



CERTIFICATE

No. A/12-282708

Rev 00

Date 2012-10-02

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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		
711946	Customer order 2012-09-27	Order No. 306390	Subs No. 535769	ABSMT Dispatch note 32063/54
003-00991	ITEMS	ABSMT No. 300-73454	C.Code 46	

Material description SEAMLESS STAINLESS COLD FINISHED HYDRAULIC TUBING	Steel/material Designations Sandvik SS 3R60 2353
Steel making process Electric furnace	

Technical requirements SS 219713 Condition No -24
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EXTENT OF DELIVERY						
It	Product designation	Heat	Lot	Pieces	Kg	M
01	THT-3R60-20-2.5 20.00 X 2.50	532696	44806	30	195.0	180.00
				Total	30	195.0 180.00

TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
532696	0.019	0.46	1.62	0.029	0.009	17.48	13.12	2.52
	N							
532696	0.046							

Tensile test at room temperature					
	Yield strength		Tensile strength		Elongation
	MPa	MPa	MPa		%
Lot	Rp0.2	Rp1.0	Rm		A
44806	275	316	589		56
	278	319	593		53
	275	316	589		55

Following controls/tests have been satisfactorily performed:
- Ring expansion test

Quality assurance - Per Eriksson / QA-manager
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 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.