



**CERTIFICATE**

**No. A/10-110396**

**Rev 00**

**Date 2010-11-05**

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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	
709312	Customer order 2010-10-25	Order No. 217840	Subs No. 189237
003-00991	ITEMS	ABSMT No. 300-31270	C.Code 46
		ABSMT Dispatch note 20966/54	

Material description	Steel/material Designations
SEAMLESS STAINLESS COLD FINISHED HYDRAULIC TUBING	Sandvik SS 3R60 2353
<b>Steel making process</b> Electric furnace	

Technical requirements
SS 219713 Condition No -24

EXTENT OF DELIVERY								
It	Product designation	Heat	Lot	Pieces	Kg	M		
01	THT-3R60-16-2 16.00 X 2.00	047598	95129	40	169.0	240.00		
				Total	40	169.0 240.00		
KEY TO HEAT			KEY TO LOT					
Heat Code	Heat No.		Lot Code	Lot No.				
047598	525990		95129	4847331/1-1				
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
047598	0.018	0.38	1.71	0.030	0.007	17.21	13.15	2.54
	N							
047598	0.040							
Tensile test at room temperature								
Lot	Yield strength		Tensile strength		Elongation			
	MPa	MPa	MPa	MPa	%			
	Rp0.2	Rp1.0	Rm	Rm	A			
95129	274	322	590	590	52			
	277	321	592	592	51			
	276	320	591	591	52			

**Quality assurance - Per Eriksson/ QA-manager Tube & Pipe**  
**MTC Service / Certificates**

**Following controls/tests have been satisfactorily performed:**

- Flattening test.
- PMI-test.
- Intergranular corrosion test acc. to EN ISO3651-2, Method A.
- Leak test: Eddy current test acc to SS 114301/114305 E1
- Visual inspection and dimensional control.

**Heat Treatment:**

Solution annealed and quenched.

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.

The certificate is produced with EDP and valid without signature.

TEST RESULTS TRANSFERRED FROM CERTIFICATE NO A1012698