

Scope of Accreditation For B83 Testing & Engineering, Inc.

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In recognition of a successful assessment to ISO/IEC 17025:2005, accreditation is granted to **B83 Testing & Engineering, Inc.** to perform the following Tests:

Accreditation granted through: **February 24, 2010**

Testing

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Tensile	(0 to 300 000) lb _f	SAE J684, VESC V-5, customer specifications	Components, sub-assemblies, full assemblies, structures (welded, bolted, cast)	Automotive, heavy truck, construction, rail road, medical, aerospace, agriculture, government-defense, petroleum, marine, industrial, consumer product industries
Compression	(0 to 300 000) lb _f	SAE J684, VESC V-5, customer specifications	Components, sub-assemblies, full assemblies, structures (welded, bolted, cast)	Automotive, heavy truck, construction, rail road, medical, aerospace, agriculture, government-defense, petroleum, marine, industrial, consumer product industries
Shear	(0 to 300 000) lb _f	SAE J684, VESC V-5, customer specifications	Components, sub-assemblies, full assemblies, structures (welded, bolted, cast)	Automotive, heavy truck, construction, rail road, medical, aerospace, agriculture, government-defense, petroleum, marine, industrial, consumer product industries

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Torsion	(0 to 500 000) in/lb _f	Customer specifications	Components, sub-assemblies, full assemblies, structures (welded, bolted, cast)	Automotive, heavy truck, construction, rail road, medical, aerospace, agriculture, government-defense, petroleum, marine, industrial, consumer product industries
Axial fatigue	(0 to 300 000) lb _f	Customer specifications	Components, sub-assemblies, full assemblies, structures (welded, bolted, cast)	Automotive, heavy truck, construction, rail road, medical, aerospace, agriculture, government-defense, petroleum, marine, industrial, consumer product industries
Torsional fatigue	(0 to 500 000) in/lb _f	Customer specifications	Components, sub-assemblies, full assemblies, structures (welded, bolted, cast)	Automotive, heavy truck, construction, rail road, medical, aerospace, agriculture, government-defense, petroleum, marine, industrial, consumer product industries
Durability simulation	(0 to 300 000) lb _f	Customer provided road/load profiles, customer specifications	Components, sub-assemblies, full assemblies, structures (welded, bolted, cast), electrical & electronic devices	Automotive, heavy truck, construction, rail road, medical, communications, aerospace, agriculture, electronics, government-defense, petroleum, marine, industrial, consumer product industries

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Vibration (Sine & Random)	(5 to 3 000) Hz (0 to 16 000) lb _f	CFR 49 - section 178.608, Mil-Std-810 (Method 514), Mil-Std-810 (Method 519), Mil-Std-167-1, Mil-Std-202 (Methods 201A, 204D, 214A), Mil-Std-883 (Method 2005), Mil-Std-883 (Method 2007), Mil-Std-1344 (Method 2005), EN 50178 (sect. 6.2.2), EN 50178 (sect. 9.4.3.2), EN 50178 (sect. A 9.4.3.5), ETSI EN300 019-2-1 v.2.1.2, ETSI EN300 019-2-2 v.2.1.2, ETSI EN300 019-2-3 v.2.1.3, IEC 68-2-6, IEC 68-2-64, RTCA DO 160 (sect. 8), SAE J1211 (sect. 4.7), SAE J1455 (sect. 4.9), customer provided road/load profiles, customer specifications	Components, sub-assemblies, full assemblies, structures (welded, bolted, cast), electrical & electronic devices	Automotive, heavy truck, construction, rail road, medical, communications, aerospace, agriculture, electronics, government-defense, petroleum, marine, industrial, consumer product industries
Shock	Up to 80 g (Dependent on specimen mass and shock pulse width)	Mil-Std-810 (Method 516), Mil-Std-202 (Method 213B), Mil-Std-883 (Method 2002), Mil-Std-1344 (Method 2004), EN 50178 (sect. 6.2.1), EN 50178 (sect. 9.4.3.1), EN 50178 (sect. A 9.4.3.4), ETSI EN300 019-2-1 v.2.1.2, ETSI EN300 019-2-2 v.2.1.2, ETSI EN300 019-2-3 v.2.1.3, IEC 68-2-27, RTCA DO 160 (sect. 7), SAE J1211 (sect. 4.8), SAE J1455 (sect. 4.10), customer provided road/load profiles, customer specifications	Components, sub-assemblies, full assemblies, structures (welded, bolted, cast), electrical & electronic devices	Automotive, heavy truck, construction, rail road, medical, communications, aerospace, agriculture, electronics, government-defense, petroleum, marine, industrial, consumer product industries

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Temperature	(-83 to 350) °F	Bellcore GR63 CORE 4.1, Mil-Std-810, Mil-Std-883 (Method 1008), Mil-Std-883 (Method 1010), Mil-Std-1344 (Method 1003), Mil-Std-1344 (Method 1005), EN 50178 (sect. 9.4.2.1), EN 50178 (sect. A 9.4.2.3), ETSI EN300 019-2-1 v.2.1.2, ETSI EN300 019-2-2 v.2.1.2, ETSI EN300 019-2-3 v.2.1.3, IEC 68-2-1, IEC 68-2-28, IEC 68-2-30, IEC 68-2-38, RTCA DO 160 (sect. 5), SAE J1211 (sect. 4.1), SAE J1455 (sect. 4.1), customer specifications	Components, sub-assemblies, full assemblies, structures (welded, bolted, cast), electrical & electronic devices	Automotive, heavy truck, construction, rail road, medical, communications, aerospace, agriculture, electronics, government-defense, petroleum, marine, industrial, consumer product industries
Humidity	(20 to 95) %RH	Bellcore GR63 CORE 4.1, Mil-Std-810, Mil-Std-202 (Method 103B), Mil-Std-883 (Method 1004), Mil-Std-1344 (Method 1002), EN 50178 (sect. 9.4.2.2), EN 50178 (sect. A 9.4.2.5), ETSI EN300 019-2-1 v.2.1.2, ETSI EN300 019-2-2 v.2.1.2, ETSI EN300 019-2-3 v.2.1.3, IEC 68-2-28, IEC 68-2-30, IEC 68-2-38, RTCA DO 160 (sect. 6), SAE J1211 (sect. 4.2), SAE J1455 (sect. 4.2), customer specifications	Components, sub-assemblies, full assemblies, structures (welded, bolted, cast), electrical & electronic devices	Automotive, heavy truck, construction, rail road, medical, communications, aerospace, agriculture, electronics, government-defense, petroleum, marine, industrial, consumer product industries

Notes:

- 1) This laboratory offers commercial testing service.

Approved by: 
 R. Douglas Leonard Jr.
 Chief Technical Officer

Date: April 9, 2008

Revised: 4/9/08