FEDERAL AVIATION ADMINISTRATION

A6SW
Revision 6
(Mooney)
M22

December 1, 1973

# TYPE CERTIFICATE DATA SHEET NO. A6SW

This data sheet which is a part of type certificate No. A6SW prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

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| Type Certificate Holder | Mooney Aircraft Corporation<br>Kerrville, Texas |

## I - Model M22, 5 PCLM (Normal Category), Approved September 26, 1966

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| Engine | Lycoming TIO-541-A1A (Bendix fuel injector, model RSA-10AD1, Part No. 2524256-2, and AiRsearch turbocharger model T-1823) |
| Fuel | 100/130 min. grade aviation gasoline |
| Engine limits | For all operations, 2575 r.p.m., 37 in. Hg. manifold pressure (310 h.p.) |
| Propeller and propeller limits | Hartzell constant speed propeller Model HC-C2YK-1B hub, 8475-4 blades.<br>Diameter: 80 in. No further reduction permitted.<br>Pitch settings at 30.0 in. station, low 16.0° ± 0°, high 40.5° ± 2° |

Airspeed limits

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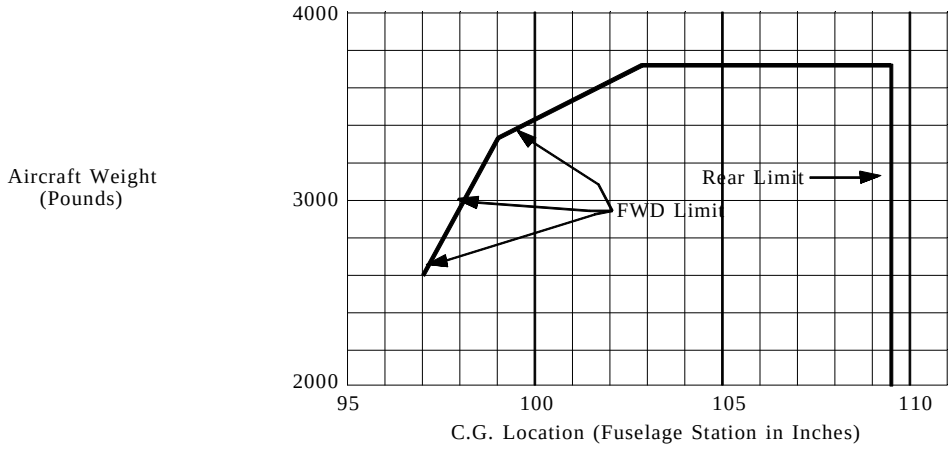
| Vne (never exceed) | 225 m.p.h. | (196 knots) | True Ind. |
| Vno (max. structural cruising) | 200 m.p.h. | (174 knots) | True Ind. |
| Vp (Maneuvering) | 157 m.p.h. | (136 knots) | True Ind. |
| Vfe (flaps extended) | 125 m.p.h. | (109 knots) | True Ind. |
| Vlo (landing gear operating) | 130 m.p.h. | (113 knots) | True Ind. |
| Vle (landing gear extended) | 150 m.p.h. | (130 knots) | True Ind. |

C.G. range (landing gear extended)

(102.8) to (109.5) at 3680 lbs.
( 99.0) to (109.5) at 3300 lbs.
( 97.0) to (109.5) at 2600 lbs. or less
(Straight line variation between points given).



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| Empty weight C.G. range | None |
| Datum | 18 inches forward of Engine Propeller attachment face or 90.91 inches forward of wing leading edge at wing station 59.25 (Airplane Sta. 0) |
| Leveling means | Bottom edge of upper tailcone skin immediately above large access panel on left side of tailcone. |
| Maximum weight | 3680 lbs. |
| Minimum crew | Pilot |
| Number of seats | 5 (2 at 102.2 to 107.2, 2 at 141.7 to 151.5, 1 at 175.7). |
| Maximum baggage | 100 lbs. at 171.0 (5 place).<br>100 lbs. at 171.0 and 170 lbs. at 175.7 (4 place). |
| Fuel capacity | 540.0 lbs. (90.0 gal. in two 45.0 gal. tanks in wings at Sta. 106.6).<br>See NOTE 1 for data on unusable fuel. |
| Oil capacity | 14 qts. at Sta. 40.<br>10 qts. usable. |
| Max. operating Alt. | Aircraft may not be operated at or above 24,000 feet. |
| Control surface | (Aircraft with Serial Numbers up to 690001, except Serial No. 660006). |

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| Wing flaps | Up 0° ± 2° | Down 35° ± 1° |
| Aileron | Up 17° to 20° | Down 9.5° ± .5° |
| Elevator | Up 24° ± 1° | Down 24° ± 1° |
| Rudder | Left 28° ± 1° | Right 28° ± 1° |
| Stabilizer | Up 0 to -1° | Down -7.5° to -8° |

Elevator Trim Assist Unit: With full nose up stabilizer setting, the elevator neutral point should be 13.5° ± 2° up.

(Aircraft with Serial Numbers up to 660006, 690001 and up)

| | | |
|---|---|---|
| Wing flaps | Up 0° ± 2° | Down 35° ± 1° |
| Aileron | Up 17° to 20° | Down 9.5° ± .5° |
| Elevator | Up 24° ± 1° | Down 24° ± 1° |
| Rudder | Left 28° ± 1° | Right 28° ± 1° |
| Stabilizer | Up 0 to - .5° | Down -6° to -6.5° |

Elevator Trim Assist Unit: With stabilizer set at 3.5° negative setting to thrust line, adjust trim assist bungees (P/N 740128-503) for an elevator position of -1° ± 1/2° at the zero spring travel position of the bungee.

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| Serial Numbers eligible | 660006, 670001 through 670004, 680001 through 680015, 690001 through 690005, 700001 and on. |
| Certification basis | Type Certificate No. A6SW, (CAR 3 dated May 15, 1956, including all amendments through 3-8 and special conditions defined in FAA letter to Mooney dated October 13, 1964, and exemption 685 from first sentence of CAR 3.667(e)). Type Certificate issued and Delegation Option Manufacturer No. SW-1 authorized to issue airworthiness certificates under the Delegation Option Authorization provisions of Subpart J, Part 21 of the Federal Aviation Regulations on airplane Serial Nos. through 690002. Date of Application for Type Certificate November 20, 1964. Type Certificate issued September 26, 1966. |
| Production basis | None. Prior to original certification of each aircraft manufactured subsequent to March 7, 1969, an FAA representative must perform a detailed inspection for workmanship, materials and conformity with the approved technical data and a check of the flight characteristics. |
| Equipment | The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. |

NOTE 1. Current weight and balance report, including list of equipment included in certificated empty weight and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system). The certificated empty weight and the corresponding center of gravity location must include unusable fuel (not included in fuel capacity) as follows: 9.2 lbs., (1.5 gal.) See aircraft weight and balance data for wheel location.

NOTE 2: Placards

a. The following placard must be displayed in front and in clear view of the pilot:
"THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS."

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