## **MAN Energy Solutions**

Future in the making



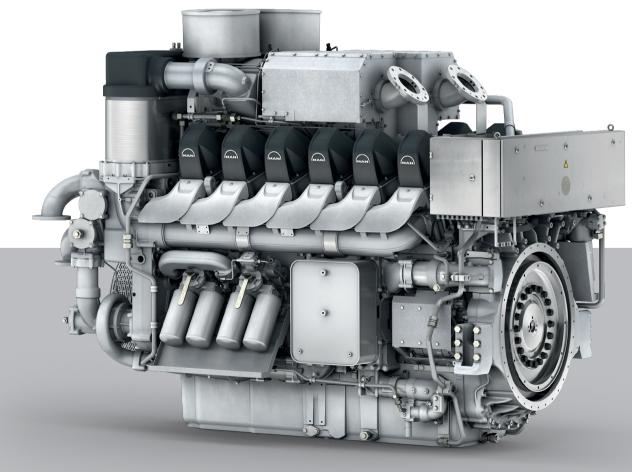
# MAN 175D

**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



stroke marine systems

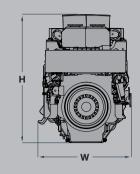
# **MAN 175D**

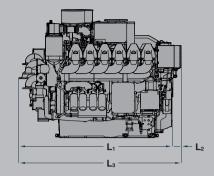
### **Propulsion**

#### **Dimensions**

Cyl. No.		12
L <sub>1</sub>	mm	2,734
L <sub>2</sub>	mm	167
L <sub>3</sub>	mm	2,901
Н	mm	2,295
w	mm	1,661
Dry mass	t	8.70

Configuration shown: MAN 12V175D-MM without seawater cooler





#### Output

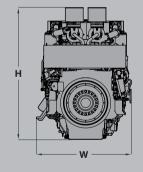
Engine model	MAN 12V175D-MH			MAN 12V175D	MAN 12V175D-ML				
Rating definitions	Heavy duty			Medium duty				Light duty	
kW	1,499	1,499	1,740	1,860	2,040	2,220	2,220	2,400	2,580
rpm	1,600	1,800	1,800	1,800	1,800	1,900	1,800	2,000	2,000
Average load (%)	100.0	100.0	85.0	80.0	70.0	65.0	40.0	60.0	60.0
SFOC at 100 % MCR, Tier II (g/kWh)	188.0	194.5	192.5	191.0	190.5	195.0	191.5	197.5	(*)
SFOC at 100 % MCR, Tier III (g/kWh)	189.0	195.5	193.5	192.0	191.5	196.0	193.0	198.0	

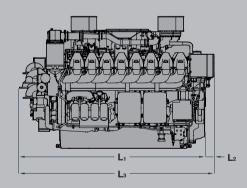
<sup>(\*)</sup> Please contact MAN ES

#### **Dimensions**

Cyl. No.		16
L <sub>1</sub>	mm	3,254
L <sub>2</sub>	mm	167
L <sub>3</sub>	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

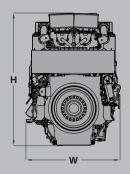
Engine model	MAN 16V175D-MH			MAN 16V175D-MM				MAN 16V175D-ML	
Rating definitions	Heavy duty			Medium duty				Light duty	
kW	2,000	2,000	2,320	2,480	2,720	2,960	2,960	3,200	3,440
rpm	1,600	1,800	1,800	1,800	1,800	1,900	1,800	2,000	2,000
Average load (%)	100.0	100.0	85.0	80.0	70.0	65.0	40.0	60.0	60.0
SFOC at 100 % MCR, Tier II (g/kWh)	191.0	197.5	195.5	194.0	193.5	198.0	194.5	200.5	205.5 (*)
SFOC at 100 % MCR, Tier III (g/kWh)	192.0	198.5	196.5	195.0	194.5	199.0	196.0	201.0	

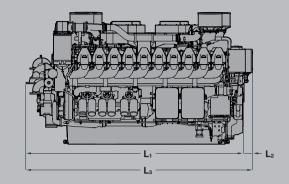
<sup>(\*)</sup> Please contact MAN ES

#### **Dimensions**

Cyl. No.		20
L <sub>1</sub>	mm	3,774
L <sub>2</sub>	mm	167
L <sub>3</sub>	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-MH			MAN 20V175D	MAN 20V175D-ML				
Rating definitions	Heavy duty			Medium duty				Light duty	
kW	2,500	2,500	2,900	3,100	3,400	3,700	3,700	4,000	4,400
rpm	1,600	1,800	1,800	1,800	1,800	1,900	1,800	2,000	2,000
Average load (%)	100.0	100.0	85.0	80.0	70.0	65.0	40.0	60.0	60.0
SFOC at 100 % MCR, Tier II (g/kWh)	189.5	196.0	194.0	192.5	192.0	196.5	193.0	199.0	199.0
SFOC at 100 % MCR, Tier III (g/kWh)	190.5	197.0	195.0	193.5	193.0	197.5	194.5	199.5	

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)

Release July 2021.

#### 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<sub>one</sub> 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

#### **MAN Energy Solutions**

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