

Parts Manual

Mfg. No: 5600788

61" iCD TURBO-Pro Max; 3-Bag Hard Top
Grass Collection System (3100)

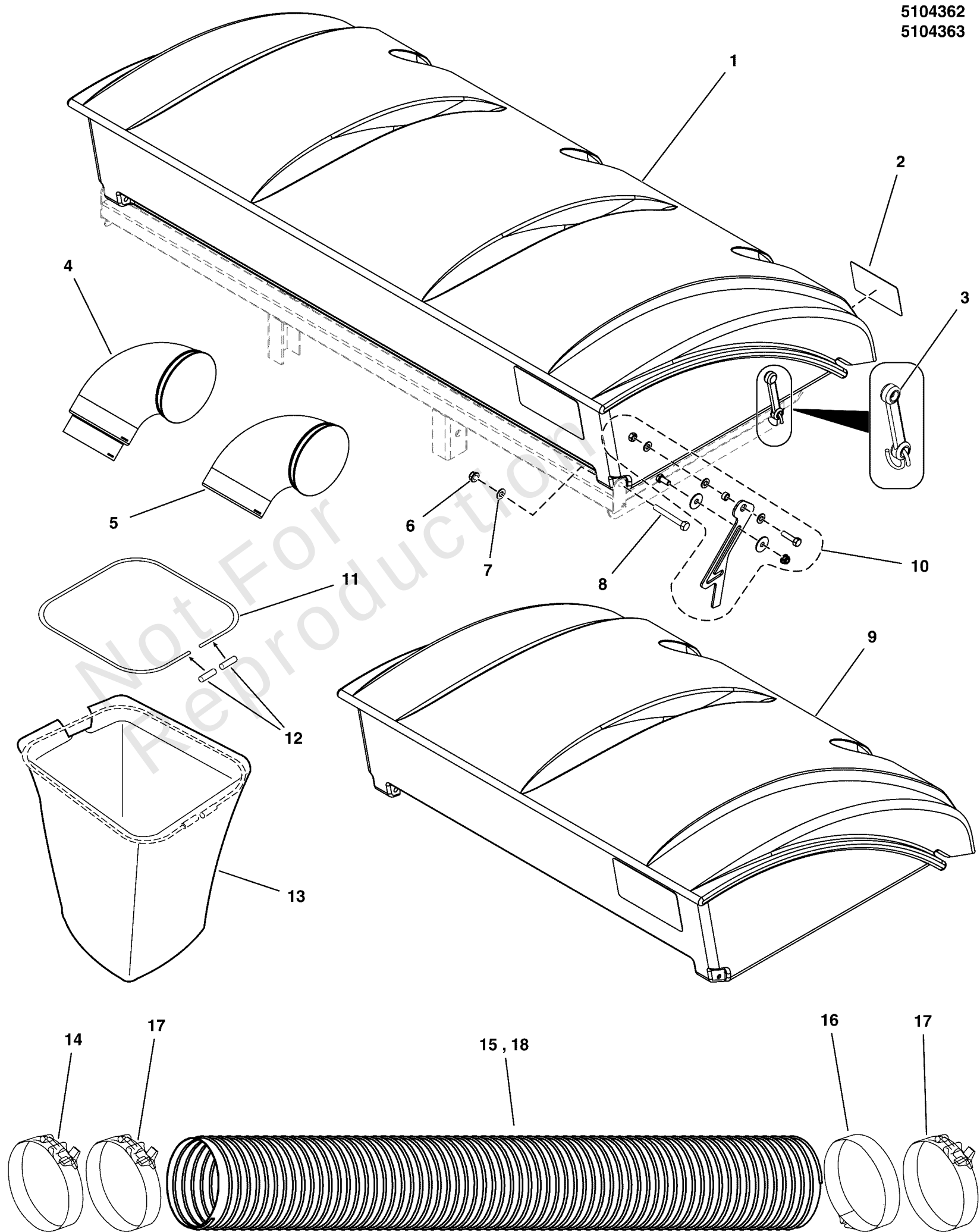
Model Components	Page
2-Bag & 3-Bag Catcher & Cover Group - Hard Top System.	4
2-Bag & 3-Bag Mount Group - Hard Top System.	6
Blower Group, TURBO-Pro MAX S/N: 11/03/2021 and Earlier.	8
Blower Group, TURBO-Pro MAX S/N: 11/04/2021 and Later.	10
Blower Mount Group - 61" Mower Decks, TURBO-Pro MAX.	12
Blower Pulley Group, TURBO-Pro MAX.	14
Decal Group - Hard Top Collection System.	18
Decal Group - TURBO Pro MAX Blowers.	20
Mower Deck Guards & Spindle Pulley - Single Belt Driven Mower Decks.	22
Weight Mount Group, 100 LBS - IS3100Z Series.	24
Torque Specification Chart.	26

Not For
Reproduction

2-Bag & 3-Bag Catcher & Cover Group - Hard Top System

Note: Unless noted otherwise, use the standard torque specifications

5104362
5104363



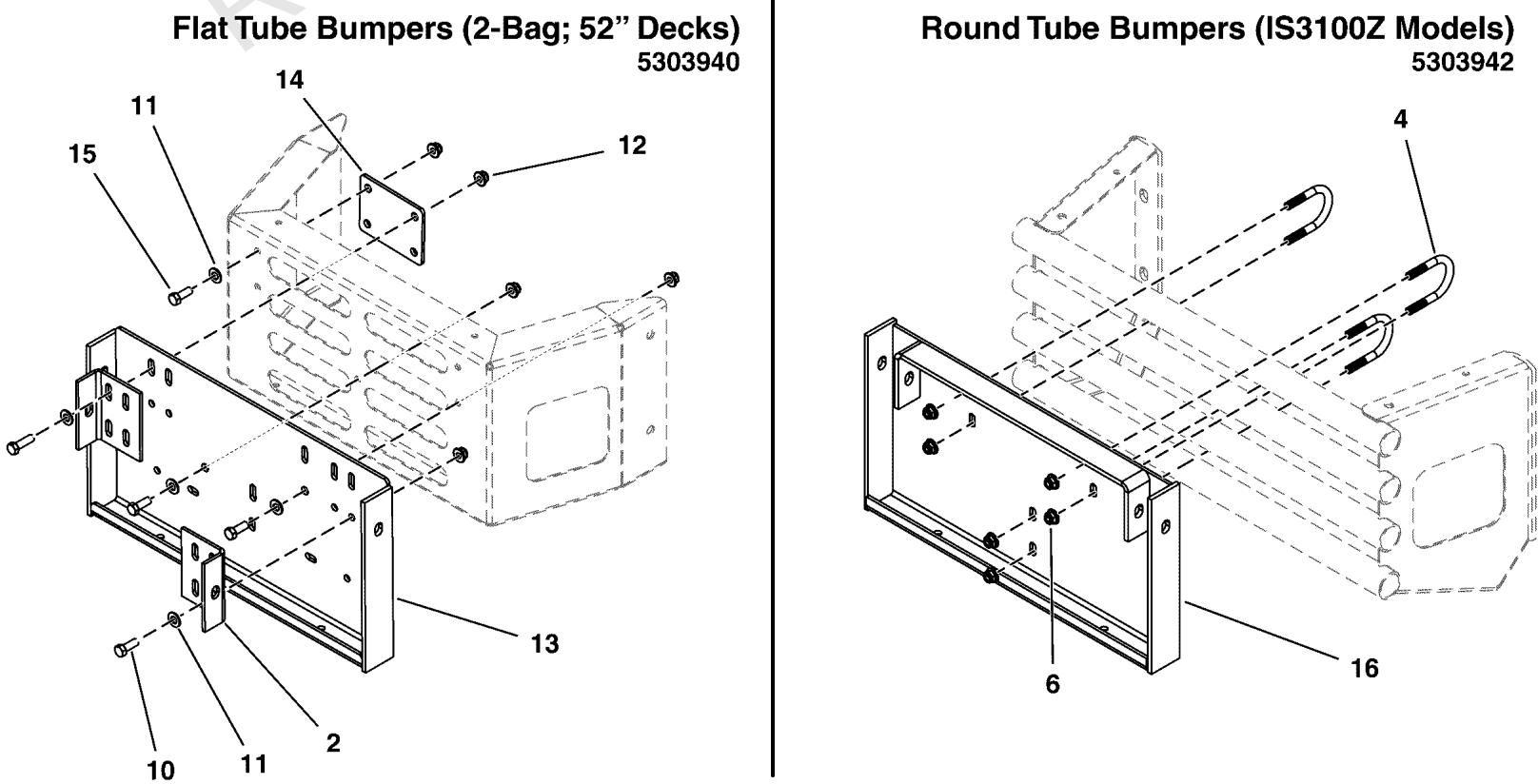
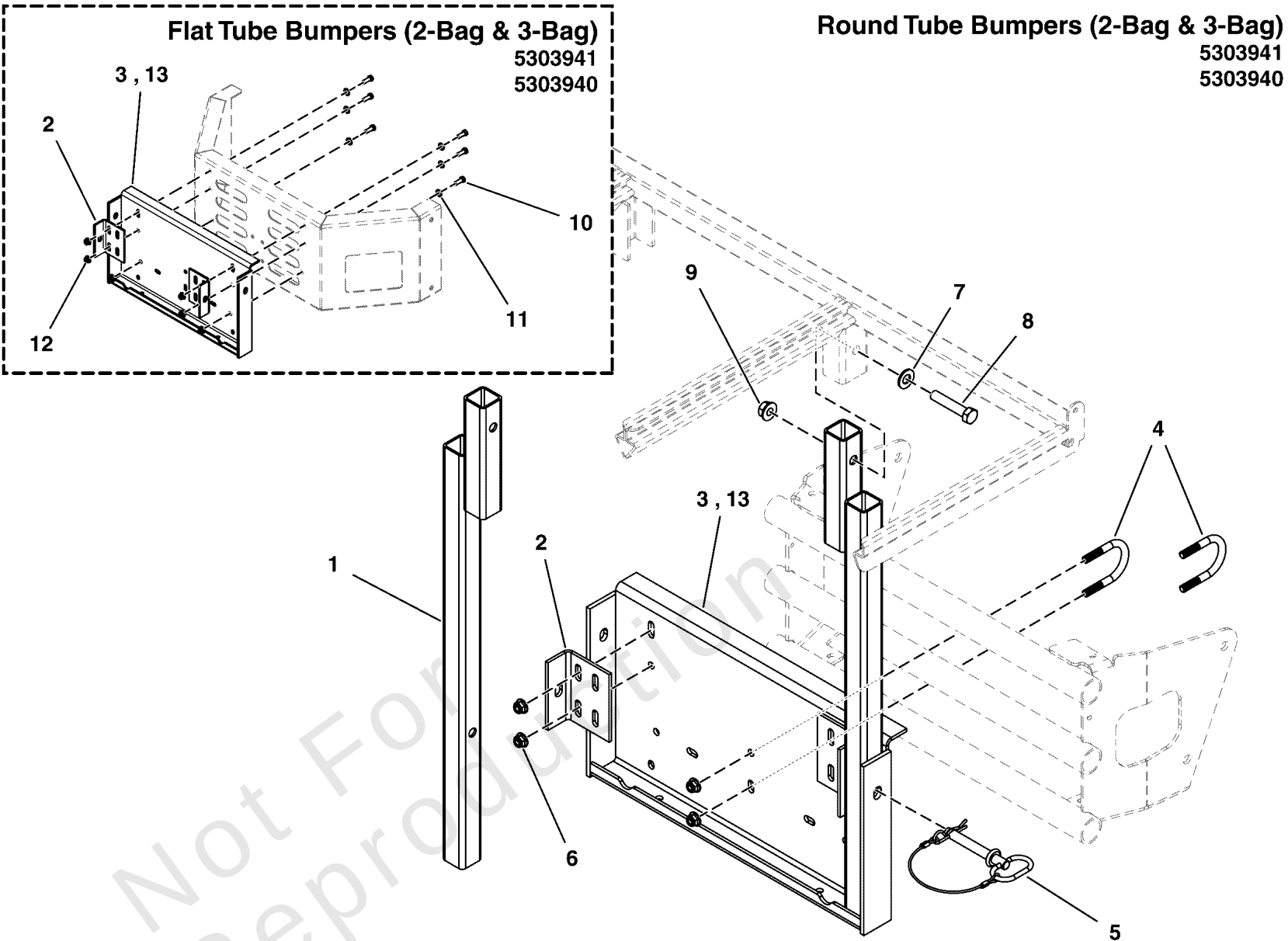
2-Bag & 3-Bag Catcher & Cover Group - Hard Top System

REF NO	PART NO	QTY	DESCRIPTION
1	5104363X1	1	TOP ASSEMBLY / P3B / FERRIS - NET -(3-Bag Collection System)
2	5104363X3	2	RED REFLECTOR DECAL - NET
3	5104363X2	2	RUBBER STRAP W/HOOKS - NET
4	5104363X5	1	P2B INLET / 6 INCH / CUT -(Fits Collection Systems with 6" or 7" Hose)
5	5104362X2	1	P2B INLET / 6 INCH / CUT -(Fits Collection Systems w/ 6" Hose)
6	5025396	2	NUT, Hex Flange, Nylock, 1/2-13
7	5025158	2	WASHER, 1/2 SAE
8	5025017X20	2	BOLT, 1/2-13 X 2-1/2" GD5 CZ
9	5104362X1	1	TOP ASSEMBLY / P2B+ / FERRIS - NET -(2-Bag Collection System)
10	5104363X7	1	VAC KIT HW / P3B / FERRIS - NET
11	5104363X8	3	PART B0227 BAG RING / GENERIC - NET -(Qty: 2 - 2-Bag Collection System)
12	5104363X9	6	PART J0274 VINYL CAP - NET -(Qty: 4 - 2-Bag Collection System)
13	5104878	3	BAG COLLECTION SYSTEM SMALL -(Qty: 2 - 2-Bag Collection System)
14	5022876	1	CLAMP, HOSE, LOWER -(FAST-Vac & TURBO-Pro MAX Systems)
15	5103646	1	HOSE, FLEXIBLE, 7" DIA. X 58" -(FAST-Vac & TURBO-Pro MAX Systems)
16	5022875	1	CLAMP, HOSE, UPPER -(FAST-Vac & TURBO-Pro MAX Systems)
17	5103469	2	CLAMP, 6" UPPER & LOWER, COLLECTORS -(TURBO-Pro Systems)
18	5103471	1	HOSE, FLEXIBLE, 6" DIA X 54" -(TURBO-Pro Systems)

2-Bag & 3-Bag Mount Group - Hard Top System

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5600788



2-Bag & 3-Bag Mount Group - Hard Top System

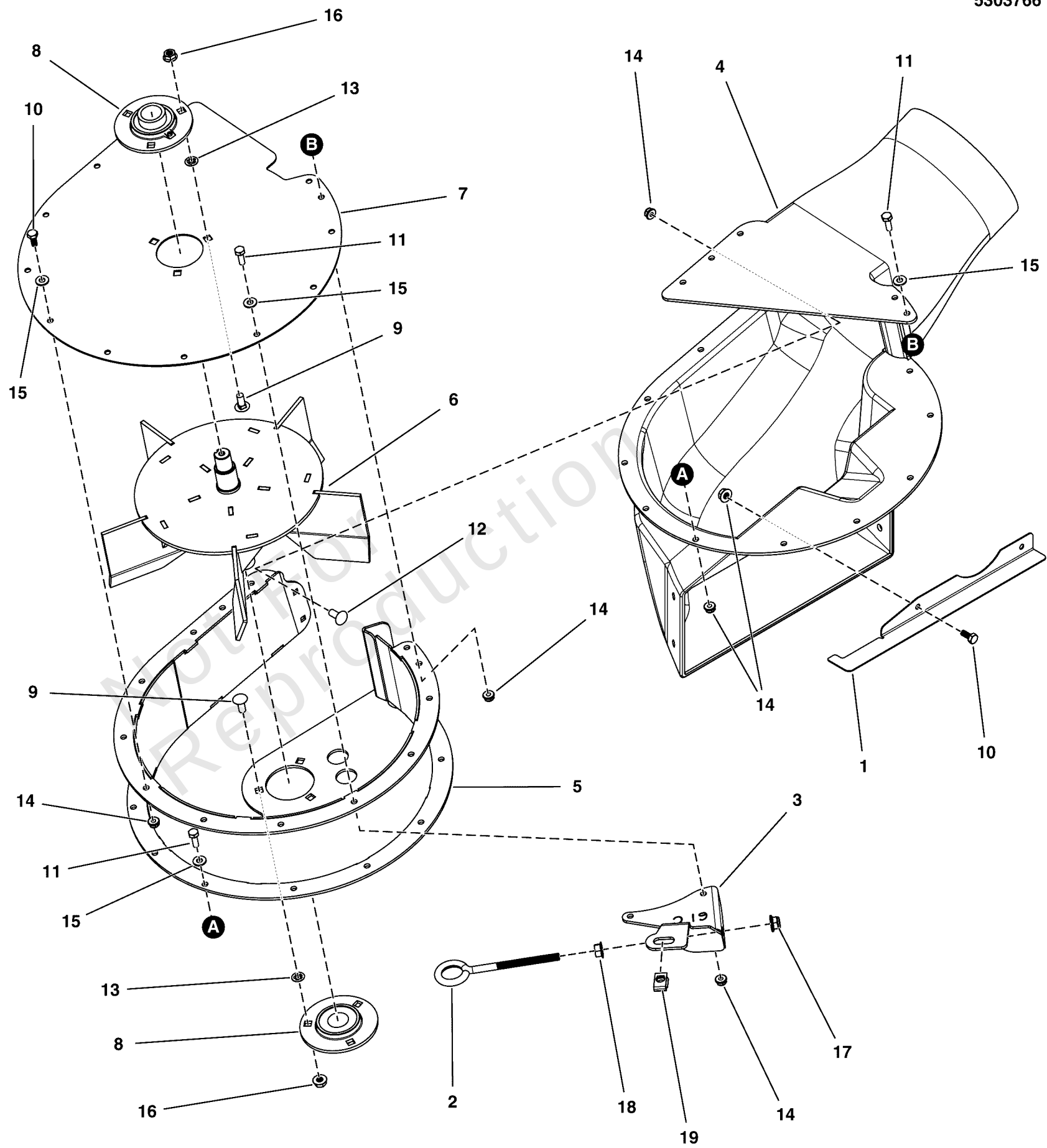
REF NO	PART NO	QTY	DESCRIPTION
1	5412691A	2	WELD, HARD TOP, MOUNTING POST - BLK
2	5402665A	4	BRACKET, BAGGER MOUNT - BLK
3	5400149AYP	1	WELD, BAGGER MNT,1500 -(3-Bag Collection System)
4	5100009	3	U-BOLT, 3/8" X 1-1/4"
5	5100013	2	PIN, HITCH, .50 X 3.25 W/ LAY (SV)
6	5025394	6	NUT, 3/8 - 16 HEX NYLOCK FLANGE
7	5025158	2	WASHER, 1/2 SAE
8	5025017X20	2	BOLT, 1/2-13 X 2-1/2" GD5 CZ
9	5025396	2	NUT, Hex Flange, Nylock, 1/2-13
10	5025013X8	9	BOLT, 3/8-16 X 1" GD5 CZ
11	5025156	9	WASHER, 3/8 SAE
12	5025394	9	NUT, 3/8 - 16 HEX NYLOCK FLANGE
13	5412980A	1	WELD, 2 BAG MOUNT - BLK -(2-Bag Collection System)
14	5412688A	1	PLATE, PECO MOUNT - BLK -(Flat Tube Bumpers, 52" Decks, 2-Bag Collection System)
15	5025013X10	2	BOLT, 3/8-16 X 1-1/4" GD5 CZ
16	5401514A	1	WELD, BAGGER MOUNT, IS3100Z - BLK -(IS3100Z Models Only)

Blower Group, TURBO-Pro MAX S/N: 11/03/2021 and Earlier

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5600788

5303766



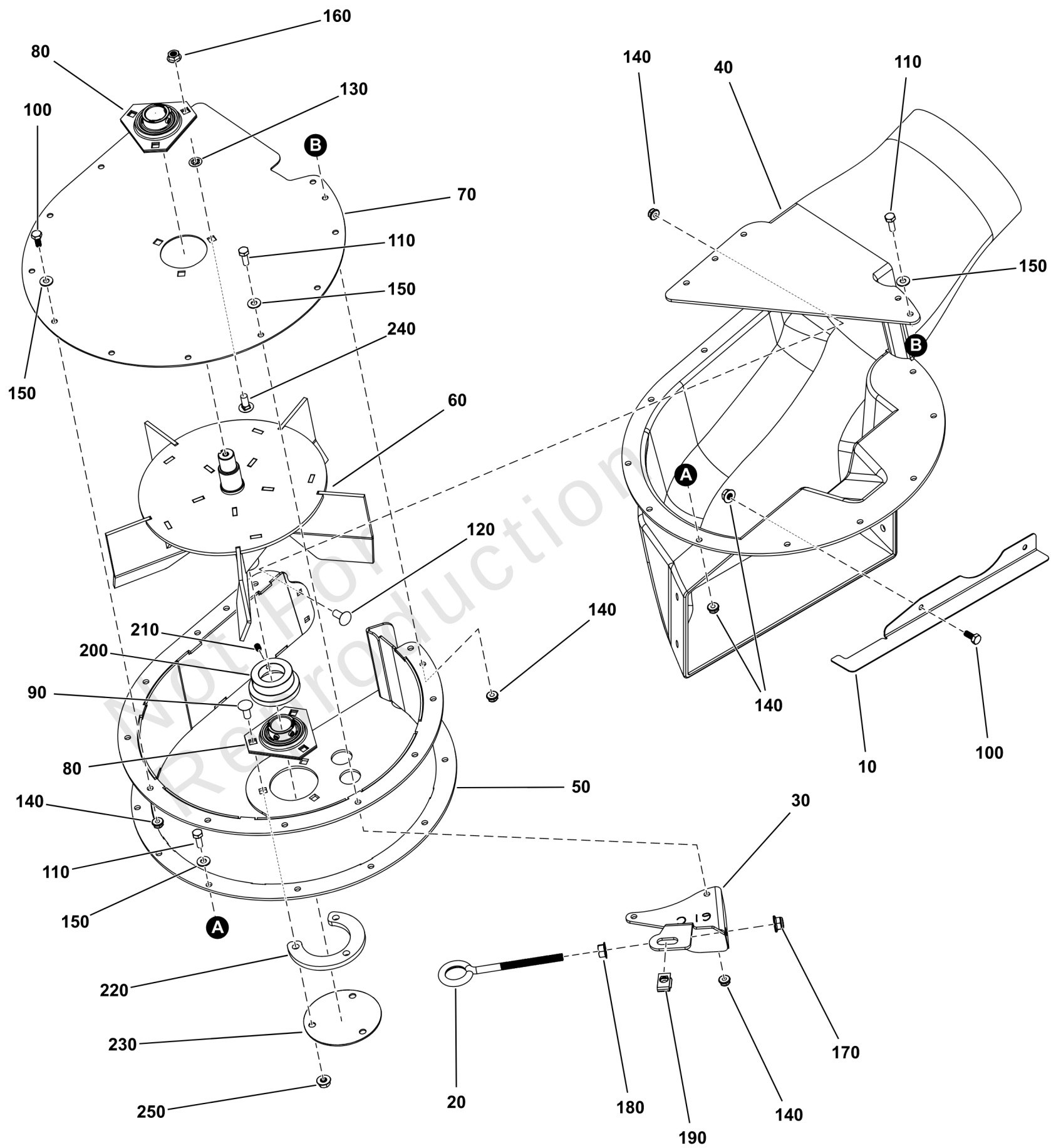
Blower Group, TURBO-Pro MAX S/N: 11/03/2021 and Earlier

REF NO	PART NO	QTY	DESCRIPTION
1	5412471AA	1	BRACKET, ADAPTER SEAL, COM BLOWER - BLK
2	5021812	1	EYE BOLT, 3/8-16 X 6, 3THRD, 1EYE, CZ
3	5411115AA	1	WELD, SPRING ANCHOR, COM - BLK
4	5103816	1	MOLDED HOUSING, COMMERCIAL TURBO VAC
5	5411079AA	1	WELD, FAN CAGE, BLOWER - BLK
6	5601360	1	KIT, T-MAX FAN UPDATE
7	5411077AA	1	PLATE, FAN, TOP - BLK
8	7100021SM	2	BEARING, FLANGE, 1" Bore
9	5025145X6	6	BOLT, 5/16-18 X 3/4, CARRIAGE
10	-----	8	HHCS, 1/4-20 X 0.625, GR5, ZINC/CLEAR
11	5025010X6	18	BOLT, 1/4-20 X 3/4 GD5 CZ
12	80003518	2	BOLT, 1/4-20X0.750, GR5, STD NECK, SQ, ZC/CL
13	5025498	6	5/16 PUSH-ON NUT RETAINER, STL, CZ
14	5025391	28	NUT, 1/4-20 HEX NYLOCK FLANGE
15	5025154	26	WASHER, 1/4 SAE
16	5025127	6	NUT, 5/16-18 HEX SERRATED FLANGE (SMALL)
17	5025394	1	NUT, 3/8-16 HEX NYLOCK FLANGE
18	5025128	1	NUT, 3/8-16 HEX SERRATED FLANGE
19	5022308	1	BODY CLIP, 5/16-18-7GA MATERIAL

Blower Group, TURBO-Pro MAX S/N: 11/04/2021 and Later

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5600788



Blower Group, TURBO-Pro MAX S/N: 11/04/2021 and Later

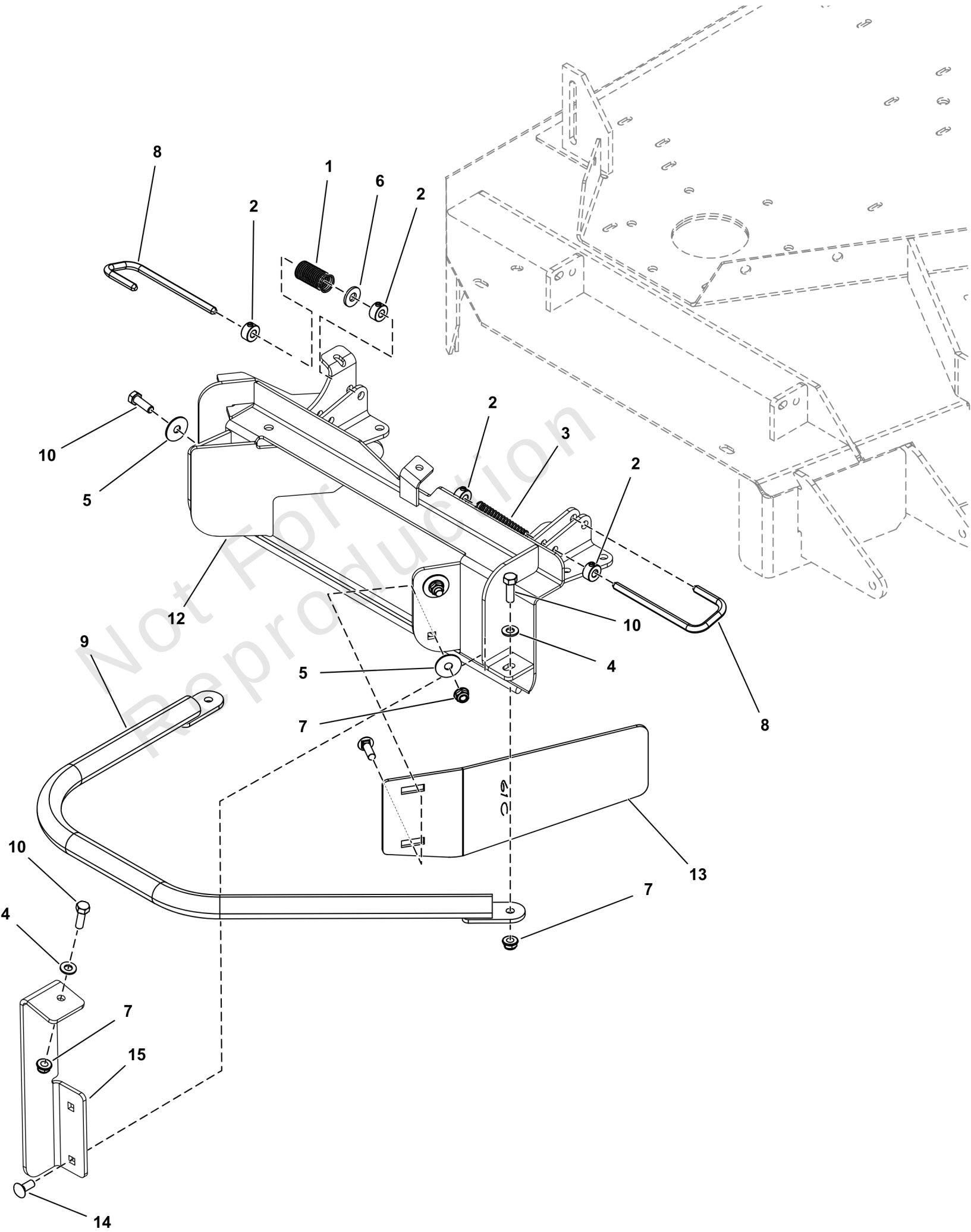
REF NO	PART NO	QTY	DESCRIPTION
10	5412471AA	1	BRACKET, ADAPTER SEAL, COM BLOWER - BLK
20	5021812SM	1	EYE BOLT, 3/8-16 X 4-
30	5411115AA	1	WELD, SPRING ANCHOR, COM - BLK
40	5103816FS	1	HOUSING, BLOWER
50	5411079AA	1	WELD, FAN CAGE, BLOWER - BLK
60	84007864	1	IMPELLER
70	5411077AA	1	PLATE, FAN, TOP - BLK
80	5110099FS	2	BEARING, FLANGE -(Torque set screws to 87 in-lbs (9.8 Nm). Use Loctite 271 Threadlocker on threads).
90	5025145X8SM	3	BOLT, 5/16-18 X 1", C
100	5025010X8SM	7	BOLT, 1/4-20 X 1", GD
110	5025010X6SM	17	BOLT, 1/4-20 X 3/4" G
120	703575	2	BOLT, 1/4-20X.750, SQ
130	5025498YP	3	NUT, PUSH ON, 5/16
140	5025391FS	26	NUT
150	703332	24	WASHER
160	5025127SM	3	NUT, 5/16-18 HEX SERR
170	5025394SM	1	NUT, 3/8-16 HEX NYLOCK
180	5025128SM	1	NUT, 3/8-16 HEX SERRA
190	5022308SM	1	BODY CLIP, 5/16-18 X
200	84008050	1	GUARD
210	5110109	2	SET SCREW, 1/4-20 X 3/8, KNURLED CUP -(Torque to 87 in-lbs (9.8 Nm). Use Loctite 271 Threadlocker on threads).
220	5422390AA	1	PLATE, C-SHAPED SPACER, TMAX - BLK
230	5422388AA	1	PLATE, INNER COVER, TMAX - BLK
240	703185	3	BOLT, Round Head, Short Square Neck
250	5025392FS	3	NUT

Blower Mount Group - 61" Mower Decks, TURBO-Pro MAX

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5600788

5303678



Blower Mount Group - 61" Mower Decks, TURBO-Pro MAX

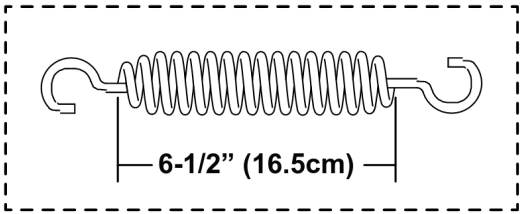
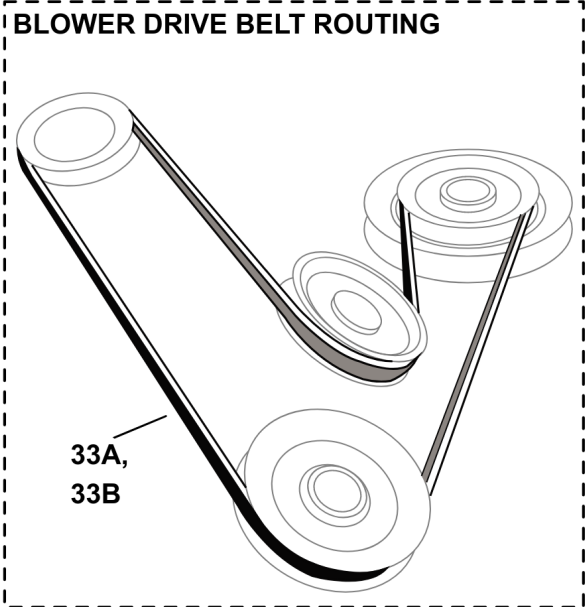
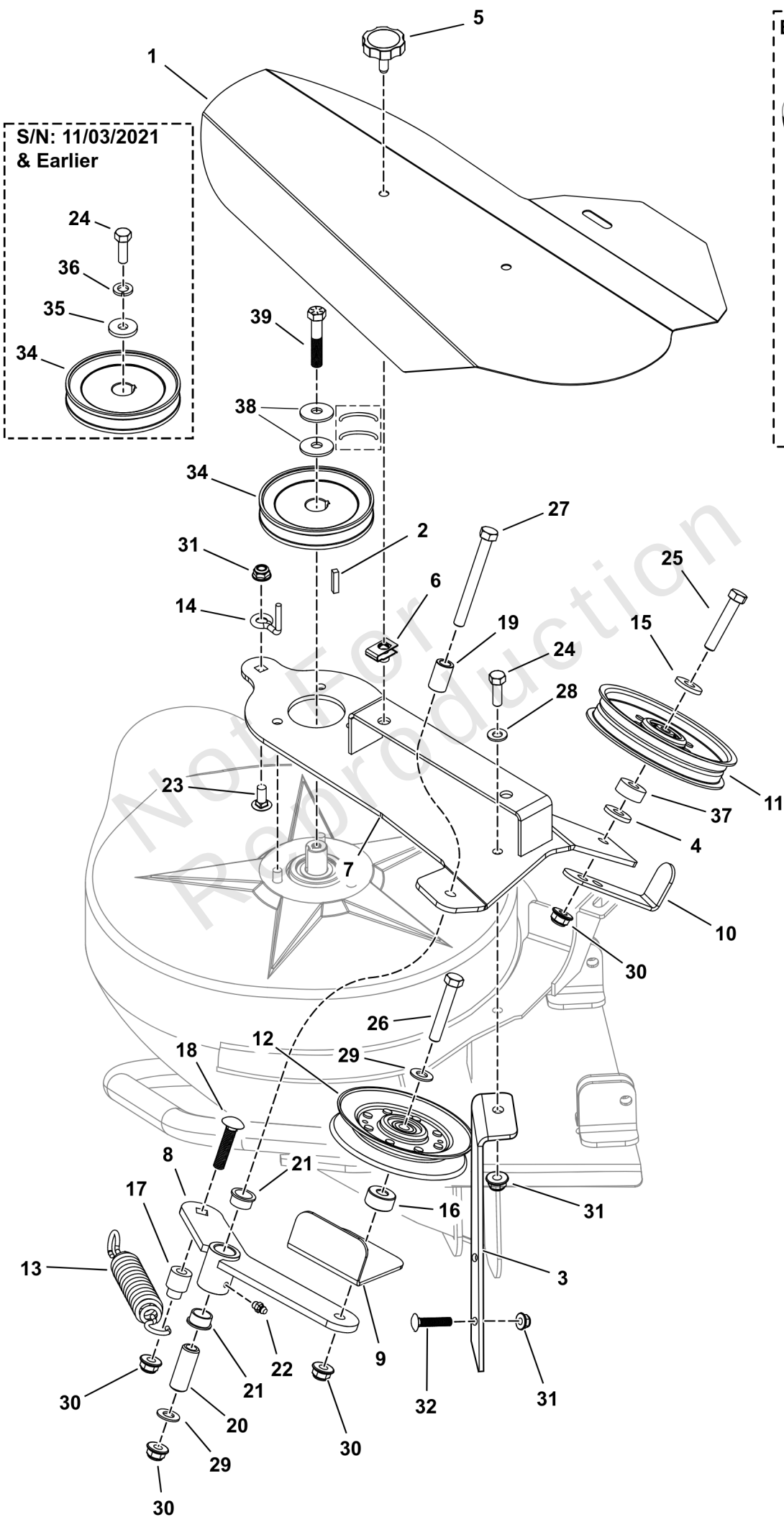
REF NO	PART NO	QTY	DESCRIPTION
1	1709660	1	SPRING-COMP 0.880ODX 02.187LG .062WIRE -(Date of Manufacture: Before 11/02/2021)
1	5020637	1	SPRING-COMP, .375IDX2.75LGX.054WR, SS -(Date of Manufacture: After 11/03/2021)
2	5020047	4	COLLAR, 5/16 SET
3	5020637	1	SPRING-COMP, .375IDX2.75LGX.054WR, SS
4	5025155	5	WASHER, 5/16" SAE -(Qty: 4 - Date of Manufacture: Before 11/02/2021)
5	5025164	4	WASHER, 5/16 FENDER
6	5025337	1	WASHER, 5/16 USS
7	5025392	6	NUT, 5/16-18 HEX NYLOCK FLANGE -(Qty: 5 - Date of Manufacture: Before 11/02/2021)
8	5104203	2	ROD, LOCKING PIN, BLOWER
9	5412625AA	1	WELD, NERF BAR, 61" T-MAX - BLK
10	5025011X8	6	BOLT, 5/16-18 X 1 GD5 CZ -(Qty: 5 - Date of Manufacture: Before 11/02/2021)
11	5025145X8	2	BOLT, 5/16-18 X 1, CARRIAGE
12	5411112AA	1	WELD, ADAPTER, 61" COM - BLK -(Date of Manufacture: Before 11/02/2021)
12	5422377AA	1	WELD, ADAPTER, 61" TMAX-BLK -(Date of Manufacture: After 11/03/2021)
13	84008397	1	BAFFLE, Front -(Date of Manufacture: Before 11/02/2021)
13	84008397	1	BAFFLE, Front -(Date of Manufacture: After 11/03/2021)
14	5025145X6	2	BOLT, 5/16-18 X 3/4, CARRIAGE, GD5, CZ -(Date of Manufacture: After 11/03/2021)
15	5422421AA	1	BRACKET, PLATE SUPPORT, TMAX-BLK -(Date of Manufacture: After 11/03/2021)

Blower Pulley Group, TURBO-Pro MAX

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5600788

5303767



Blower Pulley Group, TURBO-Pro MAX

REF NO	PART NO	QTY	DESCRIPTION
1	5600740	1	HOOD W/ DECALS - TURBO PRO-MAX
2	5050403X4	1	KEY, 3/16" SQ. X 3/4
3	5411116AFS	1	SUPPORT -(Date of Manufacture: Before 11/02/2021)
3	5422421AA	1	BRACKET, PLATE SUPPORT, TMAX-BLK -(Date of Manufacture: After 11/03/2021)
4	5025165	1	WASHER, 3/8" Fender
5	5101731	3	KNOB, 5/16-18 X 1.00, ROSETTE BLACK
6	5022308	2	BODY CLIP, 5/16-18-7GA MATERIAL
7	5412606	1	ASSEMBLY, PULLEY PLATE, T-MAX (52,60,61)
8	5409892	1	ASSEMBLY, IDLER ARM - TURBO-VAC -(Includes Bushings and Fitting)
9	5409609AA	1	RETAINER, BELT, WIDE - BLK
10	5409610AA	1	RETAINER, BELT -(Refer to Note: *)
11	1725408	1	PULLEY-IDLER 04.00 OD 0.378ID 1.06 W BRG
12	5103456	1	PULLEY-IDLER-V, 4.85OB, .38ID
13	5022847	1	SPRING-EXT, 1.04 ODX6.935LGX.148WR, BLK
14	5103488	1	BELT KEEP, .19 X 1.25 - BK
15	80003616	1	WSHR,.406X1.0X.134,FLT,TYPE A,ZINC/CLEAR
16	5046860	1	SPACER, .39 X 1.00 X .50, PM, CZ
17	1706644	1	SPACER,3/8X3/4X15/16
18	80004559	1	BOLT,3/8-16X1.750,SHORT NECK CRRG,ZC/CL
19	5101933	1	SPACER, .39 X .63 X 1.00, YZ
20	5102322	1	SPACER, .38 X .625 X 1.62, YZ
21	1676148	2	BUSHING-0.628IDX0.751ODX0.400LG PWDR MTL
22	5020095	1	GREASE FITTING, 1/4-28 Straight
23	5025145X6	1	BOLT, 5/16-18 X 3/4, CARRIAGE, GD5, CZ
24	5025011X8	1	BOLT, 5/16-18 X 1" GRD5 YZ -(Qty: 2 - S/N: 11/03/2021 and Earlier)
25	5025013X14	1	BOLT, 3/8-16 X 1-3/4" GD5 CZ
26	5025013X18	1	BOLT, 3/8-16 X 2-1/4" GD5 CZ
27	5025013X28	1	BOLT, 3/8-16 X 3-1/2" GD5 CZ
28	5025155	1	WASHER, 5/16" SAE
29	5025156	2	WASHER, 3/8 SAE
30	5025394	4	NUT, 3/8 - 16 HEX NYLOCK FLANGE
31	5025392	4	NUT, 5/16-18 HEX NYLOCK FLANGE NUT
32	5025145X8	2	BOLT, 5/16-18 X 1, CARRIAGE, GD5, CZ
33A	5104289	1	BELT, A SEC, 81.1"EL, ARAMID, WRPD -(52" Mower Decks)
33B	84008031	1	BELT -(61" Mower Decks)
34	5103836	1	PULLEY, COMMERCIAL PRO
35	1919381	1	WASHER-0.312(0.34IDX1.00ODX.13THK)BLK -(S/N: 11/03/2021 and Earlier)
36	5025170	1	WASHER, 5/16 LOCK CZ -(S/N: 11/03/2021 and Earlier)
37	1667811	1	SPACER-0.390ID 0.90 OD 0.34 LG P'MTL YEL
38	5106588	2	BELLEVILLE WASHER, 1.187X.39X.089, SS -(S/N: 11/04/2021 and Later)

Footnotes:

Note: **Torque to 50 ft-lbs (68 Nm)).

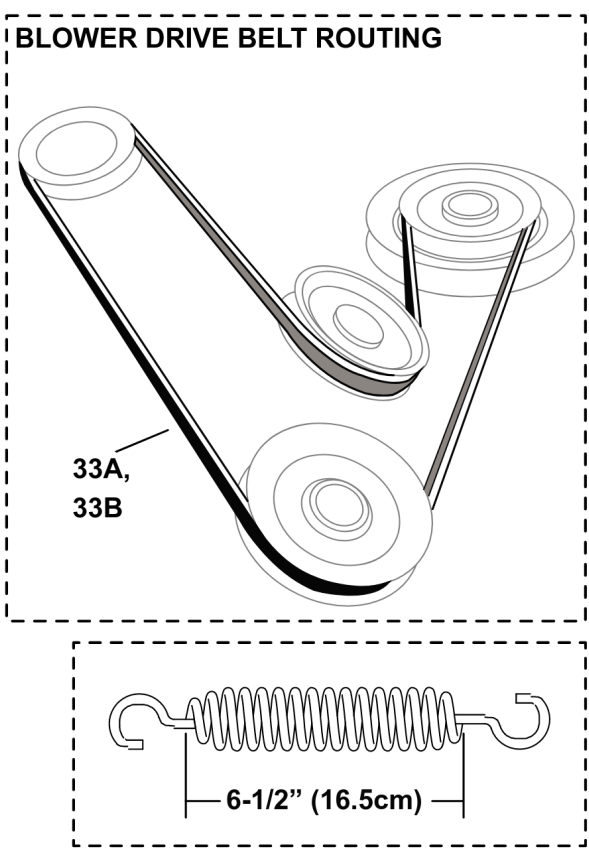
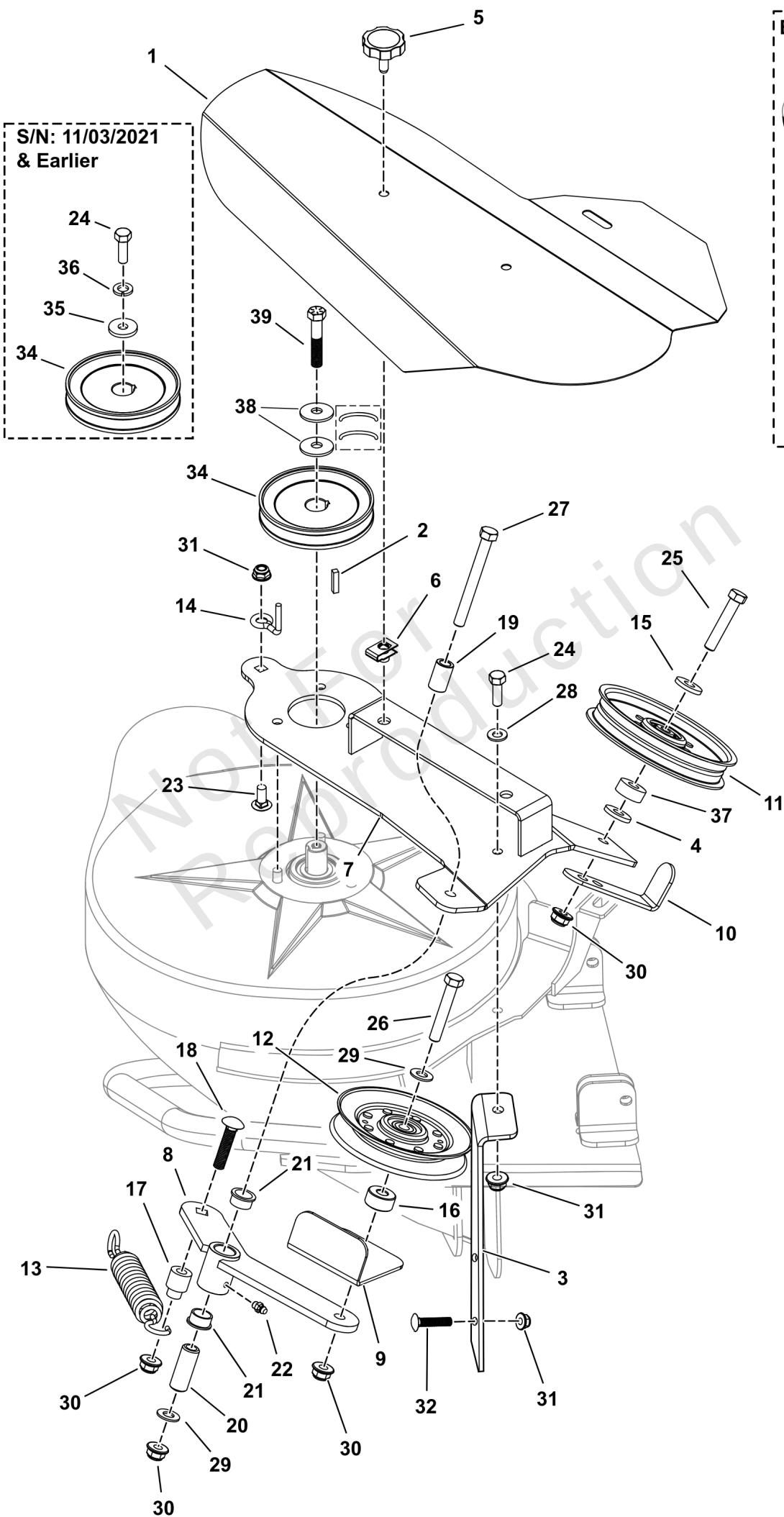
Note: *The hole closest to the bend is for models with 44", 48" or 61" decks. The hole furthest from the bend is for models with 52" decks.

Blower Pulley Group, TURBO-Pro MAX

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5600788

5303767



Blower Pulley Group, TURBO-Pro MAX

REF NO	PART NO	QTY	DESCRIPTION
39	5025676X16	1	BOLT, 3/8-16 X 2.0, GD8, PHOS -(S/N: 11/04/2021 and Later)(Refer to Note: **)

Not For
Reproduction

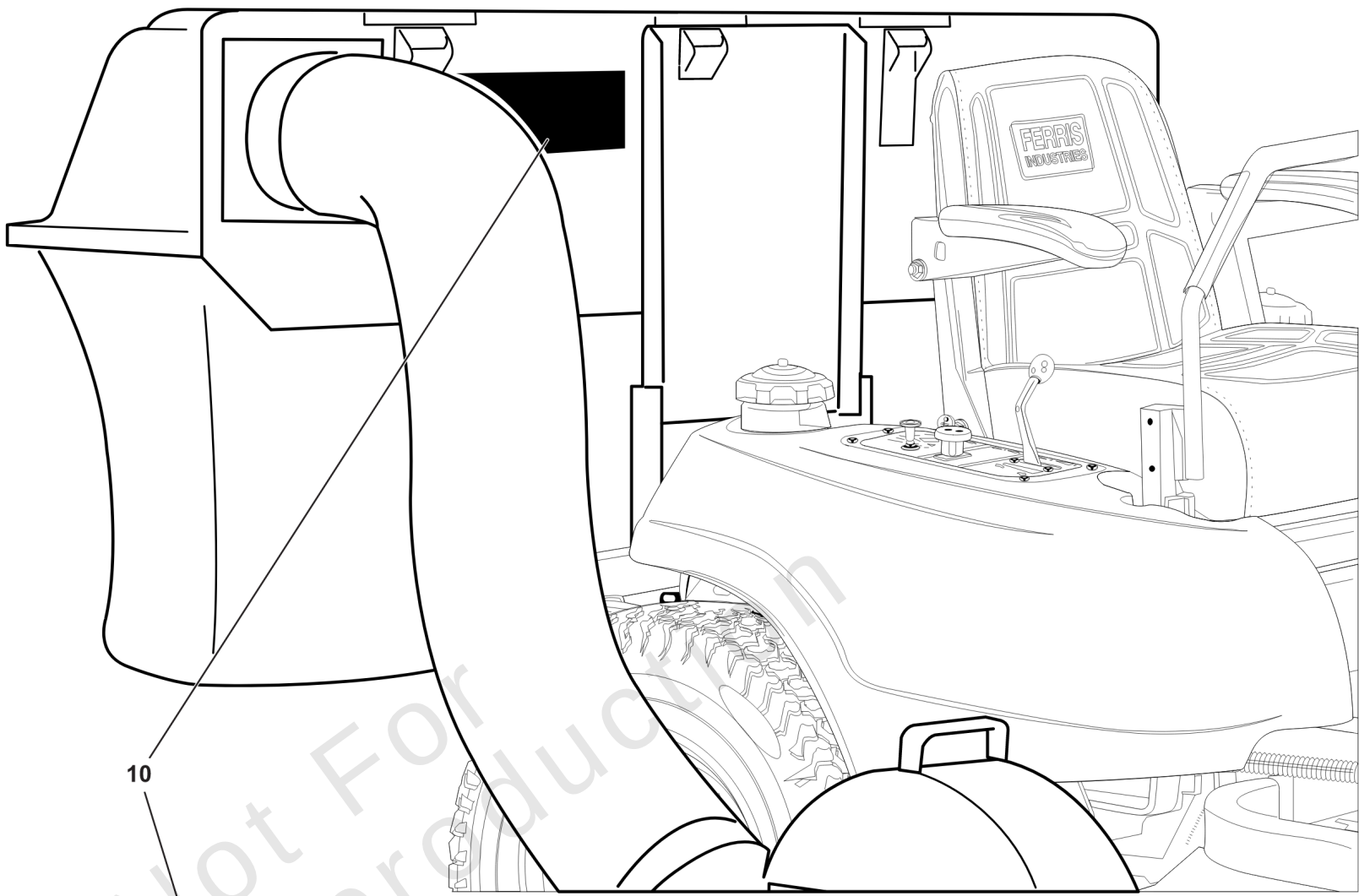
Footnotes:

Note: **Torque to 50 ft-lbs (68 Nm)).

Note: *The hole closest to the bend is for models with 44", 48" or 61" decks. The hole furthest from the bend is for models with 52" decks.

Decal Group - Hard Top Collection System

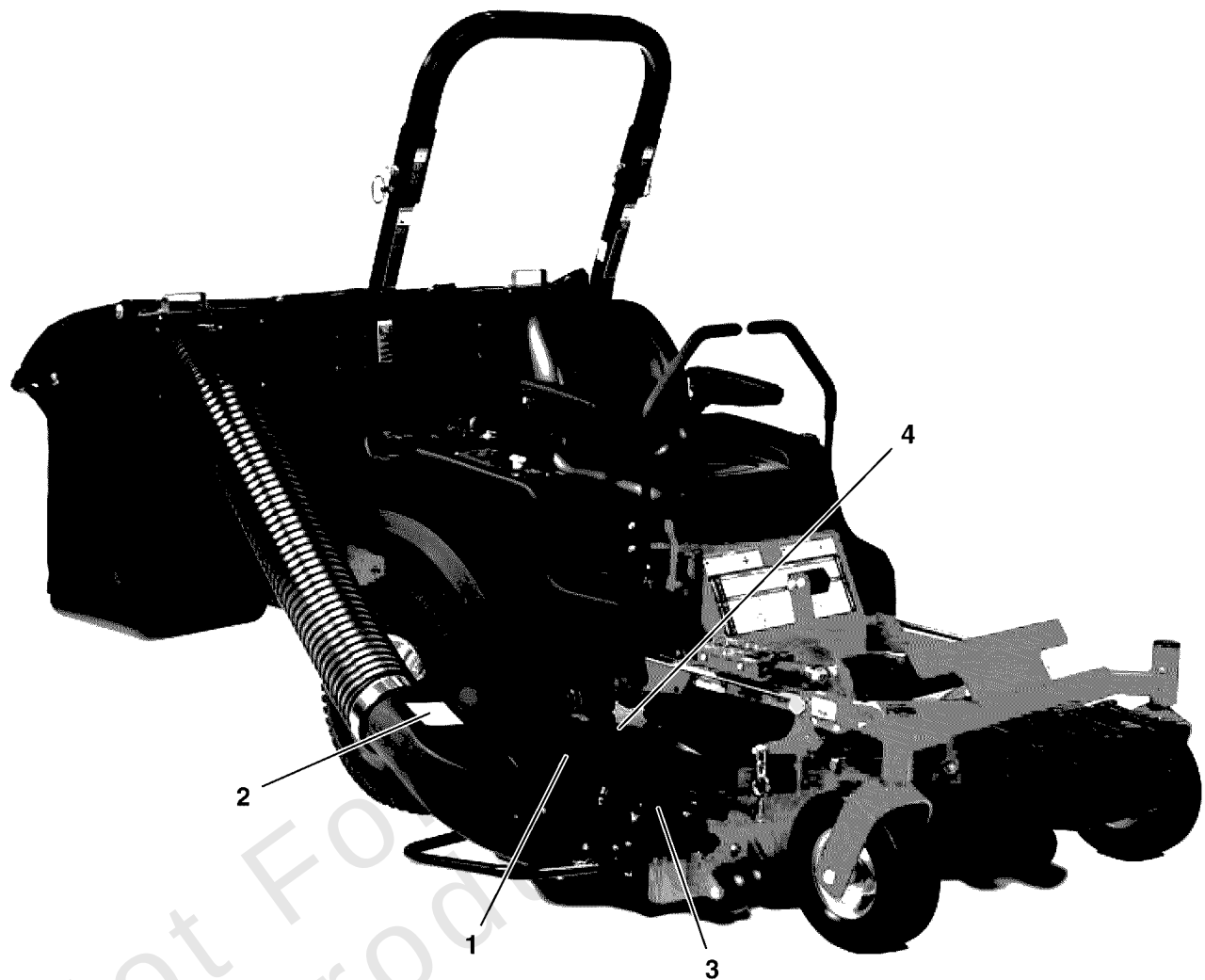
Note: Unless noted otherwise, use the standard torque specifications Mfg. No: 5600788



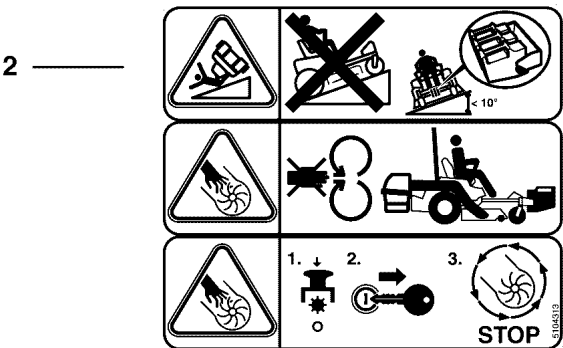
Decal Group - Hard Top Collection System

REF NO	PART NO	QTY	DESCRIPTION
10	5104315FS	1	DECAL

Not For Reproduction



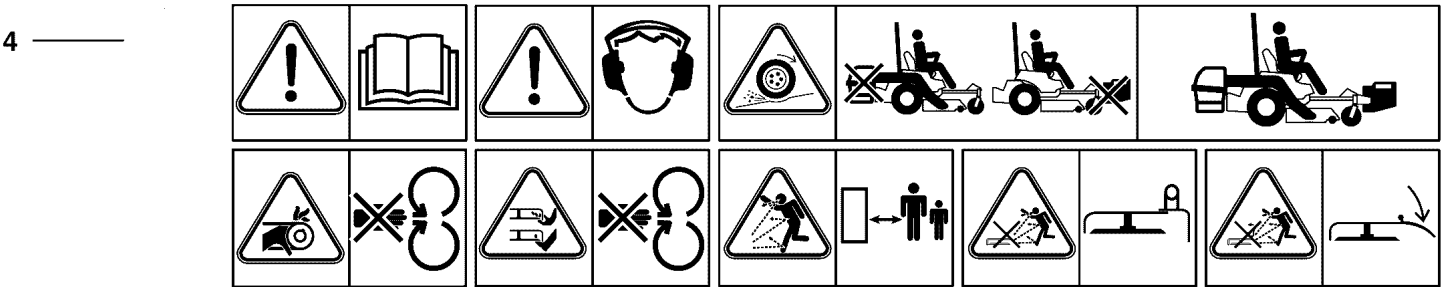
1 — **TURBO-ProTM Max**



3 —

Model Number: 5901335	
Blower Drive Belt	
Deck Size	Part Number
52"	5104289
61"	1721532

5104318



Decal Group - TURBO Pro MAX Blowers

REF NO	PART NO	QTY	DESCRIPTION
1	5104285	1	DECAL, TURBO PRO MAX
2	5104313	1	DECAL, BLOWER, SMALL, ICONS
3	5104318	1	DECAL, BELT, TURBO-PRO MAX
4	5104314	1	DECAL, BLOWER, MAIN, LARGE, ICONS

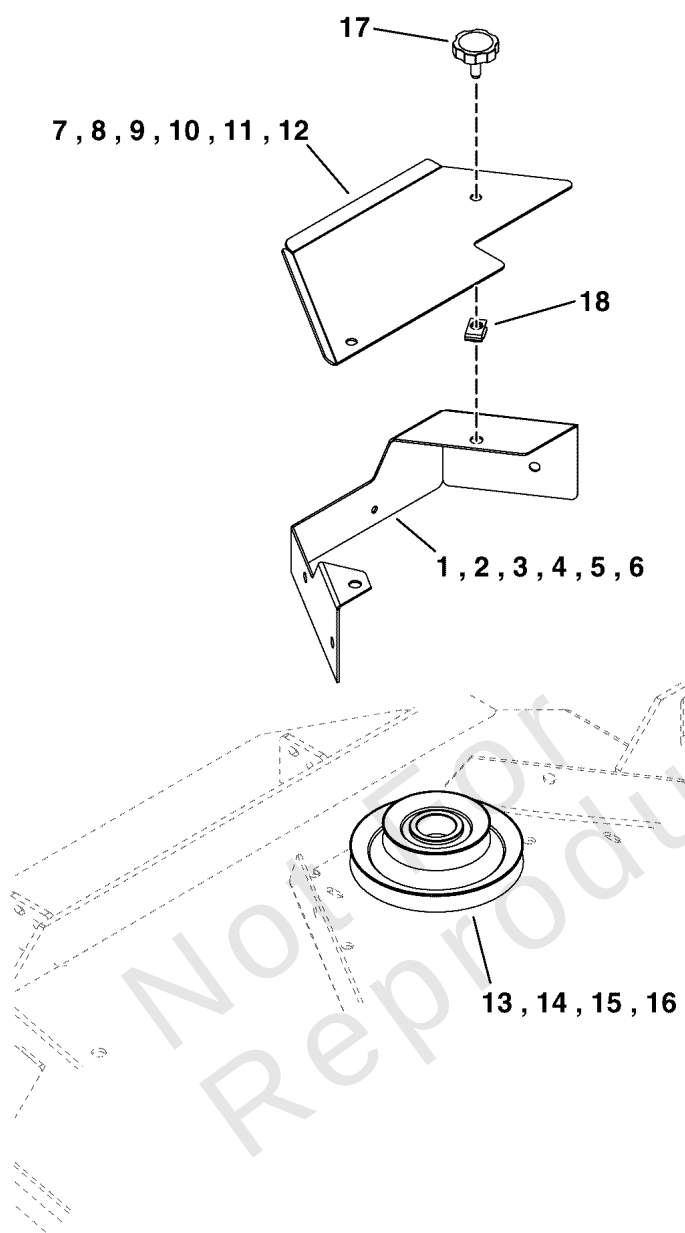
Not For Reproduction

Mower Deck Guards & Spindle Pulley - Single Belt Driven Mower Decks

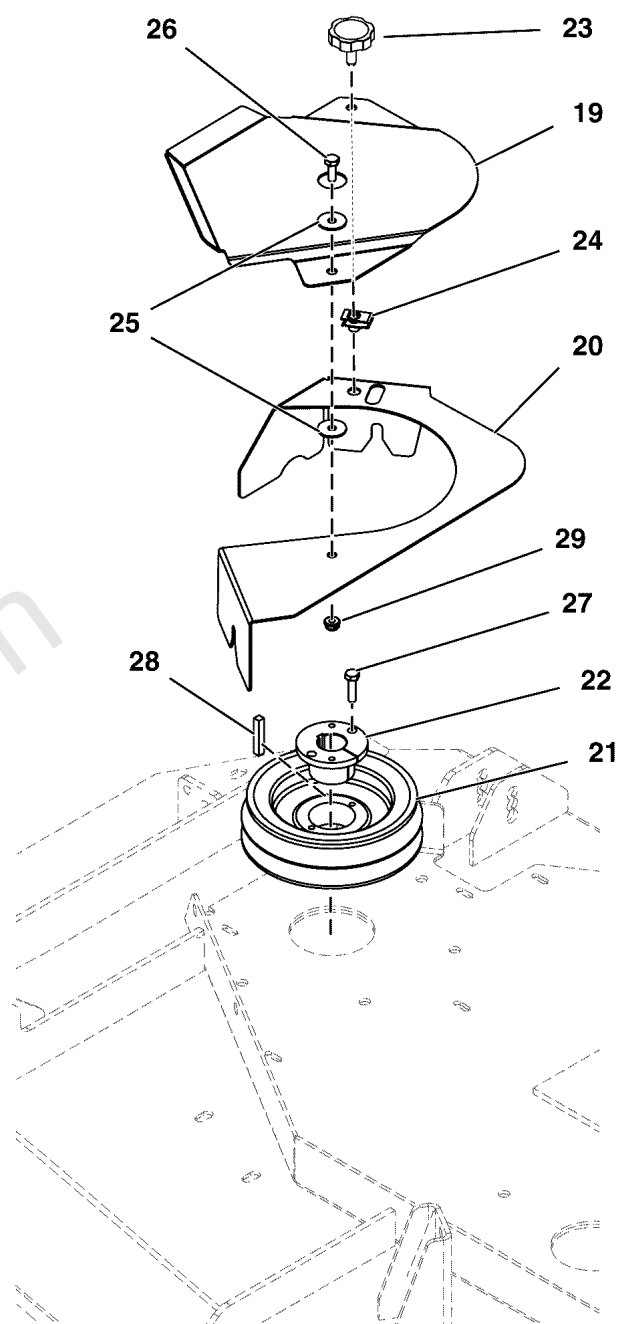
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5600788

All Other Models



IS3200Z & F320Z Models 5303821
5304154



Mower Deck Guards & Spindle Pulley - Single Belt Driven Mower Decks

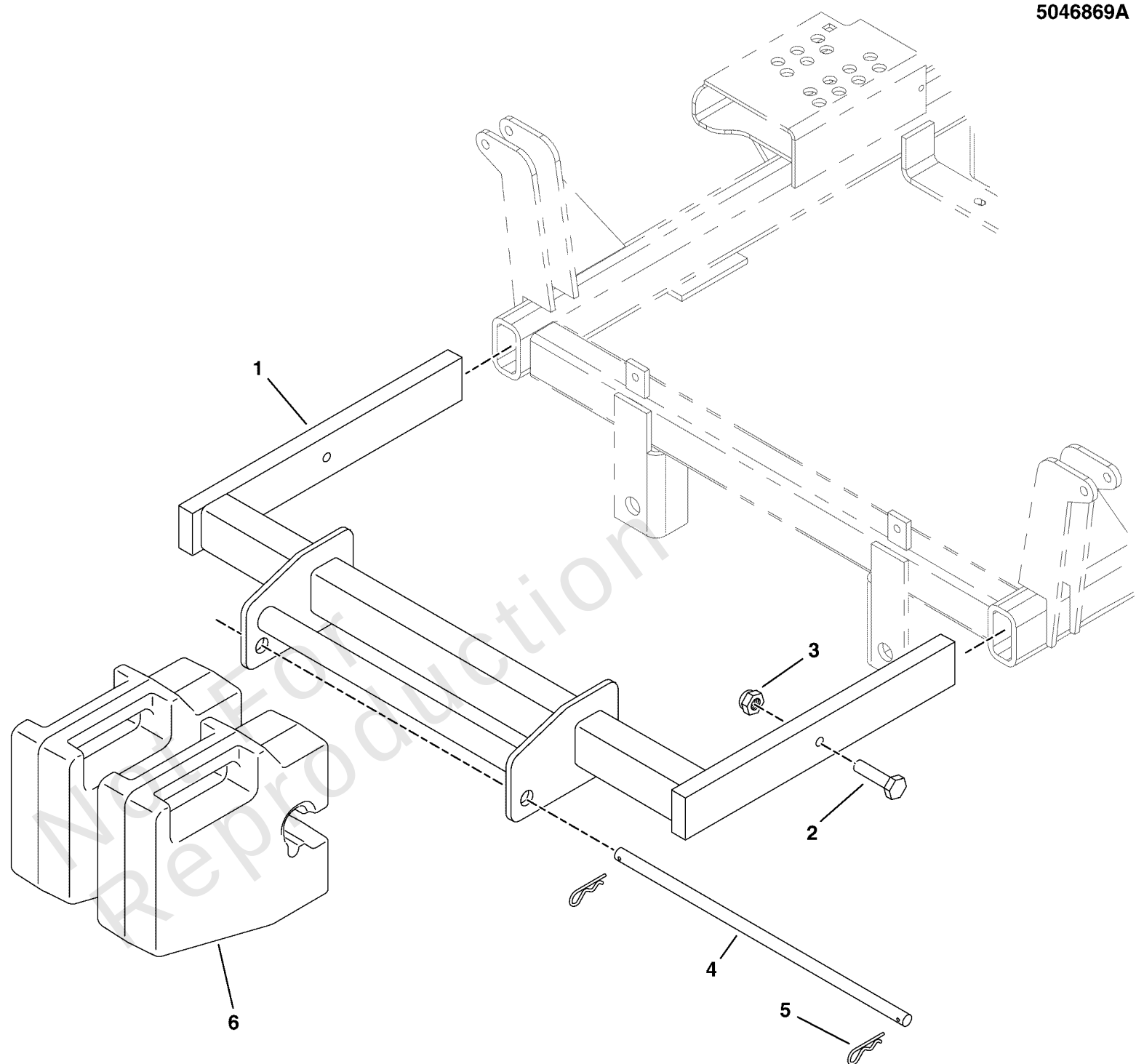
REF NO	PART NO	QTY	DESCRIPTION
1	84012937	1	GUARD, PULLEY -(IS2100Z-61")
2	5407843AA	1	GUARD, DECK, 61/200XT, FASTVAC - BLK -(S200XT-61" / F210Z-61")
3	5411995AA	1	WELD, DECK GUARD, COMM BLWR - BLK -(IS3100Z-61")
4	5412517AA	1	GUARD, DECK, 2100-52" - BLK -(IS2100Z-52")
5	5409534A	1	GUARD, DECK 48/52 - BLK -(S150XT-52" / F160Z-52")
6	5412577AA	1	WELD, PULLEY GUARD, 800-61, BLOWER - BLK -(800X-61")
7	5410223AA	1	PLATE, TOP GUARD, 61" - BLK -(IS2100Z-61")
8	5401436AA	1	GUARD, BELT, 61", 2000 FASTVAC - BLK -(S200XT-61" / F210Z-61")
9	5411993AA	1	BELT SHIELD, 61" COMM BLWR - BLK -(IS3100Z-61")
10	5412518AA	1	PLATE, TOP GUARD, 2100-52" - BLK -(IS2100Z-52")
11	5409536A	1	PLATE, TOP GUARD, 52 - BLK -(S150XT-52" / F160Z-52")
12	5412575AA	1	SHIELD, BELT, 800-61, BLOWER - BLK -(800X-61")
13	5103682	1	DOUBLE PULLEY, DECK, 61" TP -(IS2100Z-61" / S200XT-61" / F210Z-61")
14	5102067	1	PULLEY, DOUBLE, DH4600, 5.95 OD TAPERED -(IS3100Z-61")
15	5103468	1	PULLEY, DOUBLE, 52" DECK -(IS2100Z-52" / S150XT-52" / F160Z-52")
16	5104317	1	DOUBLE PULLEY, DECK, 800-61", T-MAX -(800X-61")
17	5101731	5	KNOB, 5/16-18 X 1.00, ROSETTE, BLK
18	5022308	4	BODY CLIP, 5/16-18-7GA MATERIAL
19	5413841AA	1	SHIELD, BELT, 3200-61", BLOWER - BLK -(IS3200Z-61" / F320Z-61")
20	5413834AA	1	GUARD, DECK PULLEY, 3200-61" - BLK -(IS3200Z-61" / F320Z-61")
21	5104573	1	PULLEY, DOUBLE, 5.95/6.43 OD, IS3200 -(IS3200Z-61" / F320Z-61")
22	5020819	1	BUSHING, TAPERED HUB -(IS3200Z-61" / F320Z-61")
23	5101731	1	KNOB, 5/16-18 X 1.00, ROSETTE, BLK -(IS3200Z-61" / F320Z-61")
24	5022308	1	BODY CLIP, 5/16-18-7GA MATERIAL -(IS3200Z-61" / F320Z-61")
25	5025288	2	WASHER, 1/4 FENDER -(IS3200Z-61" / F320Z-61")
26	5025010X6	1	BOLT, 1/4-20 X 3/4 GD5 CZ -(IS3200Z-61" / F320Z-61")
27	5025010X8	2	BOLT, 1/4-20 X 1" GD5 CZ -(IS3200Z-61" / F320Z-61")
28	5022726	1	KEY 1/4 SQ X 1 1/2 LONG -(IS3200Z-61" / F320Z-61")
29	5025391	1	NUT, 1/4-20 HEX NYLOCK FLANGE -(IS3200Z-61" / F320Z-61")

Weight Mount Group, 100 LBS - IS3100Z Series

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 5600788

5046869A



Weight Mount Group, 100 LBS - IS3100Z Series

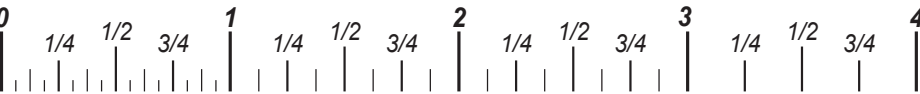
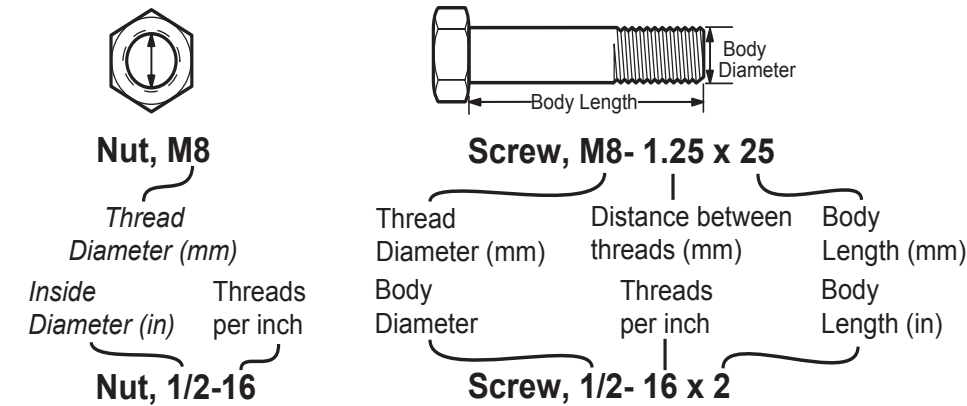
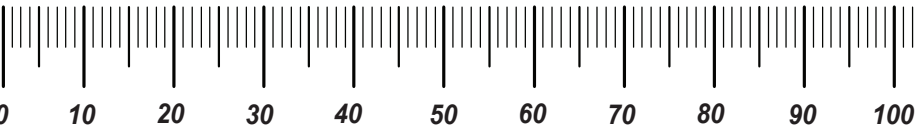
REF NO	PART NO	QTY	DESCRIPTION
1	5046169A	1	3-BAG WEIGHT RACK WELDMENT
2	5025013X16	2	BOLT, 3/8-16 X 2, GD5, CZ
3	5025096	2	NUT, 3/8-16 HEX NYLON LOCK
4	5046174A	1	ROD, WEIGHT RETAINER
5	5025210	2	PIN, HAIR, .0915 X 1-7/8
6	1717627	2	WEIGHT-QUICK ATTACH 50LB SUITCASE PAINTED

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).

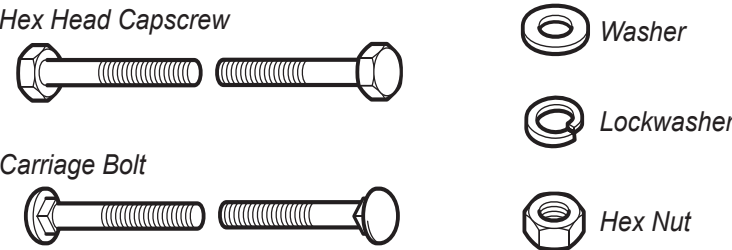
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw,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

