

**CERTIFICATE**

No. A/10-952684 Rev 00
Date 2010-04-01 Page 1/2

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	
708457	Customer order 2010-03-19	Order No. 190059	Subs No. 167723
003-00991 ITEMS		ABSMT No. 300-19012	Dispatch note 49576/54
		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
01	THT-3R60-20-2.5 20.00 X 2.50	523684	54142	34	211.0	195.35
Total				34	211.0	195.35
TEST RESULTS						
Chemical composition (weight%)						
Heat	C	Si	Mn	P	S	Cr
523684	0.019	0.43	1.58	0.032	0.006	17.38
	N					
523684	0.049					
Tensile test at room temperature						
Lot	Yield strength		Tensile strength		Elongation	
	MPa	MPa	MPa		%	
	Rp0.2	Rp1.0	Rm		A	
54142	308	350	607		53	
	309	352	606		54	
	309	353	608		53	
Following controls/tests have been satisfactorily performed:						
- Ring expansion test						
Quality assurance - Per Eriksson/ 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.