



checklist

Cessna 182

Skylane

OE - KHF



1. Entfernungen

1 NM / Nautical Mile (Seemeile)	=	1,853	km
1 km	=	0,539	NM / Nautical Miles / Seemeilen
1 Statute Mile (Landmeile)	=	1,609	km
1 km	=	0,62	Statute Miles / Landmeilen
1 kt / Nautical Mile per Hour	=	1,853	km/h
1 km/h	=	0,539	kts / Nautical Miles per Hour
1 MPH / Statute Miles per Hour	=	1,609	km/h
1 km/h	=	0,62	MPH / Statute Miles per Hour
1 MPH	=	0,868	kts
1 ft (1') =	0,304	m	1 m = 3,28 ft
1 inch (1") =	2,54	cm	1 cm = 0,393 inch

2. Gewichte und Raummaße

1 lb (pound) =	0,453	kg	1 kg =	2,205	lbs
1 GAL (US) =	3,785	Liter	1 Liter =	0,264	GAL (US)
1 qt ÖL =	0,946	Liter = ~ 1/4 GAL			
1 l ÖL =	2	lbs	1 qt Öl =	0,85	kg Öl
1 Liter AVGAS =	1,584	lbs AVGAS	1 lb AVGAS =	0,63	Liter AVGAS
1 Liter AVGAS =	0,72	kg AVGAS			

1 US GAL AVGAS = 6 lbs AVGAS

3. Steigraten

1 m/sec = 196,8 fpm (feet per minute) 1000 fpm = 5,08 m/sec

4. Temperaturen

T °Celsius = (5/9 mal T °Fahrenheit) - 32 T °Fahrenheit = (9/5 mal T °Celsius) + 32

5. Näherungsformeln

(NM (kts) x 2) minus 10 % ~ km (km/h)	(km (km/h) : 2) + 10 % ~ NM (kts)
(Meter x 3) + 10 % ~ ft	(ft : 10) x 3 ~ m
fpm : 200 ~ m/sec	(kg x 2) + 10% ~ lbs
Temperaturabnahme mit der Höhe	2° je 1000 ft
Fahrtmesser Höhenkorrektur	+ 2% je 1000 ft Druckhöhe

6. Zurückgelegte Wege

60 kt = 1 NM/Minute 120 kt = 2 NM/Minute 180 kt = 3 NM/Minute

Diese Checkliste dient einer sicheren Flugdurchführung und darf daher aus dem Flugzeug nicht entfernt werden



1. Abkürzungen

- () bedeutet: "nach Erfordernis" oder "falls vorhanden"
- (I) gilt nur für IFR (oder NVFR)
- N gilt nur für NVFR

BLOCK OFF POSITION Position des Flugzeugs, von der aus mit Motorkraft zum Start gerollt wird.

CREW AT STATIONS bedeutet, dass Besatzung und Passagiere ihre Sitze eingenommen haben, und angeschnallt sind.

KURSIV *Allgemeine Hinweise*

rec recommended empfohlene Werte, welche in Hinblick auf Sparsamkeit, Flugzeugschonung oder Lärmreduktion eingehalten werden sollen.

MAP (MP)	Manifold Pressure / Ladedruck	DC	Direct current / Gleichstrom
RPM	Revolutions per minute = U/min	AC	Alternate current / Wechselstrom
TO	Take off	KIAS	Knots indicated air speed am Fahrtmesser angezeigt
FF	Fuel flow / Kraftstoffdurchfluss	KTAS	Knots true air speed für Druck und Temperatur korrigiert
I/h	Verbrauch in Liter je Stunde	TIT	Turbine inlet Temperature
GPH (Gal/h)	Verbrauch in Gallonen je Stunde	MFD	Multi function Flight Display
PPH (lbs/h)	Verbrauch in Pfund je Stunde		
PFD	Primary Flight Display		

AVIONIC(S) alle Navigationsinstrumente (ADF, VOR, DME, RNAV, GPS)

RADIO(S) Funkgerät(e)

SPEEDS alle Geschwindigkeitsangaben beziehen sich auf Geradeausflug, erhöhte Werte für Überziehgeschwindigkeit im Kurvenflug bitte beachten.

ELECTRICAL EQUIPMENT alle elektrischen Verbraucher

POH = Pilots Operating Handbook = **AFM** = Aircraft Flight Manual = Betriebshandbuch

2. Transponder Codes im Notfall

Emergency ----- 7700
Communication Failure ----- 7600

3. Transponder Code VFR

Austria / Germany ----- 7000



4. Benutzung der Checkliste

- Die Benutzung der Checkliste enthebt nicht von der Pflicht zur Kenntnis des POH.
- Folgende Regeln gelten nur insoweit, als nicht Sicherheit, Anordnungen der Flugsicherung oder Notverfahren entgegenstehen.

5. Lärmschutz / Umweltschutz

- Nach dem Abheben, bei "positive rate of climb", Gas und Propellerdrehzahl aus Lärmschutzgründen umgehend etwas zurücknehmen. Damit wird zwar nicht maximale Steigleistung aber Lärminderung erreicht.
- Im Anflug mit Motorleistung keine Propellerverstellung auf "high RPM".
- Auf das Verbot von Tiefflügen wird verwiesen.
- Die Mindestflughöhen sind, wann immer möglich, zu überschreiten.

6. Schonung des Motors und Verlängerung der Lebensdauer

- Leistungseinstellung nach Betriebshandbuch oder Checkliste.
- Im Regelfall sollte mit einer Leistung von 65 % das Auslangen gefunden werden.
- **Exakt Leanen**. Bei maximal 75 % Leistung 70 °F unter PEAK TIT auf reicher Seite einstellen und Motortemperatur (CHT) beobachten.
- Keine abrupten Lastwechsel.
- Kein Sinkflug mit Motorleerlauf.
- Im Sinkflug Gemisch nur langsam anreichern um Unterkühlung zu vermeiden.
- Propellerverstellung nur langsam betätigen, insbesondere keine abrupte Propellerverstellung auf "High RPM" unter Last.
- Im Anflug auf lange Pisten und wenn kein Durchstarten zu erwarten ist, sollte auf eine Propellerverstellung in Richtung "High RPM" verzichtet werden.
- Im Regelfall nicht unter 5000 ft leanen.

7. Landing Light einschalten

- Hinausrollen auf die Startbahn bis zum Erreichen der Sicherheitshöhe.
- Landeanflug bis zum Verlassen der Piste.

8. Taxi Light einschalten

- Rollen und Run up am Tag und bei Nacht.

9. Treibstoffverbrauch

- Verbrauchsangaben im POH sind Idealwerte und für eine Flugvorbereitung zu niedrig!
- Es wird empfohlen die Erfahrungswerte auf dem Blatt "PERFORMANCE" als realistischen Anhaltspunkt zu verwenden.



1. SPEEDS

- Never exceed speed.....	V _{NE}	175	KIAS
- Maximum structural cruising speed	V _{NO}	140	KIAS
- Maneuvering speed (3100 lbs = 1406 kg)	V _A	110	KIAS
- Maneuvering speed (2600 lbs = 1179 kg)	V _A	101	KIAS
- Maneuvering speed (2100 lbs = 953 kg)	V _A	91	KIAS

2. ENGINE NORMAL OPERATION

- Do not open or close throttle rapidly.
- Avoid high engine speed and low manifold pressure operating.
- Avoid engine undercooling during descents.
- Do not move PROP full forward rapidly.
- Do not move PROP forward during power approach.

3. WEIGHTS

- Empty Weight	968 kg	=	2133 lbs
- Maximum Ramp Weight	1411 kg	=	3112 lbs
- Maximum take off (MTOW)	1406 kg	=	3100 lbs
- Maximum landing (MLW)	1338 kg	=	2950 lbs
- Maximum in baggage compartment /			
area A	54 kg	=	120 lbs
area B	36 kg	=	80 lbs
area C	36 kg	=	80 lbs
-	A+B+C total not more than 200 lbs		

4. Maximum demonstrated Crosswind

15 kts

5. FUEL

- Total fuel both tanks 348 l = 92 GAL = 552 lbs
 - Usable fuel both tanks 329 l = 87 GAL = 522 lbs
- Do not operate with fuel imbalance of more than ¼ tank indication difference.

6. OIL CAPACITIES

- Oil capacity for extended flights 9 qts
- **MINIMUM** 4 qts **DO NOT START ENGINE!**

7. VOLTAGE

- Electrical system direct current / DC 28 volts



8. Power setting

Auszüge aus dem Betriebshandbuch zur schnellen Information
Die Werte beziehen sich auf "STANDARD TEMPERATURE" / STD °C.
Korrekturen bei Temperaturabweichungen siehe Betriebshandbuch.

Altitude	RPM	MP	%BHP	KTAS	GPH	STD °C
2000	2300	23	71	133	12,4	+ 11
	2200	23	69	130	12,0	
	2100	23	65	127	11,5	
4000	2300	22	69	133	12,1	+ 7
	2200	22	66	130	11,7	
	2100	23	67	131	11,8	
6000	2300	21	67	133	11,7	+ 3
	2200	22	69	134	12,0	
	2100	22	65	131	11,5	
8000	2300	21	69	137	12,0	- 1
	2200	21	66	134	11,6	
	2100	21	63	131	11,2	
10000	2300	21	71	141	12,4	- 5
	2200	20	64	134	11,3	
	2100	20	61	130	10,8	
12000	2300	18	59	130	10,6	- 9
	2200	18	57	128	10,3	

Die Verbrauchswerte des Betriebshandbuches gelten für gleichmäßigen Horizontalflug, Fluggewicht 3100 lbs, Landeklappen eingefahren, Kühlluftklappen geschlossen und bei optimaler Gemischeinstellung (70° F auf reicher Seite von PEAK TIT).

Nach der Clubstatistik ist ein Durchschnittsverbrauch von
55 l/h = 87 PPH = 14,5 GPH realistisch

Altitude	= Pressure Altitude	KTAS	= Knoten True Airspeed
RPM	= Drehzahl	GPH	= Verbrauch in Gallonen je Stunde
MP = MAP	= Manifold Pressure	PPH	= Verbrauch in Pfund je Stunde
% BHP	= Prozent Leistung	EGT max	= maximale Abgastemperatur



PREFLIGHT INSPECTION

1 BLOCK OFF POSITION

01	----	Towing bar	-----	remove / store	-----	01
02	() -	Tie downs left/right wing / tail	----	remove / store	-----	() 02
03	----	Pitot cover	-----	remove / store	-----	03
04	() -	Fuel drains left/right wing	-----	first flight of day / check closed	-----	() 04
05	() -	Fuel strainer lower cowling	-----	first flight of day / check closed	-----	() 05

2 CABIN

01	----	Parking brake	-----	set	-----	01
02	----	Control lock	-----	remove / store	-----	02
03	----	Magnetos	-----	check OFF	-----	03
04	----	Mixture	-----	check idle cut off	-----	04
05	----	Electrical equipment	-----	OFF	-----	05
06	----	AVIONICS BUS 1 and BUS 2	----	OFF	-----	06
07	----	MASTER BATTERY	-----	ON	-----	07
08	----	Primary Flight Display (PFD)	----	verify ON	-----	08
09	----	FUEL QTY (L and R)	-----	CHECK	-----	09
10	----	Low Fuel L and R Annunciators	--	verify OFF	-----	10
11	----	OIL PRESSURE Annunciator	----	verify ON	-----	11
12	----	LOW VACUUM Annunciator	----	verify ON	-----	12
13	----	VOLTS	-----	check minimum 24 volt	-----	13
14	----	AVIONICS Switch BUS 1	-----	ON	-----	14
15	----	Forward Avionics Fan	-----	CHECK AUDIBLY FOR OPERATION	-----	15
16	----	AVIONICS Switch BUS 1	-----	OFF	-----	16
17	----	AVIONICS Switch BUS 2	-----	ON	-----	17
18	----	Aft Avionics Fan	-----	CHECK AUDIBLY FOR OPERATION	-----	18
19	----	AVIONICS Switch BUS 2	-----	OFF	-----	19
20	----	PITOT HEAT	-----	ON as required / check warm	-----	20
21	----	PITOT HEAT	-----	OFF	-----	21
22	----	Stall Warning System	-----	CHECK	-----	22
23	----	All Lights and Beacon	-----	CHECK	-----	23
24	----	Flaps	-----	DOWN	-----	24
25	----	MASTER ALT and BATT	-----	OFF	-----	25
26	----	Fire Extinguisher	-----	VERIFY gage green arc	-----	26
27	----	First aid	-----	available in baggage compartment	-----	27



PREFLIGHT INSPECTION

3 LEFT WING

01	----	Wing flap / Aileron	-----	check for security / free movement	-----	01
02	----	Wing tip / Light	-----	undamaged	-----	02
03	----	Landing / Taxi light	-----	check for condition and cleanliness	-----	03
04	() -	Fuel quantity	-----	check visually	-----	() 04
05	----	Fuel filler cap	-----	secure and vent unobstructed	-----	05
06	----	Fuel tank vent	-----	check for stoppage	-----	06
07	----	Stall warning	-----	check for free movement	-----	07
08	----	Pitot tube	-----	check opening for stoppage	-----	08
09	----	Tire	-----	check for pressure, profile and markings	-----	09
10	----	Brake	-----	check visually (oil leakage)	-----	10
11	----	Wheel fairing	-----	check undamaged	-----	11

4 FORWARD FUSELAGE / NOSE

01	----	Static source left side	-----	check for stoppage	-----	01
02	----	Windshield	-----	undamaged and clean	-----	02
03	----	Engine cowling	-----	check for condition and security	-----	03
04	----	Oil capacity	-----	check / rec 9 qt	-----	04
05	----	Engine compartment	-----	check visually	-----	05
06	----	Oil inspection + refilling door	----	check locked	-----	06
07	----	Propeller	-----	check for nicks, security and oil leaks	-----	07
08	----	Spinner	-----	secure and undamaged	-----	08
09	----	Exhaust pipe	-----	check for condition	-----	09
10	----	Air intakes	-----	check for restrictions	-----	10
11	----	Air filter	-----	check for condition	-----	11
12	----	Cowl flaps	-----	check for security	-----	12
13	----	Nose wheel tire	-----	check for pressure, profile and markings	-----	13
14	----	Nose wheel fairing	-----	check undamaged	-----	14
15	----	Shock absorber	-----	normal position	-----	15
16	----	Static source right side	-----	check for stoppage	-----	16

5 RIGHT WING

01	() -	Fuel quantity	-----	check visually	-----	() 01
02	----	Fuel filler cap	-----	secure and vent unobstructed	-----	02
03	----	Fuel tank vent	-----	check for stoppage	-----	03
04	----	Tire	-----	check for pressure, profile and markings	-----	04
05	----	Brake	-----	check visually (oil leakage)	-----	05
06	----	Wheel fairing	-----	check undamaged	-----	06
07	----	Wing tip / Light	-----	undamaged	-----	07
08	----	Aileron / Wing flap	-----	check for security / free movement	-----	08



PREFLIGHT INSPECTION

6 TAIL UNIT

- 01 --- Visual inspection ----- no damage ----- 01
- 02 --- Antennas ----- undamaged and fixed ----- 02
- 03 --- Elevator / Rudder ----- check for security / free movement ----- 03
- 04 --- Trim tab ----- check for security ----- 04
- 05 --- Lights ----- check for condition and cleanliness ----- 05

7 FLIGHT RECORDS / DOCUMENTS / CHARTS

- 01 --- Aircraft operation manual / POH-- handy on board ----- 01
- 02 --- Garmin G1000TM ----- handy on board ----- 02
- 03 --- Garmin Software CD ----- on board ----- 03
- 04 --- Aircraft documents ----- on board and complete ----- 04
- 05 --- Pilots licence / Medical ----- on board ----- 05
- 06 ()- Passport ----- on board ----- () 06
- 07 --- Flight log / Charts ----- prepared and handy in cockpit ----- 07
- 08 --- Fuel calculation ----- prepared ----- 08
- 09 --- Weight and balance ----- prepared ----- 09
- 10 --- Weather information ----- checked ----- 10
- 11 () - Flight plan ----- acknowledged ----- () 11
- 12 () - NOTAMS / SLOTS ----- checked ----- () 12
- 13 () - Customs ----- disposed ----- () 13

Intentionally left blank

8 LOADING

- 01 --- Sic sacs ----- handy in cockpit (back rests) ----- 01
- 02 ()- Motor oil reserve ----- store in baggage compartment ----- () 02
- 03 () - Tie down set / Tow bar ----- store in baggage compartment ----- () 03
- 04 ()- Baggage ----- load and secure ----- () 04
- 05 --- Pitot cover ----- store in baggage compartment ----- 05
- 06 --- Fuel sampler cup ----- store in baggage compartment ----- 06
- 07 ()- Wheel chocks ----- remove ----- () 07
- 08 --- Baggage door ----- lock ----- 08

9 PASSENGERS

- 01 ()- Passport ----- check available ----- () 01
- 02 ()- Briefing ----- flight information given ----- () 02
- 03 ()- Boarding assistance ----- fasten seat belts ----- () 03

EXTERIOR CHECK COMPLETED
NORMAL FLIGHT CHECKLIST NEXT



PREFLIGHT INSPECTION



NORMAL FLIGHT CHECKS

1 CREW AT STATIONS

01	----	Preflight inspection	-----	completed	-----	01
02	----	Flight log / Charts	-----	prepared	-----	02
03	----	Sun glasses	-----	handy	-----	03
04	()--	Pocket lamp	-----	handy / check function	-----	() 04
05	----	Head sets / Second mike	-----	installed / handy	-----	05
06	----	Tow bar / Wheel chocks	-----	be sure removed	-----	06
07	----	Passenger Briefing	-----	complete	-----	07
08	()--	Oxygen masks	-----	handy / check function / as required	-----	() 08

2 BEFORE ENGINE START

01	----	Seat belts / Seats	-----	adjusted / locked / look for passengers	-----	02
02	----	Doors / Windows	-----	closed / locked	-----	01
03	()--	Parking brake	-----	set	-----	() 03
04	----	Alternate static source valve	-----	check closed	-----	04
05	----	Pitch / Rudder trim	-----	set for Take off	-----	05
06	----	Cowl flaps	-----	OPEN	-----	06
07	----	Electrical equipment	-----	OFF	-----	07
08	----	Avionics Switch / BUS 1 and 2	-----	OFF	-----	08
09	----	STBY Battery switch	-----		-----	
		TEST	-----	HOLD 20 seconds / Verify that GREEN TEST lamp does NOT go out	-----	
		ARM	-----	verify that PFD comes on	-----	09
10	----	Engine indicating System	-----	Check parameters - verify NO RED X's through engine page indicators	-----	10
11	----	BUS E Volts	-----	verify 24 volts minimum	-----	11
12	----	BUS M Volts	-----	verify lower than 1,5 volts	-----	12
13	----	BATT S amps	-----	verify discharge (negative)	-----	13
14	----	STBY BATT annunciator	-----	verify ON	-----	14
15	()--	Panel lights	-----	ON	-----	() 15
16	----	ATIS / (I) Start up	-----	note / request	-----	16
17	----	Altimeter PFD BARO	-----	SET	-----	
		Standby Altimeter	-----	SET	-----	17
18	----	Fuel quantity	-----	check	-----	18
19	----	Fuel selector	-----	BOTH	-----	19
20	----	ELT	-----	ARM	-----	20

ENGINE START NEXT



NORMAL FLIGHT CHECKS

3 ENGINE START

01	----	Rotating beacon	-----	ON	-----	01
02	----	MASTER BATTERY	-----	ON	-----	02
03	----	Circuit breakers	-----	check IN	-----	03
04	----	Prop control / Throttle	-----	full forward / 1/2 cm open	-----	04
				If engine is warm, go to # 08 (omit priming procedure)		
05	----	FUEL PUMP switch	-----	ON	-----	05
06	----	Mixture	-----	FULL RICH	-----	
				wait until fuel flow indication is stable, then return to IDLE CUT OFF	-----	06
07	----	FUEL PUMP switch	-----	OFF	-----	07
08	----	Prop area	-----	CLEAR	-----	08
09	----	STARTER	-----	ENGAGE and advance Mixture smoothly to FULL RICH when engine starts	-----	09
				If engine floods, place mixture to IDLE CUT OFF, open throttle 1/2 and engage starter. When engine starts, advance mixture FULL RICH and retard throttle promptly.		
10	----	Oil pressure	-----	check green sector	-----	10
11	----	ALTERNATOR	-----	ON	-----	11
12	----	VOLTS / BUS M and BUS E	-----	check 28 volts	-----	12
13	----	LOW VOLTS annunciator	-----	verify OFF	-----	13
14	----	AMPS / BATT M and BATT S	-----	check charge / positive	-----	14
15	----	Avionics / BUS 1 and BUS 2	-----	ON / verify that MFD comes on	-----	15
16	----	(IFR) Data Base void	-----	check and confirm	-----	16

4 AFTER ENGINE START

01	----	VAC indicator / Backup Horizon	-----	check	-----	01
02	----	GAL REM	-----	SET	-----	02
03	----	MFD	-----	MENU Restore All Default	-----	03
04	----	Wing flaps	-----	check and set for Take off / rec 10°	-----	04
05	----	COM / NAV / FMS/GPS	-----	set for departure	-----	05
				Check GPS2 availability on AUX-GPS STATUS page. No annunciation is provided for loss of GPS2		
06	----	CDI softkey	-----	select NAV source	-----	06
07	----	Transponder	-----	check GND Mode / squawk	-----	07

READY FOR TAXI

5 TAXI

01	----	Taxi light / NAV lights ()	-----	ON	-----	01
02	----	Parking brake	-----	release	-----	02
03	----	PDF / MFD / STBY INSTR.	-----	verify correct outputs	-----	03

Power for taxiing maximum 1000 RPM / Don't brake continuously

TAXI CHECK COMPLETED | BEFORE DEPARTURE NEXT



NORMAL FLIGHT CHECKS

6 BEFORE DEPARTURE

01	----	Passenger seat backs	-----	most upright position	-----	01
02	----	Seat and seat belts	-----	recheck secure	-----	02
03	----	Doors / Windows	-----	recheck closed and locked	-----	03
04	----	Flight controls	-----	free and correct	-----	04
05	----	Flight instruments / PFD	-----	check NO RED Xs	-----	05
06	----	Altimeters	-----	recheck	-----	06
07	----	G 1000 ALT SEL	-----	SET	-----	07
08	----	All standby instruments	-----	recheck	-----	08
09	----	Fuel quantity	-----	check / verify correct level	-----	09
10	----	Prop control	-----	High RPM / full forward	-----	10
11	----	Mixture	-----	full forward	-----	11
12	----	Fuel selector valve	-----	recheck BOTH	-----	12
13	----	Elevator and rudder trim	-----	check for takeoff	-----	13
14	----	Manual electric trim	-----	check (refer to POH supplement 3)	-----	14

7 RUN UP

01	()--	Parking brake	-----	set	-----	() 01
02	----	Power	-----	advance to 1800 RPM	-----	02
03	----	Prop control	-----	cycle twice (max. 500 RPM drop)	-----	03
04	----	Magnetos Check	-----	max drop 175 RPM, max difference 50 RPM	-----	04
05	----	VAC indicator	-----	check	-----	05
06	----	Engine indicators	-----	check	-----	06
07	----	Annunciators	-----	check NONE illuminated	-----	07
08	()--	PROP deice	-----	check function	-----	() 08
09	----	Power	-----	reduce to 800 - 1000 RPM	-----	09
10	----	Control friction lock	-----	adjust	-----	10
11	----	COM and NAV frequencies	-----	recheck setting	-----	11
12	----	FMS/GPS Flight Plan	-----	as desired	-----	12
13	----	CDI	-----	recheck	-----	13
14	----	Transponder	-----	recheck GND Mode / squawk	-----	14
15	----	Autopilot	-----	OFF	-----	15

**BEFORE DEPARTURE / RUN UP CHECK COMPLETED
TAKE OFF BRIEFING NEXT**



NORMAL FLIGHT CHECKS

8 TAKE OFF BRIEFING

01	----	Maximum TO power	-----	2400 RPM	-----	01
02	----	V ₁ = V _{ROT}	-----	60 KIAS	-----	02
03	----	Initial Climb	-----	80 KIAS / flaps up	-----	03
04	----	Cruise climb	-----	90 - 100 KIAS	-----	04
05	----	Runway	-----	check	-----	05
06	----	Departure Route	-----	check	-----	06
07	----	In case of engine failure	-----	check procedures	-----	07

READY FOR TAKE OFF

9 LINING UP

01	----	Landing light / (Strobes)	-----	ON	-----	01
02	()--	Pitot heat	-----	ON / as required	-----	() 02
03	()--	Prop deice	-----	ON / as required	-----	() 03
04	----	Parking brake	-----	check released	-----	04
05	----	Compass	-----	check heading / RWY identified	-----	05
06	----	Time	-----	check and note	-----	06
07	----	Mixture / Prop Control	-----	recheck full rich / full forward	-----	07
08	----	Cowl flaps	-----	recheck OPEN	-----	08

10 NORMAL TAKE OFF

01	----	Takeoff power	-----	monitor max. 32 MAP 2400 RPM	-----	01
02	----	Speed	-----	alives	-----	02
03	----	Engine instruments	-----	check	-----	03
04	----	Rotate = V ₁	-----	60 KIAS	-----	04
05	----	Positive rate of climb	-----	brakes apply	-----	05
06	----	Initial climb speed / wing flaps	----	80 KIAS FLAPS UP	-----	06
07	----	Transponder	-----	check that automatically ON ALT	-----	07

11 CRUISE CLIMB / when reaching safe altitude at 300 ft ground

01	----	Cruise climb speed	-----	90 - 100 KIAS	-----	01
02	----	Power	-----	reduce 25 MAP 2400 RPM	-----	02
03	----	Wing flaps	-----	recheck UP	-----	03
04	----	Taxi / Landing light	-----	OFF	-----	04
05	----	Pitch / Rudder trim	-----	correct	-----	05
06	----	Cowl flaps	-----	OPEN	-----	06
07	()--	Altimeter	-----	set 1013	-----	() 07

**CLIMB CHECK COMPLETED
CRUISE CHECK NEXT**



NORMAL FLIGHT CHECKS

12 CRUISE

- 01 ---- Power setting ----- rec. **65 %** / refer to checklist "performance" -- 01
- 02 --- Pitch trim / Rudder trim ----- adjust ----- 02
- 03 --- Cowl flaps ----- close as required ----- 03
- 04 --- Mixture only **above 5000 ft** ----- LEAN ASSITSTANT | **70°F below peak TIT** - 04
- 05 --- Fuel selector ----- BOTH ----- 05
- 06 --- Fuel quantity ----- check / avoid fuel imbalance ----- 06

CRUISE CHECK COMPLETED

DESCEND CHECK NEXT

13 DESCENT

- 01 --- Power ----- descend with power to avoid undercooling --- 01
- 02 --- Prop control ----- maintain cruise setting / avoid high RPM ---- 02
- 03 --- Speed ----- take notice of Speed Limitations ----- 03
- 04 --- Cowl flaps ----- closed ----- 04
- 05 --- Mixture ----- enrich for smooth operation ----- 05
- 06 --- Altimeters ----- PFD (BARO) SET
Standby Altimeter SET ----- 06
- 07 --- G 1000 ALT SEL ----- SET ----- 07
- 08 --- CDI Softkey ----- SELECT NAV source ----- 08
- 09 --- FMS/GPS ----- REVIEW and BRIEF OBS/SUSP softkey
operation for holding pattern procedure (IFR) 09

DESCEND CHECK COMPLETED

APPROACH BRIEFING NEXT



NORMAL FLIGHT CHECKS

14 APPROACH BRIEFING

- 01 --- ATIS ----- note ----- 01
- 02 --- Approach Routing ----- check ----- 02
- 03 --- Landing Runway ----- check ----- 03
- 04 (I)- Missed Approach ----- check procedure ----- (I) 03
- 05 --- Speed limits for flap setting ----- **Flaps 0° - 10°** below 140 KIAS
Flaps 10° - 20° below 120 KIAS
Flaps 20° - full below 100 KIAS ----- 05
- 06 --- **Approach speeds** ----- 90 KIAS / Flaps 10°
80 KIAS / Flaps 20°
70 KIAS / Flaps full ----- 06

15 APPROACH | FINAL APPROACH

- 01 --- Seat belts / Seats ----- fasten / adjust ----- 01
- 02 --- Seat backs ----- most up position ----- 02
- 03 --- Fuel selector ----- both ----- 03
- 04 --- Cowl flaps ----- check closed ----- 04
- 05 --- Mixture ----- full rich ----- 05
- 06 --- Power ----- reduce / **rec 100 KIAS** ----- 06
- 07 --- Landing / Taxi light ----- ON ----- 07
- 08 --- **Flaps 10°** below 140 KIAS ----- **Approach speed 90 KIAS** ----- 08
- 09 --- **Flaps 20°** below 120 KIAS ----- **Approach speed 80 KIAS** ----- 09
- 10 --- Runway ----- identified ----- 10
- 11 --- Autopilot ----- OFF ----- 11
- 12 --- **Flaps FULL** below 100 KIAS ----- **Final approach speed 70 KIAS** ----- 12
- 13 --- Trim ----- correct ----- 13
- 14 () - Prop control ----- slowly high RPM
only if go around may be expected ----- () 14

APPROACH | FINAL APPROACH CHECK COMPLETED

AFTER LANDING CHECK NEXT

**NORMAL FLIGHT CHECKS****16 AFTER LANDING**

Brake only if necessary / Apply brakes smoothly

- 01 --- Transponder ----- check GND Mode ----- 01
 02 --- TIMER ----- start timer for turbo charger slow down ----- 02

17 AFTER RUNWAY VACATED

- 01 --- Pitot heat ----- OFF ----- 01
 02 --- Prop deice ----- OFF ----- 02
 03 --- Prop control ----- high RPM / full forward ----- 03
 04 --- Cowl flaps ----- OPEN ----- 04
 05 --- Wing flaps ----- UP ----- 05
 06 --- Landing light ----- OFF ----- 06
 07 --- Pitch / Rudder trim ----- set for next Take Off ----- 07

18 ENGINE CUT OFF

- 01 --- Power ----- 1000 RPM ----- 01
 02 ()-- Parking brake ----- set ----- () 02
 03 --- Landing / Taxi light / Strobes ----- OFF ----- 03
 04 --- NAV lights ----- OFF ----- 04
 05 --- Pitot heat ----- recheck OFF ----- 05
 06 --- Prop deice ----- recheck OFF ----- 06
 07 --- ADF ----- OFF ----- 07
 08 --- AVIONICS BUS 1 and BUS 2 ----- OFF ----- 08

Check timer 5 minutes after touch down due to turbo charger slow down

- 09 --- Mixture ----- idle cut off ----- 09
 10 --- Magnetos ----- OFF / **REMOVE KEY** ----- 10
 11 --- Rotating beacon ----- OFF ----- 11
 12 --- All internal lights ----- OFF ----- 12
 13 --- Battery ----- OFF ----- 13
 14 --- Alternator ----- OFF ----- 14
 15 --- **STBY BATTERY** ----- **OFF** ----- 15
 16 --- Fuel selector valve ----- LEFT or RIGHT to prevent crossfeed ----- 16
 17 --- Oxygen supply ----- check closed ----- 17

ENGINE CUT OFF COMPLETED**SECURING AIRPLANE NEXT****NORMAL FLIGHT CHECKS****19 SECURING AIRPLANE**

- 01 ()-- Parking brake ----- set ----- () 01
 02 --- Control lock ----- install ----- 02
 03 --- Windows ----- check closed ----- 03
 04 --- Seat belts ----- arranged ----- 04
 05 --- CABIN CLEARING UP ----- done ----- 05
 06 --- Checklist ----- store on copilots seat ----- 06
 07 ()-- Sun protection ----- apply ----- () 07
 08 --- Pitot cover ----- adjust ----- 08
 09 ()-- Wheel chocks ----- apply ----- () 09
 10 ()-- Tie downs ----- secure ----- () 10

20 BEFORE LEAVING HANGAR / APRON

- 01 --- Battery / Alternator switch ----- recheck OFF ----- 01
 02 --- STBY BATTERY ----- recheck OFF ----- 02
 03 --- Cabin doors ----- lock ----- 03
 04 --- Tow bar ----- remove and store when out of hangar ----- 04
 05 --- Baggage door ----- lock ----- 05

Bitte, nicht vergessen, Insekten und sonstige Verunreinigungen
mit weichem Rehleder und sauberem Wasser entfernen.

Die Benutzung dieser "flugring checklist" enthebt den Piloten
nicht von der Pflicht zur Kenntnis des Betriebshandbuchs.

**1 Cold weather operation****1.1 Allgemeine Hinweise**

- Bei Temperaturen unter - 5°C sollte der Motor grundsätzlich nur nach Vorwärmung gestartet werden.
- Da bei Minustemperaturen auch die Batterien nicht mehr ihre volle Kapazität haben, wird die Verwendung eines externen Startaggregates / Starterbatterie empfohlen.

1.2 Anlassen mit Vorwärmung

- Warmluft auf Ölwanne und Zylinder richten / **mindestens 1 Stunde.**
- Nach Ende der Vorwärmung Motor unverzüglich starten.

2 Short field take off

01	Wing Flaps	20°	01
02	Brakes	APPLY	02
03	Throttle Control	FULL	03
04	Propeller Control	2400 RPM	04
05	Mixture Control	FULL RICH	
		Above 5000 feet pressure altitude lean for maximum RPM)	05
06	Brakes	RELEASE	06
07	Elevator Control	SLIGHTLY TAIL LOW	07
08	Climb Airspeed	58 KIAS	
		Until all obstacles are cleared	08
09	Wing Flaps	RETRACT SLOWLY	
		when airspeed is more than 70 KIAS	09

**3 ENGINE START | Using External Power**

Beim Anlassen mit External Power ist zunächst nach Punkt 1 und 2 der "Normal Flight Checklist" zu verfahren.

Punkt 3 der "Normal Flight Checklist" ändert sich wie folgt:

01	Rotating beacon	ON	01
02	Prop area	CLEAR	02
03	EXTERNAL POWER	CONNECT	03
04	MASTER BATTERY	ON	04
05	M BUS VOLTS	verify external power volts	05
06	Prop control	high RPM / full forward	06

If engine is warm, go to # 10 (omit priming procedure)

07	FUEL PUMP switch	ON	07
08	Mixture	FULL RICH / wait until fuel flow indication is stable, then return to IDLE CUT OFF	08
09	FUEL PUMP switch	OFF	09
10	STARTER	ENGAGE and advance Mixture smoothly to FULL RICH when engine starts	10

If engine floods, place mixture to IDLE CUT OFF, open throttle 1/2 and engage starter.
When engine starts, advance mixture FULL RICH and retard throttle promptly.

11	Oil pressure	check green sector	11
12	ALTERNATOR	ON	12
13	Engine RPM	reduce to idle	13
14	External Power	disconnect	14
15	Engine RPM	increase approximately 1500 RPM for several Minutes to charge battery	
16	AMPS / BATT M and BATT S	check charge / positive	16
17	LOW VOLTS annunciator	verify OFF	17
18	Internal Power	check	
	Master ALT	OFF	
	TAXI and LDG Lights	ON	
	Engine RPM	reduce to idle	
	Master ALT and BATT	ON	
	Engine RPM	increase	
	M BATT Ammeter	check	
	LOW VOLTS annunciator	verify OFF	18
19	VOLTS / BUS M and BUS E	check green	19
20	Avionics / BUS 1 and BUS 2	ON / verify that MFD comes on	20

IF M BATT DOES NOT SHOW + AMPS, REMOVE THE MAIN BATTERY FROM THE AIRPLANE AND SERVICE OR REPLACE THE BATTERY BEFORE FLIGHT.

CONINUE WITH "NORMAL FLIGHT CHECKS" "4 - AFTER ENGINE START"