TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MERB000089B
Revision No:
0

This Certificate is issued by DNV UK Limited based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016 as amended.

This is to certify:

That the MF/HF DSC watch-keeping receiver

with type designation(s)
FS-2575

Issued to
Furuno Electric Co., Ltd.
Nishinomiya, **Japan**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **MSN 1874 Amendment 6,**
item No. UK/5.15. SOLAS 74 as amended, Reg. IV/10, 14 & X/3, IMO Res. A.694(17), IMO Res. A.806(19), IMO Res. MSC.36(63), MSC.97(73), MSC.302(87), IMO COMSAR Circ.32, ITU-R M.493-15 (01/19), 541-10 (10/15), 1173-1 (03/12)

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-08-12**.

Issued at **London** on **2023-02-20**

DNV local unit:
Kobe

Approval Engineer:
Steinar Kristensen

Approved Body No.: **0097**

for **DNV UK Ltd.**

Digitally Signed By: Mydlak-Röder, Christine

Christine Mydlak-Röder
MER Service Responsible

Maritime & Coastguard Agency
UK Approved Body Authorised by the MCA

The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body. The product liability rests with the manufacturer or his representative in accordance with the Merchant Shipping (Marine Equipment) Regulations 2016.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV UK Ltd. of any changes to the approved equipment. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply. This certificate remains valid unless suspended, withdrawn, re-called, or cancelled.

Product description

The FS-2575 is a 250W GMDSS MF/HF SSB Radiotelephone with integrated Class A DSC-controller, NBDP terminal and DSC Watch-keeping receiver, consisting of the following units:

Unit	Type/Part no.	Comment/ Description	Location
Control Unit	FS-2575C	MF/HF simplex/ semi-duplex radiotelephone control unit with 4,3" LCD user interface and bracket mount. Interfaces: • 24V DC input power • Transceiver unit • External speaker • Handset • Printer interface • NBDP terminal unit	Protected
Transceiver unit	FS-2575T	Interfaces: • 24V DC input power • Antenna coupler • DSC Ant. preamplifier • BK Interface • Alarm Unit • RS422 NMEA in/out	Protected
Handsets	HS-2003		Protected
Antenna coupler	AT-5075		Exposed
Accessories			
Alarm Unit	IC-350		Protected
Terminal Unit	IB-583 or IB-585	NBDP terminal unit	Protected
Keyboards	G84-4100PPAUS or SKB-E3U or SKB-E3UN or 5139U or TK-HG01UMBK or TK-HG01UMBK-P	5139U is to be applied with IB-585 TK-HG01UMBK is without conversion connector TK-HG01UMBK-P is with conversion connector	Protected
Printer	PP-510 or PP-520		Protected
Printer Interface	IF-8500		Protected
Preamplifier	FAX-5	Pre-amplifier for 2.6m active whip antenna for Watch-keeping receiver	Protected
Power Supply	PR-240 or PR-241 or PR-300 or PR-850AR	AC/DC Power Supply Unit	Protected
Speaker	SEM-21Q	External loudspeaker	Protected
Interface	BK-300	BK interface	Protected
Antenna switch	AS-102	Automatic antenna switch	Protected

Location specifies the location for the units according to IEC 60945 (2002).

Software modules	**Version**
• FS-2575T	0550243-03.xx
FS-2575C	00550246-01.xx
• AT-5075	0550244-01.xx
• NBDP:	0550251-02.xx (IB-585), 055209-01.xx (IB-583)

Application/Limitation

The following applies for the FS-2575 MF/HF radiotelephone:

- Shall be installed according to manufacturer's User & Installation Manual.
- Operating frequency range: 0.1-30 MHz (Rx), 1.6-27.5 MHz (Tx)
- Modulation methods: J3E, J2B
- Maximum output power: 250W PEP (J3E), 250W mean (J2B) rated
- DSC classification: Class A and 6 channels scanning watchkeeping receiver.
- NBDP-operation with single optional scanning receiver.

Type Examination documentation

DNV No	Document ID	Rev.	Description
34	OME-56770-M	2022-06-15	Manual: Furuno, Operator's Manual for SSB Radiotelephone FS-1575/FS-2575/FS-5075
32	20104309305	2011-07-01	Report: Telefication, Radio Test report based on ETS 300 067 (1990) incl A1 (1993) for FS-5075
31	20104309303	2011-07-01	Report: Telefication, Radio Test report based on EN 300 338-1 V1.3.1, EN 300 338-2 V1.3.1 and EN 301 033 V1.3.1 for FS-5075
30	20104309302	2011-07-01	Report: Telefication, Radio Test report based on EN 300 373-1 V1.3.1 for FS-5075
29	LIC 12-18-110	2018-12-13	Report: Labotech, ETSI EN 301 843-1 V2.2.1, EN 301 843-5 V2.2.1 EMC test report for MF/HF Radiotelephone FS-2575
28	20104309304	2011-07-01	Report: Telefication, Radio Test report based on ETS 300 067 (1990) incl A1 (1993) for FS-2575
27	20104309301	2011-07-01	Report: Telefication, Radio Test report based on EN 300 338-1 V1.3.1 (clause 6.1.3) for FS-2575
26	20104309300	2011-07-01	Report: Telefication, Radio Test report based on EN 300 373-1 V1.3.1 for FS-2575
25	N 19.11	2011-12-26	Report: RES Laboratory Ltd, ETS 300 067 (1990) incl. A1(1993), ITU-R M.625-3 (95), ITU-R M.476-5(95), IMO Res. A.806(19) test report for SSB Radiotelephone FS-1575/FS-2575/FS-5075/NBDP IB-583 (Cyrillic)
24	N 18.11	2011-12-26	Report: RES Laboratory Ltd, ETS 300 067 (1990) incl. A1(1993), ITU-R M.625-3 (95), ITU-R M.476-5(95), IMO Res. A.806(19) test report for SSB Radiotelephone FS-1575/FS-2575/FS-5075/NBDP IB-583
23	N 13.16	2016-09-06	Report: RES Laboratory Ltd, ETSI EN 300 338-1 v1.3.1, EN 300 338-2 V1.3.1, ITU-R M.493-14(2015), ITU-R M.541-10(2015), IEC 61162-1 Ed.4, IMO Res. A.806(19) test report for MF/HF DSC Class A FS-1575/FS-2575/FS-5075
22	N 02.19	2019-01-31	Report: RES Laboratory Ltd, ETSI EN 300 338-1 V1.4.2, EN 300 338-2 V1.4.1, ITU-R M.493-14(2015), ITU-R M.541-10(2015), IEC 61162-1 Ed.5, IMO Res. A.806(19) test report for FS-1575/FS-2575/FS-5075
21	N 17.21	2021-10-27	Report: RES Laboratory Ltd, ITU-R M.493-15(2019) and IMO Res A.806(19) test report for MF/HF DSC Class A FS-1575/FS-2575/FS-5075
20	N 15.21	2021-09-13	Report: RES Laboratory Ltd, Bridge Alert Management test report for MF/HF DSC Class A FS-1575/FS-2575/FS-5075
19	LIC 12-21-069	2021-06-14	Report: Labotech, IEC 61162-450 Ed.2 test report for MF/HF Radiotelephone FS-1575/FS-2575/FS-5075
18	LIC 12-20-053	2020-05-07	Report: Labotech, IEC 60945 Temperature and vibration test report for SKB-E3U Keyboard
17	LIC 12-20-052	2020-05-07	Report: Labotech, IEC 60945 EMC test report for SKB-E3U Keyboard
16	LIC 12-20-051	2020-05-07	Report: Labotech, IEC 60945 Compass safe distance test report for SKB-E3U Keyboard
15	LIC 12-18-106	2018-12-13	Report: Labotech, IEC 61162-1 Ed.5 test report for MF/HF Radiotelephone FS-1575/FS-2575/FS-5075
14	LIC 12-15-129	2015-11-19	Report: Labotech, IEC 61162-450 Ed.1 test report for MF/HF Radiotelephone FS-1575/FS-2575/FS-5075

DNV No	Document ID	Rev.	Description
13	N 10.11	2011-05-06	Report: RES Laboratory Ltd, ETS 300 067 (1990) incl. A1(1993), ITU-R M.625-3 (95), ITU-R M.476-5(95), IMO Res. A.806(19) test report for SSB Radiotelephone FS-1575/FS-2575/FS-5075/NBDP IB-583 (Cyrillic)
12	N 09.11	2011-05-06	Report: RES Laboratory Ltd, ETS 300 067 (1990) incl. A1(1993), ITU-R M.625-3 (95), ITU-R M.476-5(95), IMO Res. A.806(19) test report for SSB Radiotelephone FS-1575/FS-2575/FS-5075/NBDP IB-583
11	N 08.11 Amd.3	2011-12-26	Report: RES Laboratory Ltd, ETSI EN 300 338-1 V1.3.1, EN 300 338-2 V1.3.1, ITU-R M.493-13(2009), ITU-R M.541-9(2004) and ITU-R M.1082-1(1997) test report for SSB Radiotelephone FS-1575/FS-2575/FS-5075 MF/HF DSC class A
10	N 08.11	2011-05-06	Report: RES Laboratory Ltd, ETSI EN 300 338-1 V1.3.1, EN 300 338-2 V1.3.1, ITU-R M.493-13(2009), ITU-R M.541-9(2004) and IEC 61162-1 Ed.3 test report for SSB Radiotelephone FS-1575/FS-2575/FS-5075 MF/HF DSC class A
9	N 08.11 Amd.2	2011-05-06	Report: RES Laboratory Ltd, ETSI EN 300 338-1 V1.3.1 (clause 10) test report for SSB Radiotelephone FS-1575/FS-2575/FS-5075
8	N 08.11 Amd.1	2011-05-06	Report: RES Laboratory Ltd, ETSI EN 300 338-1 V1.3.1 and IEC 61162-1 Ed.4 test report for SSB Radiotelephone FS-1575/FS-2575/FS-5075
7	FLI 12-12-081	2012-09-05	Report: Labotech, IEC 60945 test report for PP-520 Printer
6	FLI 12-11-060	2011-05-27	Report: Labotech, EN 300 373-1 V1.3.1 Spurious emission test report for SSB Radiotelephone FS-2575/FS-5075
5	FLI 12-11-058	2012-03-19	Report: Labotech, IEC 61162-1 (2010) test report for SSB Radiotelephone FS-5075/FS-2575/FS-1575
3	FLI 12-11-056	2011-05-27	Report: Labotech, IEC 60945 test report for SSB Radiotelephone FS-2575/ FS-5075
2	FLI 12-06-049	2006-12-13	Report: Labotech, IEC 60945 test report for PR-850AR Power Supply Unit
1	IME-56770-R1	2022-04-06	Manual: Furuno, Installation Manual for SSB Radiotelephone Model FS-1575/FS-2575/FS-5075

Tests carried out

- Performance tests: ETSI EN 300 338-1 V1.4.2
ETSI EN 300 338-2 V1.4.1
ETSI EN 301 033 V1.4.1
- EMC and radio test: ETSI EN 301 843-5 V2.2.1
- Environmental tests: IEC 60945 (2002) incl. Corr.1 (2008)
- Interface tests: IEC 61162-1 (2016) and IEC 61162-450 (2018)
- Bridge Alert Management: IEC 62923-1 (2018) and IEC 62923-2 (2018)

Marking of product

The type designation and name and contact address of the manufacturer shall be affixed visibly, legibly and indelibly to the product. In addition the product shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.