



CERTIFICATE NUMBER

11-HS627347-PDA

DATE

11 March 2011

ABS TECHNICAL OFFICE

Veracruz Engineering Services

CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of
CLICK BOND, INC - CARSON CITY

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: **Fastener, Bonded**

MODEL: **CS ,CN, CB (See Description)**

This Product Design Assessment (PDA) Certificate 11-HS627347-PDA, dated 11/Mar/2011 remains valid until 10/Mar/2016 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

Tim Kimble

Engineer

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

CLICK BOND, INC

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Web: www.clickbond.com

MA Certificate No. 10-SF1829457-1

Product: Fastener, Bonded

Model: CS ,CN, CB (See Description)

Intended Service:

Marine & Offshore Application - Mechanical Attachment Point with Adhesive.

Description:

CS125, CN125, CS200, CN200, CB3019, CB9120, CB9151, CB9205, CB9522, CS922 & CS120 Fastener Bonded with CB200 or CB420 Adhesives.

Adhesive Bonded Studs, Standoffs, Cable Tie Mounts, Brackets, Loop Strap Fasteners & Pins used for Securing Panels, Electrical Cable Trays, Electrical Cable, Electrical Cable Boxes, Junction Boxes, Light Duty Fixtures, Light Hangers, Pipe and Tube Clamps and Furnishing Support Foundation supporting filing Cabinets, sleepings berth, tables, chairs, etc.

Ratings:

See Attachments "Recommended Application, Design Service Loads and Restrictions"; "Material Data Sheet" and "Table 1 Fastener Usage."

Service Restrictions:

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.

i) Material to be stored, handled and used in accordance with manufacturer's recommendation.

ii) Bonding process to be followed per manufacturer's installation instructions (CBPS-233 Process Specification).

iii) Click Bond Fasteners manufactured from Non-Anodized Aluminum and Carbon Steel are not suitable for installation.

iv) When used for cables not laid on top of horizontal cable trays or similar, suitable metal clips or straps are to be added at regular intervals not exceeding 2 m (6.5 ft) in order to prevent the release of cables during a fire. This requirement, however, need not apply to one or up to a few small diameter cables connecting to lights, alarm transducers, etc.

v) Plastic cable straps are not to be used for cable support on High Speed Craft but may be used with a combination of metallic cable straps for retaining cables.

Comments:

When used on ABS Classed Vessels:

i) Storage instructions and expiration dates are to be clearly marked on the package.

ii) Click Bond fasteners are not recommended for use in the following applications:

a) Locations where the service temperature exceeds that of the specified adhesive, or generally in environments where the continuous service temperatures are in excess of 250 °F (121 °C).

b) Applications on thin, unsupported substrate. For fastener with base diameters of greater than 1.25 inches, the substrate thickness must be greater than 0.125 inches (0.32 cm).

iii) Extent of use to be reviewed on a case by case basis.

Notes / Drawings / Documentation:

Identifying data:

Dwg. CS125 Rev. 10 Stud, Adhesive Bonded

Dwg. CN125 Rev. 12 Standoff, Adhesive Bonded

Dwg. CS200 Rev. 12 Stud, Very Large Base, Adhesive Bonded

Dwg. CB200 Rev. 4 Stud, Very Large, Adhesive Bonded

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Dwg. CB5200 Rev. 4 Stud, very Large, Adhesive Bonded
Dwg. CN200 Rev. 1 Standoff, Very Large, Adhesive Bonded
Dwg. CB9120 Rev. 5 Mount, Cable Tie Anchor
Dwg. CB9151 Rev. 1 Mount, Cable Tie Anchor, Transverse Base
Dwg. CB3019 Rev. 17 Mount. Cable Tie
Dwg. CB9205 Rev. 4 Loop, Strap Fastener
Dwg. CB9522 Rev. 7 Stud, Adhesive Bonded, Self Fixturing
Dwg. CS922 Rev. 1 Stud, Adhesive Bonded, Self Fixturing
Dwg. CS120 Rev. - Pin, Insulation Mount

Test Reports:

Single Lap Shear of Click Bond CB200 Adhesive (per MIL-1312) Tested at 75 °F and 250 °F Bonded to 7075-T6 Aluminum Substrate, dated 26 December 1996.
Data From Salt Water Fluid Immersion Test of CB9522 Studs Bonded with CB200 Adhesive, Report No. 9958 dated 11 September 2007.
ETR97-0050 Tension Testing of Click Bond CB3019AA3V750 Cable Tie Mount, dated 18 November 1997.
ETR98-0003 Tension and Shear Testing of Click Bond CB3019AA()V750 (Ultem Mount) and CB3019AA()N750 (Nylon Mount) Cable Tie Mounts, dated 23 February 1998.
ETR03-041 Tensile, Peel, Modified Shear, and Shear Testing of Click Bond Adhesive Bonded Fastener Bonded to Shipboard Materials with AO420 Adhesive, PR2001 B-1/2 Sealant and RTV Sealant, dated 26 September 2003.
ETR03-057A Tensile Testing of CB9522CR10-10 Deckboard Mounting Studs Bonded with CB200 Adhesive to 3/8" inch Steel Plate Hot/Wet Conditioned for 30 days, dated 23 January 2006.
ETR04-007 Tensile and Shear Testing of CS125-51618-()CR and CS200-3824-()CR Studs Bonded with CB200 Acrylic Adhesive and CB359 Epoxy Adhesive to Steel Substrate, dated 19 March 2004.
ETR08-022 Tensile Testing and 3" Modified Shear Testing of CS200-51618-16CR125 Studs Bonded with CB200 Adhesive to 1/2" Thick Steel Substrate, dated 13 June 2008.
ETR08-027 Tensile Testing of CS200-3816-16CR Studs Bonded with CB200 Adhesive to Bare Steel Test Performed at 350 ° F and 400 ° F.
ETR10-27 Adhesive Bonded Fastener Certification Test, dated 13 August 2010.
SwRI Project No. 01.1648.02.020 IEC60092-101, Electrical Installations Ships - Part 101: Definitions and General Requirements, Flame Retardant Test, dated 17 January 2011.

Term of Validity:

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STANDARDS

ABS Rules:

2011 Steel Vessels Rules 1-1-4/7.7, 1-1-Appendix 3, 4-8-4/21.9.1, 21.9.3(b); 2000 ABS Guide for Building and Classing Motor Pleasure Yachts 21.13.2; 2001 Guide For Building and Classing High-Speed Craft 4/5B3.9.1; 2011

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ABS Rules for Steel Vessels Rules under 90 meters (295 feet) in Length 4-6-3/5.9.1(c), 5.9.1(f)

National:

NA

International:

NA

Government Authority:

NA

EUMED:

NA

Others:

2007 ABS Rules for Building and Classing Steel Vessel Rules for Service on Rivers & Intracoastal Waterways 4-5-3/5.9.1(c), 5.9.1(f); 2009 ABS Rules for Building and Classing Steel Barges 4-1-3/1; 2001 ABS Guide for Building and Classing Passanger Vessels Section 5/13.1; 1975 Rules for Building and Classing Aluminum Vessels Section 33.