DNV·GL

TYPE APPROVAL CERTIFICATE

Certificate No:
TAS00000U2
Revision No:
2

This is to certify:

That the Super High Holding Power Anchor

with type designation(s)
FX-37, FX-55, FX-85, FX-125

Issued to
Fortress Marine Anchors
FORT LAUDERDALE FL, United States

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

Application :

Approved for use as Super High Holding Power Anchors according to DNV GL Rules for anchor weights from 9.5 kg to 31.3 kg, with 50% weight reduction compared to ordinary stockless anchor.

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

Issued at **Høvik** on **2017-08-08**

This Certificate is valid until **2022-08-07**.
DNV GL local station: **Miami**

Approval Engineer: **Chi Wan Bang**

for **DNV GL**

Digitally Signed By: aldo.matteucci@dnvgl.com
Location: DNV GL Høvik, Norway
Signing Date: 08.08.2017

Aldo Matteucci
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: **262.1-006040-5**
Certificate No: **TAS00000U2**
Revision No: **2**

Product description

Fluke type Super High Holding Power Anchors

Application/Limitation

- Surveyor is to issue DNVGL Product Certificate and each anchor is to be tested prior to issuance of this. Proof load applied is to correspond to the weight of a normal stockless anchor, which is 2 times of the SHHP anchor weight. The anchors shall withstand the specified proof load without showing signs of defects according to Pt.3 Ch.5 Sec.3 [4.4].
- Each anchor is to be delivered with required material certificates in accordance with Pt.3 Ch.5 Sec.1 Table 2 with the specifications from the approved drawing below.
- The anchor shackles for each size/delivery are to be approved/comply with the Rule mentioned, Pt.3 Ch.5 Sec.3 [4.3] and materials shall comply with relevant specification given in Pt.2.
- Mechanical connection between aluminium and steel is to be prevented so that galvanic corroision do not occur.

Type Approval documentation

Drawing No.	*Rev.*	*Date*	*Title*	*Status*
FX-37	A	1992-07	FORTRESS ANCHOR	For Information
26-F37	G	1994-05-11	SHANK	Type Approved
25-F37	C	1992-07	FLUKE	Type Approved
27-F37	C	1992-07	CROWN FXC	Type Approved
24-F37	B	1992-07	STOCK	Type Approved
FX-55	A	1992-07	FORTRESS ANCHOR	For Information
26-F55	F	1994-05-11	SHANK	Type Approved
25-F55	C	1992-07	FLUKE	Type Approved
27-F55	C	1992-07	CROWN FXC	Type Approved
24-F55	B	1992-07	STOCK	Type Approved
FX85	A	1992-07	FORTRESS ANCHOR	For Information
26-F85	F	1989-03-01	SHANK	Type Approved
25-F85	C	1992-07	FLUKE	Type Approved
27-F85	C	1992-07	CROWN FXC	Type Approved
24-F85	B	1992-07	STOCK	Type Approved
FX125	A	1992-07	FORTRESS ANCHOR	For Information
26-F125	F	1989-04-04	SHANK	Type Approved
25-F125	D	1994-05-11	FLUKE	Type Approved
27-F125	C	1992-07	CROWN FXC	Type Approved
24-F125	B	1992-07	STOCK	Type Approved

Tests carried out

- "Anchor Test Report" dated June 1989. Navsea report No. 835-6269039
- Report on Sand Bottom Tests dated February 28, 1990.

Marking of product

Each anchor shall be stamped according to Rules Pt.3 Ch.5 Sec.3 [4.6].

Periodical assessment

For retention of the Type Approval, DNV GL surveyor shall perform a survey every second year and before expiry date of this certificate in order to verify that the conditions of the type approval are complied with.

END OF CERTIFICATE