SCOPE OF ACCREDITATION

Laboratory Name : COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6937 **Page No** 1 of 12

Validity 07/04/2022 to 06/04/2024 **Last Amended on** 03/05/2022

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
Permanent Facility				
1	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Conversion Coatings (Anodic)	Coating Thickness	ASTM B244
2	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Conversion Coatings (Anodic)	Coating Thickness	IS 6012
3	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Metal finishing materials (Powder coated)	Coating Thickness	ASTM B244
4	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Metal finishing materials (Powder coated)	Coating Thickness	IS 6012
5	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Metallic Coatings & Treatment Solutions	Coating Thickness (Eddy Current Method)	IS 5523 (Cl. 2.4)
6	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Metallic Coatings & Treatment Solutions	Coating Thickness (Magnetic Method)	IS 3203 (Cl. 4)
7	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Metallic Coatings & Treatment Solutions	Mass of Zinc Coating	IS 6745
8	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Metallic Coatings & Treatment Solutions	Uniformity of Coating	IS 2633
9	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Metallic Coatings (Electroplating)	Coating Thickness	ASTM E376
10	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Metallic Coatings (Electroplating)	Coating Thickness	IS 6012
11	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Metallic Coatings (Hot-dipped Galvanizing)	Coating Thickness	ASTM E376
12	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Metallic Coatings (Hot-dipped Galvanizing)	Coating Thickness	IS 6012
13	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Aluminium	ASTM E415
14	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Aluminium	IS 8811

SCOPE OF ACCREDITATION

Laboratory Name :	COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-6937	**Page No**	2 of 12
Validity	07/04/2022 to 06/04/2024	**Last Amended on**	03/05/2022

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
15	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Carbon	ASTM E415
16	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Carbon	IS 8811
17	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Chromium	ASTM E415
18	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Chromium	IS 8811
19	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Copper	ASTM E415
20	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Copper	IS 8811
21	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Manganese	ASTM E415
22	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Manganese	IS 8811
23	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Molybdenum	ASTM E415
24	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Molybdenum	IS 8811
25	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Nickel	ASTM E415
26	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Nickel	IS 8811
27	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Phosphorous	IS 8811
28	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Phosphorus	ASTM E415
29	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Silicon	ASTM E415
30	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Silicon	IS 8811
31	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Sulphur	ASTM E415
32	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Sulphur	IS 8811
33	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Vanadium	ASTM E415

SCOPE OF ACCREDITATION

Laboratory Name : COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6937 **Page No** 3 of 12

Validity 07/04/2022 to 06/04/2024 **Last Amended on** 03/05/2022

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
34	CHEMICAL- METALS & ALLOYS	Carbon Steel & Low Alloy Steel	Vanadium	IS 8811
35	CHEMICAL- METALS & ALLOYS	Stainless Steel	Carbon	ASTM E1086
36	CHEMICAL- METALS & ALLOYS	Stainless Steel	Carbon	IS 9879
37	CHEMICAL- METALS & ALLOYS	Stainless Steel	Chromium	ASTM E1086
38	CHEMICAL- METALS & ALLOYS	Stainless Steel	Chromium	IS 9879
39	CHEMICAL- METALS & ALLOYS	Stainless Steel	Copper	ASTM E1086
40	CHEMICAL- METALS & ALLOYS	Stainless Steel	Copper	IS 9879
41	CHEMICAL- METALS & ALLOYS	Stainless Steel	Manganese	ASTM E1086
42	CHEMICAL- METALS & ALLOYS	Stainless Steel	Manganese	IS 9879
43	CHEMICAL- METALS & ALLOYS	Stainless Steel	Molybdenum	ASTM E1086
44	CHEMICAL- METALS & ALLOYS	Stainless Steel	Molybdenum	IS 9879
45	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nickel	ASTM E1086
46	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nickel	IS 9879
47	CHEMICAL- METALS & ALLOYS	Stainless Steel	Phosphorus	ASTM E1086
48	CHEMICAL- METALS & ALLOYS	Stainless Steel	Phosphorus	IS 9879
49	CHEMICAL- METALS & ALLOYS	Stainless Steel	Silicon	ASTM E1086
50	CHEMICAL- METALS & ALLOYS	Stainless Steel	Silicon	IS 9879
51	CHEMICAL- METALS & ALLOYS	Stainless Steel	Sulphur	ASTM E1086
52	CHEMICAL- METALS & ALLOYS	Stainless Steel	Sulphur	IS 9879

SCOPE OF ACCREDITATION

Laboratory Name : COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6937 **Page No** 4 of 12

Validity 07/04/2022 to 06/04/2024 **Last Amended on** 03/05/2022

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
53	MECHANICAL- BUILDINGS MATERIALS	High strength deformed steel bars and wires for concrete reinforcement	0.2 % Proof Stress	IS 1608 (Part 1)
54	MECHANICAL- BUILDINGS MATERIALS	High strength deformed steel bars and wires for concrete reinforcement	Bend	IS 1599
55	MECHANICAL- BUILDINGS MATERIALS	High strength deformed steel bars and wires for concrete reinforcement	Elongation	IS 1608 (Part 1)
56	MECHANICAL- BUILDINGS MATERIALS	High strength deformed steel bars and wires for concrete reinforcement	Mass Per Meter	IS 1786
57	MECHANICAL- BUILDINGS MATERIALS	High strength deformed steel bars and wires for concrete reinforcement	Re-bend	IS 1786
58	MECHANICAL- BUILDINGS MATERIALS	High strength deformed steel bars and wires for concrete reinforcement	Tensile Strength	IS 1608 (Part 1)
59	MECHANICAL- BUILDINGS MATERIALS	High strength deformed steel bars and wires for concrete reinforcement	Yield Strength	IS 1608 (Part 1)
60	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium	Fillet Weld Fracture	AWS D1.2/D1.2M
61	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium	Tensile Strength (Transverse)	AWS D1.2/D1.2M
62	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium	Transverse Bend	AWS D1.2/D1.2M
63	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium and its alloys	Fillet Weld Fracture	ISO 9017
64	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous	Fillet Weld Fracture	IS 3600 (Part 8)
65	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous	Nick Break	API 1104
66	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Charpy Impact (Room Temp to minus 60ºC)	IS 1757 (Part 1)
67	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	% Reduction of Area	IS 1608 (Part 1)

SCOPE OF ACCREDITATION

Laboratory Name : COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6937 **Page No** 5 of 12

Validity 07/04/2022 to 06/04/2024 **Last Amended on** 03/05/2022

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
68	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	% Reduction of Area (Longitudinal)	ISO 6892 (Part 1)
69	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	%Elongation	IS 1608 (Part 1)
70	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	%Elongation (Longitudinal)	ASME (Sec IIC)
71	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	%Reduction of Area (Longitudinal)	ASME (Sec IIC)
72	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Elongation (Longitudinal)	ISO 6892 (Part 1)
73	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Fillet Weld Fracture	ASME (Sec IX)
74	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Fillet Weld Fracture	IBR REG 1950 ED
75	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non ferrous	Fillet Weld Fracture	ISO 17639
76	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Side Bend	IBR REG 1950 ED
77	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Tensile Strength (Longitudinal)	ASME (Sec IIC)
78	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Tensile Strength (Longitudinal) (Load: 2.5kN to 950kN)	IS 1608 (Part 1)
79	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non ferrous	Tensile Strength (Longitudinal) (Load: 2.5kN to 950kN)	ISO 6892 (Part 1)
80	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Tensile Strength (Transverse)	API 1104
81	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Tensile Strength (Transverse)	ASME (Sec IX)

SCOPE OF ACCREDITATION

Laboratory Name :	COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-6937	**Page No**	6 of 12
Validity	07/04/2022 to 06/04/2024	**Last Amended on**	03/05/2022

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
82	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Tensile Strength (Transverse)	IBR REG 1950 ED
83	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Tensile Strength (Transverse)	IS 3600 (Part 3)
84	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Tensile Strength (Transverse)	ISO 4136
85	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Transverse Bend	API 1104
86	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Transverse Bend	ASME (Sec IX)
87	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Transverse Bend	IS 3600 (Part 5)
88	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Transverse Bend	ISO 5173
89	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Transverse Bend	IBR REG 1950 ED
90	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Yield Strength (Longitudinal)	ASME (Sec IIC)
91	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Yield Strength (Longitudinal) (Load: 2.5kN to 950kN)	IS 1608 (Part 1)
92	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous	Yield Strength (Longitudinal) (Load: 2.5kN to 950kN)	ISO 6892 (Part 1)
93	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	0.2 % Proof Stress	IS 1608 (Part 1)
94	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Rockwell Hardness - HRB	ISO 6508 (Part 1)
95	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Rockwell Hardness - HRB	ASTM E18

SCOPE OF ACCREDITATION

Laboratory Name : COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6937 **Page No** 7 of 12

Validity 07/04/2022 to 06/04/2024 **Last Amended on** 03/05/2022

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
96	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Rockwell Hardness - HRC	IS 1586 (Part 1)
97	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Vickers Hardness - HV1	IS 1501 (Part 1)
98	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Vickers Hardness - HV20	IS 1501 (Part 1)
99	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Vickers Hardness - HV5	IS 1501 (Part 1)
100	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Vickers Hardness - HV5	ISO 6507 (Part 1)
101	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	% Elongation	ASTM E8/E8M
102	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	% Elongation	IS 1608 (Part 1)
103	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	% Elongation	ISO 6892 (Part 1)
104	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	% Reduction of Area	ASTM E8/E8M
105	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	% Reduction of Area	IS 1608 (Part 1)
106	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	% Reduction of Area	ISO 6892 (Part 1)
107	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	0.2 % Proof Stress	ASTM E8/E8M
108	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	0.2 % Proof Stress	ISO 6892 (Part 1)
109	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Rockwell Hardness - HRA	ISO 6508 (Part 1)

SCOPE OF ACCREDITATION

Laboratory Name :	COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-6937	**Page No**	8 of 12
Validity	07/04/2022 to 06/04/2024	**Last Amended on**	03/05/2022

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
110	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Rockwell Hardness - HRC	ISO 6508 (Part 1)
111	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Rockwell Hardness - HRC	ASTM E18
112	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Tensile Strength	ASTM E8/E8M
113	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Tensile Strength	IS 1608 (Part 1)
114	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Tensile Strength	ISO 6892 (Part 1)
115	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Vickers Hardness - HV1	ISO 6507 (Part 1)
116	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Vickers Hardness - HV10	IS 1501 (Part 1)
117	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Vickers Hardness - HV10	ISO 6507 (Part 1)
118	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Vickers Hardness - HV20	ISO 6507 (Part 1)
119	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Vickers Hardness - HV50	IS 1501 (Part 1)
120	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Vickers Hardness - HV50	ISO 6507 (Part 1)
121	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Yield Strength	ASTM E8/E8M
122	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Yield Strength	IS 1608 (Part 1)
123	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Yield Strength	ISO 6892 (Part 1)

SCOPE OF ACCREDITATION

Laboratory Name : COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6937 **Page No** 9 of 12

Validity 07/04/2022 to 06/04/2024 **Last Amended on** 03/05/2022

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
124	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous Metals	Yield Strength at 0.2 % offset	ASTM E8/E8M
125	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Nonferrous Metals	Bend	IS 1599
126	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Nonferrous Metals	Rockwell Hardness - HRA	IS 1586 (Part 1)
127	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Nonferrous Metals	Bend	ISO 7438
128	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Nonferrous Metals	Charpy V Notch Impact (Room Temp. to minus 60ºC)	ISO 148 (Part 1)
129	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Nonferrous Metals	Rockwell Hardness - HRA	ASTM E18
130	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Charpy V Notch Impact (Room Temp. to minus 60ºC)	IS 1757 (Part 1)
131	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Rockwell Hardness - HRB	IS 1586 (Part 1)
132	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Tubes	Flaring/Drift Expansion	IS 2335
133	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Tubes	Flattening	IS 2328
134	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Tubes	Flattening	ISO 8492
135	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Tubes	Mass Per Meter	IS 1239 (Part 1)
136	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Stainless Steel	Fillet Weld Fracture	AWS D1.6/D1.6M
137	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Stainless Steel	Tensile Strength (Transverse)	AWS D1.6/D1.6M

SCOPE OF ACCREDITATION

Laboratory Name : COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6937 **Page No** 10 of 12

Validity 07/04/2022 to 06/04/2024 **Last Amended on** 03/05/2022

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
138	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Stainless Steel	Transverse Bend	AWS D1.6/D1.6M
139	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	% of Elongation (Longitudinal)	IS 3600 (Part 4)
140	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	%Reduction of Area (Longitudinal)	IS 3600 (Part 4)
141	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Charpy Impact (Room Temp to minus 60ºC)	IS 3600 (Part 2)
142	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Fillet Weld Fracture	AWS D1.1/D1.1M
143	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Fillet Weld Fracture	IS 7307 (Part 1)
144	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Nick Break	IS 3600 (Part 8)
145	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Tensile Strength (Longitudinal)	IS 3600 (Part 4)
146	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Tensile Strength (Transverse)	AWS D1.1/D1.1M
147	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Tensile Strength (Transverse)	IS 7307 (Part 1)
148	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Transverse Bend	AWS D1.1/D1.1M
149	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Transverse Bend	IS 3600 (Part 5)
150	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Transverse Bend	IS 7307 (Part 1)
151	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Yield Strength (Longitudinal)	IS 3600 (Part 4)

SCOPE OF ACCREDITATION

Laboratory Name : COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6937 **Page No** 11 of 12

Validity 07/04/2022 to 06/04/2024 **Last Amended on** 03/05/2022

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
152	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel products	%Elongation	ASTM A370
153	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel products	%Reduction of Area	ASTM A370
154	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel products	0.2 % Proof Stress	ASTM A370
155	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel products	Bend	ASTM A370
156	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel products	Rockwell Hardness - HRA	ASTM A370
157	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel products	Rockwell Hardness - HRB	ASTM A370
158	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel products	Rockwell Hardness - HRC	ASTM A370
159	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel products	Tensile Strength	ASTM A370
160	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Tensile Strength (Load: 2.5kN to 950kN)	ASTM A370
161	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel products	Yield Strength	ASTM A370
162	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel tubes	Flaring/Drift Expansion	ASTM A370
163	MECHANICAL-MECHANICAL PROPERTIES OF METALS	steel tubes	Flattening	ASTM A370
164	MECHANICAL-METALLOGRAPHY TEST	Aluminium	Macro Examination	AWS D1.2/D1.2M
165	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non Ferrous	Macro Examination	API 1104

SCOPE OF ACCREDITATION

Laboratory Name : COCHIN SHIPYARD CENTRAL LABORATORY, COCHIN SHIPYARD LIMITED, PERUMANOOR P.O., KOCHI, ERNAKULAM, KERALA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6937 **Page No** 12 of 12

Validity 07/04/2022 to 06/04/2024 **Last Amended on** 03/05/2022

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
166	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non Ferrous	Macro Examination	ASME (Sec IX)
167	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non Ferrous	Macro Examination	ASTM E340
168	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non Ferrous	Macro Examination	IBR REG 1950 ED
169	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non Ferrous	Macro Examination	ISO 17639
170	MECHANICAL-METALLOGRAPHY TEST	Stainless Steel	Macro Examination	AWS D1.6/D1.6M
171	MECHANICAL-METALLOGRAPHY TEST	Steel	Macro Examination	AWS D1.1/D1.1M
172	MECHANICAL-METALLOGRAPHY TEST	Steel	Macro Examination	IS 3600 (Part 9)
173	MECHANICAL-METALLOGRAPHY TEST	Steel	Macro Examination	IS 7307 (Part 1)