


ANTONIUS	QTR Qualification Test Record NORSOK M-650		QTR. No.: 001		
			Rev. No.: 4		
Manufacturer name/address/ Web page:	Antonius Vesselheads BV S. Houbenweg 1, 6051AL Maasbracht, Netherlands www.antonius.nl				
Reference standard	NORSOK M-650 Ed.4, September 2011				
Material designation and MDS No.:	22Cr Duplex SS (UNS S31803 and UNS S32205) according MDS D43 Rev.5				
Manufacturing Summary doc. No.:	2.0 Manufacturing Summary 22Cr Duplex SS MS-001-DSS rev.1				
Products and manufacturing process(es):	Dished heads and components manufactured by: A1-1: Dishing & Spinning with weld seam before forming. A1-2: Dishing & Spinning seamless. B1-2: Hot Pressing seamless.				
Mandatory conditions and sub-contractors:	Suppliers of starting material shall be qualified according to M650 Ed.4 Heat treatment (furnaces GL001 and GL004), blasting and pickling by own facilities. Furnace (GL001 and GL004) verification done and approved by Aker Solutions on May 3 rd 2013. External laboratory: GWQ-Moers (D) certified acc. ISO/IEC 17025 Non destructive testing: - 100% PT of knuckle area in and outside - 100% PT of weld seam(s) in and outside - 100% RT of weld seam(s) Procedure and acceptance criteria according the purchase order				
Other information:	QTR 001 Rev.No.4: The renewal and updating of a previous MDS D43 Rev.4. MOM and conformity statement for laboratory GWQ as pr ISO17782				
Qualification expires:	September 2023				
Tested and Qualified Thickness and Weight					
Products and manufacturing process(es):	Test record No.	Tested thickness (mm)	Qualified thickness (mm)	Test piece weight (kg)	Qualified weight (kg)
A1-1	1201360003	24	30	1538	N.App.
A1-2	78098050	14	18	181	N.App.
B1-2	1201361005	49	60	2943	N.App.
Qualification/Acceptance signatures					
Manufacturer: ANTONIUS	Prepared by / Date: Jos Camp Senior Quality Engineer		Checked by / Date: Maurice Salden Welding Engineer, IQAM		
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. 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.					
Qualified/Accepted by (company name/address):  AkerSolutions™ Aker Engineering & Technology AS Reg.nr. 879 817 552			Signature/Date: 11/10/2018 