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Cover picture: Frans Dely

WIN!
a helicopter flight

FUNK FK 9

Not to be confused with American designs of the same name, the Funk family from Germany has a long history of sailplane and ultralight designs. The FK 9 is one of three current models that manufacturer, B & F Technik, is marketing in the region and the South African distributor has even taken a financial stake in the factory.

Main photo: John Miller





Great finish and close attention to detail are FK 9 hallmarks.

AEROPLANES AND YELLOW paint schemes have always attracted sentimental glances, probably because it was Piper's standard post war Cub colour scheme. Like Ferrari's traditional red, a Cub isn't a Cub unless its painted yellow. Easy on the eye and camera lens, yellow is the colour of choice for those wanting their aeroplanes to stand out from a crowd so its hardly surprising that Roland Hallam ordered his first B&F Technic Funk FK9 in that most noticeable of colours. Since arriving in the country, the FK9 has made numerous fly-in event appearances and those who have flown it have discovered a simple, easy to fly and inexpensive choice in the rapidly growing VLA market.

The FK9 has been an important aeroplane in the Funk family's fortunes. Father, Otto, a long time engineer for German company Heinkel, has been tinkering with small aircraft design since the late fifties, when he joined the company as a young student. Devoted to glider technology, early experiments with metal bonding construction led to a number of all-metal FK sailplanes. During the sixties, Otto was experimenting with advanced laminar flow wing profiles for his glider designs as well producing the world's first sailplane with a retractable engine. Other projects included the Sirius motorised glider with an integrated propeller fan, later developed into the military Fantrainer concept.

By 1984, Otto had turned his attention to the emerging ultralight industry and designed

and flew a high wing FK6 three-axis microlight using a V-tail with a podded cabin and slim boom-style fuselage.

Another development, the FK 8, was a stillborn ultralight that yielded a new wing design used in another new aircraft, the FK 9. The FK 9 project was the brainchild of Peter Funk and Theo Sigmund. The taildragger FK 9 was exhibited at Friedrichshafen's Aero-

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1989 event for the first time. The interest shown by prospective customers motivated the forming of B & F Technik in 1990 to produce the aircraft commercially. With some 40 FK 9 Mk 1s sold and once Peter had finished his university studies, a Mk 2 version was launched followed in 1997 by a Mk 3 model and then by the current Mk IV, available in taildragger, nosewheel and utility versions. The Mk IV is the subject of our evaluation.

Flying the FK 9

The FK 9, despite its Cessna 150 configuration, manages to appear both modern and well constructed. The cabin is made from 4130 moly tubing with a carbon fibre fuselage bolted to the rear of the metal frame at the rear of the cockpit. Supported by the engine mount, the nosewheel appears robust – often a weak point on these types of aircraft. Entry is through a pair of upward swinging doors that can be removed prior to but not opened in flight. The control sticks are positioned fairly close to the front of the seat requiring a helicopter-like effort to raise one leg in order to get in. This is the only impediment to cabin access but the cockpit itself is roomy although somewhat cocooned in the plethora of tubing behind the seats and around the wing root area. Headroom is nevertheless plentiful.

Cabin finish is to an obviously high standard. The airframes are produced in Poland – given away somewhat by the speckled composite interior – typical of finishes from that region. The conventional panel is well laid out and benefit's from a pair of throttle plungers that will please flight schools. A quick manipulation of the controls before start showed a welcome absence of control system friction. Despite its high wing configuration, the FK 9 enjoys generally good visibility, especially sideways and downwards as well as over the nose.

In an effort to reduce complexity and thus weight, the brakes are operated, much



As a recreational aircraft, the FK 9 is easy and fun. It should do very well in Southern Africa.

Main photo: John Miller

like a Tecnam, using a central lever and a park brake switch is mounted within easy reach on the centre pedestal. I'm not a great fan of this type of braking system as it can require the removal of a hand from either the throttle or controls during critical phases of a landing roll particularly in crosswind conditions. With a history designing and building gliders, it's not surprising to see a manual trim lever rather than a wheel or electric motor in the FK 9. A lever between the seats provides for three different flap positions. There is a 'retracted' setting with a 15 and 30-degree setting to be used depending on runway conditions. Flap application also deflects the ailerons.

Fuel capacity is 100 litres with a 65-litre fuselage tank and an optional pair of 20-litre tanks in each wing. The fuel system, if fitted with this option, needs to be understood to reduce any chance of mismanagement, especially as the wing tanks do not have their own fillers but are topped using an electric pump that transfers fuel from the fuselage to wing. Provided all three fuel taps are switched on, which should be a normal pre-start check, there is little risk of engine stoppage if one tank runs dry. However, whilst refuelling, fuel has to be transferred from the main fuselage to the wings using an electric pump. A relief valve prevents the wing tanks from overflowing and once full (checked by a clear vision pipe), filling the main tank can be resumed. In flight a fuel switch must be toggled between the left and right tanks to obtain an accurate reading for wing fuel contents.

I liked the separate spring-loaded magneto system, which is independent of the key operated starter switch. Only with the key in and turned on.



Photo: William Grebbelaar



Photo: William Grebbelaar

Top: Dual throttles a welcome addition to the FK 9's bright and airy interior..
Above: The aircraft can be flown with the doors detached but are not openable in flight.



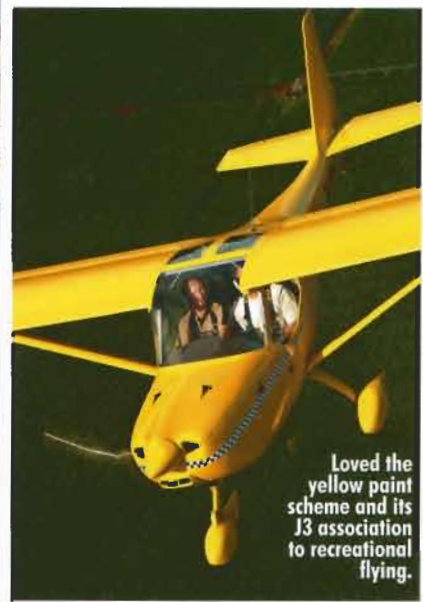
Right: Rotax power (what else) for the FK 9. The cowls are easily removed to reveal a smart and clean engine bay.



Photo: William Grebbelaar



Cabin is wide, comfortable and completed to a high standard of fit and finish.



Loved the yellow paint scheme and its J3 association to recreational flying.

are the magnetos energised and cycling the mags is made a great deal easier and safer using the sprung switches. The Rotax starts instantly as usual and the aircraft has light and easy steering – an advantage with an absence of toe brakes.

With the takeoff flap position selected, the FK 9 accelerates quickly to its rotation speed of 45 knots and climbed out of Lanseria easily at 700-800 feet per minute at 70 knots and close to its maximum all up weight of 520kgs.

The FK 9 is particularly pleasing to fly with light control forces needed to move the rudder and elevator. The flaperons are somewhat heavier although response is sharp enough. A pilot need not ask for more for recreational flying or for longer sectors. At 4800 rpm, the engine burns a miserly 15 litres an hour whilst indicating 109 knots for a true airspeed of around 115. For a 100hp Rotax, this is a good figure for a fixed-gear VLA. At a maximum continuous 5400rpm, fuel burn rises to around 20 litres an hour for only a marginal increase in airspeed. The cabin noise level, mostly coming from the airflow around the windscreen-wing area, is high enough to determine the use of headsets.

The FK 9 exhibits benign stalling behaviour and without flaps the aeroplane stops flying at 46 knots resulting in a nose-high sink. Indeed with or without flaps, the aircraft does nothing to raise the crew's adrenaline levels with the FK 9 showing a very gentle roll off in either direction with

power added into a full flap stall. The break at full flap occurred at 34 knots indicated. The aircraft is neutrally stable in all axis and could be flown hands off into an 80 knot climb with 60-degrees of bank!

The aircraft is easy to land using a classic flare and hold-off technique with a zero-flap setting. At full flap the speed bleeds off somewhat quicker at the flare but the aeroplane never gives the feeling it will develop a high sink rate. Moreover, speed is easy to manage in the circuit with a 65 knot final approach diminishing to 55 knots over the fence. Maximum crosswind component is 15 knots.

It is clear that a great deal of thought has gone into the FK 9's design. Ground mobility is another glideresque feature with easily removed wings and detachable sections on the horizontal stabiliser to enable the aircraft to be trailed behind the family car. The best news is the aeroplane's basic fly-away price of Euro E53,000 plus VAT but including shipping, a radio and ballistic parachute. Local distributor, Roland Hallam, has such confidence in the Funk range he has taken a 25-percent shareholding in the Polish manufacturing facility, FK-ProTech, at Krosno. The factory is planning to build over 100 aircraft a year and securing a financial interest enables Roland some control over deliveries of the FK 9, Comet and FK 14 aircraft. The FK 9 performs and handles well and is obviously well-built. The design deserves to do well in Africa. 

B&F Technik Funk FK 9

- Engine: 100hp Rotax 912ULS
- TBO: 1500 hours
- Propeller: Duc 3-blade carbon fibre fixed pitch
- Wingspan: 9.85m
- Length: 5.85m
- Height: 2.15m
- Empty weight: 268 kg
- Max weight: 520 kg (demonstrated)
- Max takeoff wt: 472.5 kg
- Fuel Capacity: 65 litres (std)
- Cruise speed (75%): 197 kph
- Vne: 230 kph
- Stall speed (full flap): 65 kph
- Airframe limit: +4g -2g
- Flap limiting speed: 117 kph
- Flyaway price: E53,000 + VAT
- Agent: Hallam Aviation
- Contact: Roland Hallam
- Phone: 083 626 2180
- Website: www.fk-lightplanes.com