

COCKPIT LAYOUT



INITIAL LOADING OF AIRCRAFT

By selecting the option “Start without engines running” the aircraft will load from an outside pilot head view. This will enable the selection of clickable regions i. e. zoom in, switch magnetos on (to the left outside of pilot cockpit), close the door and go to your 3D Cockpit view to further the start up procedure. Remember to use Ctrl+1 as “ground crew assistant” to swing the propeller.

Starting with the option “Engines running” the aircraft will load as per default.

INSTRUMENTS

Instrument	Reading
Airspeed Indicator	Indicated x 10 MPH
Altimeter	Indicated x 100 ft
Attitude Indicator	Up / Down from Zero (Level) degrees
Turn / Slip Indicator	The top slip indicator shows the yaw in degrees to the left or right; the bottom turn rate indicator shows the rate of turn in degrees per minute: 1 = 170°; 2 = 360°; 3 = 660°; 4 = 1,080°
Tachometer	Indicated x 100 RPM
Oil Pressure	PSI

MOUSE CLICK REGIONS

The red areas indicate Mouse Click Regions. Hover the mouse in the area and you will see a "hand". Roll the mouse up or down to change the values. The Fuel Selector and the doors are just Left-click to activate.

I have not yet set limits for the Elevator Trim, Throttle and Mixture controls, they may run off the display limits, but not the flight simulator values.

The Elevator Trim Region over the Attitude Indicator is just for the beta. Be careful and slowly use the trim, wheel back for trim up and wheel forward for trim down.

MAGNETOS

The two magneto switches are mounted on the left hand side fuselage, outside of the cockpit. Slew your camera view to the left to see / access the switches or bind them to appropriate keys. Please take note that both the left and right magnetos are locked to one switch movement at this stage.

COMPASS



This example shows a set heading of about 290 degrees.

To use the compass -

- Set your desired heading by rotating the bezel until the heading is set along the aircraft x-axis.
- Slowly turn the aircraft until the magnetic north needle is within the north indicator lines.
- With the magnetic north needle steady, you should now be flying your set heading.

ENGINE OPERATIONAL LIMITS

Min Take-Off	1 825 RPM	Full Throttle
Max Climbing	2 100 RPM	Full Throttle
Max Cruising	2 100 RPM	
All-Out Level (5 min)	2 350 RPM	Full Throttle

MIXTURE

MIXTURE CONTROL MUST NOT BE USED UNDER 5,000 FEET.

FLIGHT OPERATING SPEEDS

Stalling	45 MPH
Climb	60 MPH
Cruise	94 MPH

RPM LIMITS

Idle	800 – 900 RPM
Cruising	1 900 – 2 050 RPM
Max Permissible (5 min)	2 350 RPM

OIL PRESSURE

Normal	40 – 50 PSI
Minimum	35 PSI

OIL INLET TEMPERATURE

Maximums for -

Climbing	80°
Cruising	70°
Emergency (5 Min)	90°
Min for Take-off	30°

REALISM

The Tiger Moth does not have an engine starter. The propeller has to be cranked by hand.

When everything in the cockpit is set and the engine is ready to start, press “**Ctrl + 1**” to simulate someone cranking the propeller and the engine should start.

The slats are now operational and visible (Situated on the outer leading edge of the upper wings); the slats should be locked while taxiing and during aerobatics.

FLIGHT OPERATIONS

ENGINE START-UP

Just after the engine is propped and it begins to fire, slowly advance the throttle to keep it from stalling out. Adjust throttle for about 900 RPM to warm up the engine. Be careful, without brakes or chocks the aircraft may start to roll. Be ready to steer with the tail rudder if it does.

TAKE-OFF

Push the stick forward to lower the nose. Do not nose over too far or you risk a prop strike. As the tail comes up, work the pedals to keep steering with the tail rudder. Rotate at around 60 MPH.

LANDING

The Tiger Moth has leading-edge slats but no flaps so it is important to always stabilize your approach, particularly your airspeed. Pitch / trim to establish an airspeed of about 60 MPH.

Your visibility of the airstrip will be very limited by the nose. Perform s-turns to see the airstrip or establish appropriate reference points just to the left or right of the nose to track.

At around 10 feet AGL, try to hold it off as long as possible to bleed off airspeed. As is typical with taildraggers, you must be constantly on the rudder pedals to steer with the tail rudder to prevent a ground loop. Let the tail drop by itself as the aircraft slowly rolls to a stop.

Always taxi with the stick completely pulled back in order to keep the tailwheel firmly on the surface.

FORWARD-SLIP LANDING

If you will find your aircraft positioned too high from your landing strip, you can utilize the forward-slip technique to lose altitude quickly without gaining significant airspeed. A forward-slip is where you bank the aircraft and then apply opposite rudder to prevent the turn and track straight with the nose of the aircraft at a slight angle to the forward flight path. This presents the aircraft's fuselage into the airflow thereby creating large drag which reduces the aircraft's airspeed and rapidly drops the altitude at the same time.

For taildraggers, an additional benefit of this technique is that the skewed angle allows for better visibility of the runway which would normally be obscured by the nose of the aircraft.

STALL & SPIN RECOVERY

The aircraft appears to stall at 40 KTS indicated airspeed. The aircraft stall is rather benign and standard stall recovery techniques apply. In a flat spin, the tail does not have enough authority to stop the spin. To break the flat spin, you have to push the stick full forward and rock it from side to side to let the ailerons disrupt the flat spin until it transitions to a diving spin. Once this happens, normal spin recovery can be performed.

Stall Recovery -

- Push the stick forward to lower the nose.
- Slowly add power to gain airspeed.
- Recover.

Spin Recovery -

- Cut the throttle.
- Neutralize the ailerons.
- Opposite rudder.
- Push the stick forward to neutralize the elevator.
- Recover.