



YAMAHA

YX600 (S-A)



Service Manual

LIT-11616-06-16

www.badr600.com

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 motorcycles have a basic understanding of the mechanical concepts and procedures inherent in motorcycle 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 OPERATIONS
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







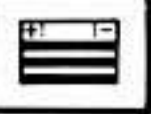





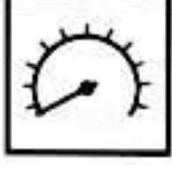








All of the procedures in this manual are organized in a sequential, step-by-step format. The information has been compiled to provide the mechanic with an easy to read, handy reference that contains comprehensive explanations of all disassembly, repair, assembly, and inspection operations.

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.

① GEN INFO 	② INSP ADJ 	
③ ENG 	④ COOL 	
⑤ CARB 	⑥ CHAS 	
⑦ ELEC 	⑧ APPX 	
⑨ 	⑩ 	
⑪ 	⑫ 	
⑬ 	⑭ 	
⑮ 	⑯ 	⑰ 
⑱ 	⑲ 	⑳ 
㉑ 		

ILLUSTRATED SYMBOLS (Refer to the illustration)

Illustrated symbols ① to ⑧ are designed as thumb tabs to indicate the chapter's number and content.

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








Illustrated symbols ⑨ to ⑭ are used to identify the specifications appearing in the text.

- ⑨ Filling fluid
- ⑩ Lubricant
- ⑪ Tightening
- ⑫ Wear limit, clearance
- ⑬ Engine speed
- ⑭ Ω , V, A

Illustrated symbols ⑮ to ㉑ in the exploded diagram indicate grade of lubricant and location of lubrication point.

- ⑮ Apply engine oil
- ⑯ Apply gear oil
- ⑰ Apply molybdenum disulfide oil
- ⑱ Apply wheel bearing grease
- ⑲ Apply lightweight lithium-soap base grease
- ⑳ Apply molybdenum disulfide grease
- ㉑ Apply locking agent (LOCTITE®)

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PERIODIC INSPECTIONS AND ADJUSTMENTS	 INSP ADJ 2
ENGINE OVERHAUL	 ENG 3
CARBURETION	 CARB 4
CHASSIS	 CHAS 5
ELECTRICAL	 ELEC 6
APPENDICES	 APPX 7

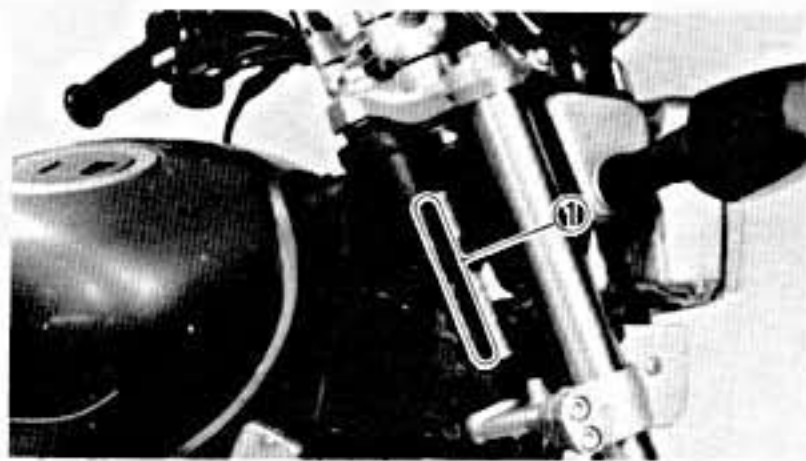
CHAPTER 1

GENERAL INFORMATION

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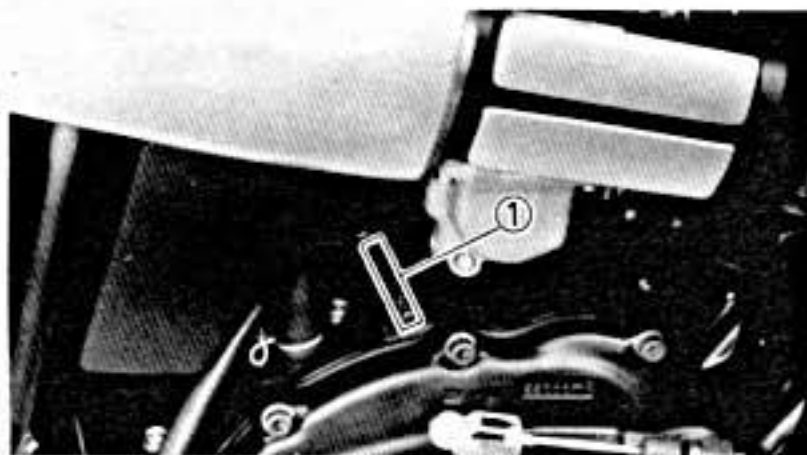
**GENERAL
INFORMATION**

**MOTORCYCLE IDENTIFICATION
VEHICLE IDENTIFICATION NUMBER**

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

Starting Serial Number:
YX600S (Except for California)
JYA1UJ00*GA000101
YX600SC (For California)
JYA1UL00*GA000101

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.

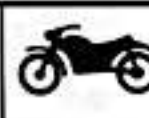


ENGINE SERIAL NUMBER

The engine serial number ① is stamped into the elevated part of the left rear section of the engine.

Starting Serial Number:
YX600S (Except for California)
1UJ-000101
YX600SC (For California)
1UL-000101

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



IMPORTANT INFORMATION

ALL REPLACEMENT PARTS

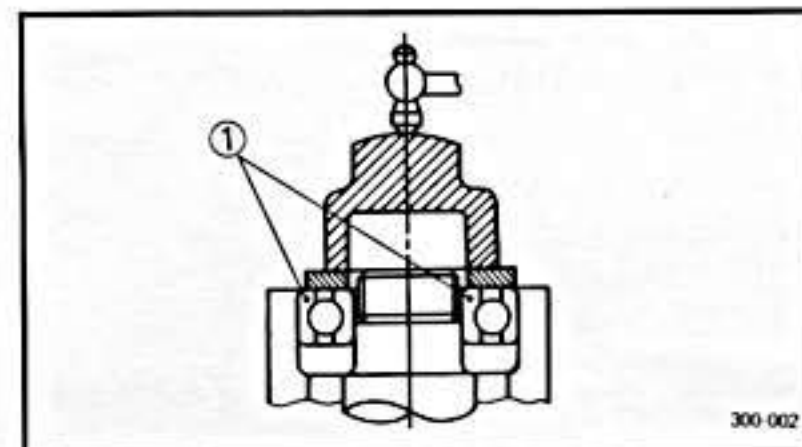
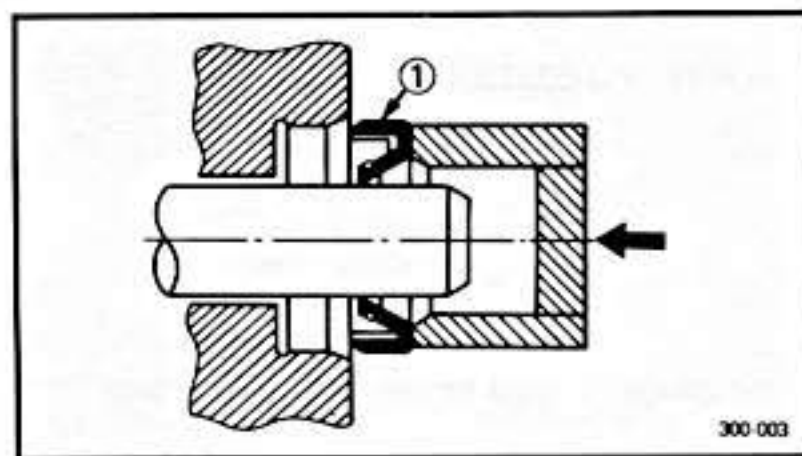
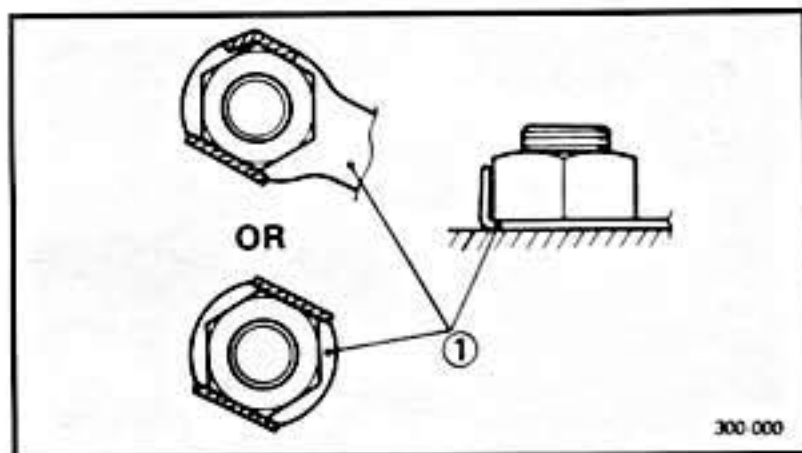
1. Use only genuine Yamaha parts for all replacements. Use oil and/or grease recommended by Yamaha for assembly and adjustment. Other brands may be similar in function and appearance, but inferior in quality.

GASKETS, OIL SEALS, AND O-RINGS

1. All gaskets, seals and O-rings should be replaced when an engine is overhauled. All gasket surfaces, oil seal lips and O-rings must be cleaned.
2. Properly oil all mating parts and bearings during reassembly. Apply grease to the oil seal lips.

LOCK WASHERS/PLATES AND COTTER PINS

1. All lock washers/Plates ① and cotter pins must be replaced when they are removed. Lock tab(s) should be bent along the bolt or nut flat(s) after the bolt or nut has been properly tightened.



BEARINGS AND OIL SEALS

1. Install the bearing(s) and oil seal(s) with their manufacturer's marks or numbers facing outward. (In other words, the stamped letters must be on the side exposed to view.) When installing oil seal(s), apply a light coating of light-weight lithium base grease to the seal lip(s). Oil the bearings liberally when installing.

① Oil seal

CAUTION:

Do not use compressed air to spin the bearings dry. This causes damage to the bearing surfaces.

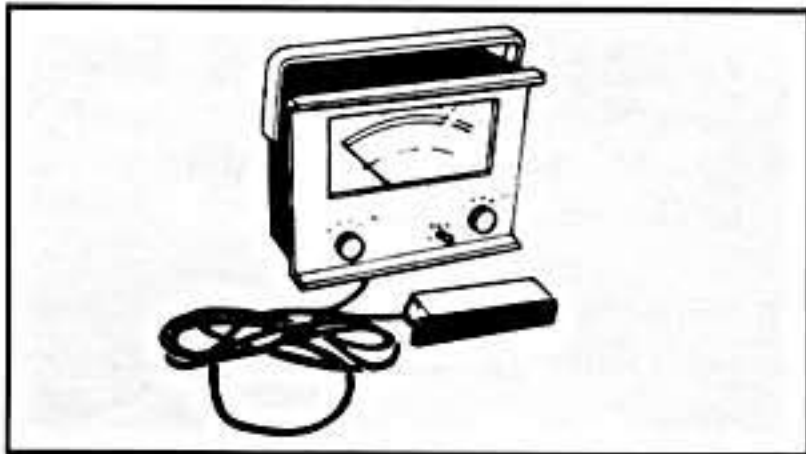
① Bearing



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SPECIAL TOOLS

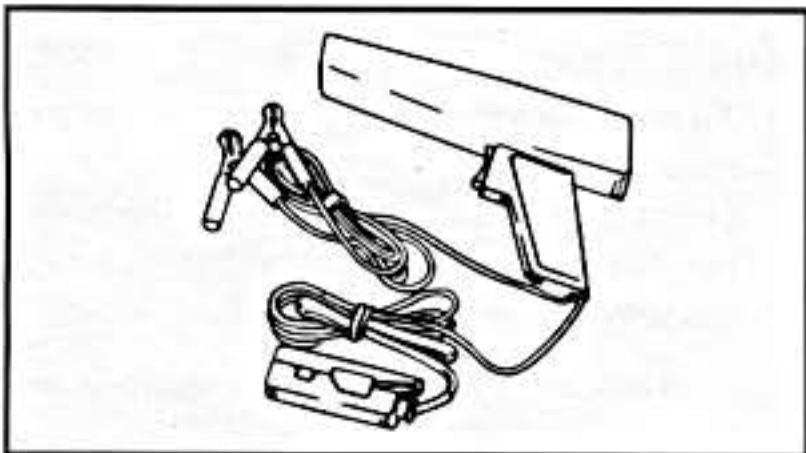
The proper special tools are necessary for complete and accurate tune-up and assembly. Using the correct special tool will help prevent damage caused by the use of improper tools or improvised techniques.



FOR TUNE UP

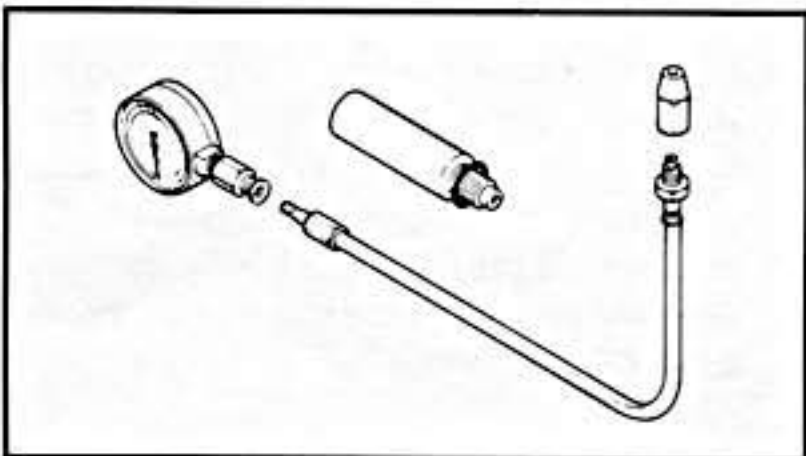
1. Inductive Tachometer
P/N. YU-08036

This tool is needed for detecting engine rpm.



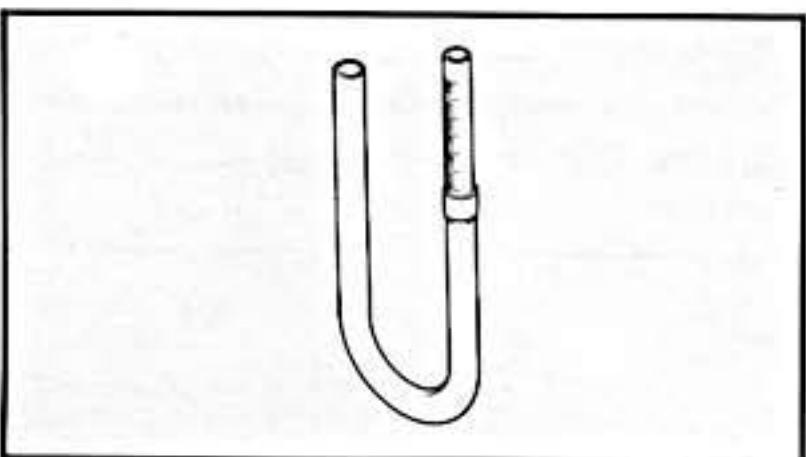
2. Inductive Timing Light
P/N. YU-08037

This tool is necessary for adjusting timing.



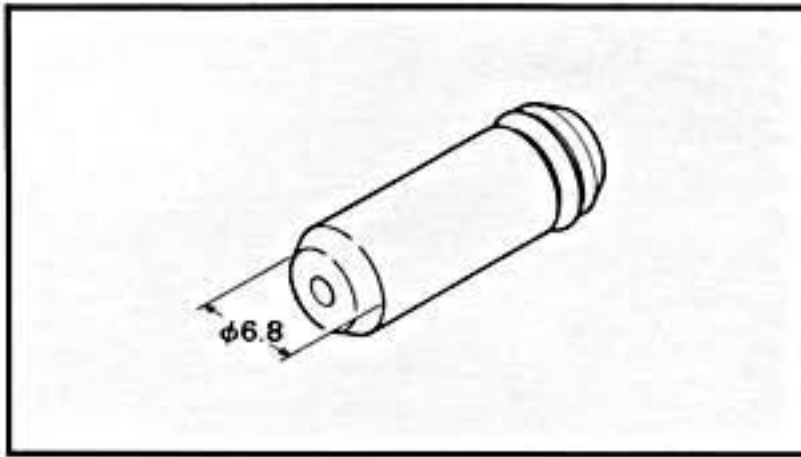
3. Compression Gauge
P/N. YU-33223

This gauge is used to measure the engine compression.



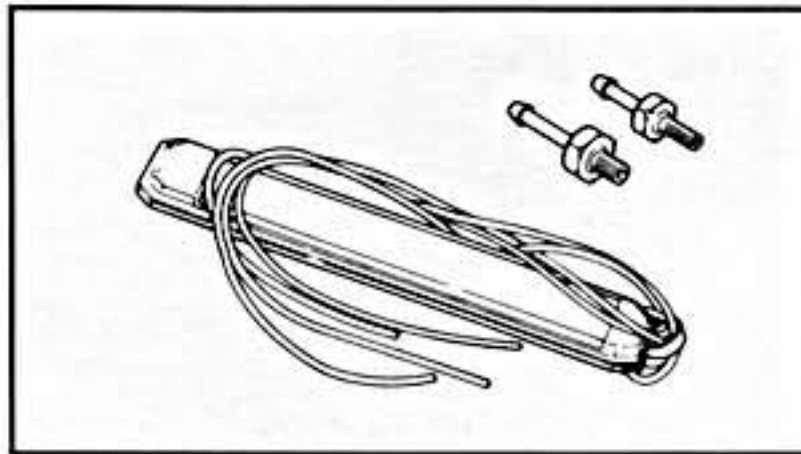
4. Fuel Level Gauge
P/N. YM-01312

This gauge is used to measure the fuel level in the float chamber.



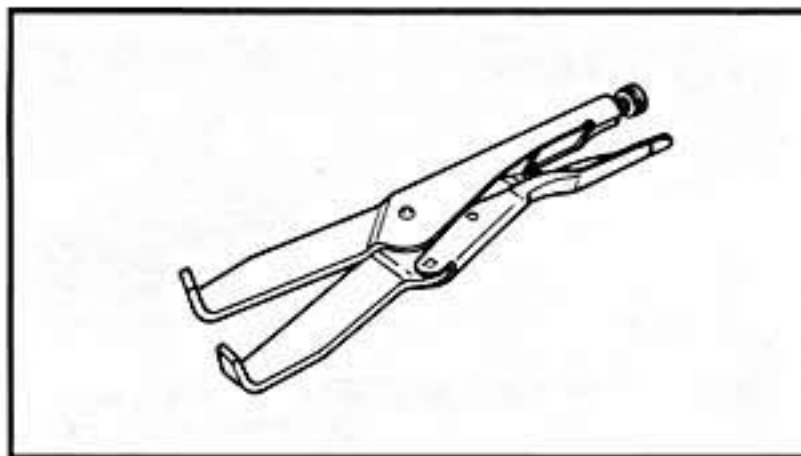
5. Fuel Level Gauge Adapter
P/N. YM-01329

This tool is needed when measuring the carburetor fuel level together with fuel level gauge.



6. Vacuum Gauge
P/N. YU-08030

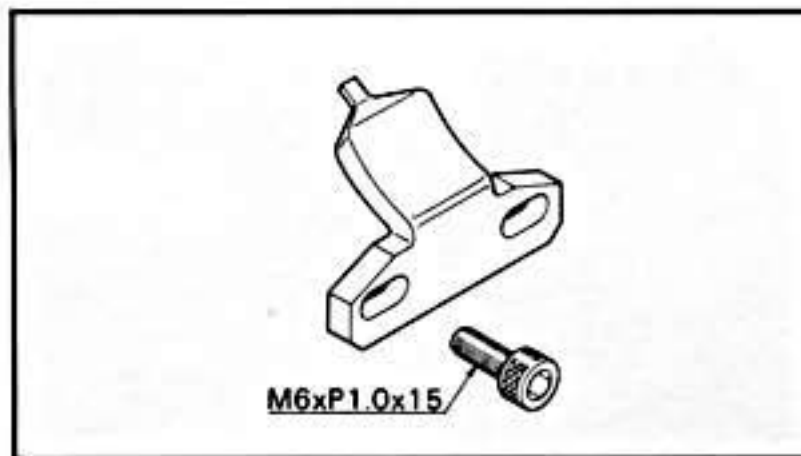
This gauge is needed for carburetor synchronization.



FOR ENGINE SERVICE

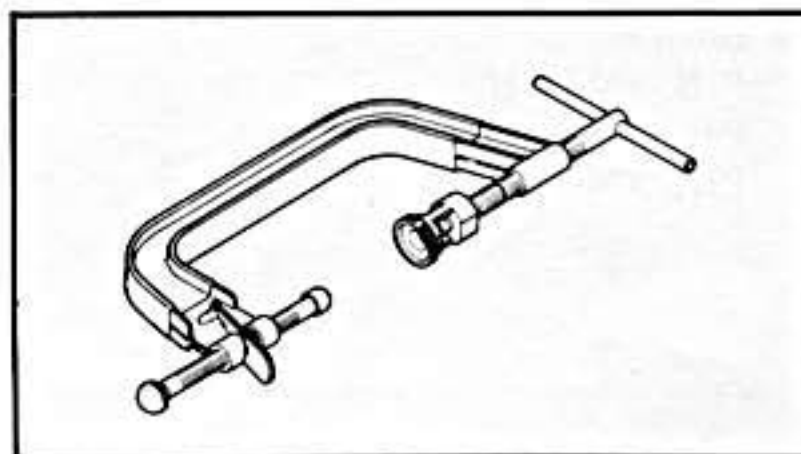
1. Universal Clutch Holder
P/N. YM-91042

This tool is used to hold the clutch when removing or installing the clutch boss locknut.



2. Tappet Adjusting Tool
P/N. YM-01245

This tool is necessary to replace valve adjusting pads.



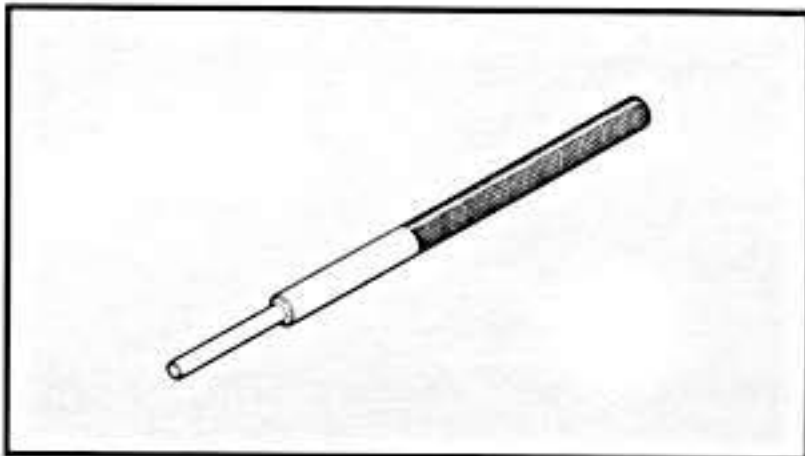
3. Valve Spring Compressor
P/N. YM-04019

This tool is needed to remove and install the valve assemblies.

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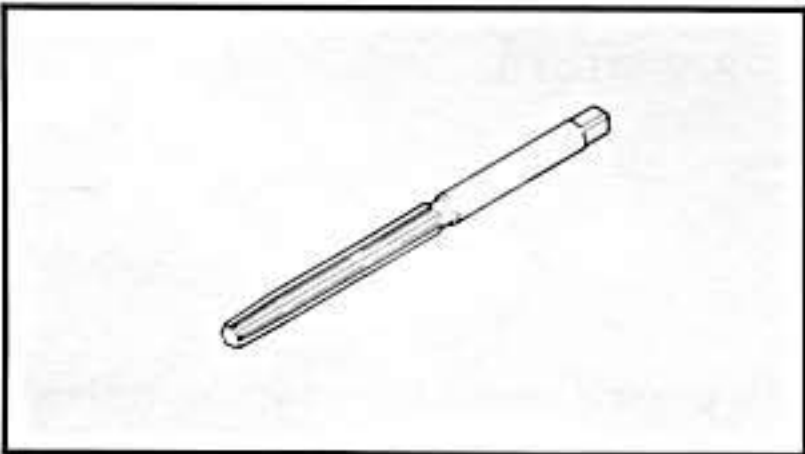


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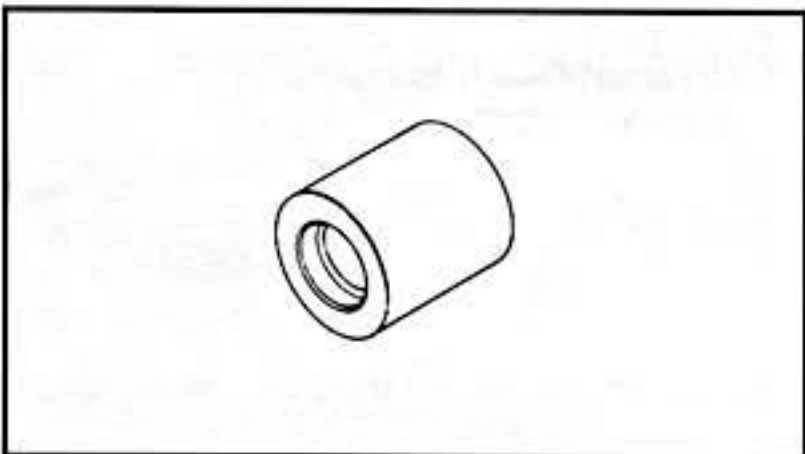
4. Valve Guide Remover
P/N. YM-04064

This tool is used to remove the valve guides.



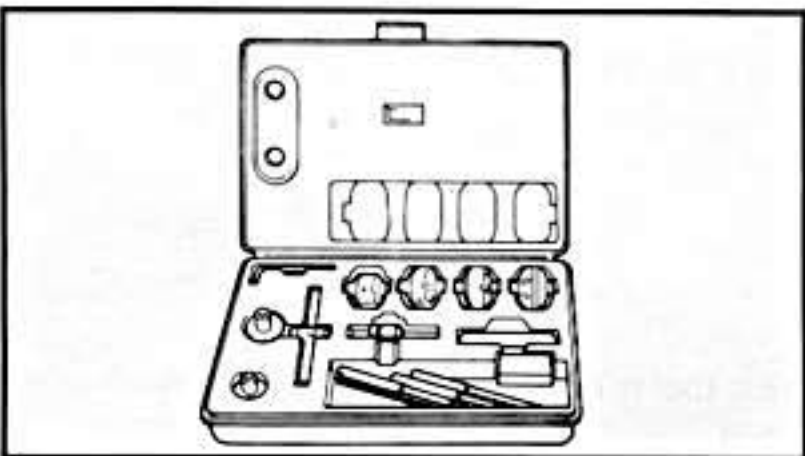
5. Valve Guide Reamer
P/N. YM-04066

This tool is used to rebores the new valve guide.



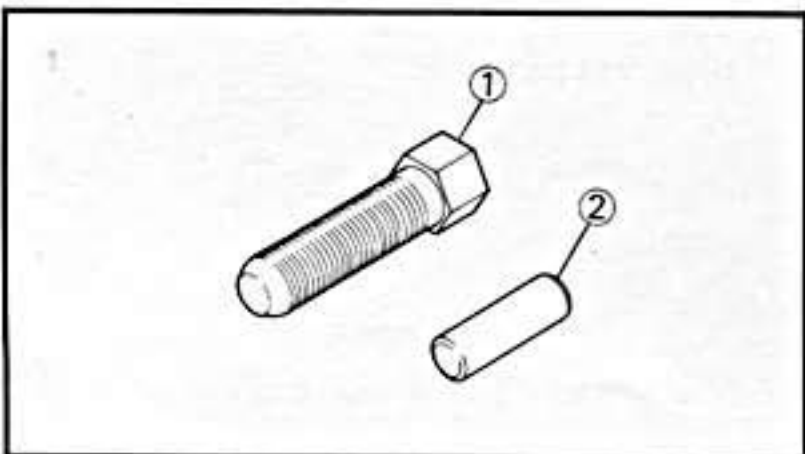
6. Valve Guide Installer
P/N. YM-04065

This tool is needed to install the valve guides properly together with valve guide remover.



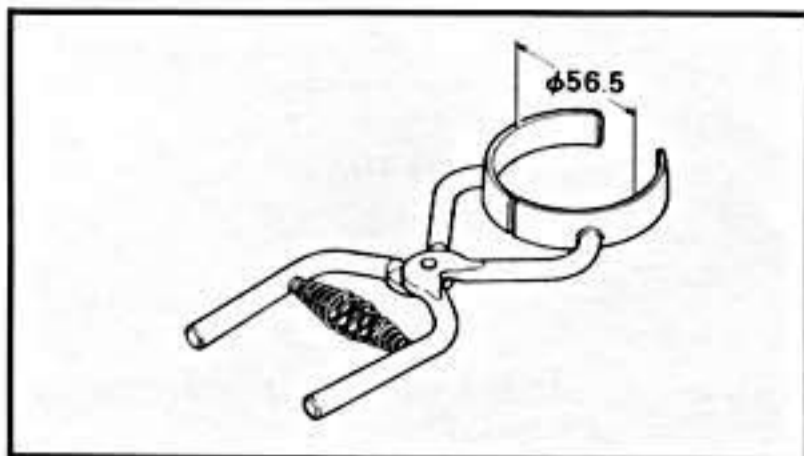
7. Valve Seat Cutter Set
P/N. YM-91043

This tool is needed to resurface the valve seat.



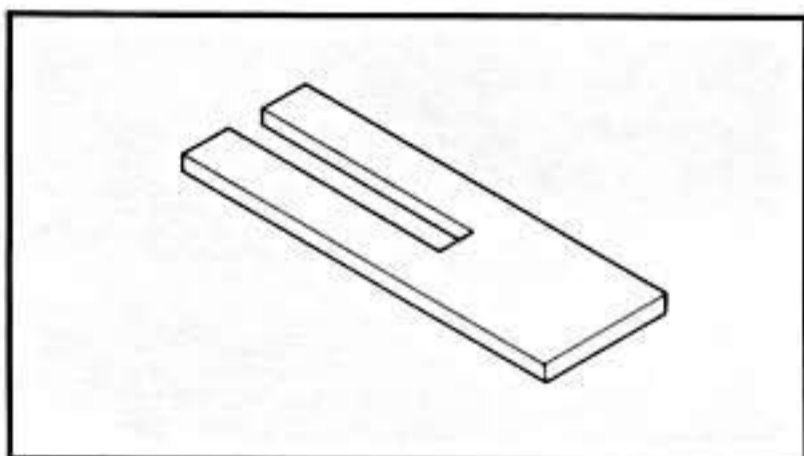
8. Rotor Puller ①
P/N. YM-01080
Pin ②
P/N. YM-04052

This tool is needed to remove the A.C. Generator rotor.



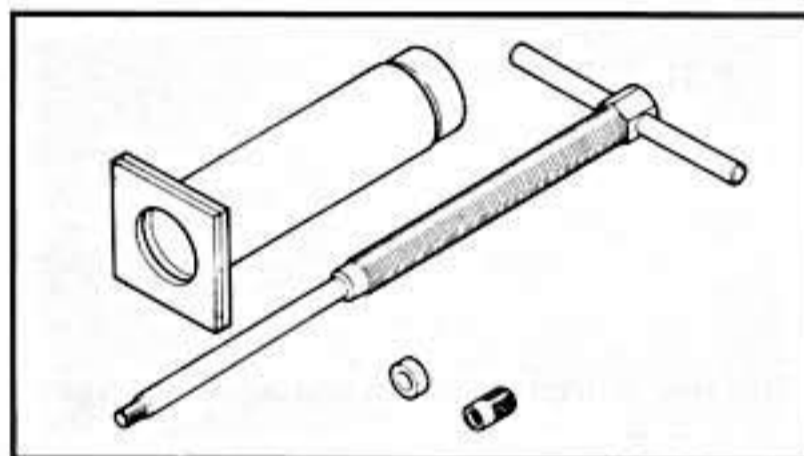
9. Piston Ring Compressor
P/N. YM-04047

This tool is used when installing the piston into the cylinder.



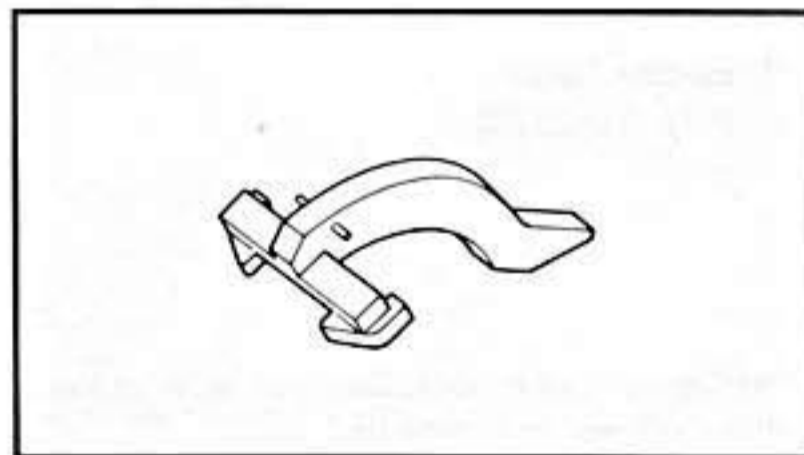
10. Piston Base
P/N. YM-01067

Use 4 of these to hold the pistons during cylinder installation.



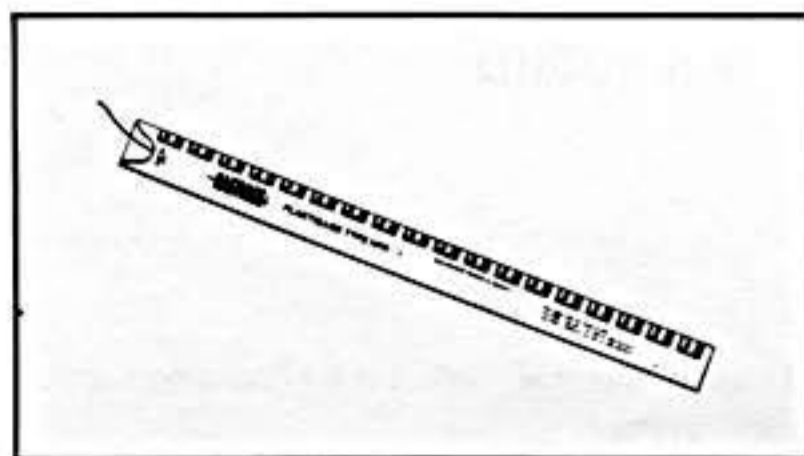
11. Piston Pin Puller
P/N. YU-01304

This tool is used to remove the piston pin.



12. Rotor Holding Tool
P/N. YM-04043

This tool is used to hold the A.C. Generator rotor during removal and installation.



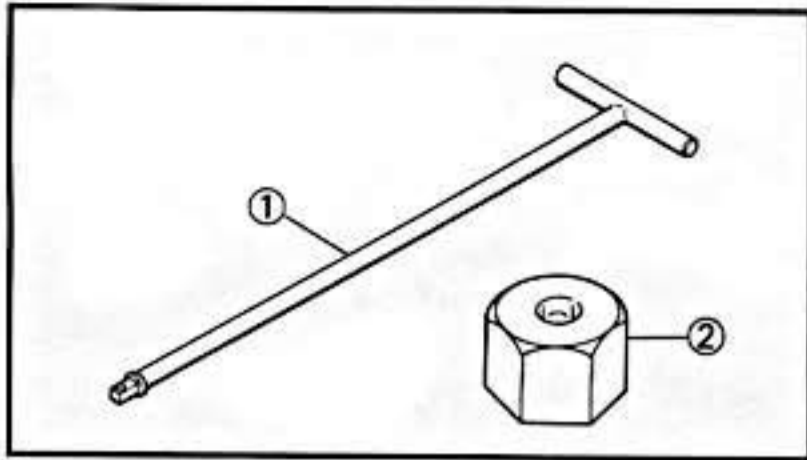
13. Plastigage® Set "Green"
P/N. YU-33210

This gauge is needed to measure the clearance for the connecting rod bearing.

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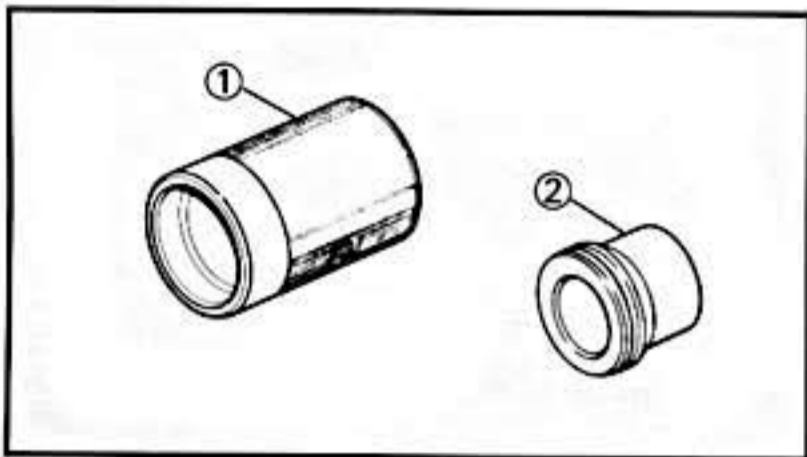
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FOR CHASSIS SERVICE

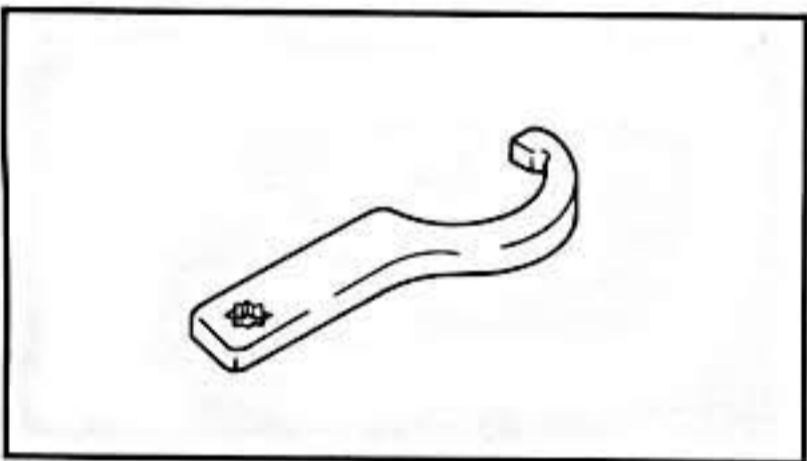
- 1. T-Handle ①
P/N. YM-01326
- Front Fork Cylinder Holder ②
P/N. YM-33298

This tool is used to loosen and tighten the front fork cylinder holding bolt.



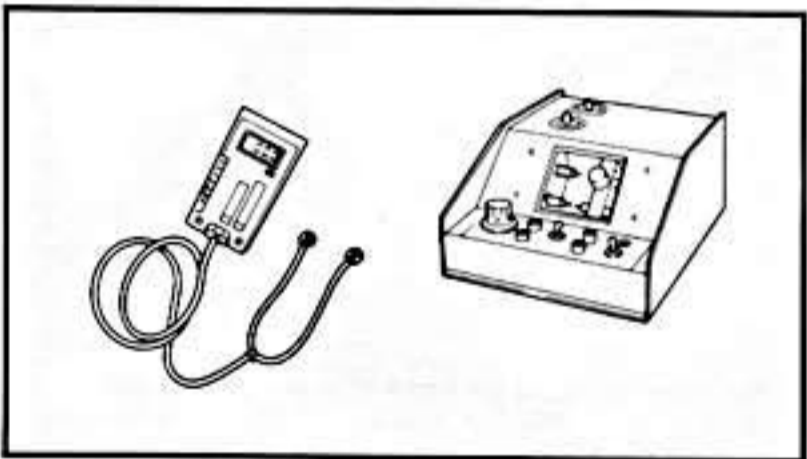
- 2. Front Fork Seal Driver (Weight) ①
P/N. YM-33963
- Adapter ②
P/N. YM-08010

These tools are used when installing the fork seal.



- 3. Ring Nut Wrench
P/N. YU-33975

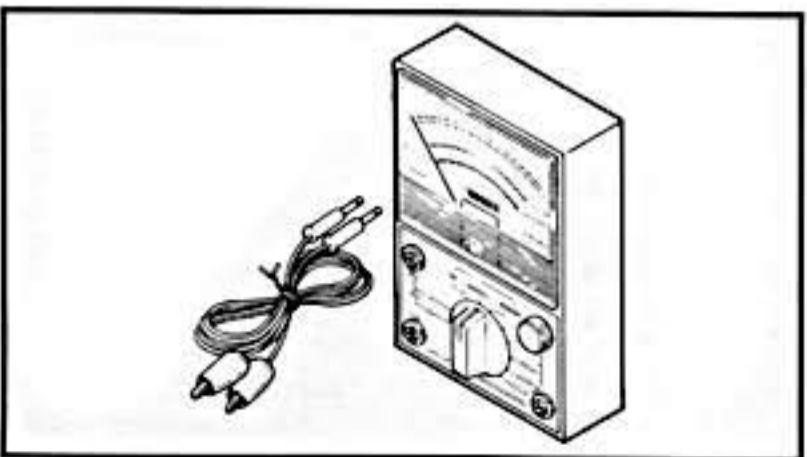
This tool is used to loosen and tighten the steering ring nut.



FOR ELECTRICAL COMPONENTS

- 1. Electro Tester
P/N. YU-33260

This instrument is necessary for checking the ignition system components.



- 2. Pocket Tester
P/N. YU-03112

This instrument is invaluable for checking the electrical system.