

Motorfluggruppe Langenthal	Checklist Bü-131/150 Bücker A-81	v1.3 MAI23	1
Flight checklist for normal operations			
Massgebend ist das AFM (parameters, restrictions, emergency, etc.)			
Cockpit preparation before starting engine			
1	Magnetos	<i>off</i>	1
2	Fuel Selector	<i>cruise</i>	2
3	Mixture	<i>lean</i>	3
4	g-indicator	<i>in limit, reset to 1g</i>	4
5	Headset-connections	<i>checked</i>	5
6	Fuel quantity	<i>as required, tank secured</i>	6
7	Oil quantity	<i>checked, cover secured</i>	7
8	Engine cover	<i>secured</i>	8
9	Oil- and fuel-loss	<i>checked, no leaks</i>	9
10	Landing Gear & Brakes	<i>checked, no leaks</i>	10
11	Pitot/Static tube	<i>checked</i>	11
12	Wings, Fuselage, Controls	<i>checked</i>	12
13	Wing-wires	<i>checked</i>	13
14	Flight time counter and aircraft log	<i>checked</i>	14
15	Baggage compartment	<i>secured; for aerobatics empty</i>	15
Front seat if single command			
1	Stick and headset	<i>removed</i>	1
2	Parachute and cushion	<i>removed</i>	2
3	Seat belts	<i>arrested</i>	3
Before engine start			
1	Controls	<i>free, easy and correct</i>	1
2	Fuel selector	<i>cruise</i>	2
3	Trim	<i>set for T/O</i>	3
4	Tail wheel	<i>fixed</i>	4
5	Battery&GEN	<i>on</i>	5
6	Circuit breaker	<i>in</i>	6
Starting engine (cold engine)			
1	Throttle	<i>open 2cm</i>	1
2	Mixture	<i>rich</i>	2
3	Fuel pump	<i>prime 2"-3", check pressure, then off</i>	3
4	Brakes	<i>apply</i>	4
5	Stick	<i>fully back</i>	5
6	Propeller area	<i>clear</i>	6
7	Starter	<i>engage</i>	7
8	Throttle	<i>1000 - 1200 RPM</i>	8
9	Oil pressure	<i>green arc after 15"</i>	9

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Starting engine (warm engine)			
1	Throttle	<i>open 1-2 cm</i>	1
2	Mixture	<i>lean</i>	2
3	Fuel Pump	<i>off</i>	3
4	Brakes	<i>apply</i>	4
5	Stick	<i>fully back</i>	5
6	Propeller area	<i>clear</i>	6
7	Starter	<i>engage</i>	7
8	Mixture	<i>slowly to rich</i>	8
9	Throttle	<i>1000 - 1200 RPM</i>	9
10	Oil pressure	<i>green arc after 15"</i>	10
Before Taxi check			
1	Avionics, Com & Intercom	<i>set & checked</i>	1
2	Altimeter	<i>set (AMSL or AGL)</i>	2
Taxi check			
1	Brakes, steering	<i>checked</i>	1
2	Compass, Turn & Bank indicator	<i>checked</i>	2
Run up			
1	Brakes	<i>apply</i>	1
2	Engine Temperature	<i>checked</i>	2
3	Stick	<i>fully back</i>	3
4	Throttle	<i>1800 RPM</i>	4
5	Engine instruments	<i>green arc</i>	5
6	Magnetos	<i>max. drop 175 RPM /max. diff. 50 RPM</i>	6
7	Mixture	<i>checked</i>	7
8	Throttle	<i>idle (600-700 RPM)</i>	8
9	Throttle	<i>1000 - 1200 RPM</i>	9
Departure check			
1	Seat Belts, Shoulder Harness	<i>fastened</i>	1
2	Parachute	<i>fastened</i>	2
3	Fuel Pump	<i>on, pressure checked</i>	3
4	Fuel quantity	<i>endurance, min./max, akro checked</i>	4
5	Fuel selector	<i>Cruise</i>	5
6	Mixture	<i>rich</i>	6
7	Magnetos	<i>both</i>	7
8	Avionics & Intercom	<i>set</i>	8
9	Engine Instruments	<i>checked</i>	9
10	Flight instruments	<i>set</i>	10
11	Flarm	<i>3 green lights</i>	11
12	Trim	<i>set for T/O</i>	12
13	Tail wheel	<i>fixed</i>	13
14	Controls	<i>free and easy</i>	14
15	Passenger	<i>ready</i>	15

Departure Briefing

- 1 Surface wind, climb speed 120 km/h
- 2 Routing, Altitudes, Restrictions
- 3 Emergency procedures, Best glide 120 km/h

Line-up

- | | | | |
|---|-------------------------|------------------------------|---|
| 1 | Approach sector, runway | <i>clear, RWY identified</i> | 1 |
| 2 | Wind, RWY Heading | <i>checked</i> | 2 |
| 3 | XPDR | <i>set 7000 or acc. ATC</i> | |

Take off

- | | | | |
|---|-------|----------------|---|
| 1 | Power | <i>RPM set</i> | 1 |
| 2 | Speed | <i>rising</i> | 2 |

Climb check

- | | | | |
|---|-----------|------------------------------------|---|
| 1 | Mixture | <i>rich</i> | 1 |
| 2 | Throttle | <i>full power</i> | 2 |
| 3 | Speed | <i>120-130 km/h, max. 140 km/h</i> | 3 |
| 4 | Fuel Pump | <i>off, pressure checked</i> | 4 |

Cruise check

- | | | | |
|---|------------------------------|------------------------|---|
| 1 | Flight- / Engine instruments | <i>set and checked</i> | 1 |
| 2 | Cruise power | <i>2400 RPM</i> | 2 |
| 3 | Mixture / Fuel | <i>set and checked</i> | 3 |

Before Aerobatics

- | | | | |
|---|---------------|-----------------|---|
| 1 | Fuel selector | <i>AKRO</i> | 1 |
| 2 | Seat belts | <i>fastened</i> | 2 |
| 3 | Passenger | <i>ready</i> | 3 |
| 4 | Airspace | <i>clear</i> | 4 |

Descent check

- | | | | |
|---|---------------|----------------------|---|
| 1 | Mixer | <i>adjust</i> | 1 |
| 2 | Throttle | <i>max. 2400 RPM</i> | 2 |
| 3 | Fuel selector | <i>CRUISE</i> | 3 |

Approach Briefing

- 1 Runway in use, GRASS available
- 2 Routing, Altitude, Restrictions
- 3 Missed approach procedure
- 4 Surface wind, Final approach speed

Approach preparation

- | | | | |
|---|---------------|--------------------------|---|
| 1 | Altimeter | <i>set (AMSL or AGL)</i> | 1 |
| 2 | Fuel Pump | <i>on</i> | 2 |
| 3 | Fuel quantity | <i>checked</i> | 3 |
| 4 | Fuel selector | <i>CRUISE</i> | 4 |
| 5 | Mixture | <i>rich</i> | 5 |
| 6 | Tail wheel | <i>checked fixed</i> | 6 |

Final check

- | | | | |
|---|--------|-------------|---|
| 1 | Brakes | <i>free</i> | 1 |
|---|--------|-------------|---|

Motorfluggruppe Langenthal	Checklist Bü-131/150 Bücker A-81	v1.3 MAI23	4
Engine shut down			
1 Avionics	<i>no signal 121.5 / off</i>		1
2 Fuel Pump	<i>checked off</i>		2
3 Battery&GEN	<i>off</i>		3
4 Throttle	<i>1000 - 1200 RPM</i>		4
5 Mixture	<i>cut off</i>		5
6 Magnetos	<i>off</i>		6
7 Tail wheel	<i>free</i>		7
8 g-indicator	<i>recorded</i>		8
9 Seat belts	<i>detach with care</i>		9
10 Parachute	<i>detach with care</i>		10
11 Flight time counter	<i>noted</i>		11
Speeds for operation at maximum take off mass (MTOM)			
Climb speed Vx	120 km/h		
Medium cruise speed	150 km/h		
Max speed Vne	350 km/h		
Max rough air speed VA	280 km/h		
Initial approach	130 km/h		
Final approach	120 km/h		
Stall speed Vso	95 km/h		
Best glide	120 km/h		
Limits			
Zelle:	<i>+5g/-3g, V ne 350 km/h</i>		
Motor:	<i>max. 2700 RPM, je nach Temperatur bei V195-210 km/h erreicht! max. 105° C Öltemperatur</i>		
Operation			
Fuel	UL91 oder alternativ AVGAS 100LL		
Take off:	Immer tail wheel fixed und brakes released		
Landing:	Wenn immer möglich auf Gras, brakes released		
Taxi:	Immer mit ganz angezogenem Knüppel		
Cruise performance:	75% = 2450 RPM: Fuel Flow ca.40l/h und 0,34l/h Öl 65% = 2350 RPM: Fuel Flow ca.35l/h und 0,31l/h Öl		
Loading HB-UUV			
MTOM	670 kg		
MTOM aerobatic	610 kg		
		Max. load remaining	
		normal	aerobatic
Empty	456 kg	214 kg	154 kg
Fuel, main 88lt, unusable max. 20lt	63 kg	151 kg	n/a
Fuel, main 65lt, unusable max. 20lt	47 kg	167 kg	107 kg

Technische Daten:

- Abmessungen:** Spannweite: 7,4m; Länge: 6,6m
- Motor:** Lycoming
4-Zyl-Einspritzmotor, zugelassen für
Akrobatik ohne Einschränkungen
max. 150 PS bei 2700 RPM
Verbrauch max. 40l/h, 0,34l Öl
- Fahrwerk:** Festfahrwerk
Heckrad für Start und Landung fest mit
Seitenruder, sonst frei
- Treibstoff:** UL91 oder alternativ AVGAS 100 LL
88l, alles ausfliegbar auf Stellung Reiseflug
max. 65l für Akro, in Stellung Akro nicht ausfliegbar:
20lt in Rückenfluglage
12lt in Normalfluglage
- Öl:** min. 7qts, max. 8qts
- Gewichte:** max. Startgewicht: 670kg
max. Startgewicht für Akro: 610kg
max. Gewicht im Gepäckraum: 30kg, für Akro 0kg
Leergewicht (2023): 456 kg

Flight checklist for emergency

Massgebend ist das AFM

ENGINE FAILURE IN CRUISE

- | | |
|---|----------|
| 1 Check fuel quantity and fuel selector CRUISE | 1 |
| 2 Check fuel pressure; if low use fuel pump | 2 |

ENGINE FAILURE IN AEROBATICS

- | | |
|---|----------|
| 1 Resume to normal flight, proceed as for engine failure in cruise | 1 |
|---|----------|

EMERGENCY LANDING

- | | |
|--|----------|
| 1 Best glide speed 120 km/h, direction emergency field | 1 |
| 2 Join a higher glide path and proceed for a GLISSADE (130km/h) | 2 |
| 3 Fuel selector close and magnetos off | 3 |

ACHTUNG:

- 1 Tankwählschalter immer mit Sichtkontakt betätigen (Problem Schüler - Lehrer)
- 2 Ein Anflug für eine Notlandung ist mit dem BÜcker (fast) nie zu hoch.
Korrekturen erfolgen mit GLISSADEN und sind einfach auszuführen!!!