

Chapter 12

SERVICING

FBA-2C1, FBA-2C2, FBA-2C3
FBA-2C4, FBA-2C3T, FBA-2C4T

Found Aircraft Canada
Maintenance Program FAC2-M200

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FBA-2C1, FBA-2C2, FBA-2C3
FBA-2C4, FBA-2C3T, FBA-2C4T

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FBA-2C1, FBA-2C2, FBA-2C3
FBA-2C4, FBA-2C3T, FBA-2C4T

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12 SERVICING

12-00 GENERAL

Due to the several systems in use throughout the world for measuring liquids, distance and mass, a conversion chart is provided below.

1 Inch	0.025 Meters
1 Foot	0.304 Meters
1 Yard	0.914 Meters
1 Yard	3 Feet
1 Meter	3.280 Feet
1 Meter	39.370 Inches

1 Pound	0.453 Kilograms
1 Kilogram	2.204 Pounds

1 Imperial Gallon	4.546 Liters
1 Imperial Gallon	1.200 U.S. Gallons
1 U.S. Gallon	3.785 Liters

1 Imperial Gallon	7.21 Pounds
1 U.S. Gallon	6.00 Pounds
1 Liter	1.58 Pounds

FBA-2C1, FBA-2C2, FBA-2C3
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12-10 REPLENISHING

12-10-05 Brake Fluid

The hydraulic reservoir is situated on the forward side of the engine firewall. The capacity of the reservoir is 0.9 U.S. quarts. The fluid type is MIL-H-5606.

To fill the reservoir, open port upper cowling access door, 2C1 & 2C2, or remove R/H cowl, 2C3 & 2C4 (Ref : Chapter 6, Figure 06-30-03), remove the screw cap and pour in the hydraulic fluid taking care not to spill fluid in the engine compartment. The reservoir is full when the fluid level is about one inch from the top.

12-10-10 Engine Oil

The engine oil dipstick is located on the top of the engine about mid way between the front and the back, on the left hand side. Refer to the engine manufacturers OPERATORS MANUAL, Section 3-9, for engine oil type and quantity.

An access door on the engine cowling permits checking and replenishing the engine oil without removal of the engine cowls. The oil access door is located on the top of the engine cowling on the left hand side. (Ref : Figure 06-30-03)

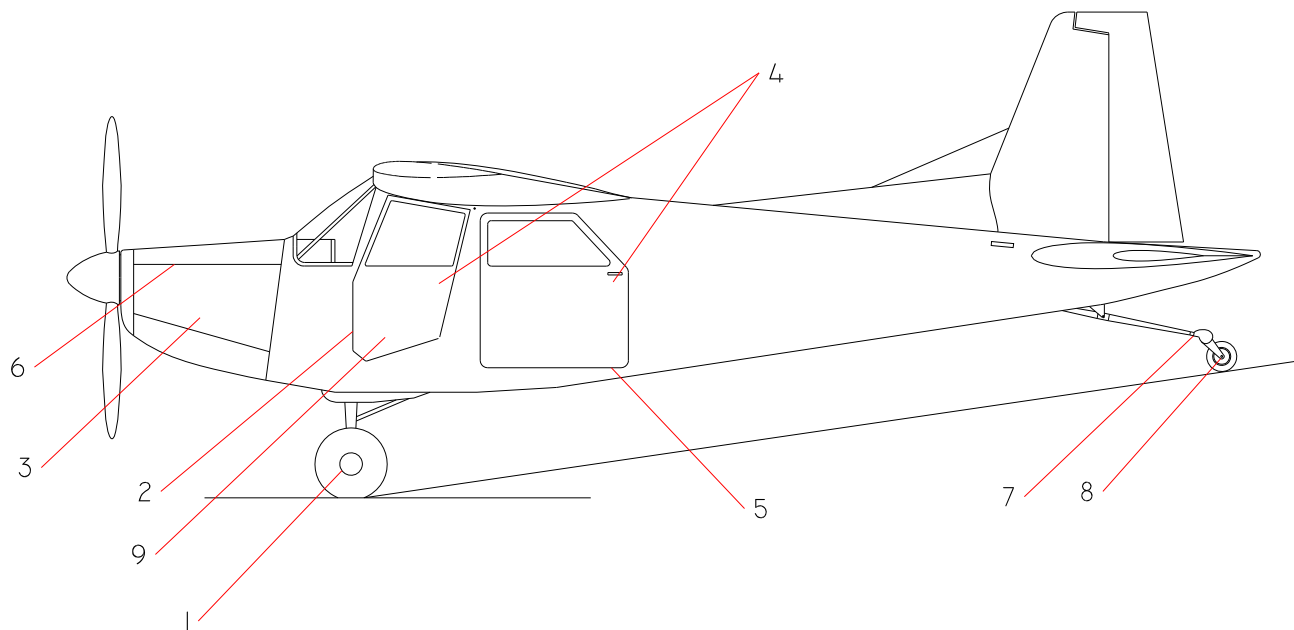
12-10-15 Fuel

The fuel tanks are an integral part of the wing structure located between the spars, from Station 45.6 to Station 95.0 in each wing. Refer to the engine manufacturer's OPERATOR'S MANUAL, Section 3-9 for engine fuel type. The capacity of each wing tank is 49 U.S. gallons. If more fuel than this is put into the tank it may overflow, due to expansion at higher ambient temperatures.

The 2C1 & 2C2 aircraft have two collector tanks located on the aft side of the firewall on the right hand side of the aircraft, with a capacity of 1.11 U.S. gallons (inboard) and 0.97 U.S. gallons (outboard). The 2C3 & 2C4 aircraft have two collector tanks, left and right, located inside of the fuel tub beneath the front seats at approximate fuselage station, FS 89, with a capacity of 1.32 U.S. gallons each.

The refuelling point for each wing tank is located on the top of the wing at Station 50 (2C1 & 2C2) or Station 64.6 (2C3 & 2C4), ref: Figure 06-20-02 and 06-20-03. The fuel cap on the 2C1 and 2C2 aircraft is a vented screw on type with a restraint chain. The fuel cap on the 2C3 and 2C4 aircraft is a non-vented flush fuel cap.

The aircraft must always be grounded when checking fuel quantity and refuelling. The engine exhaust stack can be used for grounding.



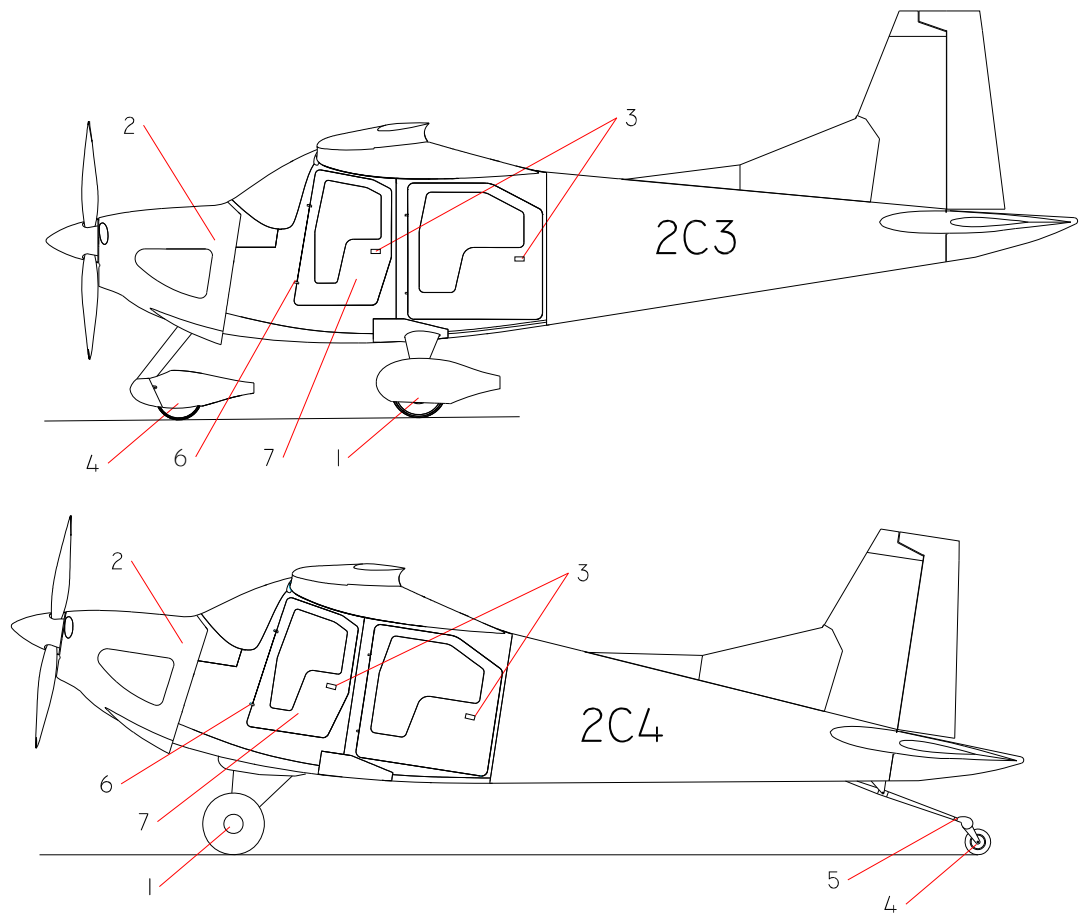
1. MAIN GEAR WHEEL BEARINGS, GA
2. DOOR HINGES, OG
3. ENGINE CONTROLS, ROD ENDS, OG
4. DOOR LATCH MECHANISM, OG
5. DOOR LATCH PINS, OG
6. ENGINE COWLING DOOR HINGES, SL
7. TAIL WHEEL CASTOR BEARING, GA
8. TAIL WHEEL AXLE BEARINGS, GA
9. SEATS, OG/DF

LUBRICANTS

OG	MIL-L-7870	GENERAL PURPOSE OIL
PG	MIL-G-6711	POWDERED GRAPHITE
GA	MIL-G-25760	AIRCRAFT WHEEL BEARING GREASE
GG	MIL-G-7711	GENERAL PURPOSE GREASE
SL		SILICONE LUBE SPRAY
DF	MIL-L-23398	DRY FILM LUBE

NOTE: THE MIL SPECS LISTED ARE NOT MANDATORY. THESE SPECS MAYBE BE USED IN SELECTING SUITABLE ALTERNATIVE LUBRICANTS.

Figure 12-10-01: Lubrication Sheet 1 of 7 (2C1 & 2C2)



1. MAIN GEAR WHEEL BEARINGS, GA
2. ENGINE CONTROLS, ROD ENDS, OG
3. DOOR LATCH MECHANISM, OG
4. NOSE/TAIL WHEEL AXLE BEARINGS, GA
5. TAIL WHEEL CASTOR BEARING, GA
6. DOOR HINGE PINS, OG
7. SEATS, OG/DF

LUBRICANTS

OG	MIL-L-7870	GENERAL PURPOSE OIL
PG	MIL-G-6711	POWDERED GRAPHITE
GA	MIL-G-25760	AIRCRAFT WHEEL BEARING GREASE
GG	MIL-G-7711	GENERAL PURPOSE GREASE
SL		SILICONE LUBE SPRAY
DF	MIL-L-23398	DRY FILM LUBE

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Figure 12-10-01: Lubrication Sheet 2 of 7 (2C3 & 2C4)

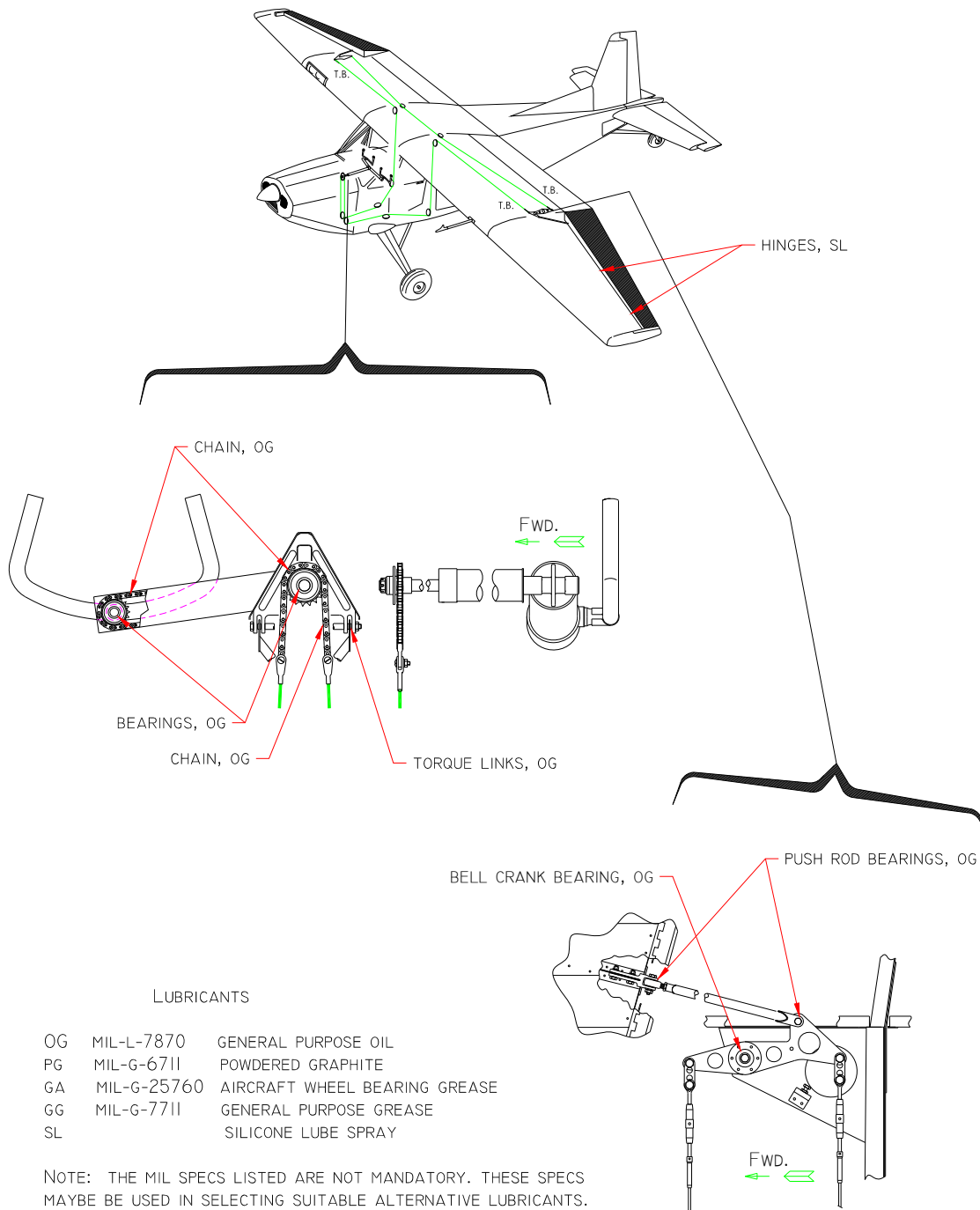


Figure 12-10-01: Lubrication Sheet 3 of 7

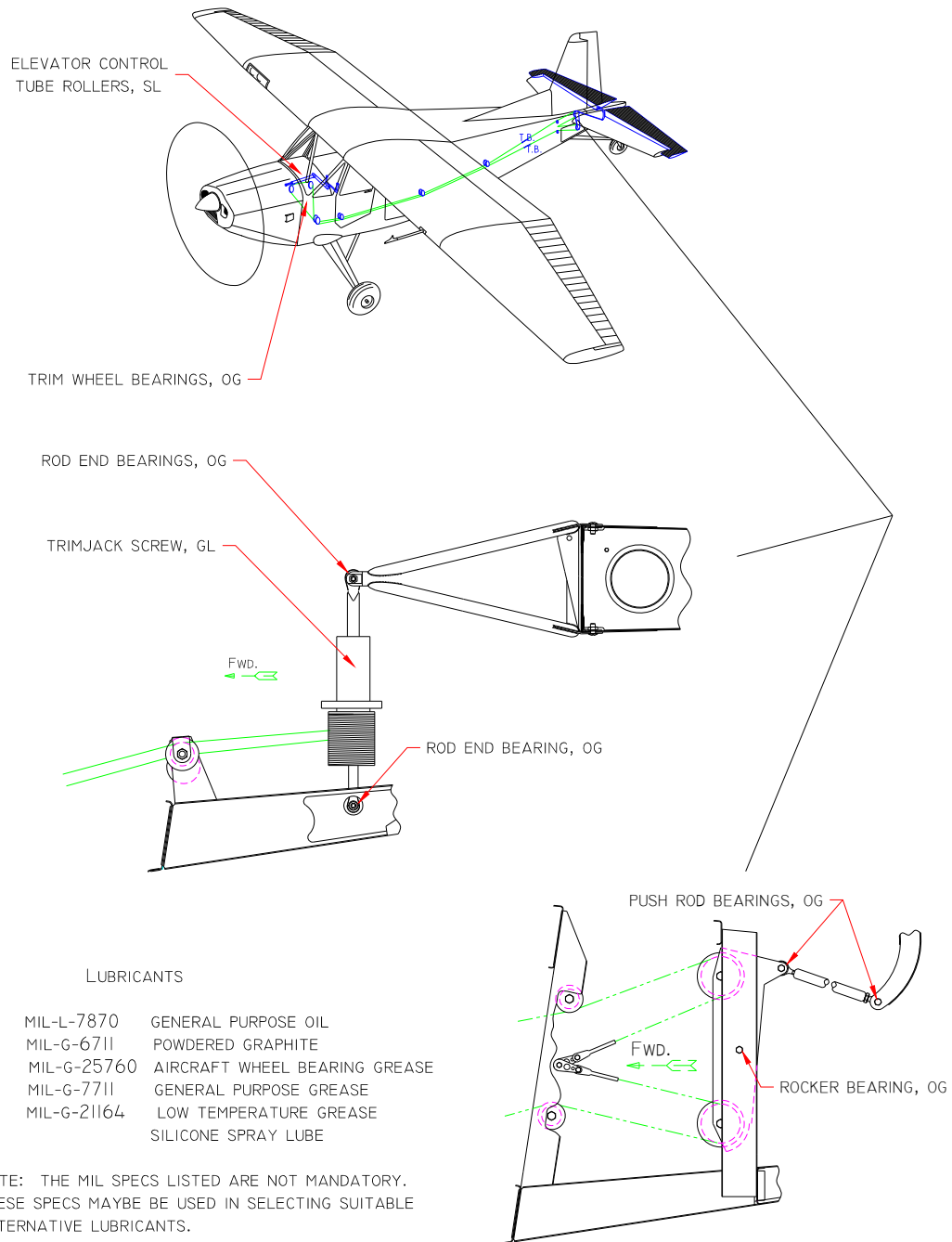
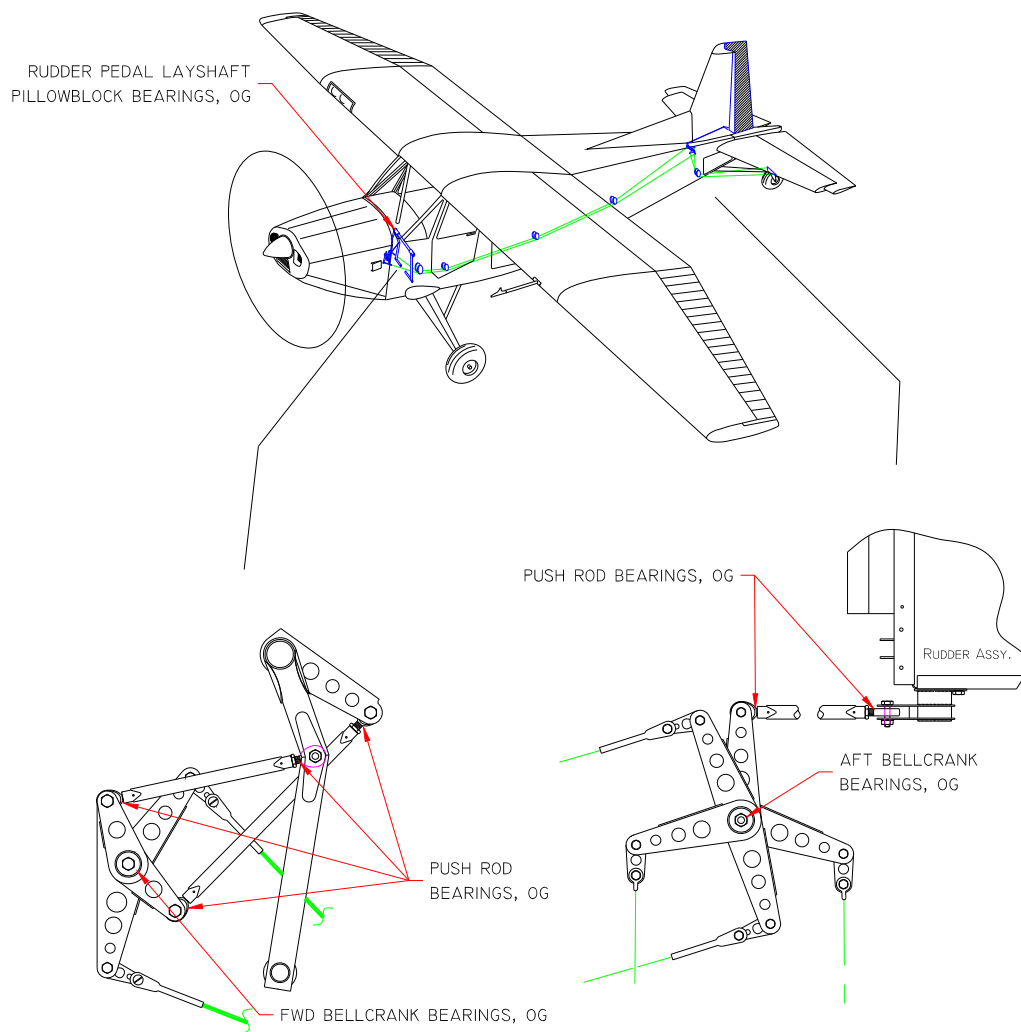


Figure 12-10-01: Lubrication Sheet 4 of 7

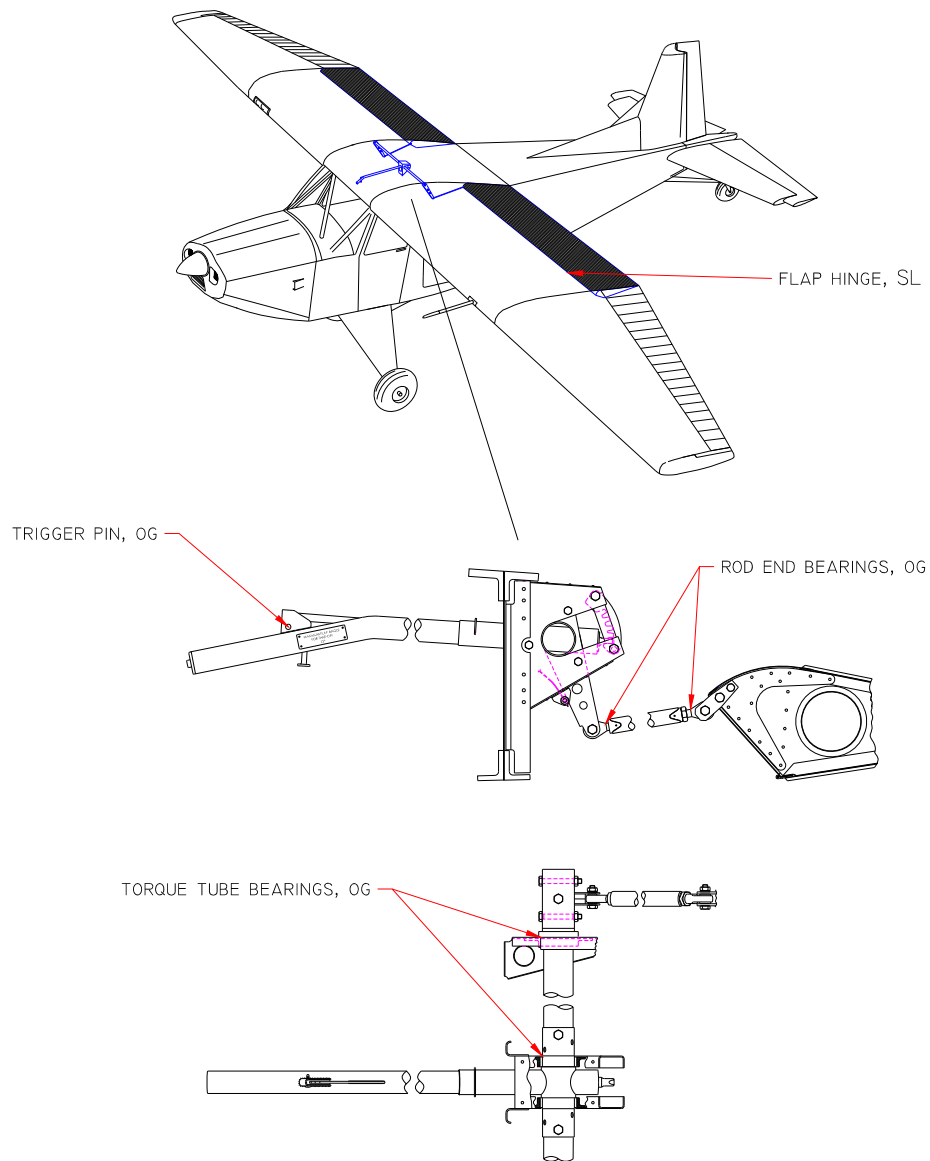


LUBRICANTS

OG	MIL-L-7870	GENERAL PURPOSE OIL
PG	MIL-G-6711	POWDERED GRAPHITE
GA	MIL-G-25760	AIRCRAFT WHEEL BEARING GREASE
GG	MIL-G-7711	GENERAL PURPOSE GREASE

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Figure 12-10-01: Lubrication Sheet 5 of 7

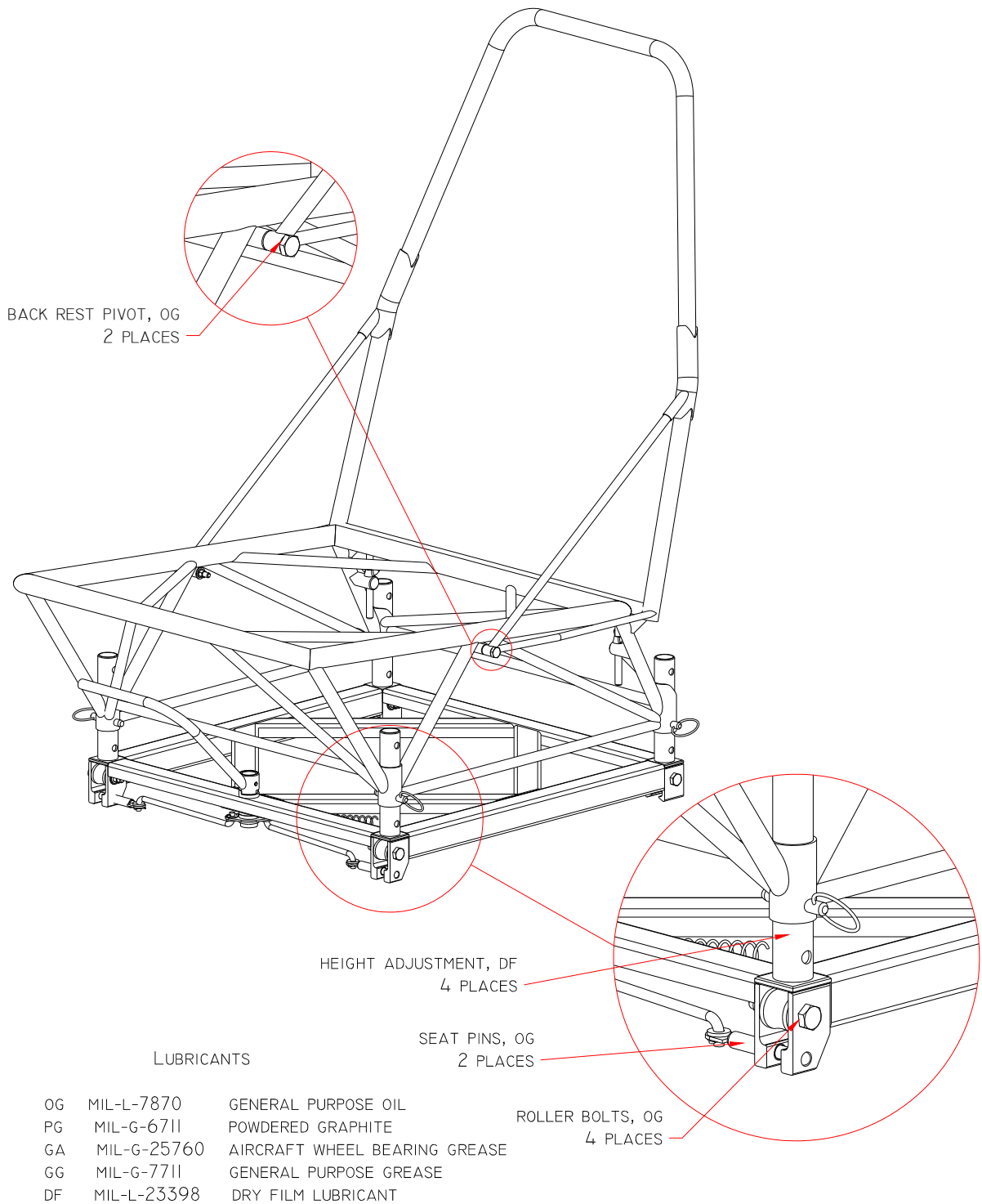


LUBRICANTS

OG	MIL-L-7870	GENERAL PURPOSE OIL
PG	MIL-G-6711	POWDERED GRAPHITE
GA	MIL-G-25760	AIRCRAFT WHEEL BEARING GREASE
GG	MIL-G-7711	GENERAL PURPOSE GREASE
SL		SILICONE LUBE SPRAY

NOTE: THE MIL SPECS LISTED ARE NOT MANDATORY. THESE SPECS MAYBE BE USED IN SELECTING SUITABLE ALTERNATIVE LUBRICANTS.

Figure 12-10-01: Lubrication Sheet 6 of 7



NOTE: THE MIL SPECS LISTED ARE NOT MANDATORY. THESE SPECS MAYBE BE USED IN SELECTING SUITABLE ALTERNATIVE LUBRICANTS.

Figure 12-10-01: Lubrication Sheet 7 of 7

12-20 REPLACEMENTS

12-20-10 To Change Oil Filter

- Step 1. Gain access through engine access CP2 (2C1 & 2C2), or remove cowl (2C3 & 2C4).
Ref : Figure 06-30-03.
- Step 2. Cut lockwire on oil filter.
- Step 3. Remove oil filter. Place container or rags below filter to catch oil seepage when filter is removed.
- Step 4. Lubricate the new filter seal with engine oil, install the filter and install lockwire.
- Step 5. Complete an engine leak check and inspect for oil leaks.

12-20-20 To Change Oil

- Step 1. Gain access through engine access CP2 or CS2 (2C1 & 2C2), or remove cowl (2C3 & 2C4). Ref: Figure 06-30-03.
- Step 2. Cut lockwire on sump plug and remove plug. **Note:** Place a suitable container under drain point to catch the oil, or use a funnel to direct oil aft out the engine compartment air exit opening into a suitable container.
- Step 3. Reinstall sump plug, torque to correct value, and install lockwire.
- Step 4. Open access door on top of the cowl and remove oil dipstick. Insert funnel in dipstick opening and fill to correct level with correct type and grade of oil.
- Step 5. Reinstall oil dipstick.

Note: Ensure that dipstick is correctly installed or oil may leave engine through the dipstick opening when it is started.

- Step 6. Carry out engine run, then inspect for oil leaks.
- Step 7. Close up access panels (2C1 & 2C2) or install cowl (2C3 & 2C4)

12-24 INDUCTION AIR FILTER (2C1 & 2C2)

(Ref: Chapter 71-60)

The engine induction air filter is located on the nose cowl directly below the propeller. It is an open cell foam type filter.

Note: Do not wash the filter. Service by replacement only.

If the air flow capacity of the filter is suspect it must be replaced immediately. Inspection and replacement of the air filter may be required on a more frequent basis if the aircraft is operated in an area where dust, sand, pollution or other airborne contamination is present.

CAUTION: Should an engine backfire while starting, the air filter should be inspected immediately for evidence of burning on the side nearest the engine. If the filter appears burned it must be replaced as burned material may separate from the filter and lodge in the fuel induction system.

12-25 Induction Air Filter (2C3 & 2C4)

(Ref: Chapter 71-65)

The 2C3 and 2C4 air induction system is an inline system consisting of a circular inlet duct, conical shaped K&N filter, and alternate air housing.

Note: Follow manufactures instructions for filter cleaning procedure. Ref. Chapter 71-65.

If the air flow capacity of the filter is suspect it must be replaced immediately. Inspection and replacement of the air filter may be required on a more frequent basis if the aircraft is operated in an area where dust, sand, pollution or other airborne contamination is present.

CAUTION: Should an engine backfires while starting, the air filter should be inspected immediately for evidence of burning on the side nearest the engine. If the filter appears burned it must be replaced as burned material may separate from the filter and lodge in the fuel induction system.

12-26 TIRES

A. 2C1 and 2C2 Aircraft

The 2C1 and 2C2 main wheels utilize a 8.00-6 tire. The main gear tire pressure is 35 PSI.

The 2C1 and 2C2 tail wheel utilizes a 10" x 3.50" tire. The tail wheel tire pressure is 50 PSI.

The aircraft may be equipped with Gar-Aero wheel adapters which allow the installation of larger 8.50 – 10 tires. The following tire pressures apply:

- Recommended tire inflation for unprepared strips is 15 PSI.
- Recommended tire inflation for prepared strips is 20 PSI.
- Operator may adjust tire pressure \pm 5 PSI as required depending upon terrain and mission requirements.
- Tire pressure shall never exceed 25 PSI under any circumstances.
- Tire pressure shall never be below 10 PSI under any circumstances. Tire pressure below 15 PSI should only be used under the most extremely rugged surface conditions.

Where possible, nitrogen or dry air should be used for servicing of tire pressures.

B. 2C3 Aircraft

The 2C3 main wheel utilizes a 6.00-6 tire. The main gear tire pressure is 42 PSI.

The 2C3 nose wheel utilizes a 5.00-5 tire. The nose gear tire pressure is 52 PSI

Where possible, nitrogen or dry air should be used for servicing of tire pressures.

C. 2C4 Aircraft

The 2C4 main wheel utilizes a 26 x 12x 6 Alaskan Bush Wheel (p/n 29136.R). The main gear tire pressure is 15 PSI.

The 2C4 tail wheel utilizes a 10" x 3.50" tire. The tail wheel tire pressure is 50 PSI.

Where possible, nitrogen or dry air should be used for servicing of tire pressures.

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12-30 UNSCHEDULED SERVICING

12-31 ICE AND SNOW REMOVAL

Removal of ice and snow must be carried out with caution as it is possible to damage aircraft skins and flying controls. Removal of snow should be accomplished by using a brush with soft bristles. Never remove ice or snow by hitting or scrapping the aircraft.

FBA-2C1, FBA-2C2, FBA-2C3
FBA-2C4, FBA-2C3T, FBA-2C4T

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