

PREFLIGHT CHECK

CABIN

- 1 Aircraft Log & Aircraft Papers CHECKED
- 2 Control Lock REMOVED & STOWED AWAY
- 3 Ignition Switch OFF & KEY REMOVED
- 4 Avionics Power Switch..... OFF
- 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 Power Switch..... ON
- 12 Avionics SET AS REQUIRED
- 13 FLARM ON
- 14 Engine Warm Up AS REQUIRED
- 15 Parking Brake RELEASED

STARTING & AFTER ENGINE START CHECK COMPLETED – READY TO TAXI

TAXI CHECK

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

TAXI CHECK COMPLETED

RUN UP

- 1 Parking BrakeSET
- 2 Cylinder Head Temperature **WITHIN GREEN ARC**
- 3 Oil Temperature & Oil Pressure **WITHIN GREEN ARC**
- 4 Zone behind AircraftCLEAR
- 5 Throttle1 800 rpm
- 6 Mixture.....CHECK OPERATION (EGT)
- 7 Magnetos (L – B – R – B).....CHECKED
(MAX. 150 rpm / MAX DIFF. 50 rpm)
- 8 PropellerCHECK FUNCTION (3x)
- 9 Suction..... **WITHIN GREEN ARC**
- 10 Ammeter.....CHECKED
- 11 ThrottleIDLE (Min. 500 rpm – Max. 700 rpm)
- 12 Throttle1 000 rpm

RUN UP COMPLETED

CHECK BEFORE DEPARTURE

- 1 Seats, Seat Belts & Shoulder Harness (PAX)RECHECKED
- 2 Cabin Doors & WindowsCLOSED & LOCKED
- 3 Fuel Quantity L & RCHECKED (Endurance !)
- 4 Fuel SelectorBOTH
- 5 FlapsAS REQUIRED
- 6 Mixture.....RICH (or as per Fuel Flow placard)
- 7 Elevator TrimSET FOR TAKE OFF
- 8 Rudder TrimSET **RIGHT** FOR TAKE OFF
- 9 Circuit Breakers.....CHECKED
- 10 Magnetos.....BOTH
- 11 Master Switch.....ON
- 12 Flight InstrumentsCHECKED & SET
- 13 Engine InstrumentsCHECKED
- 14 Annunciator PanelCHECK NO INDICATION
- 15 Flight ControlsFREE & CORRECT
- 16 Departure & Emergency Briefing.....COMPLETED
- 17 Parking BrakeRELEASED

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 WindCHECKED
- 3 Landing Light, Navigation Lights & Strobe LightsON
- 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 Power Switch OFF
- 5 FLARM OFF
- 6 Electrical Consumers (except beacon light) OFF
- 7 Throttle at Idle CHECK DEAD CUT
- 8 Mixture IDLE CUT OFF
- 9 Ignition Switch **OFF & KEY REMOVED**
- 10 Master Switch OFF
- 11 Beacon Light OFF
- 12 Fuel Selector RIGHT
- 13 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** 1 900 lb (862 kg)
- Max. useful load** 1 200 lb (544 kg)

Fuel (AVGAS 100LL)

- Max. capacity** 92 US Gal (348 l)
- Usable fuel** 88 US Gal (333 l)
- Fuel up to collar** .65 US Gal (246 l)
- Fuel flow** 13 US Gal/h (50 l/h)

Oil (15W40)

- Max. capacity** 9 US Quarts
- Min. quantity** 4 US Quarts

Electrical system: 28 V DC

Battery: 24 V DC

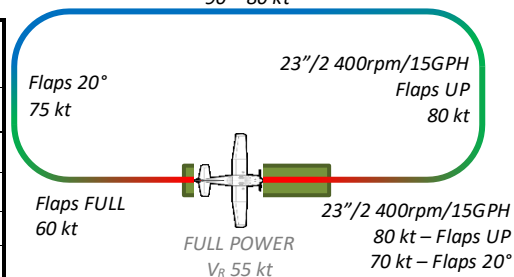
Tyre pressure

- 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)

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