

CERTIFICATE

No. A/10-957708

Date 2010-04-21 Page 1/2

Rev 00

INSPECTION CERTIFICATE acc to EN 10 204 3.1

Processkontroll Items AB Box 2088 444 02 STORA HÖGA

INSPECTION STAMP QA-TUBE

Customer References

Sandvik References Customer Order No. Subs No. ABSMT Dispatch note

SWEDEN

708544 order 192779 169824 03180/54

2010-04-12

ABSMT No. C.Code 300-20383 46

003-00991 ITEMS

Material description Steel/material Designations

Sandvik SEAMLESS STAINLESS COLD FINISHED SS HYDRAULIC TUBING 3R60 2353

Steel making process

Electric furnace

Technical requirements

SS 219713

Condition No -24

EXTENT OF DELIVERY

It Product designation Heat Pieces Kg Lot М 01 THT-3R60-12-1.5 047374 93324 25 58.0 150.00

12.00 X 1.50

Total 25 58.0 150.00

KEY TO HEAT KEY TO LOT

Lot Code Lot No. Heat Code Heat No.

047374 523949 93324 4844729/1-2

TEST RESULTS

Chemical composition (weight%)

Heat C Si Mn \mathtt{Cr} Νi Mo Ρ S 0.029 0.010 047374 0.019 0.45 1.65 17.23 13.20 2.52

N

047374 0.035

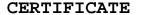
Tensile test at room temperature

Yield strength Tensile strength Elongation

MPa MPa MPa % Rp0.2 RmΑ T_iOt. Rp1.0 93324 579 49 268 308 282 304 587 51 269 313 580 50

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

MTC Service / Certificates



No. A/10-957708 Rev 00
Date 2010-04-21 Page 2/2



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 A100269