





Annex to the AOSS Certificate no. AOSS0000M6B

The test methods are indicated with the following symbols for the locations in which they are conducted:

MH = Mülheim, ES = Esslingen-Meßingen, HH = Hamburg

1 Mechanical testing

DIN EN ISO 642 2000-01	Steel - Hardenability test by end quenching (Jominy test)	MH
DIN EN ISO 9016 2022-07	Destructive tests on welds in metallic materials - Impact tests - Test specimen location, notch orientation and examination	MH, ES, HH
DIN EN ISO 4136 2022-09	Destructive tests on welds in metallic materials - Transverse tensile test	MH, ES, HH
DIN EN ISO 5173 2021-03	Destructive tests on welds in metallic materials - Bend tests	MH, ES, HH
DIN EN ISO 9015-1 2011-05	Destructive tests on welds in metallic materials - H	B

DIN EN ISO 6506-1

2015-02

DIN EN ISO 8495 2014-03	Metallic materials - Tube - Ring-expanding test	MH, ES
DIN EN ISO 8496 2014-03	Metallic materials - Tube - Ring tensile test	MH, ES, HH
DIN EN ISO 2639 2003-04	Steels - Determination and verification of the depth of carburized and hardened cases	MH, ES, HH
DIN EN 10328 2005-04	Iron and steel - Determination of the conventional depth of hardening after surface heating	MH, ES, HH
DIN 50190-3 1979-03	Hardness depth of heat-treated parts; determination of the effective depth of hardening after nitriding	MH, ES, HH
DIN EN ISO 18203 2022-07	Steel - Determination of the thickness of surface	surface

<p>ASTM A 370 2022</p>	<p>Standard Test Methods and Definitions for Mechanical Testing of Steel Products (here: section 6 - 32)</p>	<p>MH, ES, HH</p>
<p>ASTM A 770/ A 770M 2018</p>	<p>Standard Specification for Through-Thickness Tension Testing of Steel Plates for Special Applications</p>	<p>MH, ES, HH</p>
<p>ASTM E 384 2022</p>	<p>Standard Test Method for Microindentation Hardness of Materials</p>	<p>MH, ES</p>
<p>ASTM E 23 2018</p>	<p>Test Methods for Notched Bar Impact Testing of Metallic Materials (only: <i>Durchführung nach Charpy</i>)</p>	<p>HH, MH</p>
<p>DIN EN ISO 17660-1 2006-12 + Berichtigung 1 2007-08</p>	<p>Welding - Welding of reinforcing steel - Part 1: Load-bearing welded joints (here: <i>Cl. 14: examination and testing of samples</i> <i>Abs. 14.2: tensile testing</i> <i>Abs. 14.3: shear test</i></p>	

DIN EN ISO 5178

2019-05

2019-10

DIN EN ISO 1463 Metallic and oxide coatings -
2021-08

ISO 4967

Steel - Determination of content of non-metallic inclusions

2013-07

ASTM A 923 2022	Standard Test Methods for Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels	MH, ES, HH
ASTM E 930 2018	Standard Test Methods for Estimating the Largest Grain Observed in a Metallographic Section (ALA Grain Size)	MH
ASTM E 1181 2002	Standard Test Methods for Characterizing Duplex Grain Sizes	MH
DIN 30901 2016-12	Heat treatment of ferrous materials - Determination of the depth and form of appearance of the internal oxidation	MH

3 Chemical testing using stationary and mobile vacuum emission spectrometers

EHH-3-002D 2024-03	Determination by vacuum emission spectrometer of C, Si, Mn, P, S, Ni, Cr, Mo, V, Al, Cu, W, Co, Nb, Ti, B, As, Zr, Ca, Pb, Te, Sb, Fe, Zn, Mg, Sn, N in Ni-, Al-, Cu alloys, in low-alloy and high-alloy steels as well as in white-hardened cast iron (only S) and in Co alloys (only S), Ti and Mg alloys (only HH+S, without gases)	MH, ES, HH
EHH-3-003D 2024-04	Determination by emission spectrometer of C, Si, Mn, P, S, Ni, Cr, Mo, V, Al, Cu, W, Co, Nb, Ti, B, As, Zr, Ca, Pb, Te, Sb, Fe, Zn, Mg, Sn, in Ni-, Al-, Cu-alloys, in low- and high-alloy steels - Spectral analysis with the transportable Belec-Compactport A device	ES
EHH-3-004D 2024-03	Bestimmung mit dem Emissionsspektrometer von C, Si, Mn, P, S, Ni, Cr, Mo, V, Al, Cu, W, Co, Nb, Ti, B, As, Zr, Ca, Pb, Te, Sb, Fe, Zn, Mg, Sn, in Ni-, Al-, Cu-Legierungen, in niedrig- und hochlegierten Stählen - Durchführung von Verwechslungsprüfungen und die Ermittlung der chemischen Zusammensetzung von Eisen- und Nichteisenmetallen mit dem transportablen Spektralanalysegerät "WAS PMI-MASTER PLUS"	MH, HH

