

N830EH – Normal Checklist

Engine Starting

Preflight Inspection COMPLETE
Passenger Briefing COMPLETE
Seat Belts ADJUST AND LOCK
Parking Brake SET
Electrical Equipment OFF
Master Switch ON
Nav Lights ON
Propeller Area CLEAR
Canopy LATCH AND LOCK
Throttle OPEN ¼"
Fuel Valve ON
Mixture RICH
Starter ENGAGE
Oil Pressure CHECK (5 SECONDS)
Throttle 1,200 RPM
Avionics Master ON
Flaps RETRACT
Mixture LEAN

Before Takeoff

Parking Brake SET
Flight Controls CHECK
Instruments CHECK/SET
GPS, Radio, Transponder SET
Autopilot TEST
Mixture AS REQUIRED
Throttle 2,000 RPM
Magnetos CHECK
Engine Instruments CHECK
Throttle IDLE CHECK
Throttle 1,200 RPM
Trim SET
Canopy LATCHED and LOCKED

Normal Takeoff

Canopy VERIFY LOCKED
Flaps UP
Lights ON
Mixture AS REQUIRED
Throttle FULL OPEN
Elevator LIFT TAIL
Rotate 57 KIAS
Initial Climb XX KIAS (V_r)

Short Field Takeoff

Canopy VERIFY LOCKED
Flaps XX
Lights ON
Mixture AS REQUIRED
Brakes SET
Throttle FULL OPEN
Brakes RELEASE
Elevator LIFT TAIL SLIGHTLY HIGH
Rotate 52 KIAS
Initial Climb XX KIAS (V_r)
Airspeed Over Obstacle XX KIAS (V_r)
Flaps UP

Climb

Airspeed XX – XX KIAS
Lights AS REQUIRED
Mixture AS REQUIRED

Cruise

Power SET
Lights AS REQUIRED
Mixture AS REQUIRED
Fuel Quantity MONITOR

Before Landing

Fuel Valve VERIFY ON
Mixture AS REQUIRED
Seat Belts SECURED
Lights ON
Autopilot OFF

Normal Landing (3-Point)

Traffic Pattern Airspeed 80 KIAS
Flaps AS REQUIRED
Final Approach Airspeed 60–65 KIAS
Throttle CLOSED
Touchdown FULL STALL - STICK BACK
Brakes AS REQUIRED

Normal Landing (Wheel Landing)

Traffic Pattern Airspeed 80 KIAS
Flaps AS REQUIRED
Final Approach Airspeed 60 KIAS
Throttle CLOSED
Touchdown MAIN WHEELS FIRST
Landing Roll STICK BACK SLOWLY
 LOWER TAIL GENTLY
Brakes AS REQUIRED

Short Field Landing

Traffic Pattern Airspeed 70 KIAS
Flaps 30°
Final Approach Airspeed 52–57 KIAS
Throttle CLOSED
Touchdown FULL STALL - STICK BACK
Brakes AS REQUIRED

Balked Landing

Throttle FULL OPEN
Climb Attitude ESTABLISH POSITIVE
Flaps RETRACT TO 10°
Climb Airspeed XX–XX KIAS
Flaps RETRACT

After Landing

Flaps RETRACT
Lights AS REQUIRED
Pitot Heat OFF
Trim RESET
Mixture AS REQUIRED

Shutdown

Parking Brake SET
Avionics Master Switch OFF
Electrical Switches OFF
Mixture CUTOFF
Fuel Valve OFF
Ignition Switch OFF
Aircraft Times NOTE
Master Switch OFF
ELT VERIFY OFF
Control Stick SECURED
Aircraft SECURED
(TIE DOWNS, CHOCKS, COVERS)

[INSERT CRUISE POWER TABLE HERE]

Airspeeds for Normal Operation

Takeoff Rotation 52 - 57 KIAS
Normal Climb XX-XX KIAS
Best Rate-of-Climb (V_r) XX KIAS
Best Angle-of-Climb (V_x) XX KIAS
Normal Landing (0°) 65 KIAS
Normal Landing (30°) 60 KIAS
Short-Field Landing (30°) 52 KIAS
Maneuvering Speed (V_A) 108 KIAS
Max Cruise Speed (V_{NO}) 118 KIAS
Never Exceed Speed (V_{NE}) 171 KIAS
Max Crosswind Component 15 KIAS

N830EH – Emergency Checklist

Engine Fire During Start

Mixture CUTOFF
Fuel Valve OFF
Throttle FORWARD
Starter CRANK

Engine Failure Immediately After Takeoff

Airspeed 70 KIAS
Mixture CUTOFF
Fuel Valve OFF
Ignition Switch OFF
Flaps AS REQUIRED
Master Switch OFF

Engine Failure In Flight

Airspeed BEST GLIDE, 70 KIAS
Mixture AS REQUIRED
Fuel Valve ON
Ignition Switch CHECK L, R, BOTH

NOTE: If the propeller is windmilling, the engine will restart automatically within a few seconds. If the propeller has stopper, turn the ignition switch to START, advance throttle slowly from idle, and lean the mixture from full rich as required for smooth operation.

Engine Fire In Flight

Fuel Valve OFF
Mixture IDLE CUTOFF
Ignition Switch OFF
Master Switch OFF
Airspeed 70 KIAS

*If fire is not extinguished,
increase airspeed*

Cabin Vents CLOSE
Landing Site SELECT
Forced Landing Procedure EXECUTE

Emergency Landing Without Engine Power

Emergency DECLARE
Fuel Valve OFF
Mixture IDLE CUTOFF
Ignition Switch OFF
Master Switch OFF
Airspeed 60 KIAS
Landing UPWIND, FULL STALL
Brakes APPLY HEAVILY
ELT ACTIVATE

Precautionary Landing With Engine Power

Airspeed 74 KIAS
Selected Field FLY OVER
AND INSPECT
Emergency DECLARE
Wing Flaps AS REQUIRED
Approach 60 KIAS
Master Switch OFF
Landing UPWIND, FULL STALL
Ignition Switch OFF
Brakes APPLY HEAVILY
ELT ACTIVATE

Ditching

Emergency DECLARE
Wing Flaps 30°
Power 300 Ft/Min
AT 60 KIAS
Approach Heavy Winds: INTO WIND
Light Winds: PARALLEL TO SWELLS
Touchdown LEVEL ATTITUDE
Master Switch OFF
ELT ACTIVATE
Airplane EVACUATE

Landing With a Flat Tire

Approach NORMAL
Wing Flaps 30°
Touchdown GOOD TIRE FIRST
Hold airplane off flat tire with aileron

Voltage/Amperage Issues

Alternator Reset Button PUSH
Voltage Gauge CHECK

*If voltage and/or amperage still
abnormal:*

Nonessential Equipment OFF
Flight TERMINATE

Airspeed/Altitude/ Attitude Unreliable

Autopilot DISCONNECT
Pitot Heat ON

Autopilot Fault

Autopilot DISCONNECT
Aircraft FLY MANUALLY

Autopilot Jam

Autopilot DISCONNECT
Flight Controls APPLY BREAK-AWAY
FORCE
Aircraft FLY MANUALLY
Autopilot PULL C/B

NOTE: When pilot applies force to flight control system, shear screw will break and safely disconnect flight controls from malfunctioning Autopilot servo. Once shear screw breaks, pilot needs to relax flight control input to avoid over correction. The flight controls will then operate normally.

Spin Recovery

Power IDLE
Ailerons NEUTRAL
Rudder FULL RUDDER
OPPOSITE ROTATION
Elevator STICK FORWARD
BRISKLY AFTER ¼ TURN
Controls NEUTRALIZE

Airspeeds for Emergency Operation

Maneuvering Speed (V_A) 108 KIAS
Best Glide Speed 70 KIAS
Emergency Landing 60 KIAS

*Bold faced type indicates immediate
action items*