MAN Energy Solutions
Future in the making

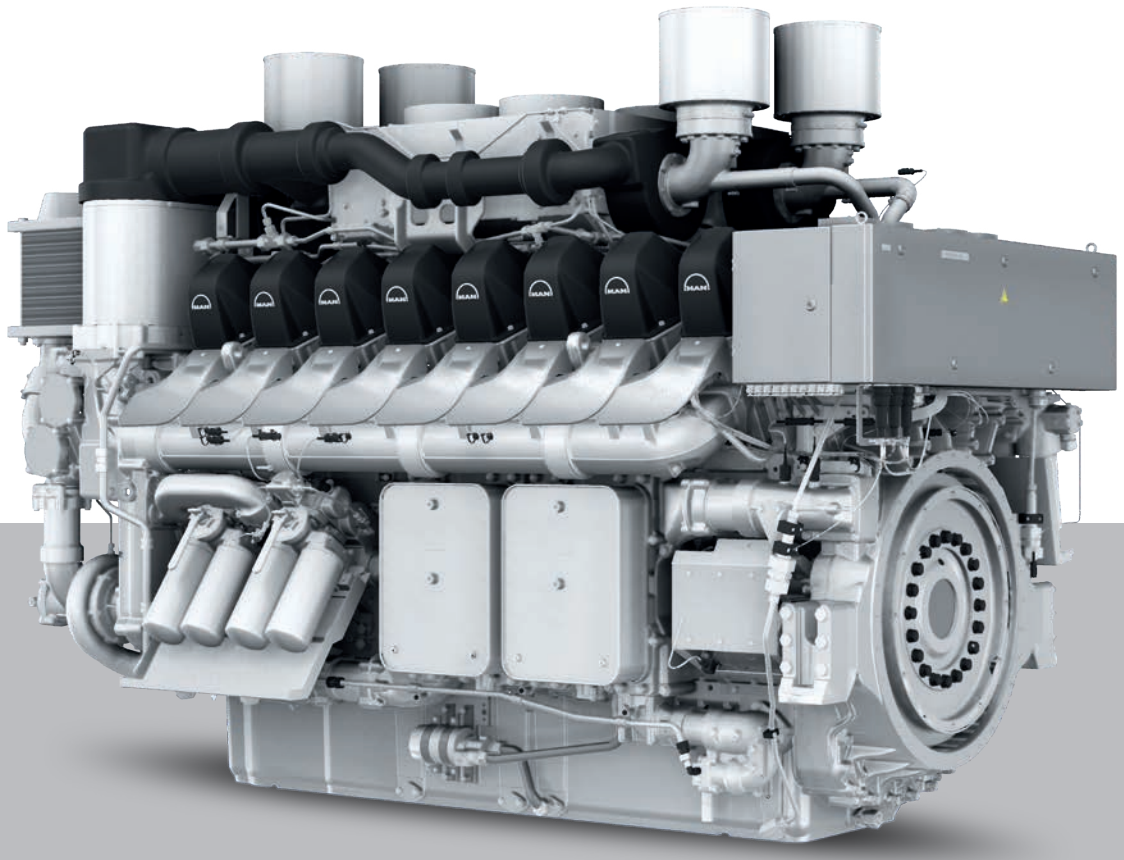
MAN 175D

Propulsion

Packing the latest technology into a minimum volume, the MAN 175D is characterized by a clear-cut design: easy to commission, easy to operate, and easy to service. Its modular design allows it to meet all the challenges of many different applications.

Benefits at a glance

- Low fuel oil consumption
- Low operating costs
- Low life cycle costs
- Long service life



Four-stroke marine systems

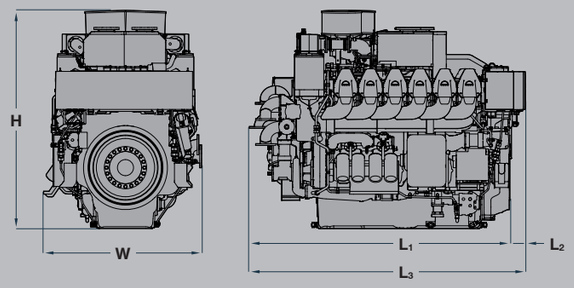
MAN 175D

Propulsion

Dimensions

Cyl. No.		12V
L_1	mm	2,734
L_2	mm	167
L_3	mm	2,901
H	mm	2,295
W	mm	1,661
Dry mass	t	8.70

Configuration shown: MAN 12V175D-MM
without seawater cooler



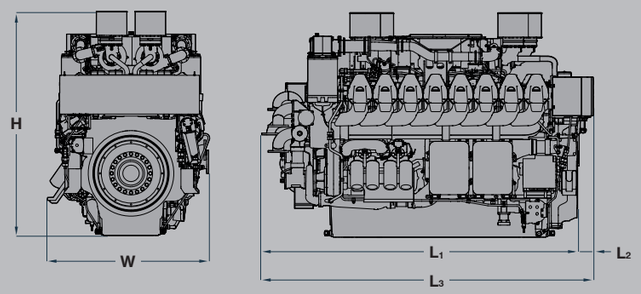
Output

Engine model	MAN 12V175D-MH	MAN 12V175D-MM						MAN 12V175D-ML	
Rating definitions	Heavy duty	Medium duty						Light duty	
MCR (kW)	1,740	1,860	1,920	2,040	2,220	2,220	2,400	2,400	2,580
Speed (rpm)	1,800	1,800	1,800	1,800	1,900	1,800	1,800	2,000	2,000
Average load (%)	85.0	80.0	80.0	70.0	65.0	40.0	40.0	60.0	60.0
SFOC at 100 % MCR, Tier II (g/kWh)	192.5	191.0	192.5*	191.0	195.0	191.5	197.0*	197.5	202.0
SFOC at 100 % MCR, Tier III (g/kWh)	193.0	192.0	193.0*	191.5	196.0	193.0	198.0*	198.0	–

Dimensions

Cyl. No.		16V
L_1	mm	3,254
L_2	mm	167
L_3	mm	3,421
H	mm	2,316
W	mm	1,661
Dry mass	t	10.80

Configuration shown: MAN 16V175D-MM
without seawater cooler



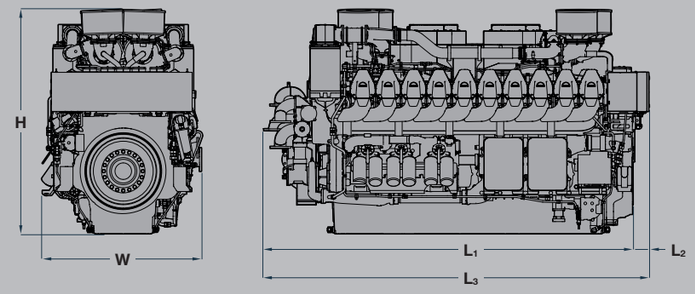
Output

Engine model	MAN 16V175D-MH	MAN 16V175D-MM				MAN 16V175D-ML
Rating definitions	Heavy duty	Medium duty				Light duty
MCR (kW)	2,320	2,560	2,720	2,960	2,960	3,200
Speed (rpm)	1,800	1,800	1,800	1,900	1,800	2,000
Average load (%)	85.0	80.0	70.0	65.0	40.0	60.0
SFOC at 100 % MCR, Tier II (g/kWh)	192.5	192.5*	191.0	196.0	192.5	197.5
SFOC at 100 % MCR, Tier III (g/kWh)	194.0	193.0*	192.5	197.0	194.0	198.0

Dimensions

Cyl. No.		20V
L_1	mm	3,774
L_2	mm	167
L_3	mm	3,941
H	mm	2,297
W	mm	1,647
Dry mass	t	13.00

Configuration shown: MAN 20V175D-MM
without seawater cooler



Output

Engine model	MAN 20V175D-MM			MAN 20V175D-ML	
Rating definitions	Medium duty			Light duty	
MCR (kW)	3,400	3,700	3,700	4,000	4,400
Speed (rpm)	1,800	1,900	1,800	2,000	2,000
Average load (%)	70.0	65.0	40.0	60.0	60.0
SFOC at 100 % MCR, Tier II (g/kWh)	191.0	194.0	191.5	197.5	199.0
SFOC at 100 % MCR, Tier III (g/kWh)	191.5	195.0	193.0	198.0	–

For multi-engine arrangement only. Rated power output according to ISO 3046-1: ICFN. The power produced at the flywheel will be within the tolerance of 3% - according to ISO 15550:2002 (E) – up to 45°C (113°F) combustion air temperature measured at the engine air inlet and up to 38°C (100°F) sea or raw water temperature measured at the seawater pump suction inlet, unless other values mentioned explicitly.
Specific fuel oil consumption acc. to ISO 3046-1:2002 based on a lower calorific value of fuel 42,700 kJ/kg with attached lube oil, HT and LT cooling water pumps fulfilling IMO Tier II/Tier III emission limits with 5 % tolerance. MAN ES diesel engines are specified according to vibration class 5 of DIN ISO 10816-6 (vibration limit evaluation zone A/B: 28.2 mm/s, rms, 2-1,000 Hz, stationary conditions at nominal operating point)
* preliminary

Last updated August 2022

General

- Modular common rail fuel injection system
- Integrated lubrication system
- HT and LT split cooling circuits with integrated pumps and thermostats
- High-efficiency MAN turbochargers
- MAN SaCoS$_{one}$ safety and control system
- Compliant to SOLAS requirements for admissible surface temperature without additional insulation
- Classed by all major Classification societies

Starting method

- Electric/pneumatic

Compliance with emission regulations

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

Optional equipment

- Integrated seawater cooler and engine-driven seawater pump
- Lube oil centrifuge
- 100 % PTO on counter coupling side (12V engine only)
- PTO on counter coupling side (16V and 20V engines)
- Alternator for battery charging
- Horizontal exhaust gas outlet (12V engine only)
- Redundant starter
- Redundant lube oil supply
- Additional auxiliary PTO on engine sides at counter coupling end

MCR = Maximum continuous rating
SCR = Selective catalytic reduction
SFOC = Specific fuel oil consumption

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