

4 INCH CHIPPER PARTS MANUAL

CH4420

Briggs & Stratton® XR Professional Series™

P/N: 78483-00

Revision: 20230527

VIN Range: 5VJAA0116MW006750 - Current

Companion to P/N: 78482-00



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.

VEHICLE IDENTIFICATION NUMBER

MANUFACTURED BY/FABRIQUE PAR: CRARY INDUSTRIES, INC.	
FABRIQUE/MFR'D DATE:	PNEU/TIRE:
PNEU/GWR:	JANTE/RIM:
PNEU/GWR:	PRESS DE GONF A FROID/COLD INFL:
THIS VEHICLE CONFORMS TO ALL APPLICABLE STANDARDS PRESCRIBED UNDER THE UNITED STATES AND CANADIAN MOTOR VEHICLE SAFETY REGULATIONS IN EFFECT ON THE DATE OF MANUFACTURE. CE VEHICULE EST CONFORME A TOUTES LES NORMES QUI LUI SONT APPLICABLES EN VERTU DU REGLEMENT SUR LA SECURITE DES VEHICULES AUTOMOBILES DES ETATS UNIS ET DU CANADA EN VIGUEUR A LA DATE DE SA FABRICATION.	
V.I.N./N.I.V.: 5VJAA001--W-----	TYPE/TYPE DE VEHICULE: TRA/REM

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

TABLE OF CONTENTS

EXPLODED VIEW.....1

FRAME2

HITCH4

HOUSING.....6

ACCESS COVER.....8

ROTOR ASSEMBLY9

IDLER10

ENGINE.....12

SHIELDS14

DISCHARGE CAP.....15

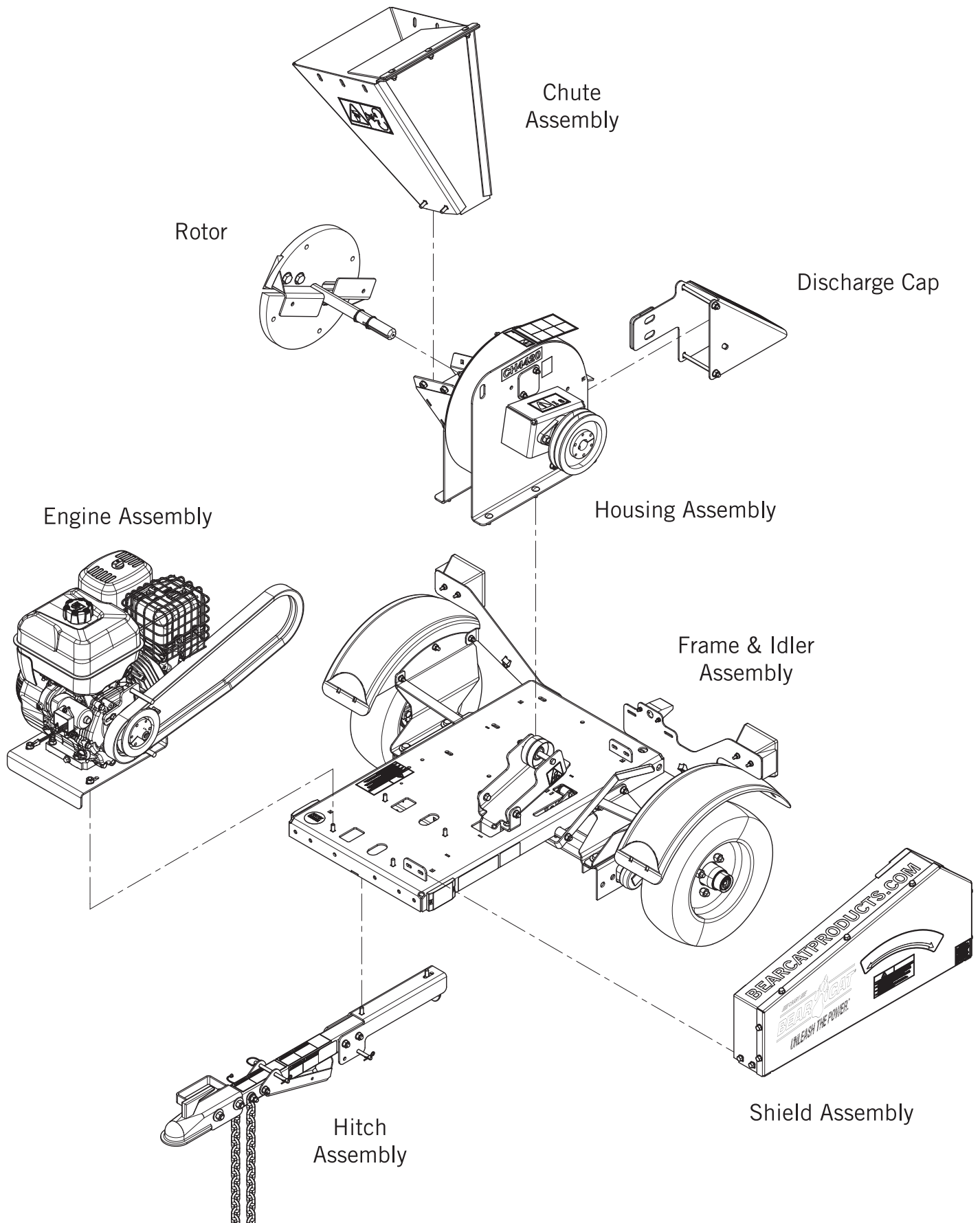
CHUTE.....16

BOLT TORQUE.....18

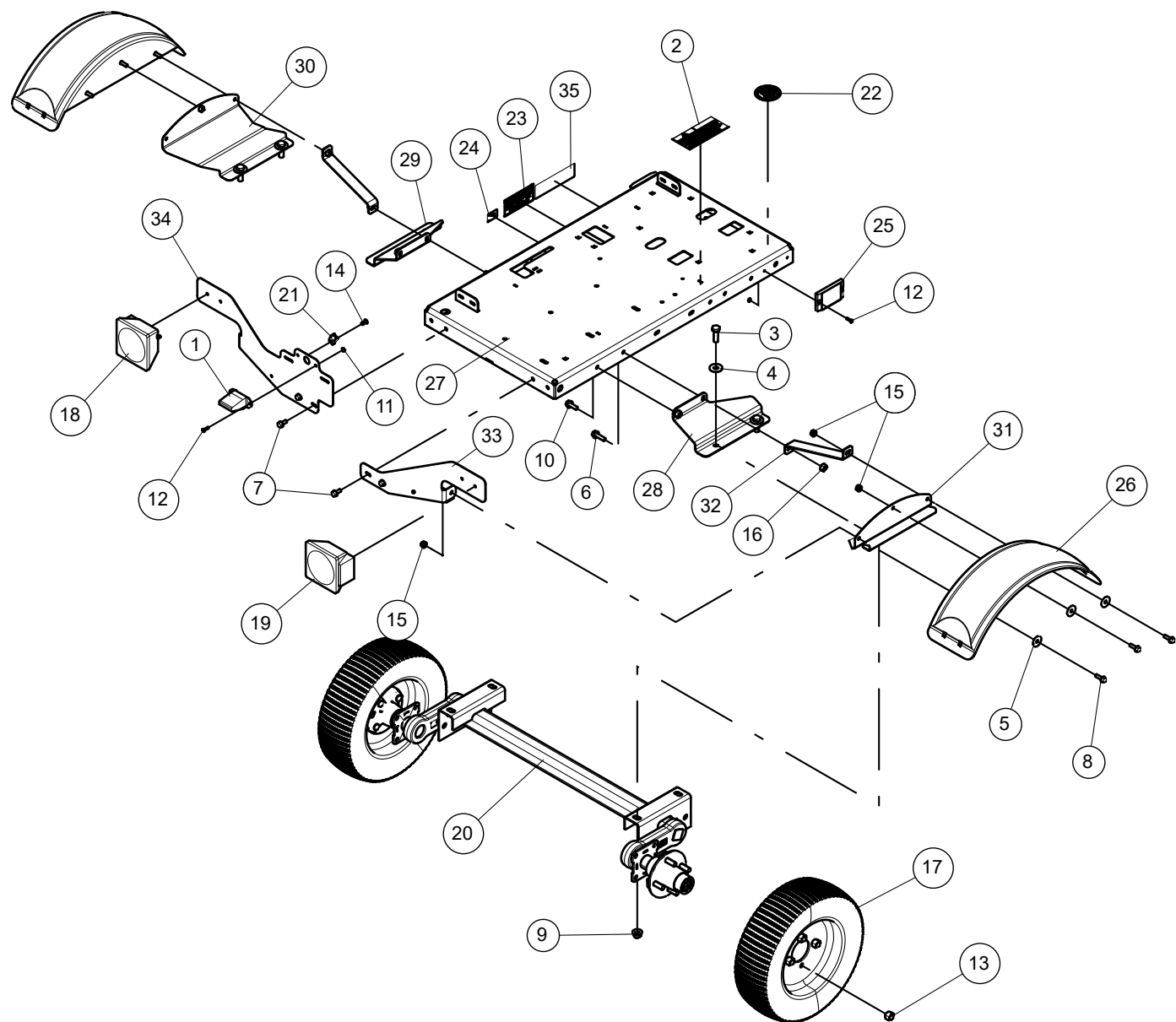
SERVICE PARTS & ACCESSORIES19

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EXPLODED VIEW

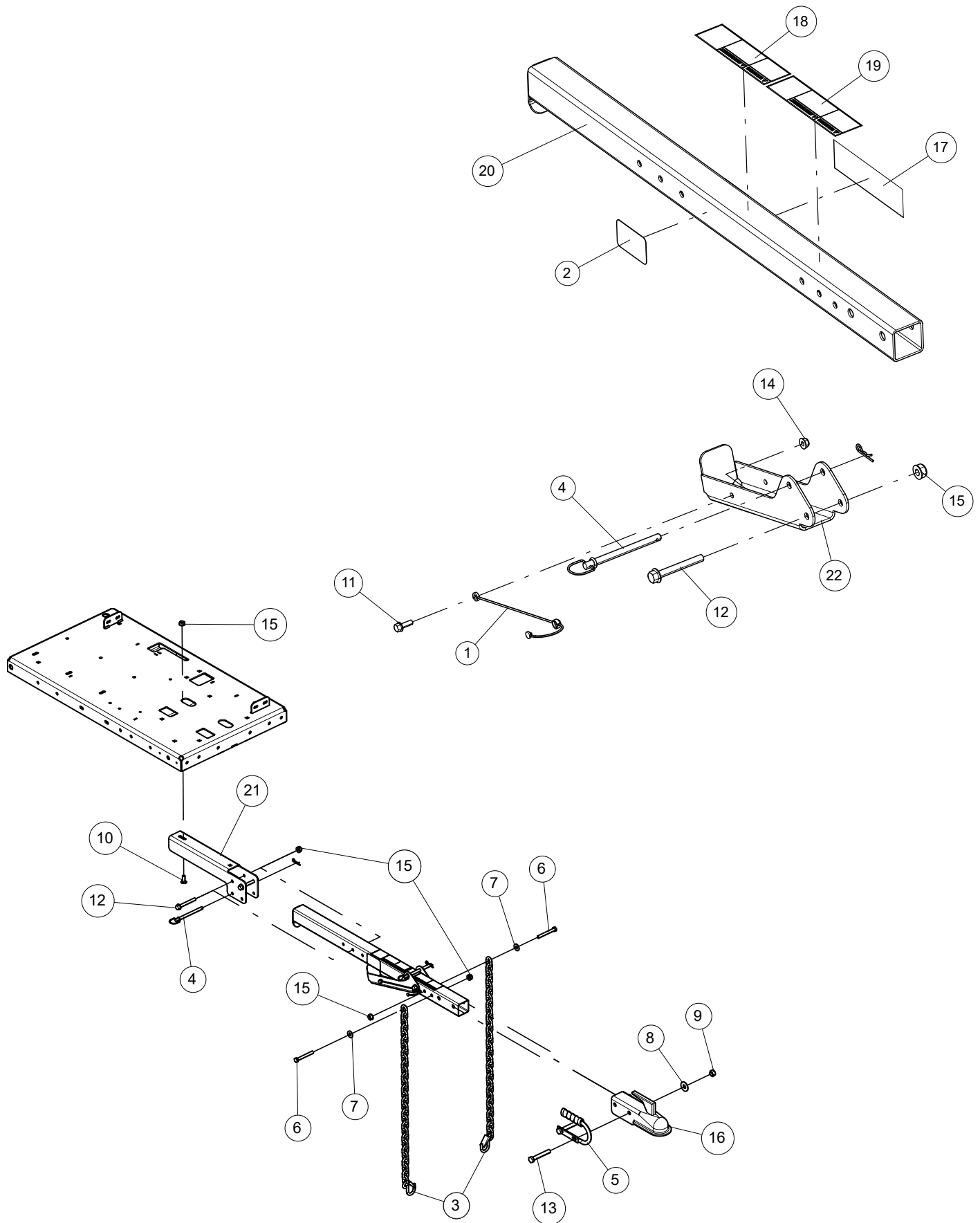


FRAME



ITEM	PART NUMBER	DESCRIPTION
1	14368-00	LIGHT, LICENSE PLATE
2	14942-00	DECAL, MULTILINGUAL MANUAL
3	15014	BOLT, 1/2-13 × 1-1/2 HEX HD GR5
4	15034	WASHER, 1/2 FLAT
5	15040	WASHER, 5/16" FENDER ZP
6	15109-00	BOLT, 3/8 × 1-1/4 FLANGE NC
7	15117-00	BOLT, 5/16 × 3/4 FLANGE NC
8	15120-00	BOLT, 5/16 × 1 FLANGE NC
9	15162-00	NUT, 1/2-13 NYLOCK FLANGE
10	15163-00	BOLT, 3/8 × 1 FLANGE NC
11	15397	NUT, 10/24 NYLOCK TYPE NM ZP
12	15460	SCREW, MCH #10-24 × 3/4" PAN HD PH ZP
13	15527	NUT, 1/2-20 WHEEL
14	15828-00	RIVET, AL BLIND 1/4 × 3/4 DOME HEAD
15	15904-00	NUT, 5/16-18 NYLOCK FLANGE
16	15905-00	NUT, 3/8-16 NYLOCK FLANGE
17	16008	ASSEMBLY, TIRE + WHEEL 4.80-8
18	16903	LIGHT, LH TAIL
19	16904	LIGHT, RH TAIL
20	16917	AXLE, 1000 LB TORSION
21	18549-00	CLAMP, CABLE MOUNT
22	32361-00	DECAL, NATM COMPLIANCE
23	34446-00	DECAL, ST4.80-8 LOAD RATING CH4420
24	35481-00	DECAL, GREASE GUN ICON
25	74911-00	KIT, LED AMBER LIGHT (includes part #33875-00 & 33876-00)
26	76624-00	FENDER, BLACK PLASTIC DRILLED
27	76912-10	WELDMENT, CHIPPER TRAILER
28	76915-10	SUPPORT, AXLE FENDER RH
29	76916-10	SUPPORT, AXLE FENDER LH
30	76917-10	SHEET, MOUNT FENDER LH
31	76918-10	SHEET, MOUNT FENDER RH
32	76921-10	BRACKET, FENDER SUPPORT
33	77487-10	BRACKET, LIGHT RH
34	77488-10	BRACKET, LIGHT LH
35	–	TAG, VIN (not available for sale)
–	17320	STRAP, 11 IN BLACK TIE (not shown)
–	32326-00	HARNESS, CHIPPER TRAILER (not shown)
–	33875-00	TERMINAL, RING #10-18GA (not shown)
–	33876-00	CONNECTOR, BUTT 18-22GA (not shown)

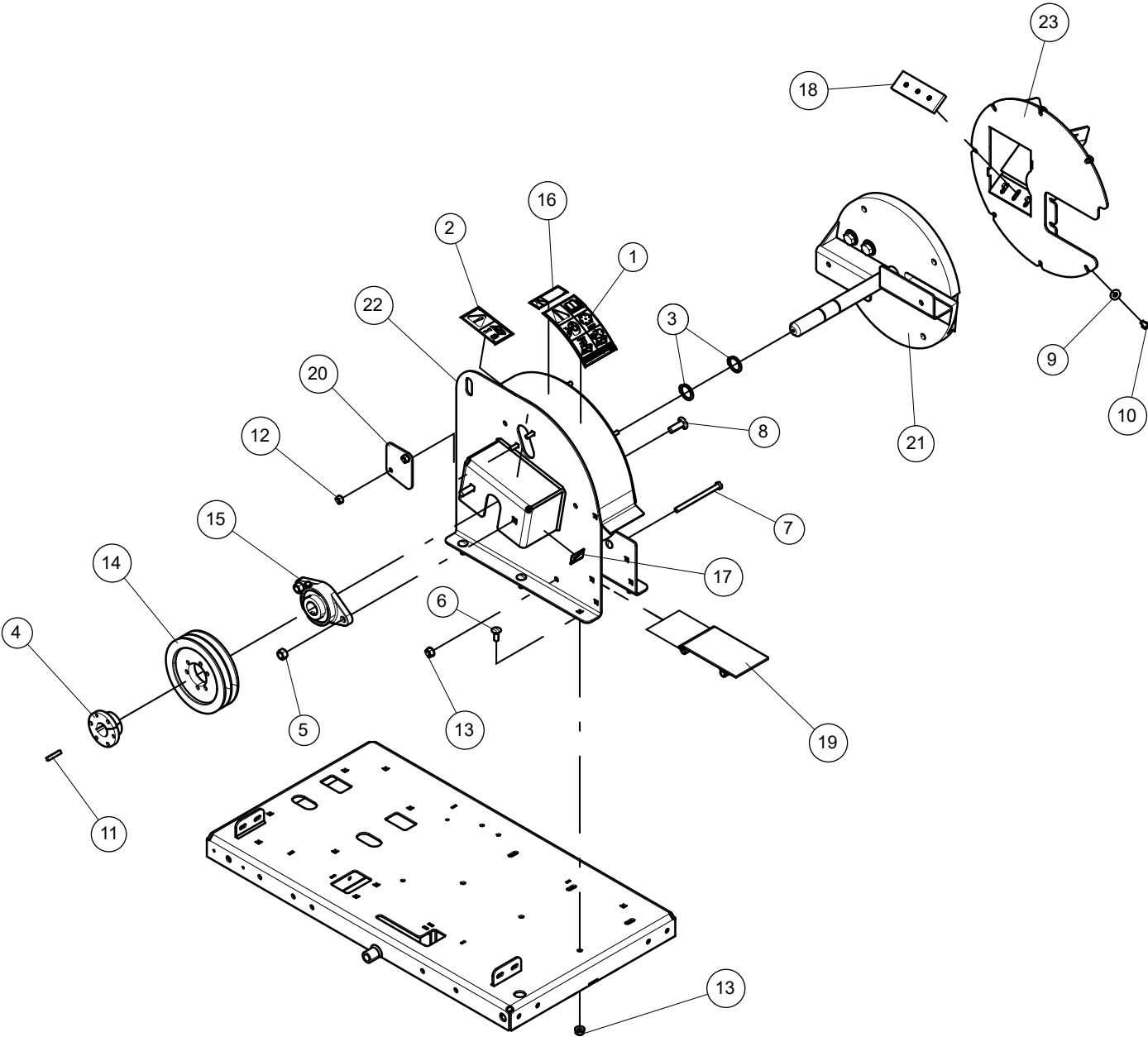
HITCH



HITCH

ITEM	PART NUMBER	DESCRIPTION
1	12530	LANYARD, NYLON
2	14375-00	REFLECTOR, WIDE ANGLE AMBER
3	14381-00	CHAIN, SAFETY 5000 LB W/ LATCH
4	14823-00	PIN, 3/8 HITCH
5	14940-00	HANDLE, HITCH COUPLER
6	15009	BOLT, 3/8 x 3 HEX HD GR5 ZP
7	15031	WASHER, 3/8" FLAT ZP
8	15034	WASHER, 1/2" FLAT ZP
9	15049	NUT, 1/2" CENTERLOCK GRB ZP
10	15057	BOLT, 3/8 x 1" CRG GR5 NC ZP
11	15079-00	BOLT, 1/4-20 x 3/4 HWH GR5 CZP
12	15155-00	BOLT, 3/8 x 3 FLANGE NC
13	15173	BOLT, 1/2 x 3 1/4 HCS GR5 ZP
14	15900-00	NUT, 1/4-20 NYLOCK-FLANGE
15	15905-00	NUT, 3/8-16 NYLOCK FLANGE
16	17988	TRAILER HITCH COUPLER
17	32327-00	DECAL, SAFETY CHAINS
18	32328-00	DECAL, TRAILER ELECTRICAL
19	32332-00	DECAL, SAFE COUPLING
20	74528-10	WELDMENT, HITCH POLE
21	74570-10	CHANNEL, HITCH POLE
22	74690-10	STAND, JACK
–	77504-00	KIT, SPANISH/PORTUGUESE TRAILER/COUPLER DECAL (not shown)

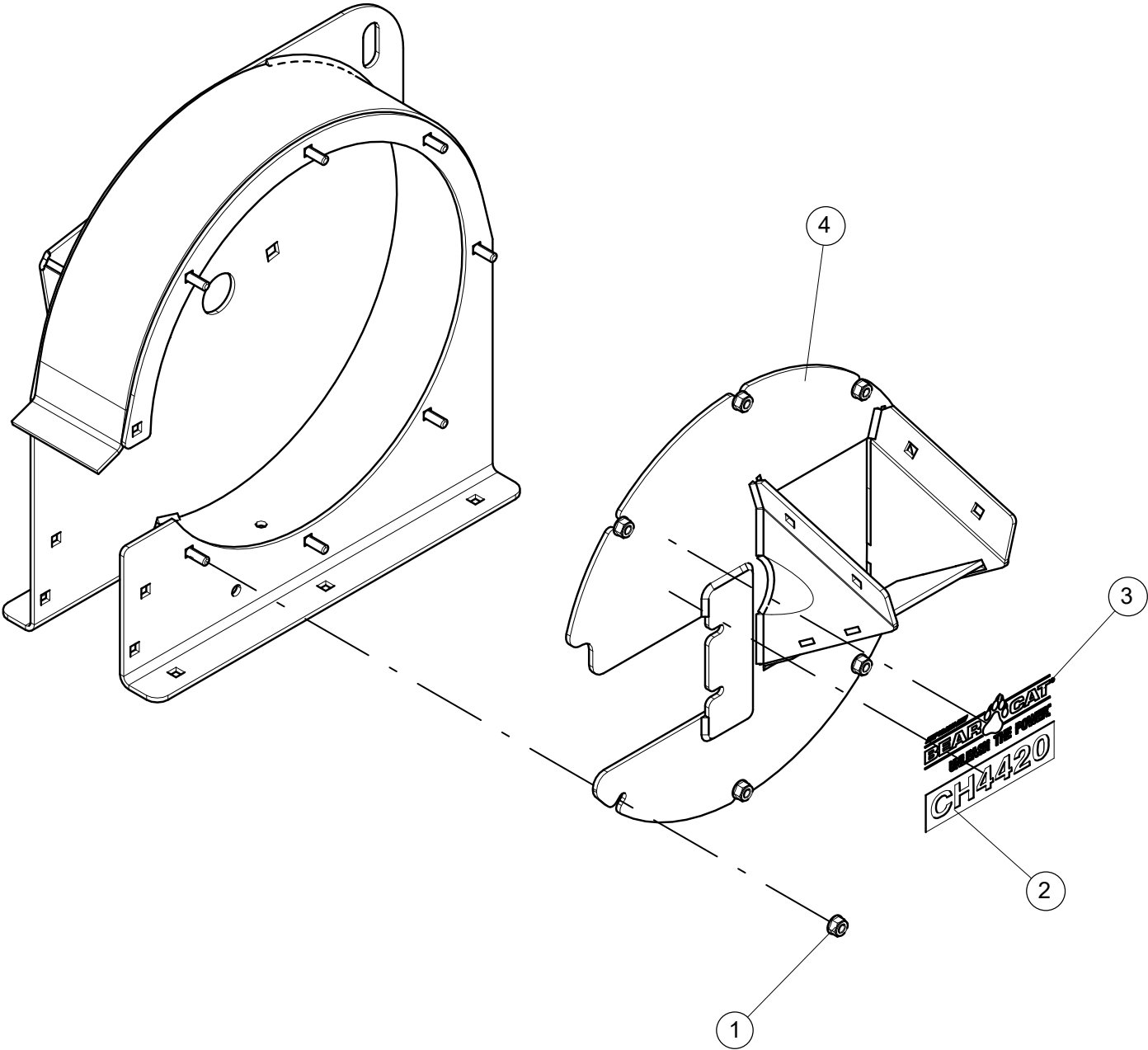
HOUSING



HOUSING

ITEM	PART NUMBER	DESCRIPTION
1	12172	DECAL, OPERATING INSTRUCTIONS ISO
2	12250	DECAL, MAINTENANCE ISO
3	14768-00	RING, 1-1/4 EXT. HEAVY DUTY SNAP
4	14769-00	BUSHING, SDS 1-1/4"
5	15049	NUT, 1/2-13 GR5 CENTERLOCK GRB
6	15057	BOLT, 3/8-16 × 1 GR5 CRG
7	15205	BOLT, 3/8 × 5" GR5 HEX CPS ZP
8	15220-00	BOLT, 1/2 × 1-1/2 SN GR5 CRG ZP
9	15250	WASHER, 5/16 FLAT
10	15300	BOLT, 5/16 × 5/8 GR5 HEX CPS ZP
11	15418	KEY, 1/4 SQ × 1-1/2 LG PLAIN
12	15904-00	NUT, 5/16-18 NYLOCK FLANGE
13	15905-00	NUT, 3/8-16 NYLOCK FLANGE
14	16001	SHEAVE, 2B 6.6 SDS
15	16682	BEARING, 1-1/4" DIA 2 BOLT FLANGE
16	33804-00	DECAL, ROTOR ALIGNMENT
17	35481-00	DECAL, GREASE GUN ICON
18	74529-00	ANVIL, CHIPPER
19	74571-10	WELDMENT, CHIP DEFLECTOR
20	77766-40	PLATE, BOLT ACCESS COVER
21	77797-00	ASSEMBLY, CH4420 ROTOR (See ROTOR ASSEMBLY for part numbers)
22	78477-00	ASSEMBLY, CH4420 CHIPPER HOUSING CBC (Includes Items 1, 2, 16, 17)
23	78478-00	ASSEMBLY, CH4420 DISK COVER CBC (Includes decals)

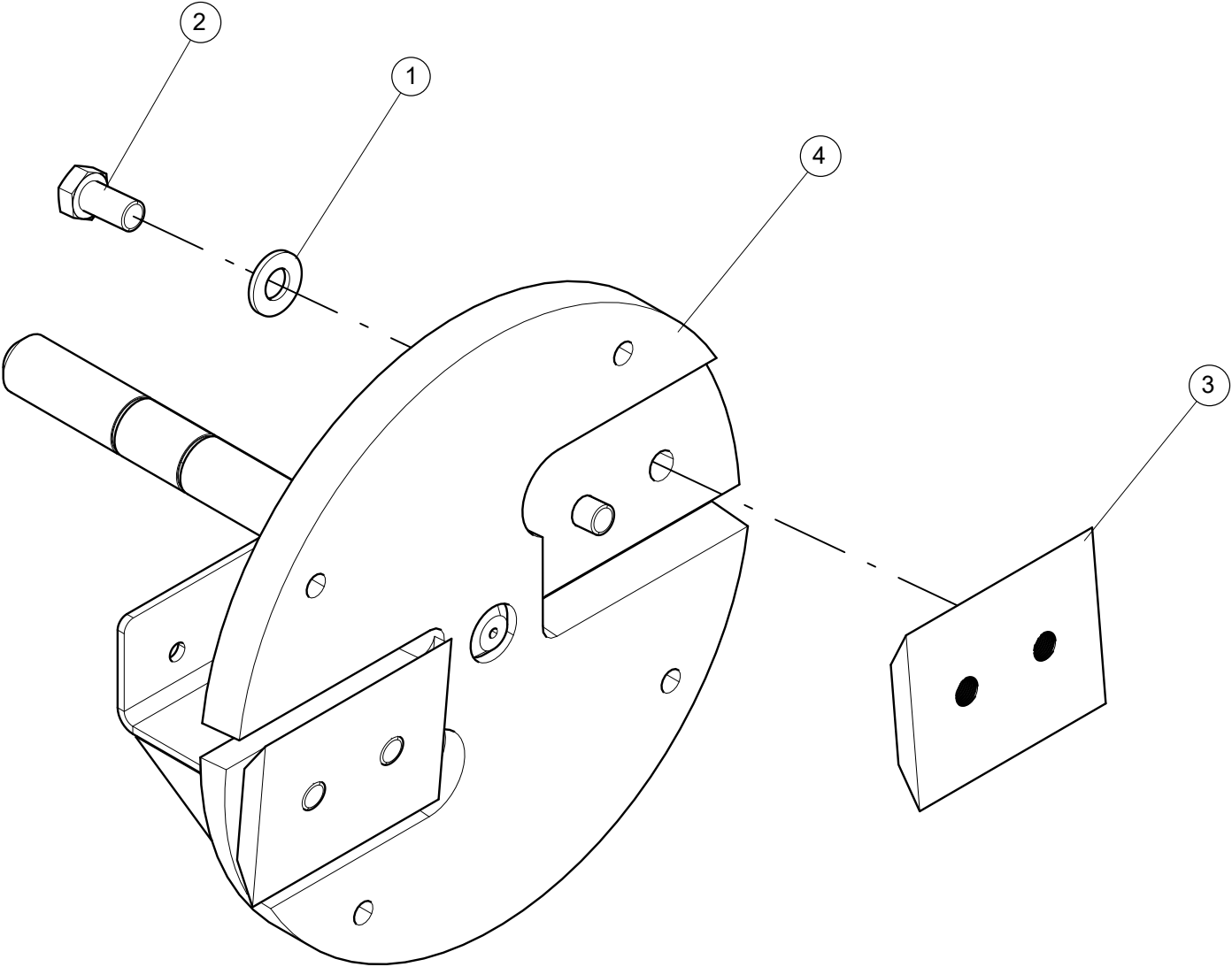
ACCESS COVER



ITEM	PART NUMBER	DESCRIPTION
1	15904-00	NUT, 5/16-18 NYLOCK FLANGE
2	33669-00	DECAL, MODEL CH4420
3	34992-00	DECAL, CBC LOGO BLACK TAGLINE 2.01 x 6.04
4	78478-00	ASSEMBLY, CH4420 DISK COVER CBC (Includes Items 2 & 3)

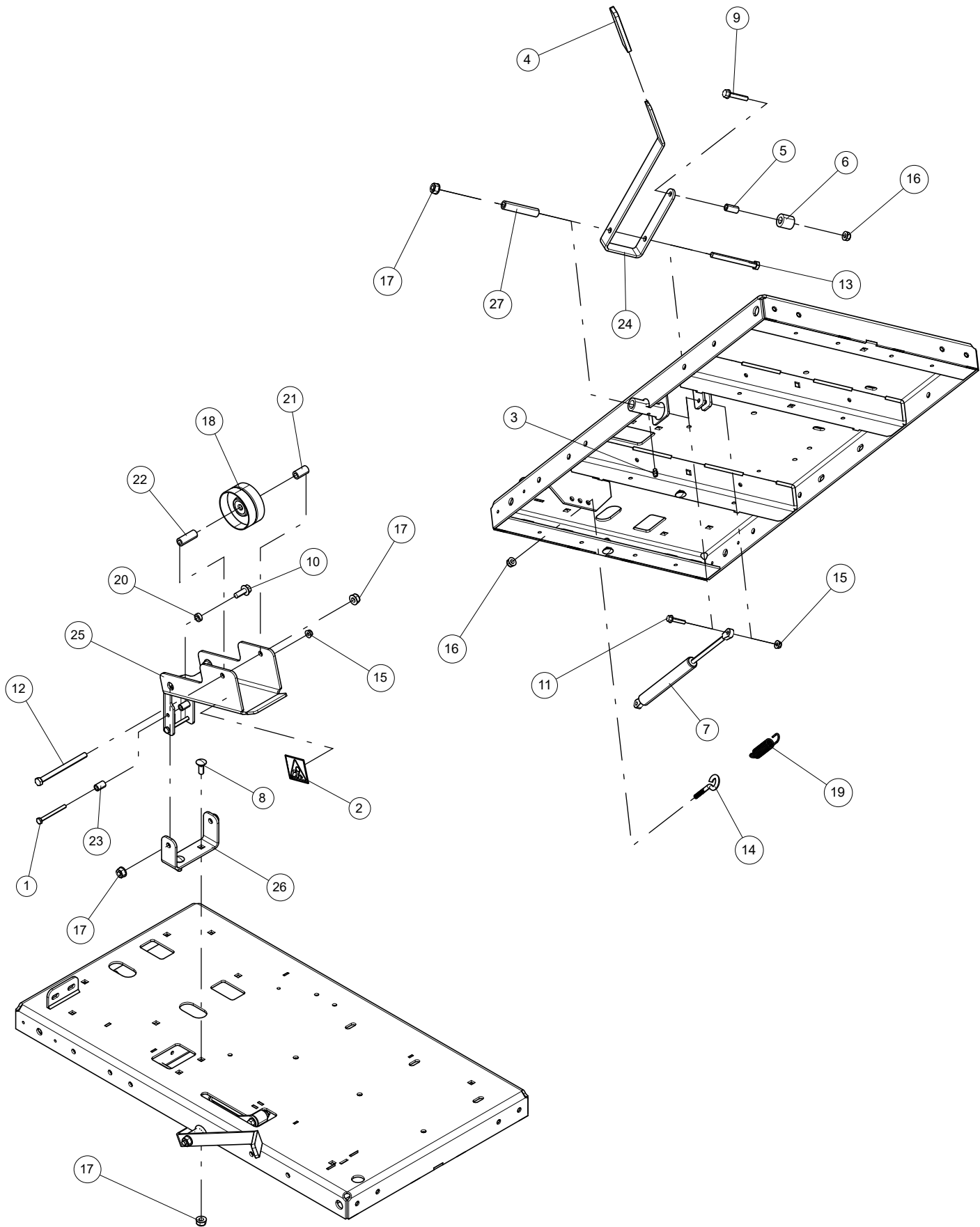
ROTOR ASSEMBLY

Part #77797-00



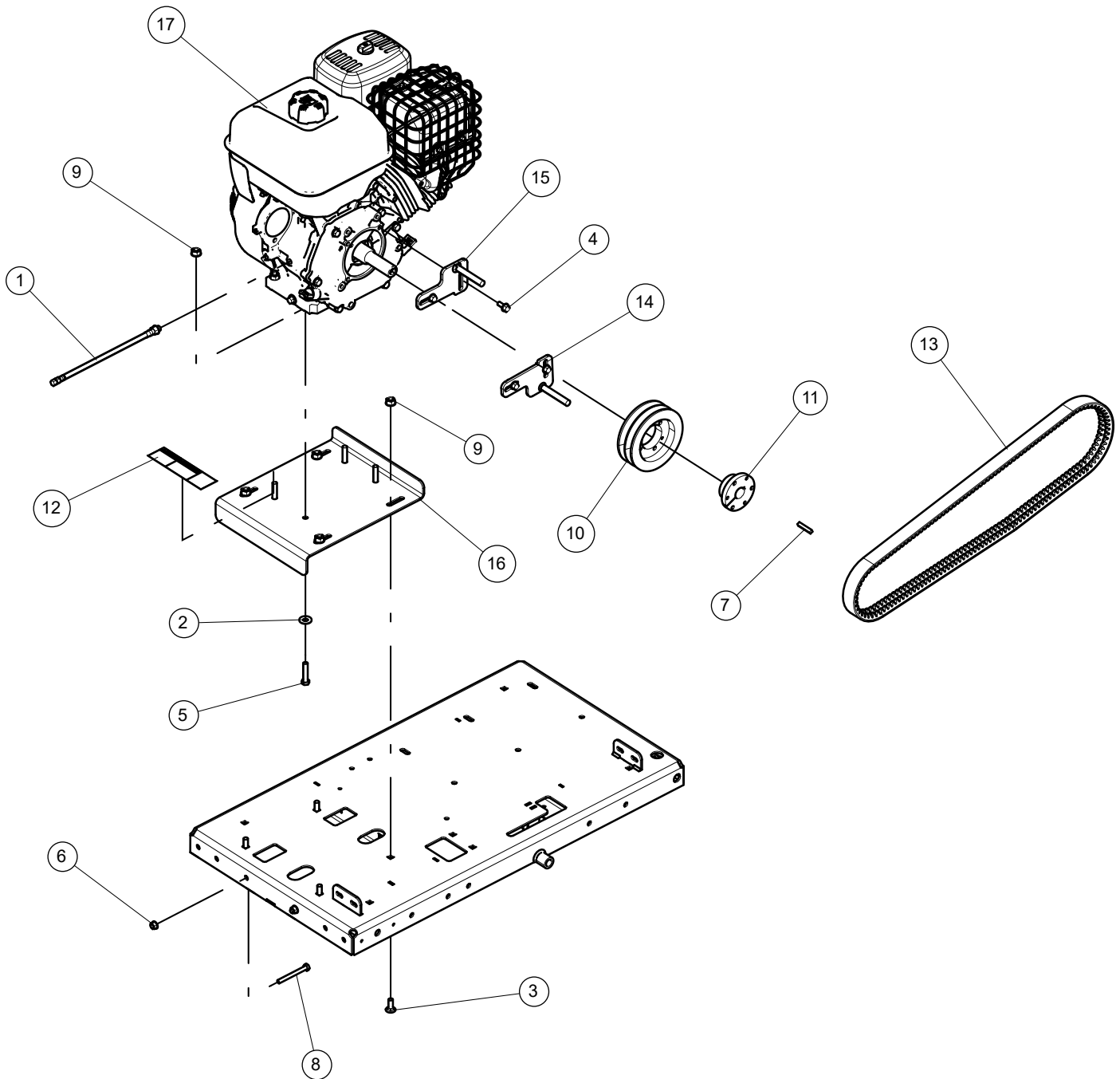
ITEM	PART NUMBER	DESCRIPTION
1	15770-00	WASHER, 5/8 SAE HARDENED (For service order part #78360-00)
2	15833-00	BOLT, M16 × 2.0 × 30 HEX HD W/ PATCH (For service order part #78360-00)
3	33797-00	BLADE, 30 DEGREE 1/2" CHIPPER (For service order part #78360-00)
4	34573-00	WELDMENT, 4-1/2" CHIPPER ROTOR
—	78360-00	KIT, CHIPPER BLADE (includes Items 1-3)

IDLER



ITEM	PART NUMBER	DESCRIPTION
1	0103-0714-00	BOLT, 1/4 × 2-3/4 HEX GR 5 ZP
2	12174	DECAL, SHIELD DANGER ISO
3	12275	FITTING, 1/4 SELF-TAP GREASE
4	14076-00	GRIP, CLUTCH HANDLE
5	14635-00	SPACER, 0.5 × 1.00
6	14636-00	ROLLER, 0.5 × 1.00 × 1.00 NYLON
7	14776-00	DAMPER, IDLER
8	15057	BOLT, 3/8 × 1 GR5 CRG NC ZP
9	15127-00	BOLT, 5/16 × 1-3/4 FLANGE NC
10	15163-00	BOLT, 3/8 × 1 FLANGE NC
11	15165-00	BOLT, 1/4 × 1-1/4 FLANGE NC
12	15205	BOLT, 3/8 × 5 HEX GR5 ZP
13	15272	BOLT, 3/8 × 4 HEX GR5 NC ZP
14	15429	I-BOLT, 5/16-18 × 2 ZP
15	15900-00	NUT, 1/4-20 NYLOCK FLANGE
16	15904-00	NUT, 5/16-18 NYLOCK FLANGE
17	15905-00	NUT, 3/8-16 NYLOCK FLANGE
18	16319	PULLEY, 3-1/4 FLAT IDLER
19	17692	SPRING, 3/4" OD EXTENSION
20	69239	SPACER, IDLER PIVOT
21	70046	SPACER, IDLER
22	70694	SPACER, .63 × 1.63
23	73064	SPACER, .50 × .775
24	74491-40	LEVER, CHIPPER ENGAGEMENT
25	74492-10	BRACKET, IDLER (Includes item 2)
26	74493-10	ANCHOR, IDLER
27	74579-00	SPACER, .63 × 3.060

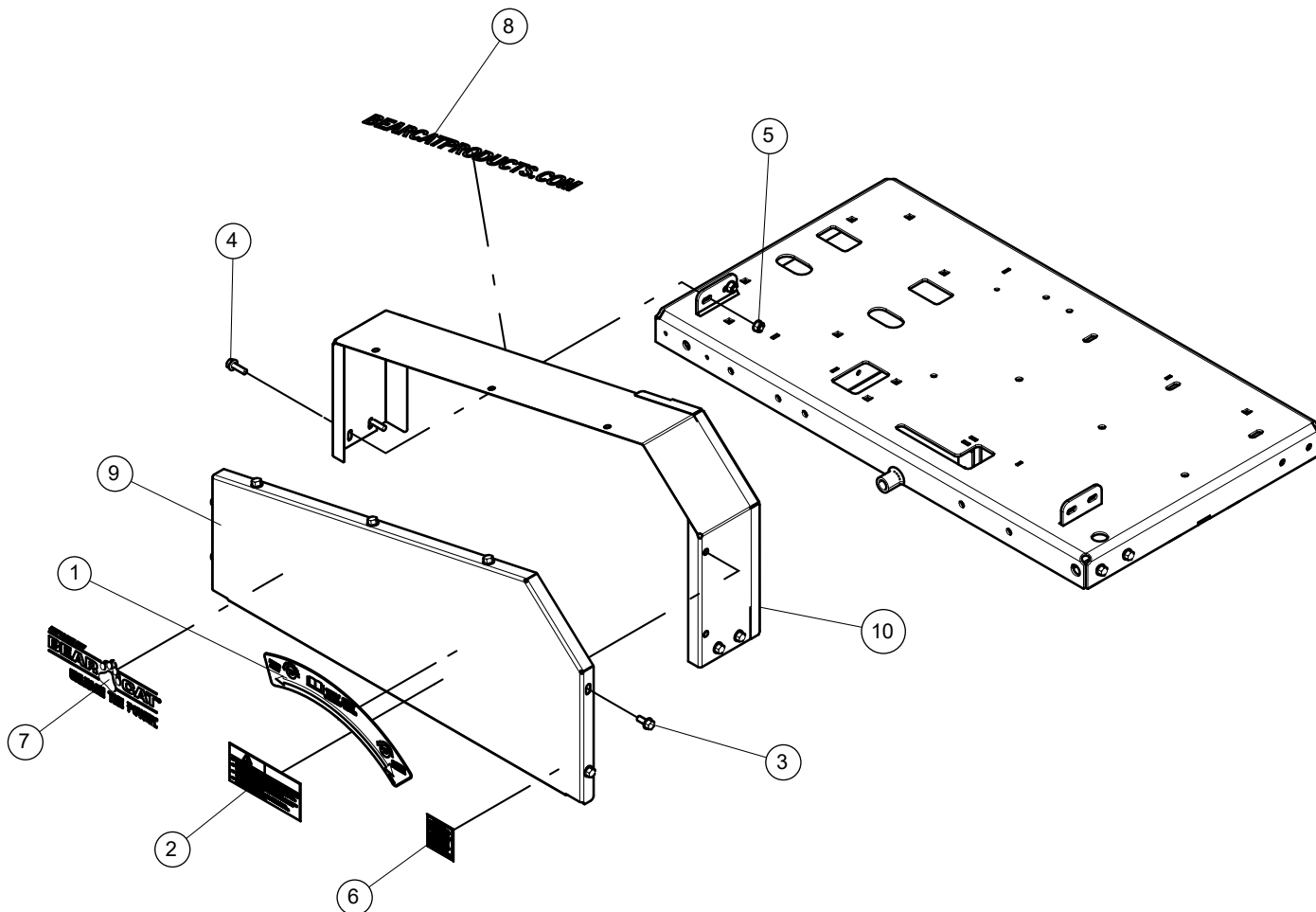
ENGINE



ENGINE

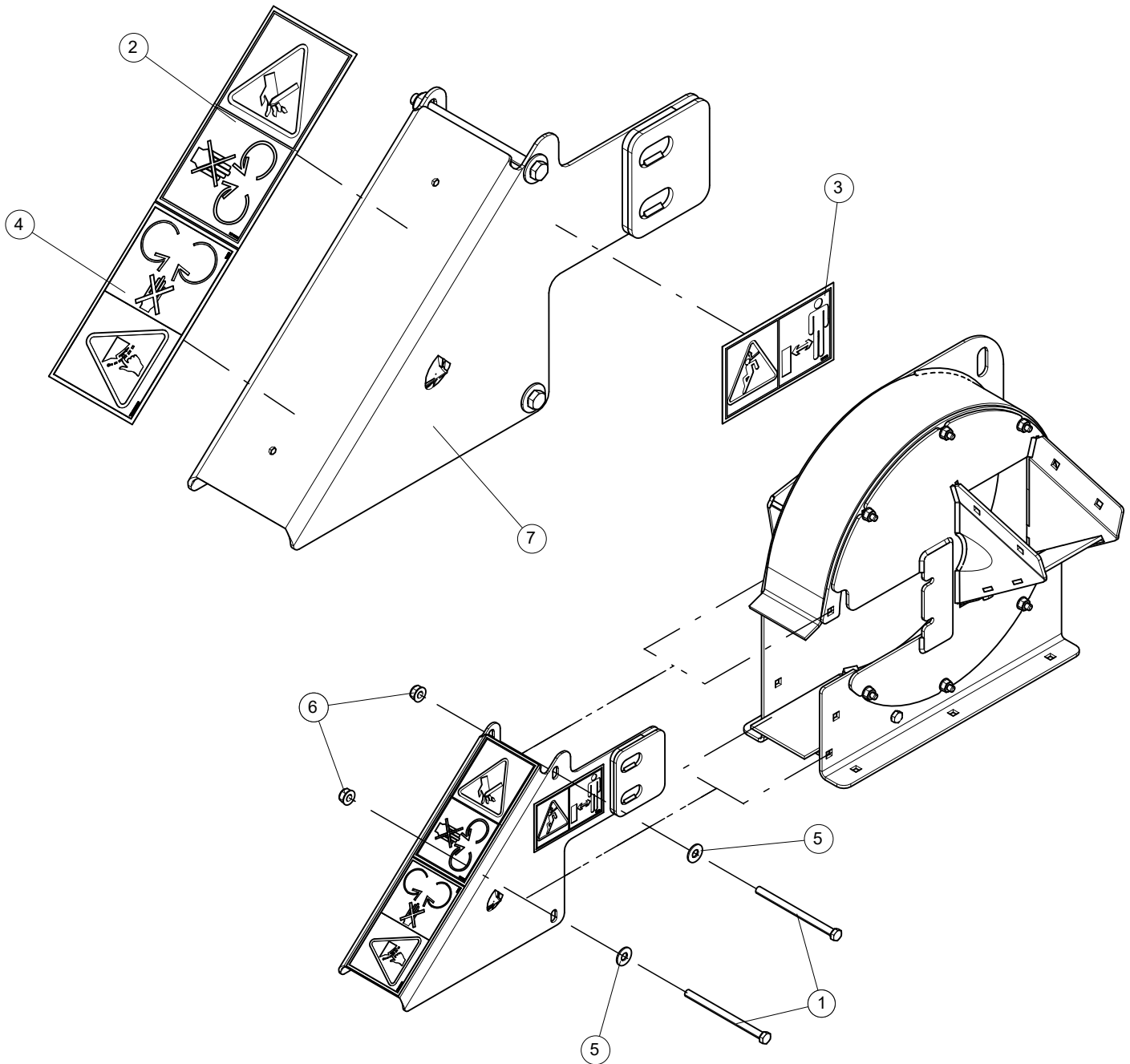
ITEM	PART NUMBER	DESCRIPTION
1	14787-00	HOSE ASSEMBLY, CRANKCASE DRAIN
2	15031	WASHER, 3/8 FLAT
3	15057	BOLT, 3/8-16 × 1 GR5 CRG
4	15118-00	BOLT, 5/16 × 3/4 SERRATED FLANGE NF
5	15141	BOLT, 3/8 × 1-3/4 GR5 HCS ZP
6	15351	NUT, 5/16-18 SERRATED FLANGE NC
7	15418	KEY, 1/4 SQ × 1-1/2 LG PLAIN
8	15715-00	BOLT, 5/16 NC × 3 FULL THD
9	15905-00	NUT, 3/8-16 NYLOCK FLANGE
10	16326	SHEAVE, 2B5.2 SDS
11	16458	BUSHING, SDS 1"
12	32330-00	DECAL, CHECK WHEELS
13	36913-00	BELT, DRIVE 1/BX61
14	71950-10	WELDMENT, BELT GUIDE BOTTOM
15	71951-10	WELDMENT, BELT GUIDE TOP
16	73309-10	PLATE, ENGINE
17	—	ENGINE, 420cc 2100 SERIES B&S (For service see engine owner's manual or your nearest authorized Briggs & Stratton® industrial engine dealer.)

SHIELDS



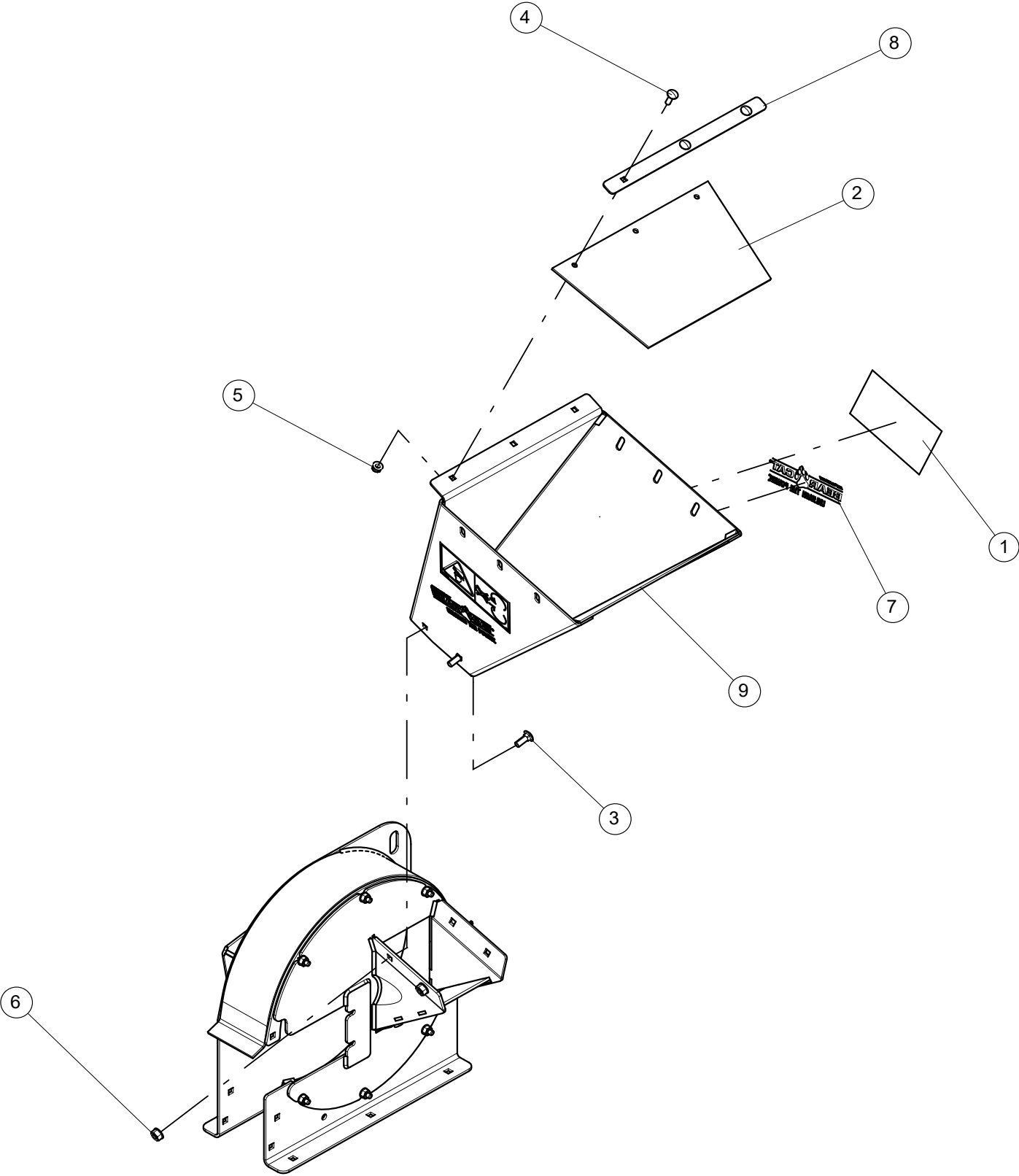
ITEM	PART NUMBER	DESCRIPTION
1	14772-00	DECAL, START/ENGAGE
2	14942-00	DECAL, MANUAL INFORMATION
3	15117-00	BOLT, 5/16 × 3/4 FLANGE NC
4	15120-00	BOLT, 5/16 × 1 FLANGE NC
5	15904-00	NUT, 5/16-18 NYLOCK-FLANGE
6	33883-00	DECAL, SPARK ARRESTOR
7	34991-00	DECAL, CBC LOGO O&W TAGLINE 3.11 x 9.42
8	35219-00	DECAL, CBC WEB ADDRESS WHITE 1.13 x 17.81
9	78476-00	ASSEMBLY, CH4420 SHIELD W/ DECALS CBC (Includes Items 1, 2, 6, 7)
10	78479-00	ASSEMBLY, CH4420 TOP SHIELD DECALS CBC (Includes Item 8)

DISCHARGE CAP



ITEM	PART NUMBER	DESCRIPTION
1	0103-0848-00	BOLT, 3/8 × 5-1/2 HEX HD GR5 ZP
2	12169	DECAL, KNIFE ACCESS ISO
3	12173	DECAL, DISCHARGE ISO
4	12175	DECAL, BLADE DANGER ISO
5	15031	WASHER, 3/8 FLAT ZP
6	15905-00	NUT, 3/8-16 NYLOCK FLANGE
7	74670-00	ASSEMBLY, DISCHARGE CAP (includes Items 2-4)

CHUTE

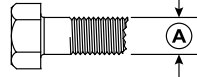


CHUTE

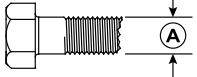
ITEM	PART NUMBER	DESCRIPTION
1	12175	DECAL, BLADE DANGER ISO
2	14771-00	FLAP, CHIPPER CHUTE
3	15057	BOLT, 3/8 × 1" CRG GR5 NC ZP
4	15301	BOLT, 5/16 × 1" GR5 CRG ZP
5	15904-00	NUT, 5/16-18 NYLOCK FLANGE
6	15905-00	NUT, 3/8-16 NYLOCK FLANGE
7	34992-00	DECAL, CBC LOGO BLACK TAGLINE 2.01 x 6.04
8	74608-10	STRIP, FLAP RETAINER
9	78471-00	ASSEMBLY, 4.5" INFEED W/ DECALS (Includes Items 1 & 7)

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

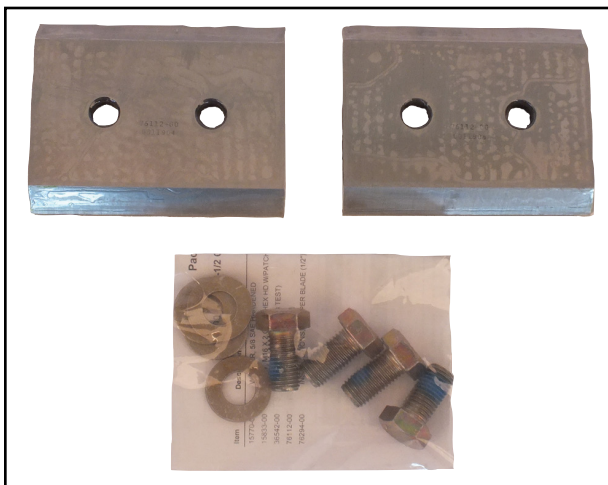
PART NUMBER	DESCRIPTION
31605-00	METER, TACH/HOUR
74634-00	KIT, 4-1/2 CHIPPER DISCHARGE
78360-00	KIT, 4-1/2 CHIPPER BLADE (1/2")



Tach / Hour Kit, 31605-00

4-1/2 CHIPPER BLADE (1/2") 30 DEG.
P/N: 78360-00

PART NUMBER	DESCRIPTION	QTY.
15770-00	WASHER, 5/8 SAE HRD	4
15833-00	BOLT, M16 x 2.0 x 30 HEX HD W/ PATCH	4
33797-00	BLADE, 30 DEGREE 1/2" CHIPPER	2



4-1/2" CHIPPER DISCHARGE KIT
P/N: 74634-00

PART NUMBER	DESCRIPTION	QTY.
12169	DECAL, ACCESS ISO	1
12173	DECAL, DISCHARGE ISO	1
12175	DECAL, BLADEDANGER ISO	1
15250	WASHER, 5/16 FLAT	1
15367	BOLT, 5/16 x 3/4 CRG	4
15398	BOLT, 5/16 x 1-1/4 CRG	1
15409	WASHER, 5/16 NYLON	1
15160-00	BOLT, 5/16 x 5/8 FLANGE NC	6
15904-00	NUT, 5/16-18 NYLOCK FLANGE	4
31994-00	KNOB, 5/16-18 UNCTEE WITH LOCKING INSERT	1
34994-00	DECAL, CBC TAGLINE O&W 1.51 x 16.50	2
70017-10	WELDMENT, CHIPPER DISCHARGE	1
74566-10	WELDMENT, TOP DISCHARGE CHUTE	1
74569-10	CAP, DISCHARGE	1
74642-10	HINGE, DISCHARGE CAP	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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