



## 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 units classed with Lloyd's Register, and for use on offshore units and onshore facilities when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

<b>Manufacturer</b>	<b>MCT Brattberg AB</b>
<b>Address</b>	Lyckeåborg, Karlskrona, 371 92, Sweden
<b>Type</b>	Cable Penetration (Hydrocarbon Fire Test)
<b>Description</b>	Multi Cable Penetration – Type: “MCT Brattberg RGP” Cable Transits
<b>Trade Name</b>	“MCT Brattberg RGP” Cable Transits
<b>Specified Standard</b>	UK Department of Energy Hydrocarbon Time/Temperature Curve Relationship adopting general procedures of IMO Res. MSC.307(88) - (2010 FTP Code), as amended, Annex 1 Part 3

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 North America, Inc. 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.

1330 Enclave Parkway, Houston, Texas, 77077,  
United States

**Bruce McDonald**

Global Fire & Safety Manager to Lloyd's  
Register North America, Inc.  
A member of the Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register 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 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.



**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR23390430SF**

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 Certificate is a Renewal & an Amendment of Certificate Number: **LR21189182SF-02**

**APPROVAL DOCUMENTATION**

**TEST REPORTS**

Building Research Establishment (BRE) Global Ltd; Watford, Hertfordshire, WD25 9XX; Fire Test Report: P101462-1008 issue 2 & P101462-1009 issue 2 dated 16<sup>th</sup> November 2020 & Fire Test Report: P101462-1012 issue 1 dated 10<sup>th</sup> July 2020.

**DRAWINGS**

MCT Brattberg drawings reference No 1210215 rev A; 1210216 rev A; 1210217 rev A; 1210218 rev A.

**CONDITIONS OF CERTIFICATION**

1. For use in H-60 and H-120 bulkheads and decks when insulated in accordance with an approved arrangement suitable for the required fire rating.
2. For applications in H-0 and H-0 (400°C) Class steel bulkheads and decks, penetrations are to be fitted with the same or equivalent H-120 Class insulation arrangements as those used in the fire tests (including any insulation fitted on the penetration itself in the tests) for a minimum distance of 450mm around the penetration, on all fire risk sides in bulkhead and decks and insulation should be extended to cover the full side(s) and the end face(s) of the steel frame, with an overlap of at least 20mm from the steel edges.

The above-mentioned H-120 Class insulation arrangements should be additional to any thermal or acoustic insulation, but may include any fire rated insulation (e.g. H-60) already fitted on the bulkhead or deck and/or on the penetration itself, such that the total fire rating is H-120.

3. RGP - Frame sizes: 50mm (2 inch), 70mm (3 inch), 100mm (4 inch), 125mm (5 inch), 150mm (6 inch), 200mm (8 inch), 300 mm (12 inch – Decks only). S, SFR, SFRB, SFRBO Type Sleeves.
4. EMP (Electro Magnetic Pulse) types also accepted.
5. “MCT Brattberg RGP” Cable transits comprising of steel frames filled with MCT Brattberg rubber blocks around cables and fitted to the steel division.
6. The construction and installation of the cable transits onboard including their weld arrangements must be astested, in accordance with manufacturer's specifications and to the satisfaction of the attending project surveyor. Any additional

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register 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 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.



**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR23390430SF**

requirements as specified by project surveyors for special applications (for example, installations in high stress locations) must also be complied with.

7. Composition of all subcomponent materials, including any fire retardants, to be maintained in production in accordance with originally tested composition formula.
8. 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.
9. 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 as applicable and are designed, manufactured and installed to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties.

**NOTE:**

1. The RGP penetration was subjected to a hydrostatic pressure test increasing pressure by 1 bar every 5 minutes and then held at 5bar without any leakage, as detailed in Report No.Q13-4227, dated 5 February 1998.

**PLACE OF PRODUCTION**

**MCT Brattberg AB**  
SE-37 192 Karlskrona  
Sweden

Bruce McDonald  
Global Fire & Safety Manager  
Lloyd's Register Americas

**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)*

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register 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 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.