

SUBJECT: LANDING GEAR ACTUATOR, DUKES, RUBBER COUPLING INSPECTION. Revision B is prepared to correct actuator application. Dukes, P/N 4196-00-1C and 1057-00-5, are actuators affected. [ALSO ITT LA11C2110 ACTUATOR]

MODEL/
S/N AFFECTED: ALL M20C, M20E, M20F, M20G WITH DUKES ELECTRIC LANDING GEAR ACTUATOR AND M20J's, S/N 24-0001 THRU 24-0377.

TIME OF COMPLIANCE: WITH IN NEXT 100 HOURS AND TO COINCIDE WITH EVERY 200 HOUR GEAR BACKLASH INSPECTION THERE AFTER.

INTRODUCTION:
A report has been received that contributes a landing gear collapse, on landing roll out, to the possible deterioration of the rubber/metal coupling, P/N B100-06, that couples the motor/gearbox assembly to the jackshaft/gearbox assembly of Dukes, P/N 4196-00-1C or 1057-00-5 landing gear actuators. The report states that age possibly could cause the rubber compound to harden or deteriorate.

INSTRUCTIONS:

1. Place the aircraft on jacks so landing gear is off the ground.
2. Remove the belly panels to gain access to the landing gear actuator/motor assembly.
3. If this inspection is being accomplished along with the 200 hour gear backlash inspection per AD 75-23-04, SBM20-190A or the applicable Service and Maintenance manual, the sequence of coupling inspection is at the preference of the mechanic. Disconnect the two nuts/washers/bolts from the brackets holding motor/gearbox assembly to the jackshaft/gearbox assembly. If the inspection is only for the coupling, the actuator does not need to be removed from the aircraft.
4. Separate the motor/gearbox assembly from the jackshaft/gearbox assembly, being careful not to damage the disengage or cable mechanism.
5. Remove P/N B100-066 rubber/metal coupling from which ever shaft it remains attached to and inspect it for deterioration, wear or damage. Replace with a new coupling if necessary.
6. Insert either shaft firmly into two of the serviceable coupling slots.
7. Position the motor/gearbox portion into place; carefully inserting the other shaft, 90° opposite the first shaft, into the other slots in the coupling. Position and secure the two bolts/washers/nuts to the bracket (in reverse order of removal) to re-assemble the components.
8. After completion of the gear backlash inspection and that maintenance, as necessary (if inspections are being done at same time), check operation of the landing gear actuator assembly through several cycles to ensure all operations are smooth and satisfactory.
9. If no rod end bearing or retract tubes have been disconnected it is not necessary to check landing gear rigging unless this SI is being done in conjunction with a 100 hour or annual inspection. If the actuator has been removed from the aircraft it will be necessary to check landing gear rigging and operation per the applicable Service and Maintenance manual.
10. When all operations are found to be satisfactory per S & M manual re-install the belly skins, enter compliance note into log book and return aircraft to service.

WARRANTY: Replacement couplings may be ordered from the Mooney Service Center (MSC) in your area.

REFERENCE DATA: [SEE SB M20-189A AND SB M20-190A FOR OTHER INSPECTIONS]

PARTS LIST: KIT PART NUMBER - SIM20-89-1

ITEM	P/N	DESCRIPTION	QTY
1.	B100-06	COUPLING	1

FIGURE/
TABLES: N/A