

Beech 55 Baron

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Cockpit Interior

Maintenance Status/Weight & Balance	CHK
Windshield	CHK CLEAN
Aircraft Paper/POH	CHK
Hobbs Hour	NOTE
Control Locks	REMOVE
Parking Brake	as required
Mags/All Switches	OFF
Battery	ON
Gear	3 GREEN
Flaps	EXTEND
Fuel Quantity	CHK
• if flight takes place at night	
Exterior & Interior Lights	CHK
Flashlight	CHK
Battery	OFF
Circuit breakers	CHK
Trim	SET 0
Emergency Gear Extension	CLOSED/VERTICAL
All Articles, Survival Kit, Fire Extinguisher	CHK

Exterior Check

Right Fuselage

Load Dist.....CHK/SECURE
 Baggage Door.....CHK/SECURE
 Static Port CLEAN
 ELT ARMED

Tail Section/Empennage

Control Surfaces/Trim tabCHK
 Tail Position Light.....CHK
 Tail Skid/Tail Tie-down.....CHK/REMOVE
 Cabin Air IntakeCHK

Left Fuselage

Cabin Air Outlet.....CHK
 Static Port CLEAN
 Antennas.....CHK

Left wing

*Fuel Tank Sump DRAIN
 *Fuel VentsCHK
 *Flaps/Aileron.....CHK
 *Wing Tip and Lights.....CHK
 Stall Warning.....CHK
 *Fuel Qty, Wing Tank.....CHK/CLOSED
 Pitot Tube.....CHK
 *Wing Tie-down.....REMOVE
 *Engine Cowling.....CLOSED
 Air Intakes CLEAR
 *Oil Qty/Filler CapCHK/SECURED
min. 8 Qts
 *Cowl Flap.....CHK
 *Landing Gear, Chocks.....CHK/REMOVE

Door, Wheel, Strut, Brake Line, Wheel Well

Exterior Check [cont]

Nose

Landing Gear, Chocks	CHK/REMOVE
Door, Wheel, Strut, Brake Line, Wheel Well	
Taxi Light	CHK
Heater Air Intake	CLEAR
Oxygen.....	CHL
Baggage Door.....	CHK/SECURE

Right wing (see Left Wing * as applicable)

*Fuel Tank Sump	DRAIN
*Fuel Vents	CHK
*Flaps/Aileron.....	CHK
*Wing Tip and Lights.....	CHK
*Fuel Qty, Wing Tank.....	CHK/CLOSED
*Wing Tie-down.....	REMOVE
*Engine Cowling.....	CLOSED
*Oil Qty/Filler Cap	CHK/SECURED
min. 8 Qts	
*Cowl Flap.....	CHK
*Landing Gear, Chocks.....	CHK/REMOVE
Door, Wheel, Strut, Brake Line, Wheel Well	

Before Start

Seat/Seat Belts	ADJUST & LOCKED
Parking Brake	as required
Battery/Alternator	BOTH ON
Alt. Undervoltage Lights	ON
Gear	DOWN/3 GREEN
Carburetor Heat	OFF
Cowl Flap	PULL/FULL OPEN
Fuel Selectors & Qty	CHK, then ON
Beacon	ON
Mixtures	FULL RICH
Props	FULL FORWARD

ENG Start with External Power

Normal Checklist Integrated

Left Generator	OFF
Electrical Equipment	OFF
External Power	CONNECT
	14V-Unit: 13,5 - 14,25V
External Power	ON
Left Engine	START
Left Throttle	1/4 OPEN
Left Auxiliary Pump	ON
Left Magneto Switch	PUSH/PRIME POSITION
	3 seconds
Prop. Area	"CLEAR"
Left Mag/Start Switch	START
Left Throttle	1000 RPM
Left Oil Pressure	CHK
External Power	OFF, then DISCONNECT
Left Mixture	LEAN

Continue with Engine Start for Right Engine

Engine Start

- Throttle..... 1/4 OPEN
 Aux. Fuel Pump ON
 Magneto Switch PUSH/PRIME POSITION
3 seconds
 Prop. Area..... “CLEAR”
 Mag/Start Switch..... START
 Throttle..... 1000-1200 RPM
 Oil Pressure CHK
 Aux. Fuel Pump OFF
 • Repeat for other Engine
 Mixtures SET
 Battery/Alternator..... one at a time OFF/CHK/ON
Check Alt. Undervoltage Light On, other Loadmeter picks up load

After Start

- Avionics Master & Radios..... ON
 Transponder TEST/ALT
VFR US: 1200, Europe: 7000
 HSI/Attitude Ind..... SET
 Altimeters..... SET
 Flaps UP
 Aux. Fuel Pump OFF, then ON
 Circuit Breaker..... CHK

 Lights as required
 Flight controls CHK
 Elevator Trim FREE/0°

Run-Up

Brakes.....	SET
Engine Instruments.....	CHK
Fuel Selectors.....	ON
Throttles.....	2200 RPM
Magnetos.....	CHK
	RPM drop \leq 175, differential \leq 50
Prop Governors.....	CHK/BOTH
	100-200 RPM drop
Carburetor Heat.....	CHK/OFF
Throttles.....	1500 RPM
Propellers.....	CHK FEATHER
	RPM drop \leq 500 (cold weather: 3-4 times)
Gyro Pressure/Loadmeters.....	CHK
Throttles.....	IDLE, then 1.000 RPM
Aux Fuel Pumps.....	CHK ON

+ Before Takeoff +

Fuel Selector & Quantity.....	CHK
HDG/Radios/ <i>VOR-Check</i>	CHK/SET
<i>Autopilot (if installed)</i>	OFF
Flaps.....	UP/10°
Trim.....	SET/NEUTRAL
Props.....	FULL FORWARD
Mixtures.....	SET
	DA>3.000 ft: Lean as required
<i>Air Condition (if installed)</i>	OFF
Doors/Windows.....	CLOSED/LOCKED
Tracking/Timing.....	START

Pitot Heat.....	as required
Landing & Strobe Lights.....	ON
V _R	71 kts

+ Climb +

Gear (V_{LR} 113 kts) UP
 Speed 85 kts
 (Best Rate, E/O) - Cruise: 100 kts - Best Angle: 71 kts
 Climb Power 25"/25000 RPM
 Cowl Flaps OPEN as required
 Engine Instruments CHK
 Taxi/Landing Lights as required

+ Cruise +

Cruise Power 18" or 23"/2300 RPM
 max: 24"/2700 RPM
 Mixtures LEAN
 25°F < Peak | max Power: 100°F < Peak
 Fuel Pumps OFF one at a time

+ Descent +

Cowl Flaps CLOSE as required
 Mixtures ENRICH
 if leaned add 3 GPH; >3.000 ft set 15 GPH (2500 RPM ; 15" at TPA)
 Altimeter SET
 Lights ON as required
 Fuel Selectors & Quantity SET/CHK
 Cabin READY
 Windshield Defroster as required

+ Landing +

Carburetor Heat	CYCLE
Gear (V_{LO} 140 kts)	DOWN/3 GREEN
Mixtures	SET
Aux Fuel Pumps	ON
<i>Air Condition (if installed)</i>	<i>OFF</i>
Flaps/Speed	
Flaps Up	87 kts
Flaps 0° - 20° (V_{FE} 120 kts)	kts
Flaps 35° (V_{FE} 110 kts)	76 kts
Props	FULL FWD

+ Landing with Flaps Up +

Approach Speed	87 kts
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+ Go Around +

Props	FULL FWD
Speed (V_Y , E/O)	96 kts
	Obstacle (V_x): 71 kts
Flaps	UP
Gear (V_{LO} 140 kts)	UP
Cowl Flaps	OPEN

After Landing

Flaps	UP
Pitot Heat	OFF
Strobe/Landing Lights	OFF
Trim	SET
Cowl Flaps	OPEN
Heater Switch	BLOWER ONLY
	Min. 5 minutes
Mixture	SET
Tracking/Timing	STOP

Shutdown

Parking Brake	as required
Aux Fuel Pumps	OFF
Transponder/Avionics Master	STBY/OFF
Prop	FULL FORWARD
Throttles	1000 RPM
Mixtures	CUT-OFF
Mags/Start Switches	OFF
All Light and Heat Switches	OFF
Battery & Alternators	OFF
Hobbs Hours	NOTE

Securing the Airplane

Trim.....	NOSE DOWN
	To prevent Rudder Control Lock Damage
Control Lock.....	INSTALL
• if Hot and Parking \leq 2 hours	
Parking Position	A/C INTO THE WIND
Cowl Flap/Cowlings	OPEN
	To assist cooling
Headset/Ext. GPS.....	Remove
Tablet/Kneeboard/Camera(s)	Remove
Charts/Checklists.....	Remove
Windows (Storm/Rear)	CLOSE
Pitot Tube Cover.....	INSTALL
Airplane.....	TIE DOWN, CHOCK, SECURE

ENG Failure

Speed (V_{MCA} 65 kts)	V_{YSE} 85 kts
Power	MAX
	Mixtures – Props – Throttle FORWARD
Gear	UP
Flaps	UP

- if Restart required
 - ___ Fuel Selector
 - ___ Cowl Flaps
 - Carburetor Heat
 - Aux Fuel Pumps
 - Mags
- if Engine does not Start
 - ENG Shutdown/Securing (7)

ENG Fire

- if in Flight
 - ___ Throttle
 - ___ Mixture
 - ___ Fuel Selector
 - ___ Prop
 - ___ Aux Fuel Pump
 - ___ Mags
 - ___ Alternator
- if on Ground/during Engine Start
 - Parking Brake
 - Mixture
 - ___ Engine
 - Fuel Selector
 - Battery & Alternator

Evacuate Airplane

Smoke/Fire

- Vents, Cabin Heat & Air CLOSE/OFF
- if Fire in Engine Compartment
ENG Fire (6)..... CONSIDER
Land as soon as possible
 - if Fire in Cabin or Electrical Fire suspected
 Battery & Alternator..... OFF
 Electrical Equipment ALL OFF
Leave Mags On
Fire extinguisher (if installed).....ACTIVATE
Land as soon as possible
 - if Smoke or Fire OUT
 Vents, Cabin Air OPEN
 Battery ON
 Alternator ON
 Circuit breakersCHK
Do NOT reset
 Essential Electrical Equipment..... ON
 One at a time; turn off all radios prior turning on Avionics Master switch
 Defective Equipment ISOLATE
 Cabin Heat & Air as required
 - if Wing/External Fire
 External Lights & Pitot Heat OFF
 Sideslip PERFORM
Land as soon as possible

Maximum Glide

- Props FEATHER
 Flaps UP
 Gear (V_{LO} 140 kts) UP
 Cowl Flaps CLOSE
 Speed 95 kts

ENG Shutdown/Securing

___ Throttle.....	IDLE
___ Mixture.....	CUT-OFF
___ Prop.....	FEATHER
___ Fuel Selector.....	OFF
___ Aux Fuel Pump.....	OFF
___ Mags.....	OFF
___ Cowl Flap.....	CLOSE
___ Alternator.....	OFF
Speed.....	85 KTS
Electrical Load.....	MONITOR
	100% max on good alternator
<u>ENG Out Cruise</u>	APPLY

ENG Out Cruise

<i>Cruise Power.....</i>	<i>max. 24"/2700 RPM</i>
Mixtures.....	LEAN
	25°F < Peak max Power: 100°F < Peak
Cowl Flaps (Operative Engine).....	as required
Aux Fuel Pump (Operative Engine).....	ON
• if Crossfeed required	
Fuel Selector (Operative Engine).....	CROSSFEED
	Use only in Level Flight
	Do not use if tank on operative side is full
Aux Fuel Pump (Operative Engine).....	as required

ENG Restart

- ___ Fuel Selector..... ON
 ___ Throttle..... 1/4 Travel OPEN
 Aux Fuel Pumps ON
 ___ Mags ON
 Speed 100 kts
 ___ Mixture CUT-OFF
 ___ Prop FULL FORWARD
- if Speed below 100 kts use Starter
 - when Engine windmills
 - ___ Prop Set MIDRANGE
 - if Engines does NOT Start
 - ___ Mixture FULL LEAN
 - if Engines does NOT Start
 - Speed..... min. 85 kts
 - ENG Shutdown/Securing.....APPLY
 - if Engine Starts
 - ___ Mixture FULL RICH
 - ___ Throttle..... 15 inch
 - ___ Prop 2000 RPM
 - ___ Alternator ON
 - Engine Instruments CHK

Emergency Descent

- Throttle..... CLOSE
 Prop 2700 RPM/FULL FWD
 Speed 140 kts
 Gear DOWN/3 GREEN

ELEC Alternator Failure

- Load Meter & Alternator Out LightCHK
- if Load Meter shows NO load
 - Affected Alternator OFF
 - Electrical Load REDUCE
 - Reduce to Single Alternator Capacity
 - Affected Alternator ON
 - if Alternator Out Light Re-Illuminates
 - Affected Alternator OFF
 - if BOTH Alternator Out Light Illuminated
 - ELEC Total FailureAPPLY

ELEC Total Failure

- Alternators BOTH OFF
- Battery OFF
- BUS-ISO CBs BOTH PULL
- Avionics Master OFF
- Non-essential equipment OFF
- Alternators BOTH ON
- GEAR Manual ExtensionAPPLY

Land as soon as possible

GEAR Manual Extension

- Speed max. 100 kts
- Ldg Gear CB PULL
- Gear Lever DOWN
- Extension Valve OPEN
 - Use Emergency Extension Wrench
 - Turn Counterclockwise
- Gear Indication 3 GREEN
 - Inop without Electrical power
- Extension ValveRETURN to VERTICAL
- Caution: Do not move Gear Handle or Reset CB

GEAR Partial/Up Landing

Normal Checklist Integrated

Gear Indication CHK BULBS
 Battery/Alternator CHK ON
 Circuit breakers CHK
 Gear Selector (V_{Lo} 140 kts) consider CYCLE
GEAR Manual Extension (8) APPLY

- Descent/Approach

Cowl Flaps CLOSE
 Mixture ENRICH
 Altimeter SET
 Lights ON as required
 Fuel Selector & Quantity CHK/ON
 Cabin READY
 Windshield Defroster as required
 Flaps/Speed
 Flaps Up 87 kts
 Flaps $0^\circ - 20^\circ$ (V_{FE} 120 kts) ___ kts
 Flaps 35° (V_{FE} 110 kts) 76 kts
 Doors UNLOCK

- if landing is assured

Prop PULL/LOW RPM
 Aux Fuel Pump OFF
 Throttle CLOSE
 Mixture CUT-OFF
 Mags/Ignition OFF
 Fuel Selector OFF
 Battery & Alternator OFF

Speeds

Takeoff & Climb		E/O
V_Y (Best Rate).....	107	99 kts
V_X (Best Angle)	83	91 kts
V_R		kts
Enroute	122	kts
Maneuvering		
V_A		156 kts
V_{SSE}		84 kts
V_{MCA}		65 kts
Operating		
V_{NE}		223 kts
V_{NO}		182 kts
V_{FE}		122 kts
$V_{LE/LO}$		kts
V_{LR}		kts
Descent		E/O
Approach.....		90 kts
Flaps Up Approach		97 kts
V_{GLIDE} (Flaps Up).....		kts
Emergency Descent.....		kts
Max. CWC (demonstrated).....		22 kts

Weights

Fuel Capacity	
Both Tanks.....	USG (usable 136 USG)

Airwork [Cont]

Power Off Stall

Power..... 17"/2300 RPM
 Gear (V_{LO} 140 kts) DOWN/3 GREEN
 Flaps 0° - 10° (V_{FE} 120 kts)..... 10°
 Flaps (V_{FE} 110 kts) FULL
 Speed.....85 kts
 Power..... 17"/FULL FWD
 At first indication of Stall
 Power FULL
 Flaps 20°
 Gear UP
 Path/Speed Recover

Power On Stall (T/O and Departure Stall)

Power..... 17"/FULL FWD
 T/O: Gear (V_{LO} 140 kts) DOWN/3 GREEN
 Speed 71 kts
 DEP: Speed 85 kts
 Power..... 20"/FULL FWD
 At first indication of Stall
 Power FULL
 Gear UP
 Path/Speed Recover

VMC Demo

Power..... 20"/2300 RPM
 LH Engine IDLE
 Slow Down 1 kts/sec
 At first indication of Stall or VMC
 Pitch Nose Down
 Power REDUCE

Before Takeoff

Fuel Selector & Quantity	CHK
HDG/Radios/ <i>VOR-Check</i>	CHK/SET
<i>Autopilot (if installed)</i>	OFF
Flaps	UP/10°
Trim	SET/NEUTRAL
Props	FULL FORWARD
Mixtures	SET
	DA>3.000 ft: Lean as required
<i>Air Condition (if installed)</i>	OFF
Doors/Windows	CLOSED/LOCKED
Tracking/Timing	START

Pitot Heat	as required
Landing & Strobe Lights	ON
V _R	71 kts

Climb

Gear (V _{LR} 113 kts)	UP
Speed	85 kts
	(Best Rate, E/O) - Cruise: 100 kts - Best Angle: 71 kts
Climb Power	25"/25000 RPM
Cowl Flaps	OPEN as required
Engine Instruments	CHK
Taxi/Landing Lights	as required

Cruise

Cruise Power	18" or 23"/2300 RPM
	max: 24"/2700 RPM
Mixtures	LEAN
	25°F < Peak max Power: 100°F < Peak
Fuel Pumps	OFF one at a time

Descent

Cowl Flaps	CLOSE as required
Mixtures	ENRICH
if leaned add 3 GPH;>3.000 ft set 15 GPH (2500 RPM ; 15" at TPA)	
Altimeter.....	SET
Lights	ON as required
Fuel Selectors & Quantity	SET/CHK
Cabin	READY
Windshield Defroster	as required

Landing

Carburetor Heat.....	CYCLE
Gear (V_{LO} 140 kts).....	DOWN/3 GREEN
Mixtures	SET
Aux Fuel Pumps	ON
<i>Air Condition (if installed)</i>	OFF
Flaps/Speed	
Flaps Up.....	87 kts
Flaps 0° - 20° (V_{FE} 120 kts)	kts
Flaps 35° (V_{FE} 110 kts).....	76 kts
Props	FULL FWD

Landing with Flaps Up

Approach Speed.....	87 kts
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Go Around

Props	FULL FWD
Speed (V_Y , E/O).....	96 kts
	Obstacle (V_x): 71 kts
Flaps	UP
Gear (V_{LO} 140 kts).....	UP
Cowl Flaps.....	OPEN