

SPEED CANARD



A hot-rod for homebuilders who'd rather not.

speeds. Not bad for a 116-hp engine.

One of a canard design's benefits is stall- and spin-resistance. The canard is set at a higher angle of incidence than the main wing. At high angles of attack, the canard will stall before the main wing. Theoretically, this prevents the main wing from ever stalling. These general canard principles are true for the Speed Canard. However, pitch-bucking (alternate stalling and unstalling of the canard at high angles of attack) begins without warning, and the Speed Canard that I flew had no stall warning buzzer. Most airplanes will signal that they are about to stall by aerodynamic buffeting. Not so with the Speed Canard. Power-on stalls are remarkable in that the airplane continues to climb, even as the canard stalls. Attempts to spin in the Speed Canard resulted in steep spirals.

The Speed Canard's proportions and bumblebee shape suggest an airplane

that might be very pitch sensitive. Not true. The airplane flies rock-steady, and there is no temptation to chase control inputs. From the cockpit, the pilot is faced with a sensory paradox. The visibility and dimensions are those of an ultralight; the speed and ergonomics are those of a much, much faster airplane. It takes only a bit of imagination to believe you are at the controls of a futuristic, personal fighter. The airplane is a hot rod.

It is a good thing that we recreational fighter jocks travel light. The Speed Canard is short on baggage space. Without the two optional underwing baggage pods, cargo must fit in the aft cockpit's footwell—and be limited to 33 pounds. There might be a problem if you are carrying a passenger. The under-wing pods are rather small and are limited to 17.6 pounds each. Oh, well. At least you can pretend they are ECM pods or some other hard-point equipment.

American certification may be a long way off. The absence of any stall warning and the unusual takeoff and landing technique may cause the American authorities concern. And then there is the matter of the Speed Canard's composite construction. The United States has yet to certify a composite-construction airplane in anything other than the Experimental/amateur-built category, and the Federal Aviation Administration is likely to be wary. The Germans have had plenty of experience certifying composite lightplanes and sailplanes. Let us hope that the German precedents will provide the FAA with enough confidence to begin certi-

Gyroflug Sc 01 Speed Canard

Anticipated price \$40,000

Specifications

Powerplant	Lycoming O-235, 116 hp @ 2,800 rpm
Propeller	Hoffmann 3-blade, constant speed
Length	17 ft 1 in
Height	6 ft 3 in
Wingspan	25 ft 3 in
Wing area	canard 13.13 sq ft main wing 84.4 sq ft
Wing loading	15.36 lb/sq ft
Power loading	12.9 lb/hp
Seats	2
Cabin length	9 ft 2 in
Cabin width	2 ft 1 in
Cabin height	3 ft 3 in
Empty weight	915 lb
Gross weight	1,499 lb
Useful load	584 lb
Payload w/full fuel	330 lb
Fuel capacity, std	42.3 gal/254 lb
Baggage capacity	33 lb

Performance

Takeoff distance, ground roll	1,411 ft
Takeoff distance over 50-ft obst	2,133 ft
Rate of climb, sea level	984 fpm
Cruise speed/Range w/45-min rsv, std fuel (fuel consumption, ea engine)	

@75% power

6,000 ft 151 KTAS/769 nm
(39.6 pph/6.6 gph)

@65% power

6,000 ft 147 KTAS/865 nm
(34.86 pph/5.81 gph)

@55% power

6,000 ft 141 KTAS/1,000 nm
(29.3 pph/4.89 gph)

Service ceiling 14,500 ft

Landing distance over 50-ft obst 1,969 ft

Landing distance, ground roll 820 ft

Limiting and Recommended Airspeeds

Va (Design maneuvering) 135 KIAS

Vno (Max structural cruising) 165 KIAS

Vne (Never exceed) 195 KIAS

Vs1 (Stall clean) 57 KIAS

All specifications are based on manufacturer's calculations. All performance figures are based on standard day, standard atmosphere, at sea level and gross weight, unless otherwise noted. For further information, contact

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fying composite aircraft on its own.

Gyroflug anticipates that the American price of the Speed Canard will be approximately \$40,000. An American office, Speed Canard Aircraft Corporation USA, San Diego, California, has been established, and the airplane recently was displayed at the Experimental Aircraft Association's annual fly-in at Oshkosh, Wisconsin. The Speed Canard is off to a slow start in this country. We hope that 1985 will bring more of them to these shores. —TAH