YANMAR

HINSI-H8-011-1

SERVICE MANUAL

MARINE DIESEL ENGINE

6LY2-STE
6LY2A-STP
6LYA-STP

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MODEL 6LY2-STE
6LY2A-STP
6LYA-STP

APERÇU — Engine Manual — fichier complet disponible après achat

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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 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.

METRIC
ALL DIMENSIONS IN MILLIMETERS
UNLESS OTHERWISE SPECIFIED

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CHAPTER 1

GENERAL

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■ 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	**DANGER indicates an imminently 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.**

- 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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■ Precautions for Safe Servicing

(A) Service Shop (Place)

⚠WARNING

● Place allowing sufficient ventilation



Jobs such as engine running, part welding and polishing the paint with sandpaper should be done in a well-ventilated place.

[Failure to Observe]

Very dangerous for human body due to the possibility of inhaling poisonous as or dust.

⚠CAUTION

● Sufficiently wide and flat place

The floor space of the service shop for inspection and maintenance should be sufficiently wide and flat without any holes.

[Failure to Observe]

An accident such as a violent fall may be caused.

⚠CAUTION

● Clean, orderly arranged place

No dust, mud, oil or parts should be left on the floor surface.

[Failure to Observe]

An unexpected accident may be caused.

⚠CAUTION

● Bright, safety illuminated place



The working place should be illuminated sufficiently and safely.
For a job in a dark place where it is difficult to see, use a portable safety lamp.
The bulb should be covered with a wire cage for protection.

[Failure to Observe]

The bulb may be broken accidentally causing ignition of leaking oil.

⚠CAUTION

● Place equipped with a fire extinguisher



Keep a fast aid kit and fire extinguisher close at hand in preparation for fire emergencies.

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(B) Working Wear

⚠CAUTION



● Wears for Safe Operation

Wear a helmet, working clothes, safety shoes and other safety protectors suited to the job. It is especially important to wear well-fitting work clothes.

[Failure to Observe]
A serious accident such as trapping by a machine may occur.

(C) Tooks to Be Used

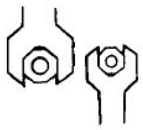
⚠WARNING

● Appropriate holding and lifting

Never operate when the engine is supported with blocks or wooden pieces or only with a jack.
To lift and hold the engine, always use a crane with a sufficient allowance in limit load or a rigid jack.

[Failure to Observe]
A serious accident may occur.

⚠WARNING



● Use of Appropriate Tools

Use tools appropriate for the jobs to be done. Use a correctly sized tool for loosening or tightening a machine part.

[Failure to Observe]
A serious accident such as trapping by a machine may occur.

(D) Use of Genuine Parts, Oil and Grease

⚠CAUTION

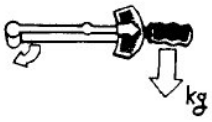


● Always use genuine parts.

[Failure to Observe]
Shortening of engine life or an unexpected accident may arise.

(E) Bolt and Nut Tightening Torque

⚠WARNING



● Always tighten to the specified torque if designated in the manual.

[Failure to Observe]
Loosening or falling may cause parts damage or injury.

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(F) Electrical Parts

⚠ WARNING



● Harness Short-circuit

Disconnect the battery negative ⊖ terminal before starting the service job.

[Failure to Observe]
Short-circuiting of a harness may occur to start a fire.

⚠ WARNING



● Battery Charging

Since flammable gas is generated during battery charging, keep anything which could cause a fire away from the battery.

[Failure to Observe]
Explosion may occur.

⚠ WARNING



● Battery Electrolyte

Since the electrolyte is diluted sulfuric acids, do not let it be splashed onto clothes or skin.

[Failure to Observe]
The clothes or skin may be burnt.

(G) Waste Treatment

⚠ CAUTION

Observe the following instructions with regard to waste disposal. Negligence of each instruction will cause environmental pollution.

- Waste fluids such as engine oil and cooling water shall be discharged into a container without spillage onto the ground.
- Do not let waste fluids be discharged into the sewerage, a river or the sea.
- Harmful wastes such as oil, fuel, solvents, filterelements and battery shall be treated according to the respective laws and regulations.
  Ask a qualified collecting company for example.

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