

CERTIFICATE

No. A/11-164845 Rev 00

Date 2011-05-20 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

Customer References

Sandvik References Customer

710009 order Order No. Subs No. ABSMT Dispatch note 241895 502375 37404/54

2011-04-20

ABSMT No. C.Code 300-42590 46

003-00991 ITEMS

Material description

SEAMLESS STAINLESS COLD FINISHED

HYDRAULIC TUBING

Steel/material Designations

Sandvik SS 3R60 2353

Steel making process

Electric furnace

Technical requirements

SS 219713

Condition No -24

EXTENT	ΟF	DELIVERY	7

Ιt	Product designation	Heat	Lot	Pieces	Kg	M
01	THT-3R60-8-1.5	527820	27585	41	60.0	246.00
	8.00 X 1.50					

Total 41 60.0 246.00

TEST RESULTS

Chemical composition (weight%)

Heat C Si Mn Ρ S \mathtt{Cr} Νi Mo 0.029 527820 0.018 0.39 1.64 0.008 17.28 13.12 2.53

N

527820 0.040

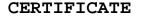
Tensile test at room temperature

	Yield strength		Tensile strength	Elongation	
	MPa	MPa	MPa	%	
Lot	Rp0.2	Rp1.0	Rm	A	
27585	263	308	560	55	
	258	301	562	55	
	261	306	559	55	

Following controls/tests have been satisfactorily performed:

- Flattening test.

Quality assurance - Ulrik Rodling / QA-manager Tube & Pipe MTC Service / Certificates



No. A/11-164845 Rev 00
Date 2011-05-20 Page 2/2



- 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.