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Certificate No: LR22377044SF Issue Date: 29/08/2022 Expiry Date: 28/08/2027

Certificate Of Fire Approval

This is to certify that the product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer ROCKWOOL International A/S

Address Hovedgaden 501, 2640 Hedehusene, Denmark

Type A-30 Bulkhead

Description Fire Resisting 'A' Class Bulkhead – Type: "A30 Bulkhead SeaRox SL 620" steel

bulkhead insulated on stiffened side with one layer of rockwool insulation

(40mmthick, 100kg/m3 density)

Trade Name "A30 Bulkhead SeaRox SL 620"

Specified Standard IMO Res. MSC.307(88) – (2010 FTP Code) Annex 1 Part 3

IMO MSC.1/Circ.1435

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 Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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

Ratheesh Rajagopal

Fire & Safety Specialist to Lloyd's Register FMFA

A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom



DESIGN APPRAISAL DOCUMENT

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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR22377044SF

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate.

This Design Appraisal Document forms part of the Certificate.

This Certificate is a Renewal of Certificate Number SAS F170184-02

APPROVAL DOCUMENTATION

TEST REPORTS

Danish Institute of Fire and Security Technology, Jernholmen 12, DK-2650 Hvidovre, Denmark; Test Report No. PGA10944A dated 21st December 2016.

CONDITIONS OF CERTIFICATION

- 1. When used in conjunction with an approved A Class bulkhead.
- 2. A-30 steel bulkhead insulation system 'A30 Bulkhead SeaRox SL 620' consisting of: steel bulkhead insulated on stiffened side with one layer of rockwool insulation "SeaRox SL 620" (40mm thick, 100 kg/m³ density), manufactured by Rockwool Technical Insulation, applied on the steel plate, stiffeners insulated with two layers of rockwool insulation "SeaRox SL 620" (25mm and 40mm thick, 100kg/m3 density) inside stiffeners and one layer of rockwool insulation "SeaRox SL 620" (25mm thick, 100kg/m3 density) surrounding the outside of the stiffener parallel to bulkhead face in 3 strips of 65mm, 65mm and 125mm width. Total thickness of the insulation is 40mm.
- 3. Insulation on the steel plate retained by 3mm diameter steel pins and 30mm diameter washers at maximum 275mm horizontal, 500mm staggered vertical, 300mm diagonal centres and 110mm from insulation joints with 2 pin rows, 170mm from insulation joints with 1 pin rows. Insulation strip mounted on external face of stiffener parallel to bulkhead face retained with steel pins and washers at 300mm centres.
- 4. Maximum width of insulation blankets following installation: 1000mm.
- 5. Insulation fixing method should be same as tested arrangement in all cases.
- 6. Composition of all product components shall be maintained in production as per the originally tested formula. Their method of application/installation onboard must be in full compliance with manufacturer's instructions, to ensure the final product assembly is of the same specification and capable of providing at least the same fire performance as the tested and approved prototype.
- 7. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype



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8. The certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products are fully compliant with the relevant statutory regulations and designed, manufactured and installed to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties.

PLACE OF PRODUCTION

Rockwool A/SRockwool Malaysia Sdn. Bhd.Rockwool HungaryLeangen Alle 1Lot 4, Solok Waja 1Keszthelyi ut 53No-7443Bukit Raja Industrial Estate,8300 TapolcaTrondheim41050 Klang, SelangorHungaryNorwayMalaysia

Rockwool BVRockwool Peninsular S.A.U.Rockwool a.s.Industrieweg 15Pi Caparroso,Cihelni 7696045 JG RoermondCr De Zaragoza N-121735 31 Bohumin 3The NetherlandsKM 53.5.31380Czech RepublicCaparroso (Navarra)

Rockwool LtdRoxul Rockwool Insulation India Pvt. Ltd.Rockwool BPencoedPlot - Z/4, Dahej SEZ, DahejRockwool StBridgendDistrict Bharuch - 392 13045966 GladbWales, CF35 6NYGujaratGermanyUnited KingdomIndia

Rockwool A/SRockwool A/SRockwoolvej 2Industrivej 9-11Øster DoenseDK-6580 VamdrupDK-9500 HobroDenmarkDenmark

Spain

Rockwool Beteiligungs GmbH Rockwool Strasse 37-41 45966 Gladbeck



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Ratheesh Rajagopal Specialist Fire & Safety, Statutory Discipline Team UK&I Technical Support Office, Marine & Offshore Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).