Used Aircraft Guide

Beech Duke 60

One of the best-looking cabin-class twins, the Duke demands care lest it bite you in the wallet.

The Duke is like some luxury cars: It projects a definite image. The profile is sleek and shark-nosed, and it really looks the part of the corporate transport. It undoubtedly has impressed many clients with that solid, professional image. Beech used to nurture this, pitching the Duke in advertisements as an integral part of the lifestyle of attractive, successful people who are on the move. The price tag reinforced this high-profile image—the last Duke was built in 1982 and went for about $600000 equipped. The Duke also carries Beech's reputation for good workmanship and high parts costs. It's little wonder, then, that some owners fondly refer to their airplanes as the Mercedes Benz of pressurized, piston twins.

But prospective Duke buyers should be forewarned: A few who thought they were getting a great deal on a used Duke (we've seen recent ads for $85000) ended up with hangar queens that emptied their checking accounts. Others, perhaps with bigger checking accounts, freely admit as much but still dote on the Duke as if it were a favorite child.

History

The Duke, which first flew in 1966, is a six-place pressurized cabin-class twin which competes against the Cessna 414/421 and P-Navajo in mission. It made use of then-advanced methods and materials such as skin bonding, honeycomb panels and chemical milling. Magnesium was used in the empennage. The landing gear was classic Beech, however, being essentially identical to the Baron's.

During its 14-year production run, the Duke did not go through very many changes. There are three models, the straight 60, sold in 1968 and '69, the A60, made from 1970-73, and the B60, introduced in late 1973 with airframe number 247. The fuel capacity was bumped up from 202 to 232 gallons in 1976. All told, 596 were built. Of these, about 500 are still flying, with 425 or so in the U.S.

The model progression represents steady refinement, but the airplane's configuration remained basically unchanged. In 1971, the Model A60 was introduced with a modest increase in gross weight (up 50 pounds from 6725 to 6775), but useful load and performance dropped a bit. According to book figures, the straight 60 is a much better short-field performer than the A60. However, Duke owners tell us those early figures were extremely optimistic, and that the A60 is only slightly inferior in takeoff and landing performance to its predecessor.

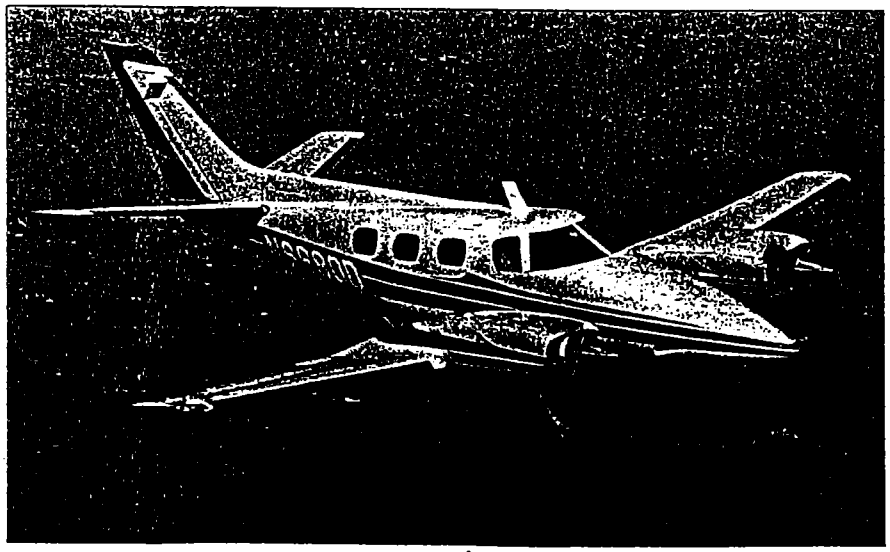
One difference among the three models concerns the exhaust stacks. The original 60 had the shortest stacks, and suffered from flap corrosion due to the impingement of exhaust gases. The A60 had longer stacks, but corrosion was still a problem. The B60 has the longest.

All Dukes are powered by 380-HP Lycoming TIO-541 engines. These slightly unusual powerplant has the turbocharger designed in as an integral component, rather than added on as an accessory. Early models installed on the 60 and A60 were maintenance headaches and had 1200-hour TBOs. But the engines have been upgraded over the years and now have a 1600-hour TBO; it's unlikely that many of the 1200-hour engines are still in service. Several Duke owners, in fact, tell us they've gone well past that figure by operating the engines properly and, in particular, ensuring that they are properly warmed up and cooled down to avoid shock cooling. It's advice worth taking, given the number of cylinder problems we've noticed in Service Difficulty Reports.

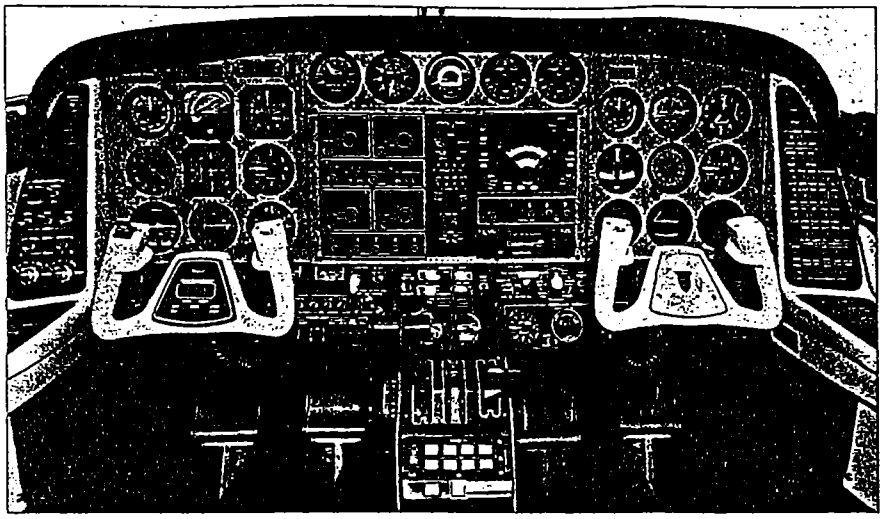
Performance

The Duke travels at a good clip but guzzles fuel. At 24000 feet, max cruise is about 220 knots (250 mph) at 65-70 percent power. Fuel consumption is about 40 gallons per hour. (One Duke owner told us he flight plans 52 gallons the first hour, 43 gallons for every hour thereafter and uses 68 percent power.) In contrast, at 55 percent power, fuel consumption drops to about 30 GPH, but speed falls to about 185 knots. The Duke

The Duke draws praise for its appearance and handling characteristics. Owners report that the maintenance bills are high, but that careful operation helps keep them in check.



N-2AS in 1980↑



The cockpit is very well laid-out. Some owners report that it's a bit awkward to get into and out of, however.

edges out other pressurized twins in performance, with one exception, the pressurized Aerostars, which fly 10-15 knots faster on about 25 percent less fuel. Using high power settings for speed has a price, though: one owner called the cabin noise level "unbearable" at 75% power.

Although the Duke's range is rather limited—its standard fuel tanks hold just 142 gallons—most have optional long-range fuel tanks that hold from 202 to 232 gallons, depending on the model. Top off the optional tanks, and you can turn up the manifold pressure and make a four-hour, 900-NM trip with IFR reserves. At reduced power and full fuel, you can fly the Duke 1000 NM—average for its class.

The Duke wasn't designed for short runways. Most owners say they won't even think about using anything with less than 3000 feet. One owner, though, says he regularly flies his Duke out of a 2650-foot runway in Pennsylvania. This compels us to repeat the story we mentioned in our last Duke evaluation about how motorcycle daredevil Evel Knievel once ordered the pilot of his Duke to land on a drag strip. The Duke ended up with its snout through a truck trailer Knievel used as a dressing room. Another limitation of the Duke is that its initial climb on takeoff is rather poor, until it reaches about 500 feet, according to some owners.

Climb performance is important for a pressurized airplane designed to cruise above 20000 feet. Here, the Duke turns in respectable performance once it gets going. A climb to 24000 feet, at full gross on a warm day, takes just 28 minutes, reports one corporate owner. Others say the airplane climbs 700 to 1000 FPM, depending on weight. The addition of intercoolers improves climb performance and offers other benefits, according to some owners; others say they think the benefits of intercoolers are dubious. At any rate, the Duke's climb performance is generally considered superior to any other owner-flown pressurized twin—except, again, for the pressurized Aerostars.

Single-engine performance is about average for this class of airplane. In other words, you'll be mumbling curses and prayers when an engine quits, even under ideal conditions. Expect a climb, at full gross weight and sea level, of 307 FPM (this assumes a perfectly running airplane flown with flawless technique). Service ceiling with one dead engine is 15100 feet. Some pilots say that intercoolers improve single-engine performance. About five years ago vortex generators became available from Boundary Layer Research, and they go a long way towards improving single-engine performance. As always, we heartily recommend VGs on any twin. They're a simple mod that really works, in our opinion.

Weight and Loading

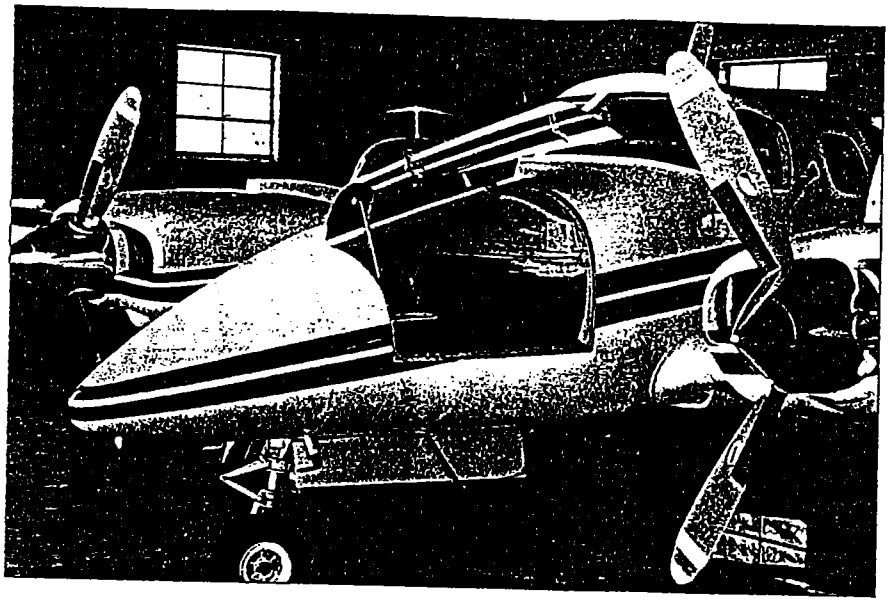
The Duke is not a six-person airplane with full fuel, but it still beats anything in its class in terms of useful load and range. Late model Dukes generally have a useful load of better than 2000 pounds, even when carrying full equipment. Earlier models, which tend to have less equipment and weigh several hundred pounds less, do even better: Some straight 60 and A60 models have useful loads approaching 2300 pounds. Such figures compare favorably with the cabin-class Cessna 421, which has seven seats to fill compared to the Duke's six.

Again, one drawback is the Duke's healthy rate of fuel consumption, which translates into a smaller payload. Compared to other pressurized twins, the Duke uses a few hundred more pounds of fuel on a long trip. Still, the Duke shines in one respect: It can carry full fuel and two to four people. But there are variations in load-carrying capabilities. One corporate owner of a lavishly equipped Duke reports that he makes three-hour, 600-mile trips with six people and 136 gallons of fuel. In contrast, a private owner, whose Duke has optional fuel tanks, says he's at gross with full fuel, 100 pounds of baggage and two people.

The Duke's single baggage compartment is located in the nose and can carry up to 500 pounds. According to one owner, this makes it easy to get the Duke out of its forward CG limits but difficult to get out of its aft limits. Another owner says he finds the airplane's weight and balance characteristics benign—that is, hard to get out of CG in any manner.

Passenger Comfort

Owners and users give the Duke decent marks for overall passenger comfort. Its cabin pressure differential is 4.7, so at 24000 the Duke has a cabin altitude of 10000 feet, which is superior to most six-seat pressurized twins. On the downside, the Duke is similar to Bonanzas and Barons in that it has a tapering cabin, so that two adults in the back seats will travel elbow to elbow. In 1974, though, the B60 model's side panels and ducting were reworked to offer a bit more lateral cabin room. More



The baggage compartment carries 500 pounds. Owners report that it's easy to stay within CG limits.

recent models come with redesigned seats that increase the amount of aisle space by a few inches.

As for noise levels and cabin heat, one owner reports the rear cabin seats are about as quiet as a King Air's, but that the heater is inadequate in wintertime or at high altitudes, unless the cabin is filled with warm bodies.

Flight Characteristics

Pilots compliment the Duke's handling characteristics. Its controls have a solid (some say heavy) yet responsive feel, which is not surprising, since the Duke is the heaviest of all six-passenger airplanes. One owner, praising the Duke as a rock-solid IFR platform, said, "ILS approaches are like a railroad track." Predictable and docile, the Duke trims up well and holds its airspeed, and pitch changes are minimal when the flaps or gear are extended.

One pilot, though, said the Duke's controls were too heavy for him, and that he prefers lighter and more responsive inputs. In turbulence, one pilot says the Duke is a "bear to fly" without a yaw damper, while another says adroit foot work can be substituted for a yaw damper.

Cockpit Engineering

If you're on the hefty side, it may be a tight squeeze entering the Duke's cockpit. But once inside, owners report the ride will be comfortable and fairly quiet, except during climbs or power settings above 2,500 RPM. As for the cockpit layout, it's user friendly: All the necessary controls, switches and avionics are within easy reach and view of the pilot.

Better yet, the power controls and gear and flap levers have been placed in the standard order (they're reversed in earlier Barons). The flap system also is straightforward, with just three lever positions: up, approach and land. Maximum gear-extension speed is a phenomenal 175 knots. Also, dual control wheels are standard equipment, and the cowl flaps are electrically operated. A glance out the window will confirm whether they're working.

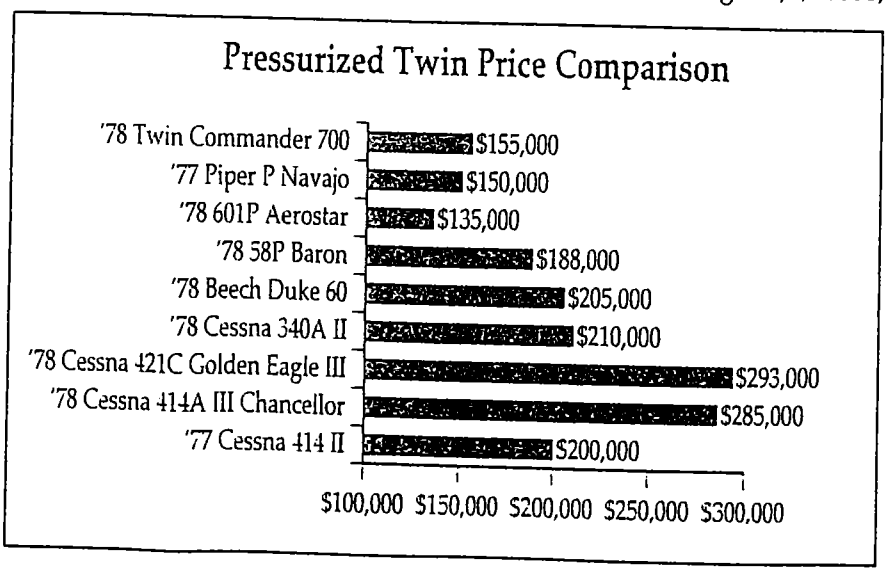
Cockpit visibility, though, is barely adequate. To see over the glare shield, a pilot of average height might be tempted to pull his seat forward; however, the seat will also automatically move up, which may put the pilot's head next to the headliner.

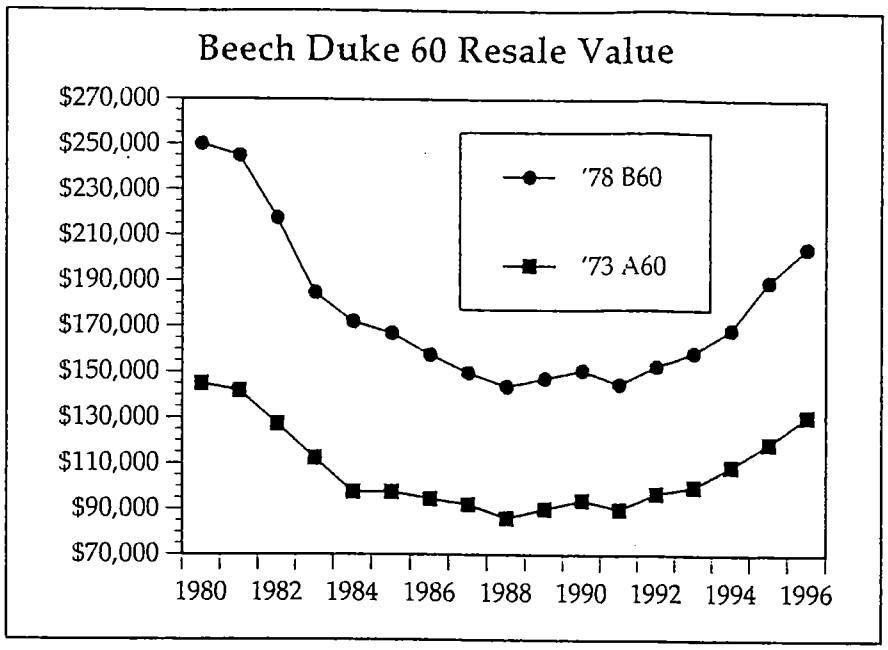
Operating Costs

Pressurized twins with amenities such as air conditioning typically cost a small fortune to maintain, but the Duke seems to be in a class of its own. It's not uncommon to hear Duke owners complain about mechanics automatically jacking up their prices for a Duke. Most satisfied owners correctly point out that the key to keeping bills down, and ensuring that the Duke's engines reach TBO, is to properly operate and maintain the airplane. And woe to those who got a "good buy" on a used Duke that was not properly operated or maintained. It can be an expensive mistake.

What, exactly, do we mean by expensive? One former Duke owner told how he paid a wholesale price for a beautiful 1977 airplane that had just received a "squawk-free annual." A great deal, he thought.

Here is a list of repairs he started to incur almost immediately: a new right engine starter, $1000; radio work that included fixing a bad radio antenna, a burned-out radar antenna and eliminating paint dust in everything, $8000; replacement of camshafts in both engines, $20000;





repair of both turbos, which were scraping their housings, $6000; "piston slap" problems in both engines, $3000; deice boot repairs, $1200; windshield heat power supply problems, $2400; prop sync controller repairs, $1000; new Cleveland brakes necessitated by bad master cylinders and badly warped and pitted rotors, $2,800; minor fuel leak that caused a blue stain on the left wing, $400; replacing a lead-acid battery (which was an unauthorized installation) with nicad batteries, $400. Once the airplane was sold, the new owner soon encountered other problems, including a badly heated windshield, $8000, and other assorted squawks, $3000. If none of these expenses would put a dent in your pocketbook, though, you might be content with a later-model Duke.

One pilot/manager, for example, related that his boss paid $89000 for an A-60 and then put in $70000 worth of maintenance during the next two years. "The airplane has been an almost continuous problem, but I still like it," he wrote, adding that his boss still likes it, too. Another respondent said "We found the maintenance problems to be overwhelming, even with a very low-time aircraft." He traded it in on a P-Baron, which is "still a high-maintenance aircraft, but not as bad as the Duke."

To help reduce such costs, though, many owners stress that it's important to find a shop that is familiar with the Duke, rather than letting a mechanic who has never worked on the airplane learn at your expense. The Duke Flyers Association, which was formed in 1988, can help in this area. On a brighter side, buyers will be glad to know that parts availability has not been a problem.

Hourly operating costs including maintenance run from $200 to $300, according to reader feedback.

Engine Troubles

Don't even consider a pre-1976 Duke unless you're sure its trouble-plagued 380-hp Lycoming TIO-541 engines have received the appropriate fixes. A pair costs some $62000 to overhaul, which underscores the need for prudence in this area. As for other engine problems, here are four major ones that we've identified through owner complaints and Service Difficulty Reports:

• Cylinders and pistons. Until 1974, the TBO of the TIO-541 was only 1,200 hours, primarily because of cylinder woes, with cracking around the exhaust ports the major problem. Since then, engines built or overhauled with improved pistons and cylinders have had a TBO of 1,600 hours. One factor in cylinder failures was improper pilot technique in warming up and cooling down the engines; if temperature changes were too abrupt, cylinder stress would result. (Incidentally, a check of SDRs revealed numerous cylinder problems.) Still, Dukes built in 1976 and later (serial number 804 and up) have the upgraded engines. They have a 1,600-hour TBO, and owners report operating them for 1,600 and even 2000 hours.

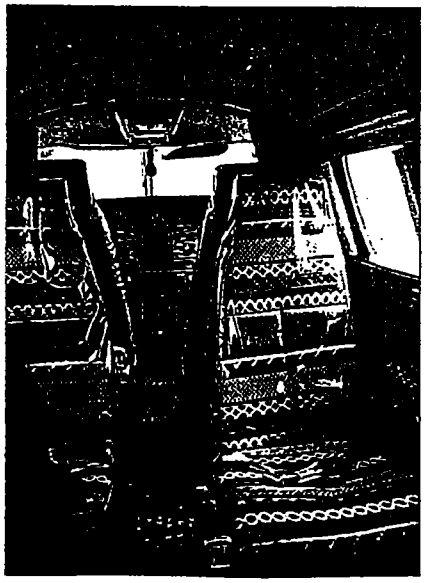
• Turbochargers. The 60, A60 and 1974 B60 models had cast-iron turbo housings that tended to crack from the heat. This was no small problem in flight, since a turbocharger failure in a pressurized airplane can lead to partial or total cabin depressurization. However, the cracking problems stopped in 1974, when stainless steel blowers were fitted. By now, almost all cast-iron turbo housings have been replaced with the stainless steel ones; however, a few old ones remain, so be sure you're not getting one of them. If you are, make sure you get a price reduction.

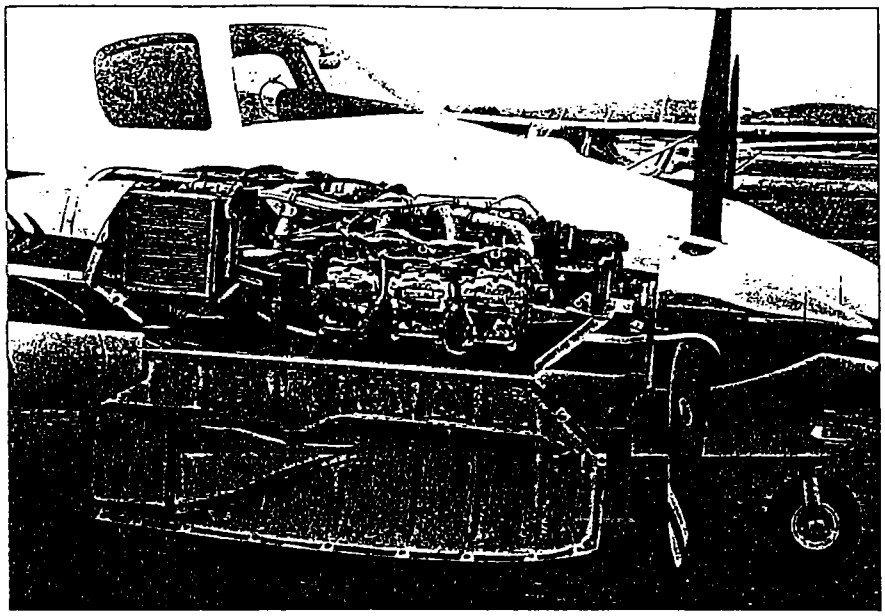
• Crankcases. Through 1977, Dukes had a high incidence of crankcase cracks (which goes to show, at least, that Continental isn't the only company to have crankcase cracking problems). The Duke's crankcases were beefed up in 1988, starting with engine serial number 781.

Other Service Problems

To maintain its stylish, high-priced image, Dukes came equipped with a

The interior is tighter than other aircraft, but there are few complaints. Later models are a bit wider inside than earlier Dukes.





The TIO-541 Lycomings are expensive to overhaul, at an estimated $31,000 apiece.

jet-style nickel cadmium (nicad) battery. You'd think that this would give a high degree of dependability and wear. But the battery is improperly cooled, and it can be destroyed by a slight improper adjustment of the voltage regulator. Average life is just two years or less. That may seem like a decent enough battery life, but not when the battery costs thousands! Fortunately, later model Dukes have lead-acid batteries. Beech has stopped offering lead acid conversion kits, but you could probably have a Beech dealer install one with a field approval. Our suggestion is that you try and buy a Duke with lead-acid batteries.

Turbocharger problems also have popped up in Service Difficulty Reports. One involves the turbocharger controllers, which are notoriously unreliable. During a demonstration ride, be sure to check for manifold pressure drift. Mixture control cables also have had their share of problems. Be sure to see that you're getting the upgraded versions, since replacing mixture control cables costs several thousand dollars.

The Duke's heated windshield drew various complaints: delamination, static discharges that pitted the plastic, and St. Elmo's fire that caused havoc with the airplane's electrical system. Jim Gorman, president of the Duke Flyers Assn., says he's heard of delamination problems on earlier Dukes but not later models. He speculated that St. Elmo's fire might be caused by not having the static discharge lines attached to the ailerons. (Incidentally, we didn't find any SDRs pertaining to windshields.)

Other reports point to various problems with the exhaust. The Model 60, in particular, had short exhaust stacks that lead to flap corrosion. The condition of the exhaust pipes also should be checked at the rear by the slip joints; they came off and triggered a fire in one case.

Various magneto, landing gear, drive train and wheel problems also were mentioned in SDRs and owners' letters, so make sure these items receive a thorough going over on a pre-purchase inspection.

After receiving two reports of partial outboard elevator separations in Dukes, Beech issued "mandatory" service bulletins in 1989 to check the airplanes' horizontal stabilizers and elevator hinge attachment areas. The bulletin affects certain Duke 60, A60 and B60 series models. Beech said an inspection should take two men 12 hours to perform. Inspections were to be performed as soon as possible, but no later than the next 50 hours.

Modifications

At the time of our last look at the Duke, intercoolers were a, er, hot topic. Since then, the controversy seems to have settled down a bit, and many owners seem to think that the return on investment is not high enough to invest in them.

The Duke Flyers Assn., while withholding judgment on intercoolers, listed these advantages and disadvantages: They provide more power on hot days (but increase drag, too); increase climb rate on a hot day (and decrease useful load by 50 pounds); make the engine run cooler (but enable you to overboost it); and they

Cost/Performance/Specifications

Model	Year	Average Retail Price	Cruise Speed (kts)	Useful Load (lbs)	Fuel Std/Opt (gals)	Engine	TBO (hrs)	Overhaul Cost ea.
60	1968-69	$99,500	236	2,625	142/204	380-hp Lyc. TIO-541	1,600	$31,000
A60	1970-71	$110,000	237	2,625	142/204	380-hp Lyc. TIO-541	1,600	$31,000
A60	1972-73	$125,500	237	2,625	142/204	380-hp Lyc. TIO-541	1,600	$31,000
B60	1974-75	$150,500	237	2,625	142/204	380-hp Lyc. TIO-541	1,600	$31,000
B60	1976-77	$182,500	237	2,625	142/204	380-hp Lyc. TIO-541	1,600	$31,000
B60	1978-79	$212,500	237	2,625	142/204	380-hp Lyc. TIO-541	1,600	$31,000
B60	1980-81	$242,500	237	2,625	142/204	380-hp Lyc. TIO-541	1,600	$31,000
B60	1982	$280,000	237	2,625	142/204	380-hp Lyc. TIO-541	1,600	$31,000

Source: Aircraft Bluebook Price Digest. *Prices are for average airplanes, not pristine examples.*

may increase TBO (but make it possible to overboost your engines on cold days).

Boundary Layer Research (Everett, Washington, phone 206 353-6591) makes vortex generators (a good idea) and winglets for the Duke. They're reportedly working on improved cowlings as well.

Firewall Forward offers a kit to convert the (costly) generators to alternators, which costs about $9000 installed. This makes good sense, since the generators cost about $5000 each to overhaul.

Owners' Association

As mentioned earlier, the Duke Flyers Assn. was formed several years ago by James C. Gorman. He said the association has been successful in providing Duke pilots and owners with information on how to reduce operating and maintenance costs and providing tips on flying the airplane.

The group publishes a newsletter and a five-page brochure with information for prospective owners. Duke Flyers Assn., Box 2599, Mansfield, Ohio 44906; (419) 755-1223 or 529-3822.

Owner Comments

I have owned and operated a 1981 B60- for a little over two years and 300 hours. My Duke is an absolute joy to fly. It is rock solid in IFR conditions and extremely user-friendly and well thought out from an ergonomic standpoint. There are no fuel management problems: the valves are on, off and cross-feed only.

From a maintenance standpoint I have had no surprises. the gear is essentially the same as the Baron and the Bonanza and it is very dependable. The engines, despite their bad reputation, have proven quite reliable. I think much of their early bad reputation was based on poor operating technique.

It appears that a thorough pre-heating on cold days and care in avoiding rapid changes in cylinder head temperatures have resulted in much longer engine lives. At a recent Duke owner's meeting, stories were told of Duke engines, rated for 1600 hours TBO, going on to 2500 or even 3000 hours before TBO. They do tend to burn a fair amount of fuel—42 GPH at cruise, at about 210 KTAS.

When looking for one of these airplanes, close attention should be paid to past maintenance. If there is a lot to be done to get the plane up to snuff, it could be quite expensive. However, once put in proper shape, the Duke seems to be like every other Beechcraft I have owned: extremely dependable.

On the negative side, because of the short propellers spinning at 2900 RPM on takeoff and 2500 RPM at cruise, cabin noise seems to be fairly high. A Duke is noisier than a Cessna 421 with its geared engines or a pressurized Navajo. It is also a bit tricky getting into the front seats and the overall cabin size is a bit less than other comparable airplanes such as a Cessna 414 or 421.

Since the Duke is not an airplane routinely worked on by many shops, it is important to find someone who is used to working on them. I have

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Beech A36TC/B36TC (11)
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Beech 58 Baron (9)
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Beech 76 Duchess (8)
Beech Sierra 24R (9)
Beech 77 Skipper (7)
Beech 90 King Air (8)
Beech 95 Travel Air (10)
Beech V-tail Bonanzas (13)
Bellanca Viking (11)
Boeing Stearman (7)
Cessna Hawk XP (6)
Cessna 150/152 (7)
Cessna 170 (12)
Cessna 172 Skyhawk (12)
Cessna 172RG Cutlass (7)
Cessna 175 Skylark (7)
Cessna 177 Cardinal (8)
Cessna 177RG Cardinal (10)
Cessna 182 Skylane (9)
Cessna 182RG Skylane (13)
Cessna 195 (10)
Cessna 206/207 (8)
Cessna 210, T-210 (13)
Cessna P-210 (11)
Cessna 337 Skymaster (7)
Cessna T303 Crusader (11)
Cessna 310 (10)
Cessna 320 Skyknight (8)
Cessna 340 (8)
Cessna 414 Chancellor (10)
Cessna 421 (8)
Cessna 425 Conquest I (9)
Cessna 441 (8)
Cessna 500 Citation (9)
Champion 8GCBC Scout (10)
Champion Citabria & Decathlon (8)
Commander 112/114 (8)
Commander 500 Series (6)
Commander Turbines (7)
Ercoupe (10)
Glasairs (6)
Globe/Temco Swift (10)
Grumman American Cheetah & Tiger (9)
Grumman Cougar (10)
Gulfstream AA-1 Yankee (12)
Helio Courier (8)
Lake Amphibians (10)
Luscombe 8 (8)
Maule (13)
Meyers 200 (8)
Mooney M-20M TLS (7)
Mooney M20 (pre-201) (9)
Mooney M20J/201 (9)
Mooney 231 (12)
Mooney 252 (10)
Navion (10)
North American T-6 (12)
Piper Aerostar (14)
Piper Apache/Aztec (11)
Piper Archer (10)
Piper Arrow (9)
Piper Cherokee 140 (11)
Piper Cherokee 235/Charger
Piper Pathfinder/Dakota (10)
Piper Cheyenne (9)
Piper Comanche (14)
Piper Dakota (9)
Piper J-3 Cub (11)
Piper Lance/Saratoga SP (10)
Piper Malibu/Mirage (13)
Piper Navajo (9)
Piper Seminole (6)
Piper Seneca (13)
Piper Super Cruiser (9)
Piper Super Cub (8)
Piper Tomahawk (8)
Piper Tri-Pacer (7)
Piper Turbo Arrow (9)
Piper Twin Comanche (10)
Piper Warrior (10)
Republic Seabee (12)

my work done at Plane Improvement in Milwaukee and would suggest them to any Duke owner for maintenance.

There are many aftermarket add-ons available for the Duke. Among these are vortex generators, wing tip and cowling mods from Boundary Layer Research. I have had the VGs installed and have also had pre-oilers added because of the history of cam spalling in the TIO-541E1C4 engines in the Duke. It is definitely a reassuring feeling to see oil pressure in the green before startup. I've also added a Gemini turbine temp gauge installed to replace the notoriously inaccurate Beech units. It paid for itself immediately: on the first engine start after installation, it turned up two partially plugged injectors.

Intercoolers were an aftermarket add-on which received a lot of debate among Duke owners in the late '80s and early '90s. The dust seems to have settled, and the consensus seems to be that if you find a Duke with intercoolers take it, but there is no need to specifically seek one out.

When I bought my Duke, prices were quite low compared to other airplanes in its class. Prices may now have come more in line with the value of the plane. Also, there are still many low time airframes still available.

T. Scott Stanwyck
Glendale, Wisconsin

I owned a 1978 B60, bought new, for nine years. We loved the airplane, but it had its moments. Everything was high-priced. Replacement nicad batteries cost $2500 each, and it did eat brakes and tires (my fault, probably). However, we never had any engine trouble and went to TBO the first time around with no cylinder failures. A new set cost $60000, which was pretty fair in 1987. I always treated it with kid gloves, and it paid off with trouble-free operation.

My airplane had the 200-gallon tanks. I could get off with six people plus baggage and still be legal. The only problem with this airplane is that for the first 300 to 500 feet it would not climb very well. I always held my breath, hoping that an engine would not quit. The Duke needs a 4000 foot field at sea level to be safe, but I have been into a 2000 foot field with two on board, no obstructions and half fuel, and got out several times with no problem.

The operating costs ran $400 per hour including engine reserve. It burned 45 GPH and averaged 220 KTAS. Our legs ran 650 miles, with an hour's reserve.

Overall, the Duke was a good instrument platform, and we liked it. I'd buy another if they still made them.

Allan Spreen
Mesa, Arizona

I bought a 1982 Duke in 1993, as a step up from a B36TC Bonanza. I switched simply because I wanted something pressurized. I flew and didn't like the Cessna P210, and the Malibu would not fit in my hangar. The Duke does...barely.

The choice was between a 1980 model and a 1982 with more hours. Friends at Beech advised me to buy the later model, since each individual airplane incorporated any minor improvements as they came up; this puts a premium on later serial numbers (mine is 583, making it one of the last off the line).

I paid $245000, which bought me an airplane with 1700 TT, 235 SFREMAN, and five-year-old paint and interior. I am the fifth owner. It keeps on going up in value; last year I turned down an offer for $400000.

At first, the Duke used about a quart of oil per hour. The left engine threw it out and the right engine burned it. The seller finally gave me $5000 to repair the leaks and rehone the cylinders in the right engine. The cylinders turned out to be unrepairable so I replaced them. After about 50 hours I found a bunch of metal in the oil filter, even though analysis showed nothing (so much for analysis). I wrote Lycoming and they agreed to go over the engines if I'd pay for removal and shipping. The engines were out of warranty, but the folks at Lycoming gave me their full support; my hat's off to them. I

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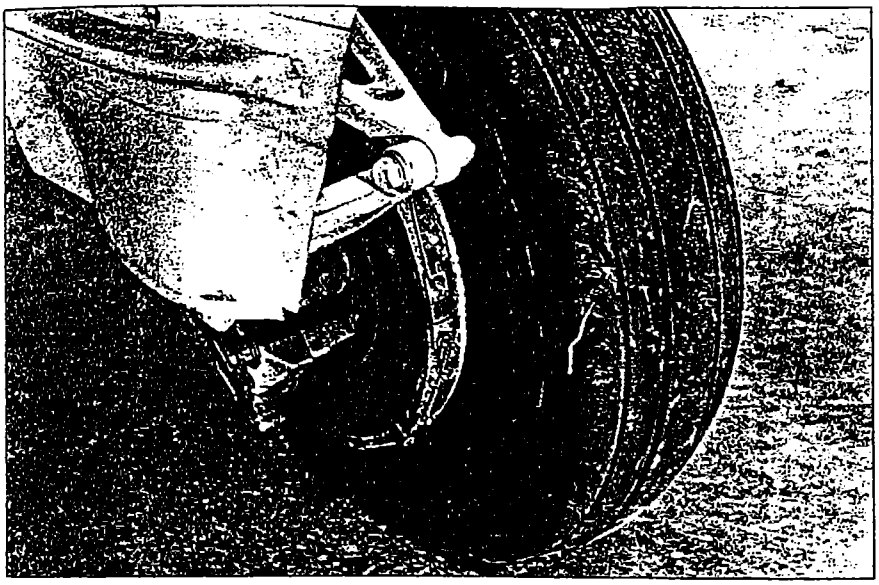


The gear is basically the same proven, reliable design used on the Bonanza and Baron.

got the engines back in 30 days and have had no real problems since then.

Operating costs, not including fixed costs, run about $100 an hour for gas and another $100 for everything else including reserve. Insurance only costs me $5000 per year, not much more than the Bonanza (I have about 3000 hours). My first annual cost $5000, and subsequent ones $2000. Since buying the Duke I've overhauled one generator, rebuilt the other, replaced both vacuum pumps, and replaced the air conditioner.

As far as mods go, I have VGs and winglets, both from Boundary Layer Research. The VGs are nothing more than an insurance policy, essentially eliminating Vmc. The winglets add maybe one or two knots above FL200. they also reduce Dutch roll at high altitudes, and improve the Looking Cool index. Both mods add over 200 pounds to the maximum gross, bringing it up over 7000 pounds.

Boundary Layer's next mod is an improved cowling which they say will add five to eight knots. I plan to get them. I don't intend to get intercoolers, because I don't think they provide a good cost/performance tradeoff. Another mod that looks interesting is the Firewall Forward generator/alternator conversion.

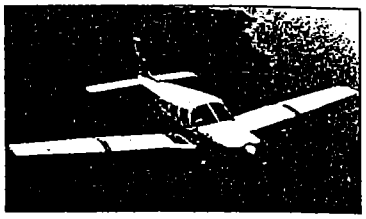
I usually flight plan for 200 knots. Dukes usually fly a few knots under book because of loading and trim. You really have to trim and clean up the plant to get book numbers. It is hard to get out of CG, and the Duke will fly ten knots faster with an aft CG. The problem is that the baggage compartment is in the nose, and there isn't much room behind the rear seats for baggage.

Flying the Duke is pure joy. So far the airplane has not displayed any bad habits. Even hot starts are much easier than in my old Bonanza. Passengers like it, even though there isn't as much room as in comparable Cessnas.

Had I known then what I know now about the Duke, would I still have bought it? You bet.

Frank M. Singer
Huntington Beach, California

Reader Feedback Wanted: Lance/Saratoga SP



Our next used aircraft guide will be on the Piper PA32R Lance/Saratoga SP. If you have any experience with this aircraft, own one (or have owned one in the past), we want to hear from you. We want to know what it's like to own this airplane, how much it costs to operate, maintain and insure, and what it's like to fly. Facts and figures we can get from the operator's manuals; only the owners and operators can tell us what it's like out there in the real world.

Also, we welcome any information on modifications, support organizations such as owners clubs, and any other pertinent comments.

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