

BE58 QRH



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BE58 Non-Normal Checklist Revision 4

Introduction

The Beech Baron Non-Normal Checklist (NNC) is updated to Revision 4 and is now available in DocStore under [OMB -> BAVirtual Flying Club -> Baron 58](#).

This is a major revision with updated procedures and philosophy. The aims of the revision were to:

- Rationalise procedures and reduce the number of memory items
- More clearly identify memory/immediate action items on the checklist
- Improve consistency of procedures and wording
- Improve procedures in line with current best practice

Full details of the changes are enclosed below. In particular:

- Engine Fire (In Flight) checklist removed and combined with Engine Failure checklist
- Engine Failure/Fire In Flight immediate actions and memory items updated.
- All checklists requiring immediate actions/memory items/quick access now on Page 1 and headed in red
- One Engine Inoperative Landing checklist removed as the procedure is now the same as for an all-engines operating landing.

Checklist Layout and Usage

NNCs are broadly grouped by system. Checklists containing memory items or otherwise requiring quick access are headed in red and are on Page 1.

Immediate Action and Memory steps are shown boxed and in bold text. These items must be committed to memory and are performed by recall without reference to the checklist.

Once all IA/Memory Items are complete and the aircraft is trimmed out in stable flight at a safe height (at or above 1,000ft AGL or circuit height) the checklist may then be consulted. All Memory Items should be read and confirmed and any reference items completed as 'read and do'.

Engine Failure/Fire In Flight Procedure

The first eight items from 'Maintain Directional Control' down to 'Mixture (inop engine).....Idle Cut Off' are considered 'immediate action' items. It is imperative that these actions are completed instinctively and without delay. They are designed to ensure that climb performance is available.

The bolded items below 'when safe to do so' are memory items and must be completed by recall as soon as the aircraft is in stable flight, climbing away and trimmed for V_{YSE} . These secure the engine, ensure the fuel supply is shut off, and if there is a fire ensure prompt action is taken to attempt to extinguish.

The “IF no fire” items are reference items. Providing the aircraft is at or above 1,000ft AGL or circuit height and trimmed out in stable flight, the NNC should then be consulted. The memory items from “When safe to do so” should be read and confirmed before moving on to the “If no fire” items.

Engine Fire or Severe Failure (In Flight)	Engine Failure / Fire In Flight
<p>When aircraft under control:</p> <p>Flaps Full UP</p> <p>Landing gear Up</p> <p>———— Identify failed engine or engine fire</p> <p>Throttle (inop. engine) Closed</p> <p>Propeller (inop. engine) Feather</p> <p>Mixture (inop. engine) Idle cut-off</p> <hr/> <p><i>When safe to do so:</i></p> <p>Flaps UP</p> <p>Fuel selector (inop. engine) Off</p> <p>Fuel boost pump (inop. engine) Off</p> <p>Magneto (inop. engine) Off</p> <p>Alternator (inop. engine) Off</p> <p>Cowl flap (inop. engine) Closed</p> <p>Land at nearest suitable airfield</p>	<p>Maintain directional control</p> <p>Mixtures (both) Full RICH</p> <p>Pitch Levers (both) Full FINE</p> <p>Throttles (both) Full OPEN</p> <p>Flaps UP</p> <p>Landing Gear UP</p> <p>Identify failed engine</p> <p>Throttle (inop engine) CLOSE</p> <p>Propeller (inop engine) FEATHER</p> <p>Mixture (inop engine) Idle Cut-off</p> <p>When safe to do so:</p> <p>Fuel Valve (inop engine) OFF</p> <p>Fuel Boost Pump (inop engine) OFF</p> <p>Magnetos (inop engine) OFF</p> <p>Alternator (inop engine) OFF</p> <p>Check for Fire</p> <p>IF fire:</p> <p>Cowl Flap (inop engine) OPEN</p> <p>Airspeed Increase to blow out fire</p> <p>ATC Inform</p> <p>Land at nearest suitable airfield</p> <p>IF no fire:</p> <p>Cowl Flap (inop engine) CLOSE</p> <p>Cowl Flap (live engine) As Rqrd</p> <p>Prop Sync OFF</p> <p>Electrical load Reduce</p> <p>Crossfeed Consider</p> <p>ATC Inform</p> <p>Land at nearest suitable airfield</p>

Rejected Take-Off	Rejected Take-Off
<p>Throttles (both) Closed</p> <p>Brakes Maximum</p> <p>———— When stopped:</p> <p>Park Brake ON</p> <hr/> <p><i>If possible clear runway, Then, if necessary:</i></p> <p>Fuel selectors Off</p> <p>Magnetos Off</p> <p>Alternators Off</p> <p>Battery Off</p> <p><i>Consider aircraft evacuation</i></p>	<p>Throttles (both) CLOSE</p> <p>Brakes MAXIMUM</p> <p>———— When stopped:</p> <p>Park Brake ON</p> <p><i>If possible and safe, vacate runway. If evacuation required, do the EVACUATION checklist.</i></p>

Engine Fire (Parked)	Engine Fire On Ground
<p>Mixture controls Idle Cut-off Starter (affected engine) Crank Fuel Selector Valves Off Magnetos Off Alternators Off Battery Off</p> <p style="background-color: yellow;">Evacuate aircraft without delay</p> <p><i>If no available Fire Service, and with due regard to personal safety, attempt to extinguish fire with aircraft extinguisher</i></p>	<p>Mixtures (both)..... Idle Cut-off Starter (affected engine)..... Crank Fuel Valves..... OFF Magnetos OFF Alternators OFF Battery..... OFF Evacuation CONSIDER</p> <p style="text-align: center;"><i>If evacuation required, do the EVACUATION checklist.</i></p>

One Engine Inoperative Landing
<p><i>When descending on final to runway:</i></p> <p>Landing gear Down Flaps 15° Set Airspeed 107 knots Rudder trim zero Power As req'd</p> <p><i>When landing assured (by 400' aal latest):</i></p> <p>Flaps 30° Set Airspeed 95 knots</p> <p><i>Execute normal landing</i></p> <p><i>If go-around:</i></p> <p>Power Max controllable — Use 5° bank towards live engine Flaps Up One Stage Landing gear UP Airspeed Min 100 knots Steady Climb Flaps UP</p>

One Engine Inoperative Missed Approach
<p>Power MAX CONTROLLABLE Use 5° bank towards live engine Flaps UP one stage Landing Gear UP when positive rate Flaps UP</p>

Air Restart

Note: Restart should only be attempted after confirming no engine damage exists.

Fuel Valve ON
Throttle OPEN ¼
Mixture FULL RICH
Fuel Boost Pump..... LOW
Magnetos BOTH
Pitch Lever Forward of feathering detent

IF propeller does not unfeather or engine does not turn:

Magneto Start Switch START

AFTER engine starts:

Throttle, Propeller and Mixture.....ADJUST
Operate engine at approx 15" MAP and 1500rpm until warm

Fuel Boost Pump.....OFF
Alternator ON
Oil Pressure..... CHECK
Temperatures & Pressures CHECK
Power..... As Reqd
Trim..... As Reqd

Landing Gear Manual Extension

Airspeed MAX 152 KT

Note: Manual extension of the gear can be facilitated by first reducing the airspeed as much as practical.

Landing Gear Motor CB PULL
Landing Gear Lever..... DOWN
Handcrank Handle Cover..... REMOVE
Handcrank ENGAGE AND TURN ANTICLOCKWISE AS FAR AS POSSIBLE
Approximately 50 turns required

IF the electrical system is operative:

LDG GR WARN CB..... Check IN
LDG GR POS LTS CB..... Check IN
Landing Gear Indicator Lights..... 3 GREEN

Check that the gear warning horn does not sound when either throttle retarded to idle

Handcrank DISENGAGE, then STOW

Do not move the Landing Gear Lever or reset the LANDING GEAR MOTOR Circuit Breaker

The landing gear should be considered UNLOCKED until maintenance action completed.

Fuel Crossfeed

Fuel Boost Pump (Operating Engine)..... ON
Fuel Valve (Inop Engine) OFF
Fuel Valve (Operating Engine) CROSSFEED
Fuel Boost Pump (Operating Engine).....As Req'd

Ice Protection System

*Surface De-ice System Auto Mode fail:
Surface De-ice Switch..... Manual
Hold in Manual position for max 8 secs.
Boots will deflate when moved away from 'Manual'*

If boots fail to inflate, pull Surface De-Ice C/b on Pilot's sidewall panel. If boots Re-inflate when C/b is reset, then use C/b as the manual surface de-ice switch.

Do NOT cycle the inflation of the de-ice boots until ice has built up. Too rapid cycling will create a hollow under the ice which the boots will be unable to clear.

Exit icing conditions as soon as possible.