



YAMAHA

2008

SERVICE MANUAL

XT660Z

TENERE

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XT660Z (2008)
SERVICE MANUAL
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NOTICE

This manual was produced by the Yamaha Motor Italia S.p.A. primarily for use by Yamaha dealers and their qualified mechanics. It is not possible to include all the knowledge of a mechanic in one manual. Therefore, anyone who uses this book to perform maintenance and repairs on Yamaha vehicles should have a basic understanding of mechanics and the techniques to repair these types of vehicles. Repair and maintenance work attempted by anyone without this knowledge is likely to render the vehicle unsafe and unfit for use.

Yamaha Motor Italia S.p.A. is continually striving to improve all of its models. Modifications and significant changes in specifications or procedures will be forwarded to all authorized Yamaha dealers and will appear in future editions of this manual where applicable.

NOTE:

Designs and specifications are subject to change without notice.

IMPORTANT MANUAL INFORMATION

Particularly important information is distinguished in this manual by the following.



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 checking 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

This manual is intended as a handy, easy-to-read reference book for the mechanic. Comprehensive explanations of all installation, removal, disassembly, assembly, repair and check procedures are laid out with the individual steps in sequential order.

- The manual is divided into chapters and each chapter is divided into sections. The current section title "1" is shown at the top of each page.
- Sub-section titles "2" appear in smaller print than the section title.
- To help identify parts and clarify procedure steps, there are exploded diagrams "3" at the start of each removal and disassembly section.
- Numbers "4" are given in the order of the jobs in the exploded diagram. A number indicates a disassembly step.
- Symbols "5" indicate parts to be lubricated or replaced. Refer to "SYMBOLS".
- A job instruction chart "6" accompanies the exploded diagram, providing the order of jobs, names of parts, notes in jobs, etc.
- Jobs "7" requiring more information (such as special tools and technical data) are described sequentially.

1
↓
CLUTCH

CLUTCH
Removing the clutch cover

5-10 Nm (1.0 m·kg, 7.2 ft·lb)

5-10 Nm (1.0 m·kg, 7.2 ft·lb)

Order	Job/Parts to remove	Qty	Remarks
	Engine oil		Drain. Refer to "CHANGING THE ENGINE OIL" on page 5-11.
	Battery box/Air duct		Refer to "GENERAL CHASSIS" on page 4-1.
	Oil tank/Shift rod		Refer to "ENGINE REMOVAL" on page 5-1.
1	Crankshaft position sensor coupler	1	Disconnect.
2	Shift arm	1	
3	Oil tank bracket	1	
4	Clutch cover	1	
5	Clutch cover gasket	1	
6	Dowel pin	2	For installation, reverse the removal procedure.

CLUTCH

REMOVING THE CLUTCH

1. Loosen:
• Clutch boss nut "1"

NOTE:
While holding the clutch boss "2" with the universal clutch holder "3", loosen the clutch boss nut.

2. Remove:
• Clutch boss nut "1"
• Washer "2"
• Clutch boss assembly "3"

NOTE:
There is a built-in damper between the clutch boss and the clutch plate. It is not necessary to remove the wire clip "4" and disassemble the built-in damper unless there is serious clutch chattering.

CHECKING THE FRICTION PLATES
The following procedure applies to all of the friction plates.

1. Check:
• Friction plate
Damage/wear → Replace the friction plates as a set.

2. Measure:
• Friction plate thickness
Out of specification → Replace the friction plates as a set.

NOTE:
Measure the friction plate at four places.

Friction plate thickness
2.92-3.08 mm (0.11-0.12 in)
Wear limit
2.82 mm (0.1110 in)

REMOVING THE PRIMARY DRIVE GEAR

1. Remove:
• Primary drive gear bolt "1"

NOTE:
While holding the generator rotor "2" with the sheave holder "3", loosen the primary drive gear bolt.

5-47

5-56

SYMBOLS

The following symbols are used in this manual for easier understanding.

NOTE:

The following symbols are not relevant to every vehicle.

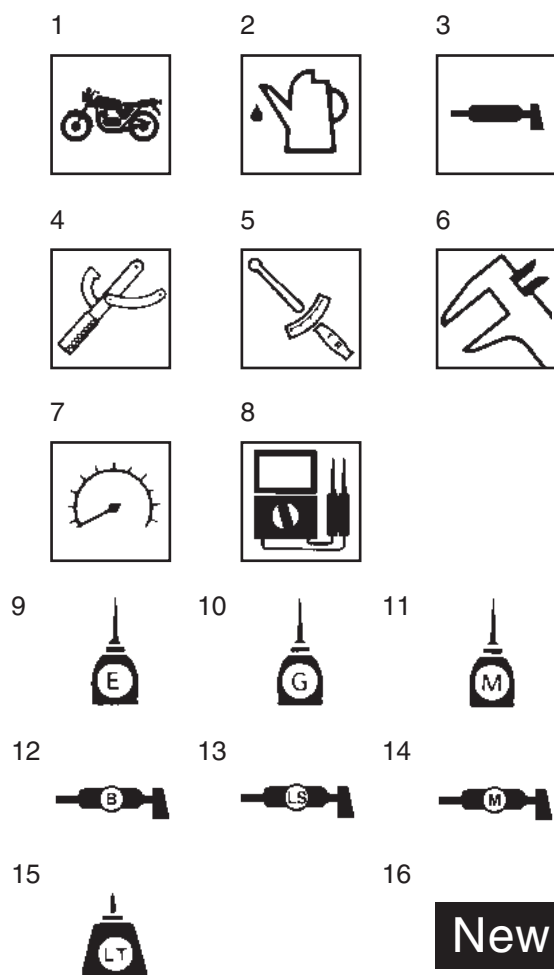


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GENERAL INFORMATION

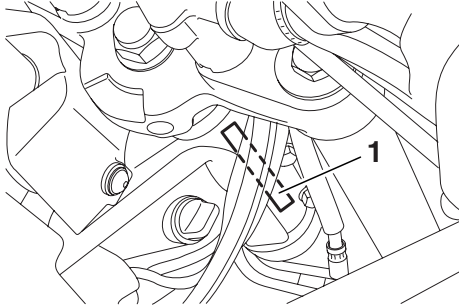
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IDENTIFICATION

EAS00170

VEHICLE IDENTIFICATION NUMBER

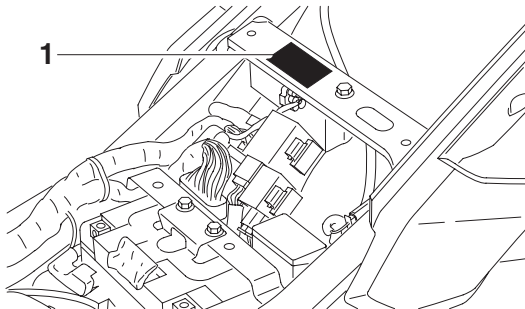
The vehicle identification number “1” is stamped into the right side of the steering head pipe.



EAS00180

MODEL LABEL

The model label “1” is affixed to the frame under the seat. This information will be needed to order spare parts.



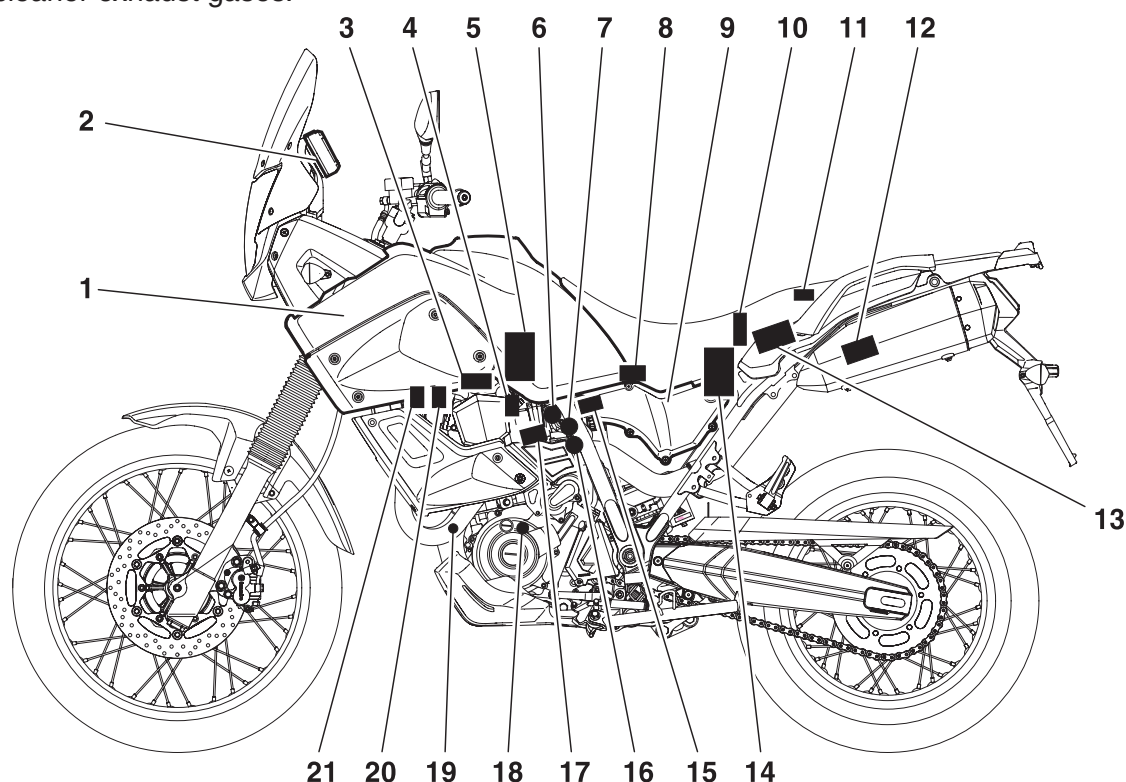
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FEATURES

EAS00896

OUTLINE OF THE FI SYSTEM

The main function of a fuel supply system is to provide fuel to the combustion chamber at the optimum air-fuel ratio in accordance with the engine operating conditions and the atmospheric temperature. In a conventional carburetor system, the air-fuel ratio of the mixture that is supplied to the combustion chamber is created by the volume of the intake air and the fuel that is metered by the jet used in the respective chamber. Despite the same volume of intake air, the fuel volume requirement varies with the engine operating conditions, such as acceleration, deceleration, or operation under a heavy load. Carburetors that meter the fuel through the use of jets have been provided with various auxiliary devices, so that an optimum air-fuel ratio can be achieved to accommodate the constant changes in the operating conditions of the engine. As the requirements for engines to deliver more performance and cleaner exhaust gases increase, it becomes necessary to control the air-fuel ratio in a more precise and finely tuned manner. To accommodate this need, this model has adopted an electronically controlled fuel injection (FI) system in place of a conventional carburetor system. This system can achieve an optimum air-fuel ratio required by the engine at all times by using a microprocessor that regulates the fuel injection volume according to the engine operating conditions detected by various sensors. Adoption of the FI system has resulted in a highly precise fuel supply, improved engine response, better fuel economy, and reduced exhaust emissions. Furthermore, the air induction system (AI system) has been placed under computer control together with the FI system in order to realize cleaner exhaust gases.



- | | |
|---------------------------------|-----------------------------------|
| 1. Fuel tank | 12. Catalytic converter |
| 2. Engine trouble warning light | 13. Fuel injection system relay |
| 3. Ignition coil | 14. Battery |
| 4. Spark plug | 15. Intake air temperature sensor |
| 5. Fuel pump | 16. Coolant temperature sensor |
| 6. Idling adjustment screw | 17. Fuel injector |
| 7. Throttle position sensor | 18. Crankshaft position sensor |
| 8. Intake air pressure sensor | 19. O ₂ sensor |
| 9. Air filter case | 20. Air induction system solenoid |
| 10. ECU | 21. Air cut-off valve |
| 11. Lean angle cut-off switch | |