National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : METALLURGICAL LABORATORY, ORDNANCE FACTORY, A UNIT OF ARMOURED VEHICLES NIGAM LIMITED, YEDDUMAILARAM, MEDAK, SANGAREDDY, TELANGANA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5467 **Page No** 1 of 6

Validity 07/10/2022 to 11/10/2023 **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	Al Alloy	Copper	IS 504
2	CHEMICAL- METALS & ALLOYS	Al Alloy	Magnesium	SOP/TP(C)/04
3	CHEMICAL- METALS & ALLOYS	Al Alloy	Manganese	IS 504
4	CHEMICAL- METALS & ALLOYS	Al Alloy	Silicon	IS 504
5	CHEMICAL- METALS & ALLOYS	Al- Alloy	Copper	ASTM E 1251
6	CHEMICAL- METALS & ALLOYS	Al-Alloy	Chromium	ASTM E 1251
7	CHEMICAL- METALS & ALLOYS	Al-Alloy	Iron	ASTM E 1251
8	CHEMICAL- METALS & ALLOYS	Al-Alloy	Magnesium	ASTM E 1251
9	CHEMICAL- METALS & ALLOYS	Al-Alloy	Manganese	ASTM E 1251
10	CHEMICAL- METALS & ALLOYS	Al-Alloy	Nickel	ASTM E 1251
11	CHEMICAL- METALS & ALLOYS	Al-Alloy	Silicon	ASTM E 1251
12	CHEMICAL- METALS & ALLOYS	Al-Alloy	Titanium	ASTM E 1251
13	CHEMICAL- METALS & ALLOYS	Al-Alloy	Zinc	ASTM E 1251
14	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Carbon	IS 9879 / ASTM E 1086
15	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Chromium	IS 228 (Part 6)
16	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Chromium	IS 9879 / ASTM E 1086
17	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Manganese	IS 9879 / ASTM E 1086
18	CHEMICAL- METALS & ALLOYS	Austenitic Stainless steel	Nickel	IS 228 (Part 5)

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Certificate Number TC-5467 **Page No** 2 of 6

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19	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Nickel	IS 9879 / ASTM E 1086
20	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Phosphorous	IS 9879 / ASTM E 1086
21	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Silicon	IS 228 (Part 8)
22	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Silicon	IS 9879 / ASTM E 1086
23	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Sulphur	IS 9879 / ASTM E 1086
24	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Carbon	IS 8811
25	CHEMICAL- METALS & ALLOYS	Carbon steel & Low Alloy Steel	Chromium	IS 228 (Part 6)
26	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Chromium	IS 8811
27	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Copper	IS 8811
28	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Manganese	IS 228 (Part 2)
29	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Manganese	IS 8811
30	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Molybdenum	IS 8811
31	CHEMICAL- METALS & ALLOYS	Carbon steel & Low Alloy Steel	Nickel	IS 228 (Part 5)
32	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Nickel	IS 8811
33	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Phosphorous	IS 8811
34	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Silicon	IS 228 (Part 8)
35	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Silicon	IS 8811
36	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Sulphur	IS 8811
37	CHEMICAL- METALS & ALLOYS	Carbon Steel, Low Alloy Steel, Austenitic Stainless Steel, Tool Steel	Carbon	ASTM E 1019

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5467 **Page No** 3 of 6

Validity 07/10/2022 to 11/10/2023 **Last Amended on** -

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38	CHEMICAL- METALS & ALLOYS	Carbon Steel, Low Alloy Steel, Austenitic Stainless Steel, Tool Steel	Sulphur	ASTM E 1019
39	CHEMICAL- METALS & ALLOYS	Cast Iron	Carbon	ASTM E 1019
40	CHEMICAL- METALS & ALLOYS	Copper Alloy	Copper	SOP/TP(C)/05
41	CHEMICAL- METALS & ALLOYS	Copper Alloy	Tin	SOP/TP(C)/05-2
42	CHEMICAL- METALS & ALLOYS	Ferro Chromium	Chromium	IS 1559
43	CHEMICAL- METALS & ALLOYS	Ferro Manganese	Manganese	IS 1559
44	CHEMICAL- METALS & ALLOYS	Ferro silicon	Silicon	IS 1559
45	CHEMICAL- METALS & ALLOYS	Tool steel	Carbon	SOP/C/ML/01
46	CHEMICAL- METALS & ALLOYS	Tool Steel	Chromium	SOP/C/ML/01
47	CHEMICAL- METALS & ALLOYS	Tool Steel	Cobalt	SOP/C/ML/01
48	CHEMICAL- METALS & ALLOYS	Tool Steel	Manganese	SOP/C/ML/01
49	CHEMICAL- METALS & ALLOYS	Tool Steel	Molybdenum	SOP/C/ML/01
50	CHEMICAL- METALS & ALLOYS	Tool Steel	Phosphorous	SOP/C/ML/01
51	CHEMICAL- METALS & ALLOYS	Tool steel	Silicon	SOP/C/ML/01
52	CHEMICAL- METALS & ALLOYS	Tool Steel	Sulphur	SOP/C/ML/01
53	CHEMICAL- METALS & ALLOYS	Tool Steel	Tungsten	SOP/C/ML/01
54	CHEMICAL- METALS & ALLOYS	Tool Steel	Vanadium	SOP/C/ML/01
55	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium	% Elongation	IS 1608 Part 1

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5467 **Page No** 4 of 6

Validity 07/10/2022 to 11/10/2023 **Last Amended on** -

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56	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Aluminium	Ultimate Tensile Strength	IS 1608 Part 1
57	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Aluminium	Yield Strength	IS 1608 Part 1
58	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Metals	Charpy Impact V notch (Temperature from -40 to 35° C)	IS 1757 -Part 1
59	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Metals	I-Zod Impact V notch (Room Temperature)	IS 1598
60	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous/ Non Ferrous Metals	Bend Test	IS 1599
61	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous/ Non Ferrous Metals	Brinell Hardness (Dia. 10mm/3000 kg for steel)	IS 1500 Part 1
62	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous/ Non Ferrous Metals	Brinell Hardness (Dia. 5mm/250kg for Aluminium)	IS 1500-Part1
63	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous/ Non Ferrous Metals	Brinell Hardness (Dia. 5mm/750kg for steel)	IS 1500 Part 1
64	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous/ Non Ferrous Metals	Micro Vickers Hardness	IS 1501 Part 1
65	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous/ Non Ferrous Metals	Rockwell Hardness	IS 1586 Part 1
66	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous/ Non Ferrous Metals	Rockwell Hardness	IS 1586 Part 1
67	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous/ Non Ferrous Metals	Vickers Hardness (1 kg, 10kg , 30 kg)	IS 1501 Part 1
68	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous/ Non Ferrous Metals	Vickers Hardness (1 kg, 10kg, 30kg)	IS 1501 Part 1
69	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous/ Non Ferrous Metals	Vickers Hardness (1kg, 10kg , 30kg)	IS 1501 Part 1

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5467 **Page No** 5 of 6

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70	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous/ Non Ferrous Metals (Pipes)	Flattening Test	IS 2328
71	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Springs (Steel)	Compression (Length 0 to 350mm , Dia.50 mm/Max, Load 200kg/Max)	SOP/M/ML/12 ISSUE DATE:14/06/2019
72	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	% Elongation	IS 1608-part 1
73	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	% Reduction in Area	IS 1608-part 1
74	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	0.2% Proof Stress	IS 1608- Part 1
75	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Ultimate Tensile Strength	IS 1608-Part 1
76	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Yield Strength	IS 1608-Part 1
77	MECHANICAL-METALLOGRAPHY TEST	Cast iron	Designation of Microstructure of Graphite in Cast Iron by (Form I to VI), Size (Table 1-8), & Distribution (A to E) by Comparision Method	IS 7754 , ASTM A 247
78	MECHANICAL-METALLOGRAPHY TEST	Ferrous and Non Ferrous metals	Grain size by comparison method	ASTM E 112
79	MECHANICAL-METALLOGRAPHY TEST	Metals and Alloys	Macro Structure	ASTM E 381
80	MECHANICAL-METALLOGRAPHY TEST	Steel, Stainless steel, Copper , Aluminium	Micro structure	ASM Hand book Vol 9
81	MECHANICAL-METALLOGRAPHY TEST	Steels	Case Depth measurement by Microscopic method	IS 6416
82	MECHANICAL-METALLOGRAPHY TEST	Steels	Depth of Decarburization Layer by microscopic method	IS 6396
83	NON-DESTRUCTIVE-METALS & ALLOYS	Castings & Welds	Radiography Test by using X-rays (Digital)	ASME V article 2

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Certificate Number TC-5467 **Page No** 6 of 6

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84	NON-DESTRUCTIVE-METALS & ALLOYS	Ferro Magnetic Material	MPT (Central Conductor and Cable Yoke U Prod) Wet & Dry Fluorescent UV light & Non Fluorescent)	IS 3703
85	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Joints of Steel Plates	Ultrasonic Test By Contact Method	IS 3664