

**CERTIFICATE****No. A/13-322356****Rev 00****Date 2013-03-21****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	
712502	Customer order 2013-02-21	Order No. 322480	Subs No. 544991
003-00991	ITEMS	ABSMT No. 300-81457	Dispatch note 44118/54
		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-3R60-16-2 16.00 X 2.00	047904	98262	150	637.0	900.00		
				Total	150	637.0	900.00	
KEY TO HEAT				KEY TO LOT				
Heat Code		Heat No.		Lot Code		Lot No.		
047904		534541		98262		4855740/1-1		
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
047904	0.018	0.41	1.59	0.028	0.012	17.33	13.12	2.53
N								
047904	0.046							
Tensile test at room temperature								
		Yield strength		Tensile strength		Elongation		
		MPa	MPa	MPa		%		
Lot		Rp0.2	Rp1.0	Rm		A		
98262		281	327	601		52		
Quality assurance - Per Eriksson / QA-manager								
MTC Service / Certificates								

**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 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.

TEST RESULTS TRANSFERRED FROM CERTIFICATE NO A130215