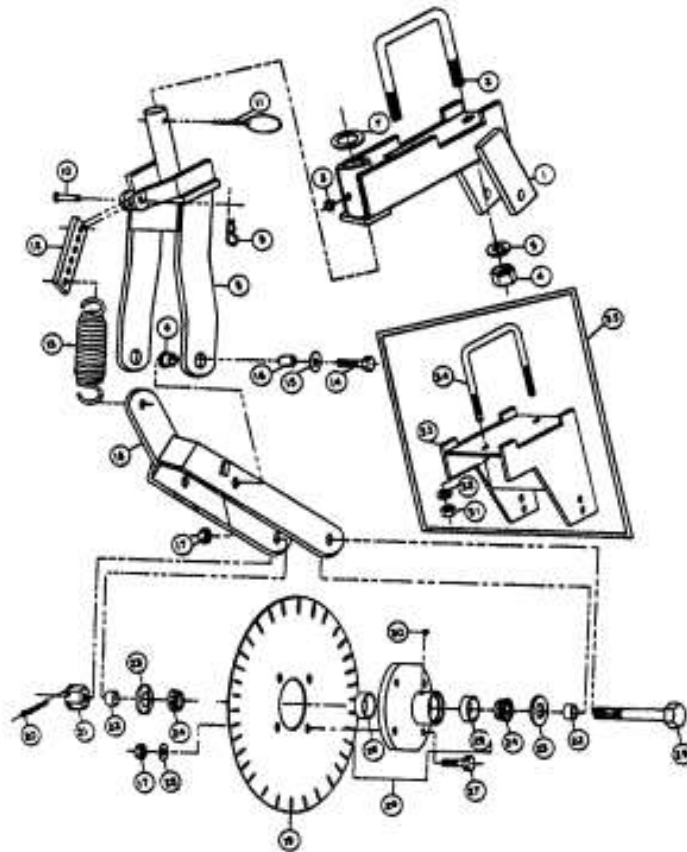




MARLISS

Better Than Ever!



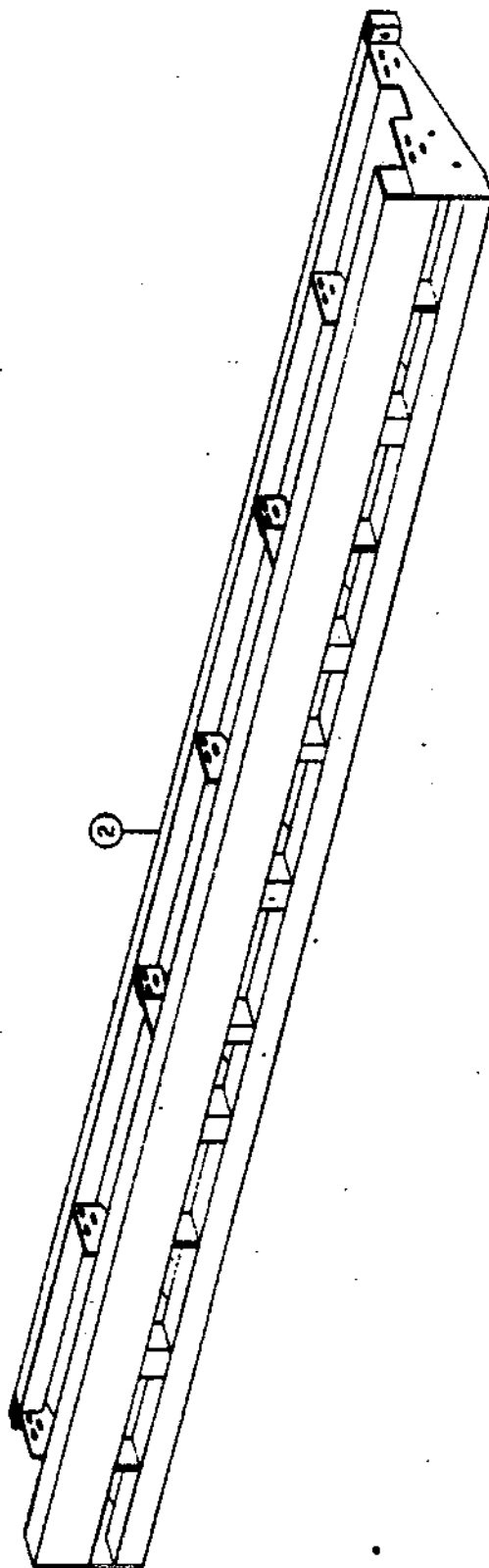
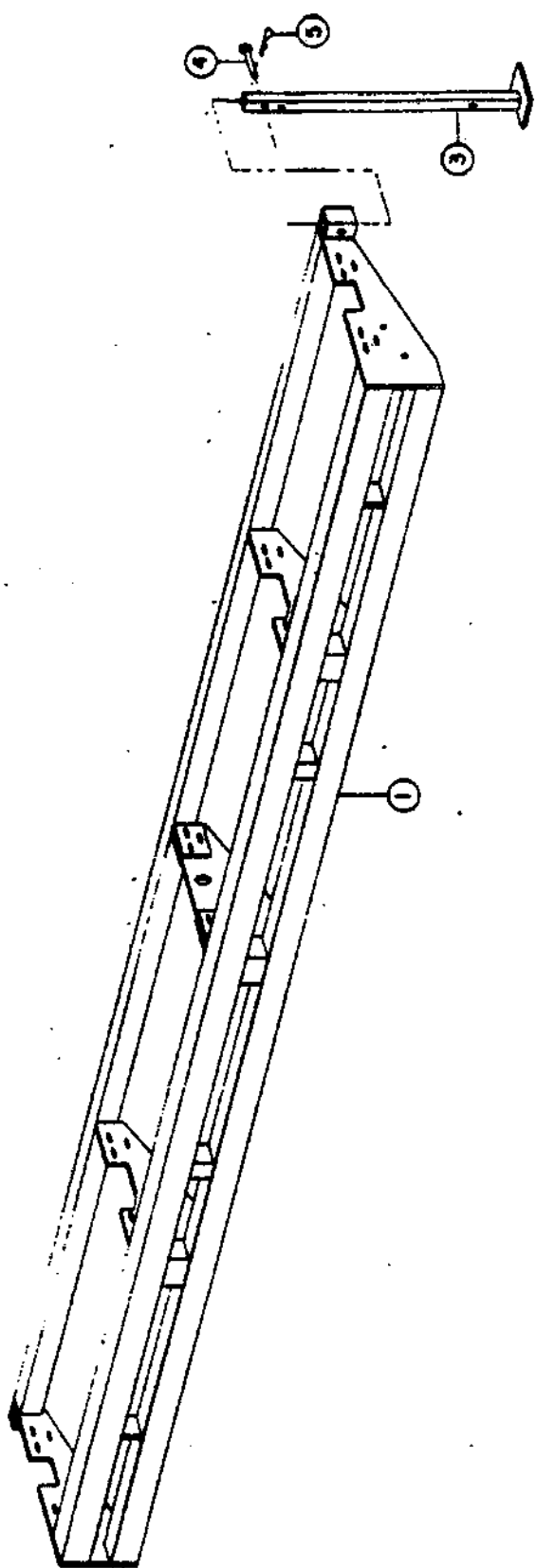
Soybean & Grain Drill
Installation and Parts Manual
Our Tradition is Quality Driven and Field Proven

TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
MAIN FRAMES.....	1-2
HOPPER ASSEMBLY.....	3-4
DRIVE ASSEMBLY.....	5-6
UNIT RAILS.....	7
CHAIN GUARDS.....	8
CHAIN IDLERS.....	9-10
OPENER ASSEMBLY.....	11-12
1 x 10 FIRING WHEEL.....	13-14
SINGLE PRESS WHEEL.....	15-16
2 x 13 DUAL PINCHER PRESS WHEEL.....	17-18
DRIVE WHEEL 7'.....	19-20
DRIVE WHEEL 7' 3PT.....	21-22
DRIVE WHEEL 10', 14', 15'.....	23-24
DRIVE WHEEL 20', 27'.....	25-26
FLOATING DRIVE ARM ASSEMBLY.....	27
SECONDARY BAR ASSEMBLY.....	28
FLUTED COULDER ASSEMBLY.....	29-30
STANDARD 3PT. HITCH.....	31-32
HEAVY DUTY 3PT. HITCH.....	33-34
CLUTCH AND DRIVE ASSEMBLY.....	35-36
END WHEEL ASSEMBLY, 10' & 14' REGULAR.....	37-38
END WHEEL ASSEMBLY (ALL OTHER).....	39-40
HYDRAULIC ASSEMBLY (PULL TYPE DRILL).....	41-42
TONGUE, 7' PT, 7' PINT.....	43
TONGUE, 10' PT, 10' PINT, 14' PT.....	44
TONGUE, ALL OTHER PULL TYPE.....	45
TONGUE ASSEMBLY, ALL PT DRILLS.....	46
LIFT AND PULL.....	47
MARKER HYDRAULIC ASSEMBLY.....	48
MARKER ASSEMBLY.....	49-50
MARKER MOUNTING ATTACHMENTS.....	51
WEIGHTS AND BRACKERS.....	52
WALKBOARD ASSEMBLY.....	53-54
ACRE METER.....	55-56
DRAG CHAINS.....	57
OUTSIDE SCRAPERS.....	58
LIFT ASSIST.....	59-60
END TRANSPORT, 20' and 27' 3PT-ETA 1&2.....	61-62
END TRANSPORT, 20' NO-TILL-ETA 3.....	63-64
END TRANSPORT, PULL TYPE-ETA 4&5.....	65-66
WHEEL TRACK FLOW.....	67
TONGUE JACK ASSEMBLIES.....	68

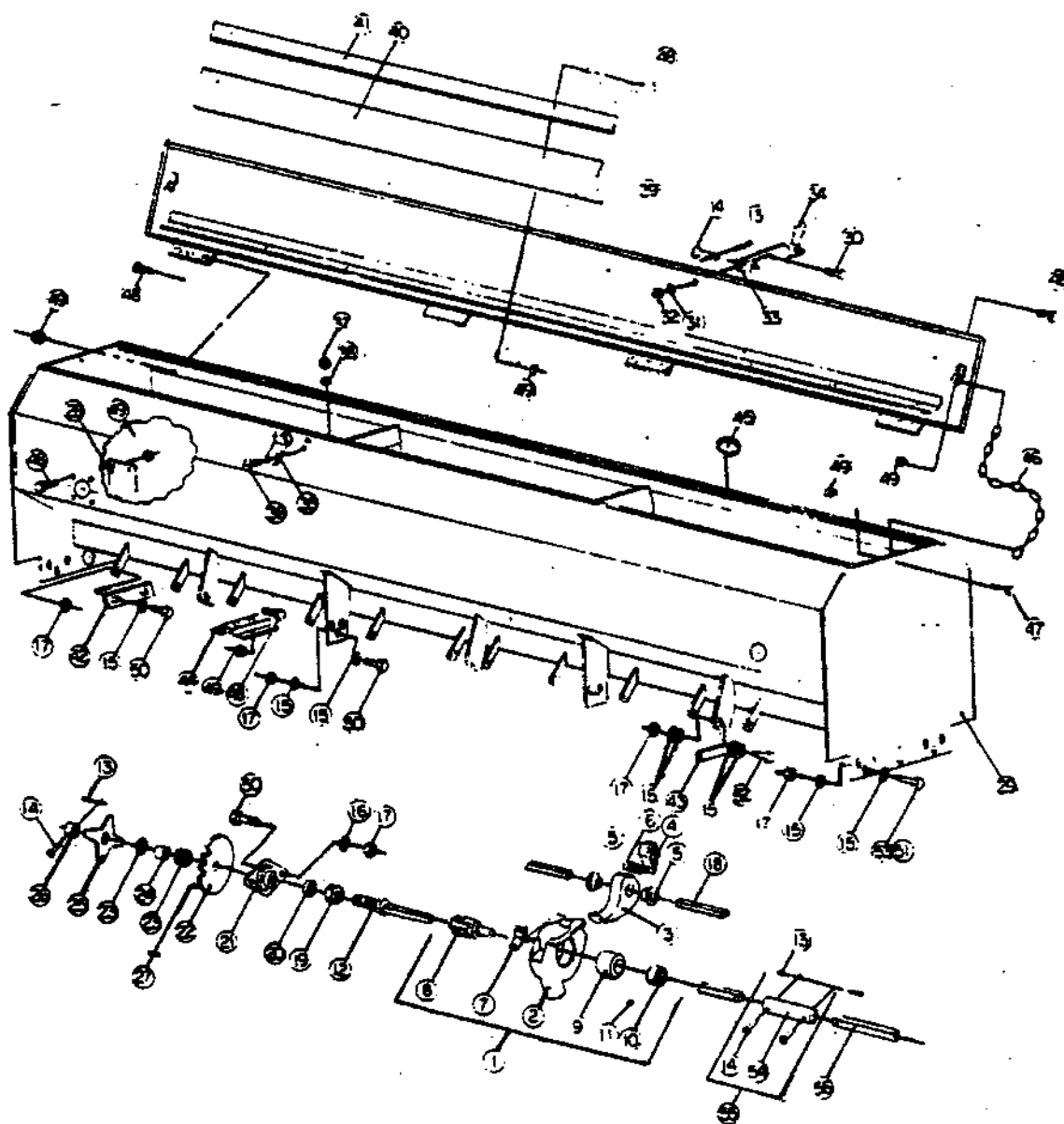
MAIN FRAMES

REF. NO.	PART NO.	QTY. REQ'D	DESCRIPTION
1	520037	1	7' Main Frame-Not Shown
1	520295	1	10' Main Frame-Not Shown
1	520038	1	14' Main Frame-Shown
1	520290	1	15' Main Frame-Not Shown
1	520039	1	20' Main Frame Not Shown
2	520146	1	20' No-Till and Pull Type Main Frame-Shown
2	520040	1	27' Main Frame-Not Shown
3	520021	2	Parking Stand
4	604059	2	3/8" x 3 1/2" Headed Pin
5	604018	2	Small Hair Pin



HOPPER ASSEMBLY

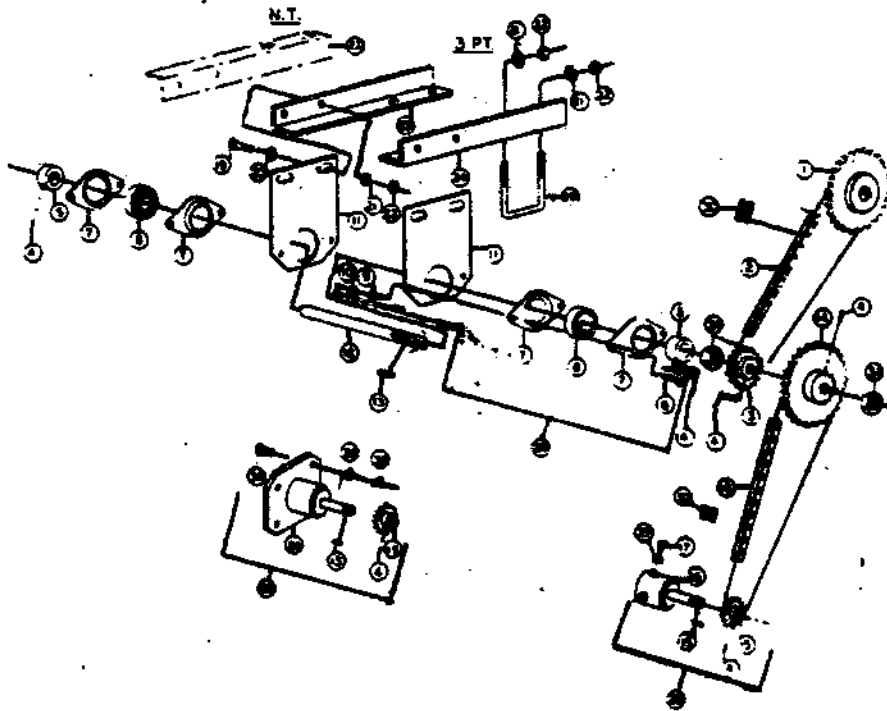
REF. No.	PART No.	QTY. REQ.	DESCRIPTION
1	522002	As Req'd	Meter Assembly (Items 2-11)
2	522017	1	Meter Housing Assembly
3	820001	1	Cleanout Arm
4	820002	1	Cleanout Finger
5	820003	2	Bushing
6	720004	1	Spring
7	820004	1	Wiper
8	820005	1	Feed Roller
9	820006	1	Roller Bushing
10	325004	1	Lock Collar
11	601007	1	1/4"-20 Set Screw x 1/2" Long
12	520333	1	Meter Drive Shaft (End Hopper 6 1/2')
13	520293	1	Meter Drive Shaft (7 1/2')
14	520321	1	Meter Drive Shaft (10')
15	604081	2,2,3	Cotter Pin 3/32" x 1/2" (6 1/2'; 7 1/2'; 10')
16	624013	2,2,3	Coupling Pin (6 1/2'; 7 1/2'; 10')
17	602009	42,42,66	3/8" Flat Washer (6 1/2'; 7 1/2'; 10')
18	602005	As Req'd	3/8" Lock Washer
19	600012	As Req'd	3/8" Lock Nut
20	128024	2	Meter Kickout Shaft (6 1/2')
21	128012	2	Meter Kickout Shaft (7 1/2')
22	128024	3	Meter Kickout Shaft (10')
23	600025	1	3/4"-16 Nut
24	305002	1	DNO Spacer
25	702029	1	Flush Mounted Bearing
26	325002	1	40 B-28 Sprocket
27	602013	3	3/4" SAE Flat Washer
28	123010	1	1" Spacer
29	120009	1	Meter Adjustment Knob
30	123158	1	Stop-Collar Meter Shaft
31	128001	1	1/4" Key
32	820008	1,1,2	Sight Glass (6 1/2'; 7 1/2'; 10')
33	520332	1	6 1/2' Hopper (15 1/2 Bu.)
34	520330	1	6 1/2' Hopper (15 1/2 Bu.) H.O.
35	520291	1	7 1/2' Hopper (18 Bu.)
36	520319	1	10' Hopper (24 Bu.)
37	601012	1,1,2	5/16" x 5/8" HHCS (6 1/2'; 7 1/2'; 10')
38	602002	1,1,2	5/16" Lock Washer (6 1/2'; 7 1/2'; 10')
39	600010	1,1,2	5/16" Hex Nut (6 1/2'; 7 1/2'; 10')
40	322003	1,1,2	Mounting Bracket Lid Latch (6 1/2'; 7 1/2'; 10')
41	821001	1,1,2	Lid Latch-(Rubber) (6 1/2'; 7 1/2'; 10')
42	322002	1,1,2	Anchor Bracket-Lid Latch (6 1/2'; 7 1/2'; 10')
43	601002	2,2,4	#10 x 1/2" R.H.S. (6 1/2'; 7 1/2'; 10')
44	600017	2,2,4	#10 Hex Nut (6 1/2'; 7 1/2'; 10')
45	602020	2,2,4	#10 Lock Washer (6 1/2'; 7 1/2'; 10')
46	520019	1	Hopper Lid (6 1/2')
47	520292	1	Hopper Lid (7 1/2')
48	520320	1	Hopper Lid (10')
49	624002	1	Canvas Strip (6 1/2')
50	624055	1	Canvas Strip (7 1/2')
51	624056	1	Canvas Strip (10')
52	124013	1	Canvas Clamp (6 1/2')
53	124047	1	Canvas Clamp (7 1/2')
54	124056	1	Canvas Clamp (10')
55	120006	8,8,12	Meter Kickout Shaft Support (6 1/2'; 7 1/2'; 10')
56	120054	2,2,3	Meter Kickout Shaft Lever (6 1/2'; 7 1/2'; 10')
57	124001	18,21,28	Meter Mount. Bracket (6 1/2'; 7 1/2'; 10')
58	125008	As Req'd	2" Metal Plug
59	624014	2	#4 Chain 14 1/2" Long
60	601015	2	1/4" x 3/4" HHCS
61	601031	58,65,81	1/4" x 1/2" HHCS (6 1/2'; 7 1/2'; 10')
62	600008	60,67,96	1/4" Lock Nut (6 1/2'; 7 1/2'; 10')
63	601047	As Req'd	3/8 x 1 HHCS
64	601025	As Req'd	3/8 x 1 1/4 HHCS
65	601036	2,2,3	3/8 x 1 1/2 HHCS (6 1/2'; 7 1/2'; 10')
66	601024	As Req'd	3/8 x 1 3/4" HHCS (6 1/2' Hopper Only)
67	601034	6	3/8 x 2 HHCS (7 1/2' Hopper Only)
68	123016	As Req'd	Drive Shaft Coupling (14' P.T.; 20'; 27'; Drill)
69	522005	As Req'd	Coupling Assembly, Items 13,14,54 (14' P.T.; 20'; 27'; Drill)
70	128006	2	Meter Drive Shaft (20' Center Hopper)
71	128009	1	Meter Drive Shaft (27' Center Hopper; 14' P.T. R.H. Hopper)



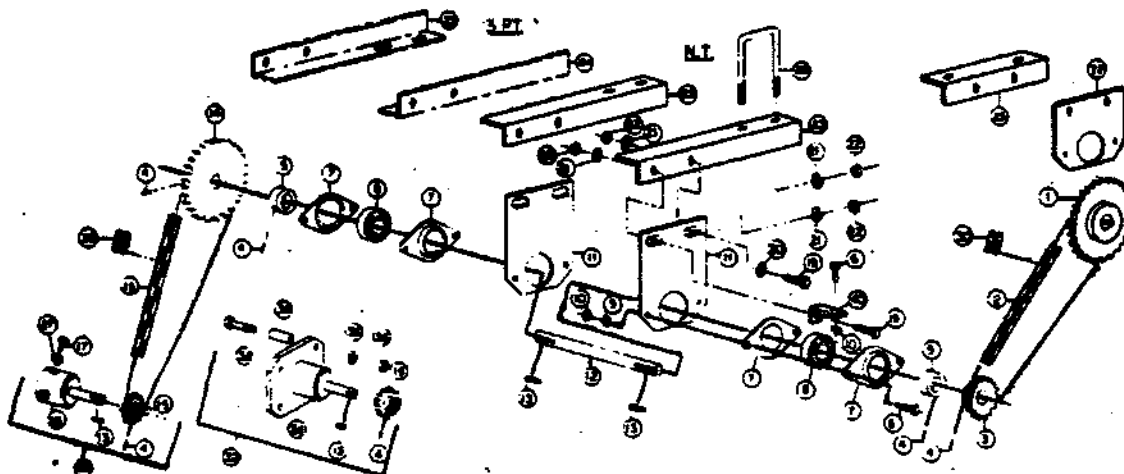
DRIVE ASSEMBLY

REF. No.	PART No.	QTY REQD	DESCRIPTION
1	325002	1	40-B 28 Tooth Sprocket
2	624011	1	20-40 Chain 45 Links (Reg. Drill)
2	624036	1	20-40 Chain 57 Links (7' N.T. Drill)
2	624029	1	20-40 Chain 69 Links (10,14,15,20-NT Drill)
3	325001	1	40-B 19 Tooth Sprocket
4	601096	5	1/4"-20 x 1/4" Set Screw
5	702021	2	Eccentric Lock Collar
6	601047	AS REQD	3/8" x 1" Bolt
7	105018	4	2-Hole Flangette
8	702002	2	Self-Aligning Bearing
9	602005	4	3/8" Lock Washer
10	600012	AS REQD	3/8" Lock Nut
11	100151	2	Bearing Holder
11	120289	2	Bearing Holder For 7' N.T. Drill
12	126008	1	34" Jack Shaft For 7' Drill
12	126048	1	11" Jack Shaft For 10' Drill
12	126021	1	11" Jack Shaft For 14' & 15' Drill
12	126002	1	13" Jack Shaft For 20' & 27' Drill
13	126001	3	1/4" Square Key
14	325003	1	40-B 32 Tooth Sprocket
15	325005	1	40-B 13 Tooth Sprocket
16	520009	1	Drive Hub For 5-Bolt Hub
17	601134	3	3/8" x 1 1/4" Square Head Set Screw
18	624007	1	20-40 Chain 49 Links
19	601033	4	7/16" x 1 1/4" Bolt
20	602010	4	7/16" Flat Washer
21	602012	8	7/16" Lock Washer
22	600011	8	7/16" Lock Nut
23	122054	1	Jack Shaft Bearing Hanger-R.H.-Reg. L.H.-N.T.
24	122053	1	Jack Shaft Bearing Hanger-L.H.-Reg R.H.-N.T.
25	122039	2	Jack Shaft Bearing Hanger 7' N.T. Drill
26	624009	2	7/16" x 3 1/2" U-Bolt 4 1/2" Long (Reg Drill)
26	624028	2	7/16" x 4" U-Bolt 8" Long (N.T. Drill)
27	600003	3	3/8" Hex Nut
28	522001	1	Drive Hub and Sprocket Assembly For 5-Bolt Hub
29	502109	2	Bearing Assembly (Items 6-10)
30	624004	2	#20-40 Connector Link
30	624006	2	#20-40 Offset Link
30	624003	2	#40 Connector Link
31	600025	2	3/4-16 Jam Nut
32	601180	4	1/2 x 3 1/4 Carriage Bolt
33	123195	4	2" Spacer
34	520316	1	Drive Hub '83 (5 & 6 Bolt)
35	600006	4	1/2" Lock Nut
36	602007	4	1/2" Lock Washer
37	601041	4	1/2" x 1 1/4" HHCS
38	522379	1	Drive Hub & Sprocket Assembly (5 Bolt Hub)
39	522380	1	Drive Hub & Sprocket Assembly (6 Bolt Hub)
40	110270	1	Support Bracket For Chain Guard
"	522265	1	34" Jack Shaft Assembly 7' 3Pt. N.T. (Items 3-14)
"	522417	1	11" Jack Shaft Assembly 10' Drill (Items 3-14)
"	522159	1	11" Jack Shaft Assembly 14' and 15' Drill (Items 3-14)
"	522095	1	13" Jack Shaft Assembly 20' and 27' Drill (Items 3-14)
"	325016	1	40-B 48 Tooth Sprocket

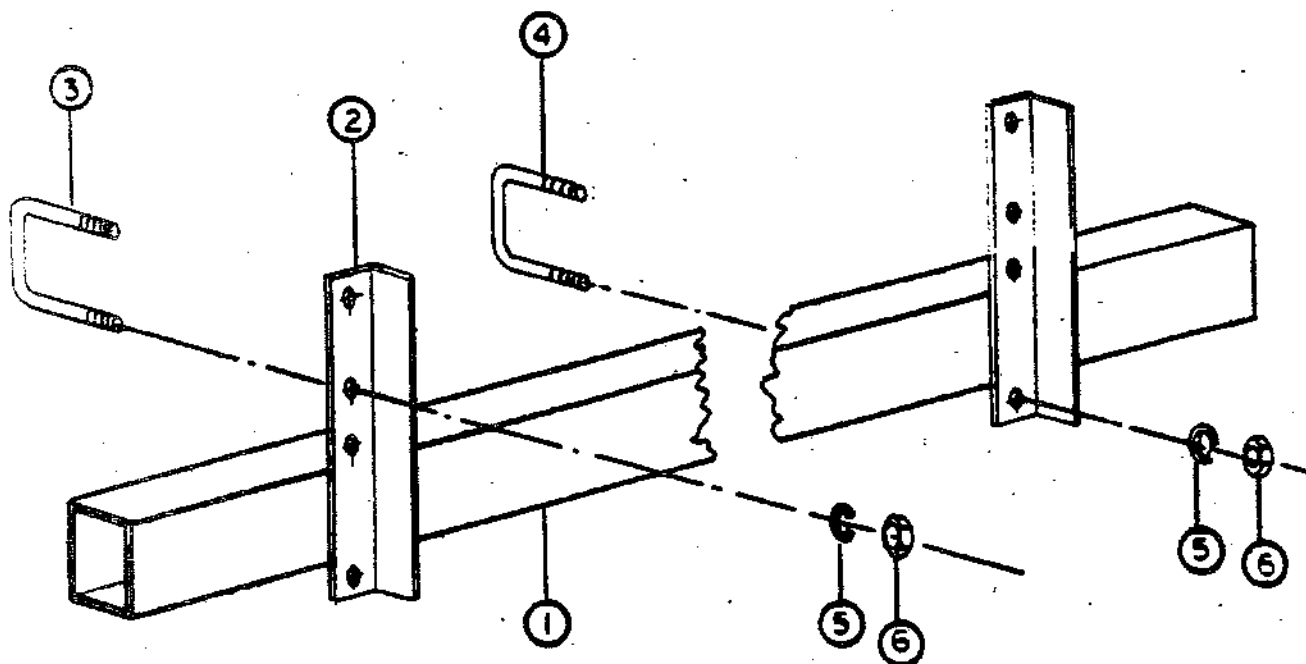
10' DRIVE ASSEMBLY



STANDARD & NO TILL DRIVE ASSEMBLY

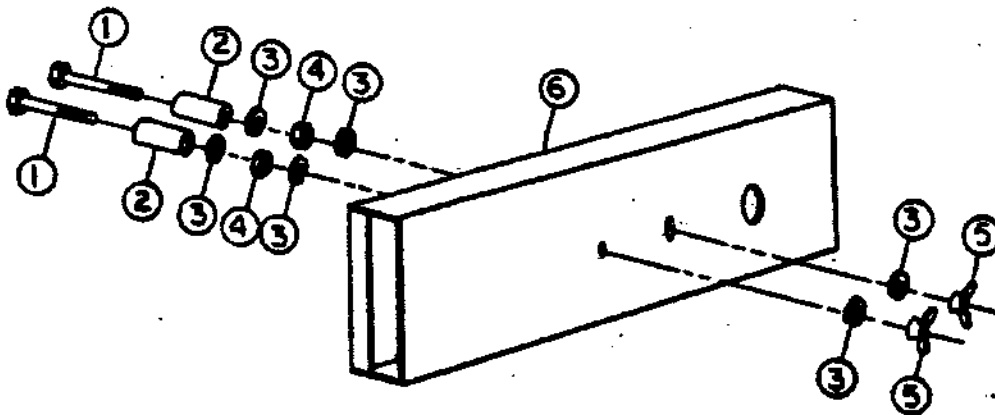


UNIT RAIL AND HANGER ASSEMBLY

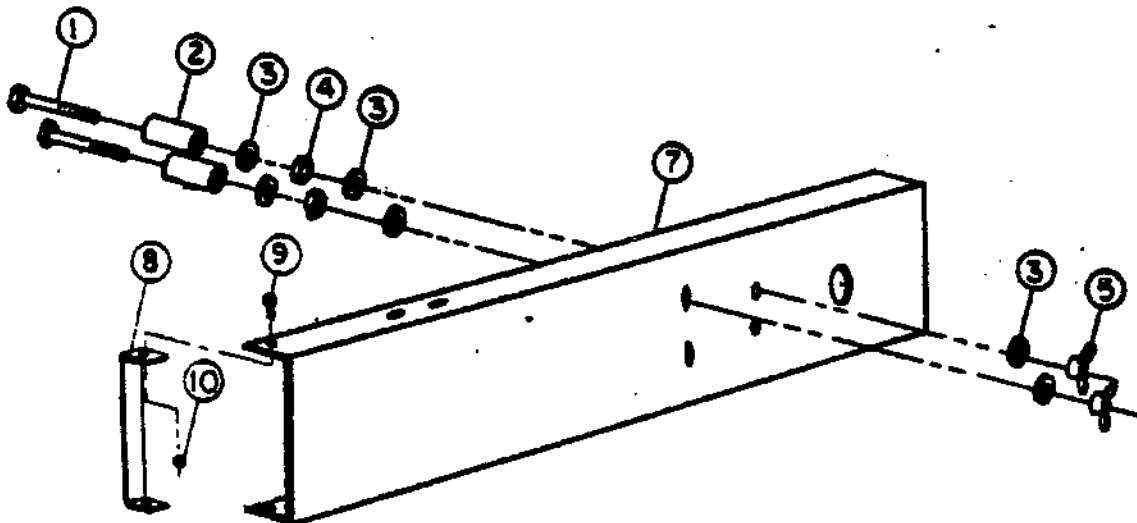


REF. NO	PART NO.	QTY.	DESCRIPTION
1	123028	1 & 2	Unit Rail-7' and 14' Grain Drill
1	123029	1 & 2	Unit Rail-10' and 20' Grain Drill
1	123155	2	Unit Rail-15' Grain Drill
1	123159	1	Unit Rail-20' Grain Drill on 40 Folding Hitch
1	123030	2	Unit Rail-27' Grain Drill
2	122005	As Req	Rail Hanger (6-10'; 8-14', 15'; 12-20'; 16-27')
3	624009	As Req	7/16" x 3 1/2" U-Bolt-14 1/2" Long
4	624008	As Req	7/16" x 3" U-Bolt-3" Long
5	202012	As Req	7/16" Lock Washer
6	600011	As Req	7/16" Lock Nut

STANDARD CHAIN GUARD



NO-TILL CHAIN GUARD

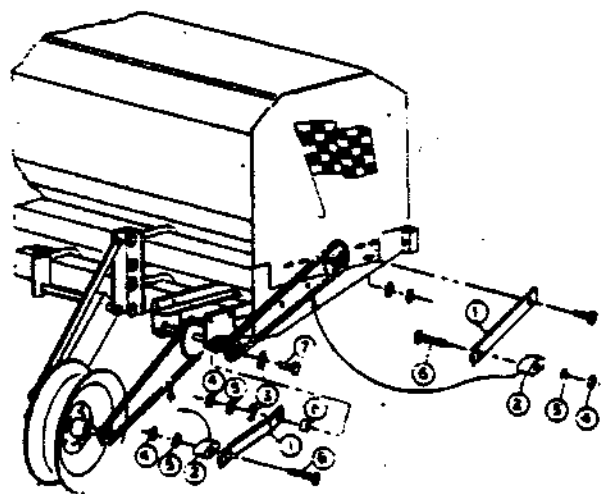


REF NO	PART NO	QTY REQ	PART DESCRIPTION
1	601089	2	3/8" x 4 1/2" Bolt
1	601121	2	3/8" x 5 1/2" Bolt (NT Only)
2	123017	2	3" Spacer
2	123152	2	4" Spacer
3	602009	6	3/8" Flat Washers
4	600003	2	3/8" Hex Nut
5	600027	2	3/8" Wing Nut
6	520041	1	Standard Chain Guard
7	520273	1	No-Till Chain Guard (All Except 7')
7	520324	1	No-Till Chain Guard (7' Only)
8	124037	1	Strap NT Chain Guard
9	601031	2	1/4" x 1/2" HHCS
10	600008	2	1/4" Lock Nut
*	522004	1	Standard Chain Guard Assembly Complete
*	522341	1	No-Till Chain Guard Assembly (All Except 7')
*	522367	1	No-Till Chain Guard Assembly (7' Only)

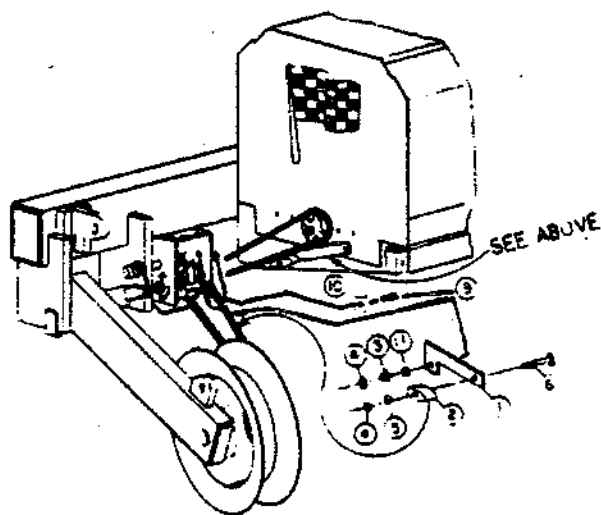
CHAIN IDLERS

REF. No	PART No.	QTY REQD	DESCRIPTION
1	120245	1	Idler Arm (Hopper)
1	120246	1	Idler Arm (Jack Shaft)
1	120500	1	Idler Arm (F D A)
1	120488	1	Idler Arm (Clutch)
1	120492	1	Idler Arm (10'-3Pt)
2	220001	1	Idler Block
3	602009	3	3/8" Flat Washer
4	600013	4	3/8" Lock Nut
5	602005	3	3/8" Lock Washer
6	601084	2	3/8" x 3" HHCS
7	601006	1	3/8" x 1 1/2" HHCS
8	123077	1	Bushing (FDA & 10' Idlers Only)
9	601025	1	3/8" x 1 1/4" HHCS
10	120490	1	Plate (Clutch Idler)
11	126046	1	Bushing
"	522258	1	Hopper Idler Assy
"	522259	1	Jack Shaft Idler Assy
"	522405	1	Clutch Idler Assy
"	522418	1	10' Jack Shaft Idler Assy
"	522427	1	FDA Idler Assy
"	522112	1	Idler Assy P.T.'s (7';10';14')
"	522165	1	Idler Assy P.T.'s (15';20')
"	522113	1	Idler Assy 3pt. Mounted (7' Reg & 7' N.T.)
"	522164	1	Idler Assy 3pt. Mounted Reg. (14';15';20';27')
"	522431	1	Idler Assy 10' 3pt. Mounted (Reg. & N.T.)
"	522432	1	Idler Assy 3pt. Mounted N.T. (14';15';20';27')

IDLER ASSEMBLY - 3 PT. MOUNTED

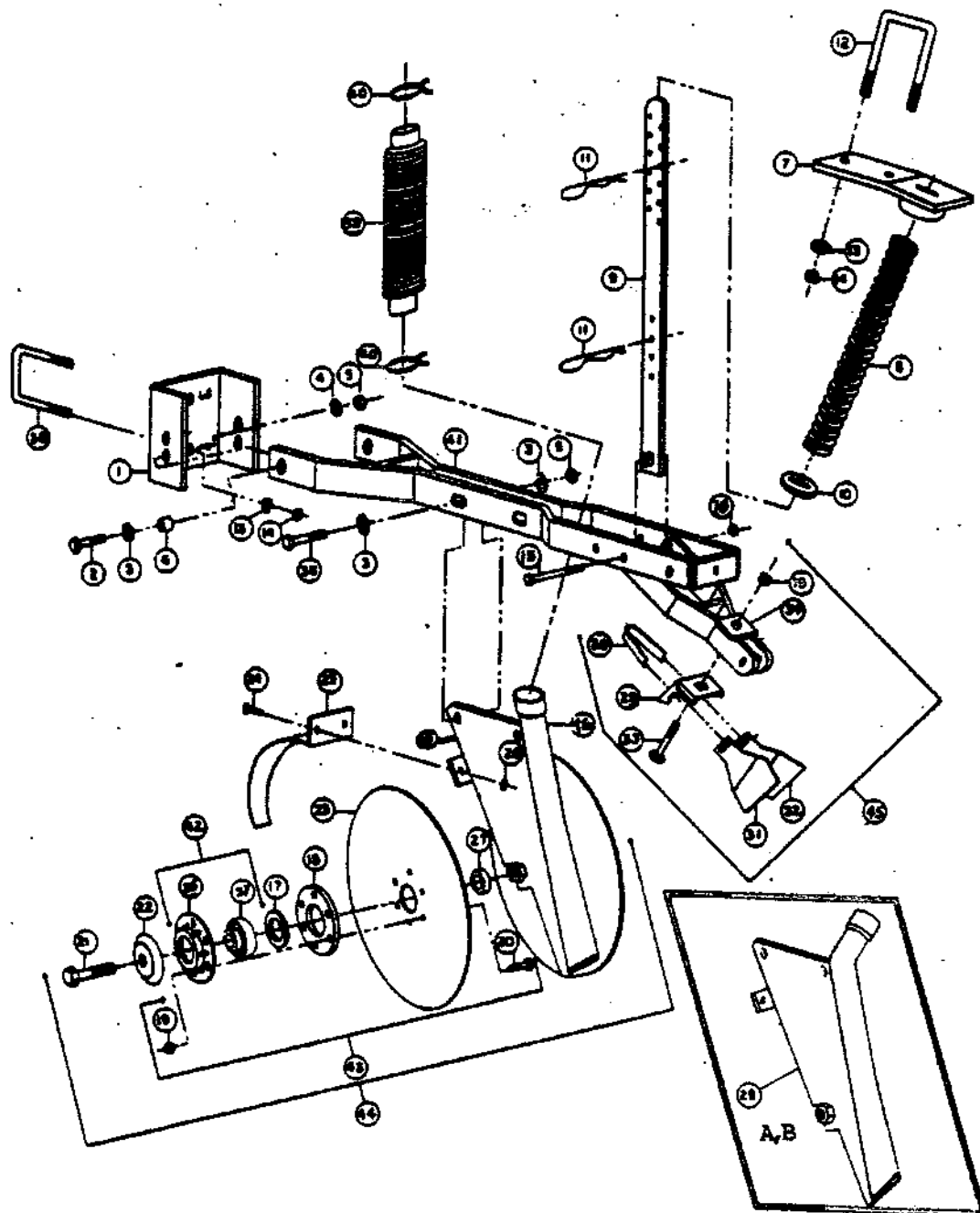


IDLER ASSEMBLY-PULL TYPE



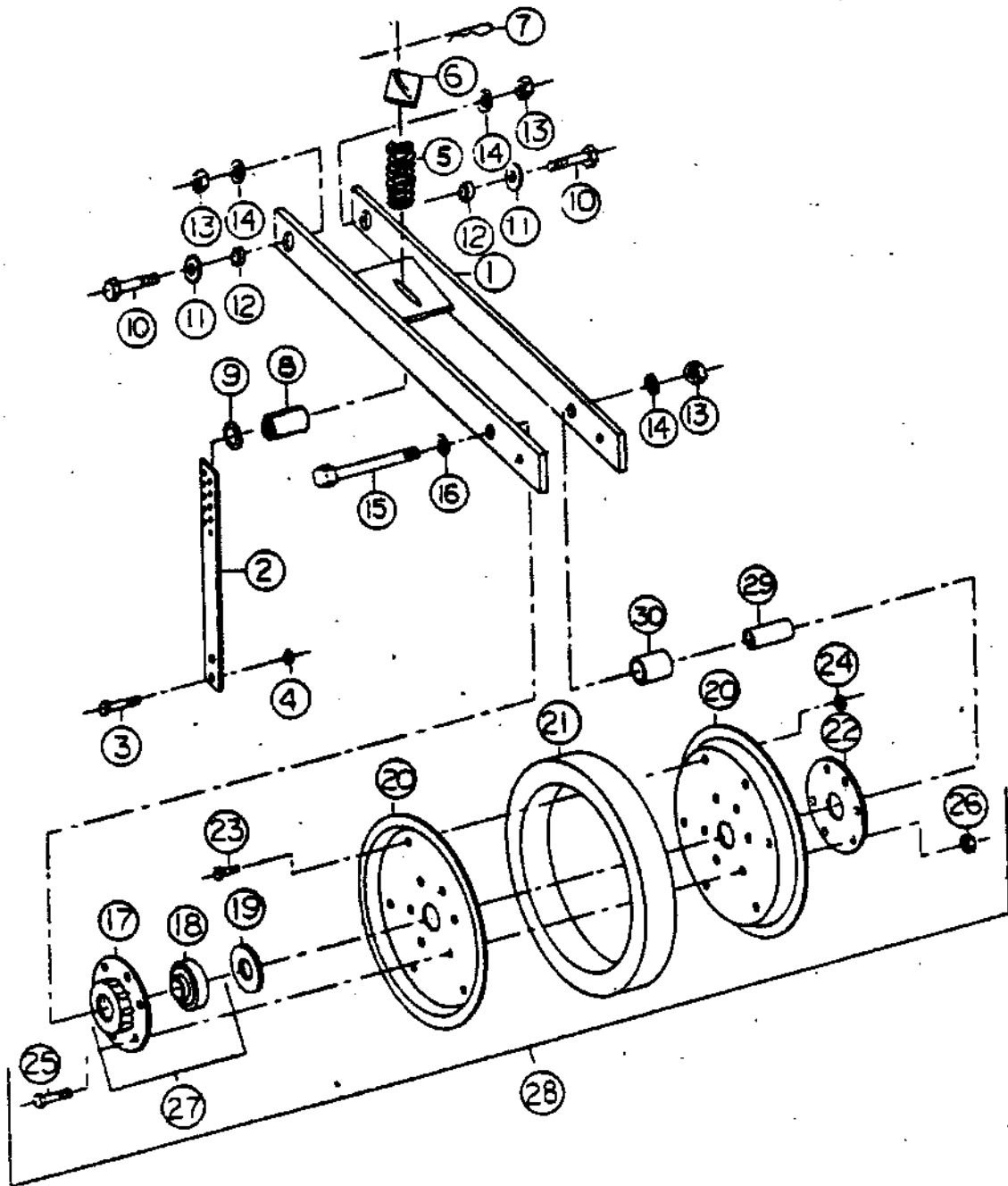
OPENER ASSEMBLY

REF. No.	PART No.	QTY. REQD	DESCRIPTION
1	120233	1	Unit Hitch
2	601009	2	1/2" x 1 1/2" Bolt
2	601011	2	1/2" x 1 3/4" Bolt (Not-Till Hitch)
3	602010	6	7/16" Flat Washer
4	602007	2	1/2" Lock Washer
5	600006	4	1/2" Lock Nut
6	103002	2	Med. Swivel Spacer
7	520035	1	Spring Bracket-7" (Long Opener)
7	520036	1	Spring Bracket-18" (Short Opener)
8	720003	1	Down Pressure Spring-40 Lb.
8	720007	1	Down Pressure Spring-80 Lb.
9	520032	1	Down Pressure Spring Rod.
10	120029	1	Spring Seat
11	604057	2	Large Hair Pin
12	624012	1	7/16" x 2" U-Bolt 4 1/4" Long
13	602012	4	7/16" Lock Washer
14	600011	4	7/16" Lock Nut
15	601084	1	3/8" x 3" Bolt
16	600012	1	3/8" Lock Nut
17	602019	2	Mach. Bushing 2 1/8" O.D. x 10 Ga.
18	105009	2	Bearing Plate
19	600009	13	5/16" Lock Nut
20	601019	12	5/16" x 3/4" Bolt
21	601054	2	3/4" x 1 3/4" Bolt
22	124023	2	Dust Shield
23	701010	2	13" Disc Blade
24	601015	2	1/4" x 3/4" Bolt
25	520384	1	Blade Guard
26	600008	2	1/4" Lock Nut
27	305002	2	Bearing Spacer
28	520001	1	Opener Body-Standard
28A	520346	1	Opener Body-Supplemental R.H. 40' Folding Transport System Only
28B	520347	1	Opener Body-Supplemental L.H. 40' Folding Transport System Only
29	322004	1	Mounting Bracket Inside Scraper
30	720010	1	Spring-Inside Scraper
31	120272	1	Scraper Blade-L.H.
32	120271	1	Scraper Blade-R.H.
33	601125	1	5/16" x 2 1/4" Carriage Bolt
34	120420	1	Bolt Plate 1 1/2" Sq. x 1/4"
35	601013	2	1/2" x 2" Bolt
36	105019	2	Bearing Housing
37	702020	2	Bearing
38	624008	1	7/16" x 3" U-Bolt 3" Long
39	901013	1	Rubber Seed Tube
40	604013	2	Seed Tube Clamp
41	520034	1	Unit Frame Long
41	520033	1	Unit Frame Short
42	522210	2	Bearing Assembly, (Items 36 & 37)
43	522045	2	Disc Blade Assy (Items 17-20 & 23,42)
44	522025	1	Disc Opener Assy. (Items 17-28 & 42)
44	522435	1	Disc Opener Assy-Supplemental R.H. (Items 17-28,42)
44	522436	1	Disc Opener Assy-Supplemental L.H. (Items 17-28,42)
45	522168	1	Inside Scraper Assy (Items 19 & 29-34 includes Bolts)
46	123006	1	Metal Seed Tube
*	522009	1	D/P Spring Assy W/Hdw (Items 7-16) Long 40 Lb.
*	522017	1	D/P Spring Assy W/Hdw (Items 7-16) Short 40 Lb.
*	522150	1	D/P Spring Assy W/Hdw (Items 7-16) Long 80 Lb.
*	522151	1	D/P Spring Assy W/Hdw (Items 7-16) Short 80 Lb.



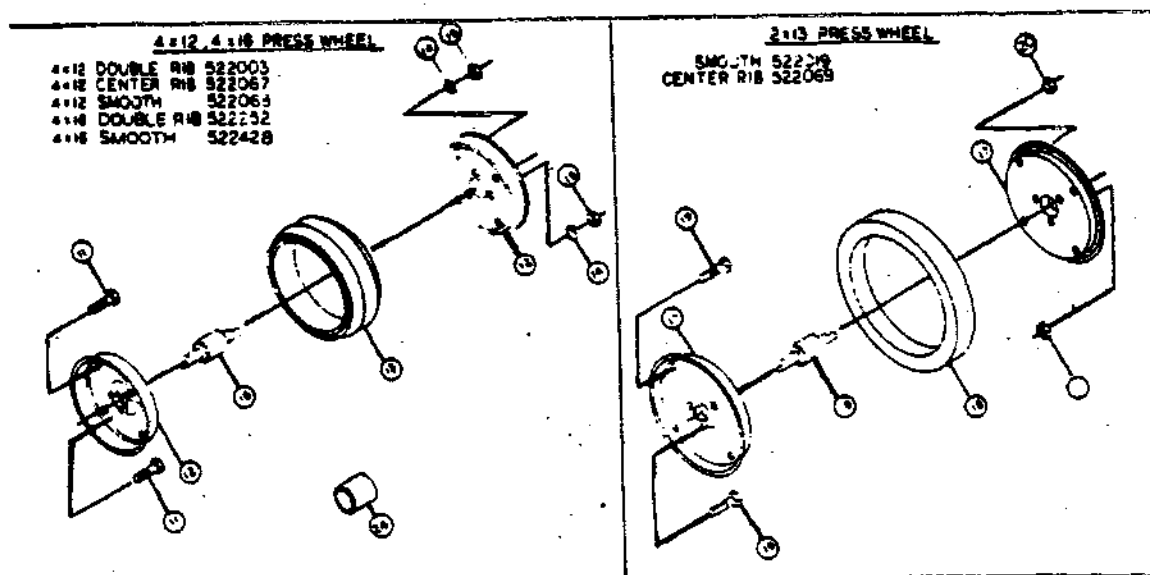
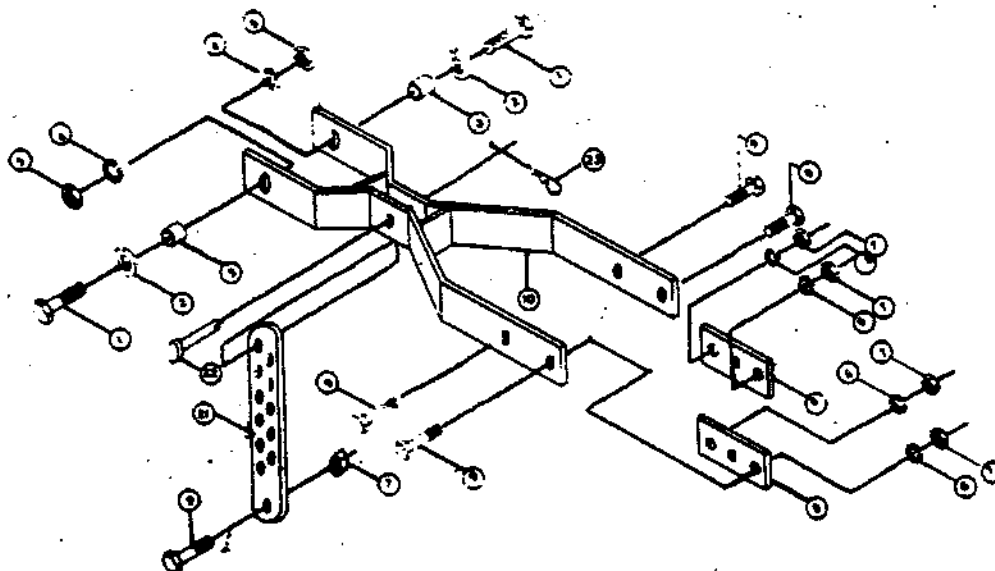
1 X 10 FIRING WHEEL

REF. No	PART No.	QTY REQ'D	DESCRIPTION
1	520005	1	1 x 10 Wheel Frame
2	120033	1	Firming Wheel Adjustment Strap
3	601025	1	3/8" x 1 1/4" Bolt
4	600012	1	3/8" Lock Nut
5	720001	1	Firming Wheel Spring
6	120104	1	Spring Retainer Washer
7	604057	1	Large Hair Pin
8	123010	1	Adjustable Bushing
9	602013	1	3/4" Flat Washer SAE
10	601009	2	1/2" x 1 1/2" Bolt
11	602010	2	7/16" Flat Washer
12	103004	2	Bushing
13	600006	3	1/2" Lock Nut
14	602007	2	1/2" Lock Washer
15	601101	1	1/2" x 3 1/2" Bolt
16	123009	1	Spacer
17	105019	1	Bearing Housing
18	702020	1	Bearing
19	602019	1	Mach. Bushing 2 1/8" O.D. x 10 Ga.
20	124006	2	1 x 10 Wheel Half
21	801011	1	1 x 10 Tire
22	105027	1	Bearing Plate
23	601031	6	1/4" x 1/2" Screw
24	600008	6	1/4" Lock Nut
25	601019	6	5/16" x 3/4" Bolt
26	600009	6	5/16" Lock Nut
27	522210	2	Bearing Assy (Items 17-18)
28	522027	1	1 x 10 Wheel Assy (Items 17-26)
29	123007	1	Bushing
30	123008	1	Spacer
*	522021	1	1 x 10 Wheel and Frame Assy (Items 1, 13-26)
*	522115	1	1 x 10 Wheel and Frame Assy Comp (Items 1-26, 29, 30)
*	522093	1	Single Firming Wheel Adjustment Strap Assy (Items 2-9)



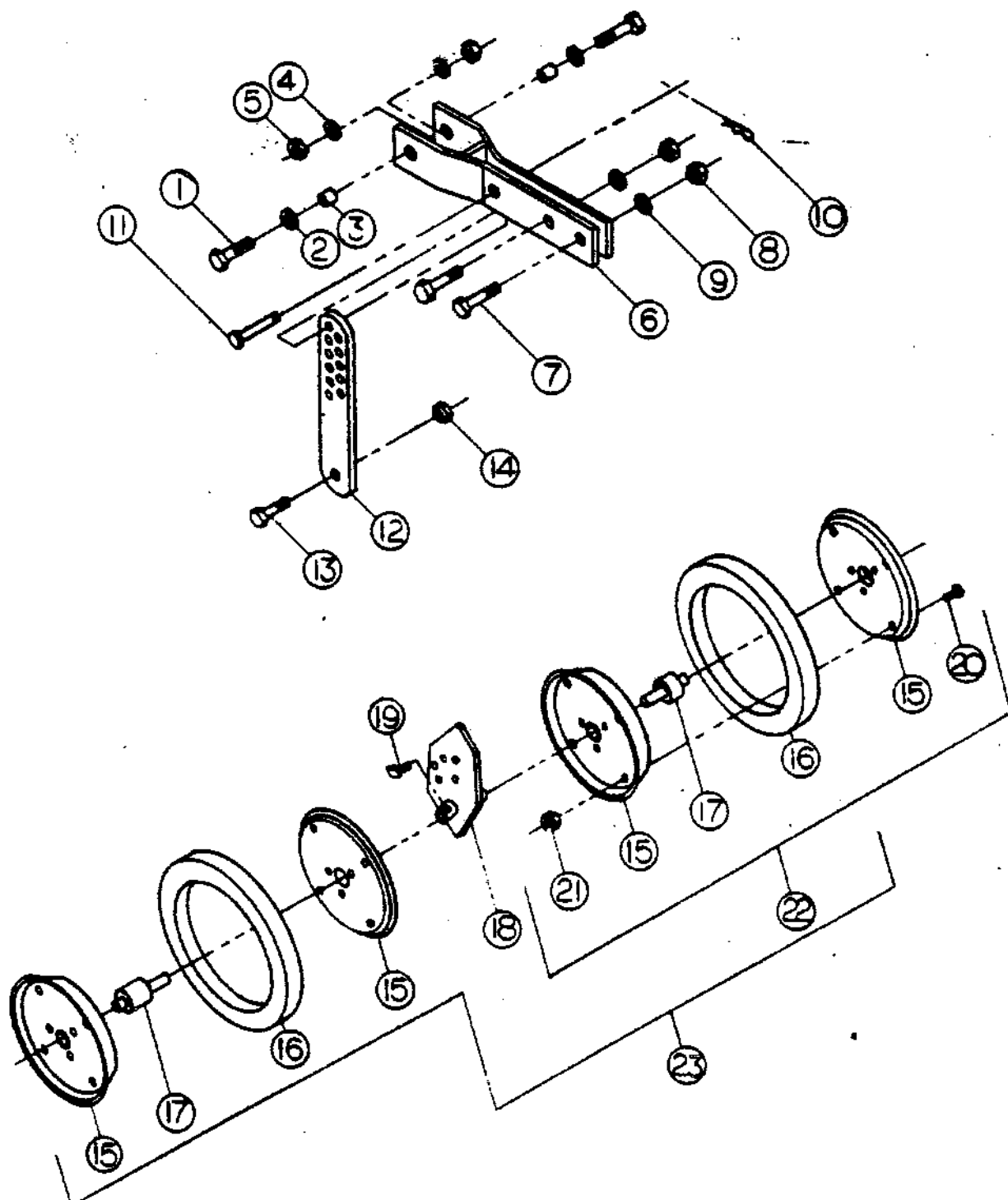
SINGLE PRESS WHEELS

REF. No	PART No.	QTY REQD	DESCRIPTION
1	601009	2	1/2" x 1 1/2" Bolt
2	602010	2	7/16" Flatwasher
3	103002	2	Bushing
4	602007	2	1/2" Lock Washer
5	600006	2	1/2" Lock Nut
6	602005	4	3/8" Lock Washer
7	600012	5	3/8" Lock Nut
8	120036	2	Press Wheel Retainer
9	601025	5	3/8" x 1 1/4" Bolt
10	520170	1	4 x 12 Wheel Frame
10	520190	1	2 x 13 Wheel Frame
10	520191	1	4 x 16 Wheel Frame
11	601012	7	5/16" x 5/8" Bolt
12	300003	2	4 x 12 Wheel Half
12	300005	1	4 x 16 Wheel Half
13	801009	1	4 x 12 Tire (Double Rib)
13	801020	1	4 x 16 Tire (Double Rib)
13	801004	1	4 x 12 Tire (Smooth Crown)
13	801001	1	4 x 16 Tire (Smooth Crown)
13	801018	1	4 x 12 Tire (Center Rib)
14	602003	7	5/16" Lock Washer
15	600010	7	5/16" Hex Nut
16	702017	1	Bearing
17	300006	2	2 x 13 Wheel Half
18	801010	1	2 x 13 Tire (Smooth)
18	801015	1	2 x 13 Tire (Center Rib)
19	601113	7	3/8" x 1/2" MHCS
20	600012	7	3/8" Lock Nut
21	120210	1	Press Wheel Adjustment Strap
22	604058	1	3/8" x 1 1/2" Headed Pin
23	604018	2	Small Hair Pin
24	325017	1	Bushing For 4 x 16 P/W Bearing
*	522116	1	2 x 13 Smooth Wheel, Frame, Attach. Hdw., and Strap Ass'y
*	522117	1	2 x 13 Center Rib Wheel, Frame, Attach. Hdw., and Strap Assy
*	522118	1	4 x 12 Smooth Wheel, Frame, Attach., Hdw., and Strap Assy
*	522119	1	4 x 12 Center Rib Wheel, Frame, Attach. Hdw., and Strap Assy
*	522120	1	4 x 12 Double Rib Wheel, Frame, Attach. Hdw., and Strap Assy
*	522254	1	4 x 16 Double Rib Wheel, Frame, Attach. Hdw., and Strap Assy
*	522430	1	4 x 16 Smooth Wheel, Frame, Attach. Hdw., and Strap Assy
*	522256	1	Bearing and Bushing Assy for 4 x 16 P/W, Items 16 and 24
*	522094	1	P/W Adjustment Strap Assy Items 9, 20-23



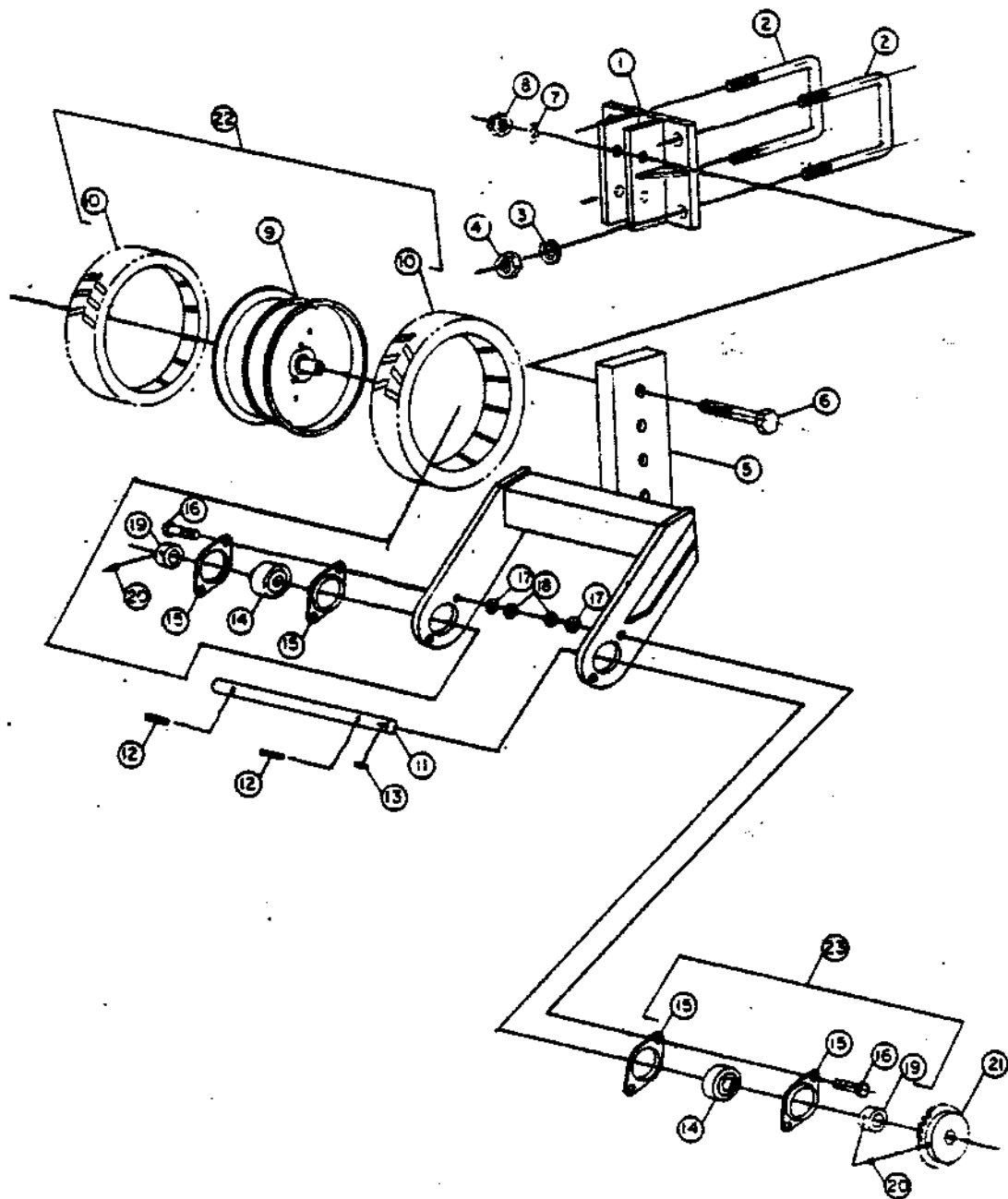
2 X 13 DUAL PINCHER WHEEL & FRAME ASSEMBLY

REF. No	PART No.	QTY REQD	DESCRIPTION
1	601009	2	1/2" x 1 1/2" Bolt
2	602010	2	7/16" Flat Washer
3	103002	2	Bushing
4	602007	2	1/2" Lock Washer
5	600006	2	1/2" Lock Nut
6	520025	1	Dual Pincher Wheel Frame
7	601024	2	3/8" x 1 3/4" Bolt
8	600012	2	3/8" Lock Nut
9	602005	2	3/8" Lock Washer
10	604018	1	Small Hair Pin
11	604058	1	Pin 3/8" x 1 1/2" Headed
12	120210	1	Press Wheel Adjustment Strap
13	601025	1	3/8" x 1 1/4" HMCS
14	600012	1	3/8" Lock Nut
15	300006	4	2 x 13 Wheel Half
16	801010	2	2 x 13 Tire (Smooth)
16	801015	2	2 x 13 Tire (Center Rib)
17	702019	2	Bearing
18	520258	1	2 x 13 Dual Pincher Wheel Bracket
19	601093	2	3/8" x 3/4" SQ. Head Bolt
20	601113	14	3/8" x 1/2" Bolt
21	600012	14	3/8" Lock Nut
22	522029	2	2 x 13 Smooth Pincher Wheel Assy
22	522128	2	2 x 13 Center Rib Pincher Wheel Assy (Not Shown)
23	522030	1	2 x 13 Smooth Dual Pincher Wheel Assy
23	522129	1	2 x 13 Center Rib Dual Pincher Wheel Assy
*	522031	1	2 x 13 Smooth Dual Pincher Wheel and Frame Assy
*	522130	1	2 x 13 Center Rib Dual Pincher Wheel and Frame Assy
*	522122	1	2 x 13 Smooth Dual Pincher Wheel, Frame, Attachment Hdw and Strap (Items 1-21)
*	522123	1	2 x 13 Center Rib Dual Pincher Wheel, Frame, Attachment Hdw and Strap (Items 1-21)
*	522094	1	P/W Adjustment Strap Assy



7' DRIVE WHEEL ASSEMBLY

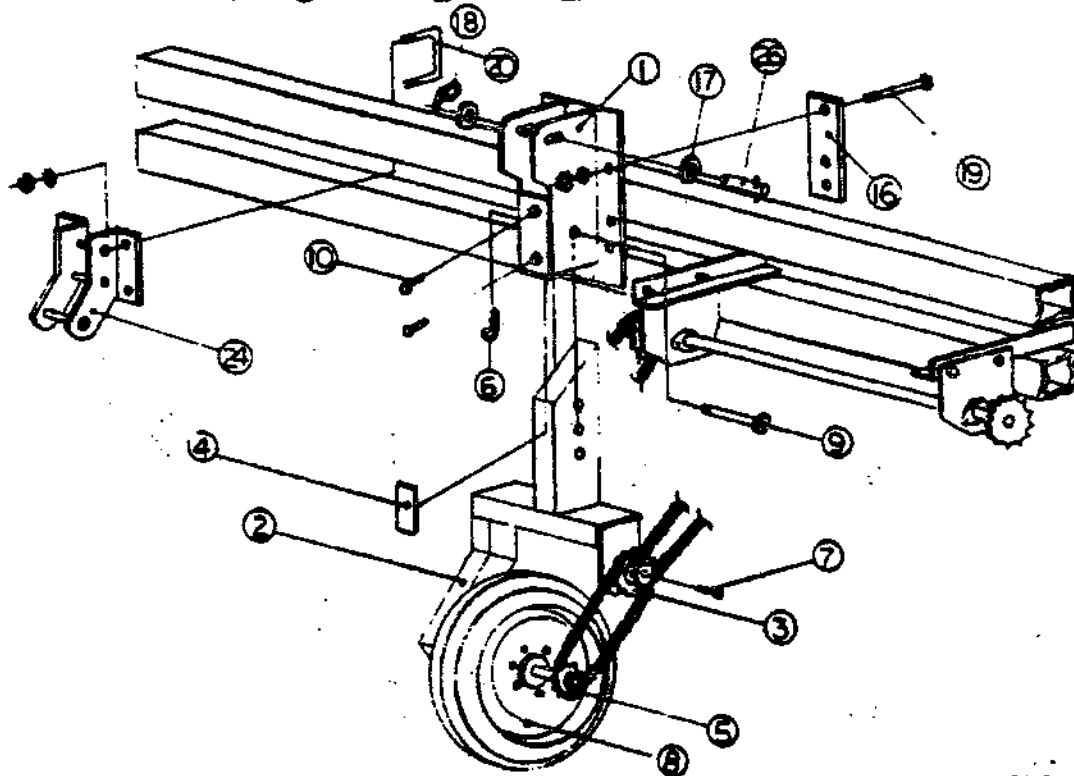
REF. No.	PART No.	QTY REQD	DESCRIPTION
1	520046	1	Hitch Plate
2	624010	2	3/4" x 3 1/2" U-Bolt (5" Lg.)
3	602006	4	3/4" Lock Washer
4	600004	4	3/4" Hex Nut
5	520047	1	Wheel Yoke
6	601063	2	1/2" x 2 1/2" Bolt
7	602007	2	1/2" Lock Washer
8	600006	2	1/2" Lock Nut
9	520076	1	Drive Wheel
10	801016	2	Tire(Treaded)
11	126007	1	Drive Wheel Shaft
12	604005	2	1/4" x 1 1/4" Spiral Pin
13	128001	1	1/4" Sq. Key
14	702002	2	Bearing (Self-Aligning)
15	105018	4	2-Hole Flangette
16	601047	4	3/8" x 1" Bolt
17	602005	4	3/8" Lock Washer
18	600012	4	3/8" Lock Nut
19	702021	2	Eccentric Lock Collar
20	601096	AS REQ.	1/4-20 x 1/4" Set Screw
21	325005	AS REQ.	13 Tooth Sprocket #40
22	522048	1	Wheel & Tire Assy (Items 9-10)
23	502109	2	Bearing Assy (Items 14-20)
"	522109	1	7' Drive Wheel Assy Complete W/Frame (Items 5-21)



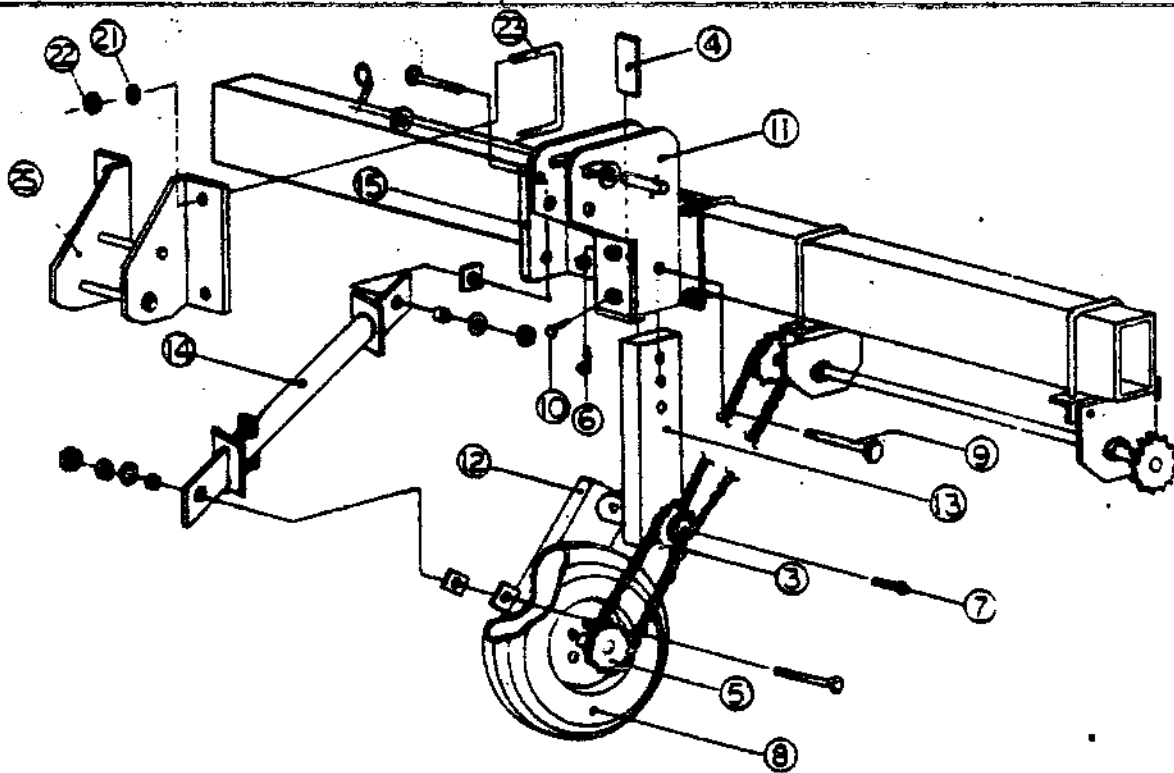
7' 3 PT DRIVE WHEEL

REF. No	PART No.	QTY REQD	DESCRIPTION
1	520729	1	CENTER MAST 7' 3 PT.
2	522627	1	DRIVE WHEEL ARM & HUB ASSEMBLY 7' 3 PT.
3	522516	1	IDLER/BEARING ASSEMBLY
4	120621	1	PLATE, 1/2 X 2 X 7
5	522001	1	HUB ASSEMBLY
6	604018	1	SMALL HAIR PIN, 3/32
7	601164	1	SCREW, 1/2 X 2 FLATHEAD SS
8	522517	1	WHEEL & TIRE, 20.5L X 8, 6 PLY
9	624125	1	CLEVIS PIN, 1/2 X 4 1/4 U.L.
10	601108	2	HBOS, 5/8 X 1 3/4
11	520428	1	CENTER MAST, 7' NT
12	522515	1	DRIVE WHEEL ARM & HUB ASSY. 7' NT
13	520425	1	MOUNTING ARM 7' NT DW
14	522421	1	FLOATING DW ARM ASSEMBLY
15	122085	1	DRIVE ANGLE, 7' NT
16	121037	2	CLAMP PLATE, 7' 3 PT
17	602039	2	1" FLAT WASHER
18	604043	1	7/16 LINCIN PIN
19	601032	6	HBOS 3/4 X 6
20	624010	4	U-BOLT 3/4 X 3 1/2 X 5" LONG
21	602006	14	3/4 LOCK WASHER
22	600004	14	3/4 HEX NUT
23	604028	7	U-BOLT 3/4 X 7, 5 1/2 " LONG
24	522626	1	LOWER ARM ASSEMBLY 7' 3 PT CONV.
25	522514	1	LOWER ARM ASSEMBLY 7' NT - 3 PT.
26	604040	1	HITCH PIN, 4"

7' 3PT DRIVE WHEEL



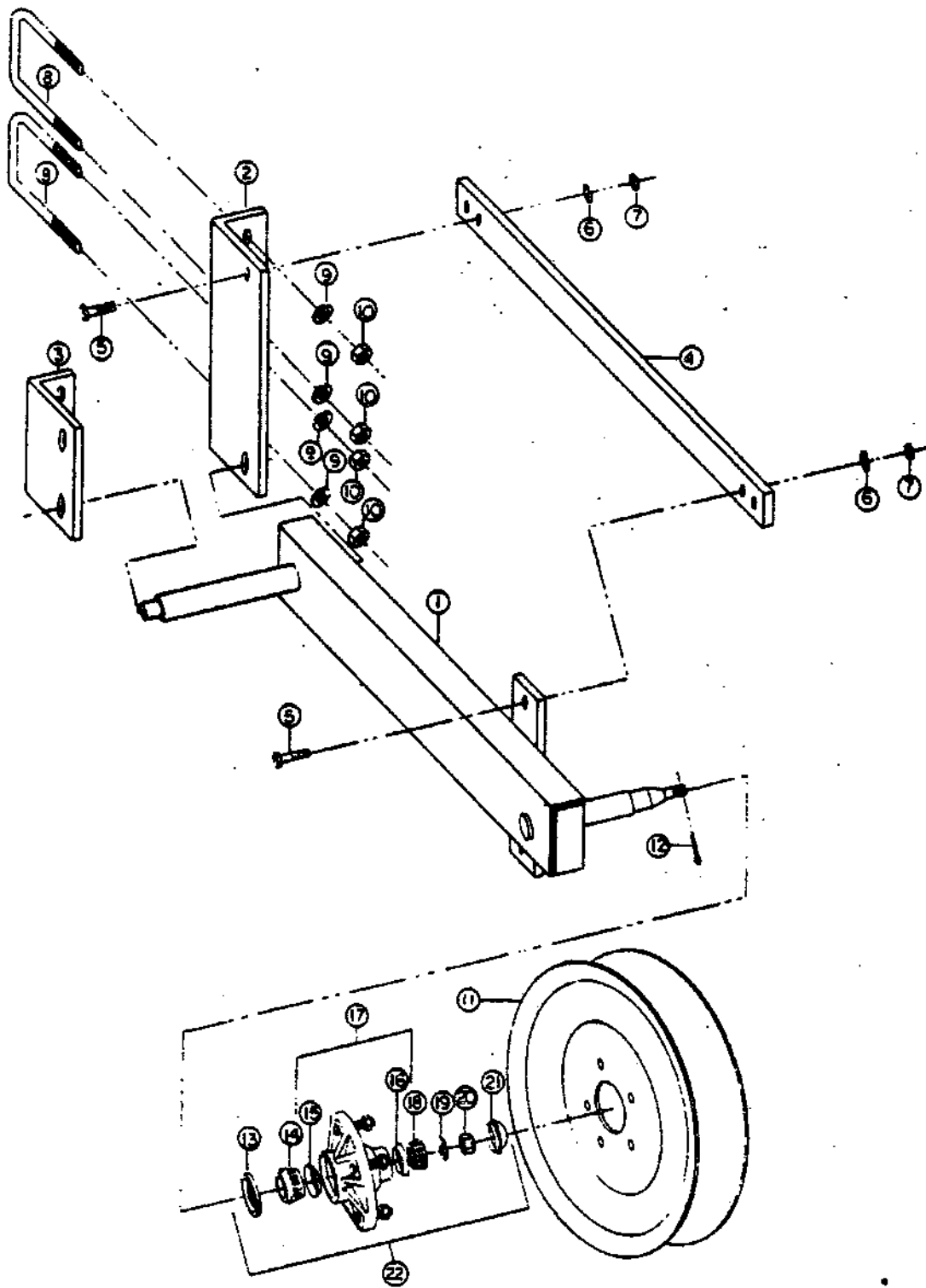
CONVENTIONAL



NO-TILL

10-14-15' 3-PT. DRIVE WHEEL ASSEMBLY

REF. No	PART No.	QTY REQD	DESCRIPTION
1	520169	1	Drive Wheel Arm
2	122056	1	Drive Wheel Hitch R.H. (Shown 14' & 20')
2	122055	1	Drive Wheel Hitch L.H. (Not Shown 14' & 20')
3	122057	1	Drive Wheel Hitch (All 14'-20'-27')
4	120019	1	Drive Wheel Strap
5	601108	2	5/8" x 1 3/4" Bolt
6	602015	2	5/8" Lock Washer
7	600016	2	5/8" Lock Nut
8	624010	3	3/4" x 3 1/2" U-Bolt 5" Lg.
9	602006	6	3/4" Lock Washer
10	600004	6	3/4" Hex Nut
11	300004	1	5 x 15 Wheel (5-Bolt)
12	604012	1	5/32" x 1 1/2" Cotter Pin
13	703002	1	Grease Seal
14	702015	1	Inner Bearing
15	702016	1	Inner Race
16	702013	1	Outer Race
17	522024	1	Hub Assy (5-Bolt)
18	702014	1	Outer Bearing
19	602027	1	5/8" SAE Flat Washer
20	600022	1	5/8" Castle Nut
21	302007	1	Dust Cap
22	522043	1	Complete Hub Assy (Items 12-21)

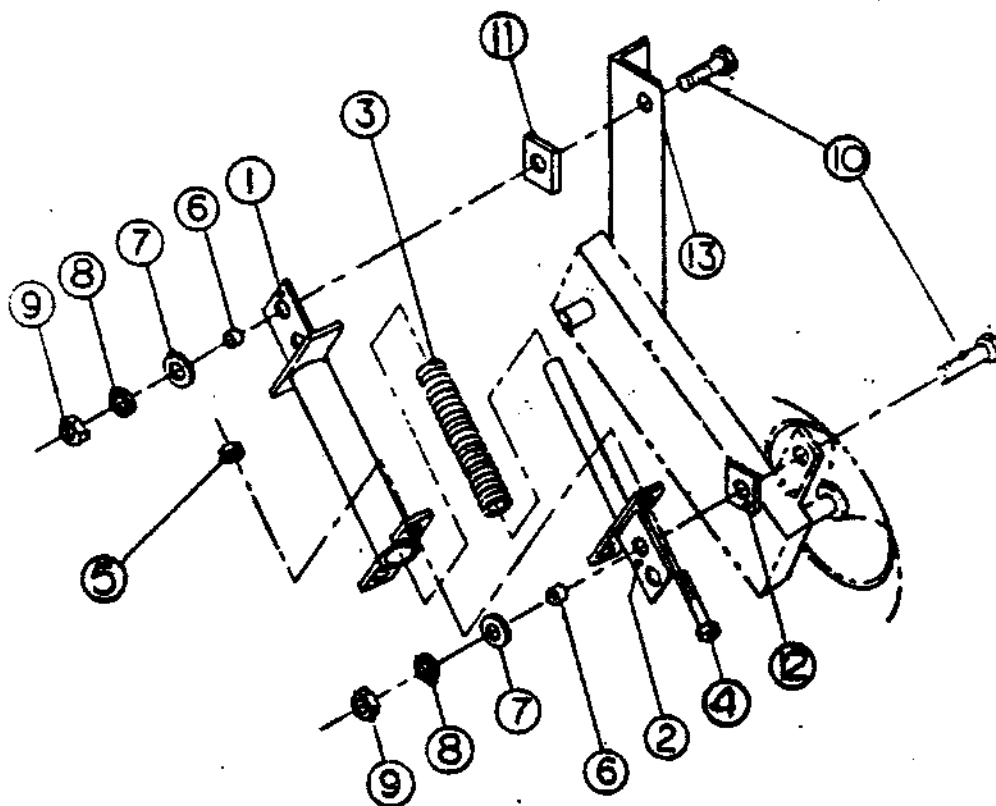


20-27 3PT DRIVE WHEEL ASSEMBLY

REF. No	PART No.	QTY REQD	DESCRIPTION
1	122056	1	Drive Wheel Hitch, R.H. (Shown 20')
1	122055	1	Drive Wheel Hitch, L.H. (Not Shown 20')
1	122059	1	Drive Wheel Hitch R.H. (Not Shown 27')
1	122058	1	Drive Wheel Hitch L.H. (Not Shown 27')
2	122057	1	Drive Wheel Hitch (14', 20', 27')
3	520024	1	Drive Wheel Arm
4	120019	1	Drive Wheel Strap
5	624010	3	3/4" x 3 1/2" U-Bolt 5" Lg.
6	604028	1	3/4" x 7" U-Bolt (27' Mach. Only) 5 1/2" Lg.
7	601108	2	5/8" x 1 3/4" Bolt
8	602015	2	5/8" Lock Washer
9	600016	2	5/8" Lock Nut
10	602006	6	3/4" Lock Washer
11	600004	6	3/4" Hex Nut
12	702015	1	Inner Bearing
13	702014	1	Outer Bearing
14	702016	1	Inner Race
15	702013	1	Outer Race
16	703002	1	Oil Seal
17	602027	1	5/8" SAE Flat Washer
18	600022	1	5/8" Castle Nut
19	604012	1	5/32" x 1 1/2" Cotter Pin
20	601095	5	1/2" x 1 1/2" Lug Bolt
21	600026	5	1/2" Lug Nut
22	522024	1	Hub Assy (5-Bolt)
23	302007	1	Dust Cap
24	300004	1	5 x 15 Wheel (5-Bolt)
25	520049	1	Dual Drive Wheel Arm
26	522043	1	Complete Hub Assy (Items 12-23)

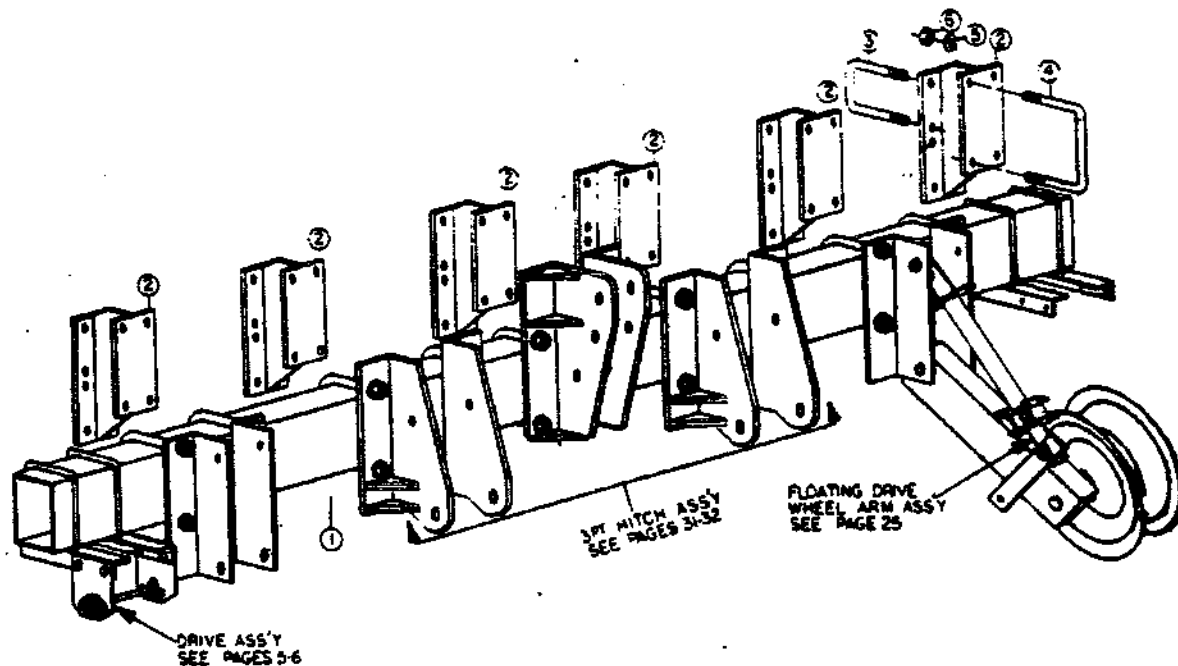


FLOATING DRIVE ARM ASSY.



REF. NO.	PART NO.	QTY. REQD.	DESCRIPTION
1	520343	1	Spring Cover FDA
2	520342	1	Spring Rod FDA
3	720007	1	80Lb. Pressure Spring
4	601141	2	7/16" x 5" HHCS
5	600011	2	7/16" Lock Nut
6	123068	2	Bushing
7	602016	2	5/8" Flat Washer
8	602015	2	5/8" Lock Washer
9	600014	2	5/8" Hex Nut
10	601056	2	5/8" x 2 1/4" Bolt
11	120498	1	Spacer 1/2"
12	120494	1	Spacer 1/4"
13	122060	2	D/W Hitch L.H. 10,14,15,20'-NT(Shown)
13	122061	2	D/W Hitch R.H. 10,14,15,20'-NT (Not Shown)
*	522420	1	Items 1-5 Floating Drive Arm Assembly
*	522421	1	Items 1-12 Floating Drive Arm Assembly W/Hdw

NO-TILL SECONDARY BAR ASSEMBLY FOR 3PT MACHINES



REF NO	PART NO	QTY REQ'D	DESCRIPTION
1	123043	1	Secondary Tool Bar 7' Drill
1	123202	1	Secondary Tool Bar 10' Drill
1	123049	1	Secondary Tool Bar 14' Drill
1	123196	1	Secondary Tool Bar 15' Drill
1	123050	1	Secondary Tool Bar 20' Drill
2	520069	2,4,6,6	Secondary Bar Bracket (7',10',14',15')
2	520161	8	Secondary Bar Bracket 20' Drill
3	624010	As Req'd	3/4" x 3 1/2" U-Bolt 5" Long
4	604028	As Req'd	3/4" x 7" U-Bolt 5 1/2" Long
5	602006	As Req'd	3/4" Lock Washer
6	600004	As Req'd	3/4" Hex Nut
7	520171	2,4,5,6	Secondary Bar Bracket R.H.Narrow Row (7',10',14',15')
7	520172	2,4,5,6	Secondary Bar Bracket L.H. Narrow Row (7',10',14',15')
7	520188	6	Secondary Bar Bracket R.H.Narrow Row 20'
7	520189	6	Secondary Bar Bracket L.H.Narrow Row 20'

FLUTED COULTER ASSEMBLY

REF. No	PART No.	QTY REQD	DESCRIPTION
1	520194	1	Hitch (Long) Shown
1	520193	1	Hitch (Short) Not Shown
2	624010	1	3/4" x 3 1/2" U-Bolt 5" Long
3	609009	1	Grease Fitting
4	600004	2	3/4" Hex Nut
5	602006	2	3/4" Lockwasher
6	125007	2	Oilite Bushing
7	602031	1	Machine Bushing 2 1/4" O.D. 10 Ga.
8	520192	1	Coulter Fork
9	604018	1	Small Hair Pin
10	604058	1	3/8" x 1 1/2" Headed Pin
11	604043	1	7/16" Linch Pin
12	120285	1	Adjustment Strap
13	700013	1	Coulter Spring-3/8" Dia Wire
14	601011	2	1/2" x 1 3/4" Bolt
15	602010	2	7/16" Flat Washer
16	103003	2	Swivel Bushing
17	600006	6	1/2" Lock Nut
18	520195	1	Coulter Yoke
19	701011	1	15" x 1 3/8" Fluted Coulter Blade
19	701012	1	15" x 3/4" Fluted Coulter Blade
19	701013	1	15" Ripple Coulter Blade
20	604124	1	5/32" x 1 1/2" Cotter Pin
21	600020	1	3/4"-16 Castle Nut
22	103070	2	Bearing Spacer
23	703006	2	Grease Seal
24	702014	2	Taper Roller Bearing
25	702013	2	Bearing Race
26	522042	1	Coulter Hub and Race Assembly
27	601041	4	1/2" x 1 1/4" Bolt
28	602007	4	1/2" Lock Washer
29	105012	1	Spindle
30	609008	1	Grease Fitting
31	600011	2	7/16" Lock Nut
32	602012	2	7/16" Lock Washer
33	520124	1	Unit Hitch-No Coulter
34	624009	1	7/16" x 3 1/2" U-Bolt 4 1/2" Long
35	522052	1	Hitch Assembly-No Coulter (Items 31-34)
*	522051	1	Coulter Hub Assembly Complete (Items 23-26 & 30)
*	522263	1	Coulter Fork and Yoke Assembly (Items 6-18)
*	522053	1	FCA 1 3/8" (Items 6-30)
*	522166	1	FCA 3/4" (Items 6-30)
"	522167	1	FCA Ripple (Items 6-30)
"	522038	1	DFCA 1 3/8" Long (Items 1-30)
"	522039	1	DFCA 1 3/8" Short (Items 1-30)
"	522205	1	DFCA 3/4" Long (Items 1-30)
"	522206	1	DFCA 3/4" Short (Items 1-30)
"	522207	1	DFCA Ripple Long (Items 1-30)
"	522208	1	DFCA Ripple Short (Items 1-30)

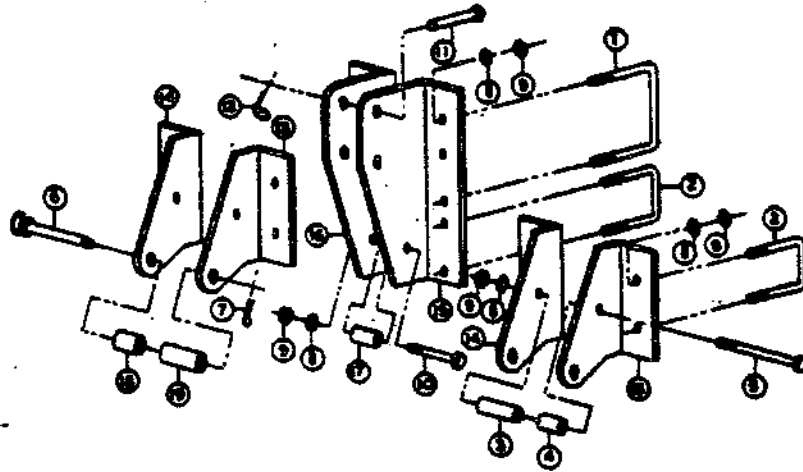
STD 3PT HITCH ASSY. 10'-14'-15'-20'-27'

REF NO	PART NO.	QTY REQ'D	DESCRIPTION
1	604028	2	3/4" x 7" U-Bolt (27' Drill Only) - 5 1/2" Long
2	624010	6	3/4" x 3 1/2" U-Bolt (27' Drill Only) -5" Long
2	624010	8	3/4" x 3 1/2" U-Bolt (10';14';15';20' Drill) 5" Long
3	103047	2	Spacer 3 3/4" Long
4	103046	2	Spacer 2" Long
5	601065	2	3/4" x 8" Bolt
6	604039	2	Hitch Pin Cat. #2
7	604057	2	Large Hair Pin
8	602006	19	3/4" Lock Washer
9	600004	19	3/4" Hex Nut
10	601077	1	3/4" x 4 1/2" Bolt
11	604040	1	Upper Link Pin
12	604043	1	7/16" Linch Pin
13	120065	2	Hitch Lower Arm (Left Hand)
14	120064	2	Hitch Lower Arm (Right Hand)
15	120067	1	Center Mast (Left Hand)
16	120066	1	Center Mast (Right Hand)
17	103027	1	Mast Spacer (2 1/4" Long)
18	103026	2	Cat. #3 Bushing (2" Long)
19	103026	2	Cat. #3 Bushing (3 5/8" Long)
*	522074	2	Lower Arm Assy (Items 3-9,13 & 14, 18 & 19)
*	522076	1	Center Mast Assy-10';14';15';20';27'Drills
*	522077	1	Center Mast Assy-27' Drills
*	522086	1	3pt. Hitch Assy Complete-27' Drills
*	522015	1	3pt. Hitch Assy Complete-(10';14';15';20' Drills)

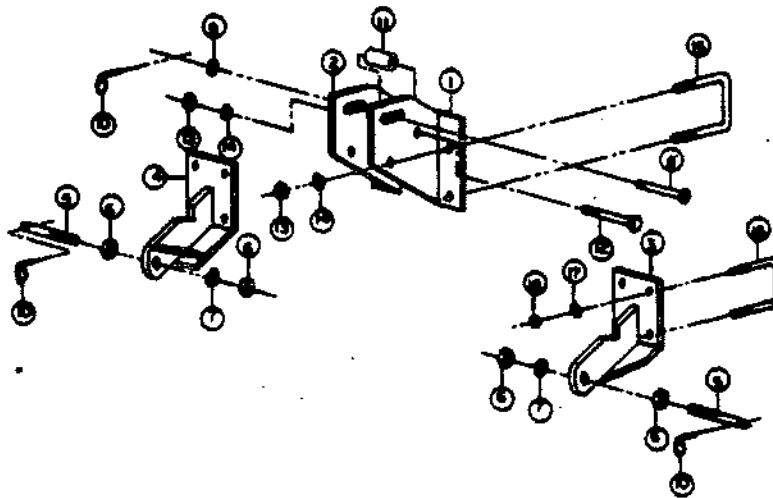
STD 3PT HITCH ASSY. 7'

REF NO.	PART NO.	QTY REQ'D	DESCRIPTION
1	120142	1	Center Mast (Left Hand)
2	120141	1	Center Mast (Right Hand)
3	520080	1	Lower Arm Hitch (Left Hand)
4	520079	1	Lower Arm Hitch (Right Hand)
5	604099	2	Draw Pin (Cat. #1)
6	600030	4	7/8" NF Nut
7	602022	2	7/8" Lock Washer
8	604109	1	Upper Link Pin (Cat. #1)
9	602013	1	3/4" SAE Washer
10	604043	3	7/16" Linch Pin
11	103027	1	Mast Spacer (2 1/4" Long)
12	601077	1	Bolt (3/4" x 4 1/2")
13	600004	5	3/4" Hex Nut
14	602006	5	3/4" Lock Washer
15	624010	2	3/4" x 3 1/2" U-Bolt (5" Long)
16	624009	4	7/16" x 3 1/2" U-Bolt (4 1/2" Long)
17	602012	8	7/16" Lock Washer
18	600011	8	7/16" Lock Nut
*	522079	1	Lower Arm Assy (Left Hand)
*	522080	1	Lower Arm Assy (Right Hand)
*	522078	1	Center Mast Assy

STANDARD 3PT. HITCH ASSEMBLY
10'-14'-15'-20'-27' DRILLS



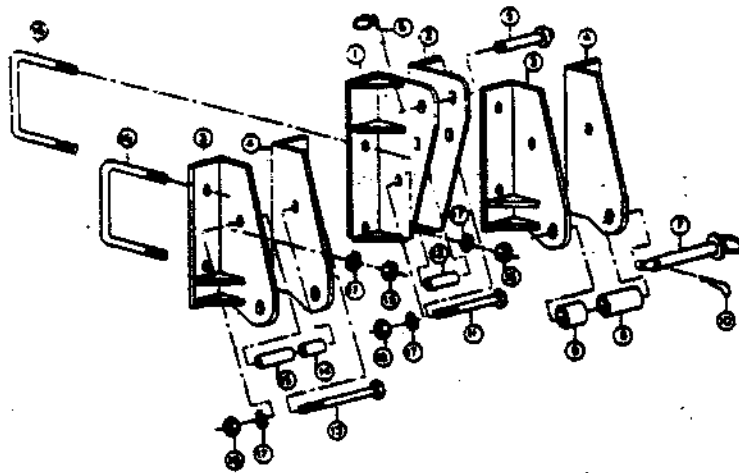
7' DRILL
3PT. HITCH ASSEMBLY
NO. 522087



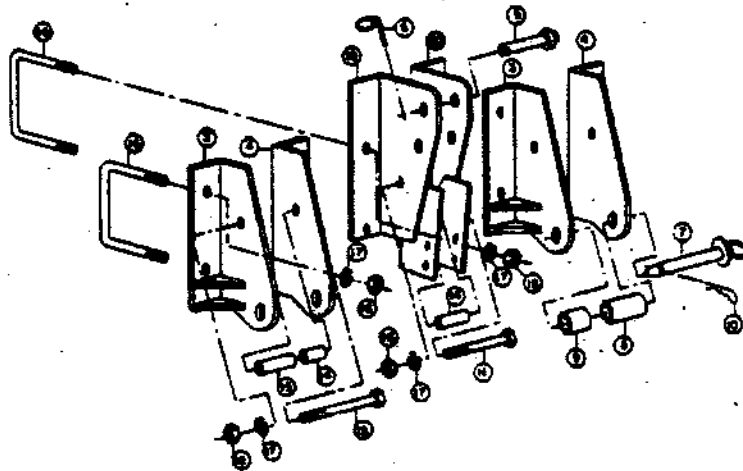
HEAVY DUTY 3PT HITCH ASSY

REF. No	PART No.	QTY REQD	DESCRIPTION
1	520154	1	Center Mast R.H.
2	520155	1	Center Mast L.H.
3	520156	2	Lower Arm R.H.
4	520157	2	Lower Arm L.H.
5	604040	1	Upper Link Pin
6	604043	1	7/16" Linch Pin
7	604039	2	Hitch Pin Cat. #2
8	103028	2	Cat. #3 Bushing (3 5/8" Long)
9	103026	2	Cat. #3 Bushing (2" Long)
10	604057	2	Large Hair Pin
11	601077	1	3/4" x 4 1/2" HHCS (7' N.T.)
11	601107	1	3/4" x 5" HHCS (10';14';15';20')
12	103072	1	Mast Spacer (2 3/4" Long) (10';14';15';20')
13	601065	2	3/4" x 8" Bolt
14	103046	3	Spacer (2" Long)
15	103047	2	Spacer (3 3/4" Long)
16	604028	6	3/4" x 7" U-Bolt 5 1/2" Long
17	602006	15	3/4" Lock Washer
18	600004	15	3/4" Hex Nut
19	520129	1	Center Mast R.H.-7' Drill
20	520130	1	Center Mast L.H.-7' Drill
*	522082	2	Lower Arm Assy Complete
*	522075	1	Center Mast Assy Complete for 14' & 20' Drills
*	522081	1	Center Mast Assy Complete for 7' N.T. Drill

HEAVY DUTY 3PT. HITCH ASSEMBLY
10'-14' 15'-20'

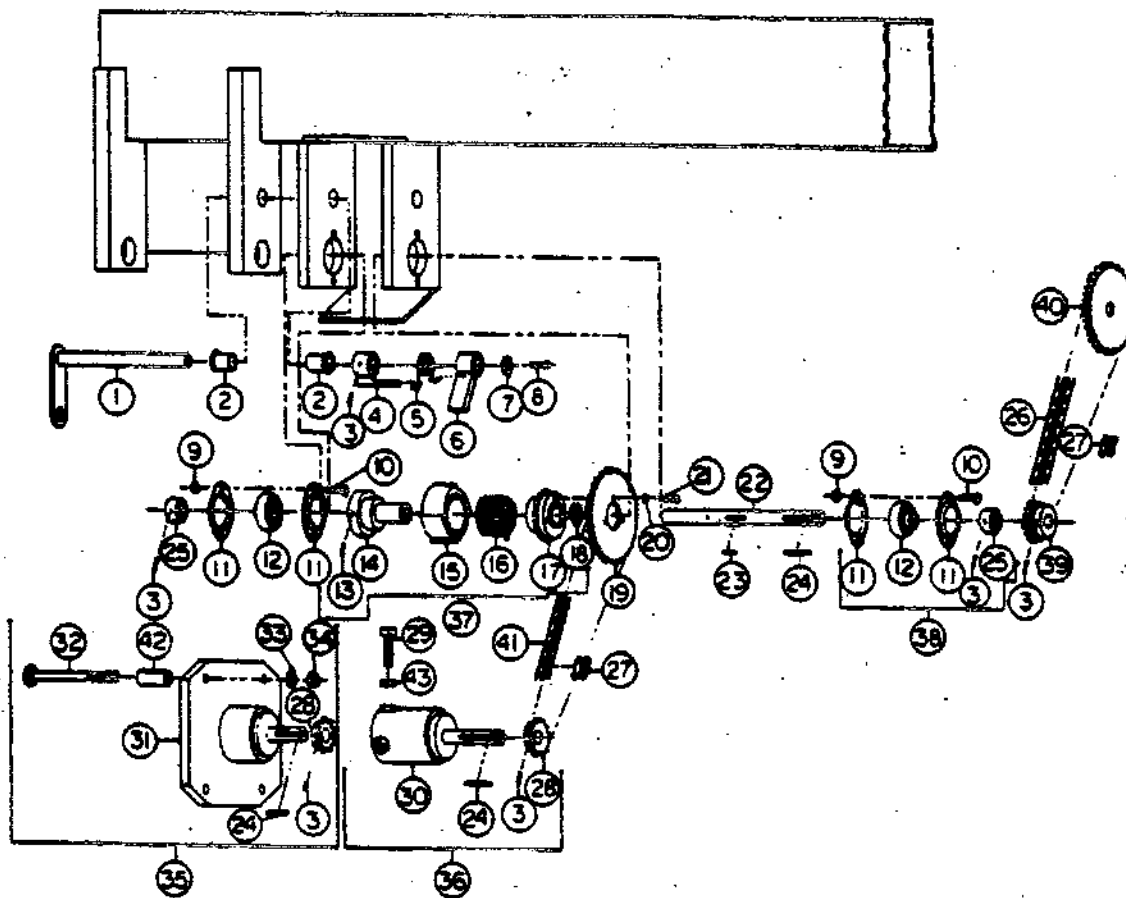


7' NO-TILL 3PT. HITCH ASSEMBLY



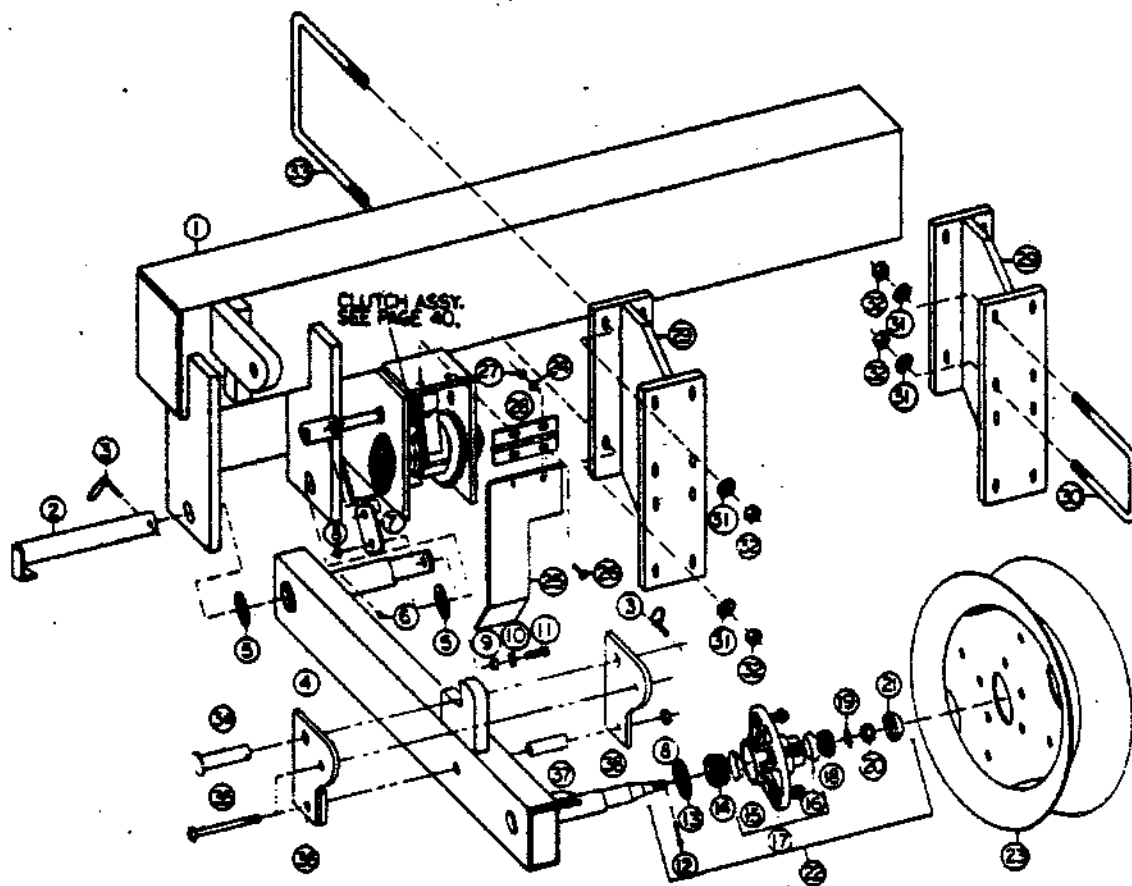
CLUTCH AND DRIVE ASSEMBLY

REF. No	PART No.	QTY REQD	DESCRIPTION
1	520068	1	Clutch Engaging Shaft
2	125006	2	Cilite Bushing
3	601096	A/R	1/4"-20 Set Screw 1/4" Long
4	520073	1	Clutch Finger Stop
5	720006	1	Torsion Spring L.H.
5	720005	1	Torsion Spring R.H.
6	520070	1	Clutch Finger
7	120129	1	Retainer Clutch Finger
8	601112	1	1/4" x 3/4" Flat Head Screw
9	600012	4	3/8" Lock Nut
10	601047	4	3/8" x 1" Bolt
11	105018	4	2-Hole Flangette
12	702002	2	Self Aligning Bearing
13	601097	1	1/4"-20 Set Screw 1/2" Long
14			Not Available
15			Not Available
15			Not Available
16	720008	1	Drive Spring L.H.
16	720009	1	Drive Spring R.H.
17			Not Available
18	624031	1	Retaining Ring
19	325006	1	40-A 32 Sprocket
20	602002	3	1/4" Lock Washer
21	601067	3	1/4" x 5/8" Bolt
22	126013	1	Clutch Shaft
23	128013	1	3/16" Key
24	128001	2	1/4" Sq. Key
25	702021	2	Bearing Lock Collar
26	624036	1	#20-40 Chain 57 Links
27	624004	2	#20-40 Connector Link
27	624006	2	#20-40 Offset Link
28	325005	2	40-B 13 Sprocket
29	601134	3	3/8" x 1 1/4" Sq. Head Set Screw
30	520009	1	Drive Hub (5 Bolt, 82 Model) (PT-7,10,14; PTNT-7)
30	520133	1	Drive Hub (8 Bolt, 82 Model) (15' PTNT, 20' PTNT)
31	520074	1	Drive Plate (82' Model) (PT-15 & 20; PTNT-10,14) (Not Shown)
31	520316	1	Drive Hub (83 Model) (PT-7,10,14,15,20; PTNT 7,10,14)
32	601111	4	1/2" x 5" Carriage Bolt (6 Bolt Hub, 82 Model)
32	601140	4	1/2 x 3 1/4" Carriage Bolt (6 Bolt Hub, 33 Model)
32	601041	4	1/2" x 1 1/4" BHCS (5 Bolt Hub, 83 Model)
33	602007	4	1/2" Lock Washer
34	600006	4	1/2" Lock Nut
35	522066	A/R	Drive Plate Assy (6 Bolt Hub, 82 Model) (Items 3,24,28,31-34)
35	522379	A/R	Drive Hub Assy (5 Bolt 83 Model) (Items 3,24,28,31-34)
35	522380	A/R	Drive Hub Assy (6 Bolt 83 Model) (Items 3,24,28,31-34,42)
36	522001	A/R	Drive Hub Assy (5 Bolt 82 Model) (Items 3,24,28-30,42)
36	522084	A/R	Drive Hub Assy (8 Bolt 82 Model) (Items 3,24,28-30,42)
37	522056	A/R	Clutch Assy L.H. (Shown) (Items 13-18)
37	522055	A/R	Clutch Assy R.H. (Not Shown) (Items 13-18)
38	502109	A/R	Self-Aligning Bearing Assy
39	325001	1	40-B 19 Sprocket
40	325002	1	40-B 28 Sprocket
41	624026	1	#20-40 Drive Chain 61 Links
42	123195	4	2" Spacer
43	600003	3	3/8" Hex Nut
"	325003	1	40-B 32 Sprocket
"	325016	1	40-B 48 Sprocket
"	502145	A/R	Bearing & Lock Collar Assy (3,12,25)



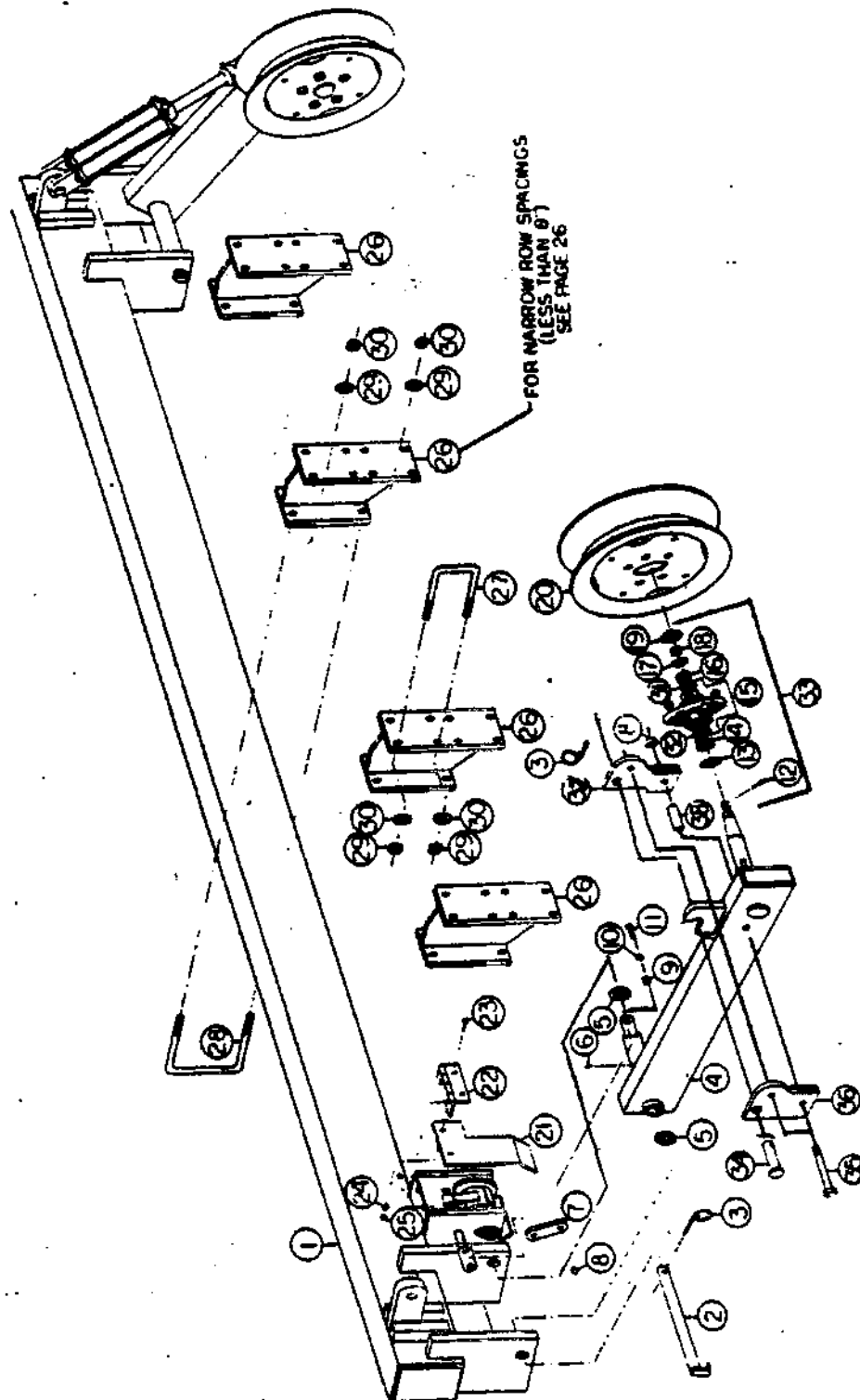
END WHEEL ASSY, 10' PT, 14' PT

REF. No	PART No.	QTY REQD	DESCRIPTION
1	520087	1	Tool Bar L.H. 10' & 14' Reg. (Shown)
1	520085	1	Tool Bar R.H. 10' & 14' Reg. (Not Shown)
2	520077	1	Pivot Pin 14' Reg
3	604043	2	7/16" Linch Pin
4	520103	1	End Wheel Arm R.H. 10' & 14'
4	520280	1	End Wheel Arm L.H. 10' & 14'
5	602031	2	Machine Bushing-2 1/4" O.D. 10 Ga.
6	609009	1	Grease Alenite.
7	120125	1	Clutch Link
8	600006	4	1/2" Lock Nut
9	103002	2	Bushing
10	602010	2	7/16" Flat Washer
11	601041	2	1/2" x 1 1/4" Bolt
12	604012	1	Cotter Pin 5/32" x 1 1/2"
13	703002	1	Grease Seal 1 5/8" I.D.
14	702015	1	Inner Bearing
15	702016	1	Inner Race
16	702013	1	Outer Race
17	522024	1	Hub Assembly (5-Bolt)
18	702014	1	Outer Bearing
19	602027	1	5/8" SAE-Flat Washer
20	600022	1	5/8" 18-Castle Nut
21	302007	1	Dust Cover For 5-Bolt
22	522043	1	Hub Assembly 5-Bolt (Items 12-21)
23	300004	1	Wheel 5 x 15 (5-Bolt)
24	602002	4	1/4" Lock Washers
25	124025	1	Clutch Door R.H.
25	124026	1	Clutch Door L.H.
26	601067	4	1/4" x 5/8" Bolt
27	600001	4	1/4" Hex Nut
28	125004	1	Hinge
29	520069	2	Secondary Bar Bracket 10' & 14'
30	624010	8	3/4" x 3 1/2" U-Bolt 5" Long
31	602006	24	3/4" Lock Washer
32	600004	24	3/4" Hex Nut
33	604028	4	3/4" x 7" U-Bolt 5 1/2" Long
34	604040	1	Top Link Pin
35	601064	1	1/2" x 5" HHCS
36	520285	1	Cylinder Guide
37	123154	1	Spacer Bushing
38	120425	1	Cylinder Guide
*	522386	1	Secondary Bar Bracket Assy(One) For 3 1/2" Main Frame (Items 29-32)
*	522355	1	Floating End Wheel Arm & Hub Assy L.H. 5-Bolt

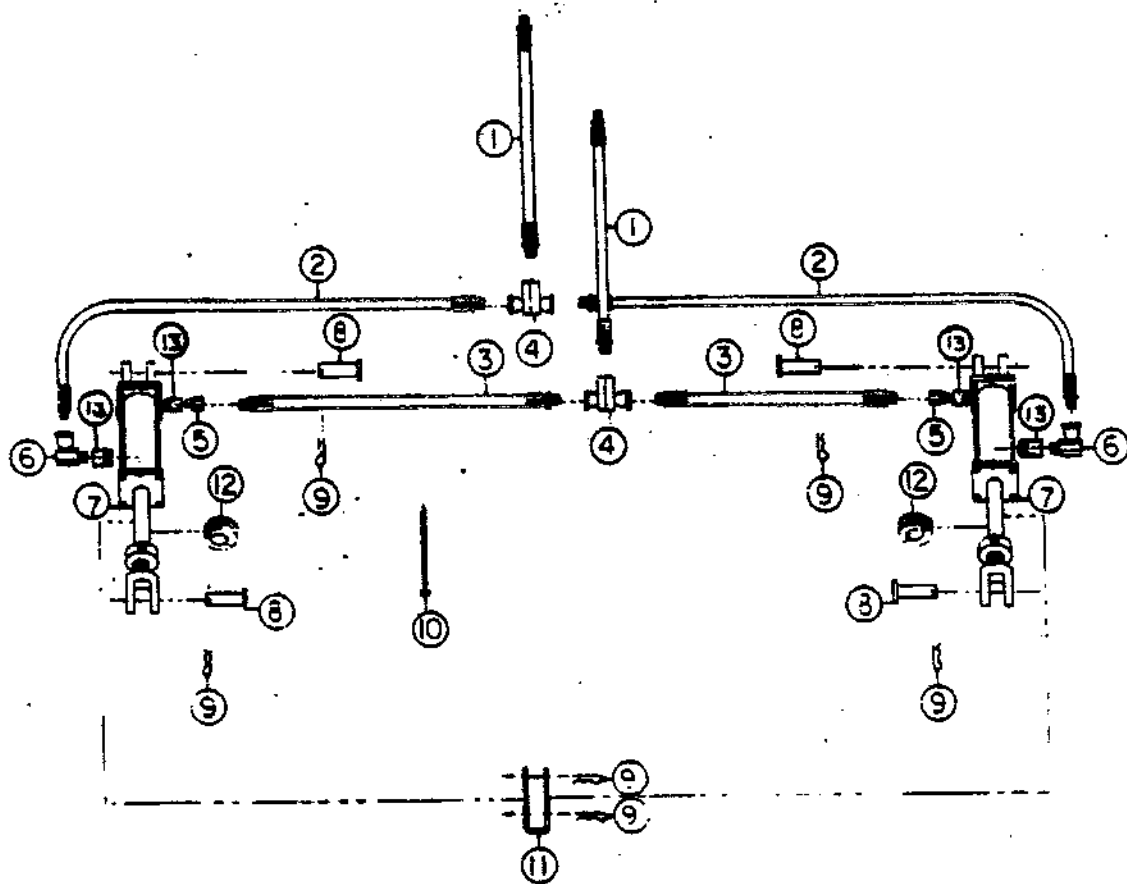


END WHEEL ASSY. PT (7,15,20) & PTNT (ALL)

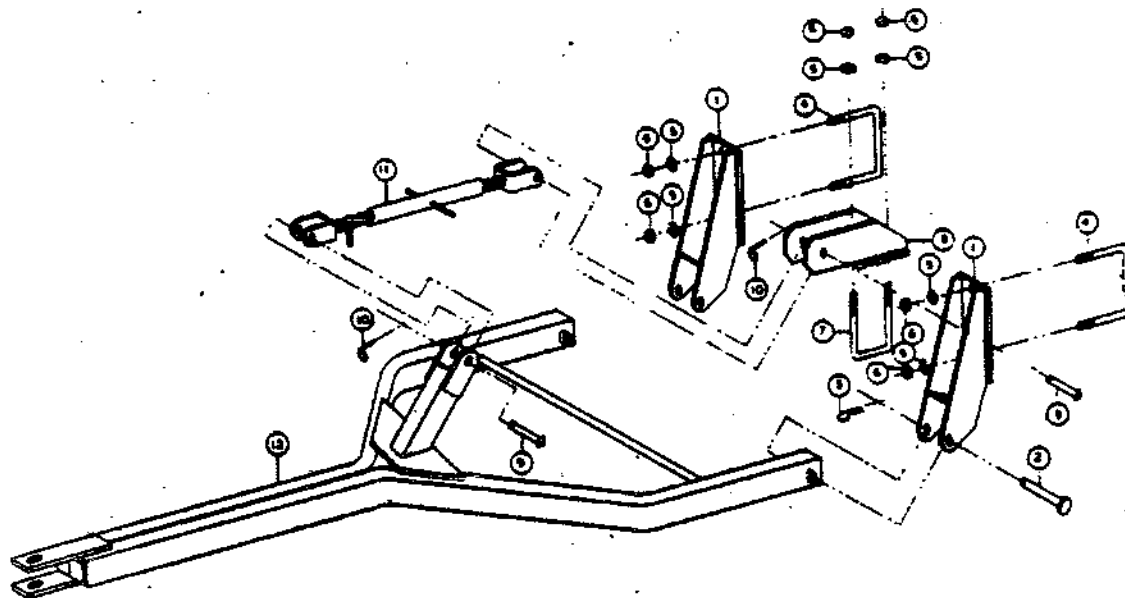
Ref. No.	Part No.	Qty Req	Part Description	Ref. No.	Part No.	Qty Req	Part Description
1	520084	1	Tool Bar For 7'	16	702014	2	Outer Bearing (7')
1	520296	1	Tool Bar For 10' PTNT	16	702015	2	Outer Bearing (All Others)
1	520149	1	Tool Bar For 14' PTNT (Shown)	17	602027	2	5/8" SAE Flat Washer (7')
1	520294	1	Tool Bar For 15'	17	602013	2	3/4" SAE Flat Washer (All Others)
1	520147	1	Tool Bar For 20'	18	600022	2	5/8-18 Castle Nut (7')
2	520077	2	Pivot Pin For 7'	18	600020	2	3/4-16 Castle Nut (All Others)
2	520072	2	Pivot Pin (10'; 14'; 15'; 20')	19	302007	2	Dust Cover (5 Bolt) (7')
3	604043	3	7/16" Linch Pin (7'; 10'; 14')	19	302014	2	Dust Cover (6 Bolt) (10x14 PTNT; 15x20PT)
3	604043	4	7/16" Linch Pin (15'; 20')	19	302015	2	Dust Cover (8 Bolt) (15x20 PTNT)
4	520103	1	End Wheel Arm R.H. (7' PT & PTNT)	20	300004	2	Wheel 15 x 15 (5 Bolt) (7')
4	520280	1	End Wheel Arm L.H. (7' PT & PTNT)	20	300007	2	Wheel 8 x 15 (6 Bolt) (10x14 PTNT; 15x20PT)
4	520108	1	E/W Arm R.H. (10x14PTNT)	20	300008	2	Wheel 8 x 15 (8 Bolt) (15x20 PTNT)
4	520281	1	E/W Arm L.H. (10x14PTNT 15x20PT)	21	124025	1	Clutch Door-R.H.
4	520282	1	E/W Arm R.H. (15x20 PT)	21	124026	1	Clutch Door-L.H.
4	520284	1	E/W Arm R.H. (15x20PTNT)	22	125004	A/R	Hinge
4	520283	1	E/W Arm L.H. (15x20PTNT)	23	601067	A/R	1/4" x 5/8" HKCS
5	602031	4	Mach. Bushing 2 1/2" O.D. x 10 Ga.	24	602002	A/R	1/4" Lock Washer
6	609009	2	Grease Alemite	25	600001	A/R	1/4" Hex Nut
7	120125	1	Clutch Link (7'; 10'; 14')	26	520069	2,4,6,6	Secondary Bar Bracket-(7'; 10'; 14' 15')
7	120125	2	Clutch Link (15'; 20')	26	520161	6,8	Secondary Bar Bracket-(20PT, 20' PTNT)
8	600006	4	1/2" Lock Nut (7'; 10'; 14')	27	624010	A/R	3/4 x 3 1/2" U-Bolt 5" Long
8	600006	8	1/2" Lock Nut (15'; 20')	28	604028	A/R	3/4" x 7" U-Bolt 5 1/2" Long
9	103002	2	Bushing (7'; 10'; 14')	29	600004	A/R	3/4" Hex Nut
9	103002	4	Bushing (15'; 20')	30	602006	A/R	3/4" Lock Washer
10	602010	2	7/16" Flat Washer (7'; 10'; 14')	31	702013	2	Outer Race-(7')
10	602010	4	7/16" Flat Washer (15'; 20')	31	702016	2	Inner Race-(7')
11	601041	2	1/2" x 1 1/4" Bolt	32	702016	2	Inner Race-(7')
11	601041	4	1/2" x 1 1/4" Bolt	32	702027	2	Inner Race (10x14 PTNT; 15x20PT)
12	604012	2	Cotter Pin 5/32" x 1 1/2' (7')	32	702028	2	Inner Race (15x20 PTNT)
12	604118	2	Cotter Pin 3/16" x 1 3/4"-All Others	33	522043	2	Hub Assembly (5 Bolt) (Items 12-19, 31, 32)
13	703002	2	Grease Seal 1 5/8" I.D.-7'	33	522063	2	Hub Assembly (6 Bolt) (Items 12-19, 31, 32)
13	703003	2	Grease Seal 1 3/4" I.D.-(10x14PTNT; 15x20PT)	33	522064	2	Hub Assembly (8 Bolt) (Items 12-19, 31, 32)
13	703004	2	Grease Seal 2 1/4" I.D.-(15x20 PTNT)	34	604040	A/R	Top Link Pin
14	702015	2	Inner Bearing (7')	35	601064	A/R	1/2" x 5" HKCS
14	702022	2	Inner Bearing (10x14PTNT; 15x20PT)	36	520285	A/R	Cylinder Guide L.H. (7' 10' 14' PT & PTNT)
14	702023	2	Inner Bearing-(15x20PTNT)	36	520286	A/R	Cylinder Guide L.H. (15' 20PT & 10' 14' 15' 20PTNT)
15	522024	2	Hub Assy (5-Bolt) (7')	37	120425	A/R	Cylinder Guide R.H. (7' 10' 14PT & 7' PTNT)
15	522049	2	Hub Assy (6-Bolt) (10x14PTNT; 15x20PT)	37	520287	A/R	Cylinder Guide R.H. (15' 20PT & 10' 14' 15' 20PTNT)
15	522061	2	Hub Assy (8-Bolt) (15x20PTNT)	38	123154	A/R	Spacer Bushing



PULL TYPE HYDRAULIC ASSEMBLY			7' STD. & NO-TILL	10' STANDARD	10' NO-TILL	14' STANDARD	14' NO-TILL	15' STANDARD	15' NO-TILL	20' STANDARD	20' NO-TILL
REF. NO.	PART NO.	DESCRIPTION									
1	502111	3/8" x 12' HYDRAULIC HOSE			2	2	2			2	2
1	502112	3/8" x 10' HYDRAULIC HOSE		2							
1	502113	1/2" x 12' HYDRAULIC HOSE									2
2	502114	1/4" x 10' HYDRAULIC HOSE						2			
2	502115	1/8" x 8' HYDRAULIC HOSE		2							
2	502116	3/8" x 11' HYDRAULIC HOSE								2	2
2	502117	1/2" x 10' HYDRAULIC HOSE								2	
2	502118	1/2" x 11' HYDRAULIC HOSE									2
3	502119	1/2" x 11' HYDRAULIC HOSE									2
3	502120	3/8" x 5' HYDRAULIC HOSE		2							
3	502121	3/8" x 6' HYDRAULIC HOSE			2	2					
3	502122	3/8" x 8' HYDRAULIC HOSE								2	2
3	502123	3/8" x 8' HYDRAULIC HOSE						2			
3	502124	1/2" x 8' HYDRAULIC HOSE							2		
3	502125	1/2" x 11' HYDRAULIC HOSE									2
4	604115	3/8" TEE (PTT)		2	2	2	2	2	2	2	2
4	604116	1/2" TEE (PTT)								2	2
5	604117	RESTRICTOR 3/8" x 5/64" FOR 3 1/2" CYLINDER		2	2			2			
5	604118	RESTRICTOR 1/2" x 1/32" FOR 3" CYLINDER				2			2	2	2
5	604119	RESTRICTOR 1/2" x 7/64" FOR 3 1/2" CYLINDER								2	2
6	604120	3/8" STREET L		2	2	2	2	2	2	2	2
6	604084	1/2" STREET L								2	2
7	502123	3 1/2" x 8" CYLINDER		2	2			2			
7	502124	3" x 8" CYLINDER				2		2	2		2
7	502125	3 1/2" x 8" CYLINDER								2	2
8	604067	CYLINDER PIN		4	4	4	4	4	4	4	4
8	604067	LARGE HAIR PIN		8	8	8	8	8	8	8	8
10	604067	HOSE STRAP		4	4	4	4	4	4	4	4
11	604120	CYLINDER LOCK			2	2	2	2	2	2	2
12	604120	CYLINDER STOP 1 1/4" WIDE		2	2	2	2	2	2	2	2
12	604034	3/8" FEMALE TO 1/2" MALE PIPE BUSHING						4		4	4

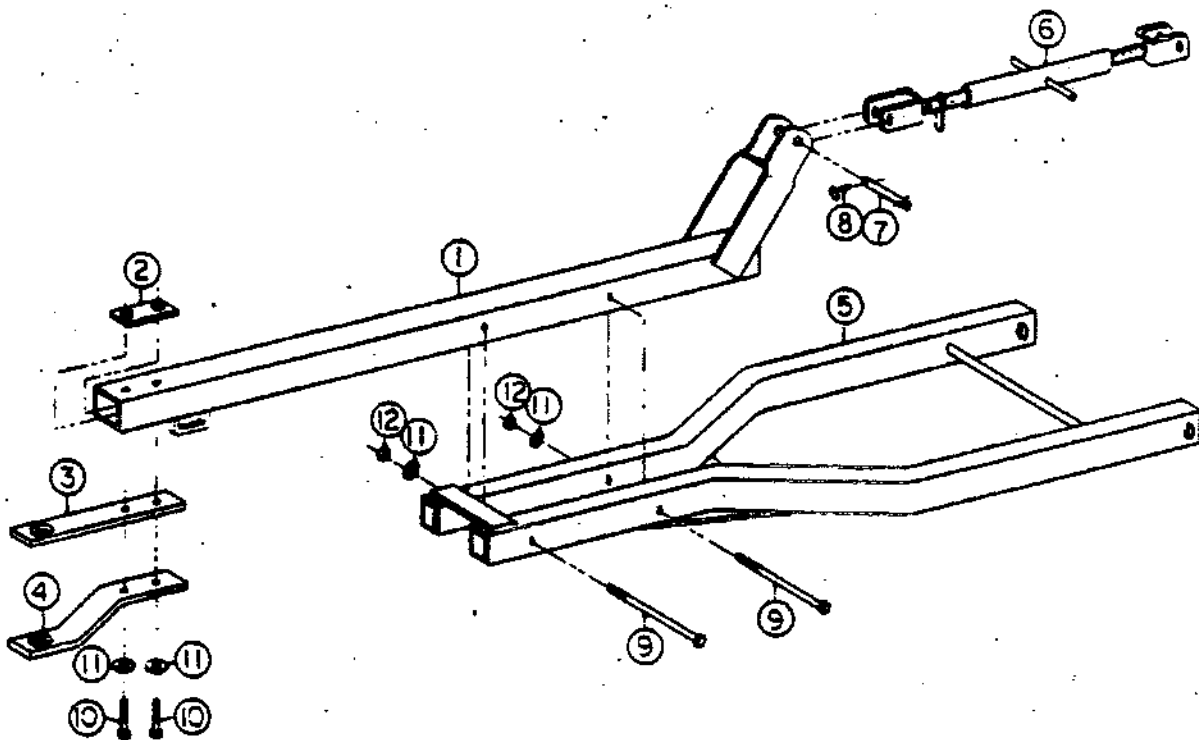


TONGUE AND HITCH ASSEMBLY 7' PT & 7' PTNT



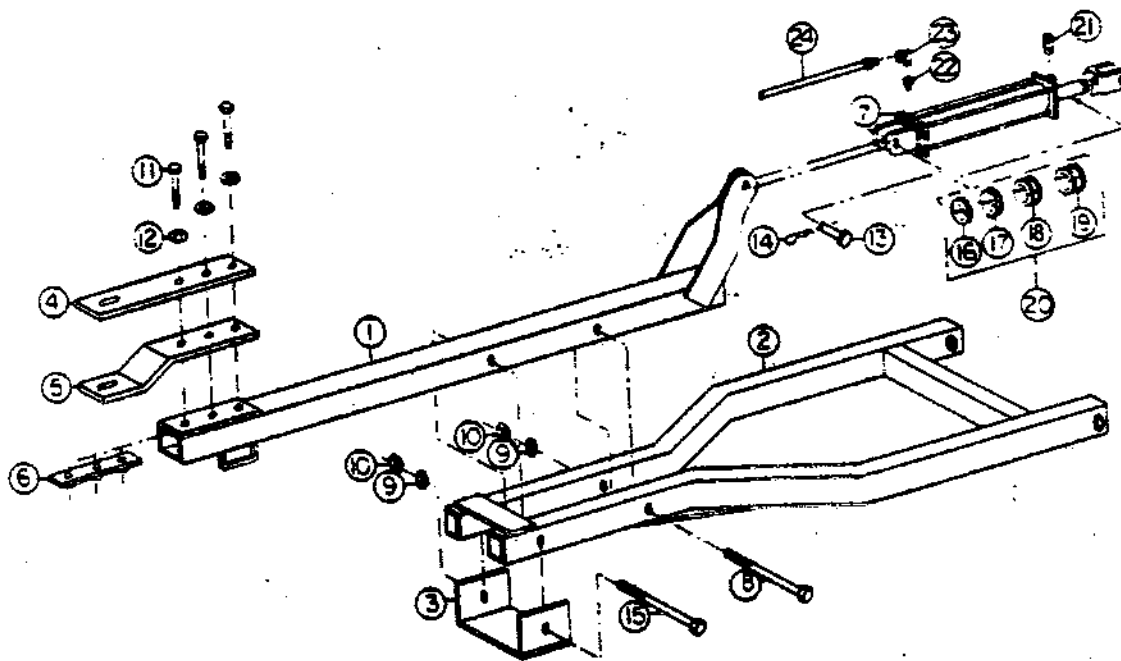
REF NO	PART NO	QTY REQD	PART DESCRIPTION
1	520151	2	Lower Arm
2	604123	2	Hitch Pin 1 1/8" x 4 3/4" U.L.
3	604057	2	Lg. Hair Pin
4	604028	2	3/4" x 7" U-Bolt 5 1/2" Lg.
5	602006	6	3/4" Lock Washer
6	600004	6	3/4" Hex Nut
7	604029	1	3/4" x 4 1/8" U-Bolt 8 1/2" Lg.
8	520152	1	Center Mast
9	604040	2	Upper Link Pin
10	604043	2	7/16" Linch Pin
11	624032	1	Turn Buckle
12	520153	1	Tongue Yoke
*	522108	1	3 Pt. Hitch Assembly Items 1-10

TONGUE ASSY, 10' PT-10' PTNT-14' PT



REF NO	PART NO	QTY REQD	PART DESCRIPTION
1	520126	1	Tongue Extension
2	520132	1	Bolt Plate
3	120158	1	Hitch Plate-Straight
4	120157	1	Hitch Plate-Formed
5	520119	1	Tongue Frame
6	624032	1	Turn Buckle
7	604040	1	Top Link Pin
8	604043	1	7/16" Linch Pin
9	601065	2	3/4" x 8" Bolt
10	601059	2	3/4" x 3" Bolt
11	602006	4	3/4" Lock Washer
12	600004	2	3/4" Nut

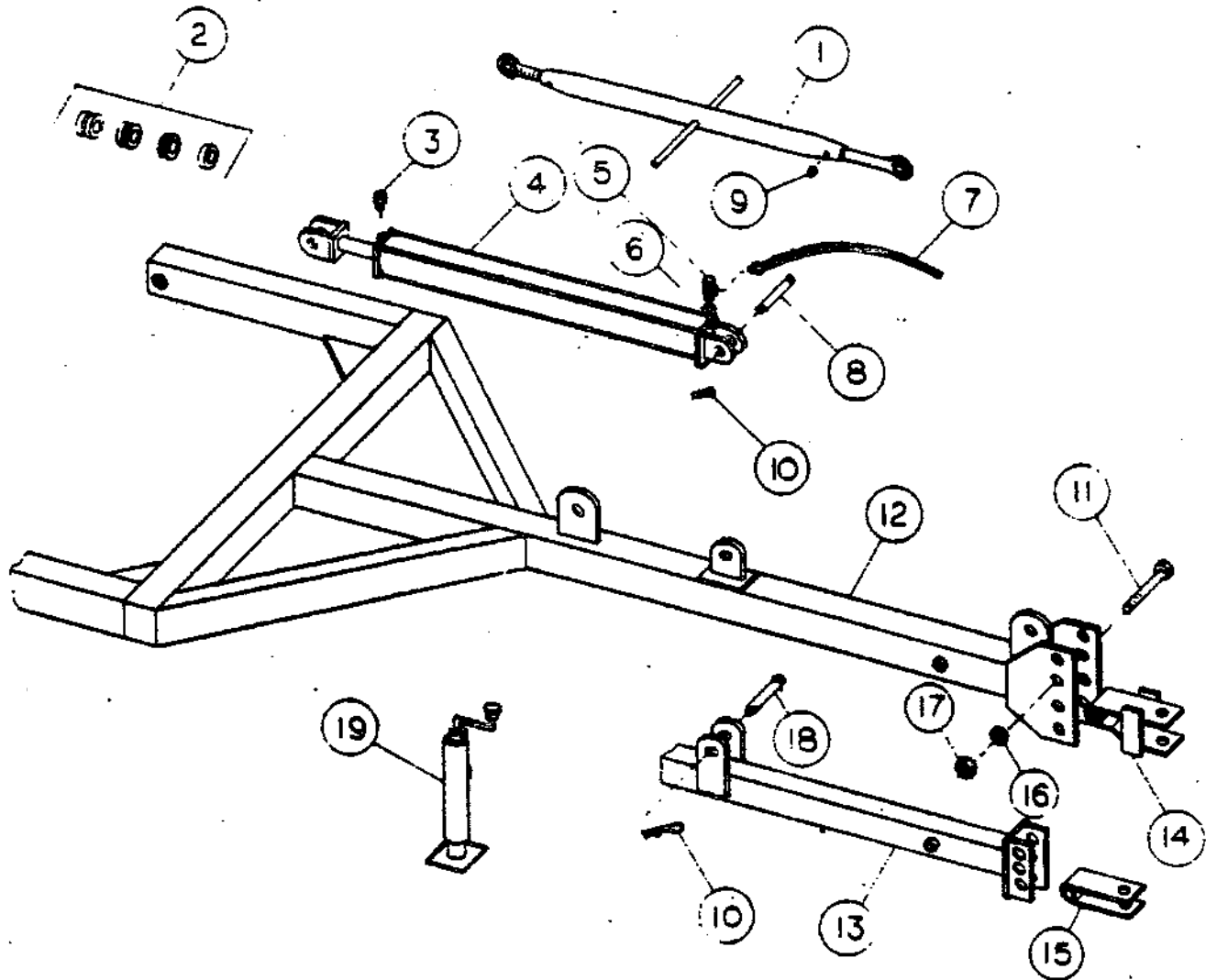
TONGUE ASSY, ALL OTHERS



REF NO	PART NO	QTY [*] REQD	PART DESCRIPTION
1	520127	1	Tongue Extension
2	520120	2	Tongue Frame
3	520144	1	Tongue Support Bracket
4	120211	1	Tongue Hitch-Straight
5	120212	1	Tongue Hitch-Formed
6	520145	1	Bolt Plate
7	502123	1	Hydraulic Cylinder-2 1/2"
8	601104	1	1" x 9" Bolt
9	602028	2	1" Lock Washer
10	600028	2	1" Nut
11	601058	3	3/4" x 4" Bolt
12	602006	3	3/4" Lock Washer
13	604067	1	Cylinder Pin
14	604057	1	Large Hair Pin
15	601114	1	1" x 10" Bolt
16	604168	1	Cylinder Stop-3/4" Wide
17	604169	1	Cylinder Stop-1" Wide
18	604170	1	Cylinder Stop-1 1/4" Wide
19	604171	1	Cylinder Stop-1 1/2" Wide
20	604101	1	Cylinder Stop Kit, Items 16-19
21	604035	1	3/8" Breather Plug
22	604110	1	3/8" x 5/64" Restrictor-2.5
23	604114	1	3/8"-90° Street-L
24	502116	1	3/8" x 10' Hydraulic Hose

TONGUE ASSY'S, ALL PT DRILLS

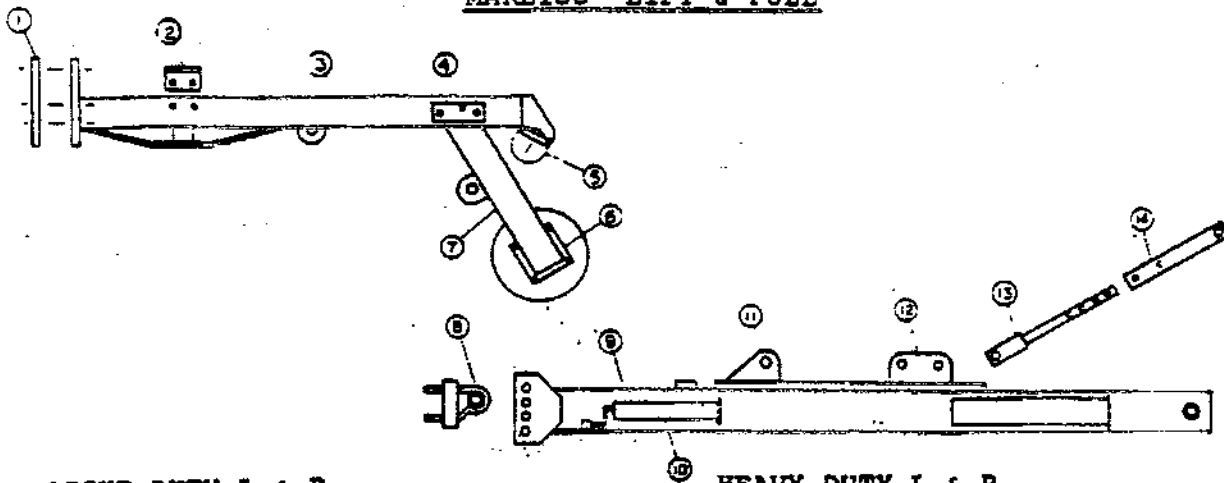
EFFECTIVE 1-84



REF. No	PART No.	QTY REQD	DESCRIPTION
1	522555	1	Top Link U/Alemites
2	604101	2	Cylinder Stop Kit
3	604015	1	Breather Plug
4	502153	1	Cylinder, 2 1/2 x 16, with Pins
5	604114	1	90 Degree Street L, 1/8"
6	604110	1	Restrictor - 2.5
7	502116	1	Hyd. Hose, 1/8 x 10'
8	604067	1	Cylinder Pin
9	609079	2	Grease Alemit
10	604057	2	Large Hair Pin
11	601132	1	1 x 7" HKCS (HD)
	601098	1	1 x 6" HKCS (7' & STD)
12	520351	1	10' Tongue (14' PTWT, All 15' & 20')
13	520420	1	7' Tongue
	520421	1	STD Tongue (All 10', 14 PT Conv.)
14	520224	1	HD Tractor Hitch
15	520417	1	Tractor Hitch
16	602028	1	1" Lock Washer
17	600028	1	1" Hex Nut
18	604040	1	Top Link Pin
19	522471	1	Tongue Jack

1-84

MARLISS[®] LIFT & PULL

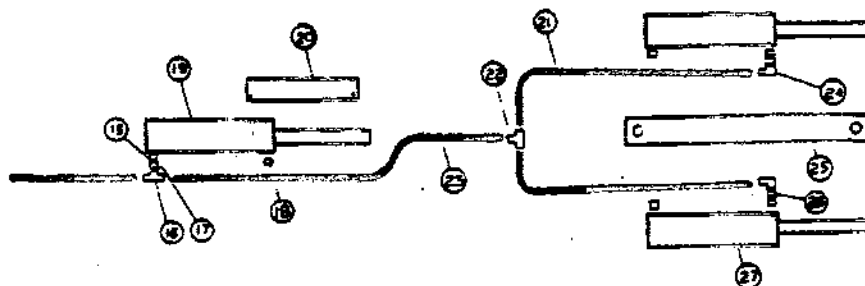


LIGHT DUTY L & P

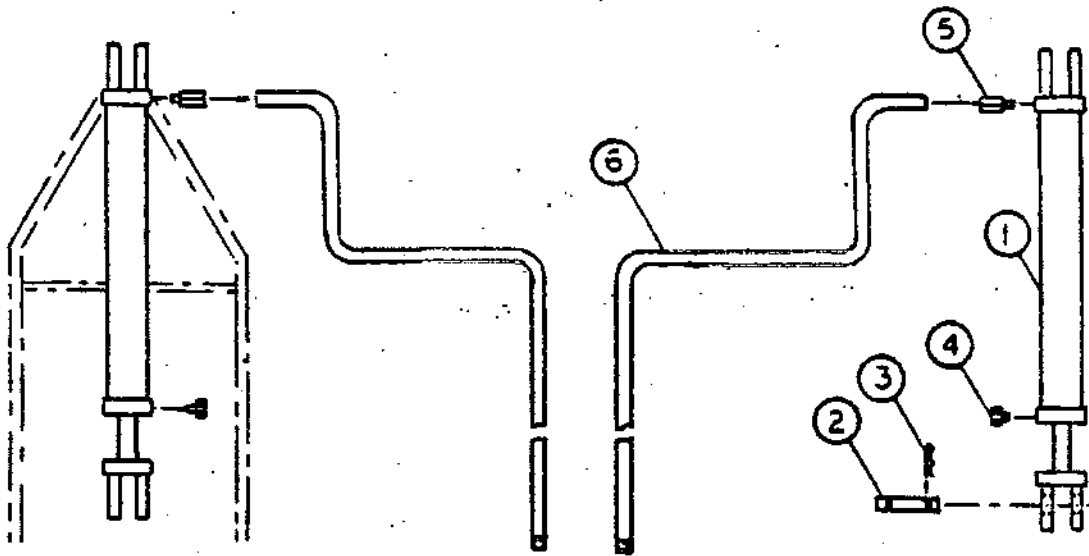
HEAVY DUTY L & P

REF. No.	PART No.	QTY REQD	DESCRIPTION
1	120795	4	Mounting plate
	401184	12	3/8" x 4" bolt
	402015	12	3/8" lock washer
	400014	12	3/8" hex nut
3	520615	2	Wheel arm section, long
4	520616	2	ACM pin
	402039	2	1" flat washer
		2	Clip pin
5	401191	4	3/4" x 3" sq. hd. set screw
	400034	4	3/4" jam nut
6	520617	2	Angle
	123383	4	Wheel axle bushing
		2	End plate, wheel arm
	401108	2	3/8" x 1 3/4" bolt
	402015	1	3/8" lock washer
		2	Hub assembly
		4	Conc.
		4	Seal
7	520614	2	Wheel arm section, short
8	520618	1	Clevis
	401107	1	1/4" x 5" bolt
	402006	1	3/4" lock washer
	400008	1	1/4" hex nut
9	520619	1	Tongue
10	522471	1	Jack
12	520620	1	Slide adjustment
13	520622	1	Adjustment yoke
	401059	1	3/4" x 4" bolt
	402006	1	3/4" lock washer
	400004	1	3/4" hex nut
14	123384	1	Adjustment linkage
	401059	2	1/4" x 3" bolt
	402006	2	3/4" lock washer
	400004	2	3/4" hex nut
15	404054	1	Bushing, 3/8" F to 4" M
16	404120	1	TFM 3/8" hyd. swivel
17	404112	1	Restrictor, 3.5
18	404055	1	Breather plug
19	502125	1	3 1/2" x 8" cylinder
20	123064	1	Cylinder lock
	404057	2	Large hair pin
21	502141	2	Hyd. hose, 3/8" x 4'
22	404115	1	TFM 3/8" hyd. swivel
23	502115	2	Hyd. hose, 3/8" x 8'
24	404084	2	Street L, 4" hyd. 90 deg.
25	120783	2	Cylinder locking strap
26	404111	2	Restrictor, 3.0
27	502124	2	3" x 8" cylinder

REF. No.	PART No.	QTY REQD	DESCRIPTION
1	121061	4	Clamp plate
	401032	12	3/4" x 4" bolt
	402006	12	3/4" lock washer
	400004	12	3/4" hex nut
2	123110	4	Rear clamp
	404012	4	7/16" x 2" U-bolt, 4 1/2" long
	401022	8	7/16" x 1 3/4" bolt
	402012	16	7/16" lock washer
	400011	16	7/16" nylon lock nut
3	520754	2	Rear frame
4	520747	2	Pivot pin
	401047	4	3/8" x 1" bolt
	402006	4	3/8" lock washer
5	401082	2	3/4" x 2 1/2" bolt
	400010	4	3/4" jam nut
6	520751	2	Ham & spindle
	401011	16	4" x 1 1/4" bolt
	402007	16	4" lock washer
	400006	16	4" lock nut
	401162	12	4" x 1" screw-in lug bolt
	400000	4	1/16" O.I. lube fitting
	707016	4	Sealing
	400007	2	Wheel, 8" x 15" 6-bolt
7	520756	2	Wheel frame
8	520734	1	Tractor hitch, adjustable
	401132	1	1" x 7" bolt
	402009	1	1" lock washer
	400020	1	1" hex nut
9	520746	1	Tongue
10	522471	1	Jack
11	520743	1	Sliding cylinder lug
12	520753	1	Sliding top link w/
13	520748	1	Top link end
	404047	1	1" cylinder pin
14	520745	1	Top link tube
	401063	2	4" x 2 1/2" bolt
	402007	2	4" lock washer
	400006	2	4" lock nut
15	404054	1	Bushing, 1/4" F to 4" M
16	404120	1	TFM 3/8" hyd. swivel
17	404112	1	Restrictor, 3.5
18	404055	1	Breather plug
19	502125	1	3 1/2" x 8" cylinder
20	123064	1	Cylinder lock
	404057	2	Large hair pin
21	502141	2	Hyd. hose, 3/8" x 4'
22	404115	1	TFM 3/8" hyd. swivel
23	502115	2	Hyd. hose, 3/8" x 8'
24	404084	2	Street L, 4" hyd. 90 deg.
25	120783	2	Cylinder locking strap
26	see # 17		
27	see # 19		



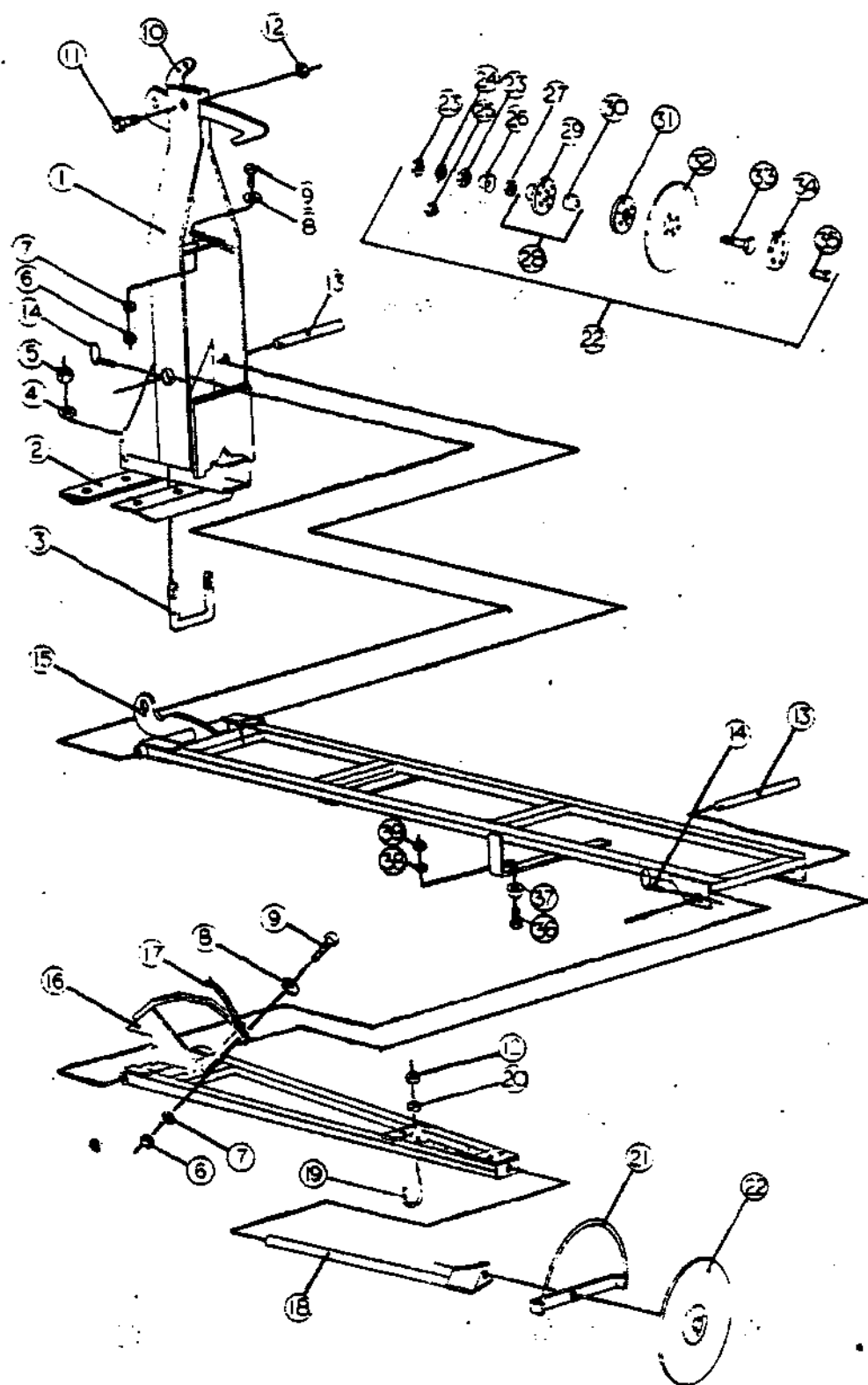
MARKER HYDRAULIC ASSEMBLY



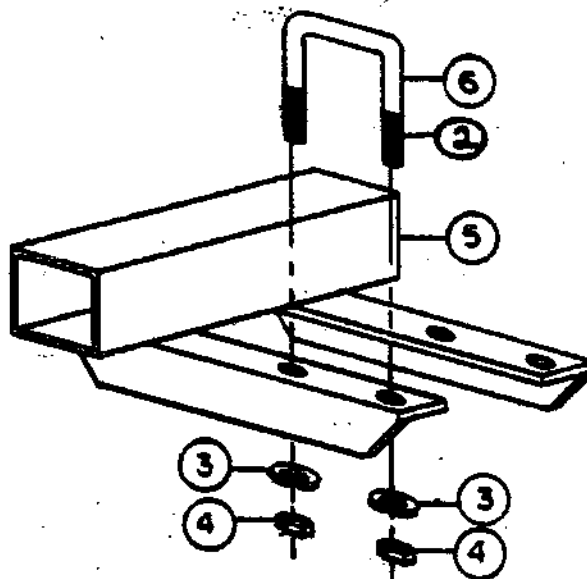
REF NO	Part NO	QTY REQD	PART DESCRIPTION
1	502055	2	Hydraulic Cylinder 2"
2	604067	4	Cylinder Pin
3	604057	4	Large Hair Pin
4	604035	2	3/8" Breather Plug
5	604036	2	Restrictor 3/8" x .062 Orifice
6	502111	2	12' Hydraulic Hose 3/8" (14' HM NT & 14' FM NT)
6	502057	2	14' Hydraulic Hose 3/8" (20' FM & 20' FM NT)
6	502056	2	16' Hydraulic Hose 3/8" (27' FM)
6	502143	2	18' Hydraulic Hose 3/8" (14 & 15 HM PT; 14 & 15 FM PT)
6	502144	2	20' Hydraulic Hose 3/8" (20' FM PT)

MARKER ASSEMBLY

REF. No	PART No.	QTY REQ'D	DESCRIPTION
1	500032	1	Marker Stand
2	520058	1	Marker Mounting Attachment L.H. (Not Shown)
2	520057	1	Marker Mounting Attachment R.H. (Not Shown)
3	520168	1	Marker Mounting Attachment (Shown)
3	604105	2	3/4" x 4" U-Bolt 7 1/4" Long
4	602006	A/R	Washer 3/4" Lock
5	600004	A/R	Nut 3/4" Hex
6	600012	2	Nut 3/4" Lock
7	602005	2	Washer 3/8" Lock
8	602009	2	Washer 3/8" Flat
9	601006	2	Bolt 3/8" x 1 1/2" H.H.
10	100089	1	Latch (Folding Marker)
10	100146	1	Latch (Rigid Marker)
11	601013	1	Bolt 1/2" x 2"
12	600006	5	Nut 1/2" Lock
13	106023	2	1" Marker Pin
14	604006	2	1/4" Linch Pin
15	500095	1	Marker Arm-14' Rigid
15	500096	1	Inner Arm-14' Folding
15	500098	1	Inner Arm-20' Folding
15	500093	1	Inner Arm-27" Folding
16	500097	1	Outer Arm-14' Folding
16	500099	1	Outer Arm-20' Folding
16	500094	1	Outer Arm-27' Folding
17	604102	1	3/16" Chain-14' Folding Marker 70"
17	604103	1	3/16" Chain-20' Folding Marker 90"
17	604104	1	3/16" Chain-27' Folding Marker 109"
18	500100	1	Extension Arm-14' Folding
18	500092	1	Extension Arm-All Others
19	604033	2	1/2" x 1 3/4" U-Bolt 3 1/8" Long
20	602007	4	Washer 1/2" Lock
21	500110	1	Marker Blade Guard
22	502110	1	13" Disc Assembly (Items 23-35)
23	600004	2	Nut 3/4" Hex
24	602006	1	Washer, 3/4" Lock
25	601047	6	Nut 3/8" Lock
26	124023	1	Dust Shield
27	602013	1	Washer, 3/4" SAE Flat
28	702005	1	Bearing & Bearing Holder Assembly
29	105019	1	Bearing Holder
30	702020	1	Bearing
31	500109	1	Bearing Plate Weldment
32	701010	1	13" Disc Blade
33	105020	1	Bolt 3/4" x 3" Hex
34	104008	1	Bearing Shield
35	600012	6	Bolt 3/8" x 1"
36	601023	2	Bolt 5/16" x 1" Hex
37	310007	2	Rubber Bumper Pad
38	602003	2	5/16" Lock Washer
39	600010	2	Nut 5/16" Hex

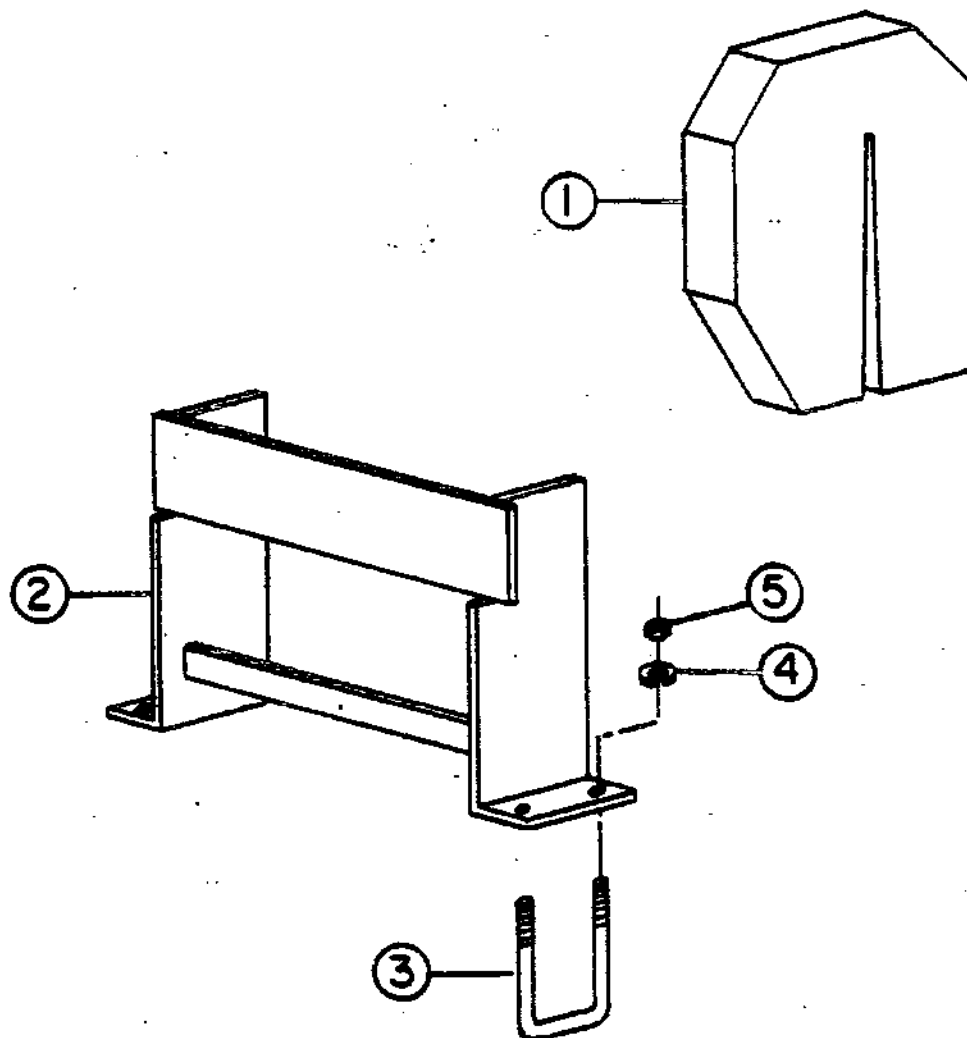


MARKER MOUNTING ATTACHMENT (MMA-2) ALL 3PT & ALL PULL TYPE DRILLS



REF.	PART NO.	QTY. REQ.	DESCRIPTION
2	604029	3	3/4" x 4" 7-Bolt 8 1/2" Long Used for drills with a 4x7 bar
3	602006	A/R	3/4" Lock Washer
4	600004	A/R	3/4" Hex Nut
5	520168	1	Marker Mounting Attachment
6	624010	2	3/4" x 3 1/2" U-Bolt 5" Long
*	1250113	1	MMA-2 1 Set (All 3pt & Pull Type Drills)

WEIGHT BRACKET AND WEIGHTS

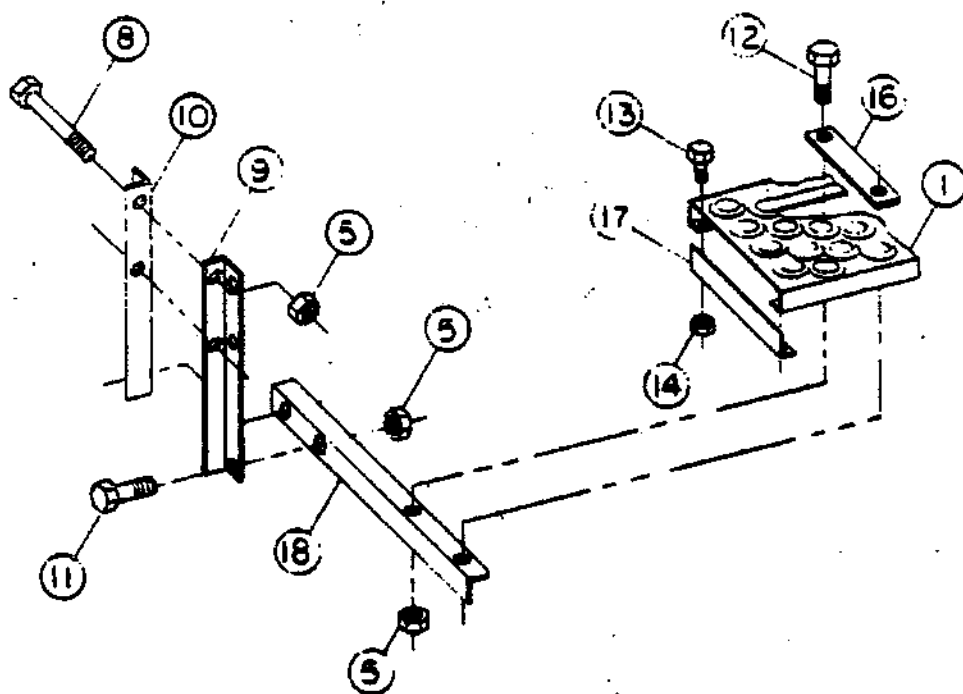


REF NO.	PART NO.	QTY REQD	DESCRIPTION
1	129002	2	Weight 75Lb. Concrete
2	520135	1	Weight Bracket
3	604029	2	3/4" x 4 1/8" U-Bolt 8 1/2" Lg.
4	602006	4	3/4" Lock Washer
5	600004	4	3/4" Hex Nut
*	522071	1	1-Pair Of Weight Brackets And Hardware

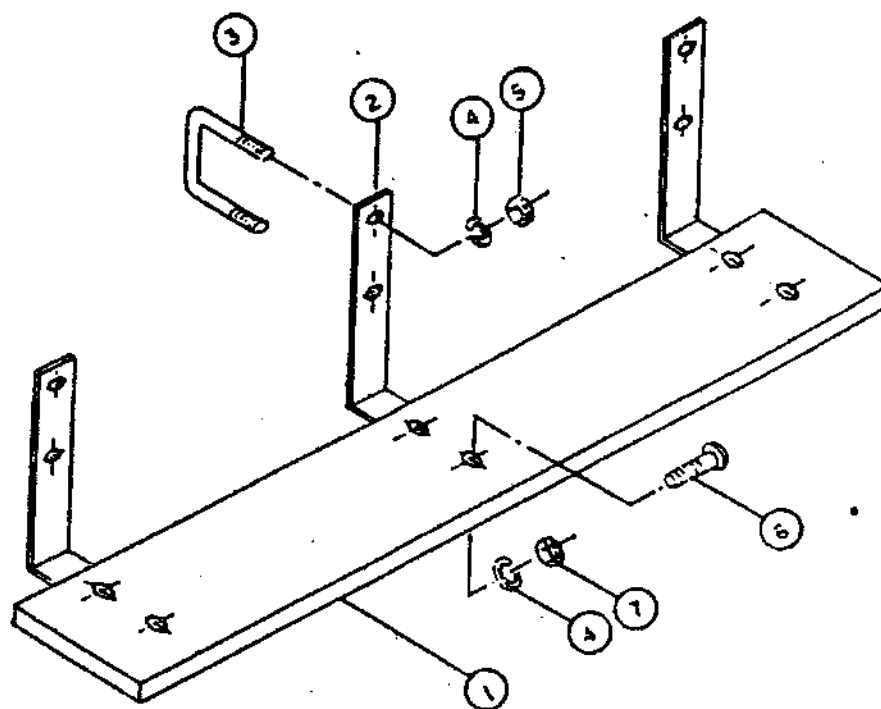
WALK BOARD ASSEMBLIES

REF. No	PART No.	QTY REQD	DESCRIPTION
1	129001	1	Walkboard 6 1/2' Wood
1	129004	1	Walkboard 7 1/2' Wood
1	129003	1	Walkboard 10' Wood
1	125012	1	Walkboard 5' Metal
1	125003	1	Walkboard 6 1/2' Metal
2	110053	A/R	Hanger Bracket
3	624008	A/R	U-Bolt 7/16" x 3", 3" Long
4	602012	A/R	Washer 7/16" Lock
5	600011	A/R	Nut 7/16" Lock
6	601088	A/R	Bolt 7/16" x 2 1/2" Carriage
7	600007	A/R	Nut 7/16" Hex
8	601029	A/R	Bolt 7/16" x 3" Hex
9	122047	A/R	Walkboard Hanger, Rear
10	122048	A/R	Walkboard Hanger, Front
11	601010	A/R	Bolt 7/16" x 1" Hex
12	601033	A/R	Bolt 7/16" x 1 1/4" Hex
13	601103	4	Bolt 3/8" x 3/4" Hex
14	600012	A/R	Nut 3/8" Lock
15	602005	A/R	Washer 3/8" Lock
16	120107	A/R	Hold Down Plate
17	124032	2	Angle, Walkboard End Cap
18	122049	A/R	Walkboard Support H.D.
*	522316	A/R	Heavy Duty Walkboard Brkt. Assy. (Items 5,8-11,18)

METAL WALK BOARD ASSEMBLY



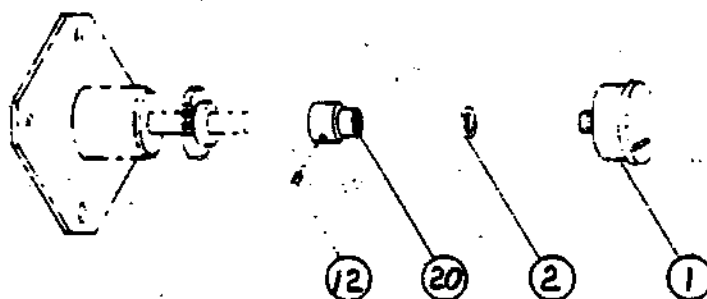
WOOD WALK BOARD ASSEMBLY



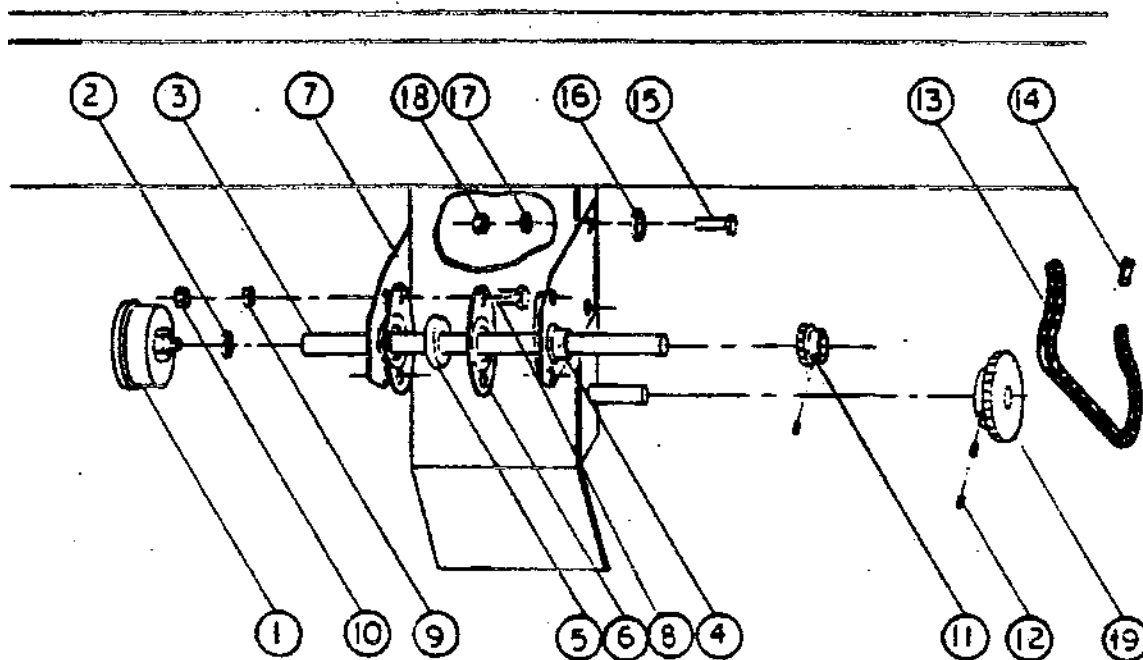
ACRE METERS

REF No	PART No.	QTY REQD	DESCRIPTION
1	325012	1	Acre Meter 7' 3PT
1	325025	1	Acre Meter 7' PT
1	325020	1	Acre Meter 10'
1	325056	1	Acre Meter 12'
1	325013	1	Acre Meter 14'
1	325021	1	Acre Meter 15'
1	325014	1	Acre Meter 20'
1	325015	1	Acre Meter 27'
1	325022	1	Acre Meter 30'
2	602007	1	1/2" Lock Washer
3	126047	1	Jack Shaft
4	702021	2	Lock Collar
5	702002	2	Self Aligning Bearing
6	105018	4	2 Hole Flanquette
7	100151	2	Bearing Holder
8	601047	4	3/8" x 1" HHCS
9	602005	4	3/8" Lock Washer
10	600012	4	3/8" Lock Nut
11	325023	1	#40B-10 Tooth Sprocket
12	601096	3	1/4"-20 x 1/4" SSS
13	624060	1	#40 Chain-47 Links
14	624003	1	#40 Connecting Link
15	601033	4	7/16" x 1 1/4" HHCS
16	602010	4	7/16" Flat Washer
17	602012	4	7/16" Lock Washer
18	600011	4	7/16" Lock Nut
19	325024	1	#40B-25 Tooth Sprocket
20	126011	1	Acre Meter Adapter
*	1250051	1	Acre Meter Assembly 7' 3Pt.
*	1250053	1	Acre Meter Assembly 10' 3Pt.
*	1250292	1	Acre Meter Assembly 12' 3Pt.
*	1250055	1	Acre Meter Assembly 14' 3Pt.
*	1250057	1	Acre Meter Assembly 15' 3Pt.
*	1250059	1	Acre Meter Assembly 20' 3Pt.
*	1250061	1	Acre Meter Assembly 27' 3Pt.
*	1250052	1	Acre Meter Assembly 7' PT
*	1250054	1	Acre Meter Assembly 10' PT
*	1250348	1	Acre Meter Assembly 12' PT
*	1250056	1	Acre Meter Assembly 14' PT
*	1250058	1	Acre Meter Assembly 15' PT
*	1250060	1	Acre Meter Assembly 20' PT
*	1250062	1	Acre Meter Assembly 30' 3PT

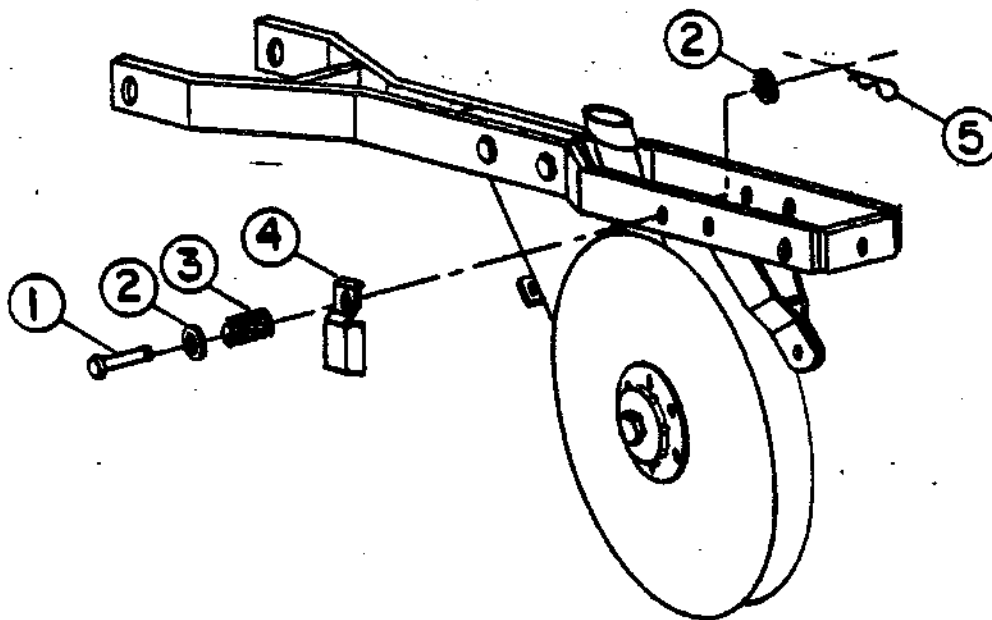
3-PT. ACRE METER



PULL TYPE ACRE METER



OUTSIDE SCRAPER ASSEMBLY

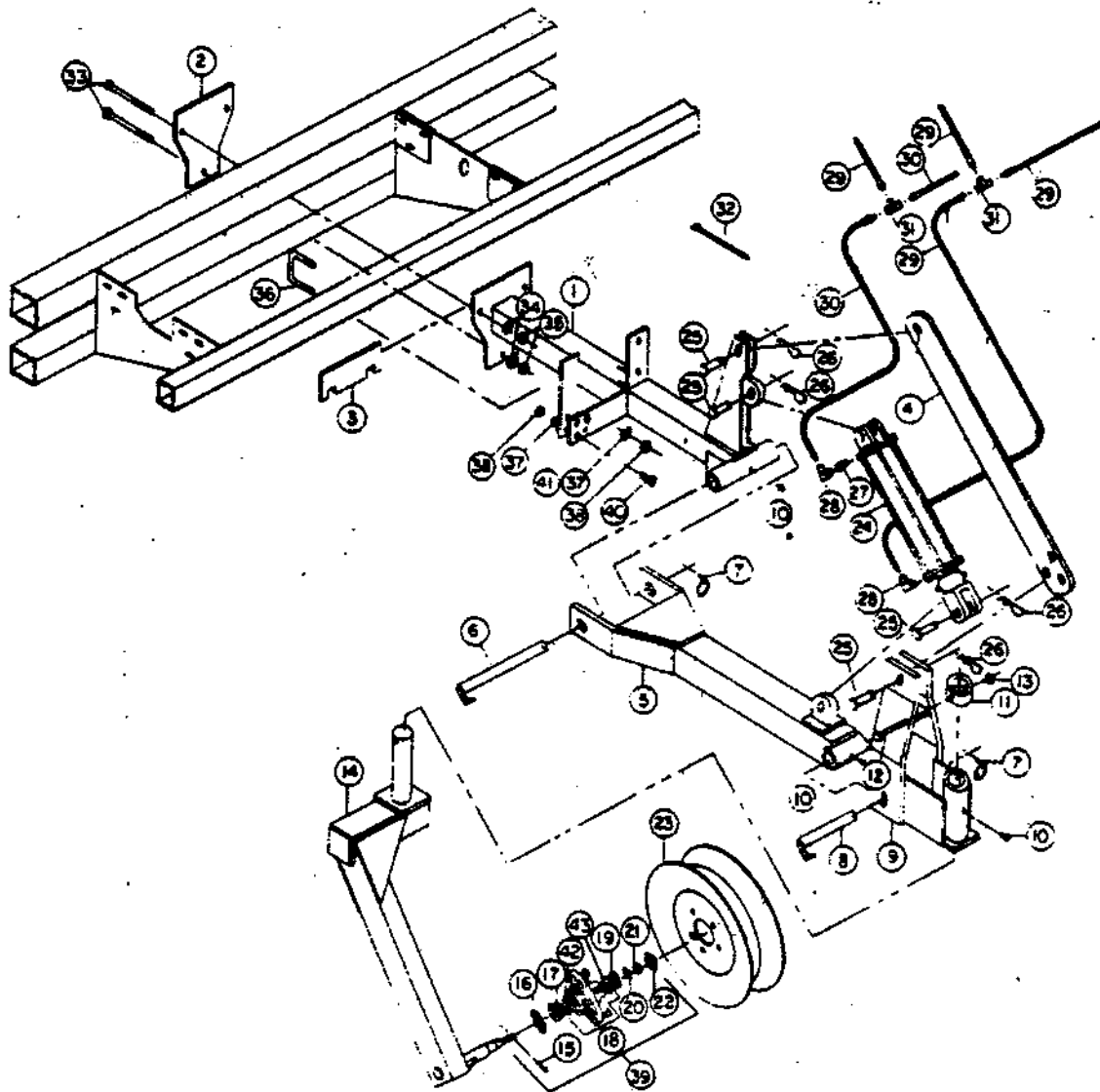


REF. NO.	PART NO.	QTY REQD	DESCRIPTION
1	604058	2	3/8" x 1 1/2" Headed Pin
2	602004	4	5/16" Flat Washer
3	720011	2	Spring
4	120275	1	Scraper Blade-L.H., Shown
4	120274	1	Scraper Blade-R.H., Not Shown
5	604018	2	Small Hair Pin
*	522072	1	Outside Scraper Assembly, Items 1-5 (1 Set)

LIFT ASSIST

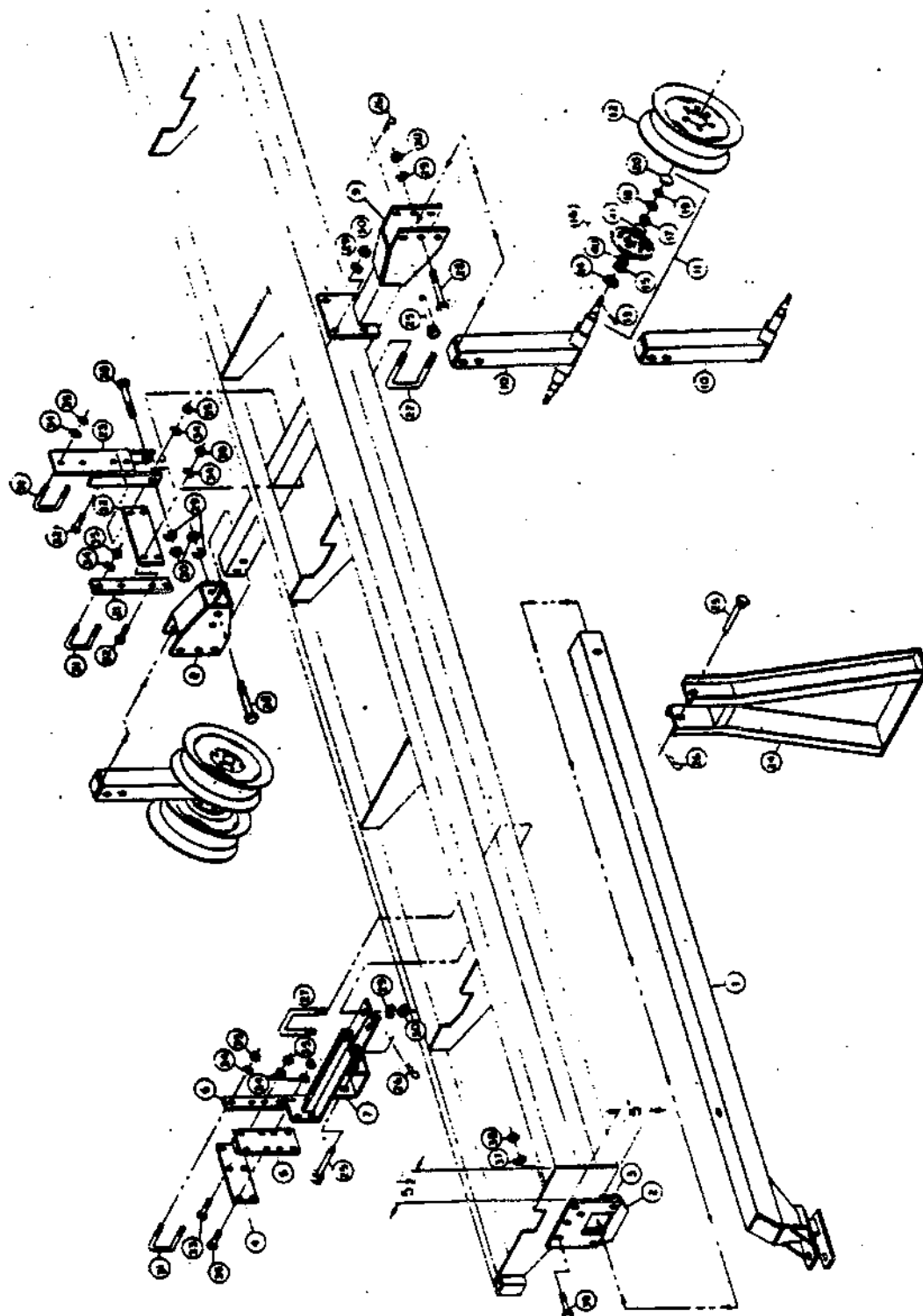
REF. No	PART No.	QTY REQD	DESCRIPTION
1	520182	1	Mounting Bracket
2	120250	1	Mounting Plate
3	120273	1	Spacer Plate For 14', 14' NT, 20'
4	120249	1	Parallel Link
5	520181	1	Lift Arm
6	520177	1	Pivot Pin-Long
7	604043	2	7/16" Linch Pin
8	520178	1	Pivot Pin-Short
9	520180	1	Parallel Wheel Bracket
10	609009	3	Grease Alemite
11	123087	1	Collar
12	601094	1	3/8" x 3 1/2" HHCS
13	600012	1	3/8" Lock Nut
14	520183	1	Wheel Arm
15	604012	1	5/32" x 1 1/2" Cotter Pin
16	703002	1	Grease Seal
17	702015	1	Inner Bearing
18	522024	1	Hub Assembly (5-Bolt)
19	702014	1	Outer Bearing
20	602027	1	5/8" SAE Flat Washer
21	600022	1	5/8"-18 Castle Nut
22	302007	1	Dust Cover
23	300004	1	5 x 15 Wheel, 5-Bolt
24	502123	1	2 1/2" Cylinder
25	604067	4	Cylinder Pin
26	604057	4	Large Hair Pin
27	604110	1	3/8" Restrictor x 5/64" (2.5" Cylinder)
28	604114	2	3/8" Swivel-L
29	502141	4	3/8" x 6' Hydraulic Hose
30	502140	2	3/8" x 5' Hydraulic Hose
31	604115	2	3/8" Swivel-T
32	820007	A/R	Hose Strap
33	601032	3	3/4" x 6" HHCS
34	602006	3	3/4" Lock Washer
35	600004	3	3/4" Hex Nut
36	624008	2	7/16" x 3" U-Bolt 3" Long
37	602012	6	7/16" Lock Washer
38	600011	6	7/16" Lock Nut
39	522043	1	5-Bolt Hub Assembly, Items 15-22
40	601022	2	Bolt 7/16" x 1 3/4" H.H.
41	120290	1	Stabilizer Hanger
42	702016	1	Inner Race
43	702013	1	Outer Race
*	522177	1	Lift Assist (1 Pair)

LIFT ASSIST



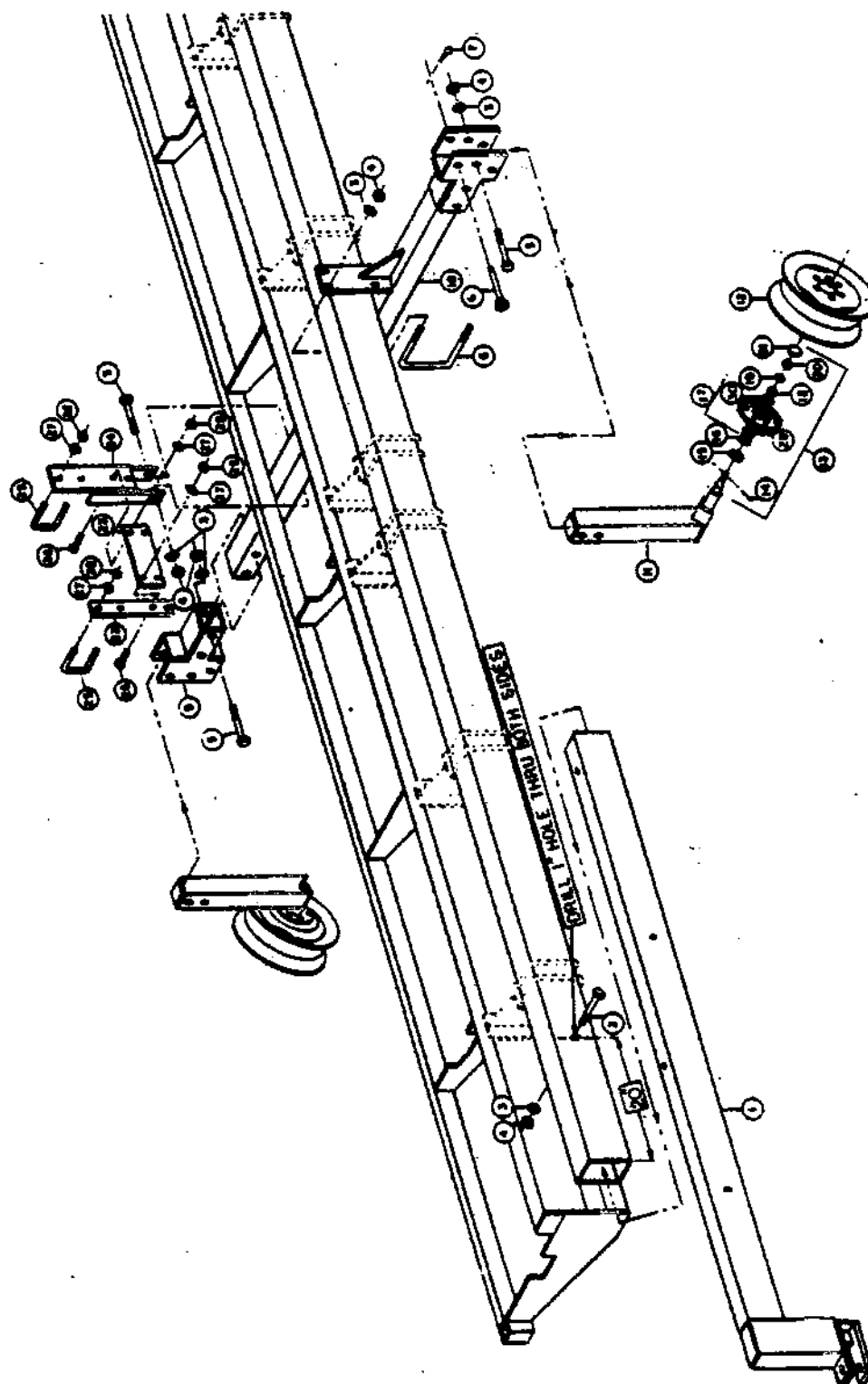
END TRANSPORT 20' & 27' 3PT (ETA 1-2)

REF. NO.	PART NO.	QTY. REQ.	DESCRIPTION	REF. NO.	PART NO.	QTY. REQ.	DESCRIPTION
1	520055	1	Tongue	20	302007	A/R	Dust Cover
2	120101	1	Support Plate	21	120080	1	Stabilizer Hanger
3	120100	2	Guide Plate	22	120087	1	Stabilizer Cross Bar
4	120102	1	Cross Bar (Tongue Stabilizer)	23	520054	1	Rear Support
5	520050	1	Rear Support (Tongue Bracket)	24	520061	1	Parking Stand
6	120103	1	Upright Bar (Tongue Stabilizer)	25	604100	4	3/4" x 7" Hitch Pin
7	520056	1	Tongue Mounting Bracket	26	604057	4	Large Hair Pin
8	520051	1	Bracket Rear Wheel Mount	27	624010	4	3/4" x 3 1/2" U-Bolt 5" Long
9	520052	1	Dual Transport Axle	28	601071	5	3/4" x 5 1/2" Bolt
9	520059	1	Single Transport Axle	29	602006	13	3/4" Lock Washer
10	520053	2	Dual Transport Wheel Arm	30	600004	13	3/4" Hex Nut
10	520060	2	Single Transport Wheel Arm	31	624008	5	7/16" x 3" U-Bolt 3" Long
11	522043	A/R	Hub Assembly Items 13-20.40 & 41	32	601022	4	7/16" x 1 3/4" HHCS
12	300004	A/R	5 x 15 Wheel (5-Bolt)	33	601078	2	7/16" x 2" HHCS
13	604012	A/R	5/32" x 1 1/2" Cotter Pin	34	602012	18	7/16" Lock Washer
14	703002	A/R	Grease Seal	35	600011	18	7/16" Lock Nut
15	702015	A/R	Inner Bearing	36	601075	2	7/16" x 2 1/2" HHCS
16	522024	A/R	Hub (5-Bolt)	37	602007	6	1/2" Lock Washer
17	702014	A/R	Outer Bearing	38	600006	6	1/2" Lock Nut
18	602027	A/R	5/8" SAE Flat Washer	39	601013	6	1/2" x 2" HHCS
19	600022	A/R	5/8" Castle Nut	40	702016	1	Inner Race
				41	702017	1	Outer Race
				*	522176	1	ETA1 (20' 3PT)
				*	522175	1	ETA2 (27' 3PT)



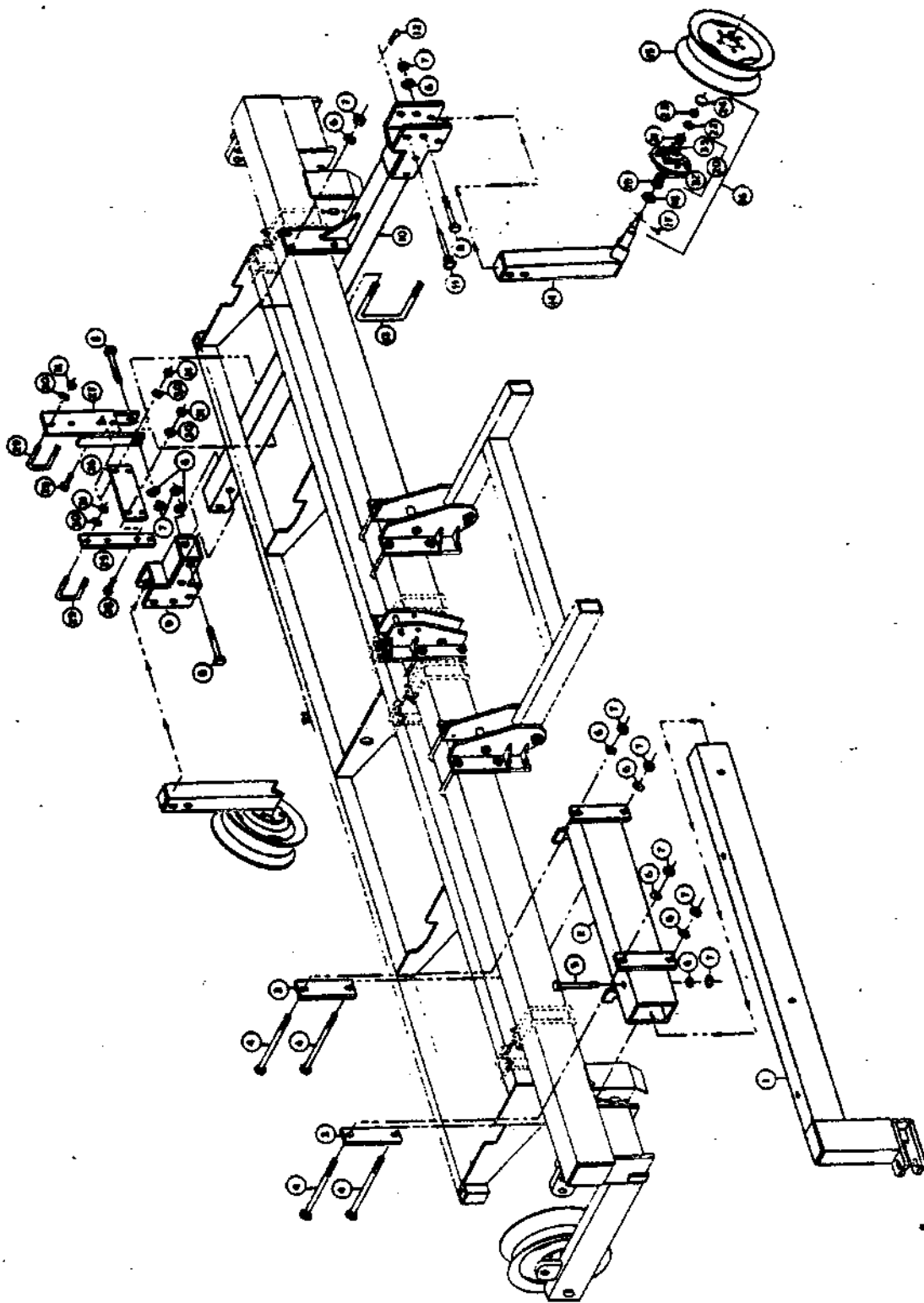
END TRANSPORT 20'NT (ETA 3)

REF. NO.	PART NO.	QTY. REQD.	DESCRIPTION
1	520184	1	Tongue
2	601107	1	3/4" x 5" HHCS
3	602006	9	3/4" Lock Washer
4	600004	9	3/4" Hex Nut
5	601071	5	3/4" x 5 1/2" HHCS
6	604100	2	3/4" x 7" Hitch Pin
7	604057	2	Large Hair Pin
8	604028	2	3/4" x 7" U-Bolt 5 1/2" Long
9	520163	1	Wheel Arm Bracket
10	520166	1	Axle
11	520165	2	Wheel Arm
12	300007	2	Wheel 0" x 15" (6-Bolt)
13	522063	1	Hub Assembly Items 14-21
14	604118	2	3/16" x 1 3/4" Cotter Pin
15	703003	2	Grease Seal
16	702022	2	Inner Bearing
17	522049	2	Hub Assembly (5-Bolt)
18	702015	2	Outer Bearing
19	602013	2	3/4" SAE Flat Washer
20	600020	2	3/4"-16 Castle Nut
21	302014	2	Dust Cover
22	120088	1	Stabilizer Hanger
23	120087	1	Stabilizer Cross Bar
24	520054	1	Rear Support
25	624008	2	7/16" x 3" U-Bolt 3" Long
26	601022	4	7/16" x 1 3/4" HHCS
27	602012	8	7/16" Lock Washer
28	600011	8	7/16" Lock Nut
29	702027	2	Inner Race
30	702016	2	Outer Race
A	522174	1	ETAJ (20'NT)

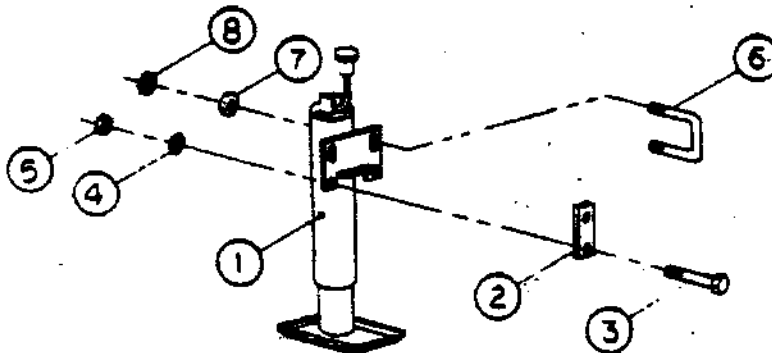


END TRANSPORT, PULL TYPE (ETA 4-5)

REF. NO.	PART NO	QTY. REQ.	DESCRIPTION	REF. NO.	PART NO	QTY. REQ.	DESCRIPTION
1	520187	1	Tongue - (PT-14, 15, 20) (PTNT-14, 15)	19	702022	1	Inner Bearing For 6-Bolt Hub
1	520184	1	Tongue-20' PTNT	20	522024	1	Hub Assembly 5-Bolt
2	520186	1	Tongue Bracket (PT-14, 15, 20) (PTNT14, 15)	20	522049	1	Hub Assembly 6-Bolt
2	520185	1	Tongue Bracket (20PTNT)	21	702014	1	Outer Bearing For 5-Bolt Hub
3	120266	2	Bolt Plate	21	702015	1	Outer Bearing For 6-Bolt Hub
4	601044	4	3/4" x 12" Bolt	22	602027	1	5/8" SAE Flat Washer
5	601065	1	3/4" x 8" Bolt	22	602013	1	3/4" SAE Flat Washer
6	602006	14	3/4" Lock Washer	23	600022	1	5/8"-18 Castle Nut
7	600004	14	3/4" Hex Nut	23	600020	1	3/4"-16 Castle Nut
8	601071	5	3/4" x 5 1/2" Bolt	24	302007	1	Dust Cover For 5-Bolt Hub
9	520163	1	Wheel Arm Bracket	24	302014	1	Dust Cover For 6-Bolt Hub
10	520166	1	Axle	25	120088	1	Stabilizer Hanger
11	604100	2	3/4" x 7" Hitch Pin	26	120087	1	Stabilizer Cross Bar
12	604057	2	Large Hair Pin	27	520054	1	Rear Support
13	604028	2	3/4" x 7" U-Bolt 5 1/2" Long	28	601022	4	7/16" x 1 3/4" IHCS
14	520164	1	Wheel Arm-14', 15' PTNT) (14', 15', 20' PT)	29	624008	2	7/16" x 3" U-Bolt 3" Long
14	520165	1	Wheel Arm-20' PTNT	30	602012	8	7/16" Lock Washer
15	300004	1	5" x 15" Wheel (5 Bolt)	31	600011	8	7/16" Lock Nut
15	300007	1	8" x 15" Wheel (6 Bolt)	32	702016	2	Inner Race (5 Bolt)
16	522043	1	Hub Assy Items 17-24 (5-Bolt)	32	702027	2	Inner Race (6 Bolt)
16	522063	1	Hub Assy Items 17-24 (6-Bolt)	33	702013	2	Outer Race (5 Bolt)
17	604012	1	5/32" x 1 1/2" Cotter Pin, 5-Bolt Hub	33	702016	2	Outer Race (6 Bolt)
17	604118	1	3/16" x 1 3/4" Cotter Pin, 6-Bolt Hub	33	522173	1	ETA4 (14' & 15' PT, 14' & 15' PTNT, 20' PT)
18	703002	1	Grease Seal For 5-Bolt Hub	*	522172	1	ETA5 (20' PTNT)
18	703003	1	Grease Seal For 6-Bolt Hub				
19	702015	1	Inner Bearing For 5-Bolt Hub				



TONGUE JACK ASSEMBLIES



REF. NO.	PART NO.	QTY. REQ.	DESCRIPTION
1	520160	1	Tongue Jack, 2000# (TJ-1, TJ-2)
1	520162	1	Tongue Jack, 5000# (TJ-3)
2	120235	2	Clamp (TJ-1, TJ-2)
3	601121	4	Bolt, 3/8" x 5 1/2" HHCS (TJ-1)
3	601089	4	Bolt, 3/8" x 4 1/2" HHCS (TJ-2)
4	602005	4	Washer, 3/8" Lock
5	600012	4	Nut, 3/8" Lock
6	624009	2	U-Bolt, 7/16" x 3 1/2", 4 1/2" Long (TJ-3)
7	602012	4	Washer, 7/16" Lock
8	600011	4	Nut, 7/16" Lock
*	522125	1	Tongue Jack Assy., 7' PT, 7' PTNT (TJ-1)
*	522126	1	Tongue Jack Assy., 10' PT, 14' PT (TJ-2)
*	522114	1	Tongue Jack Assy., 10' PTNT, 14' PTNT, 15' PT, 15' PTNT, 20' PT, 20' PTNT (TJ-3)