

**LEADING
EDGE**



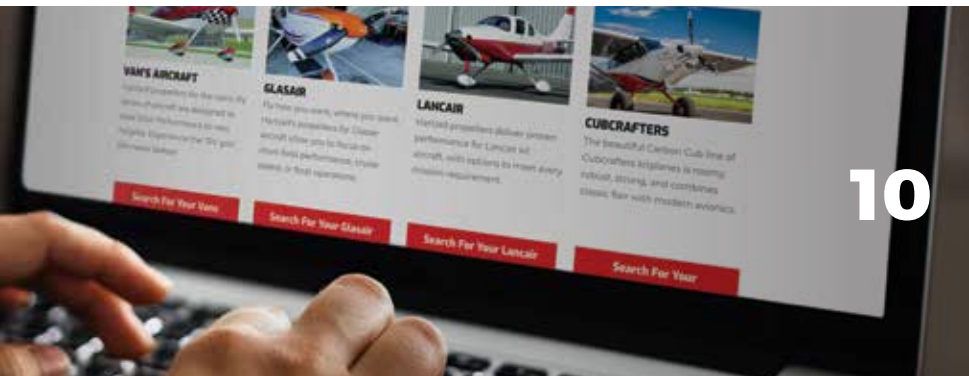
5-Blade Upgrade for the Kodiak 100

Bringing next-generation propeller technology to the backcountry



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KODIAK 100 GETS A 5-BLADE UPGRADE



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OUR COMMITMENT TO YOU:

QUALITY, PERFORMANCE, AND SUPPORT

For over a century, Hartzell Propeller has remained at the forefront of aircraft propeller design and manufacturing technology. Why? I believe it's due to our relentless curiosity, collaborative spirit, and commitment to continuous innovation.

At Hartzell, we truly care about aviation and the people who fly behind our propellers. We listen to our customers and design custom solutions finely tuned to their specific missions. We work side-by-side with the manufacturers developing next-generation aircraft. We invest in world-class processes, tools, and technology. And, most importantly, we back all our products up with exceptional service and support to keep you flying safely and confidently.

Our ninth edition of Leading Edge highlights this dedication to delivering unmatched quality, performance, and support for every corner of the aviation industry — from kitplanes and backcountry aircraft to the latest advanced air mobility and electric aircraft projects.

This issue's Feature Story gives you an inside look at Hartzell's new 5-blade composite propeller option for the Daher Kodiak 100, and a meaningful partnership with the Recreational Aviation Foundation (RAF) to enhance the backcountry flying experience. Be sure to take advantage of our special backcountry propeller discount for RAF members, which has been extended for the third time!

We also catch up with sister Hartzell Aviation companies, Hartzell Engine Tech and Hartzell Aerospace Welding, to learn about their latest updates and product developments. Finally, we're giving you an inside look at Hartzell Propeller's state-of-the-art Service Center in Piqua, Ohio, providing high-quality propeller maintenance, overhaul, and repair services to support customers near and far.

Leading Edge is dedicated to the aviation community, which continues to inspire and celebrate the passion of flight. On behalf of Hartzell Propeller, thank you for reading and sharing your stories to bring together pilots and aviation fans of all ages!



JJ Frigge
President, Hartzell Propeller

P.S. For more photos, videos, and articles, check out the online edition of Leading Edge at HartzellLeadingEdge.com.



Quiet. Capable. Backcountry-Ready.





Think a Utility Aircraft Can't Be Rugged *and* Luxurious? Think Again.

While the Daher Kodiak 100 began life as a simple-to-fly backcountry airlift platform, it has since evolved into a highly versatile aircraft that can only be described as “a flying pickup truck with a muscle car engine and a luxury SUV interior.”

Engineered in the 21st century, the single-engine 10-seat short takeoff and landing (STOL) aircraft has introduced significant improvements over the years, from state-of-the-art avionics and safety features to the latest composite propeller technology from Hartzell Propeller.

A Modern Prop for a Modern Aircraft

In 2023, Daher and Hartzell Propeller debuted a new STC-approved Hartzell 5-blade composite propeller for the Kodiak 100 with Pratt & Whitney PT6A engine, available as a factory option and for retrofit under Hartzell's Top Prop performance conversion program. The new propeller can replace the four-blade aluminum Hartzell prop, now standard equipment on Kodiak 100s.

“The Kodiak 100 fitted with the new composite propeller provides an upgrade in performance, noise signature, and ramp appeal,” said Nicolas Chabbert, Senior Vice President of Daher's Aircraft Division. “Now, new customers and current owners have access to the latest composite propeller technology for the Kodiak 100, like its sister aircraft – the Kodiak 900 and TBM 960.”

Hartzell tailored the new propeller for application on the Kodiak 100, incorporating its lightweight Raptor hub technology. The aerodynamic design of the new propeller's carbon fiber blades allows RPM to be reduced from 2,200 to 2,000 RPM, reducing noise significantly.

“Customers who have received the airplane are blown away with the changes to the noise signature,” said Chabbert. “At the same time, there is no trade-off in performance.”

“With the new lightweight propeller option, the Kodiak 100 offers a five percent shorter takeoff roll, with less vibration for smoother operation,” explained Hartzell Propeller President JJ Frigge. “We have worked with Daher for years on their TBM platform, and we are very pleased to continue our partnership, enabling their STOL Kodiak to perform even better in backcountry and bush flying missions.”

Backcountry Flying at Its Best

The Kodiak 100 was specifically designed to replace the world's aging fleet of STOL aircraft, offering a more modern, powerful solution for getting in and out of unimproved strips in the backcountry.

In support of the ongoing protection, preservation, and improvement of backcountry airstrips, Daher's Aircraft Division has partnered with the Recreational Aviation Foundation (RAF) to provide access to several Kodiak aircraft, including a Kodiak 100 with Hartzell's 5-blade propeller upgrade.

The non-profit organization will utilize the aircraft's impressive hauling capabilities for special projects, including transporting supplies and personnel to maintain and enhance difficult-to-reach airstrips used for recreation and often as staging areas for forest firefighting.

“At Daher, we're happy to support the mission of the RAF,” said Chabbert. “The work to maintain these fantastic, remote fields is important to us, especially with Kodiak's manufacturing base in Sandpoint, Idaho, near dozens of backcountry airstrips.”

PEACE & QUIET IN THE BACKCOUNTRY

Aircraft noise abatement is a top concern when operating in sensitive backcountry areas and small, regional airports. As part of the STC flight test plan, the Hartzell 5-blade composite propeller was found to offer a significant noise reduction of six dB(A) compared to the current standard prop on the Kodiak 100.

Measured flyover noise was 77 dB(A), significantly lower than the EASA requirement of 85 dB(A), and less than the strict German requirement of 78 dB(A).

Many Missions. One Aircraft.

A true backcountry workhorse, the Kodiak 100 is known for its multi-mission capabilities ranging from law enforcement, military, and medical operations to environmental support, humanitarian air relief, and even parachuting. One of the Kodiak 100's primary missions is wilderness fire suppression.

In fact, Kodiak recently completed the first delivery of a Kodiak 100 with Hartzell's new 5-blade prop to the State of North Carolina Department of Agriculture, Forest Service Division, which will use the aircraft as a “load plane” to carry equipment and supplies that support aerial tankers responding to wildfires.

“With its enormous useful load, off-airport capabilities, and simple and rugged design, the Kodiak 100 is ideal for a range of applications,” said Paul Carelli, Director of Kodiak Flight Operations and

Special Missions. "Now, with Hartzell's five-blade composite propeller, it's also extremely quiet. This is a huge benefit when it comes to special missions such as law enforcement and forestry, but it's also very important when flying recreationally in the backcountry environments enjoyed by the public."

Get Upgraded

The 5-blade propeller upgrade is available immediately as a factory option on new Kodiak 100s and via the Hartzell Top Prop conversion program for the entire installed base of Kodiak 100 aircraft.

To request more information about Top Prop propeller conversions, visit HartzellProp.com/contact.



FAST FACTS

KODIAK 100

Max speed: 183 KTAS

Extended Range: 1132 NM

Fuel economy: 48 GPH

Climb Rate: 1340 FPM

Takeoff: 934 FT (5% shorter takeoff roll with Hartzell 5-blade)

Useful Load: 3530 LBS

Optional cargo pod for additional convenient storage.

Easily adapts to float plane use without structural upgrades.

 **DAHER**



Join the RAF!

Support the mission to preserve, improve, and create airstrips for recreational access.





PILOT PROFILE

Ross Wilke

Social Media Ambassador
Recreational Aviation Foundation



Tell us about your background in aviation and the type of flying you do.

I started flying with my dad in the family 172 at a very early age, and the flying bug bit me right away. Growing up, the family would spend weekends in Northern Wisconsin where there was a pair of Skywagons parked on the lake every summer, and that started my obsession with 180s, 185s, and off-airport flying. I currently spend almost all of my flying time going in and out of small grass strips and lakes around Wisconsin.

What airplane are you currently flying?

I'm currently flying a 1974 A185F with a Continental IO-550. The previous owner set it up to be immaculate, so it's equipped with Wing X extensions, VGs, and a Sportsman STOL cuff. It was clear when looking at possible upgrades that the addition of the Voyager propeller would turn the 185 into the best version of the airplane possible.

How did you decide on the Hartzell Voyager propeller?

It was an easy call to make as I had previously been flying an Aviat Husky with a Hartzell aluminum propeller since 2012. In addition to the performance stats of the Voyager, customer service is key, especially in a time of need. It was a win-win knowing that I was going to get a great propeller but also stick with a company that stands behind their product and will do whatever they can to keep me flying.

What are your initial impressions of the Voyager's performance?

On my first takeoff, I was amazed that all of my standard control inputs were late due to the increase in performance. Even on a hot calm day, the airplane was off the ground sooner and climbed faster than I had previously experienced. What was already an impressive airplane just went to the next level with the Voyager!

Tell us about your experience with the Recreational Aviation Foundation (RAF).

I would encourage everyone to support the RAF and its mission. The RAF is working hard every day to make sure that all of the best places to use an airplane with a Hartzell propeller are open, maintained, and, most importantly, will stay that way for years to come.



"The Voyager's performance has been incredible. It pulls hard, yet it's incredibly smooth throughout the entire RPM range."



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Join the Hartzell Propeller
team and advance the
future of aviation!

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manufacturing, engineering,
sales, and more.

View our current positions
and apply online at

HartzellProp.com/Employment

Equal opportunity employer M/F/H/V.

LEADING EDGE

ONLINE EDITION

hartzellleadingedge.com

Share the 2023 online edition
featuring the Hartzell interviews,
news, and highlights found
in this print edition with your friends!



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POWERING THE FUTURE OF AVIATION

Hartzell Aviation brings together industry-leading general aviation
manufacturers, suppliers, and service providers with the shared purpose of
enhancing the freedom of flight and powering the future of aviation.

HARTZELLAVIATION.COM

FLIGHT GEAR

MERCH STORE



Talk About Ramp Appeal!

The official Hartzell Propeller Flight Gear merch store has landed! With a great selection of Hartzell apparel, you can show off your Built On Honor pride on the ground and in the skies. Scan the code to shop online and place your order!



HATS | POLOS | SWEATSHIRTS | T-SHIRTS

HARTZELLPROP.COM



BREAKING INTO BACKCOUNTRY FLYING: KITPLANE STYLE

Building your own airplane is an adventure in itself, but for backcountry-bound kitplane owners, the journey has only just begun.

One of the most appealing aspects of homebuilding is the ability to customize your aircraft to fit your unique needs, style, and mission. If you're thinking about dipping your toes into the world of off-airport adventures, there's value in planning your backcountry modifications in advance — even while you're still mid-build.

We have a few tips to help you equip your kitplane for backcountry fun:

CHOOSE THE RIGHT BACKCOUNTRY AIRCRAFT PROPELLER

Choosing the right propeller for your kitplane can make all the difference when it comes to optimizing your airplane's overall efficiency and obtaining the specific performance characteristics you're after.

At Hartzell Propeller, we offer an impressive lineup of light-weight composite and durable metal propellers for a wide variety of kitplane aircraft. Whether your goal is cruise speed or STOL performance, there's a kitplane propeller to match your mission profile.

If you are building from a popular kit, you may be able to buy a new Hartzell propeller from the kit manufacturer, and some even offer a prop/engine bundle discount.

UPGRADE TO BIGGER, BETTER TIRES

Oversized tires are another must-have mod for backcountry flying, giving aircraft "land anywhere" capabilities while providing better ground clearance for the propeller. If you plan to land on gravel, sand, river rocks, or any other type of uneven or rough terrain, bush tires are a wise investment.



DEVELOP YOUR SKILLS

Perhaps the most important backcountry mod you can make to any airplane is to enhance your skills as a pilot. Although you don't necessarily need special training to get into backcountry flying, it does require plenty of practice to become proficient and confident.

Start by practicing basic skills and scenarios such as short-field takeoffs, soft-field landings, slips to landing, and landing over an obstacle at your home airport. Learning how to safely navigate unique airstrips is part of the fun and never-ending challenge of backcountry flying!



Photograph courtesy of Jim Stevenson

HARTZELL'S **NEW** KITPLANE PROP SEARCH TOOL

Now It's Even
Easier to Find Your
Perfect Prop!



Need to find a propeller for your kitplane?

Visit our new kitplane webpage to search for a recommended Hartzell prop for your project plane!



Hartzell's kitplane propellers are Built On Honor to match your specific airplane and mission, providing you with the greatest possible efficiency and safety. In many instances, you can buy a Hartzell propeller directly from your kit manufacturer. All props are also available for purchase direct from our factory, and we always have a team of experts available to answer your questions.

HARTZELLPROP.COM/KITPLANES



SPECIAL OFFER EXTENDED – AGAIN!



THE VOYAGER

3-blade metal scimitar propeller for the Cessna 180, 182, 185 and 206 fleet



THE TRAILBLAZER

2-blade composite prop for Aviat Husky, American Champion Scout, Maule M-7-235 and experimental aircraft



THE EXPLORER

3-blade composite prop for a number of experimental aircraft



THE PATHFINDER

3-blade composite prop for Cubcrafters X-Cub and Carbon Cub FX, and experimental aircraft

BACKCOUNTRY PROPELLER DISCOUNT

Hartzell Propeller is proud to support the thrill of backcountry flying with a \$1,000 discount on one of four backcountry propellers, **exclusively for RAF Members!**

“We love this partnership. It’s a real benefit to current RAF supporters, and a welcome incentive to become a new RAF supporter.”

— John McKenna, RAF Chairman

Hartzell Propeller will donate \$250 directly to the RAF mission for every member who buys a new Hartzell backcountry prop through the end of 2023.

Visit HartzellProp.com to learn more.



BETTER TOGETHER:

How to Prepare for a Group Backcountry Flight

Flying in the backcountry is an exhilarating experience, offering breathtaking views and unique challenges that can test the skills of any pilot. If you're new to this type of flying, one of the best ways to learn the ropes is to fly alongside experienced backcountry pilots. But before any group backcountry flight, there are some specific tips to keep in mind.

Why Go Backcountry Flying as a Group?

Flying solo is a thrill in and of itself. But flying alone in the backcountry is generally not recommended. If something were to go wrong and you find yourself stranded and/or injured in a remote location, being with others can greatly increase your chances of a safe rescue.

Beyond safety, flying with a group of other backcountry-minded pilots is just plain fun! The joy of flying is best shared with others, after all. Many backcountry pilots make the most of their trips with camping, hiking, fishing, hunting, and other group activities in the great outdoors.



Keep it Tight-Knit

How many pilots should fly together in the backcountry? Experts say the ideal number is two to four aircraft in a group at a time. Any more than that, and backcountry group flying can get complicated — and riskier. If you're part of a bigger gathering, for example, it's a good idea to break out into smaller groups and stagger your departures.

It's also important to choose who you fly with carefully. Know the group and each pilot's level of experience. Most importantly, set and respect your personal minimums, and don't succumb to peer pressure to do things outside your limits or comfort zone.



Young campers at Schafer Meadows, photo by Andy Turner; courtesy of the RAF

Is Your Aircraft Ready for Backcountry Fun?

Before venturing into backcountry flying, you need to ensure your aircraft is equipped to get you in and out of remote airstrips. The right modifications can totally transform a stock airplane, making backcountry flying safer and more accessible. That's why Hartzell Propeller offers a selection of lightweight composite and durable metal backcountry propellers for rugged backcountry operations.

Every one of our durable backcountry props is designed to maximize performance in the backcountry, offering shorter take-off rolls and better climb rates — not to mention stunning ramp appeal.

Eliminate Uncertainty with Preflight Planning

While group backcountry flying is not disciplined and structured in the same way as formation flying, there does need to be a level of coordination and preparation. A thorough preflight briefing will eliminate uncertainty and ensure everyone in the group is on the same page.

Choose a lead pilot first (the most experienced backcountry aviator in your group), then establish an order for the rest of the aircraft to follow. Review the overall route and destination, walking through each phase of flight and emergency protocols. Part of this includes having a clear plan for en route communications. Just as in formation flying, never assume that all pilots heard a call unless they acknowledge it.

The Recreational Aviation Foundation's Safety Briefing Guide provides a very helpful checklist that accounts for everything from terrain elevation and obstructions to high-traffic areas, emergency landing locations, sun angle, and visual illusions.



Keep a Safe Distance (and Enjoy the Scenery!)

Remember, part of the reason you're flying in the backcountry in the first place is to appreciate the beautiful view. While there's no definitive distance to maintain in a group backcountry flight, experts say they usually stay at least $\frac{1}{4}$ to $\frac{1}{2}$ mile apart.

Try to strike a balance where you can easily see the aircraft in front of you, while ensuring you're well out of their way if they have an issue. This way, you can relax a bit and appreciate your surroundings.

*"I can't say enough about how good this prop is.
It sure gets me to some special places."*

- Jim Stevenson | @js170b



The **TRAILBLAZER** is an advanced structural composite, swept-tip, scimitar propeller blade, specifically designed to maximize performance of bush aircraft.

PROPELLING THE FUTURE OF FLIGHT

HARTZELL PROPELLER CONTINUES TO INVEST IN CUSTOM PROPELLER SOLUTIONS FOR THE ADVANCED AIR MOBILITY AND ELECTRIC/HYBRID AVIATION MARKET.

ELECTRIFYING THE SKIES

On September 27, 2022, Eviation Aircraft successfully completed the first flight of its zero-emission Alice prototype aircraft, a groundbreaking advancement in sustainable flight. Designed from the ground up for electric flight, the Alice is equipped with components from world-class aviation partners, including custom-built, 5-blade structural composite Hartzell propellers.

The initial test flight of the first Alice prototype is just the beginning of an extensive certification test program to eventually bring the innovative aircraft to market. Over time, battery technology is expected to evolve to support longer-range flights, which is why the Alice's advanced battery system was designed to be highly efficient and endlessly upgradeable.



EVIATION

HYDROGEN-POWERED FLIGHT TAKES OFF

In April 2023, Universal Hydrogen reached a major milestone with the first successful flight of a 40-passenger regional airliner using hydrogen fuel cell propulsion. The De Havilland Dash 8-300 hydrogen fuel cell-powered testbed, fondly nicknamed Lightning McClean, flew for 15 minutes, reaching an altitude of 3,500 MSL.

The aircraft's innovative powertrain utilized a 91-inch diameter five-blade swept airfoil carbon fiber Hartzell propeller that was designed and tested for the experimental aircraft. This propeller utilized derivative blades, hub and retention components from an existing CFR Part 35 certified propeller.

The specially designed Hartzell propeller provided thrust to keep the aircraft airborne when the other jet fuel-powered turbine engine was throttled back during the first flight to demonstrate cruise principally on hydrogen power. Hartzell also customized a governor for Universal Hydrogen and continues to develop governor advancements for green-powered aircraft.



PARTNER WITH HARTZELL IN THE FUTURE OF FLIGHT

Are you working on an Advanced Air Mobility or electric/hybrid aviation project? We'd love to hear about it! Hartzell Propeller's technology drives some of the world's most revolutionary aircraft designs, and we've already provided test hardware on several innovative projects currently in development.



Contact Hartzell Propeller's Advanced Air Mobility Specialist, **Mitch Heaton**, and see how Hartzell Propeller can help you with custom propulsion systems and solutions.

Email mheaton@hartzellprop.com or call +1 (937) 778-4200.





SETTING THE STANDARD

FOR AEROSPACE WELDING EXCELLENCE

As the world leader in aircraft exhaust systems and engine mounts, Hartzell Aerospace Welding has continued to grow its product portfolio and establish a service footprint spanning North America.

Hartzell Aerospace Welding was founded on the expertise of Aerospace Welding Minneapolis (AWI) and Aerospace Manufacturing, Inc. (AMI). AWI is the world's largest shop for repair, overhaul, and new FAA PMA manufacturing of aircraft exhaust systems and engine mounts. AWI specializes in TIG welding, tube bending, and sheet metal fabrication.

AMI specializes in welded tube assemblies, tube bending, sheet metal fabrication, and machining for jet engine and airframe components and assemblies. AMI also produces metal details for the Hartzell Aerospace Welding brands.

In 2022, Hartzell Aerospace Welding expanded with the acquisition of Acorn Welding, Canada's largest aircraft exhaust and engine mounts repair company and the world's largest radial and vintage aircraft exhaust repair company. Acorn Welding is a Transport Canada Civil Aviation (TCCA) approved maintenance organization and one of the few EASA-approved welding facilities. It is also a TCCA-approved manufacturer and holds ratings

for welding, components, nondestructive testing, and structures, as well as distribution of aviation parts. The 50,000-square foot operation is well-positioned to continue to grow as a part of Hartzell Aviation.

Seaplanes West, a division of Acorn Welding, specializes in single-engine Cessna engine mount STC upgrades for both land and floatplane applications. These new and improved mounts provide turbine smooth performance.

Hartzell Aerospace Welding also partners with Quality Aircraft Accessories (QAA), which has expanded its capabilities to support aircraft exhaust overhaul and repair through its locations in Tulsa, Oklahoma, and Ft. Lauderdale, Florida.

New PMA/PDA Cessna Airboxes

Hartzell Aerospace Welding now offers airboxes and replacement parts for the most common Cessna single-engine aircraft. These airboxes use design improvements and methods developed over the years to extend the service life of these hard-working parts.

With a comprehensive catalog of FAA PMA aircraft exhaust, mounts and airboxes, as well as strategically-located FAA and Transport Canada-approved Repair Stations, Hartzell Aerospace Welding is helping operators across North America minimize downtime and keep their aircraft in top shape.



Eagan, MN



Tulsa, OK

Ft. Lauderdale, FL



NEW EXHAUST REPAIR CAPABILITIES

QAA is now open with added FAA-approved Repair Station capabilities to support aircraft exhaust repair and overhaul. QAA will also be a stocking distributor for AWI's PMA exhaust components and associated hardware.

As part of the Hartzell Aviation family, both AWI and QAA's products are Built on Honor, reflecting our commitment to upholding the highest standards in aviation.



QUALITY AIRCRAFT ACCESSORIES (QAA)

The authority in piston engine accessories is once again servicing magnetos in Ft. Lauderdale.

- Bendix 200 and 1200 Series single magnetos
- Bendix Dual magnetos
- Slick by Champion magnetos
- Complete ignition systems
- QAA is a Slick by Champion authorized service and warranty provider
- Providing expedited service, repair, overhaul and exchange
- Now stocking the full lines of Sky-Tec starters and Plane Power alternators
- Fuelcraft fuel pumps, and Aeroforce turbo system components

Fly to Us at Ft. Lauderdale Executive (FXE)

2199 NW 53rd St, Fort Lauderdale, FL 33309



BOOSTING PERFORMANCE

FOR ALL MAJOR AIRCRAFT BRANDS



TOP PROP CONVERSION PROGRAM

30 years // 30K Conversions and Counting

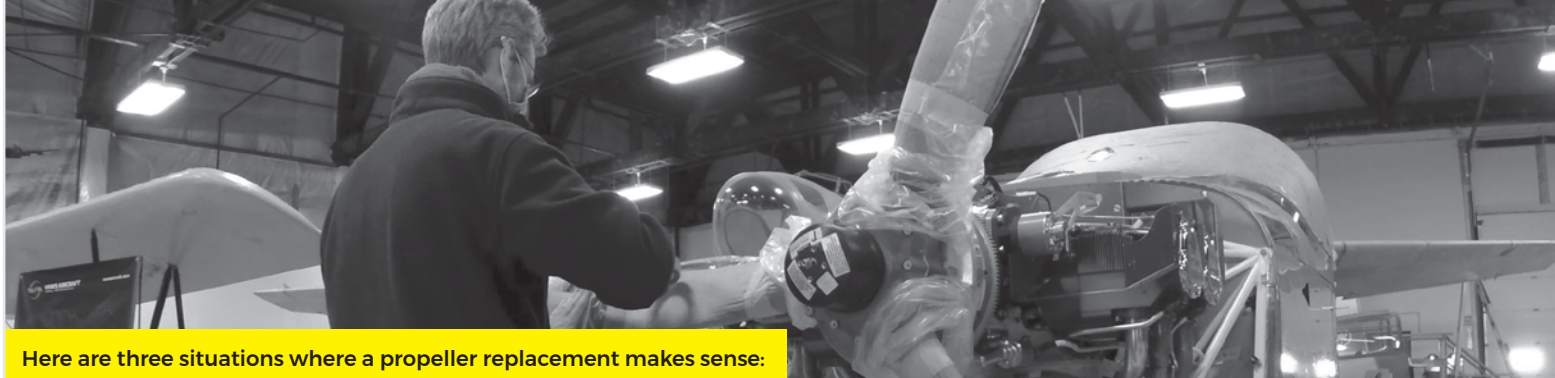
Industry-Leading Warranty - Through First Overhaul

Improved Lead Times

WHEN SHOULD MY AIRCRAFT PROPELLER BE REPLACED?

When it comes to your aircraft propeller, knowledge is power. In addition to our helpful resources and manuals, Hartzell Propeller's technical team is always available to answer your questions about propeller maintenance, overhauls, repairs, and safety. Today, we want to shed some light on one of the most common questions we receive: "When should I replace my aircraft propeller?"

Hartzell's aircraft propellers are engineered to have a long service life. But just like any component on your aircraft, there inevitably comes a time when propeller replacement is necessary. So, how do you know when your aircraft propeller needs to be replaced or upgraded?



Here are three situations where a propeller replacement makes sense:

#1: Your aircraft propeller is damaged due to a strike or corrosion

Some propeller damage is obvious. Unfortunately, prop strikes occur all the time due to hangar hazards, gear-up landings, and even rogue wildlife on the runway. Remember, never try to straighten bent propeller blades on your own. Take your aircraft to a reputable propeller repair facility to assess whether propeller blade repair is possible, or if a total propeller replacement is needed.

Other types of propeller damage are not so apparent. While external corrosion is visible on the propeller blades, internal corrosion is far more insidious. Left undetected, internal corrosion can destroy the components within the propeller hub and render the propeller unairworthy. This type of corrosion is often only detectable during a complete propeller overhaul.



Learn more about
**Hartzell Propeller's
Top Prop conversion
program,**

#2: Your aircraft propeller has reached its operational life limit

It's critically important to pay attention to your propeller manufacturer's published overhaul limits. Flying your aircraft with a propeller beyond its intended service life isn't just inadvisable; it's potentially dangerous. TBO limits are defined in terms of both flight hours and calendar time, whichever comes first. If you have a Hartzell propeller, you can find detailed information about the propeller overhaul limits for your specific model in Hartzell Service Letter HC-SL-61-61Y. If your prop is due for an overhaul, visit Hartzell's world-class propeller service center in Piqua, Ohio, or one of our Recommended Service Facilities (RSF) located around the world.

While the cost of a propeller overhaul varies by model, it can add up quickly, especially if you need to replace the propeller blades and multiple internal components due to damage, seal aging, and corrosion within the hub. In cases like this, you may discover there isn't a significant price difference between overhauling your legacy prop and upgrading to a new-generation design. Of course, you don't need to have an upcoming overhaul to upgrade your old prop, but it can be an opportune time to consider a propeller conversion. (Keep reading!)

#3: You want to upgrade to a higher-performance propeller

The ability to make performance modifications is one of the best aspects of owning an airplane. If you're thinking about enhancing your aircraft, an aircraft propeller conversion is one of the smartest investments you can make!

Here are some good reasons to consider upgrading your propeller:

- You want to try something new. Maybe you're planning to fly into backcountry strips, change from wheels to floats or skis, or make more cross-country trips. You'll need a prop that can match your mission!
- You want to improve performance. An upgraded propeller can offer performance advantages in a number of areas, from takeoff and climb to cruise speed.
- You want to make your airplane quieter. Switching to a new propeller can help to limit vibration in flight, which helps to reduce noise and provide greater comfort to passengers.
- You want to improve ramp appeal. Sleek, new propeller blades are a surefire way to add instant ramp appeal and increase the value of your airplane.





Flying the Social Skies

Catch the latest from the
hartzellprop Instagram feed



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Flying for Freedom:

HOW ED HAMILL HONORS OUR NATION'S HEROES



From flying fighter jets for the U.S. Air Force to performing for millions at airshows, Ed Hamill's aviation journey has come full circle. At the heart of it all is his passion for honoring the sacrifice of our nation's heroes and supporting their families.

It All Started at an Airshow

In an interview with Hartzell Propeller, Col Ed "Hamster" Hamill, USAF (ret) said his interest in aviation was sparked from an early age. His grandfather was a military and corporate pilot, and his grandmother was one of the original 99s. He was inspired to pursue a career in aviation when he heard the roar of a fighter jet at the Chicago Air and Water Show. "From that point forward, the fire was lit," said Ed. "I knew I wanted to become a fighter pilot."

Journey to the F-16

Ed earned his PPL and logged a few hundred hours of general aviation flight time before joining the Air Force ROTC in college. He was commissioned as a Second Lieutenant in the Air Force, where he immediately went into pilot training and was tracked to fly F-16 fighter jets, which he flew for the majority of his 30-year military career.

Airshow Dreams Take Flight

After two operational tours flying the F-16 in Korea and Germany, Ed returned to the States to instruct pilots in the F-16. During that time, Ed revisited a dream he had put on the back burner: flying in airshows.

"I always knew in the back of my mind that after being a fighter pilot, I wanted to be an air show pilot — and I wanted to fly in a biplane," Ed said.

So, Ed connected with airshow legend Sean D. Tucker, who became his friend and mentor.

"I remember when I first told Sean I wanted to become an air show pilot," said Ed. "He told me, 'No, you don't. This life is too tough.' It took about three months of convincing him I was serious, but then he took me under his wing."

With Sean's guidance, Ed learned how to skydance and fly competition aerobatics. In the meantime, Ed joined the Air Force Reserve and got back into flying F-16s part-time. This led to a sponsorship opportunity with the Air Force Reserve recruiting service, and soon, Ed was inspiring millions flying his Pitts S-2C biplane at airshows coast-to-coast — including Hartzell's friends and family airshow.

After seven years of performing professionally, Ed took a step back from airshows while staying active in ICAS as an aerobatic evaluator and show organizer.

"When I sold my biplane, I thought I was done with airshows," Ed said. "But then I got my airplane back, and the opportunity arose for a partnership that was the right fit at the right time."

Back to Show Center in the Folds of Honor Biplane

Ed now flies the Folds of Honor Biplane, raising awareness and funds for the charity's mission to provide educational scholarships to the spouses and children of fallen or disabled military and first responders. Since 2007, Folds of Honor has provided over 44,000 scholarships worth more than \$220 million.

"My whole mission is about raising awareness, giving back to the military community, and honoring the American family," shared Ed. "I use my performance as an opportunity to tell a powerful story and pay tribute to friends of mine who gave the ultimate sacrifice."

Hartzell Propeller is proud to support this mission and sponsor Ed Hamill, who chooses to fly behind the aerobatic Claw propeller in his Folds of Honor Biplane.

"No matter what kind of tumbles or gyroscopic maneuvers I do in the biplane, I don't have to think twice about the reliability and durability of my propeller," said Ed. "It's just rock solid."



See Ed's airshow schedule at EdHamill.com.

So, you're thinking of buying an airplane. Congratulations! Whether pre-owned or brand-new, buying an airplane is a rewarding investment. It's also a major responsibility that should come with careful consideration. Not to mention, the process of acquiring an aircraft can be stressful and intimidating, especially if you're a first-timer. We have a few tips to help you make a confident, informed decision and find a personal airplane that fits your flying needs, goals, and dreams.

The Right Match for Your Mission

Early on, it's easy to get caught up in the excitement of comparing different airplanes and their various features. But first, it's important to think about what you really want to get out of your aircraft.

How do you want to fly?

What's your typical flying mission? Are you looking for a "weekend warrior" to handle those low and slow \$100 hamburger flights or a fast cruiser for cross-country business travel? Maybe you prioritize aerobatic capabilities or backcountry STOL performance. Making a list of how you plan on using your airplane will help you narrow down the options.

Who do you want to fly with?

For some pilots, flying is most enjoyable as a peaceful, solo activity. For others, flying is a meaningful way to share their passion with family and friends. Knowing who you want to fly with will help you determine if you need a single-seat, two-seat, or four-seat (or more) aircraft.

Where do you want to fly?

Last but not least, think about where you plan on taking your aircraft — or rather, where it will take you! Consider the typical trip distance and conditions of flight as well as the weather and terrain you might encounter. Will you need a heavy-duty hauler that can handle camping gear or lots of luggage? How often will you be landing on grass, gravel, or sandy runways? What about operating in snowy or icy conditions?

Be honest and realistic. Depending on your requirements, you may not need a brand new aircraft with all the latest bells and whistles. It's possible to customize a used plane to meet your mission with after-market modifications and upgrades, such as an airplane propeller conversion.

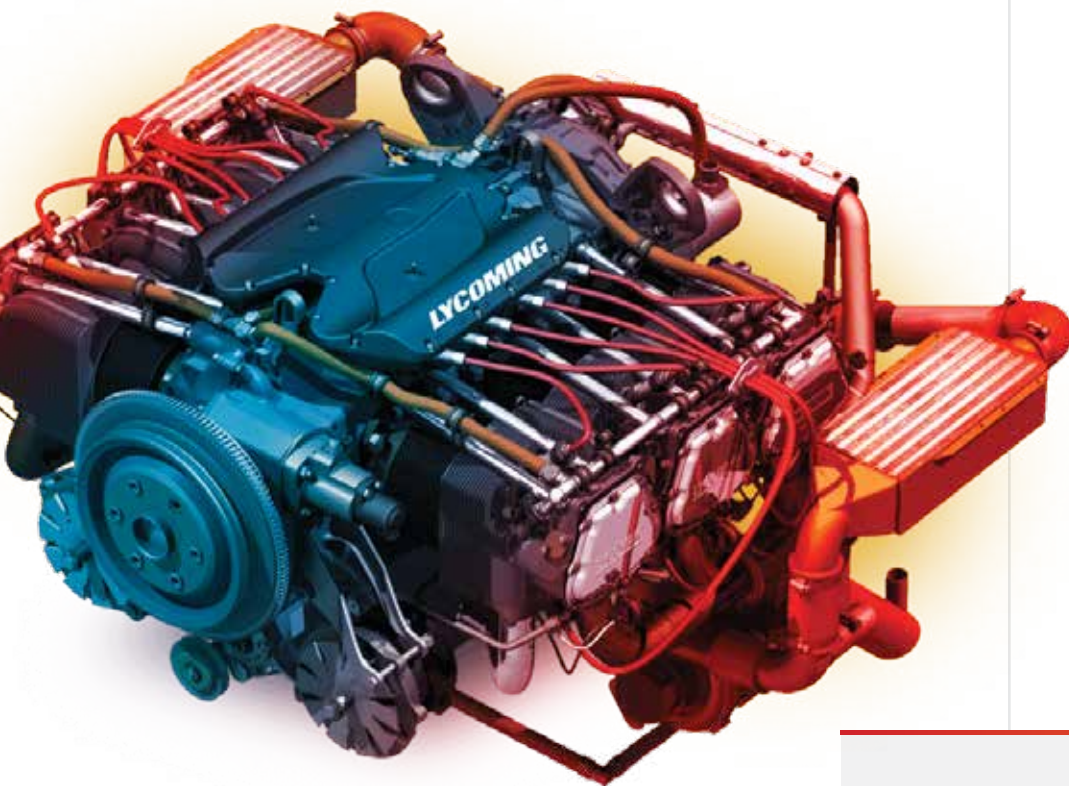


MISSION POSSIBLE

PREHEATING YOUR AIRCRAFT ENGINE:

WHY, WHEN, AND HOW

Starting a cold aircraft is not like starting a cold vehicle. Even on a freezing morning, you may not need to spend time warming up your car at all before hitting the road. But an airplane is far different, for many reasons!



WHY PREHEAT YOUR AIRCRAFT ENGINE?

A cold-soaked aircraft engine is not only difficult to start, but when it does start, it may result in abnormal damage to the engine, shortened TBO, and potential engine failure. However, oil viscosity isn't the only factor to worry about. Clearance matters, too!

Piston aircraft engines have internal components made of both steel and aluminum, which contract at different rates when cooled and expand at different rates when heated. If your preheating system only warms the oil pan and doesn't uniformly heat-soak the entire engine it may cause metal-to-metal contact.

Aside from the luxury of a heated hangar, the best way to warm your oil — and ensure there's room for it to flow when you start up — is to use a multi-point aircraft preheating system, which is standard on all **Tanis preheat systems**.

WHEN TO PREHEAT

Different aircraft engine manufacturers have specific recommendations for preheating procedures. In general, preheating is recommended for aircraft engines that have been cold-soaked to a temperature of freezing or below.

Tanis says many of their customers choose to preheat when the outside temperature drops below 50°F/10°C to ease startup, prevent wear and tear on the engine, and reduce run-up times.

HOW TO PREHEAT

A Tanis preheat kit just takes a few hours to install on a general aviation aircraft. Once installed, Tanis preheating systems can be plugged in continuously in ambient temperatures less than 100°F/38°C. Tanis preheating systems are designed to achieve the maximum benefit within just six hours of use, with data showing a 40 to 50 °F increase within the first two hours.

Because a Tanis multi-point system thoroughly heat-soaks the aircraft engine, it keeps all of the metal parts that are above the oil level above the dew point. As a result, no condensation can occur on these parts.

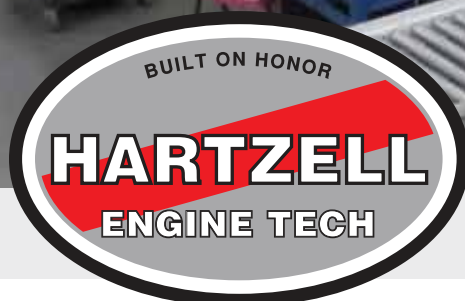
HARTZELL'S HEATED PRODUCTS



Hartzell Propeller's line of heated products includes systems for propeller de-ice, as well as piston engine preheaters, turbine engine preheaters, helicopter preheaters, battery, avionics, and cabin preheat systems available from **Tanis Aircraft Products**.

ENGINE ACCESSORIES

BUILT ON HONOR



Hartzell Engine Tech Brands:



With a large and growing product portfolio to meet the demands of today's aircraft systems, **Hartzell Engine Tech** is delivering quality, performance, and support to its customers every day.

Led by President Keith Bagley from its headquarters in Montgomery, Alabama, Hartzell Engine Tech provides engine accessories and heating solutions including turbocharging systems, aircraft alternators, starters, fuel pumps, and more. In addition to new aircraft engine accessories, select

products are available in overhaul and rebuilt condition to provide flexible and affordable options.

"Quality is at the heart of everything we do at Hartzell Engine Tech, from the high-quality products we create to the high-quality customer service we deliver," said Bagley.

"We're focused on continuous process improvement to ensure the long-term reliability and performance of our product lines," he added. "Over the past year, we've reinvested in our machine shop to improve lead times and product quality and better serve our customers."

Hartzell Engine Tech is also continuing its support of General Aviation through participation in IA (Inspection Authorization) seminars, supporting and

presenting at 13 in-person seminars and one virtual seminar reaching over 2,000 IAS during the 2022 calendar year. During EAA AirVenture 2022, Hartzell Engine Tech led three safety-focused educational forums for pilots and mechanics.

Service & Support

Hartzell Engine Tech is committed to providing the best lifecycle support for all of its products.

As part of the Hartzell Aviation family of companies, sister company, **QAA (Quality Aircraft Accessories)**, is an authorized MRO facility and distributor for the entire family of Hartzell Engine Tech Brands.

QAA is able to overhaul most piston engine and airframe accessories in-house and meet requirements for new, overhauled,

exchanged, repaired, remanufactured, and serviceable accessories.

With newly expanded facilities in Tulsa, Oklahoma (TUL) and Ft. Lauderdale, Florida (FXE), QAA has added new capabilities, including aircraft engine exhaust repair in Ft. Lauderdale and exhaust component distribution in both locations.

In addition to its new and improved facilities, QAA is investing in new processes and systems that result in reduced lead times, reliable inventory availability, and an enhanced customer service experience.



Hangar Sisters

Meet Lauren & Cat Stevens

A deep love of aviation runs in the family for sisters Lauren and Cat Stevens, based at Long Beach Airport. Their parents, grandparents, and even great-grandparents were all pilots. They remember taking turns sitting in the right seat with their father, Mike Stevens, who they describe as “the epitome of an aviator.”

While neither planned on pursuing a career in aviation, Lauren and Cat were inspired to continue their father's legacy after his passing in 2019. They founded Hangar Sisters, LLC, which rents space to individual aircraft, and acquired Plane Fax, a dealer-to-dealer aviation advertising company.

Lauren is a private pilot working toward her instrument rating, and Cat hopes to follow in her footsteps. The sisters love to share their aviation journey through social media and hope to inspire the next generation to get involved in general aviation!



See more photos and videos on Instagram
@HangarSisters

Your Aircraft Propeller FAQs, Answered

When it comes to aircraft propellers, Hartzell Propeller has over 100 years of knowledge and expertise. So, when people come to us with questions about their props, we're always happy to help — no matter the topic!

Today, we're sharing the answers to a few of the most common aircraft propeller questions we receive at Hartzell:

What are the advantages of composite propeller blades?

At Hartzell, our structural composite blades offer a substantial weight reduction over aluminum propeller blades. The nature of composite materials makes it possible to create thin, efficient airfoils that are still strong enough to withstand extreme forces in flight. A lightweight composite aircraft propeller may contribute to noise and vibration reduction, less wear on the engine, and better fuel efficiency.

Hartzell's composite propeller blades also feature a longer service life and the ability to maintain a more optimum airfoil shape over the service life of the blade.

Are three (or more) aircraft propeller blades better than two?

The short answer is, it depends! Generally speaking, 2-blade propellers are slightly more efficient. However, efficiency doesn't propel an airplane; thrust does. As engine power increases, additional blades are often required to efficiently utilize the increased power and produce thrust.

If appropriate for the airplane, additional propeller blades can also help to reduce cabin noise and vibration, plus enhance the overall ramp appeal.

Should I polish my propeller blades?

We highly discourage polishing your aluminum propeller blades. Stripping and polishing the blades removes the

protective paint and anodize layer, which can lead to harmful corrosion. Polishing the blades will also void the industry-leading warranty on new Top Prop propellers. If the paint on your Hartzell propeller is beginning to show signs of wear, touch it up with an approved paint or visit a prop shop for a “dress and paint” as needed.

When should I overhaul my prop?

The TBO limits published by your propeller manufacturer are intended to protect your safety and the performance of your aircraft. These overhaul intervals are expressed in either flight hours or calendar time, whichever comes first. Following Hartzell's published overhaul limits will ensure that any problems within your propeller are identified early, ideally while they're still easily repairable!

Do you have a question about your aircraft propeller?

Whether you have a technical question, an airplane propeller overhaul or repair inquiry, or you're wondering which Top Prop propeller conversion is right for your airplane, Hartzell Propeller's experts are here to help.





Proudly Sponsoring World-Class Aerobatic Aviators



**KEVIN
COLEMAN**



The new Hartzell Talon propeller has literally changed the aerobatic game. I never expected that a propeller could increase the performance the way that the Talon has. This is definitely the future of aerobatic airplanes!"



**MICHAEL
GOULIAN**



My flights with Hartzell's Talon showed an increase in performance, while also contributing to crisper execution of the aerobatic maneuvers that are the hallmark of my show. The smoothness and responsiveness of this propeller is second to none."



**KEN
RIEDER**



I've been flying with Hartzell propellers for over a decade, and to have a relationship with such a reputable and well-known company is an honor. I know there's a lot of research and design that goes into the propeller I fly behind. It's not just about aerobatics, but it's great for cross-country flying too."

PEAK PERFORMANCE POLARIS

for the
DIAMOND DA-40 NG

Discover Hartzell's new high-performance Polaris propeller, STC-approved for the Diamond DA-40 NG with the Austro Engine E4-A engine. The 74-inch diameter, three-blade advanced structural composite carbon fiber prop replaces the standard wood/composite propeller, featuring a lightweight Bantam aluminum hub and 2,400-hour/six-year TBO, with Hartzell's warranty through the first overhaul.

A Difference for the Diamond DA-40:

- **High performance**
- **Extremely lightweight**
- **Low life-cycle costs**

Additionally, the Polaris provides all-weather durability and reliability of a true carbon-fiber composite propeller system, which has been demonstrated and proven on multiple platforms.



"The Polaris prop delivers light, smooth and state-of-the-art improved climb performance, two to three KTAS faster cruise, and is more durable, with an eco-friendly 74.1 dB(a) noise level." – JJ Frigge, Hartzell Propeller President

What is your propeller trying to tell you?



Aircraft propellers are one of the hardest-working components on an airplane. At the same time, they're also one of the most underappreciated!

Sure, propellers don't ask for much, but if you pay attention, your prop can tell you a lot. Take a hint and look for these signs that your aircraft propeller is trying to warn you about a potential problem:

#1: GREASE OR OIL LEAKS

If you notice grease or oil leaking from around the propeller hub or streaks on the propeller blades, get it checked out by a certified prop shop right away. Unexpected grease or oil leaks are often warning signs that the seals within the propeller hub have finally given way, or even that the hub itself is getting ready to fail.

#2: A SUDDEN ONSET OF VIBRATION

No matter if it's coming from the engine, propeller, or spinner, powerplant vibration is a serious cause for concern. If the vibration is sudden and seems to increase with power, land as soon as you can.

Take your airplane to a qualified mechanic to determine exactly where the vibration is coming from. Having your aircraft propeller dynamically balanced is one way to reduce excessive vibration and protect your engine from wear and fatigue.

#3: SURFACE DAMAGE TO THE PROPELLER BLADES

Pre- and post-flight inspections are an essential way to spot signs of damage developing on your propeller blades. Start by running your hand over the leading and trailing edges of the prop to feel for any small imperfections. Then, perform a visual inspection, looking for nicks, dings, dents, and scratches.

If you notice anything abnormal when inspecting your propeller, don't wait — have it addressed by a maintenance professional right away. No matter how "minor" the damage may seem, ignoring it is a big mistake. Under the high stress of flight, nicks can develop into a dangerous crack in the propeller blade. Blade cracks can grow rapidly on subsequent flights, potentially leading to catastrophic propeller blade failure. As they say, preflight like your life depends on it, because it very well could!

FIND A REPUTABLE PROP SHOP

When you know what your airplane propeller is trying to tell you — and what to look for — you can avoid many prop problems altogether!

Whether you choose the **Hartzell Service Center** or one of our **Recommended Service Facilities**, you can be confident that your airplane propeller overhaul, maintenance, or repair will be prompt, professional, and performed with the utmost safety and quality.





INSIDE THE HARTZELL SERVICE CENTER



When your propeller is due for routine maintenance, an unexpected repair, or a complete propeller overhaul, where do you turn?

If you have a Hartzell propeller, you have options! In addition to Hartzell's global network of Recommended Service Facilities, we're proud to offer comprehensive propeller services at our Hartzell Service Center in Piqua, Ohio.

GROWING STRONG IN PIQUA

FAA-approved in 1987, the Hartzell Service Center is the only factory-owned repair station for the overhaul and repair of Hartzell propellers and governors. The state-of-the-art Hartzell Service Center currently utilizes 18,000 square feet within the Hartzell Propeller factory, conveniently located near the Piqua Airport/Hartzell Field (1I7).

"The Hartzell Service Center is a significant part of Hartzell Propeller's business and market strategy, setting the bar for quality overhaul and repairs of Hartzell products," said Scott Foster, Director of MRO and Network Sales. "As we continue to meet our customers' service and support expectations, we will adapt as necessary to better suit our customer base, especially as new markets develop."

Due to substantial growth, the Hartzell Service Center has doubled the size of its workforce since 2020. Current plans to relocate the Service Center into a recently purchased facility next to the Hartzell factory will provide approximately 22,000 square feet of additional space.

SERVICE & SUPPORT FROM THE SOURCE

Any authorized propeller repair station with the appropriate training and certifications from Hartzell can repair minor and major Hartzell composite blade damage. However, the Hartzell Service Center works extensively with Hartzell's engineering team to perform factory-only level composite blade repairs, such as damage caused by prop ground strikes. For many factory-only repairs, the composite blade is rebuilt using a mold that ensures the prop conforms to its Type Certified design.

Choosing the Hartzell Service Center means Hartzell's product support, engineering, manufacturing, and quality teams are nearby to observe any unusual issues firsthand, make determinations, and develop solutions on-site when appropriate. Customer service is our top priority, and our understanding of all things Hartzell is unparalleled.

FACTORY SURFACE TREATMENTS

When you send your propeller to the Hartzell Service Center for an airplane propeller overhaul, you can expect your finished prop to be returned in "like new" condition. That's because we use the same inspection techniques and surface treatments as the factory where your airplane propeller was originally manufactured.

The Hartzell Service Center also features a full immersion penetrant line, which ensures the surfaces of the propeller blades and hubs are flawless. Aircraft propeller overhauls also get completely new plating or are anodized for re-freshed corrosion protection. We even utilize an automated painting system to perfectly repaint your propeller blades in the original paint scheme.

EXTENSIVE PARTS INVENTORY & PROPELLER EXCHANGE POOL

We understand that many of our customers' flight schedules can't be delayed by waiting for a spare part to arrive. The Hartzell Service Center's proximity to our manufacturing facility ensures that needed parts are available quickly, without the added time and expense of shipping.



Hartzell has also invested in a sizable propeller exchange inventory to help support a wide variety of aircraft. Our propeller exchange program is offered for customers requiring the ultimate convenience with minimum downtime.

This means customers can email or call the Hartzell Service Center to schedule a delivery of an exchange propeller prior to their maintenance schedule needs.

"We know that now more than ever, fleets providing charter or cargo services cannot have an aircraft down due to their propeller being serviced, and this can be said for corporate aircraft as well," said Foster. "With the Hartzell Service Center's extensive propeller exchange inventory, we can keep these customers operating as normal."

SCHEDULE YOUR SERVICE

Fly-in customers are able to take advantage of Ohio's sales tax exemption for general aviation aircraft and our specialized dynamic propeller balancing service for the smoothest flight possible. Customers may also choose our convenient pickup and delivery services, and we're happy to ship to customers around the world.

Whether you choose the Hartzell Service Center or one of our Recommended Service Facilities, you can be confident that your airplane propeller overhaul, maintenance, or repair will be prompt, professional, and performed with the utmost safety and quality. Call (937) 778-4201 or visit HartzellProp.com/Overhaul.





FIND YOUR RECOMMENDED SERVICE FACILITY

In order to provide the highest quality service to our customers, Hartzell has assembled a worldwide network of Recommended Service Facilities (RSF) or Support and Service Centers (SSC). Do you know where your nearest Hartzell RSF or SSC is?



Piqua, OH - USA
Hartzell Service Center
One Propeller Place
Piqua, OH 45356
Phone: 1-937-778-4201

Minneapolis, MN - USA
Maxwell Aircraft Service Crystal
Airport
Minneapolis, MN 55429
Phone: 1-763-533-8611

Winston-Salem, NC - USA
Piedmont Propulsion Systems, LLC
440 Lansing Drive
Winston Salem, NC 27105
Phone: 1-336-776-6260

San Antonio, TX - USA
Jordan Propeller Service, Inc.
103 East Rhapsody
San Antonio, TX 78216
Phone: 1-210-344-3064

Pearland, TX - USA
Texas Aircraft Propeller &
Accessories
1711 County Road 130,
Pearland, TX 77581
Pearland Regional Airport
Phone: 1-800-580-7767

Phoenix, AZ - USA
Ottosen Propeller & Accessories, Inc.
105 South 28th Street
Phoenix, AZ 85034
Phone: 1-800-528-7551

Puyallup, WA - USA
Northwest Propeller
Service, Inc.
16607 103rd Ave. Ct. E
Puyallup, WA 98374
Phone: 1-253-770-7400

Lantana, FL - USA
Palm Beach Aircraft Propeller, Inc.
2633 Lantana Rd.
Suite 23, Bldg. 1501
Lantana, FL 33462
Phone: 1-800-965-7767

Opa Locka, FL - USA
Aviation Propellers, Inc.
12970 Port Said Road
Opa Locka, FL 33054
Phone: 1-305-688-9439
Phone: 1-305-688-6030

Tulsa, OK - USA
Intercontinental Jet Service Corp
3322 North 74th East Avenue
Tulsa International Airport, Hangar #27
Tulsa, OK 74115
Phone: 1-800-349-6827

Winnipeg, Manitoba - Canada
Canadian Propeller Ltd.
462 Brooklyn Street
Winnipeg, Manitoba R3J 1M7
Phone: 1-800-773-6853

Mississauga, Ontario - Canada
Hope Aero Propeller & Components, Inc.
7605 Bath Rd.
Mississauga, Ontario L4T 3T1
Phone: 1-800-268-9900

Portsmouth, Hampshire - UK
Proptech
Spitfire way, Solent Airport,
Lee-on-the-solent,
PO13 9FY, UK
Phone: +44 (0)2392 657770

Biggleswade, Bedfordshire - UK
Brinkley - Propeller
Unit 1
Montgomery Way
Stratton Business Park
Biggleswade, Bedfordshire
SG18 8UB
Phone: +44(0)1767 314954

Oslo - Norway
Norrønafly Propeller & Parts
Stromsveien 344
NO-1084 Oslo, Norway
Phone: 47-67539066

Egelsbach - Germany
Roder Prazision GmbH
Am Flugplatz
D-63329 Egelsbach
Phone: +49-(0)6103-4002-950

Manosque - France
Technic Aviation
1113 Boulevard Saint Maurice
Z. I. Saint Maurice
04100 Manosque
Phone: 33-(0)492 72 66 48

Lodrino - Switzerland
RUAG Switzerland Ltd.
Via Aeroporto 14
6527 Lodrino, Ticino
Phone: +41 91 873 41 54

Goiana GO - Brazil
Diamond Aviação Ltda
n. 1317 Setor Santa Genoveva
74672-420 Goiana, GO
Phone: 55 62 35159900

Buenos Aires - Argentina
Helices Clerici
Santa Maria De Oro 3061
1712 Castelar
Buenos Aires, Argentina B1712KTL
Phone: 54-11-4623-5754

Dubai, United Arab Emirates
Segers Aviation SA
PO Box 712023
Office 21-23
FC6
Dubai Logistics City
Dubai, United Arab Emirates
Phone: 971 50 189 8696

Blenheim - New Zealand
Airbus New Zealand Ltd.
PO Box 244
Blenheim Airport
Blenheim, New Zealand 7240
Phone: +64 3 572 8416

Johor - Malaysia
C & A Aviation SDN. BHD.
Lot AP5, Senai Aerospace Park 1
Sultan Ismail Int'l Airport
81250 Johor Bahru, Johor
Phone: (607) 5992895

Sydney, New South Wales - Australia
East Coast Propellers PTY. Ltd.
Building 641, Klemm Street
Bankstown Airport
Sydney, New South Wales 2200
Phone: 61-2-9791-0246

Dingley, Victoria - Australia
Airbus New Zealand (Australia) Pty Ltd.
7 Planetree Avenue
Dingley, Victoria 3172
Australia
Phone: 62-3-8587-6256

Willetton, Western Australia
West Coast Propellers P/L
Unit 6/10 Whyalla Street
Willetton, Western Australia 6155
Postal Address:
P. O. Box 3111
Success, Western Australia 6164
Phone: 61-8-9354-4113

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Sichuan Province - China**
(Hartzell SSC)
Aircraft Repair and Overhaul Plant of Civil
Aviation Flight University of China
No. 91 Nan Chang Lu Si Duan Guanghan City,
Sichuan Province, China
618307
Phone: 0838-5182874

**Hunnan New District Shenyang, Liaoning
Province - China (Hartzell SSC)**
Wuhan Hangda Aero Science & Technology
Development Co., Ltd.
No.12 Jinyinhu Nansan Street, Dongxihu District
Wuhan, Hubei, P.R. China 430040
Phone: 027-68853833

West Bengal, India
(Hartzell SSC)
Arrow Aviation Services
PVT LTD
67/2, Sarat Chandra Dhar Road,
Baranagar
Kolkata - 700 090
West Bengal, India
CTC NO-
M- 91 99995 96943
M- 91 70440 86883



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