



Frequently Asked Questions

Introduction

Glide Free Foils are now available to Laser sailors who wish to experience the fun and thrill of foiling. There are many questions regularly asked, which are covered in detail in our instruction manual. We also provide answers to some of the most common questions below:

What size do I need to be?

Foiling requires a reasonable level of strength, skill and some weight to hold it up. Generally skippers in the range 60Kg minimum up to around 110Kg it is possible to foil successfully.

What experience do I need?

It is necessary to lean, trim and steer properly. A reasonable level of Laser sailing skill is required. Age 15 years and above is recommended. Once sailing at high speed you need to trim the sheet quickly as the apparent wind moves direction. Experience with sailing high speed skiffs and multihulls is definitely beneficial.

What is the top speed?

You are normally foiling your Laser at around 12-18kts boat speed in a moderate wind, which is quite fast enough, just as fast as most catamarans, providing a real thrill. With stronger breezes, speed foils and smaller lower drag rigs such as the 4.7 we believe 20-25kts or more is achievable. As you are much lower to the water than when standing on a sailboard, or sitting on a Moth or catamaran, the sensation of speed is greatly increased!

What conditions can I sail in?

We recommend that you start your foiling in a steady 12-15kts breeze, flat water and a large open space. If the wind is consistently under 10kts, you will be frustrated as you may only be able to take off in the strongest gusts. Once the breeze exceeds 18-20 kts, the boat becomes more difficult to handle, especially with the standard rig, as might be expected. While we do not recommend use in breezes over 25kts for safety reasons, surprisingly we have found that experienced, heavier skippers can handle winds well over 25 kts with the 4.7 rig using the small foils.

How do I launch and insert the foils?

You can launch from your standard beach trolley in the normal way, tip the boat on its side in knee deep water to insert the foils from underneath and sail away. It is possible to store the boat without removing the foils, if you have a modified, higher beach trolley.



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What special skills are required?

We have found that leaning hard, minimal tiller movement, rapid control trim sail and moving your weight for & aft are all key to successful foiling. We demonstrate this in our how to sail videos.

Do I have to modify my Laser to fit the foils?

The foiling kit uses all the standard Laser fittings and there is no need to modify your boat in any way. You can remove the kit in a couple of minutes and immediately sail as a class legal boat. You may choose to change to centre boom sheeting for a faster response when trimming.

Could the foils damage my boat?

When foiling, there is actually less strain on the boat as you no longer nosedive downwind in strong wind. After 5 years testing we have found no issues with the hull at all, even after many heavy crashes the lifting load is taken by a large flange around the vertical centre case, which is very strong.

If you drag the boat through sand or mud, this may trap sand under the flange of the centrecase insert, which can pit the gelcoat under the flange. After use, the insert should be removed and washed thoroughly.

The rudder fittings on the hull are strong enough, but after 3 seasons of test sailing, we found that the holes may elongate laterally, making the rudder response less firm. These fittings can be easily replaced. We are not aware of any other issues.

Can I use my standard rudder box?

At first we trialled the standard Laser rudder stock, but it was too flexible and can become permanently bent. We have replaced it with a custom designed Sea Sure stock and our own Tiller, which forms part of the kit.

Can I use my standard tiller?

Yes, all standard Laser tillers will fit our Sea Sure rudder stock. The only issue is that if they extend too far through the stock, the end of the tiller will restrict the rudder from fully retracting. Although it is easy to modify your tiller, for this reason we have replaced it with a custom Glide Free Tiller, which forms part of the kit.

Do I need a special rig?

The foiling kit is designed for use with the 3 standard Laser rigs. While the standard rig works in lighter winds 10-12kts, surprisingly we have found that the smaller sails are much easier and more controllable when foiling because of the high apparent wind. We recommend that you start with a Radial rig and in stronger winds use the 4.7 rig for high speed foiling.



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Specialised rigs may further improve foiling performance, but they are not necessary for you to experience the thrill of foiling on your Laser.

Can I foil upwind?

Yes, it is possible to foil upwind, but it is not easy. You need steady conditions and to lean very hard. The main limitation is not the boat, foils or rig, but the lack of righting moment. The Laser is simply not wide enough to provide the necessary stability, but you can heel the boat to windward which helps significantly. You definitely need to practice.

The situation is no different for foiling A class cats, dinghies with spinnakers, sailboards, snow skiing or bike riding, where you need to work hard uphill to get a fast downhill thrill!

How do I set up the main sheet?

The standard Laser sheeting system works fine, although we have found that a 3:1 centre boom sheeting set up is far easier and faster to trim than the standard end boom sheeting. For a younger/smaller person 4:1 centre boom sheeting works very well. Do not oversheet the main, use vang to hold the sail flat. Centre boom sheeting also removes the typical Laser handling problems with the mainsheet getting caught around the transom during gybes. The only issue is that this puts a higher bending load on the boom, which may break in strong winds, if not handled properly.

Are the foils class legal for racing?

The intention is simply to have fun foiling on your Laser. You can of course arrange to race against others with foils in your area if you like. Once the foils are removed however, your boat remains completely class legal for racing.

What to do if the boat is flying too high?

Adjust the thumb nut on the rudder, anti-clockwise to trim the bow down.

Pull the mainsail on, keep it full and bear away and sit further forward in the cockpit.

Re adjust the centreboard tooth engagement 1 notch in the gear block less to give less lift.

What do you do if boat does not want to lift out?

Check that the gear handle is fully engaged and has not moved forward. Make sure you have two turns of the retaining cord around the toggle pin.

Adjust the thumb nut on the rudder, clockwise to trim the bow up.

Sit further back in the cockpit to get your weight aft.

Don't point high initially, bear away on a broad reach, heel the boat to windward slightly don't pump or bounce hard, and just let the boat Glide Free.



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How do the foils handle large waves?

The foils are purposely short in length to make them practical for use on a Laser so that it can be launched in shallow water and so that the foil clears the boom when retracted.

The boat remains around 30cm above the wave crests, but as with any foiling system, there is a limit to the wave height before the foil breaches the trough of the wave.

While our foils do work well and can follow large ocean swells there will be a limit in steep, chop in shallow water.

How should the sails be set up?

We have found that heavy luff tension and out haul pulled out very tight works best, also with a lot of vang tension. You are effectively sailing in over 20kts of apparent wind while foiling, the sails need to be set up for heavy air sailing.

Should I pump the sail to get the boat to lift off?

No, we have found that hard pumping of the rig and bouncing your body tend to keep the boat in the water, it is better to lean out hard, bear away to a broad reach, heel the boat slightly to windward and let it lift out by itself.

Why is there no twist grip control of the rudder foil like the Moth?

There is a thumb nut control on the rudder, used to set the trim of the boat, which also controls the overall ride height and ease of takeoff. Once set for the skipper weight and conditions, there should be no need to make further adjustments. The reason is that the main lifting foil is fully self-trimming, controlled by the integral wand it is always at the lowest drag configuration. There is no fixed foil section as with the Moth arrangement, and so no need for the twist grip control.

Not foiling after a crash!

You may find that occasionally, the boat stops foiling altogether after a crash, even if there is a lot of wind. The safety release is intended to disengage when the boat hits an object. It can also be possible that the forces experienced during a crash are sufficient to release the centreboard handle in the gear block.

Simply re-engage the foil in the gear block and keep sailing. There are no shear pins to break or be replaced.

Why does the boat fly higher when mainsheet is eased?

It is interesting that the boat actually flies higher (momentarily) if you ease the mainsheet or run into a lull with lighter wind. This is because the load from the wind on the rig pushing the boat down is relieved and the boat can then fly higher, well for a few seconds anyway. It is a strange, surreal feeling, which applies to all foiling sail craft. If you keep the sail trimmed and full, by bearing a way and sheeting on, you can control this lifting out.



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Why do I run out of wind when sailing downwind?

In marginal foiling conditions you may wait for a stronger puff to get foiling. As you are then foiling faster downwind than puff itself, you will soon run in to lighter air. If you do nothing the boat will slow down and return to the water. Sitting well aft will keep you up for a while, but the best action is to round up closer to the wind, sheet on, sit aft and then lean hard, the boat will then start to fly faster on a reach and then upwind. Steer carefully and you will be surprised at the results!

Please go to our website www.glidefree.com.au for the latest tips and information on Glide Free Foils