National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CHEMICAL AND METALLURGICAL LABORATORY, PATIALA LOCOMOTIVE WORKS, CHEMICAL AND METALLURGICAL LABORATORY, PATIALA LOCOMOTIVE WORKS, PATIALA, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-4026 **Page No** 1 of 2

Validity 30/06/2022 to 09/09/2023 **Last Amended on** -

S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
Permanent Facility				
1	CHEMICAL- METALS & ALLOYS	Low alloy steel	Aluminium	IS 8811
2	CHEMICAL- METALS & ALLOYS	Low alloy steel	Carbon	IS 8811
3	CHEMICAL- METALS & ALLOYS	Low Alloy Steel	Chromium	IS 8811
4	CHEMICAL- METALS & ALLOYS	low alloy steel	Copper	IS 8811
5	CHEMICAL- METALS & ALLOYS	low alloy steel	Manganese	IS 8811
6	CHEMICAL- METALS & ALLOYS	LOW ALLOY STEEL	Molybdenum	IS 8811
7	CHEMICAL- METALS & ALLOYS	Low alloy steel	Nickel	IS 8811
8	CHEMICAL- METALS & ALLOYS	low alloy steel	Phosphorous	IS 8811
9	CHEMICAL- METALS & ALLOYS	Low alloy steel	Silicon	IS 8811
10	CHEMICAL- METALS & ALLOYS	Low alloy steel	Sulfur	IS 8811
11	CHEMICAL- METALS & ALLOYS	Low alloy steel	Vanadium	IS 8811
12	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Izod impact test	IS 1598
13	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic materials	% Elongation	IS 1608 (Part 1)
14	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic materials	% Reduction area	IS 1608 (Part 1)
15	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness Test	IS 1500 (Part 1)
16	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic materials	Yield strength	IS 1608 (Part 1)

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17	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metals and alloys	Rockwell Hardness Test	IS 1586 (Part 1)
18	MECHANICAL-MECHANICAL PROPERTIES OF METALS	metals and alloys	Ultimate tensile strength	IS 1608 (Part 1)
19	MECHANICAL-METALLOGRAPHY TEST	Cast irons/grey irons/malleable iron/SG iron	Micro structural analysis	IS 7754
20	MECHANICAL-METALLOGRAPHY TEST	Ferrous Metals, Alloys & Cu	Micro structure analysis	IS 7739 Pt 1,3,4,5 & ASM Metal Handbook Vol 9
21	MECHANICAL-METALLOGRAPHY TEST	Ferrous Metals,(Steel Bars, Forging of Carbon and Low Alloys Steel) & Cu	Macro structure analysis	IS 11371
22	NON-DESTRUCTIVE-METALS & ALLOYS	forged steel axles for loco	Ultrasonic testing of forged axles for detection of internal flaws	RDSO code of procedures & ASTM A 388