



SERVICE DATA

PRO ATTACHMENT SERIES

ECHO: PAS-2620ES

(Serial number : 37000001 - 37999999)

(Serial number : U2283800001 - U2283899999)

(Serial number : U6304000001 - U6304099999)

shindaiwa: M262S

(Serial number : 37000001 - 37999999)

(Serial number : U2293800001 - U2293899999)

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.

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Reference No. **10-25N-D4**

REVISED : 202211

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1 SERVICE INFORMATION**1-1 Specifications**

Dimensions* ¹	Length	mm (in)	1039 (40.9)
	Width	mm (in)	325 (12.8)
	Height	mm (in)	260 (10.2)
Dry weight* ¹		kg (lb)	4.8 (10.6)
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-start / Soft Start
	Rope diameter x length	mm (in)	3.5 x 850 (0.14 x 33.5)
Fuel* ²	Type* ³		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: 0.52 (17.6)
Clutch	Type		Centrifugal, 2-shoe pivot
Handle	Type	Front	Crescent loop w/ cushion grip
		Rear	Integrated control grip w/ cushion
Drive shaft	Type		Flexible shaft
	Diameter - Length	mm (in)	6.15 - 802 (0.24 - 31.57)
	Housing OD - ID	mm (in)	25 - 22 (0.98 - 0.87)
	(Main pipe) Length	mm (in)	760 (29.9)

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

*¹ Without attachment

*² Refer to Operator's manual.

*³ Premixed alkylate fuel for 2-stroke can be used.

1-1 Specifications (continued)

Trimmer/Brushcutter attachment			MTA-TB
Dimensions	Length	mm (in)	815 (32.1)
	Width	mm (in)	310 (12.2)
	Height	mm (in)	206 (8.1)
Dry weight		kg (lb)	1.5 (3.3)
Gear case	Reduction ratio		1.36
	Gear tooth		Spiral bevel gear
	Lubrication		Lithium based grease
Cutter	Type		Nylon line cutter head SF400 Option: 3-tooth blade (230mm)
	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 the output end

Hedge Trimmer attachment			MTA-AHS-HD	MTA-AH-HD
Dimensions	Length	mm (in)	966 (38.0)	1637 (64.4)
	Width	mm (in)	122 (4.8)	152 (6.0)
	Height	mm (in)	95 (3.7)	144 (5.7)
Dry weight		kg (lb)	2.1 (4.6)	2.6 (5.7)
Gear case	Reduction ratio		4.6	
	Gear tooth		Spur gear	
	Lubrication		Lithium based grease	
Cutter	Type		Double reciprocating, double sided	
	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	

Tiller/Cultivator attachment			MTA-TC
Dimensions	Length	mm (in)	907 (35.7)
	Width	mm (in)	161 (6.3)
	Height	mm (in)	220 (8.7)
Dry weight		kg (lb)	2.3 (5.1)
Gear case	Reduction ratio		42.75
	Gear tooth		Spur, Worm and wheel
	Lubrication		Lithium based grease
Blade diameter		mm (in)	220 (8.7)
Cultivating width		mm (in)	160 (6.3)

1-1 Specifications (continued)

Power Pruner™ attachment			MTA-PP/E, MTA-PP/S	
Dimensions	Length	mm (in)	1451 (57.1)	
	Width	mm (in)	105 (4.1)	
	Height	mm (in)	147 (5.8)	
Dry weight		kg (lb)	2.2 (4.8)	
Gear case	Reduction ratio		1.53	
	Gear tooth		Bevel gear	
	Lubrication		Lithium based grease	
Guide bar / Saw chain lubrication type			Adjustable automatic oil pump	
	Oil tank capacity	L (U.S.fl .oz.)	0.2 (6.8)	
Sprocket	Type		Spur	
	Number of teeth		6	
	Pitch	in	3/8	
Guide bar	Type		10A0CD3739	
	Called length	cm (in)	25.4 (10)	
	Gauge	in	0.050	
Saw chain	Type		OREGON 91VXL	
	Number of drive links		39	
	Pitch	in	3/8	
	Gauge	in	0.050	

Edger attachment			MTA-LE/E	MTA-LE/S
Dimensions	Length	mm (in)	787 (31.0)	783 (30.8)
	Width	mm (in)	235 (9.3)	225 (8.9)
	Height	mm (in)	299 (11.8)	346 (13.6)
Dry weight		kg (lb)	2.4 (5.3)	2.3 (5.1)
Gear case	Reduction ratio		2.07	
	Gear tooth		Spiral bevel gear	
	Lubrication		Lithium based grease	
Cutter	Type		2-tooth edger blade	
	Pilot diameter	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	

1-1 Specifications (continued)

Blower attachment			MTA-PB
Dimensions	Length	mm (in)	635 (25.0)
	Width	mm (in)	231 (9.1)
	Height	mm (in)	212 (8.3)
Dry weight		kg (lb)	1.8 (4.0)
Blower	Fan type		Single stage axial
	Max. air volume (with pipes)	m ³ /min (cfm)	10.9 (383.2)
	Max. air velocity (with pipes)	m/s (mph)	52.86 (118.25)
	Discharge ID	mm (in)	66.0 (2.6)

3'Extension (for Hedge trimmer and Power Pruner™)			MTA-3EXT
Dimensions	Length	mm (in)	1000 (39.4)
	Width	mm (in)	87 (3.4)
	Height	mm (in)	77 (3.0)
Dry weight		kg (lb)	1.2 (2.6)

1-2 Technical data

Engine			
Compression pressure	MPa (kgf/cm ²) (psi)	0.97 (9.8) (140)	
Clutch engagement speed	r/min	4,100	
Ignition system			
Spark plug gap	mm(in)	0.6 - 0.7 (0.024 - 0.028)	
Spark test	Tester gap w/ spark plug	4.0 (0.16)	
	Tester gap w/o spark plug	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		Screwdriver 2.5 mm P/N X603-000050 D-shaped tool (S) P/N X645-000022 (Carb. adjustment tool P/N Y089-000094)	
Carburetor adjustment		Install Trimmer attachment MTA-TB SF400	
Cutting head preparation	Nylon line cutter	SF400	
	Nylon line type	2.4 mm SILENTWIST	2.4 mm BLACK DIAMOND
	Line length (w/o shield)* ¹	200 mm	190 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	r/min	Turn H mixture needle CCW to reduce WOT speed by : 20 - 30	
7) Verify final engine speed with trimmer attachment		Idle: 2700 - 3500	
	r/min	WOT: 9000 - 10000	WOT: 8900 - 9900
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), reduce engine speed by turning TAS CCW until clutch disengages and then redo 2).

1-3 Torque limits

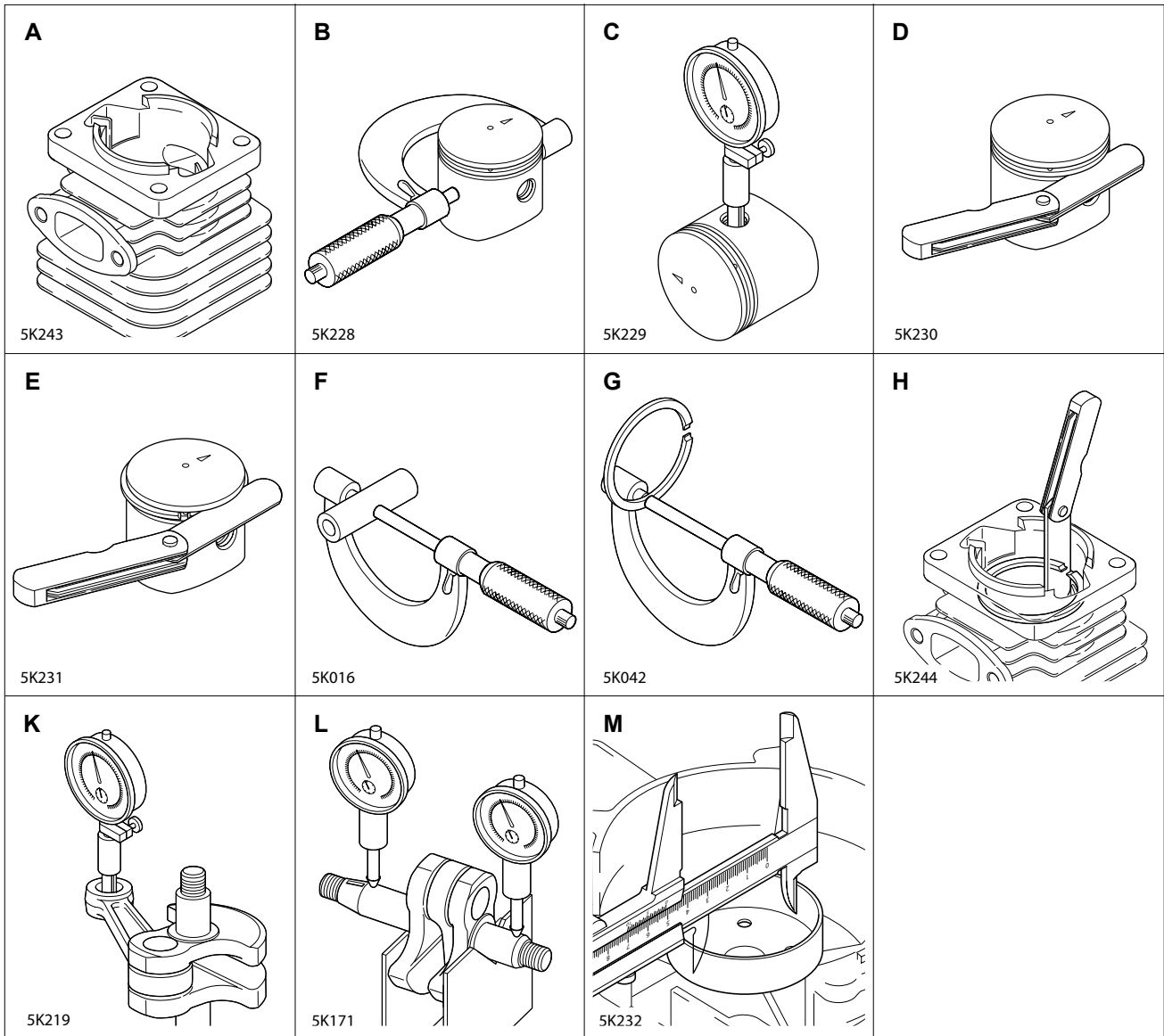
Descriptions		Size	kgf•cm	N•m	in•lbf
Starter system	Starter pawl assembly	M8	70 - 110	7 - 11	60 - 95
	Starter case	M5	40 - 60	4 - 6	32 - 55
Ignition system	Magneto rotor (Flywheel)	M8	160 - 200	16 - 20	140 - 175
	Ignition coil	M5	40 - 60	4 - 6	32 - 55
	Fan cover	M5	50 - 70	5 - 7	45 - 60
	Spark plug	M10	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
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

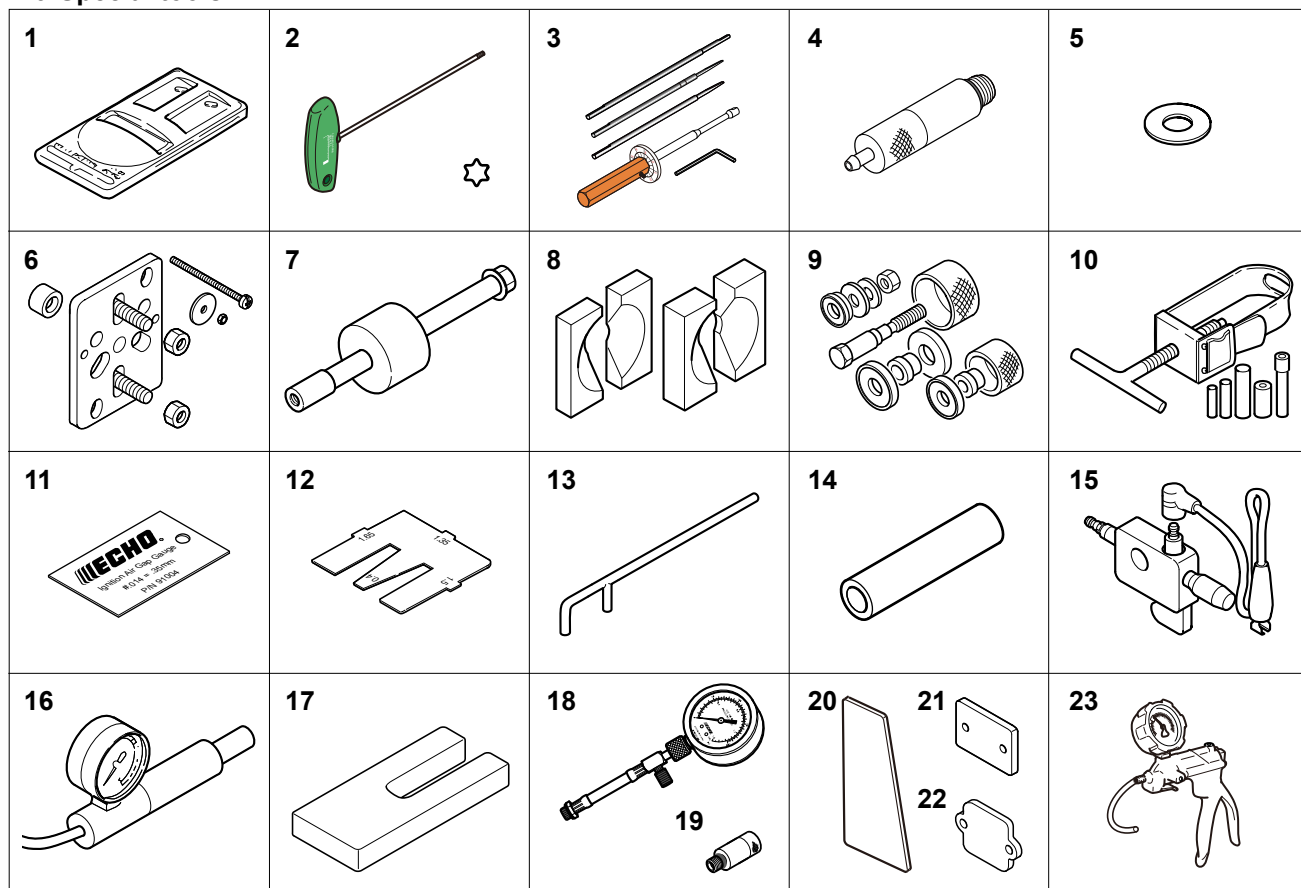
Material	Location	Remarks
Grease	Drive shaft	EPNOC AP2 (Lithium based grease) P/N X695-000060
	Gear case	
	Rewind spring	
	Starter center post	
	Oil seal inner lips	
Thread locking sealant	Fuel tank	Loctite #242, ThreeBond #1324 or equivalent
	Muffler cover	
	Cylinder cover	

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 carburettor
2	X602-000340	Torx wrench (T27)	Removing and installing bolt
3	Y089-000094	Carburetor adjustment tool	Adjusting carburettor
4	A131-000160	Pressure connector	Checking crankcase and cylinder leakages
5	363018-00310	Washer	Installing crankcase oil seal (starter side)
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 carburettor
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 carburettor and crankcase leakages
17	897719-02830	Piston holder	Making piston steady to remove and install piston/ring
18	91037	Compression gauge	Measuring cylinder compression
19	P021-051690	Adapter	Measuring cylinder compression (Use with 91037)
20	91041	Pressure rubber plug	Plugging exhaust port to test crankcase / cylinder leakages
21	897826-16131	Pressure rubber plug	Plugging intake port to test crankcase / cylinder leakages
22	897827-16131	Pressure plate	Plugging intake port to test crankcase / cylinder leakages
23	91149	Pressure / vacuum tester	Testing crankcase / cylinder leakages