



Uptime anytime

MAN Energy Solutions
Future in the making



Introducing
MAN L23/30H Mk3 GenSet

Future in the making

MAN Energy Solutions is the world's leading provider of large-bore diesel engines, turbomachinery, and integrated power systems. We make four-stroke and two-stroke engines for marine and stationary applications, turbochargers and propellers, gas and steam turbines, compressors, and chemical reactors.

Our marine systems expertise is focused on emission reduction, complete propulsion packages, electrical propulsion, dual-fuel, LNG, LPG, and digitized services.

In the competitive field of ocean transport with its fluctuating fuel prices, we offer cost-effective propulsion systems and GenSets that comply with all emission legislations and meet strict safety requirements.



More power same reliability

The Mk3 version of the MAN L23/30H GenSets

The MAN L23/30H GenSet has been trusted by owners and operators for stable, reliable and cost-efficient operation for more than five decades.

With over 12,000 MAN L23/30H GenSets in active service, the L23/30H has proven to be one of the most reliable marine GenSets in the market and has a well-earned reputation for easy maintenance and longest Time Between Overhaul in its class.

The Mk3 is a new version of the MAN L23/30H GenSet

By applying innovative technology combined with classic design principles, the Mk3 version is now

available. The MAN L23/30H Mk3 GenSet is built to meet your needs for today and for the future. The engine is designed to operate on Low Sulphur Fuel Oils in accordance with the IMO 2020 Sulphur Cap regulations and can accommodate additional power requirements for SO_x scrubber solutions thanks to a 20% increase in power output.

The MAN L23/30H Mk3 GenSet has an exceptionally broad power range, starting from 500kW extending up to 1800kW including a 9-cylinder unit version as a new feature.

This results in a cost-effective GenSet platform for years to come with easy access to spare parts and lifetime support.







The perfect GenSet across your fleet

With an exceptionally wide power range of 500kW–1800kW, the MAN L23/30H Mk3 GenSet is suitable for almost any vessel type in your fleet.



With up to 200kW per cylinder, the MAN L23/30H Mk3 GenSet is engineered to meet the power needs of most commercial ship types, including general cargo, bulk carriers, tankers, smaller containers, MPV's, passenger vessels, and more.

- 1) For ships designed with SO_x scrubbers, the auxiliary power requirement will increase. Normally, this implies more cylinder units on the GenSet, but for the MAN L23/30H Mk3 GenSet the number of cylinder units will likely remain unchanged due to up to 20% higher power output per cylinder unit. This means fewer changes in the engine room.
- 2) For ships operating on Low Sulphur Fuel Oils with no scrubber, the auxiliary power requirement will remain unchanged in comparison with pre-2020 Sulphur Cap. The MAN L23/30H Mk3 GenSet can in this case deliver the required auxiliary power with less cylinder units and thereby lower your maintenance costs.

These simple installation requirements per design make the MAN L23/30H Mk3 GenSet the perfect choice for low-cost installation, while well-known maintenance procedures and the same spare parts across your fleet reduce operating costs.

The MAN L23/30H Mk3 GenSet is built to meet your needs today and for the future. The engine is designed to operate on Low Sulphur Fuel Oils in accordance with the IMO 2020 Sulphur Cap regulations and can accommodate additional power requirements for SO_x scrubber solutions. In addition, our well-proven Lambda controller system minimizes 'black smoke' and extends operational lifetime.

Key features:

- Wide power range of 500kW to 1,800kW
- IMO 2020 Sulphur Cap compliant
- 24,000 hours Time Between Overhaul (TBO)
- 15-20% increase in power output/cylinder unit
- Reduced fuel oil consumption
- Connecting rod applying marine head design
- Bedplate design for easy installation
- Applying the popular SaCos_{one} safety and control system

Optional extras:

- Part load operation optimization
- Online service support

Technical data

MAN L23/30H Mk3 GenSet

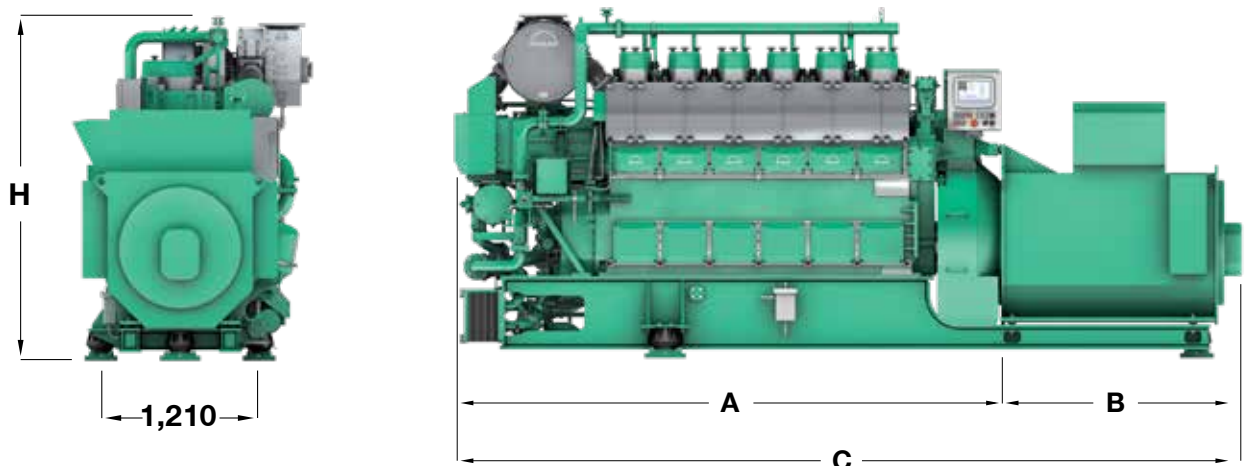
Dimensions

Cyl. No.		5	5	6	6	7	7	8	8	9	9
	r/min	720 ECR	720/750	720/750	900	720/750	900	720/750	900	720/750	900
A	mm	3,379	3,379	3,749	3,749	4,119	4,276	4,489	4,896	4,859	5,266
B	mm	2,202	2,202	2,252	2,252	2,302	2,302	2,352	2,352	2,402	2,402
C	mm	5,581	5,581	6,001	6,001	6,421	6,578	6,841	7,248	7,261	7,668
H	mm	2,621	2,621	2,621	2,621	2,621	2,621	2,621	2,621	2,621	2,621
Dry mass	t	16.8	16.8	18.4	18.6	20.7	20.7	22.5	22.6	24.5	24.5

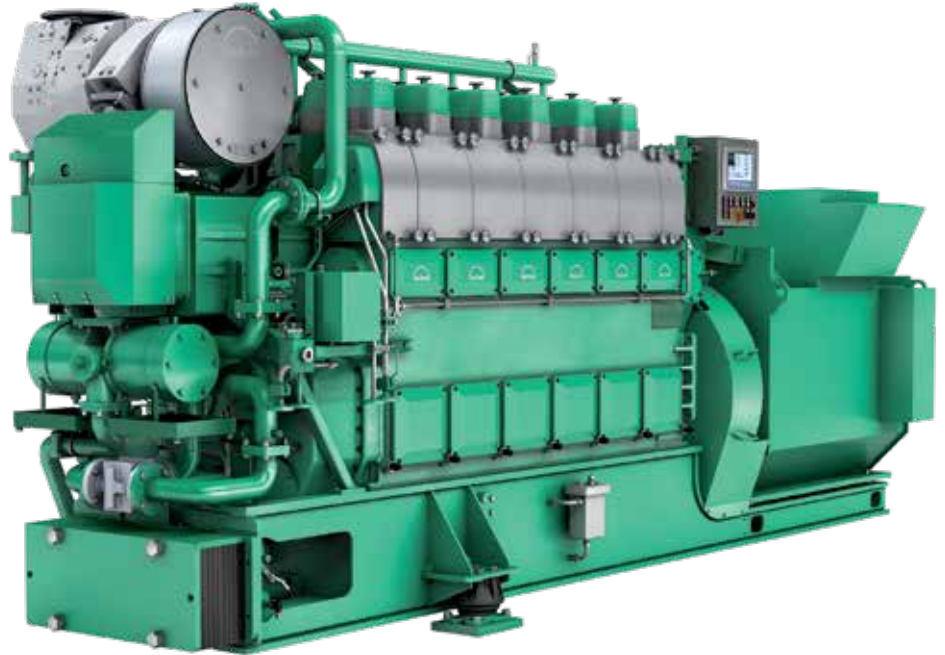
Output

Speed r/min	750	750	720	720	900	900
Frequency Hz	50	50	60	60	60	60
	Eng. kW	Gen. kW*	Eng. kW	Gen. kW*	Eng. kW	Gen. kW*
5L23/30H Mk3 ECR	-	-	500	475	-	- kW
5L23/30H Mk3	885	840	850	810	-	- kW
6L23/30H Mk3	1,062	1,010	1,020	970	1,200	1,140 kW
7L23/30H Mk3	1,239	1,180	1,190	1,130	1,400	1,330 kW
8L23/30H Mk3	1,416	1,345	1,360	1,290	1,600	1,520 kW
9L23/30H Mk3	1,593	1,515	1,530	1,455	1,800	1,710 kW

*Based on nominal generator efficiencies of 95%



The new MAN L23/30H Mk3 GenSet delivers next generation performance, reliability and cost-efficiency, as well as full compliance with 2020 SO_x regulations.



Emission compliance

IMO's global 2020 Sulphur Cap means that vessels will either have to use marine fuel oils with maximum 0.5% or 0.1% sulphur, or invest in SO_x-reducing technology that will require higher auxiliary engine power. The new MAN L23/30H Mk3 GenSet supports both solutions.

For shipowners preferring to comply with the 2020 Sulphur Cap by operating on Low Sulphur Fuel Oils, the new MAN L23/30H Mk3 GenSet is the perfect choice. The engine is designed with coated fuel oil pumps to account for the poorer lubricating properties of Low Sulphur Fuel Oils.

Engine room layout

When running on Low Sulphur Fuel Oils, an additional advantage of the MAN L23/30H Mk3 GenSet is the increased power output. In many cases, the

engine can be selected with one cylinder less compared to Mk1 and Mk2. This means lower engine weight and shorter length.

Thanks to the higher power output, the MAN L23/30H Mk3 GenSet is also especially suitable for installation in engine rooms designed with a SO_x scrubber.

The engine room for a MAN L23/30H Mk3 GenSet can be designed with the same cylinder numbers as for a pre-2020 vessel without a SO_x scrubber. This means that only a few changes are necessary in the engine room.

Time Between Overhaul

Another possibility is to select a MAN L23/30H Mk3 GenSet with one more cylinder, and thereby reduce the engine speed from 900 to 720 rpm. This solution prolongs the Time Between Overhaul (TBO) by 4,000 hours, or around one year of operation.

The TBOs are the same as for an L23/30H Mk2, which is the longest in its class. A MAN L23/30H Mk3 GenSet of 720/750 rpm running on Low Sulphur Fuel Oil offers a TBO of 32,000 hours and 20,000 hours when applying the 900 rpm version.

New design features

- Connecting rod applies the marine-head design, which allows dismantling of the connecting rod from the crankshaft during overhaul without opening the crankshaft bearing
- New easy "plug and play" installation with three conical bedplate design as standard
- SaCos_{one} safety and control system with electronic speed governor

A lifetime of support





With the new MAN L23/30H Mk3 GenSet, you get proven design-to-decommission support from specialized departments at MAN Energy Solutions. This starts in the planning phase, even before the order is placed, continues throughout the building phase at the licensee and shipyard, and extends across its operational lifetime even after the warranty ends.

Who	Promotion & Sales Engineering Engines	Production Engineering	Operation	MAN PrimeServ
What	Unique new building technical and commercial promotion	Unique quality assurance support at licensee and shipyard	Unique operation support at initial service stage and warranty follow-up	Unique technical service, support and spare parts sales
When	Prior to new build order	Erection and warranty period		Post warranty

MAN Energy Solutions provides unique lifetime support to customers.

During the new building project phase prior to order, the Promotion Department provides unique new building technical and commercial customer support. Through customer meetings and technical seminars, we make sure that ship owners and other stakeholders get the latest information on features and developments within the MAN Energy Solutions product portfolio, which can be used as negotiation tools at shipyards in shipbuilding countries.

During the building, erection & warrantee period, MAN Energy Solutions Licensee Production Support and Operation Departments provide unique quality assurance as well as follow-up on warranty claims to fully support our customers.

During the post-warranty period and for the duration of the lifetime of the vessel, our Prime Service Department takes care of spare parts handling, training, trouble shooting, and long-term service agreements, including dry dockings as requested.

MAN PrimeServ

Service with passion





24

hours a day



365

days a year

MAN PrimeServ is the dedicated MAN Energy Solutions service brand. Via a network of over 100 service centers worldwide, MAN PrimeServ provides 24/7 service across the globe. Our range of services includes technical support, consulting and OEM spares, as well as maintenance, repair and comprehensive individualized service plans.

MAN PrimeServ provides

- Prompt delivery of high-demand OEM spare parts within 24 hours
- Fast, reliable and competent customer support
- Individually tailored O&M contracts
- Ongoing training and qualification of operators and maintenance staff
- Global service, 24 hours a day, 365 days a year
- Diagnosis and troubleshooting with our high-performance online service

Worldwide service

We offer retrofitting and upgrade services to bring engines and turbochargers already in service up to the very latest standards of performance and efficiency.

Using the latest digital technology, we enable you to maximize the performance and availability of your MAN equipment by accessing real-time data analysis, remote support and rapid solutions. We also offer an extensive range of training courses at MAN PrimeServ academies around the world.

Our service does not vary according to location. We know that a vessel may be built in Asia, operated in Europe for ten years and then move to Africa for the next ten years. That does not alter our focus on dedicated training, fast delivery of strategic spare parts, a comprehensive approach, or our tailored maintenance contracts.

For more information please visit
www.man-es.com/primeserv



100

service centers
worldwide



MAN Energy Solutions

2450 Copenhagen SV, Denmark

P + 45 33 85 11 00

F + 45 33 85 10 49

info-cph@man-es.com

www.man-es.com

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