

**CERTIFICATE****No. A/13-335643****Rev 00****Date 2013-05-17****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		
712803	Customer order 2013-05-13	Order No.	Subs No.	ABSMT Dispatch note
		331555	549910	48503/54
003-00991	ITEMS	ABSMT No.	C.Code	
		300-85677	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
01	THT-3R60-12-1.5 12.00 X 1.50	534940	57208	45	108.0	270.00
				Total	45	108.0 270.00

TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
534940	0.019	0.42	1.62	0.028	0.009	17.33	13.13	2.54
	N							
534940	0.043							

Tensile test at room temperature					
Lot	Yield strength		Tensile strength		Elongation
	MPa	MPa	MPa		%
	Rp0.2	Rp1.0	Rm		A
57208	276	316	569		55

Following controls/tests have been satisfactorily performed:

- Flattening test.
- PMI-test.
- Intergranular corrosion test acc. to EN ISO3651-2, Method A.

Quality assurance - Per Eriksson / QA-manager
MTC Service / Certificates



- Leak test: Eddy current test acc to SS 114301/114305 E1
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed and quenched.

The raw material is free from radioactive contamination.

Material free from mercury contamination.

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.

The certificate is produced with EDP and valid without signature.