

**CERTIFICATE**

No. A/10-958553 Rev 00
Date 2010-04-23 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	
708561	Customer order 2010-04-15	Order No. 193404	Subs No. 170276 ABSMT No. C.Code 300-20644 46
003-00991	ITEMS	ABSMT Dispatch note 03609/54	

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-3R60-6-1 6.00 X 1.00	047380	93344	200	150.0	1200.00		
				Total	200	150.0	1200.00	
KEY TO HEAT			KEY TO LOT					
Heat Code	Heat No.		Lot Code		Lot No.			
047380	519206		93344		167279			
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
047380	0.018	0.37	1.64	0.030	0.005	17.28	13.14	2.53
	N							
047380	0.035							
Quality assurance - Per Eriksson/ QA-manager Tube & Pipe MTC Service / Certificates								

**CERTIFICATE****No. A/10-958553****Rev 00****Date 2010-04-23****Page 2/2****Tensile test at room temperature**

	Yield strength		Tensile strength	Elongation
	MPa	MPa	MPa	%
Lot	Rp0.2	Rp1.0	Rm	A
93344	229	263	542	54
	234	257	530	54
	271	311	540	53
	253	296	541	53
	232	274	525	53
	233	273	531	53

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 32960