

MAN

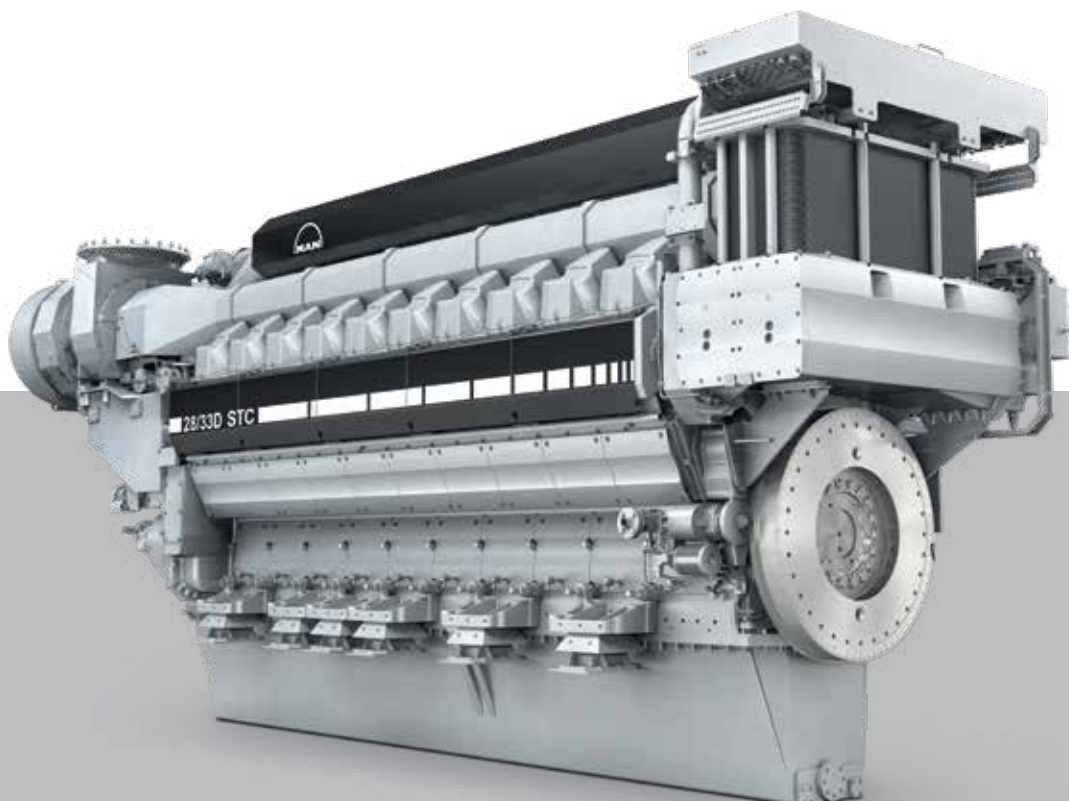
V28/33D STC

Propulsion

The MAN V28/33D STC engine offers an optimum combination of high power and rapid engine response, as well as long endurance and economical, low signature operation during extended cruising and patrolling missions.

Benefits at a glance

- High reliability
- Best in class efficiency at low and high power
- Low acoustic and thermal signature characteristics
- Extended operation at low loads without white smoke or maintenance impact

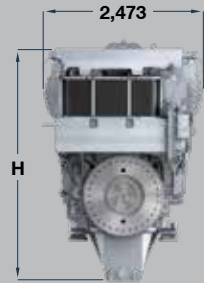


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Propulsion

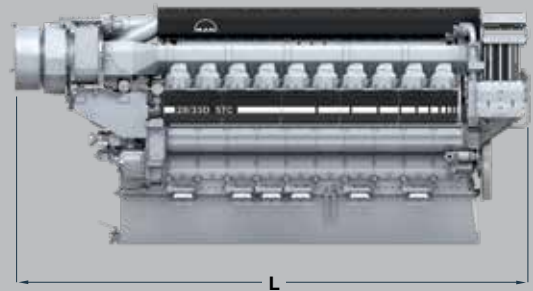
Dimensions

| Cyl. No. | | 12 | 16 | 20 |
|-------------|----|-------|-------|-------|
| L | mm | 6,207 | 7,127 | 8,047 |
| H* | mm | 3,417 | 3,417 | 3,417 |
| H** | mm | 3,682 | 3,682 | 3,682 |
| Dry mass*** | t | 35.6 | 43.0 | 50.6 |



Output

| | | Load profile „Navy“ | |
|-------------------|-----|---------------------|--------|
| Speed | rpm | 1000 | 1032 |
| mep | bar | 26.9 | 28.6 |
| MAN 12V28/33D STC | kW | 5,460 | 6,000 |
| MAN 16V28/33D STC | kW | 7,280 | 8,000 |
| MAN 20V28/33D STC | kW | 9,100 | 10,000 |



For multi-engine arrangement only
Weight and performance parameters refer to engine with flywheel, TC silencer, attached pumps, oil filters, and lube oil cooler
*With low oil sump
** With deep oil sump
***Tolerance: 5 %
MAN V28/33D STC as marine main engine to be applied for multi-engine plants only

Last updated April 2024

General

- Engine cycle: four-stroke
- No. of cylinders: 12, 16, 20
- Bore: 280 mm – Stroke: 330 mm
- Swept volume per cyl: 20.3 dm³

Fuel consumption at 85 % MCR

- SFOC: 183.5g/kWh

Cylinder output (MCR)

- At 1000rpm: 455 kW
- At 1032rpm: 500 kW
- Power-to-weight ratio:
5.1 – 6.6 kg/kW

Compliance with emission regulations

- IMO Tier II
- IMO Tier III (with MAN SCR)
- EPA Tier 2

Main features

Turbocharging system

- Sequential turbocharging system based on high efficiency MAN TCA turbochargers for optimized full and part load operation

Engine automation and control

- MAN in-house developed engine attached safety and control system MAN SaCoS_{one}

Fuel system

- Reliable electronic fuel injection system
- Attached fuel oil pump with black start capability

Lube oil system

- Attached lube oil pump, lube oil cooler and lube oil duplex filter

Cooling system

- 2-string high and low temperature cooling water systems with attached fresh and seawater pumps

Starting system

- Pressurized air starter (turbine type)

Engine mounting

- Resilient or shock mounting

Inclination

- Designed for up to max. 45° rolling

Engine design

- No power reduction required up to:
Air temp. 45°C,
Seawater temp. 32°C
Continuous low load operation down to 5 % MCR

Applications

- CPP and FPP/waterjet

Optional equipment

- Power take-off at engine free end available

MCR = Maximum continuous rating/
max. 455 kW cylinder output
SCR = Selective catalytic reduction
SFOC = Specific fuel oil consumption

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