

**CERTIFICATE****No. A/10-960556****Rev 00****Date 2010-04-30****Page 1/2**INSPECTION CERTIFICATE acc to
EN 10 204 3.1Processkontroll Items AB
Box 2088
444 02 STORA HÖGA
SWEDENINSPECTION STAMP
QA-TUBE

Customer References		Sandvik References	
708492	Customer order 2010-03-30	Order No. 191485	Subs No. 168857
003-00991	ITEMS	ABSMT No. 300-19792	Dispatch note 02367/54
		C.Code 46	

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		
03	THT-3R60-8-1.5 8.00 X 1.50	047409	93642	35	50.0	210.00		
				Total	35	50.0	210.00	
KEY TO HEAT				KEY TO LOT				
Heat Code		Heat No.		Lot Code		Lot No.		
047409		523560		93642		167212		
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
047409	0.021	0.41	1.52	0.033	0.009	17.26	13.18	2.53
N								
047409	0.040							
Tensile test at room temperature								
Lot	Yield strength		Tensile strength		Elongation			
	MPa	MPa	MPa		%			
	Rp0.2	Rp1.0	Rm		A			
	93642	252	286	554	48			
		225	263	544	46			
	226	262	548	47				
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 32996