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YANMAR®

SERVICE MANUAL

MARINE DIESEL ENGINE

3YM30/3YM20/2YM15

YANMAR CO.,LTD.

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FOREWORD

This service manual has been complied 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 the applicability of 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 to the full 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 3YM30 has been used for the illustrations in this service manual, but they apply to other models in the 3YM series engines.

California Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

California Proposition 65 Warning

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm.
Wash hands, after handling.

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FOR SAFETY

1. SAFETY LABELS

- Most accidents are caused by negligence of basic safety rules and precautions. For accident prevention, it is important to avoid such causes before development to accidents.
  Please read this manual carefully before starting repair or maintenance to fully understand safety precautions and appropriate inspection and maintenance procedures.
  Attempting at 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 **DANGER**-indicates an imminent hazardous situation which, if not avoided, WILL result in death or serious injury.

⚠ WARNING **WARNING**-indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

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

- **NOTICE** - indicates that if not observed, the product performance or quality may not be guaranteed.