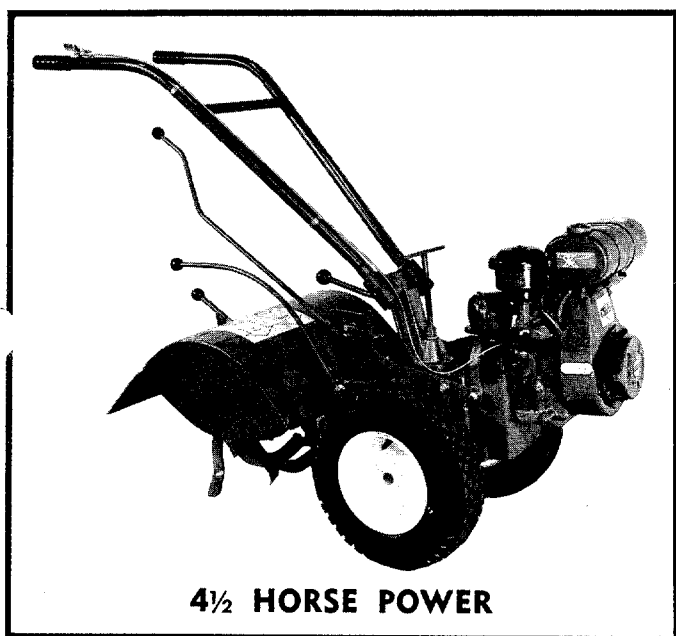


MASTER PARTS CATALOG

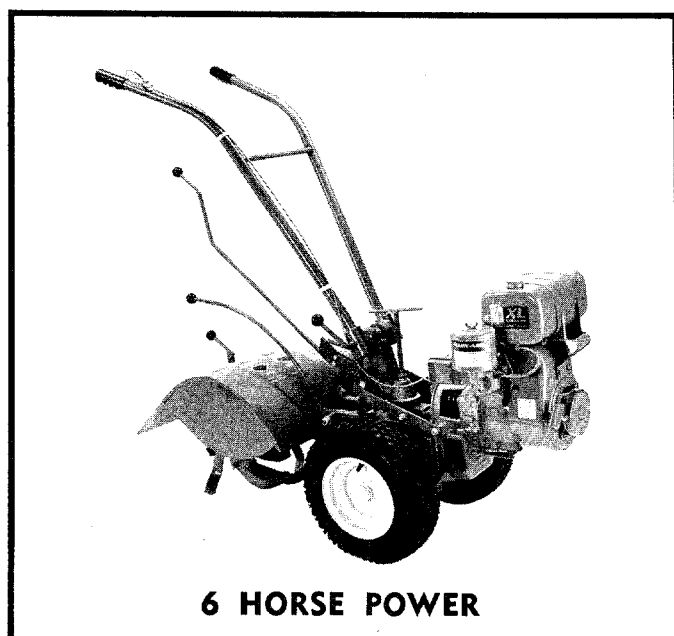
for the

HORSE MODEL

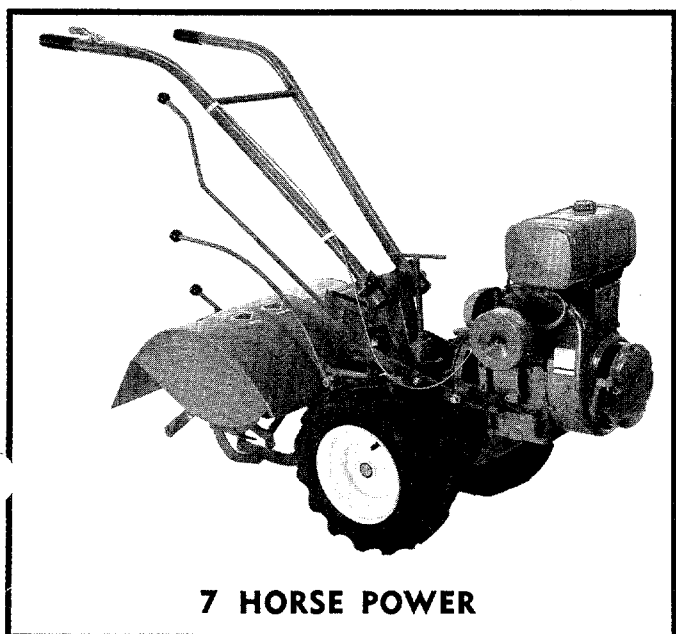
TROY-BILT® Roto Tiller-Power Composter



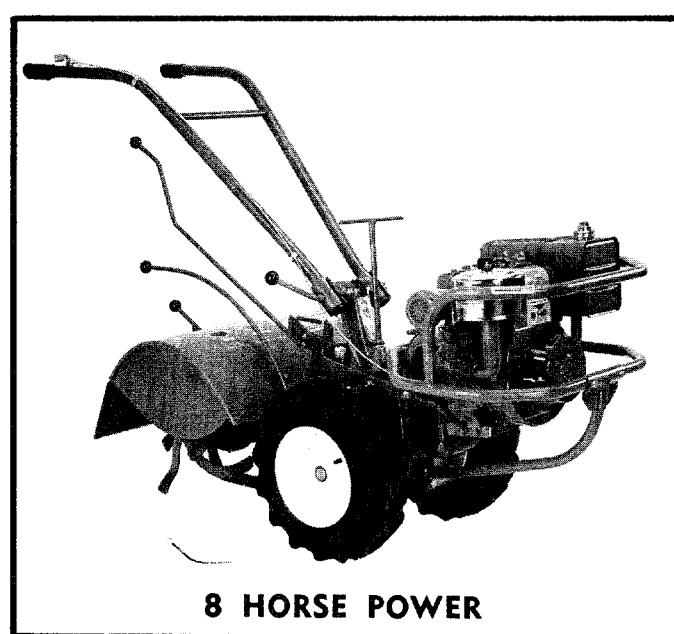
4½ HORSE POWER



6 HORSE POWER

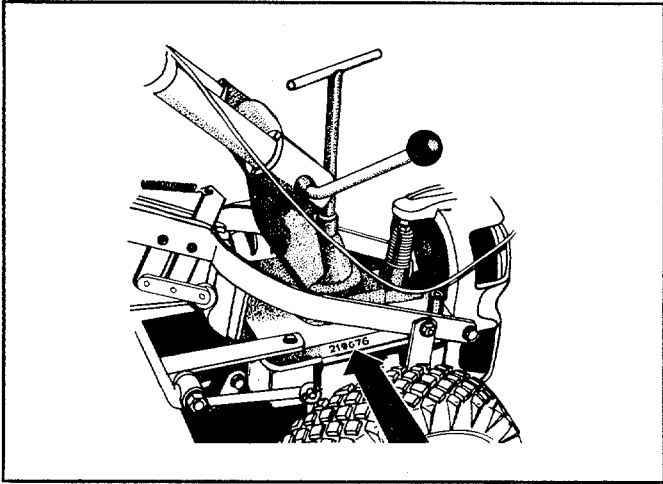


7 HORSE POWER



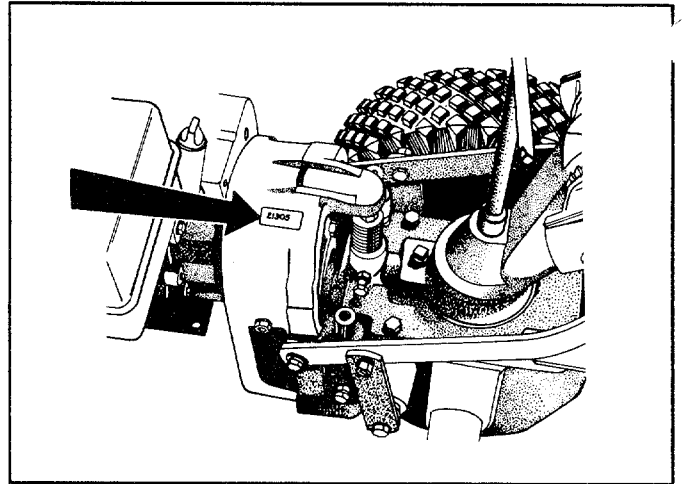
8 HORSE POWER

How To Find Your Tiller's Serial Number



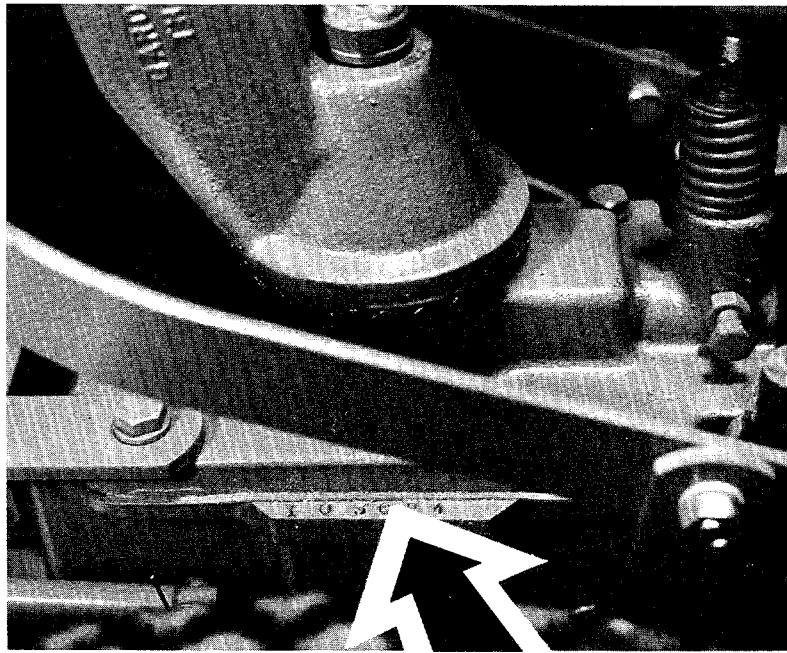
LOOK HERE

On Tillers shipped after 7/5/71, look on the Transmission Case, Part No. 1000, right side above wheel axle.



OR HERE

On Tillers shipped on or before 7/5/71, look on Motor Mount, Part No. 1002, top left.



Here's A Closeup Look . . . at the tiller serial number on the transmission case, about 4½ inches above the wheel axle on the right side.

(RECORD YOUR TILLER SERIAL NUMBER HERE)

EXPLANATION OF "RIGHT HAND" & "LEFT HAND"

Right Hand or Left Hand are determined by standing in the operator position and facing the direction of forward travel.

How To Order Tiller Parts

To order replacement parts for your tiller, look up the Part No. in this Catalog. Then call or write our Parts Department, giving your tiller's Serial No., the Part No., and the quantity desired. Pre-payment is not necessary unless the total order is a substantial amount.

All engine parts should be ordered from your local authorized engine dealer as we do not stock engine parts. Also, there is a \$3.00 minimum charge for tiller parts (non-engine parts), plus postage. Therefore, if you need just a common bolt or washer, you'll save money by obtaining that part locally.

IN THE U.S.A.

GARDEN WAY MANUFACTURING COMPANY
102nd St. & 9th Ave., Troy, NY 12180
call Toll-Free: 1-800-833-6990

IN CANADA

1515 Matheson Blvd. E., Unit B11, Mississauga, Ontario L4W 2P5
call Toll-Free: 1-800-225-3585

PLEASE NOTE

Illustrations used in this Catalog do not necessarily show the exact shapes and relative sizes of tiller parts and attachments. These illustrations should be used only as a helpful guide to identify the basic shape of the part or attachment, and its location in relation to other parts or attachments.

By the same token, a few special parts that we must purchase rather than manufacture ourselves, may vary slightly in shape, color, or texture from the original part. This is due to the fact that certain parts are supplied to us by more than one manufacturer. Please be assured, however, that all of these special parts must conform to our rigid quality specifications, and any slight variations will not affect the fit or performance of these parts.

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Helpful Information

FOR USERS OF THE HORSE MODEL MASTER PARTS CATALOG

This Master Parts Catalog only covers the Horse Model TROY-BILT Roto Tiller-Power Composter, built by Garden Way Manufacturing Co. THE CATALOG REPLACES ALL OTHER HORSE MODEL PARTS LISTS PREVIOUSLY ISSUED.

Garden Way Manufacturing Co. will always pay careful attention to every parts order or service request. This catalog is a part of our policy of "Trying to be of genuine service to our customers." Please look it over occasionally and get to know it. We think it will be of help to you.

If you have any unanswered questions, please write to us, or call if it is urgent. We'll give you all the help we can. Most people find our help is more than sufficient.

HOW TO USE THIS CATALOG

Below, you will see a portion of a sample page in this catalog, similar to those parts lists opposite the drawings. To find a part, locate the page number of the assembly drawing of the part you seek in the Table of Contents. Some parts may be shown on more than one drawing.

Each illustrated part has an Index Number. This Index Number appears in the first column of the parts list. The second column of the parts list shows the part number given to that particular part. The part numbers in the second column should be used to order replacement parts.

The third column of the parts list generally uses a single word to describe the part, then gives further information. Where we think it will be extra

helpful to you, we have often identified where it fits, or what it does in the assembly.

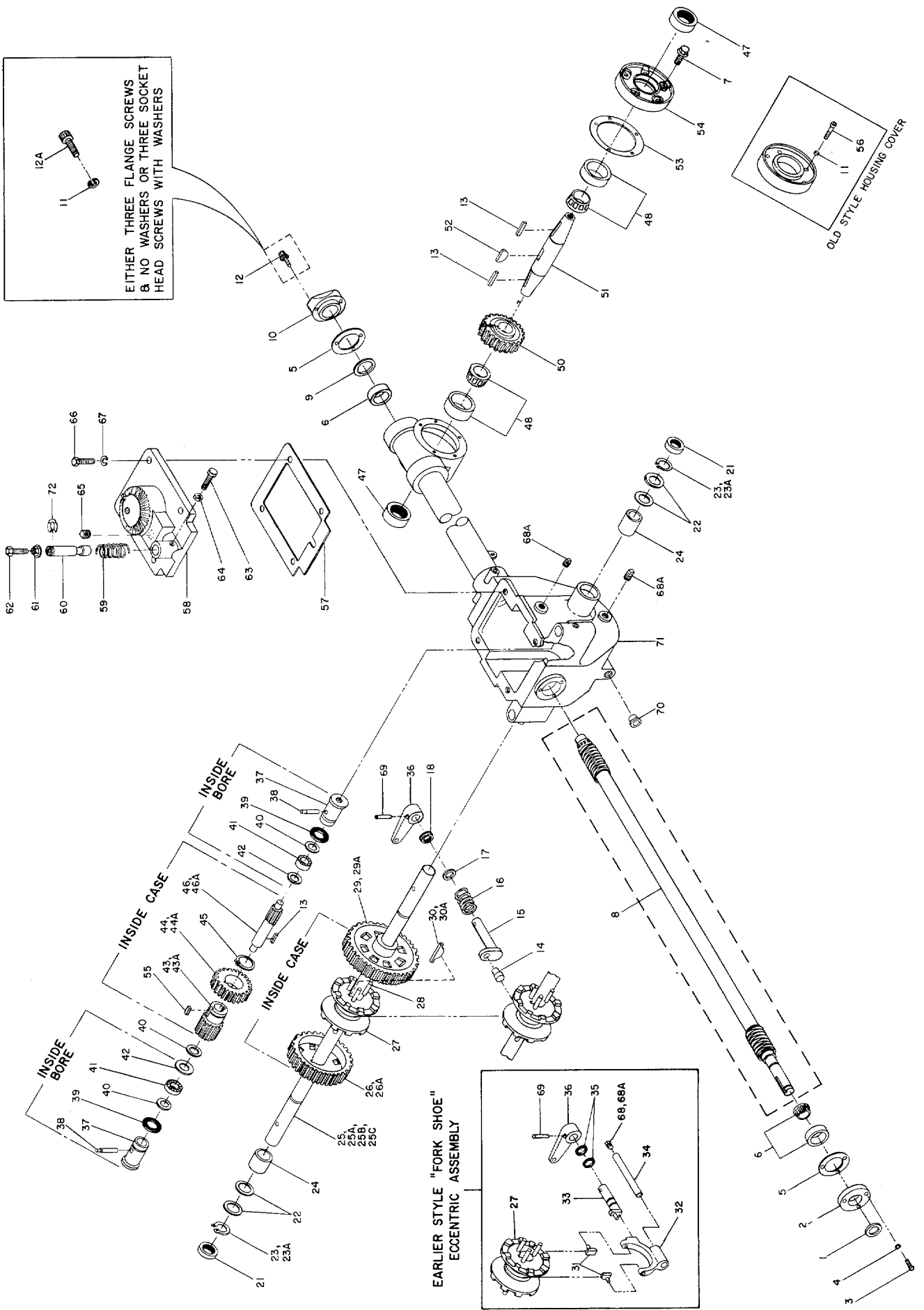
The fourth column of the parts list shows how many of each part is used in the illustrated assembly. If a part is used more than once on the tiller, you can determine how many and where by looking at the Numerical Index of parts in the back of the catalog. This shows the page and index numbers of all the assemblies using that part.

On the sample parts list page below, the last column shows whether or not a part has replaced an earlier part number. Sometimes it reflects a simple number change, or an improvement in design or materials. In these instances, parts are interchangeable unless otherwise noted. Where there are several related parts replaced in an assembly brought about by design improvements, the "REPLACES" column will refer you to a note which will list all of the parts included in that change.

On page 39 of this catalog, there is a list of Non-Current Parts that have been dropped in the course of design improvements. Many of these parts are no longer available (they are usually quite old parts). But, where you need to know what part to use in its place, the list shows a page number and an Index Number to locate the replacement part.

In the back of this catalog, is a numerical listing of part numbers. Each part number refers you to a page and an Index Number on the drawing or photo. Thus, if you know the part number but do not know its name, location, or use, the list will refer directly to the proper drawing and part description.

INDEX NO.	PART NO.	DESCRIPTION	NO. REQ'D	REPLACES
TRANSMISSION HOUSING, PLUGS & ROLL PINS				
68	9726	PLUG—pipe 1/4", oil, and clutch fork shaft Index 34	3	1130
69	9307	PIN—roll (spiral) 3/16" x 1/4" eccentric lever index 36	1	.....
70	9122	PLUG—protective plastic red, protect threads for Dozer Blade mounting bracket	1	1217



Transmission Assemblies

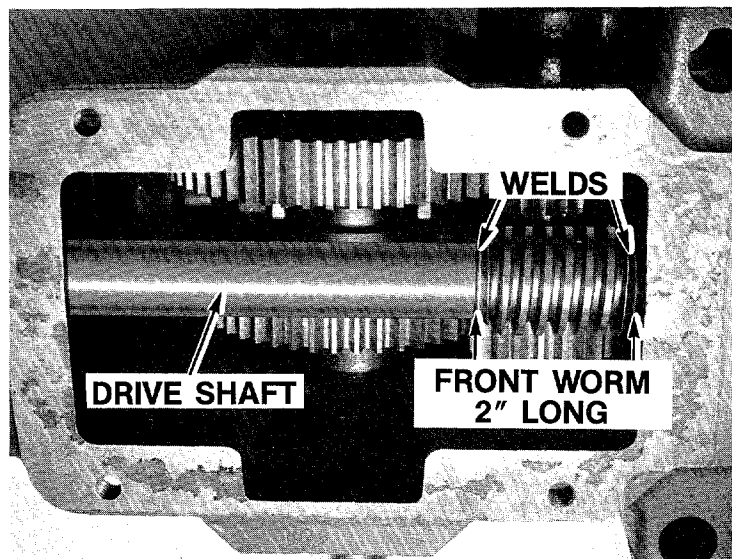
INDEX NO.	PART NO.	DESCRIPTION	NO. REQ'D	REPLACES
DRIVE SHAFT ASSEMBLY				
1	9600	SEAL—oil, drive shaft, front	1	1090
2	1114	CAP—front bearing, drive shaft	1	.....
3	9701	SCREW—hex. hd. 1/4"-20 x 3/4"	3	.....
4	9910	LOCKWASHER—1/4"	3	.....
5	1124-2	GASKET—front and rear bearing caps	2	1124
6	1714	TAPERED BEARING & CUP—cone roller bearing with cup (race), front & rear, drive shaft. Cones and cups are not available separately	2	9400, 9401
7	9780	SCREW—hex. hd., flanged, self-locking, 1/4"-20 x 5/8". Use with new-style #1872 cover (Index No. 54). Not interchangeable with #9718 screw (Index No. 56)	5	9718
8	1902	SHAFT—main drive, 3/4", welded single piece, includes front & rear worm gears and pressed-on rear cone bearing with cup. First used in tillers made on March 5, 1979. NOTE: Occasionally substituted by assembled style shaft, see Pages 8 & 9 to identify your shaft	1	1024, 1268,1550
9	1224-1	SHIM—rear bearing cap, 1 1/2" I.D., thickness 0.010"	as req'd	.....
"	1224-2	SHIM—SAME AS ABOVE, thickness 0.030"	Same	.....
"	1224-3	SHIM—SAME AS ABOVE, thickness 0.005"	Same	.....
10	1115	CAP—rear bearing	1	.....
11	9911	LOCKWASHER—Hi-collar, 1/4", use with #9718 & #9719 screws	as req'd	1209
12	9773	SCREW—hex. hd., flanged, self-locking, 1/4"-20 x 7/8" (use without lock-washer) not interchangeable with #9719 socket hd. screw	3	9719
12A	9719	SCREW—Socket hd., 1/4"-20 x 1" (use with #9911 lockwasher). Not interchangeable with #9773 flanged screw	3	1210
WHEEL SHAFT ASSEMBLY				
14	1442	PIN—clutch shifting, single pin eccentric, for Tiller Serial No. 493014 & Up	1	1094
15	1568	ECCENTRIC SHAFT—single pin assembly, for Tiller Serial No. 493014 & Up	1	1027A
16	1441	SPRING—single pin eccentric shaft, for Tiller Serial No. 493014 & Up	1	.....
17	1440	WASHER—single pin eccentric shaft, for Tiller Serial No. 493014 & Up	1	.....
18	9611	SEAL—oil, single pin eccentric, for Tiller Serial No. 493014 & Up	1	9603
21	9609	SEAL—oil, wheel shaft	2	1091, 9601
22	1166-1	SHIM—wheel shaft, 1-1/64" I.D., 0.062" (1/16") thickness	as req'd	1166
"	1166-2	SHIM—SAME AS ABOVE, 0.030" thickness	as req'd	"
"	1166-3	SHIM—SAME AS ABOVE, 0.015" thickness	as req'd	"
"	1166-4	SHIM—SAME AS ABOVE, 0.010" thickness	as req'd	"
"	1166-5	SHIM—SAME AS ABOVE, 0.005" thickness	as req'd	"
23	9511	RING—retaining (snap ring, external), wheel shaft, inside bore. Heavy-duty ring for No's. 1878 & 1879 shafts (Index No's. 25 & 25B)	2	9501, 1110
23A	9501	RING—retaining (snap ring, external), wheel shaft, inside bore. Use with No's. 1235A & 1025 shafts (Index No's. 25A & 25C)	2	1110
24	1086	BUSHING—bronze, wheel shaft bearing	2	.....
25	1878	SHAFT—wheel, 1 5/8", for tiller serial No. 31456 & Up (first used with serial No. 600009). Includes Hi-Pro Key (Index #30) and two Snap Rings (Index #23)	1	1235A, 1235, 1025
25A	1235A	SHAFT—wheel, 1 5/8", used on tiller serial No's. 31456 to 600008. No longer available, use Part #1878	1	1235, 1025
25B	1879	SHAFT—wheel, 1 7/8", for tiller serial No. 31455 & Below. Includes Hi-Pro Key (Index #30) and two Snap Rings (Index #23)	1	1025
25C	1025	SHAFT—wheel, 1 7/8", used on tiller serial No's. 31456 & Below. No longer available, use Part #1879	1	.....
26	1232	GEAR—high speed, wheel drive, used on tiller serial No. 33548 & up....	1	1005
26A	1005	GEAR—high speed, wheel drive, used on tiller serial No. 33547 & below	1	see page 10

INDEX NO.	PART NO.	DESCRIPTION	NO. REQ'D	REPLACES
WHEEL SHAFT ASSEMBLY (continued)				
27	1237	CLUTCH—wheel drive, speed change	1	1006
28	1112	PIN—clutch guide, 1/4" diameter	3	.....
29	1223	GEAR—low speed, wheel drive, used on tiller serial No. 33548 and up	1	1004
29A	1004	GEAR—low speed, wheel drive, used on tiller serial No. 33547 & below	1	see page 10
30	9357	KEY—Hi Pro, 1/4" x 1 3/4", connects wheel shaft to clutch. Heavy-duty key for No's. 1878 & 1879 shafts (Index No's. 25 & 25B)	1	9305, 1103
30A	9305	KEY—Hi Pro, 1/4" x 1", connects wheel shaft to clutch. Use with No's. 1235A & 1025 shafts (Index No's. 25A & 25C)	1	1103
31	1094	SHOE—clutch shifting fork, for Tiller Serial No. 493013 & Below	2	.....
32	1016	FORK—clutch shifting, wheel speed, for Tiller Serial No. 493013 & Below	1	.....
33	1027A	ECCENTRIC SHAFT—clutch fork, includes two "O" Rings, Index #35, for Tiller Serial No. 493013 & Below	1	1027
34	1041	SHAFT—clutch fork, for Tiller Serial No. 493013 & Below	1	.....
35	9603	"O" RING—eccentric shaft oil seal, for Tiller Serial No. 493013 & Below	2	1137
36	1029	LEVER—eccentric, wheel speed shift	1	.....
PINION SHAFT ASSEMBLY				
13	9301	KEY—3/16" square x 1"	1	1071 & 1105
37	1060A	PLUG—pinion bearing, right & left, includes "O" Ring, Index #39	2	1060
38	9309	PIN—roll (spirol) 1/4" x 2", retains #1060A plug	2	1061
39	9604	"O" RING—pinion bearing plug, oil seal	2	1062
40	1132-1	SHIM—1-1/64" I.D. & 0.033" thick, bearing	as req'd	1132
40	1132-2	SHIM—SAME AS ABOVE 0.062" thick	as req'd	1132
40	1132-3	SHIM—SAME AS ABOVE, 0.010" thick	as req'd	1132
41	9404	BEARING—pinion shaft (ball bearing)	2	1059
42	1126	WASHER—pinion shaft (two or three)	as req'd	.....
43	1233	GEAR—pinion, used on tiller No. 33548 and up, high wheel speed	1	1056
43A	1056	GEAR—pinion, used on tiller No. 33547 and below, high speed	1	see page 10
44	1221	WORM GEAR—bronze, wheel drive, used on tiller serial No. 33548 & up (for key see Index 55)	1	1057
44A	1057	WORM GEAR—bronze wheel drive, used on tiller serial No. 33547 & below (for key see Index 55)	1	see page 10
45	9502	RING—retaining (snap ring, external) Index 44 to 43	1	.....
46	1222	STEM PINION—(gear & shaft) used on tiller serial No. 33548 & up	1	1055
46A	1055	STEM PINION—(gear & shaft) used on tiller serial No. 33547 & below	1	see page 10
55	9300	KEY—3/16" square x 5/8", high speed pinion gear	1	1088
TILLER SHAFT ASSEMBLY				
13	9301	KEY—3/16" square x 1"	2	1071 & 1105
19	9911	LOCKWASHER—Hi-collar, 1 1/4", use with socket head screws	5	1209
47	9616	SEAL—oil, tiller shaft, left and right sides	2	9602, 1092
48	1715	TAPERED BEARING & CUP—Cone roller bearing with cup (race), tiller shaft, left and right sides. Cones and cups are not available separately	2	1089, 9402, 9403
50	1064	WORM GEAR—bronze, tiller shaft, must be used with #1550 or #1268 drive shafts, or #1024 drive shaft & #1063 worm.....	1	.....
51	1026A	SHAFT—tiller, includes #1104 key (Index #52)	1	1026
52	1104	KEY—tiller shaft, woodruff with ends ground	1	.....
53	1129-1	GASKET—tiller housing cover, 0.010" thick	as req'd	.....
"	1129-2	GASKET—SAME AS ABOVE, 0.030" thick	as req'd	.....
54	1872	COVER—tiller housing. New style introduced week of March 30, 1981. Comes with 5 screws, Index No. 9780. For use with all Horse Models	1	1023
56	9718	SCREW—socket hd., 1/4"-20 x 3/4", use with old-style tiller housing cover and #9911 lockwasher	5	1208

INDEX NO.	PART NO.	DESCRIPTION	NO. REQ'D	REPLACES
TRANSMISSION COVER & NEUTRAL SPRING ASSEMBLY				
57	1123	GASKET—transmission cover	1	.....
58	1003	COVER—transmission	1	.....
59	1251	SPRING—neutral plunger (REMOVE WITH CARE), use for tiller No.'s 369446 & below	1	1036
59A	1496	SPRING—neutral plunger (REMOVE WITH CARE), use for tiller No.'s 369447 & up	1	1251
60	1035	PLUNGER—neutral (includes clip ring, #9504, index 72), (REMOVE WITH CARE)	1	.....
61	9831	FLANGE NUT—hex., 3/8"-16, locknut	1	9802
62	9558	SCREW—hex. head, 3/8"-16 x 1 1/2", threaded full length	1	9712, 9713
63	9751	SCREW—hex head, 5/16"-18 x 1", grade 5, neutral plunger retainer, (REMOVE WITH CARE) see index No.'s 59 & 60	1	.....
64	9801	NUT—hex. nut 5/16"-18	1	.....
65	9727	PLUG—pipe, oil filler hole (used only on machines prior to Tiller Serial No. 38260), 3/8" square pipe plug, see Page 12, Index 7	1	.....
66	9713	BOLT—hex. head 3/8"-16 x 1 1/2" transmission cover	4	.....
67	9913	LOCKWASHER—3/8"	4	1212
TRANSMISSION HOUSING, PLUGS & ROLL PINS				
68	9727	PLUG—pipe, 3/8", clutch fork shaft. Used on Tiller Serial No.'s 222497 to 493013	1	9726
68A	9726	PLUG—pipe, 1/4", oil level and drain. Clutch fork shaft (for Tiller Serial No. 222496 & below)	3	1130
69	9307	PIN—roll (spiral), 3/16" x 1 1/4", eccentric lever, Index #36	1	.....
70	9122	PLUG—red plastic, thread protector	1	1217
71	.....	TRANSMISSION CASE, HOUSING & TUBE ASSEMBLY—without covers, shafts or gears, etc. (Call factory for service help)	1	.....
72	9504	CLIP RING—retains neutral plunger	1	.....

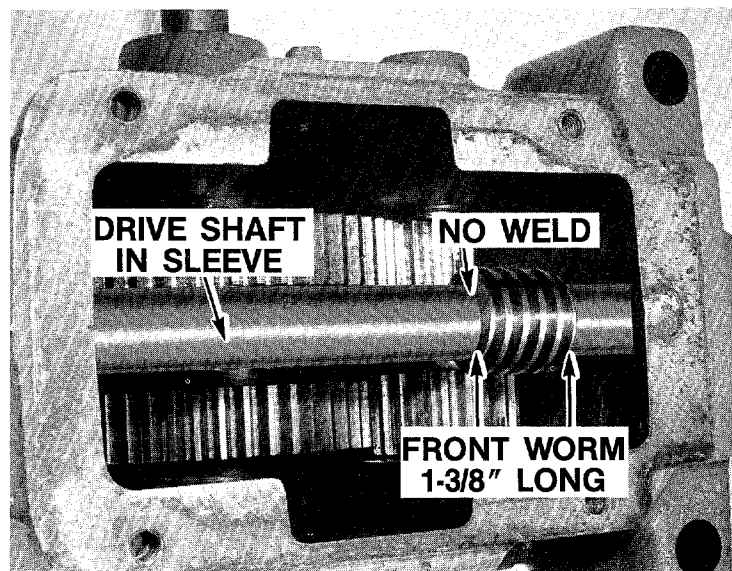
Important Information About The Main Drive Shaft On Your Tiller

Your new tiller is equipped with either the single-piece welded drive shaft shown on Page 4 (Index 8) of this catalog, or with the assembled drive shaft shown at the top of Page 9 (Index No.'s 1-9). Both style drive shafts are equal in performance and dependability, the one your tiller has depends upon materials available when your machine was produced. You'll want to know which style you have if you disassemble the transmission for repair work. Otherwise, it doesn't make much difference. During disassembly, you can easily identify which style you have by comparing your drive shaft with the ones shown below.



SINGLE PIECE WELDED DRIVE SHAFT

Shown at the left is a single piece welded drive shaft as it appears inside the transmission case (with the top cover removed). Welded drive shafts can be identified by the weld beads at both ends of the front worm, or by measuring the length (2-inches) of the worm. See Page 4, Index No. 8, for more information.



ASSEMBLED DRIVE SHAFT

If your drive shaft looks like the one at the left, then you have an assembled shaft (Part No. 1268). Note that there are no welds at the ends of the front worm, and that the worm measures just 1 $\frac{3}{8}$ -inches long. See Page 9, Index No.'s 1-9, for more information.

INDEX PART
NO. NO.

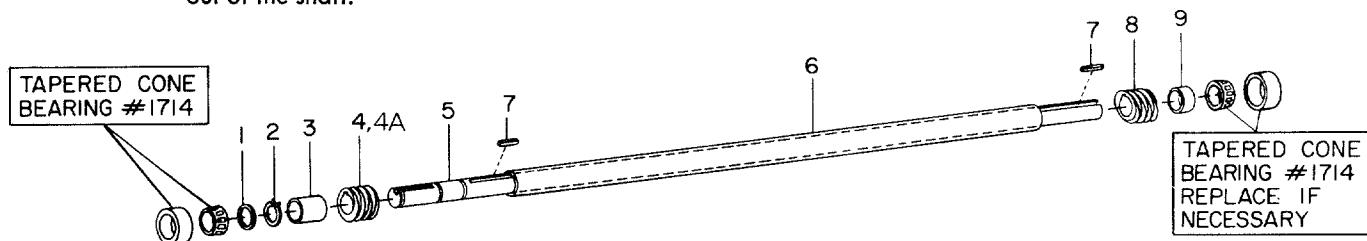
DESCRIPTION

NO.
REQ'D REPLACES

Assembled Drive Shafts

NOTE 1 —

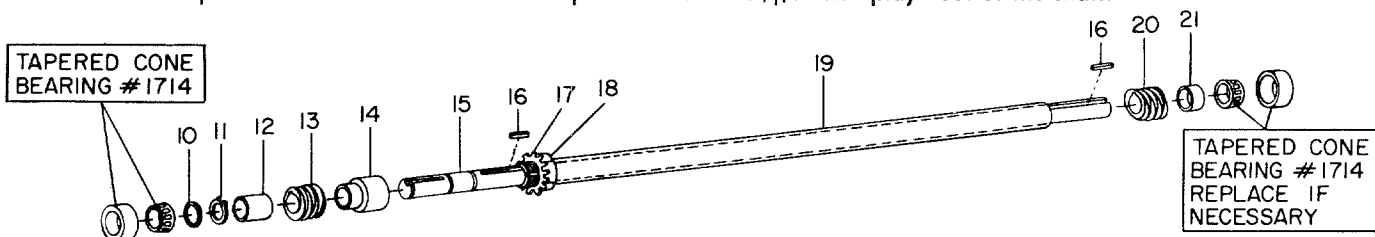
The assembled style drive shaft shown below was first used with Tiller Serial No. 14159, and is still occasionally substituted for the #1902 welded drive shaft (see Page 8 to identify your style shaft). This shaft consists of individually assembled parts (listed below), compared to the welded shaft which incorporates everything into a single unit (except the front bearing cone and cup). Shims are used at the end of the shaft to adjust "play" out of the shaft.



INDEX NO.	PART NO.	DESCRIPTION	NO. REQ'D	REPLACES
1	1138-1	SHIM—bearing front, 1/16" thickness	as req'd	
2	9500	RING—retaining (snap ring, external), drive shaft, front	1	1109
3	1065	SPACER—drive shaft, front	1	
4	1220	WORM—single lead, polished steel, drive shaft, front wheel drive	1	1058
4A	1058	WORM—double lead, polished steel, drive shaft, front wheel drive, used from earliest Horse Model tiller to Tiller Serial No. 33547	1	
5	1024	SHAFT—main drive, 3/4"	1	
6	1219	SLEEVE—spacer, separates steel worms on main drive shaft	1	1067
7	9301	KEY—3/16" square x 1"	2	
8	1063	WORM—double lead, polished steel, rear of drive shaft	1	
9	1066	SPACER—drive shaft, rear, between worm & cone bearing	1	

NOTE 2 —

Tiller Serial Numbers 14158 and below and Tiller Serial Numbers 14518 though 14717 have the drive shaft style shown below. This drive shaft uses an adjustment nut and a special lockwasher on a threaded spacer sleeve to adjust the "play" out of the shaft.



INDEX NO.	PART NO.	DESCRIPTION	NO. REQ'D	REPLACES
10	1138-1	SHIM—bearing front, 1/16" thickness	as req'd	
11	9500	RING—retaining (snap ring, external), drive shaft, front	1	1109
12	1065	SPACER—drive shaft, front	1	
13	1058	WORM—double lead, polished steel, front of drive shaft	1	
14	1070	BUSHING—thrust, spacer, drive shaft	1	
15	1024	SHAFT—main drive, 3/4"	1	
16	9301	KEY—3/16" square x 1"	2	1071 & 1105
17	1069	WASHER—fab locking, adjustment nut	1	
18	1068	NUT—drive shaft adjustment	1	
19	1067	SLEEVE—spacer, drive shaft, separates steel worms, front end threaded for adjustment	1	
20	1063	WORM—double lead, polished steel, rear of drive shaft	1	
21	1066	SPACER—drive shaft, rear, between worm & cone bearing	1	

INDEX PART
NO. NO.

DESCRIPTION

NO.
REQ'D REPLACES

Wheel Gear Combinations & Wheel-to-Tine Ratios

Beginning with tiller serial No. 33548 and those that have followed, a new high & low gear ratio is used to govern wheel speeds so that the new tillers will do an even better job of tilling in low gear and will permit light tilling in high gear. Earlier models were generally restricted to cultivating between crop rows in high gear, with all tilling accomplished in low gear.

The new gear ratio means that in low gear the tines will rotate 13½ times faster than the wheels. In high gear, the tines rotate 5½ times faster than the wheels. The tines rotate at 146 RPM in either gear. The wheel/tine ratio is changed by differing wheel speeds.

With earlier gear ratio, tines rotated 10 times faster than the wheels in low gear.

All of these figures are based on an engine speed of 3,000 RPM.

Listed below are the pinion gears, worms, worm gears, and high, low wheel gears that go with each gear ratio. Please refer to the proper gear ratio for your tiller according to the serial numbers listed below.

For a better understanding of the positions and functions of the various gears and worms, please refer to page 11.

THIRTEEN & ONE-HALF TO ONE GEAR RATIO:

Tiller Serial Numbers 33548 & Up

PLEASE NOTE:

The 1200 series of worms and gears which provide the 13½ to 1 gear ratio can be used with either the welded drive shaft or the assembled drive shaft (without the adjustment tab washer). See Index 8, Page 4 and Index 5, Page 9.

4	1220	WORM—single lead, polished steel (see page 9)	1	.....
44	1221	WORM GEAR—bronze, wheel drive (see page 4)	1	.....
46	1222	STEM PINION—gear & shaft, low speed (see page 4)	1	.....
29	1223	GEAR—low speed, wheel drive (see page 4)	1	.....
26	1232	GEAR—high speed, wheel drive (see page 4)	1	.....
43	1233	GEAR—pinion, high speed (see page 4)	1	.....

TEN TO ONE GEAR RATIO

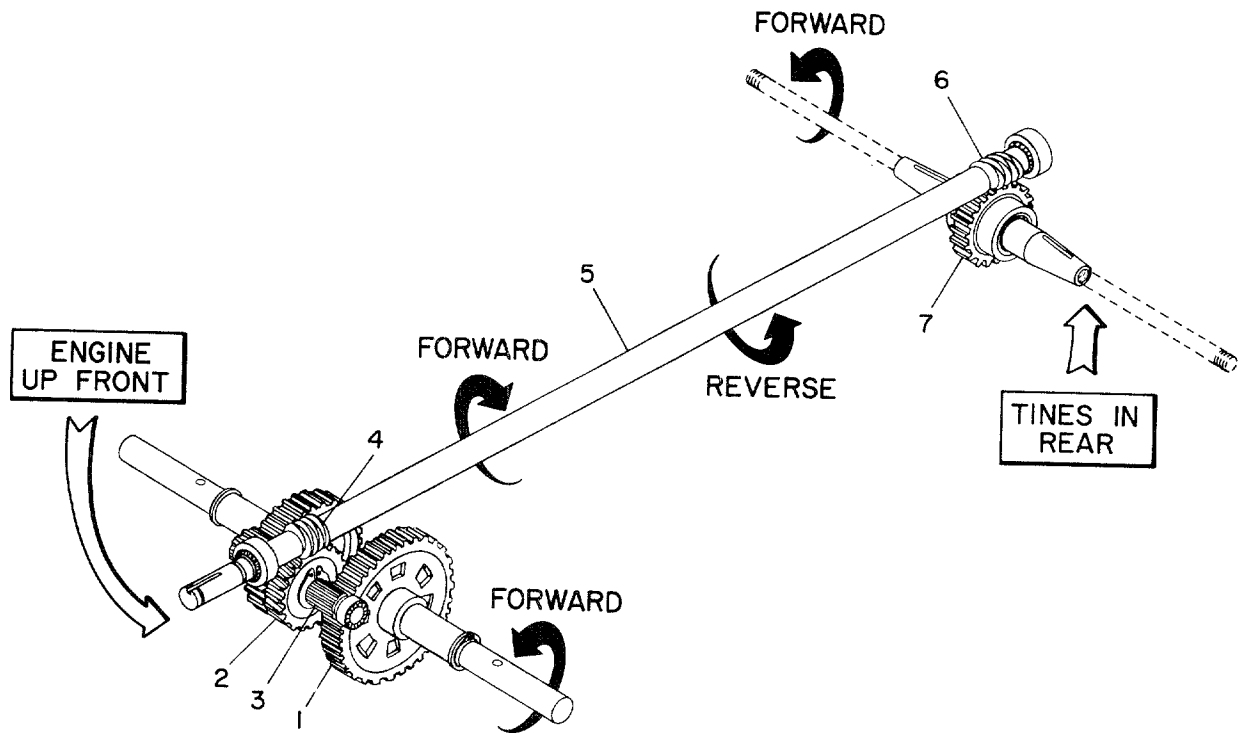
Tiller Serial Numbers 33547 & Below

(Use with #1024 drive shaft only — see Index 15, Page 9)

13	1058	WORM—two lead threads, polished steel (see page 9)	1	.....
44A	1057	WORM GEAR—bronze, wheel drive (see page 4)	1	.....
46A	1055	STEM PINION—gear & shaft, low speed (see page 4)	1	.....
29A	1004	GEAR—low speed, wheel drive (see page 4)	1	.....
26A	1005	GEAR—high speed, wheel drive (see page 4)	1	.....
43A	1056	GEAR—pinion, high speed (see page 4)	1	.....

Shafts and Gears

RELATIVE POSITIONS & FUNCTIONS



In your Troy-Bilt Roto Tiller-Power Composter, engine power is transmitted through the engine pulley by the drive belt(s), or by the reverse disc to the lower drive pulley. The belt(s) provides forward motion and the reverse disc supplies reverse motion.

When the lower pulley turns clockwise (as if you were standing in front of the engine), it turns the main drive shaft No. 5 in the same direction.

The drive shaft turns clockwise and the Bolo tines revolve in the forward direction whenever the Forward/Reverse Lever is pushed down into forward position. This alone does not turn the wheels, however. The wheel shift lever must be engaged in either Fast or Slow position for the wheels to move.

The wheel shaft assembly No. 1 includes a cast iron, larger, low speed gear in the foreground and an iron, smaller, high speed gear in the background. In between the two is a "dog" clutch which moves left and right to engage openings in the gears. Midway is the neutral or free-wheeling position. When the engine power turns the drive shaft No. 5 clockwise, the wheel gears turn in a bath of oil whether or not the clutch is engaged. How then does your Tiller turn the wheels? Let's look at the transmission of power from the engine.

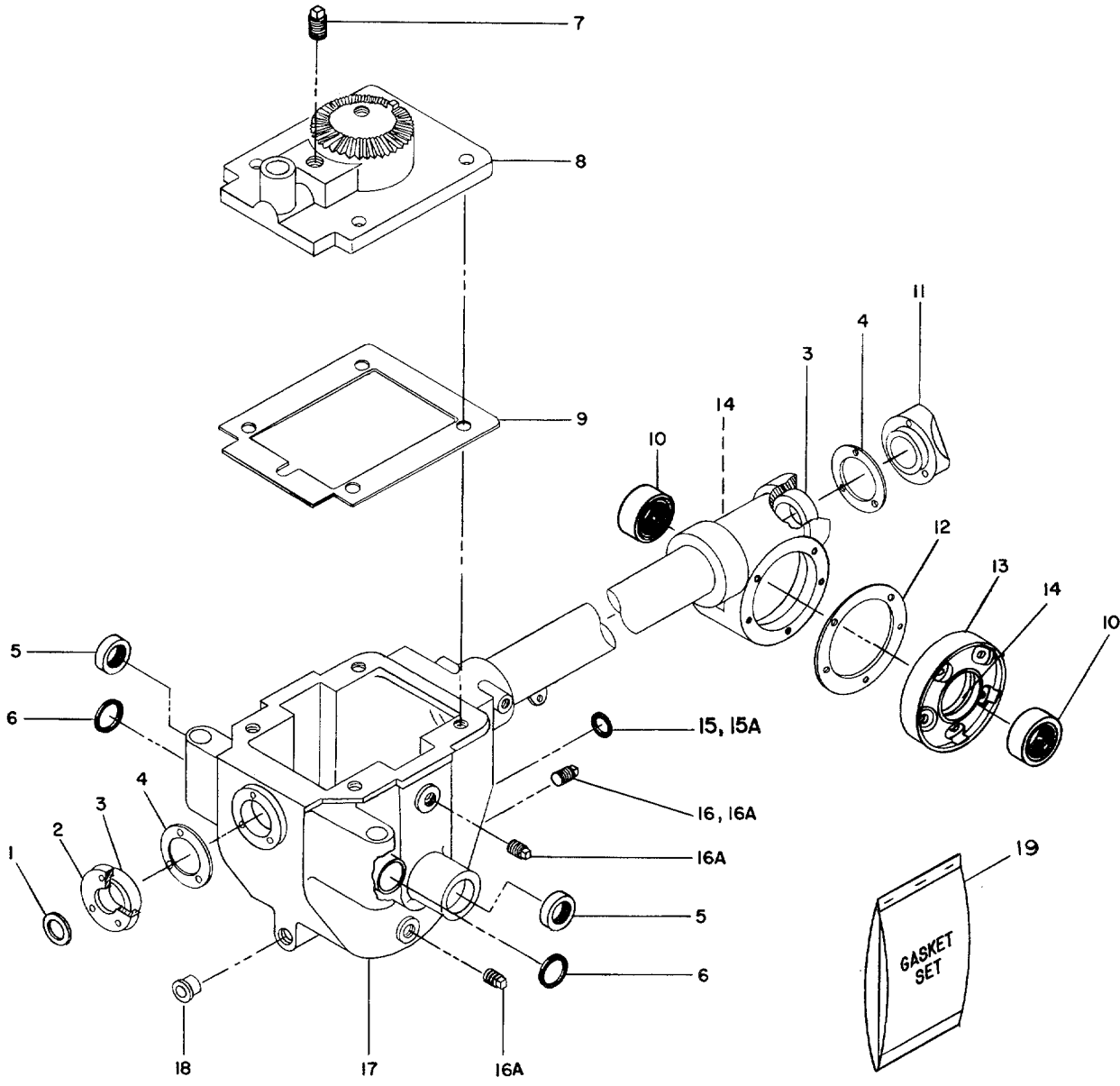
As stated, the engine power is transmitted (in forward shift position) by the belt(s) which turns the

drive shaft clockwise. The drive shaft No. 5, turns steel worms (No's. 4 & 6) to drive both the wheels and the tines. The front worm turns a bronze worm gear No. 2 (which is keyed to the pinion shaft No. 3) and high and low speed pinion gears. The pinion gears drive the corresponding wheel drive gears constantly. The clutch between the wheel gears is keyed with a Hi-Pro key to the wheel shaft. When a wheel gear and the clutch are engaged, the wheel shaft turns, transmitting power to the wheels through the wheel pins.

The illustration shows that the front and rear steel worms (No's. 4 & 6) turn whenever the drive shaft rotates. The tiller worm No. 6 turns the bronze worm gear No. 7. Since the bronze worm gear is keyed to the tiller shaft, the gear and tiller shaft rotate together.

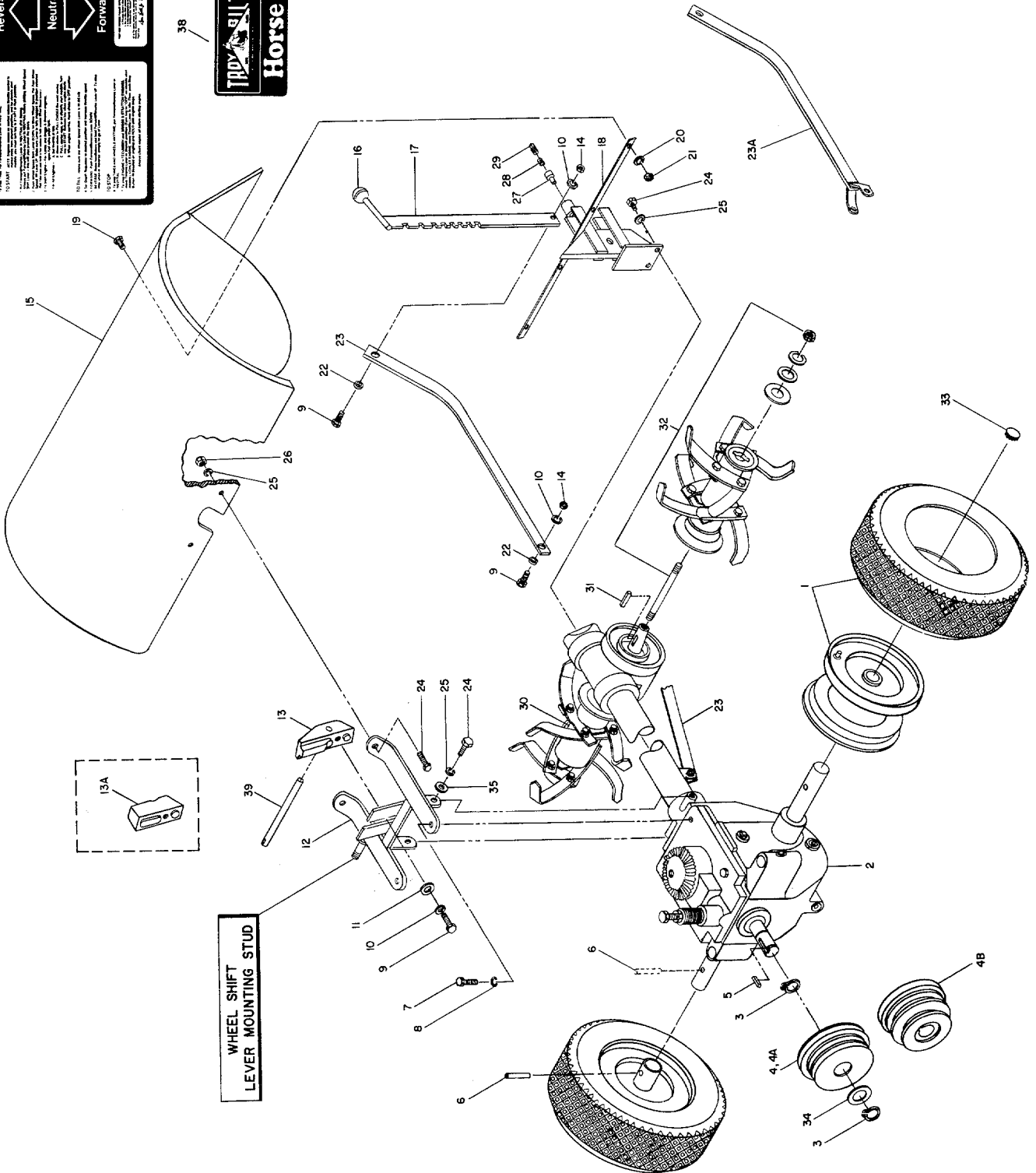
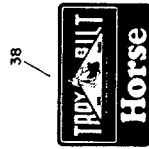
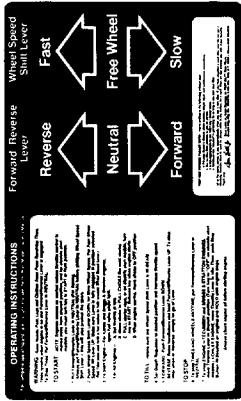
The direction of wheel and tine rotation is determined by the clockwise rotation of the main drive shaft No. 5 (forward motion) caused by the belt(s), or the counterclockwise rotation of the drive shaft caused by the reverse disc.

The tines will rotate whenever the main drive shaft rotates. Whether or not the wheels rotate depends upon the position of the speed shift lever. The wheels cannot obtain power unless the main drive shaft (and tines) are rotating.



INDEX NO.	PART NO.	DESCRIPTION	NO. REQ'D	REPLACES
SEALS, COVERS, GASKETS & PIPE PLUGS				
1	9600	OIL SEAL—drive shaft	1	1090
2	1114	CAP—front bearing	1	.....
3	1714	CUP—drive shaft bearing. Comes with cone roller bearing (not shown), see Page 4, Index No. 6	2	1108, 9401, 9400
4	1124-2	GASKET—bearing cap, front and rear	2	1124
5	9609	OIL SEAL—wheel shaft (axle), left and right sides	2	9601
6	9604	"O" Ring—fitted to Pinion Bearing retainer plug, right/left	2	1062
7	9727	PLUG—pipe, 3/8", fitted to oil filler hole on #1003 transmission cover used on tiller serial No.'s 38259 & below	1	1107
8	1003	COVER—transmission case	1	.....
9	1123	GASKET—transmission cover	1	.....
10	9616	OIL SEAL—tiller shaft	2	1092, 9602
11	1115	CAP—rear bearing	1	.....
12	1129-1	GASKET—tiller housing cover, 0.010" thickness	as req'd	.....
12	1129-2	GASKET—tiller housing cover, 0.030" thickness	as req'd	.....
13	1872	COVER—tiller housing. New-style introduced week of March 30, 1981. Comes with 5 self-locking screws, Part No. 9780. Replaces earlier cover that used #9911 lockwashers and #9718 socket head screws. For use with all Horse Models	1	.....
14	1715	CUP—tiller shaft bearing. Comes with cone roller bearing (not shown), see Page 4, Index No. 48. One cup pressed in #1023 cover, one installed inside tiller housing, right side	2	1089, 9402, 9403
15	9611	SEAL—oil, for single pin eccentric shaft. Used on Tiller Serial No.'s 493014 & Up. See Page 4, Index 18	1	9603
15A	9603	"O" RING—for eccentric shaft used on Tiller Serial No.'s 493013 & Below. See Page 4, Index No.'s 33 & 35	2	1137
16	9727	PLUG—pipe, 3/8", clutch fork shaft (see Page 4, Index 68). Used on Tiller Serial No.'s 222497 to 493013	1	9726
16A	9726	PLUG—pipe, 1/4", oil level, oil drain on all tillers. Clutch fork shaft for Tiller Serial No.'s 222496 & below (see Index 68A, Page 4)	3	1130
17	.....	CASE—transmission housing & tube assy. (Contact service dept. directly)	1	.....
18	9122	PLUG—red plastic thread protection, threaded hole for Dozer Blade Mount	1	1217
19	1121A	GASKET SET—includes one #1123, two #1124-2, two #1129-1 and one #1129-2	as req'd	1121

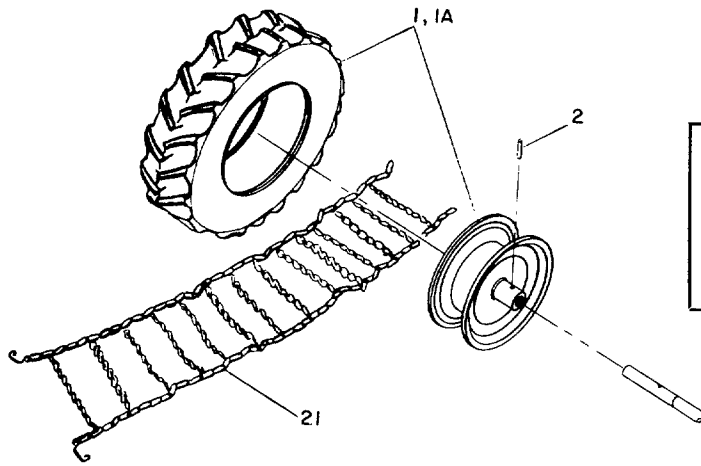
HOOD DECALS 37



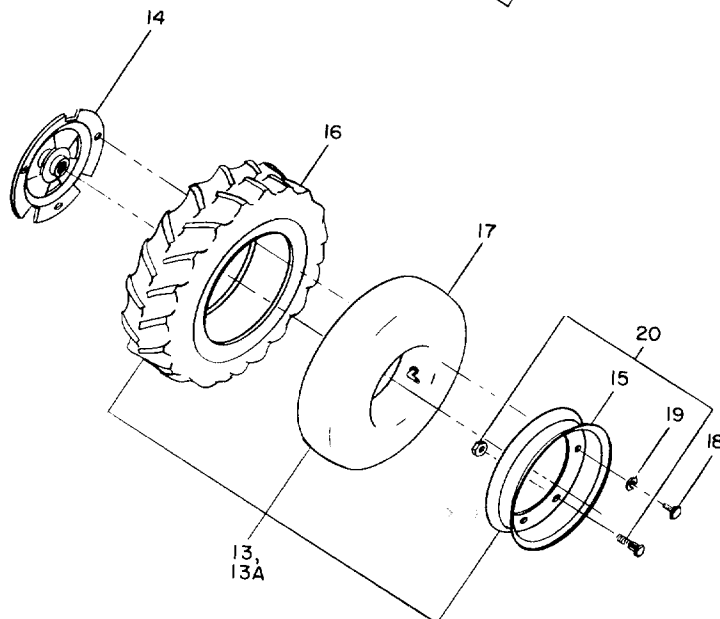
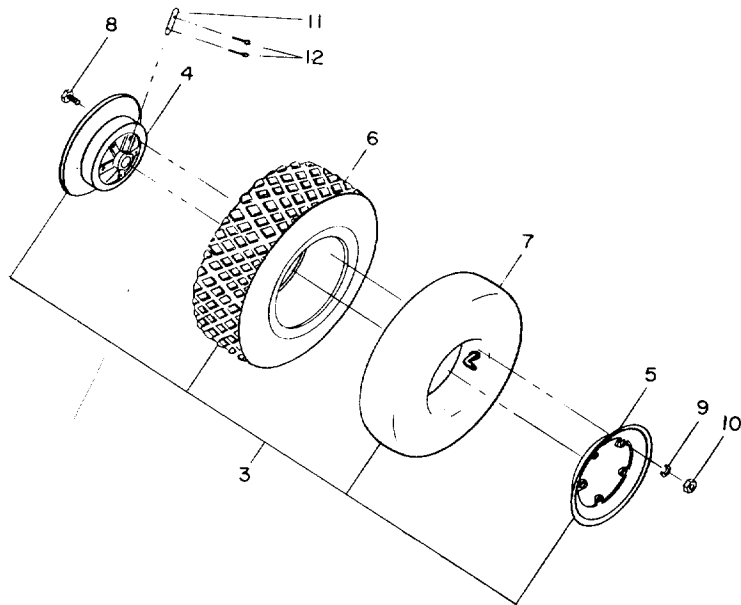
NOTE 1—Tillers numbered 24574 & below used drag bar #1116 for the depth regulating assembly with spacer bushings #1113, two 5/16" flat washers #9902, two #9912 lock washers, and two #9705 hex. head screws. To use old style #1116 depth reg. drag bar on new transmission, break off the welded tab on transmission tube — where #9710 bolt attaches #4763, drag bar.

NOTE 2—Part #9142 wheel assembly may be used with Tiller Serial No's. 31041 & Up provided wheel shaft (Part #1025) has two holes on each end of shaft. For Tiller Serial No's. 31455 & Below, see Page 17, Index 3. For Bar Tread Tires, see Page 16, Index No's. 1 or 13.

INDEX NO.	PART NO.	DESCRIPTION	NO. REQ'D	REPLACES
TILLER, TINES, HOOD, WHEELS, DEPTH REGULATOR				
1	9142	WHEEL ASSEMBLY—standard tread, 4:00/4:80 x 8 tubeless tire and valve stem, mounted on single-piece steel wheel. Used on tillers with Part #1235 or 1878 wheel shaft for Tiller Serial #31456 & Up. (see Note 2, Page 14)	2	.....
2	.....	CASE—transmission housing & tube assy. (Contact service dept.)	1	.....
3	9500	RING—retaining (snap ring external, transmission drive pulley)	2	1109
4	1008-1	PULLEY—matched belts, transmission drive, cast iron, Tiller Serial #4333 & Up. Prior to Serial #5984, pulleys were aluminum	1	1008A
4A	1008	PULLEY—single belt, variable speed, tiller serial No. 4332 & below, 4½ H.P. maximum	1	....
4B	1484	PULLEY—transmission drive, cast iron, uses single belt, and rubber rimmed reverse disc	1	1008-1
5	9301	KEY—3/16" square x 1" long, pulley to drive shaft	1	1101, 9302
6	9322	PIN—roll (spiral), 5/16" x 1½" long wheel hub to shaft	2	1097
7	9713	BOLT—3/8"-16 x 1½", see page 4, Index 66	4	....
8	9913	LOCKWASHER—3/8", see page 4, Index 67	4	....
9	9710	BOLT—hex. head, 3/8"-16 x 1", belt adj. block, depth regulator	3	....
10	9913	LOCKWASHER—3/8"	3	....
11	9903	WASHER—flat, 3/8", regular standard	1	....
12	1077	BRACKET—hood, front, belt adj. block, & stud for wheel shift lever	1	....
13	1920	BLOCK—belt adjustment, 3¾" long, for four-speed tillers, Serial #314151 & Up. Includes Index #'s 9, 10, 11 & 39. Use with Part #1921 engine yoke or #1487 engine yoke (with tab removed)—see Page 21, Index 7	1	1133-1A
13A	1133-1A	BLOCK—belt adjustment, 3¾" long, for two-speed tillers, Serial #314150 & Below. Has cast-in Neutral position. Replaces ¾" steel bar (completely flat) used previously. Includes Index #'s 9, 10 & 11.	1	1133
14	9802	NUT—hex, 3/8"-16	2	....
15	1519	HOOD—tine cover with hinged flap, includes hood decals	1	1082
16	9119	KNOB—with spring retainer. Also see Index #20A, Page 23	1	.....
17	1117A	BAR—depth adjustment, includes Knob, Index #16	1	1117
18	1076	BRACKET—hood, rear (includes roll pin, Part #9308)	1	....
19	9723	SCREW—round head, ¼"-20 x ¾"	4	....
20	9910	LOCKWASHER—¼"	4	....
21	9800	NUT—hex., ¼"-20	4	....
22	1113-1	BUSHING—spacer, drag bar, also see Page 24, Index #53	2	.....
23	4763	DRAG BAR—depth regulator, tiller serial No. 24575 & up (see note 1)	1	1116
23A	1116	DRAG BAR—depth regulator, tiller serial No. 24574 & below. See page 41, Index 5, also Note 1, page 14.		
24	9703	BOLT—hex. head 5/16"-18 x ¾"	6	....
25	9912	LOCKWASHER—5/16"	6	....
26	9801	NUT—hex, 5/16"-18	2	....
27	1119	PLUNGER—depth regulator locking	1	....
28	1120	SPRING—depth reg. plunger	1	....
29	9726	PLUG—pipe ¼", see page 4, Index 68A	1	....
30	....	BOLO TINE ASSEMBLY, RIGHT (see page 18)	..	....
31	9301	KEY—3/16" square x 1", tine shaft	2	....
32	....	See Tine Assemblies, Pages 18 & 19		
33	9145	HUB CAP—wheel	2	....
34	1138-1	SHIM—transmission pulley, 1/16" thickness	as req'd	....
35	9902	WASHER—flat, 5/16" S.A.E., O.D. 11/16"	2	....
36	9712	BOLT—hex. head, 3/8"-16 x 1¼"	1	9710
37	1239	DECAL—hood, operating instructions for 6 & 8HP engines. 7HP Kohler engine owners specify Part #2156 decal	1	.....
38	1238	DECAL—Troy-Bilt, 3" x 7½"	1	.....
39	2100	ROD—belt adjustment, 7" long, with measuring gauge. For use with Part #1920 (Index #13) adjustment block	1	.....



PLEASE NOTE: Part #'s 9143 & 9144 (tubeless Bar Treads) must be a matched pair. When ordering a replacement wheel & tire, please specify the manufacturer's name on the tire you're keeping (such as Goodyear, or McCreary, etc.). Thank you.

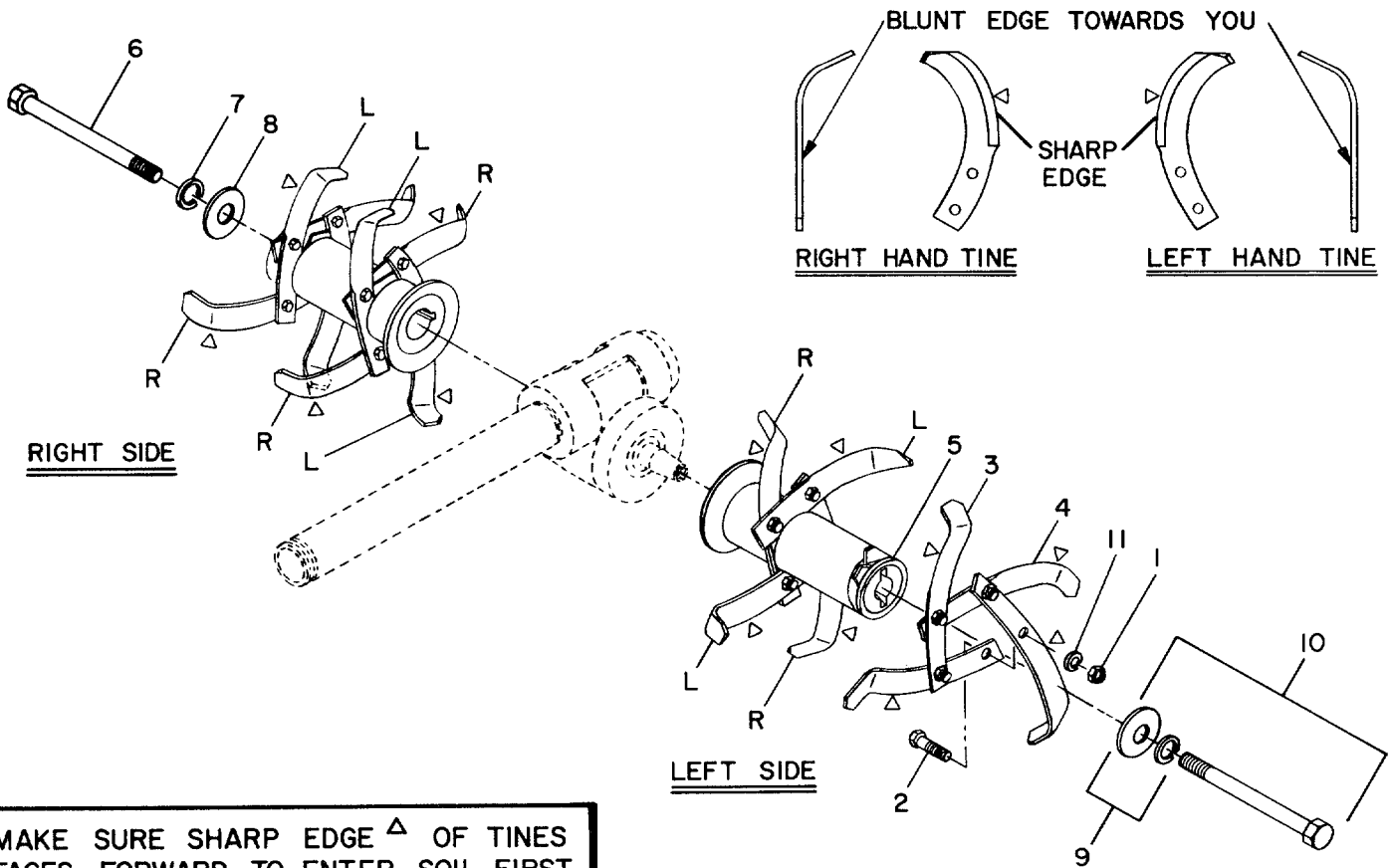


INDEX NO.	PART NO.	DESCRIPTION	NO. REQ'D	REPLACES
TWO-PIECE CAST IRON WHEELS, TIRE OPTIONS, CHAINS				
1	9144*	WHEEL ASSEMBLY—Bar Tread Tire, RIGHT SIDE, 4:80 x 8 tubeless tire mounted on single piece wheel, use with #1878 or #1235A wheel shaft, tiller No.'s 31456 & Up (optional)	1	.....
1A	9143*	WHEEL ASSEMBLY—Bar Tread Tire, LEFT SIDE, (same as #9144, except left) use with #1235A or #1878 wheel shaft	1	.....
2	9322	PIN—roll, (spirol), 5/16" x 1½"	2	....
3	9148	WHEEL ASSEMBLY—4:00 x 7 wheel, tire & tube, complete, cast iron, two piece, use with #1879 or #1025 wheel shaft (order wheel pins & cotter pins separately). Use for tiller No.'s 31040 & below, left & right are interchangeable	2	....
4	1018	WHEEL & HUB—7", cast iron, goes with #1017 & standard tread tire, requires 5 bolts, washers & nuts. Use with #1879 or #1025 wheel shaft, tiller No.'s 31040 & below	2	....
5	1017	RIM—wheel, 7", use with #1018 wheel & hub	2	....
6	9109	TIRE—standard tread, 4:00 x 7, tube type	2	....
7	9110	TUBE—4:00 x 7	2	....
8	9712	BOLT—hex. head ¾"—16 x 1¼", 5 per wheel	10	....
9	9913	LOCKWASHER—¾", 5 per wheel	10	....
10	9802	NUT—hex, ¾"—16, 5 per wheel	10	....
11	1097	PIN—wheel drive	2	....
12	9317	COTTER PIN—retains wheel pin, 3/32" x 1", 2 per wheel	4	....
13	9149*	WHEEL ASSEMBLY—4:00 x 8 Bar Tread wheel & tire, tube type, assembled, LEFT SIDE with hub, includes Index No.'s 14, 15 (pair), 16, 17 & 20, and three bolts & washers. Use with #1879 or #1025 wheel shaft, tiller No.'s 31040 & below	1	....
13A	9150*	WHEEL ASSEMBLY—4:00 x 8 Bar Tread, same as above, except RIGHT SIDE	1	....
14	1163	HUB—wheel, 8", cast iron, use with tube type Bar Tread Tire, included with Index 13 & 13A.	2	....
15	9113	RIM—wheel, 4:00 x 8, two piece unit, includes 3 assembly studs (see Index 20) & 3 mounting bolts & washers	2	....
16	9111	TIRE—Bar Tread 4:00 x 8, tube type. For tillers prior to serial No. 6186 using 5 x 8 Bar Treads, substitute 4 x 8 Bar Treads, or obtain replacement 5 x 8 tire locally	2	....
17	9112	TUBE—4:00 x 8, for Bar Tread Tire	2	....
18	9709	BOLT—hex head, ¾"-16 x ¾", 3 per wheel, for mounting	6	....
19	9913	LOCKWASHER—¾", 3 per wheel	6	....
20	....	STUD & NUT—fastens 2-piece rim together to make #9113 rim, 3 per wheel, not sold separately	6	....
21	9146	CHAINS—tire, 4:80/4:00 x 8, fits #9143 & 9144, or #9142 standard tire, set. Tiller serial No.'s 26000 up to 31455 can use chains with tube type bar tread tires #9111	1	....

***PLEASE NOTE—**

Bar Tread Tires are mounted on Troy-Bilt Horse so that the arrow on the side of the tire points in the direction of FORWARD rotation of the wheel. With tires mounted in this manner, the closed end of the "V" in the tire tread on top of the tire will face forward.

BOLO TINES ASSEMBLIES
(Viewed From Front Of Tiller)



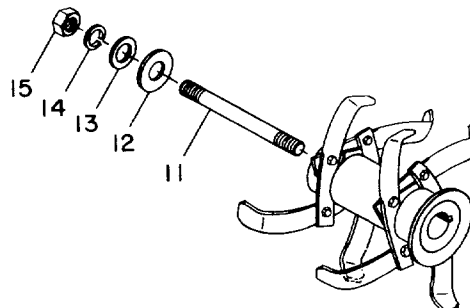
MAKE SURE SHARP EDGE Δ OF TINES FACES FORWARD TO ENTER SOIL FIRST

OLD-STYLE TINE HOLDER MOUNTING ARRANGEMENT

Beginning with Tiller Serial No. 308889, all tillers have been equipped with the new-style Bolo Tine holder mounting bolt and washer set shown at Index No. 10, above. This mounting arrangement makes it much easier to remove and replace the holders, if necessary.

As a result, we no longer stock the old-style, Part #1206 mounting stud (threaded on both ends), that is shown at Index No. 11, below. If you ever need to replace a #1206 stud, or if you simply want to update your tiller, you should order the Part #1735 bolt and washer set shown at Index No. 10, above (order two #1735's if you're replacing both studs).

We do, however, still stock the washers and nut that are used with the #1206 stud. Those items are shown below at Index No's. 12, 13, 14 & 15.



INDEX NO.	PART NO.	DESCRIPTION	NO. REQ'D	REPLACES
BOLO TINE ASSEMBLIES				
1	9802	NUT—hex., 3/8"-16, tine mounting	16	9807
2	9711	BOLT—hex. hd., 3/8"-16 x 1", tine mounting	16	.....
3	1270-2A	BOLO TINE—single, RIGHT HAND tine used on left and right side bolo assemblies. Tine is stamped "ER" or "AR". Includes replacement hardware—two #9711 bolt, two #9913 lockwasher, & two #9802 hex nut. NOTE: These tines won't fit chopper tine holders	8	1142-2, 1270-R
4	1270-1A	BOLO TINE—single, LEFT HAND tine used on left and right side bolo assemblies. Tine is stamped "EL" or "AL". Includes same replacement hardware described for right hand tine above	8	1142-1, 1270-L
5	1205	HOLDER—Bolo Tines, for either side of tiller, each holder uses four left and four right hand tines	2	.....
6	1463	BOLT—1/2"-20 x 5 3/4", threaded on one end, mounts bolo holder on tine shaft. For all Horse Model tillers, use with Part No's. 9914 & 1461. Replaces #1206 mounting stud (Index #11)	2	9805, 1206
7	9914	LOCKWASHER—1/2"	2	.....
8	1461	WASHER—flat, 17/32", outer dia. 1 3/4"	2	9905, 9908
9	1207A	WASHER SET—for Part No. 1463 bolt. Includes two #9914 lockwashers (Index #7) and two #1461 washers (Index #8)	1 Set	.....
10	1735	BOLT & WASHER SET—includes one #1463 mounting bolt (Index #6), one #9914 lockwasher (Index #7) and one #1461 washer (Index #8)	2 Sets	.....
11	9913	LOCKWASHER—3/8", tine mounting	16	.....
....	1246	BOLO TINE ASSEMBLIES—16 tines completely assembled on holders and ready to install on tiller. Includes two #1205 holders; 8 left hand and 8 right hand tines; hardware for tine mounting (16 bolts, lockwashers, nuts); hardware for holder mounting (2 each bolts, lockwashers, plain washers) and two #9301 tine shaft keys (see Page 14, Index #31)	1	.....
....	1245K	SET OF 16 BOLO TINES WITH REPLACEMENT HARDWARE—unassembled. Includes 8 left hand and 8 right hand tines; hardware for tine mounting (16 each #9711 bolts, #9913 lockwashers, #9802 hex nuts). Does not include tine holders, holder mounting bolts, or tine shaft keys	1	.....

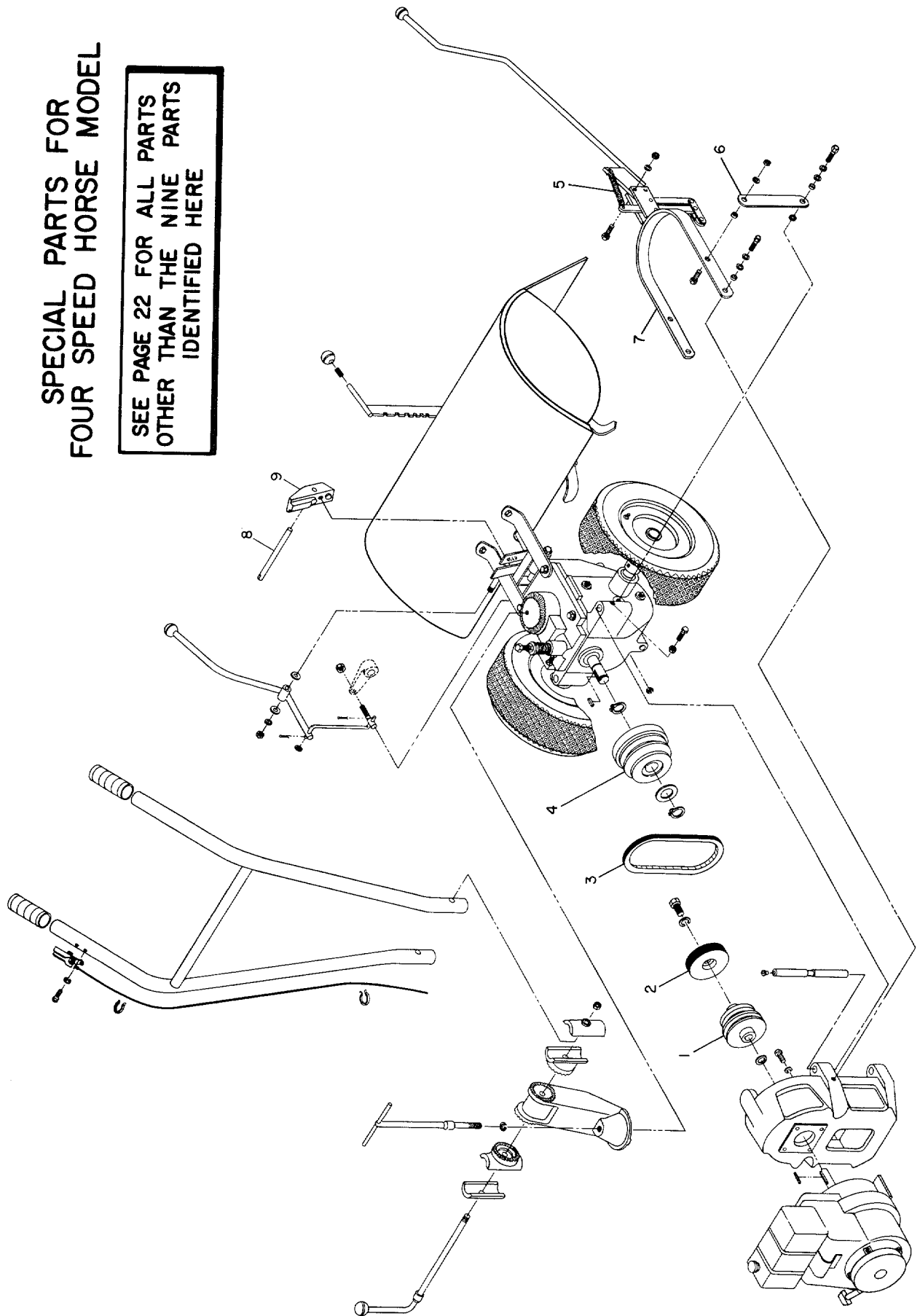
OLD-STYLE TINE HOLDER MOUNTING ARRANGEMENT

11	1206	STUD—1/2"-20 x 6", threads on both ends. NO LONGER AVAILABLE. Replace with Part #1735 bolt and washer set, Index #10	2	.....
12	9908	WASHER—flat, 5/8" standard size, outer diameter 1 3/4"	2	.....
13	9905	WASHER—flat, 1/2" O.D. 1 3/8"	2	.....
14	9914	LOCKWASHER—1/2"	2	.....
15	9805	NUT—hex 1/2"-20, tine holder & stud to tine shaft	2	.....

PLEASE NOTE—Left and right sides of tiller are determined by standing in the operator position and facing the direction of forward travel.

**SPECIAL PARTS FOR
FOUR SPEED HORSE MODEL**

**SEE PAGE 22 FOR ALL PARTS
OTHER THAN THE NINE PARTS
IDENTIFIED HERE**



INDEX NO.	PART NO.	DESCRIPTION	NO. REQ'D	REPLACES
SPECIAL PARTS FOR FOUR-SPEED HORSE MODEL (Tiller Serial No. 314151 and Up)				
1	1483	PULLEY—engine PTO/driven, uses single belt, tiller serial No. 314151 & Up	1	1007-1
2	1919	REVERSE DISC—rubber rimmed, use only with Part #1484 transmission drive pulley (with flat surface for disc). For four-speed tiller only. Includes new-style Part #1920 adjustment block, see Index #9. Use only with #1920 block. If disc mounting bolt or lockwasher is needed, see Index #'s 16, 17 or 17A on Page 23.	1	1485, 1072
3	9245	BELT—single "V" belt, made specially for your tiller (no substitute recommended due to extra strength required)	1	1128 pair
4	1484	PULLEY—transmission drive, cast iron, uses single belt and rubber rimmed reverse disc, tiller serial No. 314151 & Up	1	1008-1
5	1492	SPRING—clutch pawl, for four-speed tiller only, tiller serial No. 314151 & Up	1	1122
6	1488	LINK—yoke pivot (clutch control), 6 ⁷ / ₈ ", use on four-speed tiller only....	1	1098
7	1921	CLUTCH CONTROL YOKE—for four-speed tiller only. Includes new-style Part #1920 adjustment block (Index #9). NOTE: Earlier-style Part #1487 yoke (with shifting tab) can be used with Part #1920 adjustment block, but tab must be removed—see removal instructions (Literature code SER-106)	1	1487
8	2100	ROD—belt adjustment, 7" long, with measuring gauge. For use with Part #1920 (Index #9) adjustment block	1	.....
9	1920	BLOCK—belt adjustment, 3 ⁷ / ₈ " long, for four-speed tillers. Includes mounting hardware (see Index #'s 9, 10 & 11 on Page 15) and adjustment rod (Index #8 above). Use with Part #1921 yoke or #1487 yoke (with tab removed)	1	1133-1A