



CERTIFICATE NUMBER

DATE

03-LD389924/2-PDA

20 May 2008

ABS TECHNICAL OFFICE

London Engineering Department

CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of
BV Twentsche Kabelfabriek

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Cable

MODEL: CS 85 MBZH MarineLine YZp and YOZp, MarineLine+ YZp and YOZp, MarineFlex YZp and YOZp.

ABS RULE: Steel Vessel Rules (2008) 1-1-4/7.7 and 4-8-3/9; MODU Rules (2008) 4-3-4/13

OTHER STANDARD: IEC 60092-350/351/353/359 as applicable, IEC 60332-1, 60332-3 A F, 60332-3-22:2000 Cat A as applicable, IEC 60754, IEC 61034, IEC 60228;

AMERICAN BUREAU OF SHIPPING

Jean-Claude G. Dennemont
Engineering Type Approval Co-ordinator

BV Twentsche Kabelfabriek

Spinnerstraat 15
Postbus 6
Haaksbergen
7480 AA
Netherlands
Telephone: 31-53-573-22-55
Fax: 31-53-572-7205

Product: Cable**Model:** CS 85 MBZH MarineLine YZp and YOZp, MarineLine+ YZp and YOZp, MarineFlex YZp and YOZp.**Intended Service:**

Fixed cabling onboard ship and offshore installations.

Description:

Flame retardent, halogen free power cable, XLPE insulated, halogen free thermoplastic SHF1 sheathed overall. For conductor sizes and construction details see manufacturer information.

Ratings:

Rated voltage 600/1000V

Max continuous conductor temperature: 90C

Service Restrictions:

Unit Certification is not required for this product. Records of test are to be maintained and are to be available to ABS upon request.

Comments:

Type YOZp is copper braided

MarineLine+ and MarineFlex have HFFR filler

Flame retardent to IEC 60332-3 (Cat.A)

Fire Resistant to IEC 60331-21 available as an option for cable diameters of 20mm or less

Notes/Documentation:

This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

Approval documents: BV Twentsche Kabelfabriek test report No.231 dated 15 Oct 2002, No. 18832000, 188290008, 18830000 and 18828000; BV Twentsche Kabelfabriek Test report No.233 dated 17 Oct 2002 and No.301 (Testing 03 Sept 2004), ISQ No. 8431409, ISQ No. 01/9861958, ISQ No. 02/9861958, ISQ No.01/8755104; BV Twentsche Kabelfabriek Test report No.s 2007-001, 2007-002 dated 6 Sep 2007, 2007-003 dated 10 Sep 2007, 2007-204 dated 10 Oct 2007, 2007-205, 2007-206 dated 4 Oct 2007

Term of Validity:

This Design Assessment Certificate number 03-LD389924/2-PDA, dated 20/May/2008 will expire on 19/May/2013 or at an earlier date should there be alterations to the product's design or changes to the referenced ABS Rules and other specifications, which affect the product. Product use on or after 1 January 2009, will be subject to compliance with the ABS Rules or specifications in effect when the vessel, MODU or facility is contracted. The product's acceptability on board ABS-classed vessels or facilities is defined in the service restrictions of this certificate.

STANDARDS**ABS Rules:**

Steel Vessel Rules (2008) 1-1-4/7.7 and 4-8-3/9; MODU Rules (2008) 4-3-4/13

**International:**

IEC 60092-350/351/353/359 as applicable, IEC 60332-1, 60332-3 A F, 60332-3-22:2000 Cat A as applicable, IEC 60754, IEC 61034, IEC 60228