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2 INCH CHIPPER/SHREDDER

SC2170 – 170cc SUBARU

PARTS MANUAL



PN: 31641-00
Rev. 030113
Companion to 31509-00
Range: D01688 - H01827

Before You Begin

DEAR ECHO BEAR CAT CUSTOMER

Thank you for purchasing a ECHO Bear Cat product. The ECHO Bear Cat line is designed, tested, and manufactured to give years of dependable performance. To keep your machine operating at peak efficiency, it is necessary to adjust it correctly and make regular inspections. The following pages will assist you in the operation and maintenance of your machine. Please read and understand this manual before operating your machine.

If you have any questions or comments about this manual, please call us toll-free at 1.888.625.4520.

If you have any questions or problems with your machine, please call or write your local authorized ECHO Bear Cat Dealer.

This document is based on information available at the time of its publication. ECHO Bear Cat is continually making improvements and developing new equipment. In doing so, we reserve the right to make changes or add improvements to our product without obligation for equipment previously sold.

PLEASE SEND US YOUR WARRANTY CARD

A warranty card is included in your owner's kit packaged with your machine. Please take the time to fill in the information requested on the card. When you send your completed card to us, we will register your machine and start your coverage under our limited warranty or go to bearcatproducts.com/warranty/warranty-registration/.

FOR MACHINE SERVICE OR PARTS:

For service assistance, contact your nearest authorized ECHO Bear Cat dealer or the factory. For parts, contact your authorized dealer. The parts manual for your machine is available at <http://bearcatproducts.com/main/support/index.html>. Your dealer will need to know the identification number of your machine to provide the most efficient service. See below for information on how to identify and record the identification number for your machine.

FOR ENGINE SERVICE OR PARTS:

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

ORDERING PARTS

Only genuine ECHO 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 ECHO Bear Cat dealer.

Provide the following when ordering parts:

The SERIAL NUMBER OR VIN of your machine.

The PART NUMBER of the part.

The PART DESCRIPTION.

The QUANTITY needed.

IDENTIFICATION NUMBER LOCATION

Your machine will have either a serial number or 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. Serial numbers are located on the machine body. They are 6-digit numbers.

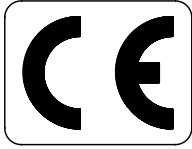
Record your identification number in the space provided and on the warranty registration card.

SERIAL NUMBER OR VIN

HOW TO CONTACT ECHO 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

Is my machine CE Compliant?

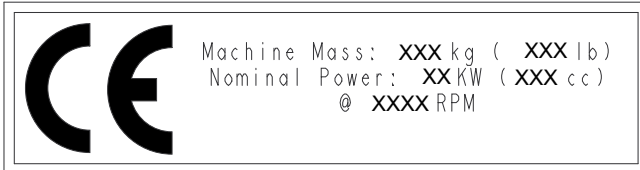


The CE marking (also known as the "CE mark") is a mandatory compliance mark on products sold internationally where CE standards are enforced and in the European Economic Area (EEA). The CE marking certifies that a product has met European Union (EU) consumer safety, health or environmental requirements. By affixing the CE marking to our products, ECHO Bear Cat declares that it meets EU safety, health and environmental requirements.

Other CE Model Identifying Decals



ECHO Bear Cat products that are CE compliant will be labeled with a decibal level warning decal. This decal notes the decibal level of noise created while the machine is operating under normal conditions.



CE compliant ECHO Bear Cat products will also have a CE compliance information decal detailing weight and power specifications for the specific model on which it is found.

CE Compliant Decal Location

ECHO Bear Cat products that are CE compliant will be clearly marked with the decals shown below. These products feature safety and other engineering features that non-CE compliant products do not have. Non-CE compliant ECHO Bear Cat products are primarily sold in countries and regions that do not require or enforce mandatory CE certification. However, this is not true for all countries and regions. If you are unsure of CE requirements for the country or region in which you live, please contact your nearest ECHO Bear Cat dealer or distributor.

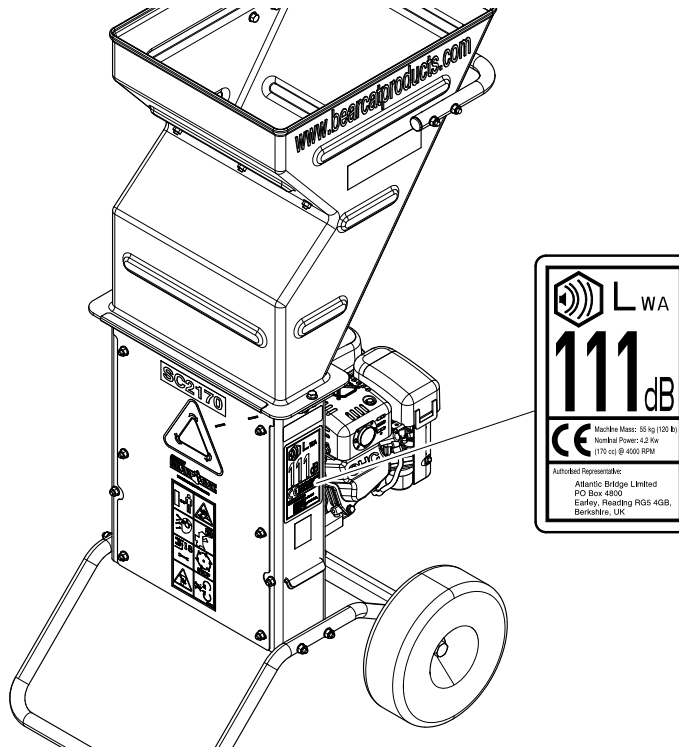
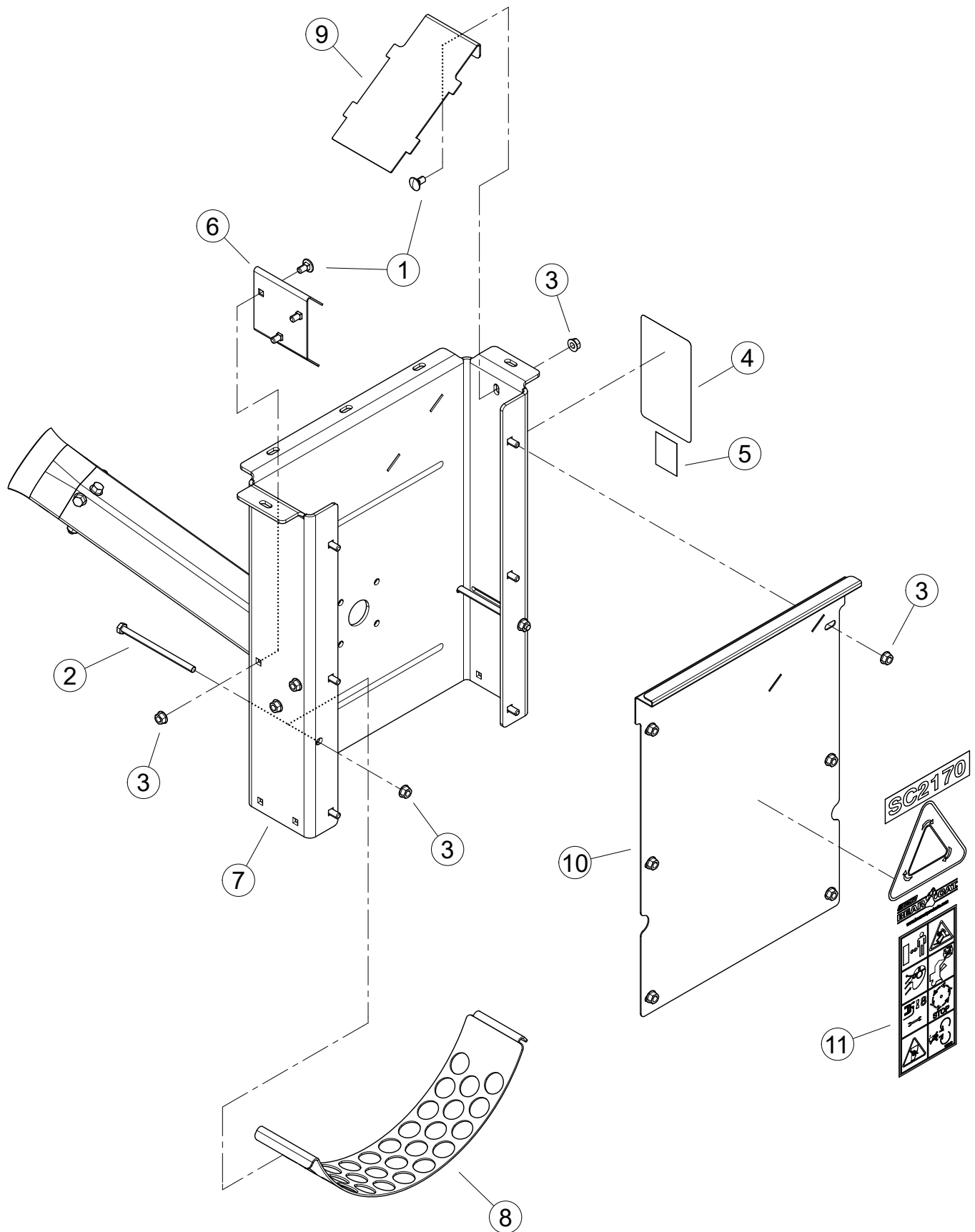


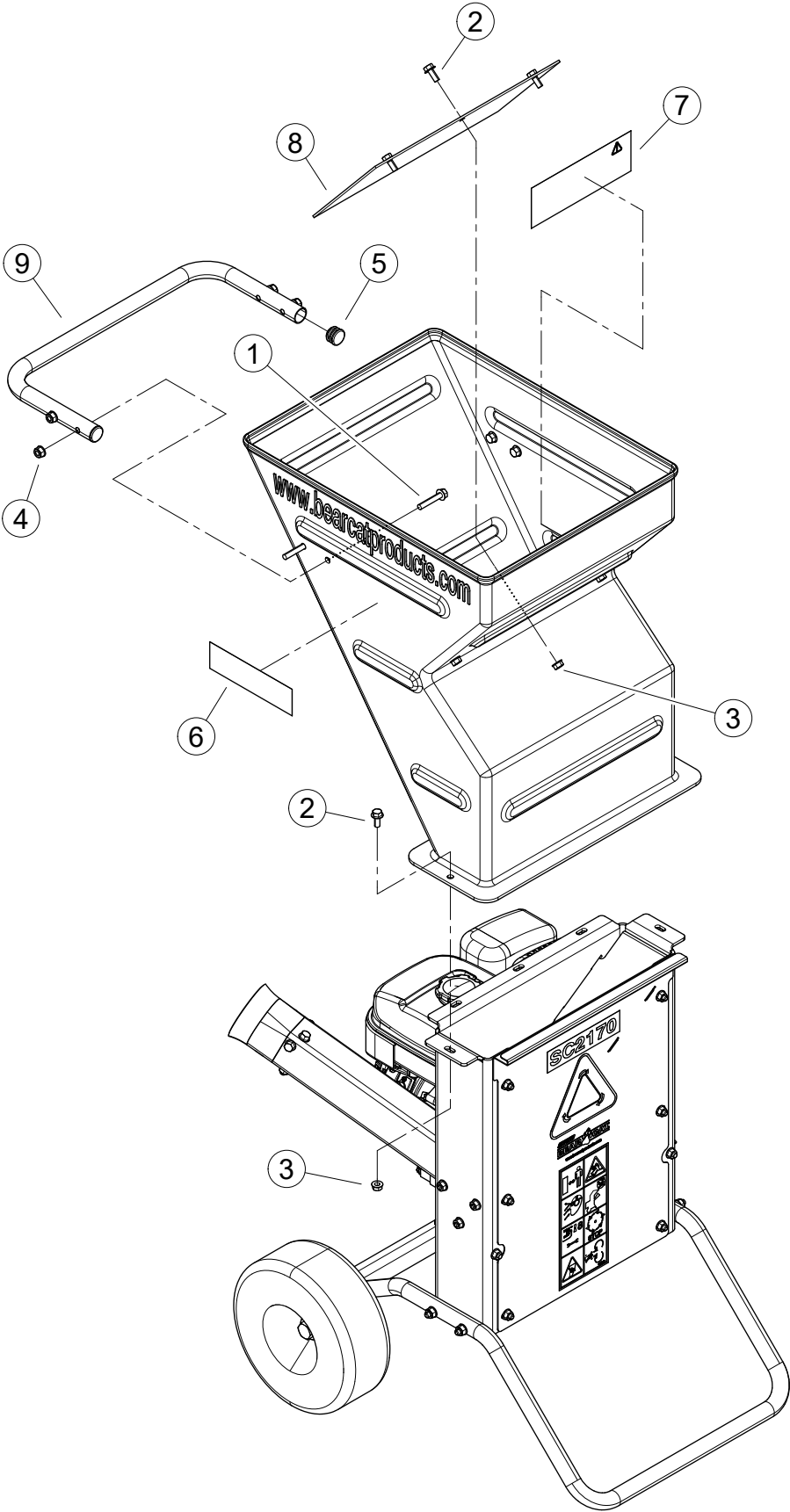
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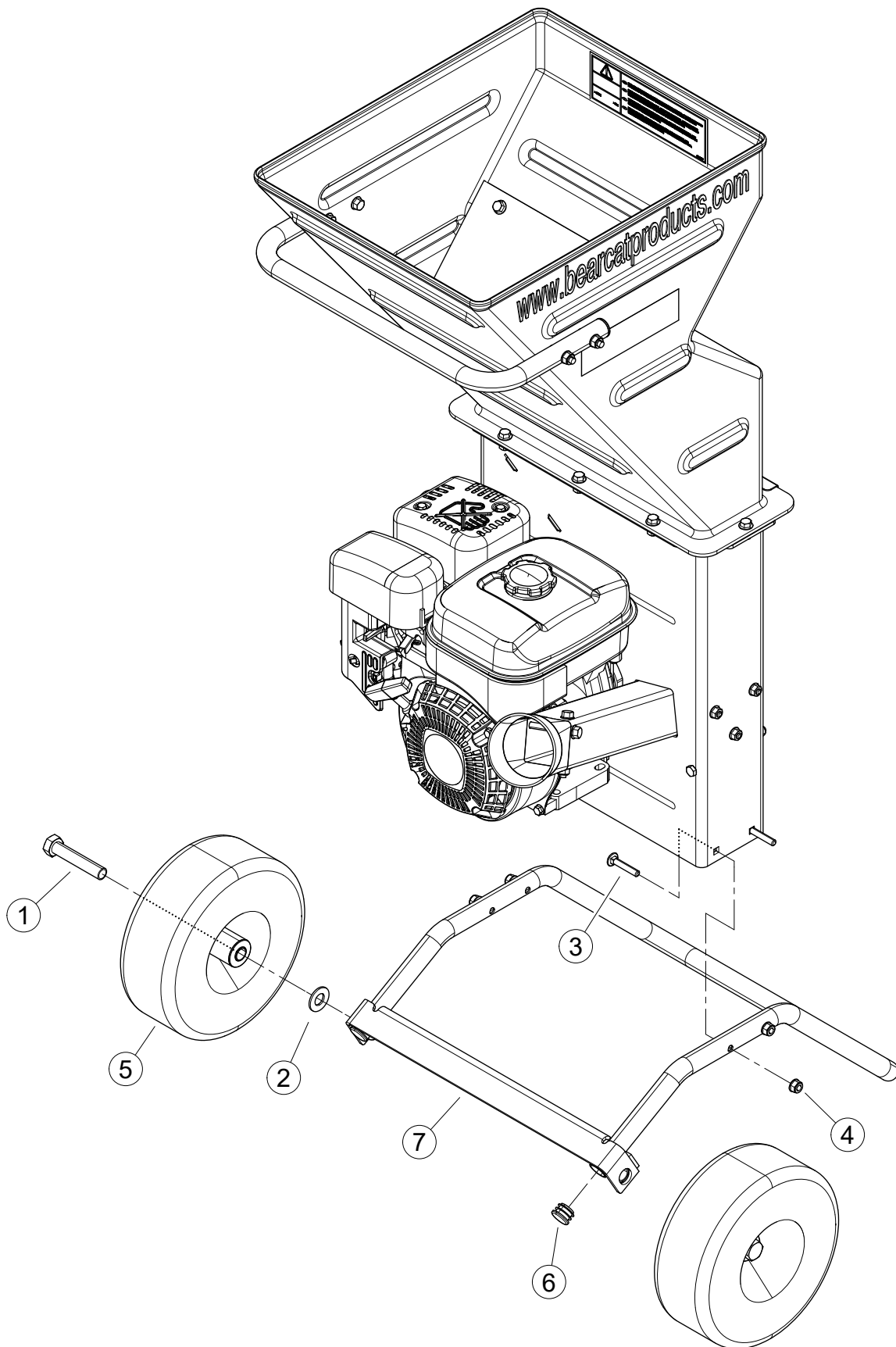
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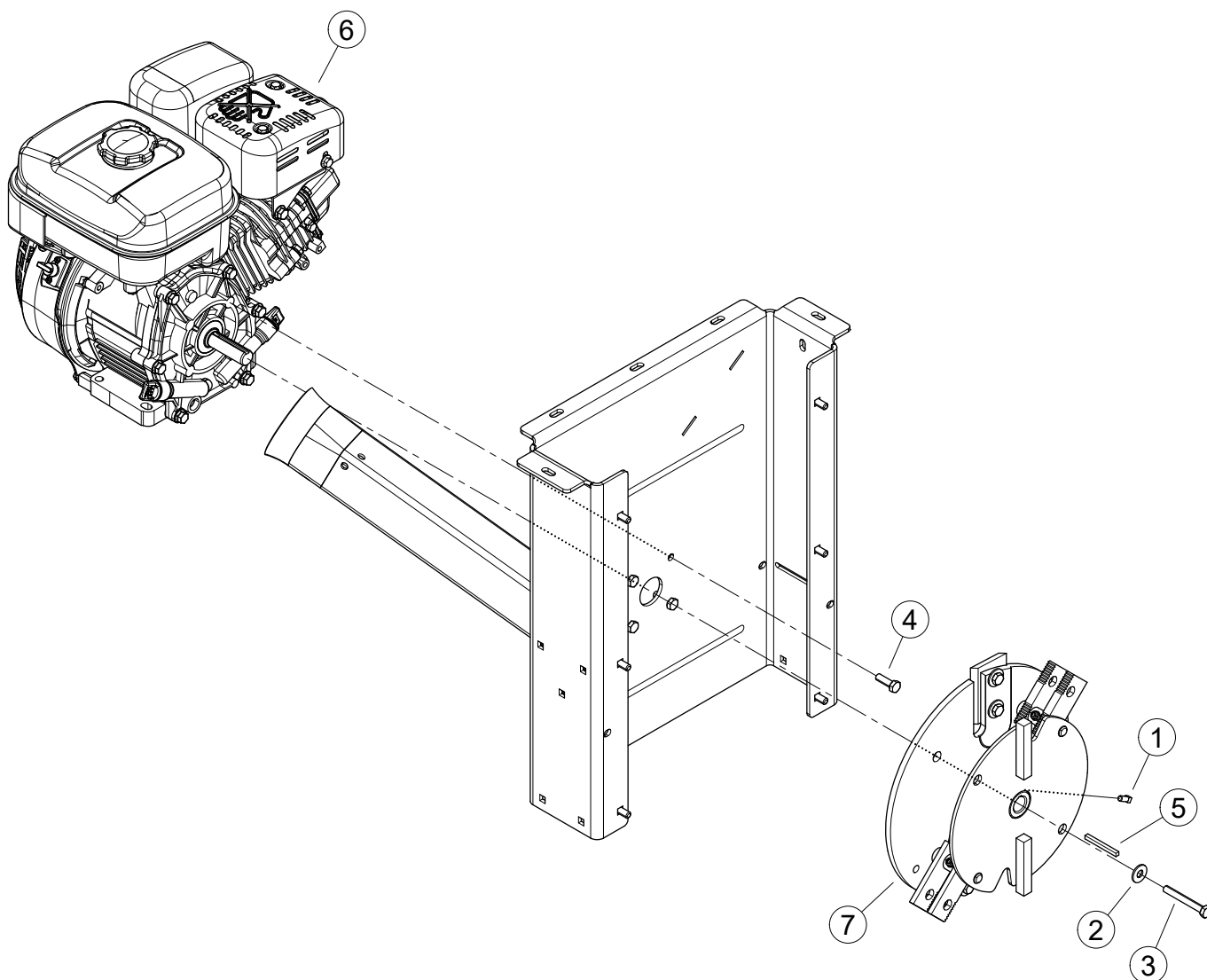
ITEM	PART NUMBER	DESCRIPTION
1	15359	BOLT, 5/16 X 5/8 CRG GR5 ZP
2	15538	BOLT, 5/16 X 5" HHCS NC GR5 ZP
3	15867-00	NUT, 5/16 SPIRAL LOCK
4	31961-00	DECAL, SC2170 CE INFORMATION
5	32392-00	DECAL, ECHO BEARCAT QR CODE
6	76755-35	PLATE, DEFLECTOR
7	76757-35	WELDMENT, PLATE AND CHUTE
8	76758-35	SCREEN, SC2170 SMALL COARSE
9	76759-35	PLATE, RESTRICTOR
10	76925-00	ASSEMBLY, SC2170 PANEL SERVICE (INCLUDES ITEM 11)
11	31950-00	DECAL, SC2170 INFORMATION



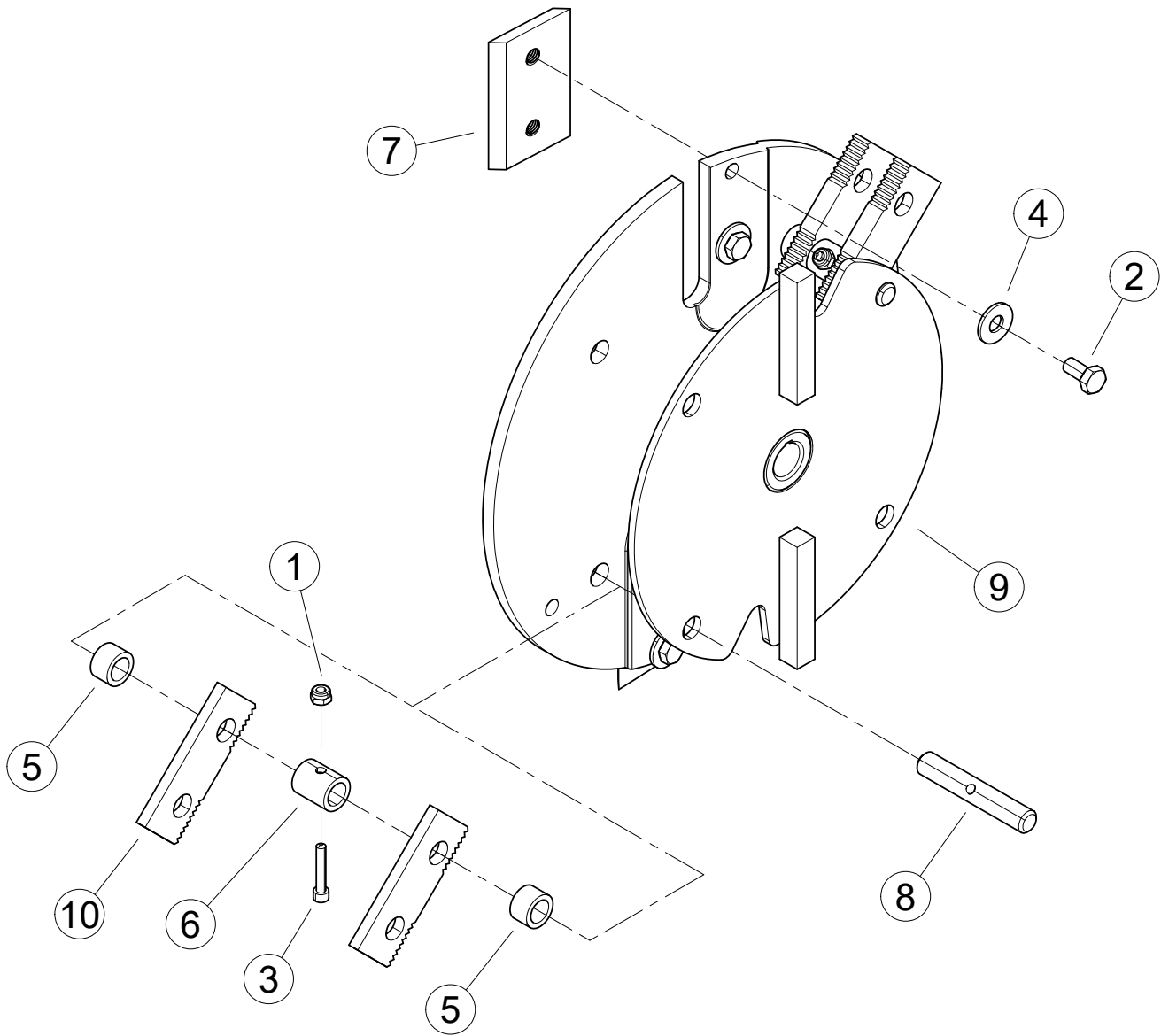
ITEM	PART NUMBER	DESCRIPTION
1	15127-00	BOLT, 5/16 X 1-3/4 FLANGE NC
2	15345	BOLT, 5/16 X 3/4" SERRATED FLANGE GR5 ZP
3	15867-00	NUT, 5/16 SPIRAL LOCK
4	15904-00	NUT, 5/16-18 NYLOCK-FLANGE
5	31527-00	PLUG, 1" ROUND RIBBED
6	31713-00	DECAL, ECHO BEARCAT 6.82 X 1.90
7	31967-00	DECAL, MANUAL INFORMATION
8	76896-00	FLAP, SHREDDER HOPPER
9	76914-12	HANDLE, SC2170



ITEM	PART NUMBER	DESCRIPTION
1	0103-0814-00	BOLT, 5/8 X 3-1/4 HEX GR5 ZP
2	15129	WASHER, 5/8" SAE FLAT ZP
3	15350	BOLT, 5/16 X 1-3/4 CRG GR5 ZP
4	15904-00	NUT, 5/16-18 NYLOCK-FLANGE
5		ASSEMBLY, 410/350-4 PNEUMATIC WHEEL (WAS 16003, OBSOLETE. FOR SERVICE ORDER 33591-00)
	33591-00	ASSEMBLY, 410/350-4 FOAM-FILLED WHEEL
	76922-00	ASSEMBLY, SC2170 STAND (INCLUDES ITEMS 6 & 7)
6	31527-00	PLUG, 1" ROUND RIBBED
7	76766-12	WELDMENT, STAND






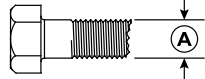
ITEM	PART NUMBER	DESCRIPTION
1	15114	SCREW, 1/4 X 1/2 SQ HD CP SET
2	15548	WASHER, 5/16 GR8 USS FLAT
3	15696-00	BOLT, 5/16 X 2-1/2 HEX NF GR5 ZP
4	15755-00	BOLT, 5/16-24 X 1 HEX GR5 ZP
5	22341	KEY, 3/16 X 2 SQ
6		ENGINE, SUBARU 170CC SP170 (FOR SERVICE SEE ENGINE OWNER'S MANUAL OR NEAREST SUBARU INDUSTRIAL ENGINE DEALER)
7	77615-00	ASSEMBLY, SC2170 ROTOR KNIVES







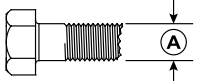
ITEM	PART NUMBER	DESCRIPTION
1	15397	NUT, 10/24 NYLOCK TYPE NM ZP
2	15446	BOLT, 5/16-18 X 5/8 HEX GR8 PATCH Z
3	15466	SCREW, #10-24 X 1-1/8 PL SKT HD CAP
4	15548	WASHER, 5/16 GR8 USS FLAT
5	32522-00	SPACER, .75 X .47
6	70291	SPACER, .75 X .90 W/ HOLE
7	70738	KIT, TOOL STEEL BLADE
8	76358-00	SHAFT, SHREDDER
9	76767-00	WELDMENT, S/C ROTOR
10	77616-00	KIT, SC2170 SHREDDER KNIVES STANDARD

DESCRIPTION	ENGLISH	METRIC
Overall size	29 x 23 x 50"	74 x 58 x 127 cm
Overall weight	120 lbs.	54.5 kg
Max chipper capacity	2"	5.1 cm
Chipper blades	3.125 x 2 x .25"	8.0 x 5.1 x 0.64 cm
Max shredder capacity	3/4"	2 cm
Shredder knives	4 standard, 4 optional	
Rotor speed	3,800 RPM	
Rotor size	12.8" dia.	32.6 cm dia.
Rotor weight	15 lbs.	6.8 kg
Wheel base	26"	66 cm
Engine	170cc Subaru	

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-LB	NM	FT-LB	NM	FT-LB
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-LB	NM	FT-LB	NM	FT-LB	NM	FT-LB
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%.

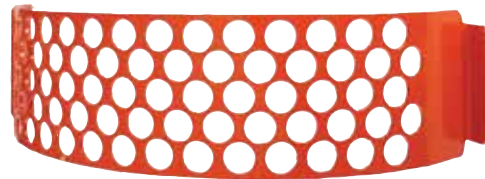
PART NUMBER	DESCRIPTION
31605-00	METER, TACH/HOUR
70738	KIT, SMALL CHIPPER BLADE
76758-35	SCREEN, SC2170 STANDARD
76893-35	SCREEN, SC2170 FINE
77616-00	KIT, SHREDDER KNIVES
77618-00	KIT, ADDITIONAL KNIVES
77639-35	SCREEN, SC2170 WET DEBRIS



Shredder Knives Kit, 77616-00



Wet Debris Screen, 77639-35



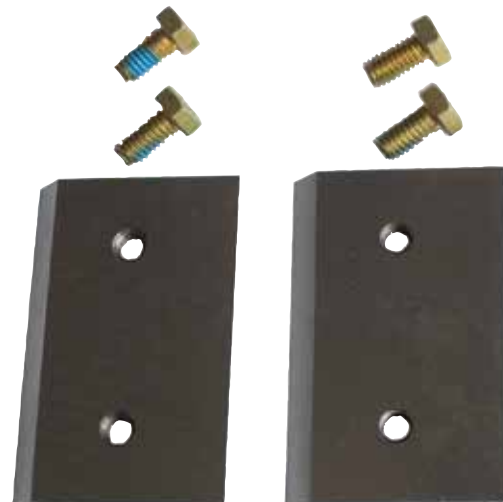
Fine Screen, 76893-35



Standard Screen, 76758-35



Additional Knives Kit, 77618-00



Small Chipper Blade Kit, 70738



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