

Take-Off:

- 1) Turn into the wind before advancing throttle.
- 2) Gradually open throttle while holding light back pressure on the elevator. The aircraft should break ground at approximately 34 mph solo, and at approximately 41 mph at gross.
- 3) Gradually reduce flaps to 5 degree setting as speed is increasing to 55 mph.
- 4) Climb to safe altitude while monitoring EGT and Water Temperature gauge.
- 5) Adjust throttle to cruise between 5000 and 6000 rpm. Avoid running engine at any rpm which is not smooth.

*Safety Note - as with all aircraft, fly high enough to ensure you can glide to a safe landing.

Landing Approach:

- 1) Power Off Approach - maintain 55 mph with 15 degrees flaps until flare at 3 to 8 feet above ground. With 0 degrees flaps, maintain 60 mph.

*Safety Note - airspeed indicators do not all read the same. A pilot should climb to a safe altitude and do a series of stalls with both power on, and power off, using various flap settings. Make note of the indicated airspeed at which stalls occur. Stalls are gentle and recovery occurs quickly.

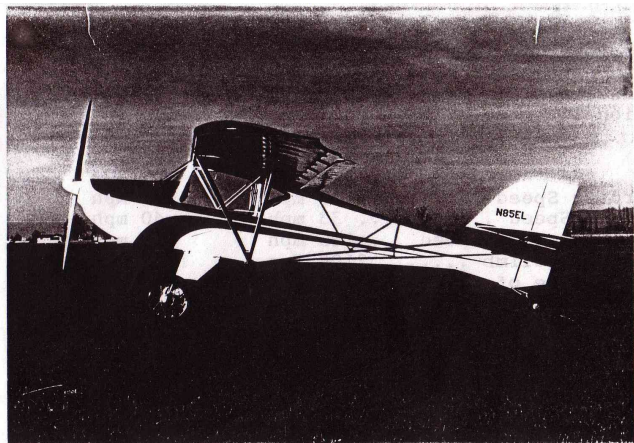
Stall recovery will be straight forward as long as the ailerons and rudder are in the neutral position.

Spins may be accomplished to the right or left. The aircraft will maintain an approximate 40 degrees nose down attitude, and recovery requires approximately 1/4 turn after ailerons and elevator are neutral and correct opposite rudder is applied.

CAUTION: do not exceed flap red line during your recovery from a spin:

60 mph - 0 to +20 degrees	70 mph - 0 to +10
65 mph - 0 to +15 "	80 mph - 0 to + 5

Flaperon reversal will occur at +25 degrees flap setting.



AVID SPEEDWING
Flight Manual

ROTAX 532LC

Specifications

Wing Span	23 ft 11½ in
Wing Area	97.31 sq ft
Chord of Wings	42 in
Chord including Flaperons	51 in
Aspect Ratio	5.50
Wing Loading @ 850# Gross	8.73 lbs
Length	17 ft
Length w/Wings Folded	17 ft
Width w/Wings Folded	7 ft 9½ in
Height	67 in
Empty Weight (depends on finish/options)	380 #
Gross Weight	850 #
Useful Load (depends on empty weight)...	470 #
Fuel Capacity	9 gal
Fuel Consumption	2.5-5 gal/hr
Range	250 mi approx
Engine	65 hp Rotax 532
Gear Reduction	2.58:1 Rotax gear drive
Propeller (wood)	68 in fixed pitch

Performance: all figures are based upon factory prototype aircraft. Individual builder performance will vary due to differences in construction and precision of workmanship.

	Solo 580 lbs	Dual 850 lbs
Cruise Speed	110 mph	110 mph
Stall Speed	33 mph	40 mph
Never Exceed Speed ...	125 mph	125 mph
Rate of Climb	2100 fpm	1375 fpm
Best Rate of Climb	57 mph	60 mph
Best Angle of Climb ...	52 mph	55 mph
Take-Off Roll	125 ft	300 ft
Over 50 ft Obstacle ..	250 ft	500 ft
Landing Roll	500 ft	600 ft
Service Ceiling	20000 ft	15000 ft

*Note - all performance figures are based upon sea level conditions. Service ceiling is "calculated".

Before flying your Avid Speedwing, be certain your engine is running properly and has been run-in as specified by the engine manufacturer.

Engine Run-In and Tuneups: ensure the aircraft is securely tied down. The engine should run continuously at any throttle setting without overheating. Should overheating occur, consult your engine instructions as supplied by the manufacturer. The EGT should read 1200 degrees to obtain best power and should not exceed 1300 degrees. The water temperature should not exceed 95 deg Centigrade.

Carburetion: during run-in and tuneups, the engine may run hot. Correct this condition by richer jetting. If an engine runs cooler than desired, leaner jetting is required. Settings will change as engine is broken in. Set idle speed to smooth operation wherein you get continuous idle without engine quitting or loading up.

Preflight: perform a preflight before doing any taxi testing to ensure you do not fly an unsafe aircraft.

Taxi Testing: MAKE CERTAIN the aircraft is ready to fly before any taxiing. The AVID SPEEDWING will become airborne at the slightest suggestion

of full power and attainment of approximately 33 mph. The brakes WILL NOT hold the aircraft at a full throttle setting.

Pre-Flight Checklist:

- 1) General inspection of entire aircraft.
- 2) Check gearbox oil level, throttle and choke cables.
- 3) Check spark plug leads to ensure they are firmly on the spark plugs.
- 4) Check fuel tank venting.
- 5) Check coolant level.
- 6) Check propeller for damage and ensure it is properly attached.
- 7) Check tires and brakes for visible damage and/or excessive wear.
- 8) Check controls for proper operation.
- 9) Ensure proper locking of cowling and turtledeck camlocks.
- 10) Check flaperon spar bearing tightness.
- 11) Check wing pins and safety pins in place and locked.
- 12) Ensure gas is turned on and sufficient fuel is onboard for intended flight.
- 13) Set altimeter.
- 14) Fasten seat belts and check door latch.
- 15) Visually check area around aircraft. Ensure propeller is clear before starting engine.
- 16) Start engine.

Taxiing and Pre-Takeoff:

- 1) Taxi downwind with flaps on. Taxi into the wind with flaps off.
- 2) Check water temperature of at least 50 deg Centigrade, but not more than 95 deg C.
- 3) Set flaps at 15 deg and apply brakes before performing a brief run-up to ensure engine will take throttle and return to idle.
- 4) Check for other air traffic.

*NOTE: THE FOLLOWING LISTED OPERATING TECHNIQUES AND SPEEDS ARE RECOMMENDED FOR THE FIRST 40 HOURS OF FLIGHT, UNTIL THE PILOT BECOMES ENTIRELY FAMILIAR WITH HIS AIRCRAFT.

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