

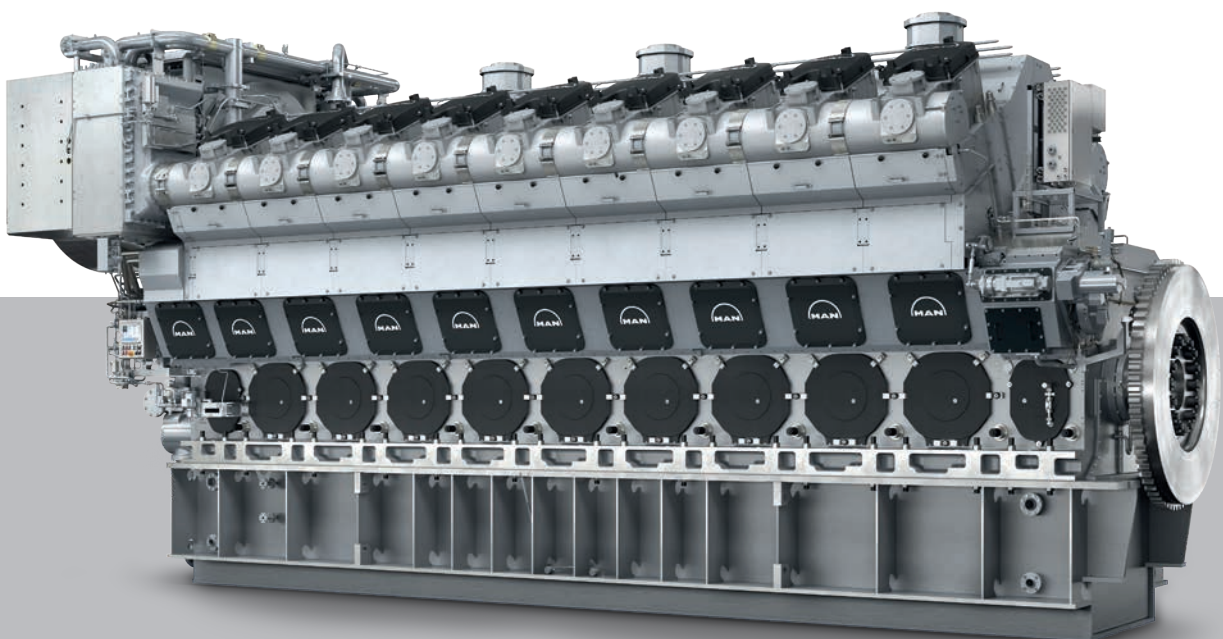
MAN 51/60

This highly efficient and robust liquid fuel engine offers excellent dynamic values and adapts easily to different output requirements. Its low specific fuel oil consumption significantly reduces operational expenditure.

Benefits at a glance

- Easy retrofitting for dual fuel and gas operation
- High efficiency
- Variable power output settings
- Long time between overhauls

Designed for easy conversion to dual fuel or gas operation, the MAN 51/60 offers a perfect solution for power plants that run initially on liquid fuel but are being prepared for gas operation in the future.



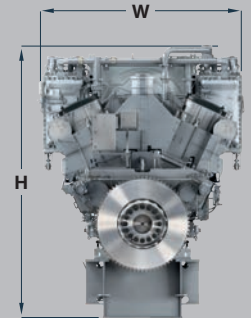
MAN 51/60

Dimensions

| Cyl. No. | 6L | | 9L | | 12V | | 18V | |
|---------------|----------|------------|-----------|------------|----------|------------|-----------|------------|
| L | 8,464 mm | 333.2 in | 11,067 mm | 435.7 in | 9,970 mm | 392.5 in | 13,489 mm | 531 in |
| H | 5,807 mm | 228.6 in | 5,807 mm | 228.6 in | 6,450 mm | 253.9 in | 6,450 mm | 253.9 in |
| W | 3,156 mm | 124.2 in | 3,251 mm | 128.0 in | 4,884 mm | 192.2 in | 4,884 mm | 192.2 in |
| Engine weight | 135.0 t | 297,624 lb | 180.0 t | 396,832 lb | 238.0 t | 524,700 lb | 315.0 t | 694,456 lb |

Output

| Cyl. No. | | 6L | 9L | 12V | 18V |
|--------------|-----|---------|---------|---------|---------|
| Output mech. | kW | 6,300 | 9,450 | 12,600 | 18,900 |
| Speed | rpm | 500/514 | 500/514 | 500/514 | 500/514 |
| Frequency | Hz | 50/60 | 50/60 | 50/60 | 50/60 |



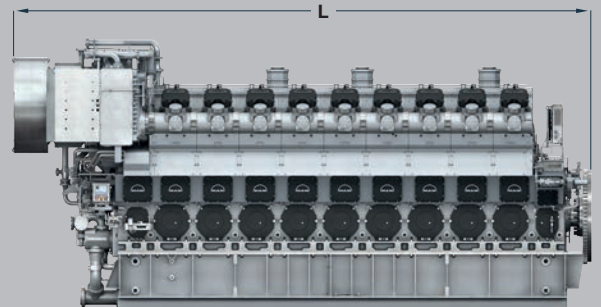
With two-stage turbocharging

Dimensions

| Cyl. No. | 18V | |
|---------------|-----------|------------|
| L | 19,100 mm | 751.9 in |
| H | 9,023 mm | 355.2 in |
| W | 4,700 mm | 185 in |
| Engine weight | 345.0 t | 760,594 lb |

Output

| Cyl. No. | 18V | |
|--------------|-----|----------------------|
| Output mech. | kW | 18,900/19,800/21,600 |
| Speed | rpm | 500/514 |
| Frequency | Hz | 50/60 |



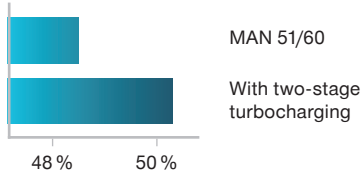
Values according to ISO 3046-1:2002; ISO 15550:2002. Last updated March 2020

Engine features

General data

- Engine cycle: four-stroke
- No. of cylinders: 6L, 9L, 12V, 18V
- Bore: 510 mm/20.08 in
- Stroke: 600 mm/23.62 in

Fuel efficiency comparison



Engine automation and control

- MAN SaCoS_{one} safety and control system on engine, developed in-house at MAN

Turbocharging system

- Highly efficient constant pressure
- MAN TCA series exhaust gas turbocharging system
- Individual engine/turbocharger optimization matching

Starting system

- Starting air valves inside cylinder head

Fuel system

- Low fuel pressure at engine inlet 5 bar(g)/ 72,5189 psi
- Robust conventional injection system

Applications

- High efficiency base-load power plants
- Installations that are to be operated with gas at a later date
- Areas with no gas infrastructure

MAN Energy Solutions
 86224 Augsburg, Germany
 P + 49 821 322-0
 F + 49 821 322-3382
 info@man-es.com
 www.man-es.com