



Marine & Offshore

Certificate number: 75198/A0 BV

File number: CTNF132/761/001

Product code: 6407I

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

MacGregor Finland Oy

Kaarina - FINLAND

for the type of product

CARGO LASHING EQUIPMENT

Fully Automatic Twistlock Type ACV-1

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 05 Dec 2028

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 05 Dec 2023,

Jens Bauermeister

This certificate was created electronically and is valid without signature



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Cargo Lashing Equipment

Model: Fully Automatic Twistlock

Type	BV File No.
ACV-1	CTNF 132/761/001

2. DOCUMENTS AND DRAWINGS:

Drawing number	Revision	Dated	Designation
T108666	B	11 May 2023	Fully Automatic Twistlock ACV-1
T108667	B	11 May 2023	Housing
T108610	C	28 March 2023	Locking Device part 1
T108611	B	28 March 2023	Locking Device part 2
T108612	B	28 March 2023	Handle
T108613	B	28 March 2023	Spring

3. TEST REPORTS:

Tension and Shear test was carried out by Dalian Shidao Industry Co., Ltd witnessed by Bureau Veritas Shanghai dated 17 Nov. 2023.

Function test was carried out by MacGregor Finland Oy, Kaarina, FINLAND witnessed by Bureau Veritas Turku dated 09 Nov. 2023.

4. APPLICATION / LIMITATION:

4.1 Loads:

Loads	Tension	Shear
Maximum Securing Load	250 KN	210 KN
Proof Load	325 KN	273 KN
Minimum Breaking Load	500 KN	420 KN

- SWL 250kN for auto mode (corresponding to fully automatic twistlock in BV rules)

- Vertical clearance at tension of 250kN max, 12mm

4.2 Material: ZG40Cr or ZG42CrMo-Housing, ZG40Cr - Locking Device part 1, ZG20SiMn or ZG40Cr-Locking Device part 2

4.3 On board installation & Maintenance requirements:

In accordance with Society's Rules requirements and the Manufacturer's instructions and recommendations.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 The fully automatic twistlock are to be supplied by MacGregor Finland Oy, Kaarina, FINLAND in compliance with the type and requirements described in this certificate.

5.2 This type of product is within the category IBV of BUREAU VERITAS Rule Note NR320.

5.3 BUREAU VERITAS product certificate is required.

5.4 For information, MacGregor Finland Oy, Kaarina, FINLAND has declared to BUREAU VERITAS the following production site: Dalian Shidao Industry Co., Ltd, China and by Unicon International Corp, Yixing, China.

5.5 The Function test in auto mode is to be carried out each year during the five year validity of the certificate.

6. MARKING OF PRODUCT:

In accordance with BV Rules, NR 467, Pt F, Chapter 12, Section 5, § 3.4, for a given batch, the specimens tested in the attention of the Society's surveyor shall be marked in clear permanent characters as follows:

6.1 Bureau Veritas' Marks.

6.2 All specimens of the batch are to be marked with the same manufacturer type model.

6.3 The MSL is to be stated on the certificate of batch test issued by Society's surveyor.

7. OTHERS:

7.1 It is MacGregor Finlnd Oy's in Kaarina, Finland responsibility to inform shipbuilders or their sub-contrators of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

***** END OF CERTIFICATE *****