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# TYPE-CERTIFICATE DATA SHEET

NO. EASA.IM.A.226

for  
Small Aircraft

**Type Certificate Holder**

**Textron Aviation Inc.**

One Cessna Boulevard  
P.O. Box 7704  
Wichita, Kansas 67277  
USA

**Manufacturer**

**Textron Aviation Inc.**

One Cessna Boulevard  
P.O. Box 7704  
Wichita, Kansas 67277  
USA

For models: 208  
208B



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**SECTION 1: MODEL 208 (SEE NOTE 7)**

**A. General**

1. Type/ Model/ Variant

- 1.1 Type: 208
- 1.2 Model 208

- 2. Airworthiness Category: FAR-23 Normal Category
- 3. State of Design Authority: FAA
- 4. State of Design Authority Type Certificate Date: A37CE
- 5. EASA Type Certification Date: 05 May 1985

**B. EASA Certification Basis**

1. Reference Date for determining the applicable requirements

Initial FAA Approval Date: 23 October 1984

2. Airworthiness Requirements

CFR 23 as defined in FAA TCDS A37CE, and JAR-23, Amendment 3, plus Special Conditions as defined in EASA CRI A-01, Issue 2, dated July 2008 for the Garmin G-1000 equipped aircraft.

3. Special Conditions

- For Garmin G-1000 equipped aircraft only:
- CRI F-01 Protection from the Effects of HIRF
- CRI F-02 Protection from the Indirect Effects of Lightning strike
- CRI F-03 Protection from the Direct Effects of Lightning strike
- CRI B-01 Human Factors.

4. Exemptions

None

5. (Reserved)

6. Equivalent Safety Findings

None

7. Environmental Protection

CS 36 (ICAO Annex 16, Volume I, as applicable.)



**C. Technical Characteristics and Operational Limitations**

- 1. Type Design Definition            Master Drawing List, Document No. 208-99-003, Rev X. or latest approved revision.
- 2. Description                            Single-engine, all-metal, 3 through 11 place (refer to current Pilot's Operating Handbook and FAA Approved Airplane Flight Manual for passenger seating arrangements), high-wing airplane, fixed tricycle landing gear.
- 3. Equipment                              See original delivery documents
- 4. Dimensions

Span	15.87 m	(52.10 ft.)
Length	11.49 m	(37.70 ft.)
Height	4.30 m	(14.10 ft.)
Wing Area	25.96 m <sup>2</sup>	(279.4 ft <sup>2</sup> )

5. Engine

5.1. Model

Applicable to S/N 20800001 through 20800276:

P&W PT6A-114

P&W PT6A-114A (Operated to P&W PT6A-114 Limitations)

Applicable to S/N 20800277 and subsequent:

P&W PT6A-114A

5.2 Type Certificate                    EASA IM.E.094

The EU Engine Type Certification standard includes that of FAA TC E4EA, based on individual EU Member States acceptance or certification of this standard prior to 28 September 2003, other standards certificated by individual EU Member states prior to 28 September 2003 are also acceptable.

5.3 Limitations

Applicable to S/N 20800001 through 20800276:

P&W PT6A-114 or PT6A-114A when operated to PT6A-114 operating limits

	Shaft Horsepower [SHP]	NG Gas Generator Speed [% rpm]	Indicator Torque [ft.-lbs.]	Prop Shaft Speed [rpm]	Maximum Permissible Interturbine Temp. [°C]
Takeoff static & max. continuous	600 <sup>(1)</sup>	101.6	1658	1900	805
Maximum climb	600 <sup>(1)</sup>	101.6	1658/1970 <sup>(2)</sup>	1900	765
Maximum cruise	600 <sup>(1)</sup>	101.6	1658/1970 <sup>(2)</sup>	1900	740
Idle	-	52 min.	-	-	685
Starting (2 sec.)	-	-	-	-	1090
Max. reverse (1 min)	600 <sup>(1)</sup>	101.6	1658	1825	805
Transient (2 sec.)	-	102.6	2200	2090	850



Applicable to S/N 20800277 and up:

P&W PT6A-114A

	Shaft Horsepower [SHP]	NG Gas Generator Speed [% rpm]	Indicator Torque [ft.-lbs.]	Prop Shaft Speed [rpm]	Maximum Permissible Interturbine Temp. [°C]
Takeoff static & max. continuous	675 <sup>(1)</sup>	101.6	1865	1900	805
Maximum climb	675 <sup>(1)</sup>	101.6	1865/1970 <sup>(2)</sup>	1900	765
Maximum cruise	675 <sup>(1)</sup>	101.6	1865/1970 <sup>(2)</sup>	1900	740
Idle	-	52 min.	-	-	685
Starting (2 sec.)	-	-	-	-	1090
Max. reverse (1 min)	675 <sup>(1)</sup>	101.6	1865	1825	805
Transient (2 sec.)	-	102.6	2200	2090	850

(1) Flat Rated: The engines may produce more power than that for which the airplane has been certificated. Under these conditions, the stated torque, ITT, or Ng limitations shall not be exceeded.

(2) If maximum torque is used, propeller r.p.m. must be set so as not to exceed power limitations.

## 6. Propeller

6.1 Applicable to S/N 20800001 through 20800276:

6.1.1 Model Hartzell HC-B3MN3/M10083

6.1.2 Type Certificate US P9NE

The EU Propeller Type Certification standard includes that of FAA TC P9NE for Hartzell and P60GL for McCauley propellers respectively, based on individual EU Member States acceptance or certification of this standard prior to 28 September 2003, other standards certificated by individual EU Member states prior to 28 September 2003 are also acceptable.

6.1.3 Number of blades 3 (composite , constant speed, full-feathering, reversible)

6.1.4 Diameter Maximum 100 inches (minimum 100 inches, no cutoff approved)

6.1.5 Pitch at 42 inch station:

Low pitch (Beta pickup)	+9°
Feathered	+78.4°
Maximum Reverse	-18°

6.2 Applicable to S/N 20800001 and up and all TKS equipped aircraft:

6.2.1 Model McCauley 3GFR34C703/106GA-0

6.2.2 Type Certificate US P60GL

6.2.3 Number of blades 3 (aluminum constant speed, full-feathering, reversible)

6.2.4 Diameter Maximum 106 inches (minimum 104 inches (2-inch cutoff on diameter allowed))



6.2.5 Pitch at 30 inch station:	Low pitch (Beta pickup)	+15.6°
	Feathered	+88°
	Maximum Reverse	-14°

## 7. Fluids

7.1 Fuel	Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.
7.2 Oil	Oil conforming to Pratt and Whitney Engine Service Bulletin No. 1001 must be used. Oils must comply with engine manufacturer's specification PWA521 and have a viscosity of Type II rating.
7.3 Coolant	Not applicable

## 8. Fluid capacities

8.1 Fuel	1267.7 Liters (335 US gal, 332 US gal. usable), two 167.5 US gal. tanks in wings at +183 in. See Note 1 for data on unusable fuel.
8.2 Oil	13.24 Liters (3.5 US gal. total, 2.37 US gal. usable) in engine mounted tank at +69.2 in.
8.3 Coolant system capacity	Not applicable

## 9. Air Speeds

Maximum Operating Speed $V_{MO}$	175 KIAS (175 KCAS)
Maximum Maneuvering $V_A$	148 KIAS (148 KCAS)
Maximum Open Window	175 KIAS (175 KCAS)
Flaps Extended $V_{FE}$	
To 10°	175 KIAS (175 KCAS)
10° to 20°	150 KIAS (150 KCAS)
20° to 30°	125 KIAS (125 KCAS)

## 10. Flight Envelope (Maximum Operating Altitude)

25,000 feet (7620m msl) in non-icing conditions
20,000 feet (6096m msl) Icing conditions (if so equipped)
20,000 feet (6096m msl) any conditions with any ice on the airframe.

Oxygen must be provided as required by the operating rules.

## 11. Approved Operations Capability

VFR Day and Night; IFR Day and Night

## 12. Maximum Masses

a) Landplane (S/N 20800001 and up)	
Maximum Ramp:	3644.6 kg (8035 lbs.)
Maximum Takeoff:	3628.7 kg (8000 lbs.)
Maximum Landing:	3538.0 kg (7800 lbs.)
b) Amphibian (S/N 20800014 and up)	
Maximum Ramp:	3462.5 kg (7635 lbs.)
Maximum Takeoff:	3446.6 kg (7600 lbs.)
Maximum Landing:	3310.6 kg (7300 lbs.)



### 13. Centre of Gravity Range

S/N 2080001 and up

Takeoff and flight,

4421 mm (+174.0 in) to 4,682 mm (+184.3 in) at 3628.7 kg (8000 lbs.)

4121 mm (+162.4 in) to 4,682 mm (+184.3 in) at 1905.1 kg (4200 lbs.)

Straight line variation between points given.

Landing

4405 mm (+173.4 in) to 4682 mm (+184.3 in) at 3538.0 kg (7800 lbs.)

4125 mm (+162.4in) to 4682 mm (+184.3in) at 1905.1 kg (4200 lbs.)

Straight line variation between points given.

S/N 20800014 and up (Amphibian)

Takeoff and flight

4389 mm (+172.8 in) to 4640 mm (+182.6 in) at 3447.3 kg (7600 lbs.)

4202 mm (+165.4 in) to 4640 mm (+182.6 in) at 2358.7 kg (5200 lbs.)

Straight line variation between points given

Landing

4366 mm (+171.9 in) to 4640. mm (+182.6 in) at 3311.2 kg (7300 lbs.)

4202 mm (+165.4 in) to 4640. mm (+182.6 in) at 2358.7 kg (5200 lbs.)

Straight line variation between points given

Empty Wt. C.G. Range      None

### 14. Datum

Landplane: 2540 mm (100 in.) forward of center of nose gear jack point

Amphibian: 2540 mm (100 in.) forward of front face of firewall

### 15. (Reserved)

### 16. Levelling Means

Two jig located nut plates and screws installed on left side of fuselage below side windows and forward of cargo door.

### 17. Minimum Flight Crew      1 (Pilot)

### 18. Maximum Passenger Seating Capacity

1 through 2 (at +133.5 to +146.5) Pilot Seat Locations for Cargo and Passenger Versions.

3 through 11 refer to POH for passenger seat locations Passenger Version only.

### 19. Baggage/ Cargo Compartments

Reference to weight and balance data, Pilots Operating Handbook and FAA Approved Airplane Flight Manual

### 20. Wheels and Tyres

Refer to the Cessna Maintenance Manual Chapter 12-13-01 for applicable tire and wheel sizes.





## 21. Control Surface Deflections

Wing flaps	0° ±1° Up
	10° +1°/-2° Down
	20° ±2° Down
	30° +1°/-2° Down

LH & RH Flap Extension to be symmetric within 1/2° at all positions

Ailerons	Up 25° +4°/-0°	Down 16° +1°/-0°
Spoiler	Up 40° +5°	Down 0° +0°/-5°
Elevator	Up 25° +2°	Down 20° +2°
Elevator with TKS fairing	Up 18° +1°	Down 20° +2°
Rudder	Right 25° +2°;	Left 25° +2°

(Measured perpendicular to hinge line)

Tabs (main surfaces in neutral):

Aileron (RH)	Up 15° +2°;Down	15° +2°
Elevator	Up 15° +2°;Down	15° +2°

Tabs servo actions:

Aileron (RH) (tab adjusted to neutral)	50% of aileron travel +1° Up and Down
Aileron (LH) 50% of aileron travel	+1° Up and Down

## D. Operating and Service Instructions

1. Airplane Flight Manual (AFM) or latest approved revision:

Model	TAI Part Number
208 [600 SHP]	D1307-34-13PH
208 [675 SHP]	D1352-7-13PH
208 [675 SHP]	208PHBUS-00

2. Maintenance Manual (Including Airworthiness Limitations)

Document No. D2078-21 or latest revision

## E. Operational Suitability Data

Master Minimum Equipment List (MMEL) 208MMELEU, EASA approved 17 December 2015, or any later EASA approved issue.



**F. Notes**

NOTE 1: Current weight and balance report including list of equipment included in certificated empty weight and loading instructions, when necessary, must be provided for each aircraft at the time of original certification. Verify from aircraft records whether or not SK 208-52 "Wing Tank External Sump Installation" has been installed. The certified empty weight and corresponding center of gravity location must include full oil of 29 lbs. (at +69.2), and unusable fuel as follows:

Model	Serial effectivity/modification	Unusable fuel [lbs. @ c. g.]
208	20800001 through 20800130 NOT modified with SK208-52	20.1 @
208	20800001 through 20800130 modified with SK208-52	24.1 @
208	20800131 and On	24.1 @
208B	208B0001 through 208B0089 NOT modified with SK208-52	20.1 @
208B	208B0001 through 208B0089 modified with SK208-52	24.1 @
208B	208B0090 and On	24.1 @

NOTE 2: The placards specified in the Pilot's Operating Handbook and FAA approved Airplane Flight Manuals listed under D of this section (or later revision) must be displayed.

NOTE 3: Mandatory inspection times for all wing and wing carry through structural components are contained in the Model 208 Series Maintenance Manual.

NOTE 4: In addition to the placards required by NOTE 2 above, the prescribed operating limitations indicated by an asterisk (\*) must also be displayed as permanent markings.

NOTE 5: FAA Certification Basis

Certification Basis applies to Models 208 and 208B when equipped with PW PT6A-114 engine and Hartzell propeller:

(1) FAR Part 36 effective December 1, 1969, as amended by Amendments 36-1 through 36-12.

(2) FAR Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by Amendments 23-1 through 23-28.

(3) SFAR 27 effective February 1, 1974, as amended by Amendment 27-1 through 27-4.

(4) Equivalent Level of Safety applicable to Model 208 and 208B not equipped with the Garmin G1000 Integrated Cockpit System:

(a) FAR 23.955(f)(2), Fuel System.

(5) Special Conditions as follows:

(a) 23-ACE-3: Dynamic Evaluation, Engine Installation.

Certification Basis applies to

(a) Models 208 and 208B when equipped with P&WC PT6A-114 engine and McCauley propeller; and

(b) Model 208B when equipped with P&WC PT6A-114A engine and either McCauley or Hartzell propeller; and

(c) Model 208 when equipped with P&WC PT6A-114A engine and McCauley propeller:



- (1) FAR Part 36 effective December 1, 1969, as amended by Amendments 36-1 through 36-18.
- (2) FAR Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by Amendments 23-1 through 23-28.
- (3) SFAR 27 effective February 1, 1974, as amended by Amendments 27-1 through 27-4.
- (4) Equivalent Level of Safety applicable to Model 208 and 208B not equipped with the Garmin G1000 Integrated Cockpit System:
  - (a) FAR 23.955(f)(2), Fuel System.
- (5) Special Conditions as follows:
  - (a) 23-ACE-3; Dynamic Evaluation, Engine Installation.

Certification Basis applies to G1000 Model 208B serial 208B2197 and 208B5000 and on equipped with P&WC PT6A-140 (867 SHP) engine and Hartzell propeller:

- (1) CFR Part 36 effective December 1, 1969, as amended by Amendments 36-1 through 36-28.
- (2) CFR Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by Amendments 23-1 through 23-28 with additions for the Garmin G1000 and P&WC PT6A-140 engine.
- (3) CFR Part 34 (Emissions) of the Federal Aviation Regulations effective August 10, 1990, original.
- (4) Special Conditions as follows:
  - (a) 23-ACE-3: Dynamic Evaluation, Engine Installation.

Additions for the Garmin G1000 Integrated Cockpit System (ICS), applicable to the Models 208 and 208B when equipped with P&WC PT6A-114A Engine and Model 208B equipped with P&WC PT6A-114A or P&WC PT6A-140 Engine.

Original paragraphs amended by 23-1 through 23-28 and addressed during the G1000 certification are included:

- 14 CFR 23 regulations as amended by Amendment N/C: 14 CFR 23.303, 23.305(a), (b), 23.307(a), 23.601, 23.609, 23.671(a), 23.1367 and 23.1381.
- 14 CFR 23 regulations as amended by Amendment 23-7: 14 CFR 23.561(e), 23.611, and 23.689(a), 23.867(a)(b).
- 14 CFR 23 regulations as amended by Amendment 23-13: 14 CFR 23.1589.
- 14 CFR 23 regulations as amended by Amendment 23-14: 14 CFR electrical aspects of 23.1365(a), (b), 23.1419(b), (c), and 23.771(a).
- 14 CFR 23 regulations as amended by Amendment 23-17: 14 CFR 23.607, 23.685(a), and electrical aspects of 23.1309(a)(1), (a)(2), (c), 23.1165 (b), (c).
- 14 CFR 23 regulations as amended by Amendment 23-20: 14 CFR 23.1301, 23.1327, 23.1335, 23.1547(b), (e), electrical aspects of 23.1351(a), (b), (c), (d), (e), and Electrical aspects of 23.1361(a), (b), (c).
- 14 CFR 23 regulations as amended by Amendment 23-21: 14 CFR 23.1501, 23.1541(a)(1)(2), (b)(1)(2), and 23.1353(g).



14 CFR 23 regulations as amended by Amendment 23-23: 14 CFR 23.603(a), (b), and 23.605.

14 CFR 23 regulations as amended by Amendment 23-26: 14 CFR 23.1529.

14 CFR 23 regulations as amended by Amendment 23-28: 14 CFR 23.301(a)(d).

14 CFR 23 regulations as amended by Amendment 23-34: 14 CFR 23.853(e), 23.1523, 23.1581(a)(2), 23.1583(a)(1), (b), (h), and 23.1585(a), (b), (d).

14 CFR 23 regulations as amended by Amendment 23-43: 14 CFR 23.1322, 23.1331, and 23.1357(a)(b)(c)(d)(e).

14 CFR 23 regulations as amended by Amendment 23-45: 14 CFR 23.773(a)(1), (a)(2), 23.1525, and, 23.1549.

14 CFR 23 regulations as amended by Amendment 23-49: 14 CFR 23.677(d), 23.1303(a)(b)(c)(d)(e)(1), (f), avionic aspects of 23.1309(a)(1)(2), (b)(1)(2)(3)(4), (c)(1)(2)(iii)(3), (d), (e), (f)(1), 23.1311, 23.1321(a), (c), (d), (e), 23.1323(a), (b)(1)(2), (c), 23.1329, 23.1351(c)(4), (d)(1), 23.1361(c), 23.1365(a), (b), (d), (e), 23.1431(a), (b), (d), (e).

14 CFR 23 regulations as amended by Amendment 23-50: 14 CFR 23.1325(a), (b)(1)(i)(ii)(iii), (b)(2)(i)(3), (c)(1)(2), (d), (e), 23.1543(b), (c), 23.1553, 23.1545(a), (b)(4), (d), 23.1555(a), (b), 23.1567(a).

14 CFR 23 regulations as amended by Amendment 23-51: 14 CFR 23.777(a), (b), 23.955(a)(1)(2),(f), 23.959, 23.1337(a)(1)(2),(b)(1)(4),(c),(d), 23.1183, and 23.1203(b)(c)(d)(e).

14 CFR 23 regulations as amended by Amendment 23-52: 14 CFR 23.1305(a)(1)(2)(3)(5), (c)(1-10), (e)

14 CFR 23 regulations as amended by Amendment 23-53: 14 CFR 23.901(a)(b)

14 CFR 23 regulations as amended by Amendment 23-57: 14 CFR 23.1308.

Additions for Model 208B equipped with Garmin G1000 and P&WC PT6A-140 Engine:

14 CFR 23 regulations as amended by Amendment 23-34: 14 CFR 23.1581(a)(2)(3).(b).(d)

14 CFR 23 regulations as amended by Amendment 23-51: 14 CFR 23.955(a)(4)(b). 23.1203(a)(1). 23.1337(a)(3).

14 CFR 23 regulations as amended by Amendment 23-52: 14 CFR 23.1305(a)(4)

Equivalent Level of Safety as follows:

(1) Applicable to Model 208 and 208B equipped with the Garmin G1000 Integrated Cockpit System:

(a) 23.1305 Powerplant instruments – (c)(2), (c)(5), Amendment 52.

(b) 23.1549 Powerplant and auxiliary power unit instruments – (a) through (c), Amendment 45, additionally, with guidance from AC 23.1311-1B, Installation of Electronic Display (Section 9 – Powerplant Displays), Section 9.4 Direct-Reading Alphanumeric-Only Displays.

(2) Applicable to Model 208B equipped with P&WC PT6A-140 Engine:

(a) 23.145 Longitudinal Control. Amendment 17.

Compliance with ice protection has been demonstrated in accordance with § 23.1419 when ice protection equipment is installed in accordance with the airplane equipment list



and is operated per the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

**NOTE 6: EASA TCDS Basis**

Prior the original release of this EASA TCDS, the FAA TCDS, A37CE, was used for the Type Certification standard.

**NOTE 7: Model 208A**

40 aircraft were built as Model 208A's, these were subsequently all converted to Model 208's by embodiment of Cessna Service Kit SK208-85A, as all the aircraft are modified or out of service the designation was removed from the FAA TCDS at Rev 13. Cessna letter ref L390-08-1414 dated 21 April 2008 refers.

**NOTE 8: Approved Operation for Model 208/208B**

The Model 208/208B is eligible for SET-IMC operation when the appropriate equipment and instruments required by the operating requirements are installed, approved and operating as defined by the MMEL or MEL.

**Production Basis (Model 208/208B)**

Production Certificate No. 4. Delegation Option Manufacturer No. CE-1 (2080001 through 20800246, 208B0001 through 208B0501) and CE-3 (20800247 and on, 208B0502 and on), and Delegation Option Manufacturer No. CE-3 (20800247 and on, 208B0502 and on) authorized to issue airworthiness certificates under delegation option provisions of Part 21 of the Federal Aviation Regulations.



**SECTION 2.1: MODEL 208B**  
**(S/N 208B0001 THROUGH 208B2196 AND 208B2198 THROUGH 208B4999)**

**A. General**

1. Type/ Model/ Variant

1.1 Type: 208  
1.2 Model: 208B

2. Airworthiness Category: FAR-23 Normal Category  
3. State of Design Authority: FAA  
4. State of Design Authority Type Certificate Date: A37CE  
5. EASA Type Certification Date: 24 September 1990

**B. EASA Certification Basis**

1. Reference Date for determining the applicable requirements

FAA A37CE Initial Approval Date: 23 October 1984

2. Airworthiness Requirements

CFR 23 as defined in FAA TCDS A37CE, and JAR-23, Amendment 3, plus Special Conditions as defined in EASA CRI A-01, Issue 2, dated July 2008 for the Garmin G-1000 equipped aircraft.

3. Special Conditions

For Garmin G-1000 equipped aircraft only:  
CRI F-01 Protection from the Effects of HIRF,  
CRI F-02 Protection from the Indirect Effects of Lightning strike,  
CRI F-03 Protection from the Direct Effects of Lightning strike,  
CRI B-01 Human Factors.

4. Exemptions

None

5. (Reserved)

6. Equivalent Safety Findings

None

7. Environmental Protection

CS 36 (ICAO Annex 16, Volume I, as applicable.)



**C. Technical Characteristics and Operational Limitations**

- 1. Type Design Definition Master Drawing List, Document No. 208-99-003, Rev X or latest approved revision
- 2. Description Single-engine, all-metal, 3 through 11 place (refer to current Pilot's Operating Handbook and FAA Approved Airplane Flight Manual for passenger seating arrangements), high-wing airplane, fixed tricycle landing gear.
- 3. Equipment See original delivery documents
- 4. Dimensions

Span	15.87 m (52.10 ft.)
Length	12.67 m (41.70 ft.)
Height	4.71 m (15.55 ft.)
Wing Area	25.96 m <sup>2</sup> (279.4 ft <sup>2</sup> )

5. Engine

5.1. Model

(a) S/N 208B0001 through S/N 208B0178 and 208B0180 through 208B0229, and as modified by SK208-84:

P&W PT6A-114

(b) S/N 208B0001 through S/N 208B0178 and 208B0180 through 208B0229 and as modified by SK208-84, when operated to PT6A-114 operating limits

(c) S/N 208B0179, S/N 208B0230 and on, and as modified by SK208-80

(d) S/N 208B0230 and on, and as modified by SK208-80:

P&W PT6A-114A

5.2 Type Certificate EASA IM.E.094

The EU Engine Type Certification standard includes that of FAA TC E4EA, based on individual EU Member States acceptance or certification of this standard prior to 28 September 2003, other standards certificated by individual EU Member states prior to 28 September 2003 are also acceptable.

5.3 Limitations

P&W PT6A-114 or PT6A-114A when operated to PT6A-114 operating limits:

	Shaft Horsepower [SHP]	NG Gas Generator Speed [% rpm]	Indicator Torque [ft.-lbs.]	Prop Shaft Speed [rpm]	Maximum Permissible Interturbine Temp. [°C]
Takeoff static & max. continuous	600 <sup>(1)</sup>	101.6	1658	1900	805
Maximum climb	600 <sup>(1)</sup>	101.6	1658/1970 <sup>(2)</sup>	1900	765
Maximum cruise	600 <sup>(1)</sup>	101.6	1658/1970 <sup>(2)</sup>	1900	740
Idle	-	52 min.	-	-	685
Starting (2 sec.)	-	-	-	-	1090
Max. reverse (1 min)	600 <sup>(1)</sup>	101.6	1658	1825	805
Transient (2 sec.)	-	102.6	2200	2090	850



PT6A-114A (675 hp):

	Shaft Horsepower [SHP]	NG Gas Generator Speed [% rpm]	Indicator Torque [ft.-lbs.]	Prop Shaft Speed [rpm]	Maximum Permissible Interturbine Temp. [°C]
Takeoff static & max. continuous	675 <sup>(1)</sup>	101.6	1865	1900	805
Maximum climb	675 <sup>(1)</sup>	101.6	1865/1970 <sup>(2)</sup>	1900	765
Maximum cruise	675 <sup>(1)</sup>	101.6	1865/1970 <sup>(2)</sup>	1900	740
Idle	-	52 min.	-	-	685
Starting (2 sec.)	-	-	-	-	1090
Max. reverse (1 min)	675 <sup>(1)</sup>	101.6	1865	1825	805
Transient (2 sec.)	-	102.6	2200	2090	850

(1) Flat Rated: The engines may produce more power than that for which the airplane has been certificated. Under these conditions, the stated torque, ITT, or Ng limitations shall not be exceeded.

(2) If maximum torque is used, propeller r.p.m. must be set so as not to exceed power limitations.

## 6. Propeller

6.1.1 Model	HC-B3MN3/M10083						
6.1.2 Type Certificate	US P9NE						
6.1.3 Number of blades	3 (composite, constant speed, full-feathering, reversible)						
6.1.4 Diameter	Maximum 100 inches (minimum 100 inches, no cutoff approved)						
6.1.5 Pitch at 42 inch station:	<table> <tbody> <tr> <td>Low pitch (Beta pickup)</td> <td>+9°</td> </tr> <tr> <td>Feathered</td> <td>+78.4°</td> </tr> <tr> <td>Maximum Reverse</td> <td>-18°</td> </tr> </tbody> </table>	Low pitch (Beta pickup)	+9°	Feathered	+78.4°	Maximum Reverse	-18°
Low pitch (Beta pickup)	+9°						
Feathered	+78.4°						
Maximum Reverse	-18°						
6.2.1 Model	McCauley 3GFR34C703/106GA-0						
6.2.2 Type Certificate	US P60GL						
6.2.3 Number of blades	3 (aluminum constant speed, full-feathering, reversible)						
6.2.4 Diameter	Maximum 106 inches (minimum 104 inches (2-inch cutoff on diameter allowed))						
6.2.5 Pitch at 30 inch station:	<table> <tbody> <tr> <td>Low pitch (Beta pickup)</td> <td>+15.6°</td> </tr> <tr> <td>Feathered</td> <td>+88°</td> </tr> <tr> <td>Maximum Reverse</td> <td>-14°</td> </tr> </tbody> </table>	Low pitch (Beta pickup)	+15.6°	Feathered	+88°	Maximum Reverse	-14°
Low pitch (Beta pickup)	+15.6°						
Feathered	+88°						
Maximum Reverse	-14°						

## 7. Fluids

7.1 Fuel	Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.
7.2 Oil	Oil conforming to Pratt and Whitney Engine Service Bulletin No. 1001 must be used. Oils must comply with engine





manufacturer's specification PWA521 and have a viscosity of Type II rating.

7.3 Coolant Not applicable

## 8. Fluid capacities

8.1 Fuel 335 US gal. (332 US gal. usable), two 167.5 US gal. tanks in wings at +183 in. See Note 1 for data on unusable fuel.

8.2 Oil 3.5 US gal. total, 2.37 US gal. usable in engine mounted tank at +69.2 in

8.3 Coolant system capacity Not applicable

## 9. Air Speeds

Maximum Operating Speed  $V_{MO}$  175 KIAS (175 KCAS)

Maximum Maneuvering  $V_A$  148 KIAS (148 KCAS)

See POH/AFM for variations with weight and altitude.

Flaps Extended  $V_{FE}$

To 10° 175 KIAS (175 KCAS)

10° to 20° 150 KIAS (150 KCAS)

20° to 30° 125 KIAS (125 KCAS)

## 10. Flight Envelope (Maximum Operating Altitude)

25,000 feet (7620 m msl) in non-icing conditions.

20,000 feet (6096 m msl) Icing conditions (if so equipped)

20,000 feet (6096 m msl) any conditions with any ice on the airframe.

Oxygen must be provided as required by the operating rules.

## 11. Approved Operations Capability

VFR Day and Night; IFR Day and Night

## 12. Maximum Masses

Maximum Ramp: 3984.8 kg (8785 lbs.)

Maximum Takeoff: 3968.9 kg (8750 lbs.)

Maximum Landing: 3855.5 kg (8500 lbs.)

## 13. Centre of Gravity Range

With and without Cargo pod

Takeoff and flight

5058 mm (+199.15 in) to 5190 mm (+204.35 in) at 3968.9 kg (8750 lbs.)

4911 mm (+193.37 in) to 5190 mm (+204.35 in) at 3628.7 kg (8000 lbs.)

4699 mm (+185.00 in) to 5190 mm (+204.35 in) at 2947.8 kg (6500 lbs.)

Straight line variation between points given.

Landing

5009 mm (+197.22 in) to 5190 mm (+204.35 in) at 3855.5 kg (8500 lbs.)

4911 mm (+193.37 in) to 5190 mm (+204.35 in) at 3628.7 kg (8000 lbs.)

4699 mm (+185.00 in) to 5190 mm (+204.35 in) at 2494.7 kg (5500 lbs.)

Straight line variation between points given.



With TKS fairing

Takeoff and flight

5058 mm (+199.15 in) to 5190 mm (+204.35 in) at 3968.9 kg (8750 lbs.)

4911 mm (+193.37 in) to 5190 mm (+204.35 in) at 3628.7 kg (8000 lbs.)

4699 mm (+185.00 in) to 5190 mm (+204.35 in) at 2494.7 kg (5500 lbs.)

Straight line variation between points given.

Landing

5009 mm (+197.22 in) to 5190 mm (+204.35 in) at 3855.5 kg (8500 lbs.).

4911 mm (+193.37 in) to 5190 mm (+204.35 in) at 3628.7 kg (8000 lbs.).

4699 mm (+185.00 in) to 5190 mm (+204.35 in) at 2494.7 kg (5500 lbs.)

Straight line variation between points given.

Empty Wt. C.G. Range        None

14. Datum

2540 mm (100 in.) forward of center of nose gear jack point.

15. (Reserved)

16. Levelling Means

Two jig located nut plates and screws installed on left side of fuselage below side windows and forward of cargo door.

17. Minimum Flight Crew                1 (Pilot)

18. Maximum Passenger Seating Capacity

a) 1 through 2 (at +133.5 to +146.5) Pilot Seat Locations for Cargo and Passenger Versions.

b.1) 3 through 11: refer to POH for passenger seat locations Passenger Version only.

b.2) 3 through 14: see under section 2.1 E, Notes 2 & 3 of this section.

19. Baggage/ Cargo Compartments

Reference to weight and balance data, Pilots Operating Handbook and FAA Approved Airplane flight manual

20. Wheels and Tyres

Refer to the Cessna Maintenance Manual Chapter 12-13-01 applicable tire and wheel sizes.

21. Control Surface Deflections

Wing flaps Movements        0° +1° Up  
  10° +1°/-2° Down  
  20° +2° Down  
  30° +1°/-2° Down

LH & RH Flap Extension to be symmetric within 1/2° at all positions.

Ailerons	Up 25° +4°/-0°	Down 16° +1°/-0°
Spoiler Up	40° +5°	Down 0° +0° -5°
Elevator	Up 25° +2°	Down 20° +2°
Elevator w/TKS fairing	Up 22° +1°/-0°	Down 20° +2°
Rudder Right	25° +2°	Left 25° +2°

(Measured perpendicular to hinge line)



**Tabs (main surfaces in neutral):**

Aileron (RH)	Up 15° +2°	Down 15° +2°
Elevator	Up 15° +2°	Down 15° +2°

**Tabs servo actions:**

Aileron (RH) (tab adjusted to neutral)	50% of aileron travel +1° Up and Down
Aileron (LH) 50% of aileron travel	+1° Up and Down

**D. Operating and Service Instructions**

1. Airplane Flight Manual (AFM) or latest approved revision:

Model	TAI Part Number	Remark
208B [600 SHP]	D1309-29-13PH	
208B [675 SHP]	D1329-23-13PH	
208B [675 SHP]	208BPHBUS-02	See Note 3
208B [675 SHP]	D1329-3-13PHUK	See Note 2

2. Maintenance Manual (Including Airworthiness Limitations)

Document No. D2078-21 or latest revision

**E. Operational Suitability Data**

Master Minimum Equipment List (MMEL) 208MMELEU, EASA approved 17December 2015, or any later EASA approved issue.

**F. Notes for Model 208B only**

- NOTE 1: Same notes apply as Model 208 (see section 1 F above, except NOTE 7).
- NOTE 2: A 14 seat place configuration was certified before 28 September 2003 by CAA UK (refer to Cessna drawing number 2601349) and subsequently adopt by EASA. Those aircraft have to be operated i.a.w. FAA approved AFM 1329-3- 13PHUK and AFM Supplement D1340-1-13UK or latest approved revision.
- NOTE 3: For S/N 1190, 1216 and 2000 through 4999: 14 seat place configuration plus Garmin 1000 installed: Aircraft have to be operated i.a.w. FAA approved AFM 208BPHBUS-02 plus Supplements 208BPHBUS-S16-01 and 208BPHBUS- S25-00, or latest approved revision.



**SECTION 2.2: MODEL 208B**  
**(S/N 208B2197 AND 208B5000 AND ON)**

**A. General**

1. – 6. No changes related to Section 2.1  
7. EASA Type Certification Date: 16 May 2014

**B. EASA Certification Basis**

1. Reference Date for determining the applicable requirements  
No changes related to Section 2.1
2. Airworthiness Requirements  
CFR 23 as defined in FAA TCDS A37CE, and CS-23, Amendment 2, plus Equivalent Level of Safety (ELOS) as defined in EASA CRI A-01, Issue 10, dated 06 May 2014 for Aircraft equipped with PT6-140.
3. Special Conditions  
No changes related to Section 2.1
4. Exemptions  
No changes related to Section 2.1
5. (Reserved)
6. Equivalent Safety Findings  
No changes related to Section 2.1
7. Environmental Protection  
No changes related to Section 2.1



**C. Technical Characteristics and Operational Limitations**

1. – 4. No changes related to Section 2.1

5. Engine

5.1. Model: PT6A-140

5.2 Type Certificate EASA IM.E.094

5.3 Limitations

	Shaft Horsepower [SHP]	NG Gas Generator Speed [% rpm]	Indicator Torque [ft.-lbs.]	Prop Shaft Speed [rpm]	Maximum Permissible Interturbine Temp. [°C]
Takeoff static & max. continuous	867 <sup>(1)</sup>	103.7	2397	1900	820
Maximum climb	867 <sup>(1)</sup>	103.7	2397	1900	825
Maximum cruise	867 <sup>(1)</sup>	103.7	2397	1900	805
Idle	-	55 min.	-	-	700
Starting (2 sec.)	-	-	-	-	1090
Max. reverse (1 min)	867 <sup>(1)</sup>	103.7	2500	1825	850
Transient (2 sec.)	-	105.4	2600	2090 <sup>(2)</sup>	905

(1) Flat Rated: The engines may produce more power than that for which the airplane has been certificated. Under these conditions, the stated torque, ITT, or Ng limitations shall not be exceeded.

(2) If maximum torque is used, propeller r.p.m. must be set so as not to exceed power limitations.

6. Propeller

6.1 Model HC-B3TN-3AF/T10890CN-2 or HC-B3TN-3AF/T10890CN(B)-2

6.2 Type Certificate EASA.IM.P.126

6.3 Number of blades 3 (Aluminum constant speed, full-feathering, reversible)

6.4 Diameter Maximum 106 inches (minimum 104 inches, no cutoff approved)

6.5 Pitch at 42-inch station:

Low pitch (Beta pickup)	8.5°
Feathered	78.4°
Maximum Reverse	-21°

7. Fluids

7.1 Fuel Refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

7.2 Oil Oil conforming to Pratt and Whitney Engine Service Bulletin No. 1001 must be used. Oils must comply with engine manufacturer's specification PWA521 and have a viscosity of Type II rating.

7.3 Coolant Not applicable



## 8. Fluid capacities

- 8.1 Fuel 339.1 US gal. (335.3 US gal. usable), two 167.5 US gal. tanks in wings at +203.8 in  
See NOTE 1 on FAA TCDS A37CE for data on unusable fuel.
- 8.2 Oil 2.36 US gal. total, 0.98 US gal. usable in engine mounted tank at +69.2 in

## 9. Air Speeds

- Maximum Operating Speed  $V_{MO}$  175 KIAS  
Maximum Maneuvering Speed @ 8807 lbs.  $V_A$  148 KIAS  
See POH/AFM for variations with weight and altitude.
- Flaps Extended  $V_{FE}$
- |               |          |
|---------------|----------|
| UP – TO/APR   | 150 KIAS |
| TO/APR – LAND | 125 KIAS |

## 10. Maximum Operating Altitude

- 25,000 feet (7620 m msl) in non-icing conditions  
20,000 feet (6096 m msl) for Flight into Known Icing Conditions (if so equipped)  
Oxygen must be provided as required by the operating rules.

## 11. Approved Operations Capability

- VFR Day and Night; IFR Day and Night

## 12. Maximum Masses

- 8807 lb. takeoff and flight (with or without cargo pod)  
8750 lb. takeoff and flight (TKS fairing) 8500 lb. landing  
8842 lb. ramp  
8785 lb. ramp (TKS fairing)

## 13. Centre of Gravity Range

- With and without Cargo pod

### Takeoff and flight

- 5058 mm (+199.15 in) to 5190 mm (+204.35 in) at 3994.0 kg (8807 lbs.)  
4912 mm (+193.37 in) to 5190 mm (+204.35 in) at 3628.7 kg (8000 lbs.)  
4561 mm (+185.00 in) to 5190 mm (+204.35 in) at 2947.8 kg (6500 lbs.)  
Straight line variation between points given

### Landing

- 5009 mm (+197.22 in) to 5190 mm (+204.35 in) at 3854.8 kg (8500 lbs.)  
4912 mm (+193.37 in) to 5190 mm (+204.35 in) at 3628.7 kg (8000 lbs.)  
4561 mm (+185.00 in) to 5190 mm (+204.35 in) at 2494.7 kg (5500 lbs.)  
Straight line variation between points given

### With TKS Fairing

#### Takeoff and flight

- 5058 mm (+199.15 in) to 5190 mm (+204.35 in) at 3968.1 kg (8750 lbs.)  
4912 mm (+193.37 in) to 5190 mm (+204.35 in) at 3628.7 kg (8000 lbs.)



4561 mm (+185.00 in) to 5190 mm (+204.35 in) at 2494.7 kg (5500 lbs.)  
Straight line variation between points given

Landing

5009 mm (+197.22 in) to 5190 mm (+204.35 in) at 3854.8 kg (8500 lbs.)  
4912 mm (+193.37 in) to 5190 mm (+204.35 in) at 3628.7 kg (8000 lbs.)  
4561 mm (+185.00 in) to 5190 mm (+204.35 in) at 2494.7 kg (5500 lbs.)  
Straight line variation between points given

Empty Wt. C.G. Range      None

14. Datum

Landplane: 2540 mm (100.00 in) forward of center of nose gear jack point

15. (Reserved)

16. Levelling Means:                      no changes

17. Minimum Flight Crew:                1 (Pilot)

18. Maximum Passenger Seating Capacity

- a) 1 through 2 (at +133.5 to +146.5) Pilot Seat Locations for Cargo and Passenger Versions.
- b) 3 through 11 refer to POH for passenger seat locations

See also Note 1 of this section

19. Baggage/ Cargo Compartments

no changes

20. Wheels and Tyres

no changes

21. Control Surface Deflections

Wing flaps                                      0° +1° Up  
    15° +1°/-2° Down for TO/APR  
    30° +1° -2° Down for Land

LH & RH Flap Extension to be symmetric within 1/2° at all positions

Ailerons	Up 25° +4°/-0°	Down 16° +1°/-0°
Spoiler	Up 40° +5°	Down 0° +0°/-5°
Elevator	Up 24° +0°/-1°	Down 20° +2°
Elevator (w/TKS fairing)	Up 22° +1°/-0°	Down 20° +2°
Rudder	Right 25° +2°	Left 25° +2°

(Measured perpendicular to hinge line)

Tabs (main surfaces in neutral):

Aileron (RH)	Up 15° +2°	Down 15° +2°
Elevator	Up 15° +2°	Down 15° +2°

Tabs servo actions:

Aileron (RH) (tab adjusted to neutral)	50% of aileron travel +1° Up and Down
Aileron (LH) 50% of aileron travel	+1° Up and Down



**D. Operating and Service Instructions**

1. Airplane Flight Manual (AFM) or latest approved revision:

Model	TAI Part Number	Equipped
208B [875 SHP]	208BPHCUS-01	with or without Cargo pod
208B [875 SHP]	208BPHDUS-01	with TKS fairing

2. Maintenance Manual (Including Airworthiness Limitations)

Document No. D2078-21 or latest revision

**E. Operational Suitability Data**

Master Minimum Equipment List (MMEL) 208MMELEU, EASA approved 17 December 2015, or any later EASA approved issue.

**N.V. Notes**

NOTE 1: Same notes apply as Model 208 (see section 1 F above, except NOTE 7).

NOTE 2: Aircraft modified by Cessna Aircraft Company or Textron Aviation Inc. in accordance with Drawing Number 2601380-1 EASA 14-PLACE OPTION have to be operated i.a.w. FAA approved AFM Supplements:

Model	TAI Part Number, FAA approved:	Equipped
208B [875 SHP]	208BPHCUS-S17, Rev. 0, April 1, 2015	with or without Cargo pod
	208BPHCUS-S18, Rev. 1, March 13, 2015	with or without Cargo pod
208B [875 SHP]	208BPHDUS-S17, Rev. 0, April 1, 2015	with TKS fairing
	208BPHDUS-S18, Rev. 1, March 13, 2015	with TKS fairing





## **SECTION ADMINISTRATIVE**

### **I. Acronyms & Abbreviations**

AFM	Airplane Flight Manual
Amdt.	Amendment
AMM	Airplane Maintenance Manual
EASA	European Aviation Safety Agency
MMEL	Master Minimum Equipment List
OSD	Operational Suitability Data
POH	Pilot's Operating Handbook
SET-IMC	Single-Engined Turbine Airplane Operations at Night and/or in Instrument Meteorological Conditions
SC	Special Condition
TAI	Textron Aviation Inc.
TC	Type Certificate
TCDS	Type Certificate Data Sheet

### **II. Type Certificate Holder Record**

Cessna Aircraft Company transferred to Textron Aviation Inc. on 29 July 2015.

### **III. Change Record**

<b>Issue</b>	<b>Date</b>	<b>Change</b>	<b>TC issue no &amp; date</b>
1	14 July 2008	Initial release	1, 14 July 2008
2	18 July 2008	Engine and propeller omissions corrected, notes added	
3	22 June 2009	Revision of information provided on number of passengers and baggage and cargo allowance – for clarification purposes	
4	21 Dec 2009	14 seat place configuration and the effected AFMs added	
5	15 March 2011	Elevator movement added, when TKS fairing is installed, CG ranges updated	
6	16 May 2014	Section A.2.2 added, editorial corrections	
7	14 April 2015	EASA approved 14 seat place configuration type design defined and the associated AFM Supplements for Cessna 208B (EX) added.	
8	17 Dec 2015	Transfer of Type Certificate Holder and of Production Organisation; New Section E (OSD) introduced, Section E renamed in F.	2, 17 December 2015
9	1 August 2017	Added SET-IMC operational approval information, TCDS format reorganised	

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