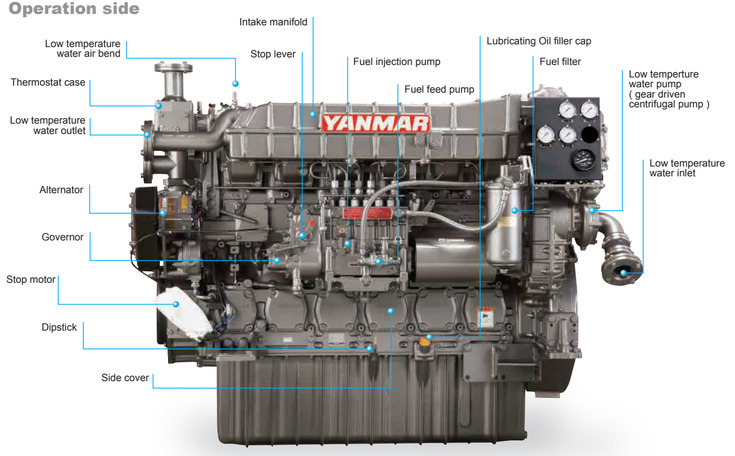
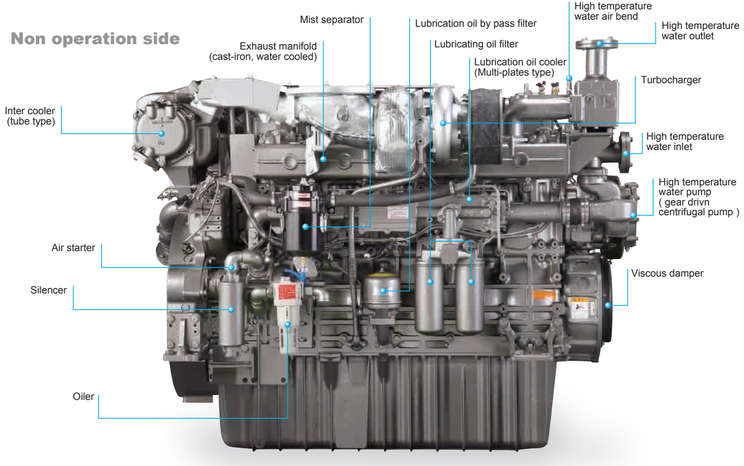
YANMAR, Providing Quality Propulsion Engine Packages for Over 60 Years.

Operation side



Non operation side



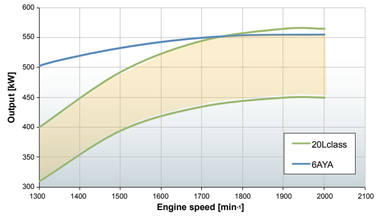
Photograph may show optional equipment.

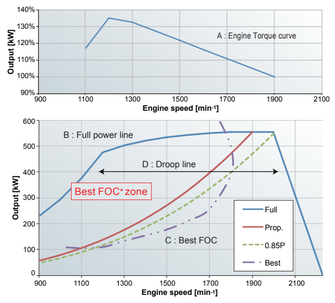
Optional wiring to suit classification society requirement available.

Photograph show keel cooling applications Heat exchanger type is also available.

High Torque

Excellent Torque-Rise Characteristics in High Speed and High Load Range Enable Stable Performance of Job Duties even at High Load





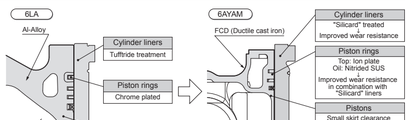
The Engine Performance Gives Following Advantages:

1. The engine torque-rise characteristics having much in reserve, (Line A) →Stable cruising with least speed reduction against sudden load changes.
2. Wide Max. Power Range, (Line B)
   →A wide range propeller matching, from the passenger ship (light/medium duty) to tug boat (heavy duty), is possible.
3. Min. Fuel Consumption Range is Wide, (Line C) Best FOC* zone
   →Economical with wide min. fuel consumption range both during cruising or performing job duties. * FOC: Fuel Oil Consumption
4. Wide Medium Load Range, (Line D) →Produces stable engine performance even doing other job duties.

Toughness

1. Low, stable LOC (Lubricating Oil Consumption) and long overhaul interval, thanks to sillicard** (kind of artificial ceramic) treatment cylinder liner and nitrided stainless steel rings and the finely judged clearance between piston and liner. No cylinder kit replacement concept in YANMAR overhaul program.
2. Purpose built marine engine with long stroke, optimized flywheel weight, water cooled exhaust manifold and special treatment injection nozzle. A Leak-free engine.
3. Type Approved by Marine Class Societies.

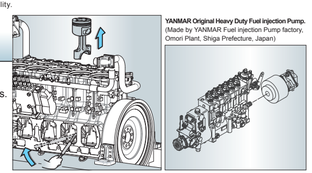
** SiliCard is a surface treatment that uses a special method to embed powdered Silicon Carbide (SiC), an artificial ceramic second only to diamond in hardness, to provide superior wear resistance and durability.



Lower Down Time

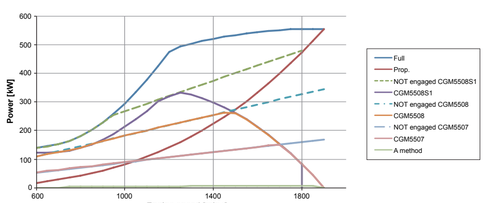
Easier Routine Inspection, Easier Maintenance.

1. Large inspection windows on the side of the block allow in-site replacement of pistons.
2. Full mechanical engine management avoids the chance of delicate and expensive electronics failing in hot, marine engine room conditions.
3. 500 hours service interval.
4. Individual cylinder heads for each cylinder.



YANMAR Original Heavy Duty Fuel injection Pump.
(Made by YANMAR Fuel injection Pump factory, Omori Plant, Shiga Prefecture, Japan)

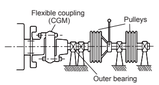
High capacity front PTO



Take Off Method

A
Belt-driven without an outer bearing

D
Shall have the support for bearing at both ends through the intermediary of flexible coupling (CG rubber coupling)



YANMAR original marine gear that can be adapted to a wide range of applications

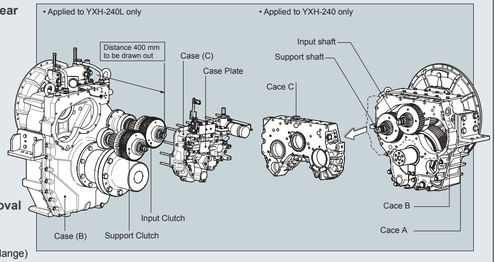
YANMAR provides our original gearbox, which enables us to supply total marine engineering & servicing to customers!

■High-Performance Marine Gear
YANMAR's original marine gear is designed to draw out best performance of YANMAR engines.

■Easier Maintenance
The 3-part structure of the case enables the forward shaft and reverse shaft to be disassembled and reassembled while still installed on the boat. In addition, a cartridge system is now used for the L.O. filter.

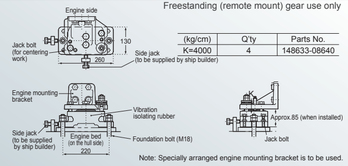
■Marine class societies approval

■Accessories
Optional Trailing pump.
Propeller shaft half coupling (counter flange) supplied as standard.



YANMAR original rubber mounts (option)

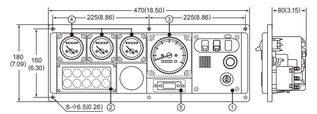
Freestanding (remote mount) gear use only



(kg/cm)	Q'ty	Parts No.
K=4000	4	148633-08640

Note: Specially arranged engine mounting bracket is to be used.

Detail of instrument panel D-type (Unit : mm)



① **Switch unit**
- Key switch
- Alarm buzzer
- Alarm buzzer stop switch
- Illumination switch

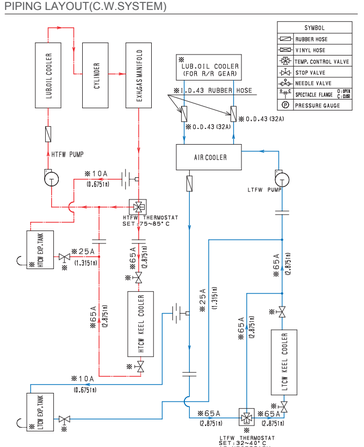
② **Alarm lamp unit with Alarm monitor device**
- Battery not charging
- C.W. high temp.
- L.O. low pressure
- Clutch oil pressure
- L.O. filter clogged
- C.W.level

③ **Tachometer unit**
- Tachometer with hour meter

④ **Sub meter unit**
- L.O. pressure meter
- C.W. temp. meter
- Boost meter (Turbo)

⑤ **Clock unit**
- Clock

PIPING LAYOUT(C.W.SYSTEM)

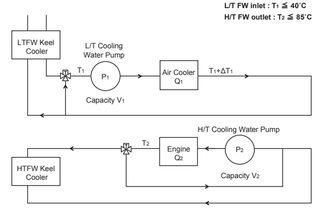


LTFW LINE : ——— HTFW LINE : ———

REMARK) PIPES & DEVICES MARKED ※IN THIS DRAWING ARE NOT SUPPLIED.

HEAT BALANCE

L/T FW inlet : T₁ ≦ 40°C
H/T FW outlet : T₂ ≦ 85°C



Model	kW (PS)/min-1	Q'ty of Heat Trans. Q = Q1+Q2 kJ/h(kcal/h)		Temp. Diff. ΔT K (°C)		Pump Cap. V m³/h
		Q1	Q2	ΔT1	ΔT2	
6AYAM-ET	555 (755) / 1900	590000	1110000	5.9	11.1	V1= 24.0 V2= 46.5