National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : RAMKRISHNA FORGINGS LIMITED - LABORATORY, PLOT M6, PHASE VI, GAMAHRIA, SARAIKELA KHARSAWAN, JAMSHEDPUR, JHARKHAND, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6834 **Page No** 1 of 6

Validity 17/07/2022 to 16/07/2024 **Last Amended on** 03/11/2022

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
LOCATION 1-PLOT M6, PHASE VI, GAMAHRIA, SARAIKELA KHARSAWAN, JAMSHEDPUR, JHARKHAND, INDIA Permanent Facility				
1	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Aluminium	IS 8811
2	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Boron	IS 8811
3	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Carbon	IS 8811
4	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Chromium	ASTM E415
5	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Chromium	IS 8811
6	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Copper	IS 8811
7	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Manganese	IS 8811
8	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Molybdenum	IS 8811
9	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Nickel	IS 8811
10	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Phosphorus	IS 8811
11	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Silicon	IS 8811
12	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Sulphur	IS 8811
13	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Vanadium	IS 8811
14	CHEMICAL- METALS & ALLOYS	Plain carbon and low alloy steel	Aluminium	ASTM E415
15	CHEMICAL- METALS & ALLOYS	Plain carbon and Low alloy steel	Carbon	ASTME415
16	CHEMICAL- METALS & ALLOYS	Plain carbon and low alloy steel	Copper	ASTM E415
17	CHEMICAL- METALS & ALLOYS	Plain carbon and Low Alloy Steel	Manganese	ASTM E415
18	CHEMICAL- METALS & ALLOYS	Plain carbon and low alloy steel	Molybdenum	ASTM E415

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19	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low alloy steel	Nickel	ASTM E415
20	CHEMICAL- METALS & ALLOYS	Plain carbon and low alloy steel	Phosphorus	ASTM E415
21	CHEMICAL- METALS & ALLOYS	Plain carbon and Low Alloy Steel	Silicon	ASTM E415
22	CHEMICAL- METALS & ALLOYS	Plain carbon and Low Alloy Steel	Sulphur	ASTM E415
23	CHEMICAL- METALS & ALLOYS	Plain carbon and Low alloy steel	Vanadium	ASTM E415
24	CHEMICAL- METALS & ALLOYS	Plain crabon and alloy steel	Boron	ASTM E415
25	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Jominy Hardenability Test	IS 3848
26	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	% Elongation	ASTM A370
27	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	% Elongation	IS 1608 part1
28	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	% Reduction in Area	ASTM A370
29	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	% Reduction in Area	IS 1608 part1
30	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Bend Test	IS 1599
31	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Brinell Hardness (10/3000)	IS1500 part1
32	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Charpy Impact Test (U-notch) @RT to -40 Deg. C	IS 1499
33	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Charpy Impact Test (V-notch) @RT to -40 Deg. C	IS 1757 part1

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Accreditation Standard	ISO/IEC 17025:2017		
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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
34	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Izod Impact Test @RT	IS 1598
35	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Rockwell Hardness (HRB)	IS1586 part1
36	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Rockwell Hardness (HRC)	IS1586 part1
37	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Ultimate Tensile Strength	ASTM A 370
38	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Ultimate Tensile Strength	IS1608 part1
39	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Yield Strength	ASTM 370
40	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Yield Strength	IS 1608 part1
41	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Impact Test (Charpy U& V Notch)	Charpy U& V Notch (Room temp. and up to -40 Deg. C	IS 1757 part1
42	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Grain Size	ASTM E-112
43	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Grain Size	IS 4748
44	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Inclusion Rating (A,B,C,D in thin & thick series)	ASTM E45
45	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Inclusion Rating (A,B,C,D in thin & thick series)	IS 4163
46	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Macro structure	ASTM E381
47	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Macro structure	IS 13015
48	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Microstructure	ASM Hand book volume 9

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LOCATION 2 - PLANT V, BALIGUMA, SARAIKELA KHARSAWAN, JAMSHEDPUR, JHARKHAND, INDIA Permanent Facility				
1	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Aluminium	ASTM E415
2	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Aluminium	IS 8811
3	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Boron	ASTM E415
4	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Boron	IS 8811
5	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Carbon	ASTM E415
6	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Carbon	IS 8811
7	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Chromium	IS 8811
8	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Copper	ASTM E415
9	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Copper	IS 8811
10	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Manganese	IS 8811
11	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Moiybdenum	IS 8811
12	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Nickel	IS 8811
13	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Phosphorus	ASTM E415
14	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Phosphorus	IS 8811
15	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Silicon	IS 8811
16	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Sulphur	ASTM E415
17	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Sulphur	IS 8811
18	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Vanadium	ASTM E415

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19	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low Alloy Steel	Vanadium	IS 8811
20	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	% Elongation	ASTM A370
21	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	% Reduction in Area	ASTM A370
22	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	0.2% Proof Strength	ASTM A370
23	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Brinell Hardness Testing (5/750 and 10/3000)	IS 1500 Part -I
24	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Charpy Impact Test(U notch)@RT to -40 Deg. C	IS 1499
25	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Izod Impact Test @ RT	IS 1598
26	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Jominy Hardenablity Test	IS 3848
27	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Micro Vickers Hardness (HV1)	ASTM E 384
28	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Micro Vickers Hardness(HV1)	IS 1501 part1
29	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Rockwell Hardness	IS 1586 part1
30	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Rockwell Hardness (HRB)	IS 1586 Part1
31	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Ultimate Tensile Strength	ASTM A370 part1
32	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Ultimate Tensile Strength	IS 1608 part1

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33	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Yield Strength	ASTM A370
34	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Yield Strength	IS 1608 part1
35	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials,alloys & products	% Elongation	IS 1608 part1
36	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials,alloys & products	% Reduction in Area	IS 1608 part1
37	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials,alloys & products	Charpy Impact Test(V-notch)@RT to -70 Deg. C	IS1757 part1
38	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials,alloys & products	Grain Size	ASTM E 112
39	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials,alloys & products	Grain Size	IS 4748
40	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials,alloys & products	Inclusion Rating(A,B,C,D in Thin & Thick series)	ASTM E45
41	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials,alloys & products	Inclusion Rating(A,B,C,D in thin & thick series)	IS 4163
42	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials,alloys & products	Macro Structure	ASTM E381
43	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials,alloys & products	Macro Structure	IS 13015
44	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials,alloys & products	Microstructure	ASM Handbook volume 9