



## **TOTE to Convert MAN 58/64 Engines to LNG Retrofit will facilitate operation in American ECA zone**

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TOTE Maritime Alaska, a daughter company of TOTE Inc., the leading American marine-transportation group, recently contracted MAN PrimeServ – MAN Diesel & Turbo’s after-sales division – to convert the ‘North Star’ and ‘Midnight Sun’ to dual-fuel operation on liquefied natural gas (LNG). The roll on/off ships are currently both powered by 4 × MAN 58/64 engines and will be retrofitted to MAN 58/64 retrofit units. The contract – signed in April 2017 and announced during the High Horsepower (HHP) Summit, a conference and expo on the use of natural gas – covers the design, development and testing of a first-of-its-kind dual-fuel kit, which will serve as foundation for the largest LNG conversion in North America.

A key influence in TOTE’s decision to retrofit the vessels to LNG is to significantly reduce the most harmful emissions that result from burning diesel. “TOTE Maritime Alaska is excited to convert its fleet to LNG power which will result in a significant reduction in air emissions including particulate matter, sulphur oxide (SO<sub>x</sub>) and nitrogen oxide (NO<sub>x</sub>). This significant investment of time and money is a reflection of our commitment to the environment, our customers and the state of Alaska” noted Michael Noone, President of TOTE Maritime Alaska.

Dr. Thomas Spindler, Head of Upgrades & Retrofits at MAN PrimeServ Augsburg, explained: “To meet TOTE’s requirements, we have developed a solution based on our well-proven 51/60DF retrofit. Accordingly, the engineering approach to the 58/64 retrofit is very familiar to us, and this project represents a straightforward conversion procedure.”

Spindler added: “The investment will be of huge benefit to the customer on several fronts: not only will the retrofitted engines meet all new emission standards; the new components they receive during conversion will significantly extend their working life.”

“We have been investigating and testing many options for shifting the fleet to LNG. The conversion of the existing engines is the most reliable and beneficial solution” said Peter Keller, Executive Vice President of TOTE. “This innovative solution that has been developed in partnership with MAN, will be an important milestone for the industry as we all prepare for the IMO sulphur cap in 2020.”

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### **In perspective**

TOTE Maritime Alaska handles approximately one-third of goods transportation between the continental US and Alaska. Both the North Star and Midnight Sun operate fast routes between Anchorage, Alaska and Tacoma, Washington.

The two Orca class ships were originally constructed by NASSCO, part of the General Dynamics Corporation – the United States aerospace and Defence Company – at its San Diego yard and were commissioned in 2003.

TOTE Maritime Puerto Rico, another TOTE company, is notable for ordering the world's first LNG-powered Marlin class container ships, the 'Isla Bella' and 'Perla del Caribe', launched in 2015 and both featuring single MAN B&W 8L70ME-GI engines.

### **About TOTE**

TOTE is a leading transportation and logistics company, overseeing some of the most trusted companies in the U.S. domestic trade. TOTE Maritime Alaska is the premier provider of ocean transportation service between the ports of Anchorage, Alaska and Tacoma, Washington. Other TOTE subsidiaries include the well-known TOTE Maritime Puerto Rico, TOTE Services and TOTE Shipholdings. TOTE Inc. is a wholly-owned subsidiary of Saltchuk Resources, Inc., a family owned, Seattle, Washington-based holding company of freight transportation and petroleum distribution companies.



# Press Release

## MAN Diesel & Turbo



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*Pictured at MAN Diesel & Turbo's Headquarter in Augsburg (from left): Stefan Eefting - Senior Vice President and Head of MAN PrimeServ Augsburg; Peter Keller - Executive Vice President of TOTE; Per Rud - Senior Vice President and Head of After Sales - Marine & Power Plants*

### **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.