

RV-10

N423CF

Checklist



Operational Checklist RV-10 N423CF

AIRSPEDS FOR SAFE OPERATION

Stall – Full Flaps (Vs0) 48 KIAS
 Stall – No Flaps (Vs1)..... 58 KIAS
 Best Glide (Vgl)..... 80 KIAS

Take-off
 Lift-off..... 65 KIAS

Maximum Climb
 Best Angle (Vx) 78 KIAS
 Best Rate (Vy)..... 85 KIAS

Climb 105 KIAS
 Cruise Climb..... 115 KIAS

Maneuvering Speed (Va) 125 KIAS
 Max "G" + 3.6 to -1.9
 Max Cruise 155 KIAS
Do Not Exceed 200 KIAS

Pattern Speed 90 KIAS
 Flaps Extended (1/2 and full)..... 95 / 87 KIAS
 Landing Approach (flaps)..... 65 - 70 KIAS
 No Flaps..... 70 - 75 KIAS
 Go Around 100 KIAS

Max Crosswind 15 KIAS

POWER PLANT DATA

LYCOMING IO-540-C4B5
 TYPE 6 CYL / FUEL INJECTED
 HORSEPOWER 260
 FUEL REQUIREMENT 100 LL

Preflight

PREFLIGHT INSPECTION

COCKPIT CHECK

Control Lock.....REMOVE
All Switches OFF

EXTERIOR CHECK

RIGHT FUSELAGE

Static Air Port.....CLEAR

TAIL

Control SurfacesCHECK
Tie Down.....REMOVE
Position Light.....CHECK

LEFT FUSELAGE

Baggage Door.....CLOSED
Static Air Port.....CLEAR
All Antennas.....CHECK

LEFT WING TRAILING EDGE

Flap.....CHECK
Fuel Vent Line UNOBSTRUCTED
Aileron.....CHECK
Wing Tip.....CHECK
Position Light.....CHECK

LEFT WING LEADING EDGE

Pitot Tube.....CHECK, (Remove Cover)
Fuel Tank.....CHECK QUANTITY & SECURE

LEFT LANDING GEAR

Tire and Brake.....CHECK
Chocks.....REMOVE
Fuel Sump.....DRAIN

NOSE SECTION

Left Cowl.....SECURE
Induction Air Intake.....CLEAR
Propeller.....CHECK
Tire and Nose Gear.....CHECK
Chocks.....REMOVE

Engine Oil CHECK - Cap & Dipstick SECURE
Right Cowl..... SECURE

RIGHT LANDING GEAR

Tire and BrakeCHECK
Chocks REMOVE
Fuel Sump.....DRAIN

RIGHT WING LEADING EDGE

Fuel Tank..... CHECK QUANTITY & SECURE
AOA PortCHECK
Wing Tip.....CHECK
Position / Landing Light.....CHECK

RIGHT WING TRAILING EDGE

AileronCHECK
Flap.....CHECK
Fuel Tank Vent Line.....UNOBSTRUCTED

PITOT HEAT.....CHECK

BEFORE STARTING

SeatsPOSITION AND LOCK
All Panel Switches.....OFF
Circuit Breakers IN
Flaps.....CENTER POSITION
Master Switch..... Batt
EIS.....CHECK ON
.....

Preflight

Start

STARTING

Cold Start

Mixture FULL RICH
Throttle OPEN
Fuel Boost Pump ON (1 - 3 sec. then OFF)
Mixture OFF
Throttle Open ¼"
Start Switch START
Mixture FULL RICH (on start)
Throttle IDLE SPEED

EIS Engine Instruments

Oil Pressure 25 psi (30 seconds)
Fuel pressure 12 psi min
Warm-up 1000 to 1200 RPM
Alternator ON

Hot Start

Mixture OFF
Throttle FAST IDLE
Start Switch ENGAGE
Mixture ADVANCE SLOWLY
(when engine starts running smoothly)

Flooded Engine

Mixture OFF
Throttle FULL OPEN
Starter Switch ENGAGE
When engine starts
Throttle IDLE
Mixture ADVANCE SLOWLY

AFTER STARTING AND BEFORE TAXI

Avionics Master ON
GRT ON
Nav & Strobe Lights AS REQUIRED
Landing Lights AS REQUIRED
Trim CHECK & SET
Flaps SET TO 0°
Brakes CHECK

BEFORE TAKEOFF

Doors SECURE
Annunciators CHECK
Seat Belts CHECK
Flight Controls CHECK FREE & CORRECT
Autopilot Disconnect CHECK
Avionics SET
Pitot Heat AS REQUIRED
Flight Instruments CHECK AND SET
Throttle 1700 RPM
Magnetos 175Max/50 Dif
Prop CYCLE
Mixture SET
Engine Instruments CHECK
Throttle IDLE
Elevator Trim CHECK
Flaps CHECK 0°
Mixture AS REQUIRED
Fuel Pump ON

TAKEOFF

Takeoff & CLIMB Full Throttle
Rotate 65 KIAS
Climb 100-110 KIAS
Best Angle 78 KIAS
25" / 2650 RPM thru 1000'
23" / 2400 RPM for extended climbs

Before Takeoff

Shutdown

AFTER LANDING

Fuel Pump.....OFF
Landing Lights.....AS REQUIRED
Flaps.....FULL DOWN
Pitot Heat.....OFF
Trim Tab.....SET TO 0°

SHUTDOWN

Engine.....IDLE TO COOL DOWN
Lights.....OFF
Avionics Master.....OFF
Alt.....OFF
Prop.....MAX RPM
Throttle.....IDLE
Mixture.....FULL LEAN
All Switches.....OFF
Control Lock.....INSTALL
Aircraft.....TIE DOWN

Cruise Landing

Flaps.....UP

CLIMB

Fuel Pump.....OFF (> 1,000AGL)
CHT..... $\leq 435^{\circ}$
Oil Temp..... $\leq 220^{\circ}$

CRUISE

Fuel Pump.....CHECK OFF
Power.....SET
Mixture.....LEAN

DESCENT

Altimeter.....SET
Power.....AS REQUIRED
Mixture.....RICHEN AS REQUIRED
Fuel Selector.....SELECT FULLEST TANK

BEFORE LANDING

Seat Belts.....SECURE
Fuel Pump.....ON
Fuel Selector.....CHECK / SET FULLEST TANK
Mixture.....FULL RICH (as required)
Landing and Taxi Lights.....AS REQUIRED
Flaps.....DOWN
Airspeed.....65 – 70 KIAS

GO-AROUND

Mixture.....FULL RICH (or as required)
Prop.....MAX RPM
Power.....FULL THROTTLE or 2700 RPM
Airspeed.....90 KIAS
Flaps.....UP

--- EMERGENCY PROCEDURES ---

ENGINE FIRE ON THE GROUND

- MAGNETO / START SWITCH START
- FUEL SELECTOR OFF
- THROTTLE OFF
- MIXTURE OFF

If Fire Continues

- MAGNETO / START SWITCH OFF
- BATTERY & ALT Switch OFF

Exit aircraft and extinguish with fire extinguisher

ENGINE FAILURE ON TAKEOFF (NOT AIRBORNE)

- THROTTLE CLOSED
- BRAKES MAXIMUM

If unable to land on runway

- LAND STRAIGHT AHEAD (45° MAX TURN)
- AIRSPEED 75 – 85 KIAS
- PANEL SWITCHES OFF (*PRIOR TO LAND*)
- START SWITCH OFF
- FUEL SELECTOR OFF
- MIXTURE OFF

ENGINE FAILURE IN FLIGHT

- AIRSPEED 75 – 85 KIAS
- FUEL PUMP ON
- FUEL SELECTOR SELECT OTHER TANK
(Check to feel detent and check visually)
- MIXTURE FULL RICH
- THROTTLE FAST IDLE
- START SWITCH BOTH
..... *(START if prop stopped)*

NOTE

When engine starts, adjust throttle & mixture controls
The most probable cause of engine failure would
be loss of fuel flow or improper functioning of the ignition
system.

IF NO RESTART

MAYDAY CALL & SQUAWK 7700

- MAX RANGE GLIDE SPEED 80 KIAS
- THROTTLE IDLE
- FUEL SELECTOR OFF
- MIXTURE OFF
- MAG SWITCH OFF
- FUEL PUMP OFF

When certain of reaching the selected landing site:

- AIRSPEED 75 kts
- FLAPS AS REQUIRED
- ALL PANEL SWITCHES OFF

EMERGENCY AIRSPEEDS

- EMERG DESCENT 175 kts
- BEST GLIDE 80 kts
- EMERG APPROACH 75 kts

ENGINE DISCREPANCY CHECKS

ROUGH RUNNING ENGINE

- FUEL PUMP ON
- MIXTURE FULL RICH, then LEAN as req'd
- MAG SWITCH CHECK LEFT, RIGHT,
..... then BOTH

LOSS OF ENGINE POWER

- FUEL FLOW / PRESSURE CHECK
- If fuel flow is abnormally low:**
- MIXTURE FULL RICH
- FUEL PUMP ON (Lean as required)
- FUEL QUANTITY CHECK TANK
- If tank being used is empty:**
- FUEL SELECTOR SELECT OTHER TANK

(feel for detent and check visually)

ENGINE FIRE IN FLIGHT

- FUEL SELECTOR..... OFF
- MIXTURE..... OFF
- THROTTLE..... IDLE
- CABIN AIR CONTROL PULL OFF
- MASTER SWITCH OFF
- Do not attempt to restart engine

WARNING

The ventilation controls must be closed to shut off all heating system outlets so that smoke and fumes will not enter the cabin.

SPIN RECOVERY

- CONTROLS..... RELEASE
- If Spin Continues***
- THROTTLE IDLE
- STICK..... CENTER
- RUDDER..... FULL OPPOSITE SPIN
- RECOVER FROM DIVE

EMERGENCY DESCENT

- Throttle IDLE
- Airspeed..... ESTABLISH 175 KIAS
- (slower for rough air)*

MAXIMUM GLIDE CONFIGURATION

- Flaps UP
- Airspeed 80 KIAS

NOTE

Glide distance (in Zero Wind Conditions) is approximately 1.7 nautical miles per 1000 feet of altitude

EMERGENCY LANDING

- AIRSPEED 75 KIAS
- THROTTLE..... IDLE
- FUEL SELECTOR..... OFF
- MIXTURE..... OFF
- FLAPS AS REQUIRED
- ALL PANEL SWITCHES OFF
- SEAT BELTS SECURE
- DOORS..... UNLATCH (prior to landing)

Emergencies

Emergencies



Fuel & Power Chart -- Lycoming IO-540-D (260 HP)

Press Alt	Std. Alt	Temp Deg F	143 HP - 55% Rated				169 HP - 65% Rated				195 HP - 75% Rated			
			Approx Fuel	10-12 GPH	2100	2200	2300	2400	Approx. Fuel	12-14 GPH	2100	2200	2300	2400
SL	59		22.3	21.5	20.7	19.8	25.3	24.1	23.2	22.2	26.9	25.8	24.8	24.0
1	55		22.1	21.3	20.5	19.6	25.1	23.9	22.9	22.0	26.6	25.5	24.5	23.7
2	52		21.9	21.0	20.3	19.4	24.8	23.6	22.7	21.8	26.3	25.3	24.3	23.5
3	48		21.7	20.8	20.0	19.2	24.5	23.4	22.5	21.6	26.0	25.0	24.0	23.2
4	45		21.4	20.6	19.8	19.0	24.2	23.1	22.2	21.4	FT	24.7	23.8	22.9
5	41		21.2	20.3	19.6	18.8	24.0	22.9	22.0	21.1	--	FT	23.5	22.7
6	38		21.0	20.1	19.4	18.6	FT	22.6	21.7	20.9	--	FT	22.4	
7	34		20.7	19.9	19.1	18.4	--	22.4	21.5	20.7	--	--	FT	
8	31		20.5	19.6	18.9	18.2	--	FT	21.2	20.5				
9	27		20.3	19.4	18.7	18.0	--	--	FT	20.3				
10	23		20.0	19.2	18.5	17.7	--	--	FT					
11	19		FT	18.9	18.2	17.5								
12	16		--	FT	18.0	17.3								
13	12		--	--	17.8	17.1								
14	9		--	--	FT	16.9								
15	5		--	--	--	FT								

To maintain constant power, correct manifold pressure approximately 0.17" Hg for each 10 Deg F variation in carburetor air temperature from standard altitude temperature. Add manifold pressure for air temperature above standard; subtract for temperatures below standard.

FT = Full Throttle