



# MT7 Marine Gas Turbine

Compact power for the most demanding landing craft/hovercraft platforms

## Powerful

The Rolls-Royce MT7 marine gas turbine features the very latest in gas turbine technology offering a proven combination of a market leading power to weight ratio and low through life costs. Delivering power of up to 4.6MW, the MT7 is a compact power plant with excellent fuel efficiency and performance retention. MT7 is well suited to a variety of system configurations for mechanical drive in applications requiring exceptional high power density offering ship designers / builders increased flexibility.

## Heritage

The MT7 is a member of the successful AE family of aero engines that has accumulated over 82 million operating hours and shares proven common core architecture with the AE 1107C aero engine that powers the unique Bell Boeing V-22 Osprey tilt-rotor aircraft. Rolls-Royce has delivered over 4,500 AE family engines, a heritage which allows MT7 to draw upon well established methods and processes at our production facilities, and a supply chain that delivers hundreds of engines annually.

## Through life support and service

Commonality within the AE family allows the MT7 to benefit from well established production facilities, a supply chain that delivers hundreds of engines annually, and an aftermarket support network that quickly and efficiently returns engines to service. The MT7 shares a proven common core architecture with the AE 1107C, AE 2100 and AE 3007 aero engines, incorporating high efficiency components with reduced maintenance requirements for a long service life. A global aftermarket support network ensures availability and provides a low-risk engine solution.

## Unique cold-end drive technology

The twin-shaft axial design of the MT7 comprises a 14-stage compressor followed by an effusion-cooled annular combustor, a two-stage gas generator turbine and a two-stage power turbine. The engine is cold-end drive featuring six stages of variable compressor vanes, dual channel Full Authority Digital Electronic Control system (FADEC), modular construction and an 'oncondition'

maintenance capability. Proven components are utilised throughout the engine, with key parts protectively coated to resist sand erosion and salt corrosion to ensure optimum performance in the most challenging of marine environments. Fuel and oil systems are fully integrated on the engine assembly, making it a compact, lightweight yet powerful unit.

## Features

Unique 4.6MW powerplant capable of meeting the demanding requirements of hovercraft / landing craft. Shares a common core with AE 1107C, AE 2100 and AE 3007 family of engines. Due to enter service with the U.S. Navy's new Ship-to-Shore Connector (SSC) hovercraft built by Textron Marine & Land Systems.



## Technical specifications

- **Power output** Up to 4.6MW (6160 SHP)
- **RPM** 15,000
- **Rotation** Anti-clockwise when viewed from exhaust
- **Length** 1,582mm (Excl. Torquemetre)
- **Diameter** 877mm
- **Weight** 459kg (1011 lb)
- **Fuel type** Marine diesel, kerosene and F76 Military diesel
- **Specific Fuel Consumption** (0.26kg/kW/hr (0.429/pph/shp)



VCOMB 3237

© Rolls-Royce plc 2023

The information in this document is the property of Rolls-Royce plc and may not be copied, or communicated to a third party, or used, for any purpose other than that for which it is supplied without the express written consent of Rolls-Royce plc. Whilst this information is given in good faith based upon the latest information available to Rolls-Royce plc, no warranty or representation is given concerning such information, which must not be taken as establishing any contractual or other commitment binding upon Rolls-Royce plc or any of its subsidiary or associated companies.

Rolls-Royce Corporation, PO Box 420, Indianapolis, Indiana, 46206-0420 USA Tel: +1 317 230 2000

[www.rolls-royce.com](http://www.rolls-royce.com)

 **Rolls-Royce**