

Glider Towing is Teamwork

Lovers of large glider models consider towing with a motorised model to be the "safest method" of flying-in radio-controlled gliders. A powerful motorised model plane tows the glider to a sufficient altitude where the necessary adjustments to trim can then be made at leisure.



In terms of performance, large glider models cannot quite keep up with the specialised competition models – be it in speed and distance flying or in thermal flying, but they do have an elegant flight silhouette very much like the originals.

Active followers in various countries

Lovers of radio-controlled big gliders meet regularly in various countries. Such meets can be in the form of competitions, such as in aerobatics or GPS flying, or companionable events where experiences are exchanged.

What is a big glider?

Large glider model enthusiasts consider them to be model aeroplanes that are very similar to or very accurate scale reproductions of manned gliders. The technical term for such models is Semi-Scale or Scale model. Spans range from 3.75 (1/4 of the 15 m class) to 7 metres and more. They can be broadly divided into four categories:

- Vintage model gliders – from the time of wooden construction
- Modern high-performance planes in composite construction
- Aerobatic gliders
- Motor gliders

Vintage model glider – from the wooden time



Modern big glider composite construction

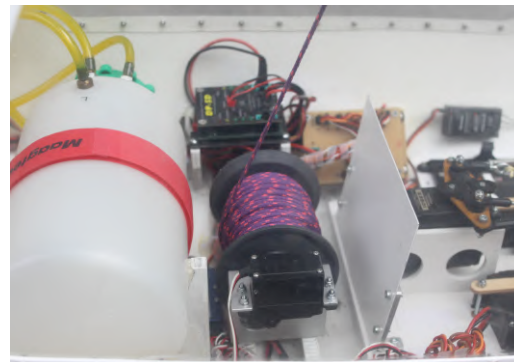
The larger meets are held in mountainous and hilly areas. In these centres of ridge soaring, even the largest models are launched by hand and landed near the launch site whenever possible. Using telemetry, even the weakest updrafts can be located, no matter how far beneath the launch site they are. At meets held in the lowlands, on the other hand, large gliders need either a towing plane or are equipped with engines (very often folding engines) which make them autonomous, i.e. they can take off on their own.

Even the largest models are launched by hand



There is a lot to learn about towing

For towing operations on model flying fields, motorised planes of varying power are used, depending on the size and weight of the gliders. Towing planes with electric motors are also very well suited, although there are difficulties, especially regarding the batteries, when motors of more than 3 to 4 kW are required. Smaller motors are sufficient for effectively towing gliders of up to 10 kg. Modern and quiet combustion engines (very frequently boxer engines), however, can easily tow model gliders of 20 kg and more.



Winch to retract the towing line built in the fuselage



Very trendy: Big glider with electric motor



To prevent the towing lines from getting caught in an obstacle on landing, they are either dropped during a low-altitude fly-by or retracted using a winch installed in the fuselage. Only slow towing planes may be used for towing vintage gliders. Older aeroplane types such as the Piper are best.



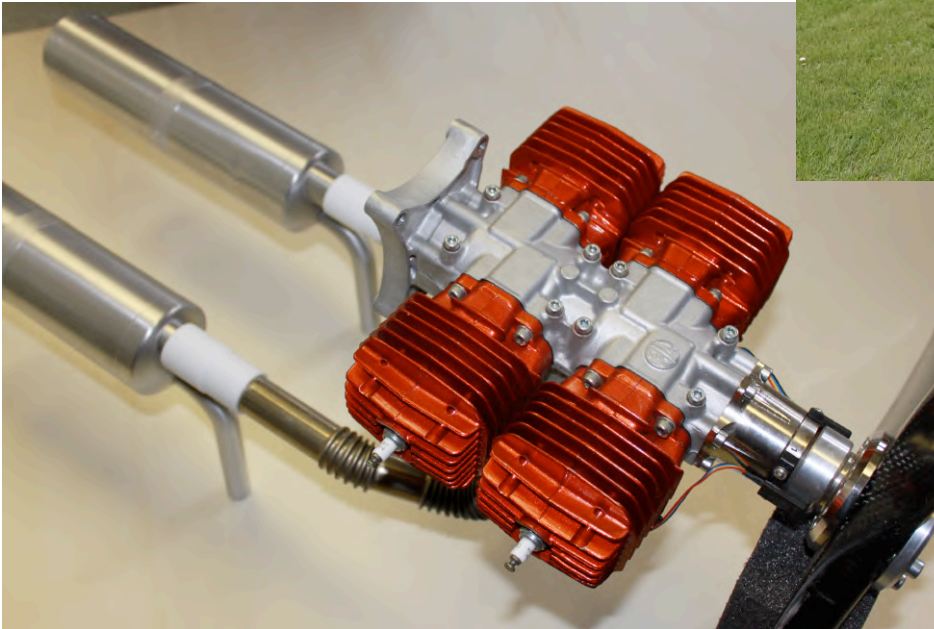
Big glider towing model airplane can tow easily gliders of 20 kg and more

Only slow towing planes may be used for towing vintage gliders



Glider towing is also attractive for spectators

At large glider meets or at air show events, glider towing is always one of the most attractive demonstrations for spectators, who will appreciate a skilful start followed by a climb. Such events often include competitions for spectators, such as estimating the altitude at which the glider is released.



Quiet combustion boxer engines for towing big gliders with silencers



Public Letter 4/2014

www.fai.org/aeromodelling/ciamflyer

Editor: Emil Ch. Giezendanner
editor@modellflugsport.ch

Double towing for a simultaneous aerobatic flight for spectators