



Certificate Number 21-4983558-A
Effective Date 18-Oct-2021
Expiry Date 17-Oct-2024
ABS Port Office Turku
Company's Website www.metlab.fi

CERTIFICATE OF Recognized Service Supplier

This is to certify that

Metlab Oy

located at

Nuutisarankatu 17,

FIN 33900, Tampere, Finland

having been audited by ABS and having given a satisfactory practical demonstration of the service listed below, is recognized by ABS as a Service Supplier to provide services which ABS Surveyors may rely on to make decisions affecting classification or statutory surveys.

Testing Laboratory/Facility

Attached Certificate Appendix provides specific scope of approval, authorized personnel, manufacturer authorizations, and subcontractors.

It is the responsibility of the Service Supplier to employ, train and qualify persons in the service provided. If the service requires approval from manufacturers, the Service Supplier is responsible to maintain contact with the manufacturer and maintain any service manuals up to date. Where required by the category of service, the Service Supplier shall provide valid evidence that it is authorized or licensed by the equipment manufacturer to service the makes and models of equipment for which approval is sought. If approval from the manufacturer is not attained, a surveyor must be present at time of survey to continue work. Alternatively, current written instructions from the flag state are to be obtained to continue work without the surveyor present. Service Suppliers must present photo identification, evidence of qualification and authorizations from manufacturers, as applicable, at the time of service.

The ABS office issuing this certificate is to be kept updated with changes to the management of the company, employees, equipment and models on the authorization list and any changes made.



Pasi Mattila, Surveyor



APPENDIX TO ABS SERVICE SUPPLIER CERTIFICATION NO. 21-4983558-A

Scope of Approval, Limitations or Restrictions

The service recognition is for Brinell hardness test (SFS-EN ISO 6506-1), Rockwell hardness test (SFS-EN ISO 6508-1), Vickers hardness test (SFS-EN ISO 6507-1), Tensile test at room temperature/ elevated temperature (SFS-EN ISO 6892-1, -2), Impact Test of metallic materials (SFS-EN ISO 148-1/ASTM E23), Determination of grain size (SFS-EN ISO 643, 2624/ASTM E112), Bend test (SFS-EN ISO 7438, 5173), Determination of volume fraction using systematic point count (ASTM E562), Macroscopic and microscopic examination of welds (SFS-EN ISO 17639), Elementary analysis (MET-1285), Elementary analysis with XRF analyzer (MET-X500485).

The above test refers to the attached Accreditation Certificate T027, (EN ISO/IEC 17025), issued by FINAS (Finnish Accreditation Services).

Standardized corrosion tests:

- Intergranular corrosion test ASTM A262, practices A, B, C, E and F
- Intergranular corrosion test ASTM G28, methods A and B
- Pitting corrosion test ASTM G48, methods A, B, C, D, E and F
- Detection of detrimental intermetallic phases in duplex austenitic/ferritic stainless steels ASTM A923, methods A, B and C
- Intergranular corrosion test SFS-EN ISO 3651-1 and SFS-EN ISO 3651-2 methods A, B and C

Metallography:

Macro and micro examinations optical macro stands, stereo- and metal microscopes and Scanning Electron Microscope (SEM)

Microanalysis with Energy Dispersive Spectroscopy elemental analysis (EDS)

Failure analysis:

Failure analysis including Scanning Electron Microscopy (SEM) and Energy Dispersive Spectroscopy elemental analysis (EDS)

The above tests are to be carried out as per international and/or Recognized standards in accordance with ABS Rules and Requirements.

Authorized Personnel

Authorized personnel listing was reviewed and verified at the time the audit was carried out. Upon request, the firm is to provide the latest authorized personnel listing.

Quality Manager

Mr. Risto Nieminen

Authorization(s) from Equipment Manufacturers and Flag Administrations*

N/A

Subcontractor and Scope of Subcontracting Work

N/A

NOTE: This certificate evidence compliance with one or more of the Rules, Guides, standards or other criteria of the American Bureau of Shipping and is issued solely for the use of the Bureau. This certificate is a representation only that the Company has been assessed in accordance with ABS procedures and found capable of providing the listed service as limited by the associated recognition letter. This certificate is governed by the Terms and Conditions on the above page hereof and by the Rules, Guides or Standards of the American Bureau of Shipping, who shall remain the sole judge thereof.

* For statutory related activities, unless specially directed by the Administration, this approval is not to be construed as a substitute or a Flag Administration's approval for the purpose of SOLAS (2020 Consolidated Edition), as amended.