

**Flight Checklist for Normal Operations**

Massgebend ist das AFM (parameters, restrictions, emergency, etc.)

**COCKPIT PREPARATION BEFORE STARTING ENGINE**

1	Aircraft + Cockpit Inspection	COMPLETED	1
2	Seats	ADJUSTED + LOCKED	2
3	Seat Belts	ADJUSTED + FASTENED	3
4	Parking Brake	SET	4
5	El. Switches / Avionics Master	OFF	5
6	Circuit Breakers	IN	6
7	Battery, Alternator	ON	7
8	Fuel Quantity	CHECKED	8
9	Tank Selector	FULLER TANK	9
10	Mixture	RICH	10
11	Carburetor Heater	OFF	11
12	Ignition Key	PREPARED	12
13	Elevator + Rudder Trim	SET for TAKE OFF	14
14	Flaps	UP	14
15	Annunciator Lights	TESTED	15

**STARTING ENGINE**

1	Fuel Pump	ON, PRESSURE CHECKED	1
2	Priming	AS REQUIRED, SECURED	2
3	Throttle	0,5 CM OPEN	3
4	Propeller Area	FREE	4
5	Starter	ENGAGE	5
6	Throttle	1000 - 1200 RPM	6
7	Oil Pressure	RAISED	7
8	Fuel Pump	OFF, PRESSURE CHECKED	8

**AFTER ENGINE START CHECK**

1	Alternator Output	CHECKED	1
2	Oil Pressure	CHECKED	2
3	Suction	CHECKED	3
4	Annunciator Lights	OFF, CHECKED	4

**BEFORE TAXI**

1	Ventilation, Heater	AS REQUIRED	1
2	Avionics Master	ON	2
3	Avionics	SET + PRESELECTED	3
4	Flight Instruments	SET	4
5	Electrical Trim	ON, CHECKED	5
6	Landing Light	ON	6

**TAXI CHECK**

1	Brakes, Steering	CHECKED	1
2	AI, DG, Compass, Turn-Coordinator	CHECKED	2

Motorfluggruppe Langenthal	<b>Checklist PA28 ARCHER II</b>	v1.3 Jan18	<b>2</b>
<b>RUN-UP</b>			
1	Parking Brake	SET	1
2	Landing Light	OFF	2
3	Engine Temperature	ACCORDING AFM	3
4	Throttle	2000 RPM	4
5	Alternator Output	CHECKED	5
6	Engine Instruments	CHECKED	6
7	Gyro Suction	CHECKED	7
8	Annunciators	CHECKED	8
9	Magnetos	CHECKED (Drop RPM < 150 / Diff < 50)	9
10	Mixture	CHECKED	10
11	Carburetor Heater	CHECKED	11
12	Throttle	IDLE (500-700 RPM)	12
13	Throttle	1000-1200 RPM	13
<b>DEPARTURE CHECK</b>			
1	Seat Belts, Shoulder Harness	FASTENED	1
2	Fuel Pump	ON, PRESSURE CHECKED	2
3	Fuel Quantity	CHECKED	3
4	Fuel Selector	FULLER TANK	4
5	Mixture	RICH / AS REQUIRED	5
6	Carburetor Heater	OFF	6
7	Magnetos	BOTH	7
8	Primer	SECURED	8
9	Engine Instruments	CHECKED	9
10	Flight Instruments	SET	10
11	Elevator Trim	TAKE OFF	11
12	Flaps	SET, SHORT FIELD FLAPS 2	12
13	Controls	FREE and CORRECT	13
14	Door, Window	CLOSED, LATCHED	14
<b>DEPARTURE BRIEFING</b>			
1	Surface Wind, $V_x$ 64 KIAS $V_y$ 76 KIAS		
2	Routing, Altitude, Restrictions		
3	Emergencies, Best Glide 76 KIAS		
<b>LINE-UP</b>			
1	Approach Sector, Runway	CHECKED FREE	1
2	Lights	ON	2
3	Wind, Runway Heading	CHECKED	3
4	Transponder	SET 7000 or ACCORDING ATC	4
<b>TAKE OFF</b>			
1	Brakes	RELEASED	1
2	Power	FULL POWEE, RPM CHECKED	2
3	Speed	RISING	3

**CLIMB CHECK**

1	Flaps	UP (> 60 KIAS)	1
2	Power	CHECKED	2
3	Fuel Pump	OFF, PRESSURE CHECKED	3

**CRUISE CHECK**

1	Flight / Engine Instruments	CHECKED	1
2	Cruise Power Setting	ACCORDING AFM	2
3	Mixture Setting / Fuel	CHECKED	3

**DESCENT CHECK**

1	ATIS	RECEIVED	1
2	Flight Instruments, Avionics	SET	2
3	Cabin	CHECKED	3

**APPROACH BRIEFING**

1	Runway in Use
2	Routing, Altitude, Restrictions
3	Missed Approach Procedure
4	Surface Wind, Final Approach Speed

**APPROACH PREPARATION**

1	Altimeter, Directional Gyro	SET	1
2	Autopilot	OFF	2
3	Landing Light	CHECKED, ON	3
4	Fuel Pump	ON, PRESSURE CHECKED	4
5	Fuel Quantity	CHECKED	5
6	Fuel Selector	FULLER TANK	6
7	Mixture	RICH	7
8	Carburetor Heater	AS REQUIRED	8
9	Flaps	AS REQUIRED	9
10	Initial Approach Speed	ESTABLISHED (80 KIAS)	10

**FINAL CHECK**

1	Flaps	CHECKED	1
2	Final Approach Speed	ESTABLISHED (66 KIAS)	2
3	Brakes (pressure)	CHECKED	3
4	Carburetor Heater	OFF	4

**GO AROUND**

1	Throttle	FULL POWER	1
2	Carburetor Heater	OFF	2
3	Attitude	ROTATE (SPEED ESTABLISHED > 60	3
4	Flaps	UP (SLOWLY RETRACT)	4

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<b>AFTER LANDING</b>						
1	Electrical Consumers	AS REQUIRED				1
2	Fuel Pump	OFF, PRESSURE CHECKED				2
3	Flaps	UP				3
4	Transponder	CHECKED				4
<b>ENGINE SHUT DOWN</b>						
1	Electrical Consumers	OFF				1
2	Avionics	121,500 CHECKED				2
3	Avionics Master	OFF				3
4	Mixture	CUT OFF				4
5	Ignition	OFF				5
6	Alternator, Battery	OFF				6
<b>SPEEDS FOR OPERATION AT MAXIMUM TAKE OFF MASS (MTOM)</b>						
	Rotate / Lift Off	Flaps 2	45 / 54 KIAS			
	Best Angle	Flaps up	64 KIAS			
	Best Rate (up to 2000 ft AGL)	Flaps up	76 KIAS			
	Cruise Climb (above 2000 ft AGL)	Flaps up	90 KIAS			
	Approach	Flaps 1	80 KIAS			
	Final Approach	Flaps 3	66 KIAS			
	Go Around / Touch And Go	Flaps up	min. 60 KIAS			
	Best Glide	Flaps up	76 KIAS			
	Max Maneuvering Speed V <sub>A</sub>	Flaps up	113 KIAS			
	Max. Demonstrated Crosswind		17 KT			
<b>POWER SETTINGS</b>						
	Take Off and Climb	full power				
	Cruise and Descend up to 5000 ft AMSL	2300 RPM				
	Cruise and Descend above 5000 AMSL	2400 RPM				
	Approach Descend	2200 RPM				
	Circuit	2000 RPM				
<b>LOADING HB-PKG</b>						
	MTOM	1156 kg				
		Max. cabin load remaining				
	Empty (Including 2 USG Unusable Fuel)	734 kg	=> 422 kg			
	Usable Fuel, Filler Neck 34 USG / 128 Liter	93 kg	=> 329 kg			
	Usable Fuel, Full 48 USG / 182 Liter	131 kg	=> 291 kg			
<b>PRIMING Table</b>						
<b>Engine cold</b>	<b>-10 °C</b>	<b>0 °C</b>	<b>+10 °C</b>	<b>+20 °C</b>	<b>+30 °C</b>	
Primer Pump	3-4	1-2	0	0	0	
Throttle Strokes	0	0	2	1-2	1	
<b>Engine hot</b>	<b>-10 °C</b>	<b>0 °C</b>	<b>+10 °C</b>	<b>+20 °C</b>	<b>+30 °C</b>	
Primer Pump	0	0	0	0	0	
Throttle Strokes	1-3	1	0-1	0	0	

**Flight Checklist for Emergency**

Massgebend ist das AFM

***FIRE ON GROUND***

<b>1 Starter</b>	<b>CRANK ENGINE</b>	<b>1</b>
<b>2 Mixture</b>	<b>IDLE CUT OFF</b>	<b>2</b>
<b>3 Throttle</b>	<b>FULL OPEN</b>	<b>3</b>
<b>4 Fuel Pump</b>	<b>OFF</b>	<b>4</b>
<b>5 Fuel Selector</b>	<b>OFF</b>	<b>5</b>
<b>6 Battery / Alternator</b>	<b>OFF</b>	<b>6</b>
<b>7 Pax And Crew</b>	<b>EVACUATE</b>	<b>7</b>

***FIRE IN FLIGHT***

<b>1 Source of Fire</b>	<b>IDENTIFY</b>	<b>1</b>
<b>ELECTRICAL FIRE (Smoke in cabin)</b>		
<b>1 Battery / Alternator</b>	<b>OFF</b>	<b>1</b>
<b>2 Vents</b>	<b>OPEN</b>	<b>2</b>
<b>3 Cabin Heat</b>	<b>OFF</b>	<b>3</b>
<b>Land as soon as practical</b>		
<b>ENGINE FIRE</b>		
<b>1 Fuel Selector</b>	<b>OFF</b>	<b>1</b>
<b>2 Throttle</b>	<b>CLOSED</b>	<b>2</b>
<b>3 Mixture</b>	<b>IDLE CUT OFF</b>	<b>3</b>
<b>4 Fuel Pump</b>	<b>OFF</b>	<b>4</b>
<b>5 Cabin Heater and Defroster</b>	<b>OFF</b>	<b>5</b>
<b>6 Elevator Trim</b>	<b>BEST GLIDE 76 KIAS</b>	<b>6</b>
<b>Prepare for power off emergency landing</b>		

## ***ENGINE POWER LOSS IN FLIGHT***

<b>1 Attitude</b>	<b>BEST GLIDE 76 KIAS</b>	<b>1</b>
<b>2 Fuel Selector</b>	<b>SWITCH</b>	<b>2</b>
<b>3 Fuel Pump</b>	<b>ON</b>	<b>3</b>
<b>4 Mixture</b>	<b>RICH</b>	<b>4</b>
<b>5 Carburetor Heater</b>	<b>ON</b>	<b>5</b>
<b>6 Primer</b>	<b>LOCKED</b>	<b>6</b>
<b>7 Ignition</b>	<b>BOTH</b>	<b>7</b>
<b>8 Engine Gauges</b>	<b>CHECK CAUSE OF POWER LOSS</b>	<b>8</b>
<b>When power is restored</b>		
<b>9 Carburetor Heater</b>	<b>OFF</b>	<b>9</b>
<b>10 Fuel Pump</b>	<b>OFF</b>	<b>10</b>
<b>When power is not restored</b>		
<b>11 Elevator trim</b>	<b>BEST GLIDE 76 KIAS</b>	<b>11</b>
<b>Prepare for power off emergency landing</b>		

## ***EMERGENCY LANDING***

**Trim for best glide 76 KIAS**

**Locate suitable field**

**When the landing field can easily be reached**

<b>1 Seat Belts / Shoulder Harness</b>	<b>TIGHT</b>	<b>1</b>
<b>2 Fuel Selector</b>	<b>OFF</b>	<b>2</b>
<b>3 Mixture</b>	<b>IDLE CUT OFF</b>	<b>3</b>
<b>4 Throttle</b>	<b>CLOSED</b>	<b>4</b>
<b>5 Ignition</b>	<b>OFF</b>	<b>5</b>
<b>6 Battery / Alternator</b>	<b>OFF</b>	<b>6</b>
<b>7 Flaps</b>	<b>AS DESIRED</b>	<b>7</b>
<b>8 Speed</b>	<b>REDUCE FOR FINAL APPROACH</b>	<b>8</b>

## ***ALTERNATOR FAILURE***

### **NO ALTERNATOR OUTPUT**

- |          |                                   |                 |          |
|----------|-----------------------------------|-----------------|----------|
| <b>1</b> | <b>Alternator Switch</b>          | <b>CHECK ON</b> | <b>1</b> |
| <b>2</b> | <b>Alternator Circuit Breaker</b> | <b>CHECK IN</b> | <b>2</b> |

### **When checked and still not output**

- |          |                             |                               |          |
|----------|-----------------------------|-------------------------------|----------|
| <b>3</b> | <b>Alternator Switch</b>    | <b>OFF</b>                    | <b>3</b> |
| <b>4</b> | <b>Electrical Consumers</b> | <b>OFF AS PRACTICABLE</b>     | <b>4</b> |
| <b>5</b> | <b>Alternator Switch</b>    | <b>ON (after &gt; 10 sec)</b> | <b>5</b> |

### **If still no output**

- |          |                             |                           |          |
|----------|-----------------------------|---------------------------|----------|
| <b>6</b> | <b>Electrical Consumers</b> | <b>OFF AS PRACTICABLE</b> | <b>6</b> |
|----------|-----------------------------|---------------------------|----------|

**Land on the nearest airport as practicable**

## ***RADIO FAILURE***

- |          |                             |                |          |
|----------|-----------------------------|----------------|----------|
| <b>1</b> | <b>Radio</b>                | <b>ON</b>      | <b>1</b> |
| <b>2</b> | <b>Volume</b>               | <b>TEST</b>    | <b>2</b> |
| <b>3</b> | <b>Frequency</b>            | <b>CHECKED</b> | <b>3</b> |
| <b>4</b> | <b>Headset / Mike Plugs</b> | <b>CHECKED</b> | <b>4</b> |

### **If no radio contact**

- |          |                    |                            |          |
|----------|--------------------|----------------------------|----------|
| <b>5</b> | <b>Transponder</b> | <b>7600 (if necessary)</b> | <b>5</b> |
| <b>6</b> | <b>Procedure</b>   | <b>ACCORDING AIP</b>       | <b>6</b> |