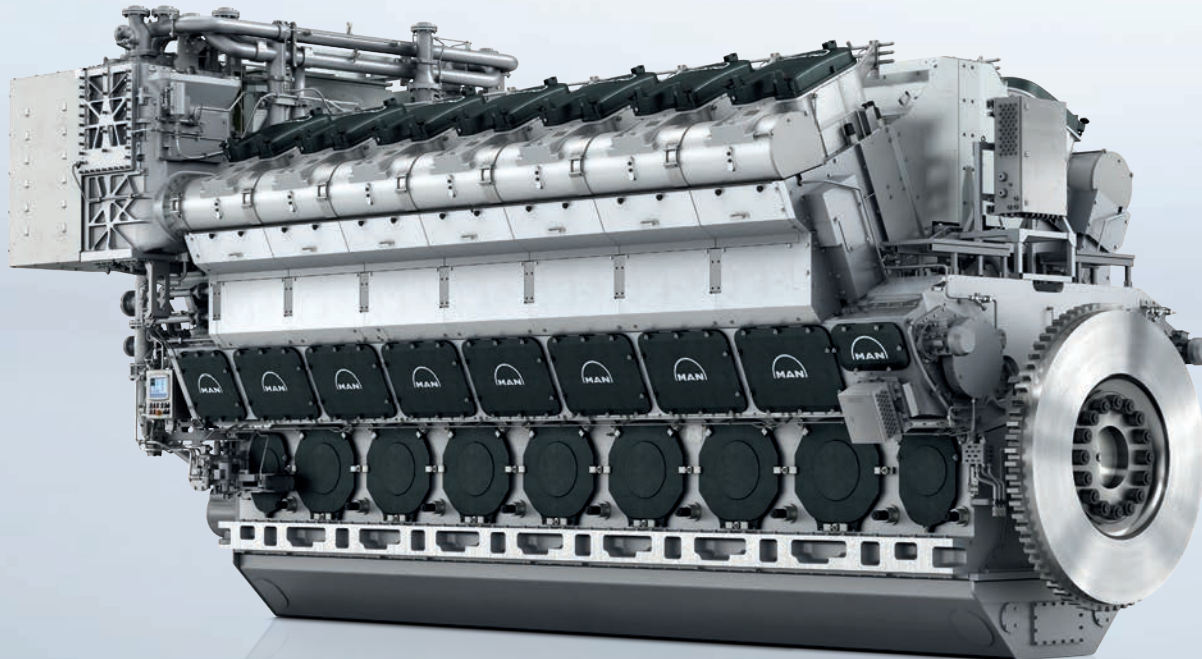


**FOUR  
STROKE  
MARINE  
ENGINES**

# MAN V48/60CR

**PROPULSION**



The MAN 48/60CR is a striking combination of top performance, operational flexibility and reliability. High power output low fuel consumption and low emissions make it perfect for every kind of marine application with a mechanical or diesel-electric propulsion drive.

## **Benefits at a glance**

- High efficiency
- High specific power output
- Low emissions
- Low operating and life cycle costs
- Long maintenance intervals and service life
- High reliability

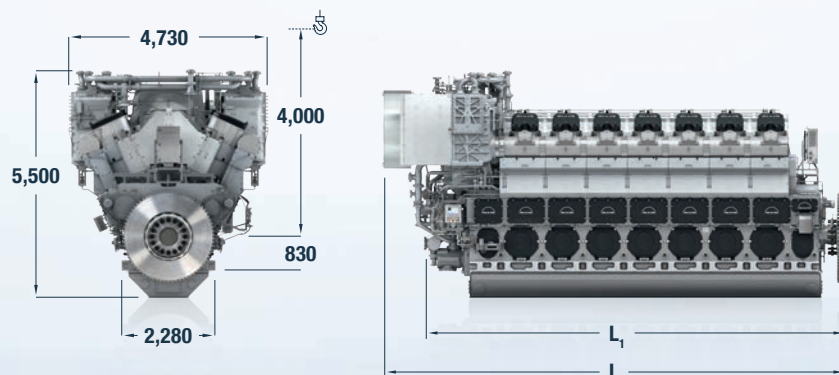
Engineering the Future – since 1758.

**MAN Diesel & Turbo**



# MAN V48/60CR

PROPULSION



## Dimensions

Cyl. No.	12	14	16	18	
L	10,790	11,790	13,140	14,140	mm
L <sub>1</sub>	9,088	10,088	11,088	12,088	mm
Dry mass	189	213	240	265	t

## Output

Speed	514	500	rpm
mep	25.8	26.5	bar
MAN 12V48/60CR	14,400	14,400	kW
MAN 14V48/60CR	16,800	16,800	kW
MAN 16V48/60CR	19,200	19,200	kW
MAN 18V48/60CR	21,600	21,600	kW

Minimum centreline distance for twin engine installation: 4,800 mm  
Last updated August 2016

## General

- Engine cycle: Four-Stroke
- No. of cylinders: 12, 14, 16, 18
- Bore: 480 mm – Stroke: 600 mm
- Swept volume per cyl: 108.6 dm<sup>3</sup>

## Fuel consumption at 85 % MCR

- SFOC: 173 g/kWh

## Cylinder output (MCR)

- At 514/500 rpm: 1200 kW
- Power-to-weight ratio: 12.3 – 13.1 kg/kW

## Compliance with emission regulations

- IMO Tier II
- IMO Tier III (with MAN SCR)

## Main features

- Turbocharging system**  
High efficiency constant pressure MAN TCA series exhaust turbocharging system

MCR = Maximum Continuous Rating | SCR = Selective Catalytic Reduction | SFOC = Specific Fuel Oil Consumption

- Engine automation and control**  
MAN in-house developed engine attached Safety and Control System **SaCoS<sub>One</sub>**
  - Fuel system**  
Advanced MAN electronic Common Rail injection system
  - Cooling system**  
2-string high and low temperature cooling water systems
  - Starting system**  
Starting air valves within cylinder heads
  - Engine mounting**  
Resilient or rigid mounting
- ## Optional equipment
- ECOMAP concept – using of different IMO Tier II-compliant injection maps to improve fuel economy
  - Additional Power Take-Off at engine free end available

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