

Paul,

I am president of The Twin Cessna Flyer. As the type club for piston-powered Cessna twins, we represent 421 owners worldwide. I have also personally owned and operated a 1980 421C for the last 6 years.

In my opinion the 421 is the ultimate general aviation piston twin. Sure the Aerostar is faster, the Duke is better looking but nothing comes close to the full package - speed, comfort, and reliability - offered by the 421.

What makes the airplane unique are its geared engines - Continental GTSIO-520's. Cessna developed the 421 to compete with the turboprops of the day and the geared engine was a way to improve performance and increase comfort. Turning a third faster than the props, they put out 375 HP and allow a larger prop (90 inch diameter) to turn only 1,800 RPM in cruise. This makes for a cabin so quiet, headsets are not needed. A friend of mine who flies a King Air told me my cabin was quieter than his.

The engines also run smoother with much less vibration. When I fly behind a direct drive engine these days, my first thought is "there's something wrong with this engine." The difference in smoothness is that great.

GTSIO's have a reputation as "troublesome." My own experience, and that reported by our membership, is that these engines are no more troublesome than their direct drive counterparts. You do get a different set of problems however. First, the good part: 421's run cool. Their massive intercooler and superbly designed cowling mean cylinder temps over 400 even in the worst conditions are rare. I have never seen a CHT higher than 380 on my airplane, even in a steep climb on a hot day. They normally run around 300 degrees. I have gone through complete runs on two engines without changing a single cylinder. Cessna and Continental got this part right.

On the other hand, 421 owners have a viscous damper on our starter adapters that has caused problems over the years, including complete engine failures. It is the subject of AD 2007-05-15. The viscous damper is what makes the GTSIO run so smoothly. In fact, it's necessary for the engine to run at all. If it fails, the vibration can be so severe, the engine will fail catastrophically in matter of seconds. Some pilots have reported feeling unusual vibrations before such a failure. That's why the 421 POH and AD 2007-05-15 state that should a pilot feel any vibration in a GTSIO, power should be reduced immediately and if the roughness cannot be cleared with the engine controls, the source of the vibration needs to be investigated by a mechanic upon landing. Roughness in a GTSIO is not to be ignored. A healthy, well adjusted ignition system is essential. And needless to say, a smooth hand on the throttles is important too.

AD 2007-05-15 also requires replacement of the original needle style bearing as well as repetitive inspection of the starter adapter. Additionally, the unit has to be overhauled at the time of engine overhaul. This is a very important AD. Some owners are finding the starter adapters need to be overhauled as early as midway through engine TBO (1,600

hours). They are not cheap with an installed cost of about \$7,000. Caring for the starter adapter is the price 421 owners pay for the quietest, most comfortable cabin in general aviation. For most owners, it's a good tradeoff.

The Golden Eagle is an excellent performer. It will happily cruise up to FL250, but unlike turboprops, it will not eat you alive with fuel burn at lower altitudes. Cruise speeds in the flight levels run 210 to 220 knots at 65 to 75% power. Fuel burn in cruise is about 42 gph, but as low as 36 gph with LOP operation. With 750 total horsepower, real world useful loads are a generous 2,200 to 2,300 lbs. Single engine performance is excellent for a piston twin as long as the prop on the dead engine is feathered. If not, all bets are off as a 90" prop produces a lot of drag.

I'm sure your article will cover the differences in the A,B and C models so I won't do that here. Suffice it to say the C models are "top-of-the-line" with many improvements, especially the trailing link landing gear (after serial #800), simpler fuel system and hydraulic landing gear. Half of all the 421's built were C models.

What does it cost to own and operate a 421? A recent survey of our membership showed the following:

Fuel Cost per: \$235 per hour
Average Annual Maintenance Costs: \$18,930
Average Annual Insurance Cost: \$7,900
Average Monthly Hanger Fee: \$550

Operating Costs w/o Engine & Prop Overhaul Reserve: \$570 per hour
Operating Costs with Engine/Prop Overhaul Reserve: \$650 per hour

Purchase prices run from less than \$100,000 for an early model to \$500,000 plus for a well equipped, glass panel upgraded C model. What you get for this is really a personal airliner. In the Golden Eagle, you and your passengers will fly in better-than-first-class comfort. This airplane will spoil you like no other. They are bargains in today's market.

Any of your readers interested in learning more about 421's are welcome to contact us at 704-910-1790 or editor@twinessna.org