

EC TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that :

LLOYD'S REGISTER VERIFICATION LIMITED (LRV), specified as a "notified body" under the terms of The Merchant Shipping (Marine Equipment) Regulations S.I. 1999 No. 1957, did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the essential Life Saving Appliance requirements of Marine Equipment Directive (MED) 96/98/EC as modified by Commission Directives 98/85/EC, 2001/53/EC, 2002/75/EC and 2002/84/EC subject to any conditions in the Design Appraisal Document attached hereto.

Manufacturer McMurdo Limited
Address Silver Point
 Airport Service Road
 Portsmouth
 Hants, PO3 5PB
 United Kingdom (UK)

Annex A1 Item A.1/4.18

Product Type 9GHz SAR TRANSPONDER (SART)

Product Description Portable search and rescue radar transponder with optional mast and/or mounting bracket. - Type: "McMurdo S4 Rescue SART" / "Sailor SART II" / "Skanti SART II"

Specified Standards SOLAS 74, as amended, Regulations III/4, IV/14 and X/3.
 IMO Resolution MSC.97(73), 2000 HSC Code, 13.17.1
 IMO Resolutions A.530 (13), A.802(19) and A.694(17)
 ITU-R M.628-3 (11/93).
 EN 61097-1 (1993), IEC 61097-1 (1992), EN 60945 (2002), IEC 60945 (2002)

The attached Design Appraisal Document (schedule) forms part of this certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Date of issue 25 February 2004

Expiry date 24 February 2009

Certificate No. MED 0450086

Signed

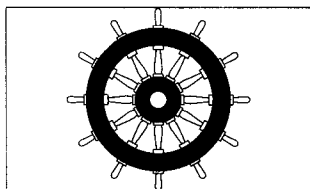


Sheet No 1 of 3

Name Capt. J. D. Burr
 For and on behalf of Lloyd's Register Verification
 LRV EC Distinguishing No. 0038

Note:

This certificate is not valid for equipment; the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify the notified body named on this certificate of any modification or changes to the equipment in order to obtain a valid Certificate.



0038/yy

Subject to compliance with the conditions in the attached Design Appraisal Document (schedule), which forms part of this certificate, and those of Articles 10.1(i) and 11 of the Directive, the Manufacturer is allowed to affix the "Mark of Conformity" to the Product described herein.

yy Last two digits of year mark affixed.

This certificate is issued under the authority of the MCA.

"Lloyd's Register Verification is the business name of Lloyd's Register Verification Limited, a member of the Lloyd's Register Group.

Registration number 4929226.

Registered office 71 Fenchurch Street, London EC3M 4BS, England

DESIGN APPRAISAL DOCUMENT

Date 25 February 2004	Quote this reference on all future communications MSG/STAT/TA/LSA/RA
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ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No.MED 0450086

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

APPROVAL DOCUMENTATION

<u>Plan No.</u>	<u>Rev</u>	<u>Rev Date</u>	<u>Title or Description</u>	<u>Stat</u>	<u>Status date</u>
86-910A	3	02/02/04	SART General Assembly (3 sheets)	A	25/02/2004
86-410B	2	03/02/04	SART 4 General Assembly (2 sheets)	A	25/02/2004
86-420-XXXB	3	29/01/04	SART 4 Main Body	N	25/02/2004
86-430A	3	03/02/04	SART 4 Battery Pack	N	25/02/2004
86-471-XXXD	3	18/02/04	Battery Pack Label (2 Sheets)	N	25/02/2004
86-439A	3	09/12/03	Battery Case with lanyard assembly	N	25/02/2004
86-426-XXXD	2	14/01/04	Equipment Label	N	25/02/2004
86-701B	2	12/02/04	PCB Assy (SMT) Sheets 1-4 incl	N	25/02/2004
86-920	0	-	User Manuals (McMurdo S4 Rescue SART & Sailor SART II)	N	18 Nov 2003
-	-	10/07/03	Technical Description & Specification	N	18 Nov 2003
86-903V	A	-	Product Test Specification	-	-
86-500C	2	12/02/04	SART 4 (2 Sheets)	-	-
86-500L	2	12/02/04	SART 4 PCB	-	-
-	-	11/11/03	Circuit Description	-	-
-	-	10/07/03	EMC Design Considerations	-	-

TEST REPORTS

Report Title or Report Author

Tüv Product Service Ltd., Report of Tests

Report No.

RM 610860/01 Issue 1

Date

October 2003

CONDITIONS OF CERTIFICATION

- Detailed fitting, maintenance and test instructions are to be provided to each purchaser of the subject transponder.
- If the specified standards are amended during the validity of this certificate, this product type is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

DESIGN APPRAISAL DOCUMENT

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3. Production items of the subject equipment are to be manufactured in accordance with either:

an approved Production-Quality Assurance system (Module D)

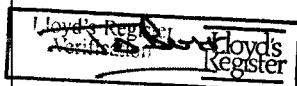
an approved Product-Quality Assurance system (Module E)

the Product Verification process (Module F) or

the Unit Verification process (Module G) of the Marine Equipment Directive.

In the case of Modules F and G the attending Surveyors will issue the appropriate Certificate of Conformity.

4. Production tests are to be conducted in accordance with the applicable requirements of the Specified Standards and be recorded by the manufacturer in accordance with the selected Conformity Route consisting of this Module B Type Examination certificate plus the Production Module selected from para 3 above. This does not preclude any further testing to additional requirements of the Marine Administration of the country where the carrying ship is registered (i.e. the flag state) or those acting on behalf of that Administration.
5. Should a change of Place of Production from that stated below be required, i.e. where the final stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This Certificate will require to be updated for Approval to be maintained.



Capt. J. D. Burr
Principal Surveyor
Dry Cargo Ship Section
Marine Support Group
For and on behalf of Lloyd's Register Verification

Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.