



Parts Manual

Mfg. No: 1695996
L1428EX, 14.5TP 28" Dual Stage
Snowthrower (CE/Export)

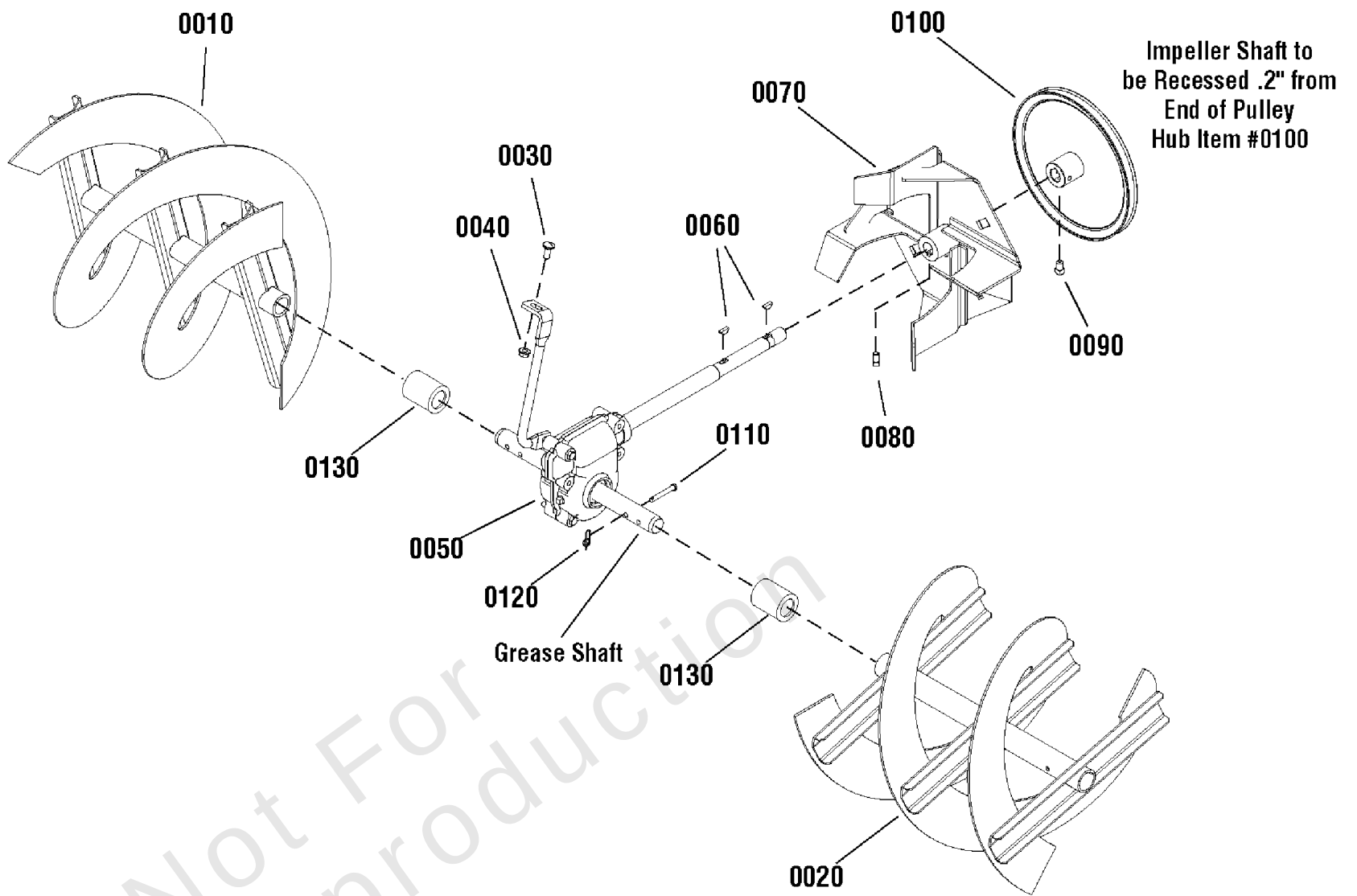
Model Components	Page
Auger Drive Group - Heavy Duty.....	4
Auger Housing Group.....	6
Chute & Rotation Group - Full Electric.....	8
Decals Group.....	10
Engine & Frame Group - 14.5TP & 16.5TP.....	12
Gear Case Assembly - Heavy Duty (1732303).....	16
Handles & Controls Group.....	18
Traction Drive Group - Easy Turn.....	22
Wheels & Tires Group.....	24
Torque Specification Chart.....	26

Not For
Reproduction

Auger Drive Group - Heavy Duty

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1695996



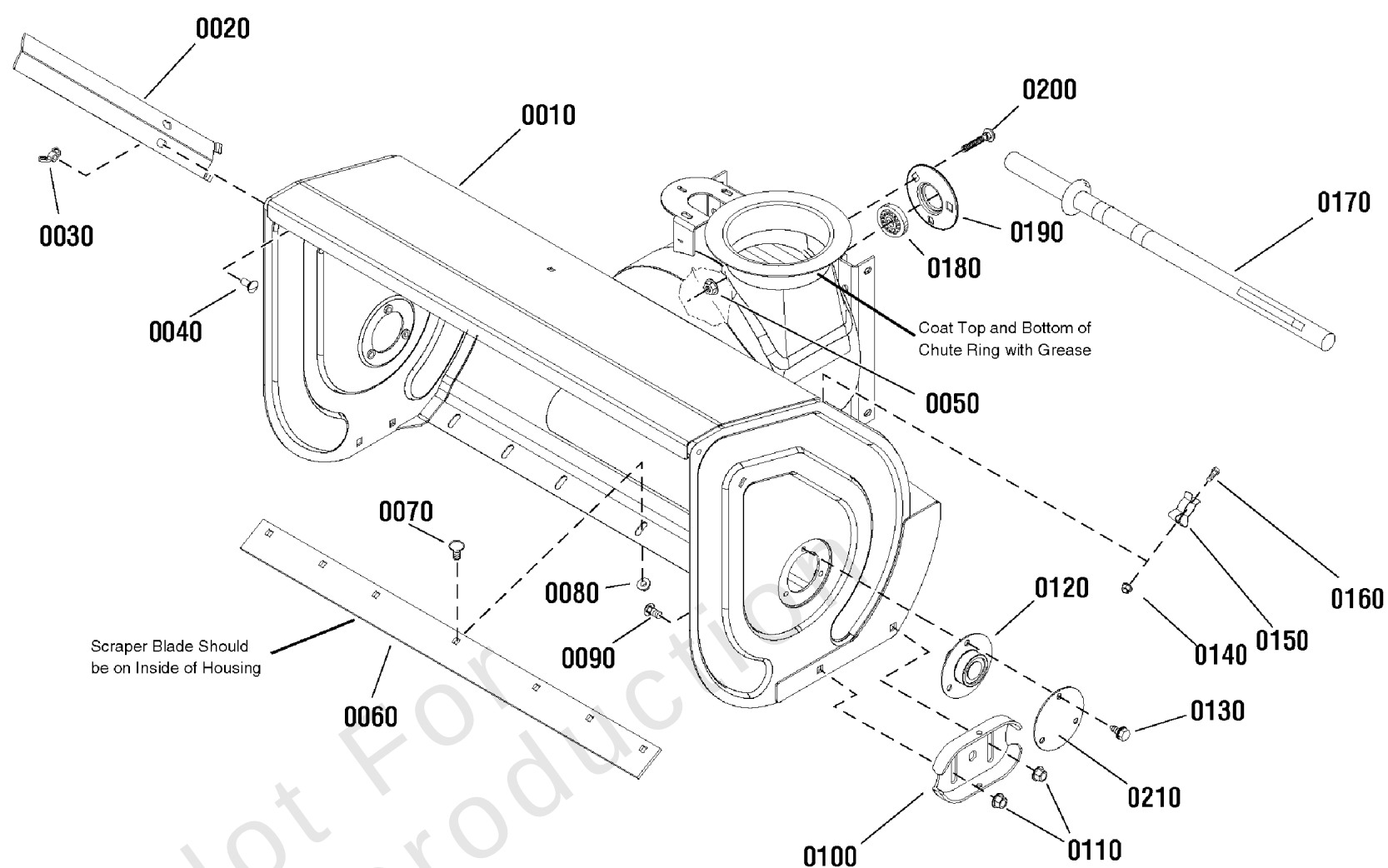
Auger Drive Group - Heavy Duty

REF NO	PART NO	QTY	DESCRIPTION
0010	1737078BM	1	AUGER ASSEMBLY, 28", R.H.
0020	1737079BM	1	AUGER ASSEMBLY, 28", L.H.
0030	1931333	1	BOLT, Carriage, 5/16-18 x 3/4
0040	1931277	1	NUT, Hex Flange, Whiz Lock, 5/16-18
0050	1732303	1	GEAR CASE ASSEMBLY, Heavy Duty
0060	2818312	2	KEY, Woodruff
0070	1612187A	1	IMPELLER
0080	1960474	1	SCREW, Set, 3/8-16 x 1/2, G8
0090	1928721	2	SCREW, Set, 5/16-18 x 1/2, G8
0100	1732185	1	PULLEY, 8.40 OD, 3/4 ID
0110	1668344	2	PIN, Shear, 1-3/4
0120	7023590	2	PIN, Cotter
0130	1733406	2	SPACER -(30" Housing Only)

Auger Housing Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1695996



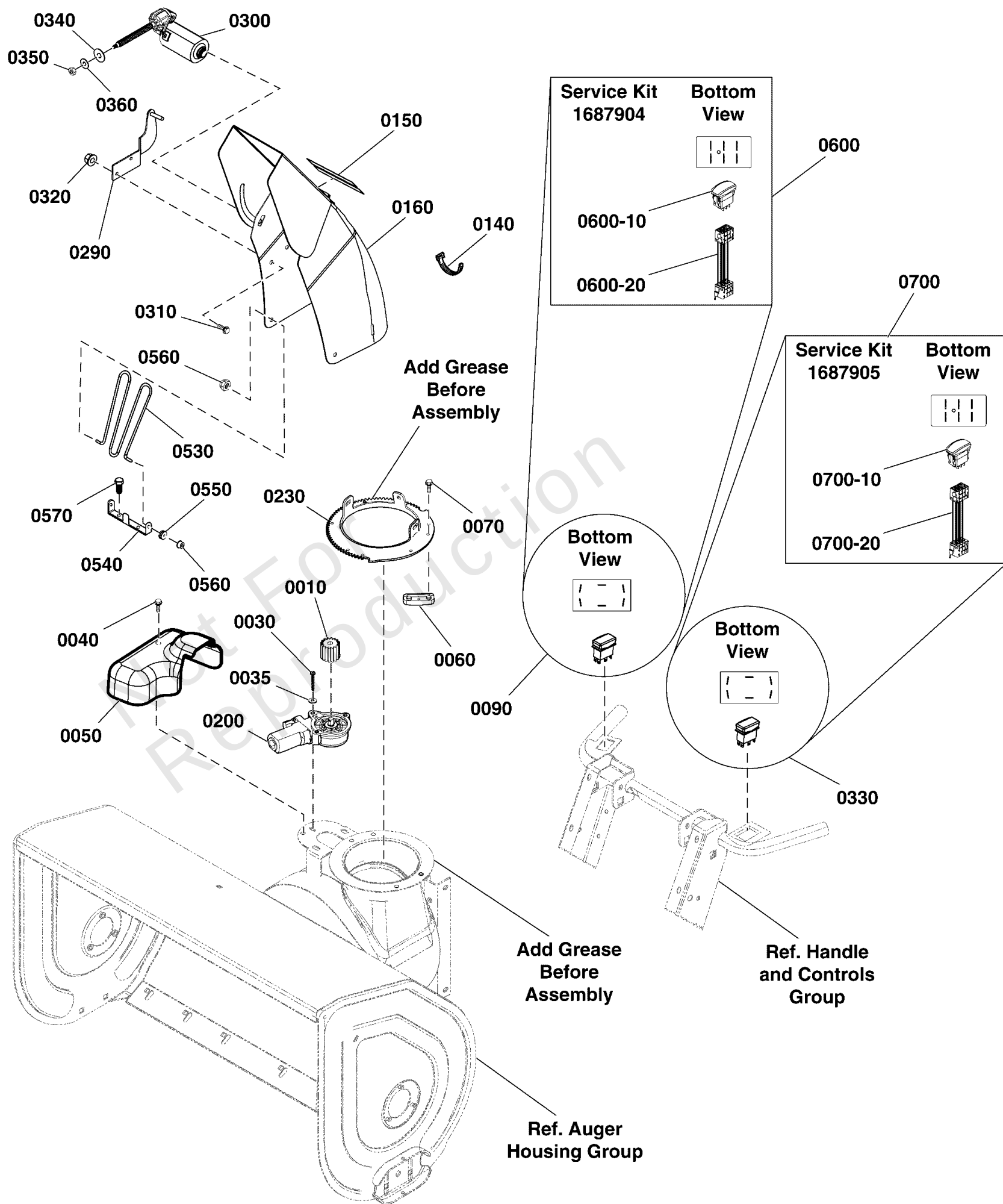
Auger Housing Group

REF NO	PART NO	QTY	DESCRIPTION
0010	1738252C	1	AUGER HOUSING ASSEMBLY, 28"
0010	1738434C	1	AUGER HOUSING ASSEMBLY, 30"
0020	1733102BM	2	DRIFT CUTTER
0030	725347	2	NUT, Wing, Serrated, 5/16-18
0040	723873	2	BOLT, Carriage, 5/16-18 x 3/4
0050	1739305YP	3	NUT, Hex Flange, 5/16-18
0050	1930659	3	NUT, Retainer, 5/16-18
0060	1709947BM	1	BLADE, Scraper, 28"
0060	1732385BM	1	BLADE, Scraper, 30"
0070	1960699	5	BOLT, Carriage, 5/16-18 x 5/8, G5
0080	1935048	5	NUT, Hex Flange, Two Way Lock, 5/16-18
0090	1960711	4	BOLT, Carriage, 5/16-18 x 3/4, G5
0100	1727854BM	2	SHOE, Skid, Reversible
0110	1960687	4	NUT, Hex Flange, ESNA, 3/8-16
0120	-----	2	BEARING, Flange
0130	1931202	6	CAPSCREW, Hex Washer Head, Taptite, 5/16-18 x 1-1/4
0140	722401	2	NUT, Nylock, 10 x 24
0150	1736620	2	CLAMP, Retainer
0160	1960569	2	SCREW, Truss Head Torx, #10-24 x 3/8
0170	1736094	1	BRUSH, Cleanout
0180	2108202	1	BEARING, Ball
0190	1665982	1	RETAINER, BEARING CLEAR ZINC
0200	1931333SM	3	BOLT, Carriage, 5/16-18 x 3/4, G5
0200	1960738	3	CAPSCREW, Hex Flange, Whiz Lock, 5/16-18 x 3/4
0210	1734932BM	2	COVER, Bushing

Chute & Rotation Group - Full Electric

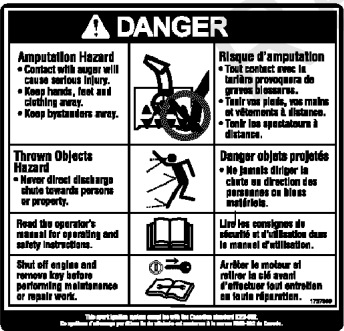
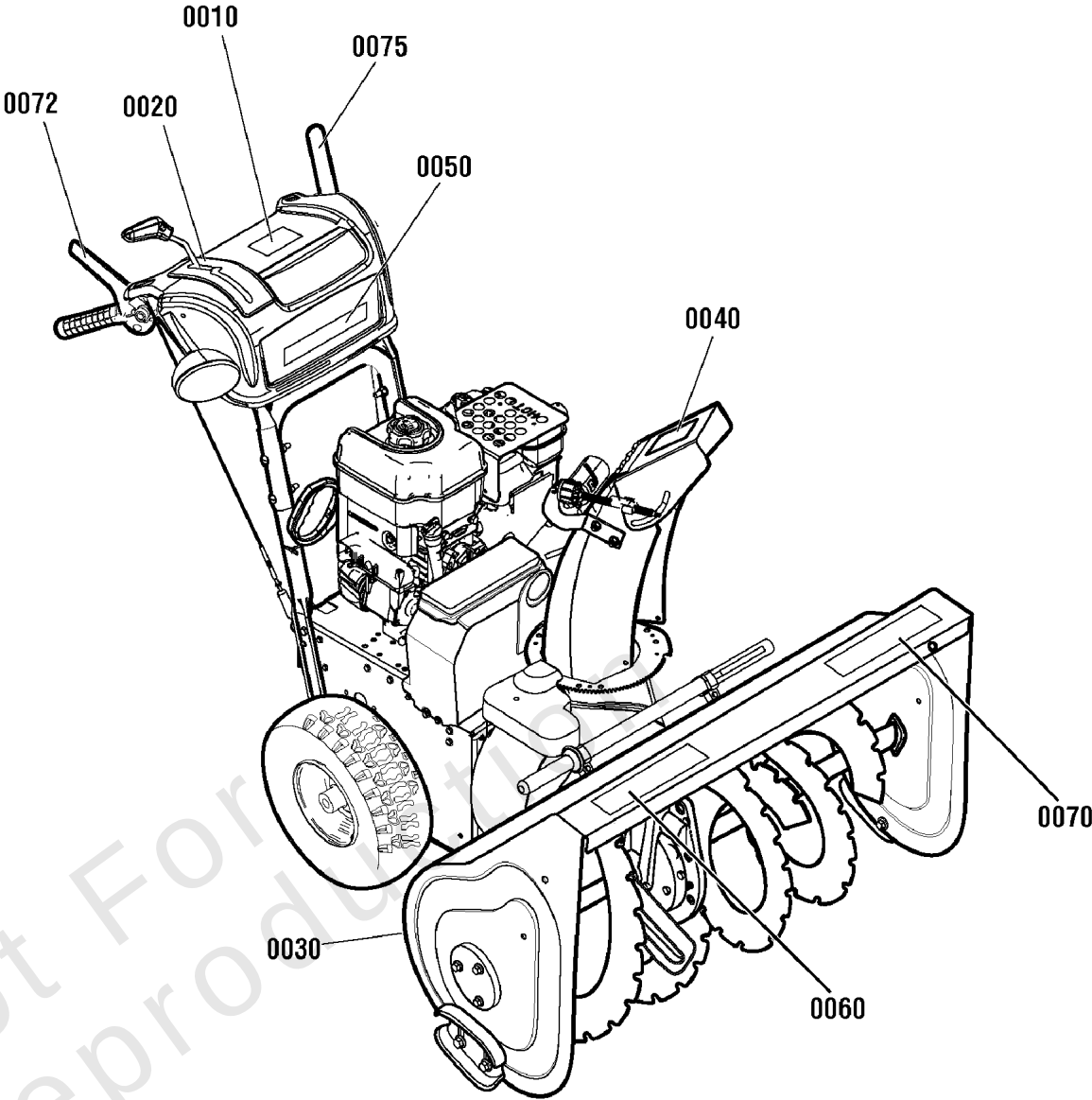
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1695996

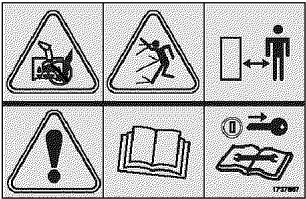


Chute & Rotation Group - Full Electric

REF NO	PART NO	QTY	DESCRIPTION
0010	1728967SM	1	PINION, 1-1/4 Lg
0030	1739621YP	3	SCREW, Torx Button Head, M5 x .8 x 14
0035	7091552SM	3	WASHER, Flat, 7/32 x 1/2
0040	1925592SM	1	CAPSCREW, Hex Washer, Taptite, 1/4-20 x 3/4
0050	1752877YP	1	COVER, Electric Chute Rotation
0060	7011938SM	3	RETAINER, Spout
0070	1960001SM	6	CAPSCREW, Hex Washer, 10-14 x 5/8
0090	1752240YP	1	SWITCH, Chute Rotation -(-Used Before Serial No. 2017430819) (Order 0600 When Bottom View of Switch Terminal Pattern Matches 0090.)
0140	703586	1	TIE, Cable
0150	1706085SM	2	DECAL, Orange Strip Hinge Snow Chute -(Not Illustrated)
0160	1738231CYP	1	CHUTE ASSEMBLY, Tall, Steel
0200	1739309YP	1	MOTOR, Spout Rotator, 38"
0230	1737962BMYP	1	GEAR, Tall, Steel Chute
0290	1738267BMYP	1	BRACKET ASSEMBLY
0300	1737941YP	1	MOTOR, Chute Deflector
0310	1960715SM	2	SCREW, Truss Head, Torx, 1/4-20 X 3/4
0320	1960694SM	2	NUT, Hex Flange, 1/4-20
0330	1737379YP	1	SWITCH, Deflector Control -(-Used Before Serial No. 2017430819) (Order 0700 When Bottom View of Switch Terminal Pattern Matches 0330.)
0340	1738244YP	1	WASHER, Rubber
0350	1738245YP	1	NUT, 1/4-20, L.H.
0360	703332	1	WASHER, Flat, 1/4
0530	1733475SM	1	GUARD, Chute
0540	1752883YP	1	BRACKET, Chute Guard (CE/Export)
0550	1738174	2	GROMMET, Chute Guard Bracket
0560	1960140SM	2	NUT, Push, 3/16
0570	-----	2	SCREW, 1/4-20 x 1/2" Hex Washer Self-Tap, BZ
0600	1687904	1	WIRE HARNESS ADAPTER KIT, CHUTE ROTATION -(-Used Before Serial No. 2017430819) (Order 0600-10 When Bottom View of Switch Terminal Pattern Matches 0600.)
0600-10	709954	1	SWITCH, Chute Rotation -(-Used After Serial No. 2017430818)
0600-20	84003010	1	HARNESS, Wire -(-Used Before Serial No. 2017430819)
0700	1687905	1	WIRE HARNESS ADAPTER KIT, DEFLECTOR CONT -(-Used Before Serial No. 2017430819) (Order 0700-10 When Bottom View of Switch Terminal Pattern Matches 0700.)
0700-10	709955	1	SWITCH, Deflector Control -(-Used After Serial No. 2017430818)
0700-20	84003010	1	HARNESS, Wire -(-Used Before Serial No. 2017430819)



0030



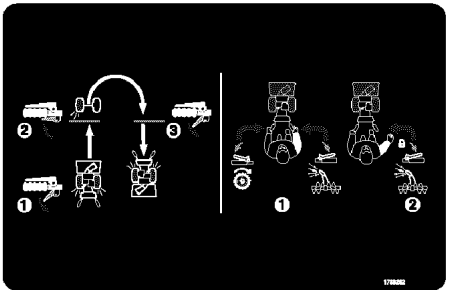
0030



0072



0075



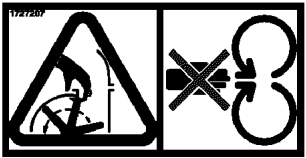
0010



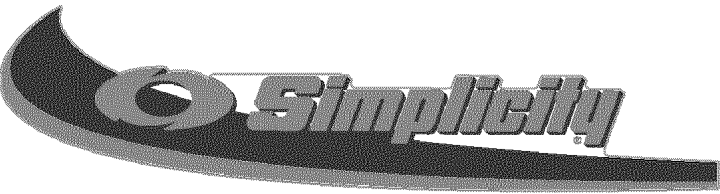
0020



0040



0040



0050



0060



0070

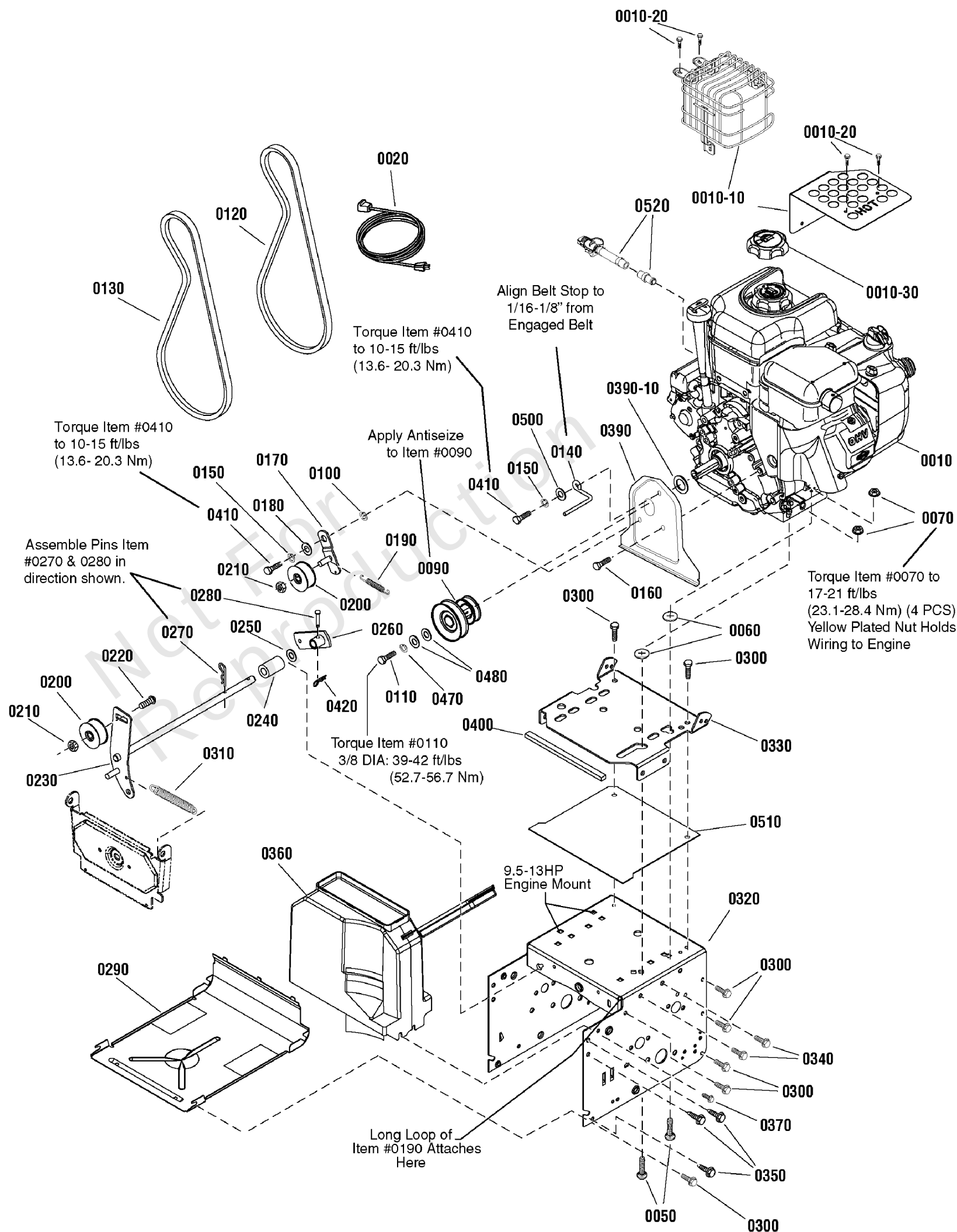
Decals Group

REF NO	PART NO	QTY	DESCRIPTION
0010	1738282	1	DECAL, Dash Operation
0020	1751582	1	DECAL, Gear Shift
0030	1737866	1	DECAL, Foot, FR/Eng -(Domestic)
0030	1737867	1	DECAL, Danger Auger Icons -(Export)
0040	-----	1	DECAL, Chute Warning, FR/ENG -(Domestic)
0040	1727207	1	DECAL, Chute Warning -(Export)
0050	1733199	1	DECAL, Dash, Logo
0060	1739944	1	DECAL, Model, L1528E -(Domestic)
0060	1750872	1	DECAL, Model, L1528EX -(Export)
0060	1739948	1	DECAL, Model, L1730E -(Domestic)
0060	1750697	1	DECAL, Model, L1730EX -(Export)
0070	1733246	1	DECAL, Logo, Housing, 28" -(Export)
0070	1733245	1	DECAL, Logo, Housing, 30" -(Export)
0072	1737869	1	DECAL, Auger Control Symbols
0075	1737870	1	DECAL, Traction Control Symbols

Engine & Frame Group - 14.5TP & 16.5TP

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1695996



Engine & Frame Group - 14.5TP & 16.5TP

REF NO	PART NO	QTY	DESCRIPTION
0010	20M314-0142-H1	1	* ENGINE, 14.5TP Briggs & Stratton (2011 Domestic 28") -(Engine Model: 20M314-0142-H1) (CE/Export Models Only)
0010	20M314-0127-F1	1	* ENGINE, 16.5TP Briggs & Stratton (2011 Domestic 30") -(Engine Model: 20M314-0142-H1) (CE/Export Models Only)
0010	21M314-0129-H1	1	* ENGINE, 14.5TP Briggs & Stratton (2011 Export 28") -(Engine Model: 21M314-0129-H1) (CE/Export Models Only)
0010	20M314-0142-H1	1	* ENGINE, 16.5TP Briggs & Stratton (2011 Export 30") -(Engine Model: 20M314-0142-H1) (CE/Export Models Only)
0010-10	797095	1	GUARD, Muffler, Plate -(Domestic)
0010-10	796384	1	GUARD, Muffler -(Export)
0010-20	699234	3	CAPSCREW, Hex Washer Head, Muffler Guard
0010-30	795027	1	CAP, Fuel
0020	724865	1	CORD, 10FT, 110V -(Domestic Only)
0050	720064	4	BOLT, Carriage, 5/16-18 x 1-1/2
0060	720376	4	NUT, Push, For 1/4 Stud
0070	1739305	4	NUT, Hex Flange, ESNA, 5/16-18
0090	722085	1	PULLEY
0100	1919381	1	WASHER, 5/16
0110	1960428	1	CAPSCREW, Hex Head, 3/8-24 x 1-1/4, G8
0120	1733324	1	V-BELT, Drive, 3L 33.13
0130	1736421	1	V-BELT, 4L, 38.35, Auger
0140	1739070	1	BELT GUIDE
0150	1917356	3	LOCKWASHER, Spring, 5/16
0160	1921515	1	CAPSCREW, Hex Head, 5/16-24 x 3/4, G5
0170	722090	1	BRACKET, Idler
0180	-----	1	BUSHING, Idler Bracket
0190	722457	1	SPRING, Extension, Idler
0200	722378	2	IDLER, Plastic Ball Bearing
0210	1960251	2	NUT, Hex Center Lock Jam, 3/8-16
0220	724823	1	BOLT, Carriage, Short Neck, 3/8-16 x 1-1/4, G5
0230	722132	1	AUGER IDLER
0240	722118	1	SPACER, 1/2 ID x 1 OD x 1-3/4"
0250	80003590	1	WASHER, 1/2
0260	1733451	1	ARM, Control
0270	725367	1	PIN, Hair
0280	1736381	1	PIN, Clevis
0290	1740906BM	1	PANEL, Bottom
0300	1927429	12	CAPSCREW, Hex Washer Head, Taptite, 1/4-20 x 5/8
0310	722455	1	SPRING, Extension, Auger
0320	1733154C	1	FRAME
0330	1733583C	1	PLATE, Engine Mount
0340	722838	4	CAPSCREW, Hex Washer Head, 5/16-18 x 1/2
0350	1664847SM	6	CAPSCREW, Hex Washer Head, Taptite, 5/16-18 x 3/4
0360	1733923	1	BELT COVER ASSEMBLY
0370	722887	2	SCREW, Hex Washer Head, Tapping, SEMS, 1/4 x 3/4
0390	1750157	1	WATER SHIELD ASSEMBLY -(Includes Ref. No. 0390-10)
0390-10	1750185	1	SEAL, Shaft

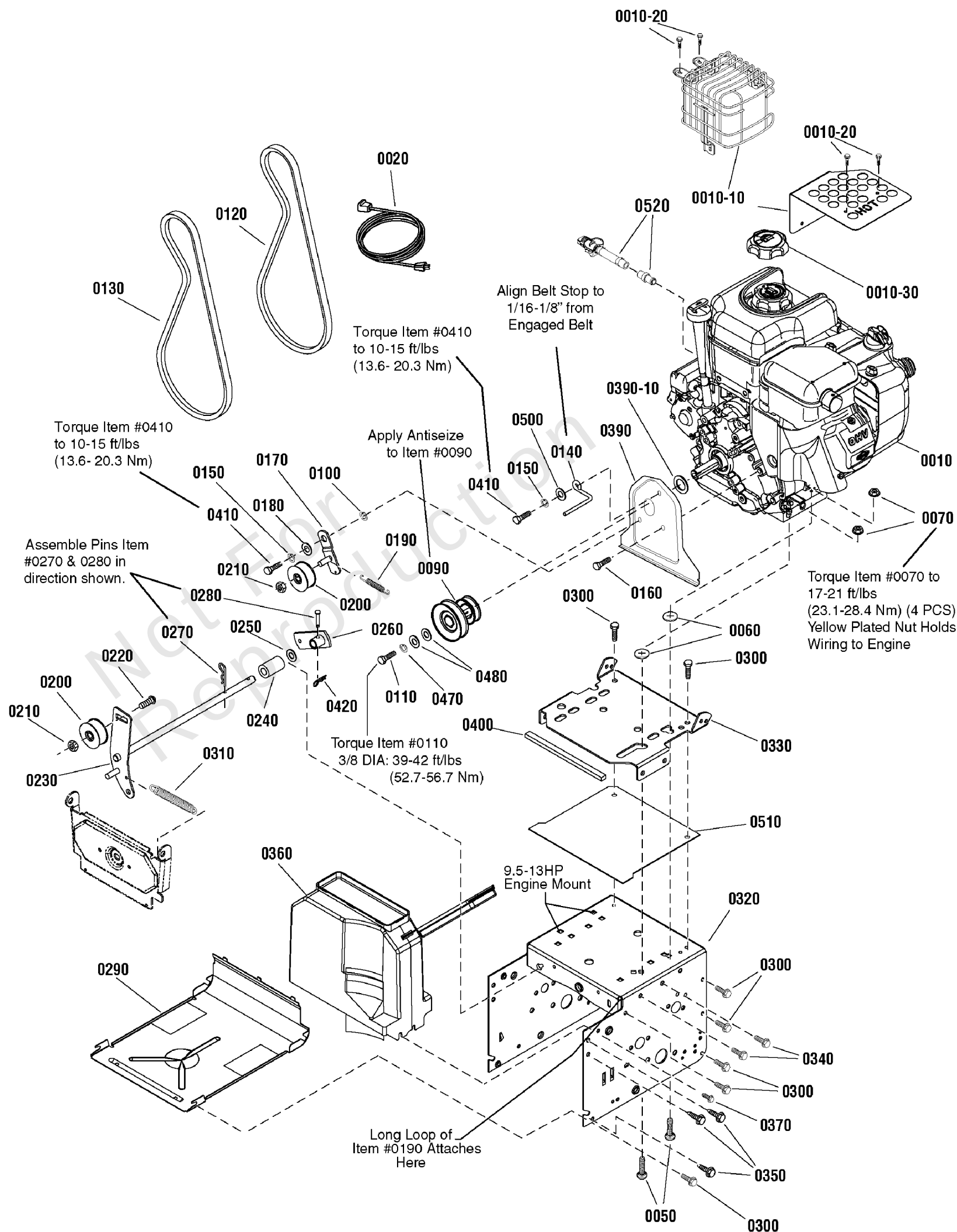
Footnotes:

Note:* See your local Briggs & Stratton Distributor for Parts & Service.

Engine & Frame Group - 14.5TP & 16.5TP

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1695996



Engine & Frame Group - 14.5TP & 16.5TP

REF NO	PART NO	QTY	DESCRIPTION
0400	1750172	1	SEAL, Strip
0410	725996	2	CAPSCREW, Hex, 5/16-24 x 1
0420	7023590	1	PIN, Cotter, Self Lock, 1/4
0470	1916955	1	WASHER, 3/16 -(16.5TP Models)
0470	1916965	1	LOCKWASHER, Spring, 3/8 -(14.5TP Models)
0480	1922755	2	WASHER, 3/8 -(Qty. 1 in Domestic Models)
0500	7091528	1	WASHER, Flat, 3/8 -(Qty. 2 in Domestic Models)
0510	1750134	1	SEAL, Engine Plate
0520	798980	1	OIL DRAIN ASSEMBLY

Not For
Reproduction

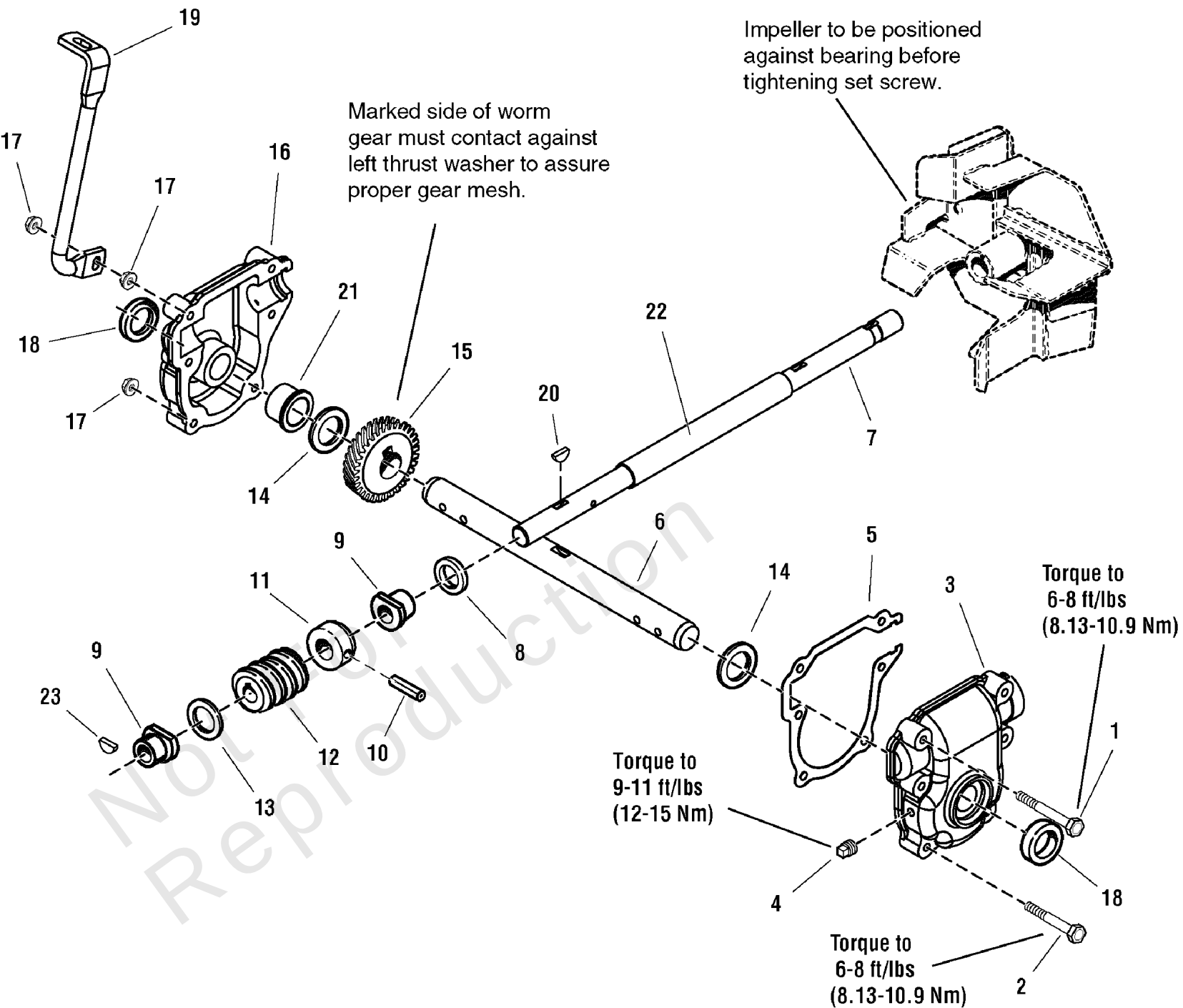
Footnotes:

Note:* See your local Briggs & Stratton Distributor for Parts & Service.

Gear Case Assembly - Heavy Duty (1732303)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1695996



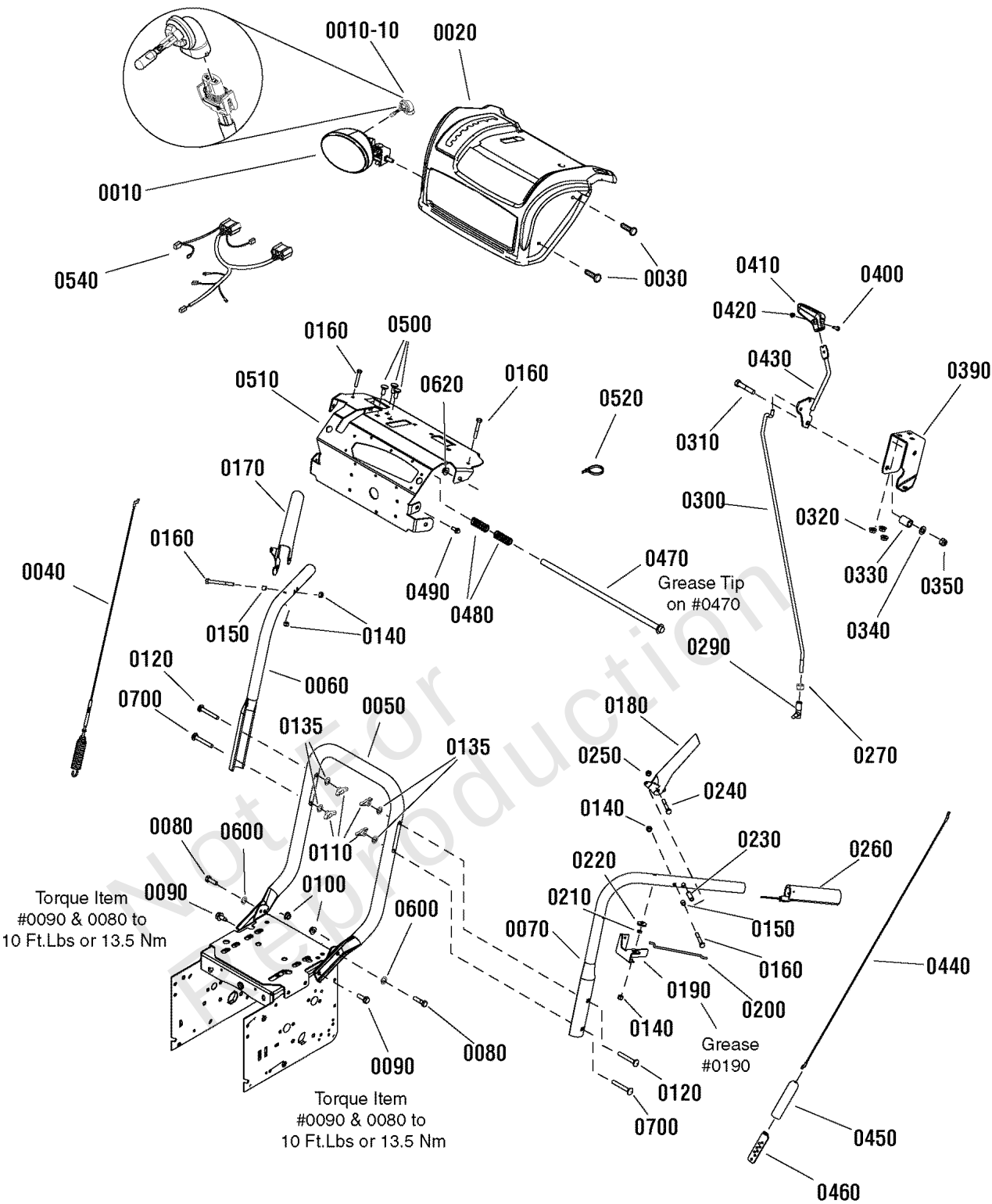
Gear Case Assembly - Heavy Duty (1732303)

REF NO	PART NO	QTY	DESCRIPTION
1	1923282SM	1	CAPSCREW, Hex Head, 1/4-20 x 2-1/2
2	1960346SM	5	CAPSCREW, Hex Head, 1/4-20 x 2-1/4
3	1612136SM	1	GEAR CASE, L.H.
4	1668971SM	1	FITTING, Pipe Plug
5	1612124SM	1	GASKET
6	1732440SM	1	SHAFT, Auger Cutoff
7	1732182SM	1	SHAFT, Worm Cutoff
8	1612093SM	2	SEAL, Oil
9	1612149SM	2	FLANGE BUSHING
10	2836098SM	1	PIN, Drive Lock
11	1612127SM	1	THRUST COLLAR
12	1612142SM	1	WORMGEAR, 1-3/4 OD x 1-3/8 Long
13	2168111SM	1	THRUST WASHER
14	2118315SM	2	THRUST WASHER
15	1612141SM	1	WORMGEAR, 21T, 3" O.D. x 7/8 Long
16	1612137SM	1	GEAR CASE, R.H.
17	1930642SM	7	NUT, Top Lock Flange 1/4-20
18	2118118SM	1	SEAL
19	1732152SM	1	BRACKET, Support
20	2818312SM	1	KEY, Woodruff .18 x .62
21	1732991SM	2	BUSHING
22	1612111SM	1	TUBE
23	2830246SM	1	KEY, Woodruff 1/4 x 3/4

Handles & Controls Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1695996



Handles & Controls Group

REF NO	PART NO	QTY	DESCRIPTION
0010	1737965	1	HEADLIGHT ASSEMBLY
0010-10	-----	1	* BULB, Headlight, Halogen, 881-12V 27W -(Included with Ref. No. 0010)
0020	1738247C	1	COVER, Panel
0030	1960715	6	SCREW, Truss Head Torx, 1/4-20 x 3/4
0040	1732471	1	CABLE AND SPRING ASSEMBLY, Auger Drive, Right
0050	1737759A	1	HANDLE, Lower
0060	1734587A	1	HANDLE, Upper, Right
0070	1734586A	1	HANDLE, Upper, Left
0080	1921333	2	CAPSCREW, Hex Head, 5/16-18 x 1 G5
0090	1664847SM	2	SCREW, Hex Washer Head, Taptite, 5/16-18 x 3/4
0100	1935048	2	NUT, Hex Flange, Two Way Lock, 5/16-18
0110	7035744	4	KNOB, Wing, 5/16-18
0120	1750299	2	BOLT, Carriage, 5/16-18 x 2-1/4 G5
0135	7090391	4	WASHER, Internal Tooth, 5/16
0140	1920397	5	NUT, Hex Lock, ESNA Light, 1/4-20
0150	1678392	2	SPACER, 1/4ID x 3/8OD
0160	1921962	4	CAPSCREW, Hex Head, 1/4-20 x 1-3/4 G5
0170	1739783A	1	LEVER, Clutch, Right
0180	1739782A	1	LEVER, Clutch, Left
0190	1733505BM	1	BRACKET, Pivot, Free Hand
0200	1736360	1	ROD, 5-5/8 Inch
0210	1733095	1	SPACER, 1/4ID x 3/8OD
0220	1960353	1	WASHER, 1/4
0230	1736542	2	SPACER, Stepped
0240	1750554	2	BOLT, Shoulder, 1/4 x 1-1/4
0250	1933896	3	NUT, Hex Lock, Nylon Insert, 10-24
0260	1726317	2	HAND GRIP
0270	2820263	2	NUT, Hex, 5/16-24
0290	1739290	1	BALL JOINT
0300	1734354	1	ROD, 25"
0310	1923701	1	CAPSCREW, Hex Head, 3/8-16 x 2 G5
0320	1931277	3	NUT, Hex Flange, Whiz Lock, 5/16-18
0330	-----	1	SPRING
0340	1918266	1	WASHER, 3/8
0350	1919439	1	NUT, Hex Lock, Esna Light, 3/8-16
0390	1737684	1	BRACKET, Controls
0400	1960589	1	SCREW, Phillips, #10-24 x 3/4
0410	1733192	1	GRIP, Lever
0420	1933896	2	NUT, Hex Lock Nylon Insert, 10-24
0430	1736836	1	SPEED LEVER
0440	727331	1	CABLE, Hydro Drive
0450	723154	1	BOOT, Spring End Cover
0460	723259	1	BRACKET, Cable Adjusting
0470	-----	1	ROD & SPRING ASSEMBLY
0480	-----	2	SPRING, Compression
0490	1927429	2	SCREW, Hex Washer Head, Taptite, 1/4-20 x 5/8
0500	723873	3	BOLT, Carriage, 5/16-18 x 3/4
0510	1732064BM	1	COVER, Dash

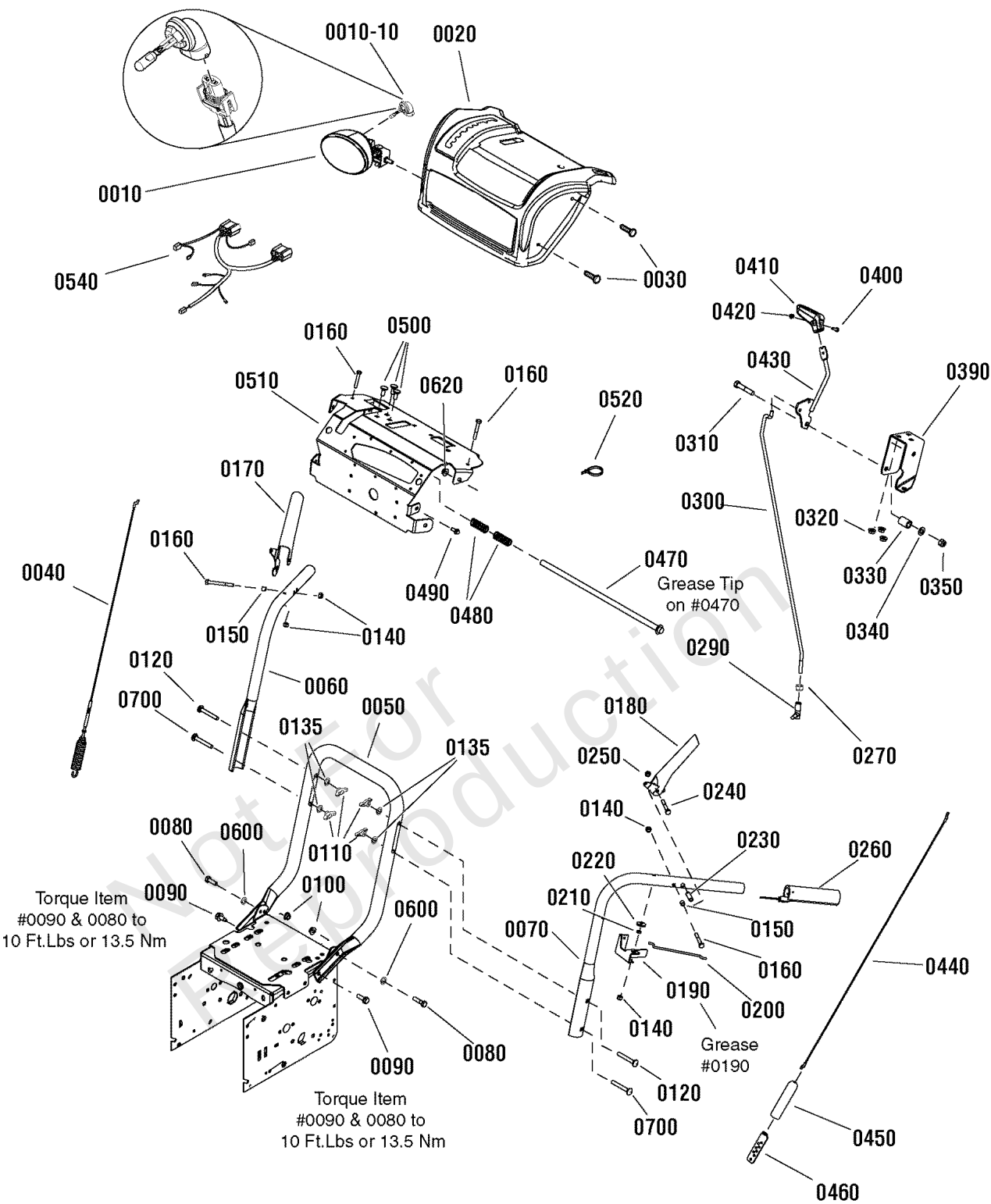
Footnotes:

Note:* See your local hardware store for replacement bulbs.

Handles & Controls Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1695996



Handles & Controls Group

REF NO	PART NO	QTY	DESCRIPTION
0520	1701011	5	TIE, Self Lock
0540	1750773	1	WIRING HARNESS
0600	725331	2	WASHER, Flat
0620	703463	3	NUT, Flange Nylock , 1/4-20
0700	7091189	2	BOLT, Carriage, Short Neck, 5/16-18 x 2

Not For
Reproduction

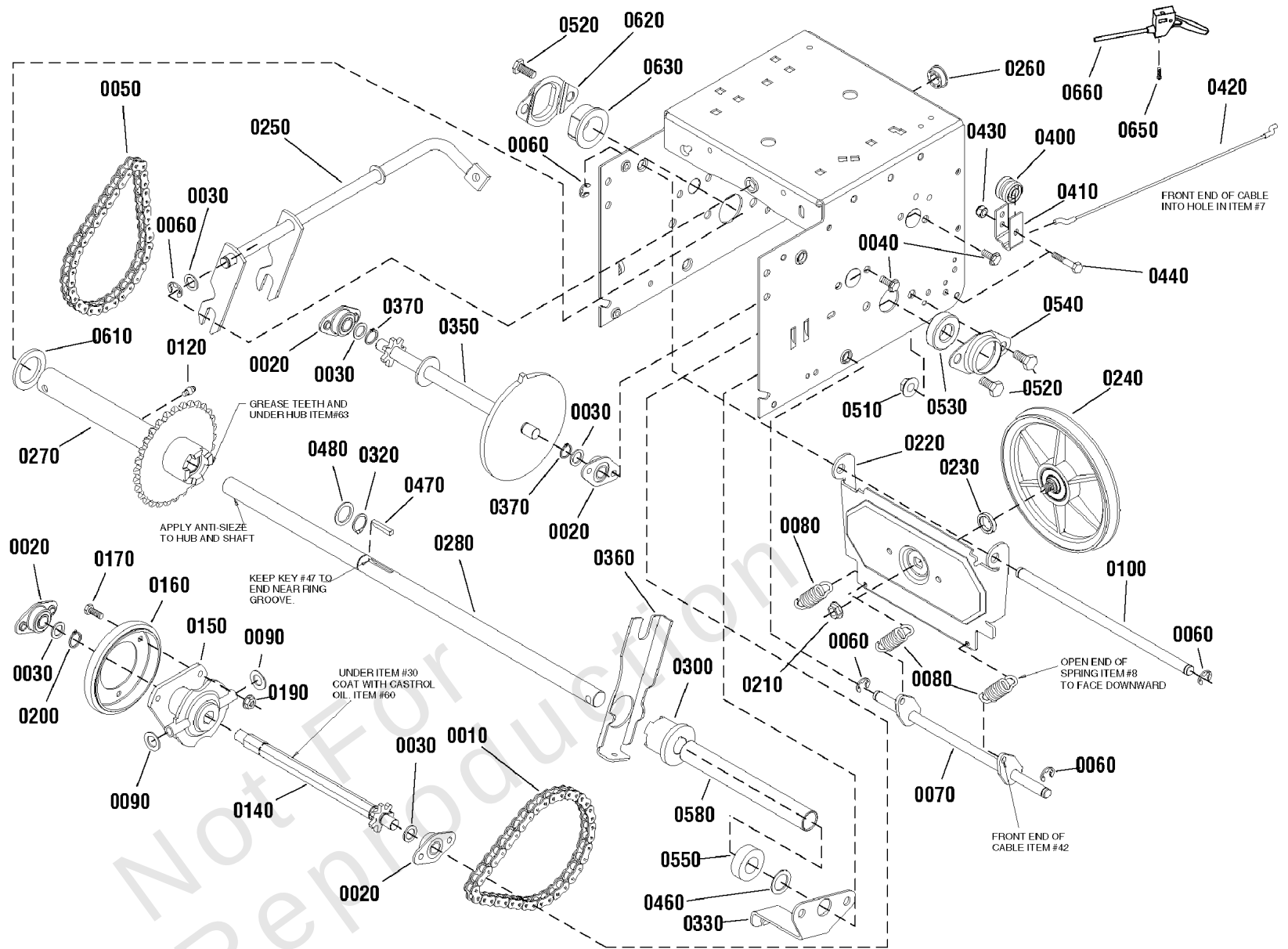
Footnotes:

Note:* See your local hardware store for replacement bulbs.

Traction Drive Group - Easy Turn

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1695996



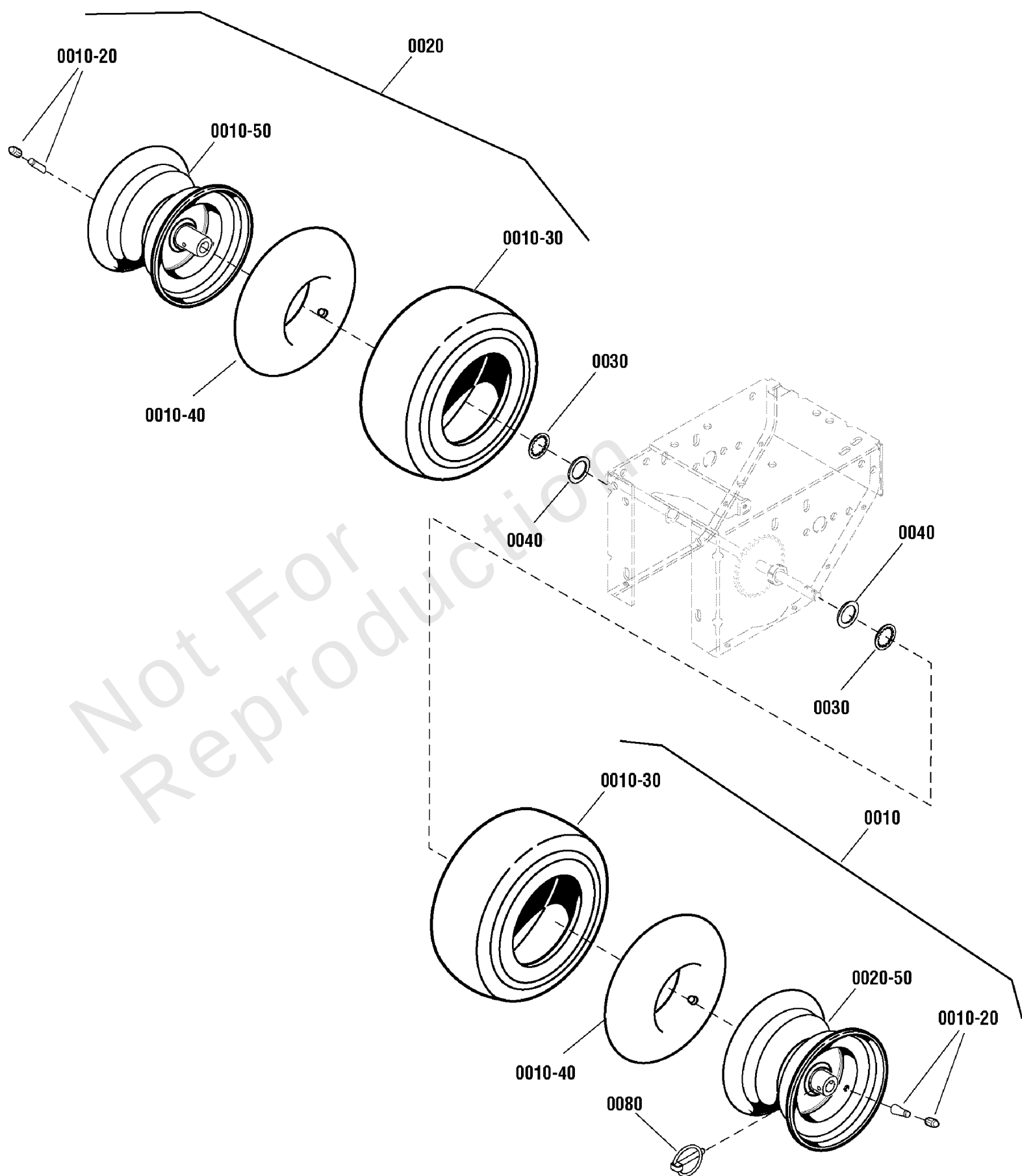
Traction Drive Group - Easy Turn

REF NO	PART NO	QTY	DESCRIPTION
0010	724613	1	CHAIN, Roller 420 x 19" Lg
0020	723655	4	RETAINER & BUSHING ASSEMBLY
0030	724619	5	WASHER, Flat, 1/2
0040	1924856	8	CAPSCREW, Hex Washer Head, 5/16-18 x 1/2
0050	724627	1	CHAIN, Roller 420 X 18 Lg
0060	721910	5	RETAINER, Ring, 7/16
0070	722377	1	SPRING LINK ASSEMBLY
0080	1736469	3	SPRING, Extension
0090	80003590	2	WASHER, 1/2
0100	722082	1	AXLE, Swing Plate, 7/16 Dia., 10-1/2 Lg
0120	2812808	1	FITTING, Lube, 1/4-28
0140	722083	1	HEX SHAFT & SPROCKET ASSEMBLY
0150	723694	1	HUB, Friction Wheel & Bearing
0160	722185	1	WHEEL, Friction
0170	1921959	3	CAPSCREW, Hex Head, 1/4-20 x 5/8, G5
0190	1928372	3	NUT, Hex, 1/4-20
0200	1733326	1	RING, Retaining, # 63
0210	722391	1	NUT, Flange Lock, 3/8-24
0220	722069	1	PLATE, Swinging
0230	722110	1	SPACER, Friction Pulley
0240	722092	1	FRICTION PULLEY ASSEMBLY
0250	722087	1	SPEED SELECTOR ASSEMBLY
0260	724636	1	BEARING, Flange, 1/2 ID X 7/8 OD
0270	1733085	1	ASSEMBLY, Sprocket & Hub w/ Bushings
0280	1732381	1	AXLE, 3/4 Dia. x 22-3/4 Lg
0300	1732382	1	GEAR, Clutching 3/4 ID 17/8 OD 1.50 Lg
0320	2827732	1	RING, Retaining, # 74, 3/4 Dia.
0330	1732948A	1	SUPPORT, Cable
0350	1732389	1	SPROCKET & SHAFT ASSEMBLY
0360	1732383A	1	ARM, Clutch
0370	720009	2	RING, Retaining, 1/2 Dia.
0400	724621	1	SPOOL CABLE, Auger Control
0410	722070	1	BRACKET, Cable Spool
0420	722095	1	CABLE, Front Drive, Lower
0430	1920397	1	NUT, Hex Lock, 1/4-20
0440	1922837	1	CAPSCREW, Hex Head, 1/4-20 x 1-1/2, G5
0460	725394	1	WASHER, Flat, 3/4 x 1-1/8
0470	1667622	1	KEY, 1-9/64
0480	1960114	1	WASHER, 3/4
0510	1928352	4	NUT, Hex Flange, Locking, 3/8-16
0520	1921965	4	CAPSCREW, Hex Head, 3/8-16 x 3/4, G5
0530	724409	1	BEARING, Ball, 3/4 ID x 1-5/8 OD
0540	1736396	1	RETAINER, Bearing, Flanged
0550	722228	1	COLLAR, Locking
0580	720298	1	SPRING, Compression
0610	2860169	1	WASHER, 3/16
0620	1733101	1	RETAINER, Bushing
0630	1720305	1	BUSHING, 5/32
0650	-----	1	SCREW, Pan Head, #10 x 1/2
0660	-----	1	CABLE & HANDLE ASSEMBLY

Wheels & Tires Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1695996



Wheels & Tires Group

REF NO	PART NO	QTY	DESCRIPTION
0010	1738357	1	WHEEL ASSEMBLY, 15 x 5-6 2P, K467, L.H. -(26" Models Only) (Includes Ref. Nos. 0010-20, 0010-30 & 0010-50)
0010	1738361	1	WHEEL ASSEMBLY, Artic Trac, 4.80, L.H. -(28" Models Only) (Includes Ref. Nos. 0010-20, 0010-30 & 0010-50)
0010	1738363	1	WHEEL ASSEMBLY, 15 x 5-6, W3, L.H. -(30" Models Only) (Includes Ref. Nos. 0010-20, 0010-30 & 0010-50)
0010-20	2172353	2	VALVE STEM & CAP
0010-30	1739104	2	TIRE, 15 x 5-6, 2 Ply, K467 -(26" Models Only)
0010-30	1737155	2	TIRE, 4.80-8, 2 Ply, K467 -(28" Models Only)
0010-30	1737156	2	TIRE, 16 x 6-1/2-8, K467 -(30" Models Only)
0010-40	1664090	2	TUBE, Tire 15 x 5-6 -(26" & 30" Models Only)
0010-50	-----	1	*RIM, Tire, L.H.
0020	1738356	1	WHEEL ASSEMBLY, 15 x 5-6 2P, K467, R.H. -(26" Models Only) (Includes Ref. Nos. 0010-20, 0010-30 & 0020-50)
0020	1738360	1	WHEEL ASSEMBLY, Artic Trac, 4.80, R.H. -(28" Models Only) (Includes Ref. Nos. 0010-20, 0010-30 & 0020-50)
0020	1738362	1	WHEEL ASSEMBLY, 15 x 5-6, W3, R.H. -(30" Models Only) (Includes Ref. Nos. 0010-20, 0010-30 & 0020-50)
0020-50	-----	1	*RIM, Tire, R.H.
0080	1731186	2	PIN, Klik, 5/16 x 2 -(28" & 30" Models Only)
0080	725431	2	PIN, Klik, 1/4 x 1-3/8 -(26" Models Only)
0090	725394	2	WASHER, Flat, 3/4 ID x 1-1/8 OD -(26" Models Only)
0100	1657528	2	RING, Retaining -(26" Models Only)

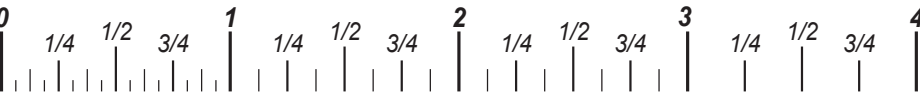
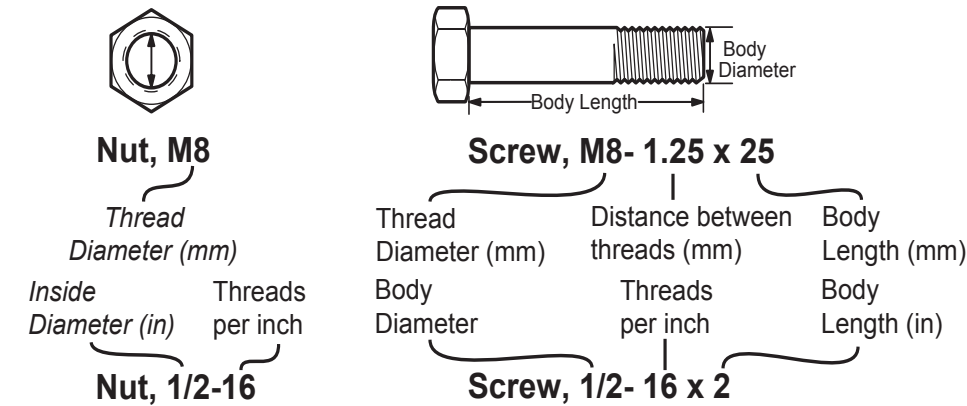
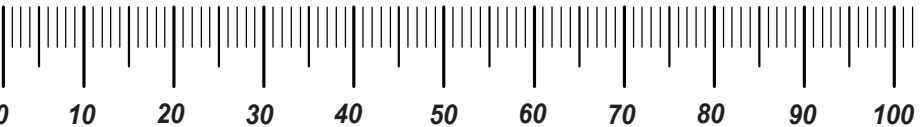
Footnotes:

Note:* Not a servicable part. Order complete wheel and tire assembly.

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).

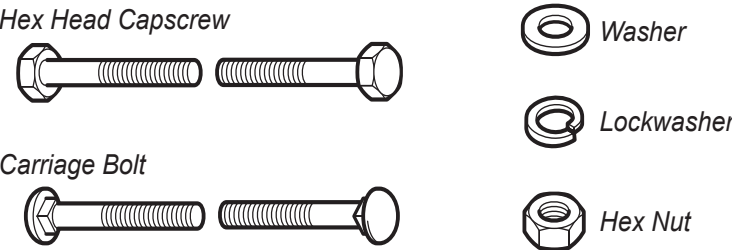
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw,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

