

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMT0000053

This is to certify:

That the Manufacturer
NG METALURGICA S.A.
PIRACICABA, Brazil

is approved for the
Manufacture of Welded Pressure Vessels, Class I & II

The approval is granted on condition that
DNV GL rules for classification – Ships

are complied with in all respect

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules.

Issued at **Høvik** on **2017-04-25**

This Certificate is valid until **2018-12-31**.
DNV GL local station: **Rio - CMC Services**

Approval Engineer: **Maheshraja Venkatesan**

for **DNV GL**



Digitally Signed By: Marveng, Marianne Spæren
Location: DNV GL Høvik, Norway
Signing Date: 25.04.2017

Marianne Spæren Marveng
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in production facilities and methods may render this Certificate invalid.



Form code: AM 1461a

Revision: 2016-12

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Page 1 of 2

Approval basis

Product categories: Welded pressure vessels class I & II
Activity categories: Design, Fabrication & Testing (NDE)

The following facilities are not available in manufacturing place & if required (according to DNV GL ship rules Pt.4 Ch.7), then:

- heat treatment to be performed at an approved heat treatment workshop
- manufacturing of pressed parts shall be from an approved facility
- For non-destructive tests pertaining to pressure equipment class I and II, the procedure and requirements stipulated in specific class guidance DNVGL-CG-0051 & DNV GL Pt.4 Ch.7 Sec.7 [4] shall be applied.

Surveyor may decide to visit the subcontractor as a part of Approval survey.

Approval documentation

- NG METALURGICA's application for welded pressure vessels class I & II according to Approval of Manufacturer No. 330, along with documentation MQ-003 Rev. 02 including:
 - o Types of pressure equipment being produced (design pressures, sizes etc.).
 - o Outline of the organisation structure
 - o Quality assurance scheme / quality certifications and approvals held
 - o Outline of manufacturing facilities and equipment
 - o Manufacturing flow charts indicating all process steps and the associated testing and inspection points
 - o List of equipment used for mechanical testing, pressure testing and non-destructive testing
 - o Description of system used for identification and traceability of materials and products
- Checklist for renewal of AoM (T-1480) from DNV GL Rio de Janeiro dated 2017-01-23

Certificate Retention Survey

The AoM certificate is valid for three years with no intermediate assessment unless otherwise requested by the Society. Application for renewal should be made not later than three months before the expiry date of the certificate.

Manufacturer shall invite the Society's surveyor for renewal survey in order to revisit the critical manufacturing steps and to verify that the approved conditions are maintained.

During the survey the manufacturer shall provide evidence that the applicable versions of relevant rules, standards and approval programs are applied, and that all requirements given therein are implemented.