Code of Federal Regulations

This Section of CFR is No Longer Current.

Sec. 33.83

Part 33 AIRWORTHINESS STANDARDS: AIRCRAFT ENGINES	
Subpart F--Block Tests; Turbine Aircraft Engines	

Sec. 33.83

Vibration test.

[(a) Each engine must undergo a vibration survey to establish the vibration characteristics of the rotor discs, rotor blades, rotor shafts, stator blades, and any other components that are subject to vibratory exciting forces which could induce failure at the maximum inlet distortion limit. The survey is to cover the range of rotor speeds and engine power or thrust, under steady state and transient conditions, from idling speed to 103 percent of the maximum permissible speed. The survey must be conducted using the same configuration of the loading device which is used for the endurance test, except that the Administrator may allow the use of a modified configuration if that loading device type is incompatible with the necessary vibration instrumentation.
(b) The vibration stresses (or strains) of rotor and stator components determined under paragraph (a) of this section must be less, by a margin acceptable to the Administrator, than the endurance limit of the material from which these parts are made, adjusted for the most severe operating conditions.**]**
(c) Each accessory drive and mounting attachment must be loaded, with the load imposed by each accessory used only for an aircraft service being the limit load specified by the applicant for the engine drive or attachment point.

Amdt. 33-10, Eff. 3/26/84

Comments