



SERVICE INSTRUCTION M20-122

Date: December 12, 2013

SUBJECT: TO ADVISE ALL MOONEY OWNERS, THE IMPORTANCE TO COMPLY WITH THE 100 HOUR/ANNUAL INSPECTIONS AND ATTENTION TO THE LANDING GEAR/GEAR RIGGING CHECKS AS SPECIFIED IN THE APPLICABLE MOONEY SERVICE AND MAINTENANCE MANUAL.

**MODELS/ SN
AFFECTED:** All Mooney M20 Series Aircraft

**TIME OF
COMPLIANCE:** As Required

INTRODUCTION: As any aircraft ages, the importance of thorough and complete Annual (100 Hour) inspections becomes more critical as time goes on. This greatly enhances the aircraft's operational capability, safety and value.

There are Mooney aircraft still flying that have been around for 60 years. Mooney aircraft built in the 1950's and 1960's are still providing owners with quality, safe transportation, and will continue to do so in the future, depending on the level of care these aircraft are given. There are many aircraft of this era that, if damaged due to a gear up landing or other such incident that causes the engine to need a "Sudden Stoppage" inspection, are not economically feasible to repair. In order to guard against this type of damage, a thorough and complete inspection of the Landing Gear system becomes even more important during its Annual (100 Hour) inspection. Landing gear parts need to be inspected for corrosion, cracks, weld separation, exceeding turn limit stops, worn bushings and/or rod end bearings, bent retraction tubes, worn retraction links and worn shock discs. As an example; just because a shock disc "Looks Good" does not mean it is good, take the appropriate measurements to confirm it is good, and replace as required. Old shock biscuits will lose their resilience over time and lose their ability to correctly dampen loads upon landing, which can potentially cause fuel leaks and premature wear, especially in the heavier planes. As a general rule, Mooney suggests long body (heavier) planes should have shock discs replaced approximately 3-5 years and the short body (lighter) planes approximately 8-10 years (refer to the applicable Service and Maintenance Manual for more information).

Mooney International receives reports on all Landing Gear mishaps, and frequently is called on to evaluate the causes of the incident. We frequently see gear trusses that are so corroded as to be "Un-airworthy". We also see, and can trace "Repaired" trusses and other parts that have been re-welded. While welding is a standard practice, often these repaired parts are not properly heat treated, or are not heat treated at all. This can cause the part to be "soft", or at the other end of the spectrum "brittle". Genuine Mooney Factory replacement parts are constructed and Heat Treated per Mooney's own Process Specifications, which no other Repair facility or vendor possesses. For this reason, Mooney recommends that you only use Mooney Factory spare parts to maintain your aircraft.

NOTE:

For any reason you are having trouble with rigging or questionable findings as stated in this Service Instruction, contact Mooney Technical Support at 830-896-6000 or email support@mooney.com.

WARRANTY: N/A

**REFERENCE
DATA:** 1. Mooney Applicable Service and Maintenance Manual
2. 100 Hour Inspection Guide

PARTS LIST: N/A