

TYPE APPROVAL CERTIFICATE

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

with type designation(s)
CNL, CNLB, DHBS and DHBF

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.: 40 bar
Operating media: Sea and fresh water
Temperature range: -30 to 200

Issued at **Høvik** on **2019-12-19**

This Certificate is valid until **2024-12-18**.

DNV GL local station: **Denmark CMC**

for **DNV GL**

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.



Product description

Vertical in-line centrifugal pump with single or double bearing arrangement between motor and pump for fresh and sea water systems such as cooling-, bilge-, fire fighting-, ballast- and scrubber systems.

Application/Limitation

Pumps sizes as follows:

CNL	CNLB	DHBF	DHBS
CNL 65-50/160	CNLB 65-50/160	DHBF 40-32/200	DHBS 40-32/200
CNL 65-65/160	CNLB 65-65/160	DHBF 40-40/200	DHBS 40-40/200
CNL 80-65/160	CNLB 80-65/160	DHBF 50-50/200	DHBS 50-50/200
CNL 80-80/160	CNLB 80-80/160	DHBF 65-50/200	DHBS 65-50/200
CNL 40-32/200	CNLB 40-32/200	DHBF 65-65/200	DHBS 65-65/200
CNL 40-40/200	CNLB 40-40/200	DHBF 80-65/200	DHBS 80-65/200
CNL 50-50/200	CNLB 50-50/200	DHBF 80-80/200	DHBS 80-80/200
CNL 65-50/200	CNLB 65-50/200	DHBF 100-80/200	DHBS 100-80/200
CNL 65-65/200	CNLB 65-65/200	DHBF 100-100/200	DHBS 100-100/200
CNL 80-65/200	CNLB 80-65/200	DHBF 125-100/200	DHBS 125-100/200
CNL 80-80/200	CNLB 80-80/200	DHBF 125-125/200	DHBS 125-125/200
CNL 100-80/200	CNLB 100-80/200	DHBF 50-32/250	DHBS 50-32/250
CNL 100-100/200	CNLB 100-100/200	DHBF 50-40/250	DHBS 50-40/250
CNL 125-100/200	CNLB 125-100/200	DHBF 50-50/250	DHBS 50-50/250
CNL 125-125/200	CNLB 125-125/200	DHBF 65-50/250	DHBS 65-50/250
CNL 50-32/250	CNLB 50-32/250	DHBF 65-65/250	DHBS 65-65/250
CNL 50-40/250	CNLB 50-40/250	DHBF 80-65/250	DHBS 80-65/250
CNL 50-50/250	CNLB 50-50/250	DHBF 80-80/250	DHBS 80-80/250
CNL 65-50/250	CNLB 65-50/250	DHBF 100-80/250	DHBS 100-80/250
CNL 65-65/250	CNLB 65-65/250	DHBF 100-100/250	DHBS 100-100/250
CNL 80-65/250	CNLB 80-65/250	DHBF 125-100/250	DHBS 125-100/250
CNL 80-80/250	CNLB 80-80/250	DHBF 125-125/250	DHBS 125-125/250
CNL 100-80/250	CNLB 100-80/250	DHBF 150-125/250	DHBS 150-125/250
CNL 100-100/250	CNLB 100-100/250	DHBF 150-150/250	DHBS 150-150/250
CNL 125-100/250	CNLB 125-100/250	DHBF 200-150/250	DHBS 200-150/250
CNL 125-125/250	CNLB 125-125/250	DHBF 200-200/250	DHBS 200-200/250
CNL 150-125/250	CNLB 150-125/250	DHBF 80-65/315	DHBS 80-65/315
CNL 150-150/250	CNLB 150-150/250	DHBF 80-80/315	DHBS 80-80/315
CNL 200-150/250	CNLB 200-150/250	DHBF 100-80/315	DHBS 100-80/315
CNL 200-200/250	CNLB 200-200/250	DHBF 100-100/315	DHBS 100-100/315
CNL 80-65/315	CNLB 80-65/315	DHBF 125-100/315	DHBS 125-100/315
CNL 80-80/315	CNLB 80-80/315	DHBF 125-125/315	DHBS 125-125/315
CNL 100-80/315	CNLB 100-80/315	DHBF 150-125/315	DHBS 150-125/315
CNL 100-100/315	CNLB 100-100/315	DHBF 150-150/315	DHBS 150-150/315
CNL 125-100/315	CNLB 125-100/315	DHBF 200-150/315	DHBS 200-150/315
CNL 125-125/315	CNLB 125-125/315	DHBF 200-200/315	DHBS 200-200/315
CNL 150-125/315	CNLB 150-125/315	DHBF 250-200/315	DHBS 250-200/315
CNL 150-150/315	CNLB 150-150/315	DHBF 250-250/315	DHBS 250-250/315
CNL 200-150/315	CNLB 200-150/315	DHBF 200-150/400	DHBS 200-150/400
CNL 200-200/315	CNLB 200-200/315	DHBF 200-200/400	DHBS 200-200/400
CNL 250-200/315	CNLB 250-200/315	DHBF 250- 200/400	DHBS 250- 200/400
CNL 250-250/315	CNLB 250-250/315	DHBF 250- 250/400	DHBS 250- 250/400
	CNLB 200-150/400	DHBF 300-300/400	DHBS 300-300/400
	CNLB 200-200/400		
	CNLB 250-200/400		
	CNLB 250-250/400		
	CNLB 300-300/400		

Job Id: **262.1-032699-1**
Certificate No: **TAP00001ZN**

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
23919	-	Dimension-Section_Drawings_CNLB Manual DHB Manual CNLB Dimension-Section_Drawings _CNL Dimension-Section_Drawings _DHBS+DHBF
DHB 250-250-315		PF Curve DHB 250-250-315
DHB 250-250-400		PF Curve DHB 250-250-400
DHB 300-300-400		PF Curve DHB 300-300-400
DHB 150-150-315		PF Curve DHB 150-150-315
DHB 200-200-400		PF Curve DHB 200-200-400
		Test Report DHB 150-150-315
		Test Report DHB 250-250-315
		Test Report DHB 200-200-400
		Test Report DHB 250-250-400
		Test Report DHB 300-300-400
		Manual CNL
		CNLB sheet
		DHB sheet
		CNL sheet

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