

TYPE APPROVAL CERTIFICATE

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

with type designation(s)
QT

Issued to

Iron Pump A/S
Søborg, Hovedstaden, Denmark

is found to comply with

DNV GL rules for classification – Ships

DNV GL class programme DNVGL-CP-0505 – Type approval – Pumping units

Application :

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

Max. working press.: 8 bar

Operating media: Sea and fresh water

Temperature range: 0 to 80 degrees Celsius

Issued at **Høvik** on **2020-01-07**

This Certificate is valid until **2025-01-06**.

DNV GL local station: **Denmark CMC**

for **DNV GL**

Approval Engineer: **Dag Harald Williksen**

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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.



Job Id: **262.1-032699-1**
Certificate No: **TAP0000209**

Product description

Propeller type pump with one or more stages for fresh and sea water systems such as ballast- and heeling systems.

Application/Limitation

QT pump sizes as follows:

QT

QT08 250	QT 300
QT08 2-250	QT 2-300
QT08 300	QT 2-300/315 (250/315)
QT08 2-300	QT 350/315
QT 250	QT 2-350/315
QT 2-250	QT 400

Materials depending on application.

Casing	Cast iron, GJL-250	Ductile cast iron GJS400 or higher	Bronze CC492K (Standard)	Aluminium bronze C95800
Impeller	Aluminium bronze C95800 or Stainless steel AISI 329, SAF 2205			
Shaft	Stainless steel AISI 329			

Type Approval documentation

Drawing No	Rev	Title
	3	General description of Iron pumps v3
	1	Pump type families for DNVGL QT sheet Manual - QT
29500-3	1	Dimension-Section_Drawings_QT PF Curve - QT08 - 250 PF Curve - QT08 - 300

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 an assessment after 2 years and after 3.5 years to verify that the conditions of the type approval are complied with.

In case 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.

END OF CERTIFICATE