



NIPPON KAIJI KYOKAI

COPY

TYPE APPROVAL CERTIFICATE

Certificate No. TA15001M

This is to certify that the undernoted product has been approved /type tested in accordance with the relevant requirements of “Rules for the Survey and Construction of Steel Ships” and “Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use”.

This certificate is issued to

Manufacturer:	Kawasaki Heavy Industries, Ltd.
Approval No.:	15DD001B
Product Description:	Simple Open Cycle, Single-Shaft Gas Turbine
Type Designation:	M7A-05
Intended Purpose :	Prime Mover for Electrical Power Generation for Ships (Other Than Emergency Power Service)
Particulars :	See the attached sheet

This certificate is subject to the conditions specified in the attached sheet.

Issued at Tokyo on 27 March 2015.


Y. Shibata
General Manager
Machinery Department



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Sheet attached to the Certificate No. TA15001M

Particulars of Gas Turbine

Product Description	Simple Open Cycle, Single-Shaft Gas Turbine
Type	M7A-05
Kind of Fuel	Diesel Fuel
Compressor	11 Stage Axial Flow type
Turbine	4 Stage Axial Flow type
Combustor	6 Can Diffusion Combustors
Rated Output Shaft Power	6500 kW**
Rated Speed	13790 rpm
Exhaust Temperature	524 °C
Pressure Ratio	15:1

* The type test for M7A-05 was carried out at Kawasaki Heavy Industries, Ltd. Akashi Works, Hyogo, Japan on 12, 13 and 17 February 2015.

** Output at generator terminals is 6000kW with Gear box efficiency 98% and Generator efficiency 95%.

Ambient reference conditions are;

Ambient Pressure = 101.3kPa

Ambient Temperature = 30°C

Inlet / Exhaust Pressure Losses = 1.47 / 2.96 kPa

Note

1. The control systems, monitor systems and safety systems for the gas turbines are to be of NK approved type.

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