

CERTIFICATE

No. A/17-676642

Date 2017-08-10 Page 1/2

Rev 00

INSPECTION CERTIFICATE acc to EN 10204 3.1

Processkontroll Items AB Box 2088 444 02 STORA H@GA

INSPECTION STAMP QA-TUBE

Customer References

Sandvik References

SWEDEN

Customer Order No. Subs No. ABSMT Dispatch note Martin order 487558 634783 01584/54

order | 487558 634783 01584/54 2017-08-09 | ABSMT No. C.Code

2017-08-09 | ABSMT No. C.C | 300-67298 64

003-00991 ITEMS

Material description

SEAMLESS STAINLESS COLD FINISHED

TUBE IN METRIC SIZES

Steel/material Designations

Sandvik W.nr 3R60 1.4435 DIN EN no

X 2 CRNIMO 18 14 3 1.4435

Steel making process

Electric furnace

Technical requirements

DIN 17458 Testing class 1

PED 2014/68/EU EN 10216-5 TC1

EXTENT OF DELIVERY

 It Product designation
 Heat Lot Pieces
 Kg
 M

 01 TST-3R60-21.3-2.65
 545764 57561
 1
 8.0
 6.59

21.30 X 2.65

Total 1 8.0 6.59

Tolerances according to EN ISO 1127: D3/T3

TEST RESULTS

Chemical composition (weight%)

Si Heat C Mn Ρ S \mathtt{Cr} Νi Mo 0.034 0.010 17.27 0.38 1.52 2.62 545764 0.017 13.06

N 545764 0.038

Tensile test at room temperature

Yield strength Tensile strength Elongation

 MPa
 MPa
 MPa
 %

 Lot
 Rp0.2
 Rp1.0
 Rm
 A

 57561
 304
 336
 595
 51

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



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 3R60 EN 10216-5 TC1 EN 1.4435 CFD 21.30 X 2.65 MM HT 545764 SS LOT 575 61 *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.