YAMAHA

F50F
FT50G
F60C
FT60D

SERVICE MANUAL

290551

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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.

F50F, FT50G, F60C, FT60D
SERVICE MANUAL
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How to use this manual

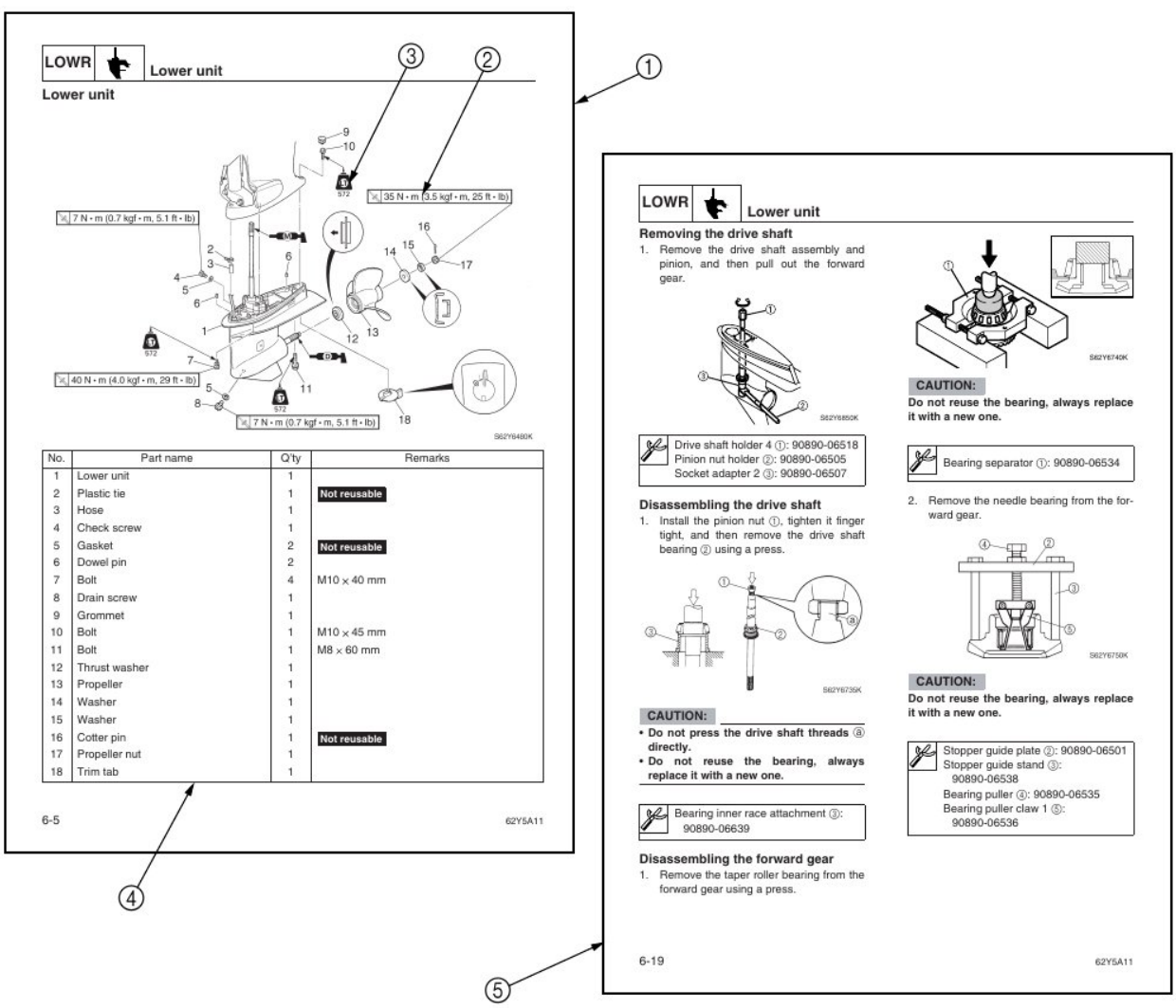
Manual format

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 consists of part names and part quantities, as well as bolt and screw 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.”



No.	Part name	Q'ty	Remarks
1	Lower unit	1	
2	Plastic tie	1	Not reusable
3	Hose	1	
4	Check screw	1	
5	Gasket	2	Not reusable
6	Dowel pin	2	
7	Bolt	4	M10 × 40 mm
8	Drain screw	1	
9	Grommet	1	
10	Bolt	1	M10 × 45 mm
11	Bolt	1	M8 × 60 mm
12	Thrust washer	1	
13	Propeller	1	
14	Washer	1	
15	Washer	1	
16	Cotter pin	1	Not reusable
17	Propeller nut	1	
18	Trim tab	1	

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Symbols

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

General information



Fuel system



Bracket unit



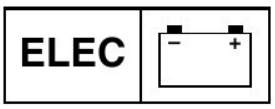
Specifications



Power unit



Electrical systems



Periodic checks and adjustments



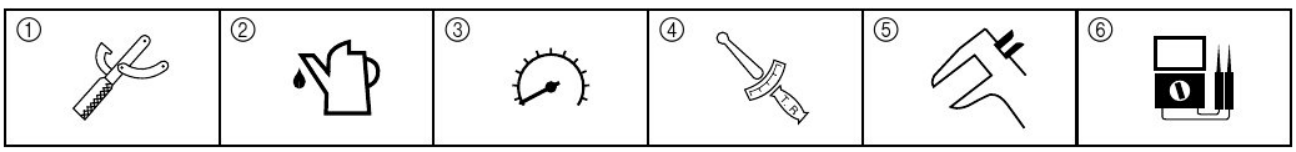
Lower unit



Troubleshooting

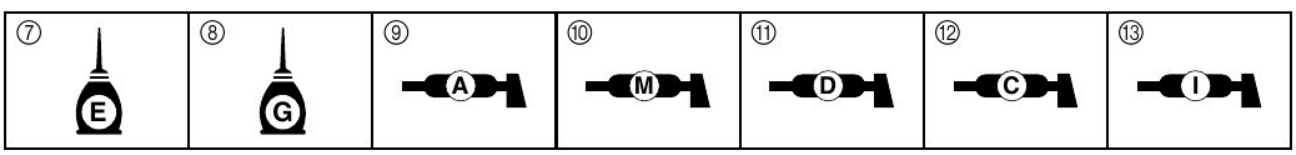


Symbols ① to ⑥ indicate specific data.



① Special tool
② Specified oil or fluid
③ Specified engine speed
④ Specified tightening torque
⑤ Specified measurement
⑥ Specified electrical value (resistance, voltage, electric current)

Symbols ⑦ to ⑬ in an exploded diagram indicate the grade of lubricant and the lubrication point.



⑦ Apply Yamaha 4-stroke motor oil
⑧ Apply gear oil
⑨ Apply water resistant grease (Yamaha grease A)
⑩ Apply molybdenum disulfide grease
⑪ Apply corrosion resistant grease (Yamaha grease D)
⑫ Apply low temperature resistant grease (Yamaha grease C)
⑬ Apply injector grease

Symbols ⑭ to ⑱ in an exploded diagram indicate the type of sealant or locking agent and the application point.



⑭ Apply Gasket Maker
⑮ Apply LOCTITE 271 (red)
⑯ Apply LOCTITE 242 (blue)
⑰ Apply LOCTITE 572
⑱ Apply silicon sealant

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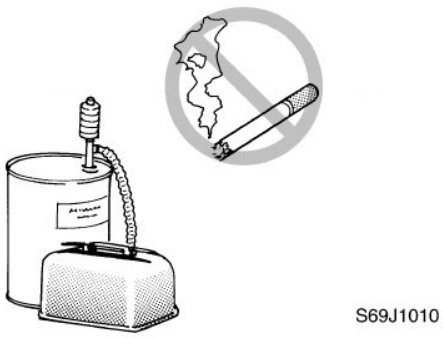
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Safety while working

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

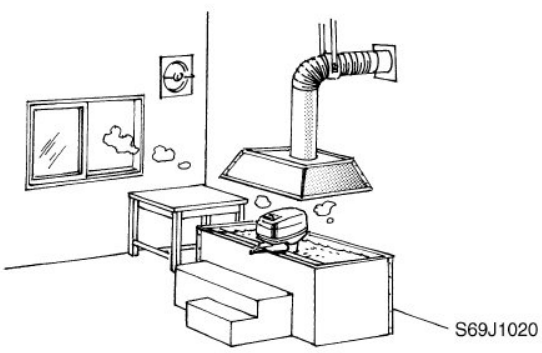
Fire prevention

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


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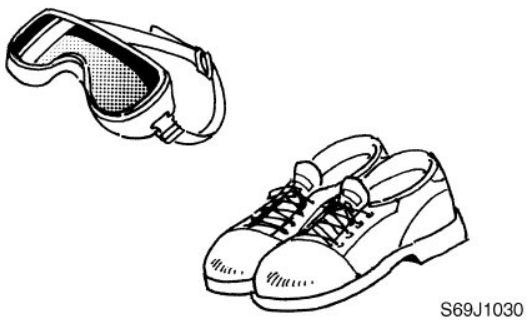
Ventilation

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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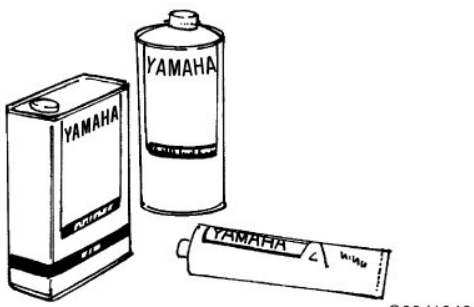
Self-protection

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.

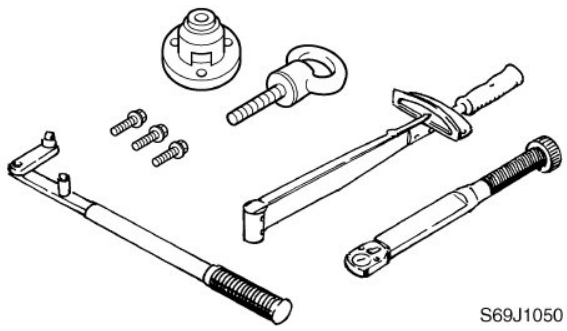
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6. Keep a supply of clean, lint-free cloths for wiping up spills, etc.

Good working practices

Special service tools

Use the recommended special service 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 the 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 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.

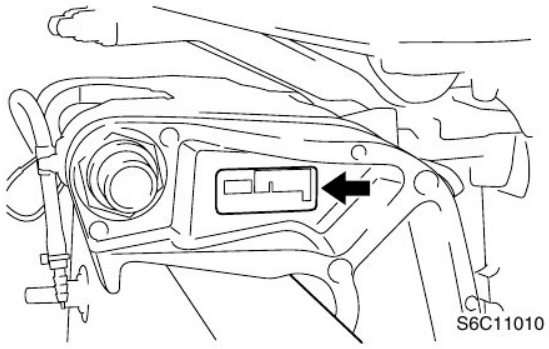
Applicable models
F50FED, F50FEHT, F50FET, FT50GET, F60CEHT, F60CET, FT60DET

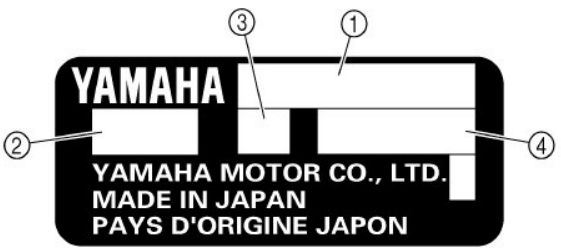
(*) Hydro tilt model (For Europe)
(*) Tiller handle model (For Oceania)

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Serial number

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





S69J1090N

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

Model name	Approved model code	Starting serial No.
F50FED	6C1	1000001–
F50FEHT		
F50FET		
FT50GET	6C2	1000001–
F60CEHT	6C5	1000001–
F60CET		
FT60DET	6C6	1000001–

(*) Hydro tilt model (For Europe)
(*) Tiller handle model (For Oceania)

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