






	QUALIFICATION TEST RECORD (QTR) NORSOK M-650		QTR. No.: 22Cr-17		
			Rev. No.: 3		
Manufacturer name/address/ Web page:	Brafe Engineering, Grundisburgh Road, Woodbridge, Suffolk, UK. IP13 6HX www.brafe.com				
Reference standard	NORSOK M-650 Ed 4				
Material designation and MDS No.:	ASTM A995 4A (J92205), MDS-D46 Rev 5				
Manufacturing summary doc. No.:	ITP-17 (for Sand & Repliwax Castings)			Rev. No.: 6	
Products and manufacturing process(es):	Sand and Repliwax Castings Qualifying company accepts a qualification based on separate test blocks.				
Mandatory conditions and sub-contractors:	Maximum Section Thickness of 155mm (6") with no Maximum Casting Weight Limit. Heat-Treat in Oven 3 Only (Verified by Roxspur - August 2016). All Major Weld Repairs to be Post Weld Heat Treated (PWHT'd.)				
Other information:	<u>Radiography:</u> <ul style="list-style-type: none"> • AeroTech NDT, Cradley Heath • Applied Inspection, Chesterfield • Insight NDT, Sheffield <u>Material Testing:</u> <ul style="list-style-type: none"> • Exova (Teesside), Middlesbrough • Element Materials Technology, Sheffield <u>Pickling:</u> <ul style="list-style-type: none"> • Metapic, Chesterfield 				
Qualification expires:	April 2025				
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)
Static Castings	22Cr-17 S	155	155	260	All
Repliwax	22Cr-17 R	40	50	N/A	N/A
Qualification/Acceptance Signatures:					
Manufacturer:	Prepared by/Date: A.Shakespeare 10/04/2019 		Checked by/Date: K.Dean 		
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): EMERSON Process Management SAS rue Paul Baudry - BP 10150 France - 68701 Cernay Cedex T +33 (0)3 89 37 64 00 - F +33 (0)3 89 75 69 57			Signature/Date: R. SCHMITT 24/05/2019  		

	QUALIFICATION TEST RECORD (QTR) NORSOK M-650				QTR. No.: 25Cr-17
					Rev. No.: 2
Manufacturer name/address/ Web page:	Brafe Engineering, Grundisburgh Road, Woodbridge, Suffolk, UK. IP13 6HX www.brafe.com				
Reference standard	NORSOK M-650 Ed 4				
Material designation and MDS No.:	ASTM A995 6A (J93380), MDS-D56 Rev 5				
Manufacturing summary doc. No.:	ITP-18 (for Sand & Repliwax (investment) Castings)			Rev. No.: 3	
Products and manufacturing process(es):	Sand and Repliwax Castings Qualifying company accepts a qualification based on separate test blocks.				
Mandatory conditions and sub-contractors:	Maximum Section Thickness of 155mm (6") with no Maximum Casting Weight Limit. Heat-Treat in Oven 3 Only (Verified by Roxspur - August 2016). All Major Weld Repairs to be Post Weld Heat Treated (PWHT'd.)				
Other information:	<u>Radiography:</u> <ul style="list-style-type: none"> • Aerotech NDT, Cradley Heath • Applied Inspection, Chesterfield • Element NDT, Sheffield <u>Material Testing:</u> <ul style="list-style-type: none"> • Exova (Teesside) (re-named to Element Materials Technology) • Element Materials Technology, Teesside <u>Pickling:</u> <ul style="list-style-type: none"> • Metopic, Chesterfield 				
Qualification expires:	April 2025				
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)
Static Castings	25Cr-17 S	155	155	260	All
Repliwax	25Cr-17 R	40	50	N/A	N/A
Qualification/Acceptance Signatures:					
Manufacturer:	Prepared by/Date: Annette. Shakespeare 10/04/2019 		Checked by/Date: K. Dean 		
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): EMERSON Process Management SAS rue Paul Baudry - BP 10150 France - 68701 Cernay Cedex T +33 (0)3 89 37 64 00 - F +33 (0)3 89 75 69 57			Signature/Date: R. SCHMITT 24/05/2019 