

LFC AT-3 - Preflight

LFC AT-3 Engine Start & Landing

Cockpit

Battery	Off
Control lock	Remove
Flight Controls	Full & Free
Trim Tab	Check
Flaps	Down
Carb Heat	Off
Fuel shutoff valve	In
Fuel Pump	Off
Ignition	Off/Key Out
Avionics	Off
Generator	Off
Battery	On
Fuel	Check Gauge
Lights	On & Check
Stall Warner	Check
Lights (except beacon)	Off
Battery	Off

Port Side

General	Check
Flap	Hinges/Play/Nut
Aileron	Hinges/Play
Pitot (Dynamic & Static)	Check
Pitot Drains	Check
Inspection Flap	Closed/Locked
Tyre/Spat	Condition
Brake Lines	No leaks/Condition

Rear Fuselage/Tail Section

General	Check Wire Locking Nuts
Tailplane surface	Check/Rattle
Fin Surface	Check
Elevator	Check/Lateral
Rudder	Check
Beacon/nav light/aerials	Check
Elevator/trim tab	Check
Fin Surface	Check
Inspection Flaps	Closed/locked

Starboard Side

General	Check
Flap	Hinges/Play/Nut
Aileron	Hinges/Play
Inspection Flap	Closed/Locked
Tyre/Spat	Condition
Brake Lines	No leaks/Condition

Front Fuselage

Windscreen	Clean/Cracks
Engine Oil Level	Gurgle & Check
Exhaust	Check (no cracks)/Springs
Propeller & Spinner	Condition
Coolant & Brake Fluid	Check
Fuel Tank	Quantity/Cap Locked
Fuel drain	Check
Transponder Antenna	Check
Landing gear/Shock	Check
Air intakes	Check

Internal Pre - Start

External check	Complete
Luggage	Stow & Secure
Seats, belts	Adjust and Lock
Canopy	Close & Lock – Pins
Battery	On
Generator	On
Fuel Quantity	Sufficient
Ignition	Off
Alternator	Off
All Electrics (except beacon)	Off
Flaps	Up
Instruments	Check Glass Etc
Circuit breakers	Check In
Parking Brake	Off

Starting Engine

Parking Brake	OFF
Throttle	Closed (1/4" for Hot Start)
Fuel shut off valve	In
Oil Flap	As Required
Choke	Out (Cold Start Only)
Fuel Pump	On/Check Pressure
Propeller area	Clear
Toe Brakes	ON
Ignition	Crank (Max 10 Sec)
Oil Pressure	Rising
Brakes	Holding
Throttle	2000 rising to 2500 RPM
Starter warning light	Out
Oil Pressure	Rising -10 secs
Choke	In
Alternator	On
Attitude Indicator	On
DI & Turn Co-ord	On
Fuel Pump	Off
Engine Instruments	Check
Generator Warning Light	Out
Alternator Warning Light	Out
Oil Temp	Min 50C before power
Radio/nav equip	On
Instruments	Check
Attitude Indicator	Erect

Power Check

Brakes	On
T & P	Check (Oil Min 50C)
Throttle	4000 rpm
T& P	Green
Magnetos	max drop 300/120
Carb Heat	Hot (check gauge)
Carb Heat	Cold (check gauge)
Throttle	Max Static Power (5300 rpm)
Throttle	2500 rpm
Temp/Pressures	Green

Pre-Departure Check

Trimmer	Set for Take Off
Throttle friction	Set
Fuel	Choke Off, Contents OK? Tank?
Fuel Pump	On, Pressure OK?
Flaps	Set 15
Mags - Ignition	Both ON
Carb Heat	Cold
Gen & Alt	On
Gyros	Set – Cross Check
Gauges	Green
Hatches	Closed & Locked
Harness	Tight
Controls	Full & Free
Strobes	ON
Nav aids/GPS	SET
Transponder	ON
Take-off emergency	Brief

After Landing

Flaps	Up
Carb Heat	Off
Fuel Pump	Off
Strobes/Lights	Off
Radio/nav equip	As required

Closing Down

Gyros, Radio & Avionics	Off
Magnetos	Check
Throttle	Idle
Magnetos	Off/Key out
Battery	Off
Generator	Off
Alternator	Off
Flying Controls	Control Lock In

LFC AT-3 - Emergencies

Reference

Engine failure

TAKEOFF ABORT

Throttle	IDLE
Brakes	apply
Flaps	UP
Fuel Valve	Pull to Shut
Ignition	OFF
Master switch	OFF

AFTER TAKEOFF

Airspeed	60 KIAS
Flaps	As Required
Fuel Valve	Pull to Shut
Ignition	OFF
Battery	OFF
Alternator	OFF
Generator	OFF

DURING FLIGHT

Airspeed	65 KIAS
Fuel Quantity	Check
Fuel Shutoff Valve	Push to Open
Fuel Pump	ON
Carb Heat	ON
Ignition	BOTH (or START)

Airspeed	65/60 (flaps)
Seatbelts	Tight
Canopy	Unlock
Fuel Valve	Pull to shut
Ignition	OFF
Flaps	as required
Mayday	Transmit 121.5
Battery, Gen & Alt	OFF

Engine Fire during start

Fuel Valve	Pull to Shut
Throttle	Full Open
Ignition	OFF
Battery, Gen & Alt	OFF
Evacuate	Immediately

Engine Fire during flight

Airspeed	65KIAS
Fuel valve	Pull to Shut
Throttle	Full Open
Ignition	OFF
Battery	OFF
Generator	OFF
Alternator	OFF
Cabin heat/air vents	Shut
Sideslip & Land	Immediately

Generator/Alternator failure

Circuit Breakers	Check & Reset
Generator	OFF
Non-Essential	OFF

Short field take-off

Take-off checklist	Complete
Taxi	Max Runway
Brakes	Set and Hold
Flaps	15°
Throttle	FULL
Brakes	Release
Lift Off	42 KIAS
Climb	59 KIAS
Flaps	Retract when clear
Airspeed	65 KIAS

Short field landing

Pre-landing check	Complete
Approach	54 KIAS
Flaps	40°
Throttle	Maintain Glide
Touchdown	Power Off
Flaps	UP
Elevator	Full up
Braking	Heavy as required

Go-around

Throttle	FULL
Carb Heat	Cold (IN)
Flaps	UP
Airspeed	65 KIAS

Loading

Max T/O Mass	582 kg
Min T/O Mass	409 kg
Empty Weight	364 kg
Max Baggage	30 kg
Useable Fuel	70 litres = 50 Kg
Fuel	MOGAS/100LL

Mogas	10 Lit = 7.2 Kg
Max Oil	3.5l
Min Oil	2.5l
Oil Type	Shell VSX 4T (10W-40)
ICAO TYPE	AAT3 (For Flight Plans)

Engine

Max Ground	5300
Max T/O (5 Min)	5800
Max Continuous	5300
Cruise	4200-5000
	4200
84 KIAS	4400
	4600
102 KIAS	4800
105 KIAS	4900
	5200
70 KIAS	Max Endurance
Consumption	18lph

V-Speeds (KIAS)

Rotate	V _r	42
Best Angle (15 Flaps)	V _x	59 (54)
Best Rate (15 Flaps)	V_y	65 (59)
Manoeuvre	V _a	112
Flaps	V _{fe}	85
Normal max	V _{no}	112
Never exceed	V _{ne}	127
Climb		70-80
Stall (land)	V _{so}	44
Final Approach	Flaps (T'hold)	60 54
	No flaps	65
Max Glide		65
Stall – Flaps		44
Stall – Clean		52

