



Parts Manual

Mfg. No: 5901653
F210Z Series w/ 61" iCD Mower Deck
(F210ZBVE2861)



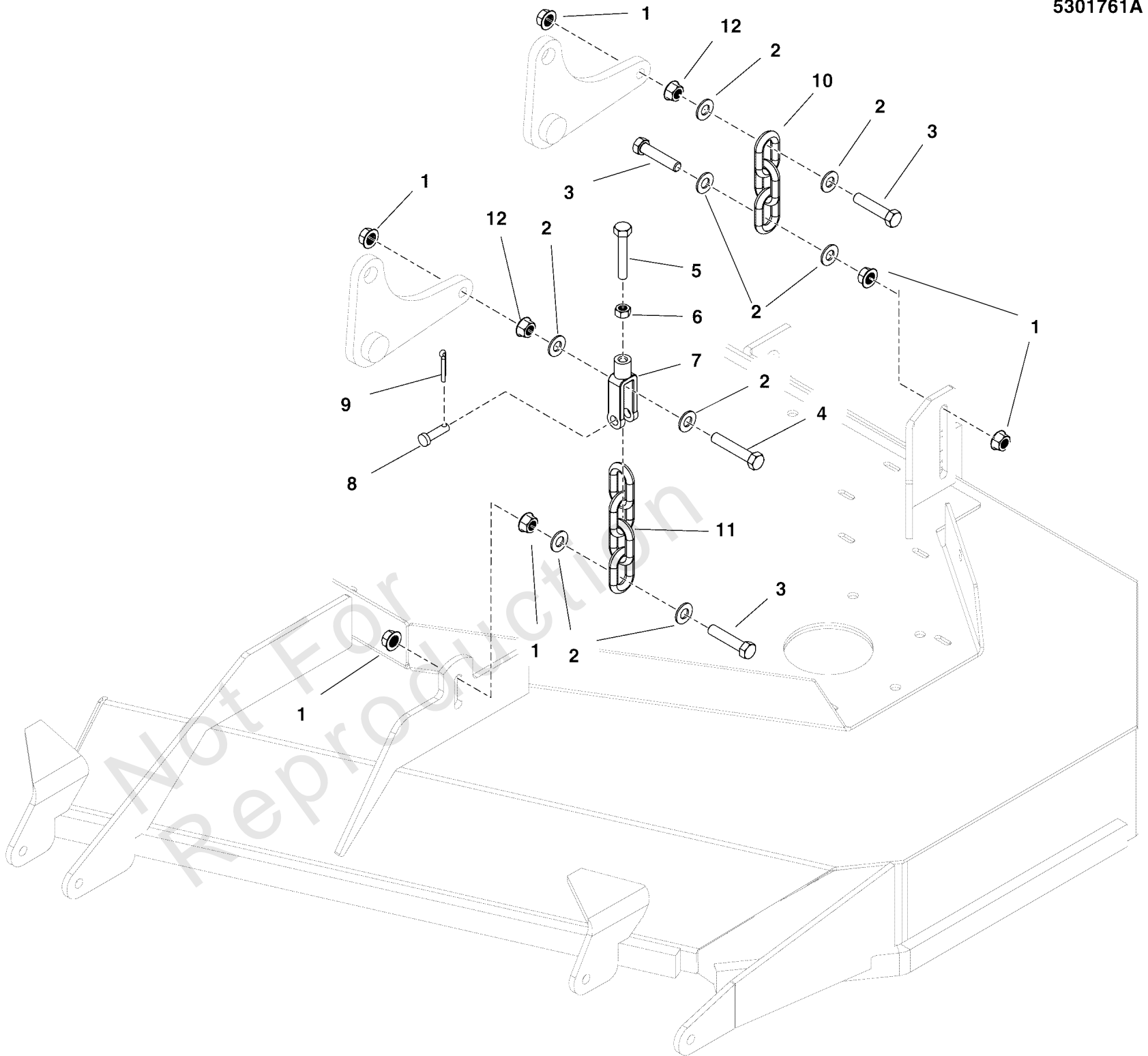
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61" Mower Deck - Hanger Chains

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5301761A



61" Mower Deck - Hanger Chains

REF NO	PART NO	QTY	DESCRIPTION
1	5025084	2	NUT, 3/8-16 HEX JAM
2	5025156	16	WASHER, 3/8 SAE
3	5025013X14	6	BOLT, 3/8-16 X 1-3/4" GD5 CZ
4	5025013X16	2	BOLT, 3/8-16 X 2, GD5, CZ
5	5025055X16	2	BOLT, 5/16-18 X 2 GD5 TFL
6	5025032	2	NUT, 5/16-18 HEX
7	5100375	2	CLEVIS, 5/16-18, 3/8 PIN HOLE, CLR ZINC
8	5025214X9	2	PIN, CLEVIS, 3/8 X 1-1/8, PLATED
9	80002736	2	PIN, 3/32 X 0.750, COT, ZINC/CLEAR
10	5050878X3	2	CHAIN, 5/16 GD30, 3 LINKS
11	5050878X4	2	CHAIN, 5/16" GD30, 4 LINKS
12	5025128	10	NUT, 3/8-16 HEX SERRATED FLANGE

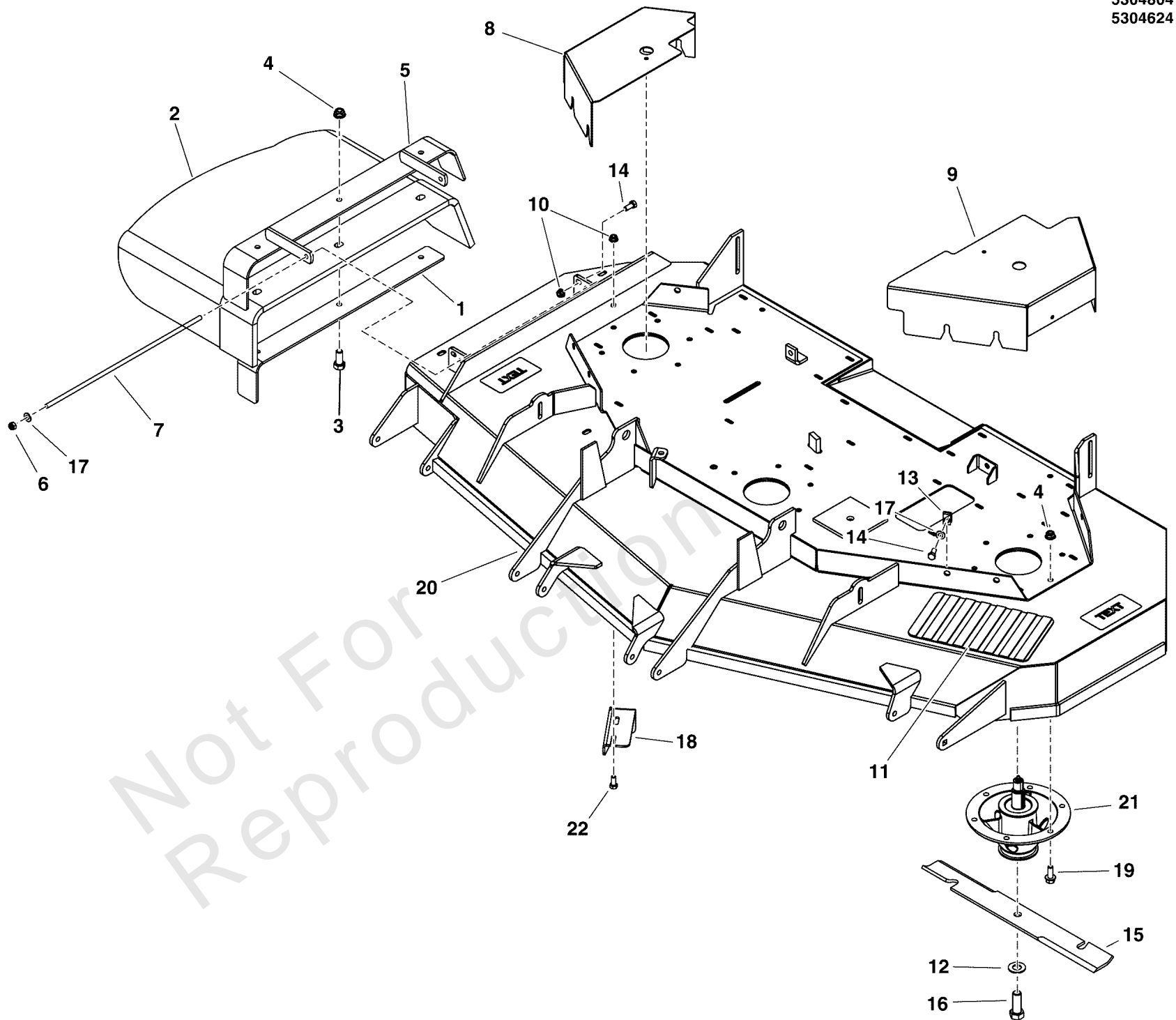
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61" Mower Deck - Housing, Covers, Spindles & Blades (2 Belt System)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5304804
5304624



61" Mower Deck - Housing, Covers, Spindles & Blades (2 Belt System)

REF NO	PART NO	QTY	DESCRIPTION
1	5413385A	1	SUPPORT, DISCHARGE CHUTE - BLK
2	5413499	1	CHUTE, RUBBER DISCHARGE (5104442)
3	5025146X12	3	BOLT, 3/8-16 X 1-1/2, CARRIAGE, GD5, CZ
4	5025394	21	NUT, 3/8 - 16 HEX NYLOCK FLANGE
5	5413387A	1	WELD, MOUNT, DISCHARGE CHUTE - BLK
6	5025045	2	NUT, Hex, Nylon Lock, 5/16-24
7	5061300	1	ROD, MOUNT, CHUTE, 61, CZ
8	5415574B	1	GUARD, MOWER DECK, IS2100-61, RH - RED
9	5415575B	1	GUARD, MOWER DECK, IS2100-61, LH - RED
10	5025392	3	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
11	5101005	1	SAFETY WALK, 9.75 X 6.00
12	5025477	3	WASHER, BLADE BOLT, 9/16" F436, CZ
13	5022308	6	BODY CLIP, 5/16-18 7GA. MATERIAL
14	5025011X6	7	BOLT, 5/16-18 X 3/4 GD5
15	5101755S	1	BLADE SET, 61 DECK (3) -(SV)(Set of 3 blades)
16	5025320X14	3	BOLT, 5/8-11 X 1-3/4 GD8 -(Torque to 70 ft. lbs (94 Nm)
17	5025155	8	WASHER, 5/16" SAE
18	5401344A	1	PLATE, DEFLECTOR - BLK
19	5025390X8	18	BOLT, Flange, 3/8-16 X 1 -(Torque to 30 ft. lbs. (41 Nm)
20	5600975	1	DECK SHELL W/DECALS, 61, F210Z (5415427B) -(S/N: 2017954955 & Below)
20	5601115	1	DECK SHELL W/DECALS, F210Z-61 (5417021B) -(S/N: 2017954956 & Above)(Refer to Note: *)
21	5104744	3	SPINDLE ASSM, CAST IRON 8.0-6 BOLT, LS
22	5025145X6	2	BOLT, 5/16-18 X 3/4, CARRIAGE, GD5, CZ

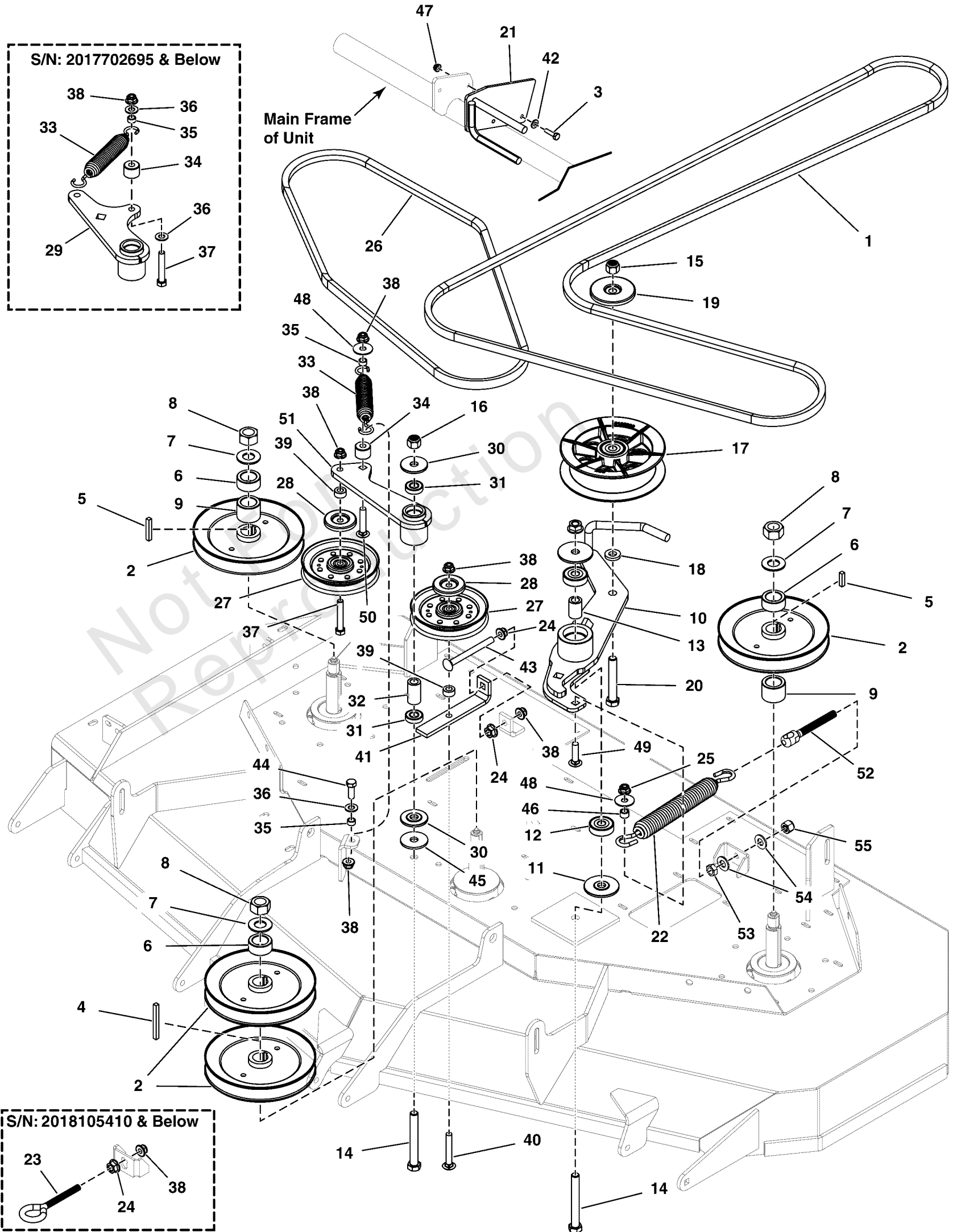
Footnotes:

Note: * If replacing the deck shell with decals on units in serial number range 2017954956 - 2018116520, you must also order 5105844 - Qty: 1, 5025098 - Qty: 1, 5025089 - Qty: 1, 5025158 - Qty: 2.

61" Mower Deck - Pulleys, Belts & Idler Arms (2 Belt System)

Note: Unless noted otherwise, use the standard torque specifications

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61" Mower Deck - Pulleys, Belts & Idler Arms (2 Belt System)

REF NO	PART NO	QTY	DESCRIPTION
1	5105034	1	BELT, 5V/SPB, 132.50 EL, LG ARAMID, WRPD
2	5105004	4	PULLEY, SPNDL, 7.032"OB X .985"ID
3	5025010X8	2	BOLT, 1/4-20 X 1" GD5 CZ
4	5050407X18	1	KEY, 1/4 SQ. x 2-1/4
5	5050407X8	2	KEY, 1/4" SQ. X 1.00"
6	5105047	3	SPACER, 1.00 X 1.50 X .70, BZ
7	5025406	3	WASHER, 3/4 BELLEVILLE CL/ZC
8	5025405	3	NUT, 3/4-16 Hex
9	5105048	2	SPACER, 1.00 X 1.50 X 1.14, BZ
10	5415288A	1	WELD, IDLER ARM, DECK DRIVE - BLK
11	5104379	2	SPACER, IDLER ARM, 1/2 X 2.25
12	5104383	2	BEARING, 6203-1/2", SEALED
13	5104456	1	SPACER, .51 X .84 X 1.22, PM, CZ
14	5025017X32	2	BOLT, 1/2-13 X 4" GD5 CZ
15	5025056	1	NUT, Hex, Nylon Lock, 1/2-13
16	5025396	2	NUT, Hex Flange, Nylock, 1/2-13
17	5105009	1	PULLEY, IDLER, 5.50, CI, DBL BEARING
18	5100520	1	SPACER, .52 X 1.00 X .22, PM, CZ
19	5105041	1	SHIELD, PULLEY, 1/2"ID X 2-7/8"OD, CZ
20	5025017X26	1	BOLT, 1/2-13 X 3-1/4, HEX HD, GD5, CZ (SV)
21	5416060A	1	WELD, CLUTCH BELT GUIDE - BLK
22	5105068	1	SPRING, EXT1.22"ODX10.5"FLX.192"WIRE BLK
23	5023497	1	EYE BOLT, 3/8-16 X 5, 2.88THRD, 1EYE, CZ -(S/N: 2018116520 & Below)
24	5025128	2	NUT, 3/8-16 Hex Large Serrated Flange -(Qty: 3 - S/N: 2018116520 & Below)
25	5025394	2	NUT, 3/8 - 16 HEX NYLOCK FLANGE
26	5104780	1	BELT, B-SEC, 64.00 EL, ARAMID, WRPD
27	5108772	2	PULLEY, V-IDLER, 5"OD X 3/8", CZ, TE
28	5105033	2	SHIELD, PULLEY, 3/8"ID X 2"OD, CZ
29	-----	1	REPLACE W/ 5416161A & 5025146X16 -(S/N: 2017702695 & Below)(Refer to Note: *)
30	5103262	2	SPACER, IDLER ARM, 1/2, PM
31	7078243	2	BEARING, BALL, AXLE
32	5103812	1	SPACER, .52 X .84 X 1.53, PM
33	5022847	1	SPRING-EXT, 1.04 ODX6.935LGX.148WR, BLK
34	5043815	1	SPACER, .39 X 1.00 X .75, CZ
35	5041930	2	SPACER, .38 X .50 X .27, CZ
36	5025156	1	WASHER, 3/8 SAE -(Qty: 3 - S/N: 2017702695 & Below)
37	5025013X18	1	BOLT, 3/8-16 X 2-1/4" GD5 CZ -(Qty: 2 - S/N: 2017702695 & Below)
38	5025394	4	NUT, 3/8 - 16 HEX NYLOCK FLANGE -(Qty: 5 - S/N: 2018116520 & Below)
39	5105429	2	SPACER, .39 X 1.00 X .38
40	5025146X20	1	BOLT, 3/8-16 X 2-1/2, CARRIAGE, GD5, CZ
41	5415374A	1	PLATE, IDLER PULLER - BLK
42	5025154	2	WASHER, 1/4 SAE
43	5025146X36	1	BOLT, 3/8-16 X 4-1/2, CARRIAGE, GD5, CZ
44	5025013X8	1	BOLT, 3/8-16 X 1" GD5 CZ

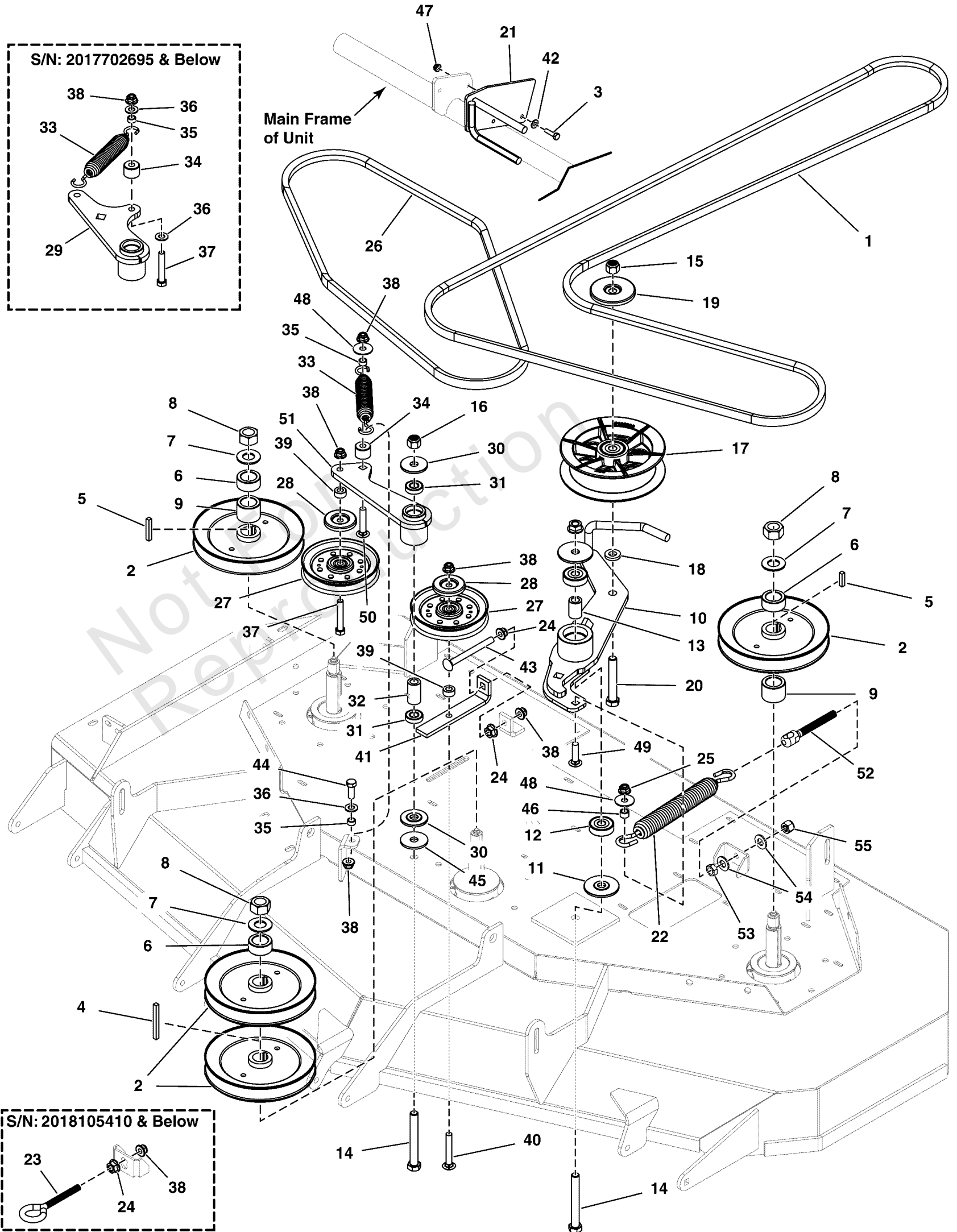
Footnotes:

Note: * After updating set coil-to-coil spring length to 6-3/8" ± 1/8"

61" Mower Deck - Pulleys, Belts & Idler Arms (2 Belt System)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653



61" Mower Deck - Pulleys, Belts & Idler Arms (2 Belt System)

REF NO	PART NO	QTY	DESCRIPTION
45	5103282	1	WASHER, .52 X 1.75 X 0.14, CZ
46	5105297	1	SPACER, .39 X .63 X .375M DOM CZ
47	5025391	2	NUT, 1/4-20 Hex Nylock Flange
48	5025165	2	WASHER, 3/8" Fender
49	5025146X12	1	BOLT, 3/8-16 X 1-1/2, CARRIAGE, GD5, CZ
50	5025146X16	1	BOLT, 3/8-16 X 2, CARRIAGE, GD5, CZ -(S/N: 2017702696 & Above)
51	5416161A	1	WELD, IDLER ARM, 2 BELT DRIVE - BLK -(S/N: 2017702696 & Above)
52	5105844	1	SPRING PULLER, 1/2-20, 5.00 -(S/N: 2018116521 & Above)
53	5025089	1	NUT, 1/2-20 Hex Jam -(S/N: 2018116521 & Above)
54	5025158	2	WASHER, 1/2 SAE -(S/N: 2018116521 & Above)
55	5025394	1	NUT, 3/8 - 16 HEX NYLOCK FLANGE -(S/N: 2018116521 & Above)

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Footnotes:

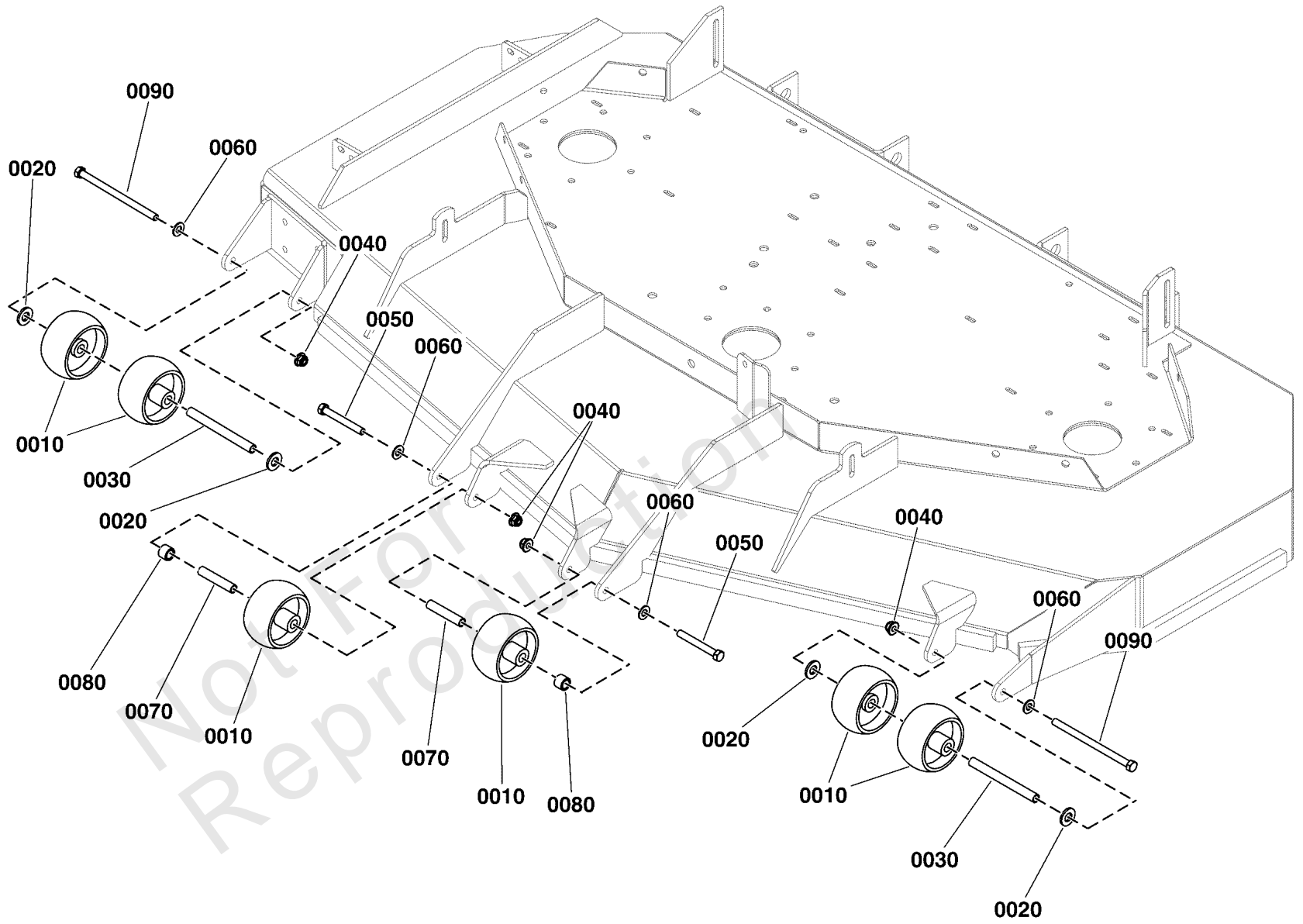
Note: * After updating set coil-to-coil spring length to 6-3/8" ± 1/8"

61" Mower Deck Group - Rollers S/N: 2017954955 & Below

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

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61" Mower Deck Group - Rollers S/N: 2017954955 & Below

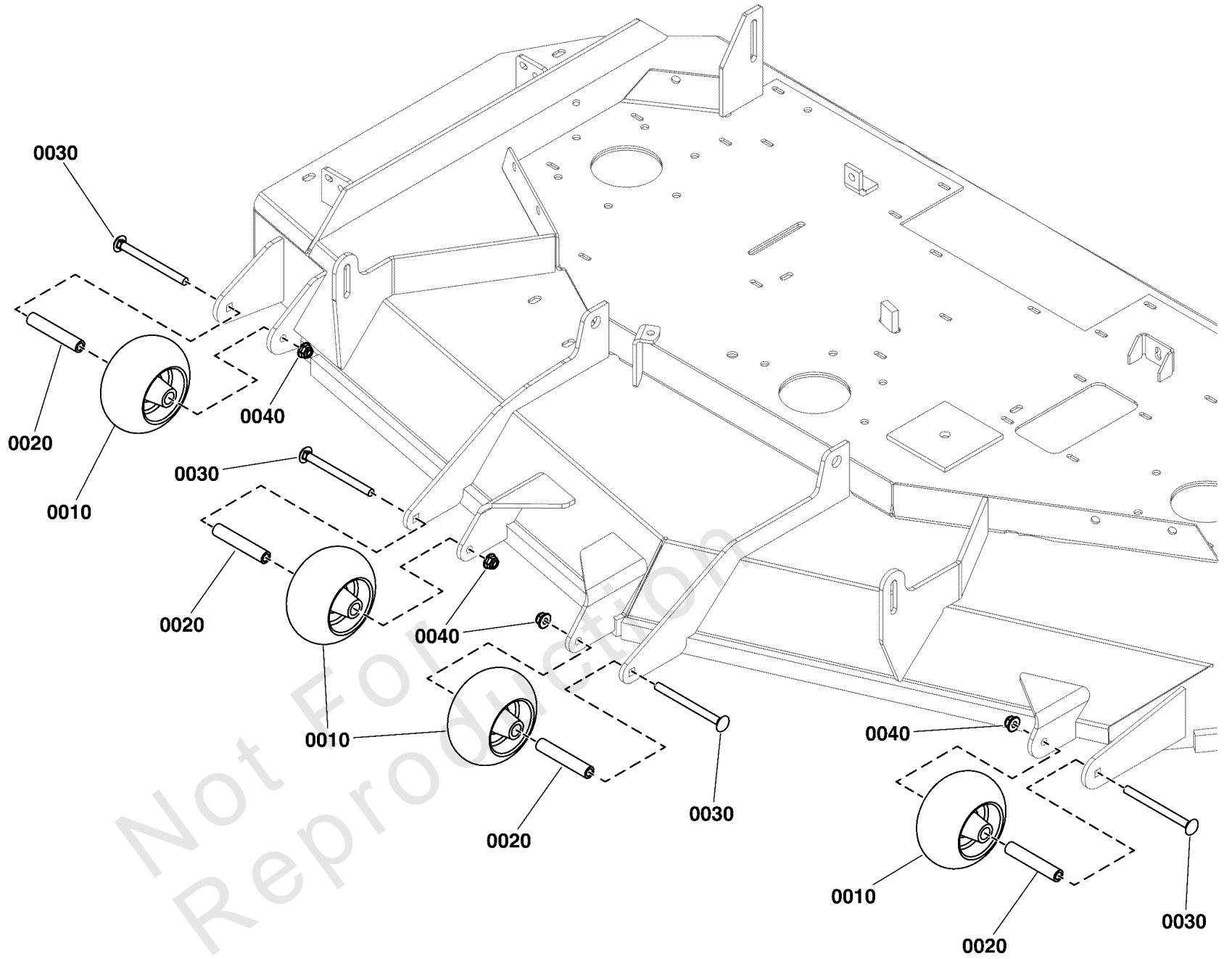
REF NO	PART NO	QTY	DESCRIPTION
0010	1714760	6	WHEEL- 2.00 WIDE 3.88 DIA 0.531ID POLY
0020	5025440	4	WASHER, 1/2" GD9 YZ
0030	5046586	2	SPACER, .38 X .50 X 5.06, CZ
0040	5025100	4	NUT, Hex, Side Lock, 3/8-16
0050	5025013X28	2	BOLT, 3/8-16 X 3-1/2" GD5 CZ
0060	5025156	4	WASHER, 3/8 SAE
0070	5104675	2	SPACER, .38 X .50 X 2.50, CZ
0080	5047027	2	SPACER, .51 X .75 X .56, PM, CZ
0090	5025013X48	2	BOLT, 3/8-16 X 6" GD5 CZ

Not For Reproduction

61" Mower Deck Group - Rollers S/N: 2017954956 & Above

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653



61" Mower Deck Group - Rollers S/N: 2017954956 & Above

REF NO	PART NO	QTY	DESCRIPTION
0010	5105521	4	WHEEL, ANTI SCALP, 5"
0020	5105554	4	SPACER, .38 X .63 X 3.38, CZ
0030	5025146X36	4	BOLT, 3/8-16 X 4-1/2, CARRIAGE, GD5, CZ
0040	5025394	4	NUT, 3/8 - 16 HEX NYLOCK FLANGE

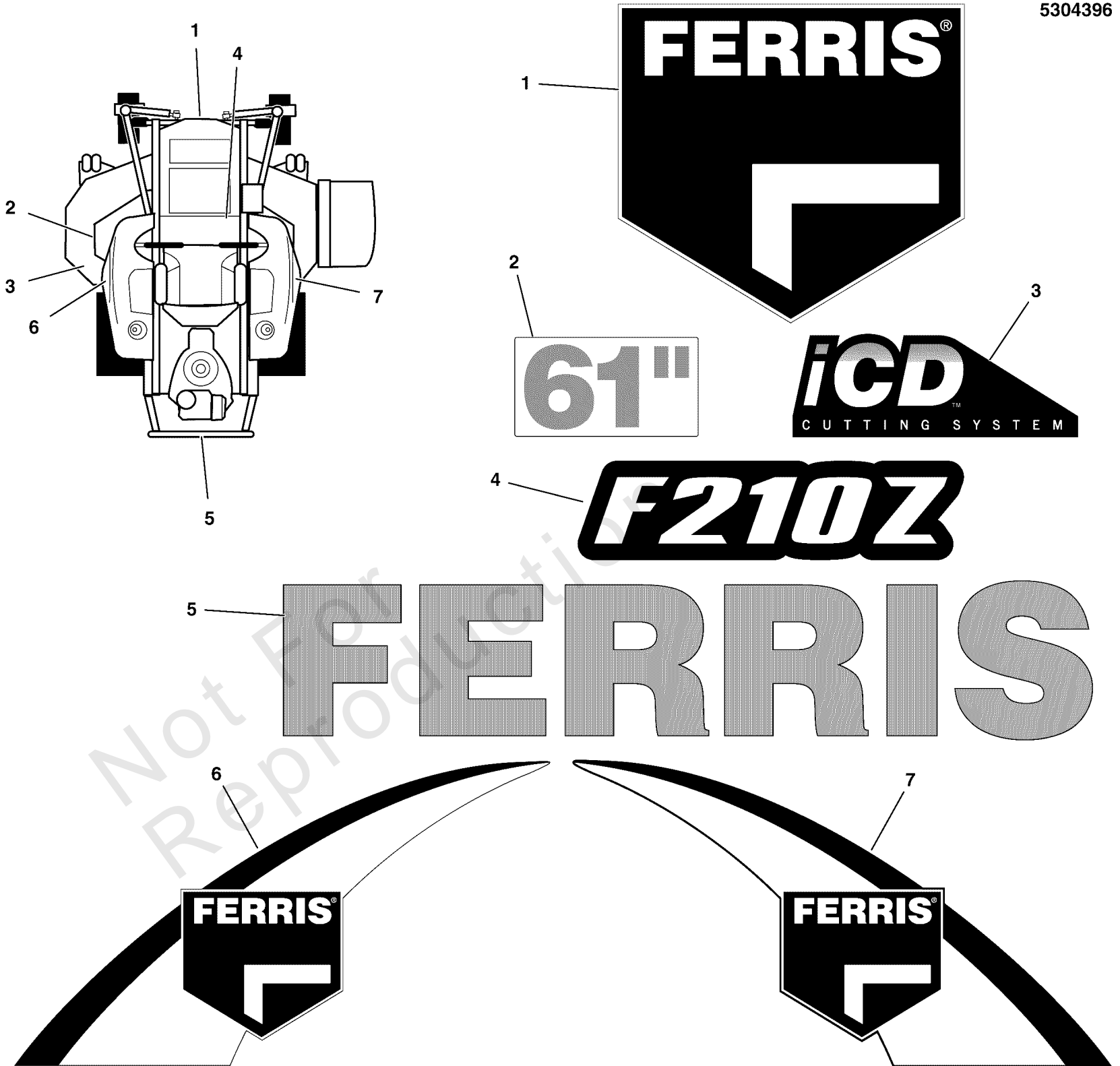
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Decal Group - Brand & Model

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5304396



Decal Group - Brand & Model

REF NO	PART NO	QTY	DESCRIPTION
1	5104756	1	DECAL, FERRIS LOGO, SMALL
2	5022813	1	DECAL, 61
3	5102210	1	DECAL, iCD CUTTING SYSTEM
4	5104778	1	DECAL, MODEL, F210Z
5	5103799	1	DECAL, FERRIS, 2.23" X 11.39"
6	5104751	1	DECAL, TANK, MED, LH, FERRIS
7	5104752	1	DECAL, TANK, MED, RH, FERRIS

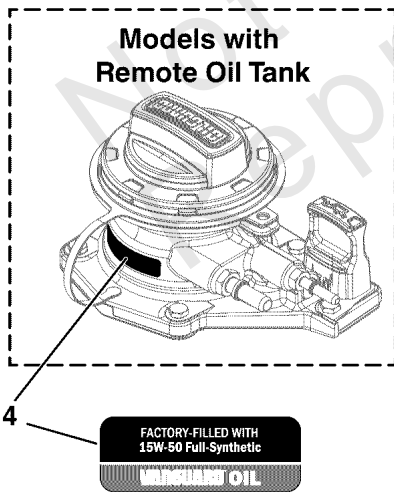
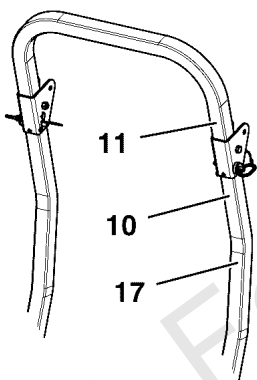
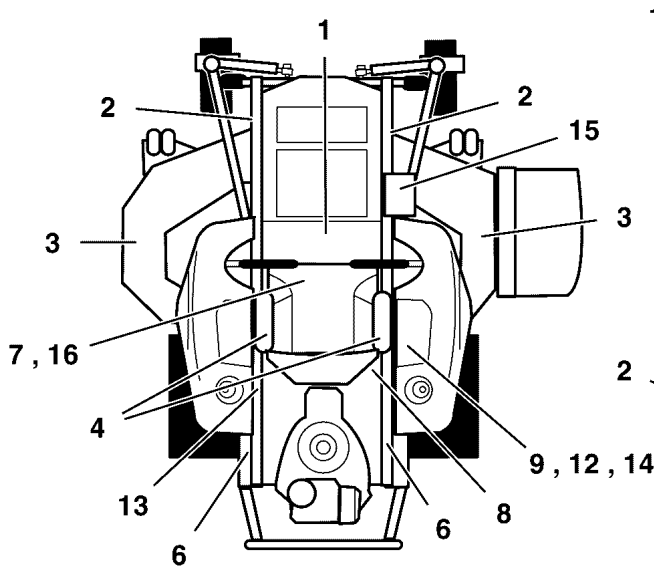
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Decal Group - Safety & Operation USA Models

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5304901



FACTORY-FILLED WITH
15W-50 Full-Synthetic
SAE MOTOR OIL

WARNING

Avoid serious injury or death

- Read operator's manual before using this product.
- Do NOT operate this machine unless you are trained.
- Know the location and function of all controls.
- Keep safety devices (guards, shields, switches, etc.) in place and working.
- Remove objects that could be thrown by the blade.
- Be sure blades and engine are stopped before placing hands or feet near blades.
- When leaving machine, shut off, remove key and set parking brake.

Fire Hazard

Gasoline is flammable. Debris is combustible.

- Allow engine to cool for at least 3 minutes before refueling.
- Keep unit cleaned of debris.
- This equipment may create sparks that can start fires around dry vegetation. A spark arrester may be required. Contact local fire agencies for regulations relating to fire prevention requirements.

DANGER

Amputation hazard

Rotating blades cut off arms and legs.

- Stop the mower when children or others are near.
- Do not carry riders (especially children) even with the blades off. They may fall off or return for another ride when you are not expecting it.
- Look down, behind and to the side before changing directions.

Loss of control and roll-over hazard

Operating on slopes can be hazardous and cause loss of control and roll-overs.

- Avoid sudden turns or rapid speed changes.
- Reduce speed and use extreme caution on slopes.
- Go across slopes, NOT up and down.
- Do not operate on slopes over 15 degrees.
- If machine stops forward motion on a slope, stop the blades and drive slowly off the slope.

15° Max.

WARNING

PINCH POINT

To avoid injury from loaded spring, read operator's manual before removing spring.

DANGER

Amputation and thrown objects hazard

- Keep hands and feet away from deck.
- Do not operate mower unless discharge chute or entire grass catcher is in its proper place.

WARNING

Amputation and Pinch Point Hazard

To avoid injury from rotating parts, stay clear of parts and keep all shields and guards in place.

The operator's manual is available in Spanish. La manual del operador está disponible en Español.

WARNING

Avoid serious injury or death from rollover.

Do not operate without the rollbar installed and operational.

WARNING

Ignition System (Gasoline Models)

This spark ignition system complies with Canadian standard ICES-002

ACN 006 576 656

HYDRAULIC OIL RESERVOIR

USE SAE 20W-50 MOTOR OIL

WARNING

AVOID SERIOUS INJURY OR DEATH FROM ROLL OVER:

Keep roll bar in the raised position and use seat belt.

THERE IS NO ROLL OVER PROTECTION WHEN THE ROLL BAR IS DOWN

Lower the roll bar only when necessary and NEVER remove it.

Do NOT use seat belt when the roll bar is down.

Raise the roll bar as soon as clearance permits.

Do NOT jump off if mower tips.

Read and follow all operating instructions and warnings in the operator's manual.

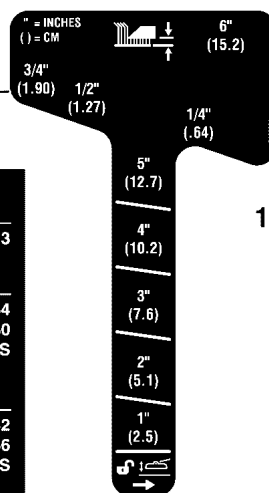
WARNING

LOW OVERHANGING OBSTACLES HAZARD

Check for overhead clearances before driving under any objects. Do NOT allow roll bar to contact low overhanging obstacles, such as tree branches and guide wires.

Belts & Blades

Tractor	
Pump Drive Belt	5102013
61" Mower	
Deck Drive Belt - Long LH	5105034
Deck Drive Belt - Short RH	5104780
Mower Blade	5101755S
72" Mower	
Deck Drive Belt - Long LH	5105142
Deck Drive Belt - Short RH	5105036
Mower Blade	510227S



CAUTION

ROLL OVER PROTECTIVE STRUCTURE

To maintain operator protection and roll bar certification:

Replace a damaged roll bar, do NOT attempt to repair or modify.

Any alteration of the roll bar must be approved by the manufacturer.

DO NOT exceed the machine weight rating of the roll bar.

Decal Group - Safety & Operation USA Models

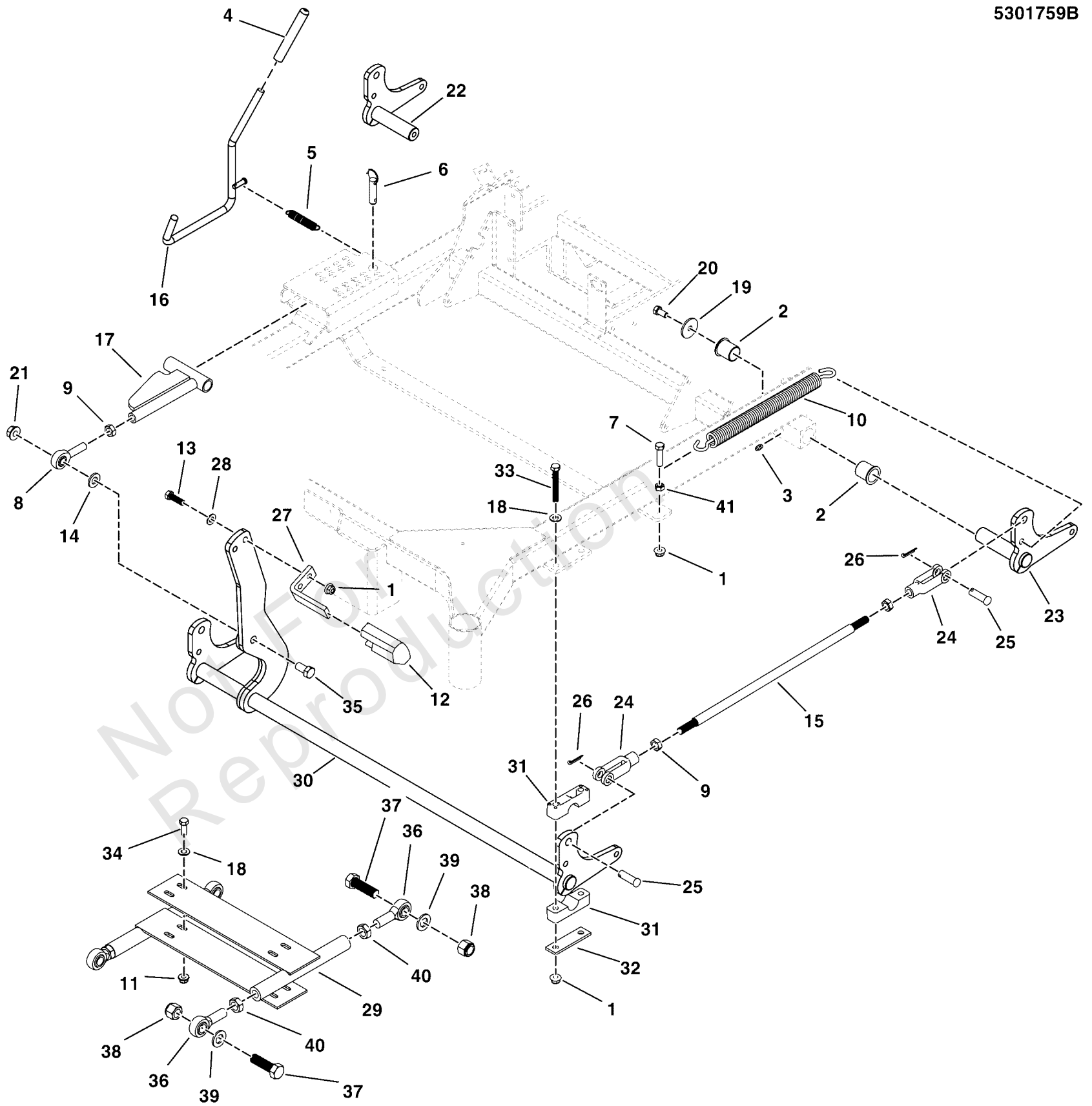
REF NO	PART NO	QTY	DESCRIPTION
1	5103595	1	DECAL, MAIN SAFETY
2	5061245	2	DECAL, PINCH POINT
3	7101665	2	DECAL, DANGER DO NOT OPERATE W/O DEFLECT
4	5103184	2	DECAL, WARNING, HAND IN BELT, ENG ONLY
5	5103619	1	DECAL, MANUAL AVAIL IN SPANISH
6	5100683	2	DECAL, WARNING, ROLL BAR
7	5102090	1	DECAL, TRANSAXLE RELEASE, S200XT
8	5100342	1	DECAL, FUEL VALVE
9	5100280	1	DECAL, THROTTLE CONTROL
10	5104082	1	DECAL, WARNING, FOLDING ROPS -(SV)
11	5100405	1	DECAL, WARNING & CAUTION, ROPS -(SV)
12	5048970	1	DECAL, IGNITION SWITCH
13	5100957	1	DECAL, HYDRAULIC OIL, 20W50
14	-----	1	LABEL, OIL INFORMATION -(Models w/ Remote Oil Tank Only)
15	5061724	1	DECAL-HEIGHT CITATION
16	5105193	1	DECAL, BELT & BLADE S200XT, F210Z, 2BELT
17	5104083	1	DECAL, CAUTION. FOLDING ROPS -(SV)

Deck Lift Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5301759B



Deck Lift Group

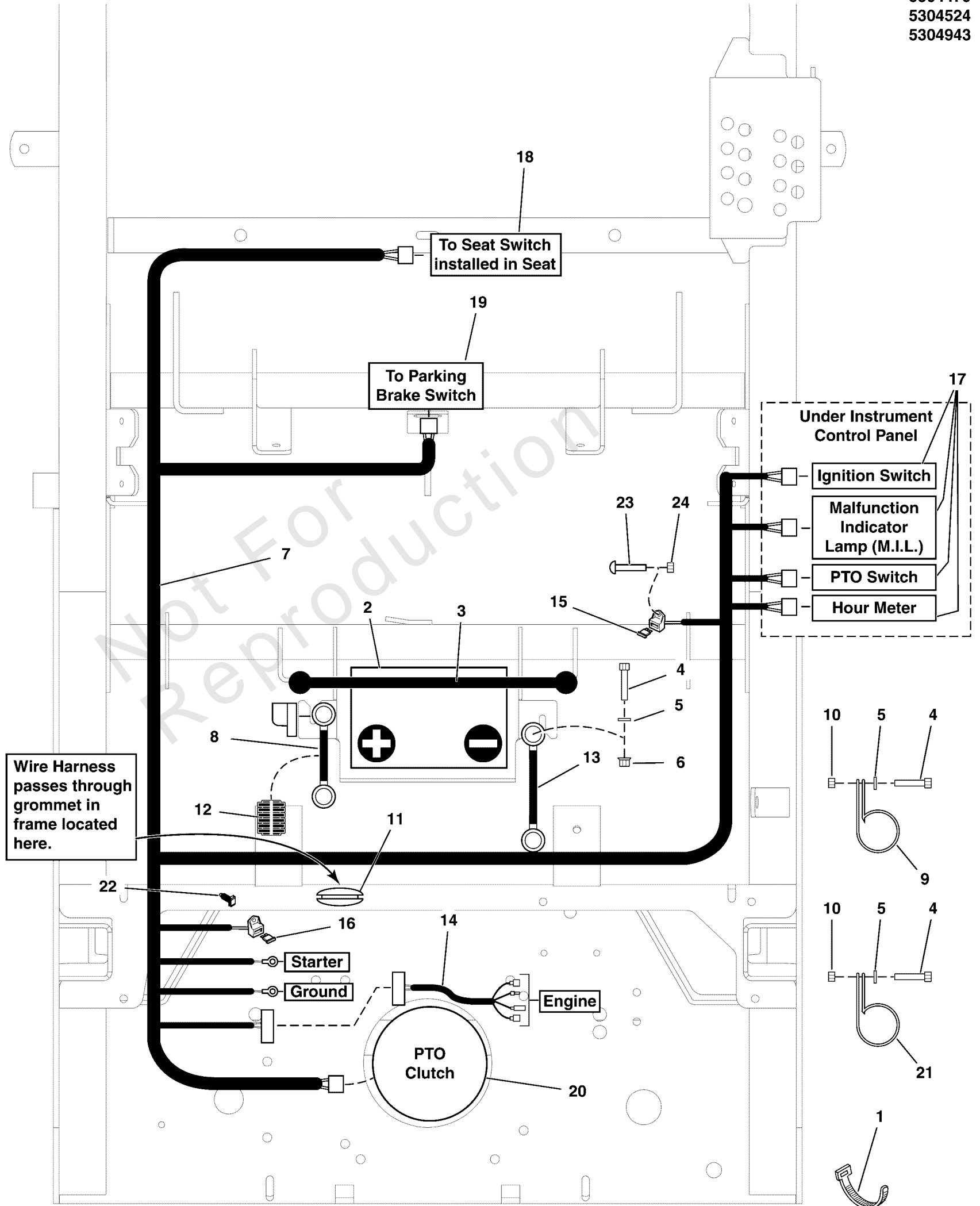
REF NO	PART NO	QTY	DESCRIPTION
1	5025394	8	NUT, 3/8 - 16 HEX NYLOCK FLANGE
2	5023343	4	BUSHING, 1.00 X 1.13 X 1.38, Plastic
3	5020095	2	GREASE FITTING, 1/4-28 Straight
4	5021880	1	GRIP, FOAM, .475 X 4.35 X .095
5	5020639	1	SPRING-EXT, .500 OD X 3.50 LG X .058 WR
6	5023498	1	PIN, HITCH, 1/2 X 2.00 OAL, YP
7	5025013X12	2	BOLT, 3/8-16 X 1-1/2" GD5 CZ
8	5022434	1	BALL JOINT, 1/2-20, MALE
9	5025089	5	NUT, 1/2-20 Hex Jam
10	5023355	2	SPRING-EXT, 1.00 ODX13.25LGX.177WR, BLK
11	5025128	4	NUT, 3/8-16 Hex Large Serrated Flange
12	5104262	1	PEDAL, Rubber
13	5025013X10	2	BOLT, 3/8-16 X 1-1/4" GD5 CZ
14	5100520	1	SPACER, .52 X 1.00 X .22, PM, CZ
15	5103758	2	ROD, DECK LIFT, 19.25, CZ
16	5414816A	1	WELD, ROD DECK LIFT, F320Z - BLK
17	5402757A	1	WELD, DECK ADJUST LINK - BLK
18	5025156	8	WASHER, 3/8 SAE
19	5100548	2	WASHER, .390 X 1.50 X .109, YZ
20	5025443	2	BOLT, 3/8-16 X 3/4, PLT W/PATCH
21	5025396	5	NUT, Hex Flange, Nylock, 1/2-13
22	5415868A	1	WELD, PIVOT, DECK LIFT, RH - 210 - BLK
23	5415869A	1	WELD, PIVOT, DECK LIFT, LH - 210 - BLK
24	5023174	4	CLEVIS, 1/2-20, STEEL, CLEAR ZINC
25	5025328X12	4	PIN, CLEVIS, 1/2 X 1-1/2, PLATED
26	5025203X6	4	* PIN, COTTER, 1/8" X 3/4
27	5061569A	1	PEDAL, FOOT - BLK
28	5025293	2	WASHER, 3/8" GR. 9 FLAT
29	5406832A	2	WELD, DECK STABILIZER, IS2500Z-246 - BLK
30	5415867A	1	WELD, DECK LIFT SHAFT, 210Z-200XT - BLK
31	5100634	4	PIVOT BLOCK, PLASTIC
32	5403925A	2	PLATE, PIVOT BLOCK SUPPORT - BLK
33	5025013X22	4	BOLT, 3/8-16 X 2-3/4" GD5 CZ
34	5025013X8	4	BOLT, 3/8-16 X 1" GD5 CZ
35	5025017X18	1	BOLT, 1/2-13 X 2-1/4" GD5 CZ
36	5022039	4	BALL JOINT, 3/4-16, MALE
37	5025265X20	4	BOLT, 3/4-16 X 2-1/2" YZ GD5
38	5025284	4	NUT, Hex, Nylon Lock, 3/4-16
39	5025160	4	WASHER, 3/4" SAE
40	5025093	4	NUT, Hex, Jam, 3/4-16
41	5025084	2	NUT, 3/8-16 HEX JAM

Electrical Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5304479
5304524
5304943



Wire Harness passes through grommet in frame located here.

Electrical Group

REF NO	PART NO	QTY	DESCRIPTION
1	5021029	6	TIE, SELF-LOCKING, 12"
2	-----	1	BATTERY, WET (BCIU1, 340 CCA)
3	1722009	1	STRAP, BATTERY, 14 LONG, Rubber
4	5025010X6	7	BOLT, 1/4"-20 X 3/4" GD5 YZ -(Qty: 8 - Export Models)
5	5025154	7	WASHER, 1/4 SAE -(Qty: 8 - Export Models)
6	5025126	2	NUT, Hex, Serrated Flange, 1/4-20
7	5416015	1	WIRE HARNESS, MAIN, LG, ZTR -(S/N: 2017954955 & Below)
7	5105535	1	HARNESS, Wiring, Large ZTR -(S/N: 2017954956 & Above)
8	5021405	1	BATTERY CABLE, POS, 22, 1/4-5/16 -(S/N: 4000015530 and below)
8	5021542	1	BATTERY CABLE, POS, 30, 1/4-5/16 -(S/N: 4000015531 and above)
9	5021500	5	CLAMP, VINYL INSULATED, 1.00
10	5025391	5	NUT, 1/4-20 Hex Nylock Flange -(Qty: 6 - Export Models)
11	5100716	1	GROMMET, 2" ID
12	5050927X17	1	WIRE LOOM, 3/8 ID X 17 IN -(S/N: 4000015530 and below)
12	5050927X24	1	WIRE LOOM, 3/8 ID X 24 IN -(S/N: 4000015531 and above)
13	5021406	1	BATTERY CABLE, NEG, 22, 1/4-5/16
14	5105303	1	WIRE HARNESS, JUMPER, KAWI - LARGE HARNE -(Models w/ Kawasaki Engines)
15	5102710	1	FUSE, ATO, 25 AMP -(SV)
16	5101935	2	FUSE, ATO-15 (15 AMP)(SV) -(SV)
17	-----	1	Refer to: Instrument Control Panel Group
18	-----	1	Refer to: Seat Mount & Floor Group
19	-----	1	Refer to: Parking Brake Group
20	-----	1	Refer to: Engine & PTO Group
21	5101932	2	CLAMP, VINYL INSULATED, .625 -(Export Models Only)
22	5103761	1	FIR TREE MOUNT, PACKARD -(S/N: 4000015530 and below)
23	5025179X4	1	SCREW, #10-24 X 1/2" ROUND PHILLIPS
24	5025271	1	NUT, Hex, Nylon Lock, #10-24
25	5104705	1	ROSEBUD LOOM CLIP -(S/N: 4000015531 and above)

Electrical Schematic - Charging Circuit - B&S 49E877 EFI S/N: 2017954955 & Below

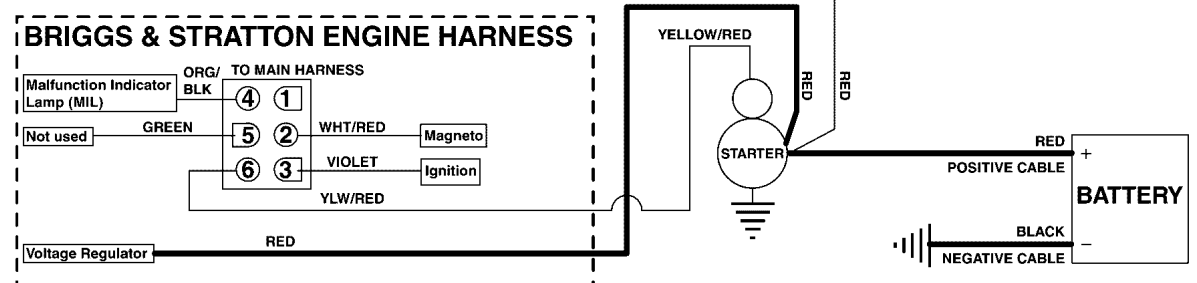
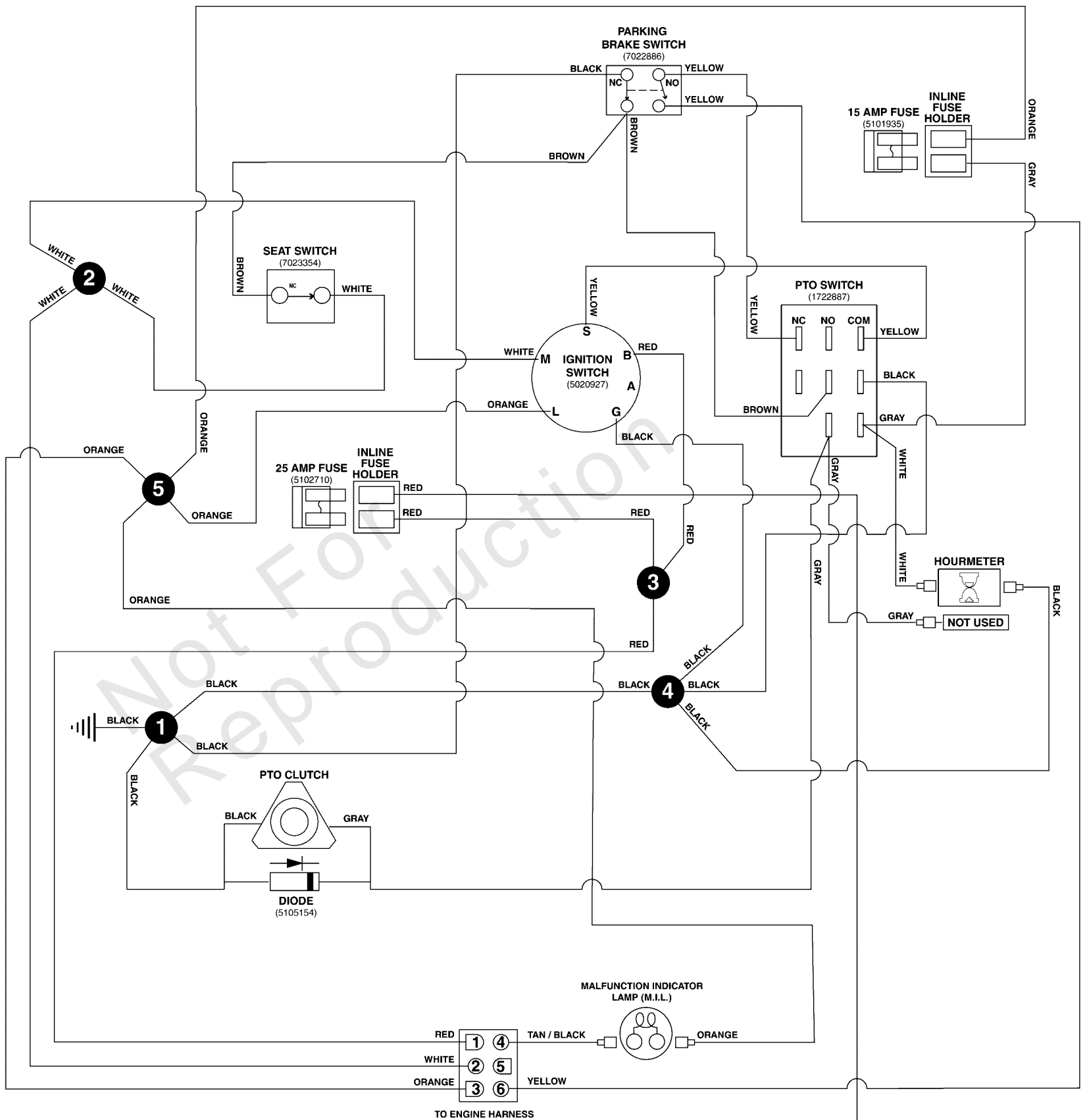
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5416015 (541564) MAIN WIRE HARNESS - BRIGGS & STRATTON 49E877 EFI ENGINES

5416015A

(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.)



Electrical Schematic - Charging Circuit - B&S 49E877 EFI S/N: 2017954955 & Below

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

Electrical Schematic - Charging Circuit - B&S 49E877 EFI S/N: 2017954956 & Above

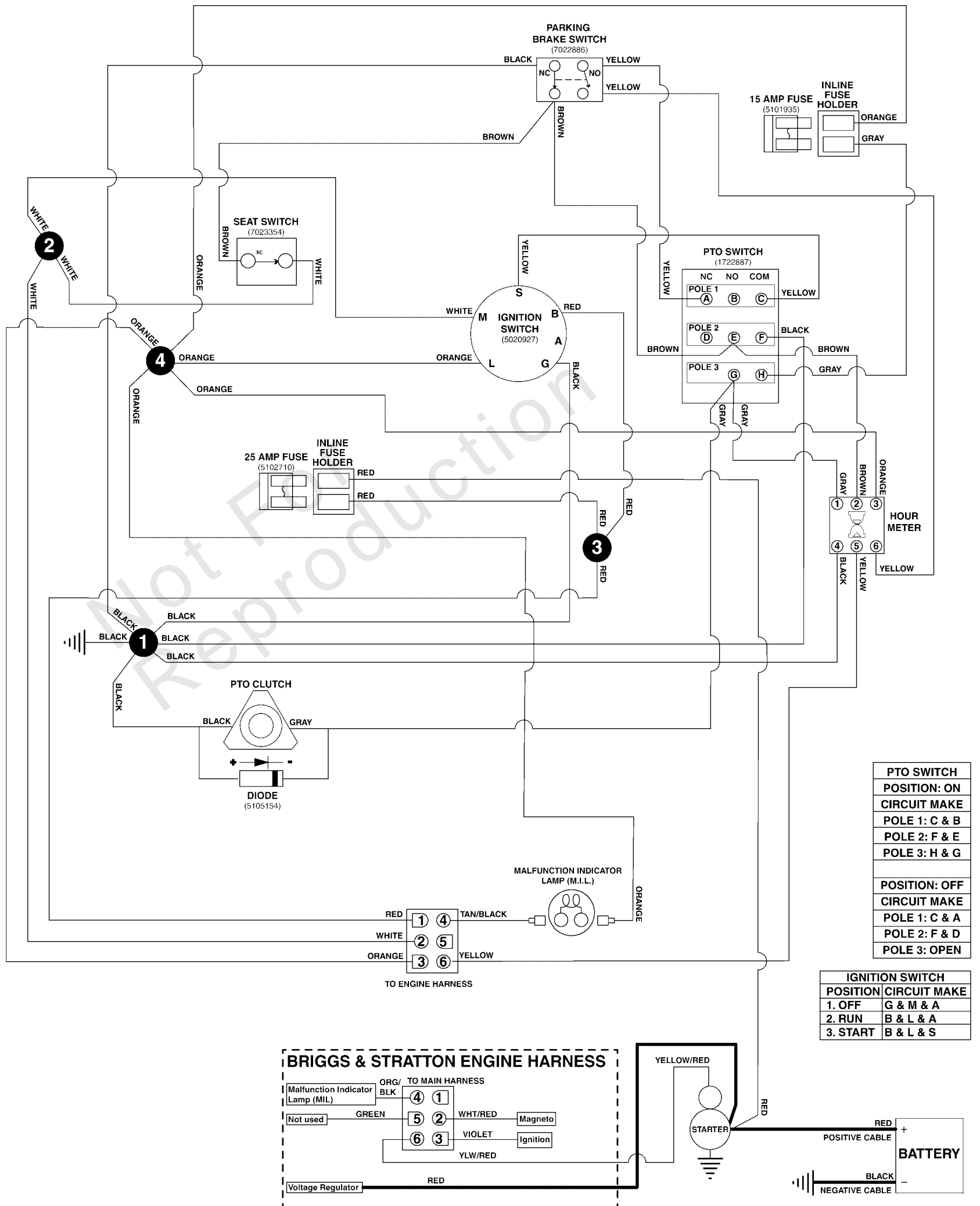
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5105535 MAIN WIRE HARNESS - BRIGGS & STRATTON 49R977 ENGINES

5105535E

(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.)



Electrical Schematic - Charging Circuit - B&S 49E877 EFI S/N: 2017954956 & Above

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

Electrical Schematic - Cranking Circuit - B&S 49E877 EFI S/N: 2017954955 & Below

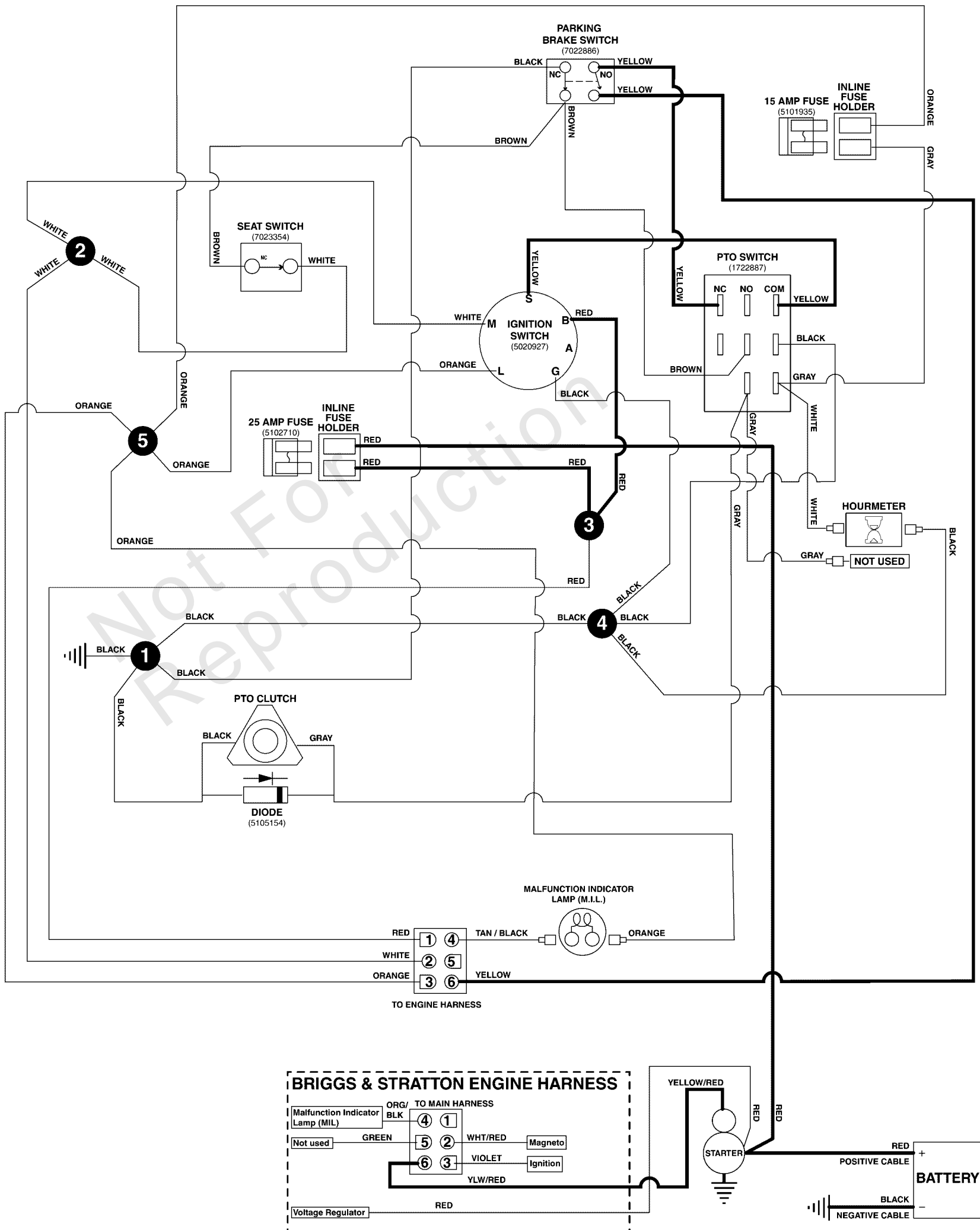
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5416015 (541564) MAIN WIRE HARNESS - BRIGGS & STRATTON 49E877 EFI ENGINES

5416015A

(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.)



Electrical Schematic - Cranking Circuit - B&S 49E877 EFI S/N: 2017954955 & Below

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

Electrical Schematic - Cranking Circuit - B&S 49E877 EFI S/N: 2017954956 & Above

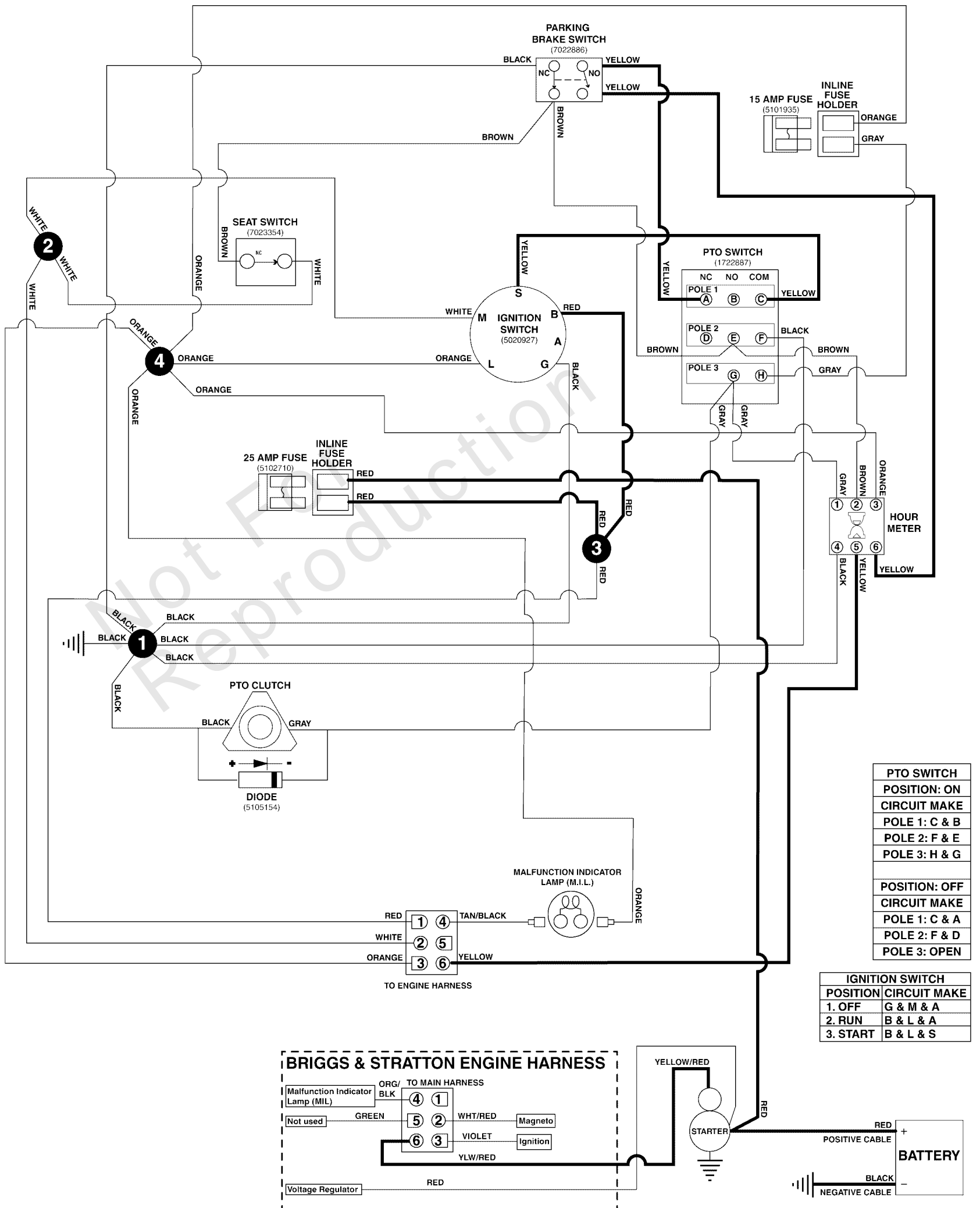
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5105535 MAIN WIRE HARNESS - BRIGGS & STRATTON 49R977 ENGINES

5105535E

(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.)



Electrical Schematic - Cranking Circuit - B&S 49E877 EFI S/N: 2017954956 & Above

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

Electrical Schematic - Ign. Ground Circuit/Op Pres. - B&S 49E877 EFI S/N: 2017954955 &

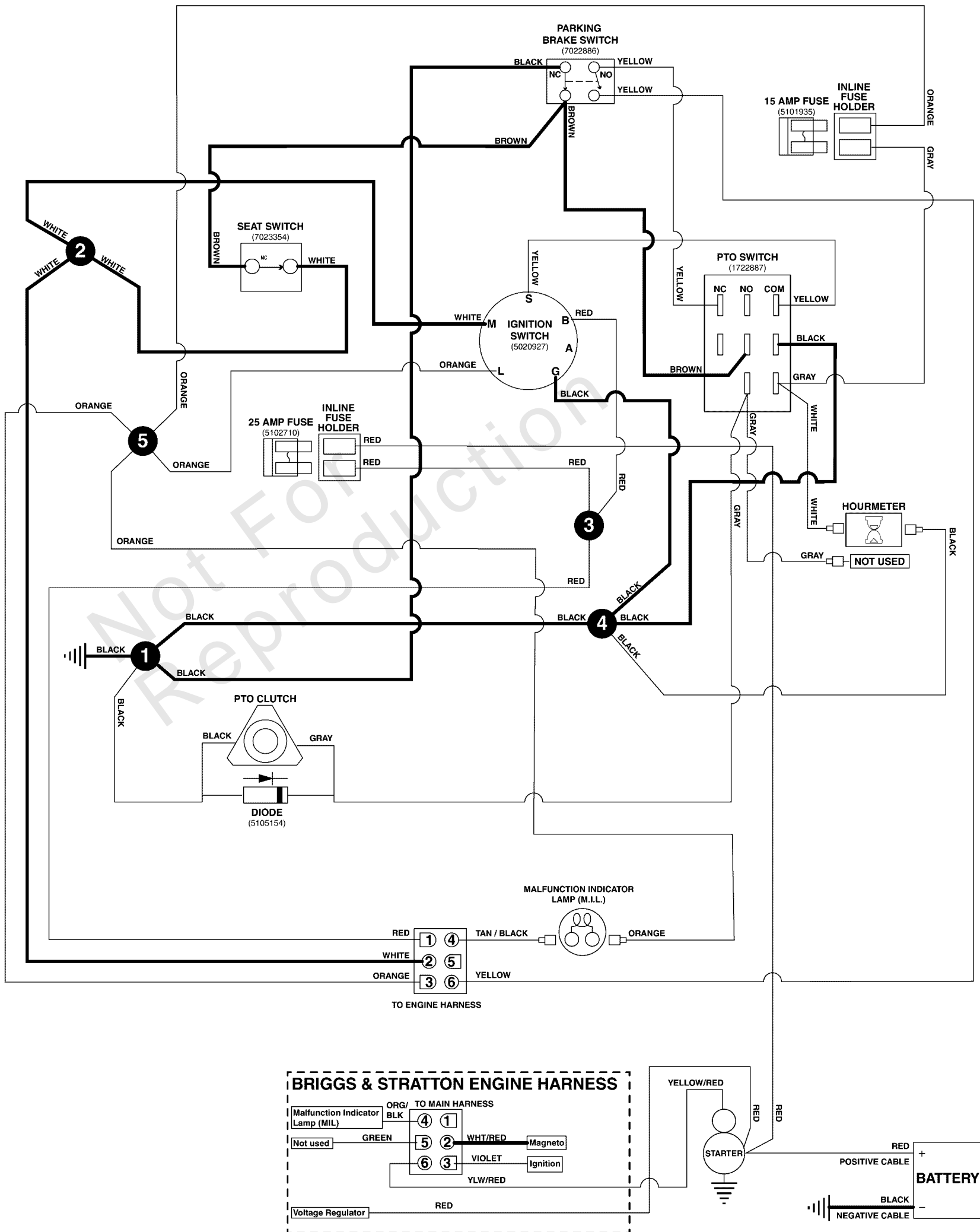
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5416015 (541564) MAIN WIRE HARNESS - BRIGGS & STRATTON 49E877 EFI ENGINES

5416015A

(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.)



Electrical Schematic - Ign. Ground Circuit/Op Pres. - B&S 49E877 EFI S/N: 2017954955 &

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

Electrical Schematic - Ign. Ground Circuit/Op Pres. - B&S 49E877 EFI S/N: 2017954956 &

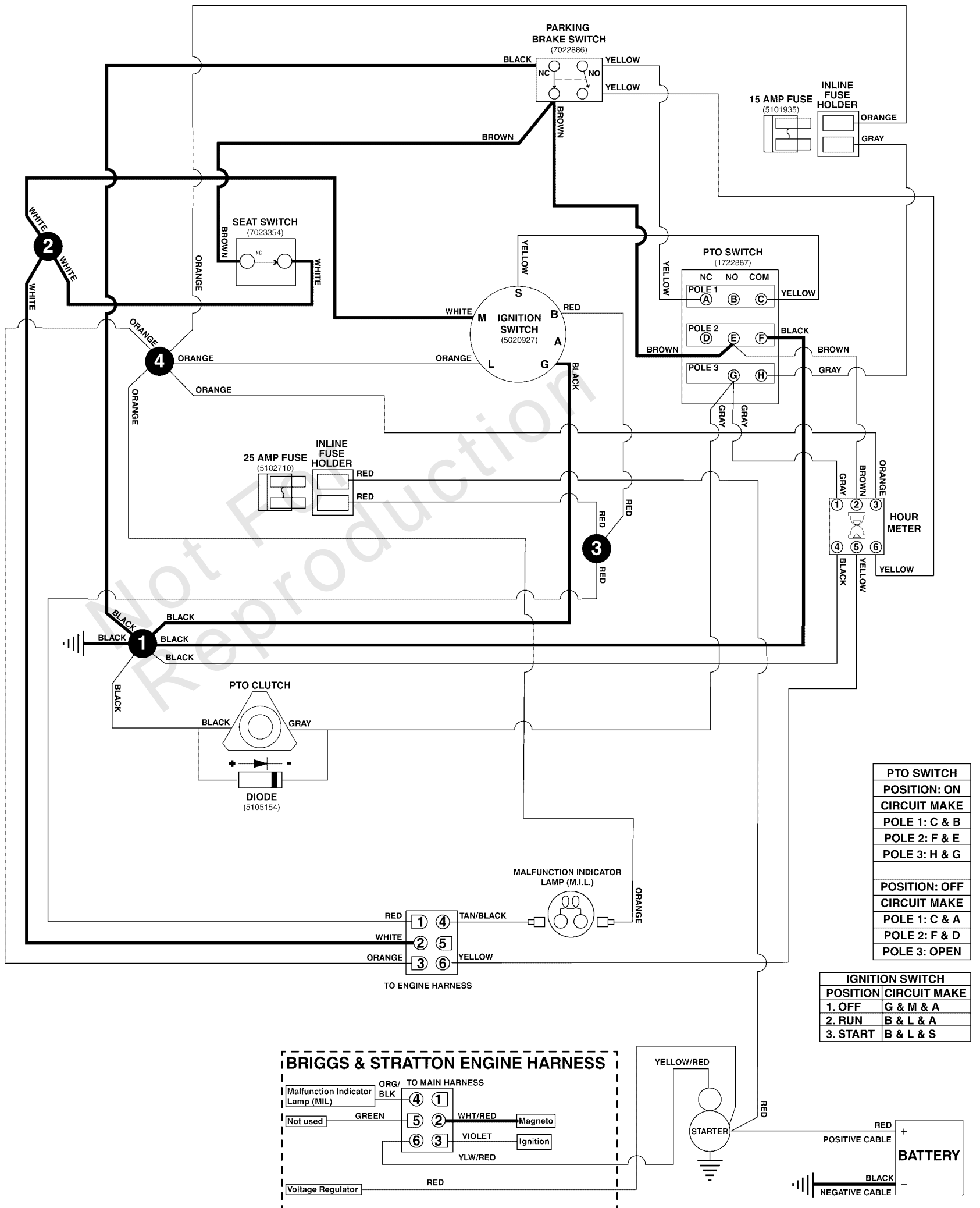
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5105535 MAIN WIRE HARNESS - BRIGGS & STRATTON 49R977 ENGINES

5105535E

(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.)



Electrical Schematic - Ign. Ground Circuit/Op Pres. - B&S 49E877 EFI S/N: 2017954956 &

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

Electrical Schematic - PTO Clutch Circuit - B&S 49E877 EFI S/N: 2017954955 & Below

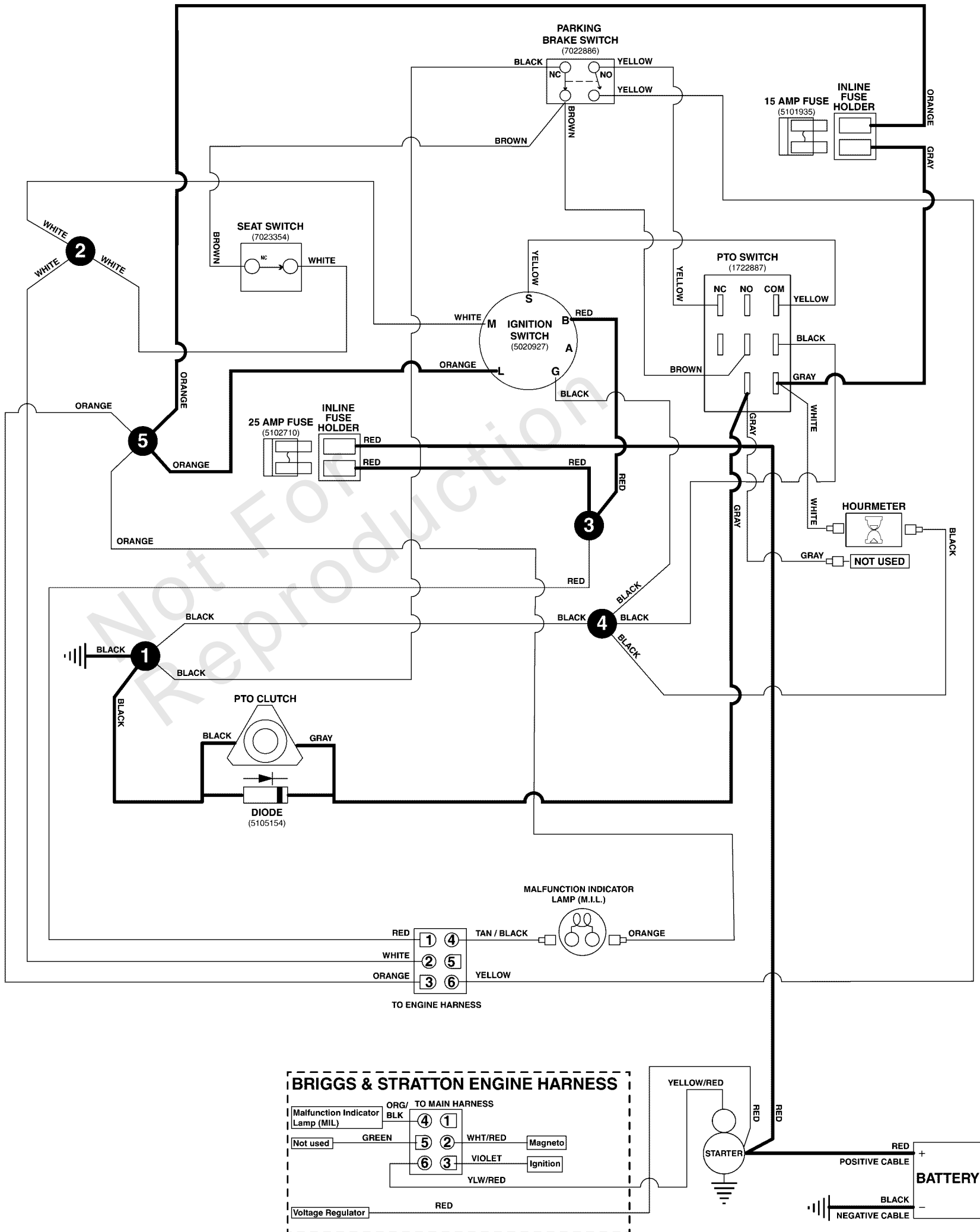
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5416015 (541564) MAIN WIRE HARNESS - BRIGGS & STRATTON 49E877 EFI ENGINES

5416015A

(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.)



Electrical Schematic - PTO Clutch Circuit - B&S 49E877 EFI S/N: 2017954955 & Below

REF NO	PART NO	QTY	DESCRIPTION
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Not For Reproduction

Electrical Schematic - PTO Clutch Circuit - B&S 49E877 EFI S/N: 2017954956 & Above

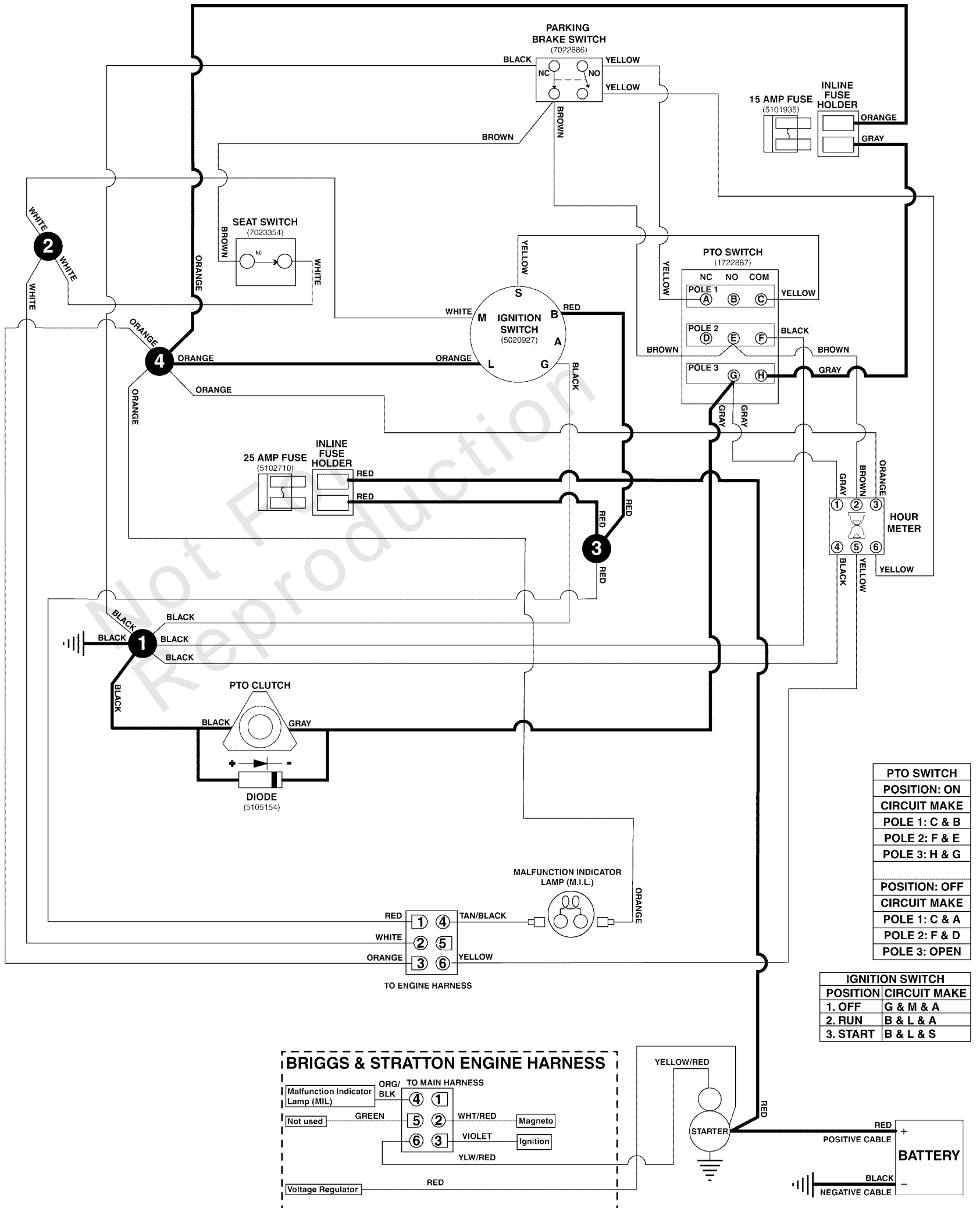
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

510535 MAIN WIRE HARNESS - BRIGGS & STRATTON 49R977 ENGINES

510535E

(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.)



Electrical Schematic - PTO Clutch Circuit - B&S 49E877 EFI S/N: 2017954956 & Above

REF NO	PART NO	QTY	DESCRIPTION
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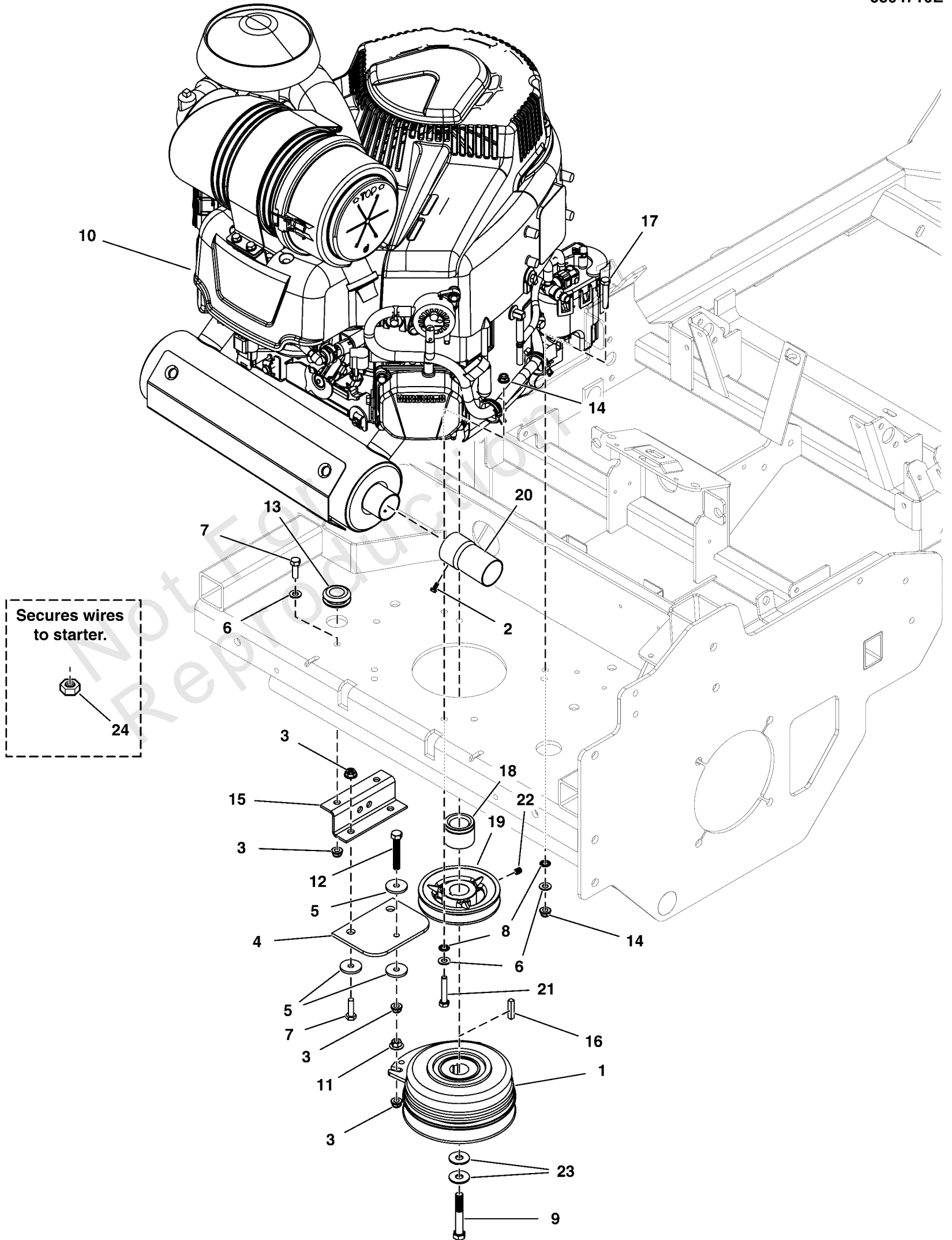
Not For Reproduction

Engine & PTO Group - Briggs & Stratton EFI (Remote Oil Tank)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5304710E



Engine & PTO Group - Briggs & Stratton EFI (Remote Oil Tank)

REF NO	PART NO	QTY	DESCRIPTION
1	5105090	1	CLUTCH, WARNER, 200 ft lbs - 1.13"
2	5025470	2	SCREW, SELF-TAP, #8-32 X 3/8, WASH HEX, CZ
3	5025392	6	NUT, 5/16-18 HEX NYLOCK FLANGE
4	5043636	1	CLUTCH ANCHOR PAD
5	5044617	4	WASHER, .34 X 1.25 X 10 GA
6	5025155	6	WASHER, 5/16" SAE
7	5025011X8	4	BOLT, 5/16-18 X 1 GD5 CZ
8	5025188	4	WASHER, 5/16 INT. TOOTH LOCK
9	5102865	1	BOLT, CRANKSHAFT, 7/16-20 X 2-3/4, GD8
10	49E877-0009-G1	1	ENGINE, 28HP EFI, B&S, W/MUF, OIL GUARD
11	5025139	1	NUT, 5/16-18 HEX SERRATED FLANGE (LARGE)
12	5025055X18	1	BOLT, 5/16-18 X 2-1/4 TFL, GD5 YZ
13	5103944	1	GROMMET, 7/8" ID, 1/4" THICK STK
14	5025616	4	NUT, 5/16-24, TOP LOCK FLANGE, GD8 PHOS
15	5414825A	1	ANCHOR, CLUTCH - BLK
16	5050407X10	1	KEY, 1/4 SQ X 1-1/4
17	5025025X12	1	BOLT-HEX, 5/16-24 X 1-1/2", GD8, PHOS
18	5100926	1	SPACER, 1.13 X 1.75 X 1.35, CZ
19	5021682	1	PULLEY, 4.75 OD X 1-1/8 BORE, BC-48
20	5104348	1	EXTENSION, TAILPIPE, 3", BLACK
21	5025025X14	3	BOLT, 5/16-24 X 1-3/4, GD8, PHOS
22	5025531	2	SET SCREW, 5/16-18 X 3/8, KNURL W/ PATCH
23	5025585	2	BELLEVILLE WASHER 1.1875 X .442 X .089
24	5023216	1	NUT, 5/16-24 JAM

Footnotes:

(SV)

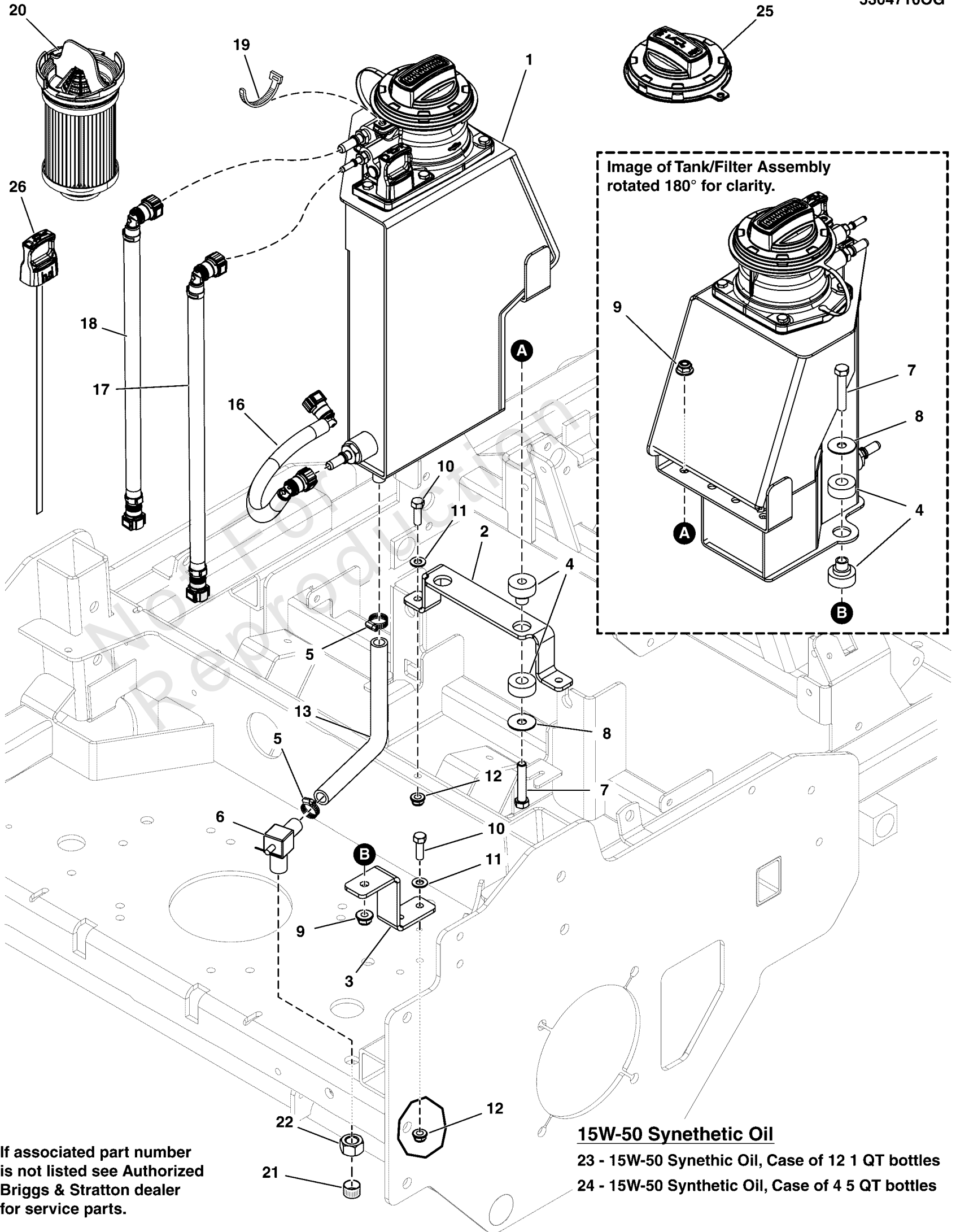
(Torque crankshaft bolt to 65 ft. lbs. (88 Nm))

Engine Remote Oil Tank, Hoses, & Mount Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

53047100G



If associated part number is not listed see Authorized Briggs & Stratton dealer for service parts.

Engine Remote Oil Tank, Hoses, & Mount Group

REF NO	PART NO	QTY	DESCRIPTION
1	595945	1	TANK, Oil -(Refer to Note: *)
2	5415314A	1	TANK MOUNT, FRONT, 200-210-320 - RED
3	5415320A	1	TANK MOUNT, LOWER, 200-210-320 - BLK
4	5023131	3	MOUNT, ISO, BOTTOM, RAD 5000Z-DIESEL
5	5021392	2	CLAMP, #6 HOSE, STAINLESS
6	5105177	1	VALVE, OIL DRAIN, M16X1.5 TO 1/2"
7	5025013X16	3	BOLT, 3/8-16 X 2, GD5, CZ
8	5025165	3	WASHER, 3/8" Fender
9	5025394	3	NUT, 3/8 - 16 HEX NYLOCK FLANGE
10	5025011X8	4	BOLT, 5/16-18 X 1" GRD5 YZ
11	5025155	4	WASHER, 5/16" SAE
12	5025392	4	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
13	5105491	1	HOSE, Formed, Oil Guard
16	847349	1	HOSE, Oil Supply -(Refer to Note: *)
17	595943	1	HOSE, Oil Vent -(Refer to Note: *)
18	595940	1	HOSE, Oil Scavenge -(Refer to Note: *)
19	-----	1	TIE, Cable, Yellow 7.6"
20	595930	1	FILTER, Oil
21	5105317	1	OIL DRAIN CAP, OIL GUARD, DAPCO 4692
22	5105318	1	NUT, HEX, M16-1.5, DAPCO 4071
23	5105281	1	OIL, 15W-50, SYNTHETIC, CASE X 12- 1QT
24	5105282	1	OIL, 15W-50, SYNTHETIC, CASE X 4- 5QT
25	595931	1	CAP, Oil Fill
26	595934	1	DIPSTICK

Footnotes:

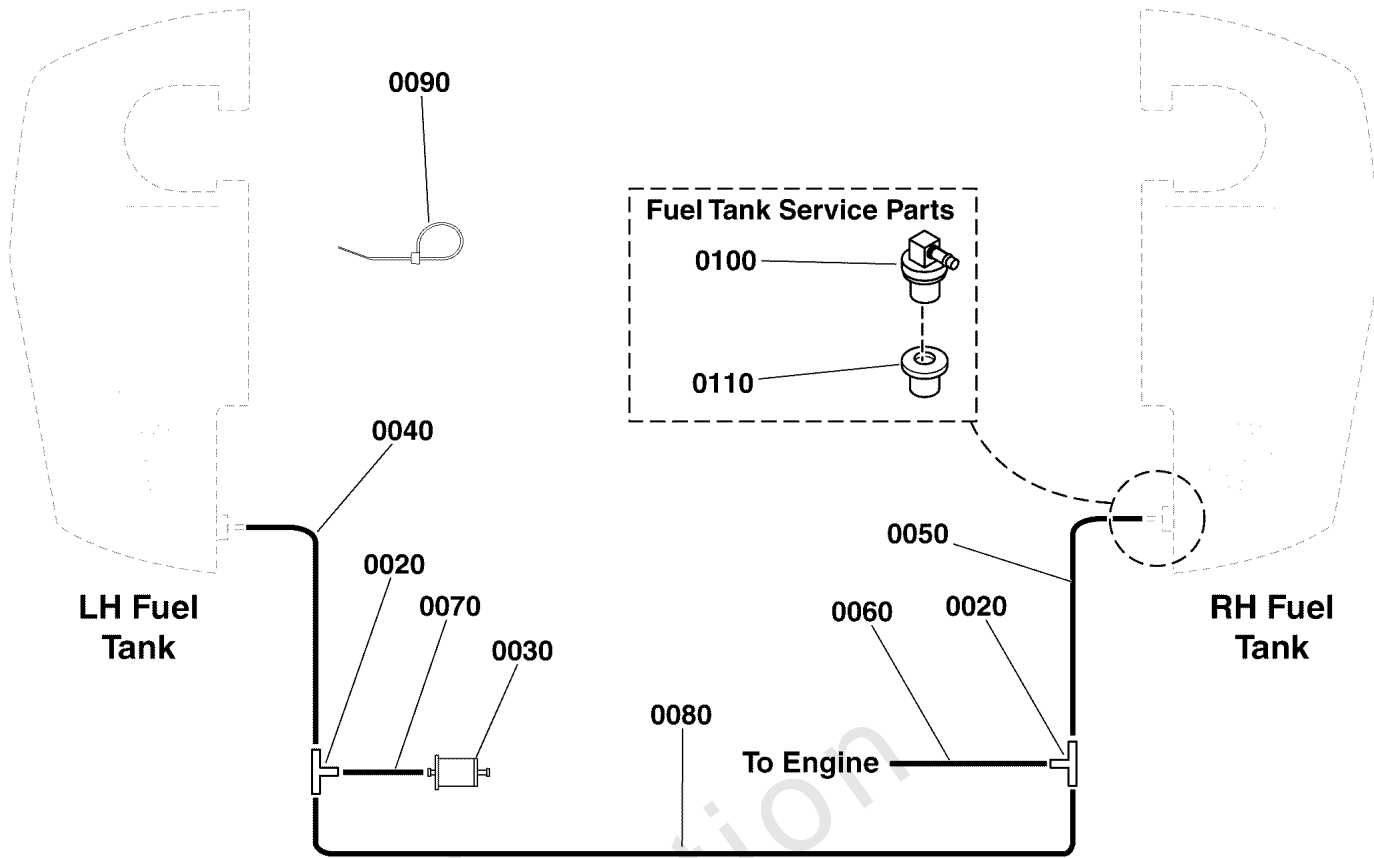
Note: *Order Oil Guard replacement parts from your Authorized Briggs & Stratton Engine Service Provider

Evap Group - S/N: 2017791381 & Below

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5304459A



Not For
Reproduction

Evap Group - S/N: 2017791381 & Below

REF NO	PART NO	QTY	DESCRIPTION
0020	5103062	2	FITTING, 3/16" TEE, BARB TYPE, HDPE
0030	80025019	1	FILTER, FUEL
0040	7700552X21P5	1	HOSE, VAPOR, 5MM ID, 21.50 LG
0050	7700552X25	1	HOSE, VAPOR, 5MM ID, 25.00 LG
0060	7700552X9	1	HOSE, VAPOR, 5 MM ID, 9.00 LG
0070	7700552X2	1	HOSE, VAPOR, 5MM ID, 2.00 LG
0080	7700552X15	1	HOSE, VAPOR, 5MM ID, 15.00 LG
0090	5021030	5	TIE, SELF-LOCKING, 6"
0100	770046	2	REMOTE VENT ASSEMBLY -(One per fuel tank)
0110	209043	2	GROMMET (SV) -(One per fuel tank)

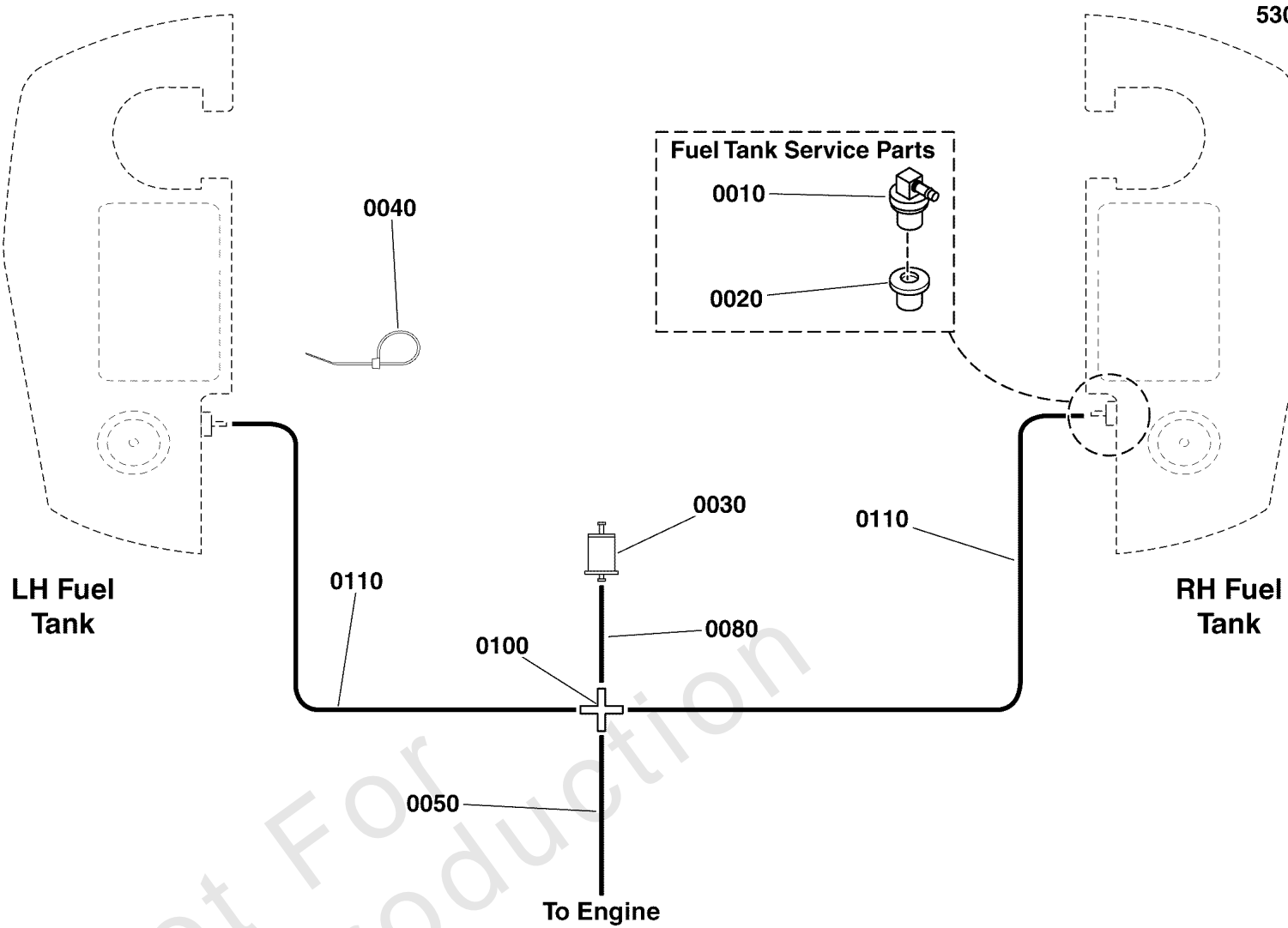
Not For Reproduction

Evap Group - S/N: 2017791382 & Above

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5303792A



Evap Group - S/N: 2017791382 & Above

REF NO	PART NO	QTY	DESCRIPTION
0010	770046	2	REMOTE VENT ASSEMBLY -(One per fuel tank)
0020	209043	2	GROMMET (SV) -(One per fuel tank)
0030	80025019	1	FILTER, FUEL
0040	5021030	3	TIE, SELF-LOCKING, 6"
0050	7700552X21	1	HOSE, VAPOR, 5MM ID, 21.00 LG
0080	7700552X2	1	HOSE, VAPOR, 5MM ID, 2.00 LG
0100	5105394	1	FITTING, BARBED CROSS, 3/16" BLK NYLON
0110	7700552X40P5	2	HOSE, VAPOR, 5MM ID, 40.50 LG

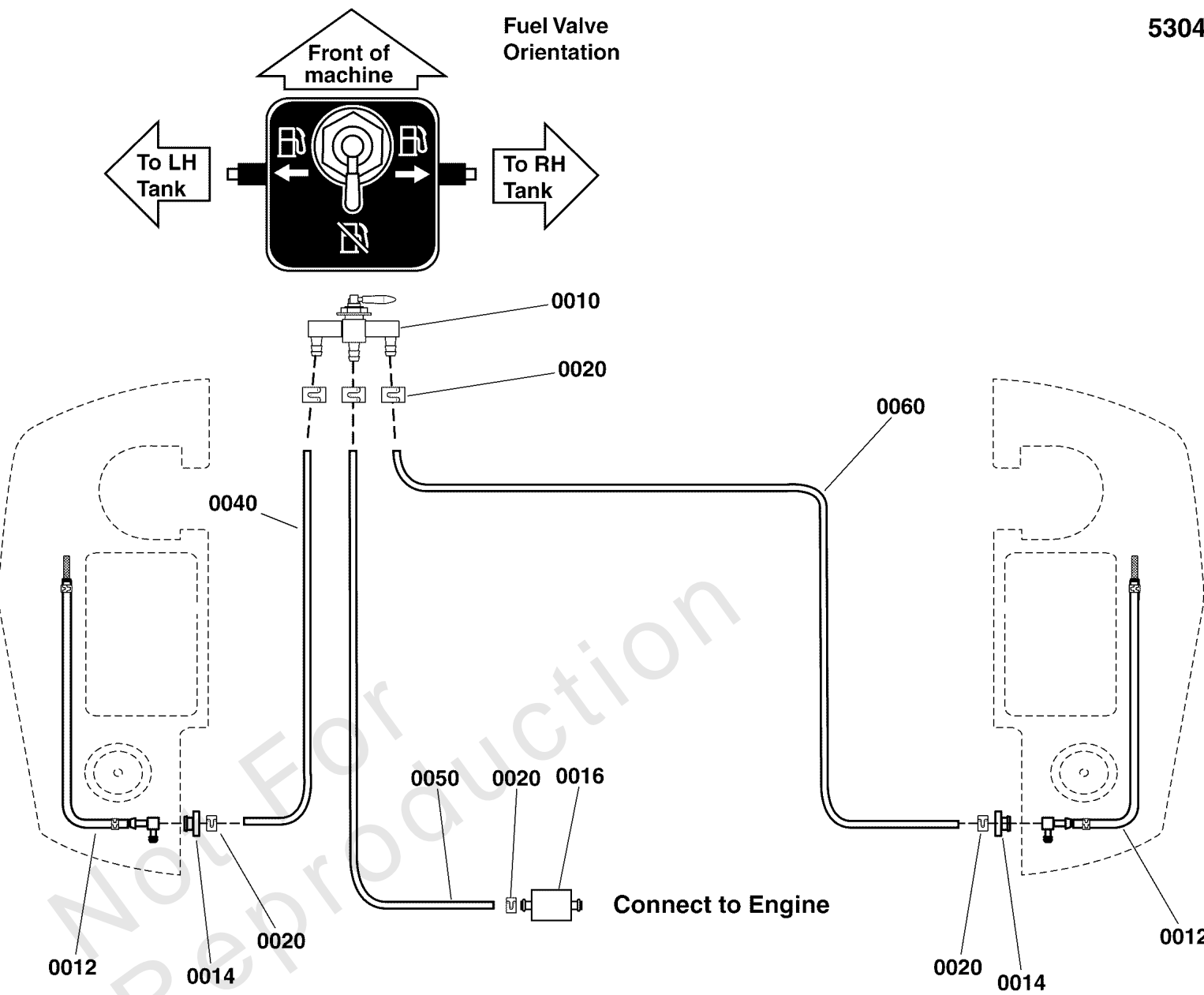
Not For Reproduction

Fuel Supply Hose & Tank Replacement Parts Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5304458



Fuel Supply Hose & Tank Replacement Parts Group

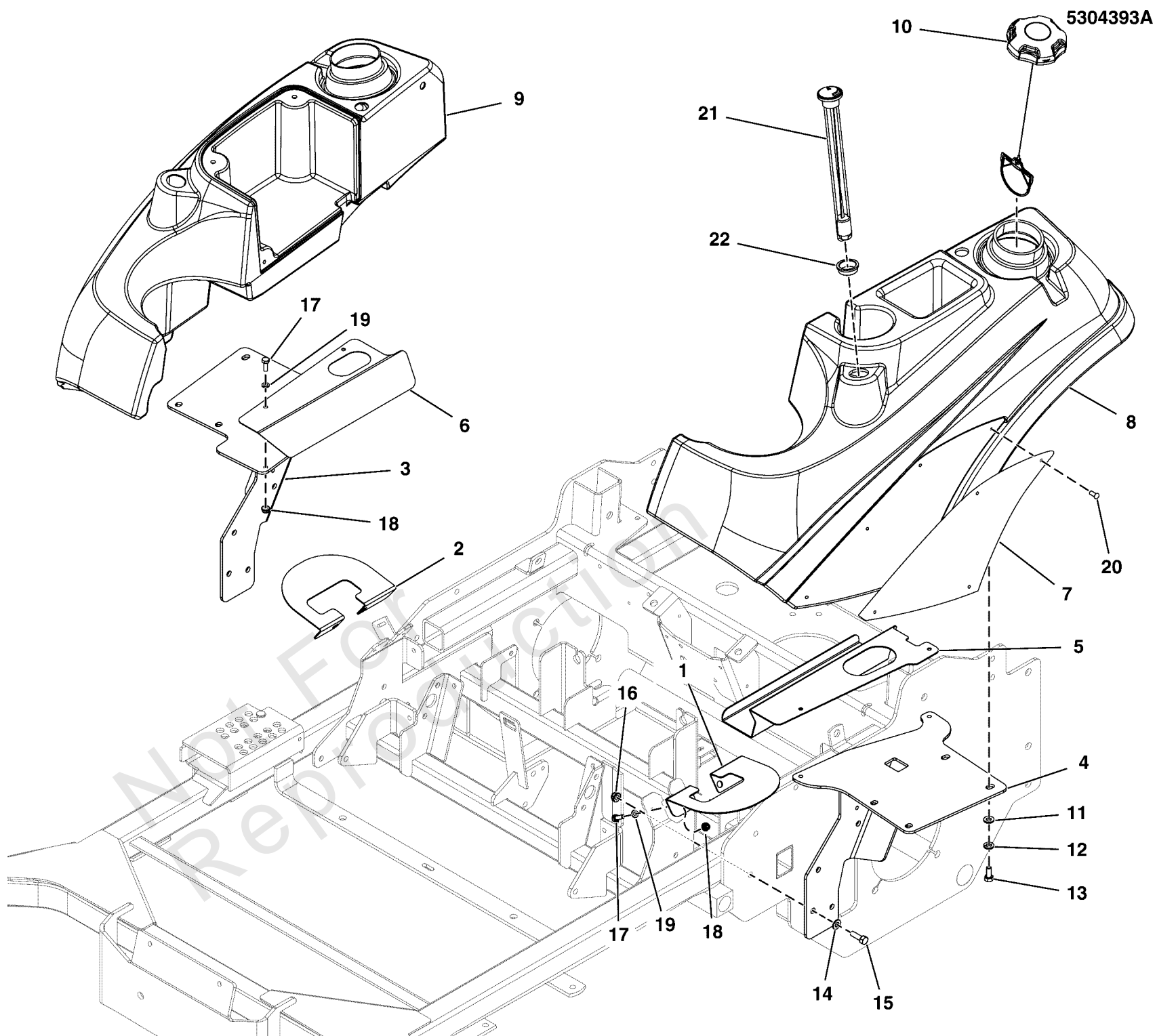
REF NO	PART NO	QTY	DESCRIPTION
0010	5023358	1	VALVE, FUEL STRAIGHT, OUTLET
0012	5101144	2	PICKUP TUBE ASSEMBLY, FUEL LINE (SV) -(One per fuel tank)
0014	1726400	2	BUSHING-FUEL TANK RED RUBBER (SV) -(One per fuel tank)
0016	5021178X3	1	FUEL FILTER (SV)
0020	93807	6	CLAMP, Hose
0040	5050831X25	1	Fuel Line, 25" Long (tank to filter)
0050	5050831X34	1	HOSE, 1/4" FUEL, 34.00"
0060	5050831X58	1	1/4" Fuel Line, 58" Long

Not For Reproduction

Fuel Tank & Mount Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653



Fuel Tank & Mount Group

REF NO	PART NO	QTY	DESCRIPTION
1	5414811A	1	PLATE, CONTROL GUARD,F320 LH,F210 RH-BLK
2	5414810A	1	PLATE, CONTROL GUARD,F320 RH,F210 LH-BLK
3	5414902A	1	WELD, FUEL MOUNT, RH - BLK
4	5414901A	1	WELD, FUEL MOUNT, LH - BLK
5	5415045A	1	GUARD, SEAT, LH, F210Z - BLK -(S/N: 4000015530 and below)
5	5418716A	1	GUARD, SEAT, LH - BLK -(S/N: 4000015531 and above)
6	5415046A	1	GUARD, SEAT, RH, F210Z - BLK -(S/N: 4000015530 and below)
6	5418486A	1	GUARD, SEAT, RH - BLK -(S/N: 4000015531 and above)
7	5401095B	2	BADGE, IS2000 - IS3000 - RED
8	5103178	1	TANK, FUEL, 5.75 GAL,MED, Z-LH, LOW PERM
9	5103177	1	TANK, FUEL, 5.25 GAL,MED, Z-RH, LOW PERM
10	5103005	2	FUEL CAP, 3-1/2", MANAGED VENT OUT, 12"
11	5025292	8	WASHER, 5/16 F436 FLAT
12	5025170	8	WASHER, 5/16 LOCK CZ
13	5025011X6	8	BOLT, 5/16-18 X 3/4 GD5
14	5025156	6	WASHER, 3/8 SAE
15	5025013X8	6	BOLT, 3/8-16 X 1" GD5 CZ
16	5025394	6	NUT, 3/8-16 HEX NYLOCK FLANGE
17	5025010X6	8	BOLT, 1/4-20 X 3/4 GD5 CZ
18	5025391	8	NUT, 1/4-20 HEX NYLOCK FLANGE
19	5025154	8	WASHER, 1/4 SAE
20	5025386	8	SCREW, #10-24 X 3/8 ALLEN BHBZ
21	5022917	2	GAUGE, FUEL, 12 -(SV)
22	5022917X1	2	GROMMET, FUEL GAUGE -(SV)

Hydraulic Group - Single Tank Mount

REF NO	PART NO	QTY	DESCRIPTION
1	5416008A	1	PLATE, HYDRO MOUNT - OG, S200XT - BLK
2	5050933X28	1	HOSE, 5/8, PUSH-LOCK, 28.00
3	5100384X23	1	LOOM, CONVOLUTED SPLIT, 1 ID - 23 LONG
4	5050933X13	1	HOSE, 5/8, PUSH-LOCK, 13.00
5	5100384X10	1	LOOM, CONVOLUTED SPLIT, 1 ID - 10 LONG
6	5025011X6	4	BOLT, 5/16-18 X 3/4 GD5
7	5025010X6	4	BOLT, 1/4-20 X 3/4 GD5 CZ
8	5021164	4	CLAMP, #10 HOSE, STAINLESS
9	5102917	2	SPACER, ANTI ROTATE, ZT5400
10	5102916	2	NUT, ZT5400
11	5102914	2	WASHER, ZT5400, SLOTTED
12	5102874	2	FAN, ZT5400
13	5102872	2	PULLEY, ZT5400 (53177)
14	5102871	1	TRANSAXLE, ZT5400, RH, STANDARD AXLE (1015-1024R)
15	5102870	1	TRANSAXLE, ZT5400, LH, STANDARD AXLE (1015-1024)
16	5101998	2	HYDRO TANK, HYDRO-GEAR 71938, 1 LITER
17	5025535	8	BOLT, 1/2-13 X 1-1/4, SF, PLT W/PATCH
18	5025392	4	NUT, 5/16-18 HEX NYLOCK FLANGE
19	5025391	6	NUT, 1/4-20 HEX NYLOCK FLANGE
20	5025155	4	WASHER, 5/16" SAE
21	5103923	1	FITTING, 45, 5/8 TUBE TO 7/8-14 O-RING
22	5105038	1	FITTING, EBLOW, 7/8-14 O-RING-5/8" TUBE
23	5025154	4	WASHER, 1/4 SAE

Instrument Control Panel Group

REF NO	PART NO	QTY	DESCRIPTION
1	5020927	1	SWITCH, IGNITION, 6 POST
2	5022789	1	KEY, IGNITION MOLDED SET
3	5022790	1	COVER, PLASTIC, SNAP ON
4	5022791	1	PLASTIC NUT
5	1709188	1	PLUG, .820X1.44 HOLE, BLACK PLASTIC
6	1722887	1	SWITCH-PTO PUSH
7	5025299X4	3	SCREW, ALLEN HEAD 1/4-20X.500 ZINC PHOS
8	-----	1	HOUR METER, ASSEMBLE -(Refer to Note: *)
9	5046501	1	CABLE, Choke Control, 47" -(Carbureted Models Only)
10	5103809	1	LIGHT, INDICATOR, PANEL, LED, RED -(Briggs & Stratton EFI Engines Only)
11	5025179X6	2	SCREW, #10-24 X 3/4" ROUND PHILLIPS
12	5411933A	1	PANEL, Control - Black -(Carbureted Models Only)
13	5022222	1	RING, SWITCH RETAINER
14	5101073	1	CABLE, Throttle Control, 42"
15	5412044A	1	PANEL, CONTROL, IS2100/3200 - BLK -(Briggs & Stratton EFI Engines Only)
16	5101537	1	LEVER, THROTTLE CONTROL
17	5022269	1	O-RING, 7/8" ID X 1/16" W
18	5025271	2	NUT, Hex, Nylon Lock, #10-24
19	5025035	1	NUT, 3/8-24 HEX (SV) -(Carbureted Models Only)
20	5046360X1	1	THROTTLE CONTROL HANDLE/KNOB
21	-----		PLATE, THROTTLE STOP, SW35 -(Export Models Only)
22	5025179X4	1	SCREW, #10-24 X 1/2" ROUND PHILLIPS
23	5025271	1	NUT, Hex, Nylon Lock, #10-24

Footnotes:

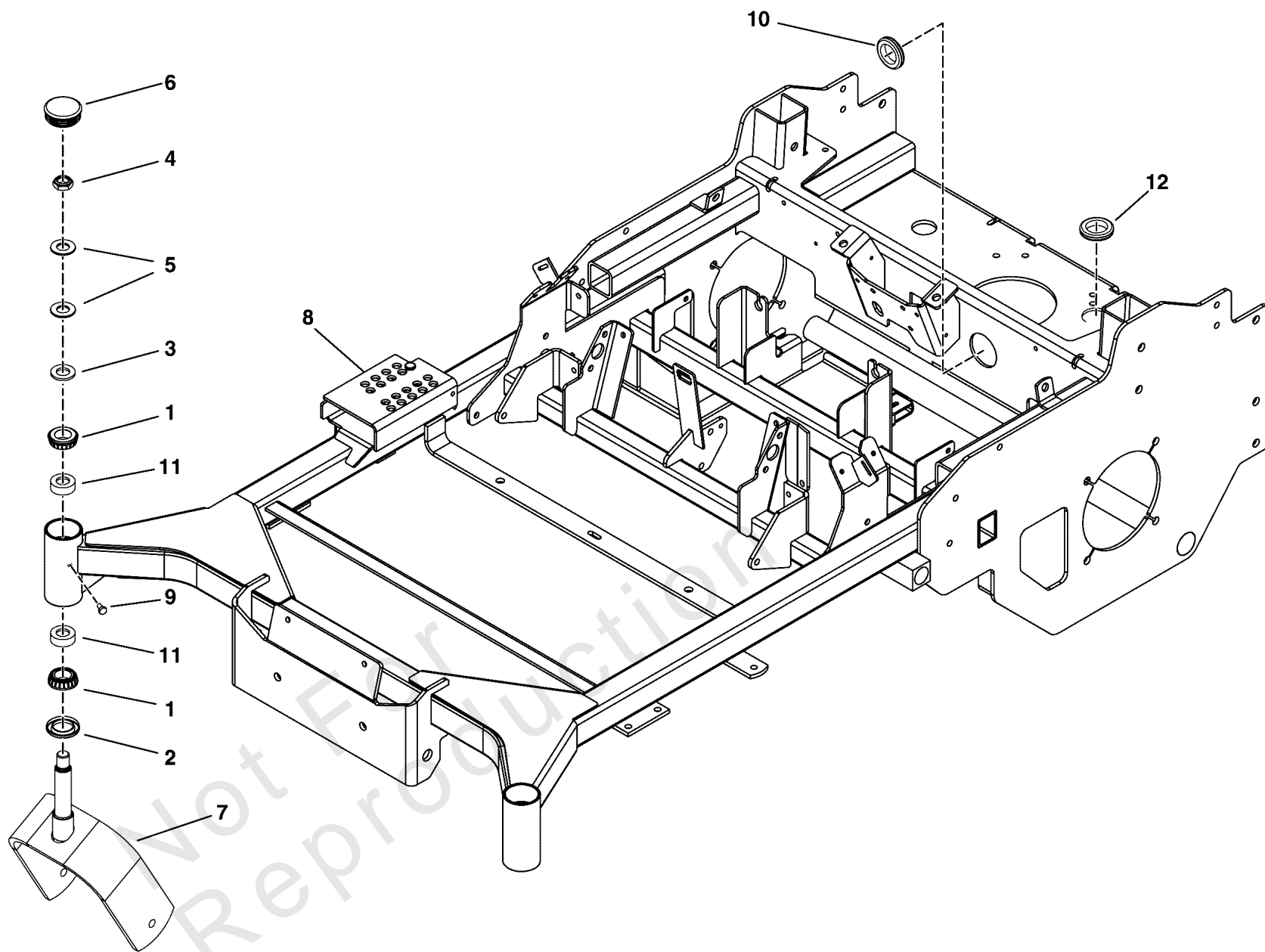
Note: *When replacing this hour meter, please call our service department at 1-800-933-6175 ext. 2193

Main Frame & Front Casters Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

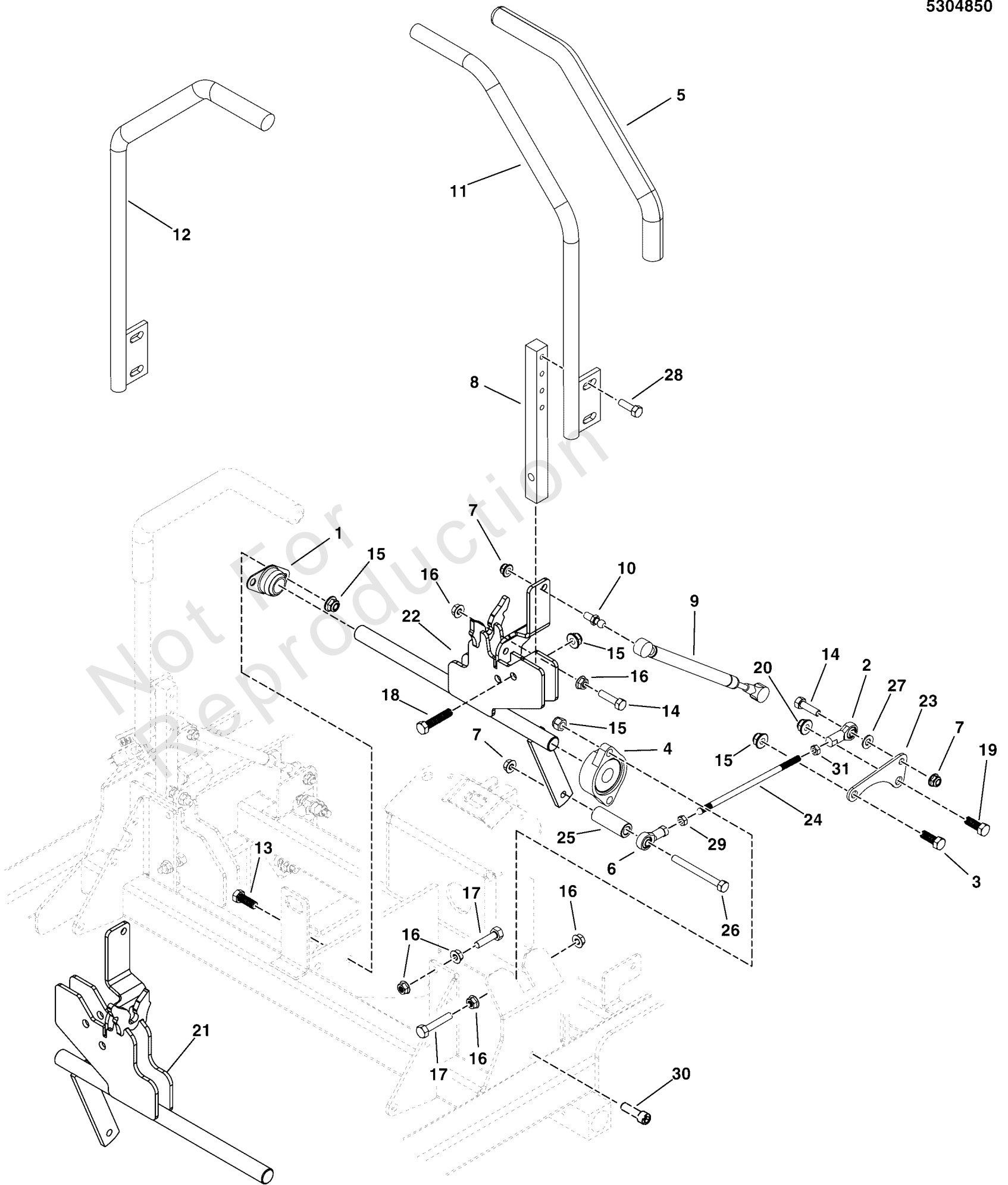
5304523



Main Frame & Front Casters Group

REF NO	PART NO	QTY	DESCRIPTION
1	5020884	4	BEARING, TAPERED ROLLER
2	5021072	2	SEAL, GREASE
3	5025160	2	WASHER, 3/4" SAE
4	5025448	2	NUT, 3/4-16, HEX JAM NYLON LOCK
5	5025449	4	WASHER, BELLEVILLE - 1.500 X .755
6	5102929	2	CAP, LOW PROFILE, STEEL
7	5411934B	2	WELD, CASTER YOKE - RED
8	-----	1	* WELD, FRAME, F210Z - RED -* If frame is damaged, call 1-800-933-6175 ext. 709
9	5025457	2	BOLT, 1/4-28 X 1/2, GD5 YZ
10	5100716	1	GROMMET, 2" ID
11	5020883	4	CUP, BEARING (SV)
12	5103944	1	GROMMET, 7/8"ID, 1/4" THICK STK

Not For Reproduction



Motion Control Group

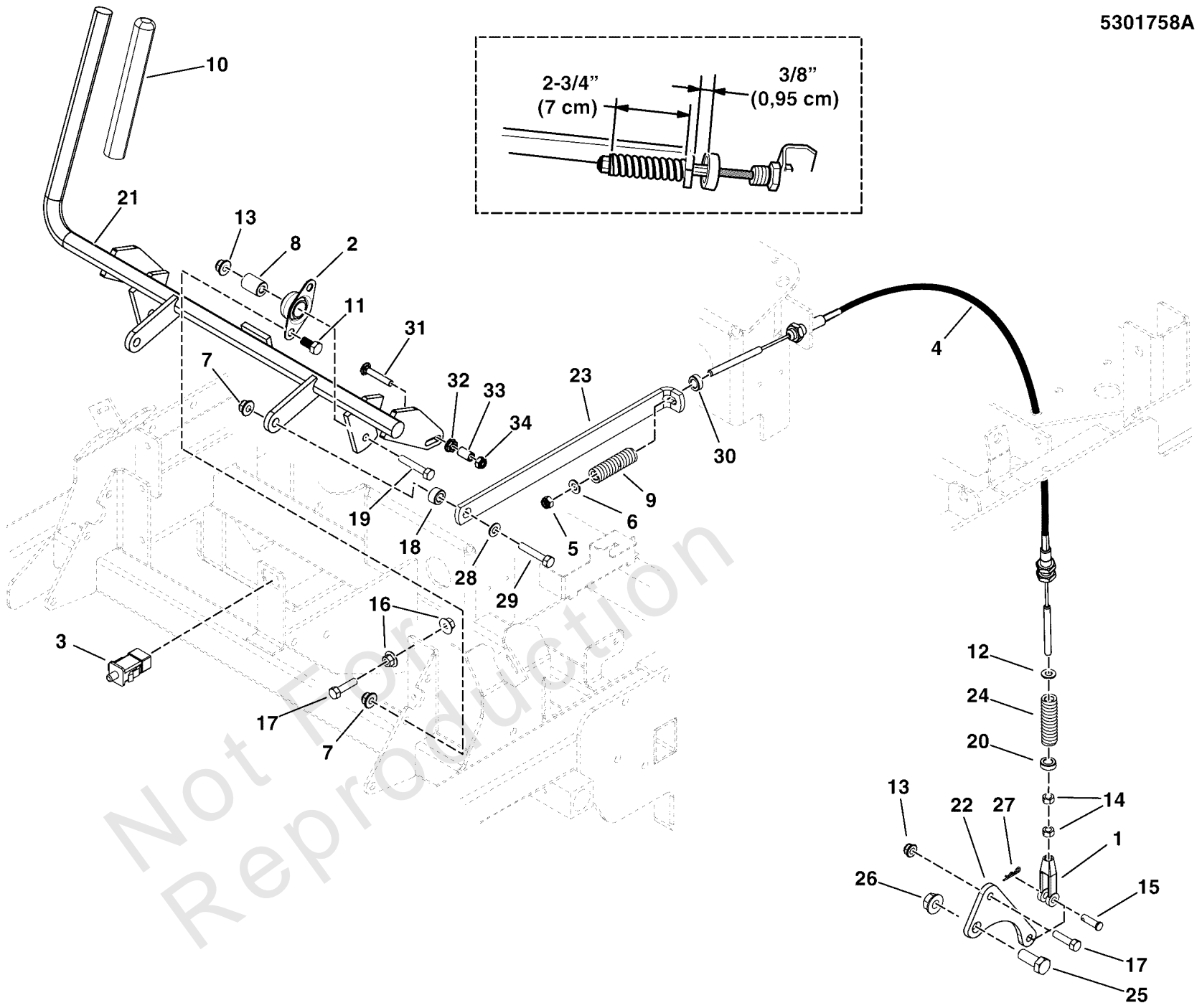
REF NO	PART NO	QTY	DESCRIPTION
1	5021098	2	BEARING, 3/4" FLANGED, BRONZE
2	5104494	2	BALL JOINT 5/16-24 LH FEMALE BRONZE RACE
3	5025013X6	2	BOLT, 3/8-16 X 3/4" GD5 CZ
4	5021499	2	BEARING, FLANGE
5	5104722	2	GRIP, FOAM, 1" ID, 16" LONG
6	5104493	2	BALL JOINT 5/16-24 RH FEMALE BRONZE RACE
7	5025392	8	NUT, 5/16-18 HEX NYLOCK FLANGE
8	5103106A	2	MOUNT, CONTROL ARM - BLK -(10.95" Total Length, 3 Adjustment Holes)
9	5100940	2	DAMPENER, CONTROL,#(P6709/P3610)
10	5100941	4	BALL STUD, 5/16 X .50,# PC-477-2)
11	5414431A	1	WELD,HANDLE MOTION CNTRL,19.0,1.0,LH,BLK
12	5414432A	1	WELD,HANDLE MOTION CNTRL,19.0,1.0,RH,BLK
13	5025013X8	2	BOLT, 3/8-16 X 1" GD5 CZ
14	5025011X10	4	BOLT, 5/16-18 X 1-1/4 GD5 CZ
15	5025096	12	NUT, 3/8-16 HEX NYLON LOCK
16	5025127	12	NUT, 5/16-18 HEX SERRATED FLANGE (SMALL)
17	5025055X14	4	BOLT- 5/16-18 X 1-3/4 GD5 TFL
18	5025013X14	4	BOLT, 3/8-16 X 1-3/4" GD5 CZ
19	5025015X6	2	BOLT, 7/16-14 X 3/4, GD 5 CZ
20	5025044	2	NUT, 7/16-14 HEX TOP LOCK
21	5415624A	1	WELD, CONTROL SHAFT, RH, FLEET - BLK
22	5415625A	1	WELD, CONTROL SHAFT, LH, FLEET - BLK
23	5405230A	2	PLATE, HYDRO CONNECTOR - BLK
24	5102124	2	ROD, HYDRO LINKAGE - S200XT - CZ
25	5102599	2	SPACER, .33 X .63 X 1.25, PM, CZ
26	5025011X20	2	BOLT, 5/16-18 X 2-1/2 GD5 CZ
27	5025155	2	WASHER, 5/16" SAE
28	80003531	4	SCREW, 5/16-18x0.750, GR5, WHIZ-LOCK, ZC
29	5025033	2	NUT, 5/16-24 HEX
30	5025327	4	BOLT, 3/8-16 X 1-1/4 SHCS
31	5023212	2	NUT, 5/16-24 HEX, LH

Parking Brake Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5301758A



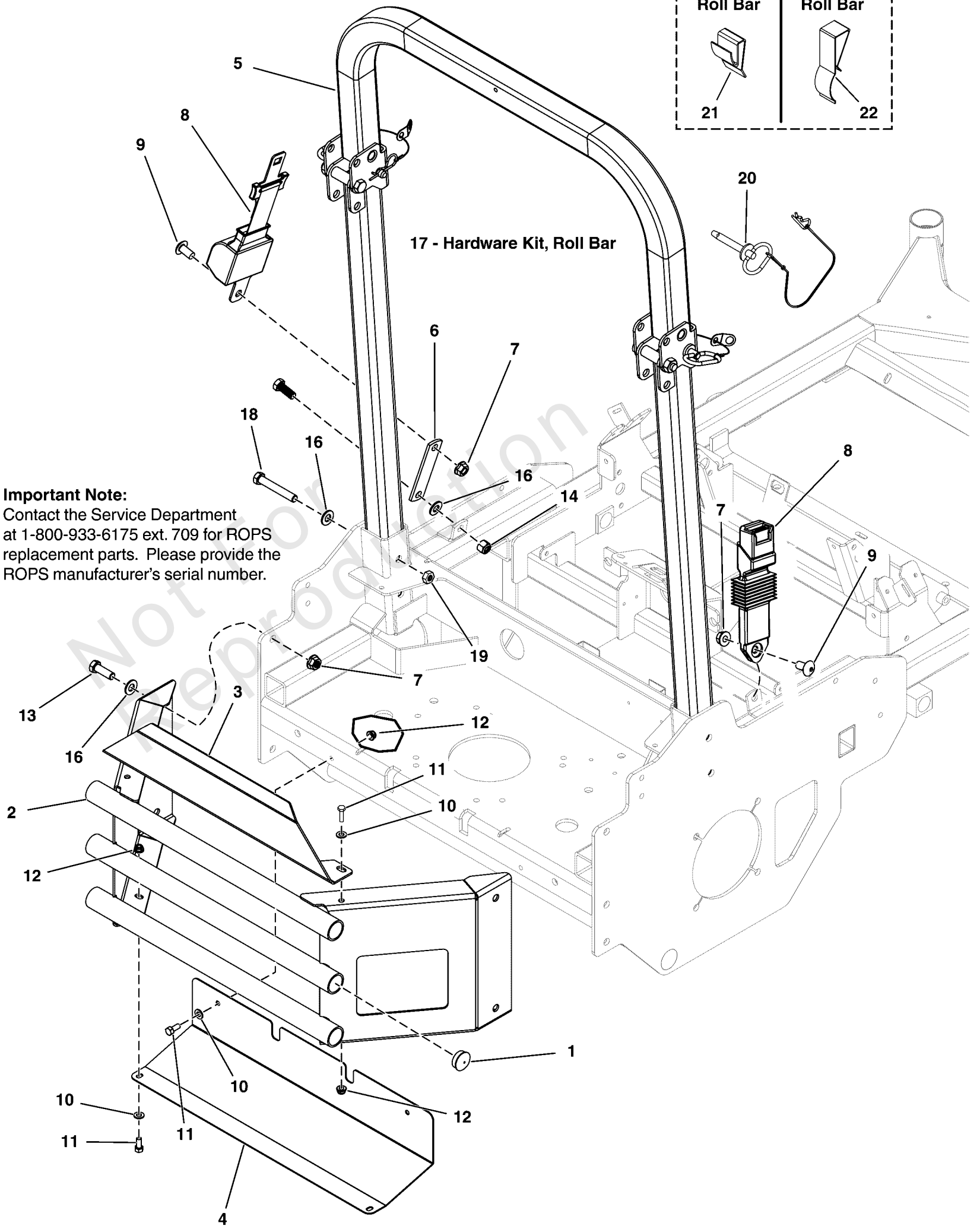
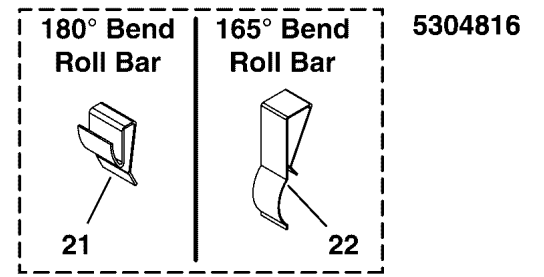
Parking Brake Group

REF NO	PART NO	QTY	DESCRIPTION
1	5023323	2	CLEVIS, 5/16-24, STEEL, CLEAR ZINC
2	5021098	2	BEARING, 3/4" FLANGED, BRONZE
3	7022886	1	SWITCH, DP NO/NC SNAP-IN
4	5102568	2	CABLE, PARKING BRAKE, S200XT
5	5025045	2	NUT, 5/16-24 HEX NYLON LOCK
6	5025155	2	WASHER, 5/16" SAE
7	5025394	6	NUT, 3/8-16 HEX NYLOCK FLANGE
8	5042134	2	SPACER, .32 X .75 X 1.06, PM
9	5100385	2	SPRING, COMP. 1/2 ID X .140 WIRE X 3.25
10	5101038	1	GRIP, FOAM, 3/4 ID X 6 X .187
11	5025013X6	4	BOLT, 3/8-16 X 3/4" GD5 CZ
12	5025150	2	WASHER, 1/2 USS
13	5025392	4	NUT, 5/16-18 HEX NYLOCK FLANGE
14	5025033	4	NUT, 5/16-24 HEX
15	5025213X8	2	PIN, CLEVIS, 5/16 X 1, PLATED
16	5025139	2	NUT, 5/16-18 HEX SERRATED FLANGE (LARGE)
17	5025011X10	3	BOLT, 5/16-18 X 1-1/4 GD5 CZ
18	5102289	2	SPACER, .38 X .50 X .31, CZ
19	5025011X14	2	BOLT, 5/16-18 X 1-3/4 GD5 CZ
20	5061227	2	BUSHING, DECK PIVOT
21	5415630A	1	WELD, BRAKE SHAFT, 210/320, NEUTRAL LOC -(S/N: 4000015530 and below)
21	5418438A	1	WELD, BRAKE SHAFT, 210/320 NEUTRAL LOC -(S/N: 4000015531 and above)
22	5405383A	2	PLATE, BRAKE ARM EXTENSION - BLK
23	5406710A	2	LINK, BRAKE LOCK - BLK
24	5022845	2	SPRING-COMP, .930IDX5.00LGX.085WR - BLK
25	5025017X10	2	BOLT, 1/2-13 X 1-1/4 GD5 CZ
26	5025332	2	NUT, 1/2-13 HEX SIDE LOCK
27	5025203X6	2	PIN, COTTER, 1/8 X 3/4
28	5025156	2	WASHER, 3/8 SAE
29	5025013X10	2	BOLT, 3/8-16 X 1-1/4" GD5 CZ
30	5020047	2	COLLAR, 5/16 SET
31	80003564	2	BOLT, 1/4-20 X 1.500, GR5, SQ, ZINC/CLEA
32	5025126	2	NUT, 1/4-20 HEX SERR. FLANGE
33	5041483	2	SPACER, .25 X .38 X .63, CZ
34	5025095	2	NUT, 1/4-20 HEX NYLON LOCK

Rear Bumper & ROPS Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653



Important Note:
Contact the Service Department at 1-800-933-6175 ext. 709 for ROPS replacement parts. Please provide the ROPS manufacturer's serial number.

Rear Bumper & ROPS Group

REF NO	PART NO	QTY	DESCRIPTION
1	5023484	6	PLUG, PANEL, 1.25 - BLACK
2	5414607B	1	WELD, BUMPER - F210Z - RED
3	5414685B	1	PLATE, CARB PROTECTOR, F210Z - RED
4	5408526A	1	PLATE, HEAT SHIELD - BLK
5	5105138	1	ROPS, S200XT & F320 -(Refer to Note: *)
6	5401044A	1	EXTENSION, SEAT BELT - BLK -(S/N: 4000051453 and below)
7	5025396	4	NUT, Hex Flange, Nylock, 1/2-13 -(Qty: 6 - S/N: 4000051453 and below)
8	5105137	1	SEAT BELT ASSM, RETRACTOR + SUP SLEEVE -(S/N: 4000051453 and below)
9	5100267	2	SCREW, 1/2-13 X 1.00, SHCS -(S/N: 4000051453 and below)
10	5025155	6	WASHER, 5/16" SAE
11	5025011X6	6	BOLT, 5/16-18 X 3/4 GD5
12	5025392	6	NUT, 5/16-18 HEX NYLOCK FLANGE
13	5025017X12	4	BOLT, 1/2-13 X 1-1/2 GD5 CZ
14	5025056	1	NUT, 1/2-13 HEX NYLON LOCK -(S/N: 4000051453 and below)
15	5025017X10	1	BOLT, 1/2-13 X 1-1/4 GD5 CZ
16	5025158	4	WASHER, 1/2 SAE -(Qty: 5 - S/N: 4000051453 and below)
17	5103921X1	1	HARDWARE KIT, ROLL BAR -(SV)
18	5025017X26	4	BOLT, 1/2-13 X 3-1/4, HEX HD, GD5, CZ (SV) -(SV)
19	5025332	4	NUT, 1/2-13 HEX SIDE LOCK -(SV)
20	5100013	2	PIN, HITCH, .50 X 3.25 W/ LAY -(SV)
21	5103403X1	2	ANTI-RATTLE SPRING, FEMCO #230328972 (SV) -(180 Degree Bend Roll Bar)
22	5105140X1	2	ANTI-RATTLE SPRING, ROPS, 165 DEGREE (SV) -(165 Degree Bend Roll Bar)

Footnotes:

Note: *Contact the Service Department at 1-800-933-6175 for roll bar replacement parts. You must provide the serial number of the roll bar system.

Seat Mount and Floor Group S/N: 4000015530 and Below

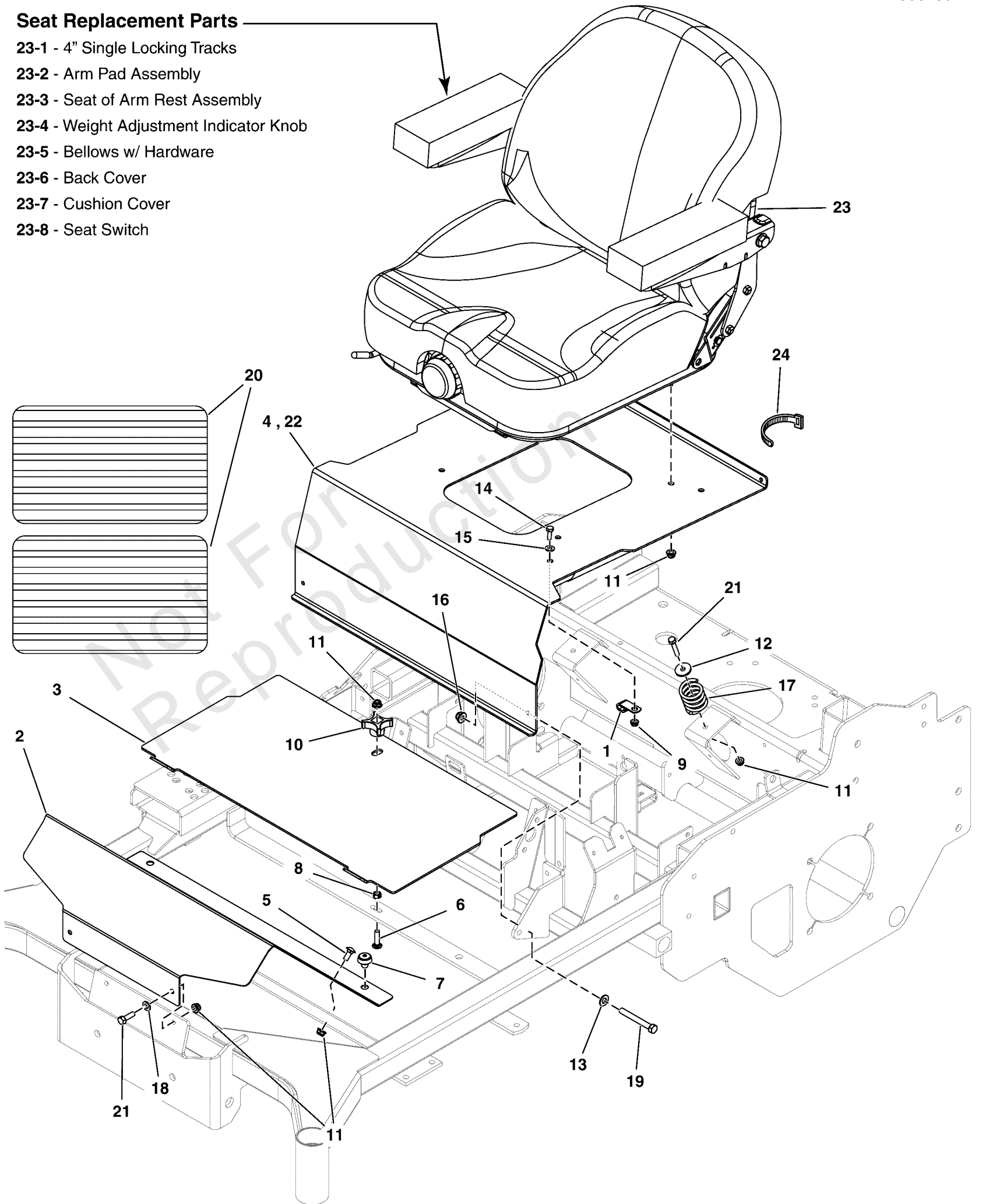
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5304392B

Seat Replacement Parts

- 23-1 - 4" Single Locking Tracks
- 23-2 - Arm Pad Assembly
- 23-3 - Seat of Arm Rest Assembly
- 23-4 - Weight Adjustment Indicator Knob
- 23-5 - Bellows w/ Hardware
- 23-6 - Back Cover
- 23-7 - Cushion Cover
- 23-8 - Seat Switch



Seat Mount and Floor Group S/N: 4000015530 and Below

REF NO	PART NO	QTY	DESCRIPTION
1	5025430	2	CLAMP, 5/16", DOUBLE, WIRE & TUBE
2	5410363B	1	PLATE, RIGID FLOOR, 200XT - RED
3	5410362B	1	PLATE, REMOVABLE FLOOR, 200XT - RED
4	5601001	1	ASSM, SEAT PLATE W/DECAL - DOM (5415991B) -(USA Models)
5	5025145X6	2	BOLT, 5/16-18 X 3/4, CARRIAGE, GD5, CZ
6	80003669	1	BOLT 5/16-18X1.500 CARRIAGE SQ GR5 ZC/CL
7	197546	4	MNT, VBRTN, RBBR
8	80003675	1	NUT, 5/16-1/8, HEX, CNTR LK, ZINC PHOS/OIL
9	5025391	2	NUT, 1/4-20 Hex Nylock Flange
10	1670578	1	KNOB-INT THR .312-18 4-ARM 2.12WD 1.06LG
11	5025392	10	NUT, 5/16-18 HEX NYLOCK FLANGE NUT -(Refer to Note: *)
12	5044617	2	WASHER, .34 X 1.25 X 10 GA
13	5025156	2	WASHER, 3/8 SAE
14	5025010X6	2	BOLT, 1/4"-20 X 3/4" GD5 YZ
15	5025154	2	WASHER, 1/4 SAE
16	5025394	2	NUT, 3/8 - 16 HEX NYLOCK FLANGE
17	7078299	2	SPRING, SEAT SUPPORT
18	5025155	2	WASHER, 5/16" SAE
19	5025013X24	2	BOLT, 3/8-16 X 3" GD5 CZ
20	5101114	2	SAFETY WALK, 10.00 X 19.00
21	5025011X8	4	BOLT, 5/16-18 X 1" GRD5 YZ
22	5601002	1	ASSM, SEAT PLATE W/DECAL - EXP (5415991B) -(Export Models)
23	5105096	1	SEAT, MID BACK, SUSP SEAT'SINC, W/SWITCH
23-1	5104720X1	1	4" SINGLE LOCKING TRACKS BASE -(SV)
23-2	5104719X1	1	ARM PAD ASSEMBLY BLK/CHAR CAR FIB/HARBR GRY RED WELT -(SV)
23-3	5104719X2	1	SET OF ARMREST ASSEMBLY BLK/CHAR CAR FIB/HARBR GRY RED WELT -(SV)
23-4	5104720X2	1	WEIGHT ADJUST INDICATOR KNOB ASSY BASE -(SV)
23-5	5104720X3	1	BELLOWS W/ HARDWARE BASE -(SV)
23-6	5104720X4	1	BACK COVER FOR FIXED BACK I3M BLK/CHAR CAR FIB/HARBR GRY RED WELT -(SV)
23-7	5104720X5	1	CUSHION COVER FOR I3M BLK/CHAR CAR FIB/HARBR GRY RED WELT -(SV)
23-8	7023354	1	SWITCH, SEAT -(SV)
24	5021030	1	TIE, SELF-LOCKING, 6"

Footnotes:

Note: *Older models featured a nut on top of the knob.

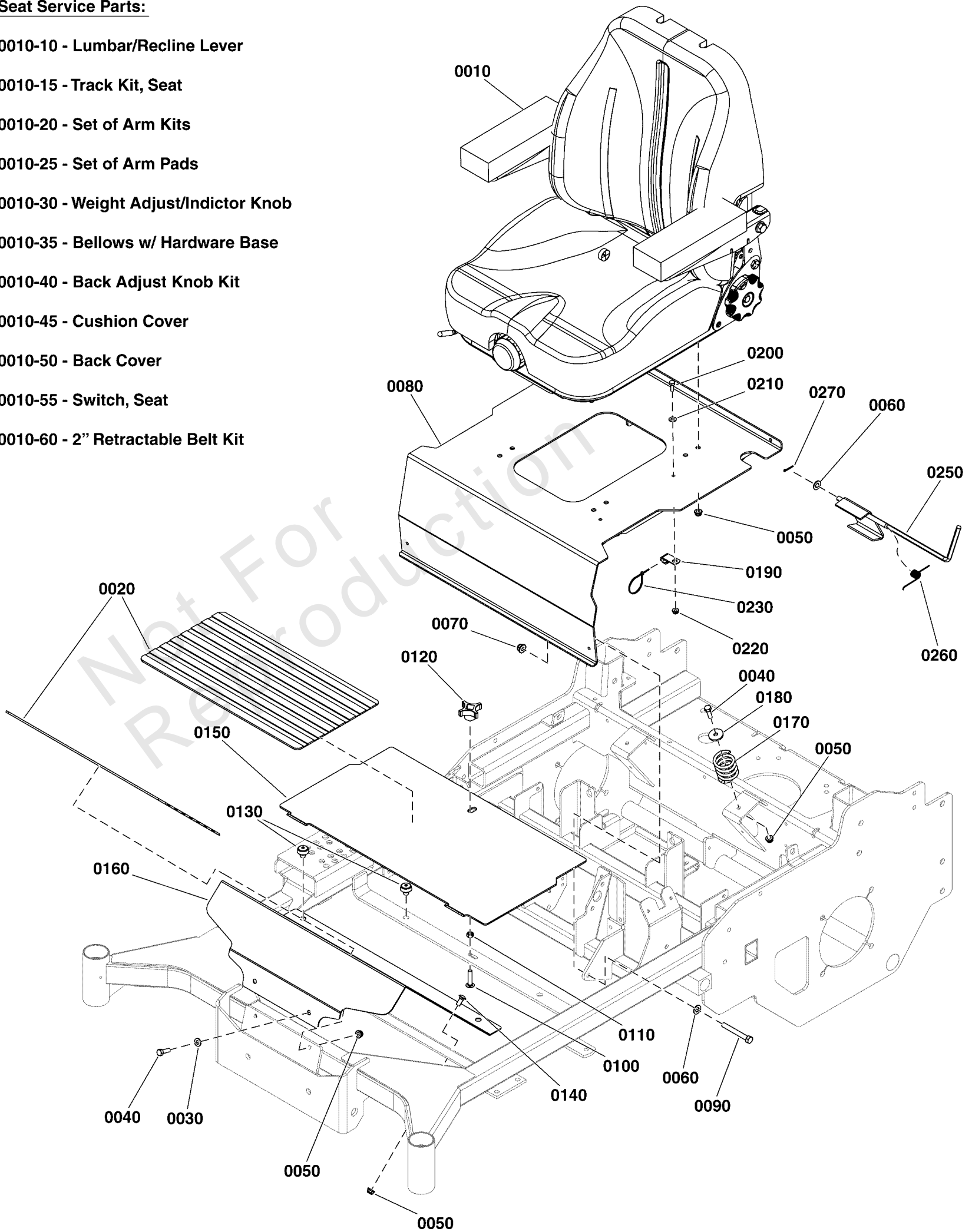
Seat Mount and Floor Group S/N: 4000015531 to 4000875836

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

Seat Service Parts:

- 0010-10 - Lumbar/Recline Lever
- 0010-15 - Track Kit, Seat
- 0010-20 - Set of Arm Kits
- 0010-25 - Set of Arm Pads
- 0010-30 - Weight Adjust/Indicator Knob
- 0010-35 - Bellows w/ Hardware Base
- 0010-40 - Back Adjust Knob Kit
- 0010-45 - Cushion Cover
- 0010-50 - Back Cover
- 0010-55 - Switch, Seat
- 0010-60 - 2" Retractable Belt Kit



Seat Mount and Floor Group S/N: 4000015531 to 4000875836

REF NO	PART NO	QTY	DESCRIPTION
0010	5106325	1	SEAT, HIGH BACK, SUSP, SWITCH&SEAT BELTS
0010-10	5105099X2	1	LUMBAR/RECLINE/ISO LVR W/ RLL PIN BS -(SV)
0010-15	5104720X1	1	4" SINGLE LOCKING TRACKS BASE -(SV)
0010-20	5106325X2	1	SET OF ARM KITS -(SV)
0010-25	5106325X3	1	SET OF ARM PADS -(SV)
0010-30	5104720X2	1	WEIGHT ADJUST INDICATOR KNOB ASSY BASE -(SV)
0010-35	5104720X3	1	BELLOWS W/ HARDWARE BASE -(SV)
0010-40	5106325X4	1	BACK ADJUSTMENT KNOB KIT -(SV)
0010-45	5106325X6	1	CUSHION COVER, 314659VN584 -(SV)
0010-50	5106325X1	1	SEAT BACK COVER, 314658VN584 -(SV)
0010-55	7023354	1	SWITCH, SEAT -(SV)
0010-60	5106325X5	1	2" RETRACTABLE BELT KIT -(SV)
0020	5101114	2	SAFETY WALK, 10.00 X 19.00
0030	5025155	2	WASHER, 5/16" SAE
0040	5025011X8	4	BOLT, 5/16-18 X 1" GRD5 YZ
0050	5025392	10	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
0060	5025156	4	WASHER, 3/8 SAE
0070	5025394	2	NUT, 3/8 - 16 HEX NYLOCK FLANGE
0080	5601228	1	ASSM, SEAT PLATE W/DECAL-DOM (5418271B)
0090	5025013X24	2	BOLT, 3/8-16 X 3" GD5 CZ
0100	80003669	1	BOLT 5/16-18X1.500 CARRIAGE SQ GR5 ZC/CL
0110	80003675	1	NUT, 5/16-1/8, HEX, CNTR LK, ZINC PHOS/OIL
0120	1670578	1	KNOB-INT THR .312-18 4-ARM 2.12WD 1.06LG
0130	197546	4	MNT, VBRTN, RBBR
0140	5025145X6	2	BOLT, 5/16-18 X 3/4, CARRIAGE, GD5, CZ
0150	5410362B	1	PLATE, REMOVABLE FLOOR, 200XT - RED
0160	5410363B	1	PLATE, RIGID FLOOR, 200XT - RED
0170	7078299	2	SPRING, SEAT SUPPORT
0180	5044617	2	WASHER, .34 X 1.25 X 10 GA
0190	5025430	2	CLAMP, 5/16", DOUBLE, WIRE & TUBE
0200	5025010X6	2	BOLT, 1/4"-20 X 3/4" GD5 YZ
0210	5025154	2	WASHER, 1/4 SAE
0220	5025391	2	NUT, 1/4-20 Hex Nylock Flange
0230	5021030	1	TIE, SELF-LOCKING, 6"
0250	5418442A	1	WELD, SEAT LATCH HOOK, W/ SPRING - BLK
0260	5106644	1	SPRING, TORSION, LH, .0625OD
0270	80002736	1	PIN, 3/32 X 0.750, COT, ZINC/CLEAR

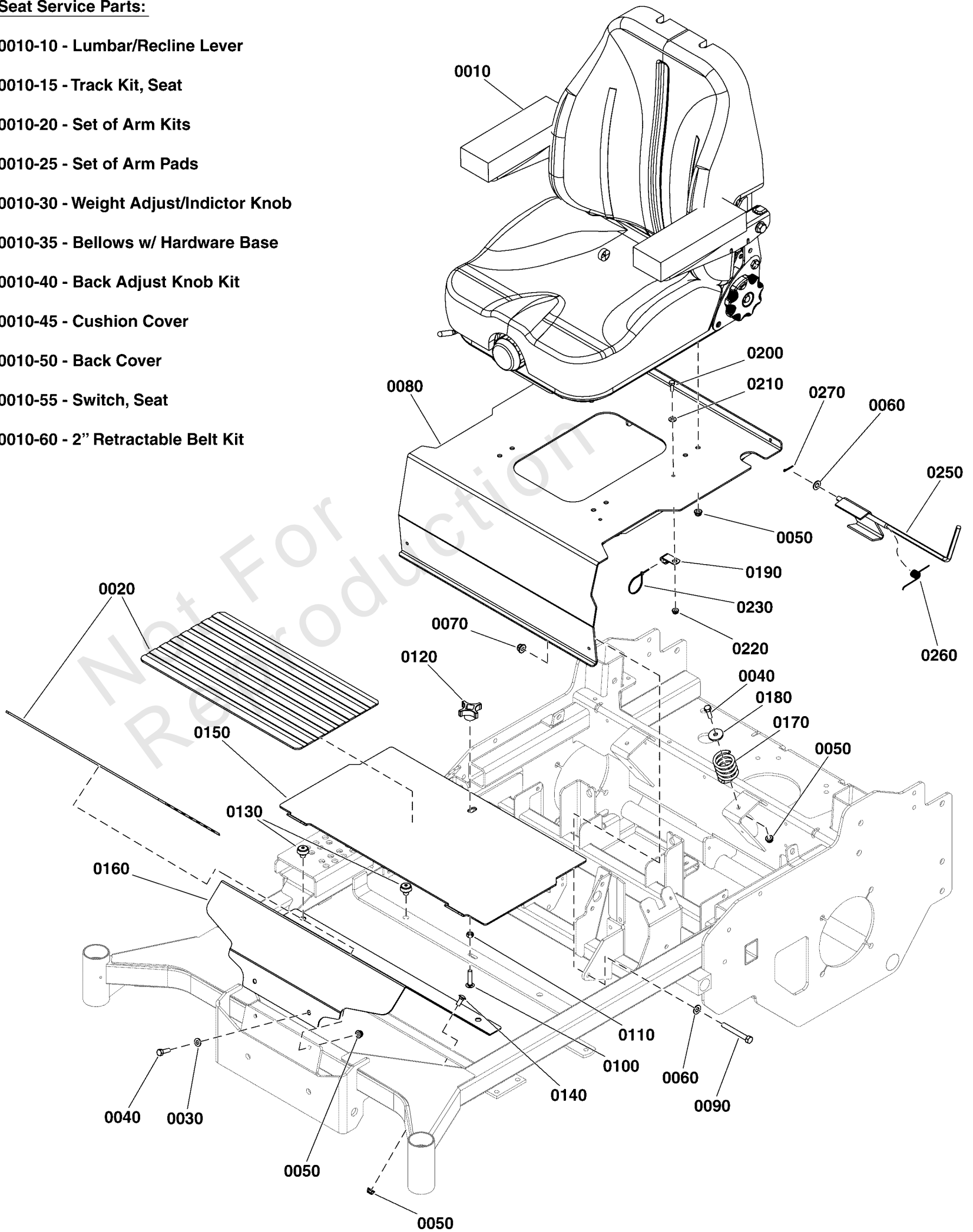
Seat Mount and Floor Group S/N: 4000875837 and Above

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

Seat Service Parts:

- 0010-10 - Lumbar/Recline Lever
- 0010-15 - Track Kit, Seat
- 0010-20 - Set of Arm Kits
- 0010-25 - Set of Arm Pads
- 0010-30 - Weight Adjust/Indicator Knob
- 0010-35 - Bellows w/ Hardware Base
- 0010-40 - Back Adjust Knob Kit
- 0010-45 - Cushion Cover
- 0010-50 - Back Cover
- 0010-55 - Switch, Seat
- 0010-60 - 2" Retractable Belt Kit



Seat Mount and Floor Group S/N: 4000875837 and Above

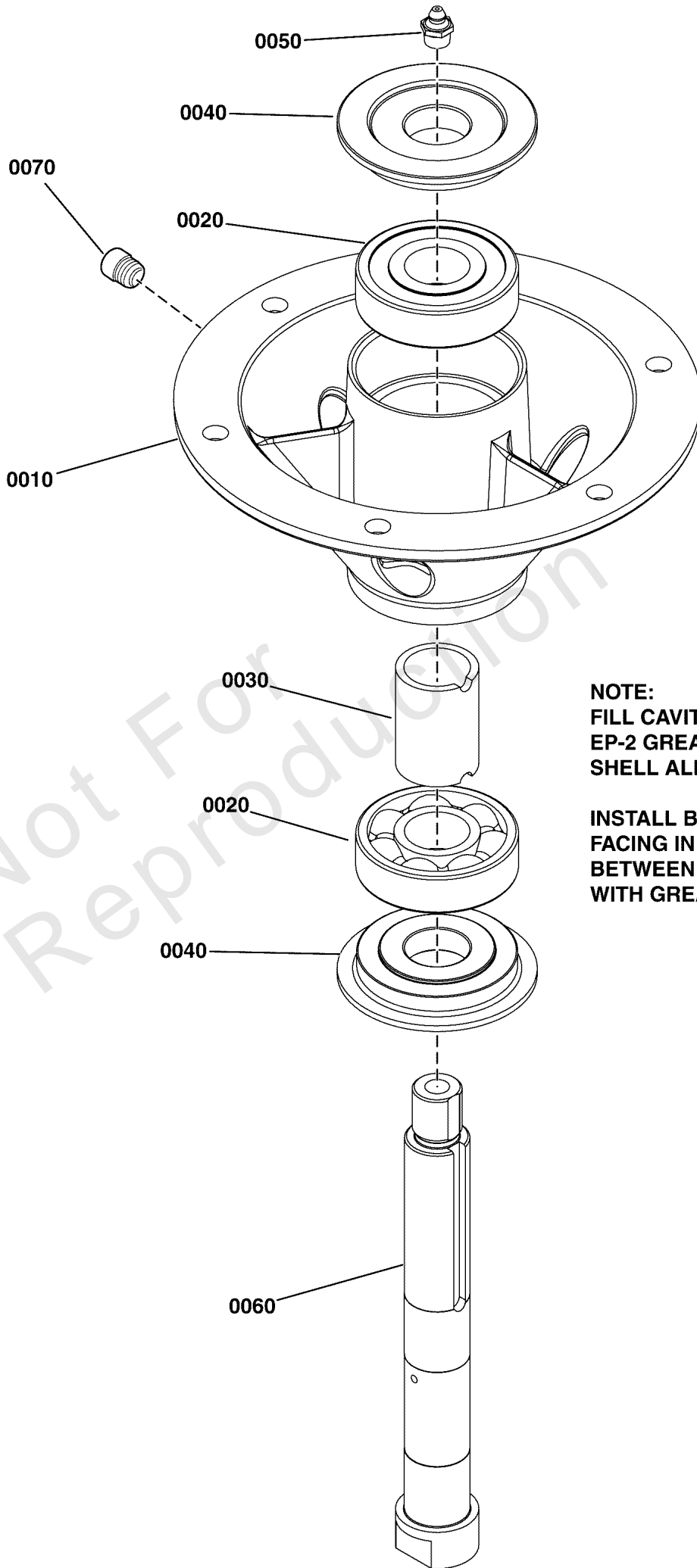
REF NO	PART NO	QTY	DESCRIPTION
0010	5108194	1	SEAT, HIGH BACK,SUSP,SWITCH & SEAT BELTS
0010-10	5105099X2	1	LUMBAR/RECLINE/ISO LVR W/ RLL PIN BS -(SV)
0010-15	5104720X1	1	4" SINGLE LOCKING TRACKS BASE -(SV)
0010-20	5106325X2	1	SET OF ARM KITS -(SV)
0010-25	5106325X3	1	SET OF ARM PADS -(SV)
0010-30	5104720X2	1	WEIGHT ADJUST INDICATOR KNOB ASSY BASE -(SV)
0010-35	5104720X3	1	BELLOWS W/ HARDWARE BASE -(SV)
0010-40	5106325X4	1	BACK ADJUSTMENT KNOB KIT -(SV)
0010-45	5106325X6	1	CUSHION COVER, 314659VN584 -(SV)
0010-50	5108194X2	1	SEAT BACK COVER -(SV)
0010-55	7023354	1	SWITCH, SEAT -(SV)
0010-60	5106325X5	1	2" RETRACTABLE BELT KIT -(SV)
0020	5101114	2	SAFETY WALK, 10.00 X 19.00
0030	5025155	2	WASHER, 5/16" SAE
0040	5025011X8	4	BOLT, 5/16-18 X 1" GRD5 YZ
0050	5025392	10	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
0060	5025156	4	WASHER, 3/8 SAE
0070	5025394	2	NUT, 3/8 - 16 HEX NYLOCK FLANGE
0080	5601228	1	ASSM, SEAT PLATE W/DECAL-DOM (5418271B)
0090	5025013X24	2	BOLT, 3/8-16 X 3" GD5 CZ
0100	80003669	1	BOLT 5/16-18X1.500 CARRIAGE SQ GR5 ZC/CL
0110	80003675	1	NUT, 5/16-1/8, HEX, CNTR LK, ZINC PHOS/OIL
0120	1670578	1	KNOB-INT THR .312-18 4-ARM 2.12WD 1.06LG
0130	197546	4	MNT, VBRN, RBBR
0140	5025145X6	2	BOLT, 5/16-18 X 3/4, CARRIAGE, GD5, CZ
0150	5410362B	1	PLATE, REMOVABLE FLOOR, 200XT - RED
0160	5410363B	1	PLATE, RIGID FLOOR, 200XT - RED
0170	7078299	2	SPRING, SEAT SUPPORT
0180	5044617	2	WASHER, .34 X 1.25 X 10 GA
0190	5025430	2	CLAMP, 5/16", DOUBLE, WIRE & TUBE
0200	5025010X6	2	BOLT, 1/4"-20 X 3/4" GD5 YZ
0210	5025154	2	WASHER, 1/4 SAE
0220	5025391	2	NUT, 1/4-20 Hex Nylock Flange
0230	5021030	1	TIE, SELF-LOCKING, 6"
0250	5418442A	1	WELD, SEAT LATCH HOOK, W/ SPRING - BLK
0260	5106644	1	SPRING, TORSION, LH, .0625OD
0270	80002736	1	PIN, 3/32 X 0.750, COT, ZINC/CLEAR

Spindle Service Parts - 5104744

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5104744



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

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

Spindle Service Parts - 5104744

REF NO	PART NO	QTY	DESCRIPTION
0010	5104807	1	SUB ASM, SPINDLE, SMALL IRON -(Includes Ref Nos 2 & 3)
0020	5023330	2	BEARING, .98 X 2.44 X .67
0030	5061099	1	SPACER, 1.00 X 1.25 X 1.75
0040	5049793	2	TRASH SHIELD
0050	5023329	1	FITTING, 1/8 NPT STR, SHORT
0060	5061100	1	SHAFT, SPINDLE
0070	5023296	1	FITTING, RELIEF, 1-5 PSI

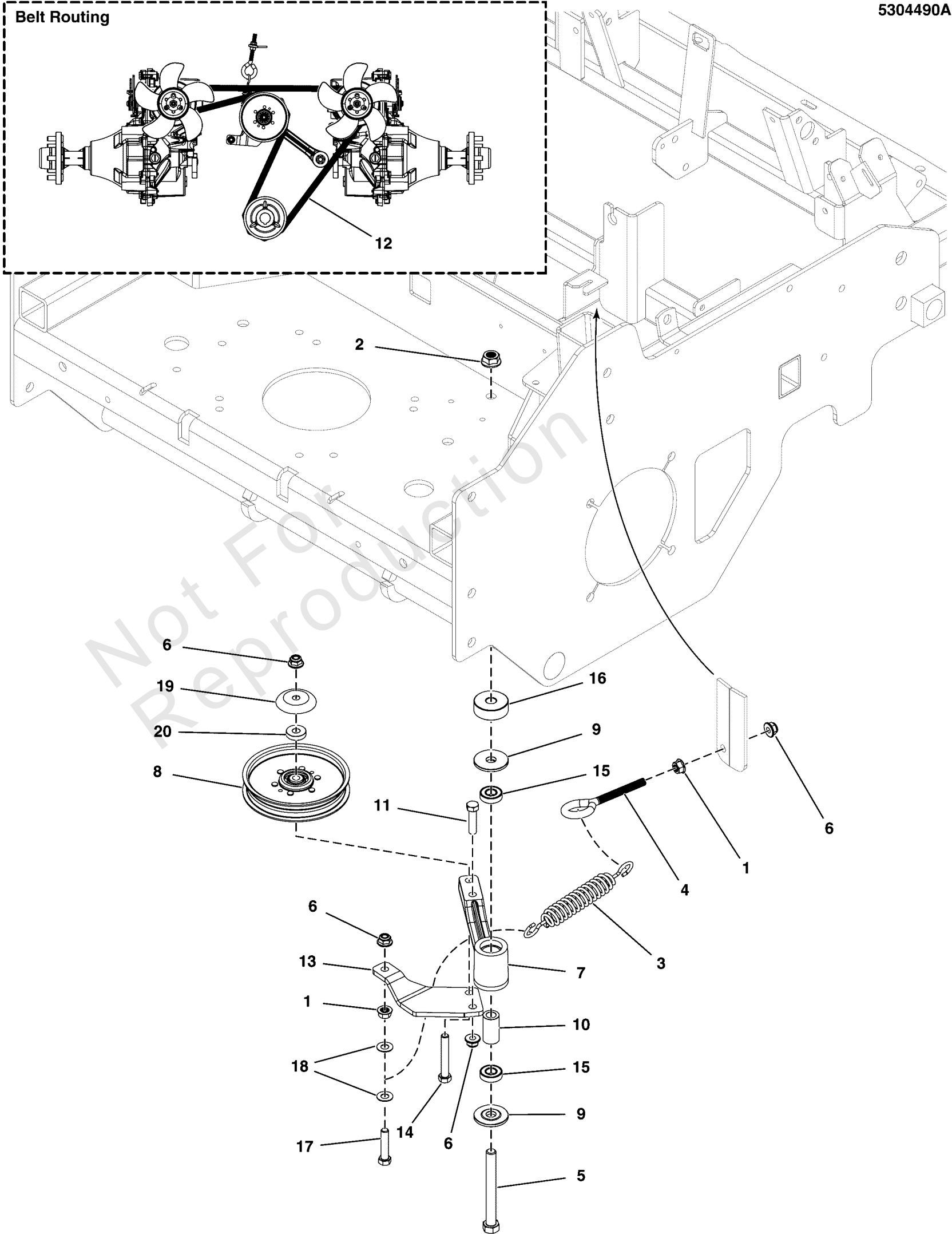
Not For Reproduction

Transaxle Drive Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

5304490A



Transaxle Drive Group

REF NO	PART NO	QTY	DESCRIPTION
1	5025128	2	NUT, 3/8-16 HEX SERRATED FLANGE
2	5025396	1	NUT, Hex Flange, Nylock, 1/2-13
3	5022847	1	SPRING-EXT, 1.04 ODX6.935LGX.148WR, BLK
4	5023497	1	EYE BOLT, 3/8-16 X 5, 2.88THRD, 1EYE, CZ
5	5025017X36	1	BOLT, 1/2-13 X 4-1/2 GD5 CZ
6	5025394	4	NUT, 3/8-16 HEX NYLOCK FLANGE
7	5411066	1	ASSM, IDLER ARM, PUMP DRIVE, 1/2ID, CAST (SV) -(Includes items #9, 10, & 15)
8	5101193	1	PULLEY-IDLER, 5.00OD, .385ID, .75W, STL
9	5103262	2	SPACER, IDLER ARM, 1/2, PM
10	5103812	1	SPACER, .52 X .84 X 1.53, PM
11	5025013X12	1	BOLT, 3/8-16 X 1-1/2" GD5 CZ
12	5107757	1	BELT, RAW EDGE, COGGED, ARAMID, 81.20EL
13	5414868A	1	PLATE, IDLER ARM ADAPTER - BLK
14	5025013X22	1	BOLT, 3/8-16 X 2-3/4" GD5 CZ
15	7078243	2	BEARING, BALL, AXLE
16	5100314	1	SPACER, .52 X 1.75 X .63, CZ
17	5025013X14	1	BOLT, 3/8-16 X 1-3/4" GD5 CZ
18	5025401	2	WASHER, 3/8 USS
19	5103787	1	SHIELD, BEARING PULLEY, 3/8ID, CZ
20	5044960	1	SPACER, .36 X 1.00 X .25, PM, CZ

Transaxle SERVICE PARTS - ZT5400

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653

HYDRO-GEAR MODEL 1015-1014L (P/N: 5101988)

HYDRO-GEAR MODEL 1015-1014R (P/N: 5101987)

HYDRO-GEAR MODEL 1015-1017L (P/N: 5102254)

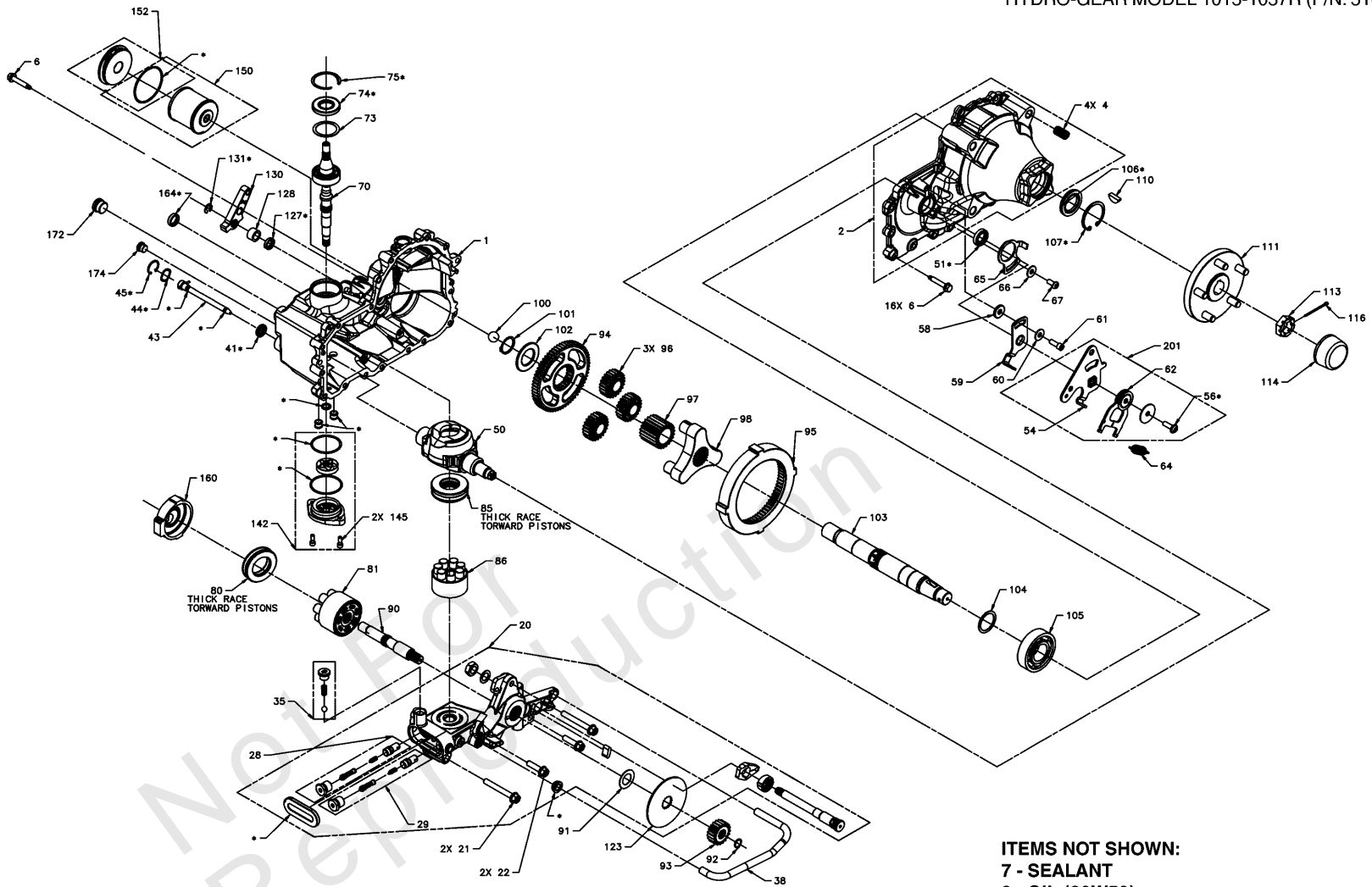
HYDRO-GEAR MODEL 1015-1017R (P/N: 5102253)

HYDRO-GEAR MODEL 1015-1024L (P/N: 5102870)

HYDRO-GEAR MODEL 1015-1024R (P/N: 5102871)

HYDRO-GEAR MODEL 1015-1057L (P/N: 5103964)

HYDRO-GEAR MODEL 1015-1057R (P/N: 5103963)



ITEMS NOT SHOWN:

7 - SEALANT

8 - OIL (20W50)

200 - SEAL KIT (*) PARTS INCLUDED IN SEAL KIT

Transaxle SERVICE PARTS - ZT5400

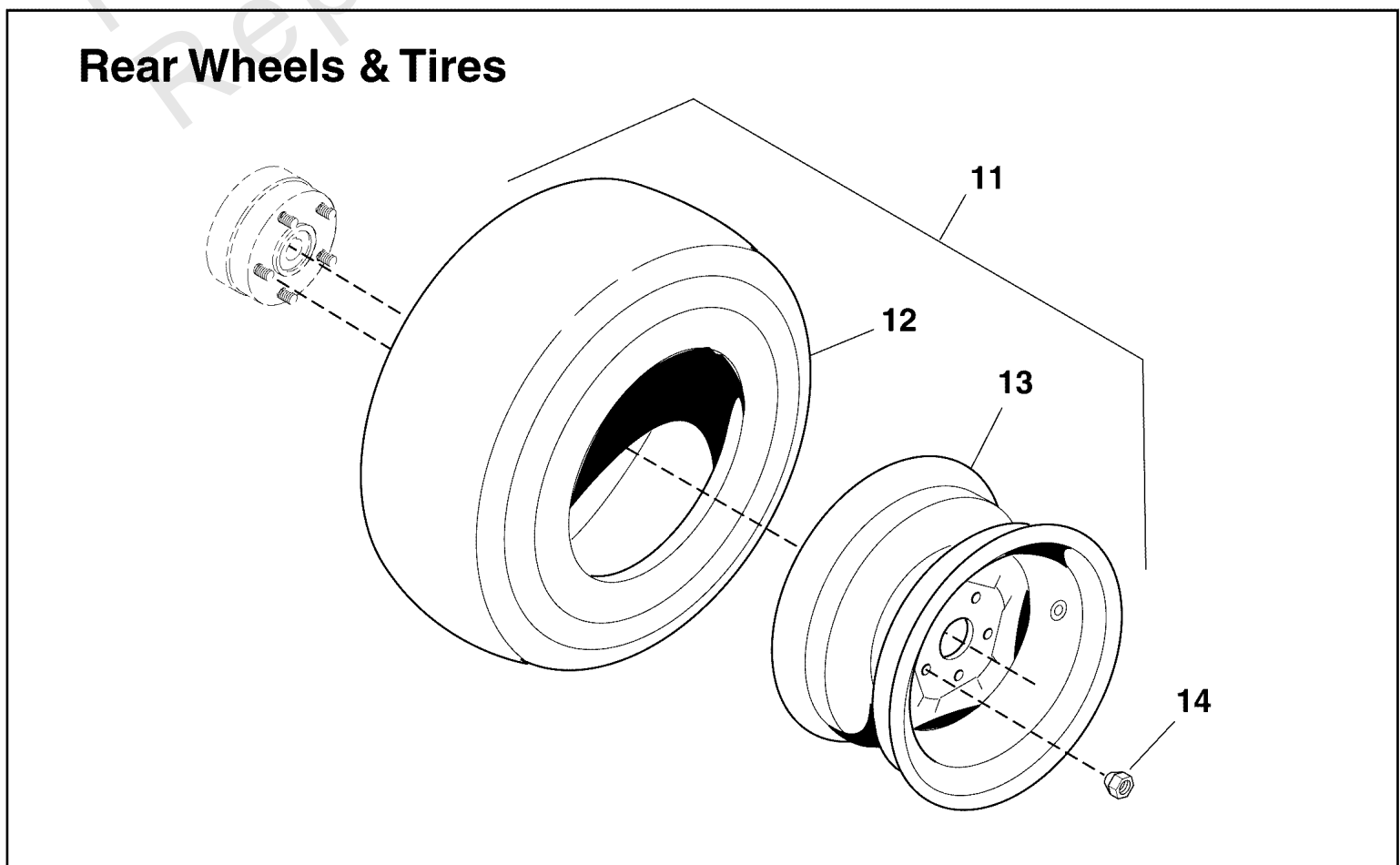
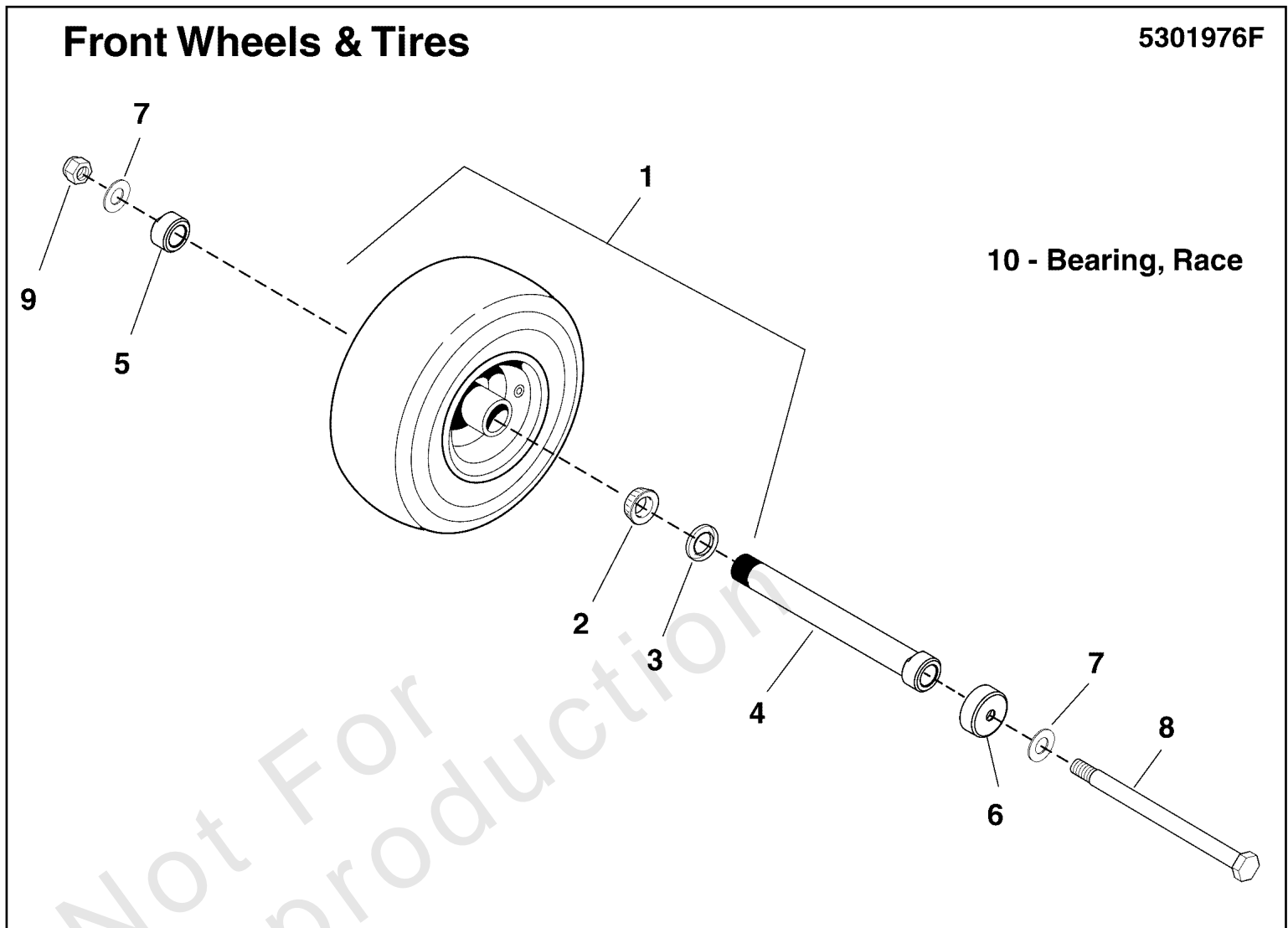
REF NO	PART NO	QTY	DESCRIPTION
114	5101987X5	1	AXLE CAP, ZT5400 -(Hydro-Gear P/N 53724)
150	5101987X2	1	KIT, FILTER -(Hydro-Gear P/N 71943)
200	5101987X4	1	KIT, SEAL, ZT5400 -(Hydro-Gear P/N 71945)
51	5104385X6	1	KIT, CONTROL ARM SEAL -(Hydro-Gear P/N 52989)
70	5101987X8	1	KIT, INPUT SHAFT (BEARING AND SHAFT ONLY) -(Hydro-Gear P/N 71941)
74	5101987X7	1	KIT, INPUT SEAL -(Hydro-Gear P/N 51280)
111	5101987X6	1	ASSM, HUB, STANDARD AXLE TRANSMISSIONS (ZT5400) -(Hydro-Gear P/N 72039)
111	5102253X1	1	ASSM, HUB, LONG AXLE TRANSMISSIONS (ZT5400) -(Hydro-Gear P/N 72102)
106	5104385X5	1	KIT, AXLE SEAL -(Hydro-Gear P/N 53008)

Not For Reproduction

Wheel & Tire Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5901653



Wheel & Tire Group

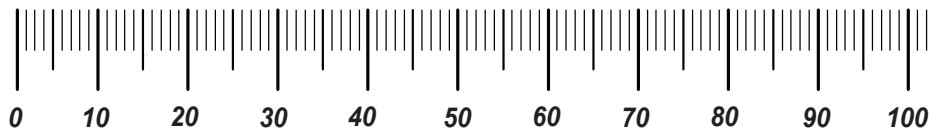
REF NO	PART NO	QTY	DESCRIPTION
1	5023279	2	TIRE ASSM, 13 X 6.5 - 6, FF / TB
2	5022631SX2	4	BEARING, Tapered Roller
3	5022631SX3	4	SEAL, GREASE
4	5103649	2	BEARING ADJUSTER, SPACER, 7.062 LG
5	5103650	2	NUT, BEARING ADJUSTER, AXLE
6	5103594	4	DEBRIS, COVER, CASTER WHEELS
7	5025158	2	WASHER, 1/2 SAE
8	5025017X72	2	BOLT, 1/2-13 X 9 GD5 CZ
9	5025396	2	NUT, Hex Flange, Nylock, 1/2-13
10	5022631SX4	2	BEARING, RACE
11	5104029	2	TIRE/WHEEL ASM, 24X12.00-12, TURF SMART -(S/N: 4000771923 and below)
11	5023365	2	TIRE ASSM, 24 X 12 - 12, TURF, 5 BOLT -(S/N: 4000771924 and above)
12	5104029X1	2	TIRE, 24X12.00-12, TURF SMART -(S/N: 4000771923 and below)
12	5023240X1	2	TIRE, REAR, 24 x 12 x 12 (SV) -(S/N: 4000771924 and above)
13	5023364	2	WHEEL ASSEMBLY, 12 x 8.5
14	5020601	10	NUT, 1/2-20, FOR WHEEL BOLT SILVER

Hardware Identification & Torque Specifications

Torque Specification Chart								
FOR STANDARD METRIC MACHINE HARDWARE (Tolerance ± 20%)								
Property Class	5.6		8.8		10.9		12.9	
	Class 5.6		Class 8.8		Class 10.9		Class 12.9	
Size Of Hardware	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.
	ft/lbs		ft/lbs		ft/lbs		ft/lbs	
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

Torque Specification Chart						
FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)						
Hardware Grade	No Marks		SAE Grade 5		SAE Grade 8	
	SAE Grade 2		SAE Grade 5		SAE Grade 8	
Size Of Hardware	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.
	ft/lbs		ft/lbs		ft/lbs	
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

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



Nut, M8

Thread Diameter (mm)

Inside Diameter (in) Threads per inch

Nut, 1/2-16



Screw, M8- 1.25 x 25

Thread Diameter (mm) Distance between threads (mm) Body Length (mm)

Body Diameter Threads per inch Body Length (in)

Screw, 1/2- 16 x 2



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).

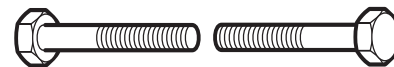
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw,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

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

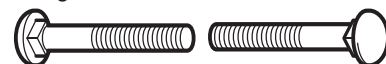
Hex Head Capscrew



Washer



Carriage Bolt



Hex Nut

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

