
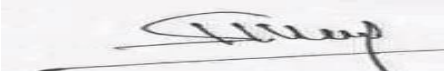




JAI AUTO PVT. LIMITED
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Works Test Certificate
EN 10204/3.1 B

| JAPL/LAB NO: 21-22/ | | INVOICE NO.: (J2122-266) | | DATE: 07-04-2022 | | | |
|------------------------|--------------------------------------|--------------------------|-----------|---|--|----------|--|
| Purchase Order No | 307794 | Customer | Quantity | Forging specification | ASME SA 105-2018 ASTM A105-2021 | | |
| Component | 1-1/2" -150# WNRF XH FLG. | | | Steel Supplier | RINL | | |
| Item Code | | | | Mill Heat No. | 156778 | | |
| Machining STD | ANSI B16.5- 2013 ASME B16.5- 2013 | | 65Nos. | JAPL. HEAT NO: 1564 | | | |
| TEST RESULTS | | | | JAPL. HEAT NO: 1564 | | | |
| CHEMICAL COMPOSTION | | | | MECHANICAL PROPERTIES | | | |
| Element % | Specified Composition | Actual | | PROPERTIES | SPECIFIED | OBTAINED | Specified carbon as per Purchase Order 0.25max. Serrated face as per MSS-SP-6 With in limits of 125-250AARH CARBON EQUIVALENT (CE) $CE = C + \frac{Mn}{6} + \frac{Cr+Mo+V}{5} + \frac{Ni+Cu}{15}$ MARKING AS PER MSS-SP-25-2013 1-1/2-150 XH SA/A105 1564 B16.5 JAPL INDIA |
| | | JAPL LAB | MILL T.C. | | | | |
| Carbon | 0.35max | 0.20 | 0.21 | Yield Strength (mpa) | 250.00min. | 356.64 | |
| Manganese | 0.60-1.35 | 1.10 | 1.10 | | | | |
| Silicon | 0.10-0.35 | 0.21 | 0.22 | | | | |
| Sulphur | 0.040max | 0.014 | 0.014 | Tensile Strength (mpa) | 485.00min. | 511.54 | |
| Phosphorous | 0.035max | 0.023 | 0.024 | | | | |
| Chromium | 0.30max | 0.015 | 0.011 | %Elongation in 50mm / 4D | 22.00min. | 28.50 | |
| Nickel | 0.40max | 0.003 | 0.001 | Hardness HBW | 187max. | 156-158 | |
| Copper | 0.40max | 0.006 | 0.001 | | | | |
| Molybdenum | 0.12max | 0.016 | 0.001 | % Reduction of Area | 30.00min. | 65.54 | |
| Vanadium | 0.08max | 0.001 | 0.001 | Remarks:- We hereby certify that the product satisfies the requirement of ASTM A 105 and material described here in has been tested in accordance with the applicable specifications referred above and meets the requirements as per EN10204/3.1B & NACE MRO-175 & ISO 15156. Product does not come in contact with mercury and lead during the manufacturing process. No weld repair was performed and all products are free of weld repair | | | |
| Carbon Equivalent (CE) | 0.47max | 0.390 | 0.396 | | | | |
| | | | | Checked by: |  Metallurgist | | |
| | | | | Certified by: |  Quality Control Manager | | |