

-It is prohibited to step in or out of the cockpit while the engine is on!

1. Fuel gauges – fuel amount check
2. Transciever - off
3. Fuel cock – open fuel tank with greater quantity of fuel
4. Fuel stop cock – open (if installed)
5. Throttle – idle (for cool engine, 1/3 for warm engine)
6. Choke – according to engine temperature
7. Area around propeller - free
8. Magnetoes – both circuits (A+B)
9. Fuel pump – turn on
10. Press the starter
11. Engine speed after start up - 2500 1/min
12. Oil pressure, fuel pressure – check
13. Segmental switches – switch them on (transciever, beacon, ...)
14. **deleted 01/2007**

Warning: Max. time period for engine start up is 10 sec. It is possible to repeat starting up process with 2min. delay for starting gear cooling. Oil pressure must rise within 10 sec. of start. When oil pressure is steady above 2 bars, it is possible to increase engine speed.

Electric fuel pump may not be switched on with empty fuel tanks and closed fuel cock! The pump must run for whole time period of flight! **added 01/2007**

6.4 Engine warm up and engine check

1. Brake the airplane (hand brake, chocks)
2. Control stick and pedals in neutral position
3. Engine speed - 2000 rpm and let run about 2 min., then warm up engine at 2500 rpm until oil temperature reaches 50°C
4. Gradually increase engine speed to maximum, hold about 5 sec., gradually back to idle, repeat twice or 3 times
5. Engine speed 4000 rpm, check alternately both magnetoes, engine speed should descend with one magneto off to max. 300 rpm. Difference between both magnetoes max. 120 rpm.

- Warning:** - After engine warming up let the engine cool at idling engine speed
- Do not carry out the engine check and warming up on dusty terrain (danger of propeller or engine damage)

6.5 Procedures before taxiing

1. Emergency parachute system - unlock
2. Release gyroscopes (attitude indicator, turn and bank indicator, gyro compass, etc.)
3. Flaps – retracted
4. Report
5. Check hand brake and directional control range when taxiing
6. Adjust speed of taxiing to airfield surface condition and wind direction and speed

Warning: Max. taxiing speed is 8 kt (9 MPH).

6.6 Procedures on holding point

1. Brakes – brake on
2. Engine speed – idle
3. Controls – free movement
4. Trim – neutral position
5. Flaps – take off position
6. Fuel – quantity check, fuel tank with sufficient quantity
7. Fuel pump – fuel pressure check changed 01/2007
8. Magnetoes – both circles
9. Master switch – on
10. Engine instruments – check
11. Altimeter – setting
12. Safety belts – fasten, tighten
13. Canopy – close, lock
14. Traffic pattern area - free
15. Report

6.7 Start line procedures, take-off

1. RWY area - free
2. Clock – time, report
3. Release the brakes.
4. Throttle – gradually take-off power - rolling
5. At speed $V_R = 22$ knots (25 MPH) pull control stick and lift front wheel (airplane will rise at $V = 32$ knots (37 MPH))
6. Delay at 3 ft above ground till reaching 48 knots (55 MPH)
7. Climbing at 48-51 knots (55 - 59 MPH), engine speed max. 5800 ¹/min
8. Flaps up - height 500 ft
9. Engine instruments – check
10. Trim – as needed

6.8 Cruise

1. Fuel cock - check (fuel tank with sufficient fuel quantity)
2. Throttle – 75 % of max. power (4300 RPM)
3. Speed ~ 105 knots (121 MPH)
4. deleted 01/2007
5. Trim – as needed

6.9 Down wind procedures

6. Fuel cock - check (fuel tank with sufficient fuel quantity)
7. Instruments - check changed 01/2007
8. Brakes – check
9. Seat belts - tighten
10. RWY, area of 3rd and 4th turn – check
11. Report

6.10 Base leg procedures

1. Speed 51 knots (59 MPH), engine speed 3 500 rpm
2. Flaps – take-off position
3. Trim – as needed
4. RWY, area of final turn – check