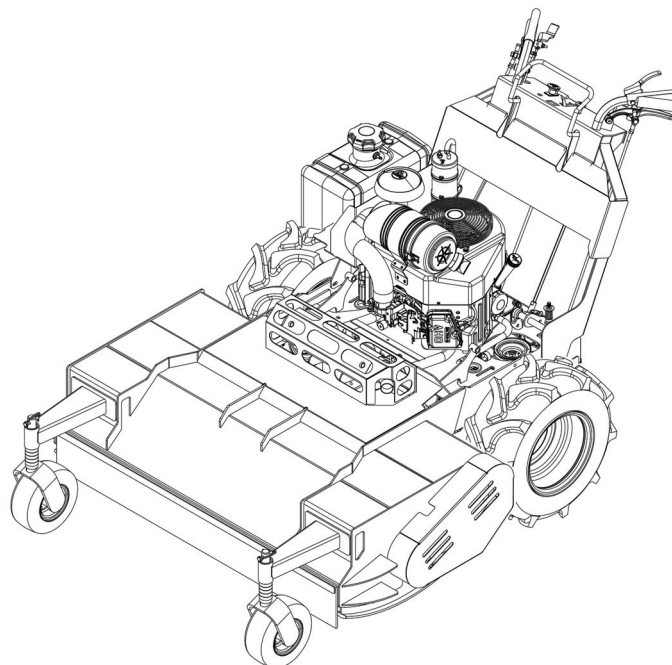




Parts Manual FM Series

Walk-Behind Flail Mower



Models:	Description:
5900520	24HP Kawasaki w/ 48" Rotor - Export (FM2448CE)

Briggs and Stratton Power Products Group, LLC.

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

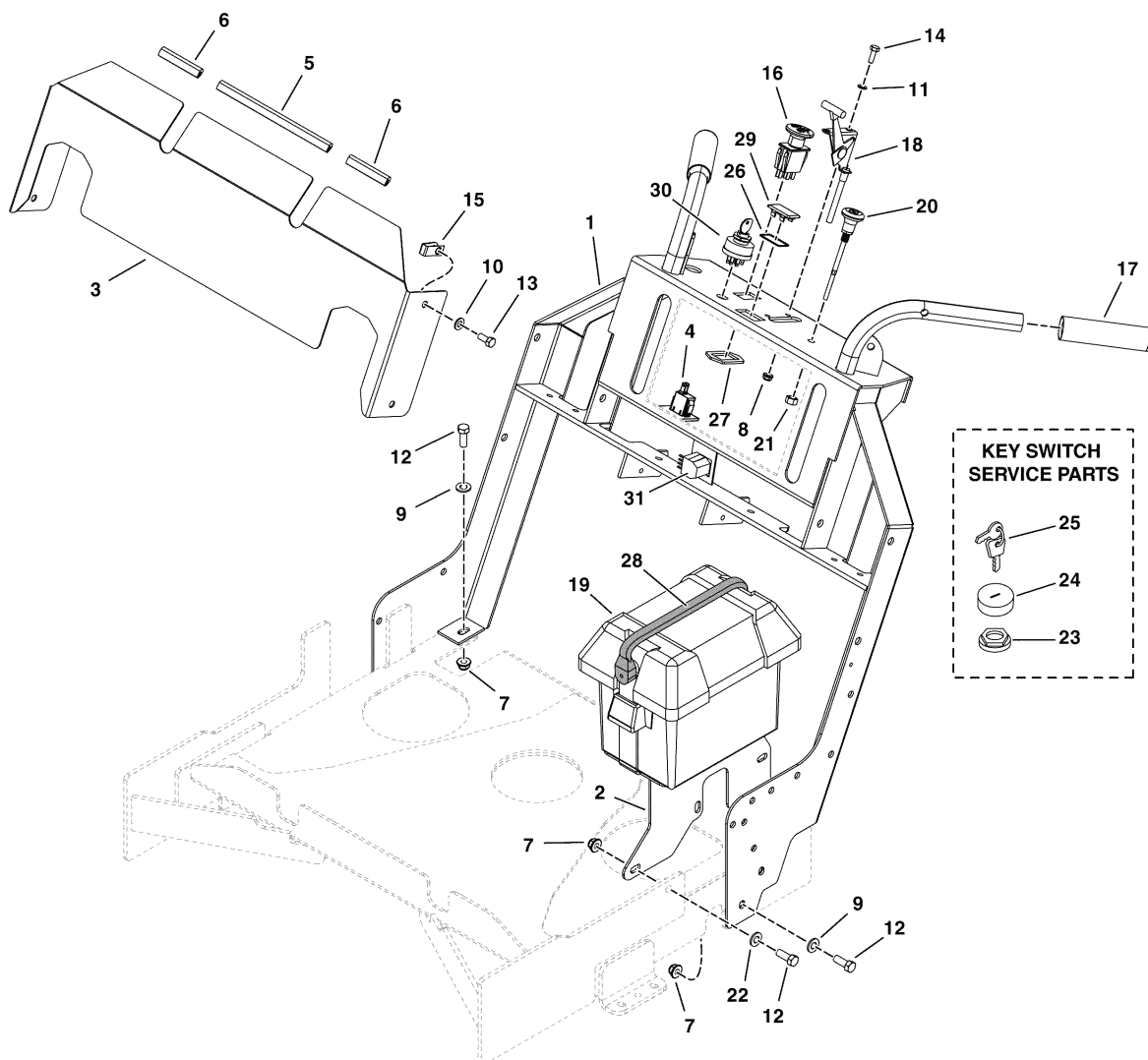
5103452
Revision -
Rev. Date: 11/07/11
TP 400-7494---FM-F

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Handle Bar / Control Panel Group

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

5303029



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Handle Bar / Control Panel Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	5409330B	1	WELD, HANDLE BARS, SW30 - RED
2	5406602B	1	WELD, BATTERY MOUNT, SW30-61 - RED
3	5405376B	1	PLATE, HANDLE BAR COVER, SW30 - RED
4	5101216	1	SWITCH, PLUNGER, NC, SINGLE POLE SNAP-IN
5	5050853X8P50	1	BODY MOLDING, 8.50 LONG
6	5050853X3	2	BODY MOLDING, 3" LONG
7	5025394	9	NUT, 3/8-16 HEX NYLOCK FLANGE
8	5025391	2	NUT, 1/4-20 HEX NYLOCK FLANGE
9	5025293	6	WASHER, 3/8 GD.9 FLAT (SV)
10	5025155	4	WASHER, 5/16 SAE
11	5025154	2	WASHER, 1/4 SAE
12	5025013X8	9	BOLT, 3/8-16 X 1 GD5 YZ
13	5025011X6	4	BOLT, 5/16-18 X 3/4 GD5
14	5025010X6	2	BOLT, 1/4-20 X 3/4 GD5 YZ
15	5022308	4	BODY CLIP, 5/16-18-7GA MATERIAL
16	5022180	1	SWITCH, BLADE ENGAGEMENT
17	5021841	2	GRIP, FOAM, .940 X 5 X .187
18	5102163	1	CABLE, THROTTLE CONTROL, 43"
19	5100688	1	BATTERY BOX, W/ DRAIN HOLE
20	5100184	1	CABLE, CHOKE CONTROL, 43.5"
21	5025309	1	NUT, 3/8-24 HEX JAM
22	5025156	3	WASHER, 3/8 SAE
23	5022791	1	NUT, PLASTIC (SV)
24	5022790	1	COVER, PLASTIC SNAP ON (SV)
25	5022789	1	KEY, IGNITION, MOLDED SET (SV)
26	5022269	1	O-RING, 7/8 ID X 1/16 W
27	5022222	1	RING, SWITCH RETAINER
28	5021670	1	STRAP, RUBBER
29	1709188	1	PLUG, .820X1.44 HOLE, BLACK PLASTIC
30	5020927	1	SWITCH, IGNITION, 6-POST
31	5101528	1	SWITCH, LOW PRO, NO/NO

Footnotes

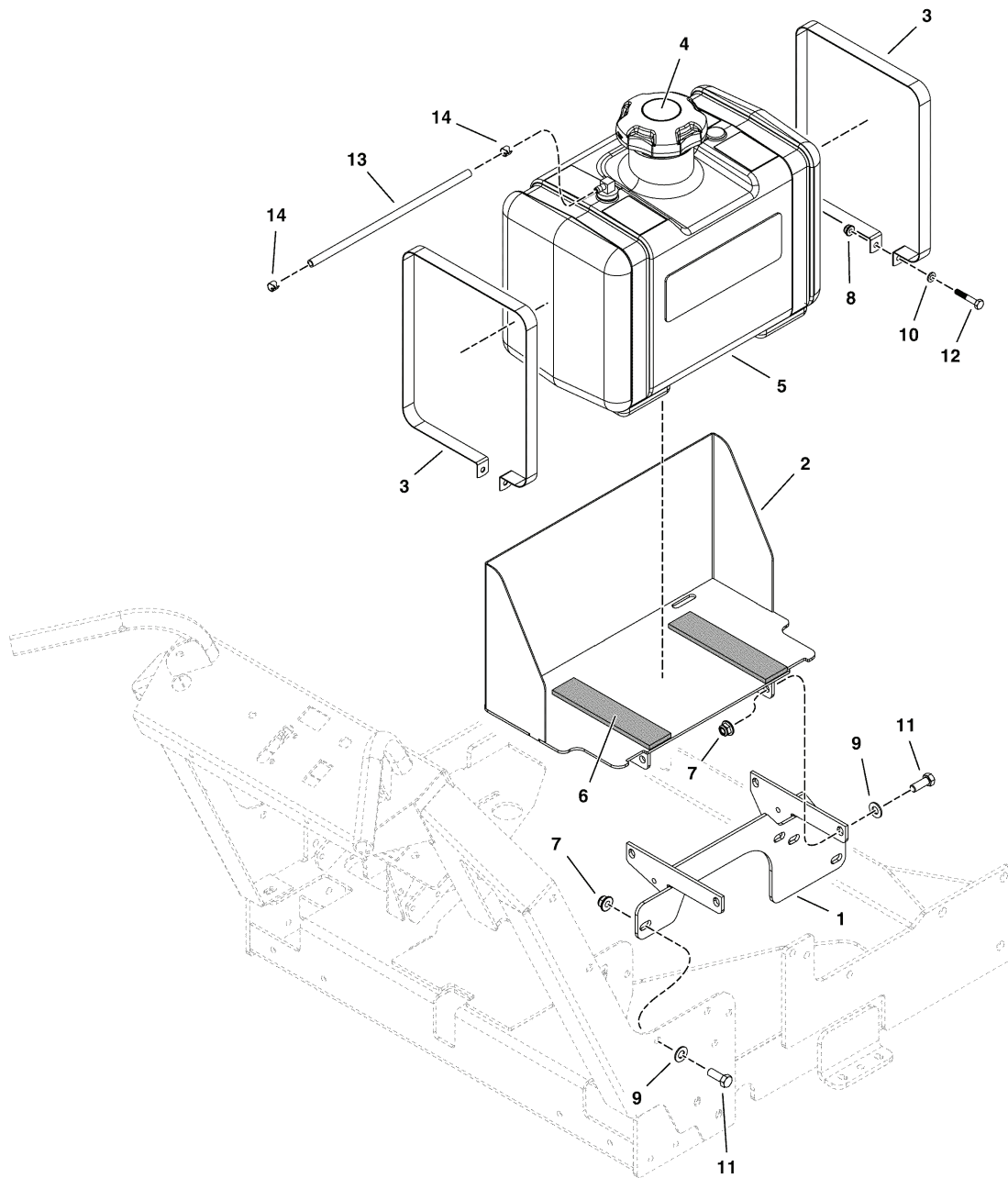
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Fuel Tank & Mount Group

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

5303028



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Fuel Tank & Mount Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	5409339B	1	WELD, LOWER FUEL TANK MOUNT - RED
2	5409341B	1	WELD, TANK MOUNT, SW20-52-61 - RED
3	5403445A	2	STRAP, FUEL TANK - SNP PRO DDS - BLK
4	5103005	1	FUEL CAP, 3-1/2", MANAGED VENT OUT, 12"
5	5102833	1	TANK, 5 GAL, W DROP TUBE/VENT
6	5100810	2	PAD, RUBBER MOUNT
7	5025394	7	NUT, 3/8-16 HEX NYLOCK FLANGE
8	5025391	2	NUT, 1/4-20 HEX NYLOCK FLANGE
9	5025156	7	WASHER, 3/8 SAE
10	5025154	2	WASHER, 1/4 SAE
11	5025013X8	8	BOLT, 3/8-16 X 1 GD5 YZ
12	5025010X12	2	BOLT, 1/4-20 X 1-1/2, GD5
13	5050831X12	1	HOSE, 1/4" FUEL, 12.00"
14	5020835	2	CLAMP, HOSE, EXTERNAL, 1/2 - RED

Footnotes

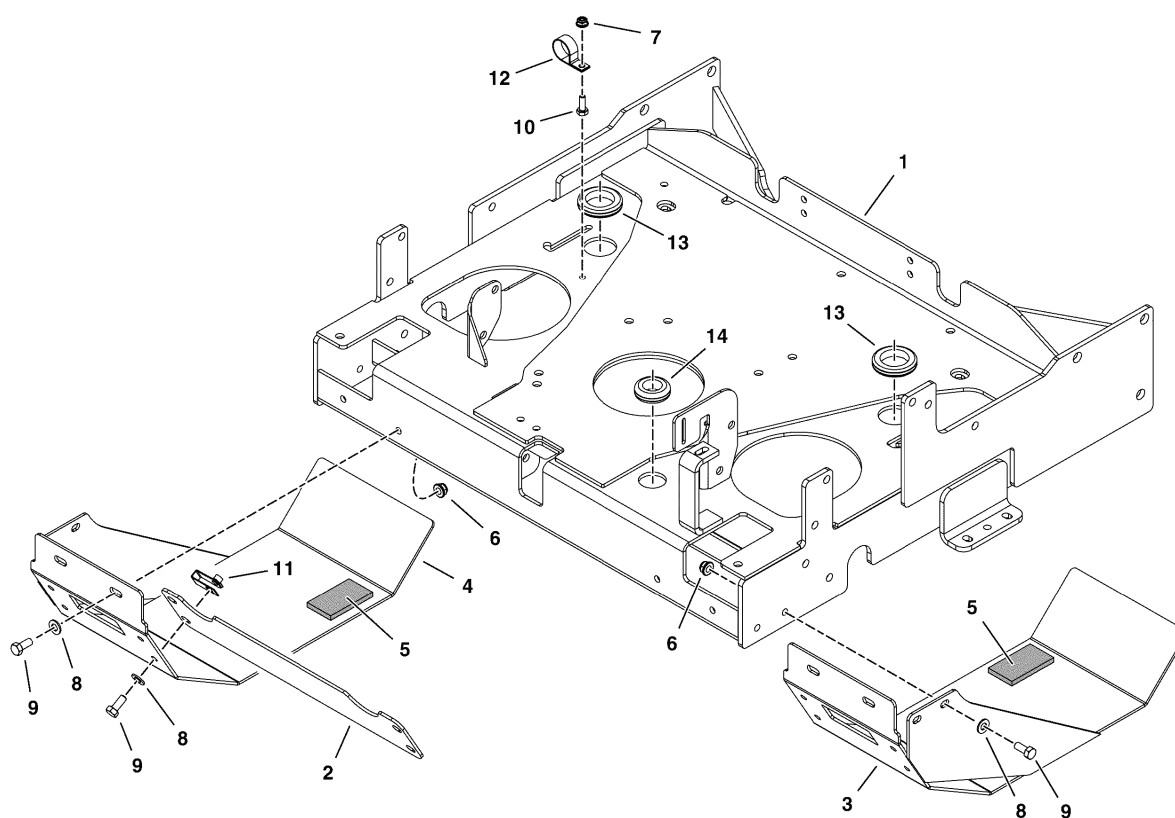
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Engine Deck Group

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

5302871



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Engine Deck Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	5408718B	1	WELD, ENGINE DECK, SW30 - RED
2	5405387B	1	PLATE, REAR GUARD, SW30 - RED
3	5405325B	1	WELD, SKID PLATE, RH - RED
4	5405324B	1	WELD, SKID PLATE, LH - RED
5	5101270	2	PAD, RUBBER MOUNT, 1/4 MAT
6	5025392	8	NUT, 5/16-18 HEX NYLOCK FLANGE
7	5025391	1	NUT, 1/4-20 HEX NYLOCK FLANGE
8	5025155	12	WASHER, 5/16 SAE
9	5025011X6	12	BOLT, 5/16-18 X 3/4 GD5
10	5025010X6	1	BOLT, 1/4-20 X 3/4 GD5 YZ
11	5022308	4	BODY CLIP, 5/16-18-7GA MATERIAL
12	5021500	1	CLAMP, VINYL INSULATED
13	5021397	2	GROMMET, 1-1/4
14	5021379	1	GROMMET, 7/8

Footnotes

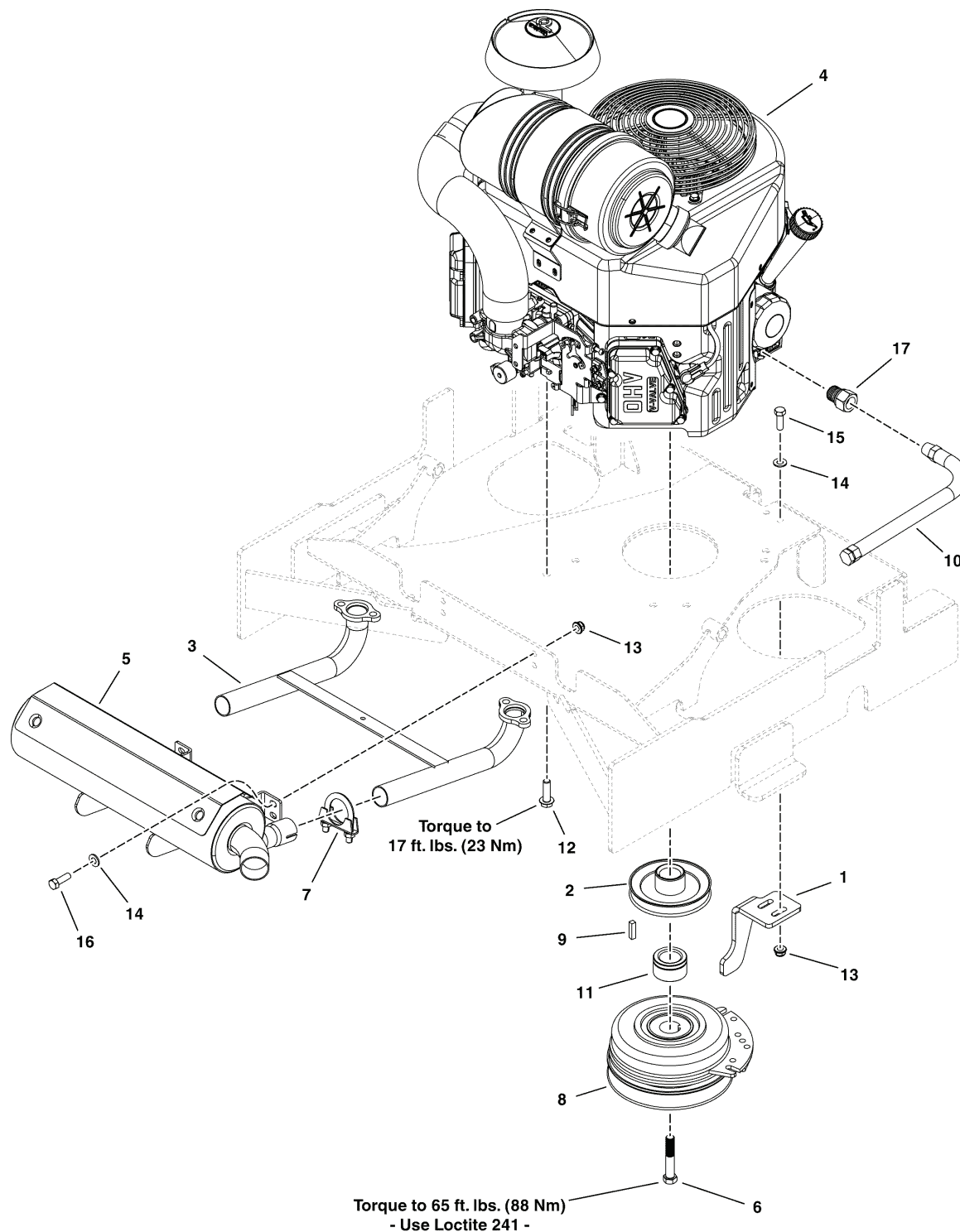
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Engine & PTO Group

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

5302873



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Engine & PTO Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	5405281B	1	PLATE, CLUTCH ANCHOR - RED
2	5103446	1	PULLEY, CRANKSHAFT, 4.5DX1.125IDX1.97LG
3	5103312	1	MANIFOLD, 26HP, KAWA, HOR, SW30
4	--	1	ENGINE, 24HP, KAWA, FX730V
5	5103207	1	MUFFLER, 26HP KAWA, HORIZONTAL
6	5102865	1	BOLT, CRANKSHAFT, 7/16-20X2-3/4, GD8
7	5022810	2	CLAMP, EXHAUST EXTENSION
8	5100084	1	CLUTCH, 5218-221, WARNER
9	5050407X8	1	KEY, 1/4 SQ X 1
10	5048681	1	HOSE, OIL DRAIN
11	5047033	1	SPACER, 1.13 X 1.75 X 1.03, CZ
12	5025532	4	BOLT, HEX FLG, SER GD5 3/8-16X1-1/4 PACH CZ
13	5025392	6	NUT, 5/16-18 HEX NYLOCK FLANGE
14	5025155	6	WASHER, 5/16 SAE
15	5025011X8	2	BOLT, 5/16-18 X 1 GD5 YZ
16	5025011X6	4	BOLT, 5/16-18 X 3/4 GD5
17	5022234	1	ADAPTER-OIL DRAIN

Footnotes

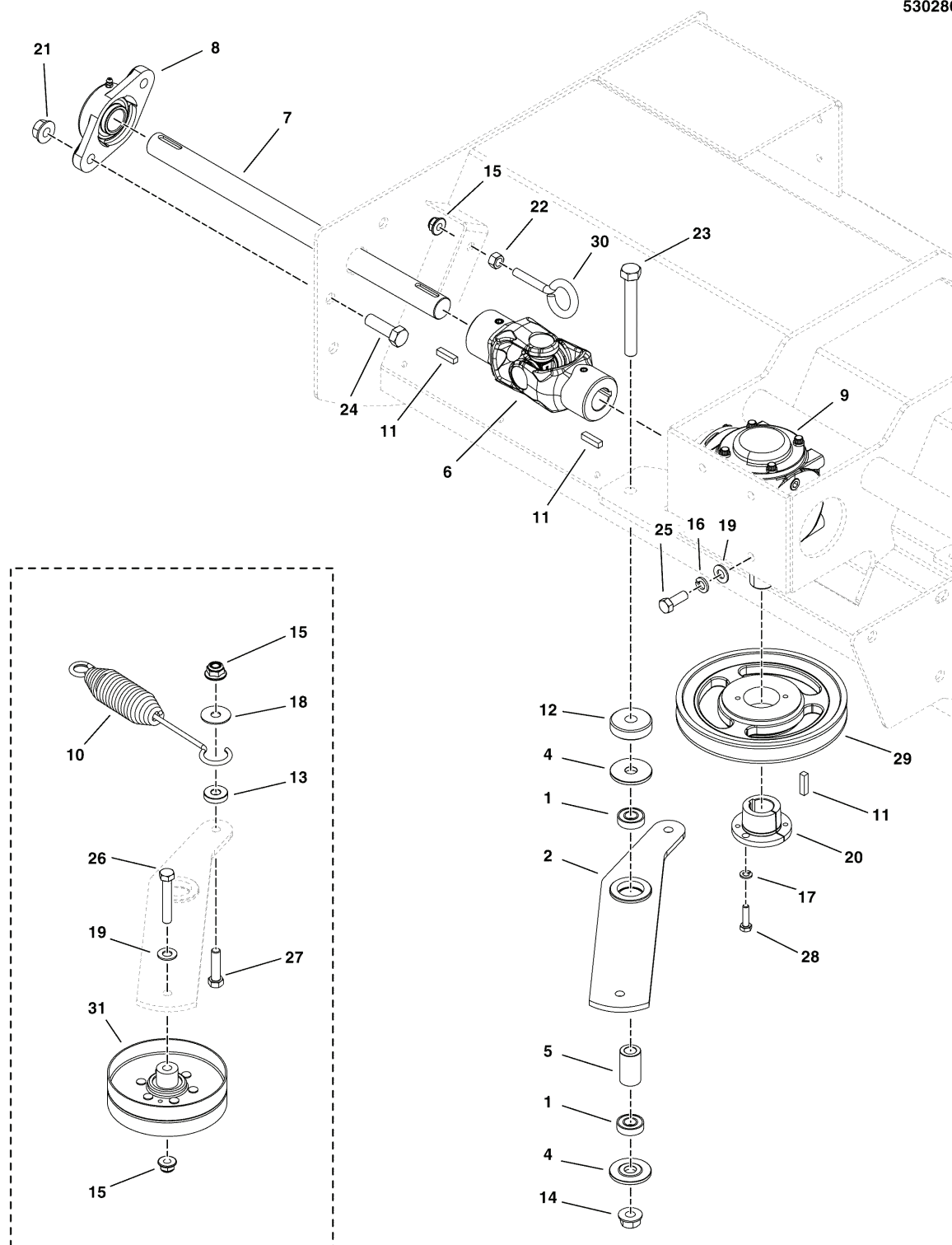
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Rear Drive Group

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

5302865



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Rear Drive Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	7078243	2	BEARING, BALL, AXLE
2	5408656B	1	WELD, IDLER ARM, FLAIL - RED
3	5103329	1	BELT, B-SEC, 63.3" EL, LGE ARAMID WRPD
4	5103262	2	SPACER, IDLER ARM, 1/2"
5	5103261	1	SPACER, .52 X .88 X 1.53, PM
6	5103240	1	UNIVERSAL JOINT ASM, 1"
7	5103233	1	SHAFT, 1" DIA X 18.19
8	5103201	1	BEARING, 2 BOLT FLANGE, 1", CAST
9	5101164	1	GEAR BOX, RIGHT ANGLE
10	5100632	1	SPRING, EXTENSION, SWIVEL. LONG HOOK
11	5025584	3	KEY, 1/4" SQR. X 1-1/4, RD ENDS
12	5047843	1	SPACER, .52 X 1.75 X .50
13	5044960	1	SPACER, .39 X 1.00 X .25
14	5025396	1	NUT, 1/2-13 HEX NYLOCK FLANGE
15	5025394	3	NUT, 3/8-16 HEX NYLOCK FLANGE
16	5025171	4	WASHER, 3/8 SPLIT LOCK
17	5025169	2	WASHER, 1/4 LOCK
18	5025165	1	WASHER-3/8 FENDER
19	5025156	5	WASHER, 3/8 SAE
20	5020819	1	BUSHING, TAPERED HUB
21	5025056	2	NUT, 1/2-13 HEX NYLON LOCK
22	5025034	1	NUT, 3/8-16 HEX
23	5025017X32	1	BOLT, 1/2-13 X 4 GD5 YZ
24	5025017X12	2	BOLT, 1/2-13 X 1-1/2 GD5 YZ
25	5025013X8	4	BOLT, 3/8-16 X 1 GD5 YZ
26	5025013X18	1	BOLT, 3/8-16 X 2-1/4 GD5 YZ
27	5025013X12	1	BOLT, 3/8-16 X 1-1/2 GD5 YZ
28	5025010X8	2	BOLT, 1/4-20 X 1, GD5
29	5022794	1	PULLEY, SPINDLE, BH72
30	5021812	1	EYE BOLT, 3/8-16 X 6, 3.0 THREAD
31	5021442	1	PULLEY-IDLER, 5.00OD, .385ID, 1.50W STL

Footnotes

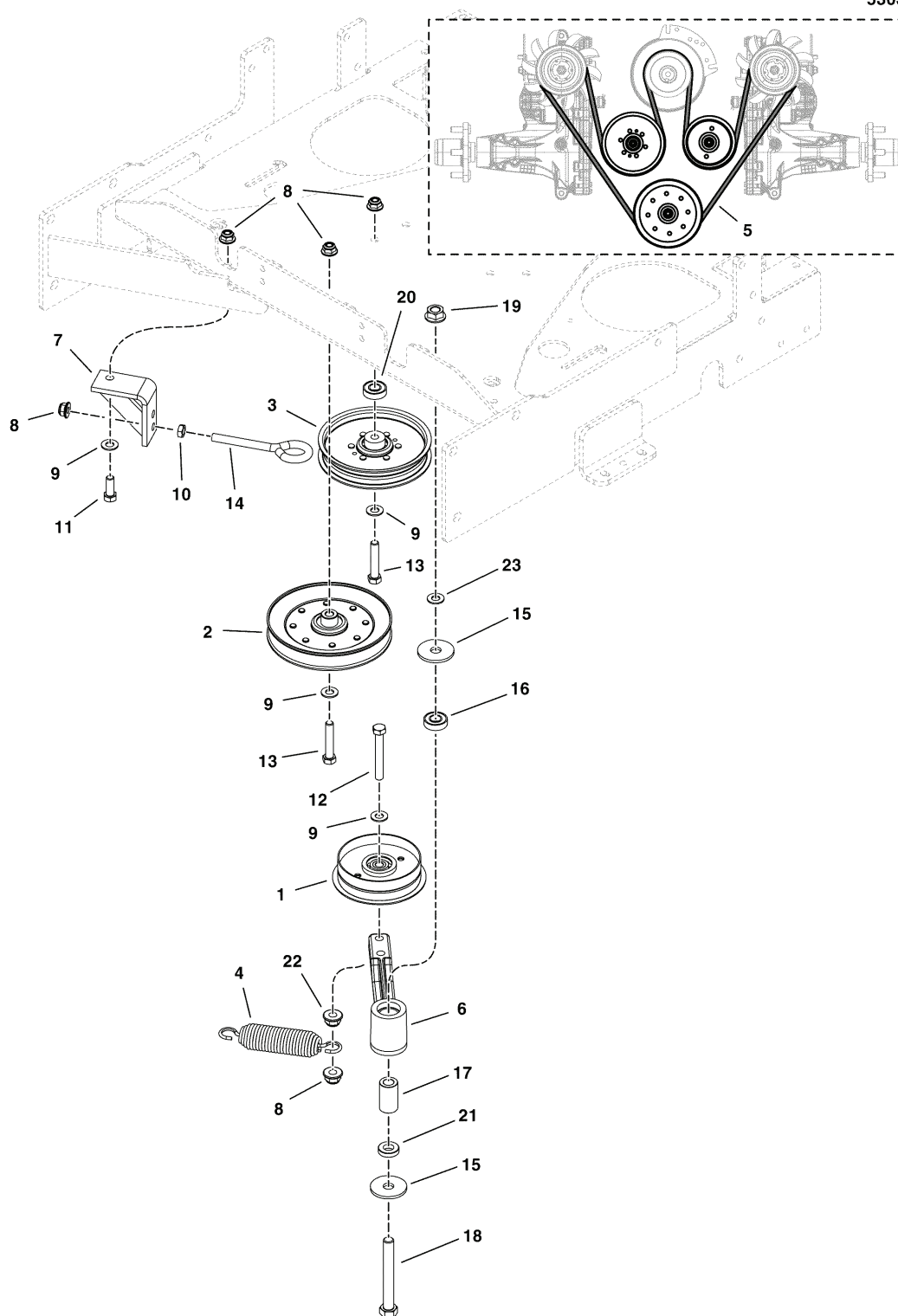
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Pump Drive Group

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

5303031



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Pump Drive Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	5102496	1	PULLEY, IDLER, SINGLE FLANGE, 4" OD
2	5102093	1	PULLEY-IDLER-V, 5.83OB, .38ID, .94W, STL
3	5101193	1	PULLEY-IDLER, 5.00OD, .385ID, .75W, STL
4	5100633	1	SPRING-EXT, 1.25 ODX5.70LGX.142WR, BLK
5	5100034	1	BELT, A-SEC, 100.00EL, ARAMID, WRPD
6	5101178A	1	IDLER ARM, CAST, MACHINED - BLK
7	5045200B	1	WELD, ANCHOR EYEBOLT
8	5025394	5	NUT, 3/8-16 HEX NYLOCK FLANGE
9	5025156	4	WASHER, 3/8 SAE
10	5025084	1	NUT, 3/8-16 HEX JAM
11	5025013X8	1	BOLT, 3/8-16 X 1 GD5 YZ
12	5025013X20	1	BOLT, 3/8-16 X 2-1/2 GD5 YZ
13	5025013X14	2	BOLT, 3/8-16 X 1-3/4 GD5
14	5023497	1	EYE BOLT, 3/8-16 X 5, 1 EYE
15	5103262	2	SPACER, IDLER ARM, 1/2"
16	7078243	1	BEARING, BALL, AXLE
17	5103261	1	SPACER, .52 X .88 X 1.53, PM
18	5025017X32	1	BOLT, 1/2-13 X 4 GD5 YZ
19	5025396	1	NUT, 1/2-13 HEX NYLOCK FLANGE
20	5044960	1	SPACER, .39 X 1.00 X .25
21	5101376	1	SPACER, .52 X 1.00 X .25, CZ
22	5025128	1	NUT, 3/8-16 HEX SERRATED FLANGE
23	5025150	1	WASHER, 1/2 USS

Footnotes

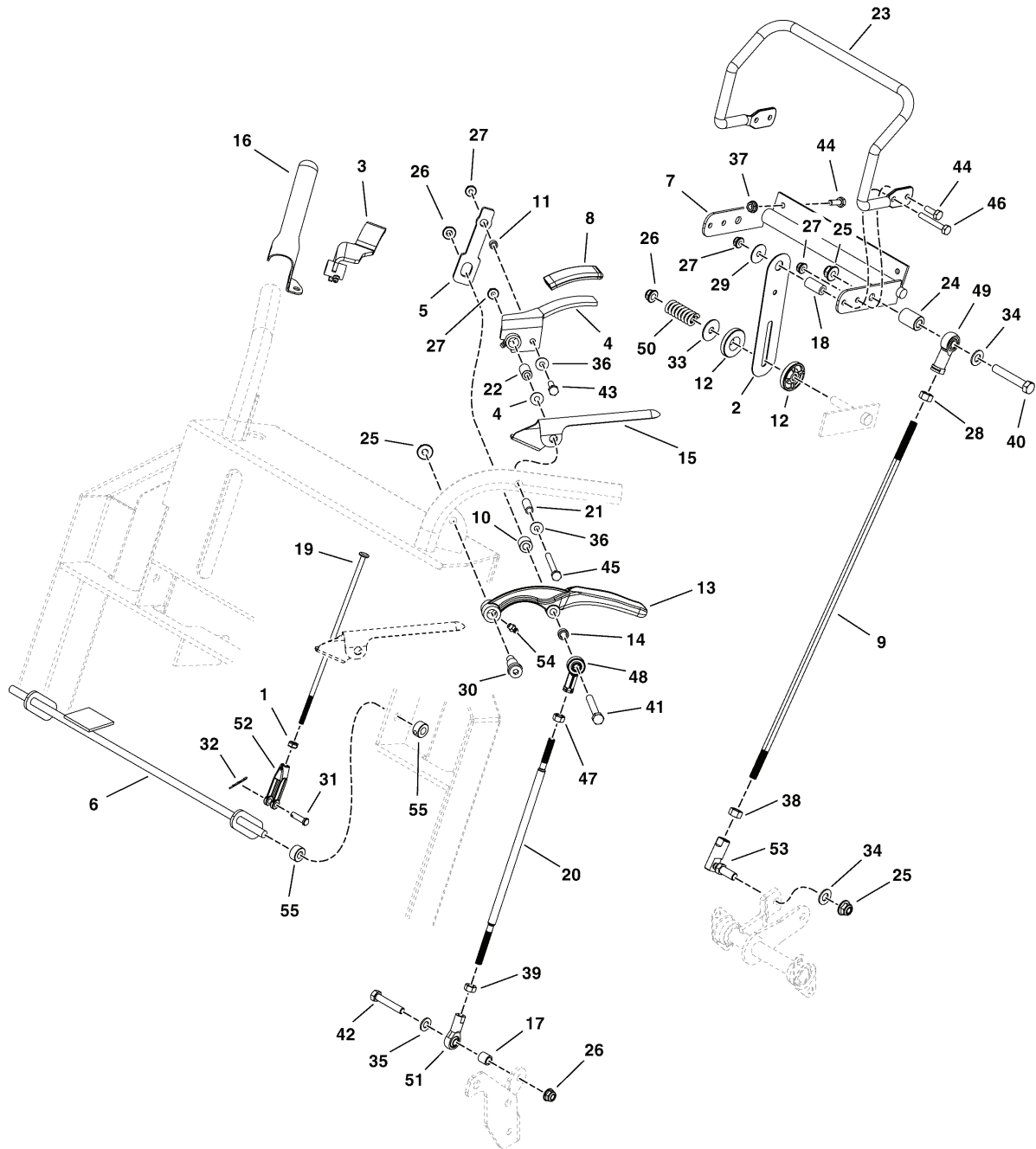
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Motion Control Group - Upper

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

5302869



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Motion Control Group - Upper

REF NO	PART NO.	QTY.	DESCRIPTION
1	7090095	2	HN, 1/4F GR5 YZ
2	5409272	1	PLATE, FRICTION CONTROL, SS
3	5408617B	1	WELD, THUMB CONTROL, RH, FLAIL- RED
4	5408616B	1	WELD, THUMB CONTROL, LH, FLAIL - RED
5	5408615B	2	LINK, THUMB CONTROL - RED
6	5405476B	1	WELD, ROD, SWITCH, SW-30 - RED
7	5405439B	1	WELD, SPEED CONTROL, SW30 - RED
8	5103457	2	GRIP, FOAM, 1/8 X 1.13 X 2.75"
9	5103349	2	ROD, 5/16-24 X 33.2 LH-RH, CZ
10	5103225	2	SPACER, .33 X .625 X .88, STEP, CZ
11	5102813	2	SPACER, .265 X .375 X .25, CZ
12	5102701	2	SPACER, .34 X 1.54 X .25 - UHMW
13	5102556A	2	HANDLE, REVERSING - BLK
14	5102463	1	SPACER, .33 X .50 X .25, CZ
15	5102342A	1	FLAP, OPC-LH - BLK
16	5102341A	1	FLAP, OPC-RH - BLK
17	5102148	2	SPACER, .33 X .50 X .50, CZ
18	5101274	1	SPACER, .26 X .50 X 1.00
19	5101242	2	ROD, OPC LINK, SNP PRO WB
20	5101236	2	ROD, CRUISE CONTROL, SNP PRO WB
21	5101215	2	SPACER, .26 X .38 X 1.25, CZ
22	5100832	2	SLEEVE, CRUISE CONTROL ROLLER
23	5100744	1	BAR, SPEED CONTROL, DIPPED
24	5042658	2	SPACER, .39 X .75 X 1.06
25	5025394	6	NUT, 3/8-16 HEX NYLOCK FLANGE
26	5025392	6	NUT, 5/16-18 HEX NYLOCK FLANGE
27	5025391	8	NUT, 1/4-20 HEX NYLOCK FLANGE
28	5025317	2	NUT, 3/8-24 HEX, LH
29	5025288	1	WASHER, 1/4 FENDER
30	5025223	2	BOLT, 3/8-16 X 1, 1/2 SHOULDER
31	5025212X7	2	CLEVIS PIN, 1/4 X 7/8, CZ
32	5025211	2	PIN, HAIR, .0585 X 1-1/8, 1/4 EYE, YZ
33	5025164	1	WASHER, 5/16 FENDER
34	5025156	4	WASHER, 3/8 SAE
35	5025155	2	WASHER, 5/16 SAE
36	5025154	6	WASHER, 1/4 SAE
37	5025126	2	NUT, 1/4-20 HEX SERR. FLANGE
38	5025035	2	NUT, 3/8-24 HEX
39	5025033	2	NUT, 5/16-24 HEX
40	5025013X18	2	BOLT, 3/8-16 X 2-1/4 GD5 YZ
41	5025011X24	2	BOLT, 5/16-18 X 3 GD5 YZ

Footnotes

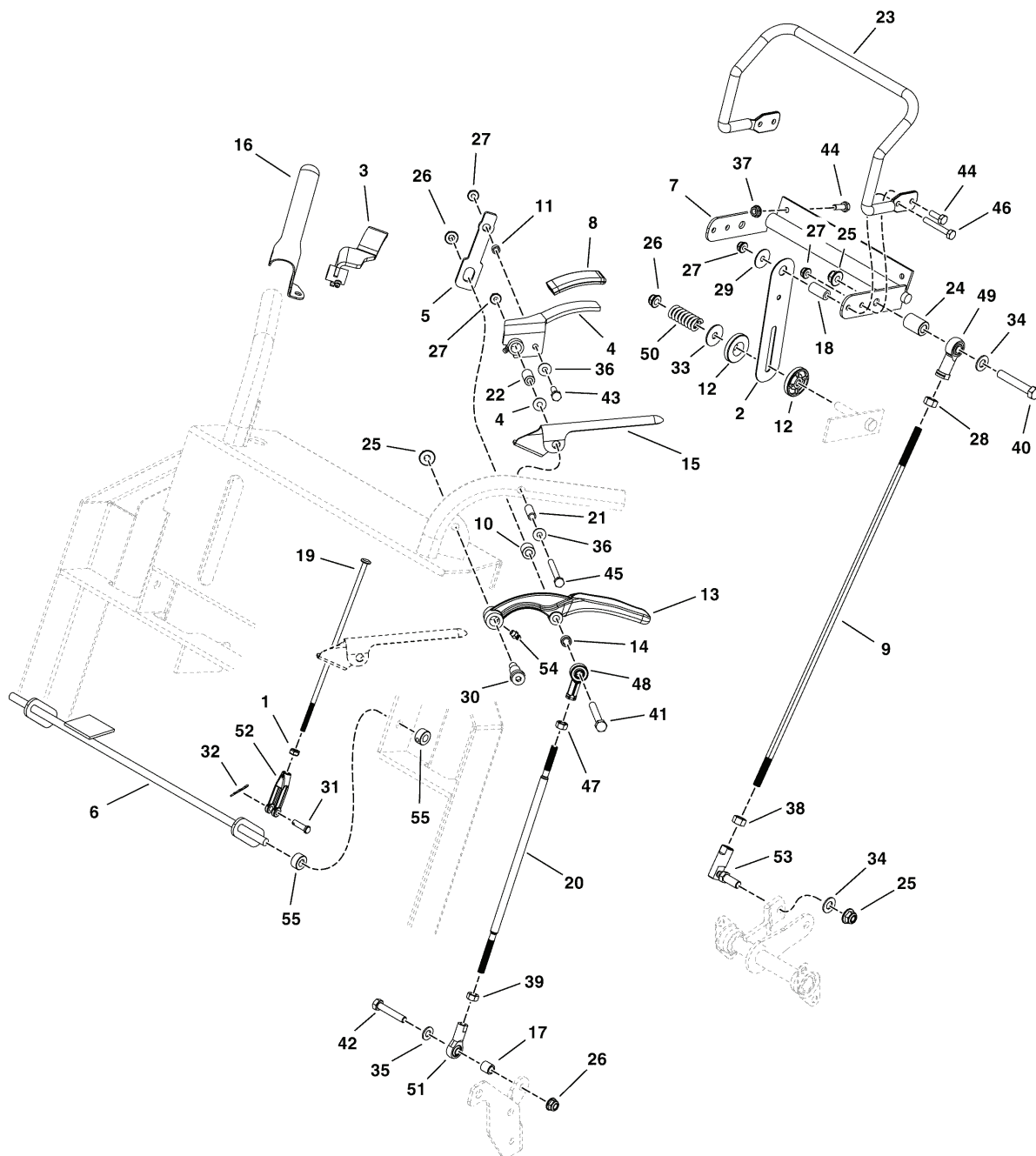
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Motion Control Group - Upper

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

5302869



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Motion Control Group - Upper

REF NO	PART NO.	QTY.	DESCRIPTION
42	5025011X14	2	BOLT, 5/16-18 X 1-3/4 GD5 YZ
43	5025010X8	2	BOLT, 1/4-20 X 1, GD5
44	5025010X6	5	BOLT, 1/4-20 X 3/4 GD5 YZ
45	5025010X24	2	BOLT, 1/4-20 X 3, GD5
46	5025010X14	1	BOLT, 1/4-20 X 1-3/4 GD5 YZ
47	5023212	2	NUT, 5/16-24 HEX, LH
48	5022628	2	BALL JOINT, 5/16-24, LH FEMALE
49	5022392	2	ROD END, 3/8-24 LH FEMALE
50	5021773	1	SPRING-COMP, .455IDX1.75LGX.135WR
51	5021146	2	BALL JOINT, 5/16-24, FEMALE
52	5021104	2	CLEVIS, 1/4-28, PLASTIC
53	5020805	2	BALL JOINT, 3/8-24 FEM, STUD
54	5020095	2	GREASE FITTING, 1/4-28 STRAIGHT
55	5010546	2	COLLAR, 3/8 SET

Footnotes

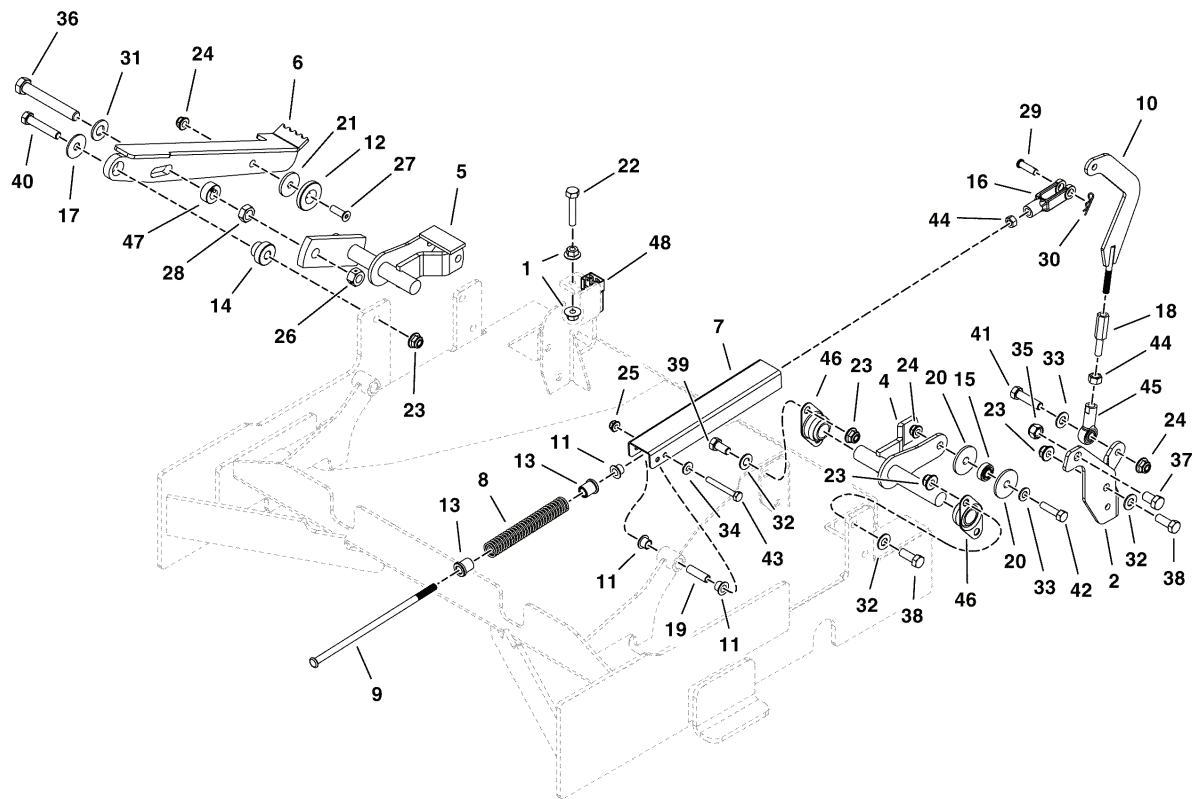
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Motion Control Group - Lower

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

5302870



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Motion Control Group - Lower

REF NO	PART NO.	QTY.	DESCRIPTION
1	725338	2	NUT, .31-24 HEX FLG SERRATED LK
2	5409334B	1	PLATE, CONTROL MOUNT, LH - RED
3	5409333B	1	PLATE, CONTROL MOUNT, RH - RED (Not Shown)
4	5409318B	1	WELD, CONTROL SHAFT, SW30, LH - RED
5	5409260B	1	WELD, CONTROL SHAFT, SW30, RH - RED
6	5409257B	1	WELD, FOOT PEDAL, SW30 - RED
7	5409243B	2	WELD, SPRING HOUSING, SW30 - RED
8	5103441	2	SPRING, COMP. .61 ID X .775 X 7.0 LG.,.08
9	5103440	2	ROD, MOTION CTRL, WB
10	5103434	2	WELD, CONTROL RAMP, WB
11	5102773	6	BUSHING, .38ID X .47 OD X .38L, FL
12	5102701	1	SPACER, .34 X 1.54 X .25 - UHMW
13	5102709	4	BUSHING, .38 X .75 X .75, PLASTIC
14	5102406	1	SPACER, .38 X 1.13 X .781 STEP, CZ
15	5102003	2	BEARING, .375" ID X .875" OD X .341" THK
16	5101800	2	CLEVIS, 3/8-24 RH, 3/8" PIN HOLE, CLR ZN
17	5101414	1	WASHER, .390 X 1.25 X .100, YZ
18	5101243	2	ADJUSTER, ROD LINKAGE 5/16-24
19	5101215	2	SPACER, .26 X .38 X 1.25, CZ
20	5100548	4	WASHER, .390 X 1.50 X .109, YZ
21	5044617	1	WASHER, .34 X 1.25 X 10 GA
22	5025538	1	BOLT, 5/16-24 X 1-3/4, FULL THRD, GD5 YZ
23	5025394	11	NUT, 3/8-16 HEX NYLOCK FLANGE
24	5025392	5	NUT, 5/16-18 HEX NYLOCK FLANGE
25	5025391	2	NUT, 1/4-20 HEX NYLOCK FLANGE
26	5025332	1	NUT, 1/2-13 HEX SIDE LOCK
27	5025303	1	SCREW, 5/16-18 X 1 FLAT HD SC, CZ
28	5025301	1	NUT, 1/2-13 HEX JAM
29	5025213X8	2	PIN-CLEVIS, 5/16 X 1 YZ
30	5025211	2	PIN, HAIR, .0585 X 1-1/8, 1/4 EYE, YZ
31	5025158	1	WASHER, 1/2 SAE
32	5025156	10	WASHER, 3/8 SAE
33	5025155	4	WASHER, 5/16 SAE
34	5025154	2	WASHER, 1/4 SAE
35	5025125	2	NUT, 7/16-14 HEX NYLON LOCK
36	5025017X28	1	BOLT, 1/2-13 X 3-1/2 GD5 YZ
37	5025015X6	2	BOLT, 7/16-14 X 3/4, GD 5 YZ
38	5025013X8	6	BOLT, 3/8-16 X 1 GD5
39	5025013X6	4	BOLT, 3/8-16 X 3/4 GD5 YZ
40	5025013X16	1	BOLT, 3/8-16 X 2 GD5 YZ
41	5025011X12	2	BOLT, 5/16-18 X 1-1/2 GD5 YZ

Footnotes

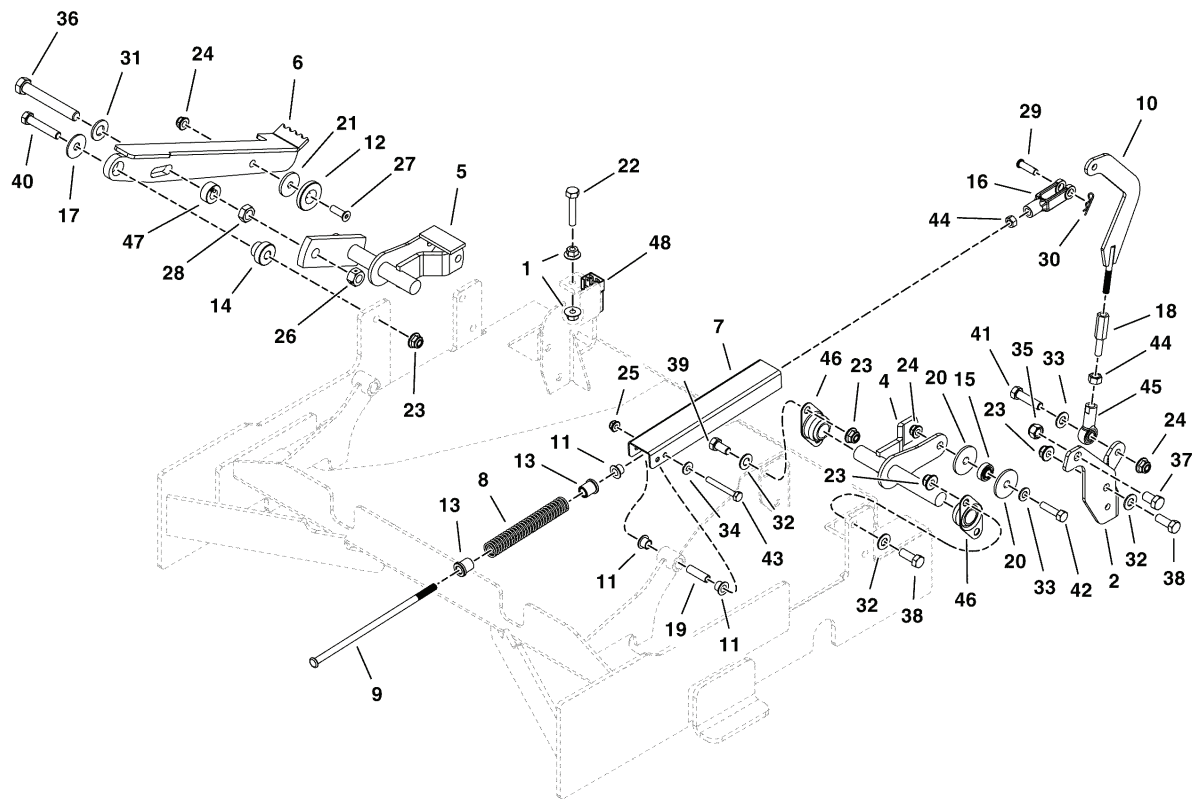
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Motion Control Group - Lower

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

5302870



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Motion Control Group - Lower

REF NO	PART NO.	QTY.	DESCRIPTION
42	5025011X10	2	BOLT, 5/16-18 X 1-1/4 GD5 YZ
43	5025010X16	2	BOLT, 1/4-20 X 2, GD5
44	5023216	4	NUT, 5/16-24 JAM
45	5021146	2	BALL JOINT, 5/16-24, FEMALE
46	5021098	4	BEARING, BRONZE FLANGE, 3/4
47	5010580	1	COLLAR, 1/2 SET
48	5022095	1	SWITCH, PLUNGER, N.O. / N.C.

Footnotes

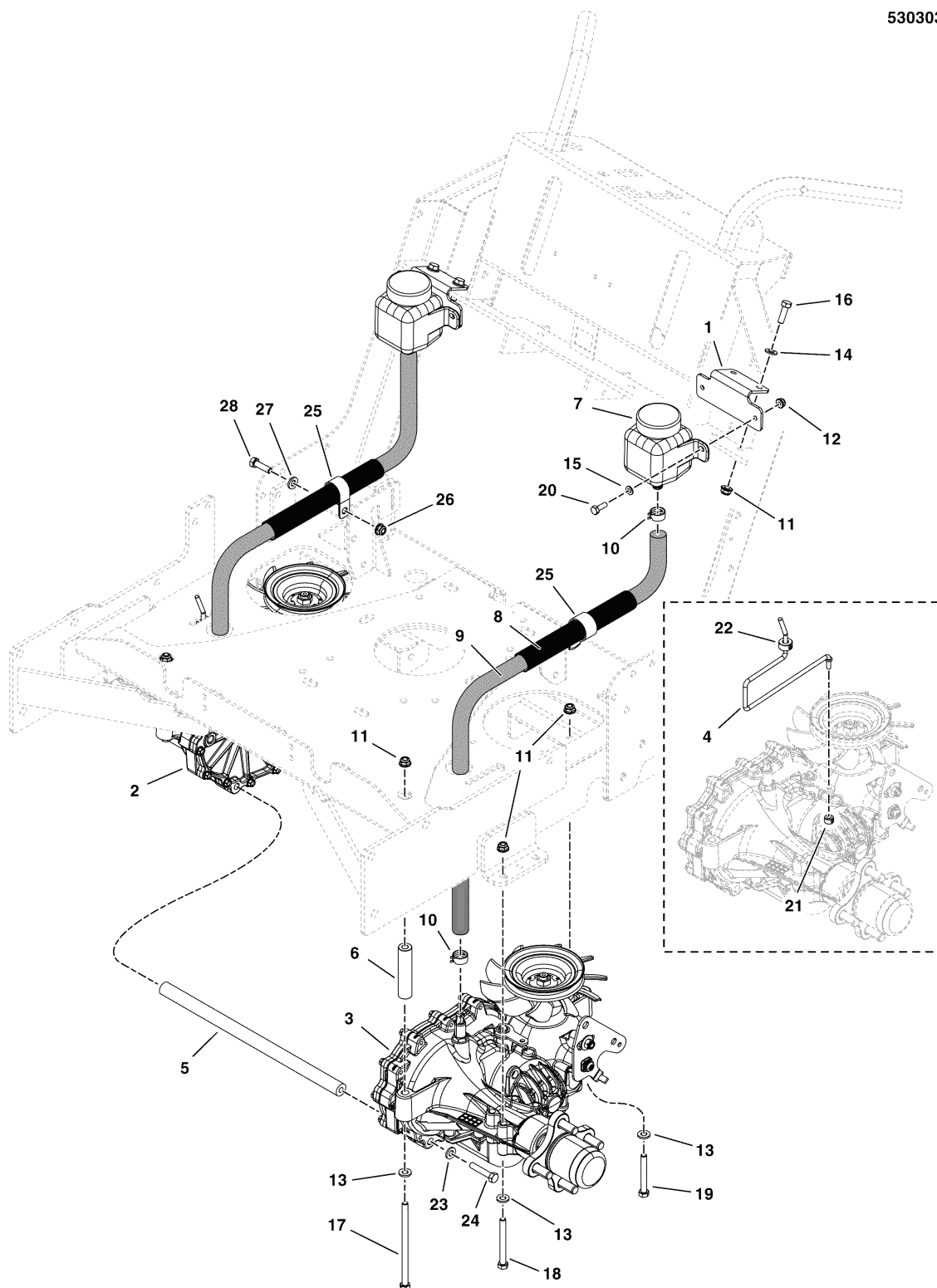
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Hydraulic Group

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

5303032



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Hydraulic Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	5405352B	2	PLATE, HYDRO BOTTLE, MOUNT - RED
2	5102810	1	TRANSAXLE, ZT3100, RH(ZJ-KMFE-3C5C-1RLX)
3	5102809	1	TRANSAXLE, ZT3100, LH(ZJ-GMFE-3B5B-1RLX)
4	5102638	2	ROD, HYDRO RELEASE, SW30
5	5103453	1	ROD, HYDRO LINK, CZ
6	5101177	2	SPACER, .34 X .75 X 3.27, CZ
7	5100473	2	HYDRO RES. #71328, 350 ml
8	5050862X24	2	WIRE LOOM, 3/4 ID X 24 IN
9	5050857X24	2	HOSE, 1/2" PUSH-ON, 24.00"
10	5025474	4	CLAMP, HOSE, .75 FREE DIA.
11	5025392	12	NUT, 5/16-18 HEX NYLOCK FLANGE
12	5025391	4	NUT, 1/4-20 HEX NYLOCK FLANGE
13	5025292	8	WASHER, 5/16 GD.9 FLAT
14	5025155	4	WASHER, 5/16 SAE
15	5025154	4	WASHER, 1/4 SAE
16	5025011X8	4	BOLT, 5/16-18 X 1 GD5 YZ
17	5025011X48	2	BOLT, 5/16-18 X 6, GD 5, YZ
18	5025011X22	4	BOLT, 5/16-18 X 2-3/4, GD 5, YZ
19	5025011X18	2	BOLT, 5/16-18 X 2-1/4 GD5 YZ
20	5025010X6	4	BOLT, 1/4-20 X 3/4 GD5 YZ
21	5022481	2	COLLAR, 1/4 SET
22	5020047	2	COLLAR, 5/16 SET
23	5025293	2	WASHER, 3/8 GD.9 FLAT
24	5103458	2	BOLT, HEX, 3/8-16 X 2-1/4, GD8, PLAIN
25	5023173	2	CLAMP, HOSE, 1.000 DIA.
26	5025394	1	NUT, 3/8-16 HEX NYLOCK FLANGE
27	5025155	1	WASHER, 3/8 SAE
28	5025013X8	1	BOLT, 3/8-16 X 1 GD5 YZ

Footnotes

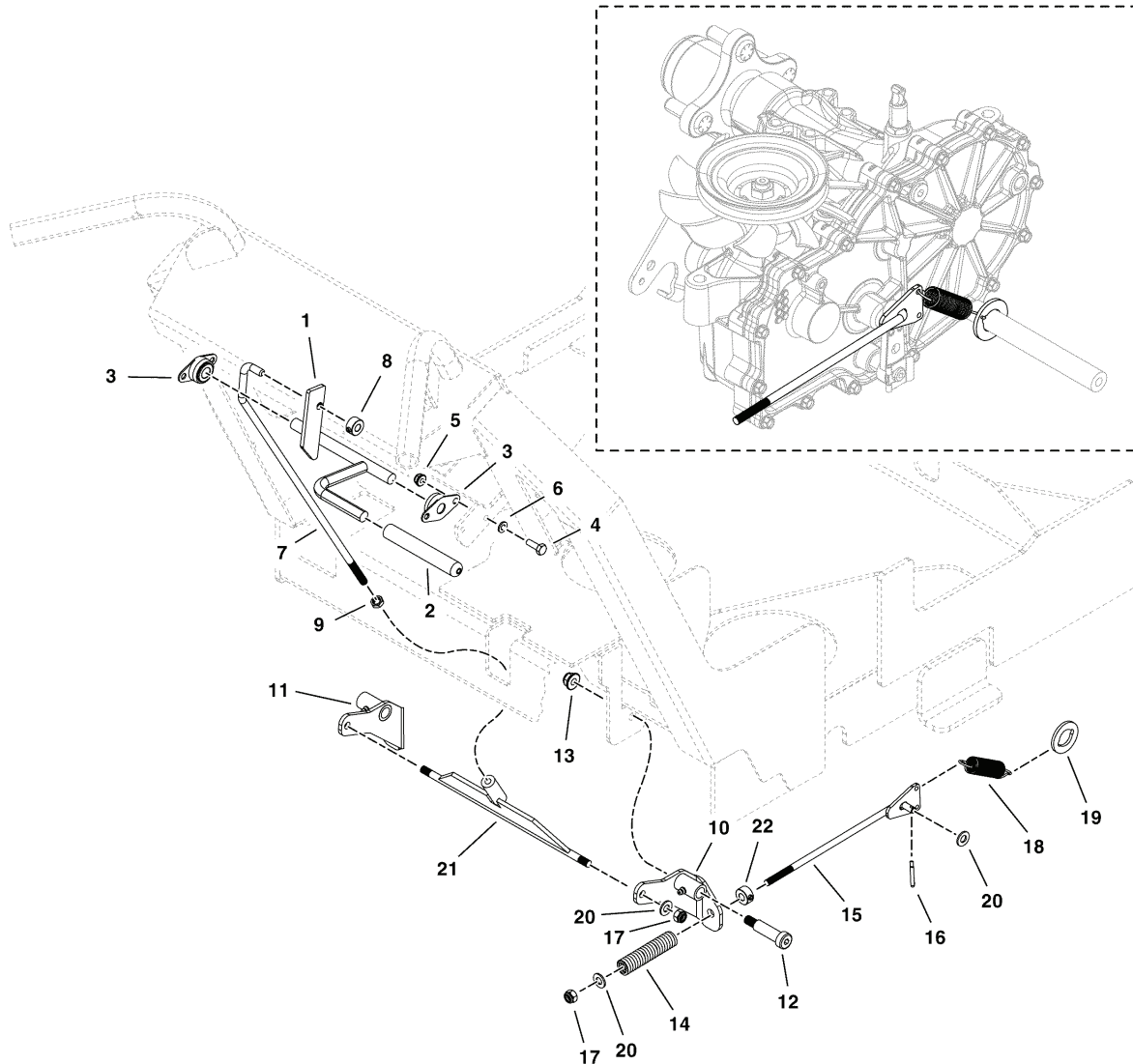
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Parking Brake Group

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

5303030



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Parking Brake Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	5405442B	1	WELD, BRAKE SHAFT, SW30 - RED
2	5021880	1	GRIP, FOAM
3	5101123	2	BEARING, 1/2 FLANGED, PLASTIC BALL
4	5025010X6	4	BOLT, 1/4-20 X 3/4 GD5 YZ
5	5025391	4	NUT, 1/4-20 HEX NYLOCK FLANGE
6	5025154	4	WASHER, 1/4 SAE
7	5101116	1	ROD, PULLER ROD
8	5020047	1	COLLAR, 5/16 SET
9	5023216	1	NUT, 5/16-24 JAM
10	5405232B	1	WELD, BRAKE ARM, RH - RED
11	5405231B	1	WELD, BRAKE ARM, LH - RED
12	5025220	2	BOLT-3/8-16 x 1-1/2, 1/2 SHOULDER
13	5025394	2	NUT, 3/8-16 HEX NYLOCK FLANGE
14	5023242	2	SPRING-COMP, .496ID X 3.00LG X .112WR
15	5102010	2	ROD, LOWER BRAKE, SW30
16	5025203X6	2	PIN, COTTER, 1/8 X 3/4
17	5025045	4	NUT, 5/16-24 HEX NYLON LOCK
18	5101339	2	SPRING-EXT, .751 ODX3.281LGX.075WR, BLK
19	5403960	2	WASHER, KEYED, 1-1/2 OD
20	5025155	6	WASHER, 5/16 SAE
21	5102199	1	BRAKE ROD, LOWER CONNECTION, SW30
22	5102997	2	COLLAR, DOUBLE SPLIT, 5/16 CZ

Footnotes

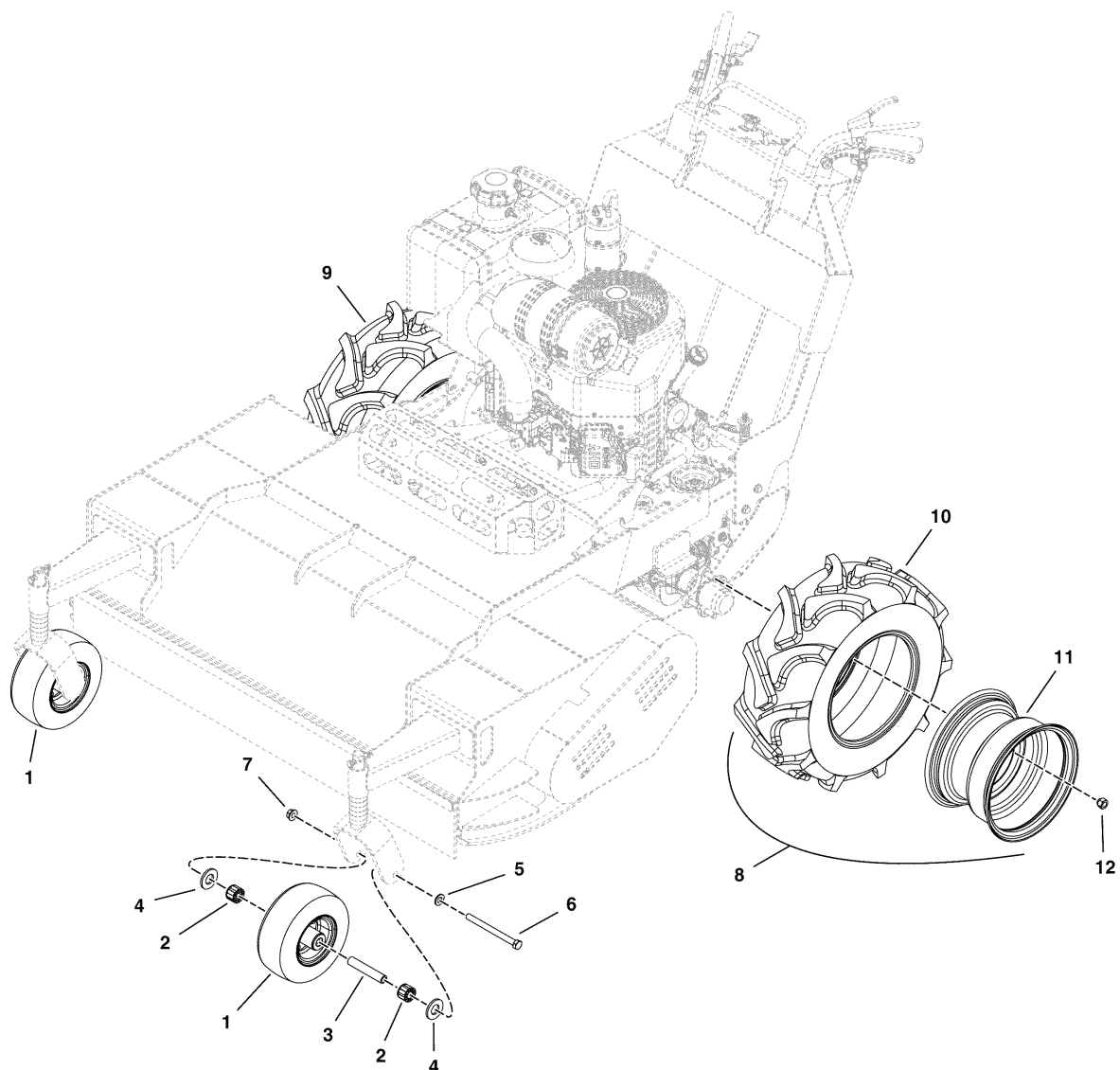
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Wheel & Tire Group

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

5302872



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Wheel & Tire Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	5100790	2	FLAT FREE TIRE ASSY, 9.00 X 3.50 - 4.00
2	5022579	4	BEARING (SV)
3	5041657	2	AXLE, CASTER WHEEL (SV)
4	5021043	4	RETAINER, BEARING (SV)
5	5025158	2	WASHER, 1/2 SAE
6	5025017X48	2	BOLT, 1/2-13 X 6 GD5 YZ
7	5025396	2	NUT, 1/2-13 HEX NYLOCK FLANGE
8	5103328	1	TIRE ASM, 20X8.00-10, LH, LUG BAR
9	5103327	1	TIRE ASM, 20X8.00-10, RH, LUG BAR
10	5103327X1	2	TIRE, 20 X 8.00-10, LUG BAR (SV)
11	5102329X2	2	WHEEL, 10X7.00 4/4 SOLID F237 2.625 OS (SV)
12	5020601	8	NUT, 1/2-20, FOR WHEEL BOLT SILVER

Footnotes

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

5900520 (FM2448CE)

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



Decals Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	5022560	1	DECAL, FERRIS TEXT & LOGO
2	5100850	1	DECAL, FERRIS SHIELD
3	5101353	1	DECAL, HAND IN FLAME
4	5061042	3	DECAL, CE DANGER
5	1720389	2	DECAL-DANGER ROTATING BLADE SYMBOLS
6	5100490	1	DECAL, PEDAL
7	5100934	1	DECAL, CCW, CE
8	5101991	2	DECAL, TRANSAXLE RELEASE
9	5102762	1	DECAL, CONTROL PANEL, WB

Footnotes

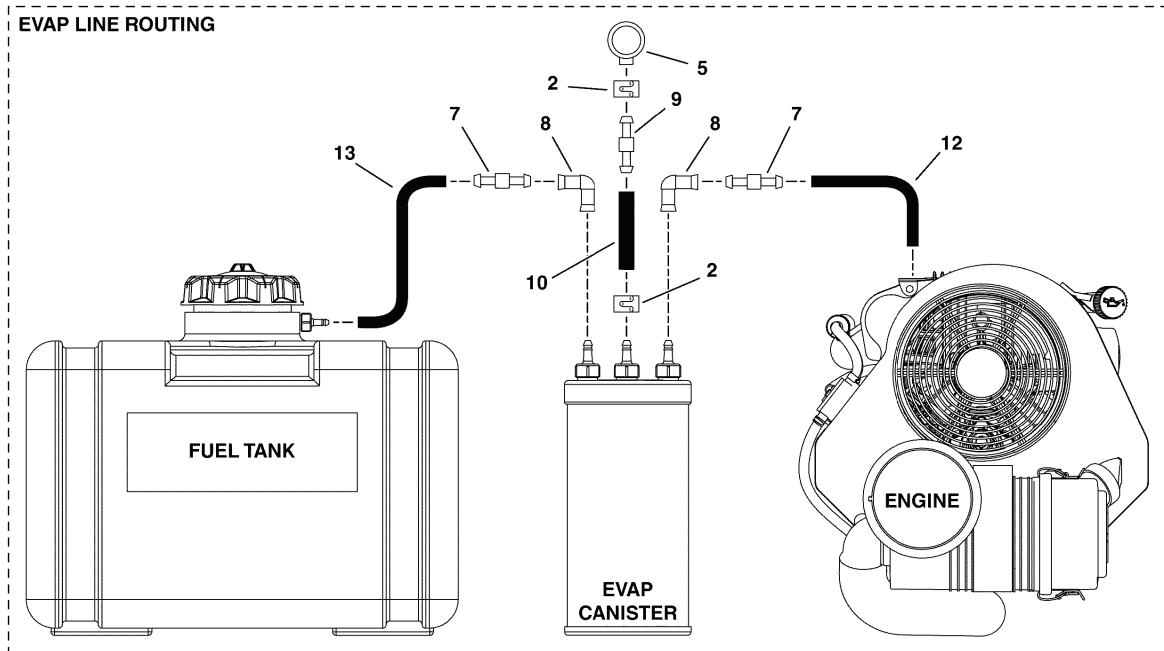
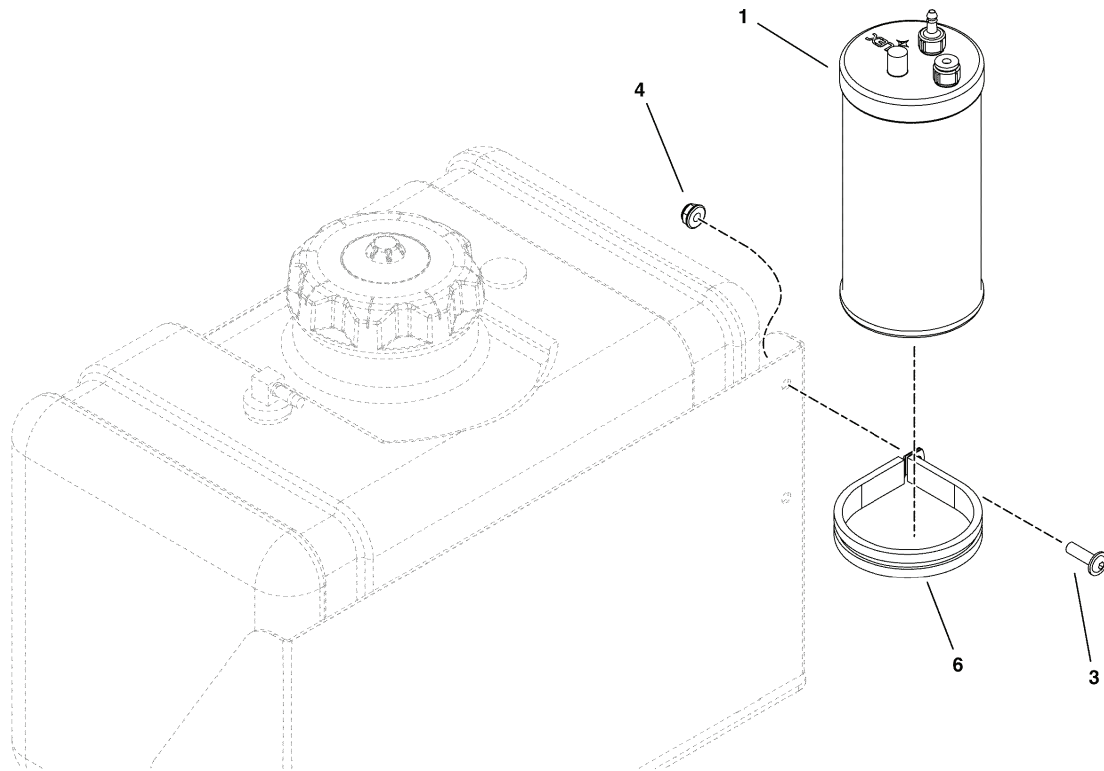
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Evap Canister Group

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

5302735



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Evap Canister Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	313036	1	CNSTR, CARB, 6 GAL
2	5023268	2	CLAMP, HOSE
3	5025299X6	2	SCREW, 1/4-20 X 3/4 ALLEN BH
4	5025391	2	NUT, 1/4-20 HEX NYLOCK FLANGE
5	1752800	1	DUST FILTER, CANISTER (SV)
6	5103055	2	CLAMP, 3" ID, CUSHIONED, STAINLESS
7	5103080	1	FITTING, STRAIGHT, 10MMX10MM, PLASTIC
8	5103082	2	FITTING, 90 DEG, 3/16X3/16, SANTOPRENE
9	5103084	2	FITTING, STRAIGHT, 3/16X3/16, PLASTIC
10	5103092	1	HOSE, FORMED, EVAP CANISTER
11	--	1	DECAL, EPA CERT, WALKS (Located on frame near Serial Tag)
12	7700552X24	1	HOSE, VAPOR, 5MM ID, 24.00 LG
13	7700552X8	1	HOSE, VAPOR, 5MM ID, 8.00 LG

Footnotes

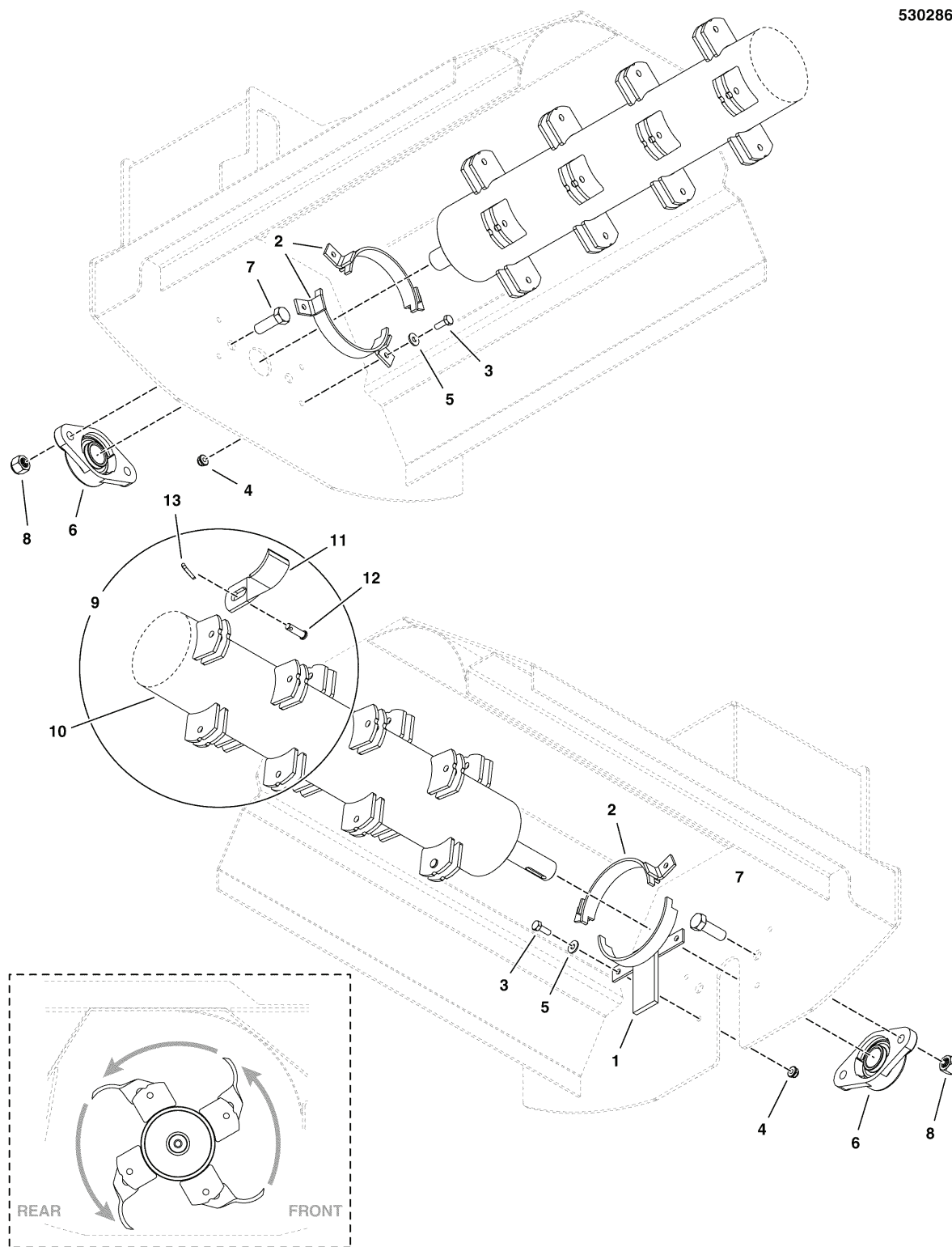
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Rotor & Blades Group

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

5302863



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Rotor & Blades Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	5408747A	1	WELD, ROTOR GUARD, LH BTM - BLK
2	5408786A	3	WELD, ROTOR GUARD - BLK
3	5025010X6	8	BOLT, 1/4-20 X 3/4 GD5 YZ
4	5025391	8	NUT, 1/4-20 HEX NYLOCK FLANGE
5	5025154	8	WASHER, 1/4 SAE
6	5103201	2	BEARING, 2 BOLT FLANGE, 1", CAST
7	5025017X12	4	BOLT, 1/2-13 X 1-1/2 GD5 YZ
8	5025056	4	NUT, 1/2-13 HEX NYLON LOCK
9	5103474	1	48" ROTOR ASM. & BAL, FLAIL
10	5103464	1	48" ROTOR
11	5103210	34	CUTTER, FLAIL, 1-3/8 X 3.0, FINISH
12	5103473	34	PIN, CLEVIS, 5/16 X 1, HARD
13	5025203x6	34	PIN, COTTER, 1/8 X 3/4

Footnotes

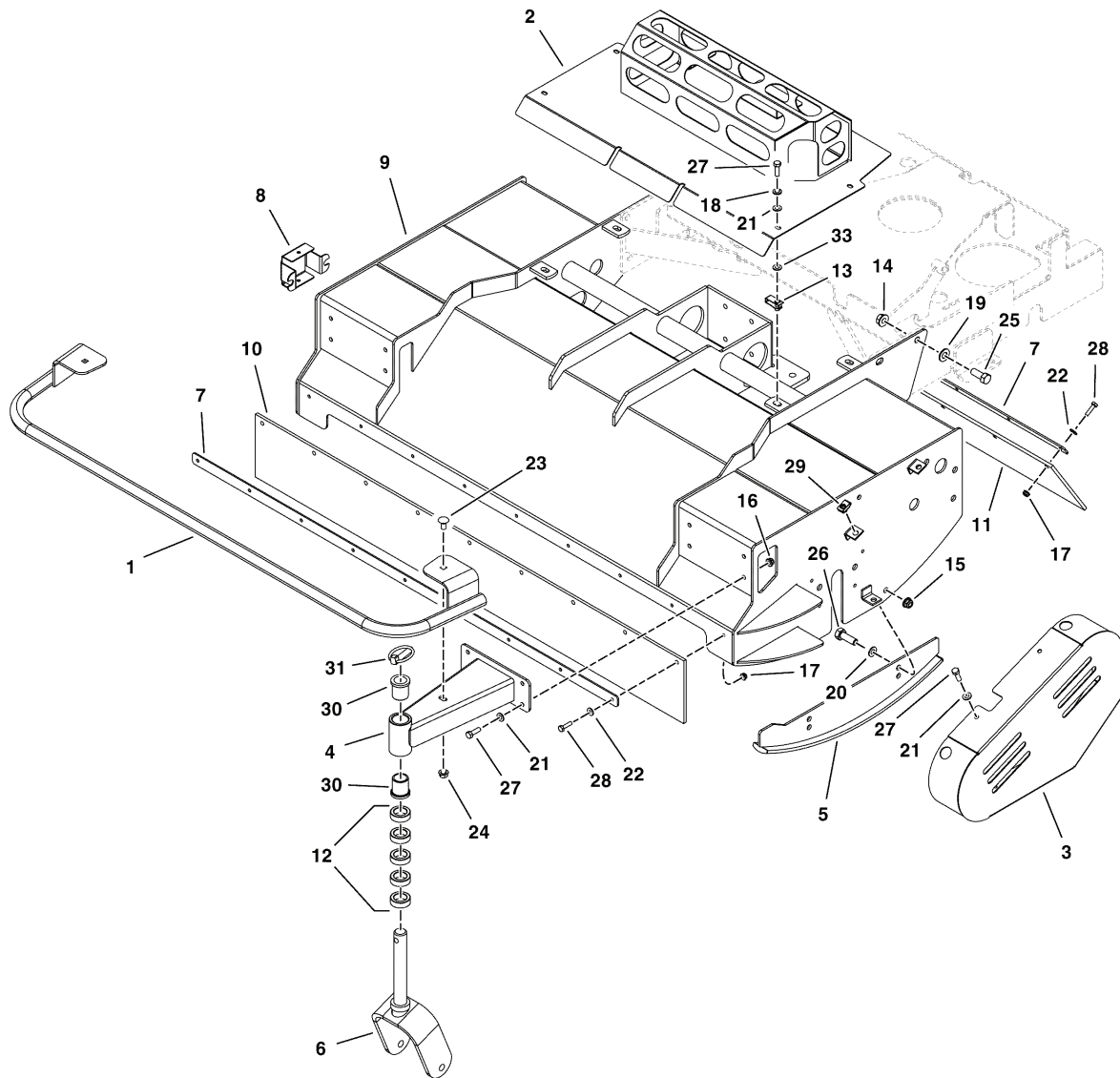
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Housing, Guards & Caster Group

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

5302864



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Housing, Guards & Caster Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	5409293B	1	WELD, GUARD, BRUSH - RED
2	5409029B	1	WELD, GUARD, MUFFLER, FLAIL - RED
3	5408807B	1	WELD, GUARD, PULLEY - RED
4	5408804B	2	WELD, CASTER ARM, FLAIL - RED
5	5408749B	2	WELD, SKID, FLAIL - RED
6	5408677B	2	WELD, CASTER WHEEL MOUNT - RED
7	5408534B	2	BAR, RUBBER RETAINING - RED
8	5408491B	1	GUARD, BEARING - RED
9	5408485B	1	WELD, 48-HOOD, FLAIL - RED
10	5103325	1	RUBBER, FRONT SKIRT, 48 FLAIL
11	5103324	1	RUBBER, REAR SKIRT, 48 FLAIL
12	5041476	10	SPACER, 1.02 X 1.56 X .50
13	5025452	4	BODY CLIP, 5/16-18 -1/4 MATERIAL
14	5025396	6	NUT, 1/2-13 HEX NYLOCK FLANGE
15	5025394	4	NUT, 3/8-16 HEX NYLOCK FLANGE
16	5025392	8	NUT, 5/16-18 HEX NYLOCK FLANGE
17	5025391	18	NUT, 1/4-20 HEX NYLOCK FLANGE
18	5025170	4	WASHER, 5/16 LOCK YZ
19	5025158	6	WASHER, 1/2 SAE
20	5025156	4	WASHER, 3/8 SAE
21	5025155	15	WASHER, 5/16 SAE
22	5025154	18	WASHER, 1/4 SAE
23	5025146X6	2	BOLT, 3/8-16 X 3/4, CARRIAGE
24	5025128	2	NUT, 3/8-16 HEX SERRATED FLANGE
25	5025017X10	6	BOLT, 1/2-13 X 1-1/4 GD5 YZ
26	5025013X8	4	BOLT, 3/8-16 X 1 GD5 YZ
27	5025011X8	15	BOLT, 5/16-18 X 1 GD5 YZ
28	5025010X8	18	BOLT, 1/4-20 X 1, GD5
29	5022308	3	BODY CLIP, 5/16-18-7GA MATERIAL
30	5021541	4	BUSHING, FLANGE
31	5020655	2	PIN, LYNCH, 7/16
32	5020095	2	GREASE FITTING, 1/4-28 (Not Shown - Located Under Caster Arm)
33	5025498	4	5/16 PUSH-ON NUT RETAINER, STL, CZ

Footnotes

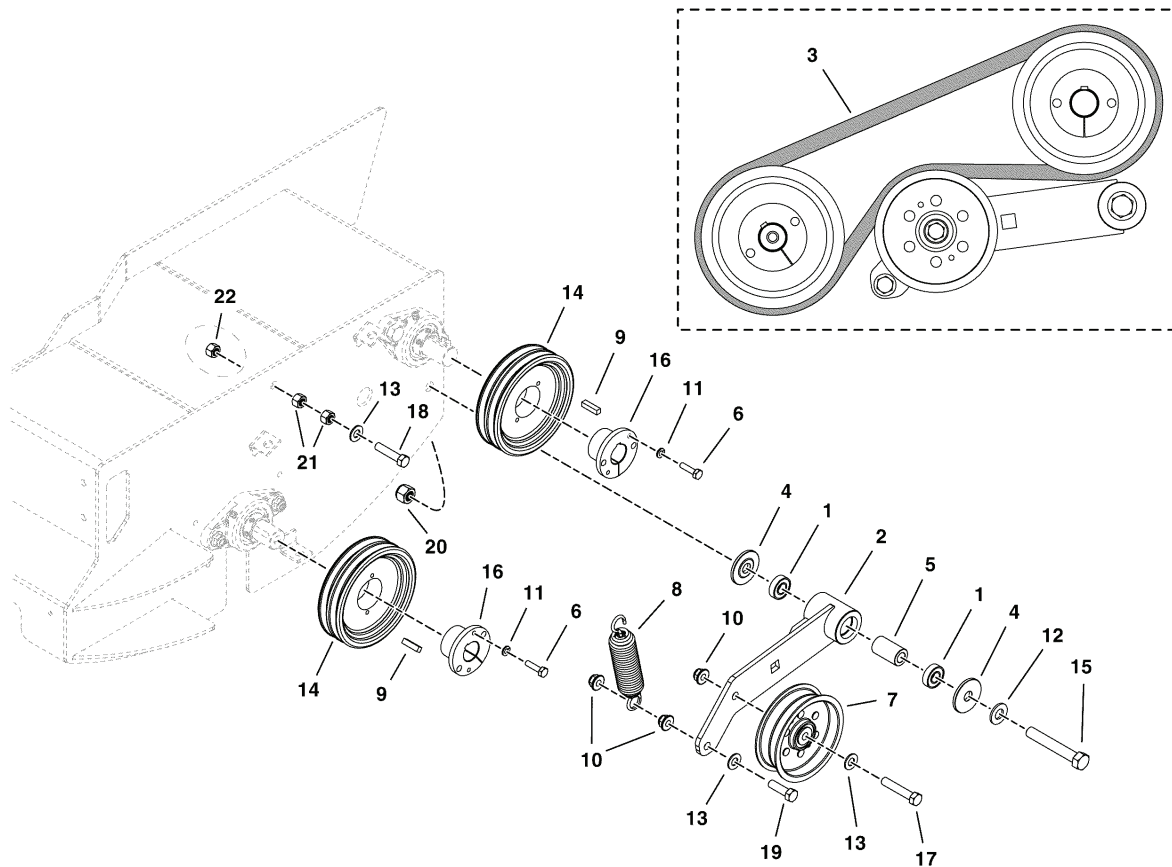
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Belts, Pulleys & Idler Group

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

5302866



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Belts, Pulleys & Idler Group

REF NO	PART NO.	QTY.	DESCRIPTION
1	7078243	2	BEARING, BALL, AXLE
2	5408717B	1	WELD, IDLER ARM, 8.50, BB - RED
3	5103330	1	BELT, DOUBLE A BANDED, 43"EL, RAW EDGE
4	5103262	2	SPACER, IDLER ARM, 1/2"
5	5103261	1	SPACER, .52 X .88 X 1.53, PM
6	5025010X8	4	BOLT, 1/4-20 X 1, GD5
7	5102276	1	PULLEY, IDLER, DOUBLE FLG'D, 4IN
8	5100633	1	SPRING-EXT, 1.25 ODX5.70LGX.142WR, BLK
9	5025584	2	KEY, 1/4" SQR. X 1-1/4, RD ENDS
10	5025394	3	NUT, 3/8-16 HEX NYLOCK FLANGE
11	5025169	4	WASHER, 1/4 LOCK
12	5025158	1	WASHER, 1/2 SAE
13	5025156	3	WASHER, 3/8 SAE
14	5022908	2	PULLEY, GEARBOX INPUT
15	5025017X26	1	BOLT, 1/2-13 X 3-1/4 GD5 YZ
16	5020819	2	BUSHING, TAPERED HUB
17	5025013X16	1	BOLT, 3/8-16 X 2 GD5 YZ
18	5025013X12	1	BOLT, 3/8-16 X 1-1/2 GD5 YZ
19	5025013X10	1	BOLT, 3/8-16 X 1-1/4 GD5
20	5025056	1	NUT, 1/2-13 HEX NYLON LOCK
21	5025034	2	NUT, 3/8-16 HEX
22	5025100	1	NUT, 3/8-16 HEX SIDE LOCK

Footnotes

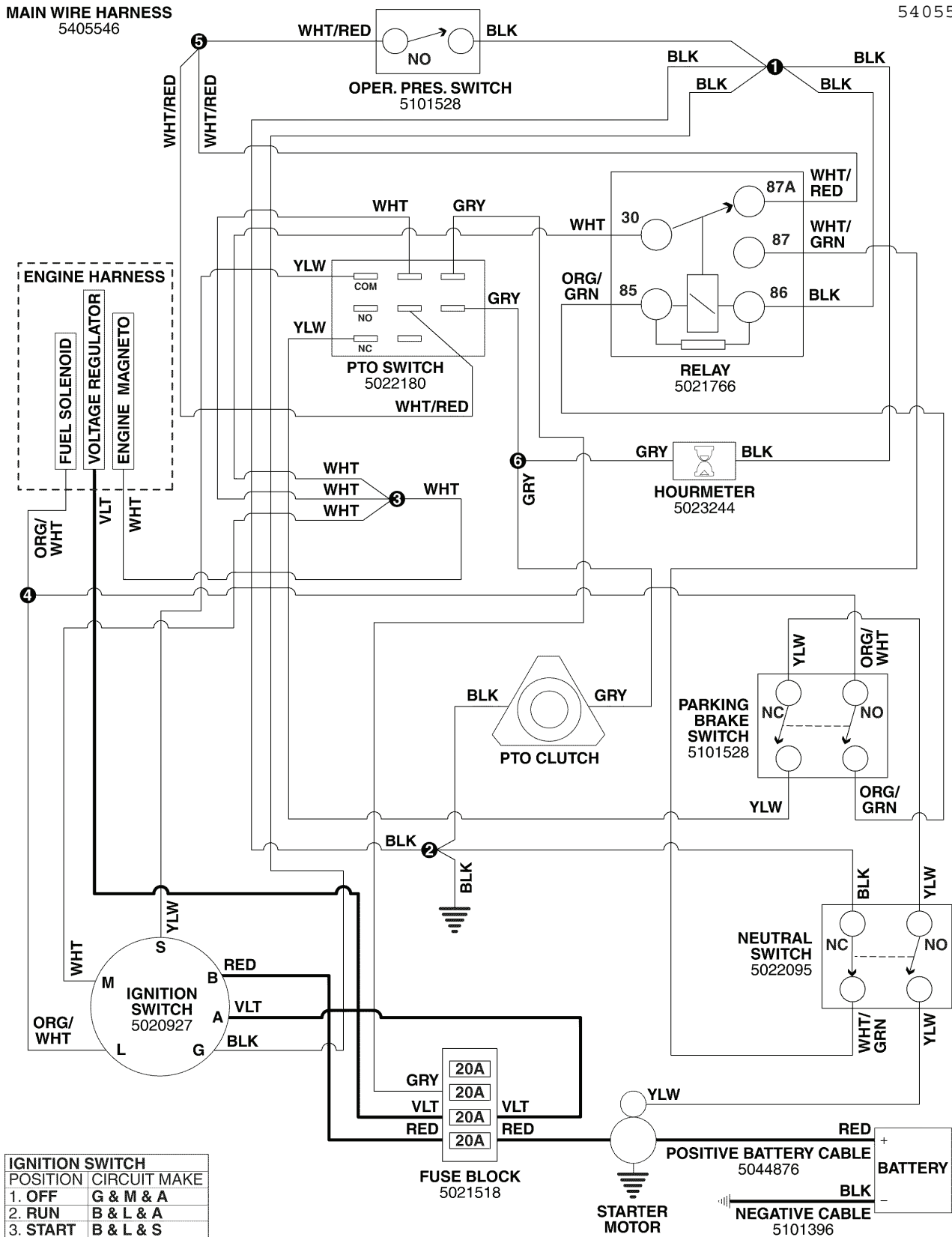
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Electrical Schematic - Charging Circuit

MAIN WIRE HARNESS
5405546

5405546C



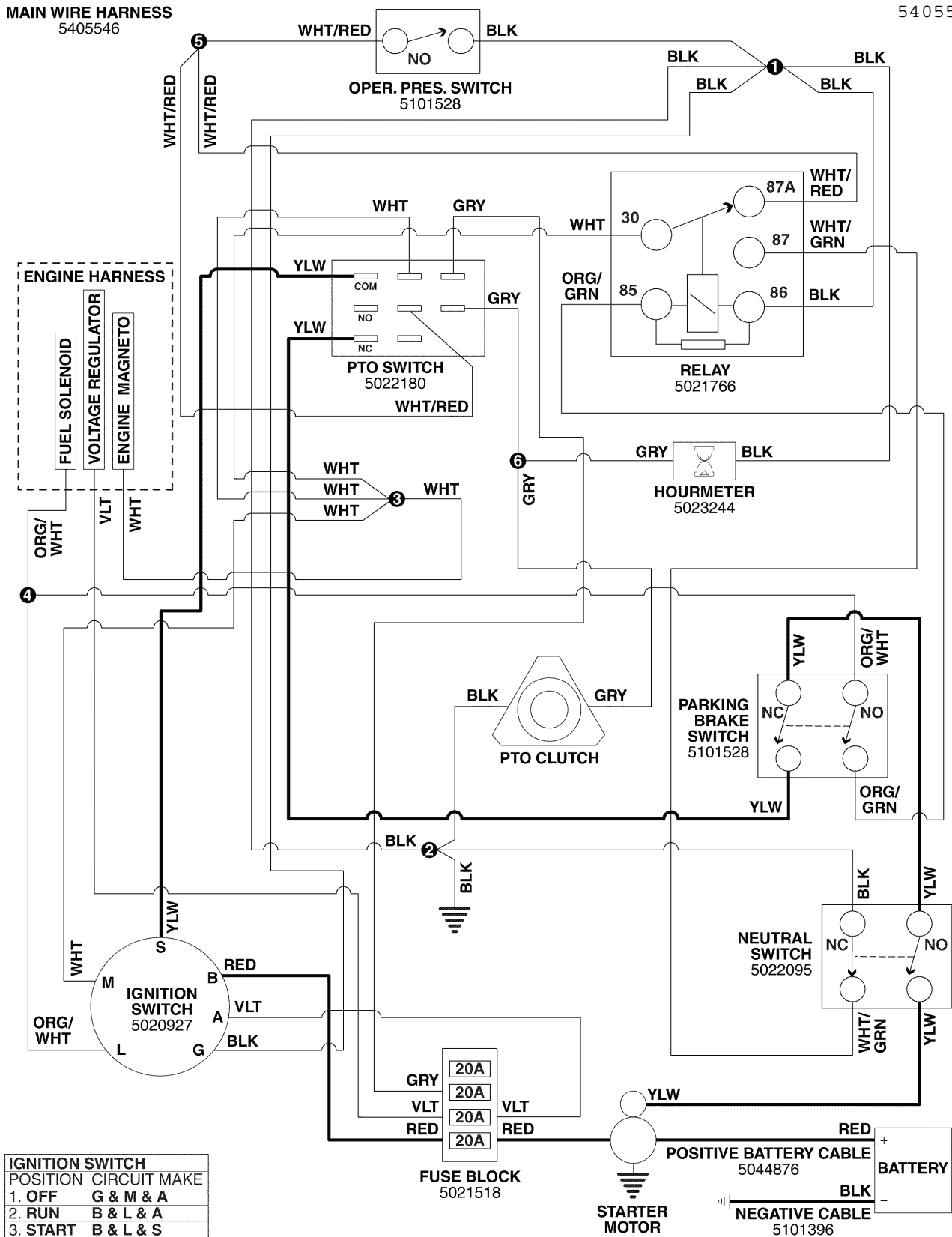
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Electrical Schematic - Cranking Circuit

MAIN WIRE HARNESS
5405546

5405546R



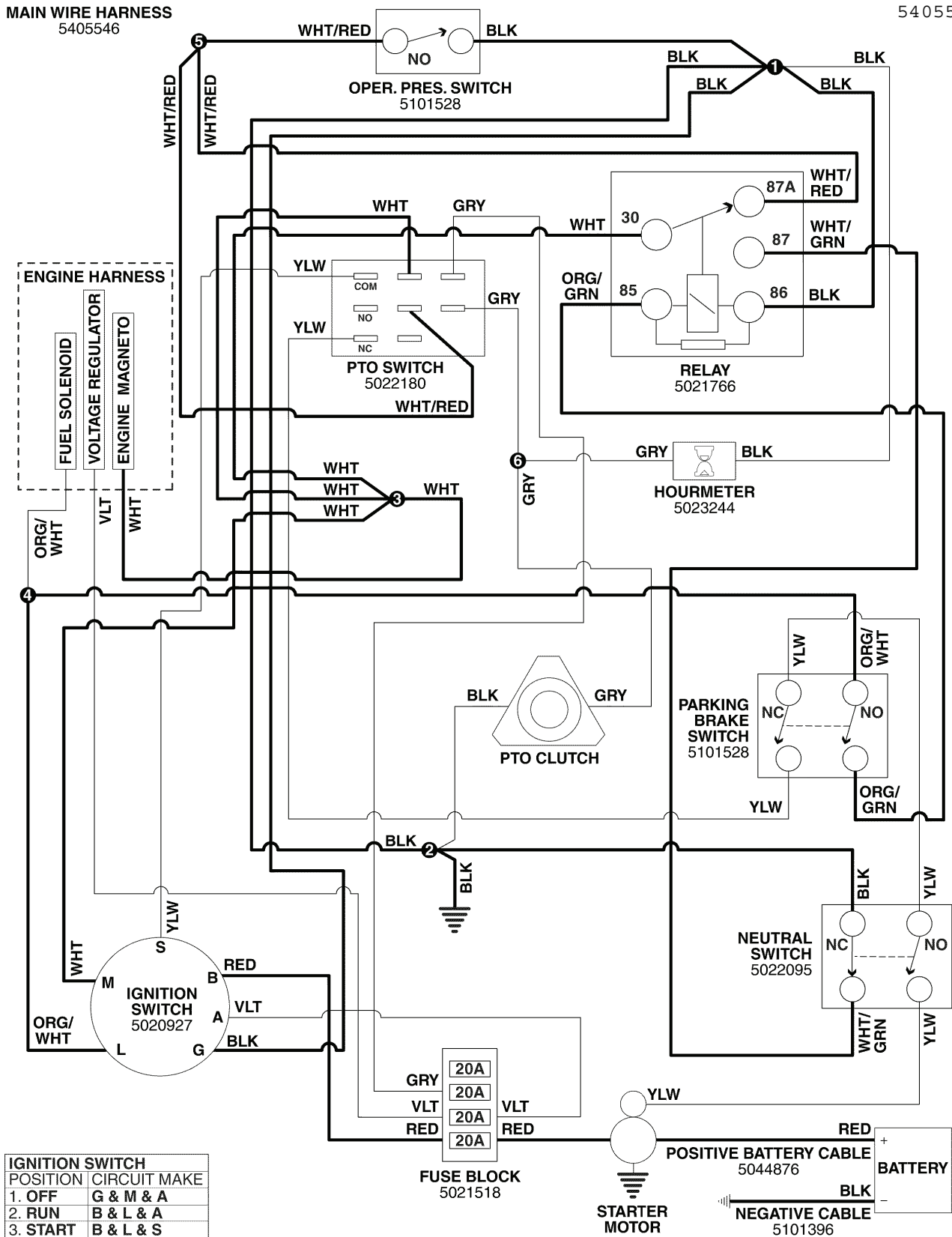
The above parts group applies to the following Mfg. Nos.:

5900520 (FM2448CE)

Electrical Schematic - Ignition / Operator Presence Circuit

MAIN WIRE HARNESS
5405546

5405546I

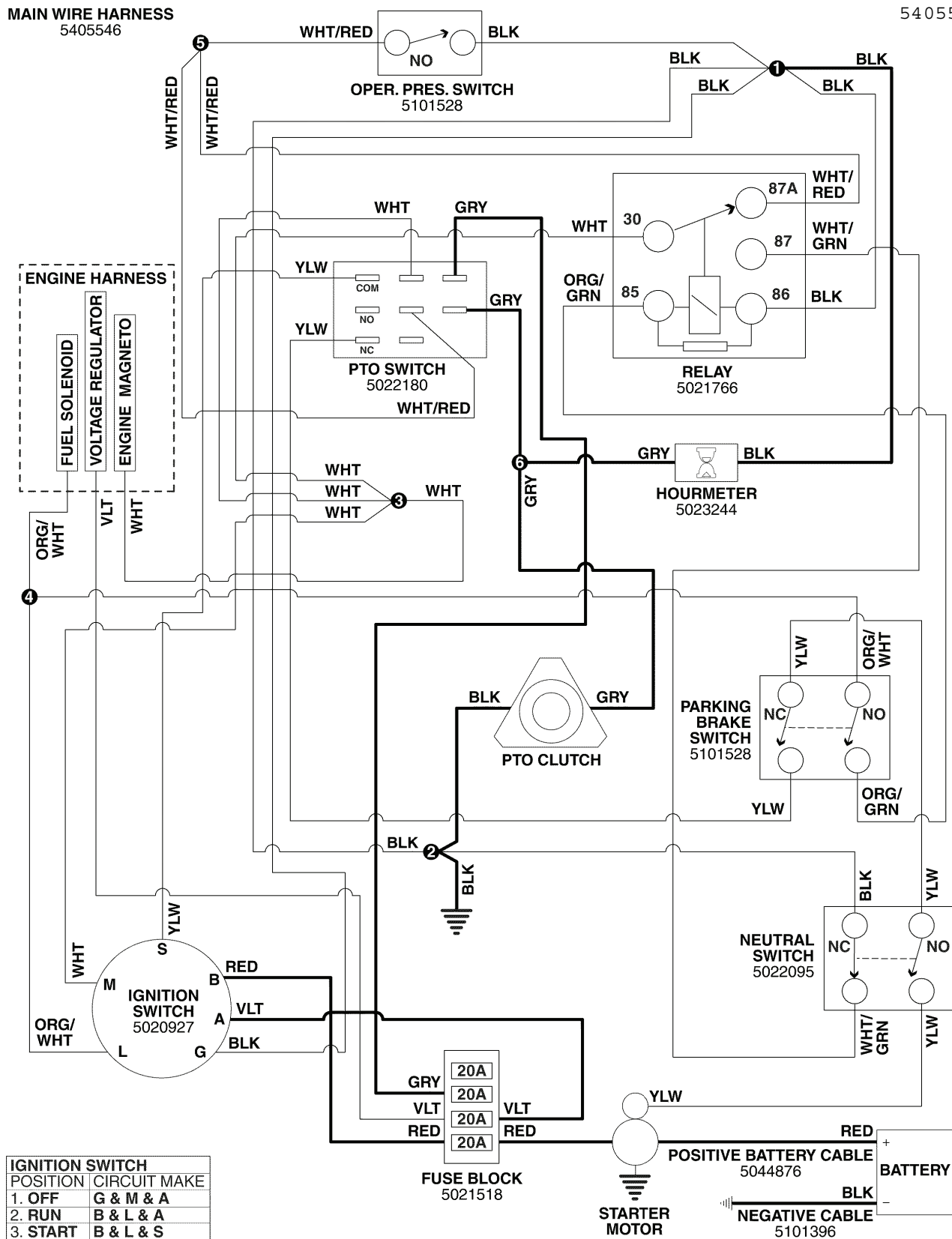


The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Electrical Schematic - PTO Clutch Circuit

MAIN WIRE HARNESS
5405546

5405546P



The above parts group applies to the following Mfg. Nos.:
5900520 (FM2448CE)

Notes

[illegible]

Notes

[illegible]

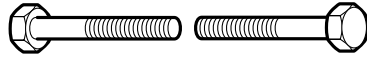
Notes

[illegible]

Hardware Identification & Torque Specifications

Common Hardware Types

Hex Head Capscrew



Carriage Bolt



Washer



Lockwasher



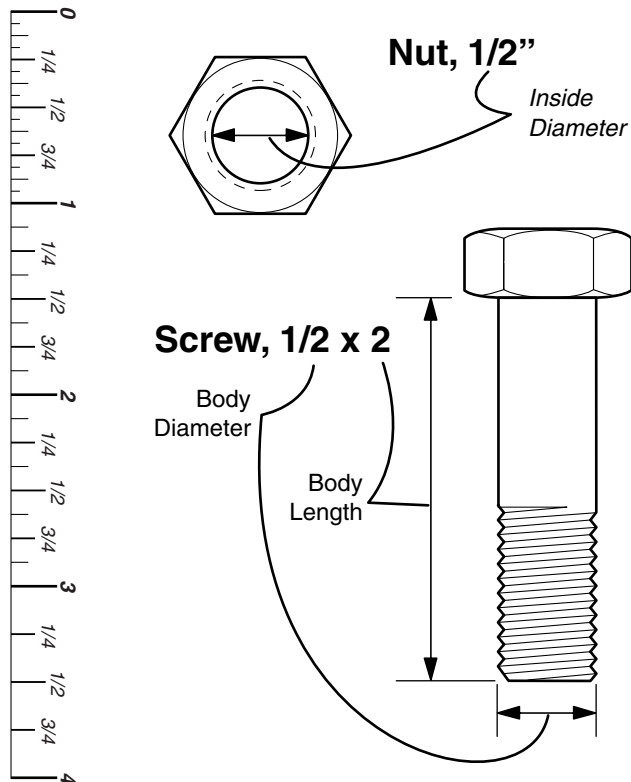
Hex Nut

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 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 (in this example 2 inches long).

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 $\pm 20\%$)

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

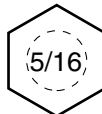
NOTES

- 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 torques.
 - for flange whizlock nuts and screws - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

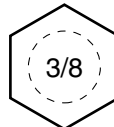
Wrench & Fastener Size Guide



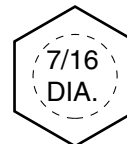
1/4" Bolt or Nut
Wrench—7/16"



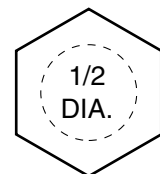
5/16" Bolt or Nut
Wrench—1/2"



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 FM Series

Walk-Behind Flail Mower

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