Beechcraft

DUKE B60

PERFORMANCE
SPECIFICATIONS
STANDARD EQUIPMENT
OPERATING COST

Effective October 1, 1981

BEECHCRAFT DUKE B60

A four to six place, twin engine, high performance, turbocharged, pressurized airplane. Standard equipment includes avionics and a full complement of engine and flight instruments. Licensed in normal category.

Designed and tested in excess of the required load factors.

Performance

MAXIMUM SPEED ..... 246 kts. (283 mph)

CRUISING SPEEDS
(Average Cruise Weight)

Maximum Cruise Power (Approx. 78% MCP)	
25,000 ft.	239 kts. (275 mph)
20,000 ft.	231 kts. (266 mph)
15,000 ft.	220 kts. (253 mph)
Recommended Cruise Power (Approx. 74% MCP)	
25,000 ft.	233 kts. (268 mph)
20,000 ft.	225 kts. (259 mph)
15,000 ft.	214 kts. (246 mph)
Recommended Cruise Power (Approx. 68% MCP)	
25,000 ft.	225 kts. (259 mph)
20,000 ft.	215 kts. (247 mph)
15,000 ft.	205 kts. (236 mph)
Recommended Cruise Power (Approx. 63% MCP)	
25,000 ft.	217 kts. (250 mph)
20,000 ft.	209 kts. (241 mph)
15,000 ft.	199 kts. (229 mph)

CRUISE RANGE FOR 232 GALLONS USABLE

(Includes allowance for Fuel Used During Start, Taxi, Take-Off, Climb and a 45 Minute Reserve at Economy Cruise Power; Weight Before Engine Start 6,819 lbs.)

Maximum Cruise Power (Approx. 78% MCP)	
25,000 ft.	1,045 N.M. (1,203 N.M.)
20,000 ft.	967 N.M. (1,113 S.M.)
15,000 ft.	916 N.M. (1,054 S.M.)
Recommended Cruise Power (Approx. 74% MCP)	
25,000 ft.	1,072 N.M. (1,234 S.M.)
20,000 ft.	1,010 N.M. (1,163 S.M.)
15,000 ft.	964 N.M. (1,110 S.M.)
Recommended Cruise Power (Approx. 68% MCP)	
25,000 ft.	1,112 N.M. (1,280 S.M.)
20,000 ft.	1,070 N.M. (1,232 S.M.)
15,000 ft.	1,028 N.M. (1,183 S.M.)
Recommended Cruise Power (Approx. 63% MCP)	
25,000 ft.	1,168 N.M. (1,344 S.M.)
20,000 ft.	1,122 N.M. (1,291 S.M.)
15,000 ft.	1,083 N.M. (1,247 S.M.)

RATE OF CLIMB AT SEA LEVEL

*Two engines—6,775 lbs.	1,601 fpm
*Two engines—6,000 lbs.	1,930 fpm
*Two engines—5,200 lbs.	2,373 fpm
Single engine—6,775 lbs.	307 fpm
Single engine—6,000 lbs.	496 fpm
Single engine—5,200 lbs.	739 fpm

STALL SPEED — 6,775 lbs. (IAS)

Power off, flaps down	73 kts. (84 mph)
Power off, flaps up	81 kts. (93 mph)

SERVICE CEILING

Two engines (100 fpm)—6,775 lbs.	30,000 ft.
Single engine (50 fpm)—6,775 lbs.	15,100 ft.
Single engine (50 fpm)—6,000 lbs.	20,200 ft.
Single engine (50 fpm)—5,200 lbs.	23,800 ft.

TAKE-OFF DISTANCE — FAA APPROVED
(Normal Procedure at 6,775 lbs.)

Ground run	2,075 ft.
Total distance over 50 ft. obstacle	2,626 ft.

LANDING DISTANCE — FAA APPROVED
(Normal Procedure at 6,775 lbs.)

Ground roll	1,318 ft.
Total distance over 50 ft. obstacle	3,065 ft.

The above performance figures are based on the indicated weights and are the results of flight tests conducted by Beech Aircraft Corporation under factory-controlled conditions and will vary with individual aircraft and numerous factors affecting flight performance.

*Demonstrated performance figures which may differ from performance shown in Pilot's Operating Handbook due to FAR 36.

Specifications

WEIGHTS

Ramp Weight	6,819 lbs.
Maximum Weight (Take-off and landing)	6,775 lbs.
Empty Weight (Includes Unusable Fuel, Full Oil and Standard Avionics)	4,425 lbs.
Useful Load (Standard Airplane)	2,394 lbs.

DIMENSIONS

Wing Span	39 ft. 3 in.
Length	33 ft. 10 in.
Height	12 ft. 4 in.
Cabin Length, inside	142 in.
Cabin Width, inside	50 in.
Cabin Door Opening	47½ in. high x 26½ in. wide
Nose Baggage Door Opening	23½ in. high x 37½ in. wide
Cabin Height, inside	52 in.

WING AREA AND LOADINGS

Wing Area	212.9 sq. ft.
Wing Loading	31.8 lbs./sq. ft.
Power Loading	8.9 lbs./hp.

PRESSURIZATION

(4.6 Differential)	Cabin Altitude
Actual Aircraft Altitude—10,000 ft.	Sea Level
Actual Aircraft Altitude—21,600 ft.	8,000 ft.
Actual Aircraft Altitude—24,800 ft.	10,000 ft.

USABLE FUEL

Standard	142 gallons
Option No. 1	202 gallons
Option No. 2	232 gallons

OIL CAPACITY ..... 13 qts./eng.

BAGGAGE

*Front Baggage Compartment, size	32 cu. ft.
Rear Baggage Area, size (4 seats)	28¼ cu. ft.
*Front Baggage Compartment (Weight Limit 100 lbs./sq. ft.)	500 lbs.
Rear Baggage Limits	315 lbs.

*Includes 6.5 cubic feet for Standard Avionics.

Standard Equipment

AVIONICS

- Collins VHF-251 Main VHF Transceiver with PWC-150 Power Adapter and B3 Com Antenna
- Collins VIR-351 Omni No. 1 Receiver with IND-351A VOR/ILS Indicator and DM N4-17E Antenna
- Collins AMR-350 Audio Panel
- Collins Marker Beacon incorporated in AMR-350, Single Set Marker Lights and B16 Antenna
- Collins ADF-650A ADF with IND-650A Indicator and ANT-650A Antenna
- Collins GLS-350 Glideslope Receiver with A-326A Antenna
- Collins TDR-950 Transponder with B18 Antenna
- Beech Metal Radio Panel, Radio Accessories, and Static Wicks
- Mic Key Button in Pilot's Control Wheel
- White Lighting
- Dual Microphones and Headsets, Single Cockpit Speaker
- Avionics Master Switch

ENGINES AND EQUIPMENT

- Two Lycoming 6-cylinder TIO-541-E1C4 Turbo-charged Engines rated at 380 hp each, 2900 rpm for takeoff and continuous operation.
- Propellers — 74″ Diameter, Three Blade Aluminum Alloy, Constant Speed, Full Feathering with Hydraulic Governor
- Starters
- Fuel Boost Pumps
- Exhaust Manifolds (stainless steel)
- Pressure Pumps
- Non-Congealing Oil Radiators
- Full-Flow Oil Filters
- Sonic Choke Venturis for Cabin Pressurization
- Induction Air Filters

LANDING GEAR AND BRAKES

- Tricycle type with swiveling steerable nose wheel equipped with shimmy damper. Beech oil-air struts on all wheels designed for smooth taxiing and to withstand the shock created by landing with a vertical descent component of 600 feet per minute. Individual down locks on main gear.
- Main Tires, 19.5 x 6.75-8 10 P.R. (Tube type)
- Nose Wheel Tire, 15 x 6.00-6 (Tube type)
- Three Spot Hydraulic Brakes

CONTROLS

- Conventional 3-Control System (Pilot's and Co-Pilot's)
- Individual Toe Operated Brakes (Left Side)
- Adjustable Rudder Pedals
- Parking Brakes with Hand Control
- Ventilation, Heating and Pressurization Controls
- Aileron, Rudder and Elevator Trim Tabs Adjustable by Control Wheels
- Power Plant Controls in Console
- Electric Landing Gear and Flap Controls
- Auxiliary Landing Gear Extension Control
- Electric Cowl Flap Controls
- Alternate Static Air Source and Line Drain

ENGINE INSTRUMENTS

- Dual Electric Tachometer
- Dual Manifold Pressure Gage
- Dual Fuel Flow Gage
- Two Fuel Quantity Gages
- Two Load Meters
- Dual Turbine Inlet Temperature Gage
- Two Engine Gage Groups (with Cylinder Head Temperature, Oil Pressure and Oil Temperature Indicators)

FLIGHT INSTRUMENTS

- Airspeed Indicator
- Sensitive Altimeter
- Rate of Climb Indicator
- Gyro Horizon
- Directional Gyro
- Turn Coordinator (electric)
- Compass
- Outside Air Temperature Gage
- Clock — Chronometer, LCD Digital
- Pressure Gage
- Flap Position Lights

ELECTRICAL EQUIPMENT

(24-Volt System)

- Two 125 Amp. Generators
- Battery — Two 12-Volt (25 Ampere-Hour, 5 hr. rate)
- Two Voltage Regulators
- Electric motors for operating flaps and landing gear
- Electric Actuators for Operating Cowl Flaps
- Heated Pitot Tube
- Heater Blower (Ventilation)
- Heater Blower (Combustion Air)
- Auxiliary Fuel Boost Pumps
- External Power Receptacle
- Fuel Vent Anti-icer (Electric)
- Heated Stall Warning

LIGHTS

- Two Landing Lights (One on each Main Gear)
- Position Lights
- Dual Streamline Rotating Beacons
- Steerable Nose Wheel Taxi Light
- Map Light
- Landing Gear Position Lights
- Reading Light at Each Seat
- Cabin Dome Light
- Instrument Post Lights
- Instrument Flood Lighting
- System Annunciator Lights
- Entrance Light
- Front Baggage Compartment Light
- Starter Energize Light

CABIN EQUIPMENT

- Fresh Air Installation with Provisions to Accommodate Air Conditioning
- Tinted, Cabin Side Windows
- Super Soundproofing
- Full Upholstery including "Wall to Wall" Carpeting
- Two Adjustable Sun Visors
- In-Flight Cabin Storage Pockets
- Ash Tray for Each Seat
- Cigarette Lighter in passenger compartment plus one for pilot and copilot
- 45,000 BTU Heater
- Openable Bad-Weather Window for pilot on left
- Coat Hanger Rod
- Arm Rests
- Four reclining, track mounted seats adjust fore and aft for added comfort
- Shoulder Harness on all Forward Facing Seats
- Headrest and Lap Belt provided for all seats
- Baggage Strap Installation for rear of cabin

CABIN PRESSURIZATION EQUIPMENT

- Cabin Altitude Selector
- Combined Cabin Altitude and Differential Gauge
- Cabin Rate-of-Climb Indicator
- Cabin Outflow Control Valve
- Cabin Pressurization Safety Valve

(Continued)

Standard Equipment

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SERVICE EQUIPMENT

- Tow Bar
- Service Information Kit
- Coat Hanger
- Pitot Tube Cover
- Sump Drain Wrench
- Three Jack Pads
- Beechcraft Warranty ID Card
- Airplane Log Book
- Two Engine Log Books
- Control Lock Assembly
- Pilot's Check List
- Pilot's Operating Manual

SPECIAL FEATURES

- Single Point Fueling — Each Wing
- Fuel Sight Gage — Each Wing
- Quick Removable Gas Tank Caps
- Inboard Main Wheel Doors close when wheels are down to keep out mud and dirt and prevent buffeting damage
- Chair Reclining Mechanism allows vertical to horizontal adjustment on three passenger chairs
- Exterior Step Actuates with Landing Gear
- Annunciator Panel
- Static Wicks
- Complete Exterior Polyurethane Paint
- Complete Internal Corrosion Proofing
- Emergency Locator Transmitter

Estimated Operating Cost

	400 Hrs. 98,000 Miles/Year	500 Hrs. 122,500 Miles/Year	600 Hrs. 147,000 Miles/Year	700 Hrs. 171,500 Miles/Year
DIRECT OPERATING COSTS PER HOUR				
(1) Gasoline	$ 76.05	$ 76.05	$ 76.05	$ 76.05
(2) Oil	2.93	2.93	2.93	2.93
(3) Inspection, Maintenance and Propeller Overhaul	38.78	38.78	38.78	38.78
(4) Engine Exchange Allowance	39.70	39.70	39.70	39.70
Total Direct Operating Cost Per Hour	$157.46	$157.46	$157.46	$157.46
INDIRECT OPERATING COSTS				
(5) Hangar Rental	$ 10.25	$ 8.39	$ 7.15	$ 6.26
(6) Insurance	18.82	15.06	12.55	10.75
Total Indirect Operating Cost Per Hour	$ 29.07	$ 23.45	$ 19.70	$ 17.01
TOTAL OPERATING COST PER HOUR	$186.53	$180.91	$177.16	$174.47
COST PER MILE				
(7) Operating Cost Per Mile	76.1c	73.8c	72.3c	71.2c
(8) Cost Per Seat Mile	12.7c	12.3c	12.1c	11.9c

COMPUTATION OF ESTIMATED OPERATING COSTS

(Based on October 1981 National Average Prices)

(1) GASOLINE. Gasoline costs are computed at a consumption rate of 39 gph and at a fuel cost of $1.95 per gallon. This consumption rate is based on airplane operation at 65% cruise power.

(2) OIL. Based on factory service tests, an oil consumption rate of 1.2 quart per hour is used plus an allowance of 26 quarts changed each 100 hours. Computations are based on an oil cost of $1.90 per quart and include a change allowance.

(3) INSPECTION, MAINTENANCE AND PROPELLER OVERHAUL. Based on 100 hour inspection and miscellaneous repairs including airframe parts and labor at $29.00 per hour.

(4) ENGINE EXCHANGE ALLOWANCE provides a reserve for 1600-hour engine exchange, including labor and accessories.

(5) HANGAR RENTAL is based on a national average cost of $3,720 per year plus 95c per hour storage away from base.

(6) INSURANCE. Includes Hull, All Risks Ground and Air, Legal Liability, $5 million combined Single Limit including passengers. Coverage contemplates Private Business and Pleasure and Industrial Aid. Hull Premium based on $616,500 valuation of Airplane. (Includes average optional equipment)

(7) OPERATING COST PER MILE is based on a block speed of 245 mph.

(8) TOTAL COST PER SEAT MILE is based on a maximum utilization of six seats.

Tax Benefits of Ownership

Ownership of a Beechcraft Duke B60 will substantially reduce your income tax expense. Much of the reduction can come in the early years, allowing you to return the taxes saved to your business.

The tax benefits of ownership directly reduce the cost of your airplane. To illustrate how, let's assume (1) that your taxable income is subject to a 50% tax rate (Federal and State), (2) that you purchase this airplane for $616,500 (which includes average optional equipment) and (3) that you elect to depreciate under the accelerated cost recovery system.

Year	Depreciable Base	Depreciation Rate	Depreciation Expense	Tax Savings
1	$616,500	15%	$ 92,475	$ 46,237
2		22%	135,630	67,815
3		21%	129,465	64,733
4		21%	129,465	64,733
5		21%	129,465	64,732
Totals			$616,500	$308,250

Depreciation allowance for tax purposes should be determined after consultation with your financial adviser.

Purchase price of Duke B60		$616,500
Less: Investment tax credit (10%)	$ 61,650	
Tax savings on depreciation	308,250	369,900
Cost after five years		246,600
Selling price of airplane*	$123,300	
Tax on gain	61,650	
Net proceeds after tax on gain		61,650
Cost of airplane after tax savings		184,950
Savings of time and costs resulting from ownership (insert your own figure)	$_____	
Less 50% of above	$_____	
After-tax savings from ownership	$	_____
Less cost of airplane after tax savings		$184,950
Savings brought about by ownership (after tax)	$	_____

*Assumed 20% of original purchase price for illustration purposes.

NOTE: A larger part of the savings occurs in the first years of ownership because of the tax advantages in those years. Your tax adviser may suggest other options to fit your situation which will lower your cost even more.

Beechcraft

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