



CERTIFICATE

No. A/10-957708

Rev 00

Date 2010-04-21

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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	
708544	Customer order 2010-04-12	Order No. 192779	Subs No. 169824
003-00991	ITEMS	ABSMT No. 300-20383	C.Code 46
		ABSMT Dispatch note 03180/54	

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

Technical requirements
SS 219713 Condition No -24

EXTENT OF DELIVERY								
It	Product designation	Heat	Lot	Pieces	Kg	M		
01	THT-3R60-12-1.5 12.00 X 1.50	047374	93324	25	58.0	150.00		
				Total	25	58.0	150.00	
KEY TO HEAT				KEY TO LOT				
Heat Code	Heat No.	Lot Code	Lot No.					
047374	523949	93324	4844729/1-2					
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
047374	0.019	0.45	1.65	0.029	0.010	17.23	13.20	2.52
	N							
047374	0.035							
Tensile test at room temperature								
Lot	Yield strength		Tensile strength		Elongation			
	MPa	MPa	MPa		%			
	Rp0.2	Rp1.0	Rm		A			
93324	268	308	579		49			
	282	304	587		51			
	269	313	580		50			

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 A100269