

No.50
Revision 8
Textron Aviation Inc.
525
525A
525C
March 20, 2023

[illegible]

(525-0685 and 525-0800 and On)

Fuel Type	Specification
Jet A	ASTM D1655
Jet A1	ASTM D1655
Jet 3	GB6537
JP-5	MIL-DTL-5624
JP-8	MIL-DTL-83133
RT	GOST 10227
RT	GSTU 320.00149943.007
TS-1	GSTU 320.00149943.011
TS-1	GOST 10227

Engine Limits Static thrust standard day, sea level

Takeoff	(525-0360 through 525-0599)	1,900 lb.
Takeoff	(525-0685 and 525-800 and on)	1,965 lb.

Max. permissible engine rotor operating speeds (Takeoff and Maximum Continuous)

N1 (fan) (525-0360 through 525-599)	104.4% (100% = 17,245 r.p.m.)
N2 (Gas Gen.) (525-0360 through 525-599)	99.3% (100% = 41,200 r.p.m.)
N1 (fan) (525-685 and 525-0800 and On)	104.7% (100% = 17,245 r.p.m.)
N2 (Gas Gen.) (525-685 and 525-0800 and On)	100.0% (100% = 41,200 r.p.m.)

Max. permissible interturbine gas temperatures

Takeoff (525-0360 through 525-599)	820 Degrees C
Max. Continuous (525-0360 through 525-599)	796 Degrees C
Transient (starting 5 sec.) (525-0360 through 525-599)	1000 Degrees C
Takeoff (525-685 and 525-0800 and On)	855 Degrees C (5 min, 10 min OEI)
Max. Continuous (525-685 and 525-0800 and On)	835 Degrees C
Transient (starting 15 sec.) (525-685 and 525-0800 and On)	1000 Degrees C

Airspeed limitations

V _{mo} (maximum operating)	
Sea level to 30,500 ft.	263 KIAS (260 KCAS)
M _{mo} above 30,500 ft.	0.71 M _I (0.70 Mach calibrated)
V _a (maneuvering sea level)	
10,600 lb. (525-0360 through 525-0599)	201 KIAS (200 KCAS)
<i>See AFM for variations with weight and altitude.</i>	
10,700 lb. (525-685 and 525-0800 and On)	202 KIAS (201 KCAS)
<i>See AFM for variations with weight and altitude.</i>	
V _b (speed for max. gust intensity)	217 KIAS (215 KCAS)
V _{FE} (Flaps extended)	
15 degrees (takeoff & approach)	200 KIAS (198 KCAS)
35 degrees (landing)	161 KIAS (160 KCAS)
60 degrees (ground flaps)	prohibited in flight
V _{mca} (Minimum control speed) Air	
(525-0360 through 525-0599)	92 KIAS (91 KCAS)
(525-685 and 525-0800 and On) Flaps 0	86 KIAS (86 KCAS)
(525-685 and 525-0800 and On) Flaps 15	77 KIAS (77 KCAS)
V _{mca} (Minimum control speed) Ground	
525-0360 through 525-0599	93 KIAS (93 KCAS)
525-685 and 525-0800 and On	89 KIAS (92 KCAS)
V _{LO} (landing gear operating)	
Extending (525-0360 through 525-0599, 186 KIAS(185KCAS)	
525-685 and 525-800 and On)	
Retracting (525-0360 through 525-0457)	186 KIAS(183KCAS)
Retracting (525-0458 through 525-0599, 175 KIAS(172KCAS)	
525-685 and 525-800 and On)	
V _{LE} (landing gear extended)	186 KIAS (183 KCAS)
V _{SB} (speed brakes extended)	Any speed with or without flaps
Maximum autopilot operating speed	

Sea level to 30,500ft.	263KIAS(260KCAS)
Above 30,500ft.	0.71M _I (0.70Mach calibrated)
Maximum tire ground speed	165 knots

C.G. Range (Landing Gear Extended) Design C.G. Limits

Applicable to airplanes S/N 525-0360 through 525-0599:

Forward Limits: Linear variation from 244.34 in. aft of datum (22.58% MAC) at 10,700 lb. to 244.24 in. aft of datum (22.43% MAC) at 10,600 lb. to 242.43 in. aft of datum (19.81% MAC) at 8,800 lb.; Linear variation from 242.43 in. aft of datum (19.81% MAC) at 8,800 lb. to 240.14 in. aft of datum (16.50% MAC) at 7,700 lb.; 240.14 in. aft of datum (16.50% MAC) at 7,700 lb. to 6,000 lb.

Aft Limits: 248.78 in. aft of datum (29.00% MAC) at 10,700 lb. to 6,000lb.

Applicable to airplanes S/N 525-685, 525-0800 and On:

Forward Limits: Linear variation from 244.44 in. aft of datum (22.72% MAC) at 10,800 lb. to 244.34 in. aft of datum (22.58% MAC) at 10,700 lb. to 242.43 in. aft of datum (19.81% MAC) at 8,800 lb.; Linear variation from 242.43 in. aft of datum (19.81% MAC) at 8,800 lb. to 240.14 in. aft of datum (16.50% MAC) at 7,700 lb.; 240.14 in. aft of datum (16.50% MAC) at 7,700 lb. to 6,000 lb.

Aft Limits: 248.43 in. aft of datum (28.50% MAC) at 10,800 lb. to 6,000lb.

Landing Gear retracting moment (+632.65) in-lb.

Empty Wt. C.G. Range None

MAC 69.077 in (L.E. of MAC at +228.745 in. aft of datum)

Maximum Weights

	S/N 525-0360 through 525-0599	S/N 525-0685 525-0800 and On
Takeoff	10,600 lb.	10,700 lb.
Landing	9,800 lb.	9,900 lb.
Zero fuel	8,400 lb.	8,500 lb.
Ramp	10,700 lb.	10,800 lb.

Minimum Crew for all Flights (see note 5 for cockpit equipment/arrangement restrictions)

One pilot (in the left pilot seat) plus additional equipment as specified in the Kinds of Operations Equipment List (KOEL) contained in the Limitations Section of the JCAB Approved Airplane Flight Manual

OR

One pilot and one copilot

No. of Seats

Maximum 8 occupants. Airplane must be equipped as required by operating rules, appropriate to the number of passenger seats.

Maximum Baggage

(525-0360 through 525-0599)

Nose compartment	400 lb. (+ 74.0 in. aft of datum)
Aft cabin	100 lb. (+270.70 in. aft of datum)
Tailcone	325 lb. (+356.50 in. aft of datum)

(525-0685 and 525-0800 and On)

Nose compartment	400 lb. (+ 74.0 in. aft of datum)
Tailcone	325 lb. (+356.50 in. aft of datum)

Fuel Capacity (usable)

(525-0360 through 525-0599)

Total usable fuel 3,220 lb. (477 gal).

Two wing tanks with 1,610 lbs. (238.5 gal) usable each; (see NOTE 1 for unusable)
+252.99 in. aft of datum

(525-0685 and 525-0800 and On)

Total usable fuel 3,296 lb. (492 gal).

Two wing tanks with 1,648 lbs. (246 gal) usable each; (see NOTE 1 for unusable)
+253.0 in. aft of datumOil Capacity (usable)

(525-0360 through 525-0599)

Tank mounted on each engine: 2.0 quarts usable each engine;

+312.30 in. aft of datum; (see NOTE 1)

(525-0685 and 525-0800 and On)

Tank mounted on each engine: 3.4 quarts usable each engine;

+314.74 in. aft of datum; (see NOTE 1)

Maximum Operating Altitude

41,000 ft.

Control Surface Movements

Elevator	Up	20 +0/-1 degrees	(525-0360 through 525-599)
	Up	18.5 +0/-0.5 degrees	(525-0685 and 525-800 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 degrees	
	Landing	35 +/- 1 degrees	
	Ground	60 +/-1 degrees	
Speed Brakes - Upper	Up	0 to 49 +/-2 degrees	
	- Lower	Down	0 to 68 +/-2 degrees
Thrust Attenuators	Stow	-6 +/-1 degrees	(525-0360 through 525-599)
(Ref. to Engine Long. axis)			
Thrust Attenuators	Deploy	54 +/-1 degrees	(525-0360 through 525-599)
(Ref. to Engine Long. axis)			
Thrust Attenuators not applicable (525-0685 and 525-800 and On)			
See Airplane Maintenance Manual for rigging instructions			

Serial Nos. Eligible

525-0360 through 525-0599, 525-0685 and 525-800 and On

Datum

94.0 in. forward of the front face of the forward pressure bulkhead.

Leveling Means

Longitudinal – Left hand upper floorboard aft of FS 151.00.

Lateral — Left hand and right hand upper floorboard aft of FS 152.00

Certification Basis:

(1) Civil Aeronautics Regulations Annex 1;

(a) (525-0360 through 525-0599)

Part II of the TAIKUSEI-SHINSA-YORYO dated February 26, 1991 (equivalent to Part 23 of the Federal Aviation Regulations (FARs) , as amended by Amendments 23-1 through 23-38, and 23-40);

(b) (525-0685 and 525-0800 and ON)

Part II of the TAIKUSEI-SHINSA-YORYO dated February 26, 1991 (equivalent to Part 23 of the Federal Aviation Regulations (FARs) , as amended by Amendments 23-1 through 23-38, and 23-40); except the following paragraphs applicable for Engines and FADECs:

FAR 23.611, 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 as amended through Amendment 23-1 through 23-38, and 23-40 through 23-54.

Additions:

Reg. No.	Title	Amendment Level	Comments
23.441	Maneuvering loads	23-61	Winglets only
23.443	Gust loads	23-61	Winglets only
23.445	Outboard fins	23-61	Winglets only
23.575	Inspections and other procedures	23-61	Winglets only
23.621	Casting factors	23-61	Entire aircraft
23.867	Lightning protection of structure	23-61	Winglets only
23.929	Engine installation ice protection	23-61	Entire aircraft
23.953	Fuel system independence	23-61	Entire aircraft
23.957	Flow between interconnected tanks	23-61	Entire aircraft
23.959	Unusable fuel supply	23-61	Entire aircraft
23.971	Fuel tank sump	23-61	Entire aircraft
23.975	Fuel tank vents and carburetor vapor vents	23-61	Entire aircraft
23.977	Fuel tank outlet	23-61	Entire aircraft
23.991	Fuel pumps	23-61	Entire aircraft
23.993	Fuel system lines and fitting.	23-61	Entire aircraft
23.997	Fuel strainer or filter	23-61	Entire aircraft

Certification Basis, continued:**Additions(continued):**

Reg. No.	Title	Amendment Level	Comments
23.999	Fuel system drains	23-61	Entire aircraft
23.1001	Fuel jettisoning system	23-61	Entire aircraft
23.1306	Lightning protection	23-61	For changed systems only
23.1308	High-Intensity Radiated Fields (HIRF) protection	23-61	For changed systems only
23.1543	Instrument markings: general	23-61	Entire aircraft
23.1553	Fuel quantity indicator	23-61	Entire aircraft
23.1555	Control markings	23-62	Entire aircraft
23.1557	Miscellaneous markings and placards	23-61	Entire aircraft
23.1559	Operating limitations placard	23-61	Entire aircraft
23.1563	Airspeed placards	23-61	Entire aircraft
23.1567	Flight maneuver placard	23-61	Entire aircraft

- (2) (a)(525-0360 through 525-0599) Civil Aeronautics Regulations Annex 2 Chapter 2 (equivalent to ICAO Annex 16 Volume 1 Chapter 3) for Noise Requirements
 (b)(525-0685 and 525-0800 and On) Civil Aeronautics Regulations Annex 2 Chapter 2-2 (equivalent to ICAO Annex 16 Volume 1 Chapter 4) for Noise Requirements
- (3) Civil Aeronautics Regulations Annex 3 (equivalent to ICAO Annex 16 Volume 2) for Fuel Venting and Exhaust Emission Requirements
- (4) (Reserved)
- (5) Special Conditions
 (a) 23-ACE-55, additional requirements for:
 Smoke evacuation, protection of electronic systems from lightning and high intensity radiated electromagnetic fields (HIRF), electronic flight instrument displays, thrust attenuating systems (thrust attenuating systems not applicable 525-0685 and 525-0800 and On), engine fire extinguishing system, performance including takeoff, takeoff speeds, accelerate-stop, takeoff path, takeoff distance and takeoff run, takeoff flight 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.
- (6) Exemption as follows:
 (a) Exemption: Exemption number 5759 granted to use a relaxed “Dutch Roll” damping criteria above 18,000 feet in lieu of damping criteria of FAR 23.181(b).
- (7) Equivalent Level Of Safety (ELOS) as follows (Applicable to airplanes S/N 525-0360 through 525-0599 equipped with Collins Proline 21 electronic displays of engine instruments):
 (a) Number ACE-00-01: FAR 23.1305(c)(2), (c)(5), and 23.1549(a) through (d), direct reading, digital only displays for the high-pressure turbine speed (N2), and fuel flow indications.

- (Applicable to airplanes S/N 525-0685 and 525-0800 and On equipped with Garmin G3000)
- (a) Number ACE-13-09: FAR 23.841(b)(6), Cabin Pressurization – High Altitude Takeoff and Landing Operations.
 - (b) Number ACE-00-05C: FAR 23.841(a), to allow small temporary cabin altitude excursions above 15,000 feet in the event of any probable pressurization system failure.
 - (c) Number ACE-13-17: FAR 23.1549(a) through (c), direct reading, digital only displays for the high-pressure turbine speed (N2), oil pressure, oil temperature and fuel flow indications.
- (8) Compliance with ice protection has been demonstrated in accordance with FAR 23.1416 and 23.1419.

Application for Type Certificate dated February 16, 2004(JCAB). The Model 525 is defined by Cessna Airplane Assembly Drawing Number 6300000.

Production Basis:

Production Certificate No. 4 issued and Delegation Option Authorization (DOA) No. DOA-230428-CE (CE-3) authorized to issue Airworthiness Certificates under DOA Procedures of Part 21 of Title 14 of the Code of Federal Regulations through January 4, 2009.

Production Certificate No. 4 issued and Organization Designation Authorization (ODA) No. ODA-100129-CE authorized to issue Airworthiness Certificates under ODA procedures of Part 21 of Title 14 of the Code of Federal Regulations effective January 5, 2009.

Equipment:

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

- NOTE 1. Current weight and balance information, including list of equipment included in certificated empty weight, and loading instructions are provided for each airplane in JCAB Approved Airplane Flight Manual (AFM) at the time of original certification.
- The certificated empty weight include:
- | | |
|--|-----------|
| Unusable fuel (525-0360 through 525-599, 525-0685 and 525-800 and On) | 30.64 lb. |
| Full oil (525-0360 through 525-599) | 15.5 lb. |
| Full oil (525-0685 and 525-800 and On) | 15.6 lb. |
| Hydraulic Fluid (525-0360 through 525-599) | 27.5 lb. |
| Hydraulic Fluid (525-0685 and 525-800 and On) | 16.78 lb. |
| Anti-ice Fluid (525-0360 through 525-599, 525-0685 and 525-800 and On) | 3.4 lb. |
- NOTE 2. Airplanes must be operated according to the JCAB Approved Airplane Flight Manual (AFM), part number 525FMA00 (or later approved revision for serials 0360 through 0599), 525FMC-00 (or later approved revision for serials 0685 and 0800 and On). Required placards and markings are listed in Chapter Eleven (11) of Maintenance Manual, part number 525MM-00 (or later revision for serials 0360 through 0599), part number 525MMC-00 (or later approved revision for serials 0685 and 0800 and On).
- NOTE 3. See Maintenance Manual Chapter Four (4), "Airworthiness Limitations" for inspections, mandatory retirement life information, and other requirement for continued airworthiness.
- NOTE 4. All replacement seats (crew and passenger), although they may comply with TSO C39, must also be demonstrated to comply with FAR 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 FAR 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.

NOTE 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 FAA Aircraft Certification Office.

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

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 525-0685 and 525-0800 & On	All airplanes are equipped with Garmin G3000.

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

NOTE 7. Reserved.

NOTE 8. The following serials are manufactured under the name Cessna Aircraft Company: 525-0360 through 525-0599, 525-0685, 525-0800 through 525-0874, 525-0876, 525-0879 and 525-0880.

NOTE 9. Company name change effective 7/29/15. The following serials are manufactured under the name Textron Aviation Inc.: 525-0875, 5250877, 5250878, 525-0881 and On.

NOTE J1. Dates of application for FAA and JCAB Type Certificate are as follows.

	FAA TC No. A1WI	JCAB TC No. 50-1
Model 525	February 14, 1990	February 16, 2004

NOTE J2. This Type Certificate Data Sheet (TCDS) is based on FAA TCDS No. A1WI Revision 27 March 5, 2019.

NOTE J3. The airplane must be operated according to the required Japanese placard and marking.

NOTE J4. The airplane must be operated according to the appropriate JCAB Approved Airplane Flight Manual (525FMA for Serials -0360 through 0599, 525FMC for Serials -0685 and -0800 and On) and appropriate Airplane Flight Manual Supplements.

NOTE J5. Import Requirement
To be considered eligible for operation in the Japan, Each aircraft manufactured under this Type Certificate must be accompanied by a Certificate of Airworthiness for Export or certifying statement endorsed by the exporting foreign civil authority which states the following (in the English language).
“This aircraft has been examined, tested and found to conform to the type design approved under JCAB Type Certificate No.50-4 and to be in a condition for safe operation.”

2. Model 525A (Normal Category), S/N 525A-0001 and On Approved November 19, 2003

Engines-

Two (2) Williams International, L.L.C. FJ44-2C turbofans (525A-0001 through 525A-0299)
Two (2) Williams International, L.L.C. FJ44-3A-24 turbofans (525A-300 and On)

Fuel

Commercial kerosene Jet A, Jet A-1, Jet B, JP-4, JP-5, JP-8, RT or TS-1. (525A-0001 through 525A-0299)
Commercial kerosene Jet A, Jet A-1, JP-5, JP-8, Jet 3, RT or TS-1. (525A-0300 and On)

Engine Limits Static thrust standard day, sea level

Takeoff (525A-0001 through 525A-0299)	2,400 lb.
Takeoff (525A-0300 and On)	2,490 lb.

Max. permissible engine rotor operating speeds (Takeoff and Maximum Continuous)

N1 (fan) (525A-0001 through 525A-0299)	105.2% (100% = 17,245 r.p.m.)
N2 (Gas Gen.) (525A-0001 through 525A-0299)	98.8% (100% = 41,200 r.p.m.)
N1 (fan) (525A-0300 and On)	102.78% (100% = 18,000 r.p.m.)
N2 (Gas Gen.) (525A-0300 and On)	100.00% (100% = 41,200 r.p.m.)

Max. permissible interturbine gas temperatures

Takeoff (525A-0001 through 525A-0299)	820 Degrees C
Max. Continuous (525A-0001 through 525A-0299)	805 Degrees C
Transient (starting 15 sec.) (525A-0001 through 525A-0299)	1000 Degrees C
Takeoff (525A-0300 and On)	877 Degrees C (5 min, 10 min OEI)
Max. Continuous (525A-0300 and On)	840 Degrees C
Transient (starting 15 sec.) (525A-0300 and On)	1000 Degrees C

Airspeed limitations

V _{mo} (maximum operating)	
Sea level to 8,000 ft. (525A-001 and On)	260 KIAS (260 KCAS)
8,000 ft. to 29,300 ft. (525A-0001 through 525A-0299)	275 KIAS
(Varies linearly between 274 KCAS and 272 KCAS)	
8,000 ft to 29,124 ft. (525A-0300 and On)	278 KIAS
(Varies linearly between 277 KCAS and 275 KCAS)	
M _{mo} above 29,300 ft. (525A-0001 through 525A-0299)	0.72 M _I (0.707 Mach calibrated)
M _{mo} above 29,124 ft. (525A-0300 and On)	0.737 M _I (0.722 Mach calibrated)
V _a (maneuvering sea level at 12,375 lb.) (525A-0001 through 525A-0299)	197KIAS (197 KCAS)
V _a (maneuvering sea level, 12,500 lb.) (525A-0300 and On)	196KIAS (196 KCAS)
<i>See AFM for variations with weight and altitude.</i>	
V _b (speed for max. gust intensity)	217 KIAS (217 KCAS)
V _{FE} (Flaps extended)	
15 degrees (takeoff & approach)	200 KIAS (200 KCAS)
35 degrees (landing)	161 KIAS (161 KCAS)
60 degrees (ground flaps)	prohibited in flight
Maximum speed with flaps failed to 60 degrees (ground flaps) (Emergency Only)	140 KIAS (140 KCAS)
V _{mca} (Minimum control speed) Air	
0 degrees (takeoff) (525A-0001 through 525A-0299)	89 KIAS (90 KCAS)
15 degrees (takeoff & approach) (525A-0001 through 525A-0299)	81 KIAS (82 KCAS)
0 degrees (takeoff) (525A-0300 and On)	83 KIAS (84 KCAS)
15 degrees (takeoff & approach) (525A-0300 and On)	76 KIAS (77 KCAS)
V _{mcg} (Minimum control speed) Ground (525A-0001 through 525A-0299)	89 KIAS (90 KCAS)
V _{mcg} (Minimum control speed) Ground (525A-0300 and On)	79 KIAS (80 KCAS)
V _{LO} (landing gear operating)	
Extend	200 KIAS (200 KCAS)
Retract	200 KIAS (199 KCAS)
V _{LE} (landing gear extended) (525A-0001 through 525A-0299)	200 KIAS (199 KCAS)
V _{LE} (landing gear extended) (525A-0300 and On)	200 KIAS (199 KCAS)
V _{SB} (speed brakes extended)	Any speed with or without flaps
Maximum autopilot operating speed	Any normal operating speed
Maximum tire ground speed	165 knots

C.G. Range (Landing Gear Extended) Design C.G. Limits

Applicable to airplanes S/N 525A-0001 through 525A-0299;

Forward Limits: Linear variation from 277.03 in. aft of datum (19.66% MAC) at 12,500 lb. to 276.89 in. aft of datum (19.46% MAC) at 12,375 lb.; 273.33 in. aft of datum (14.50% MAC) at 9,200 lb.; 273.33 in. aft of datum (14.50% MAC) at 9,200 lb. to 8,500 lb.; Linear variation from 273.33 in. aft of datum (14.50% MAC) at 8,500 lb. to 277.99 in. aft of datum (21.00% MAC) at 7,500 lb.

Aft Limits: 283.72 in. aft of datum (29.00% MAC) at 12,500 lb. to 7,500 lb.

Applicable to airplanes S/N 525A-0300 and On;

Forward Limits: Linear variation from 277.17 in. aft of datum (19.86% MAC) at 12,625 lb. to 277.03 in. aft of datum (19.66% MAC) at 12,500 lb.; 273.33 in. aft of datum (14.50% MAC) at 9,200 lb.; 273.33 in. aft of datum (14.50% MAC) at 9,200 lb. to 8,500 lb.; Linear variation from 273.33 in. aft of datum (14.50% MAC) at 8,500 lb. to 277.99 in. aft of datum (21.00% MAC) at 7,500 lb.; 277.99 in. aft of datum (21.00% MAC) at 7,500 lb.

Aft Limits: 283.72 in. aft of datum (29.00% MAC) at 12,625 lb. to 7,500 lb.

Landing Gear retracting moment (+687.27) in-lb.

Empty Wt. C.G. Range

None

MAC

71.720 in (L.E. of MAC at +262.926 in. aft of datum)

Maximum Weights

Maximum Weights	S/N 525A-0001 through 525A-0299	S/N 525A-300 and On
Takeoff	12,375 lb.	12,500 lb.
Landing	11,500 lb.	11,525 lb.
Zero fuel	9,300 lb.	9,700 lb.
Ramp	12,500 lb.	12,625 lb.

Minimum Crew for all Flights (see note 5 for cockpit equipment/arrangement restrictions)

One pilot (in the left pilot seat) plus additional equipment as specified in the Kinds of Operations Equipment List (KOEL) contained in the Limitations Section of the JCAB Approved Airplane Flight Manual

OR

One pilot and one copilot

No. of Seats

Maximum ten (two crew plus eight passenger seats)

Maximum Baggage

(525A-0001 through 525A-0299)

Nose compartment 400 lb. (+ 74.0 in. aft of datum)
Aft cabin 100 lb. (+301.7 in. aft of datum)
Tailcone 600 lb. (+384.60 in. aft of datum)

(525A-0300 and On)

Nose compartment 400 lb. (+ 74.0 in. aft of datum)
Tailcone 600 lb. (+384.60 in. aft of datum)

Fuel Capacity (usable)

Total usable fuel 3,961 lb. (586.8 gal).
 Two wing tanks with 1,980.5 lb. (293.4 gal) usable each;
 +288.68 in. aft of datum (see NOTE 1 for unusable)

Oil Capacity (usable)

(525A-0001 through 525A-0299) Tank mounted on each engine; 2.0 quarts usable each engine; +364.3 in. aft of datum (see NOTE 1)

(525A-0300 and On) Tank mounted on each engine; 3.75 quarts usable each engine; +371.44 in. aft of datum (see NOTE 1)

Maximum Operating Altitude

45,000 ft.

Control Surface Movements

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

Control Surface Movements, continued;

Aileron	Neutral position (TE Up)	2.0 +/- 0.5 degrees
	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./Appr.	15 +/- 1 degrees
	Landing	35 +/- 1 degrees
	Ground	60 +/- 2 degrees
Speed Brakes - Upper	Up	0 to 49 +/- 2 degrees
	Down	0 to 68 +/- 2 degrees
Thrust Attenuators (Ref. to Engine Long. axis)	Stow	-4.5 +/- 0.3 degrees (525A-0001 through 525A-0299)
	Deploy	65 +/- 1 degrees (525A-0001 through 525A-0299)
Thrust Attenuators not applicable (525A-0300 and On)		
See Airplane Maintenance Manual for rigging instructions		

Serial Nos. Eligible

525A-0001 and On

Datum

94.0 in. forward of the front face of the forward pressure bulkhead.

Leveling Means

Lateral – Place 525 Leveling Tool across inboard crew seat rails at approximately FS 148. Ensure Leveling Tool is parallel to fuselage station plane and is resting solidly on seat rails. Position inclinometer on Leveling Tool with base parallel to the long axis of the Leveling Tool.

Longitudinal - Place 525 Leveling Tool across inboard crew seat rails at approximately FS 148. Ensure Leveling Tool is parallel to fuselage station plane and is resting solidly on seat rails. Position inclinometer on Leveling Tool with base perpendicular to the long axis of the Leveling Tool at BL 0.

Certification Basis:

- (1) (525A-0001 and On)
Civil Aeronautics Regulations Annex 1;
Part II of the TAIKUSEI-SHINSA-YORYO dated February 26, 1991 (equivalent to Part 23 of the Federal Aviation Regulations (FARs) effective February 1, 1965, as amended by Amendments 23-1 through Amendment 23-40); except for additional paragraphs listed, and for paragraphs for Engines and FADECs only as amended by amendments 23-1 through 23-54;
- (a) Additions; (525A-0001 and On)
The following FARs Part 23 are added to the above.
 - 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;
 - 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;
 - 23.179, 23.305, 23.321, 23.361, 23.397, 23.479, 23.485, 23.613, 23.615, 23.621, 23.731 and 23.1549 as amended by Amendments 23-1 through 23-45;
 - 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;
 - 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;
 - 23.233, 23.235, 23.1555, and 23.1589 as amended by Amendments 23-1 through 23-50;
 - 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;
- (b) Addition for Engines and FADECs only (525A-0300 and On)
The following FARs Part 23 are added to the above.
 - 23.777, 23.779, 23.865, 23.867, 23.901, 23.903, 23.955, 23.973, 23.1041, 23.1045, 23.1091, 23.1093, 23.1103, 23.1121, 23.1123, 23.1141, 23.1145, 23.1181, 23.1193, 23.1305, 23.1309, 23.1521, and 23.1583, as amended by Amendments 23-1 through 23-54; for Engine and FADEC installation only.
- (2)(a) (525A-0001 through 525A-0299)
Civil Aeronautics Regulations Annex 2 Chapter 2 (equivalent to ICAO Annex 16 Volume 1 Chapter 3) for Noise Requirements.
- (b) (525A-0300 and On)
Civil Aeronautics Regulations Annex 2 Chapter 2 (equivalent to ICAO Annex 16 Volume 1 Chapter 3) for Noise Requirements.
- (3) Civil Aeronautics Regulations Annex 3 (equivalent to ICAO Annex 16 Volume 2) for Fuel Venting and Exhaust Emission Requirements.

- (4) Special Conditions
 - (a) 23-ACE-55, additional requirements for;
Smoke evacuation, protection of electronic systems from lightning and High Intensity Radiated Electromagnetic Fields (HIRF), 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, takeoff distance and takeoff run, takeoff flight 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, wing 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.
 - (b) 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.)
- (5) Exemption: Exemption number 5759 granted to use a relaxed “Dutch Roll” damping criteria above 18,000 feet in lieu of damping criteria of FAR 23.181(b).
- (6) Equivalent level of safety as follows:
 - (a) Number ACE-00-01: FAR 23.1305(c)(2), (c)(5), and 23.1549(a) through (d), direct reading, digital only displays for the high-pressure turbine speed (N2), and fuel flow indications.
 - (b) Number ACE-99-07: FAR 23.841(b)(6), Cabin Pressurization – High Altitude Takeoff and Landing Operations.
 - (c) Number ACE-00-05; FAR 23.841(a), to allow small temporary cabin altitude excursions above 15,000 feet in the event of any probable pressurization system failure.”
- (7) Compliance with ice protection has been demonstrated in accordance with FAR 23.1416 and 23.1419.

Application for Type Certificate dated July 25, 2003(JCAB). The Model 525A is defined by Cessna Airplane Assembly Drawing Number 6300001.

Production Basis:

Production Certificate No. 4 issued and Delegation Option Authorization (DOA) No. DOA-230428-CE (CE-3) authorized to issue Airworthiness Certificates under DOA Procedures of Part 21 of Title 14 of the Code of Federal Regulations through January 4, 2009.

Production Certificate No. 4 issued and Organization Designation Authorization (ODA) No. ODA-100129-CE authorized to issue Airworthiness Certificates under ODA procedures of Part 21 of Title 14 of the Code of Federal Regulations effective January 5, 2009.

Equipment;

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

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

The certificated empty weight must include:

Unusable fuel (525A-0001 and On)	76.7 lb.
Full oil (525A-0001 through 525A-0299)	15.07 lb.
Full oil (525A-0300 and On)	18.40 lb.
Hydraulic Fluid (525A-0001 through 525A-0299)	18.9 lb.
Hydraulic Fluid (525A-0300 and On)	25.9 lb.
Anti-ice Fluid (525A-0001 and On)	3.4 lb.

NOTE 2. Airplanes must be operated according to the JCAB Approved Airplane Flight Manual (AFM), part number 525-AFM04 (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 11 of Maintenance Manual, part number 525AMM-05 (or later approved revision).

NOTE 3. See Maintenance Manual Chapter 4, "Airworthiness Limitations" for mandatory component retirement life information.

NOTE 4. All replacement seats (crew and passenger), although they may comply with TSO C39, must also be demonstrated to comply with FAR 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 FAR 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.

NOTE 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 FAA Aircraft Certification Office.

NOTE 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.

NOTE 7. Certain airplane Serial Numbers meet the initial airworthiness requirements for operation in Reduced Vertical Separation Minimum (RVSM) airspace.

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.

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

NOTE 8. The Model 525A (525A-300 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.

NOTE 9. The following serials are manufactured under the name Cessna Aircraft Company: 525A-0001 thru 525A-0524.

NOTE 10. Company name change effective 7/29/15. The following serials are manufactured under the name Textron Aviation Inc.: 525A-0525 and On.

NOTE J1. Dates of application for FAA and JCAB Type Certificate are as follows.

Model 525A	FAA TC No. A1WI	JCAB TC No. 50
	May 14, 1998	July 25, 2003

NOTE J2. This Type Certificate Data Sheet (TCDS) is based on FAA TCDS No. A1WI Revision 24 July 29, 2015.

NOTE J3. The airplane must be operated according to the required Japanese Placard and marking.

NOTE J4. The airplane must be operated according to the appropriate JCAB Approved Airplane Flight Manual (525AFM for Serials -0001 through 0299, 525AFMA for Serials -0300 and On) and appropriate Airplane Flight Manual Supplements.

NOTE J5. Import Requirement

To be considered eligible for operation in the Japan, Each aircraft manufactured under this Type Certificate must be accompanied by a Certificate of Airworthiness for Export or certifying statement endorsed by the exporting foreign civil authority which states the following (in the English language).
 “This aircraft has been examined, tested and found to conform to the type design approved under JCAB Type Certificate No.50-4 and to be in a condition for safe operation.”

3. Model 525C, (Commuter Category), Approved September 15, 2015

Engines

Two Williams International, L.L.C. FJ44-4A turbofans

Fuel

Commercial kerosene Jet A, Jet A-1, JP-5, JP-8, Jet 3, RT or TS-1.

Engine Limits Static thrust standard day, sea level

Takeoff 3,621 lb.

Max. permissible engine rotor operating speeds (Takeoff and Maximum Continuous):

N ₁ (fan)	104.76% (100% = 16,360 r.p.m.)
Transient (2 minute operational limit)	105.76%
N ₂ (Gas Gen.) Max continuous	100.86% (100% = 37,450 r.p.m.)
Transient (2 minute operational limit)	101.59%

Max. permissible interturbine gas temperatures:

Takeoff	855 Degrees C (5 min, 10 min OEI)
Max. continuous	835 Degrees C
Transient (starting 15 sec.)	1000 Degrees C
Transient (starting 30 sec.)	900 Degrees C

Airspeed limitations

V _{mo} (maximum operating)	
Sea level to 8,000 ft.	260 KIAS (261 KCAS)
8,000 ft. to 28,000 ft.	305 KIAS (306 KCAS)
M _{mo} above 28,000 ft.	0.77 M _i (0.774 Mach calibrated)
V _o (maximum operating maneuvering sea level at 16,950 lb.)	185 KIAS (185 KCAS)
<i>See AFM for variations with weight and altitude.</i>	
V _b (speed for max. gust intensity)	232 KIAS (233 KCAS up to 40,060 ft)
	0.77 M _i (0.774 Mach calibrated) above 40,060 ft
V _{FE} (Flaps extended)	
15 degrees (takeoff & approach)	200 KIAS (200 KCAS)
35 degrees (landing)	160 KIAS (160 KCAS)

Airspeed limitations (continued)

V _{MCA} (Minimum control speed) Air	
0 degrees (takeoff)	94 KIAS (94 KCAS)
15 degrees (takeoff & approach)	85 KIAS (85 KCAS)
V _{MCG} (Minimum control speed) Ground	88 KIAS (88 KCAS)
V _{LO} (landing gear operating)	
Extend	200 KIAS (200 KCAS)
Retract	200 KIAS (199 KCAS)
V _{LE} (landing gear extended)	200 KIAS (199 KCAS)
V _{SB} (speed brakes extended)	Any speed with or without flaps
Maximum autopilot operating speed	Any normal operating speed up to 305 KIAS or 0.7 M _I
Maximum tire ground speed	165 knots

C.G. Range (Landing Gear Extended) Design C.G. Limits:

Forward Limits: Linear from 312.06 in. aft of datum (21.0% MAC) at 9,500 lb. to 306.65 in. aft of datum (14.5% MAC) at 10,500 lb. to 306.65 in. aft of datum (14.5% MAC) at 13,250 lb. to 307.31 in. aft of datum (15.3% MAC) at 14,500 lb. to 307.98 in. aft of datum (16.1% MAC) at 15,250 lb. to 309.23 in. aft of datum (17.6% MAC) at 16,250 lb. to 311.02 in. aft of datum (19.47% MAC) at 17,230 lb.

Aft Limits: Linear from 317.06 in. aft of datum (27.0% MAC) at 9500 lb. to 317.06 in. aft of datum (27.0% MAC) at 12,150 lb. to 316.23 in. aft of datum (26.0% MAC) at 13,000 lb. to 316.23 in. aft of datum (26.0% MAC) at 14,500 lb. to 317.89 in. aft of datum (28.0% MAC) at 15,750 lb. to 317.89 in. aft of datum (28.0% MAC) at 17,230 lb.

Landing Gear retracting moment -3386 in-lb.

Empty Wt. C.G. Range

None

MAC

83.290 in. (L.E. of MAC at +294.571 in. aft of datum)

Maximum weights

Takeoff	17,110 lb.
Landing	15,660 lb.
Zero Fuel	12,500 lb.
Ramp	17,230 lb.

Minimum Crew for all Flights (see NOTE 5 for cockpit equipment/arrangement restrictions):

One pilot (in the left pilot seat) with equipment as specified in the Kinds of Operations Equipment List (KOEL) contained in the Limitations Section of the JCAB Approved AFM

OR

One pilot and one copilot

No. of Seats

Maximum 11 (two crew plus nine passenger seats)

Maximum Baggage

Nose Compartment	400 lb. (+76.14 in. aft of datum)
Tailcone	600 lb. (+431.70 in. aft of datum)

Fuel Capacity (usable)

Total usable fuel 5,828 lb. (869.8 gal)
Two wing tanks with 2914 lb. (434.9 gal) usable each.
+319.30 in. aft of datum (see NOTE 1 for unusable)

Oil Capacity (usable)

Tank mounted on each engine: 4.8 US quarts usable each engine; +424.64 in. aft of datum (see NOTE 1)

Maximum Operating Altitude

45,000 ft.

Control Surface Movements

Elevator	Up	25.5 ± 0.5 degrees
	Down	12.0 ± 1.0 degrees
Elevator Trim Tab	Up	6.0 ± 1.0 degrees
	Down	14.0 ± 1.0 degrees
Rudder	Right	32.0 ± 1.0 degrees
	Left	32.0 ± 1.0 degrees
Rudder Trim Tab	Right	20.0 ± 1.0 degrees
	Left	20.0 ± 1.0 degrees
Aileron	Up	23.5 ± 1.0 degrees
	Down	20.5 ± 1.0 degrees
Aileron Trim Tab	Up	19.0 ± 1.0 degrees
	Down	19.0 ± 1.0 degrees
Wing Flap	Up	0 ± 1.0 degrees
	T.O./Appr.	15 ± 1.0 degrees
	Land	35 ± 1.0 degrees
Speed Brakes (In-Air) - Upper	Up	0 to 40.0 ± 2.0 degrees
- 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

Serial Nos. Eligible

525C0001 and On

Datum

94.0 in. forward of the front face of the forward pressure bulkhead.

Leveling Means

Lateral – Place 525 Leveling Tool across inboard crew seat rails at approximately FS 145.5. Ensure Tool is parallel to fuselage station plane and is resting solidly on seat rails. Position inclinometer on Leveling Tool with base parallel to the long axis of the Leveling Tool. Adjust the main gear jack to level aircraft.

Longitudinal – Place 525 Leveling Tool across inboard crew seat rails at approximately FS 145.5. Ensure Tool is parallel to fuselage station plane and is resting solidly on seat rails. Position inclinometer on Leveling Tool with base perpendicular to the long axis of the Leveling Tool. Adjust the nose gear jack to level aircraft.

Certification Basis:

(1) Civil Aeronautics Regulations Annex 1; Part II of the TAIKUSEI-SHINSA-YORYO dated October 1, 2007 (equivalent to Part 23 of the Federal Aviation Regulations (FARs), as amended by Amendments 23-1 through 23-57), with exceptions addressed in Special Conditions, ELOS's, and Exemptions.

In addition, the installation of the Full Authority Dual-Channel Electronic Control (FADEC) system must comply with the requirements of FAR 23.1309 (a) through (e) as amended through Amendment 23-57.

14 CFR § 23.1457(a)(6) as amended by Amendments 23-1 through 23-58, is applicable to Controller-Pilot Data Link Communications.

14 CFR § 23.1309(a) as amended through Amendments 23-62, for Portable Electronic Device (PED) tolerance only.

Certification Basis (continued):

- (2) Civil Aeronautics Regulations Annex 2 Chapter 8 (equivalent to ICAO Annex 16 Volume 1 Chapter 14) for Noise Requirements
- (3) Civil Aeronautics Regulations Annex 3 (equivalent to ICAO Annex 16 Volume 2) for Fuel Venting and Exhaust Emission Requirement
- (4) Special Conditions as follows:
 - (a) 23-102-SC, High Altitude Operation (45,000 ft.). Additional requirements for ventilation, air conditioning, pressurized cabins, oxygen equipment and supply, supplemental oxygen, oxygen distribution and equipment. (See NOTE 6.)
 - (b) 23-145-SC, Flight Performance, Flight Characteristics, and Operating Limitations.
 - (c) 23-234-SC, Single Point Refuel/Defuel System.
 - (d) 23-236-SC, Lithium Ion Battery Installation.
 - (e) 23-239-SC, High Fuel Temperature.
 - (f) 23-240-SC, Flight special conditions in lieu of FAR 23.161 (b)(2), Trim and FAR 23.181(a) and (d), Dynamic Stability.
- (5) Exemptions as follows:
 - (a) Exemption No. 9495 to permit modification of the airplane landing gear loads and associated airframe loads in lieu of FAR 23.473, 23.477, 23.479, 23.481, 23.483, 23.493, 23.723, 23.725, 23.726, 23.727, and C23.1 Appendix C of FAR.
 - (b) Exemption No. 9593 to permit for the installation of a multi-place side-facing couch, in lieu of FAR 23.562(a).
 - (c) Exemption No. 9906 to permit certification without a warning system indicating a failure of the pressure refueling automatic shutoff system as specified in the rule until August 1, 2010, in lieu of FAR 23.979(b)(2). Exemption No. 9906A extends Exemption No. 9906 to February 1, 2011, and Exemption No. 9906B extends Exemption No. 9906A to May 1, 2011. In order to conduct operations after May 1, 2012, airplanes prior to S/N 525C-0025 that do not have a warning system indicating the failure of the pressure refueling automatic shutoff system must comply with Service Bulletin SB525C-28-01.
 - (d) Exemption No. 9920 for use of a relaxed "Dutch Roll" damping criteria above 18,000 ft. in lieu of damping criteria of FAR 23.181(b).
 - (e) Exemption No. 9534 to permit certification in the commuter category, in lieu of FAR 23.3(d).
 - (f) Exemption No. 9997 to allow type certification with the current engine low pressure rotary group shaft speed (N1) and interstage turbine temperature (ITT) displays until April 30, 2011, in lieu of FAR 23.1549(a), (b), and (c). In order to conduct operations after April 30, 2012, airplanes prior to S/N 525C-0025 must comply with Service Bulletin SB525C-34-02.
 - (g) Exemption No. 9998 to allow type certification with the current engine oil pressure and temperature displays until April 30, 2011, in lieu of FAR 23.1321(b), 23.1549(a), (b), and (c). In order to conduct operations after April 30, 2012, airplanes prior to S/N 525C-0025 must comply with Service Bulletin SB525C-34-02.
- (6) Equivalent Level of Safety (ELOS) as follows:
 - (a) ELOS No. ACE-00-05B: FAR 23.841 (a), to allow small temporary cabin altitude excursions above 15,000 ft. in the event of any probable pressurization system failure.
 - (b) ELOS No. ACE-08-01: FAR 23.1555(d)(1), Useable Fuel Capacity Marking.
 - (c) ELOS No. ACE-08-03A: FAR 23.841(b)(6), Cabin Pressurization — High Altitude Takeoff and Landing Operation.
 - (d) ELOS No. ACE-08-04: FAR 23.815(b), Cabin Aisle Width
 - (e) ELOS No. ACE-08-07: FAR 23.853(d)(2) No Smoking Placard Lettering Size.
 - (f) ELOS No. ACE-08-08: FAR 23.807(e), Emergency Exit Water Barrier.
 - (g) ELOS No. ACE-09-07: FAR 23.1303(c) for a Direction Indicator (non-stabilized magnetic compass) applicable to airplanes S/N 525C0001 through 525C0263.
 - (h) ELOS No. ACE-09-13: FAR 23.1305(a)(1), (2), (3), (c)(1), (2), (5), 23.1549(a), (b), (c), 23.1553, Digital Displays of Powerplant and Fuel System Instrumentation, Fuel Flow, N2 Indication and Fuel Quantity.
 - (i) ELOS No. ACE-10-06: FAR 23.1236(b), Pitot Heat Indication System.
 - (j) ELOS No. TXTAV-015771-SE-5: 14 CFR § 23.1303(c) for a Direction Indicator

(non-stabilized magnetic compass) applicable to airplanes S/N 525C0264 and on.

(7) Compliance with ice protection has been demonstrated in accordance with FAR 23.1416 and 23.1419.

Application for Type Certificate dated February 18, 2014. The Model 525C is defined by Cessna Airplane Assembly Drawing Number 7100000.

Production Basis:

Production Certificate No. 4 issued and ODA No. ODA-100129-CE authorized to issue Airworthiness Certificates under ODA Procedures of Part 21 of the Federal Aviation Regulations.

Until the Model 525C is added to the Production Limitation Record (PLR) for PC No. 4, the FAA Wichita Manufacturing Inspection District Office (MIDO) must issue the original airworthiness certification of each aircraft.

Equipment:

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

NOTE 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 JCAB Approved Airplane Flight Manual (AFM) at the time of original certification.

The certificated empty weight must include:

Unusable fuel	33.6 lb.
Full oil	24.16 lb.
Hydraulic Fluid	25.12 lb.

NOTE 2. Airplanes must be operated according to the JCAB Approved AFM, part number 525CFM-00-JA (or later approved revision). All placards required by either the JCAB Approved AFM, the applicable operating rules, or the certification basis, must be installed as specified for this Type Certificate via Parts List 7100000, Airplane Assembly. A useful placard reference is the Textron Aviation Illustrated Parts Catalogue (IPC). Any discrepancies identified between the IPC and an aircraft under inspection needs to be reconciled using the previously stated parts list.

NOTE 3. See Maintenance Manual, Chapter 4, "Airworthiness Limitations" for mandatory component retirement life information.

NOTE 4. All replacement seats (crew and passenger), although they may comply with TSO C127, must also be demonstrated to comply with the installation requirements of FAR 23.561, 23.562, and 23.785. The seat cushion foam buildup of all seats (crew and passenger) may not be altered, unless the deviations in the foam construction or stiffness are shown to comply with the requirements of FAR 23.562. The cabinets that are installed forward of the RH forward side-facing seat and of the LH aft belted toilet are an integral part of the certified seat and restraint system. These cabinets may not be structurally altered, unless the changes are shown to comply with the requirements of FAR 23.561, 23.562, and 23.785.

NOTE 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 FAA Aircraft Certification Office.

NOTE 6. Model 525C airplanes have been approved for high altitude operations (altitudes above 41,000 ft.), 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.

NOTE 7. RVSM: 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 FAR Part 91, Appendix G; however, operational approval to fly in RVSM airspace must still be granted by the cognizant Flight Standards

organization and each operator must obtain RVSM operating approval directly from the JCAB.

- NOTE 8. The Model 525C is approved for One Engine Inoperative 10 minutes thrust capability with the Williams International FJ44-4A engine, per FAA Policy Memo Policy Statement on Approval for 10-Minute Rated Takeoff Thrust/Power during Takeoff with One-Engine Inoperative (OEI) under FAR Part 23 and FAR Part 33 [PS-ANE33-ACE23-2006-1], dated August 30, 2006.
- NOTE 9. The System Safety Assessment process has identified mandatory maintenance actions, which must be performed at specific intervals to compensate for latent failures. A list of those actions is contained in report RL-525C-176, and cannot be changed without participation from the certificating FAA ACO. This document has influenced certain maintenance actions documented in Airworthiness Limitations section (Chapter 4) of the maintenance manual. Those particular items cannot be changed without participation from the certificating FAA ACO.
- NOTE 10. Deleted.
- NOTE 11. The Model 525C shall not be eligible for operations under FAR Part 121 (Reference Exemption 9534).
- NOTE 12. The following serials are manufactured under the name Cessna Aircraft Company: 525C-0001 thru 525C-0192.
- NOTE 13. Company name change effective 7/29/15. The following serials are manufactured under the name Textron Aviation Inc.: 525C-0193 and On.
- NOTE 14. Required Equipment. The basic required equipment prescribed in the applicable airworthiness requirements (see certification basis) must be installed in the aircraft. Only hand held fire extinguishers containing Halon 1211 (BCF, CBrC1F2), OR Water, OR Halotron BrX (2-BTP, C3H2BrF3) are approved for use. No airplanes may have any combination of dissimilar agents installed on a particular unit.
- NOTE J1. Dates of application for FAA and JCAB Type Certificate are as follows.

	FAA TC No. A1WI	JCAB TC No. 50
Model 525C	August 9, 2006, May 31, 2007	February 18, 2014

- NOTE J2. This Type Certificate Data Sheet (TCDS) is based on FAA TCDS No. A1WI Revision 31 November 22, 2022.
- NOTE J3. The airplane must be operated according to the required Japanese Placard and marking.
- NOTE J4. The airplane must be operated according to the appropriate JCAB Approved Airplane Flight Manual (525CFM) and appropriate Airplane Flight Manual Supplements.
- NOTE J5. Import Requirement
To be considered eligible for operation in the Japan, Each aircraft manufactured under this Type Certificate must be accompanied by a Certificate of Airworthiness for Export or certifying statement endorsed by the exporting foreign civil authority which states the following (in the English language).
“This aircraft has been examined, tested and found to conform to the type design approved under JCAB Type Certificate No.50-4 and to be in a condition for safe operation.”

.....END.....