



Parts Manual

Mfg. No: 5902032
ISX3300 Series w/ 72" Mower Deck &
ROPS (ISX3300KAVE3872SS)



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

REF NO	PART NO	QTY	DESCRIPTION
1	5600979	1	DECK SHELL W/DECALS, 72, 3200Z (5415350B) -(Domestic Models - S/N: 2017954955 & Below)
1	5601127	1	DECK SHELL W/DECALS, 72-3200E (5415350B) -(Export Models - S/N: 2017954955 & Below)
1	5601123	1	DECK SHELL W/DECALS, 3200-72 (5417007B) -(Domestic Models - S/N: 2017954956 & Above)(Refer to Note: *)
1	5601124	1	DECK SHELL W/DECALS, 3200-72E (5417007B) -(Export Models - S/N: 2017954956 & Above)(Refer to Note: *)
2	5416044B	1	GUARD,MOWER DECK,LH,72 2-BELT 3200 - RED
3	5416043B	1	GUARD,MOWER DECK,RH,72 2-BELT 3200 - RED
4	84008171	1	MOUNT
5	5413385A	1	SUPPORT, DISCHARGE CHUTE - BLK
6	5407876A	1	PLATE, DEFLECTOR, 72 - BLK
7	5025045	2	NUT, 5/16-24 HEX NYLON LOCK
8	84003242	3	SPINDLE ASSEMBLY
9	84011105	1	CHUTE, Discharge
10	5025392	3	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
11	5102227S	1	BLADE, 25 X 25 X 2.50, HIGH LIFT (SET OF 3) -(SET OF THREE BLADES)
12	5101005	1	SAFETY WALK, 9.75 X 6.00
13	5061300	1	ROD, MOUNT, CHUTE, 61, CZ
14	5025477	3	WASHER, BLADE BOLT, 9/16" F436, CZ
15	5025320X14	3	BOLT, 5/8-11 X 1-3/4 GD8 -(Torque blade mounting bolts to 120 ft-lbs (163 Nm))
16	5025390X10	18	BOLT, 3/8-16 X 1-1/4, FLANGE, GD 5, CZ -(Torque spindle mounting bolts to 30 ft-lbs (41 Nm))
17	5025146X12	3	BOLT, 3/8-16 X 1-1/2, CARRIAGE, GD5, CZ
18	5025394	21	NUT, 3/8 - 16 HEX NYLOCK FLANGE
19	5022308	6	BODY CLIP, 5/16-18-7GA MATERIAL
20	5025145X6	2	BOLT, 5/16-18 X 3/4, CARRIAGE, GD5, CZ
21	5025011X6	1	BOLT, 5/16-18 X 3/4 GD5
22	5025155	8	WASHER, 5/16" SAE
23	5025011X8	6	BOLT, 5/16-18 X 1" GRD5 YZ

Footnotes:

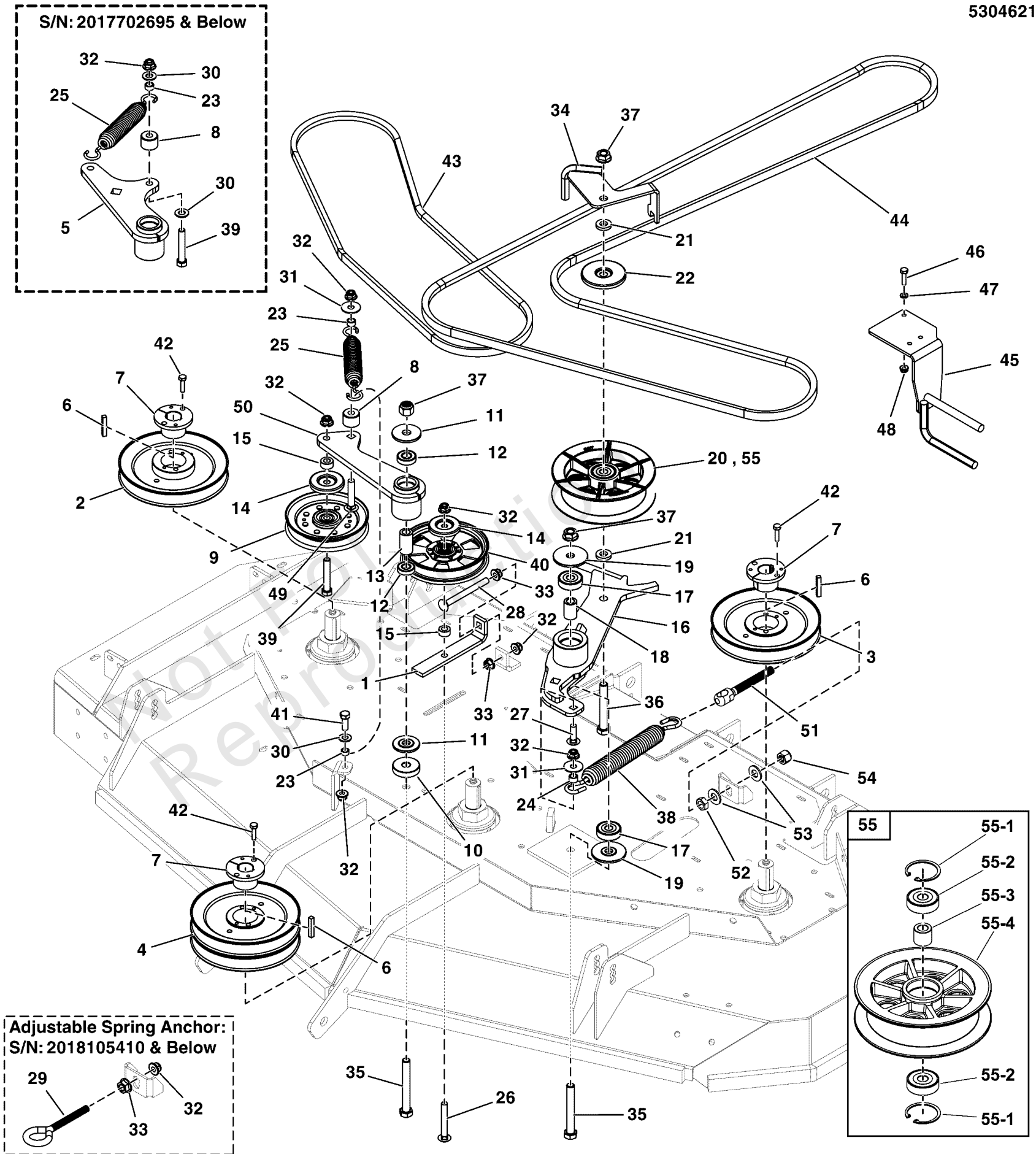
Note: * If replacing the deck shell with decals on units in serial number range 2017954956 - 2018105410, you must also order 5105844 - Qty: 1, 5025098 - Qty: 1, 5025089 - Qty: 1, 5025158 - Qty: 2.

72" Mower Deck Group - Pulleys, Belts, and Idler Arms (2 Belt System) S/N: 4002179791

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

5304621



72" Mower Deck Group - Pulleys, Belts, and Idler Arms (2 Belt System) S/N: 4002179791

REF NO	PART NO	QTY	DESCRIPTION
1	5415508A	1	PLATE, IDLER PUSHER, 72 - BLK
2	5105052	1	PULLEY, SPNDL, 8.37"OB, HQ BORE -RH
3	5105053	1	PULLEY, SPNDL, 8.37"OB, HQ BORE -LH
4	5105054	1	PULLEY, SPNDL, 8.37"OB-DBL, HQ BORE
5	-----	1	REPLACE W/ 5416161A & 5025146X16 -(S/N: 2017702695 & Below)(Refer to Note: *)
6	5022726	3	KEY 1/4 SQ X 1 1/2 LONG
7	5020819	3	BUSHING, Tapered Hub
8	5043815	1	SPACER, .39 X 1.00 X .75, CZ
9	5108772	1	PULLEY, V-IDLER, 5"OD X 3/8", CZ, TE
10	5105066	1	SPACER, .52 X 1.75 X .420, CZ
11	5103262	2	SPACER, IDLER ARM, 1/2, PM
12	7078243	2	BEARING, BALL, AXLE
13	5103812	1	SPACER, .52 X .84 X 1.53, PM
14	5105033	2	SHIELD, PULLEY, 3/8"ID X 2"OD, CZ
15	5100334	2	SPACER, .39 X 1.00 X .63, CZ
16	5415997A	1	WELD, IDLER ARM, 2B DECK DRIVES - BLK
17	5104383	2	BEARING, 6203-1/2", SEALED
18	5104456	1	SPACER, .51 X .84 X 1.22, PM, CZ
19	5104379	2	SPACER, IDLER ARM, 1/2 X 2.25
20	-----	1	NLA - IDLER PULLEY -(S/N: 4001876772 & Below)(Refer to Note: *)
21	5100520	2	SPACER, .52 X 1.00 X .22, PM, CZ
22	5105041	1	SHIELD, PULLEY, 1/2"ID X 2-7/8"OD, CZ
23	5041930	2	SPACER, .38 X .50 X .27, CZ
24	5105297	1	SPACER, .39 X .63 X .375M DOM CZ
25	5022847	1	SPRING-EXT, 1.04 ODX6.935LGX.148WR, BLK
26	5025146X20	1	BOLT, 3/8-16 X 2-1/2, CARRIAGE, GD5, CZ
27	5025146X12	1	BOLT, 3/8-16 X 1-1/2, CARRIAGE, GD5, CZ
28	5025146X36	1	BOLT, 3/8-16 X 4-1/2, CARRIAGE, GD5, CZ
29	5021812		EYE BOLT, 3/8-16 X 6, 3THRD, 1EYE, CZ -(S/N: 2018017374 & Below)
29	5023497	1	EYE BOLT, 3/8-16 X 5, 2.88THRD, 1EYE, CZ -(S/N: 2018017375 - 2018105410)
30	5025156	2	WASHER, 3/8 SAE -(Qty: 4 - S/N: 2017702695 & Below)
31	5025165	2	WASHER, 3/8" Fender
32	5025394	6	NUT, 3/8 - 16 HEX NYLOCK FLANGE -(Qty: 7 - S/N: 2018105410 & Below)
33	5025128	2	NUT, 3/8-16 Hex Large Serrated Flange -(Qty: 3 - S/N: 2018105410 & Below)
34	5415996A	1	WELD, UPPER ARM GUIDE - BLK
35	5025017X32	2	BOLT, 1/2-13 X 4" GD5 CZ
36	5025017X28	1	BOLT, 1/2-13 X 3-1/2, HEX HD, GD5, CZ (SV)
37	5025396	3	NUT, Hex Flange, Nylock, 1/2-13
38	5105068	1	SPRING, EXT1.22"ODX10.5"FLX.192"WIRE BLK
39	5025013X18	1	BOLT, 3/8-16 X 2-1/4" GD5 CZ -(Qty: 2 - S/N: 2017702695 & Below)
40	5105109	1	PULLEY, FLT IDLR, 6.0 X 1.0 X .38, CZ

Footnotes:

Note: *Replace with item #55.

Note: *When replacing this pulley, order the higher serial number pulley.

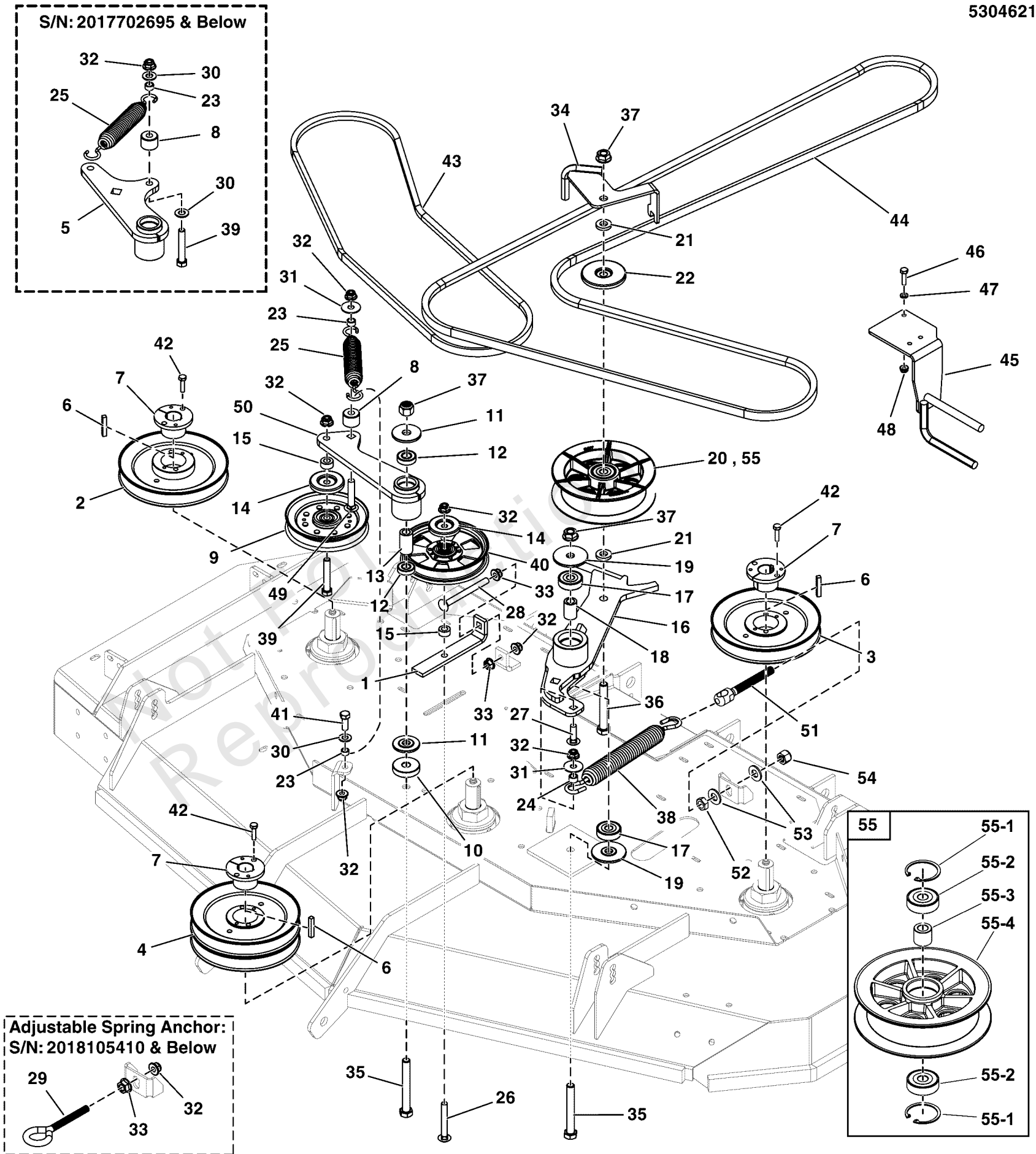
Note: *After updating set coil-to-coil spring length to 6-3/8" ± 1/8"

72" Mower Deck Group - Pulleys, Belts, and Idler Arms (2 Belt System) S/N: 4002179791

Note: Unless noted otherwise, use the standard torque specifications

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72" Mower Deck Group - Pulleys, Belts, and Idler Arms (2 Belt System) S/N: 4002179791

REF NO	PART NO	QTY	DESCRIPTION
41	5025013X8	1	BOLT, 3/8-16 X 1" GD5 CZ
42	5025010X8	6	BOLT, 1/4-20 X 1" GD5 CZ
43	5105036	1	BELT, B-SEC, 76.40 EL, ARAMID, WRPD
44	5105035	1	BELT, 5V/SPB, 156.70 EL, LG ARAMID, WRPD
45	5416020A	1	WELD, CLUTCH BELT GUIDE - BLK
46	5025010X8	2	BOLT, 1/4-20 X 1" GD5 CZ
47	5025154	2	WASHER, 1/4 SAE
48	5025391	2	NUT, 1/4-20 Hex Nylock Flange
49	5025146X16	1	BOLT, 3/8-16 X 2, CARRIAGE, GD5, CZ -(S/N: 2017702696 & Above)
50	5416161A	1	WELD, IDLER ARM, 2 BELT DRIVE - BLK -(S/N: 2017702696 & Above)
51	5105844	1	SPRING PULLER, 1/2-20, 5.00 -(S/N: 2018105411 & Above)
52	5025089	1	NUT, 1/2-20 Hex Jam -(S/N: 2018105411 & Above)
53	5025158	2	WASHER, 1/2 SAE -(S/N: 2018105411 & Above)
54	5025098	1	NUT, Hex, Nylon Lock, 1/2-20 -(S/N: 2018105411 & Above)
55	5109029	1	PULLEY, IDLER, 5.50, CI -(S/N: 4001876773 & Above)(Includes items # 55-1 to 55-4).
55-1	5020865	2	SNAP RING, Internal -(S/N: 4001876773 & Above)
55-2	5109021	2	BEARING, 6203-3RC3-1/2SR12-Q -(S/N: 4001876773 & Above)
55-3	5105011	1	SPACER, .505 X .875 X .805, CZ -(S/N: 4001876773 & Above)
55-4	----	1	PULLEY HOUSING -(S/N: 4001876773 & Above)(Refer to Note: *)

Footnotes:

Note: *Replace with item #55.

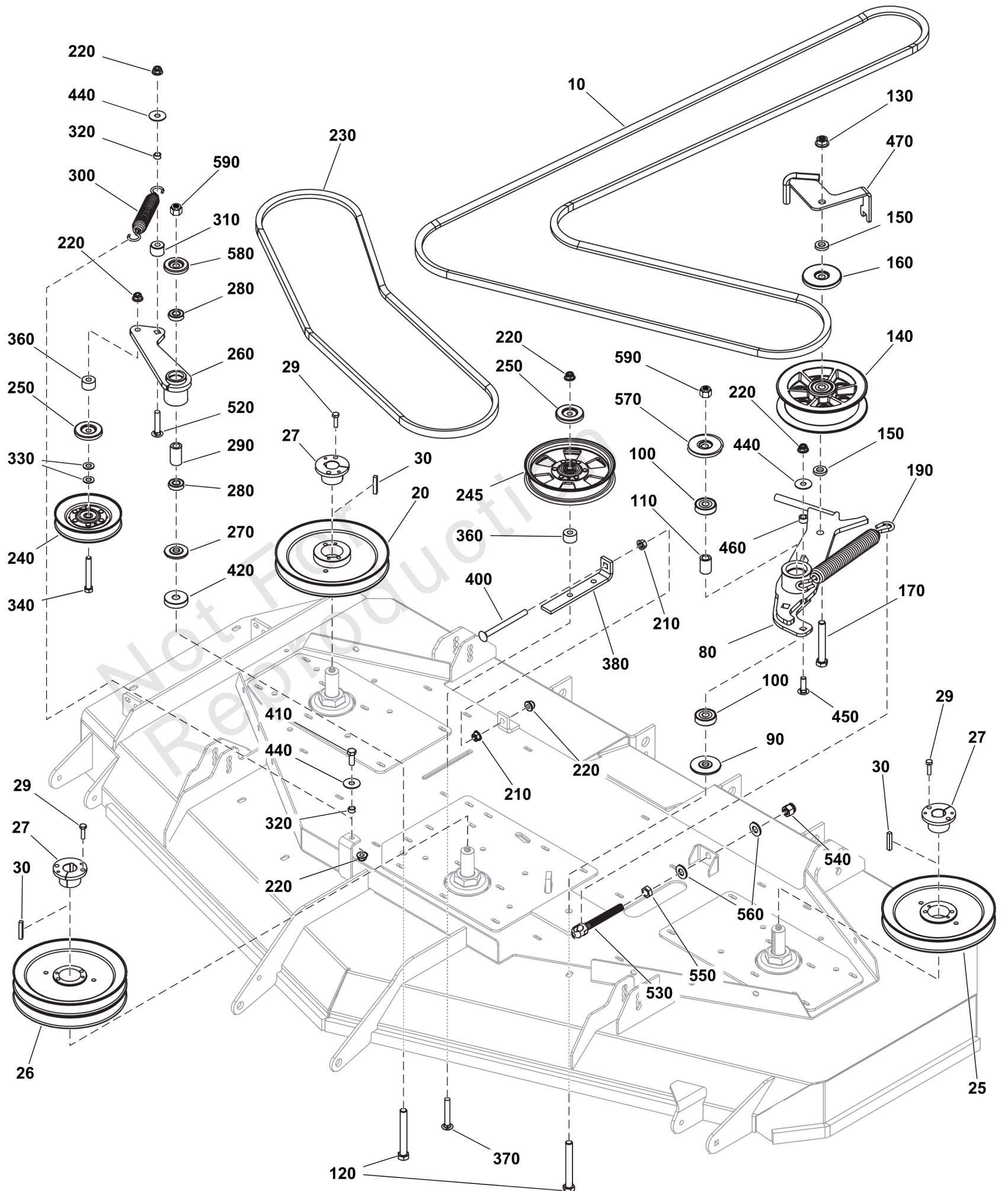
Note: *When replacing this pulley, order the higher serial number pulley.

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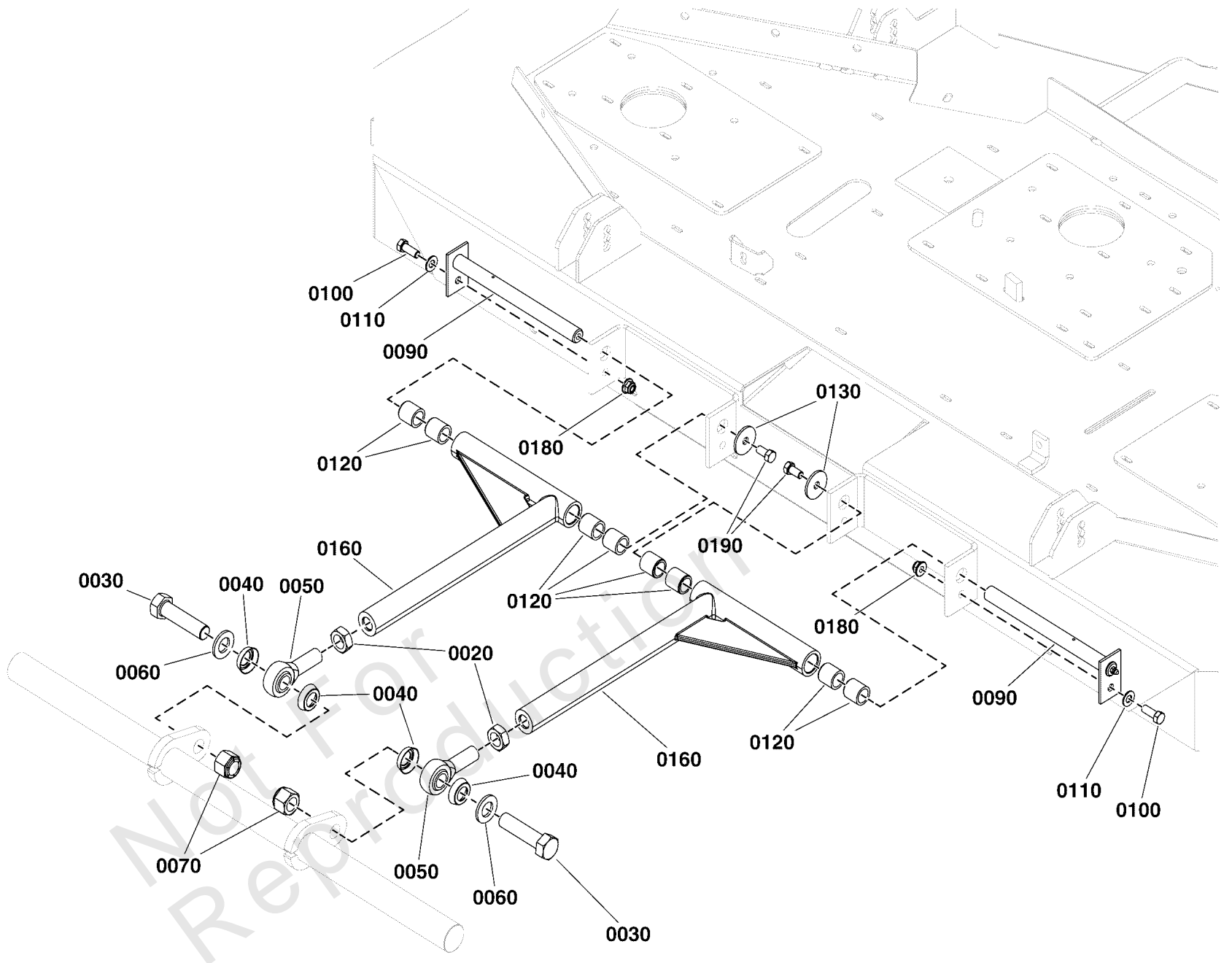
72" Mower Deck Group - Pulleys, Belts, and Idler Arms (2 Belt System) S/N: 4002179792

REF NO	PART NO	QTY	DESCRIPTION
10	5105035	1	BELT, 5V/SPB, 156.70 EL, LG ARAMID, WRPD
20	5105052	1	PULLEY, SPNDL, 8.37"OB, HQ BORE -RH
25	5105053	1	PULLEY, SPNDL, 8.37"OB, HQ BORE -LH
26	5105054	1	PULLEY, SPNDL, 8.37"OB-DBL, HQ BORE
27	5020819	3	BUSHING, Tapered Hub
29	5025010X8	6	BOLT, 1/4-20 X 1" GD5 CZ
30	5022726	3	KEY 1/4 SQ X 1 1/2 LONG
80	5415997AA	1	WELD, IDLER ARM, 2B DECK DRIVES - BLK
90	5104379	1	SPACER, IDLER ARM, 1/2 X 2.25
100	5104383	2	BEARING, 6203-1/2", SEALED
110	5104456	1	SPACER, .51 X .84 X 1.22, PM, CZ
120	5025017X32	2	BOLT, 1/2-13 X 4" GD5 CZ
130	5025396	1	NUT, Hex Flange, Nylock, 1/2-13
140	5109029	1	PULLEY, IDLER, 5.50, CI
150	5100520	2	SPACER, .52 X 1.00 X .22, PM, CZ
160	5105041	1	SHIELD, PULLEY, 1/2"ID X 2-7/8"OD, CZ
170	5025017X28	1	BOLT, 1/2-13 X 3-1/2, HEX HD, GD5, CZ (SV)
190	5105068	1	SPRING, EXT1.22"ODX10.5"FLX.192"WIRE BLK
210	5025128	2	NUT, 3/8-16 Hex Large Serrated Flange
220	5025394	6	NUT, 3/8 - 16 HEX NYLOCK FLANGE
230	5105036	1	BELT, B-SEC, 76.40 EL, ARAMID, WRPD
240	5108772	1	PULLEY, V-IDLER, 5"OD X 3/8", CZ, TE
245	5105109	1	PULLEY, FLT IDLR, 6.0 X 1.0 X .38, CZ
250	5105033	2	SHIELD, PULLEY, 3/8"ID X 2"OD, CZ
260	5416161AA	1	NLA - WELD, IDLER ARM, 2 BELT DRIVE -BLK
270	5103262	1	SPACER, IDLER ARM, 1/2, PM
280	7078243	2	BEARING, BALL, AXLE
290	5103812	1	SPACER, .52 X .84 X 1.53, PM
300	5022847	1	SPRING-EXT, 1.04 ODX6.935LGX.148WR, BLK
310	5043815	1	SPACER, .39 X 1.00 X .75, CZ
320	5041930	2	SPACER, .38 X .50 X .27, CZ
330	5025156	2	WASHER, 3/8 SAE
340	5025013X22	1	BOLT, 3/8-16 X 2-3/4" GD5 CZ
360	5100334	2	SPACER, .39 X 1.00 X .63, CZ
370	5025146X20	1	BOLT, 3/8-16 X 2-1/2, CARRIAGE, GD5, CZ
380	5415508AA	1	PLATE, IDLER PUSHER, 72 - BLK
400	5025146X36	1	BOLT, 3/8-16 X 4-1/2, CARRIAGE, GD5, CZ
410	5025013X8	1	BOLT, 3/8-16 X 1" GD5 CZ
420	5105066	1	SPACER, .52 X 1.75 X .420, CZ
440	5025165	3	WASHER, 3/8" Fender
450	80003604	1	BOLT,3/8-16X1-1/4,GR5,CARRIAGE,ZC/CL
460	5105297	1	SPACER, .39 X .63 X .375M DOM CZ
470	5415996AA	1	WELD, UPPER ARM GUIDE - BLK
520	5025146X16	1	BOLT, 3/8-16 X 2, CARRIAGE, GD5, CZ
530	5105844	1	SPRING PULLER, 1/2-20, 5.00
540	5025098	1	NUT, Hex, Nylon Lock, 1/2-20
550	5025089	1	NUT, 1/2-20 Hex Jam
560	5025158	2	WASHER, 1/2 SAE
570	5110119	1	SHIELD, BEARING, 1/2" ID-2.5"
580	5110147	1	SHIELD, BEARING, 1/2" ID-1.75"
590	5025056	2	NUT, 1/2-13 HEX NYLON LOCK

72" Mower Deck Group - Pusher Bars

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



72" Mower Deck Group - Pusher Bars

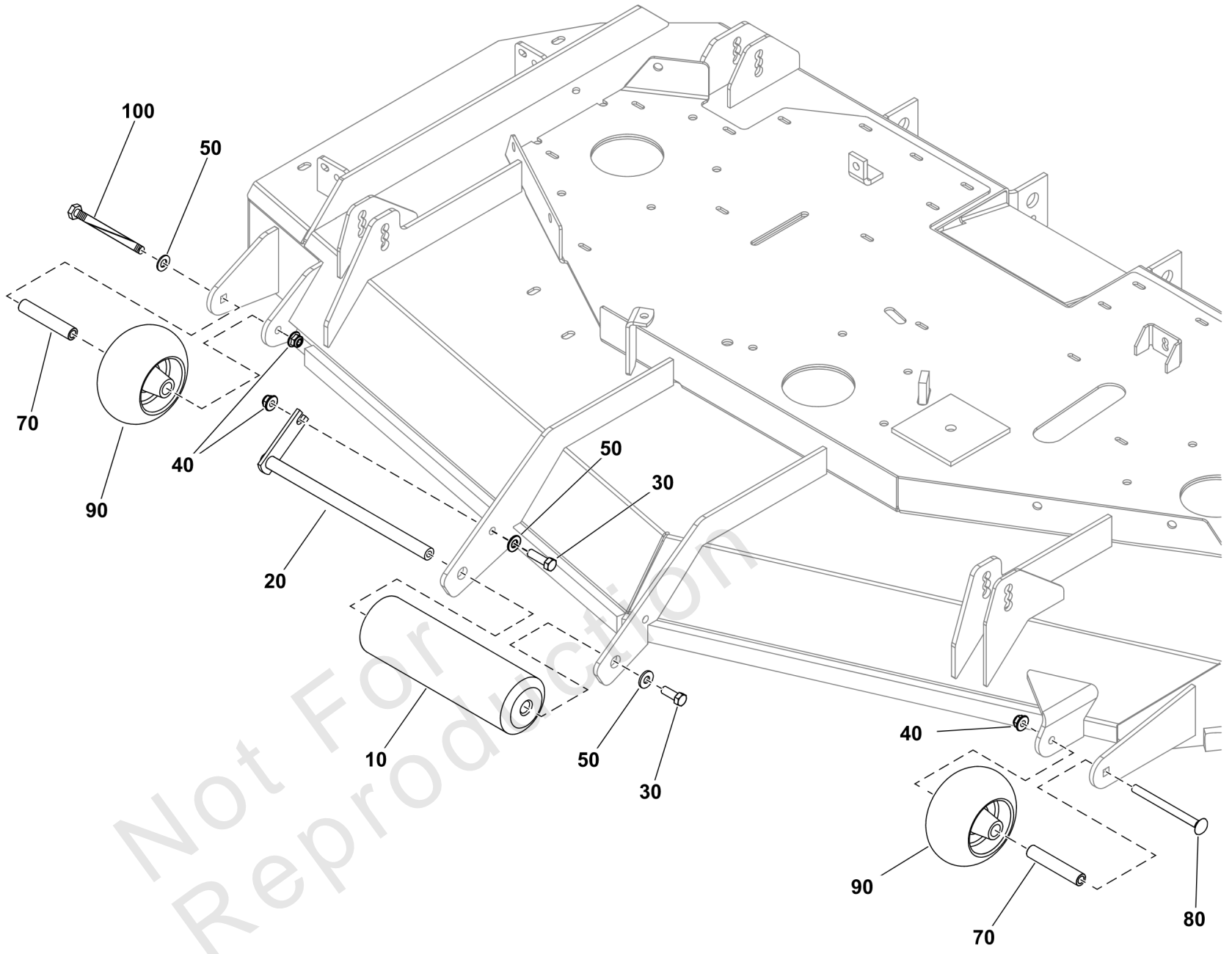
REF NO	PART NO	QTY	DESCRIPTION
0020	5025093	2	NUT, Hex, Jam, 3/4-16
0030	5025265X24	2	BOLT, 3/4-16 X 3" YZ GD5
0040	5022111	4	SEAL, 3/4" ROD END
0050	5022039	2	BALL JOINT, 3/4-16, MALE
0060	5025160	4	WASHER, 3/4 SAE
0070	5025284	2	NUT, Hex, Nylon Lock, 3/4-16
0090	5415240	2	WELD, DECK MOUNT SHAFT
0100	5025013X8	2	BOLT, 3/8-16 X 1" GD5 CZ
0110	5025156	2	WASHER, 3/8 SAE
0120	5023344	8	BUSHING, .75 X 1.00 X 1.00, PLASTIC
0130	5100548	2	WASHER, .390 X 1.50 X .109, YZ
0160	5108820	2	PUSHER BAR - CAST
0180	5025394	2	NUT, 3/8 - 16 HEX NYLOCK FLANGE
0190	5025443	2	BOLT, 3/8-16 X 3/4, PLT W/PATCH

Not For Reproduction

72" Mower Deck Group - Rollers

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Mfg. No: 5902032



72" Mower Deck Group - Rollers

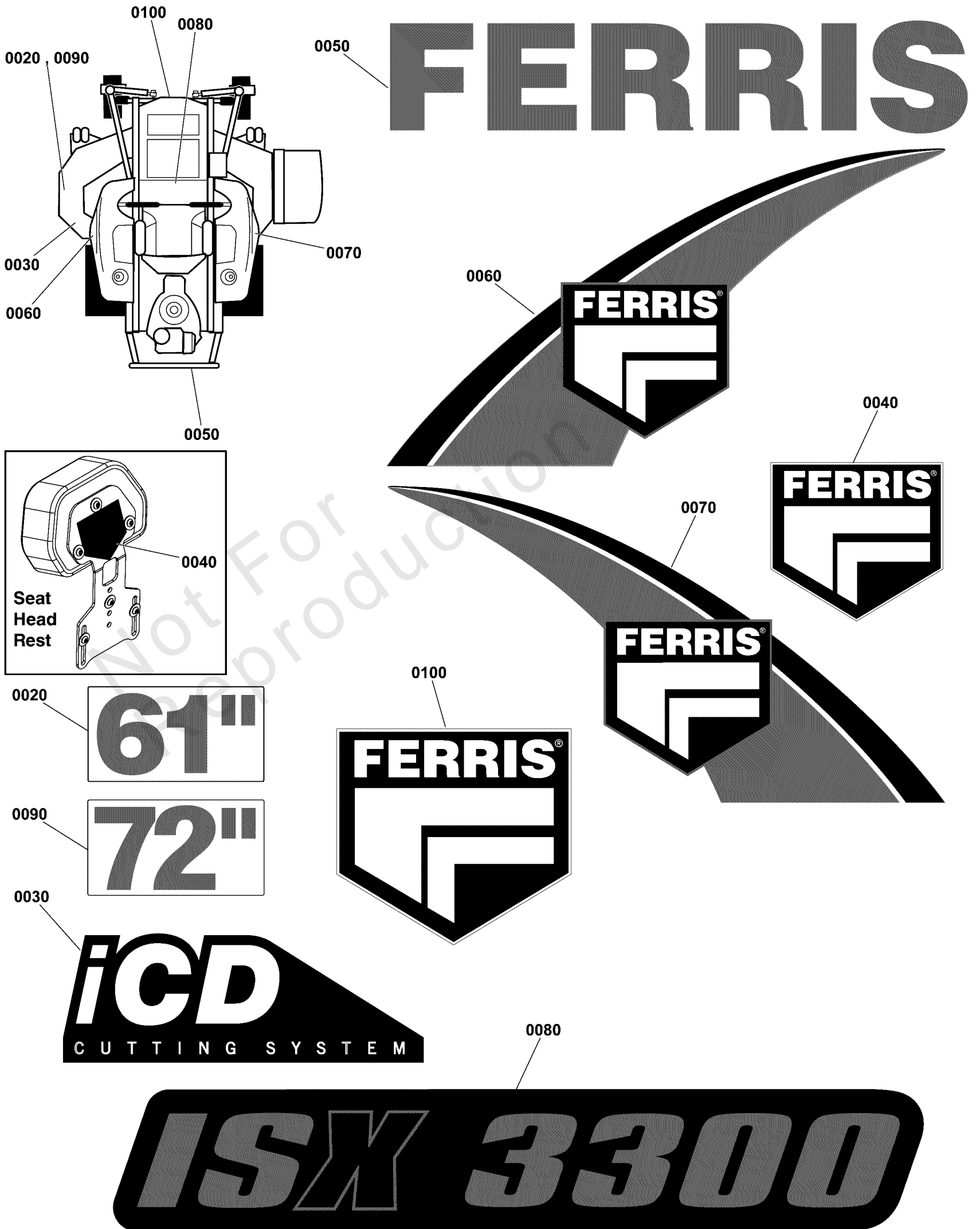
REF NO	PART NO	QTY	DESCRIPTION
10	5020785SM	1	ROLLER, DECK
20	5041655AYP	1	WELD, BRACKET, ROLLER
30	5025013X8SM	2	BOLT, 3/8-16 X 1" GD5
40	5025394SM	3	NUT, 3/8-16 HEX NYLOCK
50	5025156FS	3	WASHER
70	5105554YP	2	SPACER
80	5025146X36YP	1	BOLT
90	5105521FS	2	WHEEL
100	5025013X36YP	1	BOLT, 3/8-16 X 4-1/2

Not For Reproduction

Decal Group - Brand and Model

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



Decal Group - Brand and Model

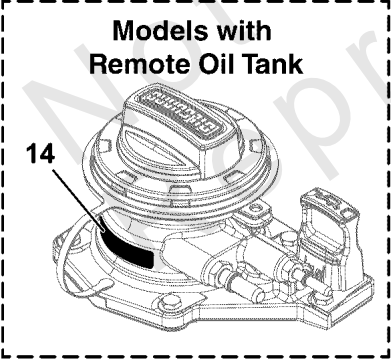
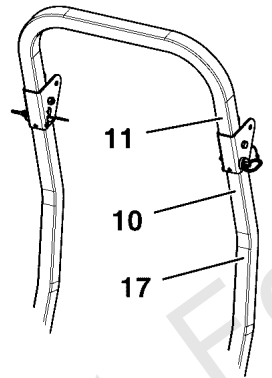
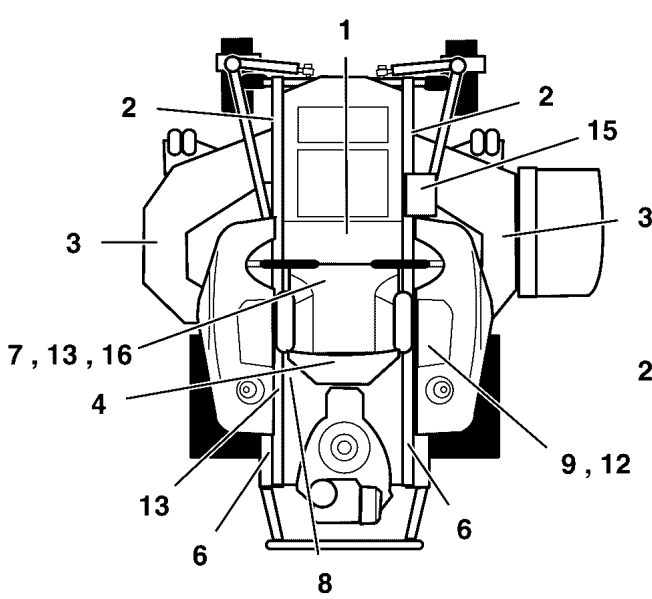
REF NO	PART NO	QTY	DESCRIPTION
0020	5022813	1	DECAL, 61" -(Models with 61" Mower Decks)
0030	5102210	1	DECAL, iCD CUTTING SYSTEM
0040	5104756FS	1	DECAL, BRAND
0050	5103799	1	DECAL, FERRIS, 2.23" X 11.39"
0060	5108857	1	DECAL, TANK, LH, FERRIS
0070	5108858	1	DECAL, TANK, RH, FERRIS
0080	5108272	1	DECAL, ISX3300
0090	5022814	1	DECAL, 72" -(Models with 72" Mower Decks)
0100	5104724	1	DECAL, FERRIS LOGO, MEDIUM

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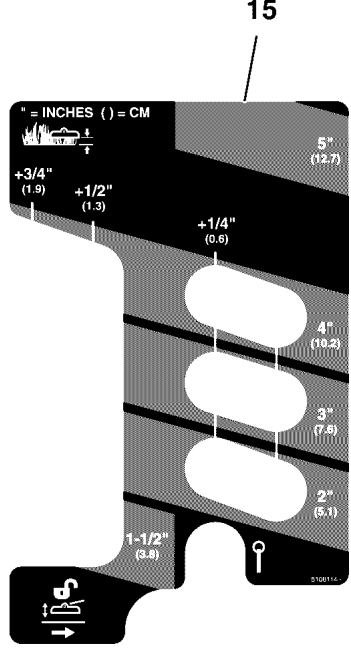
Decal Group - Safety & Operation (North America Models)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



14
FACTORY-FILLED WITH
15W-50 Full-Synthetic
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.

DANGER
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. Lock down, behind and to the side before changing directions.

Fire hazard
Gasoline is flammable. Yard debris is combustible. Allow engine to cool for at least 3 minutes before refueling. Keep until cleaned of yard 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.

Operating on slopes can be hazardous and cause loss of control and roll-overs. Do not operate on slope over 15 degrees. Avoid sudden turns or rapid speed changes. Reduce speed and use extreme caution on slopes. Avoid turning down slopes, if possible turn up slopes. If machine stops forward motion on a slope, stop the blades and drive slowly off the slope.

Wheels cropping over edges may result in serious injury, death or drowning. Do NOT operate down slopes towards or next to water, retaining walls or drop-offs. Give yourself a minimum of two mower widths of clearance around these hazards.

Wet or soft slopes can cause sliding and loss of control. Do NOT operate on slopes when grass is wet. Do NOT operate on slopes when soil is soft (such as after heavy rains).

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

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	5104378
61" Mower	
Deck Drive Belt - Long LH	5104982
Deck Drive Belt - Short RH	5104780
Mower Blade	5101755S
72" Mower	
Deck Drive Belt - Long LH	5105035
Deck Drive Belt - Short RH	5105036
Mower Blade	5102227S

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.

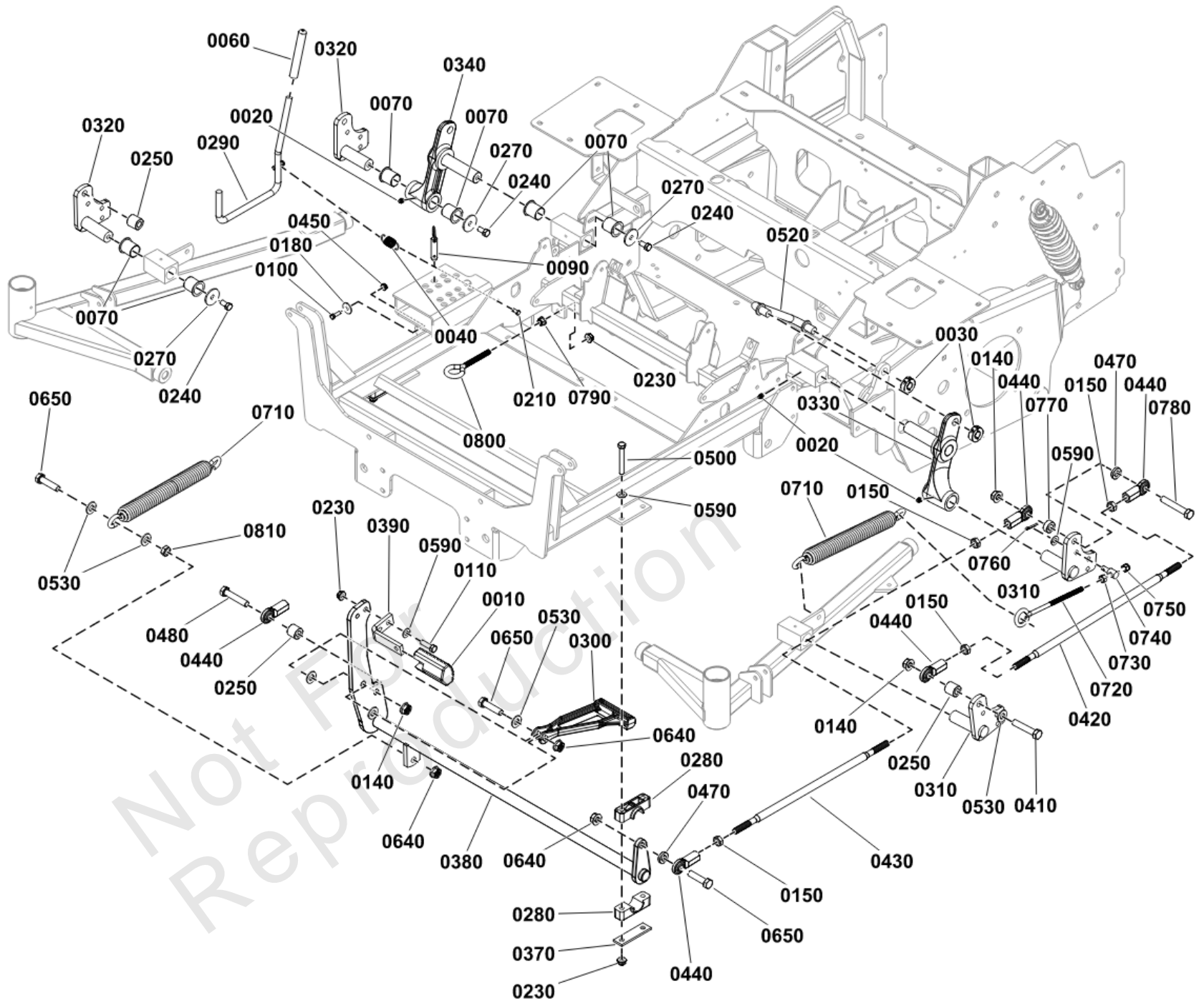
Decal Group - Safety & Operation (North America Models)

REF NO	PART NO	QTY	DESCRIPTION
1	84008252	1	DECAL, MAIN SAFETY
2	5061245	2	DECAL, PINCH POINT
3	7101665	2	DECAL, DANGER DO NOT OPERATE W/O DEFLECT
4	5103184	1	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
11	5100405	1	DECAL, WARNING OVERHANG, ROPS (SV)
12	5048970	1	DECAL, IGNITION SWITCH
13	5100957	1	DECAL, HYDRAULIC OIL, 20W50 -(Located on cross rail by hydraulic tanks)
14	-----	1	LABEL, OIL INFORMATION -(Models w/ Remote Oil Tank Only)
15	5108114	1	DECAL, CUTTING HEIGHT
16	5105192	1	DECAL, BELT & BLADE IS3200Z 2BELT
17	5104083	1	DECAL, CAUTION, FOLDING ROPS

Deck Lift Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



Deck Lift Group

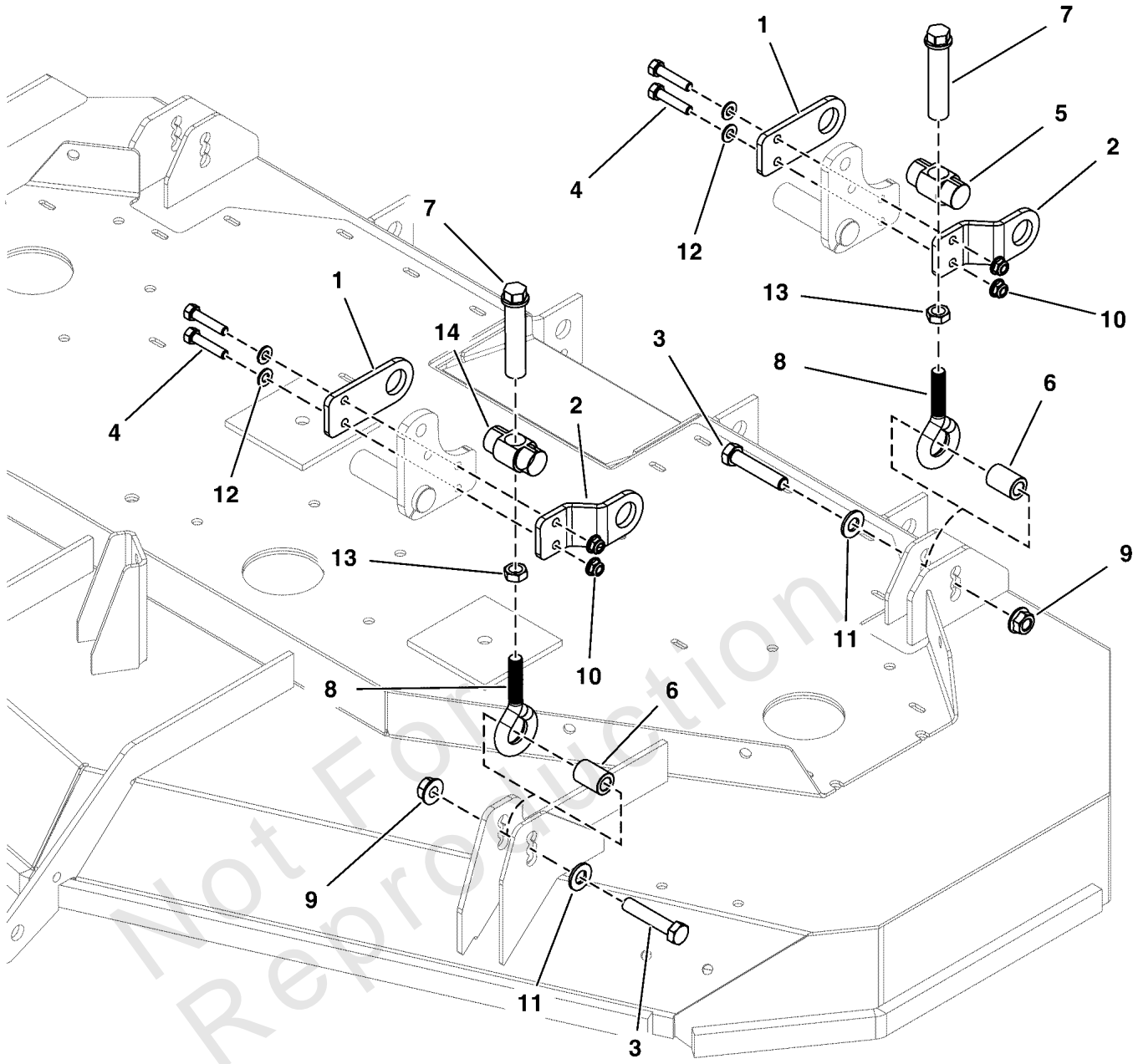
REF NO	PART NO	QTY	DESCRIPTION
0010	5104262YP	1	PEDAL, RUBBER
0020	5020095SM	8	GREASE FITTING, 1/4-2
0030	5020441SM	4	COLLAR, 5/8" SPLIT
0040	5010213YP	1	SPRING-EXT, .740 ODX2
0060	5021880SM	1	GRIP, FOAM
0070	5023343SM	12	BUSHING, 1.00 X 1.13
0090	5023498SM	1	PIN, HITCH, 1/2 X 2.0
0100	703338	2	BOLT, 1/4-20X5/8
0110	5025013X10SM	2	BOLT, 3/8-16 X 1-1/4"
0140	5025056FS	4	NUT
0150	5025089SM	8	NUT, 1/2-20 HEX JAM
0180	5025288YP	2	WASHER, 1/4 FENDER
0210	5025212X4SM	1	PIN, CLEVIS, 1/4 X 1/
0230	5025394SM	7	NUT, 3/8-16 HEX NYLOCK
0240	5025443SM	6	BOLT - 3/8-16 X 3/4
0250	5045178SM	3	SPACER, .52 X 1.00 X
0270	5100548SM	6	WASHER - .39X1.50
0280	5100634SM	4	PIVOT BLOCK, PLASTIC
0290	5410317AAFS	1	ROD, Lift
0300	5104133YP	1	ARM-LINK
0310	84003295	2	LEVER, LIFT
0320	84003296	2	LEVER, LIFT
0330	5105172YP	1	ARM, LINK
0340	5105173YP	1	ARM, LINK
0370	5403925AAFS	2	PIVOT
0380	84003307	1	SHAFT ASSEMBLY
0390	5061569AYP	1	PEDAL, FOOT
0410	5025017X22SM	1	BOLT, 1/2-13 X 2-3/4"
0420	84003298	2	ROD, LIFT
0430	84003299	2	ROD, LIFT
0440	1702779SM	8	JOINT-BALL .500-20 TH
0450	5025391FS	2	NUT
0470	5100520SM	3	SPACER .515X1.00X.218
0480	5025017X20SM	1	BOLT, 1/2-13 X 2-1/2
0500	5025013X22SM	4	BOLT, 3/8-16 X 2-3/4"
0520	5103703YP	2	ROD, SUSPENSION LINK
0530	5025158SM	7	WASHER, 1/2" SAE
0590	5025156FS	8	WASHER
0640	770225	4	NUT
0650	5025017X16YP	3	BOLT, 1/2-13 X 2 GD5
0710	5023392YP	3	SPRING
0720	5021811SM	2	EYE BOLT, 3/8-16 X 8"
0730	5025034SM	2	NUT, 3/8-16 HEX
0740	5100380SM	2	ADJUSTER - DECK
0750	5025096SM	2	NUT, 3/8-16 HEX NYLON
0760	5025203X6SM	2	PIN - COTTER
0770	5045023SM	2	SPACER, .52 X 1.00 X
0780	5025017X24SM	2	BOLT, 1/2-13 X 3" GD5
0790	5025128SM	1	NUT, 3/8-16 HEX SERRA
0800	5023497SM	1	EYE BOLT, 3/8-16 X 5"
0810	5025301SM	1	NUT, 1/2-13 HEX JAM

Deck Lift Group - Deck Hangers

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

5303886C
5303958C



Deck Lift Group - Deck Hangers

REF NO	PART NO	QTY	DESCRIPTION
1	84003300	4	MOUNT
2	84003301	4	MOUNT
3	5025017X20SM	4	BOLT, 1/2-13 X 2-1/2
4	5025013X12SM	8	BOLT, 3/8-16 X 1-1/2"
5	84003302	2	TRUNNION
6	84003303	4	SPACER
7	5109915FS	4	ADJUSTER, HEIGHT
8	84003305	4	EYE BOLT
9	770225	4	NUT
10	5025394SM	8	NUT, 3/8-16 HEX NYLOCK
11	5025158SM	4	WASHER, 1/2" SAE
12	5025156FS	8	WASHER
13	5025089SM	4	NUT, 1/2-20 HEX JAM
14	84003306	2	TRUNNION

Not For Reproduction

Electrical Group - Kawasaki FT730V EFI - S/N: 4002328396 and Below

REF NO	PART NO	QTY	DESCRIPTION
0020	5021029	13	TIE, SELF-LOCKING, 12"
0030	-----	1	BATTERY, 11U1L, 350 CCA
0040	1722009	1	STRAP, BATTERY, 14 LONG, Rubber
0060	5025010X6	2	BOLT, 1/4"-20 X 3/4" GD5 YZ
0070	5025154	2	WASHER, 1/4 SAE
0080	5025126	4	NUT, 1/4-20 HEX SERR. FLANGE
0110	5021406	1	BATTERY CABLE, NEG, 22, 1/4-5/16
0120	5021405	1	BATTERY CABLE, POS, 22, 1/4-5/16
0130	5021500	3	CLAMP, VINYL INSULATED, 1.00
0140	5025299X8	2	SCREW, 1/4-20 X 1, ALLEN BH, CZ
0160	5025391	2	NUT, 1/4-20 Hex Nylock Flange
0190	5105535	1	HARNESS, Wiring, Large ZTR
0190-10	5101935	1	FUSE, ATO-15 (15 AMP)(SV) -(SV)
0190-20	5102710	1	FUSE, ATO, 25 AMP -(SV)
0210	5102677	1	GROMMET, 1-1/2" ID FOR 1/4" METAL
0220	5105601	1	HARNESS, JUMPER, KAWASKI EFI
0230	5103761	1	FIR TREE MOUNT, PACKARD
0240	5104705	2	ROSEBUD LOOM CLIP
0250	5025179X4	1	SCREW, #10-24 X 1/2" ROUND PHILLIPS
0260	5025271	1	NUT, Hex, Nylon Lock, #10-24
0270	5102075	1	MODULE, THROTTLE CONTROL, KAV DFI
1000	-----	1	Refer to: Seat Mount & Floor Group
1001	-----	1	Refer to: Parking Brake Group
1002	-----	1	Refer to: Instrument Control Panel Group
1003	-----	1	Connects to Engine

Electrical Schematic - Charging Circuit - Kawasaki FT730V, FX850V, and FX1000V - S/N:

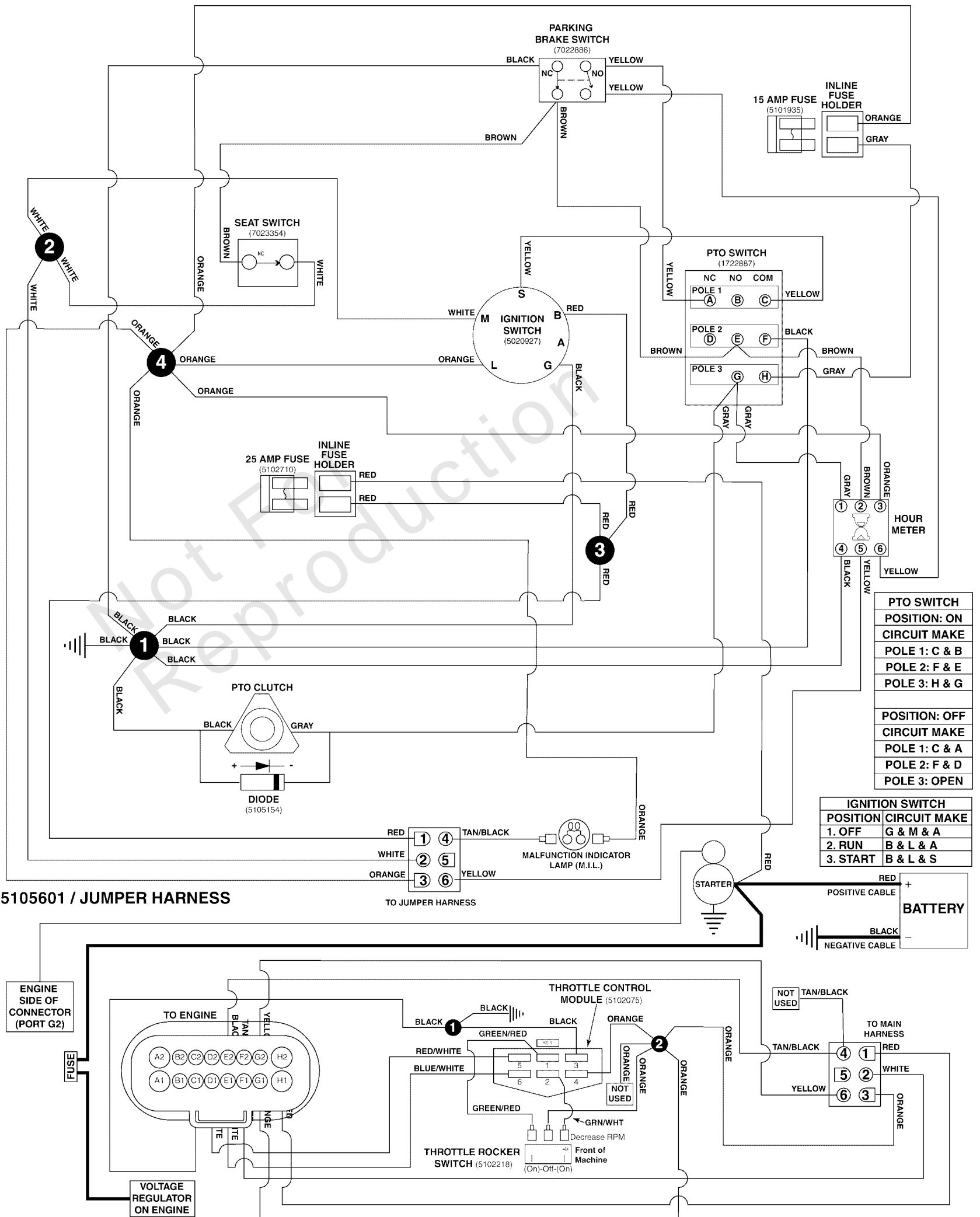
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

5105535 MAIN WIRE HARNESS - KAWASAKI FT730V, FX850V, AND FX1000V EFI ENGINES

5105535C

(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 - Kawasaki FT730V, FX850V, and FX1000V - S/N:

REF NO	PART NO	QTY	DESCRIPTION
5105535	5105535	1	HARNESS, Wiring, Large ZTR
5105601	5105601	1	HARNESS, JUMPER, KAWASKI EFI

Not For Reproduction

Electrical Schematic - Cranking Circuit - Kawasaki FT730V, FX850V, and FX1000V - S/N:

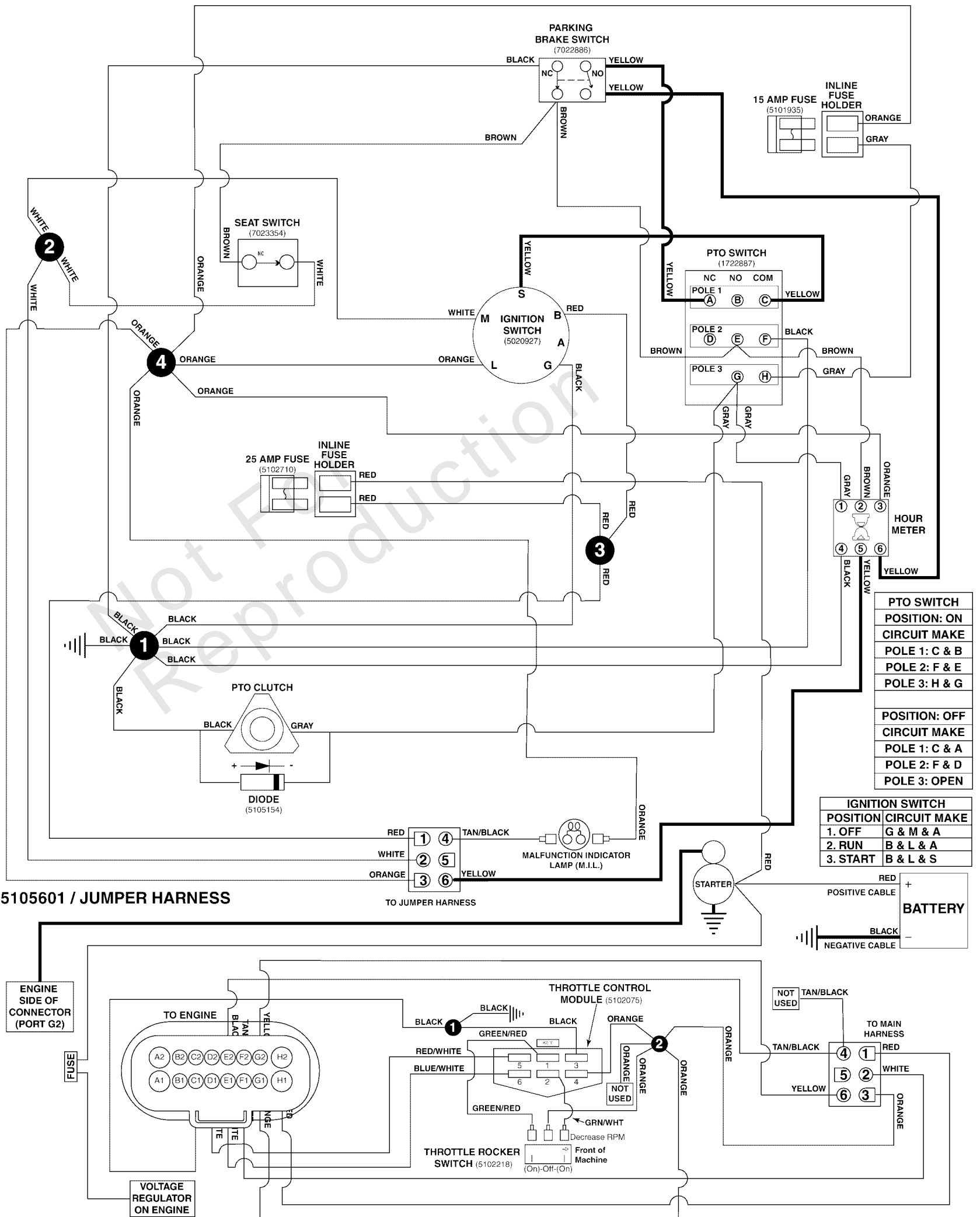
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

5105535 MAIN WIRE HARNESS - KAWASAKI FT730V, FX850V, AND FX1000V EFI ENGINES

5105535C

(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 - Kawasaki FT730V, FX850V, and FX1000V - S/N:

REF NO	PART NO	QTY	DESCRIPTION
5105535	5105535	1	HARNESS, Wiring, Large ZTR
5105601	5105601	1	HARNESS, JUMPER, KAWASKI EFI

Not For Reproduction

Electrical Schematic - Ign. Ground Circuit/Op Pres - Kawasaki FT730V, FX850V, and

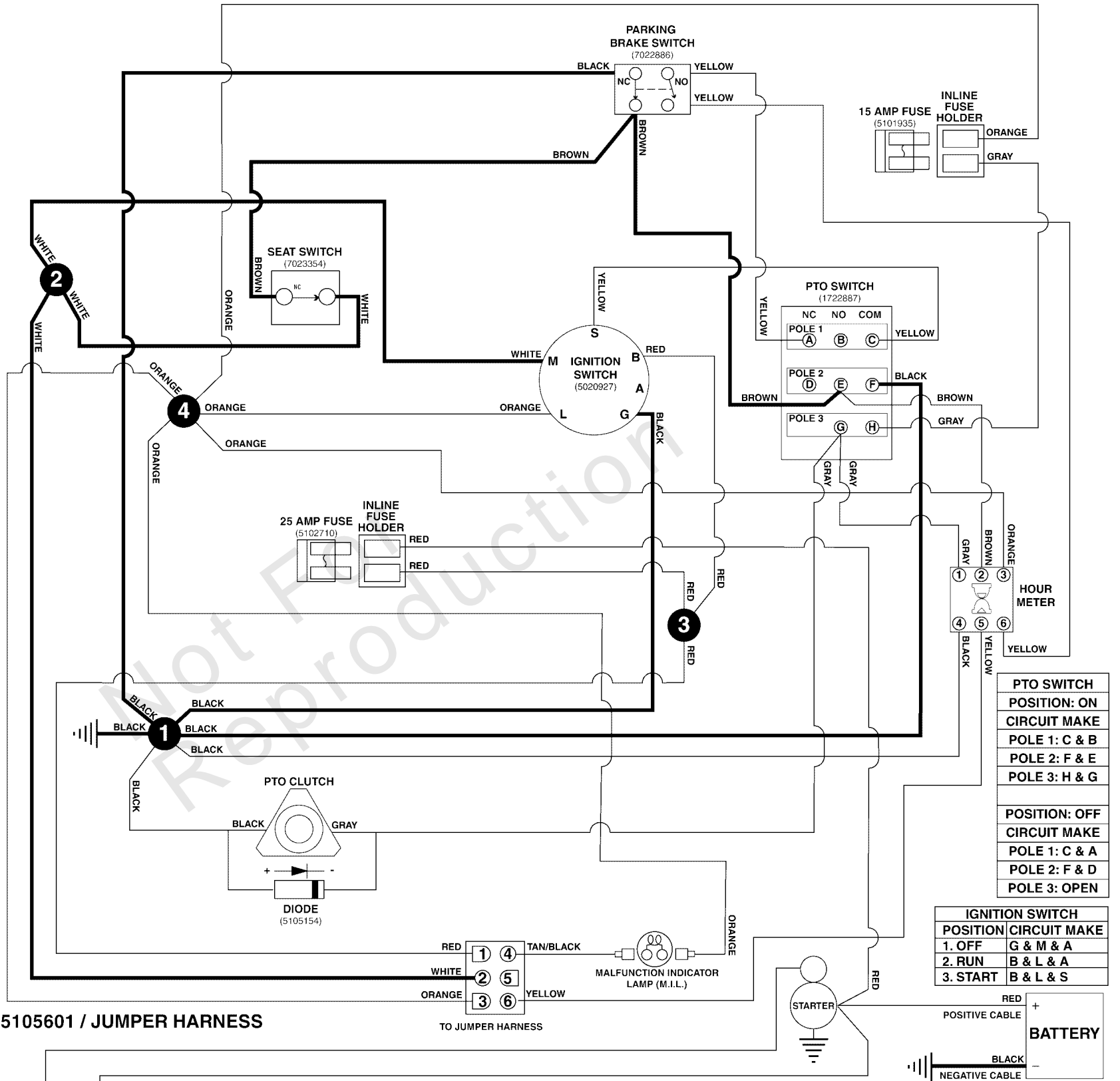
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

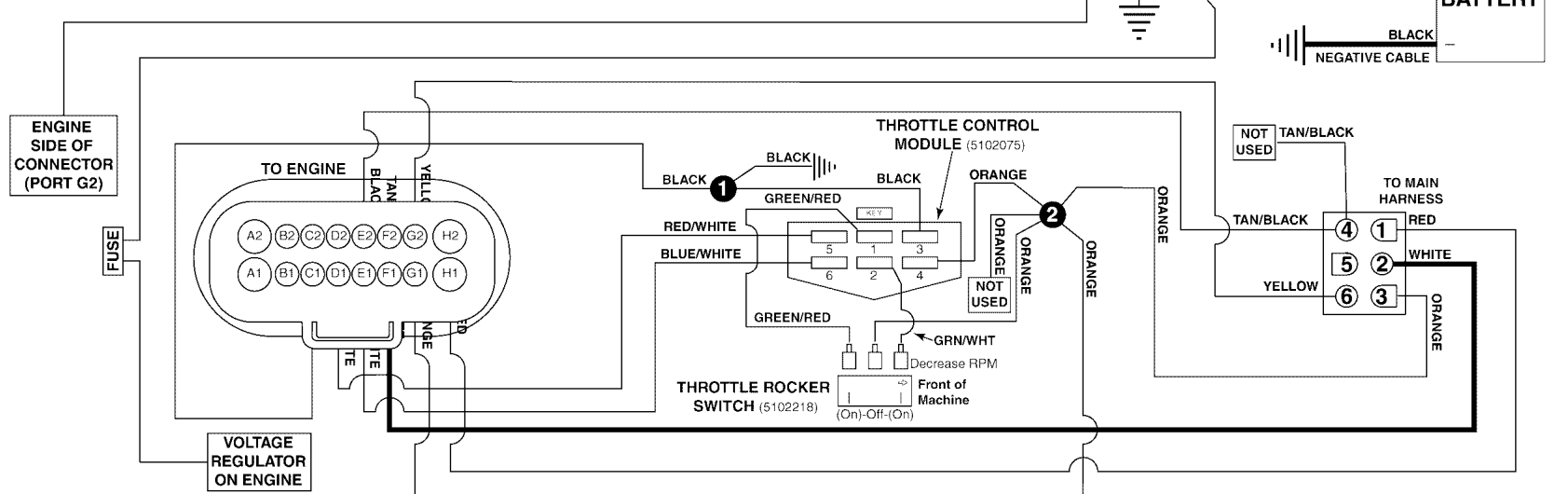
5105535 MAIN WIRE HARNESS - KAWASAKI FT730V, FX850V, AND FX1000V EFI ENGINES

5105535C

(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.)



5105601 / JUMPER HARNESS



Electrical Schematic - Ign. Ground Circuit/Op Pres - Kawasaki FT730V, FX850V, and

REF NO	PART NO	QTY	DESCRIPTION
5105535	5105535	1	HARNESS, Wiring, Large ZTR
5105601	5105601	1	HARNESS, JUMPER, KAWASKI EFI

Not For Reproduction

Electrical Schematic - PTO Clutch Circuit - Kawasaki FT730V, FX850V, and FX1000V - S/

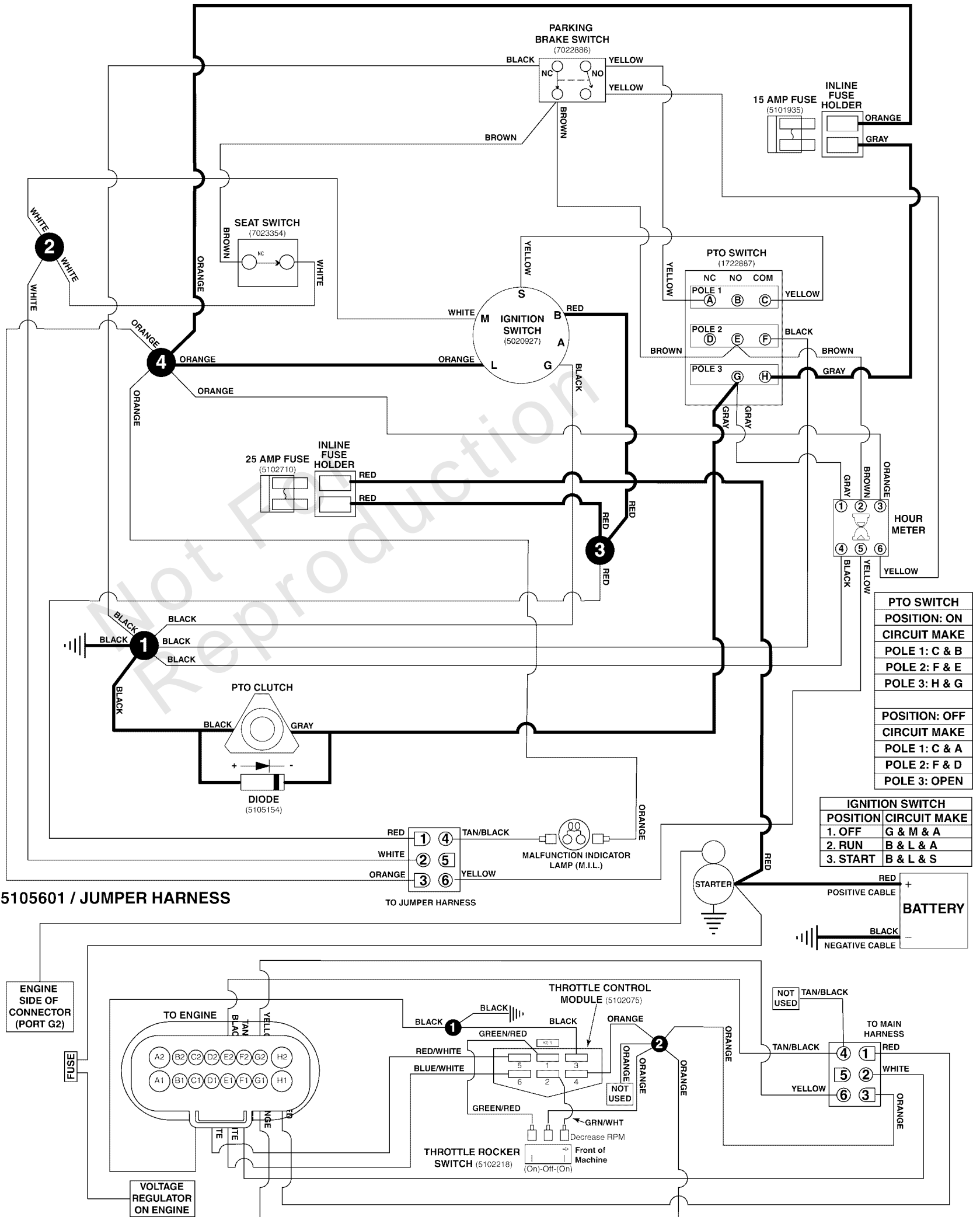
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

5105535 MAIN WIRE HARNESS - KAWASAKI FT730V, FX850V, AND FX1000V EFI ENGINES

5105535C

(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 - Kawasaki FT730V, FX850V, and FX1000V - S/

REF NO	PART NO	QTY	DESCRIPTION
5105535	5105535	1	HARNESS, Wiring, Large ZTR
5105601	5105601	1	HARNESS, JUMPER, KAWASKI EFI

Not For Reproduction

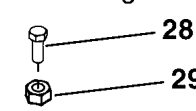
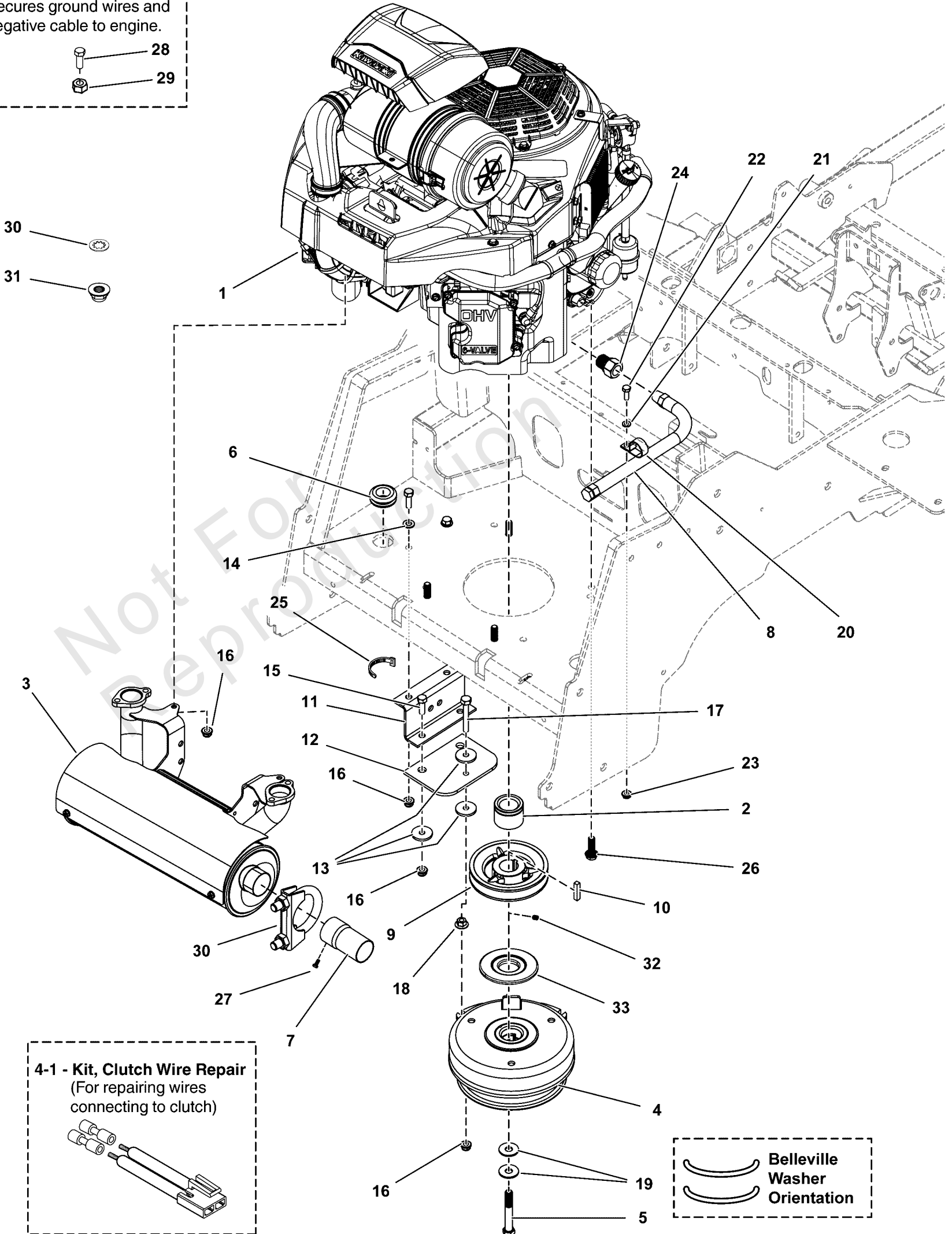
Engine & PTO Group - Kawasaki FX1000

Note: Unless noted otherwise, use the standard torque specifications

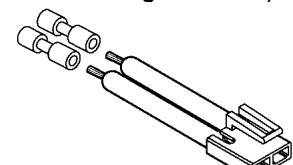
Mfg. No: 5902032

5304348

Secures ground wires and negative cable to engine.

4-1 - Kit, Clutch Wire Repair
(For repairing wires connecting to clutch)



Belleville Washer Orientation



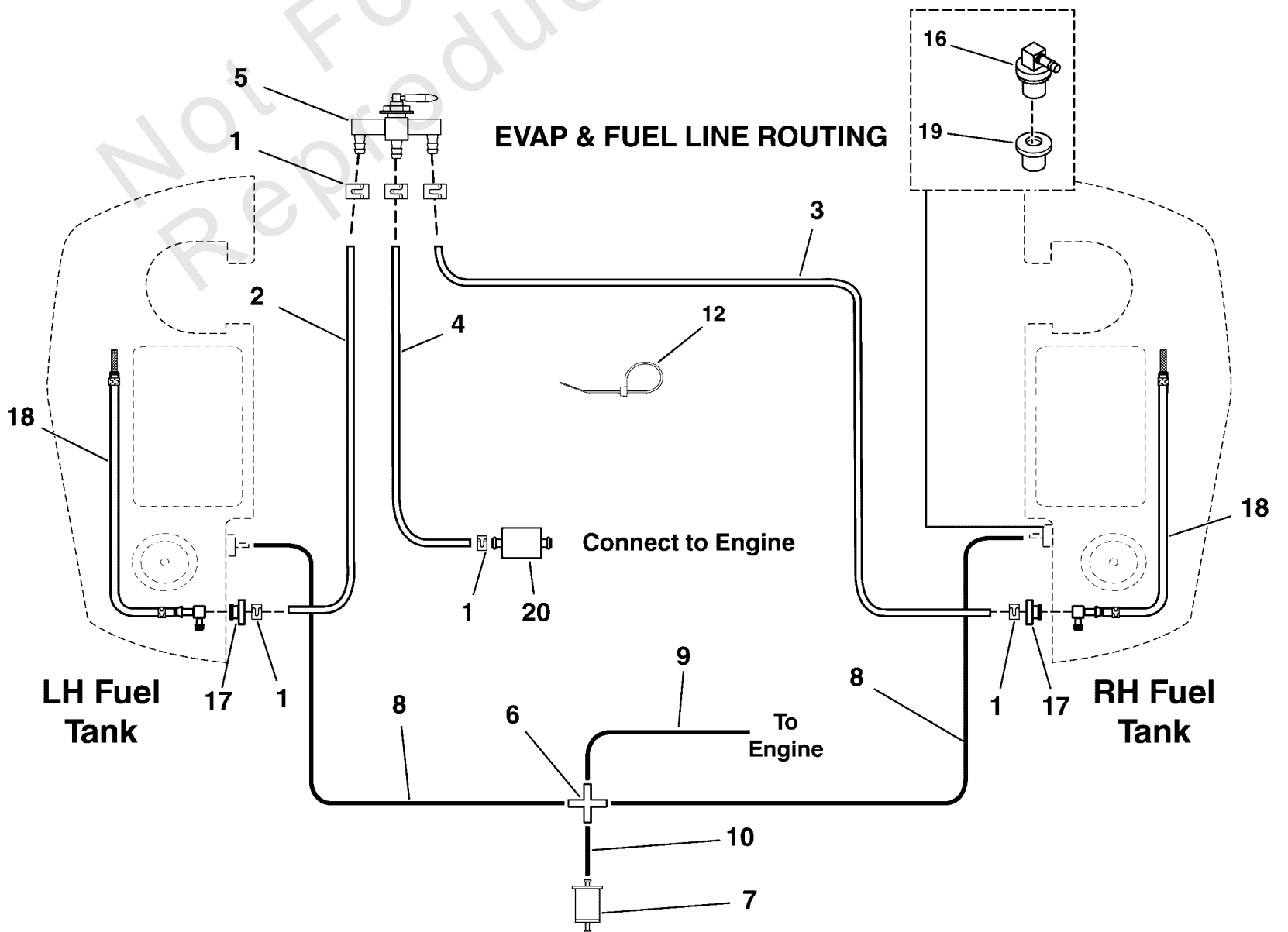
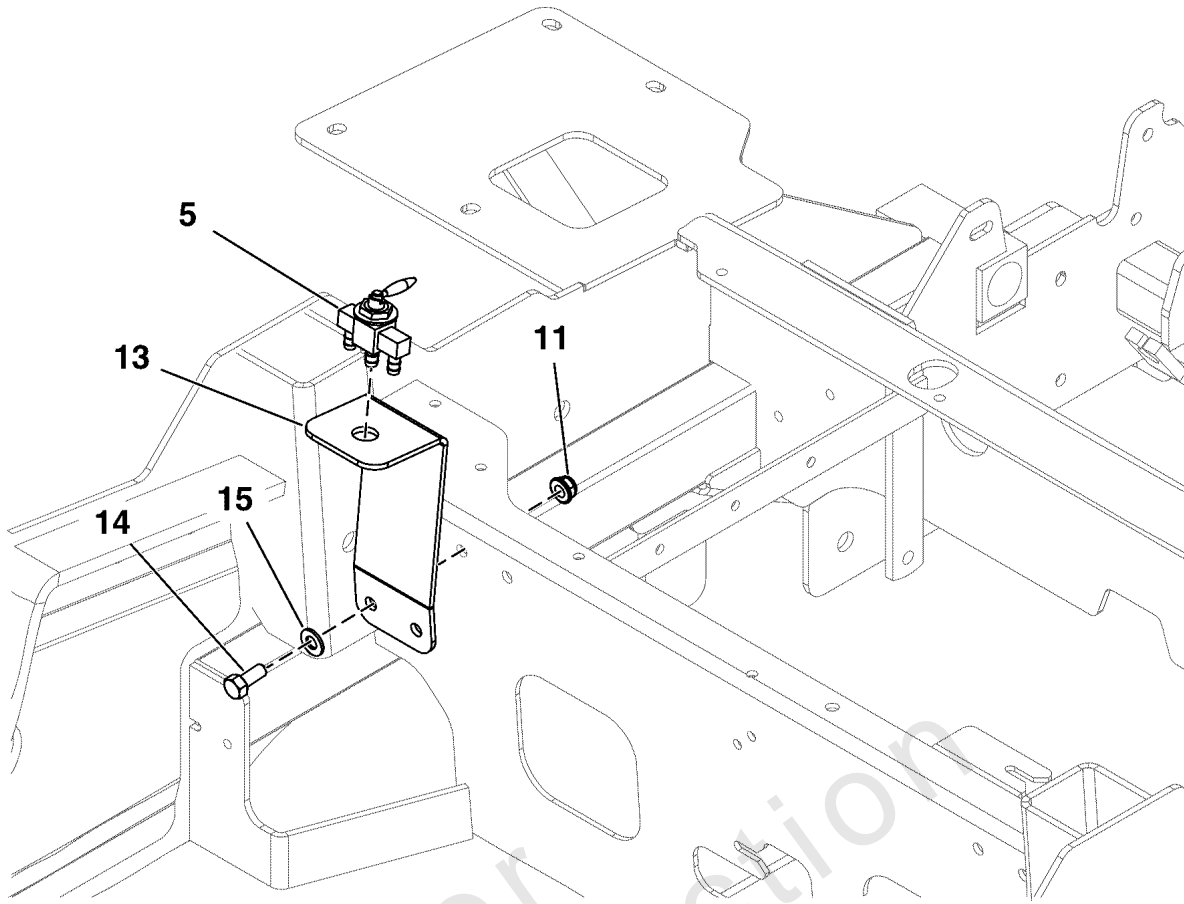
Engine & PTO Group - Kawasaki FX1000

REF NO	PART NO	QTY	DESCRIPTION
1	-----	1	ENGINE, KAWASAKI, FX1000V (FXT00V-AS41-R)
2	5100926	1	SPACER, 1.13 X 1.75 X 1.35, CZ
3	5105064	1	MUFFLER 35-37HP KAWASAKI 5 CAN -(Use 5025355 - Qty: 4 to mount muffler to engine.)
4	5108850	1	CLUTCH, 250 FT-LBS, WATER GUARD
4-1	5600575	1	KIT, CLUTCH WIRE REPAIR
5	5103300	1	BOLT, CRANKSHAFT, 7/16-20 X 3-1/4, GD 8 -(Torque crankshaft bolt to 65 ft. lbs. (88 Nm))
6	5103944	1	GROMMET, 7/8"ID, 1/4" THICK STK
7	5104348	1	EXTENSION, TAILPIPE, 3" - BLACK
8	1726498	1	HOSE-OIL DRAIN .375ID 16.5L
9	5021682	1	PULLEY, 4.75 OD X 1-1/8 BORE, BC-48
10	5050407X10	1	KEY, 1/4" SQ. X 1-1/4
11	5410367A	1	ANCHOR, CLUTCH, IS600-IS700 - BLK
12	5043636	1	CLUTCH ANCHOR PAD
13	5044617	4	WASHER, .34 X 1.25 X 10 GA
14	5025155	6	WASHER, 5/16" SAE
15	5025011X8	4	BOLT, 5/16-18 X 1" GRD5 YZ
16	5025392	6	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
17	5025055X18	1	BOLT, 5/16-18 X 2-1/4 TFL, GD5 YZ
18	5025139	1	NUT, 5/16-18 HEX SERRATED FLANGE (LARGE)
19	5025585	2	BELLEVILLE WASHER, 1.1875 X .442 X .098
20	5021500	1	CLAMP, VINYL INSULATED, 1.00
21	5025154	1	WASHER, 1/4 SAE
22	5025010X6	1	BOLT, 1/4"-20 X 3/4" GD5 YZ
23	5025126	1	NUT, 1/4-20 HEX SERR. FLANGE
24	5022234	1	ADAPTER, Oil Drain
25	5101492	1	TIE, SELF-LOCKING, 24"
26	5025532	4	BOLT, HEX FLG, SER, GD5 3/8-16 X 1-1/4" PACH CZ -(Torque engine mounting bolts to 17 ft-lbs (23 Nm))
27	5025470	2	SCREW, SELF-TAP, #8-32 X 3/8. WASH HEX, CZ
28	5025249YP	1	BOLT
29	5025536	1	NUT, HEX, M8-1.25, CZ, GD 8.8
30	5025188	1	WASHER, 5/16" Internal Tooth Lock
31	5025355	4	NUT, M8-1.25 Hex Serrated Flange
32	5025531		SET SCREW, 5/16-18 X 3/8, KNURL, W/PATCH
33	5108851	1	WATER GUARD, WARNER C 250 FT-LBS CLUTCH

Fuel Supply Hose, Tank Replacement Parts, and EVAP Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



Fuel Supply Hose, Tank Replacement Parts, and EVAP Group

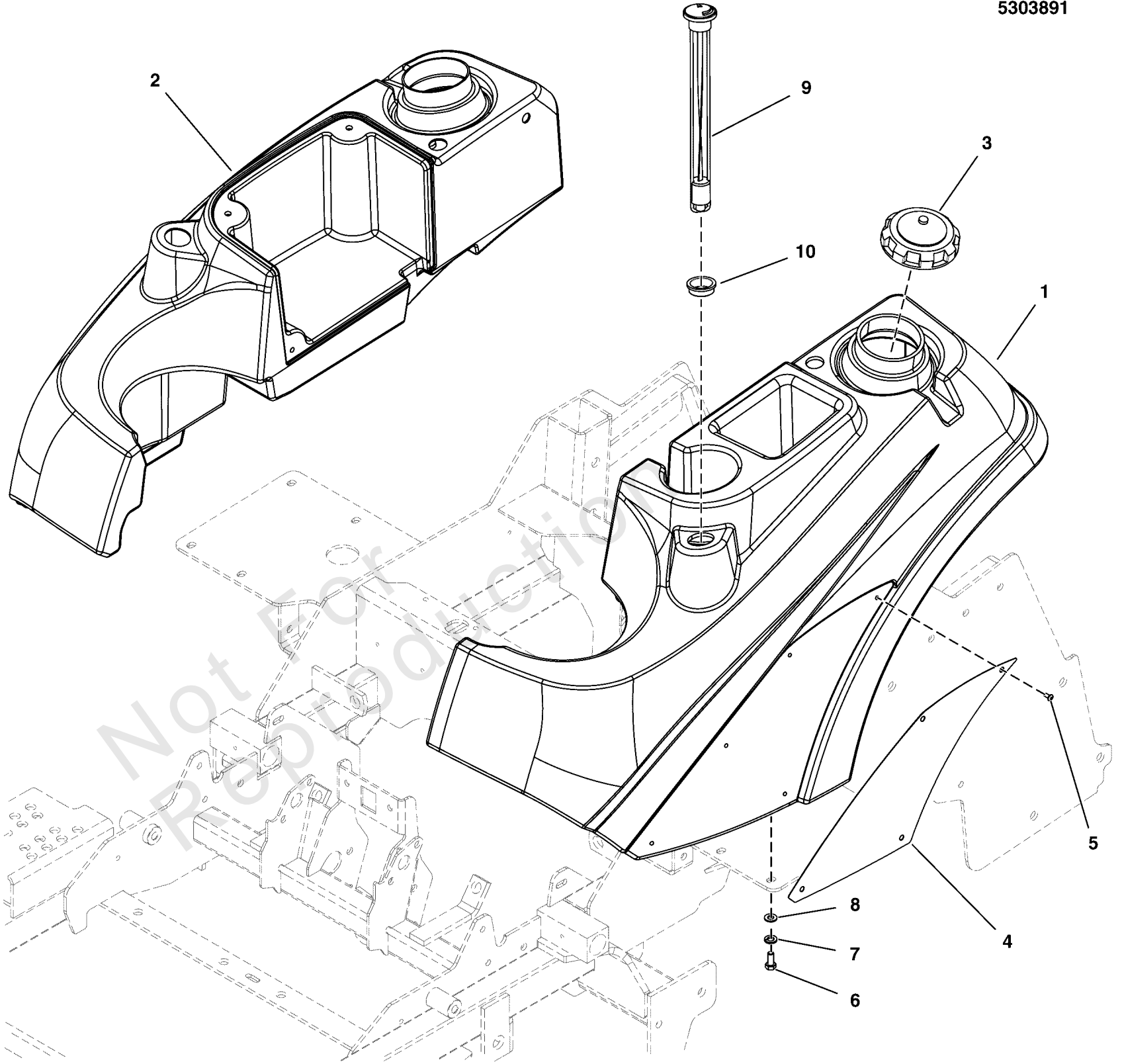
REF NO	PART NO	QTY	DESCRIPTION
1	93807	6	CLAMP, Hose
2	5050831X14P5	1	HOSE, 1/4" FUEL, 14.50"
3	5050831X28P5	1	HOSE, 1/4" FUEL, 28.50"
4	5050831X18	1	1/4" Fuel Line, 18" Long
5	5023358	1	VALVE, FUEL STRAIGHT, OUTLET
6	5105394	1	FITTING, BARBED CROSS, 3/16" BLK NYLON
7	80025019	1	FILTER, FUEL
8	7700552X25P5	2	HOSE, VAPOR, 5MM ID, 25.50 LG
9	7700552X3	1	HOSE, VAPOR, 5MM ID, 3.00 LG
10	7700552X3	1	HOSE, VAPOR, 5MM ID, 3.00 LG
11	5025392	2	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
12	5021029	7	TIE, SELF-LOCKING, 12"
12	5021030	5	TIE, SELF-LOCKING, 6"
13	5412704A	1	BRACKET, FUEL VALVE, IS2100 - BLK
14	5025011X6	2	BOLT, 5/16-18 X 3/4 GD5
15	5025155	2	WASHER, 5/16" SAE
16	770046	2	REMOTE VENT ASSEMBLY
17	1726400	2	BUSHING-FUEL TANK RED RUBBER
18	5101144	2	PICKUP TUBE ASSEMBLY, FUEL LINE (SV)
19	209043	2	GROMMET (SV)
20	5021178X3	2	FUEL FILTER (SV)

Fuel Tank & Mount Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

5303891



Fuel Tank & Mount Group

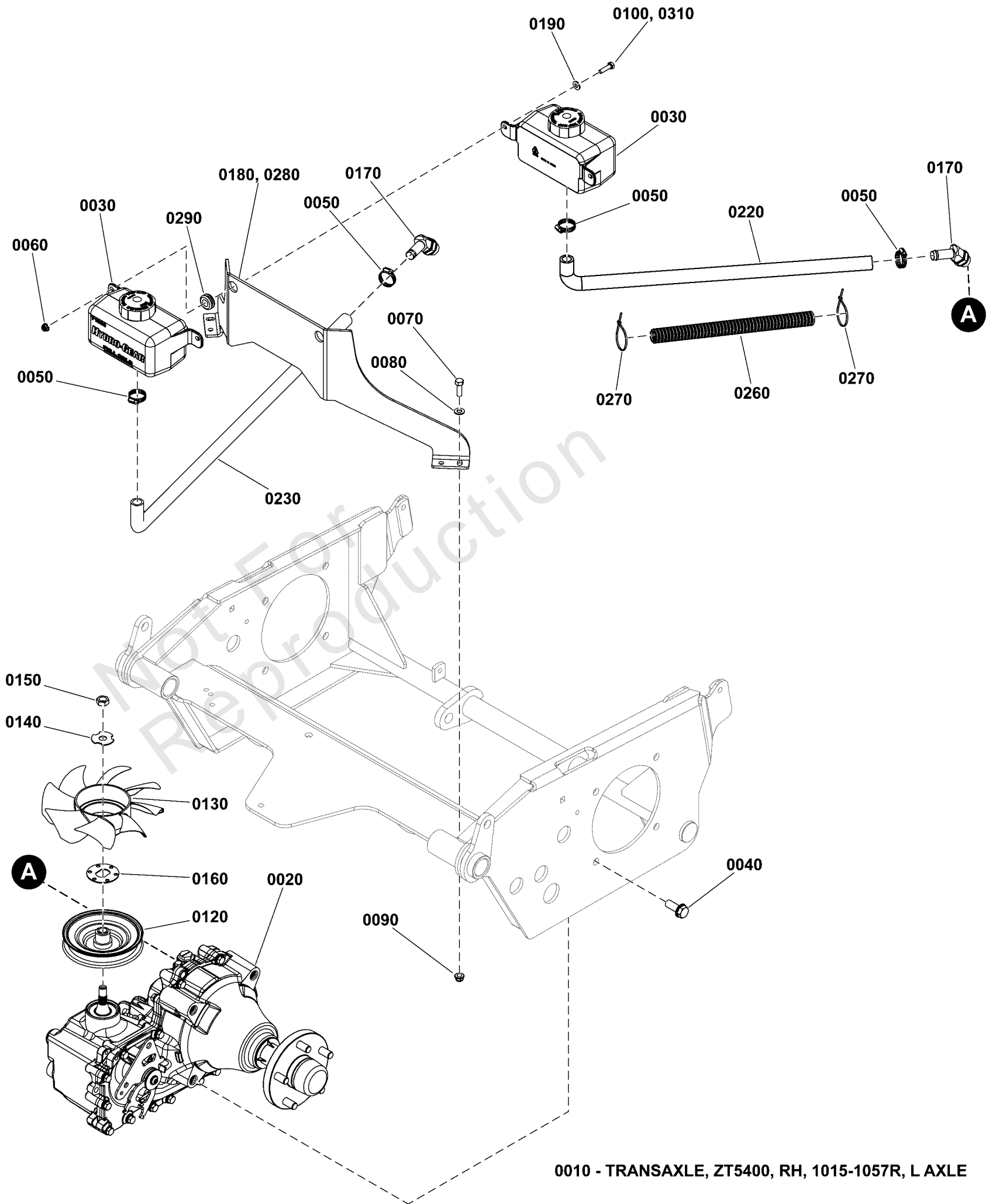
REF NO	PART NO	QTY	DESCRIPTION
1	5108364	1	TANK, FUEL, LEFT
2	5108363	1	TANK, FUEL, RIGHT
3	5103005	2	FUEL CAP, 3-1/2", MANAGED VENT OUT, 12"
4	5401095B	2	BADGE, IS2000 - IS3000 - RED
5	5025386	8	SCREW, #10-24 X 3/8 ALLEN BHBZ
6	5025011X6	8	BOLT, 5/16-18 X 3/4 GD5
7	5025170	8	WASHER, 5/16 LOCK CZ
8	5025292	8	WASHER, 5/16 F436 FLAT
9	5022917	2	GAUGE, FUEL, 12
10	5022917X1	2	GROMMET, FUEL GAUGE (SV)

Not For Reproduction

Hydraulic Group S/N: 4002026250 and Above

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



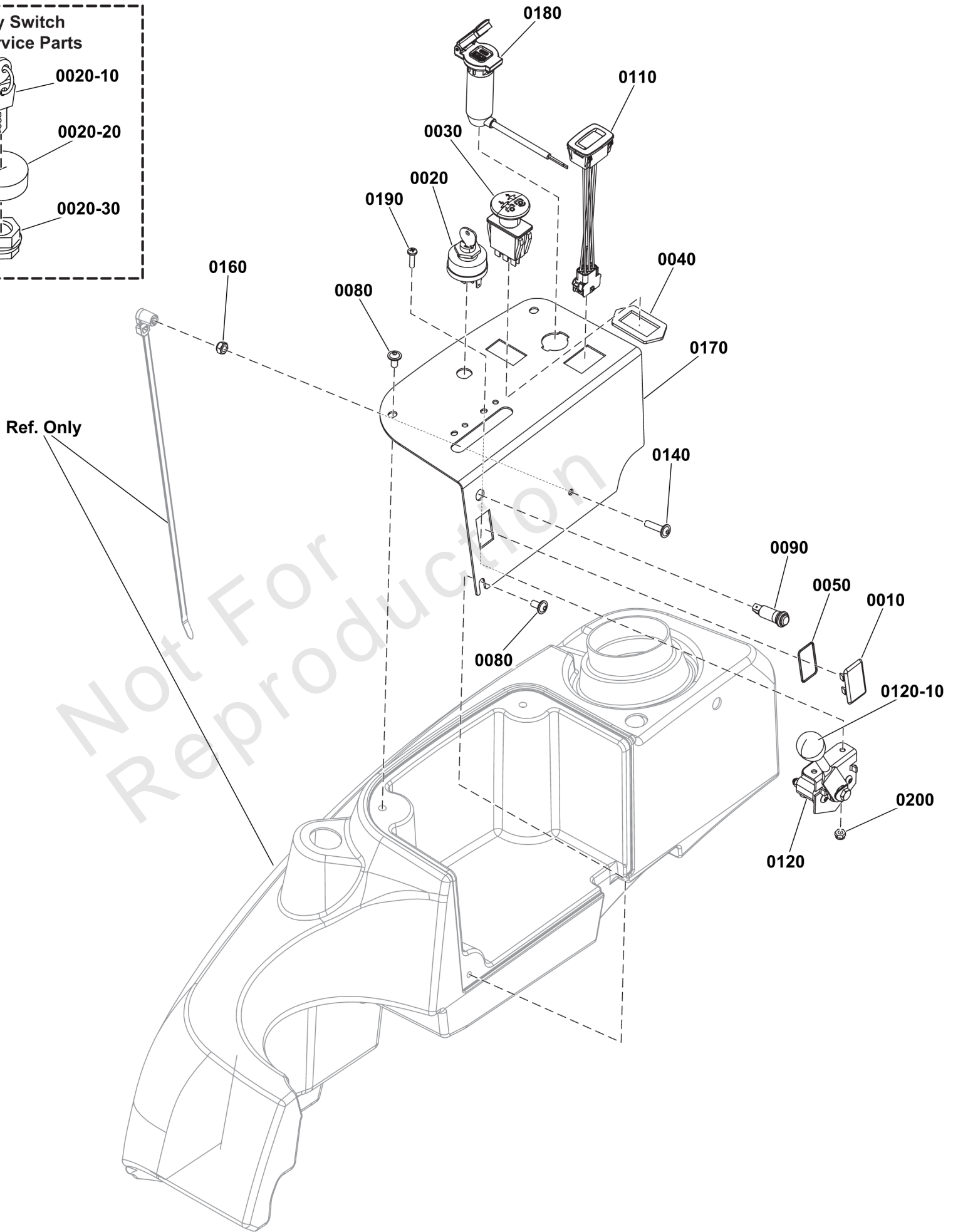
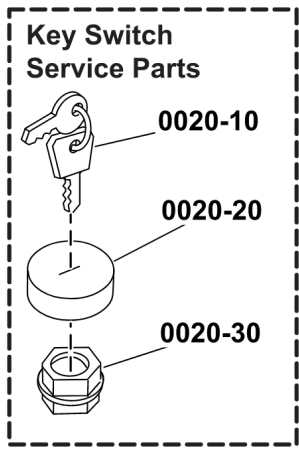
Hydraulic Group S/N: 4002026250 and Above

REF NO	PART NO	QTY	DESCRIPTION
0010	84008008	1	TRANSAXLE -(Right side)(Not illustrated)
0020	84008001	1	TRANSAXLE -(Left side)
0030	5101998YP	2	HYDRO TANK, HYDRO-GEA -(Includes item #0030-10)
0030-10	5100778X1	2	RESERVIOR CAP -(Not illustrated)
0040	5025535YP	8	BOLT,HEX FLG,SER,GD8 -(Torque transmission mounting bolts to 95-115 ft-lbs (129-156 Nm))
0050	5021164SM	4	CLAMP, #10 HOSE, STAI
0060	5025391FS	2	NUT
0070	5025010X8SM	4	BOLT, 1/4-20 X 1", GD
0080	703350	4	WASHER
0090	5025392FS	4	NUT
0100	5025010X8SM	2	BOLT, 1/4-20 X 1", GD -(S/N: 4002034251 and below)
0120	5102873YP	2	PULLEY
0130	5102874YP	2	FAN, ZT5400
0140	5102914YP	2	WASHER, ZT5400, SLOTT
0150	5102916YP	2	NUT, ZT5400
0160	5102917YP	2	SPACER, ANTI ROTATE,
0170	5103923YP	2	FITTING, 45, 5/8
0180	5416042AA	1	PLATE RESERVOIR MOUNT - BLK -(S/N: 4002034251 and below)
0190	703332	2	WASHER
0220	5108444	1	HOSE, FORMED, TRANS OVERFLOW, 20.50"
0230	84005243	1	HOSE, HYDRAULIC
0260	5050862X12SM	2	WIRE LOOM, 3/4" ID, 1
0270	5021030SM	4	TIE WRAP, 5-1/2" LONG
0280	5422436AAFS	1	PLATE -(S/N: 4002034252 and above)
0290	5022816YP	2	GROMMET -(S/N: 4002034252 and above)
0310	5025010X10SM	2	BOLT, 1/4-20 X 1-1/4" -(S/N: 4002034252 and above)

Instrument Control Panel Group - Fuel Injected Models with Electronic Throttle Control

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



Instrument Control Panel Group - Fuel Injected Models with Electronic Throttle Control

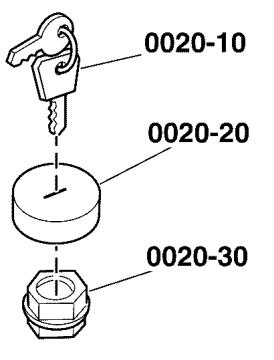
REF NO	PART NO	QTY	DESCRIPTION
0010	1709188SM	1	PLUG, BLACK PLASTIC
0020	5020927FS	1	SWITCH, IGNITION -(Includes items # 0020-10, 0020-20, and 0020-30).
0020-10	5022789	1	KEY, IGNITION MOLDED SET
0020-20	5022790	1	COVER, PLASTIC, SNAP ON
0020-30	5022791SM	1	NUT, PLASTIC (SV)
0030	1722887SM	1	SWITCH-PTO PUSH
0040	5022222SM	1	RING, SWITCH RETAINER
0050	5022269SM	1	O-RING, 7/8" ID X 1/1
0080	84002228	2	SCREW, FLANGE
0090	5103809YP	1	LIGHT, Indicator
0110	84008510	1	HOURMETER -(Includes ref # 0110-10)
0110-10	84008688	1	CLIP -(Replacement clip for item #0110)
0120	84008804	1	CONTROL, Electronic Throttle -(Includes item # 0120-10).
0120-10	5046360X1SM	1	KNOB, THROTTLE CONTRO
0140	5025299X8YP	1	CAPSCREW
0160	5025095SM	1	NUT, 1/4-20 HEX NYLON
0170	84011147	1	PANEL, Control Panel
0180	84008798	1	USB Port
0190	5025179X6SM	2	SCREW - #10-24
0200	5025271FS	2	NUT

Instrument Control Panel Group - Fuel Injected Models with Electronic Throttle Control

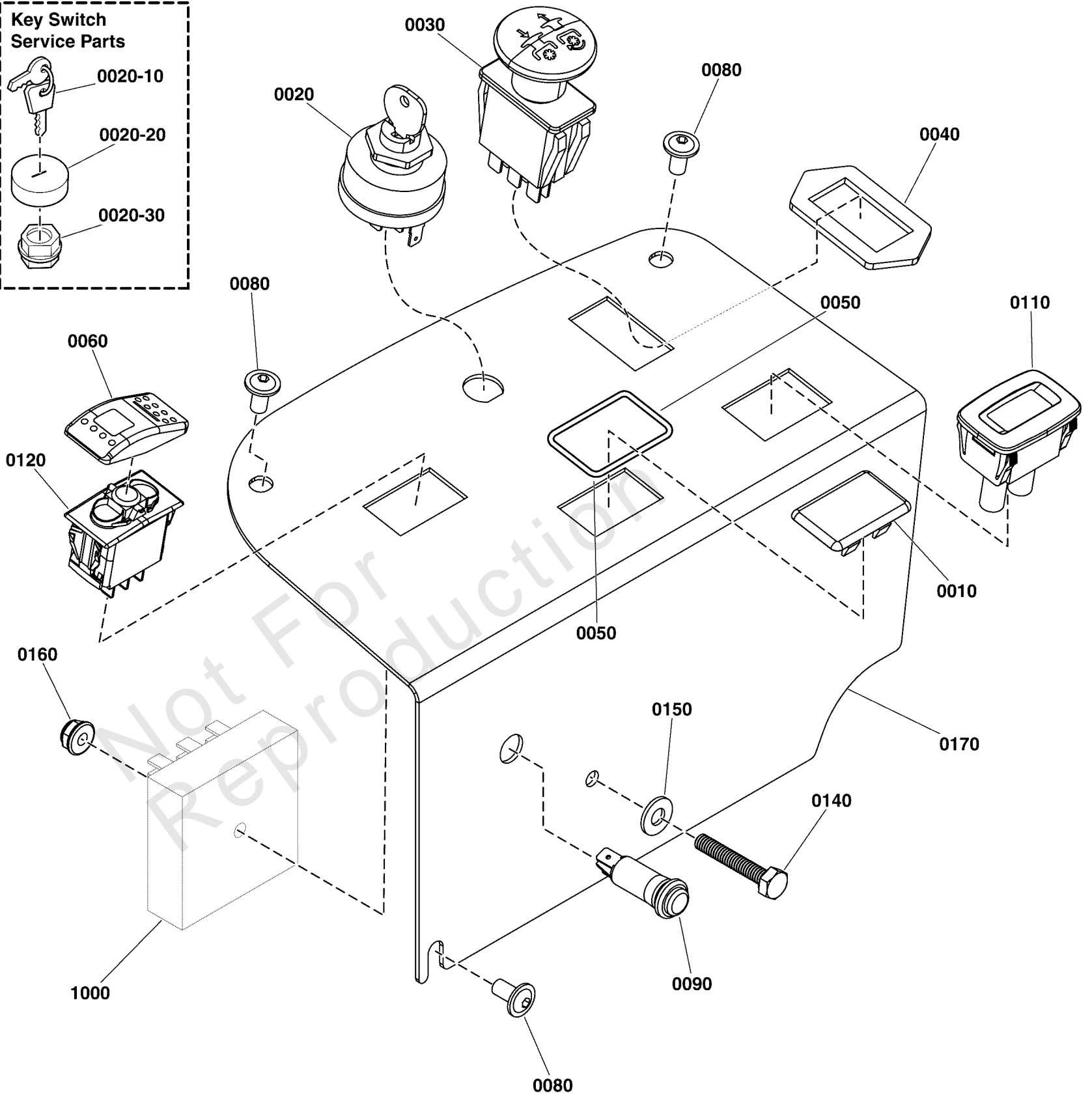
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

Key Switch Service Parts



- 0020-10
- 0020-20
- 0020-30



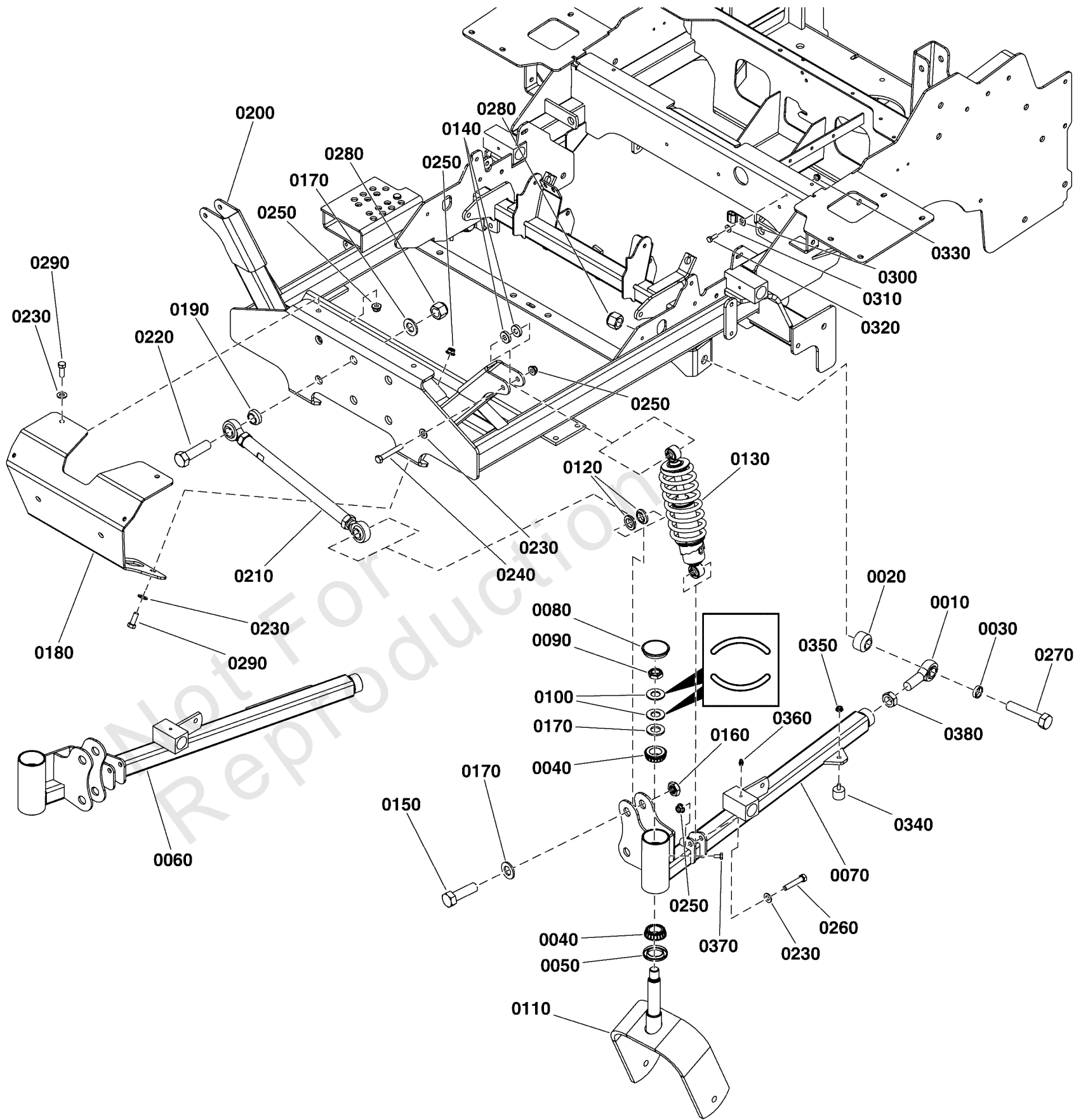
Instrument Control Panel Group - Fuel Injected Models with Electronic Throttle Control

REF NO	PART NO	QTY	DESCRIPTION
0010	1709188	1	PLUG, .820X1.44 HOLE, BLACK PLASTIC
0020	5020927	1	SWITCH, IGNITION, 6 POST
0020-10	5022789	1	KEY, IGNITION MOLDED SET
0020-20	5022790	1	COVER, PLASTIC, SNAP ON
0020-30	5022791	1	PLASTIC NUT
0030	1722887	1	SWITCH-PTO PUSH
0040	5022222	1	RING, SWITCH RETAINER
0050	5022269	1	O-RING, 7/8" ID X 1/16" W
0060	5102219	1	ACTUATOR, ROCKER SWITCH - RED
0080	5106469	3	SCREW, FLANGE, ALLEN HD, 1/4-20X.5 S/S
0090	5103809	1	LIGHT, INDICATOR, PANEL, LED, RED
0110	84008510	1	HOURMETER
0120	5102218	1	BODY, ROCKER SWITCH
0140	5025010X12	1	BOLT, 1/4-20 X 1-1/2 GD5 CZ
0150	5025154	1	WASHER, 1/4 SAE
0160	5025391	1	NUT, 1/4-20 Hex Nylock Flange
0170	5417122A	1	PANEL, CONTROL, IS2100Z, KAWI EFI - BLK

Main Frame and Front Suspension Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



Main Frame and Front Suspension Group

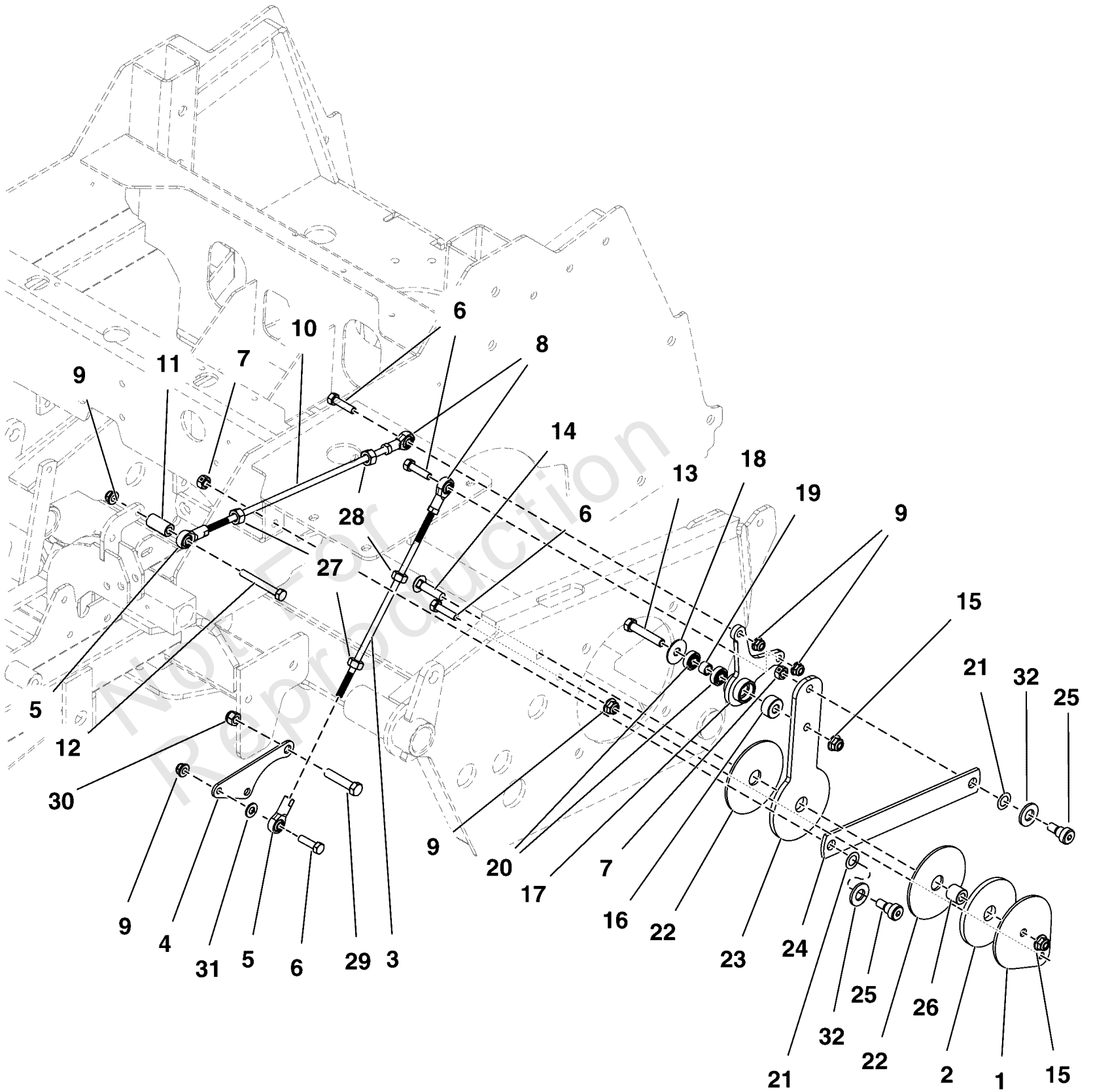
REF NO	PART NO	QTY	DESCRIPTION
0010	5022039	2	BALL JOINT, 3/4-16, MALE
0020	5046093	2	SPACER, .75 X 1.50 X 1.00, CZ
0030	5047461	2	SPACER, .76 x 1.00 x .25
0040	5020884	4	BEARING, TAPERED ROLLER, 1"
0050	5021072	2	SEAL, GREASE
0060	5418824B	1	WELD, A-ARM, IS3300Z, RH - RED
0070	5419140B	1	WELD, A-ARM, 72. LH - RED
0080	5109845	2	CAP, GREASE, LOW PROFILE
0090	5025448	2	NUT, 3/4-16, HEX JAM NYLON LOCK
0100	5025449	4	WASHER, BELLEVILLE - 1.500 X .755
0110	5419196B	2	WELD, CASTER YOKE - RED
0120	5108733	8	SPACER, .765 X 1.500 X .283, TPRD CZ
0130	5108008	2	SHOCK, SPRING ASSM
0140	5108184	4	SPACER, .39 X 1.00 X .24, SHOCK, ISX
0150	5025265X20	4	BOLT, 3/4-16 X 2-1/2" YZ GD5
0160	5025679	4	NUT, THIN NYLON INSERT, 3/4-16 GR5
0170	5025160	10	WASHER, 3/4 SAE
0180	5419629B	1	PLATE, FRONT MOUNT, ISX3300 - RED
0190	5108732	4	SPACER, .765 X 1.500 X .500, TPRD CZ
0200	----	1	WELD, MAIN FRAME, ISX3300Z - RED
0210	5108560	4	CONTROL ARM, IX3300, PTFE -(S/N: 4001527345 and below)
0210	5108790	4	CONTROL ARM, 3/4 X 15.88, LOADER SLOT -(S/N: 4001527346 and above)
0220	5025265X24	4	BOLT, 3/4-16 X 3" YZ GD5
0230	5025156	8	WASHER, 3/8 SAE
0240	5025013X20	2	BOLT, 3/8-16 X 2-1/2" GD5 CZ
0250	5025394	8	NUT, 3/8 - 16 HEX NYLOCK FLANGE
0260	80003522	2	HHCS, 3/8-16 X 2.00, GR5, ZINC/CLEAR
0270	5025265X28	2	BOLT, 3/4-16 X 3-1/2" YZ GD5
0280	5025284	6	NUT, Hex, Nylon Lock, 3/4-16
0290	5025013X8	4	BOLT, 3/8-16 X 1" GD5 CZ
0300	5025430	1	CLAMP, 5/16", DOUBLE, WIRE & TUBE
0310	5025154	1	WASHER, 1/4 SAE
0320	5025010X6	1	BOLT, 1/4"-20 X 3/4" GD5 YZ
0330	5025391	1	NUT, 1/4-20 Hex Nylock Flange
0340	5022673	2	BUMPER, RUBBER, 1/4-20
0350	5025126	2	NUT, 1/4-20 HEX SERR. FLANGE
0360	5020095	2	GREASE FITTING, 1/4-28 Straight
0370	5025457	2	BOLT, 1/4-28 X 1/2, GD5 YZ
0380	5025093	2	NUT, Hex, Jam, 3/4-16

Motion Control Group - Control System S/N: 4002340028 and Below

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

5303882L



Motion Control Group - Control System S/N: 4002340028 and Below

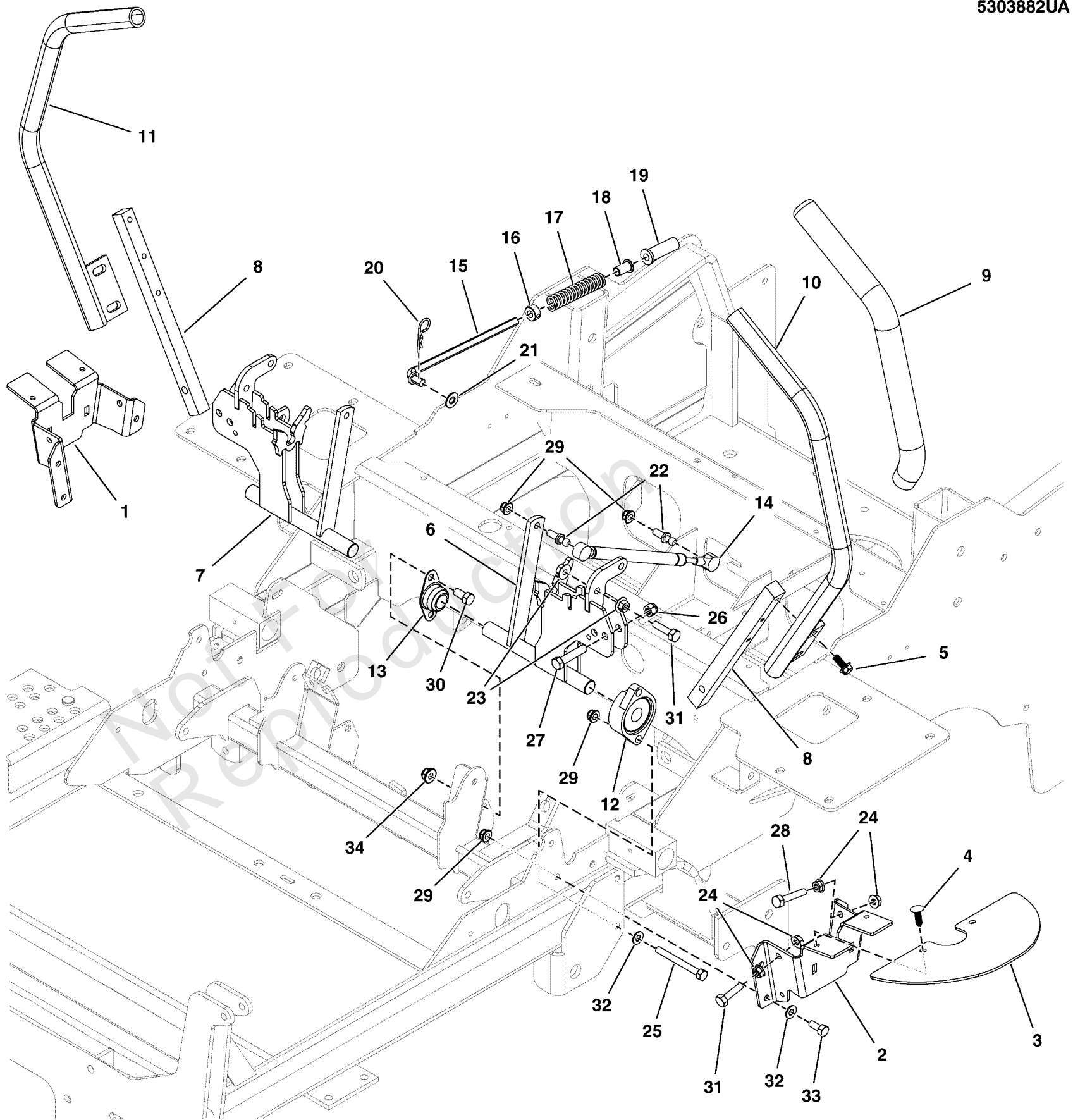
REF NO	PART NO	QTY	DESCRIPTION
1	5410271A	2	PLATE, CONTROL SYSTEM LOCK - BLK
2	5103704	2	PAD, .77 X 3.50 X .25, POLYURETHANE
3	5101135	2	ROD, HYDRO LINKAGE
4	5411301A	2	PLATE, CONTROL MOUNT - BLK
5	5104493	4	BALL JOINT 5/16-24 RH FEMALE BRONZE RACE
6	5025055X10	12	BOLT, 5/16-18 X 1-1/4 GD5 TFL, CZ
7	5025100	4	NUT, Hex, Side Lock, 3/8-16
8	5104494	4	BALL JOINT 5/16-24 LH FEMALE BRONZE RACE
9	5025392	8	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
10	5102255	2	ROD, HYDRO LINKAGE, 14.63
11	5102599	2	SPACER, .38 X .75 X 1.25, PM, CZ
12	5025011X20	2	BOLT, 5/16-18 X 2-1/2" GD5 YZ
13	5025013X20	2	BOLT, 3/8-16 X 2-1/2" GD5 CZ
14	5025146X12	2	BOLT, 3/8-16 X 1-1/2, CARRIAGE, GD5, CZ
15	5025394	6	NUT, 3/8 - 16 HEX NYLOCK FLANGE
16	5046860	2	SPACER, .39 X 1.00 X .50, PM, CZ
17	5103718	2	PIVOT, CONTROL SYSTEM, S125XT
18	5025165	2	WASHER, 3/8" Fender
19	5103676	2	SPACER, .39 X .55 X .38, PM, CZ
20	5102003	4	BEARING, .375" ID X .875" OD X .341" THK
21	5103784	4	WAVE WASHER, 1/2"ID X .087"OD X .01 THK.
22	5103672	4	PAD, CONTROL SYSTEM
23	5410268	2	PLATE, CONTROL SYSTEM ARM - HT
24	5411375AYP	2	LINK, Control
25	5025356	4	BOLT, 3/8-16 X 3/8", 1/2" SHOULDER
26	5103705	2	SPACER, .39 X .75 X .69, PM, CZ
27	5025033	4	NUT, Hex, 5/16-24
28	5023212	4	NUT, 5/16-24 HEX, LH
29	5025015X6	2	BOLT, 7/16-14 X 3/4, GD 5 YZ
30	5025044	2	NUT, 7/16-14 HEX TOP LOCK
31	5025155	2	WASHER, 5/16" SAE
32	5025440	4	WASHER, 1/2" GD9 YZ

Motion Control Group - Handles & Dampeners

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

5303882UA



Motion Control Group - Handles & Dampeners

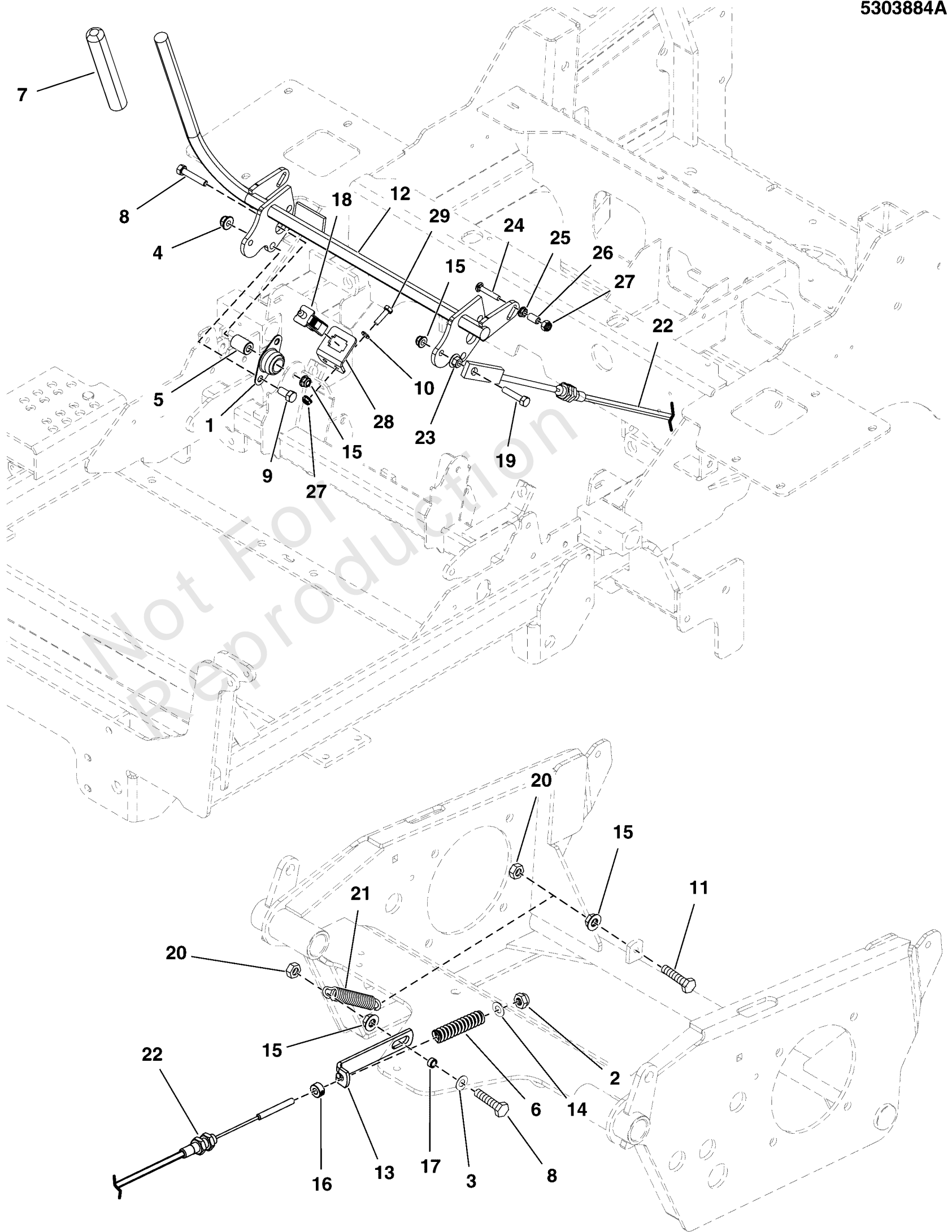
REF NO	PART NO	QTY	DESCRIPTION
1	5416170A	1	PLATE, Neutral Lock, RH - BLK
2	5416171A	1	PLATE, Neutral Lock, LH - BLK
3	5401248	2	GUARD, RUBBER MOTION CONTROLS
4	5025431	4	PUSH RIVET (TREE TYPE), BLACK
5	80003531	4	SCREW, 5/16-18x0.750, GR5, WHIZ-LOCK, ZC
6	5416663A	1	WELD, CONTROL SHAFT, LOCKOUT, LH - BLK
7	5416664A	1	WELD, CONTROL SHAFT, LOCKOUT, RH - BLK
8	5103106A	2	MOUNT, CONTROL ARM - BLK
9	5104722	2	GRIP, FOAM, 1" ID, 16" LONG
10	5414427A	1	WELD, HANDLE MOTION CNTRL, 16.5, 1.0, LH - BLK
11	5414428A	1	WELD, HANDLE MOTION CNTRL, 16.5, 1.0, RH - BLK
12	5021499	2	BEARING, FLANGE
13	5021098	2	BEARING, BRONZE FLANGE, 3/4"
14	5100940	2	DAMPENER, CONTROL, #(P6709/P3610)
15	5100947	2	ROD, NEUTRAL RETURN, CZ
16	5010546	2	COLLAR, 3/8" Set
17	5022645	2	SPRING, REVERSE RETURN
18	5023260	2	BUSHING, FLANGE 3/8ID X 7/8 LONG
19	5104375	2	FLANGED BUSHING, 3/8ID X .63OD X .8125FL
20	5025210	2	3/32 X 1-5/8 HAIR PIN CLIP
21	5025156	2	WASHER, 3/8 SAE
22	5101307	4	10MM BALL STUD, 5/16-18 X 3/4 THDS
23	5025139	4	NUT, 5/16-18 HEX SERRATED FLANGE (LARGE)
24	5025127	8	NUT, 5/16-18 HEX SERRATED FLANGE (SMALL)
25	5025011X24	4	BOLT, 5/16-18 X 3" GD5 YZ
26	5025096	4	NUT, 3/8-16 HEX NYLON LOCK
27	5025013X14	4	BOLT, 3/8-16 X 1-3/4" GD5 CZ
28	5025055X14	2	BOLT, 5/16-18 X 1-3/4 TFL, GD5 YZ
29	5025392	12	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
30	5025013X6	6	BOLT, 3/8-16 X 3/4" GD5 CZ
31	5025055X10	4	BOLT, 5/16-18 X 1-1/4 GD5 TFL, CZ
32	5025155	10	WASHER, 5/16" SAE
33	5025011X6	6	BOLT, 5/16-18 X 3/4 GD5
34	5025394	4	NUT, 3/8 - 16 HEX NYLOCK FLANGE

Parking Brake Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

5303884A



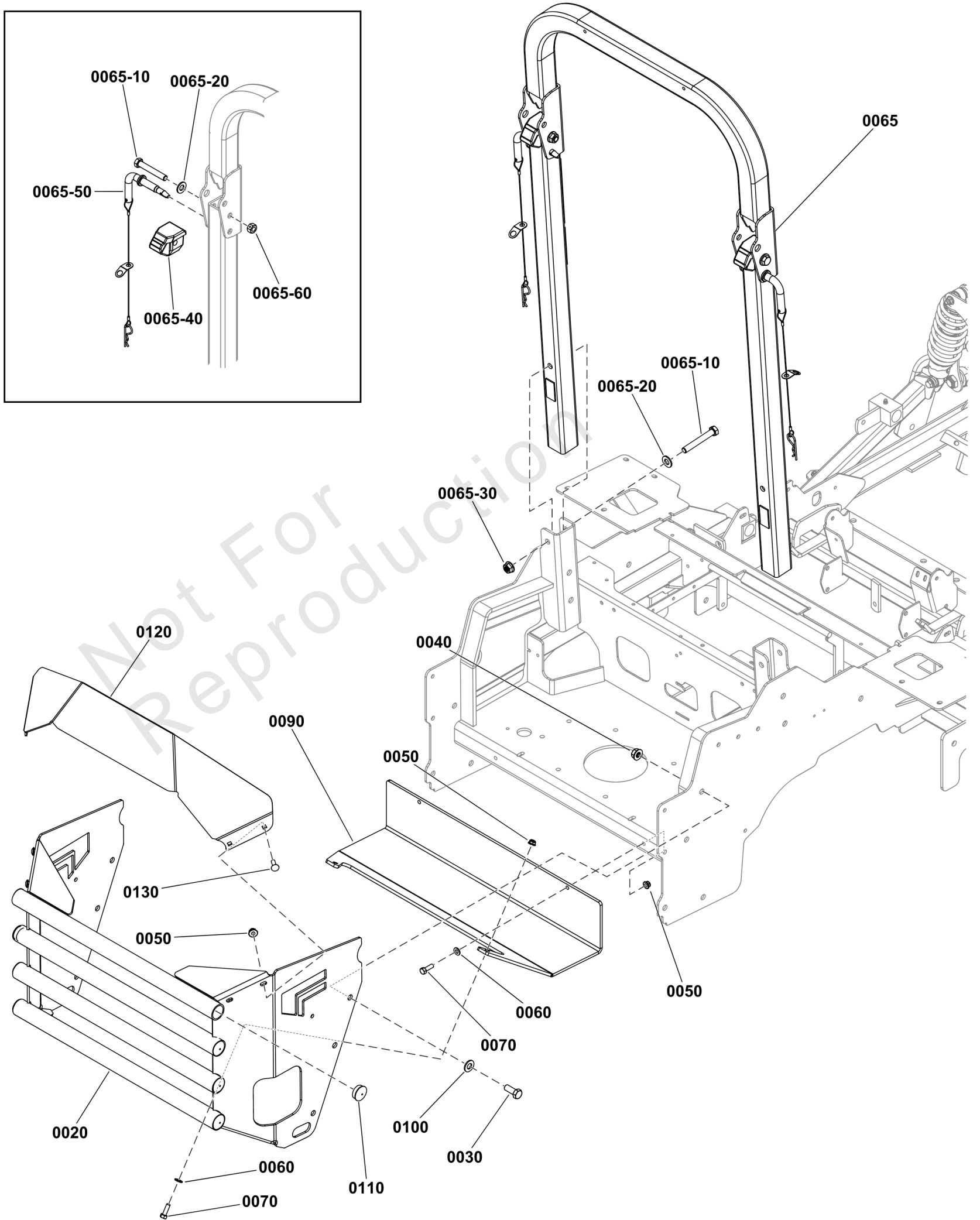
Parking Brake Group

REF NO	PART NO	QTY	DESCRIPTION
1	5021098	2	BEARING, 3/4" FLANGED, BRONZE
2	5025045	2	NUT, 5/16-24 HEX NYLON LOCK
3	5025155	2	WASHER, 5/16" SAE
4	5025394	4	NUT, 3/8-16 HEX NYLOCK FLANGE
5	5042134	2	SPACER, .32 X .75 X 1.06, PM
6	5100385	2	SPRING, COMP. 1/2 ID X .140 WIRE X 3.25
7	5101038	1	GRIP, FOAM, 3/4 ID X 6 X .187
8	5025011X14	4	BOLT, 5/16-18 X 1-3/4 GD5 CZ
9	5025013X6	4	BOLT, 3/8-16 X 3/4" GD5 CZ
10	5025154	2	WASHER, 1/4 SAE
11	5025055X10	2	BOLT, 5/16-18 X 1-1/4 GD5 TFL, CZ
12	5415423A	1	WELD, BRAKE SHAFT, LOCKOUT, 21" - BLK
13	5411363A	2	LINK, BRAKE LOCK - BLK
14	5025337	2	WASHER, 5/16 USS
15	5025392	8	NUT, 5/16-18 HEX NYLOCK FLANGE
16	5020047	2	COLLAR, 5/16 SET
17	5102463	2	SPACER, .33 X .50 X .25, PM, CZ
18	7022886	1	SWITCH, DP NO/NC SNAP-IN
19	5025011X12	2	BOLT, 5/16-18 X 1-1/2 GD5 CZ
20	80003675	4	NUT, 5/16-18, HEX, CNTR LK,ZINC PHOS/OIL
21	5103969	2	SPRING, EXTENSION, .521 X 4.12, BLACK
22	5104235	2	CABLE, PARKING BRAKE, 32"
23	5025139	2	NUT, 5/16-18 HEX SERRATED FLANGE (LARGE)
24	80003564	2	BOLT, 1/4-20 X 1.500, GR5, SQ, ZINC/CLEA
25	5025126	1	NUT, 1/4-20 HEX SERR. FLANGE
26	5041483	2	SPACER, .25 X .38 X .63, CZ
27	5025095	4	NUT, 1/4-20 HEX NYLON LOCK
28	5415932A	1	TAB, SWITCH PLATE, BOLT-ON - BLK
29	5025010X6	2	BOLT, 1/4-20 X 3/4 GD5 CZ

Rear Bumper and ROPS Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



Rear Bumper and ROPS Group

REF NO	PART NO	QTY	DESCRIPTION
0020	5108311BFS	1	BUMPER, REAR
0030	5025017X10YP	6	BOLT, 1/2-13 X 1-1/4
0040	770225	6	NUT
0050	5025392FS	8	NUT
0060	703350	4	WASHER
0065	-----	1	ROLL OVER PROTECTION STRUCTURE -(Refer to Note: *)
0065-10	5025017X26SM	4	BOLT, 1/2-13
0065-20	5025158SM	4	WASHER, 1/2" SAE
0065-30	770225	2	NUT
0065-40	5108027FS	2	STOP, BLOCK
0065-50	5108350FS	2	PIN
0065-60	5025332SM	2	NUT - SIDE LOCK
0070	5025011X8FS	4	BOLT
0090	5419532AAFS	1	SHIELD, HEAT
0100	5025158SM	6	WASHER, 1/2" SAE
0110	5023484SM	8	PLUG, PANEL, 1.25 - B
0120	5108310BFS	1	GUARD
0130	5025145X8SM	4	BOLT, 5/16-18 X 1", C

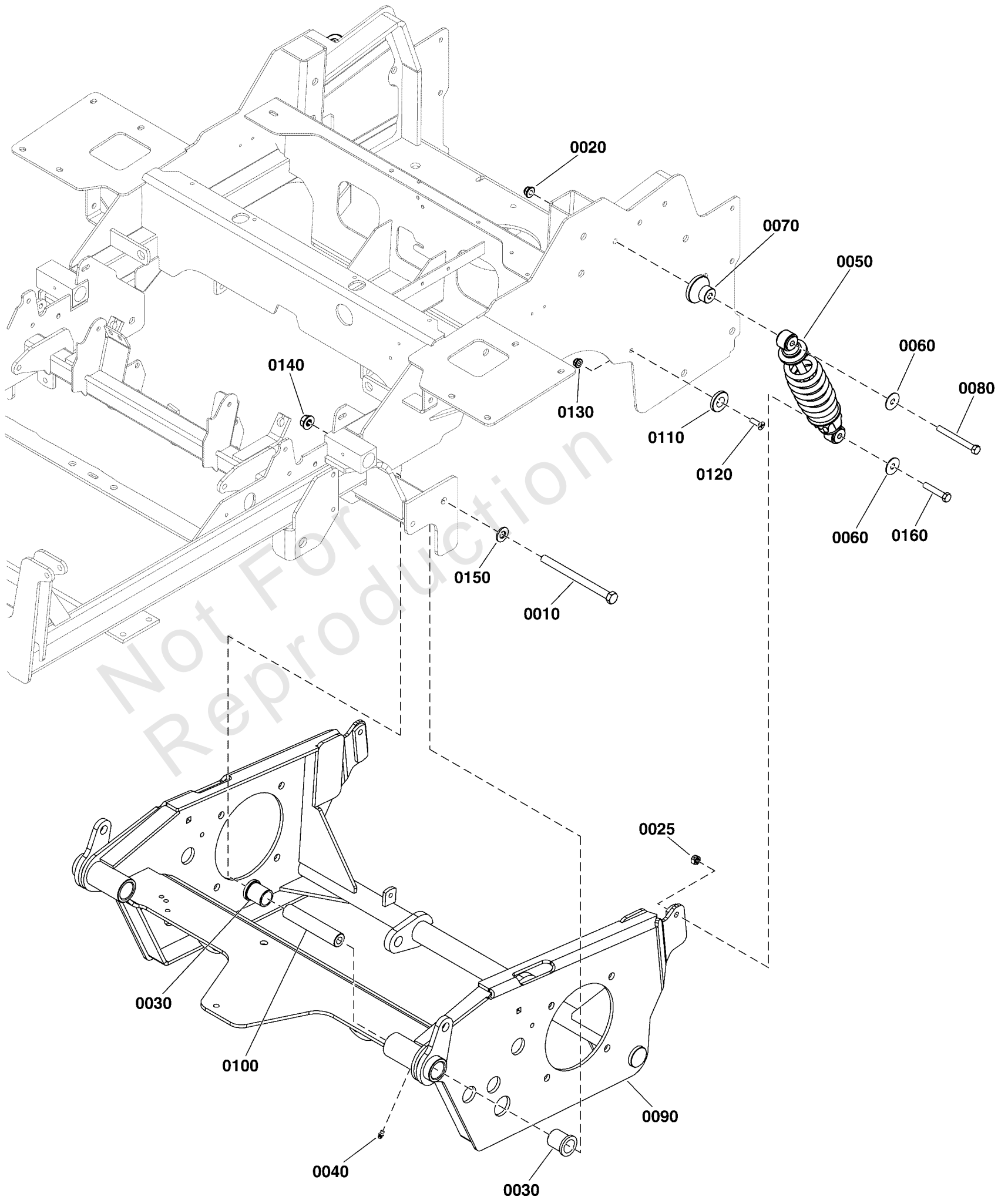
Footnotes:

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.

Rear Suspension Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



Rear Suspension Group

REF NO	PART NO	QTY	DESCRIPTION
0010	5025488X52	2	BOLT, 1/2-13 X 6-1/2" GD8 YZ
0020	5025394	2	NUT, 3/8 - 16 HEX NYLOCK FLANGE
0025	5025100	2	NUT, Hex, Side Lock, 3/8-16
0030	5021541	4	BUSHING, FLANGE
0040	5020095	2	GREASE FITTING, 1/4-28 Straight
0050	5108022	2	SHOCK, SPRING ASSM --
0060	5025165	4	WASHER, 3/8" Fender
0070	5104704	2	SPACER, .39 X 2.00 X 1.35, PM
0080	5025013X28	2	BOLT, 3/8-16 X 3-1/2" GD5 CZ
0090	84007759	1	CRADLE, Suspension
0100	5100194	2	SPACER, .52 X 1.00 X 5.00
0110	5102701	2	SPACER, .34 X 1.54 X .25 - UHMW
0120	5025594	2	SCREW, 5/16-18 X 1, PHILLIPS HD, BZ
0130	5025392	2	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
0140	5025396	2	NUT, Hex Flange, Nylock, 1/2-13
0150	5025158	2	WASHER, 1/2 SAE
0160	80003522	2	HHCS, 3/8-16 X 2.00, GR5, ZINC/CLEAR

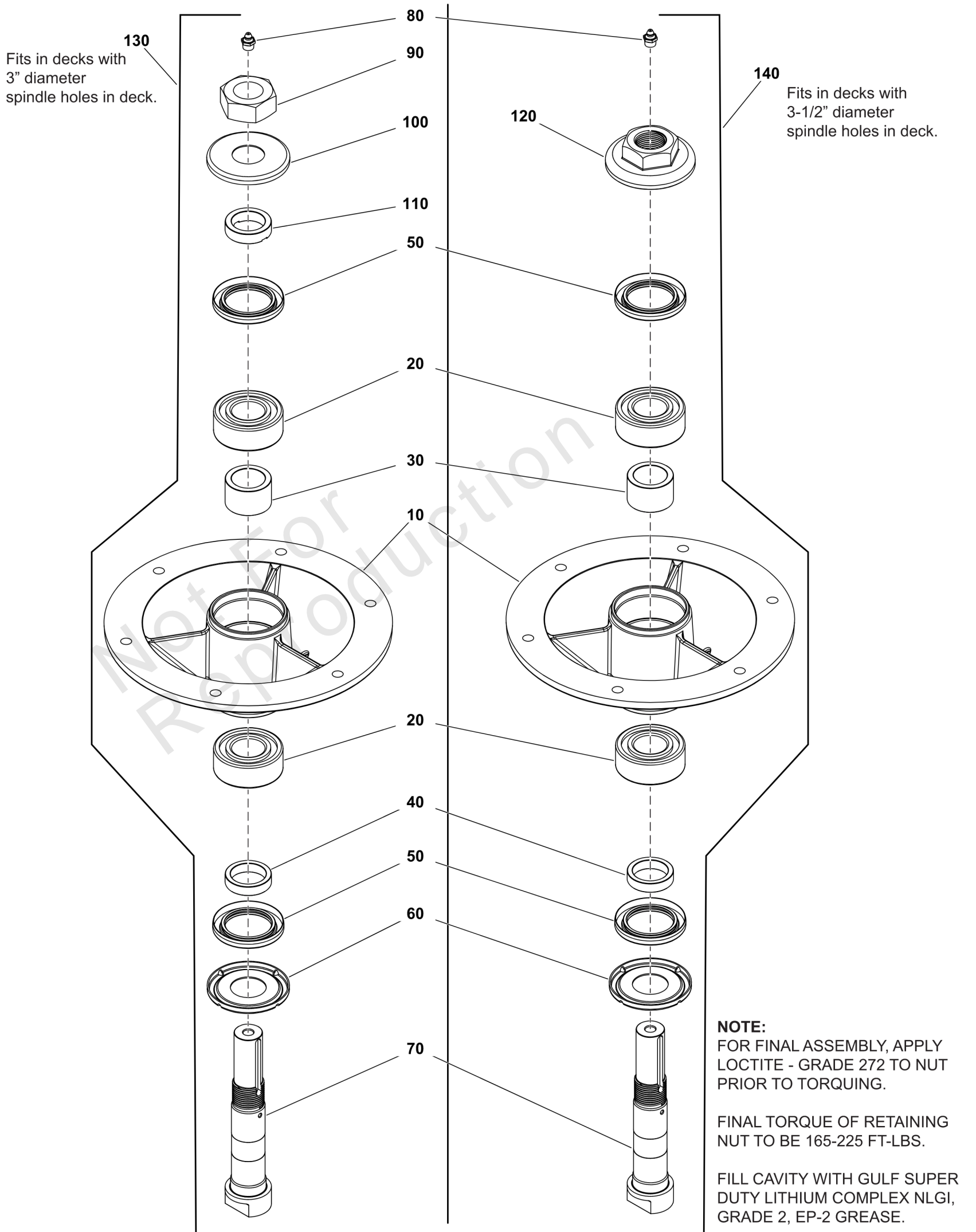
Seat Mount and Floor Group S/N: 4002328396 and below

REF NO	PART NO	QTY	DESCRIPTION
0010	5025392	8	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
0020	5025394	2	NUT, 3/8 - 16 HEX NYLOCK FLANGE
0030	5101333	1	SAFETY WALK, FLOOR PLATE, S50X, 10X17.13
0040	5101374	1	SAFETY WALK, FLOOR REST, 16.00 X 6.00
0050	1960252	2	BOLT-RD HD SH SQ NK 1/4-20X0.625 G5 BLK
0060	5025156	4	WASHER, 3/8 SAE
0080	5601175	1	ASSM, SEAT PLATE W/ DECALS, DOMESTIC -(USA Models Only)
0080	5601203	1	ASSM, SEAT PLATE W/ DECALS, IS3200-CEHYD -(Export Models Only)
0090	1670578	1	KNOB-INT THR .312-18 4-ARM 2.12WD 1.06LG
0100	5025145X10	1	BOLT, 5/16-18 X 1-1/4, CARRIAGE, GD5, CZ
0110	197546	6	MNT, VBRTN, RBBR
0120	80003675	1	NUT, 5/16-1/8, HEX, CNTR LK, ZINC PHOS/OIL
0130	5419415BFS	1	PLATE, FLOOR
0140	5412905B	1	PLATE, FLOOR, REMOVABLE, IS3100Z - RED
0150	5025145X6	2	BOLT, 5/16-18 X 3/4, CARRIAGE, GD5, CZ
0170	5025013X18	2	BOLT, 3/8-16 X 2-1/4" GD5 CZ
0180	5417762A	1	GUARD, DEBRIS, IS3200Z - BLK
0190	5025010X6	3	BOLT, 1/4"-20 X 3/4" GD5 YZ
0200	5025154	3	WASHER, 1/4 SAE
0210	5025126	3	NUT, 1/4-20 HEX SERR. FLANGE
0220	5106763	2	BUMPER, RUBBER, 5/16-18, 60 DURO
0230	5418223A	1	WELD, SEAT LATCH HOOK - BLACK
0240	5106644	1	SPRING, TORSION, LH, .0625OD
0250	80002736	1	PIN, 3/32 X 0.750, COT, ZINC/CLEAR
0260	5108194	1	SEAT, HIGH BACK,SUSP,SWITCH & SEAT BELTS
0260-10	5105099X2	1	LUMBAR/RECLINE/ISO LVR W/ RLL PIN BS -(SV)
0260-15	5104720X1	1	4" SINGLE LOCKING TRACKS BASE -(SV)
0260-20	5106325X2	1	SET OF ARM KITS -(SV)
0260-25	5106325X3	1	SET OF ARM PADS -(SV)
0260-30	5104720X2	1	WEIGHT ADJUST INDICATOR KNOB ASSY BASE -(SV)
0260-35	5104720X3	1	BELLOWS W/ HARDWARE BASE -(SV)
0260-40	5106325X4	1	BACK ADJUSTMENT KNOB KIT -(SV)
0260-45	5108194X1	1	CUSHION COVER -(SV)
0260-50	5108194X2	1	SEAT BACK COVER -(SV)
0260-55	7023354	1	SWITCH, SEAT -(SV)
0260-60	5106325X5	1	2" RETRACTABLE BELT KIT -(SV)
0310	5025391	2	NUT, 1/4-20 Hex Nylock Flange
1000	84003643	1	KIT, Headrest
1000-10	5106645	1	HEAD REST HIGH BACK SEAT
1000-20	5418483A	1	PLATE, MOUNTING BRACKET, HEADREST - BLK
1000-30	5025652	6	SCREW, 5/16-18X1, BUT HD, BLK, W/PATCH
1000-40	5107404	6	WASHER, FENDER, 1.00 OD X .315 ID X .055

Spindle Service Parts - 84003242 / 84007984

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



Spindle Service Parts - 84003242 / 84007984

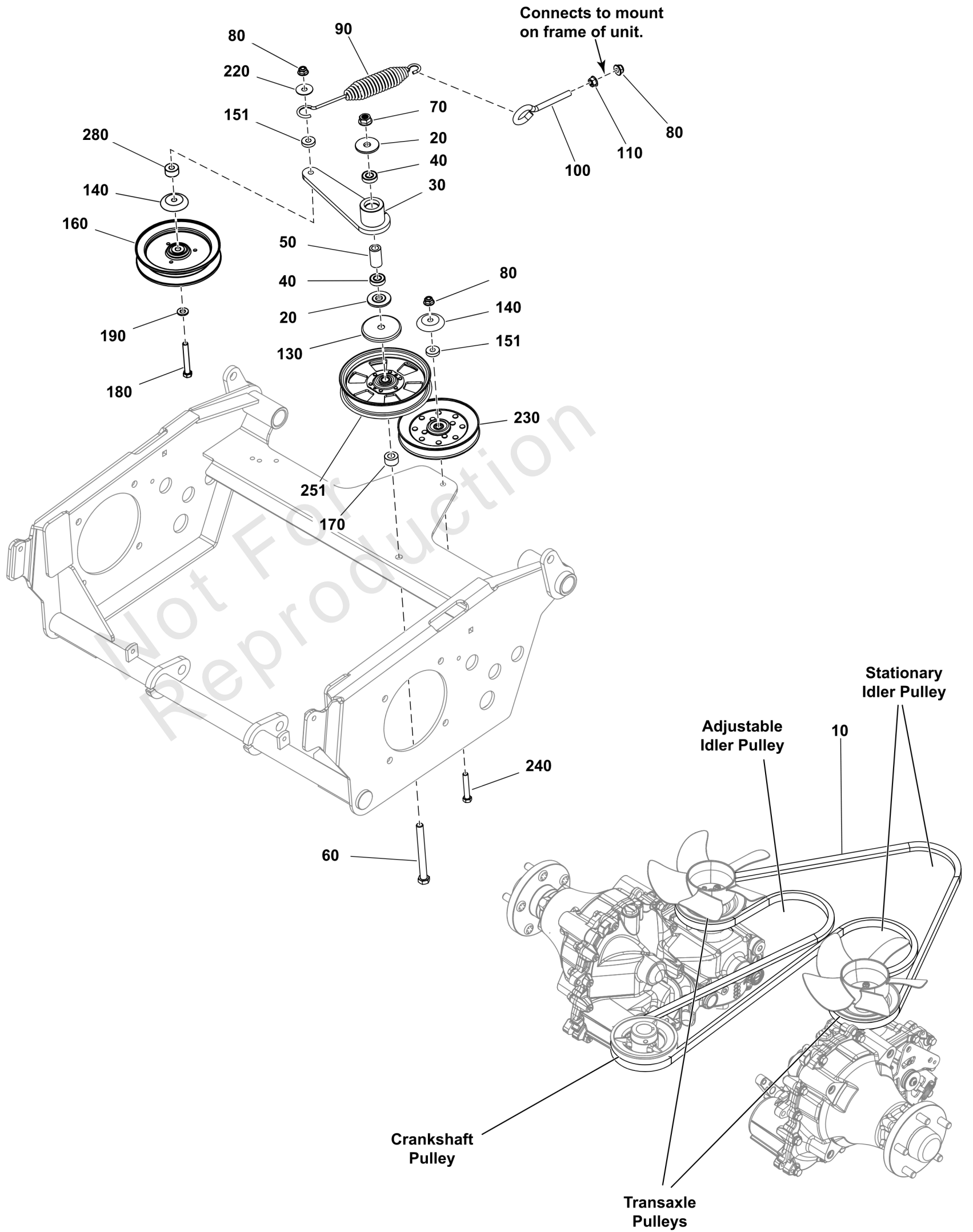
REF NO	PART NO	QTY	DESCRIPTION
10	84003315	1	HOUSING, SPINDLE
20	84003324	2	BEARING
30	84003325	1	SPACER
40	84003319	1	SPACER
50	84003323	2	SEAL, LIP
60	84003317	1	SHIELD
70	84003320	1	SHAFT, SPINDLE
80	5023329SM	1	FITTING
90	84003321	1	NUT
100	84003318	1	SHIELD
110	84003316	1	SPACER (1.183 x 1.625 x 0.420)
120	5108863	1	NUT, DEBRIS SHIELD, SPINDLE
130	84007984	1	SPINDLE ASSEMBLY -(Fits in decks with 3" diameter spindle holes in deck.)
140	84003242	1	SPINDLE ASSEMBLY -(Fits in decks with 3-1/2" diameter spindle holes in deck.)

Not For Reproduction

Transaxle Drive Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



Transaxle Drive Group

REF NO	PART NO	QTY	DESCRIPTION
10	84003255	1	BELT, DRIVE
20	5103262YP	2	SPACER, IDLER ARM
30	84003256	1	ARM, IDLER
40	7078243YP	2	BEARING, BALL, AXLE
50	5103812YP	1	SPACER, .52 X .84 X 1
60	5025017X40SM	1	BOLT, 1/2-13 X 5" GD5
70	770225	1	NUT
80	5025394SM	3	NUT, 3/8-16 HEX NYLOCK
90	5100632YP	1	SPRING, EXTENSION
100	5025429SM	1	EYEBOLT - 3/8-16
110	5025128SM	1	NUT, 3/8-16 HEX SERRA
130	5105145YP	1	SHIELD
140	5103787YP	2	SHIELD, BRNG PULLEY
151	5044960SM	2	SPACER, .39 X 1.00 X
160	5103789YP	1	PULLEY, C-SEC,V-IDLER
170	5101162YP	1	SPACER
180	5025013X22SM	1	BOLT, 3/8-16 X 2-3/4"
190	5025293SM	1	WASHER, 3/8"
220	5025165SM	1	WASHER, 3/8" FENDER
230	5102093YP	1	PULLEY-IDLER-V
240	5025013X18SM	1	BOLT, 3/8-16 X 2-1/4"
251	5104717YP	1	PULLEY
280	5046860SM	1	SPACER

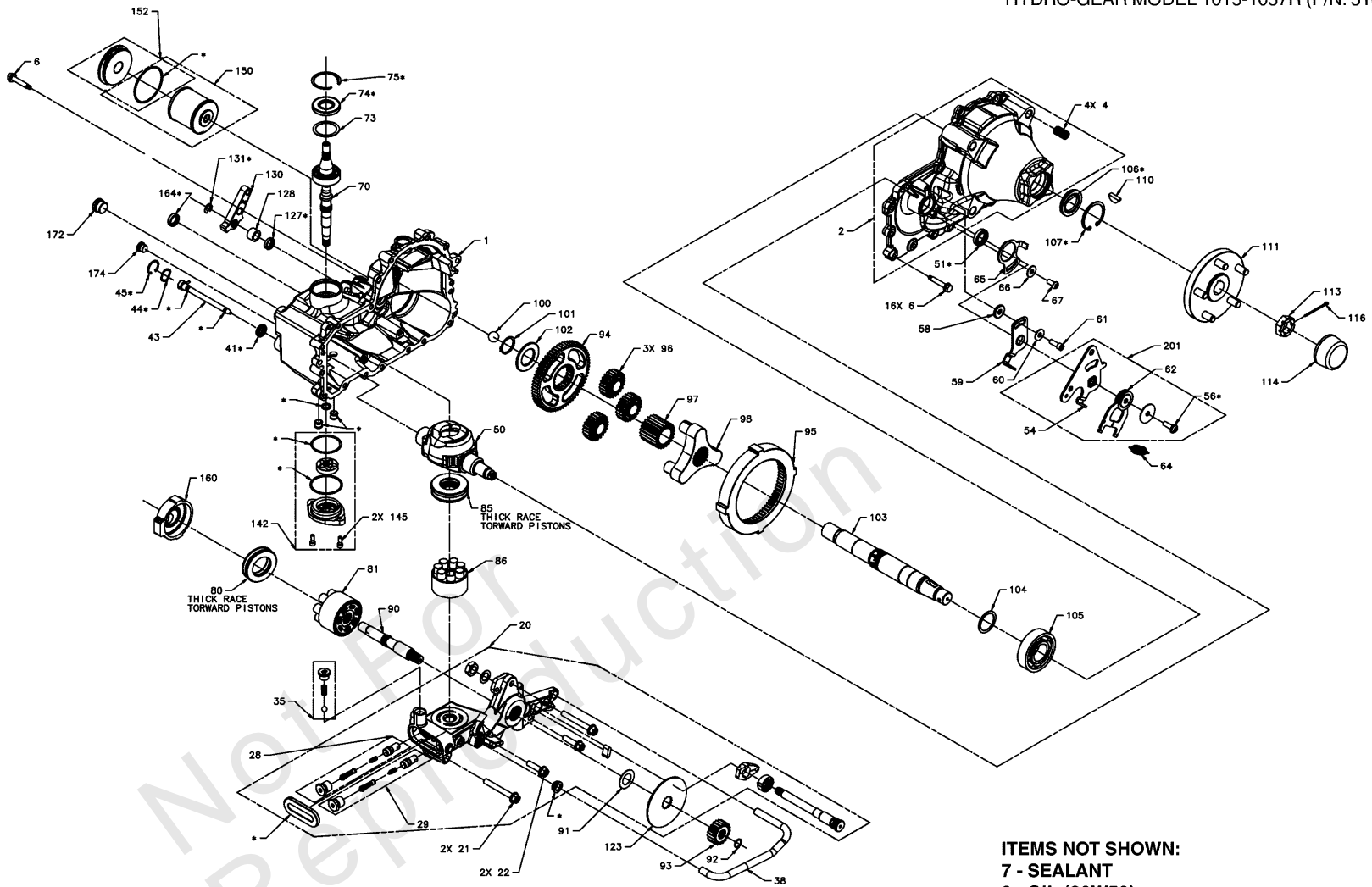
Transaxle SERVICE PARTS - ZT5400

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032

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, HG# 55526 -(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)
106	5104385X5	1	KIT, AXLE SEAL -(Hydro-Gear P/N 53008)
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)
127	5109995	1	BRAKE SHAFT SEAL, 55523, ZT4400 & ZT5400 -(Hydro-Gear P/N 55523)(Refer to Note: *)

Not For
Reproduction

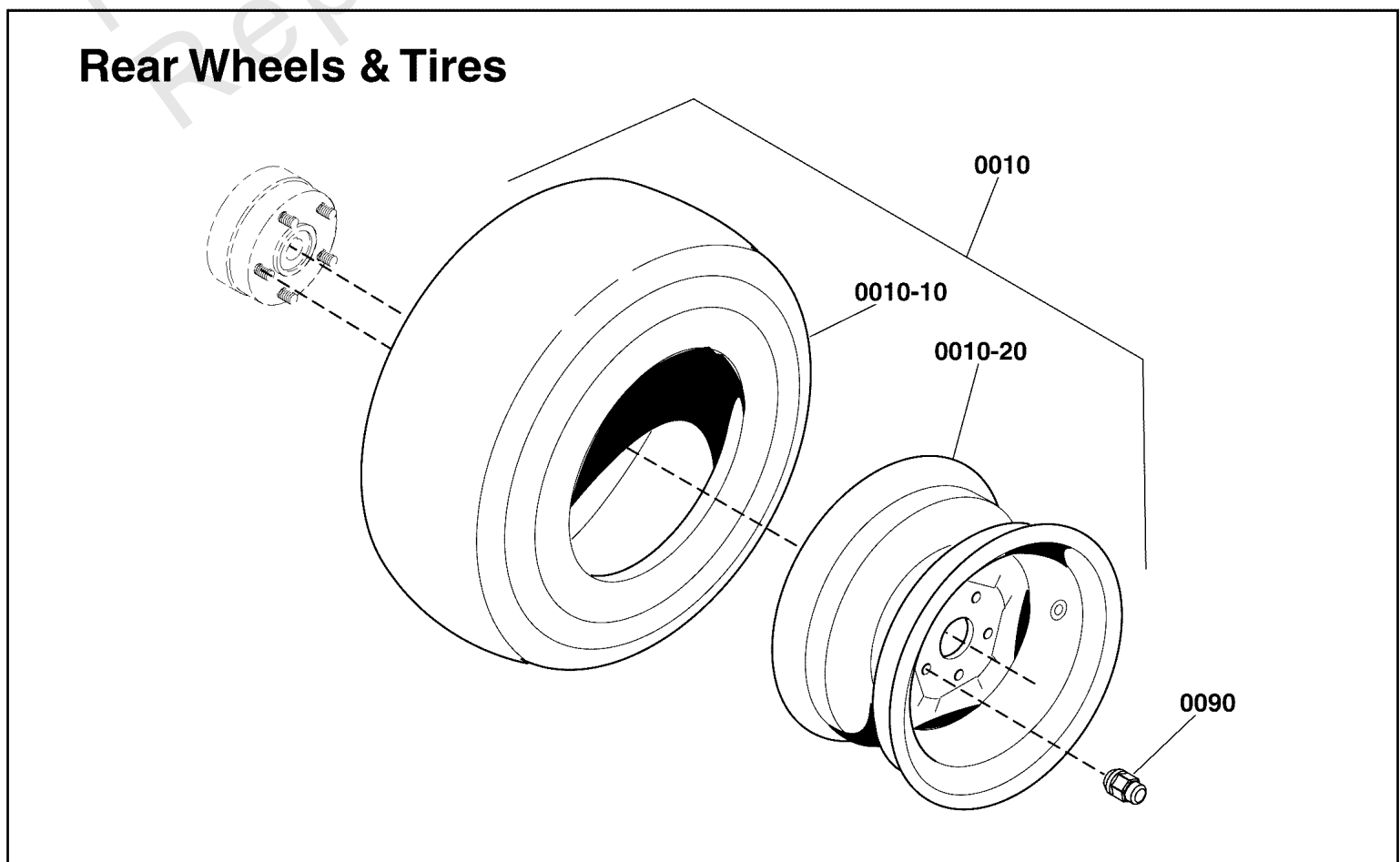
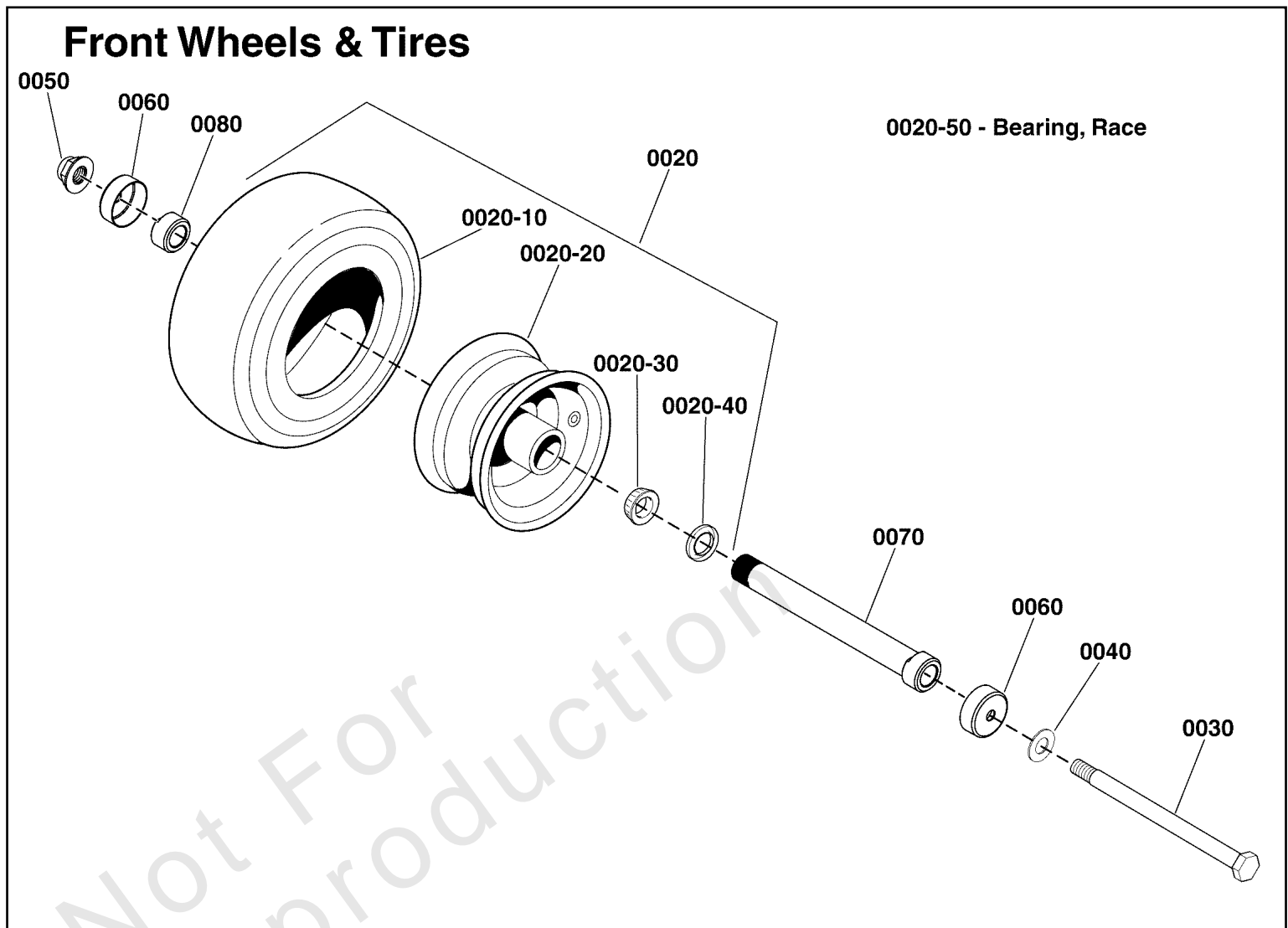
Footnotes:

Note: *See F173 Service Bulletin/55949 HG Seal to ensure correct seal is being used.

Wheel and Tire Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5902032



Wheel and Tire Group

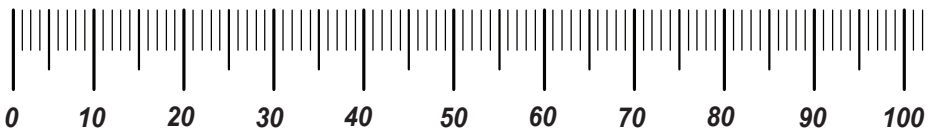
REF NO	PART NO	QTY	DESCRIPTION
0010	5108784	2	TIRE/WHEEL 26X12.00-12 MULTI TRAC, BLACK
0010-10	84003893	2	TIRE, 26 X 12 - 12 -(One per tire.)
0010-20	5108784X1	2	WHEEL, 12 X 9.50, 5/4.5, VIKING BLACK -(One per tire.)
0020	5109035	2	TIRE ASM, 13 X 6.5 - 6, PNE / TB, BLK
0020-10	5022577	2	TIRE, RUBBER ONLY -(One per tire.)
0020-20	-----	2	WHEEL ASSEMBLY, for 13 x 6.5 x 6 Tire, Blk -(One per tire.)
0020-30	5022631SX2	4	BEARING, Tapered Roller -(Two per tire.)
0020-40	5022631SX3	4	SEAL, GREASE -(Two per tire.)
0020-50	5022631SX4	4	BEARING, RACE -(Two per tire.)
0030	5025017X72	2	BOLT, 1/2-13 X 9" GD5 YZ
0040	5025158	2	WASHER, 1/2 SAE
0050	5025396	2	NUT, Hex Flange, Nylock, 1/2-13
0060	5108803	4	DUST CAP, CASTER TIRE, BLACK
0070	5103649	2	BEARING ADJUSTER, SPACER, 7.062 LG
0080	5103650	2	NUT, BEARING ADJUSTER, AXLE
0090	-----	10	LUG NUT, Black -(Originally Black Lug nut - Replacement 5020601SM is silver in color).
0090	5020601SM	10	NUT, 1/2-20, FOR WHEEL BOLT SILVER -(Replacement 5020601SM is silver in color).

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.

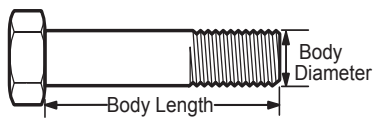


Nut, M8

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).

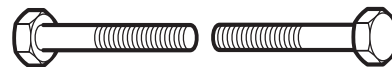
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw,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

