

CERTIFICATE

No. A/15-495530 Rev 00

Date 2015-04-24 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

2015-02-10

003-00991 ITEMS

751513

Sandvik References

Order No. Subs No. ABSMT Dispatch note

395951 585803 45537/54

ABSMT No. C.Code 300-25589 46

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 M Kg 210.00

01 THT-3R60-16-2 048139 93457 35 145.0 16.00 X 2.00

Total 35 145.0 210.00

KEY TO HEAT KEY TO LOT

Heat Code Heat No. Lot Code Lot No.

048139 541319 93457 179308

TEST RESULTS

Chemical composition (weight%)

Heat C Si Mn P \mathtt{Cr} Νi Mo S

0.031 0.008 17.48 048139 0.018 0.41 1.66 13.12 2.53

N

048139 0.034

Tensile test at room temperature

Yield strength Tensile strength Elongation

MPa MPa MPa % Rp0.2 Rp1.0 RmΑ T_iOt. 93457 278 319 561 48 271 560 47 312 276 317 561 46

Quality assurance - Lars-Ake Bergqvist / QA-manager MTC Service / Certificates



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 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.

No unauthorized alterations. The contents of this Inspection Certificate may not be modified or revised in any way without the prior written approval of AB Sandvik Materials Technology. Unauthorized alterations to the Inspection Certificate, including introduction of false, fictitious or fraudulent statements or entries, may be punishable by fines, imprisonment, or both. This Inspection Certificate may be copied only in the manner and for the purposes specified in Section 6 of EN 10204:2004. Contravention of this notice will be prosecuted to the fullest extent of applicable law.

The certificate is produced with EDP and valid without signature.

TEST RESULTS TRANSFERRED FROM CERTIFICATE NO 46589