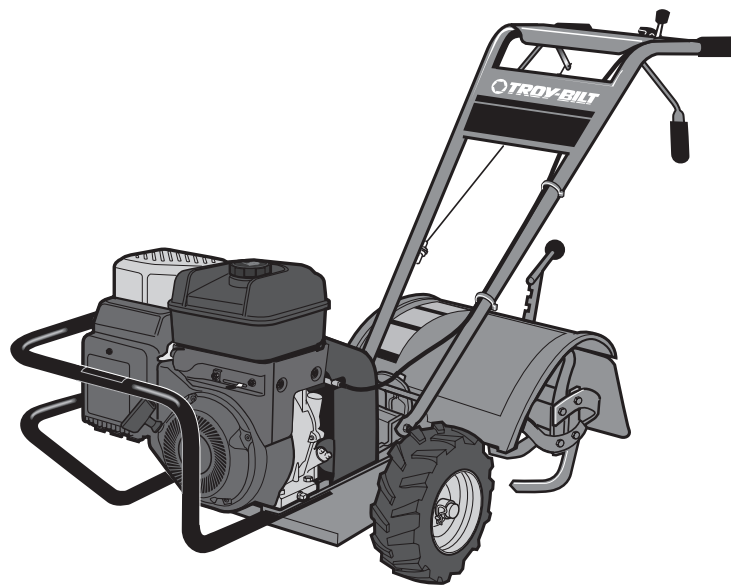




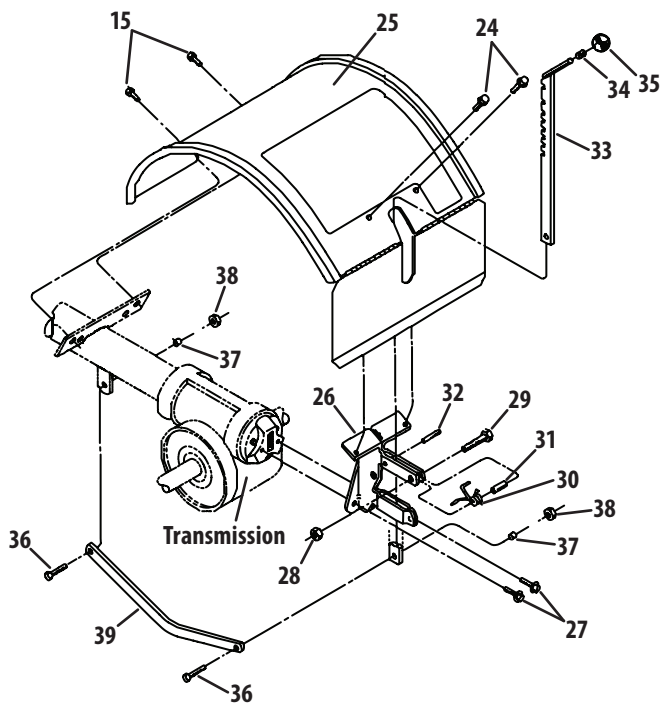
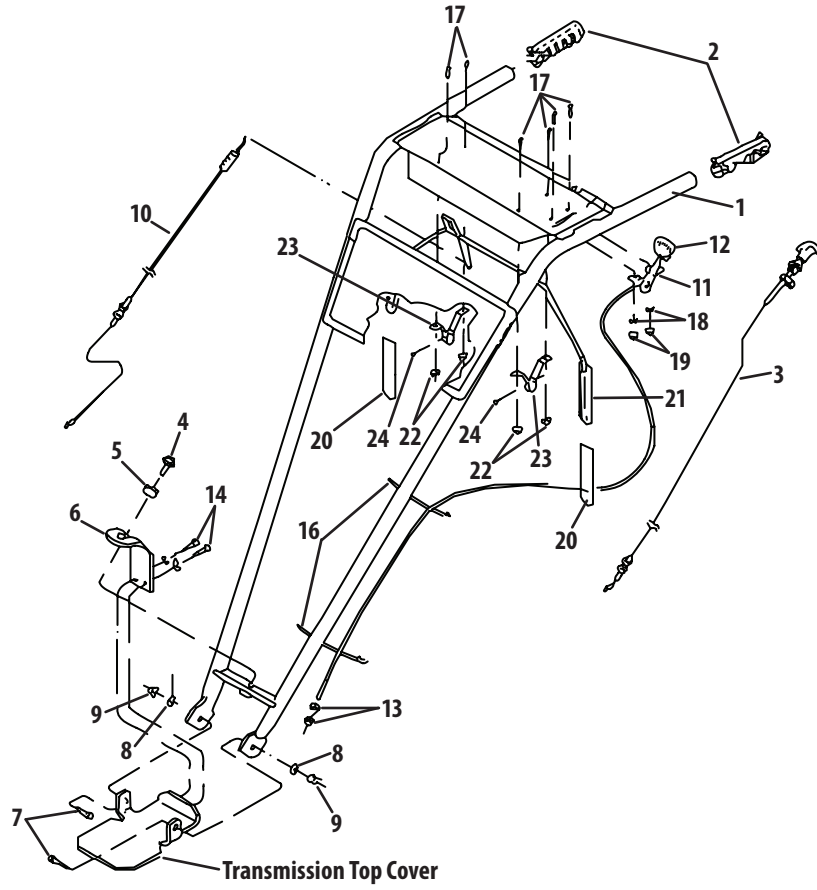
ILLUSTRATED PARTS MANUAL



Mid Frame Tiller — 660 Series

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

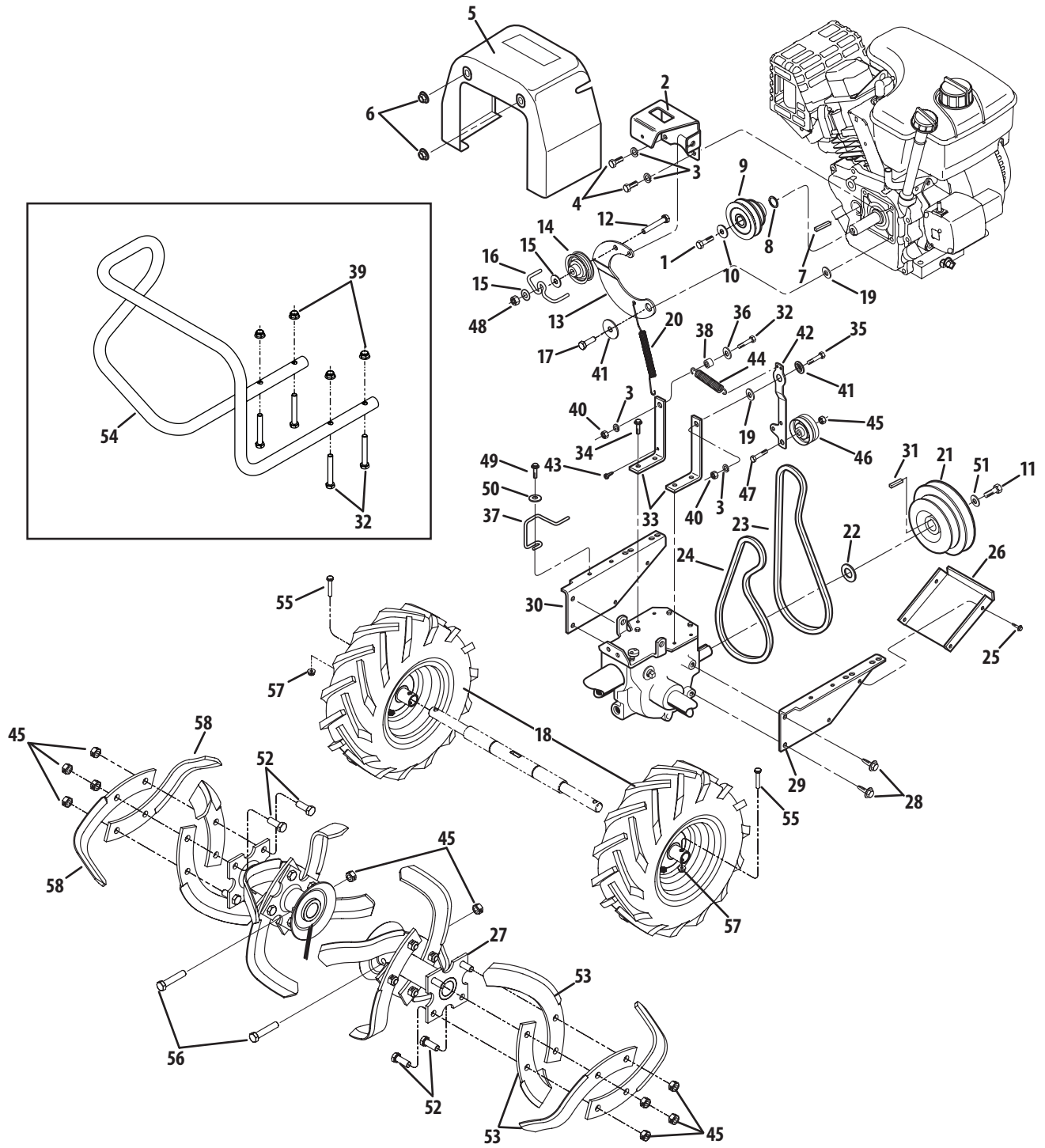
660 Series Handle & Tine Shield



660 Series Handle & Tine Shield

Ref.	Part Number	Description
1.	1918811P	Handlebars
2.	720-0274	Grip
3.	1916784	Reverse Clutch Control Cable
4.	710-04042	Hex Flange Screw, 3/8-16
5.	GW-9955	Keyed Washer
6.	1900475010	Handlebar Hgt. Adjustment Bracket
7.	710-0514	Hex Hd. Screw, 3/8-16 x 1
8.	736-3050	Plain Washer, 3/8
9.	912-3000	Hex Locknut, 3/8-16
10.	746-04027	Forward Clutch Control Cable
11.	GW-9442	Wheel Gear Control & Cable Ass.
12.	GW-9057	Wheel Gear Control Lever Knob
13.	1186211	Hex Nut, 5/16-24
14.	GW-90064	Hex Head Screw, 3/8-16 x 5/8
15.	710-0759	Self-tapping Screw, 5/16-18 x 5/8
16.	725-0157	Cable Ties
17.	1114748	Round Head Screw, #10-32 x 1/2
18.	936-0722	Lockwasher, #10
19.	1186208	Hex Nut, #10-32
20.	GW-9390	Grip
21.	1918840	Forward Clutch Bail
22.	GW-9853	Sems Nut
23.	GW-20806	Bail Support Bracket
24.	710-0599	Self-tapping Screw, 1/4-20 x 1/2
25.	686-04078-0638	Tine Hood
26.	GW-2525	Depth Regulator
27.	710-04049	Hex Flange Screw, 5/16-18 x 5/8
28.	712-04064	Hex Locknut, 1/4-20
29.	710-0597	Hex Head Screw, 1/4-20 x 1
30.	732-04320	Spring
31.	750-04556	Spacer
32.	715-04034	Roll Pin (spiral), 1/4 x 1
33.	1900864	Depth Regulator
34.	GW-9120	Retaining Ring
35.	GW-9119	Depth Regulator Knob
36.	710-3005	Hex Head Screw, 3/8-16 x 1-1/4
37.	GW-1113-1099	Drag Bar Bushing
38.	712-04065	Hex Nut, 3/8-16
39.	1916185001	Drag Bar

660 Series Drive System



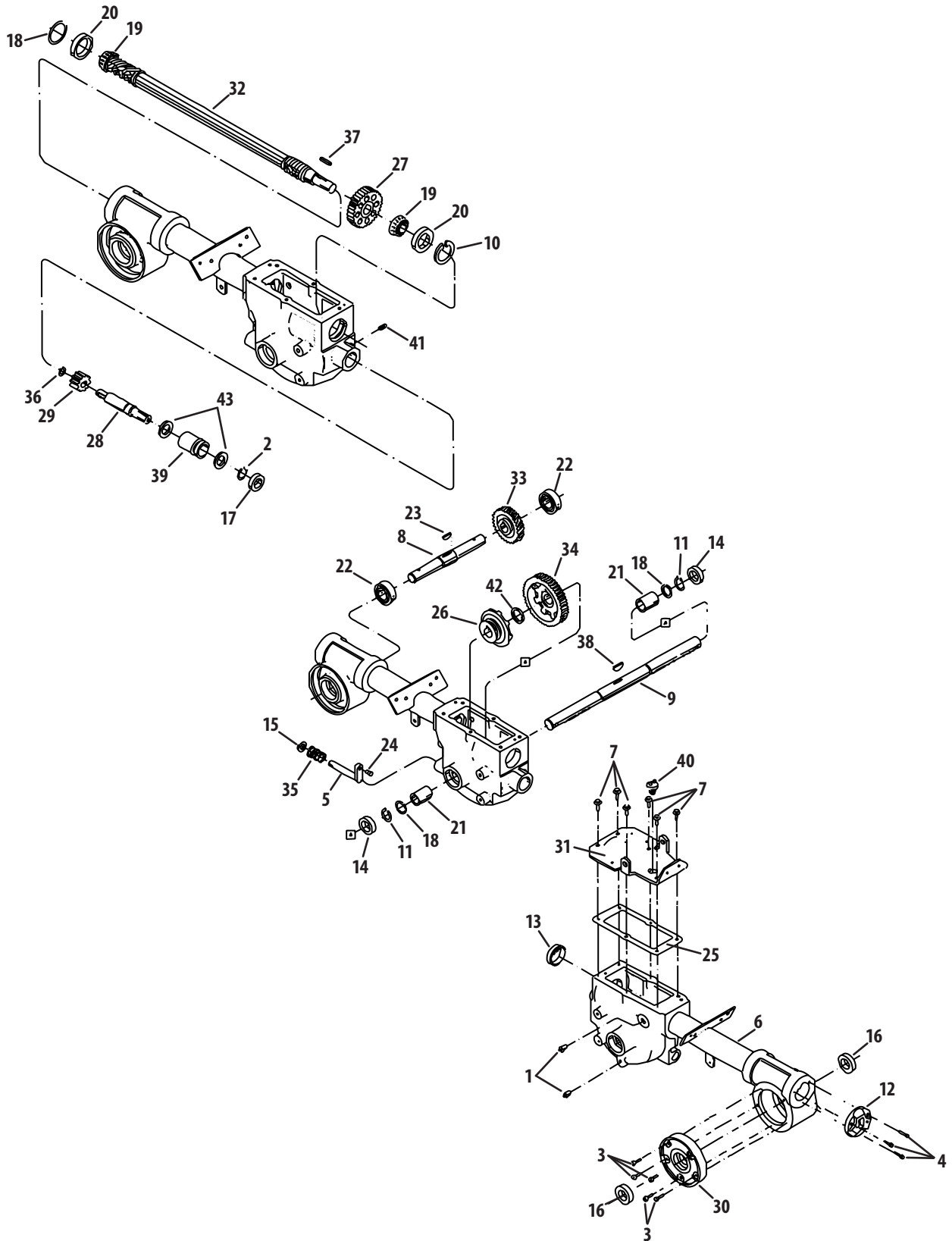
660 Series Drive System

Ref.	Part Number	Description	Ref.	Part Number	Description
1.	710-0331	Hex Screw, $\frac{3}{8}$ -24 x 2.25 (A)	29.	1916797001	Engine Support Bracket (left side)
—	710-0672	Screw, $\frac{5}{16}$ -24 x 1.25 (B)	30.	786-04067-0637	Engine Support Bracket (right side)
2.	786-04070	Clutch Cable Bracket	31.	914-0133	Key, $\frac{3}{16}$ x 1.50
3.	936-0119	Lockwasher, $\frac{5}{16}$	32.	710-0395	Hex Head Screw, $\frac{5}{16}$ -18 x 2- $\frac{1}{4}$
4.	710-0107	Hex Head Screw, $\frac{5}{16}$ -24 x $\frac{1}{2}$	33.	1918774001	Mounting Bar
5.	731-05290	Cover	34.	710-1260A	Hex Flange Screw, $\frac{5}{16}$ -18 x .75
6.	712-3004A	Flange Lock Nut, $\frac{5}{16}$ -18	35.	710-0805	Hex Head Screw, $\frac{5}{16}$ -18 x 1- $\frac{1}{2}$
7.	714-0139	Key, $\frac{3}{16}$ -2 (A)	36.	936-0275	Flat Washer, $\frac{5}{16}$
—	914-0133	Key, $\frac{3}{16}$ x 1.5 (B)	37.	732-04082	Belt Guide
8.	736-04187	Shim	38.	GW-55088	Pivot Bushing
9.	619-04130	Engine Pulley	39.	712-04063	Hex Lock Nut, $\frac{5}{16}$ -18
10.	936-0452	Belle. Washer, .344 x 1.0 x .063 (A)	40.	912-3010	Hex Nut, $\frac{5}{16}$ -18
—	736-04193	Belle. Washer .827 x .331 x .098 (B)	41.	748-04087A	Shoulder Washer
11.	710-0672	Hex Head Screw, $\frac{5}{16}$ -24 x 1- $\frac{1}{8}$	42.	786-04275	Forward Tiller Direction Idler Arm
12.	710-3103	Hex Head Screw, $\frac{5}{16}$ -18 x 2	43.	1767754	Self-tapping Screw, #10-24
13.	786-04276	Reverse Idler Arm	44.	1916727	Spring
14.	1916535	Reverse Idler Pulley	45.	912-3000	Hex Locknut, $\frac{5}{16}$ -18
15.	936-0159	Flat Washer, $\frac{5}{16}$	46.	GW-9090	Forward Idler Pulley
16.	732-04081	Wire Formed Belt Guide	47.	710-0347	Screw, $\frac{3}{8}$ -16 x 1- $\frac{3}{4}$
17.	710-0888	Hex Head Screw, $\frac{5}{16}$ -24 x 1	48.	912-0158	Hex Lock Nut, $\frac{5}{16}$ -18
18.	934-04232	Wheel Assembly, 13 x 5 x 6	49.	1754128	Screw, $\frac{1}{4}$ -20 x $\frac{3}{4}$
19.	736-3078	Flat Washer, 1- $\frac{1}{8}$	50.	936-0463	Flat Washer, $\frac{1}{4}$
20.	732-04077	Reverse Return Spring	51.	736-04193	Belleville Washer, .827 x .331 x .098
21.	619-04123	Transmission Pulley	52.	710-0514	Hex Head Screw, $\frac{3}{8}$ -16 x 1
22.	736-04079	Support Washer	53.	742-04223-0637	Bolo Tine-single (Left)
23.	1918812	Reverse Clutch Belt	54.	749-04193-0637	Bumper
24.	1909404	Forward Clutch Belt	55.	710-0606	Hex Head Screw, $\frac{1}{4}$ -20 x 1.5
25.	1900396	Self-tapping Screw, #10-32 x $\frac{1}{2}$	56.	710-3096	Hex Head Screw, $\frac{3}{8}$ -16 x 2
26.	GW-20673	Belts/Pulleys Guard	57.	712-04064	Flange Hex Locknut, $\frac{1}{4}$ -20
27.	686-04067-0638	Tine Holder	58.	742-04224-0637	Bolo Tine-single (Right)
28.	710-04043	Hex Flange Screw, $\frac{5}{16}$ -18 x $\frac{3}{4}$			

A — Model 662

B — Model 665

660 Series Transmission Assembly



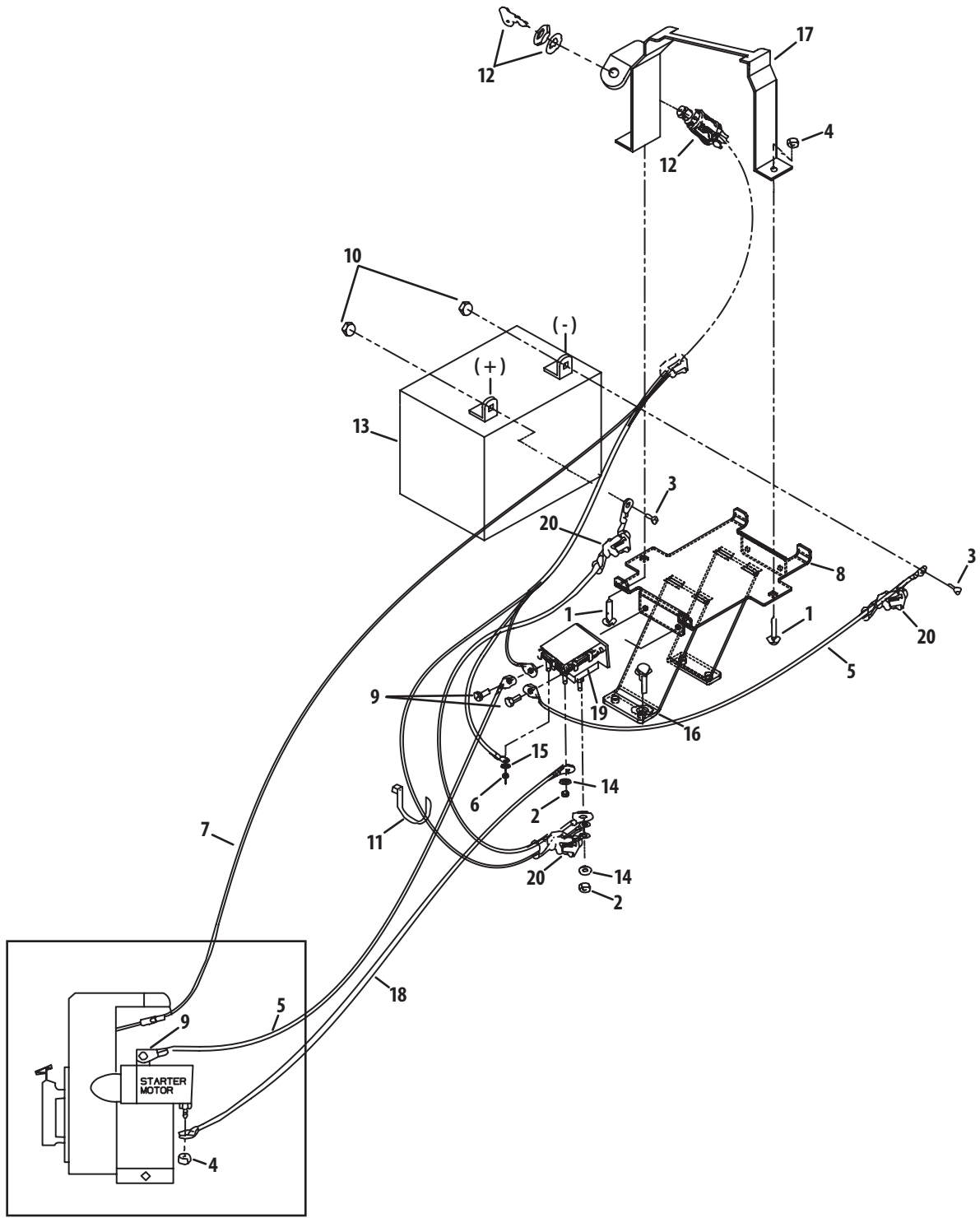
660 Series Transmission Assembly

Ref.	Part Number	Description
1.	1105620	Pipe Plug
2.	916-0101	Retaining Ring
3.	1915068	Hex Screw, ¼-20 x .625
4.	1915069	Self-Sealing Screw, ¼-20 x .875
5.	611-04002	Eccentric Shaft
6.	919-04010	Transmission Housing
7.	710-04043	Hex Flange Screw, ⅝-18 x .750
8.	GW-20896	Tiller Shaft
9.	911-04482	Wheel Shaft
10.	716-04102	Retaining Ring
11.	716-04104	Retaining Ring
12.	718-04406	Rear Bearing Cover
13.	721-04001	Oil Seal, 1.79 x .25
14.	921-04031	Oil Seal, 1.0 x 1.499
15.	921-04034	Oil Seal, .625 x 1.0
16.	921-04035	Oil Seal, .984 x 1.75
17.	921-04044	Oil Seal, .750 x 1.25
18.	736-04258	Washer, 1.375 x 1.015 x .01*
—	736-04259	Washer, 1.375 x 1.015 x .015*
—	736-04260	Washer, 1.375 x 1.015 x .03*
—	736-04305	Washer, 1.75 x 1.5 x .062*
—	736-04306	Washer, 1.75 x 1.5 x .005*
—	736-04307	Washer, 1.75 x 1.5 x .03*
—	736-04308	Washer, 1.75 x 1.5 x .01*
—	736-04309	Washer, 1.375 x 1.015 x .062*

Ref.	Part Number	Description
19.	941-04298	Cone Bearing
20.	941-04299	Cup Bearing
21.	941-04300	Bushing, 1.25 x 1 x .005 x 1.5
22.	941-3037	Ball Bearing
23.	GW-1104	Woodruff Key, .25 x 1.12
24.	GW-1442	Pin, .375 x .72
25.	GW-20694	Transmission Cover Gasket
26.	GW-20712	Wheel Drive Clutch
27.	GW-20718	Spur Gear
28.	GW-20791	Pinion Shaft
29.	GW-20792	Pinion Gear
30.	GW-20873	Housing Cover
31.	1916193001	Transmission Cover
32.	GW-20912	Drive Shaft
33.	GW-20913	Worm Gear
34.	GW-20914	Wheel Drive Gear
35.	GW-9055	Spring, .850 x .875
36.	GW-9093	Bowed Ring
37.	GW-9301099	Key, .188 x 1
38.	GW-9373	Hi-Pro Key, .25 x 1.312
39.	GW-9428	Bushing, 1.24 x .75 x .18
40.	GW-9467	Oil Plug
41.	GW-9677	Hex Screw, ⅝-18 x .38
42.	GW-9935	Washer, 1.46 x 1.016 x .062
43.	GW-9953	Washer, 1.022 x .75 x .059

* — The flat washers listed are used as required to obtain .005 to .030 in allowable end play on the wheel shaft and tine shaft and a .005 to .015 in end play on the drive shaft.

660 Series Electric Start (Pony ES Only)



660 Series Electric Start (Pony ES Only)

Ref.	Part Number	Description
1.	1186073	Carriage Screw ¼-20 x 1.25
2.	1186211	Hex Nut ⅝-24
3.	1186309	Flange Screw ¼-20 x .625
4.	1186389	Hex Locknut ¼-20
5.	1901202	Cable (Ground Wire)
6.	GW-9853	Hexlock Washer Nut, 10-32
7.	725-04346	Electric Start Harness
8.	686-04024-0638	Battery Bracket Assembly
9.	710-0599	Self-tapping Screw ¼-20 x .5
10.	712-3006	Hex Nut ¼-20
11.	725-0157	Cable Tie
12.	925-0267B	Ignition Switch
13.	925-1707D	Battery 270 CCA
14.	936-0119	Lock Washer 5/16
15.	936-0147	Lock Washer #10
16.	736-0607	External Lock Washer ⅝
17.	1900873	Keyswitch Clamp
18.	GW-96510	Cable (Solenoid to Starter Motor)
19.	GW-96514099	Solenoid (Incl. Nuts and Washers for Cables and Wires)
20.	GW-97020	Insulating Boot