Servicing

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Servicing Record

	DATE	QTY	DATE	QTY
Engine Oil				
Hydraulic Fluid				
Alcohol				

Servicing Record (continued)

	DATE	QTY	DATE	QTY
Pneumatic Bottle				
Oxygen				
Other				

Fuel

Capacities

Each Tank . . . . . 2,900 LBS/431 U.S. GAL

Total . . . . . 5,816 LBS/862 U.S. GAL

Unusable Fuel

Fuel remaining in the fuel tanks when the fuel quantity indicator reads zero is not usable in flight.

Fuel Types

Fuel conforming to any of the following specifications is approved for use in the Citation V. Mixing of jet fuel is permissible. See Limitations chapter, Approved Fuels and Associated Conditions.

Jet Fuel

Commercial jet kerosene per CPW 204 specification:

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

CAUTION: Anti-ice additive must be added to Jet A, A-1, A-2, and B fuels. Ensure the additive is properly blended and checked for concentration. See Fuel Additives. JP-4, 5, and 8 military fuels, however, contain factory-preblended anti-ice additive.

Aviation Gasoline

All grades of MIL-G-5572 avgas are permitted for a maximum of 50 hours or 3,500 gallons between overhauls if the following are accomplished.

- Fuel temperature is within limits.
- Maximum ambient temperature (T.O.) is +32°C (90°F)
- Boost pumps are on (To crossfeed, turn boost pumps off on the side opposite selected tank.)
- Hours avgas used are entered in engine logbook. For record-keeping purposes, assume one hour of engine operation equals 70 gallons gasoline.
- Maximum operating altitude is 18,000 ft.

Fuel Anti-Ice Additives

Concentrations

- The minimum additive concentration for EGME shall be 0.06% by volume, and maximum concentration shall be 0.15% by volume. Fuel, when added to the tank, should have a minimum concentration of 0.06% by volume.
- Use not less than 20 fluid ounces of EGME additive per 260 gallons of fuel or more than 20 fluid ounces of EGME additive per 104 gallons of fuel.
- The minimum additive concetration for DIEGME shall be 0.10% by volume, and maximum concentration shall be 0.15% by volume. Fuel, when added to the tank, should have a minimum concentration of 0.10% by volume.
- Use not less than 20 fluid ounces of DIEGME additive per 156 gallons of fuel or more than 20 fluid ounces of EGME additive per 104 gallons of fuel.

WARNING: Anti-icing additives containing ethylene glycol monomethyl ether (EGME) or diethylene glycol monomethyl ether (DIEGME) are harmful if inhaled, swallowed or absorbed through the skin, and cause eye irritation. Also, they are combustible. Before using this material, refer to all safety information on the container.

NOTE: Military JP-4, JP-5, and JP-8 have refinery preblended anti-icing.

Procedure for Adding Additives

1. Inhibiter . . . . . ATTACH TO REFUEL NOZZLE

   Attach EGME (MIL-I-27686D, MIL-I27686E, or MIL-I-27686F) or DIEGME (MIL-I-85470A) inhibiter to refuel nozzle; ensure the blender tube discharges into the refueling stream.

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

While simultaneously fully depressing and slipping ring over blender trigger:

2. Refueling . . . . . START

   Start refueling (minimum 30 gpm, maximum 60 gpm) while simultaneously fully depressing and slipping ring over blender trigger. A rate of less than 30 gpm may be used to top-off the aircraft.

Checking Additive Concentration

Prolonged aircraft storage results in a water buildup in the fuel that "leaches out" the additive. Excessive accumulations of water in the fuel tank sumps indicate this phenomenon. Use an anti-icing additive concentration test kit (available from Cessna) to check the concentration level. When checking the additive concentration, it is imperative that the test kit's instructions be followed explicitly.

Fueling/Defueling Procedures

Fueling

Required Fuel . . . . . DETERMINE

Fuel Supply Unit . . . . . GROUND

Fuel Supply Unit to Aircraft . . . . . GROUND

Fuel Nozzles to Aircraft . . . . . GROUND

Filler Cap . . . . . REMOVE

Required Fuel . . . . . ADD

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 . . . . . PumpON

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 FUEL LOW PRESS annunciator illuminates.

When FUEL LOW PRESS annunciator illuminates:

Crossfeed . . . . . OFF

External Power . . . . . DISCONNECT

Battery . . . . . OFF

Ground Power Unit

Voltage/Amperage . . . . . 28V DC/800 TO 1,000A

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

Hydraulic Fluid

Service hydraulic system with approved fluids. Mixing hydraulic fluids does not impair system operation. Maintenance personnel normally service the main hydraulic reservoir; servicing requires equipment that delivers hydraulic fluid under pressure.

Approved Hydraulic Fluids

- Hyjet, Hyjet W, III, or IV
- Skydrol 500 A, B, B-4, C, or LD-4.

CAUTION: Skydrol hydraulic fluid, when heated to approximately 270°, decomposes into acids and other products that can damage the metal structure.

Capacities

Hydraulic System . . . . . 3.90 U.S. GAL

Hydraulic Reservoir . . . . . 0.65 U.S. GAL

Brake System Reservoir . . . . . 0.25 U.S. GAL

The reservoir and sight gage are in the tailcone. The gage has three level marks:

REFILL . . . . . 0.2 GAL

HYD LEVEL LOW annunciator illuminates at this level.

FULL . . . . . 0.5 GAL

OVERFILL . . . . . 0.6 GAL

Landing Gear and Brakes

Gear/Brake Accumulator Preloads

Brake . . . . . 675 ± 25 PSI

Emergency Gear/Brake . . . . . 1,800 TO 2,050 PSI

Emergency Gear and Brake Bottle

Service the emergency gear and brake bottle with high pressure nitrogen through the bottle charging valve (right baggage compartment aft liner). Refill the bottle to 2,050 PSI when the pressure gage reads below 1,800 PSI.

Tire and Strut Inflation

Main Wheel Tire Inflation . . . . . 130 ± 5 PSI

Nosewheel Tire Inflation . . . . . 120 ± 5 PSI

Main Strut Inflation (fully fueled) . . . . . 1 TO 2 INCHES

Nose Strut Inflation (fully fueled) . . . . . 5 INCHES

Oil

Approved Engine Oils

Use only the following oils:

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

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

Capacity

Oil Tank . . . . . 2.03 U.S. GAL

Usable Oil . . . . . 1.21 U.S. GAL

Replenishing Oil System

If oil replenishment with a dissimilar oil is necessary, it is permissible to 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 oil is needed, and a dissimilar oil brand must be used, drain and flush the complete oil system. Refill with a single brand of approved oil according to engine Maintenance Manual instructions.

If oils of non-approved brands or of different viscosities become intermixed, drain and flush the complete oil system. Refill with an approved oil according to engine Maintenance Manual instructions.

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 inside a small access door in the right nose baggage compartment. 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

A fully serviced system reads between 1,600 and 1,800 PSI (green arc on gage).

Minimum Pressure . . . . . 400 PSI

Have the system serviced when the gage indicates out of the green arc or pressure drops below 400 PSI. If the bottle depletes, it must be purged.

WARNING: Smoking is prohibited during oxygen use. In addition, certain fatty materials such as oil, grease, soap, lipstick, and lip balm are serious fire hazards when in contact with oxygen.

Windshield Alcohol

An alcohol reservoir is behind the right nose baggage compartment next to the brake reservoir. 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.

Type . . . . . TT-I-735 ISOPROPYL ALCOHOL

Reservoir Capacity . . . . . 2 QTS