YAMAHA

Marine

Outboards

150A, 150F, L150F, D150H, 175D, 200F, L200F, 200G, 225D

SERVICE MANUAL

64C-28197-Z8-11

PREFACE

This manual has been prepared by the Yamaha Motor Company, Ltd. 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 the Yamaha Motor Company, Ltd. 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.

150A, 150F, L150F, D150H, 175D,
200F, L200F, 200G, 225D
SERVICE MANUAL
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HOW TO USE THIS MANUAL

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.

For instance, the condition of a faulty component will precede an arrow symbol and the course of action required will follow the symbol.

- Bearings
  Pitting/scratches → Replace.

To assist you in finding your way through this manual, the section title and major heading is given at the top of every page.

MODEL INDICATION

Multiple models are mentioned in this manual and their model indications are noted as follows.

Model name	150AET	L150AET	150FETO		L150FETO		150GETO
USA and Canada name	C150TR	—	—	S150TR	—	L150TR	P150TR
Indication	150AET	L150AET	150FETO	S150FETO	L150FETO	LS150FETO	150GETO
Model name	D150HETO	175AET	175DETO		175FETO	200AET	L200AET
USA and Canada name	D150TR	—	—	S175TR	P175TR	—	—
Indication	D150HETO	175AET	175DETO	S175DETO	175FETO	200AET	L200AET
Model name	200FETO		L200FETO		200GETO	225DET	225DETO
USA and Canada name	200TR	S200TR	—	L200TR	P200TR	—	—
Indication	200FETO	S200FETO	L200FETO	LS200FETO	200GETO	225DET	225DETO

ILLUSTRATIONS

The illustrations within this service manual represent all of the designated models.

CROSS REFERENCES

The cross references have been kept to a minimum. Cross references will direct you to the appropriate section or chapter.

IMPORTANT INFORMATION

In this Service Manual particularly important information is distinguished in the following ways.

⚠ 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.

SPECIFICATIONS

These are given in bold type at each procedure. It is not necessary to leave the section dealing with the procedure in order to look up the specifications.
It is important to note the differences in specifications of models. When a procedure relates to more than one model, the main differences in specifications will be shown in a table similar to the following.

Model name	150AET	L150AET	150FETO		L150FETO		150GETO
USA and Canada name	C150TR	—	—	S150TR	—	L150TR	P150TR
Lubrication system	Pre-mixed	Pre-mixed	Oil injection		Oil injection		Oil injection
Model name	D150HETO	175AET	175DETO		175FETO	200AET	L200AET
USA and Canada name	D150TR	—	—	S175TR	P175TR	—	—
Lubrication system	Oil injection	Pre-mixed	Oil injection		Oil injection	Pre-mixed	Pre-mixed
Model name	200FETO		L200FETO		200GETO	225DET	225DETO
USA and Canada name	200TR	S200TR	—	L200TR	P200TR	—	—
Lubrication system	Oil injection		Oil injection		Oil injection	Pre-mixed	Oil injection

HOW TO USE THIS MANUAL

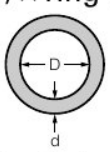
① The main points regarding removing/installing and disassembling/assembling procedures are shown in the exploded views.

② The numbers in the exploded views indicate the required sequence of the procedure and should be observed accordingly.

③ Symbols are used in the exploded views to indicate important aspects of the procedure. A list of meanings for these symbols is provided on the following page.

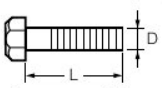
④ It is important to refer to the job instruction charts at the same time as the exploded views. These charts list the sequence that the procedures should be carried out in, as well as providing explanations on part names, quantities, dimensions and important points relating to each relevant task.

Example:
O-ring size 39.5 × 2.5 mm: inside diameter (D) × ring diameter (d)

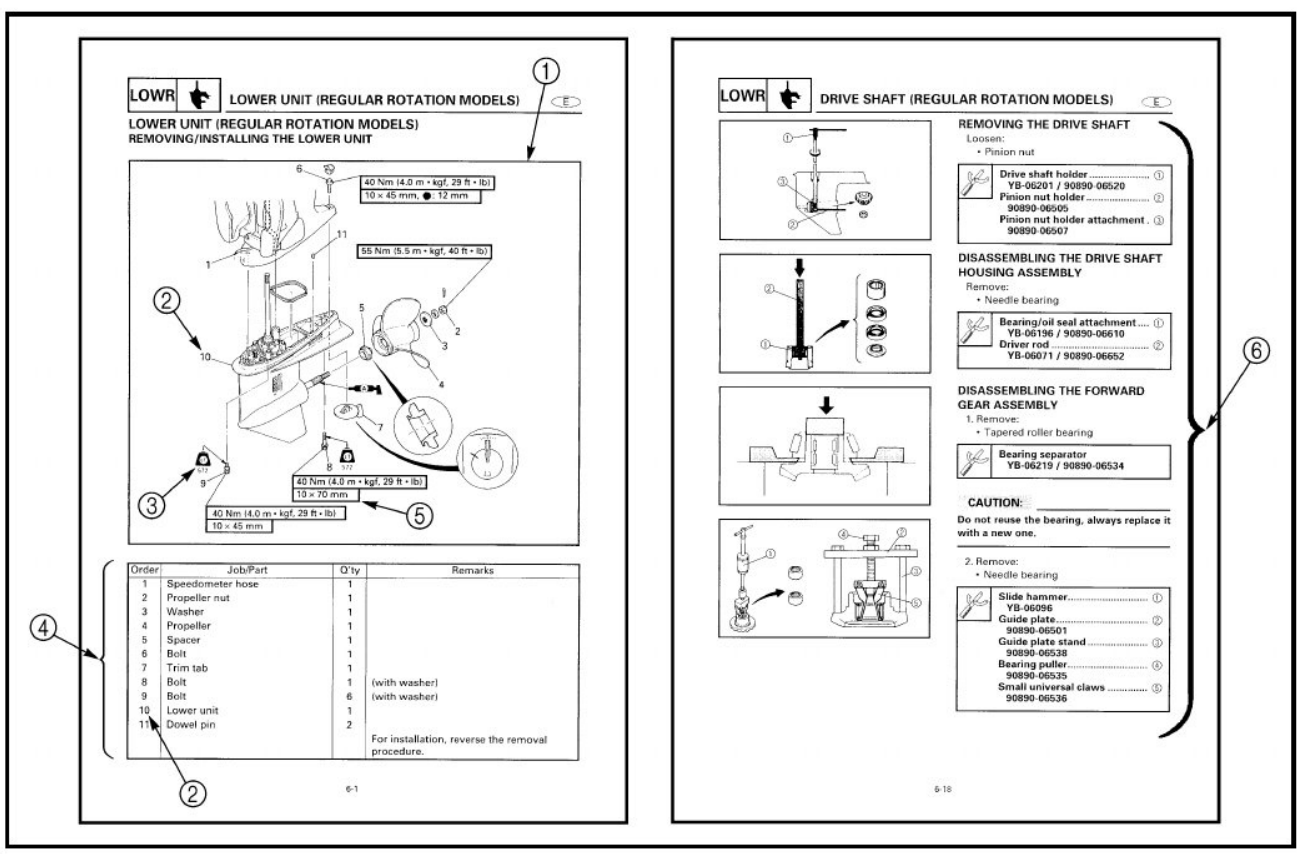


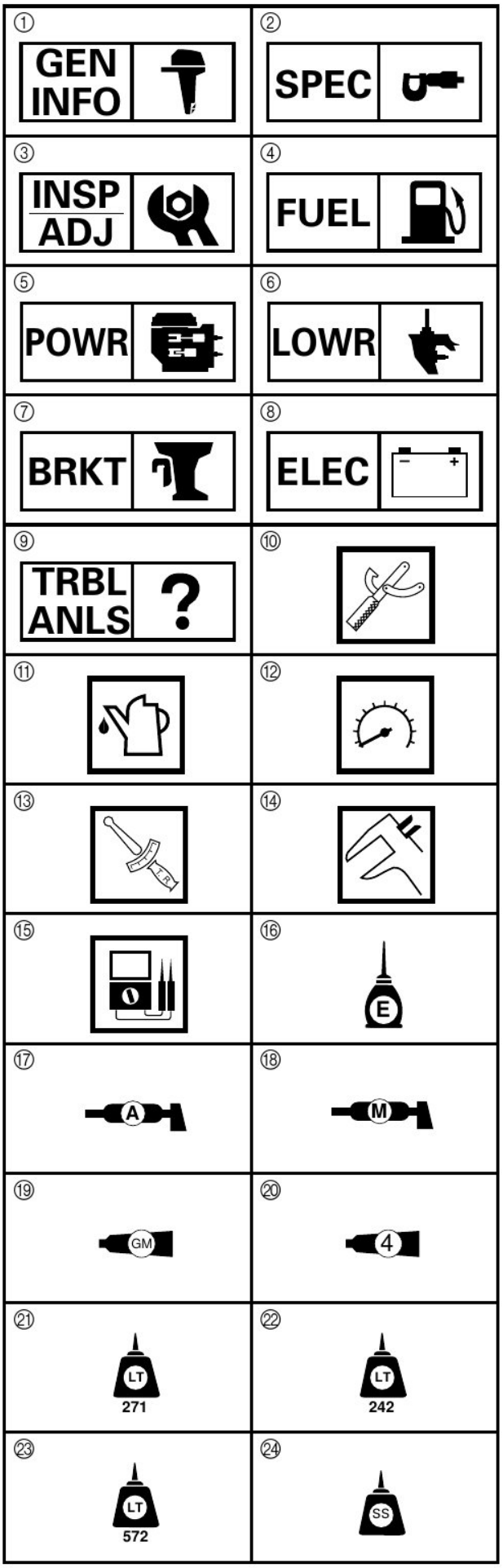
⑤ In addition to tightening torques, the dimensions of the bolts and screws are also mentioned.

Example:
Bolt and screw size 10 × 25 mm : bolt and screw diameter (D) × length (L)



⑥ In addition to the exploded views and job instruction charts, this manual provides individual illustrations when further explanations are required to explain the relevant procedure.





SYMBOLS

Symbols ① to ⑨ are designed as thumb-tabs to indicate the content of a chapter.

① General information
② Specifications
③ Periodic inspections and adjustments
④ Fuel system
⑤ Power unit
⑥ Lower unit
⑦ Bracket unit
⑧ Electrical systems
⑨ Trouble analysis

Symbols ⑩ to ⑮ indicate specific data.

⑩ Special tool
⑪ Specified liquid
⑫ Specified engine speed
⑬ Specified torque
⑭ Specified measurement
⑮ Specified electrical value
[Resistance (Ω), Voltage (V), Electric current (A)]

Symbol ⑯ to ⑱ in an exploded diagram indicate the grade of lubricant and the location of the lubrication point.

⑯ Apply Yamaha 2-stroke outboard motor oil (TC-W3)
⑰ Apply water resistant grease
(Yamaha grease A, Yamaha marine grease)
⑱ Apply molybdenum disulfide oil

Symbols ⑲ to ㉔ in an exploded diagram indicate the grade of the sealing or locking agent and the location of the application point.

⑲ Apply Gasket Maker®
⑳ Apply Yamabond #4
(Yamaha bond number 4)
㉑ Apply LOCTITE® No. 271 (Red LOCTITE)
㉒ Apply LOCTITE® No. 242 (Blue LOCTITE)
㉓ Apply LOCTITE® No. 572
㉔ Apply silicon sealant

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CHAPTER 1
GENERAL INFORMATION

1

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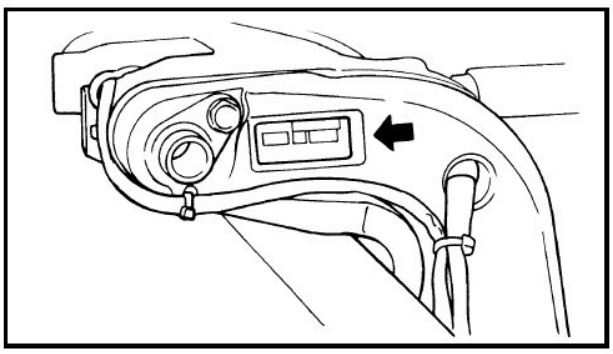

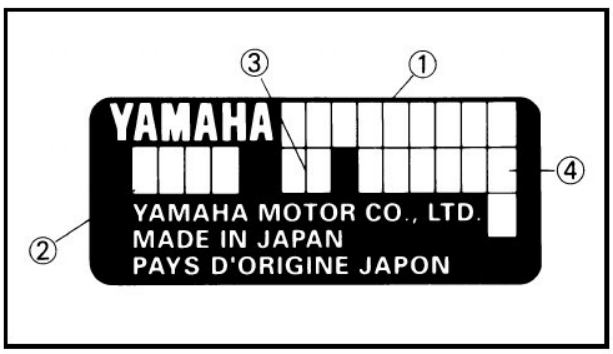

IDENTIFICATION

SERIAL NUMBER

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

NOTE:

As an antitheft measure, a special label on which the outboard motor's serial number is stamped is bonded to the port clamp bracket. The label is specially treated so that peeling it off causes cracks across the serial number.

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

STARTING SERIAL NUMBERS

The starting serial number blocks are as follows:

Model name			Approval model code	Starting serial number
World-wide	USA	Canada		
150AET	C150TR	—	6G4	L: 305521 -
				X: 704396 -
L150AET	—		6K0	X: 750347 -
150FETO	—		6G4	L: 352137 -
	S150TR			X: 504118 -
L150FETO	—		6K0	L: 350142 -
	L150TR	—		X: 501152 -
150GETO	P150TR		6J9	L: 502379 -
D150HETO	D150TR	—		L: 601301 -
175AET	—		6G5	L: 302440 -
				X: 701017 -
175DETO	—			L: 350273 -
	S175TR	—		X: 501252 -

Model name			Approval model code	Starting serial number
World-wide	USA	Canada		
175FETO	P175TR		62H	L: 500647 -
200AET	—		6G6	L: 308781 -
				X: 707018 -
L200AET	—		6K1	X: 752202 -
200FETO	200TR	—	6G6	L: 350991 -
	S200TR			X: 506004 -
L200FETO	—		6K1	L: 350141 -
	L200TR	—		X: 501625 -
200GETO	P200TR		61H	L: 502516 -
225DET	—		6K7	L: 400393 -
				X: 500160 -
225DETO	—			L: 450255 -
				X: 550266 -

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