

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

WESCO AIRCRAFT HARDWARE CORPORATION

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MECHANICAL

Valid To: September 30, 2019 Certificate Number: 2905.01

In recognition of the successful completion of the A2LA Accreditation Program, accreditation is granted to this laboratory to perform the following types of tests on Metals and Fasteners:

<u>Test Methods:</u>

Hardness Testing:

Rockwell (HRBW, HRC, and HRFW) ASTM E18; NASM 1312-6

Microhardness

Vickers (500 gf)

ASTM E384; NASM 1312-6

Knoop (500 gf)

ASTM E384; NASM 1312-6

Mechanical Testing:

Driveability Test: Rivets Products NASM 5674

Recess Torque Test NASM 1312-25

Tensile Test: Axial Strength of Fasteners at Room Temperature ASTM F606; NASM 1312-8

Shear Strength

Double ASTM B565; NASM 1312-13

Single NASM 1312-20

Torque Testing

Locking Torque, Torque-Off, Pre-Load, Break-Away Torque NASM 1312-31, 25027;

NW2827

Langer

<u>Test:</u> <u>Test Methods:</u>

Metallographic Evaluation:

Alpha Case¹ AMS 2380; NAS4004

Case Depth (Visual and Hardness Traverse Method)

ASTM E 384; SAE J423

Coating Thickness (Microscopical Method) ASTM B487; NASM 1312-12

Depth of Decarburization (Visual and Microhardness Method) ASTM E1077

Grain Size (Comparison and Intercept)

ASTM E112

Macroscopic Examination by Etching¹ ASTM E340; NW2807

Microstructure Examination by Etching¹ ASTM E407; NW2807

Surface Discontinuities¹ NW2807

Nondestructive Testing:

Magnetic Permeability using Low-Mu Permeability Indicator ASTM A342

Chemical Properties:

Fusion Analysis for Oxygen/Nitrogen Determination ASTM E1409; NW2816

Fusion Analysis for Hydrogen Determination ASTM E1447; NW2816

Glow Discharge Atomic Emission Spectrometry (GDS/OES):

Elemental Analysis of the following:

Aluminum Alloy ASTM E1251; NW2814

(Al, Cu, Cr, Fe, Mg, Mn, Pb, Si, Ti, V, Zr) Low Alloy Steel ASTM E415; NW2814

(C, Cr, Cu, Fe, Mn, Mo, Ni, P, S, Si)

Nickel-Copper Alloy (Monel) NW2814

(Al, C, Co, Cu, Fe, Mn, Ni, S, Si)

Nickel-Chromium (Inconel) NW2814

(Al, B, C, Cr, Co, Cu, Fe, Mn, Mo, Nb, Ni, P, S, Si, Ta, Ti)

Stainless Steel (Fe Base, High Alloy) ASTM E1086; NW2814

(Al, B, C, Co, Cr, Cu, Fe, Mn, Mo, Nb, Ni, P, S, Si, Ti)

Titanium Alloy NW2814

(Al, C, Cr, Fe, Si, Ti, V, Zr)

Infer

¹ Aircraft fasteners are inspected to the individual requirements of the procurement specification or fastener drawing. Each specification has its own evaluation requirements (i.e. Microstructure, surface discontinuities, etc.).



Accredited Laboratory

A2LA has accredited

WESCO AIRCRAFT HARDWARE CORPORATION

Valencia, CA

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005

General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system

(refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).

SEAL NEW AZLA

Presented this 11th day of July 2017.

President and CEO

For the Accreditation Council Certificate Number 2905.01

Valid to September 30, 2019