

Owner's Information on the 310Q and T310Q

861 model 310Qs and T310Qs were produced from 1970 through 1974. Nearly 700 of these fine aircraft appear on the federal list of registered owners. The 310Q has the augmeter tubes below the cowling and the exhaust is vented right in front of the landing gear wells and flap area. Special attention is necessary to keep these areas free of dirt, soot and grease that can lead to corrosion. Gross weight is 5,200 pounds.

The 310Q is powered by the trusted and true IO-470-V or -VO engines producing 260 horsepower each.

The T310P is powered by two TSIO-520-B or -BB engines of 285 horsepower each. These engines have the ability to give sea-level power up to 16,000 feet. Gross weight on the T310Q is 5,400 pounds and top speed is a respectable 235 MPH.

Empty weight of the 310Q models found today runs an average of 3,200 pounds (3,400 for the T310Q) giving a useful load of 2,000 pounds. This allows 140 gallons of fuel and 1,100 to 1,200 pounds of people and baggage.

The 310Q and T310Q has 100 gallons of fuel, 50 in each tip tank, and the optional auxiliary wing tanks found on all models hold 20 gallons each with an optional 31.5 gallons per side. The rear window in the cabin, a larger panel and 163 gallons of fuel became standard on all models from S/N 310Q0401 and up. With a fuel burn of 22 to 28 gallons per hour on the 310Q, this gives an honest endurance of 5.5 plus hours counting reserves.

At 200 miles per hour, this gives a range of 800 miles using 100 gallons and 1200 miles using the 163 gallons. With a fuel burn of 32 to 35 gallons per hour on the T310P, using the 163 gallons, the range drops to 5 hours

Expect to pay over \$200.00 per hour

including reserves and while you can get there faster, the range is not quite as good. The fuel system on all Cessna twins with the tip and wing tank configuration is one of the most owner misunderstood and mismanaged systems and has led to several incidents involving fuel starvation.

The propellers found on the 310Q and T310Q are McCauley 2 blade all metal full feathering design. The hubs are P/N D2AF34C71 using 84J-3F blades. The diameter is not more than 81 inches or less than 78 inches or McCauley 3 blade using D3AF32C87 hubs and 82NC-4 blades. The diameter is not more than 78 inches or less than 74 inches.

The published airspeed limits (MPH) for the above 310Q model are:

VMC - 85 MPH

Maneuvering - 170

Maximum Cruise - 210

Never Exceed - 257

Flaps Extended - 160

Gear Extended - 160

15 degrees of flaps may be extended at speeds at or below 180.

The published airspeed limits for the T310Q are:

VMC - 90MPH

Maneuvering - 170

Maximum Cruise - 210

Never Exceed - 257

Flaps Extended - 160

Gear Extended - 160

15 degrees of flaps may be extended at or below 180. In 1972, all speeds were published in knots rather than miles per hour.

Operational Costs: 310Q

including all operational costs, reserves,

insurance and maintenance. If you fly the airplane 100 hours per year, real cost will be about \$20,000.00. Going fast is not cheap!

Operating Costs: T310Q

Expect to pay over \$260.00 per hour including all operational costs, reserves, insurance and maintenance. If you fly the airplane 100 hours per year, real cost will be about \$26,000.00. Going fast with turbocharged engines is expensive!

Pros on owning the 310Q and T310Q

1. You can get a lot of airplane for less than the cost of a new 172. Expect to pay between \$100,000 and \$140,000.
2. The airframe is of the riveted aluminum design and this allows any knowledgeable mechanic the ability to accomplish repairs and maintenance with normal tools. Cessna still has many of the parts in stock.
3. The 6 cylinder opposed Continental engines are tried, trusted and true. Parts are readily available and down times are short.
4. The added fuel of 20 gallons in each nacelle is desirable for extended range, especially in the T310Q.
4. Cessna still supports the models through Multi-Engine Customer Support. They can be reached at (316) 941-7550 and ask for Mr. Cliff Ives.

Cons on owning the 310Q or T310Q:

1. Parts for these aircraft are quite expensive.
2. The cabin noise levels suggest the use of headsets and an intercom.
3. The landing gear system (the cause of over half the reported incidents and accidents) needs special attention and should be re-rigged every 100 hours or at each annual.
4. Corrosion is a constant menace in all aluminum airframes - rear spar caps are prone to corrosion and should be inspected carefully at regular intervals.
5. Know the fuel system and how it works. Never stretch your fuel!
6. You will pay over \$200.00 per flight hour for all expenses on the 310Q and \$260.00 per

hour on the T310Q. Going fast, especially with turbo chargers, is not cheap!

7. Finding experienced 310 technicians in the field is getting harder every day.
8. Exhaust augmeter tubes under each nacelle "pump" exhaust "gook" into the wheel and flap wells on 310Qs. Extensive cleaning at regular intervals is recommended.
9. The exhaust found on the turbocharged models is a constant threat to corrosion of the engine mounting rails and failure rates are high. Expect to replace at least one piece of exhaust on each engine each year.
10. Look for heat and corrosion damage to engine mounting rails on the turbocharged models. There are no used parts. New rails are available. Installation requires about 100 hours.

Recommended modifications/maintenance

1. Vortex generators.
2. The installation of SK414-8E, the main landing gear side brace kit, as per Cessna Service Bulletin ME76-2.
3. 1 % by volume, isopropyl alcohol added to the fuel in sub freezing conditions as per Service Bulletin ME73-25, dated November 2, 1973.
4. Corrosion proofing at each annual.
5. Some formal cockpit or classroom training each calendar year.
6. Cleveland wheels and brakes
7. Removal of unnecessary weight such as wires, old radio components, etc. Weigh the empty aircraft - it's heavier than you think.

Airworthiness Directives (partial list)

1. 69-12-03 - Fuel Crossfeed Lines
 2. 72-14-08 R1 - Flexible Hose Assemblies
 3. 75-23-08, R5 - Turbo exhaust inspection
 4. 90-02-13 - Main landing gear strut bearings
 5. 91-15-04 - McCauley 2 blade propellers
 6. 95-24-05 - McCauley 3 blade propellers
- For a complete list contact Aerotech Publications at (800) 235-6444.

For more information, contact The Twin

Cessna Flyer - (800) 825-5310.