



CERTIFICATE NUMBER	23-2397436-PDA
EFFECTIVE DATE	26-Jul-2023
EXPIRY DATE	25-Jul-2028
ABS TECHNICAL OFFICE	Houston ESD - Ship Equipment

## CERTIFICATE OF Product Design Assessment

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

**VAN BEEST B.V.**

located at

**P.O. BOX 57, 3360 AB SLIEDRECHT , SLIEDRECHT, Netherlands,  
3360 AB**

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:** Loose Gear, Lifting Device, Shackles  
**Model:** G-5163  
**Endorsements:**  
**Tier:** 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 25/Jul/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

*Soheni Haque*

Soheni Haque,Engineer/Consultant

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 ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

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**Product:** Loose Gear, Lifting Device, Shackles  
**Model:** G-5163  
**Endorsements:**

**Intended Service:**  
Loose Gear Items. Use on Lifting Equipment

**Description:**  
Green Pin Polar Shackle

**Rating:**  
See attached "pdf" file for size, working load, etc.  
Safe Working Load: 2t to 85t  
Design Factor: 7:1 for 2t through 42.5t  
6:1 for 55 and 85t  
Design Service Temperature: -60°C

**Service Restriction:**

1. Unit certification is not required for this product. The manufacturer's loose gear test certificate is to be provided to the attending surveyor in accordance with Section 2-5/5.5.1 of the ABS Lifting Appliances Guide. The certificate is to show the distinguishing number or mark applied to the article of gear, description, kind of material, carbon content, date of test, proof load applied, and safe working load. Loose gear certificates are to be inserted in the Register of Lifting Appliances.
2. 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.
3. Prior to installation on a crane certified by ABS, the PDA is to be reviewed for the actual installation.

**Comments:**

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. If full compliance with US Fed Spec RR-C-271H is required, the Surveyor is to verify that the loose gear certificate indicates a proof load of 2.2 x SWL. For compliance with the ABS Lifting Appliances Guide, a proof load of 2 x SWL is required on the loose gear certificate per Section 2-5/1 of the ABS Lifting Appliances Guide.
3. The safe working load is to be marked on the shackles.

**Notes/Drawing/Documentation:**

Drawing No. 2218, Dimensions hexagon nuts MMF06-16 and MUF12-38, Revision: D, Pages: 01  
Drawing No. 2219, Drawing, Dimensions hexagon thin nuts MUF 42-83, Revision: G, Pages: 01  
Drawing No. 2449, Dimensions hexagon super nuts MUF42H-83H, Revision: O, Pages: 01

Drawing No. 5100, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB13, Pages: 01  
Drawing No. 5101, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB16, Pages: 01  
Drawing No. 5102, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB19, Pages: 01  
Drawing No. 5103, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB22, Pages: 01  
Drawing No. 5104, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB25, Pages: 01  
Drawing No. 5105, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB28, Pages: 01  
Drawing No. 5106, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB32, Pages: 01  
Drawing No. 5107, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB35, Pages: 01  
Drawing No. 5108, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB38, Pages: 01  
Drawing No. 5109, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB45, Pages: 01  
Drawing No. 5110, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB50, Pages: 01  
Drawing No. 5111, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB57, Pages: 01

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Drawing No. 5112, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB65, Pages: 01  
Drawing No. 5113, "Green Pin Polar Shackles bow shackles with safety bolt," Rev. A, Part: POGHMB75, Pages: 01

Document No. KS-06-06Q, Specification material SAE 8620, German Standard Number: 1.6523, Revision: Q, Pages: 8

Document No. KS-06-08L, Specification Hexagon nuts Metric and UNC (Inch Series), Revision: L, Pages: 2

Document No. KS-06-14R, Specification Green Pin Shackle pins, Revision: R, Pages: 8

Document No. KS-06-15C, Specification Split pins for Green Pin Shackles with safety bolts, Revision: C, Pages: 2

Document No. KS-06-18I, Specification Green Pin shackle bodies, Revision: I, Pages: 8

Aib-Vincotte International Test Report No. 09/60021751/7 05 115r dated 29/05/2007, Fatigue test report G-5163 POGHMB16 and POGHMB22 Mai 2007, Pages: 3

Aib-Vincotte International Test Report No. C 09 99 254 / 35 09 254r dated 27/09/2005, Fatigue test report G-5163 POGHMB22, Pages: 2

Aib-Vincotte International Test Report No. C 09 99 162 / 36 07 162r dated 28/07/2006, Fatigue test report G-5163 POGHMB28 POGHMB35 POGHMB38, Pages: 2

Aib-Vincotte International Test Report No. 09 / 60021751 / 7 10 242r, Fatigue test report G-5163 POGHMB35, Pages: 2

Aib-Vincotte International Test Report No. C 09 99 223 / 36 10 223r dated 20/10/2006, Fatigue test report G-5163 POGHMB45 and POGHMB50 October 2006, Pages: 2

Damen Anchor & Chain Factory (AKF) Test Report No. 11274.1-3 dated 24 June 2011, G-5163 POGHMB13 H Bs8 CE GP 8 AJ, WLL2T, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 10496.1-3 dated 19 Nov. 2010, G-5163 POGHMB16 S 8 GP GP 8 AG, WLL3.25T Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 10566.1-3 dated 31 Dec. 2010, G-5163 POGHMB19 C Bs8 CE GP 8 AG, WLL4.75T, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 10567.1-3 dated 31 Dec. 2010, G-5163 POGHMB22 T 8 GP GP 8 AG, WLL6.5T, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 15290 dated Aug. 2015, G-5163 POGHMB25 AL 8 GP GP 8 BA, WLL8.5T, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 14240 dated 10 July 2014, G-5163 POGHMB28 AJ 8 GP GP 8 AY, WLL9.5T, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18092-1 dated 14 March 2017, Prof Load and Break Load test G-5163 POGHMB32 WLL12T. Batch AU-BK, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18092-2 dated 14 March 2017, Proef Load and Break Load test G-5163 POGHMB32 WLL12T. Batch AU-BK, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18092-3 dated 14 March 2017, Proef Load and Break Load test G-5163 POGHMB32 WLL12T. Batch AU-BK, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 13319 dated 06 Sept. 2013, G-5163 POGHMB35 AE 8 GP GP 8 AR, WLL13.5T Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 13337 dated 20 Sept. 2013, G-5163 POGHMB38 Z Bs8 CE GP 8 AX, WLL17T, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18093-1 dated 14 March 2017, Proef Load and Break Load test G-5163 POGHMB45 WLL25T. Batch AT-BB, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18093-2 dated 14 March 2017, Proef Load and Break Load test G-5163 POGHMB45 WLL25T. Batch AT-BB, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18093-3 dated 14 March 2017, Proef Load and Break Load test G-5163 POGHMB45 WLL25T. Batch AT-BB, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18053-1 dated 27 March 2018, Proef Load and Break Load test G-5163 POGHMB50 WLL35T. Batch AR-BE, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18053-2 dated 27 March 2018, Proef Load and Break Load test G-5163 POGHMB50 WLL35T. Batch AR-BE, Pages: 01

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Damen Anchor & Chain Factory (AKF) Test Report No. 18053-3 dated 27 March 2018, Proef Load and Break Load test G-5163 POGHMB50 WLL35T. Batch AR-BE, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 07561.1-3 dated 14 Nov. 2007, G-5163 POGHMB50 B Bs8 P CE, 288, WLL35T, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18094-1 dated 14 March 2017, Proef Load and Break Load test G-5163 POGHMB57 WLL42,5T. Batch AT-BD, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18094-2 dated 14 March 2017, Proef Load and Break Load test G-5163 POGHMB57 WLL42,5T. Batch AT-BD, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18094-3 dated 14 March 2017, Proef Load and Break Load test G-5163 POGHMB57 WLL42,5T. Batch AT-BD, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 15056 dated Feb. 2015, G-5163 POGHMB65 AK 8 GP GP 8 AZ, WLL55T Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18095-1 dated 14 March 2017, Proef Load and Break Load test G-5163 POGHMB75 WLL85T. Batch AT-BB, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18095-2 dated 14 March 2017, Proef Load and Break Load test G-5163 POGHMB75 WLL85T. Batch AT-BB, Pages: 01

Damen Anchor & Chain Factory (AKF) Test Report No. 18095-3 dated 14 March 2017, Proef Load and Break Load test G-5163 POGHMB75 WLL85T. Batch AT-BB, Pages: 01

**Terms of Validity:**

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**STANDARDS****ABS Rules:**

2023 Rules for Conditions of Classification, Part 1 - 2023 Marine Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4;

2021 Guide for Certification of Lifting Appliances: 2-3, 2-5/1

2017 Guide for Dropped Object Prevention on Offshore Units and Installations: 3-3/9.5, 3-3/9.3.2i

**National:**

ASME B30.26-2020, Rigging Hardware: 26-1

US Federal Specification RR-C-271H, 2021

**International:**

BS EN-13889:2003+A1:2008, Forged steel shackles for general lifting purposes - Dee shackles and bow shackles - Grade 6 - Safety

ISO 2415:2022

**Government:**

NA

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**EUMED:**  
NA

**OTHERS:**  
NA