C 172 ROCKET

Operator: Fliegergruppe Wien im österreichischen AERO- Club A -2540 Bad Vöslau Flugplatz www.fliegergruppe.at
OE-DLP: SN: FR 17200179
BJ. 1970
Motornummer: 808839-R Continental 10-360-D B 20
Prop Mc. Cauley D2A 34C 67

OE-DLP

CESSNA - FR 172 G– ROCKET

Checkliste – Bordexemplar
Darf NICHT vom Flugzeug entfernt werden.

PREFLIGHT INTERIOR+EXTERIOR

Remove pitot cover
Control lock removed and stowed
Ignition OFF
Electrical equipment OFF
Master switch ON
Check fuel gauges
Pitot heat ON, check amp meter
Check interior lights
Exterior lights ON
Check exterior lights
Check Pitot heat temperature
Exterior lights and pitot heat OFF
Master switch OFF
Fuel selector valve BOTH
Fuel shutoff valve OPEN

PREFLIGHT EXTERIOR

Left main gear
Wheel fairing
Tire condition, pressure, position mark
Brake, hydraulic line

Left fuselage
Antennas
Baggage door
Static port

Tail
Elevator & rudder (freedom of movement, hinges)
Trim - tab
Position light

Right fuselage
Static port

Right main gear
Wheel fairing
Tire condition, pressure, position mark
Brake, hydraulic line

Right wing
Drain fuel sump
Wing flap
Aileron (freedom of movement, hinges, control linkage, security)
Wing tip, position light
Wing leading edge, top- and bottom surface
Fuel filler cap

Nose section
Propeller surface
Spinner
Air inlets

Nose gear
Wheel fairing
Tire condition, pressure, position mark

Engine bay
Engine oil level
Drain fuel strainer

Left wing
Wing leading edge, top- and bottom surface
Fuel filler cap
Fuel vent line
Pitot tube (cover removed)
Stall warning
Landing light
Wing tip, position light
Aileron (freedom of movement, hinges, control linkage, security)
Wing flap
Drain fuel sump

CHECK BEFORE ENGINE START

1	Preflight check	COMPLETED	1
2	Baggage and tow bar	SECURED	2
3	Doors	CLOSED + LOCKED	3
4	Seats and seatbelts	ADJUSTED	4
5	Parking brake	SET	5
6	Flight controls	CHECKED	6
7	Clock	SET	7
8	Altimeters	SET	8
9	All switches	OFF	9
10	Avionics (5)	OFF	10
11	Circuit breakers	CHECKED	11
12	Engine counter reading	NOTED	12
13	Fuel selector valve	BOTH	13
14	Fuel shutoff valve	OPEN	14
15	Master switch	ON	15
16	Fuel quantity	CHECKED	16
17	Rotating beacon	ON	17
18	Mixture	RICH	18
19	Propeller	HIGH RPM	19
20	Primer	AS REQUIRED	20
21	Auxiliary fuel pump	LOW	21

ENGINE START PROCEDURE

Throttle ..... OPEN 2,5 cm (FF 2 GAL)
Propeller area ..... CLEAR
Starter ..... ENGAGE
Oil pressure ..... RISING
Throttle ..... 1000 RPM
Auxiliary fuel pump ..... OFF

CHECK AFTER ENGINE START

1	Oil pressure	CHECKED
2	Auxiliary fuel pump	CHECKED OFF
3	Engine instruments	CHECKED
4	Primer	LOCKED
5	Avionics (5)	ON
6	Nav aids and frequencies	SET
7	GPS	AS REQUIRED
8	Ampere meter	LOADING
9	Horizon and directional gyro	SET
10	Flaps	CHECKED FULL TRAVEL
11	Transponder	ALT (if required)

DURING TAXI

Check brakes
Check flight instruments

BEFORE TAKE OFF CHECK

1	Parking brake	SET
2	Cabin doors + windows	CLOSED and LOCKED
3	Fuel selector valve	BOTH
4	Flight controls	CHECKED
5	Elevator trim	SET
6	Horizon, directional gyro, altimeters	RECHECKED
7	Flight instruments	CHECKED

RUN UP PROCEDURE

Throttle ..... 1800 RPM
Magnetos ..... checked max 50 RPM difference
Propeller ..... cycle once, then HIGH

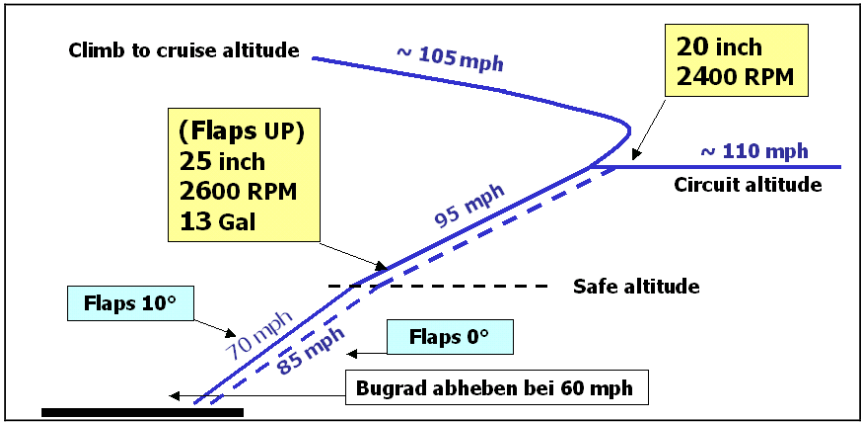
8	Engine Instruments	CHECKED
9	Ampere meter Generator Switch OFF - ON	CHECKED
10	Suction gauge	4,6 – 5,4 in. Hg
11	Flaps	SET for TKOF
12	Pitot Heater	AS REQUIRED
13	Transponder	ALT
14	Parking brake	RELEASED

LINE UP PROCEDURE

Landing light..... on
Approach sector ..... clear
Runway..... identified
Gyro..... check runway heading

AFTER TAKE-OFF PROCEDURE

After passing safe altitude:
Flaps ..... up
Throttle.....25 inch
RPM..... 2600 RPM
Mixture ..... 13 Gal
Landing light..... off



CLIMB TO CRUISE CHECK

1	Landing light	CHECKED OFF
2	Flaps	CHECKED UP

PERIODICALLY DURING CRUISE

***F**uel **R**adio **E**ngine **D**irection **A**ltitude*

DESCENT / APPROACH CHECK

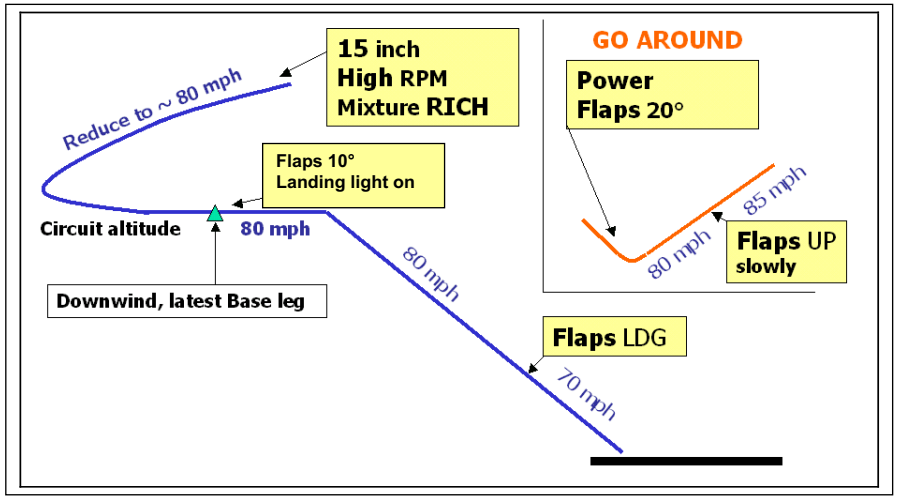
1	Landing data	RECEIVED
2	Altimeter	SET
3	COM / NAV.....	SET
4	Gyro	SET
5	Fuel selector valve	BOTH

BEFORE LANDING PROCEDURE

Throttle.....15 inch
Propeller ..... 2600 RPM
Mixture ..... rich
Downwind, latest base leg:
Flaps ..... 10°
Landing light..... ON
On final:
Flaps ..... as required
Propeller ..... high RPM

GO AROUND PROCEDURE

Propeller and throttle ..... FULL
Flaps ..... 20°
Then:
Flaps ..... slowly up
Continue with take-off profile



AFTER LANDING CHECK

(when reaching taxi speed)

1	Flaps	UP
2	Transponder	SBY
3	Pitot heat	OFF
4	Landing / Taxi light	AS REQUIRED

PARKING CHECK

1	Parking brake	AS REQIRED
2	ELT	121,5 CHECKED
3	GPS	CHECK TRIP TIME
4	Avionics (5)	OFF
5	Landing / Taxi light	OFF
6	Ignition grounding (momentarily OFF)	CHECKED
7	Mixture	IDLE CUT OFF
8	Ignition	OFF
9	Rotating beacon	OFF
10	Master switch	OFF
11	Fuel shutoff valve	CLOSED
12	Engine counter reading	NOTED
13	Control wheel lock	INSTALLED
14	Pitot cover	INSTALLED

Emergency Landing ..... page 8
Engine Fail ..... page 8
Engine Roughness ..... page 9
Low Oil Pressure ..... page 9
Engine Fire in Flight ..... page 9
Engine Fire on Ground ..... page 10
Electrical Fire in Flight ..... page 10
Excessive Electrical Charge ..... page 11
Insufficient Electrical Charge ..... page 11

EMERGENCY LANDING

1	Flaps	UP
2	Airspeed	85 mph
3	Mixture	IDLE CUT OFF
4	Fuel shutoff valve	CLOSED
5	All switches except Master	OFF
6	Ignition	OFF
7	ATC	MAYDAY CALL
8	Flaps	AS REQUIRED
9	Master switch	OFF

Before Touchdown:

10	Cabin Doors	UNLATCHED

ENGINE FAIL

11	Airspeed	85 mph
12	Fuel quantity	CHECKED
13	Fuel selector valve	FULLER TANK
14	Mixture	CHECKED
15	Fuel flow	CHECKED
16	Auxiliary fuel pump	ON if necessary
17	Primer	FULL IN + LOCKED
18	Ignition	PROPER POSITION or START

If no success:
continue with EMERGENCY LANDING Checklist

ENGINE ROUGHNESS

1 Magnetos..... CHECK LEFT and RIGHT
2 Better magneto ..... SELECT
3 Mixture..... LEAN AS REQUIRED

If engine still rough:

4 Magnetos..... BOTH
5 Mixture..... RICH

- Land ASAP

LOW OIL PRESSURE

1 Oil temperature ..... CHECK

If oil temperature normal:

- Land ASAP

If total loss of pressure and/or oil temperature high:

2 Power ..... REDUCE

- Forced landing

ENGINE FIRE IN FLIGHT

1 Mixture..... IDLE CUT OFF
2 Fuel shutoff valve ..... CLOSED
3 ATC ..... MAYDAY CALL
4 Airspeed ..... 120 MPH
5 Cabin heater and defroster..... OFF

- Forced emergency landing:

6 Airspeed ..... 85 mph
7 Ignition ..... OFF
8 Flaps..... AS REQUIRED
9 Master switch ..... OFF

Before Touchdown:

10 Cabin Doors ..... UNLATCHED

ENGINE FIRE ON GROUND

Crank engine

If engine starts:

1 Throttle ..... 1700 RPM for several minutes
2 Engine..... SHUT DOWN

- Discontinue operation

If engine does not start:

- Continue cranking

3 Throttle ..... FULL OPEN

- Call for fire assistance

4 Auxiliary fuel pump ..... OFF
5 Fuel shutoff valve ..... CLOSED
6 Mixture..... IDLE CUT OFF
7 Ignition ..... OFF
8 Master switch ..... OFF
9 Parking brake..... RELEASED

Evacuate - Extinguish

ELECTRICAL FIRE IN FLIGHT

1 Master switch ..... OFF
2 Cabin heat and ventilation..... CLOSED

- Land ASAP

If electrical power required
execute "isolation procedure":

3 All switches (except ignition) ..... OFF
4 Circuit breakers ..... CHECKED

Leave a faulty circuit deactivated

5 Master Switch..... ON
6 Select switches ON successively to isolate faulty circuit .....

Leave faulty circuit deactivated

When fire definitely extinguished:

7 Cabin heat and ventilation..... AS REQUIRED

EXCESSIVE ELECTRICAL CHARGE

(more than 2 needle widths after 30 min. flight time)

1 Generator switch (right half of master) ..... OFF
2 Electrical load.....REDUCE NONESSENTIAL
- Land ASAP

If necessary:

3 Generator .....ON for limited periods

During night before flaps and landing light required:

4 Generator .....ON

INSUFFICIENT ELECTRICAL CHARGE

1 Generator switch (right half of master) ..... OFF
2 Electrical load.....REDUCE NONESSENTIAL
- Land ASAP

OPERATING SPEEDS

	Mph	Kt
Best gliding angle (Flaps 0°)	85	74
Best angle of climb (V_X)	70/85	61/74
Best rate of climb (V_Y)	95	82
Cruising climb speed	105	91
Rotating speed	60	52
Max. flap speed (V_{FE})	100	87
Landing speed Flaps 0°	80	70
Landing speed Flaps 10°-40°	70	61
Stalling speed (V_{S0})	53	46
Stalling speed (V_{S1})	64	56
Max. cruising speed (V_{NO})	146	127
Never exceed speed (V_{NE})	185	160
Manoeuvring speed (V_A)	125	108
Max. turbulence speed	146	127

POWERSETTING and CRUISING SPEEED

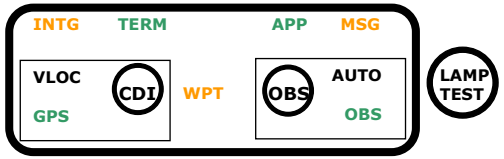
Press Alt	Cruise TAS (mph/kt)			65%		
	55%	65%	75%	RPM	MP	USG/hr
2.500	123/107	132/114	140/121	2.400	23	9,8
5.000	124/108	135/117	144/125	2.400	22,5	10,0
7.500	126/109	138/120		2.500	21	10,0
10.000	130/113	140/121		2.600	19,5	10,0
Cons.	8,6 G/hr	10 G/hr	11,4 G/hr			
Endurance	05:20 hrs	04:35 hrs	04:01 hrs			

LIMITATIONS

Max. TKOF RPM	2800 RPM
Max. cruise RPM	2600 RPM
Max. fuel on board	52 USG
Max. usable fuel	46 USG 125 kp

Max. TKOF weight	1157 kp
Empty weight	731 kp
Max. load incl. fuel	426 kp
Max. load with full tank	301 kp
Max. baggage weight	91 kp

GPS ANNUNCIATOR



TAKE OFF BRIEFING

NORMALSTART OF RUNWAY.....

CROSSWINDCOMPONENT.....KT FROM .....

ROTATE BY .....KT BEFOR / AFTER MID FIELD INDICATOR

INITIAL CLIMB .....KT UNTIL ..... FEET THEREAFTER .....KT

LANDINGAREA ..... OBSTACLES ARE.....

EMERGENCYLANDING MAX ANGLE 45° LEFT / RIGHT

IN CASE OF EMERGENCY OR FIRE **BEFOR TAKE OFF**

1. POWER IDLE
2. BREAKS FULL APPLY
3. INFORM ATC

IN CASE OF EMERGENCY **AFTER TAKE OFF**

1. SPEED 70 KNOTS OR.....
2. MIXTURE; FUELSELECTOR; IGNITION OFF
3. FLAPS FULL
4. MASTERSWITCH OFF
5. DOORS UNLOCK