MAN L16/24 GenSet 428-941 kW





1. New rotocaps

- 2. New valve springs
- 3. New valve guides
- 4. Valve pockets in piston
- 5. Reduced cam/valve lift

The streamlined exterior of the award-winning L16/24, uncluttered by tubes and pipes, is an indication of its exceptional design. It is an engine which, although firmly based on almost a century of diesel engine design and manufacturing, overturns many of the accepted doctrines to provide both owners and shipyards with important benefits.

Our experience with the heavy fuel oil on the market has shown a tendency of decreasing ignition properties which, in general, may lead to operational problems, especially in the low-load area.

In order to improve the ability of low-load operation, it was decided to apply a charge air preheating system as a standard application. By further development of the valve train and cam system, it has been possible to reduce the risk of engine damage if a valve is sticking in the cylinder head, as no mechanical contact is possible in the updated design.

Benefits

The L16/24 engine family's 450-990 kW power range and cost-effectiveness, in terms of both capital investment and daily operation, combined with the latest updates to the original design, makes it the ideal GenSet solution for a large number of vessel types. Suitable applications for the engine range from handysize bulk carriers, tankers and general cargo vessels to small and medium-sized reefers, container vessels, ferries and cruise ships.



- P: Free passage between the engines, width 600 mm and height 2,000 mm
- Q:~Min. distance between centre of engines: 1,800 mm



Main Data L16/24 - Bore: 160 mm, Stroke: 240 mm

Speed (r/min)	ed (r/min) 1,200			1,000			
Frequency (Hz)	60			50			
	Eng. kW	Ge	n. kW*		Eng. kW		Gen. kW*
5 L16/24	500)	475		450		428
6 L16/24	660)	627		570		542
7 L16/24	770)	732		665		632
8 L16/24	880)	836	760		722	
9 L16/24	990	990 941		855		812	
Cyl. No.	5	6		7		8	9
r/min	1200/1000	1200/1000	1200/1000		1200/100		1200/1000
A (mm)	2,807	3,082	3,557		3,83	32	4,107
B (mm)	1,400	1,490	1,585		1,68	80	1,680
C (mm)	4,207	4,572	5,142		5,5	12	5,787
H (mm)	2,337	2,337	2,415/2,337		2,4	15	2,415
Dry Mass (t)	9.5	10.5		11.4	12	.4	13.1

* Based on nominal generator efficiencies of 95%

Weight and dimensions based on a standard alternator

Facts and figures

HFO operation

The L16/24 range operates efficiently on the most inexpensive fuel type (HFO) across the operating range, from idle to full load, including the start/stop phase.

Performance

The engine output at 1,000 and 1,200 r/min ranges from 450 kW (5 cyl.) to 990 kW (9 cyl.) – and every L16/24 engine is a class leader in terms of specific weight (kW/kg).

Compactness

At a width of 1 m, a height of 2.3 to 2.4 m, and a length between 4.2 and 5.8 m, it is the smallest engine in its power output class.

Light weight

These compact dimensions result in a substantial weight advantage compared with competitive products. The L16/24 range weighs between 9.5 and 13.1 tonnes.

Easy maintenance

As with all MAN engines, only minimal daily maintenance is required.

Improved working conditions

The L16/24 operates with very little vibration and is fitted with sound insulation jackets which substantially reduce engine noise.



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