

CERTIFICATE

No. A/10-964457

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Rev 00

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

708648/HOLMGREN

Customer order

196145

Order No. Subs No. ABSMT Dispatch note 172513 05426/54

2010-05-05

ABSMT No. C.Code

300-21806 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

01 THT-3R60-8-1

Lot Pieces Kg M 047411 93439 25 27.0 150.00

8.00 X 1.00

Total 25 27.0 150.00

KEY TO HEAT KEY TO LOT

Heat Code Heat No. Lot Code Lot No.

047411 523687 93439 349541

TEST RESULTS

Chemical composition (weight%)

Heat C Si Mn \mathtt{Cr} Νi Mo Ρ S

0.032 0.007 047411 0.016 0.38 1.74 17.26 13.18 2.53

N

047411 0.036

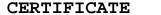
Tensile test at room temperature

Yield strength Tensile strength Elongation

MPa MPa MPa % Rp0.2 Rp1.0 RmΑ T_iOt. 93439 317 604 59 345 314 344 605 58

Quality assurance - Per Eriksson/ QA-manager Tube & Pipe

MTC Service / Certificates



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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 00038889