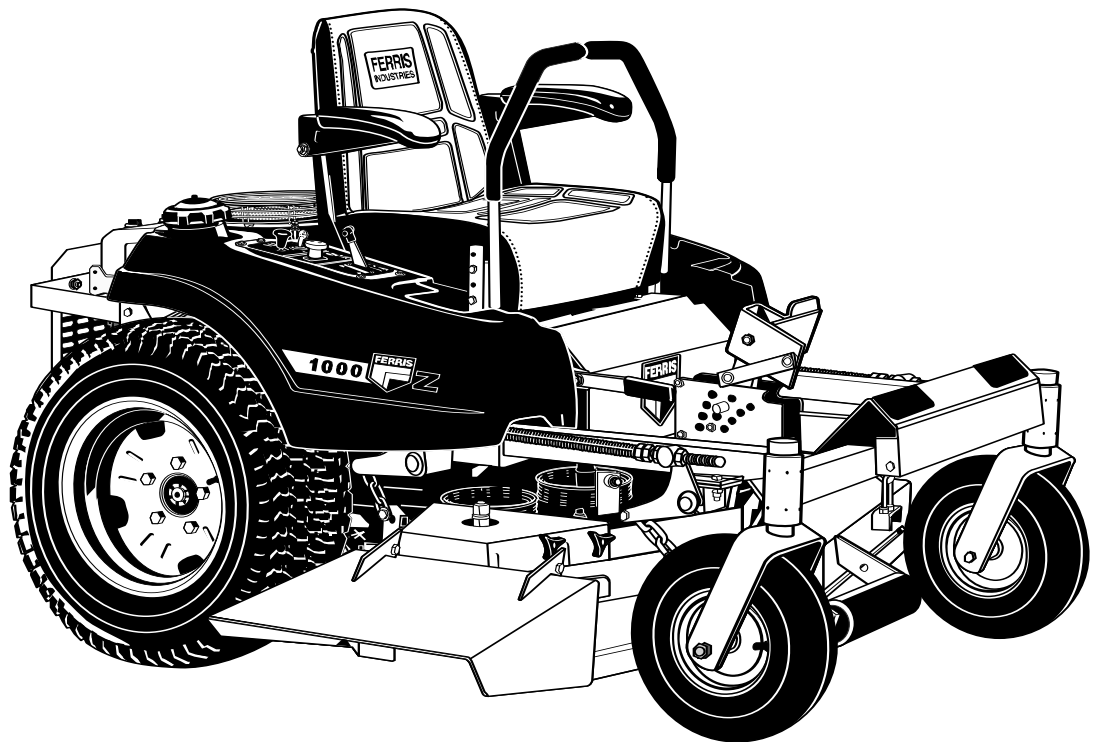




PARTS MANUAL

1000Z Series

Zero-Turn Riding Mower



Model Number:

1000ZKAV21/48

1000ZKAV23/52

1000ZKAV23/61

1000ZK21/48

1000ZK23/52

1000ZK27/61

Ferris Industries
5375 North Main Street
Munnsville, NY 13409
800-933-6175

22729
Revision 08
Rev. Date: 4/2004
TP 400-7001-08-1Z-F

RIDER COMPONENTS

Main Frame and Front Caster Groups	2
Floor & Brake Cover Groups	6
Seat & Mount Group	12
Fuel Tank, Mount & Fan Shield Groups	14
Fuel Supply Hose Groups	18
Fuel Tank Replacement Parts	24
Instrument & Control Panel Groups	26
Engine & PTO Groups	32
Pump Drive Group	40
Rear Bumper, Shield & Battery Retainer Groups	42
Motion Control Group	46
Hydraulic Groups	48
Hydraulic Tank Mount Group	54
Parking Brake Group-Upper	56
Parking Brake Groups-Lower	58
Deck Lift Groups	62
Tire & Wheel Groups	66
Electrical Schematics	70-89
(see model and serial number ranges listed on bottom of pages)	
Decals - Brand & Model	90
Decals - Safety & Operation	92

MOWER DECK COMPONENTS

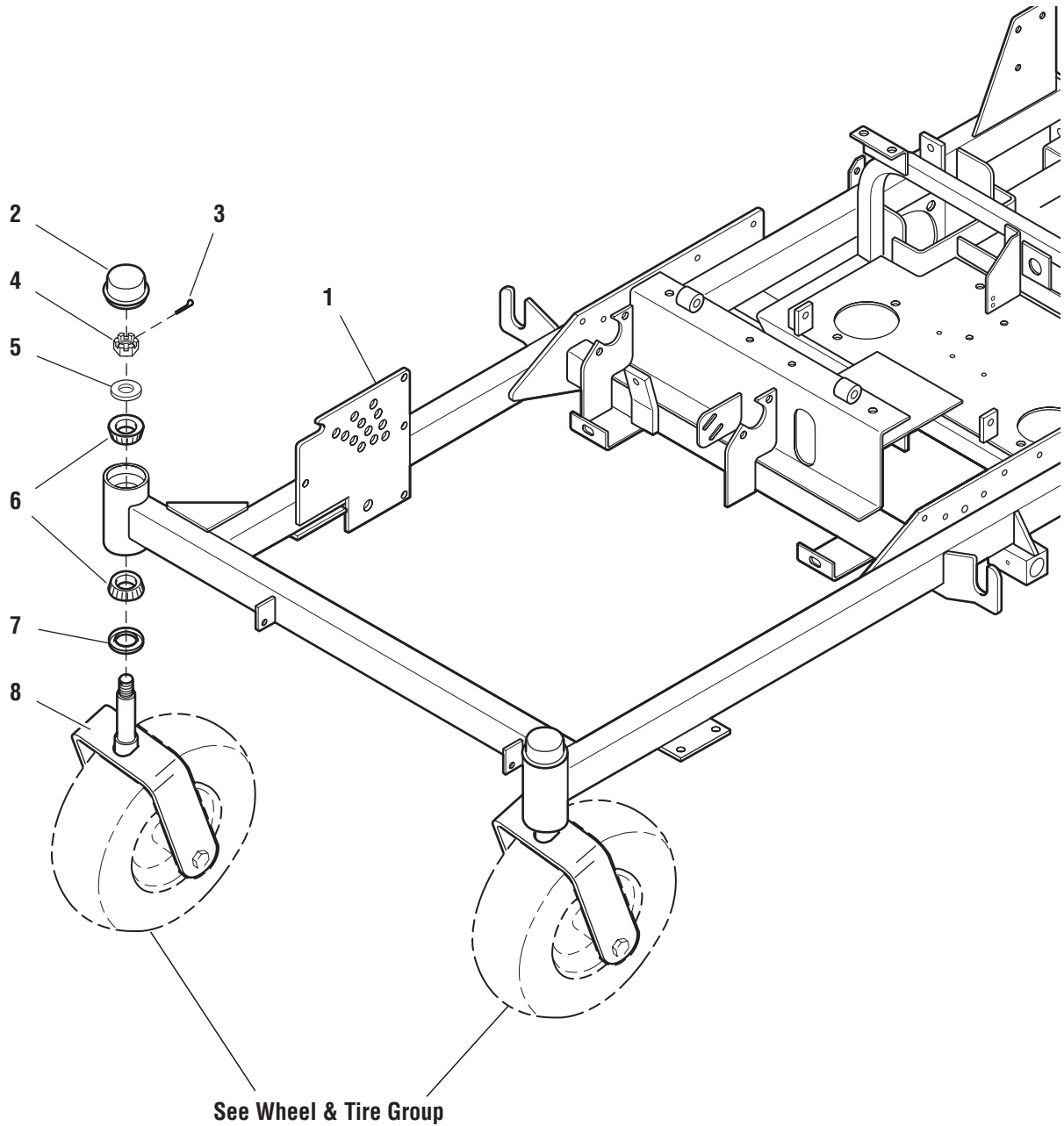
48" & 52" Mower Decks - Housings, Covers, Spindles and Blades	96
48" & 52" Mower Decks - Pulleys, Belts & Idler Arm	98
48" & 52" Mower Decks - Rollers	100
61" Mower Deck - Housing, Covers, Spindles and Blades	102
61" Mower Deck - Pulleys, Belt & Idler Arm	104
61" Mower Deck - Rollers	106
All Mower Decks - Rear Mount Bars	108

REFERENCE INFORMATION:

Torque Specification Chart	Inside Back Cover
----------------------------------	-------------------

Main Frame & Front Caster Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48
1000ZKAV23/52

1000ZK21/48
1000ZK23/52

Main Frame & Front Caster Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	47007	1	MAIN FRAME
2	21073	2	CAP
3	25203-10	2	PIN, Cotter
4	25104	2	NUT, Hex, Slotted, 3/4-16
5	25160	2	WASHER, 3/4
6	20884	4	BEARING, Tapered Roller
7	21072	2	SEAL, Grease
8	47049	2	CASTER YOKE

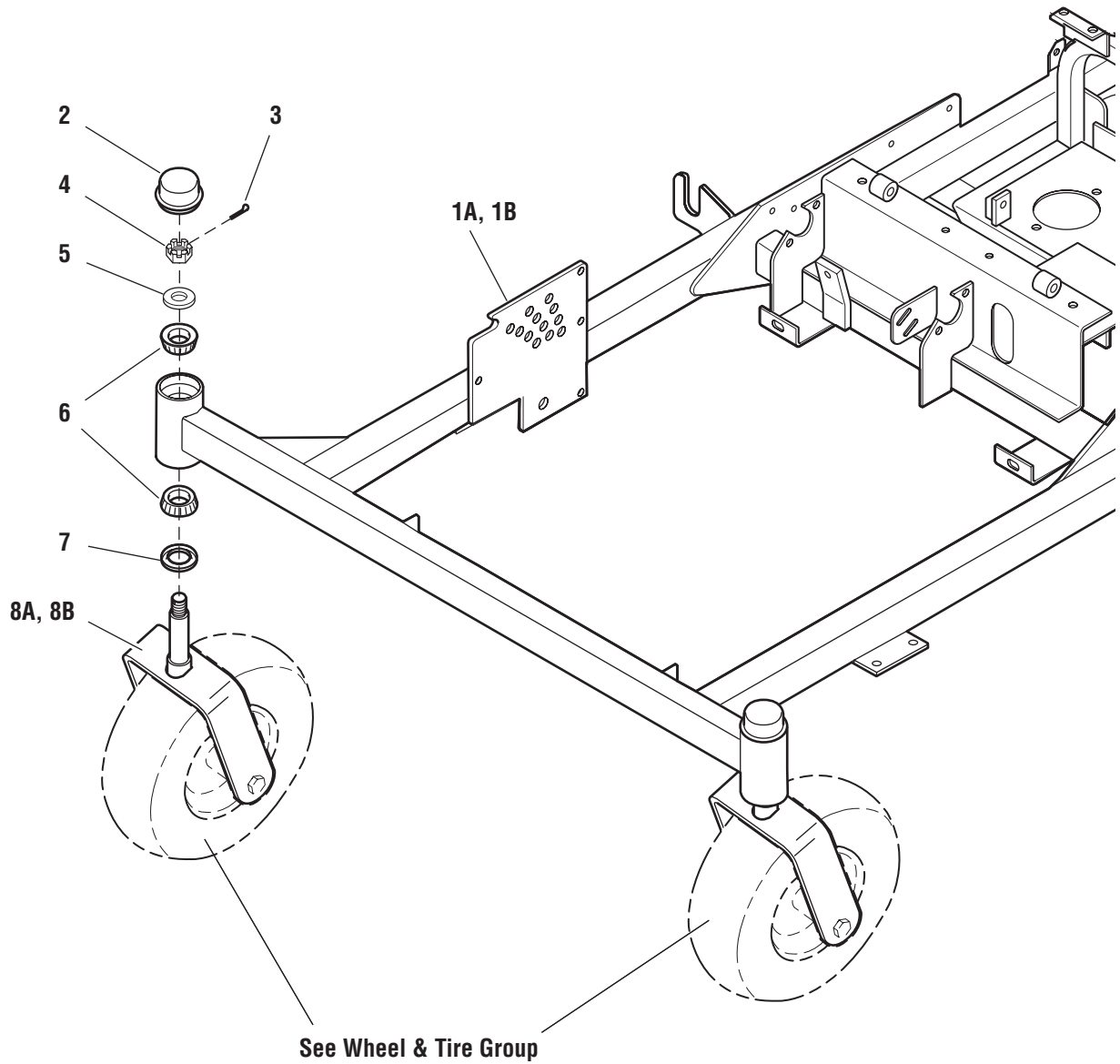
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52

Main Frame & Front Caster Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV23/61

1000ZK27/61

Main Frame & Front Caster Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1A	47184	1	61" MAIN FRAME (23HP model)
1B	49073	1	61" MAIN FRAME (27HP model)
2	21073	2	CAP
3	25203-10	2	PIN, Cotter
4	25104	2	NUT, Hex, Slotted, 3/4-16
5	25160	2	WASHER, 3/4
6	20884	4	BEARING, Tapered Roller
7	21072	2	SEAL, Grease
8A	47049	2	CASTER YOKE (23HP model)
8B	45769	2	CASTER YOKE (27HP model)

Footnotes:

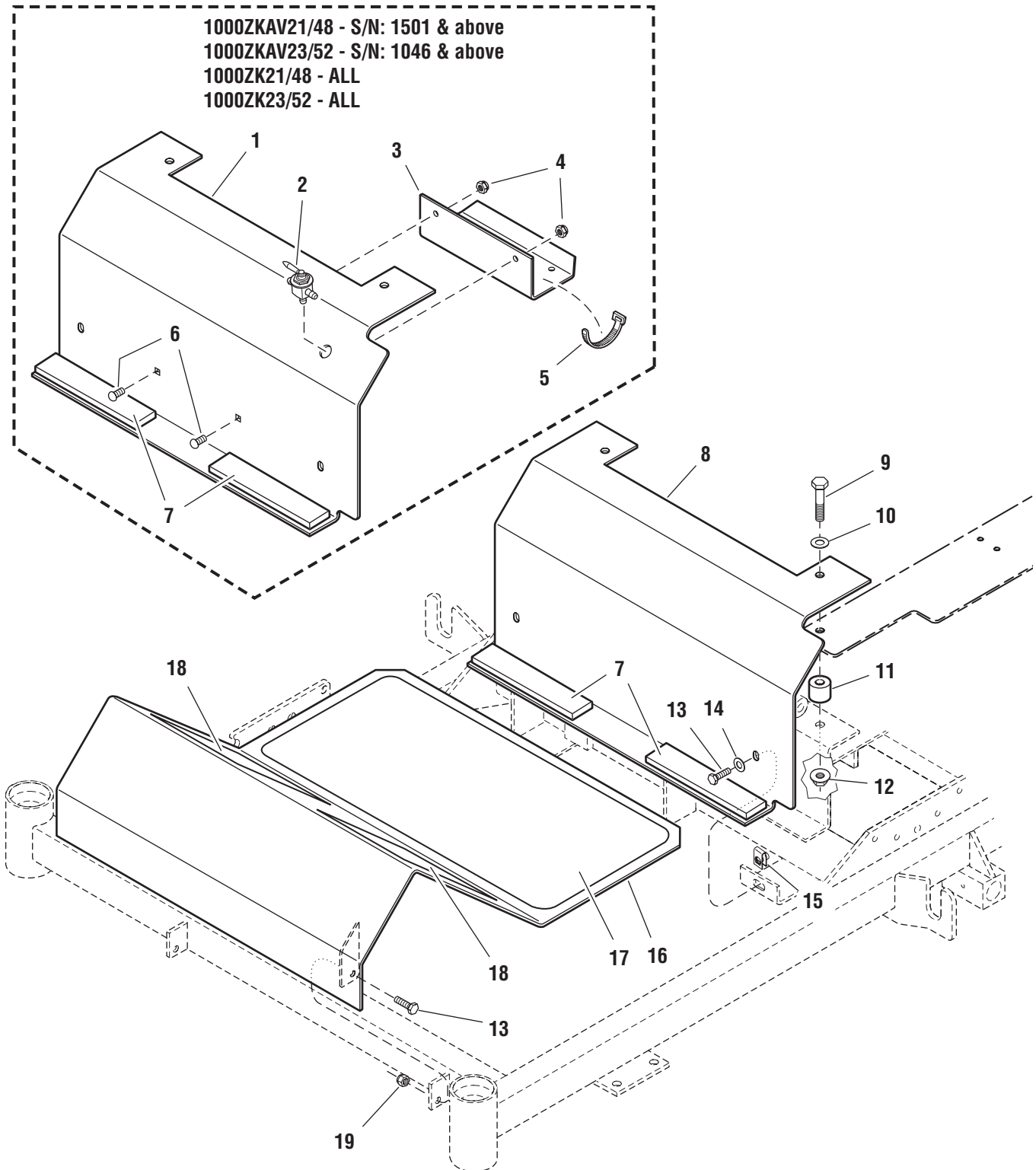
The above parts group applies to the following Model Nos.:

1000ZKAV23/61

1000ZK27/61

Floor & Brake Cover Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48
1000ZKAV23/52

1000ZK21/48
1000ZK23/52

Floor & Brake Cover Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	49180	1	BRAKE COVER PANEL
2	22030	1	FUEL SHUTOFF VALVE
3	49181	1	FUEL LINE GUIDE
4	25095	2	NUT, Hex Nylon Lock, 1/4-20
5	21029	2	TIE WRAP, 11"
6	25144-6	2	CARRIAGE BOLT, 1/4-20 x 3/4
7	21877	2	RUBBER PAD
8	47069	1	BRAKE COVER PANEL
9	25013-16	2	CAPSCREW, Hex Head, 3/8-16 x 2
10	25156	2	WASHER, 3/8
11	47125	2	SPACER, .39 x 1.00 x .88
12	25128	2	NUT, Hex Serrated Flange, 3/8-16
13	25011-8	4	CAPSCREW, Hex Head, 5/16-18 x 1
14	25155	2	WASHER, 5/16
15	22308	2	BODY CLIP, 5/16-18
16	47113	1	FLOOR PLATE
17	44873	1	SAFETY WALK
18	47139	2	SAFETY WALK
19	25057	2	NUT, Hex Nylon Lock, 5/16-18

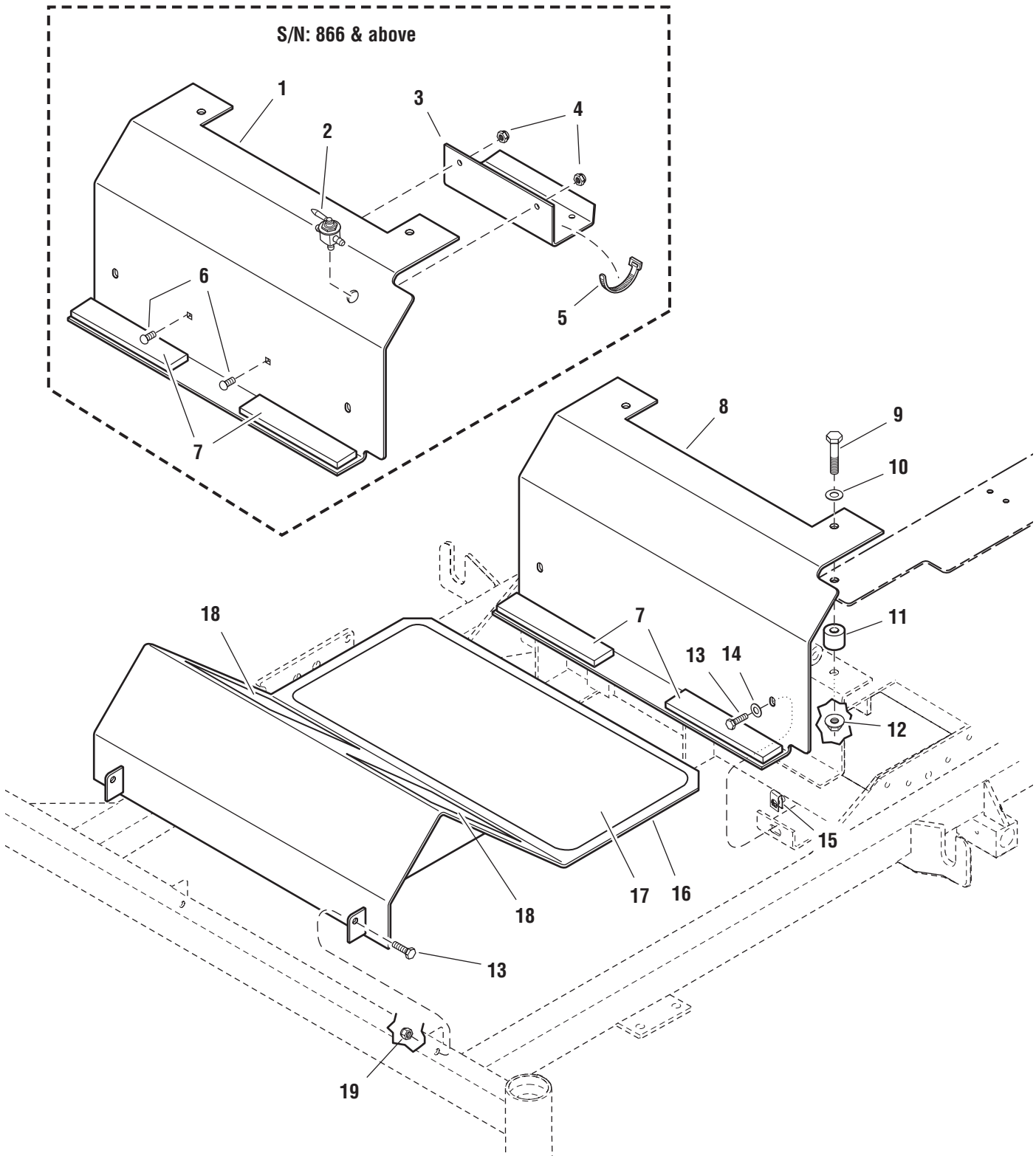
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52

Floor & Brake Cover Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:
1000ZKAV23/61

Floor & Brake Cover Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	49240	1	BRAKE COVER PANEL ASSEMBLY
2	22030	1	FUEL SHUTOFF VALVE
3	49181	1	FUEL LINE GUIDE
4	25095	2	NUT, Hex Nylon Lock, 1/4-20
5	21029	2	TIE WRAP, 11"
6	25144-6	2	CARRIAGE BOLT, 1/4-20 x 3/4
7	21877	2	RUBBER PAD
8	47069	1	BRAKE COVER PANEL
9	25013-16	2	CAPSCREW, Hex Head, 3/8-16 x 2
10	25156	2	WASHER, 3/8
11	47125	2	SPACER, .39 x 1.00 x .88
12	25128	2	NUT, Hex Serrated Flange, 3/8-16
13	25011-8	4	CAPSCREW, Hex Head, 5/16-18 x 1
14	25155	2	WASHER, 5/16
15	22308	2	BODY CLIP, 5/16-18
16	47204	1	FLOOR PLATE
17	44873	1	SAFETY WALK
18	47139	2	SAFETY WALK
19	25057	2	NUT, Hex Nylon Lock, 5/16-18

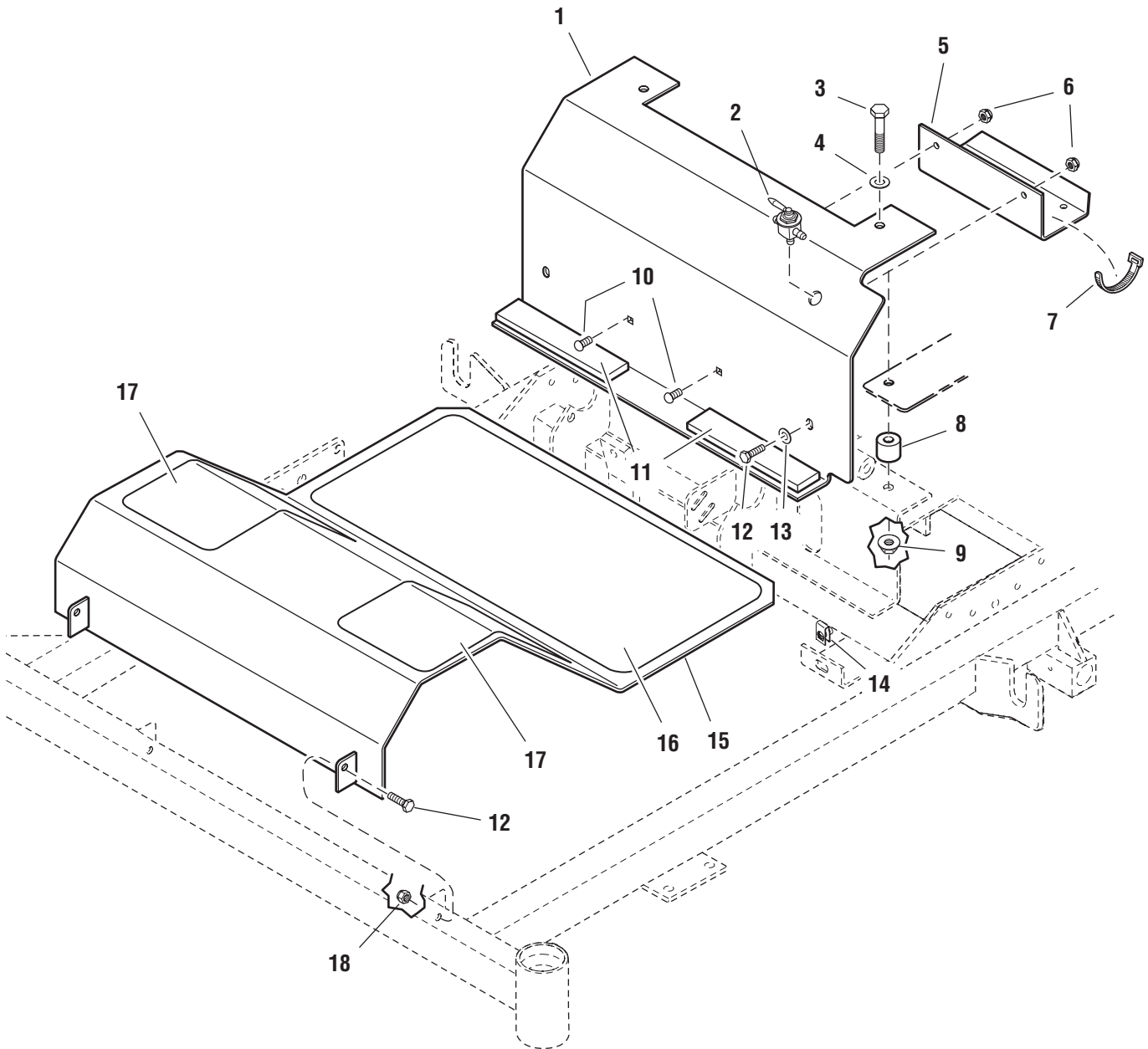
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV23/61

Floor & Brake Cover Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:
1000ZK27/61

Floor & Brake Cover Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	49240	1	BRAKE COVER PANEL ASSEMBLY
2	22030	1	FUEL SHUTOFF VALVE
3	25013-16	2	CAPSCREW, Hex Head, 3/8-16 x 2
4	25156	2	WASHER, 3/8
5	49181	1	FUEL LINE GUIDE
6	25095	2	NUT, Hex Nylon Lock, 1/4-20
7	21029	2	TIE WRAP, 11"
8	47125	2	SPACER, .39 x 1.00 x .88
9	25128	2	NUT, Hex Serrated Flange, 3/8-16
10	25144-6	2	CARRIAGE BOLT, 1/4-20 x 3/4
11	21877	2	RUBBER PAD
12	25011-8	4	CAPSCREW, Hex Head, 5/16-18 x 1
13	25155	2	WASHER, 5/16
14	22308	2	BODY CLIP, 5/16-18
15	49126	1	FLOOR PLATE
16	44873	1	SAFETY WALK
17	45915	2	SAFETY WALK
18	25057	2	NUT, Hex Nylon Lock, 5/16-18

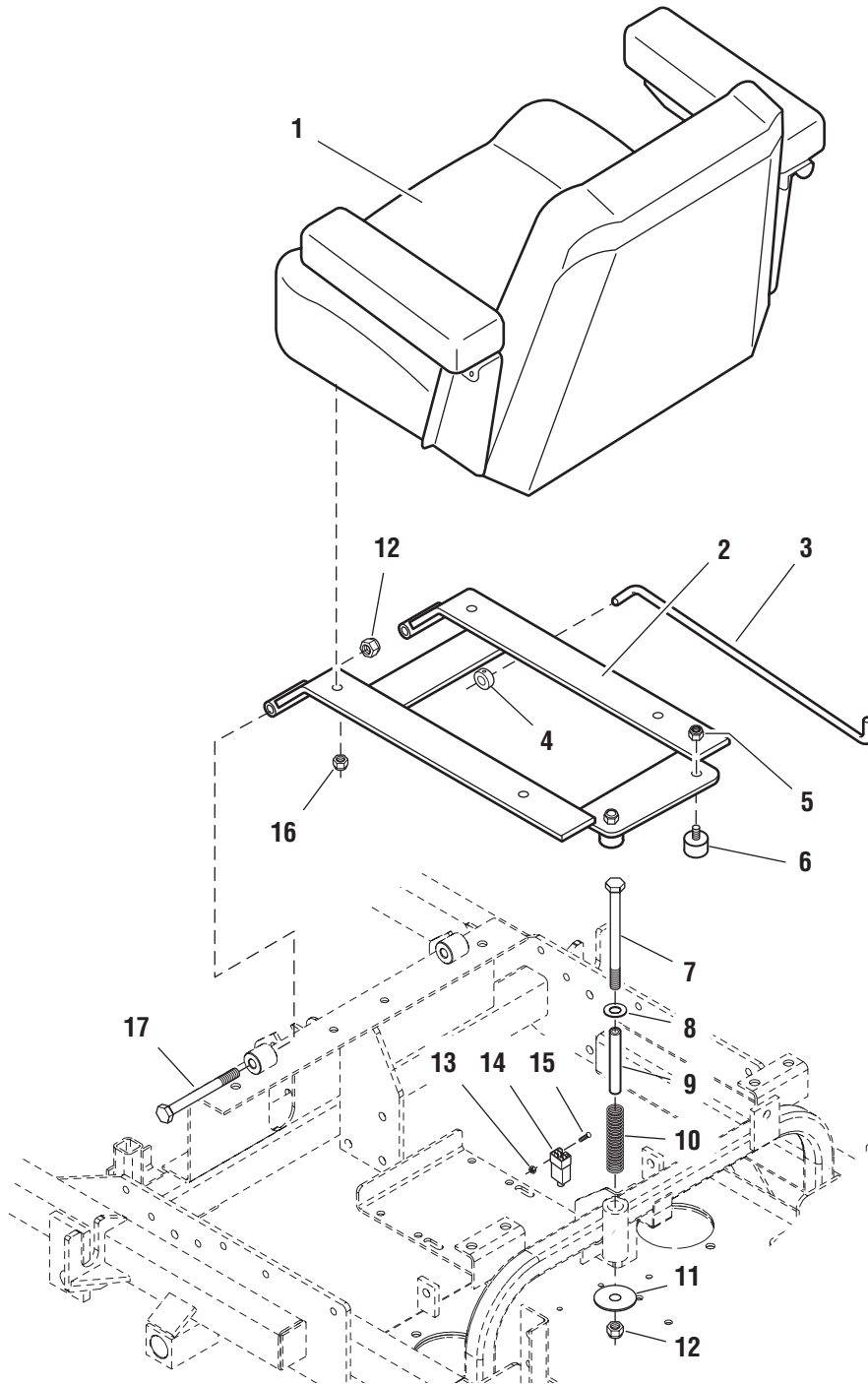
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZK27/61

Seat & Mount Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	1000ZK27/61

Seat & Mount Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	22031	1	SEAT, Gray (complete)
*	22031-2	1	CUSHION, Bottom, Gray
*	22031-4	1	CUSHION, Back, Gray
*	22440	2	ARM REST, Black
*	20930-3	1	SEAT ADJUSTER RAILS (set of 2)
2	47744	1	SEAT MOUNT
3	46470	1	SEAT STOP ROD
4	20047	1	COLLAR, 5/16 Set
5	25095	2	NUT, Hex Nylon Lock, 1/4-20
6	22673	2	RUBBER BUMPER
7	25013-48	1	CAPSCREW, Hex Head, 3/8-16 x 6
8	25156	1	WASHER, 3/8
9	46586	1	SPACER, .38 x .50 x 5.06
10	22798	1	SPRING, Compression
11	25326	1	WASHER, 3/8 x 2
12	25096	3	NUT, Hex Nylon Lock, 3/8-16
13	25029	2	NUT, Hex, #10-24
14	*	1	SWITCH (see electrical schematic)
15	25270	2	SCREW, #10-24 x 1
16	25057	4	NUT, Hex Nylon Lock, 5/16-18
17	25013-32	2	CAPSCREW, Hex Head, 3/8-16 x 4

Footnotes:

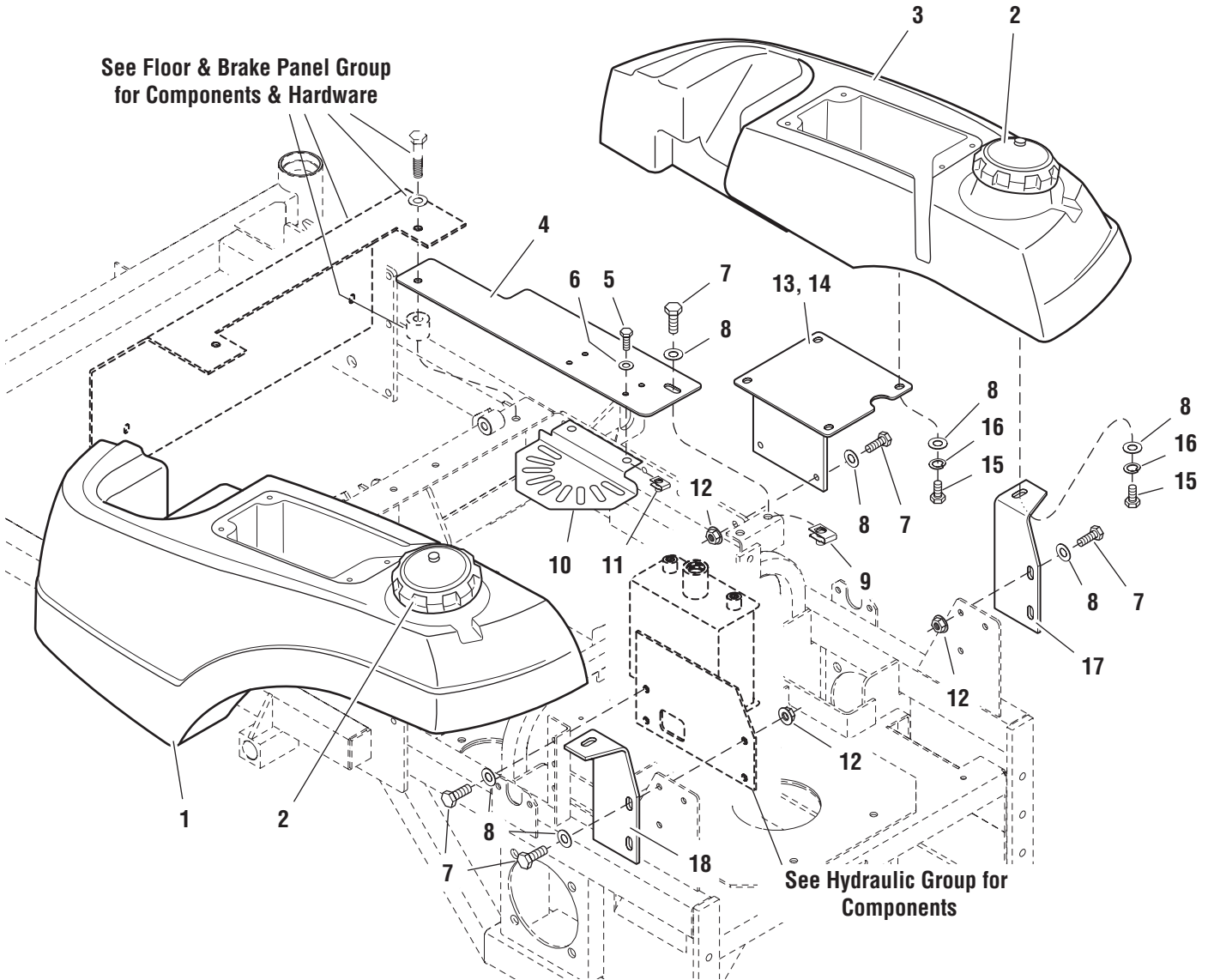
* - See Electrical Schematic for switch part number

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	1000ZK27/61

Fuel Tank, Mount & Fan Shield Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1500 & below)
- 1000ZKAV23/52 (S/N: 1045 & below)
- 1000ZKAV23/61 (S/N: 865 & below)

Fuel Tank, Mount & Fan Shield Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	47118	1	FUEL TANK, LH
*	46273	1	Filler Neck
2	22158	2	FUEL TANK CAP
3	47117	1	FUEL TANK, RH
*	46273	1	Filler Neck
4	47073	2	COVER, Fan Shield Mount
5	25010-6	4	CAPSCREW, Hex Head, 1/4-20 x 3/4
6	25154	4	WASHER, 1/4
7	25011-8	12	CAPSCREW, Hex Head, 5/16-18 x 1
8	25155	22	WASHER, 5/16
9	22308	2	BODY CLIP, 5/16-18
10	47148	2	FAN SHIELD (48" Model - serial no. 101-440) (52" Model - serial no. 101-340)
*	46645	2	FAN SHIELD (48" Model - serial no. 441 & up) (52" Model - serial no. 341 & up) (61" Model - all)
11	22665	4	BODY CLIP, 1/4-20
12	25127	10	NUT, Hex Serrated Flange, 5/16-18
13	47149	1	FUEL TANK MOUNT-RH
14	47133	1	FUEL TANK MOUNT-LH
15	25011-6	10	CAPSCREW, Hex Head, 5/16-18 x 3/4
16	25170	10	LOCKWASHER, 5/16
17	47167	1	BRACKET, Fuel Tank Support-RH
18	47166	1	BRACKET, Fuel Tank Support-LH

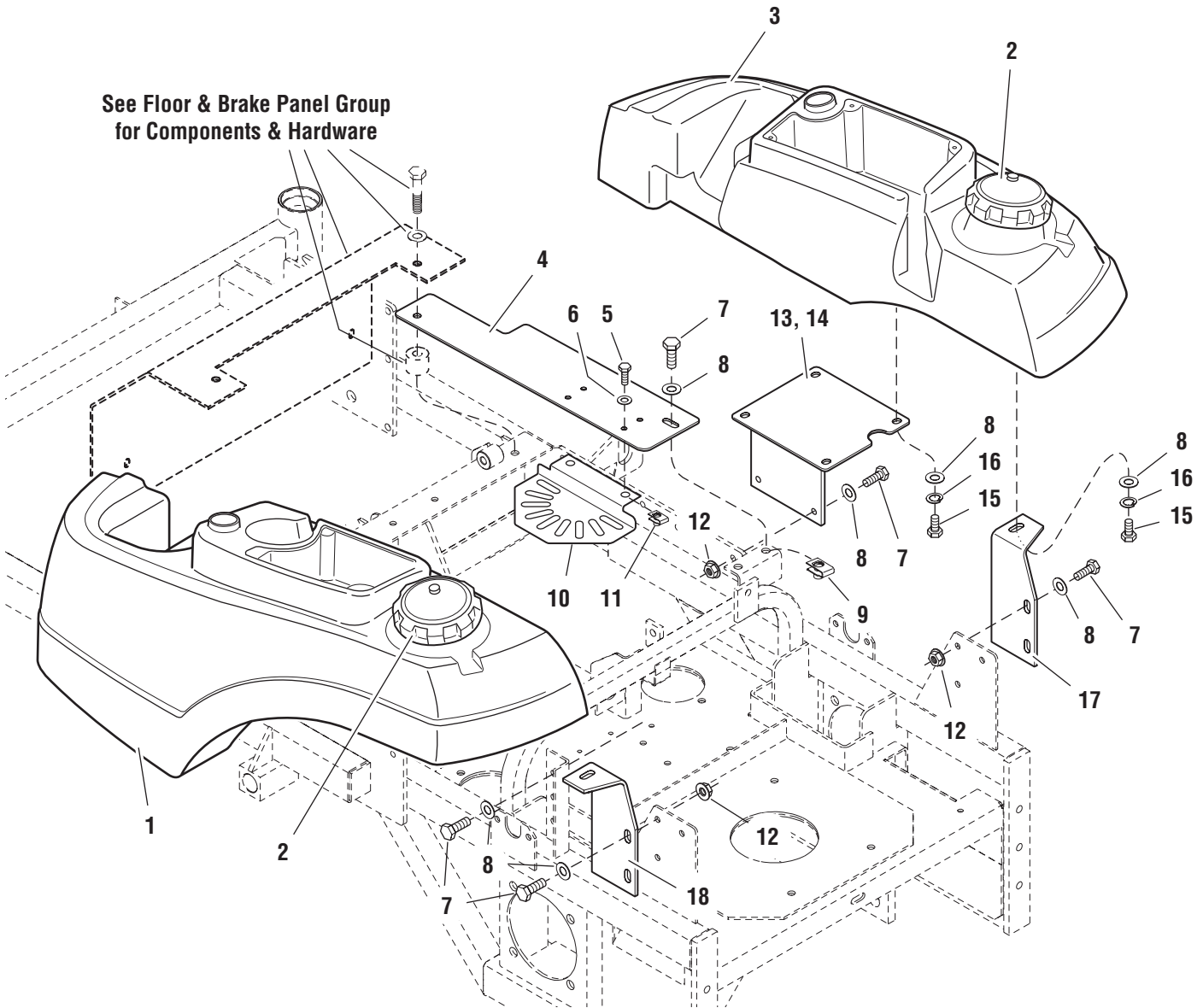
Footnotes:

The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1500 & below)
- 1000ZKAV23/52(S/N: 1045 & below)
- 1000ZKAV23/61 (S/N: 865 & below)

Fuel Tank, Mount & Fan Shield Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1501 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 1046 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 866 & above)	1000ZK27/61

Fuel Tank, Mount & Fan Shield Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	49115	1	FUEL TANK, LH
*	46273	1	Filler Neck
2	22158	2	FUEL TANK CAP
3	49116	1	FUEL TANK, RH
*	46273	1	Filler Neck
4	47073	2	COVER, Fan Shield Mount
5	25010-6	4	CAPSCREW, Hex Head, 1/4-20 x 3/4
6	25154	4	WASHER, 1/4
7	25011-8	12	CAPSCREW, Hex Head, 5/16-18 x 1
8	25155	22	WASHER, 5/16
9	22308	2	BODY CLIP, 5/16-18
10	46645	2	FAN SHIELD
11	22665	4	BODY CLIP, 1/4-20
12	25127	10	NUT, Hex Serrated Flange, 5/16-18
13	47149	1	FUEL TANK MOUNT-RH
14	47133	1	FUEL TANK MOUNT-LH
15	25011-6	10	CAPSCREW, Hex Head, 5/16-18 x 3/4
16	25170	10	LOCKWASHER, 5/16
17	47167	1	BRACKET, Fuel Tank Support-RH
18	47166	1	BRACKET, Fuel Tank Support-LH

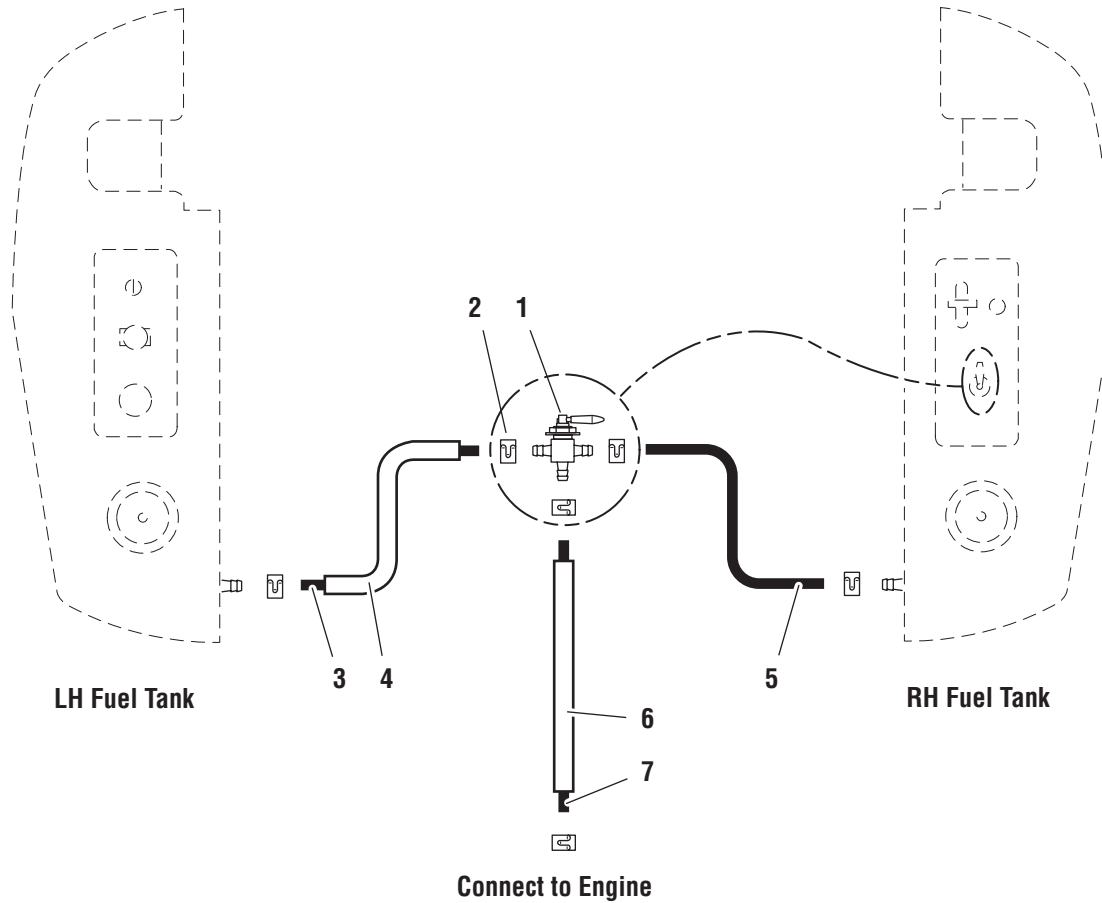
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1501 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 1046 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 866 & above)	1000ZK27/61

Fuel Supply Hose Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1310 & below)
- 1000ZKAV23/52 (S/N: 920 & below)
- 1000ZKAV23/61 (S/N: 690 & below)

Fuel Supply Hose Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	22030	1	VALVE, Fuel Shut Off
2	20835	6	CLAMP, Hose
3	50831-45	1	HOSE, 45"
4	50833-43	1	WIRE LOOM, 43"
5	50831-6.5	1	HOSE, 6-1/2"
6	50833-40	1	WIRE LOOM, 40"
7	50831-42	1	HOSE, 42"

Footnotes:

The above parts group applies to the following Model Nos.:

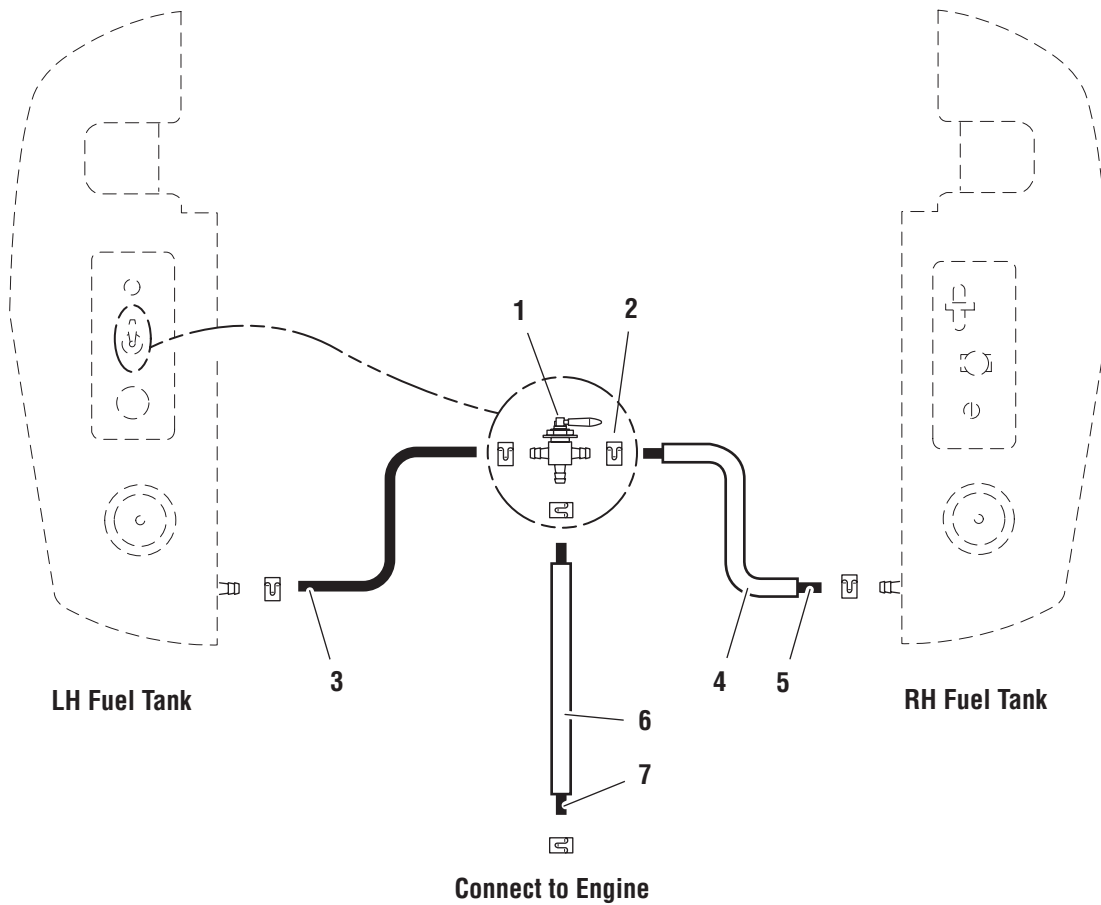
1000ZKAV21/48 (S/N: 1310 & below)

1000ZKAV23/52 (S/N: 920 & below)

1000ZKAV23/61 (S/N: 690 & below)

Fuel Supply Hose Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1311-1500)
- 1000ZKAV23/52 (S/N: 920-1045)
- 1000ZKAV23/61 (S/N: 691-865)

Fuel Supply Hose Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	22030	1	VALVE, Fuel Shut Off
2	20835	6	CLAMP, Hose
3	50831-7.5	1	HOSE, 7-1/2"
4	50833-34	1	WIRE LOOM, 34"
5	50831-36	1	HOSE, 36"
6	50833-46	1	WIRE LOOM, 46"
7	50831-48	1	HOSE, 48"

Footnotes:

The above parts group applies to the following Model Nos.:

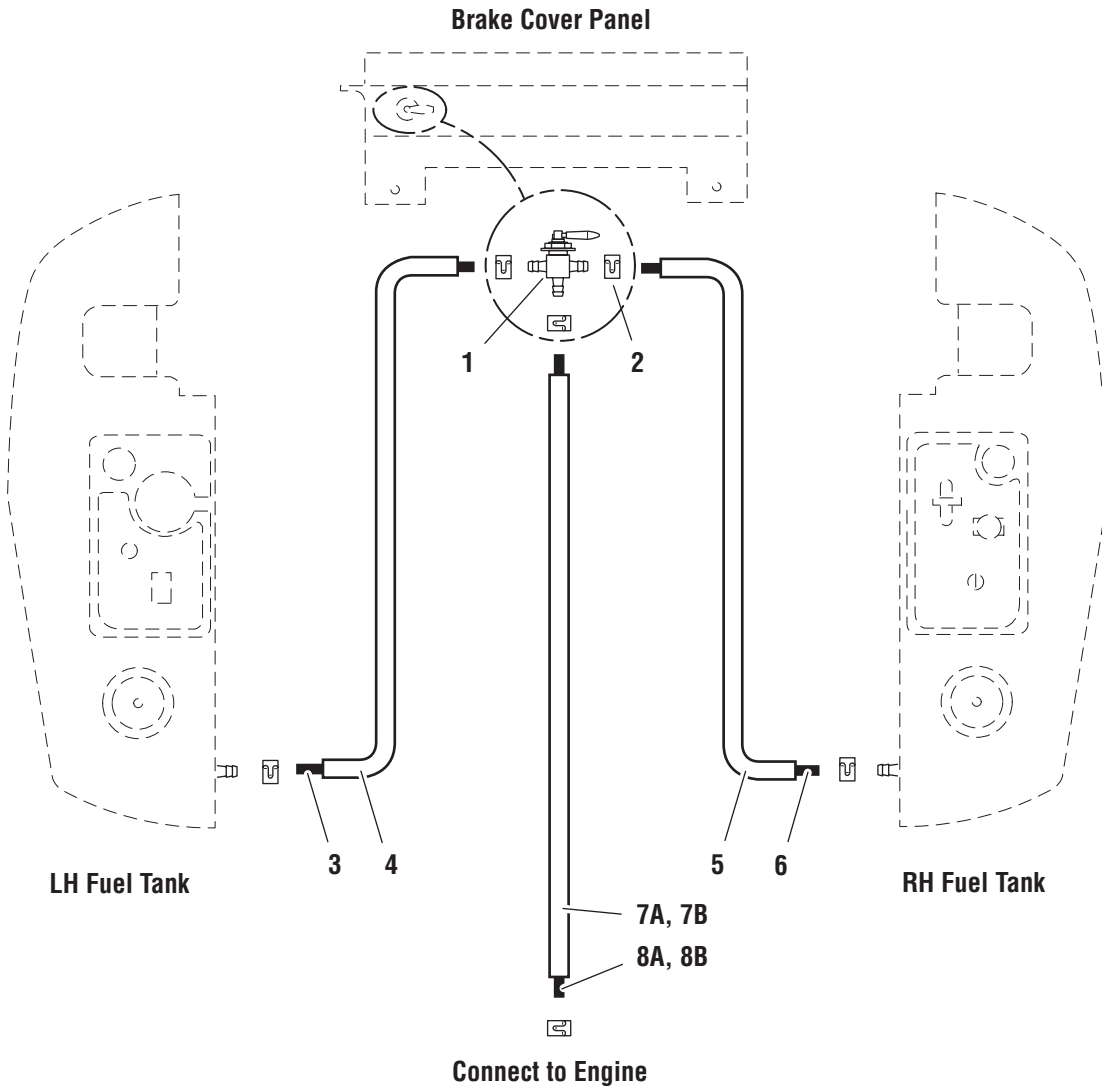
1000ZKAV21/48 (S/N: 1311-1500)

1000ZKAV23/52 (S/N: 920-1045)

1000ZKAV23/61 (S/N: 691-865)

Fuel Supply Hose Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1501 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 1046 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 866 & above)	1000ZK27/61

Fuel Supply Hose Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	22030	1	VALVE, Fuel Shut Off
2	20835	6	CLAMP, Hose
3	50831-68	1	HOSE, 68"
4	50833-66	1	WIRE LOOM, 66"
5	50833-58	1	WIRE LOOM, 58"
6	50831-60	1	HOSE, 60"
7A	50833-45	1	WIRE LOOM, 45" (Kohler models)
7B	50833-58	1	WIRE LOOM, 58" (Kawasaki models)
8A	50831-47	1	HOSE, 47" (Kohler models)
8B	50831-60	1	HOSE, 60" (Kawasaki models)

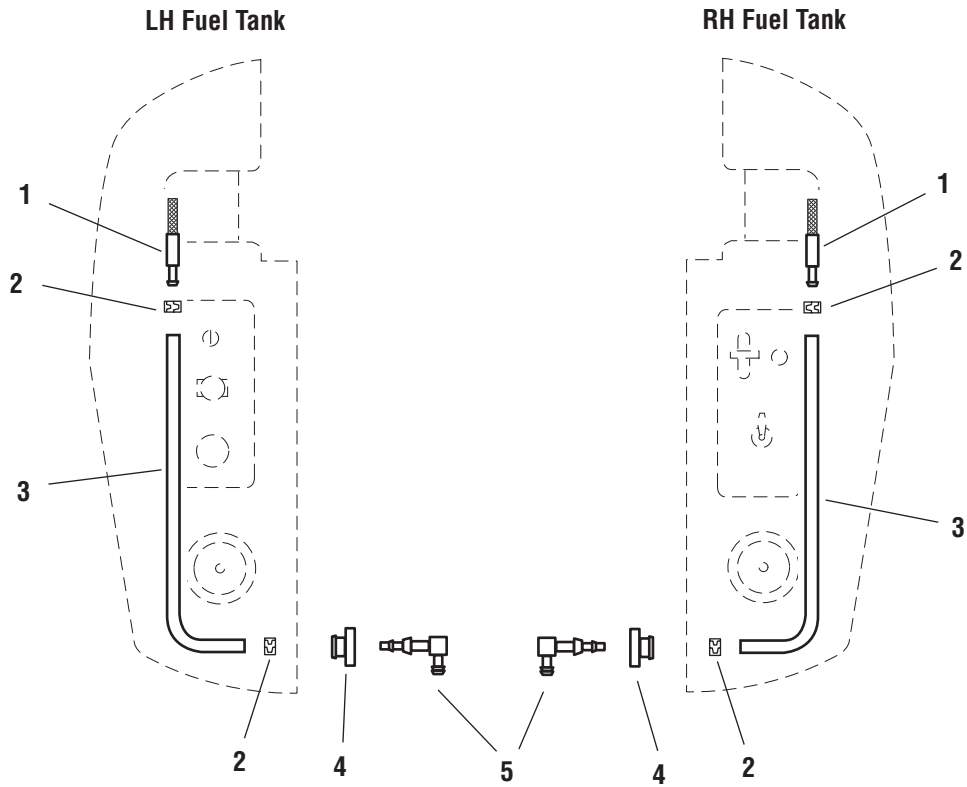
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1501 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 1046 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 866 & above)	1000ZK27/61

Fuel Tank Replacement Parts

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	1000ZK27/61

Fuel Tank Replacement Parts

REF NO.	PART NO.	QTY.	DESCRIPTION
1	23067	2	SCREEN FITTING
2	23069	4	HOSE CLAMP
3	50925-26	2	HOSE, 26"
4	1726400	2	GROMMET
5	23061	2	ELBOW FITTING

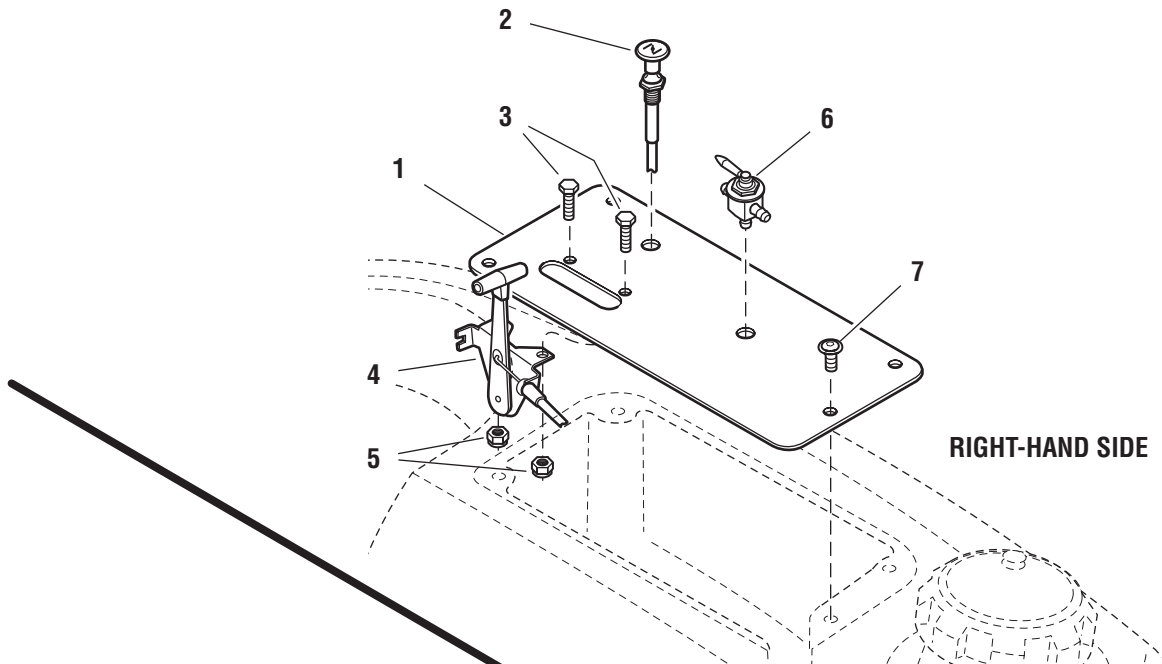
Footnotes:

The above parts group applies to the following Model Nos.:

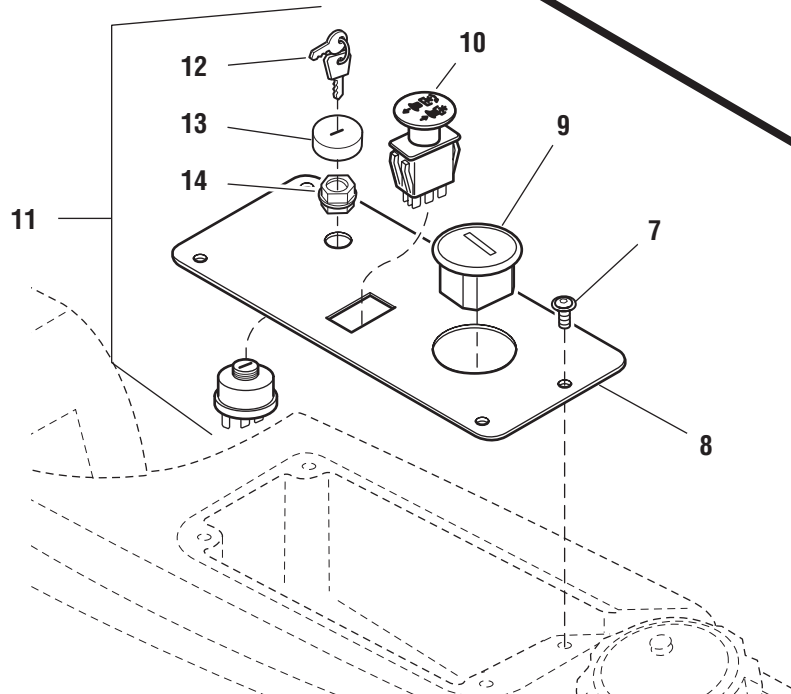
1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	1000ZK27/61

Instrument & Control Panel Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



LEFT-HAND SIDE



The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1310 & below)

1000ZKAV23/52 (S/N: 920 & below)

1000ZKAV23/61 (S/N: 690 & below)

Instrument & Control Panel Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	47140	1	PANEL, Control-RH
2	47143	1	CABLE, Choke Control
3	25010-6	2	CAPSCREW, Hex Head, 1/4-20 x 3/4
4	20811	1	CABLE, Throttle Control
5	25126	2	NUT, Hex Nylon Lock, 1/4-20
6	22030	1	VALVE, Fuel Shut Off
7	25299-4	8	SCREW, Allen Head, 1/4-20 x 1/2
8	46492	1	PANEL, Control-LH
9	20060	1	HOURMETER
10	22180	1	SWITCH, PTO
11	20927	1	SWITCH, Ignition, Complete (includes Ref 12-14)
12	22789	1	KEY, Ignition, Molded (Set of 2)
13	22790	1	COVER
14	22791	1	PLASTIC NUT

Footnotes:

The above parts group applies to the following Model Nos.:

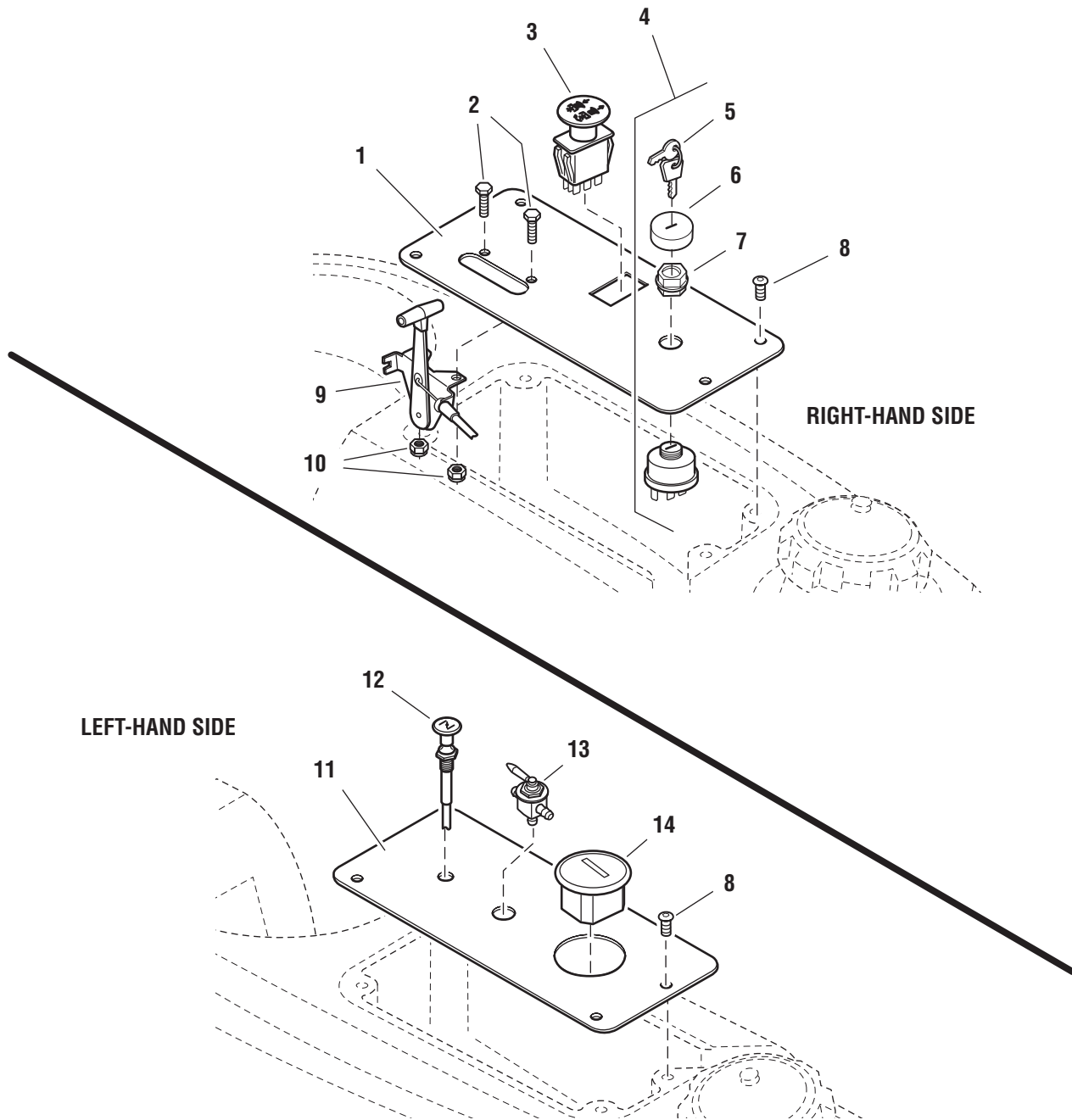
1000ZKAV21/48 (S/N: 1310 & below)

1000ZKAV23/52 (S/N: 920 & below)

1000ZKAV23/61 (S/N: 690 & below)

Instrument & Control Panel Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1311-1500)

1000ZKAV23/52 (S/N: 920-1045)

1000ZKAV23/61 (S/N: 691-865)

Instrument & Control Panel Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	47858	1	CONTROL PANEL-RH
2	25010-6	2	CAPSCREW, Hex Head, 1/4-20 x 3/4
3	22180	1	SWITCH, PTO
4	20927	1	SWITCH, Ignition, Complete (includes Ref 5-7)
5	22789	1	KEY, Ignition, Molded (Set of 2)
6	22790	1	COVER
7	22791	1	PLASTIC NUT
8	25299-4	8	SCREW, Allen Head, 1/4-20 x 1/2
9	20811	1	CABLE, Throttle Control
10	25126	2	NUT, Hex Nylon Lock, 1/4-20
11	47860	1	CONTROL PANEL-LH
12	47779	1	CABLE, Choke Control
13	22030	1	VALVE, Fuel Shut Off
14	20060	1	HOURMETER

Footnotes:

The above parts group applies to the following Model Nos.:

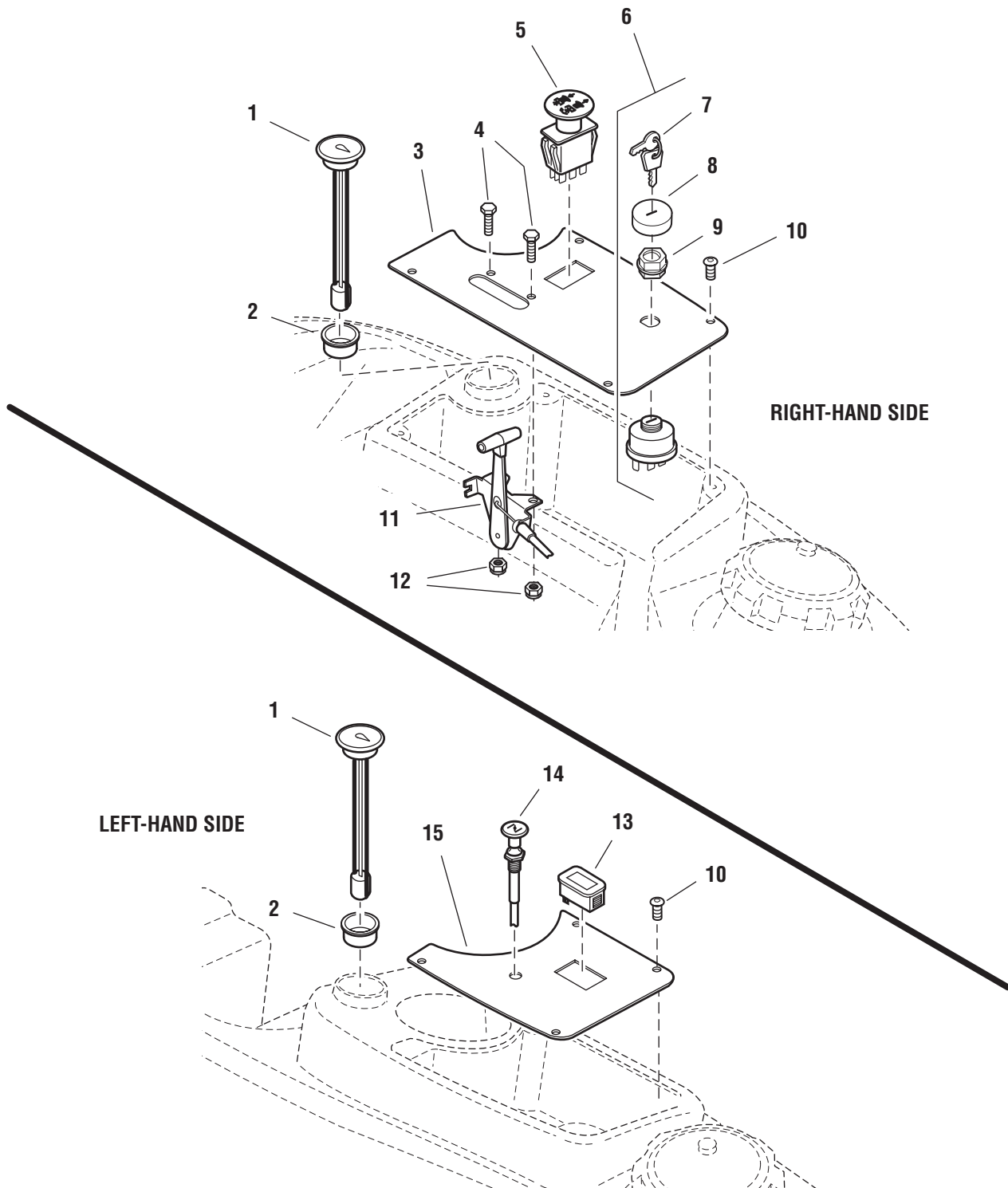
1000ZKAV21/48 (S/N: 1311-1500)

1000ZKAV23/52 (S/N: 920-1045)

1000ZKAV23/61 (S/N: 691-865)

Instrument & Control Panel Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1501 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 1046 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 866 & above)	1000ZK27/61

Instrument & Control Panel Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	22917	2	FUEL GAUGE
2	22917-1	2	GROMMET
3	2849109	1	CONTROL PANEL-RH
4	25010-6	2	CAPSCREW, Hex Head, 1/4-20 x 3/4
5	22180	1	SWITCH, PTO
6	20927	1	SWITCH, Ignition, Complete (includes Ref No. 7-9)
7	22789	1	KEY, Ignition, Molded (Set of 2)
8	22790	1	COVER
9	22791	1	PLASTIC NUT
10	25299-4	8	SCREW, Allen Head, 1/4-20 x 1/2
11	20811	1	CABLE, Throttle Control
12	25126	2	NUT, Hex Nylon Lock, 1/4-20
13	23244	1	HOURMETER, Digital
14	23239	1	CABLE, Choke Control
15	2849108	1	CONTROL PANEL-LH

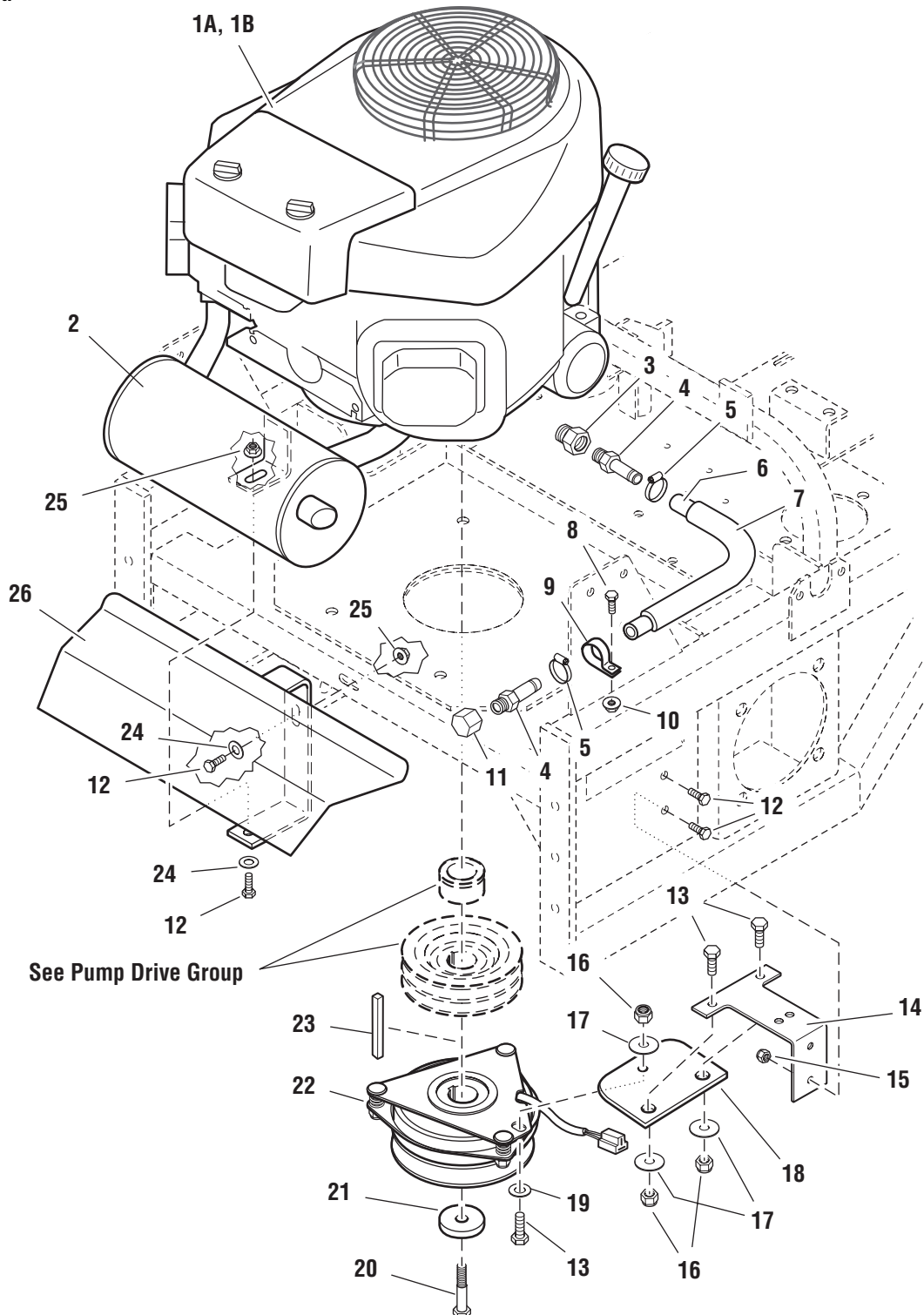
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1501 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 1046 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 866 & above)	1000ZK27/61

Engine & PTO Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1310 & below)
- 1000ZKAV23/52 (S/N: 920 & below)
- 1000ZKAV23/61 (S/N: 690 & below)

Engine & PTO Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1A	22485	1	ENGINE, 21HP Kawasaki (Model FH641V)
1B	22672	1	ENGINE, 23HP Kawasaki (Model FH680V)
*	21178-3	1	FUEL FILTER
*	21334-1	1	OIL FILTER (49065-2078)
*	*	1	FOAM PRE-CLEANER (11013-7009)
*	*	1	AIR FILTER (11013-7010)
2	22647	1	MUFFLER
3	22234	1	ADAPTER, Oil Drain
4	21372	2	FITTING, 3/8NPT - 1/2 Str.
5	21392	2	HOSE CLAMP
6	50857-9	1	HOSE, 9"
7	50862-7	1	WIRE LOOM, 7"
8	25010-6	1	CAPSCREW, Hex Head, 1/4-20 x 3/4
9	21500	1	CLAMP, Vinyl
10	25126	1	NUT, Hex Serrated Flange, 1/4-20
11	21466	1	CAP, 3/8NPT
12	25011-6	4	CAPSCREW, Hex Head, 5/16-18 x 3/4
13	25013-8	3	CAPSCREW, Hex Head, 3/8-16 x 1
14	47134	1	CLUTCH ANCHOR
15	25057	2	NUT, Hex Nylon Lock, 5/16-18
16	25096	3	NUT, Hex Nylon Lock, 3/8-16
17	25165	3	WASHER, Fender, 3/8
18	43636	1	CLUTCH ANCHOR PAD
19	25156	1	WASHER, 3/8
20	44853	1	CRANKSHAFT BOLT, 7/16 x 2
21	45475	1	SPACER, .45 x 1.88 x .38
22	23231	1	ELECTRIC CLUTCH
*	23232	1	ELECTRIC CLUTCH (1000ZKAV23/61 model only)
23	50407-28	1	KEY, 1/4 Sq. x 3-1/2
24	25155	2	WASHER, 5/16
25	25127	2	NUT, Hex Serrated Flange, 5/16-18
26	46487	1	MUFFLER SUPPORT

Footnotes:

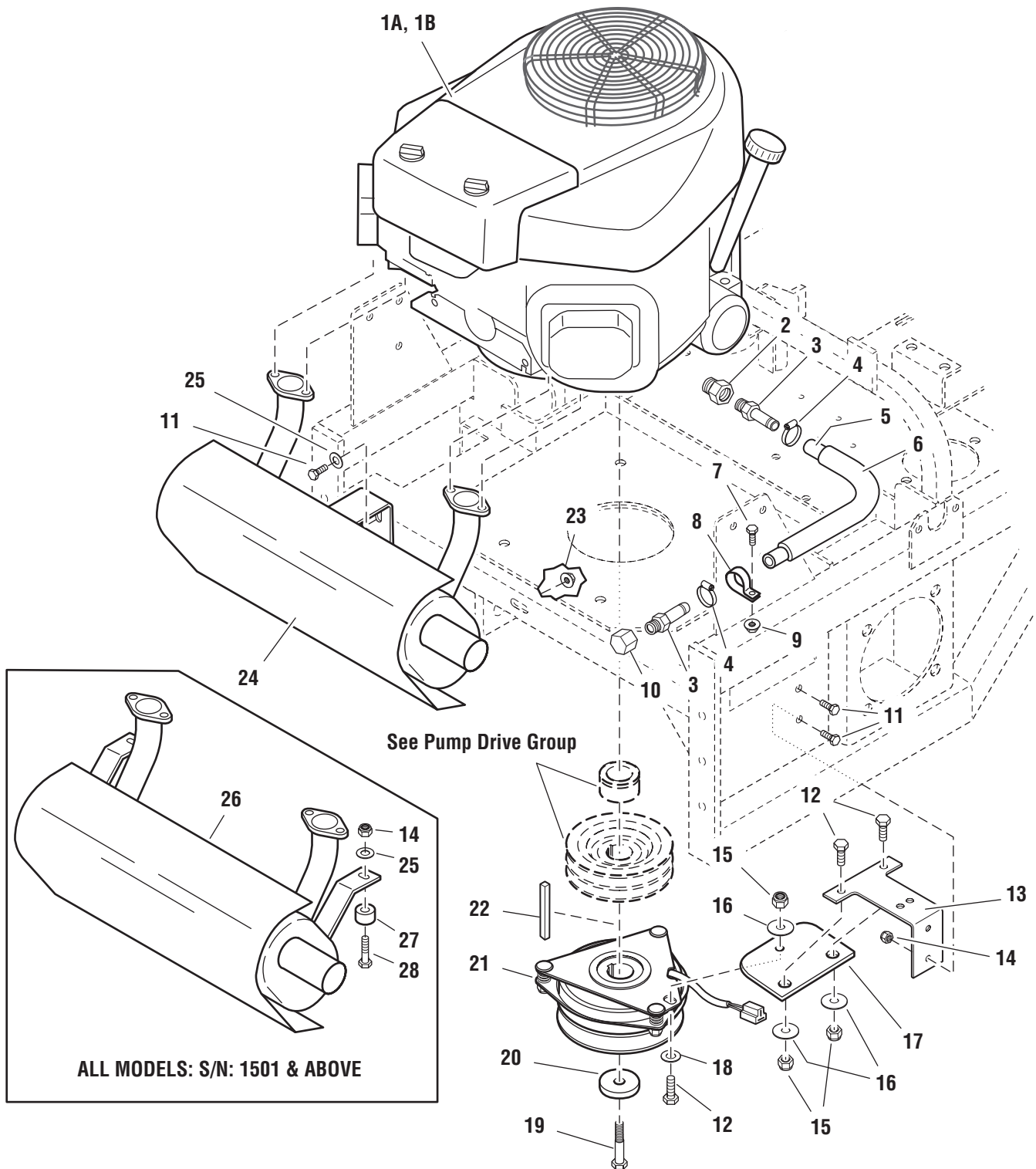
* See you local Kawasaki engine dealer for service parts.

The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1310 & below)
1000ZKAV23/52 (S/N: 920 & below)
1000ZKAV23/61 (S/N: 690 & below)

Engine & PTO Group

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1311 & above)
- 1000ZKAV23/52 (S/N: 921 & above)
- 1000ZKAV23/61 (S/N: 691 & above)

Engine & PTO Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1A	22485	1	ENGINE, 21HP Kawasaki (Model FH641V)
1B	22672	1	ENGINE, 23HP Kawasaki (Model FH680V)
*	21178-3	1	FUEL FILTER
*	21334-1	1	OIL FILTER (49065-2078)
*	*	1	FOAM PRE-CLEANER (11013-7009)
*	*	1	AIR FILTER (11013-7010)
2	22234	1	ADAPTER, Oil Drain
3	21372	2	FITTING, 3/8NPT - 1/2 Str.
4	21392	2	HOSE CLAMP
5	50857-9	1	HOSE, 9"
6	50862-7	1	WIRE LOOM, 7"
7	25010-6	1	CAPSCREW, Hex Head, 1/4-20 x 3/4
8	21500	1	CLAMP, Vinyl
9	25126	1	NUT, Hex Serrated Flange, 1/4-20
10	21466	1	CAP, 3/8NPT
11	25011-6	3	CAPSCREW, Hex Head, 5/16-18 x 3/4
12	25013-8	3	CAPSCREW, Hex Head, 3/8-16 x 1
13	47134	1	CLUTCH ANCHOR
14	25057	2	NUT, Hex Nylon Lock, 5/16-18
15	25096	3	NUT, Hex Nylon Lock, 3/8-16
16	25165	3	WASHER, Fender, 3/8
17	43636	1	CLUTCH ANCHOR PAD
18	25156	1	WASHER, 3/8
19	44853	1	CRANKSHAFT BOLT, 7/16 x 2
20	45475	1	SPACER, .45 x 1.88 x .38
21	23231	1	ELECTRIC CLUTCH
*	23232	1	ELECTRIC CLUTCH (1000ZKAV23/61 model only)
22	50407-28	1	KEY, 1/4 Sq. x 3-1/2
23	25127	1	NUT, Hex Serrated Flange, 5/16-18
24	22953	1	MUFFLER
25	25155	1	WASHER, 5/16

Footnotes:

* See you local Kawasaki engine dealer for service parts.

The above parts group applies to the following Model Nos.:

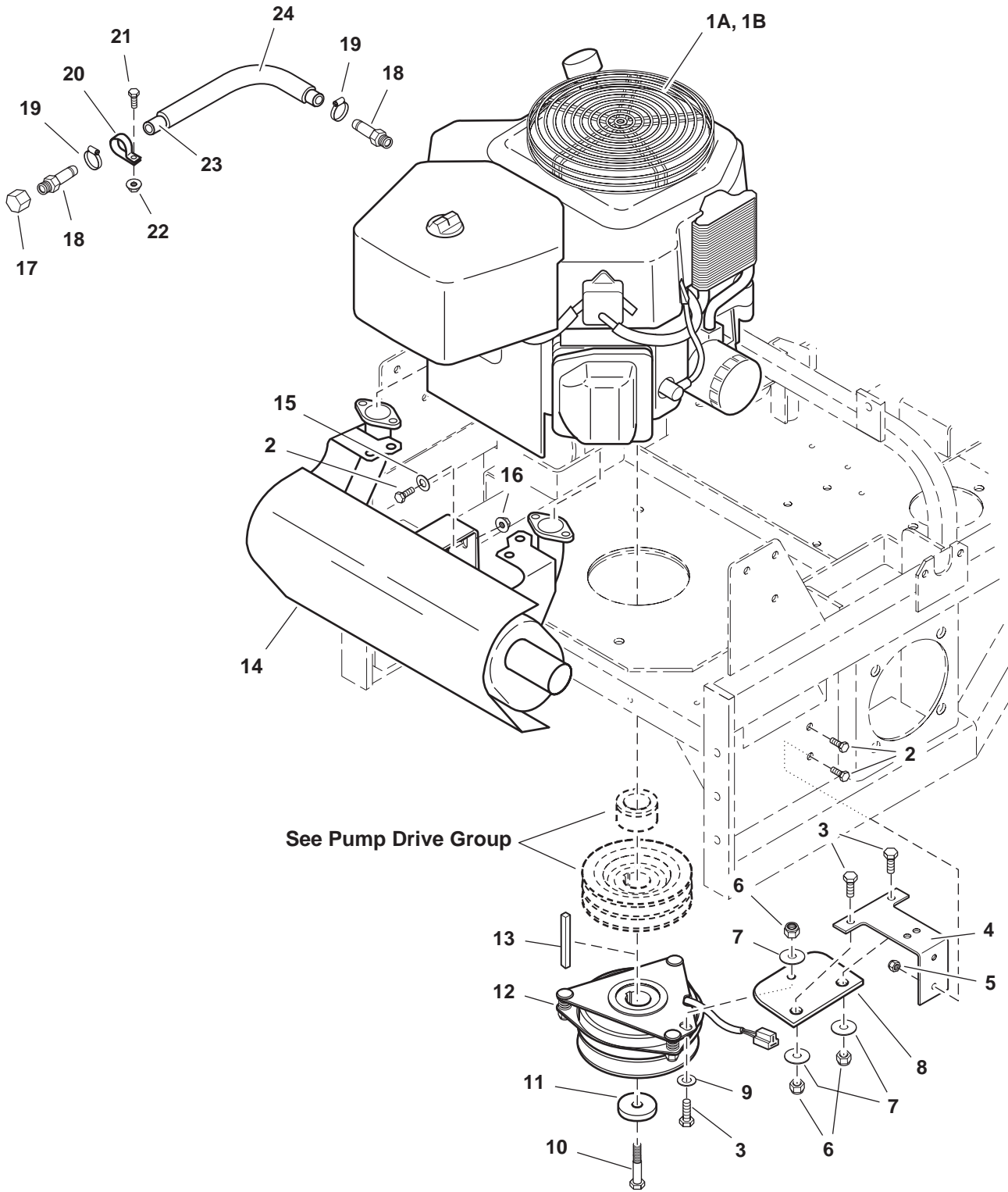
1000ZKAV21/48 (S/N: 1311 & above)

1000ZKAV23/52 (S/N: 921 & above)

1000ZKAV23/61 (S/N: 691 & above)

Engine & PTO Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZK21/48

1000ZK23/52

Engine & PTO Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1A	22888	1	ENGINE, 21HP Kohler (Model CV22S)
1B	22889	1	ENGINE, 23HP Kohler (Model CV23S)
1C	22892	1	ENGINE, 27HP Kohler (Model CV740S)
*	21144-1	1	OIL FILTER
*	21178-3	1	FUEL FILTER
*	*	1	PRE-CLEANER (45 083 01)
*	*	1	AIR FILTER (45 083 02)
2	25011-6	3	CAPSCREW, Hex Head, 5/16-18 x 3/4
3	25013-8	3	CAPSCREW, Hex Head, 3/8-16 x 1
4	47134	1	CLUTCH ANCHOR
5	25057	2	NUT, Hex Nylon Lock, 5/16-18
6	25096	3	NUT, Hex Nylon Lock, 3/8-16
7	25165	3	WASHER, Fender, 3/8
8	43636	1	CLUTCH ANCHOR PAD
9	25156	1	WASHER, 3/8
10	44853	1	CRANKSHAFT BOLT, 7/16 x 2
11	45475	1	SPACER, .45 x 1.88 x .38
12	23231	1	ELECTRIC CLUTCH
13	50407-28	1	KEY, 1/4 Sq. x 3-1/2
14	22952	1	MUFFLER
15	25155	1	WASHER, 5/16
16	25127	1	NUT, Hex Serrated Flange, 5/16-18
17	21466	1	CAP, 3/8NPT
18	21372	2	FITTING, 3/8NPT - 1/2 Str.
19	21392	2	HOSE CLAMP
20	21500	1	CLAMP, Vinyl
21	25010-6	1	CAPSCREW, Hex Hd, 1/4-20 x 3/4
22	25126	1	NUT, Hex, Serrated Flange, 1/4-20
23	50857-13	1	HOSE, 13"
24	50862-12	1	WIRE LOOM, 12"

Footnotes:

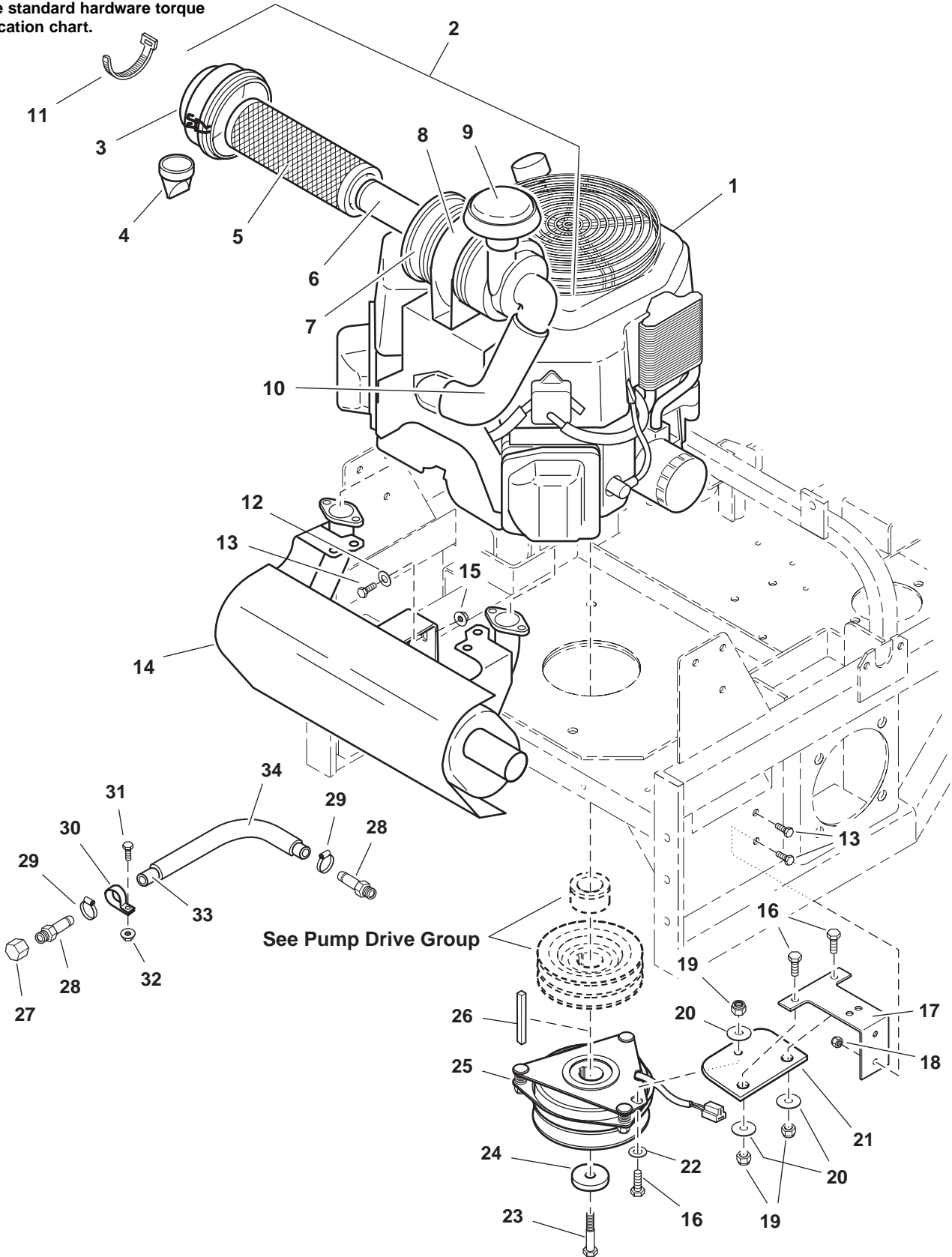
The above parts group applies to the following Model Nos.:

1000ZK21/48

1000ZK23/52

Engine & PTO Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:
1000ZK27/61

Engine & PTO Group

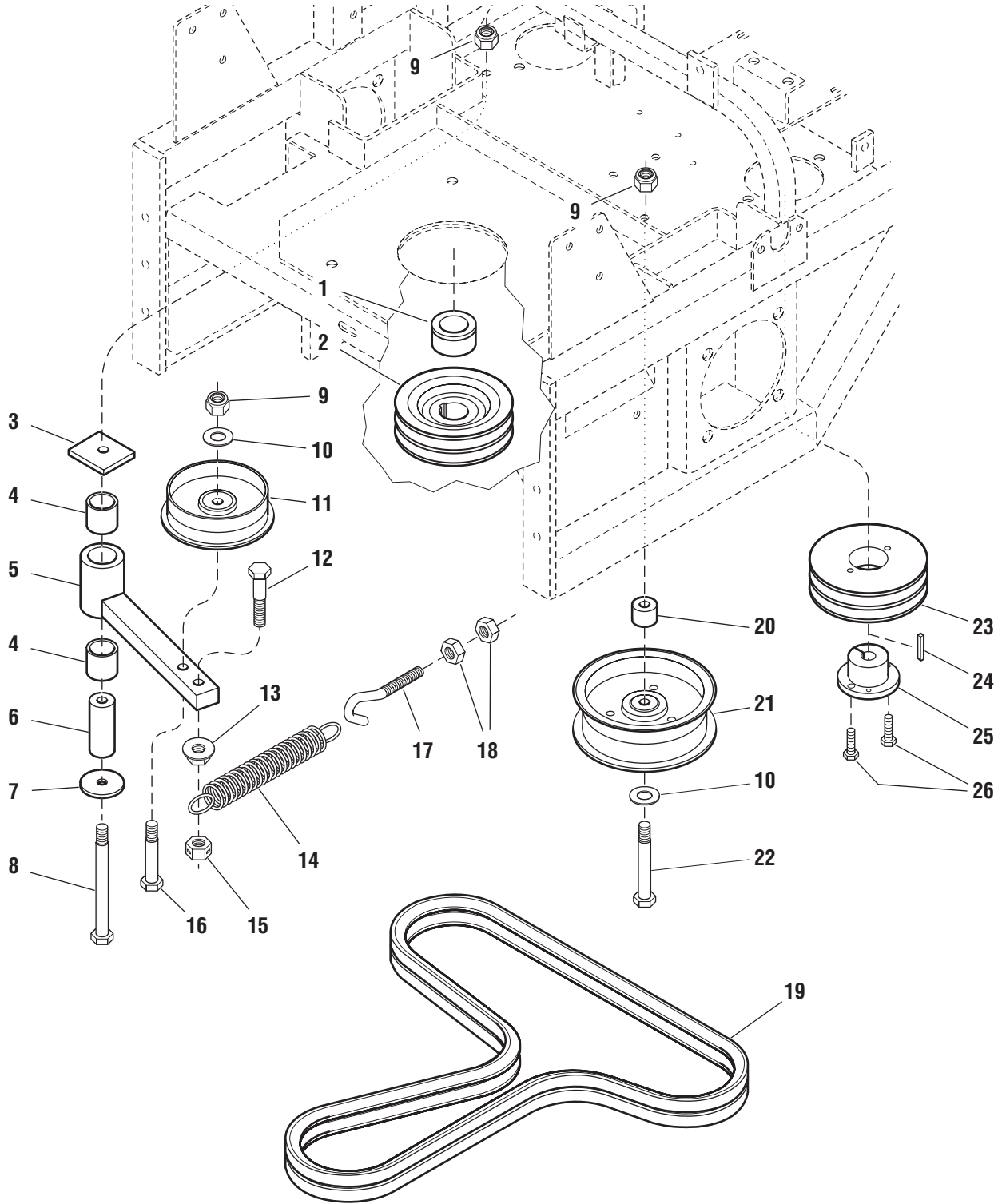
REF NO.	PART NO.	QTY.	DESCRIPTION
1	22892	1	ENGINE, 27HP Kohler (Model CV740S, includes Ref 2-10)
*	21144-1	1	OIL FILTER
*	21178-3	1	FUEL FILTER
2	*	1	KIT, 5.5" HD AIR CLEANER (includes Ref 3-9) (24 743 22-S)
3	*	1	END CAP (25 096 06-S)
4	*	1	DUST VALVE (24 462 07-S)
5	22892-1	1	PRIMARY PAPER ELEMENT (25 083 01-S)
6	22892-2	1	SECONDARY ELEMENT (25 083 04-S)
7	*	1	HOUSING (25 081 01-S)
8	*	1	HOUSING MOUNT BRACKET (25 126 02-S)
9	22892-3	1	RAIN COVER (25 324 02-S)
10	*	1	INLET HOSE (25 326 53-S)
11	23261	1	TIE WRAP, 32"
12	25155	1	WASHER, 5/16
13	25011-6	3	CAPSCREW, Hex Head, 5/16-18 x 3/4
14	22952	1	MUFFLER
15	25127	1	NUT, Hex Serrated Flange, 5/16-18
16	25013-8	3	CAPSCREW, Hex Head, 3/8-16 x 1
17	47134	1	CLUTCH ANCHOR
18	25057	2	NUT, Hex Nylon Lock, 5/16-18
19	25096	3	NUT, Hex Nylon Lock, 3/8-16
20	25165	3	WASHER, Fender, 3/8
21	43636	1	CLUTCH ANCHOR PAD
22	25156	1	WASHER, 3/8
23	44853	1	CRANKSHAFT BOLT, 7/16 x 2
24	45475	1	SPACER, .45 x 1.88 x .38
25	23232	1	ELECTRIC CLUTCH
26	50407-28	1	KEY, 1/4 Sq. x 3-1/2
27	21466	1	CAP, 3/8NPT
28	21372	2	FITTING, 3/8NPT - 1/2 Str.
29	21392	2	HOSE CLAMP
30	21500	1	CLAMP, Vinyl
31	25010-6	1	CAPSCREW, Hex Hd, 1/4-20 x 3/4
32	25126	1	NUT, Hex, Serrated Flange, 1/4-20
33	50857-13	1	HOSE, 13"
34	50862-12	1	WIRE LOOM, 12"

Footnotes:

The above parts group applies to the following Model Nos.:
1000ZK27/61

Pump Drive Group

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



The above parts group applies to the following Model Nos.:

- | | |
|---------------|-------------|
| 1000ZKAV21/48 | 1000ZK21/48 |
| 1000ZKAV23/52 | 1000ZK23/52 |
| 1000ZKAV23/61 | 1000ZK27/61 |

Pump Drive Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	47033	1	SPACER, 1.13 x 1.75 x 1.03
2	47075	1	CRANKSHAFT PULLEY
3	45090	1	SPACER, Idler Pivot
4	22157	2	BUSHING, Brass
5	46430	1	PUMP DRIVE IDLER ARM
6	45135	1	SHAFT, Idler Pivot
7	25305	1	WASHER, 3/8 x 1-3/4
8	25013-32	1	CAPSCREW, Hex Head, 3/8-16 x 4
9	25096	3	NUT, Hex Nylon Lock, 3/8-16
10	25156	2	WASHER, 3/8
11	22621	1	PULLEY, Idler (Single Flange)
12	25013-14	1	CAPSCREW, Hex Head, 3/8-16 x 1-3/4
13	25128	1	NUT, Hex Serrated Flange, 3/8-16
14	22847	1	SPRING, Extension, Swivel End
15	25100	1	NUT, Hex, Side Lock, 3/8-16
16	25013-18	1	CAPSCREW, Hex Head, 3/8-16 x 2-1/4
17	25321	1	SCREW HOOK, 3/8-16 x 4-1/4
18	25034	2	NUT, Hex, 3/8-16
19	22314	1	BELT, Pump Drive (Set)
20	46446	1	SPACER, .39 x 1.00 x .79
21	22620	1	PULLEY, Idler
22	25013-22	1	CAPSCREW, Hex Head, 3/8-16 x 2-3/4
23	22586	2	PULLEY, Pump Drive
24	22156	2	KEY, 5mm x 25mm
25	22587	2	BUSHING, Tapered Hub
26	25010-8	4	CAPSCREW, Hex Head, 1/4-20 x 1

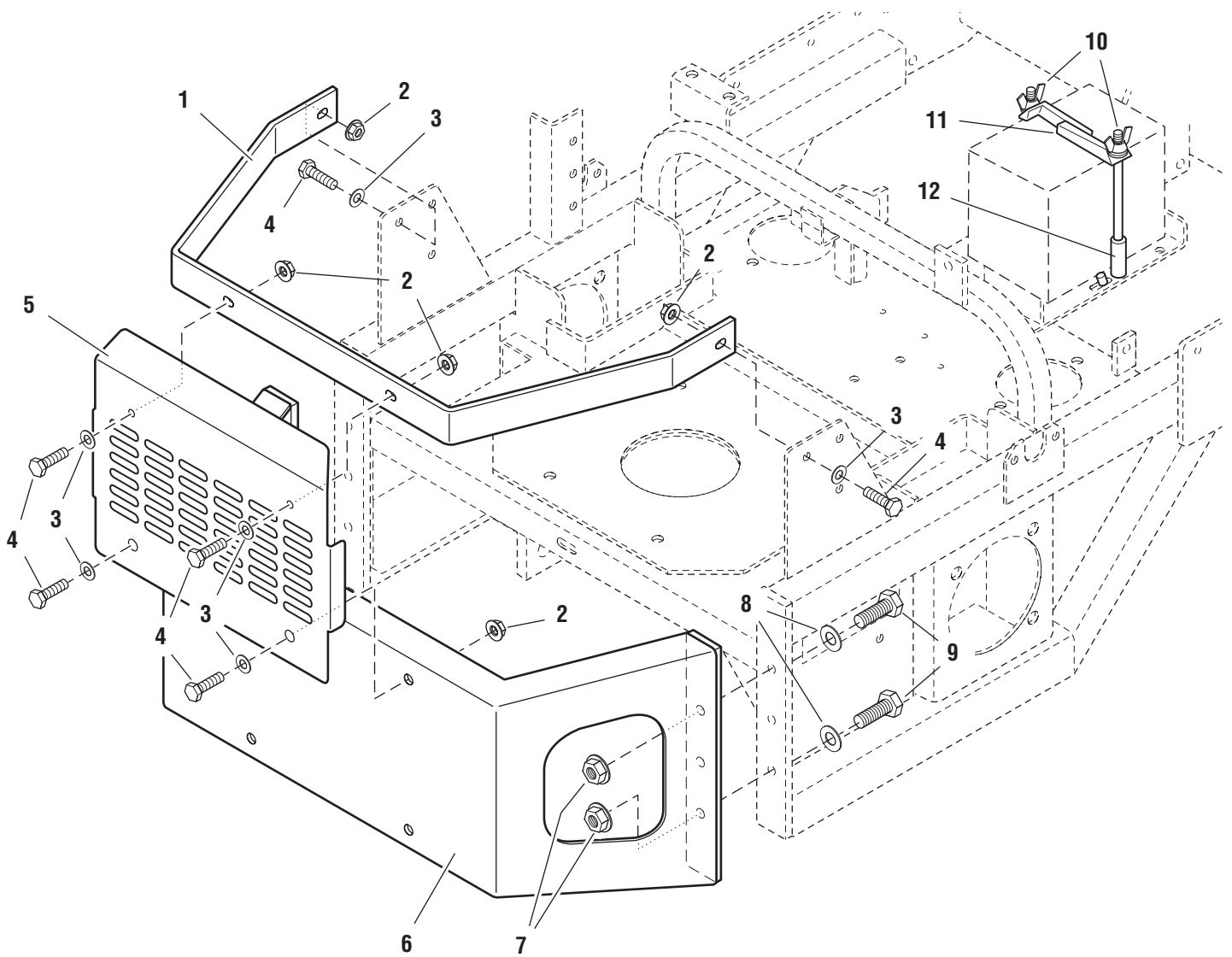
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	1000ZK27/61

Rear Bumper, Shield & Battery Retainer Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1500 & below)
- 1000ZKAV23/52 (S/N: 1045 & below)
- 1000ZKAV23/61 (S/N: 865 & below)

Rear Bumper, Shield & Battery Retainer Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	47114	1	BUMPER BAR
2	25139	6	NUT, Hex Serrated Flange, 5/16-18
3	25155	6	WASHER, 5/16
4	25011-8	6	CAPSCREW, Hex Head, 5/16-18 x 1
5	47071	1	BUMPER SHIELD
6	47115	1	BUMPER
7	25128	4	NUT, Hex Serrated Flange, 3/8-16
8	25156	4	WASHER, 3/8
9	25013-10	4	CAPSCREW, Hex Head, 3/8-16 x 1-1/4
10	22596	2	BATTERY HOLDDOWN BOLT
11	22595	1	BATTERY HOLDDOWN
12	50831-3	2	HOSE, 3"

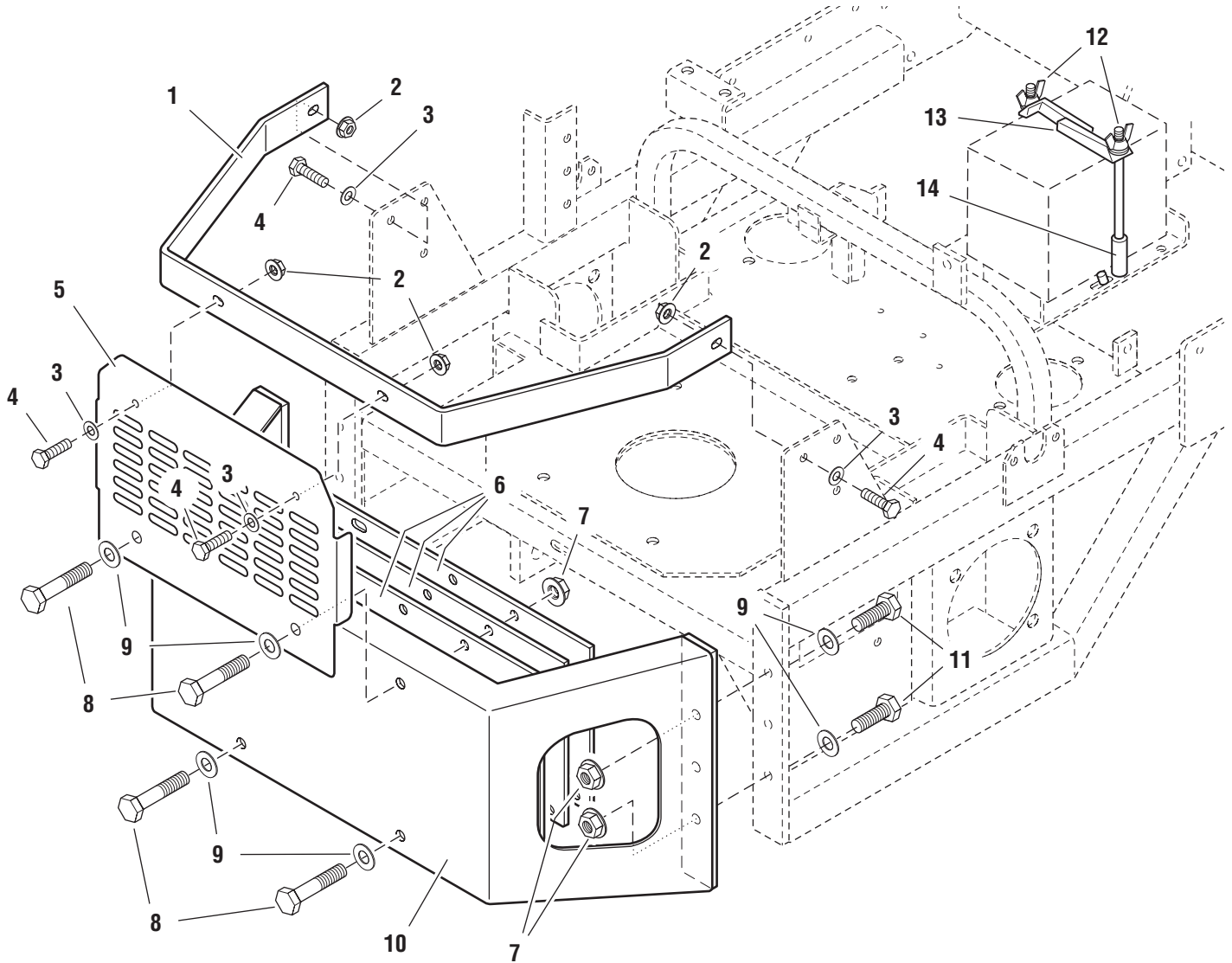
Footnotes:

The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1500 & below)
- 1000ZKAV23/52(S/N: 1045 & below)
- 1000ZKAV23/61 (S/N: 865 & below)

Rear Bumper, Shield & Battery Retainer Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1501 & above)

1000ZKAV23/52 (S/N: 1046 & above)

1000ZKAV23/61 (S/N: 866 & above)

1000ZK21/48

1000ZK23/52

1000ZK27/61

Rear Bumper, Shield & Battery Retainer Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	49142	1	BUMPER BAR
2	25139	6	NUT, Hex Serrated Flange, 5/16-18
3	25155	6	WASHER, 5/16
4	25011-8	6	CAPSCREW, Hex Head, 5/16-18 x 1
5	49147	1	BUMPER SHIELD
6	47485	3	COUNTERWEIGHT (27hp, 61" model only)
7	25128	4	NUT, Hex Serrated Flange, 3/8-16
8	25013-12	4	CAPSCREW, Hex Head, 3/8-16 x 1-1/2
9	25156	8	WASHER, 3/8
10	47851	1	BUMPER
11	25013-10	4	CAPSCREW, Hex Head, 3/8-16 x 1-1/4
12	22596	2	BATTERY HOLDDOWN BOLT
13	22595	1	BATTERY HOLDDOWN
14	50831-3	2	HOSE, 3"

Footnotes:

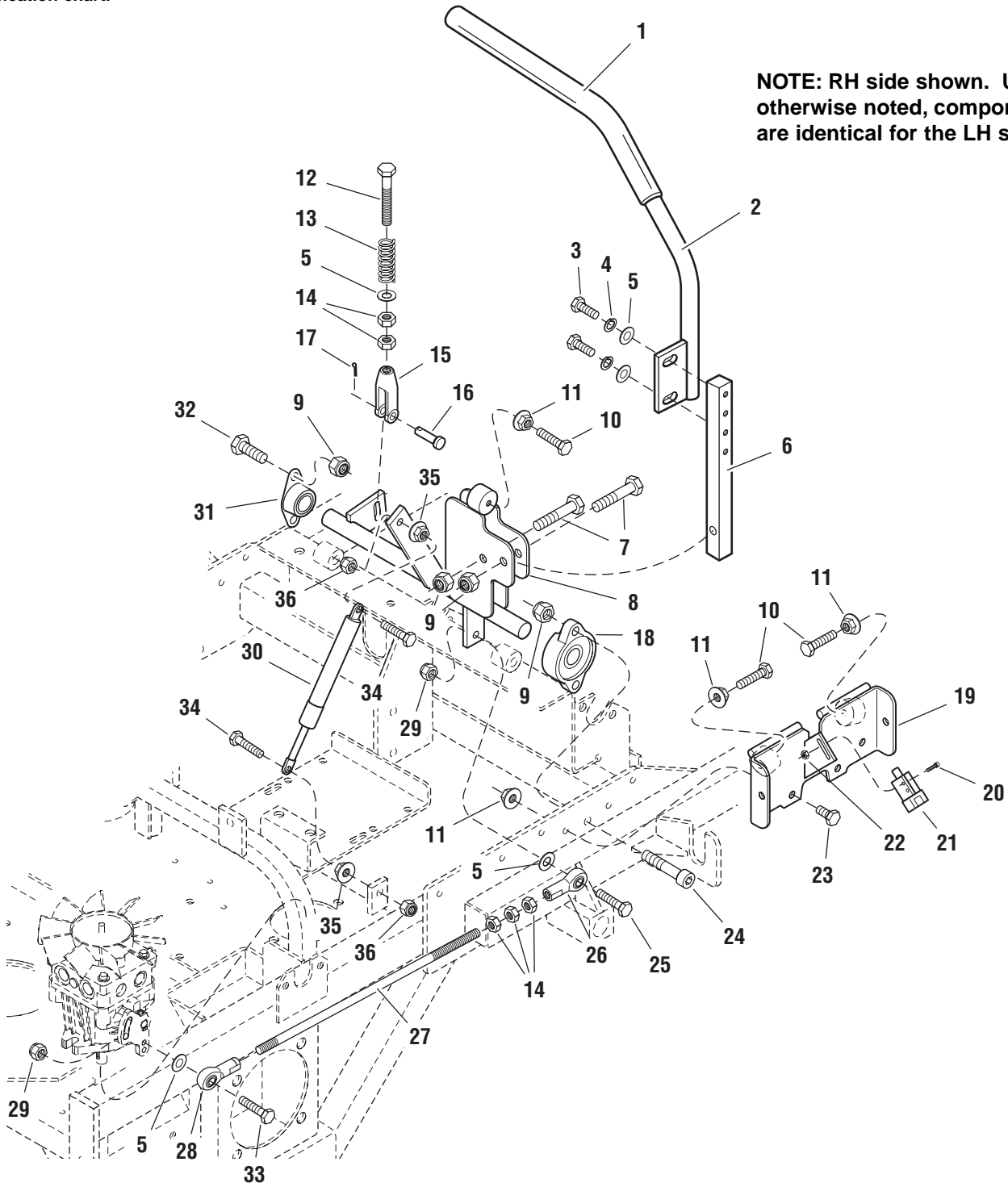
The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1501 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 1046 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 866 & above)	1000ZK27/61

Motion Control Group

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.

NOTE: RH side shown. Unless otherwise noted, components are identical for the LH side.



The above parts group applies to the following Model Nos.:

- | | |
|---------------|-------------|
| 1000ZKAV21/48 | 1000ZK21/48 |
| 1000ZKAV23/52 | 1000ZK23/52 |
| 1000ZKAV23/61 | 1000ZK27/61 |

Motion Control Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	22068	2	FOAM GRIP
2	47056	1	MOTION CONTROL LEVER-RH
*	47055	1	MOTION CONTROL LEVER-LH (not shown)
3	25011-8	4	CAPSCREW, Hex Head, 5/16-18 x 1
4	25170	4	LOCKWASHER, 5/16
5	25155	10	WASHER, 5/16
6	47004	2	CONTROL LEVER BASE
7	25013-14	4	CAPSCREW, Hex Head, 3/8-16 x 1-3/4
8	47045	1	CONTROL SHAFT-RH
*	47044	1	CONTROL SHAFT-LH (not shown)
9	25096	10	NUT, Hex Nylon Lock, 3/8-16
10	25055-14	2	CAPSCREW, Hex Head, TFL, 5/16-18 x 1-3/4
11	25127	10	NUT, Hex Serrated Flange, 5/16-18
12	47137	2	REVERSE RETURN BOLT
13	22645	2	SPRING, Reverse Return
14	25033	10	NUT, Hex, 5/16-24
15	20979	2	CLEVIS, 5/16-24
16	25213-8	2	PIN, Clevis, 5/16 x 1
17	25201-6	2	COTTER PIN
18	21499	2	BEARING, Flange
19	47081	1	NEUTRAL LOCK BRACKET-RH
*	47080	1	NEUTRAL LOCK BRACKET-LH (not shown)
20	25179-4	4	SCREW, #10-24 x 1/2
21	*	2	SWITCH (see electrical schematic)
22	25029	4	NUT, Hex, #10-24
23	25011-8	8	CAPSCREW, Hex Head, 5/16-18 x 1
24	25327	4	CAPSCREW, Allen Hd, 3/8-16 x 1-1/4
25	25011-10	2	CAPSCREW, Hex Head, 5/16-18 x 1-1/4
26	21146	2	BALL JOINT, 5/16-24
27	47102	2	HYDRO CONTROL ROD
28	22628	2	BALL JOINT, 5/16-24 LH
29	25057	4	NUT, Hex Nylon Lock, 5/16-18
30	22978	2	DAMPENER
31	21098	2	BEARING, Flange
32	25013-8	2	CAPSCREW, Hex Head, 3/8-16 x 1
33	25011-9	2	CAPSCREW, Hex Head, 5/16-18 x 1-1/8
34	25335	4	CAPSCREW, Hex Head, M8-1.25 x 35MM
35	25355	4	NUT, Hex Serrated Flange, M8-1.25
36	25354	4	NUT, Hex Nylon Lock, M8-1.25

Footnotes:

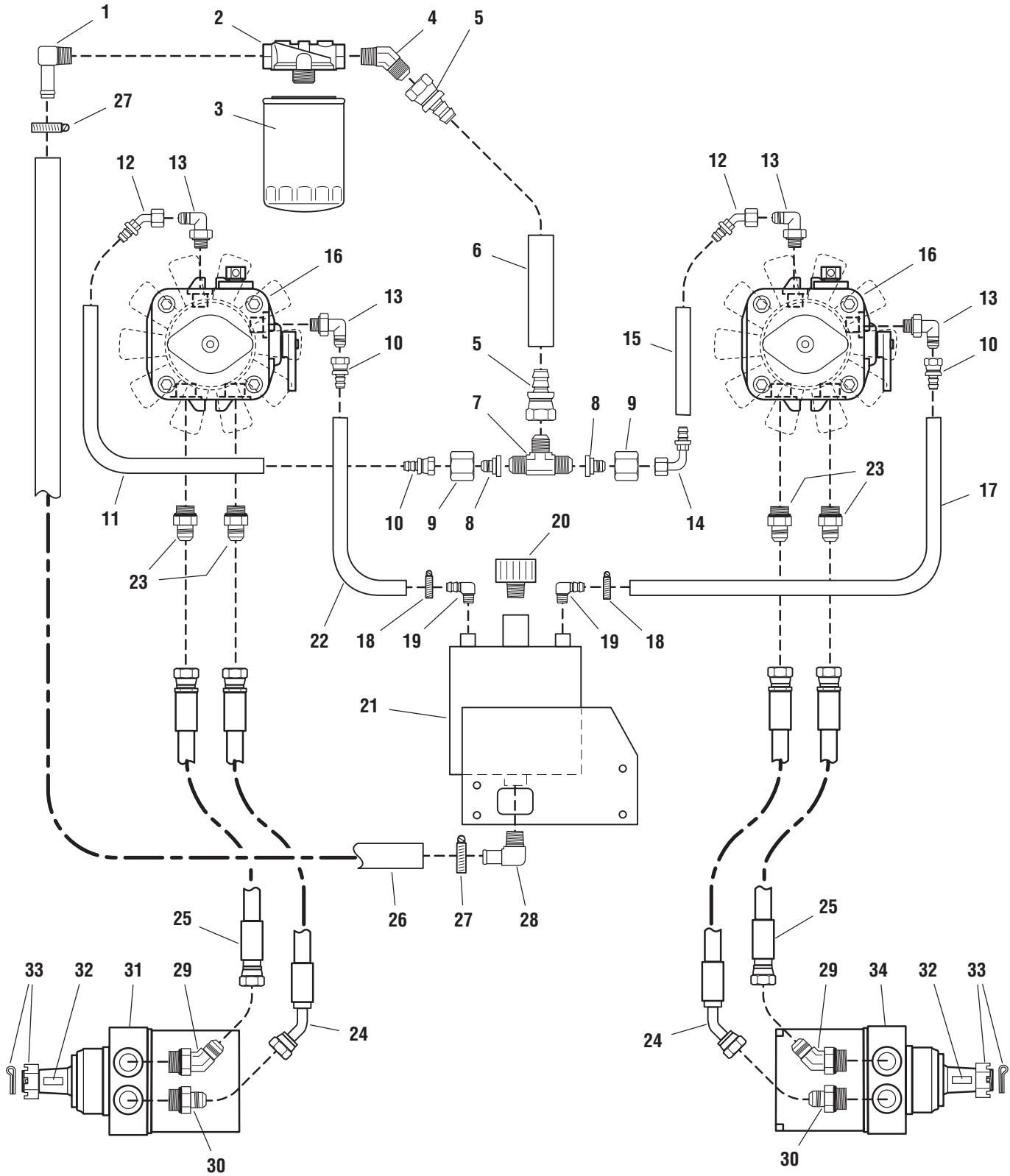
* See Electrical Schematic for switch part number

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	1000ZK27/61

Hydraulic Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1310 & below)
- 1000ZKAV23/52 (S/N: 920 & below)
- 1000ZKAV23/61 (S/N: 690 & below)

Hydraulic Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	21233	1	FITTING, 1/2" NPT, 90 Deg.
2	21356	1	FILTER HEAD
3	21357	1	FILTER
4	22720	1	FITTING, 1/2" NPT, 45 Deg.
5	22719	2	FITTING, Hydraulic, Straight Swivel
6	50848-7.5	1	HOSE, Hydraulic, 7-1/2"
7	22718	1	FITTING, Tee
8	22716	2	ADAPTER, Tee
9	22717	2	NUT, Adapter
10	22713	3	FITTING, Hydraulic, Straight Swivel
11	50860-13.75	1	HOSE, Hydraulic, 13-3/4"
12	22714	2	FITTING, Hydraulic, 45 Deg. Swivel
13	22712	4	FITTING, Hydraulic, O-Ring, 90 Deg.
14	22715	1	FITTING, Hydraulic, 90 Deg. Swivel
15	50860-6.75	1	HOSE, Hydraulic, 6-3/4"
16	22571	2	HYDRAULIC PUMP w/ FAN
*	22571-2	2	Fan
17	50860-29	1	HOSE, Hydraulic, 29"
18	21392	2	HOSE CLAMP, #6
19	22708	2	FITTING, 1/4" NPT, 90 Deg.
20	22705	1	BREATHER
21	47108	1	HYDRAULIC RESERVOIR
22	50860-20	1	HOSE, Hydraulic, 20"
23	22633	4	FITTING, Hydraulic, O-Ring Adapter
24	22710	2	HYDRAULIC HOSE ASSEMBLY, 25"
25	22711	2	HYDRAULIC HOSE ASSEMBLY, 21"
26	50848-16.5	1	HOSE, Hydraulic, 16-1/2"
27	21164	2	HOSE CLAMP, #10
28	22707	1	FITTING, 1/2" NPT, 90 Deg.
29	22709	2	FITTING, Hydraulic, O-Ring, 45 Deg.
30	22634	2	FITTING, Hydraulic, O-Ring Adapter
31	22662L	1	HYDRAULIC WHEEL MOTOR-LEFT, Complete (includes Ref 32 & 33)
32	22042-2	2	KEY
33	22042-3	2	NUT & COTTER PIN
34	22662R	1	HYDRAULIC WHEEL MOTOR-RIGHT, Complete (includes Ref 32 & 33)

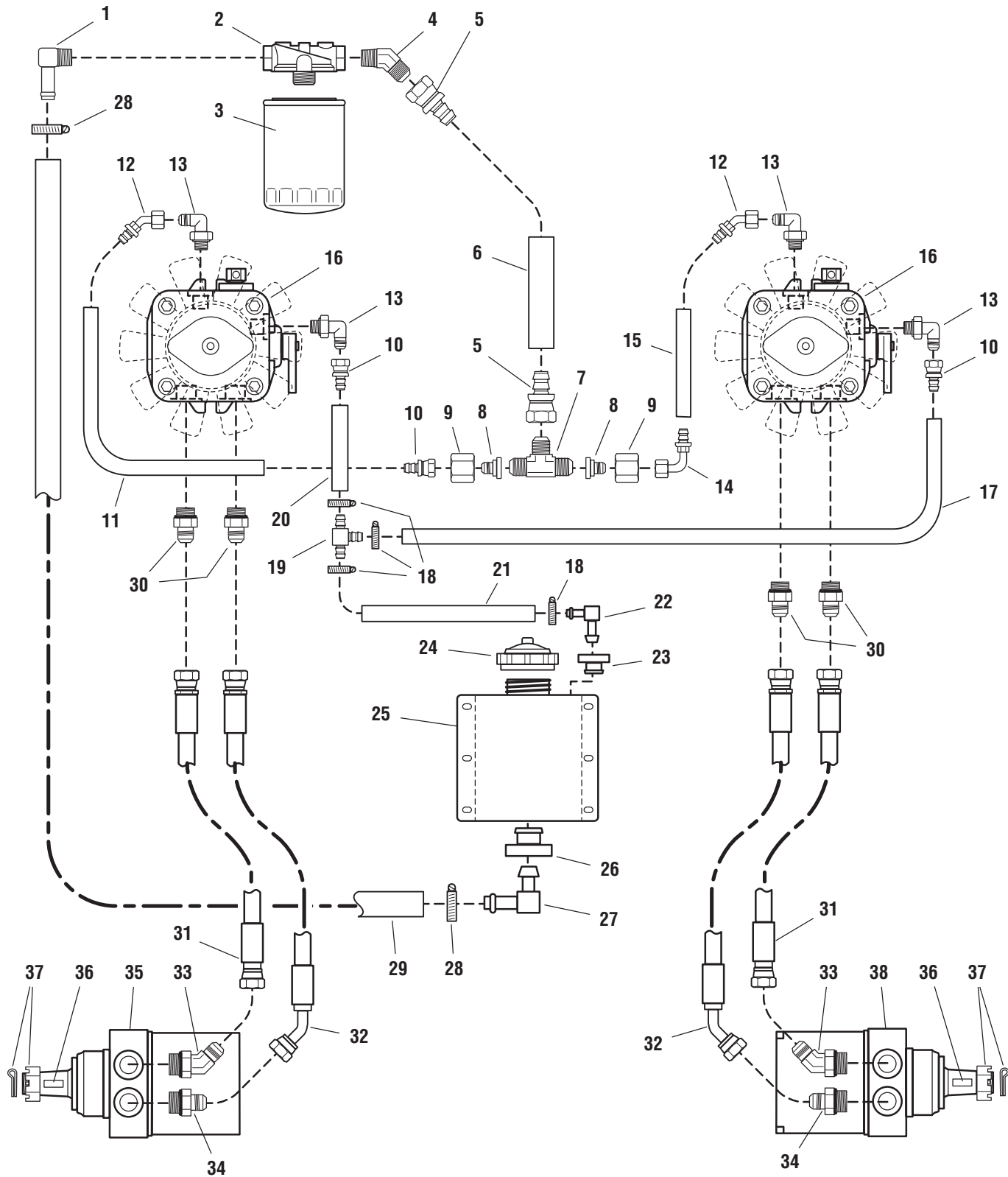
Footnotes:

The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1310 & below)
- 1000ZKAV23/52 (S/N: 920 & below)
- 1000ZKAV23/61 (S/N: 690 & below)

Hydraulic Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

- | | |
|-----------------------------------|-------------|
| 1000ZKAV21/48 (S/N: 1311 & above) | 1000ZK21/48 |
| 1000ZKAV23/52 (S/N: 920 & above) | 1000ZK23/52 |
| 1000ZKAV23/61 (S/N: 691 & above) | |

Hydraulic Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	21233	1	FITTING, 1/2" NPT, 90 Deg.
2	21356	1	FILTER HEAD
3	21357	1	FILTER
4	22720	1	FITTING, 1/2" NPT, 45 Deg.
5	22719	2	FITTING, Hydraulic, Straight Swivel
6	50848-7.5	1	HOSE, Hydraulic, 7-1/2"
7	22718	1	FITTING, Tee
8	22716	2	ADAPTER, Tee
9	22717	2	NUT, Adapter
10	22713	3	FITTING, Hydraulic, Straight Swivel
11	50860-13.75	1	HOSE, Hydraulic, 13-3/4"
12	22714	2	FITTING, Hydraulic, 45 Deg. Swivel
13	22712	4	FITTING, Hydraulic, O-Ring, 90 Deg.
14	22715	1	FITTING, Hydraulic, 90 Deg. Swivel
15	50860-6.75	1	HOSE, Hydraulic, 6-3/4"
16	22571	2	HYDRAULIC PUMP w/ FAN
*	22571-2	2	Fan
17	50860-16.5	1	HOSE, Hydraulic, 16-1/2"
18	21392	4	HOSE CLAMP, #6
19	22920	1	FITTING, TEE, 3/8"
20	50860-6	1	HOSE, Hydraulic, 6"
21	50860-17.5	1	HOSE, Hydraulic, 17-1/2"
22	23118	1	FITTING, Elbow, 3/8"
23	23120	1	GROMMET
24	23191	1	CAP, Hydraulic Oil Only
25	48111	1	HYDRAULIC OIL RESERVOIR, Complete (Includes Ref. No. 22, 23, 26 & 27)
26	23121	1	GROMMET
27	23119	1	FITTING, Elbow, 5/8"
28	21164	2	HOSE CLAMP, #10
29	50848-18	1	HOSE, Hydraulic, 18"
30	22633	4	FITTING, Hydraulic, O-Ring Adapter
31	22711	2	HYDRAULIC HOSE ASSEMBLY, 21"
32	22710	2	HYDRAULIC HOSE ASSEMBLY, 25"
33	22709	2	FITTING, Hydraulic, O-Ring, 45 Deg.
34	22634	2	FITTING, Hydraulic, O-Ring Adapter
35	22974L	1	HYDRAULIC WHEEL MOTOR-LEFT, Complete (Includes Ref No. 36 & 37)
36	22042-2	2	KEY
37	22042-3	2	NUT & COTTER PIN
38	22974R	1	HYDRAULIC WHEEL MOTOR-RIGHT, Complete (Includes Ref No. 36 & 37)

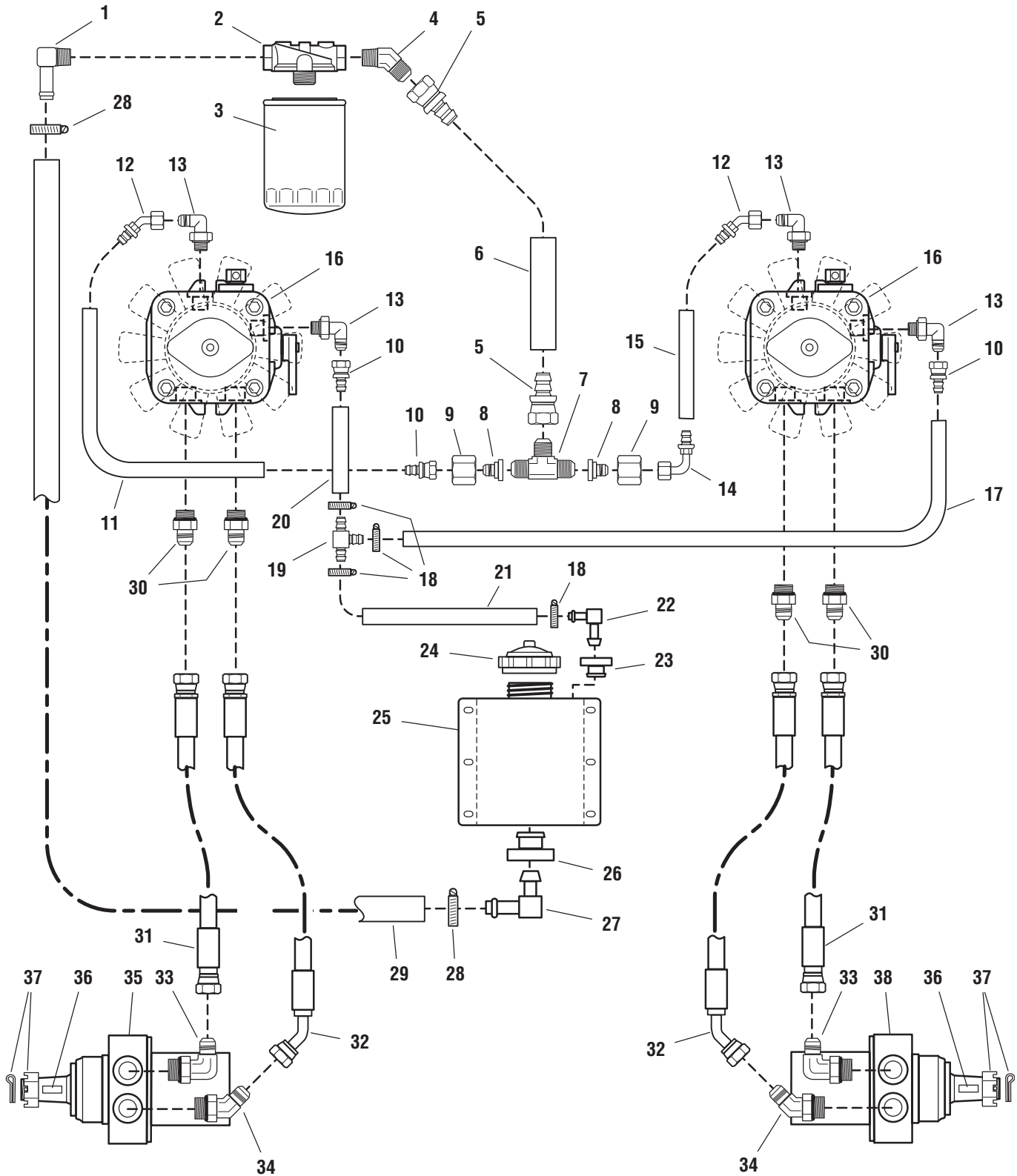
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1311 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 920 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 691 & above)	

Hydraulic Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:
1000ZK27/61

Hydraulic Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	21233	1	FITTING, 1/2" NPT, 90 Deg.
2	21356	1	FILTER HEAD
3	21357	1	FILTER
4	22720	1	FITTING, 1/2" NPT, 45 Deg.
5	22719	2	FITTING, Hydraulic, Straight Swivel
6	50848-7.5	1	HOSE, Hydraulic, 7-1/2"
7	22718	1	FITTING, Tee
8	22716	2	ADAPTER, Tee
9	22717	2	NUT, Adapter
10	22713	3	FITTING, Hydraulic, Straight Swivel
11	50860-13.75	1	HOSE, Hydraulic, 13-3/4"
12	22714	2	FITTING, Hydraulic, 45 Deg. Swivel
13	22712	4	FITTING, Hydraulic, O-Ring, 90 Deg.
14	22715	1	FITTING, Hydraulic, 90 Deg. Swivel
15	50860-6.75	1	HOSE, Hydraulic, 6-3/4"
16	22571	2	HYDRAULIC PUMP w/ FAN
*	22571-2	2	Fan
17	50860-16.5	1	HOSE, Hydraulic, 16-1/2"
18	21392	4	HOSE CLAMP, #6
19	22920	1	FITTING, TEE, 3/8"
20	50860-6	1	HOSE, Hydraulic, 6"
21	50860-26.25	1	HOSE, Hydraulic, 26-1/4"
22	23118	1	FITTING, Elbow, 3/8"
23	23120	1	GROMMET
24	23191	1	CAP, Hydraulic Oil Only
25	48111	1	HYDRAULIC OIL RESERVOIR, Complete (Includes Ref. No. 22, 23, 26 & 27)
26	23121	1	GROMMET
27	23119	1	FITTING, Elbow, 5/8"
28	21164	2	HOSE CLAMP, #10
29	50848-19	1	HOSE, Hydraulic, 19"
30	22633	4	FITTING, Hydraulic, O-Ring Adapter
31	23248	2	HYDRAULIC HOSE ASSEMBLY, 17"
32	23247	2	HYDRAULIC HOSE ASSEMBLY, 22"
33	23276	2	FITTING, Hydraulic, O-Ring, 90 Deg.
34	22709	2	FITTING, Hydraulic, O-Ring, 45 Deg.
35	22974L	1	HYDRAULIC WHEEL MOTOR-LEFT, Complete (Includes Ref No. 36 & 37)
36	22042-2	2	KEY
37	22042-3	2	NUT & COTTER PIN
38	22974R	1	HYDRAULIC WHEEL MOTOR-RIGHT, Complete (Includes Ref No. 36 & 37)

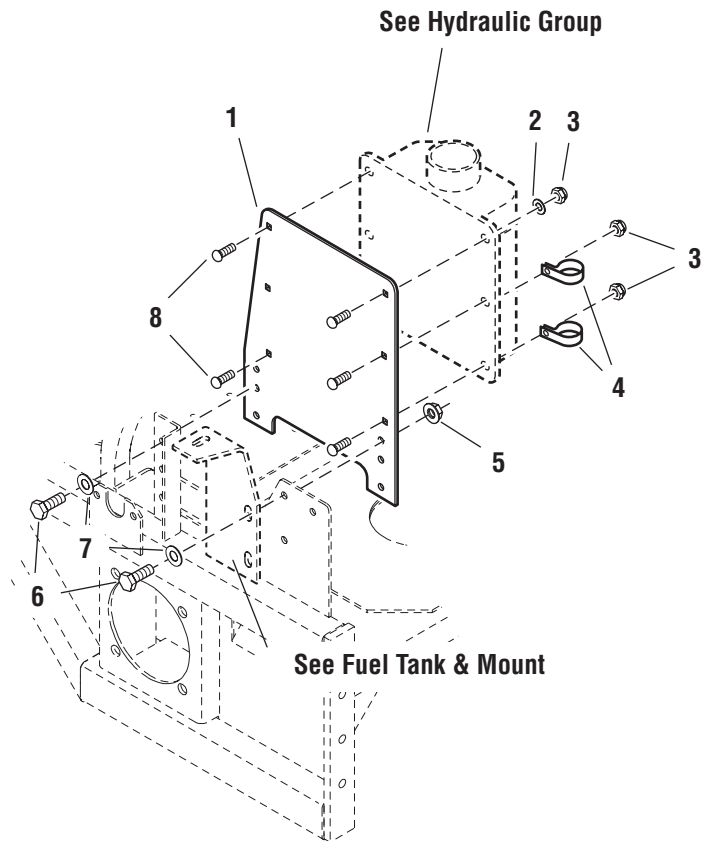
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZK27/61

Hydraulic Tank Mount Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1311 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 920 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 691 & above)	1000ZK27/61

Hydraulic Tank Mount Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	48351	1	PLATE, Tank Mount
2	25154	3	WASHER, 1/4
3	25095	5	NUT, Hex Nylon Lock, 1/4-20
4	21500	2	CLAMP, Vinyl
5	25127	4	NUT, Hex Serrated Flange, 5/16-18
6	25011-8	4	CAPSCREW, Hex Head, 5/16-18 x 1
7	25155	4	WASHER, 5/16
8	25144-6	5	CARRIAGE BOLT, 1/4-20 x 3/4

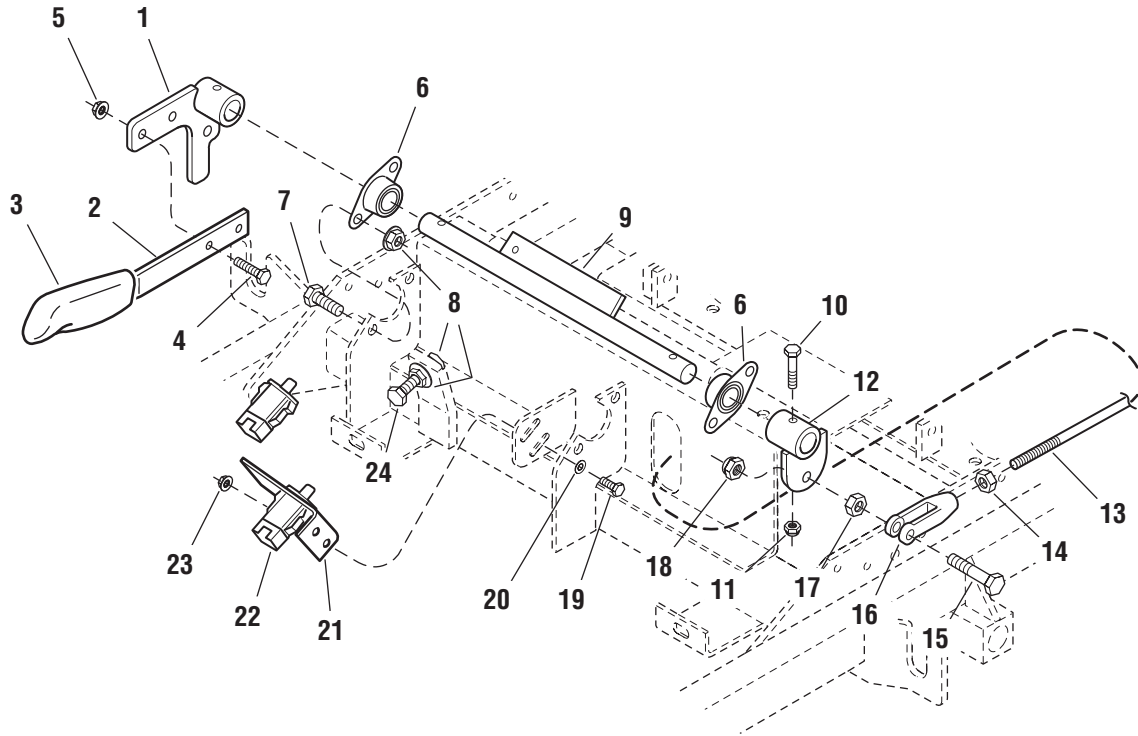
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1311 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 920 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 691 & above)	1000ZK27/61

Parking Brake Group - Upper

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	1000ZK27/61

Parking Brake Group - Upper

REF NO.	PART NO.	QTY.	DESCRIPTION
1	45616	1	BRAKE HANDLE MOUNT
2	45619	1	BRAKE HANDLE
3	1722302	1	GRIP
4	25011-8	2	CAPSCREW, Hex Head, 5/16-18 x 1
5	25127	2	NUT, Hex Serrated Flange, 5/16-18
6	21098	2	BEARING, Flange
7	25013-6	4	CAPSCREW, Hex Head, 3/8-16 x 3/4
8	25128	6	NUT, Hex Serrated Flange, 3/8-16
9	47083	1	BRAKE HANDLE SHAFT
10	25010-14	2	CAPSCREW, Hex Head, 1/4-20 x 1-3/4
11	25095	2	NUT, Hex Nylon Lock, 1/4-20
12	45618	1	BRAKE LINKAGE PIVOT
13	47119	1	BRAKE CONNECTING ROD
14	25035	1	NUT, Hex, 3/8-24
15	25013-16	1	CAPSCREW, Hex Head, 3/8-16 x 2
16	21171	1	CLEVIS, 3/8-24
17	25034	1	NUT, Hex, 3/8-16
18	25096	1	NUT, Hex Nylon Lock, 3/8-16
19	25010-6	2	CAPSCREW, Hex Head, 1/4-20 x 3/4
20	25154	2	WASHER, 1/4
21	45621	1	SWITCH MOUNT BRACKET
22	*	*	SWITCH (see electrical schematic)
23	25126	2	NUT, Hex Serrated Flange, 1/4-20
24	25058-14	1	CAPSCREW, Hex Head, TFL, 3/8-16 x 1-3/4

Footnotes:

* See Electrical Schematic for switch part number

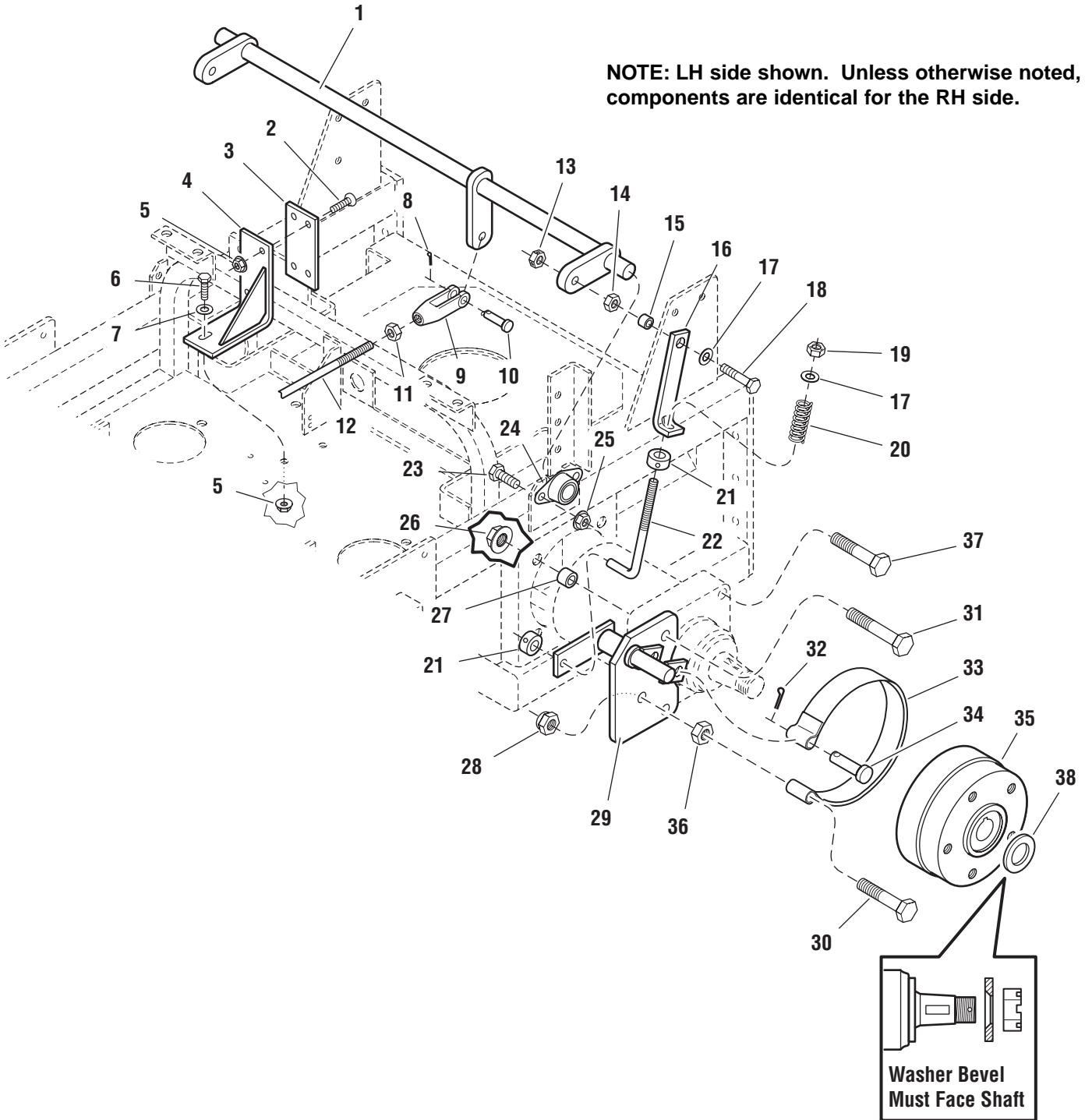
The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	1000ZK27/61

Parking Brake Group - Lower

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.

NOTE: LH side shown. Unless otherwise noted, components are identical for the RH side.



The above parts group applies to the following Model Nos.:

- | | |
|---------------|-------------|
| 1000ZKAV21/48 | 1000ZK21/48 |
| 1000ZKAV23/52 | 1000ZK23/52 |
| 1000ZKAV23/61 | |

Parking Brake Group - Lower

REF NO.	PART NO.	QTY.	DESCRIPTION
1	47128	1	BRAKE CROSS SHAFT
2	25303	2	SCREW, Flat Head, Socket, 5/16-18 x 1
3	45990	1	FRICTION PLATE
4	47153	1	SUPPORT, Brake Shaft
5	25127	4	NUT, Hex Serrated Flange, 5/16-18
6	25011-8	2	CAPSCREW, Hex Head, 5/16-18 x 1
7	25155	2	WASHER, 5/16
8	25201-6	1	COTTER PIN
9	21171	1	CLEVIS, 3/8-24
10	25214-8	1	PIN, Clevis, 3/8 x 1
11	25035	1	NUT, Hex, 3/8-24
12	47119	1	BRAKE CONNECTING ROD
13	25100	2	NUT, Hex, Side Lock, 3/8-16
14	25034	2	NUT, Hex, 3/8-16
15	41930-009	2	PIVOT SLEEVE
16	47084	2	BRAKE LINK
17	25156	4	WASHER, 3/8
18	25013-12	2	CAPSCREW, Hex Head, 3/8-16 x 1-1/2
19	25046	2	NUT, Hex, Top Lock, 3/8-16
20	22361	2	BRAKE SPRING
21	10546	4	COLLAR, Set, 3/8
22	47091	2	ROD, Brake Adjustment
23	25013-6	4	CAPSCREW, Hex Head, 3/8-16 x 3/4
24	21098	2	BEARING, Flange
25	25128	4	NUT, Hex Serrated Flange, 3/8-16
26	25387	8	NUT, Hex Flange Lock, 1/2-20
27	47027	8	SPACER, .50 x .75 x .56
28	25056	2	NUT, Hex Nylon Lock, 1/2-13
29	47089	1	BRAKE BAND SHAFT-LH
*	47090	1	BRAKE BAND SHAFT-RH (not shown)
30	25017-24	2	CAPSCREW, Hex Head, 1/2-13 x 3
31	25018-28	4	CAPSCREW, Hex Head, 1/2-20 x 3-1/2
32	25202-10	2	COTTER PIN
33	22607	2	BRAKE BAND
34	25328-16	2	PIN, Clevis, 1/2 x 2
35	47052	2	BRAKE HUB
36	25038	2	NUT, Hex, 1/2-13
37	25018-24	4	CAPSCREW, Hex Head, 1/2-20 x 3
38	23249	2	WASHER, 1 x 2

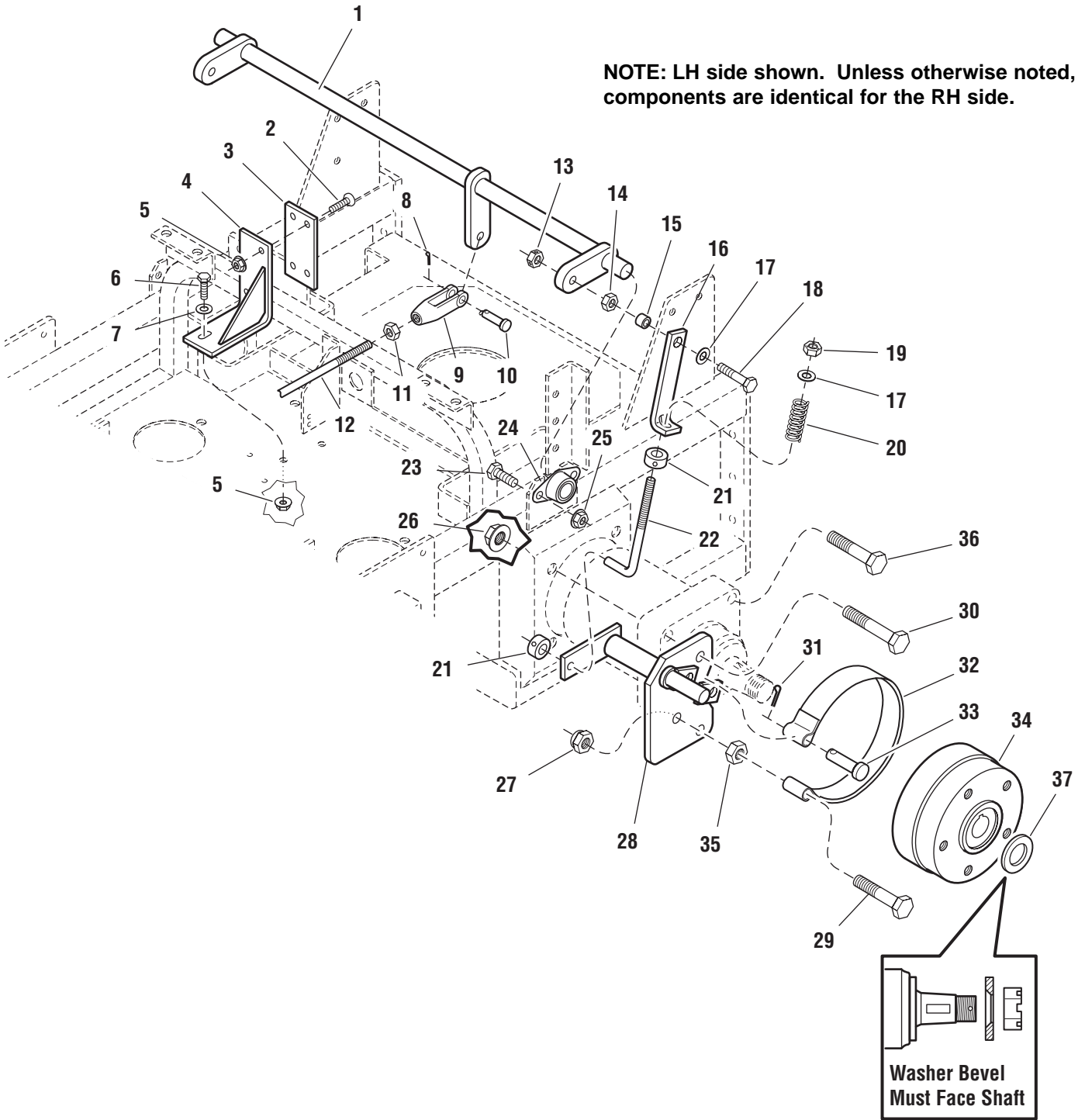
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	

Parking Brake Group - Lower

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



The above parts group applies to the following Model Nos.:
1000ZK27/61

Parking Brake Group - Lower

REF NO.	PART NO.	QTY.	DESCRIPTION
1	47128	1	BRAKE CROSS SHAFT
2	25303	2	SCREW, Flat Head, Socket, 5/16-18 x 1
3	45990	1	FRICTION PLATE
4	47153	1	SUPPORT, Brake Shaft
5	25127	4	NUT, Hex Serrated Flange, 5/16-18
6	25011-8	2	CAPSCREW, Hex Head, 5/16-18 x 1
7	25155	2	WASHER, 5/16
8	25201-6	1	COTTER PIN
9	21171	1	CLEVIS, 3/8-24
10	25214-8	1	PIN, Clevis, 3/8 x 1
11	25035	1	NUT, Hex, 3/8-24
12	47119	1	BRAKE CONNECTING ROD
13	25100	2	NUT, Hex, Side Lock, 3/8-16
14	25034	2	NUT, Hex, 3/8-16
15	41930-009	2	PIVOT SLEEVE
16	47084	2	BRAKE LINK
17	25156	4	WASHER, 3/8
18	25013-12	2	CAPSCREW, Hex Head, 3/8-16 x 1-1/2
19	25046	2	NUT, Hex, Top Lock, 3/8-16
20	22361	2	BRAKE SPRING
21	10546	4	COLLAR, Set, 3/8
22	47091	2	ROD, Brake Adjustment
23	25013-6	4	CAPSCREW, Hex Head, 3/8-16 x 3/4
24	21098	2	BEARING, Flange
25	25128	4	NUT, Hex Serrated Flange, 3/8-16
26	25387	8	NUT, Hex Flange Lock, 1/2-20
27	25056	2	NUT, Hex Nylon Lock, 1/2-13
28	49140	1	BRAKE BAND SHAFT-LH
*	49141	1	BRAKE BAND SHAFT-RH (not shown)
29	25017-24	2	CAPSCREW, Hex Head, 1/2-13 x 3
30	25018-24	4	CAPSCREW, Hex Head, 1/2-20 x 3
31	25202-10	2	COTTER PIN
32	22607	2	BRAKE BAND
33	25328-16	2	PIN, Clevis, 1/2 x 2
34	47052	2	BRAKE HUB
35	25038	2	NUT, Hex, 1/2-13
36	25018-20	4	CAPSCREW, Hex Head, 1/2-20 x 2-1/2
37	23249	2	WASHER, 1 x 2

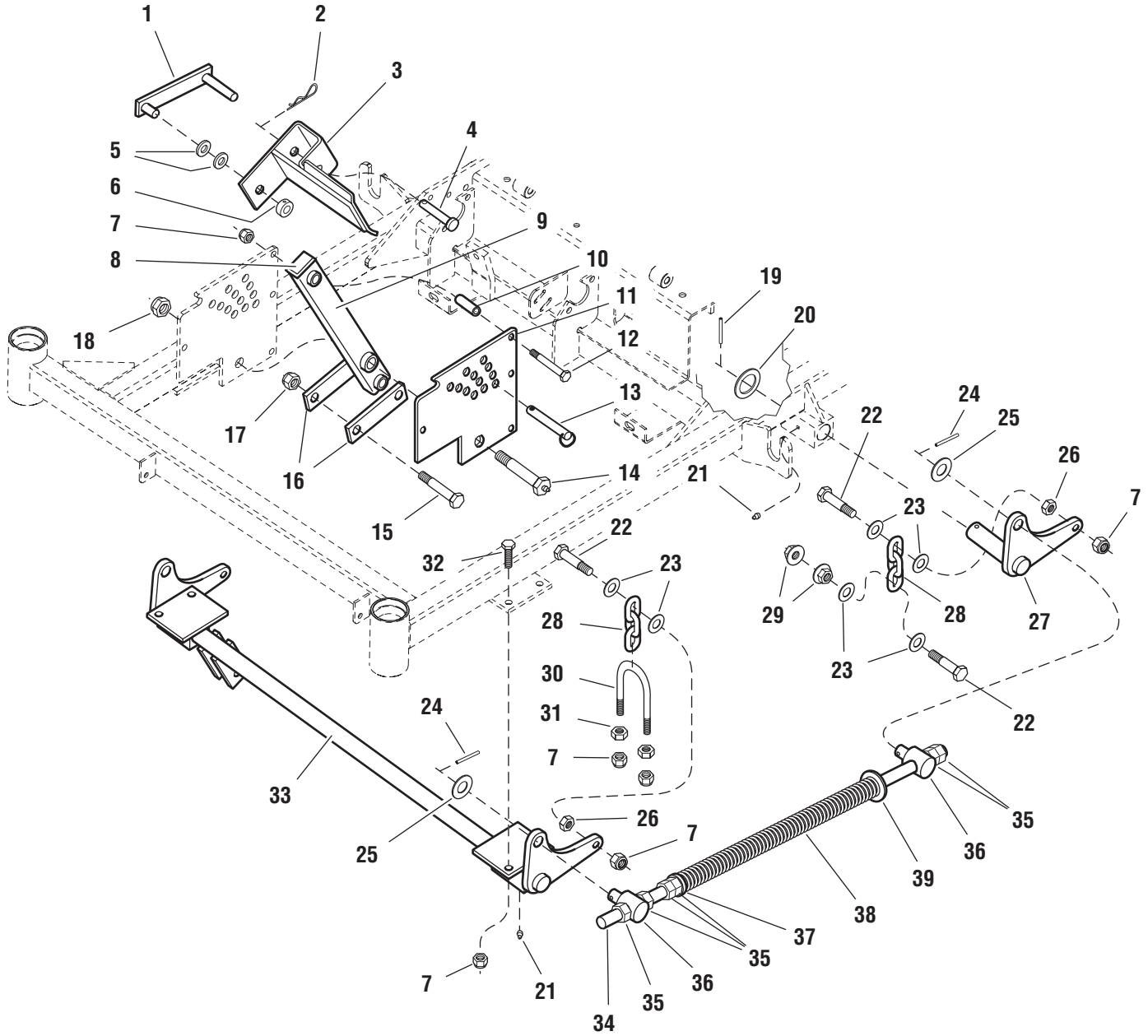
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZK27/61

Deck Lift Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48
1000ZKAV23/52

1000ZK21/48
1000ZK23/52

Deck Lift Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	44999	1	DECK LIFT LOCK
2	25210	1	HAIRPIN CLIP
3	45058	1	DECK LIFT PEDAL
*	44875	1	SAFETY WALK, Deck Lift Pedal (not shown)
4	22044	1	PIN, Clevis, 1/2 x 2-1/2
5	25158	2	WASHER, 1/2
6	23241	1	COLLAR, Split, 1/2
7	25096	16	NUT, Hex Nylon Lock, 3/8-16
8	22097	1	CAP
9	44987	1	ARM, Deck Lift Pivot
10	44992	4	SPACER, .38 x .50 x 1.56
11	47043	1	DECK HEIGHT PLATE
12	25013-22	4	CAPSCREW, Hex Head, 3/8-16 x 2-3/4
13	23082	1	PIN, 1/2 x 3-1/2 w/ Lanyard
14	44993	1	LIFT PIVOT BOLT
15	25018-24	1	CAPSCREW, Hex Head, 1/2-20 x 3
16	47105	2	LINK, Deck Lift
17	25098	2	NUT, Hex Nylon Lock, 1/2-20
18	25282	1	NUT, Hex Jam, Nylon Lock, 5/8-11
19	25516	2	PIN, Roll, 3/16 x 1-1/2
20	21253	2	SHIM
21	20095	4	GREASE FITTING
22	25013-14	6	CAPSCREW, Hex Head, 3/8-16 x 1-3/4
23	25156	12	WASHER, 3/8
24	22366	4	PIN, Spring, 3/16 x 1-1/4
25	25281	4	WASHER, 5/8
26	25084	2	NUT, Hex Jam, 3/8-16
27	45449	1	DECK LIFT PIVOT-LH
*	45450	1	DECK LIFT PIVOT-RH (not shown)
28	50878-3	4	CHAIN, 3 Links
29	25128	4	NUT, Hex Serrated Flange, 3/8-16
30	25325	2	U-Bolt
31	25034	4	NUT, Hex, 3/8-16
32	25013-10	2	CAPSCREW, Hex Head, 3/8-16 x 1-1/4
33	45451	1	DECK LIFT SHAFT & MOUNT ASSEMBLY
34	45446	2	SPRING ROD
35	25040	12	NUT, Hex, 5/8-11
36	45447	4	SPRING ROD PIVOT
37	41477	2	SPACER, .63 x 1.06 x .23
38	22668	2	SPRING, Deck Lift
39	25159	2	WASHER, USS, 5/8

Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48

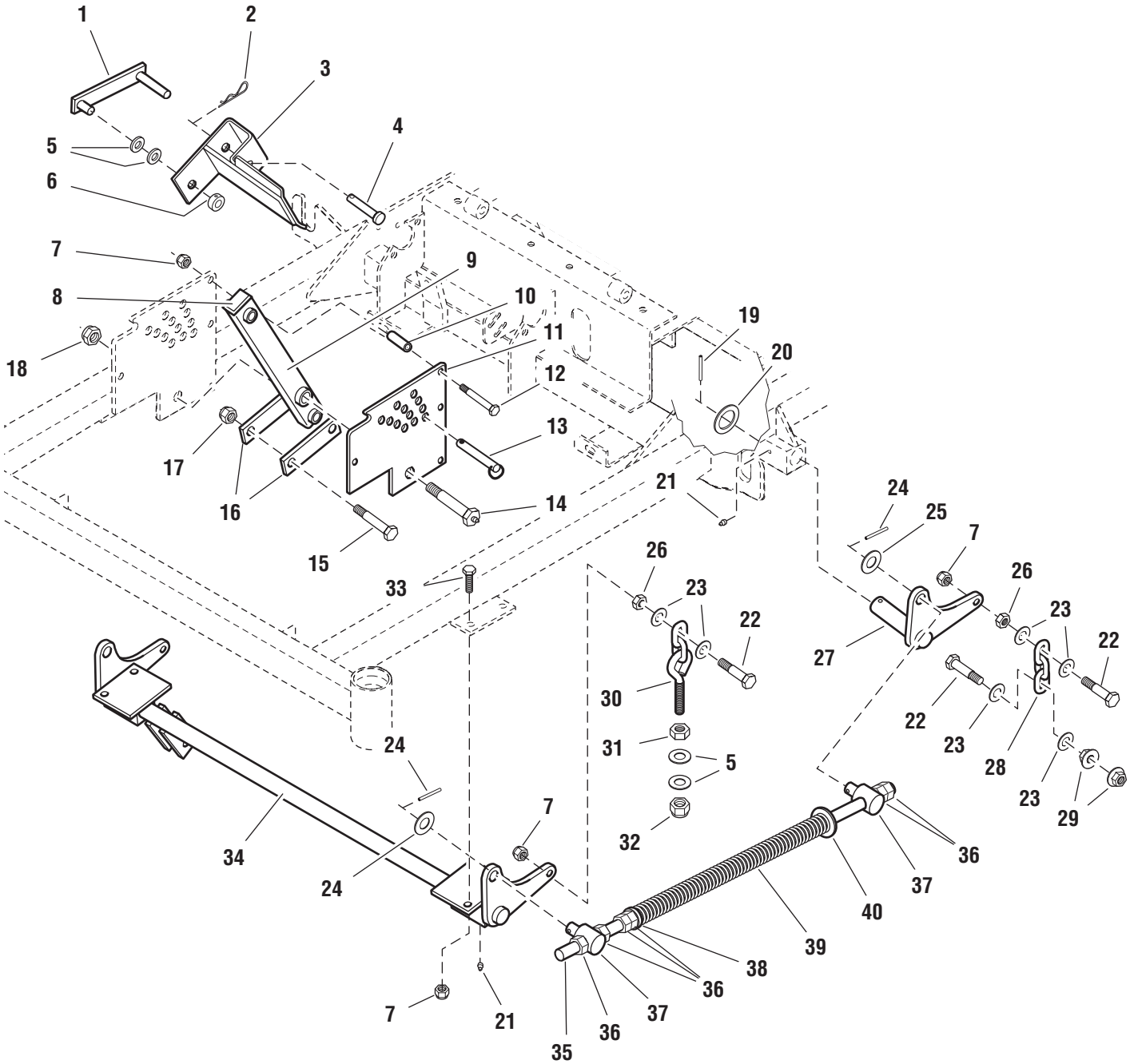
1000ZK21/48

1000ZKAV23/52

1000ZK23/52

Deck Lift Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV23/61
1000ZK27/61

Deck Lift Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	44999	1	DECK LIFT LOCK
2	25210	1	HAIRPIN CLIP
3	45058	1	DECK LIFT PEDAL
*	44875	1	SAFETY WALK, Deck Lift Pedal (not shown)
4	22044	1	PIN, Clevis, 1/2 x 2-1/2
5	25158	6	WASHER, 1/2
6	23241	1	COLLAR, Split, 1/2
7	25096	16	NUT, Hex Nylon Lock, 3/8-16
8	22097	1	CAP
9	44987	1	ARM, Deck Lift Pivot
10	44992	4	SPACER, .38 x .50 x 1.56
11	47043	1	DECK HEIGHT PLATE
12	25013-22	4	CAPSCREW, Hex Head, 3/8-16 x 2-3/4
13	23082	1	PIN, 1/2 x 3-1/2 w/ Lanyard
14	44993	1	LIFT PIVOT BOLT
15	25018-24	1	CAPSCREW, Hex Head, 1/2-20 x 3
16	47105	2	LINK, Deck Lift
17	25098	2	NUT, Hex Nylon Lock, 1/2-20
18	25282	1	NUT, Hex Jam, Nylon Lock, 5/8-11
19	25516	2	PIN, Roll, 3/16 x 1-1/2
20	21253	2	SHIM
21	20095	4	GREASE FITTING
22	25013-14	6	CAPSCREW, Hex Head, 3/8-16 x 1-3/4
23	25156	12	WASHER, 3/8
24	22366	4	PIN, Spring, 3/16 x 1-1/4
25	25281	4	WASHER, 5/8
26	25084	2	NUT, Hex Jam, 3/8-16
27	47182	1	DECK LIFT PIVOT-LH
*	47181	1	DECK LIFT PIVOT-RH (not shown)
28	50878-3	4	CHAIN, 3 Links
29	25128	4	NUT, Hex Serrated Flange, 3/8-16
30	47503	2	FRONT DECK HANGER
31	25038	2	NUT, Hex, 1/2-13
32	25056	2	NUT, Hex Nylon Lock, 1/2-13
33	25013-10	2	CAPSCREW, Hex Head, 3/8-16 x 1-1/4
34	47188	1	DECK LIFT SHAFT & MOUNT ASSEMBLY
35	45446	2	SPRING ROD
36	25040	12	NUT, Hex, 5/8-11
37	45447	4	SPRING ROD PIVOT
38	41477	2	SPACER, .63 x 1.06 x .23
39	22668	2	SPRING, Deck Lift
40	25159	2	WASHER, USS, 5/8

Footnotes:

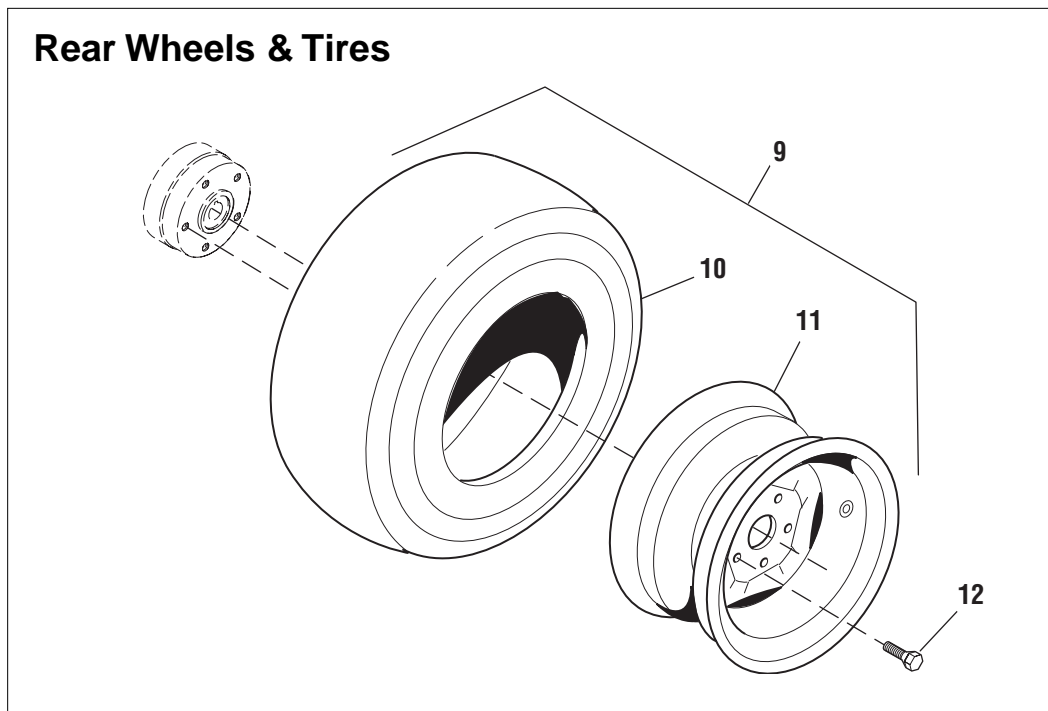
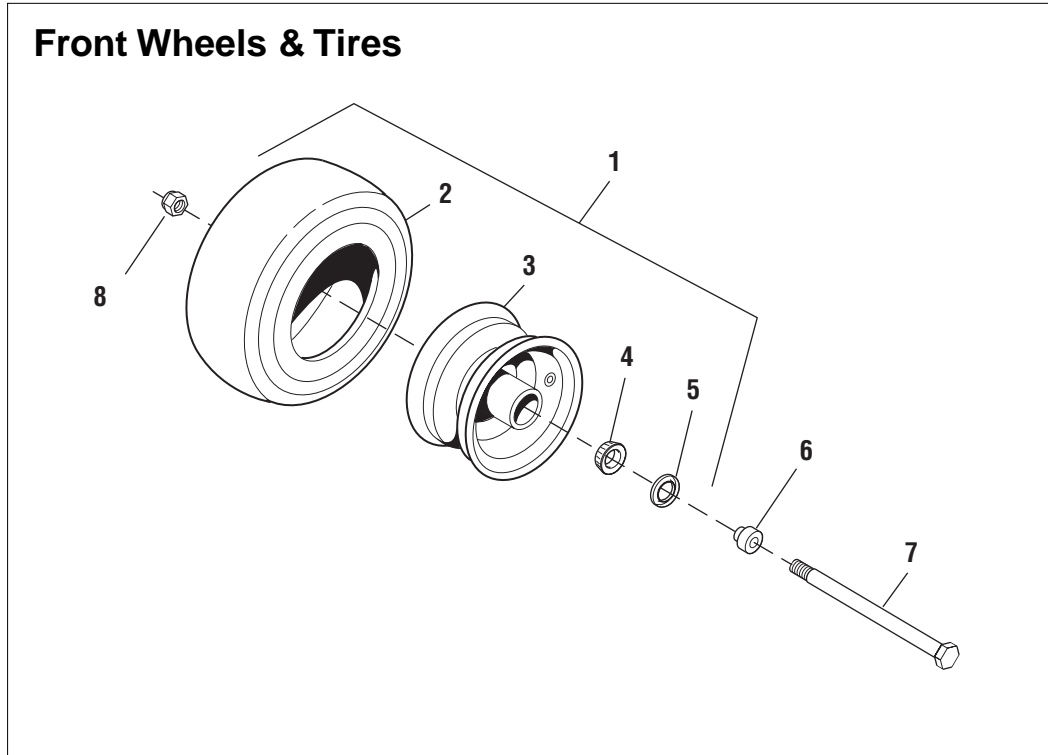
The above parts group applies to the following Model Nos.:

1000ZKAV23/61

1000ZK27/61

Tire & Wheel Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48

1000ZK21/48

1000ZKAV23/52

1000ZK23/52

1000ZKAV23/61

Tire & Wheel Group

REF NO.	PART NO.	QTY.	DESCRIPTION
1	22631S	2	WHEEL & TIRE ASSEMBLY, Front, 13 x 5.0 x 6, Complete (includes Ref 2-5)
2	22029-1	2	TIRE, Front, 13 x 5.0 x 6
3	22631S-1	2	WHEEL ASSEMBLY, Front, for 13 x 5.0 x 6 Tires, Complete (includes Ref 4 & 5)
4	22631S-2	4	BEARING, Taper Roller (2 per tire)
5	22631S-3	4	GREASE SEAL (2 per tire)
6	47103	4	ADAPTER, Caster Wheel (2 per tire)
7	25017-60	2	CAPSCREW, Hex Head, 1-2/13 x 7-1/2
8	25056	2	NUT, Hex Nylon Lock, 1-2/13
9	22646S	2	WHEEL & TIRE ASSEMBLY, Rear, 23 x 9.5 x 12, Complete (Includes Ref 10 & 11)
10	22646S-1	2	TIRE, Rear, 23 x 9.5 x 12
11	22646S-2	2	WHEEL ASSEMBLY, Rear, for 23 x 9.5 x 12 Tires
12	22215	10	WHEEL LUG, 1/2 x 1-5/8

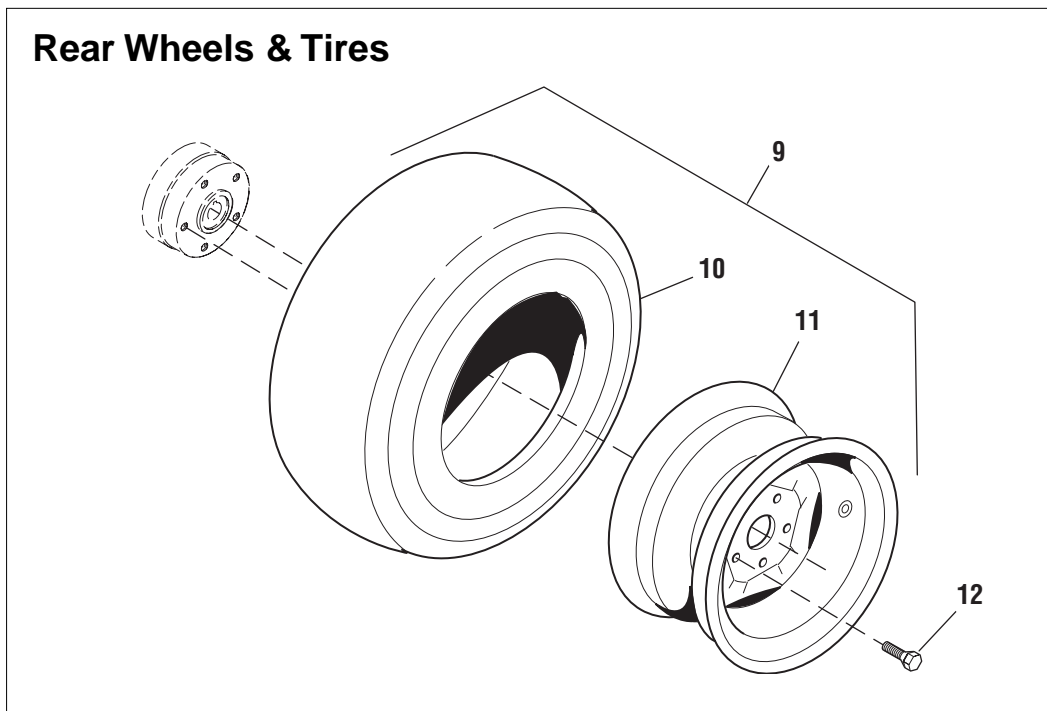
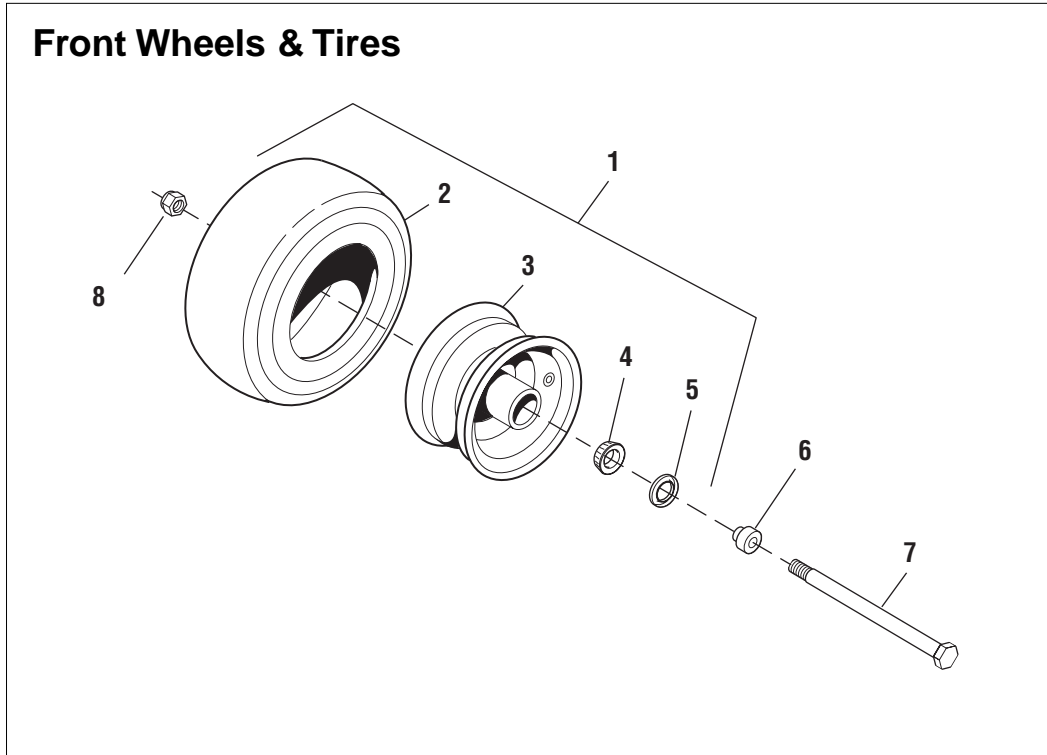
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	

Tire & Wheel Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:
1000ZK27/61

Tire & Wheel Group

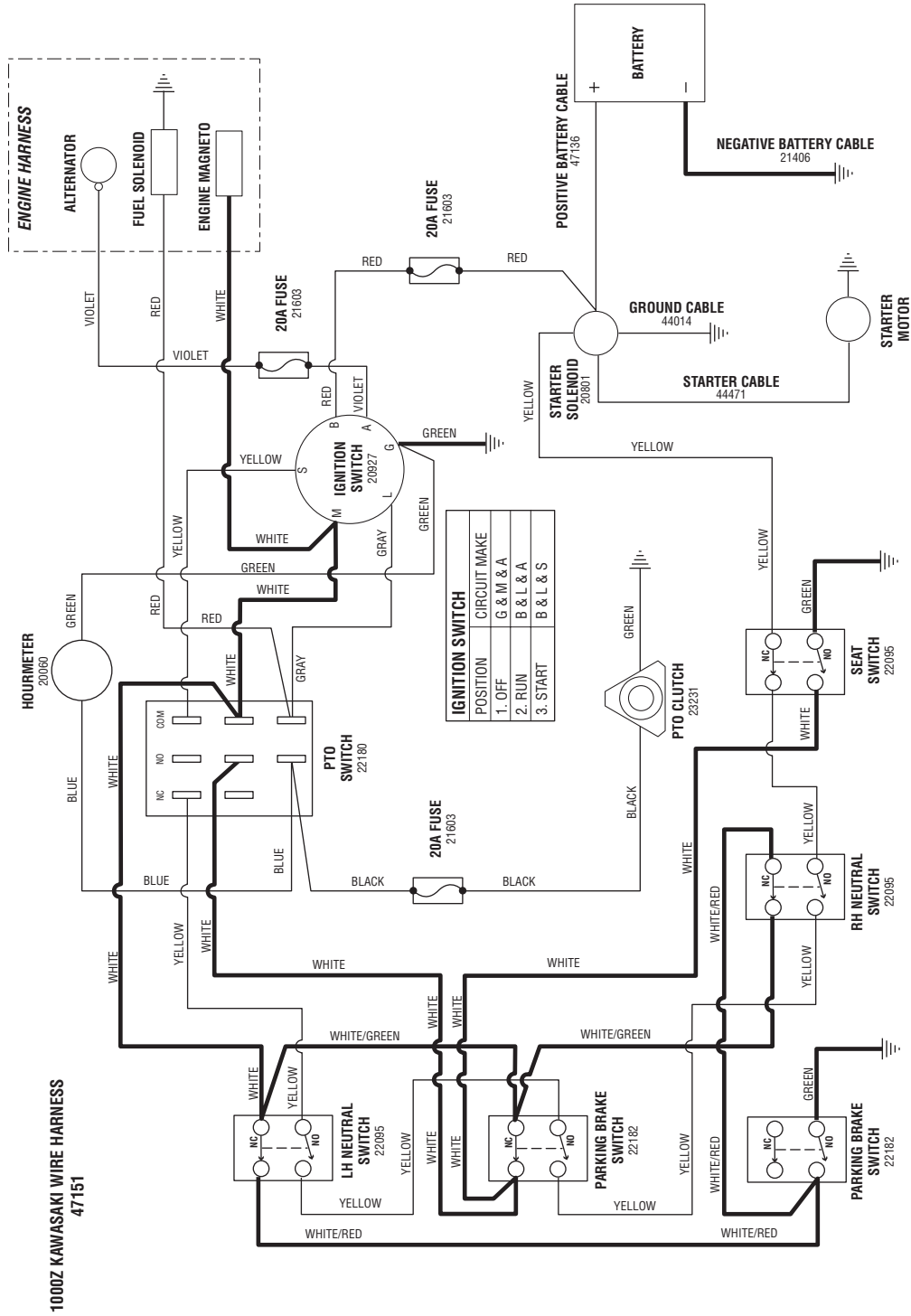
REF NO.	PART NO.	QTY.	DESCRIPTION
1	23136	2	WHEEL & TIRE ASSEMBLY, Front, 13 x 6.5 x 6, Complete (includes Ref 2-5)
2	22577	2	TIRE, Front, 13 x 6.5 x 6
3	23136-1	2	WHEEL ASSEMBLY, Front, for 13 x 6.5 x 6 Tires, Complete (includes Ref 4 & 5)
4	22631S-2	4	BEARING, Taper Roller (2 per tire)
5	22631S-3	4	GREASE SEAL (2 per tire)
6	47103	4	ADAPTER, Caster Wheel (2 per tire)
7	25017-72	2	CAPSCREW, Hex Hd, 1-2/13 x 9
8	25056	2	NUT, Hex, Nylon Lock, 1-2/13
9	23245	2	WHEEL & TIRE ASSEMBLY, Rear, 23 x 10.5 x 12, Complete (Includes Ref 10 & 11)
10	23243-1	2	TIRE, Rear, 23 x 10.5 x 12
11	23245-1	2	WHEEL ASSEMBLY, Rear, for 23 x 10.5 x 12 Tires
12	22215	10	WHEEL LUG, 1/2 x 1-5/8

Footnotes:

The above parts group applies to the following Model Nos.:

1000ZK27/61

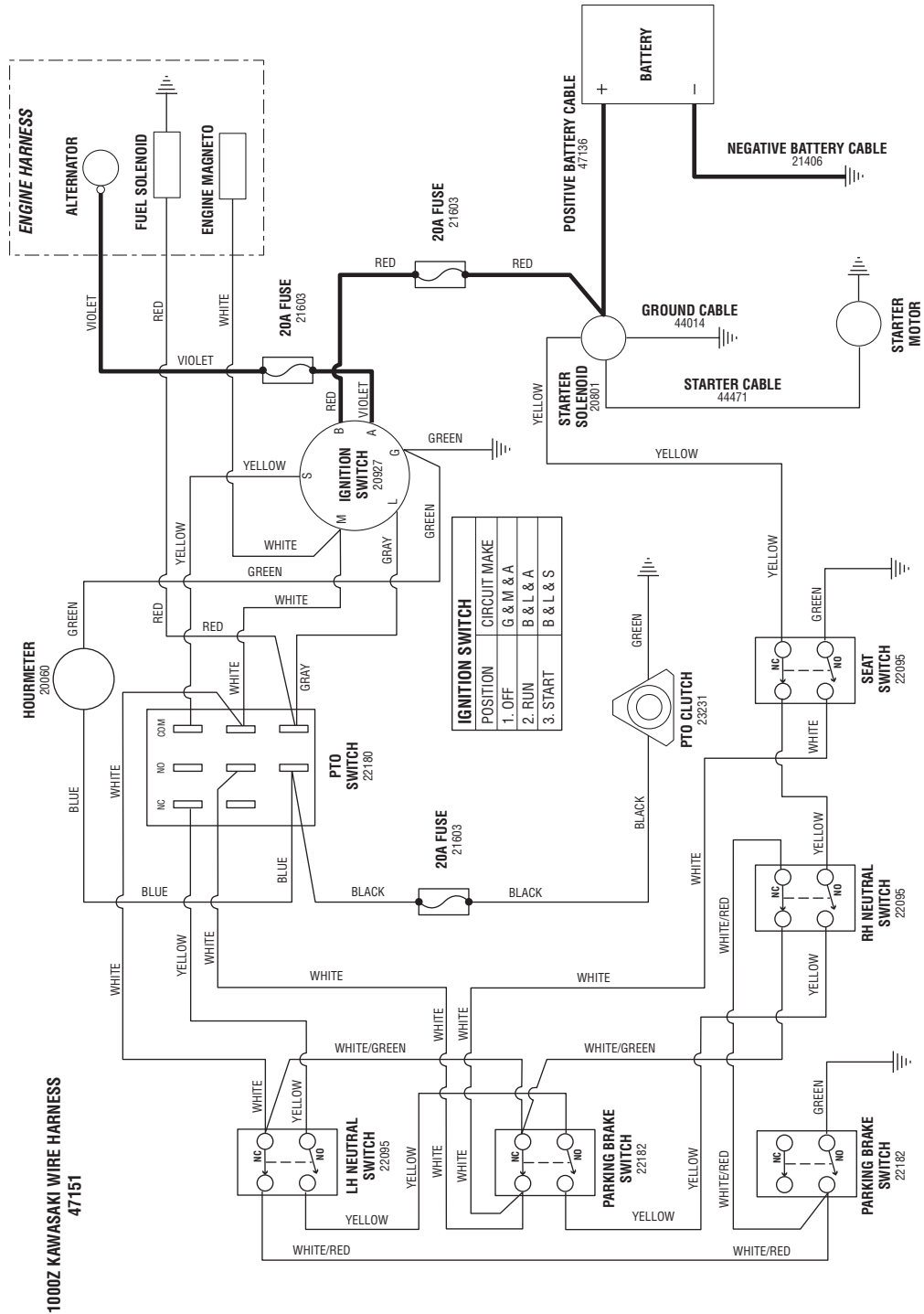
Ignition Grounding Circuit/Operator Presence



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 101-1310)
- 1000ZKAV23/52 (S/N: 101-920)
- 1000ZKAV23/61 (S/N: 101-690)

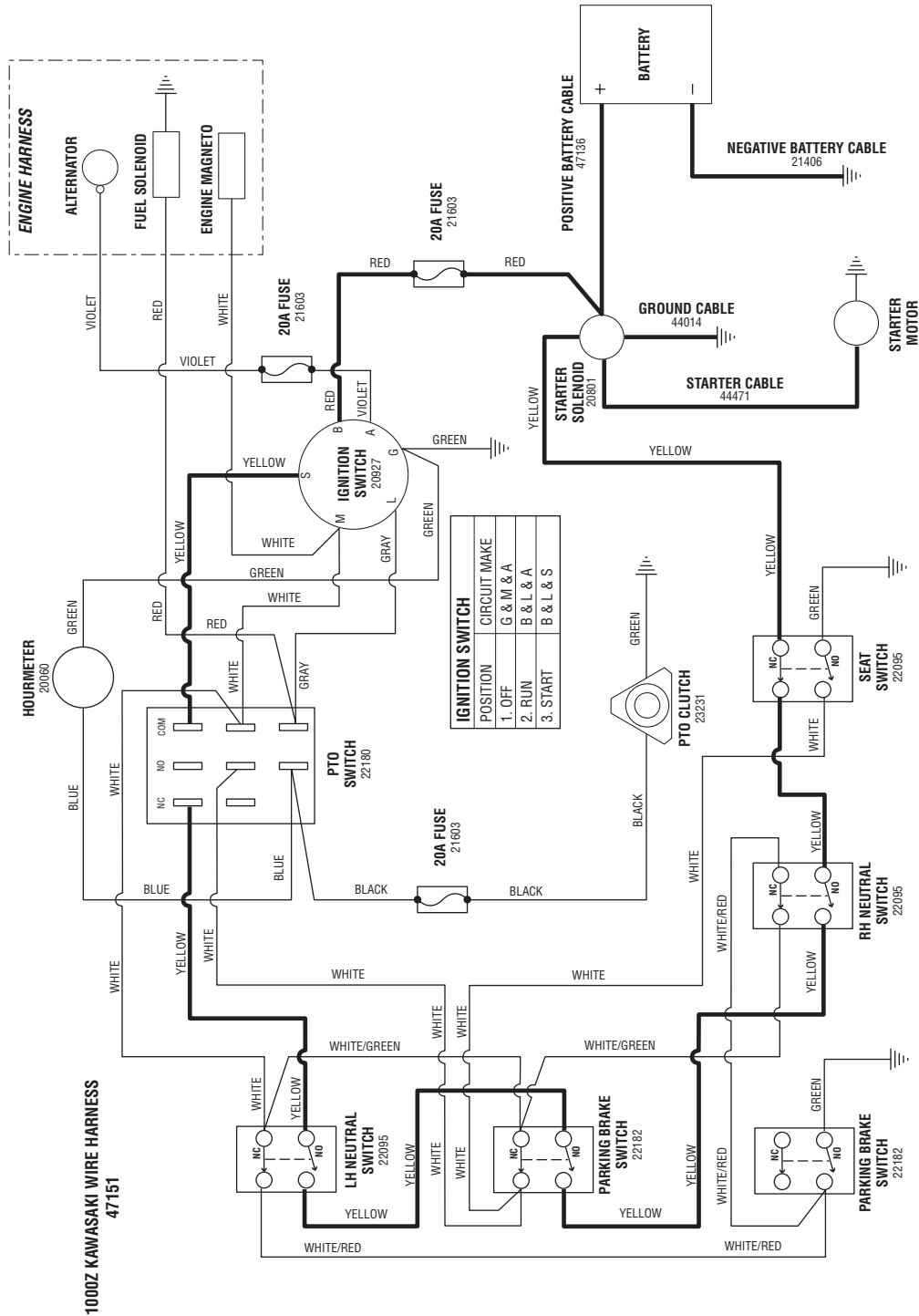
Charging Circuit



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 101-1310)
- 1000ZKAV23/52 (S/N: 101-920)
- 1000ZKAV23/61 (S/N: 101-690)

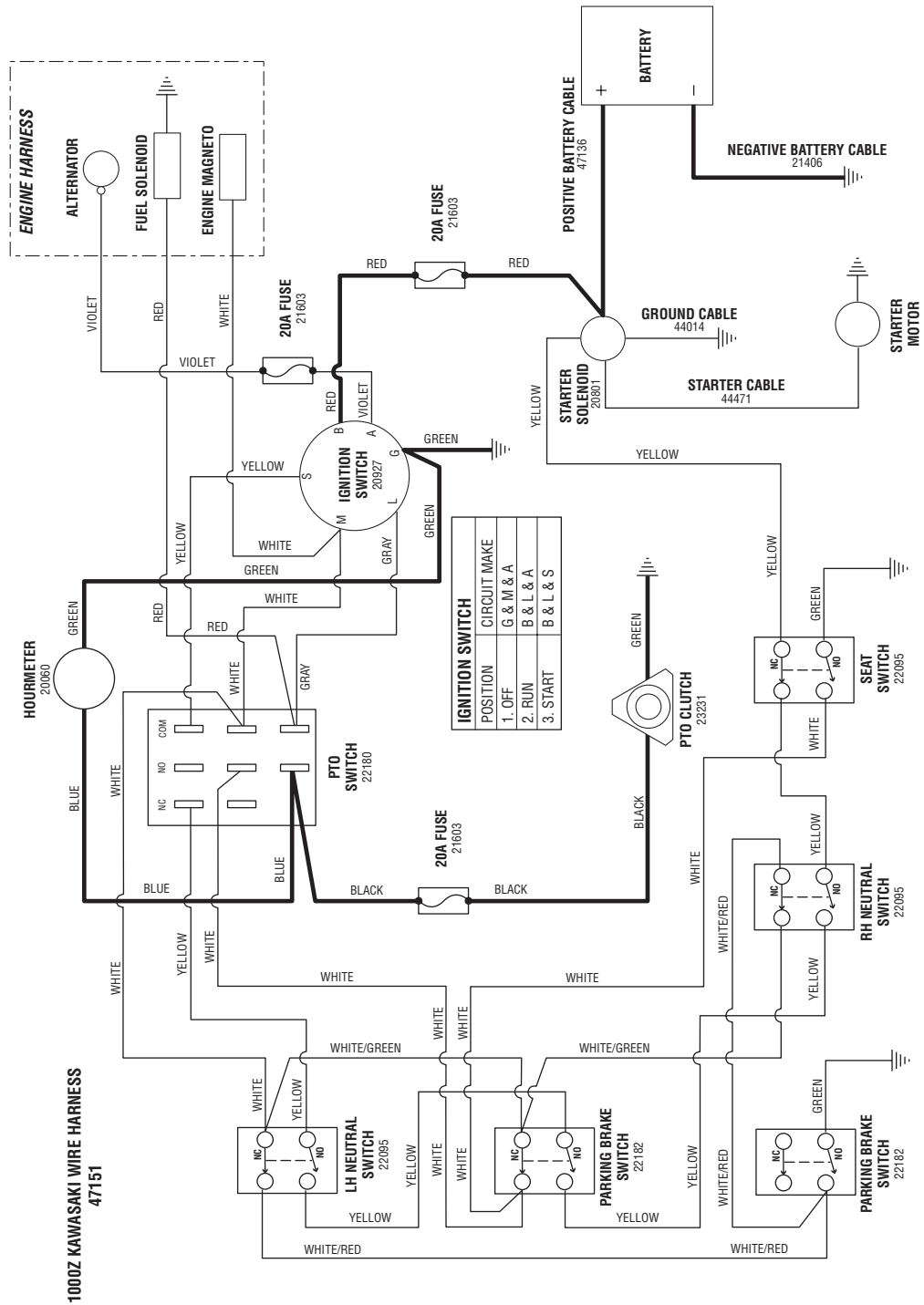
Cranking Circuit



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 101-1310)
- 1000ZKAV23/52 (S/N: 101-920)
- 1000ZKAV23/61 (S/N: 101-690)

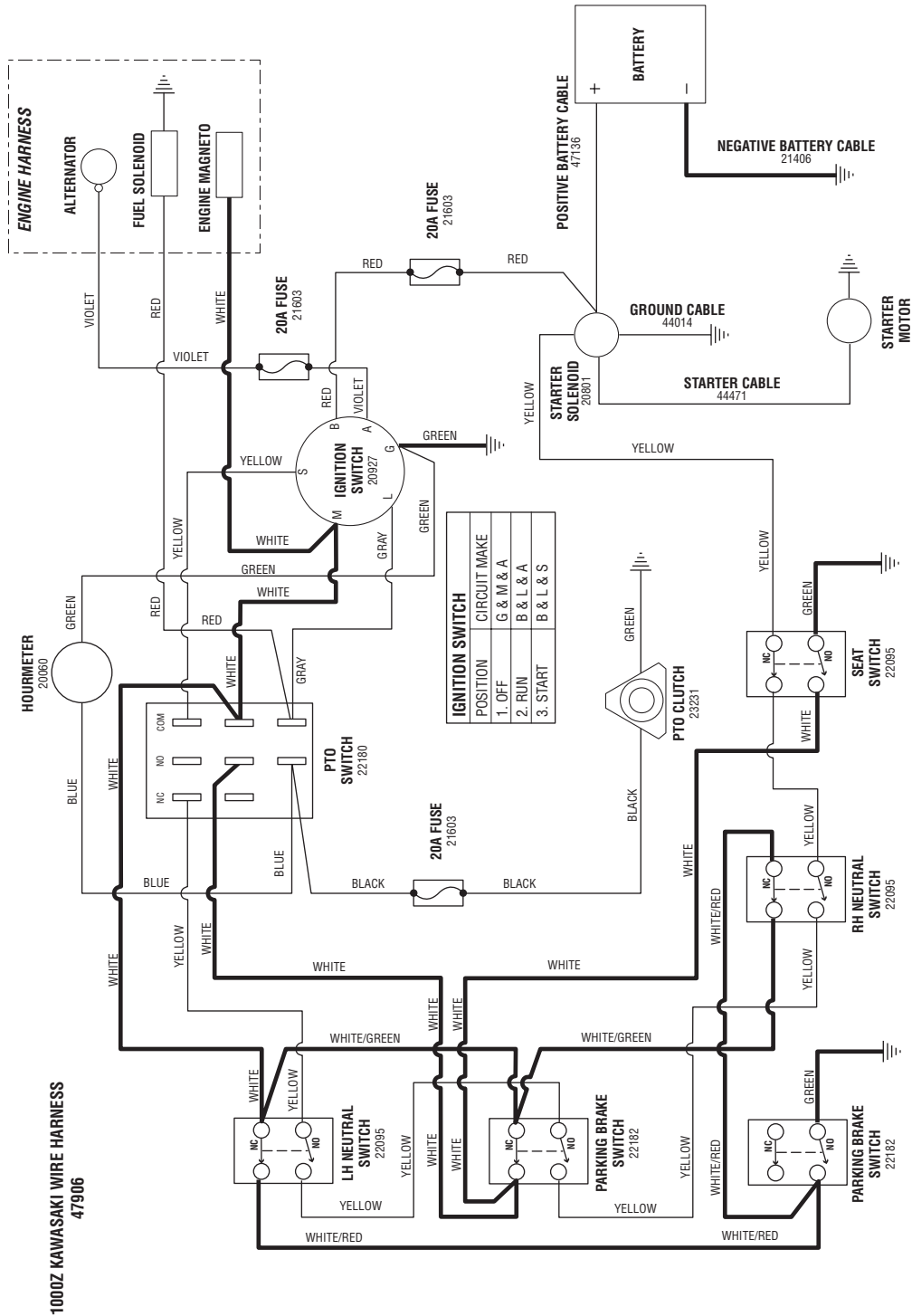
PTO Clutch Circuit



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 101-1310)
- 1000ZKAV23/52 (S/N: 101-920)
- 1000ZKAV23/61 (S/N: 101-690)

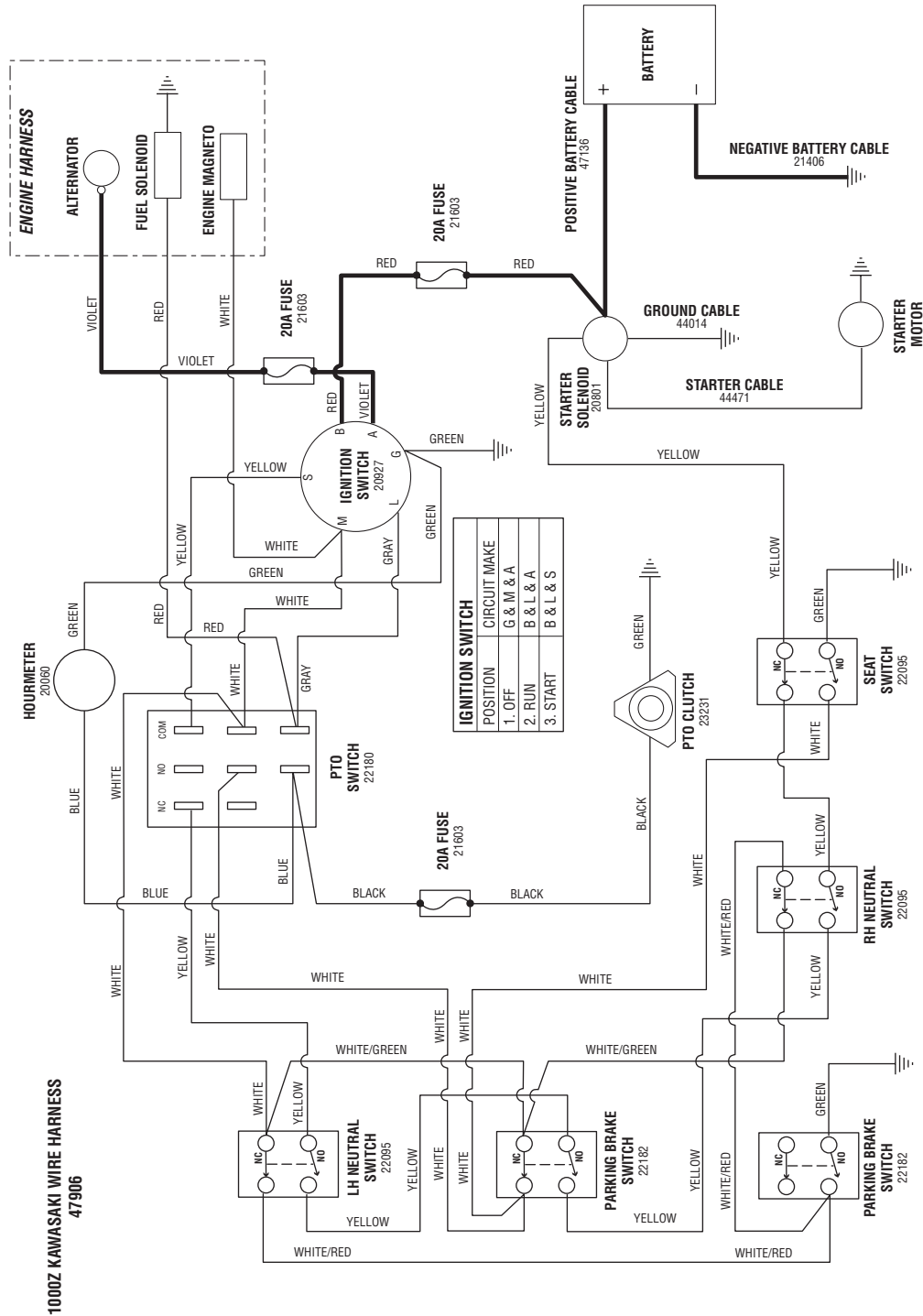
Ignition Grounding Circuit/Operator Presence



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1311-1425)
- 1000ZKAV23/52 (S/N: 920-995)
- 1000ZKAV23/61 (S/N: 691-865)

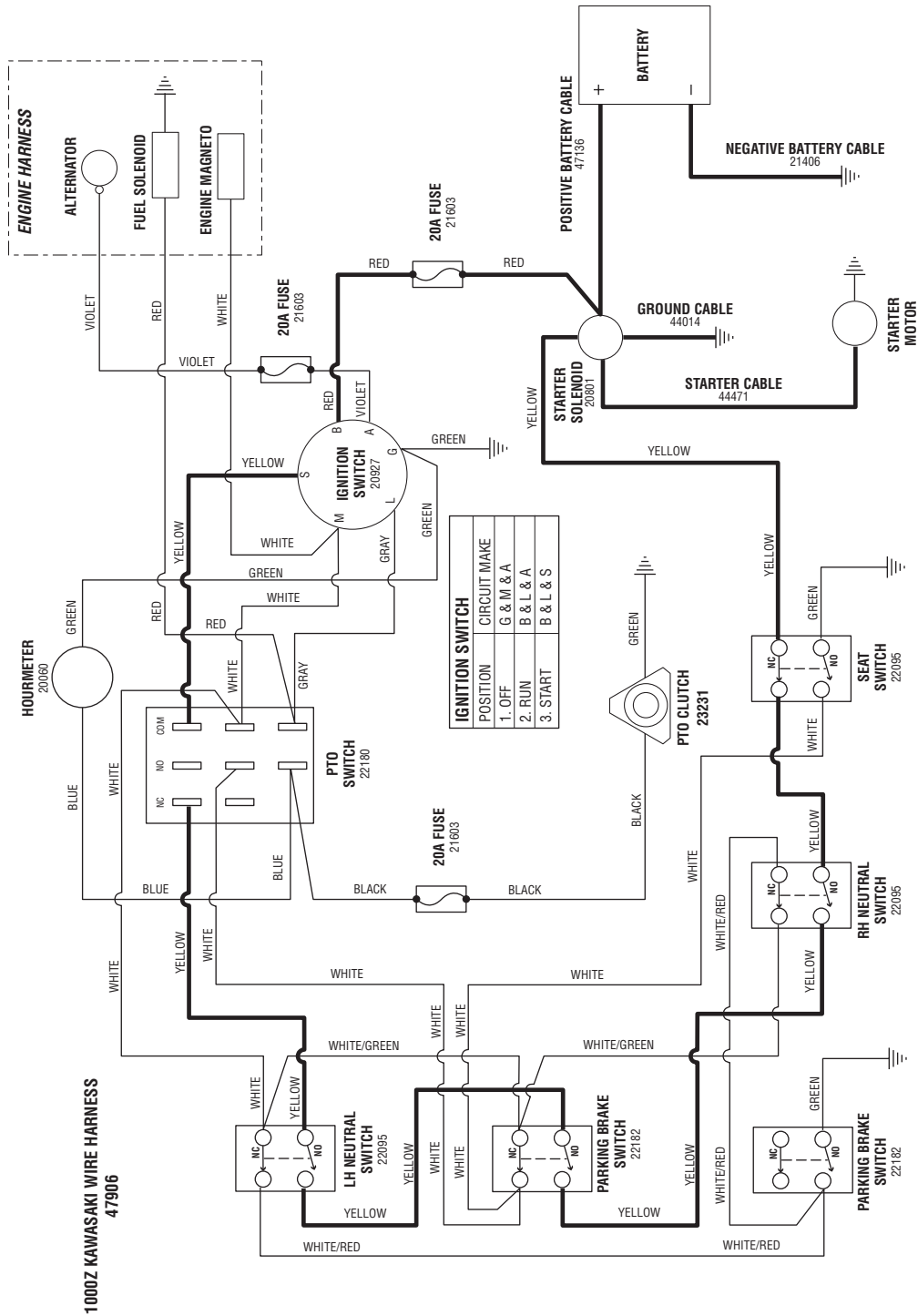
Charging Circuit



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1311-1425)
- 1000ZKAV23/52 (S/N: 920-995)
- 1000ZKAV23/61 (S/N: 691-865)

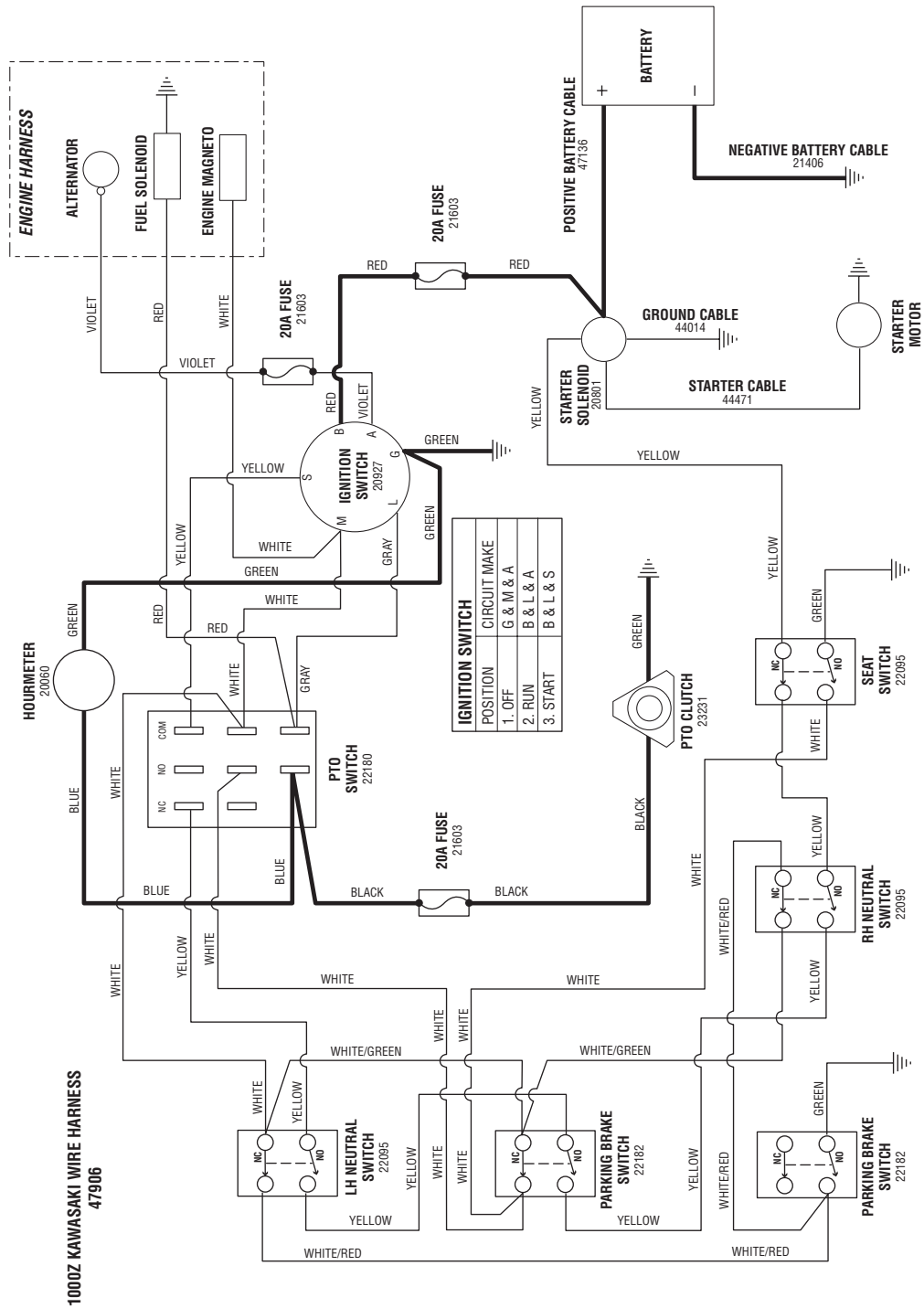
Cranking Circuit



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1311-1425)
- 1000ZKAV23/52 (S/N: 920-995)
- 1000ZKAV23/61 (S/N: 691-865)

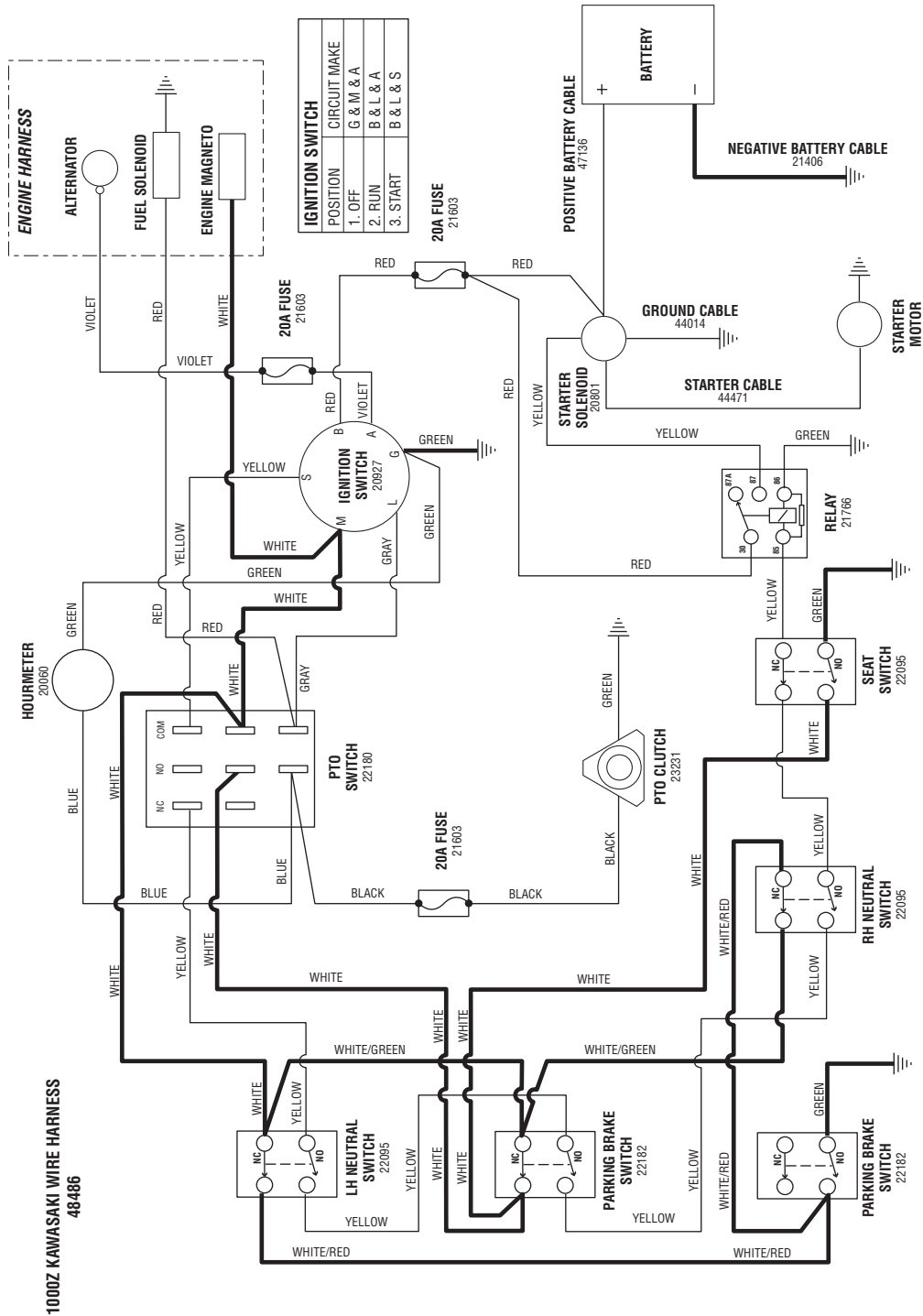
PTO Clutch Circuit



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1311-1425)
- 1000ZKAV23/52 (S/N: 920-995)
- 1000ZKAV23/61 (S/N: 691-865)

Ignition Grounding Circuit/Operator Presence

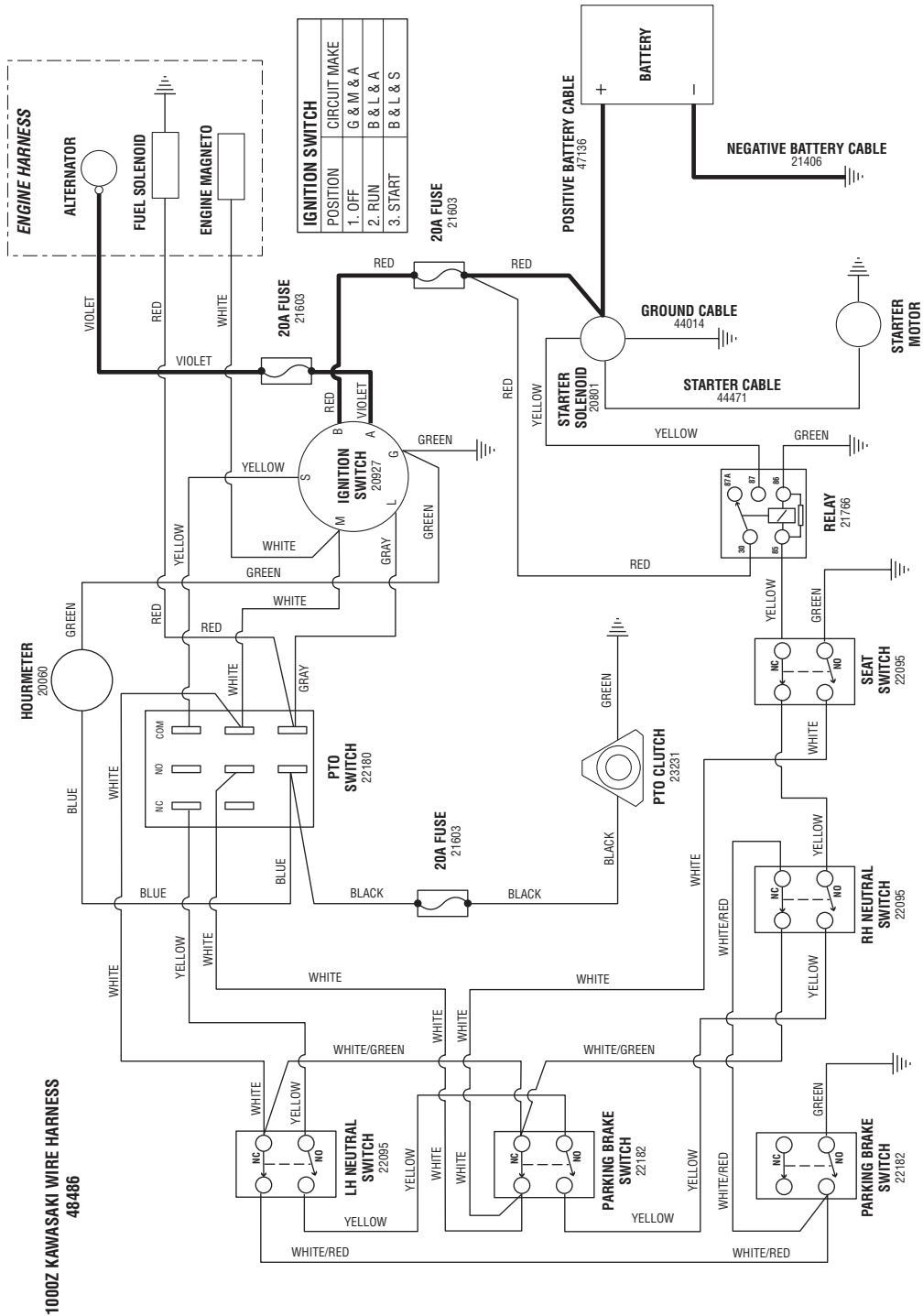


The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1426-1500)

1000ZKAV23/52 (S/N: 996-1045)

Charging Circuit

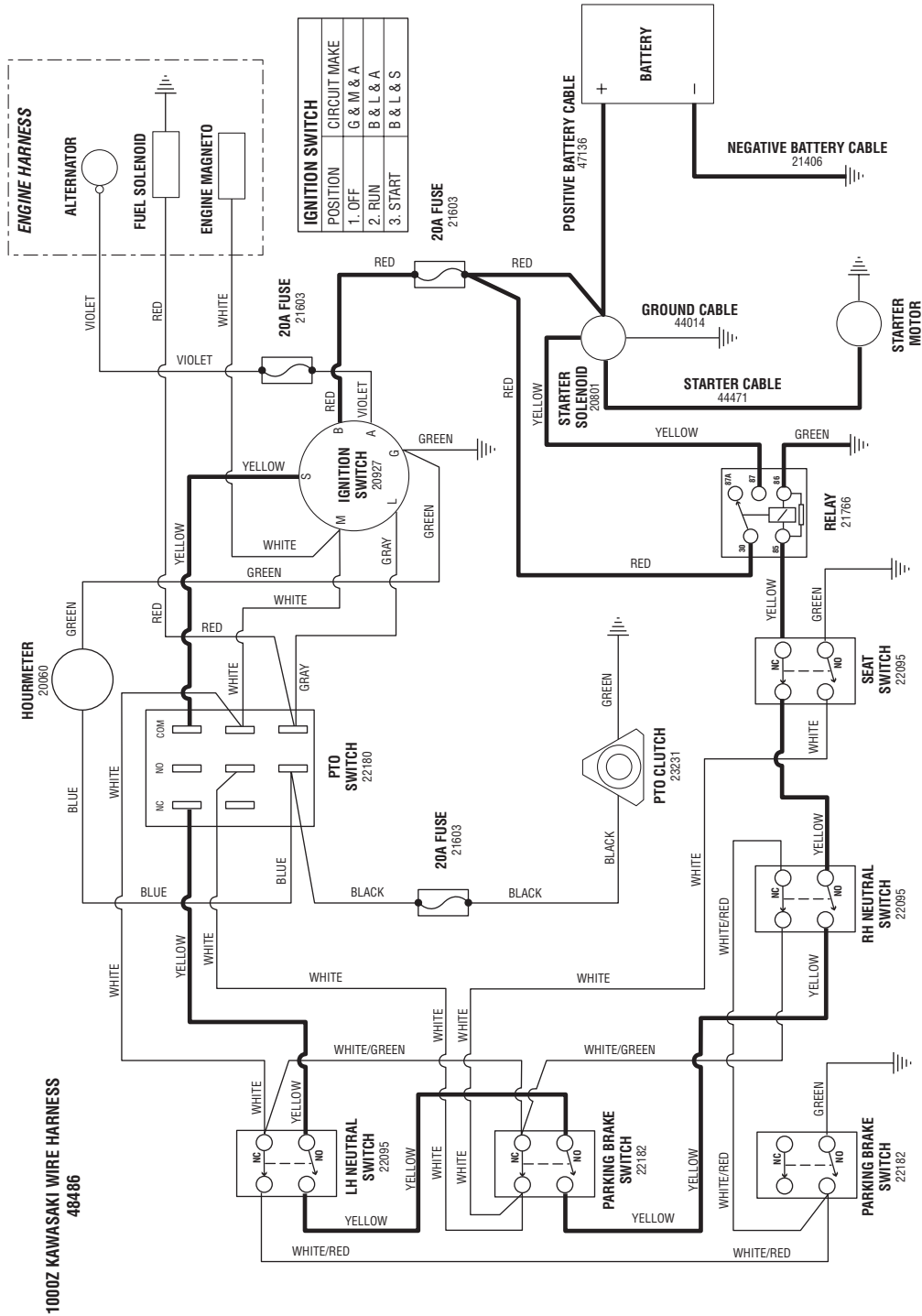


The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1426-1500)

1000ZKAV23/52 (S/N: 996-1045)

Cranking Circuit

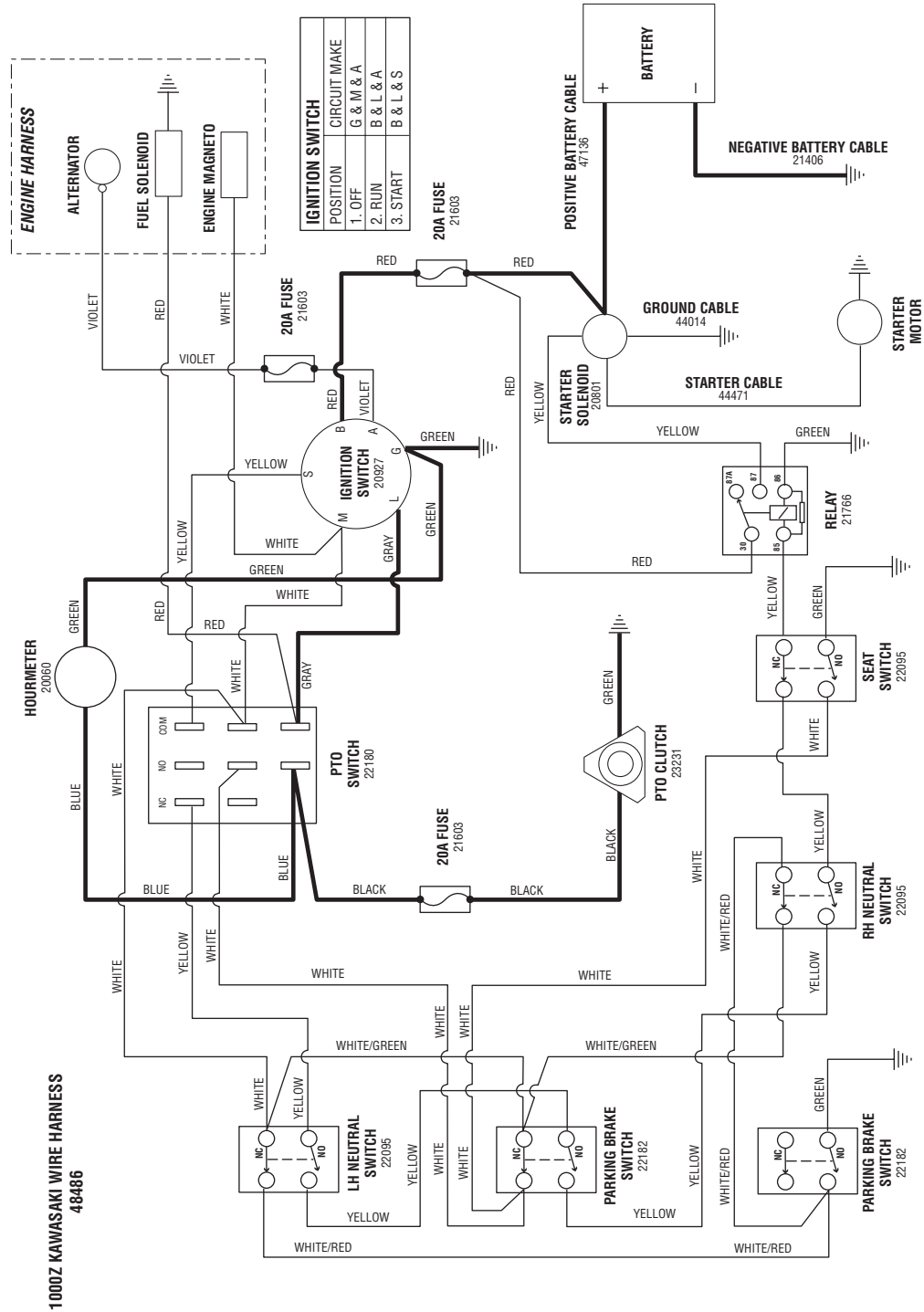


The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1426-1500)

1000ZKAV23/52 (S/N: 996-1045)

PTO Clutch Circuit

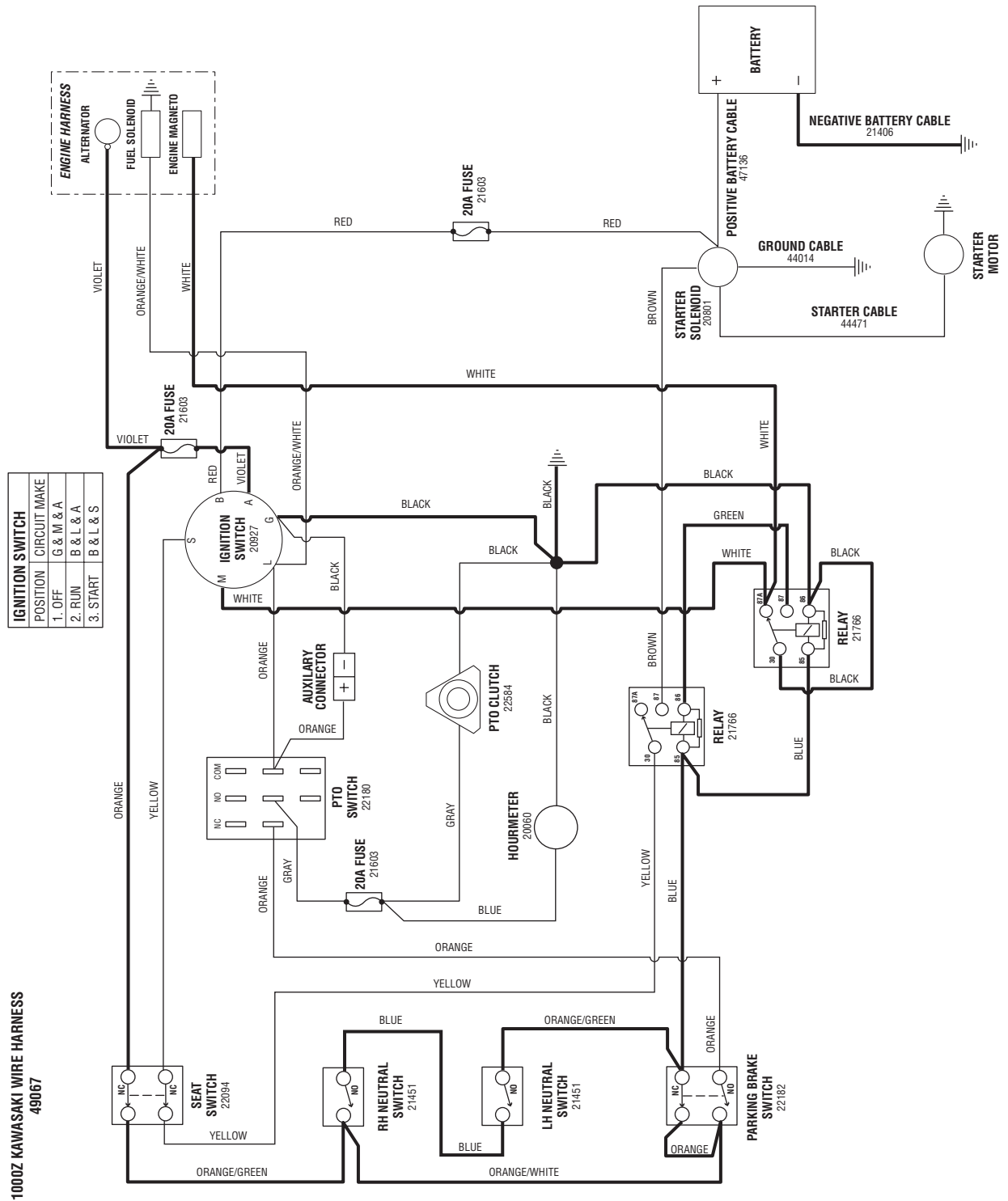


The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1426-1500)

1000ZKAV23/52 (S/N: 996-1045)

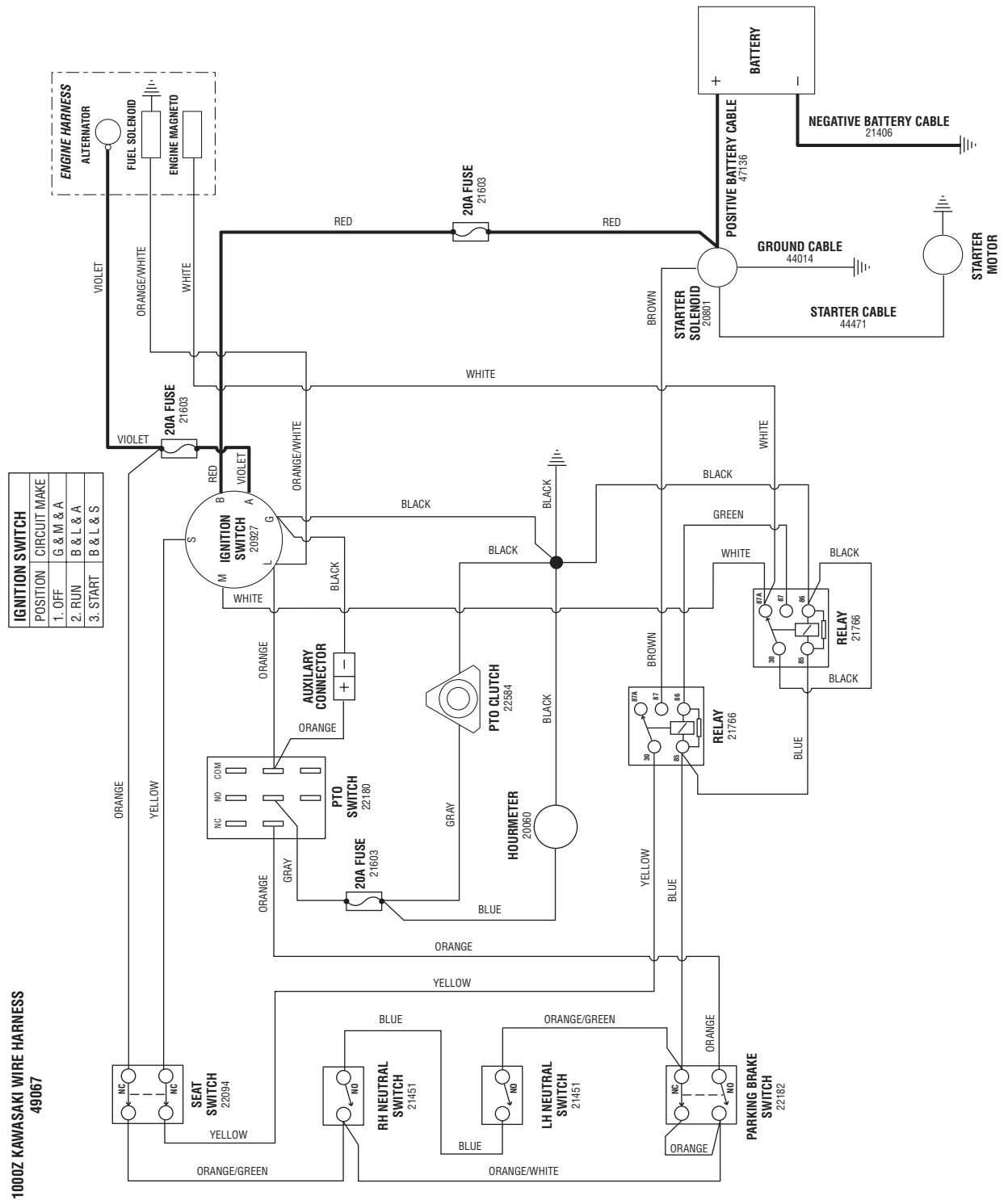
Ignition Grounding Circuit/Operator Presence



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1501 & above)
- 1000ZKAV23/52 (S/N: 1046 & above)
- 1000ZKAV23/61 (S/N: 866 & above)

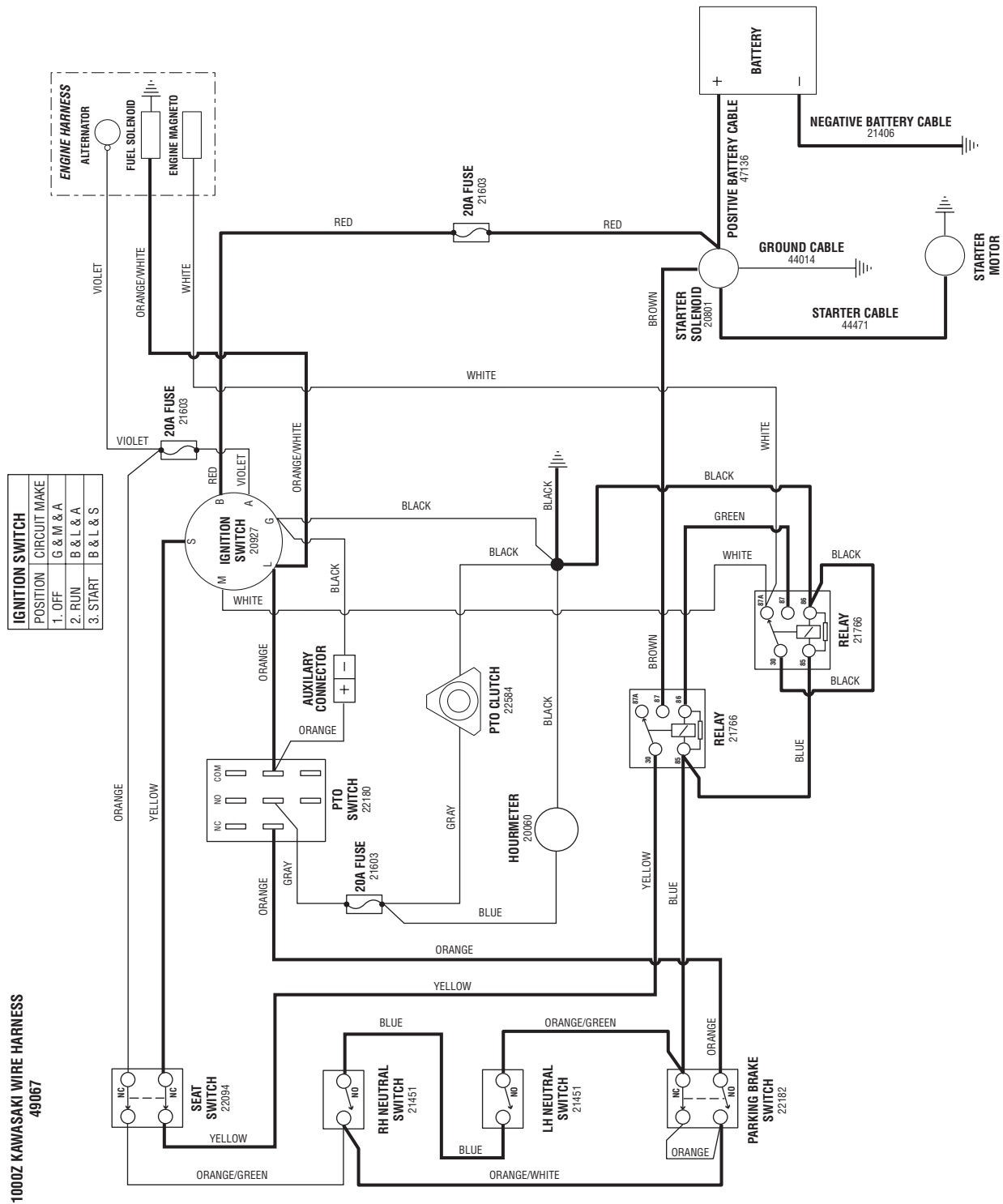
Charging Circuit



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1501 & above)
- 1000ZKAV23/52 (S/N: 1046 & above)
- 1000ZKAV23/61 (S/N: 866 & above)

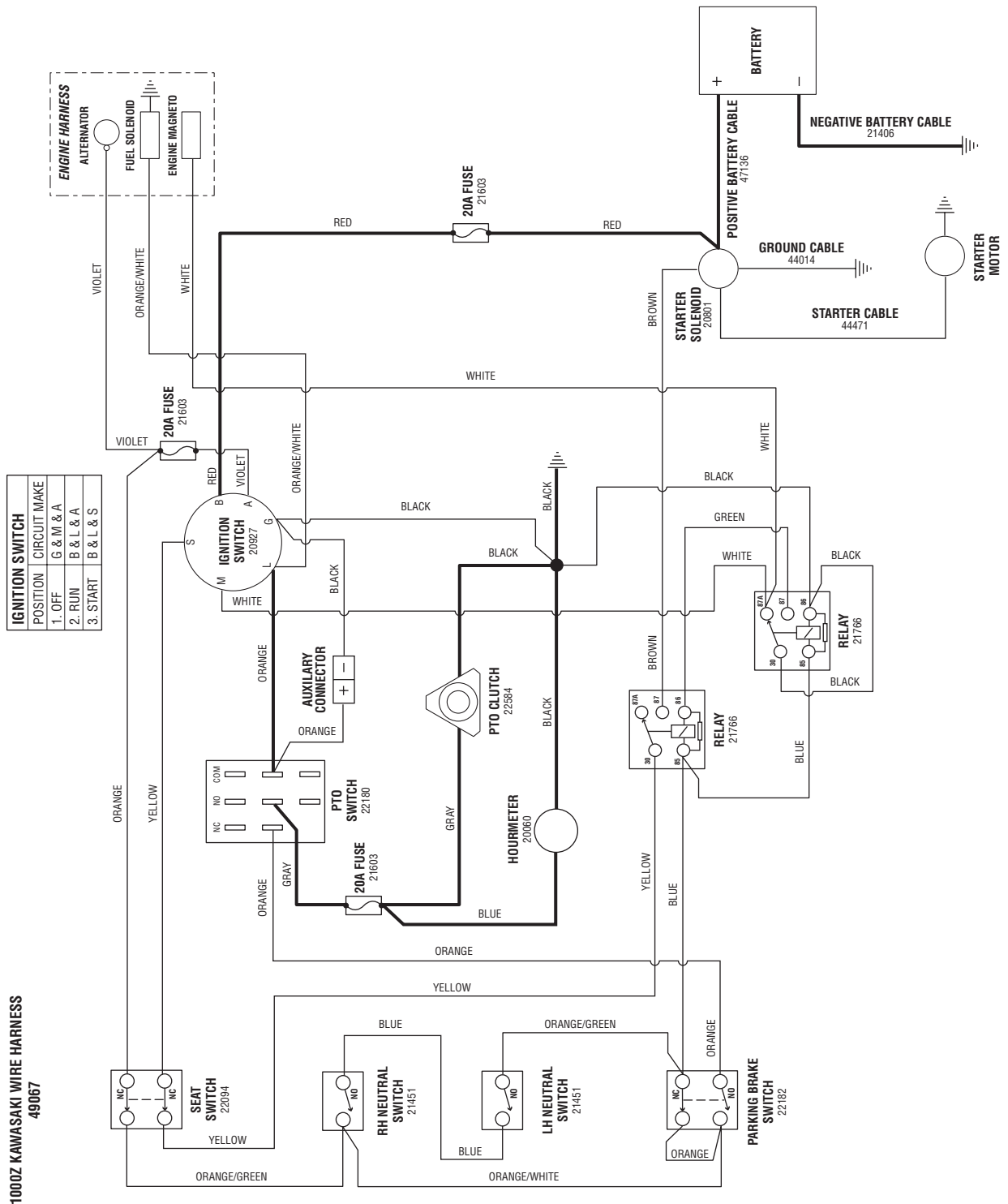
Cranking Circuit



The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1501 & above)
- 1000ZKAV23/52 (S/N: 1046 & above)
- 1000ZKAV23/61 (S/N: 866 & above)

PTO Clutch Circuit

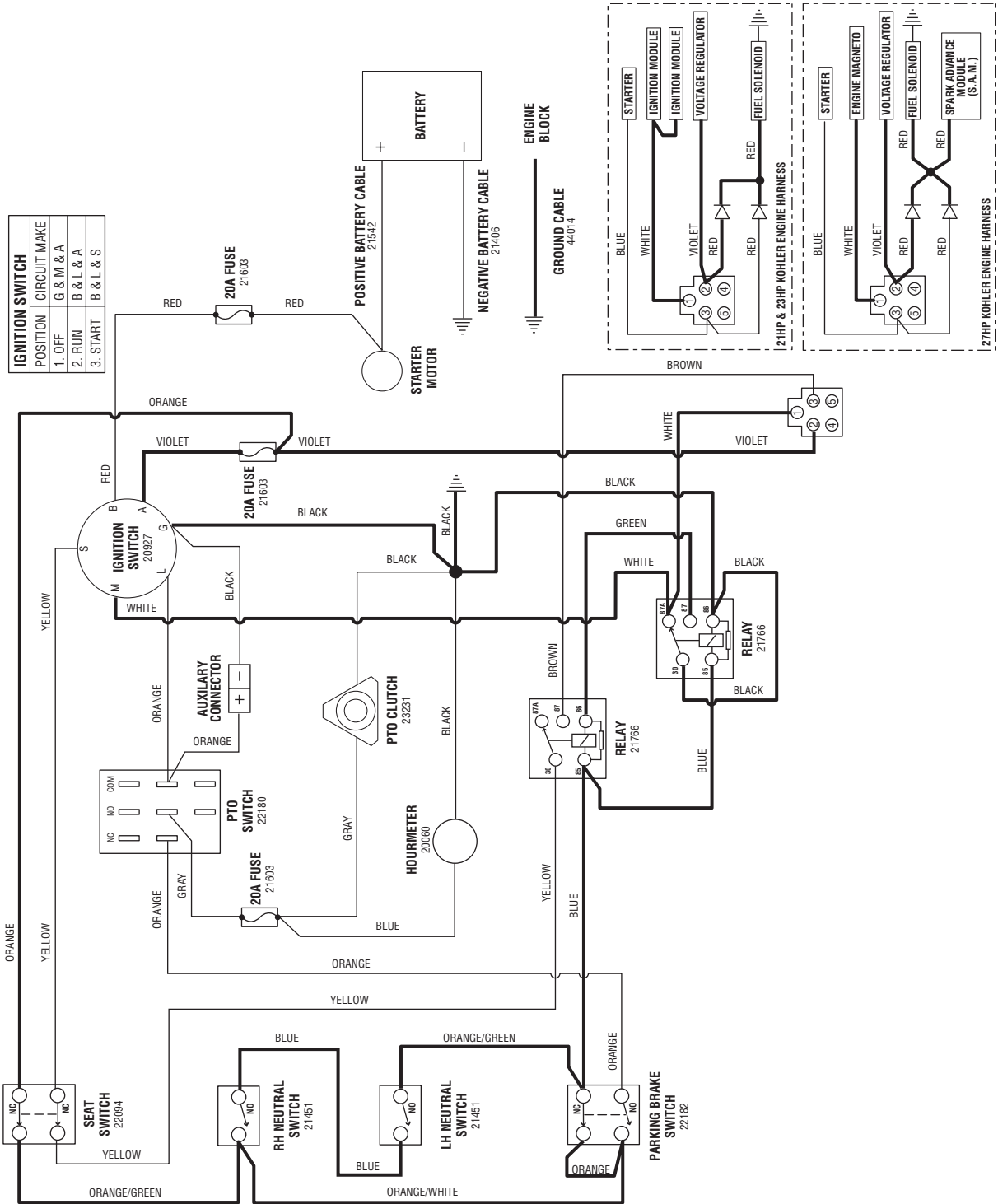


The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1501 & above)
- 1000ZKAV23/52 (S/N: 1046 & above)
- 1000ZKAV23/61 (S/N: 866 & above)

Ignition Grounding Circuit/Operator Presence

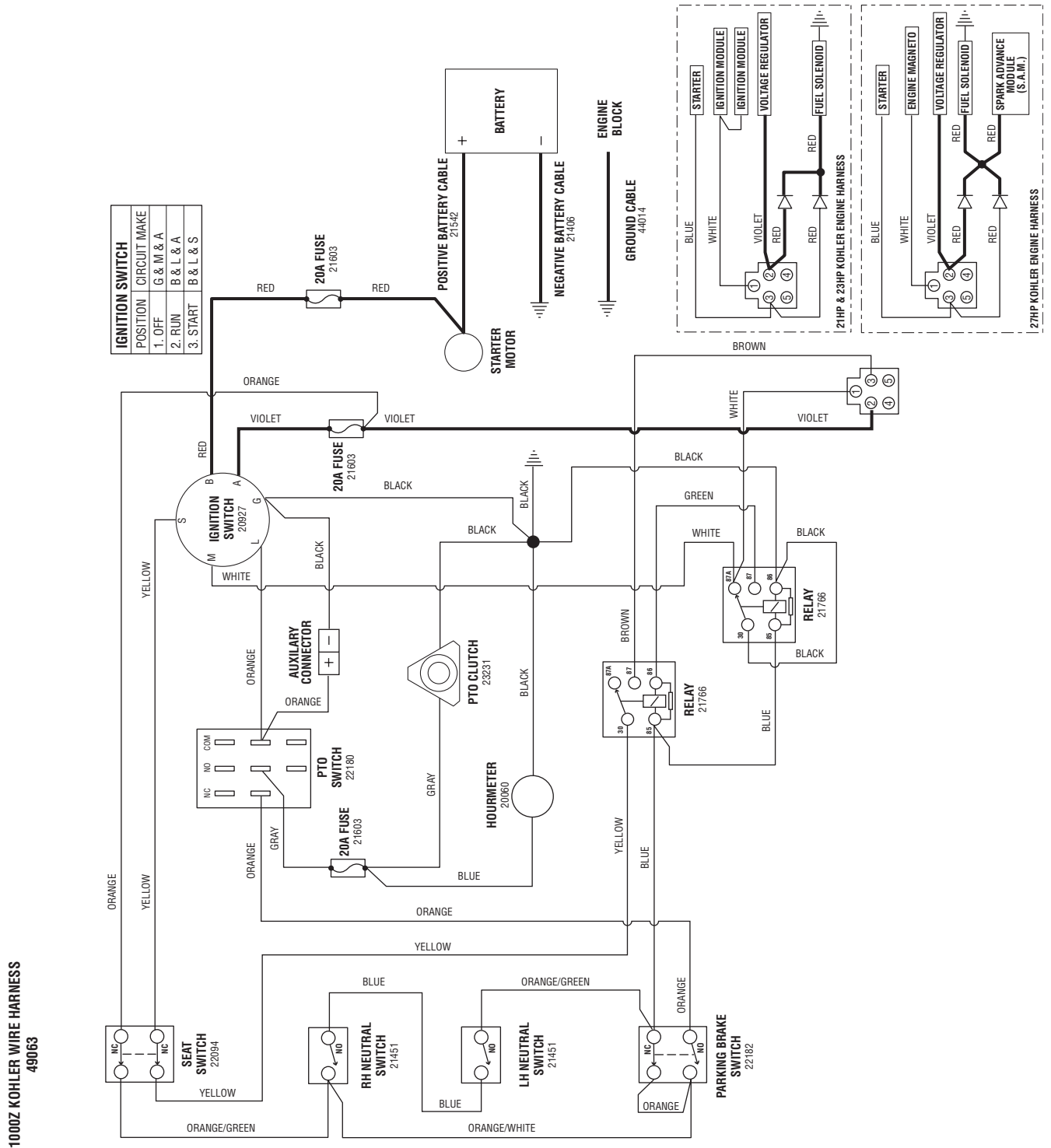
1000Z KOHLER WIRE HARNESS
49063



The above parts group applies to the following Model Nos.:

- 1000ZK21/48
- 1000ZK23/52
- 1000ZK27/61

Charging Circuit

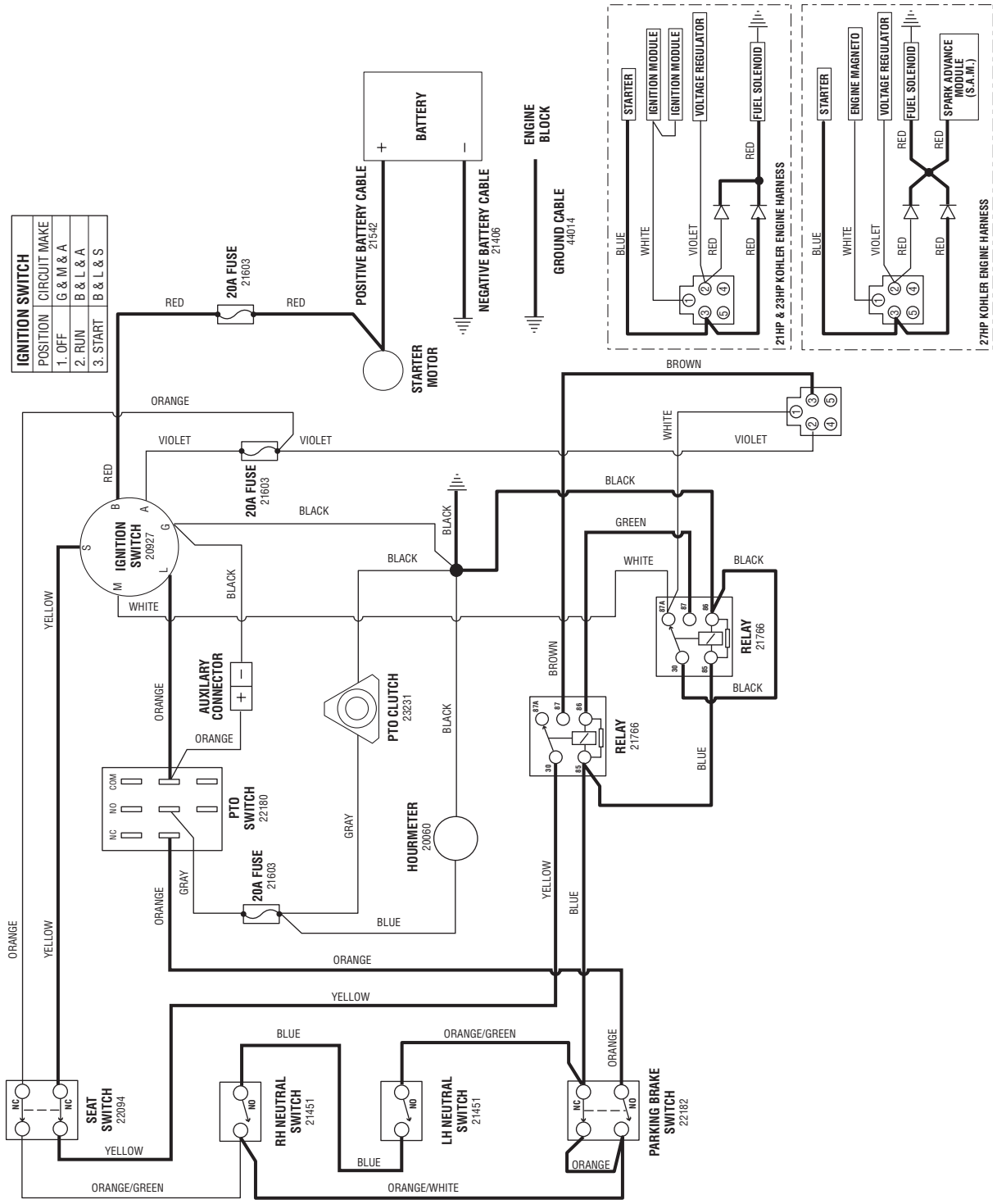


The above parts group applies to the following Model Nos.:

- 1000ZK21/48
- 1000ZK23/52
- 1000ZK27/61

Cranking Circuit

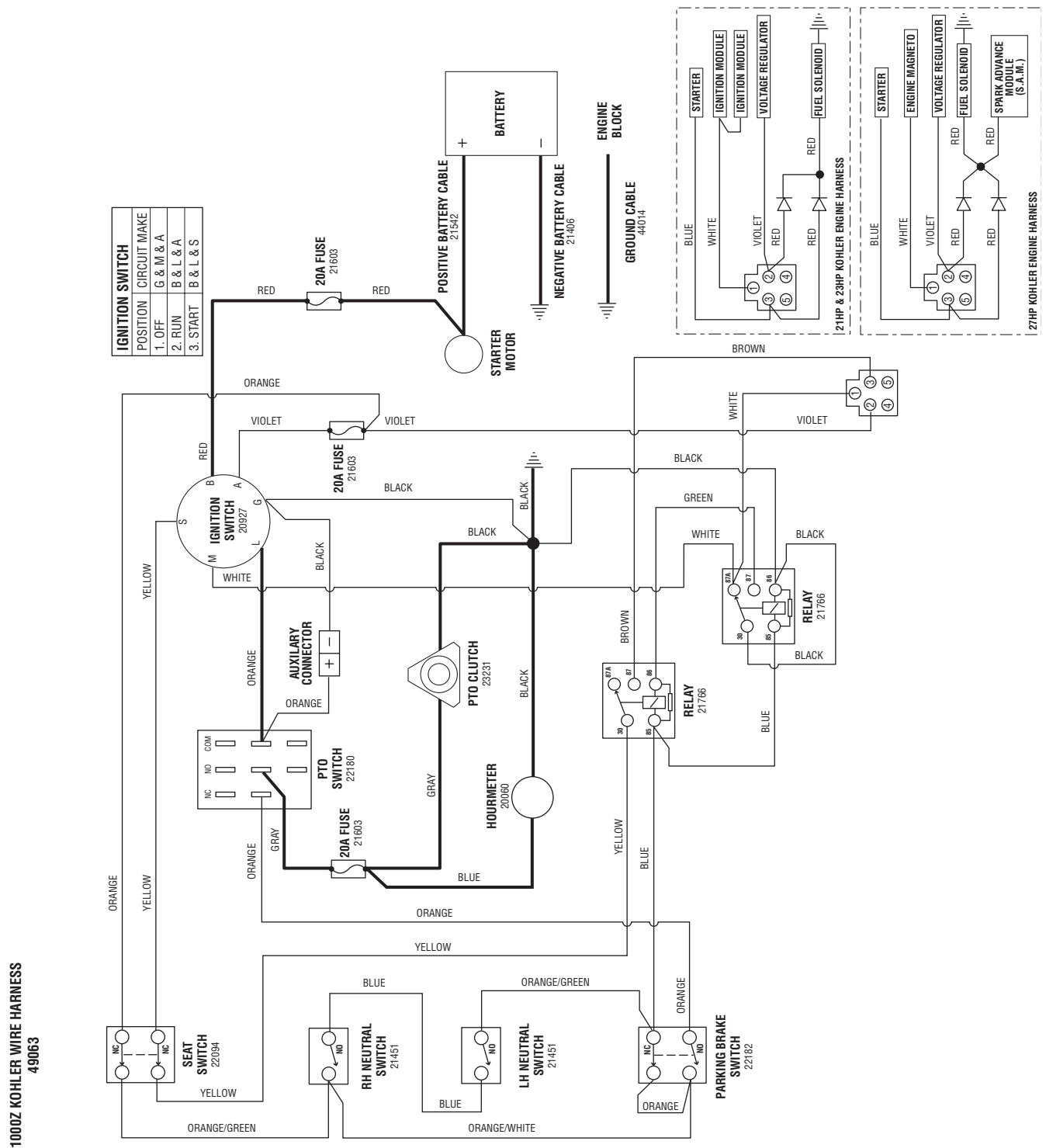
1000Z KOHLER WIRE HARNESS
49063



The above parts group applies to the following Model Nos.:

- 1000ZK21/48
- 1000ZK23/52
- 1000ZK27/61

PTO Clutch Circuit

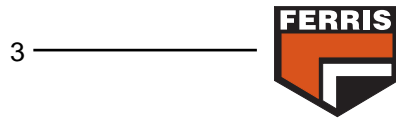
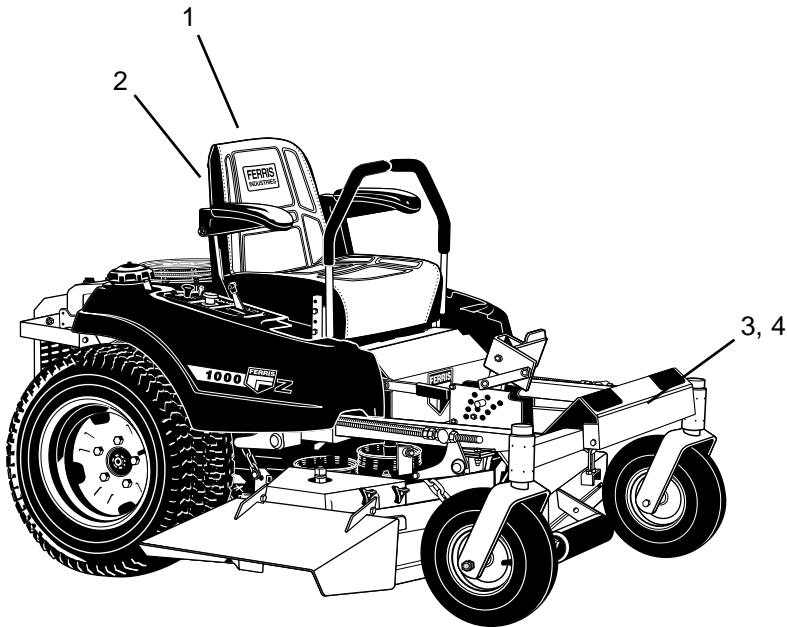


The above parts group applies to the following Model Nos.:

- 1000ZK21/48
- 1000ZK23/52
- 1000ZK27/61

Decals - Brand & Model

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



NOTE: Decals are NOT shown to scale.

The above parts group applies to the following Model Nos.:

- | | |
|---------------|-------------|
| 1000ZKAV21/48 | 1000ZK21/48 |
| 1000ZKAV23/52 | 1000ZK23/52 |
| 1000ZKAV23/61 | 1000ZK27/61 |

Decals - Brand & Model

REF NO.	PART NO.	QTY.	DESCRIPTION
1	22227	1	DECAL, Ferris Logo (back of seat)
2	22229	1	DECAL, Number One Reliability (back of seat)
3	22556	1	DECAL, Ferris Logo (all models except 27hp model)
4	22560	1	DECAL, Ferris Logo (27hp model only)

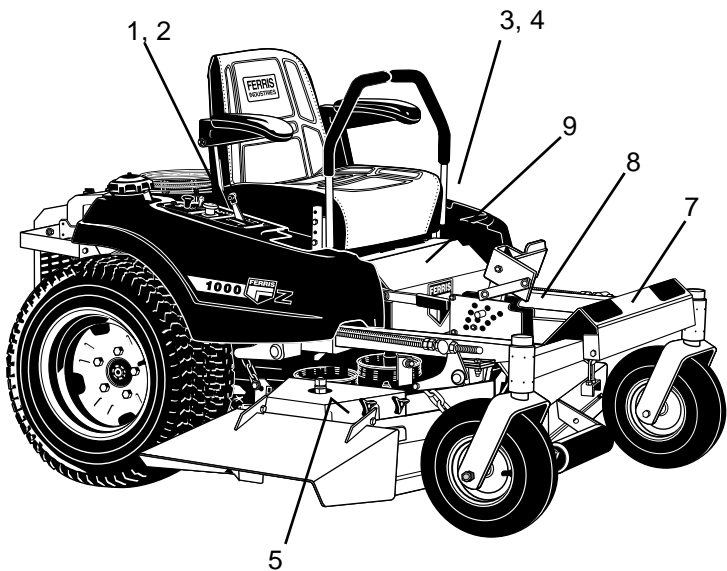
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	1000ZK27/61

Decals - Safety & Operation

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



1 —

2 —

3 —

4 —

5 —

6 —

7 —

8 —

9 —

10 —

11 —

12 —

13 —

14 —

15 —

16 — **48" 52" 61"**

17 —

18 —

NOTE: Decals are NOT shown to scale.

The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1500 & below)
- 1000ZKAV23/52 (S/N: 1045 & below)
- 1000ZKAV23/61 (S/N: 865 & below)

Decals - Safety & Operation

REF NO.	PART NO.	QTY.	DESCRIPTION
1	47141	1	DECAL, Control Panel-RH (Kawasaki 48" - S/N: 101-1310) (Kawasaki 52" - S/N: 101-919) (Kawasaki 61" - S/N: 101-690)
2	47861	1	DECAL, Control Panel-RH (Kawasaki 48" - S/N: 1311-1500) (Kawasaki 52" - S/N: 920-1045) (Kawasaki 61" - S/N: 691-865)
3	46469	1	DECAL, Control Panel-LH (Kawasaki 48" - S/N: 101-1310) (Kawasaki 52" - S/N: 101-919) (Kawasaki 61" - S/N: 101-690)
4	47863	1	DECAL, Control Panel-LH (Kawasaki 48" - S/N: 1311-1500) (Kawasaki 52" - S/N: 920-1045) (Kawasaki 61" - S/N: 691-865)
5	1704277	1	DECAL, Danger (Chute In Place)
6	1704276	1	DECAL, Danger (Hand Under Deck)
7	45559	1	DECAL, Operation
8	47138	1	DECAL, Lift Plate
9	47171	1	DECAL, Safety/Instruction
10	45562	2	DECAL, Hydro Release Valve
11	20337	1	DECAL, Warning (on top of mower deck)
12	46481	2	DECAL, Caution Fan
13	46503	1	DECAL, Fuse Location
14	47175	1	DECAL, Oil Reservoir (steel tank)
15	48454	1	DECAL, Oil Reservoir (plastic tank)
16	22811	1	DECAL, 48"
17	22812	1	DECAL, 52"
18	22813	1	DECAL, 61"

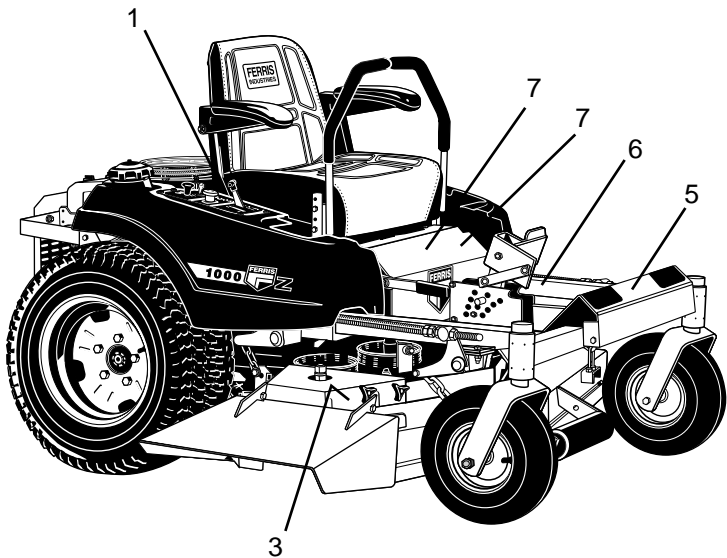
Footnotes:

The above parts group applies to the following Model Nos.:

- 1000ZKAV21/48 (S/N: 1500 & below)
- 1000ZKAV23/52 (S/N: 1045 & below)
- 1000ZKAV23/61 (S/N: 865 & below)

Decals - Safety & Operation

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



1

2

3

4

5

6

7

8

9

10

11

Key Switch	Charge Circuit	PTO Clutch	Auxiliary
20A	20A	20A	20A

12

13 **48"**

14 **52"**

15 **61"**

NOTE: Decals are NOT shown to scale.

The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1501 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 1046 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 866 & above)	1000ZK27/61

Decals - Safety & Operation

REF NO.	PART NO.	QTY.	DESCRIPTION
1	49199	1	DECAL, Control Panel
2	1704277	1	DECAL, Danger (Chute In Place)
3	1704276	1	DECAL, Danger (Hand Under Deck)
4	45559	1	DECAL, Operation
5	47138	1	DECAL, Lift Plate
6	47171	1	DECAL, Safety/Instruction
7	49148	1	DECAL, Fuel Selector
8	45562	2	DECAL, Hydro Release Valve
9	20337	1	DECAL, Warning (on top of mower deck)
10	48454	1	DECAL, Oil Reservoir
11	46503	1	DECAL, Fuse Location
12	46481	2	DECAL, Caution Fan
13	22811	1	DECAL, 48"
14	22812	1	DECAL, 52"
15	22813	1	DECAL, 61"

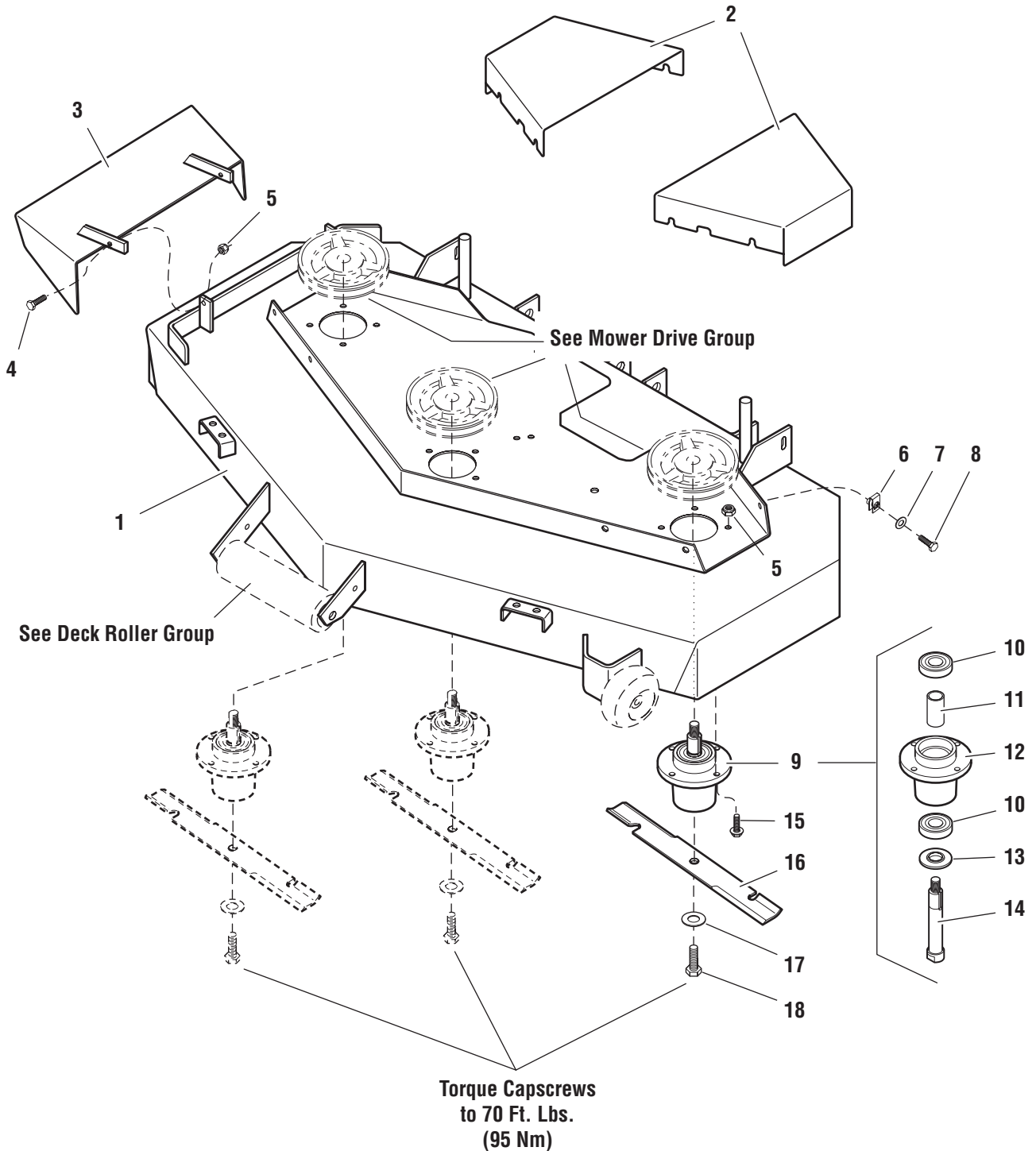
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48 (S/N: 1501 & above)	1000ZK21/48
1000ZKAV23/52 (S/N: 1046 & above)	1000ZK23/52
1000ZKAV23/61 (S/N: 866 & above)	1000ZK27/61

48" & 52" Mower Decks - Housings, Covers, Spindles & Blades

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48
1000ZKAV23/52

1000ZK21/48
1000ZK23/52

48" & 52" Mower Decks - Housings, Covers, Spindles & Blades

REF NO.	PART NO.	QTY.	DESCRIPTION
1	47065	1	48" MOWER DECK
*	47098	1	52" MOWER DECK
2	47129	2	MOWER DECK GUARD
3	46445	1	DISCHARGE CHUTE
4	25011-8	2	CAPSCREW, Hex Head, 5/16-18 x 1
5	25057	14	NUT, Hex Nylon Lock, 5/16-18
6	22308	6	BODY CLIP, 5/16-18
7	25155	6	WASHER, 5/16
8	25011-6	6	CAPSCREW, Hex Head, 5/16-18 x 3/4
9	46363	3	SPINDLE ASSEMBLY, Complete (includes Ref 10-14)
10	46363-5	6	BEARING, Roller
11	46363-4	3	SPACER, Bearing
12	46363-1	3	SPINDLE HOUSING
13	46363-3	3	TRASH SHIELD
14	46363-2	3	SPINDLE SHAFT
15	23156	12	CAPSCREW, Hex Flange Head, 5/16-18 x 1-1/4
16	20843	3	MOWER BLADE (48" Deck)
*	21227	3	MOWER BLADE (52" Deck)
17	25159	3	WASHER, USS, 5/8
18	25320-14	3	CAPSCREW, Hex Head, 5/8-11 x 1-3/4

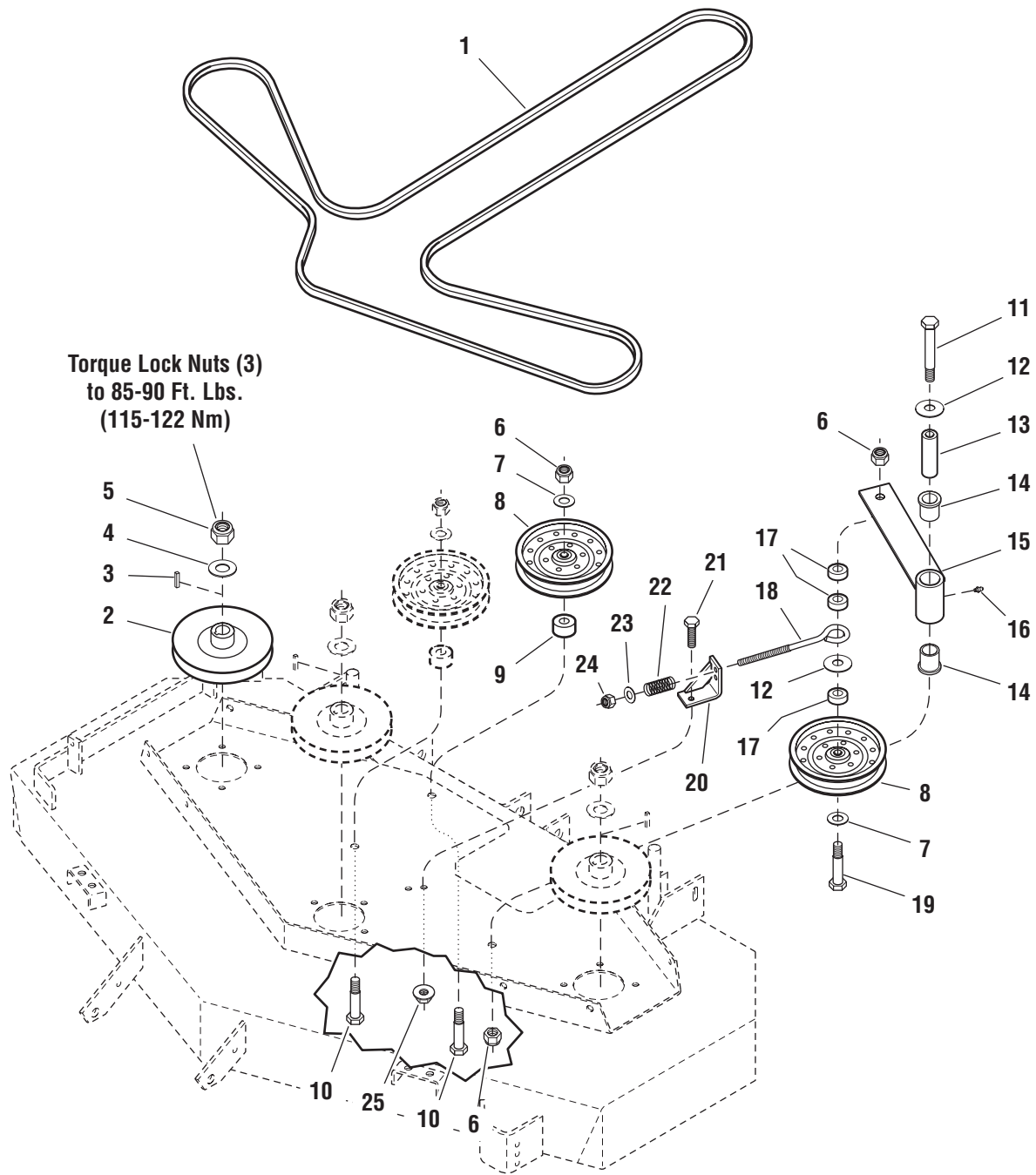
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52

48" & 52" Mower Decks - Pulleys, Belts & Idler Arm

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48
1000ZKAV23/52

1000ZK21/48
1000ZK23/52

48" & 52" Mower Decks - Pulleys, Belts & Idler Arm

REF NO.	PART NO.	QTY.	DESCRIPTION
1	22667	1	BELT (48" Deck)
*	22148	1	BELT (52" Deck)
2	22622	3	PULLEY, Spindle, Gold (48" Deck, S/N: 1500 & below)
*	23175	3	PULLEY, Spindle, Black (48" Deck, S/N: 1501 & above)
*	22721	3	PULLEY, Spindle, Gold (52" Deck, S/N: 1500 & below)
*	23178	3	PULLEY, Spindle, Black (52" Deck, S/N: 1501 & above)
3	50407-5	3	KEY, 1/4" x 1-1/4"
4	25318	3	WASHER, Spring
5	25319	3	NUT, Hex Nylon Lock, 5/8-18
6	25056	4	NUT, Hex Nylon Lock, 1/2-13
7	25158	3	WASHER, 1/2
8	21976	3	PULLEY, Idler
9	47142	2	SPACER, .52 x 1.25 x .70
10	25017-24	2	CAPSCREW, Hex Head, 1/2-13 x 3
11	25017-36	1	CAPSCREW, Hex Head, 1/2-13 x 4-1/2
12	25150	2	WASHER, USS, 1/2
13	45022	1	IDLER ARM PIVOT SHAFT
14	21541	2	BUSHING, Flange
15	45106	1	IDLER ARM
16	20095	1	GREASE FITTING
17	45023	3	SPACER, .52 x 1.00 x .44
18	21811	1	EYEBOLT
19	25017-28	1	CAPSCREW, Hex Head, 1/2-13 x 3-1/2
20	45200	1	SPRING ANCHOR
21	25013-8	1	CAPSCREW, Hex Head, 3/8-16 x 1
22	21680	1	SPRING, Compression, 1" (48" Model - sn: 101-200) (52" Model - sn: 101-250)
*	22788	1	SPRING, Compression, 2" (48" Model - sn: 201 & up) (52" Model - sn: 251 & up)
23	25156	1	WASHER, 3/8
24	25096	1	NUT, Hex Nylon Lock, 3/8-16
25	25128	1	NUT, Hex Serrated Flange, 3/8-16

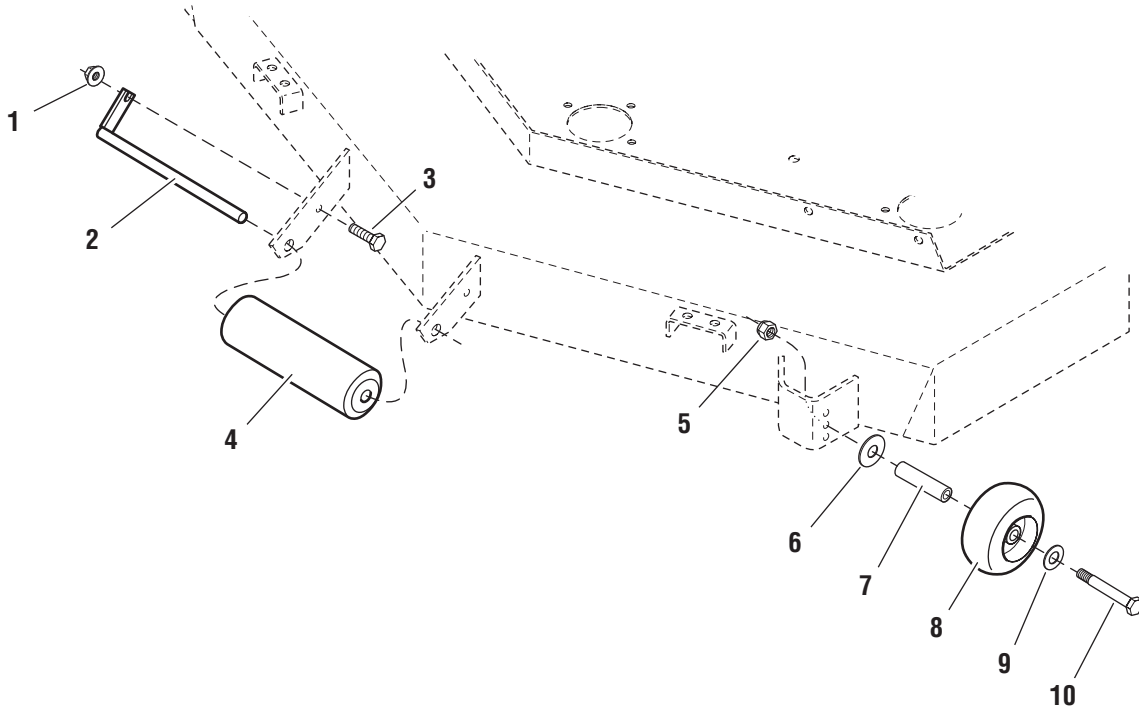
Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52

48" & 52" Mower Decks - Rollers

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV21/48
1000ZKAV23/52

1000ZK21/48
1000ZK23/52

48" & 52" Mower Decks - Rollers

REF NO.	PART NO.	QTY.	DESCRIPTION
1	25128	1	NUT, Hex Serrated Flange, 3/8-16
2	41655	1	ROLLER PIN
3	25013-8	1	CAPSCREW, Hex Head, 3/8-16 x 1
4	20785	1	ROLLER, Nose
5	25096	1	NUT, Hex Nylon Lock, 3/8-16
6	25305	1	WASHER, Heavy, 3/8
7	45992	1	WHEEL AXLE
8	1716353	1	WHEEL
9	25156	1	WASHER, 3/8
10	25013-28	1	CAPSCREW, Hex Head, 3/8-16 x 3-1/2

Footnotes:

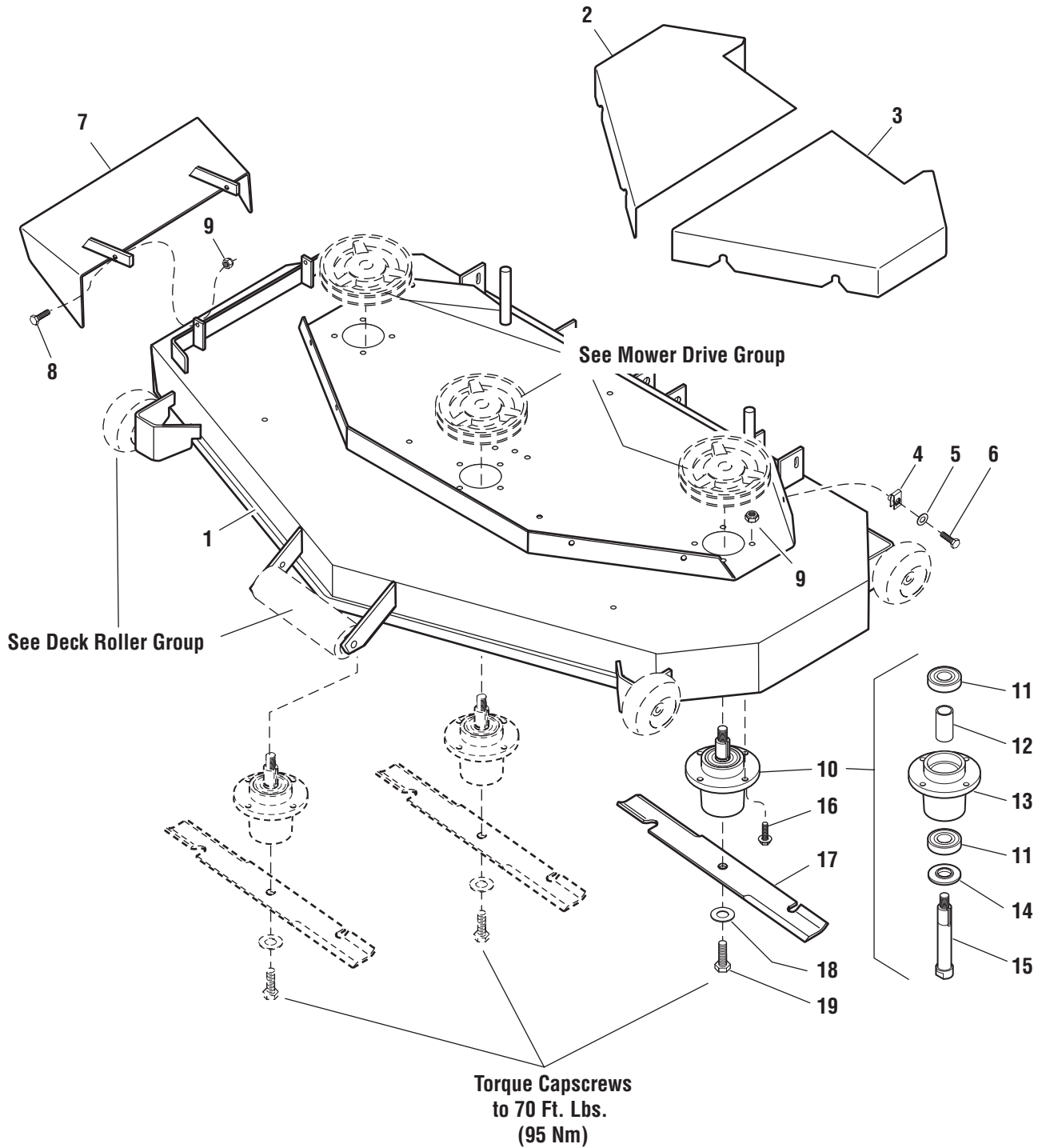
No. 5-10 apply to the 52" mower only

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52

61" Mower Deck - Housing, Covers, Spindles & Blades

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV23/61
1000ZK27/61

61" Mower Deck - Housing, Covers, Spindles & Blades

REF NO.	PART NO.	QTY.	DESCRIPTION
1	47494	1	61" MOWER HOUSING
2	46440	1	SPINDLE COVER-RH
3	46441	1	SPINDLE COVER-LH
4	22308	6	BODY CLIP, 5/16-18
5	25155	6	WASHER, 5/16
6	25011-6	6	CAPSCREW, Hex Head, 5/16-18 x 3/4
7	46985	1	DISCHARGE CHUTE
8	25011-8	2	CAPSCREW, Hex Head, 5/16-18 x 1
9	25057	14	NUT, Hex Nylon Lock, 5/16-18
10	46363	3	SPINDLE ASSEMBLY, Complete (includes Ref 11-15)
11	46363-5	6	BEARING, Roller
12	46363-4	3	SPACER, Bearing
13	46363-1	3	SPINDLE HOUSING
14	46363-3	3	TRASH SHIELD
15	46363-2	3	SPINDLE SHAFT
16	23156	12	CAPSCREW, Hex Flange Head, 5/16-18 x 1-1/4
17	20842	3	MOWER BLADE, 21"
18	25159	3	WASHER, USS, 5/8
19	25320-14	3	CAPSCREW, Hex Head, 5/8-11 x 1-3/4

Footnotes:

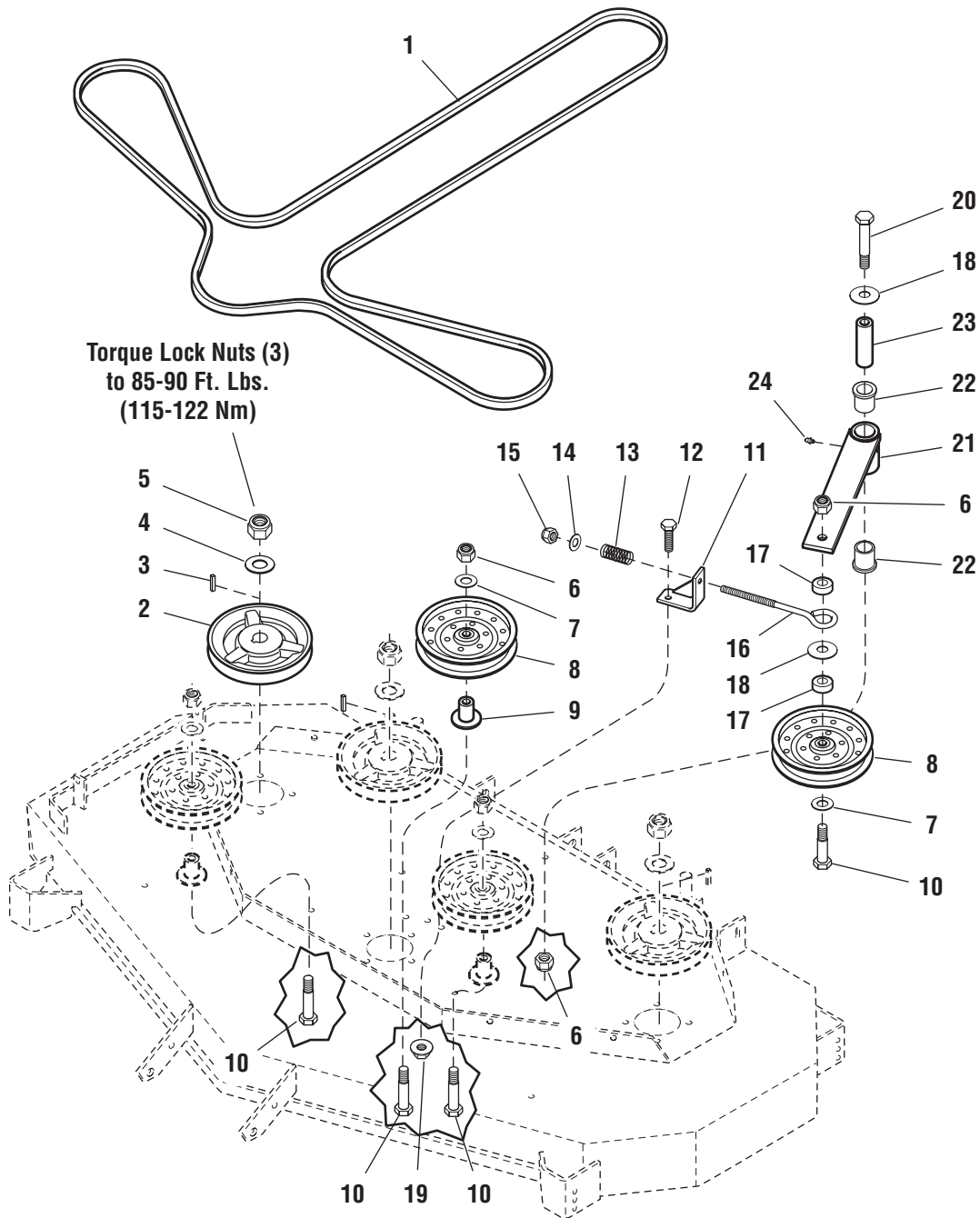
The above parts group applies to the following Model Nos.:

1000ZKAV23/61

1000ZK27/61

61" Mower Deck - Pulleys, Belt & Idler Arm

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV23/61

1000ZK27/61

61" Mower Deck - Pulleys, Belt & Idler Arm

REF NO.	PART NO.	QTY.	DESCRIPTION
1	22061	1	BELT, 61" Deck
2	46466	3	SPINDLE PULLEY
3	50407-5	3	KEY, 1/4 x 1-1/4
4	25318	3	WASHER, Spring
5	25319	3	NUT, Hex Nylon Lock, 5/8-18
6	25056	5	NUT, Hex Nylon Lock, 1/2-13
7	25158	4	WASHER, 1/2
8	21976	4	PULLEY, Idler
9	46434	3	IDLER PULLEY MOUNT
10	25017-24	4	CAPSCREW, Hex Head, 1/2-13 x 3
11	46432	1	SPRING ANCHOR
12	25013-8	1	CAPSCREW, Hex Head, 3/8-16 x 1
13	22788	1	SPRING, Compression
14	25156	1	WASHER, 3/8
15	25096	1	NUT, Hex Nylon Lock, 3/8-16
16	21811	1	EYEBOLT
17	45023	2	SPACER, .52 x 1.00 x .44
18	25150	2	WASHER, USS, 1/2
19	25128	1	NUT, Hex Serrated Flange, 3/8-16
20	25017-36	1	CAPSCREW, Hex Head, 1/2-13 x 4-1/2
21	45019	1	IDLER ARM
22	21541	2	BUSHING, Flange
23	45022	1	IDLER ARM PIVOT SHAFT
24	20095	1	GREASE FITTING

Footnotes:

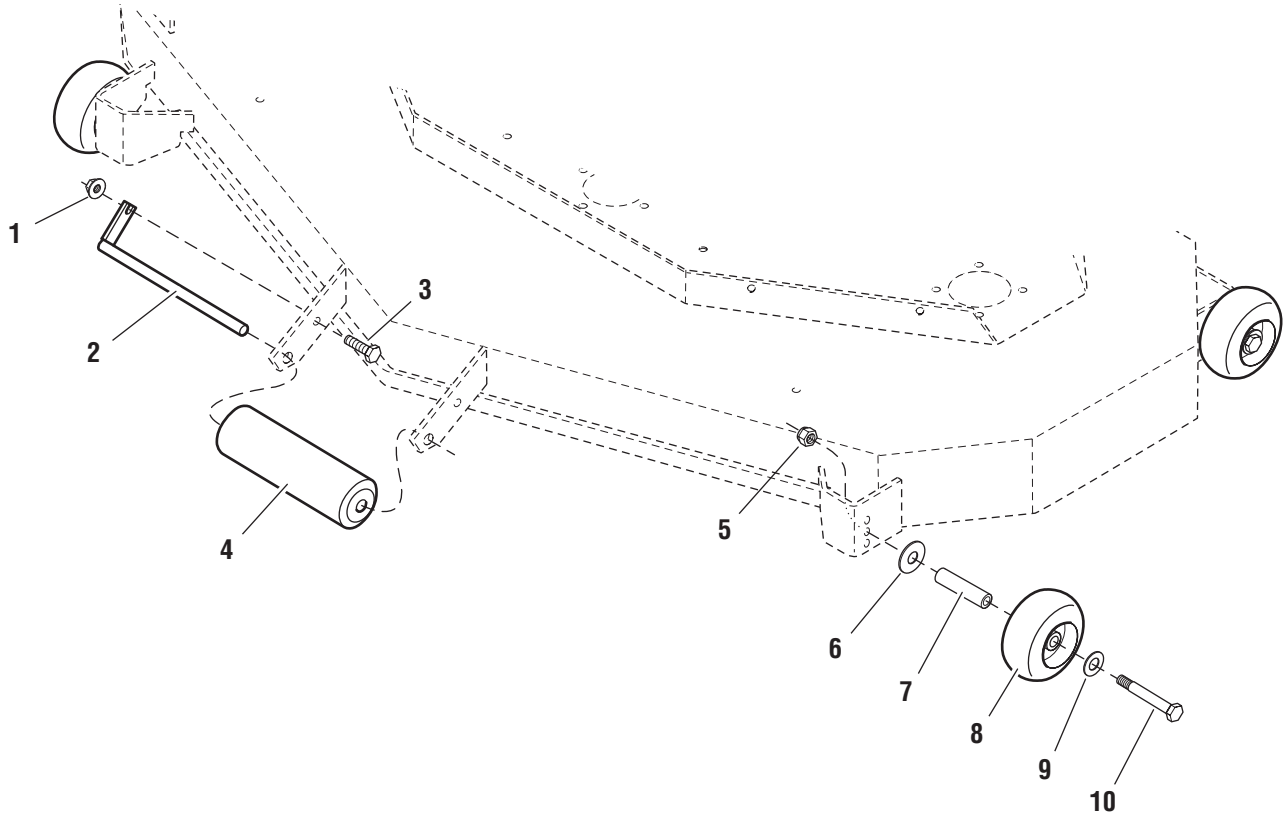
The above parts group applies to the following Model Nos.:

1000ZKAV23/61

1000ZK27/61

61" Mower Deck - Rollers

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



The above parts group applies to the following Model Nos.:

1000ZKAV23/61

1000ZK27/61

61" Mower Deck - Rollers

REF NO.	PART NO.	QTY.	DESCRIPTION
1	25128	1	NUT, Hex Serrated Flange, 3/8-16
2	41655	1	ROLLER PIN
3	25013-8	1	CAPSCREW, Hex Head, 3/8-16 x 1
4	20785	1	ROLLER, Nose
5	25096	4	NUT, Hex Nylon Lock, 3/8-16
6	25305	4	WASHER, Heavy, 3/8
7	45992	4	WHEEL AXLE
8	1716353	4	WHEEL
9	25156	4	WASHER, 3/8
10	25013-28	4	CAPSCREW, Hex Head, 3/8-16 x 3-1/2

Footnotes:

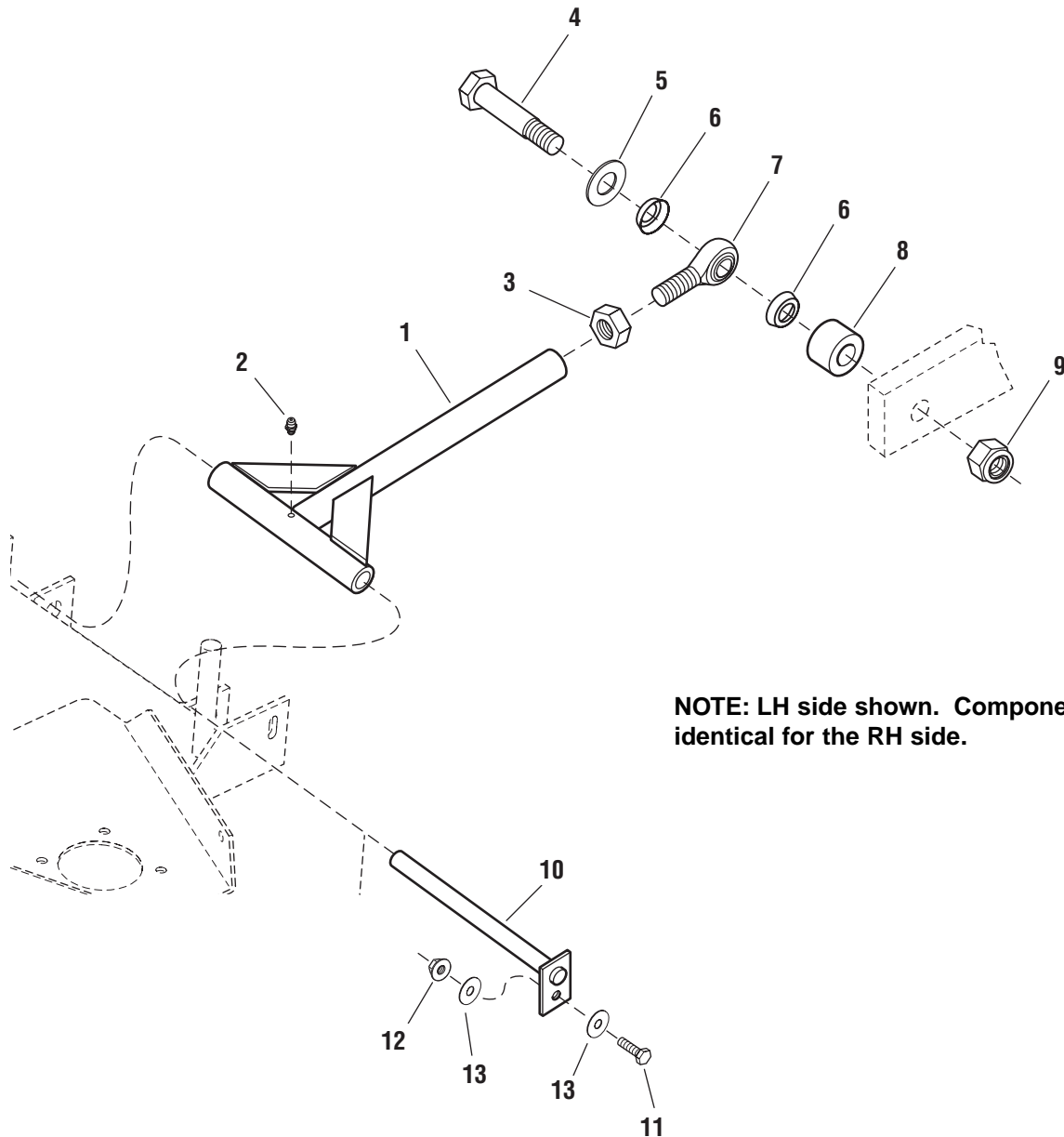
The above parts group applies to the following Model Nos.:

1000ZKAV23/61

1000ZK27/61

All Mower Decks - Rear Mount Bars

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.



NOTE: LH side shown. Components are
identical for the RH side.

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	1000ZK27/61

All Mower Decks - Rear Mount Bars

REF NO.	PART NO.	QTY.	DESCRIPTION
1	45009	2	DECK PUSHER BAR
2	20095	2	GREASE FITTING
3	25093	2	NUT, Hex Jam, 3/4-16
4	25265-32	2	CAPSCREW, Hex Head, 3/4-16 x 4
5	25160	2	WASHER, 3/4
6	22111	4	ROD END SEAL
7	22039	2	BALL JOINT, 3/4-16
8	46093	2	SPACER, .75 x 1.50 x 1.00
9	25284	2	NUT, Hex Nylon Lock, 3/4-16
10	45037	2	PUSHER BAR MOUNT PIN
11	25013-10	2	CAPSCREW, Hex Head, 3/8-16 x 1-1/4
12	25096	2	NUT, Hex Nylon Lock, 3/8-16
13	25156	4	WASHER, 3/8

Footnotes:

The above parts group applies to the following Model Nos.:

1000ZKAV21/48	1000ZK21/48
1000ZKAV23/52	1000ZK23/52
1000ZKAV23/61	1000ZK27/61

Hardware Identification & Torque Specifications

Common Hardware Types

Hex Head Capscrew



Washer



Lockwasher

Carriage Bolt



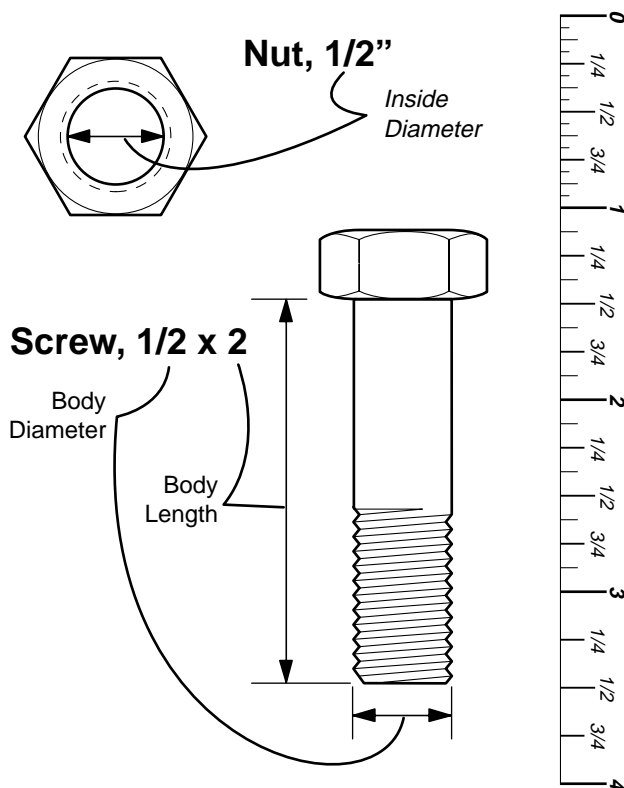
Hex Nut

Standard Hardware Sizing

When a washer or nut is identified as **1/2"**, this is the *nominal size*, meaning the *inside diameter* is 1/2 inch; if a second number is present it represents the *threads per inch*.

When a bolt or capscrew is identified as **1/2 - 16 x 2"**, this means the *nominal size*, or *body diameter* is 1/2 inch; the second number represents the *threads per inch* (16 in this example), and the final number is the *body length* of the bolt or screw (2 inches long in this example).

The guides and ruler furnished below are designed to help you select the appropriate hardware and tools.



Torque Specification Chart						
FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)						
Hardware Grade	No Marks SAE Grade 2		SAE Grade 5		SAE Grade 8	
	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.
8-32	19	2.1	30	3.4	41	4.6
8-36	20	2.3	31	3.5	43	4.9
10-24	27	3.1	43	4.9	60	6.8
10-32	31	3.5	49	5.5	68	7.7
1/4-20	66	7.6	8	10.9	12	16.3
1/4-28	76	8.6	10	13.6	14	19.0
5/16-18	11	15.0	17	23.1	25	34.0
5/16-24	12	16.3	19	25.8	27	34.0
3/8-16	20	27.2	30	40.8	45	61.2
3/8-24	23	31.3	35	47.6	50	68.0
7/16-14	30	40.8	50	68.0	70	95.2
7/16-20	35	47.6	55	74.8	80	108.8
1/2-13	50	68.0	75	102.0	110	149.6
1/2-20	55	74.8	90	122.4	120	163.2
9/16-12	65	88.4	110	149.6	150	204.0
9/16-18	75	102.0	120	163.2	170	231.2
5/8-11	90	122.4	150	204.0	220	299.2
5/8-18	100	136	180	244.8	240	326.4
3/4-10	160	217.6	260	353.6	386	525.0
3/4-16	180	244.8	300	408.0	420	571.2
7/8-9	140	190.4	400	544.0	600	816.0
7/8-14	155	210.8	440	598.4	660	897.6
1-8	220	299.2	580	788.8	900	1,244.0
1-12	240	326.4	640	870.4	1,000	1,360.0

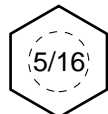
NOTES

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
 - For prevailing torque locknuts: use 65% of Grade 5 torque.
 - For flange whizlock nuts and screws: use 135% of Grade 5 torque.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

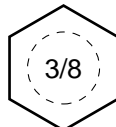
Wrench & Fastener Size Guide



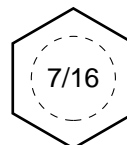
1/4" Bolt or Nut
Wrench—7/16"



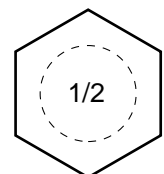
5/16" Bolt or Nut
Wrench—1/2"



3/8" Bolt or Nut
Wrench—9/16"



7/16" Bolt or Nut
Wrench (Bolt)—5/8"
Wrench (Nut)—11/16"



1/2" Bolt or Nut
Wrench—3/4"

PARTS MANUAL

1000Z Series

Zero-Turn Riding Mower

IT IS THE POLICY OF FERRIS INDUSTRIES, INC. TO IMPROVE ITS PRODUCTS WHENEVER IT IS POSSIBLE AND PRACTICAL TO DO SO. WE RESERVE THE RIGHT TO MAKE CHANGES OR ADD IMPROVEMENTS AT ANY TIME WITHOUT INCURRING ANY OBLIGATION TO MAKE SUCH CHANGES ON PRODUCTS MANUFACTURED PREVIOUSLY.



Ferris Industries
5375 North Main Street
Munnsville, NY 13409
800-933-6175

www.ferrisindustries.com

© Copyright 2004 Ferris Industries
All Rights Reserved. Printed in USA.