



Parts Manual

Mfg. No: 5901452

FW35 Series w/ 61" Mower Deck
(FW35BVE2861 49 STATE)

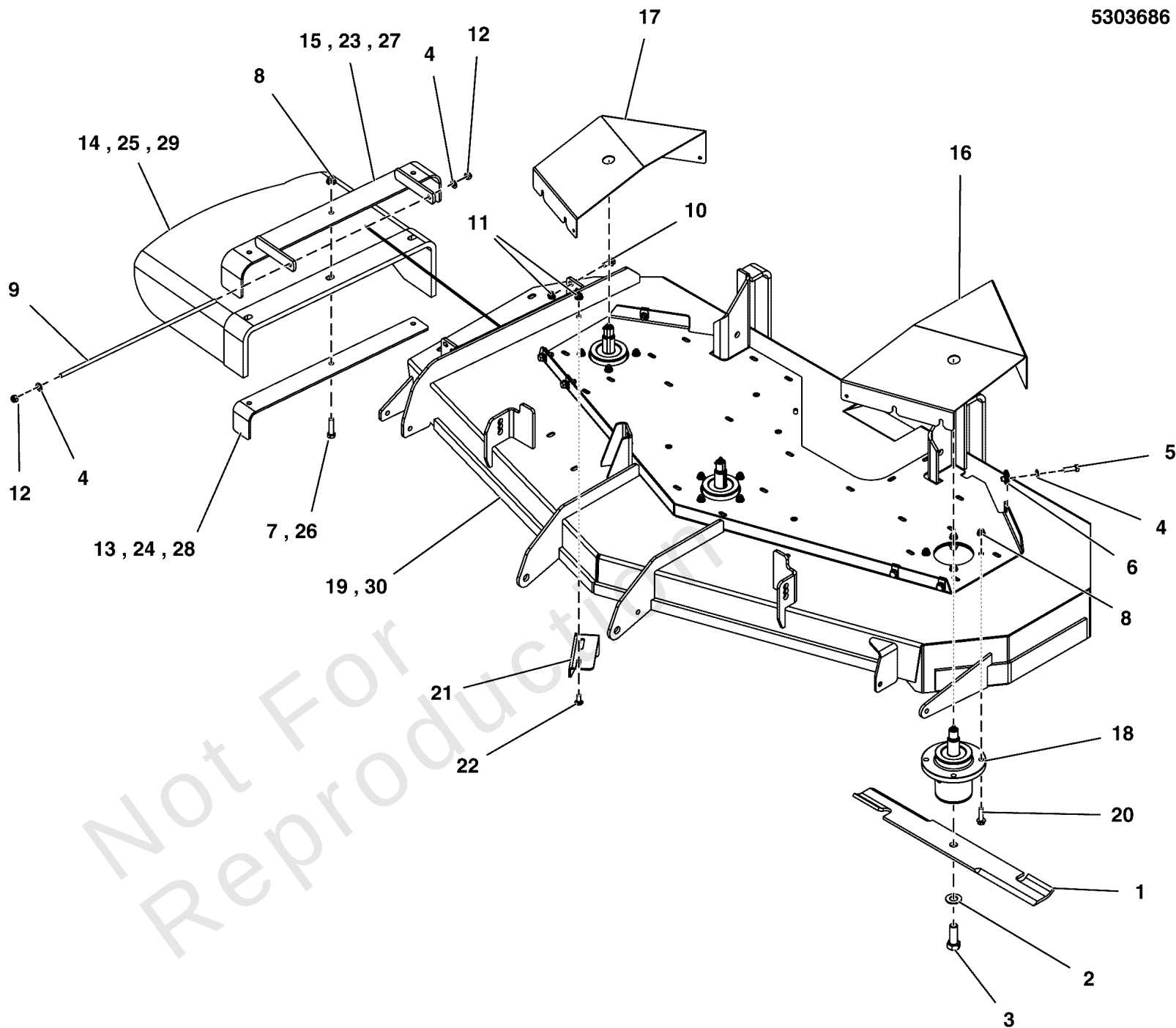
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61" Mower Deck - Housing, Covers, Spindles & Blades S/N: 2017775878 & Below

Note: Unless noted otherwise, use the standard torque specifications

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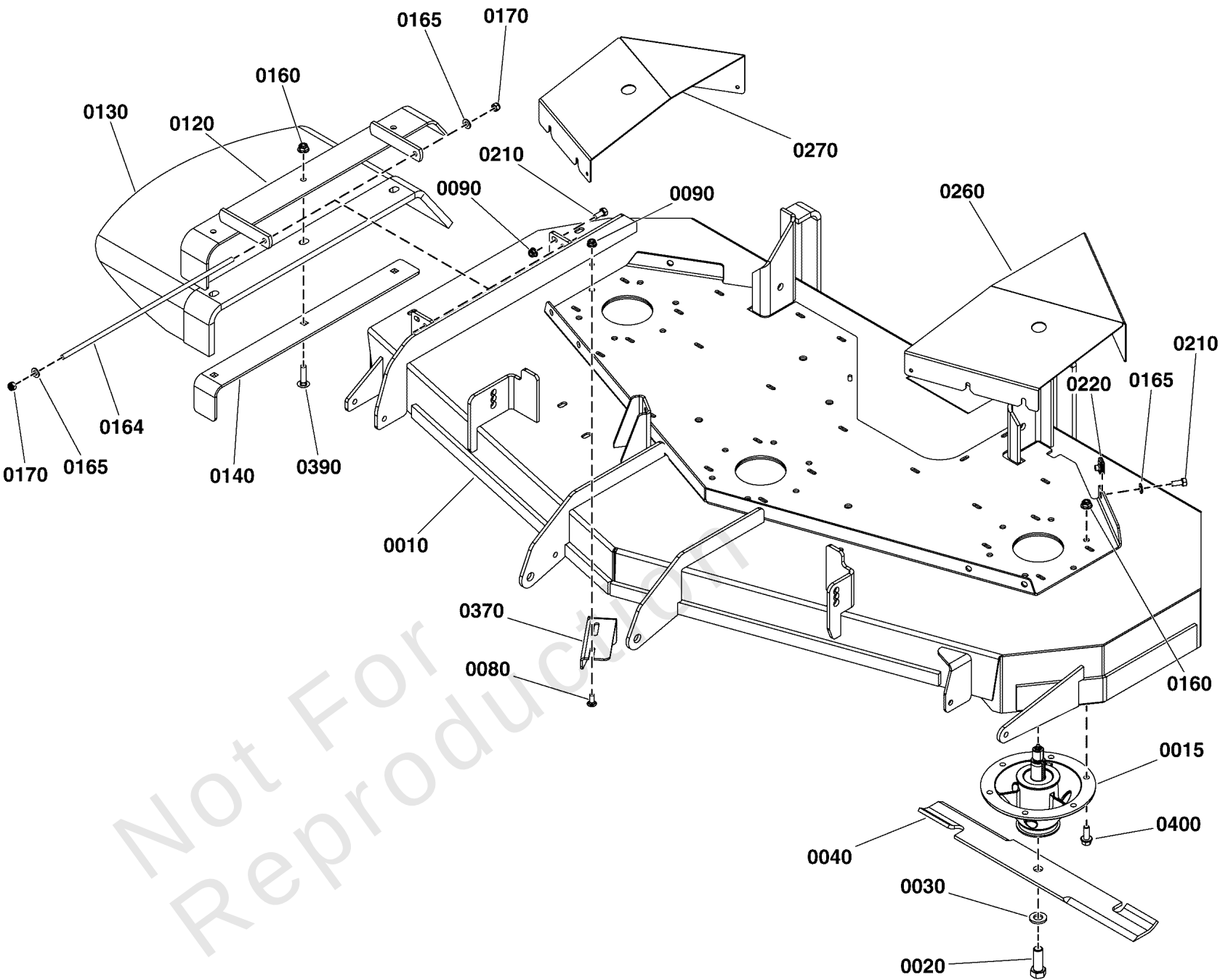
61" Mower Deck - Housing, Covers, Spindles & Blades S/N: 2017775878 & Below

REF NO	PART NO	QTY	DESCRIPTION
1	5101755S	1	BLADE SET, 61 DECK (3) -(SV)(Set of 3 blades)
2	5025477	3	WASHER, BLADE BOLT, 9/16" F436, CZ
3	5025320X14	3	BOLT, 5/8-11 X 1-3/4 GD8
4	5025155	8	WASHER, 5/16" SAE
5	5025011X6	6	BOLT, 5/16-18 X 3/4 GD5
6	5022308	6	BODY CLIP, 5/16-18-7GA MATERIAL
7	5025013X12	3	BOLT, 3/8-16 X 1-1/2" GD5 CZ -(S/N: 2017100600 & Below)
8	5025394	15	NUT, 3/8-16 HEX NYLOCK FLANGE
9	5061300	1	ROD, MOUNT, CHUTE 61, CZ
10	5025011X6	1	BOLT, 5/16-18 X 3/4 GD5
11	5025392	3	NUT, 5/16-18 HEX NYLOCK FLANGE
12	5025045	2	NUT, 5/16-24 HEX NYLON LOCK
13	5402360A	1	SUPPORT, DISCHARGE CHUTE, 61/72 - BLK -(S/N: 2017100600 & Below)
14	5412499	1	CHUTE, BEND, RUBBER, 125 DEG (5103719) -(S/N: 2017100600 & Below)
15	5412418A	1	WELD, FRAME, CHUTE, 61" - BLK -(S/N: 2017100600 & Below)
16	5412187B	1	GUARD, DECK, 61, LH - RED
17	5412188B	1	GUARD, DECK, 61, RH - RED
18	5061095	3	ASSM, SPINDLE, LOW PROFILE
19	5600734	1	DECK SHELL W/ DECALS, 61, FW35 (5411927B) -(S/N: 2017178849 & Below)
20	5025390X10	12	BOLT, 3/8-16 X 1-1/4, FLANGE, GD5, CZ
21	5401344A	1	PLATE, DEFLECTOR - BLK
22	5025145X6	2	BOLT, 5/16-18 X 3/4, CARRIAGE
23	5413400A	1	WELD, MOUNT, DISCHARGE CHUTE - BLK -(S/N: 2017100601 - 2017178849)
24	84011105	1	CHUTE, RUBBER DISCHARGE (5104442) -(S/N: 2017100601 - 2017178849)
25	5413398A	1	SUPPORT, DISCHARGE CHUTE - BLK -(S/N: 2017100601 - 2017178849)
26	5025146X12	3	BOLT, 3/8-16 X 1-1/2, CARRIAGE, GD5, CZ -(S/N: 2017100601 & Above)
27	84008171	1	MOUNT -(S/N: 2017178850 & Above)
28	5413385A	1	SUPPORT, DISCHARGE CHUTE - BLK -(S/N: 2017178850 & Above)
29	84011105	1	CHUTE, RUBBER DISCHARGE (5104442) -(S/N: 2017178850 & Above)
30	5600893	1	DECK SHELL W/ DECALS, 61, FW35 (5414555B) -(S/N: 2017178850 & Above)

61" Mower Deck - Housing, Covers, Spindles & Blades S/N: 2017775879 & Above

Note: Unless noted otherwise, use the standard torque specifications

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61" Mower Deck - Housing, Covers, Spindles & Blades S/N: 2017775879 & Above

REF NO	PART NO	QTY	DESCRIPTION
0010	84013914	1	DECK SHELL W/ DECALS, FW35-61 (5422047B)
0015	5100993	3	SPINDLE ASSM, CAST IRON 8.0 - 6-BOLT
0020	5025320X14	3	BOLT, 5/8-11 X 1-3/4 GD8
0030	5025477	3	WASHER, BLADE BOLT, 9/16" F436, CZ
0040	5101755S	3	BLADE SET, 61 DECK (3) -(Refer to Note :*)
0080	5025145X6	2	BOLT, 5/16-18 X 3/4, CARRIAGE, GD5, CZ
0090	5025392	3	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
0120	84008171	1	MOUNT
0130	84011105	1	CHUTE, Discharge
0140	5413385A	1	SUPPORT, DISCHARGE CHUTE - BLK
0160	5025394	21	NUT, 3/8 - 16 HEX NYLOCK FLANGE
0164	5061300	1	ROD, MOUNT, CHUTE, 61, CZ
0165	5025155	8	WASHER, 5/16" SAE
0170	5025045	2	NUT, 5/16-24 HEX NYLON LOCK
0210	5025011X6	7	BOLT, 5/16-18 X 3/4 GD5
0220	5022308	6	BODY CLIP, 5/16-18-7GA MATERIAL
0260	5412187B	1	GUARD, DECK, 61, LH - RED
0270	5412188B	1	GUARD, DECK, 61, RH - RED
0370	5401344A	1	PLATE, DEFLECTOR - BLK
0390	5025146X12	3	BOLT, 3/8-16 X 1-1/2, CARRIAGE, GD5, CZ
0400	5025390X8	18	BOLT, 3/8-16 X 1, FLANGE, GD 5, CZ

Footnotes:

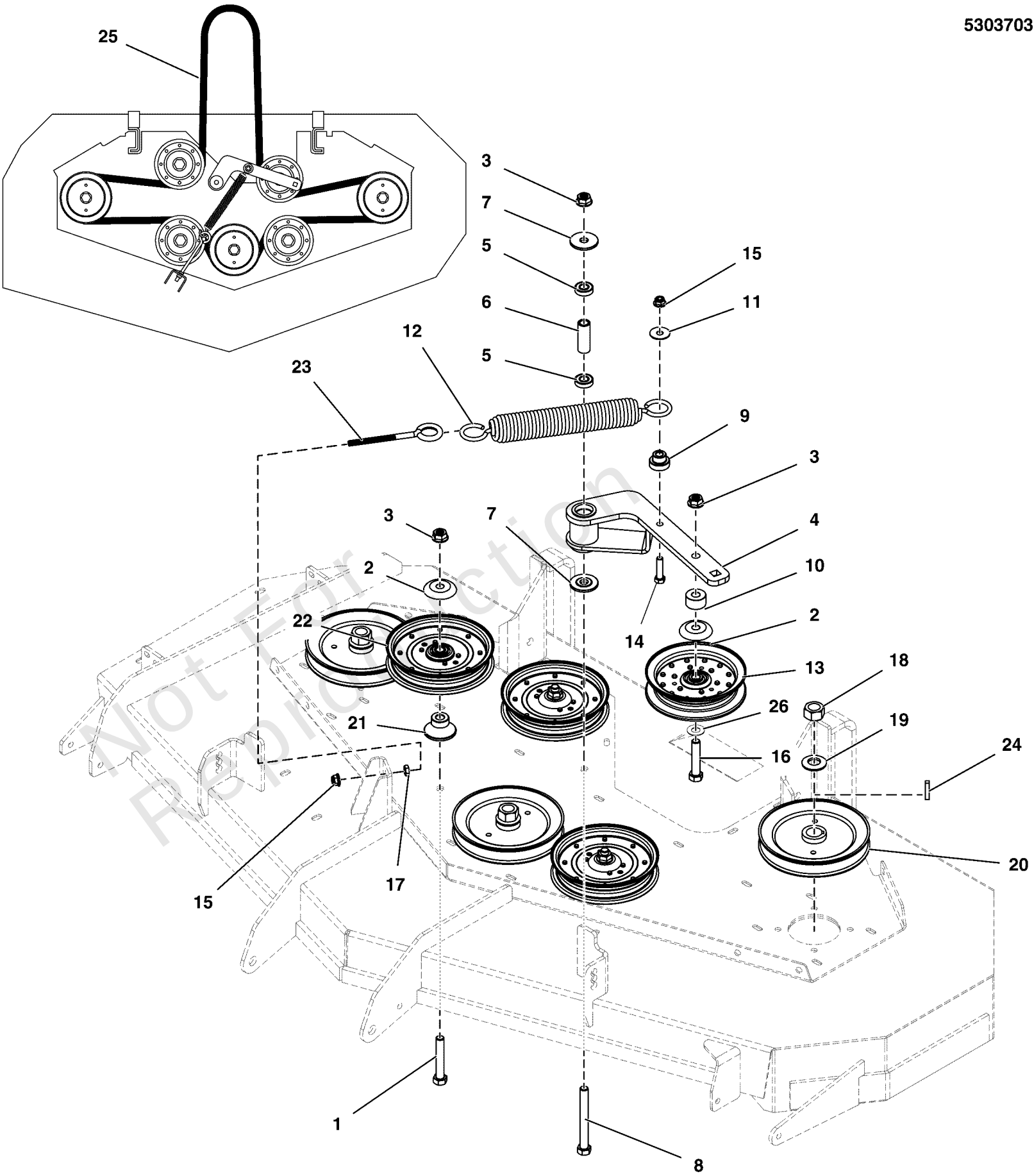
Note : * Set of 3 blades.

61" Mower Deck - Pulleys, Belt Idler Arm

Note: Unless noted otherwise, use the standard torque specifications

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61" Mower Deck - Pulleys, Belt Idler Arm

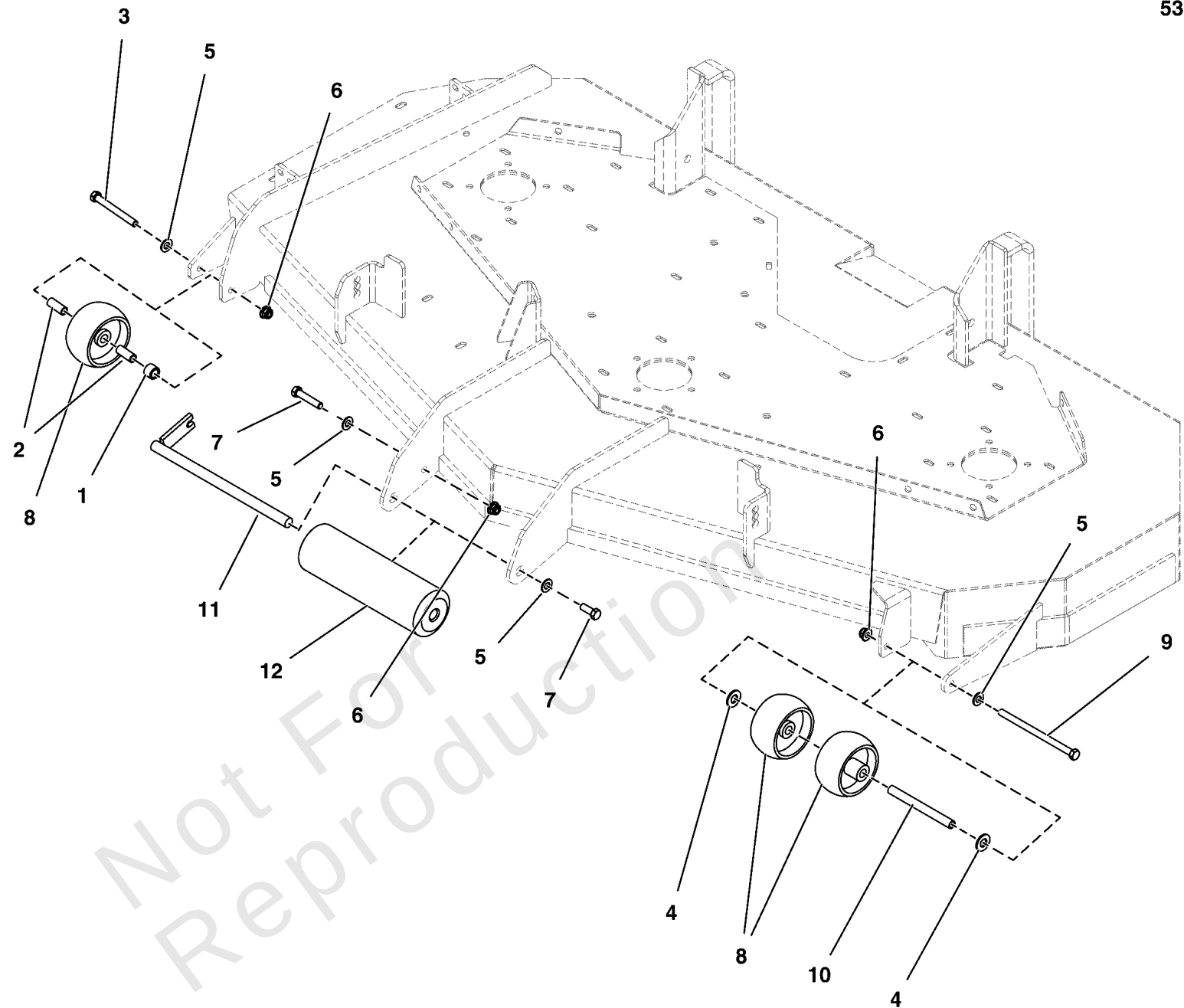
REF NO	PART NO	QTY	DESCRIPTION
1	5025017X24	3	BOLT, 1/2-13 X 3" GD5 CZ
2	5101103	4	SHIELD, PULLEY BEARING, CZ
3	5025396	5	NUT, Hex Flange, Nylock, 1/2-13
4	5412371A	1	WELD, TENSION ARM, CUTTER DECK - BLK
5	7078243	2	BEARING, BALL, AXLE
6	5104172	1	SPACER, .505 X .75 X 2.085, CZ
7	5103262	2	SPACER, IDLER ARM, 1/2, PM
8	5025017X36	1	BOLT, 1/2-13 X 4-1/2 GD5 CZ
9	5102406	1	SPACER, .38 X 1.13 X .781 STEP, CZ
10	5047142	3	SPACER, .52 X 1.25 X .70, CZ
11	5025165	1	WASHER-3/8 FENDER
12	5104166	1	SPRING, EXT, 1.5ODX12.25X.234WIRE BLK
13	-----	1	USE 5104716 PULLEY + 5105145 SHIELD
14	5025013X12	1	BOLT, 3/8-16 X 1-1/2" GD5 CZ
15	5025394	1	NUT, 3/8-16 HEX NYLOCK FLANGE
16	5025017X20	1	BOLT, 1/2-13 X 2-1/2" GD5 CZ
17	5025128	1	NUT, 3/8-16 HEX SERRATED FLANGE
18	5025405	3	NUT, 3/4-16 HEX
19	5025406	3	WASHER, 3/4 BELLEVILLE
20	5100700	3	PULLEY, 6.93 EOD X 25MM, SPLIT
21	5103430	3	IDLER MOUNT
22	-----	3	Replace with: Pulley #5104717 & Debris Shield #5105145
23	5021812	1	EYE BOLT, 3/8-16 X 6, 3THRD, 1EYE, CZ
24	5050407X10	3	KEY, 1/4 SQ X 1-1/4
25	5103872	1	BELT, 5V, 163.40EL, LG ARAMID WRPD, RC
26	5025158	1	WASHER, 1/2 SAE

61" Mower Deck - Rollers

Note: Unless noted otherwise, use the standard torque specifications

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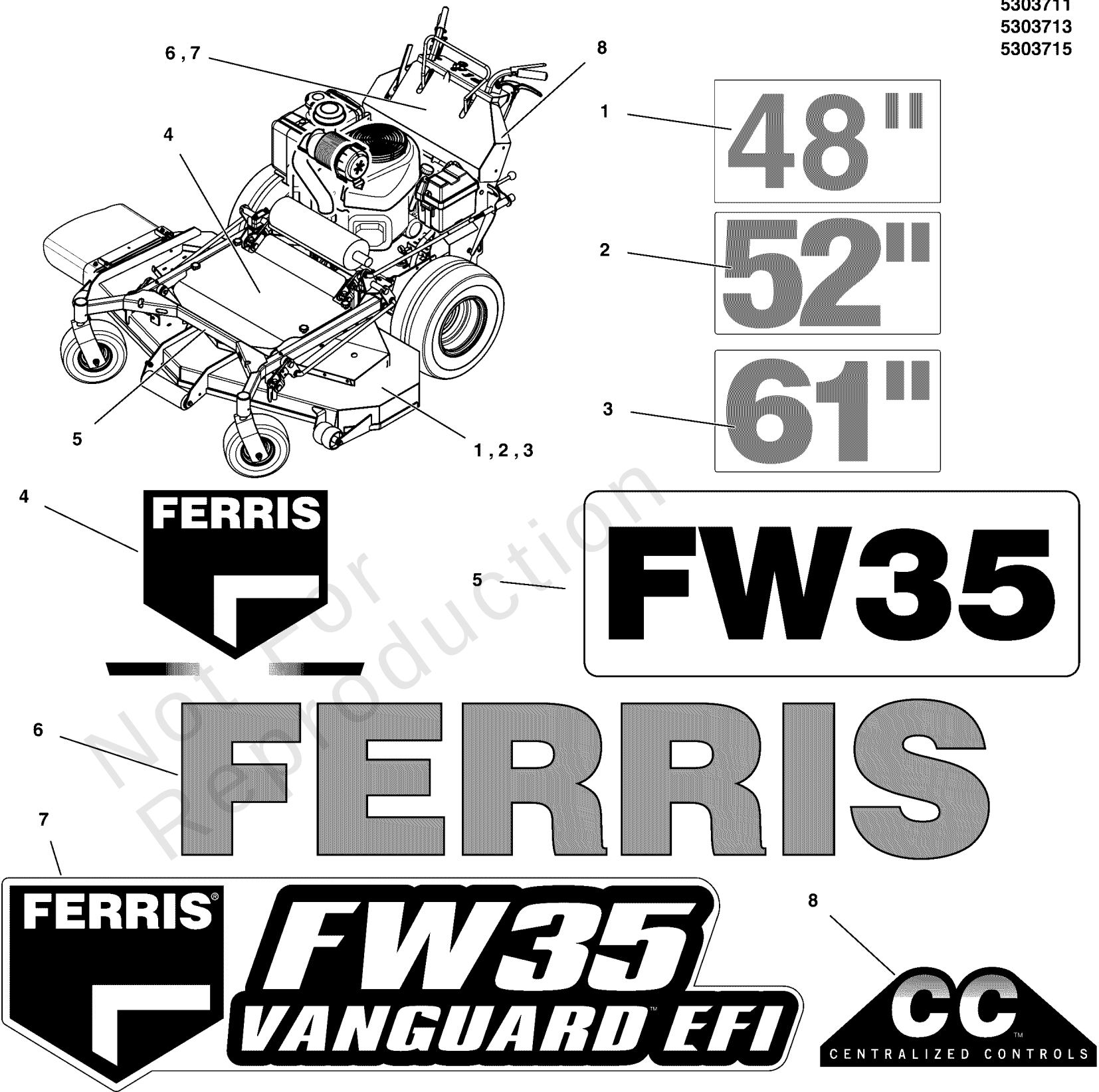
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61" Mower Deck - Rollers

REF NO	PART NO	QTY	DESCRIPTION
1	5047027	1	SPACER, .51 X .75 X .56, PM, CZ
2	5041931	2	SPACER, .38 X .50 X 1.25, CZ
3	5025013X28	1	BOLT, 3/8-16 X 3-1/2" GD5 CZ
4	5025440	2	WASHER, 1/2" GD9 YZ
5	5025156	4	WASHER, 3/8 SAE
6	5025394	3	NUT, 3/8 - 16 HEX NYLOCK FLANGE
7	5025013X8	2	BOLT, 3/8-16 X 1" GD5 CZ
8	1714760	3	WHEEL- 2.00 WIDE 3.88 DIA 0.531ID POLY
9	5025013X48	1	BOLT, 3/8-16 X 6" GD5 CZ
10	5046586	1	SPACER, .38 X .50 X 5.06, CZ
11	5105755	1	PIN, ROLLER, CZ
12	5020785	1	ROLLER, DECK

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Decal Group - Brand & Model S/N: 2017243270 & Below

REF NO	PART NO	QTY	DESCRIPTION
1	5022811	1	DECAL, 48 -(Models with 48" Mower Decks)
2	5022812	1	DECAL, 52 -(Models with 52" Mower Decks)
3	5022813	1	DECAL, 61 -(Models with 61" Mower Decks)
4	5100850	1	DECAL, FERRIS SHIELD
5	5104224	1	DECAL, BRAND, FW35
6	5103799	1	DECAL, FERRIS, 2.23" X 11.39"
7	5104513	1	DECAL, MODEL SERIES, FW35, EFI -(Models with Briggs & Stratton EFI Engines)
8	5104518	1	DECAL, CENTRALIZED CONTROLS -(Models with Centralized Controls)

Decal Group - Brand & Model S/N: 2017243271 & Above

Note: Unless noted otherwise, use the standard torque specifications

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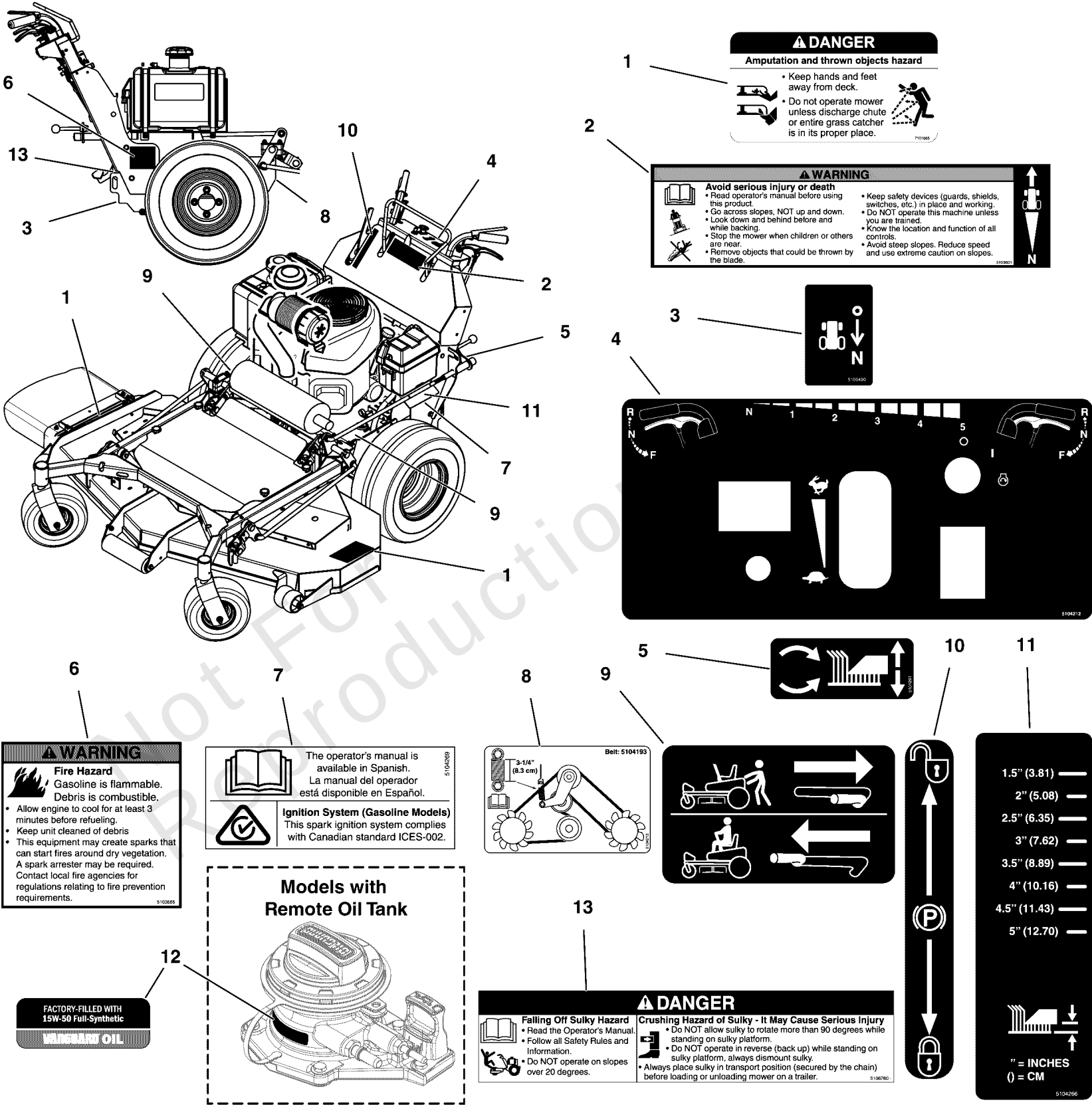
Decal Group - Brand & Model S/N: 2017243271 & Above

REF NO	PART NO	QTY	DESCRIPTION
1	5022811	1	DECAL, 48 -(Models with 48" Mower Decks)
2	5022812	1	DECAL, 52 -(Models with 52" Mower Decks)
3	5022813	1	DECAL, 61 -(Models with 61" Mower Decks)
4	5104767FS	1	DECAL, BRAND
5	5104764FS	1	DECAL, MODEL
6	5103799	1	DECAL, FERRIS, 2.23" X 11.39"
7	5104518	1	DECAL, CENTRALIZED CONTROLS -(Models with Centralized Controls)

Decal Group - Safety & Operation

Note: Unless noted otherwise, use the standard torque specifications

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Decal Group - Safety & Operation

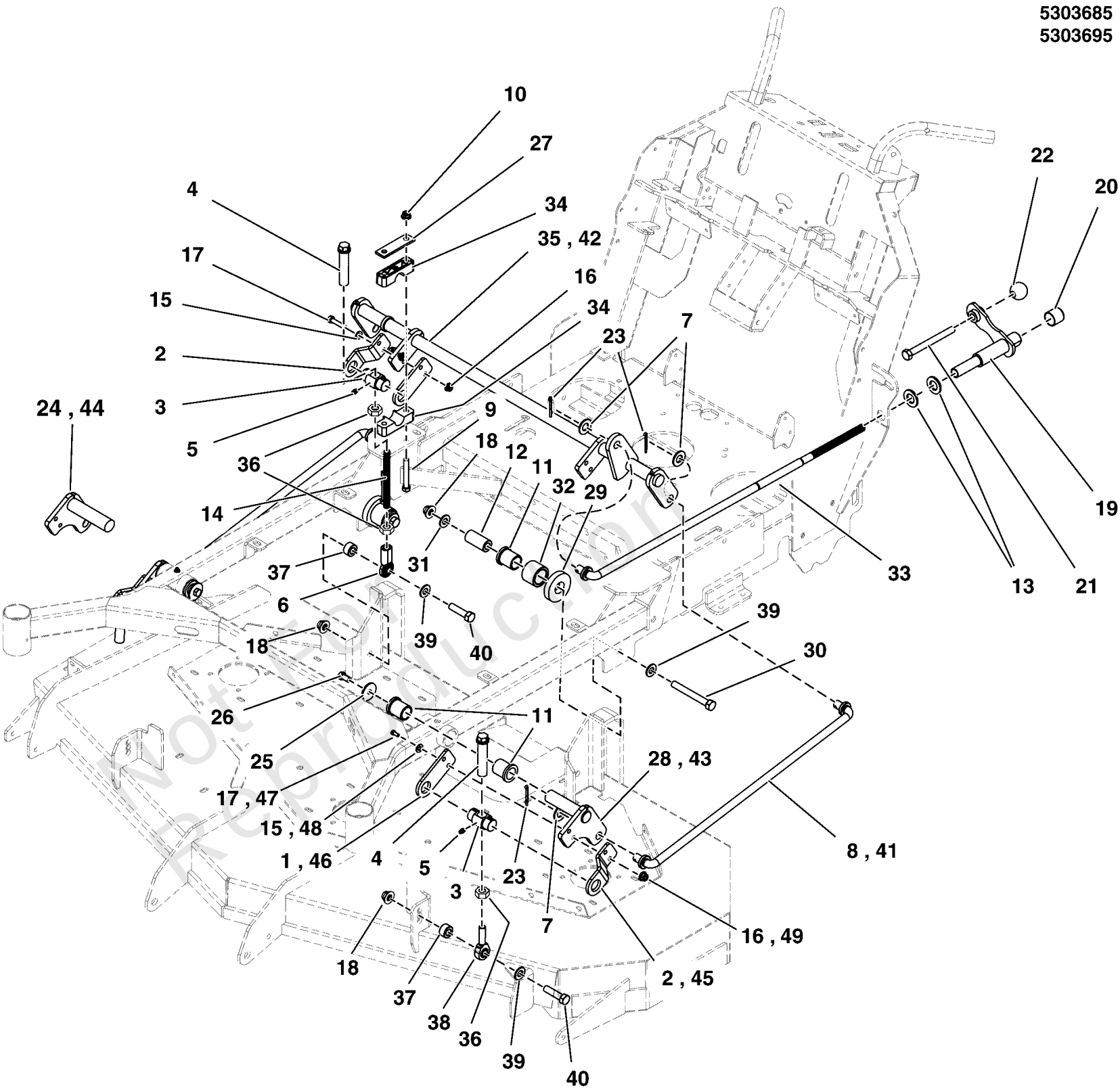
REF NO	PART NO	QTY	DESCRIPTION
1	7101665	2	DECAL, DANGER DO NOT OPERATE W/O DEFLECT
2	5103601	1	DECAL, WARNING, WALKS
3	5100490	2	DECAL, PEDAL
4	5104566	1	DECAL, DASH PANEL, WKB, MAN/ELEC START
5	5101291	1	DECAL, CUT HEIGHT, SPDD
6	5103665	1	DECAL, FIRE HARARD, 3.25W X 3.0H
7	5104269	1	DECAL, SPANISH MANUAL, IGES, C-TICK
8	5104213	1	DECAL, BELT ROUTING, F/SW35
9	5104268	2	DECAL, TRANSAXLE RELEASE, WB
10	5102628	1	DECAL, PARKING BRAKE SYMBOLS
11	5104266	1	DECAL, CUT HEIGHT, WB, 1.5"-5"
12	-----	1	LABEL, OIL INFORMATION -(Models w/ Remote Oil Tank Only)
13	5106760	1	DECAL, MAIN SAFETY, SULKY -(S/N: 4000036919 & Above)

Deck Lift Group

Note: Unless noted otherwise, use the standard torque specifications

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Deck Lift Group

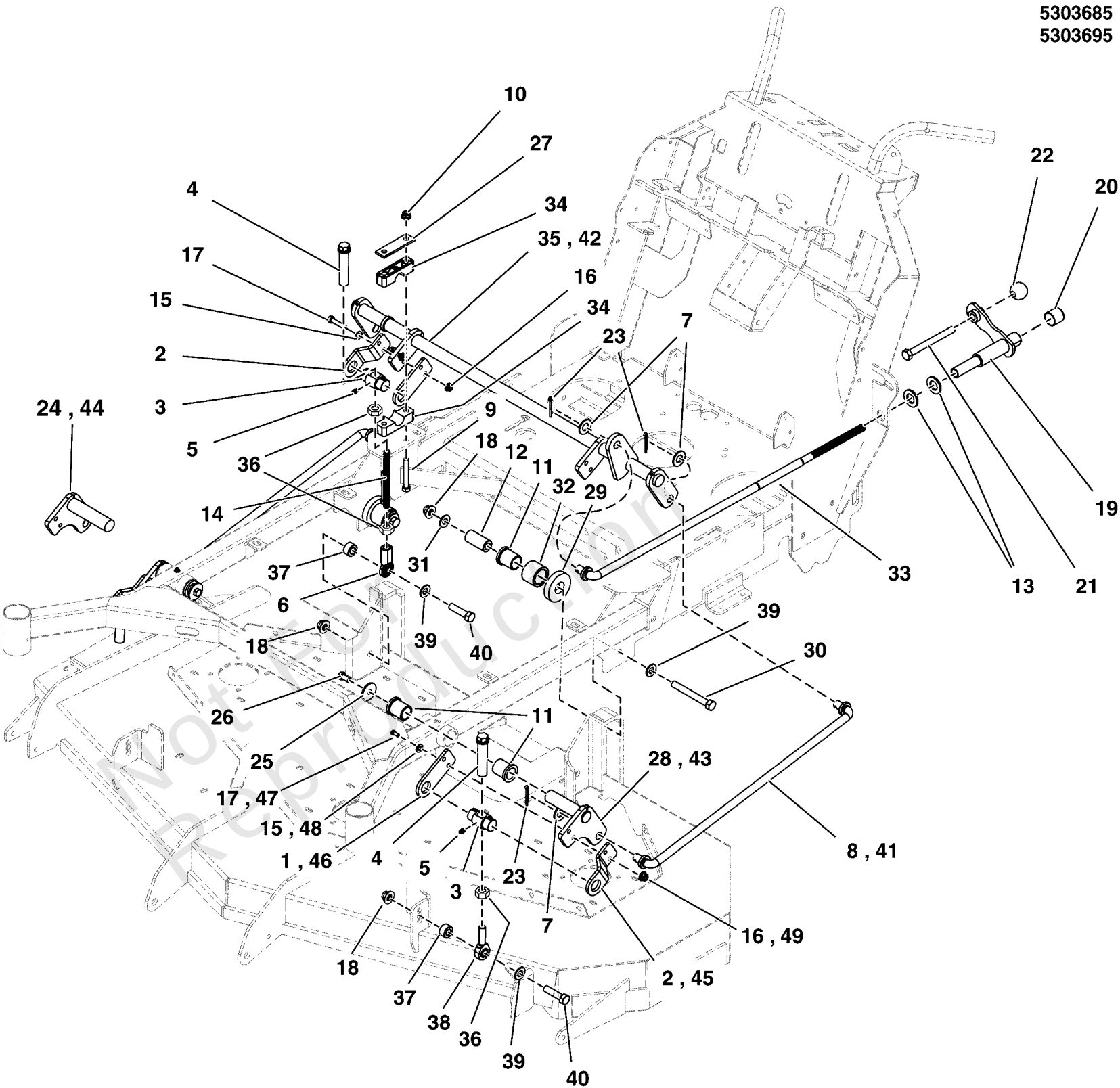
REF NO	PART NO	QTY	DESCRIPTION
1	5412287A	4	BRACKET, INNER TRUNION MOUNT - BLK -(S/N: 2017102063 & Below)
2	5412286A	4	BRACKET, OUTER TRUNION MOUNT - BLK -(S/N: 2017102063 & Below)
3	5104238	4	PIVOT, DECK LIFT TRUNION, GREASABLE
4	5109915FS	4	ADJUSTER, HEIGHT
5	5020095	4	GREASE FITTING, 1/4-28 STRAIGHT
6	1702779	2	JOINT-BALL .500-20 THD .500ID, CLR ZINC
7	5025281	5	WASHER, 5/8 SAE
8	5104208	2	ROD, DECK LIFT TIMING, 61 -(Models with 61" Mower Decks Only)
9	5025013X22	4	BOLT, 3/8-16 X 2-3/4" GD5 CZ
10	5025394	4	NUT, 3/8-16 HEX NYLOCK FLANGE
11	5021541	6	BUSHING, FLANGE
12	5100732	2	SPACER, .52 X 1.00 X 2.09 - SS
13	5025160	2	WASHER, 3/4 SAE
14	5102665	2	ROD, 1/2-20 X 5.50 TFL, CZ
15	5025155	8	WASHER, 5/16" SAE -(S/N: 2017102063 & Below)
16	5025392	8	NUT, 5/16-18 HEX NYLOCK FLANGE -(S/N: 2017102063 & Below)
17	5025011X12	8	BOLT, 5/16-18, GD5 CZ -(S/N: 2017102063 & Below)
18	5025396	6	NUT, Hex Flange, Nylock, 1/2-13
19	5102774A	1	DECK CRANK, SW30 - BLK
20	5102086	1	CAP, VINYL, 1.062 X 1.00 BLK
21	5025017X40	1	BOLT-1/2-13 X 5 GD5 CZ
22	5021733	1	KNOB, PLASTIC, 1/2-13
23	5025203X10	5	PIN, COTTER, 1/8 X 1-1/4
24	5412177A	1	WELD, DECK LIFT LEVER, RH - BLK -(S/N: 2017102063 & Below)
25	5100548	2	WASHER, .390 X 1.50 X .109, YZ
26	5025443	2	BOLT, 3/8-16 X 3/4, PLT W/PATCH
27	5403925A	2	PLATE, PIVOT BLOCK SUPPORT - BLK
28	5412176A	1	WELD, DECK LIFT LEVER, LH - BLK -(S/N: 2017102063 & Below)
29	5061010	2	WASHER, FRICTION
30	5025017X26	2	BOLT, 1/2-13 X 3-1/4, HEX HD, GD5, CZ (SV)
31	5025150	2	WASHER, 1/2 USS
32	5100731	2	ROLLER, DECK HEIGHT
33	5104220	1	ROD, DECK HEIGHT
34	5100634	4	PIVOT BLOCK, PLASTIC
35	5411918A	1	WELD, SHAFT, DECK LIFT, SW35 - BLK -(S/N: 2017102063 & Below)
36	5025089	2	NUT, 1/2-20 HEX JAM
37	5105392	4	WASHER, .515 X 1.00 X .25", CZ
38	5104267	2	BALL JOINT, 1/2-20, RH, MALE, METAL RACE
39	5025158	6	WASHER, 1/2 SAE
40	5025017X16	4	BOLT, 1/2-13 X 2" GD5 CZ
41	5104209	2	ROD, DECK LIFT TIMING, 48-52 -(Models with 48" or 52" Mower Decks Only)
42	5413894A	1	WELD, SHAFT, DECK LIFT, SW35 - BLK -(S/N: 2017102064 & Above)
43	5413895A	1	WELD, DECK LIFT LEVER, LH - BLK -(S/N: 2017102064 & Above)

Deck Lift Group

Note: Unless noted otherwise, use the standard torque specifications

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Deck Lift Group

REF NO	PART NO	QTY	DESCRIPTION
44	5413896A	1	WELD, DECK LIFT LEVER, RH - BLK -(S/N: 2017102064 & Above)
45	5413899A	4	BRACKET, OUTER TRUNION MNT - BLK -(S/N: 2017102064 & Above)
46	5413900A	4	BRACKET, INNER TRUNION MNT - BLK -(S/N: 2017102064 & Above)
47	5025013X12	8	BOLT, 3/8-16 X 1-1/2" GD5 CZ -(S/N: 2017102064 & Above)
48	5025156	8	WASHER, 3/8 SAE -(S/N: 2017102064 & Above)
49	5025394	8	NUT, 3/8-16 HEX NYLOCK FLANGE -(S/N: 2017102064 & Above)

Electrical Group - Electric Start Models

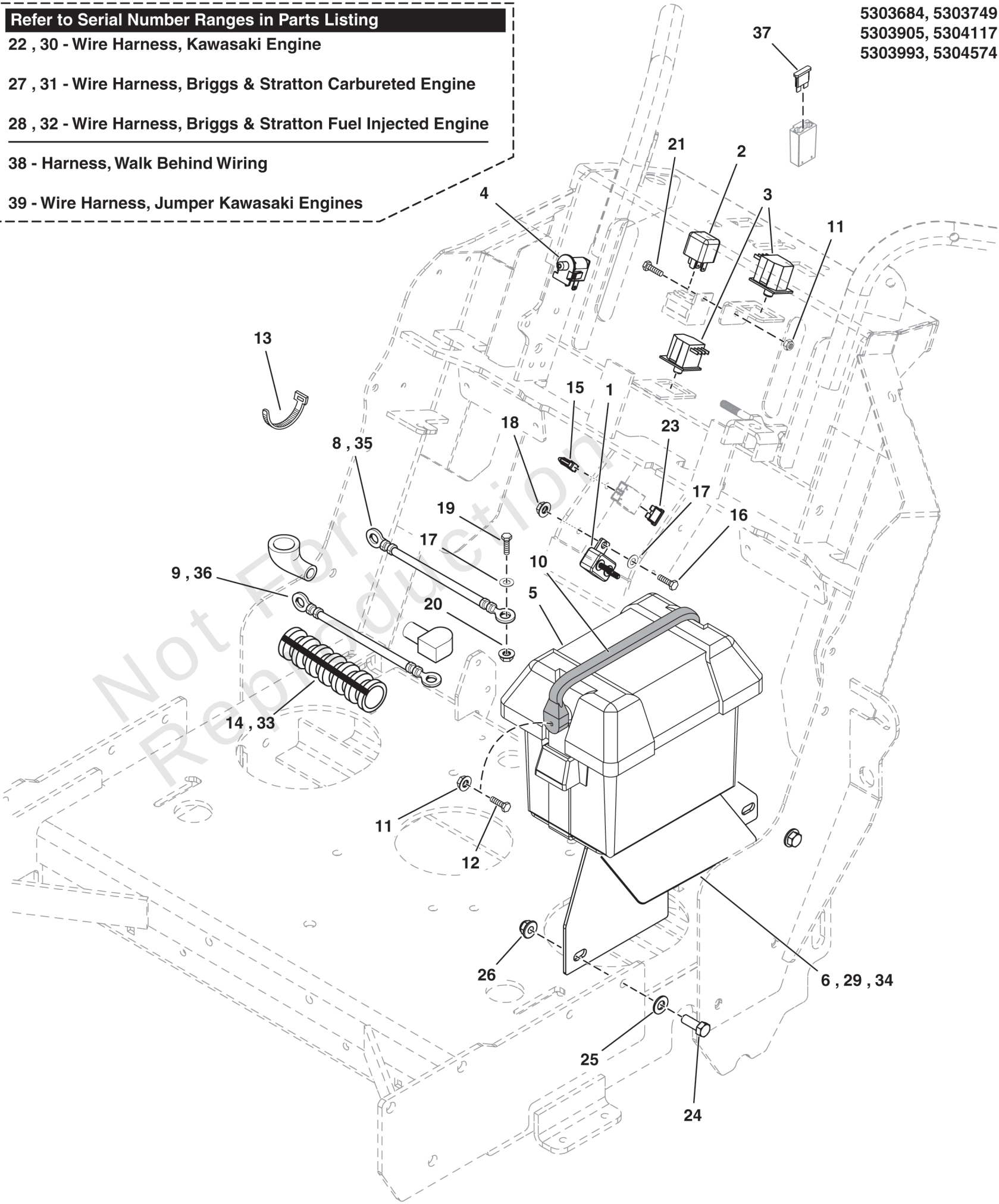
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

Refer to Serial Number Ranges in Parts Listing

- 22 , 30 - Wire Harness, Kawasaki Engine
- 27 , 31 - Wire Harness, Briggs & Stratton Carbureted Engine
- 28 , 32 - Wire Harness, Briggs & Stratton Fuel Injected Engine
- 38 - Harness, Walk Behind Wiring
- 39 - Wire Harness, Jumper Kawasaki Engines

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5303993, 5304574



Electrical Group - Electric Start Models

REF NO	PART NO	QTY	DESCRIPTION
1	1665238	1	BREAKER-CIRCUIT 12VOLT 20AMPS W/TAB -(S/N: 2017711825 & Below)
2	5021766	1	RELAY, 12 VOLT, 40 AMP
3	5101280	2	SWITCH, PLUNGER, NO/NC SNAP-IN, LOW PROFILE
4	1704379	1	SWITCH-PUSH BUTTON OP PRES BLACK SNAP IN -(S/N: 2016973573 & Below)
5	5100688	1	BATTERY BOX, W/ DRAIN HOLE
6	5412210A	1	WELD, BATTERY MOUNT, SW35 - BLK -(S/N: 2017170234 & Below)
7	-----	1	BATTERY -(Not illustrated)
8	5101396	1	CABLE, BATTERY, NEG, 30, 1/4-5/16 -(All other models)
9	5044876	1	BATTERY CABLE, POS, 35, 1/4-5/16 -(All other models)
10	5021670	1	STRAP, RUBBER
11	5025271	3	NUT, Hex, Nylon Lock, #10-24
12	5025270	2	SCREW, #10-24 X 1 RS, CZ
13	5021029	8	TIE, SELF-LOCKING, 12"
14	5050927X27	1	WIRE LOOM, 3/8 ID X 27" LONG -(All other models)
15	5103761	2	FIR TREE MOUNT, PACKARD
16	5025010X6	1	BOLT, 1/4"-20 X 3/4" GD5 YZ
17	5025154	3	WASHER, 1/4 SAE
18	5025391	1	NUT, 1/4-20 Hex Nylock Flange
19	-----	2	HHCS, 1/4-20 X 0.625, GR5, ZINC/CLEAR
20	5025126	2	NUT, 1/4-20 HEX SERR. FLANGE
21	5025179X4	1	SCREW, #10-24 X 1/2" ROUND PHILLIPS
22	5412164	1	WIRE HARNESS, SW35/FW35 KAWI -(Kawi Models - S/N: 2016973573 & Below)
22	5413415	1	WIRE HARNESS, SW35, KAWI, NO BRAKE -(Kawi Models - S/N: 2016973574 - 2017711825)
23	5101935	1	FUSE, ATO-15 (15 AMP)(SV) -(SV)
24	5025013X8	3	BOLT, 3/8-16 X 1" GD5 CZ -(Qty: 2 - All other models)
25	5025156	3	WASHER, 3/8 SAE -(Qty: 2 - All other models)
26	5025394	3	NUT, 3/8 - 16 HEX NYLOCK FLANGE -(Qty: 2 - All other models)
27	5413416	1	WIRE HARNESS, SW35, BV, NO BRAKE -(B&S Carbureted Models - S/N: 2017711825 & Below)
28	5413167	1	WIRE HARNESS, SW/FW35 BVE 28 -(B&S EFI Models - S/N: 2017711825 & Below)
29	5413945A	1	WELD, BATTERY MOUNT, W35 - BLK -(All other models - S/N: 2017170235 & Above)
30	5416150	1	WIRE HARNESS, W35, KAWI, NO BRAKE -(Kawi Models - S/N: 2017711826 - 2017954956)
31	5416163	1	WIRE HARNESS, W35, BV, NO BRAKE -(B&S Carbureted Models - S/N: 2017711826 - 2017954956)
32	5416151	1	WIRE HARNESS, W35, BVE 28, NO BRAKE -(B&S EFI Models - S/N: 2017711826 2017954956)
33	5050927X29	1	WIRE LOOM, 3/8" ID X 29.00 IN -(Models with Remote Oil Tank Only)
34	5415329A	1	WELD, MOUNT-BATTERY, W35 - BLK -(Models with Remote Oil Tank Only)
35	5105301	1	BATTERY CABLE,NEG, 42, 1/4-5/16 -(Models with Remote Oil Tank Only)

Electrical Group - Electric Start Models

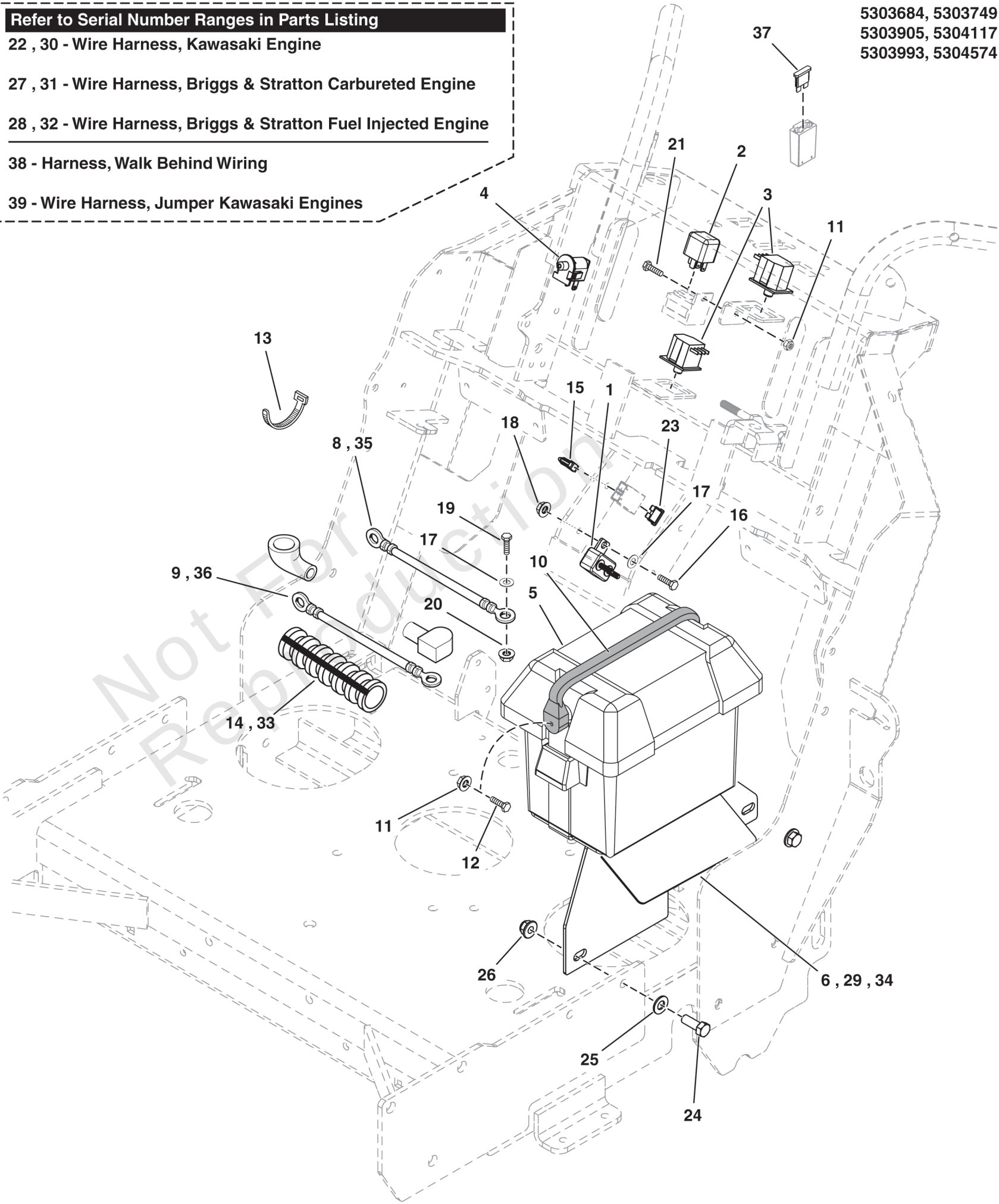
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- 22 , 30 - Wire Harness, Kawasaki Engine
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- 38 - Harness, Walk Behind Wiring
- 39 - Wire Harness, Jumper Kawasaki Engines

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5303993, 5304574



Electrical Group - Electric Start Models

REF NO	PART NO	QTY	DESCRIPTION
36	5105300	1	BATTERY CABLE, POS, 47, 1/4-5/16 -(Models with Remote Oil Tank Only)
37	5021603	1	FUSE, ATO-20 (20 AMP)(SV) -(SV)(S/N: 2017711826 & Above)
38	5105538	1	HARNESS, WALK BEHIND, WIRING -(S/N: 2017954956 & Above)
39	5105303	1	WIRE HARNESS, JUMPER, KAWI - LARGE HARNE -(Kawi Models - S/N: 2017954956 & Above)

Not For Reproduction

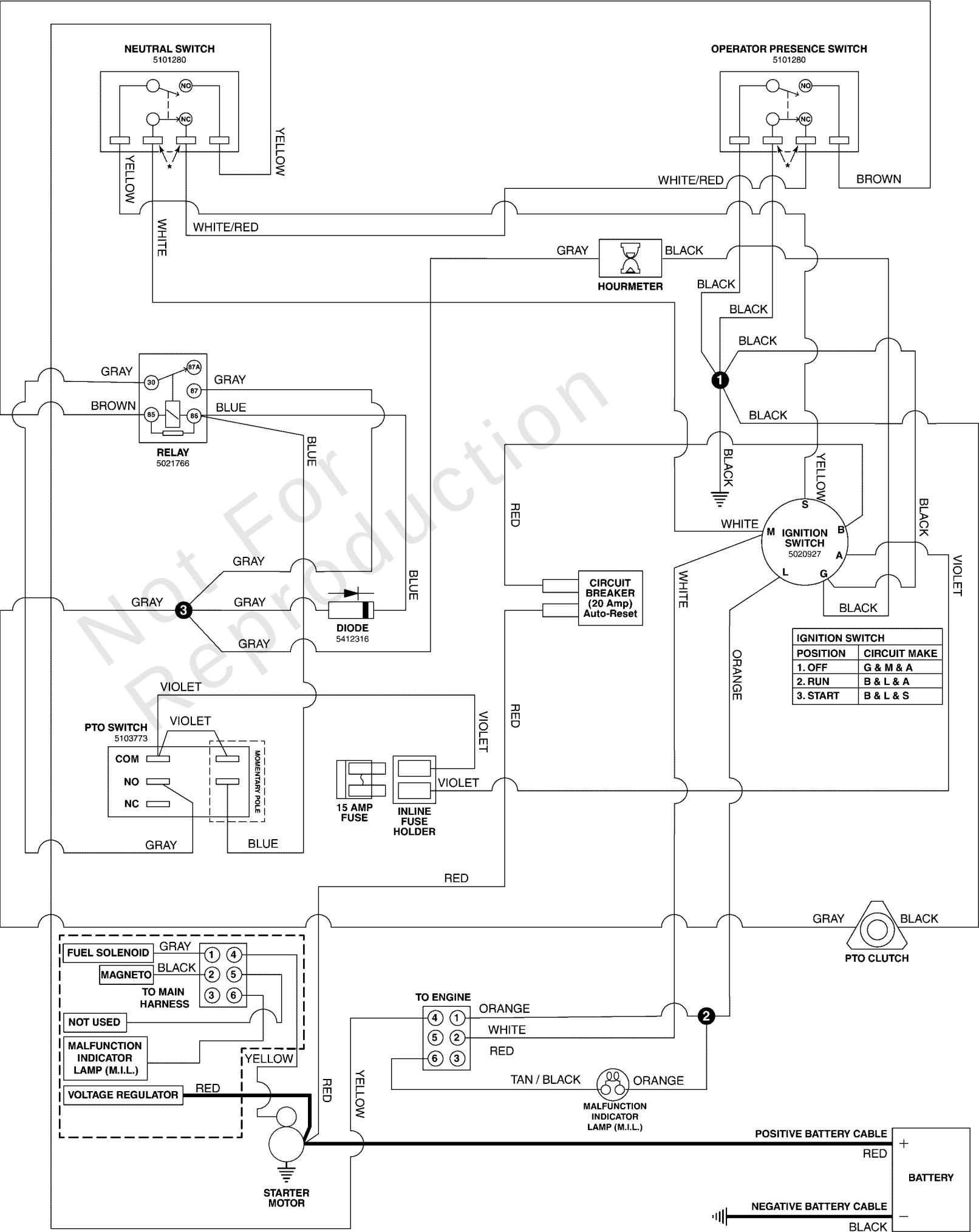
Electrical Schematic - Charging Circuit B&S EFI S/N: 2017711825 & Below

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

Main Wire Harness
5413167

*This switch uses a "shorting" connector. When the connector is unplugged, the terminals going to the identified pole will have continuity.



Electrical Schematic - Charging Circuit B&S EFI S/N: 2017711825 & Below

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

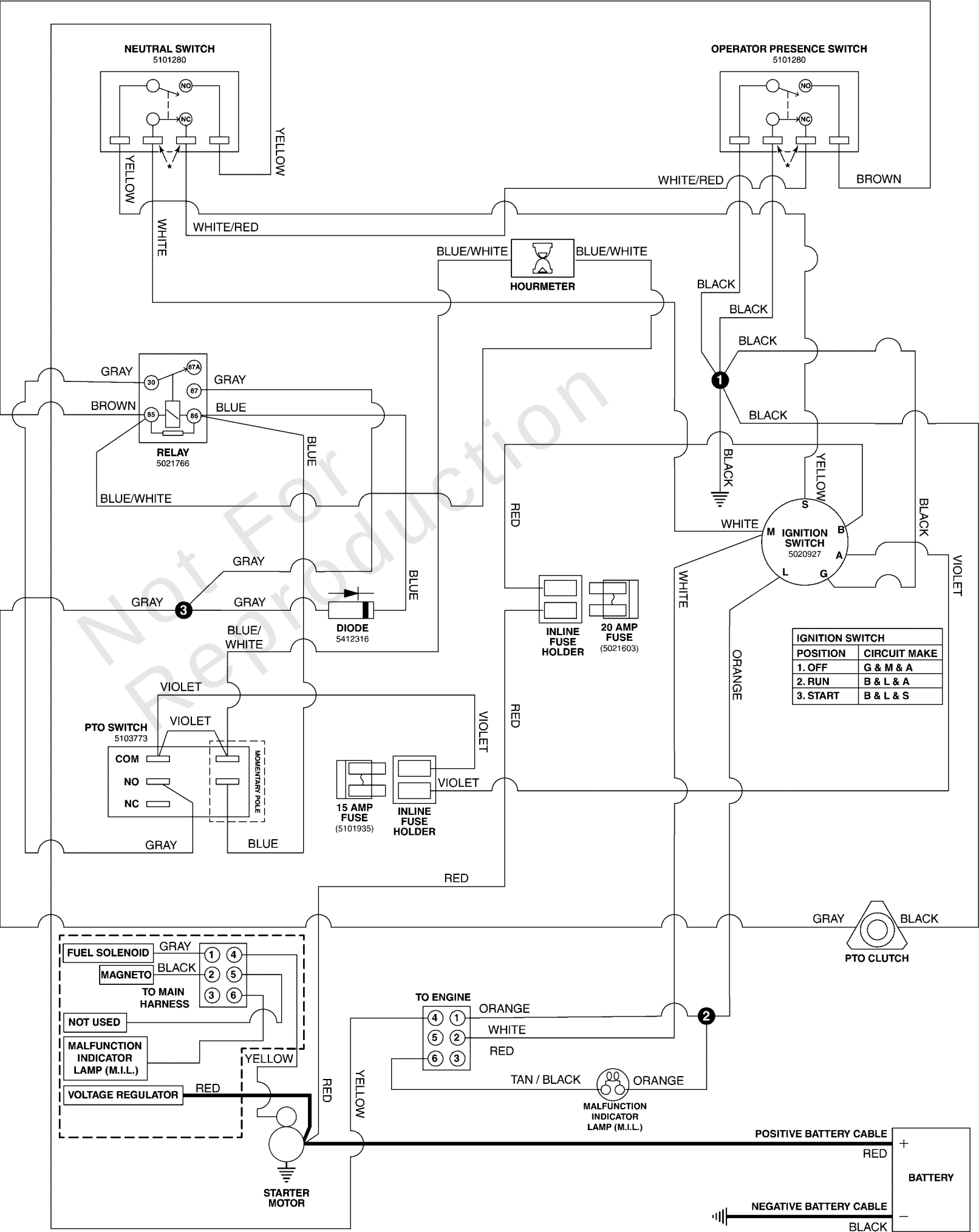
Electrical Schematic - Charging Circuit B&S EFI S/N: 2017711826 - 2017954956

Note: Unless noted otherwise, use the standard torque specifications Mfg. No: 5901452

5416151 / MAIN WIRE HARNESS - BRIGGS & STRATTON 49E877 EFI ENGINES

5416151

(If internal schematic of the switch is not shown, the image of the switch represents the back view of the connector as it is connected to the switch.)
*This switch uses a "shorting" connector. When the connector is unplugged, the terminals going to the identified pole will have continuity.



Electrical Schematic - Charging Circuit B&S EFI S/N: 2017711826 - 2017954956

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

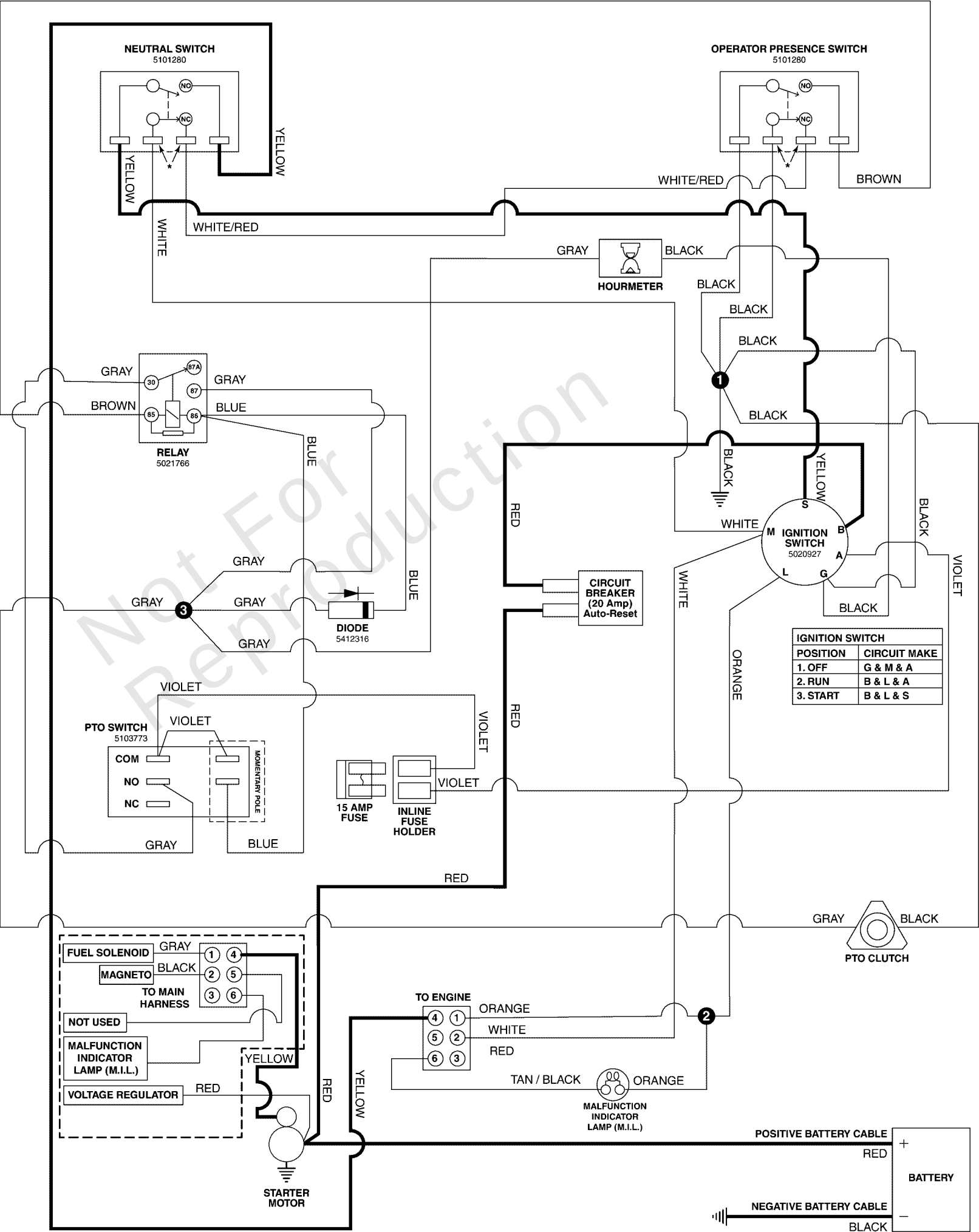
Electrical Schematic - Cranking Circuit B&S EFI S/N: 2017711825 & Below

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

Main Wire Harness
5413167

*This switch uses a "shorting" connector. When the connector is unplugged, the terminals going to the identified pole will have continuity.



Electrical Schematic - Cranking Circuit B&S EFI S/N: 2017711825 & Below

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

Electrical Schematic - Cranking Circuit B&S EFI S/N: 2017711826 - 2017954956

Note: Unless noted otherwise, use the standard torque specifications

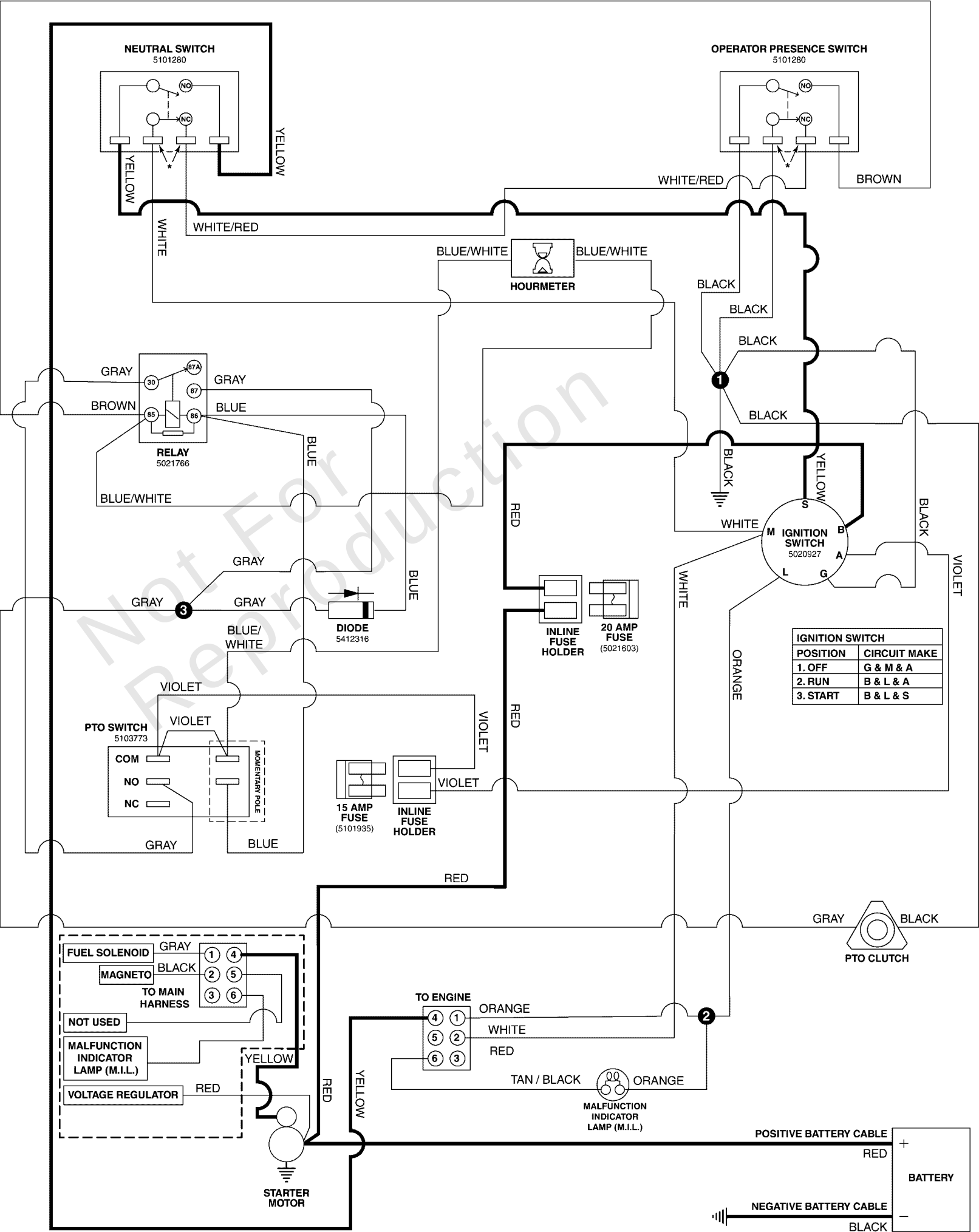
Mfg. No: 5901452

5416151 / MAIN WIRE HARNESS - BRIGGS & STRATTON 49E877 EFI ENGINES

5416151

(If internal schematic of the switch is not shown, the image of the switch represents the back view of the connector as it is connected to the switch.)

*This switch uses a "shorting" connector. When the connector is unplugged, the terminals going to the identified pole will have continuity.



Electrical Schematic - Cranking Circuit B&S EFI S/N: 2017711826 - 2017954956

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

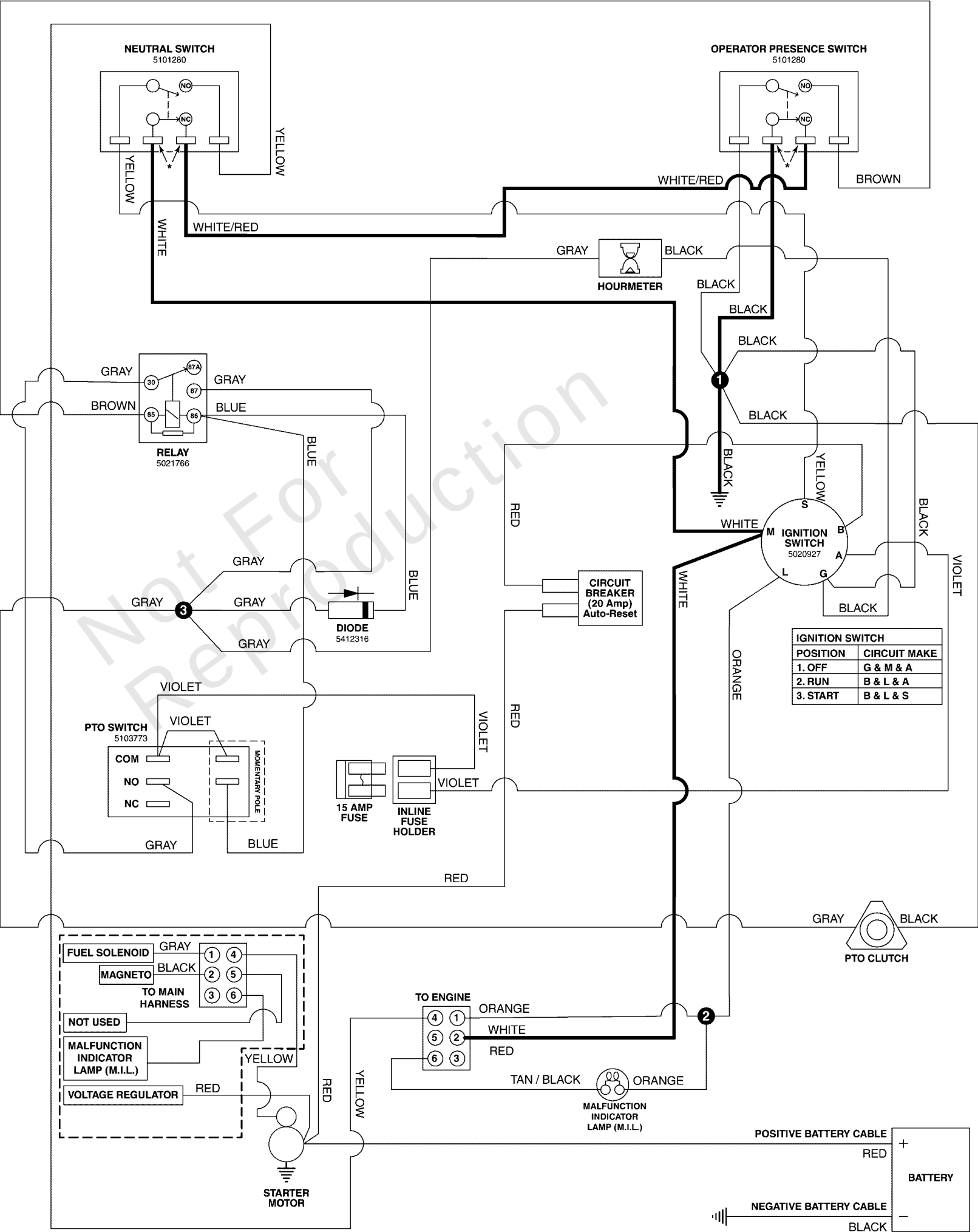
Electrical Schematic - Engine Op. Pres. Circuit B&S EFI S/N: 2017711825 & Below

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

Main Wire Harness
5413167

*This switch uses a "shorting" connector. When the connector is unplugged, the terminals going to the identified pole will have continuity.



Electrical Schematic - Engine Op. Pres. Circuit B&S EFI S/N: 2017711825 & Below

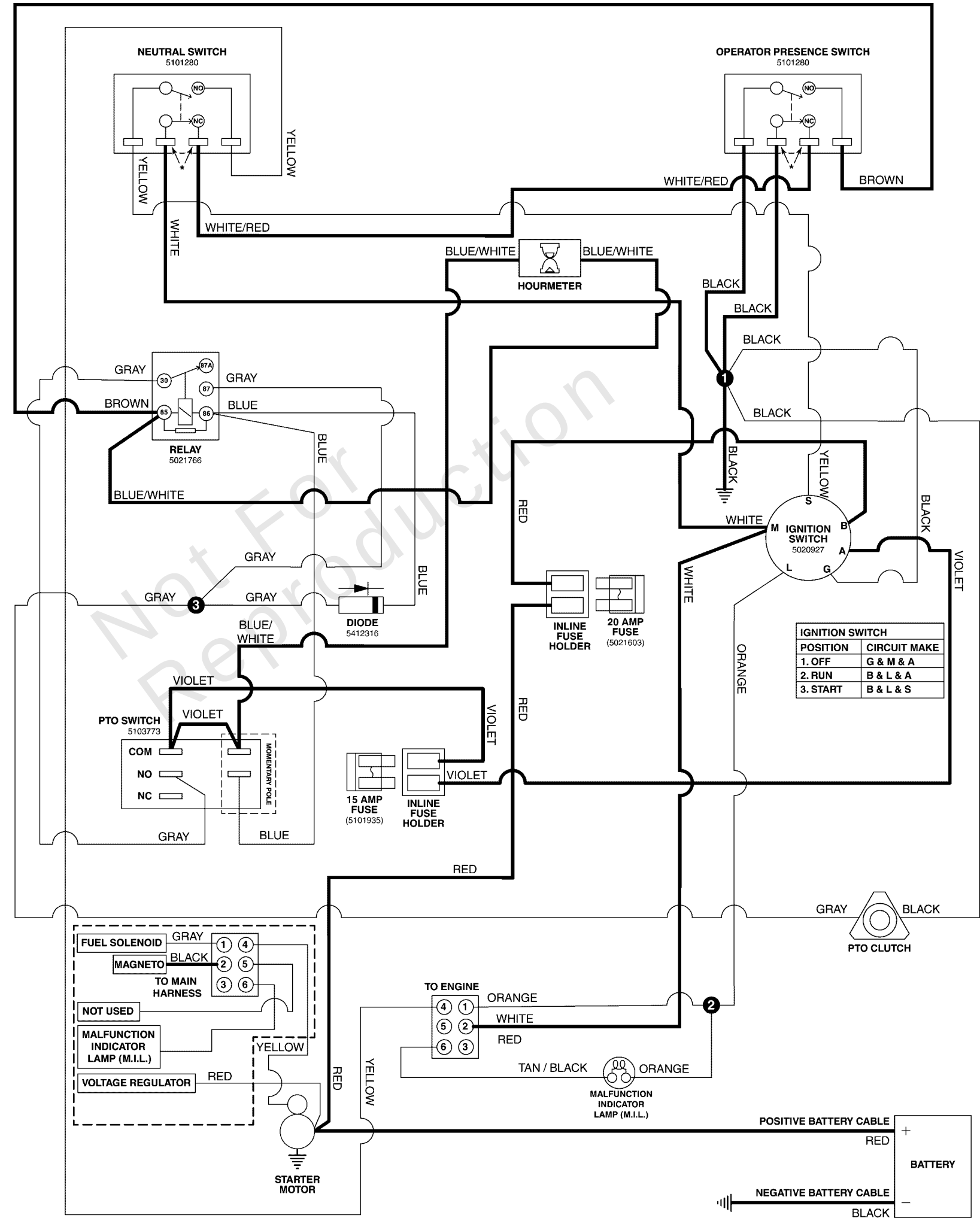
REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

5416151 / MAIN WIRE HARNESS - BRIGGS & STRATTON 49E877 EFI ENGINES

5416151

(If internal schematic of the switch is not shown, the image of the switch represents the back view of the connector as it is connected to the switch.)
*This switch uses a "shorting" connector. When the connector is unplugged, the terminals going to the identified pole will have continuity.



REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

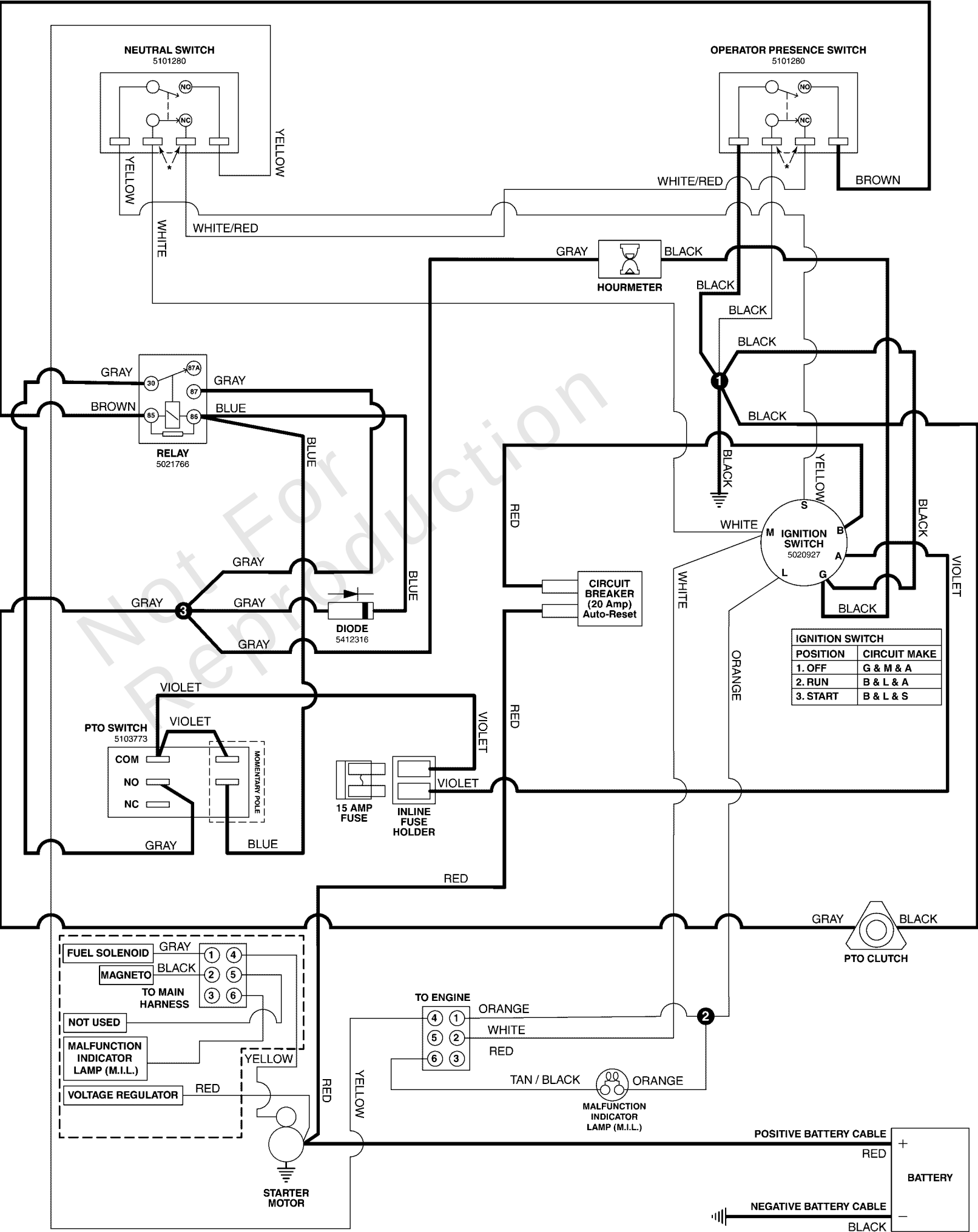
Electrical Schematic - PTO Op. Pres. Circuit B&S EFI S/N: 2017711825 & Below

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

Main Wire Harness
5413167

*This switch uses a "shorting" connector. When the connector is unplugged, the terminals going to the identified pole will have continuity.



Electrical Schematic - PTO Op. Pres. Circuit B&S EFI S/N: 2017711825 & Below

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

Electrical Schematic - PTO Op. Pres. Circuit B&S EFI S/N: 2017711826 - 2017954956

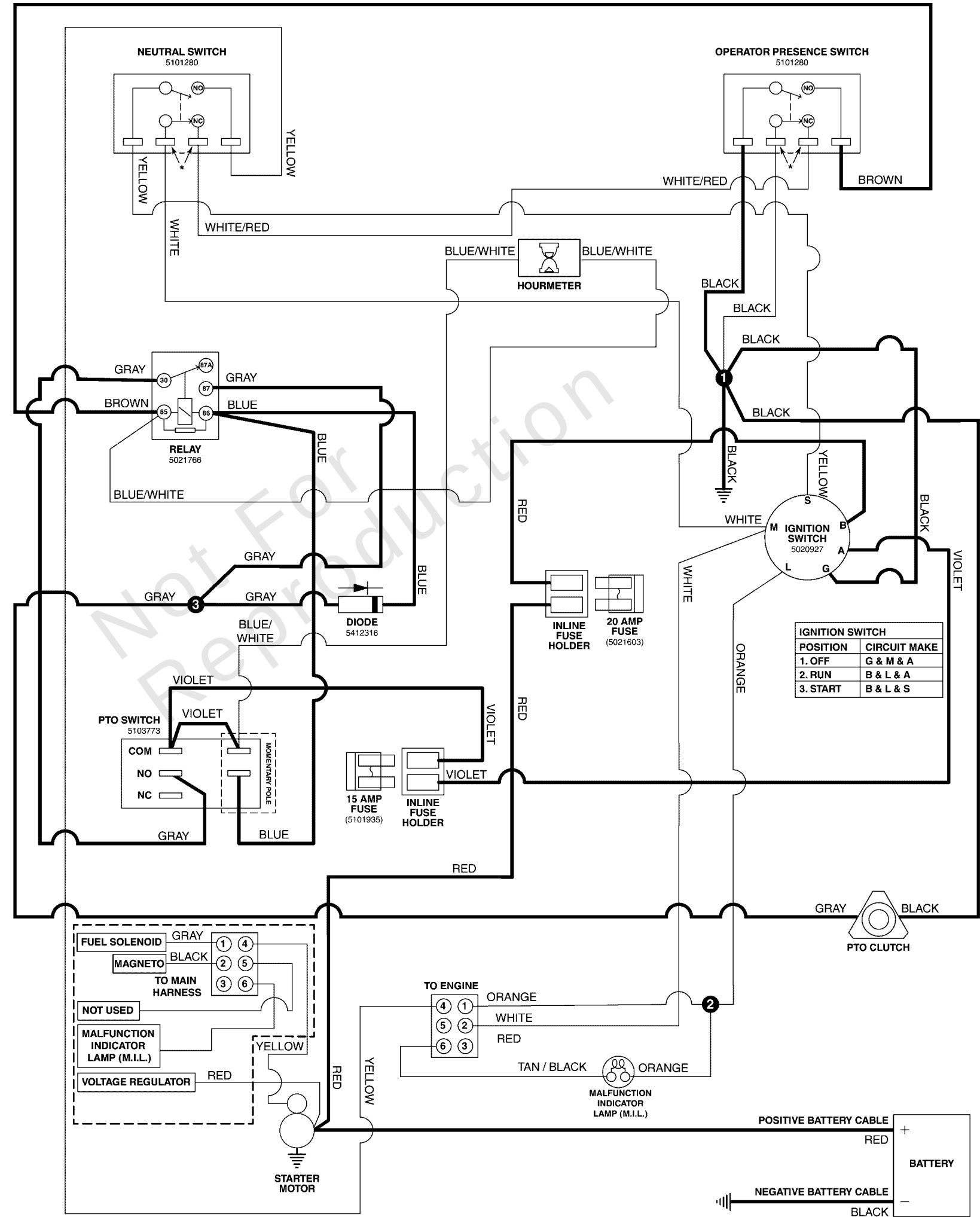
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5416151 / MAIN WIRE HARNESS - BRIGGS & STRATTON 49E877 EFI ENGINES

5416151

(If internal schematic of the switch is not shown, the image of the switch represents the back view of the connector as it is connected to the switch.)
*This switch uses a "shorting" connector. When the connector is unplugged, the terminals going to the identified pole will have continuity.



REF NO	PART NO	QTY	DESCRIPTION
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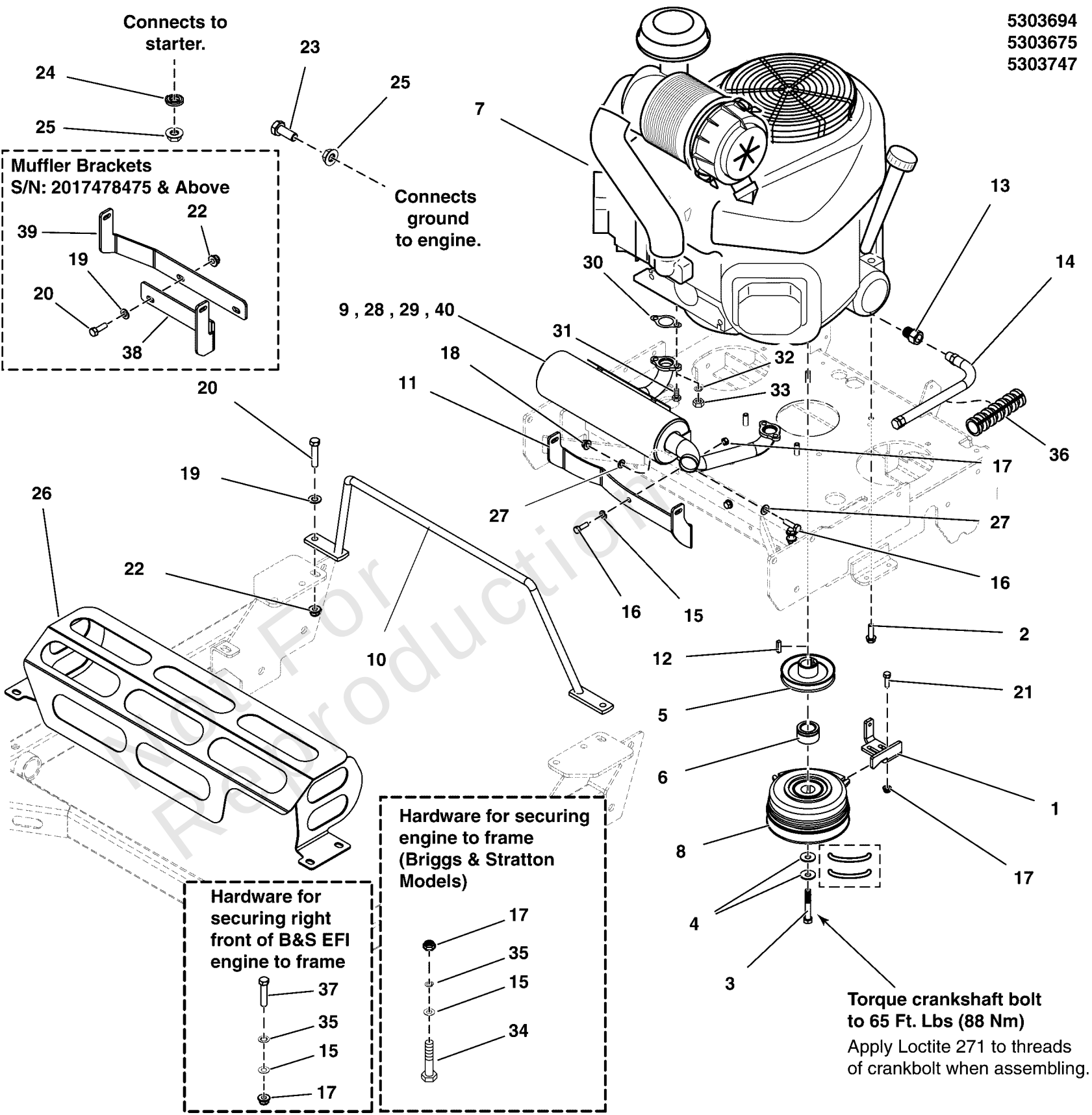
Not For Reproduction

Engine & PTO Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5303694
5303675
5303747



Engine & PTO Group

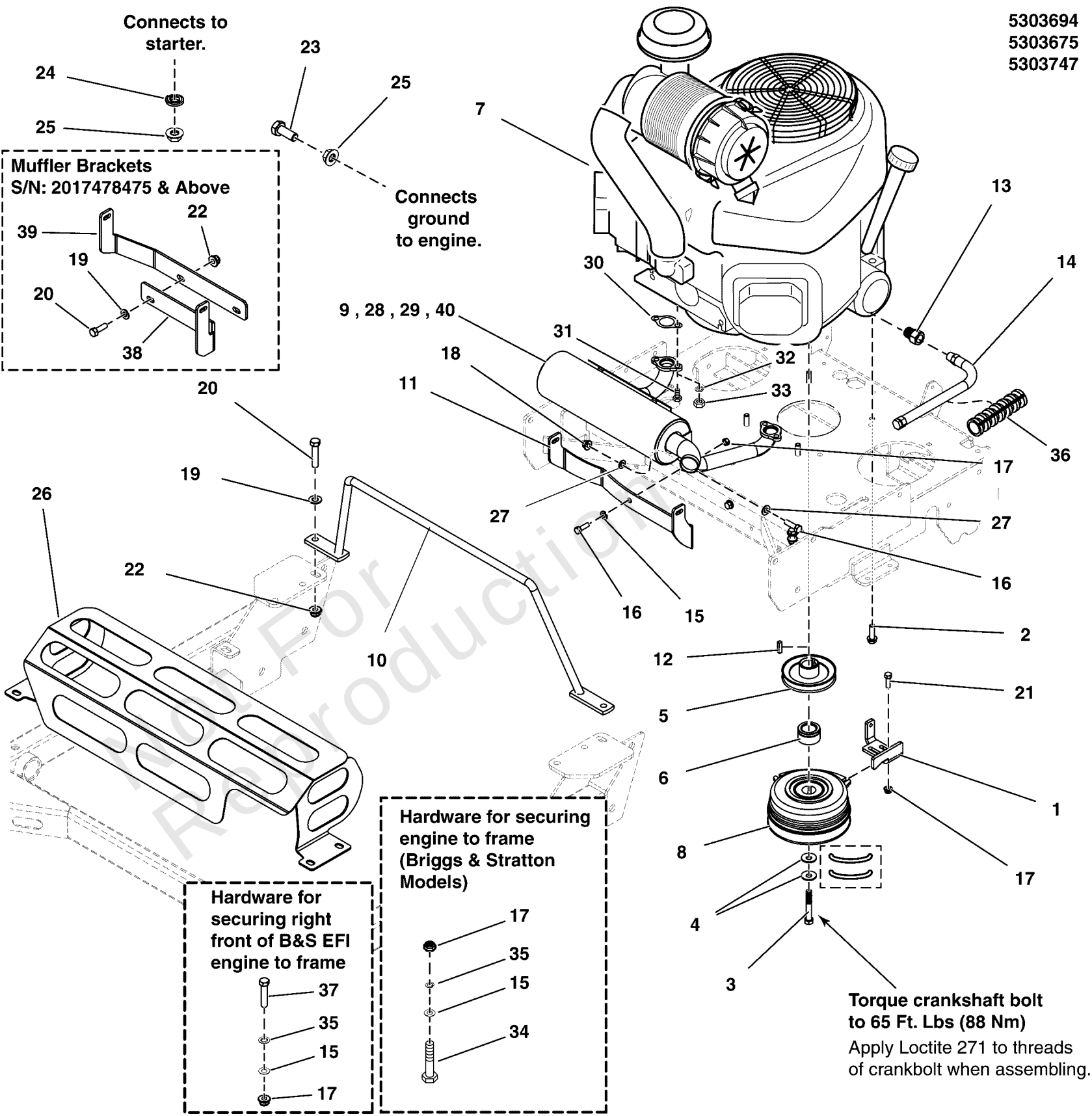
REF NO	PART NO	QTY	DESCRIPTION
1	5412326A	1	PLATE, CLUTCH ANCHOR - BLK
2	5025532	4	BOLT, 3/8-16 X 1-1/4, SF, PLT W/PATCH -(Kawasaki Models Only)
3	5102865	1	BOLT, CRANKSHAFT, 7/16-20 X 2-3/4, GD8
4	5025585	2	BELLEVILLE WASHER 1.1875 X .442 X .089
5	5104236	1	PULLEY, CRANKSHAFT, 1.125ID X 4.50OD, OS
6	5047033	1	SPACER, 1.13 X 1.75 X 1.03, CZ
7	-----	1	ENGINE
8	5105090	1	CLUTCH, 5218-221, WARNER
9	5104163	1	MUFFLER, HORIZONTAL, KAWASAKI -(Kawasaki Models Only)
10	5412353A	1	WELD, MUFFLER GUARD - BLK -(USA Models Only)
11	5412315A	1	BRACKET, EXHAUST SYSTEM, WALK - BLK -(S/N: 2017478474 & Below)
12	5050407X8	1	KEY, 1/4 SQ X 1
13	5022234	1	ADAPTER-OIL DRAIN -(Kawasaki Models Only)
14	5048681	1	HOSE, OIL DRAIN
15	5025155	2	WASHER, 5/16" SAE -(Qty: 6 - Briggs & Stratton EFI Models)
16	5025011X8	2	BOLT, 5/16-18 X 1 GD5 YZ -(Qty: 4 - S/N: 2017478474 & Below)
17	5025616	4	NUT, 5/16-24, NYLOCK FLANGE, GD8, CZ -(Qty: 8 - Briggs & Stratton EFI Models)
18	80003675	2	NUT, 5/16-18, HEX, CNTR LK, ZINC PHOS/OIL
19	5025156	4	WASHER, 3/8 SAE -(Qty: 2 - S/N: 2017478474 & Below)
20	5025013X10	4	BOLT, 3/8-16 X 1-1/4" GD5 CZ -(Qty: 2 - S/N: 2017478474 & Below)
21	5025145X8	2	BOLT, 5/16-18 X 1" CARRIAGE
22	5025394	4	NUT, 3/8-16 HEX NYLOCK FLANGE -(Qty: 2 - S/N: 2017478474 & Below)
23	5025249	1	BOLT, M8-1.25 X 20MM GD8.8
24	5025170	1	WASHER, 5/16 LOCK CZ
25	5025355	2	NUT, M8-1.25 SERR. FLANGE, CZ
26	5412407B	1	WELD, CE MUFFLER GUARD, FW35 - RED -(CE Models Only)
27	5025292	4	WASHER, HARD, F436
28	5104306	1	MUFFLER, 26/28, B&S VANG, TWR/WALK -(Briggs & Stratton Carbureted Models Only)
29	5104355	1	MUFFLER, 26/28, B&S EFI, TWR/WALK -(Briggs & Stratton EFI Models Only)
30	273485	2	GASKET, EXHAUST -(Briggs & Stratton Models)
31	94480	4	SCREW-HEX SEMS LOCK WSHR 5/16-18X0.875 -(Briggs & Stratton Carbureted Models Only)
32	5023217	4	WASHER, 5/16 LIGHT LOCK -(Briggs & Stratton EFI Models Only)
33	5025032	4	NUT, 5/16-18 HEX -(Briggs & Stratton EFI Models Only)
34	5025025X14	4	BOLT, 5/16-24 X 1-3/4, GD8 -(Briggs & Stratton Models)
35	5025188	4	WASHER, 5/16 INT. TOOTH LOCK -(Briggs & Stratton Models)
36	5050862X8	1	LOOM, 3/4" ID X 8.00" LG
37	5025025X12	1	BOLT, 5/16-24 X 1-1/2, GD8, PHOS -(Briggs & Stratton EFI Models Only)

Engine & PTO Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5303694
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Engine & PTO Group

REF NO	PART NO	QTY	DESCRIPTION
38	5415276A	1	PLATE, MUFFLER SUPPORT, LH, W35 - BLK -(S/N: 2017478475 & Above)
39	5415277A	1	PLATE, MUFFLER SUPPORT, RH, W35 - BLK -(S/N: 2017478475 & Above)
40	5105061	1	MUFFLER, 15-19HP KAWI, CATALYTIC COMBUST -(Manual Start Models)

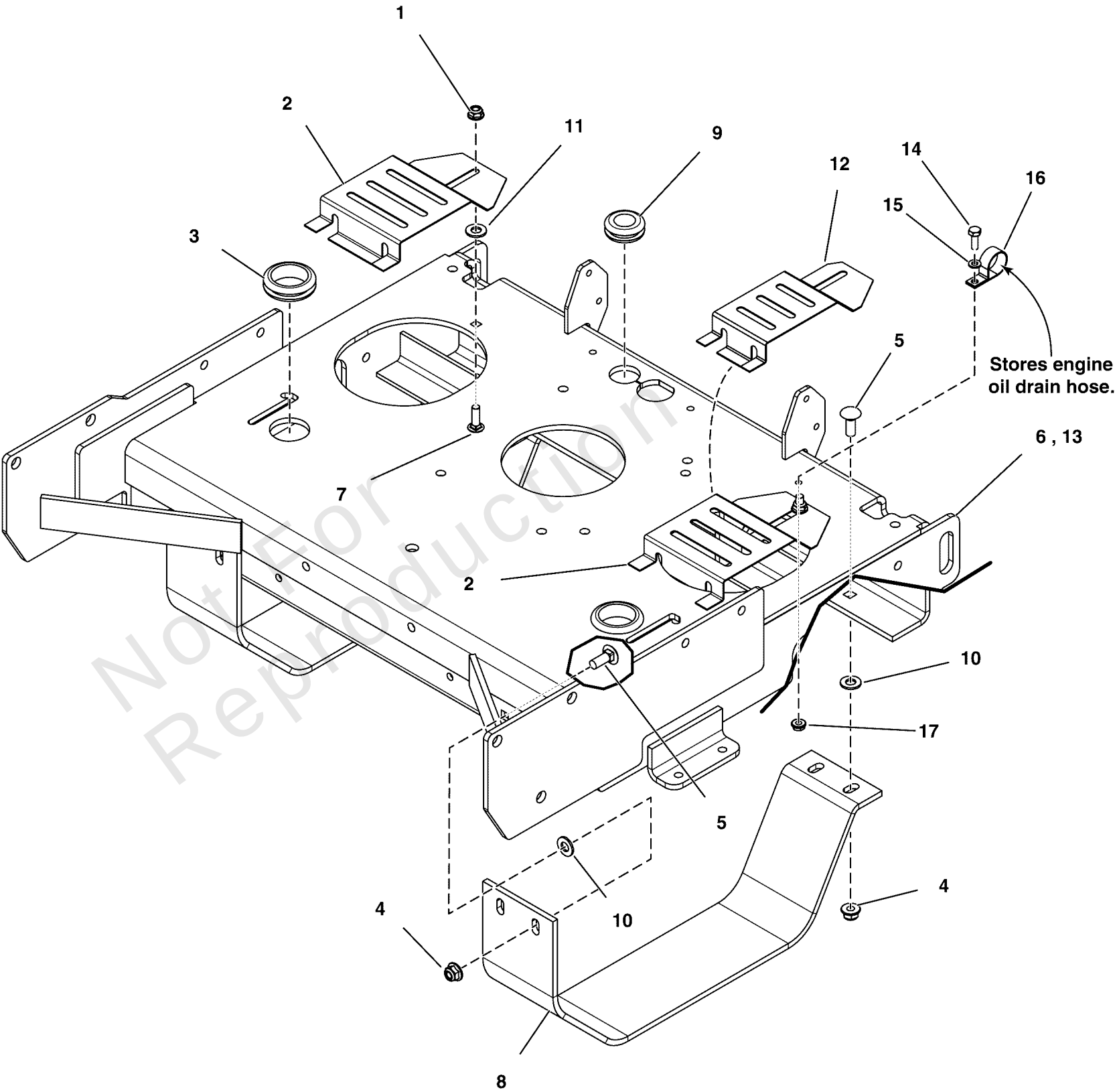
Not For Reproduction

Engine Deck Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5303674



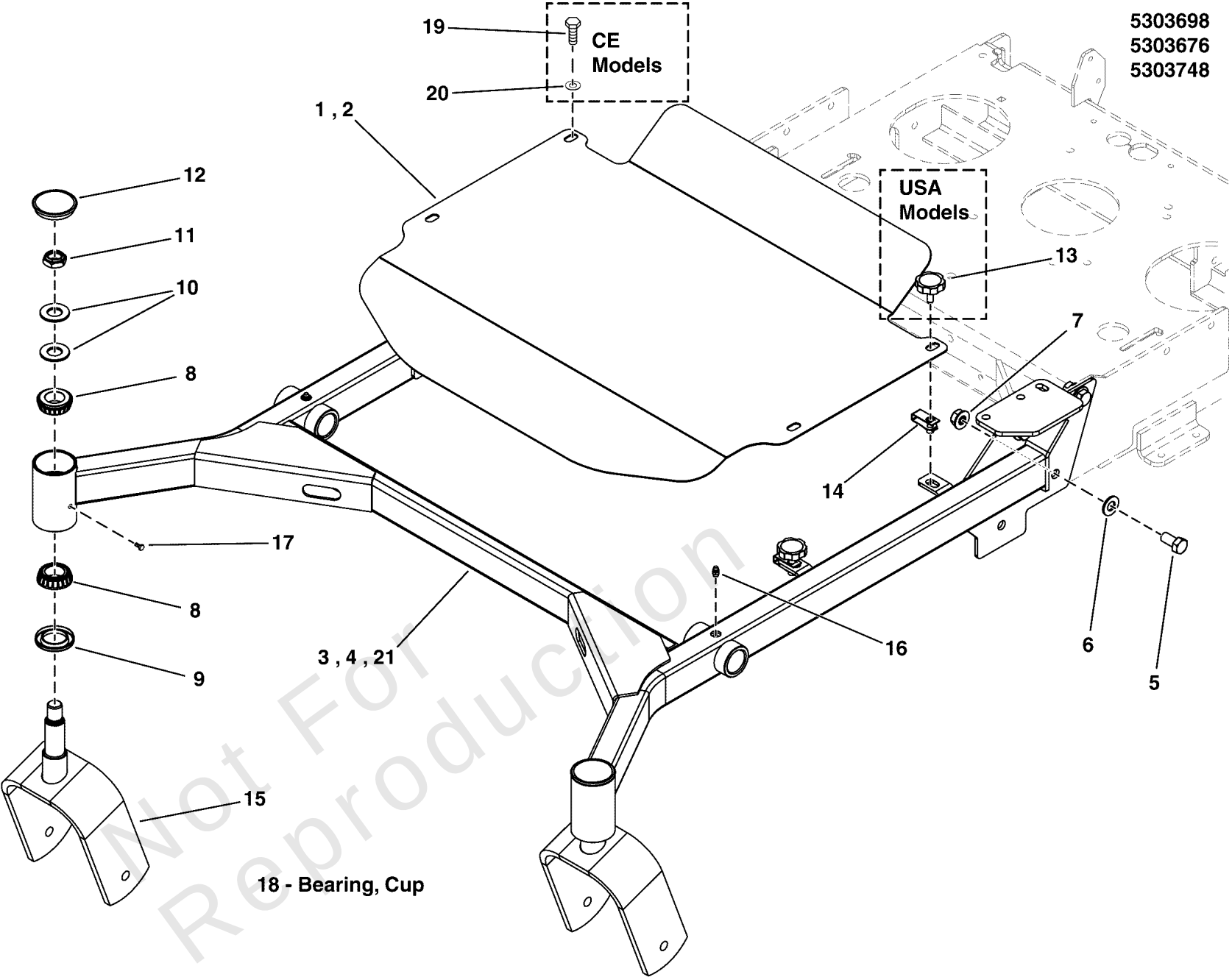
Engine Deck Group

REF NO	PART NO	QTY	DESCRIPTION
1	5025392	2	NUT, 5/16-18 HEX NYLOCK FLANGE
2	5412030A	2	PLATE, FAN GUARD - BLK -(Qty: 1 - Briggs & Stratton Models)
3	5102677	2	GROMMET, 1-1/2" ID FOR 1/4" METAL
4	5025394	8	NUT, 3/8-16 HEX NYLOCK FLANGE
5	80004497	8	BOLT, 3/8-16X1.000, RND HD CRRG, ZINC/CLEAR
6	5411621B	1	WELD, ENGINE DECK, WALK BEHIND - RED -(S/N: 2017170234 & Below)
7	5025145X8	2	BOLT, 5/16-18 X 1, CARRIAGE
8	5412069A	2	PLATE, TRANS GUARD, SW30 - BLK
9	5103944	1	GROMMET, 7/8" ID, 1/4" THICK STK
10	5025472	8	3/8 PUSHNUT BOLT RETAINER
11	5025498	2	5/16 PUSH-ON NUT RETAINER, STL, CZ
12	5412600A	1	PLATE, FAN GUARD, BV, LH - BLK -(Briggs & Stratton Models Only)
13	5413681B	1	WELD, ENGINE DECK, W35 - RED -(S/N: 2017170235 & Above)
14	5025010X6	1	BOLT, 1/4-20 X 3/4 GD5 CZ
15	5025154	1	WASHER, 1/4 SAE
16	5021500	1	CLAMP, VINYL INSULATED, 1.00
17	5025126	1	NUT, 1/4-20 HEX SERR. FLANGE

Front Frame Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452



Front Frame Group

REF NO	PART NO	QTY	DESCRIPTION
1	5412193B	1	GUARD, WALK, FRONT FRAME, 48-52 - RED -(48" and 52" Decks)
2	5412223B	1	GUARD, WALK, FRONT FRAME, 61 - RED -(61" Decks)
3	5412127B	1	WELD, FRONT FRAME, WALK-48-52 - RED -(48" & 52" Decks - S/N: 2017170234 & Below)
4	5422119B	1	WELD, FRONT FRAME, W45, 61 - RED -(61" Decks)
5	5025017X10	6	BOLT, 1/2-13 X 1-1/4 GD5 CZ
6	5025158	6	WASHER, 1/2 SAE
7	5025396	6	NUT, Hex Flange, Nylock, 1/2-13
8	5020884	4	BEARING, TAPERED ROLLER, 1
9	5021072	2	SEAL, GREASE
10	5025449	4	WASHER, BELLEVILLE - 1.500 X .755
11	5025448	2	NUT, 3/4-16, HEX JAM NYLON LOCK
12	5109845	2	CAP, GREASE, LOW PROFILE
13	5108141	4	KNOB, 5/16-18 X 1.00, ROSETTE, BLK -(USA Models Only)
14	5022308	4	BODY CLIP, 5/16-18-7GA MATERIAL
15	5401759B	2	WELD, FRONT CASTER YOKES - RED
16	5020095	2	GREASE FITTING, 1/4-28 STRAIGHT
17	5025457	2	BOLT, 1/4-28 X 1/2, GD5 YZ
18	5020883	2	BEARING, CUP -(SV)
19	5025011X8	4	BOLT, 5/16-18 X 1 GD5 CZ -(CE Models Only)
20	5025155	4	WASHER, 5/16" SAE -(CE Models Only)
21	5422126B	1	WELD, FRONT FRAME, W45, 478/52 - RED -(48" & 52" Decks - S/N: 2017170235 & Above)

Fuel Tank & Mount, Fuel Supply, and EVAP Group (No Canister)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

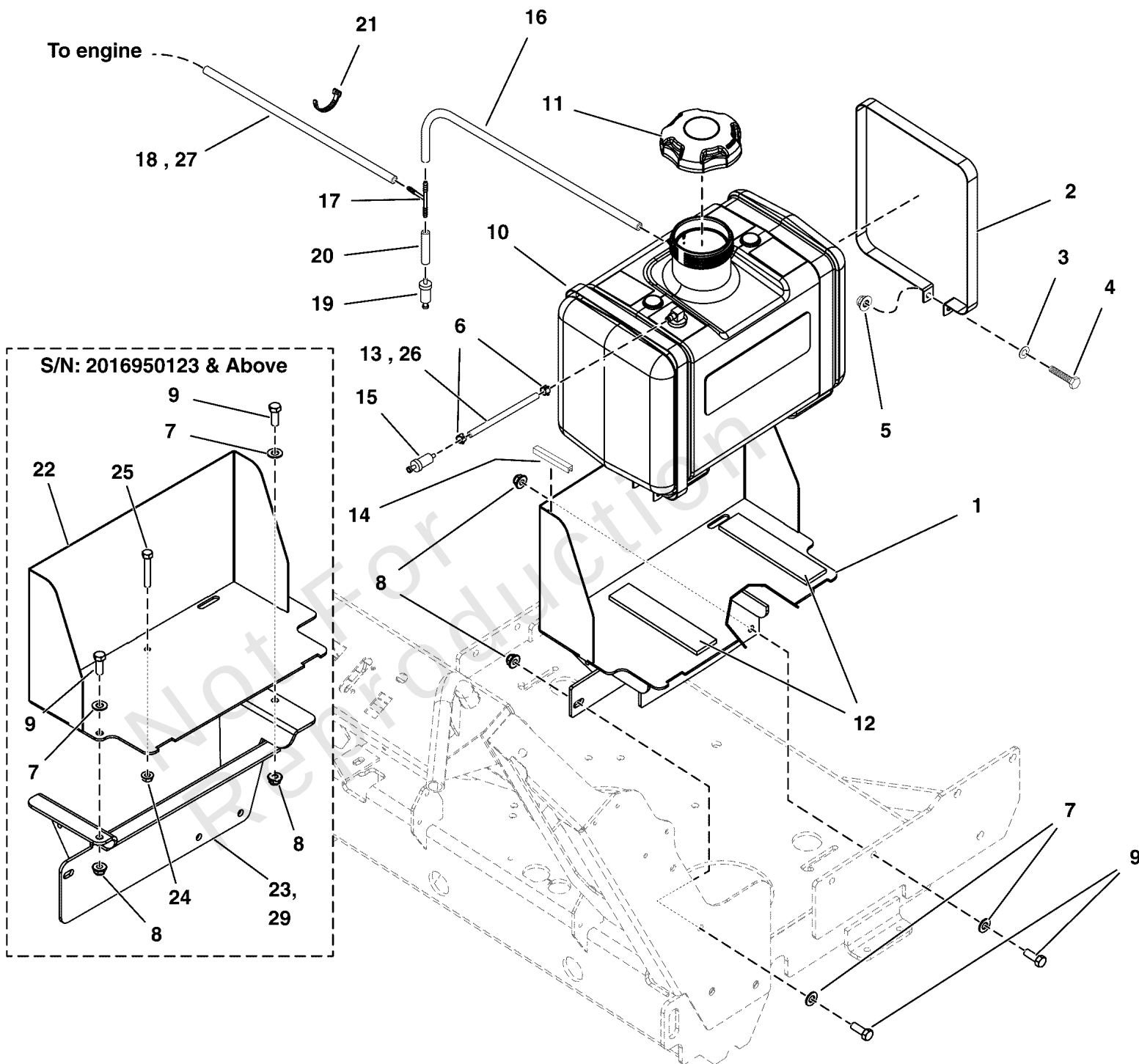
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Fuel Tank & Mount, Fuel Supply, and EVAP Group (No Canister)

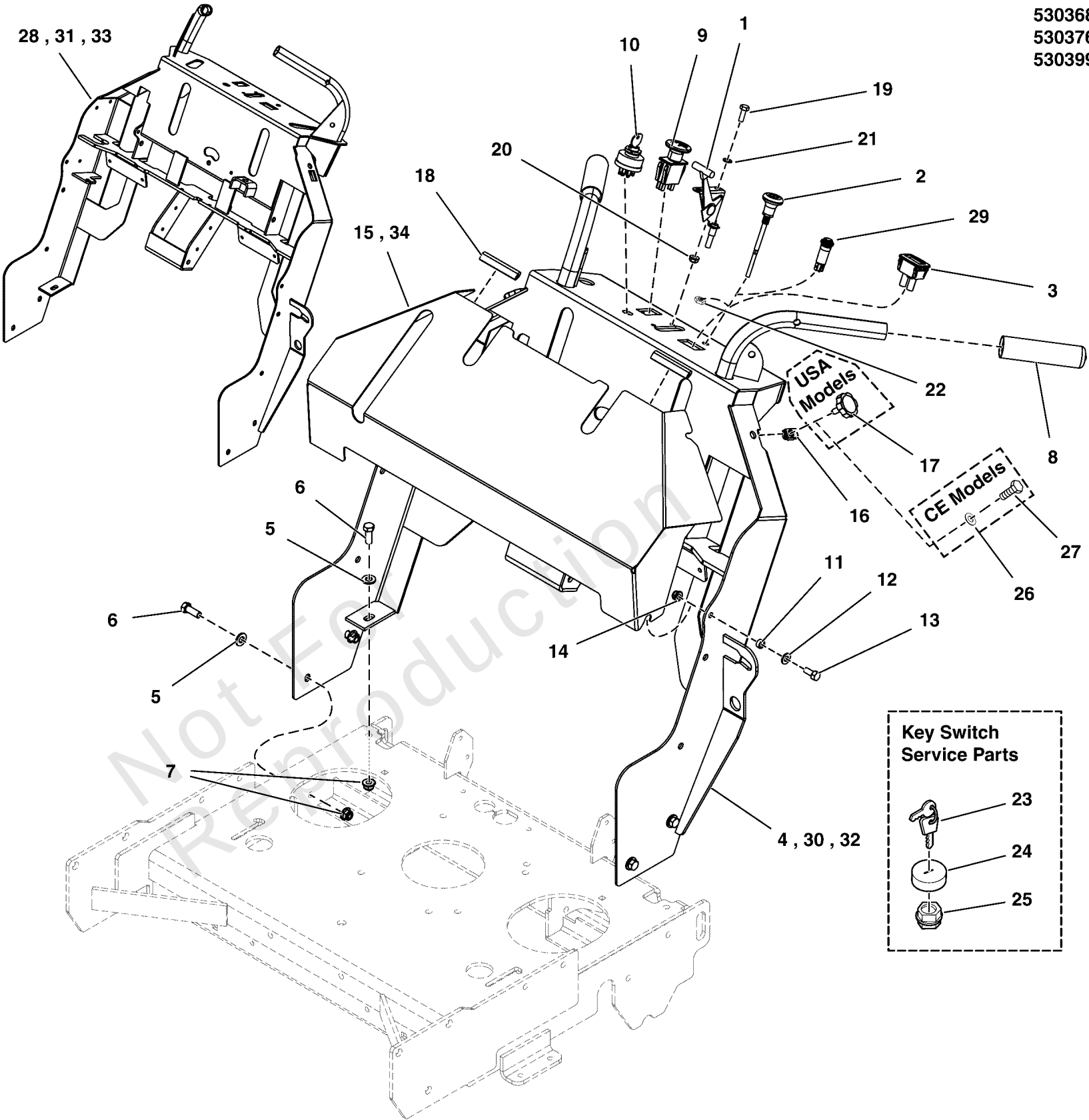
REF NO	PART NO	QTY	DESCRIPTION
1	5412017A	1	WELD, FUEL TANK MOUNT, WALK - BLK -(S/N: 2016950122 & Below)
2	5403445A	2	STRAP, FUEL TANK
3	5025154	2	WASHER, 1/4 SAE
4	5025010X10	2	BOLT, 1/4-20 X 1-1/4, GD5
5	5025391	2	NUT, 1/4-20 HEX NYLOCK FLANGE
6	93807	2	CLAMP, HOSE, EXTERNAL, 1/2 - RED
7	5025156	5	WASHER, 3/8 SAE
8	5025394	5	NUT, 3/8-16 HEX NYLOCK FLANGE
9	5025013X8	5	BOLT, 3/8-16 X 1" GD5 CZ
10	5102833	1	TANK, 5 GAL, W DROP TUBE/VENT
11	5103005	1	FUEL CAP, 3-1/2", MANAGED VENT OUT, 12"
12	5100810	2	PAD, RUBBER MOUNT
13	5050831X12	1	HOSE, 1/4" FUEL, 12.00"
14	5050853X1P25	1	BODY MOLDING, 1.25" LONG
15	5021178X3	1	FUEL FILTER -(SV)
16	7700552X15P5	1	HOSE, VAPOR, 5MM ID, 15.50 LG -(Kawasaki Models)
17	5103062	1	FITTING, 3/16" TEE, BARB TYPE, HDPE
18	7700552X8	1	HOSE, VAPOR, 5MM ID, 8.00 LG -(Kawasaki Models)
19	80025019	1	FILTER, FUEL
20	7700552X4P5	1	HOSE, VAPOR, 5MM ID, 4.50 LG
21	5021030	2	TIE, SELF-LOCKING, 6"
22	5413382A	1	WELD, FUEL TANK MOUNT UPPER, W35 - BLK -(S/N: 2016950123 & Above)
23	5413376A	1	WELD, FUEL TANK MOUNT LOWER, W35 - BLK -(S/N: 2016950123 - 2017170234)
24	5025127	1	NUT, 5/16-18 HEX SERRATED FLANGE (SMALL) -(S/N: 2016950123 & Above)
25	5025055X16	1	BOLT, 5/16-18 X 2 ALL THD -(S/N: 2016950123 & Above)
26	5050831X29P5	1	HOSE, 1/4" FUEL, 29.50" -(Briggs & Stratton Models)
27	7700552X20P5	1	HOSE, VAPOR, 5MMID, 20.50 LG -(Briggs & Stratton Models)
28	5102833X1	1	GROMMET -(SV)(Grommet for fuel tank 5102833)
29	5413950A	1	WELD, FUEL TANK, MOUNT, LOWER, W35 - BLK -(S/N: 2017170235 & Above)

Handle Bar / Control Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5303680
5303763
5303999



Handle Bar / Control Group

REF NO	PART NO	QTY	DESCRIPTION
1	5104657	1	CABLE, THROTTLE, 43" DETENTED -(Kawasaki Models)
1	5104657	1	CABLE, THROTTLE, 43" DETENTED -(Briggs & Stratton Models)(Was 5102163)
2	5100184	1	CABLE, CHOKE CONTROL, 43.5" -(Kawasaki Electric Start Models)
2	5102622	1	CABLE, CHOKE CONTROL, 43.5", DETENTED -(Kawasaki Manual Start Models)
2	5047779	1	CABLE, CHOKE CONTROL, 51" (Z) -(Briggs & Stratton Carbureted Models)
3	-----		HOUR METER -(Refer to Note: *)
4	5412059B	1	** WELD, HANDLE BARS, WALK - RED -(Standard Handle Bars - S/N: 2016973573 & Below)
4	5413418B	1	** WELD, HANDLE BARS, F/SW35 - RED -(Standard Handle Bars - S/N: 2016973574 - 2017118253)
5	5025293	6	WASHER, 3/8" GR. 9 FLAT
6	5025013X8	6	BOLT, 3/8-16 X 1" GD5 CZ
7	5025394	6	NUT, 3/8 - 16 HEX NYLOCK FLANGE
8	5104659	2	GRIP, FOAM, .940" X 4.62" X .187"
9	5104697	1	PTO SWITCH, MOMENTARY, SMALL KNOB
10	5021842	1	SWITCH, Ignition, Complete -(Manual Start Models)
10	5020927	1	SWITCH, IGNITION, 6 POST -(Electric Start Models)
11	5102463	2	SPACER, .33 X .50 X .25, PM, CZ
12	5025155	6	WASHER, 5/16" SAE
13	5025011X8	6	BOLT, 5/16-18 X 1" GRD5 YZ
14	5025392	2	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
15	5600950	1	ASSM, HB GUARD W/DECALS, FW35 - DOM (5412377B) -(Domestic Models)
16	5022308	4	BODY CLIP, 5/16-18-7GA MATERIAL
17	5108141	2	KNOB, 5/16-18 X 1.00, ROSETTE, BLK -(USA Models)
18	5050853X3	2	BLACK BODY MOLDING, 3" LONG
19	5025010X6	2	BOLT, 1/4"-20 X 3/4" GD5 YZ
20	5025391	2	NUT, 1/4-20 Hex Nylock Flange
21	5025154	2	WASHER, 1/4 SAE
22	5025309	1	NUT, 3/8-24 Hex Jam -(SV)
23	5022789	1	KEY, IGNITION MOLDED SET -(SV)
24	5022790	1	COVER, PLASTIC, SNAP ON -(SV)
25	5022791	1	PLASTIC NUT -(SV)
26	5025155	1	WASHER, 5/16" SAE -(CE Models)
27	5025011X8	1	BOLT, 5/16-18 X 1" GRD5 YZ -(CE Models)
28	5413419B	1	WELD, HANDLE BAR, SW35/FW35, CC - RED -(Centralized Control Handle Bars - S/N: 2017118253 & Below)

Footnotes:

** If replacing order all appropriate decals for handle bar.

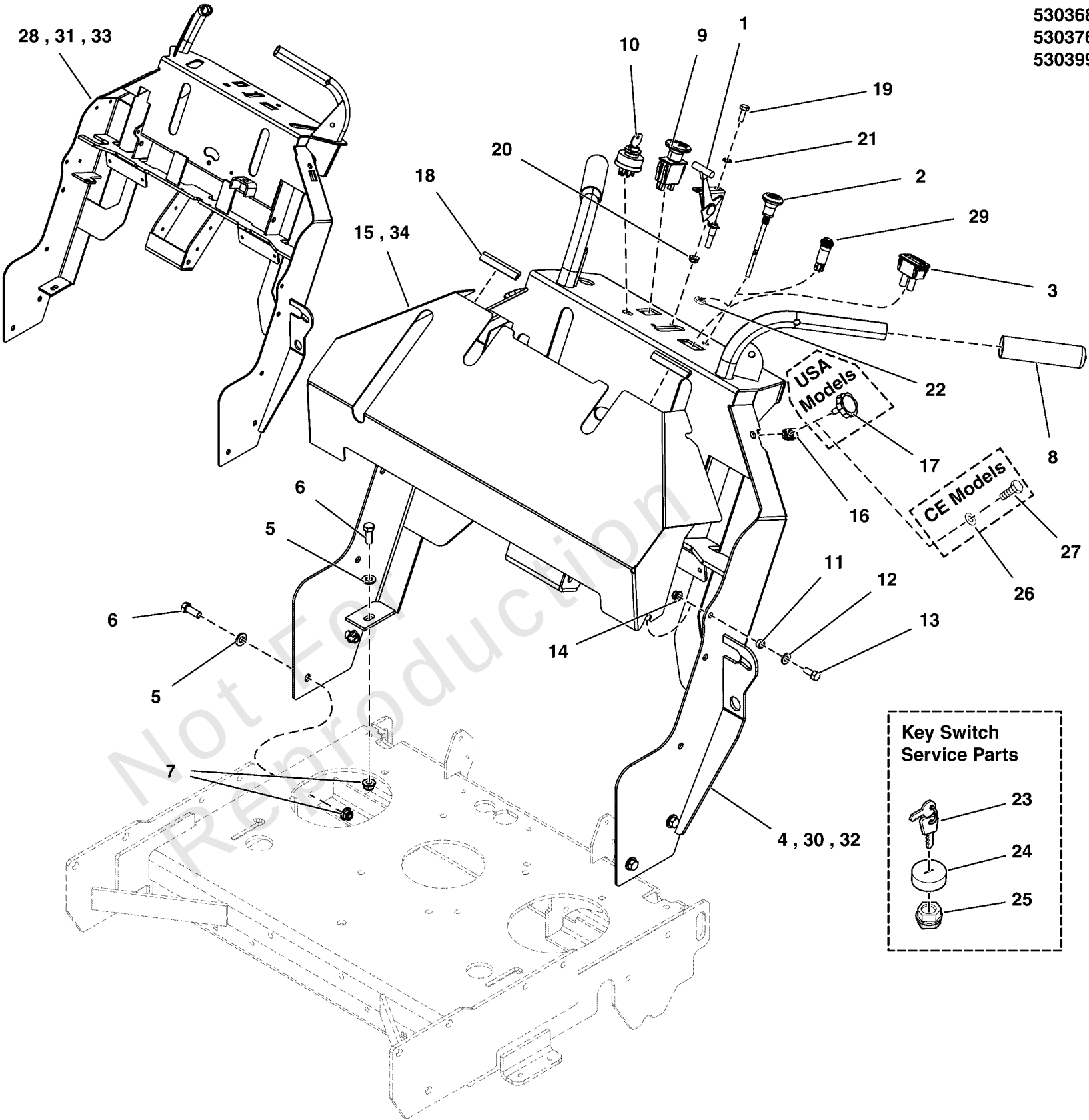
Note: *When replacing this hour meter, please call our service department at 1-800-933-6175

Handle Bar / Control Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5303680
5303763
5303999



Handle Bar / Control Group

REF NO	PART NO	QTY	DESCRIPTION
29	5103809	1	LIGHT, INDICATOR, PANEL, LED, RED -(Models with Briggs & Stratton EFI Engines)
30	5413924B	1	** WELD, HANDLE BARS, F/SW35 - RED -(Standard Handle Bars - S/N: 2017118254 - 2017170234)
31	5413925B	1	** WELD, HANDLE BAR, SW35/FW35, CC - RED -(Centralized Control Handle Bars - S/N: 2017118254 - 2017170234)
32	5413682B	1	** WELD, HANDLEBARS, W35, STD - RED -(Standard Handle Bars - S/N: 2017170235 & Above)
33	5413683B	1	** WELD, HANDLEBARS, W35, CC - RED -(Centralized Control Handle Bars - S/N: 2017170235 & Above)
34	5600951	1	ASSM, HB GUARD W/DECALS, FW35 - CE (5412377B) -(CE Models)

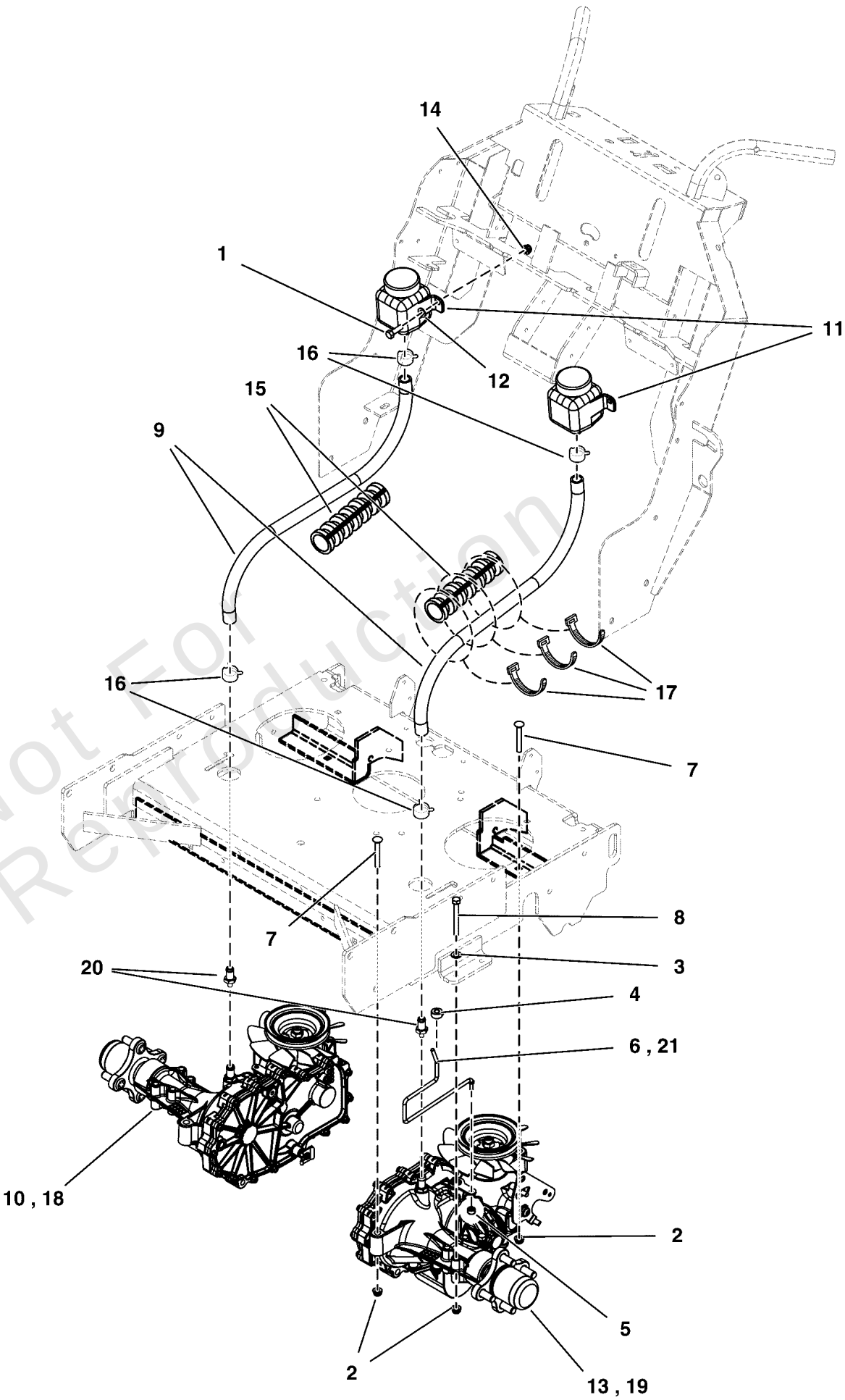
Not For
Reproduction

Footnotes:

** If replacing order all appropriate decals for handle bar.

Note: *When replacing this hour meter, please call our service department at 1-800-933-6175

5303683
5304264



Hydraulic Group

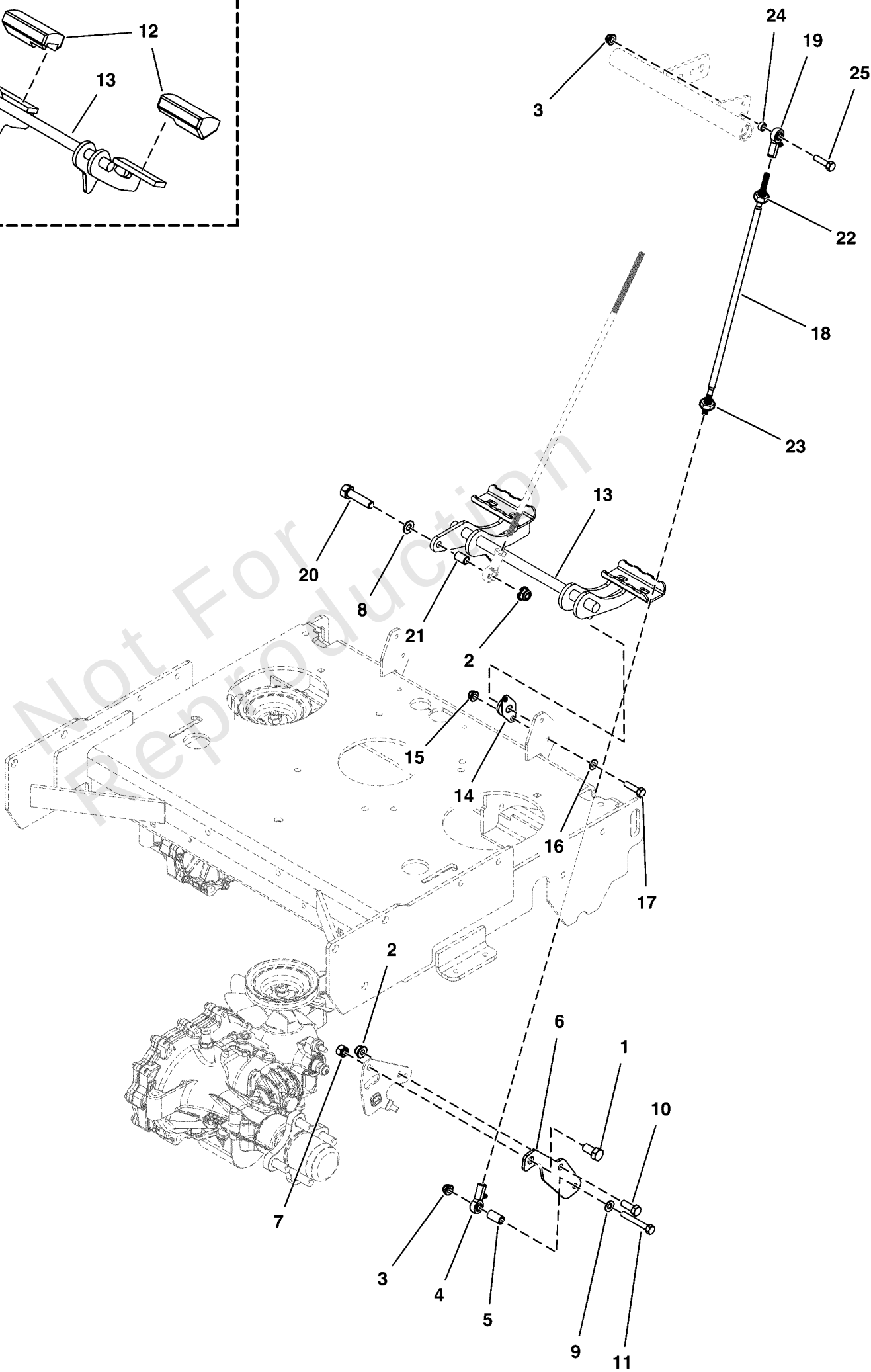
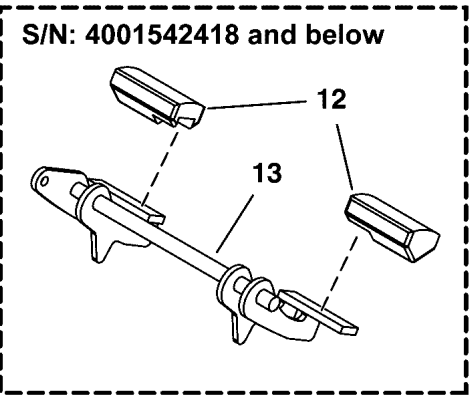
REF NO	PART NO	QTY	DESCRIPTION
1	5025010X6	4	BOLT, 1/4-20 X 3/4 GD5 YZ
2	5025392	8	NUT, 5/16-18 HEX NYLOCK FLANGE
3	5025155	4	WASHER, 5/16" SAE
4	5020047	2	COLLAR, 5/16 SET
5	5022481	2	COLLAR, 1/4 SET
6	5102638	2	ROD, HYDRO RELEASE, SW30 -(S/N: 2017170234 & Below)
7	5025145X18	4	BOLT, 5/16-18 X 2-1/4, CARRIAGE, GD5, CZ
8	5025011X22	4	BOLT, 5/16-18 X 2-3/4, GD 5, YZ
9	5050857X24	2	HOSE, 1/2" PUSH-ON, 24.00"
10	5102810	1	TRANSAXLE, ZT3100, RH(ZJ-KMFE-3B5C-1RLX) -(S/N: 2017170234 & Below)
11	5100473	2	HYDRO RES. #71328, 350 ml
12	5025154	4	WASHER, 1/4 SAE
13	5102809	1	TRANSAXLE, ZT3100, LH(ZJ-GMFE-3B5B-1RLX) -(S/N: 2017170234 & Below)
14	5025391	4	NUT, 1/4-20 HEX NYLOCK FLANGE
15	5050862X20	2	WIRE LOOM, 3/4 ID X 20 IN
16	5025474	4	CLAMP, HOSE, .75 FREE DIA.
17	5100772	6	TIE, SELF LOCKING, 15"
18	5106330	1	TRANSAXLE, ZT3100, RH, ZL-KMFE-3L5C-1PXE -(S/N: 2017170235 to 40015467047)
18	5109241		TRANSAXLE, ZT-3100, RH,ZL-KMFE-SL5C-1PXX -(S/N: 40015467048 and above)
19	5106331	1	TRANSAXLE, ZT3100, LH, ZL-GMFE-3L5B-1PXE -(S/N: 2017170235 to 40015467047)
19	5109240		TRANSAXLE, ZT-3100, LH,ZL-GMFE-SL5B-1PXX -(S/N: 40015467048 and above)
20	5103687	2	FITTING, #6 O-RING 1/2 HOSE BARB, STRAIGHT
21	5104532	2	ROD, HYDRO RELEASE, WALKS -(S/N: 2017170235 & Above)

Motion Control Group - Lower (All Models)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5303678L



Motion Control Group - Lower (All Models)

REF NO	PART NO	QTY	DESCRIPTION
1	5025015X6	2	BOLT, 7/16-14 X 3/4, GD 5 YZ
2	5025394	3	NUT, 3/8 - 16 HEX NYLOCK FLANGE
3	5025392	4	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
4	5104493	2	BALL JOINT 5/16-24 RH FEMALE BRONZE RACE
5	5102812	2	SPACER, .33 X .51 X 1.00, CZ
6	84007883	2	MOUNT
7	5025044	2	NUT, 7/16-14 HEX TOP LOCK
8	5025156	2	WASHER, 3/8 SAE
9	5025155	2	WASHER, 5/16" SAE
10	5025013X8	2	BOLT, 3/8-16 X 1" GD5 CZ
11	5025011X18	2	BOLT, 5/16-18 X 2-1/4" GD5 YZ
12	5104262	2	PEDAL, Rubber -(S/N: 4001542418 and below)
13	5412284AA	1	WELD, FOOT PEDAL - BLK -(Refer to Note: *)
14	5104270	2	BEARING, 5/8" FLANGED, PLASTIC BALL
15	5025391	4	NUT, 1/4-20 Hex Nylock Flange
16	5025154	4	WASHER, 1/4 SAE
17	-----	4	HHCS, 1/4-20 X 0.625, GR5, ZINC/CLEAR
18	5104159	2	ROD, 5/16-24 X 15.48, LH-RH, CZ
19	5104494	2	BALL JOINT 5/16-24 LH FEMALE BRONZE RACE
20	5025013X16	1	BOLT, 3/8-16 X 2, GD5, CZ
21	5101640	1	SPACER, .38 X .50 X .50, YZ
22	5023212	2	NUT, 5/16-24 HEX, LH
23	5025033	2	NUT, Hex, 5/16-24
24	5102463	2	SPACER, .33 X .50 X .25, PM, CZ
25	5025011X10	2	BOLT, 5/16-18 X 1-1/4" GD5 YZ

Footnotes:

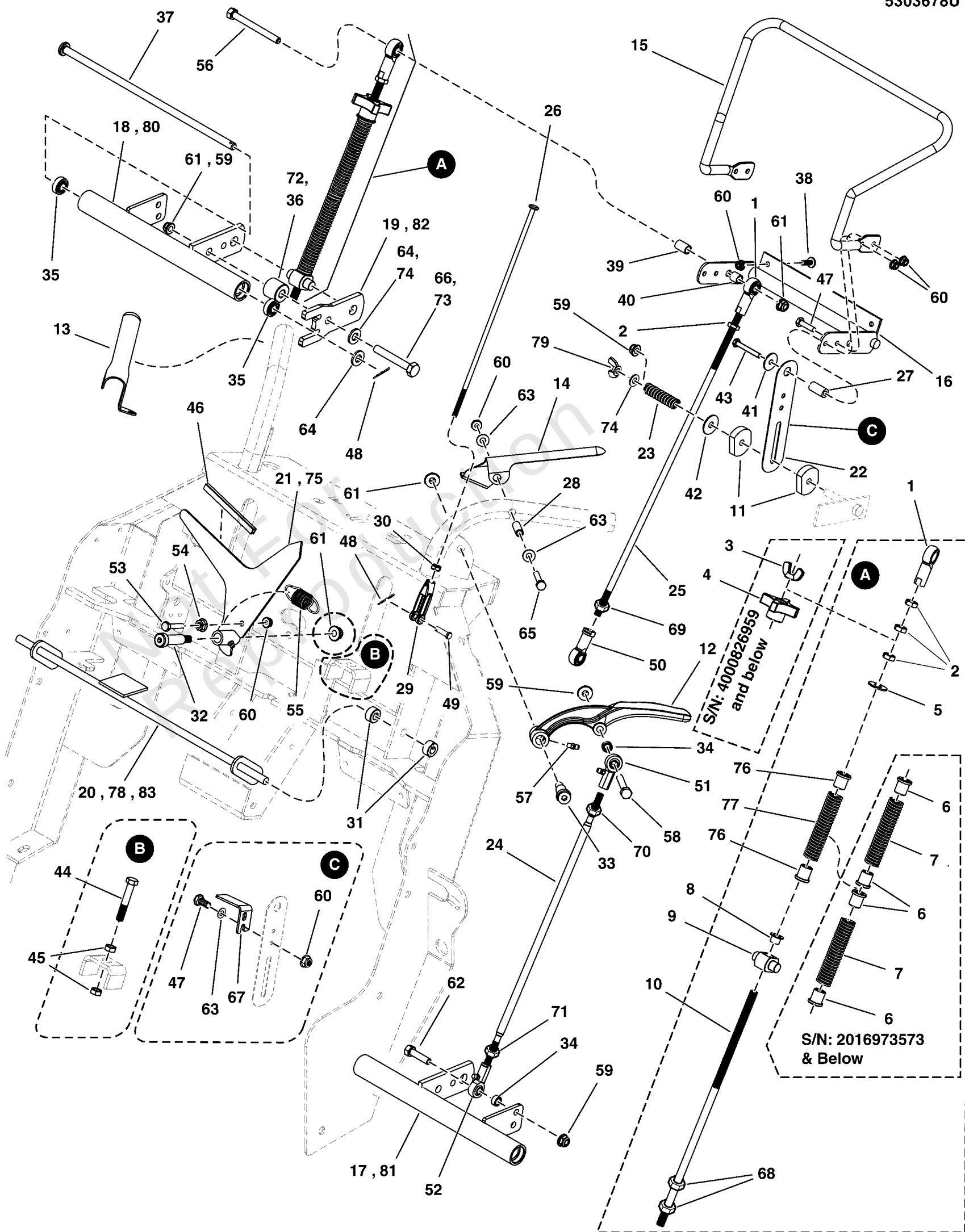
Note: *All replacement foot pedal weldments will have welded pedals.

Motion Control Group - Upper (Standard Handles - USA Models)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5303678U



Motion Control Group - Upper (Standard Handles - USA Models)

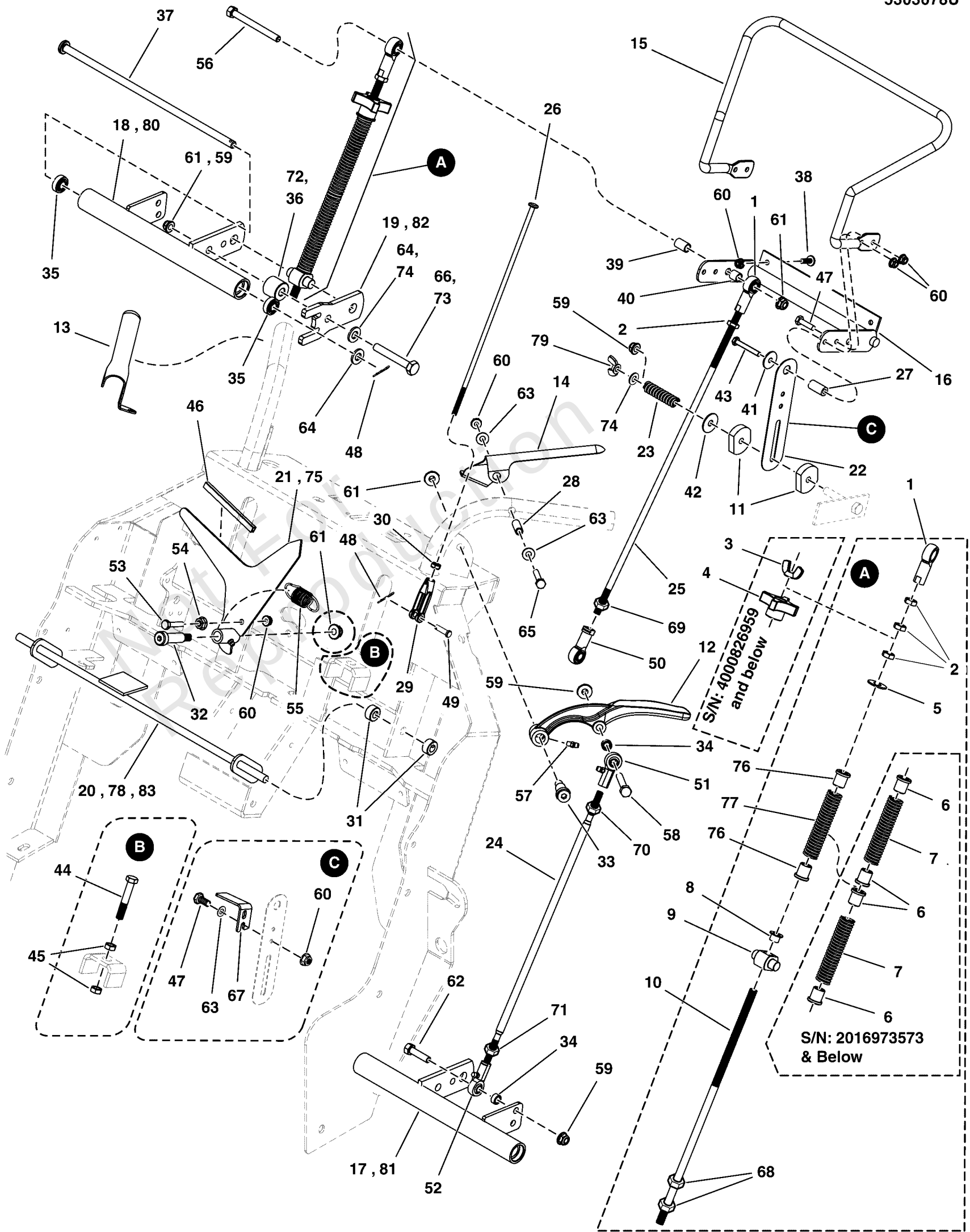
REF NO	PART NO	QTY	DESCRIPTION
1	5021683	3	BALL JOINT, 3/8-24 FEMALE
2	5025035SM	7	NUT (3/8-24 HEX) -(Qty: 3 - S/N: 4000826959 and below)
3	5025608	2	WING NUT, 3/8-24, CZ -(S/N: 4000826959 and below)
4	5104174	2	KNOB, 4 ARM, 3/8-24 -(S/N: 4000826959 and below)
5	5025401	2	WASHER, 3/8" USS
6	5102709	8	BUSHING, .38 X .75 X .75, PLASTIC -(S/N: 2016973573 & Below)
7	5023320	4	SPRING-COMP, .615ID X 4.00LG X .080WR -(S/N: 2016973573 & Below)
8	5102773	2	BUSHING, .38ID X .47 OD X .38L, FL
9	5103022	2	TRUNION, 1/2" POSTS, STAINLESS
10	5104229	2	ROD, CONTROL SYSTEM, WALK
11	5104176	2	PAD, T-712 FRICTION MATERIAL
12	5102556A	2	HANDLE, REVERSING - BLK
13	5104201A	1	NLA - FLAP, OPS - BLK
14	5104202A	1	NLA - FLAP, OPS - BLK
15	5104216A	1	BAR, SPEED CONTROL - BLK
16	5412891A	1	WELD, SPEED CONTROL, SW35 - BLK
17	5411616A	1	WELD, CENTER PIVOT HUB, LH - WALK - BLK
18	5412382A	1	WELD, CENTER PIVOT HUB, RH - WALK - BLK
19	5411633A	2	TAB, CONTROL PIVOT - BLK
20	5412020A	1	WELD, OPC ROD, WALK - BLK -(S/N: 2017118253 & Below)
21	84008455	1	SENSOR, Speed -(S/N: 2016973573 & Below)
22	5409272	1	PLATE, FRICTION CONTROL, SS
23	5104221	1	SPRING, COMP, .40 X .60 X 2.25, BLACK -(Compressed spring length: 1-3/4")
24	5104159	2	ROD, 5/16-24 X 15.48, LH-RH, CZ
25	5104164	1	ROD, 3/8-24, 19.00, LH-RH CZ
26	5101242	2	ROD, OPC LINK, SNP PRO WB
27	5101274	1	SPACER, .26 X .50 X 1.00 YZ
28	5101215	2	SPACER, .26 X .38 X 1.250, YZ
29	84007748	2	CLEVIS
30	7090095	2	HN, 1/4F GR5 YZ
31	5010546	2	COLLAR, 3/8" Set
32	5025220	1	BOLT, 3/8-16 x 1-1/2", 1/2" SHOULDER
33	5109888	2	BOLT, 3/8-16 X 1/2, 1.00 SHOULDER, CZ
34	5102463	4	SPACER, .33 X .50 X .25, PM, CZ
35	5102003	4	BEARING, .375" ID X .875" OD X .341" THK
36	5047125	2	SPACER, .39 X 1.00 X .88, CZ -(S/N: 2016861767 & Below)
37	5104171	2	ROD, 3/8 X 12, HEADED - CZ
38	1960715	2	SCREW-TRUSS HD TORX DR 1/4-20X0.750 BLK
39	5047199	2	SPACER, .38 x .50 x .75
40	5101640	2	SPACER, .38 X .50 X .50, YZ
41	5025288	1	WASHER, 1/4" Fender
42	5025164	1	WASHER, 5/16" Fender
43	5025010X16	1	BOLT, 1/4-20 X 2", GD5
44	5025426	1	BOLT, 1/2-20 X 2-1/2, FLT
45	5025089	2	NUT, 1/2-20 Hex Jam

Motion Control Group - Upper (Standard Handles - USA Models)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5303678U



Motion Control Group - Upper (Standard Handles - USA Models)

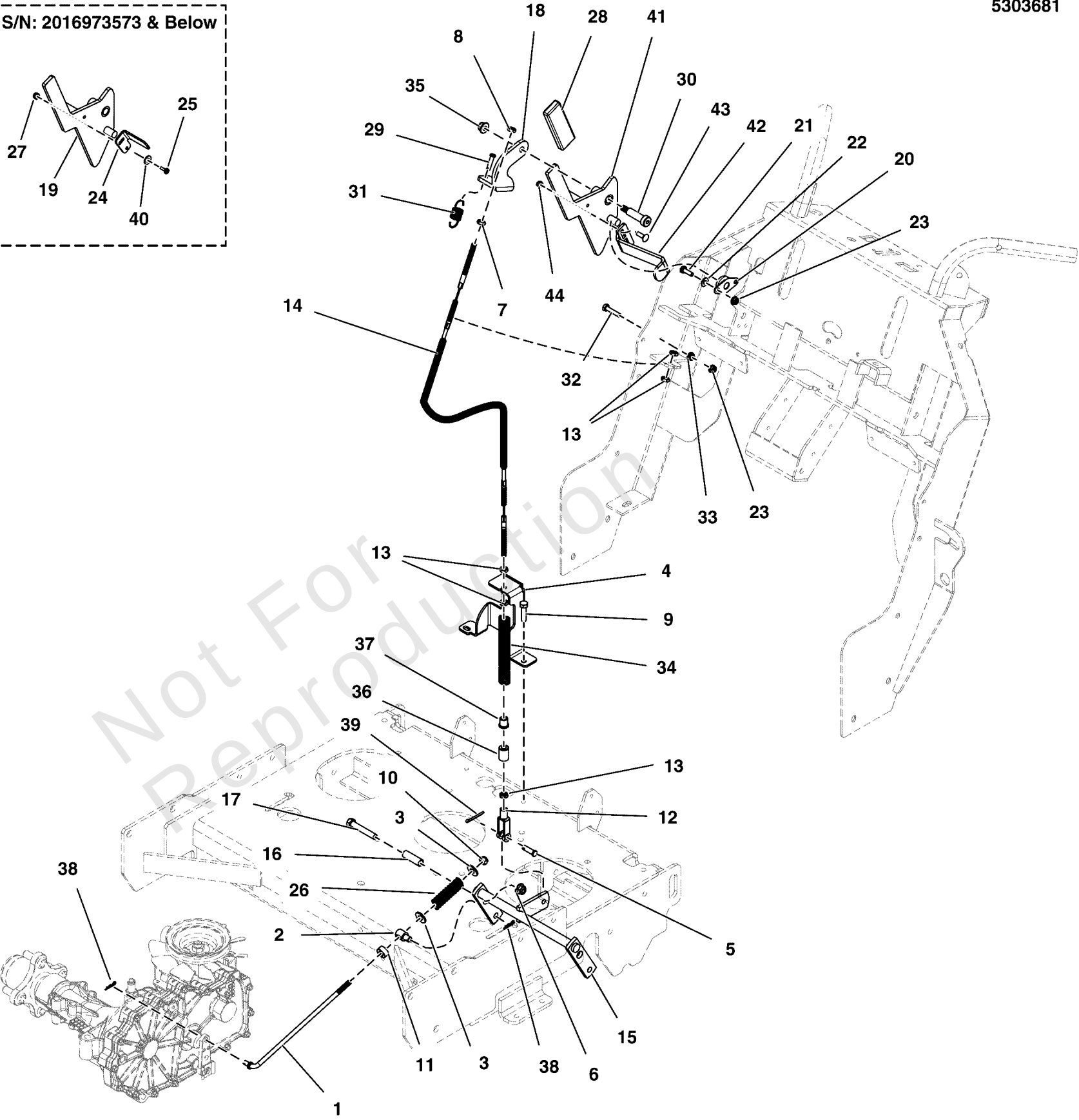
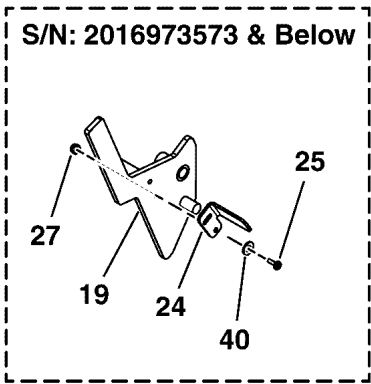
REF NO	PART NO	QTY	DESCRIPTION
46	5104568	1	U-CHANNEL, RPVC #6236 X 4"
47	5025010X6	5	BOLT, 1/4"-20 X 3/4" GD5 YZ
48	5025203X10	4	PIN, COTTER, 1/8 X 1-1/4
49	5025212X7	2	PIN, CLEVIS, 1/4 X 7/8, PLATED
50	5022392	1	BALL JOINT, 3/8-24 LH, Female
51	5104493	2	BALL JOINT 5/16-24 RH FEMALE BRONZE RACE
52	5104494	2	BALL JOINT 5/16-24 LH FEMALE BRONZE RACE
53	5025010X10	2	BOLT, 1/4-20 X 1-1/4 GD5 CZ
54	5025126	2	NUT, 1/4-20 HEX SERR. FLANGE
55	5105337	1	SPRING, EXT, 0.525 X 0.058 X 2.250 SS
56	5025013X24	1	BOLT, 3/8-16 X 3" GD5 CZ
57	5020095	2	GREASE FITTING, 1/4-28 Straight
58	5025011X18	2	BOLT, 5/16-18 X 2-1/4" GD5 YZ
59	5025392	4	NUT, 5/16-18 HEX NYLOCK FLANGE NUT -(Qty: 6 - S/N: 2016861768 & Above)
60	5025391	12	NUT, 1/4-20 Hex Nylock Flange
61	5025394	7	NUT, 3/8 - 16 HEX NYLOCK FLANGE -(Qty: 5 - S/N: 2016861768 & Above)
62	5025011X10	2	BOLT, 5/16-18 X 1-1/4" GD5 YZ
63	5025154	6	WASHER, 1/4 SAE
64	5025156	4	WASHER, 3/8 SAE -(Qty: 2 - S/N: 2016861768 & Above)
65	5025010X14	3	BOLT, 1/4 X 20 X 1-3/4 GD5 YZ
66	5025013X16	3	BOLT, 3/8-16 X 2, GD5, CZ -(Qty: 1 - S/N: 2016861768 & Above)
67	5412363A	1	BRACKET, SWITCH ENGAGEMENT - BLK
68	5025034	4	NUT, 3/8-16 HEX, YZ
69	5025317	1	NUT, 3/8-24 Hex, LH
70	5025033	2	NUT, Hex, 5/16-24
71	5023212	2	NUT, 5/16-24 HEX, LH
72	5104351	2	SPACER, .33 X 1.00 X .88, CZ -(S/N: 2016861768 & Above)
73	5025011X16	2	BOLT, 5/16-18 X 2" GD5 YZ -(S/N: 2016861768 & Above)
74	5025155	2	WASHER, 5/16" SAE -(S/N: 2016861768 & Above)
75	5413413A	1	WELD, SPEED INDICATOR, LOCK OUT - BLK -(S/N: 2016973574 & Above)
76	5104375	4	FLANGED BUSHING, 3/8IDX.63ODX.8125FL -(S/N: 2016973574 & Above)
77	5104374	2	SPRING, COMP, 645IDX8.00LGX.080WR, BLK E-C -(S/N: 2016973574 & Above)
78	5413926A	1	WELD, OPC ROD, WALK - BLK -(S/N: 2017118254 - 2017170234)
79	703429	1	NUT, Wing, 5/16-18 -(S/N: 2017118254 & Above)
80	5414183A	1	WELD, W35 CONTROL PIVOT, RH - BLK -(S/N: 2017170235 & Above)
81	5414184A	1	WELD, W35 CONTROL PIVOT, LH - BLK -(S/N: 2017170235 & Above)
82	5414411A	2	TAB, PIVOT, W35 - BLK -(S/N: 2017170235 & Above)
83	5414516A	1	WELD, OPC ROD, WALK BEHIND - BLK -(S/N: 2017170235 & Above)

Parking Brake Group - S/N: 2017170234 & Below

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5303681



Parking Brake Group - S/N: 2017170234 & Below

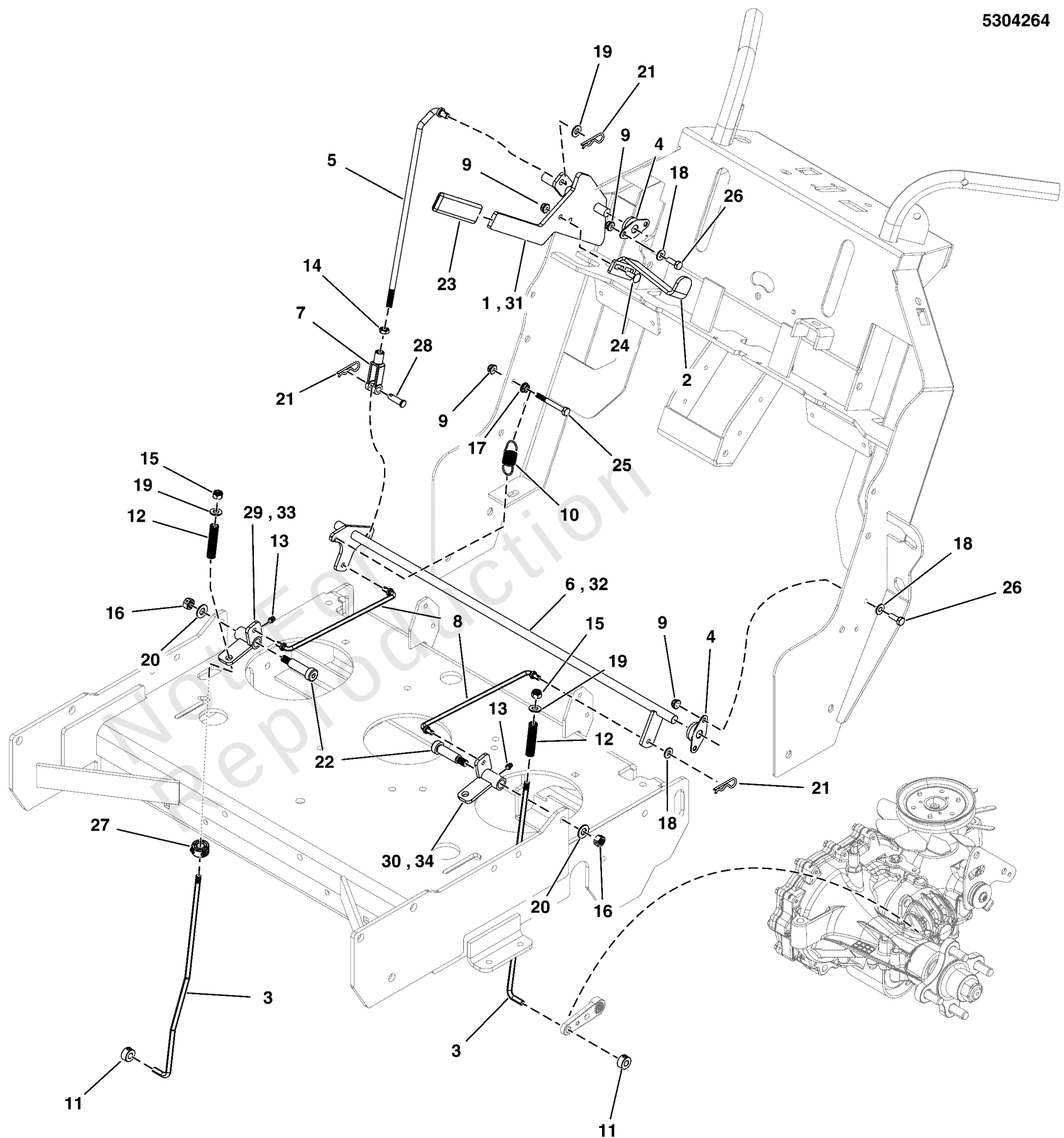
REF NO	PART NO	QTY	DESCRIPTION
1	5104241	2	ROD, BRAKE, SW35
2	5045947	2	ADJUSTER, BRAKE LINKAGE
3	5025337	4	WASHER, 5/16 USS
4	5412304A	1	WELD, BRAKE CABLE MOUNT - BLK
5	5025213X8	1	PIN, CLEVIS, 5/16 X 1, PLATED
6	5025394	2	NUT, 3/8-16 HEX NYLOCK FLANGE
7	5025032	1	NUT, 5/16-18 HEX
8	5025057	1	NUT, 5/16-18 HEX NYLON LOCK
9	5025059X6	2	BOLT, 5/16-18 X 3/4, SELF TAPPING
10	5025045	2	NUT, 5/16-24 HEX NYLON LOCK
11	5020047	2	COLLAR, 5/16 SET
12	5023323	1	CLEVIS, 5/16-24, STEEL, CLEAR ZINC
13	5023216	5	NUT, 5/16-24 JAM -(Qty: 4 included with parking brake cable)
14	5104276	1	CABLE, PARKING BRAKE, 31" (787.9 cm)
15	5412303A	1	WELD, BRAKE PIVOT - BLK
16	5044992	2	SPACER, .38 X .50 X 1.56
17	5025013X18	2	BOLT, 3/8-16 X 2-1/4" GD5 CZ
18	5412150A	1	PLATE, OVER CENTER LINK
19	5412207A	1	WELD, BRAKE LEVER, WALK - BLK -(S/N: 2016973572 & Below)
20	5101123	2	BEARING, 1/2 FLANGED, PLASTIC BALL
21	5025010X6	4	BOLT, 1/4-20 X 3/4 GD5 YZ
22	5025154	4	WASHER, 1/4 SAE
23	5025391	5	NUT, 1/4-20 HEX NYLOCK FLANGE
24	5412327A	1	PLATE, SWITCH TAB - BLK -(S/N: 2016973572 & Below)
25	5025179X6	2	SCREW, #10-24 X 3/4 ROUND PHILLIPS -(S/N: 2016973572 & Below)
26	5022398	2	SPRING, COMP .480X.067X2.75
27	5025271	2	NUT, #10-24 HEX NYLON LOCK -(S/N: 2016973572 & Below)
28	5025510	1	GRIP, FOAM, 1/4 X 1 X 4.1
29	5025212X8	1	PIN, CLEVIS, 1/4 X 1, PLATED
30	5025220	1	BOLT-3/8-16 x 1-1/2, 1/2 SHOULDER
31	5010213	1	SPRING-EXT, .740 ODX2.025LGX.072WR, BLK
32	5025010X10	1	BOLT, 1/4-20 X 1-1/4, GD5
33	5025126	1	NUT, 1/4-20 HEX SERR. FLANGE
34	5021494	1	SPRING-COMP, .600ID X 5.50LG X .080WR
35	5025100	1	NUT, 3/8-16 HEX SIDE LOCK
36	5042134	1	SPACER, .32 X .75 X 1.06, PM
37	5102709	1	BUSHING, .38 X .75 X .75, PLASTIC
38	5025211	1	PIN, HAIR, .0585 X 1-1/8, 1/4 EYE, YZ
39	5025203X10	4	PIN, COTTER, 1/8 X 1-1/4
40	1910531SM	2	WASHER, Rivet, 3/16
41	5413674A	1	WELD, BRAKE HANDLE, F/SW35 - BLK -(S/N: 2016973573 & Above)
42	5413241A	1	PLATE, NEUTRAL LOCKOUT - BLK -(S/N: 2016973573 & Above)
43	80003518	2	BOLT, 1/4-20X0.750, GR5, STD NECK, SQ, ZC/CL -(S/N: 2016973573 & Above)
44	5025391	2	NUT, 1/4-20 HEX NYLOCK FLANGE -(S/N: 2016973573 & Above)

Parking Brake Group - S/N: 2017170235 & Above

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5304264



Parking Brake Group - S/N: 2017170235 & Above

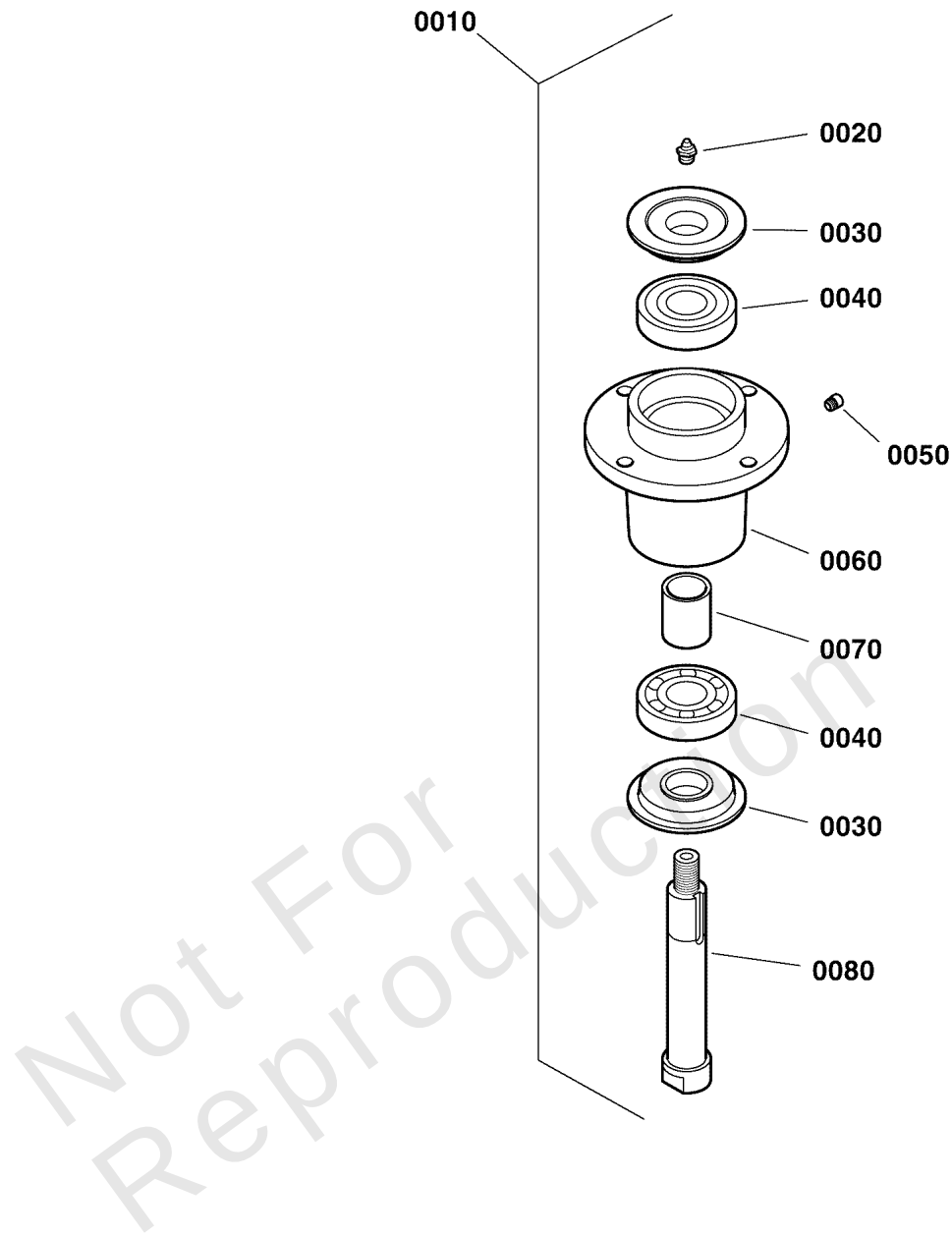
REF NO	PART NO	QTY	DESCRIPTION
1	5413689A	1	WELD, BRAKE HANDLE, W35 - BLK -(S/N: 2017307155 & Below)
2	5413241A	1	PLATE, NEUTRAL LOCKOUT - BLK
3	5104496	2	ROD, BRAKE CTRL, LOWER, SW25/FW25
4	5101123	4	BEARING, 1/2 FLANGED, PLASTIC BALL
5	5104641	1	ROD, PARKING BRAKE, W35, UPPER
6	5413955A	1	WELD, CROSS SHAFT, W35 BRAKE - BLK -(S/N: 2017307155 & Below)
7	5023323	1	CLEVIS, 5/16-24, STEEL, CLEAR ZINC
8	5104642	2	ROD, PARKING BRAKE, W35, UPPER
9	5025391	11	NUT, 1/4-20 HEX NYLOCK FLANGE
10	5010213	1	SPRING-EXT, .740 ODX2.025LGX.072WR, BLK
11	5020047	2	COLLAR, 5/16 SET
12	5020637	2	SPRING-COMP, .375IDX2.75LGX.054WR, SS
13	5021637	2	GREASE FITTING, PRESS, SHORT -(S/N: 2017215296 & Below)
14	5023216	1	NUT, 5/16-24 JAM
15	5025045	2	NUT, 5/16-24 HEX NYLON LOCK
16	5025100	2	NUT, 3/8-16 HEX SIDE LOCK
17	5025126	1	NUT, 1/4-20 HEX SERR. FLANGE
18	5025154	12	WASHER, 1/4 SAE
19	5025155	3	WASHER, 5/16" SAE
20	5025156	2	WASHER, 3/8 SAE
21	5025211	6	PIN, HAIR, .0585 X 1-1/8, 1/4 EYE, CZ
22	5025220	2	BOLT-3/8-16 x 1-1/2, 1/2 SHOULDER
23	5025510	1	GRIP, FOAM, 1/4 X 1 X 4.1
24	80003518	2	BOLT,1/4-20X0.750,GR5,STD NECK,SQ,ZC/CL
25	5025010X18	1	BOLT, 1/4-20 X 2-1/4 GD5 CZ
26	5025010X6	8	BOLT, 1/4-20 X 3/4 GD5 CZ
27	5104748	2	COLLAR, DOUBLE SPLIT, 7MM
28	5025213X8	1	PIN, CLEVIS, 5/16 X 1, PLATED
29	84008451	1	PIVOT -(S/N: 2017307155 & Below)
30	84012594	1	PIVOT, Brake -(S/N: 2017307155 & Below)
31	5414624A	1	WELD, HANDLE, W35 PARKING BRAKE - BLK -(S/N: 2017307156 & Above)
32	5414628A	1	WELD, BRAKE ROD, W35 - BLK -(S/N: 2017307156 & Above)
33	5414630A	1	WELD, BRAKE PIVOT, W35 - RH - BLK -(S/N: 2017307156 & Above)
34	5414631A	1	WELD, BRAKE PIVOT, W35 - LH - BLK -(S/N: 2017307156 & Above)

Spindle SERVICE PARTS - 5061095

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5061095



Spindle SERVICE PARTS - 5061095

REF NO	PART NO	QTY	DESCRIPTION
0010	5061095SM	1	ASSM, SPINDLE, LOW PR -(Nut and Washer Sold Seperately) (Includes items #0020 - 0080)
0020	5023329SM	1	FITTING
0030	5049793SM	2	SHIELD, TRASH
0040	5023330SM	2	BEARING, .98 X 2.44 X
0050	5023296SM	1	FITTING, RELIEF, 1-5
0060	5102993YP	1	SUB ASM, SPINDLE, LON -(Includes items #0040 - Qty (2) & #0070 - Qty (1))
0070	5061099SM	1	SPACER
0080	5061098SM	1	SHAFT, SPINDLE

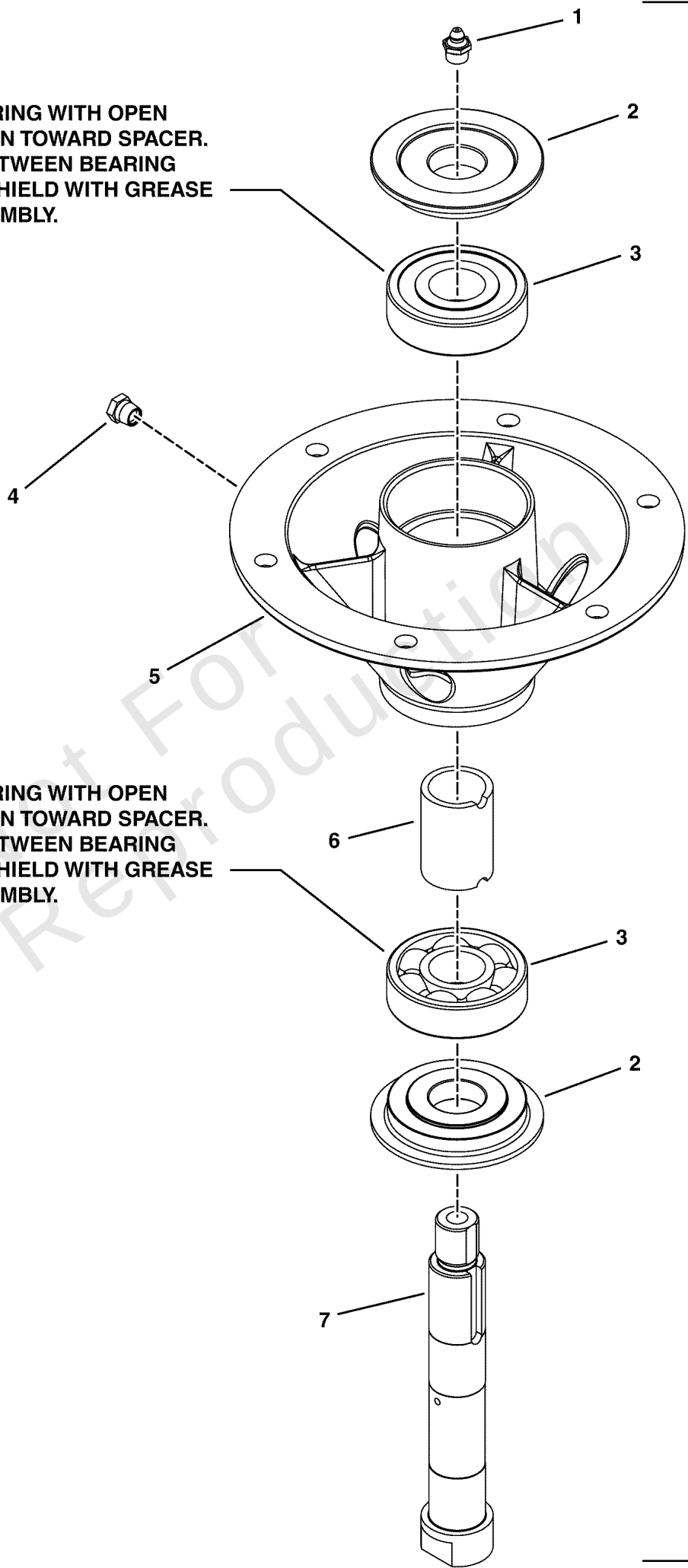
Spindle Service Parts - 5100993

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5100993

INSTALL BEARING WITH OPEN
SIDE FACING IN TOWARD SPACER.
FILL AREA BETWEEN BEARING
AND TRASH SHIELD WITH GREASE
DURING ASSEMBLY.



INSTALL BEARING WITH OPEN
SIDE FACING IN TOWARD SPACER.
FILL AREA BETWEEN BEARING
AND TRASH SHIELD WITH GREASE
DURING ASSEMBLY.

NOTE: FILL CAVITY WITH NLGI, GRADE 2, EP-2 GREASE
(SUPERPLEX EP-2, SHELL ALBIDA LCS, BP ENERGREASE LC)

Spindle Service Parts - 5100993

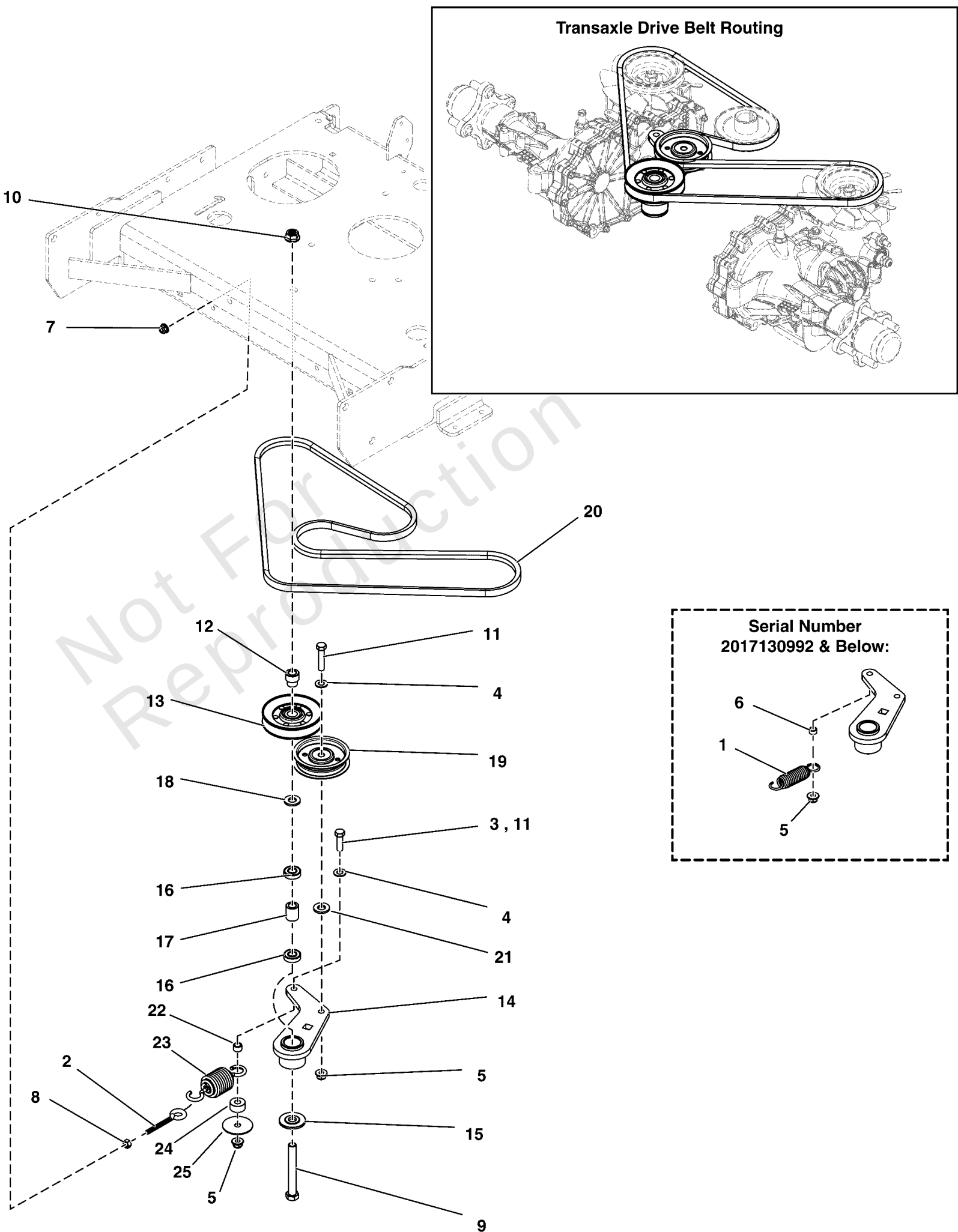
REF NO	PART NO	QTY	DESCRIPTION
1	5023329	1	FITTING
2	5049793	2	TRASH SHIELD
3	5023330	2	BEARING, .98 X 2.44 X .67
4	5023296	1	FITTING, RELIEF, 1-5 PSI
5	5101048	1	HOUSING, SPINDLE, BOTTOM MOUNT SM
6	5061099	1	SPACER, 1.00 X 1.25 X 1.75
7	5061098	1	SPINDLE SHAFT
8	5100993	1	SPINDLE ASSM, CAST IRON 8.0 - 6-BOLT -(Includes Ref No. 1 - 7)

Transaxle Drive Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901452

5303682



Transaxle Drive Group

REF NO	PART NO	QTY	DESCRIPTION
1	-----	1	REPLACE WITH S/N: 2017130993 & ABOVE COMPONENTS -(S/N: 2017130992 & Below)
2	5025141X26	1	EYE BOLT, 5/16-18 X 3.5, 2.13 THRD, .55 EYE, CZ
3	5025013X10	1	BOLT, 3/8-16 X 1-1/4" GD5 CZ -(S/N: 2017130992 & Below)
4	5025156	2	WASHER, 3/8 SAE
5	5025394	2	NUT, 3/8-16 HEX NYLOCK FLANGE
6	5041930	1	SPACER, .38 X .50 X .27, CZ -(S/N: 2017130992 & Below)
7	5025392	1	NUT, 5/16-18 HEX NYLOCK FLANGE
8	5025032	1	NUT, 5/16-18 HEX
9	5025017X32	1	BOLT, 1/2-13 X 4" GD5 CZ
10	5025396	1	NUT, Hex Flange, Nylock, 1/2-13
11	5025013X16	2	BOLT, 3/8-16 X 2, GD5, CZ -(Qty: 1 - S/N: 2017130992 & Below)
12	5104237	1	INSERT, BEARING, .51 ID X .90 OD X 1.15 L
13	5021225FS	1	PULLEY, Idler
14	5412073A	1	WELD, IDLER ARM, WALK - BLK
15	5103262	1	SPACER, IDLER ARM, 1/2, PM
16	7078243	2	BEARING, BALL, AXLE
17	5104153	1	SPACER, .52 X .84 X 1.00, PM
18	5104286	1	SPACER, .52 X .88 X .14, HT
19	5104191	1	PULLEY, FLAT IDLER, 3-1/4" FLANGED
20	5104193	1	BELT, A-SEC, COG TYPE, 76.2" EL ARAMID
21	5104937	1	SPACER, .385" ID X .625" OD X .062" THK
22	5103676	1	SPACER, .39 X .55 X .38, PM, CZ -(S/N: 2017130993 & Above)
23	5104676	1	SPRING EXT, 1.50 OD X 4.75 LG X .177 WR, BLK -(S/N: 2017130993 & Above)
24	5046860	1	SPACER, .39 X 1.00 X .50, PM, CZ -(S/N: 2017130993 & Above)
25	5025326	1	WASHER, .39 X 2.00 X .14 -(S/N: 2017130993 & Above)

5102154

Hydro-Gear® Model ZJ-KMFE-3B5A-1PLX (P/N 5102154)

Hydro-Gear® Model ZJ-GMFE-3B51-1PLX (P/N 5102155)

Hydro-Gear® Model ZJ-KMFE-3B5C-1PLX (P/N 5102810)

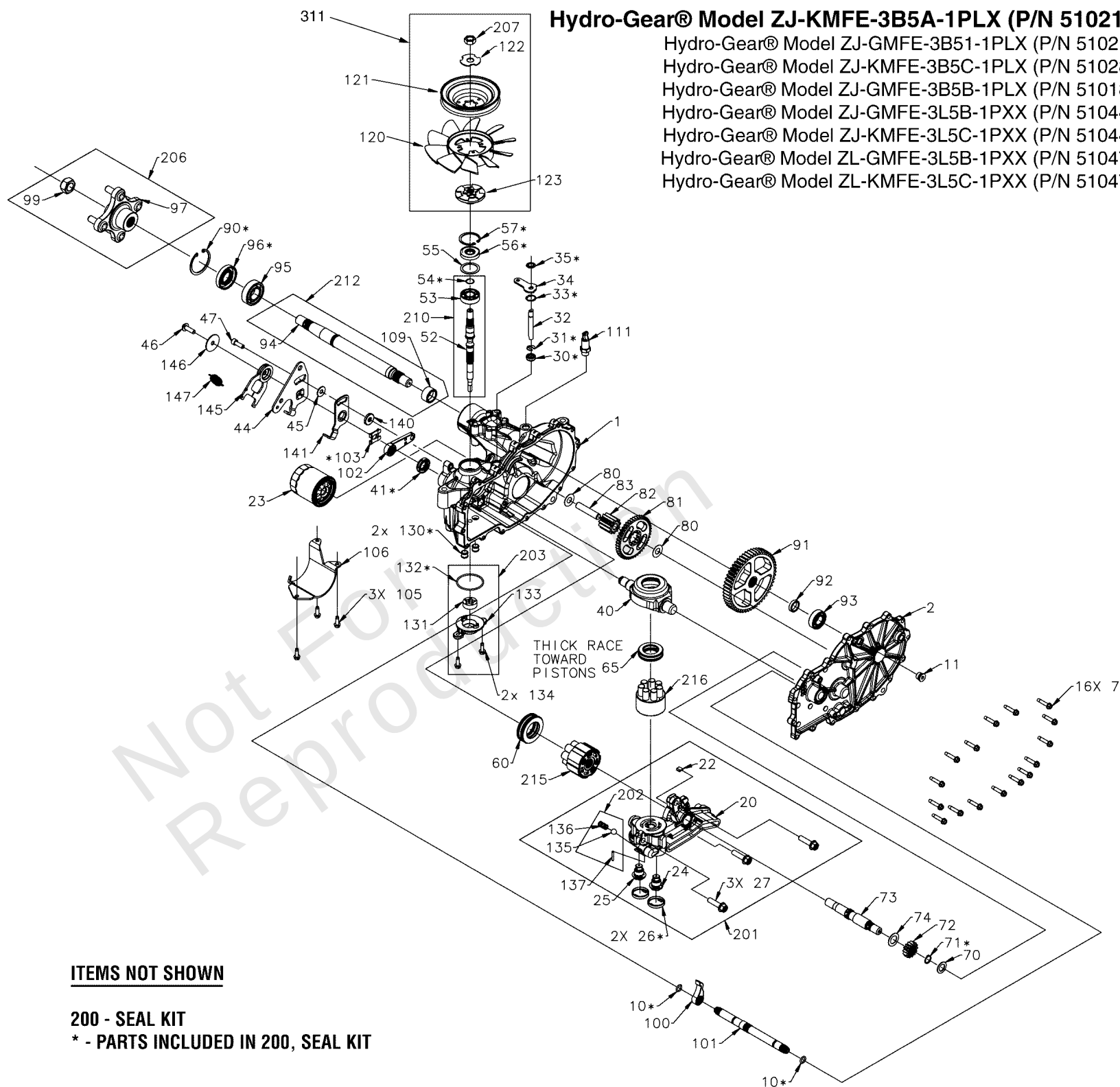
Hydro-Gear® Model ZJ-GMFE-3B5B-1PLX (P/N 5101809)

Hydro-Gear® Model ZJ-GMFE-3L5B-1PXX (P/N 5104471)

Hydro-Gear® Model ZJ-KMFE-3L5C-1PXX (P/N 5104472)

Hydro-Gear® Model ZL-GMFE-3L5B-1PXX (P/N 5104707)

Hydro-Gear® Model ZL-KMFE-3L5C-1PXX (P/N 5104706)

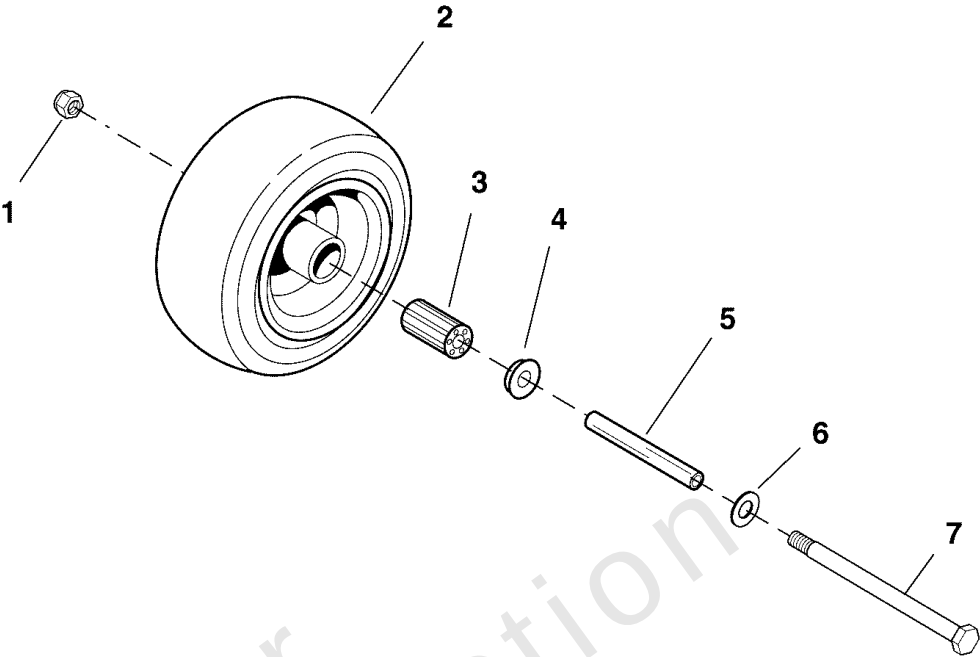


Transaxle SERVICE PARTS - ZT3100

REF NO	PART NO	QTY	DESCRIPTION
23	5101026X1	1	FILTER, OIL, ZT2800
41	5101026X2	1	SEAL, CONTROL ARM, 18X32X7, #51140
56	5100161X3	1	OUTPUT SHAFT SEAL, 17X40X7, HR #51161
57	5101026X4	1	RING, RET 2.06 INT,
95	5101026X5	1	BEARING BALL, 1.0 X 52 X 15 OPEN 6205M
96	5101026X16	1	SEAL, LIP, AXLE, #53699
120	5101024X1	1	FAN
121	5102154X1	1	PULLEY, 4.5 INCH, HG #52364
121	5101024X2	1	PULLEY, HG #53804
122	5102914	1	WASHER, ZT5400, SLOTTED
123	5101024X3	1	HUB
200	5101026X8	1	KIT SEAL
203	5101026X12	1	KIT, CHARGE PUMP, ZT2800, ZT3100
206	5103382	1	HUB, ASM, TRANS 5101188/89 & 5102154/55
207	5102916	1	NUT, ZT5400
210	5101026X9	1	KIT, INPUT SHAFT
311	5102809X1	1	KIT, FAN AND PULLEY (72134)
1000	5104580X4	1	KIT, PLUG, BRAKE BORE, OUTBOARD -(FW25 & SW25 - S/N: All; FW35 & SW35 - S/N: 2017170235 & Above)
1001	5104580X5	1	KIT, PLUG, BRAKE BORE, INBOARD -(FW35 & SW35 - S/N: 2017170234 & Below)
1002	84009787	1	KIT, TRANSAXLE SERVICE PARTS -(Includes 10 Qts oil, 2 oil filters, 2 fittings, 2 vent hoses, 2 vent hose plugs, and 2 hose clamps.)

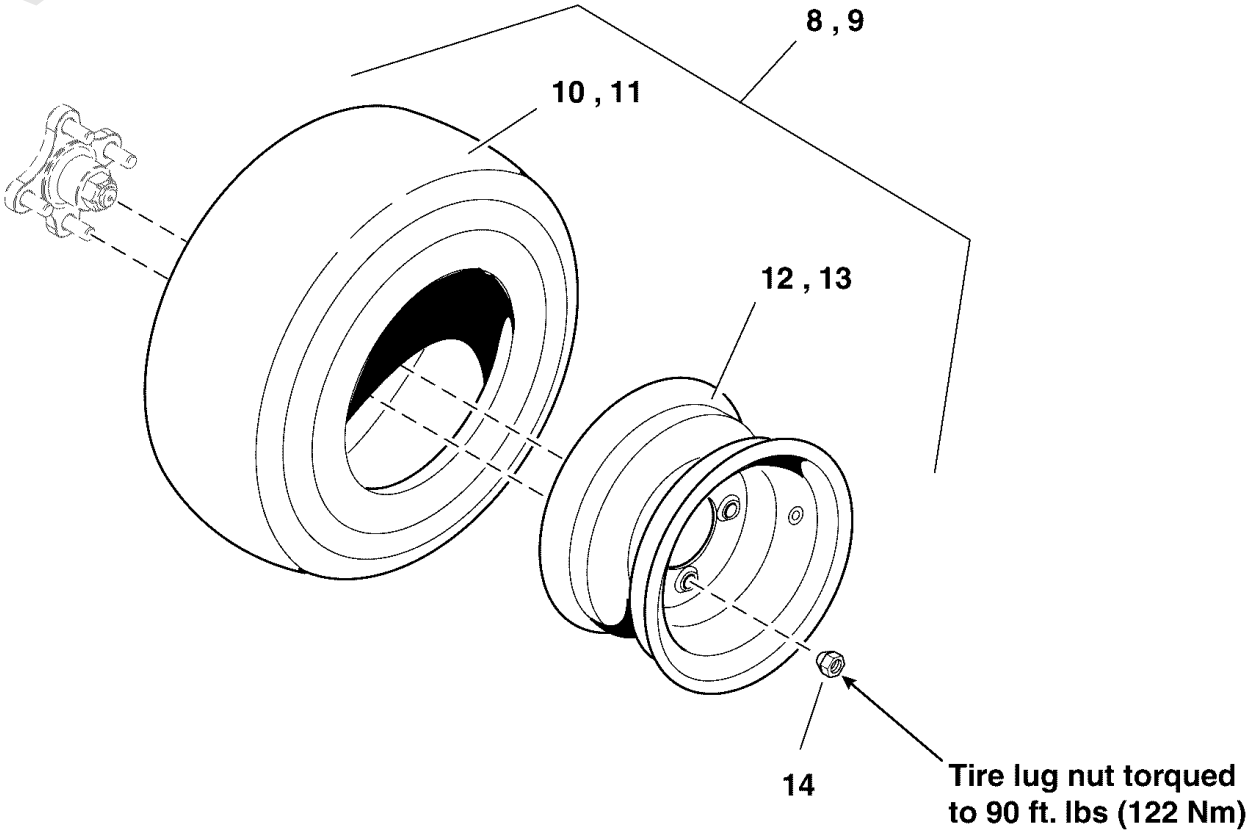
Front Wheels & Tires

5302357
5301826



Flat Free Tire

Rear Wheels & Tires



Inflate to 15 psi (1,03 bar)

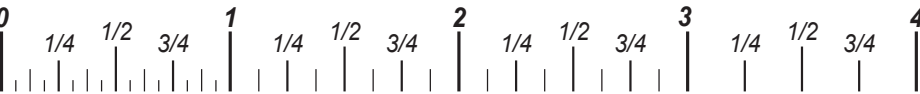
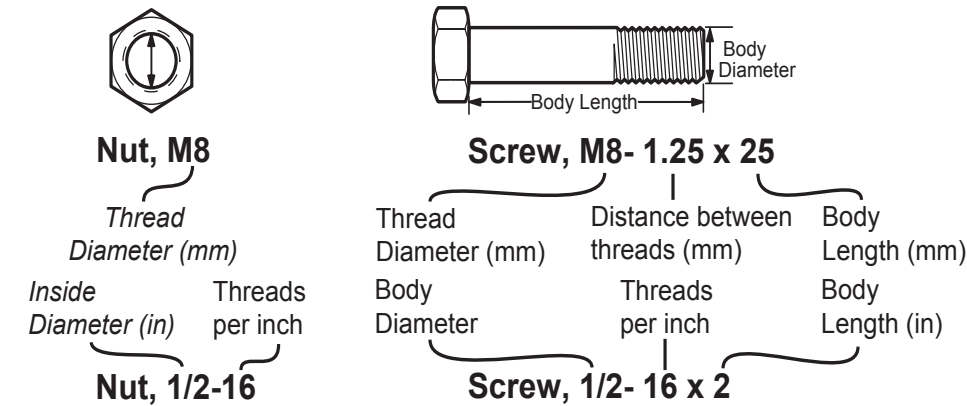
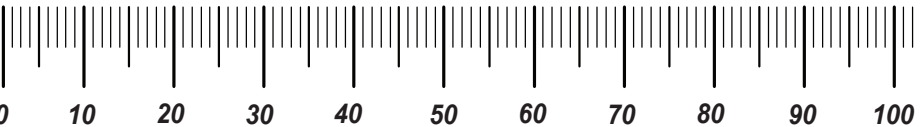
Wheel & Tire Group

REF NO	PART NO	QTY	DESCRIPTION
1	5025396	2	NUT, Hex Flange, Nylock, 1/2-13
2	5100715	2	TIRE ASSM, 11 X 4 - 5, FF, CASTER
3	5101418X1	2	BEARING, ROLLER -(SV)
4	5021043	2	BEARING, RETAINER -(SV)
5	5045996	2	CASTER AXLE DDSH
6	5025158	2	WASHER, 1/2 SAE
7	5025017X56	2	BOLT, 1/2-13 X 7 GD5 CZ
8	5102375	2	TIRE ASSM, 20 X 7 - 10, TURF, 4 BOLT -(Models with 48" Mower Decks)
9	5102329	2	TIRE ASSM, 20 X 8 - 10, TURF, 4 BOLT -(Models with 52" & 61" Mower Decks)
10	5101068X1	2	TIRE, 20X7.00-10NHS, TURF MASTER -(Models with 48" Mower Decks)
11	5101293X1	2	TIRE, REAR, 20X8X10, TURF MASTER (SV) -(Models with 52" & 61" Mower Decks)
12	5102375X1	2	WHEEL, 10X6, 4 BOLT, NEG .700" OFFSET (SV) -(Models with 48" Mower Decks)
13	5102329X2	2	WHEEL, 10X7.00 4/4 SOLID F237 2.625 OS -(Models with 52" & 61" Mower Decks)
14	5020601	8	NUT, 1/2-20, FOR WHEEL BOLT SILVER

Hardware Identification & Torque Specifications

Torque Specification Chart								
FOR STANDARD METRIC MACHINE HARDWARE (Tolerance ± 20%)								
Property Class	 Class 5.6		 Class 8.8		 Class 10.9		 Class 12.9	
Size Of Hardware	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.
M3	5.88	.56	13.44	1.28	19.2	1.80	22.92	2.15
M4	13.44	1.28	30.72	2.90	43.44	4.10	52.56	4.95
M5	26.4	2.50	60.96	5.75	5.97	8.10	7.15	9.7
M6	44.64	4.3	7.3	9.9	10.3	14	12.1	16.5
M7	5.2	7.1	12.1	16.5	16.9	23	19.9	27
M8	7.7	10.5	17.7	24	25	34	29	40
M10	15	21	35	48	50	67	59	81
M12	26	36	61	83	86.2	117	103	140
M14	42	58	101	132	136	185	162	220
M16	64	88	147	200	210	285	250	340
M18	89	121	202	275	287	390	346	470
M20	126	171	290	390	405	550	486	660
M22	169	230	390	530	559	745	656	890
M24	217	295	497	375	708	960	840	1140
M27	320	435	733	995	1032	1400	1239	1680
M30	435	590	995	1350	1401	1900	1681	2280
M33	590	800	1349	1830	1902	2580	2278	3090
M36	759	1030	1740	2360	2441	3310	2935	3980
M39	988	1340	2249	3050	3163	4290	3798	5150

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



Standard Hardware Sizing

When a washer or nut is identified as 1/2" (M8), this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch (8mm metric thread diameter); if a second number is present it represents the *threads per inch* (distance between threads).

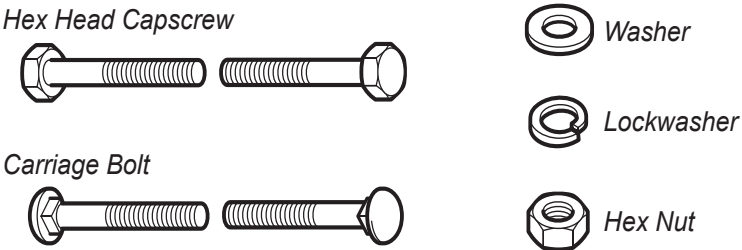
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw, 2 inches (50mm).

Torque Specification Chart						
FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)						
Hardware Grade	 SAE Grade 2		 SAE Grade 5		 SAE Grade 8	
Size Of Hardware	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	29	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.

Common Hardware Types



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"
M6 Bolt or Nut Wrench—10mm	M8 Bolt or Nut Wrench—13mm	M10 Bolt or Nut Wrench—17mm	M12 Bolt or Nut Wrench—19mm	M14 Bolt or Nut Wrench—22mm

