

European Aviation Safety Agency

EASA

TYPE-CERTIFICATE DATA SHEET

Cessna Model 208

Type Certificate Holder:

Cessna Aircraft Company

P.O. Box 7704
Wichita, Kansas 67277
USA

Manufacturer:

Cessna Aircraft Company

P.O. Box 7704
Wichita, Kansas 67277
USA

**For variant: 208
208B**

Issue 1, dated 14 July 2008
Issue 2, dated 18 July 2008
Issue 3, dated 22 June 2009
Issue 4, dated 21 December 2009
Issue 5, dated 15 March 2011

|

CONTENT

SECTION 1: GENERAL, Basic Model 208 Type Design

- A. General
- B. Certification Basis
- C. Technical Characteristics and Operational Limitations
- D. Operating and Service Instructions
- E. Notes

SECTION 2: GENERAL, Basic Model 208B Type Design

- A. General
- B. Certification Basis (Same as Model 208)
- C. Technical Characteristics and Operational Limitations
- D. Operating and Service Instructions
- E. Notes (Same as Section A, Model 208)

SECTION 3: Change Record

SECTION 1: GENERAL, Model 208 Type Design (See Note 7)

A. General

- | | |
|--|---|
| 1. a) Type: | 208 |
| b) Variant: | 208 |
| 2. Airworthiness Category: | FAR-23 Normal Category |
| 3. Type Certificate Holder: | Cessna Aircraft Company
P.O. Box 7704
Wichita, Kansas 67277
U.S.A. |
| 4. Manufacturer: | Cessna Aircraft Company
P.O. Box 7704
Wichita, Kansas 67277
U.S.A. |
| 5. JAA Certification Application Date: | N/A |
| 6. JAA recommendation Date: | N/A |
| 7. EASA Type Certification Date: | 05 May 1985 (2080023 to Germany) |

B. Certification Basis

- | | |
|--|--|
| 1. Reference Date for determining the applicable requirements: | FAA A37CE Initial Approval Date October 23, 1984 |
| 2. (Reserved) | |
| 3. (Reserved) | |
| 4. Certification Basis: | As defined in FAA TCDS A37CE |
| 5. 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. |
| 6. Requirements elected to comply: | None |
| 7. EASA Special Conditions: | For Garmin G-1000 equipped aircraft only: As 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, and CRI B-01 Human Factors. |
| 8. EASA Exemptions: | None |
| 9. EASA Equivalent Safety Findings: | None |

10. EASA Interpretations and Acceptable Means of Compliance

CRI F-04 Equipment Systems and Installations
CRI F-05 Databases and Configuration Files
CRI F-06 Digital Devices Design Assurance
CRI F-07 Software Aspects of Certification, Application of DO-178B Field Loadable Software, and user Modifiable Software.
CRI F-08 ARP 4754
CRI F-09 Software Problem Reports
CRI F-10 Complex electronic Hardware Problem reports.

11. EASA Environmental Standards:

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. 208 Dimensions:

Span	15.88 m	(52.08 ft.)
Length	11.46 m	(37.58 ft.)
Height	4.27 m	(14.83 ft.)
Wing Area	25.96 m ²	(279.4 ft ²)

5. Engines:

[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

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.

Engine Limits: [Applicable to S/N 20800001 through 20800276] P&W PT6A-114 or PT6A-114A when operated to PT6A-114 operating limits

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

Engine Limits: [Applicable to S/N 20800277 and Up] P&W PT6A-114A

	Shaft Horsepower	NG Gas Generator Speed (% rpm)	Indicator Torque (ft.-lbs.)	Prop Shaft Speed (rpm)	Maximum Permissible Interturbine Temp. (°C)
Takeoff static & max. continuous	675 ⁽¹⁾	101.6	1865	1900	805
Maximum climb	675 ⁽¹⁾	101.6	1865/1970 ⁽²⁾	1900	765
Maximum cruise	675 ⁽¹⁾	101.6	1865/1970 ⁽²⁾	1900	740
Idle	-	52 min.	-	-	685
Starting (2 sec.)	-	-	-	-	1090
Max. reverse (1 min.)	675 ⁽¹⁾	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. Propellers and Propeller Limits:

[Applicable to S/N 20800001 through 20800276]:

Hartzell composite three-bladed, constant speed, full-feathering, reversible
Model: HC-B3MN3/M10083
Diameter: Maximum 100 inches, minimum 100 inches, no cutoff approved
Pitch at 42-inch station:
Low pitch (Beta pickup) 9°
Feathered 78.4°
Maximum Reverse -18°

[Applicable to S/N 20800001 and Up and all TKS equipped aircraft]:

McCaughey aluminium three-bladed, constant speed, full-feathering, reversible
Model: 3GFR34C703/106GA-0
Diameter: Maximum 106 inches, minimum 104 inches (2-inch cutoff on diameter allowed)
Pitch at 30-inch station:
Low pitch (Beta pickup) +15.6°
Feathered +88°
Maximum Reverse -14°

The EU Propeller Type Certification standard includes that of FAA TC P9NE for Hartzell and P60GL for McCaughey 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.

7. Fluids:

- 7.1 Fuel Aviation turbine fuel Jet A, Jet A-1, Jet B, JP-1, JP-4, JP-5 or JP-8. For required use of anti-icing additives and emergency use of aviation gasoline, refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.
- 7.2 Oil: Engine 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.

9. *Air Speeds:

Maneuvering	148 KIAS (148 KCAS)
Maximum Operating Speed	175 KIAS (175 KCAS)
Maximum Open Window	175 KIAS (175 KCAS)
Flaps Extended	
To 10°	175 KIAS (175 KCAS)
10° to 20°	150 KIAS (150 KCAS)
20° to 30°	125 KIAS (125 KCAS)

10. 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. Operational 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 (+184.3in) 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

C.G. Range
Amphibian S/N 20800014 and Up

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 nutplates and screws installed on left side of fuselage below side windows and forward of cargo door.
17. Minimum Flight Crew: 1 (Pilot)
18. No. of seats: 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 Compartment Reference to weight and balance data, Pilots Operating Handbook and FAA Approved Airplane flight manual
20. Wheels and Tires Refer to the Cessna Maintenance Manual Chapter 12-13-01 for applicable tire and wheel sizes.
21. Control Surface Movements
- Wing flaps 0° ±1° Up, 10° +1° -2° Down, 20° ±2° Down, Movements 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 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

Airplane Flight Manual (AFM) or later approved revision:

MODEL	CESSNA PART NUMBER
208 [600 SHP]	D1307-34-13PH
208 [675 SHP]	D1352-7-13PH
208 [675 SHP]	208PHBUS-00

Airplane Maintenance Manual (AMM)
(Including Airworthiness Limitations)

Document No. D2078-21 or latest revision

E. Notes (applicable to both models)

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 <i>NOT</i> modified with SK208-52	20.1 @	+185.7
208	20800001 through 20800130 modified with SK208-52	24.1 @	+186.4
208	20800131 and On	24.1 @	+186.4
208B	208B0001 through 208B0089 <i>NOT</i> modified with SK208-52	20.1 @	+205.7
208B	208B0001 through 208B0089 modified with SK208-52	24.1 @	+206.4
208B	208B0090 and On	24.1 @	+206.4

NOTE 2 The placards specified in the Pilot’s Operating Handbook and FAA Approved Airplane Flight Manuals listed below (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 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by Amendments 23-1 through 23-28.
- (2) FAR Part 36 effective December 1, 1969, as amended by Amendments 36-1 through 36-12.
- (3) SFAR 27 effective February 1, 1974, as amended by Amendments 27-1 through 27-4.
- (4) Special Conditions as follows:
 - (a) 23-ACE-3; Dynamic Evaluation, Engine Installation.
 - (b) 23-214-SC: HIRF, (208B equipped with the Garmin G1000 Integrated Cockpit System).
- (5) 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.
- (6) Equivalent Level of Safety 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 (d), Amendment 45, additionally, AC 23.1311-1B, Installation of Electronic Display (Section 9 – Powerplant Displays), Section 9.4 Direct-Reading Alphanumeric-Only Displays.
- (7) 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 FAA Approved Airplane Flight Manual.

Certification Basis - Applies to

- (a) Models 208 and 208B when equipped with P&W PT6A-114 engine and McCauley propeller; and
 - (b) Model 208B when equipped with P&W PT6A-114A engine and either McCauley or Hartzell propeller; and
 - (c) Model 208 when equipped with P&W PT6A-114A engine and McCauley propeller:
- (1) FAR Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by Amendments 23-1 through 23-28.
 - (2) FAR Part 36 effective December 1, 1969, as amended by Amendments 36-1 through 36-18.
 - (3) SFAR 27 effective February 1, 1974, as amended by Amendments 27-1 through 27-4.

Additions for the Garmin G1000 Integrated Cockpit System (ICS) and, as annotated, for the GFC-700 Automatic Flight Control System (AFCS) as certified under Cessna Engineering Change Records 059452, 059453, 059455, and 059456:

14 CFR 23 regulations as amended by Amendment N/C:

14 CFR 23.301(a), (d), 23.303, 23.305(a), (b), 23.307(a), 23.561(e), 23.601, 23.605 23.607, 23.671(a), 23.1367 and 23.1381.

- 14 CFR 23 regulations as amended by Amendment 23-7:
14 CFR 23.611, 23.689(a), and 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 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), 23.1165(b), (c), and 23.1309(a)(1), (a)(2), (c).
- 14 CFR 23 regulations as amended by Amendment 23-20:
14 CFR 23.1301, 23.1327(a)(2), (b), 23.1335 GFC-700 Automatic Flight Control System (AFCS), 23.1547(b), (e), 23.1351(a), (b), (c), (d), (e), and 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(a).
- 14 CFR 23 regulations as amended by Amendment 23-26:
14 CFR 23.1529.
- 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 23-42:
14 CFR 23.677(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 Safety Aspects of 23.1309(b)(3)(e), 23.1309(a)(1)(i)(ii)(2), (b)(2)(4), (c)(1)(2)(iii)(3), (d), (e), (f)(1), 23.677(d), 23.1301(a), 23.1303(a), (b), (c), (d), (e)(1), (f), 23.1311, 23.1321(a), (c), (d), (e), 23.1323(a), (b)(1)(2), (c), 23.1329 GFC-700 Automatic Flight Control System (AFCS), 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), 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 Applicable to Model 208 only incorporating Garmin G1000 Integrated Cockpit System (ICS).

Special Conditions as follows:

- (a) 23-ACE-3; Dynamic Evaluation, Engine Installation.
- (b) 23-214-SC; HIRF, with guidance from AC20-158 [Applicable to Model 208B equipped with the Garmin G1000 Integrated Cockpit System].

Equivalent Level of Safety as follows:

- (1) Applicable to Model 208 and 208B not equipped with the Garmin G1000 Integrated Cockpit System:
 - (a) 23.955(f)(2), Fuel System.
- (2) 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 (d), 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.
- (3) 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.

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: GENERAL, Model 208B Type Design

A. General

- | | |
|--|---|
| 1. a) Type: | 208 |
| b) Variant: | 208B |
| 2. Airworthiness Category: | FAR-23 Normal Category |
| 3. Type Certificate Holder: | Cessna Aircraft Company
P.O. Box 7704
Wichita, Kansas 67277
U.S.A. |
| 4. Manufacturer: | Cessna Aircraft Company
P.O. Box 7704
Wichita, Kansas 67277
U.S.A. |
| 5. JAA Certification Application Date: | N/A |
| 6. JAA recommendation Date: | N/A |
| 7. EASA Type Certification Date: | 24 September 1990 (208B0230 to France) |

B. Certification Basis

- | | |
|--|--|
| 1. Reference Date for determining the applicable requirements: | FAA A37CE Initial Approval Date October 23, 1984 |
| 2. (Reserved) | |
| 3. (Reserved) | |
| 4. Certification Basis: | As defined in FAA TCDS A37CE |
| 5. 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. |
| 6. Requirements elected to comply: | None |
| 7. EASA Special Conditions: | For Garmin G-1000 equipped aircraft only: As 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, and CRI B-01 Human Factors. |
| 8. EASA Exemptions: | None |
| 9. EASA Equivalent Safety Findings: | None |

10. EASA Interpretations and Acceptable Means of Compliance

CRI F-04 Equipment Systems and Installations
CRI F-05 Databases and Configuration Files
CRI F-06 Digital Devices Design Assurance
CRI F-07 Software Aspects of Certification, Application of DO-178B Field Loadable Software, and user Modifiable Software.
CRI F-08 ARP 4754
CRI F-09 Software Problem Reports
CRI F-10 Complex electronic Hardware Problem reports.

11. EASA Environmental Standards:

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. 208B Dimensions:

Span	15.88 m	(52.08 ft.)
Length	12.67 m	(41.58 ft.)
Height	4.18 m	(15.45 ft.)
Wing Area	25.96 m ²	(279.4 ft ²)

5. Engines:

Pratt & Whitney of Canada Ltd., PT6A-114 Turbo Prop, S/N 208B0001 through S/N 208B0178 and 208B0180 through 208B0229, and as modified by SK208-84

Pratt & Whitney of Canada Ltd., PT6A-114A Turbo Prop,

- (a) S/N 208B0001 through S/N 208B0178 and 208B0180 through 208B0229 and as modified by SK208-84 when operated to PT6A-114 operating limits
- (b) S/N 208B0179, S/N 208B0230 and on, and as modified by SK208-80
- (c) S/N 208B0230 and on, and as modified by SK208-80

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.

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

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

PT6A-114A (675 hp)

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

7. Propellers and Propeller Limits:

Hartzell composite three-bladed, constant speed, full-feathering, reversible
Model: HC-B3MN3/M10083

Diameter: Maximum 100 inches, minimum 100 inches, no cutoff approved

Pitch at 42-inch station:

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

McCaughey aluminium three-bladed, constant speed, full-feathering, reversible

Model: 3GFR34C703/106GA-0

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

Pitch at 30-inch station:

Low pitch (Beta pickup)	+15.6°
Feathered	+88°
Maximum Reverse	-14°

The EU Propeller Type Certification standard includes that of FAA TC P9NE for Hartzell and P60GL for McCaughey 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.

7. Fluids:

7.1 Fuel Aviation turbine fuel Jet A, Jet A-1, Jet B, JP-1, JP-4, JP-5 or JP-8. For required use of anti-icing additives and emergency use of aviation gasoline, refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

7.2 Oil: Engine 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
9. *Air Speeds:
- | | |
|-------------------------|---------------------|
| Maneuvering | 148 KIAS (148 KCAS) |
| Maximum Operating Speed | 175 KIAS (175 KCAS) |
| Maximum Open Window | 175 KIAS (175 KCAS) |
| Flaps Extended | |
| To 10° | 175 KIAS (175 KCAS) |
| 10° to 20° | 150 KIAS (150 KCAS) |
| 20° to 30° | 125 KIAS (125 KCAS) |
10. Maximum Operating Altitude: 25,000 feet (7620.00 m msl) in non-icing conditions.
20,000 feet (6096.00 m msl) Icing conditions (if so equipped)
20,000 feet (6096.00 m msl) any conditions with any ice on the airframe.
Oxygen must be provided as required by the operating rules.
11. Operational 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.) |
14. Centre of Gravity Range:
- 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.)
4561 mm (+179.60 in) to 5190 mm (+204.35 in) at 2494.7 kg. (5500 lbs.)
Straight line variation between points given
- Landing
5009 mm (+197.2 in) to 5190 mm (+204.3 in) at 3855.5 kg (8500 lbs.).
4911 mm (+193.3 in) to 5190 mm (+204.3 in) at 3628.7 kg (8000 lbs.).
4561 mm (+179.6 in) to 5190 mm (+204.3 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. No. of seats:
- 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.E (notes 2 & 3)

19. Baggage / Cargo Compartment Reference to weight and balance data, Pilots Operating Handbook and FAA Approved Airplane flight manual
20. Wheels and Tires Refer to the Cessna Maintenance Manual Chapter 12-13-01 applicable tire and wheel sizes.
21. Control Surface Movements
- Wing flaps 0° ±1° Up, 10° +1° -2° Down, 20° ±2° Down, Movements 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

Airplane Flight Manual (AFM) or latest approved revision:

MODEL	CESSNA PART NUMBER
208B [600 SHP]	D1309-29-13PH
208B [675 SHP]	D1329-23-13PH
208B [675 SHP]	208BPHBUS-00
208B [675 SHP]	D1329-3-13PHUK

See Note E.3) below
See Note E.2) below

Airplane Maintenance Manual (AMM)
(Including Airworthiness Limitations)

Document No. D2078-21 or latest revision

E. Notes for Model 208B only

- 1) Same as Model 208 see section 1 E above, except NOTE 7.
- 2) A 14 seat place configuration was certified before 28 September 2003 by CAA UK (see UK TCDS FA54) 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.
- 3) For S/N 1190, 1216 and 2000 and on: 14 seat place configuration plus Garmin 1000 installed: Aircraft have to be operated i.a.w. FAA approved AFM 208BPHBUS-00 plus Supplements 208BPHBUS-S16-01 and 208BPHBUS-S25-00, or latest approved revision.

SECTION 3: Change Record

- Issue 1, dated 14 July 2008 - initial release
Issue 2, dated 18 July 2008 - engine and propeller omissions corrected, notes added.
Issue 3, dated 22 June 2009 - Revision of information provided on number of passengers and baggage and cargo allowance – for clarification purposes
Issue 4, dated 21 December 2009 – 14 seat place configuration and the effected AFMs added.
Issue 5, dated 15 March 2011 – Elevator movement added, when TKS fairing is installed, CG ranges updated.