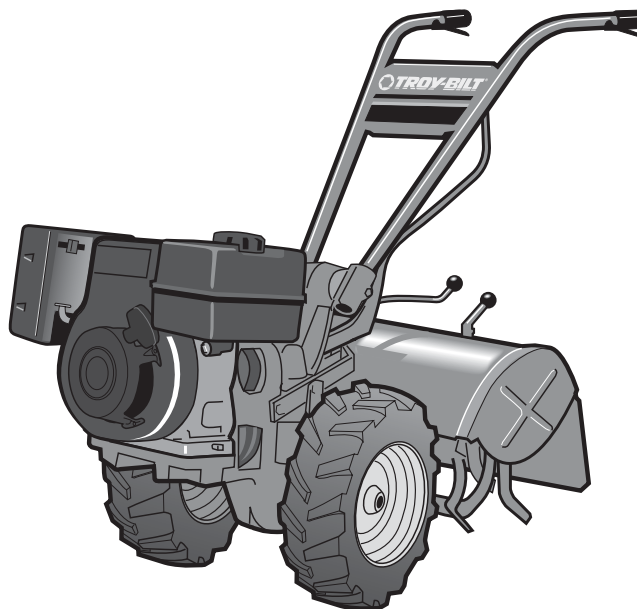




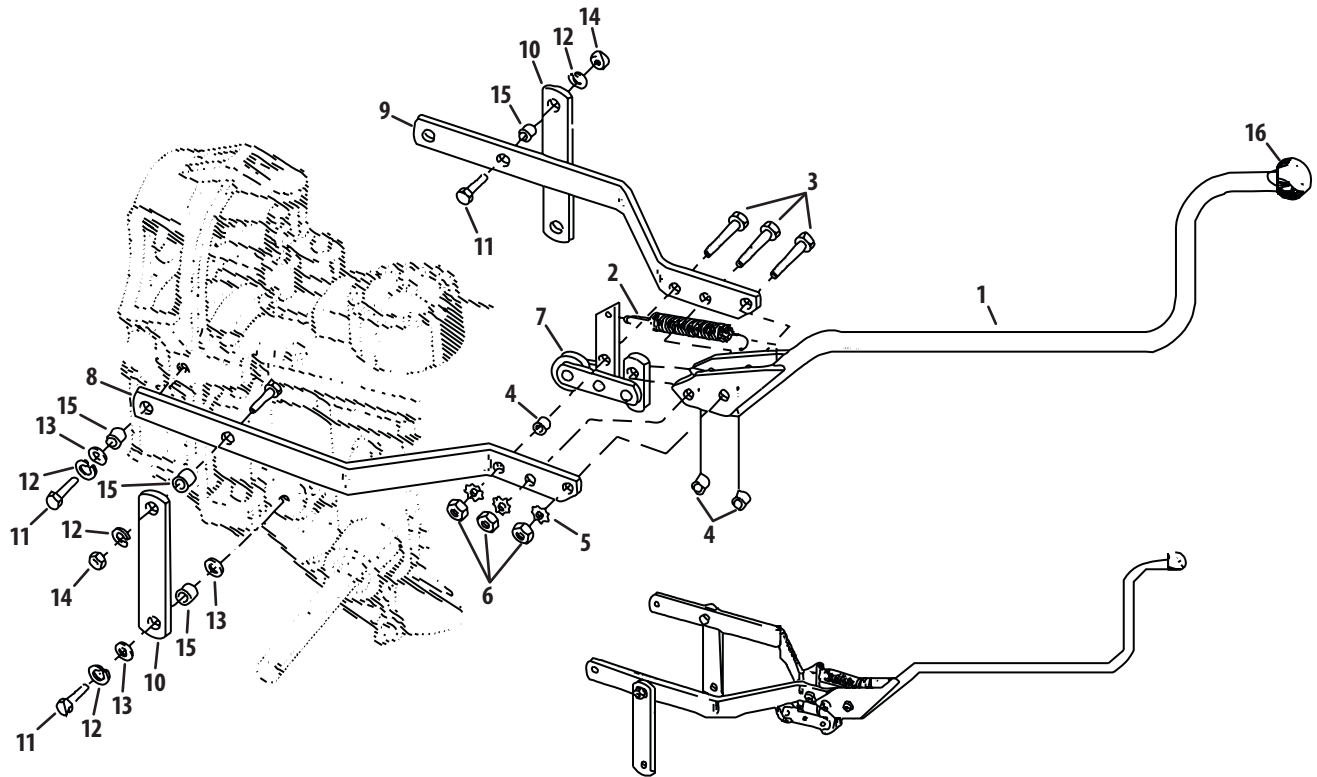
ILLUSTRATED PARTS MANUAL



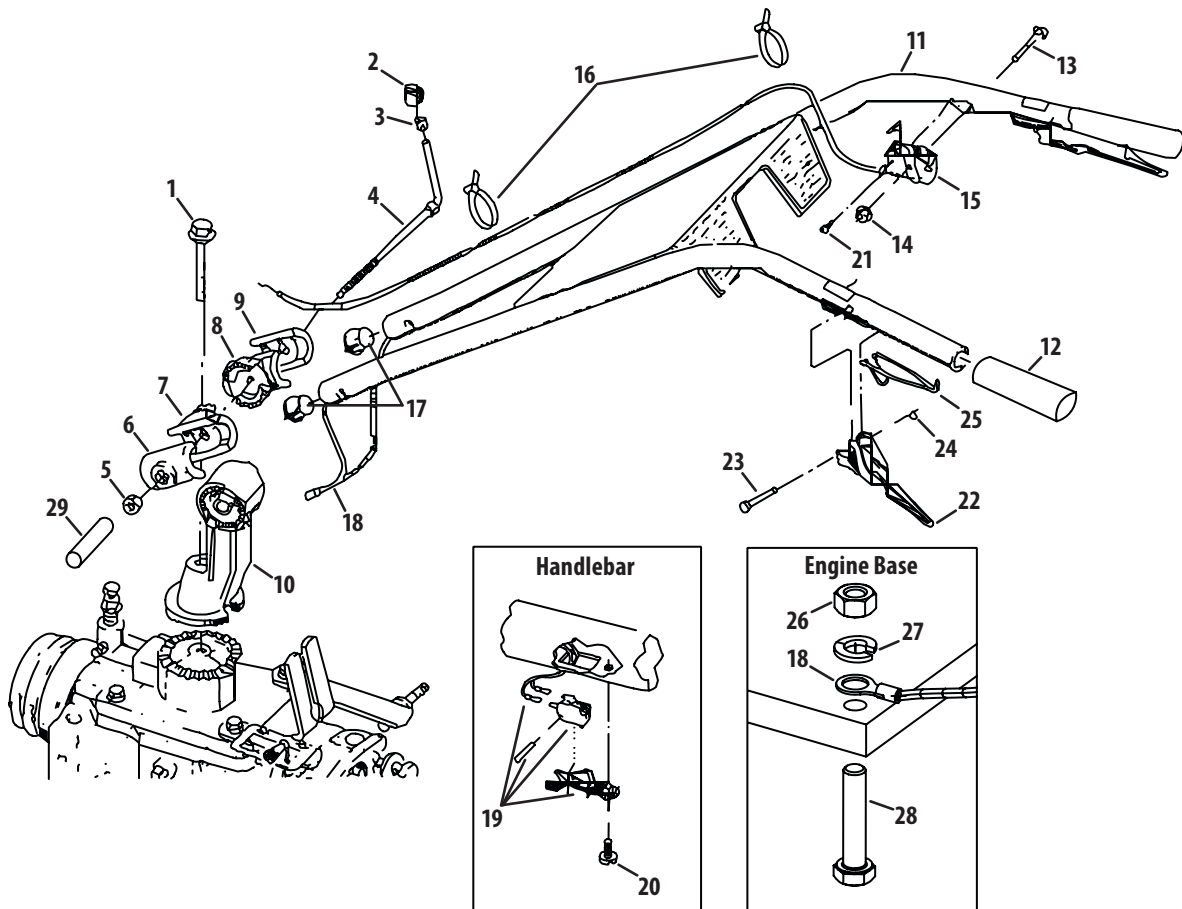
Large Frame Tiller — 680 Series

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

680 Series Drive Lever & Yoke Assembly



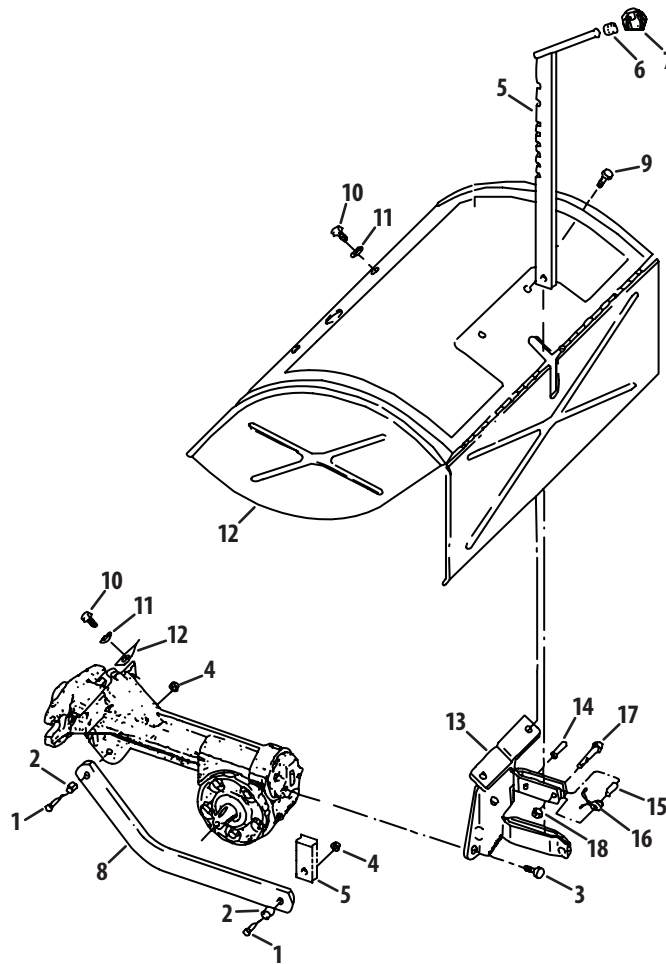
Ref.	Part Number	Description
1	647-04006	Forward/Reverse Lever
2	1908156	Clutch Pawl Spring
3	710-0805	Hex Bolt, 5/16"-18 x 1-1/2"
4	GW-2447	Bushing, .5 x .316 x .375
5	736-0607	External Tooth Lockwasher, 5/16"
6	912-3010	Hex Nut, 5/16"-18
7	686-04006-0638	Roller Assembly
8	1900468010	Yoke (Left)
9	1900469001	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	649-04020-0638	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"

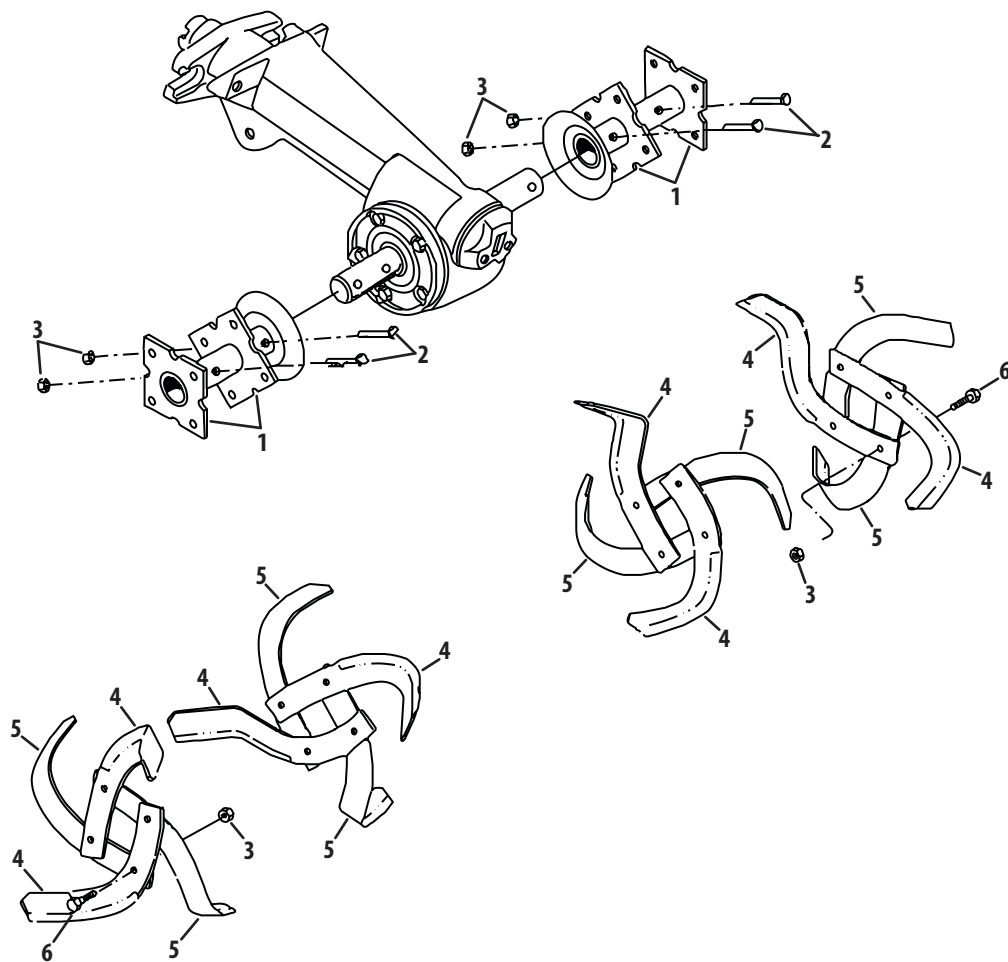
Ref.	Part Number	Description
16	725-0157	Plastic Tie
17	GW-9219	Wire Harness Retainer Plug
18	725-04367	Handlebar Wire Harness Assembly
19	625-04097	Switch Assembly
20	710-0779A	Pan Head Screw, #10-16 x ½"
21	GW-9733	Phillips Head Screw, 10-32 x ½"
22	786-04003-0638	Operator Presence Control Lever
23	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

680 Series Depth Regulator & Tine Shield



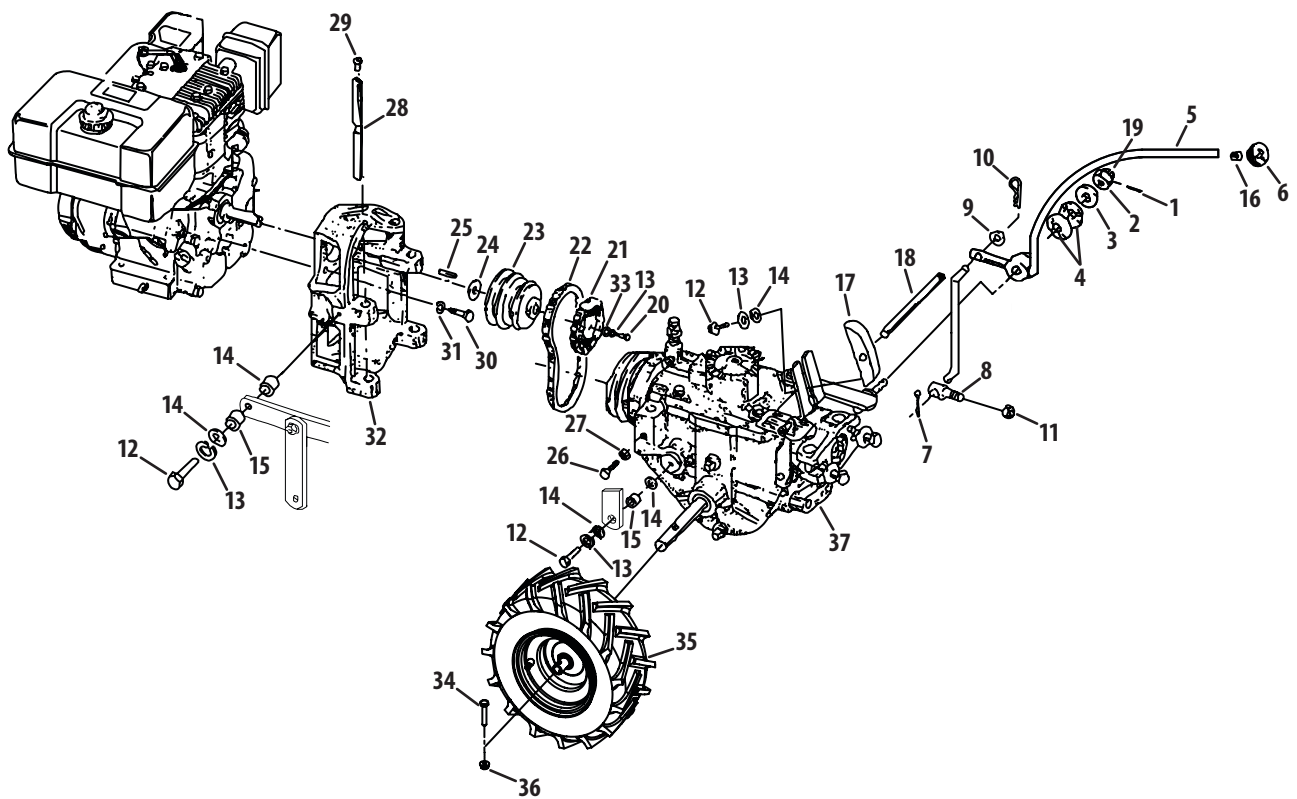
Ref.	Part Number	Description
1	710-3005	Hex Bolt, $\frac{3}{8}$ "-16 x 1- $\frac{1}{4}$ "
2	GW-1113-1099	Bushing Spacer, .5 x .375 x .3
3	710-04049	Hex Flange Bolt, $\frac{5}{16}$ "-18 x .625
4	712-04065	Flangelock Nut, $\frac{3}{8}$ "-16
5	1900864	Depth Regulator
6	GW-9120	Retaining Ring
7	GW-9119	Depth 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	686-04068-0637	Tine Holder
2	710-3096	Hex Bolt, $\frac{3}{8}$ "-16 x 2"
3	912-3000	Hex Locknut, $\frac{3}{8}$ "-16
4	742-04223-0637	Bolo Tine Left
5	742-04224-0637	Bolo Tine Right
6	710-0514	Hex Head Screw, $\frac{3}{8}$ "-16 x 1"

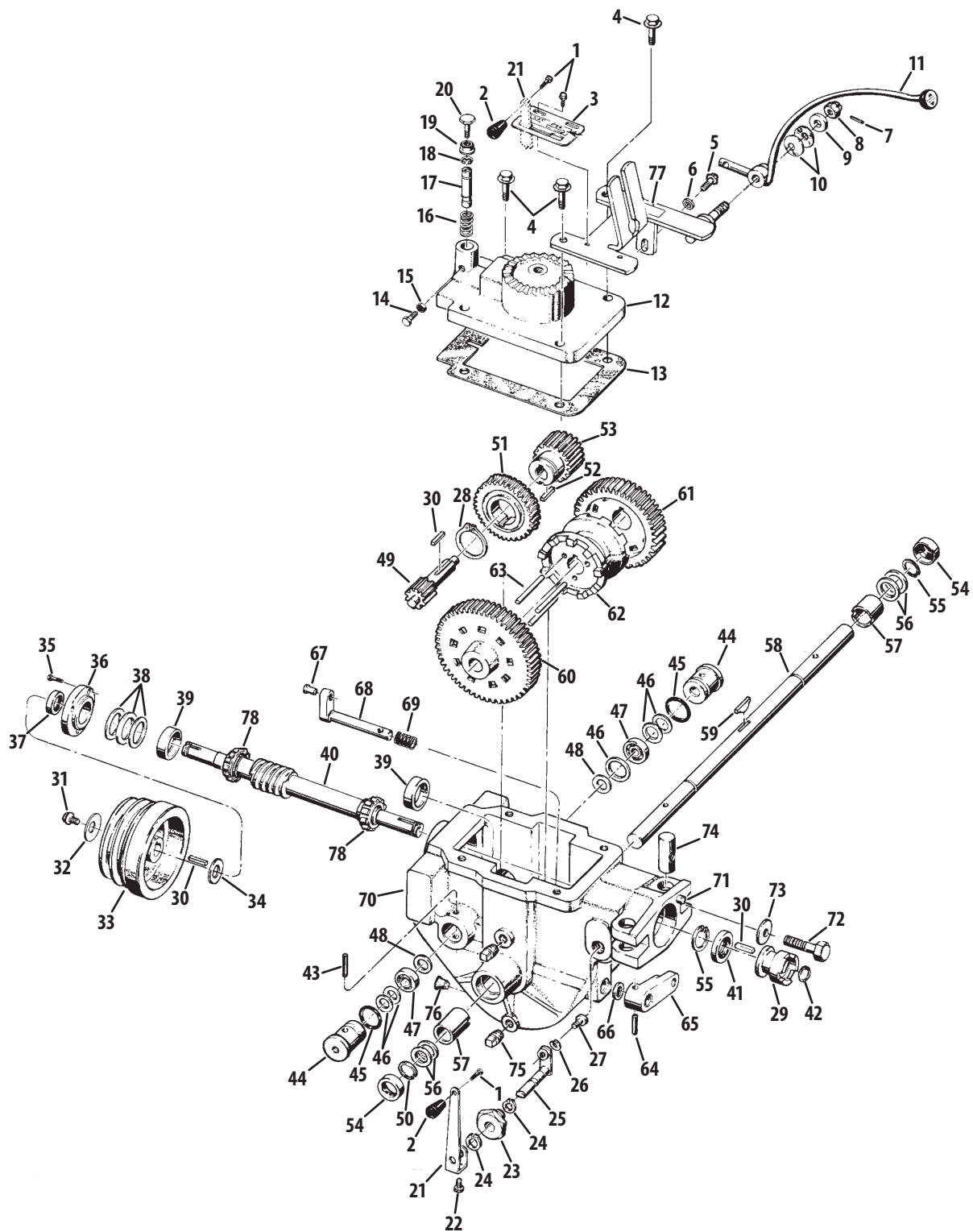
680 Series Drive System



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	719-04222-0637	Motor Mount
33	736-3052	Flat Washer, .406 x 1.0 x .105
34	710-0606	Hex Screw, 1/4"-20 x 1-1/2"
35	934-04231	Wheel Assembly, 16 x 4.6 x 8"
—	634-04230-0662	Rim Assembly
—	734-0808A	Tire, 16.2 x 4.6
36	712-04064	Hex Flange Nut, 1/4"-20
37	1900870001	Clutch Bracket

680 Series Power Transmission Assembly

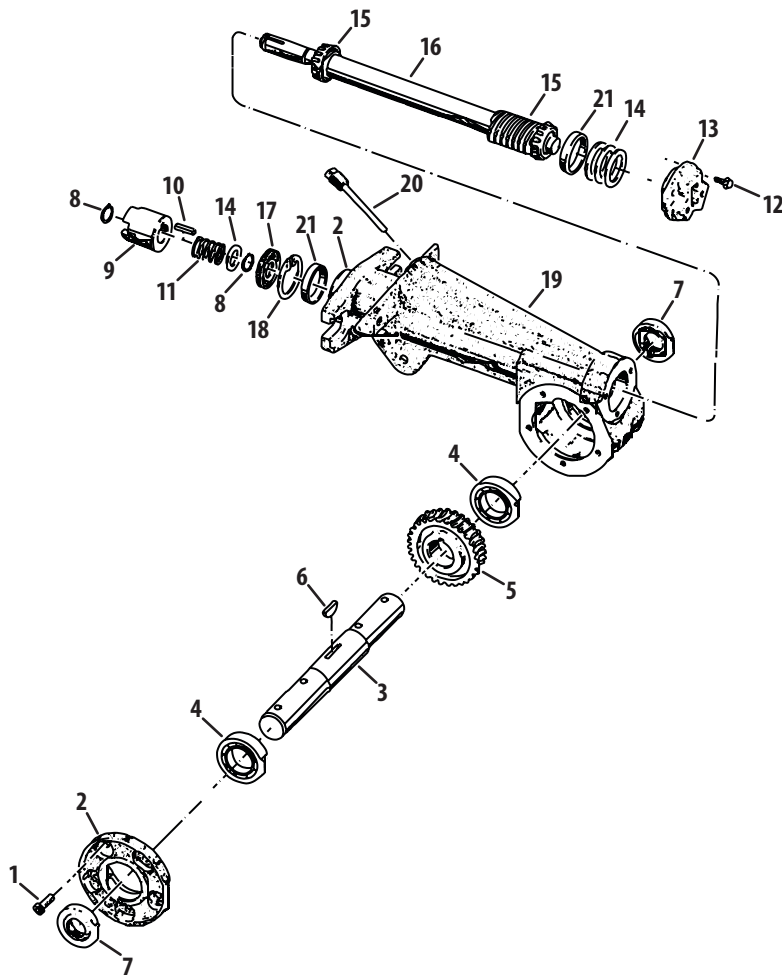


680 Series Power Transmission Assembly

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.	619-04000-0637	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

680 Series Power Transmission Assembly

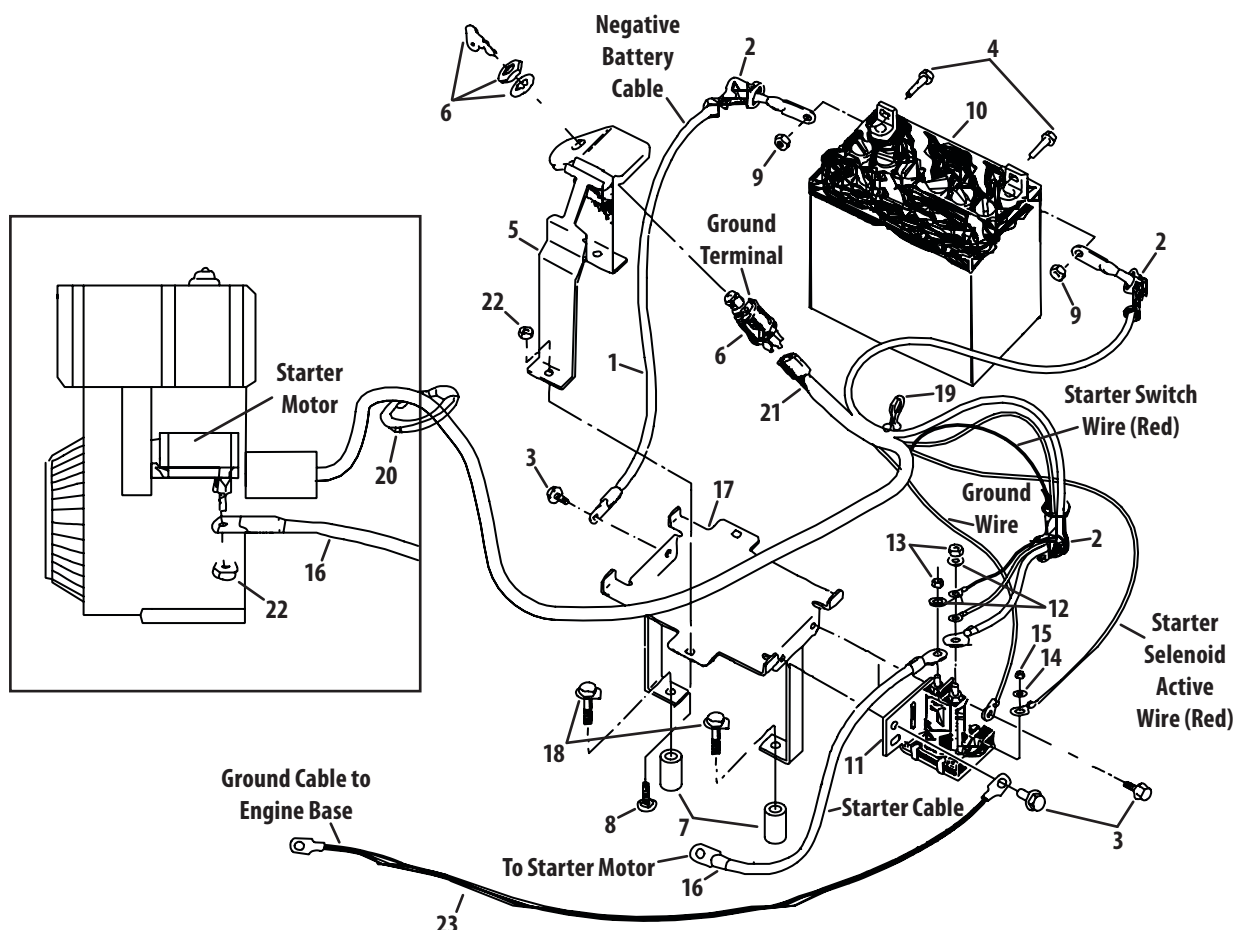


Ref.	Part Number	Description
1	1915068	Self-Sealing Screw, 1/4"-20 x 5/8"
2	GW-20873	Tiller Housing Cover
3	911-04082	Tine Shaft
4	941-3037	Ball Bearing
5	1901976	Worm Gear
6	GW-1104	Woodruff Key
7	921-04035	Oil Seal
8	916-0101	External Retaining Ring
9	718-04614	Dog Clutch
10	GW-9301099	Key, 3/16" x 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	941-04299	Cup Bearing
16	GW-11602	Shaft
17	921-04030	Oil Seal
18	716-04102	Retaining Ring
19	1902000	Attachment Housing
20	1909157	Oil Dipstick
21	941-04298	Cone Bearing

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

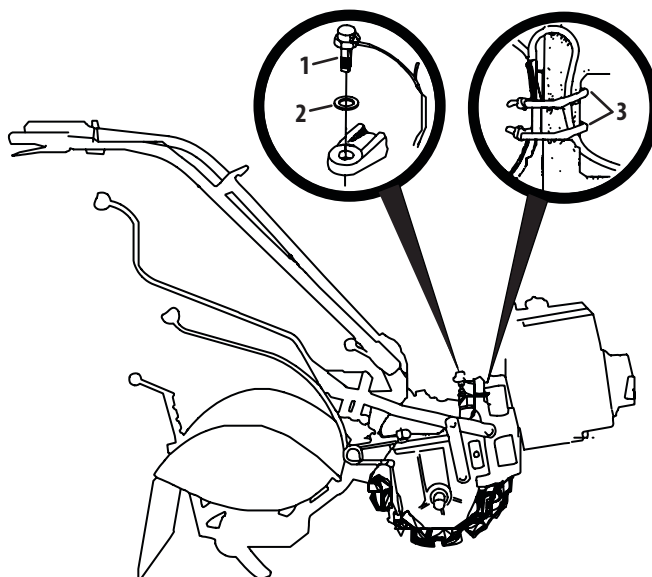
** — Washers of multiple thickness are used as required to obtain a thickness of .005" to .015" of allowable end-play in the drive shaft.



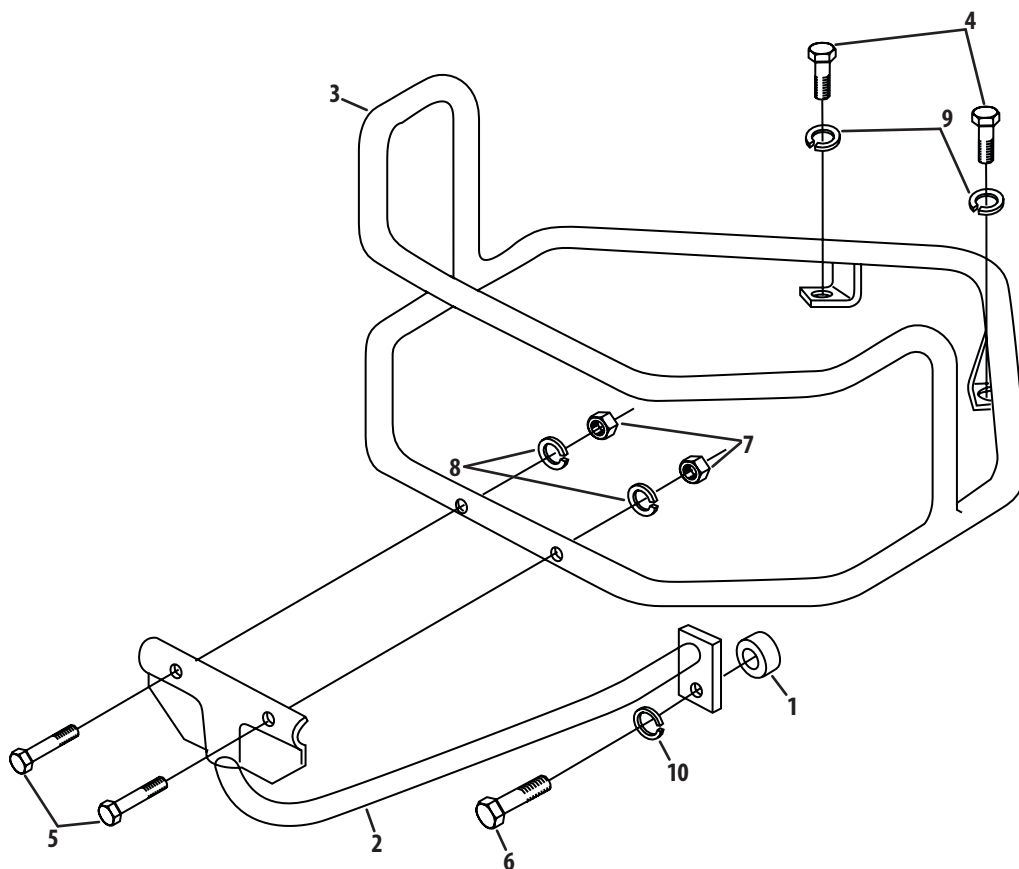
Ref.	Part Number	Description
1	GW-96515	Battery Cable
2	GW-97020	Terminal Insulating Boot
3	710-0599	TT-Screw, 1/4"-2 x 1/2"
4	1186309	Hex Bolt, 1/4"-20 x 5/8"
5	1900873	Battery Hold-down Clamp w/ Att. Key Switch Plate
6	925-0267B	Key Switch (Incl. 2 Keys)
7	750-0748	Spacer
8	1186073	Carriage Bolt, 1/4"-20 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

680 Series Forward Interlock System



Ref.	Part Number	Description
1	725-04368	PTO Switch
2	736-0508	Internal L-Washer, $\frac{9}{16}$ "
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, 3/8"-16 x 1.00
5	710-0805	Hex Screw, 5/16"-18 x 1.50
6	710-3181	Hex Screw, 1/2"-13 x 1.50
7	912-3010	Hex Nut, 5/16"-18
8	936-0119	Lock Washer, 5/16"
9	936-0169	Lock Washer, 3/8"
10	936-0921	Lock Washer, 1/2"