

# CORVAIR Engine Converted to Power Light Aircraft

The Corvair was designed by GM and Manufactured by Chevrolet. Converted Corvair engines have been reliably powering many home-built, kit-built and conventional light aircraft since 1989 with notable success and safety. These engines are currently flying in Zenith 601-650-750, Pietenpol, Sonex, Piper Cub, Pfeifer Sport, Wagabond, KR2, Kitfox, and other light aircraft.

Corvair engines are six-cylinder opposed and air-cooled similar to Continental and Lycoming. Corvair weighs 225 pounds, similar to Continental O-200 but is 40 pounds lighter than Lycoming O-235. Due to large displacement the engine is effective without a gearbox or belt drive. The Corvair **runs on automotive fuel including ethanol**. This offers significant savings over 100LL aviation fuel.

I purchased a 1965 Corvair with a running 2,700 cc, 100 hp engine. The engine suffix letters, crankshaft #, and heads # met the criteria specified by **William Wynne** (The Corvair Authority) for the best Corvair model to convert. I disassembled the engine in my home shop. Following WW's recommendation, I shipped the crankshaft to Moldex Crankshaft Co. in Redford, MI for cleaning and magnifluxing, modifying the crank by drilling and tapping for a safety shaft, grinding the shaft and journals, zero balancing, and nitrate hardening. Moldex delivered the completed crankshaft for me to Roy's Garage near Osseo, MI where I had arranged to reassemble my engine.

**Roy Szarafinski** is an amazing machinist and operates his own shop specializing in Corvair engines for aviation. He designed a Fifth Bearing to reduce engine prop torsion. Roy ordered all parts for the engine and tutored me through the rebuild. It took seven days to complete including running the engine 4.5 hours on his test stand. There were no problems and it ran super smooth.

I attended **William Wynne's Corvair College** at Mexico, Missouri several times and listened to his inspiring presentations at EAA Air Venture and Fly-In reunions for several years. I am in awe of his aviation education, first-hand knowledge of Corvair engines and ability to teach. Several months after finishing the engine I took it back to **Corvair College** to show builder friends. I ran it for the audience on a test stand for an hour. Again, the engine performed smoothly. Total time on the new engine is about 5.5 hours.

I am thankful to Roy and William for sharing their aircraft knowledge and their patience with my many questions. They are awesome to work with.

<b>Corvair Engine Parts List</b>		
<b>Part Name/Description</b>	<b>Supplier</b>	<b>Notes</b>
Case halves w studs	Builder	
Crankshaft	Builder, reconditioned by Moldex Crankshaft Co	Supplier Recommend by TCA
Pistons .030 oversize	Sealed Power Forged	
Rods/bearings	GM	
Cam OT10	GM	
Cylinders	GM	
Cylinder heads	GM	
Valve train hardware	GM	
Push rods & O rings	GM	
Rocker arms	GM	
Fifth Bearing	Roy Szarafinski	
Gold billet oil pan	Fly Corvair	
Gold oil filter housing	Fly Corvair	
Gold prop hub	Fly Corvair	
Front mount starter kit	Fly Corvair	
SS exhaust pipes (Piet)	Fly Corvair	
SS manifold intake pipes	Fly Corvair	
SS Carb intake pipes	Fly Corvair	
Rear mount permanent magnet alternator John Deere/Kubota style	Sport Performance Aviation (SPA)	

### **Reason for Selling**

I started building a Pietenpol several years ago, but have decided not to continue due to health issues; I am just getting too old, too soon.

If you are interested in purchasing an excellent **engine** or **spruce lumber** please contact me by calling **(402) 880-6559**

**Allan Macklem - Omaha, NE**





