## MATERIAL DATA SHEET **MDS R17** Rev. 4 TYPE OF MATERIAL: Austenitic Stainless Steel, Type 6Mo ACCEPT. CLASS SUPPL. REQ. PRODUCT **STANDARD** GRADE ASTM A 479 UNS S31254 Bars UNS N08367 **UNS N08926** 1. SCOPE This MDS specifies the selected options in the referred standard and additional requirements which shall be added or supersede the corresponding requirements in the referred standard. This MDS is intended for bars with maximum thickness of 200 mm. For larger thickness special agreements shall be made in each case and based on the result of qualification testing specified in NORSOK M-650. Manufacturers and the manufacturing process used for manufacturing of product to this MDS shall 2. QUALIFICATION be qualified in accordance with NORSOK Standard M-650. 3. STEEL MAKING The steel melt shall be refined with AOD or equivalent. 4. MANUFACTURING The manufacturing of products according to this MDS shall be carried out according to the M-650 PROCESS qualified manufacturing procedure. The Hot Isostatic Pressed (HIP) process is an acceptable alternative to forging. 5. HEAT TREATMENT Solution annealing followed by water quenching. Bars shall be placed in such a way as to ensure free circulation of air and water around each bar during the heat treatment process including quenching. 6. TENSILE TESTING $RP0.2 \ge 300 MPa, RM \ge 650 MPa, A \ge 35 \%.$ 7. CORROSION Corrosion test according to ASTM G 48 Method A is required. Test temperature shall be 50 TESTING °C and the exposure time 24 hours. The corrosion test specimens shall be at the same location as those for mechanical testing. Cut edges shall be prepared according to ASTM G48. The whole specimen shall be pickled before being weighed and tested. Pickling may be performed for 5 minutes at 60 °C in a solution of 20 % HNO3 + 5 % HF. The acceptance criteria are: No pitting at 20 X magnification. The weight loss shall be less than 4,0 g/m2. 8. EXTENT OF One tensile test and corrosion test shall be carried out for each heat and heat treatment TESTING load 9. TEST SAMPLING Samples for production testing shall realistically reflect the properties in the actual components. 10. SURFACE FINISH Finished product shall be white pickled. 11. REPAIR OF Weld repair is not acceptable DEFECTS 12. MARKING The component shall be marked to ensure full traceability to melt and heat treatment lot. 13. CERTIFICATION The material manufacturer shall have a guality system certified in accordance with ISO 9001 and the system shall have undergone a specific assessment for the relevant materials. The material certificate shall be in accordance with EN 10204 Type 3.1, and shall include the following: Steel manufacturer; Steel melting and refining practice; Heat treatment condition. (Solution annealing temperature and holding time shall be stated.)