



SERVICE DATA

HEDGE TRIMMER

ECHO: HCA-2620ES-HD

HCAS-2620ES-HD

shindaiwa: AH262S-HD

(Serial number : 37000001 and after)

(Serial number : 38000001 and after)

INTRODUCTION

We are constantly working on technical improvement of our products. For this reason, technical data, equipment and design are subject to change without notice. All specifications and directions in this SERVICE DATA are based on the latest product information available at the time of publication.

SERVICE MANUAL Ref. No. 402-43 (Model: SRM-2620ES, SRM-2620TES, T262XS, C262S, T262TXS and C262TS) contains lots of information for servicing these models.

For more information about gear case and cutter, refer to SERVICE DATA (Model: HCA-265ES-HD and AH265S-HD).

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Caburetor Adjustment video

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Reference No. **15-25I-04**

REVISED : 202110

ISSUED: 201811



1 SERVICE INFORMATION

1-1 Specifications

Model			HCA-2620ES-HD AH262S-HD	HCAS-2620ES-HD
Dimensions	Length	mm (in)	2440 (96.1)	1784 (70.2)
	Width	mm (in)	273 (10.7)	
	Height	mm (in)	260 (10.2)	
Dry weight		kg (lb)	6.5 (14.3)	
Engine	Type		YAMABIKO, air-cooled, two-stroke, single cylinder	
	Rotation		Counterclockwise as viewed from the output end	
	Displacement	cm ³ (in ³)	25.4 (1.550)	
	Bore	mm (in)	34.0 (1.339)	
	Stroke	mm (in)	28.0 (1.102)	
	Compression ratio		7.6	
Carburetor	Type		Diaphragm, horizontal-draft, with purge bulb	
	Model		Walbro WYG-9	
	Venturi size-Throttle bore	mm (in)	10.5 - 10.5 (0.413 - 0.413)	
Ignition	Type		CDI (Capacitor discharge ignition) system, Digital Magneto	
	Spark plug		NGK CMR7H	
Exhaust	Muffler type		Spark arrester muffler with catalyst	
Starter	Type		ES (effortless)-start / S(Soft)-start	
	Rope diameter x length	mm (in)	3.5 x 850 (0.14 x 33.5)	
Fuel*	Type**		Mixed two-stroke fuel	
	Mixture ratio		50 : 1 (2 %)	
	Gasoline		Minimum 89 octane	
	Two-stroke air cooled engine oil		ISO-L-EGD (ISO/CD13738), JASO FC/FD	
	Tank capacity	L (U.S.fl.oz.)	Full tank capacity: 0.6 (20.3), Usable capacity: 0.5 (16.9)	
Clutch	Type		Centrifugal, 2-shoe pivot	
Handle	Type	Front	Rubber anti-vibration grip	
		Rear	Throttle handle with rubber anti-vibration grip	
Drive shaft	Type		Flexible	
	Diameter - Length		mm (in)	
	Housing	OD - ID	mm (in)	
		Length	mm (in)	
Gear case	Reduction ratio		4.60	
	Gear tooth		Spur gear / Spiral bevel gear	
	Lubrication		Lithium based grease	
Cutter	Type		Dual action, double sided blade	
	Effective length	mm (in)	536 (21.1)	
	Pitch	mm (in)	35 (1.4)	
	Height	mm (in)	21 (0.8)	
	Thickness	mm (in)	2.5 (0.1)	
	Lubrication		Apply oil every 4 hours of use	

OD: Outer diameter. **ID:** Inner diameter.

* Refer to Operator's manual.

** Premixed alkylate fuel for 2-stroke can be used.

1-2 Technical data

Engine			
Compression pressure	MPa (kgf/cm ²) (psi)	0.97 (9.8) (140)	
Clutch engagement speed	RPM	4,300	
Ignition system			
Spark plug gap	mm(in)	0.6 - 0.7 (0.024 - 0.028)	
Spark test	Tester gap w/ spark plug	mm(in)	4.0 (0.16)
	Tester gap w/o spark plug	mm(in)	6.0 (0.24)
Secondary coil resistance	Ω	780 - 1180	
Pole shoe air gaps	mm(in)	0.3 - 0.4 (0.012 - 0.016)	
Ignition timing	at 2,900 RPM	°BTDC	9
	at 6,500 RPM	°BTDC	22
	at 8,500 RPM	°BTDC	33
	at 11,000 RPM	°BTDC	19
Carburetor			
Test Pressure, minimum	MPa (kgf/cm ²) (psi)	0.05 (0.5) (7.0)	
Metering lever height	mm(in)	0.66 (0.03) lower than diaphragm seat	
Tool to adjust mixture needles		D-shaped tool (S) P/N X645-000022 (Carb. adjustment tool P/N Y089-000094)	
Carburetor adjustment			
Cutting head preparation	Nylon line cutter	F4	SF400
	Line length* ¹	190 mm without shield	200 mm without shield
1) Initial setting	H mixture needle	turn out	3
	L mixture needle	turn in * ²	7 1/4
	Throttle adjust screw	turn out* ³	7 3/4
Engine warm-up	Idle - WOT : Total	sec.	10 - 50 : 180
2) Find idle maximum speed			Adjust L mixture needle to maximum idle speed* ⁴
3) Set idle maximum speed w/ TAS		RPM	4,000
4) Set idle speed by turning L mixture needle CCW		RPM	3,000
5) Find WOT maximum speed			Adjust H mixture needle to maximum WOT speed
6) WOT setting		RPM	Turn H mixture needle CCW to decrease WOT speed by : 20 - 30
7) Verify final engine speed with standard equipment			Install original gear case and cutter Idle: 2,700 - 3,500 WOT: 10,900 - 11,900
8) Verify clutch engagement speed			Confirm clutch engagement speed. If it is less than 1.25 times the idle speed, adjust the idle speed by turning TAS CCW.

BTDC: Before top dead center. **WOT:** Wide open throttle **CCW:** Counterclockwise **TAS:** Throttle adjust screw

*¹ From eyelet on nylon head

*² Screw in L mixture needle from initial thread engagement (at the point that the clicking sound is heard).

*³ Turn TAS clockwise until its head touches boss. Then turn TAS counterclockwise.

*⁴ If clutch engages during adjustment process 2), decrease engine speed by turning TAS CCW until clutch disengages and then redo 2).

1-3 Torque limits

Descriptions		Size	kgf•cm	N•m	in•lbf	
Starter system	Starter pawl assembly	M8	70 - 110	7 - 11	60 - 95	
	Starter case	M5	40 - 60	4 - 6	32 - 55	
Ignition system	Magneto rotor (Flywheel)	M8	160 - 200	16 - 20	140 - 175	
	Ignition coil	M5	40 - 60	4 - 6	32 - 55	
	Fan cover	M5	50 - 70	5 - 7	45 - 60	
	Spark plug	M10	100 - 150	10 - 15	87 - 130	
Fuel system	Carburetor	M5	45	4.5	40	
	Intake insulator	M5	30 - 45	3 - 4.5	25 - 40	
	Bellows holder	M5	25 - 35	2.5 - 3.5	22 - 30	
	Fuel tank	Starter side	M5*	40 - 60	4 - 6	32 - 55
		Fan cover side	M5*	50 - 70	5 - 7	45 - 60
Clutch	Clutch shoe	M6	70 - 110	7 - 11	60 - 95	
Cylinder cover		M5*	30 - 45	3 - 4.5	25 - 40	
Engine	Crankcase	M5	70 - 110	7 - 11	60 - 95	
	Cylinder	M5	70 - 110	7 - 11	60 - 95	
	Muffler	M5	70 - 110	7 - 11	60 - 95	
	Muffler cover	Starter side	M5*	25 - 35	2.5 - 3.5	22 - 30
		Crankcase side	M5*	30 - 45	3. - 4.5	25 - 40
Cutter	Cutter bolts	M5	50 - 70	5 - 7	45 - 60	
	Cutter nuts	M5	50 - 70	5 - 7	45 - 60	
	Cutter assembly	M5	90 - 110	9 - 11	80 - 95	
	Gear case cover	M4	40 - 50	4 - 5	32 - 45	
Regular bolt, nut and screw		M3	6 - 10	0.6 - 1	5 - 9	
		M4	15 - 25	1.5 - 2.5	13 - 22	
		M5	25 - 45	2.5 - 4.5	22 - 40	
		M6	45 - 75	4.5 - 7.5	40 - 65	
		M8	110 - 150	11 - 15	95 - 130	

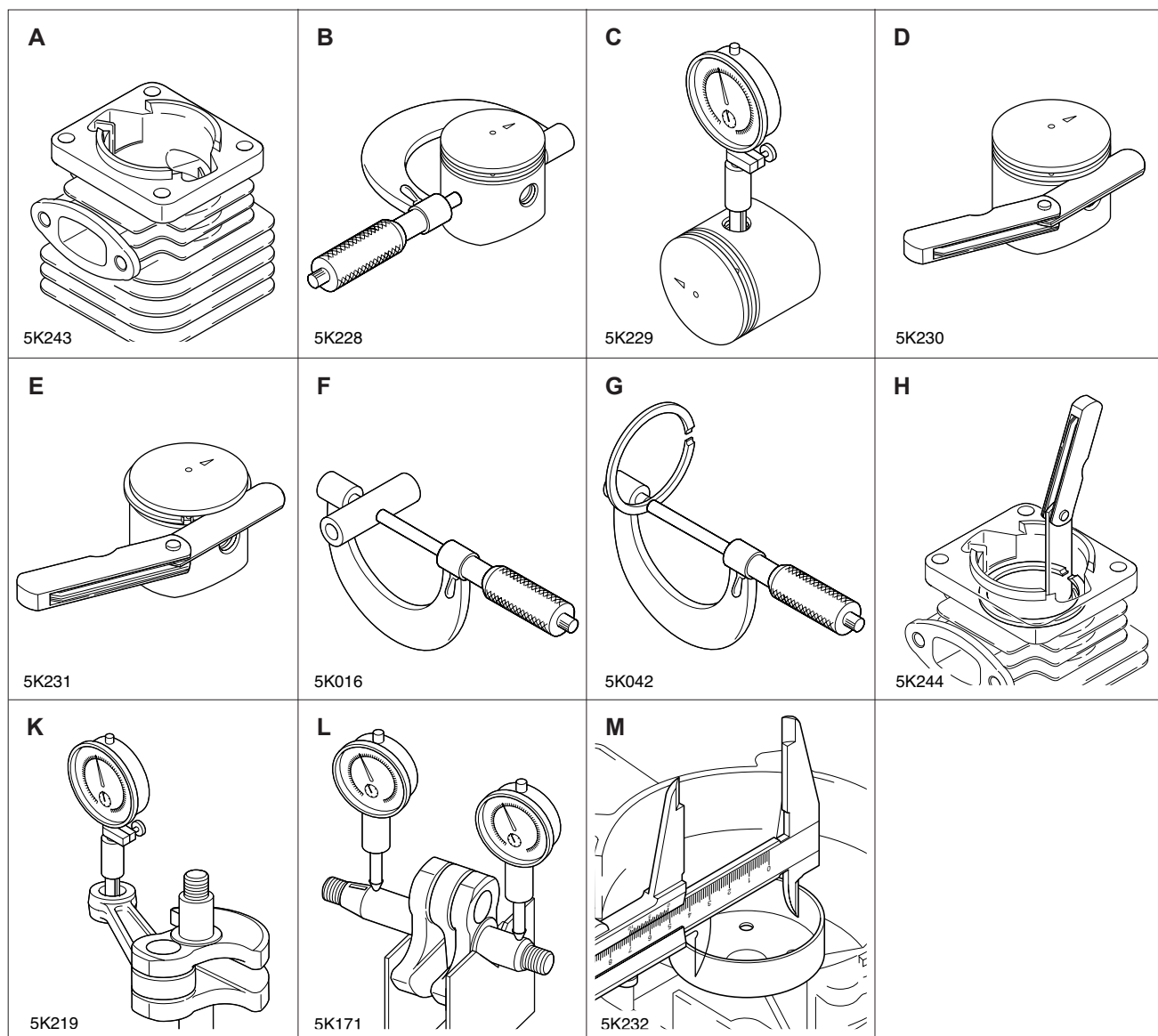
LM: Left hand thread * Apply thread locking sealant. (See below)

1-4 Special maintenance materials

Material	Location	Remarks
Grease	Drive shaft	EPNOC AP2 (Lithium based grease) P/N X695-000060
	Gear case	
	Rewind spring	
	Starter center post	
	Oil seal inner lips	
Thread locking sealant	Fuel tank	Loctite #242, ThreeBond #1324 or equivalent
	Muffler cover	
	Cylinder cover	
	Release lever upper side*	
	Gear case cover*	

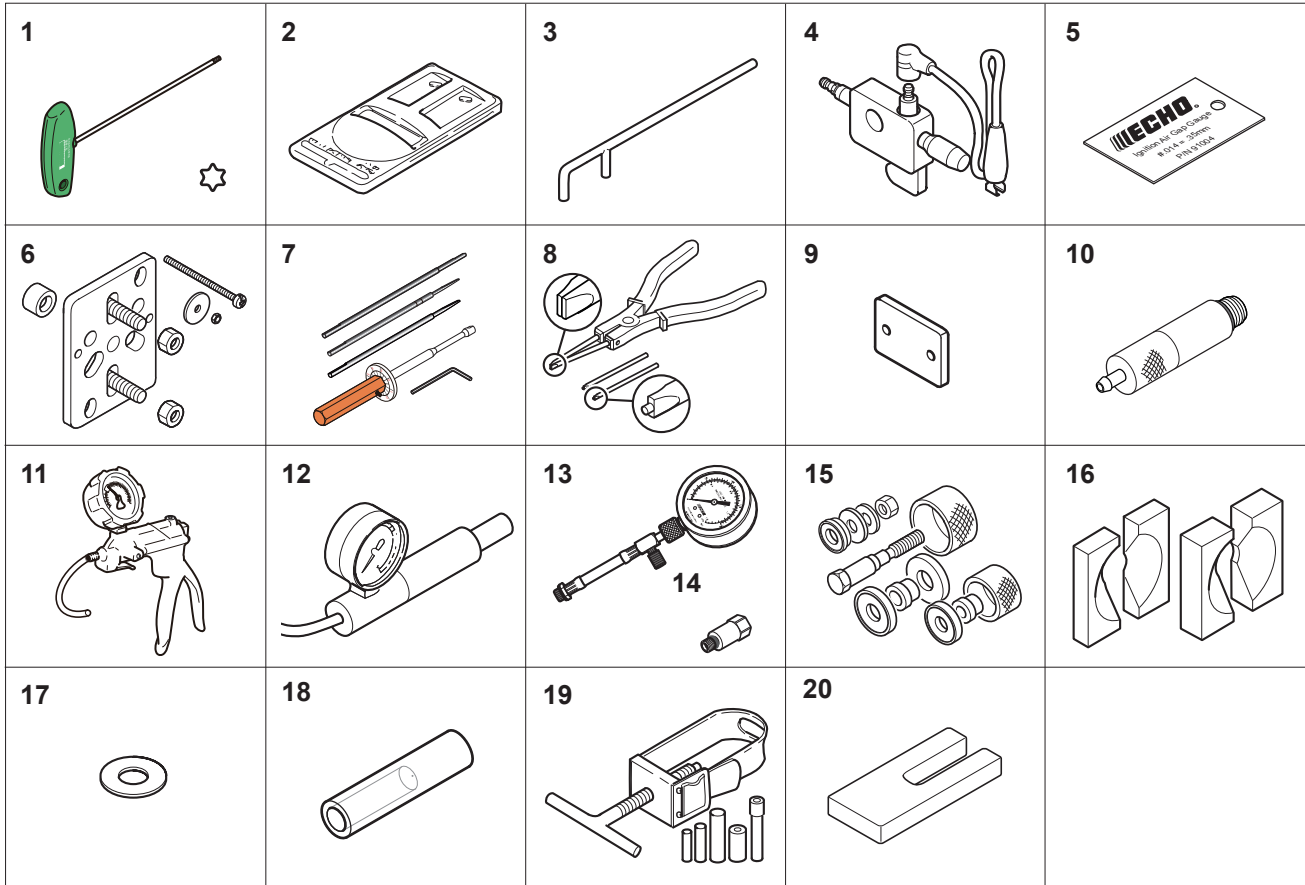
* Refer to "SERVICE MANUAL FOR GEAR CASE AND CUTTER" on SERVICE DATA (Model: HCA-265ES-HD and AH265S-HD).

1-5 Service limits



Description		mm (in)
A	Cylinder bore	When plating is worn and aluminum can be seen
B	Piston outer diameter	Min. 33.91 (1.335)
C	Piston pin bore	Max. 9.035 (0.3557)
D	Piston ring groove	Max. 1.6 (0.063)
E	Piston ring side clearance	Max. 0.1 (0.004)
F	Piston pin outer diameter	Min. 8.98 (0.3535)
G	Piston ring width	Min. 1.45 (0.057)
H	Piston ring end gap	Max. 0.5 (0.02)
K	Con-rod small end bore	Max. 12.025 (0.4734)
L	Crankshaft runout	Max. 0.03 (0.001)
M	Clutch drum bore	Max. 59.5 (2.34)

1-6 Special tools



Key	Part Number	Description	Reference
1	X602-000340	Torx wrench (T27)	Removing and installing torx bolt
2	897802-33330	Tachometer PET-1000R	Measuring engine speed to adjust carburetor
3	897712-04630	2-pin wrench	Removing and installing pawl carrier
4	897800-79931	Spark tester	Checking ignition system
5	91004	Module air gap gauge	Adjusting pole shoe air gaps
6	Y089-000111	Puller	Removing magneto rotor (flywheel)
7	Y089-000094	Carburetor adjustment tool	Adjusting carburetor
8	P021-051610	Snap ring pliers	Installing and removing retaining ring on drive gear
9	897826-16131	Pressure rubber plug	Plugging intake/exhaust port to test crankcase/cylinder leakages
10	A131-000160	Pressure connector	Testing crankcase and cylinder leakage
11	91149	Pressure / vacuum tester	Testing crankcase / cylinder leakages
12	897803-30133	Pressure tester	Testing carburetor and crankcase leakage
13	91037	Compression gauge	Measuring cylinder compression
14	P021-051690	Adapter	Measuring cylinder compression (with P/N: 91037)
15	897701-14732	Bearing tool	Removing and installing ball bearings on crankcase
16	897701-02830	Bearing wedge	Removing ball bearings on crankshaft
17	10001-418430	Washer	Installing crankcase oil seals
18	897726-21430	Oil seal tool	Installing oil seals and bearings of gear case
19	897702-30131	Piston pin tool	Removing and installing piston pin
20	897719-02830	Piston holder	Making piston steady to remove and install piston/ring