



Parts Manual

Mfg. No: 629104x5A
Dual Stage Snow Thrower (2003)

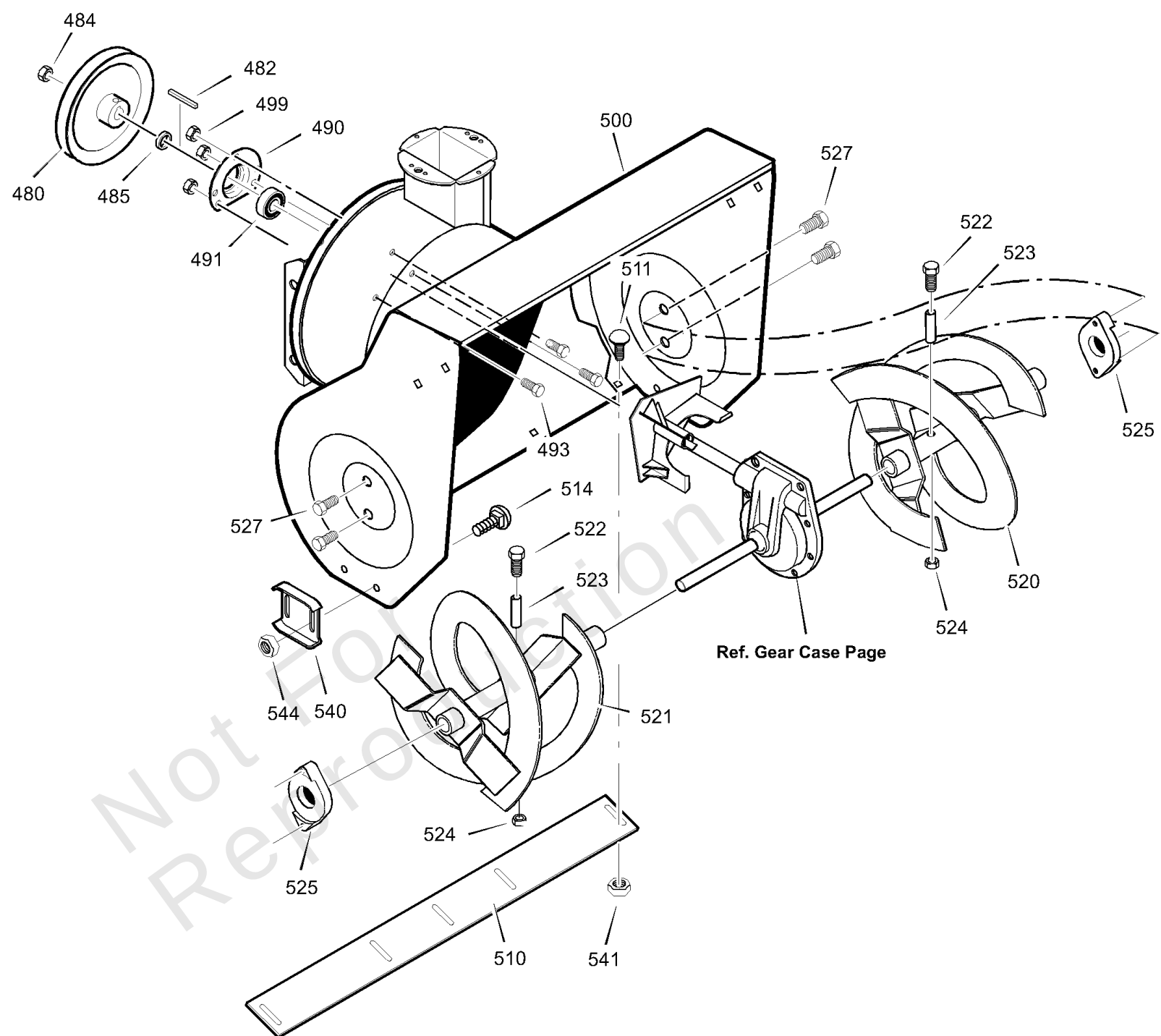
Model Components	Page
Auger Housing.	4
Chute Rotation Motor.	6
Control Panel Assembly.	8
Discharge Chute.	10
Drift Cutter Assembly.	12
Electric Start Assembly.	14
Engine.	16
Frame.	18
Gear Case.	20
Handle Assembly.	22
Hydro Drive.	24
Remote Control.	26
Wheels.	28
Wiring (part 1).	30
Wiring (part 2).	32
Torque Specification Chart.	34

Not For
Reproduction

Auger Housing

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 629104x5A



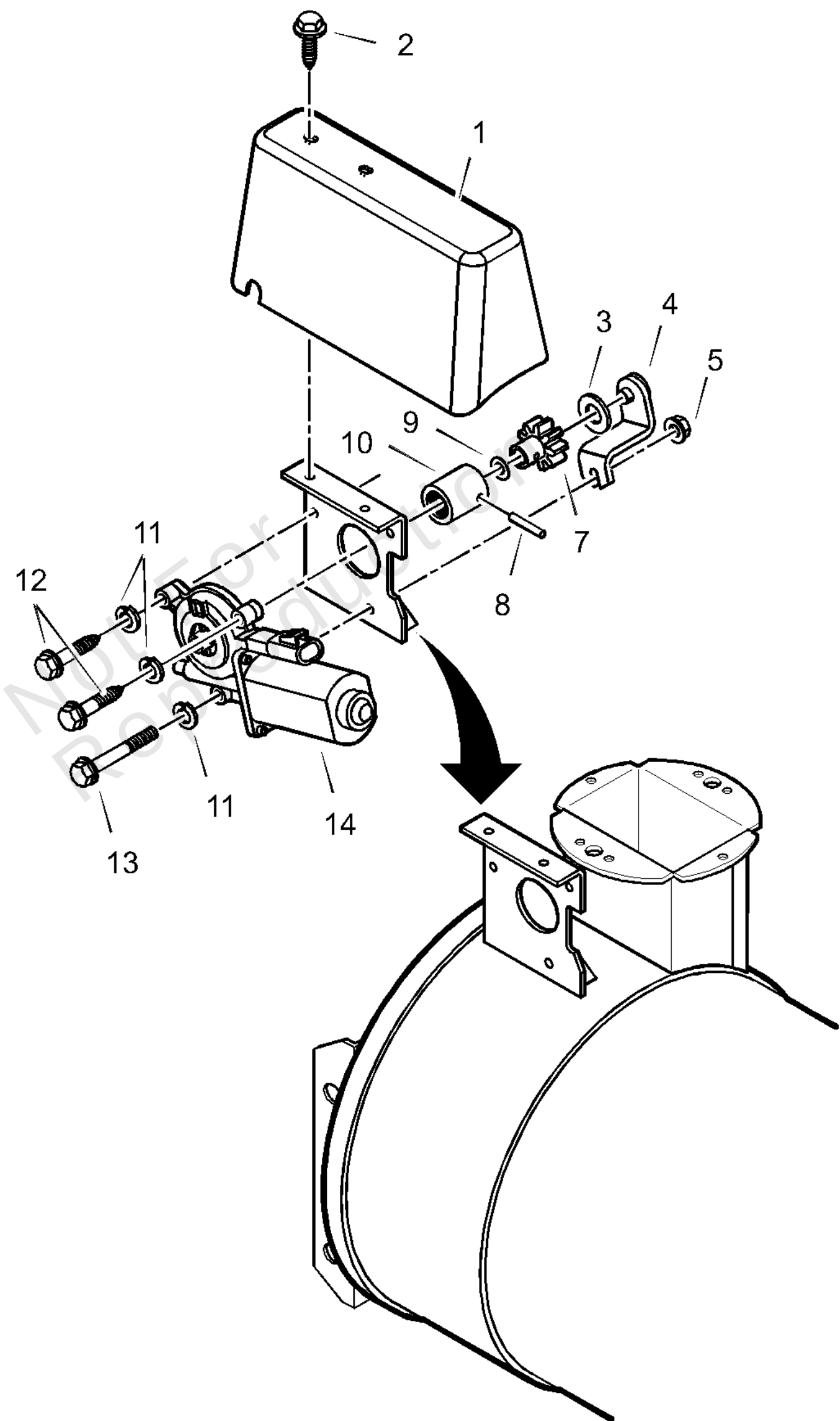
Auger Housing

REF NO	PART NO	QTY	DESCRIPTION
480	583146MA		PULLEY, 4L 8.40 OD
482	2001022MA		KEY,SQUARE 3/16 X 3/4
484	15X112MA		NUT.50-20 HEX FLG SER
485	1501158MA		SPACER,FRICTION PULLE
490	582957 YZ		RETAINER, BALL BRNG
491	1501389MA		BEARING, BALL
493	001X92MA		BOLT, HEX 5/16-18X .50
499	710026		NUT, 5/16-18 HEXWDFLLK
500	1501512E201		HOUSING, ASSY
510	760655E717MA		BLADE, SCRAPER
511	340720MA		BOLT, 5/16-18X.75
514	710026		NUT, 5/16-18
520	760597E717		AUGER, ASSY, LH
521	760598E717		AUGER, ASSY, RH
522	9524MA		SCREW, 1/4-20 X 1.75
523	3943MA		SPACER, SLEEVE
524	73826		NUT, 1/4-20
525	53757MA		BRNG,AUGER SHAFT MF-L
527	70984		SCREW, 5/16-18 x 0.75
540	762377E717		SKID, HEIGHT ADJUST
541	340720MA		BOLT, 5/16-18 X .75
544	710026		NUT, 5/16-18
--	1501216MA		KIT,SHEAR BOLT.25-20X

Chute Rotation Motor

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 629104x5A



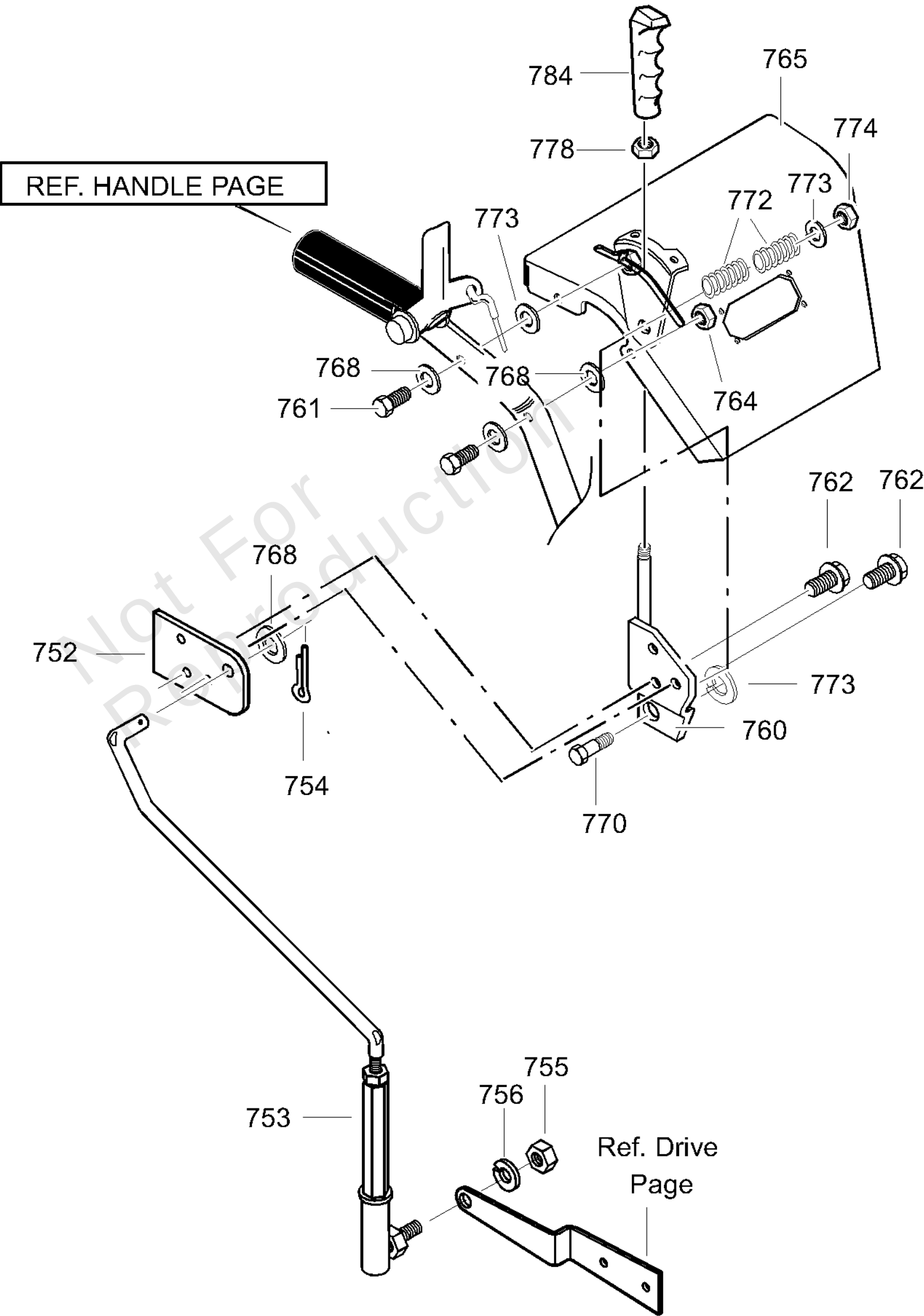
Chute Rotation Motor

REF NO	PART NO	QTY	DESCRIPTION
1	1501347		COVER, MOTOR
2	26X263MA		SCREW.25-20 S-T
3	17X185		WASHER
4	1501396		BRACE, CHUTE GEAR
5	15X143MA		NUT,25-20 HEX FLG CTR
7	1501067MA		GEAR,9 TOOTH 8DP
8	032X75MA		PIN, SPRING
9	1501430		RING, RETAINER
10	1501341		ADAPTER
11	018X30		WASHER
12	26X310		SCREW
13	001X94		BOLT, HEX
14	1501340MA		MOTOR, ELECTRIC

Control Panel Assembly

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 629104x5A

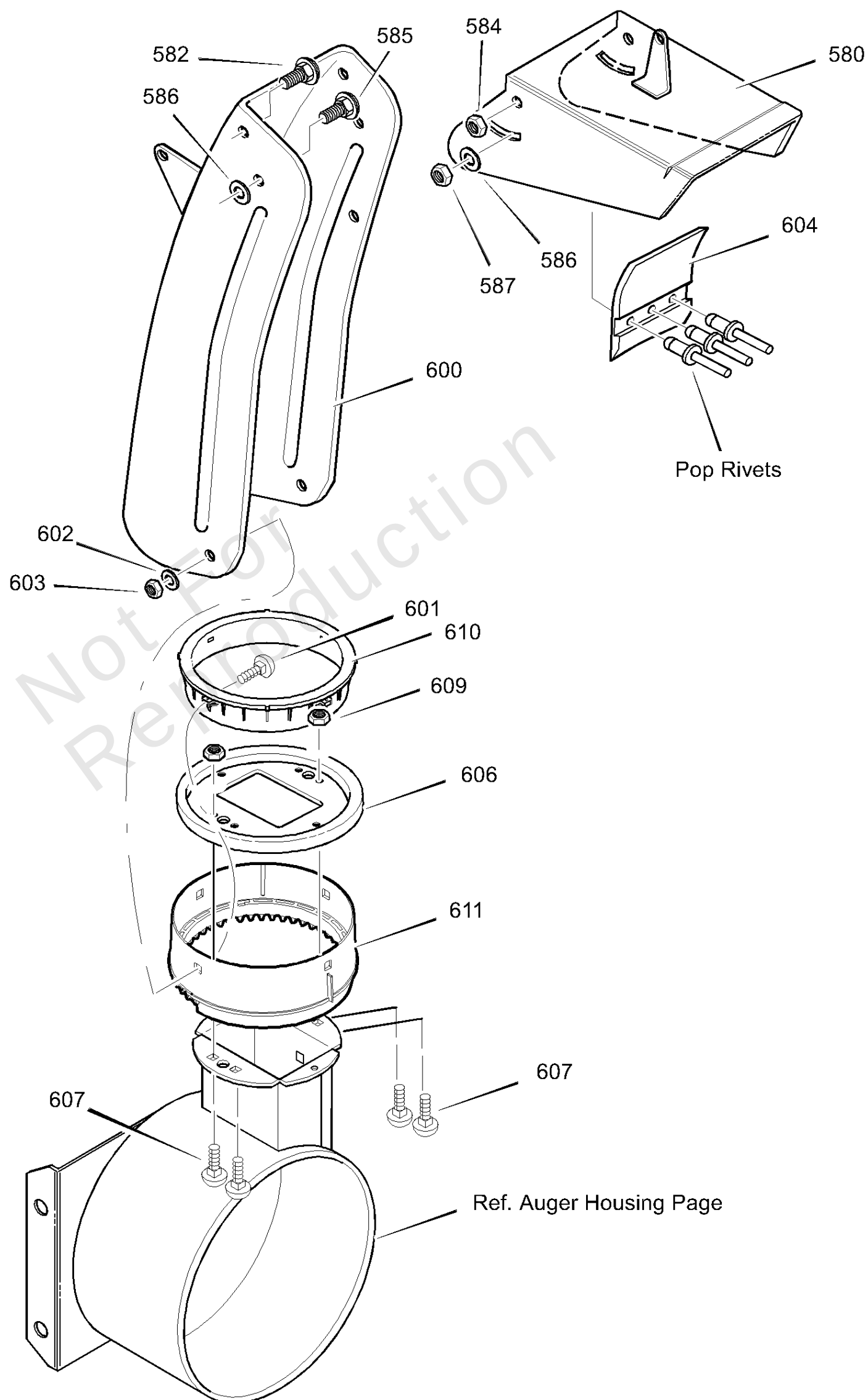


Control Panel Assembly

REF NO	PART NO	QTY	DESCRIPTION
752	1501749		BRACKET, CONTROL
753	1501761		ASSEMBLY, ROD
754	71081		PIN, COTTER
755	71042MA		NUT.31-24 HEX
756	71060		WASHER
760	85030 YZ		HANDLE ASSY SPD CTRL
761	302900MA		SCREW, 5/16-18 x 1.75
762	310169MA		SCREW, 1/4-20X .63 WA
764	710026		NUT, 5/16-18
765	1501747E201MA		ASSY. BAY PANEL -LT
768	71071		WASHER
770	71007		SCREW 3/8-16X2.00
772	50786MA		SPRING,.509 DIA X0.75
773	71072		FLATWASHER
774	71046		NUT, 3/8-16
778	71044		NUT, 3/8-16
781	71071		FLATWASHER
784	304728MA		HANDLE, GRIP
813	11X30MA		RETAINER, RING 7/16 Y
814	579944MA		BRNG FL .500ID X .88

Discharge Chute

Note: Unless noted otherwise, use the standard torque specifications Mfg. No: 629104x5A



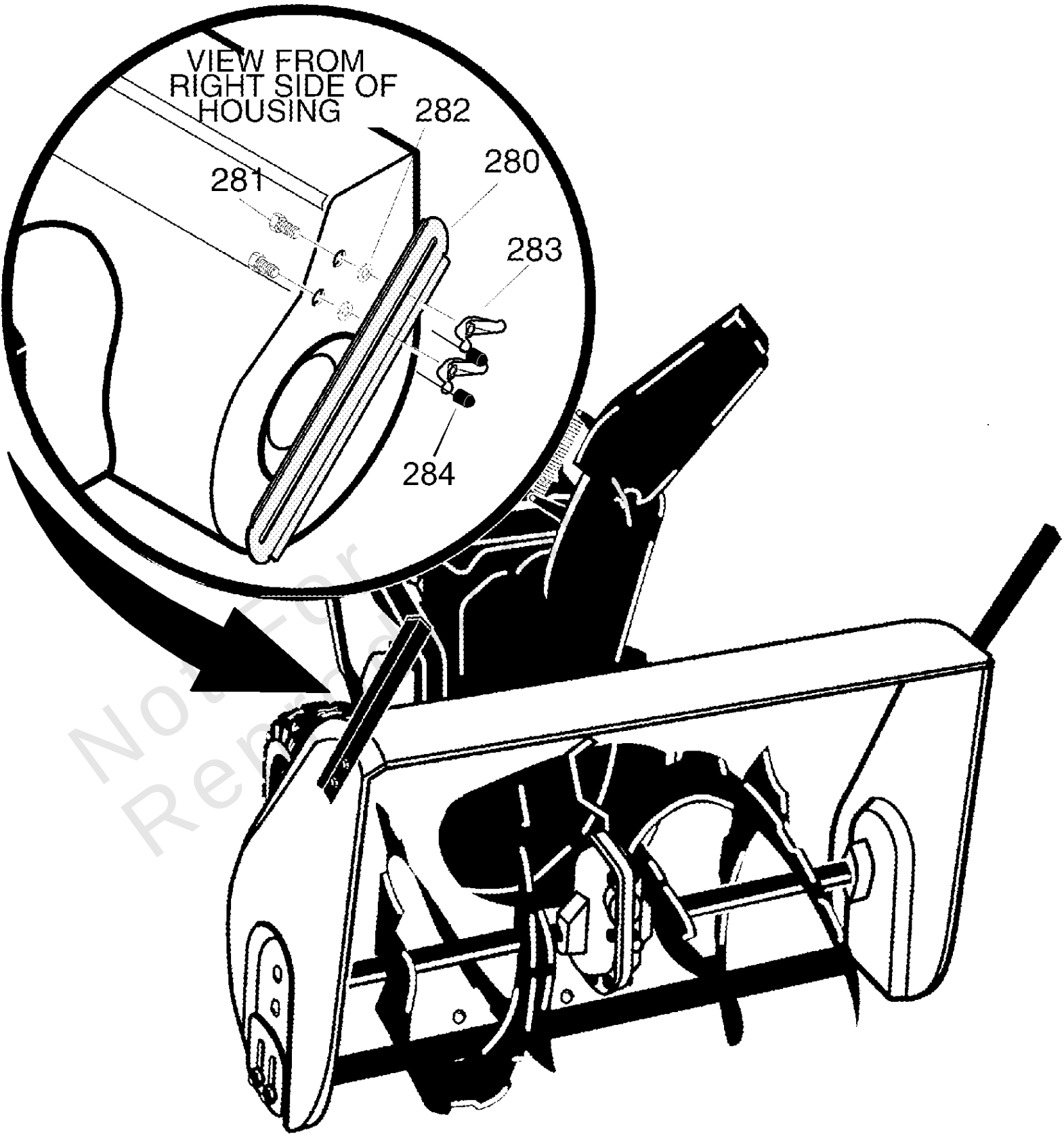
Discharge Chute

REF NO	PART NO	QTY	DESCRIPTION
580	761168E717		CHUTE, UPPER W/REMOTE
582	578088MA		SCREW, 5/16-18X .75SL
584	71038		NUT
585	578088MA		SCREW, 5/16-18X .75SL
586	6711MA		WASHER, PLASTIC .315X
587	71038		NUT
600	761169E717		CHUTE, LOWER W/REMOTE
601	02X100		BOLT
602	71071		WASHER, FLAT
603	71038		NUT
604	762322MA		FLAP, C3 CHUTE INSERT
606	585214 YZ		CHUTE COLLAR
607	02X101MA		BOLT
609	15X145MA		NUT
610	337227MA		RETAINER, RING INNER
611	1501476		RETAINER, RING OUTER

Drift Cutter Assembly

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 629104x5A



Drift Cutter Assembly

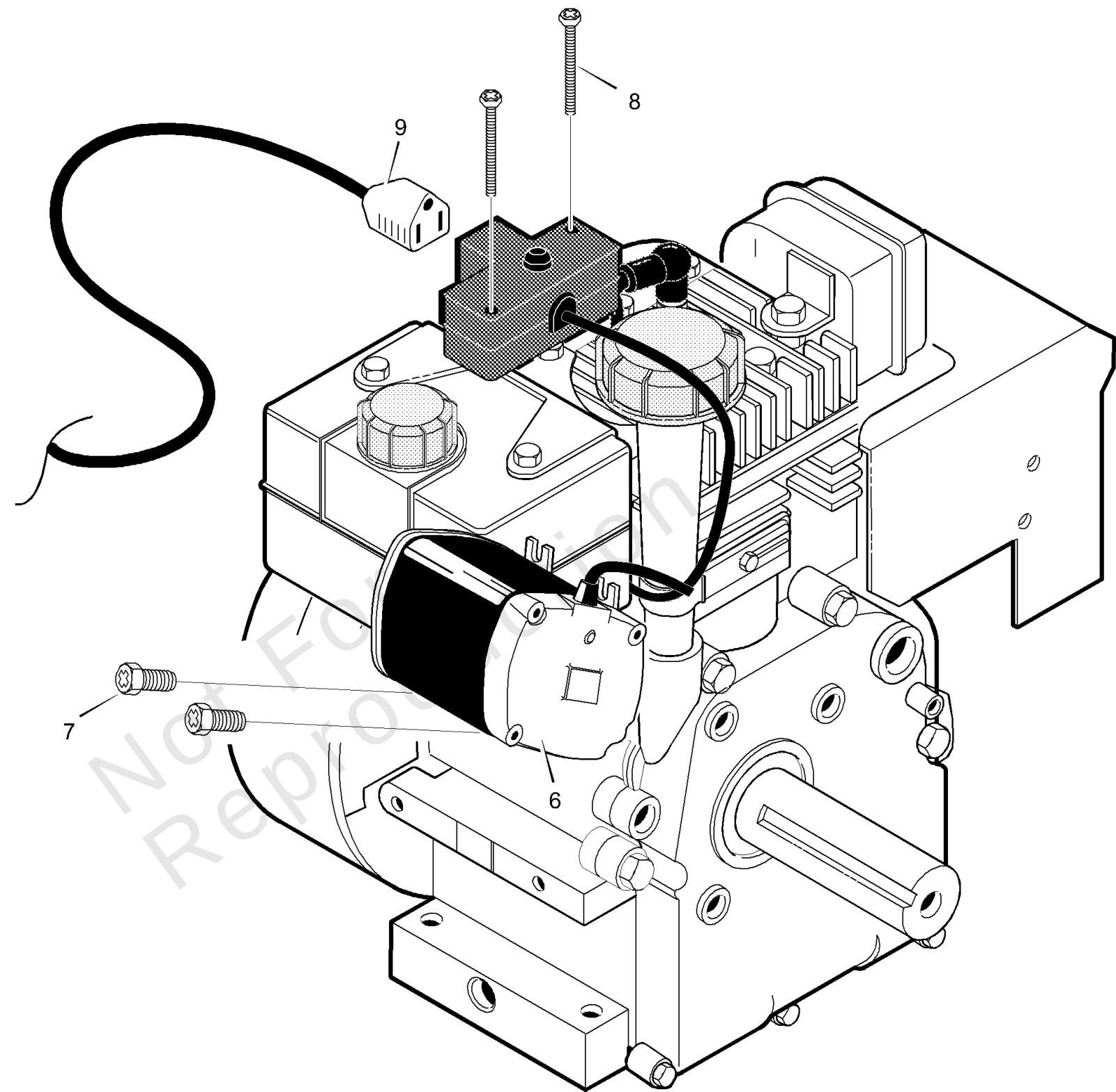
REF NO	PART NO	QTY	DESCRIPTION
280	762348E717MA		DRIFT CUTTER
281	340720MA		BOLT
282	12021		WASHER
283	711604		WINGNUT
284	11261MA		STOP, PLASTIC

Not For Reproduction

Electric Start Assembly

Note: Unless noted otherwise, use the standard torque specifications

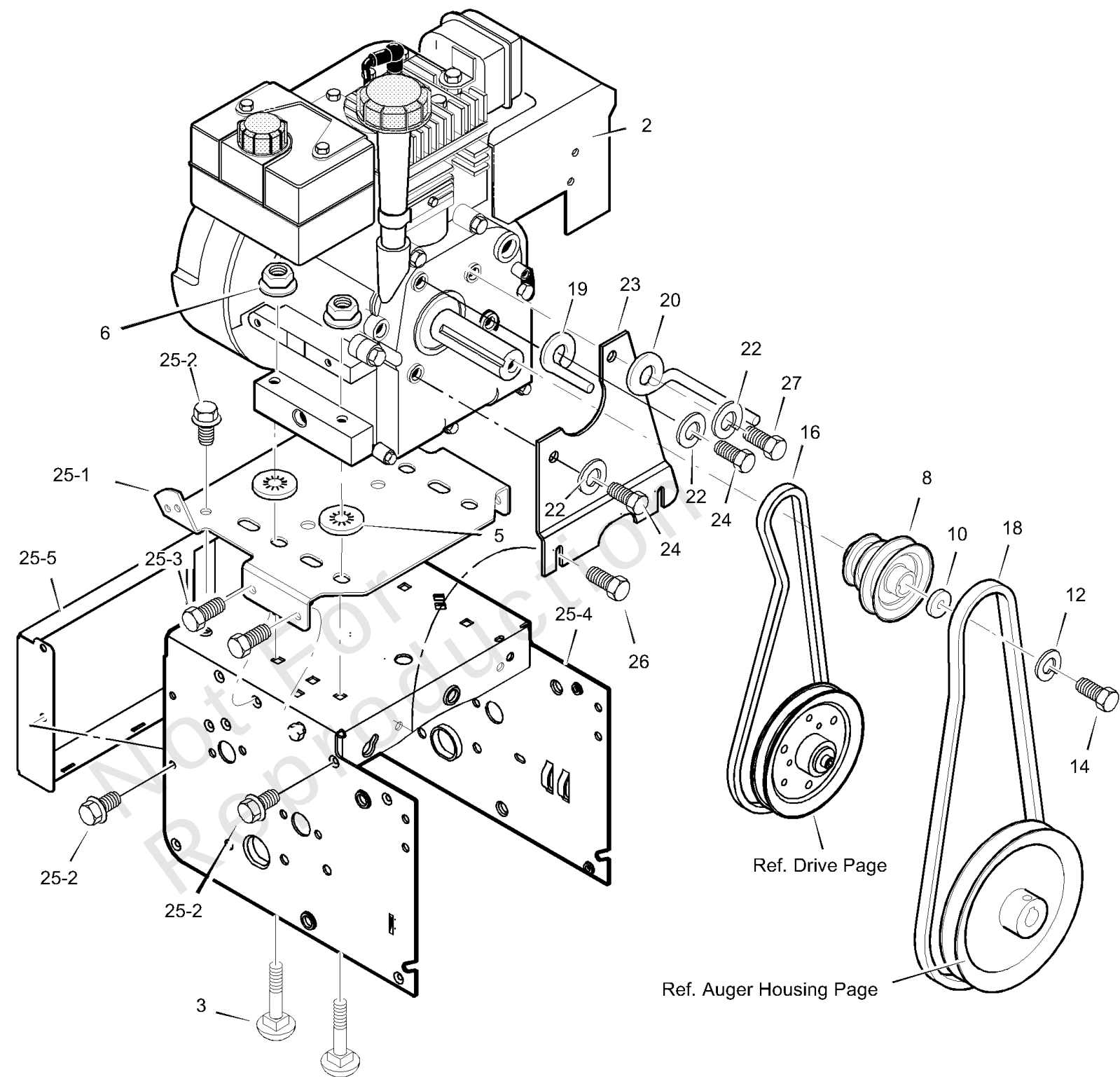
Mfg. No: 629104x5A



Electric Start Assembly

REF NO	PART NO	QTY	DESCRIPTION
6	6218		MOTOR, STARTER
7	6216		SCREW
8	6217		SCREW
9	6219MA		CORD, Electric, 10FT. 110V

Not For Reproduction



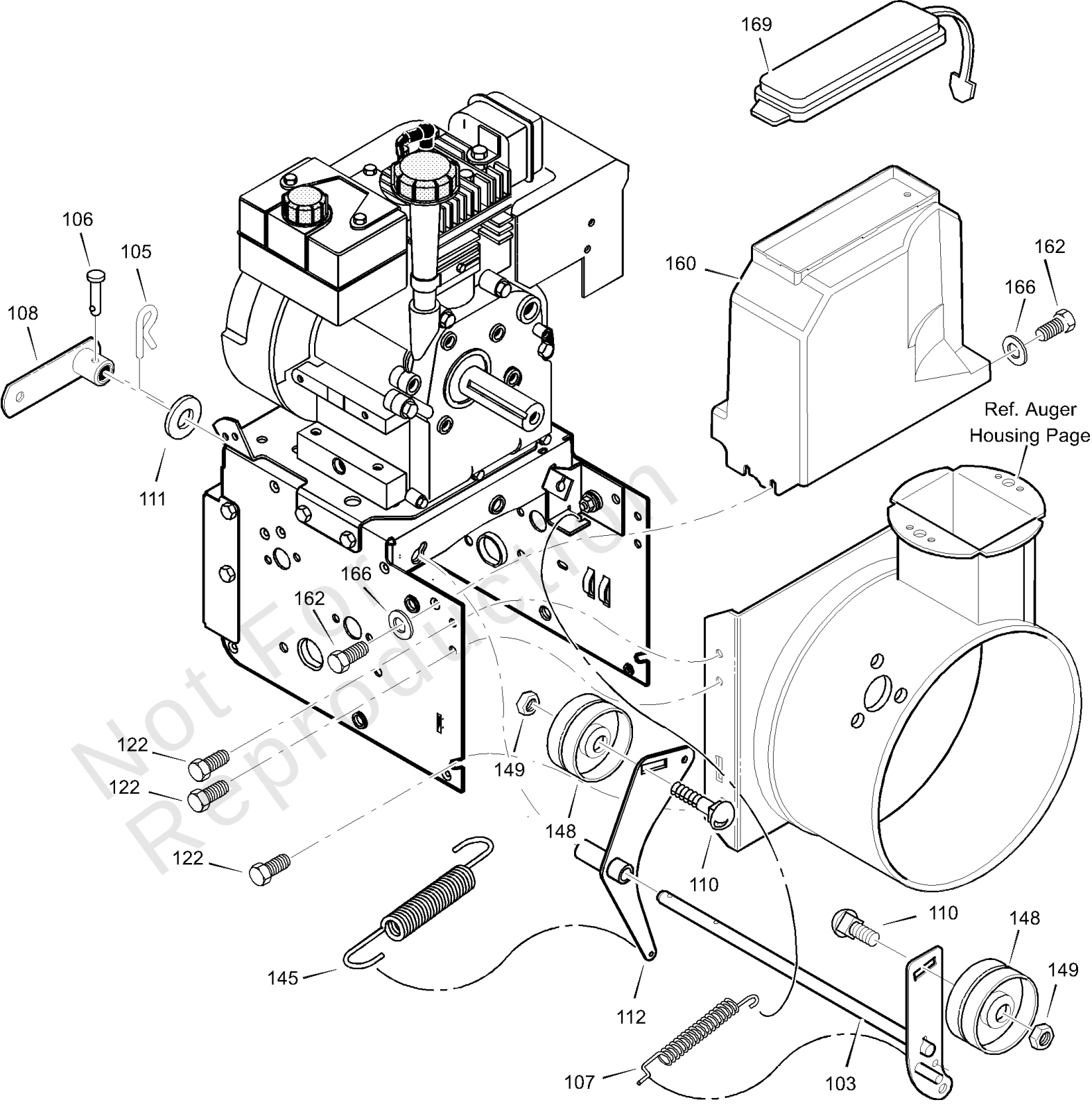
Engine

REF NO	PART NO	QTY	DESCRIPTION
2	-----		ENGINE
3	002X97MA		BOLT, CARRIAGE 5/16-18
5	028X76MA		NUT,SPEED
6	710026		NUT, HEX 5/16-18
8	1501109MA		PULLEY, ENGINE
10	710247		WASHER
12	71063		WASHER
14	71015		SCREW, 3/8-24 x 1.00
16	37X127MA		BELT,DRV3L 25.65 HYD9
18	585416MA		BELT
19	1501368		GUIDE, BELT
20	1501201MA		GUIDE, BELT
22	71060		WASHER, .31X.58X.08
23	1501482MA		PLATE, VIBRATION
24	710097		SCREW, 5/16-24 x 0.75
25	-----		FRAME ASSEMBLY
25-1	1501062E201		PLATE, ENGINE MOUNT
25-2	310169MA		SCREW, 1/4-20X .63 WA
25-3	25X020MA		SCREW.31-18X0.50 WAHH
25-4	1501295E201		FRAME, MOTOR BOX
25-5	1501333E201		PANEL, BACK - HYDRO
26	26X263MA		SCREW.25-20 S-T
27	910828MA		BOLT, HEX 5/16-24 X 1.00
--	F-031099L		Owner's MANUAL

Frame

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 629104x5A



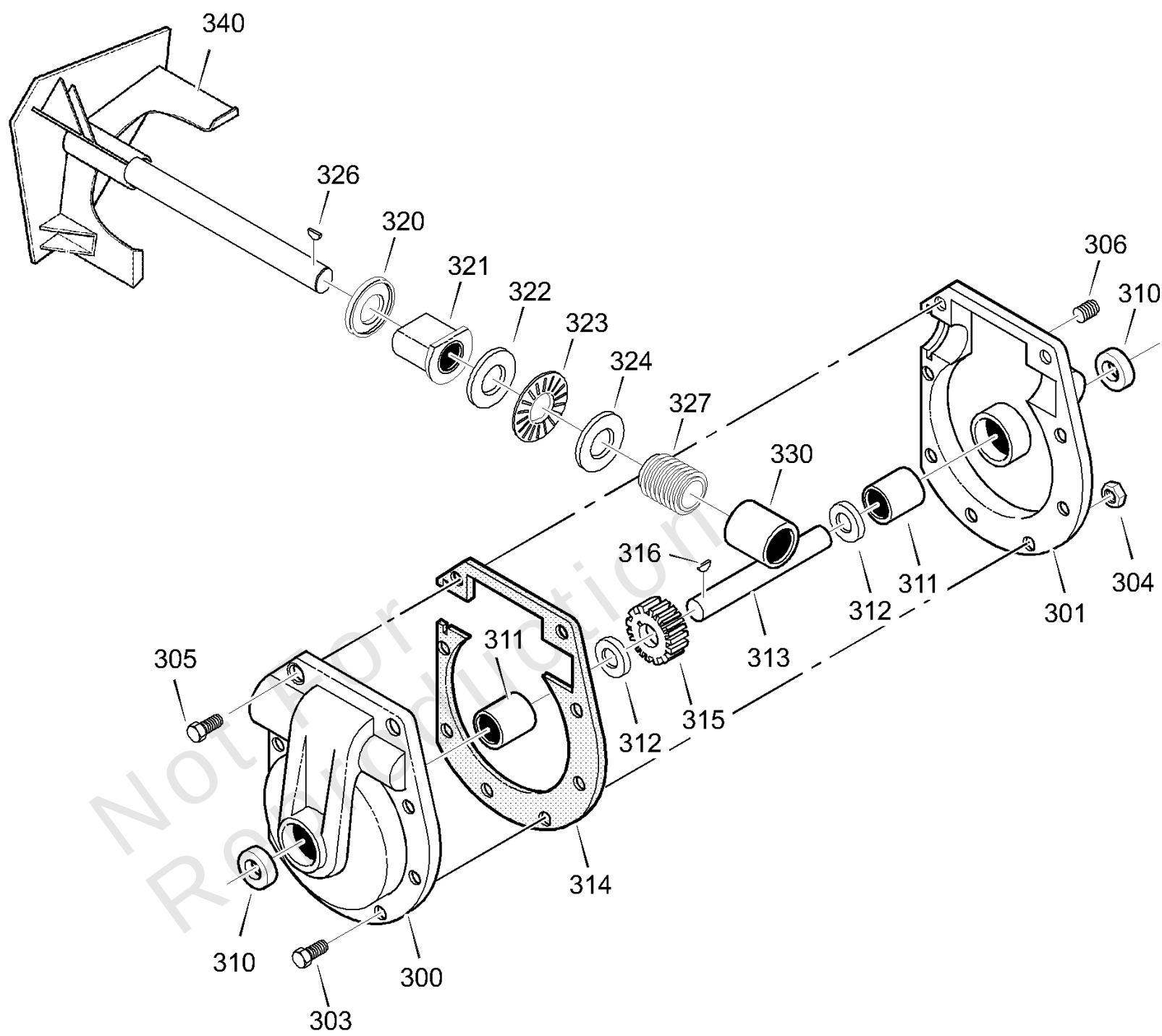
Frame

REF NO	PART NO	QTY	DESCRIPTION
103	1501226 YZ		IDLER ASSEMBLY, AUGER
105	711682MA		PIN, HAIR .38DIA X 1.64LG
106	761761MA		PIN, CLEVIS 3/16" DIA
107	165X159MA		SPRING, TENSION
108	761675 YZ		ASSY., SPRING ATTACH
110	585781MA		BOLT, 3/8-16 X 1.25 CARR.
111	711617		WASHER, FLAT
112	1501370 YZ		BRACKET, IDLER
122	780055MA		SCREW, TAP 5/16-18 X .50
145	165X155MA		SPRING, CLUTCH
148	50793MA		PULLEY, IDLER
149	590		NUT, JAM 3/8-16
160	1501171		COVER, BELT
162	26X306MA		SCREW, TAP
167	71067		WASHER, FLAT
169	761167		LID, TOOL BOX

Gear Case

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 629104x5A

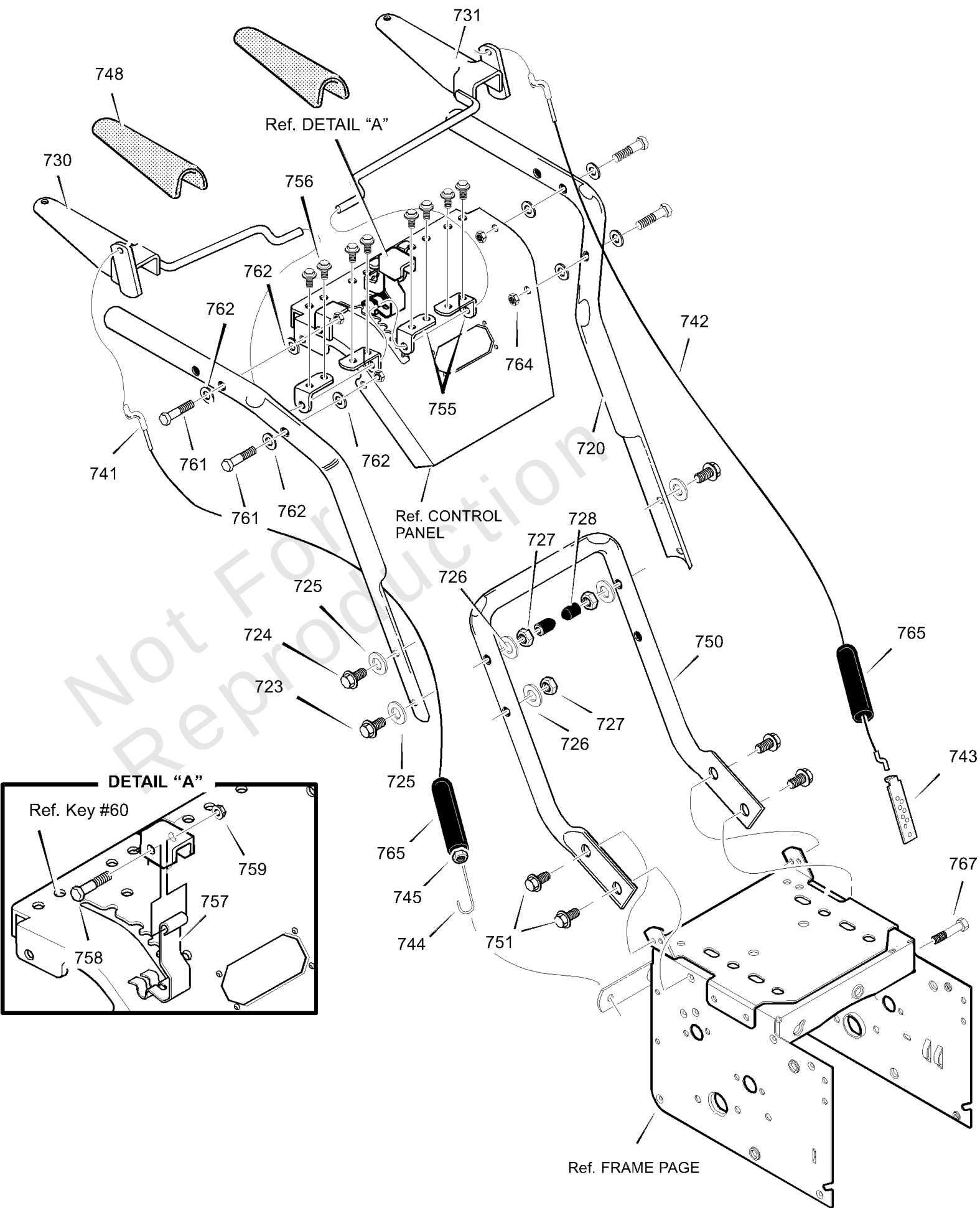


Gear Case

REF NO	PART NO	QTY	DESCRIPTION
300	896MA		CASE,GEAR RH 12AUG/10
301	895MA		CASE, GEAR LH 12"AUG/
303	910828MA		SCREW, 5/16-24 x 1.00
304	71100MA		NUT, 5/16-24
305	330434MA		SCREW, 5/16-24 x 1.50
306	53749MA		PLUG, PIPE 0.25-18
310	780151MA		SEAL, OIL CR 530552
311	53743		BEARING, SLEEVE
312	53748MA		WASHER, FLAT 1.00
313	760528MA		SHAFT, AUGER OUTPUT
314	897MA		GASKET, GEAR BOX
315	53730MA		WORM GEAR
316	73905MA		KEY, WOODRUFF #91
320	53737MA		RING, QUAD .924IDX.10
321	583126MA		BRNG, FL .753IDX1.128
322	48275MA		WASHER, FLAT .752X1.
323	50684MA		BEARING, ROLLER
324	48275MA		WASHER, FLAT .752X1.
326	50795MA		KEY, HI-PRO 606 .75D
327	53732MA		WORMGEAR,1.75OD 1.56L
330	53731MA		BEARING, SLEEVE
340	1501147E717MA		IMPELLER
--	333431MA		LUBRIPLATE, GR132, 14oz

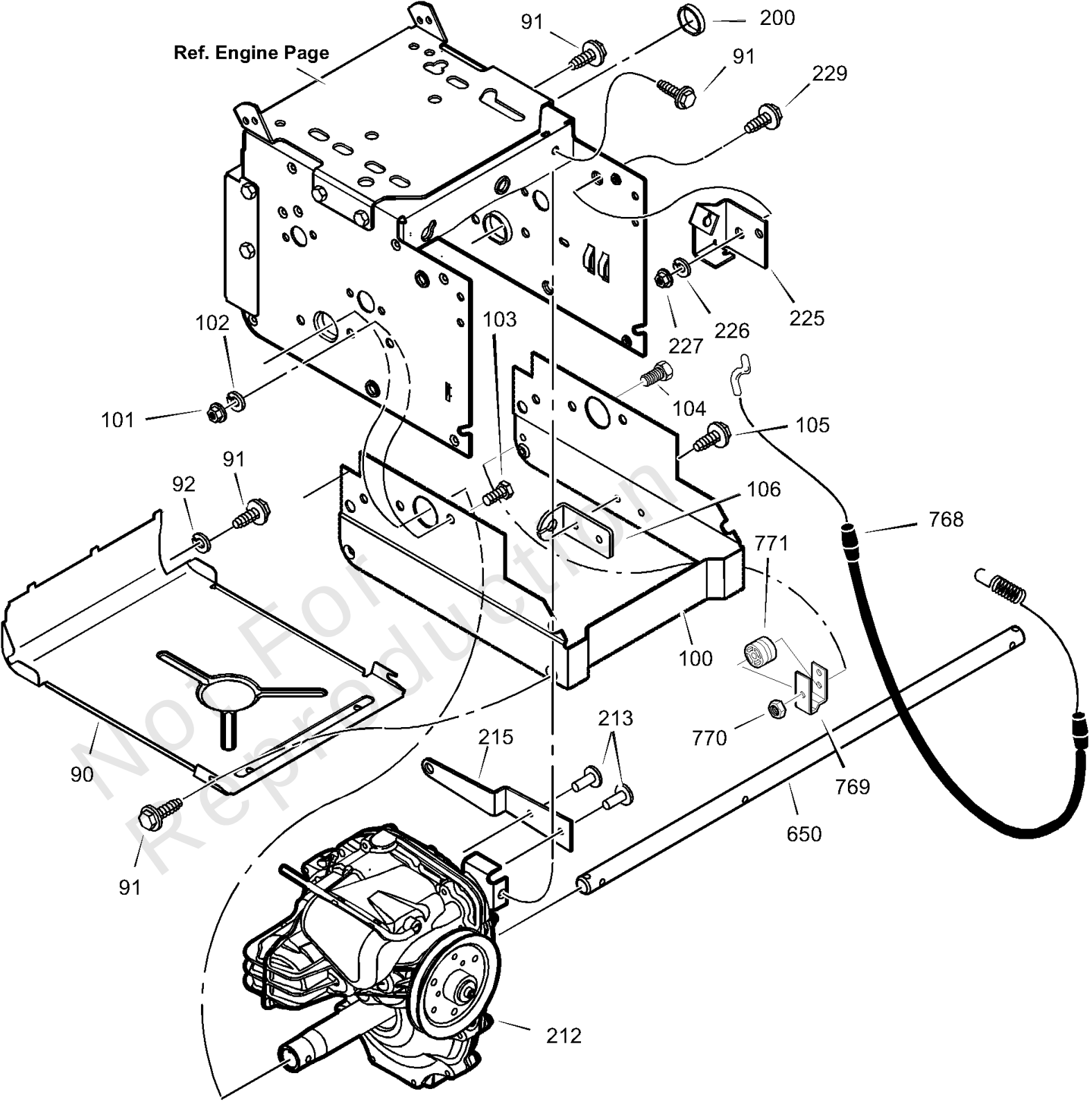
Handle Assembly

Note: Unless noted otherwise, use the standard torque specifications Mfg. No: 629104x5A



Handle Assembly

REF NO	PART NO	QTY	DESCRIPTION
720	1501507E717		HANDLE, UPPER LH
721	1501508E717		HANDLE, UPPER RH
723	71007		SCREW
724	7288MA		SCREW, 3/8-16X3.00 HH
725	71072		WASHER, FLAT
726	71062		WASHER, SPTLK
727	71044		NUT, REGHEX
728	7289MA		STOP,PLASTIC.375
730	760290 YZ		LEVER, ASSY CLUTCH DRIVE RH
731	760289 YZ		LEVER, ASSY CLUTCH DRIVE LH
741	761589MA		CABLE, AUGER CLUTCH
742	1501124MA		CABLE, AUGER DRIVE
743	313441MA		BRACKET, CABLE ADJ BL
744	1673MA		SPRING, AUGER CLUTCH,
745	15X145MA		NUT, 1/4-20
748	760992MA		GRIP, CLUTCH HANDLE
750	5543E717		HANDLE, LOWER
751	25X021MA		SCREW
754	70984		SCREW
755	760201 YZ		BRKT, ROD
756	760858MA		SCREW
757	760227MA		SPRING, CAM LOCK
758	45526		BOLT, HEX
759	71038		NUT
761	302900MA		SCREW
762	71071		WASHER, FLAT
764	710026		NUT, HEXFLNG
765	308146MA		BOOT, CLUTCH SPRING
767	001798		BOLT, HEX 1/4-20 X 1.50



Hydro Drive

REF NO	PART NO	QTY	DESCRIPTION
90	1501750E717MA		COVER, BOTTOM
91	310169MA		SCREW, 1/4-20X .63 WA
92	71067		WASHER
100	1501753E201		FRAME, EXTENSION - HYDRO
101	71044		NUT
102	71062		WASHER
103	71003		BOLT
104	001798		BOLT
105	760858MA		SCREW
106	1501756		BRACKET, CABLE
200	1501496		PLUG, HEYCO
212	1501353		Transmission, Hydro *
213	021X11MA		RIVET,BLIND.250
215	1501366		ARM, CONTROL EXTENSION
225	1501361		BRACKET, DRIVE CABLE
226	71063		WASHER
227	71045		NUT, HEX JAM - 3/8-16
229	025X19		SCREW
650	1501566		AXLE, WHEEL
768	1501748MA		CABLE, HYDRO DRIVE
769	1501059 YZ		BRACKET, CABLE SPOOL YZ
770	15X145MA		NUT
771	579860MA		SPOOL, CABLE

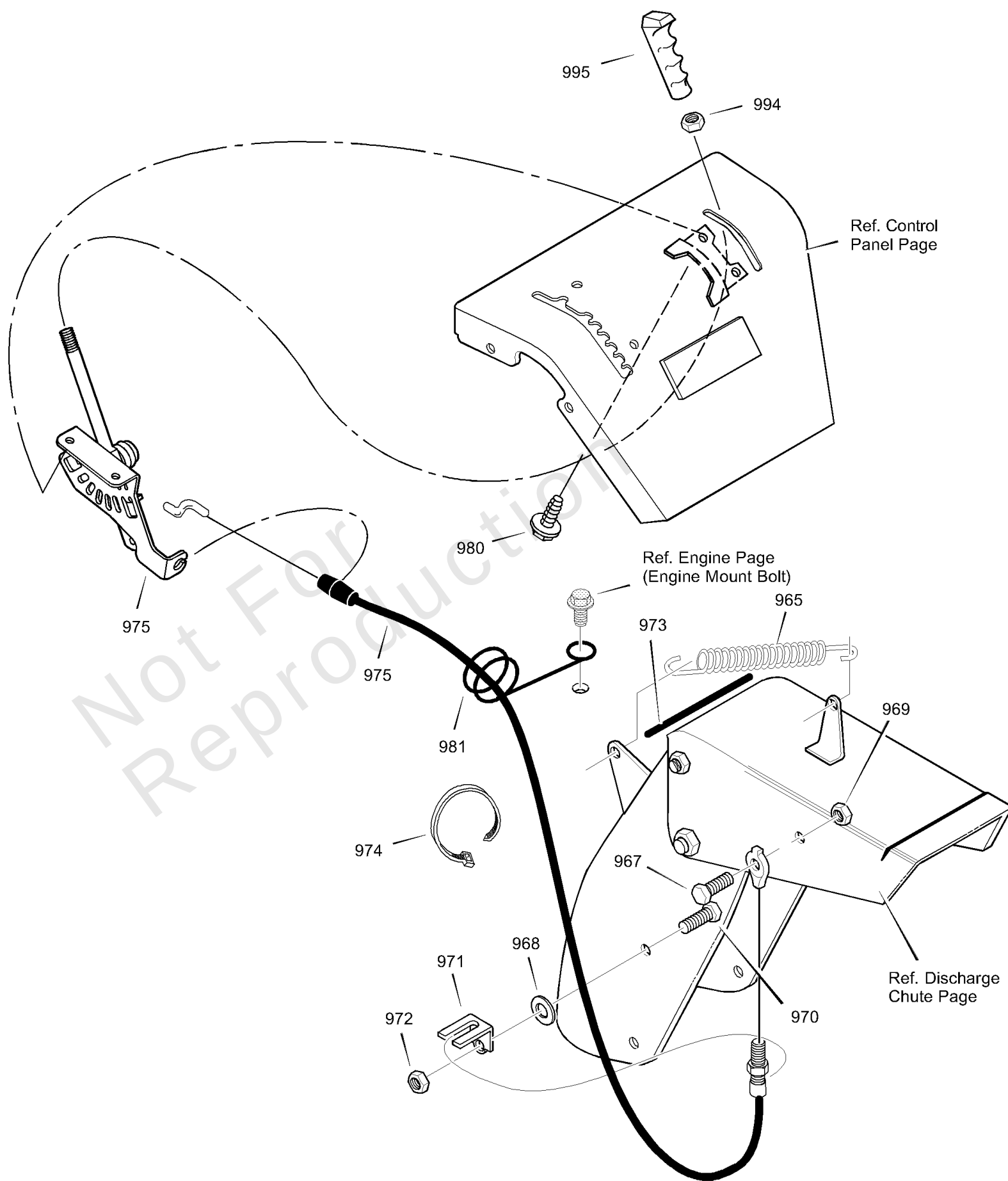
Footnotes:

Note* For service on the HYDRO-GEAR Transmission, Model 314-0410: CONTACT: Your local HYDRO-GEAR Authorized service dealer.

Remote Control

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 629104x5A



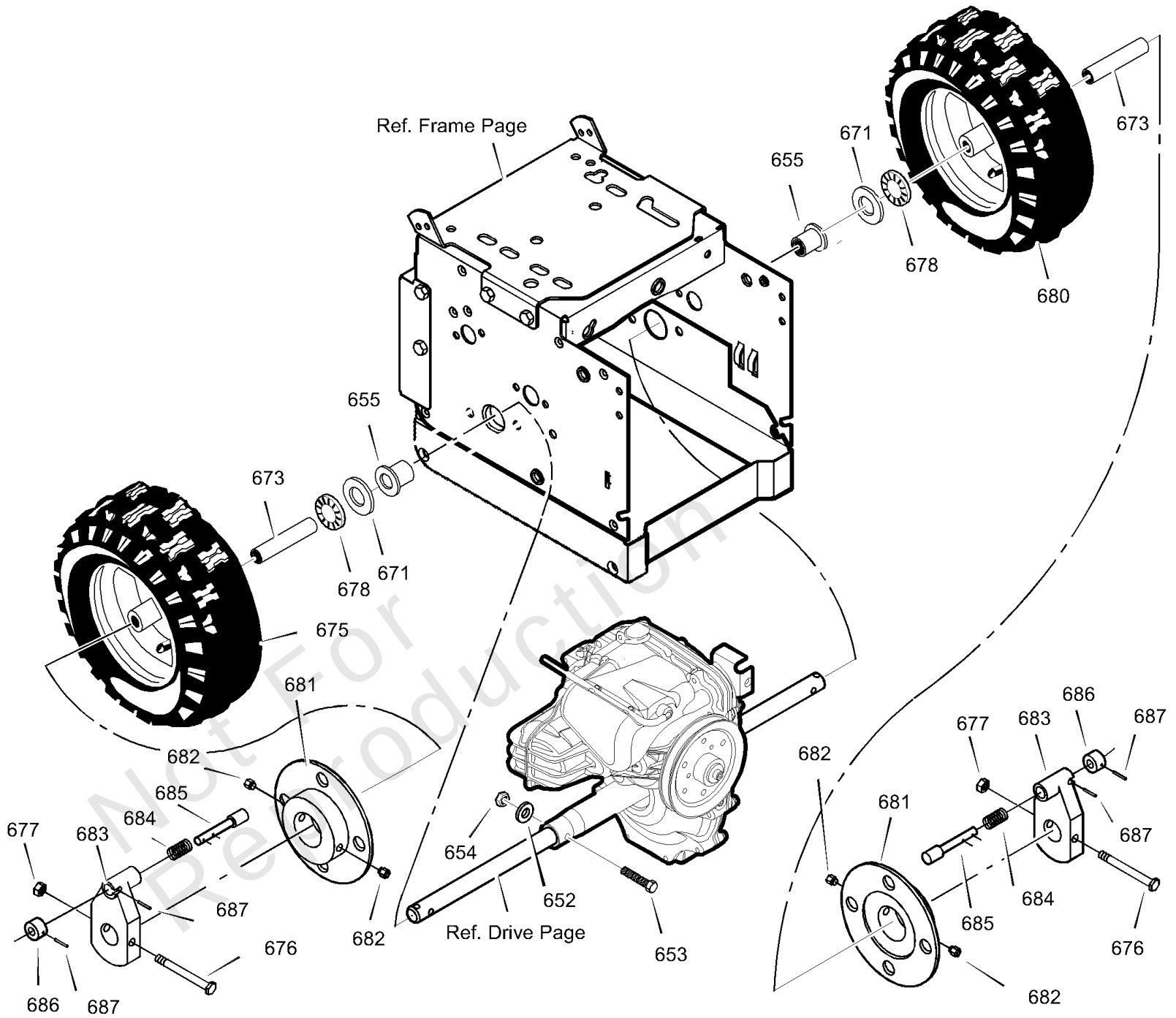
Remote Control

REF NO	PART NO	QTY	DESCRIPTION
965	318468MA		TENSION SPRING
967	310088MA		BOLT-SHD.250X.312 .25
968	73787MA		WASHER, FLAT .330X .
969	15X143MA		NUT,25-20 HEX FLG CTR
970	313676		SCREW
971	306447 YZ		BRACKET, CABLE CHUTE
972	71391		NUT
973	1001221MA		TRIM,BLACK W/ADHESIVE
974	760113MA		TIE, CABLE
975	1501393MA		ASSY, CHUTE DEF. CONTROL
980	760858MA		SCREW
981	780220MA		WIRE FORM,REMOTE CHUT
994	71045		NUT
995	304728MA		GRIP

Wheels

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 629104x5A



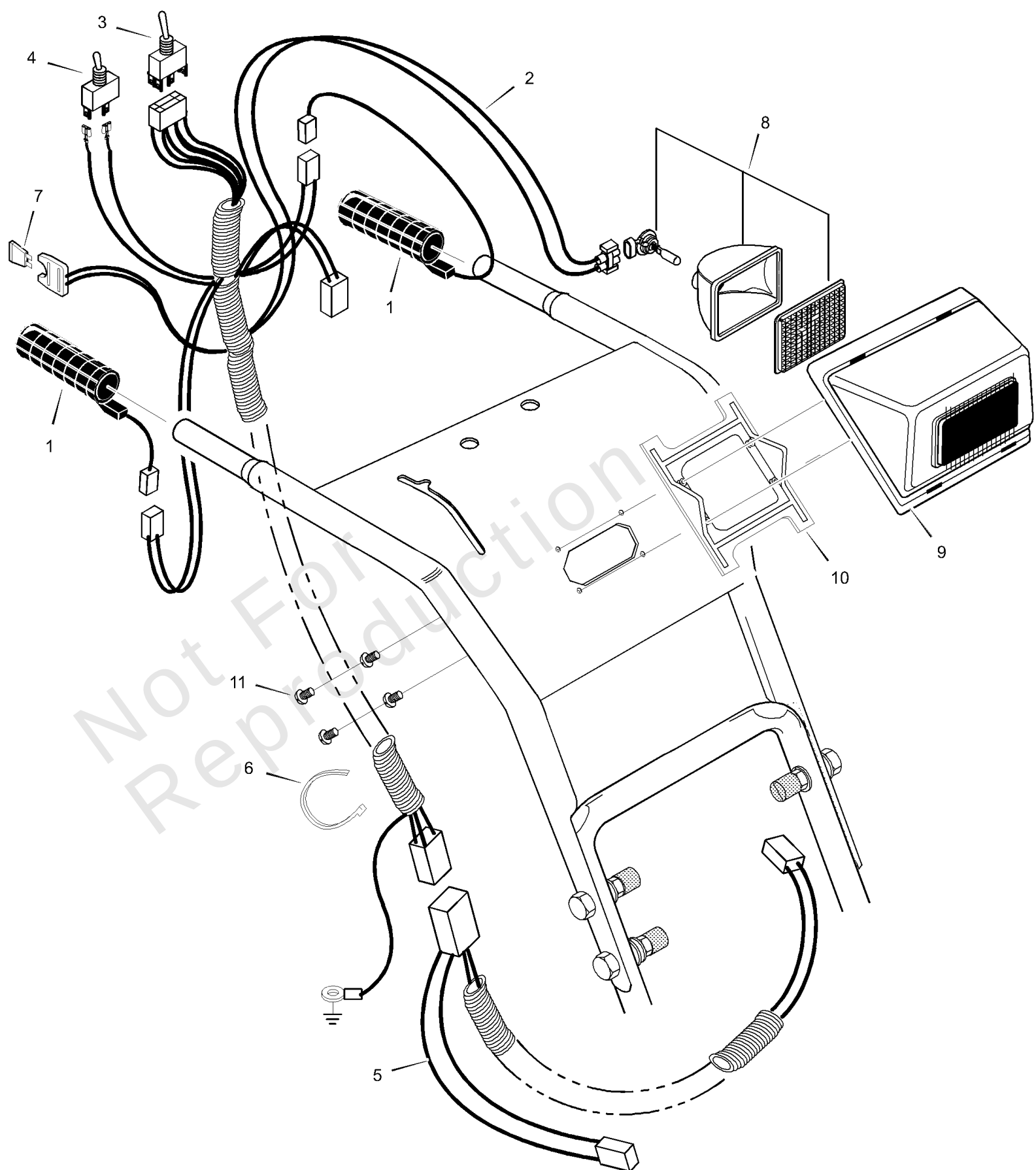
Wheels

REF NO	PART NO	QTY	DESCRIPTION
652	3943MA		SPACER, SLEEVE
653	01X193MA		SCREW, 1/4-20X1.75
654	15X145MA		NUT, 1/4-20
655	1501114MA		BEARING,AXLE
671	712120MA		FLATWASHER
673	1501138MA		BUSHING, WHEEL
675	584535MA		TIRE & RIM, RIGHT
676	73839MA		SCREW, 1/4-20X2.25
677	15X116MA		NUT, 1/4-20
678	239MA		RING, RET
680	584535MA		TIRE & RIM, LEFT
681	1501032E701		DISC, WHEEL
682	2001066MA		SCREW
683	1501546EMA		HUB,WHEEL LOC CNTRD E
684	164X34MA		SPRING
685	1501033 YZ		PIN, LOCK
686	1501034MA		KNOB,STEEL KNUURL .25
687	032X79		PIN

Wiring (part 1)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 629104x5A



Wiring (part 1)

REF NO	PART NO	QTY	DESCRIPTION
1	1501352MA		GRIP, HEATED
2	1501351MA		WIRE, HARNESS
3	1501348MA		SWITCH, CHUTE ROTATION
4	1501349MA		SWITCH, HEATED GRIP
5	1501350MA		WIRE HARNESS, LOWER
6	071372MA		TIE, STRAP-REMOVABLE
7	-----		FUSE, 7.5 AMP AUTOMOTIVE
8	762343MA		HEADLIGHT ASSEMBLY *
9	584731MA		CASE, HEADLIGHT
10	584732MA		BRACKET, HEADLIGHT
11	316042MA		SCREW, 10X.62 UNSL-HW

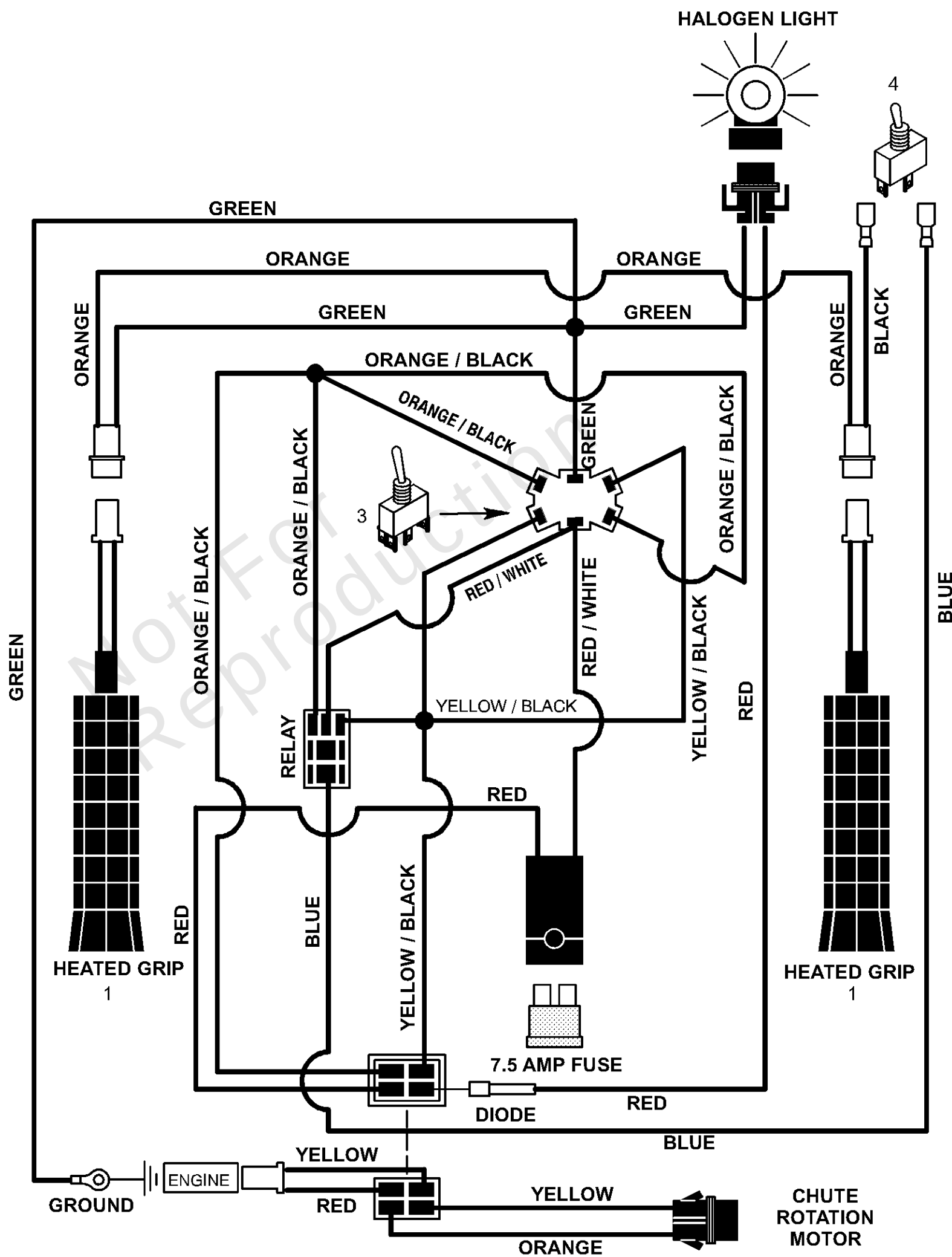
Footnotes:

Note* For replacement bulb, use Standard GE or Phillips #894.

Wiring (part 2)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 629104x5A



Wiring (part 2)

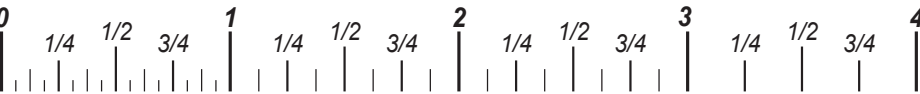
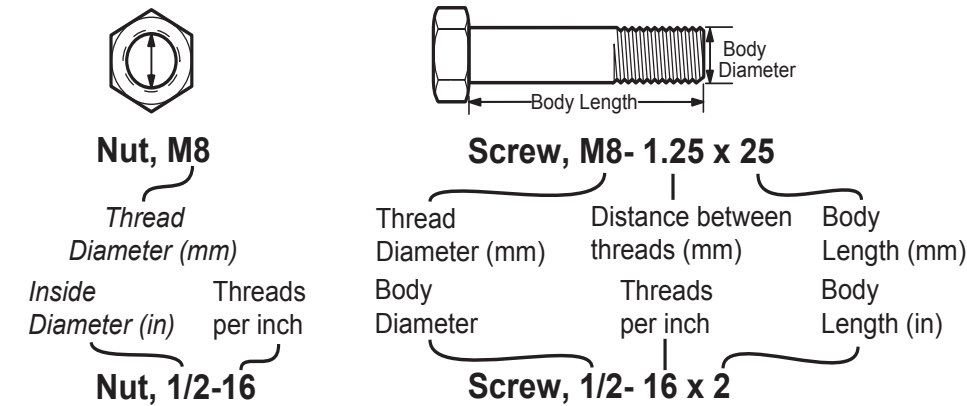
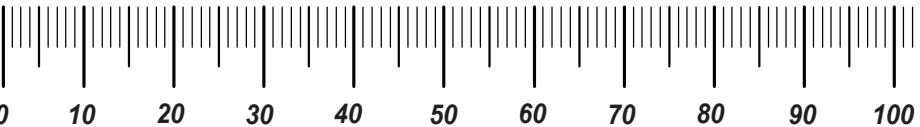
REF NO	PART NO	QTY	DESCRIPTION
1	1501352MA		GRIP, HEATED
3	1501348MA		SWITCH, CHUTE ROTATION
4	1501349MA		SWITCH, HEATED GRIP

Not For Reproduction

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).

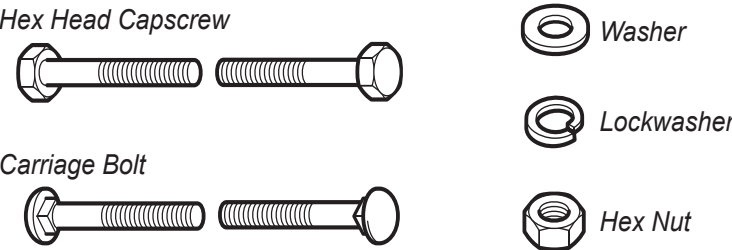
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw,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

