
Servicing

Table of Contents

Servicing Record	6-3
Anti-Ice (TKS) Fluid – Citation SII	6-5
Fuel	6-6
Capacities	6-6
Fuel Types	6-7
Fuel Additives	6-8
Fueling Procedures	6-9
Defueling – Force Method	6-10
Defueling – Suction Method	6-11
Defueling – Transfer (Crossfeed) Method	6-11
Defueling – Gravity Method	6-12
Fuel Limitations and Adjustments	6-13
Ground Power Unit	6-14
Hydraulic Fluid	6-14
Approved Hydraulic Fluids	6-14
Accumulator Preloads	6-14
Landing Gear	6-15
Tires and Struts	6-15
Emergency Air Bottle	6-15
Oil – Engine	6-16
Approved Oils	6-16
Replenishing Oil System	6-17
Oxygen	6-17
Windshield Alcohol	6-18

Servicing Record

	DATE	QTY	DATE	QTY
Hydraulic Fluid	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
Engine Oil	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
Alcohol	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

Service Record (continued)

	DATE	QTY	DATE	QTY
Pneumatic Bottle	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
Oxygen	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
Other	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

Anti-Ice (TKS) Fluid – Citation SII

The surface anti-ice fluid reservoir in the right nose compartment over the nosewheel well contains 7 or 8.5 gallons of fluid. Service this tank through the right nose baggage compartment.

Capacity

Without SB S550-30-15 7.1 GAL

With SB S550-30-15 8.5 GAL

Approved Anti-Ice (TKS) Fluids

Use any surface anti-ice fluids that meet British Deicing Fluids Specifications DTD 406B (NATO Symbol S-745); these include:

- Canyon Industries AL-5
- Aeroshell Compound 07
- BP Aero Deicing 2.

Fuel Capacities

Aircraft	Usable U.S. Gallons		Total Pounds ¹
	Each Tank	Total	
Citation 001 to 040 w/o SB 21-9	268	536	3618
Citation 041 to 213 2/o SB 21-9	272	544	3672
Citation/Citation I 214 and sub.	282	564	3806
Citation II	371	742	5008
Citation SII	431	862	5818

¹ 6.75 lbs/gallon

Fuel Types

Fuel conforming to any of the following specifications is approved for use in the Citation aircraft. Mixing of jet fuel is permissible. Mixing of jet fuel and aviation gasoline, with limitations, is permissible.

Jet Fuel

Commercial jet kerosene per CPW 204 specification:

- Jet A, Jet A-1, Jet A-2, Jet B
- JP-4, JP-5, JP-8.

CAUTION: These fuels, except military JP-4, JP-5 and JP-8, require the addition of anti-ice additive (MIL-I-27686E). The additive must be properly blended and checked for concentration. See Fuel Anti-Ice Additives, page 6-8.

Aviation Gasoline

All grades of AVGAS, MIL-G-5572, are permitted for a maximum of 50 hours or 3,500 gals between overhauls provided:

- fuel temperature is within limits
- maximum ambient temperature (T.O.) is 32°C (90°F)
- maximum operational altitude
 - C0, C1** 25,000 FT MSL
 - CII, SII** 18,000 FT MSL
- boost pumps are ON
- hours used are entered in engine logbook.

For record-keeping purposes, assume one hour of engine operation equals 70 gallons gasoline.

Fuel Anti-Ice Additives

Add anti-icing additive to all fuels without additive. Military JP-4, JP-5 and JP-8 have refinery pre-blended anti-icing additive.

Additive	Concentration Range	
	Minimum	Maximum
Hi-Flo EGME	20 fluid ounces per 260 gallons 0.06%	20 fluid ounces per 104 gallons 0.15%
DIEGME	20 fluid ounces per 156 gallons 0.10%	20 fluid ounces per 104 gallons 0.15%

Mixing Procedures (Aerosol Cans)

Fuel Nozzle INSERT INTO FUEL FILLER

Fuel Additive Nozzle INSERT INTO FUEL FILLER

Refueling BEGIN

Blend the additive simultaneously with fuel. Maintain the additive concentration range in accordance with AFM instructions.

CAUTION: Ensure that additive is directed into flowing fuel stream and additive flow is started after fuel flow. The additive should be stopped before fuel flow stops. Do not allow concentrated additive to contact coated interior of the fuel tank or the aircraft's painted surface.

Checking Additive Concentration

After prolonged aircraft storage, water tends to leach out of the additive and builds up in the fuel. Check for excessive water accumulation in fuel tank sumps.

To check additive concentration, use a CJMD 128-002 anti-icing additive concentration test kit available from the Cessna Aircraft Company. Follow the test kit instructions exactly.

WARNING: Anti-ice additive is toxic. It is dangerous when inhaled and/or absorbed into the skin. When in contact with anti-ice additive, use appropriate protective equipment (e.g. goggles/shield, respirator with organic vapor cartridges, non-absorbing gloves and additional skin protection). If anti-ice additive enters the eyes, flush with water and contact a physician immediately.

Fueling Procedures

Required Fuel	DETERMINE
Fuel Supply Unit	GROUND
Fuel Supply Unit to Airplane	GROUND
Fuel Nozzles to Airplane	GROUND
Filler Cap	REMOVE
Protective Pad	INSTALL
Required Fuel	ADD
Protective Pad	REMOVE
Filler Cap	REPLACE
Ground Wires	REMOVE

Defueling – Force Method

- Lower Engine Cowl REMOVE
- Engine Fuel Supply Line (at fuel control) . . . DISCONNECT
- Suction/Fuel Line ATTACH
- Battery ON
- External Power CONNECT
- LH or RH Boost Pump ON

Do not rely on the boost pump sound to determine cavitation because the sound varies with fuel depth. The boost pump must be submerged in fuel during defueling to ensure adequate cooling and lubrication.

CAUTION: To prevent possible damage to the boost pump, do not operate the boost pump after the LOW FUEL PRESS annunciator illuminates.

- Required Fuel REMOVE
- Boost Pump OFF
- Suction/Fuel Line REMOVE
- Fuel Supply Line CONNECT
- Engine Cowl REPLACE

If required, remove residual fuel from wing sump drain valves.

Defueling – Suction Method

- Filler Cap REMOVE
- Suction Line INSERT
- Required Fuel REMOVE
- Suction Line REMOVE
- Filler Cap REPLACE

Defueling – Transfer (Crossfeed) Method

Determine if space is available in the opposite wing tank to accept the quantity of fuel to be transferred.

- Battery ON
- External Power CONNECT
- Boost Pump Switches NORMAL

Do not rely on the boost pump sound to determine cavitation because the sound varies with fuel depth. The boost pump must be submerged in fuel during defueling to ensure adequate cooling and lubrication.

- Throttles CUTOFF
- Crossfeed LH or RH TANK

To crossfeed, turn the boost pump off on the side opposite the selected tank.

CAUTION: To prevent possible damage to the boost pump, do not operate the boost pump after the LOW FUEL PRESS annunciator illuminates.

When fuel pressure low annunciator illuminates:

- Crossfeed OFF
- External Power DISCONNECT
- Battery OFF

Defueling – Gravity Method

Citation; Citation I

Remove the forward wing-to-fuselage fairing access panel to gain access to the defueling valve. Remove the cap assembly from the defueling valve and attach the 90° adapter. Connect the defueling hose into a container. Open the defueling valve to remove the required fuel.

Fuel Limitations and Adjustments

Aircraft		Jet A, A-1, A-2, JP-5, JP-8	Jet B JP-4	Aviation Gasoline
C0; C1	Min Fuel Temp (T.O.)	-20°F (-29°C)	-65°F (-54°C)	-65°F (-54°C)
	Max Fuel Temp	118°F (48°C)	118°F (48°C)	90°F (32°C)
	Max Altitude	41,000 ft	41,000 ft	25,000 ft
	Max Altitude (C0 001 to 213 w/o SB 21-9)	35,000 ft	35,000 ft	25,000 ft
	Fuel Control Density Adjustment	0.81	0.79	0.73
CII; SII	Min Fuel Temp (T.O.)	-29°C	054°C	-54°C
	Min Fuel Temp (Start)	-23°C	-54°C	-54°C
	Max Fuel Temp	50°C	50°C	32°C
	Max Altitude	43,000 ft	43,000 ft	18,000 ft
	Fuel Control Density Adjustment	0.81	0.79	0.73

Fuel Imbalance	C0/C1	CII	SII
Maximum Imbalance	800 lbs	600 lbs	200 lbs
Emergency Imbalance	n/a	n/a	600 lbs

Ground Power Unit

DC Voltage 28V DC, 800 TO 1,000 AMPS

Always disconnect the GPU from the aircraft when the GPU is turned off.

Hydraulic Fluid

Service with approved fluid. Maintenance personnel normally service the main hydraulic reservoir; servicing requires equipment that delivers hydraulic fluid under pressure.

Hydraulic Reservoir Capacity 0.65 U.S. GAL

Brake System Reservoir 0.25 U.S. GAL

Approved Hydraulic Fluids

- Skydrol 500 A ▪ Hyjet
- Skydrol 500 B ▪ Hyjet W
- Skydrol 500 B-4 ▪ Hyjet III
- Skydrol 500 C ▪ Hyjet IV
- Skydrol LD-4

Mixing hydraulic fluids does not impair system operation.

Accumulator Preloads

Brake Accumulator 675 ±25 PSI

Gear/Brake Emergency:

C0; CI 1,800 TO 2,000 PSI

CII; SII 1,800 TO 2,050 PSI

Landing Gear

Tires and Struts

Main Wheels Tire Inflation:

C0, CI 001 to 051 without SB 32-1	. . . . . 79 +3/-1 PSIG
C0, CI 052 to 070 without SB 32-1	. . . . . 90 +3/-1 PSIG
C0, CI 071 and sub; prior with SB 32-1	. . . 100 ±5 PSIG
CII 002 to 626	. . . . . 108 ±5 PSIG
CII (single pilot)	. . . . . 100 ±5 PSIG
CII 627 and sub	. . . . . 115 ±5 PSIG
SII 001 to 085 without SBS550-11-1	. . . . . 120 ±5 PSIG
SII 086 and sub; prior with SBS550-11-1	. . . 125 ±5 PSIG

Nose Wheel Tire Inflation 120 ±5 PSI

Main Strut Inflation (fully fueled):

C0; CI	. . . . . 1 TO 2 INCHES
CII; SII	. . . . . 2.5 INCHES

Nose Strut Tire Inflation (fully fueled):

C0; CI	. . . . . 5 INCHES
CII; SII	. . . . . 2.5 INCHES

Emergency Air Bottle

Have maintenance personnel service the emergency gear and brake bottle when the pressure gage reads below 1,800 PSI. Refill the bottle with pressure nitrogen to 2,000 (**C0; CI**) or 2,050 PSI (**CII; SII**) via a charging valve on the bottle behind the right baggage compartment aft liner.

Oil – Engine

Oil Tank Capacity:

C0; CI	2.39 U.S. GAL
Usable (JT 15D-1)	1.50 U.S. GAL
Usable (JT 15D-1A)	1.25 U.S. GAL
CII	2.08 U.S. GAL
Usable	1.25 U.S. GAL
SII	2.08 U.S. GAL
Usable	1.21 U.S. GAL

Maximum Consumption 0.5 LB/HR
(1 U.S. QT EVERY 4 HRS)

Minimum Oil Temp for Starting -40°C

Approved Oils

- Exxon Turbo Oil 2380
- Castrol 5000
- Aeroshell Turbine Oil 500 and 560
- Royco Turbine Oil 500 and 560
- Mobil Jet II and 254
- Oils listed in Pratt & Whitney SB No. 7001.

CAUTION: The engine manufacturer strongly recommends that, when changing from an existing lubricant formulation to a third generation lubricant formulation, such a change be made only when an engine is new or freshly overhauled. For additional information refer to the engine manufacturer's pertinent oil service bulletins.

Replenishing Oil System

To add a dissimilar oil, use any approved oil brand if the total quantity of added oil does not exceed two U.S. quarts in any 400-hour period. If more than two U.S. quarts of dissimilar oil brands are needed, drain and flush complete oil system, then refill with a single brand of approved oil.

Oil Tank Access Door	OPEN
Filler Cap	UNLOCK
Dipstick	WITHDRAW
Oil Level	CHECK
Oil Tank	REFILL
Dipstick	INSERT
Filler Cap	LOCK
Oil Tank Access Door	CLOSE

Oxygen

The oxygen filler valve is in the nose baggage compartment for forward-mounted oxygen bottles and in the tailcone for rear-mounted bottles. Maintenance personnel fill the bottle with MIL-O-27210 Type I breathing oxygen. Check the cockpit gage during servicing to prevent overfill.

Maximum Pressure 1,800 PSI

Minimum Pressure 400 PSI

Windshield Alcohol

An alcohol reservoir is next to the brake reservoir behind the right nose baggage compartment aft liner. To service, remove the liner and reservoir filler plug, then add alcohol until level with the neck of plug. Filling to above the sight gage provides a reserve supply to perform preflight or operational checks without replenishing the reservoir.

Capacity 0.5 GAL

Type TT-I-735 ISOPROPYL
ALCOHOL