

	SPECIFICATION					I-ET-0000.00-0000-972-1AL-006							
	CLIENT OR USER:					ALL			FOLHA		1	de	7
	JOB OR PROJECT:					ALL			-				
	AREA OR UNIT:					GENERAL			-				
SBS/PROJINV/QB	TITLE: COMPLEMENTARY QUALITY REQUIREMENT FOR LOAD LIFTING EQUIPMENT					PUBLIC							
EI													
INDEX OF REVISIONS													
REV.	DESCRIPTION AND/OR ALTERED SHEETS												
0	Original Issue												
	REV. 0	REV. A	REV. B	REV. C	REV. D	REV. E	REV. F	REV. G	REV. H				
DATE	01/11/2018												
PROJECT	QB												
EXECUTION	CSLY, ED4M, EDAJ												
CHECK	CSLY, ED4M, EDAJ												
APROVAL	UTE9												
THE INFORMATION CONTAINED IN THIS DOCUMENT IS PETROBRAS PROPERTY AND MAY NOT BE USED FOR PURPOSES OTHER THAN THOSE SPECIFICALLY INDICATED HEREIN.													
THIS FORM IS PART OF PETROBRAS N-381 REV. L.													

	SPECIFICATION	Nº I-ET-0000.00-0000-972-1AL-006	REV. 0
			FOLHA 2 de 7
	TITLE: COMPLEMENTARY QUALITY REQUIREMENT FOR LOAD LIFTING EQUIPMENT		PUBLIC
			EI

INDEX

1. PURPOSE	3
2. REFERENCES	3
3. DEFINITIONS	3
4. MINIMUM MANUFACTURING INSPECTION ACTIVITIES	3
5. PLANNING OF INSPECTION EVENTS IN THE SUPPLIER'S FACILITIES	4
6. INSPECTION AND TEST PLAN (ITP)	4
7. PERFORMANCE OF MANUFACTURING INSPECTION	5
8. RECORDS AND CERTIFICATION	6

	SPECIFICATION	Nº	I-ET-0000.00-0000-972-1AL-006	REV.	0
				FOLHA	3 de 7
	TITLE:			PUBLIC	
COMPLEMENTARY QUALITY REQUIREMENT FOR LOAD LIFTING EQUIPMENT			EI		

1. PURPOSE

1.1. This document establishes the minimum quality requirements that shall be consider and fulfill by the SUPPLIER throughout the manufacturing process of Load Lifting Equipment. This requirement are complementary to I-ET-0000.00-0000-972-1AL-001 – Quality of Materials General Requirements.

1.2. This Requirement applies to the following Load Lifting Equipment material families:

- 1.2.1 Load Shackle
- 1.2.2 Socket
- 1.2.3 Load Ring
- 1.2.4 Steel Wire Rope Sling
- 1.2.5 Steel Wire Rope
- 1.2.6 Load Textile Sling
- 1.2.7 Offshore Crane

NOTE: In case of conflict with I-ET-0000.00-0000-972-1AL-001, this Complementary Requirement shall prevail.

2. REFERENCES

- 2.1. I-ET-0000.00-0000-972-1AL-001 – Quality of Materials General Requirements;
- 2.2 ISO 9001 – Quality Management Systems;


3. DEFINITIONS

- 3.1. The definitions and acronyms adopted in this document are in accordance with I-ET-0000.00-0000-972-1AL-001.
- 3.2. During elaboration of Inspection and Test Plan, the acronyms defined in ET-0000.00-0000-972-1AL-001 shall be use.

4. MINIMUM MANUFACTURING INSPECTION ACTIVITIES

In addition to I-ET-0000.00-0000-972-1AL-001 the following activities shall be considered by the RESPONSIBLE FOR THE MANUFACTURING INSPECTION (RIF):

- 4.1. Visual inspection, final dimensional check and technical documentation analysis, for all Load Lifting Equipment;
- 4.1.1. The RIF should consider as **Review Point** , at least the following steps set out in the ITP:

	SPECIFICATION	Nº	I-ET-0000.00-0000-972-1AL-006	REV.	0
				FOLHA	4 de 7
	TITLE:	COMPLEMENTARY QUALITY REQUIREMENT FOR LOAD LIFTING EQUIPMENT			PUBLIC
				EI	

- a) Verification and approval of all certificates of raw materials used in the manufacture of equipment;
- b) Verification and approval of all manufacturing technical documentation as defined in the ITP (records, reports etc.);

4.1.2. The RIF shall consider as a **Hold Point**, at least the following steps set out in the respective ITP:

- a) Load testing, break load and functional tests;
- b) Verification of manufacturing technical documentation (data book);

5. PLANNING OF INSPECTION EVENTS IN THE SUPPLIER'S FACILITIES

5.1. SUPPLIER shall prepare a planning for the manufacturing or receiving of the product in addition to I-ET-0000.00-0000-972-1AL-001 from subscription of the purchase order until delivery. This planning shall be on manufacturing inspection and tests foreseen in the ITP.


5.2. This planning shall be submit for RIF's knowledge and comments during manufacturing, also including inspection activities.

6. INSPECTION AND TEST PLAN (ITP)

6.1. Inspection and Test Plan shall follow requirements of ISO 9001, ET-0000.00-0000-972-1AL-001 (in its item 8.1) and this Complementary Requirement. In addition, SUPPLIER shall submit to RIF, during or after manufacture, an ITP for each load lifting equipment, ensuring the compatibility of materials with the project requirements, procedures and contractual documentation.

6.2. In order to ensure compliance of the material in accordance with the contractual conditions, RIF shall fully observe and follow the inspection events, the extent of its participation in the follow-up of the inspections and tests to be carried out, contemplating at least the defined inspection activities foreseen in I-ET-0000.00-0000-972-1AL-001 and this Complementary Requirement.

6.3. The inspection activities to be followed shall be defined in the ITP of each load lifting equipment, including their respective records, when applicable specifications and contractual requirements.

	SPECIFICATION	Nº	I-ET-0000.00-0000-972-1AL-006	REV.	0
				FOLHA	5 de 7
	TITLE:	COMPLEMENTARY QUALITY REQUIREMENT FOR LOAD LIFTING EQUIPMENT			PUBLIC
				EI	

7. PERFORMANCE OF MANUFACTURING INSPECTION

The items below shall be considered in addition to those set out in I-ET- 0000.00-0000-972-1AL-001:

7.1. MINIMUM MANUFACTURING INSPECTION ACTIVITIES

7.1.1. The steps below shall be consider as minimum hold points by the responsible for the manufacturing inspection, and shall be define in the ITP.


- a) Verify approval of NDT procedures, dimensional verification, painting, testing;
- b) Verify approval of the drawings according to Standards related to the load lifting equipment;
- c) Verify approval of all welding documentation, when applicable;
- d) Verify approval of all painting documentation, when applicable;
- e) Verify certificates of raw material, which shall be issue by the mill. It is not acceptable certificates issued by resellers. Material qualification tests are acceptable if witnessed by responsible for inspection.
- f) Load or break load tests;
- g) Functional tests, when applicable;
- h) Mechanical and electrical integration tests;
- i) Verification of all manufacturing records foreseen in ITP and (when applicable) reports of nonconformities with corresponding conclusions.

7.1.2. Other inspection and testing activities required in the contractual documentation shall be included in the ITP.

7.2. MANUFACTURING TECHNICAL DOCUMENTATION - DATA BOOK

The SUPPLIER shall keep available for the RIF's verification, all quality records of performed inspections, as required in the Inspection and Test Plans (ITP):

- a) Certificates of raw materials or components;
- b) Receiving inspection reports of materials and equipment, with reliable traceability of materials / equipment;
- c) Non-destructive testing report foreseen in ITP and drawings;
- d) Report of nonconformities containing the respective manufacturer appreciation, corrections and corrective actions (see item 8.3 - i);

	SPECIFICATION	Nº	I-ET-0000.00-0000-972-1AL-006	REV.	0
				FOLHA	6 de 7
	TITLE:			PUBLIC	
COMPLEMENTARY QUALITY REQUIREMENT FOR LOAD LIFTING EQUIPMENT			EI		


- e) Heat treatment report / records, when applicable;
- f) Technical consultations between the PURCHER and the SUPPLIER;
- g) Visual examination report;
- h) Dimensional examination report;
- i) Destructive testing report, when applicable;
- j) Records of components testing;
- k) Functional tests, when applicable;
- l) Reports of coating application inspections;
- m) Certificate of Normative confirmation, when applicable;
- n) Certificate of Naval Classification;
- o) Photographic record of load lifting equipment, preservation and packaging;
- p) Manufacturer Certificate of conformity (CoC);
- q) Welding records;
- r) Certificate of welding consumables (if applicable);
- s) Record of execution of the stress relief heat treatment (if applicable);
- t) Load test reports;
- u) Break load test reports;
- v) Release Notice (CLM).

NOTE: Other examinations, inspections and tests required in the contractual technical documentation shall be include in this list of Quality Records.

8. QUALITY RECORDS

At a minimum, the following documents shall be issued and made available by the SUPPLIER to analysis and approval of the RIF:

- a) Certificate of raw materials or components;
- b) Receiving inspection report of materials and equipment, with guarantee of traceability of materials / equipment;
- c) Non-destructive testing report foreseen in the ITP and drawings, when applicable;
- d) Report of non-conformities containing the respective manufacturer evaluation;
- e) Technical consultation between the PURCHER and the SUPPLIER;

	SPECIFICATION	Nº	I-ET-0000.00-0000-972-1AL-006	REV.	0
				FOLHA	7 de 7
	TITLE:	COMPLEMENTARY QUALITY REQUIREMENT FOR LOAD LIFTING EQUIPMENT			PUBLIC
				EI	

- f) Report of dimensional examination;
- g) Destructive testing report, when applicable;
- h) Record of execution of the stress relief heat treatment (if applicable);
- i) Records of components testing;
- j) Report of coating application inspections;
- k) Release Notice (CLM).

NOTE: Other examinations, inspections and tests required in the contractual technical documentation should be included in this list of Quality Records.