




	<b>QUALIFICATION TEST RECORD</b> <b>NORSOK M-650 EDITION 4</b> <b>Manufacturing Procedure</b> <b>Conformity Record</b> <b>ISO 17782-2018</b>			QTR No.: QTR 002 MPCR No.: 002	
				Revision No.: 14	
<b>Manufacturer Name / Address / Web Page:</b>	Hammerschmiede Jäckel Essen GmbH Ripshorster Straße 460, D-45357, Essen, Germany <a href="http://www.hje.gmbh">www.hje.gmbh</a>				
<b>Reference Standard:</b>	NORSOK M-650 Edition 4, ISO 17782-2018				
<b>Material Designation and MDS No.:</b>	ASTM A182 F55 (UNS S32760) - NORSOK M-630 MDS D54 Rev. 7 + MDS DH54 Rev. 1				
<b>Manufacturing Summary Doc. No.:</b>	QTR002-MS			Rev. No.: 03	
<b>Products and Manufacturing Process(es):</b>	Die Forged Flanges < 80kg Die Forged Flanges ≥ 80kg Forged Rings Forged Bars / Blocks				
<b>Mandatory Conditions and Sub-Contractors:</b>	Heat Treatment carried out in-house (Furnace no. 5) Laboratory Material Testing carried out by 3 <sup>rd</sup> Party ISO 17025 Accredited Supplier				
<b>Other Information:</b>	Pickling & Passivation carried out by 3 <sup>rd</sup> Party Approved Supplier Forging Process for Large Items (≥ 80kg) : Ossenberg & Cie GmbH, Altena (Optional)				
<b>Qualification Expiry Date:</b>	29/09/2027				
<b>Tested and Qualified Thickness and Weight</b>					
<b>Products and Manufacturing Process(es):</b>	<b>Test Record No.</b>	<b>Tested Thickness (mm)</b>	<b>Qualified Thickness (mm)</b>	<b>Test Piece Weight (kg)</b>	<b>Qualified Weight (kg)</b>
Die Forged Flanges (< 80kg)	QTR002-QUALTS01	62	62	43	86
Die Forged Flanges (≥ 80kg)	QTR002-QUALTS02	80	80	99	198
Die Forged Flanges (≥ 80kg) - Ossenberg)	QTR002-QUALTS03	170	170	400	All
Forged Rings	QTR002-QUALTS04	200	200	363	All
Forged Bars / Blocks	QTR002-QUALTS05	207	207	80	160
<b>Qualification / Acceptance Signatures</b>					
<b>Manufacturer:</b>  Hammerschmiede Jäckel Essen GmbH Essen, Germany	<b>Prepared by / Date :</b> 01.09.2022   Matthias Vogt Head of Quality Department		<b>Checked by / Date :</b> 01.09.2022   Andrea Jäckel CEO		
<b>Remarks / Special Remarks:</b> 1. The manufacturer and this QTR/MPCR are evaluated and found to be in conformity with the requirements of NORSOK M-650/ISO 17782 for supply of the above listed products and materials. 2. This acceptance does not exempt any purchaser from his responsibility to ensure that this qualification is valid for his products within the essential variables of NORSOK M-650/ISO 17782.					
<b>Qualified / Accepted by (Company Name / Address):</b>   <b>APPROVED</b>  LORENZ HAVN <small>partner in material technology and innovation</small>			<b>Signature / Date :</b>   Lorenz Havn 29.09.2022		