

**CERTIFICATE****No. A/13-310681****Rev 00****Date 2013-01-31****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**Customer
order
2012-12-06

003-00991 ITEMS**Sandvik References**Order No. Subs No. ABSMT Dispatch note
314351 540269 40783/54
ABSMT No. C.Code
300-77321 46**Material description**SEAMLESS STAINLESS COLD FINISHED
HYDRAULIC TUBING**Steel making process**
Electric furnace**Steel/material Designations**Sandvik SS
3R60 2353**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	534345	53625	36	86.0	216.00
Total				36	86.0	216.00

TEST RESULTS**Chemical composition (weight%)**

Heat	C	Si	Mn	P	S	Cr	Ni	Mo
534345	0.020	0.36	1.60	0.030	0.008	17.26	13.11	2.53
N								
534345	0.042							

Tensile test at room temperature

Lot	Yield strength		Tensile strength		Elongation
	MPa	MPa	MPa		%
	Rp0.2	Rp1.0	Rm		A
53625	310	350	579		50

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.