Federal Aviation Administration, DOT

§ 23.925 Propeller clearance.

(2) The effects of airplane and propeller operating and airworthiness limitations.

[Amdt. 23–59, 73 FR 63345, Oct. 24, 2008]

§ 23.909 Turbocharger systems.

(a) Each turbocharger must be approved under the engine type certificate or it must be shown that the turbocharger system, while in its normal engine installation and operating in the environment—

(1) Can withstand, without defect, an endurance test of 150 hours that meets the applicable requirements of §33.49 of this subchapter; and

(2) Will have no adverse effect upon the engine.

(b) Control system malfunctions, vibrations, and abnormal speeds and temperatures expected in service may not damage the turbocharger compressor or turbine.

(c) Each turbocharger case must be able to contain fragments of a compressor or turbine that fails at the highest speed that is obtainable with normal speed control devices inoperative.

(d) Each intercooler installation, where provided, must comply with the following—

(1) The mounting provisions of the intercooler must be designed to withstand the loads imposed on the system;

(2) It must be shown that, under the installed vibration environment, the intercooler will not fail in a manner allowing portions of the intercooler to be ingested by the engine; and

(3) Airflow through the intercooler must not discharge directly on any airplane component (e.g., windshield) unless such discharge is shown to cause no hazard to the airplane under all operating conditions.

(e) Engine power, cooling characteristics, operating limits, and procedures affected by the turbocharger system installations must be evaluated. Turbocharger operating procedures and limitations must be included in the Airplane Flight Manual in accordance with §23.1581.

[Amdt. 23–7, 34 FR 13092, Aug. 13, 1969, as amended by Amdt. 23–49, 58 FR 18970, Apr. 9, 1993]