

## CERTIFICATE OF FIRE APPROVAL

This is to certify that

The product(s) detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations for use on offshore installations classed with Lloyd's Register, and for use on offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

<b>Manufacturer</b>	Rockwool A/S - Marine & Offshore
<b>Address</b>	Hovedgaden 584 2640 Hedehusene Denmark
<b>Type</b>	<b>H-60 BULKHEAD (HYDROCARBON FIRE TEST)</b>
<b>Description</b>	Steel Bulkhead Insulated on the Fire Exposed Side with "ROCKWOOL HC FIRE BATT 150" (30mm thick, 150 kg/m <sup>3</sup> density) and "ROCKWOOL HC WIRED MATT 150" (40mm thick, 150 kg/m <sup>3</sup> density)
<b>Specified Standard</b>	IMO Resolution A. 754(18) performance criteria and hydrocarbon time/temperature relationship specified in EN 1363-2

The attached Design Appraisal Document forms 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.

Date of issue 8 March 2010

Expiry date 7 March 2015

Certificate No. SAS F100067

Signed



Sheet No 1 of 2

Name

P. Galbraith  
Surveyor to Lloyd's Register EMEA  
A Member of the Lloyd's Register Group

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

"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."

**DESIGN APPRAISAL DOCUMENT**

Date 8 March 2010	Quote this reference on all future communications LDSS/TA/SFS/MHE/PG
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**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F100067**

This Design Appraisal Document forms part of the Certificate.

**APPROVAL DOCUMENTATION**

Danish Institute of Fire and Security Technology (DBI), Test Report No. PG11983, Serial No. 11851, dated 15 January 2009.

**CONDITIONS OF CERTIFICATION**

1. Insulated face of the division to be exposed to the fire risk side in all cases.
2. Consisting of: one layer of "Rockwool HC Fire Batt 150" (30mm thick, 150kg/m<sup>3</sup> density) and one layer of "Rockwool HC Wired Matt 150" (40mm thick, 150kg/m<sup>3</sup> density) with staggered joints retained to the steel bulkhead with 3mm diameter welded steel pins and steel washers 28mm diameter staggered and spaced at 400mm centres on steel plate and 300mm centres on steel stiffeners. The steel stiffeners were insulated with one layer of "Rockwool HC Wired Matt 150" (40mm thick, 150kg/m<sup>3</sup> density) and strips of inserts below stiffeners of one layer of "Rockwool HC Fire Batt 150" (50mm thick, 150kg/m<sup>3</sup> density) .
3. 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.

**PLACE OF PRODUCTION**

Rockwool A/S Industrivej 9-11 DK-6580 Vamdrup Denmark	Rockwool A/S Øster Doense DK-9500 Hobro Denmark	Rockwool A/S Vaerlegt. 56 Postbox 55 N-1501 Moss Norway	Rockwool A/S Leangen Alle 1 Postbox 3903 N-7002 Trondheim Norway
Rockwool GMBH Flechtingen Calvörder Straße 19 D-39345 Flechtingen Germany	Rockwool Limited Pencoed, Bridgend CF35 6NY United Kingdom	Rockwool Polska ul. Kwiatowa 14 66-131 Cigacice Poland	

**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).*

Paul Galbraith  
 Lead Specialist  
 Statutory Fire & Safety  
 London Design Support Services  
 Lloyd's Register EMEA