

## Questair Venture - N17FY - "The Red Rocket"

First flight March 2013 - Lindy winner Oshkosh 2014 - Pro Built, Flown and Maintained by Jerry Mercer.

- 1) Total Time - 710 hrs. Airframe and Engine - Jerry Mercer Pilot all flight time.
- 2) Expensive High-Quality Interior and Exterior Finish/Paint.

### Engine compartment:

- 3) 16" carbon spinner.
- 4) 3" extension of propeller disc position to accommodate Hartzell (Legacy) 3 blade with a 2" greater diameter than the standard Venture prop. The added additional weight of 28 lbs. over the standard 2 blade propeller makes for a better C of G envelope accommodating more baggage and trunk tank fuel.
- 5) The big 3 blade propeller is balanced to a value .02 IPS @ 2500 RPM.
- 6) The Continental IO-550 engine has been balanced and cylinders match flowed. Recent (<less than 50 hrs. ago) engine work by Lyc-Con; 10:1 pistons, 3-angle performance grind on valves, cryogenic dip (-300F / +300F cycle) of all top end cylinder assemblies. Compressions all 78 or greater all cylinders.
- 7) Dual LightSpeed electronic ignition with separate circuits, CB's, warning lights, batteries and Simpson instrument for RPM, spark advance.
- 8) Ceramic coated exhaust headers.
- 9) K & N Intake Air Filter with pilot selected Ram Air for high speed cruise.
- 10) Calculated HP = 380 which is 70 HP over the standard 310 HP @ 2700 rpm.
- 11) Sky-Tec high torque engine starter.
- 12) Two speed stainless steel back-up electric fuel pump.
- 13) High capacity oil flow prop governor.
- 14) This Venture with the engine mods, induction and exhaust system sounds like 90% of a P-51.

### Airframe:

- 15) Carbon lay-up reinforcement on wing walk area both sides.
- 16) All rivets filled and or taped with Hysol epoxy.
- 17) Jet Glow paint 2015.
- 18) Fuselage baggage area extended 6" aft.
- 19) Fuselage 12-gallon composite fuel tank with copper mesh in lay-up schedule installed and grounded in baggage area.
- 20) Numerous doublers and bushings added through out for durability and maintainability.
- 21) Built in 48 cu.ft. oxygen system with Mountain High O2D2 Computer.
- 22) Larry Woods rudder pedals provide better feel and increased pedal travel.
- 23) Custom Full Canopy Cover.
- 24) Engine Inlet Plugs.

#### Landing Gear:

- 25) Retained original gas spring design and location however up graded gas spring values.
- 26) Replaced electro/mechanical original system with electro/hydraulic system using a Parker Hannifin pump and reservoir.
- 27) Landing gear hydraulic cylinders were custom built for the Venture with a design value 6000 psi, which is well above the system max of 1650 PSI.
- 28) Hydraulic working range; 1250 lbs. down, 1550 lbs. up with a relief check valve installed @ 1650 lbs. at which point pressure is relieved by return a portion of the hydraulic fluid to the hydraulic reservoir.
- 29) The third down system is 1600-psi nitrogen blow down bottle located in the center console, which can be discharged on the downside for a gas spring assist.
- 30) Nose and main landing gear have parallel pole magnetic unlocks to assist and maintain landing gear in the up position.
- 31)
- 32) Larry Woods single piece CNC machined Nose Gear strut w/offset geometry for improved ground handling and anti-shimmy.
- 33) Landing gear oleos rebuilt 9-18, new tires, tubes and repacked wheel bearings same date.

#### Avionics:

- 34) JimCook Instrument Panel.
- 35) Garmin 3 Screen G3X with Dynon D-10 backup EFIS.
- 36) Garmin GTX 330ES Mode S Transponder / ADS-B Out.
- 37) Garmin GDL 39 ADS-B In.
- 38) TruTrak Autopilot with high torque servos.
- 39) 3-Axis Electric Trim.
- 40) Fully redundant IFR capability, GPS/WAAS LPV Approach capability, Flight Director, Highway in the Sky. The Autopilot is capable of controlling the aircraft independently of all other avionics in the aircraft.
- 41) Two Bose ANR Headsets.

#### Additional Information:

This Venture has been professionally built, flown and maintained. Always kept in an airconditioned hangar and pampered. The Questair Venture was designed by the same engineering team that designed and developed the Piper Malibu. N17FY was built over a period of years and no expense or effort was withheld to make this what is very likely the best Venture ever built.

The primary design objective for the Questair Venture was to provide high speed, long distance travel with a minimum of fuel consumption and to accomplish this as a stable IFR instrument platform. It is an all-aluminum high strength aircraft capable of providing thousands of hours of comfortable long-distance travel if properly built, competent maintenance, and flown by a competent pilot.