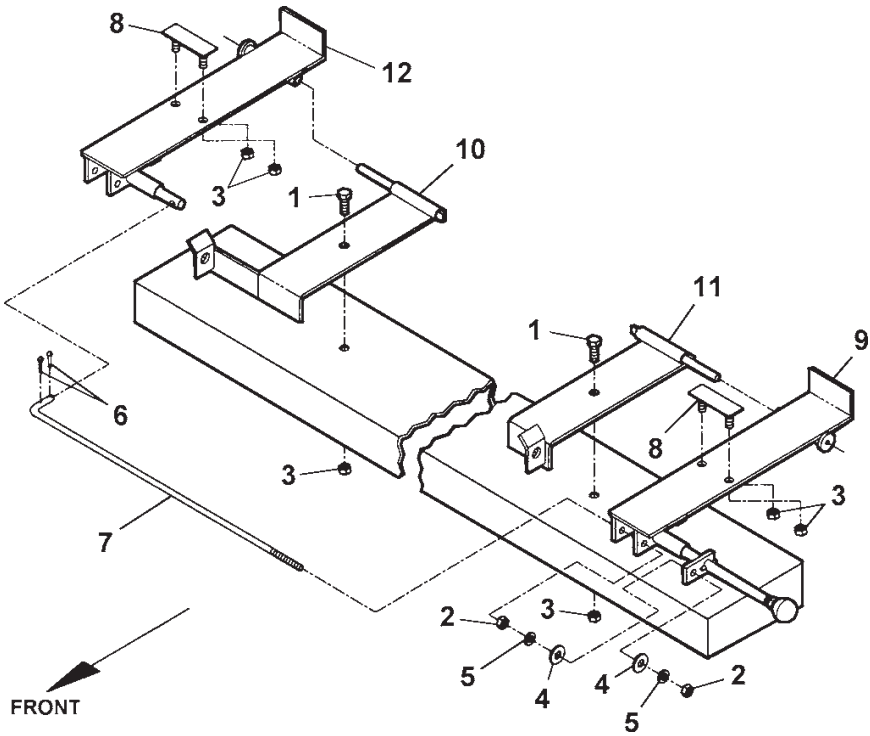
Section VI - PARTS (cont'd)

LIGHTING ACCESSORIES

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300076	LICENSE PLATE HOLDER
2	2	0300117	RUBBER GROMMET
3	1	0300273	LICENSE PLATE ILLUMINATOR
4	1	0301359	WRECKER SPECIAL LIGHT
5	2	0302158	SPOTLIGHT W/GASKET
6	8	0400039	SCREW, #10-32 X 3/4" SELF-TAPPING
7	2	0400057	SCREW, 1/4"-20 X 1-1/2" HEX HD CAP
8	2	0400061	SCREW, 1/4"-20 X 3/4" PAN HD
9	2	0400062	SCREW, 1/4"-20 X 3/4" THD CUT HEX HD
10	8	0400132	SCREW, 3/8"-16 X 1-1/2" HEX HD CAP
11	2	0400366	NUT, 1/4"-20 HEX PLAIN
12	2	0400367	NUT, 1/4"-20 NYLOK HEX
13	8	0400392	NUT, 3/8"-16 HEX HD NYLOK
14	2	0400452	LOCKWASHER, 1/4"
15	22	0400480	WASHER, 3/8" FLAT
16	2	0710028	ANGLE, PYLON BASE REINFORCING
17	2	0710030	GASKET, PYLON BASE - 26" PYLON
	--	0710032	GASKET, PYLON BASE - 33" PYLON
	--	0710033	GASKET, PYLON BASE - 36" PYLON
	--	0710035	GASKET, PYLON BASE - 42" PYLON
18	2	0801777	"T" BOLT ADAPTOR
19	1	0802832	LIGHT MOUNTING PYLON - 26"
	--	0802834	LIGHT MOUNTING PYLON - 33"
	--	0802835	LIGHT MOUNTING PYLON - 36"
	--	0802837	LIGHT MOUNTING PYLON - 42"
20	1	0802885	BRACKET, LICENSE PLATE MOUNTING

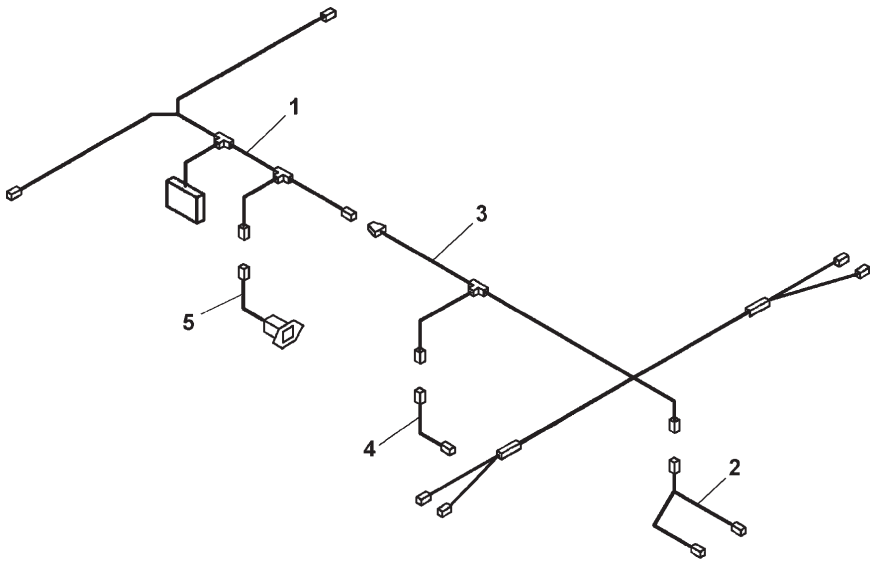
Section VI - PARTS (cont'd)

FOLD DOWN LIGHT BAR BRACKET



REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	2	0400126	SCREW, 3/8"-16 X 1" HEX HD CAP
2	2	0400381	NUT, 5/16"-18 HEX
3	6	0400392	NUT, 3/8"-16 HEX NYLOK
4	2	0400463	WASHER, 5/16" FLAT
5	2	0400464	LOCKWASHER, 5/16" HELICAL
6	2	0400543	COTTER PIN, 1/8" X 3/4"
7	1	0703886	ROD, CONNECTING
8	2	0801120	TEE BOLT - FOLD DOWN LIGHT BRACKET
9	1	0903130	L.H. TOP HINGE ASSEMBLY
10	1	0903131	R.H. BOTTOM HINGE ASSEMBLY
11	1	0903132	L.H. BOTTOM HINGE ASSEMBLY
12	1	0903133	R.H. TOP HINGE ASSEMBLY

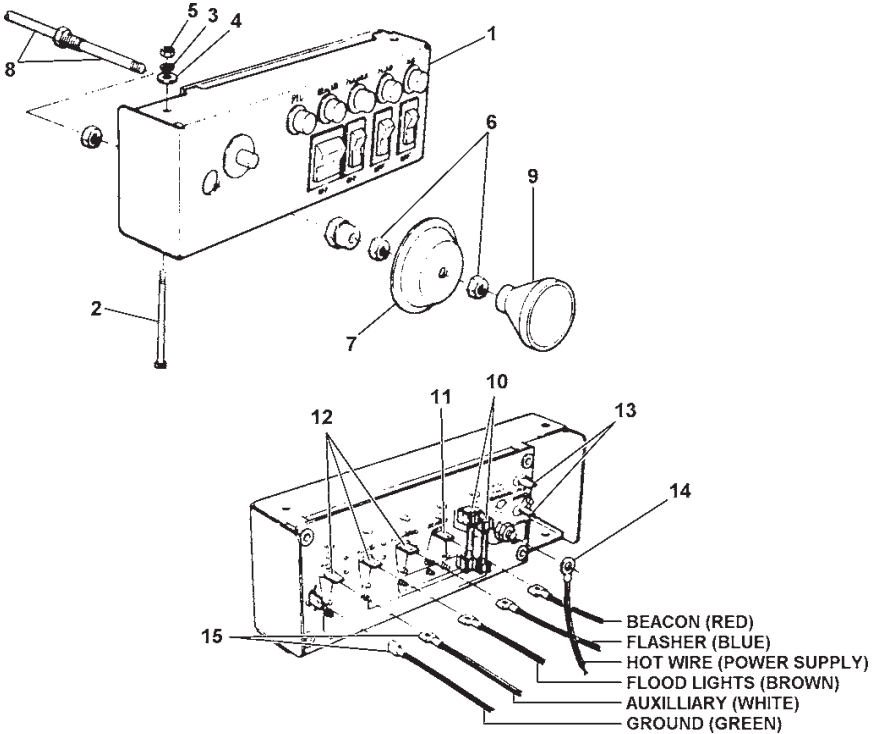
Section VI - PARTS (cont'd) WIRING KIT



REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0303110	FRONT HARNESS & JUNCTION BOX
2	1	0303112	WORK LIGHT HARNESS
3	1	0303122	REAR HARNESS - CHALLENGER
4	1	0303153	BACK UP ALARM HARNESS
5	1	0303113	4 POLE SOCKET & HARNESS
6	1	0303291	ELECTRICAL GREASE (NOT SHOWN)

Section VI - PARTS (cont'd)

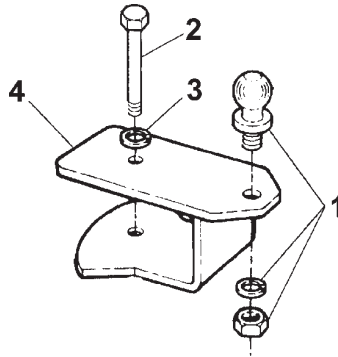
OPTIONAL PTO PANEL



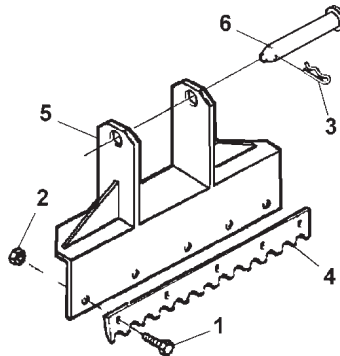
REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0304155	SWITCH PANEL HOUSING
2	2	0304156	SCREW, #10-32 X 3-3/8", MTG
3	2	0304157	LOCKWASHER, #10 EXT TOOTH
4	2	0304158	WASHER, #10 FLAT
5	2	0304166	NUT, 10-32
6	2	0304160	JAM NUT
7	1	0304161	ACTUATOR DISK
8	1	--	PTO CABLE, 14 FT (*SPECIFY MAKE & MODEL OF TRUCK)
9	1	0304163	PTO KNOB
10	2	0304162	CIRCUIT BREAKER, 40 AMP
11	1	0304154	SWITCH, DOUBLE POLE, SINGLE THROW
12	2	0304006	SWITCH, SINGLE POLE, SINGLE THROW
13	1	0304164	PTO LIGHT SWITCH
14	1	0301503	RING CONNECTOR
15	3	0304165	SPADE CONNECTOR

Section VI - PARTS (cont'd)

WHEEL LIFT ATTACHMENTS



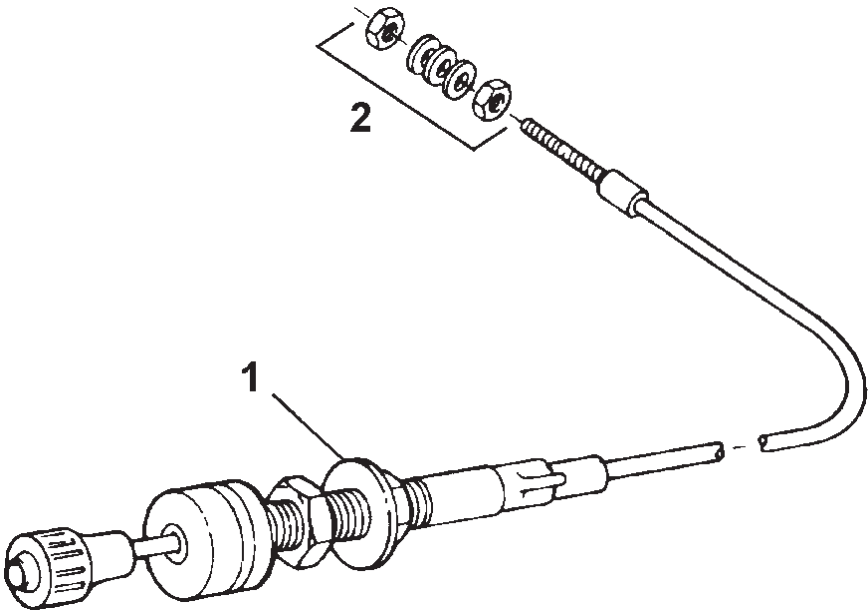
REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300091	BALL, TRAILER, 2" CHROME
2	1	0400294	SCREW, 3/4"-10 X 5-1/2" HEX HD CAP
3	1	0400511	LOCKWASHER, 3/4" HELICAL
4	1	0801091	TOWBALL BRACKET



REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	5	0400181	SCREW, 1/2"-13 X 1-1/2" HEX HD CAP
2	5	0400408	NUT 1/2"-13 NYLOK
3	1	0400585	HAIR PIN COTTER
4	1	0703459	OUTRIGGER BLADE
5	1	0801272	SPADE ATTACHMENT
6	1	0801273	SPADE PIN

Section VI - PARTS (cont'd)

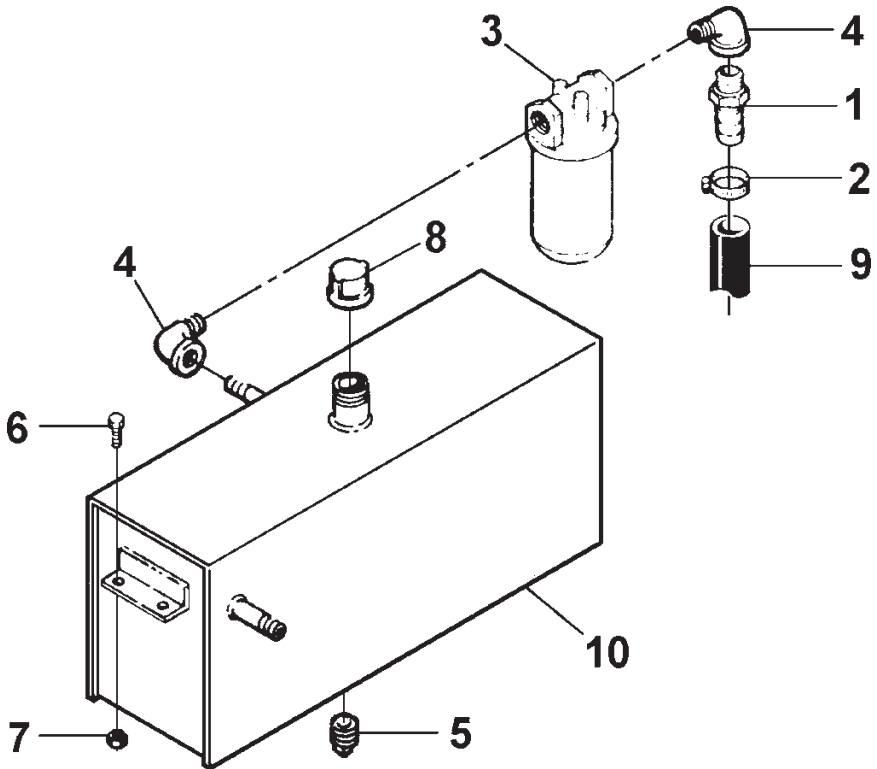
THROTTLE CONTROL



REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300683	THROTTLE CONTROL, 16' - 60 C.A.
	1	0300684	THROTTLE CONTROL, 18' - 84 C.A.
2	1	0900377	KIT, THROTTLE, FORD & CHEVY

Section VI - PARTS (cont'd)

4705 (WHEEL LIFT ONLY) RESERVOIR



REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300055	HOSEBARB, 12C4-12MP
2	2	0300071	CLAMP, HOSE 1"
3	1	0300136	RETURN LINE FILTER ASSEMBLY
4	2	0300288	ELBOW, STREET 90° 3/4" MALLEABLE BLACK
5	1	0300347	PLUG, 1/2" SQ HD BLACK
6	4	0400126	SCREW, 3/8"-16 X 1" HEX HD CAP
7	4	0400392	NUT, 3/8"-16 NYLOK HEX
8	1	0702741	RESERVOIR CAP
9	7 FT.	0301674	HOSE, RETURN 3/4"
10	1	0800788	RESERVOIR WELDMENT

CHALLENGER[®]

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