

KONTROLLINTYG enligt
EN 10 204 3.1

Processkontroll Items AB
Box 2088
444 02 STORA HÖGA
SWEDEN

INSPEKTIONSSTÄMPEL
QA-TUBE

Kundreferenser		Sandvik Referenser						
707744	kundorder 2009-09-01	Order Nr. 164483	Subs Nr. 148125					
003-00991	ITEMS	ABSMT Nr. 300-98236	ABSMT Packnota 34923/54					
Materialbeskrivning SÖMLÖSA ROSTFRIA KALLBEARBETADE HYDRAULRÖR		Stål/materialbeteckningar Sandvik SS 3R60 2353						
Smältmetod Elektrisk ugn								
Tekniska fordringar/krav SS 219713 Tillståndssiffra -24								
LEVERANSOMFATTNING								
Pos	Produktbeteckning	Charge	AO	Antal	Kg	M		
01	THT-3R60-16-2 16.00 X 2.00	047260	99733	20	84.0	120.00		
				Summa	20	84.0 120.00		
NYCKEL TILL CHARGE				NYCKEL TILL AO				
Charge kod		Charge Nr.		Ao kod		Ao Nr.		
047260		521867		99733		4842608/1-2		
PROVNINGSRESULTAT								
Kemisk sammansättning (vikts%)								
Charge	C	Si	Mn	P	S	Cr	Ni	Mo
047260	0.016	0.37	1.62	0.030	0.010	17.38	13.18	2.67
N								
047260	0.043							
Dragprovning vid rumstemperatur								
Sträckgräns			Brottgräns		Förlängning			
MPa MPa			MPa		%			
Ao	Rp0.2	Rp1.0	Rm		A			
99733	240	272	557		55			
	239	282	558		54			
	240	268	556		57			
Kvalitetssäkring - Per Eriksson/ QA-manager Tube & Pipe MTC Service / Certificates								



Följande kontroller/provningar har utförts med tillfredställande res:

- Plattningsprov
- PMI-provning.
- Interkristallin korrosionsprovning enligt EN ISO3651-2, Metod A.
- Täthetsprovning: Induktivprovning enl SS 114301/114305 E1
- Visuell inspektion och dimensionskontroll.

Värmebehandling:

Upplösningsbehandlat och släckt.

Antalet prover är baserat på A0-storlek före ev.delning.

De levererade produkterna uppfyller specifikationer och krav i ordern.

Materialet är tillverkat enligt ett kvalitetssystem,
godkänt och certifierat mot ISO 9001.

Intyget är ADB-framställt och giltigt utan underskrift.

PROVNINGSRESULTATEN ÖVERFÖRDA FRÅN CERTIFIKAT NR A090847

**CERTIFICATE****No. A/09-907984 Rev 00**
Date 2009-10-13 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 707744 003-00991 ITEMS Customer order 2009-09-01		Sandvik References Order No. Subs No. ABSMT Dispatch note 164483 148125 34923/54 ABSMT No. C.Code 300-98236 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 <table border="1"><thead><tr><th>It</th><th>Product designation</th><th>Heat</th><th>Lot</th><th>Pieces</th><th>Kg</th><th>M</th></tr></thead><tbody><tr><td>01</td><td>THT-3R60-16-2 16.00 X 2.00</td><td>047260</td><td>99733</td><td>20</td><td>84.0</td><td>120.00</td></tr><tr><td colspan="4">Total</td><td>20</td><td>84.0</td><td>120.00</td></tr></tbody></table> <table border="0"><tr><td colspan="2">KEY TO HEAT</td><td colspan="2">KEY TO LOT</td></tr><tr><td>Heat Code</td><td>Heat No.</td><td>Lot Code</td><td>Lot No.</td></tr><tr><td>047260</td><td>521867</td><td>99733</td><td>4842608/1-2</td></tr></table> TEST RESULTS Chemical composition (weight%) <table border="1"><thead><tr><th>Heat</th><th>C</th><th>Si</th><th>Mn</th><th>P</th><th>S</th><th>Cr</th><th>Ni</th><th>Mo</th></tr></thead><tbody><tr><td>047260</td><td>0.016</td><td>0.37</td><td>1.62</td><td>0.030</td><td>0.010</td><td>17.38</td><td>13.18</td><td>2.67</td></tr><tr><td></td><td>N</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>047260</td><td>0.043</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> Tensile test at room temperature <table border="1"><thead><tr><th rowspan="2">Lot</th><th colspan="2">Yield strength</th><th rowspan="2">Tensile strength</th><th rowspan="2">Elongation</th></tr><tr><th>MPa</th><th>MPa</th></tr><tr><th></th><th>Rp0.2</th><th>Rp1.0</th><th>MPa</th><th>%</th></tr></thead><tbody><tr><td rowspan="3">99733</td><td>240</td><td>272</td><td>557</td><td>55</td></tr><tr><td>239</td><td>282</td><td>558</td><td>54</td></tr><tr><td>240</td><td>268</td><td>556</td><td>57</td></tr></tbody></table> Quality assurance - Per Eriksson/ QA-manager Tube & Pipe MTC Service / Certificates				It	Product designation	Heat	Lot	Pieces	Kg	M	01	THT-3R60-16-2 16.00 X 2.00	047260	99733	20	84.0	120.00	Total				20	84.0	120.00	KEY TO HEAT		KEY TO LOT		Heat Code	Heat No.	Lot Code	Lot No.	047260	521867	99733	4842608/1-2	Heat	C	Si	Mn	P	S	Cr	Ni	Mo	047260	0.016	0.37	1.62	0.030	0.010	17.38	13.18	2.67		N								047260	0.043								Lot	Yield strength		Tensile strength	Elongation	MPa	MPa		Rp0.2	Rp1.0	MPa	%	99733	240	272	557	55	239	282	558	54	240	268	556	57
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**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 A090847