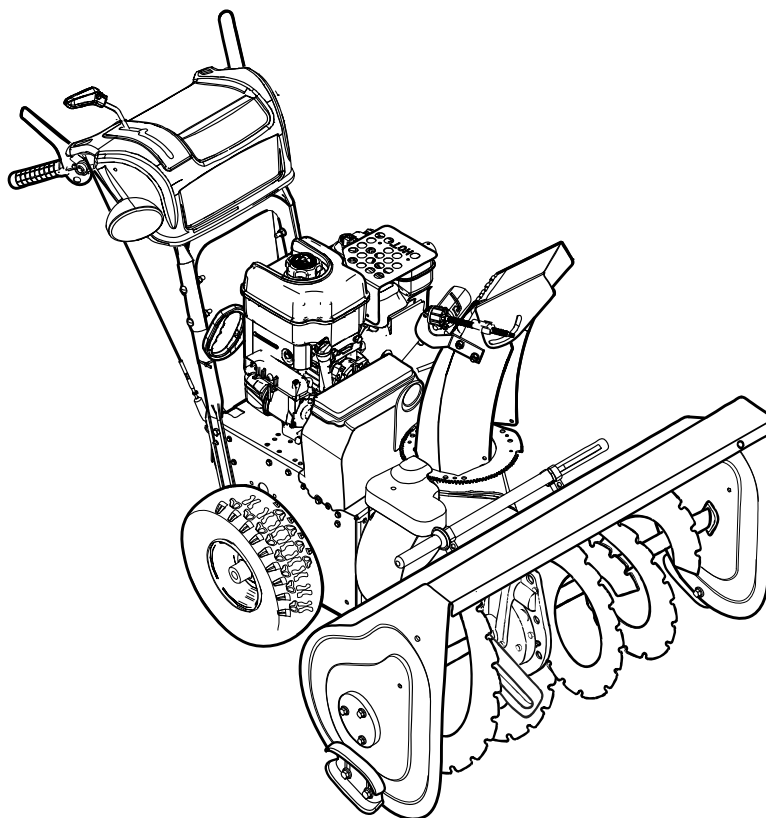




PARTS LIST



Models

Mfg. No.	Description
1695912	ML761650, 16.5TP 30" Dual Stage Snowthrower, CE (2010)

Manual Part No. 1751670

Revision -

Rev. Date: 9/8/2010

Not for
Reproduction

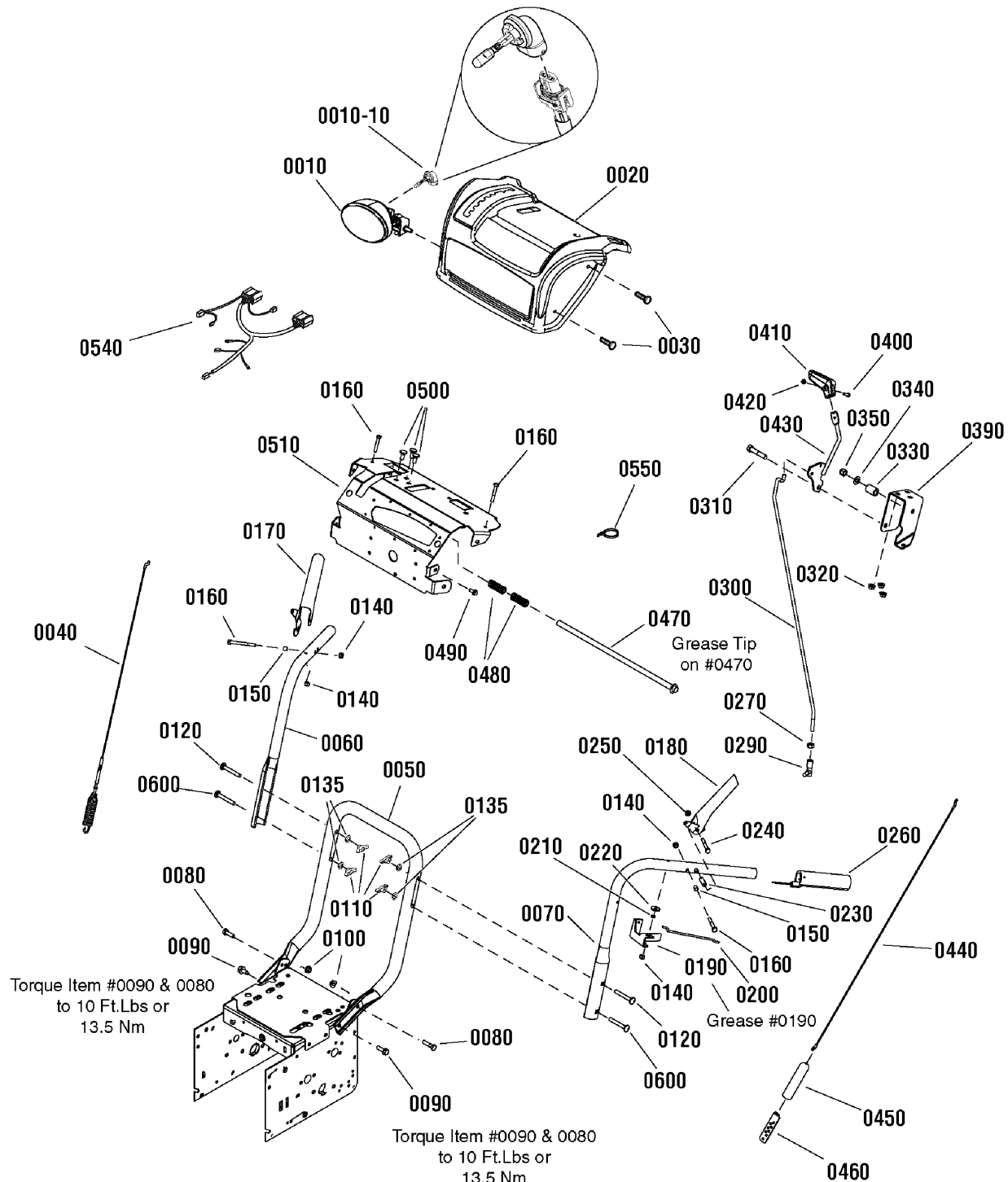
PRODUCT COMPONENTS	PAGES
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Reproduction

Handles and Controls Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

2989391



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Handles and Controls Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1737966YP	1	HEADLIGHT ASSEMBLY
0010-10	-----	1	* BULB, Headlight, Halogen, 881-12V 27W (Included with Ref. No. 0010)
0020	1738247BIYP	1	COVER, Panel
0030	1960715SM	6	SCREW, Truss Head Torx, 1/4-20 x 3/4
0040	1732471SM	1	CABLE AND SPRING ASSEMBLY, Auger Drive, Right
0050	1737759AYP	1	HANDLE, Lower
0060	1734587ASM	1	HANDLE, Upper, Right
0070	1734586ASM	1	HANDLE, Upper, Left
0080	1921333SM	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	1935048SM	2	NUT, Hex Flange, Two Way Lock, 5/16-18
0110	7035744YP	4	KNOB, Wing, 5/16-18
0120	1750299YP	2	BOLT, Carriage, 5/16-18 x 2-1/4 G5
0135	7090391SM	4	WASHER, Internal Tooth, 5/16
0140	1920397SM	5	NUT, Hex Lock, ESNA Light, 1/4-20
0150	1678392SM	2	SPACER, 1/4ID x 3/8OD
0160	1921962SM	4	CAPSCREW, Hex Head, 1/4-20 x 1-3/4 G5
0170	1739783AYP	1	LEVER, Clutch, Right
0180	1739782AYP	1	LEVER, Clutch, Left
0190	1733505BMYP	1	BRACKET, Pivot, Free Hand
0200	1736360YP	1	ROD, 5-5/8 Inch
0210	1733095SM	1	SPACER, 1/4ID x 3/8OD
0220	1960353SM	1	WASHER, 1/4
0230	1736542YP	2	SPACER, Stepped
0240	1750554YP	2	BOLT, Shoulder, 1/4 x 1-1/4
0250	1933896SM	2	NUT, Hex Lock, Nylon Insert, 10-24
0260	1726317SM	2	HAND GRIP
0270	2820263SM	2	NUT, Hex, 5/16-24
0290	1739290YP	1	BALL JOINT
0300	1734354SM	1	ROD, 25"
0310	1923701SM	1	CAPSCREW, Hex Head, 3/8-16 x 2 G5
0320	1931277SM	3	NUT, Hex Flange, Whiz Lock, 5/16-18
0330	50786MA	1	SPRING
0340	1918266SM	1	WASHER, 3/8
0350	1919439SM	1	NUT, Hex Lock, Esna Light, 3/8-16
0390	1737684YP	1	BRACKET, Controls
0400	1960589SM	1	SCREW, Phillips, #10-24 x 3/4
0410	1733192SM	1	GRIP, Lever
0420	1933896SM	2	NUT, Hex Lock Nylon Insert, 10-24
0430	1736836YP	1	SPEED LEVER
0440	1502113MA	1	CABLE, Hydro Drive
0450	308146MA	1	BOOT, Spring End Cover
0460	313441MA	1	BRACKET, Cable Adjusting

Footnotes

Note* See your local hardware store for replacement bulbs.

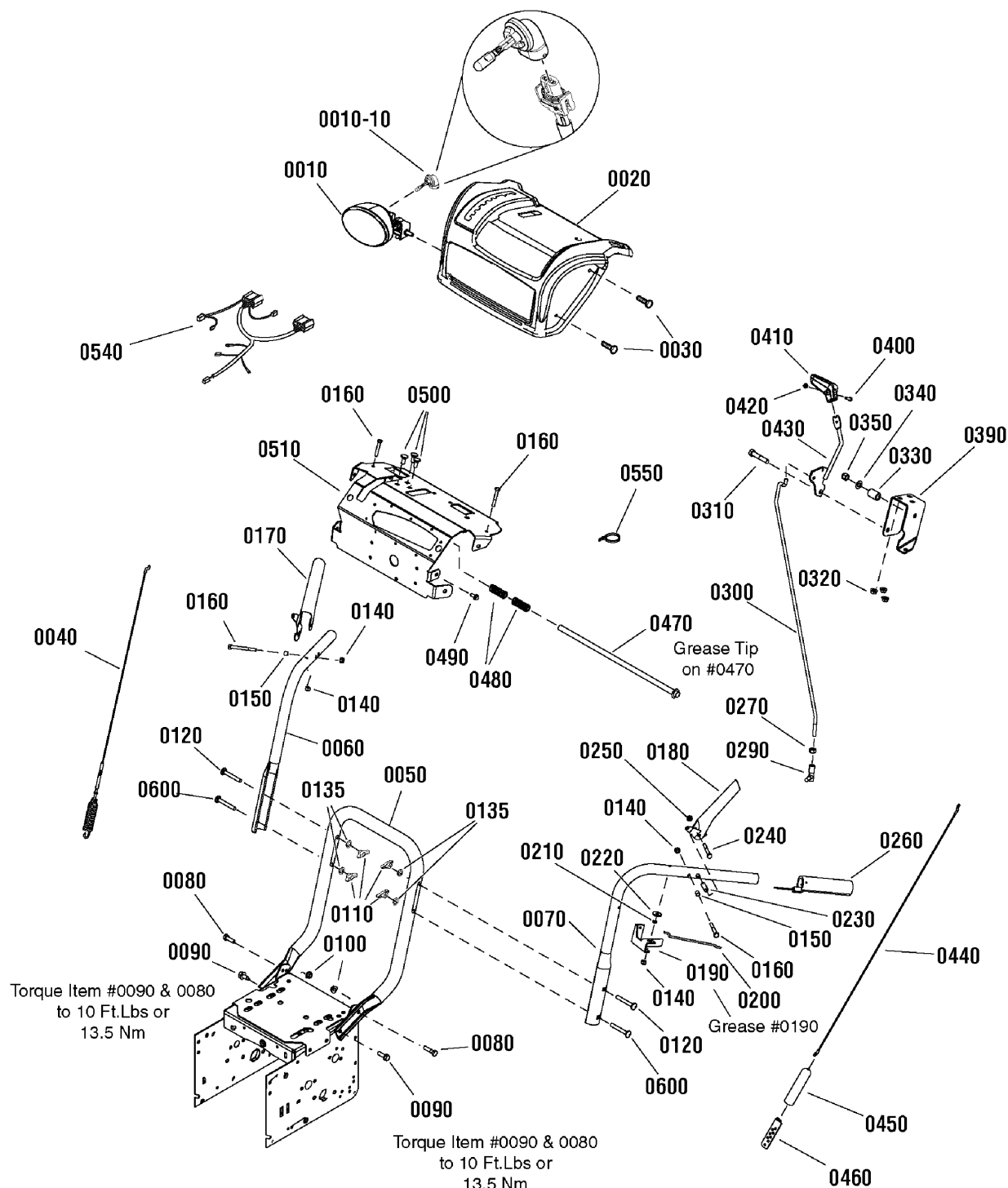
The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Handles and Controls Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

2989391



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Handles and Controls Group

REF NO	PART NO.	QTY.	DESCRIPTION
0470	1733509SM	1	ROD & SPRING ASSEMBLY
0480	2108360SM	2	SPRING, Compression
0490	1927429SM	2	SCREW, Hex Washer Head, Taptite, 1/4-20 x 5/8
0500	1931333SM	3	BOLT, Carriage, 5/16-18 x 3/4 G5
0510	1732064BMYP	1	COVER, Dash
0540	1738239YP	1	WIRING HARNESS
0550	1701011SM	5	TIE, Self Lock
0600	7091189YP	2	BOLT, Carriage, Short Neck, 5/16-18 x 2

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Footnotes

Note* See your local hardware store for replacement bulbs.

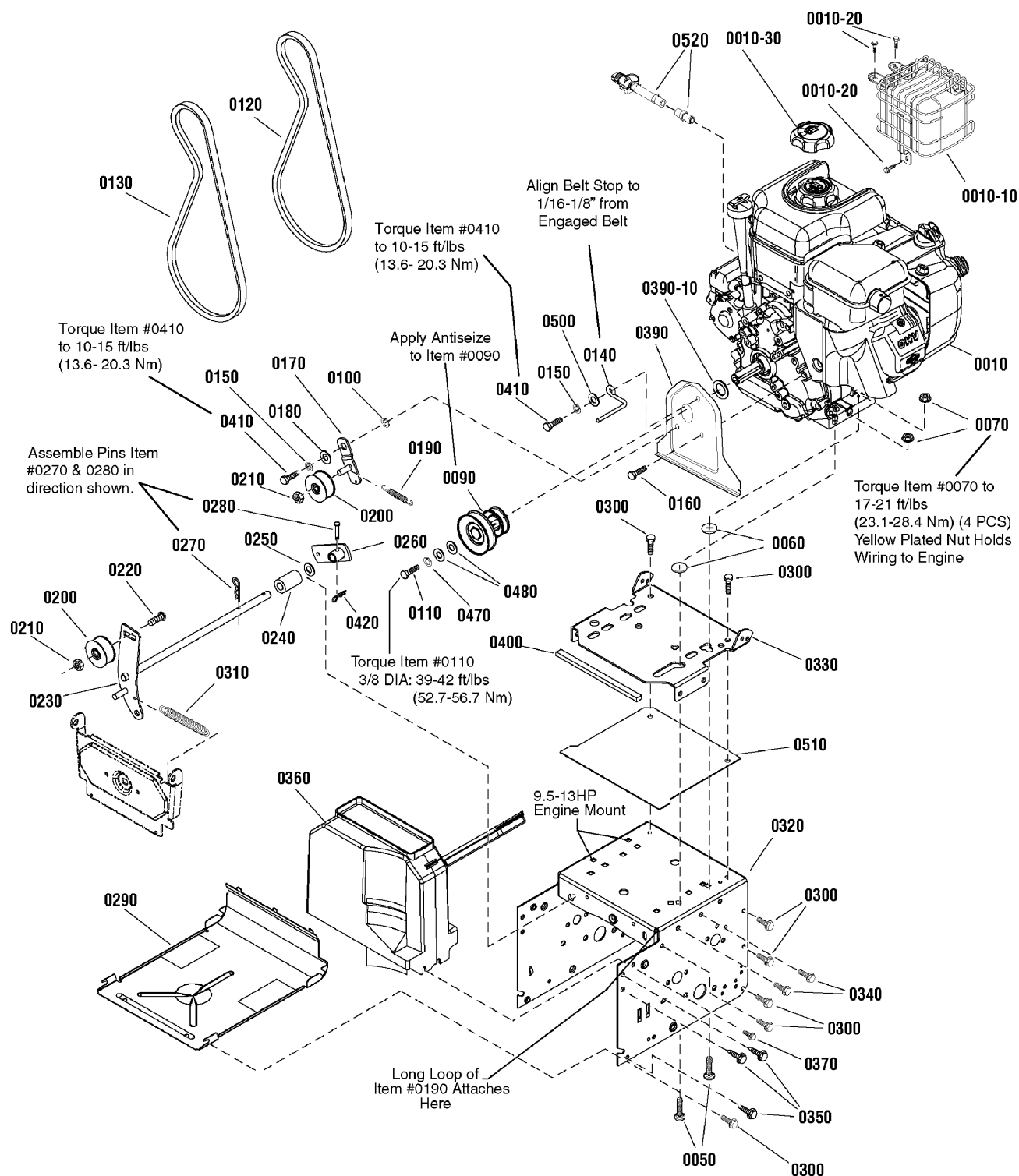
The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Engine & Frame Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

2989390



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Engine & Frame Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	21M314-0122-E1	1	* ENGINE, 16.5TP Briggs & Stratton (Engine Model: 21M314-0122-E1)
0010-10	796384	1	GUARD, Muffler
0010-20	699234	3	SCREW, Muffler Guard
0010-30	792647	1	CAP, Fuel
0050	002X97MA	4	BOLT, Carriage, 5/16-18 x 1-1/2
0060	028X76MA	4	NUT, Push, 1/4, 15/16 OD
0070	1739305YP	1	NUT, Hex Flange, Whiz Lock, 5/16-18
0090	1501109MA	1	PULLEY, Engine
0100	1919381SM	1	WASHER, 5/16
0110	1960428SM	1	CAPSCREW, Hex Head, 3/8-24 x 1-1/4, G8
0120	1733324SM	1	V-BELT, Traction Drive, 3L 33.13
0130	1736421YP	1	V-BELT, Auger, Drive, 4L, 38.35
0140	1739070YP	1	STOP, Belt, 3
0150	1917356SM	3	LOCKWASHER, Spring, 5/16
0160	1921515SM	2	CAPSCREW, Hex Head, 5/16-24 x 3/4, G5
0170	1501112YZMA	1	BRACKET, Idler
0180	1501065MA	1	BUSHING, Idler Bracket
0190	165X164MA	1	SPRING, External Idler
0200	1502120MA	2	IDLER, Plastic Ball Bearing
0210	1960251SM	2	NUT, Hex, Centerlock, 3/8-16
0220	585781MA	1	BOLT, Carriage, 3/8-16 x 1-1/4, G5
0230	1501226YZMA	1	IDLER ASSEMBLY, Auger
0240	1501200MA	1	SPACER, Plastic, 1/2 ID x 1 OD x 1-3/4
0250	1960027SM	1	WASHER, 1/2
0260	1733451SM	1	ARM, Control
0270	0031X6MA	1	PIN, Hair 3/8 x 1-5/8
0280	1736381YP	1	PIN, Clevis
0290	1740906BMYP	1	PANEL, Bottom
0300	1927429SM	12	CAPSCREW, Hex Washer Head, Taptite, 1/4-20 x 5/8
0310	165X159MA	1	SPRING, External, Auger 7/16 ID x 5-1/8 x 3/4 W
0320	1733154BIYP	1	FRAME BOX
0330	1733583BIYP	1	PLATE, Engine Mount
0340	1924856SM	4	CAPSCREW, Hex-Washer Head, Taptite, 5/16-18 x 1/2
0350	1664847SM	6	CAPSCREW, Hex-Washer Head, Taptite, 5/16-18 x 3/4
0360	1733923SM	1	BELT COVER
0370	26X306MA	2	CAPSCREW, Hex, Self-Tapping, 1/4 x 3/4
0390	1733868BMYP	1	SHIELD, Water
0390-10	1750185YP	1	SEAL, Water Shield, Foam
0400	1750172YP	1	SEAL, Foam
0410	910828MA	1	BOLT, Hex, 5/16-24 x 1
0420	7023590SM	1	PIN, Cotter, Self Locking, 1/4"
0470	1916955SM	1	LOCKWSHER, Spring, 3/16
0480	1922755SM	2	WASHER, 3/8

Footnotes

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

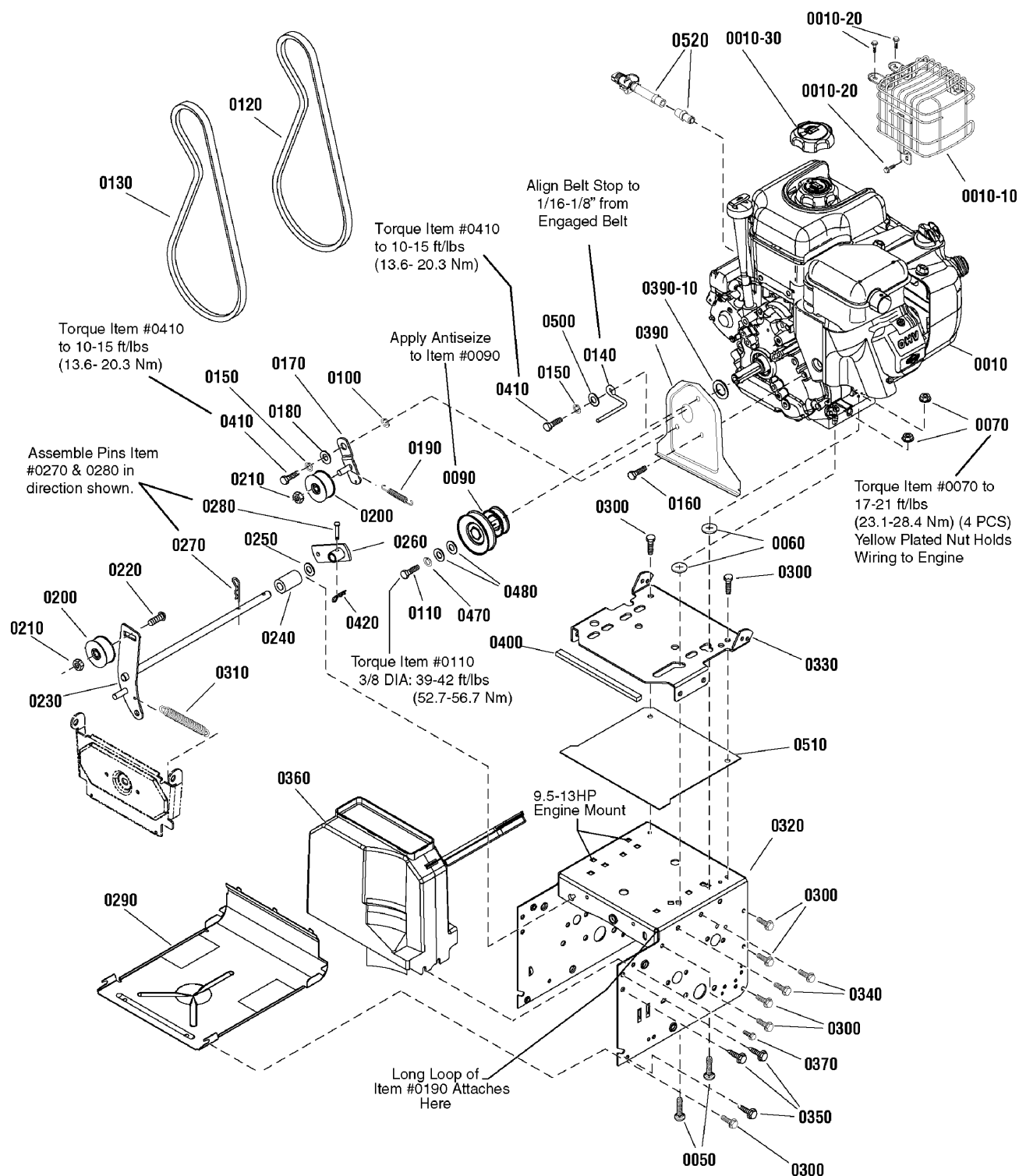
The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Engine & Frame Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

2989390



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Engine & Frame Group

REF NO	PART NO.	QTY.	DESCRIPTION
0500	7091528SM	1	WASHER, Flat, 3/8 x 7/8
0510	1750134YP	1	SEAL, Engine Plate
0520	798980	1	OIL DRAIN ASSEMBLY

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Footnotes

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

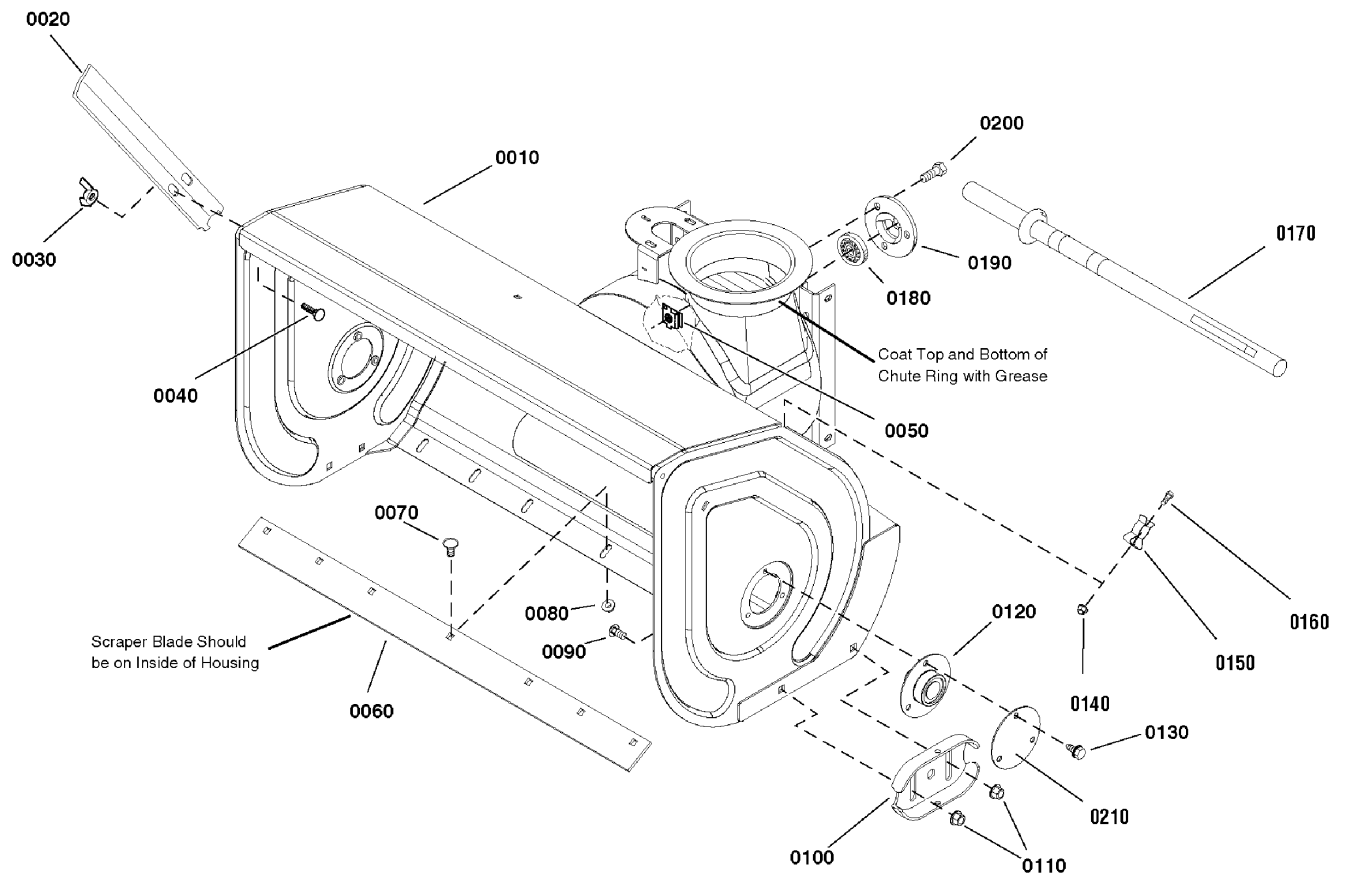
The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Auger Housing Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

2989388



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Auger Housing Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1738434BIYP	1	AUGER HOUSING ASSEMBLY, 30"
0020	1733102ASM	2	DRIFT CUTTER
0030	711604MA	2	NUT, Wing, 5/16-18
0040	340720MA	2	BOLT, Carriage, 5/16-18 x 3/4
0050	1930659SM	3	RETAINER, Nut, 5/16-18
0060	1732385BMYP	1	BLADE, Scraper, 30"
0070	1960699SM	7	BOLT, Carriage, 5/16-18 x 5/8, G5
0080	1935048SM	7	NUT, Hex Flange, Two Way Locking, 5/16-18
0090	1960711SM	4	BOLT, Carriage, 3/8-16 x 3/4, G5
0100	1727854BMYP	2	SKID SHOE
0110	1960687SM	4	NUT, Hex Flange, ESNA, 3/8-16
0120	1733103SM	2	BEARING, Flange, 1-3/8 ID x 3-3/4 OD
0130	1931202SM	6	SCREW, Hex Washer Head, Taptite, 5/16-18 x 1-1/4
0140	15X146MA	2	NUT, Nylock, 10 x 24
0150	1736620YP	2	CLAMP, Spring, Snow Brush
0160	1960569SM	2	SCREW, Truss Head, #10-24 x 3/8
0170	1736094YP	1	STICK, Cleanout Brush, 22-1/2
0180	2108202SM	1	BEARING, Ball, 3/4 ID x 1.3/4 OD x 5/8
0190	1665982SM	1	RETAINER, Bearing
0200	1960738SM	3	SCREW, Hex Whiz Lock, 5/16-18 x 3/4
0210	1734932BMYP	2	COVER, Bushing

Footnotes

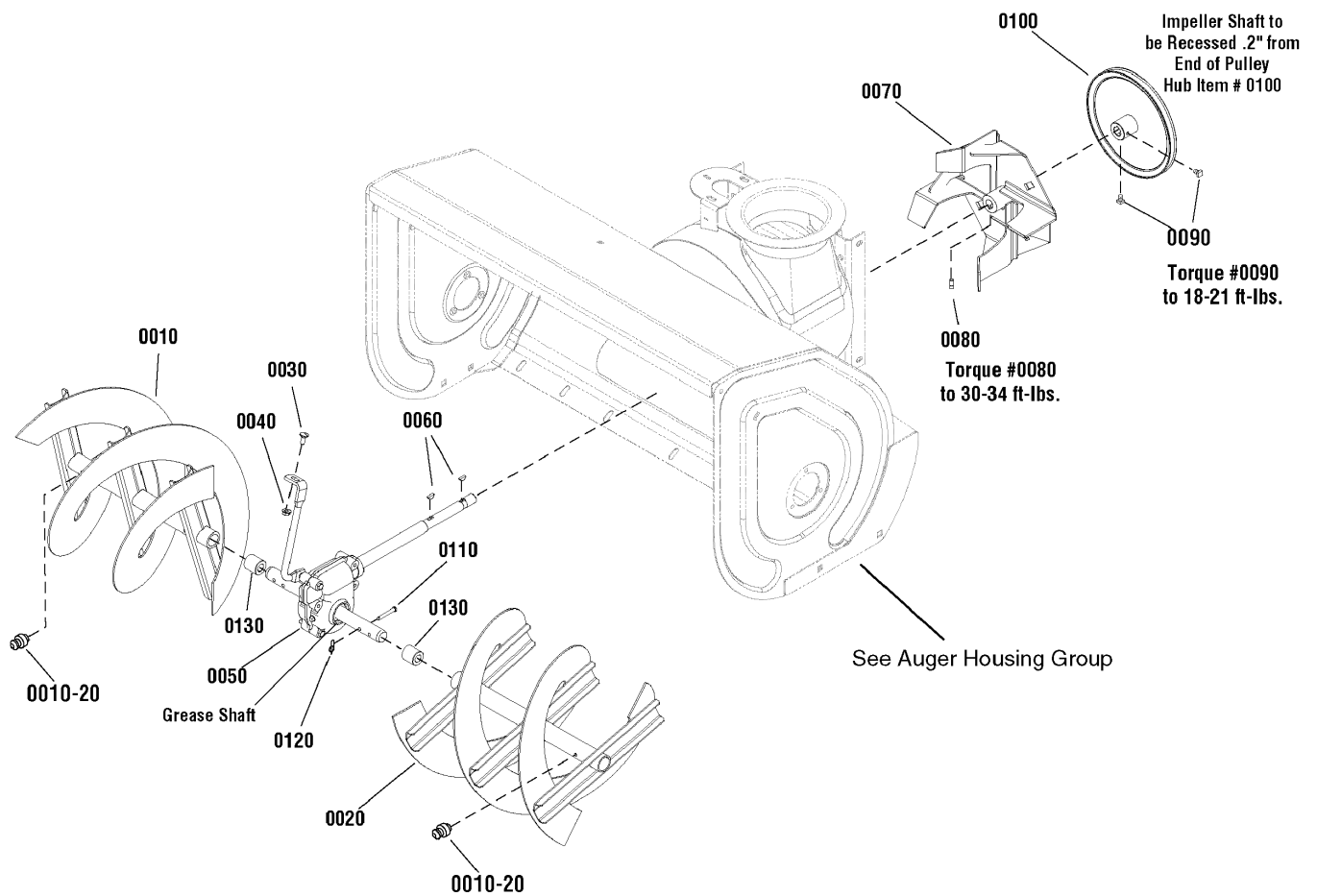
The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Auger Drive Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

2989389



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Auger Drive Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1737078BJYP	1	AUGER ASSEMBLY, RH (Includes Ref. No. 0010-20)
0020	1737079BJYP	1	AUGER ASSEMBLY, LH (Includes Ref. No. 0010-20)
0010-20	2821133SM	2	FITTING, Lube
0030	1931333SM	1	BOLT, Carriage, 5/16-18 x 3/4, G5
0040	1931277SM	1	NUT, Hex Flange Whiz Lock, 5/16-18
0050	1732303SM	1	GEAR BOX ASSEMBLY
0060	2818312SM	2	KEY, Woodruff, 3/16 x 5/8
0070	1612187BMYP	1	IMPELLER
0080	1960474SM	1	SCREW, Set Square Head, 3/8-16 x 1/2, G8
0090	1928721SM	2	SCREW, Set Square Head, 5/16-18 x 1/2, G8
0100	1732185SM	1	PULLEY, 8.4 OD x 3/4 ID
0110	1739295YP	2	PIN, Shear, 1-3/4
0120	1739292YP	2	PIN, Cotter, Self Locking
0130	1733406SM	2	SPACER, 1" Lg
0200	1739821YP	1	KIT, Shear Pin (Includes Ref. Nos. 0110 & 0120)

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Footnotes

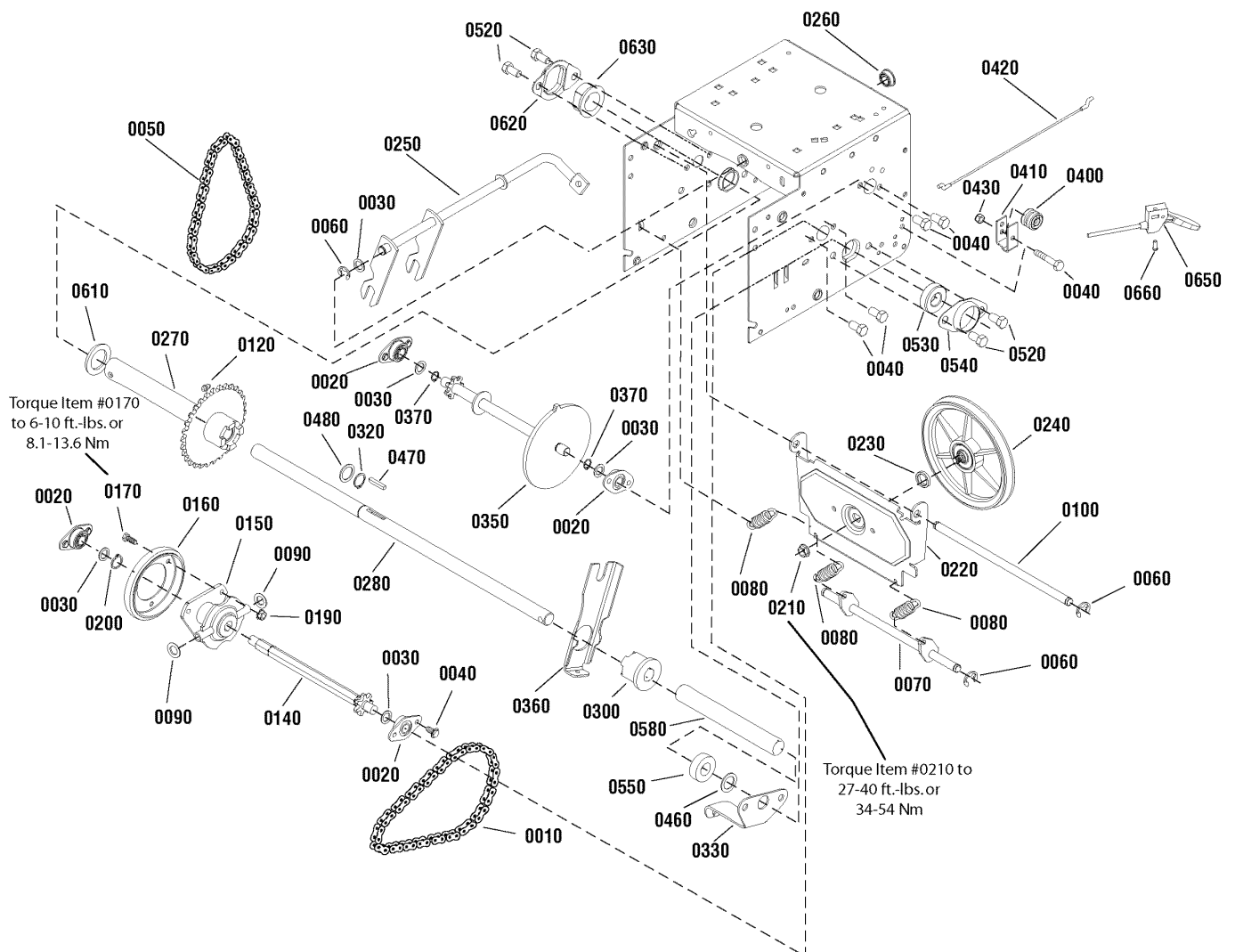
The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Traction Drive Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

2988406



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Traction Drive Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	579851MA	1	CHAIN, Roller
0020	334163MA	4	RETAINER & BUSHING ASSEMBLY
0030	579858MA	5	WASHER
0040	1924856SM	8	SCREW, Hex Washer Head Taptite, 5/16-18 x 1/2
0050	579868MA	1	CHAIN, Roller
0060	11X30MA	5	RETAINER, Ring 7/16
0070	1502105YZMA	1	SPRING LINK ASSEMBLY
0080	1736469YP	3	SPRING, Extension
0090	1960027SM	2	WASHER, 1/2
0100	1501092YZMA	1	AXLE, Swing Plate
0120	2812808SM	1	GREASE FITTING
0140	1501100MA	1	HEX SHAFT & SPROCKET ASSEMBLY
0150	337029MA	1	HUB, Friction Wheel & Bearing
0160	1501435MA	1	WHEEL, Friction
0170	1921959SM	3	CAPSCREW, Hex Head 1/4-20 x 5/8 G5
0190	1928372SM	3	NUT, Hex KEPS 1/4-20
0200	1733326SM	1	RING, Retaining Extension
0210	15X114MA	1	NUT, 3/8-24 Flange Lock
0220	1501057YZMA	1	PLATE, Swinging
0230	1501158MA	1	SPACER, Friction Pulley
0240	1501115MA	1	FRICTION PULLEY ASSEMBLY
0250	1501110YZMA	1	SPEED SELECT ASSEMBLY
0260	579944MA	1	BEARING, Flange
0270	1733085SM	1	SPROCKET & HUB ASSEMBLY, W/Bushings
0280	1732381SM	1	AXLE
0300	1732382SM	1	GEAR, Clutching Powdered Metal
0320	2827732SM	1	RING, Retaining Extension
0330	1732948ASM	1	SUPPORT, Clutch Cable
0350	1732389SM	1	SPROCKET & SHAFT ASSEMBLY
0360	1732383ASM	1	ARM, Clutch
0370	2860386SM	2	RING, Retaining Extension
0400	579860MA	1	SPOOL CABLE, Auger Control
0410	1501059YZMA	1	BRACKET, Cable Spool
0420	1501122MA	1	CABLE, Front Drive Lower All
0430	1920397SM	1	NUT, Hex Lock ESNA Light 1/4-20
0440	1922837SM	1	CAPSCREW, Hex Head, 1/4-20 x 1-1/2 G5
0460	712120MA	1	WASHER, Flat
0470	1667622SM	1	KEY
0480	1960114SM	1	WASHER, Plain, 3/4
0520	1921965SM	4	CAPSCREW, Hex Head, 3/8-16 x 3/4
0530	53263MA	1	BEARING BALL, 3/4 ID x 1-5/8 OD
0540	1736396YP	1	RETAINER, Bearing
0550	1501620MA	1	COLLAR, Locking

Footnotes

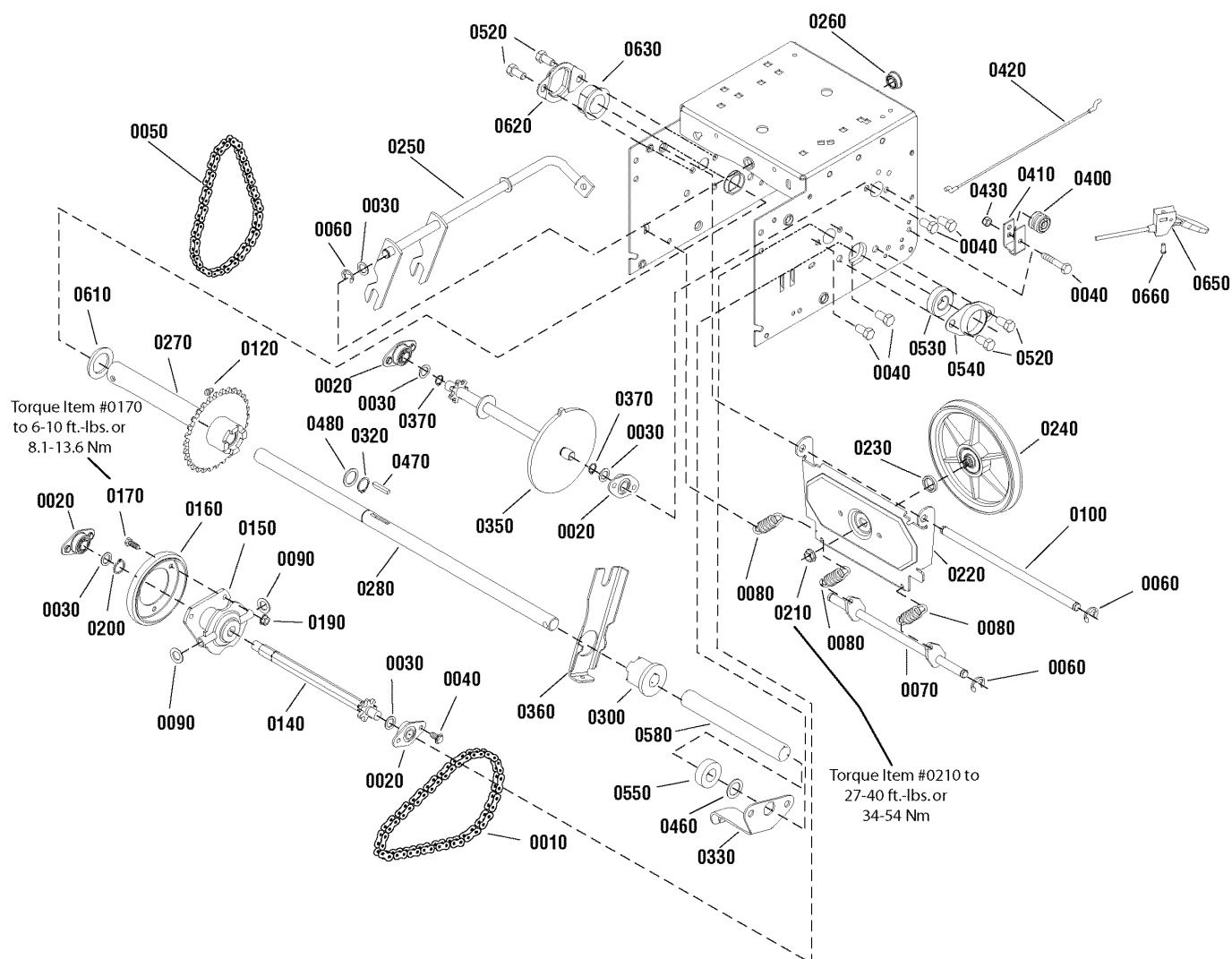
The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Traction Drive Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

2988406



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Traction Drive Group

REF NO	PART NO.	QTY.	DESCRIPTION
0580	1720298SM	1	SPRING, Compression
0610	2860169SM	1	WASHER, 1-1/4
0620	1733101SM	1	RETAINER, Bushing
0630	1720305SM	1	BUSHING, 1-27/200 ID x 1-157/250 OD x 3/4 LG
0650	1718791SM	1	CABLE AND HANDLE ASSEMBLY, Clutch
0660	1725702SM	1	SCREW, Pan Head Torx, #10 x 1/2 Thread Cut

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Footnotes

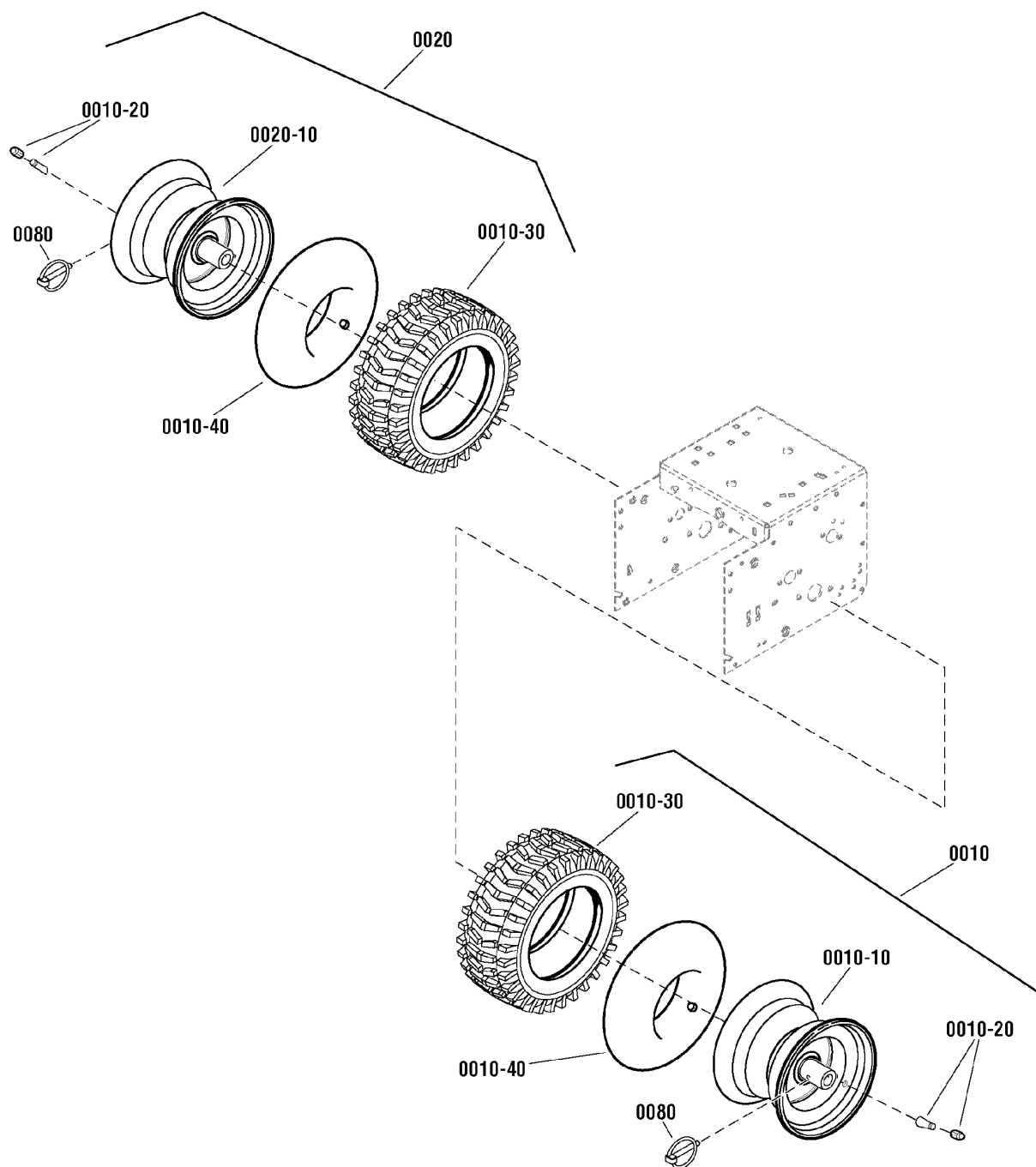
The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Wheels and Tires Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

2988345



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Wheels and Tires Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1737879YP	1	WHEEL & TIRE ASSEMBLY, L.H. SNOW ZTRAC 16 x 6.5-8 (Includes Ref. Nos. 0010-10, 0010-20, 0010-30)
0010-10	-----	1	*RIM, 16 X 6.5-8, L.H.
0010-20	2172353SM	1	VALVE STEM & CAP
0010-30	1727075SM	1	TIRE, 16 x 6.5-8, X-Trac
0010-40	2164247SM	2	TUBE, Tire 16 X 6.50-8
0020	1737880YP	1	WHEEL & TIRE ASSEMBLY, R.H. SNOW ZTRAC 16 x 6.5-8 (Includes Ref. Nos. 0020-10, 0010-20, 0010-30)
0020-10	-----	1	*RIM, 16 X 6.5-8, R.H.
0010-20	2172353SM	1	VALVE STEM & CAP
0010-30	1727075SM	1	TIRE, 16 x 6.5-8, X-Trac
0010-40	2164247SM	2	TUBE, Tire 16 X 6.50-8
0080	1731186SM	2	PIN, KLIK, Ring

Footnotes

*Not a servicable part. Order Complete Wheel & Tire Assembly

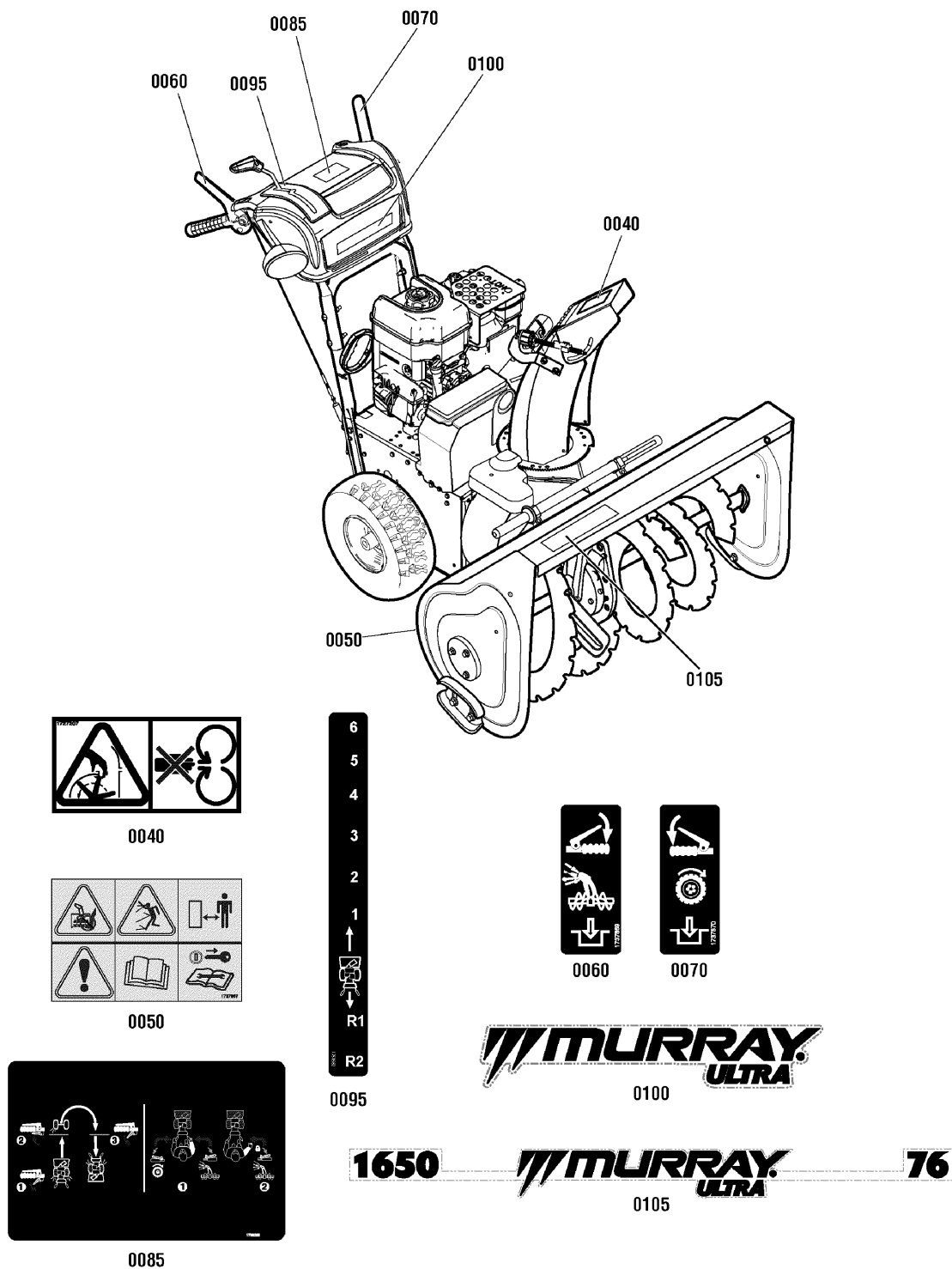
The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Decals Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

2989392



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Decals Group

REF NO	PART NO.	QTY.	DESCRIPTION
0040	1727207SM	1	DECAL, Chute Warning
0050	1737867YP	1	DECAL, Danger Auger Icons
0060	1737869YP	1	DECAL, Auger Control Symbols
0070	1737870YP	1	DECAL, Traction Control Symbols
0085	1738282YP	1	DECAL, Dash Operation
0095	1751582YP	1	DECAL, Gear Shift
0100	1738315YP	1	DECAL, Logo
0105	1750929YP	1	DECAL, Auger Housing

Not for
Reproduction

Footnotes

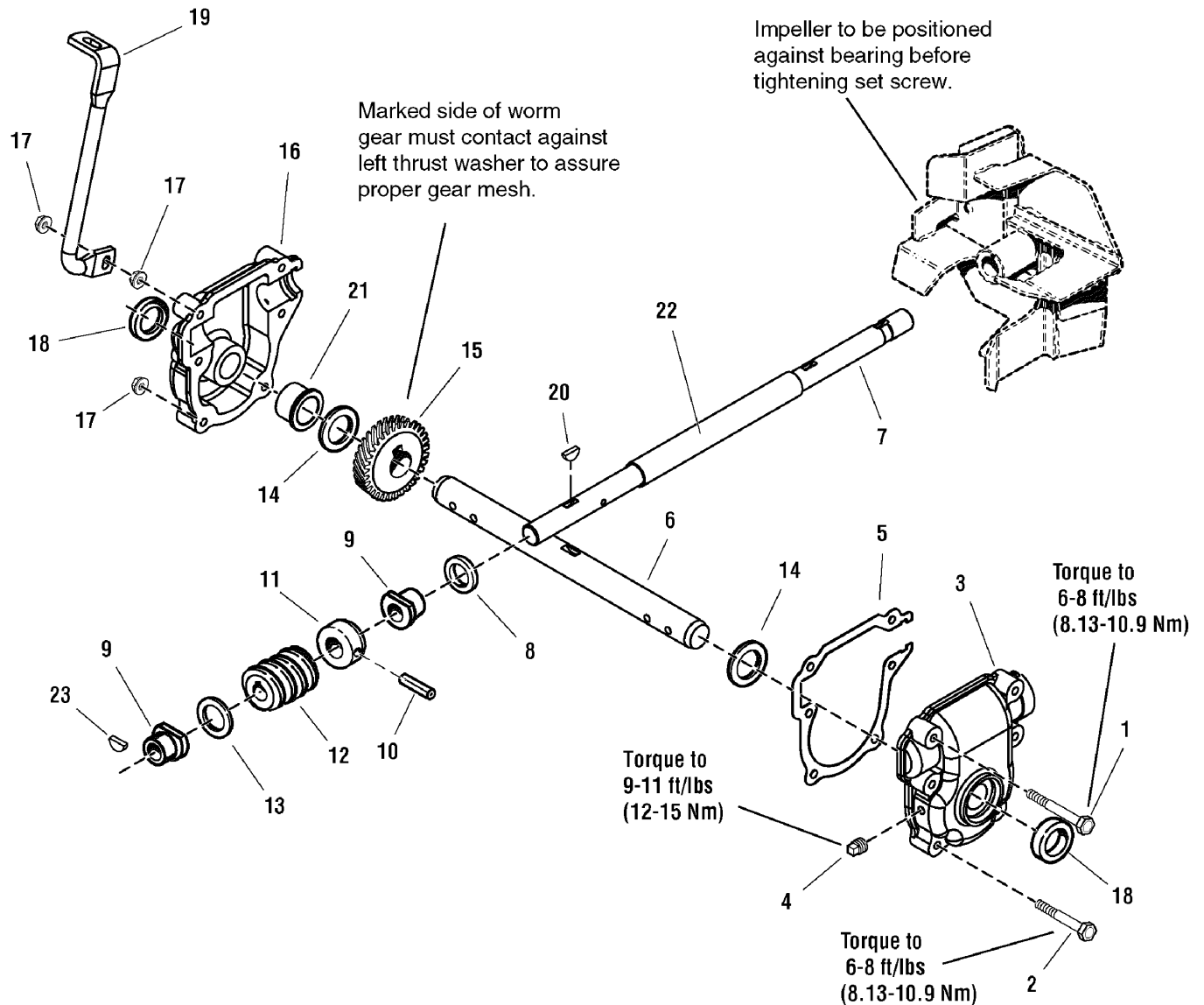
The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Gear Case Assembly

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

1732303



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Gear Case Assembly

REF NO	PART NO.	QTY.	DESCRIPTION
1	1923282SM	1	CAPSCREW, 1/4 - 20 x 2-1/2
2	1960346SM	5	CAPSCREW, 1/4 - 20 x 2-1/4
3	1612136SM	1	GEAR CASE, Left
4	1668971SM	1	TAPERED PIPE PLUG
5	1612124SM	1	GASKET
6	1732440SM	1	SHAFT, Auger Cutoff
7	1732182SM	1	SHAFT, Worm Cutoff
8	1612093SM	1	SEAL, Oil
9	1612149SM	2	FLANGE BUSHING
10	2836098SM	1	PIN, Drive Lock
11	1612127SM	1	THRUST COLLAR
12	1612142SM	1	ROLLED WORM CASE
13	2168111SM	1	WASHER, Thrust
14	2118315SM	2	WASHER, Thrust
15	1612141SM	1	GEAR, Worm
16	1612137SM	1	GEAR CASE, R.H.
17	1930642SM	7	NUT, Top Lock Flange, 1/4 - 20
18	2118118SM	2	SEAL
19	1732152SM	1	BRACKET, Wireform
20	2818312SM	1	KEY, Woodruff
21	1732991SM	2	BUSHING
22	1612111SM	1	TUBE
23	2830246SM	1	KEY, Woodruff

Footnotes

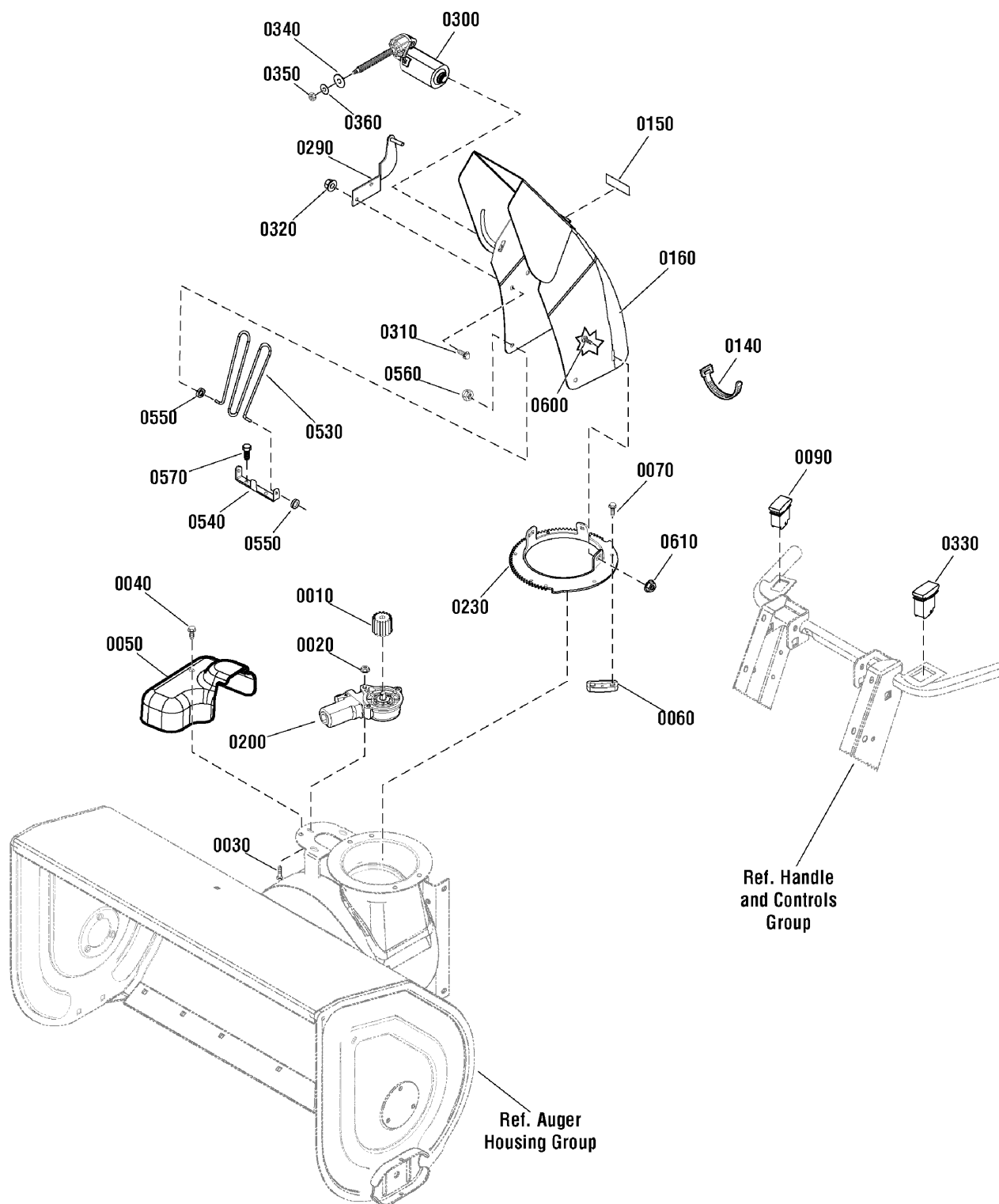
The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Chute & Rotation Group

NOTE: Unless noted otherwise,
use the standard hardware torque
specification chart.

2989370



The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

Chute & Rotation Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1728967SM	1	PINION
0020	1960745SM	3	NUT, Hex Flange, Whiz Lock, 10-24
0030	2860604SM	3	CAPSCREW, Hex Washer Head, #10C x 1-1/4
0040	1925592SM	1	CAPSCREW, Hex Washer Head, Taptite, 1/4-20 x 3/4
0050	1737455YP	1	COVER, Electric Chute Rotation
0060	7011938SM	3	RETAINER, Spout
0070	1960001SM	6	CAPSCREW, Hex Washer Head Taptite, #10C x 5/8, G5
0090	1738243YP	1	SWITCH, Chute Rotation
0140	1701011SM	1	TIE, Self Locking
0150	1733601SM	2	DECAL, Hinge
0160	1738231BIYP	1	CHUTE
0200	1728965SM	1	MOTOR, Spout Rotator
0230	1737962BMYP	1	GEAR, Chute
0290	1738267BMYP	1	BRACKET, Motor Mount
0300	1737941YP	1	MOTOR, Chute Deflector
0310	1960715SM	2	SCREW, Truss Head, Torx Drive, 1/4-20 x 3/4
0320	1960694SM	2	NUT, Hex Flange, ESNA, 1/4-20
0330	1738242YP	1	SWITCH, Deflector
0340	1738244YP	1	WASHER, Rubber
0350	1738245YP	1	NUT, Left Handed
0360	5025154SM	1	WASHER, 1/4
0530	1733475SM	1	GUARD, Chute
0540	1737683YP	1	BRACKET, Chute Guard
0550	1738174YP	2	GROMMET, Chute Guard
0560	1960140SM	2	NUT, Push, 3/16 Stud
0570	1925003SM	2	CAPSCREW, Hex Washer Head, Taptite, 1/4-20 x 1/2
0600	1931317SM	3	BOLT, Carriage, 1/4-20 x 3/4, G5
0610	2860694SM	3	NUT, Hex Flange, 1/4-20

Footnotes

The above parts group applies to the following Mfg. Nos.:

1695912 - ML761650

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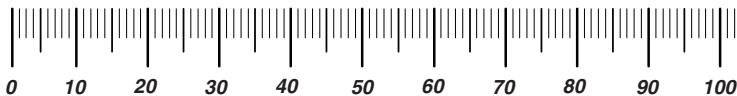
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Hardware Identification & Torque Specifications

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

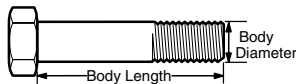
The guides and ruler furnished below are designed to help you select the appropriate hardware.



Nut, M8

Thread
Diameter (mm)
Inside
Diameter (in) Threads
per inch

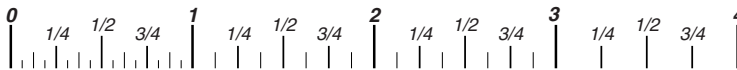
Nut, 1/2-16



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*, (1.25 thread diameter). 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

Hex Head Capscrew



Washer

Carriage Bolt



Lockwasher



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—22 mm

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