TEXTRON AVIATION INC.
AIRCRAFT DIVISION
WICHITA, KANSAS 67277

LOW OIL PRESSURE SWITCH RELOCATION

ICA Supplement

MODEL NO: 172

SUPPLEMENT NO: ICA-172-79-00001A
SUPPLEMENT DATE: Mmm/DD/2021

TEXTRON AVIATION INC.
AIRCRAFT DIVISION
WICHITA, KANSAS 67277

REVISIONS

ICA-172-79-00001A	Rev: A	Date: Mmm/DD//2021
ICA Summary	Pages 1-6	
Manuals Affected	**Description**	**Title**
Maintenance Manual	5-11-00 pages 1-3	Component Time Limits
• Updated airplane effectivity verbiage and elbow torque procedure. • Airplanes with Oil Pressure Switch installed on the Top RH Crank Case Aft End (Old Location) have a replacement interval of 1,000 hours. • Airplanes with Oil Pressure Switch installed on Left Side of the Accessory Housing (New Location) have a replacement interval of 3,000 hours.		
Maintenance Manual	79-30-00 pages 201-205	Oil Pressure Indicator - Maintenance Practices
• Revised Low Oil Pressure Switch Removal/Installation procedures to add the new switch installation location. Added removal/installation procedures for the new elbow and Figure 202.		
Appendix A: Illustrated Parts Catalog	See Appendix A	See attached parts table.
Appendix B: Wiring Diagram Manual	Not Used	

ICA-172-79-00001	Rev: -	Date: 11/18/2020
ICA Summary	Pages 1-6	
Manuals Affected	**Description**	**Title**
Maintenance Manual	5-11-00 pages 1-3	Component Time Limits
• Added new 1000 hour component time limit for the Oil Pressure Switch installed on top of the RH Crankcase on the aft end. Updated the 3000 hour component time limit for Oil Pressure Switches installed on the LH accessory housing.		
Maintenance Manual	79-30-00 pages 201-205	Oil Pressure Indicator - Maintenance Practices
• Revised Low Oil Pressure Switch Removal/Installation procedures to add the new switch installation location. Added removal/installation procedures for the new elbow and Figure 202.		
Appendix A: Illustrated Parts Catalog	See Appendix A	See attached parts table.
Appendix B: Wiring Diagram Manual	Not Used	

1. Export Compliance

A. This publication contains technical data and is subject to U.S. export regulations. This information has been exported from the United States in accordance with export administration regulations. Diversion contrary to U.S. law is prohibited.

ECCN: 9E991

2. Revision Bars

A. Revision bars in this ICA supplement identify new ICAs and/or changes to the current ICAs in the released maintenance manual.
- New ICAs that are not in the current maintenance manual will have a revision bar from top to bottom along the left margin.
- ICAs that are in the current maintenance manual and have information added, deleted or revised will have a revision bar(s) in the left margin adjacent to the added, deleted or revised information.
- New or changed illustrations will have a change bar for the entire length of the page.

3. Page Numbering

A. The page number system for ICA included in this supplement have three-element numbers that are separated by dashes. The three-element number is found at the bottom right corner of the page, left of the page number. The date is found below the page number.

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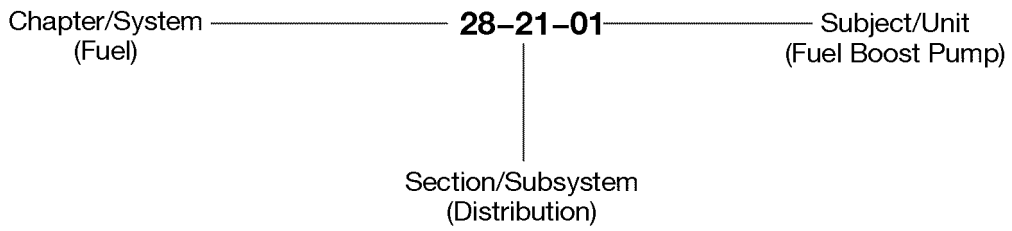

B. When the chapter/system element number is followed with zeros in the section/subsystem and subject/unit element number (28-00-00), the information is applicable to the entire system.

C. When the section/subsystem element number is followed with zeros in the subject/unit element number (28-21-00), the information is applicable to the subsystems in the system.

D. The subject/unit element number is used to identify information applicable to units in the subsystems. The subject/unit element number continues in sequence from the number -01- with the number of subsystem units in which maintenance information is necessary.

E. All system/subsystem/unit (chapter/section/subject) maintenance data is separated into specified types of information: Description and Operation, Troubleshooting, Maintenance Practices, etc. Blocks of page numbers that are in sequence are used to identify the type of information:
(1) Description and Operation or Troubleshooting information may not be included if the procedure is easy. When subtopics are short, they may be put together into the Maintenance Practices section. Maintenance Practices can have a mix of subtopics that includes information to service, remove, install, adjust, test, clean, paint or do approved repairs.
(2) Longer procedures that are not as easy to do may be included in a specified section.
Page 1 through 99 - Description and Operation
Page 101 through 199 - Troubleshooting
Page 201 through 299 - Maintenance Practices
Page 301 through 399 - Servicing
Page 401 through 499 - Removal/Installation
Page 501 through 599 - Adjustment/Test
Page 601 through 699 - Inspection/Check
Page 701 through 799 - Cleaning/Painting
Page 801 through 899 - Approved Repairs

F. A typical page number:

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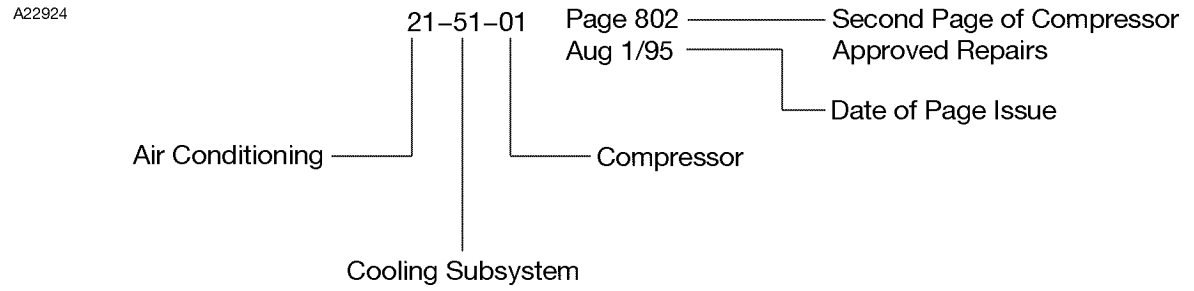

G. Illustrations use the same figure numbers as the page block in which they appear. For example, Figure 202 would be the second figure in a Maintenance Practices section.

4. Supplement Revisions

A. Revisions to this supplement may be accomplished if changes to this supplement are required after release of the original issue and prior to incorporation into the manuals listed in the REVISIONS table.

B. All revisions to this supplement will have changes identified in detail in the revision block(s) above.

C. All pages in this ICA supplement will have the same date and are valid as of the date shown.

5. ICA Incorporation into Applicable Manuals

NOTE: Most ICA supplements will be incorporated in the next available revision to the manuals listed above and should be used in conjunction with those manuals until the next available revision is released.

A. The ICA Supplement List located in the Introduction section of each manual listed in the REVISIONS table will indicate the incorporation status as of the release date of the published revision.

B. The manual revision level of the supplement incorporation will be listed in the "Manual Incorporation Status" column in the ICA Supplement List, when those ICAs associated with that manual have been incorporated. After ICAs are incorporated, the manual that they are incorporated in must now be used for those ICAs instead of the supplement.
- Based on revision cycle times for the affected manuals, MM ICAs, WDM ICAs, etc. in this supplement may be incorporated in the manuals at different times.
- There will not be a revision to this supplement to indicate incorporation in the manuals. Users are required to check the ICA Supplement List for each manual affected to determine incorporation status.

C. This supplement will be completely superseded by the manuals listed in the REVISIONS table when it has been incorporated in all of the manuals.

INTRODUCTION

1. Purpose

A. The purpose of this Supplement is to establish new replacement interval times for the oil pressure switch base on installation location; as well as, provide the maintenance technician with the information necessary to ensure the correct functionality and performance of the Oil Pressure Switch Relocation on the Cessna Model 172 until this information gets incorporated into the next revision to the manuals listed in the "REVISIONS" section of this supplement.

B. This ICA supplement is designed to satisfy the requirements of 14 CFR 23.1529 "Instructions for Continued Airworthiness" associated with this installation. This document is a supplement to the Model 172 (1996 Series and On) Maintenance Manual and will be incorporated in the next revision to the manual.

C. When this information is incorporated in the next revision to the manuals listed in the "REVISIONS" section, those manuals shall take precedence over this supplemental document. Refer to the "ICA Supplement List" in the "Introduction" section of the respective manual for the status of all applicable ICA Supplements.

D. Revisions to this supplement may occur if there is a change to any of the ICAs in this supplement prior to incorporation into all of the affected manuals.

NOTE: This document must be placed with the aircraft operator's Technical Library CD-ROM or Model 172 (1996 Series and On) Maintenance Manual and incorporated into the operator's scheduled maintenance program.

2. Effectivity

A. These Instructions for Continued Airworthiness (ICA) are effective for the following aircraft model and serialization.

Airplanes with Oil Pressure Switch Installed on Top of the RH Crankcase on the Aft End Replacement Interval of 1,000 Hours (See NOTE)		
Model	Beginning Effectivity	Ending Effectivity
172R	17280001	thru 17281622
172S	172S08001	thru 172S12620

NOTE: Airplanes may incorporate SEB-79-10 to update oil pressure switch location with a NEW oil pressure switch, in the new location. Once accomplished, the replacement interval of the oil pressure switch will be 3,000 hours.

Airplanes with Oil Pressure Switch installed on Left Side of the Accessory Housing Replacement Interval of 3,000 Hours		
Model	Beginning Effectivity	Ending Effectivity
172S	172S12621	and On

3. Complete ICA Documents

A. The following document(s), in conjunction with this supplement, constitute the Instructions for Continued Airworthiness for the Oil Pressure Switch Relocation on the Cessna Model 172. All items must be available to the operator at initial delivery.
(1) Model 172 (1996 Series and On) Maintenance Manual

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LIST OF INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

1. Model 172 (1996 Series and On) Maintenance Manual

A. Chapter 5 - Time Limits/Maintenance Checks
   (1) ATA 5-11-00 - Component Time Limits

B. Chapter 79 - Oil
   (1) ATA 79-30-00 - Oil Pressure Indicator - Maintenance Practices

INSPECTION PROGRAM AND AIRWORTHINESS LIMITATIONS

1. Continuous Inspection Program

A. This ICA Supplement decreases the replacement interval for the low oil pressure switch to 1000 hours when the switch is installed on top of the RH Crankcase on the aft end location.

2. Airworthiness Limitations

A. Cessna Aircraft Company Model 172 Maintenance Manual, Chapter 4, Airworthiness Limitations, contains the system and airframe limitations for the Model 172.

NOTE: The Airworthiness Limitations section is FAA-approved and specifies maintenance required under Section 43.16 and 91.403 of Title 14 Code of Federal Regulations, unless an alternative program has been FAA approved.

(1) There are no new (or additional) airworthiness limitations associated with this equipment and/or installation.

COMPONENT TIME LIMITS

1. General

A. Most components given in Chapter 5 are examined as shown elsewhere in this chapter and repaired, overhauled, or replaced as necessary. Some components have a time or life limit and must be overhauled or replaced on or before the specified limit. This is not applicable for Chapter 4 items.

B. **Items that are underlined are Chapter 4, Airworthiness Limitations requirements. Refer to Chapter 4, Airworthiness Limitations for additional information.**

C. The terms overhaul and replacement as used in this section are defined as follows:
(1) Overhaul - Overhaul the item as given in 14 CFR 43.2 or replace it.
(2) Replacement - Replace the item with a new item or a serviceable item that is in its service life and time limits or has been rebuilt as given in 14 CFR 43.2.

D. This section (5-11-00) gives a list of items which must be overhauled or replaced at specific time limits. The Cessna-Supplied Replacement Time Limits section shows those items which Cessna has found necessary to overhaul or replace at specific time limits. The Supplier-Supplied Replacement Time Limits section shows component time limits which have been given by an outside supplier for their products. In addition to these time limits, the components shown in this section are also examined at regular time intervals given in the Inspection Time Intervals section. If necessary, based on service use and inspection results, these components can be overhauled or replaced before their time limit is reached.

2. Cessna-Supplied Replacement Time Limits

A. Electrical Power (Chapter 24)
(1) For airplanes equipped with the NAV III, Garmin G1000 Avionics System only:
(a) S3443-1-1 Avionics Switch - Replace every 500 hours of operation.

B. Equipment/Furnishings (Chapter 25).
(1) 504516-401-XXXX Restraint System, Pilot's Left Hand or Right Hand Auto Adjust - Replace every 10 years.
(2) 504851-401-XXXX Restraint System, Pilot's Left Hand or Right Hand Manual Adjust - Replace every 10 years.
(3) 504516-403-XXXX Restraint System, Aft Bench Left Hand or Right Hand Auto Adjust - Replace every 10 years.
(4) 504851-403-XXXX Restraint System, Aft Bench Left Hand or Right Hand Manual Adjust - Replace every 10 years.
(5) 2000031-09-201 Restraint Assembly, Pilot's Seat - Replace every 10 years.
(6) 2000031-10-201 Restraint Assembly, Copilot's Seat - Replace every 10 years.
(7) 2000031-11-201 Restraint Assembly, Right Rear Seat - Replace every 10 years.
(8) 2000031-12-201 Restraint Assembly, Left Rear Seat - Replace every 10 years.

C. Flight Controls (Chapter 27).
(1) 1260074-1 Trim Tab Actuator - Replace the trim tab actuators when the free play cannot be kept in limits by the adjustment or replacement of the rod ends, rod end bolts, screw assembly, and the lubrication of the trim tab actuator.

D. Fuel (Chapter 28).
(1) S1495 or S51 Fuel Hoses - Replace every 7 years.

E. Lights (Chapter 33)
(1) Position Light Assembly (Part Number 01-0771011-04, and 01-0771015-07,-08) - Replace every 10,000 hours. Refer to Chapter 33, LED Navigation Lights Removal/Installation .

F. Vacuum (Chapter 37).
(1) C294502-0201 Gyro Filter - Replace at 600 hours.

G. Powerplant (Chapter 71).
(1) Engine Compartment Flexible Fluid-Carrying Teflon Hoses (Cessna-Installed), Except Drain Hoses - Replace every 10 years or at the engine overhaul, whichever occurs first.

NOTE: This life limit is intended not to let flexible, fluid-carrying Teflon hoses in a deteriorated or damaged condition stay in service. Replace the flexible, fluid-carrying Teflon hoses in the engine compartment (Cessna-installed only) every 10 years or at the engine overhaul, whichever occurs first. This does not include drain hoses. Serviceable hoses which are beyond these limits must be put on order immediately and replaced within 30 days after the new hose is received from Cessna.

(2) Engine Compartment Drain Hoses - Replace on condition.
(3) Engine Flexible Hoses (Textron Lycoming Installed) - Refer to latest Textron Lycoming Engine Service Bulletins.
(4) P198281 Air Filter - Replace every 500 hours or if the condition of the part shows the need for replacement.
(5) CA3559 Air Filter - Replace every 100 hours or if the condition of the part shows the need for replacement.
(6) Mixture and Throttle Cables - Replace at every engine TBO.
(7) 31B22207 Engine Starter - Replace at every engine TBO.

H. Chapter 79 (Oil).

CAUTION: Any switch that has been operated on top of RH crankcase on aft end must be replaced at 1,000 hours service time.

CAUTION: Any switch that has been operated on top of RH crankcase on aft end can **NOT** be moved to the LH side of the accessory housing, it must be replaced.

(1) Oil Pressure Switch (Part Number 83278) installed on top of RH crankcase on aft end (Refer to Chapter 79, Oil Pressure Indicator - Maintenance Practices) - Replace every 1000 hours.

CAUTION: Switches installed on the LH accessory housing must be new with no prior service time or installation on top of RH crankcase on aft end.

(2) Oil Pressure Switch (Part Number 83278) installed on the LH accessory housing (Refer to Chapter 79, Oil Pressure Indicator - Maintenance Practices) - Replace every 3000 hours.

3. Supplier-Supplied Replacement Time Limits

A. Chapter 25 (Equipment/Furnishings).
(1) 2020-0 Pointer ELT Battery - Refer to 14 CFR 91.207 for battery replacement time limits.
(2) 508358-409 and 508358-421 AMSAFE Aviation Inflatable Restraint (AAIR) Forward and Aft Electronics Module Assemblies (EMA) - Remove and return the forward and aft EMA's to AMSAFE Aviation after seven years from the manufacture date. The expiration of the service life, that is the total sum of storage life and installation life, must not be more than seven years from the manufacture date. Only the manufacturer can renew the EMA's.
(3) 508792-401 and 508794-401 Pilot's, Copilot's, Left Passenger's, and Right Passenger's AMSAFE Aviation Inflatable Restraint (AAIR) Inflator Assemblies – Remove and replace each 508792-401 or 508794-401 inflator assembly after twelve years from the date of manufacture. The date of manufacture is found on the gas cylinder, or can be calculated from the EXP. DATE found on the gas cylinder. (For additional information refer to AMSAFE service bulletin SB507592-401-25-01.)

(4) 512847-401 Pilot's, Copilot's, Left Passenger's, and Right Passenger's AMSAFE Aviation Inflatable Restraint (AAIR) Inflator Assemblies – Remove and replace the 512847-401 inflator assemblies after ten years from the date of manufacture. The date of manufacture is found on the gas cylinder.
(5) 452-201-[X] CO Guardian Remote Mounted CO Detector - Replace 7 years.

B. Chapter 28 (Fuel).
(1) Electric Fuel Pump - Replace at 10 Years if not overhauled.

C. Chapter 37 (Vacuum).
(1) 1H5-25 Vacuum Manifold - Refer to the Airborne Air & Fuel Product Reference Memo No. 39 or the latest revision for replacement time limits.
(2) B3-5-1 or ARB3-5-1 Regulator Valve Filter - Replace at 100 hours.
(3) Dry Vacuum Pump - Replace the engine-driven vacuum pump, if it does not have a wear indicator, every 500 hours of operation, or replace the pump at the vacuum pump manufacturer's recommended inspection and replacement interval, whichever occurs first. For vacuum pumps with a wear indicator, replace the pump at the manufacturer's recommended inspection and replacement interval for that vacuum pump.
(4) Airborne 350 Vacuum Pump Coupling - Replace every 6 years.
(5) Aero Accessories Vacuum Manifolds Models AA1H25 and AA1H5-25A - Refer to Tempest Service Letter SL-006 or the latest revision for replacement time limits.

D. Chapter 61 (Propeller).
(1) 1C235/LFA7570 or 1A170E/JHA7660 Propeller - Refer to the latest revision of McCauley Service Bulletin 137 for the overhaul time limits.

E. Chapter 71 (Powerplant).
(1) IO-360-L2A Engine - Refer to Textron/Lycoming Service Instruction S.I. 1009AJ or latest revision for time limits.
(2) CH48110 Engine Oil Filter - Refer to Textron/Lycoming Service Instructions S.I. 1492B, S.I. 1267C, and Service Bulletin SB.480C, or latest revisions.

F. Chapter 74 (Ignition).
(1) 4371 Slick Magnetos - Refer to the Slick Service Bulletin SB2-80C, or latest revision, for time limits.

OIL PRESSURE INDICATOR - MAINTENANCE PRACTICES

1. Description and Operation

A. Oil pressure is measured at two points on the engine and gives both indicator readings and low oil pressure annunciation.
   (1) On airplanes with Garmin G1000, the oil pressure is shown on the Multi-Function Display (MFD). The oil pressure transducer is the same for all avionics packages.
   (2) The oil pressure indicator system has an oil pressure line, a transducer and a pressure/temperature indicator in the cockpit. Oil for the system is tapped at the upper right side of the case. This oil goes through a rigid line to a transducer on the rear baffle area. This transducer gives an electrical signal which goes to the oil pressure/oil temperature indicator in the cockpit.
   (3) The low oil pressure annunciation system has a pressure switch and related wiring. Depending on airplane configuration, the switch is either mounted on the top of the right-hand crankcase at the aft end, or is mounted on the left side of the accessory housing. The switch is configured so that when oil pressure is below 20 PSI, a ground is supplied to the annunciator in the instrument panel. This causes the OIL PRESS light on the annunciator to come on. When oil pressure is greater than 20 PSI, the ground switches to the Hobbs meter and extinguishes the OIL PRESS light.

2. Oil Pressure Indicator and Transducer Removal/Installation

NOTE: On airplanes with Garmin G1000, the oil pressure is shown on the Multi-Function Display (MFD). Refer to Control Display Unit - Maintenance Practices for removal and installation procedures of the MFD.

NOTE: Oil pressure transducer removal and installation is typical for all avionics packages.

A. Remove the Oil Pressure Indicator (Refer to Figure 201).
   (1) Make sure the electrical power to airplane is off.
   (2) Remove screws that attach the indicator to instrument panel.
   (3) Disconnect the electrical connector from forward side of the indicator.
   (4) Carefully remove the indicator from the instrument panel.

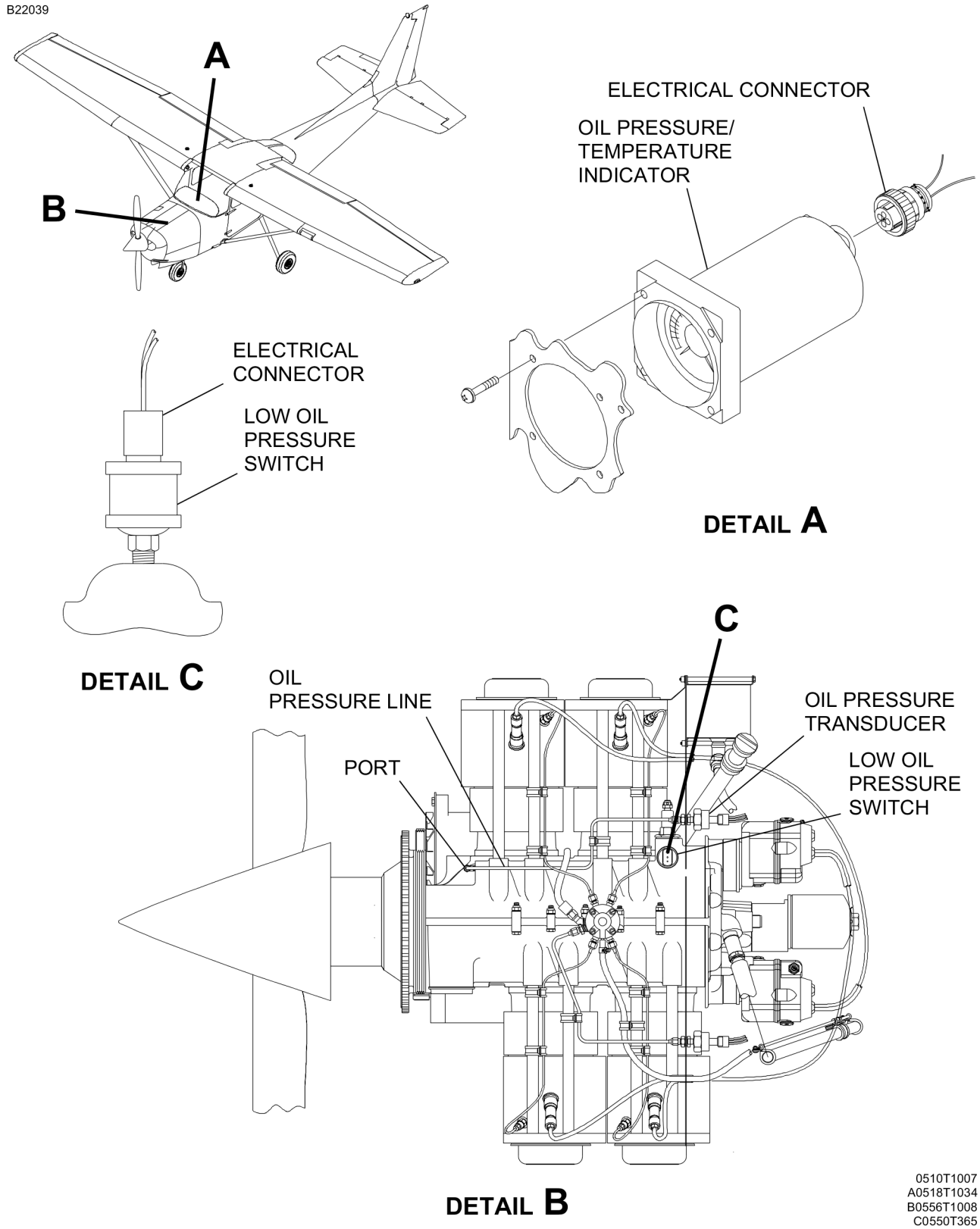
B. Install the Oil Pressure Indicator (Refer to Figure 201).
   (1) Connect the electrical connector to the indicator.
   (2) Put the indicator in position in the instrument panel.
   (3) Attach the indicator with the screws.
   (4) Operate the engine to make sure the indicator operates correctly.

C. Remove the Transducer (Refer to Figure 201).
   (1) Remove the upper cowl. Refer to Chapter 71, Cowling - Maintenance Practices.
   (2) Disconnect the oil pressure line at the transducer.
   (3) Disconnect the electrical connector from the transducer.
   (4) Remove the nut that attaches the transducer to the rear of the baffle and remove the transducer.
   (5) Remove the O-ring and fitting, if applicable.

D. Install the Transducer (Refer to Figure 201).
   (1) Install the O-ring and fitting to the transducer.
   (2) Install the transducer to the rear baffle and attach with the nut.
   (3) Connect the electrical connector to the transducer.
   (4) Connect the oil line at the transducer.
   (5) Install the upper cowl. Refer to Chapter 71, Cowling - Maintenance Practices.
   (6) Operate the engine to make sure the transducer operates correctly and does not have leaks.

3. Low Oil Pressure Switch Removal/Installation

A. Remove the Low Oil Pressure Switch. (Refer to Figure 201 for switches mounted on the right-hand crankcase and to Figure 202 for switches mounted on the left side of the accessory housing).
   (1) Make sure the electrical power to the airplane is off.
   (2) Remove the upper cowl. Refer to Chapter 71, Cowling - Maintenance Practices.



Low Oil Pressure Switch Mounted on Top of the Right-Hand Crank Case at the Aft End
Figure 201 (Sheet 1)

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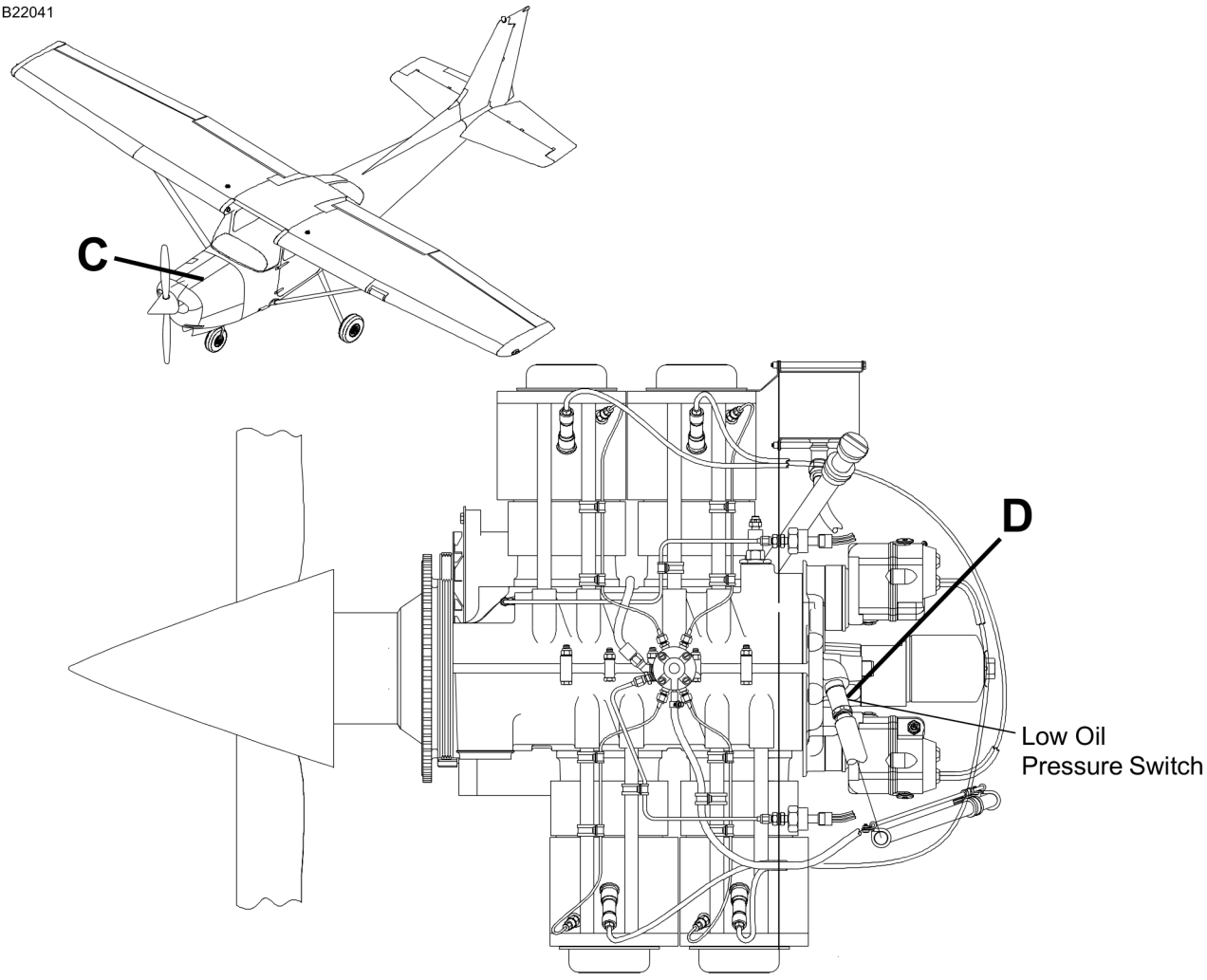
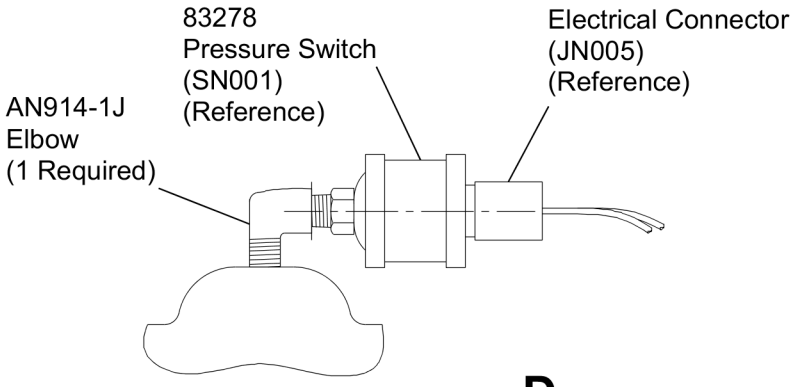


DETAIL C

Low Oil Pressure Switch Mounted Left Side of the Accessory Housing



DETAIL D

0510T1007
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D0556T1008

Low Oil Pressure Switch Mounted Left Side of the Accessory Housing
Figure 202 (Sheet 1)

(3) Disconnect the electrical connector from the switch.
(4) Remove the switch.
(5) As necessary, do the Low Oil Pressure Switch Elbow (If Installed) Removal procedure in this document.

B. Install the Low Oil Pressure Switch (Refer to Figure 201 and Figure 202).
(1) As necessary, do the Low Oil Pressure Switch Elbow (If Installed) Installation procedure in this document.

CAUTION: Do not use teflon tape.

CAUTION: Clean any sealer or other foreign object debris from the switch fitting before installation. Make sure foreign object debris is removed and clear of the pressure hole in the end of the switch fitting.

(2) Put U544006 sealant (or equivalent) on threads.

CAUTION: Do not use too much torque on the plastic switch connection housing when the switch is tightened by hand.

CAUTION: Use only the hex fitting to final tighten. Do not use plier-type tools on the plastic housing or the circular metal base of the oil pressure switch. The switch can be damaged between the swaged connections between the plastic housing and circular metal base and/or the metal base and the hex fitting. Damage to either of these swaged connections can cause an oil leak.

(3) Install switch and tighten by hand.
(4) Tighten switch approximately 1 to 1 1/2 turns beyond hand tight. Do not tighten the switch to more than 60 in-lbs. Refer to Chapter 20, Torque Data - Maintenance Practices.
(5) Connect the electrical connector to the switch.
(6) Install the upper cowl. Refer to Chapter 71, Cowling - Maintenance Practices.
(7) Make sure the Low Oil Pressure Switch operates correctly.
(a) With the engine off, the OIL PRESS annunciator must be ON.
(b) With the engine on, the OIL PRESS annunciator must be OFF and the Hobbs hourmeter must be ON.

4. Low Oil Pressure Switch Elbow (If Installed) Removal/Installation

A. Remove the Low Oil Pressure Switch Elbow (Refer to Figure 202).
(1) Make sure the electrical power to the airplane is off.
(2) Remove the upper cowl. Refer to Chapter 71, Cowling - Maintenance Practices.
(3) Do the Low Oil Pressure Switch Removal procedure in this document.
(4) Remove the elbow from the engine case.

B. Install the Low Oil Pressure Switch Elbow (Refer to Figure 202).

CAUTION: Do not use teflon tape.

CAUTION: Clean any sealer or other foreign object debris from the elbow threads before installation.

(1) Put U544006 sealant (or equivalent) on the external (male) threads of the elbow.

(2) Install the elbow until hand tight then rotate the elbow one additional turn, then rotate until the elbow is in an aft direction that provides clearance as not to be in contact with any other components.

NOTE: When you tighten the elbow, make sure you point the elbow in a direction that allows space for the installation of the switch.

(3) Do the Low Oil Pressure Switch Installation procedure in this document.

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APPENDIX A: ILLUSTRATED PARTS CATALOG

Nomenclature	Part Number	QTY
Elbow Fitting	AN914-1J	1

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APPENDIX B: WIRING DIAGRAM MANUAL

NOT APPLICABLE