

Laboratory Ramkrishna Forgings Limited, Plot M6, Phase VI, Gamahria,
Jamshedpur, Jharkhand

Accreditation Standard ISO/IEC 17025: 2005

Discipline Chemical Testing **Issue Date** 21.12.2013

Certificate Number T-2101 **Valid Until** 20.12.2015

Last Amended on 07.01.2014 **Page** 1 of 1

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|----------------------------|-------------------------------|-------------------------|---|---|
| METALS & ALLOYS | | | | |
| 1. | Low - Alloy Steel | Carbon | ASTM E415-2008 IS 8811-1998 | 0.050 % to 4.50 % |
| | | Silicon | | 0.05 % to 1.15 % |
| | | Manganese | | 0.10 % to 2.0 % |
| | | Sulphur | | 0.0010 % to 0.100 % |
| | | Phosphorus | | 0.0040 % to 0.085 % |
| | | Chromium | | 0.1 % to 5.0 % |
| | | Nickel | | 0.1 % to 5.0 % |
| | | Molybdenum | | 0.05 % to 0.6 % |
| | | Aluminium | | 0.010 % to 0.15 % |
| | | Boron | | 0.0002 % to 0.01 % |
| | | Copper | | 0.10% to 0.45 % |
| | | Vanadium | | 0.004 % to 0.30 % |
| | | Nitrogen | | 0.004 % to 0.015 % |

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