Beech Model 19/23

The Beechcraft Musketeer, Sport and Sundowner get high scores for comfort, handling and simplicity. They’re also easy on the budget.

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Beechcraft was never all-in in the training market. Its niche was carved out from day one with the Bonanza, a high-performance traveling machine that the company knew would attract buyers who learned to fly in something made by Cessna or Piper.

That’s why when some pilots walk the ramp, they clap eyes on a Musketeer or a Sundowner and can’t quite place what it really is. There just aren’t that many of them out there and they are far outnumbered by Skyhawks and Cherokees. But to Beech’s credit, what it did, it did right, at least in terms of comfort and handling, if not performance.

The Beech 19 and 23 series are far better fliers than their downmarket brethren and more than 30 years after the last one was made, they remain supportable at affordable cost. Beech owners love them for their big airplane feel and spacious cabins in a market segment dominated by tuna-can construction.

The Beech Sundowner and Musketeer do have some quirks. Weight and balance issues may be one and so is speed, or lack of it. Owners are stoic about that; it just allows a little more flying time. These aircraft represent a buying paradox for used aircraft buyers. You can buy one for a song—a discount song at that. But when you try to sell it, will it even be worth the opening intro notes? We’re not sure this matters, as long as buyers going into the deal know the score.

Beech 19 and Beech 23 Model History

The Beech Sport and Sundowner first appeared in the early 1960s, specifically the Model 23. It had a 160-HP Lycoming O-320 and could carry four people in comfort, as long as they weren’t in a hurry to get anywhere. The original Beech Model 19 debuted in 1966. With 150 horses, it’s really a two-seater with a backseat for more stuff. Except for the engines, the two aircraft are essentially
Beech also developed the same aircraft sporting retractable gear and a 200-HP engine; the Model 24 Sierra, an airplane that’s the subject of its own UAG report.

The Beech Musketeer evolved over the years. The original 1963 Model 23 had a 160-HP Lycoming, following the lead established by the Piper Cherokee two years before. But Beech soon re-engined the airframe with Continental’s IO-346-A, an oddball engine that was essentially an IO-520 with two cylinders hacked off.

By 1968, Beech switched horses again, this time back to Lycoming, with a 180-HP O-360-A series, the motor that carried the line through the rest of its production life. Meanwhile, Beech wheeled out the 150-HP Sport as a trainer in 1966. By 1970, the two models had become the B19 Sport and the C23 Sundowner. (If you’re confused, you’re not alone. If you’ve owned a Mooney, you’ll understand.)

Beech 19/23 Performance

The Beech 19/23 series was never a hot performer. Indeed, by 1973, the FAA determined that when flying at its certificated maximum-gross weight of 2250 pounds, the B19 couldn’t meet the certification climb-performance minimums. In response, AD 73-25-04 was issued, limiting the B19’s gross weight to 2000 pounds, a heavy performance hit. A Beech kit raised max gross back up to 2150 pounds, but the airplane was no load hauler. After 1973, Sports that rolled out of the factory came with the mods already installed.

The Beech Sport continued in production until 1979, when Beech introduced a clean-sheet design as a replacement—the two-place Skipper, another Beech idea that didn’t quite pan out. The Beech Sundowner chugged along for a few more years before being sucked under by the great GA depression and sales downturn of the 1980s.

By 1983, the line was history. Still, some 2400 Sundowners were built and many still fly. The Sport isn’t quite so numerous, with only 900 built; some turn up occasionally on training flightlines.

Owners fairly gush about how comfortable these airplanes are but tend to frown painfully when describing performance. Cruise speeds in the 100-knot range are about the best you can expect from the 160-HP models. The Sundowner with the big Lycoming will do 117 knots with a light airframe and a fresh wax job.

In its original incarnation, the Sport got socked with an AD due to poor climb performance at gross weight. But even after the AD-mandated improvements, it was hardly any better. Owners have reported gross-weight climbs in the 300- to 400-FPM range on hot days. Then again, this may vary by aircraft condition. One owner said climb rates of about 500 FPM through 9500 feet were possible. Loaded to gross, Beech claimed only a 792-FPM climb for the Sundowner at sea level. So don’t expect much.

The Sundowner is not a STOL ship in the landing department, either. Although the book says you can stop on less than 1000 feet of pavement at sea level with no wind, we say good luck. Allowing for real-world piloting skills, add at least 25 percent to that figure. And if you do manage to shoehorn your way into a 1000-foot strip, you’ll probably need a set of wrenches and a truck to get the airplane out. The accident pattern bears this out.

Listed takeoff performance for the airplane is 1130 feet of pavement just to lift off. You’ll need nearly 2000 feet of level ground between brake release and the first 50-foot obstacle if you expect to clear it. If density altitude creeps up, you can find yourself needing jet-length runways. At a 2000-foot high field on a calm, 88-degree day, figure on 1700 feet to get off the ground and almost 3000 feet to clear the obstacle.

These Beech airplanes are clearly not suitable for high-elevation airports or even sea-level airports with short runways.

Beech 19 & 23 Payload and Range

Okay, so they’re slow and tend toward runway piggishness. But they carry a lot, right? In a word, no. Net payload for both the Beech Sport and Beech Sundowner are quite close to other aircraft in their class, which is to say not much.

Range is certainly not outstanding, although acceptable for most owners. In all but the early model
Two doors allow convenient egress and ingress. Once inside, owners and large pets enjoy a roomy cabin.

That's Andy Strickland's flying companion lounging across the front seats of his Musketeer.

Sports, standard fuel load is 57 gallons usable. That's enough gas to carry the Sport about 620 miles, while the Sundowner will cover only 530 miles on the same load.

That fuel load may sound impressive, especially when you look at the fuel capacities of the competition.

The Piper Cherokee, American General (Gulfstream/Grumman) Tiger and Cessna Cardinal all carry seven gallons less gas. Yet, all those airplanes can fly just as far because their higher cruise speeds let them cover the same amount of ground on less fuel. Of course, your mileage may vary, especially if you've got any illusions about carrying people and baggage.

Fill the cabin and you can't fill the tanks, it's that simple. The Sundowners can be expected to haul about 900 pounds of useful load in their average equipped condition. If you need full tanks, that means you can only carry three people and 50 pounds of baggage.

If you're in a Sport, toss out the third person and the baggage and you still get to sweat those high-weight climb rates. So, the Beech Sport/Sundowners are cheap to buy, but the payback is lack of performance; there's still no free lunch.

Like most Beech products, the Sport and Sundowner are routinely described as being delightful to fly. In the air, the controls are light and well harmonized, smooth and responsive. They're stable enough to make good IFR trainers, even if their low cruise speeds turn them into one-airplane traffic jams. There are even aerobatic models. But that doesn't mean handling and flying is wart free. The Beech Sundowner, and especially the Sport, can be downright vicious on landing.

These airplanes have developed a reputation for providing some ego-crushing landings for even experienced pilots. Student pilots who were unfortunate enough to endure training in the Sport all too often wound up with more than their egos crushed.

The reason for all this sturm and prang is the airplane's bad habit of porpoising and crow-hopping on landing, a trait it shares with Mooneys but not with other trainer types in this class.

Some experienced Sport pilots can regale hangar-flying crowds with tales of epic wrestling matches as they worked throttle and yoke desperately trying to stop the porpoise before a) the nose gear collapsed; b) the aircraft groundlooped; c) the runway ended; or d) all of the above.

At least part of the reason for this touchdown behavior is the landing gear design. Beech chose a trailing-beam configuration for the aircraft. Normally, this type of landing gear is quite forgiving of botched landings. But Beech went for stiff rubber shock mounts instead of oleos, converting what would have been wonderful cushioning into terrible springs, ready to help the aircraft rebound into the air at the drop of a wheel. With its stiff rubber donuts, the Mooney gear has the same shortcoming with the same results for hapless pilots.

Gentle, mains-first touchdowns are the rule to prevent a crow-hopping excursion across the field. All this is not to imply that good landings are impossible in the Musketeers. Precise speed control is the key. If you're the type who likes to tack on a few knots for the insurance company and another couple for the wife and kids, buy a Cherokee or some similar, more forgiving design.

The Sport and Sundowner demand precision handling down final and into the flare. If your landing technique is off, these aircraft will show you exactly where you're going wrong by magnifying the results out of all proportion to anything you've seen before. Great training, if it doesn't scare you to death.

Speed control is also important in the opposite direction for Sport pilots. Coming over the fence a few knots too slow can result in running out of stabilator in the flare. That, in turn, translates into a nose-first touchdown and at least some crow-hopping down the runway.
Pilots report the Sport is a bit nose-heavy, especially with flaps down. Many have found that carrying some power into the flare provides more controllability into the touchdown. Some owners tell us they carry ballast in the baggage compartment to offset this.

Another strategy for coping with the aircraft's landing habits is to install the Beech spin kit. One Beech dealership we spoke with some years ago reported that the spin kit, which adds strakes to the nose and stabilator along with a ventral fin to the rear fuselage, seemed to tame the aircraft's landing characteristics.

Beech 19/23 Landing Foibles

With all this as background, it should come as no surprise that the Beech Sport and Sundowner have their greatest safety troubles in the landing arena. That's true of other types, too, but it's doubly true of this model. See the safety sidebar for the most recent data.

At least the aircraft are consistent in this regard. Consider that an NTSB study reaching back to the early 1970s identified the Sundowner as the worst aircraft in its class for hard landings. We're talking about a rate of hard landings that was five times worse than the Cessna Skyhawk or the Piper Cherokee. Indeed, every time we've looked at the safety records of the Beech Sport and Sundowner, the story has been the same—lots of hard landings and lots of overshot landings. And even today we find the pattern intact. One interesting finding of our studies through the years has been the low rate of groundloop accidents.

Both the Sport and Sundowner have nice, wide-stance main landing gear, so once the aircraft are firmly on the ground, they handle and track quite well. It's getting them to that point that's the challenge. We don't mean to overstate the case by any means, but forewarned is forearmed.

Beech Musketeer ground handling is so good, in fact, that it's possible to get the aircraft to pivot around inside its own wingspan, making maneuvering on the ramp or around the gas pumps a breeze.

Reader Rap McBurney, president of the Beech Aero Club, contends in his letter below that the 19/23 fatal accident rate is actually lower than the GA average of about 1.2/100,000 hours. We can't confirm this, but have no data to counter it.

Beech 19/23 Maintenance

If there's one thing that really seems to keep Musketeer owners happy, it's that the airplanes are cheap to keep. Maintenance troubles through the years have been mercifully few and far between.

Thankfully, Beech—now under the Textron Aviation umbrella—seems able to maintain a sense of proportion as to what's important and what's mere window dressing when it comes to issuing mandatory service bulletins.

Other maintenance items to be concerned with are fairly obvious. The landing gear, for example, should come in for detailed scrutiny at any pre-purchase inspection, as well as during annual inspections.

Given the previously discussed landing troubles, it's a better-than-even bet that some sort of trouble will be found on pre-purchase. By the same token, make sure the firewall gets a good once-over, since bending and warpage of the firewall is a common consequence of excessive crow-hopping and nose-first arrivals.

Another item to scrutinize closely on annual inspections is the fuel caps. The NTSB called for pressure checks of older caps, but simple visual inspection should be able to detect caps that have become too stiff and crusty to provide a good seal to the wing filler port.

Nevertheless, cap replacement and/or overhaul every 10 years is not a bad idea as a prophylactic measure. And, of course, pay attention when checking the sumps on preflight. Engine troubles on these aircraft should be few and far between.

One notable exception is valve sticking, which on the O-320 and O-360 should be considered facts of life. Lycoming Service Bulletin 388B calls for checks of valve guide wear every 400 hours, but we'd cut that interval in half if you're experiencing normal 50- to 100-hour-per-year utilization. Cut it in half again if you're flying less than that. The inspection is simple, once you've got the proper jigs, and it could save you thousands in later cylinder work. In the just-plain-annoying category, there are complaints about leaking windshields and windows. This sort of thing is not really a problem limited to the Musketeers, since most of the smaller GA singles seem to suffer from window leaks to one extent or another.

The cure—the real cure, that is—is to remove the suspect window, clean the tracks and reinstall it with new sealant. Might as well put new glass in while you're at it. The route most often taken, though, is to simply slather more RTV around the rim and hope for the best.

On pre-purchase inspection, pay special attention to the sidewall insulation and carpet padding for clues to potential leaks. As with Mooneys, which suffer the same problem, this can lead to serious corrosion.
Watch the IO-360

Make no mistake about the IO-346—found in the 1964 through 1967 Sundowners—is an oddball. It was used only in the Musketeer and is found nowhere else. Only 513 examples were built. Despite its origins as a sliced-up IO-520, it's a rare mechanic indeed who's familiar with this engine. If you insist on buying one of these models, be prepared to finance your mechanic's learning curve.

The last time we examined the Musketeer line, pistons weren't available for this engine but since then, Continental has, surprisingly, started making them again for the IO-346.

Owners who contacted us for this review seem to suggest that the IO-346 is a nice flying, supportable engine. But our view remains that the Lycoming models are probably the better choice. They're simply far more numerous and will be familiar to any mechanic who has to service them.

Beech 19/23 Owner Comments

I have owned N8894M for a little over three years. She is a 1964 Beechcraft Musketeer A-23 with a 165-HP Continental IO-346. The airplane is based at Airport Manatee (48X); a grass field. I bought her a little more than halfway through my private-pilot training. I have averaged 100 hours or more a year and have flown to and from Memphis and all over Georgia and Florida. This winter, she and I will be entertaining an FAA examiner for an instrument checkride. She is a solid instrument platform and loves the clouds.

I average about 11 to 12 gallons per hour. Annual insurance is $650 per year. Annual inspections have been on average $1000 to $6000 per year. She is properly maintained. No expense is spared to ensure she is mechanically and structurally sound; no corners are ever cut.

Useful load with the wingtips is 750 pounds; in practice, 800 pounds is no problem. Nice roomy cabin and she flies solid and true. Cruise speed is 100 to 105 knots. Short field take-offs and landings on grass or pavement are equally performed with ease. The Continental IO-346 has never given me any problems. She has no bad habits, unlike the Piper Archer that I started with at the flight school. The solidness of a Beechcraft should be underscored.

In short, I have been honored to own N8894M. It has been a great airplane for my wife, my German Shepherd (Aden) and me for many regional excursions and we look forward to many more.

Andy G. Strickland
via email

I owned a Model 23 Beechcraft for six years. Great experience and a great airplane. Acquisition cost and maintenance expenses are below average. The airframe is very robust, roomy and comfortable; big folks really like this airplane. Some have two doors.

The tradeoff is a bit slower cruise speed, mostly in the 110-knot realm. Range is great with 60 gallons of fuel capacity. It is a very stable IFR training platform and an excellent trainer due to the strong airframe and landing gear. Parts remain in good supply for an airframe that was last produced in 1983.

Properly flown by the numbers, it is safe and stable. There will be those who point to statistics that say the Musketeer/Sundowner/Sport series is unsafe, but I believe those stats are the result of the uninformed flying airplanes in which they are unfamiliar.

There is safety in numbers, and we have those numbers: Over the past 10 years, there have been approximately 500 Beech Aero Club members (the Musketeer/Sundowner/Sport type club). If those members fly 50 hours annually on average, there will have been 250,000 hours flown. During that timeframe, there has been one club member accident in which there were fatalities, two to be exact. That is 0.8 fatalities per 100,000 hours. That is well below what has been previously written and reported. So, there's safety in type-club numbers. Join a type club, and if you own one of this great series from Beech, join BAC.

Rap McBurney
President, Beech Aero Club

I own a Beech Musketeer A23 with a fuel-injected IO-346 that has 70 hours since a major overhaul and factory-new cylinders. It has 1702 hours on the airframe.

The airframe specifications are a gross weight of 2350 pounds with an empty weight of 1450 pounds. The useful load works out to 900 pounds. My Musketeer is equipped for basic IFR, with a Narco MK12D navcomm, DME, a Garmin 696 portable GPS and an Insight G-1 engine monitoring system.

Insurance for a 300-hour pilot and a $25,000 hull value is $650. Annuals cost roughly $600, not including add-on items, such as the LED landing light I recently added.

The airplane is big, bright, roomy, comfortable and solidly built, with excellent flying characteristics. Cruise speed at 2550 RPM is 120 to 125 MPH at about 8.5 to 9 GPH fuel burn.
A speed of 70 MPH over the fence and touchdown at 65 to 69 MPH works, with flaps up at landing and before using the brakes.

I used to own a 1964 Cherokee 180 and while the Cherokee landed much slower, that big Hershey bar wing picked up every bump in the sky, requiring you to slow down to Musketeer speeds to keep your non-pilot friends comfortable. Still, the airframe feels more substantial than a Cessna 172 and the Piper Cherokee.

I’m quite happy with the fuel-injected IO-346 engine. It’s smooth, burns a single quart of oil in 15 hours, it’s easy to start and there is no lead buildup on the spark plugs.

I would recommend at least 10 hours of flight instruction in the aircraft before flying it solo, particularly since it lands hotter than some might expect. Also, don’t let the nosegear touch first, as it will create a wheelbarrow effect and put stress on the engine mounts and on the nosegear.

Everyone asks how I can afford an airplane. I tell them that it costs less to buy and insure than my 2013 Hyundai Elantra.

Daniel I. Nelson
Plant City, Florida

I decided to purchase a 1975 Beech C-23 Sundowner after receiving my private pilot certificate in 1995. Since January 1996, it has been my first and only aircraft. Although I had not planned to keep the aircraft for more than a few years subsequent to my getting an instrument rating, I found myself continuing to enjoy this Beech for nice weekend cross-country trips.

One of the things my passengers and I especially enjoy about the Sundowner is the great visibility. During a checkride, one CFI who was unfamiliar with the type, commented that the visibility was about as good as a helicopter. While I don’t think it is quite that good, it is great.

Another strong point is the entry door’s configuration. It is enjoyable not having to enter from the port wing and having to slide across the seats. The cabin is also big and roomy, giving the appearance that it is larger and could carry more than it actually can.

The instrument panel is also roomy, easily accommodating avionics upgrades, like my GNS430W and a GTX-330. I still have nearly a third of the panel available for future toys.

The Sundowner, like other Beech products, has a solid feel and the controls are smooth. I typically fly in the 5000- to 10,000-foot range, which gets me into cooler air—important during Alabama summers.

At these altitudes, I can expect to cruise at 115 knots, with a fuel burn of about 8.5 GPH with the Lycoming O-360. This gives the aircraft a theoretical endurance of about six-plus hours, which far exceeds my endurance.

Speeds on the Beech are a little slower than a similarly powered C-172 or PA-28, but this slower speed is more than offset by the comfort of the larger cabin. On a typical 300- mile flight, I am in the air another 10 to 15 minutes more than I would be in a Cessna or Piper. I just consider it an opportunity to fly another 10 to 15 minutes.

Maintenance costs are modest. My annuals run about $1400, and insurance costs me about $1200 annually. The most difficulty that I have had in ownership is getting inexpensive Beech parts.

I believe that the good people at Beechcraft think I am ordering parts for a King Air. Parts also tend to be more difficult to locate on the aftermarket for items such as interior trim, windows and plastic exterior trim pieces such as wingtips.

It is interesting to me that a lot of pilots are not familiar with this particular aircraft or its siblings, despite the fact that 4000 of this family of aircraft were built over the 20-year production cycle. Pilots are always approaching me about the airplane, and telling me how much they like it. The nice paint job makes it even more appealing.

The flying characteristics of the Sundowner are excellent. There are two areas, however, that I would caution prospective buyers to be aware of—weight/balance and approach/landing speeds. The C-23 tends to be nose-heavy and needs be kept at balance or slightly aft. Many owners, like me, carry extra weight in the baggage area to counter this forward CG characteristic.

The other area of concern is landing. I carry a few extra knots of airspeed on approach and landing, to help maintain better control. The nosewheel needs to be kept off the runway until the mains are firmly on the ground. The Beech’s short wheelbase, along with the tendency to be nose-heavy if the weight and balance are not correct, can result in porpoising, with potentially bad consequences for airplane and pilot.

Bill Moran
Birmingham, Alabama

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