UNITED STATES OF AMERICA
CIVIL AERONAUTICS BOARD
WASHINGTON, D. C.

Civil Air Regulations Amendment 6-2

Effective: June 23, 1952
Adopted: May 19, 1952

ROTOR DRIVE MECHANISM REQUIREMENTS AND INDUCTION SYSTEM DE-ICING AND ANTI-ICING REQUIREMENTS

A literal reading of section 6.410 of Part 6 of the Civil Air Regulations would require the incorporation of a unit which will disengage both the rotor drive and the engine from the main and auxiliary rotors in the event of power failure. This requirement is considered to be unduly restrictive because of the difficulties of compliance and the resulting unnecessarily complicated design. Accordingly, this amendment permits the disengaging unit to be located between the engine and the rotor drive.

At the present time section 6.462 (c) of Part 6 of the Civil Air Regulations requires that rotorcraft equipped with sea level engines have a carburetor preheater capable of providing a heat rise of 70 degrees F. Since a rise of that magnitude is not considered to be necessary with the type of carburetor described in the paragraph, this amendment provides a more objective measure by requiring a sheltered source of air which is warmed to the temperature to which the cylinder cooling air is warmed.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all relevant matter presented.

In consideration of the foregoing, the Civil Aeronautics Board hereby amends Part 6 of the Civil Air Regulations (14 CFR, Part 6, as amended) effective June 23, 1952:

1. By amending section 6.410 to read as follows:

6.410 Rotor drive mechanism. The rotor drive mechanism shall incorporate a unit which will automatically disengage the engine from the main and auxiliary rotors in the event of power failure. The rotor drive mechanism shall be so arranged that all rotors necessary for control of the rotorcraft in autorotative flight will continue to be driven by the main rotor(s) after disengagement of the engine from the main and auxiliary rotors. If a torque limiting device is employed in the rotor drive system (see § 6.250 (f)), such device shall be located to permit continued control of the rotorcraft after it becomes operative.

2. By amending section 6.462 (c) to read as follows:

6.462 Induction system de-icing and anti-icing provisions. ***

(c) Rotorcraft equipped with sea level engines employing

carburetors which embody features tending to reduce the possibility of ice formation shall be provided with a sheltered source of air which can be selected in flight and which is warmed at least to the extent to which the cylinder cooling air is warmed.

(Sec. 205 (a), 52 Stat. 984; 49 U.S.C. 425 (a). Interpret or apply secs. 601, 603, 52 Stat. 1007, 1009; 49 U.S.C. 551, 553)

By the Civil Aeronautics Board:

/s/ M. C. Mulligan

M. C. Mulligan
Secretary

(SEAL)

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