DNV·GL

Certificate No:
TAM00000JK

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Waterjet

with type designation(s)
HM 811

Issued to
C W F Hamilton & Co. Ltd.
Christchurch CAN, New Zealand

is found to comply with
DNV GL rules for classification – High speed and light craft
DNV GL rules for classification – Ships

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2017-06-20**
This Certificate is valid until **2022-06-19**.
DNV GL local station: **Auckland**

Approval Engineer: **Stanislav Avanesov**

for **DNV GL**

Burkhard Lilienthal
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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Product description
Waterjet propulsion unit with steering and reversing system.

Application/Limitation
The waterjet is approved for the following rating:

Max engine power: 2800 kW
Impeller shaft speed: 947 - 1012 rpm
Max torque: 28,24 kNm

The application factor, K_A, shall be less to or equal to 1,1

Type Approval documentation

		PROFILE CUT PLATE KIT TRANSITION DUCT 810 811 ALUMINIUM HULL
		IMPELLER HM811 TYPE 3300 LH ROTATION ONE PIECE CAST
205828		
205626		
		TAILPIPE (Series 2) c/w SS Inserts & increased P.C.D

		BACKHEAD (REVERSE) / FRONTHEAD (STEERING)

Tests carried out
Tests as in accordance to the test instruction for HM651 – HT810 jets.

Marking of product
The product shall be marked with the 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 and half year and before the expiry date of this certificate to verify that the conditions of the type approval are complied with.

The objective of the Periodical Assessment is to verify that the conditions for the Type Approval are not altered since the Type Approval Certificate was issued. The main scope of the Periodical Assessment will normally include:

- Verification of the Type Approval applicant's production and quality system w.r.t. ensuring continued consistent production of the Type Approved products at the Type Approval applicant's own premises and at other companies that are given the responsibility for manufacturing of the products.
- Review of the Type Approval documentation and that this is still used as basis for the production

- Review of possible changes to the design, the material and the performance of the product
- Verification of the product marking.

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

The following items are not covered by this type approval and shall be submitted for approval on a case-by-case basis:

- Connection to hull (shipbuilder's responsibility)
- Hydraulic system diagram, including set points and alarms

Flexible hoses shall be type approved.

END OF CERTIFICATE