

CERTIFICATE

No. V/17-071833

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INSPECTION CERTIFICATE acc to EN 10204 3.1

Processkontroll Items AB Box 2088

444 02 STORA H@GA

SWEDEN

INSPECTION STAMP QA-TUBE

Customer References

Sandvik References

Order No. Subs No. Dispatch note 755354

491052 159432 175531

Suppl. No C.Code 159432 58

Material description

SEAMLESS STAINLESS COLD FINISHED

HYDRAULIC TUBING

Steel/material Designations

Sandvik EN no

5R75 1.4571

Steel making process

Electric furnace

Technical requirements

PED 2014/68/EU EN 10216-5 TC1

NACE MR0175/ISO 15156-3:2015

HRB MAX 90

EXTENT OF DELIVERY

It Product designation Heat Lot Kg M 01 THT-5R75-20-2.5 547811 22232 328.6 300.00

20.00 X 2.50

328.6 Total 300.00

TEST RESULTS

Chemical composition (weight%)

Heat C Si Mn P \mathtt{Cr} Νi Mo S 1.20 0.024 0.007 16.81 547811 0.036 0.45 12.13 2.03

Тi N

547811 0.011 0.37

Tensile test at room temperature

Yield strength Tensile strength Elongation

MPa MPa MPa % Lot Rp0.2 Rp1.0 RmΑ 22232 265 298 583 55 268 304 583 57

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



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Hardness test

Min Max HRB Lot HRB 22232 74 76

Following controls/tests have been satisfactorily performed:

- Flaring test
- PMI-test.
- Intergranular corrosion test acc. to EN ISO3651-2, Method A.
- Leak test: Eddy current test acc to EN ISO 10893-1
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed and quenched.

Marking:

SANDVIK 5R75 EN10216-5 TC1 EN 1.4571 CFA 20.00 X 2.50 MM HT 547811 SS LOT 2223 2 MADE IN SWEDEN *QA-TUBE*

The raw material is free from radioactive contamination.

Material free from mercury contamination.

Approved acc. AD 2000-Merkblatt W0 and certified acc. to Pressure Equipment Directive (2014/68/EU, Annex 1 para 4.3) by TUEV NORD; notified body, reg.no. 0045.

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.