



**BUREAU
VERITAS**

INDUSTRY & FACILITIES

TYPE APPROVAL CERTIFICATE

BV File n° CA13382/SIVA

Type Approval n° **11MAC00766/A0 BV**

Owner/Manufacturer: **SIVA Ind. e Com. de Art. de Arame e Aço Ltda.**

Name and address of the factory: SIVA – Rua Goiânia, 200 – Morro Branco – Itaquaquecetuba – SP – Brasil.

Type description

- manufacturer designation: Lifting Sets for Offshore Containers.
- type designation: Wire Rope Slings and Accessories for Offshore Containers.
- certification standards: EN 12079-2, IMO MSC/Circ.860 and EN 13414-1.
- type of application: 1, 2, 3 and 4 part legs of Lifting Sets for Offshore Containers with maximum gross mass up to 25.000 kg, including forerunner if applicable.

Conclusion

After examination of the following documents:

- Inspection Test Plan SIVA n° PIT-001, revision 03, dated from May 24th, 2011
- Manufacturing Survey Arrangement n° 11MAC00764, dated June 28th, 2011
- Type Test Report n° 11052011, dated May 05th, 2011

the undersigned, Inspector to Bureau Veritas, certifies that the above type meets the applicable requirements of EN 12079-2:2006, IMO MSC/Circ.860:1998 and EN 13414-1:2003+A2:2008.

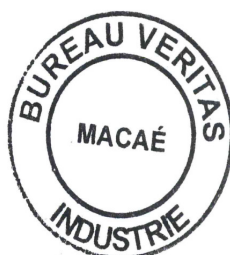
This approval remains valid as no significant changes are made to the facility, its production rate and its quality system in force. These conditions are assessed during each inspection of series.

This certificate is valid until June 29th, 2014

This approval is an integral and in dissociable part of the Certification process of offshore containers by Bureau Veritas as defined in BV procedure GM SI 121.

Issued by André Isaltino

Date of issue: June 29th, 2011



Inspection Centre: BV Macaé

SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Wire ropes slings and accessories as presented on Table 1, certified in accordance with EN 12079-2 for use in offshore containers.

Table 1:

Component	Sizes (range)	Type	Material / Grade	Standard
Wire Rope	19 - 38mm	Fibre cored rope	1770 MPa or 1960 MPa	NBR ISO 2408 or ANSI/API Spec 9A
Wire Rope	19 - 52mm	Steel cored rope	1770 MPa or 1960 MPa ⁽¹⁾	NBR ISO 2408 or ANSI/API Spec 9A
Shackles	5/8 - 1 3/4 "	--	8	EN 1677-1
Links	22 - 46mm	--	8	EN 1677-4

(1) Steel cored wire ropes from diameters 42 up to 52mm, only to be used with 1960 MPa material grade.

For the lifting sets for offshore containers the components and their certificates presented on Table 2 are included:

Table 2:

Component	SIVA supply or suppliers ⁽¹⁾	Type of Certificate
Wire Rope ⁽²⁾	<i>SIVA Ind. e Com. de Art. de Arame e Aço Ltda</i>	Quality Certificate
Shackles ⁽³⁾	<i>SIVA Ind. e Com. de Art. de Arame e Aço Ltda</i>	BV Inspection Certificate no. 11MAC00769 ⁽⁶⁾
Links	<i>SIVA Ind. e Com. de Art. de Arame e Aço Ltda</i>	BV Inspection Certificate no. 11MAC00770 ⁽⁶⁾
Thimbles ⁽⁴⁾	<i>SIVA Ind. e Com. de Art. de Arame e Aço Ltda</i>	Quality Certificate
Ferrules ⁽⁵⁾	<i>SIVA Ind. e Com. de Art. de Arame e Aço Ltda</i>	Quality Certificate

(1) For new suppliers SIVA must contact BV in order to revise the Type Approval Certificate.

(2) Wire ropes must be supplied with material certificate type 3.1 from EN 10204.

(3) Shackles must not be removed from the sling.

(4) Thimbles are in accordance with NBR 13544 or equivalent. The thimbles must be supplied with material certificate type 2.2 from EN 10204.

(5) Ferrules are in accordance with EN 13411-3 or equivalent. The ferrules must be supplied with material certificate type 2.2 from EN 10204.

(6) To be reviewed in accordance with new batch of accessories.

2. DOCUMENTS AND DRAWINGS:

As per Manufacturer's document, reference:

- Inspection Test Plan SIVA n° PIT-001, revision 03, dated from May 24th, 2011

3. TEST REPORTS:

- Type Test Report n° 11052011, dated May 05th, 2011

4. APPLICATION / LIMITATION:

The lifting sets must be supplied and assembled based on the requirements of EN 12079-1/2 taken into account the approved design for the offshore container.

The angle between a sling leg and the vertical, in degrees, shall be assumed to be 45° unless otherwise specified. Angles greater than 45° are not allowed.

Special cases must be treated directly with local BV centre.

5. PRODUCTION SURVEY REQUIREMENTS:

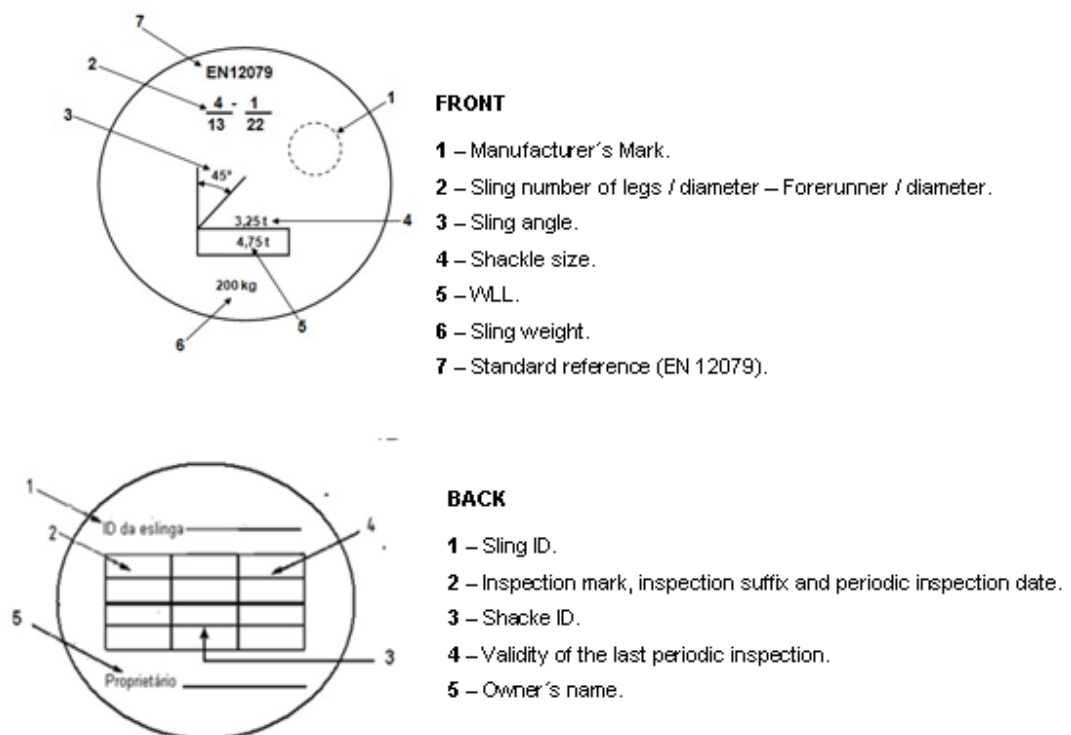
Production tests for lifting sets must be done by SIVA based on their internal procedures and the approved ITP (Inspection Test Plan) and also must be reported to the local BV centre.

Product Certificate is to be issued by SIVA and forwarded to the local BV centre for reviewed and validation.

SIVA has to make the necessary arrangements for BV Inspector to perform visits and product audits at the production site as defined in Manufacturing Survey Agreement - MSA n° 11MAC00764.

6. MARKING:

The slings are to be marked with certification tag in accordance with EN 12079-2 and as defined on Inspection Test Plan SIVA n° PIT-001, revision 03, as follow:



7. OTHERS:

This approval is given under understanding that the Manufacturer will accept full responsibility for informing their Customers of the proper methods of use and general maintenance of the products and the conditions of this approval.

BV Brazil I&F Type Approval Website: <http://webri.bureauveritas.com.br/leFCertification/>

*** END OF CERTIFICATE ***