DNV·GL

Certificate No:
TAM00000B5

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Diesel Engine

with type designation(s)
W105 series

Issued to
Societe Internationale des Moteurs Baudouin S.A.S.U.
CASSIS Cedex, France

is found to comply with
DNV GL rules for classification – Ships Pt.4 Ch.3 Sec.1 Reciprocating internal combustion engines

Application :

The approval is valid for propulsion, auxiliary and emergency duty.

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Rating **See page 2.**

This Certificate is valid until **2021-06-30**.

Issued at **Høvik** on **2016-09-20**

for **DNV GL**

DNV GL local station: **Marseille**

Approval Engineer: **Dag Harald Williksen**

Oddvar Deinboll
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Job Id: **262.1-013119-2**
Certificate No: **TAM00000B5**

Product description

Four stroke diesel engine

Cylinder bore: 105 mm
Piston stroke: 130 mm
No. of cyl.: 4 & 6

Place of production

Basic engine: Weichai Power Co. Ltd, Weifang, China

Application/Limitation

The approval is valid for propulsion, auxiliary and emergency duty based on the follwing main data:

Engine model 6W105:
Propulsion:

Engine name	6W105M	6W105M
Mean effective pressure (bar):	11,5	12,3
Max. cylinder pressure (bar):	135	135
Rated. cont. output (kW):	136	168
Corresponding to (RPM):	2100	2425

Auxiliary/emergency:

Engine namel	6W105S	6W105S
Mean effective pressure (bar):	15,6	14,3
Max. cylinder pressure (bar):	135	135
Rated. cont. output (kW):	132	145
Corresponding to (RPM):	1500	1800

Engine model 4W105
Propulsion:

Engine name	4W105M
Mean effective pressure (bar):	12,3
Max. cylinder pressure (bar):	135
Rated. cont. output (kW):	112
Corresponding to (RPM):	2425

Auxiliary/emergency:

Engine name	4W105S	4W105S
Mean effective pressure (bar):	13,3	13,6
Max. cylinder pressure (bar):	135	135
Rated. cont. output (kW):	75	92
Corresponding to (RPM):	1500	1800

Tests carried out

Type test reports: P06-SB-025 and P06-SB-026

Marking of product

The product to be marked with manufacturer's name or trademark and type number identification.

Periodical assessment

For retention of the Type Approval, a DNV GL surveyor shall perform a survey every second year and before the expiry date of this certificate to verify that the conditions of the type approval are complied with.

In cases where the Type Approved product is manufactured at other companies, the Periodical Assessment shall verify that the Type Approval applicant has a quality control system for consistent production at their licensees/subcontractors. Furthermore Periodical Assessment shall be carried out randomly at these companies.

Other conditions

Fundation arrangement to be submitted for each installation according to the Rules Pt.4 Ch.3 Sec.1 [1.4] – Documentation of arrangement.

Torsional vibration calculations to be submitted for each installation according to the Rules Pt.4 Ch.2 Sec.2 – Torsional Vibration.

Signboards according to the Rules Pt.4 Ch.3 Sec.1 [2.3.6] – Warning Notice.
Flexible hoses to be Type Approved by DNV GL.

Engine safety, control and monitoring systems, including sensors and actuators are not covered by this type approval certificate. Documentation for engine safety, control including speed governing and monitoring systems shall be submitted for approval according to the Rules Pt.4 Ch.9 Sec.1 Table 5 and/or as listed in relevant type approval certificates.

Electric cables and installation of this is not covered by this approval and must be verified to comply with the requirement of the Rules Pt.4 Ch.8 - Electrical Installation.

END OF CERTIFICATE