

**CERTIFICATE**

**No. A/10-942560 Rev 00**  
**Date 2010-02-26 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

<b>Customer References</b>		<b>Sandvik References</b>						
708351	Customer order 2010-02-22	Order No. 186295	Subs No. 164710 ABSMT No. C.Code 300-17389 46					
003-00991 ITEMS		ABSMT Dispatch note 46801/54						
<b>Material description</b> SEAMLESS STAINLESS COLD FINISHED HYDRAULIC TUBING		<b>Steel/material Designations</b> Sandvik SS 3R60 2353						
<b>Steel making process</b> Electric furnace								
<b>Technical requirements</b> SS 219713 Condition No -24								
<b>EXTENT OF DELIVERY</b>								
It	Product designation	Heat	Lot	Pieces	Kg	M		
02	THT-3R60-16-2	047297	92864	60	253.0	360.00		
	16.00 X 2.00							
				Total	60	253.0 360.00		
<b>KEY TO HEAT</b>		<b>KEY TO LOT</b>						
Heat Code	Heat No.	Lot Code	Lot No.					
047297	522493	92864	4844119/1-1					
<b>TEST RESULTS</b>								
<b>Chemical composition (weight%)</b>								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
047297	0.023	0.35	1.63	0.027	0.009	17.26	13.29	2.52
	N							
047297	0.042							
<b>Quality assurance - Per Eriksson/ QA-manager Tube &amp; Pipe</b> <b>MTC Service / Certificates</b>								

**Tensile test at room temperature**

	Yield strength		Tensile strength	Elongation
	MPa	MPa	MPa	%
Lot	Rp0.2	Rp1.0	Rm	A
92864	257	289	571	54
	253	289	571	56
	253	286	577	55
	254	285	569	55

**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 A100005