

**CERTIFICATE****No. A/13-322357 Rev 00**
Date 2013-03-21 Page 1/2INSPECTION CERTIFICATE acc to
EN 10 204 3.1Processkontroll Items AB
Box 2088
444 02 STORA HÖGA
SWEDENINSPECTION STAMP
QA-TUBE

Customer References		Sandvik References	
712483/HOLMGREN	Customer order 2013-02-18	Order No. 321986	Subs No. 544704
003-00991 ITEMS		ABSMT No. 300-81217	ABSMT Dispatch note 44117/54
		C.Code 03	

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	047903	98259	39	165.0	234.00		
				Total	39	165.0 234.00		
KEY TO HEAT			KEY TO LOT					
Heat Code	Heat No.		Lot Code	Lot No.				
047903	534464		98259	4855733/1-2				
TEST RESULTS								
Chemical composition (weight%)								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
047903	0.019	0.40	1.73	0.029	0.006	17.51	13.20	2.54
	N							
047903	0.040							
Tensile test at room temperature								
		Yield strength		Tensile strength		Elongation		
		MPa	MPa	MPa		%		
Lot		Rp0.2	Rp1.0	Rm		A		
98259		243	278	579		57		
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