



Parts Manual

**PRO
Line**

Rear-tine Tiller Model
665B



IMPORTANT: READ SAFETY RULES AND INSTRUCTIONS CAREFULLY

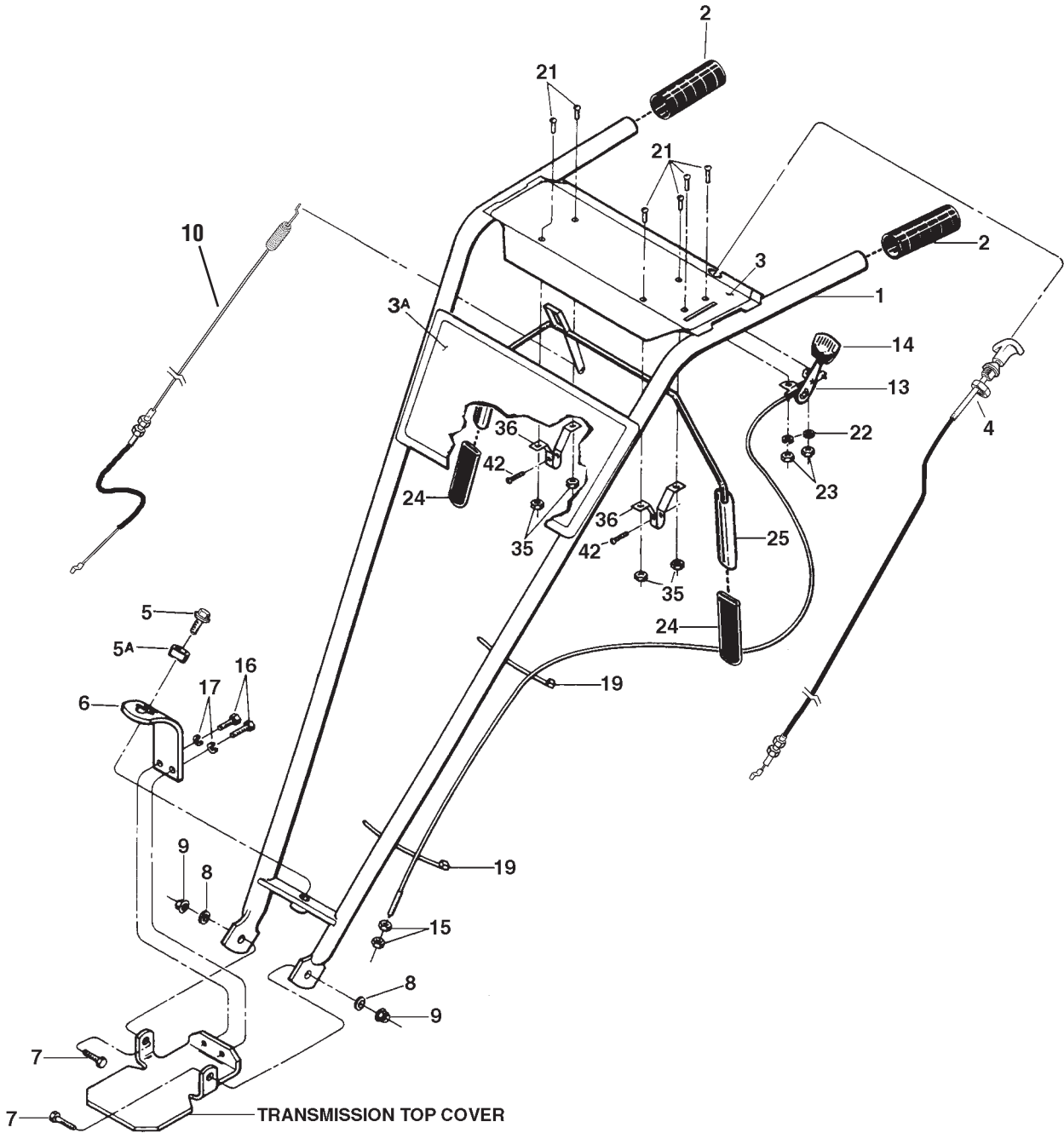
Warning: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator. In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available by contacting the service department at Troy-Bilt LLC, P.O. Box 361131 Cleveland, Ohio 44136-0019.

TROY-BILT LLC, P.O. BOX 361131, CLEVELAND, OH 44136-0019

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DRAWING NO. 1



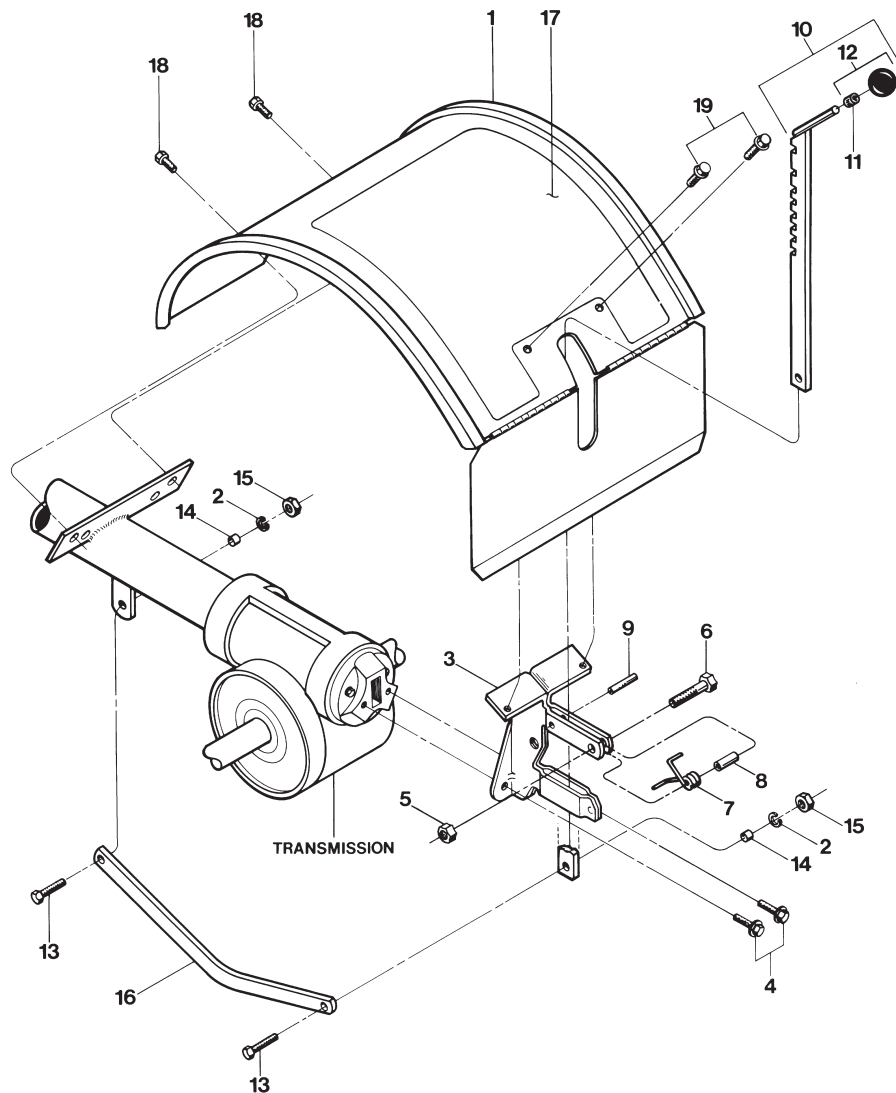
Model 665B

PARTS LIST - DRAWING NO. 1

REF No.	PART No.	DESCRIPTION	QTY.	REF No.	PART No.	DESCRIPTION	QTY.
1	1918791	Handlebars--(Incl. Refs. 2, 3 and 3A)...	1	15	1186211	Hex Nut, 5/16-24 – Wheel gear cable adjustment.....	2
2	GW-9126	Grip	2	16	710-0216	Hex Hd. Screw, 3/8-16 x 3/4*	2
3	777120939	Decal–Operator control panel	1	17	736-0169	Lockwasher, 3/8	2
3A	777D05554	Decal–Logo	1	19	725-0157	Plastic Tie	2
4	1916784	Reverse Clutch Cable Assembly.....	1	21	1114748	Round Hd. Screw, #10-32 x 1/2	6
5	1186347	Height Adjustment Flange Screw.....	1	22	1100240	Lockwasher, #10	2
5A	GW-9955	Keyed Washer.....	1	23	1186208	Hex Nut, #10-32	2
6	1900475	Bracket–Handlebar height adjust	1	24	GW-9390	Grip–Lever.....	2
7	710-0514	Hex Hd. Screw, 3/8-16 x 1*	2	25	1918840	Lever–Forward Clutch Control (Incl. two Grips, Ref. 24)	1
8	736-3050	Plain Washer (flat), 3/8, S.A.E.	2	35	GW-9853	Sems Nut.....	4
9	712-3000	Hex Locknut, 3/8-16	2	36	GW-20806	Bracket–Bail support	2
10	1918791	Cable, Forward Clutch Control	1	42	1100805	Hex Flange Screw, self-tapping, 1/4-20 x 1/2*	2
13	GW-9442	Wheel Gear Control & Cable Assy. (Incl. Refs. 14, 15, 19, 21, 22 and 23)	1				
14	GW-9057	Knob–Wheel gear control lever.....	1				

* Specify GRADE 5 if ordering part locally.

DRAWING NO. 2

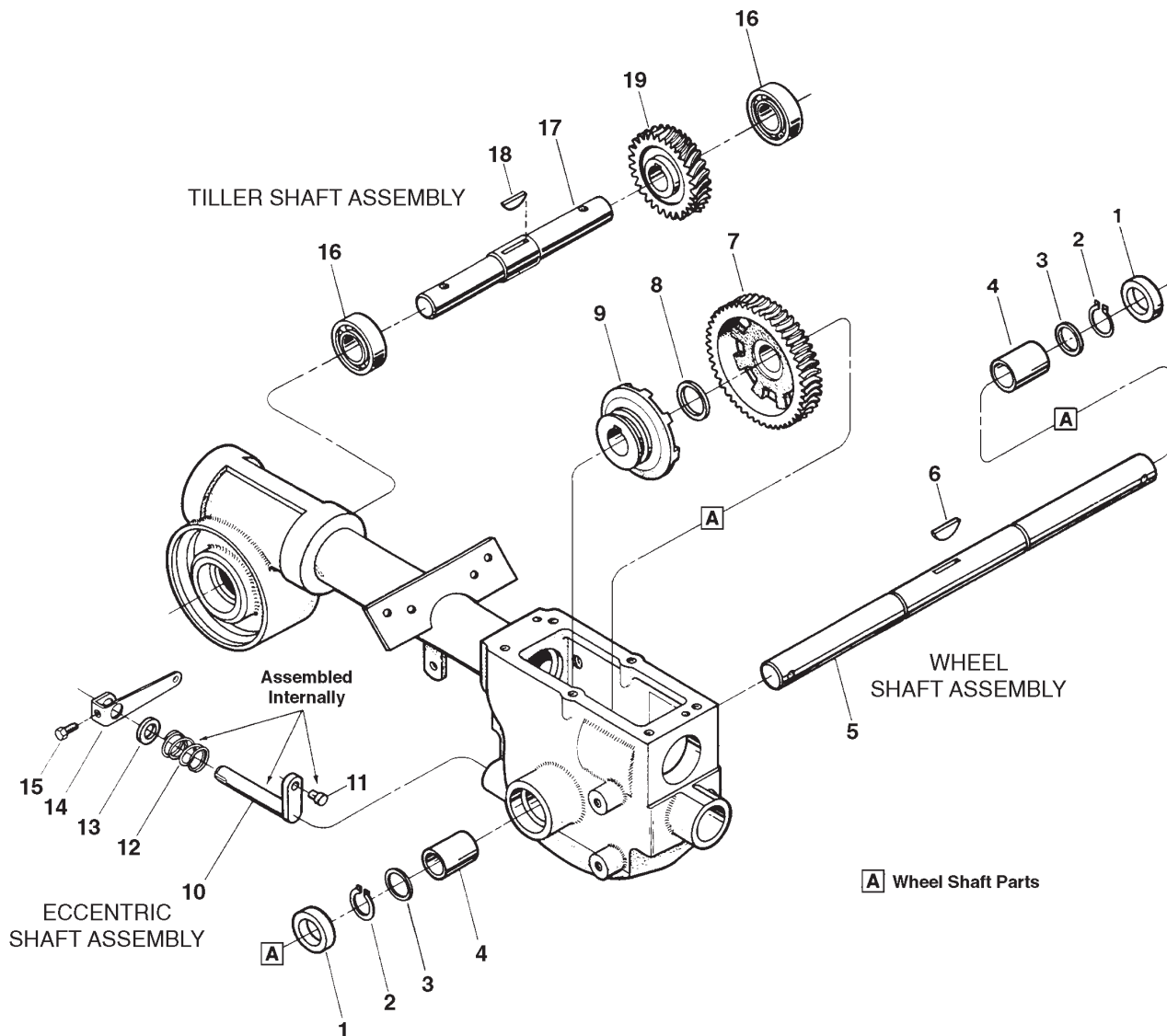


REF No.	PART No.	DESCRIPTION	QTY.
1	1917143	Hood-Tine cover, with hinged flap (Incl. Ref. 17).....	1
2	736-0169	Lockwasher, 3/8.....	2
3	GW-2527	Bracket-Hood & Depth Regulator (Incl. Ref. 9).....	1
4	1186328	Screw-flanged hex hd., 5/16-18 x 5/8*	2
5	712-0291	Hex Locknut, 1/4-20.....	1
6	710-0597	Hex Hd. Screw, 1/4-20 x 1*.....	1
7	GW-9384	Spring-Depth regulator plunger.....	1
8	GW-9534	Spacer.....	1
9	1185496	Roll Pin-1/4 x 1 (spiral).....	1
10	GW-1117A	Bar Assembly-Depth adjustment (Incl. Refs. 11 and 12).....	1

REF No.	PART No.	DESCRIPTION	QTY.
11	GW-9120	Ring-Retaining, tolerance ring.....	1
12	GW-9119	Knob-Depth regulator (Incl. Ref. 11).....	1
13	710-3005	Hex Hd. Screw, 3/8-16 x 1-1/4*.....	2
14	GW-1113-1	Bushing-Spacer.....	2
15	712-0798	Hex Nut, 3/8-16.....	2
16	GW-20775	Drag Bar.....	1
17	777S30652	Decal-Tiller operating instructions.....	1
18	GW-9553	Hex Hd. Screw, self-tapping, 5/16-18 x 1/2*.....	2
19	710-0599	Screw-flanged hex hd, self-tapping, 1/4-20 x 1/2*.....	2

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DRAWING NO. 3



REF No.	PART No.	DESCRIPTION	QTY.
1	GW-9621	Oil Seal.....	2
2	1909950	Ring-Retaining, heavy-duty, ext.....	2
3	GW-1166-1	Shim-1-1/64 I.D., .062 thick.....	A/R
---	GW-1166-2	Shim-as above, but .030 thick.....	A/R
---	GW-1166-3	Shim-as above, but .015 thick.....	A/R
---	GW-1166-4	Shim-as above, but .010 thick.....	A/R
4	GW-1086	Bushing.....	2
5	GW-2494	Wheel Shaft (axle)-Incl. Ref. 6.....	1
6	GW-9373	Key-Hi-Pro, 1/4 x 1-5/16.....	1
7	GW-20914	Gear-Wheel drive (worm gear).....	1
8	GW-9935	Shim-1.016 I.D. x 1.468 O.D. x .062 thick.....	1

REF No.	PART No.	DESCRIPTION	QTY.
9	GW-20712	Clutch-Wheel drive, cast iron.....	1
10	GW-20879	Eccentric Shaft-Wheel clutch.....	1
11	GW-1442	Pin-Eccentric shaft.....	1
12	GW-9055	Spring.....	1
13	GW-9622	Oil Seal-Eccentric shaft.....	1
14	GW-20700	Lever-Eccentric shaft.....	1
15	710-3013	Hex Hd. Screw, 1/4-20 x 1/2*.....	1
16	741-3037	Ball Bearing.....	2
17	GW-20896	Tiller Shaft-Incl. Ref. 18.....	1
18	GW-1104	Key-Woodruff, 1/4 x 1-1/4.....	1
19	GW-20913	Worm Gear-bronze, tiller drive.....	1

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A/R - As Required

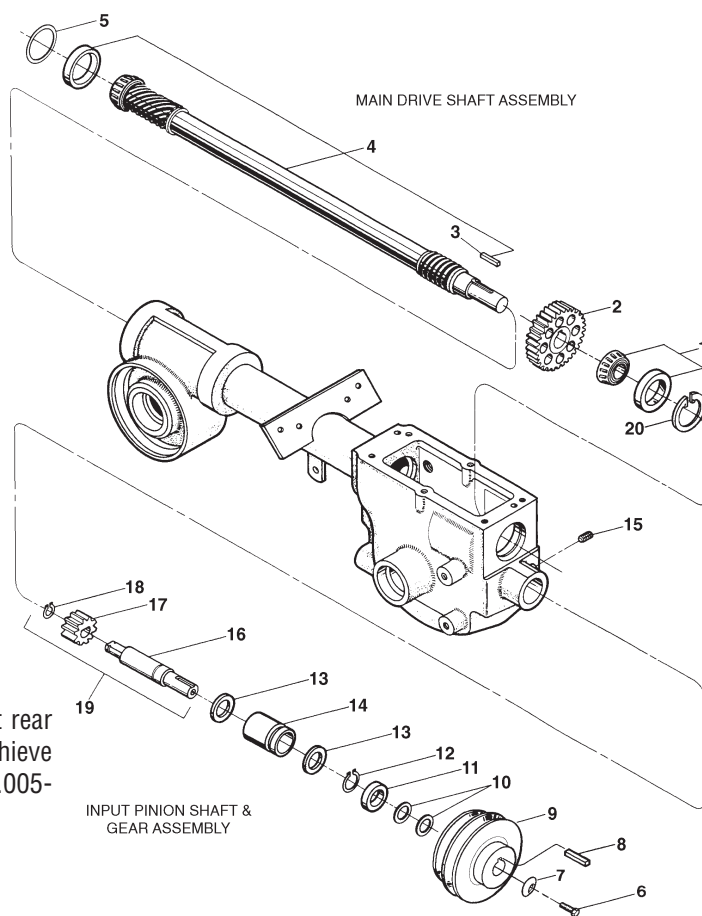
PARTS LIST - DRAWING NO. 4

REF. No.	PART No.	DESCRIPTION	QTY.	REF. No.	PART No.	DESCRIPTION	QTY.
1	**	Engine – standard recoil start	1	27	GW-20339	Guard, Belts/Pulleys	1
2	1917326	Bracket, Clutch Cable	1	28	712-3009	Hex Nut, 5/16–18	4
3	736-0119	Lockwasher–5/16.....	6	29	1186329	Hex Flange Screw, 5/16-18 x 3/4*	4
4	710-0107	Hex Hd. Screw, 5/16-24 x 1/2	2	30	1916797	Engine Support Bracket, left side	1
5	777S30651	Decal, Hot Surfaces/Belt Warning	1	31	1916796	Engine Support Bracket, right side.....	1
6	1917139	Cover (Incl. Ref. 5).....	1	35	710-0805	Hex Hd. Screw, 5/16-18 x 1-1/2.....	3
7	712-3004A	Flange Lock Nut, 5/16-18.....	2	36	777I20942	Decal, Stabilization.....	1
8	1108841	Key, 3/16 x 1-1/2	2	37	1918774	Mounting Bar	2
9	GW-1138-1	Shim	1	38	GW-90063	Hex Flange Screw, 5/16-18 x 1	2
10	1916520	Pulley, Engine Drive	1	39	710-3073	Hex Hd. Screw, 5/16-18 x 2-1/4*	2
11	GW-9944	Belleville Washer	2	40	736-0275	Flat Washer, 5/16	1
12	GW-9572	Hex Hd. Screw, 5/16-24 x 1-1/8.....	2	41	1918846	Belt Guide, Fwd Belt	2
13	710-3103	Hex Hd. Screw, 5/16-18 x 2	1	42	GW-55088	Pivot Bushing.....	2
14	1918731	Reverse Idler Arm	1	43	736-0119	Lockwasher, 5/16.....	2
15	1916535	Pulley, Reverse Idler	1	44	712-0267	Hex Nut, 5/16-18.....	2
16	1107382	Flat Washer, 5/16	2	45	1917746	Washer, Shoulder	2
17	1916725	Belt Guide, Wire Formed	1	46	1918744	Idler Arm, Forward Tiller Direction.....	1
18	710-0117	Hex Hd. Screw, 5/16-24 x 1	1	47	1767754	Screw, self tapping, #10-24	1
19	1917746	Washer, Shoulder	1	48	1916727	Spring	1
20	GW-9929	Washer, Flat, 1-1/8.....	3	49	712-3000	Hex Locknut, 5/16-18	2
21	1916728	Spring, Reverse Return.....	1	50	GW-9090	Idler Pulley, Forward	1
22	1916522	Transmission Pulley.....	1	51	710-0347	Screw, 5/16-18 x 1-3/4	1
23	GW-1440	Support Washer	1	52	712-0158	Hex Locknut, 5/16-18	1
24	1918812	Reverse Clutch Belt	1	53	1754128	Screw, 1/4-20 x 3/4	1
25	1909404	Forward Clutch Belt.....	1	54	736-0463	Flat Washer–1/4	1
26	1900396	Self-tapping. Screw, #10-32 x 1/2	4				

* Specify GRADE 5 if ordering part locally.

** See your local authorized engine service dealer for engine parts or service. Refer to engine nameplate for engine type and code information.

DRAWING NO. 5



NOTE 1—Shim between drive shaft rear bearing and rear bearing cap to achieve 5-to-10 thousandths of an inch (.005-.010) end play on drive shaft.

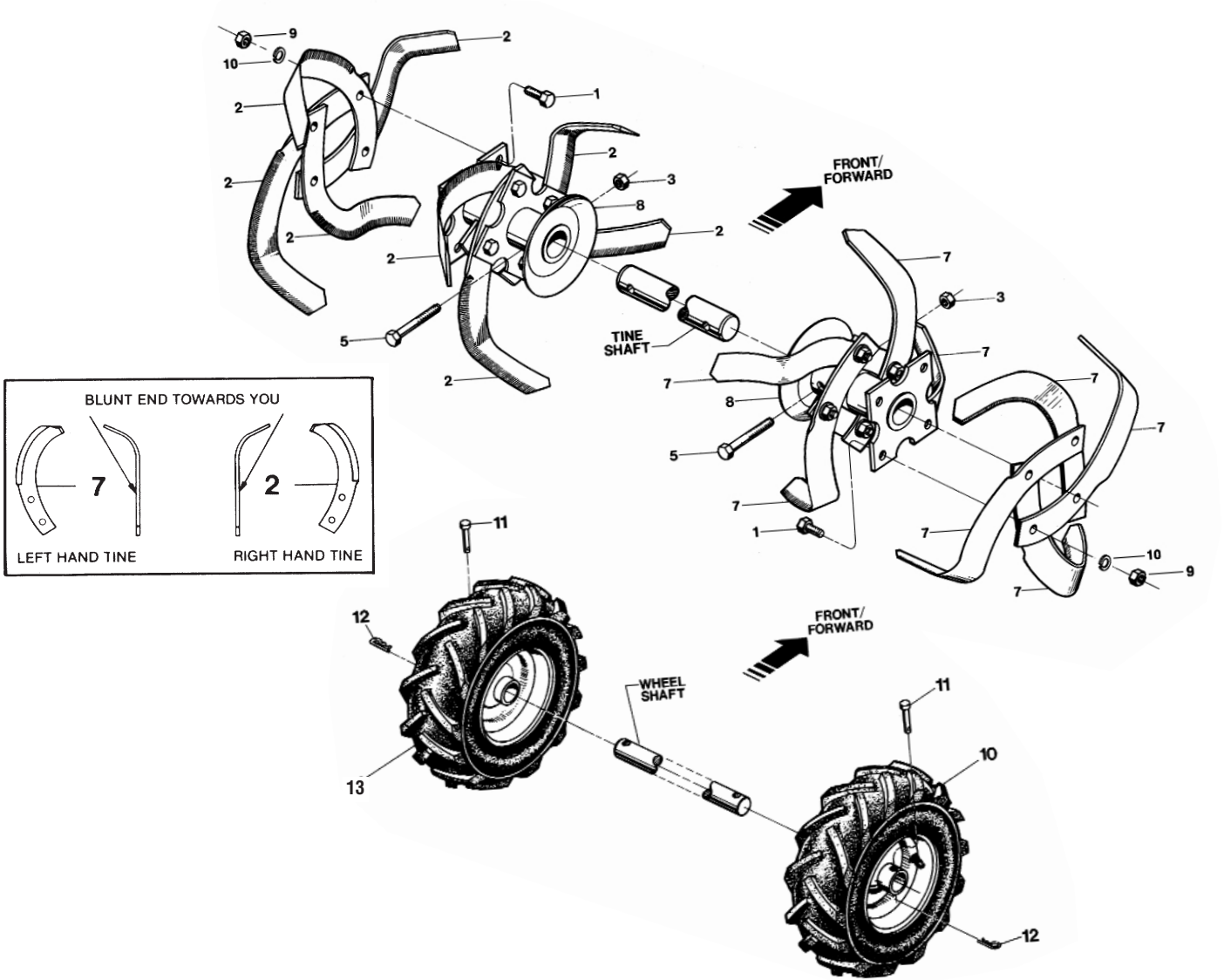
REF No.	PART No.	DESCRIPTION	QTY.
MAIN DRIVE SHAFT ASSEMBLY			
1	GW-1714	Bearing—Tapered roller with race	1
2	GW-20718	Gear—Spur, main drive shaft	1
3	GW-9301	Key, 3/16 sq. x 1	1
4	GW-11603	Drive Shaft—with integral, single-lead worm at front and six-lead worm at rear (includes pressed-on #1714 rear roller bearing, race for bearing and #9301 key)	1
5	GW-1224-1	Shim—Rear bearing cap, .010 thick (see Note 1)	A/R
5	GW-1224-2	Shim—same as above, but .030 thick (see Note 1)	A/R
5	GW-1224-3	Shim—same as above, but .005 thick (see Note 1)	A/R
...	GW-1325C	Shim Set—includes the following shims: two 1224-1; two 1224-2; one #1224-3	A/R

REF No.	PART No.	DESCRIPTION	QTY.
INPUT PINION SHAFT & GEAR ASSEMBLY			
6	GW-9572	Hex Hd. Screw, 5/16-24 x 1-1/8*	1
7	GW-9944	Washer—Disc spring (concave surface faces pulley).....	1
8	1108841	Key, 3/16 sq. x 1-1/2	1
9	1916522	Pulley—Transmission drive	1
10	GW-1440	Support Washer	1
11	1983622	Oil Seal—Input pinion shaft, front.....	1
12	1113527	Ring—Retaining (snap ring), external.....	1
13	GW-9953	Thrust Washer.....	2
14	GW-9428	Bushing.....	1
15	GW-9677	Set Screw, 5/16-18 x 3/8*	1
16	GW-20791	Input Pinion—steel shaft	1
17	GW-20792	Gear—Input pinion	1
18	GW-9093	Retainer—Snap ring, external	1
19	GW-20799	Pinion Assy—(Incl. one each of Ref. No.'s 16, 17 and 18	A/R
20	GW-9517	Retainer—Snap ring, internal.....	1

* Specify GRADE 5 if ordering part locally.

A/R - As Required

DRAWING NO. 6



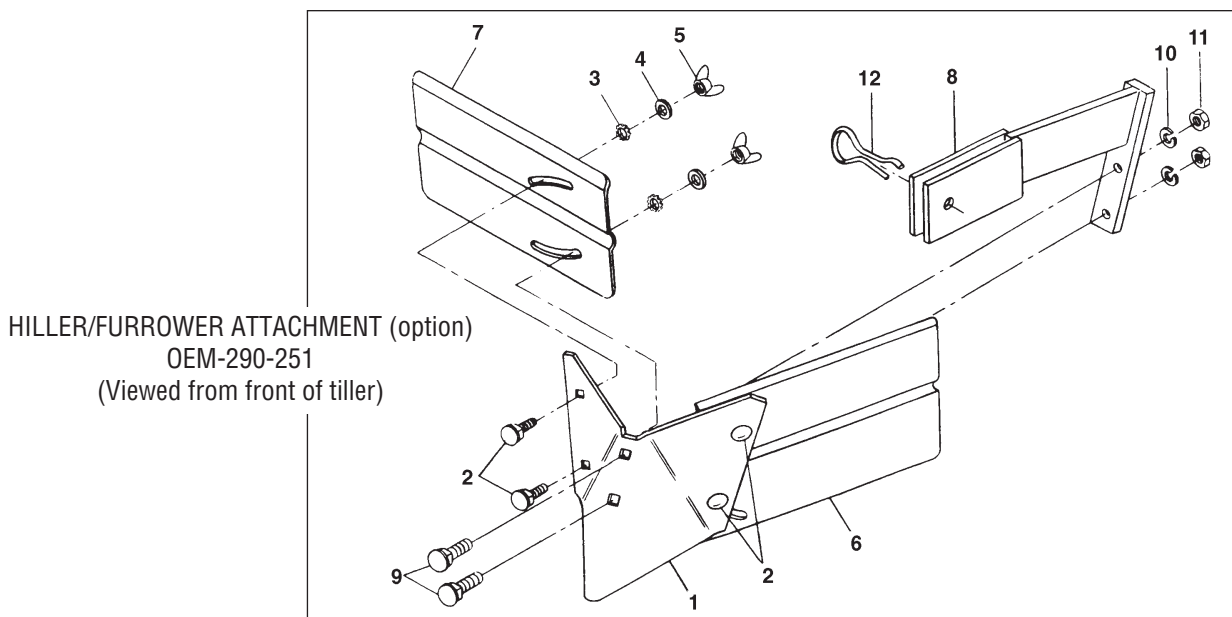
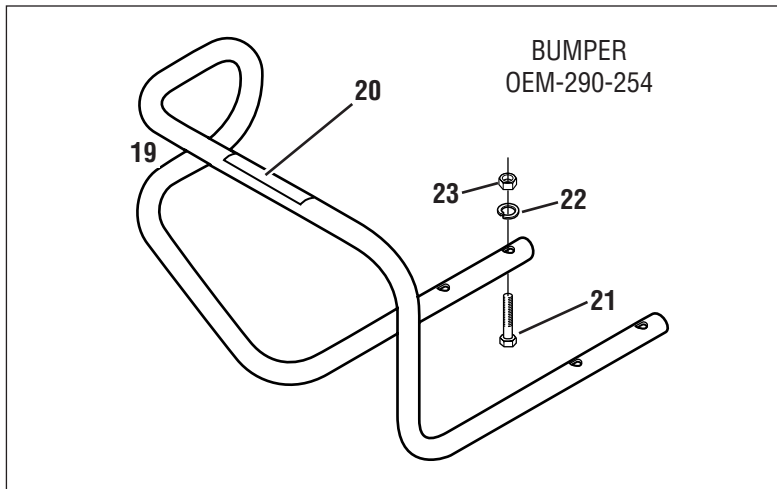
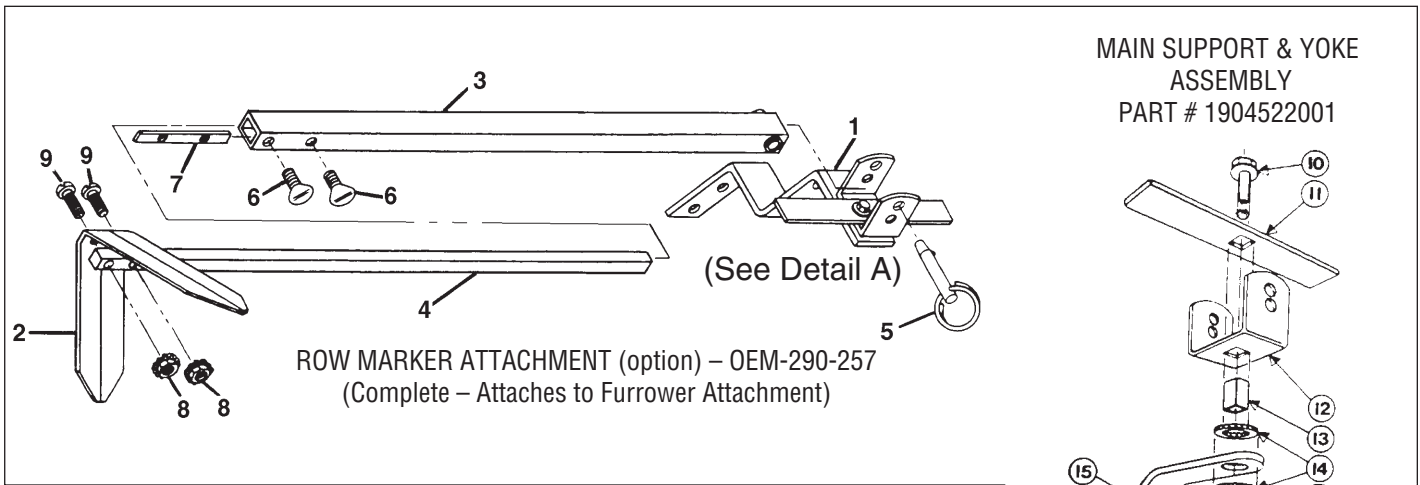
REF No.	PART No.	DESCRIPTION	QTY.
1	710-3105	Hex Hd. Screw, 3/8-16 x 1-1/4*	16
2	GW-1270-2A	Bolo Tine—single, right hand tine used on left side of tiller (Incl. two of each Ref. No.'s 1 and 3).....	8
3	712-0375	Hex Locknut, 3/8-16	2
5	710-3096	Hex Hd. Screw, 3/8-16 x 2, GRADE 8	2
7	GW-1270-1A	Bolo Tine—Single, left hand tine used on right side of tiller (Incl. two of each Ref. No.'s 1, 9 and 10).....	8
8	1902154	Tine Holder—for bolo tines, left and	

REF No.	PART No.	DESCRIPTION	QTY.
--	1901118	Replacement set of 16 Bolo Tines— includes eight each of right hand and left hand tines, and sixteen each of Ref. No.'s 1 and 3	1
9	712-3017	Hex Nut, 3/8-16	16
10	736-0139	Lock Washer, 3/8	16
11	GW-9380	Clevis Pin—.312 x 1-3/4 long	2
12	GW-9338	Hitch Pin	2
13	1917487	Wheel & Tire Assembly	2

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IMPORTANT: Left and right sides of tiller are determined by standing in the operator position and facing the direction of forward travel.

DRAWING NO. 7



PARTS LIST - DRAWING NO. 7

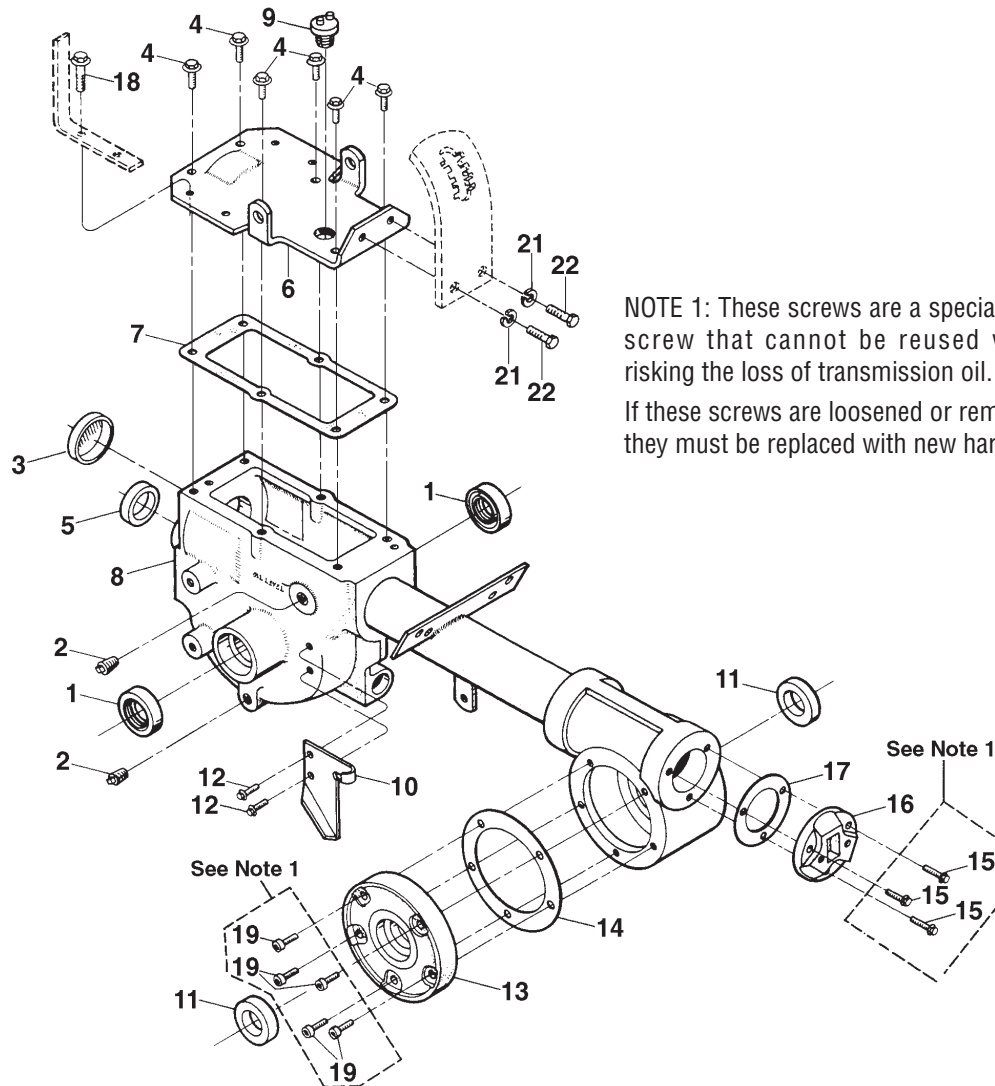
REF No.	PART No.	DESCRIPTION	QTY.
Row Marker Attachment (option) – OEM-290-257			
1	1904522	Main Support & Yoke Assy–complete. Incl. Ref. No.'s 10,11,12,13,14,15,16,17 & 18	1
2	GW-1594	Marker Blade–blade only	1
3	1904524	Marker Arm–main arm	1
4	1904523	Marker Arm–extension arm with stop pin	1
5	GW-9347	Hitch Pin–(incl. in Hardware Pkg #GW-1837).....	1
6	GW-9786	Thumbscrew–1/4-20 x 1/2, not avail. sep. (see hardware pkg. #GW-1837).....	2
7	GW-1596	Nut Bar–(incl. in hardware pkg #GW-1837).....	1
8	GW-9828	Nut–hex, 10-24 w/attached start washers, not avail. sep. (see hardware pkg #GW-1837)	2
9	1100135	Screw–round hd.,10-24 x 1, not avail. sep. (see hardware pkg #GW-1837).....	2
---	GW-1837	Hardware Package–includes: one #GW-9347 hitch pin (Ref. 5), two #GW-9786 thumbscrews (Ref. 6), one #GW-1596 nut bar (Ref. 7), two #GW-9828 hex nuts (Ref. 8), two 1100135 screws (Ref. 9)	1

REF No.	PART No.	DESCRIPTION	QTY.
Row Marker Main Support & Yoke Assembly – Part #1904522001			
10	1186349	Screw–hex flanged locking, 3/8-16 x 1-1/2*	1
11	GW-1593	Stop Bar	1
12	GW-1592	Yoke	1
13	GW-1591	Tube Key–square.....	1
14	GW-1590	Washer–friction.....	2
15	GW-1588	Main Support	1
16	GW-1589	Washer–square hole.....	1
17	GW-9925	Washer–disc spring	1
18	1186231	Nut–hex 3/8-16	1
Bumper – OEM-290-254			
19	1918749	Bumper (includes Ref. 20)	1
20	GW-1448	Decal - Caution.....	1
21	710-3073	Screw–hex hd., 5/16-18 x 2-1/4*, not avail. separately (order #1918781 hardware kit) ..	4
22	736-0119	Lockwasher–5/16*, not avail. separately (order #1918781 hardware kit)	4
23	712-0267	Nut–hex, 5/16-18*, not avail. separately (order #1918781 hardware kit)	4
---	1918781	Hardware Kit: Incl. four each of Refs. 21, 22 and 23	1
Hiller/Furrower Attachment (option) – OEM-290-251			
1	1900771	Furrower–blade only	1
2	1186098	Carriage Screw–5/16-18 x 3/4	4
3	1177548	Star Washer–external tooth, 5/16.....	4
4	GW-9902	Plain Washer–5/16 S.A.E.	4
5	GW-9824	Wing Nut–5/16-18	4
6	1900773	Hiller Wing–left	1
7	1900774	Hiller Wing–right	1
8	1900772	Bracket–blade mounting	1
9	GW-9725	Carriage Screw–blade mounting, 3/8-16 x 1-1/2	2
10	1100243	Lockwasher–3/8, plated	2
11	1186231	Nut–hex, 3/8-16, plated	2
12	GW-9318	Pin–clinch	1

Note: Common hardware listed above as “not available separately” can be found at most hardware stores.

* Specify GRADE 5 if ordering part locally.

DRAWING NO. 8



NOTE 1: These screws are a special sealing screw that cannot be reused without risking the loss of transmission oil. If these screws are loosened or removed, they must be replaced with new hardware.

REF No.	PART No.	DESCRIPTION	QTY.	REF No.	PART No.	DESCRIPTION	QTY.
1	GW-9621	Oil Seal—double lip, wheel shaft.....	2	11	GW-97073	Oil Seal—tiller shaft.....	2
2	1105620	Pipe Plug, 1/4.....	2	12	1186328	Screw—flanged hex hd., 5/16-18 x 5/8*.....	2
3	721-04001	Seal—Transmission bore.....	1	13	GW-20873	Cover—tiller housing, left-side.....	1
4	1186329	Screw—flanged hex hd., 5/16-18 x 3/4*.....	6	14	GW-1129-1	Gasket—tiller housing cover, .010.....	A/R
5	1983632	Oil Seal—input pinion shaft.....	1	15	GW-1915089	Screw Kit: includes three (3) 1/4-20 x 7/8 self-sealing screws.....	A/R
6	GW-11513	Cover—Top of transmission (incl. four of Ref. No. 18 and two each of Ref. No.'s 21 and 22).....	1	16	GW-1115	Cap—Rear bearing.....	1
7	GW-20694	Gasket—Transmission top cover.....	1	17	GW-1124-2	Gasket—Rear bearing cap, .010 thick.....	A/R
8	GW-20893	Transmission case, tube and rear housing assembly.....	1	18	GW-90063	Screw—flanged hex hd., 5/16-18 x 1*.....	4
9	GW-9467	Plug—gear oil fill hole.....	1	19	1915087	Screw Kit: includes five (5) 1/4-20 x 5/8 self-sealing screws.....	A/R
10	GW-20889	Plate—wheel drive cable mounting.....	1	21	736-0169	Lockwasher, 3/8.....	2
				22	710-0216	Hex Hd. Screw, 3/8-16 x 3/4*.....	2

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A/R – As Required

NOTES
