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|--|---|-----------------------------------|---|-----------------------------|--------------------------------|
| <br><small>SPECIALISED BOLTING SOLUTIONS</small>  | <b>Qualification Test Record (QTR)</b><br><b>NORSOK M-650</b>   |                                   |   |                             | <b>QTR. No.:</b><br>BNMLQTR002 |
|  |   |                                   |   |                             | <b>Rev. No.:</b><br>01         |
| <b>Manufacturer name/address/ Web page:</b>  | <i>Bolt &amp; Nut Manufacturing Limited</i><br><i>Cannon Business Park, Gough Road, Coseley, West Midlands, WV14 8XR</i><br><i>www.bnml.co.uk</i>   |                                   |   |                             |                                |
| <b>Reference standard</b>  | NORSOK M-650, Edition 4 / ISO 17782   |                                   |   |                             |                                |
| <b>Material designation and MDS No.:</b>   | <i>ASTM A276 - UNS S32760 (condition S)</i><br><i>NORSOK M-630:2020 - MDS D59/D59L Revision 3</i>   |                                   |   |                             |                                |
| <b>Manufacturing Summary doc. No.:</b>   | BNMLD59MS001  |                                   |   | <b>Rev. No.:</b> 00         |                                |
| <b>Products and manufacturing process(es):</b>   | <i>Studs and Headed Bolts machined from solution annealed and strain hardened bar</i>   |                                   |   |                             |                                |
| <b>Mandatory conditions and sub-contractors:</b>   | <ul style="list-style-type: none"> <li>Raw material manufacturer to be NORSOK M-650 qualified and cold drawn by Offshore Stainless Supplies Ltd (QTR No: OSSLQTR001)</li> <li>Testing to be performed by a laboratory accredited to ISO/IEC 17025</li> <li>Products will not be subject to any further heat treatment</li> </ul>  |                                   |   |                             |                                |
| <b>Other information:</b>  | <ul style="list-style-type: none"> <li>This QTR is only applicable to the manufacturing of studs and headed bolts from solution annealed and strain hardened bar. Qualification testing has been carried out to demonstrate that the products fulfil the specified requirements after machining.</li> <li>Studs and headed bolts manufactured from 2.415" up to and including 3.415" diameter round bar may be supplied upon agreement with the purchaser.</li> <li>Nuts will be supplied in the solution annealed condition to the requirements of MDS D60/D60L as per BNML QTR No: BNMLQTR001</li> <li>Rev 01 - Editorial correction</li> </ul> |                                   |   |                             |                                |
| <b>Qualification expires:</b>  | 25/06/2029  |                                   |   |                             |                                |
| <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>     |
| Stud   | 52991-1 / 52991-2 (D59L)  | 15.875 / 28.575 (0.625" / 1.125") | 28.575 (1.1/8")   | N/A                         | N/A                            |
| Stud   | 52991-3 (D59)   | 63.5m (2.1/2")                    | 63.5 (2.1/2")   | N/A                         | N/A                            |
| Headed bolt  | 52991-4 (D59L)  | 12.75 (0.500")                    | 12.75 (0.500")  | N/A                         | N/A                            |
| Headed Bolt  | 52991-5 (D59)   | 31.75 (1.250")                    | 31.75 (1.250")  | N/A                         | N/A                            |
| <b>Qualification/acceptance signatures</b>   |   |                                   |   |                             |                                |
| <b>Manufacturer:</b><br><br>Bolt & Nut Manufacturing Limited   | <b>Prepared by/Date:</b><br><br>J. Hobbs – 15.07.2024  |                                   | <b>Checked by/Date:</b><br><br>S. Gwynne – 15.07.2024 |                             |                                |
| The manufacturer and this QTR are evaluated and found to be in compliance with the requirements of NORSOK M-650 for supply of the above listed products and materials.<br><i>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.</i> |   |                                   |   |                             |                                |
| <b>Qualified/Accepted by (company name /address):</b><br><br><br><b>AkerSolutions</b><br>Fomebu, Norway<br>NO 929 877 950 VAT   |   |                                   | <b>Signature/Date:</b><br><br>15/07/2024              |                             |                                |