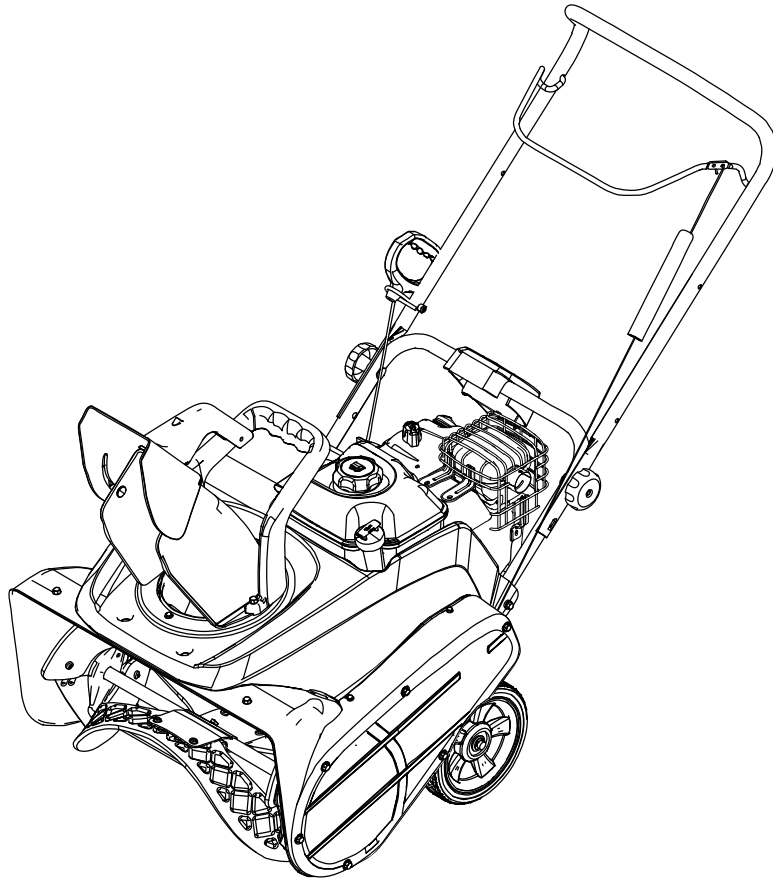


CHAMPION

Parts Manual



ST655BS

22" Single Stage Snowthrower

Models

Mfg. No.	Description
1696543-00	ST655BS, Champion 8.0 Gross TP 22" Single Stage Snowthrower (2015)

Manual Part No. 1759062

Revision A

Rev. Date: 1/19/2015

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Reproduction

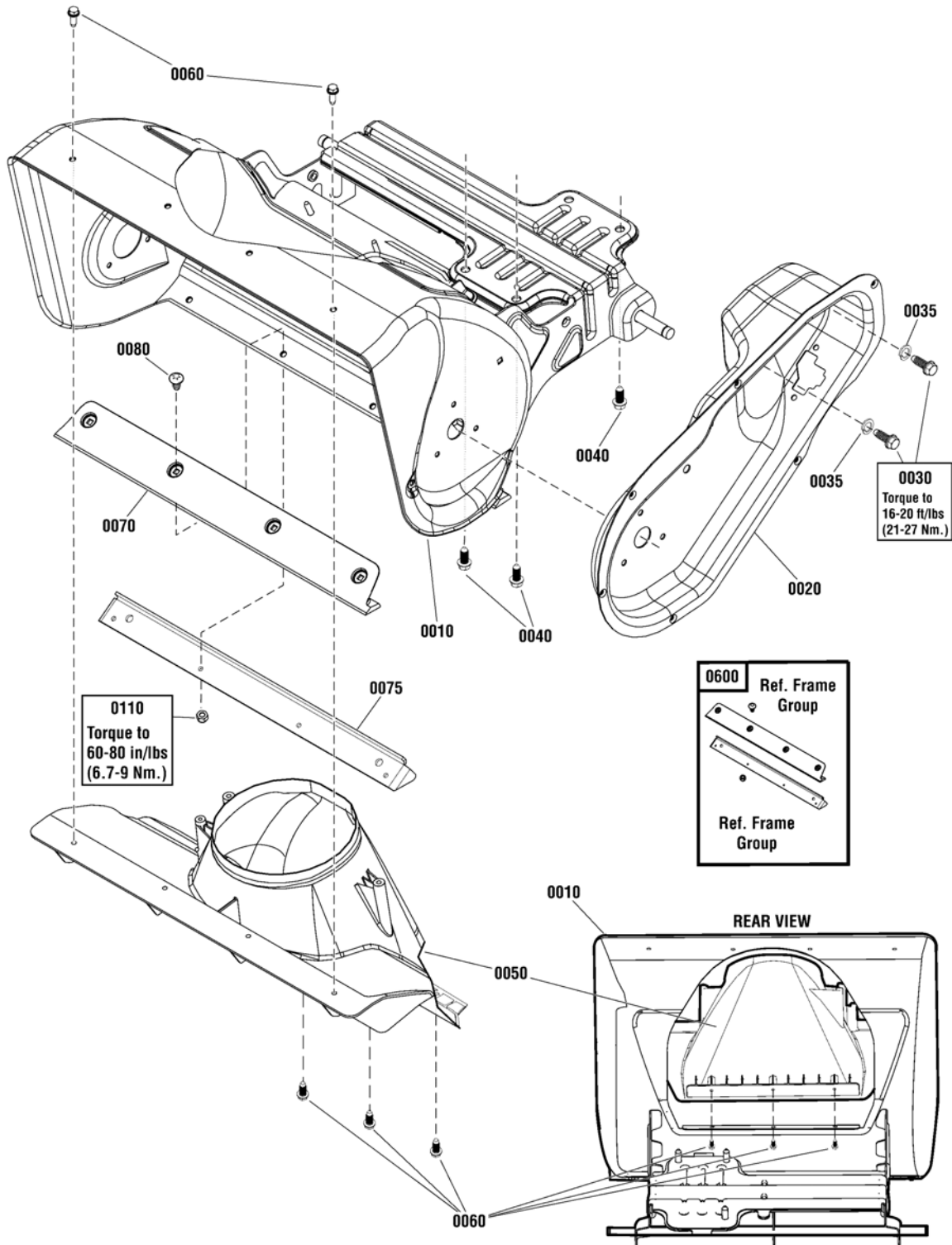
PRODUCT COMPONENTS	PAGES
Frame Group	4
Engine Group	6
Auger Drive Group	8
Handles & Controls Group - Manual	10
Wheel & Body Covering Group	12
Decals Group	14
Auger Group	16
Chute Rotation Group - Manual	18
Chute Group - Manual	20
Torque Specification Chart	Inside Back Cover

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Reproduction

Frame Group

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

2991037



The above parts group applies to the following Mfg. Nos.:
1696543-00 - ST655BS

Frame Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1756280AYP	1	FRAME ASSEMBLY
0020	1739100BMYP	1	HOUSING, Drive
0030	1752876YP	2	CAPSCREW, Hex Head, 5/16-24 x 5/8
0035	703116	2	WASHER, Lock, 5/16
0040	75246GS	3	SCREW, Hex Washer Head, Taptite, 3/8-16 x 1-1/4
0050	1739555YP	1	CHIMNEY
0060	7091081SM	5	CAPSCREW, Hex Washer, Hi-Low, 1/4-15 x 3/4
0070	-----	1	SCRAPER BAR (Included with Ref. No. 0600)
0075	1752660BMYP	1	SUPPORT, Scraper Blade (Included with Ref. No. 0600)
0080	5025299X5YP	4	SCREW, Allen Head, 1/4-20 x 5/8 (Included with Ref. No. 0600)
0110	1752935YP	4	NUT, Hex Lock, Nylon, 1/4-20 (Included with Ref. No. 0600)
0600	1687805	1	KIT, Scraper Bar (Includes Ref. Nos. 0070, 0075 & Hardware)

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Footnotes

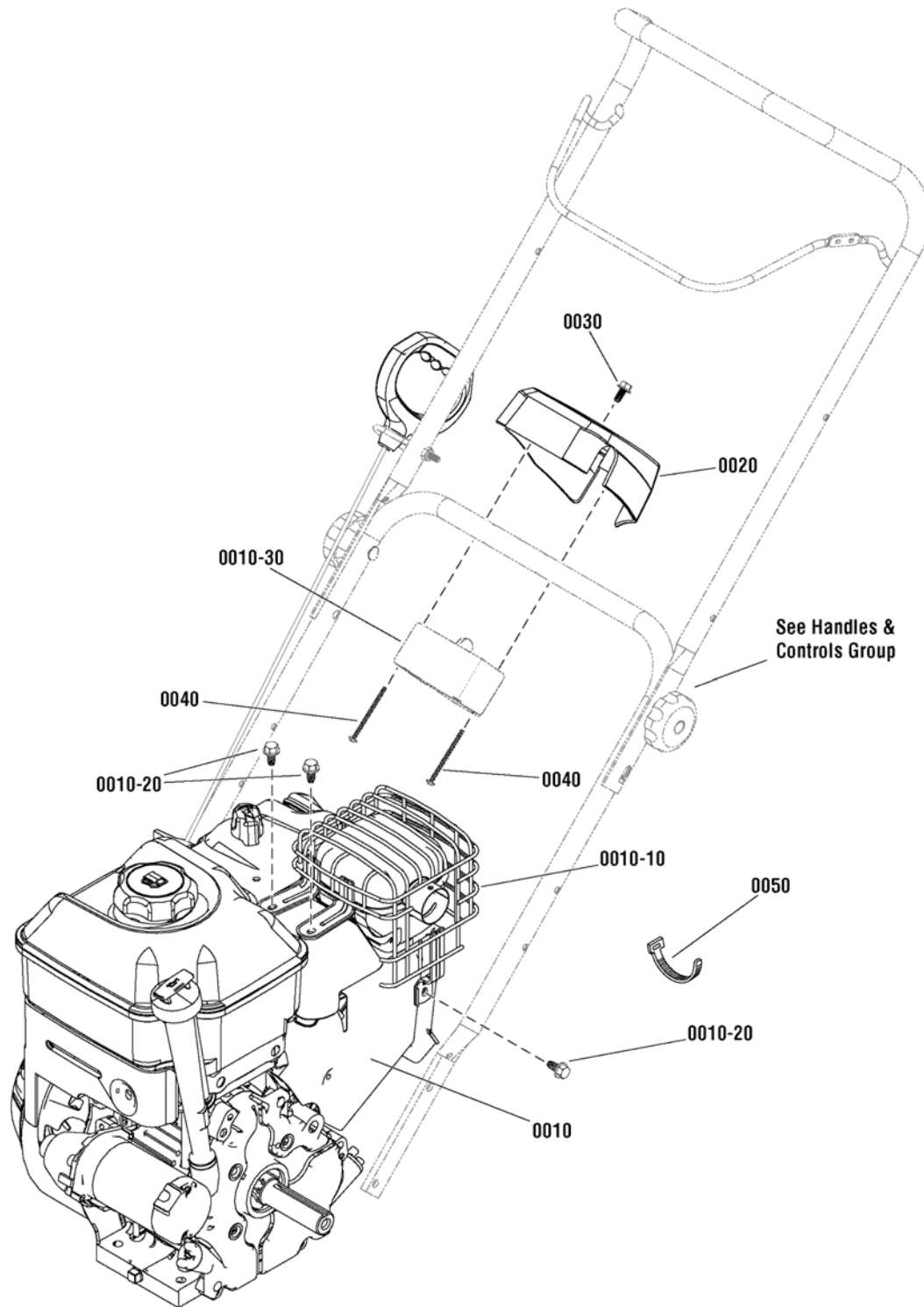
The above parts group applies to the following Mfg. Nos.:

1696543-00 - ST655BS

Engine Group

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

2989128



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

1696543-00 - ST655BS

Engine Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	12A105-0160-F8	1	* ENGINE, 800 Series, Briggs & Stratton (Engine Model: 12A105-0160-F8)
0010-10	799028	1	GUARD, Muffler, Wire
0010-20	699854	3	SCREW, Muffler Guard, Hex Washer Head
0010-30	-----	1	** STARTER, 230V
0020	1750033YP	1	HOUSING, Starter, 230V
0030	1750447YP	1	SCREW, Hex Washer Head, Trilob, 1/4-20 x 1/2
0040	1750592YP	2	SCREW, Pan Head Phillips, Plast., 8-16 x 2-1/2
0050	032618MA	4	STRAP, Tie

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Footnotes

Note* To verify your specific engine model, please reference the ID Tag located on your engine. See your local Briggs & Stratton distributor for parts and service.

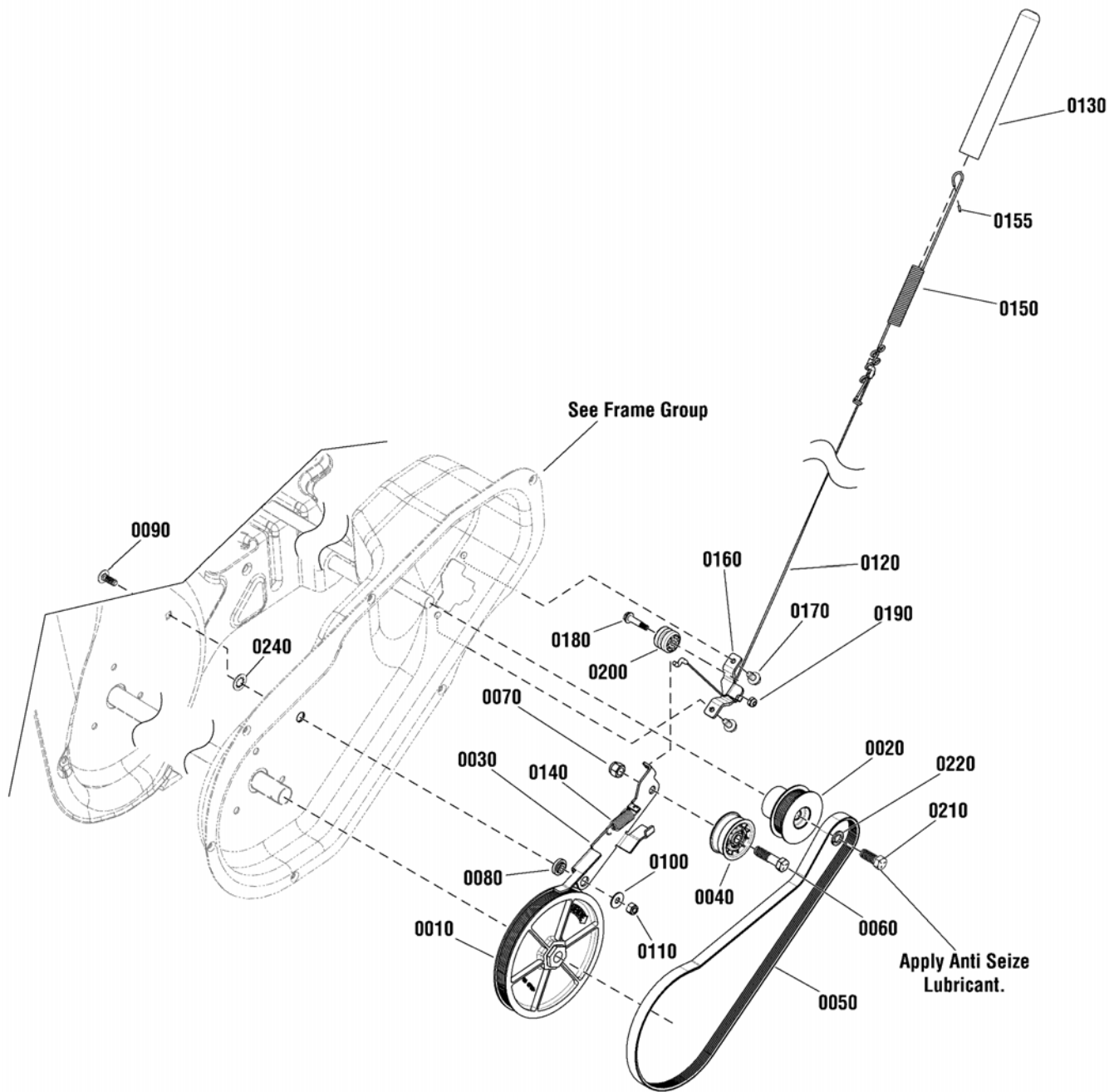
The above parts group applies to the following Mfg. Nos.:

1696543-00 - ST655BS

Auger Drive Group

2988894a

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



The above parts group applies to the following Mfg. Nos.:
1696543-00 - ST655BS

Auger Drive Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1739730YP	1	PULLEY, Driven
0020	1739179YP	1	PULLEY, Driver
0030	1739526YP	1	ARM, Idler, Drive
0040	1502120MA	1	IDLER, Plastic Ball Bearing
0050	1739338YP	1	BELT, Drive
0060	01X111MA	1	CAPSCREW, Hex Head, 3/8-16 x 1-1/2
0070	7091299SM	1	NUT, Nylock, 3/8
0080	1739709YP	1	SPACER, Idler Arm
0090	1931318SM	1	BOLT, Carriage, Short Neck, 1/4-20 x 7/8 G5
0100	7091253YP	1	WASHER, Flat, .281 X 3/4 x 1/2
0110	7091603SM	1	NUT, Nylock, 1/4
0120	1502113MA	1	CABLE, Handle
0130	1739935YP	1	BOOT, Clutch Spring
0140	1750226YP	1	SPRING, Idler
0150	1750315YP	1	SPRING, Extension
0155	704137	1	COVER, Spring End
0160	1750329YP	1	BRACKET, Cable Guide
0170	1750447YP	2	SCREW, Hex Washer Head, Trilob, 1/4-20 x 1/2
0180	1750594YP	1	CAPSCREW, Hex Shoulder, 1/4 x 3/4
0190	7090376YP	1	NUT, Locking, #10
0200	579860MA	1	SPOOL CABLE, Auger Control
0210	001X20MA	1	CAPSCREW, Hex Head, 3/8-24 x 1
0220	22237GS	1	WASHER, Locking, 3/8
0240	1960518SM	1	NUT, Push, 1/4

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Reproduction

Footnotes

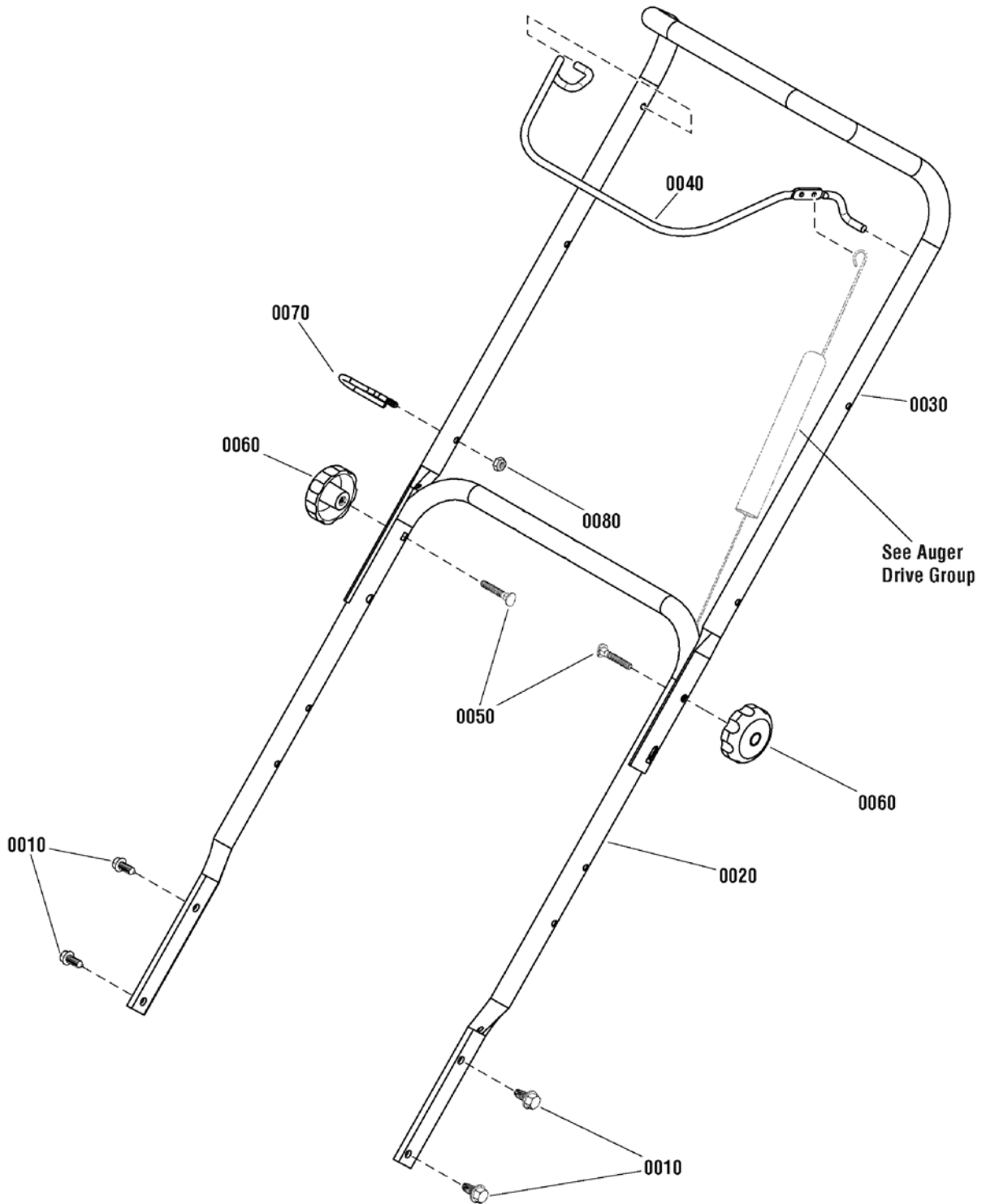
The above parts group applies to the following Mfg. Nos.:

1696543-00 - ST655BS

Handles & Controls Group - Manual

2988896M

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



The above parts group applies to the following Mfg. Nos.:
1696543-00 - ST655BS

Handles & Controls Group - Manual

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1930601SM	4	SCREW, Hex Washer Head, Taptite, 5/16-18 x 5/8
0020	1739362AYP	1	HANDLEBAR, Lower
0030	1739363AYP	1	HANDLEBAR, Upper
0040	1739361BNYP	1	BAIL, Engine Stop
0050	7091189YP	2	BOLT, Carriage, Curved Head, 5/16 x 2, G2
0060	1101453MA	2	KNOB, Handle, 5/16-18
0070	1739389YP	1	GUIDE, Rope
0080	7091603SM	1	NUT, 1/4

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Footnotes

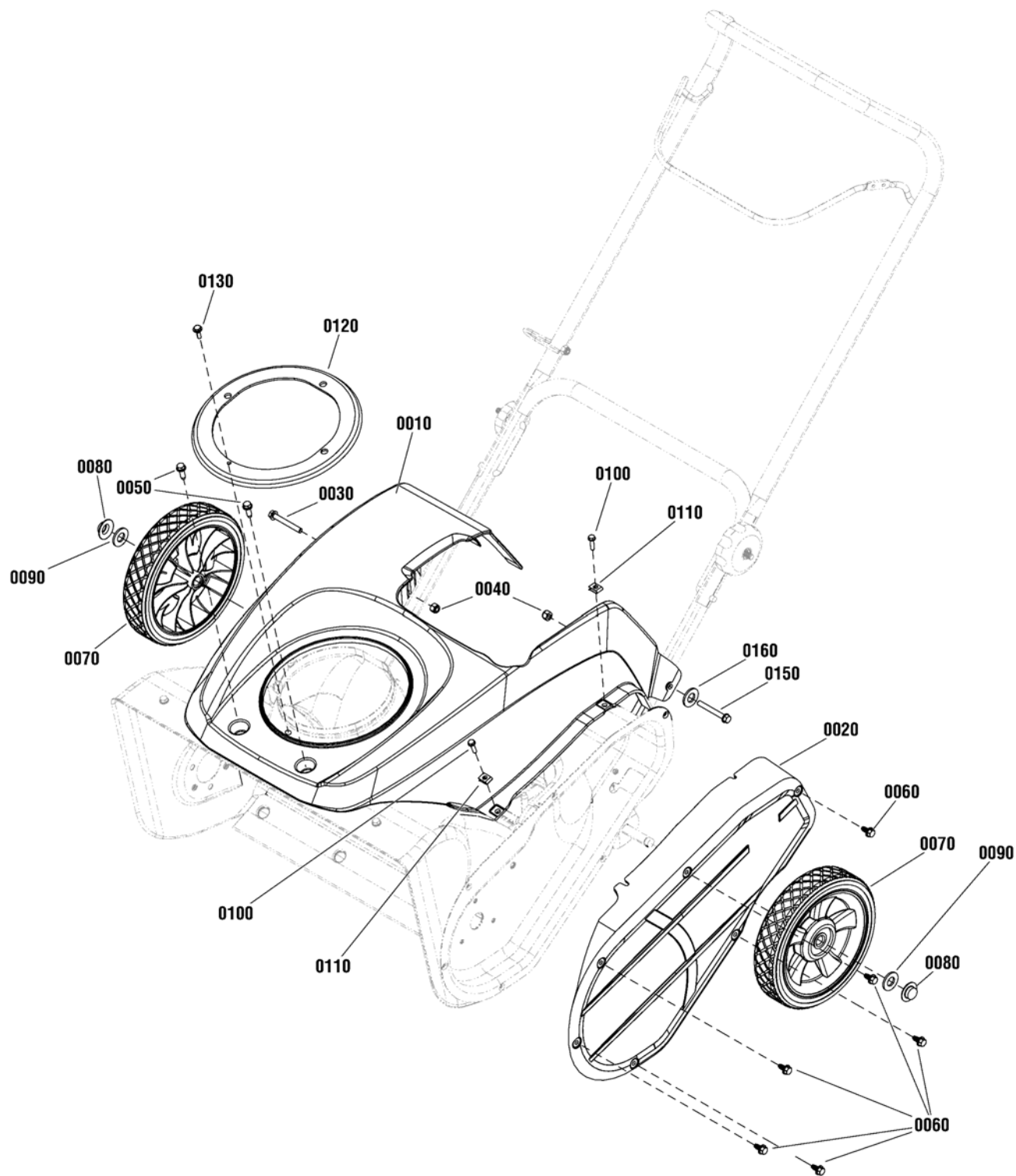
The above parts group applies to the following Mfg. Nos.:

1696543-00 - ST655BS

Wheel & Body Covering Group

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

2991056



The above parts group applies to the following Mfg. Nos.:
1696543-00 - ST655BS

Wheel & Body Covering Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	704296	1	COVER, Top
0020	1739599YP	1	COVER, Drive Case, Black
0030	1750777YP	1	CAPSCREW, Hex Washer Head, 1/4 x 20 x 2
0040	703232	2	NUT, Nylock, 1/4
0050	7091081SM	2	SCREW, Hi-Low, 1/4-15 x 3/4
0060	704130	6	SCREW, Hex Washer Head, Trilob, 1/4-20 x 1/2
0070	706597	2	WHEEL, 2 x 8, Plastic 1/2
0080	703179	2	PUSHNUT, 1/2
0090	7025074SM	2	WASHER, Flat, 17/32 x 5/8
0100	1750638YP	2	CAPSCREW, Hex Washer Head, 10-24 x 3/4
0110	885118YP	2	NUT, U-Style Speed, #10
0120	1739752YP	1	COVER, Chute Moisture
0130	316042MA	1	SCREW, Hex Washer Head, #10-HL x 5/8
0150	703588	1	CAPSCREW, Hex Head, 1/4-20 x 1-3/4
0160	703332	1	WASHER, Flat, 1/4

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Footnotes

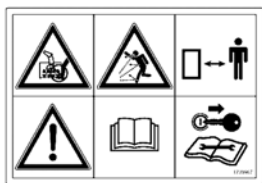
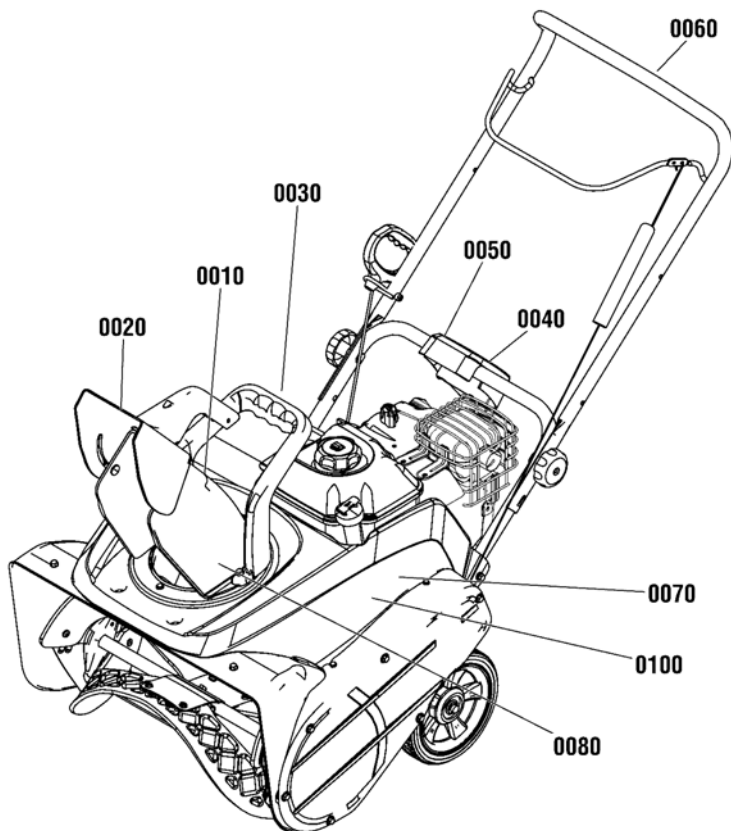
The above parts group applies to the following Mfg. Nos.:

1696543-00 - ST655BS

Decals Group

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

2991688



0010



0060



0070



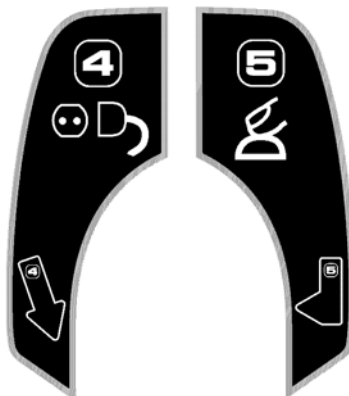
0020



0080



0030



0040

0050



0100

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

1696543-00 - ST655BS

Decals Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1739967YP	1	DECAL, Chute
0020	1727207SM	1	DECAL, Chute Warning, Export
0030	1739971YP	1	DECAL, 1-2-3 Start
0040	1750735YP	1	DECAL, 4 Start
0050	1750737YP	1	DECAL, 5 Start
0060	1739977YP	1	DECAL, Bail Engagement
0070	706598	2	DECAL, Brand
0080	706599	2	DECAL, Chute
0100	706600	1	DECAL, ST655BS

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Footnotes

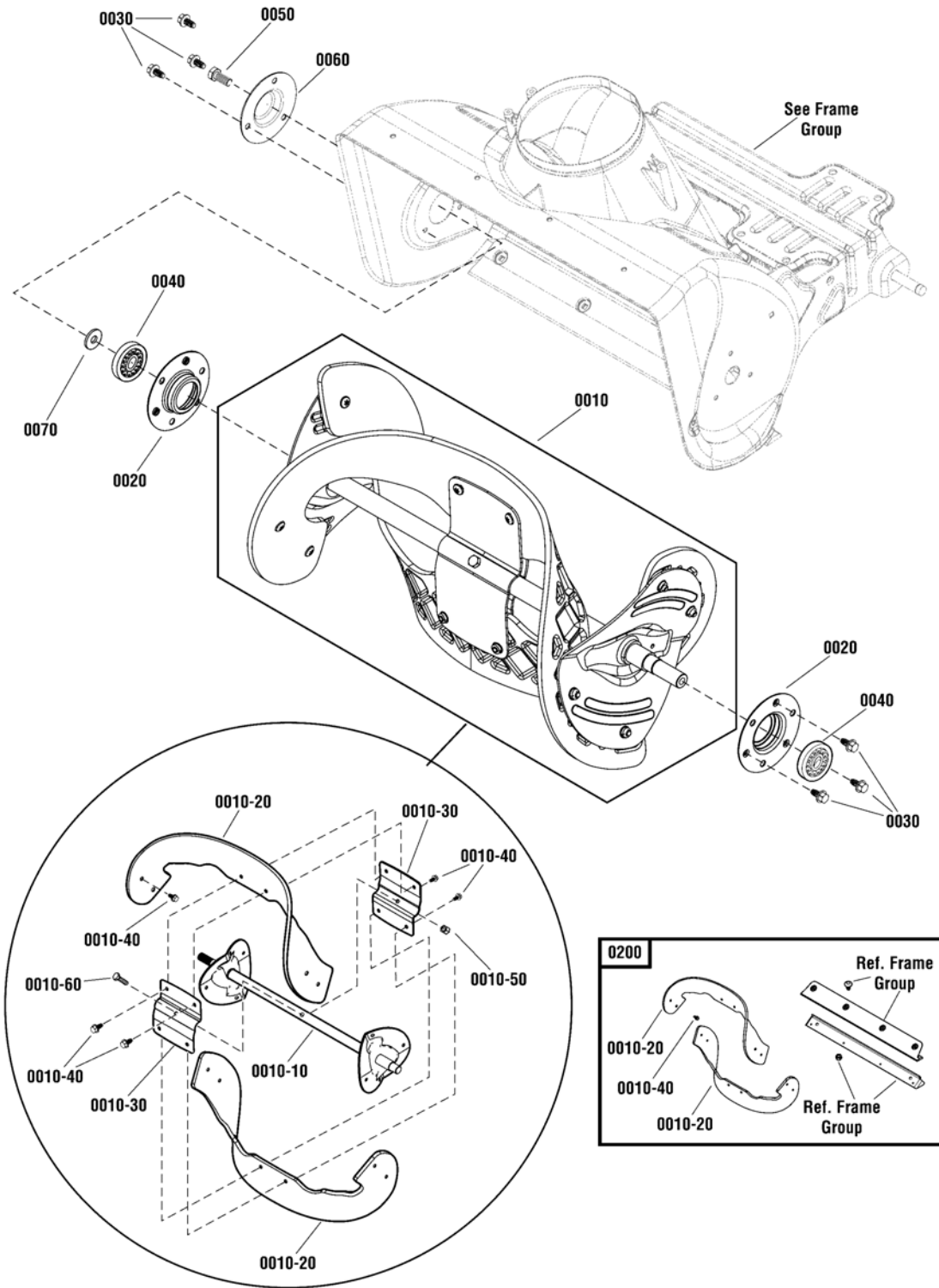
The above parts group applies to the following Mfg. Nos.:

1696543-00 - ST655BS

Auger Group

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

2988895



The above parts group applies to the following Mfg. Nos.:
1696543-00 - ST655BS

Auger Group

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1751388YP	1	AUGER ASSEMBLY, Complete (Incl. Ref. Nos. 0010-10, 0010-20, 0010-30, 0010-40, 0010-50 & 0010-60)
0010-10	-----	1	* AUGER SHAFT ASSEMBLY
0010-20	-----	2	** FLIGHT, Auger (Included with Ref. No. 0500)
0010-30	-----	2	* PLATE, Auger, Center
0010-40	7090999SM	12	SCREW, Pan Head Torx 1/4 x 5/8 (Included with Ref. No. 0500)
0010-50	7091603SM	1	NUT, Nylock, 1/4-20
0010-60	703234	1	CAPSCREW, Hex Head, 1/4-20 X 1 1/2, G5
0020	1739228YP	2	RETAINER, Bearing
0030	1750447YP	6	SCREW, Hex Washer Head, Trilob, 1/4-20 x 1/2
0040	1705897SM	2	BEARING, Ball, 11/16 x 1-9/16 x 15/32
0050	704287	1	CAPSCREW, Hex Head, 5/16-18 x 3/4
0060	1739229AYP	1	CAP, BEARING
0070	7900022YP	1	WASHER, Flat, 7/8 x 21/64
0200	1687628YP	1	KIT, Scraper Bar & Flight (Incl. Ref. Nos. 0010-20, 0010-40, Scraper Bar, Scraper Blade and Hardware)
0500	1687489YP	1	KIT, Auger Flight (Incl. Ref. Nos. 0010-20 & 0010-40)

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Footnotes

* Not a serviceable part, order complete Auger Assembly.

** Not a serviceable part, order Auger Flight Kit.

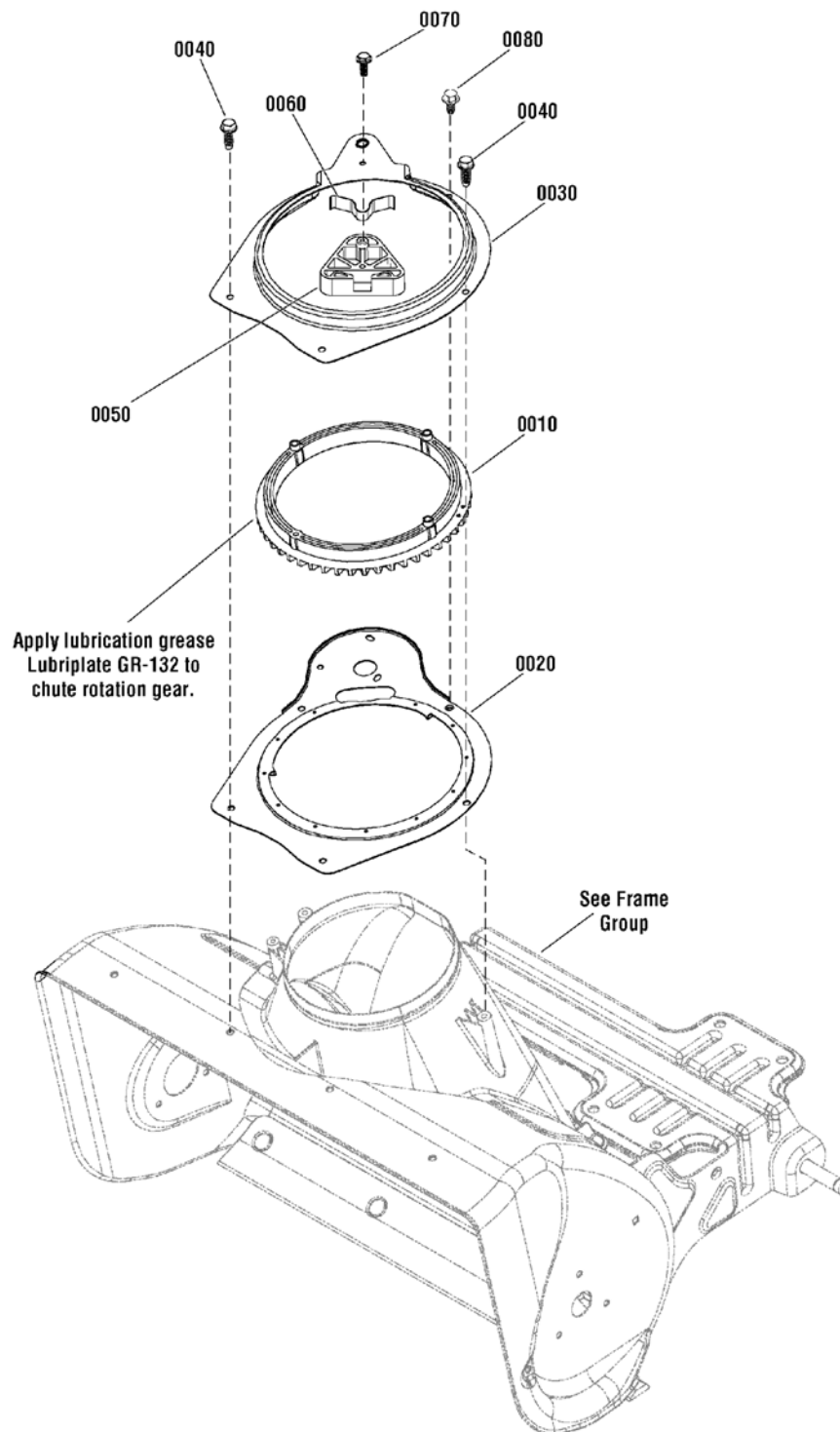
The above parts group applies to the following Mfg. Nos.:

1696543-00 - ST655BS

Chute Rotation Group - Manual

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

2988905



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

1696543-00 - ST655BS

Chute Rotation Group - Manual

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1739123YP	1	GEAR, Chute Rotation
0020	1739364YP	1	PLATE, Chute Mounting
0030	1739365YP	1	RETAINER, Chute Gear
0040	1750444YP	2	SCREW, Hi-Low, 1/4-15 x 3/4
0050	1739294YP	1	BLOCK, Stop
0060	1739293YP	1	SPRING
0070	1960001SM	1	SCREW, Hex Washer Head, Plast., 10-14 x 5/8
0080	1750447YP	1	SCREW, Hex Washer Head, Trilob, 1/4-20 x 1/2

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Footnotes

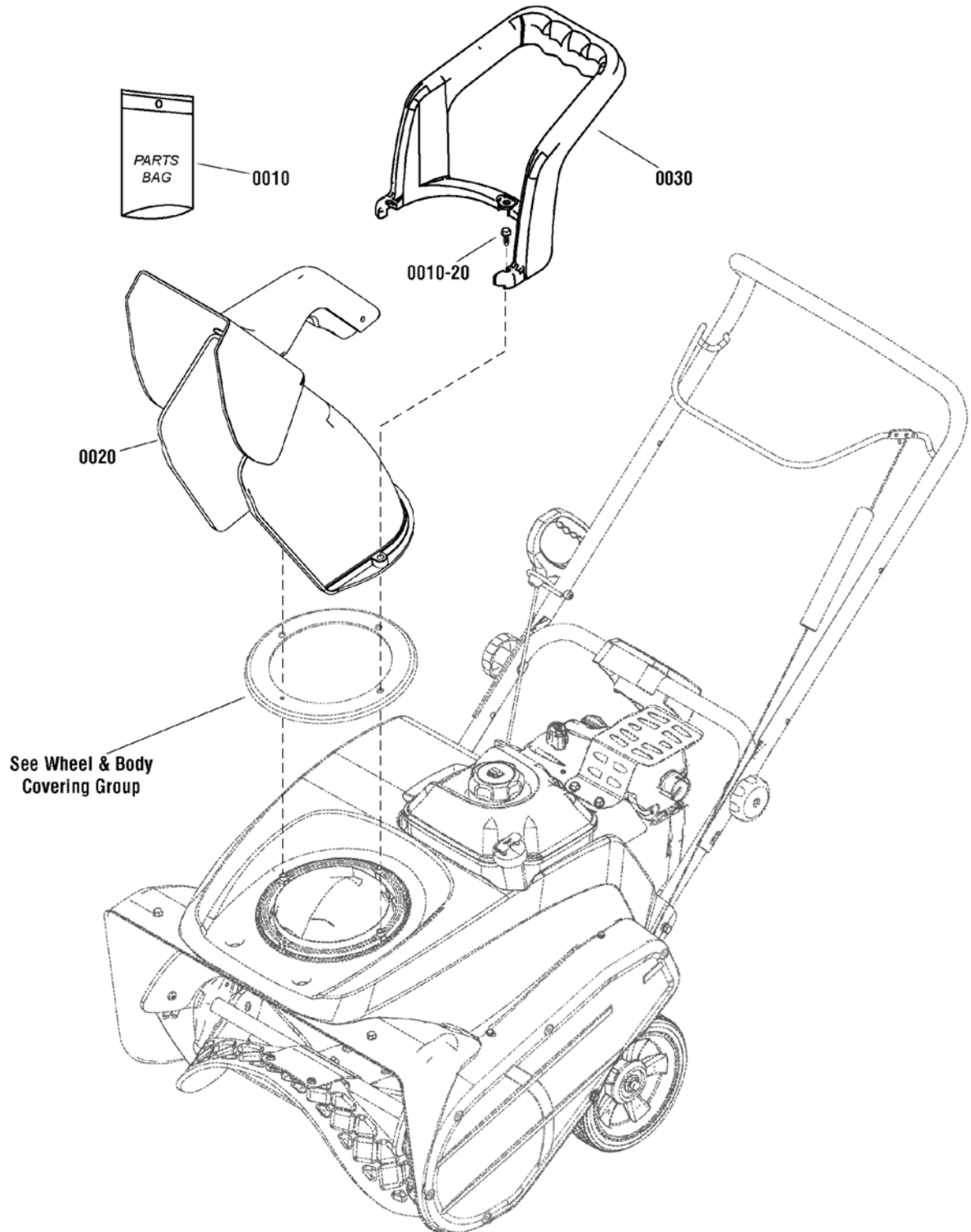
The above parts group applies to the following Mfg. Nos.:

1696543-00 - ST655BS

Chute Group - Manual

2989291

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



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

1696543-00 - ST655BS

Chute Group - Manual

REF NO	PART NO.	QTY.	DESCRIPTION
0010	1751171YP	1	PARTS BAG (Includes Ref. 0010-10)
0010-20	1751399YP	3	BOLT, Hex Washer Head, 1/4-15 x 1
0020	1739522YP	1	CHUTE ASSEMBLY
0030	1739692YP	1	HANDLE, Chute Rotation

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Footnotes

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

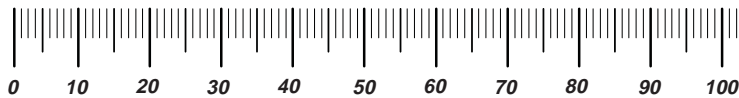
1696543-00 - ST655BS

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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		in/lbs		in/lbs		in/lbs	
	ft/lbs	Nm.	ft/lbs	Nm.	ft/lbs	Nm.	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

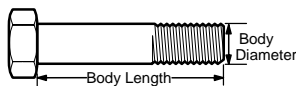
The guides and ruler furnished below are designed to help you select the appropriate hardware.



Nut, M8

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

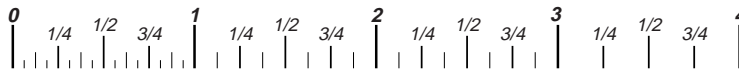
Nut, 1/2-16



Screw, M8- 1.25 x 25

Thread Diameter (mm)
Body Diameter
Distance between threads (mm)
Threads per inch
Body Length (mm)
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	No Marks		SAE Grade 5		SAE Grade 8	
	SAE Grade 2		SAE Grade 5		SAE Grade 8	
Size Of Hardware	in/lbs		in/lbs		in/lbs	
	ft/lbs	Nm.	ft/lbs	Nm.	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—22mm

CHAMPION

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Briggs & Stratton Power Products Group

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Wauwatosa, WI, 53222 USA

www.murray.com

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