


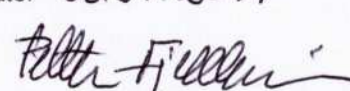
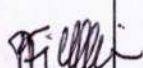


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|---|---|---|--------------------------|------------------------|-------------------------|
|  König + Co. GmbH | QTR Qualification Test Record NORSOK M-650 | | | | QTR. No.: Kö16480QTR |
| | | | | | Rev. No.:2 |
| Manufacturer name/address/ Web page: | König + Co. GmbH, Obere Industriestraße 24 – 26, D-57250 Netphen www.koenig-co.de | | | | |
| Reference standard | NORSOK M-650, Edition 4, September 2011 | | | | |
| Material designation and MDS No.: | ASTM A240 UNS S 31803 / ASTM A815 UNS S 31803 ASTM A240 UNS S 32205 / ASTM A815 UNS S32205 NORSOK M-630 Ed. 6, MDS D43, Rev. 5 | | | | |
| Manufacturing summary doc. No.: | Kö-8MS | | | | Rev. No.:2 |
| Products and manufacturing process(es): | Heads made of plates, material: ASTM A240 UNS S 31803 and UNS S 32205 With and without welding seams. Forming Process: Cold forming | | | | |
| Mandatory conditions and sub-contractors: | Heat treatment after forming is necessary and will be carried out by own furnace no.788 at plant Netphen. Manufacturer for starting material is Outokumpu and Industeel or other NORSOK M-650 qualified manufacturer Subcontractors: Zentrallabor Siegerland Braun & CO. and Ingenieurbüro Odenthal GbR | | | | |
| Other information: | - Pickling will be done by own facilities. - Temperature uniformity survey done in 2018 - Verification of heat treatment procedure done in 2015 for furnace no. 788 - The maximum weight qualified for furnace No.788 is 30000kg - Tensile and Charpy impact tests might also be performed by König & Co. - The following testing will be carried out by sub-contracting: <ul style="list-style-type: none"> • Hardness test, micrographic examination and corrosion testing: Zentrallabor Siegerland Braun & CO. (Accreditation no.: D-PL-18993-01-00 and ISO / IEC 17025) • Micrographic examination: Ingenieurbüro Odenthal GbR (Accreditation no.: D-PL-18955-01-00 and ISO / IEC 17025) | | | | |
| Qualification expires: | 12.2023 | | | | |
| Tested and Qualified Thickness and Weight | | | | | |
| Products and manufacturing process(es): | Test record No. | Tested thickness (mm) | Qualified thickness (mm) | Test piece weight (kg) | Qualified weight (kg) |
| Cold formed heads | 13/16480 | 30 mm | 37,5 mm | 4750 kg | N.A. |
| Qualification/Acceptance signatures | | | | | |
| Manufacturer: | Prepared by / Date: Haas / 17.12.2018 | Checked by / Date: Haas / 17.12.2018 | | | |
|   König + Co. GmbH Obere Industriestraße 24 - 26 57250 Netphen | | | | | |
| The manufacturer and this QTR are evaluated and found to be in compliance with the requirements of NORSOK M-650 for supply of the above listed products and materials. This acceptance does not exempt any purchaser from his responsibility to ensure that this qualification is valid for his products within the essential variables of NORSOK M-650. | | | | | |
| Qualified/Accepted by: | Company name/address: Petter Fjellheim N-7058 Jakobsli, Trondheim +47 97189397 | Signature/Date: 08.01.2019  | | | |
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