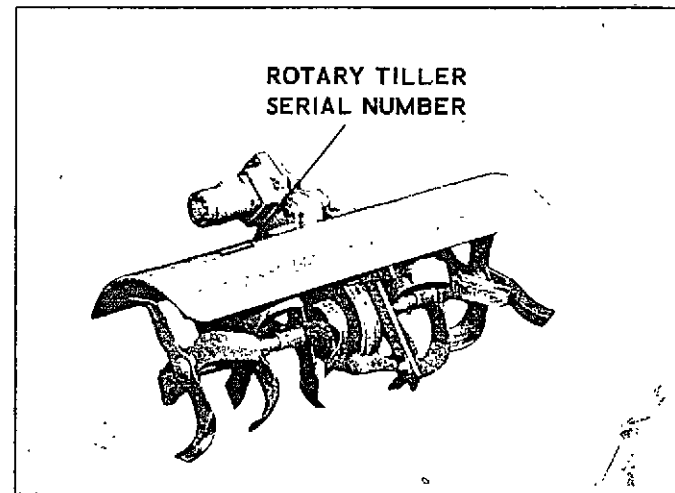


C1600 & D1600 ROTARY TILLER



DESIGNATION	TRACTOR APPLICATION			
	130	150	180	190
C-1600	X		X	
D-1600	X	X	X	X

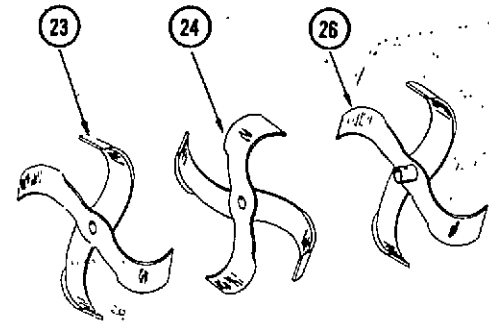
Serial Numbers
 When using this catalog, notice the reference to serial numbers of various components noted here and listed in the "description" copy. By referring to correct serial numbers, proper parts identification will be assured.

ALPHABETICAL INDEX

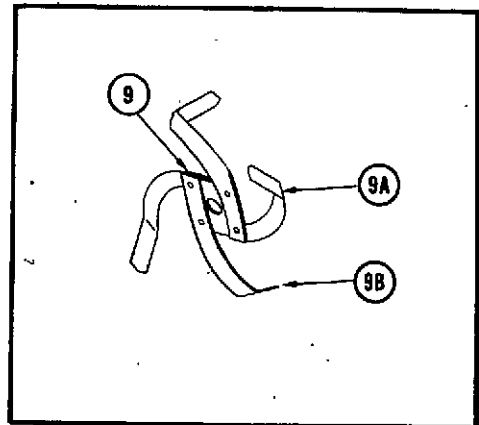
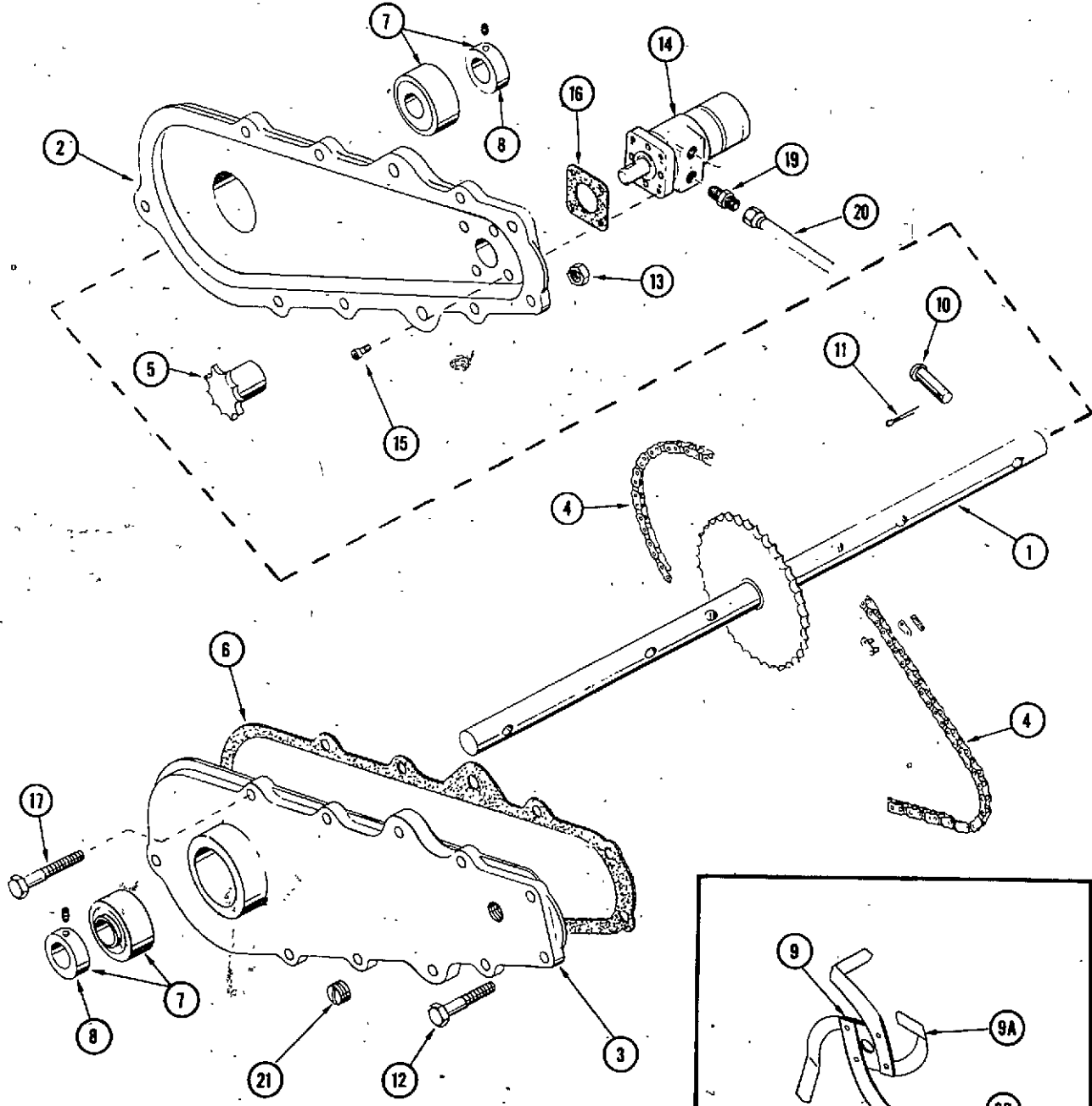
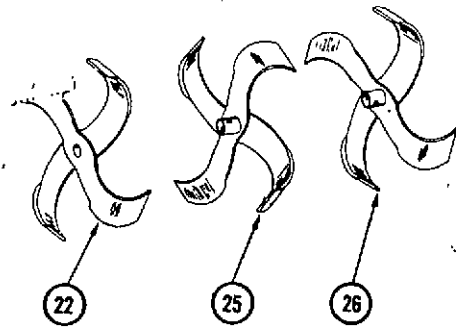
	PAGE	GRID
Drive, Chain	5	A4
Frame	7-9	A6-A8
Hose, Hydraulic	5	A4
Motor, Hydraulic	5	A4
Motor, Hydraulic Parts	13	A12
Rotor Drive	5	A4
Tine Assembly	5	A4
Valve, Flow Divider	11-13	A10-A12
Valve, Flow Divider Parts	15-17	A14-B2
Valve, Hydraulic Control	11-13	A10-A12
Valve, Hydraulic Control Parts	15-17	A14-B2

NOTE: See grid C2 for -
E1600 and E1610 Tillers

NOTE: See grid D2 for -
E70 Tiller



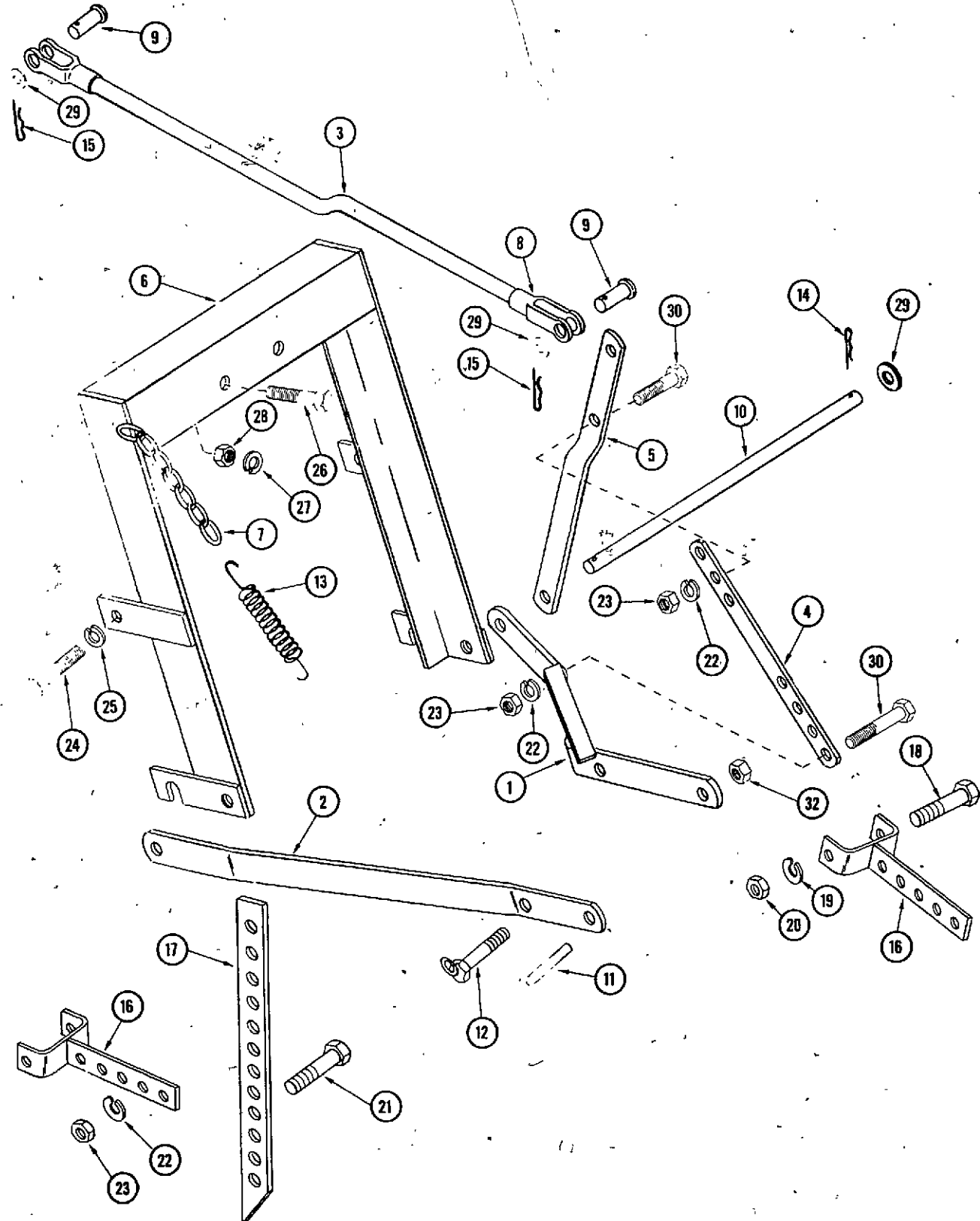
REAR VIEW



ROTARY TILLER ASSEMBLY (ALL MODELS)

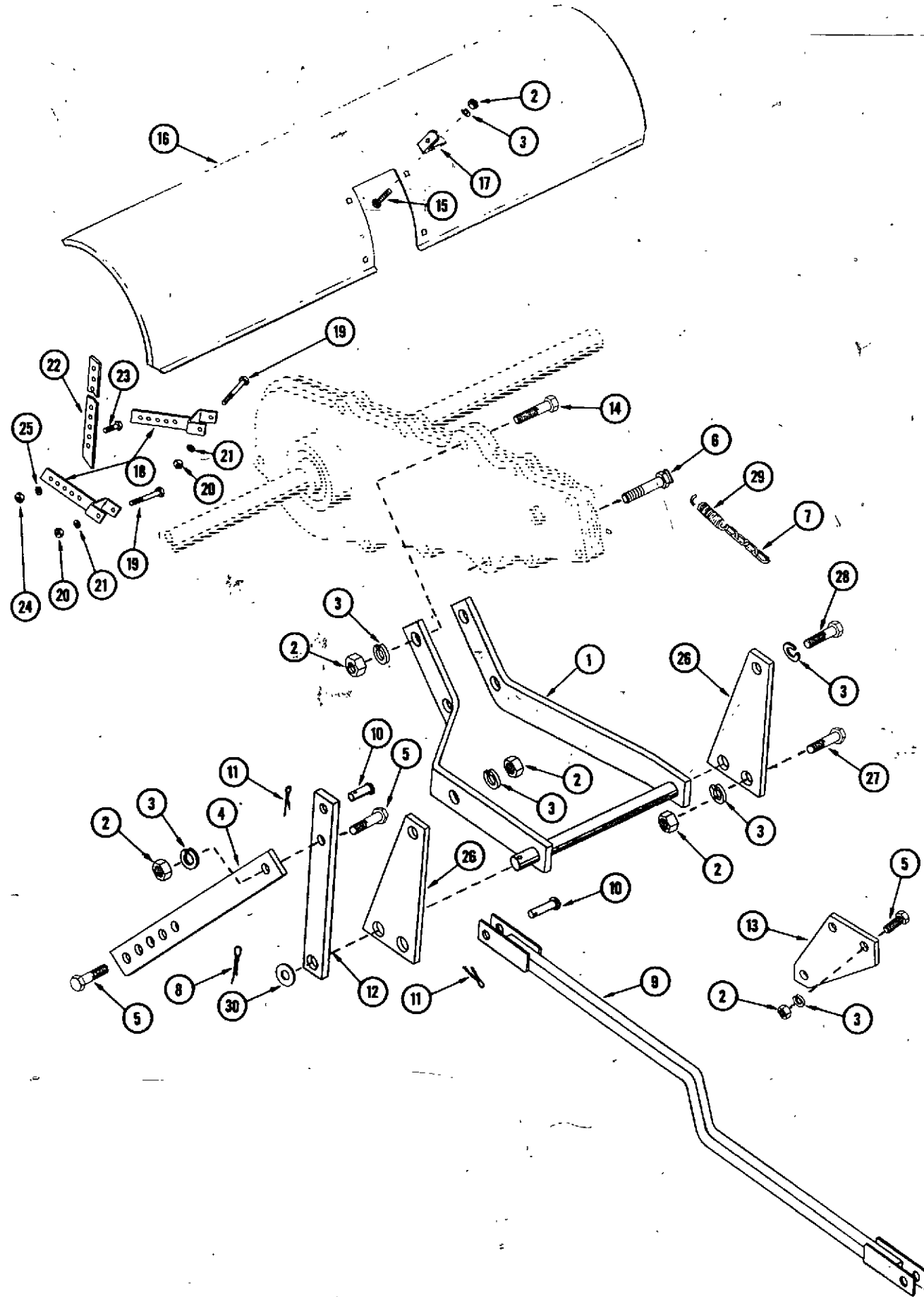
REF. PART NO.	DESCRIPTION	REQ'D
1 C 11336	SHAFT - tiller (includes sprocket)	1
2 C 10398	HOUSING - L.H.	1
3 C 10399	HOUSING - R.H.	1
4 C 10401	CHAIN - roller, 63 riveted plus one connecting link No. 50 roller chain. Use one B 12474, two B 12477, one B 12505, one B 12507 or cut from B 13031.	1
B 13031	CHAIN - 10 foot roll No. 50 roller chain (192 links)	
B 12474	CHAIN - 50 links No. 50	
B 12477	CHAIN - 6 links No. 50	
B 12505	LINK - connecting, No. 50 roller chain	
B 12506	LINK - offset, No. 50 roller chain	
B 12507	LINK - roller, No. 50 roller chain	
5 C 10402	SPROCKET - drive	1
6 C 10403	GASKET - housing	1
7 C 10405	BEARING	2
8 0885CB	COLLAR - w/Set Screw	2
9 C 10407	TINE ASSEMBLY - 1965 model	6
9A C 10406	TINE, R.H. - 1965 tiller (tines are stamped R.H. or L.H.)	12
9B C 10494	TINE, L.H. - 1965 tiller (tines are stamped R.H. or L.H.)	12
NSS	HUB WELDMENT	
10 T 11231	PIN - clevis - 7/16" x 2"	6
11 132- 47	PIN - cotter, 1/8" x 7/8"	6
12 15- 540	BOLT - RHBUNC, 5/16" x 2-1/2"	7
13 131- 351	NUT - locking, 5/16"	9
14 C 11457	MOTOR - hydraulic (See page 13 for parts)	1
15 61- 624	SCREW - 3/8"-16 x 1-1/2" socket head cap	4
16 A 70128	GASKET - hydraulic motor	1
17 15- 552	BOLT - RHBUNC 5/16" x 3-1/4"	2
18 C 11450	SHIELD - tiller	1
19 218- 5060	FITTING - w/"O" ring	2
218- 5006	"O" RING - for 218-5060 fitting	1
20 C 11971	HOSE - 30"	2
21 221- 1044	PLUG - housing	1
22 C 12073	TINE ASSEMBLY - welded	1
23 C 12074	TINE ASSEMBLY - welded	1
24 C 12075	TINE ASSEMBLY - welded	1
25 C 12076	TINE ASSEMBLY - welded	1
26 C 11978	TINE ASSEMBLY - welded	2

FRAME & MOUNTING-C1600 TILLER
(FOR 1965 TRACTORS ONLY)



REF.	PART NO.	DESCRIPTION	REQ'D
1	C 11965	ARM - draft R.H., weldment	1
2	C 11966	ARM - draft L.H.	1
3	C 11251	ROD - tiller lift weldment	1
4	C 11967	BAR - tiller adjustment	1
5	C 11968	ARM - lift	1
6	C 11969	FRAME - weldment tiller hitch	1
7	C 11252	CHAIN - tiller support - 10 link	1
8	213- 6	CLEVIS	1
9	141- 6	PIN - clevis	2
10	C 11973	PIN - draft	1
11	C 11976	BOLT - weldment, 1/2" x 4-1/4"	1
12	15- 868	BOLT - 1/2" x 4-1/4" long	1
13	V 14851	SPRING - lift assist	1
14	132- 32	PIN - cotter, 1/16" dia. x 1-1/2"	2
15	132- 48	HAIRPIN - cotter, 1/8" dia. x 1"	2
16	C 11452	BRACKET - weldment	2
17	C 11455	GAUGE - depth, adjustable	1
18	15- 548	BOLT - 5/16"-18 UNC 3" long	2
19	92- 5	WASHER - lock, 5/16"	2
20	25- 205	NUT - 5/16"-18 UNC	2
21	15- 620	BOLT - 3/8"-16 UNC 1-1/4" long	2
22	92- 6	WASHER - lock, 3/8"	4
23	25- 206	NUT - hex, 3/8"-16	4
24	15- 824	BOLT - 1/2" x 1-1/2"	2
25	92- 8	WASHER - lock, 1/2"	2
26	15- 416	BOLT - 1/4"-1"	2
27	92- 4	WASHER - lock, 1/2"	2
28	25- 204	NUT - 1/4"	2
29	95- 8	WASHER - plain, 1/2"	4
30	15- 624	BOLT - 3/8" - 1-1/2"	2
31	25- 208	NUT - lock, 1/2"	2

FRAME & MOUNTING-D1600 TILLER
(FOR BOTH 1965 AND 1966 TRACTORS)



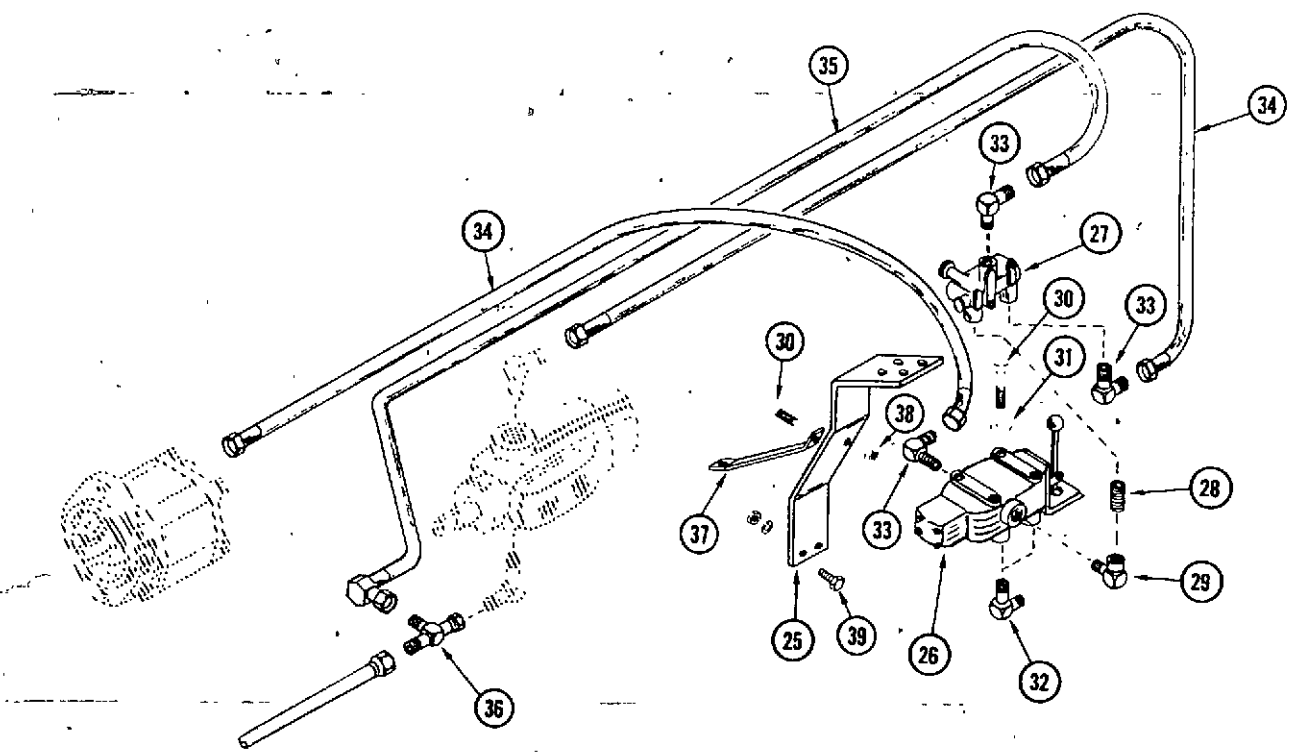
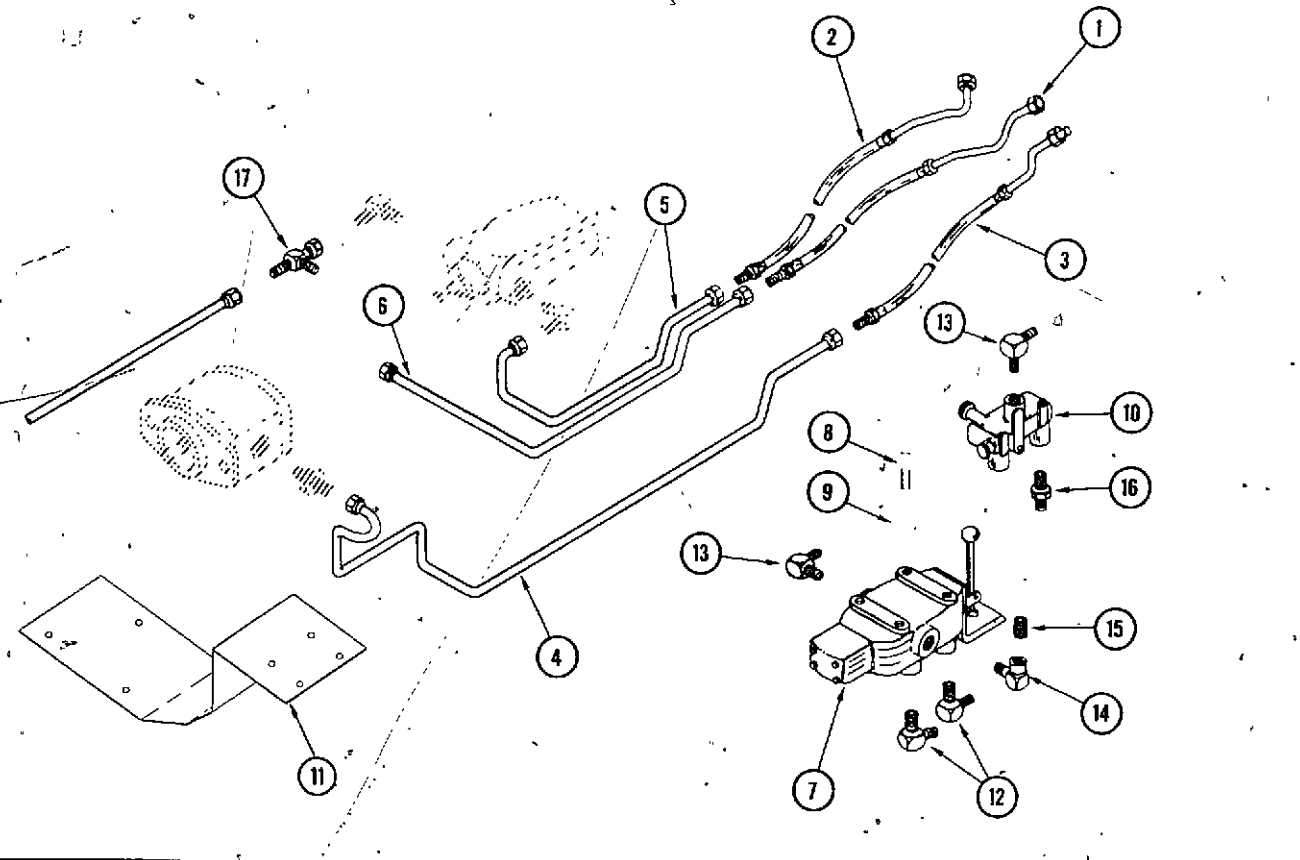
REF. PART NO.	DESCRIPTION	REQ'D
1 C 11000	FRAME	1
2 129- 105	NUT - FHNUNC, 1/2" zinc plated	12
3 192- 23	LOCKWASHER - 1/2" zinc plated	14
4 C 11004	BAR - tiller adjust	1
5 115- 407	BOLT - RHBUNC, 1/2" x 1-1/2" zinc plated	4
6 C 11456	BOLT - weld, 1/2" x 4-1/2"	1
7 C 11419	CHAIN - 4 link, #40	1
8 132- 52	PIN - cotter, 1/8" x 1-1/2" zinc plated	1
9 C 11007	ROD - lift	1
10 C 10821	PIN - clevis, 1/2" x 7/8" zinc plated	2
11 132- 48	PIN - cotter, 1/8" x 1" zinc plated	2
12 C 11010	LEVER - tiller lift	1
13 C 11011	ADAPTER - tractor lift lever (1966 tractor only)	1
14 15- 872	BOLT - RHBUNC, 1/2" x 4-1/2"	1
15 111- 517	BOLT - rd. hd., short square neck, 1/2" x 1" N.C.	4
16 C 11450	SHIELD - tiller	1
17 C 11451	BRACKET - angle mounting	4
18 C 11452	BRACKET - tine	2
19 15- 552	BOLT - RHBUNC, 5/16" x 3-1/4"	2
20 25- 205	NUT - FHNUNC, 5/16"	2
21 92- 5	LOCKWASHER - 5/16" SAE	2
22 C 11455	GAUGE - depth, adjusting	1
23 113- 208	BOLT - RHBUNC, 3/8" x 1-1/4" zinc plated	2
24 129- 103	NUT - FHNUNC, 3/8" zinc plated	2
25 192- 21	LOCKWASHER - 3/8" SAE, zinc plated	2
26 C 11012	BRACKET - tiller mounting	2
27 115- 403	BOLT - RHBUNC, 1/2" x 2-1/4", zinc plated	2
28 113- 428	BOLT - FHBUNC, 1/2" x 1", zinc plated	2
29 V 14851	SPRING - extension	1
30 195- 109	WASHER - plain, 3/4", zinc plated	1

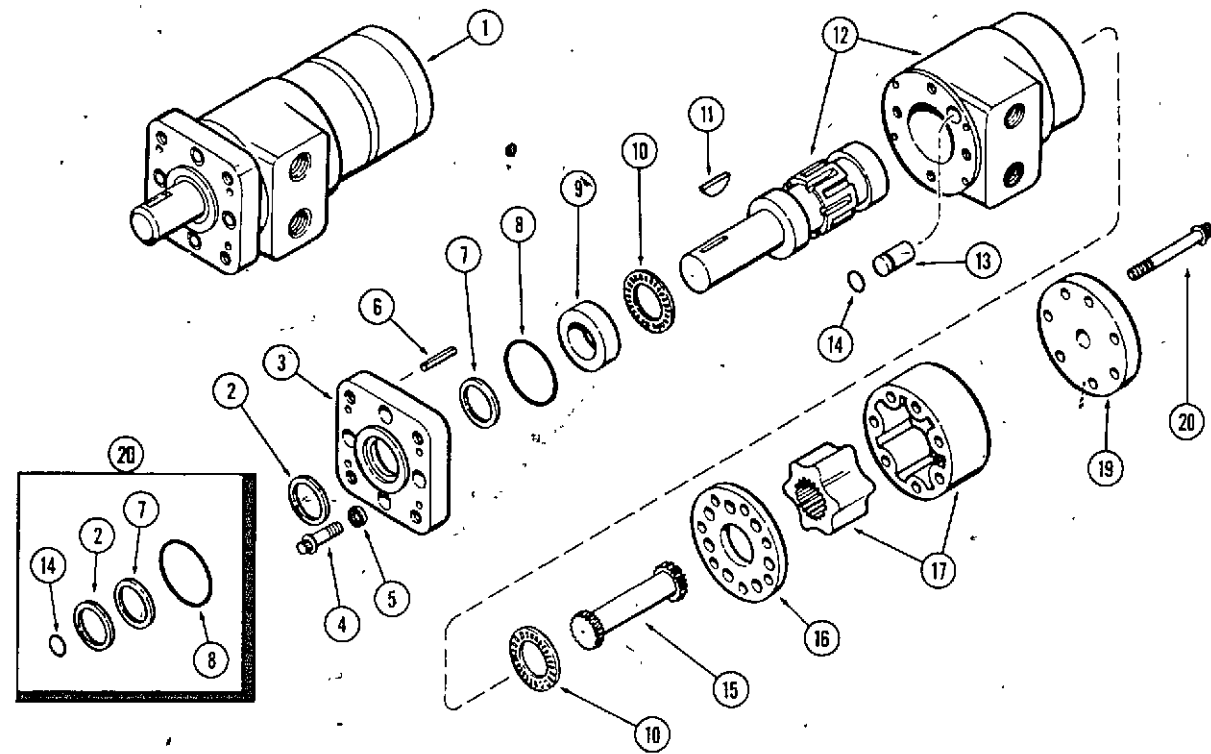
HYDRAULIC P.T.O. ASSEMBLY-D1600
(FOR 1966 TRACTOR)

REF. PART NO.	DESCRIPTION	REQ'D
1 C 11307	TUBE - bypass, hose-tube combination	1
2 C 11308	TUBE - controlled flow, hose-tube combination	1
3 C 11309	TUBE - pressure, hose-tube combination	1
4 C 11272	TUBE - pressure	1
5 C 11273	TUBE - controlled flow	1
6 C 11274	TUBE - excess flow	1
7 C 11275	VALVE - hydraulic control (See page 15 for parts)	1
8 15- 612	BOLT - RHBUNC, 3/8" x 3/4"	4
9 92- 6	LOCKWASHER - 3/8" SAE std	4
10 C 11276	VALVE - flow divider (See page 15 for parts)	1
11 C 11250	BRACKET - control valves	1
12 218- 493	ELBOW - 90°, 1/2" NPT x 1/2" tube	2
13 218- 1056	ELBOW - 90°, 3/4" NPT x 1/2" tube	2
14 221- 415	ELBOW - street, 90°, 3/4" x 3/4" NPT.	1
15 221- 211	NIPPLE - close, 3/4" NPT	1
16 218- 1025	ADAPTER - 3/4" NPT x 1/2" tube	1
17 C 11430	TEE - run, 5/8" tube x 5/8" x 1/2"	1

HYDRAULIC P.T.O. ASSEMBLY-D1600
(FOR 1965 TRACTOR)

25 C 11532	BRACKET - valve mounting	1
26 C 11275	VALVE - hydraulic control (See page 15 for parts)	1
27 C 11276	VALVE - flow divider (See page 15 for parts)	1
28 221- 211	NIPPLE - close, 3/4" NPT	1
29 221- 415	ELBOW - street, 90°, 3/4" NPT	1
30 15- 612	BOLT - RHBUNC, 3/8" x 3/4"	5
31 92- 6	LOCKWASHER - 3/8" SAE std	5
32 218- 493	ELBOW - 90°, 1/2" NPT x 1/2" tube	2
33 218- 1056	ELBOW - 90°, 3/4" NPT x 1/2" tube	2
34 C 11535	HOSE - 1/2" ID x 48" OA	2
35 C 11536	HOSE - 1/2" ID x 64" OA	1
36 C 11537	TEE - run, 3/4" x 3/4" x 5/8" tube	1
37 C 11621	BRACE - valve mounting bracket	1
38 25- 206	NUT - FHNUNC, 3/8"	1
39 113- 104	BOLT - FHBUNC, 5/16" x 1-1/4"	2



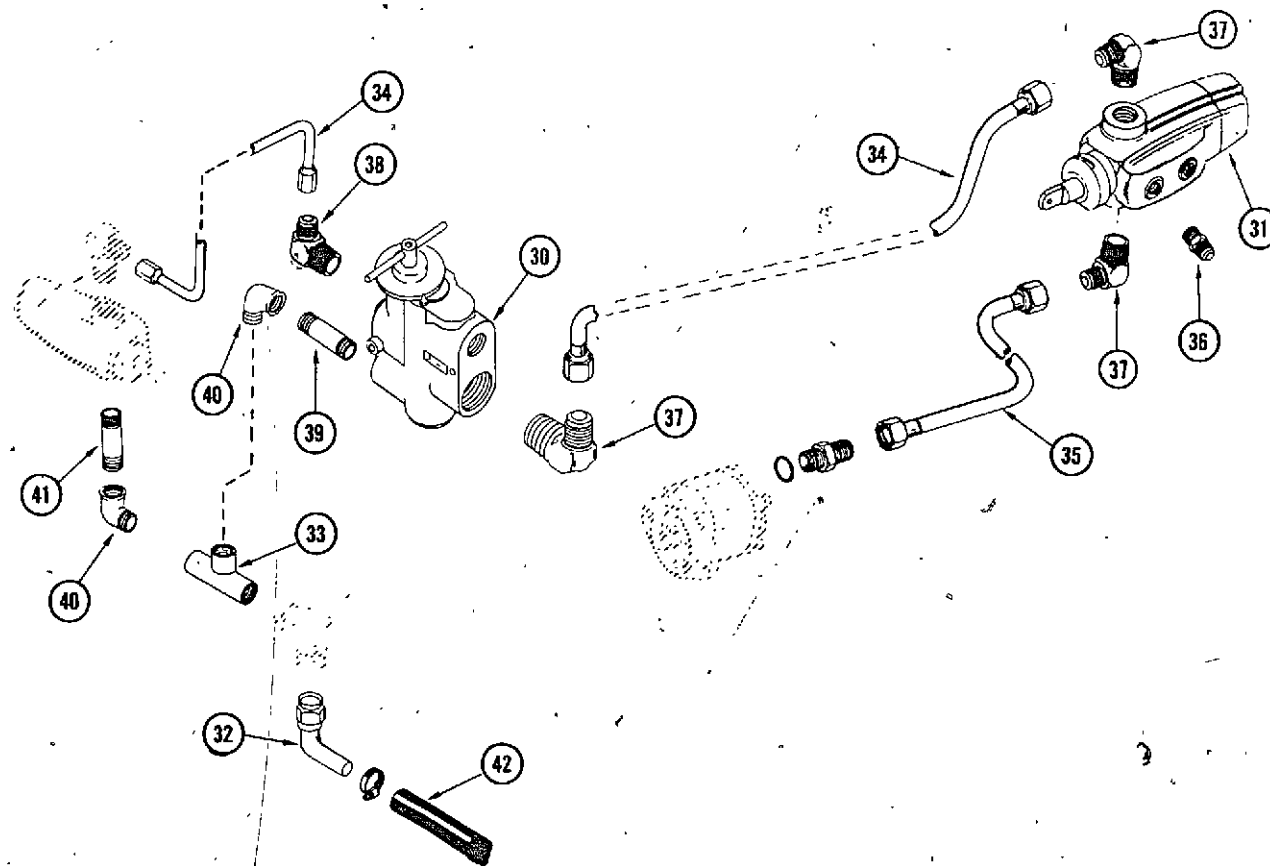


C1600 & D1600 ROTARY TILLER

HYDRAULIC MOTOR C1600 & D1600 TILLER

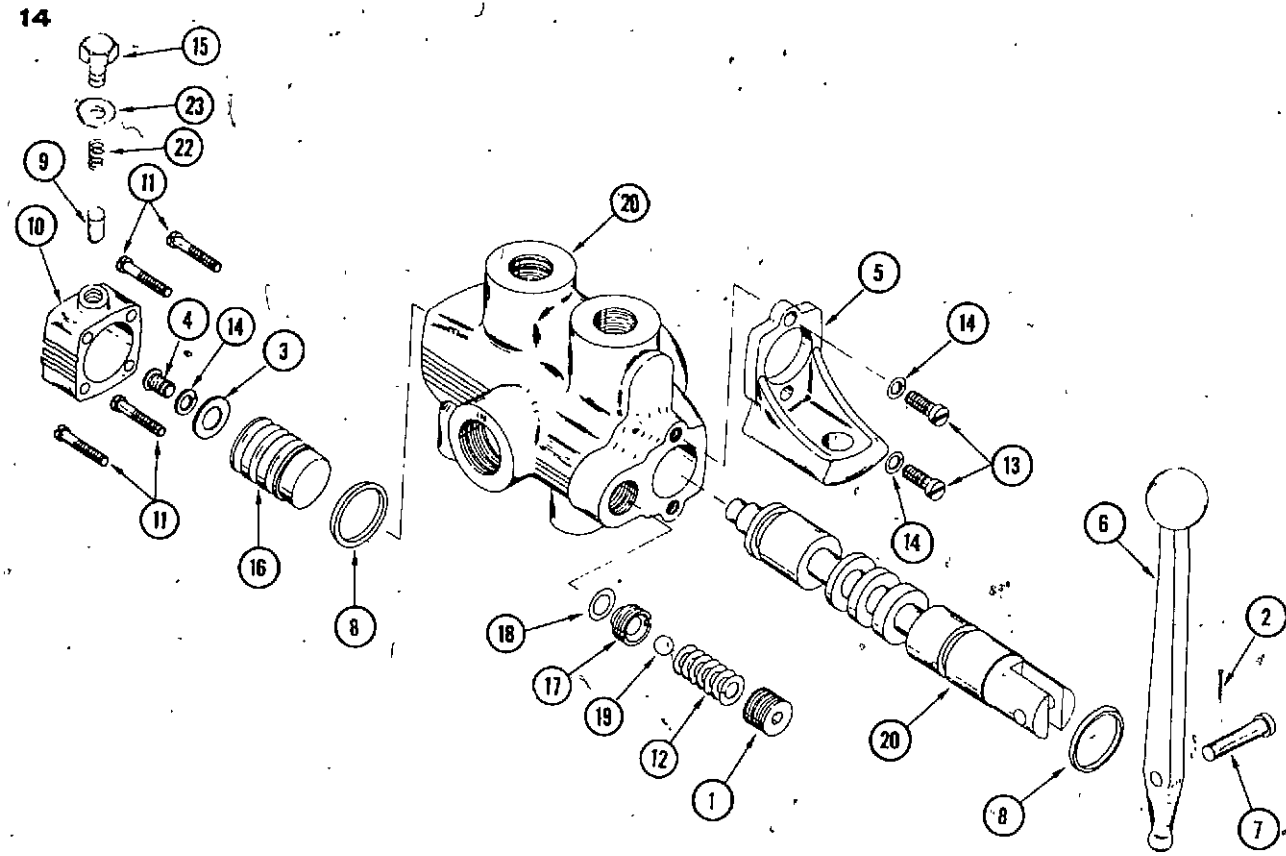
REF. PART NO.	DESCRIPTION	REQ'D
1 C 11457	MOTOR - hydraulic drive	1
2* NSS	OIL SEAL - mtg. plate (See ref. 20)	1
3 A 72028	PLATE - mounting	1
4 166- 23	CAPSCREW - ferry 5/16" x 5/8" N.C.	4
5 193- 29	LOCKWASHER - int. shakeproof 5/16"	4
6 138- 134	PIN - roll 1/4" x 1"	4
7* NSS	QUAD RING - mtg. plate (See ref. 20)	1
8* NSS	"O" RING - mtg. plate to hsg. (See ref. 20)	1
9 A 72030	RACE - output shaft bearing	1
10 A 72031	BEARING - thrust, output shaft thrust	1
11 126- 24	KEY - Woodruff	1
12 A 72035	SHAFT AND HOUSING	1
13 A 72034	PLUG - housing	1
14* NSS	"O" RING - hsg. plug (See ref. 20)	1
15 A 72027	COUPLING - drive	1
16 A 72026	PLATE - spacer	1
17 C 11875	GEROTOR SET	1
18 A 72024	CAP - end	1
19 166- 528	CAPSCREW - ferry 5/16" x 1-3/4" N.F.	7
20 A 72036	KIT - "O" ring and seal (Incl. items marked w/*)	1

HYDRAULIC P.T.O. ASSEMBLY-C1600 TILLER
(FOR 1965 TRACTOR)



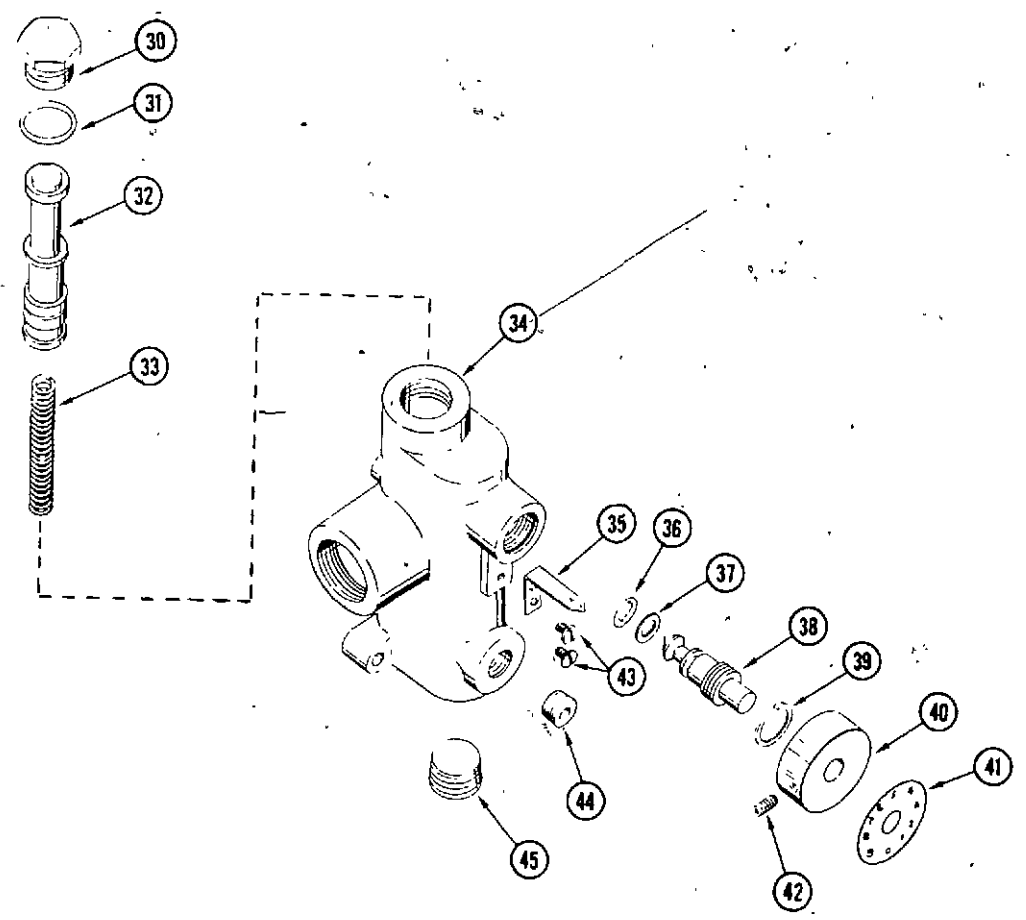
30 C 11924	VALVE - flow divider (See page 17 for parts)	1
31 C 11977	VALVE - flow control (See page 17 for parts)	1
32 C 11974	TUBE - valve to heat exchanger hose	1
33 221- 425	TEE - 3/4" NPT.	1
34 C 11970	HOSE - 28" flow divider to tiller valve	2
35 C 11972	HOSE - 32" pump to tiller valve	1
36 218- 456	FITTING	2
37 218- 1056	ELBOW - 90°	3
38 218- 493	ELBOW - 90°	1
39 221- 211	NIPPLE - 3/4"	1
40 221- 415	ELBOW - street, 90°	2
41 221- 216	NIPPLE	1
42 C 11975	HOSE - valve to heat exchanger	1

CONTROL VALVE -D1600 TILLER, 1966

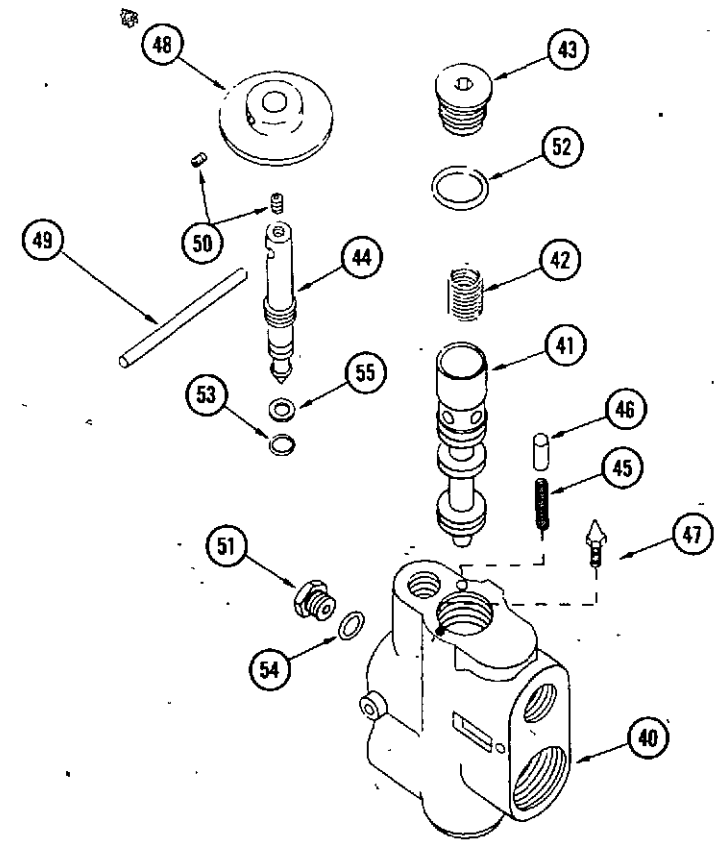
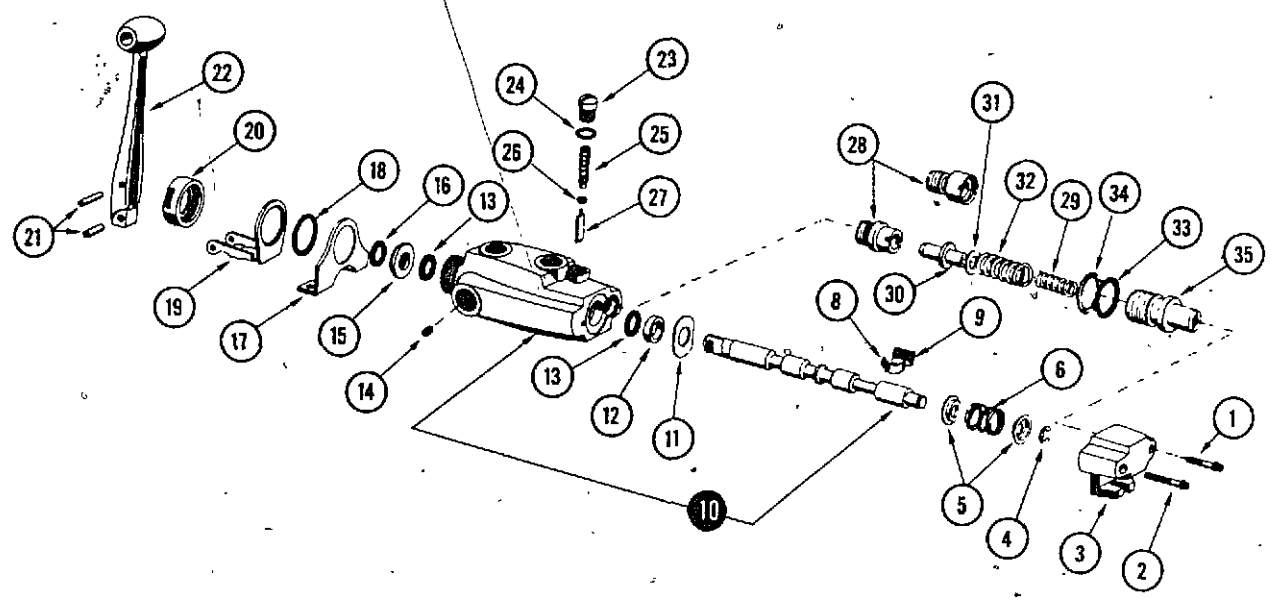


REF. PART NO.	DESCRIPTION	REQ'D
C 11275	CONTROL VALVE - complete.	1
1 221- 842	PLUG - relief, 3/8"	1
2 132- 6	PIN - cotter, 1/16" x 5/8"	1
3 95- 4	WASHER - plain, 1/4"	1
4 75- 48	SCREW - detent, 1/4"-20 x 1/2" round head	1
5 C 11888	BRACKET - handle.	1
6 C 11889	HANDLE.	1
7 36627	PIN - handle	1
8 C 11891	SEAL - U cup	2
9 C 11901	PIN - detent	1
10 C 11893	BONNET - detent.	1
11 169- 108	SCREW - bonnet, cap, 8-32 x 2-1/4" fill. head	4
12 04458CS	SPRING - relief	1
13 75- 410	SCREW - bracket, cap, 1/4"-20 x 5/8"	2
14 92- 4	LOCKWASHER - 1/4"	3
15 C 11887	CAP - detent.	1
16 C 11895	ADAPTER - spool detent.	1
17 C 11896	SEAT - relief	1
18 C 11897	"O" RING - relief	1
19 211-11	BALL - relief, 3/8"	1
20 NSS	ASSEMBLY - (not serviced separately).	1
22 C 11892	SPRING - detent.	1
23 C 11886	WASHER - plain.	1

FLOW DIVIDER VALVE -D1600 TILLER, 1966



C 11276	FLOW DIVIDER ASSEMBLY, - complete	1
30 C 11863	PLUG	1
31 A 7982	"O" RING	1
32 C 11861	PISTON	1
33 C 11860	SPRING	1
34 NSS	BODY - valve (Use C 11276)	1
35 C 11871	POINTER - spring	1
36 A 30825	"O" RING	1
37 C 11865	RING - back up	1
38 C 11866	VALVE - needle	1
39 A 35694	RING - retaining	1
40 C 11868	KNOB	1
41 C 11869	DECAL.	1
42 178- 17	SCREW - set, 10-32 x 1/2" cup point	1
43 173- 224	SCREW	2
44 221- 841	PLUG - 1/4" N.P.T.F.	1
45 221- 842	PLUG - 3/8" N.P.T.F.	1



CONTROL VALVE C1600 TILLER-1965

REF. PART NO.	DESCRIPTION	REQ'D
C 11977	CONTROL VALVE ASSEMBLY - complete	1
1 166- 6	SCREW - cap, 12 pt., 1/4" x 1" N.C.	1
2 166- 8	SCREW - cap, 12 pt., 1/4" x 1-1/2" N.C.	1
3 C 11925	END CAP - mtg. end	1
4 09638-AB	RING - retaining	1
5 C 11926	SEAT - spring	2
6 C 11927	SPRING - centering	1
8 C 11930	SPRING - shuttle	2
9 C 11931	SHUTTLE	1
10 C 11934	BODY AND SPOOL ASSEMBLY	1
11 A 72066	WASHER	1
12 A 72067	RING - back up	1
13 A 72062	SEAL - 1" O.D. x 1/8" Sec.	2
14 C 10990	PLUG - conversion	1
15 A 72068	RETAINER - seal	1
16 A 72070	SEAL - block vee, 3/4" I.D.	1
17 C 10987	BRACKET - mounting	1
18 T 13224	SEAL - "O" ring, 1-3/4" O.D.	1
19 C 11932	BRACKET - handle	1
20 A 72064	END CAP - handle end	1
21 138- 135	PIN - roll, 1/4" x 1-1/16"	2
22 C 11933	HANDLE	1
23 A 72056	CAP - detent	1
24 A 72061	SEAL - "O" ring, 5/8" O.D.	1
25 C 11935	SPACER AND SPRING ASSEMBLY	1
26 C 11936	BUSHING	1
27 C 11937	BLADE	1
28 A 72055	SEAT - relief	2
29 A 72071	SPRING - relief, inner	1
30 A 72057	SPOOL - relief	1
31 A 72069	SHIM	2
32 A 72058	SPRING - relief, outer	1
33 C 11928	WASHER - back up	1
34 A 7982	SEAL - "O" ring, 13/16" O.D. x 3/32"	1
35 A 72059	PLUG - relief	1

FLOW DIVIDER VALVE C1600 TILLER-1965

C 11924	FLOW DIVIDER VALVE ASSEMBLY - complete	1
40 NSS	BODY - valve (Use C 11924)	1
41 C 11920	PISTON	1
42 C 11919	SPRING	1
43 C 11918	PLUG - end	1
44 C 11917	VALVE - control	1
45 C 11916	SPRING	1
46 C 11915	RATCHET	1
47 C 11914	POINTER	1
48 C 11913	WHEEL - indicator	1
49 C 11912	HANDLE	1
50 178- 13	SCREW - set, 1/4" socket head	2
51 C 11911	PLUG	1
52 A 30825	SEAL - "O" ring	1
53 D 32110	GASKET - "O" ring	1
54 C 11922	GASKET - "O" ring	1
55 C 11923	RING - back up	1

NUMERICAL INDEX

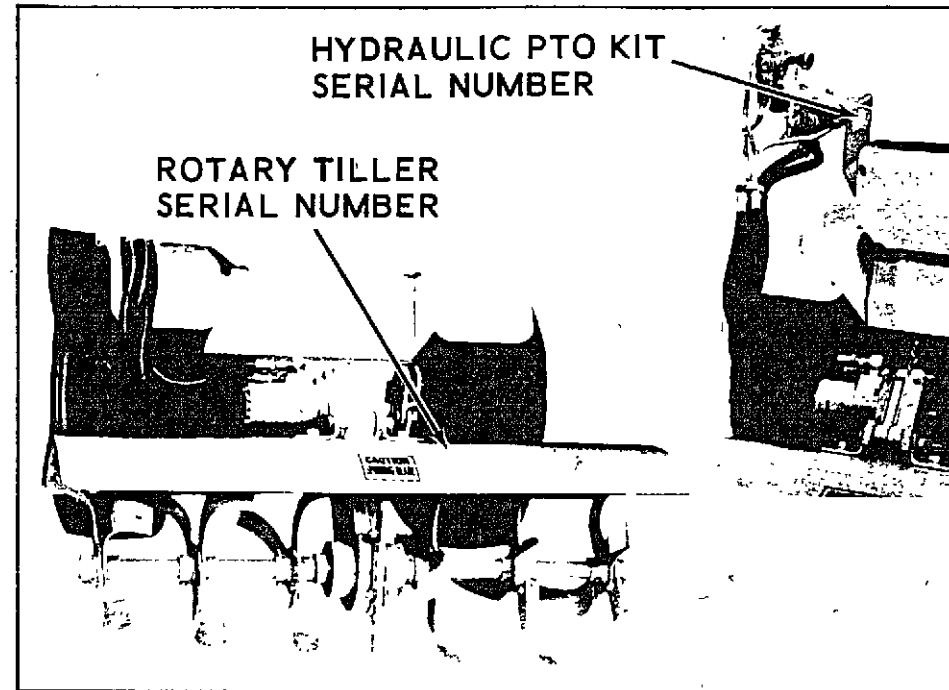
PART NO.	PAGE NO.	REF. NO.	PART NO.	PAGE NO.	REF. NO.	PART NO.	PAGE NO.	REF. NO.
A 36627	15	7	C 11272	11	4	C 11919	17	42
A 7982	15	31	C 11273	11	5	C 11920	17	41
A 7982	17	34	C 11274	11	6	C 11922	17	54
A 30825	15	36	C 11275	11	7	C 11923	17	55
A 30825	17	52	C 11275	11	26	C 11924	13	30
A 35694	15	39	C 11275	15		C 11924	17	
A 70128	5	16	C 11276	11	10	C 11925	17	3
A 72024	13	18	C 11276	11	27	C 11926	17	5
A 72026	13	16	C 11276	15		C 11927	17	6
A 72027	13	15	C 11307	11	1	C 11928	17	33
A 72028	13	3	C 11308	11	2	C 11930	17	8
A 72030	13	9	C 11309	11	3	C 11931	17	9
A 72031	13	10	C 11419	9	7	C 11932	17	19
A 72034	13	13	C 11430	11	17	C 11933	17	22
A 72035	13	12	C 11450	5	18	C 11934	17	10
A 72036	13	20	C 11450	9	16	C 11935	17	25
A 72055	17	28	C 11451	9	17	C 11936	17	26
A 72056	17	23	C 11452	7	16	C 11937	17	27
A 72057	17	30	C 11452	9	18	C 11965	7	1
A 72058	17	32	C 11455	9	22	C 11966	7	2
A 72059	17	35	C 11455	7	17	C 11967	7	4
A 72061	17	24	C 11456	9	6	C 11968	7	5
A 72062	17	13	C 11457	5	14	C 11969	7	6
A 72064	17	20	C 11457	13	1	C 11970	13	34
A 72066	17	11	C 11532	11	25	C 11971	5	20
A 72067	17	12	C 11535	11	34	C 11972	13	35
A 72068	17	15	C 11536	11	35	C 11973	7	10
A 72069	17	31	C 11537	11	36	C 11974	13	32
A 72070	17	16	C 11621	11	37	C 11975	13	42
A 72-71	17	29	C 11860	15	33	C 11976	7	11
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B 12477	5		C 11863	15	30	C 11977	17	
B 12505	5		C 11865	15	37	C 11978	5	26
B 12506	5		C 11866	15	38	C 12073	5	22
B 12507	5		C 11868	15	40	C 12074	5	23
B 13031	5		C 11869	15	41	C 12075	5	24
C 10398	5	2	C 11871	15	35	C 12076	5	25
C 10399	5	3	C 11875	13	17	D 32110	17	53
C 10401	5	4	C 11886	15	23	O 885 CB	5	8
C 10402	5	5	C 11887	15	15	O 4458 CS	15	12
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C 10987	17	17	C 11896	15	17			
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C 11004	9	4	C 11911	17	51			
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C 11012	9	26	C 11915	17	46			
C 11250	11	11	C 11916	17	45			
C 11251	7	3	C 11917	17	44			
C 11252	7	7	C 11918	17	43			

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15- 548	7	18	192- 23	9	3			
15- 552	5	17	193- 29	13	5			
15- 552	9	19	195- 109	9	30			
15- 612	11	8	213- 6	7	8			
15- 612	11	30	218- 456	13	36			
15- 620	7	21	218- 493	11	12			
15- 624	7	30	218- 493	13	38			
15- 824	7	24	218- 493	11	32			
15- 868	7	12	218- 1025	11	16			
15- 872	9	14	218- 1056	11	13			
25- 204	7	28	218- 1056	11	33			
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25- 206	7	23	218- 5060	5	19			
25- 206	11	38	221- 211	11	15			
25- 208	7	31	221- 211	11	28			
61- 624	5	15	221- 211	13	39			
75- 48	15	4	221- 216	13	41			
75- 410	15	13	221- 415	11	14			
92- 4	7	27	221- 415	11	29			
92- 4	15	14	221- 415	13	40			
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92- 5	9	21	221- 841	15	44			
92- 6	7	22	221- 842	15	1			
92- 6	11	9	221- 842	15	45			
92- 6	11	31	221- 1044	5	21			
92- 8	7	25						
95- 4	15	3						
95- 8	7	29						
111- 517	9	15						
113- 104	11	39						
113- 208	9	23						
113- 428	9	28						
115- 403	9	27						
115- 407	9	5						
126- 24	13	11						
129- 103	9	24						
129- 105	9	2						
131- 351	5	13						
132- 6	15	2						
132- 32	7	14						
132- 47	5	11						
132- 48	7	15						
132- 48	9	11						
132- 52	9	8						
138- 134	13	6						
138- 135	17	21						
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166- 6	17	1						
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166- 23	13	4						
166- 528	13	19						
169- 108	15	11						
173- 224	15	43						
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PARTS CATALOG NO. 1061

**E-1600 ROTARY TILLER AND
E-1610 HYDRAULIC PTO KIT**



DESIGNATION	TRACTOR APPLICATION	
	155	195
E1600	X	X
E1610	X	X

ALPHABETICAL INDEX

	PAGE	GRID
Drive, Chain	5	C4
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Motor, Hydraulic	7	C6
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Valve, Flow Divider Parts	9	C8
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Valve, Hydraulic Control Parts ..	9	C8

NOTE: See grid A2 for -
C1600 and D1600 Tillers

NOTE: See grid D2 for -
E70 Tiller

Serial Numbers

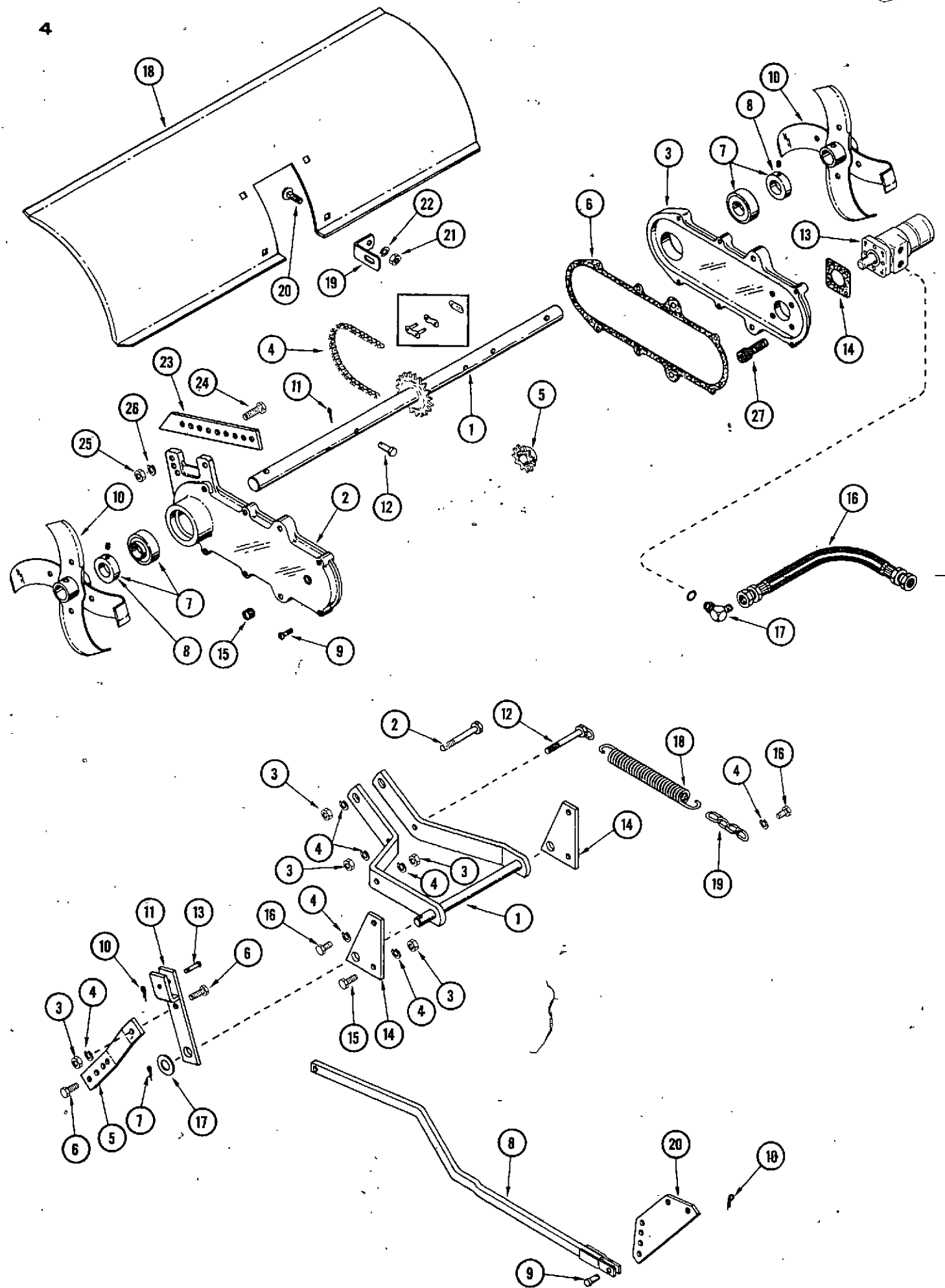
When using this catalog, notice the reference to serial numbers of various components noted here and listed in the "description" copy. By referring to correct serial numbers, proper parts identification will be assured.

ROTARY TILLER ASSEMBLY

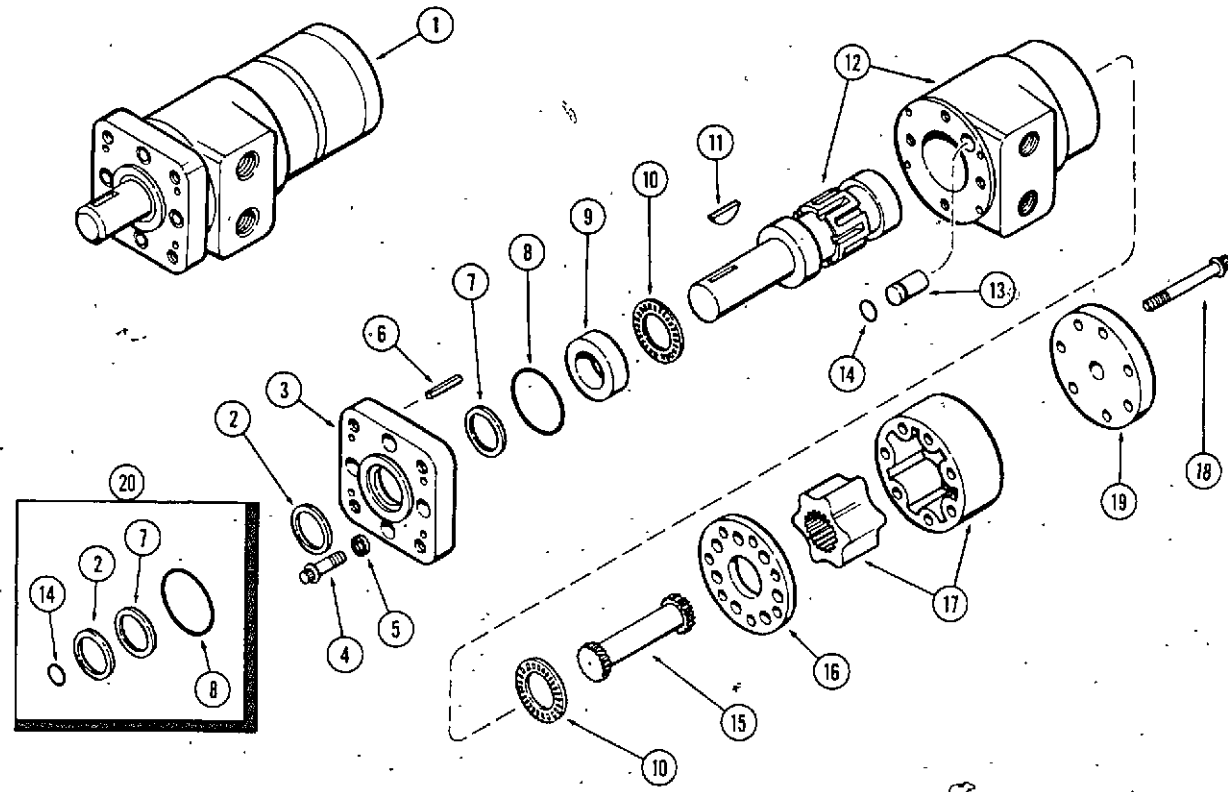
REF. PART NO.	DESCRIPTION	REQD.
1 C 12865	SHAFT - tiller (includes sprocket)	1
2 C 12510	HOUSING - tiller, right hand	1
3 C 12511	HOUSING - tiller, left hand	1
4	CHAIN - roller, 56 links #50 roller chain use	1
B 12474	CHAIN - 50 links No. 50 roller chain	
B 12477	CHAIN - 6 links No. 50 roller chain	
B 12505	LINK - connecting #50 roller chain	
B 12506	LINK - offset #50 roller chain	
B 12507	LINK - roller #50 roller chain	
B 12508	LOCK SPRING CLIPS - (pkg. of 25) for #50 roller chain	
5 C 12523	SPROCKET - drive (11T)	1
6 C 12515	GASKET - housing	1
7 C 10405	BEARING	2
8	COLLAR - W/set screw	2
9 164- 55	SCREW - flat hd. 3/8" x 2" N.C.	6
10 C 12863	TINE ASSEMBLY - welded	6
11 132- 47	PIN - cotter	6
12 T 11231	PIN - clevis 7/16" x 2"	6
13 C 11457	MOTOR - hydraulic (Repairs see page 6)	1
14 A 70128	GASKET - hydraulic motor	1
15 221- 43	PLUG - housing 3/8" NPT, slotted headless	1
16 C 11288	HOSE - tiller control	2
17 C 12917	ELBOW - 90° 1/2" tube x 7/8" (W/"O" ring)	2
218- 5006	"O" RING - for C 12917 elbow	1
18 C 11450	SHIELD - tiller	1
19 C 11451	BRACKET - angle mounting	4
20 111- 517	BOLT - rd. hd., short, sq. neck, 1/2" x 1" N.C.	4
21 129- 105	NUT - 1/2" N.C. Hex	4
22 192- 23	LOCKWASHER - 1/2"	4
23 C 12528	GAUGE - depth	1
24 113- 208	BOLT - 3/8" x 1-1/4" N.C. Hex	2
25 129- 103	NUT - 3/8" N.C. Hex	2
26 192- 21	LOCKWASHER - 3/8"	2
27 61- 612	CAPSCREW - 3/8" x 1-1/2" N.C. socket head	4

ROTARY TILLER FRAME & MOUNTING

1 C 11000	FRAME	1
2 113- 440	BOLT - 1/2" x 4-1/2" N.C. Hex	1
3 129- 105	NUT - 1/2" N.C. Hex	8
4 192- 23	LOCKWASHER - 1/2"	10
5 C 12569	BAR - tiller adjust	1
6 115- 407	BOLT - 1/2" x 1-1/2" N.C.	4
7 132- 52	PIN - cotter 1/8" x 1-1/2"	1
8 C 12566	ROD - lift	1
9 C 10821	PIN - clevis	1
10 132- 48	PIN - cotter 1/8" x 1"	2
11 C 12563	LEVER - lift	1
12 C 11456	BOLT - weld, 1/2" x 4-1/2"	1
13 O 5647HT	PIN - headed, 3/8" x 1-7/16"	1
14 C 12568	BRACKET - tiller mounting	2
15 115- 403	BOLT - 1/2" x 2-1/4" N.C. Hex	2
16 113- 428	BOLT - 1/2" x 1" N.C. Hex	3
17 195- 109	WASHER - plain 3/4"	1
18 V 14851	SPRING - extension	1
19 C 11419	CHAIN - 4 link	1
20 C 12839	ADAPTER - tractor lift	1

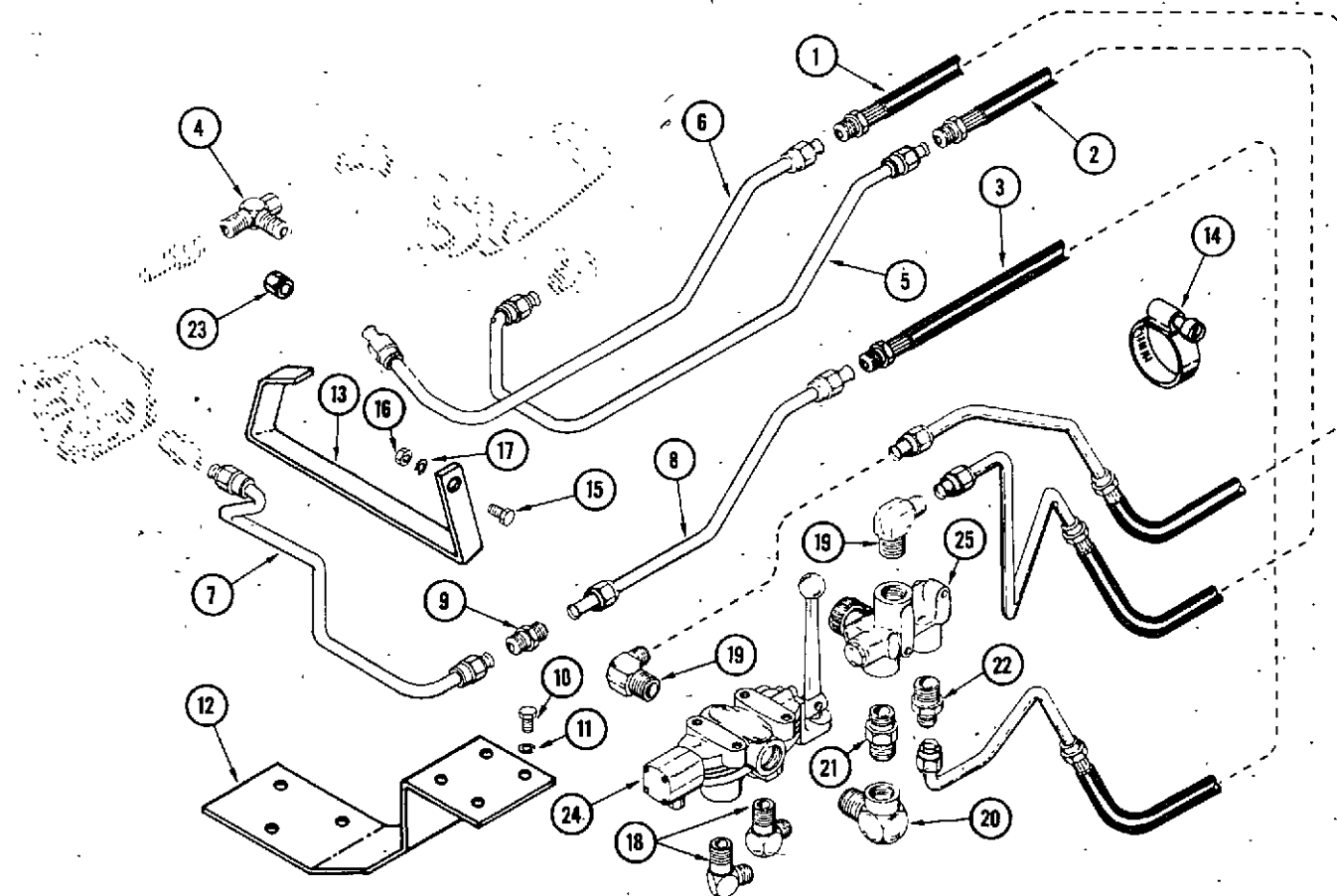


ROTARY TILLER HYDRAULIC MOTOR



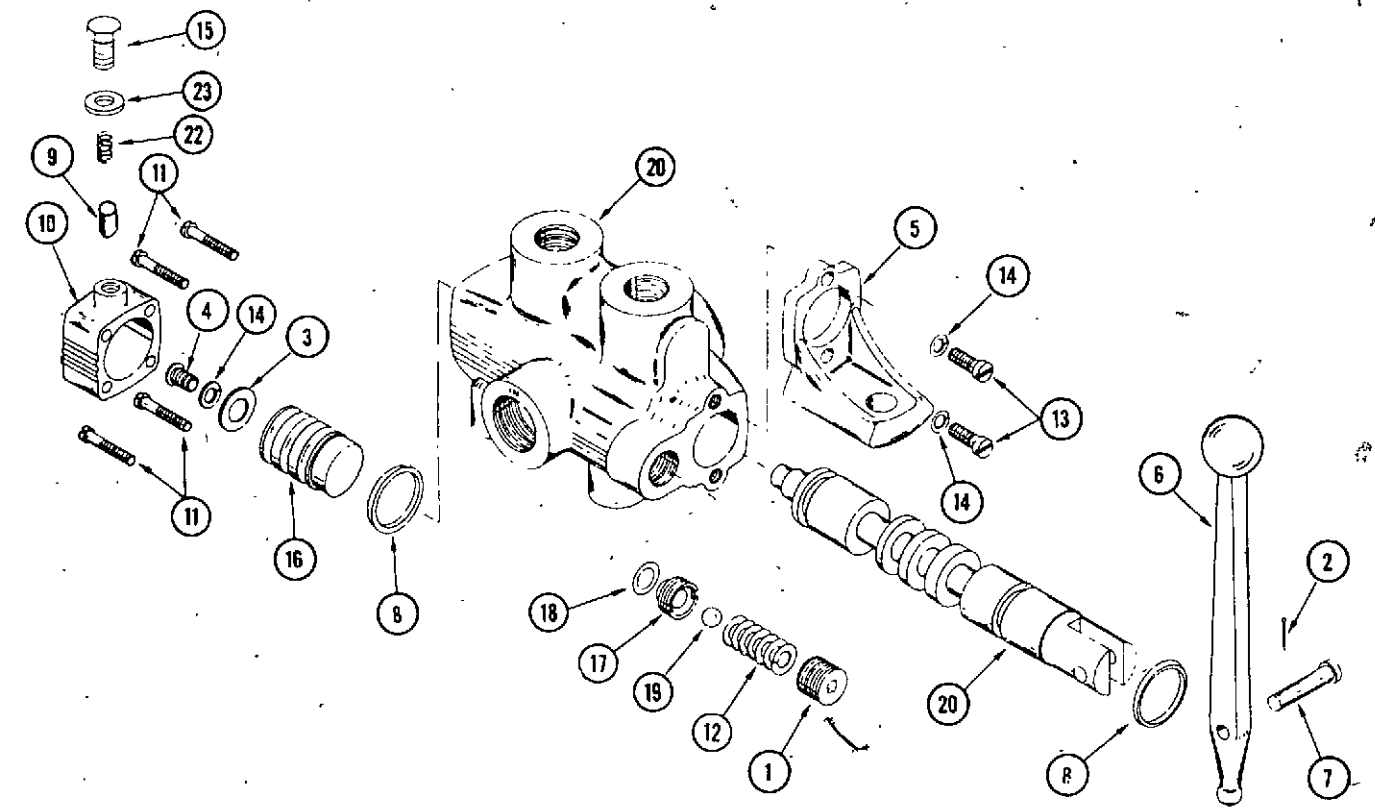
REF. PART NO.	DESCRIPTION	REQ'D
1	C 11457 MOTOR - hydraulic drive	1
2 *	NSS OIL SEAL - mtg. plate (See ref. 20)	1
3	A 72028 PLATE - mounting	1
4	166- 23 CAPSCREW - ferry 5/16" x 5/8" N.C.	4
5	193- 29 LOCKWASHER - int. shakeproof 5/16"	4
6	138- 134 PIN - roll 1/4" x 1"	4
7 *	NSS QUAD RING - mtg. plate (See ref. 20)	1
8 *	NSS "O" RING - mtg. plate to hsg. (See ref. 20)	1
9	A 72030 RACE - output shaft bearing	1
10	A 72031 BEARING - thrust output shaft thrust	2
11	126- 24 KEY - Woodruff	1
12	A 72035 SHAFT AND HOUSING	1
13	A 72034 PLUG - housing	1
14 *	NSS "O" RING - housing plug (See ref. 20)	1
15	A 72027 COUPLING - drive	1
16	A 72026 PLATE SPACER	1
17	T 35369 GEROTOR SET	1
18	166- 528 CAPSCREW - ferry 5/16" x 1-3/4" N.F.	7
19	A 72024 CAP - end	1
20	A 72036 KIT - "O" ring and seal (Incl. items marked w/*)	1

HYDRAULIC PTO KIT



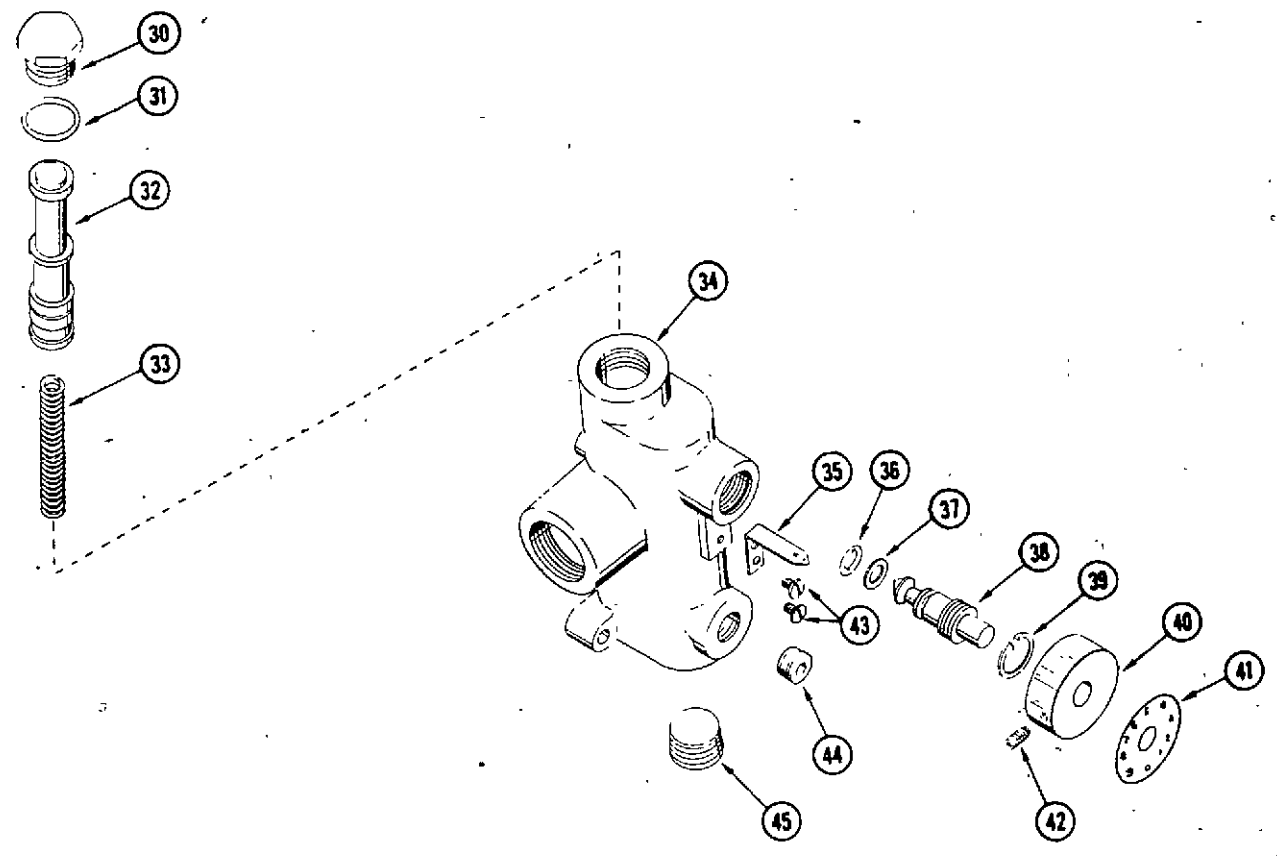
1	C 11307	TUBE AND HOSE - bypass	1
2	C 11308	TUBE AND HOSE - controlled	1
3	C 11309	TUBE AND HOSE - pressure	1
4	C 11430	TEE - 5/8" tube x 5/8" x 1/2"	1
5	C 11273	TUBE - controlled	1
6	C 11274	TUBE - excess flow	1
7	C 12728	TUBE - pressure front	1
8	C 12730	TUBE - pressure rear	1
9	218- 434	CONNECTOR	1
10	15- 612	BOLT - 3/8" x 3/4" N.C. Hex	4
11	92- 6	LOCKWASHER - 3/8"	4
12	C 11250	BRACKET - control valve mounting	1
13	C 12993	BRACKET - tube support	1
14	214- 259	CLAMP - hose 1-1/2" to 2-1/2"	1
15	113- 102	BOLT - 5/16" x 3/4" N.C. Hex	1
16	129- 102	NUT - 5/16" N.C. Hex	1
17	192- 20	LOCKWASHER - 5/16"	1
18	218- 493	ELBOW - 90° 1/2" NPT to 1/2" tube	2
19	218- 1056	ELBOW - 90° 3/4" MPR to 1/2" tube	2
20	221- 415	ELBOW - street, 90° 3/4" x 3/4" NPT	1
21	221- 211	NIPPLE - close, 3/4" NPT	1
22	218- 1025	ADAPTER - 3/4" NPT x 1/2" tube	1
23	218- 755	CAP - tube (For C 11340 tee when removing C 11274 tube)	1
24	C 11275	VALVE - hydraulic control (Repairs see page 8)	1
25	C 11276	VALVE - flow divider (Repairs see page 8)	1

HYDRAULIC PTO CONTROL VALVE



REF. PART NO.	DESCRIPTION	REQD.
C 11275	CONTROL VALVE - complete	1
1 221- 842	PLUG - relief, 3/8"	1
2 132- 6	PIN - cotter, 1/16" x 5/8"	1
3 95- 4	WASHER - plain, 1/4"	1
4 75- 48	SCREW - detent, 1/4"-20 x 1/2" round head	1
5 C 11888	BRACKET - handle	1
6 C 11889	HANDLE	1
7 36627	PIN - handle	1
8 C 11891	SEAL - U cup	2
9 C 11901	PIN - detent	1
10 C 11893	BONNET - detent	1
11 169- 108	SCREW - bonnet, cap, 8-32 x 2-1/4" fill. head	4
12 O 4458CS	SPRING - relief	1
13 75- 410	SCREW - bracket, cap, 1/4"-20 x 5/8"	2
14 92- 4	LOCKWASHER - 1/4"	3
15 C 11887	CAP - detent	1
16 C 11895	ADAPTER - spool detent	1
17 C 11896	SEAT - relief	1
18 A 27891	"O" RING - relief	1
19 211- 11	BALL - relief, 3/8"	1
20 NSS	ASSEMBLY - (Not serviced separately)	1
22 C 11892	SPRING - detent	1
23 C 11886	WASHER - spring	1

HYDRAULIC PTO FLOW DIVIDER VALVE



C 11276	FLOW DIVIDER ASSEMBLY - complete	1
30 L 30425	PLUG	1
31 A 7982	"O" RING	1
32 C 11861	PISTON	1
33 C 11860	SPRING	1
34 NSS	BODY - valve (Use C 11276)	1
35 C 11871	POINTER - spring	1
36 A 30825	"O" RING	1
37 C 11865	RING - back up	1
38 C 11866	VALVE - needle	1
39 A 35694	RING - retaining	1
40 C 11868	KNOB	1
41 C 11869	DECAL	1
42 178- 17	SCREW - set, 10-32 x 1/2" cup point	1
43 173- 224	SCREW	2
44 221- 841	PLUG - 1/4" NPTF	1
45 221- 842	PLUG - 3/8" NPTF	1

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A 30825	9	36	C 12563	5	11	218- 1025	7	22
A 35694	9	39	C 12566	5	8	218- 1056	7	19
A 72024	7	19	C 12568	5	14	218- 5006	5	
A 72026	7	16	C 12569	5	5	221- 43	5	15
A 72027	7	15	C 12728	7	7	221- 211	7	21
A 70128	5	14	C 12730	7	8	221- 415	7	20
A 72028	7	3	C 12839	5	20	221- 841	9	44
A 72030	7	9	C 12863	5	10	221- 842	9	1
A 72031	7	10	C 12865	5	1	221- 842	9	45
A 72034	7	13	C 12917	5	17	0885CB	5	8
A 72035	7	12	C 12993	7	13	36627	9	7
A 72036	7	20	L 30425	9	30	NSS	7	2*
B 12474	5		O 4458CS	9	12	NSS	7	7*
B 12477	5		O 5647HT	5	13	NSS	7	8*
B 12505	5		T 11231	5	12	NSS	7	14*
B 12506	5		T 35369	7	17	NSS	9	20
B 12507	5		V 14851	5	18	NSS	9	34
B 12508	5							
C 10405	5	7	HARDWARE CODE NUMBERS					
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C 11000	5	1	61- 612	5	27			
C 11250	7	12	75- 48	9	4			
C 11273	7	5	75- 410	9	13			
C 11274	7	6	92- 4	9	14			
C 11275	7	24	92- 6	7	11			
C 11275	9		95- 4	9	3			
C 11276	7	25	111- 517	5	20			
C 11276	9		113- 102	7	15			
C 11288	5	16	113- 208	5	24			
C 11307	7	1	113- 428	5	16			
C 11308	7	2	113- 440	5	2			
C 11309	7	3	115- 403	5	15			
C 11419	5	19	115- 407	5	6			
C 11430	7	4	126- 24	7	11			
C 11450	5	18	129- 102	7	16			
C 11451	5	19	129- 103	5	25			
C 11456	5	12	129- 105	5	3			
C 11457	5	13	129- 105	5	21			
C 11457	7	1	132- 6	9	2			
C 11860	9	33	132- 47	5	11			
C 11861	9	32	132- 48	5	10			
C 11865	9	37	132- 52	5	7			
C 11866	9	38	138- 134	7	6			
C 11868	9	40	164- 55	5	9			
C 11869	9	41	166- 23	7	4			
C 11871	9	35	166- 528	7	18			
C 11886	9	23	169- 108	9	11			
C 11887	9	15	173- 224	9	43			
C 11888	9	5	178- 17	9	42			
C 11889	9	6	192- 20	7	17			
C 11891	9	8	192- 21	5	26			
C 11892	9	22	192- 23	5	4			
C 11893	9	10	192- 23	5	22			
C 11895	9	16	193- 29	7	5			
C 11896	9	17	195- 109	5	17			
C 11901	9	9	211- 11	9	19			
C 12510	5	2	214- 259	7	14			
C 12511	5	3	218- 434	7	9			
C 12515	5	6						

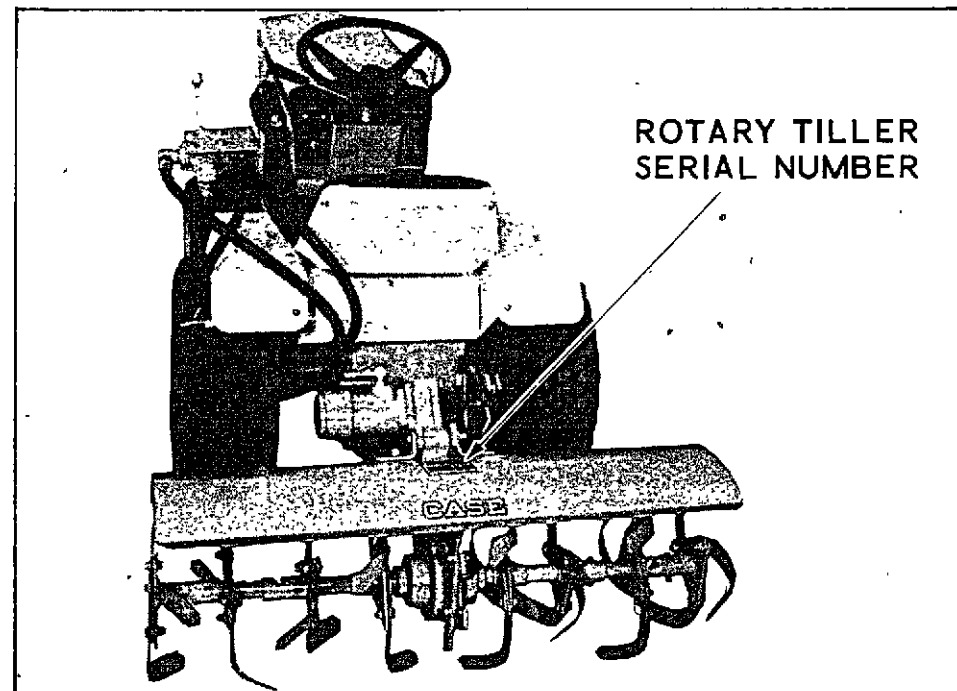
INGERSOLL
Ingersoll Equipment Co., Inc.

**MODEL E70 ROTARY TILLER
FOR MODEL 155-195 TRACTOR**
Parts Catalog No. A1106

Leitch 2500 6-73 PRINTED IN U.S.A.

ALPHABETICAL INDEX

	PAGE	GRID
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Motor, Hydraulic	9-11	D8-D10
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Rotor Drive	5	D4
Tine Assembly	7	D6
Valve, Hydraulic Control	11	D10
Valve, Hydraulic Control Parts ..	9	D8



ROTARY TILLER
SERIAL NUMBER

NOTE: See grid A2 for -
C1600 and D1600 Tillers

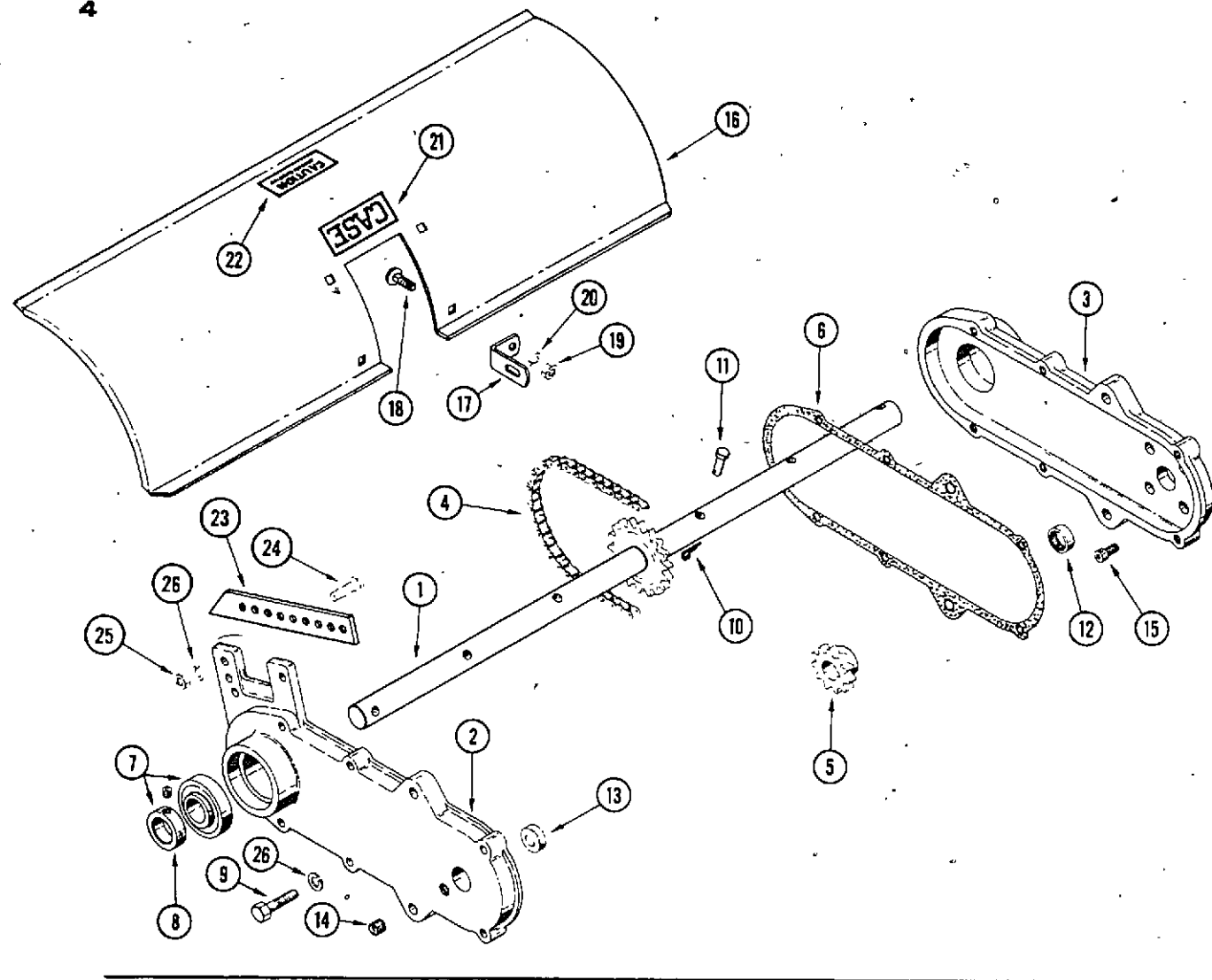
NOTE: See grid C2 for -
E1600 and E1610 Tillers

DESIGNATION	TRACTOR APPLICATION	
	155	195
E-70	X	X

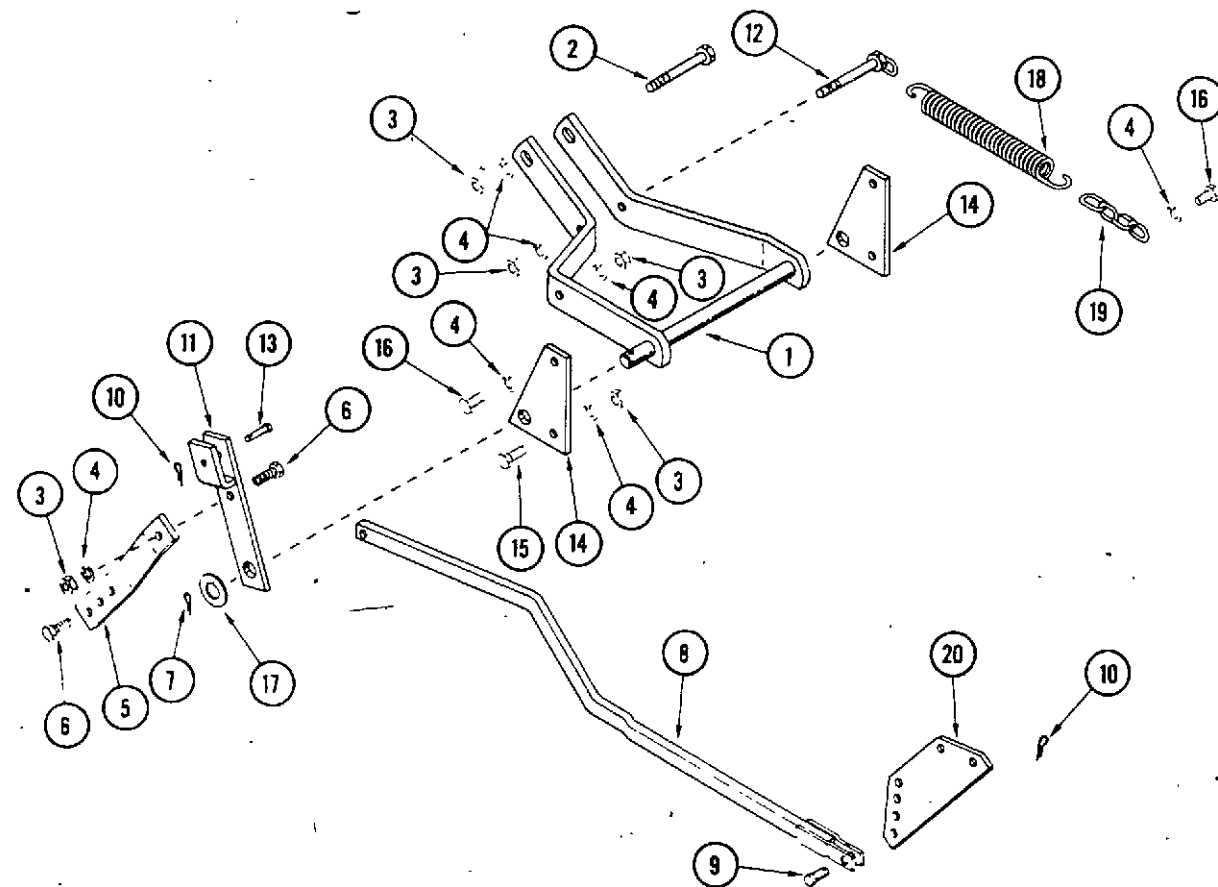
Serial Numbers

When using this catalog, notice the reference to serial numbers of various components noted here and listed in the "description" copy. By referring to correct serial numbers, proper parts identification will be assured.

ROTARY TILLER ASSEMBLY



REF. PART NO.	DESCRIPTION	REQD.
1 C 12865	SHAFT - tiller (includes sprocket)	1
2 C 14100	HOUSING - tiller, right hand	1
3 C 14101	HOUSING - tiller, left hand	1
4	CHAIN - roller, 56 links No. 50 roller	1
	CHAIN USE:	1
B 12474	CHAIN - 50 links No. 50 roller chain	
B 12477	CHAIN - 6 links No. 50 roller chain	
B 12505	LINK - connecting No. 50 roller chain	
B 12506	LINK - offset No. 50 roller chain	
B 12507	LINK - roller No. 50 roller chain	
B 12508	LOCK SPRING CLIPS (pkg. of 25) for No. 50 roller chain	
5 C 12523	SPROCKET - drive No. 50 11T	1
6 C 12515	GASKET - tiller housing	1
7 C 10405	BEARING - tiller shaft	2
8 0885CB	COLLAR - w/set screw	2
9 113- 219	BOLT - 3/8" x 2" N.C. Hex Z.P.	6
10 132- 47	PIN - cotter	6
11 T 11231	PIN - clevis 7/16" x 2"	6
12 C 14070	BEARING - needle, motor shaft	1
13 C 14107	BEARING - needle, motor shaft	1
14 221- 43	PLUG - housing 3/8" N.P.T. slotted headless	1
15 61- 612	CAP SCREW - 3/8" x 3/4" N.C. socket head	4
16 C 11450	SHIELD - tiller	1
17 C 11451	BRACKET - angle mounting	4
18 111- 517	BOLT - 1/2" x 1" Rd. Hd. Square Neck N.C. Z.P.	4
19 129- 105	NUT - 1/2" N.C. Hex Z.P.	4
20 192- 23	LOCKWASHER - 1/2" Z.P.	4
21 321- 264	DECAL - Case	1
22 A 70404	DECAL - Caution	1
23 C 12528	CHISEL - retarding	1
24 113- 208	BOLT - 3/8" x 1-1/4" N.C. Hex Z.P.	2
25 129- 103	NUT - 3/8" N.C. Hex Z.P.	2
26 192- 21	LOCKWASHER - 3/8" Z.P.	8

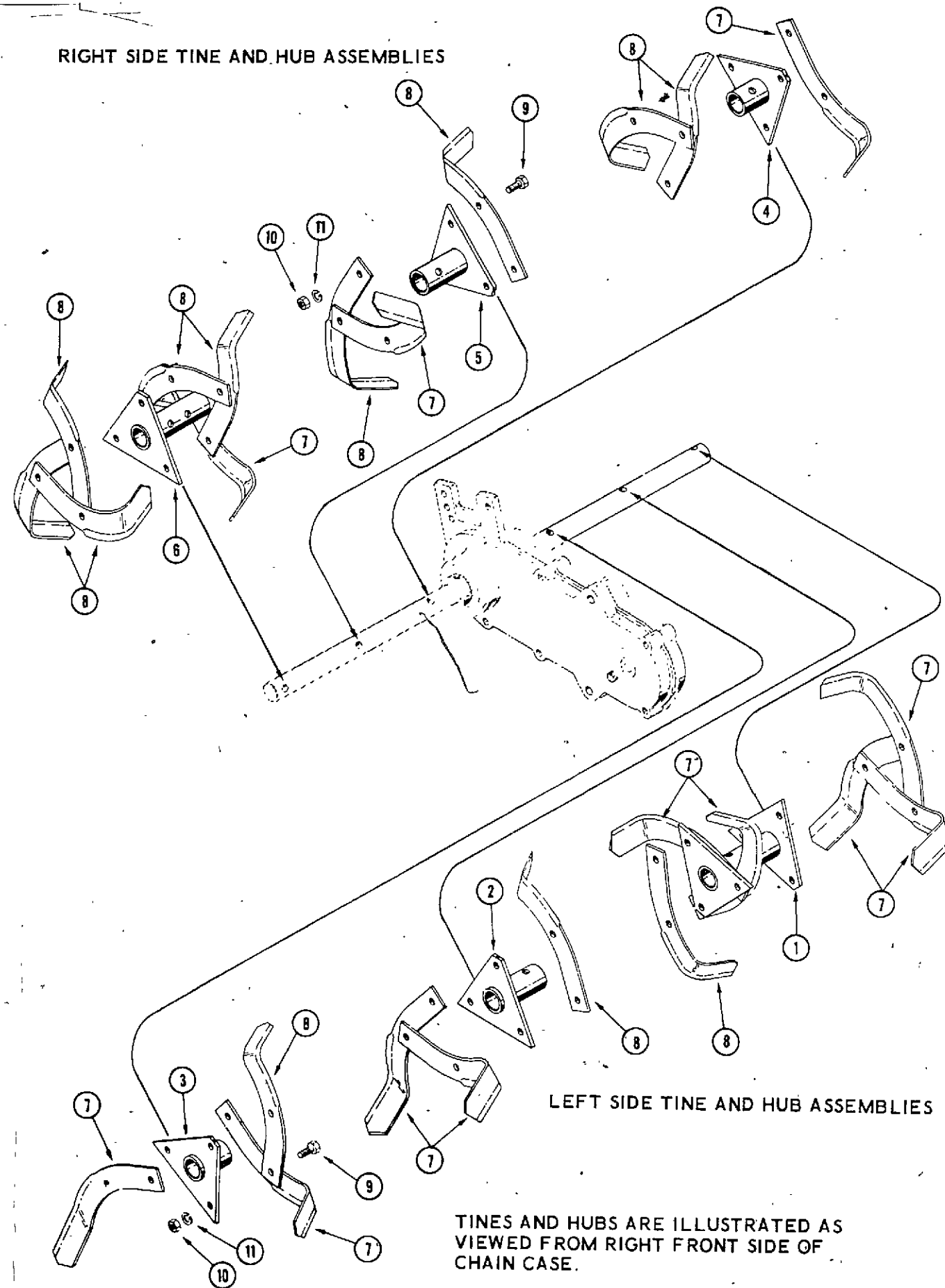


ROTARY TILLER FRAME & MOUNTING

1 C 11000	FRAME	1
2 113- 440	BOLT - 1/2" x 4-1/2" N.C. Hex	1
3 129- 105	NUT - 1/2" N.C. Hex	8
4 192- 23	LOCKWASHER - 1/2"	10
5 C 12569	BAR - tiller adjust	1
6 115- 407	BOLT - 1/2" x 1-1/2" N.C.	4
7 132- 52	PIN - cotter 1/8" x 1-1/2"	1
8 C 12566	ROD - lift	1
9 C 10821	PIN - clevis	1
10 132- 48	PIN - cotter 1/8" x 1"	2
11 C 12563	LEVER - lift	1
12 C 11456	BOLT - weld, 1/2" x 4-1/2"	1
13 O 5647HT	PIN - headed, 3/8" x 1-7/16"	1
14 C 12568	BRACKET - tiller mounting	2
15 115- 403	BOLT - 1/2" x 2-1/4" N.C. Hex	2
16 113- 428	BOLT - 1/2" x 1" N.C. Hex	3
17 195- 109	WASHER - plain 3/4"	1
18 V 14851	SPRING - extension	1
19 C 11419	CHAIN - 4 link	1
20 C 12839	ADAPTER - tractor lift	1

ROTARY TILLER TINE ASSEMBLY

RIGHT SIDE TINE AND HUB ASSEMBLIES

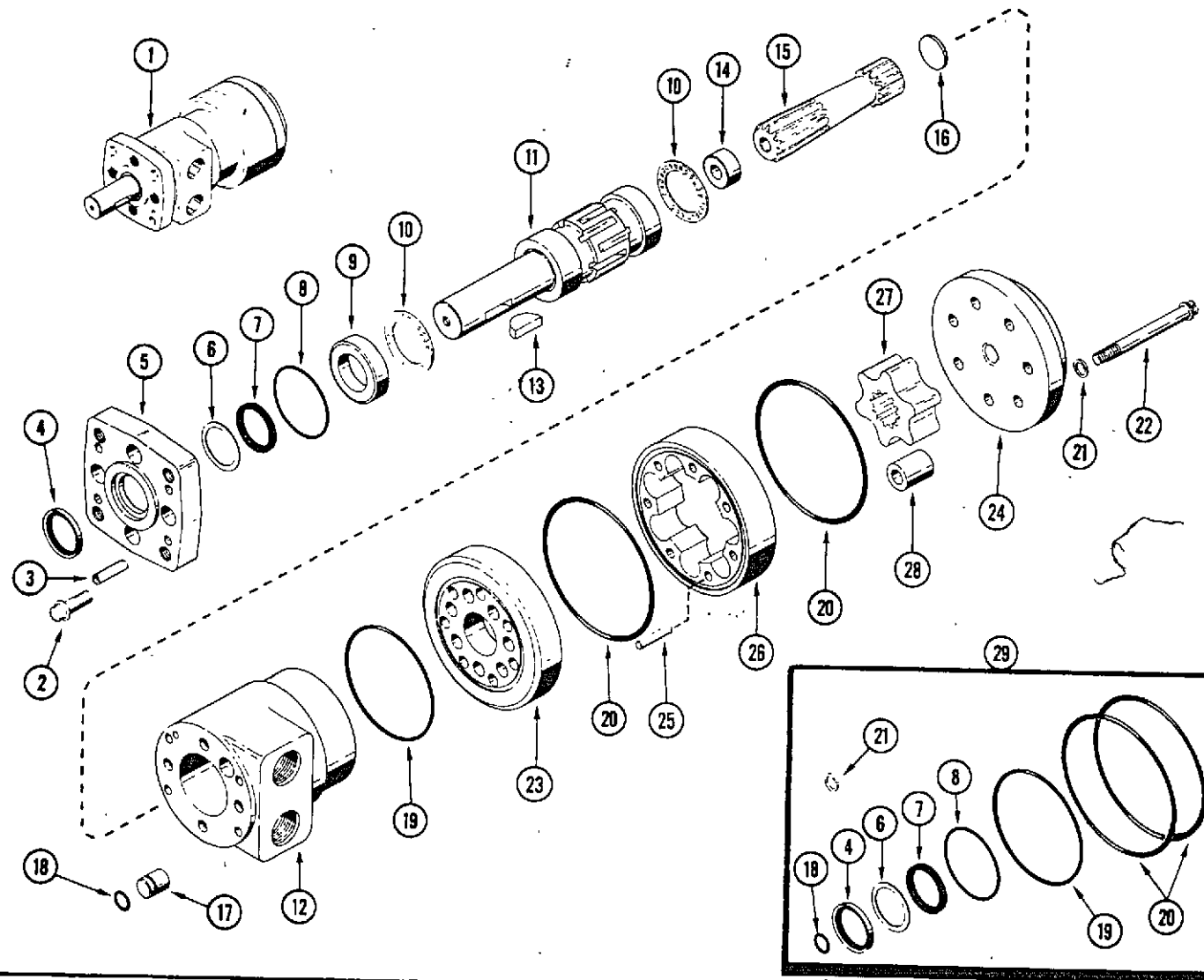


LEFT SIDE TINE AND HUB ASSEMBLIES

TINES AND HUBS ARE ILLUSTRATED AS VIEWED FROM RIGHT FRONT SIDE OF CHAIN CASE.

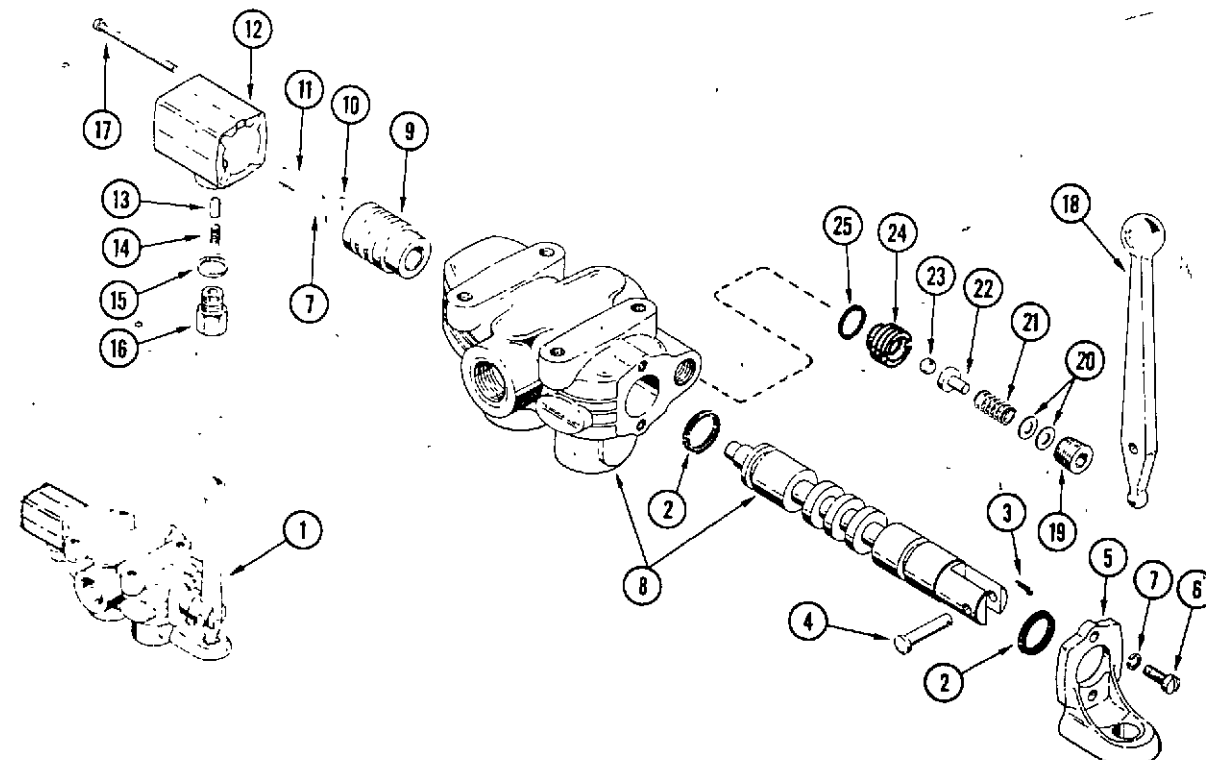
REF. PART NO.	DESCRIPTION	REQD.
1 C 13840	HUB - left outside #1	1
2 C 13841	HUB - left center #2	1
3 C 13842	HUB - left inside #3	1
4 C 13843	HUB - right inside #4	1
5 C 13844	HUB - right center #5	1
6 C 13845	HUB - right outside #6	1
7 C 13833	TINE - right	12
8 C 13834	TINE - left	12
9 113- 208	BOLT - 3/8" x 1-1/4" N.C. Hex Z.P.	24
10 129- 103	NUT - 3/8" N.C. Hex Z.P.	24
11 192- 21	LOCKWASHER - 3/8" Z.P.	24

ROTARY TILLER HYDRAULIC MOTOR



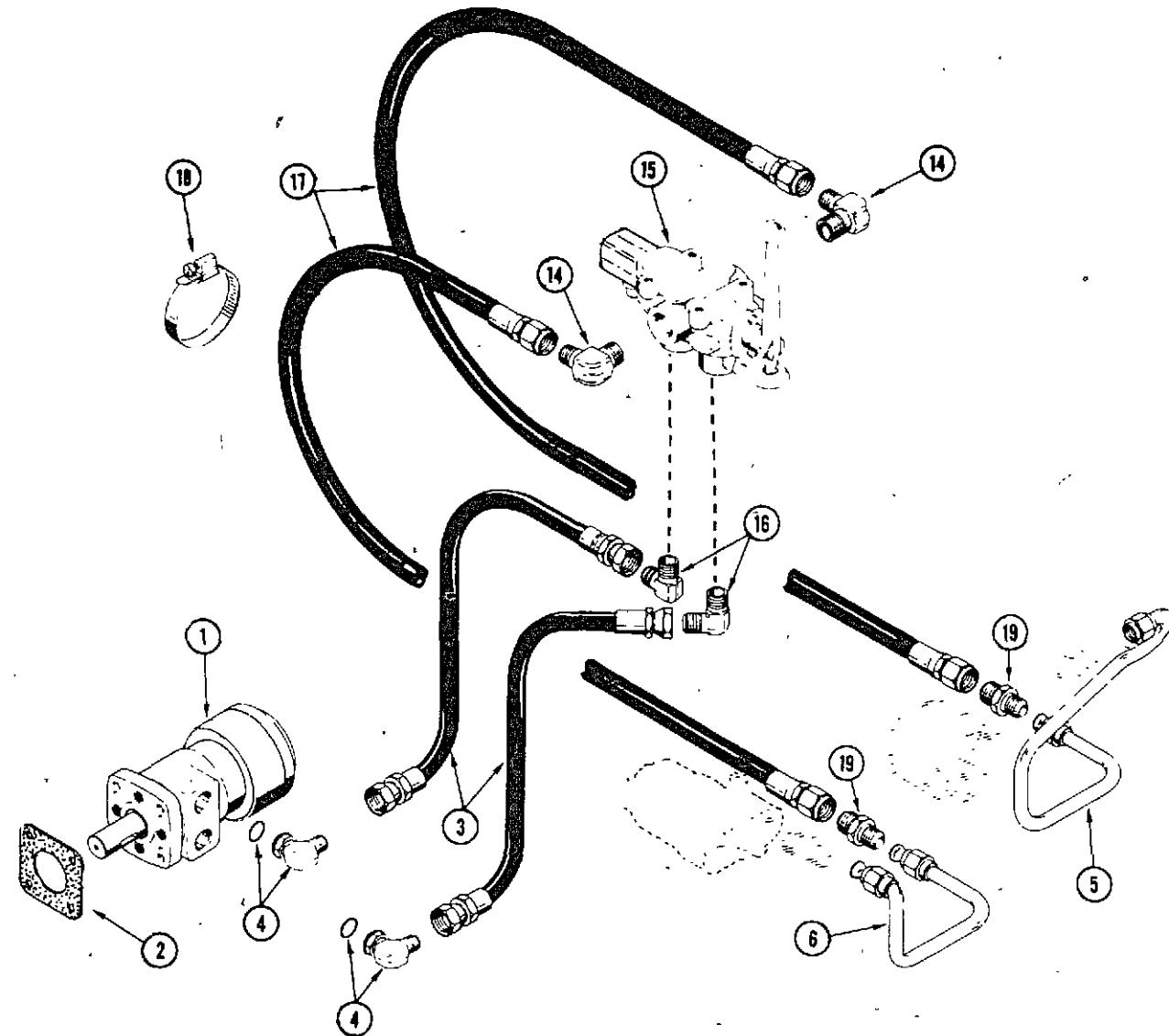
REF. PART NO.	DESCRIPTION	REQD.
1	NSS	MOTOR - hydraulic (order C14781 motor) 1
2	166- 524	SCREW - ferry cap 5/16" x 7/8" NF 4
3	138- 134	PIN - roll 1/4" x 1" 4
4	NSS	SEAL - oil, mounting plate (See Ref. 29) 1
5	C 13977	PLATE - mounting 1
6	NSS	WASHER - back up (See Ref. 29) 1
7	NSS	QUAD RING - mounting plate (See Ref. 29) 1
8	NSS	"O" RING - mounting plate 1
9	A 72030	RACE - output shaft 1
10	A 72031	BEARING - thrust 2
	C 14328	SHAFT AND HOUSING ASSEMBLY (Consists of items 11 & 12) 1
11	NSS	SHAFT - output (Order C14328) 1
12	NSS	HOUSING - (Order C14328) 1
13	126- 24	KEY - Woodruff 1
14	C 13973	SPACER - output shaft 1
15	C 13961	COUPLING - drive 1
16	C 13962	SPACER - drive coupling 1
17	A 72034	PLUG - housing 1
18	NSS	"O" RING - housing plug (See Ref. 29) 1
19	NSS	"O" RING - housing to spacer plate (See Ref. 29) 1
20	NSS	"O" RING - spacer to geroler (See Ref. 29) 2
21	C 14301	WASHER - end cap 7
22	166- 536	SCREW - ferry cap 5/16" x 2-7/8" NF 7
	C 14955	KIT - geroler (Includes items 23 thru 28) 1
23	NSS	PLATE - spacer 1
24	NSS	CAP - end 1
25	NSS	DOWEL 7
	NSS	GEROLER ASSEMBLY (Includes items 26, 27 and 28) 1
26	NSS	HOUSING - roller geroler 1
27	NSS	GEROLER 1
28	NSS	ROLLER 6
29	C 14329	KIT - "O" ring and seal (Includes items 4, 6, 7, 8, 18, 19, 20 & 21) 1

ROTARY TILLER HYDRAULIC CONTROL VALVE



1	C 11275	VALVE - tiller control 1
2	C 11891	SEAL - U-cup 2
3	132- 6	PIN - cotter 1/16" x 5/8" 1
4	36627	PIN - handle 1
5	C 11888	BRACKET - handle 1
6	75- 410	SCREW - 1/4" x 5/8" N.C. fillister head 2
7	92- 4	LOCKWASHER - 1/4" 3
8	NSS	BODY AND SPOOL ASSEMBLY (order C11275) 1
9	C 11895	ADAPTER - spool 1
10	95- 4	WASHER - plain 1/4" 1
11	75- 48	SCREW - 1/4" x 1/2" Rd. Hd. machine 1
12	C 11893	BONNET - detent 1
13	C 11901	PIN - detent 1
14	C 11892	SPRING - detent 1
15	C 11886	WASHER - detent spring 1
16	C 11887	CAP - detent 1
17	169- 108	SCREW - bonnet 8-32 x 2-1/4" fillister head 4
18	C 11889	HANDLE - valve 1
19	221- 842	PLUG - relief 3/8" MPT 1
20	195- 515	WASHER - relief 2
21	O 4458CS	SPRING - relief 1
22	C 14327	SPACER - no relief 1
23	211- 11	BALL - relief 3/8" 1
24	C 11896	SEAT - relief 1
25	A 27891	"O" RING - relief seat 1

ROTARY TILLER HYDRAULIC SYSTEM



REF. PART NO.	DESCRIPTION	REQD.
1	NSS MOTOR - hydraulic (order Q14781 motor)	1
2	A 70128 GASKET - hydraulic motor	1
3	C 14316 HOSE - tiller valve to motor 36" (replaces original 32" hose)	2
4	D 25667 ELBOW - 90° 1/2" x 7/8" with "O" ring	2
218-	5006 "O" RING - for D25667 elbow	2
5	C 12728 TUBE - pump	1
6	C 13930 TUBE - valve	1
7	15- 612 BOLT - 3/8" x 3/4" N.C. Hex Z.P.	4
8	192- 21 LOCKWASHER - 3/8" Z.P.	4
9	C 11250 BRACKET - valve mounting	1
10	C 12993 BRACKET - tube support	1
11	113- 102 BOLT - 5/16" x 3/4" N.C. Hex Z.P.	1
12	129- 102 NUT - 5/16" N.C. Hex Z.P.	1
13	192- 20 LOCKWASHER - 5/16" Z.P.	1
14	D 29569 ELBOW - 90° 3/4" x 7/8"	2
15	C 11275 VALVE - tiller control (repairs see page 8)	1
16	218- 493 ELBOW - 90° 1/2" x 1/2"	2
17	C 14021 HOSE - tractor pump and valve to tiller valve (50-1/2")	2
18	214- 259 CLAMP - hose	1
19	218- 430 CONNECTOR - tube to hose	2

