

## LUBRICANTS - DESCRIPTION AND OPERATION

### 1. General

- A. This part of the scheduled servicing section helps the operator find the recommended lubricants. For the best results and continued trouble-free service, use only clean and approved lubricants.
- B. For a list of recommended lubricants, refer to Recommended Lubricants Table.

### 2. Lubrication Service Notes

#### A. Lubricant Application.

- (1) Keep lubricants and dispensing equipment clean.  
**NOTE: Cleanliness is necessary for good lubrication.**
- (2) Use only one lubricant in a grease gun or oil can.
- (3) Keep lubricants in tightly closed containers in a protected area.
- (4) Before you apply the lubricant, use clean, dry cloths to clean the grease fittings and areas to be lubricated.
- (5) To lubricate vented bearings, push grease into the fitting until the old grease is removed from the bearing.
- (6) Use the special grease gun adapter, Alemite Part Number 318049, or an equivalent, to lubricate the flush-type grease fittings (NAS516).
- (7) After any lubrication procedure, clean the unwanted lubricant from all but the actual friction area parts.
- (8) All sealed or prepacked antifriction bearings are lubricated with MIL-PRF-23827 grease by the manufacturer.  
**NOTE: Unless otherwise specified, no more lubrication is necessary for these bearings.**
- (9) Do not put oil on antifriction bearings.
- (10) Do not let spray from steam or chemical cleaning touch the antifriction bearings.
  - (a) When it is necessary to clean the exterior bearing surfaces, clean with a cloth moist with Federal Specification PD-680 solvent.
- (11) The porous, sintered-type friction bearings are lubricated before delivery.
  - (a) To extend its service life, use an oil can and randomly apply some general purpose oil (MIL-PRF-7870) to the bearings.
- (12) Use a general purpose oil (MIL-PRF-7870) to lubricate the unsealed pulley bearings, rod ends, pivot end hinge points and any other friction point where lubrication is necessary.
- (13) Rub paraffin wax on the seat rails to make it easier to move the seats fore and aft.
- (14) Do not lubricate the roller chains or cables except under sea coast conditions. Clean them with a clean, dry cloth.
- (15) Use a general purpose oil (MIL-PRF-7870) to lubricate the unsealed pulley bearings, pivot points and any other friction point during the installation.
- (16) With the exception of the control rod ends for the engine and propeller and the rod ends of the hanger assemblies of the secondary exhaust duct, use a general purpose oil (MIL-PRF-7870) to lubricate the rod ends.  
**NOTE: The rod ends of the hanger assemblies of the secondary exhaust duct are prelubricated. The heat given off by the secondary exhaust duct will burn off the lubrication. This is a normal occurrence.**
  - (a) Lubricate the control rod ends for the engine and propeller. Refer to the Pratt and Whitney Maintenance Manual, Chapter 72-00.
- (17) Use (PG) powdered graphite (SS-G-659) to lubricate all piano hinges when the assembly is installed.

### 3. Recommended Lubricants Table

- A. The table that follows helps maintenance personnel in lubrication procedures.

**NOTE: Equivalent substitutes can be used for the following items:**

**Table 1. Recommended Lubricants**

SYMBOL	PROCUREMENT SPECIFICATION	DESCRIPTION AND USE	PRODUCT PART NUMBER	VENDOR
--------	---------------------------	---------------------	---------------------	--------

GR	MIL-PRF-81322	Grease, wide temperature range.	Mobil grease 28	Mobil Oil Corp. 150 E. 42nd Street New York, NY 10017
			Royco 22C	Royal Lubricants Co., Inc. River Road East Hanover, NJ 07936
			Aeroshell grease 22	Shell Oil Co. One Shell Plaza Houston, TX 77001
GWB	None	Wheel Bearings	Mobil Aviation Grease, SHC 100.	Exxon Mobil Corp. 5959 Las Colinas Blvd. Irving, TX 75039
GH	MIL-PRF-23827	Grease, aircraft and instrument, gear and actuator screw.	Southwest Grease 16215	Southwest Petro-Chem, Inc. Division - Witco 1400 S. Harrison Olathe, KS 66061
			Aeroshell grease 7	Shell Oil Co.
			Royco 27A	Royal Lubricants Co., Inc.
			Supermil grease No. A72832	Amoco Oil Co. 200 East Randolph Dr. Chicago, IL 60601
			Braycote 6275	Burmah-Castrol, Inc. Bray Products Div. 16815 Von Karman Ave. Irving, CA 92714
			Castrolase A1	Burmah-Castrol, Inc.
			TG-11900 low temp grease EP	Southwest Petro-Chem, Inc.
OG	MIL-PRF-7870	Oil, general purpose	Brayco 885	Brumah-Castrol, Inc.
			Royco 363	Royal Lubricants Co., Inc.
			Petrotect 7870A	Penreco 106 South Main Street Butler, PA 16001
			Windsor lube L-1018	Anderson Oil & Chemical Co., Inc. Portland, CT 06480
			Octoil 70	Octagon Process, Inc. 596 River Road Edgewater, NJ 07020
PL	VV-P-236	Petrolatum technical		Commercially Available
PG	SS-G-659	Powdered graphite		Commercially Available
GL	MIL-G-21164	High and low temperature grease	Everlube 211-G Moly Grease	E/M Corporation Highway 52 N.W. Box 2200 West Lafayette, IN 47906
			Royco 64	Royal Lubricants Co., Inc.
GP	None	Number 10 weight, non-detergent oil		Commercially Available

GW	MIL-G-24139	Grease, multi-purpose, water-resistant	Aeroshell grease 6	Shell Oil Company One Shell Plaza Houston, TX 77001
OL	VV-L-800	Light Oil		Commercially Available
SG	None	Special DC33		Commercially Available
		Thin Film Lubricant, Door Lock Assemblies	Medeco Key Lube (PXP)	Medeco Security Locks, Inc. P.O. Box 1075 Salem, VA 24153