



Remanufactured engines done right, every time.



WESTERN[®] *Skyways*



As much as we'd like them to, aircraft engines don't last forever. As pilots log more and more hours, the engines wear and will require new parts and a great deal of inspections to put you back in the air safely. It's a fact every pilot knows. An aircraft owner shouldn't be inundated with the details of the process, but can be involved if so desired at Western Skyways.



Western Skyways is a Colorado-based company that knows about overhauling your aircraft's engine. Western Skyways has been remanufacturing Lycoming and Continental engines since 1943, beginning in Troutdale, Oregon, when it was owned by the AAR Corp.

In 1995, many of the original Western Skyways employees including David Leis, Perry Nicholson, John Robinson and Al Head began the current Western Skyways in Montrose, Colorado, to once again assure customers they would be receiving the same expertise and experience they had the past 40 years. They even purchased the equipment and engine inventory from the Troutdale facility and now have approximately 100 employees.

Western Skyways has built a world-class piston engine facility, and six years ago added a PT6 and JT15D turbine engine operation next door. To its employees, the facilities are as new today as the day they cut the ribbon.

From attention to details to experienced FAA certified mechanics, not to mention a focus on providing excellent service and a pleasurable experience to its clients, Western Skyways has become the go-to engine remanufacturing facility in the world. They trademarked their remanufactured engines "Gold Seal," and it's become an industry-standard for quality, safety and value.

Western Skyways makes the engine rebuild process transparent for its customers. "It's not an assembly line rebuild, where the technician only knows the particular job he is stationed at, but rather a process where technicians are cross-trained throughout the entire process, double-checking each other as things progress. One technician is actually performing

the work, and another quality inspector is verifying the work is correct. By doing so, we are reducing the human and mechanical error," Eric Barker, sales representative, says. "We're big on redundancy when it comes to our inspections and processes while remanufacturing engines. We test the accessories separate from the engine, and then test them all together with the engine in our FAA-approved test cell."

According to Barker, many overhaul shops don't test the engines, let alone have a test cell. "We test every engine regardless of why it's here," he says. "There are many shops who may overhaul a piston engine, but we are the largest shop in the nation in volume, square footage and number of employees. We remanufacture 40-50 piston engines per month, and there's a reason for that. We charge a fair price with exceptional quality and service, and we back it up by the longest warranty in the industry."

But what is that warranty? There are two options, actually. One warranty is five years, or time between overhaul, and covers 100 percent of parts and labor. The other option is prorated after 6 months to TBO. "Both are far surpassing most in the industry," Trent Tubbs, another Western Skyways sales rep, says, "and the five-year warranty is exclusive to Western Skyways."

Western Skyways also holds a number of proprietary FAA-approved STCs which allows the modification of certain engines and airframes, such as turbonormalizing a Beechcraft Bonanza.

You know your engine is in good hands when Western Skyways does the work. Each engine is balanced both statically and dynamically and is tested in a full test cell.

There's a precise process when they get to work on your engine. Before any work begins, an "Engine Overhaul and Assembly Log" is created. These FAA-approved documents record the condition of every engine part and accessory throughout the entire process. As the engine is disassembled, all major components remain together and are never interchanged with other engines. Each item is identified prior to disassembly, serial and part numbers are recorded on the progression log and full photo documentation is kept. The engine is then pressure-washed and cleaned using an industrial cleaning product called Safety-Kleen 609, along with various other cleaning such as Glass Bead and Plastic Bead. Soda blast is also used and is preferred at Western Skyways because it is less abrasive to the material being worked on and is more environmentally friendly.

From there, all oil galley plugs, caps and tubes are removed and cleaned. Western Skyways will not reuse certain parts in the Gold Seal engine even if permitted, going above and beyond the minimum requirements of the manufacturer and FAA. "We only use new part limits, not service limits, which is the highest standard you can have," according to Barker.

Remaining steel and aluminum parts are then inspected using magnetic particle inspection, dye penetrant, Eddy current and ultrasonic inspections. Parts begin to get replaced until finally all are in place and the engine receives a fac-



tory specs test cell run using a flight prop and governor to simulate the first flight, and provide a thrust load to the thrust bearings from a full power take off and cruise, to descent and cool down. If Western Skyways is also performing the installation in your aircraft the engine will be tested in their state of the art test cell, as well as full performance flight tests after the installation.

Western Skyways doesn't expect you to stroll into their facility with your engine under your arm, so as a customer service, they will come to you to pick up or deliver engines. "If you're stuck in some mountain village, or some other remote location and there's no one around to help you, okay, we'll work out some plan," Vice President David Leis says. "The point

is, we're there when you need us."

Western Skyways often dispatches technicians to work "on location" to help remove or reinstall a piston or turbine engine which can be shipped or picked up by someone from Montrose.

"This is standard," General Manager of Western Skyways' turbine division, Tom Barry, says with authority. He lists some exotic locales they've flown to for engine work: Hawaii, Alaska, Iceland, South America ... South America? Western Skyways holds a contract with the Colombian National Police in Bogota. The planes are needed to track down notorious and dangerous drug lords, and Western Skyways gives the Bogota officials the edge they need to stay ahead of the bad guys.



As one can imagine, with decades of piston and turbine engine experience, Western Skyways has amassed a loyal and satisfied customer base. These include Ag-Air operators, charter companies, air ambulances, air cargo companies, flight schools, scenic tours and, of course, individual operators. “An air ambulance service might need an engine every year,” Al Head, president, says, “and a flight school every couple of months.”

This loyal base will attest to Western Skyways’ attention to detail and overall quality service. One satisfied customer is legendary music industry executive, Jac Holzman.

“From day one, the engine has been a joy, with such an improvement in power that I am now getting eight additional knots, which is theoretically not possible,” Holzman says. “The plane responded beautifully with a thrilling sense of power I had never felt before. My gratitude goes to the team at Western Skyways for their exceptional craftsmanship and care, and for doing it all on time and on budget.”

It’s a nervous feeling to have your engine serviced, but it happens to all aircraft owners. “We strongly recommend that you visit any shop you may be considering, before you make a decision,” Barker says. “This is a big investment, and as such deserves a little due diligence. Not all shops, nor their engines, are created equal and it’s important to make the right decision.” Put your engine in good hands, hands that have experience doing what needs to be done when it needs to be done. Western Skyways cares about you and your engine as well as the relationships they build with their clients. With them at work, you can sleep easy knowing your engine will soon be back at work, stronger than ever taking you into the clouds and beyond. →

For more information, contact Eric Barker or Trent Tubbs at 800-575-9929 or visit www.westernskyways.com for your free DVD tour of the facility.

Remember to ask these important questions when selecting your engine shop:

- Are they FAA certified?
- Does the shop employ FAA-certified mechanics with extensive experience on this specific job?
- Do they maintain full product liability insurance?
- Are the engines brought to new parts limits, or simply using service limits?
- Do they have a drug testing program?
- Do they use new parts or remanufactured parts?
- Do they provide fast and convenient service if there is a problem?
- Will the company still be here five years from now?
- Does their warranty terms and conditions reflect confidence in the finished product?
- Do they provide an itemized listing of all parts installed with detailed AD, MSB, and SB sign-offs?

