



Dual-Fuel Variant of MAN L23/30 Engine Awarded TAT

Copenhagen,
29/11/2017

Type Approval Granted to L23/30DF GenSet

MAN Diesel & Turbo's dual-fuel MAN L23/30DF engine successfully passed its Type Approval Test (TAT) on November 2nd 2017 at CSSC Marine Power (CMP) in Zhenjiang in front of the industry's main classification societies. The five-cylinder test engine in China had an output of 125 kW per cylinder at a nominal speed of 720/750 rpm.

Finn Fjeldhøj – Head of Small-Bore, Four-Stroke Engineering – MAN Diesel & Turbo, expressed the company's high expectations for the engine and said: "The L23/30DF covers a power range of 625 – 1,200kW, which makes it particularly attractive for such ocean-going vessels as bulkers of most sizes, general cargo ships, chemical tankers, and smaller LNG-carriers, as well as ships operating in ports and near the coast. Encouragingly, shipowners around the world have already shown significant interest in the engine and we are very optimistic about its future prospects."

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The TAT included tests of the engine's:

- SaCoS_{one} alarm and safety system
- dual-fuel safety concept, including a test of the pilot-fuel system
- load-step performance;
- and a components inspection.

The MAN L23/30DF engine was also granted a certificate for compliance with IMO Tier III regulations in gas mode without any after-treatment equipment. In addition, the engine can provide up to 110% power output in both gas and fuel modes.

ESL Shipping, the leading carrier of dry-bulk cargoes in the Baltic region, has already ordered the first six L23/30DF GenSets for two 25,000-dwt cargo carrier newbuildings, currently under construction at CSC Jinling ship yard in China.



Simplified design

The MAN L23/30DF's fuel injection is a simplified system, especially developed for high reliability and cost efficiency as the main injector valve is also used for the injection of pilot oil. Accordingly, the MAN L23/30DF requires relatively low investment costs as fewer parts need to be replaced, as evidenced by its extreme Time Between Overhaul (TBO) of 36,000 hours.

Background

The new unit is based on the conventional fuel-oil MAN L23/30H engine that has a long history of operational stability and has significantly increased its number of sales in recent years. The first 23/30H came on the market in 1965 but the original engine bears little resemblance to the modern version where all fundamental characteristics have greatly evolved after five decades of continuous development. The engine is popular with shipowners for a number of reasons, not least for its broad market penetration and global recognition stemming from its reputation for reliability and 'forgiving' service demands.



The L23/30DF dual-fuel engine that covers a power range from 625 kW – 1,200 kW at a nominal speed of 720/750/900 rpm



The assembled participants at the L23/30DF TAT at CMP with representatives from classification societies, CMP testbed team, and MAN Diesel & Turbo’s engine-test team, headed by Jens Christensen

MAN Diesel & Turbo

Document signed by surveyors

of

L23/30DF

Performed on MAN Holeyby 5L23/30DF
 Engine No. 17090

at

CSSC Marine Power Co. LTD
 No 402 Changjiang Road, Zhenjiang, Jiangsu
 China

November 2017

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MAN Diesel & Turbo

Type Approval Test of MAN Holeyby L23/30DF Engine type

Type Approval Test of L23/30DF was held at CSSC Marine Power Co., Ltd (CMP), China, with the attendance of the below signed surveyors, who by their signature confirm that the test was carried out in accordance with the enclosed programme 3099644-S-2

The Type Approval Test was carried out on the 31st of October – 2nd of November 2017 on a 5L23/30DF engine manufactured by CMP.

Name of Society	Name of Surveyor In capitals	Stamp and signature
American Bureau of Shipping	ABG W. J. J. J. J.	
Bureau Veritas	CVZ WANG	
China Classification Society	CSA 史红军	
DNV GL	ALEXANDER STRØM	
Lloyd's Register	JIXIN YUAN	
MAN Diesel & Turbo	MAN Diesel & Turbo Tegholmgade 41 DK-2650 Copenhagen SV Jens Christensen	

Zhenjiang, the 2nd of November 2017.

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The official document from the successful TAT

About MAN Diesel & Turbo

MAN Diesel & Turbo SE, based in Augsburg, Germany, is the world's leading provider of large-bore diesel and gas engines and turbomachinery. The company employs around 15,000 staff at more than 100 international sites, primarily in Germany, Denmark, France, Switzerland, the Czech Republic, India and China. The company's product portfolio includes two-stroke and four-stroke engines for marine and stationary applications, turbochargers and propellers as well as gas and steam turbines, compressors and chemical reactors. The range of services and supplies is rounded off by complete solutions like ship propulsion systems, engine-based power plants and turbomachinery trains for the oil & gas as well as the process industries. Customers receive worldwide after-sales services marketed under the MAN PrimeServ brand.