

CERTIFICATE NUMBER 07-SQ271914-2-PDA DATE 04 Aug 2015

CERTIFICATE OF

ABS TECHNICAL OFFICE
CN DL Bureau China DL Eng

DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of

YANGZHOU HONGQI CABLE MANUFACTURING CO., LTD.

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.

Product: Cable, Instrumentation and Communication

Model: CHEF82, CHEV82, CHJV82, CHEFP82, CHEVP82, CHJVP82, CHJPJ85,

CHJPJP85, CHJPF86, CHJPFP86, CHJ86, CHJ96, CHJ85, CHJ95, CHJP86,

CHJP96, CHJP85, CHJP95.

This Product Design Assessment (PDA) Certificate 07-SQ271914-2-PDA, dated 04/Aug/2015 remains valid until 27/Aug/2017 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING

Bin-Hong Wang

Manager

YANGZHOU HONGQI CABLE MANUFACTURING CO.

NO. 17 TUANJIE ROAD, LINGTANG TOWN

YANGZHOU JIANGSU

China 225652

Telephone: (86-514) 84232078

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Email: hongqigroup@126.com Web: http://www.hongqigroup.com/

Tier: 3 - Type Approved, unit certification not required

Product: Cable, Instrumentation and Communication

Model: CHEF82, CHEV82, CHJV82, CHEFP82, CHEVP82, CHJVP82, CHJPJ85, CHJPJP85,

CHJPF86, CHJPFP86, CHJ86, CHJ96, CHJ85, CHJ95, CHJP86, CHJP96, CHJP85,

CHJP95.

Intended Service:

Communication and instrument circuits on Ships and Offshore Units. Not intended for use as propulsion cable.

Description:

CHEF\$2 /DA/SA: EPR insulated PCP(SE) inner sheathed tinned copper wire braided PVC(ST2) outer sheathed cables;

CHEV82 /DA/SA: EPR insulated PVC(ST2) inner sheathed tinned copper wire braided PVC(ST2) outer sheathed cables:

CHJV82 /DA/SA: XLPE insulated PVC(ST2) inner sheathed tinned copper wire braided PVC(ST2) outer sheathed cables;

CHEFP82 /DA/SA: EPR insulated separately screen PCP(SE) inner sheathed tinned copper wire braided PVC(ST2) outer sheathed cables;

CHEVP82 /DA/SA: ÉPR insulated separately screen PVC(ST2) inner sheathed tinned copper wire braided PVC(ST2) outer sheathed cables:

CHJVP82 /DA/SA: XLPE insulated separately screen PVC(ST2) inner sheathed tinned copper wire braided PVC(ST2) outer sheathed cables;

CHJPJ85 /SC/NSC: XLPE insulated cross-linked PO(SHF2) inner sheathed tinned copper wire braided cross-linked PO(SHF2) outer sheathed cables;

CHJPJP85 /SC/NSC: XLPE insulated separately screen cross-linked PO(SHF2) inner sheathed tinned copper wire braided cross-linked PO(SHF2) outer sheathed cables;

CHJPF86 /SC/NSC: XLPE insulated PO(SHF1) inner sheathed tinned copper wire braided PO(SHF1) outer sheathed cables:

CHJPFP86 /SC/NSC: XLPE insulated separately screen PO(SHF1) inner sheathed tinned copper wire braided PO(SHF1) outer sheathed cables;

CHJ86 /SC/NSC: XLPE insulated tinned copper wire braided PO(SHF1) sheathed cables; CHJ96 /SC/NSC: XLPE insulated galvanized steel wire braided PO(SHF1) sheathed cables;

CHJ85 /SC/NSC: XLPE insulated tinned copper wire braided cross-linked PO(SHF2) sheathed cables; CHJ95 /SC/NSC: XLPE insulated galvanized steel wire braided cross-linked PO(SHF2) sheathed cables;

CHJP86 /SC/NSC: XLPE insulated tinned copper wire braided individually screened tinned copper wire braided armor PO(SHF1) sheathed cables;

CHJP96 /SC/NSC: XLPE insulated tinned copper wire braided individually screened galvanized steel wire braided armor PO(SHF1) sheathed cables;

CHJP85 /SC/NSC: XLPE insulated tinned copper wire braided individually screened tinned copper wire braided armor cross-linked PO(SHF2) sheathed cables;

CHJP95 /SC/NSC: XLPE insulated tinned copper wire braided individually screened galvanized steel wire braided armor cross-linked PO(SHF2) sheathed cables.

Type /SA: Bunched flame retardant cable, comply with IEC60332-3 Cat. A;

Type /DA: Single flame retardant cable, comply with IEC60332-1;

Type /SC: Halogen-free Low-smoke bunched flame retardant cable, comply with IEC60332-3 Cat. A, IEC60754, IEC61034;

Type /NSC: Halogen-free Low-smoke fire resistant cable, comply with IEC60332-3 Cat. A, IEC60331, IEC60754, IEC61034.

Rating:

150/250V:

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Tier: 3 - Type Approved, unit certification not required

Maximum Conductor Temperature: 90 Degree/C.

No. of Pairs

1, 2, 3, 4, 5, 7, 10, 12, 14, 16, 19, 24, 27, 30

Nominal Cross Section mm2

0.5, 0.75, 1, 1.5, 2.5

Service Restriction:

1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

2. Electrical cables are to be tested by the manufacturers in accordance with the standards of compliance. Records of

test are to be maintained and are to be submitted upon request by ABS.

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

2. The following cable markings are to be provided in accordance with IEC 60092-376: Indication of origin(manufacturer's name or trade mark), rated voltage (150/250V) and construction (number of cores, pairs, triples or quads and cross sectional area of the conductor).

3. Where type /DA cables are used, the installation is to be provided with approved fire stop arrangement in

accordance with 4-8-3/9.5 of the Rules.

4. For electric cables in hazardous areas, the electric cable construction and the cable glands are to achieve the appropriate seal, such that gas cannot migrate through the cable. See 4-8-3/9.1 of SVR 2015.

Notes/Drawing/Documentation:

Drawing No. Correspondence, cover letter, Revision: 0, Pages: 1;

Drawing No. Correspondence, Fee Confirmation, Revision: 0, Pages: 1;

Drawing No. NA-1, Cable and Non-asbestos declaration, Revision: 0, Pages: 1.

Terms of Validity:

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STANDARDS

ABS Rules:

1-1-4/7.7, 1-1/A3 and 4, 4-8-3/9, 4-8-5/5.17.11, 4-8-5/3.13.3 of Steel Vessel Rules (2015);

1-1-4/9.7, 1-1/A2 and 3, 4-3-4/7.1, 6-1-7/17.3.6 of Mobile Offshore Drilling Units Rules (2015); 1-1-4/7.7, 1-1-A3 and 4, 4-6-4/13, 4-6-5/3.17.11 of Steel Vessels Under 90 Meters (295 Feet) in Length (2015);

1-1-4/9.7, 1-1-A2 and 3, 3-6/13 of Facilities on Offshore Installations (2015);

1-1-4/7.7, 1-1-A3 and 4, 4-8-3/9, 4-8-5/5.17.11 of Offshore Support Vessels (2015);

1-1-4/11.9, 1-1-A2 and 3, 4-6-4/13, 4-6-5/3.17.11 of High-Speed Craft (2015);

1-1-4/7.7, 1-1-A3 and 4, 4-1-3/9 of Steel Barge Rules (2015).

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National:

NA

International:

IEC60092-350 (2014), IEC60092-360 (2014), IEC60092-376 (2003), IEC60228 (2004), IEC60332-1 (2004), IEC60332-3-22 (2009), IEC60331 (2009).

Government:

NA

EUMED:

NA

OTHERS:

NA