



MAN diesel engines

For railcars, locomotives and for railway gensets.

Powered by MAN.

MAN Nutzfahrzeuge Group



For powerful trains.

High speed, powerful acceleration and reliable transport of people and goods: these are categories in which MAN engines for rail vehicles excel. Compact diesel engines with ratings from 110 to 882 kW (150 to 1 200 hp) are available to choose from. Powerful, economical and environment-friendly.



Description of engines

Characteristics

Cylinders and arrangement	4 and 6 cylinders in line 12 cylinders in Vee-configuration
Engine layout	Vertical Horizontal engines for underfloor installation available
Valves	4 per cylinder for engines meeting EC Stage 3A and 3B
Operation mode	4-stroke diesel engine
Injection system	In-line injection pump Common Rail for engines meeting EC Stage 3A and 3B
Engine cooling	Air/air-intercooler Alternatively: water/air radiator
Engine control	Bosch EDC5.5 Bosch EDC7 and vehicle management computer for engines meeting EU Stage 3A und 3B

Electricity supply in rail vehicles

A climate that is pleasantly warm in winter but fresh and cool in summer, hot meals and cold drinks are part of today's standard in rail vehicles. MAN diesel generators reliably supply the electricity necessary and thus ensure that this standard is maintained.

Cylinders and arrangement	Layout	Rating kW (hp)	Displacement litre
6 in line	horizontal	230 (313)	11.9
6 in line	vertical	280 (380)	11.9
8 in 90°V	vertical	364 (495)	14.6
12 in 90°V	vertical	543 (738)	21.9

Customer benefits

- High power output achieved through innovative engine design
- Compact dimensions
- High economy through low oil and fuel consumption
- Long service intervals
- Low pollutant emissions thanks to innovative exhaust technology
- MAN Service worldwide

Engines for railcars and locomotives

Application		railcars			locomotives		
Output range ¹	kW		257 - 382	480 - 662	110 - 151	176 - 382	480 - 662
	hp		350 - 520	653 - 900	150 - 206	240 - 520	653 - 900
Cylinders			6	12	4	6	12
Arrangement			in line	V90°	in line	in line	V90°
Engine layout			horizontal	vertical	vertical	vertical	vertical
Exhaust-gas technology			EGR	none	EGR	EGR	none
Exhaust-gas status EC Stage			3A	- ²	3A	3A	- ²

¹ Net output according to ISO 3046-1 bzw. UIC 623-1 VE.

² EC Stage 3A available for engine with 588 kW.

Engines for railcars and locomotives for EC Stage 3B (from 2012)

Application		railcars			locomotives		
Output range ¹	kW	257 - 353	257 - 353	600 - 882	110 - 162	184 - 353	600 - 882
	hp	350 - 480	350 - 480	816 - 1 200	150 - 220	250 - 480	816 - 1 200
Cylinders		6	6	12	4	6	12
Arrangement		in lin	in line	V90°	in Reihe	in Reihe	V90°
Engine layout		vertical	horizontal	vertical	vertical	vertical	vertical
Exhaust-gas technology	EGR		SCR	SCR	EGR	EGR	SCR
	PM-Kat				PM-Kat	PM-Kat	
Exhaust-gas status EC Stage		3B	3B	3B	3B	3B	3B

¹ Net output according to ISO 3046-1 bzw. UIC 623-1 VE.

Repowering programme

MAN offers a special service for converting older rail vehicles to the latest low-emission engine technology: repowering. All diesel units in the MAN engine programme are eminently suitable for repowe-

ring projects. In particular the compact dimensions of the modern diesel units make conversion and installation easy. All this adds up to a low-cost solution for environment-friendly rail operations.

D 114.452/E · mu 08082 · Printed in Germany

Text and illustrations are not binding.

We reserve the right to make modifications in the course of technical progress.

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