

Laboratory	Balmer Lawrie & Co. Ltd., QA Laboratory, P-43, Hide Road Extension, Kolkata, West Bengal		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	30.04.2015
Certificate Number	T-1875	Valid Until	29.04.2017
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	LUBRICANTS			
1.	Lubricants	Kinematic Viscosity at 40°C	IS 1448 (Part 25): 1976 ASTM D445-2012	0.5 cSt to 1500 cSt
		Kinematic Viscosity at 100°C	IS 1448 (Part 25): 1976 (RA 2003) ASTM D445-2012	0.5 cSt to 60 cSt
		Viscosity Index	IS1448 (Part 56): 1980 (RA 2003) ASTM D2270-2010	(-)30 to 200
		Colour, ASTM	IS 1448 (Part 12): 1967 (RA 2003) ASTM D1500-2007	0 to 8.0
		Crackle Test	-	Qualitative
		Flash Point (COC)	IS 1448 (Part 69):1969 (RA 2003) ASTM D92-2012 b	60 °C to 400 °C
		Density at 30°C	IS 1448 (Part16): 1990 (RA 2002) ASTM D1298-1999	0.750 gm/ml to 1.00 gm/ml
		Cu Strip Corrosion	IS 1448(Part15): 2004 ASTM D130-2004	1a to 4c
		Appearance	Visual	Qualitative
		Foaming Characteristics	IS 1448 (Part 67): 1982 ASTM D892-2013	0 to 500 ml
		Emulsion Characteristics	ASTM D1401-2012	0 to 30 min

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	Lubricants	Total Base Number (TBN)	IS 1448(P-86): 1977 ASTM D2896 - 2011	1 mg KOH/gm to 100.0 mg KOH/gm
		Cold Cranking Simulator (CCS)	ASTM D5293-2010	3000 mpa.s to 11000 mpa.s
		National Aerospace Standard (NAS) Value	NAS 1638 / ISO 4406	01 Class to 12 Class
		Colour	Visual	Qualitative
		Shear Stability of Polymer Containing Oil , Viscosity Loss	ASTM D217-2012	0 to 30%
		Acid Value	IS 1448 (Part 60): 1964	0.1 to 200 mg KOH/gm
		Saponification value	IS 1448 (Part 60): 1964	0.1 to 200 mg KOH/gm.
2.	Grease	Consistency of worked Grease (60 Strokes) at 25 ± 0.5°C	IS 1448 (Part 60): 1994 ASTM D 217-2010	165 1/10 of mm to 430 1/10 of mm
		Consistency of worked Grease(10000 Strokes) at 25 ± 0.5°C	IS 1448 (Part 60): 1994 ASTM D 217-2010	165 1/10 of mm to 430 1/10 of mm
		Consistency of unworked Grease at 25 ± 0.5°C	IS 1448 (Part 60): 1994 ASTM D 217-2010	165 1/10 of mm to 430 1/10 of mm
		Dropping Point	IS 1448 (Part 52):1971 ASTM D566-2002	90 °C to 300 °C
		Base Oil Extraction from Grease	IS 1448 (Part 59):1991	10 to 90
		Determination of Acidity and Alkalinity of grease	IS1448 (Part 62):1974	0 to 2%

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	Grease	Evaporation Loss in Greases	IS 1448 (Part 61): 1974	0 to 3%
		Heat Stability of Greases, Method A	IS 1448 (Part 62): 1974	Qualitative
		Thermal Stability of Greases	IS 548 (Part 89): 1979	0 to 6%
		Oil Separation on Storage of Greases	IS 548 (Part I): 1964 ASTM D1742-2006	0 to - 10%
3.	Lubricants / Grease	Water Content by Distillation (Dean Stark Apparatus)	IS1448 (Part 40) ASTM D95-2013	0.1 to 50.0

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