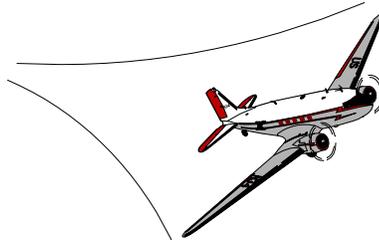


SPECIAL AIRWORTHINESS INFORMATION BULLETIN



U.S. Department
of Transportation

**Federal Aviation
Administration**

CE-04-66
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Aircraft Certification Service
Washington, DC

www.faa.gov/certification/aircraft

This is information only. Recommendations aren't mandatory.

Introduction:

This Special Airworthiness Information Bulletin alerts you, owners and operators of **Mooney Aircraft Company Model M20 airplanes (year model 1966 through 1978)** with Dukes Part No. 1057-00-5, -5E, -5F, -5G, of possible premature failure of the landing gear actuators.

Background:

Mooney issued Service Bulletin (SB) 20-190 to provide maintenance and gear replacement procedures for the Mooney landing gear with the Dukes P/N 4196-00-1C or International Telephone and Telegram (ITT) P/N LA11C2110 **actuators only**. We issued **AD 75-23-04**, applicable to all M20 series airplanes equipped with Mooney Electric Gear System, Dukes P/N 4196-00-1C, and referenced the procedures in SB 20-190. A later revision of SB 20-190 included the ITT P/N LA11C2110 landing actuator.

We have received several Service Difficulty Reports (Maintenance or Malfunction Defects) regarding the premature failures of the Dukes P/N 1057-00-5, -5E, -5F, and -5G. We determined that some operators were inappropriately maintaining these products with the wrong service instructions (SB 20-190) creating the premature failure of the landing gear actuator. This could prevent the landing gear from functioning properly and could result in a gear-up landing situation.

M20 airplanes with the Dukes 4196-00-1C and the ITT LA11C2110 actuators have a 20:1 speed ratio, made possible with a double lead worm shaft, and the Dukes 1057-00-5 actuator uses a 40:1 speed ratio, made possible with a single lead worm shaft.

Recommendation:

To prevent premature failure of the landing gear actuators, **we strongly recommend** that owners and operators of the M20 airplanes referenced above **stop using** SB 20-190 to perform maintenance of these actuators. You should consult the appropriate M20 **Service and Maintenance Manual**.

For Further Information Contact:

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