



Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

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Date of creation: (Z02)

04.07.2017

Certificate No.: (A03)

067305

Our order No.: (A08) 7231461Your order No.: (A07) 7082096

Order registration date: 23.05.2017

Date of dispatch: 04.07.2017 B

Material requirements and customer information

Product: (A03) Plate Steel standard and grade: (B02) EN10025-2:2004 S355J2

Surface tolerance: EN 10163-2 A1

Delivery condition: (B04) Normalized rolled (+N)

Length tolerance: EN 10029 Table 3

Customer name and address (A06)

Certificate address

2121

2121001

Stena Stål AB
Skeppsgatan 1
721 32 Västerås
Swedenavi.vasteras@stenastal.se;
anna-karin@jarnsida.se;
cert.vasteras@stenastal.se

Width tolerance: EN 10029 Table 2

Thickness tolerance: EN 10029 Class A

Flatness tolerance: EN 10029 Table 4 Class N

Sweden

AVI.VASTERAS@STENASTAL.SE;CERT.VASTERAS@STENASTAL.SE;ANNA-KARIN@JARNSIDA.SE

Supplementary information: (C04)

Fully Killed and Fine Grain

Visual examination and dimensional checking: Satisfactory. The results of tests performed are in compliance with the requirements. (Z01)

Details of supplied materials dimensions, weights and pieces

| Heat/Slab <small>(B07)</small> | Plate No. <small>(B06)</small> | Item | Thickness mm <small>(B09)</small> | Width mm <small>(B10)</small> | Length mm <small>(B11)</small> | Pieces <small>(B08)</small> | Gross kg <small>(B12)</small> | Hard stamp | Stamp location | Customer remark <small>(B99)</small> |
|-----------------------------------|-----------------------------------|------|--------------------------------------|----------------------------------|-----------------------------------|--------------------------------|----------------------------------|------------|-------------------|---|
| 51280H4 | 4709M | 1 | 15.0 | 1000 | 2000 | 10 | 2 360 | S355J2+N | Head | 7082096 |
| 51285K1 | 4693M | 3 | 15.0 | 1500 | 3000 | 6 | 3 180 | S355J2+N | Head | 7082096 |
| 51285M4 | 4762M | 4 | 20.0 | 1000 | 2000 | 13 | 4 082 | S355J2+N | Head | 7082096 |
| 51470D3 | 4927M | 4 | 20.0 | 1000 | 2000 | 15 | 4 710 | S355J2+N | Head | 7082096 |
| 51285L3 | 4749M | 5 | 20.0 | 1250 | 2500 | 5 | 2 455 | S355J2+N | Head | 7082096 |
| 51285J3 | 4719M | 6 | 20.0 | 1500 | 3000 | 6 | 4 242 | S355J2+N | Head | 7082096 |
| 51285J1 | 4725M | 6 | 20.0 | 1500 | 3000 | 6 | 4 242 | S355J2+N | Head | 7082096 |
| 51283H3 | 4858M | 6 | 20.0 | 1500 | 3000 | 6 | 4 242 | S355J2+N | Head | 7082096 |

67 29 513

DanSteel
Havnevej 33
DK - 3300 Frederiksberg(A01)(A04)Inspection representative NLMK DanSteel A/S (A05)

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Chemical composition (heat analysis) all results in %

| Heat No. <small>(B07)</small> | C | Mn | Si | P | S | Cr | Cu | Ni | Mo | Al | Nb | V | Ti | N | B |
|-------------------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Set values: min. | | | 0.14 | | | | | | | 0.020 | | | | | |
| max. | 0.20 | 1.60 | 0.25 | 0.025 | 0.025 | 0.300 | 0.400 | 0.300 | 0.080 | 0.100 | 0.060 | 0.100 | 0.050 | 0.0120 | 0.0008 |
| 51280 | 0.15 | 1.49 | 0.18 | 0.011 | 0.012 | 0.020 | 0.039 | 0.017 | 0.001 | 0.044 | 0.002 | 0.047 | 0.001 | 0.0089 | 0.0005 |
| 51283 | 0.16 | 1.51 | 0.22 | 0.010 | 0.007 | 0.023 | 0.036 | 0.016 | 0.001 | 0.047 | 0.003 | 0.041 | 0.001 | 0.0094 | 0.0005 |
| 51285 | 0.14 | 1.50 | 0.19 | 0.012 | 0.009 | 0.018 | 0.023 | 0.013 | 0.001 | 0.049 | 0.002 | 0.044 | 0.001 | 0.0091 | 0.0004 |
| 51470 | 0.17 | 1.48 | 0.19 | 0.013 | 0.004 | 0.026 | 0.034 | 0.013 | 0.002 | 0.046 | 0.036 | 0.002 | 0.002 | 0.0036 | 0.0003 |

| Heat No. <small>(B07)</small> | CEV | Remark <small>(C70)</small> |
|-------------------------------|------|-----------------------------|
| Set values: min. | | |
| max. | 0.45 | |
| 51280 | 0.41 | 1 3 4 6 |
| 51283 | 0.43 | 1 3 4 6 |
| 51285 | 0.41 | 1 3 4 6 |
| 51470 | 0.42 | 1 3 4 6 |

Supplementary information (C99)

CEV = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15

1 = Basic Oxygen Steel, 2 = Electric Arc Furnace, 3 = Ladle Refined, 4 = Calcium Treated, 5 = Vacuum Degassed, 6 = Continuous Cast, 7 = Ingot



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Tensile testing

Tensile tests were performed in accordance with EN 10002/ISO 6892-1 with results as stated below:

| Heat/slab <small>(B07)</small> | Plate ID <small>(B06)</small> | Thickness mm | Shape <small>(C10)</small> | Loc. <small>(C01)</small> | Dir. <small>(C02)</small> | Yield MPa <small>(C11)</small> | Yield type | UTS Rm MPa <small>(C12)</small> | Elong. type | Elongation % <small>(C13)</small> | Yield/UTS |
|-----------------------------------|----------------------------------|-----------------|-------------------------------|------------------------------|------------------------------|-----------------------------------|---------------|------------------------------------|----------------|--------------------------------------|-----------|
| 51285K1 | 4693M-2-3 | 15.0 | R | H | T | 418 | R02 | 550 | A5 | 29 | 0.76 |
| 51285K1 | 4693M-2-4 | 15.0 | R | H | T | 418 | R02 | 550 | A5 | 29 | 0.76 |
| 51285K1 | 4693M-2-5 | 15.0 | R | H | T | 418 | R02 | 550 | A5 | 29 | 0.76 |
| 51285K1 | 4693M-2-6 | 15.0 | R | H | T | 418 | R02 | 550 | A5 | 29 | 0.76 |
| 51285K1 | 4693M-2-7 | 15.0 | R | H | T | 418 | R02 | 550 | A5 | 29 | 0.76 |
| 51285K1 | 4693M-2-8 | 15.0 | R | H | T | 418 | R02 | 550 | A5 | 29 | 0.76 |
| 51280H4 | 4709M-1-1 | 15.0 | R | H | T | 412 | REH | 539 | A5 | 35 | 0.76 |
| 51280H4 | 4709M-1-10 | 15.0 | R | H | T | 412 | REH | 539 | A5 | 35 | 0.76 |
| 51280H4 | 4709M-1-2 | 15.0 | R | H | T | 412 | REH | 539 | A5 | 35 | 0.76 |
| 51280H4 | 4709M-1-3 | 15.0 | R | H | T | 412 | REH | 539 | A5 | 35 | 0.76 |
| 51280H4 | 4709M-1-4 | 15.0 | R | H | T | 412 | REH | 539 | A5 | 35 | 0.76 |
| 51280H4 | 4709M-1-5 | 15.0 | R | H | T | 412 | REH | 539 | A5 | 35 | 0.76 |
| 51280H4 | 4709M-1-6 | 15.0 | R | H | T | 412 | REH | 539 | A5 | 35 | 0.76 |
| 51280H4 | 4709M-1-7 | 15.0 | R | H | T | 412 | REH | 539 | A5 | 35 | 0.76 |
| 51280H4 | 4709M-1-8 | 15.0 | R | H | T | 412 | REH | 539 | A5 | 35 | 0.76 |
| 51280H4 | 4709M-1-9 | 15.0 | R | H | T | 412 | REH | 539 | A5 | 35 | 0.76 |
| 51285J3 | 4719M-1-1 | 20.0 | R | H | T | 406 | REH | 540 | A5 | 31 | 0.75 |
| 51285J3 | 4719M-1-2 | 20.0 | R | H | T | 406 | REH | 540 | A5 | 31 | 0.75 |
| 51285J3 | 4719M-1-3 | 20.0 | R | H | T | 406 | REH | 540 | A5 | 31 | 0.75 |
| 51285J3 | 4719M-1-4 | 20.0 | R | H | T | 406 | REH | 540 | A5 | 31 | 0.75 |
| 51285J3 | 4719M-2-1 | 20.0 | R | H | T | 406 | REH | 540 | A5 | 31 | 0.75 |
| 51285J3 | 4719M-2-2 | 20.0 | R | H | T | 406 | REH | 540 | A5 | 31 | 0.75 |
| 51285J1 | 4725M-1-10 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285J1 | 4725M-1-5 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285J1 | 4725M-1-6 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |



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067305

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Tensile testing

Tensile tests were performed in accordance with EN 10002/ISO 6892-1 with results as stated below:

| Heat/slab <small>(B07)</small> | Plate ID <small>(B06)</small> | Thickness mm | Shape <small>(C10)</small> | Loc. <small>(C01)</small> | Dir. <small>(C02)</small> | Yield MPa <small>(C11)</small> | Yield type | UTS Rm MPa <small>(C12)</small> | Elong. type | Elongation % <small>(C13)</small> | Yield/UTS |
|-----------------------------------|----------------------------------|-----------------|-------------------------------|------------------------------|------------------------------|-----------------------------------|---------------|------------------------------------|----------------|--------------------------------------|-----------|
| 51285J1 | 4725M-1-7 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285J1 | 4725M-1-8 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285J1 | 4725M-1-9 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285L3 | 4749M-1-10 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285L3 | 4749M-1-6 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285L3 | 4749M-1-7 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285L3 | 4749M-1-8 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285L3 | 4749M-1-9 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-1 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-10 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-11 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-12 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-13 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-2 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-3 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-4 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-5 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-6 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-7 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-8 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51285M4 | 4762M-1-9 | 20.0 | R | H | T | 410 | REH | 538 | A5 | 27 | 0.76 |
| 51283H3 | 4858M-2-1 | 20.0 | R | H | T | 416 | REH | 546 | A5 | 27 | 0.76 |
| 51283H3 | 4858M-2-2 | 20.0 | R | H | T | 416 | REH | 546 | A5 | 27 | 0.76 |
| 51283H3 | 4858M-2-3 | 20.0 | R | H | T | 416 | REH | 546 | A5 | 27 | 0.76 |
| 51283H3 | 4858M-2-4 | 20.0 | R | H | T | 416 | REH | 546 | A5 | 27 | 0.76 |



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| Heat/slab <small>(B07)</small> | Plate ID <small>(B06)</small> | Thickness mm | Shape <small>(C10)</small> | Loc. <small>(C01)</small> | Dir. <small>(C02)</small> | Yield MPa <small>(C11)</small> | Yield type | UTS Rm MPa <small>(C12)</small> | Elong. type | Elongation % <small>(C13)</small> | Yield/UTS |
|-----------------------------------|----------------------------------|-----------------|-------------------------------|------------------------------|------------------------------|-----------------------------------|---------------|------------------------------------|----------------|--------------------------------------|-----------|
| 51283H3 | 4858M-2-5 | 20.0 | R | H | T | 416 | REH | 546 | A5 | 27 | 0.76 |
| 51283H3 | 4858M-2-6 | 20.0 | R | H | T | 416 | REH | 546 | A5 | 27 | 0.76 |
| 51470D3 | 4927M-1-1 | 20.0 | R | H | T | 431 | REH | 566 | A5 | 23 | 0.76 |
| 51470D3 | 4927M-1-10 | 20.0 | R | H | T | 431 | REH | 566 | A5 | 23 | 0.76 |
| 51470D3 | 4927M-1-11 | 20.0 | R | H | T | 431 | REH | 566 | A5 | 23 | 0.76 |
| 51470D3 | 4927M-1-12 | 20.0 | R | H | T | 431 | REH | 567 | A5 | 27 | 0.76 |
| 51470D3 | 4927M-1-13 | 20.0 | R | H | T | 431 | REH | 567 | A5 | 27 | 0.76 |
| 51470D3 | 4927M-1-14 | 20.0 | R | H | T | 431 | REH | 567 | A5 | 27 | 0.76 |
| 51470D3 | 4927M-1-15 | 20.0 | R | H | T | 431 | REH | 567 | A5 | 27 | 0.76 |
| 51470D3 | 4927M-1-2 | 20.0 | R | H | T | 431 | REH | 566 | A5 | 23 | 0.76 |
| 51470D3 | 4927M-1-3 | 20.0 | R | H | T | 431 | REH | 566 | A5 | 23 | 0.76 |
| 51470D3 | 4927M-1-4 | 20.0 | R | H | T | 431 | REH | 566 | A5 | 23 | 0.76 |
| 51470D3 | 4927M-1-5 | 20.0 | R | H | T | 431 | REH | 566 | A5 | 23 | 0.76 |
| 51470D3 | 4927M-1-6 | 20.0 | R | H | T | 431 | REH | 566 | A5 | 23 | 0.76 |
| 51470D3 | 4927M-1-7 | 20.0 | R | H | T | 431 | REH | 566 | A5 | 23 | 0.76 |
| 51470D3 | 4927M-1-8 | 20.0 | R | H | T | 431 | REH | 566 | A5 | 23 | 0.76 |
| 51470D3 | 4927M-1-9 | 20.0 | R | H | T | 431 | REH | 566 | A5 | 23 | 0.76 |

Supplementary Information (C99)

Loc.: (C01) H = head, T = tailDir.: (C02) T = transversal, L = longitudinalShape: (C10) Ø = round, R = rectangular

Original gauge length: 200 mm



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Impact testing

Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

| Heat/slab (B07) | Plate ID (B06) | Position (C01) | Notch (C40) | Shape (C41) | Loc. (C01) | Dir. (C02) | Temp. °C (C03) | SV J (C42) | SV J (C42) | SV J (C42) | AV J (C43) |
|--------------------|-------------------|-------------------|----------------|----------------|---------------|---------------|-------------------|---------------|---------------|---------------|---------------|
| 51285K1 | 4693M-2-3 | 1 | CV | 10x10 | H | L | -20 | 130 | 77 | 66 | 91 |
| 51285K1 | 4693M-2-4 | 1 | CV | 10x10 | H | L | -20 | 130 | 77 | 66 | 91 |
| 51285K1 | 4693M-2-5 | 1 | CV | 10x10 | H | L | -20 | 130 | 77 | 66 | 91 |
| 51285K1 | 4693M-2-6 | 1 | CV | 10x10 | H | L | -20 | 130 | 77 | 66 | 91 |
| 51285K1 | 4693M-2-7 | 1 | CV | 10x10 | H | L | -20 | 130 | 77 | 66 | 91 |
| 51285K1 | 4693M-2-8 | 1 | CV | 10x10 | H | L | -20 | 130 | 77 | 66 | 91 |
| 51280H4 | 4709M-1-1 | 1 | CV | 10x10 | H | L | -20 | 146 | 127 | 149 | 141 |
| 51280H4 | 4709M-1-10 | 1 | CV | 10x10 | H | L | -20 | 146 | 127 | 149 | 141 |
| 51280H4 | 4709M-1-2 | 1 | CV | 10x10 | H | L | -20 | 146 | 127 | 149 | 141 |
| 51280H4 | 4709M-1-3 | 1 | CV | 10x10 | H | L | -20 | 146 | 127 | 149 | 141 |
| 51280H4 | 4709M-1-4 | 1 | CV | 10x10 | H | L | -20 | 146 | 127 | 149 | 141 |
| 51280H4 | 4709M-1-5 | 1 | CV | 10x10 | H | L | -20 | 146 | 127 | 149 | 141 |
| 51280H4 | 4709M-1-6 | 1 | CV | 10x10 | H | L | -20 | 146 | 127 | 149 | 141 |
| 51280H4 | 4709M-1-7 | 1 | CV | 10x10 | H | L | -20 | 146 | 127 | 149 | 141 |
| 51280H4 | 4709M-1-8 | 1 | CV | 10x10 | H | L | -20 | 146 | 127 | 149 | 141 |
| 51280H4 | 4709M-1-9 | 1 | CV | 10x10 | H | L | -20 | 146 | 127 | 149 | 141 |
| 51285J3 | 4719M-1-1 | 1 | CV | 10x10 | H | L | -20 | 185 | 169 | 205 | 186 |
| 51285J3 | 4719M-1-2 | 1 | CV | 10x10 | H | L | -20 | 185 | 169 | 205 | 186 |
| 51285J3 | 4719M-1-3 | 1 | CV | 10x10 | H | L | -20 | 185 | 169 | 205 | 186 |
| 51285J3 | 4719M-1-4 | 1 | CV | 10x10 | H | L | -20 | 185 | 169 | 205 | 186 |
| 51285J3 | 4719M-2-1 | 1 | CV | 10x10 | H | L | -20 | 185 | 169 | 205 | 186 |
| 51285J3 | 4719M-2-2 | 1 | CV | 10x10 | H | L | -20 | 185 | 169 | 205 | 186 |
| 51285J1 | 4725M-1-10 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285J1 | 4725M-1-5 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285J1 | 4725M-1-6 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |



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(A01)



(A04)

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| Heat/slab (B07) | Plate ID (B06) | Position (C01) | Notch (C40) | Shape (C41) | Loc. (C01) | Dir. (C02) | Temp. °C (C03) | SV J (C42) | SV J (C42) | SV J (C42) | AV J (C43) |
|--------------------|-------------------|-------------------|----------------|----------------|---------------|---------------|-------------------|---------------|---------------|---------------|---------------|
| 51285J1 | 4725M-1-7 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285J1 | 4725M-1-8 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285J1 | 4725M-1-9 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285L3 | 4749M-1-10 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285L3 | 4749M-1-6 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285L3 | 4749M-1-7 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285L3 | 4749M-1-8 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285L3 | 4749M-1-9 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-1 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-10 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-11 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-12 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-13 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-2 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-3 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-4 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-5 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-6 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-7 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-8 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51285M4 | 4762M-1-9 | 1 | CV | 10x10 | H | L | -20 | 148 | 148 | 150 | 149 |
| 51283H3 | 4858M-2-1 | 1 | CV | 10x10 | H | L | -20 | 165 | 155 | 162 | 161 |
| 51283H3 | 4858M-2-2 | 1 | CV | 10x10 | H | L | -20 | 165 | 155 | 162 | 161 |
| 51283H3 | 4858M-2-3 | 1 | CV | 10x10 | H | L | -20 | 165 | 155 | 162 | 161 |
| 51283H3 | 4858M-2-4 | 1 | CV | 10x10 | H | L | -20 | 165 | 155 | 162 | 161 |



DanSteel
Havnevej 33
DK - 3300 Frederiksværk

(A01)



(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

Z. Greisen



Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

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Date of creation: (Z02)

04.07.2017

Certificate No.: (A03)

067305

Our order No.: (A08) 7231461

Your order No.: (A07) 7082096

Order registration date: 23.05.2017

Date of dispatch: 04.07.2017 B

Impact testing

Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

| Heat/slab (B07) | Plate ID (B06) | Position (C01) | Notch (C40) | Shape (C41) | Loc. (C01) | Dir. (C02) | Temp. °C (C03) | SV J (C42) | SV J (C42) | SV J (C42) | AV J (C43) |
|--------------------|-------------------|-------------------|----------------|----------------|---------------|---------------|-------------------|---------------|---------------|---------------|---------------|
| 51283H3 | 4858M-2-5 | 1 | CV | 10x10 | H | L | -20 | 165 | 155 | 162 | 161 |
| 51283H3 | 4858M-2-6 | 1 | CV | 10x10 | H | L | -20 | 165 | 155 | 162 | 161 |
| 51470D3 | 4927M-1-1 | 1 | CV | 10x10 | H | L | -20 | 179 | 220 | 197 | 199 |
| 51470D3 | 4927M-1-10 | 1 | CV | 10x10 | H | L | -20 | 179 | 220 | 197 | 199 |
| 51470D3 | 4927M-1-11 | 1 | CV | 10x10 | H | L | -20 | 179 | 220 | 197 | 199 |
| 51470D3 | 4927M-1-12 | 1 | CV | 10x10 | H | L | -20 | 204 | 194 | 216 | 205 |
| 51470D3 | 4927M-1-13 | 1 | CV | 10x10 | H | L | -20 | 204 | 194 | 216 | 205 |
| 51470D3 | 4927M-1-14 | 1 | CV | 10x10 | H | L | -20 | 204 | 194 | 216 | 205 |
| 51470D3 | 4927M-1-15 | 1 | CV | 10x10 | H | L | -20 | 204 | 194 | 216 | 205 |
| 51470D3 | 4927M-1-2 | 1 | CV | 10x10 | H | L | -20 | 179 | 220 | 197 | 199 |
| 51470D3 | 4927M-1-3 | 1 | CV | 10x10 | H | L | -20 | 179 | 220 | 197 | 199 |
| 51470D3 | 4927M-1-4 | 1 | CV | 10x10 | H | L | -20 | 179 | 220 | 197 | 199 |
| 51470D3 | 4927M-1-5 | 1 | CV | 10x10 | H | L | -20 | 179 | 220 | 197 | 199 |
| 51470D3 | 4927M-1-6 | 1 | CV | 10x10 | H | L | -20 | 179 | 220 | 197 | 199 |
| 51470D3 | 4927M-1-7 | 1 | CV | 10x10 | H | L | -20 | 179 | 220 | 197 | 199 |
| 51470D3 | 4927M-1-8 | 1 | CV | 10x10 | H | L | -20 | 179 | 220 | 197 | 199 |
| 51470D3 | 4927M-1-9 | 1 | CV | 10x10 | H | L | -20 | 179 | 220 | 197 | 199 |

Supplementary Information (C99)

Position: (C01) 1 = surface, 2 = middle, 3 = 1/3 of thickness, 4 = 1/4 of thickness

Notch: (C40) CU = Charpy U-notch, CV = Charpy V-notch, CVA = Charpy V-notch (ASTM)

Loc.: (C01) H = head, T = tail

Dir.: (C02) T = transversal, L = longitudinal



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Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

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Date of creation: (Z02)

04.07.2017

Certificate No.: (A03)

067305

Our order No.: (A08) 7231461Your order No.: (A07) 7082096

Order registration date: 23.05.2017

Date of dispatch: 04.07.2017 B

We hereby certify that the material has been made and tested in accordance with the mentioned specification(s).
 Certified according to Construction Products Regulations (305/2011/EU) by TÜV NORD Systems GmbH (Notified Body Reg. No. 0045).
 DOP's could be down-loaded from www.dansteel.dk



TÜV-NORD 0045-CPR-0554

Our products are Cobalt, Gold, Mercury free and are free of radioactive substances and do not exceed the clearing limit value of 100 Bq/kg, which guarantees the compliance with limit values given in the Radiation Protection Ordinance (StrlSchV) for the unrestricted clearance of solid material (StrlSchV Annex III, Section 5) for ferrous nuclides.
 Manufactured in Denmark



DanSteel
 Havnevej 33
 DK - 3300 Fredrikssø

(A01)(A04)Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

Information description

acc. to EN 10168

A Commercial transactions and parties involved

A01 Manufacturer's works
 A02 Type of inspection document
 A03 Document number
 A04 Manufacturer's mark
 A05 Originator of the inspection document
 A06 Customer consignee
 A07 Purchaser's order number and, where applicable, item number
 A08 Manufacturer's works order number
 A09 Customer article number
 A10 to A99 Supplementary information

B Description of Products

B01 Product
 B02 Steel designation
 B03 Any supplementary requirements
 B04 Product delivery condition
 B05 Reference (heat) treatment of samples
 B06 Marking of the product
 B07 Identification of the product
 B08 Number of pieces
 B09 to B11 Product dimensions
 B12 Theoretical mass
 B13 Actual mass
 B14 to B99 Supplementary information

C Inspection

C00 Identification of the sample
 C01 Location of the sample
 C02 Direction of the test pieces
 C03 Test temperature
 C04 to C09 Supplementary information

C10 Shape of the test piece
 C11 Yield or proof strength
 C12 Tensile strength
 C13 Elongation after fracture
 C14 to C29 Supplementary information
 C30 Method of test
 C31 Individual values
 C32 Mean value
 C33 to C39 Supplementary information
 C40 Type of test piece
 C41 Width of test piece
 C42 Individual values
 C43 Mean value
 C44 to C49 Supplementary information
 C50 to C69 Supplementary information
 C70 Steelmaking process
 C71 to C92 Chemical composition
 C93 to C99 Supplementary information

D Other tests

D01 Marking and identification, surface appearance, shape and dimensional properties
 D02 to D50 Non-destructive tests
 D51 to D99 Supplementary information

Z Validation

Z01 Statement of compliance
 Z02 Date of issue and validation
 Z03 Stamp of the inspection representative
 Z04 CE marking
 Z05 to Z99 Supplementary information