SANDVIK

CERTIFICATE

No. A/11-162370 Rev 00

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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 Order No. Subs No. ABSMT Dispatch note

710048 order

243153 503010 38639/54

2011-05-03

ABSMT No. C.Code 300-43212 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 OF DELIVERY

It Product designation Heat Lot Pieces Kg M

01 THT-3R60-6-1 047719 95981 90 68.0 540.00 6.00 X 1.00

Total 90 68.0 540.00

KEY TO HEAT KEY TO LOT

Heat Code Heat No. Lot Code Lot No.

95981 047719 527380 169978

TEST RESULTS

Chemical composition (weight%)

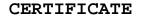
Heat C Si Mn \mathtt{Cr} Νi Mo P S 2.54

0.029 0.008 17.31 047719 0.016 0.39 1.70 13.14

N

047719 0.038

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



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Tensile test	Yield	strength	Tensile strength	Elongation %
Lot	MPa Rp0.2	MPa Rp1.0	MPa Rm	ð A
95981	308	353	561	48
	288	333	557	45
	293	342	560	46
	291	339	561	50

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 36171