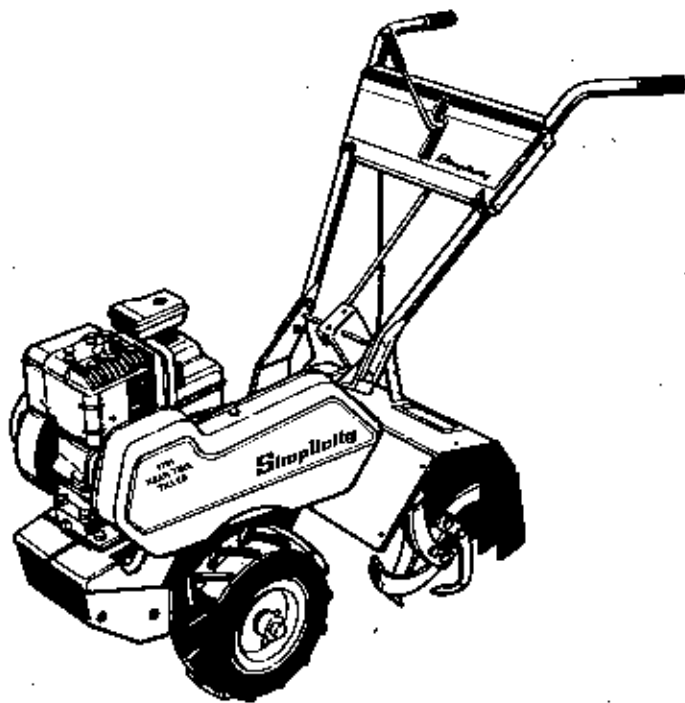


**Parts
Manual
Model
1105
Rear Tine
Tiller**



TP - 1041-02
PRINTED IN U.S.A.
843

5 H.P. REAR TINE TILLER
MFG. NO. 1690803

Simplicity[®]

Tractor Identification:

When ordering parts, keep your products serial number and manufacturer's number in mind. Variations may occur in a part between early and later model products, causing the product serial number to be listed in the parts description whenever these variations occur.

Record your I.D. numbers here for quick, future reference.

Tractor Mfg. No. _____ S/N _____ Mower Mfg. No. _____ S/N _____

Attention:

Standard torques appear in a chart at the end of the manual, while important individual torques are given on specific parts drawings.

CRITICAL and MAJOR notations point out important facts or instructions which relate to personal safety and proper machine operation. Any CRITICAL notation **C** which may appear in this book, pinpoints characteristics which, if not properly followed, can create a safety hazard. Any MAJOR notation **M** which may appear in this book, marks characteristics which, if not properly followed, may result in operating failure, shortened product life, or greatly reduced quality of the unit.

For your convenience, assembly notes are included in parts drawings to assist in repair and assembly of unit.

NOTE: Specifications may change without notice.

**Simplicity
Technical Publications**

SIMPLICITY PRODUCTS FOR THE PROPER CARE OF EQUIPMENT

These genuine *Simplicity* products will help the owner extend the life of his equipment.

OILS - SPECIFICALLY BLENDED OF HIGH QUALITY BASE OILS & ADDITIVES.

Special Worm Gear (Roticul) Oil for use in all tillers and snowthrowers with worm gear auger drive. Required for protection of brass gears and mating parts. Case of 12 Part #1685100.

Multi-Purpose Hydraulic/Transmission Oil for use in most hydraulic applications, and hydrostatic and gear transmissions. Specific *Simplicity* applications: All hydrostatic transmissions, all bevel gear cases, All Broadmoor, Landlord, Sovereign, 4000, 6000, 7000 transmissions (except Peerless Gear Transmissions).

2-Cycle Engine Oil a premium lubricant for all 2-cycle air-cooled engines. Case of 12 Part #1685517.

SAE 5W 30 Cold Weather Engine Oil for use in all four cycle engines at 30° temp. and under. Case of 12 Part #1685518.

Grease Gun Kit has 12" flexible hose to get into tight spots with ease. Kit contains: gun and 1-8 oz. tube of grease, Part #1685510. For replacement tube, order Part #103077.

Touch-Up Paint keeps equipment in showroom condition.

<u>Spray Cans</u>	<u>Quarts</u>	<u>Daubbers 12/Ctn.</u>
Orange - 103262 (12 cans/1685179)	1685037	1685511
White - 103049 (12 cans/1685178)	1685032	1685512
		1685520 (Mixed Ctn.)

Pneumatic Tire Seal, seals all leaks including bead leaks and punctures up to 3/16 inch diameters. Prevents flats for tread life of tire. Available in following amounts.

11 Oz. Tube	1685523
Case of 24-11 Oz. Tubes	1685525
5 Gallon Pail	1685527

Simplicity Designer Seat Covers are double stitched, easy care vinyl. Keeps new seats new, makes worn seats look new.

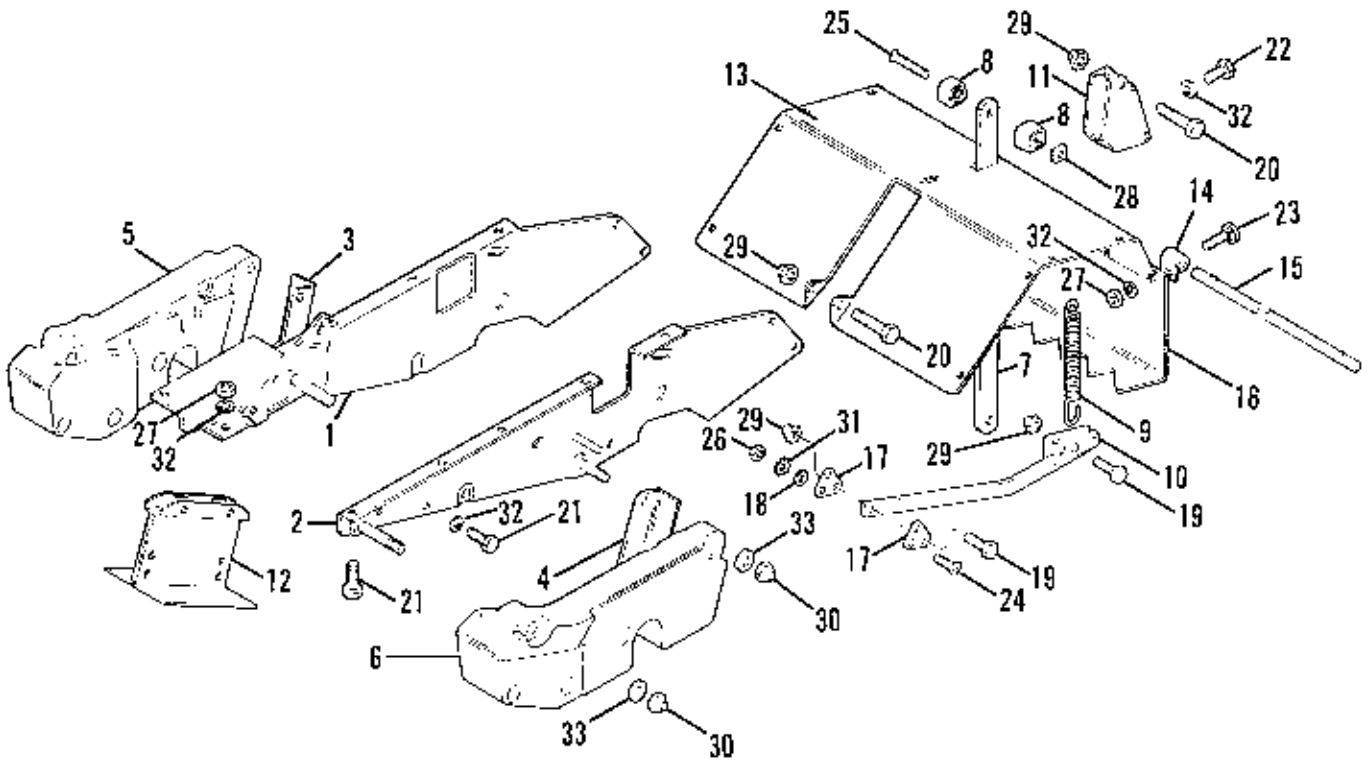
• Small Cover for 4000, 5000, & 6100 Tractors	1685531
• Large Cover for 6200, 7000 & 9000 Tractors	1685530

Extend Equipment Life - Use Only Genuine *Simplicity* Repair Parts

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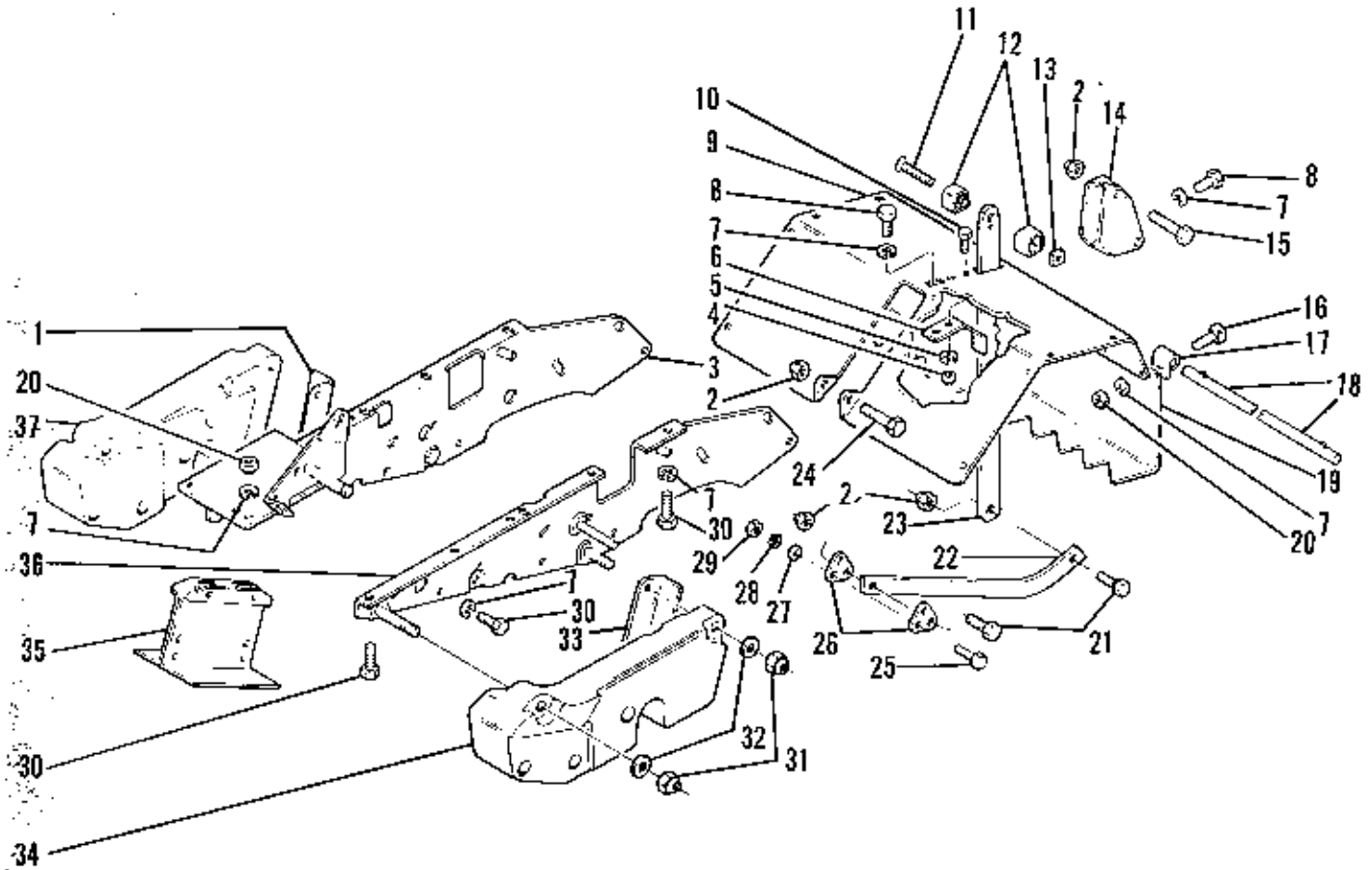
NOTE: Use standard hardware torque spec. chart unless otherwise noted.

Frame and Tine Shield

Simplicity

Ref. No.	Part No.	Qty.	Description
1	1671808	1	FRAME ASSEMBLY - R.H.
2	1671809	1	FRAME ASSEMBLY - L.H.
3	1671811	1	HANGER - Rear R.H.
4	1671812	1	HANGER - Rear L.H.
5	1671814	1	COUNTERWEIGHT - R.H.
6	1671815	1	COUNTERWEIGHT - L.H.
7	1671822	1	DEPTH CONTROL ASSEMBLY
8	1671810	2	HANDLE
9	1671813	1	SPRING
10	1671821	1	SKID ASSEMBLY
11	1671823	1	SUPPORT ASSEMBLY
12	1671824	1	SUPPORT ASSEMBLY - Counterweight
13	1671825	1	TINE SHIELD & DECAL ASSEMBLY
14	1671816	4	HINGE
15	1671817	1	ROD
16	1671818	1	GUARD ASSEMBLY
17	1671820	2	LUG
18	1671819	2	WASHER
19	921333	2	CAP SCREW, Hex Hd. 5/16-18 x 1" Plated
20	921160	3	CAP SCREW, Hex Hd. 5/16-18 x 2-1/4" Plated
21	925205	6	CAP SCREW, Hex Hd. 5/16-18 x 5/8" Plated
22	919317	1	CAP SCREW, Hex Hd. 5/16-18 x 1/2" Plated
23	931333	4	BOLT, Carriage 5/16-18 x 3/4" Plated
24	910968	2	MACHINE SCREW, Slotted Rd. Hd. #10-24 x 1" Plated
25	922703	1	MACHINE SCREW, Slotted Flat Hd. 5/16-18 x 2" Plated
26	916621	2	NUT, Hex #10-24 Plated
27	917372	6	NUT, Hex 5/16-18 Plated
28	936716	1	NUT, Square 5/16-18 Plated
29	923362	5	NUT, Hex Center Lock 5/16-18 Plated
30	930651	4	NUT, Hex Center Lock 3/8-16 Plated
31	922711	2	WASHER, Lock External Tooth #10 Plated
32	917356	11	WASHER, Spring Lock 5/16 Plated
33	156065	4	WASHER, Flat SAE 3/8 Plated

Parts shown on Pages 2 and 3 are used on units prior to Serial No. 4004-C1-501 (last 3 numbers 500 or less). See Page 4 for later models.



NOTE: Use standard hardware torque spec chart unless otherwise noted.

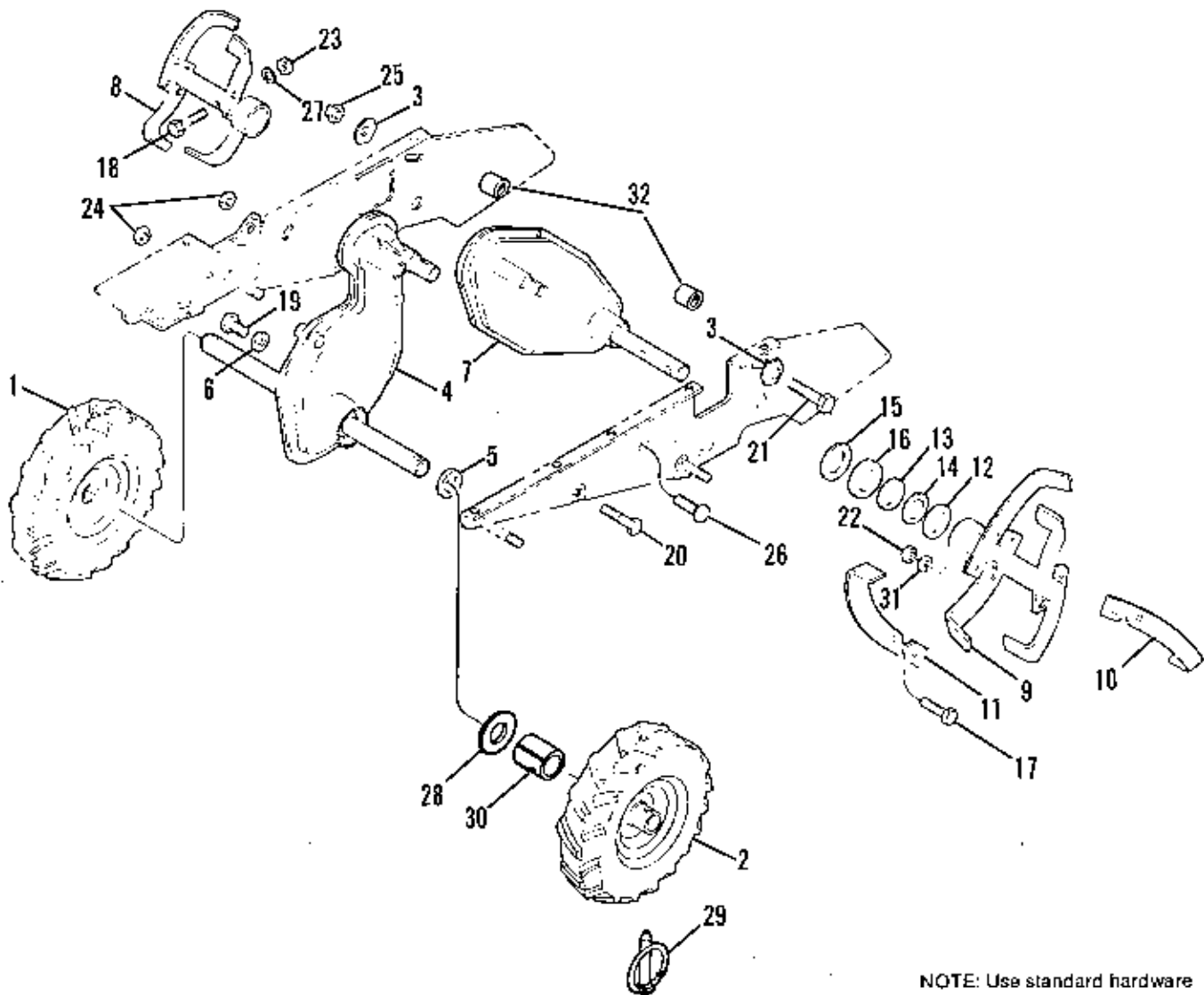
Frame and Tine Shield

Simplicity

Ref. No.	Part No.	Qty.	Description
1	1671811	1	HANGER-Rear R.H.
2	923362	5	NUT, Hex Cone Lock 5/16-18 Plated
3	1671808	1	FRAME ASSEMBLY-R.H.
4	916622	2	NUT, Hex 1/4-20 Plated
5	918964	2	WASHER, Spring Lock 1/4 Plated
6	1673930	1	LEAF SPRING - Depth Control
7	917356	20	WASHER, Spring Lock 5/16 Plated
8	919317	2	CAP SCREW, Hex Hd. 5/16-18 x 1/2 Plated, Grade 5
9	1673931	1	TINE SHIELD & DECAL ASSEMBLY
10	921958	2	CAP SCREW, Hex Hd. 1/4-20 x 1/2 Plated, Grade 5
11	922703	1	MACHINE SCREW, Slotted Flat Hd. 5/16-18 x 2" Plated
12	1671810	2	HANDLE
13	936716	1	NUT, Square 5/16-18 Plated
14	1671823	1	SUPPORT ASSEMBLY
15	921160	3	CAP SCREW, Hex Hd. 5/16-18 x 2 1/4 Plated, Grade 5
16	931333	4	BOLT, Carriage 5/16-18 x 3/4 Plated
17	1671925	4	HINGE
18	1671786	1	ROD
19	1671818	1	GUARD ASSEMBLY
20	917372	6	NUT, Hex 5/16-18 Plated
21	921221	2	CAP SCREW, Hex Hd. 5/16-18 x 1 1/4 Plated, Grade 5
22	1674450	1	SKID
23	1674451	1	DEPTH CONTROL
24	921719	1	CAP SCREW, Hex Hd. 5/16-18 x 2 1/2 Plated, Grade 5
25	910168	2	CAP SCREW, Socket Hd. 10-24 x 1" Plated, Grade 5
26	1671826	2	LUG
27	1671819	2	WASHER
28	922711	2	WASHER, Lock External Tooth #10, Plated
29	916621	1	NUT, Hex #10-24 Plated
30	925205	12	CAP SCREW, Hex Hd., 5/16-18 x 5/8 Plated, Grade 5
31	930651	4	NUT, Hex Cone Lock 3/8-16 Plated
32	156065	4	WASHER, Flat SAE 3/8 Plated
33	1671812	1	HANGER - Rear - L.H.
34	1671815	1	COUNTERWEIGHT - L.H.
35	1671824	1	SUPPORT ASSEMBLY - Counterweight
36	1671809	1	FRAME ASSEMBLY - L.H.
37	1671814	1	COUNTERWEIGHT - R.H.

Parts shown on Pages 4 and 5 are used on units after Serial No. 4004-C1-500 (last 3 numbers 501 or higher). See Page 2 for early models.

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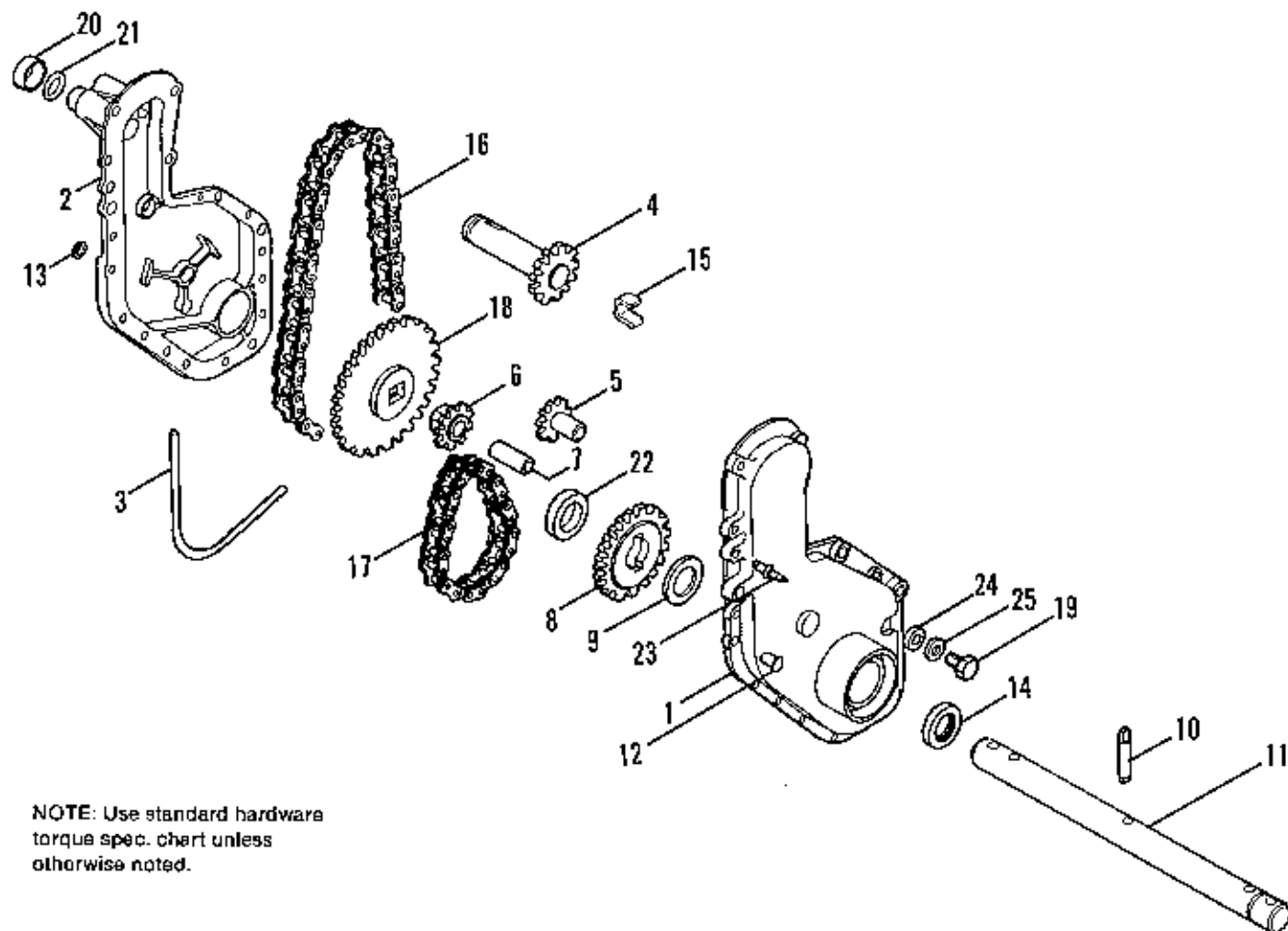


NOTE: Use standard hardware torque spec. chart unless otherwise noted.

Ref. No.	Part No.	Qty.	Description
1	1671791	1	TIRE & WHEEL ASSEMBLY - R.H.
2	1671792	1	TIRE & WHEEL ASSEMBLY - L.H.
3	1671796	2	PYRAMIDAL LOCKWASHER
4		1	CHAIN CASE ASSEMBLY - Wheel Drive
5	1671790	2	SEAL
6	1671793	1	NYLON WASHER
7		1	CHAIN CASE ASSEMBLY - Tine Drive
8	1671794	1	TINE ASSEMBLY - R.H.
9	1671795	1	TINE ASSEMBLY - L.H.
10	1671797	4	TINE - R.H.
11	1671798	4	TINE - L.H.
12	1671799	2	FELT SEAL
13	1671801	2	FELT SEAL
14	1671802	2	WASHER
15	1671803	2	WASHER - Back Up
16	1671804	2	FELT SEAL
17	1671800	16	TINE BOLT
18	923433	2	CAP SCREW, Hex Hd. 3/8-24 x 1-3/4" Heat Treated
19	919317	1	CAP SCREW, Hex Hd. 5/16-18 x 1/2" Plated
20	929491	1	CAP SCREW, Hex Hd. 5/16-18 x 1-5/8" Plated
21	921719	1	CAP SCREW, Hex Hd. 5/16-18 x 2-1/2" Plated & Heat Treated
22	913901	16	NUT, Hex 7/16-20
23	916602	2	NUT, Hex 3/8-24
24	923362	2	NUT, Center Lock, 5/16-18
25	923362	1	NUT, Center Lock, 5/16-18
26	931801	1	BOLT, Carriage 5/16-18 x 2-1/4" Plated
27	916965	2	WASHER, Spring Lock 3/8
28	1671805	2	WASHER
29	1666969	2	KLIK PIN
30	1671807	2	SPACER - Wheel
31	918199	16	WASHER, Spring Lock 7/16
32	*1674689	2	SPACER

*Not used on some early models with welded spacers.

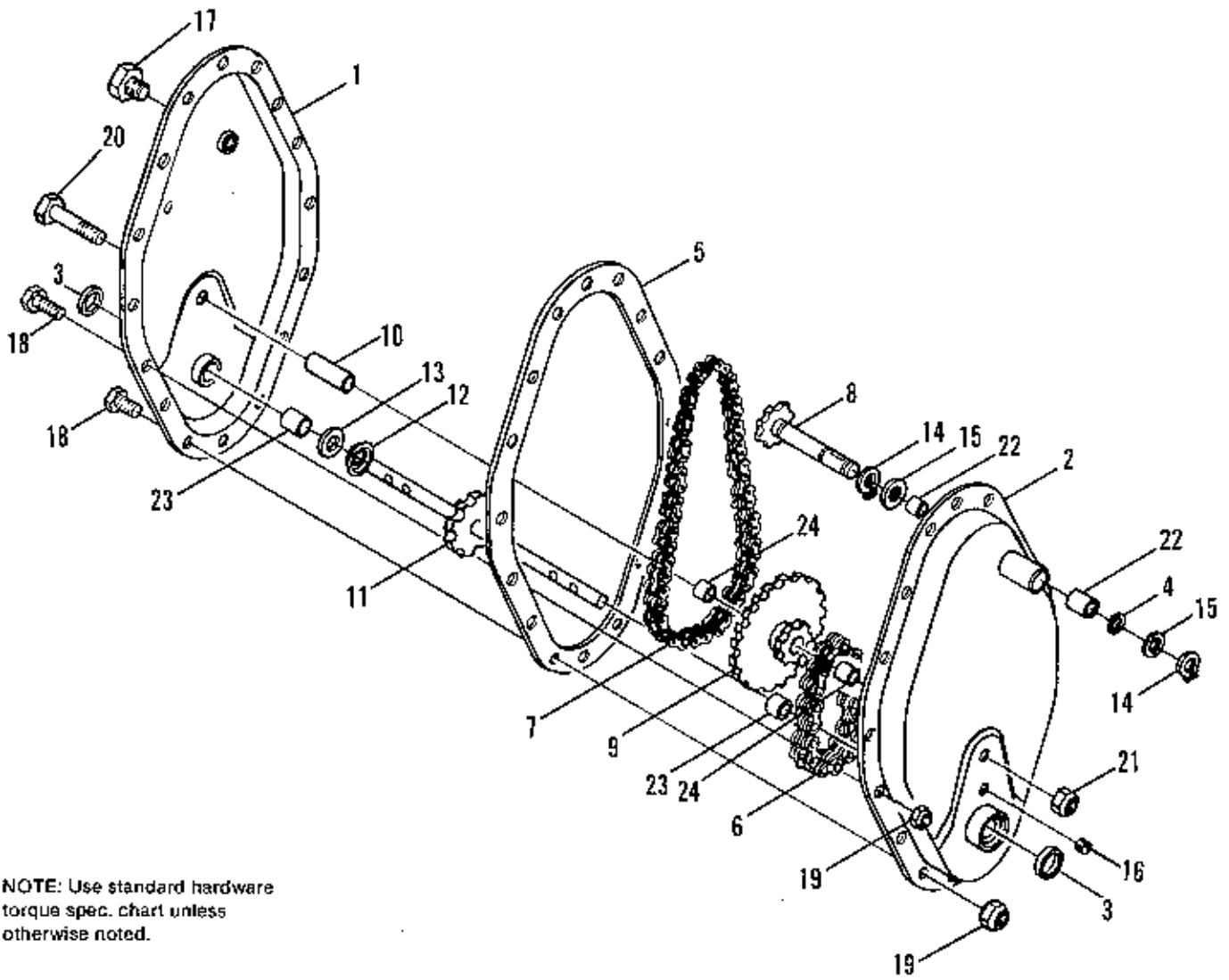
A-352



NOTE: Use standard hardware torque spec. chart unless otherwise noted.

Ref. No.	Part No.	Qty.	Description
1	1671828	1	CHAIN CASE - R.H.
2	1671829	1	CHAIN CASE - L.H. w/Bearing
3	1671826	1	GASKET
4	1671830	1	INPUT SHAFT ASSEMBLY
5	1671831	1	IDLER SPROCKET - 9 Tooth
6	1671832	1	SPROCKET - 10 Tooth
7	1671833	1	SHAFT - Sprocket
8	1671836	1	SPROCKET - 27 Tooth
9	1671805	1	THRUST WASHER
10	1671834	1	DRIVE PIN
11	1671835	1	AXLE
12	1671827	14	RIVET
13	1671819	14	WASHER
14	1671790	2	OIL SEAL
15	1671837	1	"U" CLIP
16	1671839	1	#35 ROLLERLESS CHAIN
17	1671842	1	#35 ROLLER CHAIN
18	1671841	1	SPROCKET ASSEMBLY - 42 Tooth
19	919317	1	CAPSCREW, Hex Hd. 5/16-18 x 1/2 Plated
20	1671783	1	SEAL CUP
21	1671784	1	O-RING
22	1671838	1	WASHER
23	1671840	2	POP RIVET
24	1671793	1	NYLON WASHER
25	919326	1	WASHER, Flat SAE 5/16 Plated

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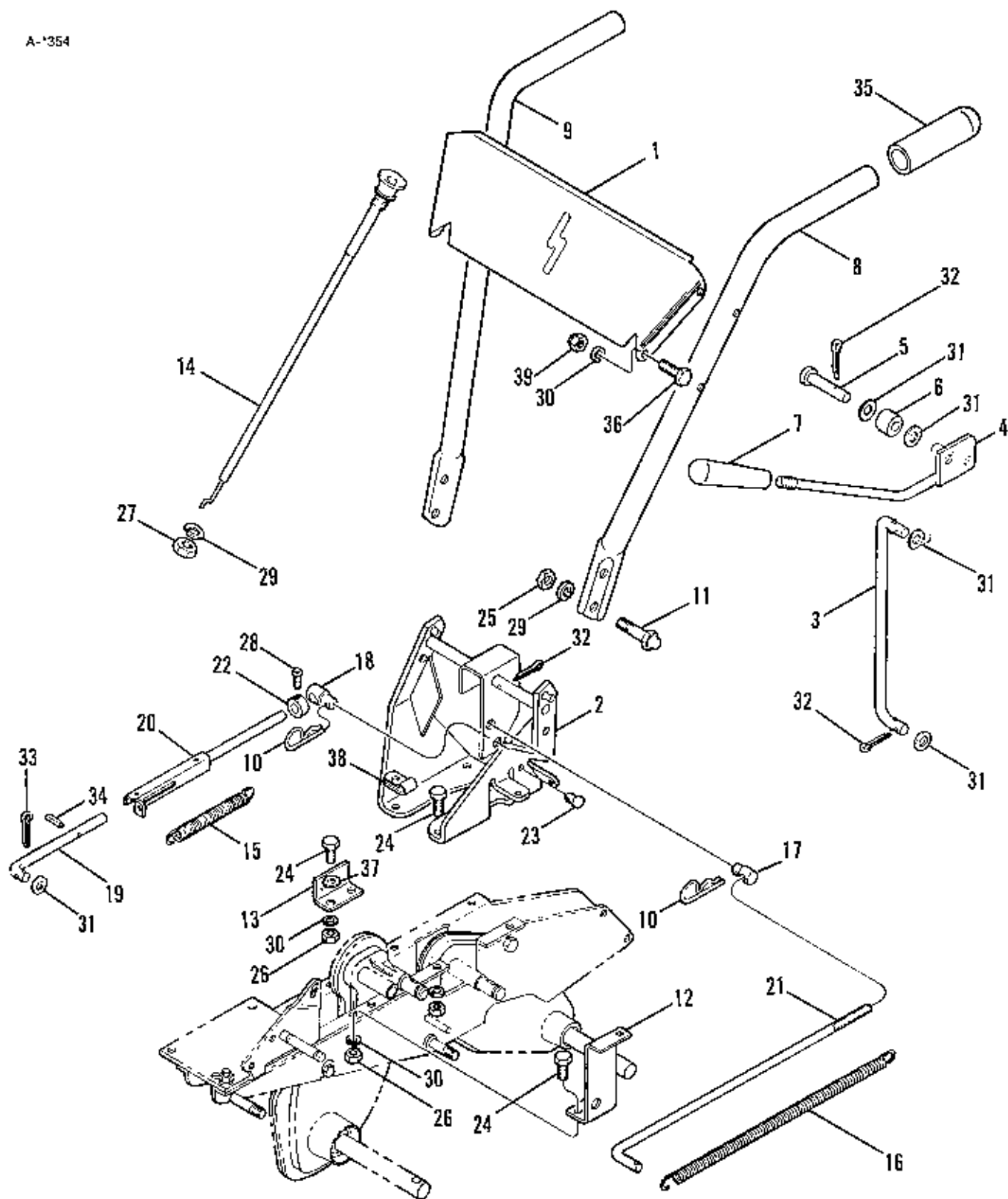
NOTE: Use standard hardware torque spec. chart unless otherwise noted.

Chain Case

Ref. No.	Part No.	Qty.	Description
1	*1673926	1	CHAIN CASE ASSEMBLY - R.H. w/Bearings
2	*1673927	1	CHAIN CASE ASSEMBLY - L.H. w/Bearings
3	1671846	2	SEAL - Tine Shaft
4	1671847	1	SEAL - Input Shaft
5	1671848	1	GASKET
6	1671850	1	CHAIN - Lower
7	1671853	1	CHAIN - Upper
8	1671854	1	INPUT SHAFT ASSEMBLY
9	1671856	1	SPROCKET ASSEMBLY - w/Bearings
10	1671855	1	IDLER SLEEVE
11	1671857	1	TINE SHAFT ASSEMBLY
12	1671858	1	SPACER CUP
13	1671859	2	SHIM - Gear
14	1671927	2	RETAINING RING
15	1671860	2	WASHER - Input Shaft
16	1671843	1	PIPE PLUG
17	924086	1	CAP SCREW, Hex Hd. 1/2-20 x 3/4
18	921958	15	CAP SCREW, Hex Hd. 1/4-20 x 1/2 Heat Treated
19	923358	15	NUT, Hex Lock 1/4-20 Plated
20	922130	1	CAP SCREW, Hex Hd. 3/8-16 x 2-1/4" Heat Treated
21	930651	1	HEX NUT, Cone Lock 3/8-16 Plated
22	1671852	2	BEARING - Input Shaft
23	1671849	2	BEARING - Axle
24	1671851	2	BEARING

*If you are replacing a chain case with welded, rather than loose, spacers (Ref. No. 32 on Page 6) also order spacers, part number 1674689.

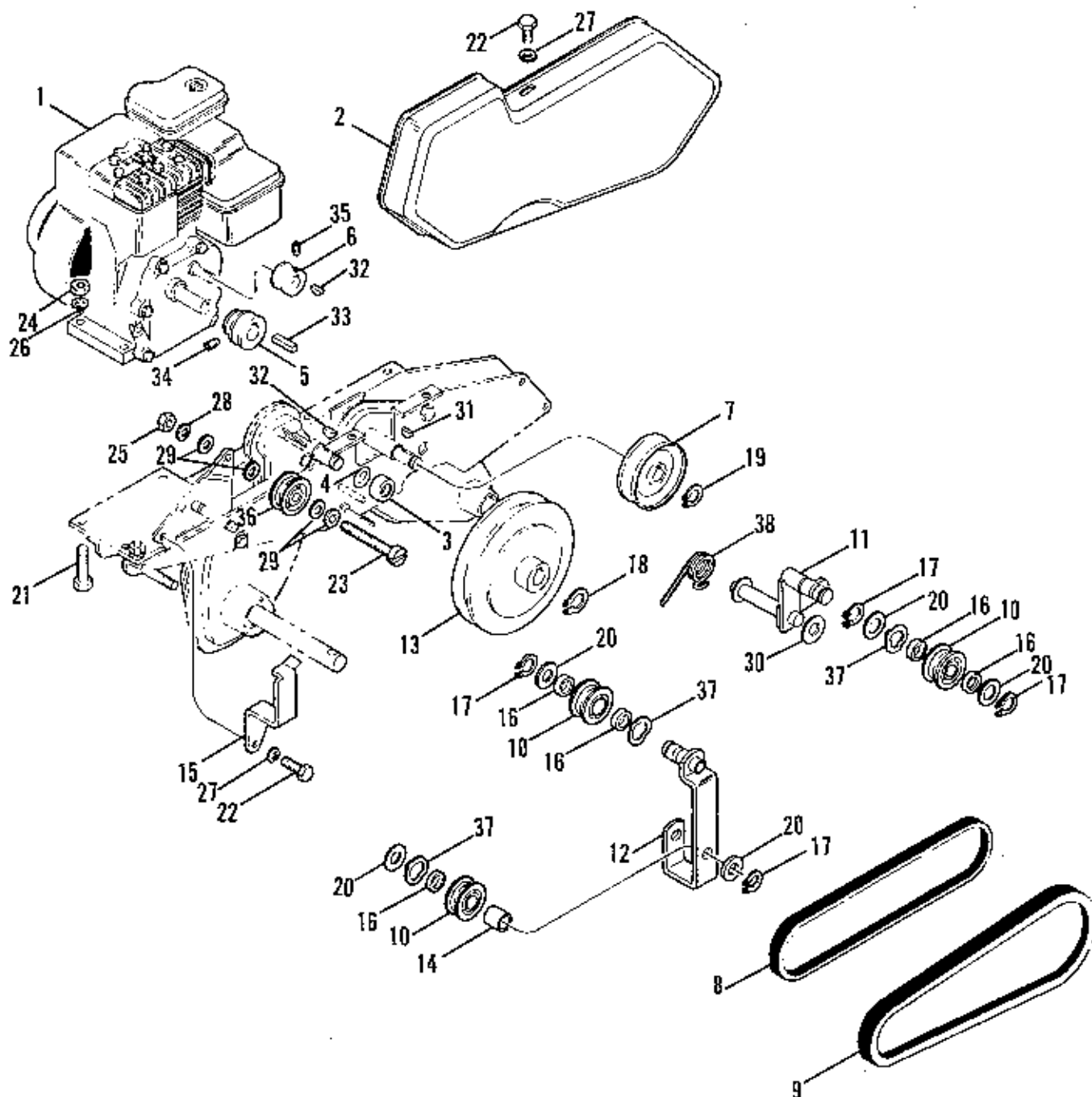
A-1354



NOTE: Use standard hardware torque spec. chart unless otherwise noted.

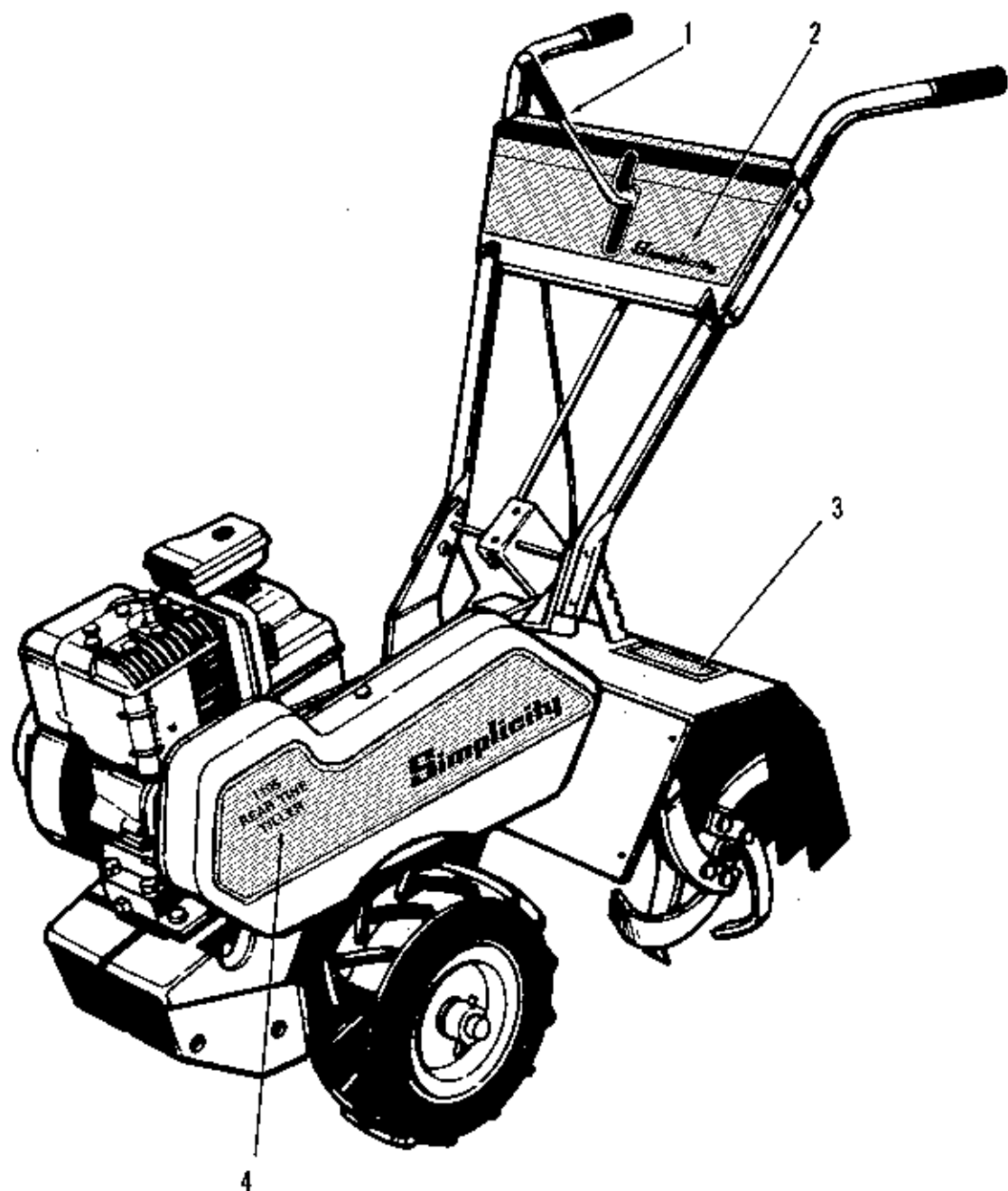
Ref. No.	Part No.	Qty.	Description
1	1671759	1	HANDLE PANEL & DECAL ASSEMBLY
2	1671760	1	HANDLE SUPPORT ASSEMBLY
3	1671761	1	CONTROL LINK
4	1671762	1	CLUTCH HANDLE ASSEMBLY
5	1671763	1	CLEVIS PIN
6	1671764	1	RUBBER SPACER
7	1671765	1	KNOB
8	1671767	1	HANDLE TUBE - L.H.
9	1671768	1	HANDLE TUBE - R.H.
10	1671918	2	SPRING CLIP
11	1671861	4	BOLT, Hex Hd., 3/8-16 x 1
12	1671768	1	BRACKET ASSEMBLY
13	1671769	1	PIVOT BRACKET
14	1671770	1	THROTTLE CONTROL
15	1671771	1	SPRING
16	1671772	1	SPRING - Wheel Drive
17	1671773	1	TRUNNION
18	1671775	1	TRUNNION
19	1671774	1	TINE DRIVE LINK
20	1671776	1	REAR TINE DRIVE LINK ASSEMBLY
21	1671777	1	WHEEL DRIVE LINK
22	1671778	1	STOP COLLAR
23	1671779	1	CLEVIS PIN
24	921332	8	CAP SCREW, Hex Hd. 5/16-18 x 3/4" Plated
25	916950	4	NUT, Hex 3/8-16 Plated
26	917372	8	NUT, Hex 5/16-18 Plated
27	916602	1	NUT, Hex 3/8-24 Plated
28	936714	1	SETSCREW, Sq. Hd. Cup Pt. 1/4-28 x 1/4" Plated
29	916965	5	WASHER, Spring Lock 3/8 Plated
30	917356	12	WASHER, Spring Lock 5/16 Plated
31	156065	5	WASHER, Flat SAE 3/8 Plated
32	918447	5	PIN, Cotter 3/32 x 3/4" Plated
33	918451	1	PIN, Cotter 1/8 x 3/4" Plated
34	919180	1	PIN, Roll 1/8 x 5/8" Heat Treated
35	1671780	2	GRIP
36	922127	4	CAP SCREW, Hex Hd. 5/16-18 x 1-3/4" Plated
37	919326	2	WASHER, Flat SAE 5/16 Plated
38	1672021	1	CABLE CLAMP
39	923362	4	NUT, Cone Lock, 5/16-18 Plated

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NOTE: Use standard hardware torque spec. chart unless otherwise noted.




Ref. No.	Part No.	Qty.	Description
1		1	ENGINE - 5 H.P. B & S Model 130292 (See engine ID plate for type)
2	1671782	1	BELT GUARD
3	1671783	1	SEAL CUP
4	1671784	1	O-RING
5	1671785	1	ENGINE PULLEY
6	1671786	1	CAMSHAFT PULLEY
7	1671787	1	PULLEY ASSEMBLY - Tines
8	1671788	1	TRACTION DRIVE BELT
9	1671789	1	TINE DRIVE BELT
10	1671921	3	IDLER PULLEY ASSEMBLY
11	1671929	1	ROCKER ASSEMBLY
12	1671928	1	IDLER ARM ASSEMBLY
13	1671924	1	PULLEY ASSEMBLY - Traction
14	1671926	1	SPACER - Idler
15	1671923	1	BELT GUIDE
16	1671922	5	SPACER
17	1671919	4	RETAINING RING
18	1671925	1	RETAINING RING
19	1671927	1	RETAINING RING
20	1671920	3-7	WASHER
21	921221	4	CAP SCREW, Hex Hd. 5/16-18 x 1-1/2" Plated
22	921958	4	CAP SCREW, Hex Hd. 1/4-20 x 1/2" Plated
23	936715	1	MACHINE SCREW, Slotted Rd. Hd. 3/8-16 x 1-3/4" Plated
24	917372	4	NUT, Hex 5/16-18 Plated
25	916950	1	NUT, Hex 3/8-16
26	917356	4	WASHER, Spring Lock 5/16 Plated
27	916964	4	WASHER, Spring Lock 1/4 Plated
28	916965	1	WASHER, Spring Lock 3/8
29	156065	4	WASHER, Flat SAE 3/8 Plated
30	154325	1	WASHER, Flat SAE 1/2 Plated
31	905123	1	KEY, Woodruff 3/16 x 3/4"
32	905121	2	KEY, Woodruff 1/8 x 5/8
33	905850	1	KEY, Square 3/16 x 3/16 x 1"
34	928691	2	SETSCREW, Hex Socket Hd. Cup Pl. 5/16-18 x 5/16" Heat Treated
35	905759	2	SETSCREW, Hex Socket Hd. Cup Pt. 1/4-20 x 1/4" Heat Treated
36	1671997	1	PULLEY - Idler
37	1671998	3	WAVE WASHER
38	1671999	1	SPRING - Torsion



Ref. No.	Part No.	Qty.	Description
1	1671947	1	DECAL, Throttle Control
2	1673934	1	DECAL, Shift Panel
3	1671949	1	DECAL, Tine Shield
4	1673933	1	DECAL, Belt Guard
*5	1673932	1	DECAL, Warning, Place Control in Neutral Before Starting
*6	1673929	1	DECAL, Adjustment, Wheel & Tine
*7	1674690	1	DECAL, 5 h.p., Composite

*Not shown.

**TORQUE SPECIFICATIONS FOR
STANDARD MACHINE HARDWARE
TOLERANCE $\pm 20\%$**

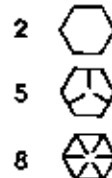
SIZE	SAE GRADE #2		SAE GRADE #5		SAE GRADE #8	
						
8-32	19	In. Lbs.	30	In. Lbs.	41	In. Lbs.
8-36	20	"	31	"	43	"
10-24	27	"	43	"	60	"
10-32	31	"	49	"	68	"
1/4-20	66	"	8	Ft. Lbs	12	Ft. Lbs.
1/4-28	76	"	10	"	14	"
5/16-18	11	Ft. Lbs	17	"	25	"
5/16-24	12	"	19	"	25	"
3/8-16	20	"	30	"	45	"
3/8-24	23	"	35	"	50	"
7/16-14	30	"	50	"	70	"
7/16-20	35	"	55	"	80	"
1/2-13	50	"	75	"	110	"
1/2-20	55	"	90	"	120	"
9/16-12	65	"	110	"	150	"
9/16-18	75	"	120	"	170	"
5/8-11	90	"	150	"	220	"
5/8-18	100	"	180	"	240	"
3/4-10	160	"	260	"	386	"
3/4-16	180	"	300	"	420	"
7/8-9	140	"	400	"	600	"
7/8-14	155	"	440	"	660	"
1-8	220	"	580	"	900	"
1-12	240	"	640	"	1,000	"

NOTE:

1. These torque values are to be used for all Simplicity hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
2. Recommended seating torque values for locknuts:
 - a. For prevailing torque locknuts - use 65% of grade 5 torques.
 - b. For flange whizlock nuts (and screws) - use 135% of grade 5 torques.
3. Unless otherwise noted on assembly drawings all torque values must meet this specification.

BOLT HEAD MARKING

S.A.E. GRADE:



Simplicity Manufacturing, Inc.
500 N. Spring Street
P.O. Box 210
Port Washington, WI 53074