YAMAHA



FT50C

SERVICE MANUAL

290418

62Y-28197-5A-11

NOTICE

This manual has been prepared by Yamaha primarily for use by Yamaha dealers and their trained mechanics when performing maintenance procedures and repairs to Yamaha equipment. It has been written to suit the needs of persons who have a basic understanding of the mechanical and electrical concepts and procedures inherent in the work, for without such knowledge attempted repairs or service to the equipment could render it unsafe or unfit for use.

Because Yamaha has a policy of continuously improving its products, models may differ in detail from the descriptions and illustrations given in this publication. Use only the latest edition of this manual. Authorized Yamaha dealers are notified periodically of modifications and significant changes in specifications and procedures, and these are incorporated in successive editions of this manual.

Important information

Particularly important information is distinguished in this manual by the following notations:

⚠ 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 machine operator, a bystander, or a person inspecting or repairing the outboard motor.

CAUTION:

A CAUTION indicates special precautions that must be taken to avoid damage to the outboard motor.

NOTE:

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

FT50C
SERVICE MANUAL
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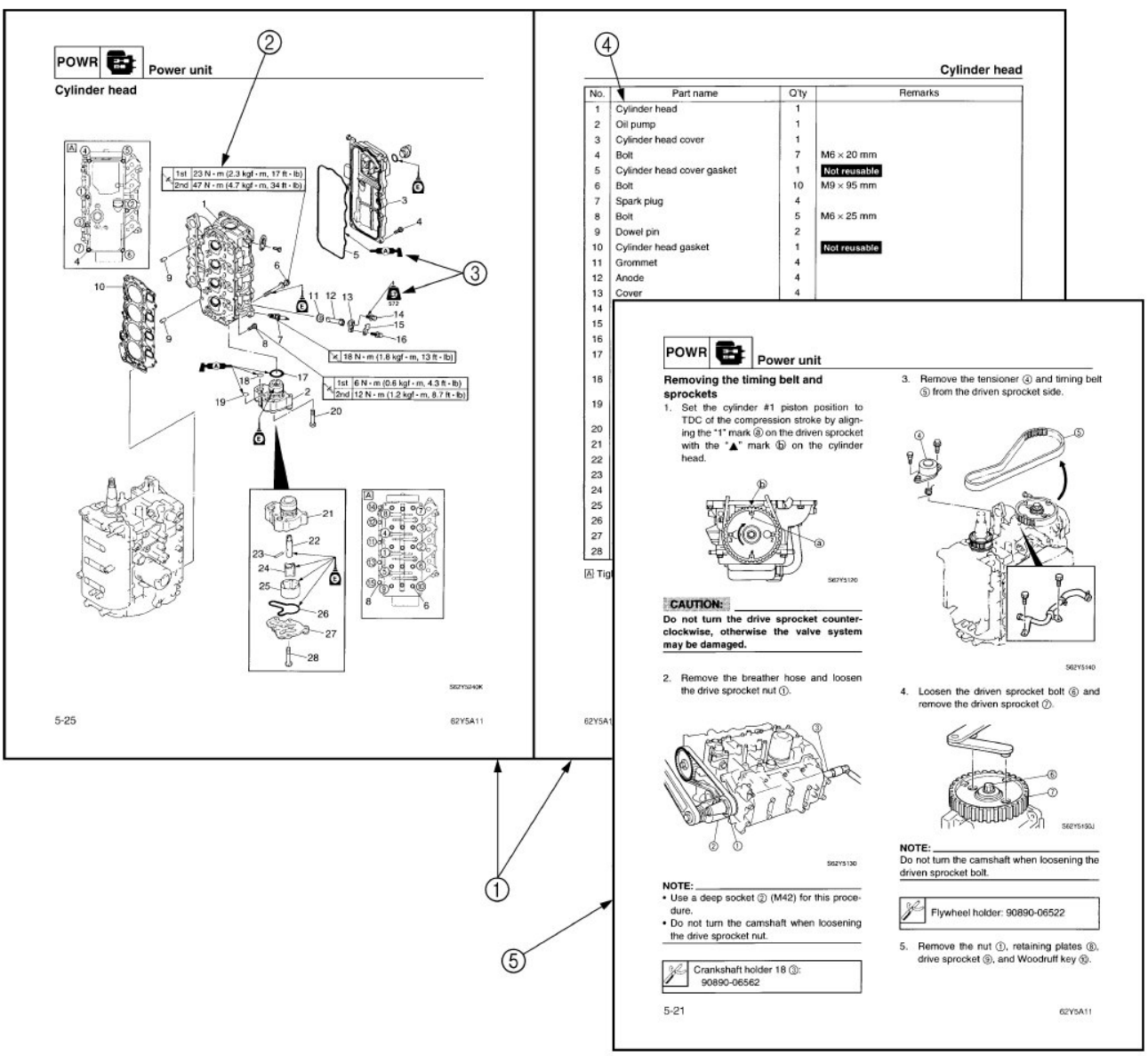
How to use this manual

Manual format

The format of this manual has been designed to make service procedures clear and easy to understand. Use the information below as a guide for effective and quality service.

① Parts are shown and detailed in an exploded diagram and are listed in the components list.
② Tightening torque specifications are provided in the exploded diagrams and after a numbered step with tightening instructions.
③ Symbols are used to indicate important aspects of a procedure, such as the grade of lubricant and lubrication point.
④ The components list consist of parts and part quantities, as well as bolt screw O-ring and hose dimensions.
⑤ Service points regarding removal, checking, and installation are shown in individual illustrations to explain the relevant procedure.

NOTE:
For troubleshooting procedures, see Chapter 9, “Troubleshooting.”



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Symbols

The symbols below are designed to indicate the content of a chapter.

General information



Fuel system



Bracket unit



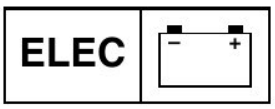
Specifications



Power unit



Electrical systems



Periodic checks and adjustments



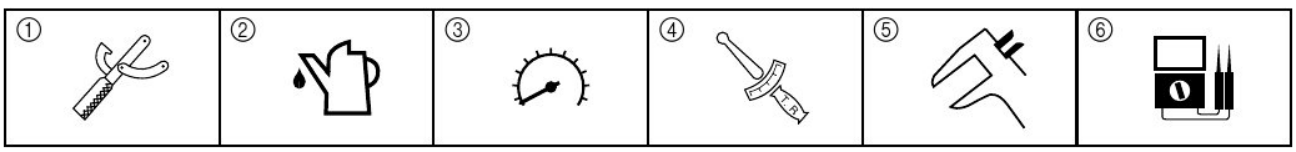
Lower unit



Troubleshooting

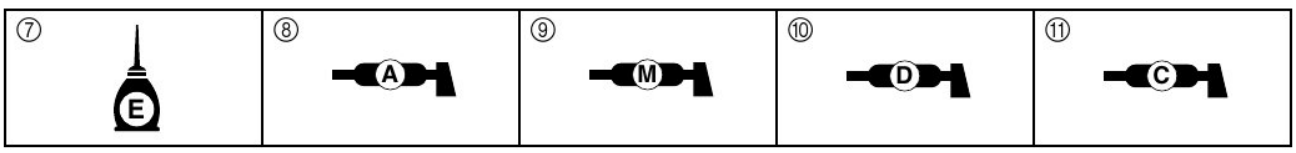


Symbols ① to ⑥ indicate specific data.



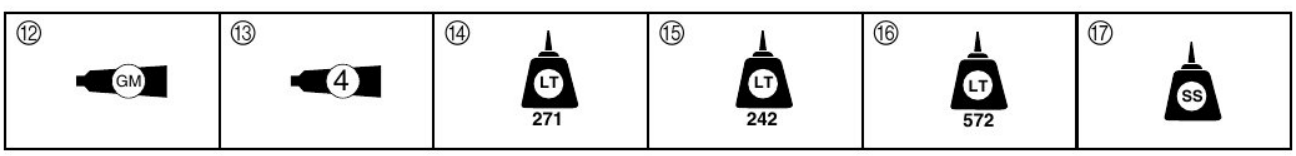
① Special tool
② Specified oil and fluid
③ Specified engine speed
④ Specified tightening torque
⑤ Specified measurement
⑥ Specified electrical value (Resistance, Voltage, Electric current)

Symbols ⑦ to ⑪ in an exploded diagram indicate the grade of lubricant and the lubrication point.



⑦ Apply Yamaha 4-stroke motor oil
⑧ Apply water resistant grease (Yamaha grease A)
⑨ Apply molybdenum disulfide grease
⑩ Apply anti-corrosion grease (Yamaha grease D)
⑪ Apply low temperature resistant grease (Yamaha grease C)

Symbols ⑫ to ⑰ in an exploded diagram indicate the type of sealant or locking agent and the application point.



⑫ Apply Gasket Maker®
⑬ Apply Yamabond No. 4
⑭ Apply LOCTITE® No. 271 (Red LOCTITE)
⑮ Apply LOCTITE® No. 242 (Blue LOCTITE)
⑯ Apply LOCTITE® No. 572
⑰ Apply silicon sealant

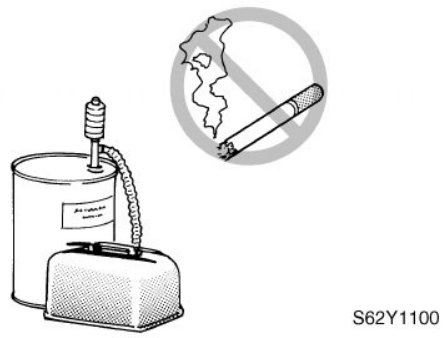
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Safety while working

To prevent an accident or injury and to ensure quality service, follow the safety procedures provided below.

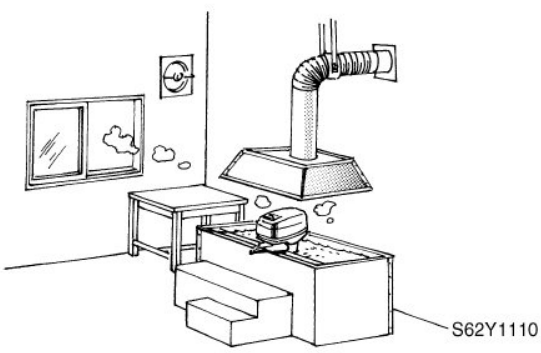
Fire prevention

Gasoline is highly flammable.
Keep gasoline and all flammable products away from heat, sparks, and open flames.


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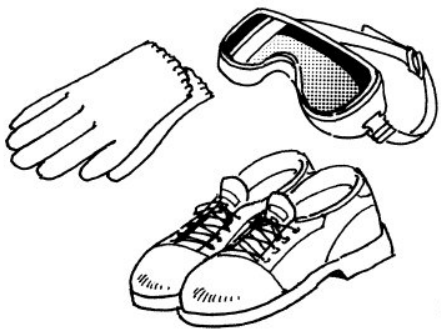
Ventilation

Gasoline vapor and exhaust gas are heavier than air and extremely poisonous. If inhaled in large quantities they may cause loss of consciousness and death within a short time. When test running an engine indoors (e.g., in a water tank) be sure to do so where adequate ventilation can be maintained.


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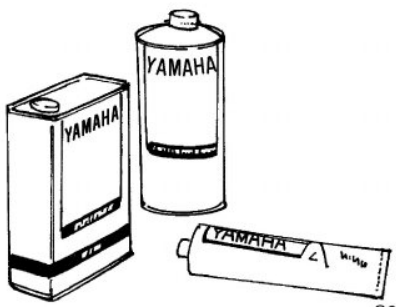
Self-protection

Protect your eyes by wearing safety glasses or safety goggles during all operations involving drilling and grinding, or when using an air compressor.
Protect your hands and feet by wearing protective gloves and safety shoes when necessary.


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Parts, lubricants, and sealants

Use only genuine Yamaha parts, lubricants, and sealants or those recommended by Yamaha, when servicing or repairing the outboard motor.



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Under normal conditions, the lubricants mentioned in this manual should not harm or be hazardous to your skin. However, you should follow these precautions to minimize any risk when working with lubricants.

1. Maintain good standards of personal and industrial hygiene.
2. Change and wash clothing as soon as possible if soiled with lubricants.
3. Avoid contact with skin. Do not, for example, place a soiled rag in your pocket.
4. Wash hands and any other part of the body thoroughly with soap and hot water after contact with a lubricant or lubricant soiled clothing has been made.
5. To protect your skin, apply a protective cream to your hands before working on the outboard motor.

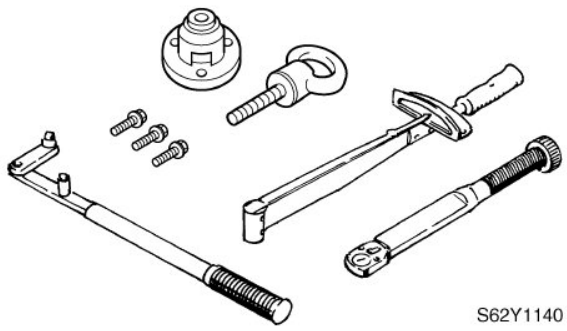
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6. Keep a supply of clean, lint-free cloths for wiping up spills, etc.

Good working practices

Special tools

Use the recommended special tools to protect parts from damage. Use the right tool in the right manner—do not improvise.



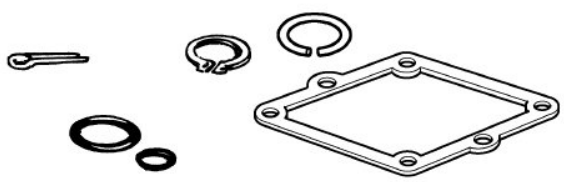
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Tightening torques

Follow the tightening torque specifications provided throughout the manual. When tightening nuts, bolts, and screws, tighten the large sizes first, and tighten fasteners starting in the center and moving outward.

Non-reusable parts

Always use new gaskets, seals, O-rings, cotter pins, circlips, etc., when installing or assembling parts.

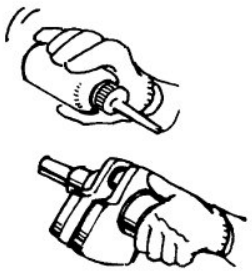


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Disassembly and assembly

1. Use compressed air to remove dust and dirt during disassembly.

2. Apply engine oil to the contact surfaces of moving parts before assembly.



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3. Install bearings with a manufacture identification mark in the direction indicated in the installation procedure. In addition, be sure to lubricate the bearings liberally.

4. Apply a thin coat of water-resistant grease to the lip and out periphery of an oil seal before installation.

5. Check that moving parts operate normally after assembly.

Identification

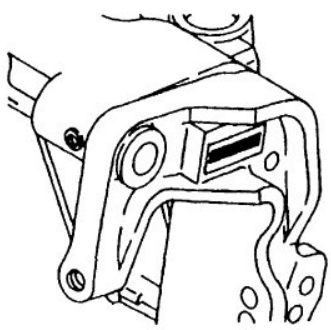
Applicable models

This manual covers the following models.

Applicable models
FT50CEHD, FT50CED, FT50CET

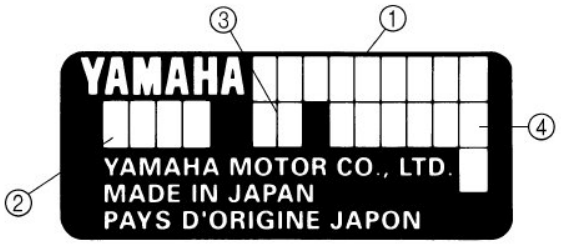
Serial number

The outboard motor serial number is stamped on a label attached to the port clamp bracket.



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① Model name
② Approved model code
③ Transom height
④ Serial number

Model name	Approved model code	Starting serial No.
FT50CEHD	64J	L: 650101–
FT50CED		L: 550101–
FT50CET		L: 450101–

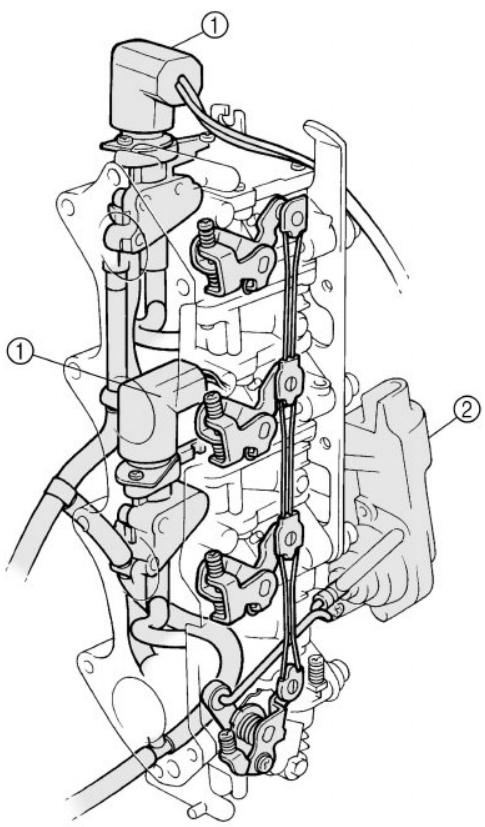
Features and benefits

Use of leaded gasoline

New FT50C/F50D is designed for pleasure/light commercial use for all over the world. Therefore, engine components anti-corrosion and reliability has been increased while regular leaded gasoline is used.
However, always use regular unleaded gasoline for longer engine life.

Newly designed four carburetors

Newly designed four carburetors have been based on the current F50A. Prime Start has been adopted for the starting system to further increase starting performance and serviceability. Furthermore, the acceleration pump and the dashpot have been integrated to simplify construction and to ease serviceability. The four carburetors can be accurately and easily adjusted due to the simple construction of the links.



S62Y1200K

① Prime Start
② Acceleration pump

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