

TYPE APPROVAL CERTIFICATE

This is to certify:**That the 5 ppm Bilge Water Separator**

with type designation(s)

Heishin Pump Works Co., Ltd; HFM-20, HFM-50, HFM-100, HFM-200, HFM-300, HFM-500

Issued to

**Heishin Pump Works Co., Ltd.
Kago-gun Hyogo Pref., Japan**

is found to comply with

DNV GL class programme DNVGL-CP-0208 – Type approval – 5 ppm bilge water separators**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Capacity: 0.2, 0.5, 1, 2, 3, 5 m³/h**This Certificate is valid until **2022-02-13**.Issued at **Høvik** on **2017-02-14**DNV GL local station: **Kobe**for **DNV GL**Approval Engineer: **Pål Evang Nundal**

**Dag Sæle-Nilsen
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

5 ppm Bilge Separators Type HFM from Heishin Pump Works Co. Ltd. are intended for installation onboard ships for oily bilge water separation – max.5 ppm oil contents at discharge overboard. The equipment is designed and tested to meet the requirements of the IMO Resolution MEPC.107(49) and DNV CL class programme DNVGL-CP0208.

This product may also be manufactured at Heishin Pump Works Shanghai Factory.
Address; 1-3 Building 1, No. 496, Futedongyi Road, Waigaoqiao, Free Trade Zone, Shanghai, China.

Application/Limitation

Maximum throughput capacity;

HFM-20;	0.2 m3/hr
HFM-50;	0.5 m3/hr
HFM-100;	1.0 m3/hr
HFM-200;	2.0 m3/hr
HFM-300;	3.0 m3/hr
HFM-500;	5.0 m3/hr

The equipment is not permitted to be installed in spaces subject to explosion hazards.

Type Approval documentation

Tests carried out

Oil Content Analysis Report;

Laboratory Dr. Kaiser & Dr. Woldmann GmbH, Hamburg;

Test Results HFM-50, dated May 10th, 2006

Test Results HFM-200, with inclination, dated May 11th, 2006

Test Results and Test Procedures, HFM-50, signed by DNV Kobe, 2006-07-07

Test Results and Test Procedures, HFM-200, signed by DNV Kobe, 2006-07-07

Type-Approval Test Record, HFM-50, attented to by DNV Kobe, 10th May, 2006

Type-Approval Test Record, HFM-200, attented to by DNV Kobe, 11th May, 2006

Laboratory Dr. Kaiser & Dr. Woldmann GmbH, Hamburg;

Test Results and Test Procedures, HFM-500, dated July 31st, 2007

Type-Approval Test Record, HFM-500, dated 31st July, 2007

Environmental Testing Report;

Department of Mechanical Engineering Faculty of Hyogo, Himeji,

Test Report, dated 10th December 2004 – Environmental Test of Electrical and Electronic Sections for 15 ppm Bilge Separator, referring vibration test, acceleration test, temperature test and humidity test of oil/water interface detector, oil level probe and motor-driven valve.

Marking of product

For traceability to this type approval, each unit to be marked with:

- Manufacturers name or trade mark
- Type designation
- Serial No.

Certificate Retention Survey

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Standard for certification No. 1.2 Type Approval Item 4.