

PREFLIGHT CHECK

CABIN

- 1 Aircraft Log & Aircraft Papers CHECKED
- 2 Control Lock..... REMOVED & STOWED AWAY
- 3 Avionics Master..... OFF
- 4 Ignition Switch..... OFF & KEY REMOVED
- 5 Autopilot..... OFF
- 6 Master Switch ON
- 7 Fuel Quantity Indicators CHECKED (Endurance !)
- 8 Flaps FULL DOWN
- 9 Master Switch OFF

OUTSIDE

- 10 Outside Check ACCORDING AFM

PREFLIGHT CHECK COMPLETED

CHECK BEFORE ENGINE START

- 1 Cabin Doors & Windows CLOSED & LOCKED
- 2 Seats, Seat Belts & Shoulder Harness ADJUSTED & SECURED
- 3 Parking Brake SET
- 4 Fuel Selector..... BOTH
- 5 Cowl Flaps FULL OPEN
- 6 Master Switch ON
- 7 Flaps UP
- 8 Mixture IDLE CUT OFF !
- 9 Propeller..... HIGH rpm
- 10 Throttle..... OPEN ½ cm
- 11 Beacon Light..... ON
- 12 Circuit Breakers CHECKED

CHECK BEFORE ENGINE START COMPLETED

STARTING ENGINE & AFTER ENGINE START CHECK

- 1 Auxiliary Fuel Pump Switch ON
- 2 Mixture RICH until fuel pressure rising, then IDLE CUT OFF
- 3 Propeller Area & Zone behind Aircraft CLEAR
- 4 Ignition Switch..... START
- 5 Mixture (when engine fires !) SMOOTHLY TO RICH
- 6 Throttle..... 1 000 rpm
- 7 Oil Pressure (after max 30") **WITHIN GREEN ARC**
- 8 Auxiliary Fuel Pump Switch OFF
- 9 Ammeter CHECKED
- 10 Ventilation, Heater, Defroster..... AS REQUIRED
- 11 Avionics Master..... ON
- 12 Avionics..... SET AS REQUIRED
- 13 Engine Warm Up..... AS REQUIRED
- 14 Parking Brake RELEASED

STARTING & AFTER ENGINE START CHECK COMPLETED – READY TO TAXI

TAXI CHECK

- 1 Brakes & Steering..... CHECKED
- 2 Gyro Instruments & Magnetic Compass..... CHECKED

TAXI CHECK COMPLETED

RUN UP

- 1 Parking Brake SET
- 2 Cylinder Head Temperature **WITHIN GREEN ARC**
- 3 Oil Temperature & Oil Pressure **WITHIN GREEN ARC**
- 4 Zone behind Aircraft CLEAR
- 5 Throttle 1 800 rpm
- 6 Mixture..... CHECK OPERATION (EGT)
- 7 Magnetos (L – B – R – B)..... CHECKED
(MAX. 150 rpm / MAX DIFF. 50 rpm)
- 8 Propeller CHECK FUNCTION (3x)
- 9 Suction..... **WITHIN GREEN ARC**
- 10 Ammeter CHECKED
- 11 Throttle IDLE (Min. 500 rpm – Max. 700 rpm)
- 12 Throttle 1 000 rpm

RUN UP COMPLETED

CHECK BEFORE DEPARTURE

- 1 Seats, Seat Belts & Shoulder Harness (PAX) RECHECKED
- 2 Cabin Doors & Windows CLOSED & LOCKED
- 3 Fuel Quantity L & R CHECKED (Endurance !)
- 4 Fuel Selector BOTH
- 5 Flaps..... AS REQUIRED
- 6 Mixture..... RICH (or as per Fuel Flow placard)
- 7 Elevator Trim SET FOR TAKE OFF
- 8 Rudder Trim..... SET **RIGHT** FOR TAKE OFF
- 9 Circuit Breakers..... CHECKED
- 10 Magnetos..... BOTH
- 11 Master Switch ON
- 12 Flight Instruments CHECKED & SET
- 13 Engine Instruments CHECKED
- 14 Annunciator Panel CHECK NO INDICATION
- 15 Flight Controls FREE & CORRECT
- 16 Departure & Emergency Briefing..... COMPLETED
- 17 Parking Brake RELEASED

CHECK BEFORE DEPARTURE COMPLETED – READY TO LINE UP

Approach Sector & Runway **FREE** / ENTER THE RUNWAY & LINE UP

LINE UP CHECK

- 1 Runway..... IDENTIFIED & DG SET
- 2 Wind CHECKED
- 3 Landing Light, Navigation Lights & Strobe Lights..... ON
- 4 Transponder “Mode ALT” DISPLAY **“GND” (7 000)**
- 5 Time..... NOTED

LINE UP CHECK COMPLETED

CLIMB CHECK

- 1 Climb Power..... SET (23" / 2 400 rpm / 15 GPH)
- 2 Flaps UP (clear of obstacles,
..... +ve ROC, SPEED > 70 kt)
- 3 Cowl Flap..... OPEN
- 4 Landing Light AS REQUIRED
- 5 Transponder "Mode ALT"..... DISPLAY "ALT" (7 000)

CLIMB CHECK COMPLETED

CRUISE CHECK

- 1 Altimeter..... SET AS REQUIRED
- 2 Directional Gyro RECHECKED
- 3 Cruise Power SET (according AFM)
- 4 Mixture LEANED
- 5 Cowl Flap..... CLOSED
- 6 Fuel Quantity L or R..... CHECKED (Endurance !)
- 7 Engine Instruments **WITHIN GREEN ARC**

CRUISE CHECK COMPLETED

DESCENT CHECK

- 1 ATIS (if available) NOTED
- 2 Approach Briefing COMPLETED
- 3 Avionics..... SET
- 4 Directional Gyro RECHECKED
- 5 Mixture SET AS REQUIRED
- 6 Cabin & PAX..... SECURED

DESCENT CHECK COMPLETED

APPROACH CHECK

- 1 Altimeter..... SET QNH (D/W Altitude)
- 2 Landing Light ON
- 3 Mixture RICH / AS REQUIRED
- 4 Autopilot..... OFF
- 5 Fuel Quantity L & R..... CHECKED (Endurance !)
- 6 Fuel Selector..... BOTH

APPROACH CHECK COMPLETED

FINAL CHECK

- 1 Propeller..... *push* HIGH rpm
- 2 Mixture *push* RICH / AS REQUIRED
- 3 Flaps *down* SET FOR LANDING

FINAL CHECK COMPLETED

AFTER LANDING CHECK

- 1 Transponder "Mode ALT"..... DISPLAY "GND"
- 2 Landing, Navigation & Strobe Light OFF
- 3 Flaps UP
- 4 Cowl Flap..... FULL OPEN
- 5 Elevator Trim..... SET FOR TAKE OFF

AFTER LANDING CHECK COMPLETED

PARKING & ENGINE SHUT DOWN

- 1 Parking Brake SET AS REQUIRED
- 2 Throttle..... 1 000 rpm !
- 3 COM..... MONITOR 121.50
- 4 Avionics Master..... OFF
- 5 Electrical Consumers (except beacon light)..... OFF
- 6 Mixture IDLE CUT OFF
- 7 Ignition Switch..... OFF & KEY REMOVED
- 8 Master Switch OFF
- 9 Beacon Light..... OFF
- 10 Fuel Selector..... RIGHT
- 11 Flight Data & Aircraft Log..... NOTED

PARKING & ENGINE SHUT DOWN CHECK COMPLETED

Important Data for Cessna C182S (according AFM)check T/O performance according AFM

- V_R (Rotating speed) 55 kt
- V_X (Best angle of climb speed) 65 kt
- V_Y (Best rate of climb speed) 80 kt
- V_A (Manoeuvring speed) 110 - 88 kt
- V_G (Best glide speed) (clean)..... 75 - 62 kt
- V_{NO} (Max. structural speed) 140 kt
- V_{NE} (Never exceed speed)..... 175 kt
- V_{FE} (Max. flaps extend speed) 100 kt
- V_{FE 20°} (Max. flaps extend speed @20°) 120 kt
- V_{FE 10°} (Max. flaps extend speed @10°) 140 kt
- V_S (Stalling speed - clean)..... 43 kt
- V_{SO} (Stalling speed – full flap) 36 kt
- V_{initial} 80 - 90 kt
- V_{intermediate} 75 kt
- V_{final} 60 kt
- V_{cruise climb} 90 kt
- Max. Crosswind** 15 kt

- Service Ceiling 18 100 ft
- Weights**
- MTOW 3 100 lb (1 406 kg)
- MLW 2 950 lb (1 338 kg)
- Empty weight 1 974 lb (895 kg)
- Max. useful load 1 126 lb (511 kg)

- Fuel (AVGAS 100LL)**
- Max. capacity92 US Gal (348 l)
- Usable fuel.....88 US Gal (333 l)
- Fuel up to collar .65 US Gal (246 l)
- Fuel flow13 US Gal/h (50 l/h)

- Oil (15W40)**
- Max. capacity9 US Quarts
- Min. quantity.....4 US Quarts

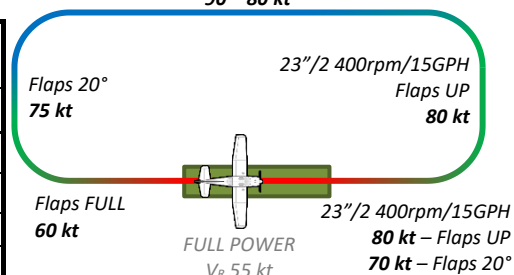
- Electrical system:** 28 V DC
- Battery:** 24 V DC

- Tyre pressure**
- Nose wheel 3.4 bar (49 psi)
- Main wheel..... 2.9 bar (42 psi)

- Engine:** 230 hp @ 2 400 rpm
- Textron Lycoming IO-540-AB1A5

- Circuit**(Power, Speed, Configuration)
- POWER 15" / 2 200 rpm
- Flaps 10°
- 90 – 80 kt

Pressure Altitude	ca.65% bhp or max. power Propeller 2 200 rpm				ca.75% bhp or max. power Propeller 2 400 rpm			
	MP	% bhp	KTAS	GPH	MP	% bhp	KTAS	GPH
2 000 ft	24"	66%	125	11.2	25"	76%	132	12.7
4 000 ft	23"	64%	124	10.9	24"	74%	133	12.4
6 000 ft	23"	66%	128	11.2	23"	72%	134	12.1
8 000 ft	21"	60%	125	10.4	21"	65%	130	11.1
10 000 ft	20"	58%	125	10.0	20"	63%	130	10.7
12 000 ft	18"	52%	118	9.1	18"	56%	124	9.7
14 000 ft	16"	45%	105	8.2	16"	48%	114	8.7



Corrections:
 v1.2: Dead Cut Check removed
 v1.2 Use of Avionics Master changed
 v1.3 Empty weight revised