



The VW powered RF4 single seater combines aerodynamic efficiency and aerobatic performance deliberately designed into it.

FOURNIER R.F. 4

Progress may present itself in many forms. In this age of space craft, push button flying and automatic everything, the pilot of a modern airplane finds himself deprived of using the basic aeronautical skills that once made flying a truly wonderful sport. This situation has been found to exist in most everything we do. So much in fact, that even commercial advertising has used such expressions as "Mother! I'd rather do it myself." In the maddening pace to advance we find that modern civilization which required 2,000 years to attain a speed of 50 miles per hour suddenly jumped, within a span of a few short years, to vehicles that streak through the universe at thousands of miles per hour.

Nestled in the wooded slopes of the Eifel mountains of Western Germany is a small company that has perhaps answered the prayer of aviation enthusiasts by producing an airplane that is truly

a sport flying machine—The Fournier R.F. 4 Avion Planeur.

The R.F. 4 is a low wing, single seat cantilever monoplane of wooden construction, sturdily built, simple to service and involving a minimum of maintenance. A light airplane of exceptionally clean design and aerodynamic efficiency.

Power is supplied by a 1,200 cc Volkswagen engine producing 39 horsepower with a special Bendix carburetor and a Bendix-Scintilla magneto. Standard VW engines are obtained by the company, stripped, modified and rebuilt. During the process 20 percent of the components are rejected and replaced with units that meet the closer tolerances required for airplane engines. Since the majority of engine components are standard VW engine parts they are both easy to obtain and inexpensive to purchase.

The landing gear consists of a single main wheel retracting fully into a wheel well in front of the pilot, closed flush by

spring loaded doors. In the rear is a single steerable tail wheel conjugated with the rudder to give perfect taxiing control even in strong crosswinds. The unconventional bicycle landing gear (among many other features) makes the R.F. 4 appear as a U 2 in miniature. Under each wing are wire outriggers forming an arc of steel carrying small nylon wheels to ensure lateral balance.

Lowering or raising the main wheel is a two action process, first; the gear UP-DOWN lock is released by moving a small lever (which is itself protected by a finger release catch) then a directly connected lever is pushed forward to lower the wheel, or back to lie beside the seat when in the retracted position. The aforementioned lever snaps back when the wheel is locked. The simplicity of the system assures an easy and positive action. If the gear is UP and the throttle is closed a yellow 'gear up' warning light goes on and a warning horn blasts to

FRANCO-GERMAN EFFORTS RESULT IN OUTSTANDING SPORT SHIP

photo article by George H. Budde



The unconventional bicycle landing gear gives the R.F. 4 the appearance of a U2 in miniature.

AVION PLANEUR

alert the pilot of the condition.

The manufacturers of the R.F. 4, knowing that pilots making the transition from fixed to retractable landing gear may forget to lower the wheels even though a horn may be sounding off as well as the warning light pleading for attention, have each airplane undergo a wheels-up landing as part of the production test program.

In the event the R.F. 4 is to be flown in snowy country, a retractable ski may be obtained to replace the landing wheel.

The cockpit is wonderfully comfortable and large without whistling drafts, hammering vibrations and noises. Cockpit seating and trim are of color impregnated plastic embossed with a textured leathercloth finish which is virtually unscratchable. The semi-reclined seating position is designed to provide comfort to the tallest of pilots. Covering the cockpit is a large, beautifully smooth, single piece canopy that can be firmly clamped down by an

over-center latch.

Attention was brought to this airplane upon a recent visit to Europe. In England pilots were speaking of this new airplane with such enthusiasm that it surely must warrant further investigation. In France pilots again sang out with flowery praises of the new sport plane—and so was my introduction to the R.F. 4 Fournier Avion Planeur, produced by Sportavia in Western Germany. Now, any airplane that could possibly generate interest in so many languages certainly must possess a few attributes that we in the United States could use.

The British seemed impressed with the R.F. 4's ability to be used as a 'touring aircraft'; the popularity of the aircraft was undoubtedly associated with the fact that French pilots were pleased with a *FULLY AEROBATIC* small aircraft that possessed a strength of from +6g to -3g. Everywhere it was considered the answer to the problem of the rising cost of flight

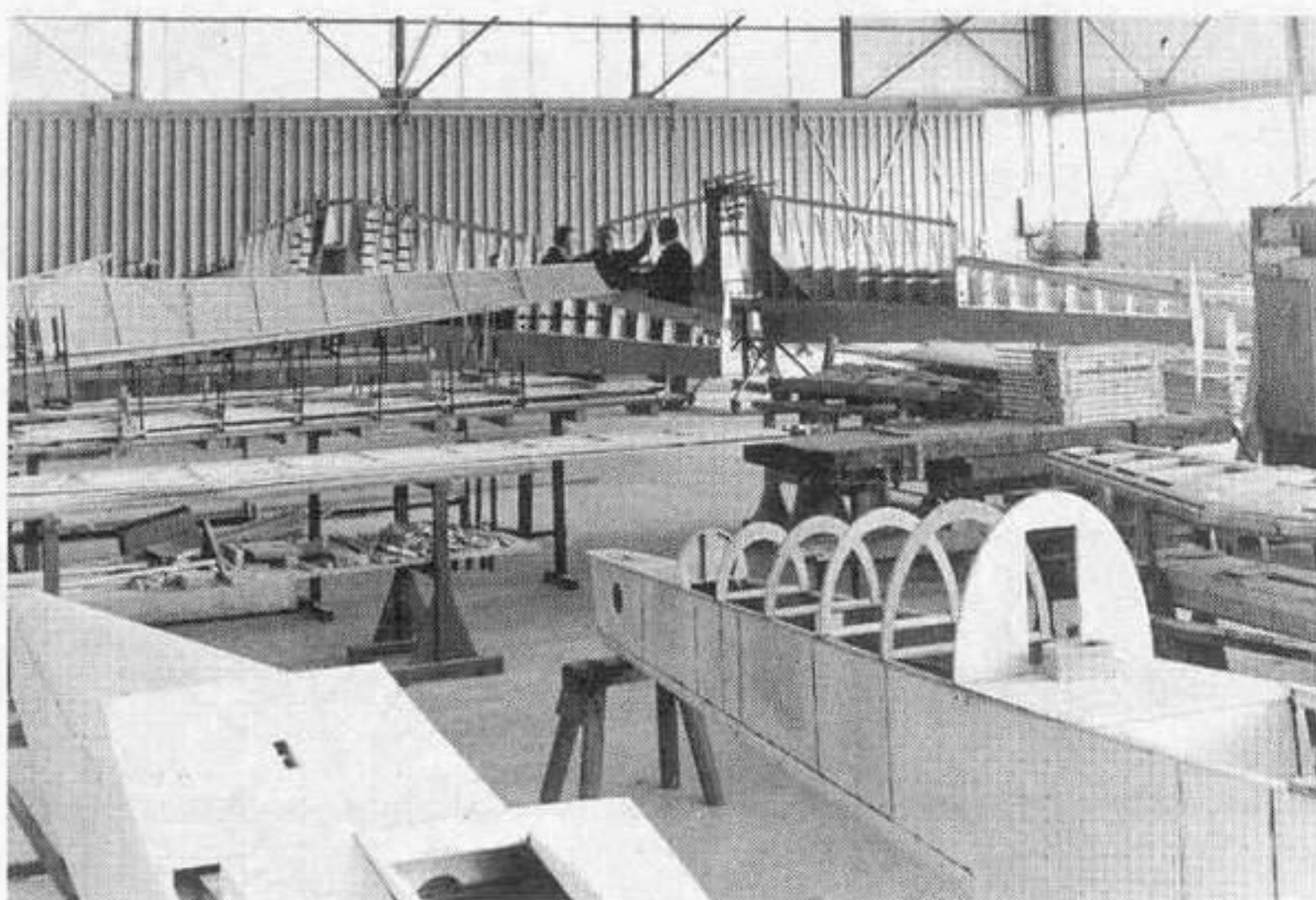
training and private flying in general.

The R.F. 4 came into being as a result to the meeting of two men with talent and foresight. Monsieur Fournier, of Southern France, was the manufacturer of powered sailplanes and had built an airplane known as the Alpavia Fournier RF-3. (This was a smaller version of the RF 4.) Herr Putzer designed and built the handy little high wing, tricycle gear, two seat Magpie which he supplied to the Luftwaffe Flying Clubs. The two men joined forces and formed a new Franco-German company which bears the name 'Sportavia.'

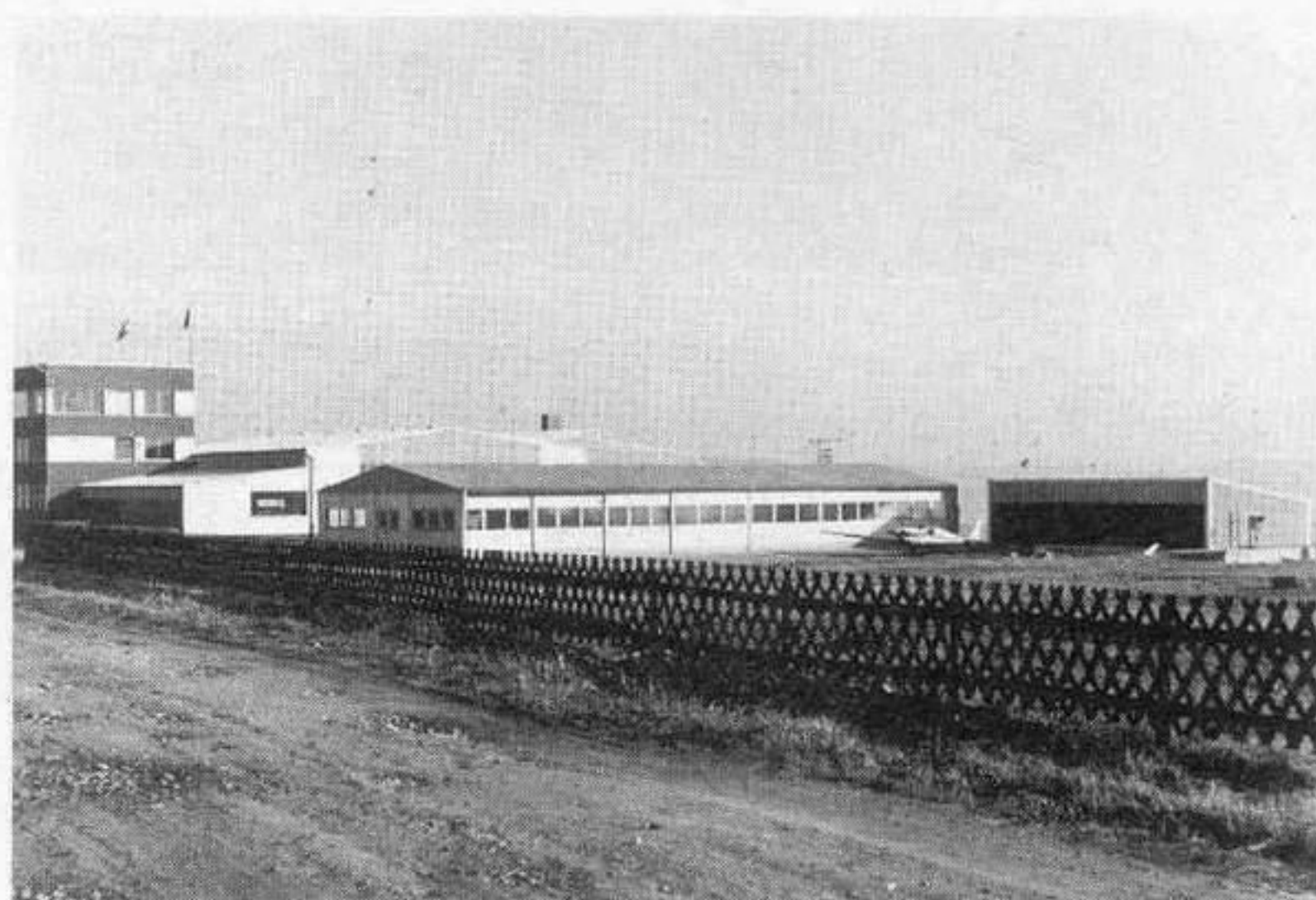
Larger facilities than either man possessed were required when the merger of interests were made, and it was decided that the airplane would be built close to a relatively unknown, little used, sport flying airfield called Dahlmer Binz Flugplatz. In this wooded area, about 42 miles southwest of Cologne, events were to take place that would change the out-



The assembly shop of Sportavia-RF 4s being made ready for Germany, Great Britain and France.



The home of Sportavia-Dahlemer Binz Flugplatz-West Germany.



The Sportavia factory—where solid aluminum jigs are used in view of the vast potential market.

THE FOURNIER R.F. 4 COMBINES THE BEST OF BOTH WORLDS

look and livelihood of the seven villages surrounding it.

Production and assembly shops, office buildings, and hangers were built with an eye to long range production. Manufacturing methods were altered, instead of using a simple wooden type jig for wooden components such as tailplane, ribs and control surface, jigs were constructed of solid aluminum. This is evidence of the company's planning in view of the vast potential market.

Even though the R.F. 4 is NOT a power glider, for she is a fast and maneuverable light airplane, it's so aerodynamically

clean and has such amazing high efficiency that when the engine is stopped she has SAILPLANE CAPACITY.

A review of the specifications allows the performance figures to speak for themselves. At 60 miles per hour, engine stopped, her glide ratio is 20 to 1; with a minimum rate of sink of 4 feet/second when flying at 55 miles per hour.

The soaring buff is offered many exciting new possibilities with the R.F. 4. The handling at low speeds is very much like that of modern gliders and, by carefully adjusting the throttle to increase engine speed, appropriate gliding perfor-

mance can be simulated.

On anything like a reasonable thermic day, a pilot who is not satisfied with local soaring can head out on a cross-country flight without the danger of landing in a field away from home base. Even when conditions are dull and unsoarable locally a short flight, under power will often enable the pilot to fly into a better area.

The novice unaccustomed to soaring can teach himself the art of riding the thermals. Even on a day with very weak or scattered 'lift' valuable practice (not to mention the pleasure) can be had by flying the R.F. 4 with a very low power

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THE FOURNIER R.F.

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setting. Throttling back to about 1,600 r.p.m. the rate of descent is approximately the same as that found on a modern glider. At these engine speeds it is so quiet that from the ground it is almost impossible to tell that the engine is running.

The experienced soaring pilot will find the R.F. 4 an excellent practice machine, since by using the slightest trickle of power, (fuel consumption about one half gallon per hour) the characteristics of high performance sailplanes can be faithfully imitated. The competition pilot can venture out on practice cross-country glider flights with all the complications of speed-to-fly computers and final glide calculations without fear of a possible landing in someone's back yard and without having to wait for a good soaring day.

Another feature of the Fournier that pleased all soaring enthusiasts was the thought of no delays for launch or the complexities in arranging for a retrieve.

The R.F. 4 AIRPLANE (with a sailplane flavor) combines extremely high cruising efficiency with aerobatic performance and has proved to be an excellent training ship. Her handling characteristics resemble aircraft such as the Chipmunks and Gypsy Moths (see SPORT FLYING August 1967), which were mighty fine training ships to which thousands of polished pilots will attest. Furthermore, the R.F. 4's low cost of operation makes her ideal for pilots wishing to increase their flying time for higher ratings and for the pleasure pilot who has been searching for (as the British might say) "an ultra-light that is a most civilized aeroplane for touring."

Standard equipment on the R.F. 4 includes:

- 1 Airspeed Indicator
- 1 Altimeter
- 1 Variometer
- 1 Compass
- 1 Bank Indicator
- 3 Cushions
- 1 Battery (12 volt)
- Flight log
- 1 Tachometer
- 1 Oil Pressure Indicator
- 1 Oil Temperature Indicator
- 1 Stall warning light (red)
- 1 Gear warning light (yellow)
- 1 "Gear-up" warning horn.
- 1 (5-Part) Safety harness
- 1 Engine & Maintenance Manual
- Aircraft log
- Price: DM 22,000 (\$5,300) from der Dahlem Binz Flugplatz. Optional equipment includes radio, blind flying instruments,

oxygen, long range tanks, retractable ski and a mechanical self starter.

Things to come: The next airplane to be placed in production by Herr Putzer is the two seater R.F. 5. Flight tests are being conducted at this time so it is impossible to submit a full report on the aircraft. The few details available indicate that the larger VW 1600 cc engine will be used; the R.F. 5 will have a better rate of climb than the R.F. 4 (which is 600 ft/min at 70 mph) and that its wing loading will be less than the R.F. 4 (6.4 lb/sq. ft.). The wing will be approximately 46 feet long; hinged at the inboard ends of the ailerons to permit them to be folded to about 26 feet for easy storage. Seating is in tandem, with the instructor sitting over the wing; giving him a good view over the trailing edge, while the student at the same level, has good visibility forward.

SPORT FLYING will follow the progress of this new airplane and will pass along a full report to our readers as soon as the information is available. 

SPECIFICATIONS

Wing Span	36.9 feet
Wing Loading	6.4 lbs./sq. ft.
Aspect Ratio	11
Engine	1,200 c.c. V/W Rectimo
	39 horse power
Empty Weight	561 lbs.
Maximum Weight	
	836 lbs. (normal category)
	792 lbs. (acrobatic category)
Cruising Speeds	
	112 mph (normal)
	56 mph (economical)
Stalling Speed	44 mph
Fuel Capacity	9 1/4 gallons
Range at 112 mph	410 miles
Range at 56 mph	560 miles
Endurance at 112 mph	3 hours,
	40 minutes
Endurance at 56 mph	10 hours
Fuel Consumption at	
112 mph	3.15 gallons/hour
Fuel Consumption at	
56 mph	1.15 gallons/hour
Minimum sink (engine	
stopped) ...	4 feet/second (at 55 mph)
Glide Ratio (engine	
stopped)	20 to 1 (at 60 mph)
Takeoff ground run	145 yards
Service Ceiling	19,700 feet