

BUSHBY MUSTANG II

AIRCRAFT SPECIFICATIONS AND LIMITATIONS

Mustang II Aircraft flight characteristics are similar to the flight characteristics of other Standard Category aircraft.

Aeronautical skill and knowledge required to obtain FAA issued Private Pilot class license is sufficient, and required, for the operation of Mustang II aircraft. Of particular importance is the effects of temperature, atmospheric pressure, and density altitude on the aircraft's performance. The pilot must be aware of increased stall speed as related to angle of bank, "G" forces, and increases of operating weights. Also the increase of turning radius as related to increased airspeed.

Engine operating procedures, conditions, and instrument markings to be in accordance with the engine manufacturer's operating manual.

Operation of installed equipment, such as alternator, battery, lights, electronic equipment, etc. are to be in accordance with the equipment manufacturer's manuals and instructions.

CANOPY NOT TO BE OPENED IN FLIGHT.

160 maximum continuous horsepower.

NOTE: 80% power, or approximately 24 ½ in. manifold pressure when 360 CID engine is installed.

GROSS WEIGHT AND LOAD FACTORS:

1850 lb. Gross - Maximum Takeoff weight

At 1600 lb. Gross - 5.0 G pos. & neg.

Reference Datum is Fuselage Station Zero.

Forward face of firewall is Station 47.75.

Center of center section main spar is Station 73.75

Crew weight - refer to moment determination chart.

Maximum baggage - Main baggage compartment 80 lbs.

Tailcone baggage compartment 35 lbs.

FUEL CAPACITY:

Fuselage Tank - 25 usable gallons.

Wing Tanks - 18 gallons each

Total Fuel Capacity - 61 gallons

Minimum fuel for takeoff - 5 gallons.

OPERATING SPEEDS

Va	Maneuvering Speed	140 mph	121 K
Vfe	Flap Extension Speed	100 mph	87 K
Vs	Stall Speed (No Flap)	62 mph	54 K
Vso	Stall Speed (Full Flap)	58 mph	50 K
	Degree of Bank	Stall Speed	
	0	62 mph	54 K
	30	66 mph	57 K
	45	74 mph	64 K
	60	88 mph	76 K
Vx	Best Angle of Climb Speed	75 mph	65 K
Vy	Best Rate of Climb Speed	95 mph	83 K
	Normal Glide Speed	90 mph	78 K
	Max Demonstrated Crosswind Velocity	20 mph	17 K

AIRSPEED INDICATOR MARKINGS:

White arc - flap operating range: 58 MPH / 50 K to 100 MPH / 87 K

Green arc - normal operating range: 62 MPH / 54 K to 200 MPH / 174 K

Yellow arc- caution range: 200 MPH / 174 K to 230 MPH / 200 K

Red line: 230 MPH / 200 K

PERFORMANCE INFORMATION:

[Fuselage / Main tank only]

Rate of Climb - 1500 FPM.

Service Ceiling - 19,000 Ft.

(Breathing Oxygen is Required at altitudes Above 12,500 Ft.)

Take-Off Distance Ground Run - 600 Ft.

Take-Off Distance to Clear 50 Ft. Obstacle - 1,000 Ft.

Above performance figures based upon fixed pitch metal propeller. Individual flight procedures may alter the above figures.

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Aircraft Specifications

Empty Weight	1,175 lb.
Maximum Takeoff Gross Weight	1,850 lb.
Power Recommendation	125 to 160 hp.
Wing Loading (Maximum) (1850 lbs.)	19.0 lb/sq. ft.
(1600 lbs.)	16.5 lb/sq. ft.
Power Loading	9.4 to 12.0 lb/HP
Power Loading (with 160 HP) (1850 lbs.)	11.56 lb/HP
(1600 lbs.)	10.0 lb/HP
Wingspan	24'4"
Fuselage Length	19'10"
Height	5'5"
Wheel Tread	6'9"
Wing Area	97.10 sq. ft.
Flap Area	8.00 sq. ft.
Aileron Area	4.80 sq. ft.
Stabilizer Area	10.00 sq. ft.
Fin Area	4.25 sq. ft.
Elevator Area	6.85 sq. ft.
Rudder Area	3.72 sq. ft.
Trim Tab Area (Elevator)	0.30 sq. ft.
Flap Travel	40 deg. Max DOWN
Elevator Travel	20 deg. UP, 20 deg. DOWN
Aileron Travel	20 deg. UP, 15 deg. DOWN
Trim Tab Travel	20 deg. UP, 40 deg. DOWN
Rudder Travel	20 deg. RIGHT, 20 deg. LEFT
Wing Angle of Incidence	+1.0 deg.
Stabilizer Angle of Incidence	-1.5 deg.
Wing Washout (Geometric Twist)	2.5 deg.
Wing Dihedral (Outer Panels)	+5.0 deg.
Thrust Line Above Fuselage Centerline	1.25 in.

BUSHBY MUSTANG II

Aircraft Specifications (con't)

Baggage Capacity: Main baggage compartment	80 lbs.
Tailcone baggage compartment	35 lbs.
Fuel Capacity (Main Tank)	25 gal. (150 lbs.)
(Wing Tanks)	36 gal. (216 lbs.)
TOTAL	61 gal. (366 lbs.)
Useful Load (Maximum)	675 lb.
Center of Gravity Limits	16% to 28% MAC
Never Exceed Speed	230 mph / 200 K
Maximum Flap Extension Speed	100 mph / 87 K
Maximum "G" Loading - Aerobatic (at 1,250 lbs.)	6 Yield, 9 Ultimate
(Pos. & Neg.) - Normal (at 1,600 lbs.)	5 Yield, 7 Ultimate