

# AIRCRAFT CHECKLIST

## ACHTUNG

Massgebend für den Betrieb des Flugzeuges ist ausschliesslich das **AFM**



**PIPER CHEROKEE ARCHER**  
**PA28-180**                      **HB-OQT**

Diese Checkliste gehört: \_\_\_\_\_

# PERFORMANCE

## SPEEDS

Best angle of climb	$V_X$	<b>76</b>	MPH
Best rate of climb	$V_Y$	<b>85</b>	MPH
Manoeuvring MTOW	$V_A$	<b>127</b>	MPH
<i><b>Achtung:</b> Mit geringerem Fluggewicht wird <math>V_A</math> kleiner!</i>			
Stall, full flaps, MTOW	$V_{S0}$	<b>61</b>	MPH
Stall, clean, MTOW	$V_{S1}$	<b>68</b>	MPH
Initial approach ( $1.8 \times V_{S0}$ )	$V_{IAF}$	<b>105</b>	MPH
Speed in Base ( $1.5 \times V_{S0}$ )	$V_{Base}$	<b>92</b>	MPH
Final Speed ( $1.3 \times V_{S0}$ )	$V_{Final}$	<b>75-85</b>	MPH
Max flaps extended	$V_{FE}$	<b>115</b>	MPH
Never exceed	$V_{NE}$	<b>171</b>	MPH
Cruise climb		<b>100</b>	MPH

## WEIGHTS

Max. take off weight	MTOW	1111	kg	2450	LBS
Max. freight weight		90	kg	200	LBS

## FUEL

**Approved Fuel Types:** AVGAS 100LL or automotive Gasoline, 91 minimum antiknock index. Intermixing with AVGAS is approved.

**Not approved** is the use of 82UL Aviation Gasoline or fuel that contains alcohol.

Total fuel: 190 l ⇒ 50 USG					
Total usable: 181 l ⇒ 48 USG					
↓					
Fuel left:	95 l ⇒	25 USG	↔	95 l ⇒	25 USG :Fuel right
<b>Usable left:</b>	<b>91 l ⇒</b>	<b>24 USG</b>	↔	<b>91 l ⇒</b>	<b>24 USG :Usable right</b>
Average use			40 l/h	10.5 USG/h	
Endurance			4 h 30 min		

## NOISE

Noise category D

## AEROPLANE PREPARATION

- |                                    |                 |
|------------------------------------|-----------------|
| 1. Outside check                   | • according AFM |
| 2. Mängelliste                     | • checked       |
| 3. Documents / Flight time counter | • checked       |
| 4. Weight and balance              | • check AFM     |
| 5. Towing bar (Deichsel)           | • removed       |

## BEFORE STARTING ENGINE

- |                                      |                                   |
|--------------------------------------|-----------------------------------|
| 1. Ignition key                      | • in                              |
| 2. Clock                             | • set                             |
| →→→→                                 |                                   |
| 3. Parking brake                     | • set                             |
| 4. Seat and seatbelts                | • adjust and set                  |
| 5. Circuit breakers                  | • checked                         |
| 6. Electric equipment                | • off                             |
| 7. Master switch                     | • on                              |
| 8. Fuel quantity                     | • checked                         |
| 9. Fuel selector                     | • set right tank                  |
| 10. Auto pilot                       | • off                             |
| 11. Controls                         | • free and correct                |
| 12. Flaps                            | • set for take off (Achtung Zaun) |
| 13. Trim (2) / electric trim         | • set for take off / on           |
| →→→→                                 |                                   |
| 14. Avionics COM 1                   | • on / check 121.50               |
| 15. ATIS                             | • checked                         |
| 16. Altimeter set QNH                | • check field elevation           |
| 17. Flight- and Nav.-Instruments     | • set / checked                   |
| →→→→                                 |                                   |
| 18. Start up clearance               | • request                         |
| 19. Navigation lights / Strobe light | • on                              |
| 20. Avionics (COM/NAV/DME/ADF/XPDR)  | • off                             |

### CHECK BEFORE STARTING ENGINE COMPLETED

## STARTING ENGINE

- |                                  |                              |
|----------------------------------|------------------------------|
| 1. Mixture                       | • rich                       |
| 2. Carburettor heat              | • cold                       |
| 3. Primer                        | • as required                |
| 4. Fuel pump #2 / Fuel pressure  | • on / checked               |
| 5. Fuel pump #1 / Fuel pressure  | • on / checked               |
| 6. Throttle (2-4 strokes)        | • 1 cm open                  |
| →→ check area →→                 |                              |
| 7. Magnetos                      | • both                       |
| 8. Starter                       | • Engage, max 30", rest 2'   |
| 9. Throttle                      | • 1000 RPM                   |
| 10. Oil pressure                 | • check green arc within 30" |
| 11. Ampere meter                 | • charging                   |
| 12. Fuel pump #1 / Fuel pressure | • off / check green arc      |

### ENGINE START COMPLETED

## AFTER ENGINE START

- |                   |         |
|-------------------|---------|
| 1. Avionics       | • on    |
| 2. Transponder    | • SBY   |
| 3. MC ↔ Gyro      | • set   |
| 4. Off block time | • noted |

## TAXI CHECK

- |                                 |           |
|---------------------------------|-----------|
| 1. Taxi clearance               | • request |
| 2. Fuel pump #1                 | • on      |
| 3. Area                         | • free    |
| →→ taxi →→                      |           |
| 4. Brakes and steering          | • correct |
| 5. Gyro, Turn and Bank, Horizon | • working |
| 6. Airspeed, Altimeter, Vario   | • correct |

### TAXI CHECK COMPLETED

## GROUND CHECK / RUN UP

- |                                    |                     |
|------------------------------------|---------------------|
| 1. Parking brake                   | • set               |
| 2. Back area                       | • free              |
| →→→→                               |                     |
| 3. Engine instruments              | • green arc         |
| 4. Throttle                        | • 2000 RPM          |
| 5. Magnetos left + right / both    | • max. drop 175 RPM |
| 6. Difference between left + right | • max. 50 RPM       |
| 7. Mixture lean                    | • check EGT + RPM   |
| 8. Carburettor heat                | • warm / check RPM  |
| 9. Carburettor heat                | • cold              |
| 10. Suction                        | • checked           |
| 11. Engine Instruments             | • green arc         |
| 12. Throttle idle                  | • check RPM         |
| 13. Throttle                       | • set 1000 RPM      |

### ENGINE CHECK COMPLETED

## CHECK BEFORE TAKE OFF

- |                                  |                                    |
|----------------------------------|------------------------------------|
| 1. Fuel selector                 | • set right tank                   |
| 2. Mixture                       | • rich / check density<br>altitude |
| 3. Carburettor heat              | • cold                             |
| 4. Primer                        | • secured                          |
| 5. Flaps + Trim set for take off | • rechecked                        |
| 6. Controls                      | • free and correct                 |
| 7. Avionics setting              | • rechecked                        |
| 8. Door + Windows                | • closed and latched               |
| 9. Passengers                    | • fastened, no smoking             |

### CHECK BEFORE TAKE OFF COMPLETED

## DEPARTURE BRIEFING

- |                          |   |
|--------------------------|---|
| 1. Consider              | <ul style="list-style-type: none"> <li>• RWY length required and available</li> <li>• Type of obstacles</li> <li>• Actual meteo</li> </ul>  |
| 2. Speeds                | <ul style="list-style-type: none"> <li>• <b>50-60</b> MPH for normal T/O and short Field T/O (Flaps 25°)</li> </ul>   |
| 3. First climb           | <ul style="list-style-type: none"> <li>• <math>V_x</math> <b>76</b> MPH</li> <li>• when 300 ft AAL, <math>V_Y</math> <b>85</b> MPH</li> </ul>   |
| 4. Any major malfunction | <ul style="list-style-type: none"> <li>• Power idle, braking and steering</li> <li>• Nose down, speed <b>85</b> MPH, landing straight ahead, no turns back to the field below circuit altitude</li> </ul> |
| 5. Engine Failure        | <ul style="list-style-type: none"> <li>• Nose down, speed 85, fuel selector, fuel pump on</li> </ul>  |
| 6. First navigation      | <ul style="list-style-type: none"> <li>• checked</li> </ul>   |

**READY FOR DEPARTURE**

## LINE UP CHECK

- |                                       |   |
|---------------------------------------|---|
| 1. Approach sector                    | <ul style="list-style-type: none"> <li>• free</li> </ul>            |
| 2. Fuel pump #1                       | <ul style="list-style-type: none"> <li>• on</li> </ul>              |
| 3. Landing light                      | <ul style="list-style-type: none"> <li>• on</li> </ul>              |
| 4. Wind / RWY                         | <ul style="list-style-type: none"> <li>• checked / free</li> </ul>  |
| →→ When established on centreline →→  |   |
| 5. MC ⇔ Gyro / RWY HDG ⇔ HDG bug      | <ul style="list-style-type: none"> <li>• checked and set</li> </ul> |
| 6. Time                               | <ul style="list-style-type: none"> <li>• noted</li> </ul>           |
| <b>7. Take-Off clearance received</b> |   |

## TAKE OFF

- |                               |  |
|-------------------------------|--|
| 1. Full power                 | <ul style="list-style-type: none"> <li>• set / check 2300 RPM</li> </ul> |
| 2. Airspeed indicator         | <ul style="list-style-type: none"> <li>• alive / speed rising</li> </ul> |
| 3. Rotate (Flaps 0° / 25°)    | <ul style="list-style-type: none"> <li>• <b>50 - 60</b> MPH</li> </ul>   |
| 4. Increase speed $V_x$       | <ul style="list-style-type: none"> <li>• <b>76</b> MPH</li> </ul>        |
| 5. Flaps (clear of obstacles) | <ul style="list-style-type: none"> <li>• Speed checked / up</li> </ul>   |
| 6. First nav.                 | <ul style="list-style-type: none"> <li>• continue</li> </ul>             |

## CLIMB CHECK

- |                  |                       |
|------------------|-----------------------|
| 1. Power setting | • set climb power     |
| 2. Flaps         | • check up            |
| 3. Landing light | • off                 |
| 4. Speed         | • $V_Y$ <b>85 MPH</b> |

**CLIMB CHECK COMPLETED**

## LEVEL OFF

<ol style="list-style-type: none"> <li>1. Attitude</li> <li>2. Power setting</li> <li>3. Trim (2)</li> <li>4. Mixture</li> <li>5. Fuel pump #1 off</li> </ol>	<ol style="list-style-type: none"> <li>1. Mixture</li> <li>2. Fuel pump #1 on</li> <li>3. Power setting</li> <li>4. Attitude</li> <li>5. Trim (2)</li> </ol>
<ol style="list-style-type: none"> <li>1. Mixture</li> <li>2. Carburettor heat as required</li> <li>3. Attitude</li> <li>4. Power setting</li> <li>5. Trim (2)</li> </ol>	<ol style="list-style-type: none"> <li>1. Attitude</li> <li>2. Power setting</li> <li>3. Trim (2)</li> <li>4. Mixture</li> </ol>

## CRUISE CHECK

- |                     |                     |
|---------------------|---------------------|
| 1. MC ⇔ Gyro        | • checked           |
| 2. Altimeter        | • set to QNH or QNE |
| 3. Lights           | • checked           |
| →→→→                |                     |
| 4. Fuel QTY         | • checked           |
| 5. Fuel selector    | • set required tank |
| →→→→                |                     |
| 6. Mixture          | • checked           |
| 7. Carburettor heat | • on when required  |
| 8. Power setting    | • as required       |

**CRUISE CHECK COMPLETED**

## APPROACH BRIEFING

- |                                  |   |
|----------------------------------|---|
| 1. ATIS                          | • received                                    |
| 2. Meteo                         | • Check minimum's                             |
| 3. RWY in use                    | • check circuit, taxiways                     |
| 4. Inbound route                 | • select                                      |
| 5. Altitudes                     | • check max. + min. Alt<br>• Descent planning |
| 6. Speeds                        | • on downwind + final                         |
| 7. Flight instruments / Avionics | • MC ⇔ Gyro, altimeter,<br>radio frequency    |

### APPROACH BRIEFING COMPLETED

## CHECK FOR APPROACH

- |                     |                    |
|---------------------|--------------------|
| 1. MC ⇔ Gyro        | • checked          |
| 2. Altimeter        | • set to QNH       |
| 3. Landing light    | • on               |
| →→→→                |                    |
| 4. Fuel pump #2     | • on               |
| 5. Fuel QTY         | • checked          |
| 6. Fuel selector    | • set right tank   |
| →→→→                |                    |
| 7. Mixture          | • rich             |
| 8. Carburettor heat | • on when required |
| 9. Power setting    | • as required      |

### CHECK FOR APPROACH COMPLETED

- |           |              |
|-----------|--------------|
| 10. Speed | • white arc  |
| 11. Flaps | • Position 1 |

### APPROACH CONFIGURATION ESTABLISHED

## FINAL CHECK

- |                                      |                      |
|--------------------------------------|----------------------|
| 1. Flaps                             | • as required        |
| 2. Mixture                           | • rich               |
| 3. Speed                             | • <b>75 - 85 MPH</b> |
| 4. Carburettor heat                  | • cold               |
| <b>5. Landing clearance received</b> |                      |

## GO AROUND

- |                        |                     |
|------------------------|---------------------|
| 1. Power               | • full power        |
| 2. Attitude            | • climb             |
| 3. Carburettor heat    | • check cold        |
| 4. Flaps               | • to T/O flaps / up |
| 5. Accelerate to $V_Y$ | • 85 MPH            |

→→Climb check→→

## CHECK AFTER LANDING

- |                 |         |
|-----------------|---------|
| 1. Time         | • noted |
| 2. Pitot heat   | • cold  |
| 3. Fuel Pump #2 | • off   |
| 4. Transponder  | • SBY   |

→→Vacate runway→→

- |                  |       |
|------------------|-------|
| 5. Landing light | • off |
| 6. Flaps         | • up  |

### CHECK AFTER LANDING COMPLETED

## ENGINE SHUT DOWN

- |                                    |                |
|------------------------------------|----------------|
| 1. Parking brake                   | • set          |
| 2. Throttle                        | • 1000 RPM     |
| 3. Emergency beacon                | • check 121.50 |
| 4. Avionics (COM/NAV/DME/ADF/XPDR) | • off          |
| 5. Electrical switches             | • off          |
| 6. Mixture                         | • idle cut-off |
| 7. Ignition                        | • off          |
| 8. Master switch                   | • off          |
| 9. Parking brake                   | • as required  |

# EMERGENCY PROCEDURES

## ENGINE FIRE DURING START

- |                                   |                |
|-----------------------------------|----------------|
| 1. Starter                        | • Crank Engine |
| 2. Throttle                       | • Open         |
| 3. Mixture                        | • Idle cutoff  |
| 4. Fuel selector                  | • off          |
| → → when engine stopped → →       |                |
| 5. Master switch                  | • off          |
| 6. Ignition                       | • off          |
| → → Abandon if fire continues → → |                |

## FIRE IN FLIGHT

- |                                     |         |
|-------------------------------------|---------|
| 1. Source of fire                   | • check |
| → → Electrical fire → →             |         |
| 1. Master switches                  | • off   |
| 2. Vents                            | • open  |
| 3. Cabin heat                       | • off   |
| → → Land as soon as practicable → → |         |

### → → Engine fire → →

- |                               |               |
|-------------------------------|---------------|
| 1. Mixture                    | • idle cutoff |
| 2. Fuel selector              | • off         |
| 3. Master switch              | • off         |
| 4. Electric Fuel pump #1 or 2 | • off         |
| 5. Heater and defroster       | • off         |

→ → Proceed with power off landing procedure → →

## ENGINE FAILURE IN FLIGHT

- |                          |                     |
|--------------------------|---------------------|
| 1. Power / Mixture       | • checked           |
| 2. Fuel selector         | • set to other tank |
| 3. Fuel pump #1          | • on                |
| 4. Mixture               | • rich              |
| 5. Carburettor heat      | • on                |
| 6. Primer                | • secured           |
| 7. Magnetos Left + Right | • checked           |
- When power is not restored: prepare for power off landing→→

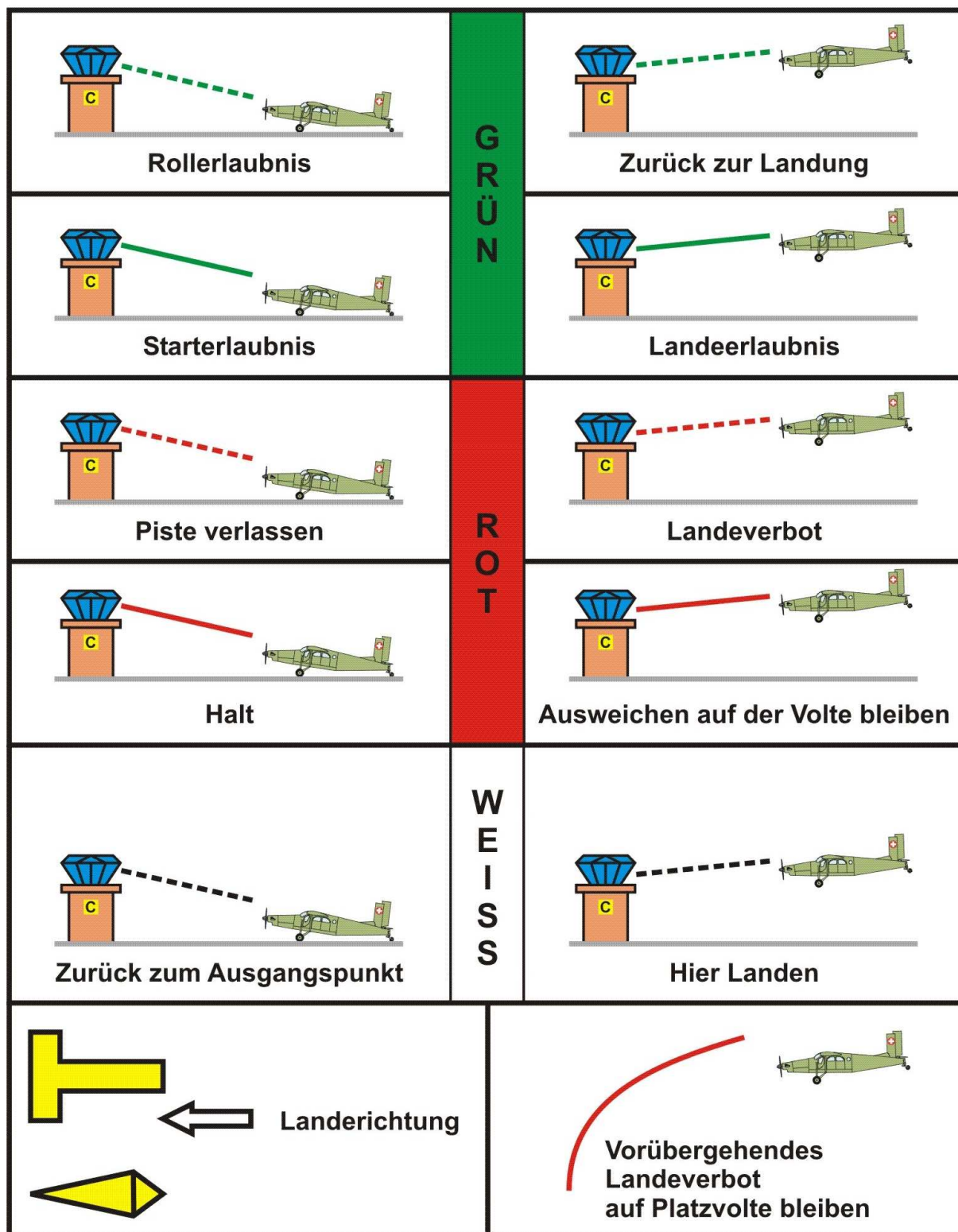
## POWER OFF LANDING

- |                             |                        |
|-----------------------------|------------------------|
| 1. Establish best glide     | • $V_Y$ <b>85</b> MPH  |
| 2. Wind                     | • check wind direction |
| 3. Locate suitable field    |                        |
| 4. Establish spiral pattern | • if required          |
| 5. Transmit Emergency       | • 121.50; Squawk 7700  |
| 6. Downwind                 | • 1000 ft above GND    |

→→When field can easily reached→→

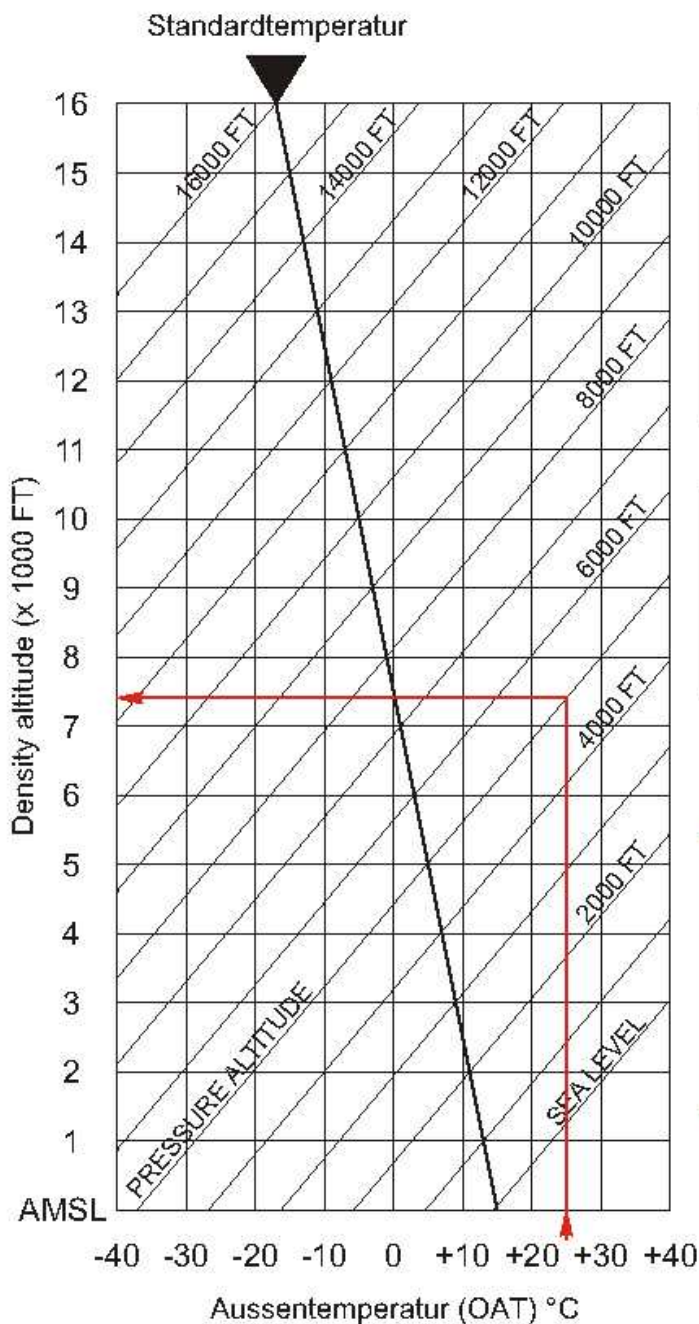
- |                          |                     |
|--------------------------|---------------------|
| 7. Speed reduce          | • min <b>76</b> MPH |
| 8. Mixture               | • cut off           |
| 9. Fuel selector         | • off               |
| 10. Ignition             | • off               |
| 11. Master switch        | • off               |
| 12. Seatbelt and harness | • tight             |
| 13. Door                 | • open              |
| 14. Flaps                | • full down         |
| 15. Land                 | • Nose up attitude  |

## OTHER EMERGENCIES CHECK AFM



Meter in Fuss ( m ft ) FT = / 3 x 10  
 Fuss in Meter ( ft m ) M = x 3 / 10

Standard turn Bank = ( TAS / 10 ) + 7



**Pressure Altitude**  
 <16'000 FT=30 FT/hpa (8M)  
 Die PA wird ermittelt, indem der Höhenmesser auf 1013 hpa (FL) eingestellt wird

**Density Altitude**  
 Standard: -2°C pro 1000 FT  
 Abweichung von Standard: = 120 FT pro °C

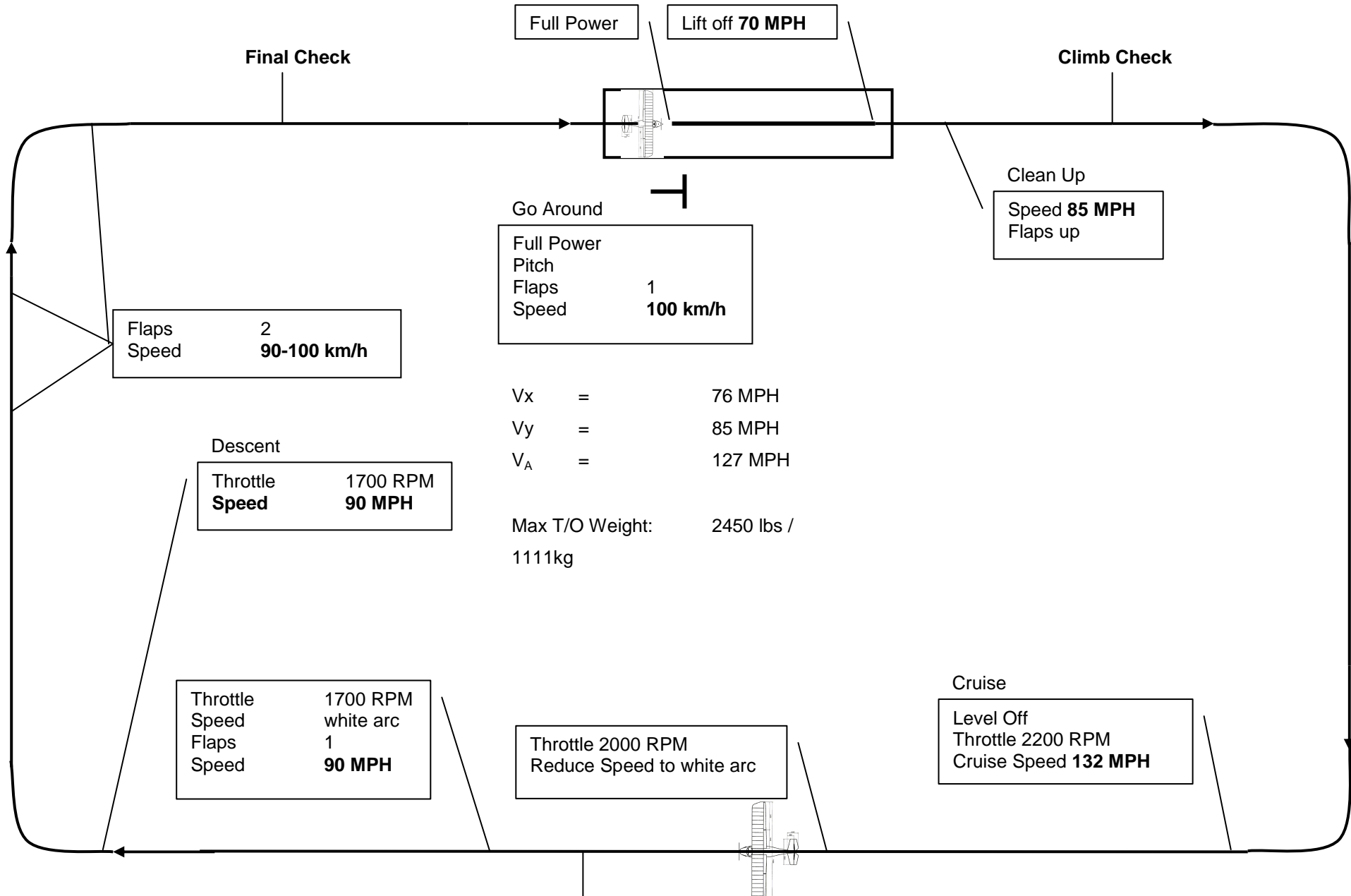
**Beispiel:**  
 Druckhöhe PA = 5000 FT  
 Aussentemp. OAT = 25°C  
 Ergibt eine Dichtehöhe DA = 7400 FT

## **BLEIFREI 98 Betankung in LSTZ**

1. Kompressor im Hangar einschalten
2. Filter am Betankungsstutzen anbringen
3. Kanister bereitstellen
4. Betankungsgerät in Kanister einsetzen
5. Schlauch am Filter ansetzen
6. Betankung ausführen
7. Betankungsgerät am Kanister lösen
8. Filter am Betankungsstutzen entfernen
9. Kompressor ausschalten

- Bezugsquelle von Bleifrei 98 ist ausschliesslich die **LANDI Zweisimmen**
- Auf anderen Flugplätzen **in der Schweiz** kann MOGAS betankt werden, wenn es dort angeboten wird
- Im Ausland ist **immer** AVGAS100LL zu betanken

**Für die korrekte Betankung des Flugzeugs ist immer der Pilot verantwortlich!**



Flaps 2  
Speed 90-100 km/h

Full Power

Lift off **70 MPH**

Climb Check

Clean Up  
Speed **85 MPH**  
Flaps up

Go Around  
Full Power  
Pitch  
Flaps 1  
Speed **100 km/h**

V<sub>x</sub> = 76 MPH  
V<sub>y</sub> = 85 MPH  
V<sub>A</sub> = 127 MPH

Max T/O Weight: 2450 lbs / 1111kg

Descent  
Throttle Speed 1700 RPM  
**Speed 90 MPH**

Throttle Speed 1700 RPM  
white arc  
Flaps 1  
**Speed 90 MPH**

Throttle 2000 RPM  
Reduce Speed to white arc

Cruise  
Level Off  
Throttle 2200 RPM  
**Cruise Speed 132 MPH**