

**APPROVAL OF MANUFACTURER
CERTIFICATE**

Certificate No:
T-1768
File No:
747.10
Job Id:
263.11-004919-1

This is to certify:


That the Manufacturer
Bilfinger LTM Industrie SAS
TOUSSIEU, France

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

The approval is granted on condition that
Det Norske Veritas' Rules for Classification of Ships

are complied with in all respect

Høvik, 2015-03-06
for DNV GL


Marianne Spæren Marveng
Head of Section



DNV GL local office:
Marseille

This Certificate is valid until
2019-06-30


Pedro Luis Baldo Diaz
Surveyor

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

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Approval basis

Bilfinger LTM Industrie SAS – Manufacturer of Heat Exchangers and Pressure Vessels.

Product Categories: Welded Pressure Vessels Class I and II.

Activity Categories: Design, Fabrication and Testing (NDE).

Completed approval job used as reference: CRYOSTAR Project- C12 0099 Compressor Process Piping LNG DAEWOO SHIPBUILDING & MARINE ENGINEERING CO. Ltd Hull 2406, Id. No. D31943 Approval letter MOANO378/PLB/D31943-J-3434 dated on 2014.08.07

Submitted documentation:

Application for Approval of Manufacturer, dated 2014.10.24 containing:

- Name and address of manufacturer.
- Product categories and activity categories.
- Types and dimensions of pressure vessels being produced.
- Organisational structure, including engineering design, purchasing, manufacturing and quality control.
- Quality Certification/ QA Scheme/ Approvals held.
- Outline of manufacturing facilities and equipment.
- Manufacturing flow chart indicating all process, inspection and test points.
- Written procedures for testing and inspection.
- Production flow chart.
- Procedure for calibration.
- Certificates of Personnel Qualifications for NDT Testing
- Equipment For Non Destructive Hydrostatic Pressure Testing.
- Qualification of personnel engaged on testing and inspection (listed by name and skill).
- Description of system used for identification and traceability of materials and products.
- Equipment List For Material Handling.
- Description of welding procedure specifications (WPS) used.
- Description of procedure qualification records (PQR) that cover the WPS's to be applied.
- Welding coordination and quality requirements for welding operators.
- List of certified welders with qualification range, welding method, position and material type.
- Non Destructive Testing (NDT) Procedures- (DP) Dye Penetrant testing
- Destructive testing (DMT) (tensile, impact, hardness, bend test, etc.) procedures.
- Material Testing and Calibration.

List of Sub Contractors:

- Destructive testing (tensile, impact, hardness, bend test etc.), Metallography/ macro analysis: BUREAU VERITAS LABORATOIRES ; Groupe MECASEM
- Non-destructive testing : Ultrasonic Testing : VINCOTTE France ; X and Gama rays :APPLUS RTD

DNV Checklist for Approval of Manufacturers, dated 2014.11.13 and Checklist Initial Approval of Manufacturers Metallic Materials dated 2014.12.20.Approval of Manufacturer 's report LYO-13-0209-R-0141125 dated 2014.01.16. Survey report NPS Job ID 263.11-004919-1 dated 2013.12.16

Certificate Retention Survey

To maintain the approved status, the manufacturer must be re-inspected every four years. Application for renewal should be made not later than three months before the expiry date of the certificate.

SR. RB

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Any alteration to the approved condition during the period of validity, e.g. method of manufacture, maximum dimensions or conditions of supply, is to be reported to the Society. A re-inspection and / or re-testing may be required when deemed necessary by the Society.

END OF CERTIFICATE

