



Parts Manual

Mfg. No: 2690370

Citation, 23HP Briggs & Stratton Zero-Turn
Rider w/ 52" Mower Deck

1694771 - 52" Mower Deck.

1694768 - Citation, 23HP Briggs & Stratton Zero-Turn Rider.

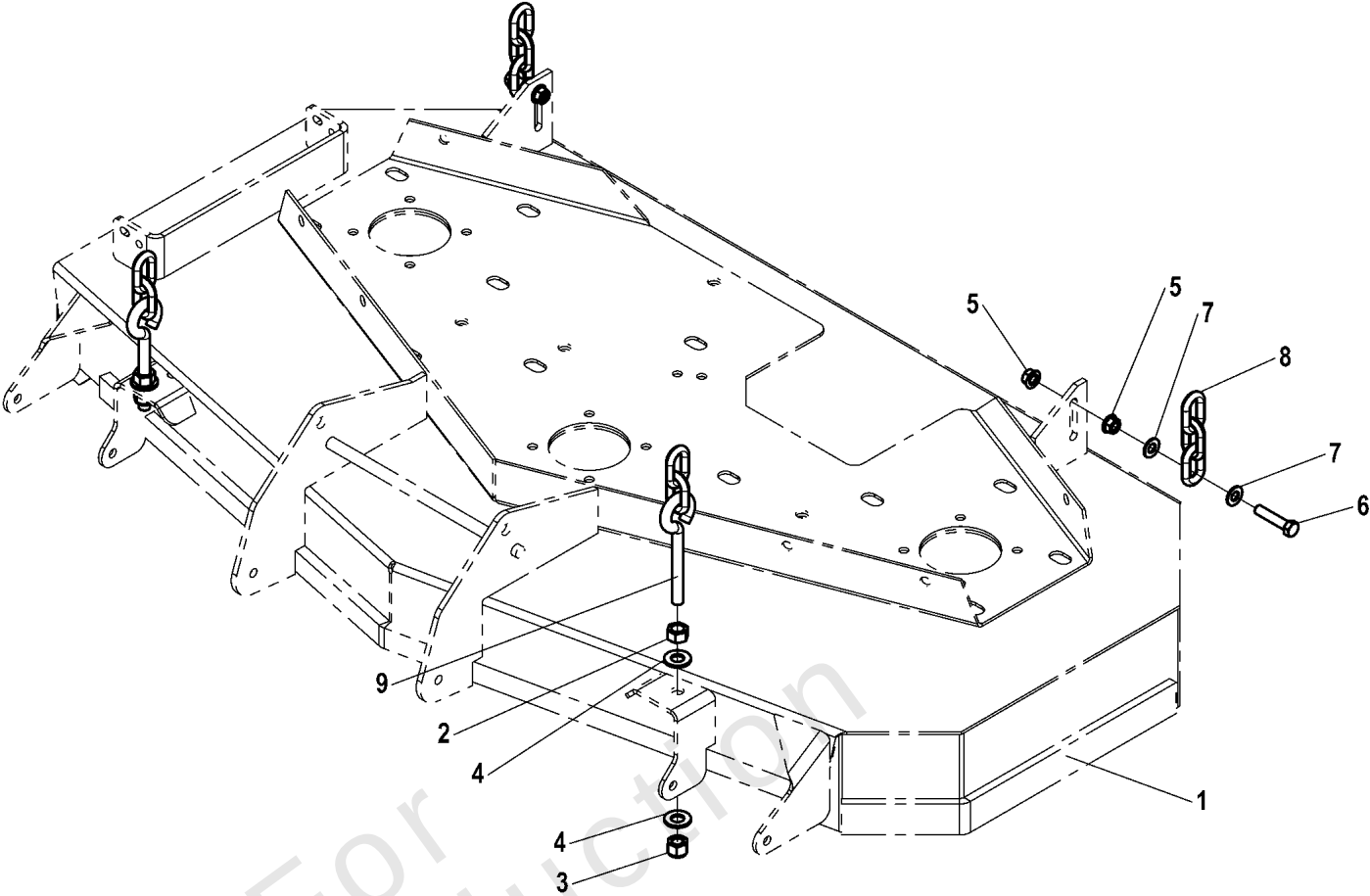
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48" & 52" Mower Deck - Hanger Chains (1975CH0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



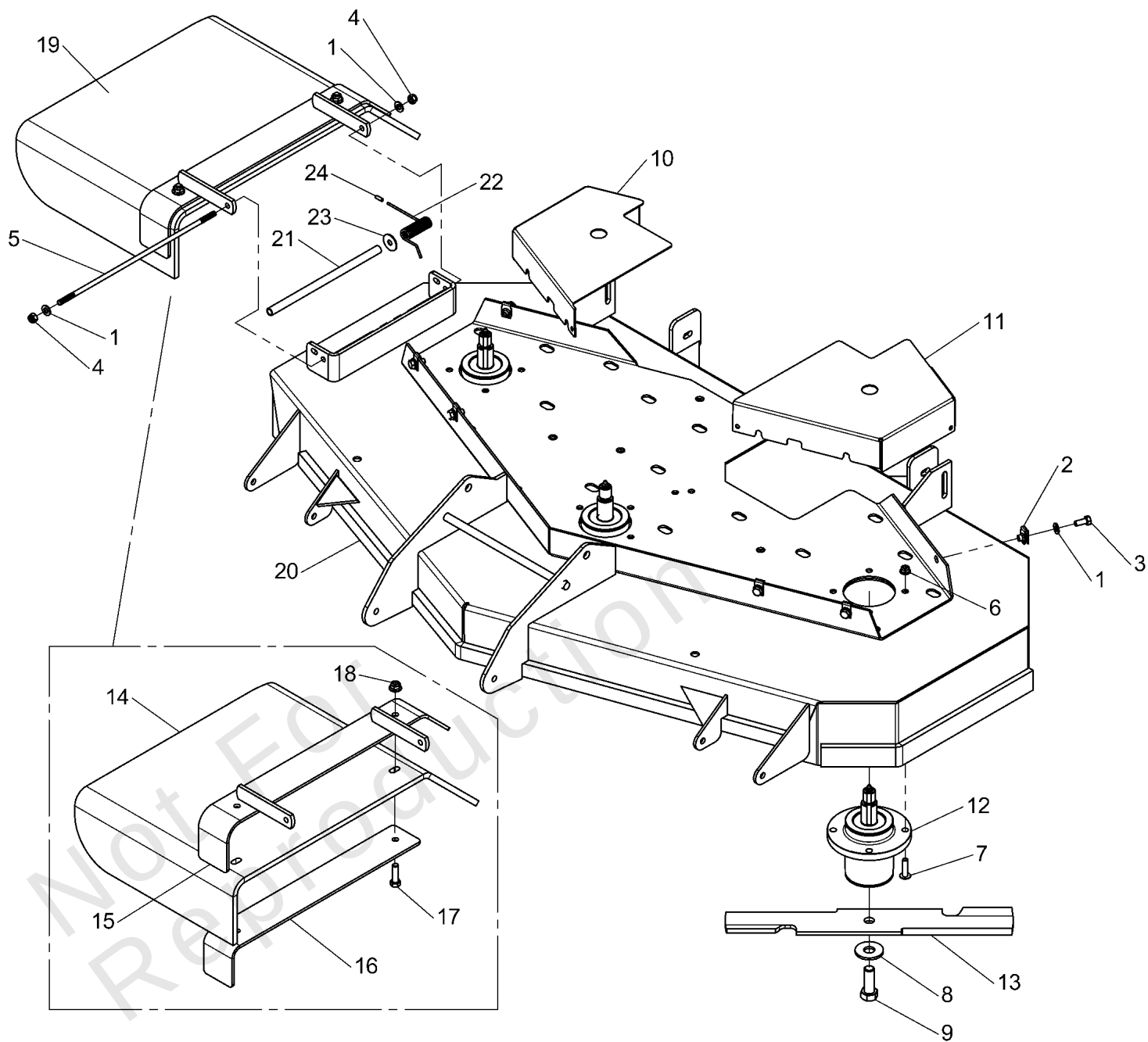
48" & 52" Mower Deck - Hanger Chains (1975CH0)

REF NO	PART NO	QTY	DESCRIPTION
1	-----	-	MOWER DECK
2	5025038SM	2	NUT, 1/2-13 Hex
3	5025056SM	2	NUT, 1/2-13 Hex Nylon Lock
4	5025158SM	4	WASHER, 1/2" SAE
5	5025128SM	4	NUT, 3/8-16 HEX SERRA
6	5025013X14SM	2	BOLT, 3/8-16 X 1-3/4"
7	5025156SM	4	WASHER 3/8" SAE
8	5050878X3SM	2	CHAIN, 5/16" GD30, 3
9	5104309YP	2	HANGER, FRONT DECK-2L

48" & 52" Mower Deck - Housing, Cover, Spindle & Blade (1975HC0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



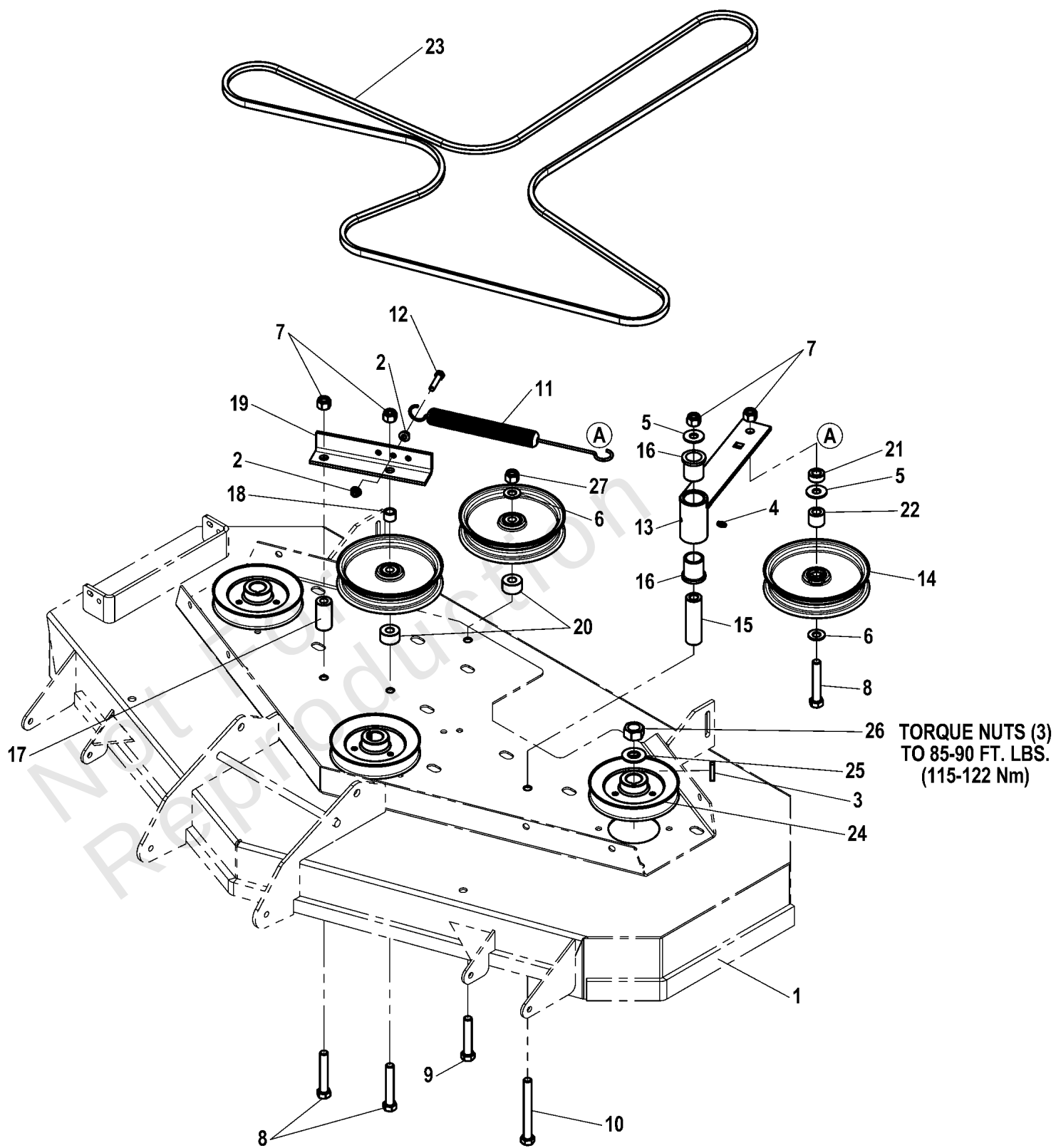
48" & 52" Mower Deck - Housing, Cover, Spindle & Blade (1975HC0)

REF NO	PART NO	QTY	DESCRIPTION
1	703302	8	WASHER, 5/16
2	5022308SM	6	BODY CLIP, 5/16-18 X
3	5025011X6SM	6	BOLT, 5/16-18 X 3/4"
4	5025045SM	2	NUT, 5/16-24 HEX NYLO
5	5042555SM	1	ROD, BRAKE LINKAGE
6	703115	12	NUT
7	5023156SM	12	BOLT, 5/16-18 X 1 1/4
8	5025159SM	3	WASHER, 5/8" USS
9	770136	3	BOLT
10	5049881CSM	1	GUARD, 48" DECK - RH
10	5061810CSM	1	GUARD, 52" DECK - RH
11	5049882CSM	1	GUARD, 48" DECK - LH
11	5061811CSM	1	GUARD, 52" DECK - LH
12	5061095SM	3	ASSM, SPINDLE, LOW PR -(Nut and Washer sold seperately)
13	5020843ASM	3	MOWER BLADE, 16-1/4" (48" deck)
13	5021227ASM	3	MOWER BLADE, 18" (52" Deck)
14	5100524SM	1	RUBBER CHUTE
15	5413404AYP	1	WELD, FRAME CHUTE, 44/48/52 - BLK
16	5402362A	1	SUPPORT, DISCHARGE CHUTE, 48/52 - BLK
17	5025013X10SM	1	BOLT, 3/8-16 X 1-1/4"
18	5025394SM	1	NUT, 3/8-16 HEX NYLOCK
19	-----	1	NO LONGER AVAILABLE - ORDER INDIVIDUAL REPLACEMENT PARTS -(Includes Ref No. 15 - 19)
20	5300030SM	1	MOWER DECK ASSEMBLY, 48" -(Includes safety decals)
20	5300031SM	1	MOWER DECK ASSEMBLY, 52" -(Includes safety decals)
21	5050086X8SM	1	TORSION SPRING SPACER
22	5023385SM	1	SPRING, TORSION
23	5025164SM	1	WASHER, 5/16" FENDER
24	5023489SM	1	CAP, PROTECTOR, .120

48" & 52" Mower Deck - Pulleys, Belts & Idler Arm (1975PB0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



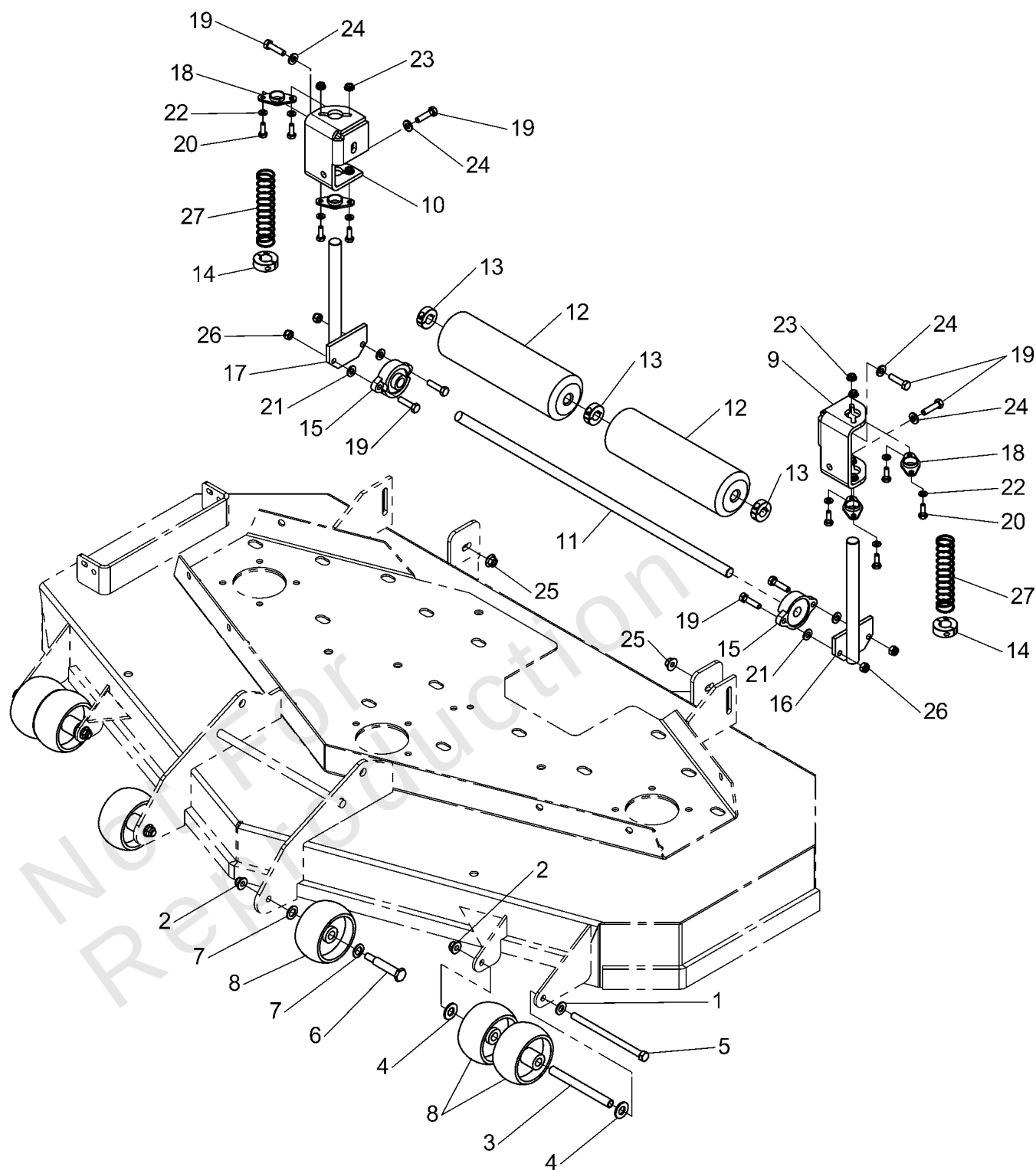
48" & 52" Mower Deck - Pulleys, Belts & Idler Arm (1975PB0)

REF NO	PART NO	QTY	DESCRIPTION
1	-----	0	MOWER DECK
2	1931277SM	2	NUT, 5/16-18 Hex Small Serrated Flange
3	5050407X5SM	3	KEY, 1/4 SQ. X 1-1/4
4	5020095SM	1	GREASE FITTING, 1/4-2
5	5025150SM	2	WASHER, 1/2" USS
6	5025158SM	2	WASHER, 1/2" SAE
7	5025056SM	4	NUT, 1/2-13 Hex Nylon Lock
8	5025017X28SM	3	BOLT, 1/2-13 X 3-1/2"
9	5025018X20SM	1	BOLT, 1/2-20 X 2-1/2"
10	505025422	1	BOLT, 1/2-13 X 4-3/4
11	5023340SM	1	SPRING, EXTENSION, SW
12	5025011X12SM	1	BOLT, 5/16-18 X 1-1/2
13	5407343YP	1	ASSM, IDLER ARM - BLK - 5407039A (SV) -(Includes bushings and grease fittings.)
14	-----	3	Replace with: Pulley #5104717YP & Debris Shield #5105145YP
15	5061339SM	1	SPACER, .52 X 1.00 X
16	5021541SM	2	BUSHING, FLANGE
17	5043607	1	SPACER, .50 X 1.00 X 2.00
18	5047027SM	1	SPACER, .51 X .75 X .
19	5049874CSM	1	ANCHOR, SPRING
20	5047142SM	2	SPACER, .52 X 1.25 X
21	5045023SM	1	SPACER, .52 X 1.00 X
22	5044673SM	1	SPACER, .52 X 1.00 X
23	5023297SM	1	BELT, 48" DECK
23	5104065YP	1	BELT, 5V, 160.60"EL,
24	5023175SM	3	PULLEY, 5.72., 48" DE
24	5023178SM	3	PULLEY, 6.122 OD., 52
25	770223	1	WASHER, 3/4" Belleville (Included with Complete Spindle Assembly)
26	5025405SM	1	NUT, 3/4-16 HEX
27	5025098SM	1	NUT, 1/2-20 HEX NYLON

48" & 52" Mower Deck - Rollers (1975RL0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



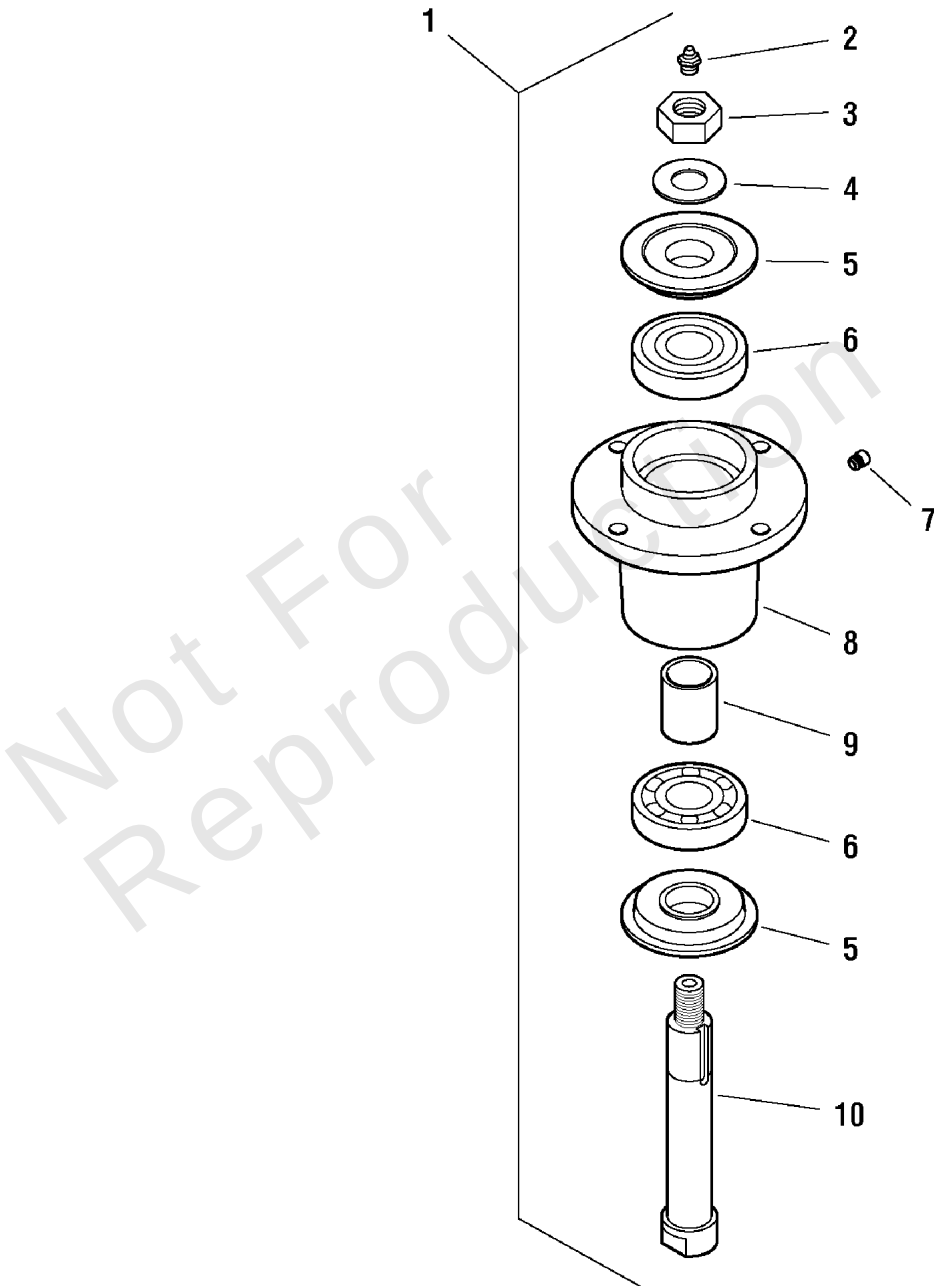
48" & 52" Mower Deck - Rollers (1975RL0)

REF NO	PART NO	QTY	DESCRIPTION
1	5025156SM	2	WASHER 3/8" SAE
2	5025394SM	4	NUT, 3/8-16 HEX NYLOCK
3	5046586SM	2	SPACER, .38 X .50 X 5
4	5025158SM	4	WASHER, 1/2" SAE
5	5025013X48SM	2	BOLT, 3/8-16 X 6" GD5
6	2108765SM	2	BOLT-WHEEL 3/8-16X2.7
7	1960027SM	4	WASHER
8	1714760SM	6	GAUGE WHEEL
9	5048603CSM	1	STRIPER MOUNT, LH
10	5048604CSM	1	STRIPER MOUNT, RH
11	5046903SM	1	SHAFT, Roller
12	5020785SM	2	ROLLER, DECK
13	5020441SM	3	COLLAR, 5/8" SPLIT
14	5020594SM	2	COLLAR, 3/4" DOUBLE S
15	5022846SM	2	BEARING, FLANGE, 5/8
16	5046900CSM	1	GUIDE SHAFT, LH
17	5046901CSM	1	GUIDE SHAFT, RH
18	5023155SM	4	BUSHING, FLANGE
19	5025011X10SM	8	BOLT, 5/16-18 X 1-1/4"
20	5025010X6SM	8	BOLT, 1/4-20 X 3/4" G
21	703302	4	WASHER, 5/16
22	703332	8	WASHER
23	703233	8	NUT, 1/4-20, GR5
24	5025292SM	4	WASHER, 5/16" GD.9 FL
25	5025139SM	4	NUT, 5/16-18 HEX SERR
26	5025057SM	4	NUT 5/16-18 Hex Nylon Lock
27	5022845SM	2	SPRING, COMP, 1.1 X O

48" & 52" Mower Deck - Spindle Service Parts Group (197SPN0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370

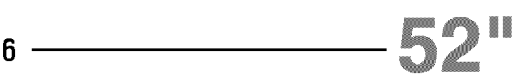
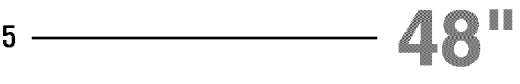
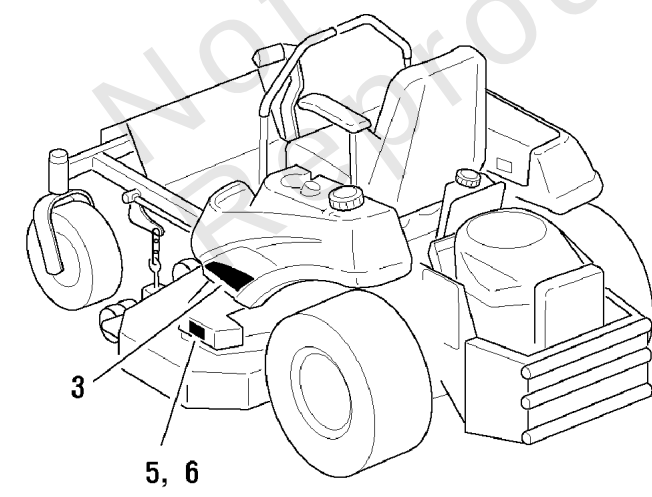
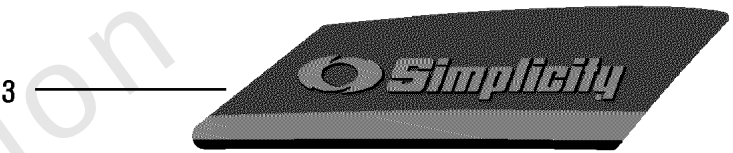
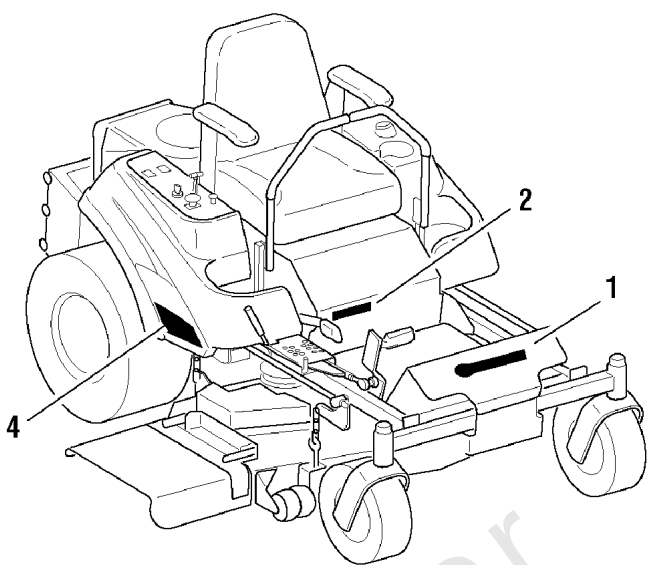


48" & 52" Mower Deck - Spindle Service Parts Group (197SPN0)

REF NO	PART NO	QTY	DESCRIPTION
1	5061095SM	3	ASSM, SPINDLE, LOW PR -(Nut and Washer sold seperately)
2	5023329SM	3	FITTING
3	5025405SM	3	NUT, 3/4-16 HEX
4	770223	3	WASHER, 3/4" Belleville
5	5049793SM	6	SHIELD, TRASH
6	5023330SM	6	BEARING, .98 X 2.44 X
7	5023296SM	3	FITTING, RELIEF, 1-5
8	5061097SM	3	SPINDLE HOUSING
9	5061099SM	3	SPACER
10	5061098SM	3	SHAFT, SPINDLE

Decals - Brand & Model (197DCLB0)

Note: Unless noted otherwise, use the standard torque specifications Mfg. No: 2690370



Decals - Brand & Model (197DCLB0)

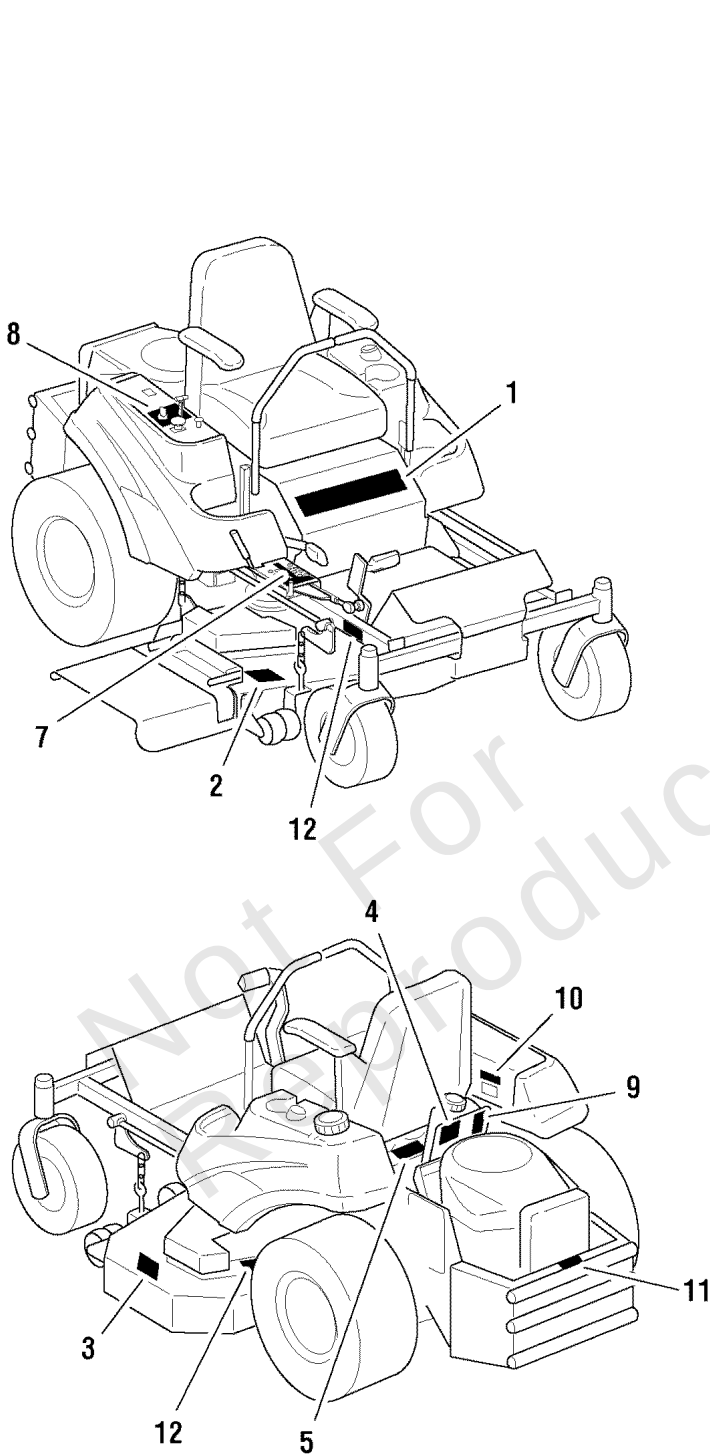
REF NO	PART NO	QTY	DESCRIPTION
1	1722551SM	1	DECAL, Simplicity Logo
2	5061821SM	1	DECAL, Citation
3	5061817SM	1	DECAL, Badge, RH
4	5061816SM	1	DECAL, Badge, LH
5	5022811SM	1	DECAL, 48
6	5022812SM	1	DECAL, 52

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Decals - Safety & Operation (197DCLS0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



1 —

2 —

3 —

4 —

5 —

6 —

Belts & Blades	
Tractor	
Pump Drive Belt	5033114
44" Mower	
Deck Drive Belt	503498
Mower Blade	5011627
48" Mower	
Deck Drive Belt	5033987
Mower Blade	5030843
52" Mower	
Deck Drive Belt	5034335
Mower Blade	5031227

7 —

8 —

9 —

10 —

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

11 —

Decals - Safety & Operation (197DCLS0)

REF NO	PART NO	QTY	DESCRIPTION
1	5061106SM	1	DECAL-LONG FRONT OF S
2	1704277SM	1	DECAL, Danger (Chute In Place)
3	1704276SM	1	DECAL-DANGER DO NOT P
4	5049658SM	1	DECAL, Danger
5	1725941SM	1	DECAL, CZT Hydro Release
6	5100668SM	1	DECAL, BELT & BLADE,
7	5061724SM	1	DECAL, Height of Cut
8	5061572SM	1	DECAL, Ignition / Throttle
9	5048454SM	1	DECAL, OIL RESEVOIR
10	5046503SM	1	DECAL, FUSE LOCATION
11	1704473SM	1	DECAL, Hot
12	-----	1	DECAL, ID Plate

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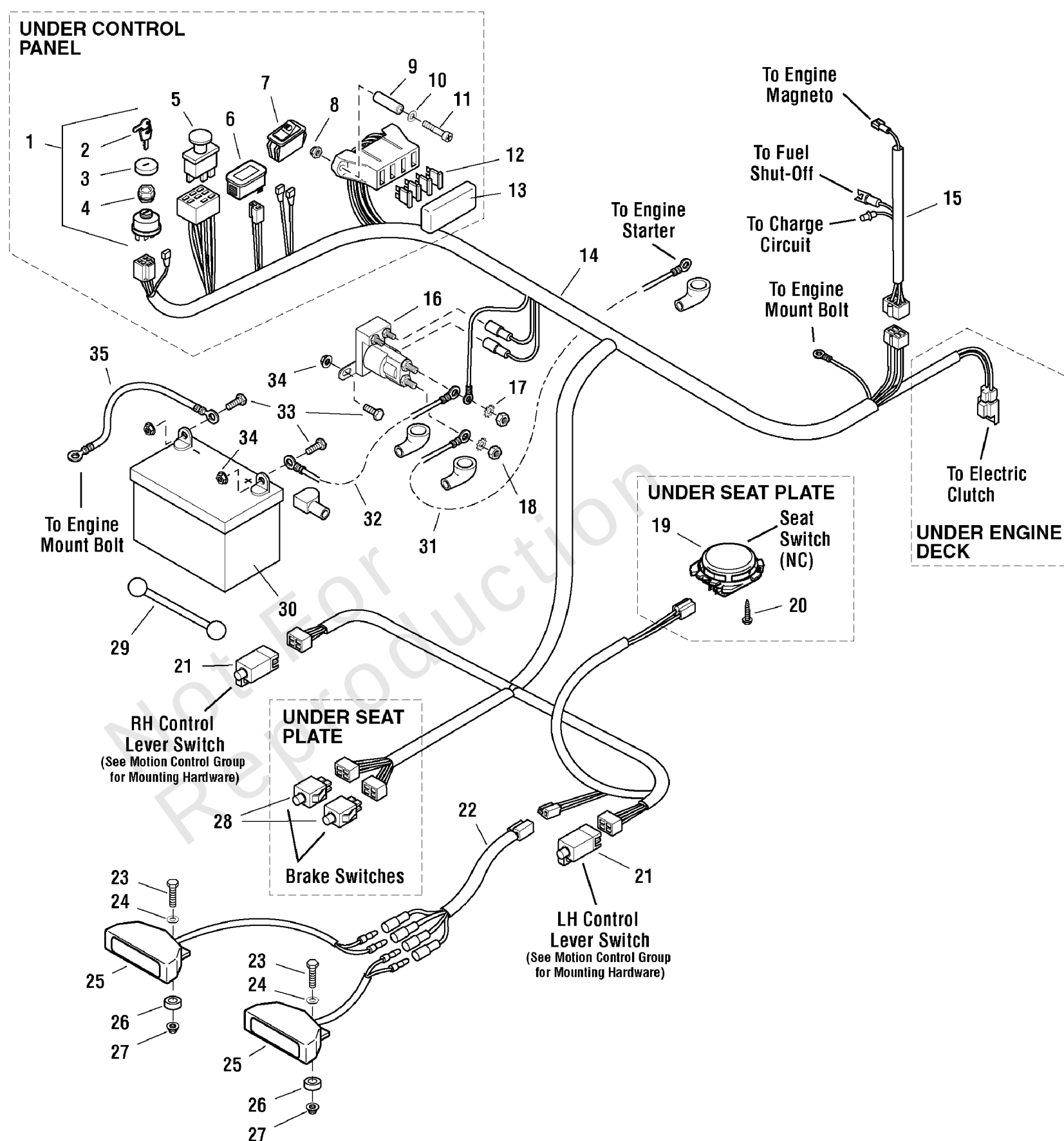
Footnotes:

Note:* Not a serviceable part.

Electrical Group - Early Models (197EGB0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



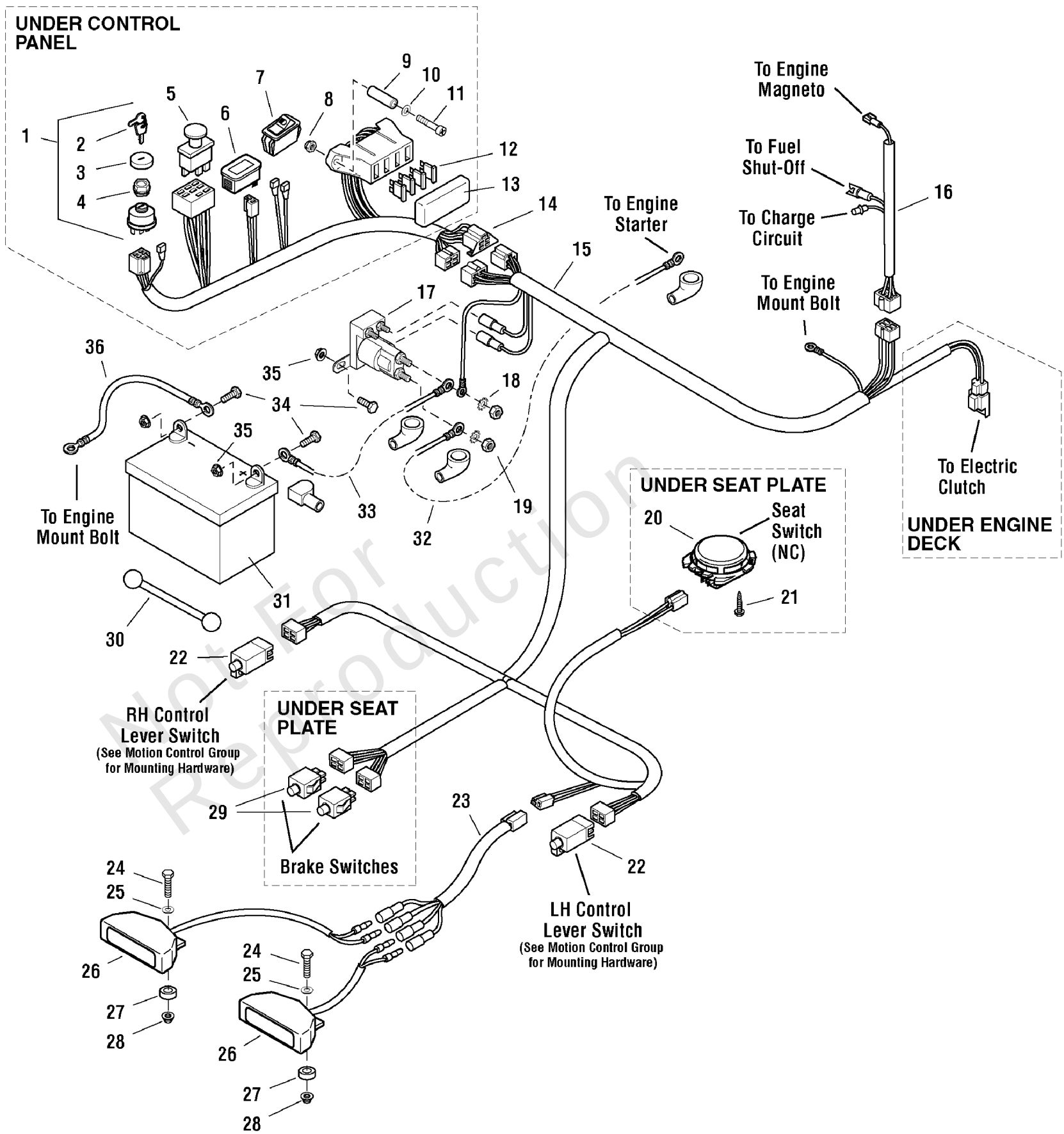
Electrical Group - Early Models (197EGB0)

REF NO	PART NO	QTY	DESCRIPTION
1	1686734SM	1	IGNITION SWITCH
2	1717163SM	1	KEY-IGNITION INDAK
3	1704346SM	1	COVER
4	5022791SM	1	PLASTIC NUT
5	1722887SM	1	SWITCH-PTO PUSH
6	1731184SM	1	HOUR METER
7	1703799SM	1	SWITCH, HEADLIGHT
8	703412	2	NUT, NYLOCK, 10-24 -(5025271)
9	5061763SM	2	SPACER, .20 x .38 x 1.25
10	5023499SM	2	WASHER, #10 SAE
11	502527016	2	SCREW, #10-24 x 2"
12	5021603SM	4	FUSE, ATO, 20 AMP
13	5022805SM	1	COVER, VINYL FUSEBLOC
14	5049972SM	1	HARNESS ASSEMBLY, Main
15	5049974SM	1	ENGINE HARNESS
16	1686981SM	1	SOLENOID
17	5023217SM	2	WASHER, 5/16 LIGHT LO
18	2820438SM	2	NUT, Hex Jam, 5/16-24
19	1716368SM	1	SWITCH-OP PRESEN
20	1960536SM	2	SCREW, HEX WSHR HD PL
21	1717050SM	2	SWITCH-PUSH BUTT
22	5061793SM	1	WIRE HARNESS, HEADLIG
23	5025010X10SM	2	BOLT, 1/4-20 X 1-1/4"
24	703332	2	WASHER
25	5023482SM	2	HEADLIGHT
26	5044933SM	2	SPACER, .39 X .75 X .
27	703463	2	NUT, GR5, 1/4-20
28	7022886YP	2	SWITCH, DP NO/NC SNAP
29	1722009SM	1	STRAP, BATTERY, 14 LONG, Rubber
30	1685215SM	1	BATTERY, 12V
31	5023488	1	POSITIVE (+) BATTERY CABLE, 22"
32	5021405SM	1	BATTERY CABLE, POSITI
33	5025010X6SM	4	BOLT, 1/4-20 X 3/4" G
34	703233	4	NUT, 1/4-20, GR5
35	5044014SM	1	BATTERY CABLE, NEGATI

Electrical Group - Later Models (197EGB1)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



Electrical Group - Later Models (197EGB1)

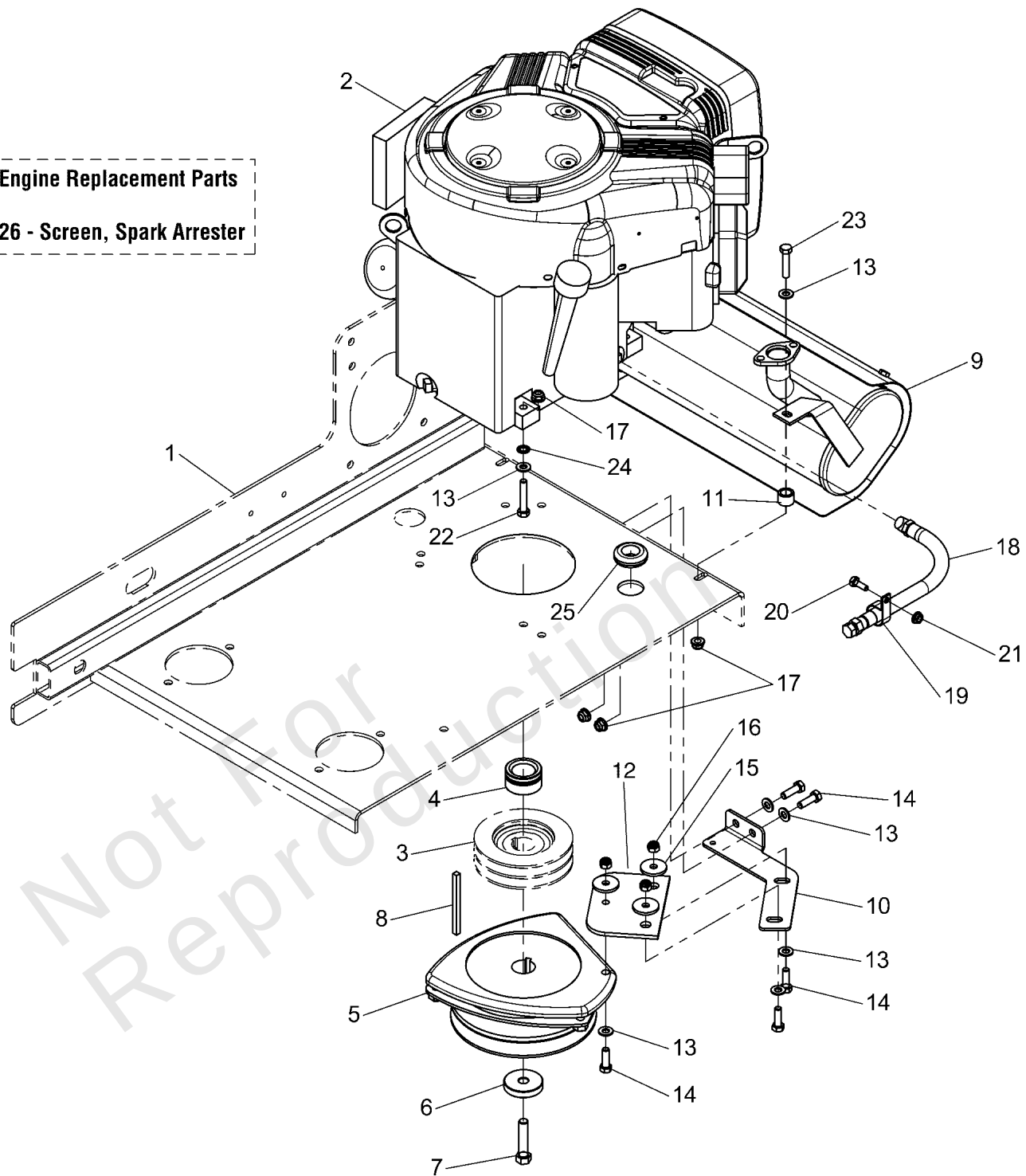
REF NO	PART NO	QTY	DESCRIPTION
1	1686734SM	1	IGNITION SWITCH
2	1717163SM	1	KEY-IGNITION INDAK
3	1704346SM	1	COVER
4	5022791SM	1	PLASTIC NUT
5	1722887SM	1	SWITCH-PTO PUSH
6	1731184SM	1	HOUR METER
7	1703799SM	1	SWITCH, HEADLIGHT
8	703412	2	NUT, NYLOCK, 10-24 -(5025271)
9	5061763SM	2	SPACER, .20 x .38 x 1.25
10	5023499SM	2	WASHER, #10 SAE
11	502527016	2	SCREW, #10-24 x 2"
12	5021603SM	4	FUSE, ATO, 20 AMP
13	5022805SM	1	COVER, VINYL FUSEBLOC
14	5400067SM	1	HARNESS ASSEMBLY, Control Panel
15	5400068SM	1	HARNESS ASSEMBLY, Main
16	5049974SM	1	ENGINE HARNESS
17	1686981SM	1	SOLENOID
18	5023217SM	2	WASHER, 5/16 LIGHT LO
19	2820438SM	2	NUT, Hex Jam, 5/16-24
20	1716368SM	1	SWITCH-OP PRESEN
21	1960536SM	2	SCREW, HEX WSHR HD PL
22	1717050SM	2	SWITCH-PUSH BUTT
23	5061793SM	1	WIRE HARNESS, HEADLIG
24	5025010X10SM	2	BOLT, 1/4-20 X 1-1/4"
25	703332	2	WASHER
26	5023482SM	2	HEADLIGHT
27	5044933SM	2	SPACER, .39 X .75 X .
28	703463	2	NUT, GR5, 1/4-20
29	7022886YP	2	SWITCH, DP NO/NC SNAP
30	1722009SM	1	STRAP, BATTERY, 14 LONG, Rubber
31	1685215SM	1	BATTERY, 12V
32	5023488	1	POSITIVE (+) BATTERY CABLE, 22"
33	5021405SM	1	BATTERY CABLE, POSITI
34	5025010X6SM	4	BOLT, 1/4-20 X 3/4" G
35	703233	4	NUT, 1/4-20, GR5
36	5044014SM	1	BATTERY CABLE, NEGATI

Engine Group - PTO (197ENGB0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370

Engine Replacement Parts
26 - Screen, Spark Arrester



Engine Group - PTO (197ENGB0)

REF NO	PART NO	QTY	DESCRIPTION
1	-----	1	MAIN FRAME (See Main Frame Group)
2	385777-0115-E1	1	* ENGINE, 21HP Briggs & Stratton (Model# 385777, Type# 0115-E1)
2	386-0114-E1	1	* ENGINE, 23HP Briggs & Stratton (Model# 386777, Type# 0114-E1)
3	-----	1	CRANKSHAFT PULLEY (See Pump Drive Group)
4	5046845	1	SPACER, 1.13 X 1.75 X .97
5	5023432SM	1	CLUTCH,#526115,ELECTR
6	5045475SM	1	SPACER, .45 X 1.88 X
7	5044853SM	1	BOLT, CRANKSHAFT, 7/16" X 2"
8	505040728	1	KEY, 1/4" SQ. X 3-1/2"
9	5100361SM	1	MUFFLER
10	5061857CSM	1	PLATE, CLUTCH ANCHOR
11	5047027SM	2	SPACER, .51 X .75 X .
12	5043636SM	1	CLUTCH ANCHOR PAD
13	703302	11	WASHER, 5/16
14	703570	5	CAPSCREW, Hex Head, 5/16-18 x 1 1/4
15	5044617009	3	WASHER, Clutch Anchor, 5/16
16	5025057SM	3	NUT, Hex Lock, 5/16-18
17	703115	8	NUT
18	5048681SM	1	HOSE, OIL DRAIN
19	5021500SM	1	CLAMP, VINYL INSULATED, 1.00
20	5025010X6SM	1	BOLT, 1/4-20 X 3/4" G
21	703233	1	NUT, 1/4-20, GR5
22	5025011X14SM	4	BOLT, 5/16-18 X 1-3/4
23	5025011X12SM	2	BOLT, 5/16-18 X 1-1/2
24	5025188SM	4	WASHER, 5/16" INT. TO
25	5021379SM	1	GROMMET, 7/8
26	-----	1	NO LONGER AVAILABLE - SCREEN, SPARK ARRESTER -(Not illustrated)

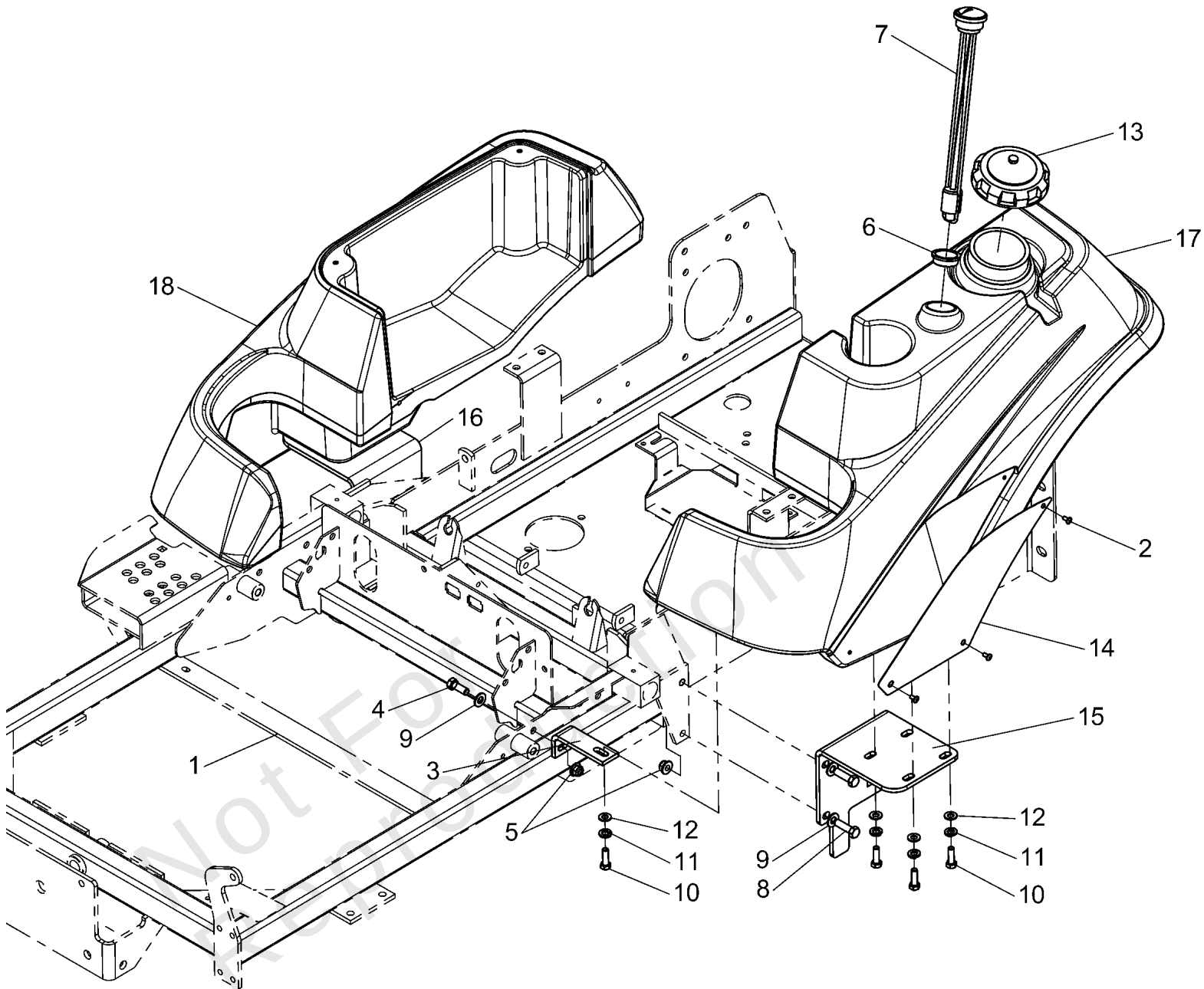
Footnotes:

Note:* See your local Briggs & Stratton distributor for parts & service.

Fuel Tank & Mount Group (197TNK0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



Fuel Tank & Mount Group (197TNK0)

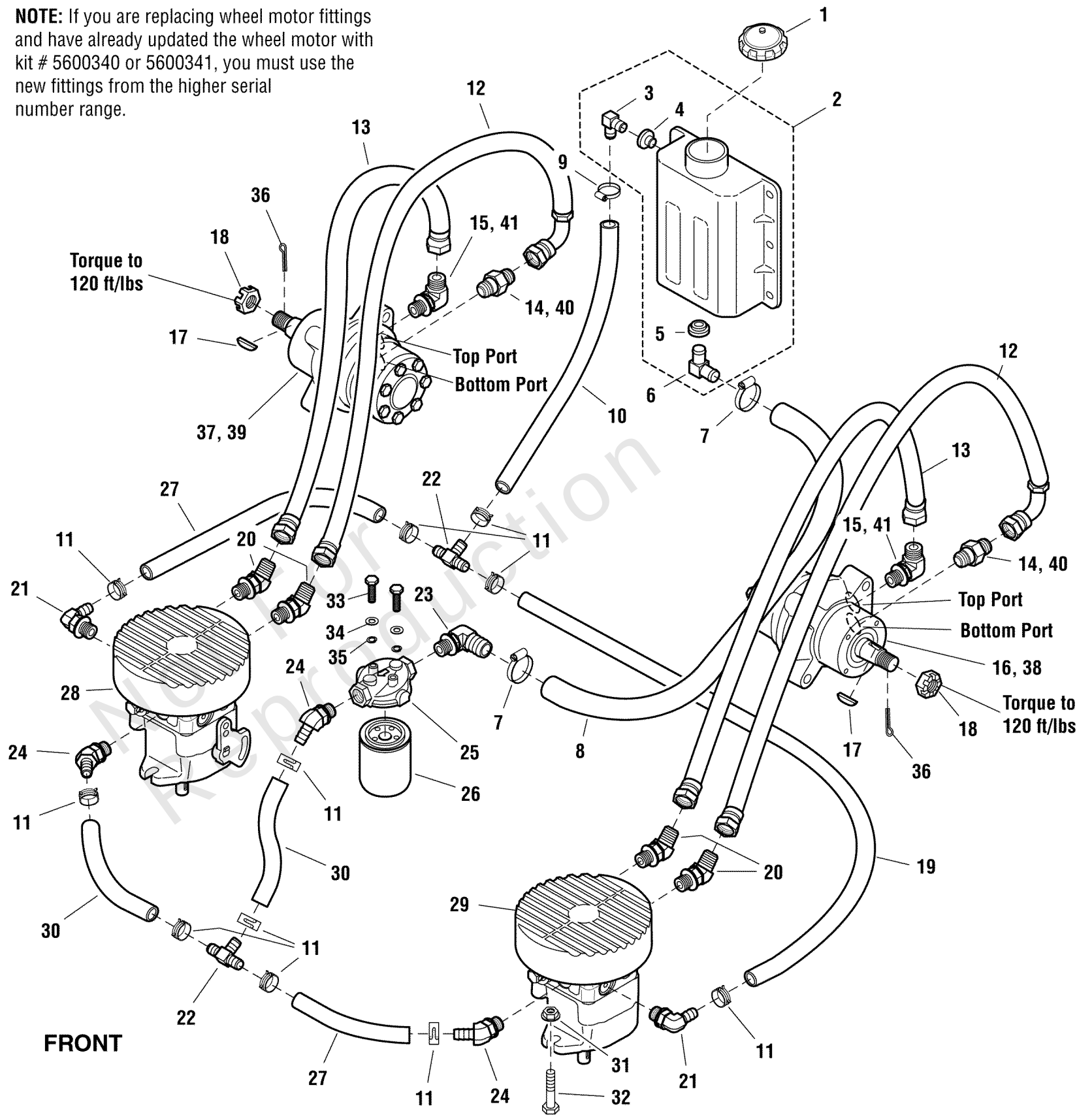
REF NO	PART NO	QTY	DESCRIPTION
1	-----	-	MAIN FRAME (See Main Frame Group)
2	5025386SM	3	SCREW, #10-24 X 3/8"
3	5400012A	2	MOUNT, TANK, FRONT - BLK
4	5025013X8SM	2	BOLT, 3/8-16 X 1" GD5
5	5025394SM	6	NUT, 3/8-16 HEX NYLOCK
6	5022917X1SM	1	GROMMET, FUEL GAUGE
7	5022917SM	1	GAUGE, FUEL, 12
8	5025013X10SM	4	BOLT, 3/8-16 X 1-1/4"
9	5025156SM	6	WASHER 3/8" SAE
10	703570	10	CAPSCREW, Hex Head, 5/16-18 x 1 1/4
11	5025170SM	10	WASHER, 5/16" LOCK
12	703302	10	WASHER, 5/16
13	5022158SM	1	CAP, FUEL TANK, 3-1/2" NECK
14	5400250CSM	2	PLATE, BADGE
15	5049942CSM	1	TANK MOUNT - LH
16	5049941CSM	1	WELD, TANK MOUNT, RH
17	5049947SM	1	TANK, FUEL, CITATION/ZT400 - LH
18	5049948SM	1	TANK, FUEL, 1500Z - R

Hydraulic Group (197HYD0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370

NOTE: If you are replacing wheel motor fittings and have already updated the wheel motor with kit # 5600340 or 5600341, you must use the new fittings from the higher serial number range.



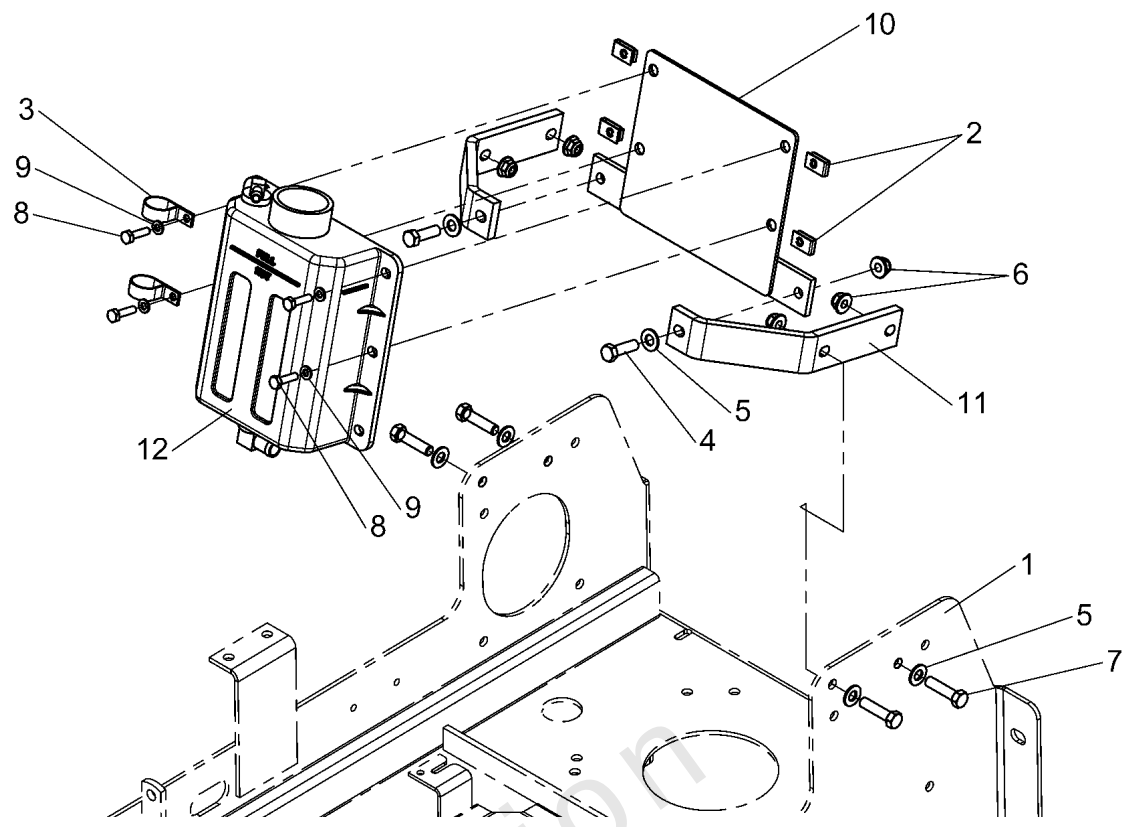
Hydraulic Group (197HYD0)

REF NO	PART NO	QTY	DESCRIPTION
1	5100017SM	1	CAP, HYDRAULIC
2	5061712SM	1	TANK, HYDRAULIC, ASSE
3	5023118SM	1	FITTING, Elbow, 3/8"
4	1726400SM	1	GROMMET
5	5023121SM	1	GROMMET
6	5023119	1	FITTING, Elbow, 5/8"
7	5021164SM	2	CLAMP, #10 HOSE, STAI
8	505093324	1	HOSE, Hydraulic, 24"
9	5022922SM	1	CLAMP, #4 HOSE, STAIN
10	505086018	1	HOSE, Hydraulic, 18"
11	5023268SM	11	CLAMP, HOSE
12	5102095SM	2	HYDRAULIC HOSE ASSEMBLY, 25"
13	5102094SM	2	HYDRAULIC HOSE ASSEMBLY, 21"
14	5022633SM	2	ADAPTER, HYD. -(S/N: 2013830719 & Below)
15	5022599SM	2	FITTING, #8 JIC - #8 -(S/N: 2013830719 & Below)
16	-----	-	No Longer Available. Use "S/N: 2013830720 & Above" Service Parts -(S/N: 2013830719 & Below)
17	5022042X2SM	2	KEY
18	5022042X3	2	NUT
19	505086023	1	HOSE, Hydraulic, 23"
20	5023338SM	4	FITTING, O-Ring, 45 Deg.
21	5023267SM	2	ADAPTER, 90 DEG, 9/16
22	5022920SM	2	FITTING, TEE, 1/2" HO
23	5023346SM	1	ADAPTER, 90 DEG, 9/16
24	5023461SM	3	FITTING, O-Ring, 45 Deg.
25	5023096SM	1	FILTER HEAD, HYDRAULI
26	1719168SM	1	FILTER
27	5050860X65	2	HOSE, Hydraulic, 6-1/2"
28	5023373SM	1	HYDRAULIC PUMP, RH
28	5023371SM	1	FAN SHROUD
29	5023372SM	1	HYDRAULIC PUMP, LH
29	5023371SM	1	FAN SHROUD
30	5508606SM	2	HOSE, Hydraulic, 6"
31	5025128SM	4	NUT, 3/8-16 HEX SERRA
32	5025013X10SM	4	BOLT, 3/8-16 X 1-1/4"
33	5025010X6SM	2	BOLT, 1/4-20 X 3/4" G
34	5025169SM	2	WASHER, 1/4 LOCK
35	703332	2	WASHER
36	5025203X16SM	-	PIN, COTTER
37	-----	1	No Longer Available. Use "S/N: 2013830720 & Above" Service Parts -(S/N: 2013830719 & Below)
38	5102130SM	1	WHEEL MOTOR, HGM-12E-3054 (LH) -(S/N: 2013830720 & Above)
39	5102138SM	1	WHEEL MOTOR, HGM-12E-3050 (RH) -(S/N: 2013830720 & Above)
40	5022634SM	2	ADAPTER, HYD. -(S/N: 2013830720 & Above)
41	5023276SM	2	FITTING, #10 ORING-#8 -(S/N: 2013830720 & Above)

Hydraulic Tank Mount Group (197HYT0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



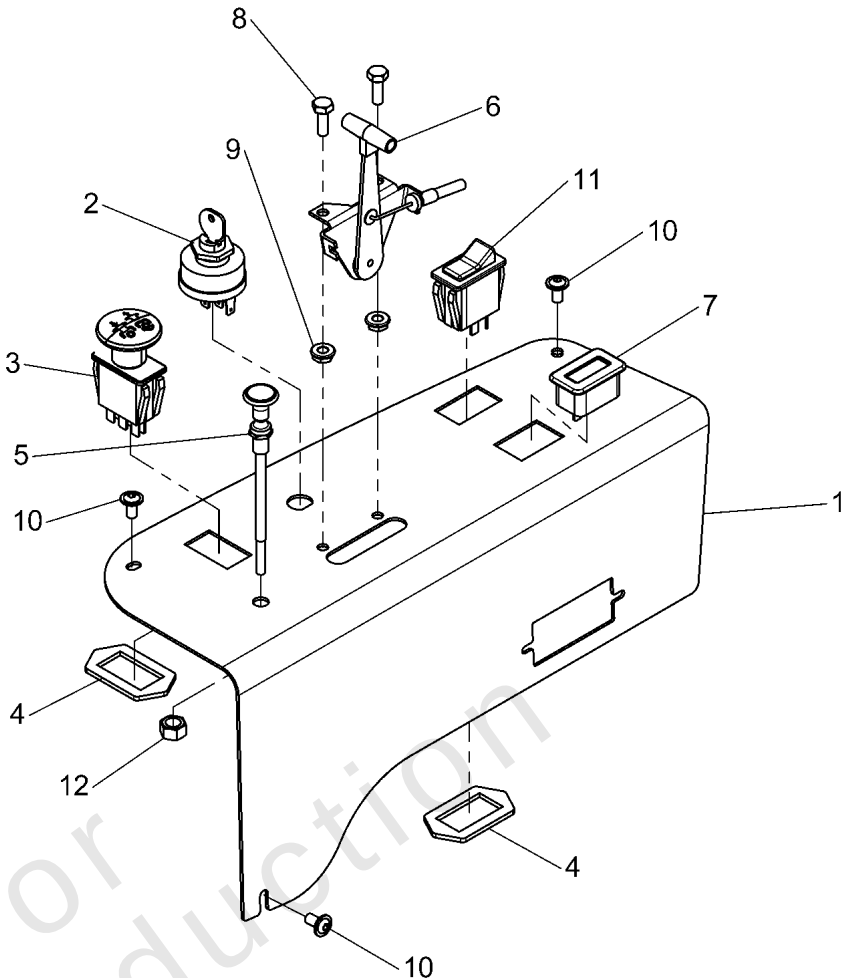
Hydraulic Tank Mount Group (197HYT0)

REF NO	PART NO	QTY	DESCRIPTION
1	-----	-	MAIN FRAME (See Main Frame Group)
2	5022665SM	4	BODY CLIP, 1/4-20 X 1
3	5021500SM	2	CLAMP, Vinyl Insulated
4	5025013X10SM	2	BOLT, 3/8-16 X 1-1/4"
5	5025156SM	6	WASHER, 3/8" SAE
6	5025394SM	6	NUT, 3/8-16 HEX NYLOCK
7	5025013X12SM	4	BOLT, 3/8-16 X 1-1/2"
8	5025010X8SM	4	BOLT, 1/4-20 X 1", GD
9	703332	4	WASHER
10	5061747CSM	1	HYDRAULIC TANK MOUNT
11	5061746CSM	2	MOUNT BRACKET
12	-----	1	HYDRAULIC TANK (See Hydraulic Group)

Instrument Panel Group (197INS0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



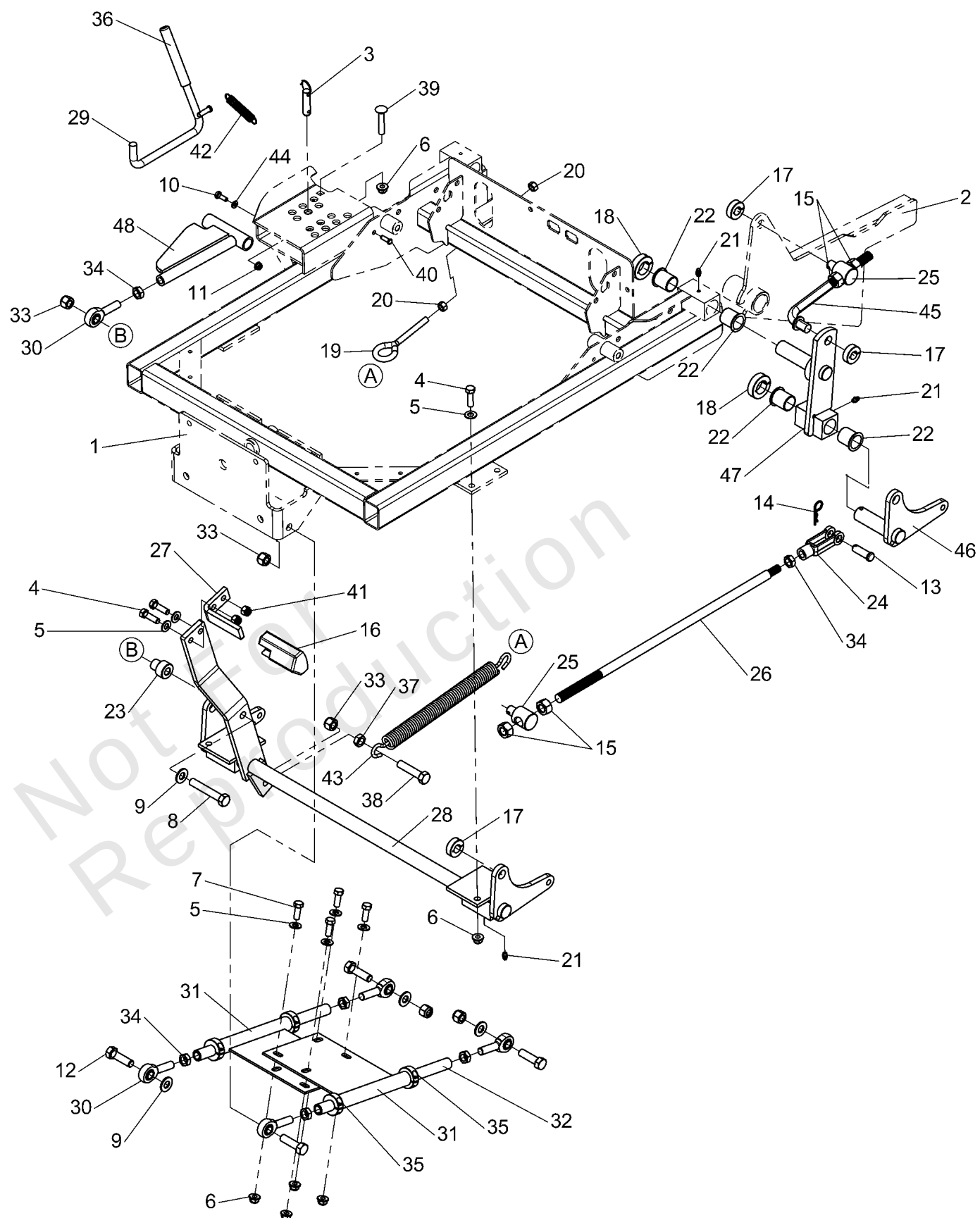
Instrument Panel Group (197INS0)

REF NO	PART NO	QTY	DESCRIPTION
1	5061361ASM	1	CONTROL PANEL
2	1686734SM	1	IGNITION SWITCH
3	1722887SM	1	SWITCH-PTO PUSH
4	5022222SM	2	RING, SWITCH RETAINER
5	5046501SM	1	CABLE, CHOKE CONTROL,
6	5048231SM	1	CABLE, THROTTLE CONTR
7	5100978SM	1	HOUR METER, DIGITAL
8	5025010X6SM	2	BOLT, 1/4-20 X 3/4" G
9	703233	2	NUT, 1/4-20, GR5
10	5025299X4SM	3	SCREW, Allen Head, 1/4-20 x 1/2
11	1703799SM	1	SWITCH, HEADLIGHT
12	5025035SM	1	NUT (3/8-24 HEX)

Lift Group (197DLT0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



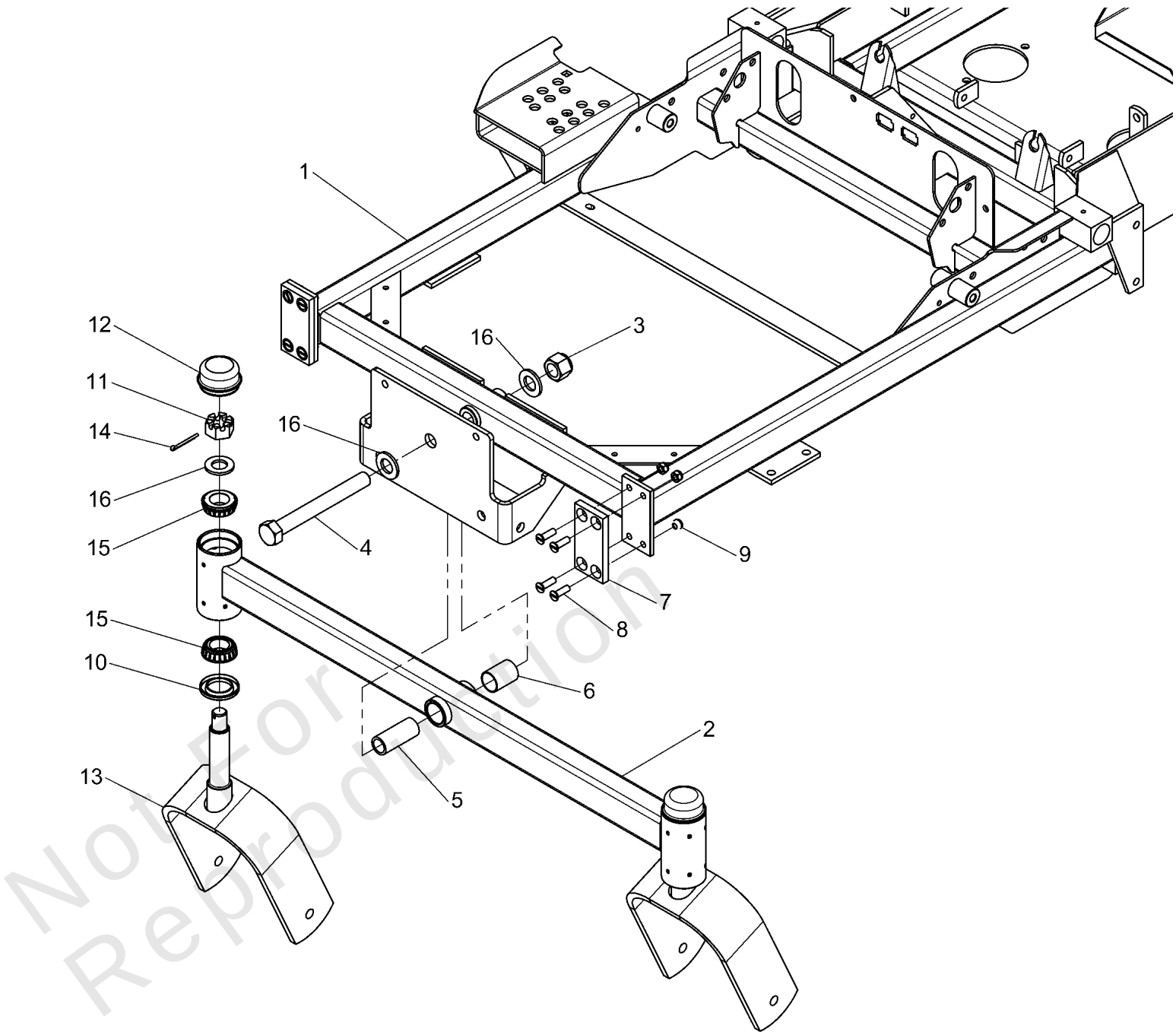
Lift Group (197DLT0)

REF NO	PART NO	QTY	DESCRIPTION
1	-----	-	MAIN FRAME (See Main Frame Group)
2	-----	-	MOTOR MOUNT (See Rear Suspension Group)
3	5023498SM	1	PIN, HITCH, 1/2 X 2.0
4	5025013X10SM	6	BOLT, 3/8-16 X 1-1/4"
5	5025156SM	10	WASHER, 3/8" SAE
6	5025394SM	9	NUT, 3/8-16 HEX NYLOCK
7	5025013X8SM	4	BOLT, 3/8-16 X 1" GD5
8	502501724	1	BOLT, 1/2-13 X 3"
9	5025158SM	5	WASHER, 1/2" SAE
10	5025010X6SM	2	BOLT, 1/4-20 X 3/4" G
11	703463	2	NUT, GR5, 1/4-20
12	502501714	4	BOLT, 1/2-13 X 1-3/4"
13	5025328X12SM	2	PIN, CLEVIS, 1/2 X 1 1
14	1918196SM	2	HAIR PIN CLIP
15	5025040SM	8	NUT, 5/8-11 HEX
16	1715834SM	1	FOOT PEDAL
17	5020441SM	5	COLLAR, 5/8" SPLIT
18	5020602SM	4	COLLAR, 1" SPLIT
19	5023497SM	1	EYE BOLT, 3/8-16 X 5"
20	1916950SM	2	NUT, 3/8-16 Hex
21	5020095SM	6	GREASE FITTING, 1/4-2
22	5023343SM	8	BUSHING, 1.00 X 1.13
23	5047103SM	1	ADAPTER, CASTER AXLE
24	5023174SM	2	CLEVIS, 1/2-20, STEEL
25	5045447SM	4	PIVOT, SPRING ROD
26	5049971SM	2	DECK ADJUSTMENT ROD
27	5061569A	1	PEDAL, FOOT - BLK
28	5049839CSM	1	DECK LIFT SHAFT
29	5061527A	1	WELD, ROD DECK LIFT - BLK
30	5022434SM	5	BALL JOINT, 1/2-20, M
31	5049867CSM	2	DECK STABILIZER
32	5049868SM	2	DECK STABILIZER SHAFT
33	5025056SM	6	NUT, 1/2-13 Hex Nylon Lock
34	5025089SM	6	NUT, 1/2-20 HEX JAM
35	5010114SM	4	COLLAR, 3/4" SPLIT
36	5021880SM	1	GRIP, FOAM
37	5025301SM	1	NUT, 1/2-13 HEX JAM
38	5025017X18SM	1	BOLT, 1/2-13
39	502514616	1	CARRIAGE BOLT, 3/8-16 X 2"
40	5025412SM	1	CLEVIS PIN, 1/4" x 3/4"
41	5025096SM	2	NUT, 3/8-16 HEX NYLON
42	5020639SM	1	SPRING, EXTENSION
43	5023355SM	1	SPRING, DECK LIFT ASS
44	703332	2	WASHER
45	5049848	2	DECK LIFT ROD
46	5045449CSM	1	DECK LIFT PIVOT, LH (Shown)
46	5045450CSM	1	DECK LIFT PIVOT, RH (Not Shown)
47	5049836CSM	1	REAR DECK LIFT, LH (Shown)
47	5049837CSM	1	REAR DECK LIFT, RH (Not Shown)
48	5061523	1	DECK ADJUST LINK

Main Frame & Front Caster Group (197FRM0)

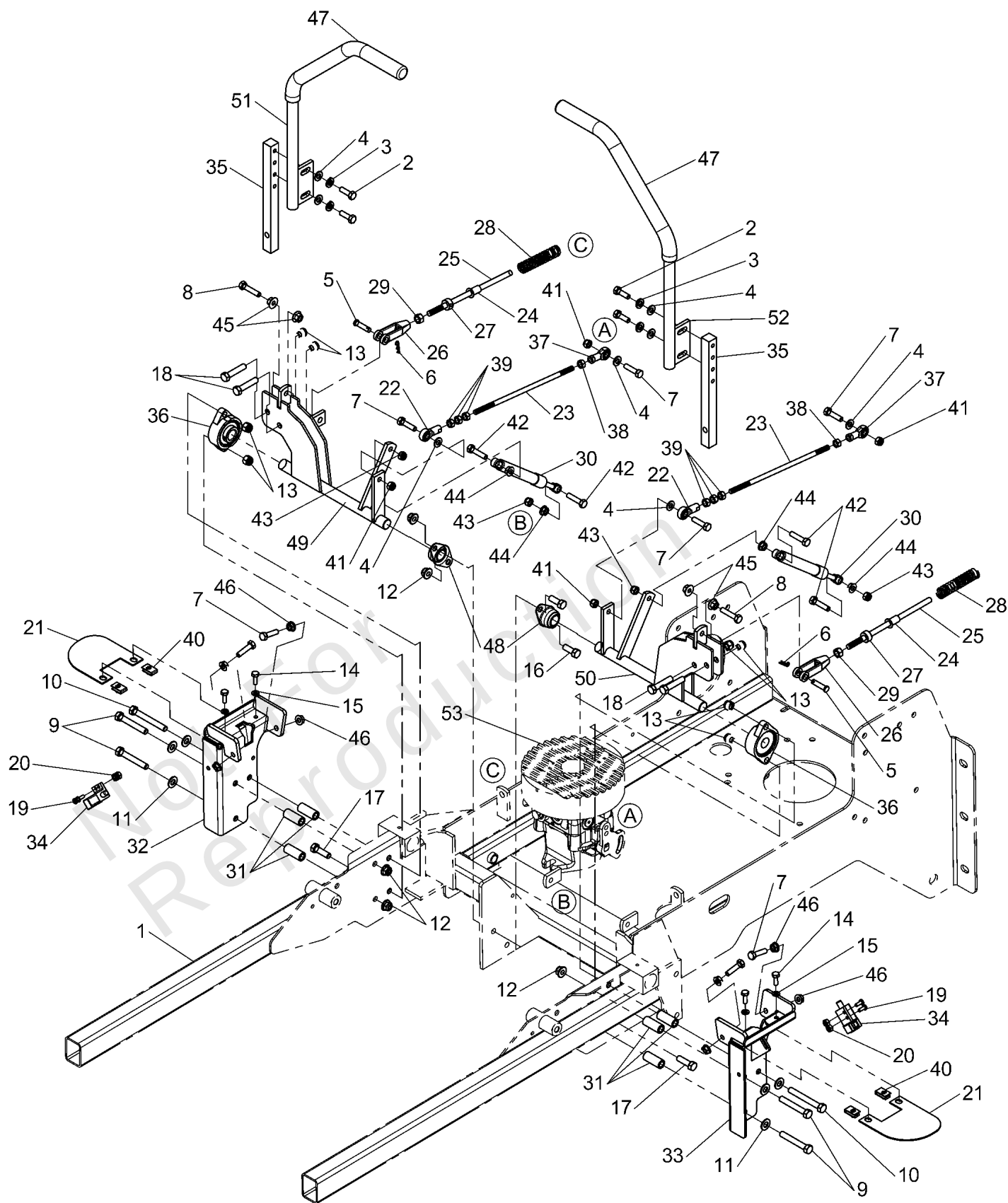
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



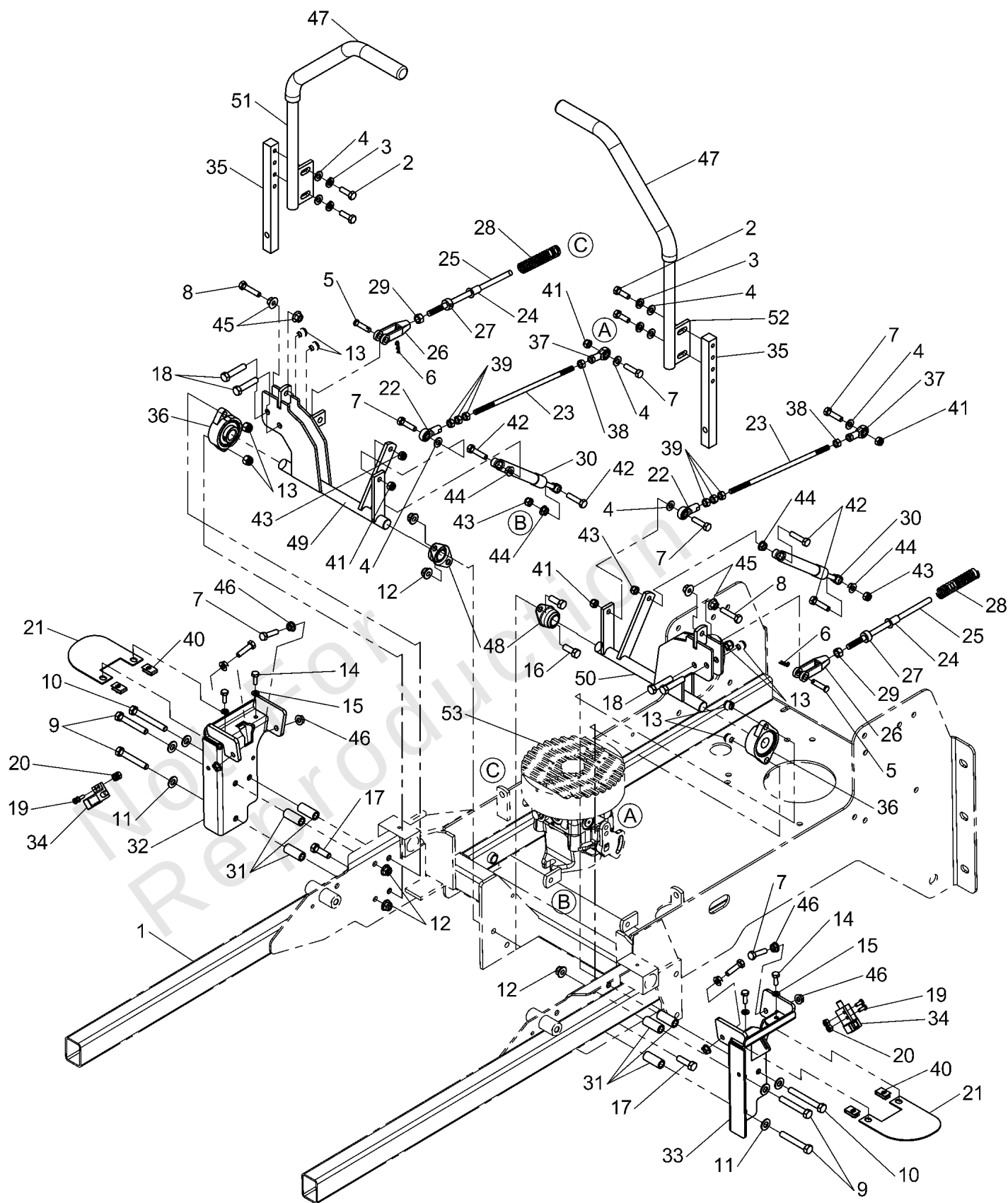
Main Frame & Front Caster Group (197FRM0)

REF NO	PART NO	QTY	DESCRIPTION
1	5049958C	1	MAIN FRAME ASSEMBLY (Early Models)
1	5400257C	1	MAIN FRAME ASSEMBLY (Later Models with ROPS)
2	5061365CSM	1	PIVOTING FRONT END ASSEMBLY
3	5025284SM	1	NUT, 3/4-16 HEX NYLON
4	5025265X52SM	1	BOLT, 3/4-16 X 6-1/2"
5	5047489SM	1	SPACER, .75 X 1.00 X
6	5022852SM	1	PIVOT BEARING, 1.00"
7	5045990SM	2	FRICTION PLATE
8	5025594	8	SCREW, 5/16-18 X 1 PHILLIPS HD, BZ
9	5025057SM	4	NUT 5/16-18 Hex Nylon Lock
10	5021072SM	1	SEAL, GREASE
11	5025104SM	1	NUT, 3/4-16 Hex Slotted
12	5021073SM	2	CAP, DUST
13	5047049CSM	2	CASTER YOKE
14	5025203X10SM	1	PIN, COTTER, 1/8" X 1
15	5020884SM	2	BEARING, TAPERED ROLL
16	5025160SM	3	WASHER, 3/4" SAE
17	5100328	1	PIVOT BEARING



Motion Control Group (197MCG0)

REF NO	PART NO	QTY	DESCRIPTION
1	-----	0	MAIN FRAME (See Main Frame Group)
2	703570	4	CAPSCREW, Hex Head, 5/16-18 x 1 1/4
3	5025170SM	4	WASHER, 5/16" LOCK
4	703302	8	WASHER, 5/16
5	502523210	2	CLEVIS PIN, 5/16" X 1-1/4"
6	5025211SM	2	PIN, HAIR, .0585" X 1
7	5025011X10SM	8	BOLT, 5/16-18 X 1-1/4"
8	5025011X12SM	2	BOLT, 5/16-18 X 1-1/2
9	5025013X20SM	4	BOLT, 3/8-16 X 2-1/2"
10	5025013X24SM	2	BOLT, 3/8-16 X 3" GD5
11	5025156SM	6	WASHER, 3/8" SAE
12	5025394SM	6	NUT, 3/8-16 HEX NYLOCK
13	5025096SM	8	NUT, 3/8-16 HEX NYLON
14	5025010X6SM	4	BOLT, 1/4-20 X 3/4" G
15	703332	4	WASHER
16	5025013X8SM	2	BOLT, 3/8-16 X 1" GD5
17	5025013X10SM	2	BOLT, 3/8-16 X 1-1/4"
18	5025013X14SM	4	BOLT, 3/8-16 X 1-3/4"
19	5025179X4SM	4	SCREW, #10-24 X 1/2"
20	5025029SM	4	NUT, #10-24 HEX
21	5061838CSM	2	MOTION CONTROL GUARD
22	5104578YP	2	JOINT-BALL
23	5046420SM	2	ROD, HYDRO LINKAGE
24	5023260SM	2	BUSHING, NYLON
25	5049969	2	NEUTRAL CONTROL ROD
26	5021171SM	2	CLEVIS 3/8-24, PLASTI
27	5010546SM	2	COLLAR, 3/8" SET
28	5022645SM	2	SPRING, REVERSE RETUR
29	5025035SM	2	NUT (3/8-24 HEX)
30	5100728SM	2	DAMPENER
31	5048264SM	6	SPACER, .39 X .63 X 1
32	5049872CSM	1	NEUTRAL LOCK PLATE, RH
33	5049873CSM	1	NEUTRAL LOCK PLATE, LH
34	1717050SM	2	SWITCH-PUSH BUTT
35	5047004A	2	MOUNT, CONTROL ARM - BLK
36	5021499SM	2	BEARING, FLANGE
37	5104579YP	2	BALL JOINT 5/16-24 LH FEMALE STAMPED STL
38	5023212SM	2	NUT, 5/16-24 HEX, LH
39	5025033SM	6	NUT, 5/16-24 Hex
40	5022665SM	4	BODY CLIP, 1/4-20 X 1
41	5025057SM	4	NUT, 5/16-18 Hex Nylon Lock
42	5025335SM	4	BOLT, M8-1.25 X 35MM,
43	5025354SM	4	NUT, M8-1.25 NYLON LO
44	5025355SM	4	NUT, M8-1.25 SERR. FL
45	5025139SM	4	NUT, 5/16-18 HEX SERR
46	1931277SM	8	NUT, 5/16-18 Hex Small Serrated Flange
47	5022068SM	2	GRIP, FOAM, 3/4" ID,
48	5021098SM	2	BEARING, BRONZE FLANG
49	5049843CSM	1	CONTROL SHAFT, RH
50	5049842CSM	1	WCONTROL SHAFT, LH



Motion Control Group (197MCG0)

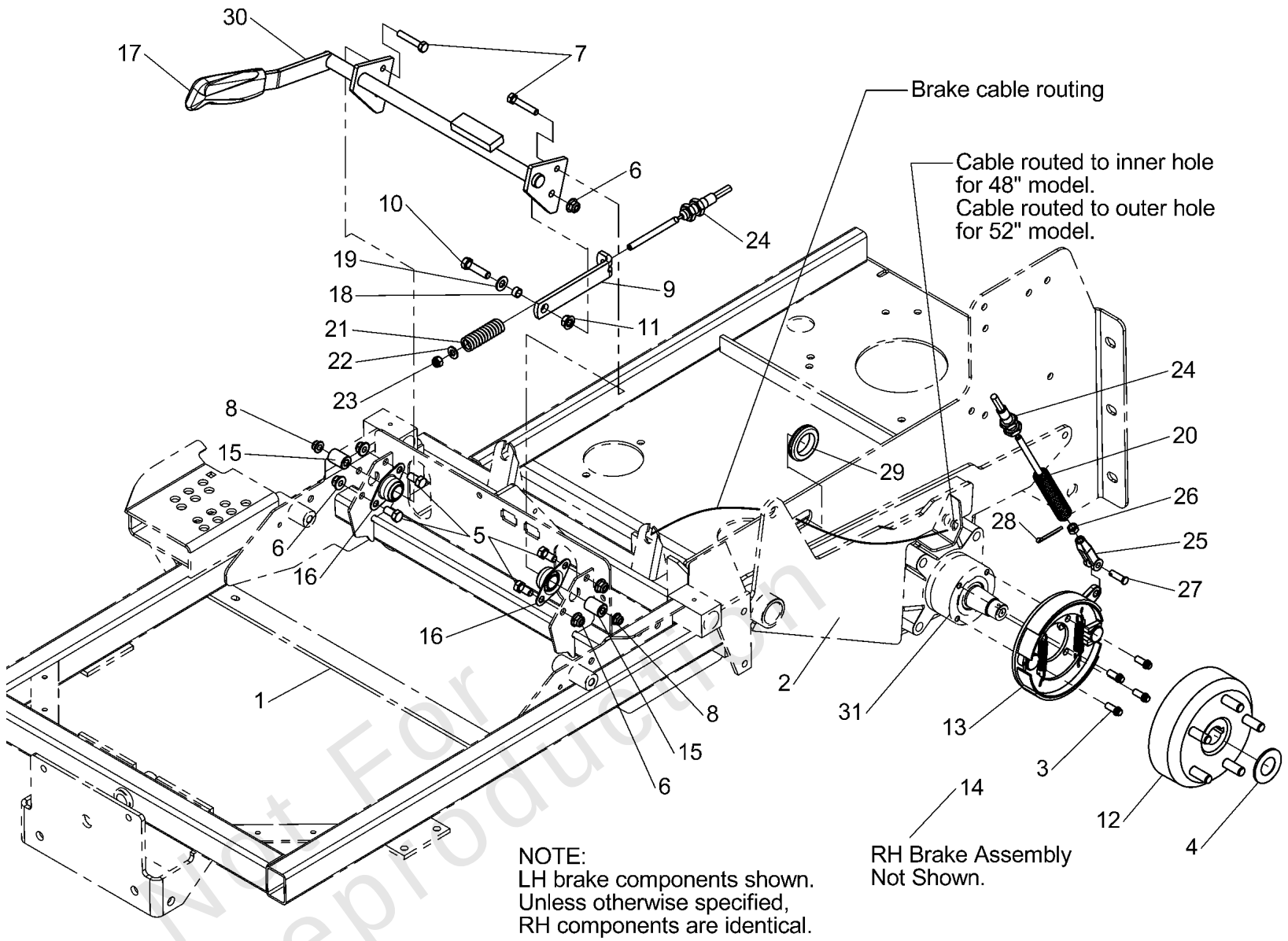
REF NO	PART NO	QTY	DESCRIPTION
51	5601285	1	KIT, HANDLE BAR REPLACE, L/R -(Kit includes handles and grips for both sides of the unit.)
52	5601285	1	KIT, HANDLE BAR REPLACE, L/R -(Kit includes handles and grips for both sides of the unit.)
53	-----	0	HYDRAULIC PUMP (See Hydraulic Group)

Not For Reproduction

Parking Brake Group (197PBR0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



Parking Brake Group (197PBR0)

REF NO	PART NO	QTY	DESCRIPTION
1	-----	1	MAIN FRAME (See Main Frame Group)
2	-----	1	MOTOR MOUNT (See Rear Suspension Group)
3	5023490SM	8	BOLT, 5/16-18 X 3/4 1
4	5023249SM	2	WASHER, 1.06X2.01X.11
5	5025013X6SM	4	BOLT, 3/8-16 X 3/4" G
6	5025394SM	6	NUT, 3/8-16 HEX NYLOCK
7	5025011X14SM	2	BOLT, 5/16-18 X 1-3/4
8	703115	2	NUT
9	5061794A	2	LINK, BRAKE STOP, 6.0 - BLK
10	5025013X12SM	2	BOLT, 3/8-16 X 1-1/2"
11	5025128SM	2	NUT, 3/8-16 HEX SERRA
12	5102896YP	2	BRAKE DRUM, 5 BOLT
12-1	5102896X1	5	STUD BRAKE DRUM KNOTT -(Replacement Brake Stud with 30 tooth knurl.)
13	5023500	1	BRAKE ASSEMBLY, LH -(S/N: 2015208611 & Below)
14	5023501	1	BRAKE ASSEMBLY, RH -(Not Shown - S/N: 2015208611 & Below)
15	5045404SM	2	SPACER, .32 X .75 X 1.06
16	5021098SM	2	BEARING, BRONZE FLANG
17	1722302SM	1	GRIP
18	5041930SM	2	SPACER, .38 X .50 X .
19	5025156SM	2	WASHER, 3/8" SAE
20	5023320SM	2	SPRING, COMPRESSION
21	5022361SM	2	SPRING, BRAKE
22	703302	2	WASHER, 5/16
23	5025045SM	2	NUT, 5/16-24 HEX NYLO
24	5023324SM	2	CABLE, PARKING BRAKE
25	5020979SM	2	CLEVIS, 5/16-24, Plastic
26	5025033SM	2	NUT, 5/16-24 Hex
27	5025213X8SM	2	PIN, CLEVIS, 5/16" X
28	5025203X10SM	2	PIN, COTTER, 1/8" X 1
29	5021397SM	2	GROMMET, 1-1/4
30	5049831CSM	1	BRAKE SHAFT
31	-----	1	WHEEL MOTOR (See Hydraulic Group)

PUMP DRIVE [Cast Idler Arm for replacing Steel Pump Drive Idler Arm]

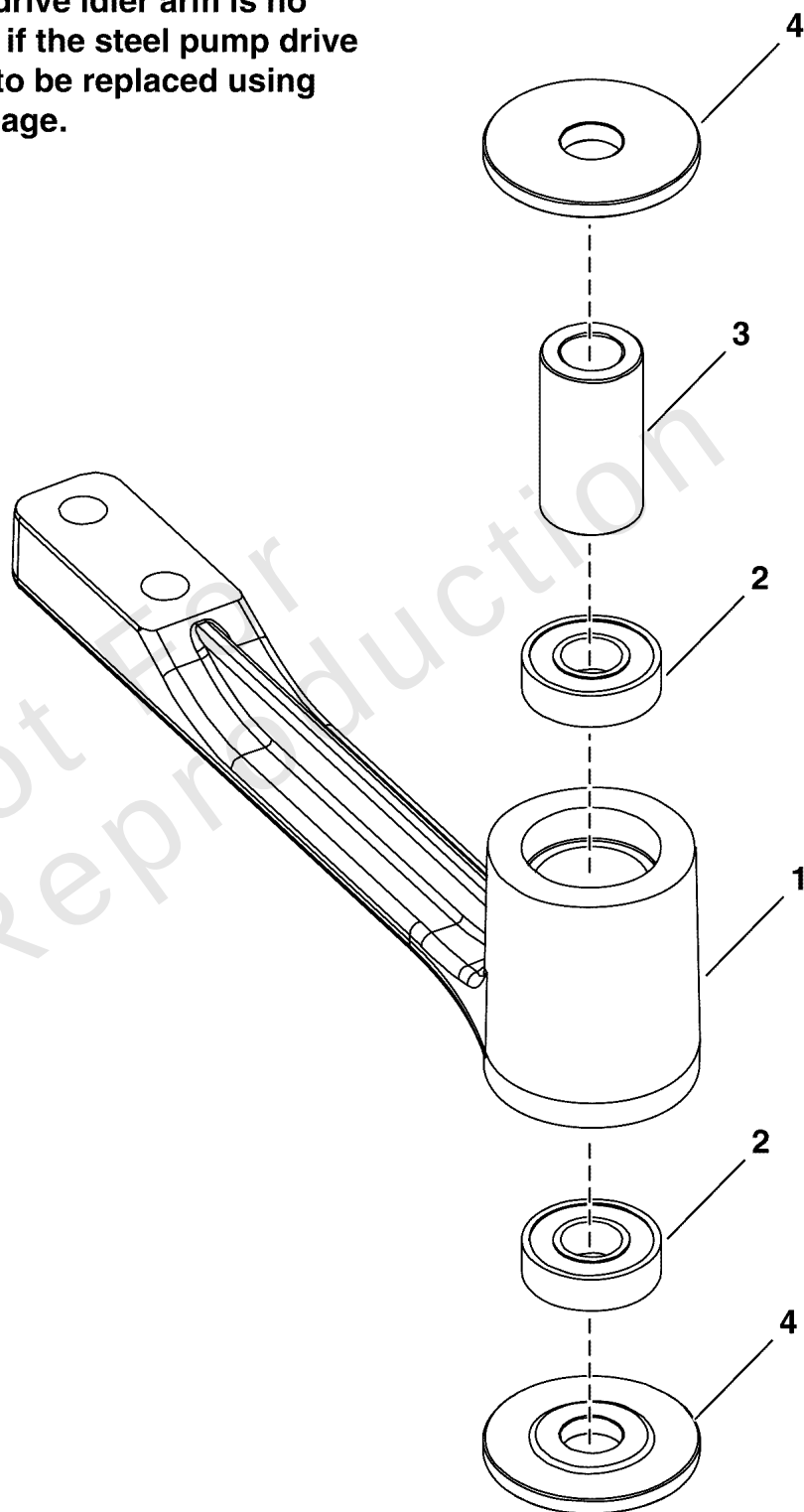
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370

5406895

Service Parts for Pump Drive Steel Idler Arms replaced by Cast Idler Arms

The steel pump drive idler arm is no longer available, if the steel pump drive idler arm needs to be replaced using item #1 on this page.



PUMP DRIVE [Cast Idler Arm for replacing Steel Pump Drive Idler Arm]

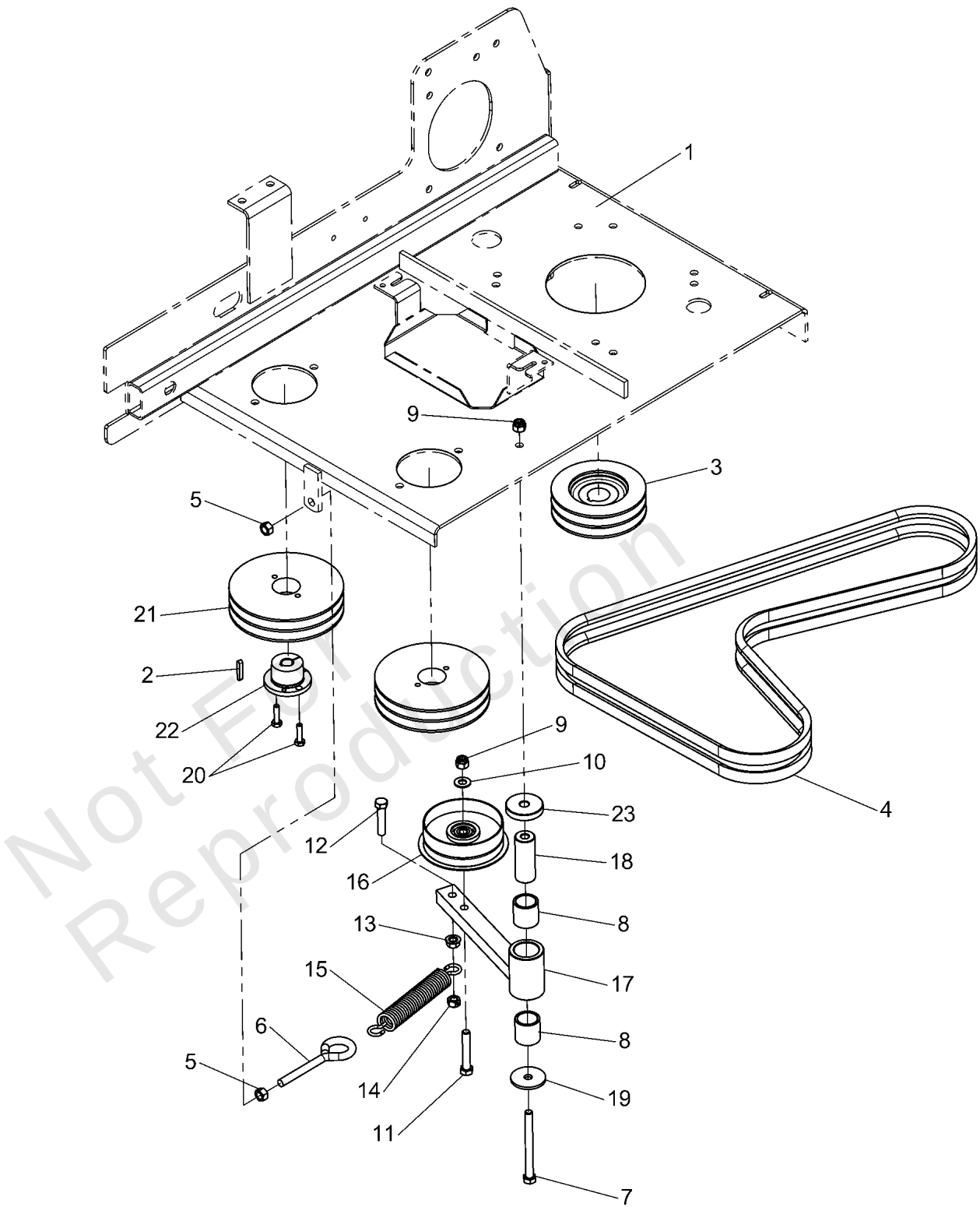
REF NO	PART NO	QTY	DESCRIPTION
1	5406895	1	ASSM, IDLER ARM, PUMP DRIVE, 3/8ID, CAST (SV) -(Includes items #2-4)(5101178A)
2	7078243	2	BEARING, BALL AXLE
3	5102580	1	SPACER, .39 X .88 X 1.53, CZ
4	5102579	2	SPACER, IDLER ARM, T-STYLE, CZ

Not For Reproduction

Pump Drive Group (197PDR0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



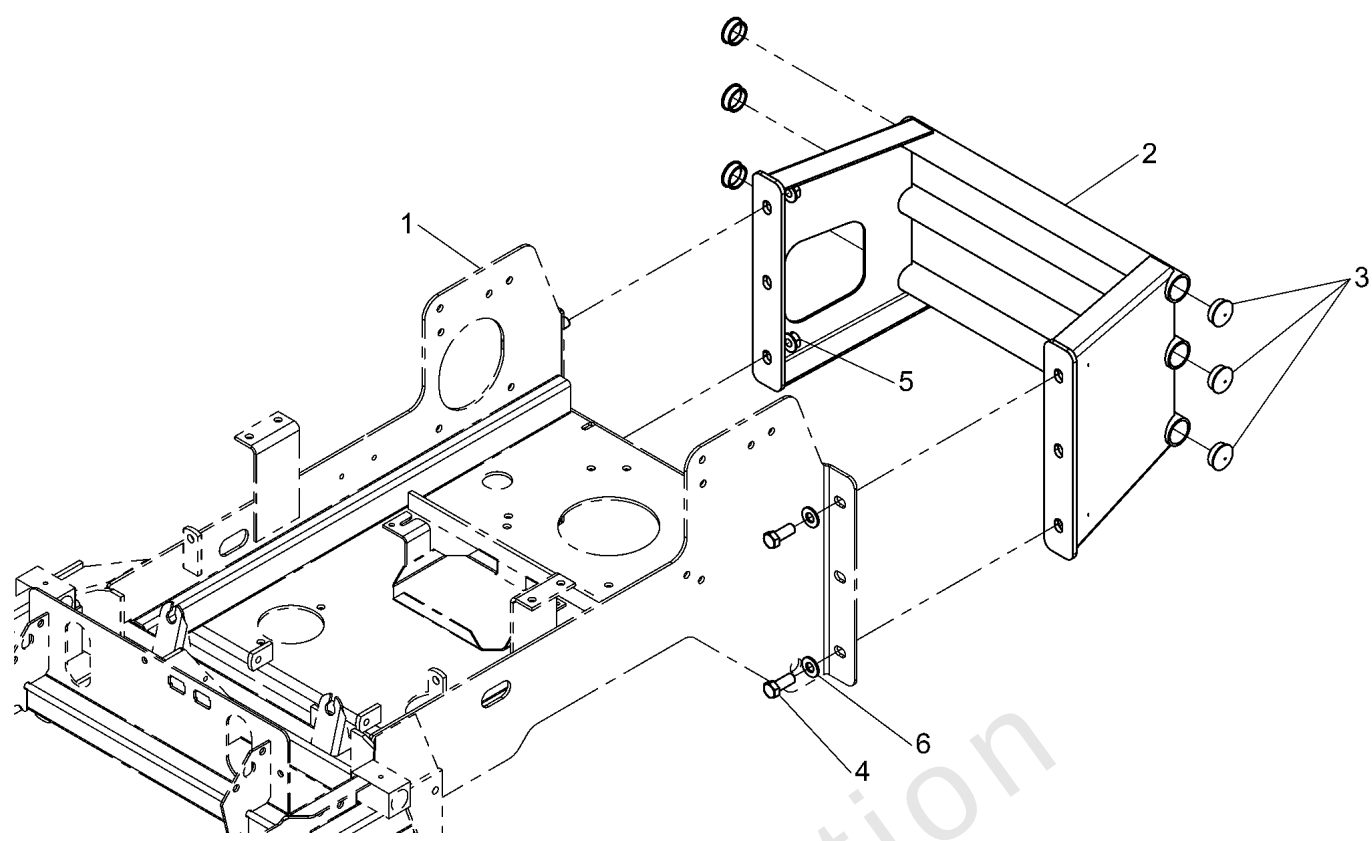
Pump Drive Group (197PDR0)

REF NO	PART NO	QTY	DESCRIPTION
1	-----	-	MAIN FRAME (See Main Frame Group)
2	5023254SM	2	KEY, 5MM SQ. W/ RADIU
3	5047075SM	1	CRANKSHAFT PULLEY
4	5100555SM	2	BELT,#41-1299, BANDED
5	1916950SM	2	NUT, 3/8-16 Hex
6	5023497SM	1	EYE BOLT, 3/8-16 X 5"
7	5025013X32SM	1	BOLT, 3/8-16 X 4" GD5
8	5022157SM	2	BUSHING, BRASS, 1.25X
9	5025096SM	2	NUT, 3/8-16 HEX NYLON
10	5025156SM	1	WASHER, 3/8" SAE
11	5025013X18SM	1	BOLT, 3/8-16 X 2-1/4"
12	5025013X14SM	1	BOLT, 3/8-16 X 1-3/4"
13	5025128SM	1	NUT, 3/8-16 HEX SERRA
14	5025100SM	1	NUT, 3/8-16 HEX SIDE
15	5022847SM	1	SPRING, EXTENSION, SW
16	5103808SM	1	PULLEY, Idler (Single Flange)
17	-----	1	See "PUMP DRIVE [Cast Idler Arm for replacing Steel Pump Drive Idler Arm]"
18	5045135SM	1	SPACER, .39 X 1.00 X 2.55
19	5025305SM	1	WASHER, .41 X 1.75 X
20	5025010X8SM	4	BOLT, 1/4-20 X 1", GD
21	5022586SM	2	PULLEY, PUMP DRIVE
22	5022587SM	2	BUSHING, Tapered Hub
23	5045475SM	1	SPACER, .45 X 1.88 X

Rear Bumper Group (197BMP0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



Rear Bumper Group (197BMP0)

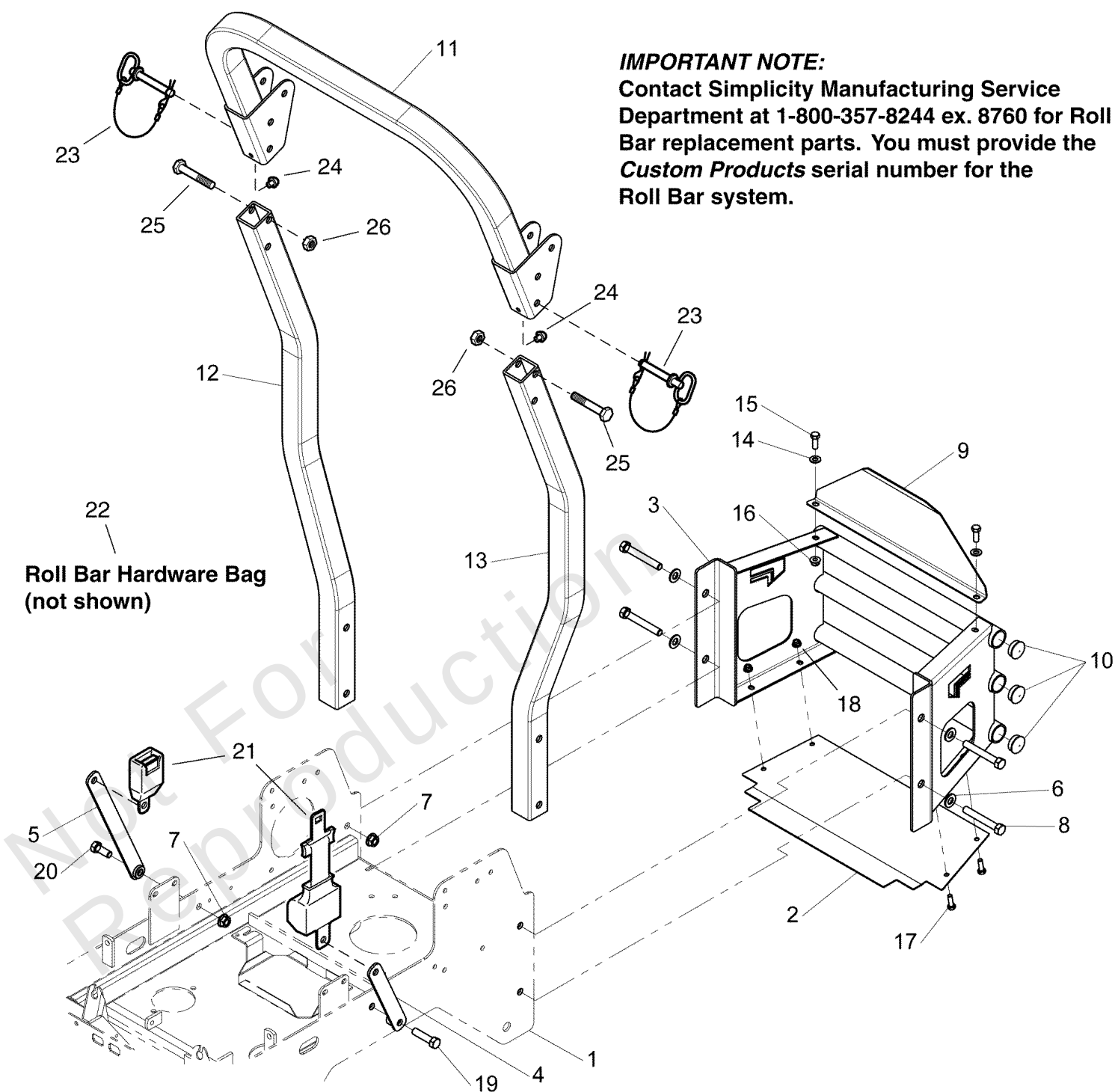
REF NO	PART NO	QTY	DESCRIPTION
1	-----	-	MAIN FRAME (See Main Frame Group)
2	5061732CSM	1	BUMPER
3	5023484SM	6	PLUG, PANEL, 1.25 - B
4	5025018X10SM	4	BOLT, 1/2-20 X 1-1/4" GD8 CZ
5	5025397	4	NUT, 1/2-20 Hex Nylock Flange
6	5025158SM	2	WASHER, 1/2" SAE

Not For Reproduction

Rear Bumper, Roll Bar & Seat Belt Group - Later Models (197BMP1)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



Rear Bumper, Roll Bar & Seat Belt Group - Later Models (197BMP1)

REF NO	PART NO	QTY	DESCRIPTION
1	-----	-	MAIN FRAME -(See Main Frame & Front Caster Group)
2	5401174CSM	1	PLATE, HEAT SHIELD
3	5400887C	1	WELD, SEAT BELT ANCHOR - LH
4	5400847AYP	1	MOUNT, SEAT BELT - RH - BLK
5	5400314C	1	WELD, BUMPER - CITATION
6	5025158SM	4	WASHER, 1/2" SAE
7	5025396SM	6	NUT, 1/2-13 HEX NYLOCK FLANGE
8	5025017X28SM	4	BOLT, 1/2-13 X 3-1/2"
9	5023484SM	5	PLUG, PANEL, 1.25 - B
10	-----	1	ROLL BAR TOP LOOP -(Not Serviced. See drawing note)
11	-----	1	ROLL BAR POST, RH -(Not Serviced. See drawing note)
12	-----	1	ROLL BAR POST, LH -(Not Serviced. See drawing note)
13	25011-8	4	BOLT, 5/16-18 X 1" GD5
14	25392	4	NUT, 5/16-18 HEX NYLOCK FLANGE
15	25017-16	1	BOLT, 1/2-13 X 1-3/4" GD5
16	25017-10	1	BOLT, 1/2-13 X 2-1/4" GD5
17	5100139SM	1	SEAT BELT, RETRACTING -(Includes mounting hardware)
17	5100397SM	1	SEAT BELT ASSEMBLY, Extra Long -(Includes mounting hardware)
18	5100377	1	ROLL BAR HARDWARE BAG -(Includes hitch pins)
19	5100013SM	2	PIN, HITCH, .50 X 3.2
20	5100383SM	2	RUBBER BUMPER
21	-----	2	* BOLT -(See Footnote)
22	-----	2	* NUT -(See Footnote)
23	5100079	2	PIN, HITCH, BLACK W/ PLASTIC LANYARD
24	5100383	2	RUBBER BUMPER
25	-----	2	*BOLT
26	-----	2	*NUT
28	-----	1	ROPS (Call 1-800-933-6175 ext. 2193 if replacing a ROPS)

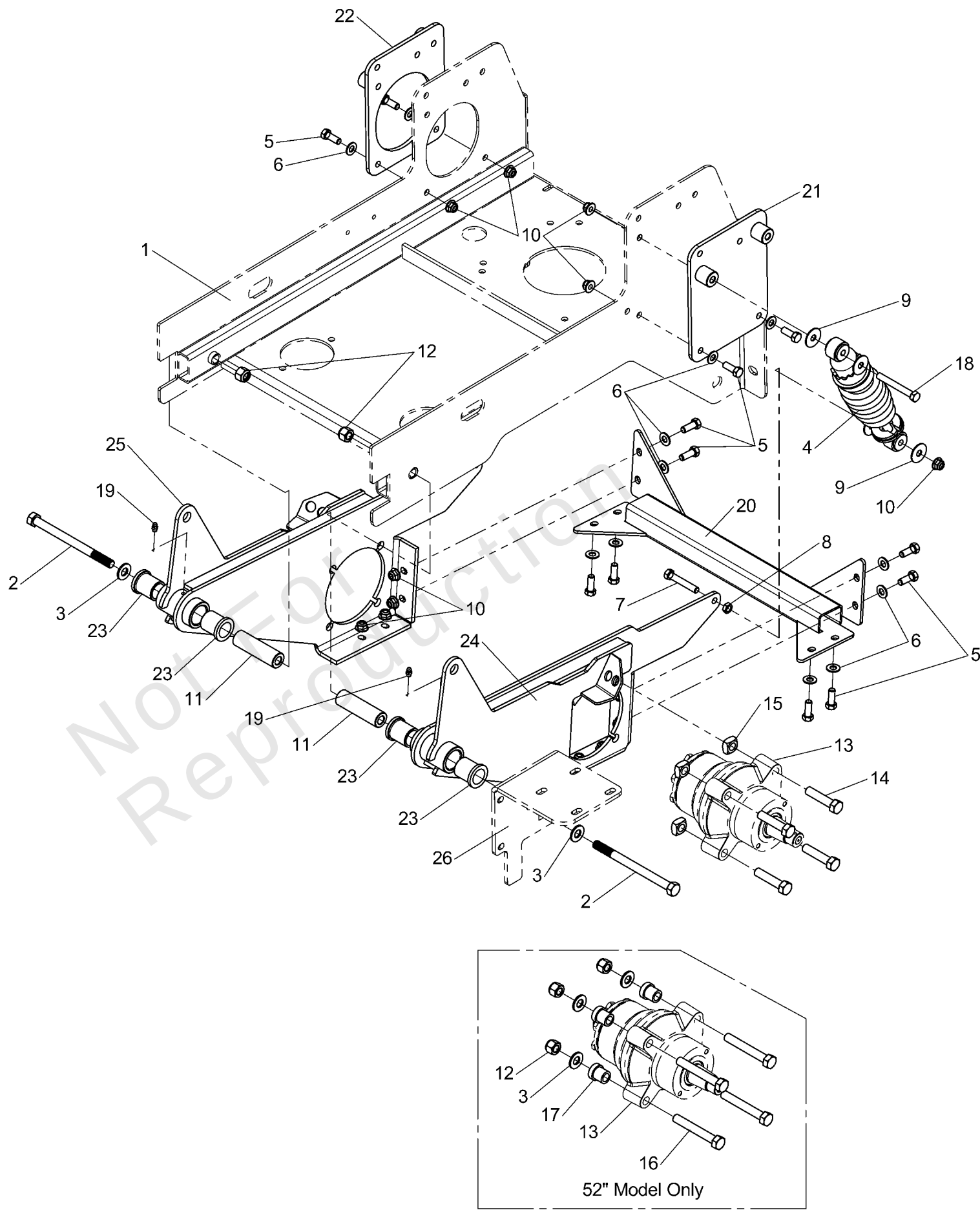
Footnotes:

Note:* Not serviced. For replacement hardware, you must purchase the Roll Bar Hardware Bag (Ref. No. 19).

Rear Suspension Group (197SUSR0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



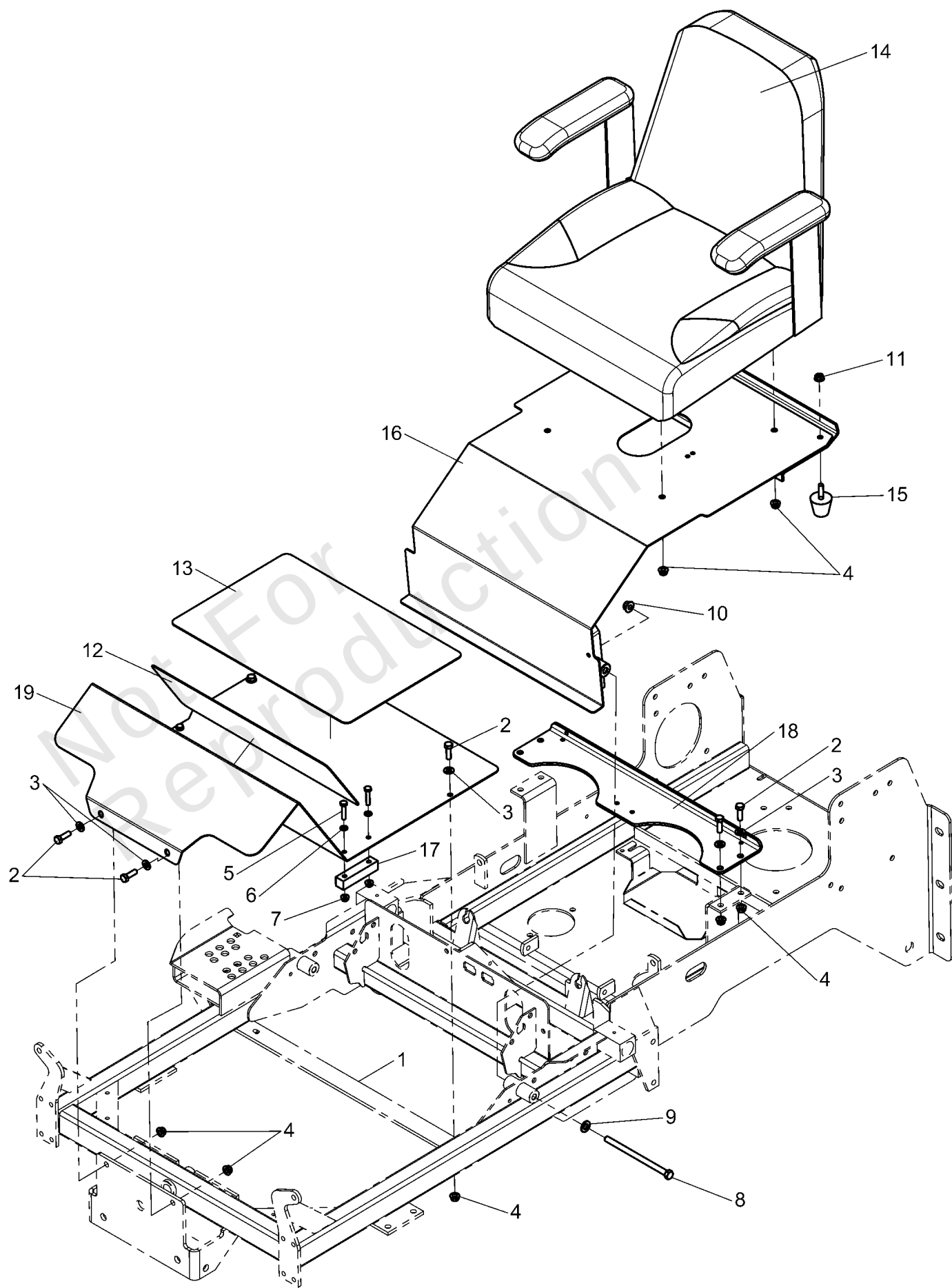
Rear Suspension Group (197SUSR0)

REF NO	PART NO	QTY	DESCRIPTION
1	-----	-	MAIN FRAME (See Main Frame Group)
2	5025017X52SM	2	BOLT, 1/2-13 X 6-1/2"
3	5025158SM	10	WASHER, 1/2" SAE
4	5023436SM	2	SHOCK ABSORBER
5	5025013X8SM	12	BOLT, 3/8-16 X 1" GD5
6	5025156SM	12	WASHER, 3/8" SAE
7	5025058X18	2	BOLT, 3/8-16 X 2-1/4" TFL
8	5025084SM	2	NUT, 3/8-16 HEX JAM
9	5025165SM	8	WASHER, 3/8" FENDER
10	5025394SM	17	NUT, 3/8-16 HEX NYLOCK
11	5061339SM	2	SPACER, .52 X 1.00 X
12	5025056SM	6	NUT, 1/2-13 Hex Nylon Lock
13	-----	-	WHEEL MOTOR -(See Hydraulic Group)
14	5023481	4	BOLT, 1/2-13 X 2-1/4" w/ Loctite Patch
15	5025330	4	NUT, 1/2-13 Square
16	5025017X28SM	4	BOLT, 1/2-13 X 3-1/2"
17	5061670SM	8	SPACER, .53 X 1.00 X 1.00
18	5025013X24SM	2	BOLT, 3/8-16 X 3" GD5
19	5020020SM	2	GREASE FITTING, 45 DE
20	5600186	1	KIT, TIE BAR, 52 -(Includes Mounting Hardware)
20	5600190	1	KIT, TIE BAR, 44/48 -(Includes Mounting Hardware)
21	5061750CSM	1	FRAME SUPPORT, LH
22	5061752CSM	1	FRAME SUPPORT, RH
23	5021541SM	4	BUSHING, FLANGE
24	5049813CSM	1	MOTOR MOUNT, RH (Early Models)
24	5400020CSM	1	MOTOR MOUNT, RH (Later Models with ROPS)
25	5049812C	1	MOTOR MOUNT, LH (Early Models)
25	5400019C	1	MOTOR MOUNT, LH (Later Models with ROPS)
26	-----	-	TANK MOUNT (See Fuel Tank & Mount Group)

Seat Mount & Floor Group (197STM0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



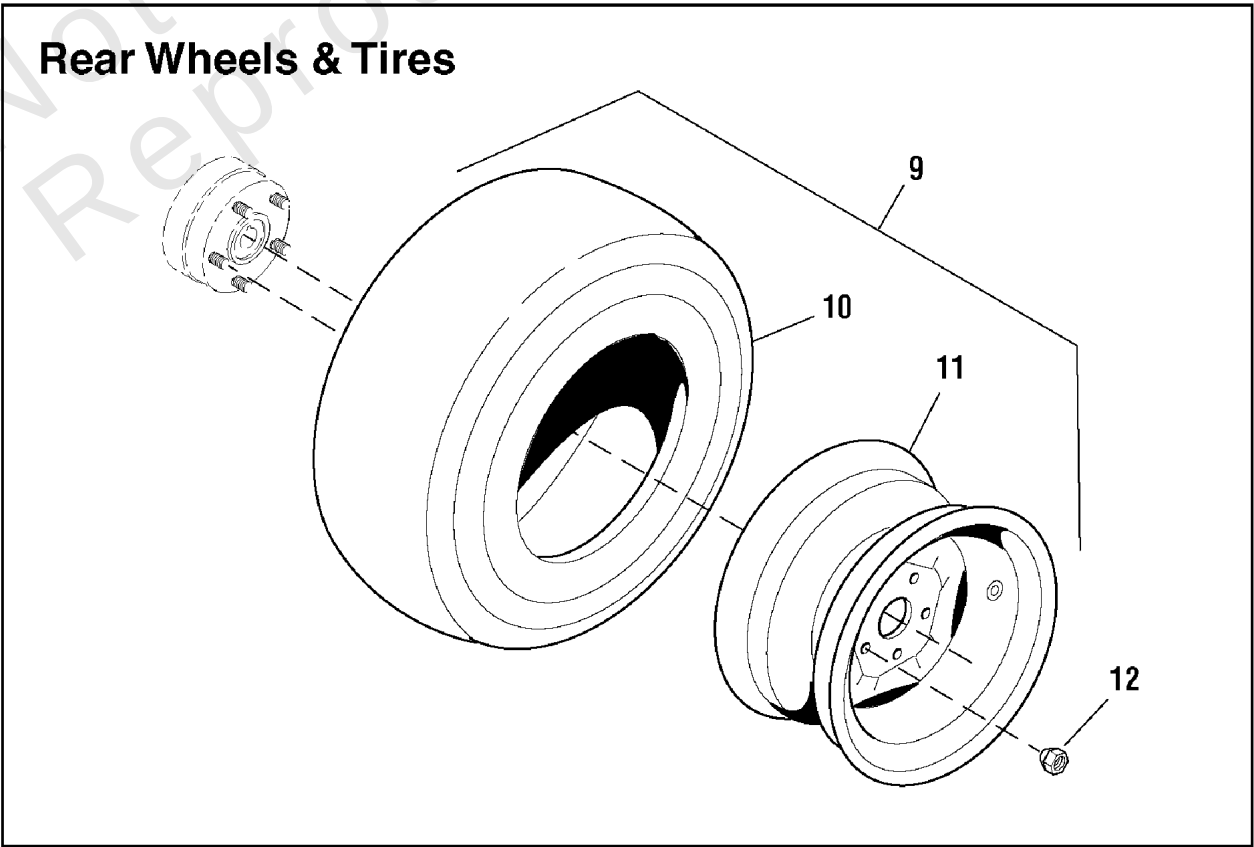
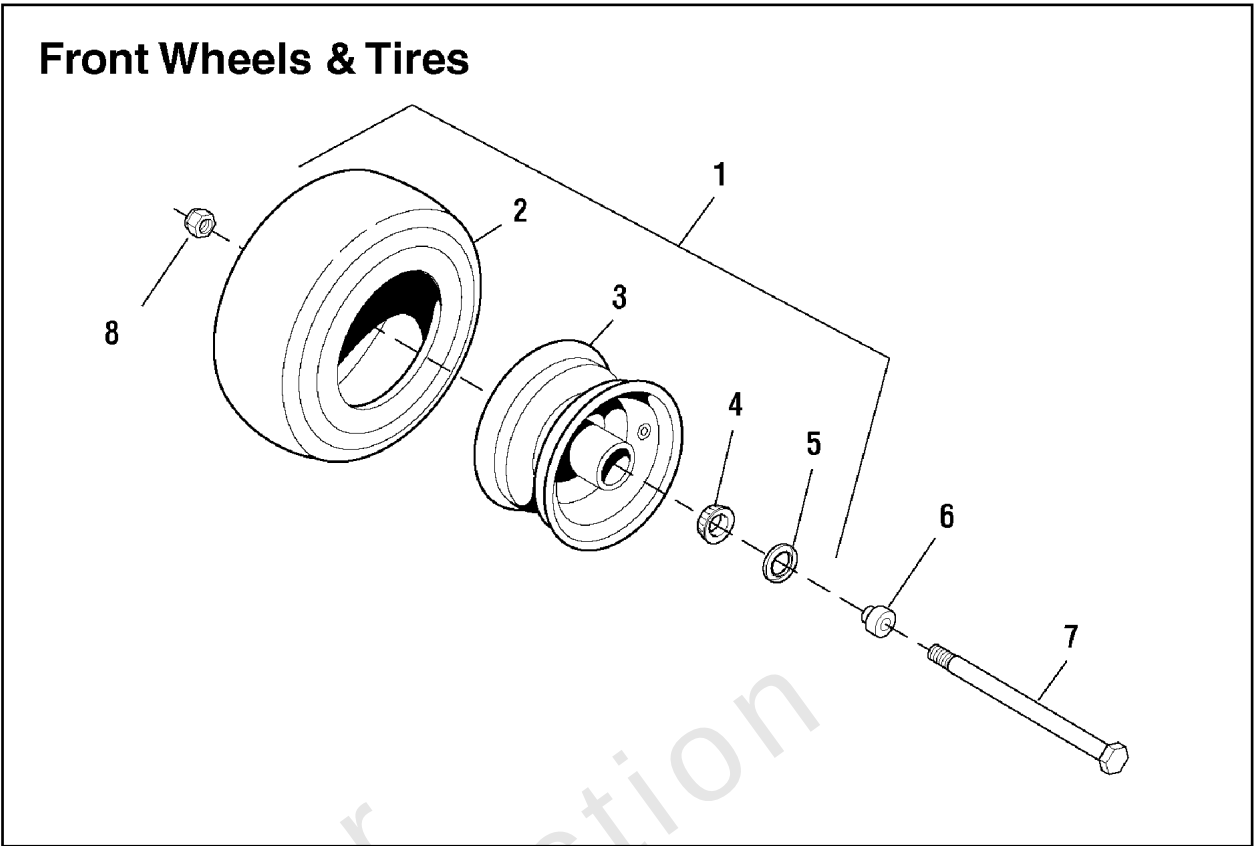
Seat Mount & Floor Group (197STM0)

REF NO	PART NO	QTY	DESCRIPTION
1	-----	-	MAIN FRAME (See Main Frame Group)
2	703570	8	CAPSCREW, Hex Head, 5/16-18 x 1 1/4
3	703302	8	WASHER, 5/16
4	703115	12	NUT
5	5025010X10SM	4	BOLT, 1/4-20 X 1-1/4"
6	703332	4	WASHER
7	703463	4	NUT, GR5,1/4-20
8	5025013X48SM	2	BOLT, 3/8-16 X 6" GD5
9	5025156SM	2	WASHER 3/8" SAE
10	5025394SM	2	NUT, 3/8-16 HEX NYLOCK
11	1931277SM	2	NUT, 5/16-18 Hex Small Serrated Flange
12	5049979SM	1	SAFETY WALK, FLOOR REST
13	5049978SM	1	SAFETY WALK, FLOOR PLATE
14	5061599SM	1	SEAT, BLACK
15	5022612SM	2	BUMPER, RUBBER 5/16-1
16	5300028SM	1	ASSM, SEAT PLATE (Includes safety decal) (Early Models)
16	5401389SM	1	ASSM, SEAT PLATE (Includes safety decal) (Later Models with ROPS)
17	5061754	2	BLOCK, DECK LIFT SUPPORT
18	5049976C	1	SUPPORT, SEAT PLATE (Early Models)
18	5400849C	1	SUPPORT, SEAT PLATE (Later Models with ROPS)
19	5049953CSM	1	PLATE, FLOOR

Wheel & Tire Group (197WHL0)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 2690370



Wheel & Tire Group (197WHL0)

REF NO	PART NO	QTY	DESCRIPTION
1	5022631SSM	2	WHEEL & TIRE ASSEMBLY, 13 x 5.0 - 6, Complete -(Includes Ref. No. 2 - 7 & 13)
1	5023280SM	2	TIRE ASSEMBLY, 13X5.00-6 (Silver Rim) -(Includes Ref No. 4 & 5, see footnote)
2	5022029X1SM	2	TIRE, 13 x 5.0 -6
3	5022631SX1SM	2	WHEEL ASSEMBLY, for 13 x 5.0 - 6 Tire, Complete -(Includes Ref. No. 4 & 5)
4	5022631SX2SM	4	BEARING, TAPERED CONE -(2 per tire)
5	5022631SX3SM	4	SEAL, GREASE -(2 per tire)
6	5047103SM	4	ADAPTER, Caster Wheel (2 per tire)
7	5025017X64SM	2	BOLT, 1/2-13 X 8" GD5
8	5025056SM	2	NUT, 1/2-13 Hex Nylon Lock
9	5023369SM	2	WHEEL & TIRE ASSEMBLY, 22 x 11 - 10, Complete (Includes Ref No. 10 & 11)
10	5023369X2SM	2	TIRE, 22 x 11 - 10
11	5023369X1SM	2	WHEEL ASSEMBLY, 10 X 7
12	5020601SM	10	NUT, 1/2-20, FOR WHEEL BOLT SILVER
13	5022631SX4SM	2	BEARING, RACE -(Not shown)

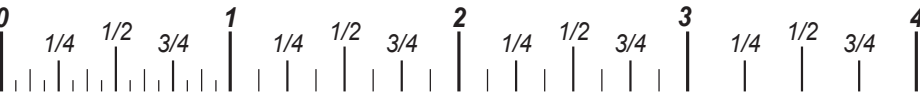
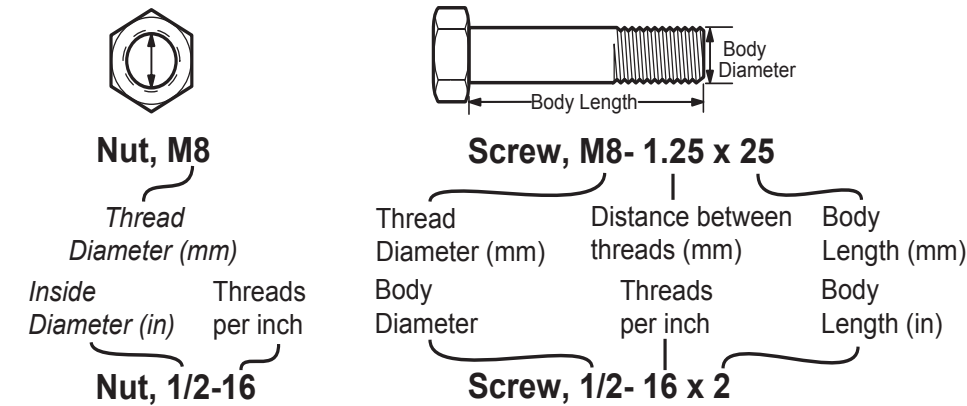
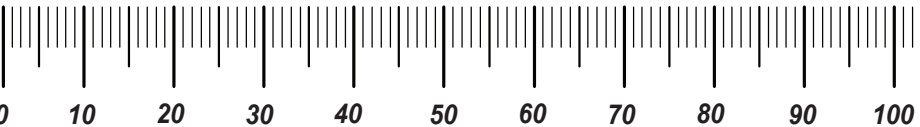
Footnotes:

Note:* After market solid urethane tire assembly. Wheel is not serviceable.

Hardware Identification & Torque Specifications

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

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



Standard Hardware Sizing

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

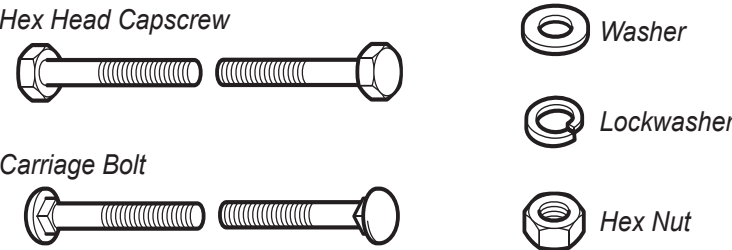
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw,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

Torque Specification Chart						
FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)						
Hardware Grade	 SAE Grade 2		 SAE Grade 5		 SAE Grade 8	
Size Of Hardware	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.
8-32	19	2.1	30	3.4	41	4.6
8-36	20	2.3	31	3.5	43	4.9
10-24	27	3.1	43	4.9	60	6.8
10-32	31	3.5	49	5.5	68	7.7
1/4-20	66	7.6	8	10.9	12	16.3
1/4-28	76	8.6	10	13.6	14	19.0
5/16-18	11	15.0	17	23.1	25	34.0
5/16-24	12	16.3	19	25.8	29	34.0
3/8-16	20	27.2	30	40.8	45	61.2
3/8-24	23	31.3	35	47.6	50	68.0
7/16-14	30	40.8	50	68.0	70	95.2
7/16-20	35	47.6	55	74.8	80	108.8
1/2-13	50	68.0	75	102.0	110	149.6
1/2-20	55	74.8	90	122.4	120	163.2
9/16-12	65	88.4	110	149.6	150	204.0
9/16-18	75	102.0	120	163.2	170	231.2
5/8-11	90	122.4	150	204.0	220	299.2
5/8-18	100	136	180	244.8	240	326.4
3/4-10	160	217.6	260	353.6	386	525.0
3/4-16	180	244.8	300	408.0	420	571.2
7/8-9	140	190.4	400	544.0	600	816.0
7/8-14	155	210.8	440	598.4	660	897.6
1-8	220	299.2	580	788.8	900	1,244.0
1-12	240	326.4	640	870.4	1,000	1,360.0

NOTES

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

Common Hardware Types



Wrench & Fastener Size Guide

 1/4" Bolt or Nut Wrench—7/16"	 5/16" Bolt or Nut Wrench—1/2"	 3/8" Bolt or Nut Wrench—9/16"	 7/16" Bolt or Nut Wrench (Bolt)—5/8" Wrench (Nut)—11/16"	 1/2" Bolt or Nut Wrench—3/4"
M6 Bolt or Nut Wrench—10mm	M8 Bolt or Nut Wrench—13mm	M10 Bolt or Nut Wrench—17mm	M12 Bolt or Nut Wrench—19mm	M14 Bolt or Nut Wrench—22mm

