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[www.silverhawk135.com](http://www.silverhawk135.com)

The **Silverhawk 135** improves performance, increases safety, and adds comfort for your King Air C90, C90B, E90 or F90. Silverhawk installs the complete package at a set price.



The **Silverhawk 135** includes factory-new PT6A-135A engines and a professional installation that makes your King Air essentially new from the firewalls forward. For a fraction of the cost, you get all the performance and safety enhancements of a new Beechcraft C90GTi:

The **Silverhawk 135** is a simple engine conversion, replacing your original engines with new PT6A-135A engines rated at 750 shaft horsepower (flat-rated to 550 SHP). Replacement or renewal of all critical components that should be done at engine change is included in the installation package (and the price!). We will customize the installation to your aircraft, including optional exhaust stacks, cowl modification, starter/generator overhauls, new control cables, etc.

## **Silverhawk 135 Benefits:**

### Performance

- Significantly increased climb rate
- Higher cruise speed

### Safety

- Dramatically improved performance in critical situations:
  - o High altitude
  - o High temperatures
  - o Ice vanes deployed
  - o Single engine

### Comfort

- Ability to climb quickly and cruise above icing and turbulence

### Value

- Increased resale value
- Easier to sell
- Essentially a NEW AIRPLANE from firewalls forward
- 1000 hour/no calendar limit engine warranty

**Silverhawk Aviation** operates a repair and modification center within our full-service FBO in Lincoln, NE. We take great pride in the safety, quality, and integrity of our work. We value the respect and trust of our customers. **Silverhawk** is recognized as an Authorized Service Center, Warranty Repair, or Overhaul Service Station by Pratt & Whitney, Cessna, Cirrus, Mooney, Garmin, and Honeywell.



The **Silverhawk 135** is installed by technicians who have over 45 years of combined PT6A experience and know every nuance of the procedure. The installation process is an extremely important part of the engine upgrade. It is not something you want done by a technician who is doing it for the first time.

Our pilots participate in the final rigging process, to assure the control adjustments are perfect, and the airplane performs as it should. We will fly with you on your acceptance flight to assure everything is perfect, and to demonstrate how to get the most out of **your new airplane**.

Silverhawk Aviation has over 15 years of experience maintaining King Airs in our own fleet, as well as customer airplanes. We currently operate three converted King Air 90's.

Our capability to do all regular inspections and repairs on your King Air is a real benefit to you. We have access on the field to Paint & Interior specialists, non-destructive

testing and more. Anything that your King Air needs is available right here on the field.



Our Avionics shop is ready and willing to troubleshoot, repair and install upgrades while we install your engines. It is the perfect time for an avionics upgrade, because you reduce aircraft downtime and qualify for a nice discount as an engine upgrade customer. By upgrading your panel with your engine installation, you truly will have a **new airplane**.

You are welcome to stay with us and watch every step of the installation, or we will keep you informed as the work progresses. Our photographer will be happy to send photos at each milestone until **your new airplane** is ready to fly.



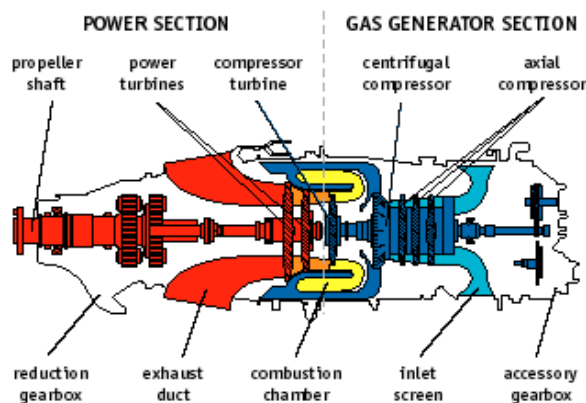
**Call now to arrange for a demonstration flight. See what the Silverhawk 135 can do for you!**

**1-800-479-5851**

## PT6A-135A

With its legendary performance and track record, the PT6A engine is the undisputed leader in turboprop applications. It has set the industry benchmark for reliability and dependability. It is configured in more than 60 versions powering numerous twin and single-engine aircraft applications.

The main components of the PT6A-135A include a multi-stage compressor and independent power turbine driving the output shaft through a reduction gearbox.



The PT6A-135A is the result of forty years of improvement. The power section can actually produce up to 944 ESHP, so it does not work very hard to produce 750 SHP. That translates to lower maintenance costs and better fuel efficiency. Flat-rated to 550 SHP in this application, the **Silverhawk 135** engine has generous ITT and N1 margins.

This is in sharp contrast to the earlier **PT6A-20 and -21 engines** that were sometimes at their temperature limits on the ground, and **were always working hard. That shows up in overhaul costs and cycle limits.**

The performance benefit of the 135A engine is apparent as you climb to higher altitudes, and it continues to produce rated power.

The following chart is for a specific airplane on a given day, but it clearly shows the difference between 40-year-old engine technology and the **Silverhawk 135** engine.

## C-90 MAX CRUISE COMPARISON

8500 lbs (-27 C at 24,000 ft)	<b>SILVERHAWK 135</b>	<b>FACTORY PT6A-20</b>
Prop RPM	1900	1900
Torque	1290 ft-lbs	730 ft-lbs
Fuel Flow	72	56
KIAS	186	144
KTAS	266	211

Note: These performance numbers are based on actual flight data from a specific aircraft. Your performance may differ. Factory numbers taken from Aircraft Flight Manual

### PT6A-135A Engine Specifications:

Thermodynamic ESHP:	944
Mechanical SHP:	750
Flat Rated SHP:	550
Shaft RPM:	1900
TBO:	3600 Hours
Hot Section Interval:	1800 Hours

### Included with New Engines:

Fuel control unit  
 Ignition system  
 Gas Temperature Thermocouples  
 P&WC warranty  
 (1000 hour, no calendar limit)

### Included in **Silverhawk 135** Installation:

- NEW rubber engine mounts
- NEW fuel and oil hoses
- Overhaul and recertify oil coolers
- Recalibrate and re-mark engine gauges

### Customized options for your aircraft:

- Hartzell 4-Bladed 8990 props
- Raisbeck EPIC & other mods
- Starter/generator overhaul/update
- Frakes or CAT exhaust stacks
- Power control cables
- American Aviation cowl mod

## ECONOMIC CONSIDERATIONS

- **Cost of Silverhawk 135 vs. Overhaul**

Overhaul costs of turbine engines vary widely, depending on age, hours, cycles, and usage. You cannot know what the cost will be until the engine is apart, and then you are past the point of no-return.

Each overhaul tends to cost more than the previous one because more components hit cycle limits or exceed wear limits.

PT6A-20 engines are a bigger risk, because some components may not be available.

A common rule of thumb is \$175,000 per engine for overhaul. That does not include the accessories that come with a new engine, the related items included in the **Silverhawk 135** installation, or labor.

When you add all that up, the total bill may exceed \$400,000 if all goes well or \$500,000+ if expensive components require replacement.

That gets mighty close to the cost of the **Silverhawk 135**.

- **What you get with an Overhaul**

If you overhaul your engine, you still have a lot of old components turning high RPM at very high temperatures. These engines are built to last, but should we ask them to run for 30 years or more? **Do I really want to bet my life on aging parts?**

Most King Airs have changed hands a few times, and we have no idea how they were operated or maintained by previous owners. Is that a concern?

You could tell the overhaul shop to replace everything, but that would cost more than a **Silverhawk 135** and it would still perform like an old engine.

- **What you get with the Silverhawk 135**

The mechanical components are on the previous page, but what you really get are:

- **Peace of Mind** that comes with a pair of brand new engines and props.
- **Safety** due to the generous margins of the PT6A-135A engine and the ability to climb out of trouble.
- **Comfort** in the ability to climb quickly out of icing or turbulence and cruise in clear skies.
- **Performance** to go higher, further and faster than you ever thought possible.
- **Value** in the marketplace. Look in your favorite aircraft listing at the prices of converted airplanes. Owners are getting their money back, and upgraded airplanes sell quickly.

- **Financing**

Aircraft financing companies recognize the value of upgraded aircraft. We can help.

- **Downtime**

Normal downtime is three weeks or less.

- **Old engines**

Acceptable core engines are assumed in our pricing. If your engines have time remaining, we will apply a credit to you.

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