

# MAINTENANCE MANUAL

## Engine Oil Change Procedure

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Page 1 of 3

### 1. INTRODUCTION

This manual provides step-by-step instructions for performing routine engine oil changes on Model XYZ aircraft engines. Follow all safety procedures and use approved lubricants only.

### 2. SAFETY WARNINGS

**WARNING:** Engine must be shut down and cooled before beginning

**CAUTION:** Wear protective gloves when handling oil

**NOTE:** Dispose of used oil according to local regulations

### 3. TOOLS AND EQUIPMENT REQUIRED

- Oil drain pan (minimum 6 quarts)
- Socket wrench set
- Oil filter wrench
- Funnel
- Shop rags
- Approved engine oil (5W-30)
- New oil filter

### 4. DRAIN PROCEDURE

- 4.1 Position aircraft on level ground
- 4.2 Ensure engine is warm but not hot
- 4.3 Locate oil drain plug under engine cowling
- 4.4 Position drain pan under plug
- 4.5 Remove drain plug using socket wrench
- 4.6 Allow oil to drain completely (approximately 15 minutes)

## 5. FILTER REPLACEMENT

- 5.1 Locate oil filter adjacent to drain plug
- 5.2 Remove old filter using filter wrench
- 5.3 Clean filter mounting surface
- 5.4 Apply thin coat of oil to new filter gasket
- 5.5 Install new filter hand-tight plus 3/4 turn

## 6. REFILL PROCEDURE

- 6.1 Replace drain plug with new washer
- 6.2 Tighten drain plug to 25 ft-lbs
- 6.3 Add 4.5 quarts of approved oil through filler cap
- 6.4 Install filler cap
- 6.5 Start engine and check for leaks
- 6.6 Shut down engine and recheck oil level

## 7. FINAL INSPECTION

- 7.1 Verify no leaks present
- 7.2 Record maintenance in aircraft logbook
- 7.3 Dispose of used oil and filter properly