ITEM #1:

HYDRAULIC POWER PACK SOLENOID IMPROVEMENT

AIRCRAFT APPLICABILITY:

210 - - 21059503 thru 21060960
337 - - 33701399 thru 33701666
F337 - - F33700046 thru F33700076
P337 - - P3370001 thru P3370221
FP337 - - FP33700001 thru FP33700015

New landing gear power pack door and gear solenoids incorporated on production 1975 Model 210 and 337 aircraft provide improved service life and reliability by:

1. Smoother plunger operation.
2. Improved internal ventilation.

Because of the benefits of the improved solenoids it is recommended that, at the next 1000 hour overhaul period or the next annual inspection whichever comes first, the solenoids on applicable in-service aircraft be replaced with the latest design units.

The improved solenoids (part number 9881201-1) are available through the Cessna Dealer Organization at a special reduced price of $43.00 (F) each.

(Owner Notification System - No. 1)

ITEM #2:

TROUBLESHOOTING FOR ENGINE ROUGHNESS

AIRCRAFT APPLICABILITY:

All Cessna Single-Engine Aircraft

To aid service personnel in determining the cause of engine roughness, the attached checklist has been prepared. By following this checklist most causes for rough engine operation can be eliminated and increased component service life along with improved cabin comfort will be achieved.

(Owner Notification System - No. 1)
VIBRATION CHECKLIST

Vibration can be transmitted from the engine to the aircraft structure from points of contact between engine components and the cowl, firewall, or engine mount. The following is a list of areas to be checked to ensure the engine is isolated from the aircraft structure or to minimize the effect from components which must bridge between engine and structure. The list also includes engine conditions for smooth operation which affect airframe vibration.

1. **Baffle to cowl clearance**
   Check inside of cowl for chafing; trim metal baffle as required. Repaint affected area and reinspect next flight.

2. **Exhaust to cowl**
   Check exhaust stack for clearance where it extends through cowl. Check stack and cowl for signs of interference. Enlarge cutout in cowl as required.

3. **Cowl to firewall interference**
   On models utilizing shock mounted cowls, positive clearance should be ensured between the cowl and the firewall. Typical clearances where the cowl overlaps the fuselage run on the order of .06 to .13.

4. **Induction hose clamps**
   Check induction hose clamp for clearance with the engine mount structure. Look for marks on engine mount. Rotate clamps as required.

5. **Breather and overboard dump lines**
   Check all overboard dump lines from the engine for clearance with the firewall, cowl and/or cowl flap openings. Check cowl flap in both the open and closed positions. Reposition and reclamp to clear.

6. **Engine Isolators**
   a. Check engine isolator bolt lengths. Bolts which are too long will shank out and will not apply the correct pressure to the isolator. Bolts must be removed to be properly checked. Replace with next size shorter bolt if barrel nut has shanked out.
   b. Check isolators for aging and deterioration. Replace if rubber is separated from metal pad, there is cracking of the rubber, and/or pronounced set of the rubber pad.

7. **Propeller track**
   a. Check propeller track; set up reference point at tip of propeller, rotate blades past this point. Blades should not be more than 1/16" out of track.
   b. Check propeller for loose or binding blades, loose or missing attach bolts.
   c. Check propeller spinner for loose, damaged or deformed parts and visual wobble.
   d. Balance suspected prop if roughness continues.
8. **Engine controls**  
a. Engine controls should be routed to provide a gentle curve between engine and firewall. They should not be stretched tight. Pull control through firewall and reclamp.

b. Check engine controls behind engine for contact with engine. Reroute and reclamp controls, as required, to clear.

9. **Starter cable**  
Check starter cable for clearance with cowl and that a loop is provided for flexing.

10. **Engine condition**  
a. Check spark plugs for fouling, improper gap and for proper type.

b. Check condition of ignition wiring.

c. Check condition of points.

d. Check magneto timing.

e. Check engine compression.

f. Check fuel injection engines; check fuel injector nozzles for restriction and correct size. Check fuel pump and mixture unit settings; check distributor valve for calibration and proper flow.

g. On turbocharged engines, check nozzle shrouds for leakage; check air induction ducting for leaks and/or rubber couplings for proper seal.

h. On turbocharged engines, check turbocharger for foreign object damage, binding and worn bearings.

11. **Antenna vibration**  
Check antenna if vibration tends to be related to airspeed rather than power setting.

12. **Wheel balance and brake disc trueness**  
Wheel balance and brake disc trueness can be sources of vibration during the ground run on some aircraft. These should be checked as a part of the vibration diagnostic process if conditions indicate that they may be a problem.