

**Laboratory** Test Lab, Hindustan Aeronautics Limited, Transport Aircraft Division, Kanpur, Uttar Pradesh

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** TC-5227 (in lieu of T-2413, T-2414 & T-2415) Page 1 of 3

**Validity** 03.02.2017 to 02.02.2019 Last Amended on 08.02.2017

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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**CHEMICAL TESTING**

I.	PETROLEUM			
1.	<b>Petroleum (Aviation Fuels)</b>	Contamination check of Hydraulic Fluid & ATF (Cleanliness Requirements of Parts Used In Hydraulic Systems)	NAS 1638 [2001] National Aerospace Standard (Aerospace Industries Association)	Class 0 to 12 [Class based on particle count size (5 $\mu$ to > 100 $\mu$ )]

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**Ravi Johri**  
Convenor

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**N. Venkateswaran**  
Program Director

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**MECHANICAL TESTING**

I.	<b>MECHANICAL PROPERTIES OF METALS</b>			
1.	<b>Ferrous / Non-Ferrous Materials</b>	Ultimate Tensile Testing	ASTM E 8 M - 11 IS 1608: 2005 (RA 2011)	1 N to 100 kN Specimen Thickness Flat 0.5 mm to 30 mm Round 2.5 mm to 30 mm Ø
		% Elongation		1 % to 40 %

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**NON-DESTRUCTIVE TESTING**

I.	<b>METALS &amp; ALLOYS</b>			
1.	<b>Ferrous / Non-Ferrous Metals</b>	Dye Penetrant Test	ASTM E 1417 : 2013	Detection of indications open to surface.
2.	<b>Ferrous metals</b>	Magnetic Particle Test	ASTM E 1444 : 2012	Surface and sub-surface indications of depth Upto 5 mm
3.	<b>Aluminum Alloy</b>	Radiography Test	ASTM E 1742 M : 2012	Thickness / Diameter 2 mm to 20 mm
		Ultrasonic Test	ASTM E 127 : 2010 ASTM E 317 : 2011 ASTM B 594 : 2013	Thickness / Diameter 1.5 mm to 165 mm Sensitivity 1.2 mm FBH

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