

**CERTIFICATE****No. A/11-205160****Rev 00****Date 2011-11-15****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	
710753	Customer order 2011-11-09	Order No. 267395	Subs No. 513794
003-00991 ITEMS		ABSMT No. 300-54499	Dispatch note 06565/54
		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
02	THT-3R60-6-1 6.00 X 1.00	529844	34057	50	37.0	300.00
Total				50	37.0	300.00

TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
529844	0.017	0.38	1.65	0.028	0.011	17.28	13.07	2.57
	N							
529844	0.034							

Tensile test at room temperature				
Lot	Yield strength		Tensile strength	
	MPa	MPa	MPa	Elongation %
	Rp0.2	Rp1.0	Rm	A
34057	290	329	558	57
	293	332	558	57
	302	338	558	56

Following controls/tests have been satisfactorily performed:
- Flattening test.Quality assurance - Ulrik Rodling / QA-manager Tube & Pipe
MTC Service / Certificates



- 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.