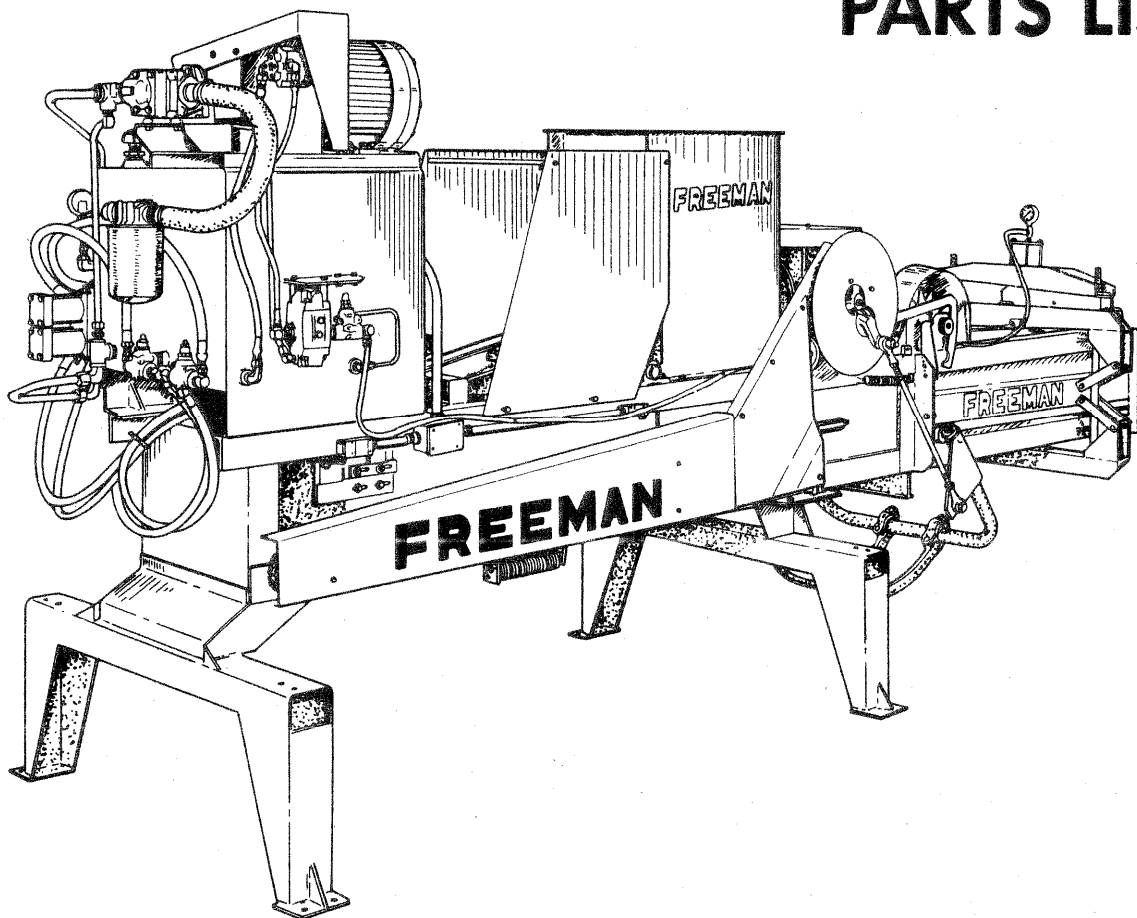


FREEMAN

CM 1418 HORIZONTAL HYDRAULIC AUTOMATIC TIE BALER

PARTS LIST



manufactured by

J. A. FREEMAN & SON, INC.

PORTLAND, OREGON

Printed in U.S.A. 9-77

INTENTIONALLY BLANK

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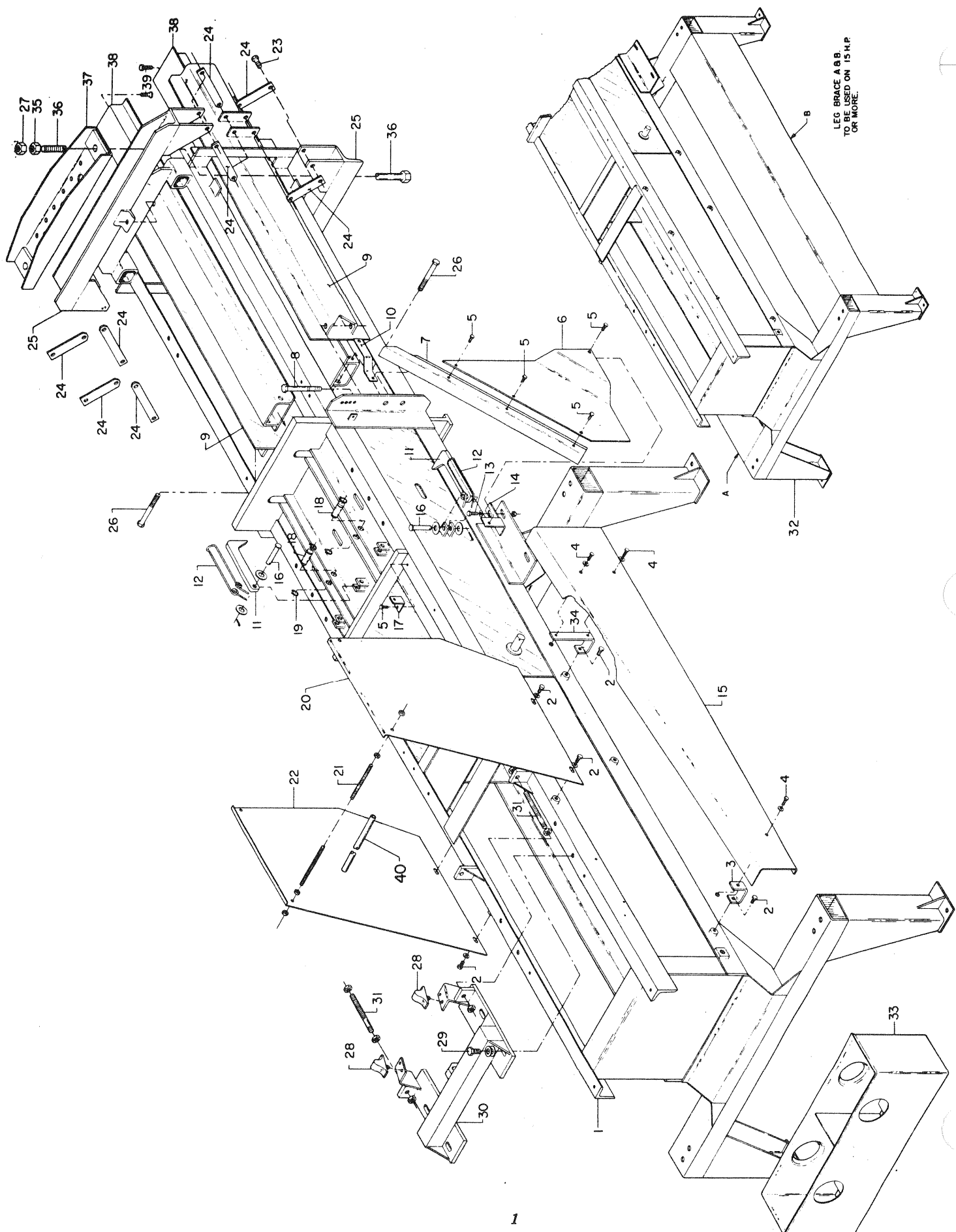
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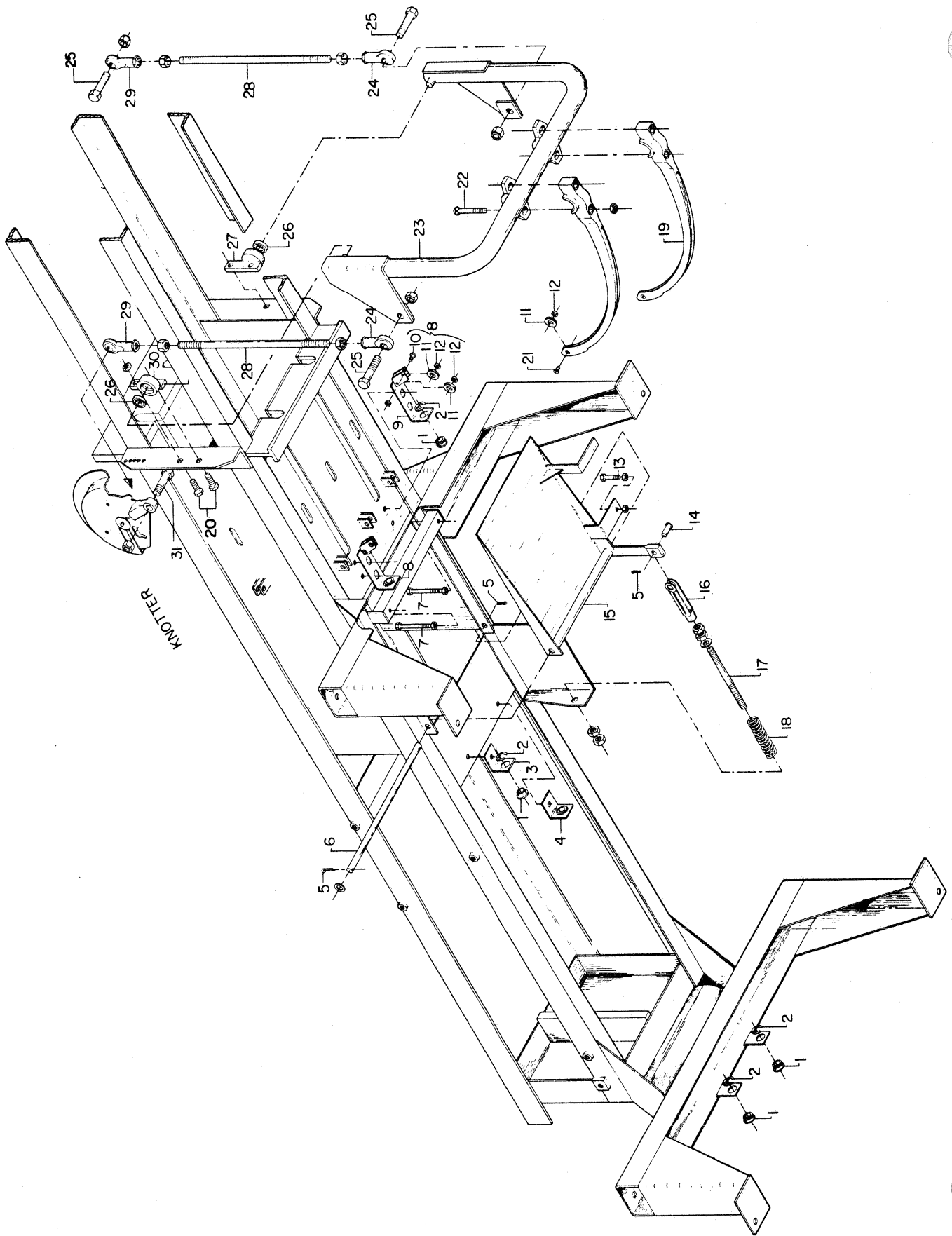
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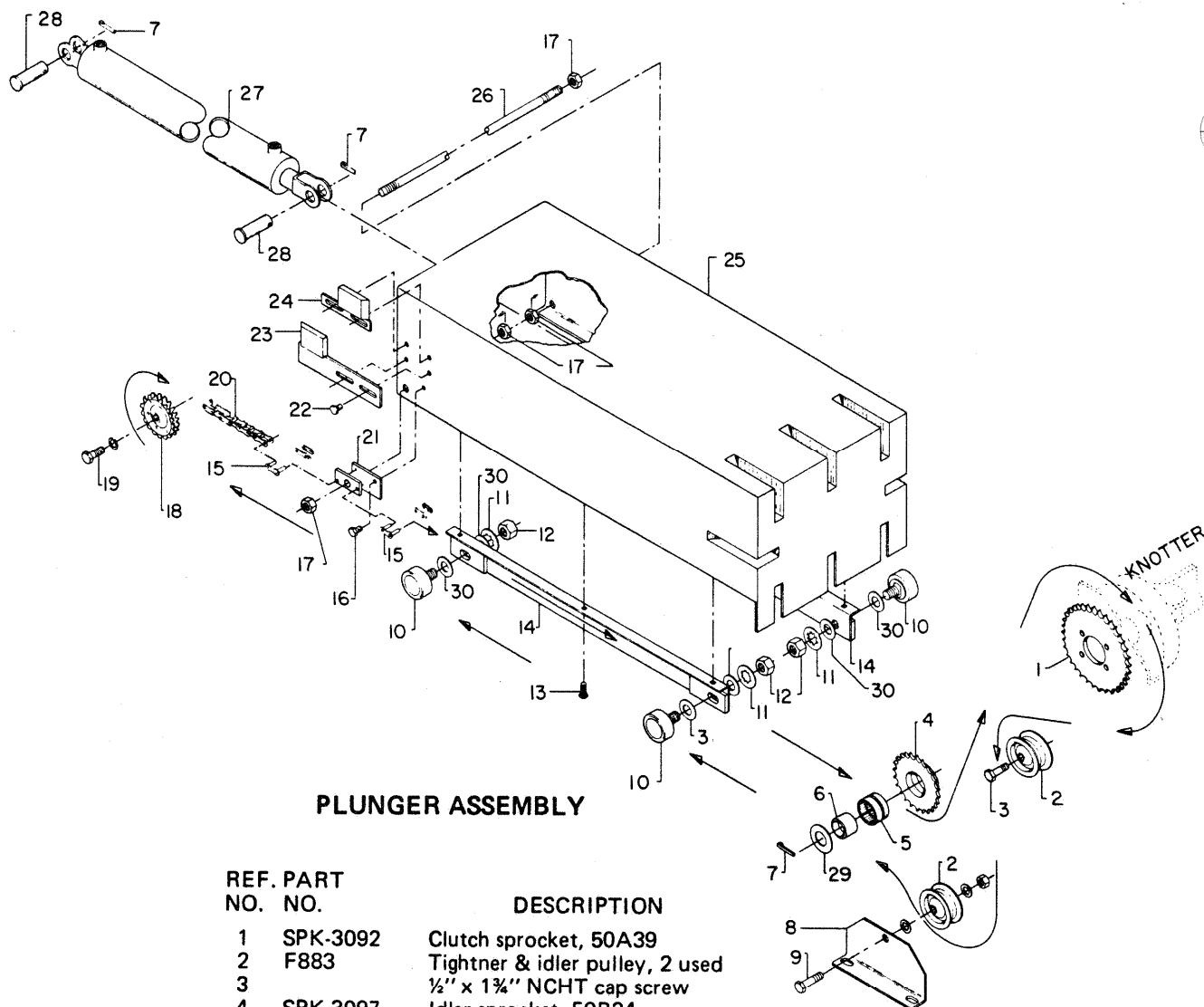
MAIN FRAME – TOP VIEW

REF. PART NO. NO.	DESCRIPTION
1 CBF5572	Main frame
2	3/8" x 3/4" N.C. cap screws, 6 used
3 BKT1197	Chain shield bracket, front
4	1/4" x 1" N.C. cap screws, 3 used
5	5/16" x 3/4" N.C. cap screws, 5 used
6 SHD4130	Chain shield
7 SHD4129	Chain shield
8	1/2" x 5 1/2" N.C. cap screw, 2 used
9 TNS7755	Side tension rail, 2 used
10 BKT4133	Shield bracket
11 DOG951	Dog
12 F797	Dog spring
13	1/2" x 1 1/4" N.C. cap screw
14 BKT4131	Shield bracket
15 SHD1202	Chain shield
16 F220	Dog pin, 8 used
17 BKT4132	Shield bracket
18 F4204	Upper wire guide pin, 2 used
19 F5159	Snap ring, 4 used
20 SHD48620	Valve shield, L.H.
21 RDB100	5/16" N.C. ready rod, 22" long, 4 used
22 SHD48621	Valve shield, R.H.
23	1/2" x 1 1/4" N.C.
24 TNS7514	Flat linkage, 8 used
25 TNS7120	Top tension angle
26	1/2" x 4" N.C. cap screw, 2 used
27	3/4" N.C. jam nut
28 F8264	Rubber bumper, 2 used
29	1/2" x 1" N.C. cap screw, 4 used
30 PKR6713	Packer ram frame
31 PKR6709	Packer ram tightner bolt, 2 used
32 CBF55721	Main frame, 15 HP
33 BOX6829	Wire box, 2 compartment
34 F3185	Chain shield bracket, rear
35	3/4" N.C. nut
36 F600	Tension bolt, 3/4"
37 FT214	Ram frame
38 TNS7757	Tension rail
39	3/8" x 1 1/2" N.C. cap screw
40 SPC7766	Spacer



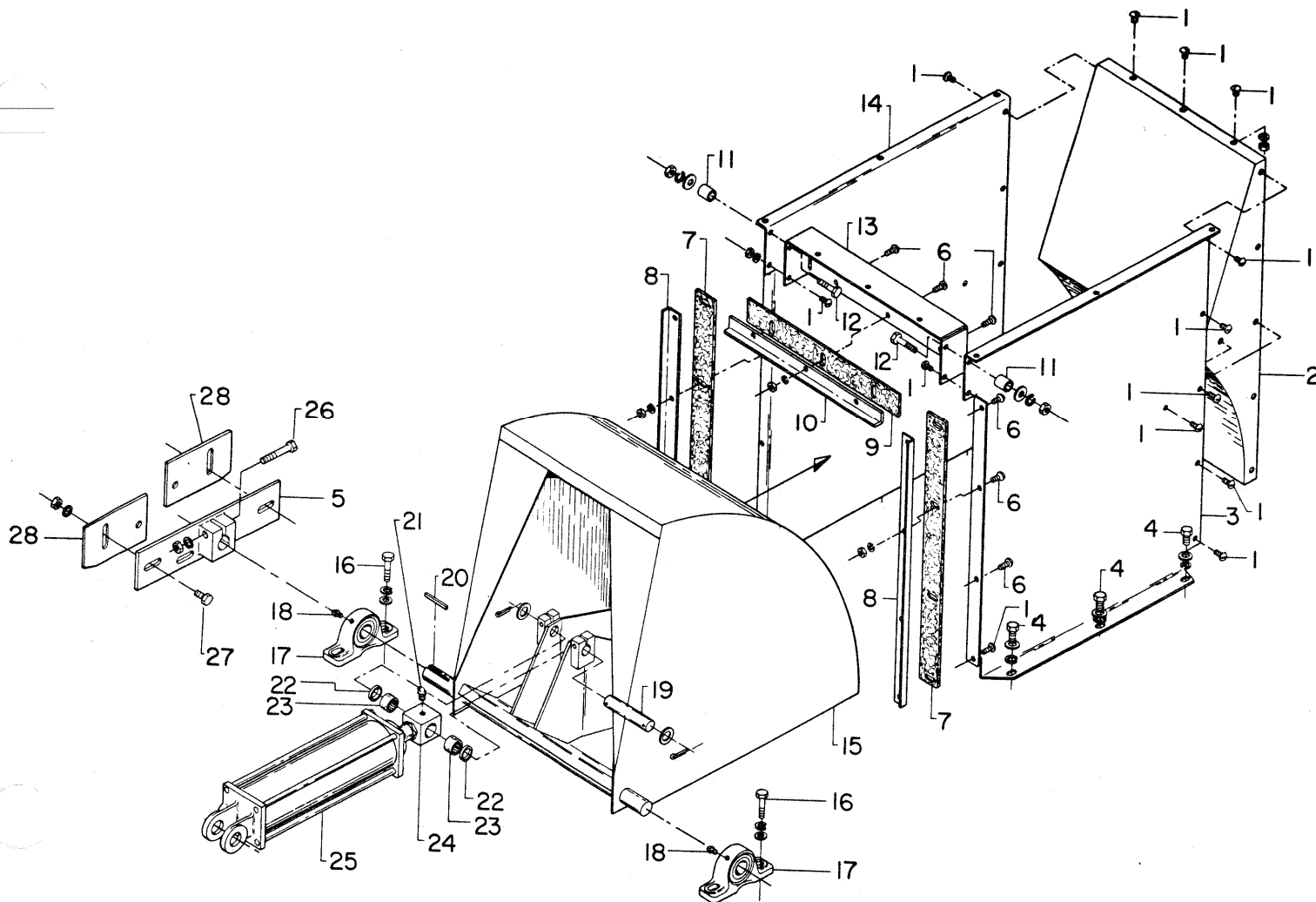
MAIN FRAME – BOTTOM VIEW

REF. PART NO. NO.	DESCRIPTION
1 F856	Wire guide bushing
2 F857	Snap ring for F856 bushing
3 F4163	Wire guide frame
4 F4224	Wire guide complete
5	1/8" x 1" cotter pin
6 PIN-1079	Hinge pin, compression door
7	3/8" x 4" NC cap screw, 2 used
8 F4205	Wire guide, complete, 2 roller
F3068	Wire guide, complete, 3 roller
9 F4222	Wire guide frame, 2 roller
F3069	Wire guide frame, 3 roller
10	1/4" x 1" N.C. cap screw
11 F4014	Roller
12 F4015	Bushing
13	1/2" x 3 1/2" N.C. cap screw
14 F7527	Pin
15 DOR1220	Compression door
16 F7526	Clevis, R.H. thread, 5/8"
17 SHF1104	Shaft, compression door, 5/8"
18 SPG3170	Spring, compression door
19 F8177	Needle, wide base w/roller
20	1/2" x 1 3/4" N.C. cap screw w/nut
21 F4016	Bolt, needle roller
22 F7552	Bolt, 1/2" x 3 1/4" carriage
23 F8367	Needle yoke
24 F1549	Needle yoke drive rod end, R.H. thread
25 F1552	Bolt w/nut
26 F7523	Bearing
27 F7521	Needle yoke bearing complete, R.H.
28 F7554	Needle yoke drive rod
29 F1550	Needle yoke drive rod end, L.H. thread
30 F7522	Needle yoke bearing complete, L.H.
31 F1551	Bolt w/nut, drive rod to clutch



PLUNGER ASSEMBLY

REF. NO.	PART NO.	DESCRIPTION
1	SPK-3092	Clutch sprocket, 50A39
2	F883	Tightner & idler pulley, 2 used
3		1/2" x 1 1/4" NCHT cap screw
4	SPK-3097	Idler sprocket, 50B24
5	F4077	Bearing, GR22SS
6	F4078	Inner race, MI-18
7		Cotter pin, 3/16" x 2", 3 used
8	BKT-1291	Chain idler bracket
9		1/2" x 2 1/2" NCHT cap screw
10	F1636	Roller for plunger, 3/4" shank, 6901, 4 used
11		3/4" internal star lock, 4 used
12		3/4" NF nut, 4 used
13		5/16" x 1" NC carriage bolt, 6 used
14	PLG-944	Plunger rail, side, 2 used
15	F25	Conn link for RC 50 chain, 2 used
16		3/8" x 1" NCHT cap screw
17		5/16" Jam nut, 4 used
18	SPK-3095	Idler sprocket, 50AG2416
19		1/2" x 1 1/2" NCHT cap screw
20	CHN-3096	Knotter drive chain
21	PLG-1084	Drive chain anchor
22		5/16" x 3/4" NCHT cap screw
23	PLG-4486	Limit switch cam, plunger return
24	PLG-4482	Limit switch cam, plunger compression
25	PLG-963	Plunger
26	PLG-6838	Plunger rod
27	CYL-3036	Cylinder, WC3036 Duke
	CYL-3015	Seal repair kit
28	PIN-103	Pin
29	ZZ-201	10 GA x 3/4 ID machinery bushing, as needed
30		3/4" cut washer, 8 used



PACKER & PACKER CHUTE

REF. PART NO. NO.

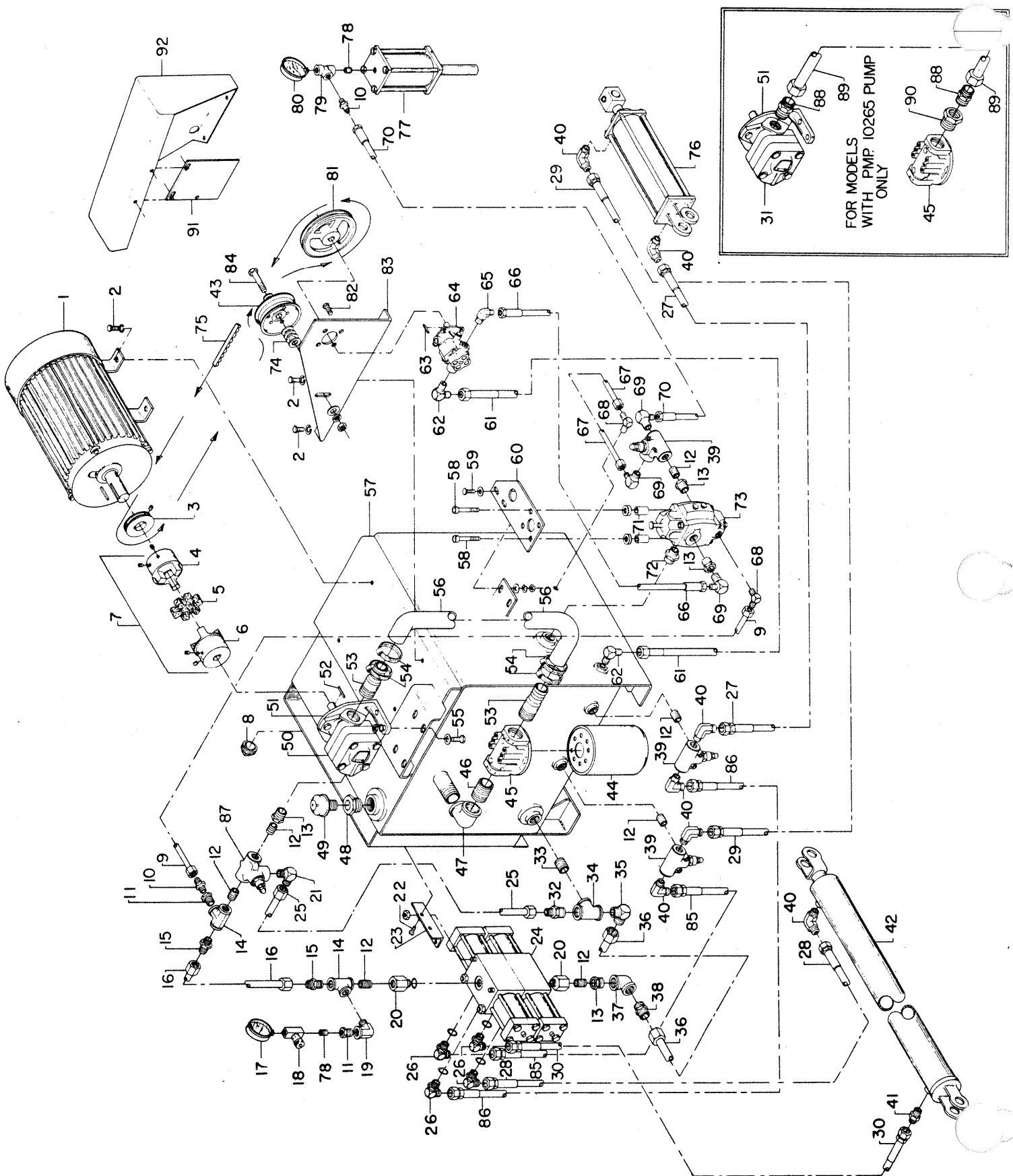
DESCRIPTION

1		1/4" x 1/2" truss head stove bolt, 20 used
2	PKR1305	Packer chute back
3	PKR10301	Packer chute, L.H. side
4		5/16" x 1/2" N.C. cap screw, 6 used
5	CAM4485	Cam arm
6		1/4" x 3/4" truss head stove bolt, 9 used
7	PKR1300	Packer chute side seal, 2 used
8	PKR1405	Packer chute side seal plate, 2 used
9	PKR1024	Packer chute top seal
10	PKR4872	Packer chute top seal plate
11	F117	Pipe spacer, 2 used
12		1/4" x 1 1/4" N.C. cap screw, 2 used
13	PKR1023	Packer chute front
14	PKR10300	Packer chute, R.H. side
15	PKR1034	Packer

REF. PART NO. NO.

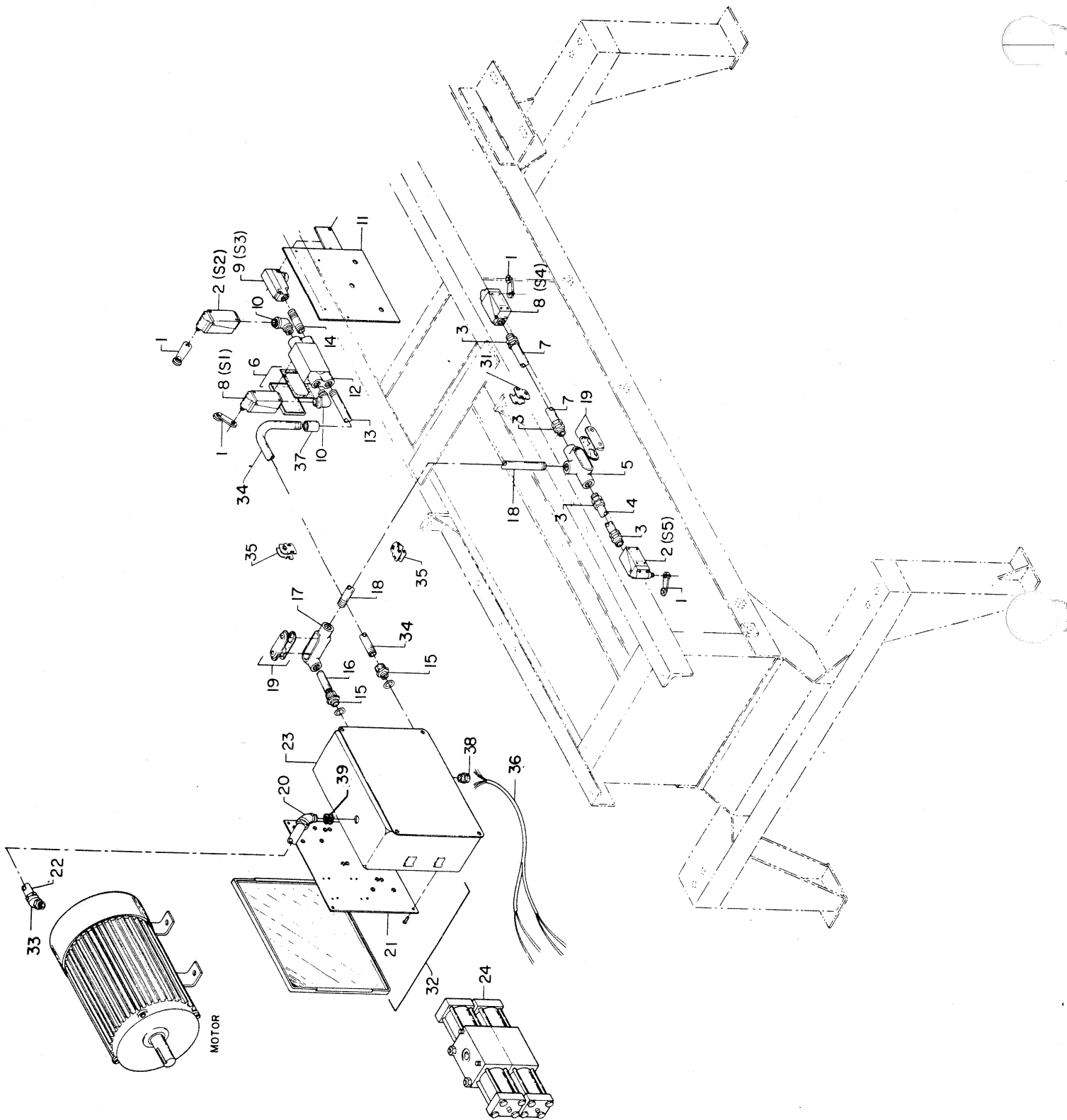
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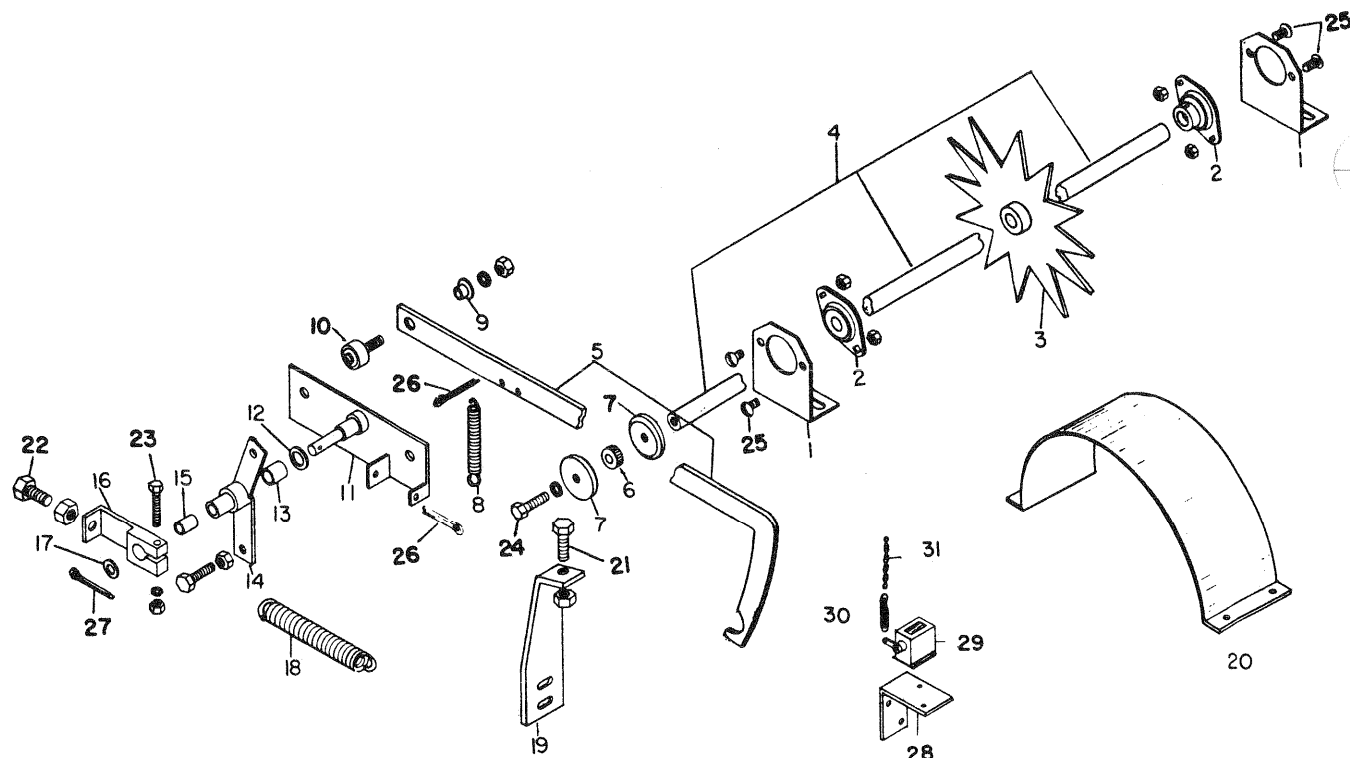
16		3/8" x 2" NCHT cap screw, 4 used
17	BRG3064	Bearing for packer, 1" pillow block, 2 used
	BRG3066	Bearing insert
18	ZZ100	Grease fitting, 1/8", 2 used
19	PKR1371	Pin
20	ZZ411	1/4" x 1/4" x 2" key
21	ZZ102	Grease fitting, 1/4"
22	F7587	Seal, Victor, 2 used
23	F481	Bearing, 2 used
24	PKR6859	Cylinder rod end
25	CYL3010	Cylinder, RBG3010 Victor
26		3/8" x 2 1/2" N.C. cap screw
27		3/8" x 1" N.C. cap screw
28	CAM4484	Micro switch cam



HYDRAULIC SYSTEM
with
External System Relief and
External Packer Cylinder Relief

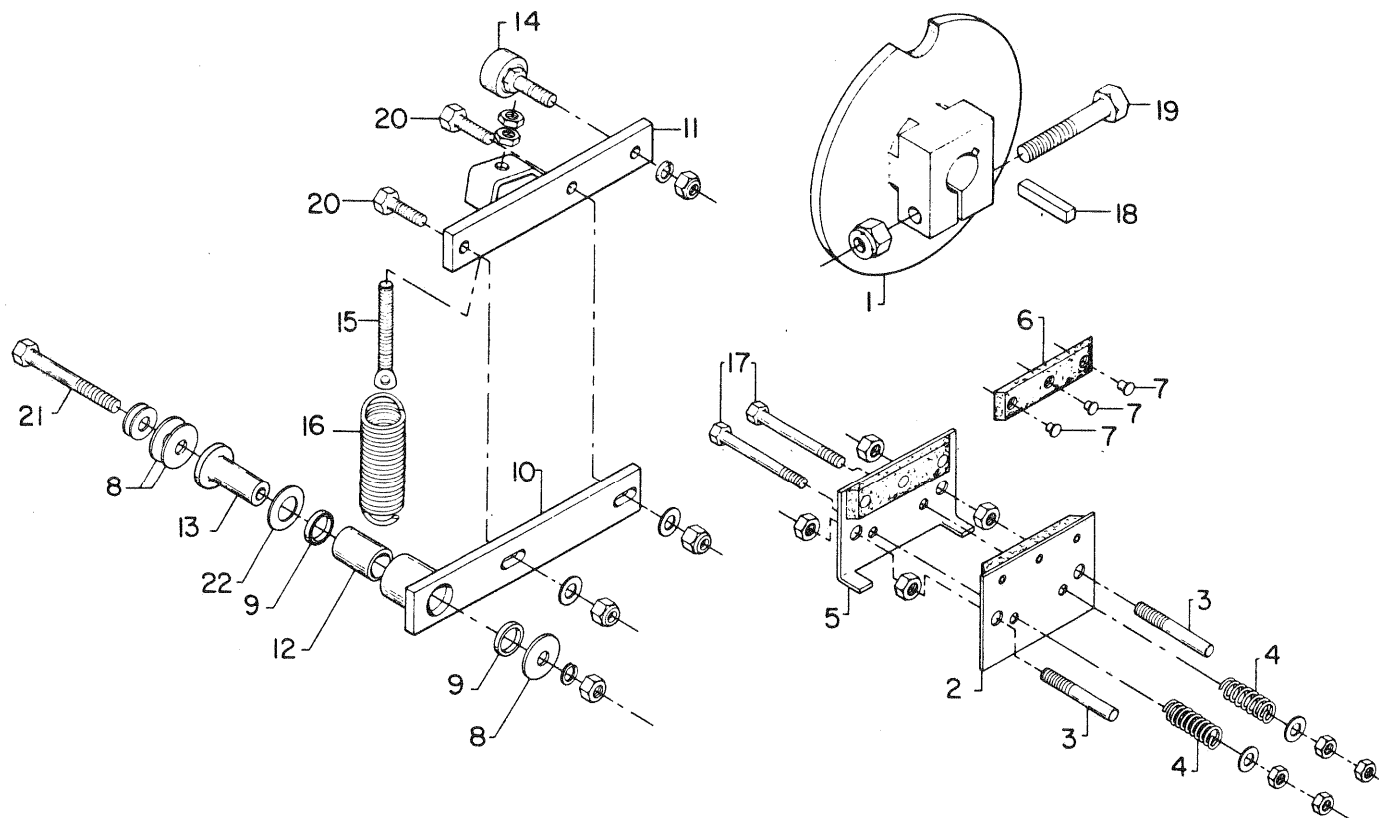
REF. PART NO. NO.	DESCRIPTION	REF. PART NO. NO.	DESCRIPTION
1 ELC-10012	Motor, 10 HP, 1800 rpm, 3 phase	45 01-635	Filter complete with element, FS252-100B Gresen
2	3/8" x 3/4" NC cap screw, 6 used	46 PPE-1250	1 1/4" close standard black nipple
3 PUL-32	Pulley unit,	47 PPE-125900	1 1/4" 90° standard black elbow
4 CPL-10001	Half coupling, G1000 x 1-3/8"	48 PPE-1250750	1 1/4" x 3/4" black reducer bushing
5 CPL-10002	Coupling insert	49 FT530	Air filter assembly
6 CPL-10003	Half coupling, G1000 x 3/4"	50 PMP-2027	Hydraulic pump, 7 gal., V20-2P-7P-1A-11 Vickers
7 CPL-10000	Coupling complete, G1000	51 PMP-10266	Hydraulic pump foot
8 PPE-21250	1 1/4" pipe plug	52	Key, 3/16" x 3/16" x 1-5/8"
9 TBE-6861	3/8" hydraulic tube	53 01-612	Hose nipple, Gates, 2 used
10 HYD-5205030	3/8" x 1/4" str. male connector, C5205 x 6 WH, 2 used	54 06-121	Hose clamp, 4-1203 BK, 4 used with
11 01-712	1/2" x 1/4" steel bushing, 3109 x 8 x 4 WH, 2 used	55	3/8" x 1 1/4" NC cap screw, 4 used
12 01-720	1/2" close. extra heavy black nipple, 6 used	56 HOS-6881	1 1/4" hydraulic hose, 30"
13 01-714	3/4" x 1/2" steel bushing, C3109 x 12 x 8 WH, 4 used	57 TNK-5791	Tank
14 01-702	1/2" steel tee, C3709 x 8 WH, 2 used	58	3/8" x 2 3/4" NC socket head cap screw, 4 used
15 01-442	5/8" x 1/2" straight male connector, C5205 x 10 WH, 2 used	59	5/16" x 1 1/4" NC cap screw
16 TBE-6946	5/8" Hydraulic tube	60 BKT-5764	Tension control valve bracket
17 GAG-2112	Hydraulic guage, 3000 lb., 21Gx12 UI	61 HOS-6891	3/8" hydraulic hose, 26"
18 VLV-400	Needle valve, N400S PH	62 HYD-5405040	1/2" x 3/8" 90° male elbow, C5405 x 8 WH
19 01-729	1/2" 90° street elbow, C3409 x 8 WH	63 ZZ403	Key, 1/8" x 1/8" x 1"
20 HYD-3269044	1/2" "O" ring adapter fitting, 3 used	64 FT547	Hydraulic pump
21 01-443	5/8" x 1/2" 90° male elbow, C5405 x 10 WH	65 F6635	3/8" x 3/8" 90° male elbow, C5405 x 6 x 6 WH
22	5/16" x 3/4" NC cap screw	66 HOS-6893	1/4" hydraulic hose, 23"
23 16-138	Mounting bracket for solenoid, 2 used	67 TBE-6894	3/8" hydraulic tube, 14"
24 VLV-495T818	Solenoid valve, 495T-8-18-24 VDC	68 F6638	3/8" 90° male elbow, C5405 x 6 WH, 2 used
ELC-15010	Solenoid only, 115-758-24	69 F6673	3/8" x 1/2" 90° male elbow, C5405 x 6 x 8 WH
25 TBE-6947	5/8" hydraulic tube	70 HOS-6892	1/4" hydraulic hose, 144"
26 01-446	1/2" "O" ring 90° elbow, C5515 x 8 WH. 4 used	71 F8175	Spacer, 2 used
27 HOS-6895	1/2" hydraulic hose, 63"	72 HYD-3069060	3/4" hex nipple, C3069 x 12 WH
28 HOS-6871	1/2" hydraulic hose, 81"	73 VLV-6423	Sequence valve, RT-06-F4-23 Vickers
29 HOS-6874	1/2" hydraulic hose, 74"	74	1/2" cut washer
30 HOS-6873	1/2" hydraulic hose, 46"	75 BLT-38	Belt, AX38 Dayton
31 PMP-10265	Hydraulic pump, 5 gal., V10-26P-5-P-1A-10R Vickers	76 CYL-3010	Hydraulic cylinder, RBG-3010 Victor
32 HYD-5205056	5/8" x 3/4" male connector, C5205 x 10 x 12 WH	77 FT232	Tension control cylinder complete
33	3/4" close standard black nipple	78 FT73	Nipple, 1/4" x 1 1/2", 2 used
34 PPE-40750	3/4" standard black tee	79 FT74	Tee, 1/4"
35 HYD-5405060	3/4" 90° male elbow, C5405 x 12 WH	80 F800	Hydraulic pressure gauge, 2000 lb.
36 TBE-7856	3/4" hydraulic tube	81 PUL-615	Sheave, tension control pump drive,
37 PPE-75900	3/4" 90° standard black elbow	82	3/8" x 1" NC cap screw
38 HYD-5205060	3/4" male connector, C5205 x 12 WH	83 BKT-5306	Tension control pump bracket
39 01-506	Relief valve, RD11A Cross, 3 used	84	1/2" x 2 1/2" NCHT cap screw
40 01-447	1/2" 90° male elbow, C5405, x 8 x 8 WH. 7 used	85 HOS-6872	1/2" hydraulic hose, 30"
41 01-448	1/2" male connector straight, C5205 x 8 x 8 WH	86 HOS-6870	1/2" hydraulic hose, 42"
42 CYL-3036	Hydraulic cylinder, Duke WC3036	87 01-513	Relief valve, RD11E Cross
43 PUL-810601	Idler pulley, V008601 Fafnir	88 HYD-7205070	1" male connector, 7205 x 16 WH
44 01-636	Filter element, K2319-25 Gresen	89 TBE-6898	1" hydraulic tube
		90 PPE-1251000	1 1/4" x 1" black reducer bushing
		91 BKT7773	Bracket for pump shield
		92 SHD7772	Pump shield





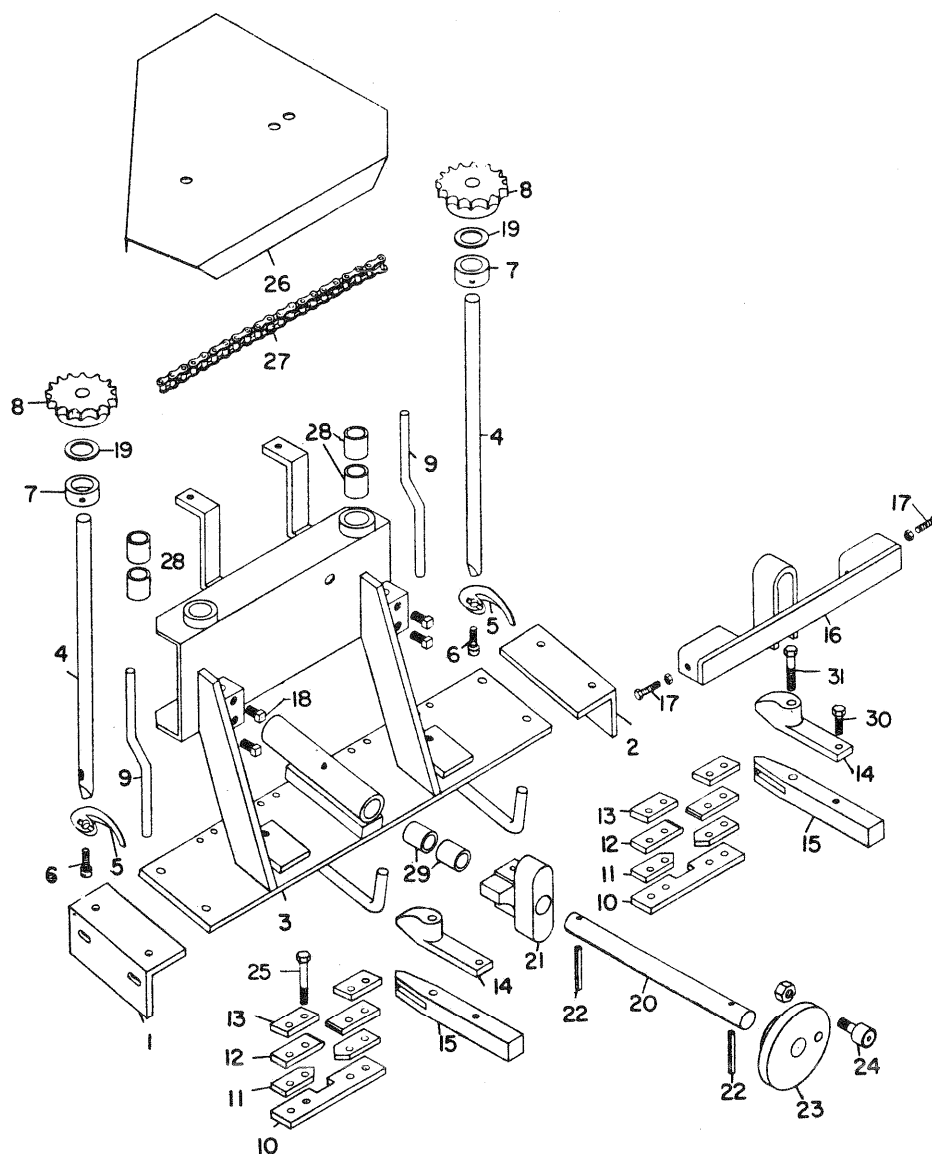
KNOTTER TRIP ASSEMBLY

REF. PART NO.	NO.	DESCRIPTION
1	F1617	Meter wheel shaft bracket, 2 used
2	F1618	Meter wheel shaft bearing complete, 2 used
	F1619	Bearing only, RA012NPPB
	F1889	Flangett only, 47MST
	F1890	Locking Collar only, S1012K
3	F1531	Meter wheel, 10"
4	F8034	Meter wheel shaft
5	F1686	Meter trip bar
6	F1687	Knurled friction disc
7	F8023	Guide washer
8	F278	Spring
9	F440	Ferrule
10	F1572	Cam follower bearing
11	F1513	Knotter trip mount
12		3/4" x 1 1/4" - 10 ga. machine bushing
13	F7227	Bushing, 3/4" x 7/8" x 3/4" oilite
14	F1514	Reset lever
15	F1568	Bushing, rest lever, 1/2" x 5/8" x 1" oilite
16	F1515	Clutch stop lever
17		1/2" x 7/8" - 14 ga. machine bushing
18	F1517	Trip spring
19	F1632	Meter trip bar stop with bolt
20	F1608	Shield for meter wheel
21		1/2" x 1 3/4" NC cap screw, trip bar stop
22		1/2" x 1 1/4" NC cap screw, clutch stop
23		5/16" x 2" NC cap screw, clutch stop clamp
24		3/8" x 1 1/4" NC cap screw, knurled roller and washers
25		5/16" x 3/4" NCBH machine screw, bearing to bracket
26		3/16" x 3/4" cotter key
27		1/8" x 1" cotter key
28	F7391	Bale counter mounting angle
29	F304	Bale counter, Veeder Root
	F635	Arm w/screw for F304
	F636	Reset knob for F304
30	F638	Spring, bale counter
31	F637	Chain, bale counter



KNOTTER BRAKE ASSEMBLY

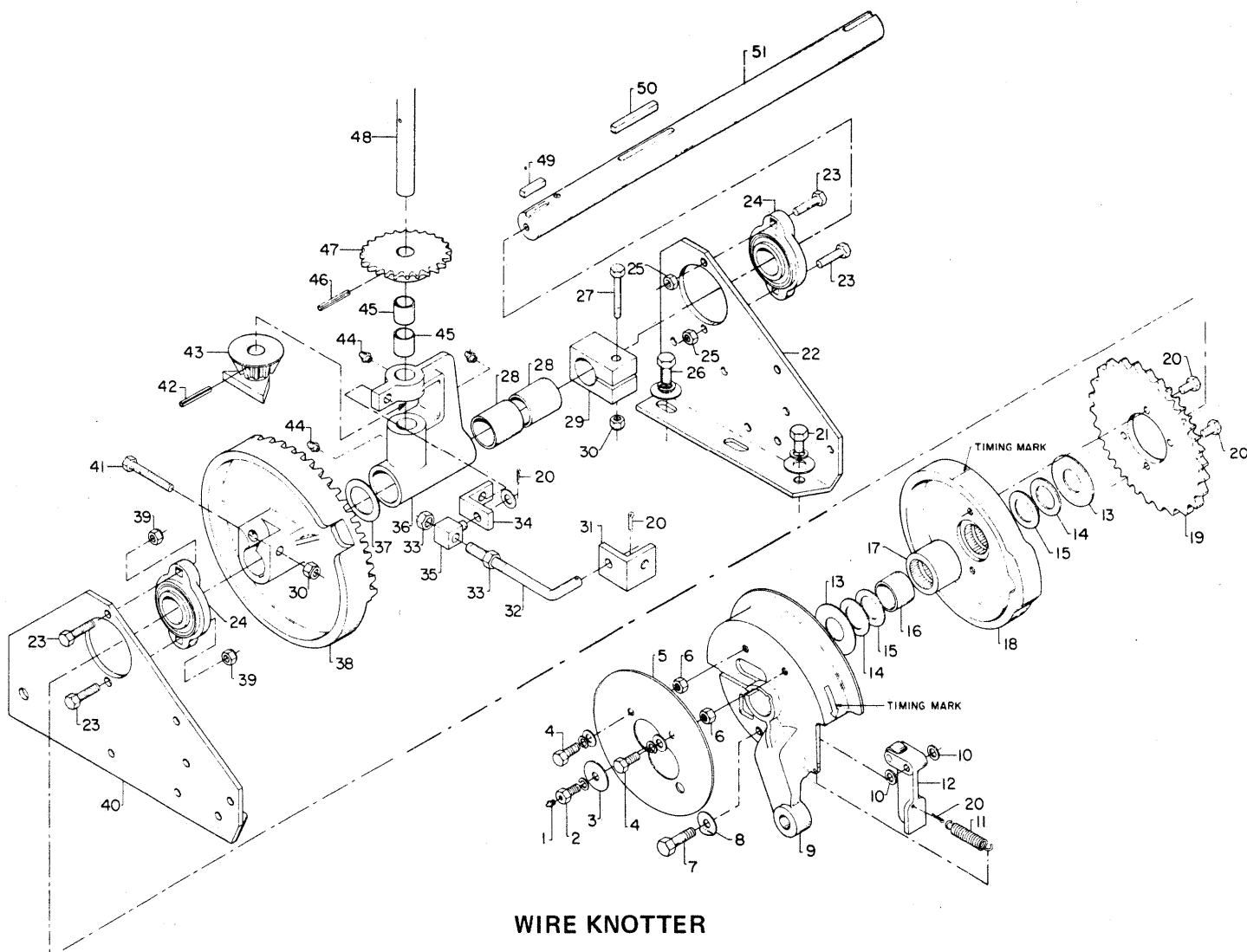
REF. PART NO.	NO.	DESCRIPTION
1	FA7528	Brake disc with hard notch, 1-3/8"
2	F7450	Outside brake plate with lining
3	F7451	Brake plate stud, 2 used
4	F7453	Brake plate spring, 2 used
5	F7449	Inside brake plate with lining
6	F7454	Brake lining with rivets, 2 used
7		Rivets for brake lining, 6 used
8	F246	Saddle lever washer
9	F7587	Seal for saddle lever anchor, 63123 Victor
10	F7561	Saddle lever lower half with bushing
11	F7560	Saddle lever upper half with spring anchor
12	F7586	Bushing for saddle lever, 3/4" x 1" x 1 1/2"
13	F7585	Saddle lever sleeve
14	F1572	Cam follower, saddle lever
15	F7448	Saddle lever spring eyebolt
16	F7559	Saddle lever spring
17	F7452	Brake plate bolt, 1/4" x 3 1/2" NC
18	F7904	3/8" x 3/8" x 2" key for brake disc
19		1/2" x 3/4" NC cap screw w/fibre lock nut for brake clamp
20		5/16" x 1 1/4" NC cap screw w/fibre lock nut for saddle lever
21		3/8" x 3 1/2" NC cap screw w/fibre lock nut for saddle lever anchor



WIRE KNOTTER

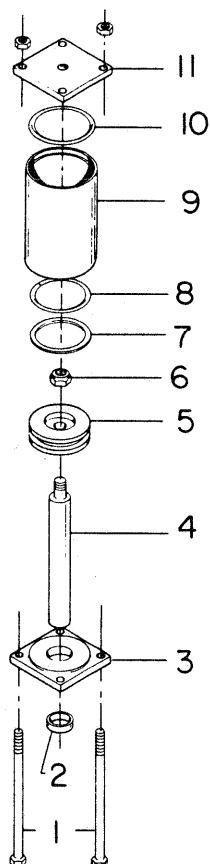
REF. PART NO. NO.	DESCRIPTION
1 F7062	Knotter mounting angle, LH
2 F7065	Knotter mounting angle, RH
3 F7311	Twister and shuttle bar frame
4 F7089	Twister shaft
5 F4046	Twister hook
6 F7248	Twister hook bolt
7 F172	Set collar, 3/4"
8 F4024	Sprocket, twister shaft, 15T
9 F7318	Wire holder rod
10 F7087	Wire knife
11 F7086	Gripper spacer, bottom
12 F7085	Wire gripper
13 F7084	Gripper top plate
14 F7312	Wire divider
15 F7313	Wire gripper tongue
16 F7316	Shuttle bar with adjusting screws

REF. PART NO. NO.	DESCRIPTION
17 F7081	Shuttle bar adjusting screws
18	3/8" x 3/4" NC square head set screw
19	Washer, 10 ga., 3/4"
20 F7077	Cam shaft
21 F7075	Shuttle bar drive cam
22 F7076	Roll pin, 1/4" x 1 1/2"
23 F7078	Shuttle bar crank flange
24 F7079	Cam follower
25	5/16" x 1 1/4" NFHT cap screw
26 F7317	Shield
27 F7348	Twister drive chain, 64P No. 40
28 F7227	Bushing, twister shaft
29 F7227	Bushing, cam shaft
30	5/16" x 3/4" NC cap screw
31	3/8" x 2 1/2" NFHT cap screw



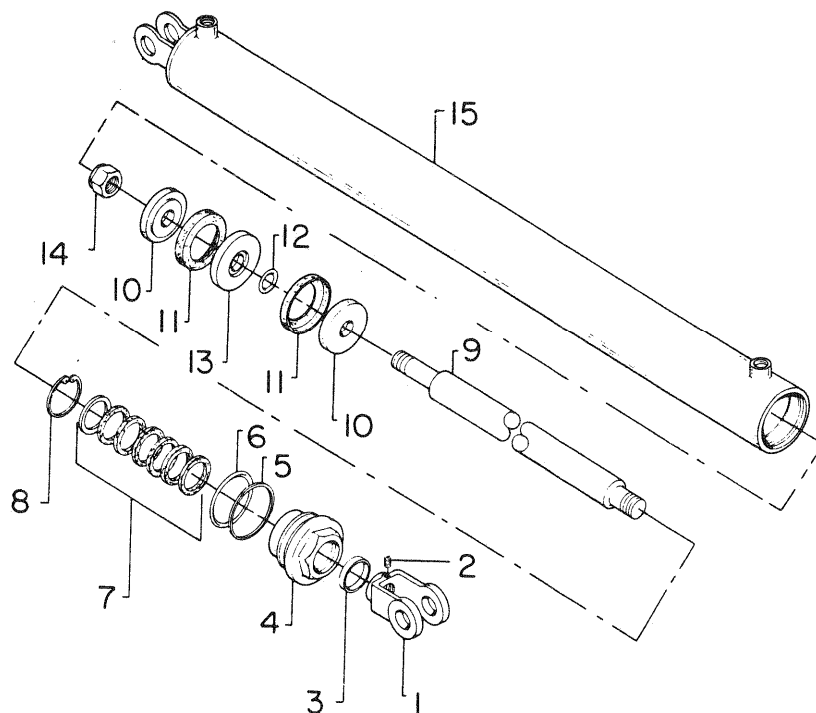
WIRE KNOTTER

REF. PART NO. NO.	DESCRIPTION	REF. PART NO. NO.	DESCRIPTION
1	Zerk, 1645B	28	F4137 Bushing for F7072 frame, 1-3/8" x 1 1/2" x 2"
2	F1576 Adapter W/1645B zerk	29	F4138 Clamp collar
3	F246 Washer, knotter shaft end	30	1/2" NC nut
4	3/8" x 1" NC cap screw	31	F7332 Angle for chain tightner rod, large
5	F7987 Shield for knotter clutch	32	F7334 Chain tightner rod
6	3/8" NC nut	33	1/2" NF nut
7	F1633 Clutch pawl pin	34	F7333 Angle for chain tightner rod, small
8	F1620 Clutch pawl pin lock	35	F7335 Block for chain tightner rod
9	F7519 Clutch w/pawl	36	F7072 Pinion frame
10	F1623 Washer, 7/16" ID x 7/8" OD x .025"	37	F4159 Washer, 1-3/8" ID x 10 ga.
11	F4115 Spring, clutch pawl		F4160 Washer, 1-3/8" ID x 14 ga.
12	F1622 Clutch pawl		F4161 Washer, 1-3/8" ID x 18 ga.
13	F4136 Hardened washer, 1-3/8" ID x 16 Ga.	38	F7432 Intermittent gear
14	F4159 Knotter shaft spacer washer, 10 Ga.	39	3/8" NC elastic stop nut
15	F4161 Knotter shaft spacer washer, 18 Ga.	40	F7571 Knotter mount, LH
16	F4135 Inner race for F4134 bearing	41	1/2" x 3" NC cap screw
17	F4134 Bearing for F4133 disc	42	F7076 Roll pin, 1/4" x 1 1/2"
18	F4133 Notched clutch disc with F4134 bearing	43	F7431 Pinion
19	F3092 Clutch sprocket, 50A39	44	Zerk, 1641B
20	1/8" x 1" cotter key	45	F7247 Bushing for F7072 frame, 7/8" x 1" x 1"
21	1/2" x 3/4" NC cap screw	46	F4030 Roll pin, 1/4" x 2"
22	F7570 Knotter mount, RH	47	F7257 Twister drive sprocket, 40B25
23	3/8" x 1 1/2" NC cap screw	48	F7069 Pinion shaft
24	F7063 Bearing, knotter shaft, 2 used	49	3/8" x 3/8" x 2" key
25	3/8" NC plain nut	50	3/8" x 3/8" x 2 3/4" key
26	1/2" x 1" NC cap screw	51	F8346 Knotter shaft
27	1/2" x 2 3/4" NC cap screw		



TENSION CONTROL RAM

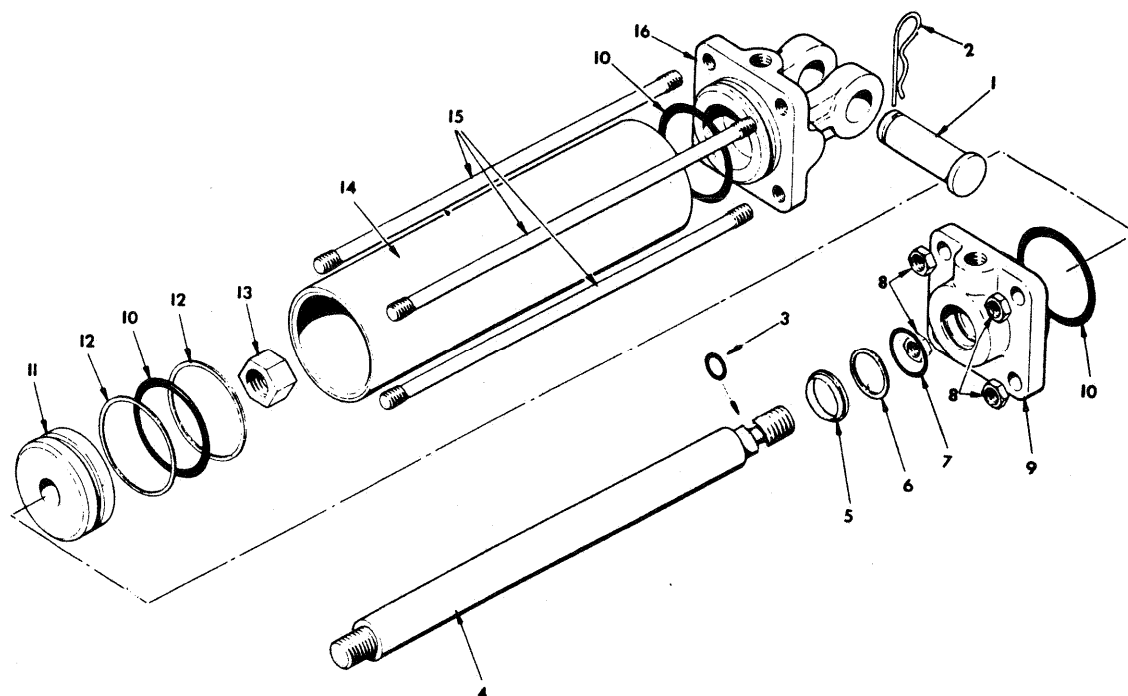
REF. PART NO.	NO.	DESCRIPTION
1	FT235	Tie bolt w/nut, 3/8 x 7 1/2, 4 used
2	FT19	Bushing for FT14, 1" x 1 1/4" x 5/8"
3	FT14	Cylinder bottom w/bushing
4	FT233	Piston rod
5	FT236	Piston head
6		1/2" NF esna jam nut
7	FT137	Backup ring
8	FT12	"O" ring for piston
9	FT250	Cylinder
10	FT12	"O" ring top seal
11	FT251	Cylinder top



PLUNGER CYLINDER

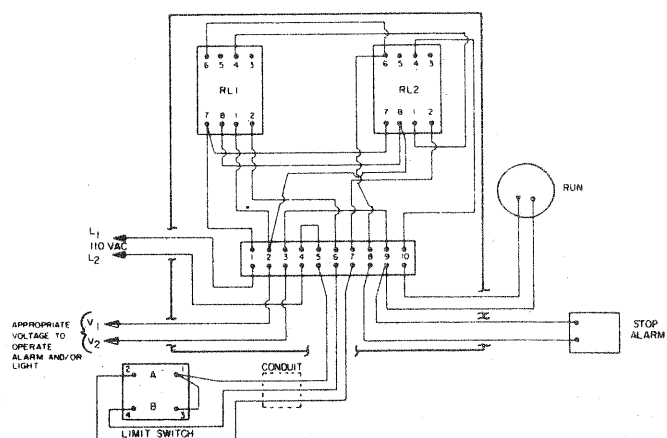
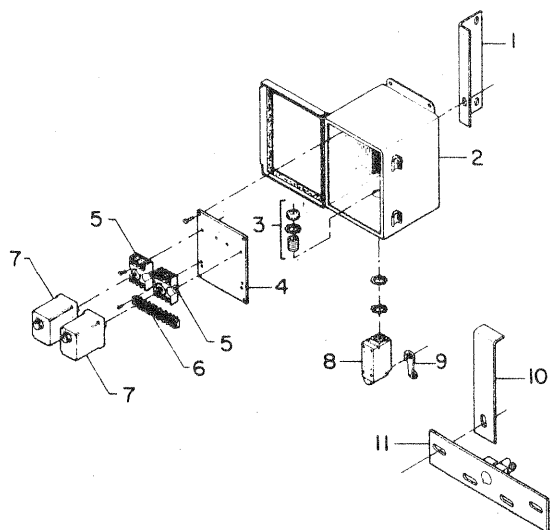
CYL 3036

REF. PART NO.	NO.	DESCRIPTION
1	CYL-2500911	Clevis, WM-2500-9-112
2	CYL-10223	Set screw, 10223
3	*	Piston rod wiper, 10233
4	CYL-3000315	Cylinder head, W-3000-3-150
5	*	Tube seal backup washer, 26112
6	*	Tube seal, 20012
7	*	Piston rod packing set, 66150
8	*	Snap ring, 71200
9	CYL-3004436	Piston rod, W-3000-44-360
10	CYL-30006	Piston cup retainer, W-3000-6
11	*	Piston cup, 40030
12	*	Seal, piston body, 25017
13	CYL-30005	Piston, W3000-5
14	CYL-10252	Nut, 10252
15	CYL-3000236	End cap & tube assembly, WC3000-2A-360
	*CYL-3015	Seal repair kit, KW3015



VICTOR CYLINDER CYL-3010

REF. PART NO.	NO.	DESCRIPTION
1	CYL-181106	Pin
2	CYL-181107	Pin clip
3	*	"O" ring
4	CYL-4110861	Rod, 411086-10
5	*	Rod wiper
6	*	Backup ring
7	*	"O" ring rod packing
8		3/8" NF nut
9	CYL-414215	Head
10	*	"O" ring
11	CYL-412056	Piston
12	*	Backup ring
13		7/8 - 14 NF nut
14	CYL-4101111	Tube, 410111-10
15	CYL-4191451	Tie rod, 419145-10
16	CYL-414216	Bottom
	*CYL-199125	Seal repair kit



ALARM SYSTEM

REF. PART NO. NO.	DESCRIPTION
1 BKT7768	Support Bracket
2 BOX8066	Relay box
3	Connector
4 PNL86	Panel
5 SOK27122	Relay socket, 8 pin
6 03-208	Terminal strip
7 ELC5050	Time delay, CHB-38-70002
8 ELC5000	Limit switch
9 ELC5001	Lever arm
10 LEV7769	Trip lever
11 CAM4485	Cam arm

INTENTIONALLY BLANK