Flight Safety

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Big Engine L-235 Flutter

A second report of a 235 tail flutter occurred at 220 mph IAS and about 7,500'. For those of you running the big engines, achieving the higher speeds of around 220 mph IAS, and lacking a ventral fin should take note. Ray Modert worked on his friend's aircraft to eliminate the flutter problem. Servicing the hinges to eliminate all hinge slop proved unsuccessful as the aircraft fluttered again at the same IAS. The apparent fix involved installing an additional rib in the tail that was fairly easily retrofitted.

Ray will take calls at (805) 983-1145 to give details of the incident and fix.

Inadvertent L-IV Aerobatics

by Charlie Kohler

The Lancair IV's are a docile and gentle airplane that are fully predictable throughout the entire flight regime.

A checkout in a any new airplane should always include the stall series. "Approach to" may be the terminology, but sometimes the airplane will surprise you. Ooops, I'm getting ahead of myself.

During a checkout in a new IV-P at 9,500 feet, the stall series was initiated in the landing configuration. Stall speed was noted at 65 KIAS, the right wing stalled first and a right spiral began that was easily corrected. Recovery was in less than 300 feet. Piece of cake.

The airplane was cleaned up, and approached the buffet normally. The right wing stalled, and a right spiral began, with the nose slightly below the horizon.

The spiral hesitated, a **thud shook the airframe (secondary stall), and we were spinning at more than** 4 **revolutions** a **second. Scott Hamilton would have been proud!** !

Power off and opposite rudder/aileron and a two hand forward elevator push until the nose was vertical seemingly had NO affect! I waited --and waited – what do I do next, I thought? Why wasn't this working???

Finally, recovery began at about 2,500 feet. How? By making the airplane fly, building airspeed (pointing the nose to the ground) and accelerating the stalled wing. The rudder seemed ineffective, but then who knows? We weren't taking notes! Only took a few seconds, but I can assure you we'll hangar fly this one for years!

We remember Art Scholl, and his beloved Pitts. He KNEW that airplane --but it bit him.

Intentional spins in the Lancair IV should be avoided like the plague.

"How to" **for Spin Prevention**

Several principles should be considered when doing stall training-practice.

1. Calculate the C.G. The closer to the FWD limit the better.
2. Altitude, The more the better (up to 10,000 ft.). Rigging checked and normal.
3. Ball in center on entry .
4. Recover to wings level (ailerons-rudder). A~~ressive nose down pitch,
5. Power, if needed.
6.
7. **Prevent secondary stalls-spins!** !

Charlie Kohler (904-756-4445) *is a Lancair and AVEMCO designated Pre- Test Flight Maintenance Inspector/Test Pilot and is approved for Initial/Recurrent Flight Training. He is an FAA Designated Airworthiness Representative with authority to certify Lancairs anywhere in the USA. He has built his own Lancair IV and has over* 1000 *hours in Lancair IV's.*

Continuing Saga Of the 360 Nose Strut Shimmy

(previously reported March 1997)

I had not complied with the nose gear AD. The result was a landing with a shimmy at about 60 hours. I immediately elected to have Pat Gonsoulson (Pat is no longer at Lancair) do the AD. The turn around time was only a couple of days. There has been no problem since. This is a very serious AD. Don't ignore it! I happened to be at the factory the day after they discovered shimmy in the red 320. They were replacing the strut, propeller, and repairing the bottom cowling and engine mount as a result. My cost: two FedEx packages.

I got one of the very early struts. The serial number is 63.
In late October (1997), I had another shimmy on landing.
It was not as bad as previously experienced. I grounded the plane and contacted Neico. Yes, they were aware that some people were having problems. The fix was to send the strut back to Esco and have them install an internal check valve. The infonnation that I got from Neico was very sketchy - but it turned out to be adequate. The reported no cost modification wasn't.