

CERTIFICATE

No. A/13-382138 Rev 00

Date 2013-12-06 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

Customer

order

2013-11-29

003-00991 ITEMS

713526

Sandvik References

Order No. Subs No. ABSMT Dispatch note

352795 562087 12783/54

ABSMT No. C.Code 300-95951 03

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 М

01 THT-3R60-12-1.5 537168 21377 45 108.0 270.00 12.00 X 1.50

Total 45 108.0 270.00

TEST RESULTS

Chemical composition (weight%)

Heat C Si Mn Ρ S \mathtt{Cr} Νi Mo

0.030 537168 0.020 0.44 1.60 0.009 17.36 13.16 2.53

N

537168 0.044

Tensile test at room temperature

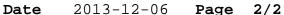
Yield strength Tensile strength Elongation

MPa MPa MPa % Lot Rp0.2 Rp1.0 RmΑ 21377 276 316 560 55

Following controls/tests have been satisfactorily performed:

- Flattening test.
- PMI-test.
- Intergranular corrosion test acc. to EN ISO3651-2, Method A.

Quality assurance - Ulrik Rodling / QA-manager MTC Service / Certificates





- Leak test: Eddy current test acc to SS 114301/114305 E1
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed and quenched.

The raw material is free from radioactive contamination.

Material free from mercury contamination.

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 9001:2008.

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