



## ***European Aviation Safety Agency***

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**EASA**

**TYPE-CERTIFICATE  
DATA SHEET**

**EASA.IM A.078  
525  
(Citation Jet)**

**Type Certificate Holder:**

**Cessna Aircraft Company**

**P.O. Box 7704  
Wichita, Kansas 67277  
USA**

For models: 525  
525A  
525B  
525C

Issue 05: 18 May 2011

EASA Form NR 90 CS-23  
Issue 01

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## **SECTION A: 525**

### **A.I. General**

1. Data Sheet No.: EASA IM A.078 Issue 1
2. a) Type: 525  
b) Model: 525  
c) Variant: N/A
3. Airworthiness Category: 14 CFR 23 Normal Category
4. Type Certificate Holder: CESSNA AIRCRAFT COMPANY  
P.O. BOX 7704  
WICHITA, KANSAS 67277  
USA
5. Manufacturer: CESSNA AIRCRAFT COMPANY  
P.O. BOX 7704  
WICHITA, KANSAS 67277  
USA
6. Certification Application Date: 14 February 1990 for 525-0001 and on
7. FAA Type Certification Date: 15 October 1992
8. (Reserved)

### **A.II. EASA Certification Basis**

1. Reference Date for determining the applicable requirements: 14 February 1990 for 525-0001 and on
2. Airworthiness Requirements: (525-0001 through 525-0599)  
14 CFR 23, effective February 1, 1965, as amended by Amendments 23-1 through 23-38, and 23-40;  
The EASA Aircraft Type Certification standard includes that of FAA TCDS A1W1, based on individual EU member state acceptance or certification of this standard prior to 28 September 2003; Other standards conforming to TC/TCDS standards certified by individual EU member States prior to 28 September 2003 are also acceptable.  
(525-0600 and On)  
Code of Federal Regulations Title 14, Part 23, effective February 1, 1965, as amended by Amendments 23-1 through 23-38, and 23-40;

except for the following paragraphs applicable for engines and FADEC's which are CS23.611, 23.777, 23.779, 23.781, 23.865, 23.867, 23.901, 23.903, 23.939, 23.943, 23.951, 23.955, 23.961, 23.973, 23.1011, 23.1013, 23.1019, 23.1093, 23.1103, 23.1111, 23.1121, 23.1123, 23.1141, 23.1143, 23.1145, 23.1163, 23.1181, 23.1182, 23.1183, 23.1189, 23.1191, 23.1193, 23.1195, 23.1203, 23.1301, 23.1305, 23.1309, 23.1337, 23.1521, 23.1549, 23.1583;

Compliance with ice protection has been demonstrated in accordance with 14 CFR §§23.1416 and 23.1419.

3. Special Conditions:

23-ACE-55, additional requirements for:

Smoke evacuation, protection of electronic systems from lightning and high intensity radiated electromagnetic fields (HIRF) and lightning, electronic flight instruments displays, thrust attenuating systems (thrust attenuating systems not applicable 525-0600 and On), engine fire extinguishing system, performance, including takeoff, takeoff speeds, accelerate-stop, takeoff flight path, climb, minimum control speed, trim, static longitudinal stability, demonstration of static longitudinal stability, wings level stall, turning flight and accelerated stalls, stall warning, vibration and buffering, high speed characteristics, airspeed indicating system, static pressure system, maximum operating speed limit, minimum flight crew, operating limitations, operating procedure, performance information, airspeed indicator, effects of contamination on Natural Laminar Flow airfoils, definitions, and AFM approved information.

4. (reserved)

5. Deviations:

No. 5759 granted to use a relaxed "Dutch Roll" damping criteria above 18,000 feet in lieu of damping criteria of 14 CFR §23.181(b).

6. Equivalent Safety Findings:

(525-0360 and On equipped with Collins Proline 21 electronic displays of engine instruments):  
ACE-00-01: 14 CFR §§23.1305(c) (5), and 23.1549(a) through (d), direct reading, digital only displays for the high-pressure turbine speed (N<sub>2</sub>), and fuel flow indications.

7. Requirements elected to comply:

N/A

8. Environmental Standards:

ICAO Annex 16, Volume I,

ICAO Annex 16, Volume II, Part II  
(further details refer to TCDSN.IM.078)

9. (Reserved) Additional National Requirements:
10. (Reserved)

### **A.III. Technical Characteristics and Operational Limitations**

1. Type Design Definition: Cessna Airplane Assembly Drawing Number 6300000, Document No. A1WI, latest FAA approved revision.
2. Description: Low wing aircraft with retractable tricycle landing gear, T-tail, pressurised cabin, and two turbofan engines pylon mounted on the rear fuselage.
3. Equipment:
  - (525-0001 through 525-0359)  
Equipment List according to AFM, 525FM-00, or later approved revision
  - (525-0360 through 525-0599)  
Equipment list according to AFM, 525FMA-00, or later approved revision
  - (525-0600 and On)  
Equipment List according to AFM, 525FMB-00, or later approved revision  
(see note 3)
4. Dimensions:

Span	14.20 m(46ft. 7in)
Length	12.98 m(42ft. 7in)
Height	4.19 m(13ft. 9in)
Wing Area	22.30 sq.m(240 sq.ft)
5. Engine:
  - 5.1.1 Model:
    - (525-0001 through 525-0599) Two Williams International LLC FJ44-1A turbofans
    - (525-0600 and On) Two Williams International LLC FJ44-1AP turbofans
  - 5.1.2 Type Certificate: TCDS IM.E.016
  - 5.1.3 Limitations: Static thrust standard day, sea level:  
Take off:
    - (525-0001 through 525-0599)\* 862 kg (1,900 lbs)
    - (525-0600 and On)\* 891 kg (1,965 lbs)

\* Other engine limitations: referred to the engine TC

6. (reserved)
7. (reserved)
8. Fluids:
  - 8.1 Fuel:
 

(525-0001 through 525-0599)  
Commercial kerosene Jet A, Jet A-1, Jet B, Jet 3, JP-4, JP-5, or JP-8 (See Note 1)  
(525-0600 and On)  
Commercial kerosene jet A, Jet A-1, Jet 3, JP-5, or JP-8
  - 8.2 Oil:
 

Mobil Jet II MIL-L-23699  
Mobil 254 MIL-L-23699  
Exxon 2380 MIL-L-23699 (Emergency only)
  - 8.3 Coolant:
 

Not applicable
9. Fluid capacities:
  - 9.1 Fuel:
 

Total usable: 3220 lb (477 gal/ 1805, 6 litres). Two wing tanks with 1610 lbs. (238.5 gal/ 902, 8 litres).
  - 9.2 Oil:
 

(525-0001 through 525-0599)  
2.0 quarts usable each engine  
(525-0600 and On)  
3.4 quarts usable each engine
  - 9.3 Coolant system capacity:
 

Not Applicable
10. Air Speeds:
 

Maximum Operating	$V_{MO}$	
	Sea Level to 30, 500 feet	260
	$M_{MO}$ above 30, 500 feet	0.70
Manoeuvring		
	$V_A$	
	(525-0001 through 525-0359)	182
	(525-0360 through 525-0599)*	184
	(525-0600 and On)*	185
Flaps Extended		
	$V_{FE}$	
		198 (Flaps 15°)
		160 (Flaps 35°)
Landing Gear Operating		
	$V_{LO}$	
	(525-0001 and On)	185 (Extending)
	(525-0001 through 525-0457)	185 (Retracting)
	(525-0458 and On)	174 (Retracting)
Minimum Control Air		
	$V_{MCA}$	

(525-0001 through 525-0599)	91
(525-0600 and On) Flaps 0	87
(525-0600 and On) Flaps 15	80

11. Maximum Operating Altitude: 12, 497 m (41,000 ft)

12. Allweather Operations Capability: VFR Day and Night  
IFR Day and Night  
RVSM (See Note 6)

Flight into known icing(See Limitations Section of EASA Approved Airplane Flight Manual)

13. Maximum Weights:

Aircraft Serial Number	Max. Zero Fuel Weight	Max. Ramp Weight	Max. Take-Off Weight	Max. Landing Weight
525-0001 through 525-0359	3,810 kg (8,400 lbs)	4,763 kg (10,500 lbs.)	4,717 kg (10,400 lbs.)	4,400 kg (9,700 lbs.)
525-0360 through 525-0599	3,810 kg (8,400 lbs)	4,853 kg (10,700 lbs.)	4,808 kg (10,600 lbs.)	4,445 kg (9,800 lbs.)
525-0600 and On	3,810 kg (8,400 lbs)	4,899 kg (10,800 lbs.)	4,853 kg (10,700 lbs.)	4,491 kg (9,900 lbs.)

14. Centre of Gravity Range:

(525-0001 through 525-0359):

Allowable Forward C.G at 4,763 kg (10,500 lbs)	F.S. 244.14
Allowable Forward C.G at 4,717 kg (10,400 lbs)	F.S. 244.04
Allowable Forward C.G at 3,992 kg (8,800 lbs)	F.S. 242.43
Allowable Forward C.G up to 3,493 kg (7,700 lbs)	F.S. 240.14
Aft C.G Up to 4,763 kg (10,500 lbs)	F.S. 248.78

(525-0360 through 525-0599):

Allowable Forward C.G at 4,853 kg (10,700 lbs)	F.S. 244.34
Allowable Forward C.G at 4,808 kg (10,600 lbs)	F.S. 244.24
Allowable Forward C.G at 3,992 kg (8,800 lbs)	F.S. 242.43
Allowable Forward C.G up to 3,493 kg (7,700 lbs)	F.S. 240.14
Aft C.G Up to 4,853 kg (10,700 lbs)	F.S. 248.78

(525-0600 and On):

Allowable Forward C.G at 4,899 kg (10,800 lbs)	F.S. 244.44
Allowable Forward C.G at 4,853 kg (10,700 lbs)	F.S. 244.34
Allowable Forward C.G at 3,992 kg (8,800 lbs)	F.S. 242.43
Allowable Forward C.G up to 3,493 kg (7,700 lbs)	F.S. 240.14
Aft C.G Up to 4,899 kg (10,800 lbs)	F.S. 248.43

15. Datum: 94.0 in forward of the front face of the forward pressure bulkhead

16. Control surface deflections:

Elevator	Up 20 +0/-1 degrees (525-0001 through 525-0599) Up 18.5 +0/-0.5 degrees (525-0600 and On) Down 15 +/-1 degrees
Elevator Trim Tab	Up 12 +/-1 degrees Down 20 +/-1 degrees
Rudder	Right 30 +/-1 degrees Left 30 +/-1 degrees
Rudder Trim Tab	Right 20 +/-1 degrees Left 20 +/-1 degrees
Aileron	Up 23.5 +/-1 degrees Down 20.5 +/-1 degrees
Aileron Trim Tab	Up 20 +/-1 degrees Down 18 +/-1 degrees
Wing Flap	Up 0 +/-1 degrees T.O./Appr. 15 +1/-1 degrees Land 35 +/-1 degrees Ground 60 +/-1 degrees
Speed Brakes - Upper	Up 0 to 49 +/-2 degrees
Speed Brakes - Lower	Down 0 to 68 +/-2 degrees
Thrust Attenuators	Stow -6 +/-1 degrees (525-0001 through 525-0599) (Ref to Engine Long. Axis)
Thrust Attenuators	Deploy 54 +/-1 degrees (525-0001 through 525-0599) (Ref to Engine Long. Axis)

Thrust Attenuators not applicable (525-0600 and On)  
See Airplane Maintenance Manual for rigging instructions.

17. Levelling Means: Longitudinal- Left hand upper floorboard aft of FS 151.00  
Lateral- Left hand and right hand upper floorboard aft of FS 152.00. Level is determined with a level gauge placed on the cabin door floor longeron.

18. Minimum Flight Crew: (see note 3 for cockpit equipment/ arrangement restrictions): One pilot (in the left seat) plus additional equipment as specified in the

Kinds of Operation Equipment List (KOEL) contained in the  
Limitations Section of the FAA Approved Airplane Flight Manual or  
One pilot and one co-pilot

19. Maximum Passenger Seating Capacity: 6 Passengers

20. Baggage/Cargo Compartments:

(525-0001 through 525-0599)

Nose Compartment	181.4 kg (400 lbs.)
Aft Cabin	45.4 kg (100 lbs.)
Tailcone	147.4 kg (325 lbs.)

(525-0600 and On)

Nose Compartment	181.4 kg (400 lbs.)
Tailcone	147.4 kg (325 lbs.)

21. Wheels and Tyres:

(525-0001 through 525-0116)

Main Landing Gear (MLG)	22 x 6.50-10 (Goodyear 222K08-1)
Nose Landing Gear (NLG)	18 x 4.4 (Michelin 030-611-0)

(525-0117 through 525-0359)

Main Landing Gear (MLG)	22 x 7.75-10 (Goodyear 222K08-1)
Nose Landing Gear (NLG)	18 x 4.4 (Michelin 030-611-0)

(525-0360 through 525-0599)

Main Landing Gear (MLG)	22 x 7.75-10 (Goodyear 222K08-1)
Nose Landing Gear (NLG)	18 x 4.4 (Michelin 030-611-0)

(525-0600 and On)

Main Landing Gear (MLG)	22 x 7.75-10 (Goodyear 222K08-1, Michelin 026-528-0)
Nose Landing Gear (NLG)	18 x 4.4 (Michelin 030-611-0)

22. (Reserved):

#### **A.IV. Operating and Service Instructions**

1. Flight Manual: Airplanes must be operated according to the FAA Approved Airplane Flight Manual, Part number 525FM-00(or later approved revision for serials 0001 through 0359), 525FMA-00(or later approved revision for serials 0360 through 0599), 525FMB-00(or later approved revision for serials 0600 and on).
2. Technical Manual: Model 525 Maintenance Manual, 525MM00 or later approved revision. See Chapter 4, "Airworthiness Limitations" for inspections, mandatory retirement life information and other requirements for continued airworthiness. "Airworthiness Limitations" may not be changed without the approval of EASA.
3. (Reserved)

#### **A.V. Notes:**

1. Fuel not having anti-icing additive must have MIL-I-27686 or MIL-I-85470 or T1301 anti-icing additive blended into the aircraft fuel in concentrations not less than 0.10 percent or more than 0.15 percent by volume.
2. Current weight and balance information, including list of equipment included in certificated empty weight, and loading instruction are provided for each airplane in the FAA Approved Airplane Flight Manual (AFM) at the time of original certification.

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

Unusable Fuel	(525-0001 and On)	30.64 lb at +260.19 in
Full oil	(525-0001 through 525-0599)	15.5 lb at +312.3 in
Full oil	(525-0600 and On)	16.6 lb at +314.74 in
Hydraulic Fluid	(525-0001 through 525-0599)	27.5 lb at +265.0 in
Hydraulic Fluid	(525-0600 and On)	16.78 lb at +266.9 in
Anti-ice Fluid	(525-0001 and On)	3.4 lb at +91.5 in

3. Approval for operation with a minimum crew of one pilot is based upon the cockpit equipment installation and arrangement evaluated during FAA certification testing. No significant changes may be made to the installed

cockpit equipment or arrangement (EFIS, autopilot, avionics, etc), except as permitted by the approved MMEL, without prior approval from the responsible Authority.

4. Required placards and markings are listed in Chapter Eleven (11) of Maintenance Manual, part number 525MM00 (or later approved revision for serials 0001 and on).
5. All replacement seats (crew and passenger), although they may comply with TSO C39, must also be demonstrated to comply with 14 CFR §§23.321, 23.395, 23.561, 23.562, and 23.785.

The foam cushion buildup of all seats (crew and passenger) may not be altered. Any deviations in the foam construction or stiffness must be demonstrated by test to comply with the listed 14 CFR 23 paragraphs.

The RH side facing seat lap belt shall have a buckle which opens from left to right, thereby preventing the buckle's own inertia from causing to open. Any other configuration must be verified by dynamic test.

6. Certain airplane Serial Numbers meet the initial airworthiness requirements for operation in Reduced Vertical Separation Minimum (RVSM) airspace. See table below:

S/N 525-0001 through 525-0358	Airplanes that have accomplished Cessna Service Bulletin SB525-34-41
S/N 525-0359	Received factory installation of Dual Ametek AM-250 altimeters
S/N 525-0360 through 525-0599	Airplanes that have received factory installation* of optional Ametek AM-250 copilot's altimeter; or Airplanes that have received factory installation* of optional Collins Pro Line 21 copilot's Air Data Computer and Primary Flight Display; or Airplanes that have accomplished Cessna Service Bulletin SB525-34-40.
S/N 525-0600 and On	All airplanes are equipped with Collins Pro Line 21 dual Air Data Computers and pilot's and copilot's Primary Flight Displays as standard equipment.

\* Equipments installed by the Cessna factory will be identified in the individual airplane equipment list.

Each operator must obtain RVSM operating approval directly from the FAA.

7. The Model 525 (525-0600 and On) is approved for One Engine Inoperative 10 minutes thrust capability with the Williams International FJ44-1AP engine, per FAA Policy Memo "Guidance of Engine Operation at Takeoff Thrust/ Power for Ten-Minutes in a One- Engine Inoperative Situation for Cessna Model 525 Airplane" Project AT4020WI-A, dated April 27, 2005, from Standards Office, Small Airplane Directorate and Standards Office, Engine and Propeller Directorate.

8. The Model 525 S/N 0001 to 0359 is also known as Citation Jet (CJ), Model 525 S/N 0360 to 0599 is known as Citation Jet 1 (CJ1), the Model 525 S/N 0600 and on is known as Citation Jet1+ (CJ1+).

## **SECTION B: 525A**

### **B.I. General**

1. Data Sheet No.: EASA IM A.078 Issue 3
2. a) Type: 525  
b) Model: 525A  
c) Variant: N/A
3. Airworthiness Category: 14 CFR 23 Normal Category
4. Type Certificate Holder: CESSNA AIRCRAFT COMPANY  
P.O. BOX 7704  
WICHITA, KANSAS 67277  
USA
5. Manufacturer: CESSNA AIRCRAFT COMPANY  
P.O. BOX 7704  
WICHITA, KANSAS 67277  
USA
6. Certification Application Date: 14 May 1998 for 525A-0001 and on
7. FAA Type Certification Date: 21 June 2000 (525A-0001 and on)
8. (Reserved)

### **B.II. EASA Certification Basis**

1. Reference Date for determining the applicable requirements: 14 May 1998
2. Airworthiness Requirements: (525A-0001 and on)  
14 CFR 23, effective February 1, 1965, as amended by Amendments 23-1 through 23-40;  
  
Additions:  
14 CFR §§23.331, 23.351, 23.421, 23.423, 23.425, 23.427, 23.939, and 23.1163 as amended by Amendments 23-1 through 23-42;  
  
14 CFR §§23.943, 23.951, 23.957, 23.961, 23.967, 23.991, 23.993, 23.997, 23.999, 23.1001, 23.1011, 23.1019, 23.1041, 23.1061, 23.1189, 23.1322, 23.1357, 23.1391, 23.1393, 23.1395, 23.1443, and 23.1445 as amended by Amendments 23-1

through 23-43;

14 CFR §§23.335, 23.337, 23.341, 23.343, 23.345, 23.347, 23.371, 23.393, 23.399, 23.415, 23.441, 23.443, 23.455, 23.457, 23.473, 23.499, 23.561, 23.571, 23.572, 23.611, 23.629, 23.673, and 23.725 as amended by Amendments 23-1 through 23-48;

14 CFR §§23.677, 23.723, 23.785, 23.787, 23.791, 23.853, 23.855, 23.1303, 23.1307, 23.1321, 23.1351, 23.1353, 23.1361, and 23.1401 as amended by Amendments 23-1 through 23-49;

14 CFR §§23.233, 23.235, 23.1555, and 23.1589 as amended by Amendments 23-1 through 23-50;

14 CFR §§23.901, 23.903, 23.929, 23.963, 23.965, 23.1013, 23.1043, 23.1143, 23.1183, 23.1191, and 23.1337 as amended by Amendments 23-1 through 23-51;

The EASA Aircraft Type Certification standard includes that of FAA TCDS A1W1, based on individual EU member state acceptance or certification of this standard prior to 28 September 2003; Other standards conforming to TC/TCDS standards certified by individual EU member States prior to 28 September 2003 are also acceptable.

(525A-0300 and On)

Additions:

The following paragraphs applicable for engines and FADEC's which are CS23.611, 23.777, 23.779, 23.781, 23.865, 23.867, 23.901, 23.903, 23.939, 23.943, 23.951, 23.955, 23.961, 23.973, 23.1011, 23.1013, 23.1019, 23.1021, 23.1041, 23.1043, 23.1045, 23.1091, 23.1093, 23.1103, 23.1111, 23.1121, 23.1123, 23.1141, 23.1143, 23.1145, 23.1163, 23.1181, 23.1182, 23.1183, 23.1189, 23.1191, 23.1193, 23.1195, 23.1203, 23.1301, 23.1305, 23.1309, 23.1337, 23.1521, 23.1549, 23.1583;

(525A-0001 and On)

Compliance with ice protection has been

demonstrated in accordance with CS §§23.1416 and 23.1419;

3. Special Conditions:

23-ACE-55, additional requirements for:  
Smoke evacuation, protection of electronic systems from lightning and high intensity radiated electromagnetic fields (HIRF) and lightning, electronic flight instrument displays, thrust attenuating systems (thrust attenuating systems not applicable 525A-0300 and On), engine fire extinguishing system, performance, including takeoff, takeoff speeds, accelerate-stop, takeoff path, climb one engine inoperative, landing, balked landing, climb, minimum control speed, trim, static longitudinal stability, demonstration of static longitudinal stability, static directional and lateral stability, wings level stall, turning flight and accelerated stalls, stall warning, vibration and buffeting, high speed characteristics, airspeed indicating system, static pressure system, maximum operating speed limit, minimum flight crew, operating limitations, operating procedures, performance information, airspeed indicator, effects of contamination on Natural Laminar Flow airfoils, definitions, and AFM approved information.

23-102-SC, High Altitude Operation (45,000 feet).  
Additional requirements for Ventilation, Air conditioning, Pressurized cabins, oxygen equipment and supply, Supplemental oxygen, Oxygen distribution and equipment. (See Note 6)

4. (reserved)

5. Deviations:

No. 5759 granted to use a relaxed "Dutch Roll" damping criteria above 18, 000 feet in lieu of damping criteria of 14 CFR 23.181(b).

6. Equivalent Safety Findings:

ACE-00-01: 14 CFR §§23.1305(c)(2), (c)(5), and 23.1549(a) through (d), direct reading, digital only displays for the high- pressure turbine speed (N<sub>2</sub>), and fuel flow indications.

ACE-99-07: 14 CFR §§23.841(b)(6), Cabin Pressurization- High Altitude Takeoff and Landing Operations

ACE-00-05: 14 CFR §§23.841(a), to allow small

temporary cabin altitude excursions above 15, 000 feet in the event of any probable pressurization system failure.

7. Requirements elected to comply: N/A
8. Environmental Standards: ICAO Annex 16, Volume I  
ICAO Annex 16, Volume II, Part II  
(further details refer to TCDSN.IM.078)
9. (Reserved) Additional National Requirements:
10. (Reserved)

### **B.III. Technical Characteristics and Operational Limitations**

1. Type Design Definition: Cessna Airplane Assembly Drawing Number 6300001, Document No. A1WI, latest FAA approved revision.
2. Description: Low wing aircraft with retractable tricycle landing gear, T-tail, pressurised cabin, and two turbofan engines pylon mounted on the rear fuselage.
3. Equipment: (525A-0001 through 525-0299)  
Equipment List according to AFM, 525AFM-04, or later approved revision  
(525A-0300 and On)  
Equipment list according to AFM, 525AFMA-00, or later approved revision (see note 5)
4. Dimensions:
- |           |                       |
|-----------|-----------------------|
| Span      | 15.09 m(49ft. 6in)    |
| Length    | 14.53 m(47ft. 8in)    |
| Height    | 4.27 m(14ft. 0in)     |
| Wing Area | 24.53 sq.m(264 sq.ft) |
5. Engine:
- 5.1.1 Model: (525A-0001 through 525-0299) Two Williams International LLC FJ44-2C turbofans  
(525A-0300 and On) Two Williams International LLC FJ44-3A-24 turbofans
- 5.1.2 Type Certificate: TCDS IM.E.016

- 5.1.3 Limitations: Static thrust standard day, sea level:  
Take off:  
(525A-0001 through 525-0299)\* 1, 089 kg (2,400 lbs)  
(525A-0300 and On) 1, 129 kg (2,490 lbs)
6. (reserved)
7. (reserved)
8. Fluids:
- 8.1 Fuel: (525A-0001 through 525A-0299)  
Commercial kerosene Jet A, Jet A-1, Jet B, JP-4, JP-5, or JP-8  
(525A-0300 and On)  
Commercial kerosene Jet A, Jet A-1, Jet 3, JP-5, or JP-8
- 8.2 Oil: Mobil Jet II MIL-L-23699  
Mobil 254 MIL-L-23699  
Exxon 2380 MIL-L-23699
- 8.3 Coolant: Not applicable
9. Fluid capacities:
- 9.1 Fuel: Total usable: 3,961 lb (586.8 gal/ 2221, 2 litres). Two wing tanks with 1,980 lbs. (293.4 gal/ 1110, 6 litres) usable each  
(See Note 1 for unusable fuel)
- 9.2 Oil: (525A-0001 through 525A-0299)  
2.0 quarts usable each engine  
(525A-0300 and On)  
3.75 quarts usable each engine  
(See Note 1)
- 9.3 Coolant system capacity: Not applicable
10. Air Speeds:

Maximum Operating	$V_{MO}$ (525A-0001 and On)	
	Sea Level to 8,000 feet	260
	(525A-0001 through 525A-0299)	
	8,000 ft to 29,300 ft	275 KIAS
	(Varies linearly between 274 KCAS and 272 KCAS)	
	(525A-0300 and On)	
	8,000 ft to 29,124 ft	278 KIAS
	(Varies linearly between 277 KCAS and 275 KCAS)	

	$M_{MO}$	
	(525A-0001 through 525A-0299)	
	Above 29, 300 ft.	0.707
	(525A-0300 and On)	
	Above 29, 124 ft.	0.722
Manoeuvring	$V_A$	
	(525A-0001 through 525A-0299)*	197
	(525A-0300 and On)*	186
	* See AFM for variations with weight and altitude	
Flaps Extended	$V_{FE}$	
	15 degrees	199
	35 degrees	160
	60 degrees	prohibited in flight
	Maximum speed with flaps	
	failed to 60 degrees	140
	(ground flaps)	(Emergency only)
Landing Gear Operating	$V_{LO}$	
	Extend	199
	Retract	199
Minimum Control Air	$V_{MCA}$	
	(525A-0001 through 525A-0299)	90 (Flaps 0°)
	(525A-0001 through 525A-0299)	82 (Flaps 15°)
	(525A-0300 and On)	84 (Flaps 0°)
	(525A-0300 and On)	77 (Flaps 15°)

11. Maximum Operating Altitude: 13, 716 m (45,000 ft)

12. All-weather Operations Capability: VFR Day and Night  
IFR Day and Night  
RVSM (See Note 7)  
Flight into known icing(See Limitations Section of EASA Approved Airplane Flight Manual)

13. Maximum Weights:

Aircraft Serial Number	Max. Zero Fuel Weight	Max. Ramp Weight	Max. Take-Off Weight	Max. Landing Weight
525A-0001 through 525A-0299	4,218 kg (9,300 lbs)	5,670 kg (12,500 lbs.)	5,613 kg (12,375 lbs.)	5,216 kg (11,500 lbs.)

525A-0300 and On	4,400 kg (9,700 lbs)	5,727 kg (12,625 lbs.)	5,670 kg (12,500 lbs.)	5,228 kg (11,525 lbs.)
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14. Centre of Gravity Range: (Gear Extended)\*

(525A-0001 through 525A-0299):

Allowable Forward C.G at 5,670 kg (12,500 lbs)	F.S. 277.03
Allowable Forward C.G at 5,613 kg (12,375 lbs)	F.S. 276.89
Allowable Forward C.G at 4,173 kg (9,200 lbs)	F.S. 273.33
Allowable Forward C.G up to 3,402 kg (7,500 lbs)	F.S. 277.99
Aft C.G Up to 5,670 kg (12,500 lbs)	F.S. 283.72

(525A-0300 and On):

Allowable Forward C.G at 5,727 kg (12,625 lbs)	F.S. 277.17
Allowable Forward C.G at 5,670 kg (12,500 lbs)	F.S. 277.03
Allowable Forward C.G at 4,173 kg (9,200 lbs)	F.S. 273.33
Allowable Forward C.G up to 3,856 kg (7,500 lbs)	F.S. 277.99
Aft C.G Up to 5,727 kg (12,625 lbs)	F.S. 283.73

\* Straight line variation between given points

15. Datum: 94.0 in forward of the front face of the forward pressure bulkhead

16. Control surface deflections:	
Elevator	Up 18.5 +/- 0.5 degrees Down 15 +/-1 degrees
Elevator Trim Tab	Up 9 +/-1 degrees Down 23 +/-1 degrees
Rudder	Right 35 +/-1 degrees Left 35 +/-1 degrees
Rudder Trim Tab	Right 20 +/-1 degrees Left 20 +/-1 degrees
Aileron	2.0 +/- 0.5 degrees (Neutral position TE Up) Up from neutral 23.5 +/-1 degrees Down from neutral 20.5 +/-1 degrees
Aileron Trim Tab	Up 20 +/-1 degrees Down 18 +/-1 degrees
Wing Flap	Up 0 +/-1 degrees T.O./Apr. 15 +/-1 degrees Land 35 +/-1 degrees Ground 60 +/-1 degrees

Speed Brakes - Upper	Up 0 to 49 +/-2 degrees
Speed Brakes - Lower	Down 0 to 68 +/-2 degrees
Thrust Attenuators	Stow - 4.5 +/- 0.3degrees (525A-0001 through 525A-0299) (Ref to Engine Long. Axis)
Thrust Attenuators	Deploy 65 +/-1 degrees (525A-0001 through 525A-0299) (Ref to Engine Long. Axis)
Thrust Attenuators not applicable (525A-0300 and On) See Airplane Maintenance Manual for rigging instructions.	

17. Levelling Means: Longitudinal- Place 525A Levelling Tool across inboard crew seat rails at approximately FS 148. Ensure Levelling Tool is parallel to fuselage station plane and is resting solidly on seat rails. Position inclinometer on Levelling Tool with base perpendicular to the long axis of the Levelling Tool at BL 0.0.  
Lateral- Place 525A Levelling Tool across inboard crew seat rails at approximately FS 148. Ensure Levelling Tool is parallel to fuselage station plane and is resting solidly on seat rails. Position inclinometer on Levelling Tool with base parallel to the long axis of the Levelling Tool.
18. Minimum Flight Crew: (see note 5 for cockpit equipment/ arrangement restrictions): One pilot (in the left seat) plus additional equipment as specified in the Kinds of Operation Equipment List (KOEL) contained in the Limitations Section of the FAA Approved Airplane Flight Manual or One pilot and one co-pilot
19. Maximum Passenger Seating Capacity: 8 Passengers
20. Baggage/Cargo Compartments:
- (525A-0001 through 525A-0299)
- |                  |                     |
|------------------|---------------------|
| Nose Compartment | 181.4 kg (400 lbs.) |
| Aft Cabin        | 45.4 kg (100 lbs.)  |
| Tailcone         | 272.2 kg (600 lbs.) |
- (525A-0300 and On)
- |                  |                     |
|------------------|---------------------|
| Nose Compartment | 181.4 kg (400 lbs.) |
| Tailcone         | 272.2 kg (600 lbs.) |
21. Wheels and Tyres:
- (525A-0001 through 525A-0299)
- |                         |  |
|-------------------------|--|
| Main Landing Gear (MLG) | 22 x 7.75-10 (Michelin 026-528-0, Goodyear 277K28-1) |
| Nose Landing Gear (NLG) | 18 x 4.4 (Michelin 030-611-0, Goodyear 184F68-1)     |
- (525A-0300 and On)

Main Landing Gear (MLG) 22 x 7.75-10 (Michelin 026-528-0, Goodyear 277K28-1)  
Nose Landing Gear (NLG) 18 x 4.4 (Michelin 031-613-8, Goodyear 184F68-1)

22. (Reserved):

#### **B.IV. Operating and Service Instructions**

1. Flight Manual: Airplanes must be operated according to the FAA Approved Airplane Flight Manual, Part number 525AFM-04(or later approved revision for serials 0001 through 0299), 525AFMA-00 (or later approved revision for serials 0300 and on).
2. Technical Manual: Model 525A Maintenance Manual, 525AMM-05 or later approved revision. See Chapter 4, "Airworthiness Limitations" for inspections, mandatory retirement life information and other requirements for continued airworthiness. "Airworthiness Limitations" may not be changed without the approval of EASA.
3. (reserved)

#### **B.V. Notes:**

1. Current weight and balance information, including list of equipment included in certificated empty weight, and loading instructions are provided for each airplane in the FAA Approved Airplane Flight Manual (AFM) at the time of original certification.

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

Unusable Fuel	(525A-0001 and On)	76.7 lb at +300.13 in
Full oil	(525A-0001 through 525A-0299)	15.07 lb at +364.3 in
Full oil	(525A-0300 and On)	18.4 lb at +371.44 in
Hydraulic Fluid	(525A-0001 through 525A-0299)	18.9 lb at +278.0 in
Hydraulic Fluid	(525A-0300 and On)	25.9 lb at +296.08 in
Anti-ice Fluid	(525A-0001 and On)	3.4 lb at +91.5 in

2. Airplanes must be operated according to the FAA Approved Airplane Flight Manual (AFM), part number 525AFM-04 (or later approved revision for serials -0001 through -0299); 525AFMA-00 (or later approved revision for serials -0300 and on). Required placards and markings are listed in Chapter Eleven (11) of Maintenance Manual, part number 525AMM-05 (or later approved revision).
3. See Maintenance Manual Chapter Four (4) "Airworthiness Limitations" for mandatory component retirement life information.
4. All replacement seats (crew and passenger), although they may comply with TSO C39, must also be demonstrated to comply with 14 CFR §§23.321, 23.395, 23.561, 23.562, and 23.785.

The foam cushion buildup of all seats (crew and passenger) may not be altered. Any deviations in the foam construction or stiffness must be demonstrated by test to comply with the listed 14 CFR 23 paragraphs.

The RH side facing seat lap belt shall have a buckle which opens from left to right, thereby preventing the buckle's own inertia from causing to open. Any other configuration must be verified by dynamic test.

5. Approval for operation with a minimum crew of one pilot is based upon the cockpit equipment installation and arrangement evaluated during FAA certification testing. No significant changes may be made to the installed cockpit equipment or arrangement (EFIS, autopilot, avionics, etc.), except as permitted by the approved MMEL, without prior concurrence from the responsible NAA.
6. Model 525A airplanes have been approved for high altitude operations (altitudes above 41,000 feet), by Special Conditions. Any modifications to the pressure vessel must be approved in accordance with the requirements as shown in the certification basis. This includes modifications which could result in a pressure vessel opening, either through crack-growth or antenna loss, greater than 3.00 sq.in.
7. Certain airplane Serial Numbers meet the initial airworthiness requirements for operation in Reduced Vertical Separation Minimum (RVSM) airspace. See table below:

S/N 525A-0001 through 525A-0299	Airplanes that have received factory installation* of optional Ametek AM-250 copilot's altimeter or; Airplanes that have received factory installation* of optional Collins Pro Line 21 copilot's Air Data Computer and Primary Flight Display; or Airplanes that have accomplished Cessna Service Bulletin SB525A-34-01.
S/N 525A-0300 and On	All airplanes are equipped with Collins Pro Line 21 dual Air Data Computers and pilot's and copilot's primary Flight Displays as standard equipment.

\* Equipments installed by the Cessna factory will be identified in the individual airplane equipment list. Each operator must obtain RVSM operating approval directly from the FAA.

8. The Model 525A (525-0300 and On) is approved for One Engine Inoperative 10 minutes thrust capability with the Williams International FJ44-3A-24 engine, per FAA Policy Memo "Guidance of Engine Operation at Takeoff Thrust/ Power for Ten-Minutes in a One- Engine Inoperative Situation for Cessna Model 525A Airplane" Project AT4141WI-A, dated September 8, 2005, from Standards Office, Small Airplane Directorate and Standards Office, Engine and Propeller Directorate.
9. The Model 525A S/N 0001 to 0299 is also known as Citation Jet 2 (CJ2), Model 525A S/N 0300 and on is known as Citation Jet2+ (CJ2+).

## **SECTION C: 525B**

### **C.I. General**

1. Data Sheet No.: EASA IM A.078 Issue 2
2. a) Type: 525  
b) Model: 525B  
c) Variant: N/A
3. Airworthiness Category: CS 23 Normal Category
4. Type Certificate Holder: CESSNA AIRCRAFT COMPANY  
P.O. BOX 7704  
WICHITA, KANSAS 67277  
USA
5. Manufacturer: CESSNA AIRCRAFT COMPANY  
P.O. BOX 7704  
WICHITA, KANSAS 67277  
USA
6. Certification Application Date: 28 May 2003 for 525B-0001 and on
7. FAA Type Certificate Date: 15 October 2004
8. EASA Type Certificate Date: 16 June 2006

### **C.II. EASA Certification Basis**

1. Reference Date for determining the applicable requirements: 28 May 2003
2. Airworthiness Requirements: As defined in CRI A-01

Compliance with ice protection has been demonstrated in accordance with CS 23.1416 and 23.1419 (See Note 9)

3. Special Conditions:

CRI A-06	CS23 Jets beyond 5670 kg (12500 lbs)
CRI B-01	Human Factors
CRI B-02	CS23 Jet requirements
CRI B-03	High Altitude Operation
CRI E-01	FADEC Integration
CRI F-01	Protection from the Effects of HIRF

- |   |   |  |
|---|---|--|
|   | CRI F-03  | Protection from the Indirect Effects of Lightning strike |
|   | CRI F-04  | Equipment Systems and Installations                      |
|   | CRI F-05  | Databases and Configuration Files                        |
|   | CRI F-06  | Digital Devices Design Assurance                         |
| 4. (reserved):                                  |   |  |
| 5. Deviations:                                  |   |  |
| 6. Equivalent Safety Findings:                  |   |  |
|   | CRI E-02  | Digital reading N2                                       |
|   | CRI D-01  | Cabin Pressurisation high altitude TO/L                  |
|   | CRI D-02  | Cabin Pressurisation Excursion                           |
|   | CRI D-03  | Passenger Entry Door                                     |
|   | CRI D-04  | Aisle Width  |
|   | CRI D-05  | No Smoking Placard letter size                           |
|   | CRI F-08  | Passenger Oxygen Dispensing Unit                         |
| 7. Requirements elected to comply:              |   |  |
| 8. Environmental Standards:                     | ICAO Annex 16, Volume I<br>ICAO Annex 16, Volume II, Part II<br>(further details refer to TCDSN.IM.078) |  |
| 9. (Reserved) Additional National Requirements: |   |  |
| 10. (Reserved)                                  |   |  |

### **C.III. Technical Characteristics and Operational Limitations**

1. Type Design Definition: Cessna Airplane Assembly Drawing Number 6300300, Document No. A1WI, latest FAA approved revision.
2. Description: Low wing aircraft with retractable tricycle landing gear, T-tail, pressurised cabin, and two turbofan engines pylon mounted on the rear fuselage.
3. Equipment: Equipment List according to AFM, 525BFM-00 or later approved revision.  
(See Note 2)
4. Dimensions:

Span	16.13 m(52ft. 11in)
Length	15.29 m(50ft. 2in)
Height	4.62 m(15ft. 2in)

Wing Area	27.32 sq.m(294 sq.ft)	
5. Engine:		
5.1.1 Model:	(525B-0001 and On) Two Williams International, L.L.C FJ44-3A turbofans	
5.1.2 Type Certificate:	TCDS IM.E.016	
5.1.3 Limitations:	Static thrust standard day, sea level: Take off: (525B-0001 and On)	1, 279 kg (2,820 lbs)
6. (reserved)		
7. (reserved)		
8. Fluids:		
8.1 Fuel:	(525B-0001 and On) Commercial kerosene Jet A, Jet A-1, Jet 3, JP-5, or JP-8 (See Note 1)	
8.2 Oil:	Mobil Jet II MIL-L-23699 Mobil 254 MIL-L-23699	
8.3 Coolant:	Not applicable	
9. Fluid capacities:		
9.1 Fuel:	Total usable: 4,710 lb (703 gal/ 2661, 1 litres). Two wing tanks with 2,355 lbs. (351 gal/ 1328, 6 litres) usable each (See Note 3 for unusable fuel)	
9.2 Oil:	(525B-0001 and On) 3.75 quarts usable each engine (See Note 1)	
9.3 Coolant system capacity:	Not applicable	
10. Air Speeds:		
Maximum Operating	$V_{MO}$	
	Sea Level to 8,000 feet	257
	8,000 ft to 29,300 ft	275
	$M_{MO}$	

	Above 29, 300 ft.	0.72
Manoeuvring	$V_A$ (525B-0001 and On)*	205
	* See AFM for variations with weight and altitude	
Flaps Extended	$V_{FE}$	
	Flaps 15°	198
	Flaps 35°	160
	Maximum speed with flaps failed to 60 degrees (ground flaps)	140 (Emergency only)
Landing Gear Operating	$V_{LO}$ (525B-0001 and On) (525B-0001 and On)	195 (Extending) 195 (Retracting)
Landing Gear Extended	$V_{LE}$	195
Minimum Control Air	$V_{MCA}$ (525B-0001 and On) (525B-0001 and On)	88 (Flaps 0°) 81 (Flaps 15°)
11. Maximum Operating Altitude:	13, 716 m (45,000 ft)	
12. All-weather Operations Capability:	VFR Day and Night IFR Day and Night RVSM (See Note 7) Flight into known icing(See Limitations Section of EASA Approved Airplane Flight Manual)	

13. Maximum Weights:

Aircraft Serial Number	Max. Zero Fuel Weight	Max. Ramp Weight	Max. Take- Off Weight	Max. Landing Weight
525B-0001 and On	4,767 kg (10,510 lbs)	6,382 kg (14,070 lbs.)	6,291 kg (13,870 lbs.)	5,783 kg (12,750 lbs.)

14. Centre of Gravity Range: (Gear  
Extended)\*

(525B-0001 and On):

Allowable Forward C.G at 6,382 kg      F.S. 298.90  
(14,070 lbs)

Allowable Forward C.G at 4,400 kg (9,700 lbs)	F.S. 293.90
Allowable Forward C.G at 4,082 kg (9,000 lbs)	F.S. 293.90
Allowable Forward C.G up to 3,629 kg (8,000 lbs)	F.S. 298.70
Allowable Forward C.G up to 3,629 kg (8,000 lbs)	F.S. 304.70
Aft C.G Up to 6,382 kg (14,070 lbs)	F.S. 302.50
Aft C.G Up to 5,897 kg (13,000 lbs)	
Aft C.G Up to 3,629 kg (8,000 lbs)	

\* Straight line variation between given points

15. Datum: 94.0 in forward of the front face of the forward pressure bulkhead

16. Control surface deflections:

Elevator	Up 20.5 +/- 0.5 degrees Down 15 +/-1 degrees
Elevator Trim Tab	Up 9.0 +/-1 degrees Down 17.0 +/-1 degrees
Rudder	Right 27.0 +/-1 degrees Left 27.0 +/-1 degrees
Rudder Trim Tab	Right 20.0 +/-1 degrees Left 20.0 +/-1 degrees
Aileron	Up 23.5 +/- 1.0 degrees Down 20.5 +/-1 degrees
Aileron Trim Tab	Up 20 +/-1 degrees Down 18 +/-1 degrees
Wing Flap	Up 0 +/-1 degrees T.O./Appr. 15 +/-1 degrees Land 35 +/-1 degrees Ground 60 +/-1 degrees
Speed Brakes – Upper	Up 0 to 49.0 +/-2 degrees
Speed Brakes – Lower	Down 0 to 68.0 +/-2 degrees

See Airplane Maintenance Manual for rigging instructions.

17. Levelling Means: Longitudinal- Place 525 Levelling Tool across inboard crew seat rails at approximately FS 148. Ensure Levelling Tool is parallel to fuselage station plane and is resting solidly on seat rails. Position inclinometer on Levelling Tool with base perpendicular to the long axis of the Levelling Tool. Adjust the nose gear jack to level aircraft  
Lateral- Place 525 Levelling Tool across inboard crew

seat rails at approximately FS 148. Ensure Levelling Tool is parallel to fuselage station plane and is resting solidly on seat rails. Position inclinometer on Levelling Tool with base parallel to the long axis of the Levelling Tool. Adjust the main gear jack to level aircraft.

18. Minimum Flight Crew: (see note 2 for cockpit equipment/ arrangement restrictions): One pilot (in the left seat) plus additional equipment as specified in the Kinds of Operation Equipment List (KOEL) contained in the Limitations Section of the FAA Approved Airplane Flight Manual or One pilot and one co-pilot

19. Maximum Passenger Seating Capacity: 8 Passengers

20. Baggage/Cargo Compartments:

(525B-0001 and On)

Nose Compartment	181.4 kg (400 lbs.)
Aft Cabin	45.4 kg (100 lbs.)
Tailcone	272.2 kg (600 lbs.)

21. Wheels and Tyres:

(525B-0001 and On)

Main Landing Gear (MLG)	H22 x 8.25-10 (Goodyear 229K28-2, Michelin 026-618-0)
Nose Landing Gear (NLG)	18 x 4.4 (Goodyear 184F08-1, Michelin 031-613-8)

22. (Reserved):

#### **C.IV. Operating and Service Instructions**

1. Flight Manual: Airplanes must be operated according to the FAA Approved Airplane Flight Manual, Part number 525BFM-00 (or later approved revision).
2. Technical Manual: Model 525B Maintenance Manual, 525BMM00 or later approved revision. See Chapter 4, "Airworthiness Limitations" for inspections, mandatory retirement life information and other

requirements for continued airworthiness. "Airworthiness Limitations" may not be changed without the approval of EASA.

3. (reserved)

**C.V. Notes:**

1. Current weight and balance information, including list of equipment included in certificated empty weight, and loading instructions are provided for each airplane in the FAA Approved Airplane Flight Manual (AFM) at the time of original certification.

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

Unusable Fuel	49.68 lb at +296.80 in
Full oil	18.40 lb at +401.44 in
Hydraulic Fluid	15.09 lb at +318.44 in
Anti-ice Fluid	3.40 lb at +91.5 in

2. Approval for operation with a minimum crew of one pilot is based upon the cockpit equipment installation and arrangement evaluated during FAA certification testing. No significant changes may be made to the installed cockpit equipment or arrangement (EFIS, autopilot, avionics, etc.), except as permitted by the approved MMEL, without prior concurrence from the responsible Aircraft Certification Office.
3. Required placards and markings are listed in chapter Eleven (11) of Maintenance Manual, part number 525BMM00 (or later approved revision).
4. All replacement seats (crew and passenger), although they may comply with TSO C39, must also be demonstrated to comply with CS 23.321, 23.395, 23.561, 23.562, and 23.785.

The foam cushion buildup of all seats (crew and passenger) may not be altered. Any deviations in the foam construction or stiffness must be demonstrated by test to comply with the listed CS 23 paragraphs.

The RH side facing seat lap belt shall have a buckle which opens from right to left and the LH side facing belted toilet lap belt shall have a buckle which opens from left to right, thereby preventing the buckle's own inertia from causing it to open. Any other configuration must be verified by dynamic test.

5. Model 525B airplanes have been approved for high altitude operations (altitudes above 41, 000 feet), by Special Conditions. Any modifications to the pressure vessel must be approved in accordance with the requirements as shown in the certification basis. This includes modifications which could result in a pressure vessel opening, either through crack-growth or antenna loss, greater than 3.00 sq.in.

6. Certain airplane Serial Numbers meet the initial airworthiness requirements for operation in Reduced Vertical Separation Minimum (RVSM) airspace. See table below:

S/N 525B-0001 and On	All airplanes are equipped with Collins Pro Line 21 dual Air Data Computers and pilot's and copilot's Primary Flight Displays as standard equipment.
----------------------	--

Each operator must obtain RVSM operating approval directly from the FAA.

7. The Model 525B is approved for One Engine Inoperative 10 minutes thrust capability with the Williams International FJ44-3A engine, per FAA Policy Memo "Guidance of Engine Operation at Takeoff Thrust / Power for Ten-Minutes in a One- Engine Inoperative Situation for Cessna Model 525B Airplane" Project AT3268WI-A, dated April 14, 2004, from Standards Office, Small Airplane Directorate and Standards Office, Engine and Propeller Directorate.
8. Flight into known icing is approved for the following Serial Number effectivity. S/N 525B-0001; S/N 525B-0002 thru -0012 incorporating Service Bulletin SB525B-30-01; and S/N 525B-0013 and on.

## **SECTION D: 525C**

### **D.I. General**

1. Data Sheet No.: EASA IM A.078 Issue 5
2. a) Type: 525  
b) Model: 525C  
c) Variant: N/A
3. Airworthiness Category: CS 23 Normal Category
4. Type Certificate Holder: CESSNA AIRCRAFT COMPANY  
P.O. BOX 7704  
WICHITA, KANSAS 67277  
USA
5. Manufacturer: CESSNA AIRCRAFT COMPANY  
P.O. BOX 7704  
WICHITA, KANSAS 67277  
USA
6. Certification Application Date: 17 JANUARY 2007
7. FAA Type Certificate Date: 12 March 2010
8. EASA Type Certificate Date: 18 May 2011

### **D.II. EASA Certification Basis**

1. Reference Date for determining the applicable requirements: 17 JANUARY 2007
2. Airworthiness Requirements: As defined in CRI A-01

Compliance with ice protection has been demonstrated in accordance with CS 23.1416 and 23.1419 (See Note 9).

3. Special Conditions:
  - CRI B-01 Performance and Handling
  - CRI B-02 Flight High Speed Characteristics
  - CRI B-03 Stall Speed Determination
  - CRI C-01 Sonic Fatigue
  - CRI C-02 Pressurisation in Non-Pressurized Areas
  - CRI C-03 Speed Margins
  - CRI C-04 Yawing Manoeuvre
  - CRI C-05 Dynamic Response

- CRI C-06 Out of Trim Characteristics
  - CRI C-07 Round-the-clock Gust
  - CRI D-01 Take-Off Warning System
  - CRI D-02 Extension and Retraction System
  - CRI D-03 Wheels
  - CRI D-04 Brakes and Braking Systems
  - CRI D-05 Doors
  - CRI D-06 Bird Strike
  - CRI D-09 High Altitude Operation
  - CRI D-54 Fire protection of engine mounts
  - CRI D-101 Side facing divan
  - CRI E-01 Fuel Tank Crashworthiness
  - CRI E-04 Lines, Fittings and Components
  - CRI E-06 Powerplant Fire Extinguishing Systems
  - CRI E-10 Fuel Tank Ignition Prevention
  - CRI E-11 Cold Soaked Fuel
  - CRI F-01 Battery Endurance Requirements
  - CRI F-02 Hydraulic Systems
  - CRI F-03 Interaction of Systems and Structures
  - CRI F-52 Protection from effect of HIRF
  - CRI F-54 Protection from the effects to lightning strike, indirect effects
  - CRI F-56 FADEC Integration
  - CRI F-58 Use of LiPo-Batteries
  - CRI O-04 Towbarless Towing Loads
  - CRI F-58 Lithium Ion Battery Installation
  - CRI F-60 Oxygen Equipment Qualification above 40000 ft.
4. (reserved)
5. Deviations:
6. Equivalent Safety Findings:
- CRI C-08 Ground Loads
  - CRI F-57 Use of LED Lighting
  - CRI F-107 Pitot heating
7. Requirements elected to comply:
8. Environmental Standards: ICAO Annex 16, Volume I  
ICAO Annex 16, Volume II, Part II  
(further details refer to TCDSN.IM.078)
9. (Reserved) Additional National Requirements:
10. (Reserved)

### **D.III. Technical Characteristics and Operational Limitations**

1. Type Design Definition: Cessna Airplane Assembly Drawing Number 7100000, Document No. A1WI, latest FAA approved revision.
2. Description: Low wing aircraft with retractable tricycle landing gear, T-tail, pressurised cabin, and two turbofan engines pylon mounted on the rear fuselage.
3. Equipment: Equipment List according to AFM, 525CFM-00 or later approved revision.  
(See Note 2)
4. Dimensions:

Span	15.37 m(50ft. 5in)
Length	16.26 m(53ft. 4in)
Height	4.67m (15ft. 4in)
Wing Area	30.66 sq.m (330.0 sq.ft.)
5. Engine:
  - 5.1.1 Model: (525C-0001 and On)  
Two Williams International, L.L.C FJ44-4A turbofans
  - 5.1.2 Type Certificate: TCDS IM.E.016
  - 5.1.3 Limitations: Static thrust standard day, sea level:  
Take off:  
(525C-0001 and On) 1,642 kg (3,621 lbs)
6. (reserved)
7. (reserved)
8. Fluids:
  - 8.1 Fuel: (525C-0001 and On)  
Commercial kerosene Jet A, Jet A-1, JP-5, or JP-8
  - 8.2 Oil: Mobil Jet II MIL-L-23699  
Mobil 254 MIL-L-23699
  - 8.3 Coolant: Not applicable
9. Fluid capacities:
  - 9.1 Fuel: Total usable: 5828 lb (869.8 gal/ 3292.5 litres). Two wing tanks with 2,914 lbs. (434.9 gal/ 1646.1 litres) usable each  
(See Note 1 for unusable fuel)

9.2 Oil:	(525C-0001 and On) 4.8 quarts usable each engine (See Note 1)	
9.3 Coolant system capacity:	Not applicable	
10. Air Speeds:		
Maximum Operating	$V_{MO}$	
	Sea Level to 8,000 feet	260
	8,000 ft to 28,000 ft	305
	$M_{MO}$	
	Above 28, 000 ft.	0.77 $M_I$
Maximum Operating Manoeuvring	$V_O$	185
	* See AFM for variations with weight and altitude	
Flaps Extended	$V_{FE}$	
	Flaps 15°	200
	Flaps 35°	160
	No Ground Flaps	
Landing Gear Operating	$V_{LO}$	
	(525C-0001 and On) (Extending)	200
	(525C-0001 and On) (Retracting)	200
Landing Gear Extended	$V_{LE}$	200
Minimum Control Ground	$V_{MCG}$	88
Minimum Control Air	$V_{MCA}$	
	Flaps 0° (take off)	94
	Flaps 15° (take off & approach)	85
11. Maximum Operating Altitude:	13, 716 m (45,000 ft)	
12. All-weather Operations Capability:	VFR Day and Night IFR Day and Night RVSM (See Note 7)	

Flight into known icing(See Limitations Section of EASA  
Approved Airplane Flight Manual)

13. Maximum Weights:

Aircraft Serial Number	Max. Zero Fuel Weight	Max. Ramp Weight	Max. Take-Off Weight	Max. Landing Weight
525C-0001 and On	5,606 kg (12,360 lbs)	7,743 kg (17,070 lbs.)	7,688 kg (16,950 lbs.)	7,030 kg (15,500 lbs.)

14. Centre of Gravity Range: (Gear Extended)\*

(525C-0001 and On):

Allowable Forward C.G at 7,743 kg (17,070 lbs)	F.S. 310.72
	F.S. 309.23
Allowable Forward C.G up to 7,370kg (16,250 lbs)	F.S. 307.98
	F.S. 307.31
Allowable Forward C.G up to 6,917 kg (15,250 lbs)	F.S. 306.65
	F.S. 312.06
Allowable Forward C.G up to 6,577 kg (14,500 lbs)	F.S. 317.89
	F.S. 316.23
Allowable Forward C.G up to 4,309 kg (9,500 lbs)	F.S. 317.06

Aft C.G Up to 7,743 kg (17,070 lbs)

Aft C.G Up to 6,577 kg (14,500 lbs)

Aft C.G Up to 4,309 kg (9,500 lbs)

\* Straight line variation between given points

15. Datum: 94.0 in forward of the front face of the forward pressure bulkhead

16. Control surface deflections:

Elevator	Up 25.5 +/- 0.5 degrees Down 12.0 +/-1 degrees
Elevator Trim Tab	Up 6.0 +/-1 degrees Down 14.0 +/-1 degrees
Rudder	Right 32.0 +/-1 degrees

Rudder Trim Tab	Left 32.0 +/-1 degrees Right 20.0 +/-1 degrees
Aileron	Left 20.0 +/-1 degrees Up 23.5+/- 1.0 degrees Down 20.5 +/-1 degrees
Aileron Trim Tab	Up 19.0 +/-1 degrees Down 19.0 +/-1 degrees
Wing Flap	Up 0 +/-1 degrees T.O./Appr. 15 +/-1 degrees Land 35 +/-1 degrees
Speed Brakes - Upper	Up 0 to 40.0 +/-2 degrees
Speed Brakes - Lower	Down 0 to 35.4 +/-2.5 degrees
Ground Spoilers- Inboard	Up 55.0 +/- 2.0 degrees
Center	Up 55.0 +/- 2.0 degrees
Outboard	Up 55.0 +/- 2.0 degrees

See Airplane Maintenance Manual for rigging instructions.

17. Levelling Means: Longitudinal- Place 525 Levelling Tool across inboard crew seat rails at approximately FS 145.5. Ensure Levelling Tool is parallel to fuselage station plane and is resting solidly on seat rails. Position inclinometer on Levelling Tool with base perpendicular to the long axis of the Levelling Tool. Adjust the nose gear jack to level aircraft
- Lateral- Place 525 Levelling Tool across inboard crew seat rails at approximately FS 145.5. Ensure Levelling Tool is parallel to fuselage station plane and is resting solidly on seat rails. Position inclinometer on Levelling Tool with base parallel to the long axis of the Levelling Tool. Adjust the main gear jack to level aircraft.
18. Minimum Flight Crew: (see note 5 for cockpit equipment/ arrangement restrictions): One pilot (in the left seat) plus additional equipment as specified in the Kinds of Operation Equipment List (KOEL) contained in the Limitations Section of the FAA Approved Airplane Flight Manual  
or  
One pilot and one co-pilot
19. Maximum Passenger Seating Capacity: 9 Passengers
20. Baggage/Cargo Compartments:

(525C-0001 and On)

Nose Compartment	181.4 kg (400 lbs.)
RH Fwd Equipment/ Storage Cabinet	18.1 kg (40 lbs.)
Tailcone	272.2 kg (600 lbs.)

21. Wheels and Tyres:

(525C-0001 and On)

Main Landing Gear (MLG)	H22 x 8.25-10 (Michelin 026-618-0)
Nose Landing Gear (NLG)	18 x 4.4 (Goodyear 184F08-1, Michelin 031-613-8)

22. (Reserved):

#### **D.IV. Operating and Service Instructions**

1. Flight Manual: Airplanes must be operated according to the FAA Approved Airplane Flight Manual, Part number 525CFM-00(or later approved revision).
2. Technical Manual: Model 525C Maintenance Manual, 525CMM00 or later approved revision. See Chapter 4, "Airworthiness Limitations" for inspections, mandatory retirement life information and other requirements for continued airworthiness. "Airworthiness Limitations" may not be changed without the approval of EASA.
3. (reserved)

#### **D.V. Notes:**

1. Current weight and balance information, including list of equipment included in certificated empty weight, and loading instructions are provided for each airplane in the FAA Approved Airplane Flight Manual (AFM) at the time of original certification.

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

Unusable Fuel	33.6 lb. at +313.44 in.
Full oil	24.16 lb. at +424.64 in.

Hydraulic Fluid                      25.12 lb. at +355.49 in.

2. Approval for operation with a minimum crew of one pilot is based upon the cockpit equipment installation and arrangement evaluated during FAA certification testing. No significant changes may be made to the installed cockpit equipment or arrangement (EFIS, autopilot, avionics, etc.), except as permitted by the approved MMEL, without prior approval from the responsible Aircraft Certification Office.
3. Required placards and markings are listed in Chapter Eleven (11) of Maintenance Manual, part number 525CMM-00 (or later approved revision).
4. All replacement seats (crew and passenger), although they may comply with TSO C127, must also be demonstrated to comply with CS 23.321, 23.395, 23.561, 23.562, and 23.785.

The foam cushion buildup of all seats (crew and passenger) may not be altered. Any deviations in the foam construction or stiffness must be demonstrated by test to comply with the listed CS 23 paragraphs.

The RH side facing seat lap belt shall have a buckle which opens from right to left and the LH side facing belted toilet lap belt shall have a buckle which opens from left to right, thereby preventing the buckle's own inertia from causing it to open. Any other configuration must be verified by dynamic test.

5. Model 525C airplanes have been approved for high altitude operations (altitudes above 41,000 feet), by Special Conditions. Any modifications to the pressure vessel must be approved in accordance with the requirements as shown in the certification basis. This includes modifications which could result in a pressure vessel opening, either through crack-growth or antenna loss, greater than 3.00 sq. in.
6. Per the approved Type Design, S/N 525C-0001 and On are considered to be compliant with the applicable RVSM aircraft approval requirements contained in EU OPS 1 § 1. However, each operator must obtain RVSM operating approval directly from the NAA.
7. The Model 525C is approved for One Engine Inoperative 10 minutes thrust capability with the Williams International FJ44-4A engine, per FAA Policy Memo Statement on Approval for 10-Minute rated Takoff Thrust/Power during Takeoff with One-Engine Inoperative (OEI) under 14 CFR Part 23 and 14 CFR Part 33 [PS-ANE33-ACE23-2006-1] dated August 30<sup>th</sup>, 2006.
8. Flight into known icing is approved for the following Serial Number effectivity. S/N 525C-0001 and On.

## **ADMINISTRATIVE SECTION**

### I. Acronyms

A.C. – Advisory Circular  
A.D. – Airworthiness Directives  
AFM – Airplane Flight Manual  
C.G. – Centre of Gravity  
CFR – Code of Federal Regulations  
CRI – Certification Review Items  
CS – Certification Specifications  
EASA – European Aviation Safety Agency  
EFIS – Electronic Flight Information System  
EU – European Union  
F.S. – Frame Status  
FAA – Federal Aviation Administration  
FADEC – Full Authority Digital Engine Control  
FT – Feet  
GAL - Gallons  
ICAO – International Civil Aviation Organization  
IFR – Instrument Flight Rules  
KCAS – Knots Calibrated Air Speed  
KG – Kilo Grams  
KIAS – Knots Indicated Air Speed  
LBS – Pounds  
MIL – Military Standard  
MMEL – Master Minimum Equipment List  
N.A.A. – National Aviation Authority  
RVSM – Reduced Vertical Separation Minimum  
S.B. – Service Bulletin  
T.O. – Take Off  
TC – Type Certificate  
TCDS – Type Certificate Data Sheet  
TCDSN – Type Certificate Data Sheet - Noise.  
TSO – Technical Standards Order  
VFR – Visual Flight Rules

### II. Type Certificate Holder Record

CESSNA AIRCRAFT COMPANY  
P.O. BOX 7704  
WICHITA, KANSAS 67277  
USA

### III. Change Record

<b>Issue</b>	<b>Date</b>	<b>Changes</b>
Issue 01	13 March 2006	Initial Release
Issue 02	16 June 2006	Addition of Model 525B
Issue 03	10 July 2006	Addition of Model 525A Serial Numbers (525A-0300 and On)
Issue 04	14 March 2008	Corrections
Issue 05	18 May 2011	Addition of Model 525C, use of new EASA TCDS Format