

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Waterjet**

with type designation(s)
MJP Ultrajet 410

Issued to

Marine Jet Power AB
Uppsala Uppsala Län, Sweden

is found to comply with

DNV GL rules for classification – Ships

DNV GL rules for classification – High speed and light craft

Application :

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

The approval is valid for propulsion duty with rating as given on page 2.

This Certificate is valid until **2022-02-07**.

Issued at **Høvik** on **2017-02-08**

DNV GL local station: **Stockholm**

for **DNV GL**

Approval Engineer: **Terje Sollie**

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.

Product description

Waterjet unit with built in steering and reversing system, 4- or 5-bladed impeller.

Application/Limitation

The approval is valid for propulsion with the following rating:

Input power	746 kW
Impeller speed	2200 rpm
Maximum torque	3.23 kNm

Marking of product

The product shall be marked with the manufacturer's name or trademark and type designation.

Periodical assessment

For retention of the Type Approval, a DNV GL surveyor shall perform an assessment after 2 years and after 3.5 years to verify that the conditions of the type approval are complied with. A renewal assessment will be performed at renewal of the certificate.

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.

When a Type Approved product is manufactured at other companies, the Type Approval applicant takes the sole responsibility for the conformity of the product to the applicable requirements.

Other Conditions

The following is not covered by this certificate and shall be submitted for approval for each delivery:

- Connection to hull (shipbuilders responsibility)
- Connection to driving unit
- Remote control system
- Controls and alarms, including set points and delays
- Hydraulic cylinders for steering and reversing (Cylinders shall be type approved or approved on a case by case basis)
- The hydraulic system for steering and reversing shall be submitted for approval in each separate case
- Flexible hoses shall be type approved

END OF CERTIFICATE