



# **STANDARD OVERHAUL PRACTICES MANUAL**

## **LUBRICANTS**

**PART NUMBER  
NONE**

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## STANDARD OVERHAUL PRACTICES MANUAL

Revision No. 69  
Jul 01/2009

To: All holders of LUBRICANTS 20-60-03.

Attached is the current revision to this STANDARD OVERHAUL PRACTICES MANUAL

The STANDARD OVERHAUL PRACTICES MANUAL is furnished either as a printed manual, on microfilm, or digital products, or any combination of the three. This revision replaces all previous microfilm cartridges or digital products. All microfilm and digital products are reissued with all obsolete data deleted and all updated pages added.

For printed manuals, changes are indicated on the List of Effective Pages (LEP). The pages which are revised will be identified on the LEP by an R (Revised), A (Added), O (Overflow, i.e. changes to the document structure and/or page layout), or D (Deleted). Each page in the LEP is identified by Chapter-Section-Subject number, page number and page date.

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TRANSMITTAL LETTER

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## STANDARD OVERHAUL PRACTICES MANUAL

### Location of Change

20-60-03

PGBLK 20-60-03-0

### Description of Change

Added MIL-G-81322 grease as the replacement for MIL-G-25760 grease.

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HIGHLIGHTS

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All revisions to this manual will be accompanied by transmittal sheet bearing the revision number. Enter the revision number in numerical order, together with the revision date, the date filed and the initials of the person filing.

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## STANDARD OVERHAUL PRACTICES MANUAL

### INTRODUCTION

#### 1. General

- A. The instructions in this manual tell how to do standard shop procedures during maintenance functions from simple checks and replacement to complete shop-type repair.
- B. This manual is divided into separate sections:
  - (1) Title Page
  - (2) Transmittal Letter
  - (3) Highlights
  - (4) Effective Pages
  - (5) Contents
  - (6) Revision Record
  - (7) Record of Temporary Revisions
  - (8) Introduction
  - (9) Procedures
- C. Refer to SOPM 20-00-00 for a definition of standard industry practices, vendor names and addresses, and an explanation of the True Position Dimensioning symbols used.
- D. The data is general. It is not about all situations or specific installations. Use it as a guide to help you write minimum standards.
- E. If the component overhaul instructions are different from the data in this subject, use the component overhaul instructions.

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INTRODUCTION

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## STANDARD OVERHAUL PRACTICES MANUAL

### LUBRICANTS

#### 1. INTRODUCTION

- A. Lubricants identified in the overhaul instructions are in this list.
- B. Vendor product names and numbers are given for these lubricants, along with applicable Boeing, Military, or Federal Specification numbers. Refer to SOPM 20-00-00 for a list of all the vendor names and addresses.

NOMENCLATURE	SPECIFICATION	RECOMMENDED MATERIALS
Antiseize Thread Compound	AMS 3080 (replaces TT-A-580) BMS 3-28 (replaces AMS 3080) MIL-A-907 (replaces MIL-A-25552) AMS 2518 (replaces MIL-T-5544) MIL-T-83483	*[1] *[1] *[1] *[1] *[1]
Antiseize Thread Compound, High Temperature	PWA 581-B  PWA-586 (supersedes PWA 581-B)	Ease-Off 990, V87889 *[2]  Fel-Pro C-200, V73165 *[2] BG Micro Lube, A-76B, V05045 Bostik Never-Seez Pure Nickel Special, V70707
Antiseize Lubricant		C5-A, V73165 G-N Metal Assembly Paste, V71984
Assembly Lube, Skydrol (BMS 3-11 Hydraulic Fluid Systems)		MCS 352B (Replaces MCS 352), V0AG11 or V50522
Assembly Lube (BMS 3-32 Hydraulic Fluid Systems)		AFS 682, V81205
Bonded Solid Film Dry Lubricant	BMS 3-8 (replaces BMS 3-3)	*[1]
Dry Film Lubricant (Air Drying)	MIL-L-23398	*[1]
Dry Film Lubricant (Air Drying)		Molykote M-8800, V94499 Molyube, V12474
Dry Film Lubricant, Extreme Temperature and Extreme Pressure		Everlube 811, V11770
Dry Film Lubricant, Extreme Temperature		Micro Seal 100-1, V11770 Everlube 967, V11770 Vitrolube NPI-1220, V1P492 *[3] Vitrolube NPI-1220C, V1P942 *[3]
Dry Film Lubricant (Heat Cured)	MIL-L-8937 MIL-L-46010	*[1] *[1]
Dry Film Lubricant, High Temperature (Heat Cured)		Drilube 700, V06186

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NOMENCLATURE	SPECIFICATION	RECOMMENDED MATERIALS
Dry Film Lubricant, other		Sermalube 20, V58913 Sermetel 20, V58913 Teceram 520, V10201 Texram 520, V10201 Textram 520, V10201
Dry Film Lubricant, Oxygen Systems	D6-3488	Drilube 701D, V06186 Everlox 16B, V11770
Grease		Aeroshell 11MS, V54527 <sup>*[4]</sup> Batco X8401 #1, V60226 Batco X8401 #2, V60226 Batco 8401 #1, V60226 Batco 8401 #2, V60226 Royco 11MS, V07950 <sup>*[4]</sup>
Grease, Aircraft, and Instrument, Fuel and Oxidizer Resistant	MIL-PRF-27617	Christo-Lube MCG111, V0JRD3
Grease, Aircraft, for Low and High Temperature	MIL-PRF-23827 (replaces MIL-G-23827) <sup>*[5]</sup>	<sup>*[1]</sup> . Preferred: Aeroshell 7, V54527 Castrolase AI, V37995 or V98308
Grease, Aircraft	MIL-G-7118 (replaced by MIL-G-23827)	
Grease, Aircraft General Purpose	BMS 3-33 <sup>*[5]</sup>	<sup>*[1]</sup>
	MIL-G-7711 (replaced by MIL-G-81322) ETR	<sup>*[1]</sup>  D6-550, V54527 Molykote 33 (Replaces DC-33), V71984
Grease, Ball and Roller Bearing High Temperature	MIL-G-25013	<sup>*[1]</sup>
Grease, Extreme Low Temperature	MIL-G-7421 (replaced by MIL-G-23827)	<sup>*[1]</sup>
Grease, High Temperature	BMS 3-14 (replaces obsolete BMS 3-22)	<sup>*[1]</sup>  Aeroshell 5, V54527
	MIL-G-3545 (replaced by Aeroshell 5)	
Grease, Maintenance Free, Rolling Element Bearing, Aircraft	BMS 3-34	<sup>*[1]</sup>
Grease, Molybdenum Disulfide (For low and high temperature)	MIL-G-21164	<sup>*[1]</sup>
Grease, Pneumatic System	AMS-SAE-G-4343 (replaces MIL-G-4343, which replaces MIL-L-4343)	<sup>*[1]</sup>
Grease, Sodium Complex		Rheotemp 500, V98354

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NOMENCLATURE	SPECIFICATION	RECOMMENDED MATERIALS
Grease, Wide Temperature Range	BMS 3-33 (replaces obsolete MIL-G-25760) <sup>*[5]</sup> MIL-PRF-81322 (replaces MIL-G-81322, which supersedes MIL-G-25760)	<sup>*[1]</sup>  Aeroshell 22, V54527
Hydraulic Fluid	MIL-H-5606	<sup>*[1]</sup>
Hydraulic Fluid Additive, Landing Gear Shock Strut		Brayco 3F-46, V2R128 or V98308 Lubrizol 1395, VF4101, V05238, or V2V670
Hydraulic Fluid Concentrate		Royco SSF Concentrate, V07950
Hydraulic Fluid, Fire Resistant	BMS 3-11, Type 1, 2, 3 BMS 3-11, Type 4, 5	Obsolete <sup>*[1]</sup>
Hydraulic Fluid, Landing Gear Shock Strut Anti-Wear (Preservative)	BMS 3-32, Type 1	Royco SSF, V07950 Shell SSF, VK5591, V54527 Castrol Aero 35, V37995 or V98308 Hydraunycoil FH 6 AW, VF4101
Hydraulic Fluid, Landing Gear Shock Strut Anti-Wear (In-Service)	BMS 3-32, Type 2	Royco LGF, V07950 Shell LGF, VK5591, V54527 Castrol Aero 40, V37995 or V98308 Hydraunycoil FH 5 AW, VF4101
Hydraulic Fluid, Other		Brayco Micronic 762, V2R128 Brayco 795, V2R128  Castrol Aero 25, 30, V37995 or V98308 Royco 757, V07950
Hydraulic Fluid, Preservative	MIL-H-6083	<sup>*[1]</sup>
Lubricant		Fluorolube 660, V09287 Slip-A-Cone 59-30006001, V71984
Lubricant, CSD O-ring Packings		Acryloid HF-825 (Replaces HF-866 <sup>*[6]</sup> ), V07950 Dow-Corning No. 4, V71984
Lubricant, Fuel Flowmeter Installation		Molykote Type G-N, V71984 Molykote G-Rapid Spray, V71984 <sup>*[6]</sup> Molykote G-Rapid Plus, V71984
Lubricant, Hydraulic		AFS 682, V0AG11
Lubricant, Molybdenum Disulfide (Powder)	MIL-M-7866	<sup>*[1]</sup>
Lubricant, Silicone Compound	MIL-S-21568 (Superseded by VV-D-1078)	<sup>*[1]</sup>

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NOMENCLATURE	SPECIFICATION	RECOMMENDED MATERIALS
Lubricant, Silicone Compound, other		Dow Corning DC-200, V71984
Lubricant, Solid Film	BAC 5814	Vitrolube NPI-1220, V1P492 Sermetel Type 20, V78710
Lubricant, Spray Powder		Moly Lube, V12474
Lubricant, Synthetic		Albemarle Durasyn 166, V1KQE7 Chevron Synfluid 6, V81230 Mobil SHF 61, V29430 <sup>[7]</sup> Mobil SHF 62, V29430 Mobil SHF 63, V29430 <sup>[7]</sup>
Lubricating Compound, High Temperature		688272-2, V99167
Lubrication Additive		Molykote M-30, V0395B
Oil, Aircraft Turbine Engine	MIL-L-7808	<sup>[1]</sup>
Oil, Aircraft Turbine Engine, Synthetic Base	MIL-L-23699	<sup>[1]</sup>
Oil, Corrosion Preventive, Gas Turbine Engine, Aircraft	MIL-G-8188	<sup>[1]</sup>
Oil, Gear, Low Temperature	MIL-L-6086	<sup>[1]</sup>
Oil, Lubrication, General Purpose, Low Temperature	MIL-L-7870	<sup>[1]</sup>
Oil, Lubrication, Instrument, Aircraft, Low Volatility	MIL-L-6085	<sup>[1]</sup>
Oil, Lubrication, Internal Combustion Engine, Preservative Break-in	MIL-PRF-21260	<sup>[1]</sup>
Oil, Lubrication, Turbine Engine	PWA 521	BG, V05045
Oil, Mobil Gear		632, V19135
Oil, Penetrating		WD-40, V09137
Oil, Aircraft Air Compressors	BMS 3-7	<sup>[1]</sup>
Petrolatum	VV-P-236, AN-P-51	Braycote 236, V2R128, V37995 or V98308, or <sup>[1]</sup>
Release Agent/Dry Lubricant		MS122, V18598
Silicone Compound	VV-D-1078	<sup>[1]</sup>
Solid Film Lubricants (see Dry Film Lubricants)		

<sup>[1]</sup> Refer to the applicable Qualified Products List of the specification listed for approved material part numbers and vendors.

<sup>[2]</sup> Ease-Off 990 and Fel-Pro C-200 are replaced by Bostik Never Seez Pure Nickel Special. See SOPM 20-50-07 for details.

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(Continued)

- \*[3] These coatings are vendor-proprietary. Only the vendor can apply them.
- \*[4] Aeroshell 11MS and Royco 11MS are interchangeable.
- \*[5] BMS 3-33 is a preferred alternative to MIL-G-23827; BMS 3-33 now supersedes BMS 3-24. Refer to SOPM 20-50-07 for instructions when you change greases.
- \*[6] New supply not available.
- \*[7] Mobil SHF 63 and SHF 61 are interchangeable.

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