The best rate of sink is obtained at 70 km/h, 38 knots, 44 mph in level flight; the best L/D at 90 km/h (49 knots, 56 mph). The best circling speeds are 74 to 80 km/h (40-43 knots, 46-50 mph) for 30° bank and 80 to 85 km/h (43-46 knots, 50-53 mph) for 45° bank.
With Winglets all speeds above reduce by 1 - 2 km/h.

Dangerous flight Attitudes

The ASW 15 has extremely harmless stalling characteristics. The stall warning occurs at 68-70 km/h (37-38 knots, 42-44 mph) and is indicated by large stick movement in the elevator. With the stick hard back, the aileron and rudder respond up to approximately half control movements in the normal sense.
Full rudder and aileron deflection during a stall will cause wing dropping. Only with the C. of G. near the maximum rearward position will lead to a spin.
Wing dropping As well As spinning are terminated with the (German) standard procedure (opposite rudder and elevator neutral).
If no corrective measures are started, the sailplane will terminate the sideskid or spin by itself and will develop a spiral like sideslip. This sideslip can also be ended with opposite rudder.
If still no corrective measures are taken, then this sideslip will eventually change to a spiraldive with the typical buildup of high speeds. Only with the C.of G. at the rear limit can the sailplane be put into a strationary spin, which would be finished by the "standard method" (see above). Rain drops, frost and icing deteriorate the surface and will caus a change in fthe flight characteristics. Under such conditiones one should be extremly careful when landing and should use a sufficient safety margin in the airspeed.

Lazy Eight: This manoeuvre can be done up to 170 km/h (92 knots, 106 mph) in the crossing point.

Chandelle: This manoeuvre is started like a stall turn, however at 90 km/h (49knots, 56 mph) and with full rudder and full contrary aileron deflection applied, the transition to the level flight must be started. Also the stick must be markably pushed.

Aerobatics are not approved with winglets installed.

1.7 Empty weight Centre of Gravity Limit

After repairs or installations of additional equipment have been made or after the sailplane has been repaired, special attention is to be given to the empty weight centre of gravity, remaining within the permissible limits.

Datum point and reference line are the same As shown in paragraph 1.2

A diagram on the empty weight centre of gravity Location range is found on page 27. If these limits are maintained, one can be assured that the inflight C.of G. is within the allowable limits, provided the load limitations have been properly observed.

The inflight C.of G.has a great effect on the flight characteristics; it is therefore essential that ist limits are observed.

A C. of G. location aft of the rear limit is dangerous, since the stall and spin characteristics are adversely affected. Moreover the elevator becomes hypersensitive.

2.1 Rigging

All pins and fittings including the ball pip fittings are to be cleaned and lubricated. The right wing (2 prong spar end) is inserted from the side into the fuselage tunnel, then the left wing is inserted from the opposite side. Align the main fittings, push in the main pins and safety. Now the wing tips can be released.

Connect ailerons and dive brakes and double check the connection by trying to pull the push pull rods away from the ball fittings.
After setting up of the wings:
-set up the winglets from above
-screw in the fastening bolt sturdy from underneath with the accompanying fastening tool.

Insert left elevator half with the tube into the fitting in the rudder fin. Pull back the safety catch on the second elevator half and push over torsion tube. Release safety catch on the trailing edge and push it all the way in, if needed.

Please note: The top side of the elevator has a convex surface, whereas the underside has a concave rear portion (under camber).

The taping of the wing-fuselage junction with a plastic tape brings a lot of performance for very little effort (1-2 points on the L/D).

Do not tape the canopy gap, otherwise any emergency exit is jeopardised. It is recommended to wax the taping area prior to taping, so that tape can later be removed without pulling the lacquer finish off.

2.2 Checking

After rigging and prior to the first flight every day: Make sure that all assembly connections hve been made properly and are safetied.