



Parts Manual

Mfg. No: 624505x4D
Dual Stage Snow Thrower (2003)

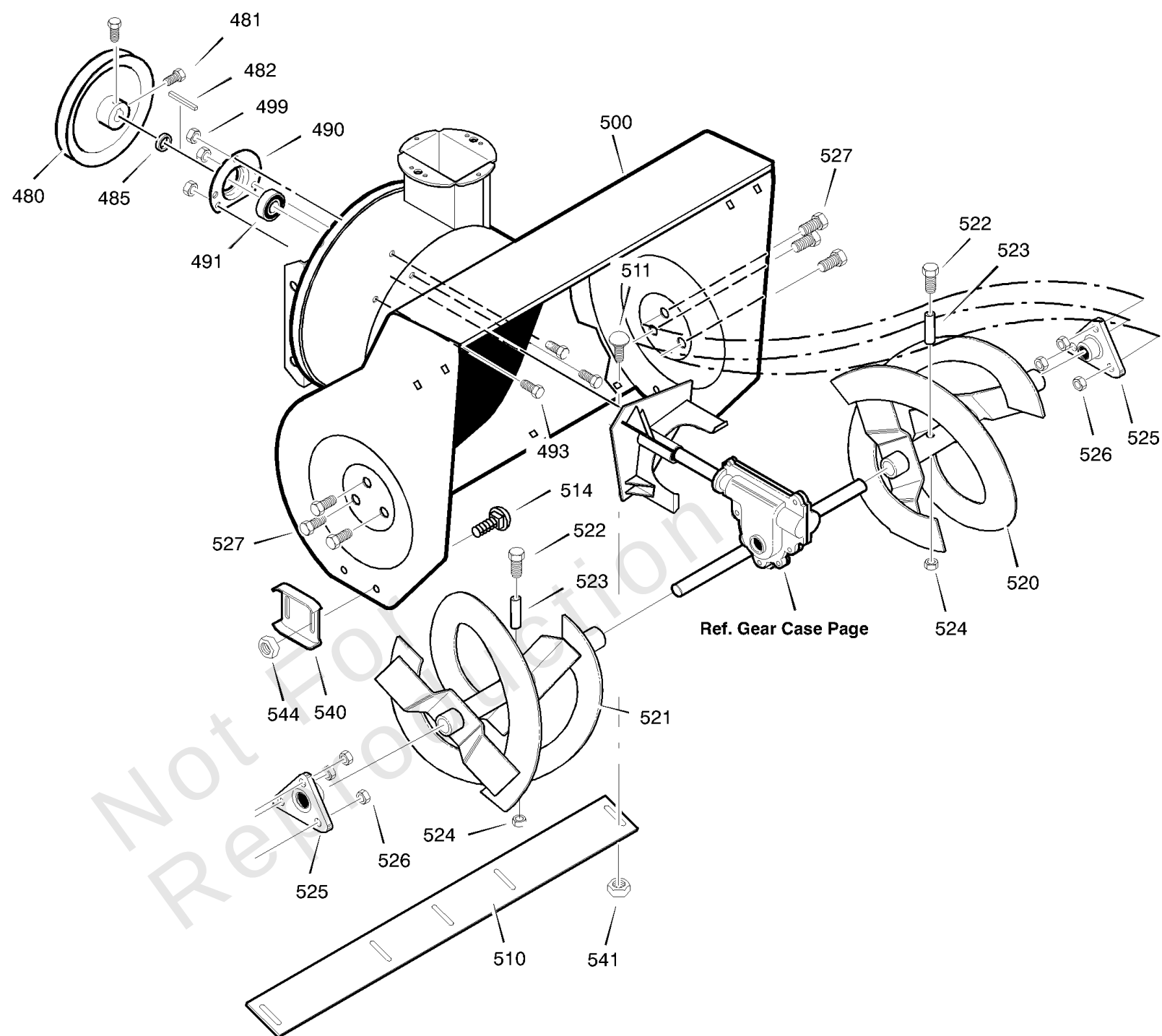
Model Components	Page
Auger Housing.	4
Chute Rod.	6
Control Panel.	8
Discharge Chute.	10
Drive.	12
Engine.	14
Frame.	16
Gear Case.	18
Handle Assembly.	20
Shift Yoke.	22
Wheels.	24
Torque Specification Chart.	26

Not For
Reproduction

Auger Housing

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 624505x4D



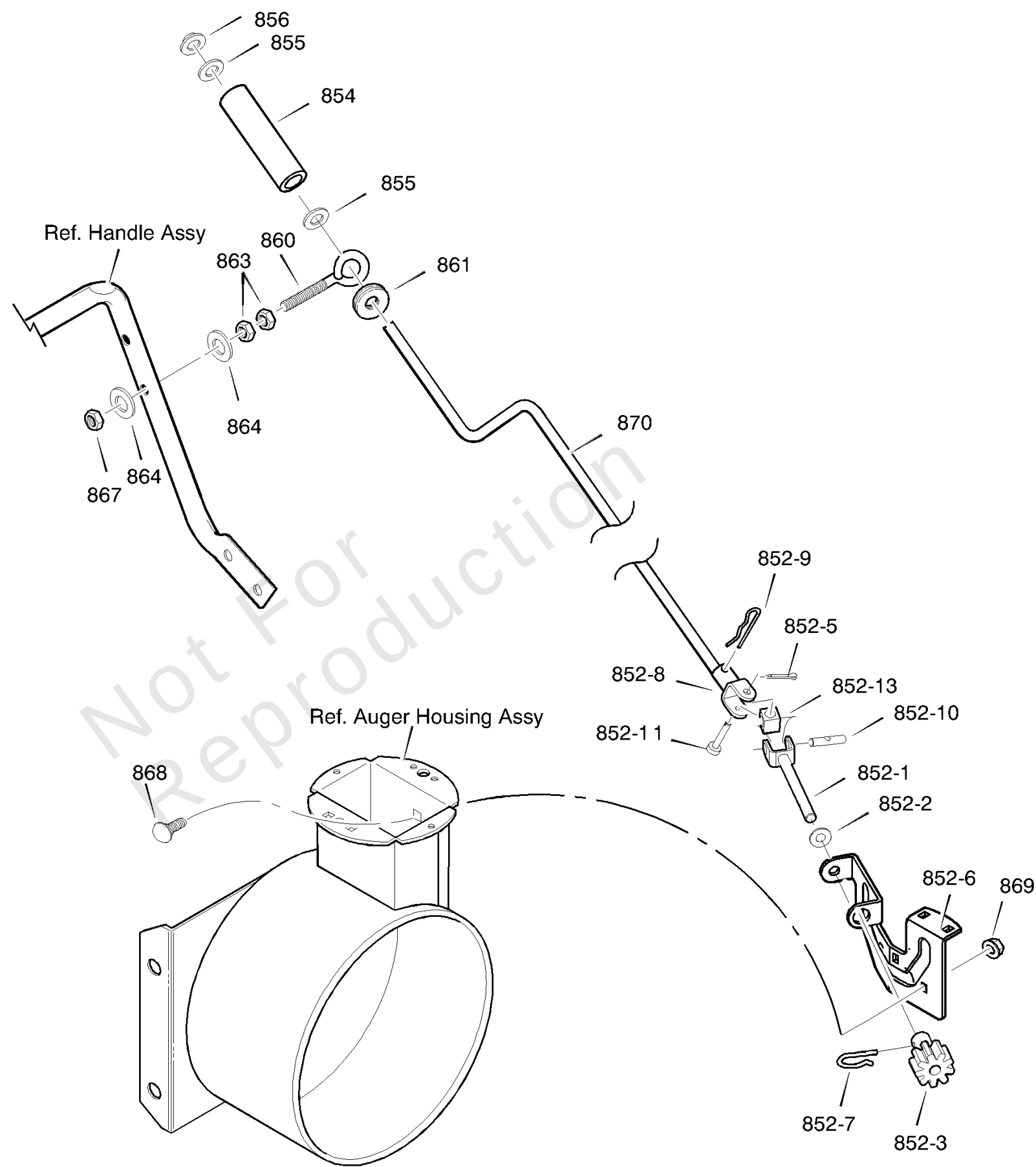
Auger Housing

REF NO	PART NO	QTY	DESCRIPTION
480	1501211MA		PULLEY, 4L 6.12X .67
481	577400MA		SCREW, 5/16-18X.63 HH
482	2001022MA		KEY,SQUARE 3/16 X 3/4
485	1501158MA		SPACER,FRICTION PULLE
490	582957 YZ		RETAINER, BALL BRNG
491	43846		BEARING, BALL
493	001X92MA		BOLT, HEX 5/16-18X .50
499	710026		NUT, 5/16-18 HEXWDFLLK
500	1501436E245		HOUSING, ASSY
510	760657E701MA		BLADE, SCRAPER
511	340720MA		BOLT, 1/4-20X.75
514	710026		NUT, 1/4-20
520	1501441E701		AUGER, ASSY, LH
521	1501440E701		AUGER, ASSY, RH
522	9524MA		SCREW, 1/4-20X1.75
523	3943MA		SPACER, SLEEVE
524	73826		NUT, 1/4-20
525	9517MA		BEARING AUGER BLACK
526	711862MA		NUT, 5/16-18
527	9357MA		SCREW, 5/16-18X .75WD
540	762377E701		SKID, HEIGHT ADJUST
541	340720MA		BOLT, 5/16-18 X .75
544	710026		NUT, 5/16-18
--	1501216MA		KIT,SHEAR BOLT.25-20X

Chute Rod

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 624505x4D



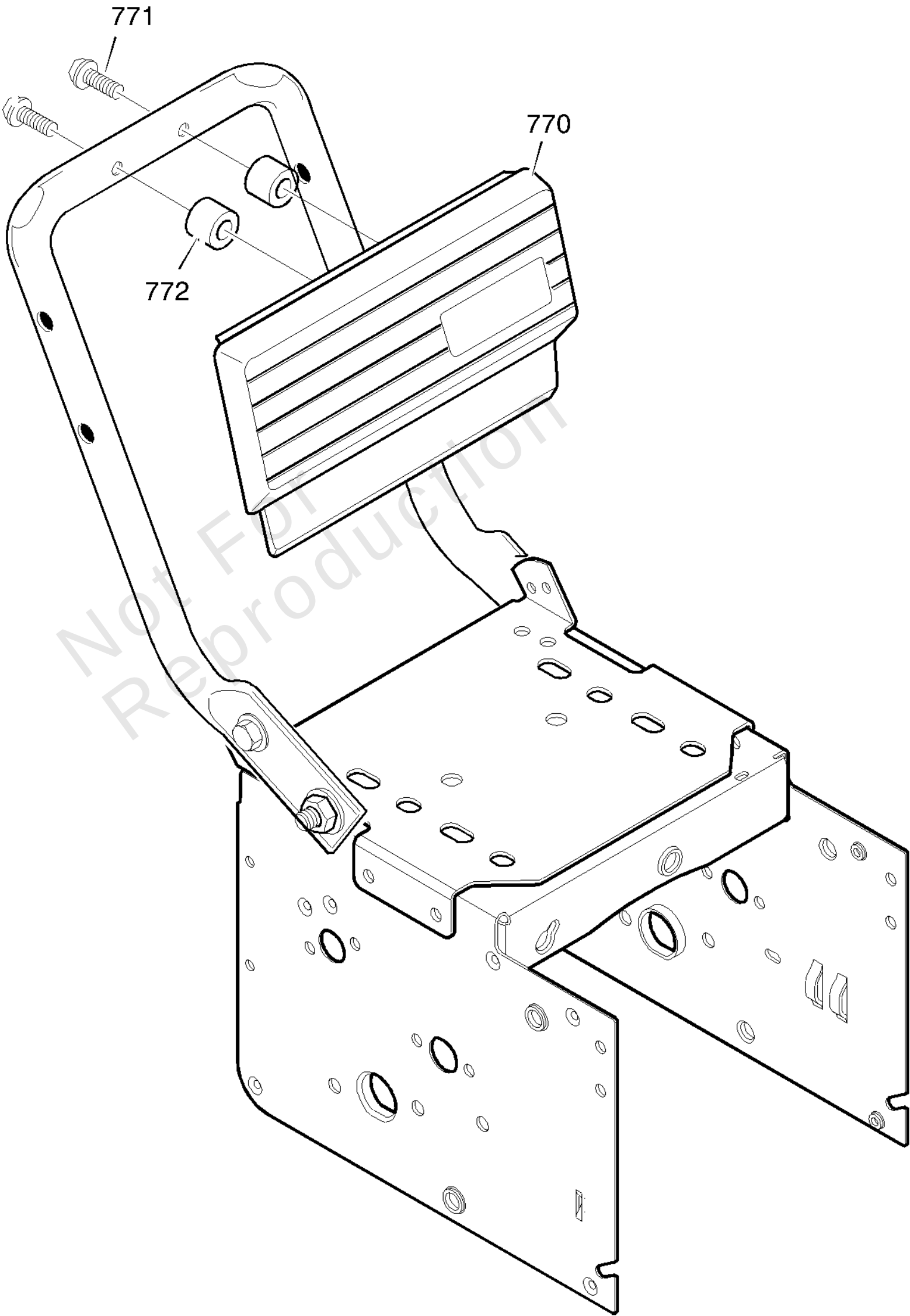
Chute Rod

REF NO	PART NO	QTY	DESCRIPTION
852-1	1501309 YZ		ASSEMBLY, YOKE & ROD
852-2	313431MA		WASHER, CURVED SPRING
852-3	1501067MA		GEAR,9 TOOTH 8DP
852-5	579493MA		PIN, COTTER .06X .50
852-6	1501306E701MA		BRKT,CHUTE GEAR
852-7	1501293MA		PIN-HAIR, CHUTE GEAR
852-8	1501075 YZ		ASSEMBLY, YOKE ADAPTER YZ
852-9	711682MA		PIN, HAIR
852-10	578060MA		PIN,UNIV JOINT 3/8X1.
852-11	578309MA		LF PIN, CLEVIS .25DX
852-13	578063MA		BLOCK,UNIVERSAL PIVOT
854	51443MA		KNOB, SLEEVE STD BLK
855	309312MA		WASHER, FLAT .39 X .7
856	73664MA		NUT, PUSH ON 3/8"
860	581618MA		EYEBOLT.38-16X6.00 .6
861	148MA		GROMMET, Eyelet
863	71045		NUT, 3/8-16 HEXJAM
864	71072		FLATWASHER .406X.81X.066
867	71046		NUT, 3/8-16 HEXNYL
868	002X98MA		BOLT, CARRIAGE 1/4-20 X 1.00
869	15X145MA		NUT
870	1501074 YZ		CRANK, ASSY CHUTE

Control Panel

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 624505x4D



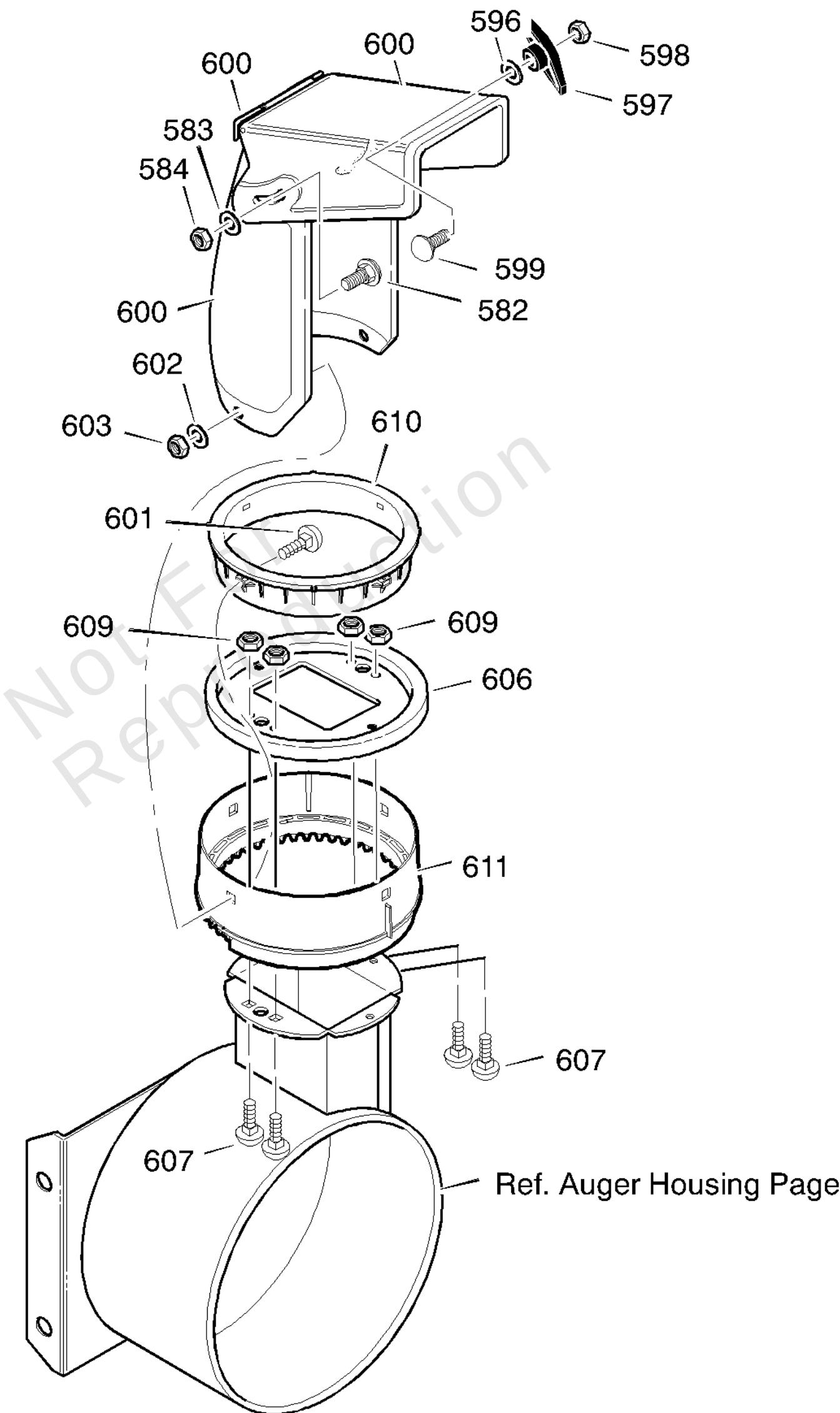
Control Panel

REF NO	PART NO	QTY	DESCRIPTION
770	584559		PANEL
771	341026		SCREW
772	3943MA		SPACER, SLEEVE

Not For Reproduction

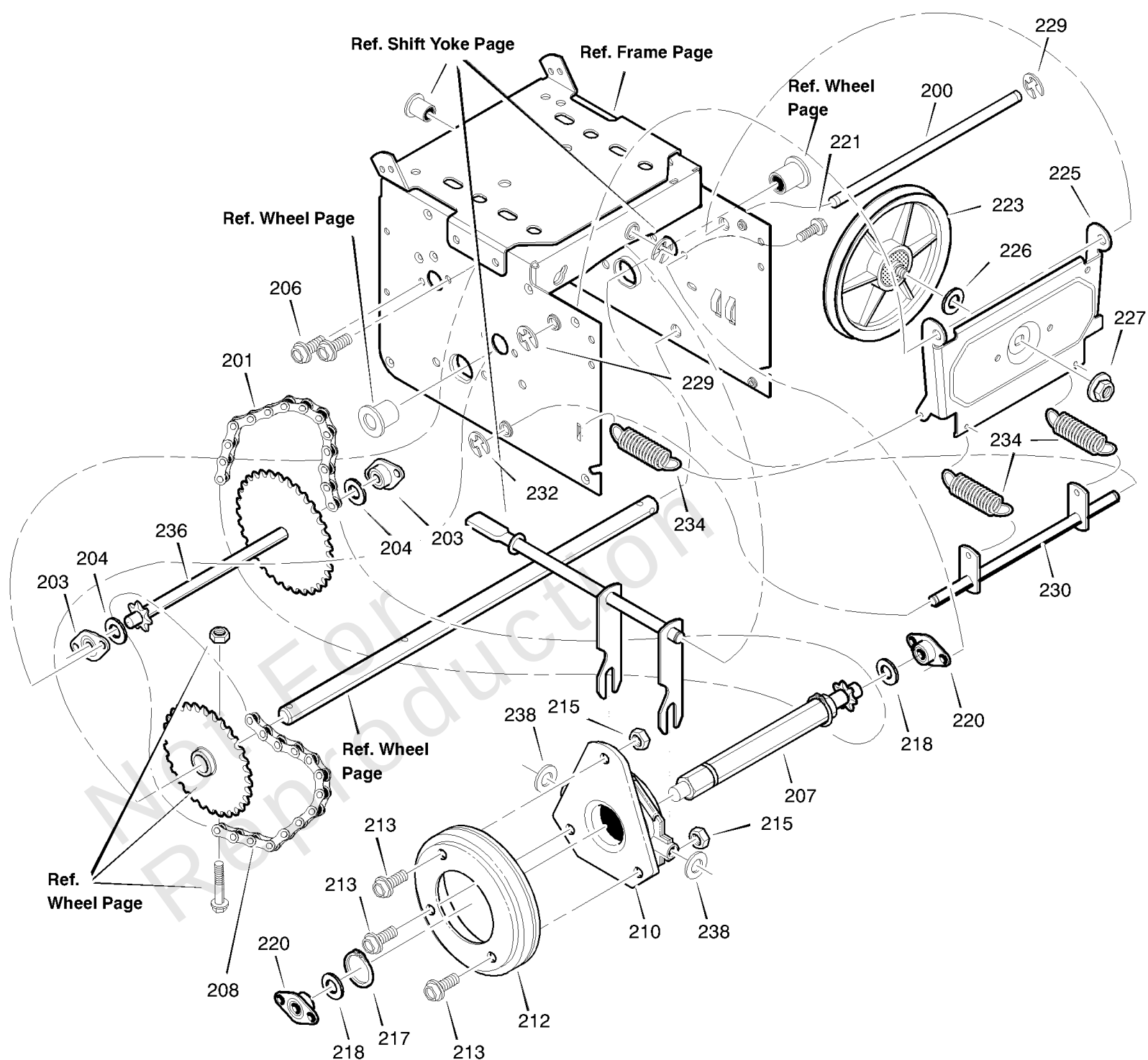
Discharge Chute

Note: Unless noted otherwise, use the standard torque specifications Mfg. No: 624505x4D



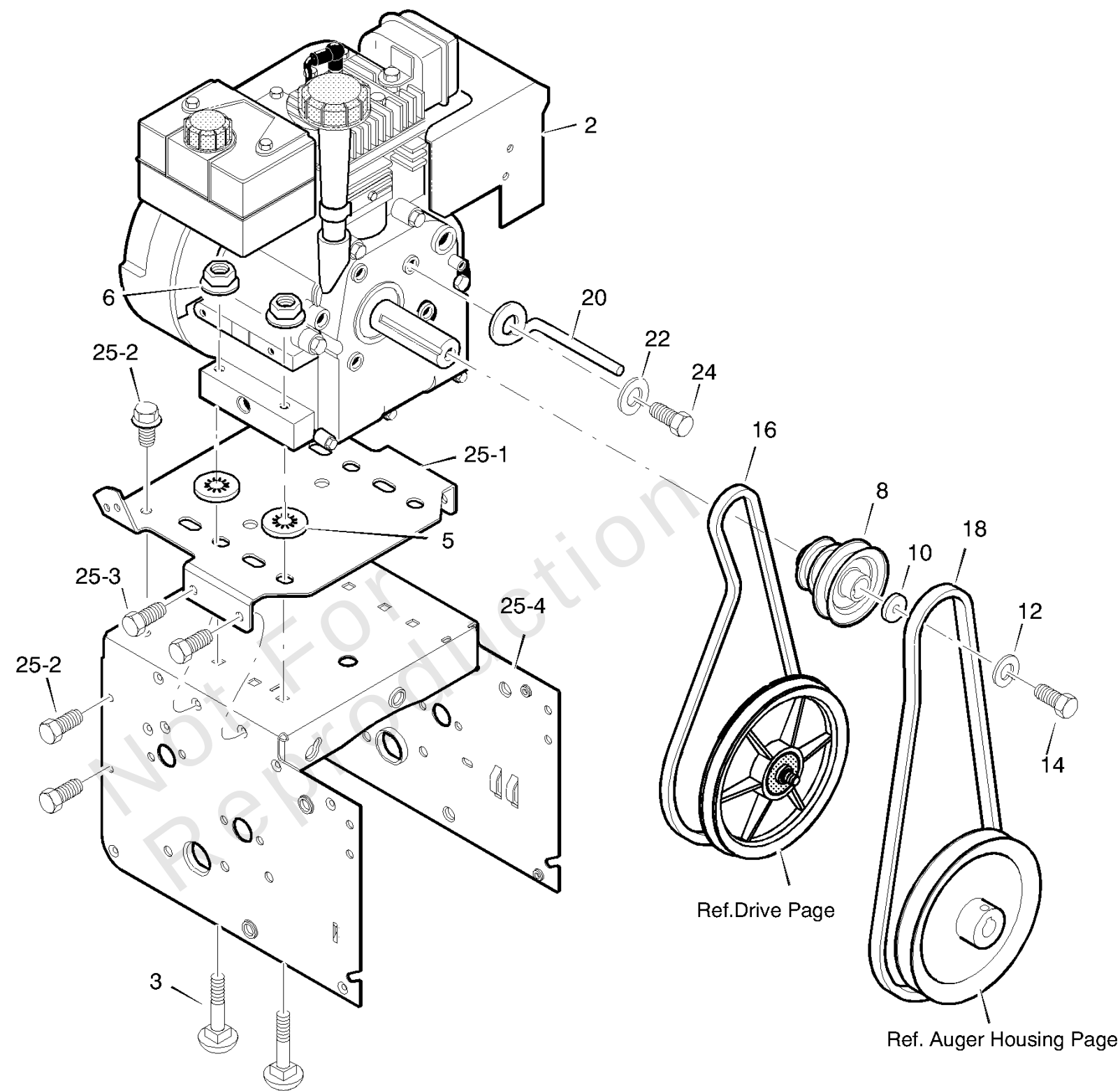
Discharge Chute

REF NO	PART NO	QTY	DESCRIPTION
582	02X100		SCREW, 5/16-18 x 1.00
583	71071		WASHER, FLAT
584	71038		NUT, 5/16-18
596	71071		WASHER
597	57171		KNOB, T 3.00
598	15X144		NUT, 5/16-18
599	02X100		BOLT, 5/16-18X1..00
600	762222MA		CHUTE ASSEMBLY
601	002X97MA		BOLT, 5/16-18
602	71071		WASHER, FLAT
603	71038		NUT, 5/16-18
606	585214 YZ		CHUTE COLLAR
607	02X101MA		SCREW, 1/4-20 X 0.75
609	15X145MA		NUT, 1/4-20 HEX NYLOCK
610	337227MA		RETAINER RING INNER
611	1501282MA		RING, OUTER CHUTE



Drive

REF NO	PART NO	QTY	DESCRIPTION
200	1501092 YZ		LF AXLE, SWING PLATE YZ
201	579851MA		CHAIN, ROLLER 420X19.
203	334163MA		BEARING AND RETAINER, ASSY
204	579858MA		WASHER.502-0.75-.06 F
206	780055MA		SCREW, TAP 5/16-18 x 0.5
207	1501100MA		HEX SHAFT
208	579868MA		CHAIN,ROLLER 420X18.0
210	337029MA		BEARING, TRUNION CLUTCH R
212	1501435MA		WHEEL,FRICTION 4.3 RU
213	001X38MA		BOLT
215	303008MA		NUT, KEPS HEX 1/4-20
217	579859MA		RING,RETEXT .54X.03TR
218	579858MA		WASHER.502-0.75-.06 F
220	334163MA		BEARING AND RETAINER, ASSY
221	780055MA		SCREW, TAP 5/16-18 x .5
223	1501115MA		FRICTION PULLY
225	1501057 YZ		LF PLATE, SWINGING YZ
226	1501158MA		SPACER,FRICTION PULLE
227	15X114		NUT, FLANGE LOCK 3/8-24
229	11X30MA		RETAINER, RING 7/16 Y
230	1501107 YZ		LF ASSY, SPRING LINK YZ
232	11X30MA		RETAINER, RING 7/16 Y
234	165X112MA		SPRING, EXTENSION
236	1501090MA		WLD, INTERMED SPROCKET 33T/7
238	71074		WASHER, FLAT



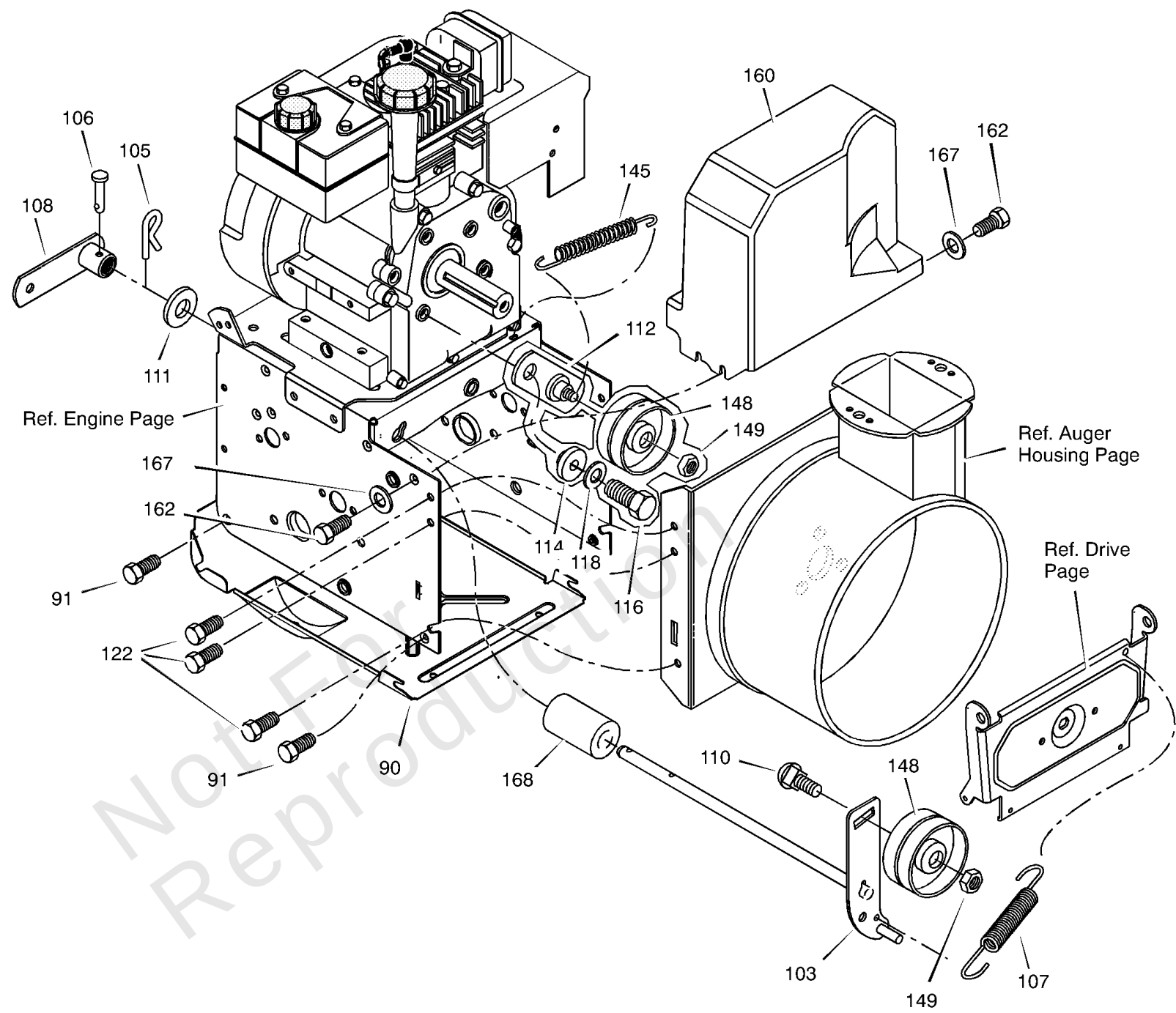
Engine

REF NO	PART NO	QTY	DESCRIPTION
2	-----		ENGINE
3	002X97MA		BOLT, CARRIAGE 5/16-18
5	028X76MA		NUT,SPEED
6	710026		NUT 5/16-18
8	1501109MA		PULLEY, ENGINE
10	710247		WASHER
12	71063		WASHER .38ID
14	71015		SCREW, 3/8-24 x 1.00
16	579932MA		BELT, V
18	585416MA		BELT
20	1501201MA		GUIDE, BELT
22	71060		WASHER .31X.58X.08
24	710097		SCREW, 5/16-24 x 0.75
25	-----		FRAME, MOTORBOX (5-11HP)
25-1	1501062E245		PLATE, ENGINE MOUNT
25-2	310169MA		SCREW, 1/4-20X .63 WA
25-3	25X020MA		SCREW.31-18X0.50 WAHH
25-4	1501049E245		FRAME, MOTOR BOX
--	F-031013L		OWNER'S MANUAL

Frame

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 624505x4D



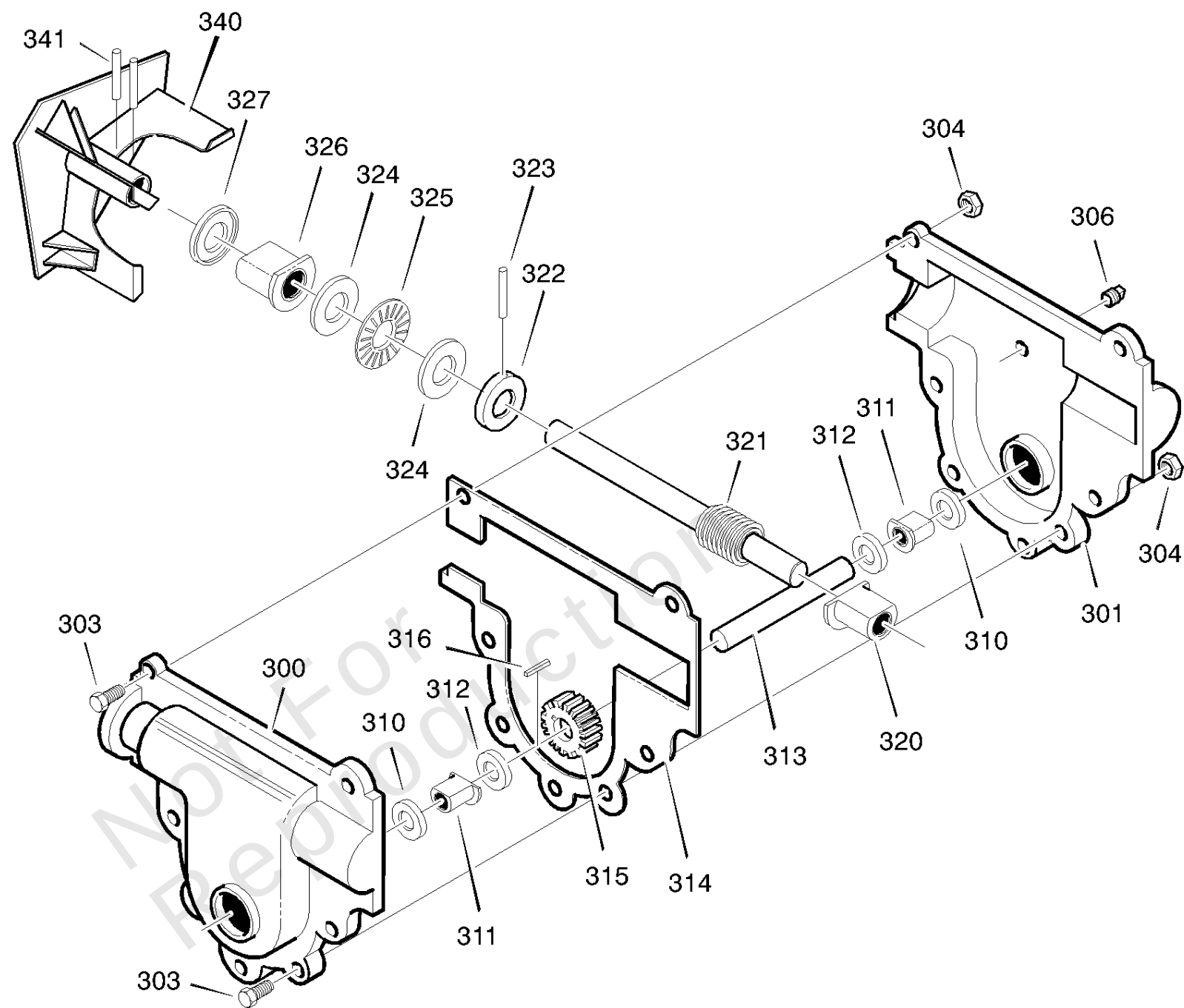
Frame

REF NO	PART NO	QTY	DESCRIPTION
90	1501055E701MA		PANEL,BOTTOM
91	310169MA		SCREW, 1/4-20X .63 WA
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, 3/8-16X1.25 CARR.
111	711617		WASHER, FLAT
112	1501112 YZ		BRACKET ASSEMBLY, IDLER
114	1501065MA		BUSHING, IDLER BRKT
116	710097		SCREW 5/16-24 X .75
118	71060		WASHER, SPLIT
122	780055MA		SCREW, TAP 5/16-18 X .50
145	53704MA		SPRING, IDLER TRACTIO
148	50793MA		PULLEY, IDLER
149	590		NUT, JAM 3/8-16
160	1501053MA		COVER, BELT
162	26X306MA		SCREW, TAP
166	71067		WASHER, FLAT
168	1501200MA		SPACER/AUGER BRKT

Gear Case

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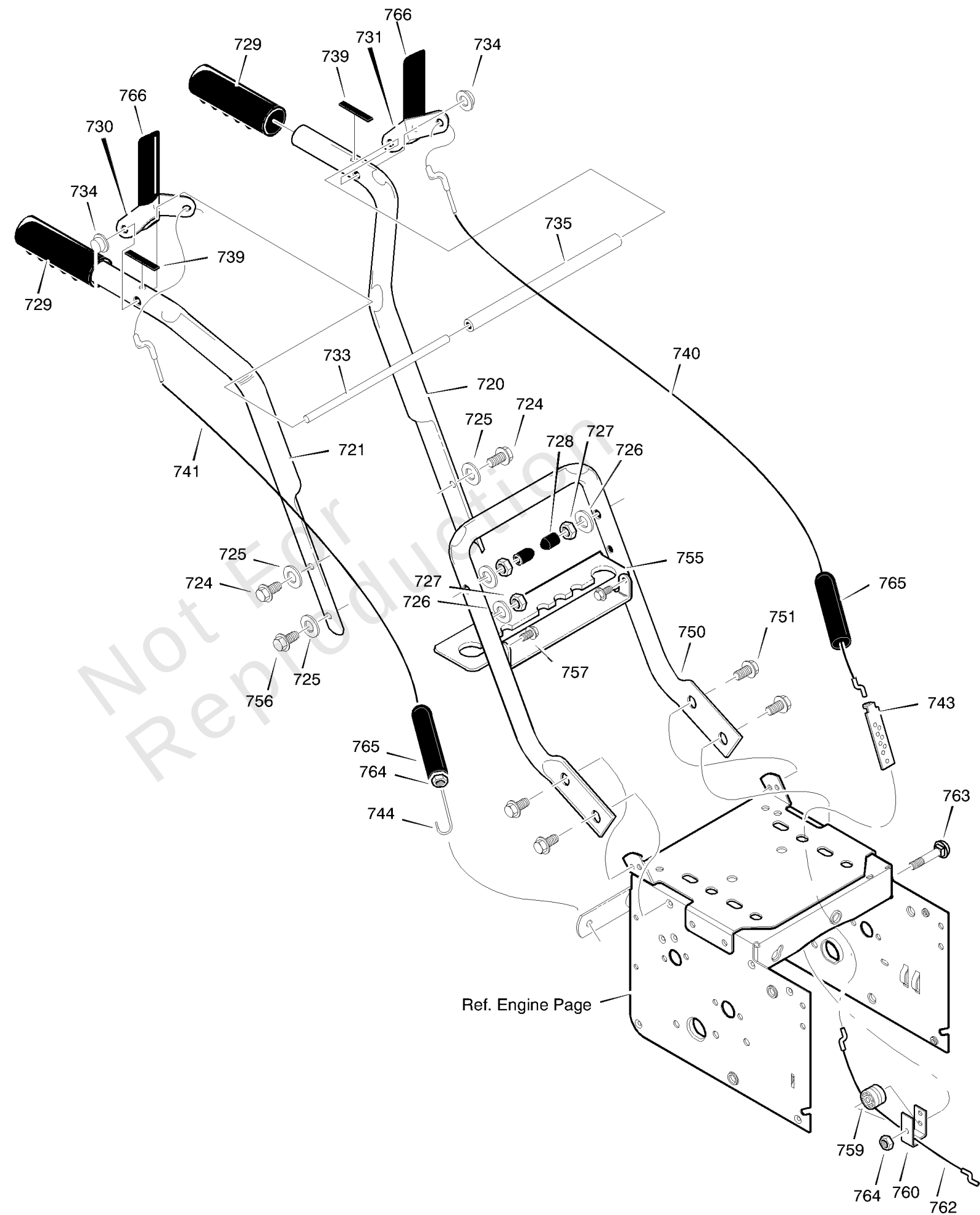
Gear Case

REF NO	PART NO	QTY	DESCRIPTION
300	10577MA		CASE, GEAR, RH
301	10576MA		CASE, GEAR, LH
303	710025		SCREW
304	15X143MA		NUT,25-20 HEX FLG CTR
306	9344MA		SCREW
310	9566MA		SEAL, OIL, .75 X 1.19
311	50304MA		BRNG, FL .752IDX1.002
312	48275MA		WASHER, FLAT .752X1.
313	1501189		SHAFT, OUTPUT
314	51279MA		GASKET
315	51405MA		GEAR,WORM
316	431787MA		KEY, WOODRUFF
320	50221MA		BRNG,FLNG.502IDX0.752
321	1501191MA		SHAFT, INPUT
322	580295MA		COLLAR,THRUST.753X1.2
323	454565MA		PIN, SPRING.250DIAX1.
324	48275MA		WASHER, FLAT .752X1.
325	50684MA		BRNG, ROLL
326	50304MA		BRNG, FL .752IDX1.002
327	9566MA		SEAL, OIL, .75 X 1.19
340	1501188E701MA		IMPELLER ASSEMBLY
341	454565MA		PIN, SPRING.250DIAX1.
--	333431MA		LUBRIPLATE, GR132, 14oz -(Not Illustrated)

Handle Assembly

Note: Unless noted otherwise, use the standard torque specifications

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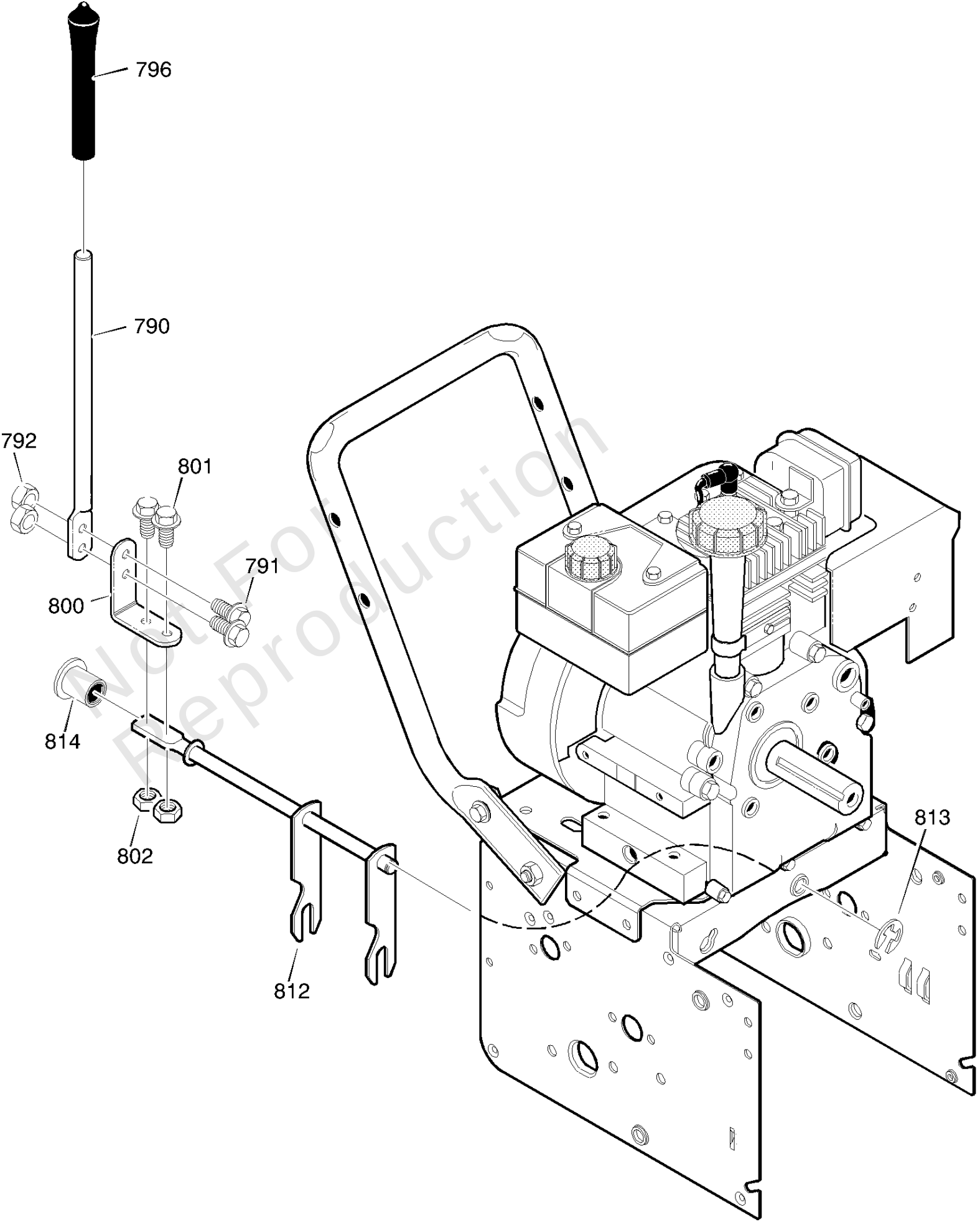
Handle Assembly

REF NO	PART NO	QTY	DESCRIPTION
720	337056E701		HANDLE, UPPER LH
721	337057E701		HANDLE, UPPER RH
724	11234MA		SCREW, 5/16-18 x 2.75
725	71071		WASHER, FLAT
726	71060		WASHER, SPTLK .31X.58X.08
727	15X144		NUT, 5/16-18 REGHEX
728	11261MA		STOP, RED PLASTIC
729	337399MA		GRIP-HANDLE FINGER
730	337816E701MA		LEVER, ASSY CLUTCH DRIVE RH
731	337815E701MA		LEVER, ASSY CLUTCH DRIVE LH
733	337381MA		ROD,PIVOT CTRL
734	761105MA		NUT, PUSH ON CAP
735	337373MA		SPACER,HANDLE
739	4049MA		BUMPER, RECT W/FLAT T
740	1501123MA		CABLE,FR-DR P1,P2,P3,
741	761872MA		CABLE, AUGER CLUTCH
743	313441MA		BRACKET, CABLE ADJ BL
744	1673MA		SPRING, AUGER CLUTCH,
745	15X145MA		NUT, 1/4-20
750	339541E701MA		HANDLE, LOWER
751	25X021MA		SCREW
755	337407E701MA		BRKT,GEAR SELECT P123
756	6751		SCREW, 5/16-18 x 2.00
757	310169MA		SCREW, 1/4-20X .63 WA
759	579860MA		SPOOL-CABLE, AUGER CLUTCH
760	1501059 YZ		BRACKET, CABLE SPOOL YZ
762	1501122MA		CABLE, LOWER DRIVE 12"
763	001798		BOLT, HEX 1/4-20 X 1.50 YZ
764	15X145MA		NUT
765	308146MA		BOOT, CLUTCH SPRING
766	337380MA		GRIP

Shift Yoke

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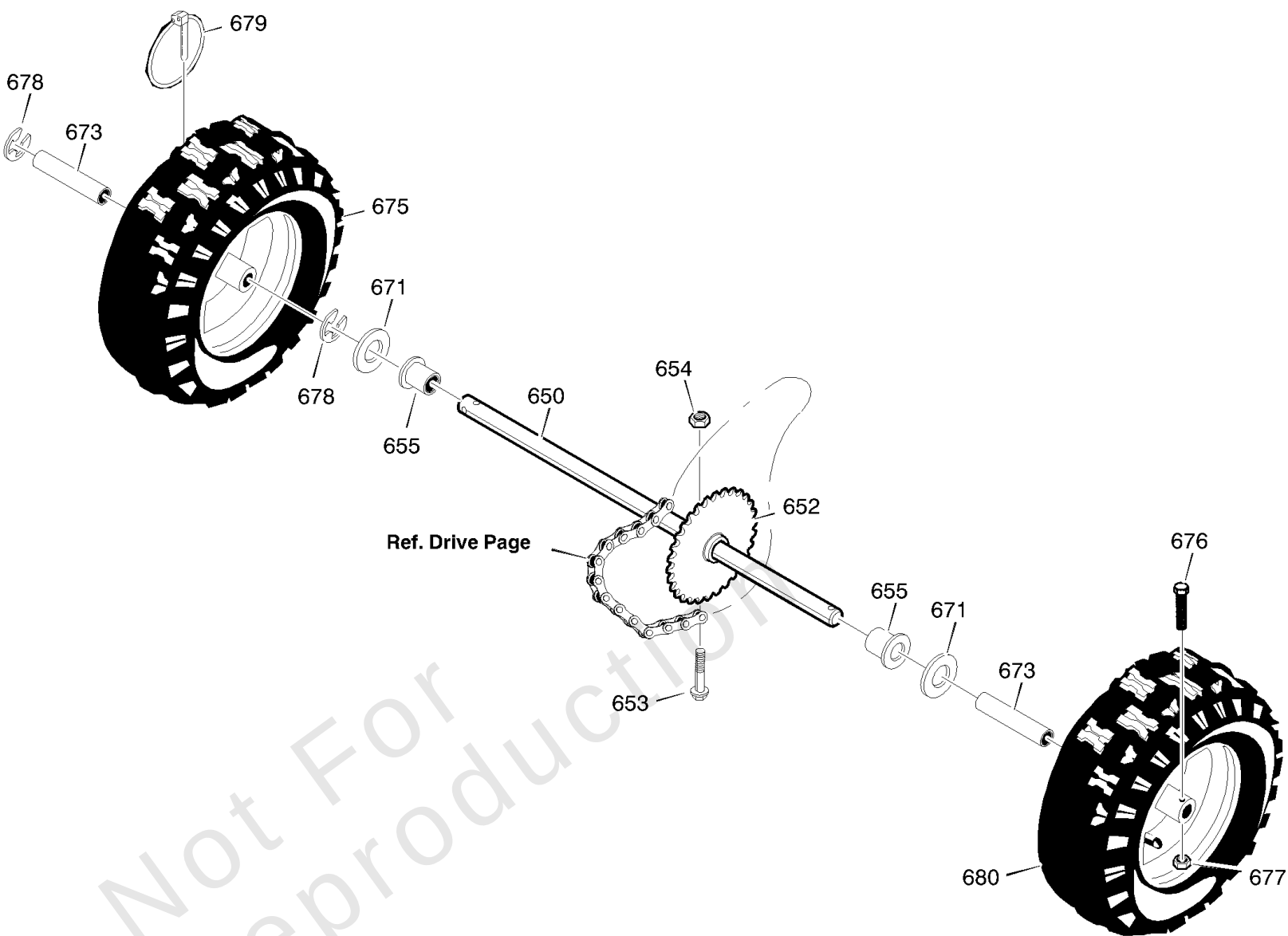
Shift Yoke

REF NO	PART NO	QTY	DESCRIPTION
790	336702E701MA		ROD,SHIFT P1P2P3H .44
791	302628MA		SCREW, 1/4-20X .75 HH
792	73826		NUT, 1/4-20
796	331624MA		KNOB, SLIP PLASTISOL
800	760564MA		LEVER,SPRING SHIFT
801	302628MA		SCREW, 1/4-20X .75 HH
802	73826		NUT, 1/4-20
812	1501085 YZ		ROD ASSY., SPEED SELECT
813	11X30MA		RETAINER, RING 7/16 Y
814	579944MA		BRNG FL .500ID X .88

Wheels

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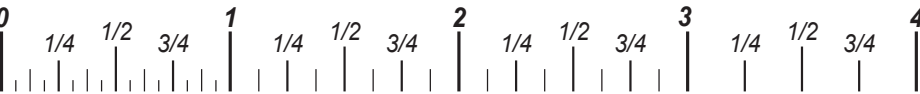
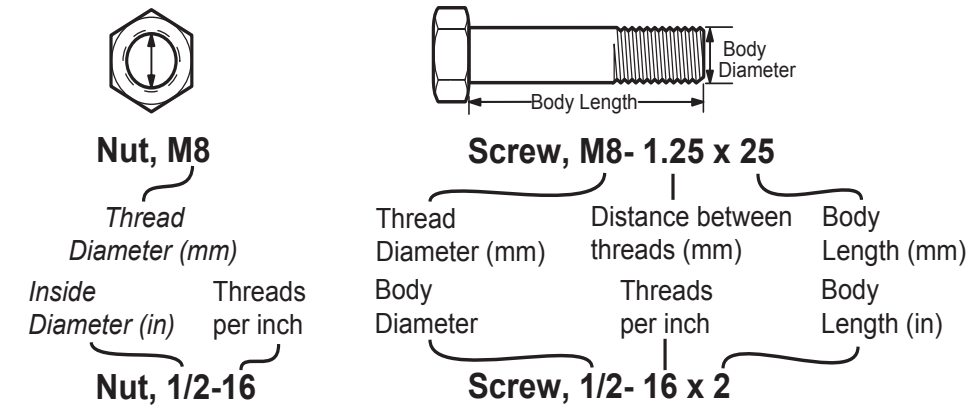
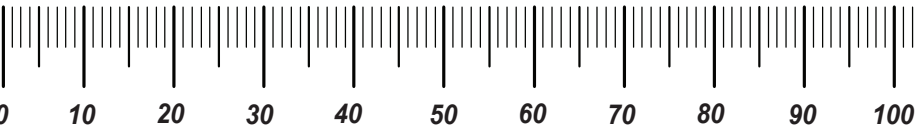
Wheels

REF NO	PART NO	QTY	DESCRIPTION
650	1501283		SHAFT, AXLE
652	1501089		SPRKT & HUB
653	01X193MA		SCREW, 1/4-20 x 1.75
654	15X145MA		NUT, 1/4-20 HEX NYLOCK
655	1501114MA		BEARING,AXLE
671	712120MA		FLATWASHER
673	1501139MA		BUSHING,WHL 4.62 13TI
675	318503MA		TIRE & RIM, RIGHT
676	577015MA		SCREW, SHR 1/4-20X1.7
677	15X145MA		NUT, 1/4-20 HEX NYLOCK
678	239MA		RING, RET
679	73842MA		PIN, KLIK .25 X 1.38 DIA
680	318503MA		TIRE & RIM, LEFT

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).

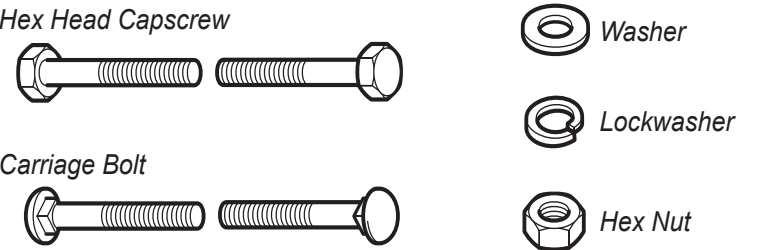
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw,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

