

# DUNCAN INTELLIGENCE

• Edited by Dave Schiver & Skip Laney • Winter 2003

## Collins Servo SIL 1-01

By Jim Wheaton

If your Learjet is equipped with a Collins autopilot system, it may use SVO-85B or SVO-85C servos for pitch, yaw and roll control. Last year, Collins released a Service Information Letter (SIL) that detailed the inspection and lubrication of the engage clutch teeth for both the servo and the servo mount. If you have not performed this SIL/SB, do it as soon as possible and repeat the process every 48 months.

Collins found that mechanical wear occurs in some SVO-85B/85C installations that can cause the affected autopilot axis to remain engaged after an autopilot "disengage" command. Collins claims this SIL ensures reliable servo clutch release under all conditions. For more detailed instructions, see Collins SIL 1-01 and Collins SB #4.

## Service Where You Need It

By Tim Garity

If you find yourself in the middle of nowhere with a broken aircraft, don't feel helpless. Dial 877.522.0111 (toll-free) to reach Duncan Aviation's Rapid Response Hot Line. For engine or airframe support, you're just minutes away from technical help, or a few hours away from having technicians arrive at your location and get you back in the air. Service is available 24/7, 365 days a year, for nearly all types of corporate aircraft.

## Learjet Damage Assessment

By Dave Schiver

When investigating damaged areas on your aircraft, refer to the Structural Repair Manual for your particular model. It contains criteria for repairing the area on your own, if possible. It also contains base P/Ns that are very helpful in tracing any criteria that is not called out in the SRM. If you do require assistance, note the following hints to ensure the quickest response time.

1) Have close-up and distant pictures. Close-ups show the detail and distant shots help pinpoint the orientation of the damage on the aircraft. Also, use the resolution required to see the area. Bear in mind that a photo with a high degree of resolution may create a file too large to be accommodated on many e-mail systems.

2) Provide sketches from as many different views as possible. This will add depth to the area that cannot be captured with photos.

3) For dimensions, use frame and stringer locations with distance measurements from at least one of each.

**NOTE:** Remaining thickness is more important than the depth of nicks, gouges, etc. There is no way to be certain that the area has not been ground or sanded before. Always remember that Duncan Aviation's Learjet specialists are here to help you at any time.

## 45 Hydraulic System Bleeding

By Dave Schiver

As many of you know, the Learjet 45 is very sensitive to air bubbles in the hydraulic system. It only takes a very small amount to create faults in the brake control unit, and not as often, the flap or spoiler computer. We have discovered that the standard process for bleeding will usually, but not always, be sufficient. It is suggested that after any maintenance on the hydraulic system, bleed the system in the normal fashion, then start both engines to ensure that you have no trapped air in the lines going to the Engine Driven Pumps and bleed as required.

## 60 Model Teflon Brake Hoses

By Dave Schiver

Duncan Aviation has recently discovered a point of confusion in the Learjet IPC in regards to the Teflon Brake Hoses on the Struts installed on a Learjet 60 Model. In Chapter 32-46-40, Page 1, dated DEC 9/98, there is a note that states that the AE2463509E0204 and the AE2464236E0200 are teflon brake hoses. It also states that 171K001-4CR-0204 and 171K001DDB02000 are alternates. It is not clear that these are also teflon hoses. According to the Parker Fluid Connectors, Stratoflex catalog # 106-171, Feb. 2002, pg. 7, they are indeed PTFE hoses with steel braided reinforcement IAW AS1339 (formerly MIL-H-38360).

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AVIATION**



*For Lear technical info, we have the experts. Our Lear Team consists of tech reps and technicians with experience in airframe/engine, interior/exterior completions, avionics installations, component repair and parts.*

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