National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : WESTERN HEAT & FORGE PVT. LTD., J-2, 'S', BLOCK, TELCO ROAD, MIDC, BHOSARI, PUNE, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5671 **Page No** 1 of 5

Validity 19/07/2022 to 18/07/2024 **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 Carbon Steel	Aluminium (Al)	ASTM E 415
2	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Boron (B)	ASTM E 415
3	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Calcium (Ca)	ASTM E 415
4	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon steel	Carbon (C)	ASTM E 415
5	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Chromium (Cr)	ASTM E 415
6	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Cobalt(Co)	ASTM E 415
7	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Copper (Cu)	ASTM E 415
8	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Manganese (Mn)	ASTM E 415
9	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Molybdenum (Mo)	ASTM E 415
10	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Nickel(Ni)	ASTM E 415
11	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Niobium (Nb)	ASTM E 415
12	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Phosphorus (P)	ASTM E 415
13	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Silicon (Si)	ASTM E 415
14	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Sulphur (S)	ASTM E 415
15	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Tin (Sn)	ASTM E 415
16	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Titanium (Ti)	ASTM E 415
17	CHEMICAL- METALS & ALLOYS	Low Alloy Carbon Steel	Vanadium (V)	ASTM E 415
18	CHEMICAL- METALS & ALLOYS	Stainless steel	Carbon	ASTM E1086

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19	CHEMICAL- METALS & ALLOYS	Stainless Steel	Chromium (Cr)	ASTM E1086
20	CHEMICAL- METALS & ALLOYS	Stainless steel	Copper (Cu)	JIS G 1253
21	CHEMICAL- METALS & ALLOYS	Stainless steel	Manganese (Mn)	ASTM E 1086
22	CHEMICAL- METALS & ALLOYS	Stainless steel	Molybdenum (Mo)	ASTM E 1086
23	CHEMICAL- METALS & ALLOYS	Stainless steel	Nickel(Ni)	JIS G 1253
24	CHEMICAL- METALS & ALLOYS	Stainless steel	Nitrogen (N)	JIS G1253
25	CHEMICAL- METALS & ALLOYS	Stainless Steel	Phosphorus (P)	ASTM E 1086
26	CHEMICAL- METALS & ALLOYS	Stainless steel	Silicon (Si)	ASTM E 1086
27	CHEMICAL- METALS & ALLOYS	Stainless steel	Sulphur (S)	ASTM E 1086
28	CHEMICAL- METALS & ALLOYS	Stainless steel	Tungsten (W)	JIS G 1253
29	CHEMICAL- METALS & ALLOYS	Stainless steel	Vanadium (V)	JIS G 1253
30	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous material, alloys & products	% Elongation	ISO 6892 Part-1
31	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous Material, Alloys & Products	0.2 % Proof stress	ASTM A370
32	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous Material, Alloys & Products	Tensile Strength	ASTM A370
33	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous Material, Alloys & Products	Yield Strength	ASTM A370
34	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous Material,Alloys & Product	Tensile Strength	ISO 6892 Part-1
35	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous materials alloys & products	Brinell Hardness Test 10/3000	ISO 6506 Part-1

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36	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Materials, Alloys & Products	% Elongation	ASTM A370
37	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	% Elongation	IS 1608(Part 1)
38	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, Alloys & products	% Reduction Area	ASTM A370
39	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	% Reduction Area	IS 1608
40	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	% Reduction Area	ISO 6892 Part-1
41	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Materials, Alloys & Products	0.2 % Proof stress	IS 1608(Part 1)
42	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Bend Test (Mandrel Size 5, 6, 8, 10, 12, 14, 16, 20, 24, 36, 38, 40, 50 mm)	ASTM A370
43	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Bend Test (Mandrel Size 5, 6, 8, 10, 12, 14, 16, 20, 24, 36, 38, 40, 50 mm)	ASTM E290
44	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Bend Test (Mandrel Size 5, 6, 8, 10, 12, 14, 16, 20, 24, 36, 38, 40, 50 mm)	IS 1599
45	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Brinell Hardness Test 10/3000	ASTM E10
46	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Brinell Hardness Test 5/750	ASTM E10
47	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Brinell Hardness Test 5/750	IS1500 Part-1
48	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Brinell Hardness Test 5/750	ISO 6506 Part-1
49	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Brinell Hardness Test, 10/3000	IS 1500(Part 1)

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50	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Charpy Impact Test (Room Temp. to -80°C)	ASTM E23
51	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Charpy Impact Test (Room Temp. to -80°C)	IS 1757 Part-1
52	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Charpy Impact Test (Room Temp. to -80°C)	ISO148 Part-1
53	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Rockwell Hardness	ASTM E18
54	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Rockwell Hardness	IS 1586(Part 1)
55	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Rockwell Hardness	ISO 6508 Part-1
56	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Tensile Strength	IS 1608(Part 1)
57	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Materials, Alloys & Products	Yeild Strength	ISO6892 Part-1
58	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Materials, Alloys & Products	Yield Strength	IS 1608(Part 1)
59	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Resistance to Intergranular corrosion Test practice E	ASTM A262
60	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Depth of Decarburization 100X to 1000X	ASTM E1077
61	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Detecting presence of detrimental inter metallic phase (Magnification 400X to 500X for method A)	ASTM A923
62	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Determination of inclusion rating (Qualitative A, B, C, D- 0.5 to 3.0, 100X)	ASTM E45 (Type A Method)
63	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Determination of inclusion rating- Method A (Qualitative A, B, C, D- 0.5 to 3.0, 100X)	IS 4163

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64	MECHANICAL-METALLOGRAPHY TEST	Ferrous Materials, alloys & products	Estimation of Grain Size by comparison method (100X, Size 1 to 9)	IS 4748
65	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Estimation of Grain Size by Microscopic Method (100X, Size 1 to 9)	ASTM E112
66	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Macro Examination	ASTM E381
67	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Micro structure Analysis	ASM Metals Handbook Vol. 9
68	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Resistance to Intergranular corrosion Test practice A	ASTM A262
69	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Volume fraction of phase (Magnification 100X to 500X, 2% to 80%)	ASTM E562