Hawker Beechcraft

Model Communiqué

Executive Series

Communiqué No. 116
June, 2008

ATA12 Servicing – Teledyne Continental Motors (TCM) Powerplants, Break-in Oil

Hawker Beechcraft Corporation (HBC) uses MIL-C-6529, Type II Multiviscosity, 20W-50 corrosion-preventive oil in all new TCM powerplants. The use of this Rustband oil precludes the formation of rust in the engine during the aircraft manufacturing process. The oil and filter may be changed as soon as you arrive at home with your new airplane. If, however, the airplane is placed in inventory (demonstrator) by an HBC Authorized Dealer, it may be wise to keep the corrosion-preventive oil in the engine until retail delivery is made.

In any case, the Rustband oil and oil filter must be removed no later than the first 25 hours of engine operation or 6 calendar months, whichever occurs first. If engine oil consumption has not stabilized by this time, refill the engine with MIL-L-6082 Mineral Oil. Continue using the mineral oil until oil consumption has stabilized.

If the Rustband oil and oil filter are not removed by the specified 25hr/6mo. time interval, varnish may form on the piston and cylinder walls. This varnish may prevent the piston rings from seating properly which may cause high oil consumption.

ATA24 Electrical Wire Chafing Protection

HBC has received reports of wiring and wire bundles chafing on the airplane structure and other components. Chafing can lead to failed components, inadvertent operation of equipment and the potential for smoke and fire. In one case, electrical wire bundle chafing in a Bonanza resulted in a small hole in the fuel tube assembly that runs along the pilot's kick panel (Ref. Figures 1 and 2). During a maintenance ground run to troubleshoot the related flap system malfunction, an electrical short-circuit in one of the flap wires ignited the fuel coming from the pin hole resulting in a cockpit fire. The airplane was on the ground and the fire was quickly extinguished. Upon investigation it was noted that the wire bundle was "open" in this area with no mechanical protection and that wires had been added to the bundle to support post-delivery modifications. The factory configuration requires wire bundle protection adjacent to the fuel tube assembly by use of nylon spiral wrap on earlier airplanes (Figure 1) or continuous Varglas sleeving (Figure 2) on later airplanes.

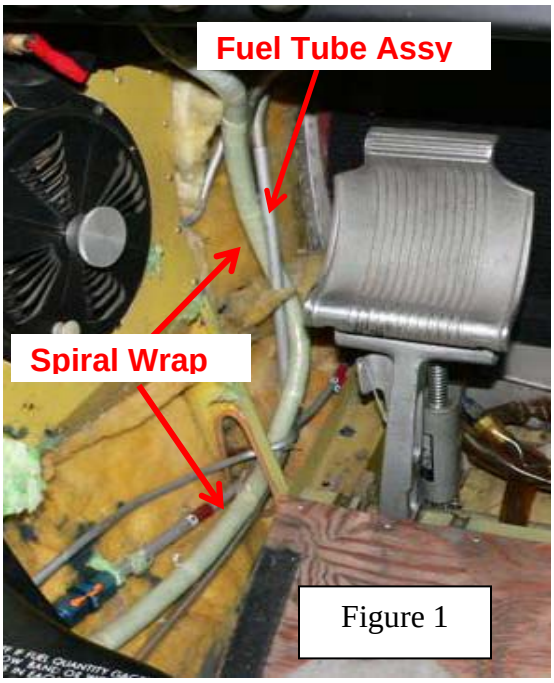


Figure 1

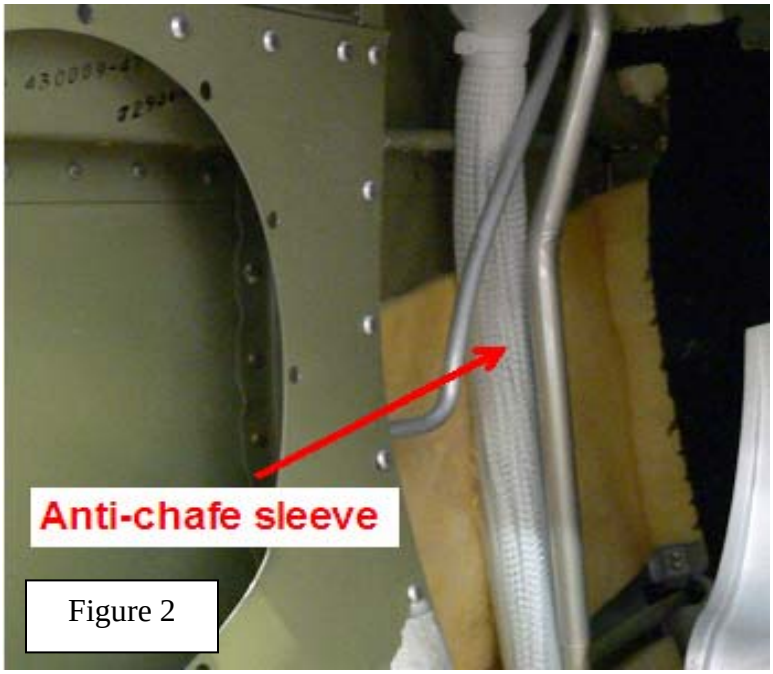


Figure 2

HBC has received Bonanza Model 36 wire chafing reports from three main areas; under the instrument panel (Figure 3), in the engine compartment next to the battery box (Figure 4) and wiring routed close to fluid tubes. The area under and forward of the instrument panel not only has the greatest concentration of wiring but also has moving components that can damage improperly secured wiring in a very short period of time. The wiring around the battery box is routed with sharp bends close to structural components. There are multiple locations throughout the airplane where wiring and wire bundles are in close proximity to fluid lines where proper security and protection are important to minimize the potential for chafing damage.

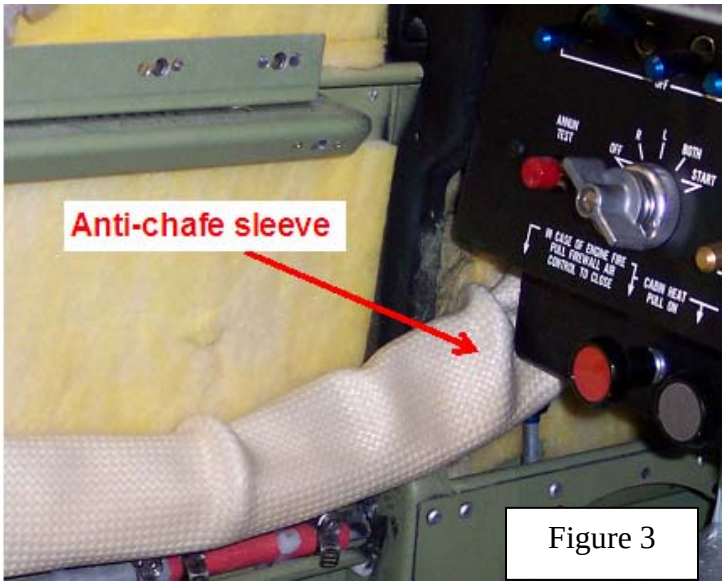


Figure 3

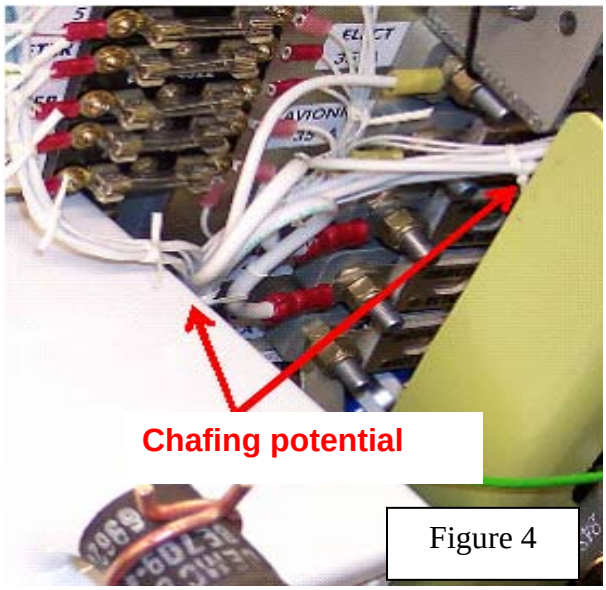


Figure 4

The preceding photographs are specific to Bonanza Model 36 airplanes, but protection of electrical wires from chafing damage applies to all Beechcraft Models. Any time maintenance is performed in areas with wiring, maintenance technicians should be aware of how maintenance activities may affect the routing and protection of electrical wires. After maintenance is performed in any area, wiring and wire bundles should be inspected for proper security, clearance and mechanical protection. Particular attention should be given to wiring with sharp bends, close proximity to sharp edges, close to movable components such as flight control systems and landing gear, and close to fluid lines/tubes. Factory-installed conduit, wraps and sleeving used to enclose wire bundles are required for mechanical protection of wiring. Maintenance and inspection personnel are reminded that factory-installed wire bundle protection is important to minimize the likelihood of chafing damage. Factory-enclosed wire bundles should never be left open and unprotected after maintenance.

Periodic inspection of wiring is required at each 100 hour or Annual inspection for proper routing and security. In addition to routine maintenance and inspections, any time wiring is modified, repaired or relocated, it is imperative that it is properly secured and protected from chafing in accordance with guidelines in the applicable Hawker Beechcraft maintenance manual, FAA Advisory Circular AC43.13-1B and AC65-15A.

ATA30 Ice and Rain Protection – Hartzell Propeller Inc. SL HC-SL-30-283, De-ice Boot Leadwire Repair Procedure

Hawker Beechcraft Corporation has received reports from in-service airplanes that propeller de-ice boot lead wires on Model 58 Baron Airplanes have come loose from the blade shank. These lead wires are bonded to the propeller blade shank with adhesive. When the lead wires de-bond from the shank they may contact and be damaged by the propeller spinner dome. If the damage to the wires becomes excessive the deice system on that propeller may cease to function properly.

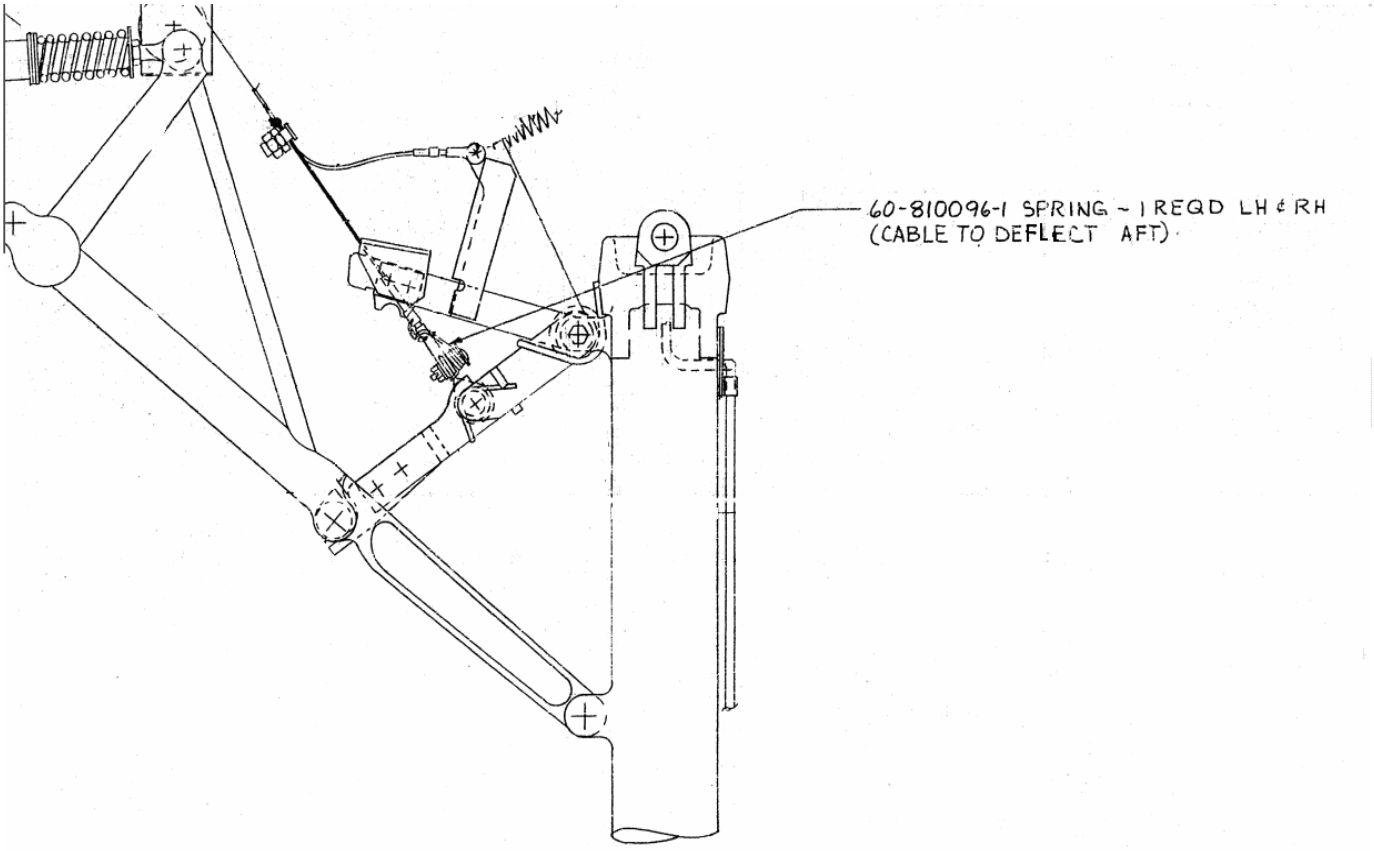
Hartzell Propeller Inc. has issued Service Letter, HC-SL-30-283, Propeller – De-ice Boot Leadwire Repair Procedure. This Service Letter provides instructions to re-bond the lead wires to the propeller blades. Rebonding the wires to the blade hubs should prevent further damage. You may download a copy of the current version of the Service Letter at Hartzell's website: http://www.hartzellprop.com/product_support/index_support.htm

ATA32 Landing Gear – Down-Lock Torsion Spring Orientation – Duke and Baron Airplanes

HBC has received a report of a model B60 Duke main landing gear down-lock cable torsion spring, Part Number 60-810096-1 installed incorrectly. When installed correctly, the spring moves the down-lock cable aft and away from the drag brace knee joint and up-lock pivot point when the landing gear is retracted. In the reported case, the spring was installed backwards resulting in the cable being forced into the drag brace knee joint and up-lock pivot point. When the gear was extended, the cable became entangled with the drag brace knee joint and up-lock pivot point preventing the main gear from fully extending. The pilot attempted to extend the

gear using emergency procedures, but was not able to extend the gear to the down and locked position and had to perform a gear-up landing.

The 60-810096-1 spring was factory installed on Duke and Baron Models beginning in 1971 and was provided in Factory Kit 60-8006-1 for earlier Duke Airplanes. Any time this spring is removed during maintenance, care should be taken to ensure it is reinstalled with the proper orientation (deflects the down-lock cable aft). Maintenance personnel are reminded to observe all maintenance manual instructions when servicing retractable landing gear systems. Special attention should be given to the up-lock and down-lock systems to assure proper operation and adequate cable loop clearance from all possible points of hang-up when cycling the landing gear for inspection prior to returning an airplane to service. Not adhering to the noted landing gear system maintenance practices can result in injury to personnel and/or damage to the airplane.



ATA34 Navigation - Standby Battery Check Procedure for 4300 Series Electric Attitude Indicator

Hawker Beechcraft Corporation (HBC) would like to remind owners and operators of G36 and G58 airplanes of the recommended operating procedures of the Mid-Continent Instruments 4300 Series Electric Attitude Indicator installed in their airplanes.

The Model 4300 Series Electric Attitude Indicator has two purposes:

- To function as a secondary/standby attitude indicator.
- To continue to operate as a standby attitude indicator in the event that the aircraft's main DC power source is interrupted or has failed.

To act as a standby attitude indicator when main ships battery power is either lost or un-available, the unit utilizes a unique self-contained emergency standby battery and lighting system. The internal battery used in the model 4300 Series Electric Attitude Indicator is automatically charged during normal "airplane running" operation. At the end of each flight and/or when master power is turned off, the unit will continue to run on its own standby battery power for approximately one minute – then it will automatically shut down. It is recommended that the internal battery receives servicing on an annual basis and it will typically need replacement after three years.

The following are indications which may be provided by the model 4300 Series Indicator:

- Red Warning Flag = inoperative – do not use
- Flashing Amber Status Light = loss of input power – Automatic switch over to standby battery for approximately one (1) minute
    - STBY PWR button functions:
        - Push to continue standby battery operation – Amber light goes out – battery power for up to one (1) hour nominal operation
        - Push again to power off gyro

The model 4300 Series Electric Attitude Indicator Standby battery check procedure is as follows:

- Master switch – ON (5 minutes minimum)
- Push and hold STBY PWR button
- Amber status light flashes – Release button
    Green TEST light = good battery
    Red TEST light = recharge or replace battery

The information found in this Communiqué article can be obtained on a wallet sized card, where it may be kept in the glove box of your airplane, by contacting Mid-Continent Instruments and requesting a quick reference card, p/n 9015882.

To obtain additional information regarding the model 4300 Series Electric Attitude Indicator you should refer to the pilots guide (manual #9015834). Contact Mid-Continent Instruments to obtain a copy if you do not already have this pilots guide, or see website link http://www.lifesavergyro.com/pilot_guide.pdf.

Mid-Continent Instruments can be contacted at www.mcico.com and also at (316) 630-0101 or (800) 624-6845.