



Uptime anytime

MAN Energy Solutions
Future in the making



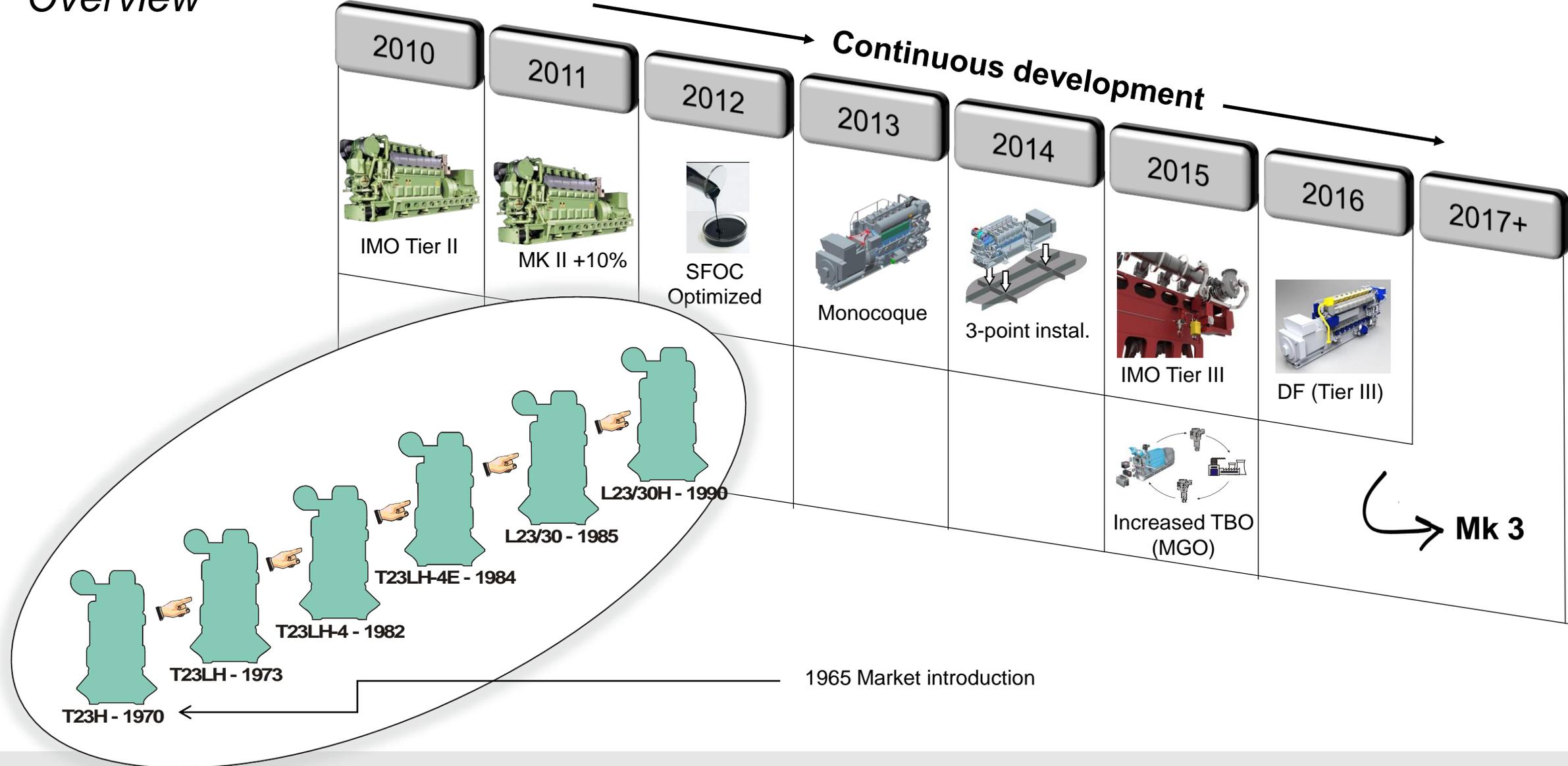
MAN L23/30H Historical Overview

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Marine New Sales & Promotion
June 6th, 2019



L23/30H GenSet - MAN Engine Development Program

Overview



L23/30H

Advantages & Reference List

- Field proven Reliability
- Simple and Easy Operation
- Classic engine design for simple and well known maintenance procedure
- Spare Parts with High Availability
- Competitive Spare Parts Prices
- Long TBO (HFO 16,000 **20,000** hours)
- Low Maintenance Cost
- Production close to Shipyard
- Engineering & Production Support
- World Wide Service Organization – 24/7



as per 01/01/18

Engine Type Engine Builder	L23/30
CMP	3.733
CXZ/SQE	
SXD	
HND	
Weichai	
STX Korea	3.955
Doosan	910
Adria & Split	490
HCP/F SA	95
MDT FRH	391
MDT Holeby	526
MDT India	
Others	2.188
Total	12.288

L23/30H

Mk1

- Extended TBOs for Mk1 engines
- NR T/Cs
- L23/30H-720RPM: on HFO 20,000h
- L23/30H-900RPM: 12,000 hours

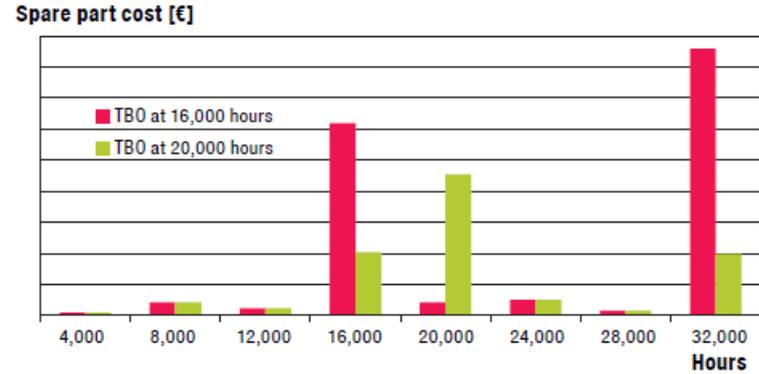
on certain
conditions



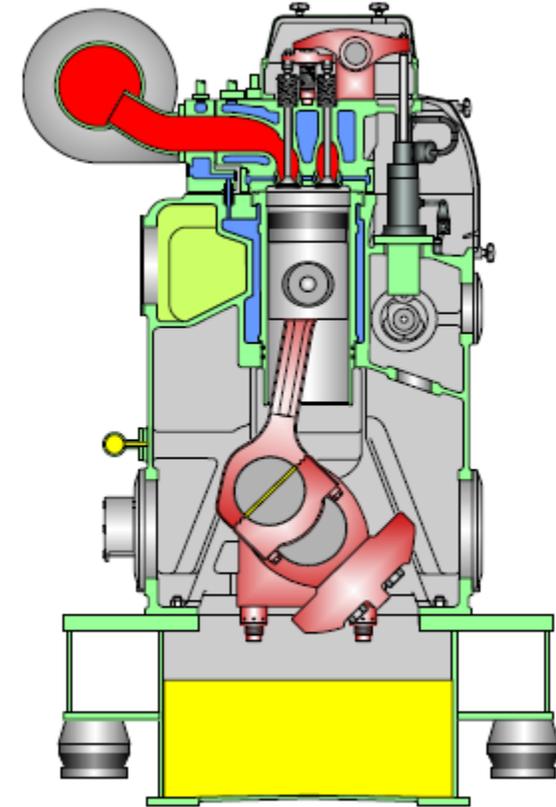
L23/30H

Mk2 Continuous Development

- 4s (5-8 cylr) / 710 - 1,400 kW
- HFO up to 700 cSt at 50°C
- emission requirements (+ IMO Tier II) & EPA Tier II (900 r/min)
- TCR T/Cs
- Built-in lambda controller increases load response ability & limits fuel oil index during start-up & load changes
- Increased power yield of approx. 10%



costs of spare parts for 6L23/30H Mk. II with TBOs at 16,000 and 20,000 hours



L23/30H

Mk1 & Mk2 Power Output & TBO Comparison

RELIABILITY is KEY

Engine Size	kW/Cyl.	
	Previous	Mk 2
720 rpm (60Hz)	130 kW/Cyl.	142 kW/Cyl.
5 cylinders*	650*	710
6 cylinders	780	852
7 cylinders	910	994
8 cylinders	1,040	1,136

Engine Size	kW/Cyl.	
	Previous	Mk 2
900 rpm (60Hz)	160 kW/Cyl.	175 kW/Cyl.
6 cylinders	960	1,050
7 cylinders	1,120	1,225
8 cylinders	1,280	1,400



	TBO HFO	Power [kW]	TBO MDO/MGO
L23/30H Mk 2, 900rpm	16,000	1050 – 1400	20,000
L23/30H Mk 2, 720/750rpm	20,000	710 – 1305	32,000

MAN Four-Stroke Marine GenSets

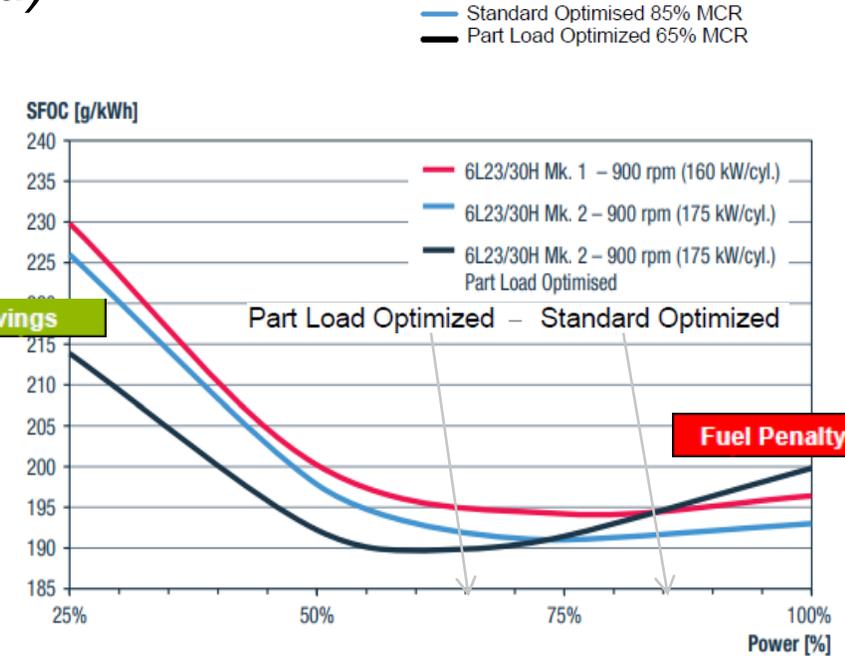
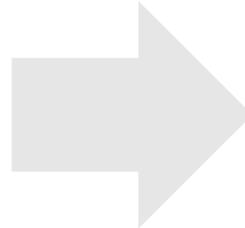
Fuel oil saving for small bore GenSet (part load optimised)

- Improved fuel oil consumption at low load and part load
- Part-load still complies with IMO Tier II limit

SFOC Lowered 4-5 g/kWh



L23/30H Mk 2
Power range: 650 – 1400 kW
SFOC: 191 g/kWh



Based on Project Guide figures for IMO Tier II engines – 60Hz:
ISO reference condition, HFO/MDO, without pumps, tolerance +5% (not included)

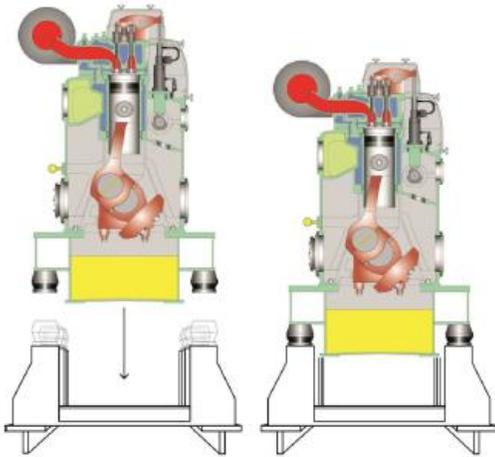
MAN GenSet Monocoque Design

Available for all variants of the L23/30H engine

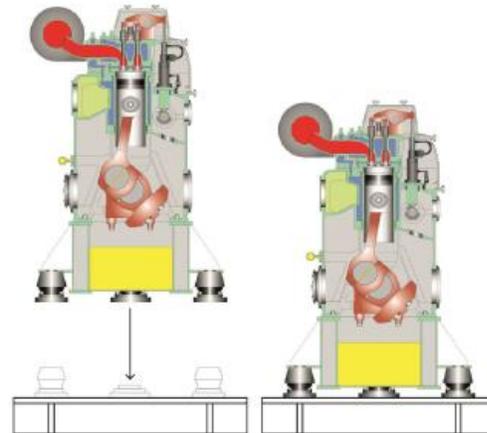
- Design & Installation Cost
- Weight reduction
- Vibration optimisation
- Simplified installation



Traditional Base Frame



Monocoque Base Frame



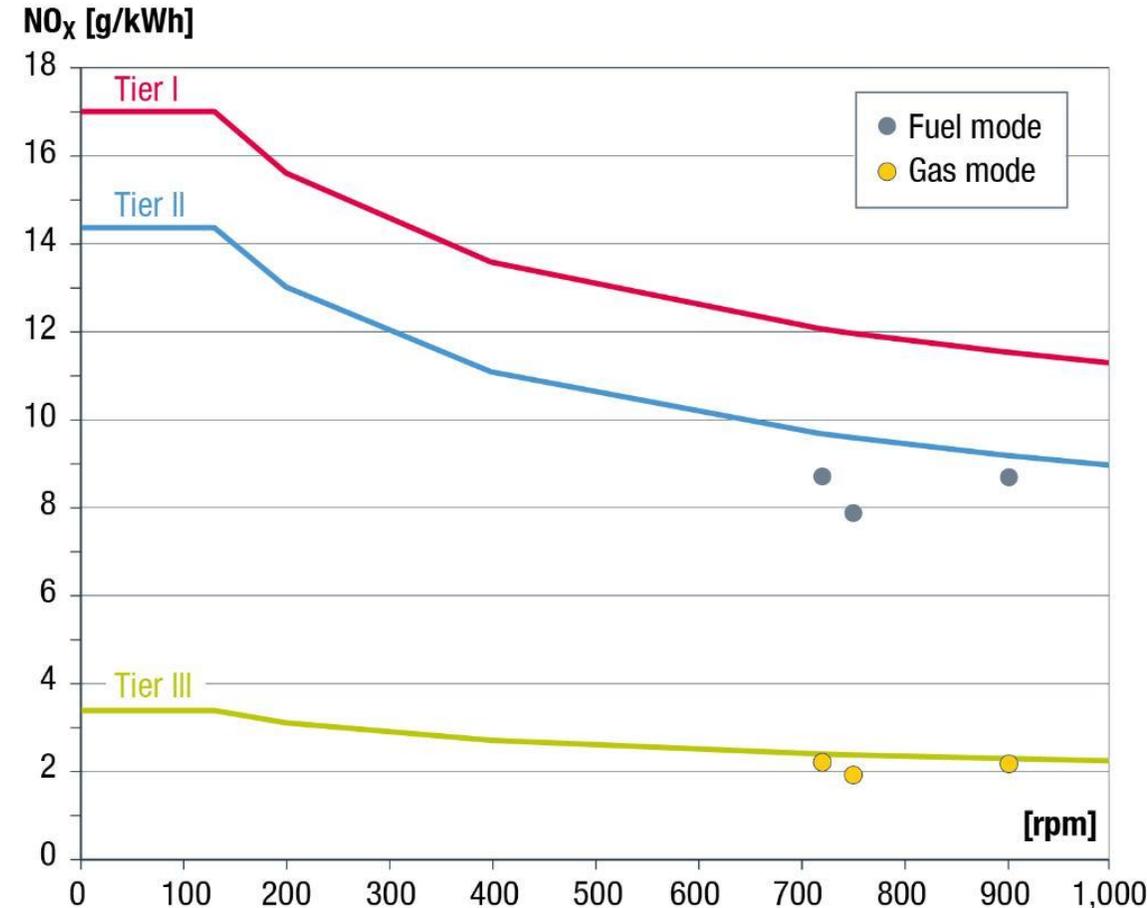
- 63% weight reduction
- Flat deck
- 8 → 3 conicals
- Self-leveling

Dual Fuel (DF) GenSets

Pros, Operation & IMO

- Safe & Reliable Operation
- Decades of service experience
- Competitive CAPEX – simplified fuel injection
- Low Maintenance Cost – extended TBO
- → OPEX lower

Flexible GVU
Installation - up to
90m from engine.



The future in here!!

The way to L23/30H Mk3 is set...

**Thank you for
your attention!**

**George Mamalis
Marine New Sales & Promotion
June 6th, 2019**

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