

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

3A1
Revision 11
Meyers MAC-145
Meyers MAC-125C
Micco MAC-145A
January 5, 2000

TYPE CERTIFICATE DATA SHEET NO. 3A1

Type Certificate Holder: Estumkeda, Ltd.
d.b.a. Micco Aircraft Company
3100 Airman's Drive
Ft. Pierce, Florida 34946

I - Model MAC-145, 2 PCLM, Approved November 2, 1948

Engine Continental C145-2

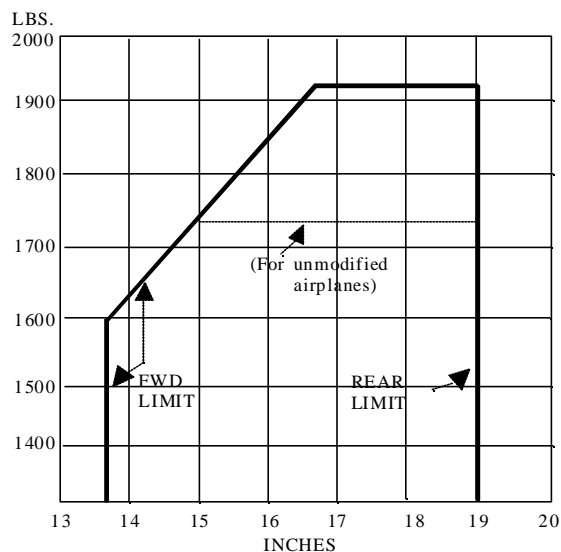
Fuel 80 Min. octane aviation gasoline

Engine limits For all operations, 2700 rpm (145 hp)

Propeller limits Static rpm at maximum permissible throttle setting:
(with Equipment Item 1) Not over 2380, not under 2210.
No additional tolerance permitted.
Diameter: Not over 76 in., not under 71.5 in.

Airspeed limits Glide or dive 200 mph True Ind.
Level flight or climb 155 mph True Ind.
Flaps extended 95 mph True Ind.
Gear extended 110 mph True Ind.

C.G. range (+16.7) to (+19.0) at 1910 lbs. (See NOTE 3 for required modification)
(+15.0) to (+19.0) at 1735 lbs.
(+13.7) to (+19.0) at 1600 lbs. or less.
Straight line variation between points given.



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Empty weight C.G. range	(+10.5) to (+14.3). When empty weight C.G. falls within this range, computation of critical force and aft C.G. positions is unnecessary. Range is not valid for non-standard configurations.					
Datum	12 inches aft of forward face of firewall at centerline of airplane					
Leveling means	Lower door sill					
Maximum weight	1735 lbs. (1910 lbs. when modified in accordance with provisions of NOTE 4)					
No. of seats	2 (+26)					
Maximum baggage	100 lbs. (+54) (Main) 20 lbs. (+61) (Map shelf per Meyers Dwg. No. 43G027)					
Fuel capacity	32 gals. Main (+33). (See Equipment Item 107 for auxiliary fuel system)					
Oil capacity	2 gals. (-40)					
Control surface movements	Elevator -	Restricted	Up	9°	Down	20°
		Unrestricted	Up	22°	Down	20°
	Elevator trim tab		Up	14°	Down	50°
	Ailerons		Up	22°	Down	9.5°
	Rudder -	Restricted	Right	9.5°	Left	9.5°
		Unrestricted	Right	21°	Left	16°
	Flaps		Up	0°	Down	45°
Serial Nos. eligible	203 and up					
Export eligibility	Eligible for export to all countries subject to the provisions of MOP 2-4 except as follows: (a) Canada - Landplane - eligible Skiplane - not eligible					
Required equipment	Equipment Items 1 (or 2 or 3 or 5 or 6), 101, 102, 104, 105, 106, 201, 202, 204, 301, 302, 303.					

II - Model MAC-125C, 2 PCLM

(Same as Model MAC-145 except for engine and propeller installation).

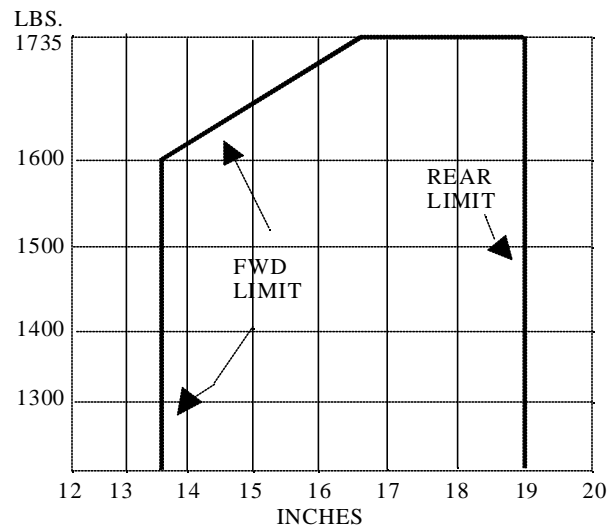
Engine	Continental C125-2	
Fuel	80 min. octane aviation gasoline	
Engine limits	For all operations,	2550 rpm (125 hp)
Airspeed limits	Glide or dive	200 mph True Ind.
	Level flight or climb	155 mph True Ind.
	Flaps extended	95 mph True Ind.
	Gear extended	110 mph True Ind.
Propeller limits	See Equipment Item 4	

C.G. range

(+16.7) to (+19.0) at 1735 lbs.

(+13.7) to (+19.0) at 1600 lbs.

Straight line variation between points given.



Empty weight C.G. range

(+10.6) to (+14.3). When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. Range is not valid for non-standard arrangements.

Datum

12 inches aft of forward face of firewall at centerline of airplane

Leveling means

Lower door sill

Maximum weight

1735 lbs.

No. of seats

2 (+26)

Maximum baggage

50 lbs. (+41)

Fuel capacity

32 gals. Main (+33). (See Equipment Item 107 for auxiliary fuel system)

Oil capacity

2 gals. (-40)

Control surface movements

Elevator -	Restricted	Up	9°	Down	20°
	Unrestricted	Up	22°	Down	20°
Elevator trim tab		Up	14°	Down	50°
Ailerons		Up	22°	Down	9.5°
Rudder -	Restricted	Right	9.5°	Left	9.5°
	Unrestricted	Right	21°	Left	16°
Flaps		Up	0°	Down	45°

Serial Nos. eligible

203 and up

Export eligibility

Eligible for export to all countries subject to the provisions of MOP 2-4 except as follows:

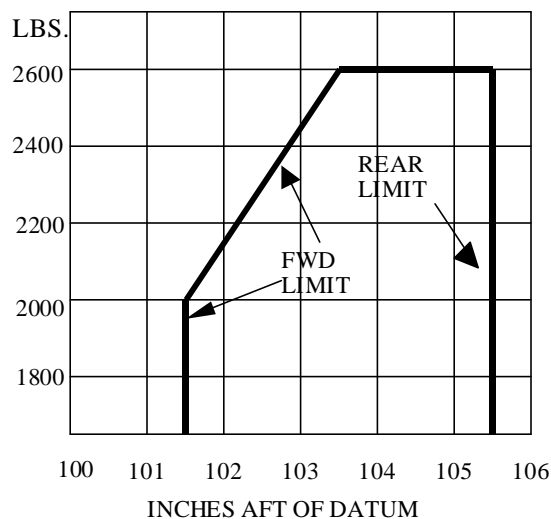
- (a) Canada - Landplane - eligible
- Skiplane - not eligible

Required equipment

Equipment Items 4, 101, 102, 104, 105, 106, 201, 202, 204, 301, 302, 303.

III - Model MAC-145A, 2 PCLM (Utility Category), Approved January 5, 2000

Engine	Textron Lycoming IO-360-C1E6	
Fuel	100/100LL minimum grade aviation gasoline	
Engine Limits	For all operations	2700 rpm (200 hp)
Propeller and Propeller Limits	McCauley B3D36C424-E/74SA-0 Avoid continuous operation below 15 inHG manifold pressure setting between 1650 and 2250 rpm when above 85 KIAS	
Airspeed Limits (IAS)	V_{NE} (Never Exceed) 180 knots V_C (Maximum Structural Cruising) 138 knots V_A (Design Maneuvering) 120 knots V_{FE} (Flaps Extended) 110 knots V_{LO} (Maximum Gear Retraction/Extension) 118 knots V_{LE} (Maximum Gear Extended) 128 knots	
C.G. Range (Utility)	(+103.5) to (+105.5) at 2600 lbs. (+101.5) to (+105.5) at 2000 lbs or less	



Empty Weight C.G. Range	None	
Datum	70.0 inches forward of front cabin bulkhead	
Leveling Means	2 screws at Station 72.7 and 83.2 at W.L. 101.3, located on left side of cabin area	
Maximum Weight (Utility)	2600 lbs. Takeoff 2492 lbs. Landing	
No. of Seats	2 (+114.0 Fwd. seat position, +117.8 Aft seat position)	

Maximum Baggage	100 lbs. at (+137.5)				
Fuel Capacity	68 gallons usable at (+117.9), 4 gallons unusable fuel at (+116.0) See NOTE 1				
Oil Capacity	2 gallons (+30.0)				
Control Surface Movements	Elevator	Up	28°	Down	20°
	Elevator Trim Tab	Up	14°	Down	38°
	Ailerons	Up	22°	Down	9.5°
	Rudder	Right	22°	Left	22°
	Flaps	Up	0°	Down	30°
(Tolerance $\pm 2^\circ$)					
Maximum Operating Altitude	12,000 feet MSL				
Serial Numbers Eligible	301, 302, 304 and subsequent				

DATA PERTINENT TO ALL MODELS

Certification basis Type Certificate No. 3A1 issued November 2, 1948

Models MAC 125C and MAC-145 - CAR 4a

Model MAC-145A - 14 CFR Part 23 as amended by 23-1 through 23-46 effective June 16, 1994; with the following rules at these listed amendment levels: 23.179, 23.301, 23.305, 23.321, 23.351, 23.479, 23.485, 23.603, 23.605, 23.607, 23.611, 23.613, 23.619, 23.621, 23.655, 23.675, 23.677, 23.679, 23.721, 23.723, 23.731, 23.1331, 23.1351, 23.1353, 23.1357, 23.1365, 23.1385, 23.1387, 23.1389, 23.1391, 23.1393, 23.1395, 23.1397, 23.1411, 23.1413, 23.1431 and 23.1507 effective February 1, 1965; 23.75, 23.77, 23.333, 23.337, 23.341, 23.345, 23.349, 23.361, 23.415, 23.455, 23.473, 23.572, 23.629, 23.733 and 23.1501 as amended by 23-7; 23.1587 as amended by 23-13; 23.173 as amended by 23-14; 23.335 as amended by 23-16; 23.145 and 23.1309 as amended by 23-17; 23.45, 23.175, 23.177 and 23.181 as amended by 23-21; 23.853 as amended by 23-23; 23.397, 23.561 and 23.785 as amended by 23-34; 23.421, 23.423, 23.425, 23.427, 23.441 and 23.443 as amended by 23-48 (Part 23, Appendix A); and 23.71 and 23.73 as amended by 23-50 with Equivalent Safety Finding to 23.1143(g) throttle and mixture control cable attachment and CAR 04a.702 in lieu of 23.65.
14 CFR Part 36 as amended by 36-20.

Production basis None. Prior to original certification of each aircraft an FAA representative must perform a detailed inspection for workmanship, material, and conformity with the approved technical data and a check of the flight characteristics.

Equipment The following equipment is for Models MAC-125C and MAC-145:

(A plus (+) or minus (-) sign preceding the weight of an optional item indicates the net weight change when that item is installed.)

MAC-125C/MAC-145 Propellers and Propeller Accessories

1. Propeller - Lewis L-6FK-3-54, L-6FK-3-52, L-6FK-48 or any other fixed pitch wood propeller which is eligible for the engine power and speed and which meets the diameter and static rpm limits given under "Propeller Limits" for Model MAC-145.
Eligible only with Continental C-145 engine with dampered crankshaft denoted by suffix letter "D" after engine serial number. 15 lbs. (-59)
2. Propeller - McCauley 1A170-DM7657 or any other Model 1A170-DM propeller that meets the following limits: Static rpm at maximum permissible throttle setting: Not over 2230, not under 2110. No additional tolerance permitted. Diameter: Not over 76 in., not under 72.5 in. Eligible on Model MAC-145 only.
McCauley propeller spinner, Meyers Dwg. #47R032 optional. 34 lbs. (-59)
3. Propeller - Hartzell ground adjustable HA12UF/8032-6 Blade pitch setting 15° at 3/4 of propeller radius or set to obtain following limits: Static rpm at maximum permissible throttle setting: Not over 2210, not under 2110. No additional tolerance permitted.
Diameter: Not over 74 in., not under 72.5 in.
Eligible on Model MAC-145 only with Continental C-145 engine dampered crankshaft denoted by suffix letter "D" after engine serial number. 22 lbs. (-59)
4. Propeller - Koppers Aeromatic F200/0074E Parts List assembly No. 4920, dated October 13, 1948. Installation and operation must be accomplished in accordance with Koppers "Installation Procedures and Operating Limitations No. 24," dated October 12, 1948. Low pitch setting 13° at 24 in. sta. Static rpm at maximum permissible throttle setting: Not over 2550, not under 2450. No additional tolerance permitted.
Diameter: Not over 74 in., not under 72.5 in.
Eligible on Model MAC-125C only. 33 lbs. (-60)
5. Propeller - Koppers Aeromatic F200H/00-74E Parts list assembly No. 4356H-1 34 lbs. (-61)
(Includes Altitude Control 4427) 6 lbs. (-46)
Adjustment and operation must be accomplished in accordance with Koppers "Adjustment Instructions and Operating Limitations No. 45"
Low pitch setting 13° at 24 in. sta.
Static rpm at maximum permissible throttle setting: Not over 2675, not under 2575.
No additional tolerance permitted.
Diameter: Not over 74 in., not under 72.5 in.
(Eligible on Model MAC-145 only with Continental C-145 engine dampered crankshaft denoted by suffix letter "D" after engine serial number).
Hampton propeller spinner Model 1-B optional.
6. Propeller - Sensenich M74DR, fixed pitch metal (Model MAC-145 only) 30 lbs. (-59)
Static rpm at maximum permissible throttle setting: Not over 2380, not under 2210.
No additional tolerance permitted.
Diameter: Not over 74 in., not under 72 in.

MAC-125C/MAC-145 Engines and Engine Accessories - Fuel and Oil System

101. Carburetor air heater and mufflers (Meyers Dwg. No. 47R003) 14 lbs. (-35)
102. Carburetor air intake and filter assy. (Continental No. A40692) 4 lbs. (-42)
103. Starter, Delco-Remy No. 1109656 (Continental No. 50309) 16 lbs. (-25)
104. Engine- driven fuel pump, AC No. 1539051 (Continental No. 40585) 2 lbs. (-52)
105. Hand fuel pump, AC No. 1539051 (Continental No. 40585) 2 lbs. (-14)
106. Cowl flaps and control (Meyers Dwg. No. 47R008) 2 lbs. (-15)
107. Auxiliary fuel system installation per Meyers Dwg. 47R004, 13 lbs. (+29)
R.H. and L.H. wing tanks, capacity 8½ gals. each
Fuel arm of auxiliary tanks (+29)
108. Electric fuel pump, Bendix Model No. 476818, replacing 2 lbs. (-14)
Item 05 (Model MAC-145 only).

MAC-125C/MAC-145 Landing Gear

- | | |
|---|----------------|
| 201. Two main wheel-brake assemblies, 6.00-6, Type III | 13 lbs. (+8) |
| (a) Goodrich (formerly Hayes) Model 600MD | |
| Wheel Assembly No. D-3-47MD | |
| Brake Assembly No. D-2-129 | |
| (b) Goodrich Model 601MD | 14 lbs. (+8) |
| Wheel Assembly No. D-3-512-MD | |
| Brake Assembly No. D-2-505 | |
| 202. Two main wheel 4-ply rating tires, 6.00-6, Type III (with regular tubes) | 18 lbs. (+8) |
| 204. Tail wheel assembly | |
| (a) Meyers Dwg. No. 44B039 | 12 lbs. (+166) |

MAC-125C/MAC-145 Electrical Equipment

- | | |
|--|---------------|
| 301. Battery - 12 volt | 31 lbs. (-15) |
| 302. Engine driven generator (Cont. 40435) | 10 lbs. (-25) |
| 303. Voltage regulatory - Delco-Remy (Cont. 40483) | 2 lbs. (-14) |

MAC-125C/MAC-145 Interior Equipment

- | | |
|--|---------------|
| 401. Wheel control, Meyers Dwg. No. 46A040 | 10 lbs. (+20) |
| 402. Stick control, Meyers Dwg. No. 46R001 | 7 lbs. (-20) |

For Model MAC-145A - The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. In addition, the following items of equipment are required:

1. FAA Approved Airplane Flight Manual for the Micco MAC-145A, Document No. F-145A-3, dated January 5, 2000, or later FAA approved revision.

NOTE 1 A current weight and balance report including list of equipment included in certificated weight empty, and loading instructions when necessary, must be in each aircraft at the time of original certification. The certificated empty weight and corresponding center of gravity location must include unusable fuel of 24 lbs. at (+116.0) for the MAC-145A.

NOTE 2 For Models MAC-125C and MAC-145, the following placards must be displayed in front of and in clear view of the pilot:

"INTENTIONAL SPINNING PROHIBITED."
 "DO NOT EXTEND FLAPS ABOVE 95 MPH."
 "DO NOT EXTEND GEAR ABOVE 110 MPH."

For Model MAC-145A, all placards required in the FAA Approved Airplane Flight Manual must be installed in the appropriate locations.

NOTE 3 For MAC-145A, see FAA approved Airworthiness Limitations section of the Instructions for Continued Airworthiness (Section 4 of Airplane Maintenance Manual) for mandatory inspections or retirement time limits.

NOTE 4 Model MAC-145 aircraft are eligible at 1910 lbs. maximum weight when following is accomplished:

- (a) Reinforcement of fuselage tail cone bulkhead No. 4 as per Meyers Dwg. No. 43R001 change C or subsequent.
- (b) Install propeller equipment item (2) or (5) as noted.

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