

M9961-H11341

SERVICE MANUAL

MARINE DIESEL ENGINE

**4LHA-STE/STZE/STP/STZP
4LHA-DTE/DTZE/DTP/DTZP
4LHA-HTE/HTZE/HTP/HTZP**

YANMAR

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MODEL 4LHA-STE/STZE/STP/STZP
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4LHA-HTE/HTZE/HTP/HTZP



YANMAR DIESEL ENGINE CO.,LTD.

FORWARD

This service manual has been compiled for engineers engaged in sales service, inspection and maintenance. Accordingly, descriptions of the construction and functions of the engine are emphasized in this manual while items which should already be common knowledge are omitted.

One characteristic of a marine diesel engine is that its performance in a vessel is governed by its applicability to the vessel's hull construction and its steering system.

Engine installation, fitting out and propeller selection have a substantial effect on the performance of the engine and the vessel. Moreover, when the engine runs unevenly or when trouble occurs, it is essential to check a wide range of operating conditions—such as installation on the hull and suitability of the ship's piping and propeller—and not just the engine itself. To get maximum performance from this engine, you should completely understand its functions, construction and capabilities, as well as proper use and servicing.

Use this manual as a handy reference in daily inspection and maintenance, and as a text for engineering guidance.

Model **4LHA-STE/STZE,DTE/DTZE,HTE/HTZE**
4LHA-STP/STZP,DTP/DTZP,HTP/HTZP

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CHAPTER 0


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1. For Safe Servicing

- Most accidents are caused by failing to observe basic safety rules and precautions. To prevent accidents, it is important to recognize the signs of approaching problems, and eliminate the problems in the early stage before they can cause accidents.

Please read this manual carefully before starting repairs or maintenance to fully understand safety precautions and appropriate inspection and maintenance procedures. Attempting a repair or maintenance job without sufficient knowledge may cause an unexpected accident.

- It is impossible to cover every possible danger in repair or maintenance in the manual. Sufficient consideration for safety is required in addition to the matters marked  CAUTION. Especially for safety precautions in a repair or maintenance job not described in this manual, receive instructions from a knowledgeable leader.

- Safety marks used in this manual and their meanings are as follows:



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

- Any matter marked [NOTICE] in this manual is especially important in servicing. If not observed, the product performance and quality may not be guaranteed.

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for your reading.**

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