



SPORTY SCORPIO

The Scorpio is Powerplay's first reflex glider and is aimed at experienced pilots. Jörg Maaß took it out to play



Swing describes the Powerplay Scorpio as a "Reflex Sportster". The wing is aimed at the large group of pilots who fly for fun, fly regularly and who also want to safely go forwards (and back) in stronger winds.

The glider is delivered with a special inner pack sack as well as the standard glider bag and comes with a very comprehensive manual, despite its size. The many warning symbols make the instructions look like the patient information for some dangerous medicine – but at least in the latest edition the skull symbols have been replaced with exclamation marks. And even for regular pilots it is worth following the detailed instructions.

Swing designer Torsten Siegel received the support of multiple record holder and champion comp PPG pilot Peter Schulz in the design of the Scorpio, which meant a re-thinking of what had gone before. All the modern technologies have been used: for example nylon wire reinforced leading edge, 3D-shaping and hybrid lines. The use of a special brake configuration means the first Powerplay reflex should have the famous Swing manoeuvrability, the company promises. And indeed, even with trimmers off steering is easy due to the additional stabilisers which allow the reflex profile to do its job.

Take-off

Sorting the lines is child's play due to the different colours and the low snarling tendency of both the sheathed main lines and the unsheathed upper cascade lines. Experience shows that the final

visual check during light wind take-offs is usually brief, so this is a real safety advantage. Meanwhile the brake handles can be set to rigid, semi-rigid or soft to suit your mood.

Clip in, close the trimmers fully, pre-flight check and run... The Scorpio showed its first strength during take-off – even in nil wind a gentle pull up quickly had the wing above the pilot. After minimal brake input and a few quickening steps with full thrust I was safely airborne. In the air the neutral trimmer position is easily visible on the trimmer strap. Velcro stops the trimmers fluttering or getting near the propeller when fully closed. Even in the neutral position you get around pretty swift at 45km/h.

In Flight

Great manoeuvrability is the second strength of the Scorpio. The wing responds so willingly to brake input that it is a joy to make steep, and then steeper turns. Weightshifting into the turn, counter-braking on the outside, flat turns, steep turns, high or low angle of bank – anything seems possible. Let's say I felt happy under the wing.

A spiral dive is easy to initiate but because of this wing's high agility I would recommend that pilots practise this manoeuvre tentatively at first. Keep a safe height when you start to exit, and actively apply outside brake to keep it smooth.

The trimmers can be fully open during cross country flights. At this setting I measured the wing travelling at approximately 51km/h. The wing remains easily steerable, but the stabilising

CLIP IN

Even in nil-wind, take-off is easy. In the air the wing is manoeuvrable and responsive.

What Powerplay Say

"The Scorpio is designed for advanced PPG pilots who are looking for stability, manoeuvrability and speed. Despite having an aspect ratio of 6, which makes for very good performance, the Scorpio is easy to launch and offers remarkable agility compared to other reflex wings. Furthermore, the Scorpio is loaded with new technologies like Nylon wires, 3D-shaping and hybrid lines for the best aerodynamic quality, as well as a ring-reefing system and stabiliser-brakes for tighter turns, a two-phase speed system for ease of acceleration and a special crossover line system to minimise roll when under full power. The trim system allows the pilot to slow the Scorpio by approx. 3km/h or to increase speed by approx 7km/h. In combination with the speedbar, the Scorpio has a max speed of 60+km/h, depending on the wing load."



ON TRIM

Wingtip brakes, top right, make steering "very pleasant".

Manufacturer's figures

Sizes: 22, 24, 26, 28

Take-off weight: 108-135, 124-155,
140-175, 148-175kg

Cells: 57

Aspect ratio: 5.95

Canopy weight: 7.5kg

Max speed: 60km/h

Trim speed: 43km/h

Online: www.swing.de

Materials

- New profile with nylon wire reinforced leading edge
- Ring-reefing system and additional stabiliser-brakes
- 3D-shaping and hybrid lines
- Reflex profile with positive/negative trimmers and a two-phase speed system

Powerplay

Powerplay is the paramotor arm of Swing Paragliders. Formed in 2001 there are four gliders in the range: Sting, Naja, Scorpio and Tusker (trikes and tandem).

brakes – 'wingtip brakes' – must be used. These brake lines end in loops that are fixed to the risers with magnets immediately beneath the maillons. It can be fiddly to grab the wingtip brakes with one or two fingers and will no doubt be difficult when wearing winter gloves. For engines with medium-high or high hangpoints and trikes it must be added that the length of the wingtip brake, unlike the main brake, is not adjustable and therefore becomes increasingly removed from the pilot as the trimmers are opened. According to Swing, this is one detail which is being revised and will be ultimately combined with stronger attachment magnets. Once the loops have been grabbed, the steering with the stabilisers is very pleasant and it is so effective that Swing has added a stopper to limit maximum travel.

With open trimmers the pilot has the option of using the speedbar. According to the Scorpio manual this causes a lowering of the profile's angle of attack, whereas using the trimmers will reinforce the reflex profile. The different effects are the reason why the speedbar may only be used when the trimmers are off, which is also the case in some other reflex wings. In practice the speedbar can be pressed a few centimetres and the speed increased by approximately 2-3km/h. Pressing further increases the pressure enormously. The reason for this is not the two-phase speed system, but that further pressing pulls the entire harness. The harness used during testing was obviously not

a serial version, as it was only possible to reach a top speed of 54km/h.

The wing is stable over the entire speed range, the dive stability is good and is not really noticeable when changing speed. Flights in gusty conditions showed that the wing performs well without being too sensitive.

Additionally, the wing is easily steerable over the whole speed range. Particularly at higher speeds in combination with increased thrust, the glider has a tendency to roll, but gentle symmetrical pulling on the main brakes or the wingtip brakes is sufficient to dampen this. Also helpful is the symmetrical setting of the locking arrangement of the torque compensator. The same locking arrangement is used to gain a comfortable torque compensation during normal flight without having to constantly countersteer, as has been the case with conventional reflex wings.

Landing, like launching the Scorpio is text-book easy. Completely closing the trimmers is a good idea and flaring the canopy is child's play thanks to its excellent slow-flying characteristics.

Conclusion

With their many new ideas and concepts for the Powerplay paramotor wings, Swing have successfully entered the reflex wing market. The Scorpio is set to make its mark in competition with other manufacturers and will no doubt score highly with pilots. 