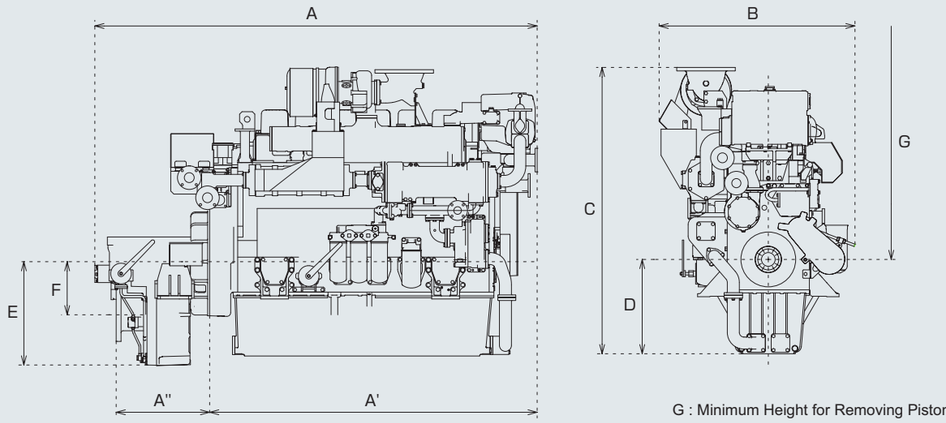
YANMAR

MARINE PROPLUSION DIESEL ENGINE

6EY17W

374～837kW(508～1138PS)

Dimensions (Unit : mm)



G : Minimum Height for Removing Piston

Model	Rated Output	Marine Gear	A	A'	A''	B	C	D	E	F	G
6EY17W	374kW 480kW 590kW	YXH-500	2908	2154	615	1305	1813	620	682	349	1300
		YXH-500L	3092	2154	795	1305	1813	620	862	429	1300
	749kW 837kW	YXH-500	2908	2154	615	1305	1882	620	682	349	1300
		YXH-500L	3092	2154	795	1305	1882	620	862	429	1300

Engine Specifications

Model		6EY17W				
Type		Vertical, water-cooled, 4-cyclediesel engine				
No. of Cylinders,		6				
Bore × Stroke	mm	170 × 230				
Total Stroke Volume	lit.	31.3				
Rated Output (at Flywheel End)	kW(PS)	374 (508)	480 (653)	590 (802)	749 (1018)	837 (1138)
Rated Speed	min^{-1}	1350	1350	1350	1350	1450
Direction of Rotation		Counterclockwise as viewed from flywheel end				
Combustion System		Direct injection				
Lubricating System		Fully automatic lubrication by pump equipped in engine				
Cooling System		Constantly high temperature cooling system				
Starting System		Electric starting motor				
Dry Weight	kg	3880				

Marine Gear Specifications

Marine Gear Model		YXH-500	YXH-500L
Reduction Ratio		2.53 , 3.04 , 3.48	3.57 , 4.07 , 4.48 , 4.96
Direction of Rotation		Clockwise or Counterclockwise	
Dry Weight	kg	700	1667

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Note : All Data Subject to Change Without Notice.

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MARINE PROPULUSION DIESEL ENGINE **6EY17W**

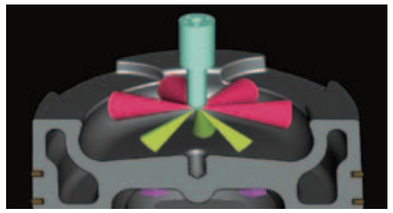
The Evolution of Reliability

World-leading technology meets unrivalled durability in 6EY17W.

Low Emissions in Compliance with IMO Tier 2 Regulations

Yanmar's proprietary fuel injection pump combines high injection-pressure and an original injection nozzle design to miniaturize spray droplet size, which, when used with an advanced re-entrant combustion chamber design, realizes superior combustion for reduced NOx emissions and improved fuel efficiency.
This economical engine meets the NOx exhaust emission standards adopted by the International Maritime Organization (IMO).

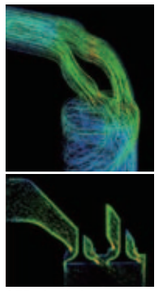
Proprietary high pressure fuel injection pump



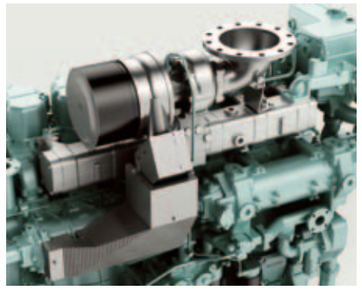
Advanced re-entrant combustion chamber design

Large Displacement with Ample Torque and Power

With a displacement of more than 31 liters, large diameter intake and exhaust valves, and a high pressure ratio turbocharger, and employing a state of the art high-efficiency charge air cooler, the engine displays superior combustion performance over a wide range of conditions.
The large capacity of the high-pressure ratio turbocharger means that more than enough air is available for any load.
Combining a long stroke with Yanmar's proprietary fuel injection technology yields stable high torque, even under high-load conditions.



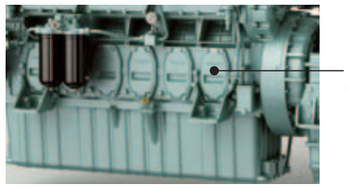
CFD simulation
of intake port flow



High-performance turbocharger
and the new high-efficiency charge air cooler

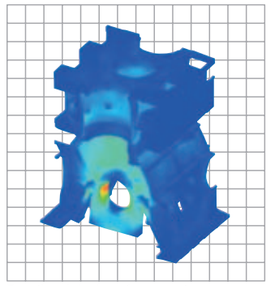
Straightforward daily inspection and onboard maintenance

Side windows on both sides of the cylinder block can be employed to inspect the main bearings or facilitate removal of the pistons. Individual cylinder heads can also be removed to allow access to each cylinder.
The engine also employs easy to use cartridge-type fuel and lubricant filters.



Ever greater durability and reliability

Core components such as the cylinder block and major moving parts such as the crankshaft are engineered down to the minutest details with functional design, utilizing 3D CAD and FEM analysis. The wear-resistant properties of the specially cast cylinder liner combined with an exotic surface finish on the piston rings ensure that durability and reliability do not suffer, even under extreme high-output and high-torque conditions. In order to achieve even higher output, the engine is outfitted with optimal high-performance accessories to mitigate the heat load of the various parts.



Functional design of core parts
using FEM analysis

Wear-resistant
cylinder liner
and piston rings

High-performance Marine Gear

YXH-500 (standard reduction ratio marine gear)

The marine gear utilizes a weight saving aluminium case and realizes superior rigidity in the marine gear through 3-D finite element analysis. With thought given to ease of maintenance in the engine room, the gear components can be removed or installed without the need to separate the marine gear from the engine.

YXH-500L (large reduction ratio marine gear)

With a cast case and utilizing a bushless design, the YXH-500L marine gear provides reliability under heavy loads. Light-weight, yet with transmission capacity suitable for high-output engines, this compact, large reduction ratio marine gear is suitable for installation in tugboats.
Again, a major feature of this bushless construction is that there is no need to separate the marine gear from the engine to remove or install the gear components, with maintenance man-hour savings realized accordingly.