



NEMETH DESIGNS
AEROLITE 103
FOR MS FLIGHT SIMULATOR 2020



General

The Aerolite 103 is a fixed-wing ultralight airplane with high-mounted wing, tricycle gear with landing gear struts. The fuselage is built of aluminum tubes and gussets and heavy-duty sailcloth for easy repairs. The gear system is made of fiber glass tubes, with aluminium supports. For pilot protection and aerodynamic purposes, a polycarbonate windscreen, gear fairings and wheelpants are installed.

Piloting is ensured by cable-controlled aileron, elevator and rudder system, also a cable-type brake system is installed for ground speed control and parking.

The fuel system consists of a 14 gallon (53 liter) capacity aluminium fuel tank, fuel cut off valve, engine driven fuel pump and a manual fuel prime for starting during cold ambient conditions.

The power plant is a twin-cylinder, flat, air-cooled modified two-cycle piston engine. It runs at 4200 rpm on max throttle and produce 32 hp. The engine has a CDI (capacitor discharge) wasted spark ignition system. The engine RPM reduced to the propeller by a belt reduction drive. The main electrical power source is a 28 Volt AC starter generator, which is used for starting in reverse polarity. The engine uses fuel at an 80-to-1 ratio and does not have oil injection, manual pre mixing is required. The starter/genrator is cranked by a 26 volt lithium-ion battery during starting. The propeller is 3-blade type, made of composite or wood.

Specifications

Empty weight:	245 lbs (112 kg)	Range:	105 nm (200 km)
Gross weight:	610 lbs (276 kg)	Service ceiling:	~5500 ft (1675 m)
Length:	15.3 ft / 4.68 m	VNE (never exceed):	70 Knots
Wing area:	26.1 ft / 7.95 m	Rate of climb:	600 fpm
Engine power:	55 hp	Sink rate:	400 to 550 fpm
Propeller diameter:	60 inches	Roll rate:	45 degrees 2.5
Stall speed, clean:	~25 Knots	Takeoff and landing:	100 to 200 feet
Cruise speed:	60 Knots (~85% power)		
Top speed:	65 Knot		

Startup

Fuel lever	Open
Master switch:	ON
Ignition switch:	ON
Starter/Generator:	ON
Throttle:	Minimum
Start button:	Press
Propeller:	Visual check RPM rise
Oil Pressure:	Verify red light off
Oil temperature:	Verify red light off
Secondary bus:	ON

Shutoff

Throttle minimum:	Minimum
Secondary bus:	OFF
Fuel lever:	OFF
Starter/Generator:	OFF
Ignition switch:	OFF
Master switch:	OFF
Propeller:	Check RPM decrease

NOTE: Please set the flight model to MODERN in the options menu otherwise the airplane won't function properly. Legacy mode is not supported..

Where to find things in the cockpit

