







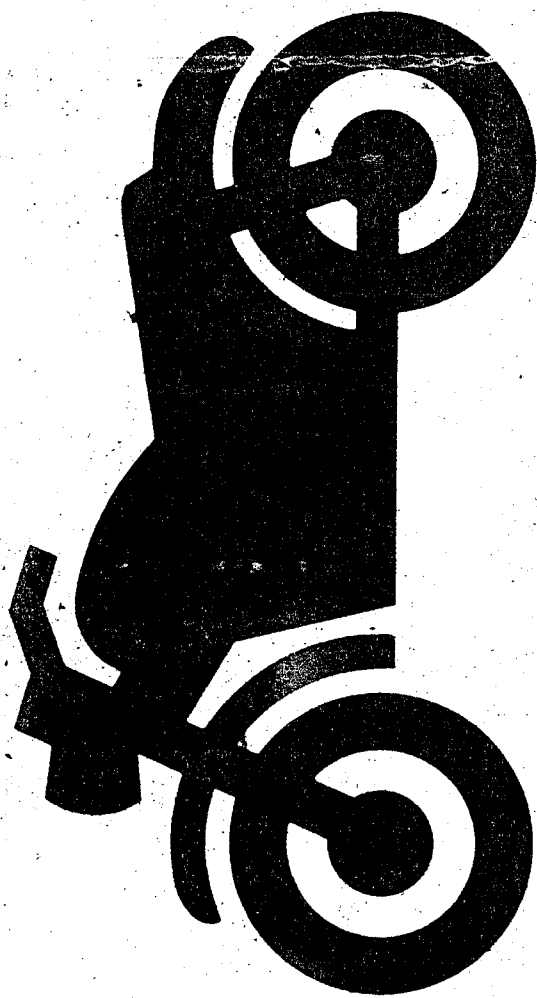


INDEX

GENERAL INFORMATION	 GEN INFO 1
SPECIFICATIONS	 SPEC 2
PERIODIC INSPECTION AND ADJUSTMENT	 INSP ADJ 3
ENGINE OVERHAUL	 ENG 4
COOLING SYSTEM	 COOL 5
CARBURETION	 CARB 6
CHASSIS	 CHAS 7
ELECTRICAL	 ELEC 8
TROUBLESHOOTING	? TRBL SHTG 9



**GEN
INFO**

T

MOTORC
VEHIC
FRAM
ENGIN
IMPORT
PREPA
ALL R
GASK
LOCK
BEAR
CIRCU
SPECIAL
FOR T
FOR E
FOR C
FOR E

CHAPTER 1.

GENERAL INFORMATION

MOTORCYCLE IDENTIFICATION	A-8
VEHICLE IDENTIFICATION NUMBER (For CNR, E)	A-8
FRAME SERIAL NUMBER (Except for CNR, E)	A-8
ENGINE SERIAL NUMBER	A-8
IMPORTANT INFORMATION	A-8
PREPARATION FOR REMOVAL AND DISASSEMBLY	A-8
ALL REPLACEMENT PARTS	A-9
GASKETS, OIL SEALS, AND O-RINGS	A-9
LOCK WASHERS/PLATES AND COTTER PINS	A-9
BEARING AND OIL SEALS	A-9
CIRCLIPS	A-9
SPECIAL TOOLS	A-9
FOR TUNE UP	A-9
FOR ENGINE SERVICE	A-10
FOR CHASSIS SERVICE	A-12
FOR ELECTRICAL COMPONENTS	A-12

MOTORCYCLE IDENTIFICATION

GENERAL INFORMATION



MOTORCYCLE IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER

(For CNR, E)

The vehicle identification number (VIN) is stamped into the right side of the steering head.

Starting serial number:

JYA3YFS0*MA029101

FRAME SERIAL NUMBER

(Except for CNR, E)

The frame serial number (FSN) is stamped into the right side of the steering head.

Starting serial number:

XTZ660 3YF-000101 (A)(B)(D)(DK)
(F)(G)(H)(I)(J)(K)
(L)(M)(N)(O)(P)(Q)
(R)(S)(T)
(U)(V)(W)(X)(Y)(Z)
XTZ660 4BW-000101 (A)(CH)

ENGINE SERIAL NUMBER

The engine serial number (ESN) is stamped into the elevated part of the right rear section of the engine.

Starting serial number:

XTZ660 3YF-000101 (A)(B)(D)(DK)
(F)(G)(H)(I)(J)(K)
(L)(M)(N)(O)(P)(Q)
(R)(S)(T)
(U)(V)(W)(X)(Y)(Z)
XTZ660 3YF-029101 (C)(NR)(E)
XTZ660 4BW-000101 (A)(CH)

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

IMPORTANT INFORMATION

PREPARATION FOR REMOVAL AND DISASSEMBLY

1. Remove all dirt, mud, dust, and foreign material before removing and disassembling.

2. Use proper tools and cleaning equipment. Refer to "SPECIAL TOOL."

3. When disassembling the motorcycle, keep mated parts together. This includes gears, cylinders, pistons, and other mated parts that have been "mated" through normal wear. Mated parts must be reused as an assembly or replaced.

4. During the motorcycle disassembly, clean all parts and place them in trays in the order of disassembly. This will speed up assembly time and help assure that all parts are correctly reinstalled.

5. Keep away from fire.



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.



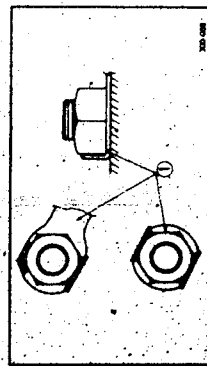
GASKETS, OIL SEALS, AND O-RINGS

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 tabs should be bent along the bolt or nut flange(s) after the bolt or nut has been properly tightened.



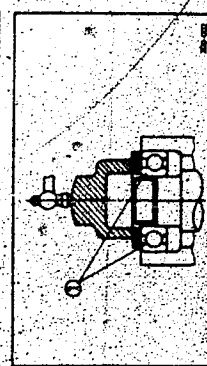
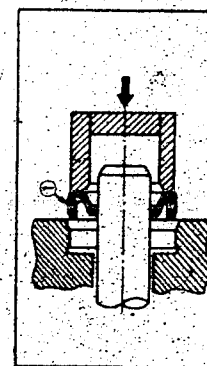
BEARINGS AND OIL SEALS

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

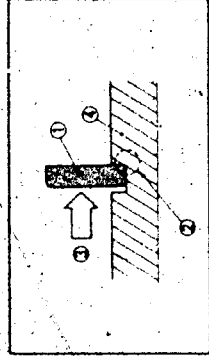
Do not use compressed air to spin the bearings dry. This causes damage to the bearing surfaces.

① Bearing



CIRCLIPS

1. All circlips should be inspected carefully before reassembly. Always replace piston pin clips after one use. Replace distorted circlips. When installing a circlip ①, make sure that the sharp-edged corner ② of the circlip is positioned to the thrust ③ it receives. See the sectional view.



④ Shift

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.

The shape and part number used for the special tool differ by country, so two types are provided. Refer to the list provided to avoid errors when placing an order.

P/N: YU-00000 YU-00000
YS-00000 YK-00000
ACC-00000

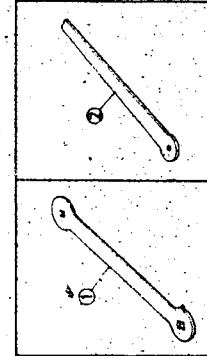
Except for
US, CAN

P/N: 90880-01311-2

FOR TUNE UP

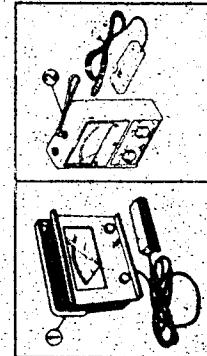
1. Valve adjusting tool
P/N: YU-00035-1
P/N: 90880-01311-2

This tool is necessary for adjusting the valve clearance.



2. Inductive tachometer
P/N: YU-00036-A-1
P/N: 90880-03113-2

This tool is needed for detecting engine rpm.



ected carefully be-
replaces piston pin
a distorted circle.
1. make sure that
2. a loosened op-
receives. See the

necessary for com-
d assembly. Using
to prevent damage
tools or improvised
for the special
types are provid-
avoid errors when

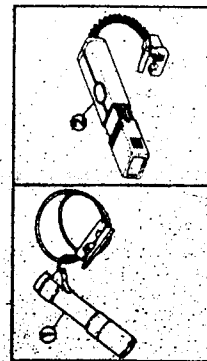
Except for
US, CAN

Except for
US, CAN

adjusting the valve

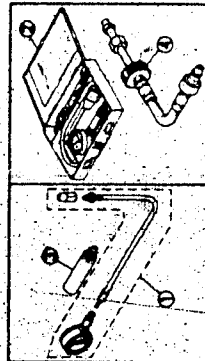
ing engine com-

SPECIAL TOOLS



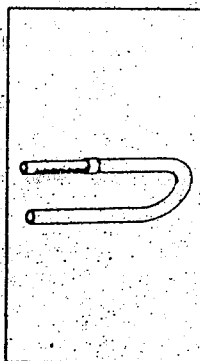
3. Inductive timing light
P/N. YM-33277-A - ①
P/N. 90890-03141 - ②

This tool is necessary for checking ignition timing.



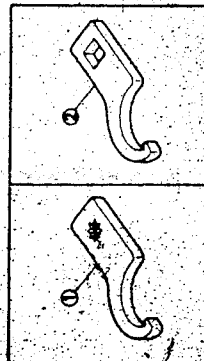
4. Compression gauge
P/N. YU-33223 - ①
P/N. 90890-03081 - ②
Adapter (M12)
P/N. YU-33223-3 - ③
P/N. 90890-04062 - ④

These gauges are used to measure the engine compression.



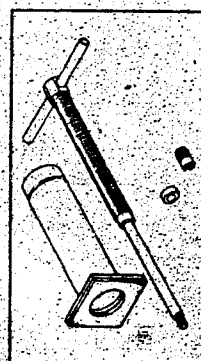
5. Fuel level gauge
P/N. YM-01312-A
P/N. 90890-01312

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



6. Steering nut wrench
P/N. YM-38520 - ①
P/N. 90890-01443 - ②

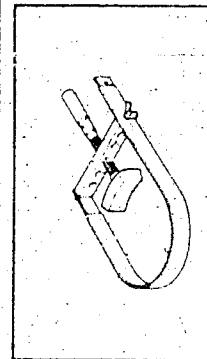
This tool is used to adjust the spring preload of rear shock absorber.



- FOR ENGINE SERVICE**
1. Piston pin puller
P/N. YU-01304
P/N. 90890-01304

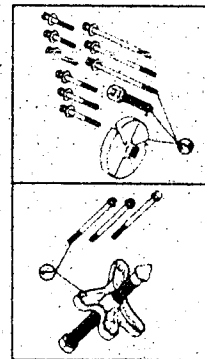
This tool is used to remove the piston pin.

SPECIAL TOOLS



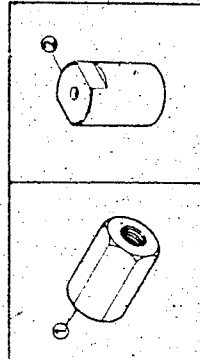
2. Rotor holder
P/N. YS-01880
P/N. 90890-01701

This tool is used to hold the rotor when removing or installing the rotor securing nut.



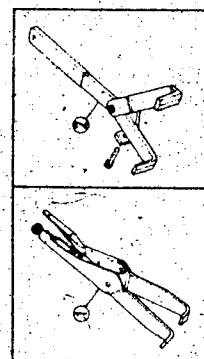
3. Rotor puller
P/N. YU-33270 - ①
P/N. 90890-01362 - ②

This tool is used to remove the rotor.



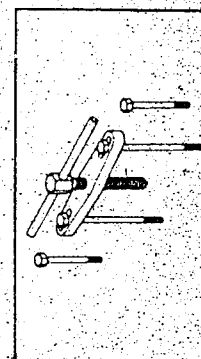
4. Rotor puller adapter
P/N. YM-04063-A - ①
P/N. 90890-04063 - ②

This tool is used to remove the rotor.



5. Universal clutch holder
P/N. YM-91042 - ①
P/N. 90890-04066 - ②

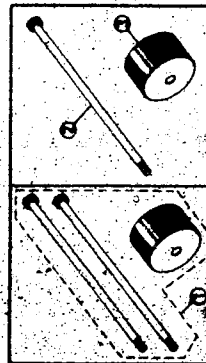
This tool is used to hold the clutch when removing or installing the clutch boss locknut.



6. Crankcase separator
P/N. YU-01135-A
P/N. 90890-01135

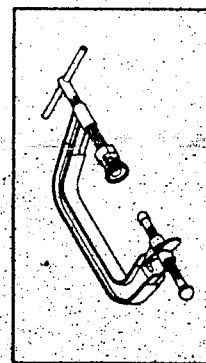
This tool is necessary to separate the crankcase.

SPECIAL TOOLS



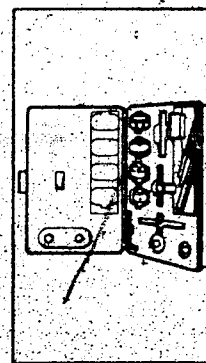
7. Slide hammer set
P/N. YU-01083-A-①
Slide hammer bolt
P/N. 90890-01083-②
Weight
P/N. 90890-01084-③

These tools are used when removing the rocker arm shaft.



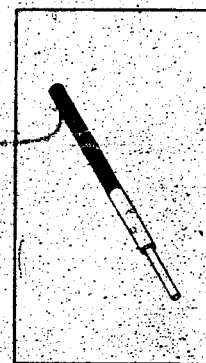
8. Valve spring compressor
P/N. YM-04019
P/N. 90890-04019

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



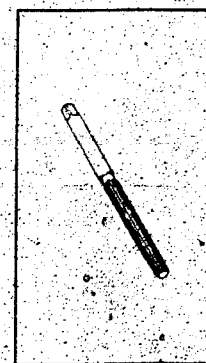
9. Valve seat cutter set
P/N. YM-91043

This tool is needed to resurface the valve seat.



10. Valve guide remover 6 mm (0.24 in)
P/N. YM-04064
P/N. 90890-04064

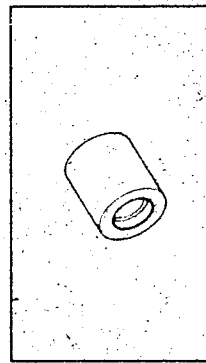
This tool is used to remove the valve guides.



11. Valve guide reamer 6 mm (0.24 in)
P/N. YM-04066
P/N. 90890-04066

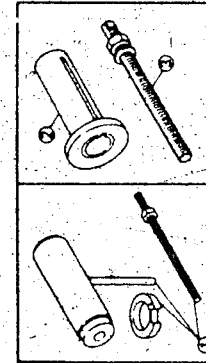
This tool is used to ream the new valve guide.

SPECIAL TOOLS



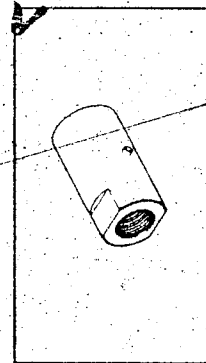
12. Valve guide installer 6 mm (0.24 in)
P/N. YM-04065-A
P/N. 90890-04065

This tool is needed to install the valve guides properly.



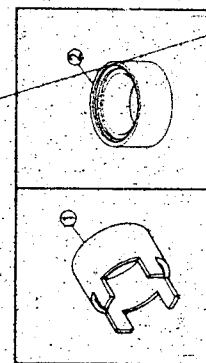
13. Crankshaft installer set
P/N. YU-90050-①
Crankshaft installer pot
P/N. 90890-01274-②
Crankshaft installer bolt
P/N. 90890-01275-③

These tools are used to install the crankshaft.



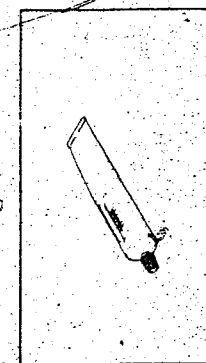
14. Adapter #10 (M14)
P/N. YM-90069
P/M. 90890-04059

This tool is used to install the crankshaft.



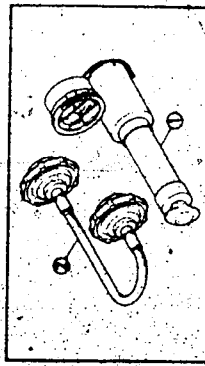
15. Crank pot spacer
P/N. YM-91044
P/N. 90890-04081-①
Spacer
P/N. 90890-01288-②

This tool is used to install the crankshaft.



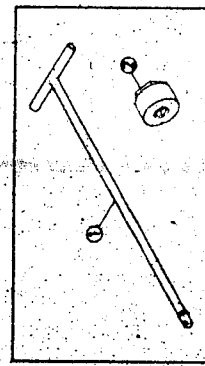
16. Sealant (quick gasket)*
P/N. ACC-11001-01
Yamaha Bond No. 1215*
P/N. 90890-85505

This sealant (bond) is used for crankcase mating surfaces, etc.



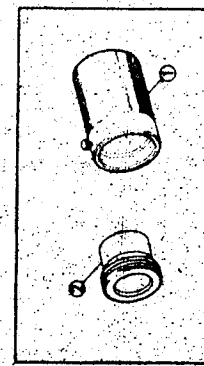
17. Radiator cap tester
P/N. YU-24460-01
P/N. 90890-01325-①
Adapter
P/N. YU-33694
P/N. YU-33694
P/N. 90890-01352-②

This tester is used for checking the cooling system.



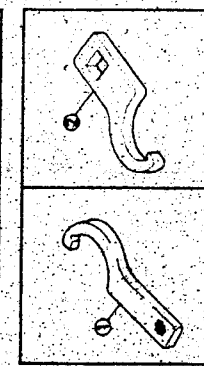
- FOR CHASSIS SERVICE
1. T-Handle
P/N. YM-01326
P/N. 90890-01326-①
Damper rod holder 30 mm (1.18 in)
P/N. YM-01327
P/N. 90890-01327-②

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



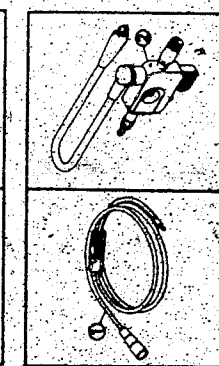
2. Front fork seal drive weight
P/N. YM-33663
P/N. 90890-01367-①
Adapter 43 mm (1.69 in)
P/N. YM-08020
P/N. 90890-01374-②

These tools are used when installing the fork oil seal.



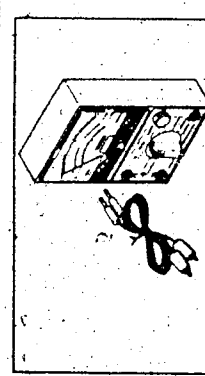
3. Ring nut wrench
P/N. YU-33975-①
P/N. 90890-01403-②

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



- FOR ELECTRICAL COMPONENTS
1. Dynamic spark tester
P/N. YM-34487-①
Ignition checker
P/N. 90890-06754-②

This instrument is necessary for checking the ignition system components.



2. Pocket tester
P/N. YU-03112
P/N. 90890-03112

This instrument is available for checking the electrical system.