

**CERTIFICATE**

**No. A/11-180358 Rev 00**  
**Date 2011-07-29 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>						
710315	Customer order 2011-07-14	Order No. 253167	Subs No. 507582					
003-00991 ITEMS		ABSMT No. 300-47840	Dispatch note 45722/54					
<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		
01	THT-3R60-8-1.5 8.00 X 1.50	047772	96546	50	73.0	300.00		
				Total	50	73.0 300.00		
<b>KEY TO HEAT</b>		<b>KEY TO LOT</b>						
Heat Code	Heat No.	Lot Code	Lot No.					
047772	528279	96546	170372					
<b>TEST RESULTS</b>								
<b>Chemical composition (weight%)</b>								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
047772	0.019	0.38	1.65	0.027	0.008	17.35	13.21	2.52
	N							
047772	0.039							
<b>Tensile test at room temperature</b>								
	Yield strength		Tensile strength		Elongation			
	MPa	MPa	MPa		%			
Lot	Rp0.2	Rp1.0	Rm		A			
96546	235	276	583		46			
	234	275	581		46			
	234	274	583		46			
<b>Quality assurance - Ulrik Rodling / QA-manager Tube &amp; Pipe</b> <b>MTC Service / Certificates</b>								

**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 36606