



Date: July 12, 2001

**SUBJECT:** TELEDYNE CONTINENTAL MOTORS (TCM) IO-550-G ENGINE SETUP PROCEDURES

**MODELS/ S/N AFFECTED:** M20R, All S/N's  
M20S, All S/N's

**TIME OF COMPLIANCE:** AT THE NEXT SCHEDULED MAINTENANCE ACTION

**INTRODUCTION:** As a result of a re-evaluation of engine setup procedures by TCM, a re-setting and verification of the low and high-end engine setup is recommended in accordance with the following instructions. Please note the changes to the low and high-end setup values contained in the respective Service and Maintenance (S & M) Manuals and TCM's SID 97-3.

**INSTRUCTIONS:** Perform engine setup in accordance with Section 71-00-50, Engine Set Up Procedure, of the M20R and M20S Service and Maintenance (S&M) Manuals, and TCM's Service Information Directive (SID) 97-3 (3/24/97) with the following setup value changes:

- A. **Idle Fuel Pressure** – Adjust, after engine warm up, by maintaining 700 RPM (vice 650 RPM) and setting idle unmetered fuel pressure at 9.0-11.0 psig (vice 9.0 psig.)
- B. **Idle Mixture** – Adjust, after engine warm up, by stabilizing engine speed at 700 RPM (vice 650 RPM) and adjusting mixture to result in an engine speed increase of 40-60 RPM (vice 50+/-25 RPM), when mixture is moved to idle cut-off.
- C. **Idle Speed** – Adjust, after engine warm up, by reducing and stabilizing engine speed at 700-740 RPM (vice 750 RPM).
- D. **Full Power / Full Rich Fuel Flow** – Adjust, to achieve the following setup values:
  - M20R (Ovation2) – 136 to 138 pph (16.4 to 17.2 psig metered fuel pressure)
  - 20S (Eagle) – 129 to 131 pph (15.0 to 16.2 psig metered fuel pressure)
- E. **Low Boost Pump** – setup per specification should result in an indicated fuel flow of approximately 7.5 to 9.0 gph (engine off).

Note: When full power fuel flow has been adjusted to the specified values, recheck the idle RPM unmetered fuel pressure and fuel / air mixture. If any values are not within specified limits, repeat the adjustment procedures.

**WARRANTY:** Up to 2.0 hours labor, plus the cost of replacement parts (if needed), will be credited to the Mooney Service Center for compliance to the instructions contained in this Service Instruction, if the affected aircraft is still under warranty and warranty claim is received within 180 days of the date of this Service Instruction.

Labor and/or replacement parts (if needed) will not be covered under Mooney Aircraft Corporation's warranty policy for affected aircraft that are beyond their respective warranty agreement.

**REFERENCE DATA:** Teledyne Continental Motors Service Information Directive (SID) 97-3 (3/24/97)  
Mooney Aircraft M20R Service and Maintenance Manual #160 (revision 10/98)  
Mooney Aircraft M20S Service and Maintenance Manual #170 (11/98)

**PARTS LIST:** None

**FIGURE/TABLE:** None