

I. Model 408 (cont'd)

Propeller and Propeller Limits Two McCauley 4-blade, full feathering and reversible, metal propellers
 Model: 4HFR34C779/110FDA-0
 Diameter: 110 in. (maximum); Minimum Allowable for repairs: 108 in.
 No further reduction permitted
 Pitch Settings at:
 Reverse -9.0 +/- 0.2 degrees
 Feathered +88.0 +/- 0.2 degrees

See McCauley Propeller TCDS P3NE for additional details and limitations.

Airspeed Limitations:

V _{MO} (Maximum operating speed)	
Sea Level (0 ft.) to 12,614 ft.	210 KIAS (210 KCAS)
M _{MO} above 12,614 ft.	0.40 M _I (0.40 MACH calibrated)
V _O (Maximum operating maneuvering speed Sea Level)	
19,000 lb.	151 KIAS (151 KCAS)
<i>See AFM for variations with weight and altitude.</i>	
V _{RA} (Rough air speed)	179 KIAS (179 KCAS)
	0.40 M _I (0.40 MACH calibrated)
Flap extension speeds	
V _{FE} (Up (0°) to 1 (10°) extension)	170 KIAS (170 KCAS)
V _{FE} (1 (10°) to 2 (20°) extension)	170 KIAS (169 KCAS)
V _{FE} (2 (20°) to Full (35°) extension)	140 KIAS (137 KCAS)
Minimum Control Speeds (V _{MCA} and V _{MCG})	Refer to AFM Section IV, Performance
Maximum Tire Ground Speed	139 knots

C.G. Range Design C.G. Limits:

Forward:	FS 276.56 in. at 10,800 lb. to 14,330 lb. Linear variation from FS 276.56 in. at 14,330 lb. to FS 281.94 in. at 19,000 lb.
Aft:	Linear variation from FS 290.62 in. at 10,800 lb. to FS 292.70 in. at 16,500 lb. FS 292.70 in. at 16,500 lb. to 19,000 lb.

Empty Wt. C.G. Range None

Maximum Weight:	Ramp: 19,070 lb.
	Takeoff: 19,000 lb.
	Landing: 18,600 lb.
	Zero Fuel: Refer to AFM

Minimum Crew for all Flights One Pilot

Number of Seats: The maximum number of passenger seats approved:
 a. Passenger variant is 19.
 b. Freighter variant is 0.

Cabin Loading: Reference Weight and Balance Data in AFM for approved seating and cargo configurations.

Maximum Baggage:	Nose Compartment:	300 lb.
	Passenger Variant Aft Baggage Compartment (including shelf):	1,200 lb.
	Freighter Variant Cargo Compartment (including shelf):	6,000 lb.
	Passenger Variant Overhead Bin (each):	60 lb.
	Aft Baggage Compartment Shelf:	400 lb.

I. Model 408 (cont'd)

Maximum Operating Altitude: 25,000 ft.

Control Surface Movements (Up/Down/Left/Right refers to motion of the trailing edge of each control surface):

Elevator	Up	24.0 +1.0/-0.0 degrees
	Down	15.0 +/-1.0 degrees
Elevator Tab	Up	6.5 +/-1.0 degrees
	Down	13.0 +/-1.0 degrees
Rudder	Right	30.5 +/-0.5 degrees
	Left	30.5 +/-0.5 degrees
Rudder Tab	Right	11.0 +/-0.5 degrees
	Left	11.0 +/-0.5 degrees
Aileron Left and Right	Up	17.5 +1.0/-0.0 degrees
	Down	17.5 +/-1.0 degrees
Aileron Tab Right	Up	13.0 +/-1.0 degrees
	Down	13.0 +/-1.0 degrees
Wing Flap	Up	0.0 +/-0.1 degrees
	1	10.0 +/-1.0 degrees
	2	20.0 +/-1.0 degrees
	Full	35.0 +/-1.0 degrees

See Airplane Maintenance Manual for rigging instructions.

Serial Nos. Eligible: 408-0001 and On

Datum 91.89 in. forward of nose jack point.

Leveling Means Longitudinal: Place level directly on the outboard pilot seat rail and ensure it is parallel with the seat rail.
Lateral: Place the leveling bar across the pilot seat rails flush against the rear seat stops at approximately FS 163.98 in.

Certification Basis:

- 14 CFR Part 23, effective February 1, 1965, including Amendments 23-1 through 23-64.
- The detailed design standards used as a means of compliance in accordance with § 23.2010 are documented in PR-408-001, Model 408 Detailed Design Standard Collector.
- Special Conditions. At this time, no special conditions have been identified.
- Equivalent Safety. At this time, no equivalent safety findings have been identified.
- Exemptions. At this time, no exemptions have been identified.
- Additional Design Requirements and Conditions. At this time, no additional design requirements have been identified.
- Optional Design Regulations. The Model 408 complies with the following optional design regulations:

Ice protection in accordance with § 23.2165 Performance and Flight Characteristics Requirements for Flight in Icing Conditions and §23.2540 Flight in Icing Conditions provided the optional ice protection systems are installed. Refer to the AFM for limitations.
- § 23.2005 Certification Level and Performance Level:
 - Freighter Variant Level 1, Low Speed
 - Passenger Variant Level 4, Low Speed

I. Model 408 (cont'd)

Environmental Standards:

1. Noise Standards: 14 CFR Part 36, as amended by Amendments 36-1 through 36-31.
2. Noise Standards: A finding of regulatory adequacy pursuant to the "Noise Control Act of 1972" (49 USC Section 44715).
3. Fuel Venting and Exhaust Emissions Standards: 14 CFR Part 34, as amended by Amendments 34-1 through 34-5A.

Production Basis: None

Equipment:

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.

Data Pertinent to all Models

NOTE 1. Current weight and balance information, including list of equipment included in certificated empty weight, and loading instructions are provided for each airplane at the time of original certification.

The certificated empty weight and corresponding center of gravity location must include:

Unusable Fuel	39.80 lb. at +296.69 in.
Full Oil	58.32 lb. at +242.33 in.

NOTE 2. Airplanes must be operated according to the FAA Approved AFM, part number 408FM-00 AFM Volume 1, 408NP-00 AFM Volume 2 Normal Procedures, and 408EAP-00 AFM Volume 3 Emergency/ Abnormal Procedures (or later FAA approved revision). All placards required by either the FAA Approved AFM, the applicable operating rules, or the certification basis, must be installed as specified for this Type Certificate via Parts List 7800000, Airplane Assembly. A useful placard reference is the Textron Aviation Illustrated Parts Catalogue (IPC). Any discrepancies identified between the IPC and an aircraft under inspection needs to be reconciled using the previously stated parts list.

NOTE 3. See Airworthiness Limitations Manual (Chapter 4) for inspections, mandatory retirement life information, and other requirements for continued airworthiness.

NOTE 4. Aircraft definition for Type Certificate is Parts List 7800000, Airplane Assembly.

NOTE 5. Certification Maintenance Requirements (CMR) are found in Airworthiness Limitations Manual, Chapter 4. Engineering approval of the CMRs is documented in the Textron Aviation System Safety Assessment reports.

NOTE 6. The maximum propeller shaft overspeed limit is 110 percent (1,870 rpm) in an emergency to complete flight. 100 percent propeller shaft speed is defined as 1,700 rpm and is the normal steady state operating limit. Gas generator speeds up to 104 percent are approved for unlimited periods subject to applicable temperature and other limits. 100 percent gas generator speed is defined as 37,468 rpm.

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