

FORAGE CHOPPER

PARTS MANUAL

FC400

420 Briggs & Stratton®
XR Professional Series™

P/N: 78984-00

Revision: 20250611

Serial Range: M01414 - Current

Companion to P/N: 78983-00



BEARCATPRODUCTS.COM// 888.625.4520

English



WARNING: Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Before You Begin

FOR MACHINE SERVICE OR PARTS

For service assistance, contact your nearest authorized Crary Bear Cat dealer or the factory. For parts, contact your authorized dealer. The parts manual for your machine is available at bearcatproducts.com/Product-Support/Find-A-Product-Manual. Your dealer will need to know the serial number of your machine to provide the most efficient service. See below for information on how to identify and record the serial number for your machine.

FOR ENGINE SERVICE OR PARTS

For engine service or parts, contact your nearest authorized engine dealer. Crary Bear Cat does not handle any parts, repairs or warranties for engines.

ORDERING PARTS

Only genuine Crary Bear Cat replacement parts should be used to repair the machine. Replacement parts manufactured by others could present safety hazards, even though they may fit on this machine. Replacement parts are available from your Crary Bear Cat dealer.

Provide the following when ordering parts:

- The SERIAL NUMBER of your machine.
- The PART NUMBER of the part.
- The PART DESCRIPTION.
- The QUANTITY needed.

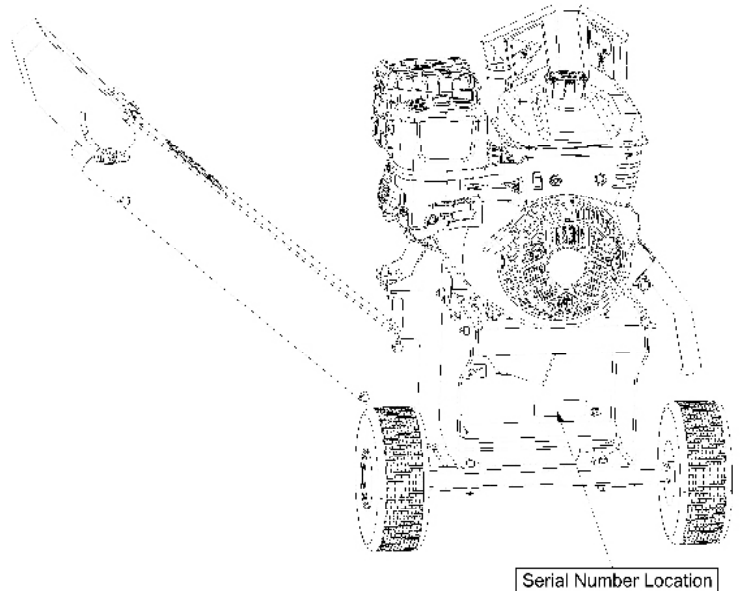
IDENTIFICATION NUMBER LOCATION

Your machine will have a vehicle identification number (VIN). VINs are located on the left side of the trailer frame near the hitch. They are 17-digit numbers of the format: 5VJAA001XXWXXXXXX. For the exact location of the VIN, see the parts manual available at bearcatproducts.com/Product-Support/Find-A-Product-Manual.

Record your identification number in the space provided.

SERIAL NUMBER

MANUFACTURED BY CRARY INDUSTRIES
WEST FARGO, NORTH DAKOTA 58078 U.S.A.
SERIAL NUMBER
MANUFACTURED IN U.S.A.



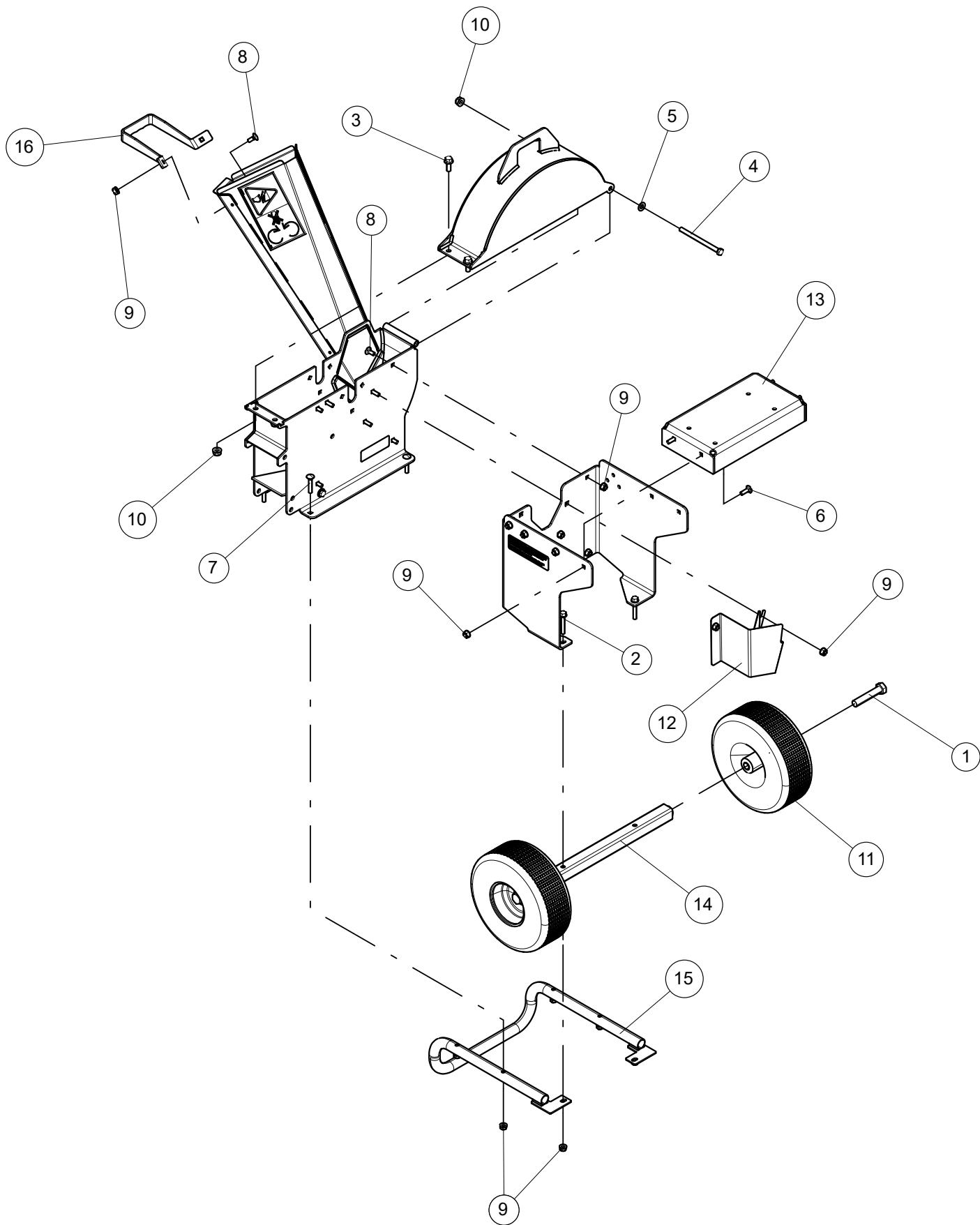
HOW TO CONTACT Crary Bear Cat

ADDRESS	PHONE	E-MAIL	HOURS
237 NW 12th Street P.O. Box 849 West Fargo, ND 58078	888-625-4520 701-282-5520 Fax: 701-282-9522	sales@bearcatproducts.com service@bearcatproducts.com	Monday - Friday 8 a.m. to 5 p.m. Central Time

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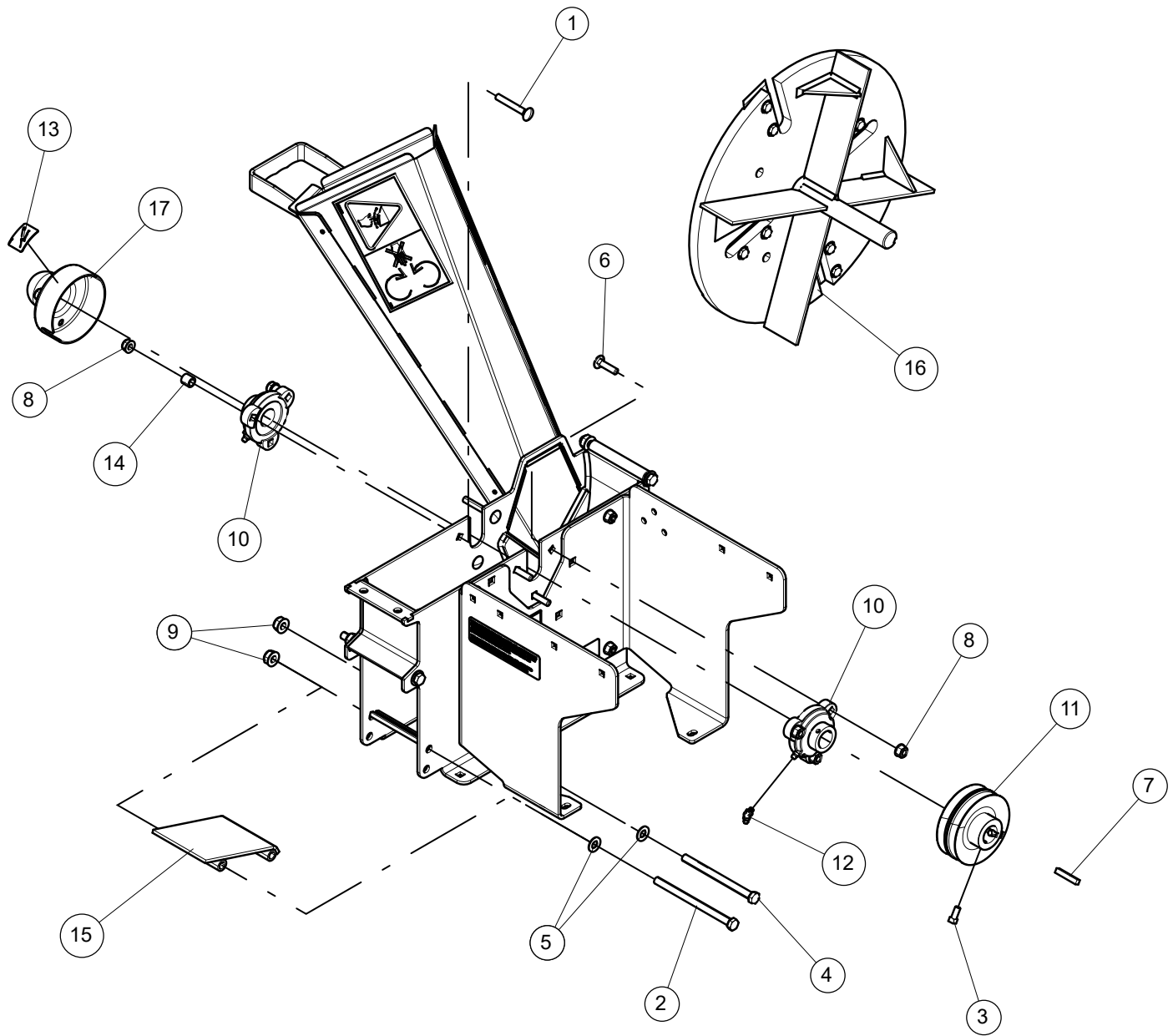
BODY



BODY

ITEM	PART NUMBER	DESCRIPTION
1	0103-0814-00	BOLT, 5/8-11 x 3-1/4 HEX GR5 ZP
2	15133-00	BOLT, 5/16 x 2 FLANGE NC
3	15163-00	BOLT, 3/8 x 1 FLANGE NC
4	15205	BOLT, 3/8-16 x 5 HCS
5	15260	WASHER, 3/8 SAE FLAT ZP
6	15301	BOLT, 5/16 x 1 CRG
7	15350	BOLT, 5/16 x 1-3/4 CRG
8	15367	BOLT, 5/16 x 3/4 CRG
9	15904-00	NUT, 5/16-18 NYLOCK-FLANGE
10	15905-00	NUT, 3/8-16 NYLOCK-FLANGE
11	33591-00	ASSEMBLY, 410/350-4 FLAT-FREE WHEEL
12	74358-10	GUARD, LOWER BELT
13	78953-10	PLATE, ENGINE MOUNT
14	78957-10	WELDMENT, AXLE 4 INCH CHIPPER
15	78960-10	WELDMENT, 4 INCH CHIPPER LEG
16	78962-10	HANDLE, 4 INCH CHIPPER CHUTE

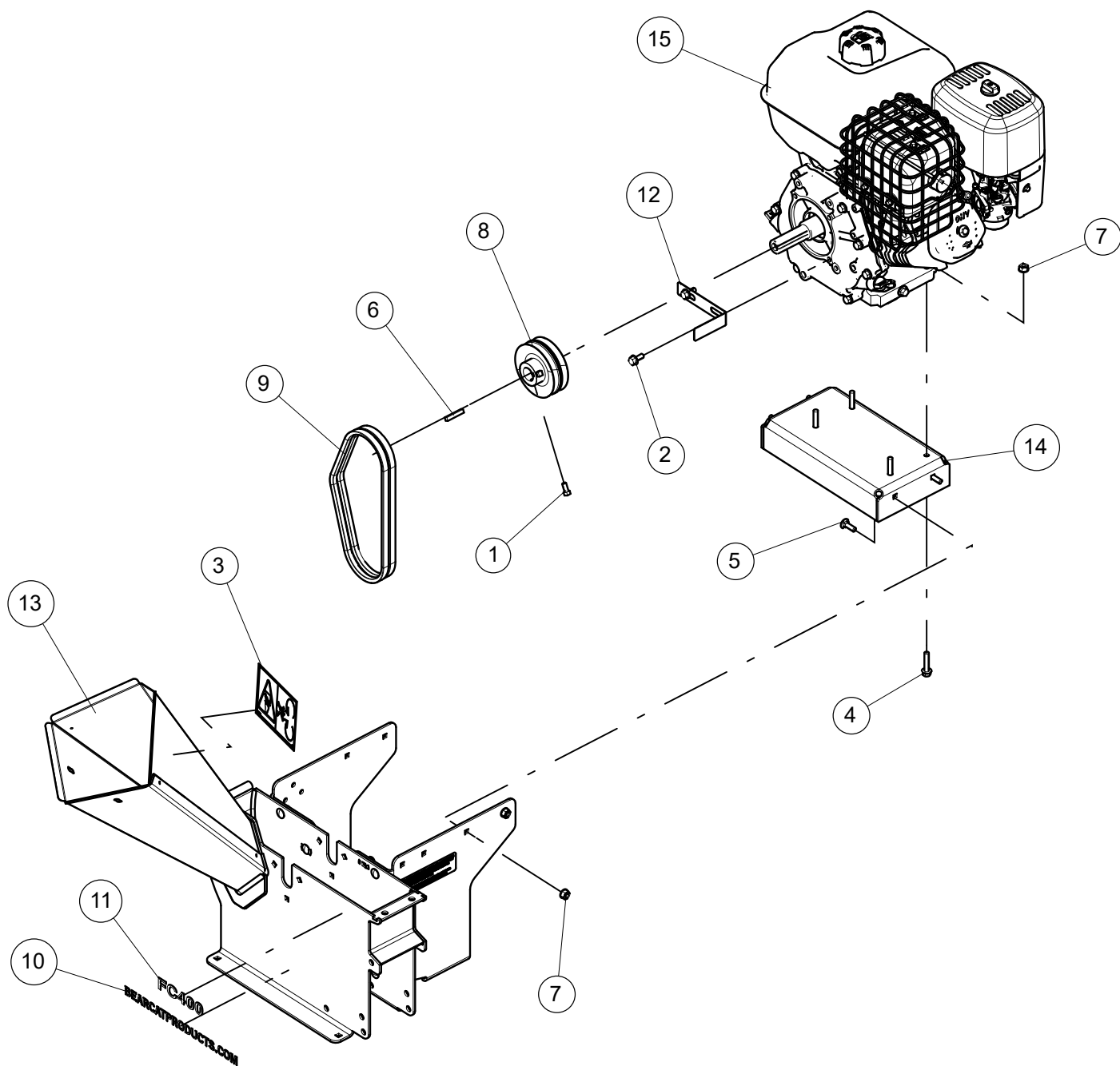
ROTOR & BEARINGS



ROTOR & BEARINGS

ITEM	PART NUMBER	DESCRIPTION
1	0103-0088-00	BOLT, 5/16 x 2-1/4 CRG
2	0103-0848-00	BOLT, 3/8-16 x 5-1/2" NC HCS GR 5
3	11004-00	SCREW, 5/16-18 x 5/8 SQ HD SET PATCH
4	15205	BOLT, 3/8-16 x 5 HCS
5	15260	WASHER, 3/8 SAE FLAT ZP
6	15398	BOLT, 5/16 x 1-1/4 CRG
7	15418	KEY, 1/4 x 1-1/2 SQ
8	15904-00	NUT, 5/16-18 NYLOCK-FLANGE
9	15905-00	NUT, 3/8-16 NYLOCK-FLANGE
10	16234	BEARING, 1 IN. FLUSHMOUNT
11	17995	PULLEY, 4.0 X 1.00 DBL "A"
12	35374-00	ZERK, 45 DEG, 1/4-28 SAE-LT MALE, 13/16 OVERALL LG
13	35481-00	DECAL, GREASE GUN ICON
14	70285	SPACER, .54 x .50
15	78959-10	WELDMENT, 4 INCH CHIP DEFLECTOR
16	78997-00	ASSEMBLY, FC400 ROTOR (See ROTOR ASSEMBLY for part numbers)
17	79214-00	ASSEMBLY, CAP ROTOR SHAFT END W/ DECALS (Includes item 13)

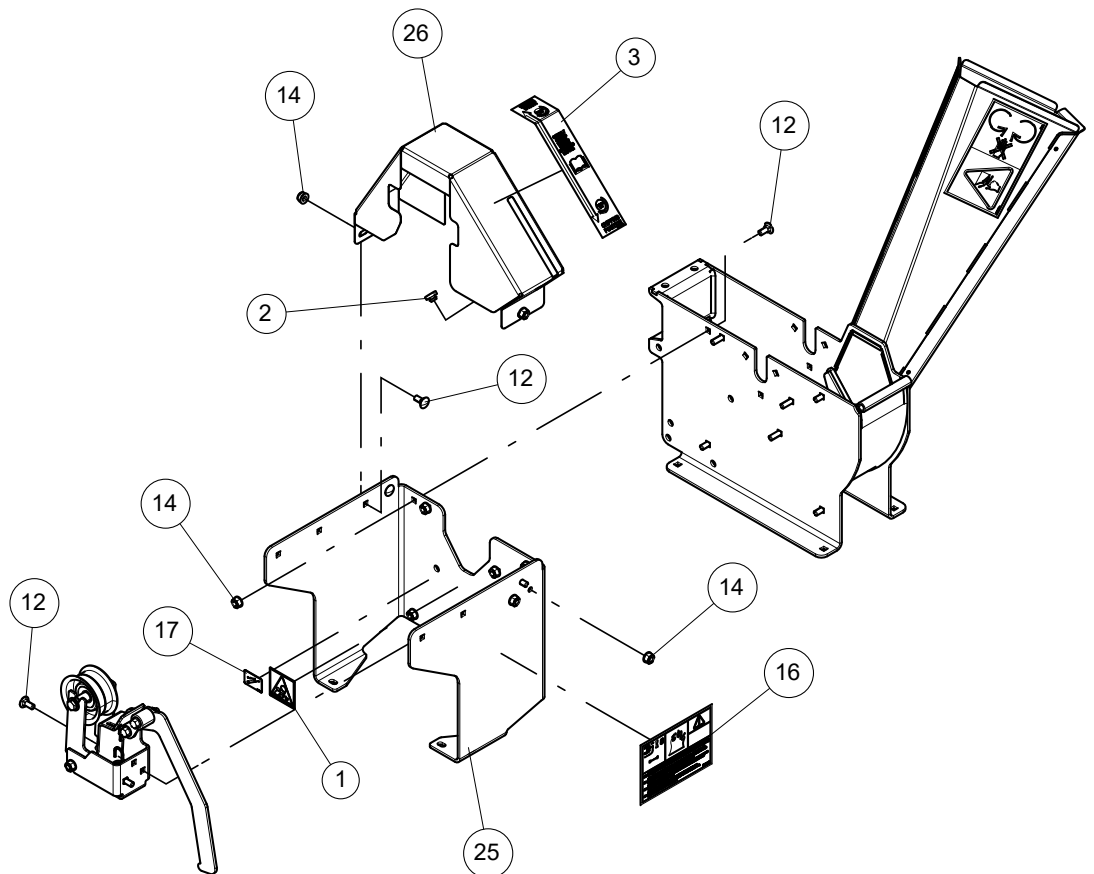
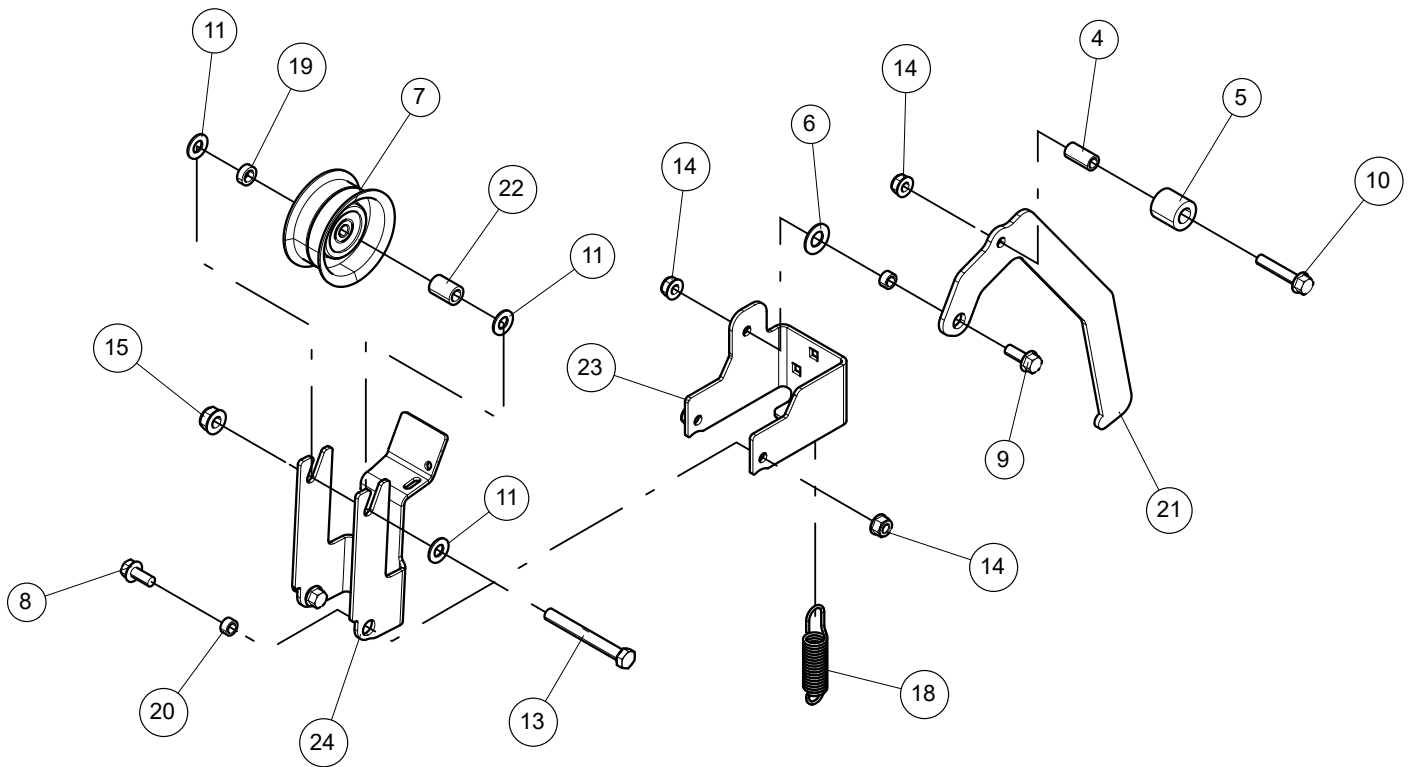
ENGINE



ENGINE

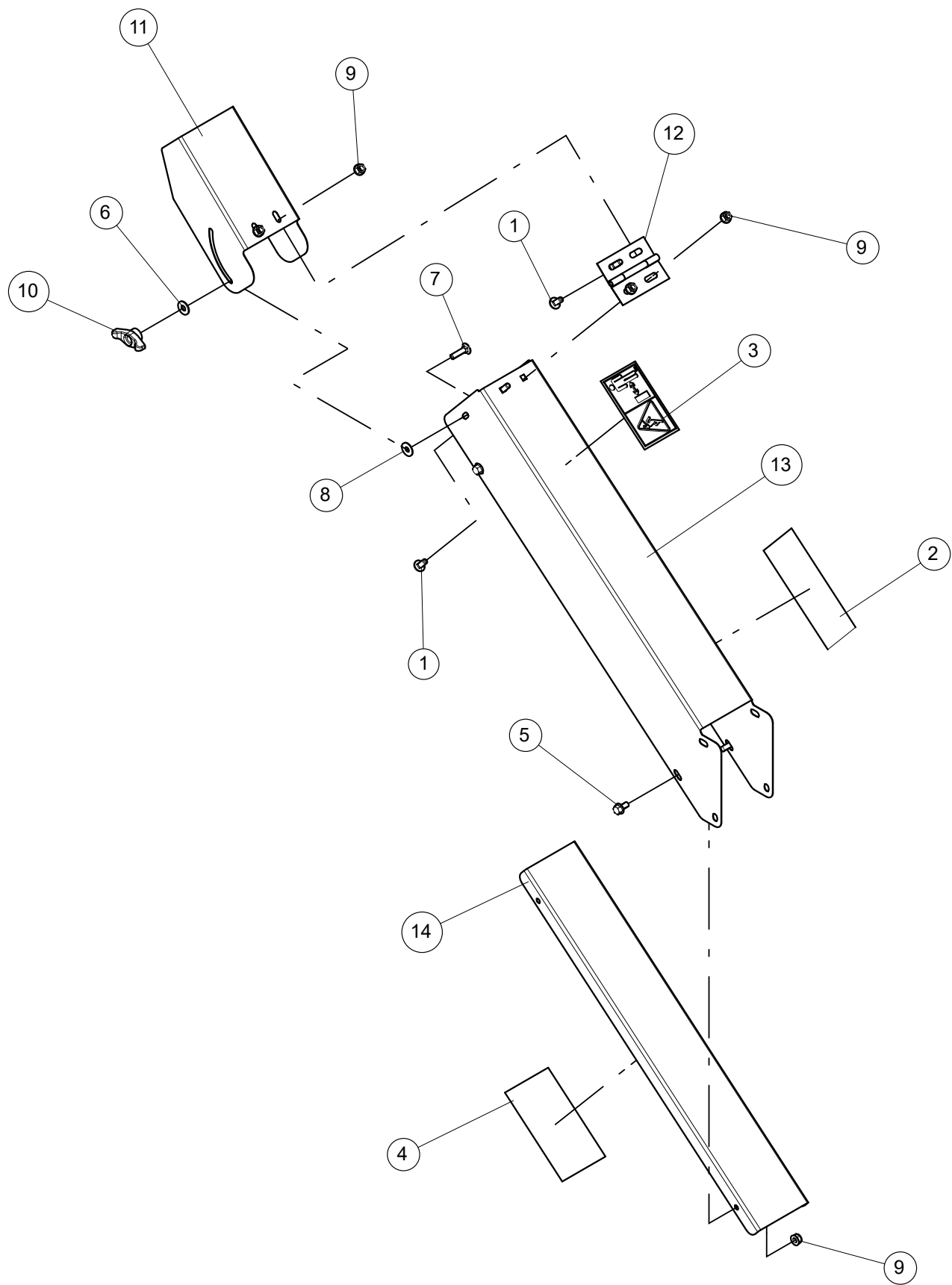
ITEM	PART NUMBER	DESCRIPTION
1	11004-00	SCREW, 5/16-18 x 5/8 SQ SET PATCH)
2	11006-00	BOLT, 5/16 X 3/4 FLANGE NF PATCH
3	12175	DECAL, BLADE DANGER ISO
4	15122-00	BOLT, 5/16 X 1-1/2 FLANGE NC
5	15301	BOLT, 5/16 x 1 CRG
6	15418	KEY, 1/4 X 1-1/2 SQ
7	15904-00	NUT, 5/16-18 NYLOCK-FLANGE
8	17995	PULLEY, 4.0 X 1.00 DBL "A"
9	17996	BELT, 29.1 MATCHED SET
10	35511-00	DECAL, CBC WEB ADDRESS BLACK 0.71 X 11.53
11	35548-00	DECAL, MODEL FC400
12	74374-10	GUIDE, BELT
13	78973-00	ASSEMBLY, 4" LOWER CHIPPER HOUSING W/ DECALS (Includes Items 3, 10, 11)
14	78953-10	PLATE, ENGINE MOUNT
15	—	ENGINE, 420CC B&S HORIZONTAL (For service see engine owner's manual or nearest Briggs & Stratton® industrial engine dealer.)

IDLER



ITEM	PART NUMBER	DESCRIPTION
1	12174	DECAL, SHIELD DANGER ISO
2	13904-00	GROMMET, RUBBER
3	14302-00	DECAL, CHIPPER ENGAGEMENT
4	14635-00	SPACER, .50 X 1.00
5	14636-00	NYLON ROLLER, 0.5 X 1.00 X 1.0
6	14640-00	WASHER, 1/2" NYLON
7	14667-00	IDLER, 2.75 X 1.25
8	15117-00	BOLT, 5/16 X 3/4 FLANGE NC
9	15119-00	BOLT, 5/16 X 7/8 FLANGE NC
10	15127-00	BOLT, 5/16 X 1-3/4 FLANGE NC
11	15260	WASHER, 3/8 SAE FLAT ZP
12	15367	BOLT, 5/16 X 3/4 CRG
13	15501	BOLT, 3/8-16 X 3-1/4 HCS GR5
14	15904-00	NUT, 5/16-18 NYLOCK-FLANGE
15	15905-00	NUT, 3/8-16 NYLOCK-FLANGE
16	34839-00	DECAL, SG MAINTENANCE INFORMATION
17	35481-00	DECAL, GREASE GUN ICON
18	35718	SPRING, BLOWER DRIVE
19	69239	SPACER, IDLER PIVOT
20	73063	SPACER, .50 X .25
21	74362-10	HANDLE, ENGAGEMENT
22	75773-00	SPACER, 5/8 OD X 11 GA X 0.88
23	77281-10	MOUNT, IDLER BRACKET
24	77282-10	BRACKET, IDLER 3 IN CHIPPER
25	78980-00	ASSEMBLY, 4" ENGINE BRACKET WITH DECALS (Includes Items 1, 16 & 17)
26	78981-00	ASSEMBLY, 4" BELT SHIELD WITH DECALS (Includes items 2 and 3)

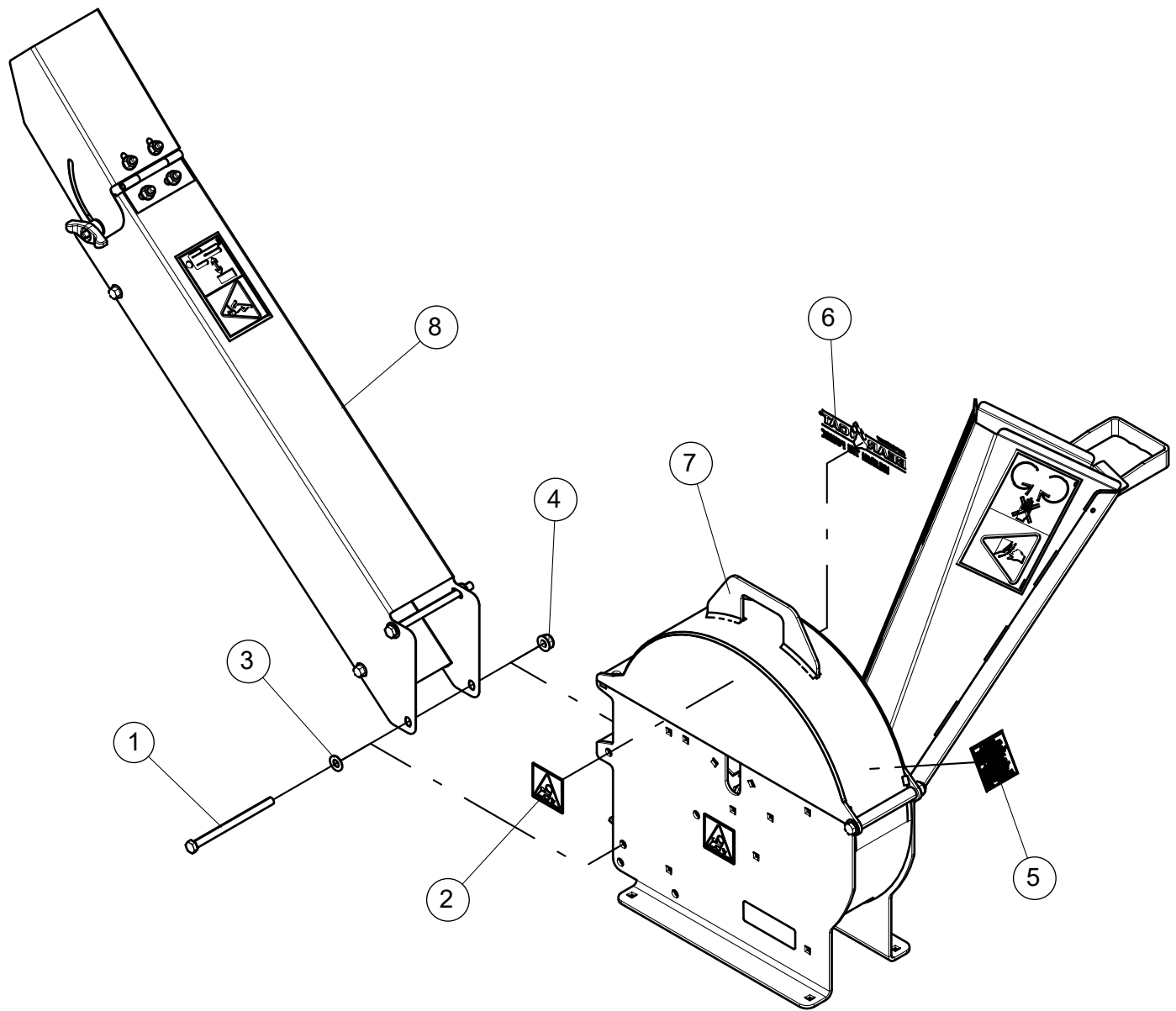
DISCHARGE CHUTE



DISCHARGE CHUTE

ITEM	PART NUMBER	DESCRIPTION
1	0103-0909-00	BOLT, 5/16 X 3/4 CRG, SHORT NECK
2	12169	DECAL, KNIFE ACCESS ISO
3	12173	DECAL, DISCHARGE ISO
4	12175	DECAL, BLADE DANGER ISO
5	15160-00	BOLT, 5/16 x 5/8 FLANGE NC
6	15250	WASHER, 5/16 FLAT
7	15398	BOLT, 5/16 x 1-1/4 CRG
8	15409	WASHER, 5/16 NYLON
9	15904-00	NUT, 5/16-18 NYLOCK-FLANGE
10	31994-00	KNOB, 5/16-18 UNC TEE WITH LOCKING INSERT
11	74378-10	CAP, DISCHARGE
12	74642-10	HINGE, DISCHARGE CAP
13	79224-00	ASSEMBLY, 4" DISCHARGE CHUTE W/ DECALS (Includes Items 2 &3)
14	79225-00	ASSEMBLY, 4" DISCHARGE CHUTE PLATE W/ DECALS (Includes Item 4)

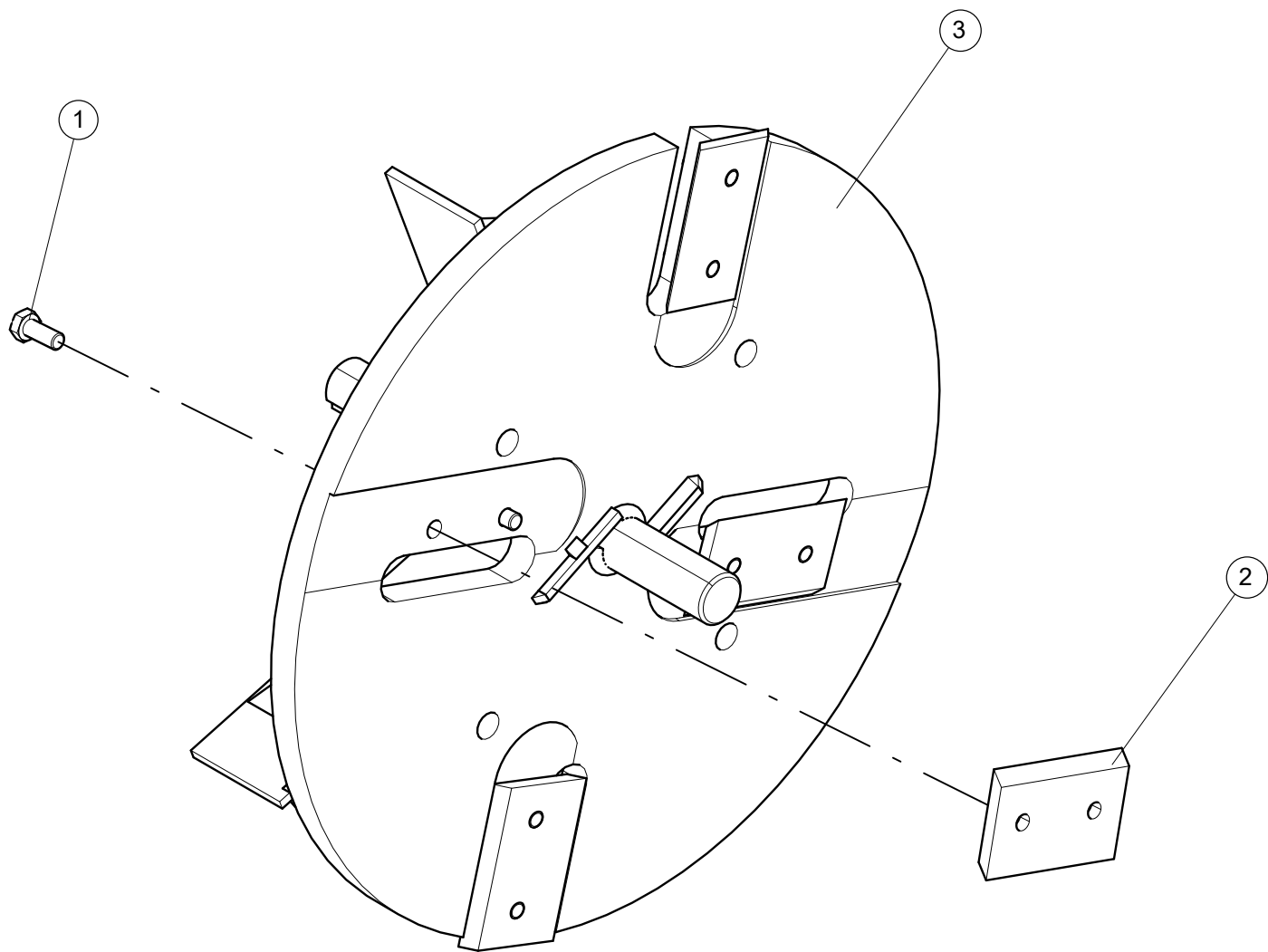
DISCHARGE CHUTE ASSEMBLY



ITEM	PART NUMBER	DESCRIPTION
1	0103-0848-00	BOLT, 3/8-16 x 5-1/2" NC HCS GR 5
2	12174	DECAL SHIELD DANGER ISO
3	15260	WASHER, 3/8 SAE FLAT ZP
4	15905-00	NUT, 3/8-16 NYLOCK-FLANGE
5	33883-00	DECAL, SPARK ARRESTOR
6	34992-00	DECAL, CBC LOGO BLACK TAGLINE 2.01 X 6.04
7	78979-00	ASSEMBLY, 4" TOP HOUSING W/ DECALS (Includes 2, 5 and 6)
8	78987-00	ASSEMBLY, 4 INCH DISCHARGE CHUTE

ROTOR ASSEMBLY

Part #78997-00



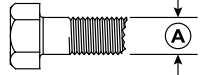
ITEM	PART NUMBER	DESCRIPTION
1	15545	BOLT,5/16-18 X 3/4 HCS GR8 PATCH ZP
2	70739	BLADE, TWO EDGE CHIPPER
3	79009-00	WELDMENT, 4 INCH CHIPPER ROTOR

SPECIFICATIONS

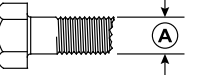
SPECIAL TORQUE REQUIREMENTS			
LOCATION	HARDWARE	TORQUE (UNIFIED INCH)	TORQUE (METRIC)
A – On rotor plate, blade mounting bolts	5/16" × 3/4" hex, grade 8 bolts	25 ft-lbs.	34 Nm

BOLT TORQUE

The tables below are for reference purposes only and their use by anyone is entirely voluntary, unless otherwise noted. Reliance on their content for any purpose is at the sole risk of that person and any loss or damage resulting from the use of this information is the responsibility of that person.

SAE Grade and Head Markings	SAE 2	SAE 5	SAE 8	Bolt Diameter
				

BOLT DIAMETER (A)	BOLT TORQUE*					
	SAE 2		SAE 5		SAE 8	
	Nm	FT-LBS.	Nm	FT-LBS.	Nm	FT-LBS.
1/4"	7.5	5.5	11	8	16	12
5/16"	15	11	23	17	34	25
3/8"	27	20	41	30	61	45
7/16"	41	30	68	50	95	70
1/2"	68	50	102	75	149	110
9/16"	97	70	149	110	203	150
5/8"	122	90	203	150	312	230
3/4"	217	160	353	260	515	380
7/8"	230	170	542	400	814	600
1"	298	220	786	580	1220	900
1-1/8"	407	300	1085	800	1736	1280
1-1/4"	570	420	2631	1940	2468	1820

Metric Grade and Head Markings	4.8	8.8	10.9	12.9	Bolt Diameter
					

BOLT DIAMETER (A)	BOLT TORQUE*							
	4.8		8.8		10.9		12.9	
	Nm	FT-LBS.	Nm	FT-LBS.	Nm	FT-LBS.	Nm	FT-LBS.
M3	0.5	0.4	–	–	–	–	–	–
M4	3	2.2	–	–	–	–	–	–
M5	5	4	–	–	–	–	–	–
M6	6	4.5	11	8.5	17	12	19	14.5
M8	15	11	28	20	40	30	47	35
M10	29	21	55	40	80	60	95	70
M12	50	37	95	70	140	105	165	120
M14	80	60	150	110	225	165	260	190
M16	125	92	240	175	350	255	400	300
M18	175	125	330	250	475	350	560	410
M20	240	180	475	350	675	500	800	580
M22	330	250	650	475	925	675	1075	800
M24	425	310	825	600	1150	850	1350	1000
M27	625	450	1200	875	1700	1250	2000	1500

*Torque value for bolts and capscrews are identified by their head markings.

Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

SERVICE PARTS & ACCESSORIES

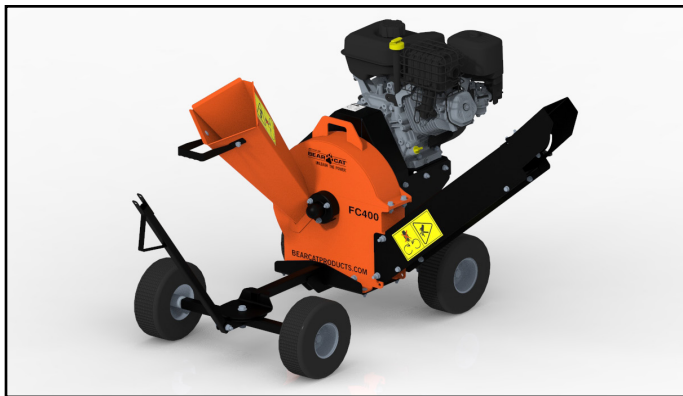
PART NUMBER	DESCRIPTION
31605-00	KIT, TACH / HOUR
78993-00	KIT, TWO WHEEL TOW
78995-00	KIT, BLADE
78999-00	KIT, GROUND DISCHARGE



Tach / Hour Kit, 31605-00

TWO WHEEL TOW FC400 KIT
P/N: 78993-00

PART NUMBER	DESCRIPTION	QTY.
15019	BOLT, 5/8-11 x 3 HEX HD	2
15078-00	BOLT, 3/8 x 2 FLANGE NC	1
15301	BOLT, 5/16 x 1 CRG	4
15904-00	NUT, 5/16-18 NYLOCK FLANGE	4
15905-00	NUT, 3/8-16 NYLOCK FLANGE	1
33591-00	ASSEMBLY, 410/350-4 FLAT-FREE WHEEL	2
75608-10	WELDMENT, TOW BAR	1
78992-00	ASSEMBLY, CHIPPER TOW BAR	1



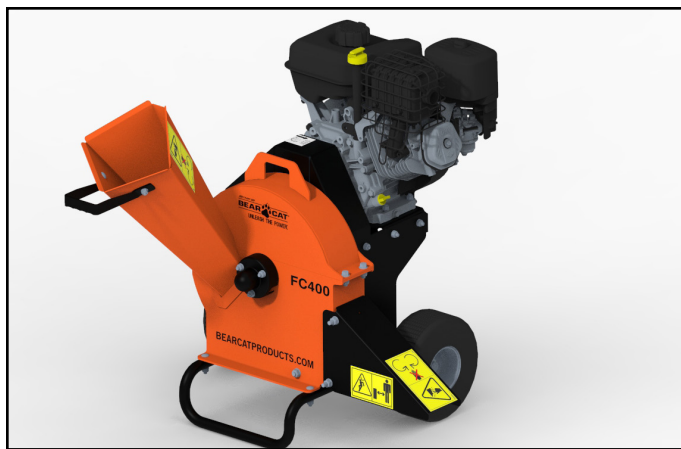
FC400 BLADES KIT
P/N: 78995-00

PART NUMBER	DESCRIPTION	QTY.
15545	BOLT, 5/16-18 x 3/4 HCS GR8 PATCH ZP	8
70739	BLADE, TWO EDGE CHIPPER	4



FC400 GROUND DISCHARGE KIT
P/N: 78999-00

PART NUMBER	DESCRIPTION	QTY.
78982-00	ASSEMBLY, LOW DISCHARGE W/ DECALS	1





Crary Bear Cat® • 237 12th St. NW, West Fargo, ND 58078

For customer service or for your nearest Crary Bear Cat dealer call 888.625.4520 | For International call 701.282.5520

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