MAN Energy Solutions

Future in the making



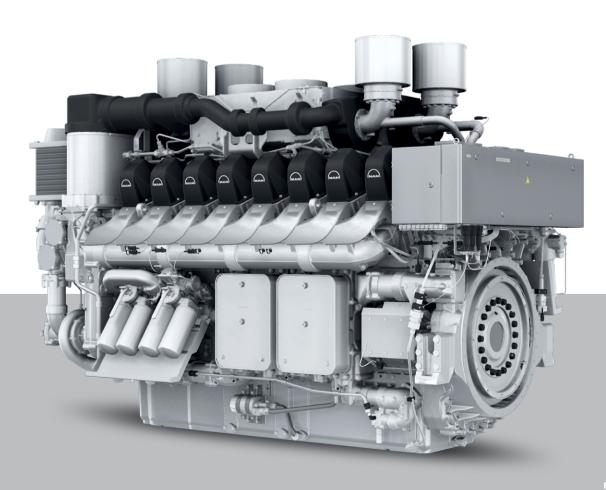
MAN 175D

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



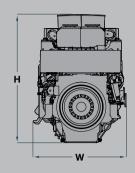
MAN 175D

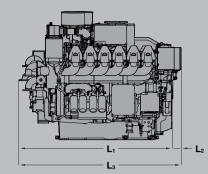
Propulsion

Dimensions

	12V
mm	2,734
mm	167
mm	2,901
mm	2,295
mm	1,661
t	8.80
	mm mm mm

Configuration shown: MAN 12V175D-MM without seawater cooler





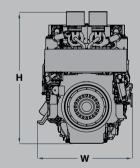
Output

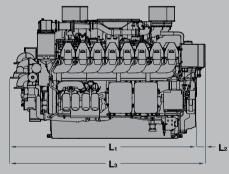
Engine model	MAN 12V175D-MH	MAN 12V17	5D-MM					MAN 12V17	5D-ML
Rating definitions	Heavy duty	Medium du	ty					Light duty	
MCR (kW)	1,740	1,860	1,920	2,040	2,220*	2,220	2,400*	2,400	2,580
Speed (rpm)	1,800	1,800	1,800	1,800	1,800	1,900	1,800	2,000	2,000
Average load (%)	85.0	80.0	80.0	70.0	40.0	65.0	40.0	60.0	60.0
SFOC at 100 % MCR, Tier II (g/kWh)	192.5	191.0	193.0	191.0	191.5	195.0	193.0	197.5	202.0
SFOC at 100 % MCR, Tier III (g/kWh)	193.0	192.0	194.0	191.5	193.0	196.0	193.0	198.0	

Dimensions

Cyl. No.		16V
L ₁	mm	3,254
L ₂	mm	167
L ₃	mm	3,421
Н	mm	2,316
w	mm	1,661
Dry mass	t	10.85

Configuration shown: MAN 16V175D-MM without seawater cooler





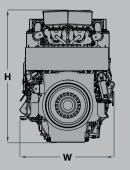
Output

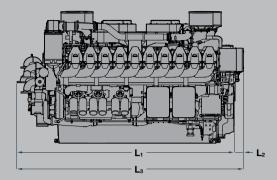
Engine model	MAN 16V175D-MM	MAN 16V175D-ML			
Rating definitions	Medium duty				Light duty
MCR (kW)	2,560	2,720	2,960*	2,960	3,200
Speed (rpm)	1,800	1,800	1,800	1,900	2,000
Average load (%)	80.0	70.0	40.0	65.0	60.0
SFOC at 100 % MCR, Tier II (g/kWh)	193.0	191.0	192.5	196.0	197.5
SFOC at 100 % MCR, Tier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

Dimensions

	20 V
mm	3,774
mm	167
mm	3,941
mm	2,297
mm	1,647
t	13.10
	mm mm mm

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	1,800	1,900	2,000	2,000
Average load (%)	70.0	40.0	65.0	60.0	60.0
SFOC at 100 % MCR, Tier II (g/kWh)	191.0	191.5	194.0	197.5	199.0
SFOC at 100 % MCR, Tier III (g/kWh)	191.5	193.0	195.0	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

* for tug application only

Last updated April 2024

General

- Modular common rail fuel injection system
- Integrated lubrication systemHT and LT split cooling circuits with
- integrated pumps and thermostats
- High-efficiency MAN turbochargers
- MAN SaCoS 5000 safety and control system
- Compliant to SOLAS requirements for admissible surface temperature without additional insulation
- Classed by all major Classification societies

Starting method

(vibration limit evaluation zone A/B: 28.2 mm/s, rms, 2-1,000 Hz, stationary conditions at nominal operating point)

- 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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