



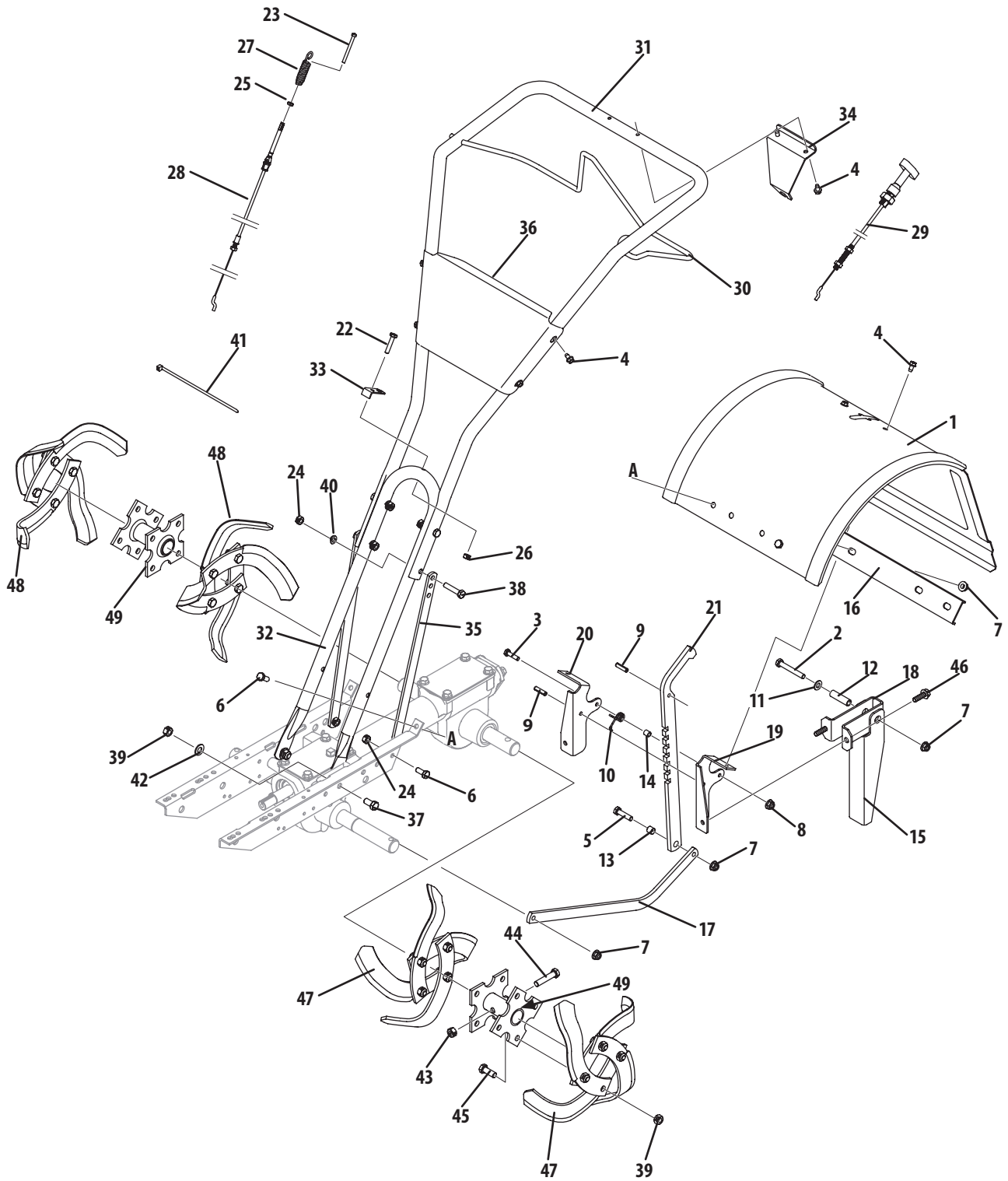
ILLUSTRATED PARTS MANUAL



Small Frame Tiller — 640 & 650 Series

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

640 & 650 Series Handle & Tine Shield



640 & 650 Series Handle & Tine Shield

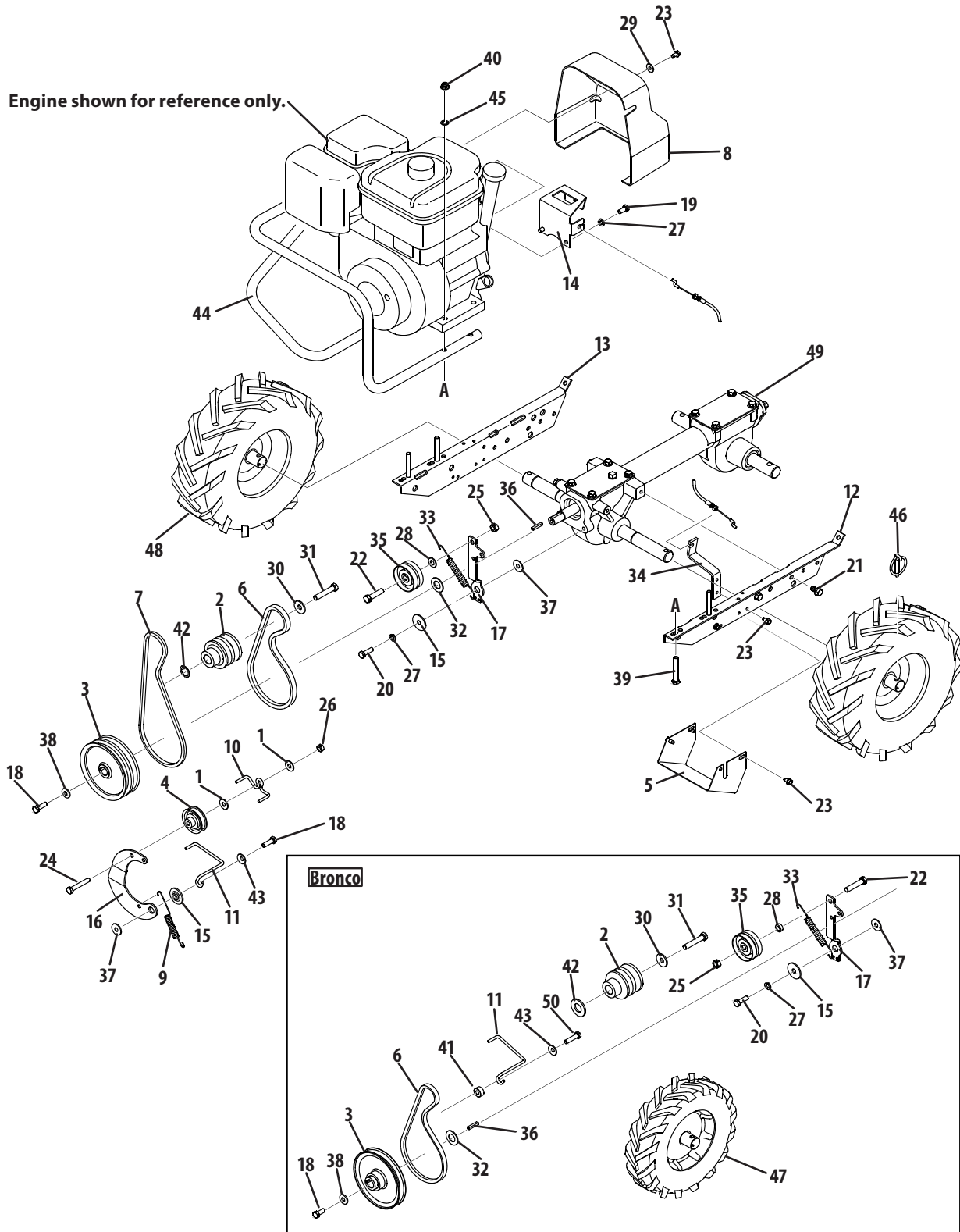
Ref.	Part Number	Description
1.	686-04076	Tine Hood Assembly (A)
—	686-04077	Tine Hood Assembly (B, C)
2.	710-0395	Hex Screw, 5/16-18 x 2.25
3.	710-0597	Hex Head Screw, 1/4-20 x 1
4.	710-0599	Self-Tapping Screw, 1/4-20 x 1/2
5.	710-0874	Hex Head Screw, 5/16-18 x 1-1/4
6.	710-3008	Hex Head Screw, 5/16-18 x .75
7.	712-04063	Nylon Hex Lock Nut, 5/16-18
8.	712-04064	Nylon Hex Lock Nut, 1/4-20
9.	715-0108	Spirol Pin
10.	732-04320	Depth Regulator Spring
11.	736-0275	Flat Washer, 5/16
12.	750-04149	Spacer, .462 x .328 x 1.63
13.	750-04160	Bushing
14.	750-04556	Spacer
15.	786-04092	Reverse Stop Arm
16.	786-04098	Channel Support Bracket
17.	786-04104	Drag Bar
18.	786-04191	Flap Stop Bracket
19.	786-04290	Hood Bracket, Left Hand
20.	786-04291	Hood Bracket, Right Hand
21.	786-04292	Adjustable Depth Bar
22.	710-0106	Hex Hd. Screw, 1/4-20 x 1-1/4
23.	710-04163	Screw, #10-24 x 2
24.	712-3009	Hex Lock Nut, 5/16-18
25.	712-0121	Hex Nut, #10-24

Ref.	Part Number	Description
26.	712-0291	Hex Lock Nut, 1/4-20
27.	732-04185	Forward Clutch Spring
28.	746-04208	Forward Clutch Cable Assembly
29.	746-04058	Rev. Clutch Cable Assembly (B, C)
30.	747-04210	Forward Clutch Bail
31.	749-04084	Upper Handlebar
32.	749-04208	Lower Handlebar
33.	749-04106	Conduit Mount Tab
34.	786-04040	Reverse Clutch Cable Bracket (B, C)
35.	786-04188	Handlebar Support
36.	786-04200	Panel
37.	710-0216	Hex Screw, 3/8-16 x 3/4
38.	710-0805	Hex Screw, 5/16-18 x 1-1/2
39.	712-3000	Hex Lock Nut, 3/8-16
40.	736-0119	Lock Washer, 5/16
41.	725-0157	Cable Tie
42.	736-3050	Flat Washer, 3/8
43.	712-04065	Flange Lock Nut, 3/8-16
44.	710-0347	Hex Hd. Screw, 3/8-16 x 1-3/4
45.	710-0514	Hex Hd. Screw, 3/8-16 x 1
46.	710-04048	Flange Screw, .312-18 x 1.00
47.	742-04117	Single Bolo Tine Left Hand
48.	742-04116	Single Bolo Tine Right Hand
49.	686-04066	Tine Holder (A)
—	686-04065	Tine Holder (B, C)

- (A) — Bronco
 (B) — Super Bronco
 (C) — Pro Line

640 & 650 Series Drive System

Engine shown for reference only.



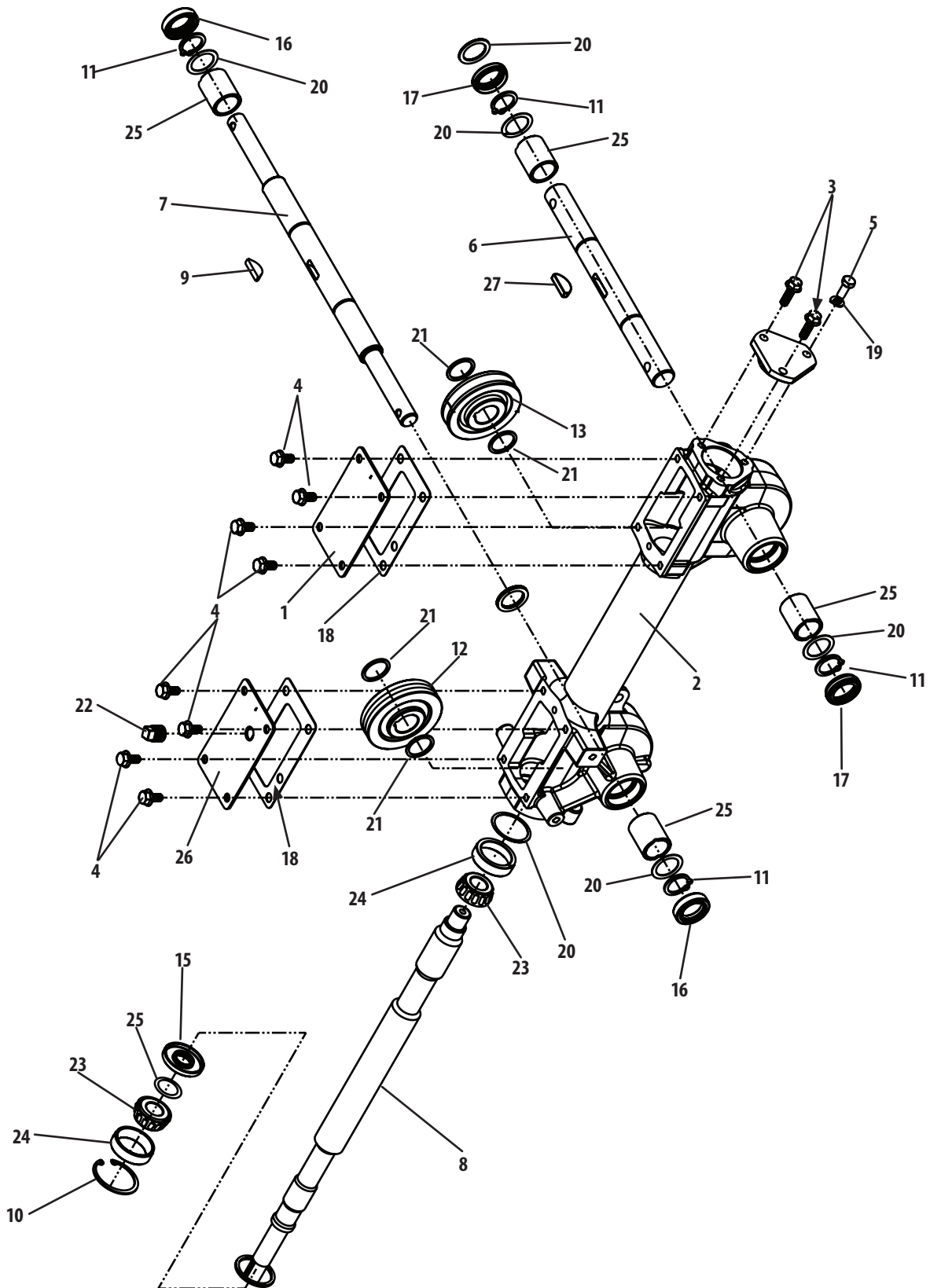
640 & 650 Series Drive System

Ref.	Part Number	Description
1.	736-0159	Flat Washer, $\frac{5}{16}$
2.	756-04198	Engine Drive Pulley
3.	656-04023A	Transmission Pulley (A)
—	656-04005A	Transmission Pulley (B, C)
4.	756-04169	Reverse Idler Pulley (B, C)
5.	786-04095	Belts/Pulleys Guard
6.	754-04090	Forward Drive Belt
7.	754-04091	Reverse Drive Belt (B, C)
8.	731-05268	Belt Cover
9.	732-04289	Reverse Return Spring (B, C)
10.	732-04081	Belt Guide (B, C)
11.	732-04079	Belt Guide
12.	786-04068	Engine Bracket Left
13.	786-04069	Engine Bracket Right
14.	786-04070	Belt Cover Bracket
15.	748-04087	Shoulder Washer
16.	786-04276	Reverse Idler Arm (B, C)
17.	786-04275	Forward Idler Lever
18.	710-0117	Hex Head Screw, $\frac{5}{16}$ -24 x 1
19.	710-0237	Hex Head Screw, $\frac{5}{16}$ -24 x $\frac{5}{8}$
20.	710-0376	Hex Head Screw, $\frac{5}{16}$ -18 x 1
21.	710-04049	Hex Head Screw, $\frac{5}{16}$ -18 x $\frac{5}{8}$
22.	710-0347	Hex Head Screw, $\frac{3}{8}$ -16 x 1- $\frac{3}{4}$ (A)
—	710-0520	Hex Head Screw, $\frac{3}{8}$ -16 x 1.50 (B, C)
23.	710-0599	Self-Tapping Screw, $\frac{1}{4}$ -20 x $\frac{1}{2}$
24.	710-3103	Hex Head Screw, $\frac{5}{16}$ -18 x 2 (B, C)
25.	712-3000	Lock Nut, $\frac{3}{8}$ -16
26.	712-3009	Lock Nut, $\frac{5}{16}$ -18 (B, C)

Ref.	Part Number	Description
27.	736-0119	Lock Washer, $\frac{5}{16}$ (A)
28.	750-0535	Spacer, .380 ID x .625 OD x .21 (A)
—	736-3050	Flat Washer, .406 x .812 x .051 (B, C)
29.	736-3090	Flat Washer, .260 x .720 x .060
30.	736-0452	Bell Washer, .396 x 1.140 x .095
31.	710-0459A	Hex Head Screw, $\frac{3}{8}$ -24 x 1.50
32.	736-04181	Support Washer, .690 x 1.250 x .075
33.	732-04085	Forward Return Spring
34.	786-04107	Cable Mounting Bracket
35.	756-04170	Forward Idler Pulley
36.	714-0105	Key, $\frac{3}{16}$ " x 1"
37.	736-3078	Flat Washer, .344 x 1.00 x .063
38.	736-04193	Belleville Washer, .827 x .331 x .098
39.	710-0805	Hex Screw, $\frac{5}{16}$ -18 x 1.50 (A, B)
—	710-0395	Hex Screw, $\frac{5}{16}$ -18 x 2- $\frac{1}{4}$ (C)
40.	712-04063	Hex Lock Nut, $\frac{5}{16}$ -18
41.	750-0258	Shlder Spacer, .315 x .750 x .375 (A)
42.	736-0315	Flat Washer, .75 x 1.5 x .125 (A)
—	736-04192	Flat Washer, .786 x 1.000 x .031 (B, C)
43.	736-0242	Bell Washer, .340 x .872 x .060
44.	749-04193	Bumper (C)
45.	726-0201	Speed Nut, $\frac{5}{16}$ -18 (C)
46.	714-0143	Klik Pin
47.	734-04188	Complete Wheel Ass., 10 x 2.75 (A)
48.	634-04232	Complete Whl. Ass., 13 x 5 x 6 (B, C)
49.	618-04360A	Transmission Assembly (A)
—	618-04362	Transmission Assembly (B, C)
50.	710-0672	Hex Head Screw, $\frac{5}{16}$ -24 x 1.25

- (A) — Bronco
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640 & 650 Series Transmission Assembly

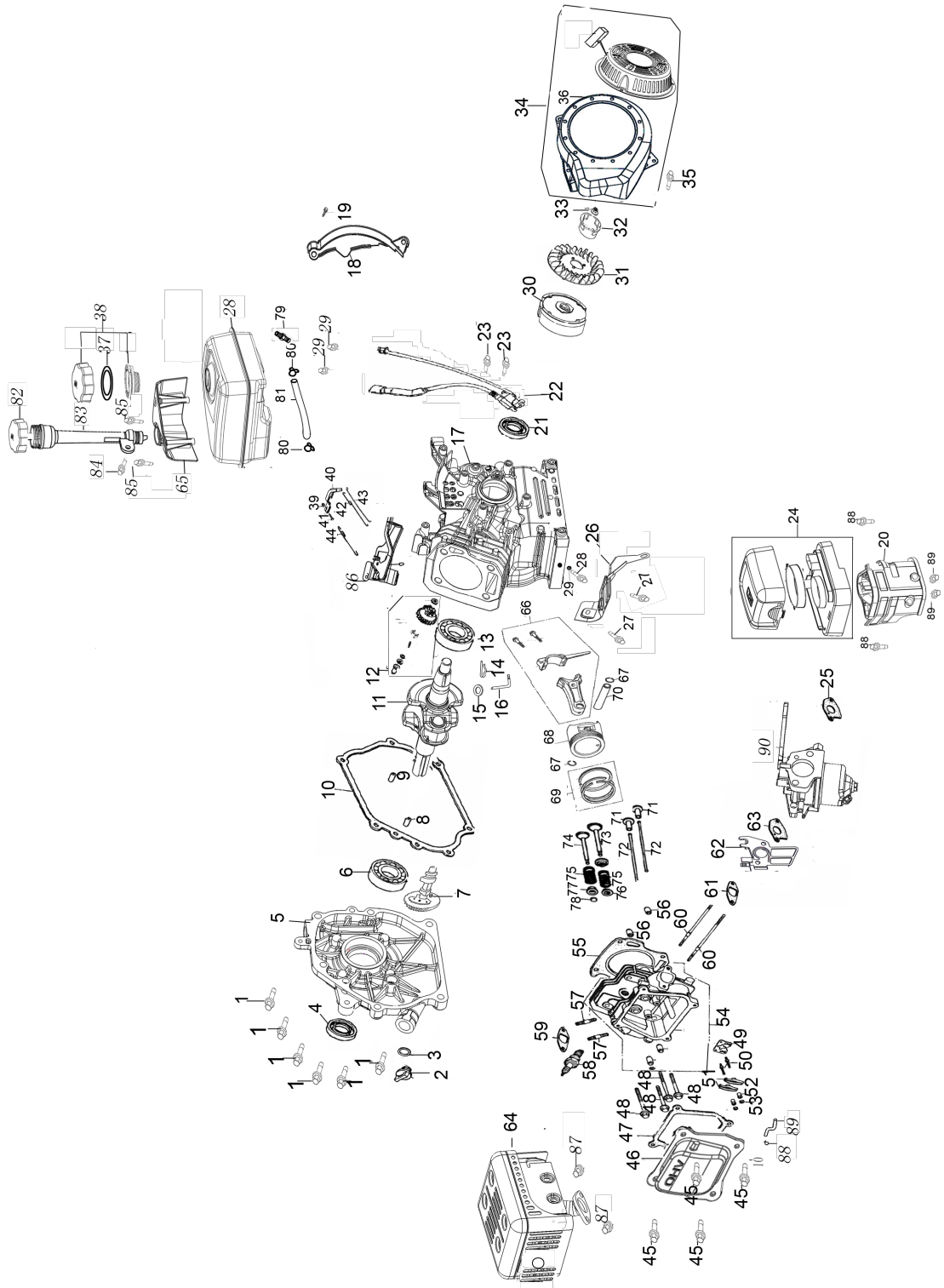


640 & 650 Series Transmission Assembly

Ref.	Part Number	Description
1.	1918377	Cover Housing
2.	619-04013	Transmission Housing
3.	710-04048	Hex Head Flange Screw
4.	710-04049	Hex Head Flange Screw
5.	710-3008	Hex Screw
6.	711-04078	Tiller Shaft
7.	711-04486	Wheel Shaft
8.	711-04882	Drive Shaft
9.	714-04059	Hi-Pro Key
10.	716-04102	Retaining Ring
11.	716-04104	Retaining Ring
12.	717-04380	Worm Gear, 61T
13.	717-04381	Worm Gear, 30T
14.	718-04008	Rear Bearing Cover
15.	721-04030	Oil Seal, .75 x 1.783
16.	721-04031	Oil Seal, 1.0 x 1.499
17.	721-04036	Oil Seal, 1.0 x 1.5
18.	721-04229	Gear Housing Gasket
19.	736-0119	Lock Washer
20.	736-04309	Flat Washer, 1.375 x 1.015 x .062*
—	736-04308	Flat Washer, 1.5 x 1.75 x .01*
—	736-04307	Flat Washer, 1.5 x 1.75 x .03*
—	736-04306	Flat Washer, 1.5 x 1.75 x .005*
—	736-04305	Flat Washer, 1.5 x 1.75 x .062*
—	736-04304	Flat Washer, 1.25 x .75 x .06*
—	736-04260	Flat Washer, 1.015 x 1.375 x .03*
—	736-04259	Flat Washer, 1.015 x 1.375 x .015*
—	736-04258	Flat Washer, 1.015 x 1.375 x .01*
—	736-04257	Flat Washer, 1.015 x 1.375 x .005*
21.	736-04310	Flat Washer, 1.015 x 1.234 x .062
22.	737-04202	Pipe Plug
23.	741-04298	Cone Bearing
24.	741-04299	Cup Bearing
25.	741-04300	Bushing, 1.005 x 1.25 x 1.5
26.	786-04359	Transmission Cover
27.	GW-1104	Woodruff Key, .25 x 1.12

* — 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.

Troy-Bilt Engine (170-T0)



Troy-Bilt Engine (170-T0)

Part No.	Part Description	Ref No.	Qty.	Part No.	Part Description	Ref No.	Qty.
751-10806	Air Filter Heating Pipe Base	20	1	751-10798	Short Block	—	—
751-10792	Ignition Complete	22	1		Bolt	1	6
751-10818	Air Filter Housing	24	1		Oil Filler Plug	2	1
751-10794	Air Filter	24	1		O-Ring	3	1
751-10796	Fuel Tank	28	1		Oil Seal	4	1
751-10790	Recoil Starter Assembly	34	1		Left Crankcase Cover	5	1
751-10649	Fuel Filler Cap Complete	38	1		Radial Ball Bearing	6	1
751-10654	Governor Spring	44	1		Camshaft Assembly	7	1
751-10657	Stud 8 × 34	57	2		Dowel Pin	8	1
751-10292	Spark Plug	58	1		Dowel Pin	9	1
751-10793	Muffler	64	1		Case Cover Packing	10	1
751-10662	Dipstick Decoration Cover	65	1		Crankshaft Complete	11	1
751-10648	Push Rod Kit	71/72	—		Governor Kit	12	1
	Valve Lifter	71	2		Radial Ball Bearing	13	1
	Push Rod	72	2		Lock Pin	14	1
751-10647	Valve Kit	73/74	—		O-Ring	15	1
	Inlet Valve	73	1		Governor Arm	16	1
	Exhaust Valve	74	1		Crankcase Complete	17	1
751-10651	Fuel Tank Nipple	79	1		Oil Seal	21	1
751-10655	Dipstick	82	1		Carburetor Packing	25	1
751-10656	Engine/Dipstick Cover	83	1		Bolt	28	1
751-10797	Carburetor	90	1		Nut	29	2
751-10799	Cylinder Head	—	—		Head Cover Gasket	47	1
	Rocker Arm	51	2		Cylinder Head Gasket	55	1
	Valve Adjusting Nut	52	2		Carburetor Insulator Packing	61	1
	Pivot Locking Nut	53	2		Carburetor Insulator	62	1
	Cylinder Head Complete	54	1		Connecting Rod Assembly	66	1
	Dowel Pin	56	2		Piston Pin Clip	67	2
	Muffler Gasket	59	1		Piston	68	1
					Piston First Ring Set	69	1
					Piston Pin	70	1
				751-10307	Flywheel Key (Not Shown)	—	—
				751-10800	Carb. Kit Major (Not Shown)	—	—
				751-10801	Gasket Kit — Ext. (Not Shown)	—	—
				751-10802	Gasket Kit — Comp. (Not Shown)	—	—