

# MICROSOFT FLIGHT SIMULATOR 2002 CHECKLIST

## BEECH BARON 58

### SPECIFICATIONS

Cruise Speed	200 kts
Engine	Teledyne Continental Motors IO-550-C 300 hp
Propeller	Three McCauley constant-speed, variable pitch
Maximum Range	1,569 nm
Service Ceiling	20,688 ft
Fuel Capacity	142 gal
Max. Gross Weight	5,524 lbs
Length	29 ft, 10 in
Wingspan	37 ft, 10 in
Height	9 ft, 9 in
Seating	Up to 6
Useful Load	1,634 lb



### REFERENCE INFORMATION

*FS Full Fuel Weight: 5,500 lbs*

VA	156 KIAS
VFE	152 KIAS (flaps 15 - app.)
	122 KIAS (flaps 30 - full)
VLE	152 KIAS
VLO	152 KIAS
VNO	195 KIAS
VNE	223 KIAS
VS	84 KIAS
VSO	75 KIAS
VX	92 KIAS
VY	105 KIAS
VXSE	100 KIAS
VYSE	101 KIAS
VMCA	84 KIAS

Landing Approach Speed:  
95 KIAS (flaps 30)  
Turbulent Air Penetration Speed:  
156 KIAS  
Minimum Icing Conditions Speed:  
130 KIAS  
Maximum Glide Range Speed:  
115 KIAS

#### LEGENDA

VA - Maneuvering Speed  
VFE - Maximum Flaps Extended Speed  
VLE - Maximum Landing Gear Extension Speed  
VLO - Maximum Gear Operating Speed  
VNO - Maximum Structural Cruising Speed  
VNE - Never Exceed Speed  
VS - Stalling Speed (max. weight)  
VSO - Stalling Speed in the Landing Configuration (max. weight)  
VX - Best Angle-of-Climb (2 engines)  
VY - Best Rate-of-Climb (2 engines)  
VXSE - Best Angle-of-Climb (1 engine inop.)  
VYSE - Best Rate-of-Climb (1 engine inop.)  
VMCA - Air Minimum Control Speed (single-engine)

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### BEFORE STARTING

- Parking Brake -- SET
- All Avionics -- OFF
- Landing Gear Handle -- DOWN
- Cowl Flaps -- CHECK OPEN
- Fuel Selectors -- CHECK ON
- All Switches and Equipment Controls -- CHECK
- Battery and Alternator Switches -- ON
- Fuel Quantity Indicators -- CHECK QUANTITY
- Landing Gear Position Lights -- CHECK

### STARTING

#### LEFT ENGINE:

- Mixture Control -- FULL RICH
- Propeller Control -- HIGH RPM
- Throttle -- FULL OPEN
- Fuel Boost Pump Switch -- HI (until fuel flow peaks, then OFF)
- Throttle -- CLOSE; THEN OPEN APPROX. 1/2 INCH
- Magneto/Start Switch -- START position; release to BOTH position when engine starts
- Throttle -- 900 to 1000 RPM after start
- Oil Pressure -- 10 PSI WITHIN 30 SECONDS
- Warm-up -- 900 to 1000 RPM
- Alternator Switch -- ON
- Loadmeters and Voltmeter -- CHECK FOR BATTERY CHARGE
- Red "START" Annunciator Light -- CHECK (should be illuminated during start and extinguished after start)

#### RIGHT ENGINE:

- Mixture Control -- FULL RICH
- Propeller Control -- HIGH RPM
- Throttle -- FULL OPEN
- Fuel Boost Pump Switch -- HI (until fuel flow peaks, then OFF)
- Throttle -- CLOSE; THEN OPEN APPROX. 1/2 INCH
- Magneto/Start Switch -- START position; release to BOTH position when engine starts
- Throttle -- 900 to 1000 RPM after start
- Oil Pressure -- 10 PSI WITHIN 30 SECONDS
- Warm-up -- 900 to 1000 RPM
- Alternator Switch -- ON
- Loadmeters and Voltmeter -- CHECK FOR BATTERY CHARGE
- Red "START" Annunciator Light -- CHECK (should be illuminated during start and extinguished after start)
- Avionics -- ON

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#### **BEFORE TAKEOFF**

- Parking Brake -- SET
- Fuel Boost Pumps – OFF (if ambient temperature is 32 degrees C or above, use LOW pressure boost)
- Fuel Indicators -- CHECK QUANTITY INDICATED
- Mixture -- ADJUST AS REQ BY FIELD ELEVATION WHEN SETTING FULL POWER FOR TAKEOFF
- Fuel Selectors -- CHECK ON
- Red "START" Annunciator Light – CHECK (should be illuminated during start and extinguished after start)
- Throttles -- 2200 RPM
- Propellers – EXERCISE (to obtain 200-300 RPM drop, then return to high RPM)
- Throttles -- 1700 RPM
- Magnetos – CHECK <150 RPM drop on each; <50 RPM drop between (click each to L, R, L, Both)
- Throttles -- 1500 RPM
- Propellers -- FEATHERING CHECK (Do not allow an RPM drop of more than 300 RPM)
- Throttles -- IDLE (note RPM)
- Throttles -- 900 to 1000 RPM
- Trim -- AS REQUIRED FOR TAKEOFF
- Flaps - CHECK AND SET FOR TAKEOFF
- Ice Protection Systems -- AS REQUIRED
- Parking Brake -- OFF

#### **TAKEOFF**

- Minimum Takeoff Oil Temperature -- 24 degrees C
- Throttles -- FULL
- Propellers -- MAX RPM
- Mixture -- FULL RICH
- Landing Gear – RETRACT (when positive rate of climb is established)
- Airspeed -- ESTABLISH DESIRED CLIMB SPEED (when clear of obstacles)

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#### **CLIMB**

- Throttles -- FULL
- Propellers -- 2700 RPM
- Mixture -- LEAN AS REQUIRED
- Cowl Flaps -- OPEN
- Airspeed -- 105 KIAS

#### **CRUISE CLIMB**

- Throttles -- FULL
- Propellers -- 2500 RPM
- Mixture -- LEAN AS REQUIRED
- Cowl Flaps -- AS REQUIRED
- Airspeed -- 136 KIAS
- Engine Temperatures -- MONITOR
- Fuel Boost Pumps -- AS REQUIRED

#### **CRUISE**

- Cowl Flaps -- CLOSED
- Power -- SET
- Fuel Boost Pumps -- AS REQUIRED
- Mixtures -- SET USING EGT

#### **DESCENT**

- Altimeter – SET (press B to autoselect to current setting)
- Mixture -- ENRICH AS REQUIRED
- Cowl Flaps -- CLOSED
- Flaps -- AS REQUIRED
- Power -- AS REQUIRED (avoid prolonged idle settings)

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**BEFORE LANDING**

- Fuel Selector Valves -- CHECK ON
- Fuel Boost Pumps -- OFF OR LOW AS PER AMBIENT TEMPERATURE
- Cowl Flaps -- AS REQUIRED
- Mixture Controls -- AS REQUIRED BY FIELD ELEVATION
- Flaps -- APPROACH (15 degrees; when below 152 KIAS)
- Landing Gear -- DOWN (below 152 KIAS)
- Flaps -- FULL (30 degrees; when below 122 KIAS)
- Airspeed -- ESTABLISH NORMAL APPROACH SPEED (approx. 95 KIAS)
- Propellers -- HIGH RPM

**AFTER LANDING (CLEAR OF RUNWAY)**

- Landing and Taxi Lights -- AS REQUIRED
- Flaps -- UP
- Trim Tabs -- SET TO ZERO
- Cowl Flaps -- OPEN
- Fuel Boost Pumps -- AS REQUIRED

**SHUTDOWN**

- Parking Brake -- SET
- Propellers -- HIGH RPM
- Throttles -- 1000 RPM
- Fuel Boost Pumps -- OFF
- Electrical and Avionics Equipment -- OFF
- Mixture Controls -- IDLE CUT-OFF
- Magneto/Start Switches -- OFF AFTER ENGINES STOP
- Battery and Alternator Switches -- OFF AFTER ENGINES STOP

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**PILOT'S NOTES**

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