

## SGS 1-34 Flight Characteristics Notes

The Schweizer 1-34 has a 15 meter wing with very effective speed limiting dive brakes for approach control and is designated as a Standard Class sailplane.

This fixed gear sailplane handles very nicely. You will find it more responsive to control inputs than the 2-33 but certainly not quite as responsive as the 1-26 or even the Blanik. Enjoy your flight.

So what should you be aware of for your transition flight???

This is likely the first ship you will be flying with a semi-reclining seat position and you should get into the cockpit well before you are on the flight line to adjust the seat position, the rudder pedals (read the manual- they are adjusted with the heel of one foot pushing on a lever in the center of the rudder cluster), and be comfortable that you can reach all controls. Also become familiar with the trim control on the right side of the fuselage. Before takeoff you'll want to set it to neutral or somewhat forward of neutral. If it's not exactly correct for you, don't worry since the control forces are easy to manage.

Make sure that you are within the weight and balance limits and add ballast (such as parachute for additional forward weight position) if needed. If you are fortunate to be a young and light glider pilot a double check of this is to make sure that the ship skid is on the ground when you are comfortably seated in the craft. If the ship rests on the tail wheel you may be at the rear CG location or even out of the recommended limits. The ship is easier to fly if it starts on the skid while on the ground.

The Tow hook has a tendency to get jammed forward upon release. During preflight and before moving the glider to the grid and after landing, check the tow hook to make sure it is not jammed forward.

On the ground once seated in the glider and with the canopy closed have someone on the ground place the fuselage in a neutral position so that you know what it will look like as you take off and initiate tow.

Prior to take off assure that the canopy is really latched by placing your palm above your head and pushing up on the rear of the canopy.

Lift off is normal Schweizer procedure. Start with the stick somewhat forward of neutral. As your ground speed increases add back pressure to raise the skid off the ground. Then going from a neutral stick position to slight additional back pressure do a normal take off and follow the tow ship as normal. As with any ship, you want to avoid the wake turbulence from the tow plane, but that is somewhat more true with the 1-34 because the ailerons are less effective than say the L-23.

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To reduce the possibility of jamming the release, if you have the time put the nose slightly down before you pull the release. After release you should trim the ship to about 45 Knots in straight flight - this is done with your left hand on the stick and your right hand on the trim control knob on the right side of the aircraft - not the easiest maneuver to do, but that is how they designed it.

It has no bad habits relative to stall or spin entry, and thermals well around 40 Knots on the air speed indicator. If you haven't done spin training yet, do them with an instructor before you try them in the 1-34.

Finally with the very effective dive brakes you will experience that the nose pitches up as you open the dive brakes. Quoting the Schweizer Manual, "to maintain a given ASI the nose must be lowered as the dive brakes are opened. The reverse is true when closing the dive brakes." So it is important to monitor your air speed during dive brake adjustment in the pattern. After release you should give this a little practice at altitude and it will show the effect and make it easy to adapt - it isn't a big deal once you are aware of it.

Also, because the dive brakes are so effective, it is difficult for pilots new to the ship to time the round-out to landing properly if full dive brakes are deployed. This often results in a bounce or hard landing. On your first flights, plan the approach so you only have half dive brake at the flair. Once you get the hang of it, opening the brakes to full in the hold off to landing (but short of the wheel brake) can result in nice short landings.

You'll find 55 knots to be a comfortable pattern speed for most situations. Touch down the glider on the main wheel. The tail wheel is relatively fragile and can get damaged if it touches first. Roll out is normal, and the effective wheel brake is on the aft travel of the dive brake.

Have an enjoyable flight in this medium performance sailplane.  
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