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SERVICE BULLETIN NO. 28, Revision A FUEL GAUGE CORK AND TANK SLOSH INSPECTION

(Original date of release - October 12, 1987)

DATE: March 17, 2009

SUBJECT: Visual inspection of coating on fuel gauge cork floats and inner fuel tanks for deterioration.

MODELS AFFECTED: All Ercoupe 415-C, 415-CD, 415-D, 415-E, and 415-G aircraft
All Forney F-1 and F-1A aircraft
All Alon A-2 and A-2A aircraft
All Mooney M10 aircraft

COMPLIANCE: Initial inspection required within the next 50 hours time in service, or next annual inspection, or by December 31, 2009 whichever occurs first. Continued inspections every three years or whenever additional leaking is suspected, whichever comes first.

STATEMENT OF DIFFICULTY:

Since 1945, all Ercoupe cork float type fuel gauges have been coated with shellac or a phenolic resin material. This coating has proven satisfactory for use with the 80/87-octane aviation gasoline ERCO used to certify the aircraft. The decreasing availability of 80/87-octane aviation gasoline is causing many operators to begin using 100 octane low lead aviation gasoline or STC approved auto gas in their Ercoupes. Field reports seem to indicate that the use of alternate fuels may deteriorate the coating on Ercoupe cork floats, and other parts of the gauge assembly subject to fuel exposure, and may also tend to dissolve the sloshing compound used to seal joints in Ercoupe fuel tanks. Any use of alcohol-blended fuel will cause rapid erosion of the shellac cork coating. Dissolved cork coating, paint, and/or sloshing compound may cause fuel system problems by plugging up strainer screens and carburetor jets. Univair Aircraft Corporation therefore recommends that only 80/87 and/or 100 octane low lead certified aviation gasoline be used in Ercoupe aircraft. The following procedure shall be used to check for fuel system contamination.

PROCEDURE:

1. Drain fuel tanks to permit removal of cork float type fuel gauges and inspection of sloshing compound.



2. Remove fuel gauges and examine cork coating for evidence of dissolved coating or discoloration. Ercoupe cork floats are double-dipped in shellac and should have a clear, slightly yellow tinted coating. Since the shellac tends to flow to the bottom of the cork during drying, a slightly heavier coating along the bottom edge is normal. Replace any deteriorated cork floats with new or used serviceable units. New production floats are made from inert plastic and have no outside coating. Also, inspect any painted surfaces of the gauge assembly, subject to the presence of fuel, for deterioration.
3. Examine inner tank surfaces for evidence of sloshing compound softening or deterioration. Check all aircraft and engine fuel strainer screens for presence of coating particles. Clean screens as required to remove coating build-up. Re-slosh tank only if required to restore seal. CAUTION: Assure that all inlet and outlet ports are open after sloshing.
4. Fill fuel tanks with 80/87 or 100 octane low lead certified aviation gasoline and test run engine to assure that full static R.P.M. is available. Check for fuel leaks before and after test run.
5. Make logbook entry stating that Ercoupe Service Bulletin No. 28, Revision A has been complied with.