



New Two-Stroke Engine Uses VOCs as Fuel

ME-GIE engine benefits from the diesel principle running on mixtures of LNG and LPG, including volatile organic compounds

Copenhagen,
10/03/2017

The world's first ME-GIE ethane combusting two-stroke engine has been delivered from MAN Diesel & Turbo licensee Mitsui Engineering & Shipbuilding Co., Ltd. (MES) in Japan. The Mitsui-MAN B&W 7G50ME-C9.5-GIE is the first engine in a series of three.

Further research has led to new possibilities for this engine leading to exciting new prospects for multi-fuel combustion including the combustion of waste gas.

"The ME-GIE engine was originally designed for the combustion of ethane gas, however, research has revealed that it is possible to operate the engine on volatile organic compounds as well. Accordingly, it is also a potential solution for the propulsion of shuttle tankers and VLCCs," said René Sejer Laursen, Sales & Promotion Manager at MAN Diesel & Turbo.

The benefits of the diesel-type combustion are now fully exploited in the ability of the two-stroke engine to run on almost any gas quality without efficiency reductions, and in the complete combustion maintained by a relatively high gas injection pressure.

The engine will be able to run on a mixture of LPG, among which are included VOCs, and methane or ethane with unchanged gas mode efficiency. The mixture may contain as much as 50 % LPG and the findings so far indicate that even larger amounts of LPG may be added to the gas.

MAN Diesel & Turbo sees significant opportunities in the development of this engine since the engine may also run on almost any form of waste gas. The waste gas could be the light hydrocarbons or volatile organic compounds (VOCs) emitted from crude oil during storage and when loading/unloading of crude oil. This opens for new applications of the engine in for example shuttle tankers, for power generation in remote power plants or in off-shore applications, such as floating production storage and offloading vessels (FPSOs), where waste gas is abundant and poses a potential environmental hazard.

MAN Diesel & Turbo SE
Teglholmsgade 41
DK-2450 Copenhagen SV
DENMARK
www.mandieselturbo.com

Marketing & Documentation
Further information:
Peter Dan Petersen
Tel.: +45 33 85 14 70
peterd.petersen@man.eu

Graphics and images:
Mia Toft Sørensen
Tel.: +45 33 85 15 90
mia.soerensen@man.eu

Press Release

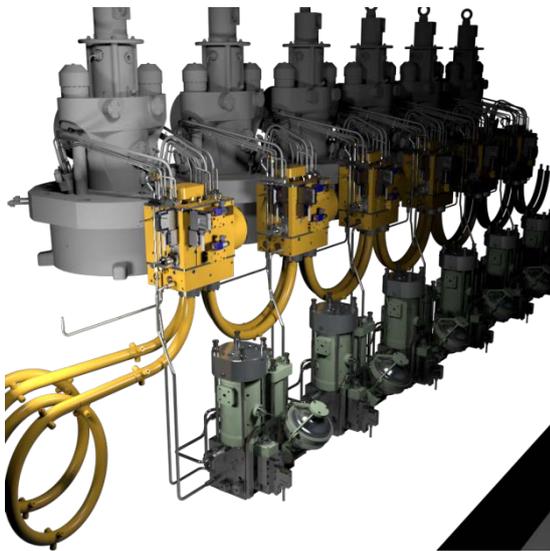
MAN Diesel & Turbo



Press Release
Page 2 / 2

Tier III operation can also be met in combination with selective catalytic reduction (SCR) systems, either low- or high-pressure SCR.

The engine can be delivered in the power range 5-90 MW.



The engine top section of a 6-cylinder ME-GIE engine

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.

Ref.: 6510-0436