Certificate

of suitability of a Material Manufacturer in accordance with the requirements of the **Pressure Equipment Safety Regulations 2016** SI 2016 No.: 1105 as amended

Certificate no.: 2571 ROK/Q-23 0001

Name and address of the certificate holder:

SeAH Changwon Integrated Special Steel Corporation 147, Jeokhyeon-ro, Seongsan-qu,

Changwon-si, Gyeongsangnam-do, 51708, Republic of Korea

TUV Rheinland UK Ltd., an approved body as described within the Pressure Equipment Safety Regulations 2016 as amended, has verified, and validated the suitability of the material(s) detailed in the annex to the certificate to be acceptable under The Pressure Equipment Safety Regulations 2016, Schedule 2 (8) as applicable

to the UK for use in pressure equipment manufacture

Test basis: QM System acc. to EN 764-5:2014, article 4.2.

Regulations 2016. SI 2016 No.1105 as amended,

Code of Practice for the approval of material manufacturers under the provisions of the UK Pressure Equipment Safety

Regulations

2571 ROK/Q-23 0001 Audit report no.:

Scope: Manufacturing of steel and stainless steel rolled bars, rods / forged

> products and seamless stainless steel tubes, see annex to certificate revision 0 from 2023-06-09

Manufacturing plant: see certificate holder

Date of Review: 2023-07-24 Date of Certificate: 2023-07-24 Date of Expiry: 2026-07-23

This certificate was first issued on [2023-07-24]. Remarks:

Continued approval is subject to the referenced QMS certificate being maintained and kept up to date in accordance with the scope of original certification body approval. Any changes to the scope and or the products listed above invalidate this certificate. It remains incumbent on the user of this certificate to verify its Rheinland

continued validity.

Cologne, 2023-07-24

Dr. Gunther Sproesser

TUV Rheinland UK Ltd Approved Body for pressure equipment, No. 2571 1011 Stratford Road, Shirley, Solihull, B90 4BN ukca@uk.tuv.com

MS-0047560 E-208-Rev0





| Scop acco | e rding to | Pressure Equ | ipment Safety Re | egulation | s 2016 SI 201 | 6 No |).: 110 |)5 as a | amen | ded | | | | | |
|---------------|--|--|---|---------------------|---|-------------------|-----------------|-------------|------------|---------------|----------------------|--|------|---|--|
| | | Material Manuf | acturer | | Manuf | actur | ing plai | nt | | Na | tionalit | y Date | | Page No | |
| Company Name: | | SeAH Changwon Integrated Special Steel Corporation | | | | | | | | | | 09.06. 2023 | | 1 | TUV Rheinland UK Ltd |
| ocation: | | 147, Jeokhyeon-ro, Seongsan-gu,Changwon-si, | | | 147, Jeokhyeon-ro, Seongsan-gu, | | | | | | Republic of Korea | | | | |
| | | Gyeongsangnam-do | o, 51708, Republic of Kor | ea | Ch | angw | on-si, | | | · | (orea | Rev.:0 | of : | 3 | - |
| Cur- | | uct grades erm / Materials-No.) | Product code or standard (Material Specification) | Delivery Cond. | Product Form (Article, Type of Product) | Pr | qu | limensions) | ons / | Weight max | | Technica Specification | ıl | Original material manufactu QMS Certificate / Remark | |
| | | | | | | Thickness Ø mm mm | | | _ | 1=t / 2=kg | | Requirements Technical Regulations | | | |
| | | | | | | fro m | Up to | from | Up to | _ | res ult | rtogalatio | | | |
| 1 | | 2 | 3 | | 5 | 6a | 6b | 7a | 7b | 8a | 8a 8b 9 | | | | 10 |
| 1 2 | 1.4301, 1.43 1.4435, 1.44 1.4301, 1.43 | 06, 1.4401, 1.4404 36, 1.4541, 1.4571 06, 1.4401, 1.4404 36, 1.4541, 1.4571 | EN 10222-5 | +AT +AT | Rolled Bar Forged Product | 10 | 700 | 5.5 | 205 550 | 1 | 12 | EN 10272 | | *3.2 certificat because of ir | te is required nsuffient material data. |
| *3 | 1.54 | 15, 1.7383, 01, 1.4903 | EN 10222-2 | +NT/+QT | Forged Product | 10 | 400 | 70 | 600 | 1 | 13 | EN 10222-2 | | | |
| 4 | 1.4571, 1.45 1.4501, 1.49 | 06, 1.4401, 1.4404, 39, 1.4410, 1.4462, 12, 1.4307, 1.4541, 07, 1.4435 | EN 10216-5 | +AT | Seamless Pipe | 1.0 | 23.01 | 10 | 273.1 | 2 | 800 | EN 10216- | 5 | | |
| 5 | | 307, 1.4401, 1.4404 1.4567 | EN 10269 | +AT | Wire Rod | - | - | 5.5 | 34 | 1 | 2 | EN 10269 |) | | 230183/S) M |
| *6 | | 1.7383 | EN 10273 | +NT | Rolled Bar | - | - | 28 | 205 | 1 | 2 | EN 10273 | 3 | | omal So |
| Remar | | R = as rolled = thermo mechai | | +QT = qu +S = so | ench ft ann | | tempe temper | | | | а | a = PMA for the use in pressure equipment in PESR 2016 as amended neccessary | | | |



| Scop | e rding to | Pressure Equ | ipment Safety Re | gulation | s 2016 SI 201 | 6 Nc | .: 110 | 5 as a | amen | ded | | | | | | |
|---------------|--|---|--|-------------------|---|--|---------------------------------------|------------|------------|---------------|------------|--|-------|---|---|--|
| | | Material Manufacturer | | | Manufacturing plant | | | | | | ionali | ty Date | | Page No | | |
| Company Name: | | SeAH Changwon Integrated Special Steel Corporation | | | | | | | | | | 09.06. 2023 | | 2 TUV Rheinland Ul | | |
| Locati | ion: | 147, Jeokhyeon-ro, Seongsan-gu,Changwon-si, Gyeongsangnam-do, 51708, Republic of Korea | | | 147, Jeokhyeon-ro, Seongsan-gu, | | | | | | oublic (| of | | | | |
| | | | | | Changwon-si, | | | | | ۲ | Corea | Rev.:0 | of : | 3 | - | |
| Cur- | Prod (Materials-te | uct grades erm / Materials-No.) | Product code or standard (Material Specification) | Delivery Cond. | Product Form (Article, Type of Product) | Product dimensions / quantity (Dimensions) | | | | | ight ax | Technical Specification | าร | Original ma | material manufacturers Certificate / Remarks | |
| | | | | | | Thickness mm | | Ø mm | | 1=t / 2=kg | | Requiremen Technical Regulations | | | | |
| | | | | | | fro m | Up to | from | Up to | \downarrow | res ult | | | | | |
| 1 | | 2 3 | | 4 | 5 | 6a | 6b | 7a | 7b | 8a | 8b | 9 | | | 10 | |
| | SR must be ob (S)A4 | | alent material grades ad material grades listed i ASME/ASTM (S)A453 ASME/ASTM (S)A453 | | | e.g. B: | 5, AFNC - - | 5.5 205 | 205 550 | 1 1 | 2 12 | ASME/ASTI ASME/ASTI | M | s of the applica | ble code respectively | |
| *3 | 316L(N)-IG | | ITER_D_2DX6KS v1.4 | +AT | Forged product | - | 2000 | - | 2300 | 1 | 70 | RCC-MR,200 Section2-Mate Chapter RM3 | rials | *3.2 certificate is required because of insufficient material data. | | |
| 4 | 1 | .4305 | EN10088-3 | +AT | Rolled & Forged product | - | - | 16 | 350 | 1 | 5 | EN10088-3 | 3 | | | |
| 5 | | 06, 1.4401, 1.4404 36, 1.4541, 1.4571 | EN10088-3 | +AT | Wire Rod | - | - | 5.5 | 34.0 | 1 | 2 | EN10088-3 | 3 | | chain! | |
| 6 | (S)A213 S30432, TP304/304L, ASME// TP316/316L | | ASME/ASTM (S)A213 | +AT | Seamless Pipe | 1.0 | 23.0 | 10 | 273.1 | 2 | 800 | ASME/ASTI | М | | 230183/50 | |
| 7 | | | ASME/ASTM (S)A276 | +AT | Rolled Bar | - | - | 5.5 | 205 | 5 1 2 AS | | ASME/ASTM | | | Strain Section | |
| Remai | +AT +AF +M +N | R = as rolled = thermo mechar | | | +QT = qu +S = so | encho ft ann | zed and ed and ealed elieved | | | • | | a = | | | n pressure equipment amended neccessary | |



| Scor acco | e rding to | Pressure Equ | ipment Safety Re | gulation | s 2016 SI 201 | 6 No | o.: 110 |)5 as a | amen | ded | | | | | |
|-----------------------|--|--|--|------------|---|---------------------------------|------------------|------------|-----------|-------|--------------|-----------------------------|----------|--|-------------------------|
| Material Manufacturer | | | | | Manufacturing plant | | | | | | tionalit | y Date | | Page No | |
| Company Name: | | SeAH Changwon Integrated Special Steel Corporation | | | J. | | | | | | | 09.06. 2023 | | 3 TUV Rheinland U | TUV Rheinland UK Ltd |
| Locat | on: | 147, Jeokhyeon-ro, Seongsan-gu,Changwon-si, | | | | 147, Jeokhyeon-ro, Seongsan-gu, | | | | | | f | | | |
| | | Gyeongsangnam-do, 51708, Republic of Korea | | | Changwon-si, | | | | | Korea | | | | | - |
| | | | | 1 | | | | | | | | Rev.:0 | of: | 3 | |
| Cur- | Product grades (Materials-term / Materials-No.) | | Product code or standard Conc (Material Specification) | | Product Form (Article, Type of Product) | | | | | | eight nax | Technical Specifications | | Original material manufacturer QMS Certificate / Remarks | |
| | | | (Material Specification) | | , | Thickness Ø | | | | | | Requirements | | | |
| | | | | | | n | nm | mm | | 1=t / | | Technical | | | |
| | | | | | | | Lla | f===== | l la | 2: | =kg | Regulations | ıS | | |
| | | | | | | fro m | Up to | from | Up to | 1 | res ult | | | | |
| 1 | | 2 | 3 | 4 | 5 | 6a | 6b | 7a | 7b | 8a | 8b | 9 | | | 10 |
| 8 | 32 | /304L, 316/316L, 1/321H | ASME/ASTM (S)A479 | +AT | Rolled bar | - | - | 5.5 | 205 | 1 | 2 | ASME/ASTI | | See "a" | |
| | 32 | 1/321H | | | | - | _ | | | ' | | | | See a | |
| 9 | ` , | /304L, 316/316L, 321 | ASME/ASTM (S)A276 | +AT | Forged Bar | 10 | 700 | 205 | 550 | 1 | 12 | ASME/ASTI | | | |
| 10 | 32 | /304L, 316/316L, 1/321H | ASME/ASTM (S)A479 | +AT | Forged Bar | 10 | 700 | 205 | 550 | 1 | 12 | ASME/ASTI | IVI | | |
| 11 | B637 2.4856, 2.4858 A493 304/304L, 316/316L, 316Ti | | ASTM B637 | +AT | Rolled Bar Rolled Bar | - | - | 5.5 | 205 | 1 | 19 | ASTM | | | |
| 12 13 | | | DIN 17752 ASTM A493 | +AT +AT | Wire Rod | | _ | 5.5 5.5 | 205 34 | 1 | 18 2 | DIN 17752 ASTM | <u>′</u> | | |
| 14 | | 1/304L, TP316/316L | ASME/ASTM (S)A312 | +AT | Seamless Pipe | 1.0 | 23.0 | 10 | 273.1 | 2 | 800 | ASME/ASTI | М | | |
| 15 | (S)A376 | ΓΡ304, TP316 | ASME/ASTM (S)A376 | +AT | Seamless Pipe | 1.0 | 23.0 | 10 | 273.1 | 2 | 800 | ASME/ASTI | M | | chairle |
| 16 | 1.4301, 1.430 | 7, 1.4401, 1.4404 | EN 10297-2 | +AT | Seamless Pipe | 1.0 | 23.0 | 10 | 273.1 | 2 | 800 | EN10297-2 | 2 | | 230183/52/M |
| | | | led | | | | zed and | | | | | a : | | | n pressure equipmen |
| Rema | +AF | R = as rolled | | | | | ed and | temper | ed | | | | in l | PESR 2016 as | amended neccessary |
| <u>Rema</u> | | 4la a maa a maa c - l | .:! 44! | | | | | | | | | | | | |
| <u>Rema</u> | +M +N | = thermo mechar = normalized or r | nical treated normalizing formed | | | | ealed elieved | | | | | | | | |