SERVICE DATA

TRIMMER/BRUSHCUTTER

ECHO: **SRM-2621ES**
(Serial number : U47638000001 - U47638999999)

SRM-2621TES
(Serial number : U47738000001 - U47738999999)

shindaiwa: **T263XS**
(Serial number : U47838000001 - U47838999999

C263S
(Serial number : U47938000001 - U47938999999)

T263TXS
(Serial number : U48038000001 - U48038999999)

C263TS
(Serial number : U48138000001 - U48138999999)

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. 402-43 (Models : SRM-2620ES, SRM-2620TES, T262XS, C262S, T262TXS, C262TS) contains lots of information for servicing these models.

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Caburetor Adjustment video

CLICK HERE

Reference No. **10-25N-G1**
REVISED: 202111
ISSUED: 202103

1 SERVICE INFORMATION

1-1 Specifications

Model				SRM-2621ES (L) T263XS	SRM-2621TES (L) T263TXS	SRM-2621ES (U) C263S	SRM-2621TES (U) C263TS
Dimensions*1	Length		mm (in)	1774 (69.8)	1789 (70.4)	1774 (69.8)	1789 (70.4)
	Width		mm (in)	340 (13.4)		646 (25.4)	
	Height		mm (in)	316 (12.4)		536 (21.1)	
Dry weight*2			kg (lb)	5.4 (11.9)	5.6 (12.3)	5.6 (12.3)	5.7 (12.6)
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			
	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*3	Type*4			Mixed two-stroke fuel			
	Mixture ratio			50 : 1 (2%)			
	Gasoline			Minimum 89 octane			
	Two-stroke 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: 0.52 (17.6)			
Clutch	Type			Centrifugal, 2-shoe pivot			
Handle	Type		Front	Crescent loop w/ cushion grip		U-handle w/ integrated control grip	
			Rear	Integrated control grip w/ cushion			
Drive shaft	Type			Solid type with spline (7-tooth)			
	Diameter - Length		mm (in)	7 - 1540 (0.27 - 60.62)			
	Housing	OD - ID	mm (in)	25.0 - 22.0 (0.98 - 0.87)			
		Length	mm (in)	1500 (59.1)			
Gear case	Reduction ratio			1.36	2.07	1.36	2.07
	Gear tooth			Spiral bevel gear			
	Lubrication			Lithium based grease			
Cutter	Type			Nylon line head SF400 with 2.4 mm Black Diamond	Nylon line head SF400 with 2.4 mm Black Diamond	Nylon line head SF400 with 2.4 mm Black Diamond / 3-tooth blade (230 mm)	Nylon line head SF400 with 2.4 mm Black Diamond
	Pilot diameter for blade		mm (in)	25.4 (1.0)			
	Fastener type, size		mm	Left-hand thread nut, M10 x 1.25 pitch			
	Cutting rotation			Counterclockwise as viewed from top			

OD: Outer diameter. ID: Inner diameter.

*1 Without cutting attachment *2 Without cutting attachment and Shield

*3 Refer to Operator's manual *4 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			r/min	4100
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 r/min		°BTDC	9
	at 6,500 r/min		°BTDC	22
	at 8,500 r/min		°BTDC	33
	at 11,000 r/min		°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				**SRM-2621ES T263XS, C263S** / **SRM-2621TES T263TXS, C263TS**
Cutting head preparation	Nylon line cutter			SF400 with 2.4 mm Black Diamond
	Line length (w/o shield)*1			190 mm / 285 mm
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			r/min	4000
4) Set idle speed by turning L mixture needle CCW			r/min	3000
5) Find WOT maximum speed				Adjust H mixture needle to maximum WOT speed
6) WOT setting				Turn H mixture needle CCW to reduce WOT speed by : 20 - 30
7) Verify final engine speed with standard equipment				Idle: 2,700 - 3,500
			r/min	WOT: 8900 - 9900* / 11000 - 11900** / WOT: 10300 - 11700*
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

* With Nylon line cutter (SF400 with Black Diamond). ** With 3-tooth blade (230 mm).

*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), reduce 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	30 - 45	3 - 4.5	25 - 40
	Intake insulator	M5	30 - 45	3 - 4.5	25 - 40
	Fuel tank with stand				
	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
Other	Cutter fastener	LM10	280 - 320	28 - 32	245 - 280
	Handle fixture (See **NOTE** below)	M5**	30 - 40	3 - 4	26 - 35
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)

** Pre-coated bolt: If the coat is peeled off, replace new one or apply thread locking sealant. (See below)

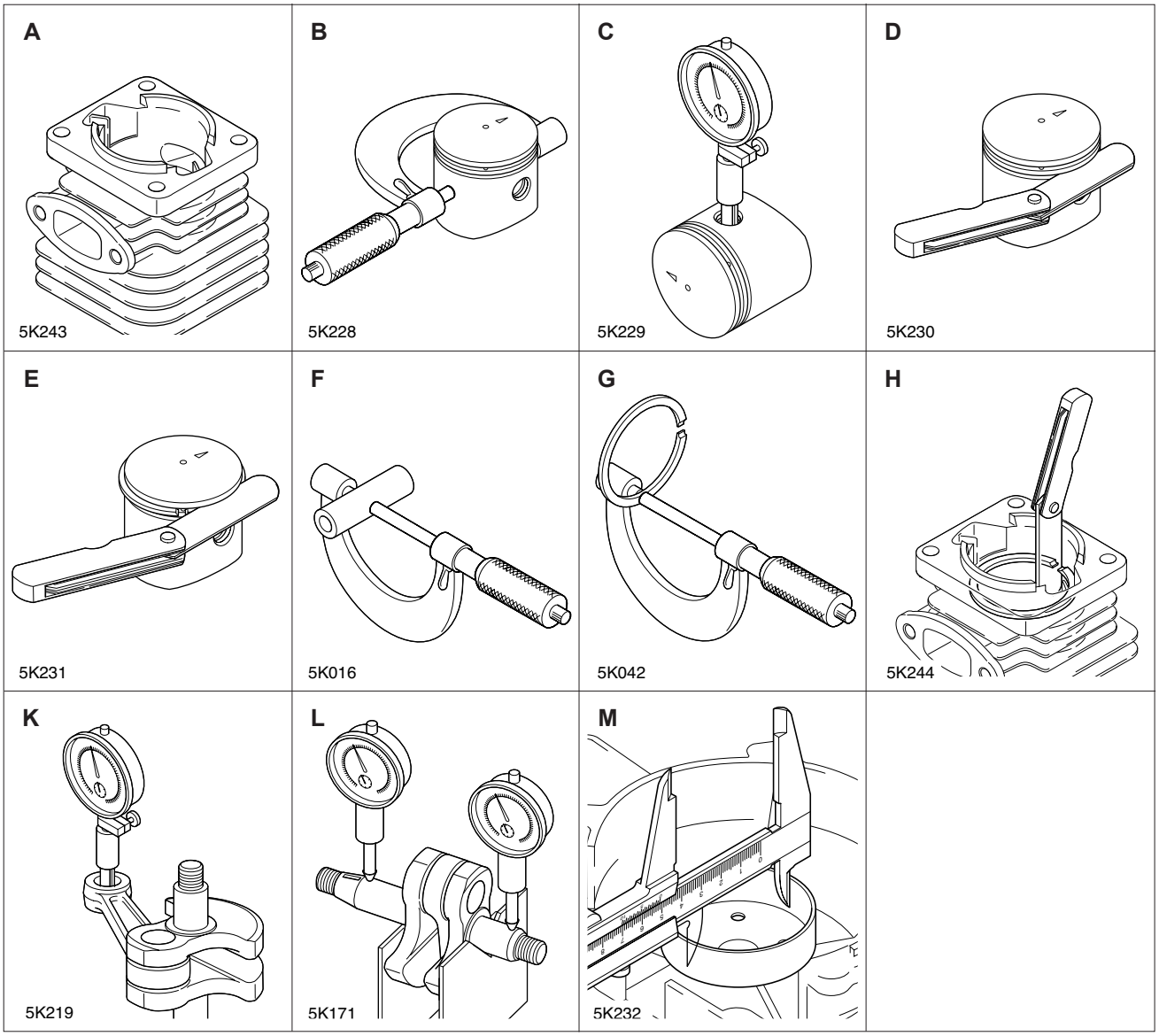
NOTE: After tightening the bolts, turn the bolts counterclockwise 1 1/2 turns.

1-4 Special repairing 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	
	Handle fixture (re-use*)	ThreeBond #1344J or equivalent

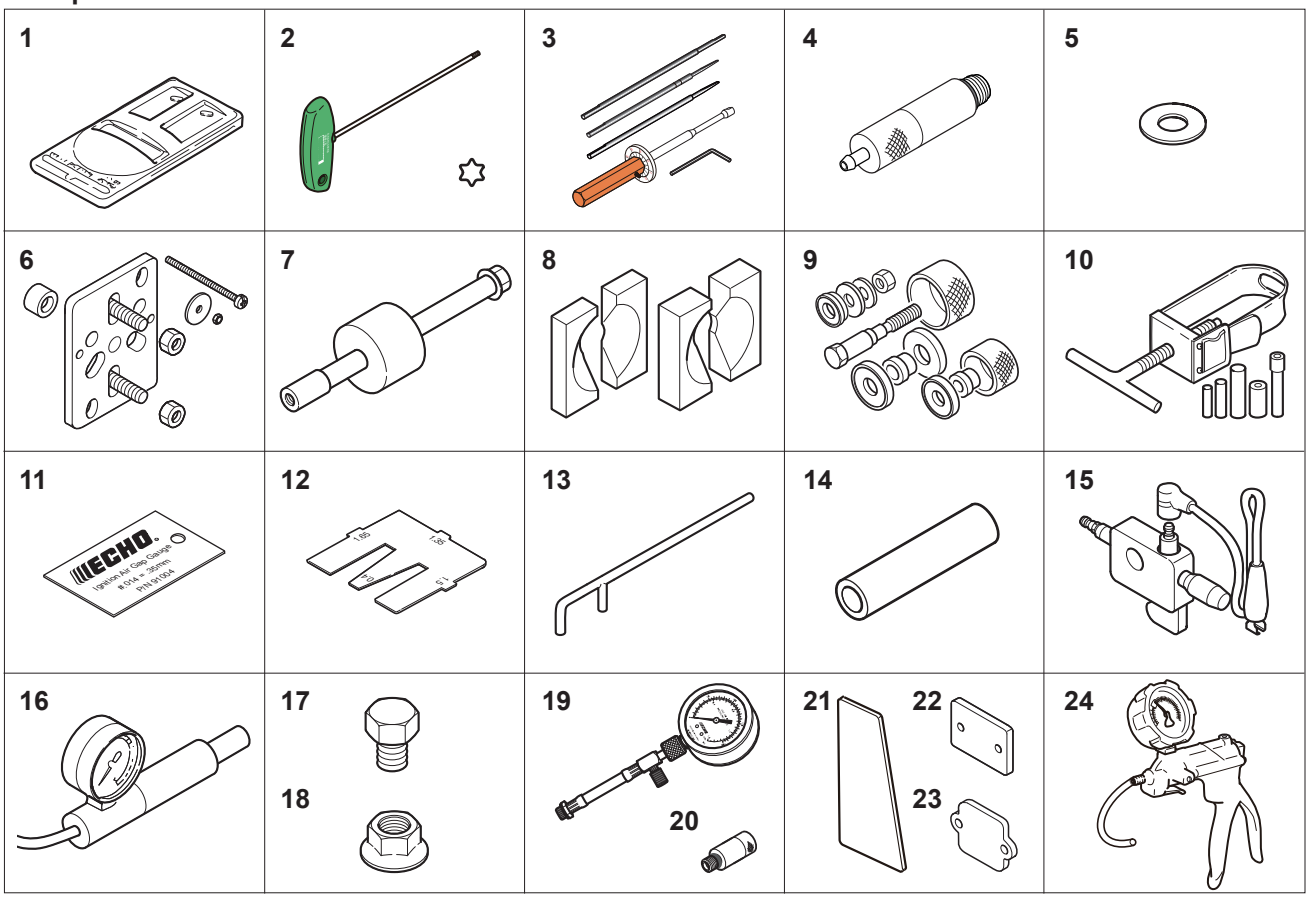
* Remove old thread locking sealant completely. If old thread locking sealant is left in threads, correct torque may not be secured.

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	897802-33330	Tachometer PET-1000R	Measuring engine speed to adjust carburetor
2	X602-000340	Torx wrench (T27)	Removing and installing bolt
3	Y089-000094	Carburetor adjustment tool	Adjusting carburetor
4	A131-000160	Pressure connector	Checking crankcase and cylinder leakages
5	10001-418430	Washer	Installing crankcase oil seal
6	Y089-000111	Puller	Removing magneto rotor
7	P021-044870	PTO shaft puller	Removing PTO shaft
8	897701-02830	Bearing wedge	Removing ball bearings on cankshaft
9	897701-14732	Bearing tool	Removing and installing ball bearings on crankcase
10	897702-30131	Piston pin tool	Removing and installing piston pin (Use 8mm dia. adapter)
11	91004	Module air gap gauge	Adjusting pole shoe air gaps
12	897563-19830	Metering lever gauge	Measuring metering lever height on carburetor
13	897712-04630	2-pin wrench	Removing and installing pawl carrier
14	897726-09130	Oil seal tool	Installing crankcase oil seals
15	897800-79931	Spark tester	Checking ignition system
16	897803-30133	Pressure tester	Testing carburetor and crankcase leakages
17	900100-08008	Bolt	Removing magneto rotor (flywheel), crankshaft from crankcase
18	V265-000200	Flange nut	Removing magneto rotor (flywheel)
19	91037	Compression gauge	Measuring cylinder compression
20	P021-051690	Adapter	Measuring cylinder compression (Use with 91037)
21	91041	Pressure rubber plug	Plugging exhaust port to test crankcase / cylinder leakages
22	897826-16131	Pressure rubber plug	Plugging intake port to test crankcase / cylinder leakages
23	897827-16131	Pressure plate	Plugging intake port to test crankcase / cylinder leakages
24	91149	Pressure / vacuum tester	Testing crankcase / cylinder leakages