



SERVICE DATA

POWER BLOWER

ECHO: PB-265ESLT

(Serial number : 37000001 and after)
(Serial number : 38000001 and after)

ECHO: PB-265ESL

(Serial number : 37000001 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 products information available at the time of publication.

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Reference No. **21-25G-01**
REVISED: 201905
ISSUED: 200712



1 SERVICE INFORMATION

1-1 Specifications

Model		PB-265ESL	PB-265ESLT
Dimensions*	Length	mm (in)	305 (12.0)
	Width	mm (in)	410 (16.1)
	Height	mm (in)	435 (17.1)
Dry weight**		kg (lb)	6.1 (13.4)
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	7.0	
Carburetor	Type	Diaphragm, horizontal-draft with purge bulb	
	Model	ZAMA RB-K85	
	Venturi size-Throttle bore	mm (in)	9.0 - 9.0 (0.354-0.354)
Ignition	Type	CDI (Capacitor discharge ignition) system Variable Slope Timing (VST) : Slope advance ignition system combined with electronic speed governor	
	Spark plug	NGK BPMR8Y	
Exhaust	Muffler type	Spark arrester muffler with catalyst	
Starter	Type	ES (effortless-start)	
	Rope diameter x length	mm (in)	3.0 x 815 (0.12 x 32.1)
Fuel* ¹	Type* ²	Mixed two-stroke fuel	
	Mixture ratio	50 : 1 (2 %)	
	Gasoline	Minimum 89 octane petrol	
	Two-stroke air cooled engine oil	ISO-L-EGD (ISO/CD13738), JASO FC/FD	
	Tank capacity	L (U.S.fl.oz.)	Full tank capacity: 0.66 (22.3) Usable tank capacity: 0.61 (20.6)
Throttle	Type	Hip-mounted and Throttle Setting Control	Throttle Control and Throttle Setting Control
Blower	Fan type	Centrifugal, single stage	
	Max. air volume (with pipes)	m ³ /min (cfm)	10.3 (364)
	Max. air velocity (with pipes)	m/s (mph)	68.7 (154)
	Discharge ID	mm (in)	62 (2.4)

*Without blower pipes **With blower pipes

ID: Inner diameter

*¹ Refer to Operator's manual *² Premixed alkylate fuel for 2-stroke can be used

1-2 Technical data

Engine			
Compression pressure	MPa (kgf/cm ²) (psi)	0.83 (8.4) (120)	
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	kΩ	2.5 - 3.2	
Pole shoe air gaps	mm(in)	0.3 - 0.4 (0.012 - 0.016)	
Ignition timing	at 1,000 r/min	°BTDC	7
	at 3,000 r/min	°BTDC	18
	at 7,000 r/min	°BTDC	31
Carburetor			
Test Pressure, minimum	MPa (kgf/cm ²) (psi)	0.05 (0.5) (7.0)	
Metering lever height	mm(in)	0.1 - 0.25 (0.004 - 0.01) lower than diaphragm seat	
Limiting plug / cap		Limiting plug P005-001270	
Tool to adjust mixture needles		Screwdriver 2.5 mm	
Carburetor adjustment			
1) Initial setting			
H mixture needle	turn out	1 1/8	
L mixture needle	turn out	4 3/4	
Throttle adjust screw	turn in* ¹	5	
Engine warm-up	Idle - WOT : Total	sec.	10 - 50: 180
2) Find idle maximum speed			Adjust L mixture needle to maximum idle speed
3) Set idle maximum speed w/ TAS		r/min	3,500
4) Set idle speed by turning L mixture needle CCW		r/min	2,950
5) Find WOT maximum speed			Adjust H mixture needle to maximum WOT speed
6) WOT setting		r/min	Turn H mixture needle CCW to decrease WOT speed by : 10 - 20
7) Verify final engine speed with standard equipment			Idle: 2,800 - 3,200
		r/min	WOT: 6,700 - 7,200

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

*¹ Set Throttle adjust screw to the point that its tip just contacts throttle plate before initial setting.

1-3 Torque limits

Descriptions	Size	kgf•cm	2N•m	in•lbf		
Starter system	Starter pawl	M8*	130 - 150	13 - 15	115 - 130	
	Starter case	M5 [†]	20 - 40	2 - 4	17 - 35	
Ignition system	Ignition coil	M4	35 - 45	3.5 - 4.5	30 - 40	
	Spark plug	M14	150 - 170	15 - 17	130 - 150	
Fuel system	Carburetor insulator	M5	50 - 70	5 - 7	45 - 60	
	Carburetor	M5	35 - 45	3.5 - 4.5	30 - 40	
Engine	Crankcase	M5	70 - 110	7 - 11	60 - 95	
	Cylinder	M5	70 - 110	7 - 11	60 - 95	
	Cylinder cover	M5	60 - 80	6 - 8	50 - 70	
	Cylinder cover with lead	M5	40 - 60	4 - 6	35 - 50	
	Engine mount	M4*	30 - 45	3 - 4.5	25 - 40	
	Muffler	M5	70 - 80	7 - 8	60 - 70	
	Muffler cover	M5*	30 - 45	3 - 4.5	25 - 40	
Others	Outer fancase	M5 [†]	20 - 40	2 - 4	17 - 35	
	Fan	M8	140 - 160	14 - 16	120 - 140	
	Fan hub	M8	160 - 200	16 - 20	140 - 175	
	Backpack flame compression spring	M5 [†]	20 - 40	2 - 4	17 - 35	
	Fan case assembly to backpack flame	Upper	M5 [†]	25 - 50	2.5 - 5	20 - 45
		Lower	M5 [†]	30 - 50	3 - 5	25 - 45
	Throttle lever assembly	M5	35 - 50	3.5 - 5	30 - 45	
	Trigger arm	M5	12 - 18	1.2 - 1.8	10 - 16	
	Trigger fixture	M5	10 - 20	1 - 2	8 - 18	
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		

* Apply thread locking sealant (See below)

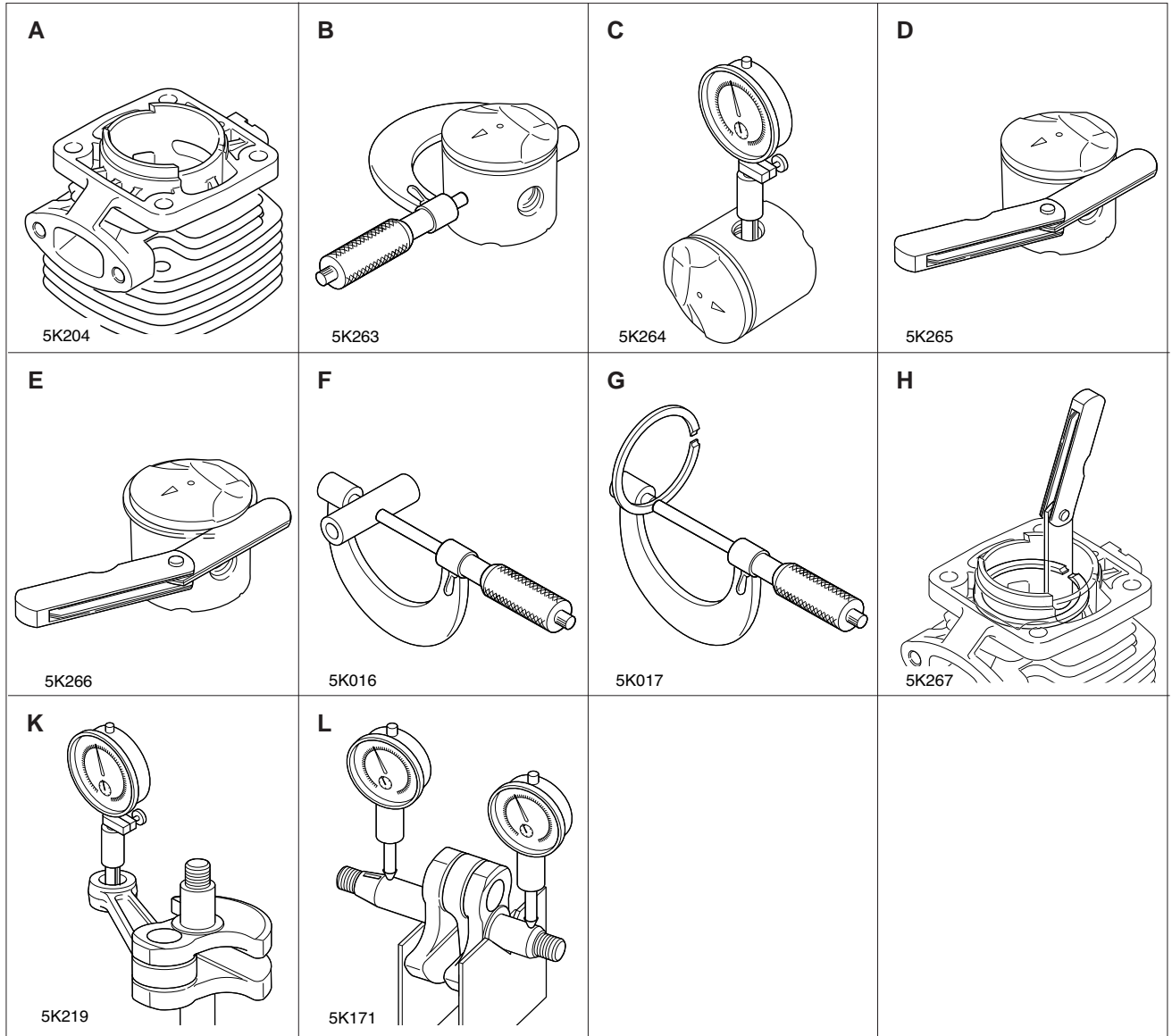
** The torque differences among four bolts should not exceed 20 kgf•cm (2N•m, 17in•lbf) on one cylinder or crankcase.

[†] Tapping screw or tapping bolt

1-4 Special repairing materials

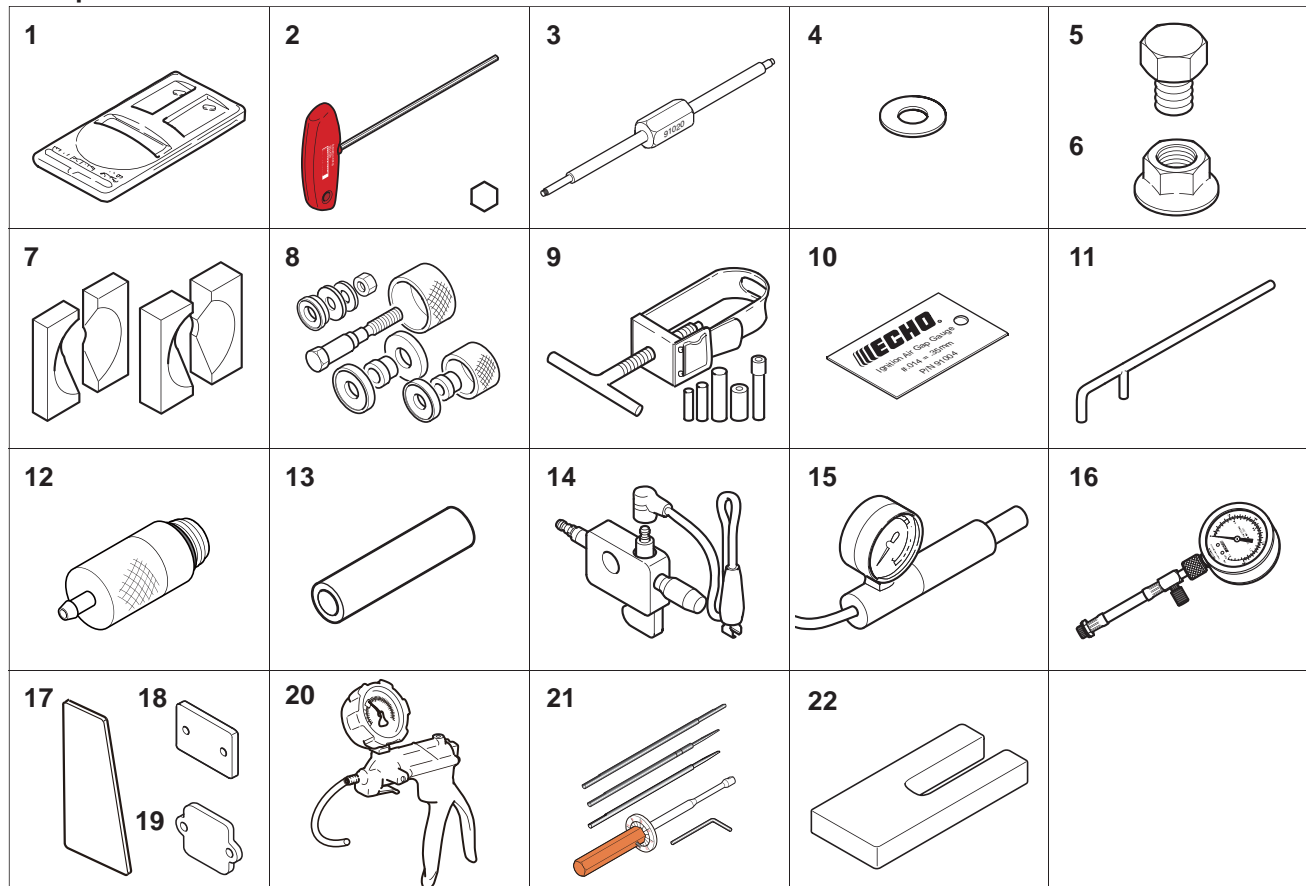
Material	Location	Remarks
Grease	Oil seal inner lips	EPNOC AP2 (Lithium based grease) P/N X695-000060
	Rewind spring	
	Starter center post	
Thread locking sealant	Engine mount	Loctite #242, ThreeBond #1324 or equivalent
	Fun hub	
	Starter pawl	Loctite #222, ThreeBond #1342 or equivalent
	Muffler cover	

1-5 Service limits



Description		mm (in)
A	Cylinder bore	When plating is worn and aluminium can be seen
B	Piston outer diameter	Min. 33.91 (1.335)
C	Piston pin bore	Max. 8.030 (0.3161)
D	Piston ring groove	Max. 1.3 (0.051)
E	Piston ring side clearance	Max. 0.1 (0.004)
F	Piston pin outer diameter	Min. 7.980 (0.3142)
G	Piston ring width	Min. 1.15 (0.045)
H	Piston ring end gap	Max. 0.5 (0.02)
K	Con-rod small end bore	Max. 11.988 (0.4719)
L	Crankshaft runout	Max. 0.05 (0.002)

1-6 Special tools



Key	Part Number	Description	Reference
1	897802-33330	Tachometer PET-1000R	Measuring engine speed to adjust carburetor
2	X602-000360	T-hex. wrench 4mm	Removing and installing hex. head bolts (M5)
3	91020	Limiter plug tool	Removing and installing limiter plug
4	10001-418430	Washer	Installing crankcase oil seals
5	900100-08008	Bolt	Removing magneto rotor (flywheel)
6	V265-000200	Flange nut	Removing magneto rotor (flywheel)
7	897701-02830	Bearing wedge	Removing ball bearings on crankshaft
8	897701-14732	Bearing tool	Removing and installing ball bearings on crankcase
9	897702-30131	Piston pin tool	Removing and installing piston pin (Use 8mm dia. adapter)
10	91004	Module air gap gauge	Adjusting pole shoe air gaps
11	897712-04630	2-pin wrench	Removing and installing pawl carrier
12	A131-000150	Pressure connector	Testing crankcase and cylinder leakage
13	897726-21430	Oil seal tool	Installing crankcase oil seals
14	897800-79931	Spark tester	Checking ignition system
15	897803-30133	Pressure tester	Testing carburetor and crankcase leakages
16	91037	Compression gauge	Measuring cylinder compression
17	91041	Pressure rubber plug	Plugging exhaust port to test crankcase / cylinder leakages
18	897826-16131	Pressure rubber plug	Plugging intake port to test crankcase / cylinder leakages
19	897827-16131	Pressure plate	Plugging intake port to test crankcase / cylinder leakages
20	91149	Pressure / vacuum tester	Testing crankcase / cylinder leakages
21	Y089-000094	Carburetor adjustment tool	Adjusting carburetor
22	897719-02830	Piston holder	Making piston steady to remove and install piston/ring