YAMAHA

Marine

Outboards

50G, 60F, 70B, 75C, 90A

SERVICE MANUAL

6H2-28197-Z9-11

NOTICE

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.

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50G, 60F, 70B, 75C, 90A
SERVICE MANUAL
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HOW TO USE THIS MANUAL

MANUAL FORMAT

This manual provides the mechanic with descriptions of the operations of disassembly, repair, assembly, adjustment and inspection, each of which is presented in a sequential, step-by-step procedure.

To assist you to find your way about this manual, the Section Title and Major Heading is given at the head of every page.

An Index to contents is provided on the first page of each section.

MODEL INDICATION

Multiple models are shown in this manual. These indications are noted as follows.

Model name	50GETO	60FEHTO	60FED	60FEDO	60FET	60FETO	70BEDO	70BETO
USA and Canada name	—	P60TH	C60ER	—	C60TR	—	—	70TR
Indication	50GETO	60FEHTO	60FED	60FEDO	60FET	60FETO	70BEDO	70BETO
Model name	75CET	75CETO	75CEHTO	80AETO	90AEHD	90AED	90AET	90AETO
USA and Canada name	C75TR	75TR	P75TH	—	—	—	C90TR	90TR B90TR
Indication	75CET	75CETO	75CEHTO	80AETO	90AEHD	90AED	90AET	90AETO

THE ILLUSTRATIONS

Some illustrations in this manual may differ from the model you have. This is because the procedure described may relate to several models, though only one may be illustrated. (The name of the model described will be mentioned in the description.)

To help you identify components and understand the correct procedures of disassembly and assembly, exploded diagrams are provided. Steps in the procedures are numbered thus: 1), 2), 3). Parts shown in the illustrations are identified thus: ①, ②, ③.

REFERENCES

These have been kept to a minimum, however, when you are referred to another section of the manual, you are told the page number to go to.

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. Where a procedure relates to more than one model, the main differences in specifications will be shown in the following table.

Model name	50GETO	60FEHTO	60FED	60FEDO	60FET	60FETO	70BEDO	70BETO
USA and Canada name	—	P60TH	C60ER	—	C60TR	—	—	70TR
Control system	Remote control	Manual control	Remote control					
Tilt system	Power trim and tilt		Manual tilt		Power trim and tilt		Manual tilt	Power trim and tilt
Lubrication system	Oil injection		Pre-mixed	Oil injection	Pre-mixed	Oil injection		
Model name	75CET	75CETO	75CEHTO	80AETO	90AEHD	90AED	90AET	90AETO
USA and Canada name	C75TR	75TR	P75H	—	—	—	C90TR	90TR B90TR
Control system	Remote control		Manual control	Remote control	Manual control	Remote control		
Tilt system	Power trim and tilt				Manual tilt		Power trim and tilt	
Lubrication system	Pre-mixed	Oil injection			Pre-mixed			Oil injection

WARNINGS, CAUTIONS AND NOTES

Attention is drawn to the various Warnings, Cautions and Notes which distinguish important information in this manual in the following ways.

⚠ The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

⚠ WARNING

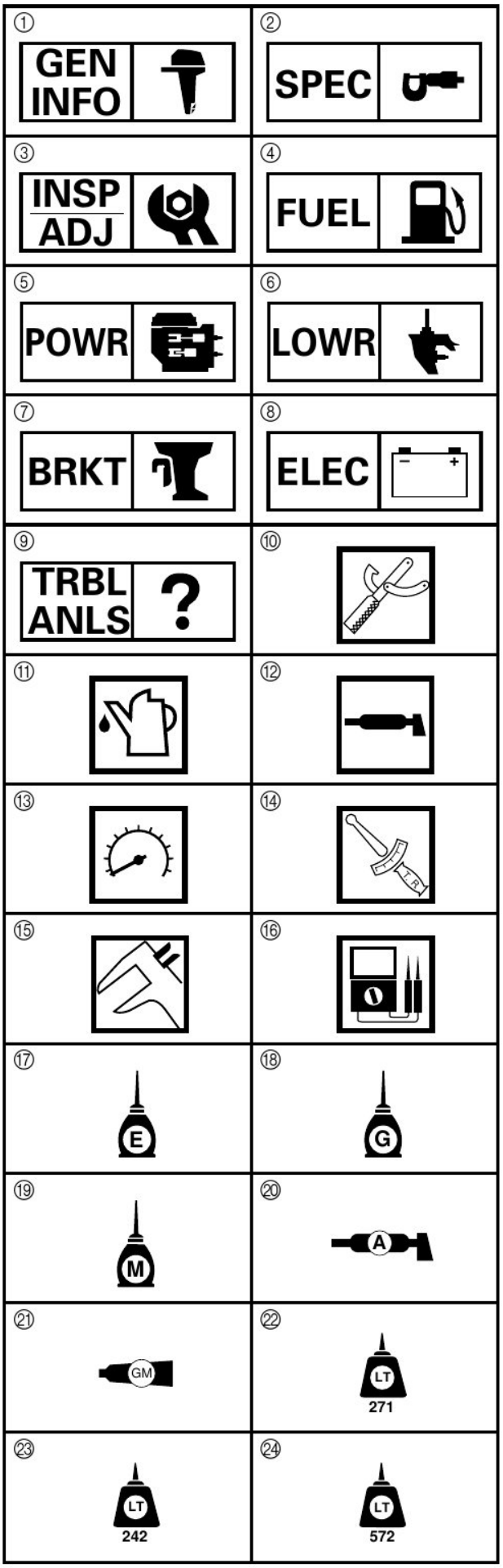
Failure to follow WARNING instructions could result in severe injury or death to the machine operator, a bystander, or a person inspecting or repairing the outboard motor.

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.



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SYMBOLS

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

① General Information
② Specifications
③ Periodic Inspection and Adjustment
④ Fuel System
⑤ Power Unit
⑥ Lower Unit
⑦ Bracket Unit
⑧ Electrical Systems
⑨ Trouble Analysis

Symbols ⑩ to ⑯ indicates specific data:

⑩ Special service tool
⑪ Specified liquid
⑫ Specified grease
⑬ Specified engine speed
⑭ Specified torque
⑮ Specified measurement
⑯ Specified electrical value [Resistance (Ω), Voltage (V), Electric current (A)]

Symbol ⑰ to ⑳ in an exploded diagram indicate grade of lubricant and location of lubrication point:

⑰ Apply engine oil
⑱ Apply gear oil
⑲ Apply molybdenum disulfide oil
⑳ Apply water resistant grease (Yamaha marine grease A, Yamaha marine grease)

Symbols ㉑ to ㉔ in an exploded diagram indicate grade of sealing or locking agent, and location of application point:

㉑ Apply Gasket Maker®
㉒ Apply LOCTITE® No. 271 (Red LOCTITE)
㉓ Apply LOCTITE® No. 242 (Blue LOCTITE)
㉔ Apply LOCTITE® No. 572

NOTE:

In this manual, the above symbols may not be used in every case.

A30000-0

INDEX

GENERAL INFORMATION	GEN INFO	1
SPECIFICATIONS	SPEC	2
PERIODIC INSPECTION AND ADJUSTMENT	INSP ADJ	3
FUEL SYSTEM	FUEL	4
POWER UNIT	POWR	5
LOWER UNIT	LOWR	6
BRACKET UNIT	BRKT	7
ELECTRICAL SYSTEMS	ELEC	8
TROUBLE ANALYSIS	TRBL ANLS	9

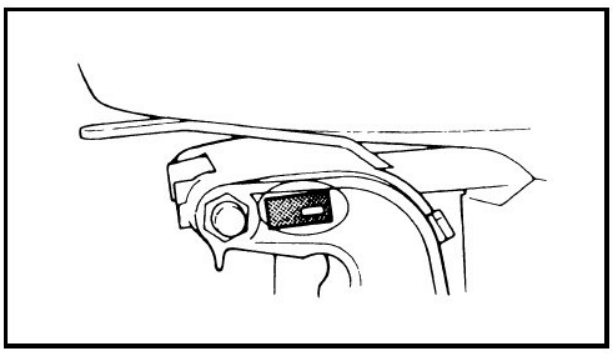
CHAPTER 1
GENERAL INFORMATION

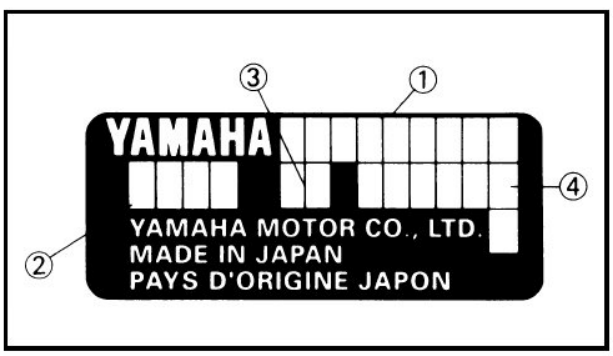
1

IDENTIFICATION 1-1
SERIAL NUMBER 1-1
STARTING SERIAL NUMBERS 1-1

SAFETY WHILE WORKING 1-2
FIRE PREVENTION 1-2
VENTILATION 1-2
SELF-PROTECTION 1-2
OILS, GREASES AND SEALING FLUIDS 1-2
GOOD WORKING PRACTICES 1-3
DISASSEMBLY AND ASSEMBLY 1-4

SPECIAL TOOLS 1-5
MEASURING 1-6
REMOVAL AND INSTALLATION 1-8





A60000-1*

IDENTIFICATION

SERIAL NUMBER

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

① Serial number

NOTE:

For USA model:

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

① Model name
② Approved model No.
③ Transom height
④ Serial number

STARTING SERIAL NUMBERS

The starting serial number blocks are as follows:

Model			Approved model No.	Serial number	Model			Approved model No.	Serial number
World-wide	USA	Canada			World-wide	USA	Canada		
50GETO	—	—	62F	L: 400805 ~	70BEDO	—	—	6H3	L: 402029 ~
60FEHTO	P60TH	P60TH	6H2	L: 551924 ~	70BETO	70TR	70TR		L: 491824 ~
				X: 750186 ~					X: 731262 ~
60FED	—	C60ER		S: 001118 ~	75CET	C75TR	C75TR	6H0	L: 001251 ~
				L: 305624 ~	75CETO	—	75TR		L: 951540 ~
60FEDO	—	—		S: 100850 ~	75CEHTO	P75TH	—		L: 900371 ~
				L: 407212 ~	80AETO	—	—		L: 457543 ~
60FET	C60TR	C60TR		S: 050474 ~					X: 851331 ~
				L: 357665 ~	90AEHD	—	—	6H1	L: 320132 ~
				X: 710231 ~	90AED	—	—		L: 401108 ~
60FETO	—	—		S: 150756 ~	90AET	C90TR	C90TR		L: 354053 ~
				L: 472180 ~	90AETO	90TR B90TR	90TR		L: 498690 ~
				X: 732000 ~					X: 856313 ~

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