



JAI AUTO PVT. LIMITED

VILLAGE KADDON. G.T ROAD DORAHA LUDHIANA (P.B.)INDIA
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Works Test Certificate

EN 10204/3.1 B

JAPL/LAB NO: 22-23/

INVOICE NO.: (J2223-099)

DATE: 26-08-2022

Purchase Order No P1027557

Customer

Forging specification

Component 1-1/2" -150# SOFF FLG.

ASTM SA 105-2019
ASTM A105-2021

Item Code

Steel Supplier

RINL

Machining STD ANSI B16.5- 2013
ASME B16.5- 2020

Quantity

20Nos.

Mill Heat No.

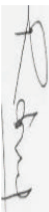

166542

TEST RESULTS

JAPL HEAT NO: 1790

CHEMICAL COMPOSTION

MECHANICAL PROPERTIES

| Element % | Specified Composition | Actual | | PROPERTIES | SPECIFIED | OBTAINED | Specified carbon as per Purchase Order 0.25max. |
|------------------------|-----------------------|----------|-----------|---|------------|----------|---|
| | | JAPL LAB | MILL T.C. | | | | |
| Carbon | 0.35max | 0.18 | 0.18 | Yield Strength (mpa) | 250.00min. | 324.40 | Serrated face as per MSS-SP-6 With in limits of 125-250AARH |
| Manganese | 0.60-1.35 | 1.12 | 1.08 | Tensile Strength (mpa) | 485.00min. | 646.98 | |
| Silicon | 0.10-0.35 | 0.24 | 0.23 | %Elongation in 50mm /4D | 22.00min. | 33.16 | CARBON EQUIVALENT (CE) CE = C + Mn + Cr+Mo+V + Ni+Cu 6 5 15 |
| Sulphur | 0.040max | 0.020 | 0.010 | Hardness HBW | 187max. | 161-169 | |
| Phosphorous | 0.035max | 0.023 | 0.024 | % Reduction of Area | 30.00min. | 62.49 | MARKING AS PER MSS-SP-25-2013 |
| Chromium | 0.30max | 0.002 | 0.008 | 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 | | | |
| Nickel | 0.40max | 0.007 | 0.001 | 1-1/2-150 SA/A105 1790 B16.5 JAPL INDIA | | | |
| Copper | 0.40max | 0.003 | 0.001 | | | | |
| Molybdenum | 0.12max | 0.002 | 0.002 | Checked by:  Metallurgist | | | |
| Vanadium | 0.08max | 0.008 | 0.002 | Certified by:  Quality Control Manager | | | |
| Carbon Equivalent (CE) | 0.47max | 0.369 | 0.362 | | | | |