

EN 10 204 3.1

CERTIFICATE

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Processkontroll Items AB

Box 2088

444 02 STORA HÖGA

SWEDEN

INSPECTION STAMP

QA-TUBE

Customer References

Customer

709886 order

INSPECTION CERTIFICATE acc to

2011-03-17

003-00991 ITEMS

Sandvik References

Order No. Subs No. ABSMT Dispatch note

237158 500243 34980/54

ABSMT No. C.Code 300-40426 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 Kg Lot Pieces M 01 THT-3R60-12-1.5 527549 26930 10 25.0 60.00

12.00 X 1.50

Total 10 25.0

TEST RESULTS

Chemical composition (weight%)

Heat C Si Mn Ρ S \mathtt{Cr} Νi Mo 0.031 527549 0.020 0.38 1.66 0.008 17.24 13.13 2.53

N

527549 0.033

Tensile test at room temperature

Yield strength Tensile strength Elongation

MPa MPa MPa Rp0.2 Rp1.0 Lot RmΑ 26930 283 320 559 53 284 320 559 52

Following controls/tests have been satisfactorily performed:

- Flattening test.

- PMI-test.

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



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- 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.