



XV1100

'89

2AE-AE2

**SUPPLEMENTARY
SERVICE MANUAL**



FOREWORD

This Supplementary Service Manual has been prepared to introduce new service and new data for the XV1100 ('89). For complete information on service procedures, it is necessary to use this Supplementary Service Manual together with following manuals:

<p>XV1000 ('86) Service Manual (2AE-ME1) XV1000SE/XV1100SE ('88) Supplementary Service Manual (2AE-AE1)</p>

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NOTICE

This manual was written by the Yamaha Motor Company primarily for use by Yamaha dealers and their qualified mechanics. It is not possible to put an entire mechanic's education into one manual, so it is assumed that persons using this book to perform maintenance and repairs on Yamaha motor-repair technology. Without such knowledge, attempted repairs or service to this model may render it unfit to use and/or unsafe.

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.

TECHNICAL PUBLICATIONS
SERVICE DIVISION
MOTORCYCLE GROUP
YAMAHA MOTOR CO., LTD

HOW TO USE THIS MANUAL

PARTICULARLY IMPORTANT INFORMATION

This material is distinguished by the following notation.

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

⚠ CAUTION: A **CAUTION** indicates special procedures that must be followed to avoid damage to the motorcycle.

⚠ WARNING: A **WARNING** indicates special procedures that must be followed to avoid injury to a motorcycle operator or person inspecting or repairing the motorcycle.

MANUAL FORMAT

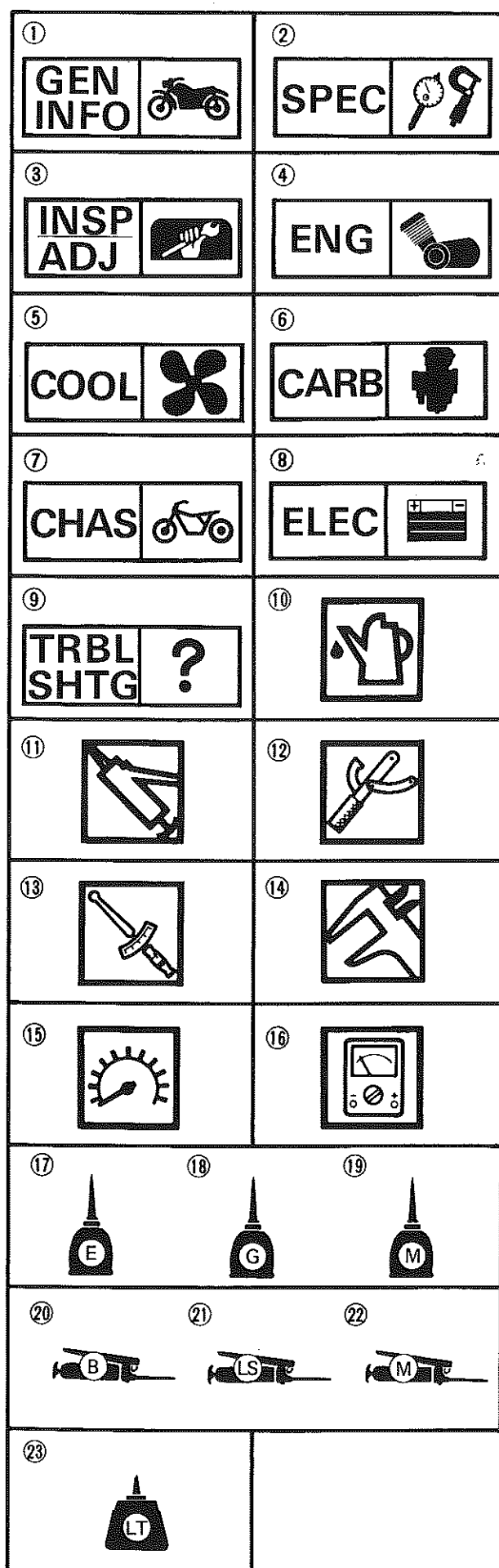
All of the procedures in this manual are organized in a sequential, step-by-step format. The information has been compiled to provide the mechanic with an easy to read, handy reference that contains comprehensive explanations of all disassembly, repair, assembly, and inspection operations.

In this revised format, the condition of a faulty component will precede an arrow symbol and the course of action required will follow the symbol, e.g.,

- Bearings
Pitting/Damage → Replace.

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.

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

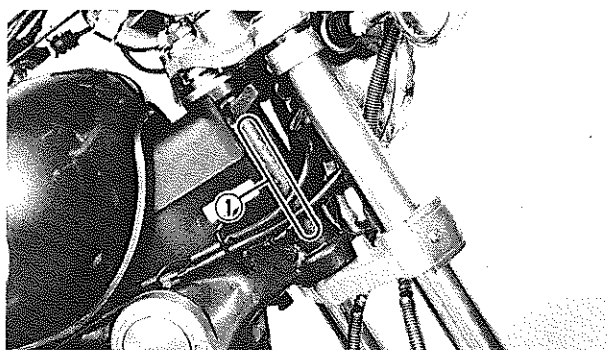
Illustrated symbols ⑰ to ㉓ in the exploded diagram indicate grade of lubricant and location of lubrication point.

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

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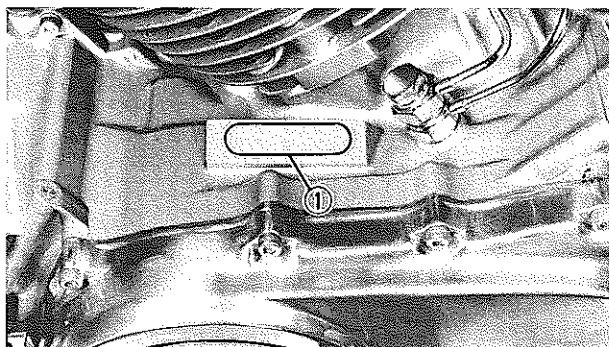


GENERAL INFORMATION

MOTORCYCLE IDENTIFICATION

FRAME SERIAL NUMBER

The frame serial number ① is stamped into the right side of the steering head.



ENGINE SERIAL NUMBER

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

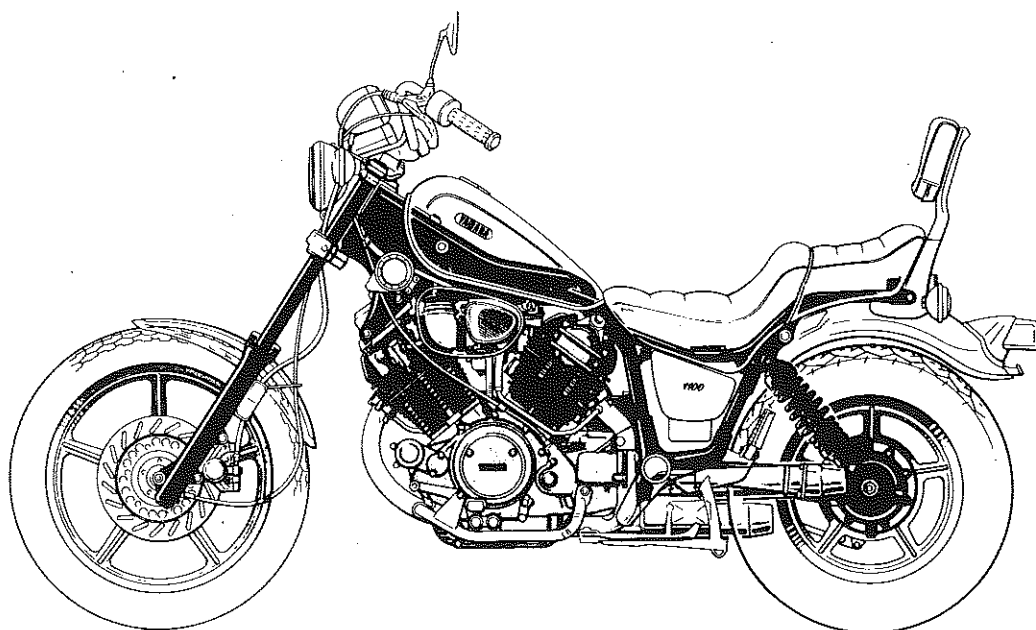
NOTE:

The first three digits of these numbers are for model identifications; the remaining digits are the unit production number.

Starting Serial Number:
3LP-000101
3EF-001101 (CH)

NOTE:

Designs and specifications are subject to change without notice.



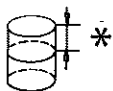
SPECIFICATIONS

GENERAL SPECIFICATIONS

Model	XV1100	
Model Code Number	3LP1	3EF2 (CH)
Engine Starting Number	3LP-000101	3EF-001101 (CH)
Frame Starting Number	3LP-000101	3EF-001101 (CH)
Dimensions:		
Overall Length	2,285 mm (90.0 in) 2,335 mm (91.9 in) (D) 2,300 mm (90.6 in) (S, CH)	
Overall Width	840 mm (33.1 in)	
Overall Height	1,190 mm (46.7 in)	
Seat Height	715 mm (28.1 in)	
Wheelbase	1,525 mm (60.0 in)	
Minimum Ground Clearance	145 mm (5.7 in)	

MAINTENANCE SPECIFICATIONS

ENGINE

Model	XV1100	
Cylinder: Bore Size Measuring Point *		95.00 ~ 95.005 mm (3.7402 ~ 3.7403 in) 35 mm (1.38 in) From the cylinder top
Piston: Piston Size Measuring Point Piston Off-set Piston-to-cylinder Clearance < Limit > Oversize	2nd 4th	94.93 ~ 94.98 mm (3.737 ~ 3.739 in) 14.6 mm (0.57 in) 0.0 mm (0.0 in) 0.045 ~ 0.065 mm (0.0018 ~ 0.0026 in) < 0.15 mm (0.006 in) > 95.5 mm (3.76 in) 96.0 mm (3.78 in)
Carburetor: I.D. Mark Main Jet Main Air Jet Jet Needle Needle Jet Pilot Jet Pilot Air Jet Pilot Outlet Pilot Screw Valve Seat Size Throttle Valve Size Starter Jet Bypass 1 Bypass 2 Float Height Fuel Level Engine Idling Vacuum Pressure at Idling Speed Vacuum Synchronous Difference	(M.J.) #1 #2 (M.A.J.) (J.N.) (N.J.) (P.J.) (P.A.J.) #1 #2 (P.O.) (P.S.) #1 #2 (V.S.) (Th.V.) (G.S.) (B.P. 1) (B.P. 2) (F.H.) (F.L.)	3LP00 #122.5 #125 #80 5DL8 Y-3 #40 #60 #140 φ0.9 2 turns out 1 and 1/2 turns out φ1.5 #135 G.S. 1: #35 φ0.9 φ0.8 23 ~ 25 mm (0.90 ~ 0.98 in) -0.5 ~ 0.5 mm (-0.02 ~ 0.02 in) 950 ~ 1,050 r/min 22.7 ~ 25.3 kPa (170 ~ 190 mmHg, 6.7 ~ 7.5 inHg) Below 1.33 kPa (10 mmHg, 0.4 inHg) 3EF10 (CH) 5DL2Z (CH) #37.5 (CH) φ1.0 (CH) 1.0 turn out (CH) G.S. 2: φ0.7



ELECTRICAL

Model	XV1100
Voltage:	12V
Ignition System: Ignition Timing (B.T.D.C.) Advancer Timing (B.T.D.C.) Advancer Type	10° at 1,000 r/min 48° at 4,000 r/min Vacuum and electrical
<p>Ignition timing (B.T.D.C.)</p> <p>Engine speed (x 10³ r/min)</p> <p>43 ± 2.5° / 3,000 r/min P = -170 mmHg 48 ± 2.0° / 4,000 r/min 47 ± 2.5° / 7,000 r/min #1 #2 2,020 ± 250 r/min / 34° 2,050 ± 250 r/min / 34° 36.4 ± 2.2° / 7,000 r/min 31 ± 2.2° / 4,000 r/min 3,240 ± 250 r/min / 25° #1 3,170 ± 250 r/min / 25° #2 P = 0 mmHg 1,410 ± 200 r/min / 12° 1,240 ± 200 r/min / 12° 2,550 ± 250 r/min / 12° #1 2,300 ± 250 r/min / 12° #2 10 ± 1.3° / 1,000 r/min</p>	
T.C.I.: Pickup Coil Resistance (Color)	124 ~ 186Ω at 20°C (68°F) (Brown — Green), (Red — Blue)
T.C.I. Unit-Model/Manufacturer	J4T016/MITSUBISHI
A.C. Generator: Model/Manufacturer Nominal Output	F3T431/MITSUBISHI 14V, 20A at 5,000 r/min

