



INTYG

Nr. A/10-934536 Rev 00
Datum 2010-01-29 Sida 1/2KONTROLLINTYG enligt
EN 10 204 3.1Processkontroll Items AB
Box 2088
444 02 STORA HÖGA
SWEDENINSPEKTIONSSTÄMPEL
QA-TUBE

Kundreferenser 708264 Philip kundorder 2010-01-29 003-00991 ITEMS	Sandvik Referenser Order Nr. Subs Nr. ABSMT Packnota 183135 162185 44155/54 ABSMT Nr. Int.Kod 300-15993 15																																																																																																																
Materialbeskrivning SÖMLÖSA ROSTFRIA KALLBEARBETADE HYDRAULRÖR Smältmetod Elektrisk ugn	Stål/materialbeteckningar Sandvik SS 3R60 2353 AISI AFNOR TP316/TP316L Z2CND17-13 W.nr DIN 1.4435 X 2 CRNIMO 18 14 3 EN no 1.4436/1.4435																																																																																																																
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LEVERANSOMFATTNING <table><thead><tr><th>Pos</th><th>Produktbeteckning</th><th>Charge</th><th>A0</th><th>Antal</th><th>Kg</th><th>M</th></tr></thead><tbody><tr><td>02</td><td>THT-3R60-12-2</td><td>047312</td><td>92466</td><td>4</td><td>12.0</td><td>24.00</td></tr><tr><td></td><td>12.00 X 2.00</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="4"></td><td>Summa</td><td>4</td><td>12.0 24.00</td></tr></tbody></table> <table><thead><tr><th colspan="2">NYCKEL TILL CHARGE</th><th colspan="2">NYCKEL TILL A0</th></tr><tr><th>Charge kod</th><th>Charge Nr.</th><th>Ao kod</th><th>Ao Nr.</th></tr></thead><tbody><tr><td>047312</td><td>522937</td><td>92466</td><td>4843572/1-1</td></tr></tbody></table> PROVNINGSRESULTAT Kemisk sammansättning (vikts%) <table><thead><tr><th>Charge</th><th>C</th><th>Si</th><th>Mn</th><th>P</th><th>S</th><th>Cr</th><th>Ni</th><th>Mo</th></tr></thead><tbody><tr><td>047312</td><td>0.024</td><td>0.39</td><td>1.76</td><td>0.029</td><td>0.010</td><td>17.44</td><td>13.06</td><td>2.52</td></tr><tr><td></td><td>N</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>047312</td><td>0.038</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> Kemisk sammansättning, produkt (vikts%) <table><thead><tr><th>Charge</th><th>C</th><th>Si</th><th>Mn</th><th>P</th><th>S</th><th>Cr</th><th>Ni</th><th>Mo</th></tr></thead><tbody><tr><td>047312</td><td>0.021</td><td>0.41</td><td>1.78</td><td>0.026</td><td>0.011</td><td>17.59</td><td>13.05</td><td>2.51</td></tr><tr><td></td><td>N</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>047312</td><td>0.038</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>		Pos	Produktbeteckning	Charge	A0	Antal	Kg	M	02	THT-3R60-12-2	047312	92466	4	12.0	24.00		12.00 X 2.00										Summa	4	12.0 24.00	NYCKEL TILL CHARGE		NYCKEL TILL A0		Charge kod	Charge Nr.	Ao kod	Ao Nr.	047312	522937	92466	4843572/1-1	Charge	C	Si	Mn	P	S	Cr	Ni	Mo	047312	0.024	0.39	1.76	0.029	0.010	17.44	13.06	2.52		N								047312	0.038								Charge	C	Si	Mn	P	S	Cr	Ni	Mo	047312	0.021	0.41	1.78	0.026	0.011	17.59	13.05	2.51		N								047312	0.038							
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**Dragprovning vid rumstemperatur**

Ao	Sträckgräns		Brottgräns	Förlängning	
	MPa	MPa	MPa	%	%
	Rp0.2	Rp1.0	Rm	A	2"
92466	252	297	591	52	52
	256	294	595	53	52

Hårdhetsprovning

Ao	Min	Max
	HRB	HRB
92466	76	78

Följande kontroller/provningar har utförts med tillfredställande res:

- Plattningsprov
- Vidgningsprov
- PMI-provning.
- Interkristallin korrosionsprovning enligt ASTM A-262 PR.E
- Interkristallin korrosionsprovning enligt EN ISO3651-2, Metod A.
- Täthetsprovning: Induktivprovning enl EN 10246-2, ASME SA-1016.
- Visuell inspektion och dimensionskontroll.

Värmebehandling:

Upplösningsbehandlat och släckt.

Märkning:

SANDVIK 3R60 ASTM/ASME A/SA-213AW/A-269 NFA 49-117 EN 10216-5 TC1 SS 2353-22
WNR 1.4435 TP 316/TP 316L Z2CND17-13 EN 1.4435 M S PK1 12.00 X 2.00 MM HT 5229
37 SZ LOT 4843572/1-1 DIN 2391 *QA-TUBE*

Godkänd enligt AD 2000-Merkblatt W0 och certifierad enligt tryckkärlsdirektivet, Pressure Equipment Directive(97/23/EG) av TUEV NORD GmbH; anmält organ, reg.no. 0045.

Antalet prover är baserat på A0-storlek före ev.delning.

De levererade produkterna uppfyller specifikationer och krav i ordern.

Materialet är tillverkat enligt ett kvalitetssystem, godkänt och certifierat mot ISO 9001.

Intyget är ADB-framställt och giltigt utan underskrift.

PROVNINGSRESULTATEN ÖVERFÖRDA FRÅN CERTIFIKAT NR A091134

**CERTIFICATE****No. A/10-934536 Rev 00**
Date 2010-01-29 Page 1/2INSPECTION CERTIFICATE acc to
EN 10 204 3.1Processkontroll Items AB
Box 2088
444 02 STORA HÖGA
SWEDENINSPECTION STAMP
QA-TUBE

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Material description SEAMLESS STAINLESS COLD FINISHED HYDRAULIC TUBING Steel making process Electric furnace		Steel/material Designations Sandvik SS 3R60 2353 AISI AFNOR TP316/TP316L Z2CND17-13 W.nr DIN 1.4435 X 2 CRNIMO 18 14 3 EN no 1.4436/1.4435																																																																																																																		
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**CERTIFICATE****No. A/10-934536****Rev 00****Date 2010-01-29****Page 2/2****Tensile test at room temperature**

	Yield strength		Tensile strength	Elongation	
	MPa	MPa	MPa	%	%
Lot	Rp0.2	Rp1.0	Rm	A	2"
92466	252	297	591	52	52
	256	294	595	53	52

Hardness test

	Min	Max
Lot	HRB	HRB
92466	76	78

Following controls/tests have been satisfactorily performed:

- Flattening test.
- Flaring test
- PMI-test.
- Intergranular corrosion test acc to ASTM A-262 PR.E
- Intergranular corrosion test acc. to EN ISO3651-2, Method A.
- Leak test: Eddy current test acc to EN 10246-2, ASME SA-1016.
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed and quenched.

Marking:

SANDVIK 3R60 ASTM/ASME A/SA-213AW/A-269 NFA 49-117 EN 10216-5 TC1 SS 2353-22
WNR 1.4435 TP 316/TP 316L Z2CND17-13 EN 1.4435 M S PK1 12.00 X 2.00 MM HT 5229
37 SZ LOT 4843572/1-1 DIN 2391 *QA-TUBE*

Approved acc. AD 2000-Merkblatt W0 and certified acc. to
Pressure Equipment Directive (97/23/EC) by
TUEV NORD GmbH; 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.

The certificate is produced with EDP and valid without signature.

TEST RESULTS TRANSFERRED FROM CERTIFICATE NO A091134