



PEEKAY STEEL CASTINGS (P) LTD

4/242 Chinnamaddampalayam, Billichchi Post,
Coimbatore - 641019

INSPECTION CERTIFICATE

EN 10204.3.1 and LGS 0213

| | | | | |
|---|------------------------|---------------------|---------------------|------------------------|
| Customer: | Order No/Date | Internal Reference | TCNo | PKC/EXP/626/GST/1819/9 |
| LESER GmbH Co. KG | 4500234951 & 07/11/18 | | Date | 04-Apr-2019 |
| F.P. No | Part Name | Drawing No | Item Code / Part No | |
| LS18B | DN100X150 PN40X16 BODY | 109.2400-05-B01/B02 | 109.2420.9000 | |
| Specification /Material | | | | No.of pieces |
| ASME SA216 Gr.WCB/WCC/EN10213:2016 1.0619 | | | | 22 |

| | | |
|---|-----------------|-------------------|
| Heat treatment | Melting Process | State of Delivery |
| Normalising at 920°C Soaking 7 Hrs Air Cooled | INDUCTION | Unmachined |

| Element | C | Mn | Si | P | S | Cr | Ni | Cu | Mo | V | Res | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|
| Min. Specified | 0.180 | 0.500 | 0.300 | ... | ... | ... | ... | ... | ... | ... | ... | | | | | |
| Max. Specified | 0.230 | 1.200 | 0.600 | 0.030 | 0.020 | 0.300 | 0.400 | 0.300 | 0.120 | 0.030 | 1.000 | | | | | |
| Heat No | Qty | | | | | | | | | | | | | | | |
| E6978 | 1 | 0.219 | 0.996 | 0.478 | 0.019 | 0.011 | 0.065 | 0.041 | 0.014 | 0.005 | 0.002 | 0.127 | | | | |
| E6979 | 2 | 0.205 | 0.949 | 0.458 | 0.020 | 0.014 | 0.093 | 0.081 | 0.017 | 0.017 | 0.002 | 0.210 | | | | |
| E7068 | 2 | 0.205 | 0.977 | 0.460 | 0.014 | 0.019 | 0.213 | 0.070 | 0.016 | 0.019 | 0.002 | 0.320 | | | | |
| E7090 | 3 | 0.187 | 0.931 | 0.437 | 0.012 | 0.016 | 0.223 | 0.083 | 0.021 | 0.018 | 0.003 | 0.348 | | | | |
| E7192 | 3 | 0.193 | 0.988 | 0.445 | 0.014 | 0.020 | 0.116 | 0.054 | 0.017 | 0.015 | 0.002 | 0.204 | | | | |
| E7223 | 7 | 0.208 | 0.928 | 0.459 | 0.011 | 0.018 | 0.078 | 0.055 | 0.014 | 0.007 | 0.001 | 0.155 | | | | |
| E7251 | 4 | 0.192 | 0.924 | 0.478 | 0.015 | 0.013 | 0.116 | 0.062 | 0.026 | 0.009 | 0.002 | 0.215 | | | | |
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| Mechanical | Yield | Tensile | Elongation | Reduction | Hardness | Impact value charpy-V ASTM-370/ | | | |
|------------|----------|----------|------------|-----------|----------|---------------------------------|----|----|-----|
| Properties | Strength | Strength | GL=62.50 | of Area | | ISO 148 at 20°C in KV(J) | | | |
| Min | 275 | 485 | 22 | 35 | ... | (10mm x 10mm x 55mm) CVN 2mm | | | |
| Max | ... | 600 | ... | ... | 237 | Single & Avg value 27 J | | | |
| Heat Code | Mpa | Mpa | % | % | HBW | 1 | 2 | 3 | Avg |
| E6978 | 306.00 | 523.00 | 28.16 | 55.42 | 163 | 78 | 84 | 80 | 81 |
| E6979 | 307.00 | 518.00 | 28.22 | 55.42 | 156 | 83 | 86 | 72 | 80 |
| E7068 | 317.00 | 536.00 | 27.78 | 56.70 | 156 | 81 | 78 | 83 | 81 |
| E7090 | 341.00 | 549.00 | 27.78 | 56.77 | 152 | 86 | 80 | 78 | 81 |
| E7192 | 323.00 | 538.00 | 28.58 | 56.99 | 152 | 80 | 76 | 79 | 78 |
| E7223 | 316.00 | 544.00 | 28.19 | 55.85 | 156 | 79 | 76 | 82 | 79 |
| E7251 | 342.00 | 567.00 | 28.38 | 56.70 | 163 | 84 | 82 | 80 | 82 |
| | | | | | | | | | |
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Remarks/Observations

Material According to: LDeS3290.04, LDeS3289.07 & ASME Section VIII & IIA SA216 Gr.WCB/WCC/EN 10213:2016 1.0619, EN10168 & NACE MR0175/ISO15156, MR0103. PED 2014/68/EU. AD2000 Merkblatt: A2, W5.
Casting conforming to Quality Level D as per DIN 1690 part 10 & 1559-1, 1559-2.
Visual inspection of Casting: Satisfactory According to MSS-SP-55 & BNIF 359-01.
Dimensional inspection: Satisfactory, According to Approved Drawing
Castings are free from radio active contamination.

Certified that the above mentioned material have been manufactured, tested and inspected in compliance with the requirements of Purchase order, conform in all respects to the relevant specification and drawings.

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|----------------|----------------------|-------|--------------------|--|
| Suppliers Logo | Prepared by | Stamp | Approved by | |
| PKC | David Selvakumar | | Vijaya Kumar K | |