Beechcraft

DUKE

B60

Beechcraft

Increased range.
Turbocharged performance.
Pressurized and air conditioned comfort.
Beechcraft quality and engineering excellence.
You can have it all in the most beautiful airplane in the skies.
The Beechcraft Duke B60.

The Duke's advanced design makes it an advanced business machine.

The Duke B60 was conceived and engineered as an IFR aircraft. IFR avionics are standard. The Duke's engines were designed to be turbocharged and are built to take the extremes encountered in high speed, high altitude flying.

The Duke's pressurization system provides a 10,000 ft. cabin at 24,800 ft. With the standard Cabin Altitude Programmer, a comfortable cabin climb and descent rate is automatically maintained . . . regardless of aircraft rate-of-climb or descent. Optional air conditioning makes for an even more comfortable atmosphere.

Normal cruise speed at 68% power at 25,000 feet moves you through the skies at 225 kts. (259 mph). Maximum speed is 246 kts. (283 mph). With the 232 gallon optional fuel system, flying at 25,000 ft. and 68% power, the range is 1,112 nm (1,280 sm).

The Beechcraft Duke is all business when it comes to transporting people in the most efficient manner possible.

The Duke looks good. It flies fast. And it's economical to own and operate.
The Duke also accommodates people and luggage in a way no other airplane can.

The Duke has a nose baggage compartment that's one of the largest in its class. The compartment is lighted, carpeted and has a flat floor. The Duke's nose compartment will accommodate golf clubs, large suitcases, boxes...up to 500 pounds of cargo.

The Duke even simplifies the entrance and exit routine. It has a door that opens like a door. Then, one step up and you're in.
The entrance is large and cuts into the top of the cabin so you can stand up straight and tall before disembarking.

The Beechcraft Duke B60 is an airplane where everything makes sense.

The Beechcraft Duke goes when and where you want it to. It's equally at home at a busy major airport or a rough grass strip.

Normal takeoff procedures in the Duke will give you a ground run of 2,075 feet. Your rate of climb is over 1,600 fpm on two engines at sea level, over 300 fpm on one engine. All at maximum take-off weight.

The rugged Duke landing gear allows greater mission flexibility by putting unimproved strips within your reach. Furthermore, there are no landing weight restrictions on the Duke, giving you full use of the Duke's big carrying capacity. Three-bladed propellers are standard on the Duke. All-weather options available include deicing boots and electrically heated windshield and propellers.

The Beechcraft Duke B60 is more than just a beautiful airplane. It's a beautiful answer to efficient executive transportation.

Beechcraft

Inside the Beechcraft Duke it's quiet, comfortable and just as elegant or bold as you want it to be.

Super soundproofing, three-bladed propellers and engine placement help to make the Duke quiet. Deep cushions, reclining chairs, movable headrests, and retractable armrests help make you comfortable.

When it comes to the interior of your Duke, you have an almost limitless combination of colors, vinyls, leathers, carpeting and fabrics. The result is a Duke that looks just the way you want it to. And when you consider that there are over 30 different exterior colors from which to choose, you'll realize just how personalized your Duke can get.

The Beechcraft Duke also offers a host of interior conveniences. Four forward facing, deep cushioned chairs are standard. Fifth and sixth seats and a club seating arrangement are optional configurations. An optional large writing table folds flush into the wall. Magazine back pockets, separate cigarette lighters for pilot and passengers, and the combination drink holders and ashtrays are standard. A hot and cold refreshment center and a private toilet are two other optional touches that may be added to your Duke.

A beautiful new Beechcraft Duke B60 can be yours just about any way you want it.

When the sun sets, the Duke takes over. Standard exterior lighting consists of position lights and two streamline oscillating beacons. Options include wing tip and aft strobe lights, a wing ice light, and wing tip recognition lights.

Two high-intensity landing lights extend with the main gear. Ground maneuvering is simplified by the steerable nose wheel light. On the ground or in the air, the Beechcraft Duke is easy to see out of . . . and to be seen.

Passengers and crew have their own individual overhead lights. One overhead light near the entrance may be switched on and off at the door to use as a courtesy light when entering or leaving.

Instrument post lights are standard . . . or the optional internally lighted instruments may be selected. Recessed floodlights in the panel eyebrow are standard. A pilot's control wheel map light is standard while a copilot map light is optional.

Business doesn't wait for good weather and sunshine . . . and neither does the Duke.

The Duke panel starts off with full IFR capabilities as standard . . . but you can customize your panel to fit your specific mission profiles. Beechcraft Custom Installed Avionic systems are the reason. You can select equipment from all the top brand names in the business. Your system is installed on the production line and tested before and after installation . . . and flight tested, too.

Beechcraft

Most Duke owners fly their own Beechcraft Duke because it's as simple and fun to fly as it is beautiful.

The crew area is roomy and everything is right where it belongs. Ignition and fuel boost pump switches are on the left sidepanel . . . circuit breakers on the right sidepanel.

The control wheel is molded to fit your hand comfortably. Optional electric trim is controlled by fingertip buttons on the control wheel.

The center console conveniently houses all engine controls, auto-pilot command center and trim controls.

Your Duke B60 can be equipped with a variety of new generation flight directors, encoding altimeters and the new lightweight, vivid-display radar systems.

The fuel management system is the simplest there is: just "on-off crossfeed" and that's it. A 142-gallon fuel system is standard and options up to 232 gallons are available, and a convenient fuel level sight gauge on the wing permits quick and accurate partial fuel loading for special missions. The increased range provided by the new fuel system options gives the Beechcraft Duke B60 an even greater mission versatility.

Air Conditioning and Heating Systems

A 45,000 BTU combustion heater is standard on the Duke. A 14,000 BTU refrigerative air conditioning unit is available. Fresh air is taken into the system at the nose ram air vent opening for unpressurized flight, and from the pressurization air inlets beneath the cockpit floor for pressurized flight. From either source the air is heated or cooled according to the selected mode.

Cabin fresh air is admitted to the cabin through overhead adjustable air vents above each passenger chair. Air is completely changed every six minutes. The Duke's efficient air conditioning system can be operated at any time in the air or on the ground. Passengers may board or deplane from the left side while the right engine operates the air conditioning system . . . assuring that you leave in comfort and arrive refreshed. The optional air conditioning system is lightweight and installs without sacrificing baggage space.

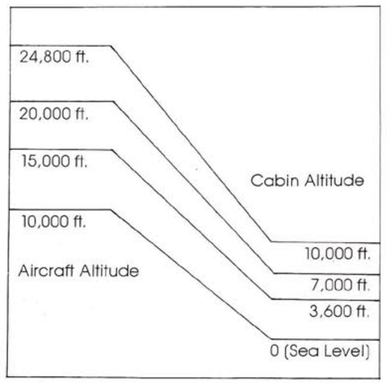
Oxygen System

Oxygen masks provided with the optional oxygen system are the continuous-flow type. They are easily adjusted to fit comfortably.

The oxygen cylinder is located in the aft fuselage. An oxygen console on the pilot's sidewall regulates flow to a five outlet console located on the cabin overhead. An oxygen pressure gauge on the console indicates the supply of oxygen available.

Pressurization System

The Duke B60 is equipped with a pressurization system that provides a 4.6 pressure differential. The chart below illustrates how well this system works. A sea level cabin is maintained at 10,000 feet and a 10,000 foot cabin at 24,800 feet. Either engine is capable of maintaining cabin pressure.



All-Weather Systems

Standard ice protection equipment on the Duke consists of heated pitot, fuel vents and stall warning vane. Optional deicing equipment includes wing ice light, pneumatically operated surface deicer boots and electrically heated propellers and windshield. In addition, a standard alternate static air source backs up the fuselage mounted static air source.

The optional deice boots on the wing and empennage leading edges are inflated by the two engine-driven pressure pumps. Sufficient pressure to operate the system can be provided by either engine.

Optional electrothermal deice boots remove ice from the propellers. Each boot, consisting of one outboard and one inboard heating element, receives its electrical power through a deice timer. The timer directs current to the propeller boots alternately, in a 30-second cycle.

The optional pilot's electrically-heated windshield is controlled by a switch located on the pilot's left subpanel. This system is also beneficial as an aid in preventing frost and fogging due to rapid descents from higher altitudes into warm, moist air.

Electrical System

The direct current, 28 volt, electrical power circuit is energized by two lead acid batteries for a total capacity of 25 ampere-hours. The Duke is equipped with two 125 ampere belt driven generators. An air duct from the upper portion of the nacelle directs a supply of ram air to the generator for cooling.

Alternating current, required by the avionics, heated windshield and fuel flow indicator is supplied by optional electrical current inverters.

An external power receptacle is provided as standard equipment for use with an external power unit.

Instrument Pressure System

Pressure for the pressure-operated flight instruments is supplied by two engine-driven, dry, pressure pumps, interconnected to form a single system. If either pump fails, check valves automatically close. The remaining pump will continue to operate the gyro instruments. Cabin smoke and dust do not enter the system resulting in longer gyro life and greater instrument reliability.

Increased Range Fuel System

The standard fuel system installation consists of a leading edge fuel cell and a wing fuel cell outboard of the nacelle with a usable total of 142 gallons of fuel. Two optional systems are available. One option offers 202 total gallons and the other system offers 232 total gallons. All fuel cells in both the standard and optional systems are interconnected, making all usable fuel in each wing available to its engine when the fuel selector valve is turned to ON.

Submerged tank-mounted fuel boost pumps are provided for each engine and are located in the leading edge tanks. The boost pumps are controlled by separate ON-OFF toggle switches, located on the pilot's upper side panel. Fuel quantity is measured by float-type transmitter units which transmit a common level to a single gauge for each respective wing.

The fuel select system of OFF, ON, and CROSS FEED eliminates the problems of fuel management.

The Engines

The Duke is powered by two 6-cylinder Lycoming turbocharged, fuel-injected engines rated at 380 horsepower. These engines were designed to be turbocharged and currently carry a TBO rating of 1600 hours. This means that the entire engine and its components were designed from the beginning to accommodate the extreme temperature changes inherent in an airplane capable of flying up to 30,000 feet.

The control center of the turbocharger system is the variable absolute pressure controller. This device simplifies turbocharging to one control — the throttle. Once the pilot has set the desired manifold pressure, virtually no throttle adjustment is required with changes in altitude. The controller senses manifold pressure requirements for various altitudes and regulates the oil pressure to adjust the waste gate. Thus, the turbocharger maintains only the manifold pressure called for by the throttle setting.

Propellers

Both looks and performance are enhanced by the Duke's standard three-bladed full feathering, constant speed propellers. The propeller dome is charged with nitrogen or dry air to prevent propeller freeze up at altitude and under extremely cold conditions. This means you will always be able to change pitch or feather the prop no matter what the temperature.

An optional propeller synchroscope operates to give an indication of propeller synchronization. The face of the synchroscope (a black and white cross pattern) spins in a clockwise direction if the right propeller is turning at a higher rpm. Counterclockwise rotation indicates a higher rpm of the left propeller. This instrument simplifies manual synchronization of the propellers. An automatic propeller synchronization system is an optional item available for the Duke.

Flight Control Systems

The Duke is equipped with conventional dual controls. Primary flight surfaces are operated through push-pull rods and conventional cable systems, terminating at bell cranks. Control of the rudder and nose wheel steering is provided by rudder pedals. An elevator trim tab control wheel on the left side of the console, operates in the conventional manner.

A wheel positioned horizontally on the lower aft side of the console, trims the aircraft with the rudder tab. To the right of the rudder trim wheel is the aileron trim tab control.

A switch on the control wheel actuates the optional autopilot electric elevator trim control. The switch is moved forward for nose down, aft for nose up. When released, the switch centers in the OFF position. When the system is not being electrically actuated, the manual trim control wheel may be used.

An optional automatic yaw damper is also available for your Duke.

Flaps

The Duke's large flaps are guided on rollers and extend out as well as down. This increases the wing area and results in a lower landing speed. There is very little trim change associated with raising or lowering the flaps. The flaps may be lowered to the approach position at 175 kts. (202 mph) to act as a speed brake. This provides maximum flexibility in high density traffic areas.

The wing flaps are controlled by a three-position switch located to the right of the control console on the subpanel. The flaps have three positions: 0° (full up), 15° (approach), and 30° (full down). Three indicator lights located adjacent to the flap control handle indicate flap travel; the red light illuminates whenever the flaps are in motion, the blue light illuminates when the flaps are in the approach (15°) position and the amber light glows when the flaps are in the full down (30°) position.

Landing Gear

The rugged Duke landing gear may be normally extended at 175 kts. (202 mph). Varying approach speed is no problem on the Duke enabling you to mix easily with jet or slower traffic. The gear retracts in 4½ seconds so you can clean up your Duke in a hurry. The brakes are powerful 3-spot, massive-disc Goodrich type brakes. And the Duke has no landing weight restrictions, enabling you to utilize the full mission spectrum of the Duke.

Lighting

The Duke is designed to be a bright nighttime operator. Standard lighting consists of landing lights on each of the main gear and a steerable nose taxi light. Dual streamline white rotating beacons and position lights are also standard. Options include a three-light strobe system, a wing ice light and wing tip recognition lights. Your new Duke makes things easy to see on the ground . . . and makes you easy to be seen in the air.

Baggage and Cargo Capacity

A huge compartment in the sleek nose of the Duke can hold up to 32 cubic feet or 500 pounds of cargo. The large door will accommodate golf clubs, suitcases and boxes of many shapes and sizes. The Duke has the largest nose baggage compartment in its class. A flat floor in the baggage compartment is achieved by rotating the nose gear 90 degrees during the retraction cycle. The compartment is lighted and carpeted, too.

Duke B60 Performance

Maximum Ramp Weight	6,819 lbs.
Maximum Takeoff and Landing Weight	6,775 lbs.
Empty Weight (includes unusable fuel and standard avionics)	4,380 lbs.
Useful Load (standard airplane)	2,439 lbs.
Cruise Speed (68% power @ 25,000 ft.)	225 kts.
Maximum Speed @ 23,000 ft.	246 kts. (283 mph)

(Range figures are based on 232 gallons usable and includes start, taxi, takeoff, climb and 45-minute reserve at economy cruise power)

Range (74% power @ 25,000 ft.)	1072 nm	(1234 sm)
Range 68% power @ 25,000 ft.)	1112 nm	(1280 sm)
Range 63% power @ 25,000 ft.)	1168 nm	(1344 sm)
Rate-of-Climb (two engines)	1,601 fpm	
Rate-of-Climb (single engine)	307 fpm	
Service Ceiling (two engines)	30,000 ft.	
Service Ceiling (single engine)	15,100 ft.	
Take-Off Distance (sea level) Over 50 ft. obstacle	2,626 ft.	
Landing Distance (sea level) Over 50 ft. obstacle	3,065 ft.	

Latest Construction Techniques

The beauty of a Duke is more than skin deep. The latest space-age construction techniques are utilized . . . metal bonding and honeycomb reinforcing for strength and chemical milling for weight reduction.

Professional Crew Training

An excellent way to insure receiving the utmost utility and value from your new Duke B60 is to enroll your pilot and maintenance personnel in the free factory training courses at Beech Aircraft in Wichita. The comprehensive courses cover all system operations and a complete pilot flight check-out.

Beechcraft Product Support

Beech Aircraft Corporation in cooperation with its Aviation Centers and International Distributors provide worldwide service support for the Beechcraft Duke. Beechcraft Quality Service Centers have the equipment, personnel and technical ability to provide complete service coverage.

Beech Aircraft offers the finest warranty available anywhere...complete coverage for a full 180 days (an unlimited number of hours) on all new Beechcrafts. This is supported by an instant warranty program which allows warranty credit immediately on claims of less than $100.00. New Beechcraft Owners receive a warranty identification card, which provides identification of warranty coverage anywhere in the world.

Beech Aircraft provides total parts support to keep your Beechcraft Duke performing its prime function — flying to save you time. To do this we have parts inventories strategically located throughout the world adequate to support the Beechcrafts operating in their area. These facilities are supported with a factory inventory of over 80,000 items available on a 24 hour a day, seven day a week basis.

Beechcraft

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