QinetiQ

NOTIFIED BODY
No 0191

CERTIFICATE OF TYPE APPROVAL

(EC Certificate of Type Examination - Module B)
(Marine Equipment Directive - 96/98/EC, as amended*[1])

Applicant:-
McMurdo Ltd
Silver Point
Airport Service Road
Portsmouth, PO3 5PB
United Kingdom

Manufacturer:-
McMurdo Ltd
Silver Point
Airport Service Road
Portsmouth, PO3 5PB
United Kingdom

This is to certify that the applicant has submitted details of a:-

406 MHz EMERGENCY POSITION INDICATING RADIO BEACON (EPIRB)
(Commission Directive 2010/68/EU – Item A.1/5.6)

Of a type series known and designated as:-

a) Sailor SE406-II EPIRB, V2 model
b) Sailor SGE406-II GPS EPIRB, V2 model

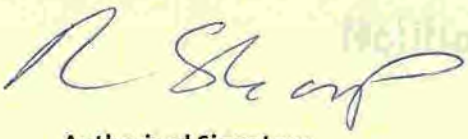
(Details, component parts and technical characteristics shown in schedule 1)

and that this has been tested and assessed, and when used in a combination of component parts as described in the attached schedules, is CERTIFIED as complying with:

IEC 61097-2 : 2008 "COSPAS-SARSAT Satellite EPIRBs operating on 406 MHz"
IEC 60945 : 2002 "General Requirements for marine equipment" (Inc. Corr.1:2008)

(being specifications for Technical Characteristics and Methods of Measurements, published by the International Electrotechnical Commission).

It is also RECOGNISED that the equipment conforms to performance standards not inferior to those adopted by the International Maritime Organisation, and which are contained in Resolution A810(19), (as amended by MSC 56(66) & MSC 120(74)), Resolution MSC/Circ 862 (as applicable) and the relevant parts of Resolution A694(17).

SIGNED: 

R A Sharp **Authorised Signatory**

DATE of ISSUE: ***8th July 2011***

DATE of EXPIRY : ***26th June 2016***

Certificate Number: ***QQ-MED-05/11-03***

EU/USCG Mutual Recognition Agreement
Council Decision 2004/425/EC

This category of equipment is not currently included in the MRA

This Certificate is Valid until expiry date shown, subject to the standard conditions of issue printed on page 4
McMurdo Ltd are Module D registered with QinetiQ in accord with standard condition 3, ref Certificate DQAS-03/09-McM002R1
QinetiQ
Cody Technology Park
Ively Road, Farnborough
Hampshire. GU14 0LX

mca
Maritime and Coastguard Agency
The MCA is an Executive Agency of the Department for Transport

*1 Commission Directives 2010/68/EU, 2009/26/EC, 2008/67/EC & 2002/84/EC

Under the terms of the United Kingdom Statutory Instrument, No 1957 : 1999, QinetiQ Ltd has been Notified to the European Commission by the Maritime and Coastguard Agency as a Body authorised to conduct Conformity Assessment procedures under the provisions of the European Council Directive 96/98/EC (as amended) on Marine Equipment and issue Certificates of Type Approval.

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Certificate of Type Approval - Schedule 1

Sailor SE406-II or SGE406-II, V2 models, 406MHz Emergency Position Indicating Radio Beacons

The applicant declared that the SE406-II and SGE406-II, V2 model EPIRB (as designated on page 1) both useg the same basic assembly (as defined by Assembly drawing 82-1084-XXXB, Circuit Schematic 82-874C and BoM 82-878L or 82-877L for GPS variants). Representative units have been assessed & tested, and satisfactory details of these units were included in the technical file.

Hardware/brand configurations: –		*Notes*
SAILOR SE406-II EPIRB, V2:		*1, 2, 3,
SAILOR SGE406-II GPS EPIRB, V2		*1, 2, 3, 4
Complete with:	*Part Nos:-*	
Manual Release bracket	**82-891**	*5
or Float-free Auto Housing	**82-892**	*6
Software configuration:	*Software Version*	
Embedded Firmware, all variants	**82-850Z Issue 3**	

---------- End of List ----------

*NOTES:-

1 The **Sailor SE406-II/SGE406-II** beacon unit is identical to the McMurdo E5 Series EPIRB, approved under certificate number QQ-MED-05/11-01, dated 27th June 2011, except for Sailor labels. This EPIRB has been tested and assessed to Class 2 temperature requirements.
2 The basic EPIRB Beacon unit has a manufacturing part number 82-1084-002 or 82-1084-001 for GPS variants. Complete & branded beacons are labelled with the name as listed above, and the V2 designator which appears on the left-hand panel.
3 These beacons have additionally been assessed to the requirements of IMO A814(19), Annex clause 2.1 to 2.5.
4 This EPIRB is additionally equipped with GPS Receiver and long message capability for precision position location.
5 The Assembly of a **Sailor SE406-II/SGE406-II** beacon in the manual release bracket forms a carry-off EPIRB (Category 2) complying with Annex 1 of IMO Resolution A810(19) except clause 2.2. Their installation on vessels may be restricted by administrations until the mandatory carriage requirements for Category 1 EPIRBs are satisfied.
6 The Assembly of a **Sailor SE406-II/SGE406-II** beacon in the auto-housing forms a Category 1, automatic float free release EPIRB, and may be fitted with either McMurdo 'BreaktHRU' or Hammar 'H20' disposable Hydrostatic Release Units. These units have been tested for correct hydrostatic release at temperatures of -30°C and + 70°C.
7 Marine COSPAS-SARSAT 406MHz EPIRBs form a distress alerting component of the Global Maritime Distress & Safety System (GMDSS). The McMurdo E5 series, V2 models have been granted COSPAS-SARSAT Type Approval certification No.204, dated 10 May 2010.

Technical Characteristics

PARAMETER	PROVISION	COMMENT
FREQUENCY OF OPERATION	406.040MHz and 121.5MHz	TRANSMIT Only GPS Equiped models Receive GPS C/A code signals at 1575.42MHz
EMISSION CODE	16K0G1D 3K20A3X	
POWER CHARACTERISTIC	5W 50mW	- 406.040MHz - 121.5MHz
GNSS Location Device fitted (if indicated in H/W list above)	Internal GPS module	Module meets relevant requirements of EN 61108-1 Average error, Static accuracy within 13 metres.
TEMPERATURE RANGE Category 1 & Category 2	-20°C to +55°C.	- Class 2 Note: Hydrostatic release operation tested at -30°C and +70°C
POWER SOURCE	9V lithium Battery Pack (Part no. 82-939)	48hour minimum battery life at -20°C. Label shows expiry date. Battery not user replaceable.

Conditions of Issue of this certificate are printed on page 4.

QinetiQ
Cody Technology Park
Ively Road, Farnborough
Hampshire. GU14 0LX

Certificate Number ***QQ-MED-05/11-03***

Certificates of Type Approval
Conditions of Issue

1. Each Certificate will be used in its entirety and not reproduced in part.

2 This certificate remains valid until the date shown (normally 5 years) unless cancelled or revoked, provided:-

   i) the design and manufacture remain unmodified from the specimen tested and recorded in the Technical Construction File;

   ii) any conditions contained in the schedule are complied with;

   iii) Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply;

   iv) and, the equipment remains satisfactory in service.

3. The mark of conformity may only be affixed to the equipment listed on this certificate and a manufacturer's Declaration of Conformity issued when the production Quality Assurance requirements laid down in Annex B, of the Directive (96/98/EC) is fully complied with and controlled by a written inspection agreement with a Notified Body.

   The use of the QinetiQ Notified Body Number (0191) in combination with the Wheelmark implies that the manufacturer is Registered with the QinetiQ Quality Assurance Scheme. A Certificate of Registration is issued to the manufacturer and should be made available on request. The manufacturer is responsible for ensuring that certification renewal and periodic surveillance are maintained.

4. USCG Approval Number: A Mutual Recognition Agreement (MRA) on marine equipment exists between the European Commission and the US Coastguard but only applies to equipment types included in the listing of marine equipment annexed to the MRA. For included equipment a USCG Approval number may be issued and can be found under the MED certificate number on the first page and should be used on the main identity label of the equipment. Radio and Radar equipment continues to need separate or additional approval by the USA FCC.

5. This certificate does not confer any approval status to this equipment other than defined by, and tested according to the specifications listed on sheet 1.

6. The labeling requirements of IMO Resolution A694(17) shall be met. Descriptions of each unit of apparatus forming part of the equipment will be as given on this Certificate. Each unit of equipment will be marked with the minimum safe distance at which it should be mounted from a standard and steering magnetic compass.

7. No unit of apparatus shall be advertised or labeled as "approved" or "certified" on behalf of the Maritime and Coastguard Agency, the Department of Transport or the QinetiQ Group in any sense other than that it is a type that has been assessed as satisfactory against the specification;

8 The manufacturer must advise QinetiQ of any intended changes to the design or production of the equipment which might affect the equipment performance.

9 Minor Modifications to the equipment will be considered on a case-by-case basis. QinetiQ will review any factory test results, in consultation if necessary, with the test facility that conducted the original Type Approval testing on the equipment. QinetiQ will advise the manufacturer if any further testing is required to maintain valid certification.

10 If an equipment manufacturer wishes to have the type approved equipment designated under alternative names (e.g. agent/distributor's name and model number), a separate application should be completed and sent to QinetiQ.

QinetiQ Ltd
Marine Approval and Testing Service
Cody Technology Park, Room G042/A5
Ively Road, Farnborough
Hants, GU14 0LX
United Kingdom