YAMAHA

XV535(S)G
XV535(S)GC

SUPPLEMENTARY SERVICE MANUAL

LIT-11616-09-60

3JC-28197-12

FOREWORD

This Supplementary Service Manual has been prepared to introduce new service and data for the XV535(S)G/XV535(S)GC. For complete service information procedures it is necessary to use this Supplementary Service Manual together with the following manual.

XV535T/XV535TC SERVICE MANUAL: 2GV-28197-10
XV535A/XV535AC SUPPLEMENTARY SERVICE MANUAL: 3JC-28197-10
XV535(S)F/XV535(S)FC SUPPLEMENTARY SERVICE MANUAL: 3JC-28197-11

XV535(S)G/XV535(S)GC
SUPPLEMENTARY
SERVICE MANUAL
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NOTICE

This manual was written by Yamaha Motor Company Ltd. primarily for use by Yamaha dealers and qualified mechanics. It is not possible to put an entire mechanic's education into one manual, so persons using this book to perform maintenance and repairs on Yamaha motorcycles should have a basic understanding of the mechanical concepts and procedures inherent in motorcycle repair technology. Without such knowledge, attempted repairs or service to the motorcycle may render it unfit to use and/or unsafe.

for USA, California
This model has been designed and manufactured to perform within certain specifications in regard to performance and emissions. Proper service with the correct tools in necessary to ensure that the motorcycle will operate as designed. If there is any question about a service procedure, it is imperative that you contact a Yamaha dealer for any service information changes that apply to this model. This policy is intended to provide the customer with the most satisfaction from his motorcycle and to conform with federal environmental quality objectives.

Yamaha Motor Company, Ltd. is continually striving to improve all models manufactured by Yamaha. Modifications and significant changes in specifications or procedures will be forwarded to all Authorized Yamaha dealers and will, where applicable, appear in future editions of this manual.

NOTE:
FOR USA, California:
This Service Manual contains information regarding periodic maintenance to the emission control system. Please read this material carefully.

PARTICULARLY IMPORTANT INFORMATION

This material is distinguished by the following notation.

⚠ — The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

⚠ WARNING — Failure to follow WARNING instructions could result in severe injury or death to the motorcycle operator, a bystander, or a person inspecting or repairing the motorcycle.

CAUTION: — A CAUTION indicates special precautions that must be taken to avoid damage to the motorcycle.

NOTE: — A NOTE provides key information to make procedures easier or clearer.

HOW TO USE THIS MANUAL

CONSTRUCTION OF THIS MANUAL

This manual consists of chapters for the main categories of subjects. (See "Illustrated symbols")

1st title ①: This is a chapter with its symbol on the upper right of each page.

2nd title ②: This title appears on the upper of each page on the left of the chapter symbol. (For the chapter "Periodic inspection and adjustment" the 3rd title appears.)

3rd title ③: This is a final title.

MANUAL FORMAT

All of the procedures in this manual are organized in a sequential, step-by-step format. The information has been compiled to provide the mechanic with an easy to read, handy reference that contains comprehensive explanations of all disassembly, repair, assembly, and inspections.

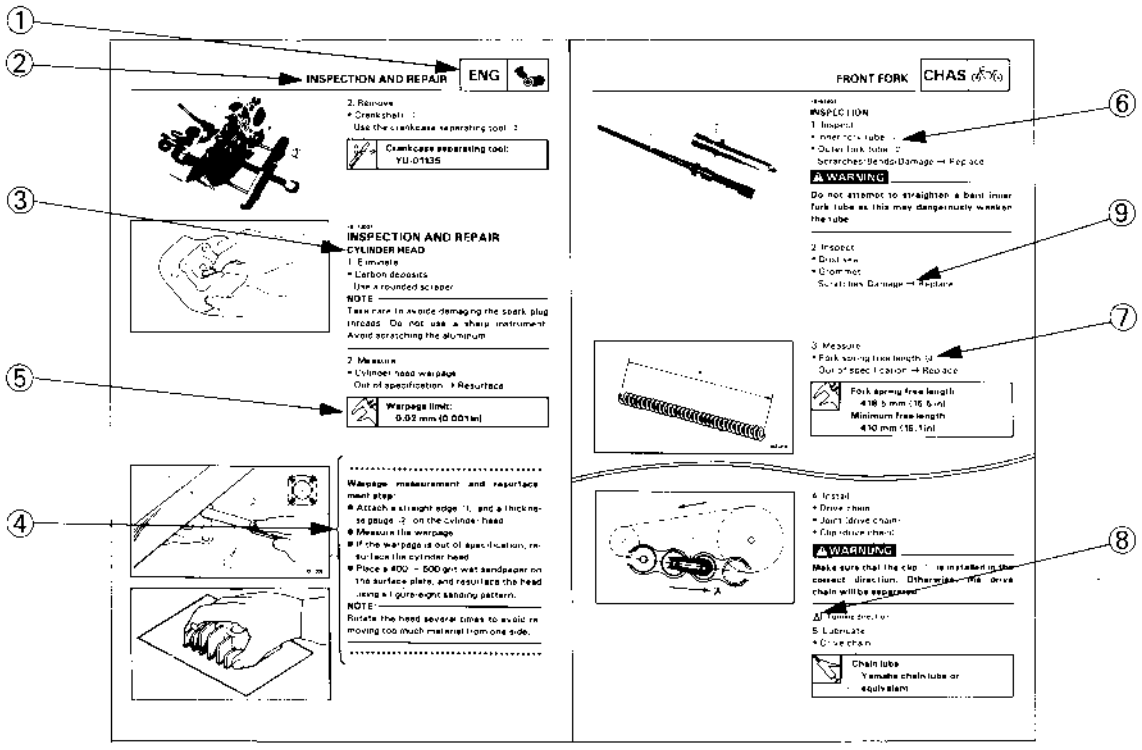
A set of particularly important procedure ④ is placed between a line of asterisks "✱"with each procedure preceded by "●".

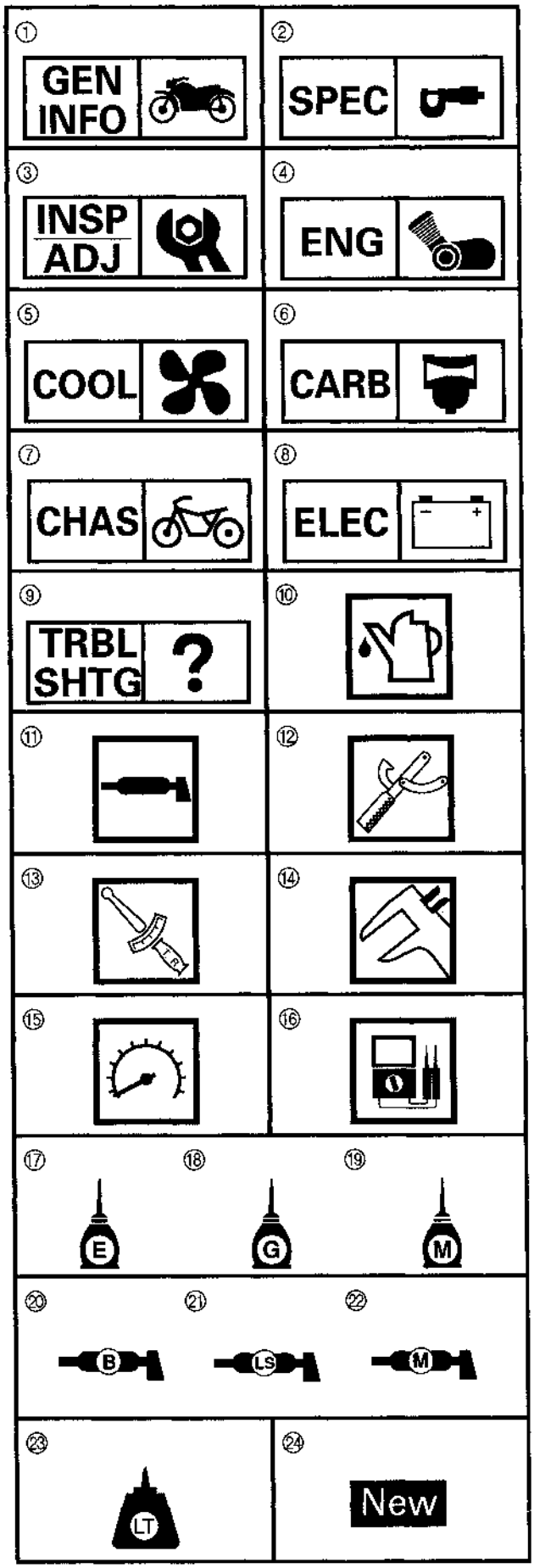
IMPORTANT FEATURES

- Data and a special tool are framed in a box preceded by a relevant symbol ⑤.
- An encircled numeral ⑥ indicates a part name, and an encircled alphabetical letter data or an alignment mark ⑦, the others being indicated by an alphabetical letter in a box ⑧.
- A condition of a faulty component will precede an arrow symbol and the course of action required the symbol ⑨.

EXPLODED DIAGRAM

Each chapter provides exploded diagrams before each disassembly section for ease in identifying correct disassembly and assembly procedures.





ILLUSTRATED SYMBOLS (Refer to the illustration)

Illustrated symbols ① to ⑨ are designed as thumb tabs to indicate the chapter's number and content.

① General information
② Specifications
③ Periodic inspection and adjustment
④ Engine
⑤ Cooling system
⑥ Carburetion
⑦ Chassis
⑧ Electrical
⑨ Troubleshooting

Illustrated symbols ⑩ to ⑯ are used to identify the specifications appearing in the text.

⑩ Filling fluid
⑪ Lubricant
⑫ Special tool
⑬ Tightening
⑭ Wear limit, clearance
⑮ Engine speed
⑯ Ω,V,A

Illustrated symbols ⑰ to ㉔ in the exploded diagram indicate grade of lubricant and location of lubrication point.

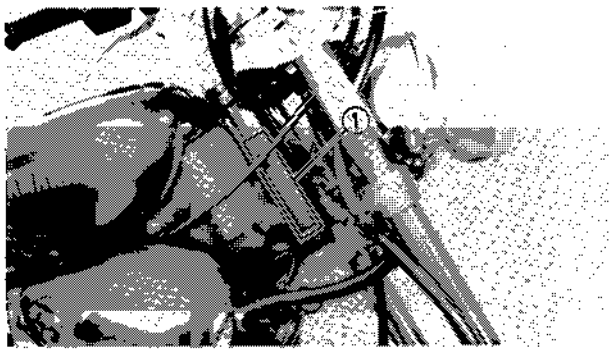
⑰ Apply engine oil
⑱ Apply gear oil
⑲ Apply molybdenum disulfide oil
⑳ Apply wheel bearing grease
㉑ Apply lightweight lithium-soap base grease
㉒ Apply molybdenum disulfide grease
㉓ Apply locking agent (LOCTITE®)
㉔ Use new one

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GENERAL INFORMATION

MOTORCYCLE IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER

The vehicle identification number ① is stamped into the steering head pipe.

Starting serial number:
(For USA)
XV535G..... JYA3JCE0*SA036101
XV535SG JYA3JCE0*SA041101
(For California)
XV535GC JYA3JCC0*SA039101
XV535SGC..... JYA3JCC0*SA047101
(For CDN)
XV535G..... JYA3JCN0*SA040101
XV535SG JYA3JCN0*SA049101

NOTE:
The vehicle identification number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your state.



ENGINE SERIAL NUMBER

The engine serial number ① is stamped into the right side of the engine.

Starting serial number:
(For USA)
XV535G..... 3JC-036101
XV535SG 3JC-041101
(For California)
XV535GC 3JC-039101
XV535SGC..... 3JC-047101
(For CDN)
XV535G..... 3JC-040101
XV535SG 3JC-049101

NOTE:
- The first three digits of these numbers are for model identification; the remaining digits are the unit production number.
- Designs and specifications are subject to change without notice.

SPECIFICATIONS

GENERAL SPECIFICATIONS

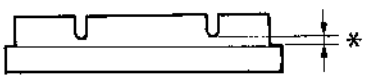
Model	XV535(S)G/XV535(S)GC
Model code number:	For USA: XV535G: 3JCG XV535SG: 3JCK For California: XV535GC: 3JCH XV535SGC: 3JCL For CDN: XV535G: 3JCJ XV535SG 3JCM
Engine starting number:	For USA: XV535G: 3JC-036101 XV535SG: 3JC-041101 For California: XV535GC: 3JC-039101 XV535SGC: 3JC-047101 For CDN: XV535G: 3JC-040101 XV535SG: 3JC-049101
Vehicle identification number:	For USA: XV535G: JYA3JCE0*SA036101 XV535SG: JYA3JCE0*SA041101 For California: XV535GC: JYA3JCC0*SA039101 XV535SGC: JYA3JCC0*SA047101 For CDN: XV535G: JYA3JCN0*SA040101 XV535SG: JYA3JCN0*SA049101
Dimensions:	
Overall length	2,225 mm (87.6 in)
Overall width	780 mm (30.7 in)
Overall height	1,120 mm (44.1 in)
Seat height	720 mm (28.3 in)
Wheelbase	1,520 mm (59.8 in)
Minimum ground clearance	160 mm (6.3 in)
Minimum turning radius	2,900 mm (114 in)
Bulb wattage × Quantity:	
Headlight	12 V, 65 W/60 W × 1
Tail/brake light	12 V, 8 W/27 W × 2
Rear flasher light	12 V, 27 W × 2
Front position light/Front flasher light	12 V, 8 W/27 W × 2
Indicator light:	
"NEUTRAL"	12V, 3 W × 1
"HIGH BEAM"	12V, 1.7W × 1
"TURN"	12V, 3 W × 1
Meter light	12V, 3 W × 1

MAINTENANCE SPECIFICATIONS

ENGINE

Model		XV535(S)G/XV535(S)GC
Carburetor:		
I.D. Mark		For USA, California: 3JC50 (3JCG), 3JC40 (3JCH), 3JC30 (3JCK), 3JC20 (3JCL) For CDN: 3BT30 (3JCJ), 3BT20 (3JCM)
Main jet	(M.J.)	FRONT: #137.5 REAR: #135 (USA, California) FRONT: #135 REAR: #135 (CDN)
Main air jet	(M.A.J.)	#140
Jet needle	(J.N.)	FRONT: 5DZ17-1REAR: 5DZ18-1 (USA, California) FRONT: 5DZ10-3REAR: 5DZ9-3 (CDN)
Needle jet	(N.J.)	Y-0
Pilot jet	(P.J.)	#35
Pilot air jet	(P.A.J. 1)	#70
	(P.A.J. 2)	#170 (For USA, California)
Pilot screw	(P.S.)	2-1/2 turns (USA, California) 2.0 turns (CDN)
Pilot outlet	(P.O.)	ø0.95
Bypass	(B.P. 1)	ø0.8
	(B.P. 2)	ø0.8
	(B.P. 3)	ø0.8
Valve seat size	(V.S.)	ø1.5
Starter jet	(G.S.)	G.S. 1: #35, G.S. 2: 0.7 (USA, California) G.S. 1: #40, G.S. 2: 0.7 (CDN)
Fuel level	(F.L.)	13.5 ~ 14.5 mm (0.53 ~ 0.57 in)
Engine idling speed		1,150 ~ 1,250 r/min
Vacuum pressure at idling speed		Above 30.6 kPa (230 mmHg, 9.06 inHg)
Vacuum synchronous difference		Below 1.3 kPa (10 mmHg, 0.39 inHg)

CHASSIS

Model	XV535(S)G/XV535(S)GC
Front disc brake:	
Type	Single
Disc outside diameter × Thickness	298 × 5 mm (11.7 × 0.2 in)
Pad thickness	6.2 mm (0.26 in)
<Limit> *	<0.8 mm (0.03 in)>
	
Master cylinder inside diameter	14 mm (0.55 in)
Caliper cylinder inside diameter	30.16 mm (1.19 in) 33.34 mm (1.31 in)
Brake fluid type	DOT #4

Model	XV535(S)G/XV535(S)GC
Brake lever and brake pedal:	
Brake lever free play	2 ~ 5 mm (0.08 ~ 0.20 in)
Brake pedal position	38 mm (1.50 in)
Brake pedal free play	20 ~ 30 mm (0.8 ~ 1.2 in)

TIGHTENING TORQUE:

Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m·kg	ft·lb	
Front wheel axle	M14×1.5	58	5.8	42	
Front axle pinch bolt	M8 ×1.25	23	2.3	17	
Under bracket and inner tube	M12×1.25	38	3.8	27	
Front fender and front fork	M8 ×1.25	10	1.0	7.2	
Front brake caliper and front fork	M10×1.25	35	3.5	25	
Under bracket and clamp	M6 ×1.0	7	0.7	5.1	
Headlight stay and under bracket	M6 ×1.0	7	0.7	5.1	
Headlight stay and headlight (lower)	M8 ×1.25	16	1.6	11	
Handle crown and inner tube	M8 ×1.25	20	2.0	14	
Handle crown and steering shaft	M14×1.25	54	5.4	39	
Steering shaft and ring nut	M25×1.0	20	2.0	14	See NOTE
Handle crown and handlebar holder (lower)	M8 ×1.25	20	2.0	14	
Handlebar and handlebar holder (upper)	M8 ×1.25	20	2.0	14	
Speedometer and handle crown	M6 ×1.0	7	0.7	5.1	
Headlight (upper) and meter stay	M6 ×1.0	7	0.7	5.1	
Headlight stay and flasher light stay	M12×1.25	20	2.0	14	
Front brake disc and hub	M8 ×1.25	23	2.3	17	◀6
Front brake hose and caliper	M10×1.25	26	2.6	19	
Front brake bleed screw	M8 ×1.25	6	0.6	4.3	
Master cylinder and brake hose	M10×1.25	26	2.6	19	
Master cylinder and bracket	M6 ×1.0	7	0.7	5.1	
Horn and frame	M6 ×1.0	7	0.7	5.1	
Cylinder stud bolt and engine stay (front)	M10×1.25	55	5.5	40	
Engine stay (front) and ignition coil stay	M6 ×1.0	7	0.7	5.1	
Ignition coil and coil stay	M6 ×1.0	7	0.7	5.1	
Engine stay (front) and frame	M10×1.25	55	5.5	40	
Top cover and frame	M6 ×1.0	7	0.7	5.1	
Engine stay (rear) and frame	M10×1.25	55	5.5	40	
Engine mounting (rear-top) and frame	M10×1.25	55	5.5	40	
Engine mounting (rear-bottom) and frame	M12×1.25	70	7.0	50	
Main switch and frame	M8 ×1.25	20	2.0	14	
Rear-under-side cover (top) and frame	M6 ×1.0	7	0.7	5.1	
Rear-under-side cover (bottom) and frame	M12×1.25	20	2.0	14	
Engine and footrest bar (front)	M10×1.25	55	5.5	40	
Engine and footrest bar (rear)	M10×1.25	55	5.5	40	
Footrest and footrest bar	M10×1.25	45	4.5	32	
Brake pedal adjuster locknut	M6 ×1.0	7	0.7	5.1	

Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m·kg	ft·lb	
Side stand	M10×1.25	64	6.4	46	
Rear footrest and frame	M10×1.25	45	4.5	32	
Pivot shaft and swingarm	M16×1.5	75	7.5	54	
Tank bracket and frame	M6 ×1.0	7	0.7	5.1	
Pump bracket and fuel tank	M6 ×1.0	4	0.4	2.9	
Fuel tank (rear-top) and frame	M6 ×1.0	9	0.9	6.5	
Battery box and frame	M6 ×1.0	7	0.7	5.1	
Rear stay and frame	M8 ×1.25	20	2.0	14	
Rear shock absorber cover and frame	M8 ×1.25	9	0.9	6.5	
Seat lock and seat	M6 ×1.0	7	0.7	5.1	
Seat and frame	M6 ×1.0	7	0.7	5.1	
Rear shock absorber and frame	M8 ×1.25	20	2.0	14	
Rear shock absorber and swingarm	M10×1.25	30	3.0	22	
Rear shock absorber and shaft drive housing	M10×1.25	30	3.0	22	
Swingarm and shaft drive housing	M10×1.25	42	4.2	30	
Rear wheel axle	M14×1.5	107	10.7	77.1	
Rear wheel pinch bolt	M8 ×1.25	16	1.6	11	
Rear wheel hub and clutch hub	M10×1.25	68	6.8	49	
Rear fender (front) and frame	M6 ×1.0	7	0.7	5.1	
Rear fender (rear) and frame	M8 ×1.25	16	1.6	11	
Rear fender and flasher light stay	M12×1.25	20	2.0	14	
Rear fender and taillight	M6 ×1.0	7	0.7	5.1	
Rear fender and license bracket	M6 ×1.0	7	0.7	5.1	
Tension bar and swingarm	M8 ×1.25	20	2.0	14	
Tension bar and brake shoe plate	M8 ×1.25	20	2.0	14	
Drain plug (final gear)	M14×1.5	23	2.3	17	
Filler plug (final gear)	M14×1.5	23	2.3	17	

NOTE:

1.First, tighten the ring nut approximately 40 Nm (4.0 m • kg, 29 ft • lb) by using the torque wrench, then loosen the ring nut one turn.

2.Retighten the ring nut 20 Nm (2.0 m • kg, 14 ft • lb).

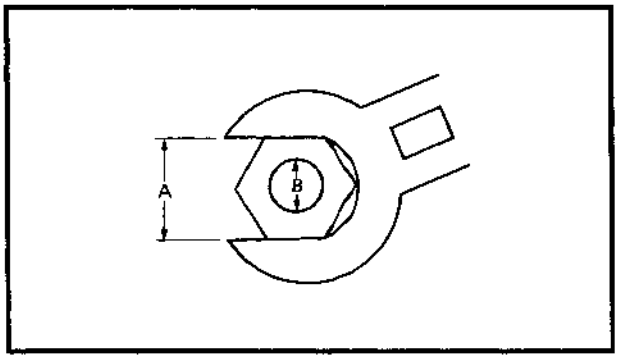
ELECTRICAL

Model	XV535(S)G/XV535(S)GC
Ignition coil:	
Model/manufacturer	F6T507/MITSUBISHI
Minimum spark gap	6 mm (0.24 in)
Primary winding resistance	3.8 ~ 4.6 Ω at 20°C (68°F)
Secondary winding resistance	10.6 ~ 15.8 kΩ at 20°C (68°F)
Voltage regulator:	
Type	Semi conductor – short circuit
Model/Manufacture	SH569/SHINDENGEN
No load regulated voltage	14.3 ~ 15.3 V

GENERAL TORQUE SPECIFICATIONS

This chart specifies torque for standard fasteners with standard I.S.O. pitch threads. Torque specifications for special components or assemblies are included in the applicable sections of this book. To avoid warpage, tighten multi-fastener assemblies in a crisscross fashion, in progressive stages, until full torque is reached. Unless otherwise specified, torque specifications call for clean, dry threads. Components should be at room temperature.

A (Nut)	B (Bolt)	General torque specifications		
		Nm	m • kg	ft • lb
10 mm	6 mm	6	0.6	4.3
12 mm	8 mm	15	1.5	11
14 mm	10 mm	30	3.0	22
17 mm	12 mm	55	5.5	40
19 mm	14 mm	85	8.5	61
22 mm	16 mm	130	13.0	94



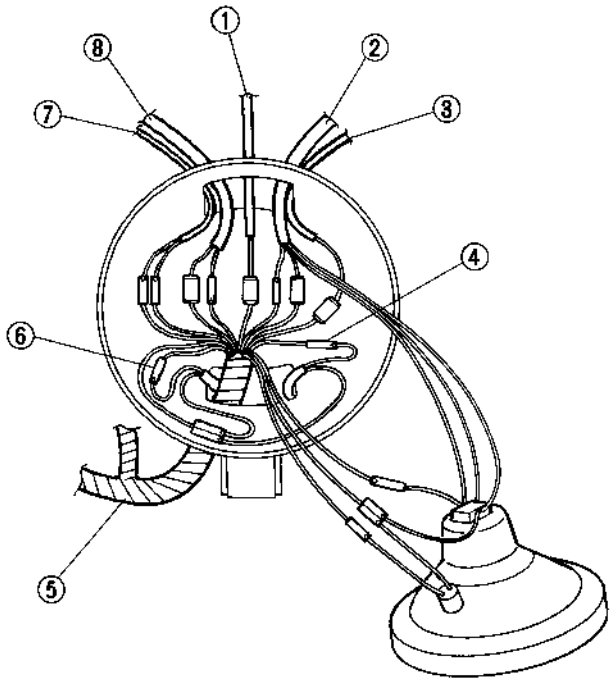
A: Distance across flats
B: Outside thread diameter

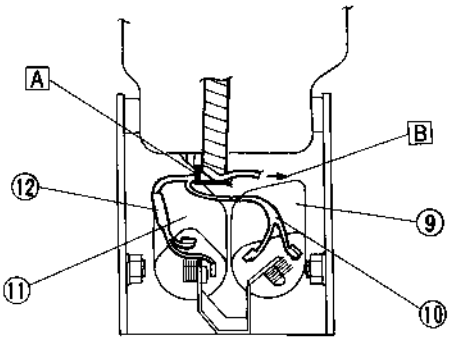
DEFINITION OF UNITS

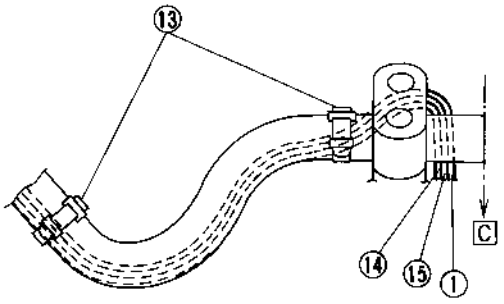
Unit	Read	Definition	Measure
mm cm	millimeter centimeter	10^{-3} meter 10^{-2} meter	Length Length
kg	kilogram	10^{3} gram	Weight
N	Newton	1 kg × m/sec^2	Force
Nm m•kg	Newton meter Meter kilogram	N × m m × kg	Torque Torque
Pa N/mm	Pascal Newton per millimeter	N/m^2 –	Pressure Spring rate
L cm^3	Liter Cubic centimeter	–	Volume or Capacity
r/min	Revolutions per minute	–	Engine Speed

CABLE ROUTING

① "FUEL" reserve switch lead
② Handlebar switch lead (left)
③ Clutch switch lead
④ Front flasher light lead (left)
⑤ Wireharness
⑥ Front flasher light lead (right)
⑦ Front brake light switch lead
⑧ Handlebar switch lead (right)
⑨ Ignition coil (rear cylinder)
⑩ Ignition coil lead (black tape)
⑪ Ignition coil (front cylinder)
⑫ Ignition coil lead (red tape)
⑬ Band
⑭ Handlebar switch lead (left/right)
⑮ Brake/clutch switch lead
[A] Pass the wireharness (for ignition coil) behind the clamp, and pass the wireharness (for horn) in front of the clamp.
[B] To horn.
[C] Forward

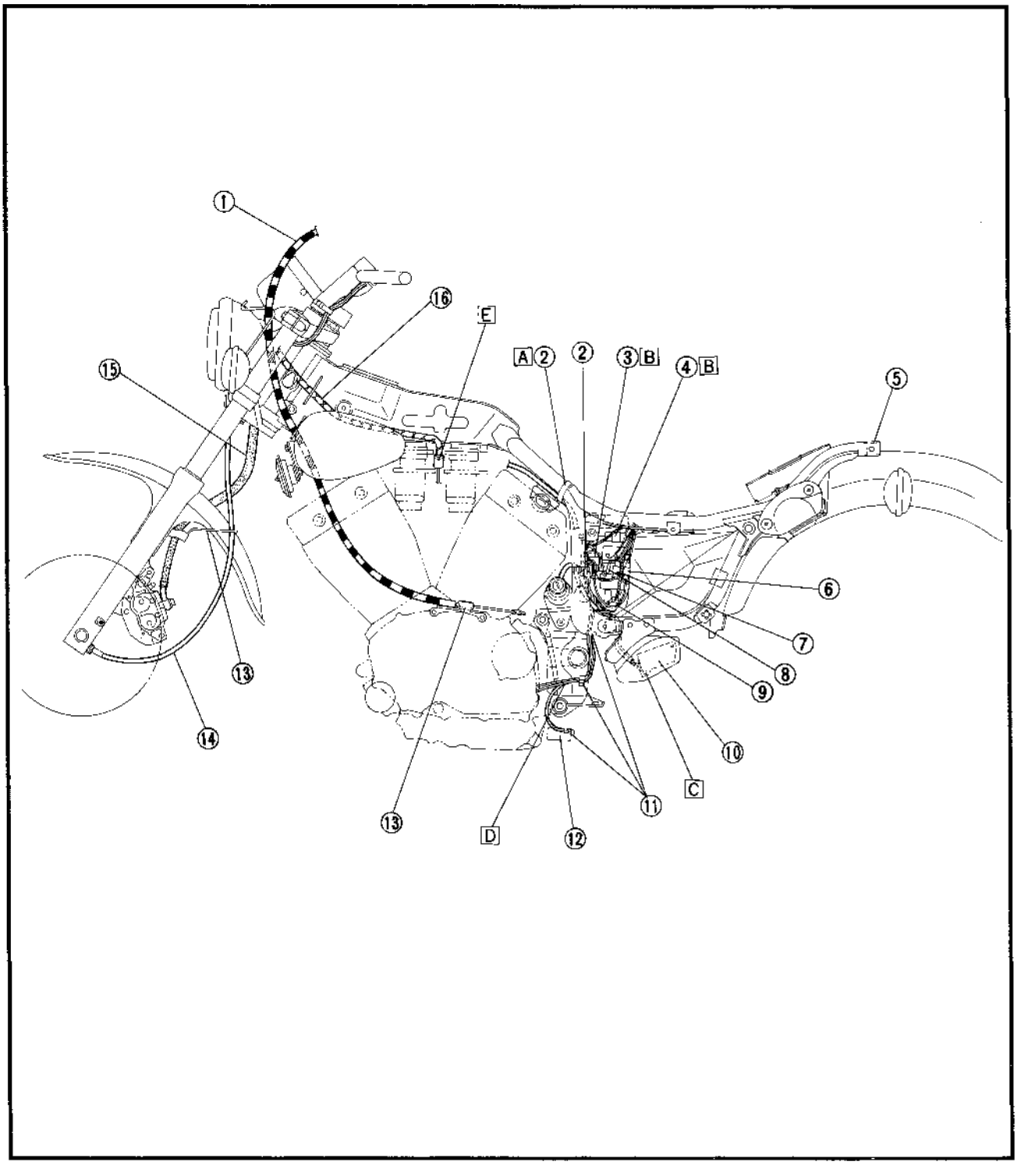






① Clutch cable
② Band
③ A.C. magneto leads
④ Pick up coil leads
⑤ Cap
⑥ Rectifier negative lead
⑦ Rectifier positive lead
⑧ Neutral switch lead
⑨ Main switch lead
⑩ Rectifier with regulator
⑪ Clamp
⑫ Sidestand switch
⑬ Cable holder
⑭ Speedometer cable
⑮ Brake hose
⑯ Throttle cable (deceleration)

[A] Clamp the fuel hose.
[B] After connecting, put in the leads between the frame and the fuel pump.
[C] Fasten with the ground negative lead on the rectifier with regulator.
[D] Pass the leads between the frame and the swingarm.
[E] Insert the throttle cable until it reaches the back of the cable holder.



CHASSIS

FRONT BRAKE

① Master cylinder cap
② Diaphragm
③ Master cylinder kit
④ Master cylinder
⑤ Copper washer
⑥ Union bolt
⑦ Brake hose
⑧ Bleed screw
⑨ Brake caliper
⑩ Brake caliper bracket
⑪ Piston seal
⑫ Piston
⑬ Brake pad
⑭ Pad spring
⑮ Brake disc

