

INSPECTION CERTIFICATE acc to EN 10 204 3.1

Processkontroll Items AB Box 2088 444 02 STORA HÖGA SWEDEN

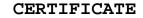
INSPECTION STAMP QA-TUBE

Customer References		Sandvik References		
	Customer	Order No.	Subs No.	ABSMT Dispatch note
752466	order	419669	598251	06943/54
	2015-10-09	ABSMT No.	C.Code	
		300-36557	15	
003-00991 ITEMS				
Material description	Steel/material Designations			
SEAMLESS STAINLESS COLD	FINISHED	Sandvik	-	AISI
HYDRAULIC TUBING		3R60		TP316/TP316L
		EN no		
		1.4435		
Steel making process				
Electric furnace				
Technical requirements				
ASTM A-213-15A AW, ASME	SA-213-ED-13	AW, ASTM A-	-269-13	
NACE MR0175/ISO 15156-3:	2009			
PED 97/23/EC EN 10216-5	TC1			
HRB MAX 80				

EXTENT OF	F DELIVE	RY							
It	Product	designat	ion	Heat	Lot	Pieces	Kg	M	ſ
02 5	THT-3R60	-25-3		542918	45592	5	48.0	30.	00
25.00 X 3.00									
					Total	5	48.0	30.	00
TEST RESU	JLTS								
Chemical	composi	tion (weig	ght%)						
Heat	с	Si	Mn	Р		S	Cr	Ni	Mo
542918	0.022	0.36	1.65	0.03	32 (0.007	17.20	13.11	2.53
	N								
542918	0.040								
Chemical composition, product (weight%)									
Heat	C	Si	Mn	Р		S	Cr	Ni	Mo
542918	0.020	0.37	1.66	0.03	32 (0.005	17.35	13.18	2.51
	N								
542918	0.038								

Quality assurance - Lars-Åke Bergqvist / QA-manager MTC Service / Certificates

AB SANDVIK MATERIALS TECHNOLOGY Reg No. 556234-6832 VAT No. SE663000-060901 SE-81181 SANDVIKEN SWEDEN www.smt.sandvik.com mtc_service.smt@sandvik.com





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Tensile test		-				
	Yield st MPA M	rength Pa	Tensile strength MPa	Elon %	gation %	
Lot	Rp0.2 R	p1.0	Rm	A	2"	
45592		11 07	584 581	51 53	57 59	
	200 5	07	301	55	59	
Hardness test						
Lot	Min HRB	Max HRB				
45592	76	78				
<pre>Following controls/tests have been satisfactorily performed: Flattening test. Flaring test PMI-test. Intergranular corrosion test acc to ASTM A-262 PR.E</pre>						
- Visual insp			to EN 10246-2, ASM l control.	IE SA-	1010.	
Heat Treatment: Solution annealed at a temperature of Min 1040° C and quenched.						
Marking: SANDVIK 3R60 ASTM/ASME A/SA-213 A-269 EN 10216-5 TC1 EN 10305-1 COLD AW EN 1.4 435 TP316/316L CFA SMLS NDE 25.00 X 3.00 MM HT 542918 SS LOT 45592 MADE BY SAN DVIK IN SWEDEN *QA-TUBE*						
The raw material is free from radioactive contamination.						
Material free from mercury contamination.						
Approved acc. AD 2000-Merkblatt W0 and certified acc. to Pressure Equipment Directive (97/23/EC) by TUEV NORD; notified body, reg.no. 0045.						
The number of tests are based on the size of the manufacturing lot before cutting to finished lengths.						
The delivered products comply with the specifications and requirements of the order.						
The material is manufactured according to a Quality system, approved and registered to ISO 9001:2008.						
No unauthorized alterations. The contents of this Inspection Certificate may not be modified or revised in any way without the prior written approval of AB Sandvik Materials Technology. Unauthorized alterations to the Inspection Certificate, including introduction of false, fictitious or fraudulent statements or entries, may be punishable by fines, imprisonment, or both. This Inspection Certificate may be copied only in the manner and for the purposes specified in Section 6 of EN 10204:2004. Contravention of this notice will be prosecuted to the fullest extent of applicable law. The certificate is produced with EDP and valid without signature.						
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