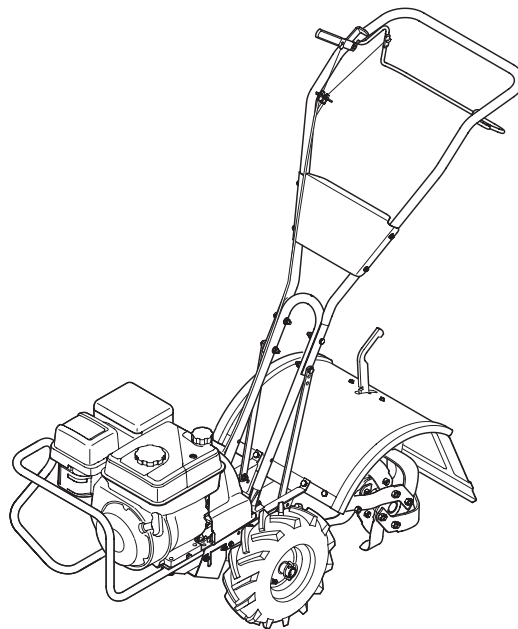




ILLUSTRATED PARTS MANUAL



Rear Tine Tillers

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

To The Owner

Thank you for purchasing an MTD Tiller. It was carefully engineered to provide excellent performance when properly operated and maintained.

All information in this manual is relative to the most recent product information available at the time of printing. Please be aware that this Illustrated Part's Manual may cover a range of product specifications for various models.

Components listed and/or illustrated in this manual may not be applicable to all models. We reserve the right to change product specifications, designs and equipment without notice and without incurring obligation.

Throughout this manual, all references to *right* (RH) and *left* (LH) are observed from the operating position.

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Model Series 640 & 650.....	4	Model Series 680	18

Record Product Information

To ease in ordering replacement parts, please locate the model plate on the equipment and record the information in the provided area to the right. You can locate the model plate by looking beneath the seat.

MODEL NUMBER

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SERIAL NUMBER

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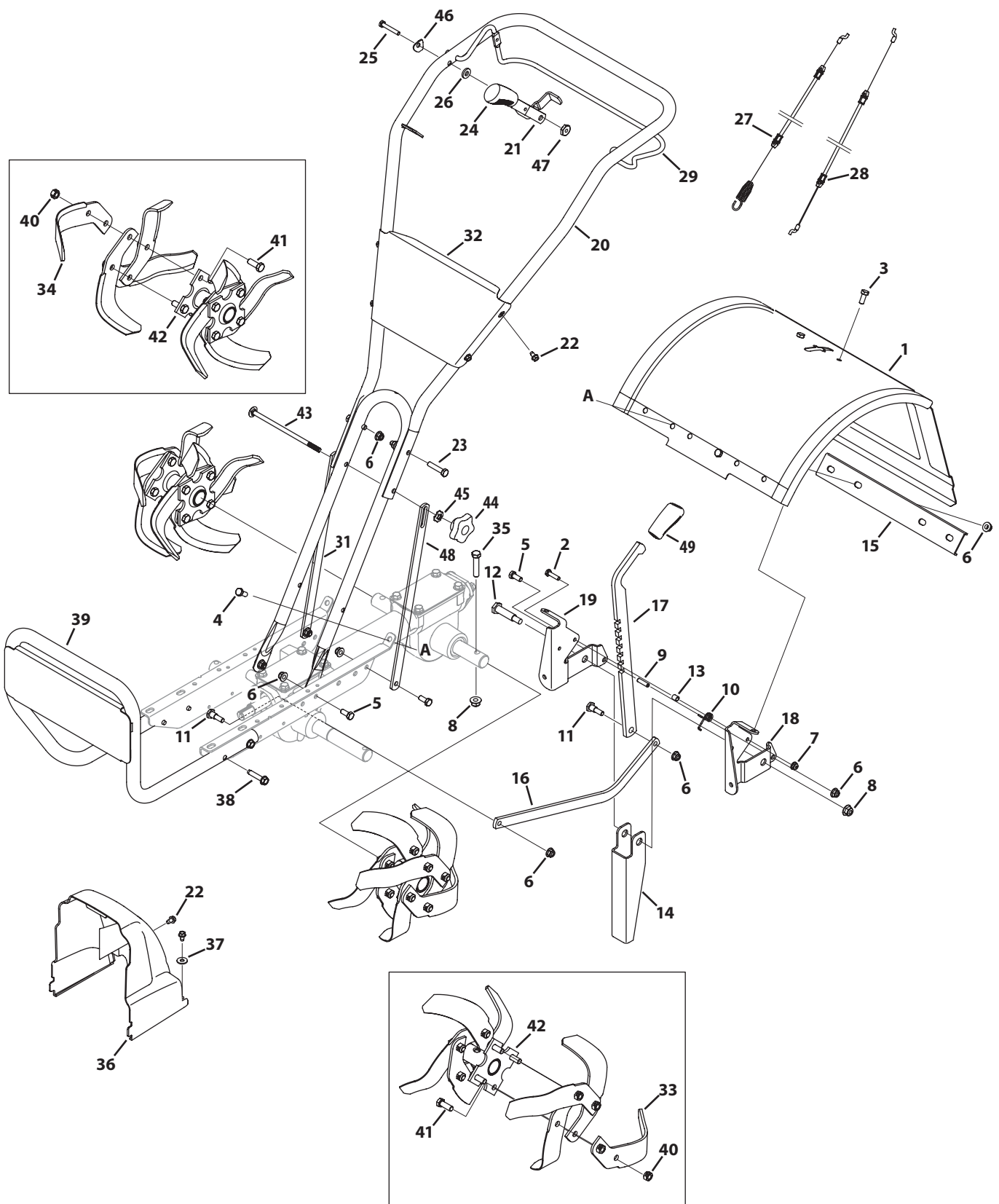
Painted Parts

When ordering painted service parts, a four digit color suffix must be added to the part number (e.g. 783-XXXX-0637). Please refer to the table below for current color codes:

0637	Black	0674	Yellow (Yard-Man)
0709	Dark Green (Bolens, Yard-Man)	0650	Metallic Red (White Outdoor)
0662	Oyster Gray (MTD Gold)	0629	Silver Flake (MTD Platinum)
0638	Red (Yard Machines, Huskee, Troy-Bilt, MTD)	04038	Day Orange (Daedong)
0691	Black Jack (MTD Gold, MasterCut)	04033	Flint Mica (Troy-Bilt XP)

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Model Series 640 & 650

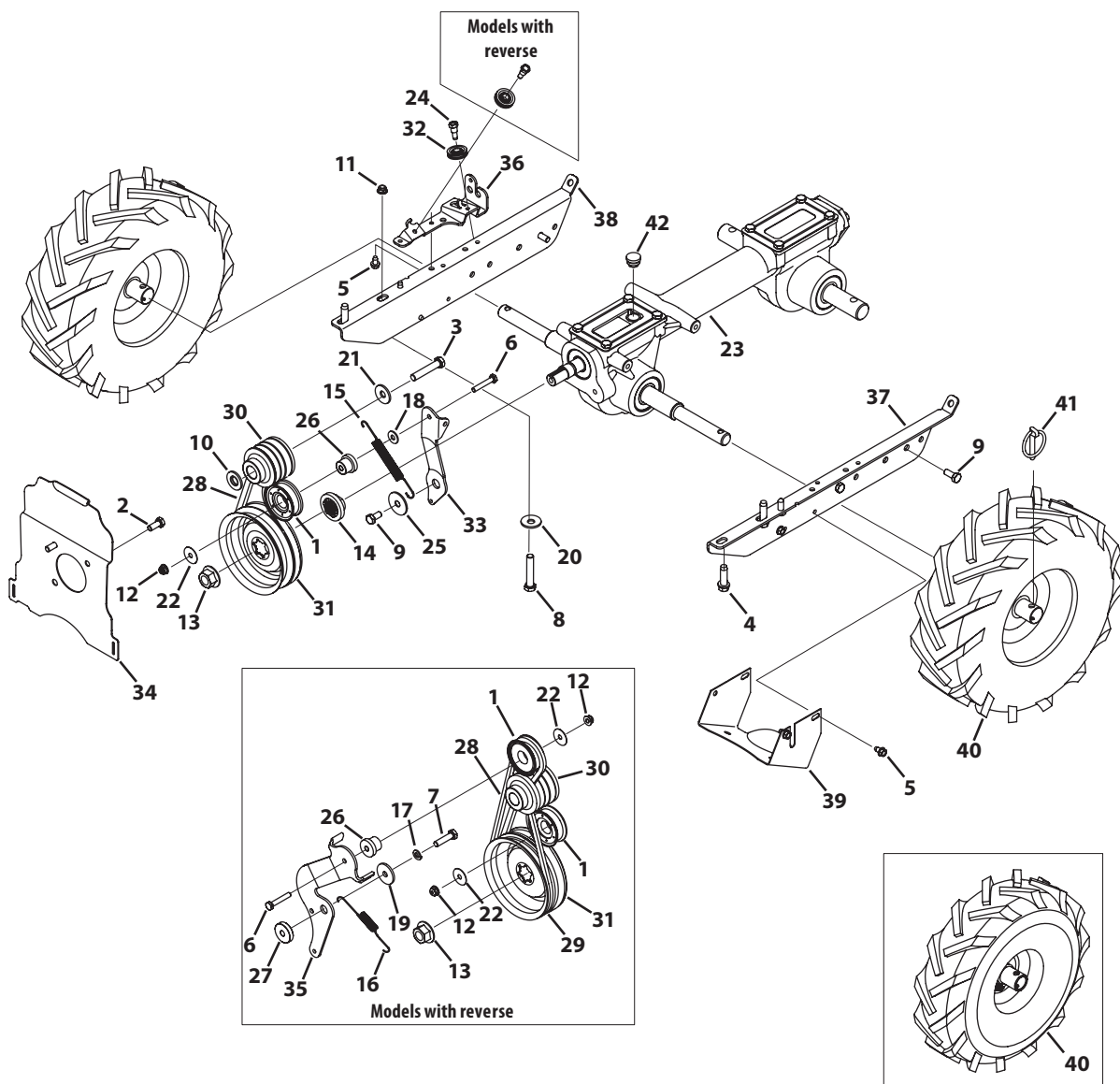


Model Series 640 & 650

Ref.	Part Number	Description	Ref.	Part Number	Description
1*	686-04077A	Tine Shield Assembly	26*	936-0176	Flat Washer, .265 x .938 x .120
1	686-04076A	Tine Shield Assembly	27	746-04413	Forward Cable
2	710-0597	Hex Head Screw, 1/4-20 x 1.00	28*	946-04414	Reverse Cable
3	710-0604A	Screw, 5/16-18 x 0.625	29	747-04789	Clutch Bail
4	710-1238	Hex Head Washer, 5/16-18 x .875	30	749-04742	Lower Handle
5	710-3008	Hex Head Screw, 5/16-18 x .75	31	786-04433	Support Handle Bracket
6	712-04063	Flangelock Nut, 5/16-18	32	786-04200	Handle Panel
7	712-04064	Flangelock Nut, 1/4-20	33	742-04226	LH Bolo Tine
8	712-04065	Flangelock Nut, 3/8-16	34	742-04227	RH Bolo Tine
9	715-0108	Spring Pin, 1/4 DIA x 1.00 LG	35	710-0347	Hex Head Screw, 3/8-16 x 1.75
10	732-04320	Torsion Spring	36	731-06170	Belt Cover
11	738-04320	Screw, Shoulder, 5/16-18 x .405 x .435	37	736-0173	Washer, Flat, .28 x .74 x .063
12	938-0533	Screw, Shoulder, 5/16-18 x 1.635	38*	710-04605	Screw, 5/16-18 x 1.50
13	750-05349	Spacer, Split, .350 x .268 x .375	39*	686-04134	Bumper
14	786-04092	Stop Reverse Arm	40	912-3000	Nut, Hexlock, 3/8-16
15	786-04098	Support Channel Bracket	41	710-0514	Hex Head Screw, 3/8-16 x 1.00
16	786-04104	Depth Drag Bar	42*	686-04065	Tine Holder Assembly
17	786-04292A	Depth Adjuster Bar	42	686-04066	Tine Holder Assembly
18	786-04363	LH Tail Bracket	43	710-05211	Carriage Bolt, 5/16-18 x 6.75
19	786-04364	RH Tail Bracket	44	720-04072A	Knob, 5/16-18
20	649-04097	Upper Handle Assembly	45	936-0170	Washer, .326 x .875 x .145
21*	686-04135	Reverse Handle Assembly	46*	936-0451	Washer, Saddle, .320 x .93 x .060
22	710-0599	Screw, 1/4-20 x 0.500	47*	738-0440	Spacer, .375 x .165
23	710-0805	Hex Head Screw, 5/16-18 x 1.50	48	786-04434	Support Handle Bracket
24*	731-04735	Reverse Handle Grip	49	720-04163	Handle Grip
25*	710-3288	Hex Head Screw, 1/4-20 x 1.62			

* 650 Series

Model Series 640 & 650



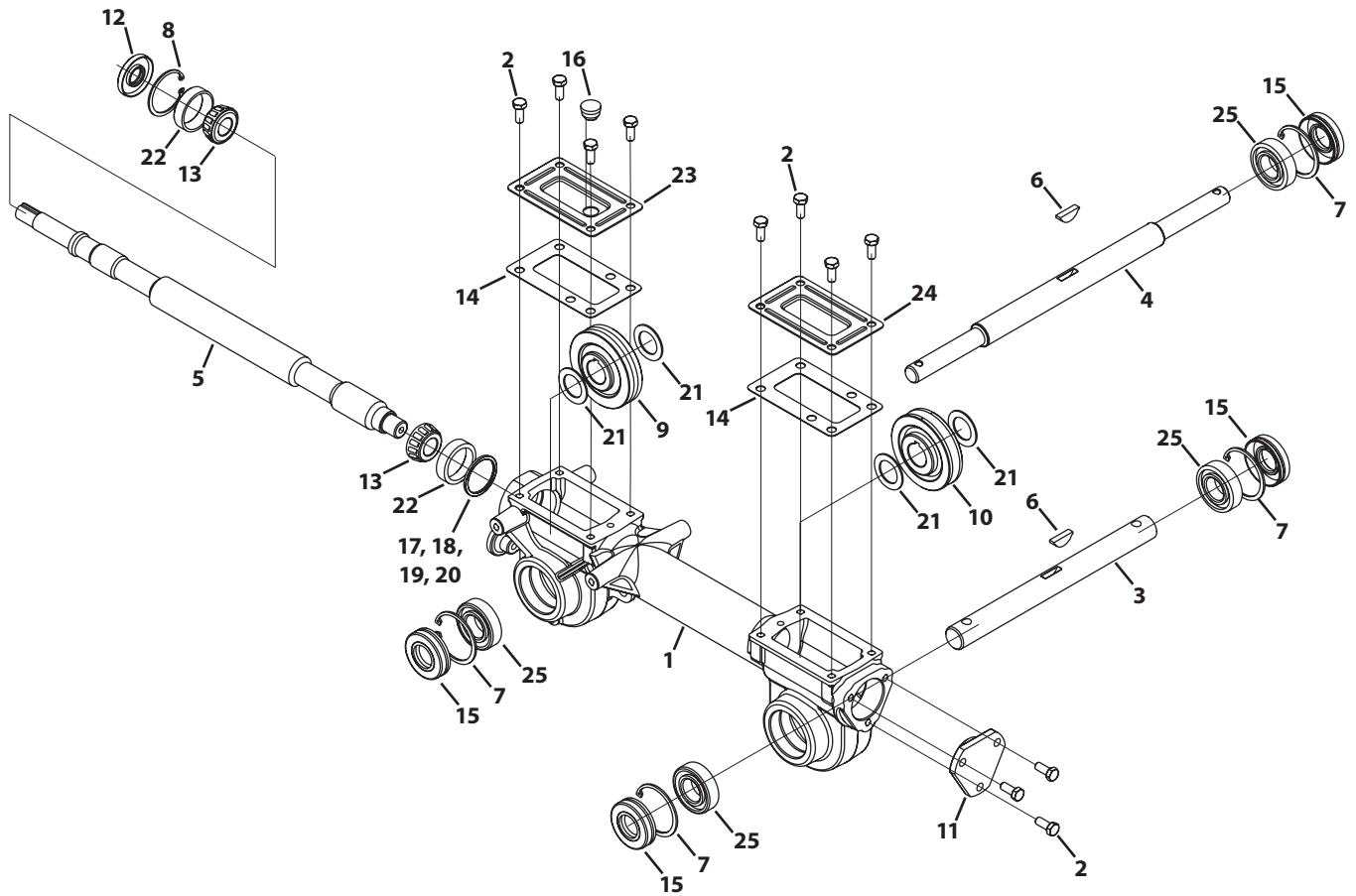
Model Series 640 & 650

Ref.	Part Number	Description
1	684-04168	Idler Pulley Assembly, 1.917 OD
2	710-0170	Hex Head Screw, 5/16-24 x .625
3	710-0331	Hex Head Screw, 3/8-24 x 2.25, B&S
	710-0151	Hex Head Screw, 3/8-24 x 2.00
4	710-0502A	Screw, 3/8-16 x 1.250
5	710-0599	Screw, 1/4-20 x 0.500
6	710-0606	Hex Head Screw, 1/4-20 x 1.50
7	710-0672	Hex Head Screw, 5/16-24 x 1.25
8	710-0805	Hex Head Screw, 5/16-18 x 1.50, B&S
9	710-1880	Hex Head Screw, 5/16-18 x .75, Patch
10	736-0315	Washer, Flat, .760 x 1.50 x .120
11	712-04063	Flangelock Nut, 5/16-18, B&S
12	712-04064	Flangelock Nut, 1/4-20
13	712-0700	Flange Nut, 9/16-18
14	718-04407	Pulley Hub, 5/8 SPLINE
15	732-04085	Extension Spring, .480 OD x 5.00 LG
16	732-04276A	Extension Spring, LT5 PTO
17	936-0119	Washer, Lock, 5/16
18	736-0173	Washer, Flat, .28 x .74 x .063
19	736-0343	Washer, Flat, .330 x 1.25 x .120
20	736-04193	Washer, .396 x 1.140 x .095, B&S
21	936-0452	Washer, Bell, .396 x 1.140 x .095

Ref.	Part Number	Description
22	736-3092	Washer, Flat, .265 x 1.0 x .030
23	753-06042A	Transmission Assembly
24	738-04425	Screw, Shoulder, 1/4-28 x .342 x .335
25	748-04087A	Forward Idler Pivot Spacer
26	750-04571	Spacer, Shoulder, .260 x .785 x .538
27	750-04907	Reverse Idler Pivot Spacer
28	1916657	V Belt, 4L x 25.375 LG
29	1916658	V Belt, 3L x 29.125 LG
30	756-04198A	Engine Pulley, 3L & 4L, Honda
31	756-04355	Transmission Pulley
32	756-0625	Cable Roller
33	786-04312	Forward Idler Bracket
34	786-04343	Cover Mounting Plate
35	786-04346	Reverse Idler Bracket
36	786-04357	Pulley Mounting Bracket
37	786-04419A	LH Mount Frame
38	786-04418A	RH Mount Frame
39	786-04371	Pulley Shield
40	934-04232	Wheel, 13 x 5 x 6
*	934-04453	Wheel Assembly, 11 x 4-4
41	714-0143A	Klik Pin, .25 DIA x 1.56
42	721-04271	Oil Plug

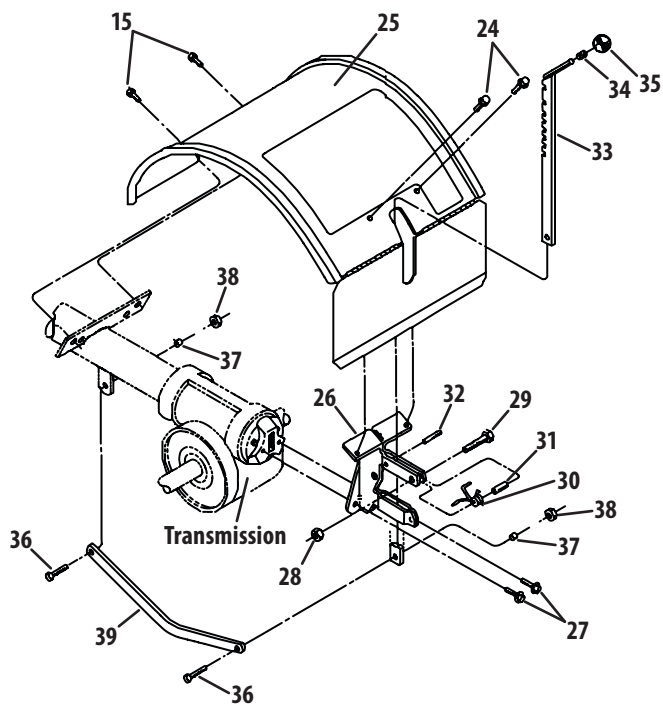
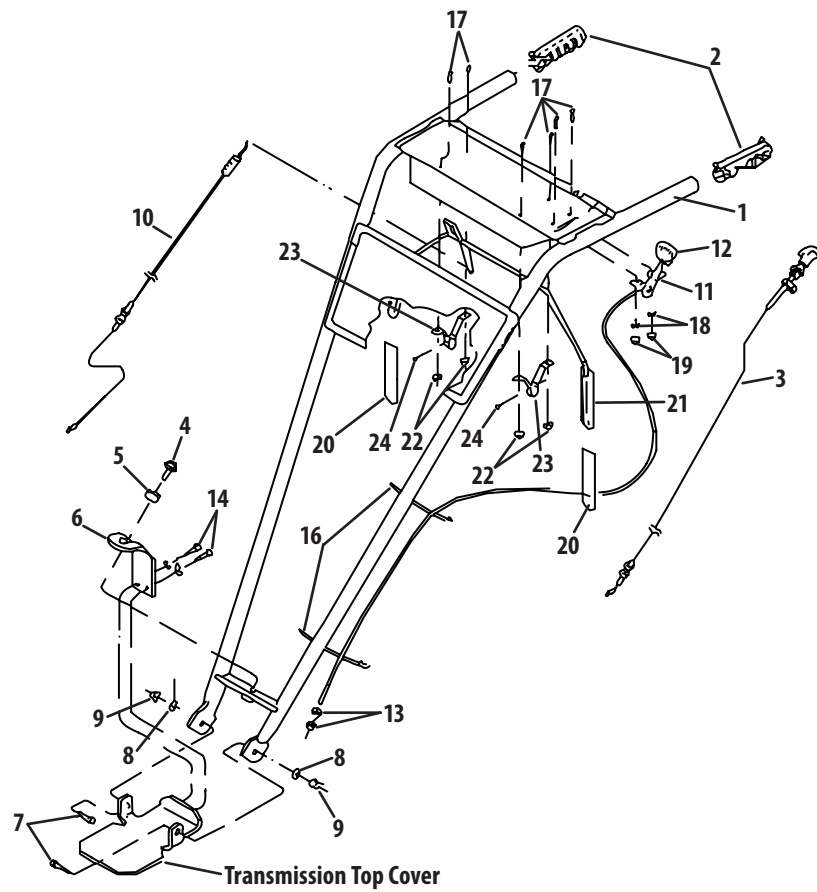
* 640 Series

Model Series 640 & 650



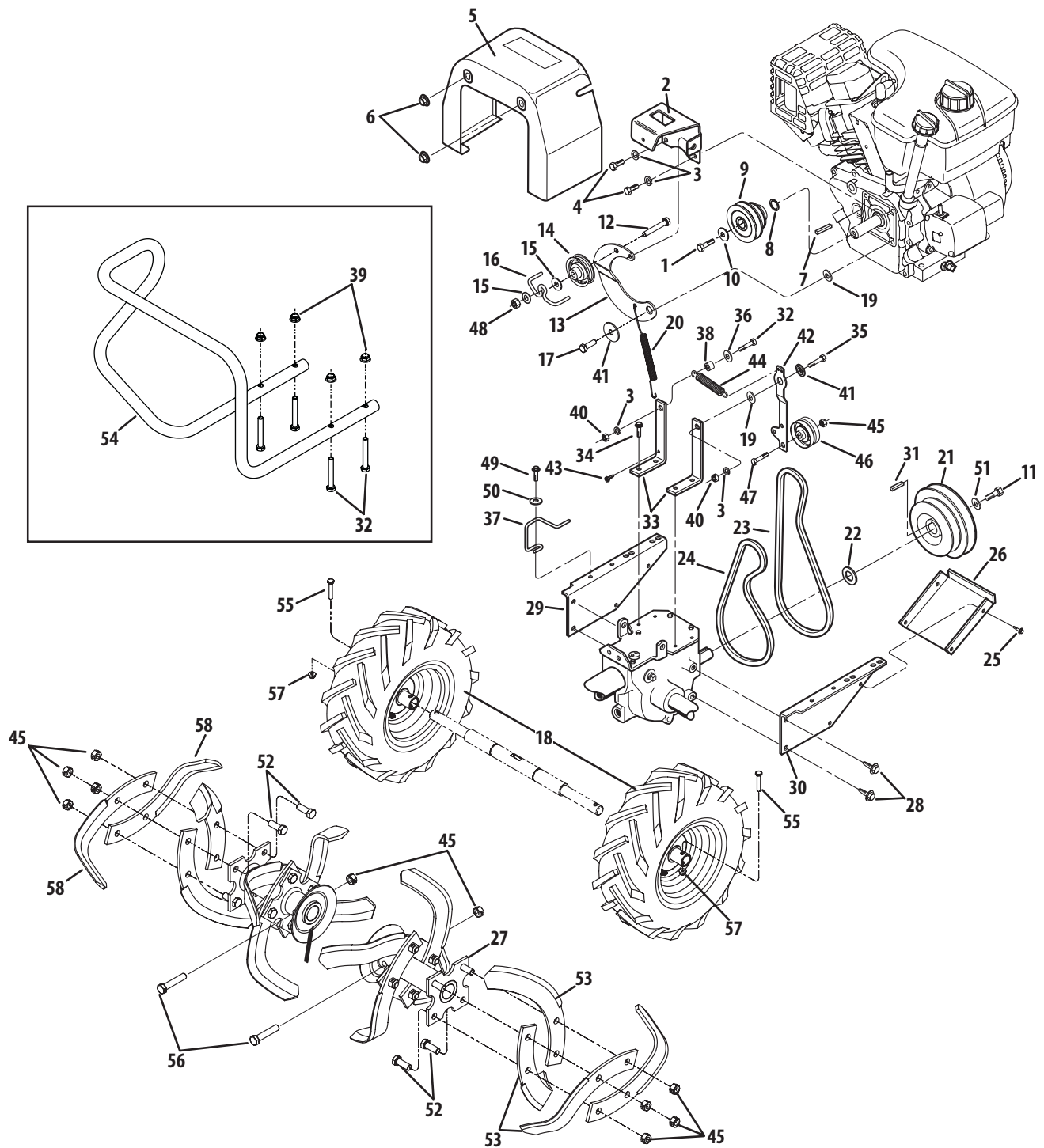
Ref.	Part Number	Description
1	919-04202B	Transmission Housing
2	710-3008	Hex Head Screw, 5/16-18 x .75
3	911-04844	Tiller Shaft
4	911-04854	Wheel Shaft
5	711-05035	CRT Drive Shaft
6	714-04059	Key, .25 x 1.062
7	716-0204	Retainer Ring
8	716-04102	Retainer Ring
9	917-04380	RH Gear Worm, 61T
10	917-04381	LH Gear Worm, 30T
11	918-04435	Bearing Cover
12	921-04030	Oil Seal, .750 SHF x 1.783 BORE
13	941-04298	Cone Bearing
14	921-04229	Gear Housing Gasket
15	721-04232	Oil Seal, 1.00 SHF x 2.00 BORE
16	721-04271	Rubber Oil Plug
17	736-04305	Washer, Flat, 1.50 x 1.75 x .062
18	736-04306	Washer, Flat, 1.50 x 1.75 x .005
19	736-04307	Washer, Flat, 1.50 x 1.75 x .03
20	736-04308	Washer, Flat, 1.50 x 1.75 x .010
21	736-0745	Washer, Flat, 1.010 x 1.56 x .060
22	941-04299	Cup Bearing
23	786-04366	Tiller Transmission Cover
24	786-04392	Tiller Transmission Cover
25	741-3114	Ball Bearing, 1 x 52 x 15 x 6205-1

Model Series 660



Ref.	Part Number	Description
1.	1918811P	Handlebars
2.	720-0274	Grip
3.	1916784P	Reverse Clutch Control Cable
4.	710-04042	Hex Flange Screw, 3/8-16
5.	736-04445	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.	946-04027	Forward Clutch Control Cable
11.	GW-9442P	Wheel Gear Control & Cable Ass.
12.	GW-9057	Wheel Gear Control Lever Knob
13.	1186211	Hex Nut, 5/16-24
14.	710-0623	Self-tapping Screw, 3/8-16 x 3/4
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	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

Model Series 660



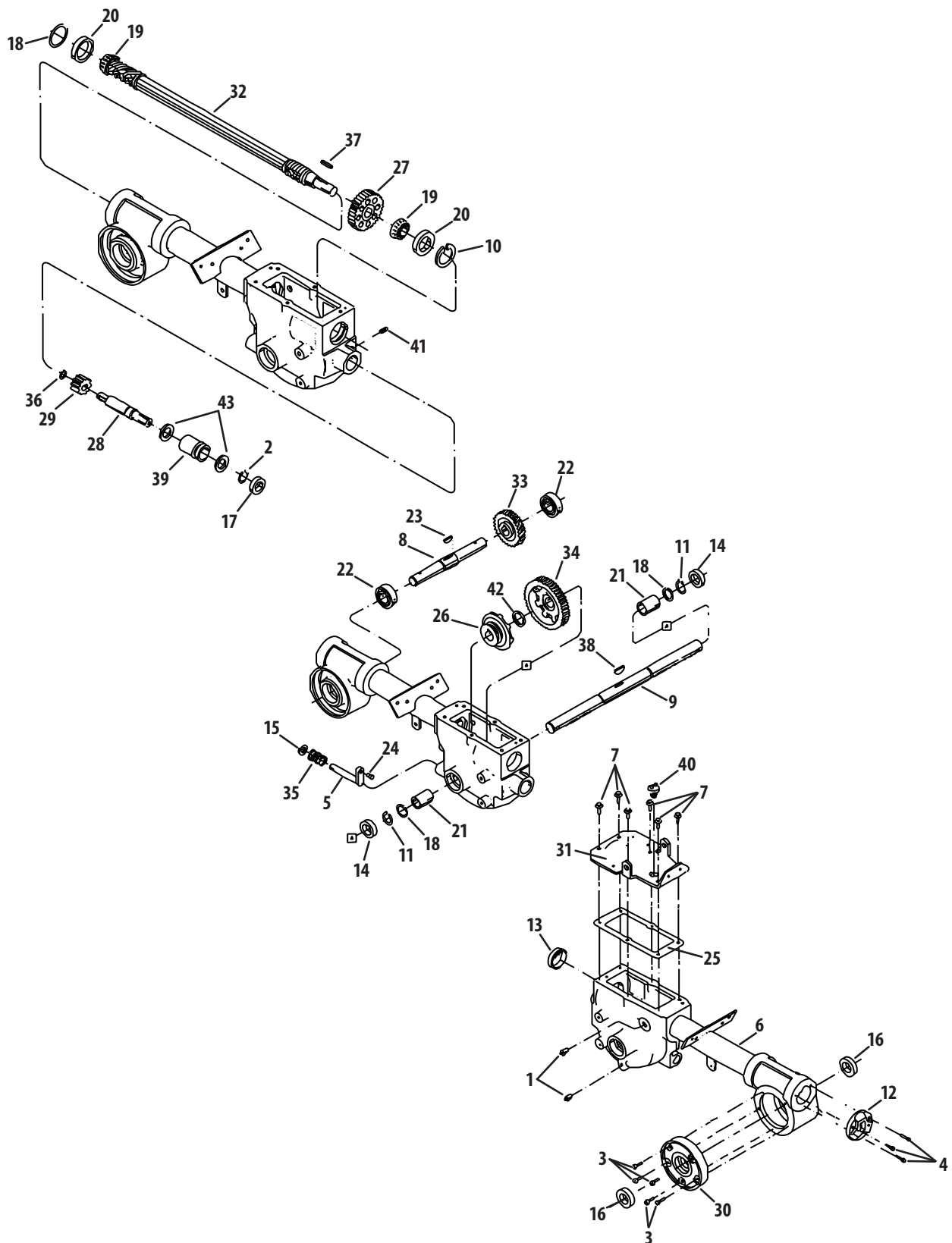
Ref.	Part Number	Description
1.	710-0331	Hex Screw, $\frac{3}{8}$ -24 x 2.25 (A)
—	710-0672	Screw, $\frac{5}{16}$ -24 x 1.25 (B)
2.	786-04070	Clutch Cable Bracket
3.	936-0119	Lockwasher, $\frac{5}{16}$
4.	710-0107	Hex Head Screw, $\frac{5}{16}$ -24 x $\frac{1}{2}$
5.	731-05290	Cover
6.	712-3004A	Flange Lock Nut, $\frac{5}{16}$ -18
7.	714-0139	Key, $\frac{3}{16}$ -2 (A)
—	914-0133	Key, $\frac{3}{16}$ x 1.5 (B)
8.	736-04187	Shim
9.	619-04130	Engine Pulley
10.	936-0452	Belle. Washer, .344 x 1.0 x .063 (A)
—	736-04193	Belle. Washer .827 x .331 x .098 (B)
11.	710-0672	Hex Head Screw, $\frac{5}{16}$ -24 x 1.25
12.	710-3103	Hex Head Screw, $\frac{5}{16}$ -18 x 2
13.	786-04276	Reverse Idler Arm
14.	1916535	Reverse Idler Pulley
15.	936-0159	Flat Washer, $\frac{5}{16}$
16.	732-04081	Wire Formed Belt Guide
17.	710-0888	Hex Head Screw, $\frac{5}{16}$ -24 x 1
18.	934-04232	Wheel Assembly, 13 x 5 x 6
19.	736-3078	Flat Washer, 1- $\frac{1}{8}$
20.	732-04077	Reverse Return Spring
21.	619-04123	Transmission Pulley
22.	736-04079	Support Washer
23.	1918812	Reverse Clutch Belt
24.	1909404	Forward Clutch Belt
25.	1900396	Self-tapping Screw, #10-32 x $\frac{1}{2}$
26.	786-04080	Belts/Pulleys Guard
27.	686-04067	Tine Holder
28.	710-04043	Hex Flange Screw, $\frac{5}{16}$ -18 x $\frac{3}{4}$

Ref.	Part Number	Description
29.	1916797001	Engine Support Bracket (left side)
30.	786-04067	Engine Support Bracket (rt side)
31.	914-0133	Key, $\frac{3}{16}$ x 1.50
32.	710-0395	Hex Head Screw, $\frac{5}{16}$ -18 x 2- $\frac{1}{4}$
33.	1918774001	Mounting Bar
34.	710-1260A	Hex Flange Screw, $\frac{5}{16}$ -18 x .75
35.	710-0805	Hex Head Screw, $\frac{5}{16}$ -18 x 1- $\frac{1}{2}$
36.	936-0275	Flat Washer, $\frac{5}{16}$
37.	732-04082	Belt Guide
38.	GW-55088	Pivot Bushing
39.	712-04063	Hex Lock Nut, $\frac{5}{16}$ -18
40.	912-3010	Hex Nut, $\frac{5}{16}$ -18
41.	748-04087A	Shoulder Washer
42.	786-04275	Forward Tiller Direction Idler Arm
43.	1767754	Self-tapping Screw, #10-24
44.	1916727	Spring
45.	912-3000	Hex Locknut, $\frac{5}{16}$ -18
46.	756-04170	Forward Idler Pulley
47.	710-0347	Screw, $\frac{3}{8}$ -16 x 1- $\frac{3}{4}$
48.	912-0158	Hex Lock Nut, $\frac{5}{16}$ -18
49.	1754128	Screw, $\frac{1}{4}$ -20 x $\frac{3}{4}$
50.	936-0463	Flat Washer, $\frac{1}{4}$
51.	736-04193	Belleville Washer, .827 x .331 x .098
52.	710-0514	Hex Head Screw, $\frac{3}{8}$ -16 x 1
53.	742-04223	Bolo Tine-single (Left)
54.	749-04193	Bumper
55.	710-05289	Hex Head Screw, $\frac{1}{4}$ -20 x 1.5
56.	710-3096	Hex Head Screw, $\frac{3}{8}$ -16 x 2
57.	712-04064	Flange Hex Locknut, $\frac{1}{4}$ -20
58.	742-04224	Bolo Tine-single (Right)

A — Model 662

B — Model 665

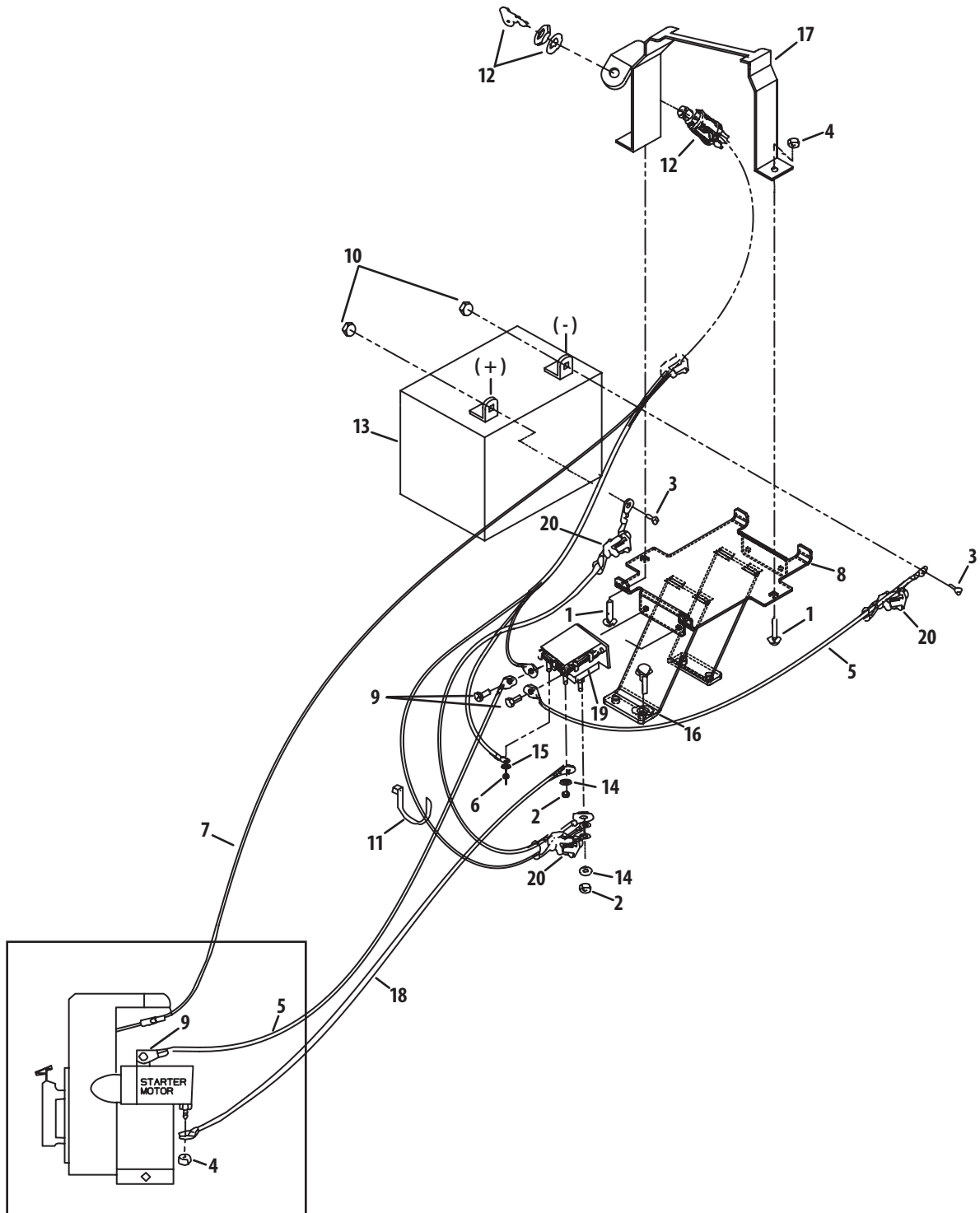
Model Series 660



Ref.	Part Number	Description
1.	1105620	Pipe Plug
2.	916-0101	Retaining Ring
3.	1915068	Hex Screw, 1/4-20 x .625
4.	1915069	Self-Sealing Screw, 1/4-20 x .875
5.	611-04002	Eccentric Shaft
6.	919-04010	Transmission Housing
7.	710-04043	Hex Flange Screw, 5/16-18 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*

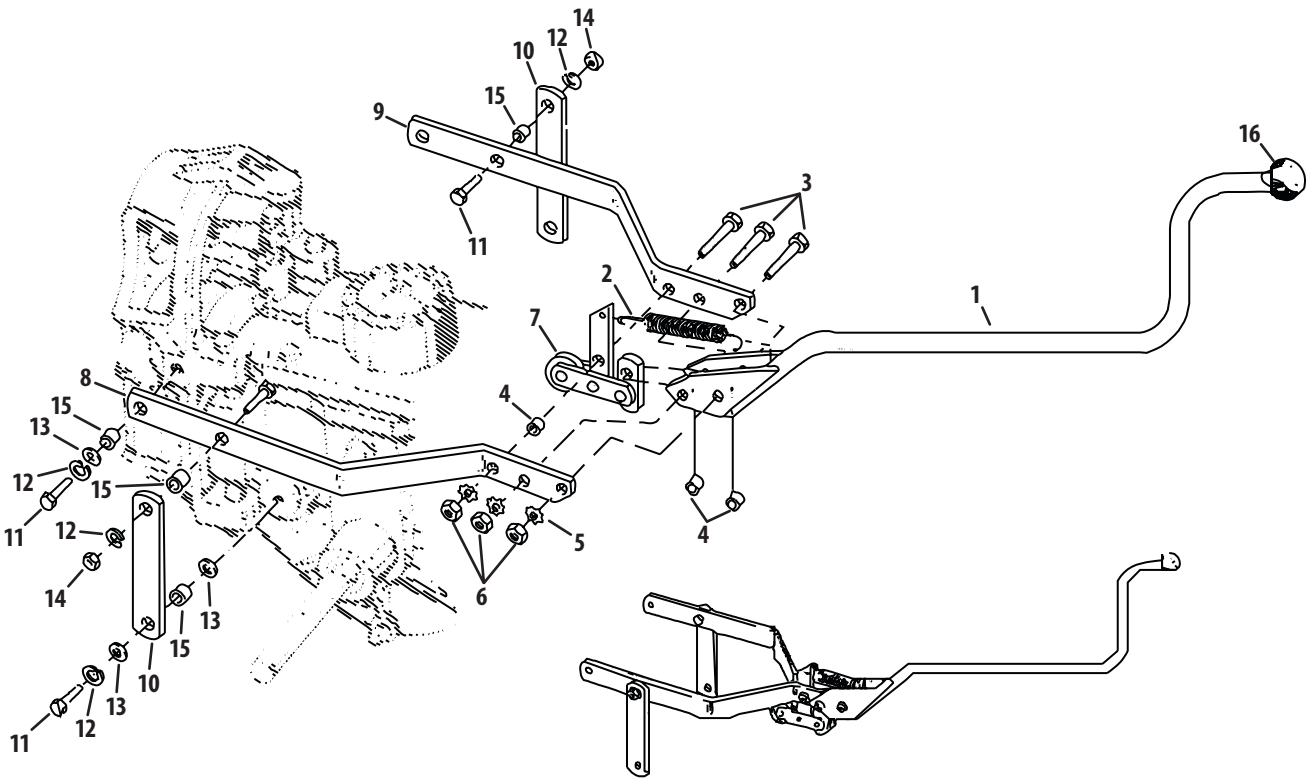
Ref.	Part Number	Description
19.	941-04298	Cone Bearing
20.	941-04299	Cup Bearing
21.	941-04300	Bushing, 1.25 x 1 x .005 x 1.5
22.	941-3037	Ball Bearing
23.	GW-1104	Woodruff Key, .25 x 1.12
24.	GW-1442	Pin, .375 x .72
25.	GW-20694	Transmission Cover Gasket
26.	GW-20712	Wheel Drive Clutch
27.	717-04690	Spur Gear
28.	GW-20791	Pinion Shaft
29.	717-04689	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, 5/16-18 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.

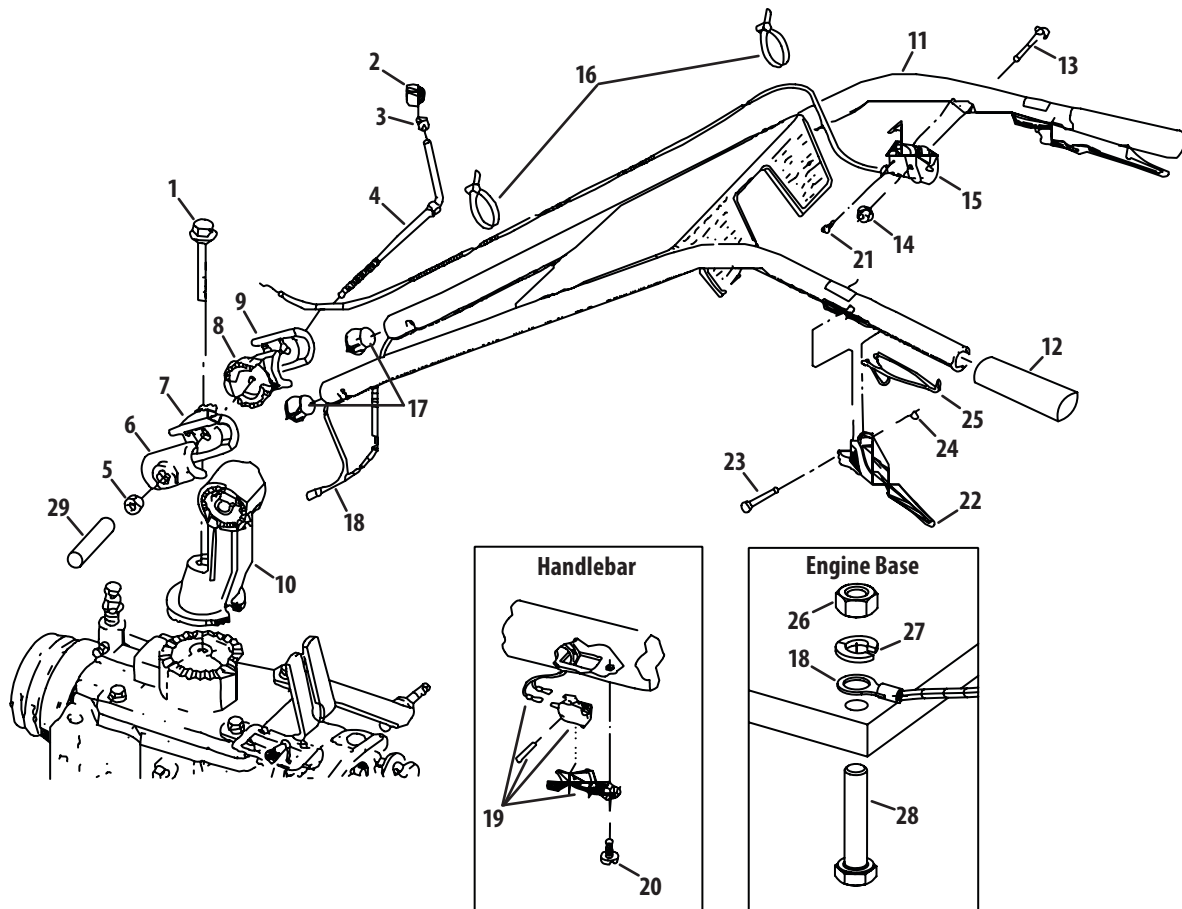


Ref.	Part Number	Description
1.	1186073	Carriage Screw ¼-20 x 1.25
2.	1186211	Hex Nut ⅝-24
3.	1186309	Flange Screw ¼-20 x .625
4.	1186389	Hex Locknut ¼-20
5.	1901202	Cable (Ground Wire)
6.	GW-9853	Hexlock Washer Nut, 10-32
7.	725-04346	Electric Start Harness
8.	686-04024	Battery Bracket Assembly
9.	710-0599	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

Model Series 680



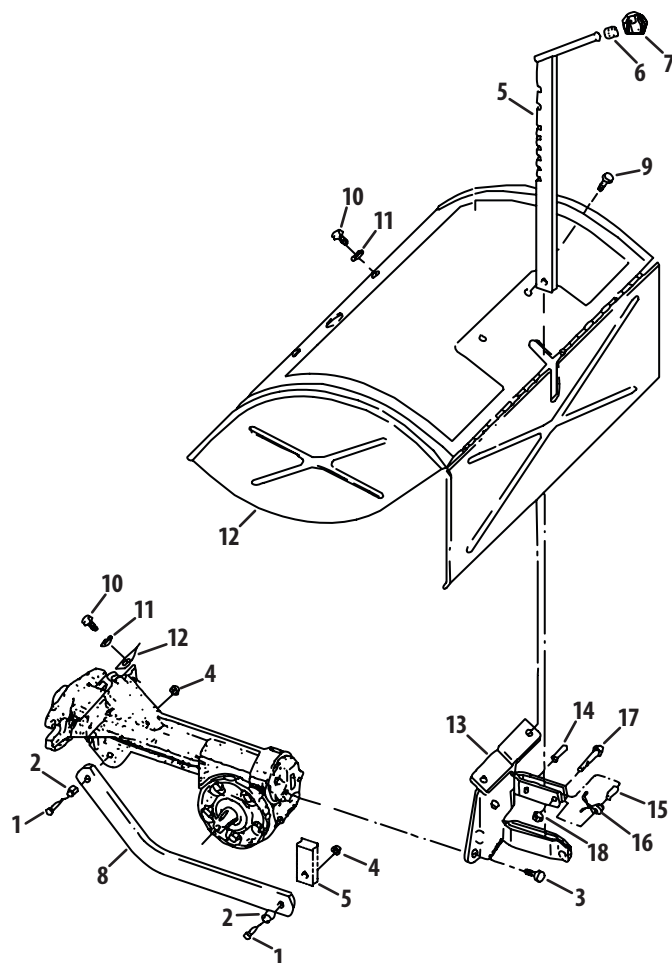
Ref.	Part Number	Description
1	647-04006	Forward/Reverse Lever
2	1908156	Clutch Pawl Spring
3	710-0805	Hex Bolt, 5/16"-18 x 1-1/2"
4	GW-2447	Bushing, .5 x .316 x .375
5	736-0607	External Tooth Lockwasher, 5/16"
6	912-3010	Hex Nut, 5/16"-18
7	686-04006	Roller Assembly
8	1900468010	Yoke (Left)
9	1900469001	Yoke (Right)
10	1900860001	Yoke Pivot Link
11	710-0514	Hex Bolt, 3/8"-16 x 1"
12	936-0169	Lockwasher, 3/8"
13	736-3050	Flat Washer, 3/8"
14	912-3017	Hex Nut, 3/8"-16
15	GW-1113-1099	Bushing Spacer, .5 x .375 x .3
16	GW-2595099	Knob



Ref.	Part Number	Description
1	GW-9548	Hex Bolt, ½"-13 x 3-½"
2	GW-9119	Handlebar Height Adjustment Knob
3	GW-9120	Retaining Ring
4	GW-1881	Handlebar Height Adjustment Stud
5	912-0206	Hex Nut, ½"-13
6	1900854010	Handlebar Hgt. Adj. Clamp (LT)
7	1900856010	Handlebar Hgt. Adj. Ratchet (LT)
8	1900857010	Handlebar Hgt. Adj. Ratchet (RT)
9	1900855010	Handlebar Hgt. Adj. Clamp (RT)
10	1900858010	Handlebar Mounting Base
11	649-04020	Handlebars
12	720-04083	Handlebars Grip
13	1918111	Curved Head Bolt, ¼"-20 x 2"
14	1186389	Hex Nut, ¼"-20
15	1909286P	Throttle Control & Cable, 66"

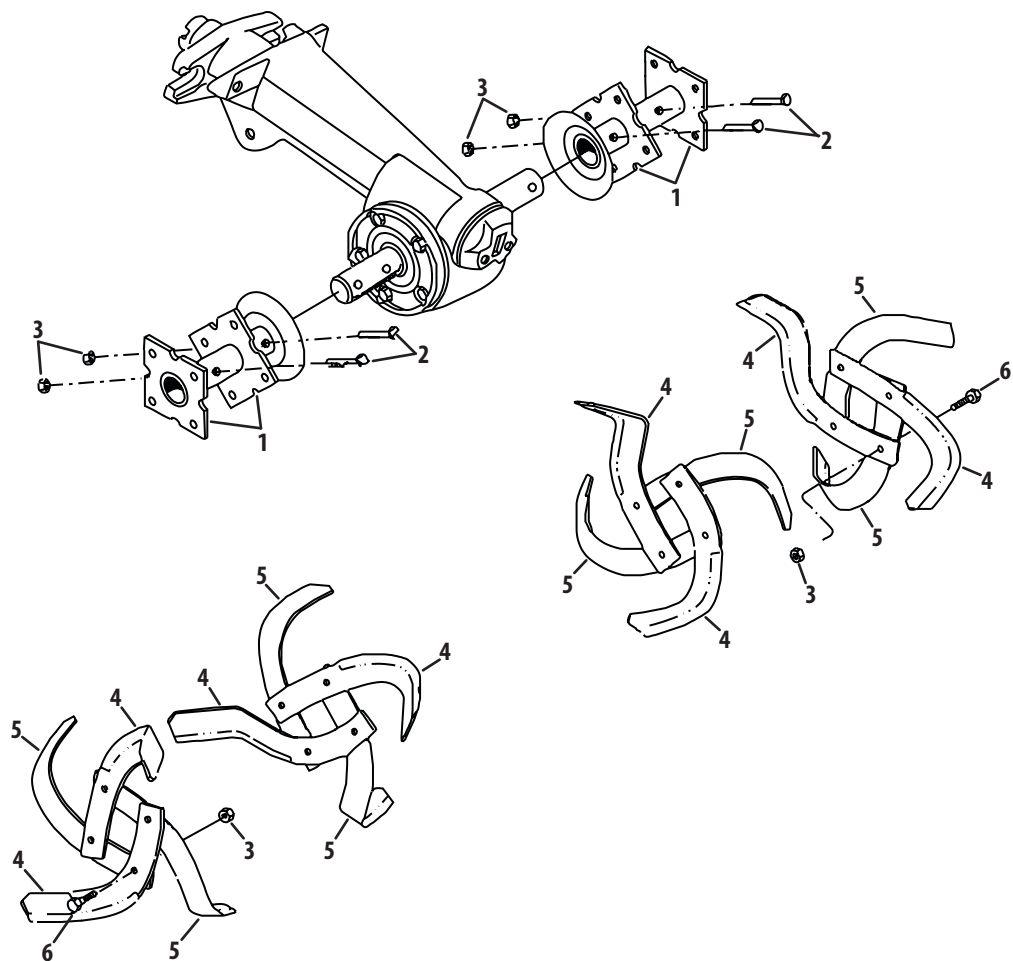
Ref.	Part Number	Description
16	725-0157	Plastic Tie
17	GW-9219	Wire Harness Retainer Plug
18	725-04367	Handlebar Wire Harness Assembly
19	625-04097	Switch Assembly
20	710-0779A	Pan Head Screw, #10-16 x ½"
21	GW-9733	Phillips Head Screw, 10-32 x ½"
22	786-04003	Operator Presence Control Lever
23	GW-9199	Pivot Pin
24	GW-9514	Retaining Ring
25	GW-9387	Return Spring
26	912-3010	Hex Nut, ⅝"-18
27	936-0119	Washer, ⅝"
28	710-0805	Hex Head Screw, ⅝"-18 x 1.5
29	1901835	Plug Cap

Model Series 680

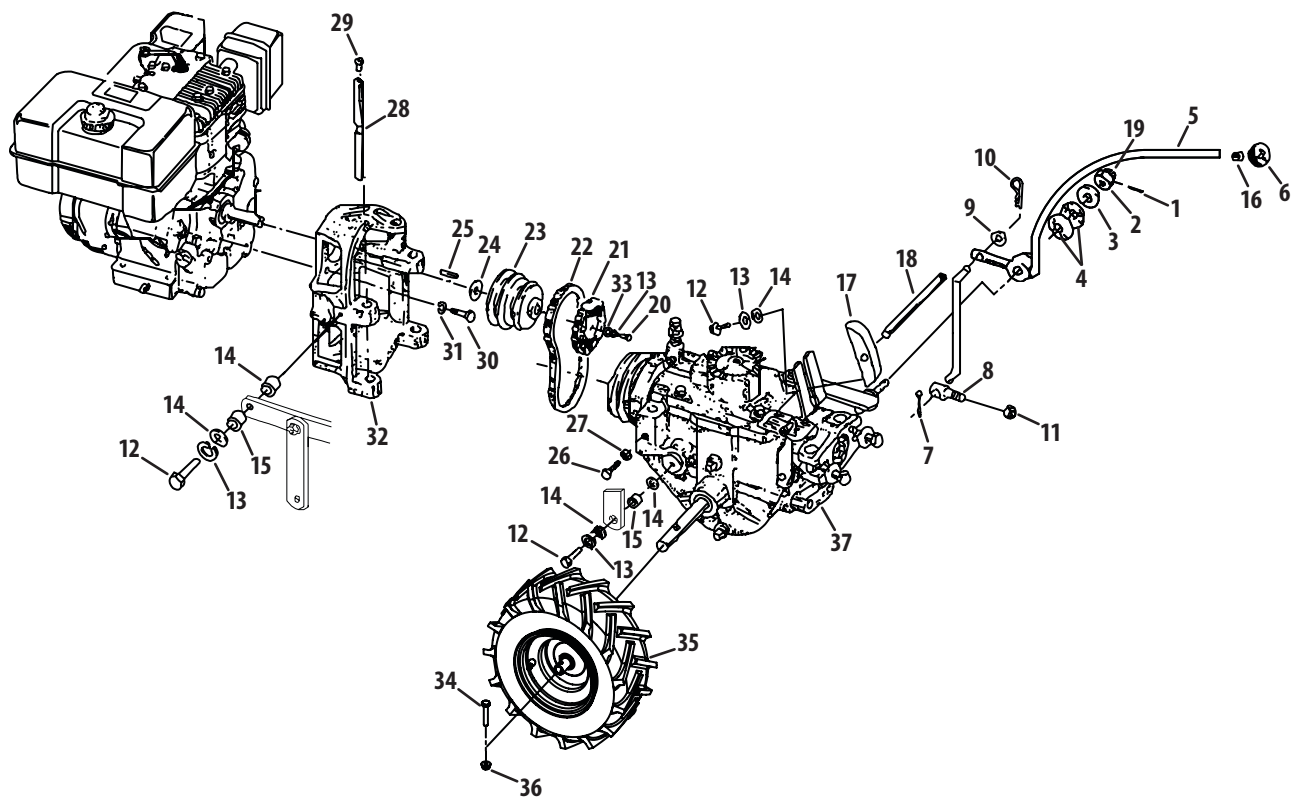


Ref.	Part Number	Description
1	710-3005	Hex Bolt, $\frac{3}{8}$ "-16 x 1- $\frac{1}{4}$ "
2	GW-1113-1099	Bushing Spacer, .5 x .375 x .3
3	710-04049	Hex Flange Bolt, $\frac{5}{16}$ "-18 x .625
4	712-04065	Flangelock Nut, $\frac{3}{8}$ "-16
5	1900864	Depth Regulator
6	GW-9120	Retaining Ring
7	GW-9119	Depth Regulator Knob
8	1900867001	Depth Regulator Bar Drag
9	710-0599	Thread-forming Screw, $\frac{1}{4}$ "-20 x $\frac{1}{2}$ "

Ref.	Part Number	Description
10	710-04043	Hex Flange Bolt, $\frac{5}{16}$ "-18
11	GW-9929	Washer, 1.12 x .34 x .06
12	1904563	Hood
13	GW-2525	Hood Bracket
14	715-04034	Roll Pin (Spirol), $\frac{1}{4}$ " x 1"
15	750-04556	Split Spacer
16	732-04320	Spring
17	710-0597	Hex Bolt, $\frac{1}{4}$ "-20 x 1"
18	712-04064	Locknut, $\frac{1}{4}$ "-20



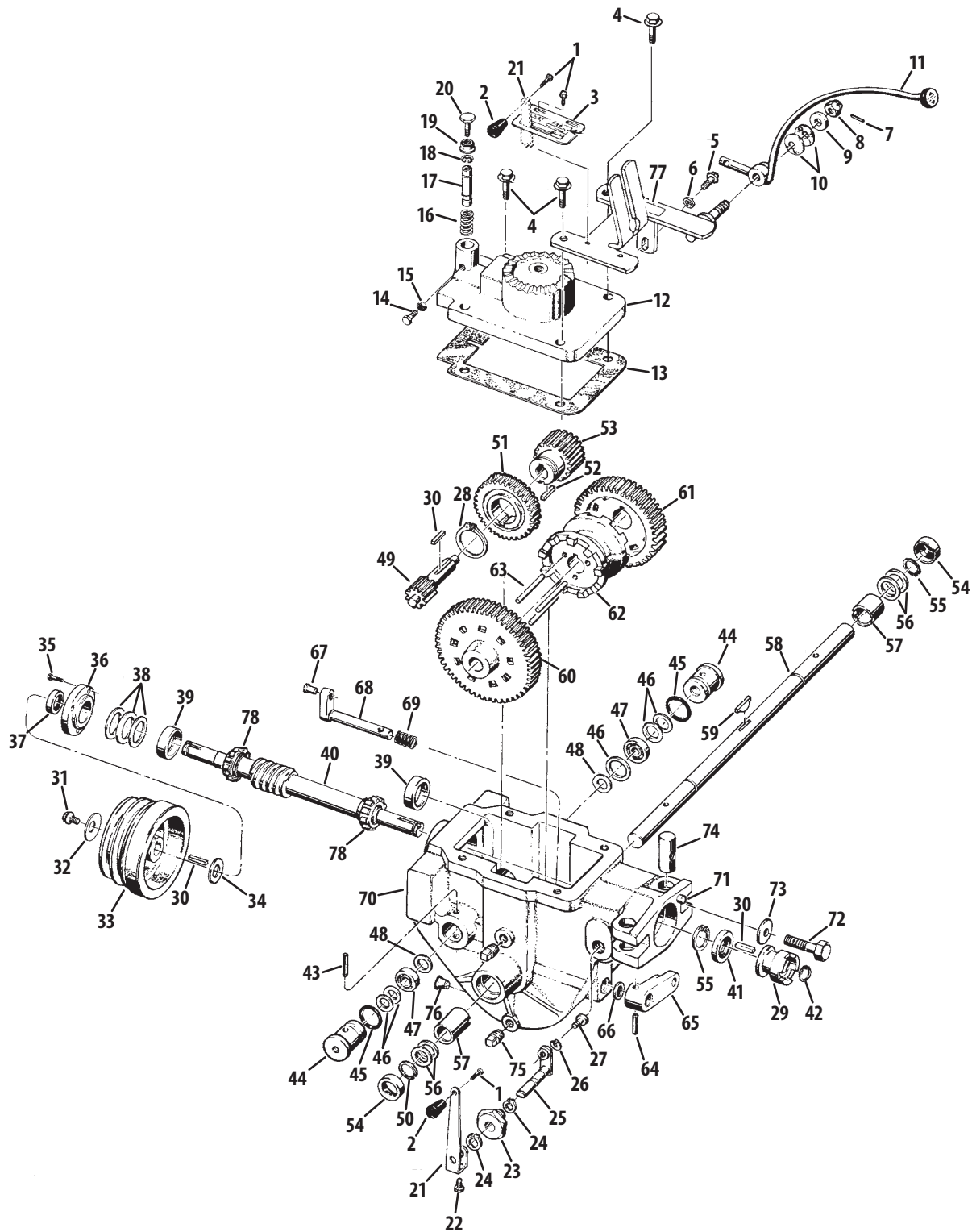
Ref.	Part Number	Description
1	686-04068	Tine Holder
2	710-3096	Hex Bolt, $\frac{3}{8}$ "-16 x 2"
3	912-3000	Hex Locknut, $\frac{3}{8}$ "-16
4	742-04223	Bolo Tine Left
5	742-04224	Bolo Tine Right
6	710-0514	Hex Head Screw, $\frac{3}{8}$ "-16 x 1"



Ref.	Part Number	Description
1	GW-9362	Spring Pin, 1/8"
2	936-0326	Flat Washer, .510 x 1.0 x .125
3	GW-9934	Shoulder Washer, 1.25 x .50 x .25
4	GW-9932	Disc Spring Washer
5	GW-2628	Wheel Speed Shift Lever
6	1902240	Knob
7	GW-9317	Cotter Pin, 3/32" x 1"
8	GW-1033	Swivel
9	936-0275	Flat Washer, .344 x .688 x .065
10	714-04048	Hair Pin Cotter
11	912-0158	Hex Locknut, 5/16"-18
12	710-0514	Hex Head Screw, 3/8"-16 x 1"
13	936-0169	Lockwasher, 3/8"
14	736-3050	Flat Washer, .406 x .810 x .051
15	GW-1113-1099	Bushing Spacer, .5 x .375 x .3
16	GW-9120	Retaining Ring
17	GW-2102	Belt Adjustment, 3-7/8"
18	GW-2100	Belt Adjustment Rod
19	912-3012	Hex Nut, 1/2"-20
20	710-0539	Hex Head Screw, 3/8"-24 x 1.75

Ref.	Part Number	Description
21	756-04171	Reverse Disc
22	GW-9245	Forward Drive Belt
23	619-04124	Engine Power Take-off Pulley
24	736-04192	Flat Washer, .766 x 1.0 x .031
—	736-04187	Flat Washer, .766 x 1.0 x .062
25	GW-9303	Engine Pulley Key, 3/16" x 2-1/2"
26	710-0376	Hex Head Screw, 5/16"-18 x 1"
27	912-3010	Hex Nut, 5/16"-18
28	GW-1034A	Engine Mounting Bar
29	GW-9147	Thread Protector Plug
30	710-0672	Hex Head Screw, 5/16"-24 x 1.125
31	936-0119	Lockwasher, 5/16"
32	719-04222	Motor Mount
33	736-3052	Flat Washer, .406 x 1.0 x .105
34	710-05289	Hex Screw, 1/4"-20 x 1-1/2"
35	934-04231	Wheel Assembly, 16 x 4.6 x 8"
—	634-04230	Rim Assembly
—	734-0808A	Tire, 16.2 x 4.6
36	712-04064	Hex Flange Nut, 1/4"-20
37	1900870001	Clutch Bracket

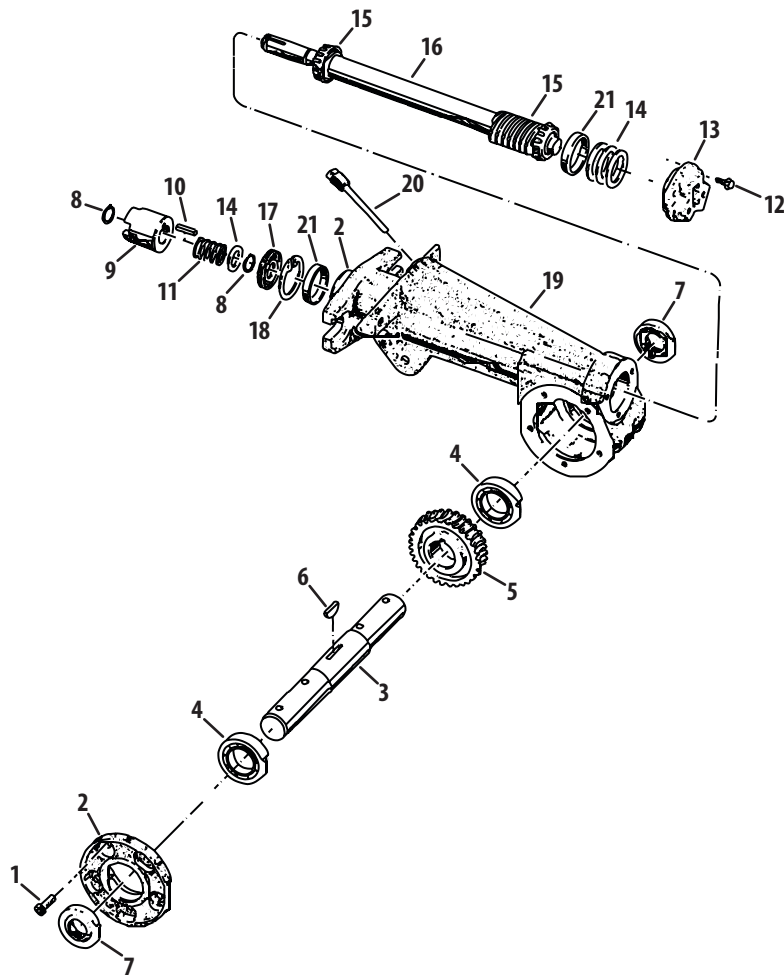
Model Series 680



Ref.	Part Number	Description
1.	710-04454	Hex Head Screw, #10-32 x 3/8"
2.	GW-9463	Knob
3.	GW-2263	Plate
4.	1186349	Hex Flange Bolt, 3/8"-16 x 1-1/2"
5.	710-04043	Hex Flange Bolt, 5/16"-18 x 3/4"
6.	936-0275	Flat Washer, 5/16"
7.	GW-9362	Spring Pin, 1/8"
8.	912-3012	Hex Nut, 1/2"-20
—	936-0326	Flat Washer, .510 x 1.0 x .125
9.	GW-9934	Shoulder Washer, 1.25 x .50 x .25
10.	GW-9932	Disc Spring Washer, 1.97 x 1.0 x .118
11.	GW-2628	Wheel Speed Shift Lever
12.	719-04015P	Power Unit Transmission Cover
13.	GW-1123	Transmission Cover Gasket
14.	710-0376	Hex Head Screw, 5/16"-18 x 1"
15.	912-3010	Hex Nut, 5/16"-18
16.	1901439	Plunger Spring
17.	GW-1035	Plunger
18.	1901440	Clip Ring
19.	712-04065	Flange Lock Nut, 3/8"-16
20.	1902004	Screw, 3/8"-16 x 1-1/2"
21.	786-04002	Tines/PTO Clutch Lever
22.	710-3013	Hex Head Screw, 1/4"-20 x 1/2"
23.	741-04008	Tines/PTO Clutch Bushing
24.	GW-9516	External Retaining Ring
25.	GW-2461	Tines/PTO Clutch Shaft
26.	GW-9911	Hi-Collar Lockwasher, 1/4"
27.	GW-9672	Socket Head Screw, 1/4"-20 x 3/8"
28.	916-0101	External Retaining Ring
29.	718-04615	Dog Clutch
30.	GW-9301099	Key, 3/16" x 1"
31.	710-0157	Hex Head Screw, 5/16"-24 x 3/4"
32.	736-04193	Spring Washer, .827 x .331 x .098
33.	GW-2107	Transmission Drive Pulley
34.	GW-50027	Flat Washer, 1.25 x .687 x .075
35.	1186310	Flange Nut, 1/4"-20 x .75
36.	718-04007	Front Bearing Cap
37.	921-04044	Oil Seal
38.	736-04305	Flat Washer, 1.175 x 1.5 x .062
—	736-04306	Flat Washer, 1.175 x 1.5 x .005
—	736-04307	Flat Washer, 1.175 x 1.5 x .03
—	736-04308	Flat Washer, 1.175 x 1.5 x .01
39.	941-04299	Cup Bearing
40.	GW-2655	Main Drive Shaft

Ref.	Part Number	Description
41.	921-04030	Oil Seal
42.	716-04102	Retaining Ring
43.	715-0121	Roll Pin (Spirol), 1/4" x 2
44.	718-04006	Pinion Bearing
45.	GW-9604	O-Ring
46.	736-04310	Flat Washer, 1.234 x 1.015 x .062
—	GW-1132-1	Flat Washer, 1.234 x 1.015 x .033
—	GW-1132-3	Flat Washer, 1.234 x 1.015 x .01
47.	GW-9404	Ball Bearing
48.	GW-1126	Washer
49.	GW-1222	Pinion Stem
50.	716-04119	External Retaining Ring, 1.387 ID
51.	GW-2656	Worm Gear
52.	GW-9300	Key, 3/16" x 5/8"
53.	GW-1233	Fast Speed Pinion Gear
54.	921-04031	Oil Seal
55.	716-04104	External Retaining Ring
56.	736-04257	Flat Washer, 1.375 x 1.015 x .005
—	736-04258	Flat Washer, 1.375 x 1.015 x .01
—	736-04259	Flat Washer, 1.375 x 1.015 x .015
—	736-04260	Flat Washer, 1.375 x 1.015 x .03
—	736-04309	Flat Washer, 1.375 x 1.015 x .062
57.	941-04300	Bushing, 1.25 x 1.005 x 1.5
58.	711-04258	Wheel Shaft
59.	714-04014	Hi-Pro Key, .250 x 1.8125
60.	GW-1223	Slow Speed Gear
61.	GW-1232	Fast Gear Speed
62.	GW-1237	Dog Clutch
63.	GW-1112	Clutch Guide Pin, 1/4"
64.	1911372	Spring Pin, 3/16" x 1-1/4"
65.	619-04000	Wheel Speed Shifting Lever
66.	921-04034	Oil Seal
67.	GW-1442	Wheel Speed Shifting Pin
68.	611-04003	Wheel Speed Shifting Shaft
69.	GW-1441	Spring
70.	GW-2109099	Transmission Housing
71.	GW-9359	Alignment Pin
72.	1100067	Hex Screw, 1/2"-13 x 2"
73.	GW-9928	Disc Spring Washer
74.	GW-2126	Post
75.	1105620	Pipe Plug, 1/4"
76.	GW-9122	Plug-Red Plastic
77.	1900870001	Clutch Bracket
78.	941-04298	Cone Bearing

Model Series 680

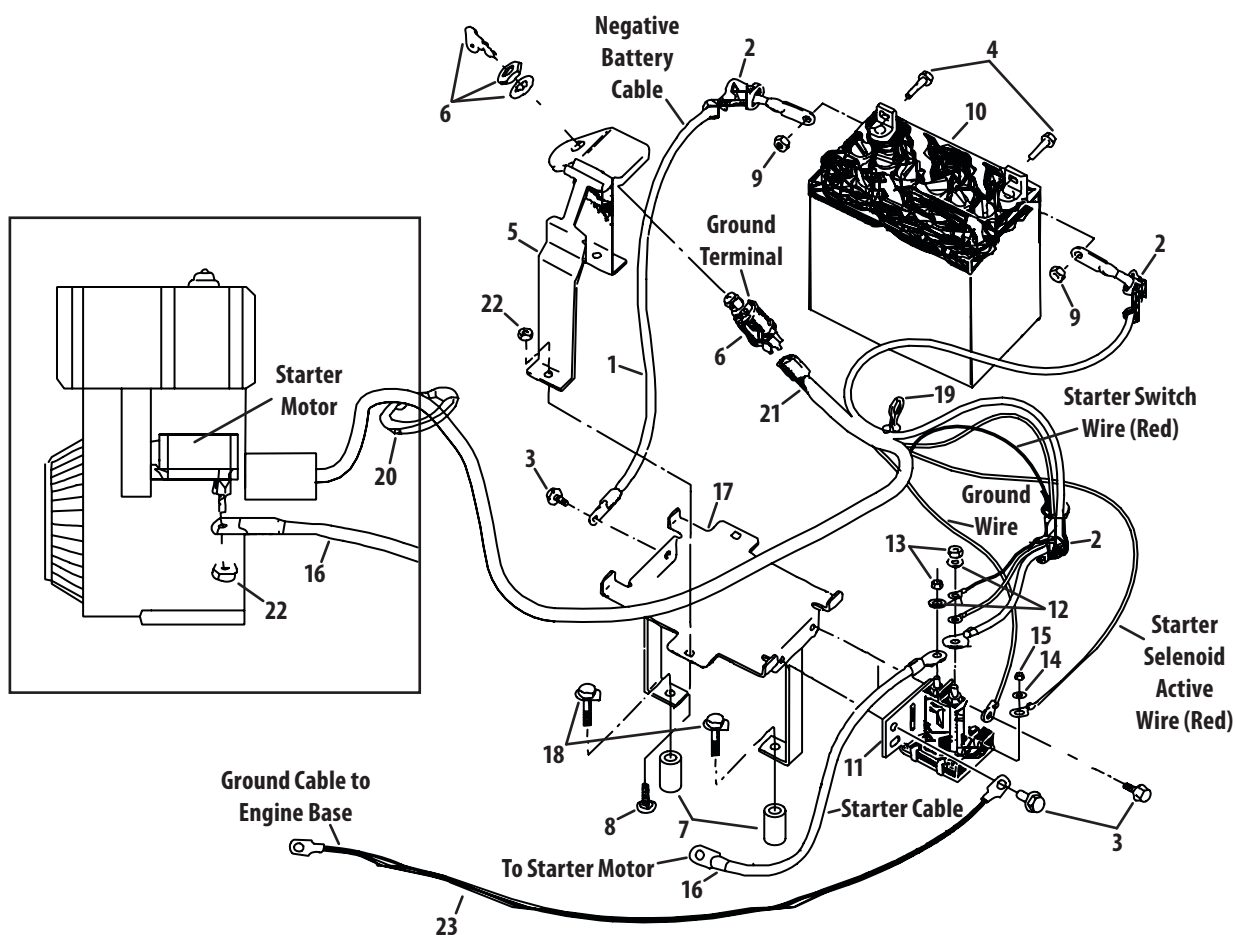


Ref.	Part Number	Description
1	1915068	Self-Sealing Screw, 1/4"-20 x 5/8"
2	GW-20873	Tiller Housing Cover
3	911-04082	Tine Shaft
4	941-3037	Ball Bearing
5	1901976	Worm Gear
6	GW-1104	Woodruff Key
7	921-04035	Oil Seal
8	916-0101	External Retaining Ring
9	718-04614	Dog Clutch
10	GW-9301099	Key, 3/16" x 1"
11	GW-2127	Spring
12	1915069	Self-Sealing Screw, 1/4"-20 x 7/8"

Ref.	Part Number	Description
13	718-04406	Cap
14	736-04305	Flat Washer, 1.75 x 1.5 x .062"
—	736-04306	Flat Washer, 1.75 x 1.5 x .005"
—	736-04307	Flat Washer, 1.75 x 1.5 x .03"
—	736-04308	Flat Washer, 1.75 x 1.5 x .01"
15	941-04298	Cone Bearing
16	GW-11602	Shaft
17	921-04030	Oil Seal
18	716-04102	Retaining Ring
19	1902000	Attachment Housing
20	1909157	Oil Dipstick
21	941-04299	Cup Bearing

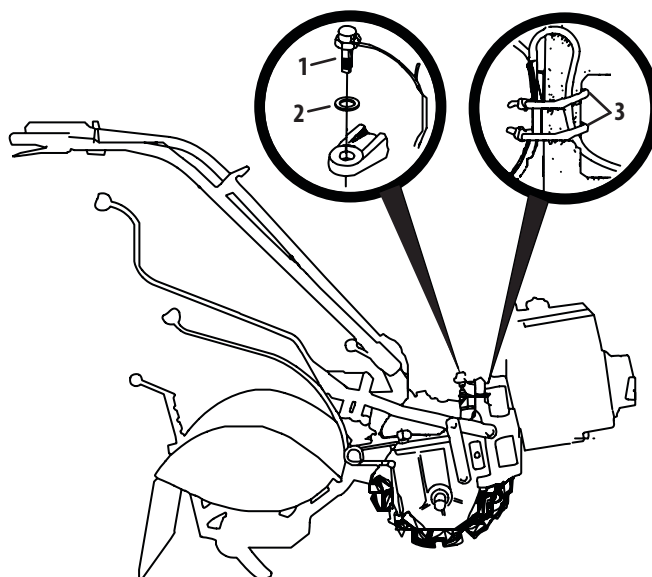
* — These screws have a special sealing design and cannot be re-used. If removed, replace with new hardware.

** — Washers of multiple thickness are used as required to obtain a thickness of .005" to .015" of allowable end-play in the drive shaft.

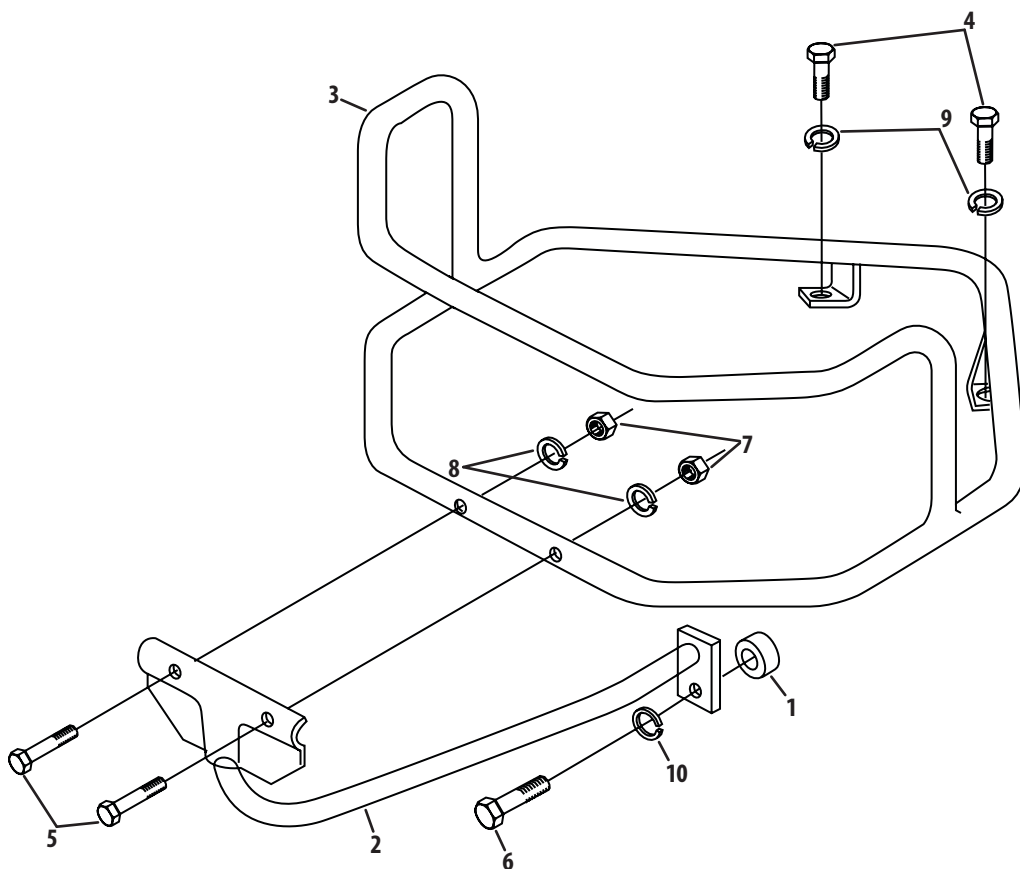


Ref.	Part Number	Description
1	GW-96515	Battery Cable
2	GW-97020	Terminal Insulating Boot
3	710-0599	TT-Screw, 1/4"-2 x 1/2"
4	1186309	Hex Bolt, 1/4"-20 x 5/8"
5	1900873	Battery Hold-down Clamp w/ Att. Key Switch Plate
6	925-0267B	Key Switch (Incl. 2 Keys)
7	750-0748	Spacer
8	1186073	Carriage Bolt, 1/4"-20 x 1-1/4"
9	712-3006	Hex Nut, 1/4"-20
10	925-1707D	12-Volt Battery
11	GW-96514099	Starter Solenoid
12	936-0119	Lockwasher, 5/16"

Ref.	Part Number	Description
13	1186211	Hex Nut, 5/16"-24
14	936-0147	External Tooth Lockwasher
15	GW-9853	Hex Nut, #10-32
16	GW-96510	Battery Cable
17	GW-2571	Battery Bracket
18	710-3022	Hex Head Screw, 3/8"-16 x 2.75"
19	GW-9265	Plastic Tie
20	725-0157	Plastic Tie
21	725-04346	Wire Harness & Connecting Terminal Assembly
22	1186389	Flangelock Nut, 1/4"-20
23	1901202	Ground Cable

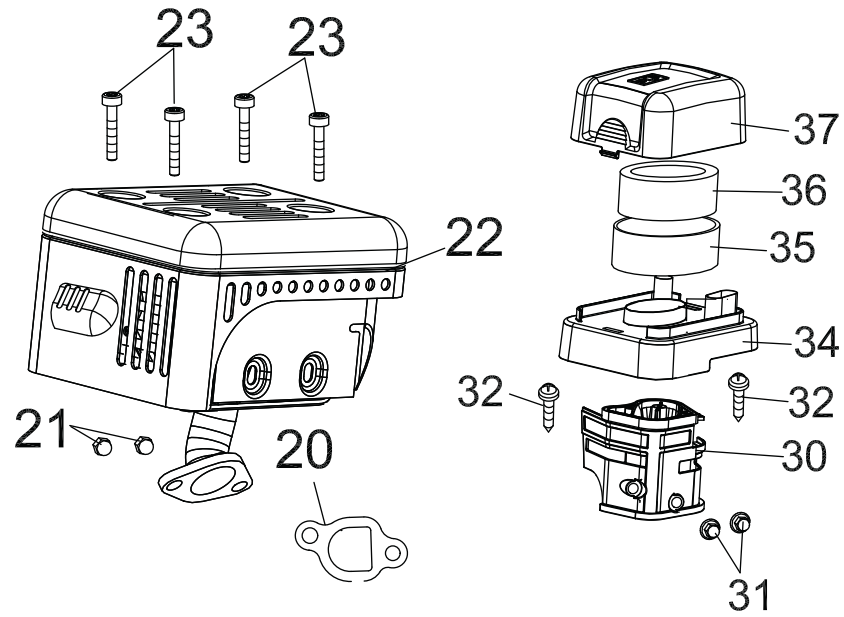


Ref.	Part Number	Description
1	725-04368	PTO Switch
2	736-0508	Internal L-Washer, ⅝"
3	725-0157	Plastic Tie

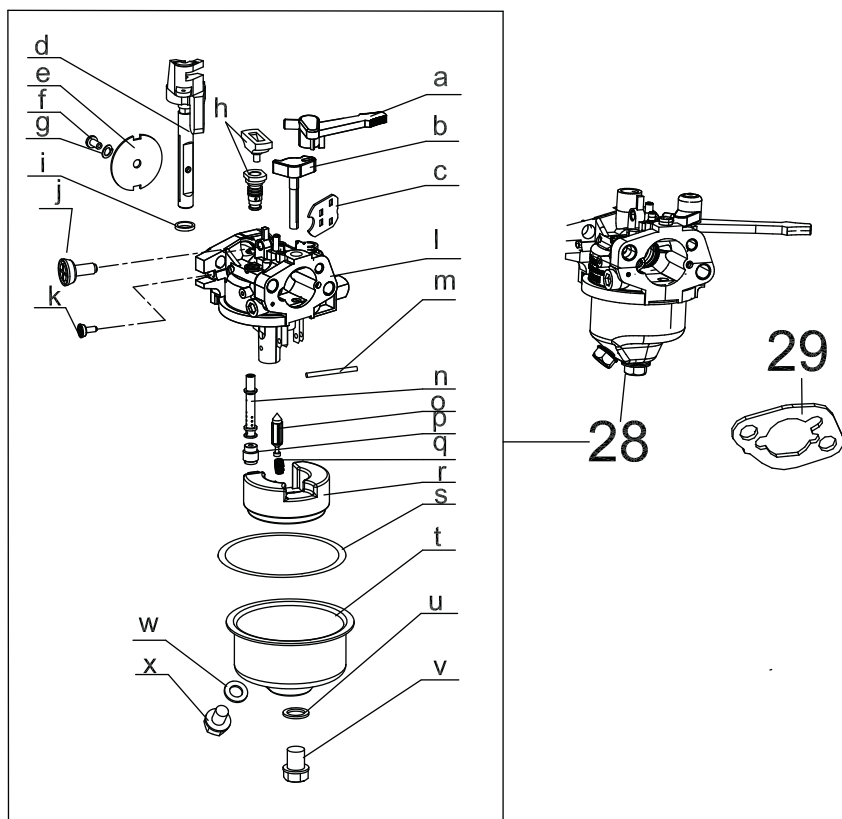


Ref.	Part Number	Description
1	750-05284	Spacer, 1.0 x .546 x .5
2	1910730001	Bottom Bumper Brace
3	1910731001	Bumper Guard
4	710-0514	Hex Screw, $\frac{3}{8}$ "-16 x 1.00
5	710-0805	Hex Screw, $\frac{5}{16}$ "-18 x 1.50
6	710-3181	Hex Screw, $\frac{1}{2}$ "-13 x 1.50
7	912-3010	Hex Nut, $\frac{5}{16}$ "-18
8	936-0119	Lock Washer, $\frac{5}{16}$ "
9	936-0169	Lock Washer, $\frac{3}{8}$ "
10	936-0921	Lock Washer, $\frac{1}{2}$ "

170-T0B Air Cleaner & Muffler



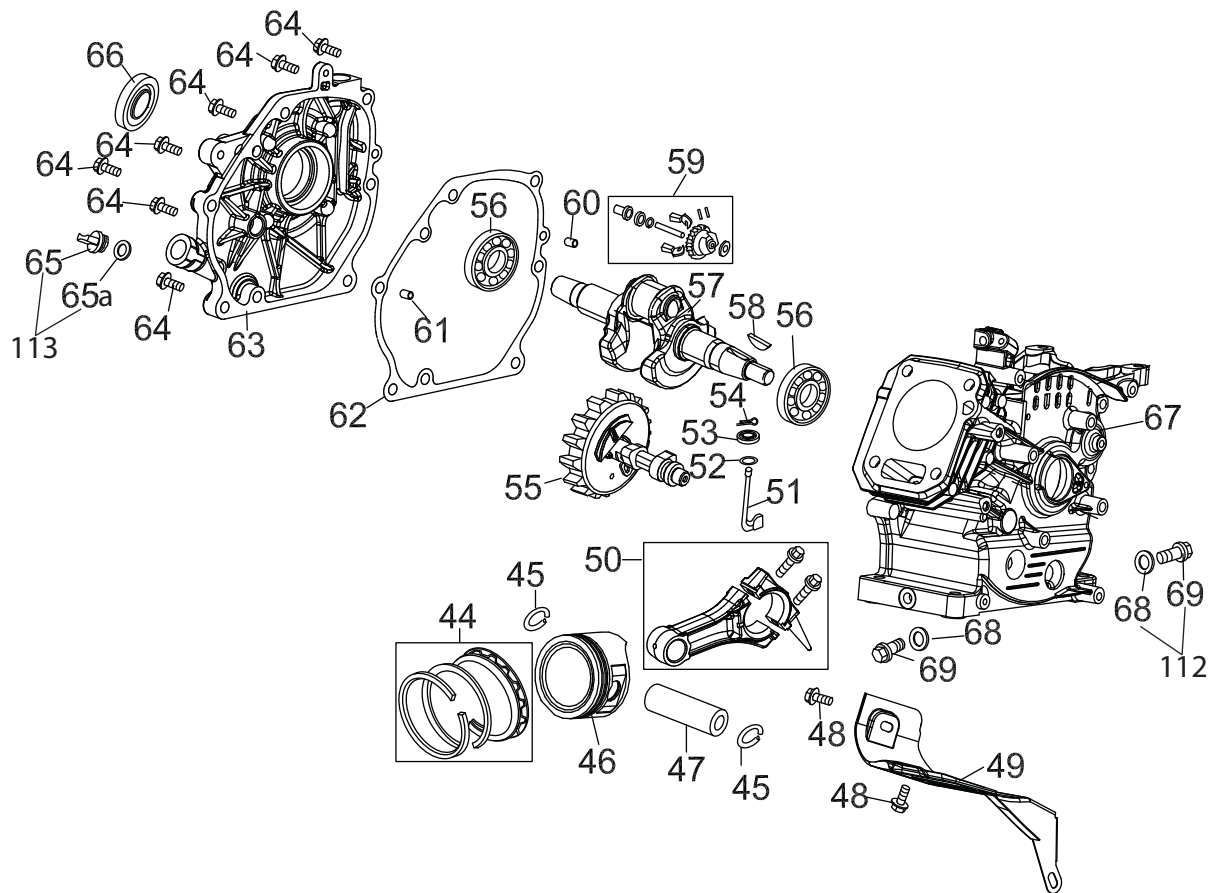
Ref.	Part Number	Description
20	951-11285	Exhaust Pipe Gasket
21	712-04214	Nut, M8
22	951-12156	Muffler Assembly
23	710-05002	Bolt
30	951-10806	Air Cleaner Housing
31	712-04213	Nut
32	710-05102	Self-Tapping Bolt M4.2×16
34	951-12135	Silencer Plate
35	951-10794	Air Cleaner Assembly
36	951-10794	Air Cleaner Assembly
37	951-12136	Air Cleaner Cover



Ref.	Part Number	Description
28	951-12124	Carburetor Assembly
29	951-11571	Carburetor Gasket Plate
a	951-11177	Control Lever,Choke
b	N/A	Choke Shaft
c	N/A	Choke Plate
d	N/A	Throttle Shaft
e	N/A	Throttle Plate
f	N/A	Screw M3x5
g	N/A	Lock Washer
h	N/A	Idle Jet Assembly
i	N/A	Gasket, Throttle Plate
j	N/A	Idle Speed Adjusting Screw
k	N/A	Mixture Screw
l	N/A	Carburetor Body

Ref.	Part Number	Description
m	N/A	Float Pin
n	N/A	Emulsion Tube
o	N/A	Needle Valve
p	N/A	Main Jet
q	N/A	Needle Valve Spring
r	N/A	Float
s	951-11589	Fuel Bowl Gasket
t	N/A	Fuel Bowl
u	951-11348	Fuel Bowl Gasket
v	710-04945	Fuel Bowl Mounting Bolt
w	951-11349	Fuel Drain Plug Gasket
x	710-04938	Fuel Drain Plug
	951-12119	Carburetor Kit - Major (Incl Ref. l,m,n,o,p,q,r,s,u & w)

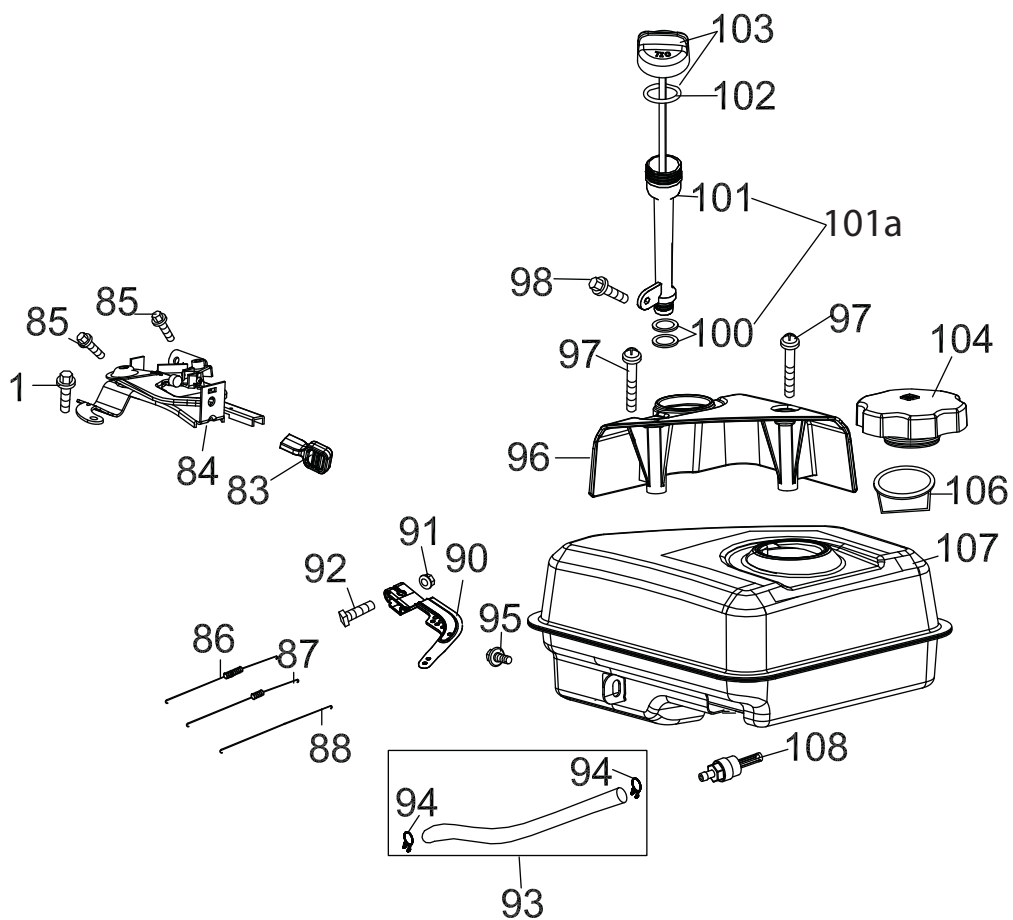
170-T0B Crankcase



Ref.	Part Number	Description
44	951-11253	Piston Ring Set
45	951-11632	Piston Pin Snap Ring
46	951-12007	Piston
47	951-11633	Piston Pin
48	710-04915	Bolt M6×12
49	951-11113	Air Shield
50	951-11573	Connecting Rod Assembly
51	951-11356	Governor Arm Shaft
52	736-04461	Washer 5.2×1.9
53	951-11574	Governor Seal
54	714-04074	Cotter Pin
55	951-11575	Camshaft Assy.
56	951-11369	Radial Ball Bearing, 6205
57	951-12160	Crankshaft Assembly
58	951-10307	Woodruff Key
59	951-11576	Governor Gear/Shaft Assembly

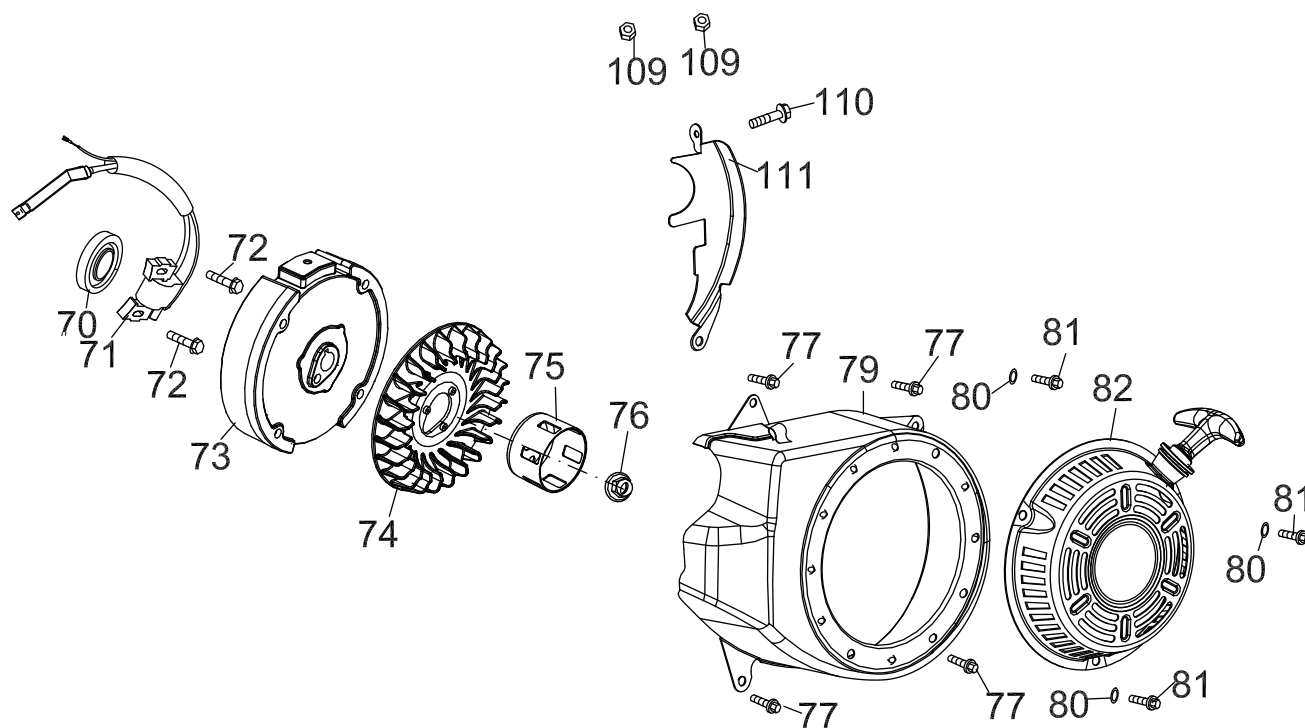
Ref.	Part Number	Description
60	715-04092	Dowel Pin 7×14
61	715-04089	Dowel Pin 9×14
62	951-11371	Crankcase Cover Gasket
63	951-12125	Cover Comp, Left Crankcase
64	710-04932	Bolt M8×32
65	951-11377	Oil Filler Plug Ass'y
65a	951-11577	O-Ring
66	951-11578	Oil Seal, 25×41.25×6
67	951-12155	Short Block (Incl Ref. 4,20,25,26,38, 40,41,44-47,50-70)
68	736-04440	Washer 10×16×1.5
69	710-04906	Oil Drain Plug
112	951-10370	Oil Drain Plug & Washer Assembly
113	951-11283	Oil Fill Plug Assembly

170-T0B Fuel Tank



Ref.	Part Number	Description
1	710-04968	Bolt M6x16
83	951-11067	Throttle Control Knob
84	951-12131	Primer Bracket
85	710-04928	Bolt M6x12
86	951-11585	Governor Spring
87	951-10664	Throttle Linkage Spring
88	951-10665	Throttle Linkage
90	951-11106	Governor Arm
91	712-04212	Nut M6
92	710-04908	Governor Arm Bolt
93	951-10650	Fuel Line Kit
94	951-11700	Fuel Hose Clamp
95	710-04915	Bolt M6x12

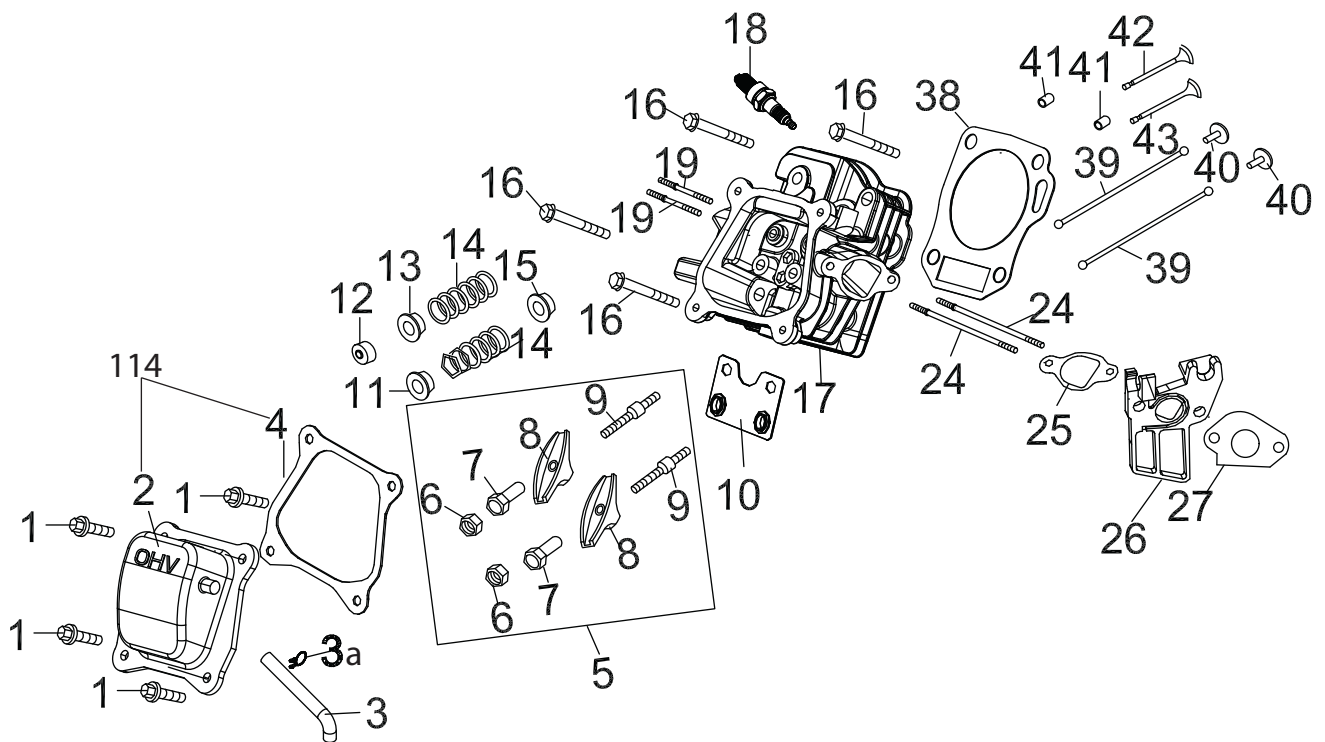
Ref.	Part Number	Description
96	951-10662	Dipstick Decoration Cover
97	710-04905	Bolt
98	710-04915	Bolt M6x12
100	951-11903	Oil Fill Tube O-Ring
101	951-10656	Oil Fill Tube
101a	951-11913	Oil Fill Tube Assembly
102	951-11904	Oil Fill Tube O-Ring
103	951-11912	Dipstick Assembly
104	951-10917	Fuel Cap Assembly
106	951-11933	Fuel Filter
107	951-12159	Fuel Tank
108	951-10651	Fuel Tank Nipple



Ref.	Part Number	Description
70	951-12126	Oil Seal 25×41.25×6
71	951-10792	Ignition Coil Assembly
72	710-04919	Bolt M6×25
73	951-10805	Flywheel
74	951-10909	Fan, Cooling
75	951-10911	Pulley, Starter
76	712-04209	Nut, Special, M14×1.5
77	710-04915	Bolt M6×12

Ref.	Part Number	Description
79	951-11583	Blower Housing
80	736-04455	Flat Washer
81	710-04974	Bolt M6×10
82	951-12127	Recoil Starter
109	712-04212	Nut, M6
110	710-04918	Bolt M6×20
111	951-11109	Blower Housing Shield

170-T0B Cylinder Head



170-T0B Cylinder Head

Ref.	Part Number	Description
1	710-04968	Bolt M6×16
2	951-11054	Valve Cover
3	731-07059	Breather Hose
3a	726-04101	Hose Clamp
4	951-11565	Valve Cover Gasket
5	951-11892	Rocker Arm Assembly
6	751-11124	Nut, Pivot Locking
7	751-11123	Adjusting Nut ,Valve
8	951-11893	Rocker Arm
9	710-04902	Bolt, Pivot
10	951-11895	Push Rod Guide
11	951-12000	Retainer, In.Valve Spring
12	951-12002	Adjuster, Exh Valve
13	951-12003	Retainer, Ex.Valve Spring
14	951-12004	Valve Spring
15	951-11894	Intake Valve Seal
16	710-04933	Bolt M8×55
17	951-10668A	Cylinder Head Assembly (Incl Ref. 4,6-15,17,20, 25,26,38,42 & 43)
18	951-10292	Spark Plug/F6Rtc

Ref.	Part Number	Description
19	710-05276	Muffler Stud M8×36
19	951-10657	Muffler Stud Assembly
24	710-05101	Stud M6×110
25	951-11567	Carburetor Insulator Gasket
26	951-11568	Carburetor Insulator
27	951-11569	Carburetor Gasket
38	951-11572	Gasket, Cylinder Head
39	951-10648	Push Rod
40	951-11899	Tappet
41	715-04090	Dowel Pin 10×16
42	951-10647A	Valve Kit
43	951-10647A	Valve Kit
114	951-11063A	Valve Cover Kit
	951-10819	Cylinder Head Service Kit (Incl Ref. 4,15,16 & 38)
	951-12120	Gasket Kit, External (Incl Ref. 4,20,25,26,27,29 & 68)
	951-12121	Gasket Kit, Complete (Incl Ref. 4,20,25,26,27,29,38,52, 53,62,66,68 & 70)

Notes

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