

**MONTAJE DEL MOTOR LYCOMING TIO-540-  
AJIA EN LA AERONAVE CESSNA T2060807I DE  
MATRÍCULA HC-CPS DE LA COMPAÑÍA  
AEROSARAYAKU TAYJASARUTA S.A. EN LA  
PARROQUIA DE SHELL-MERA**

ELABORADO POR:

TIPANTUÑA PALACIOS ANGEL JOEL

# PLANTEAMIENTO DEL PROBLEMA

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK	
				TOTALS brought forward from previous page	
				<div data-bbox="801 454 1033 499" data-label="Image"> </div> <p data-bbox="1058 459 1787 482">10 / Junio / 2015 HC – CPS TAC.- 1998.5 Horas.</p> <p data-bbox="782 516 1825 596">El Motor Lycoming, Model.- TIO – 540 – AJ1A, con Serie.- RL – 4575 – 61A, cumple con su T.B.O (2.000 Hours), por lo cual se desmonta el motor de la Aeronave Cessna T206H, y se envía el mismo a los Estados Unidos, a Lycoming Engines.</p> <div data-bbox="1116 625 1477 711" data-label="Text"> <p><u>Andrés Arévalo R.</u>  <b>Andrés Arévalo R.</b>  <b>JEFE DE MANTENIMIENTO</b>  <b>Lic. N.- 2595 MM</b></p> </div> <div data-bbox="1510 611 1758 716" data-label="Image"> </div>	
					SUB-TOTALS this page
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# OBJETIVOS



Maintenance Manual

## MODEL 206/T206 SERIES 1998 AND ON

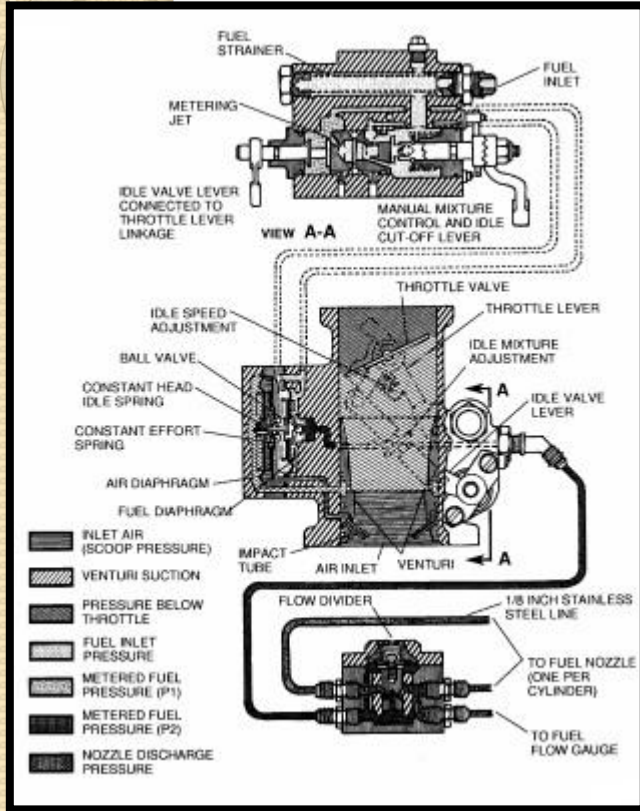
Instrumento	Arco rojo (Mínimo)	Arco verde (Normal)	Arco rojo (Máximo)
Tacómetro (RPM)	--	2000 a 2400	2500
Presión del Múltiple (in. Hg)	--	15 a 30	39
Temperatura cabeza de cilindros (°F)	--	200 a 480	480
Temperatura de aceite (°F)	--	100 s 245	245
Presión de aceite (PSI)	20	50 a 90	115
Flujo de combustible (GPH)	--	5 a 20	34
Vacío (in. Hg)	--	4.5 a 5.5	--
Temperatura entrada de turbina (T.I.T.) (°F)	--	1350 a 1675	1675



# **SISTEMAS DEL MOTOR**



# SISTEMA DE COMBUSTIBLE



Esquema sistema a inyección



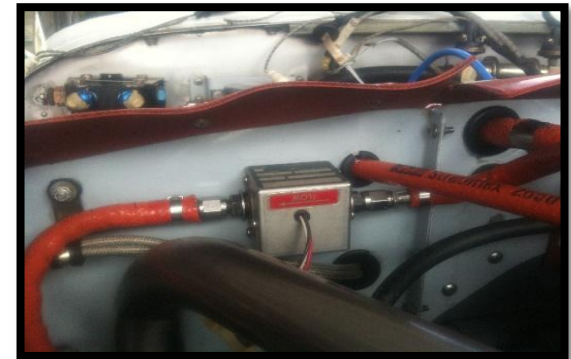
Unidad de Control Aire Combustible



Inyector de combustible

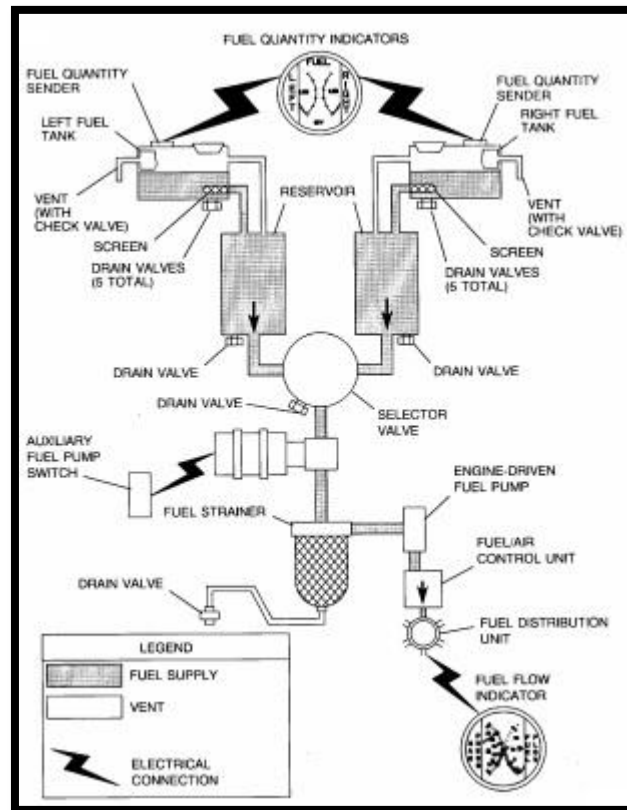


Válvula distribuidora de combustible



Sensor flujo de combustible

# OPERACIÓN SISTEMA DE COMBUSTIBLE



# SISTEMA ELÉCTRICO



**Batería**



**Motor de arranque**



**Alternador**

# SISTEMA DE ENCENDIDO



**Magneto**



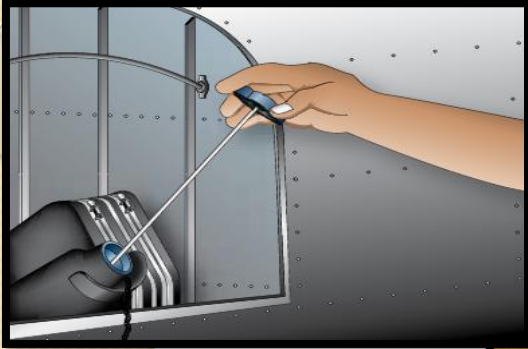
**Arnés de ignición**



**Bujías**



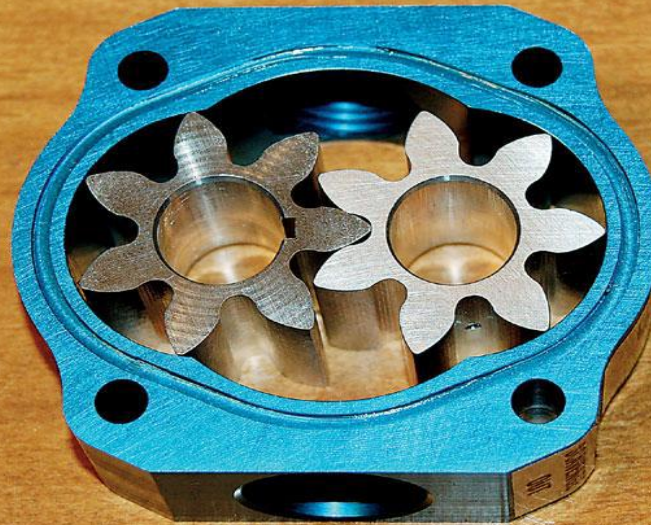
# SISTEMA DE LUBRICACION



Varilla medidora de aceite



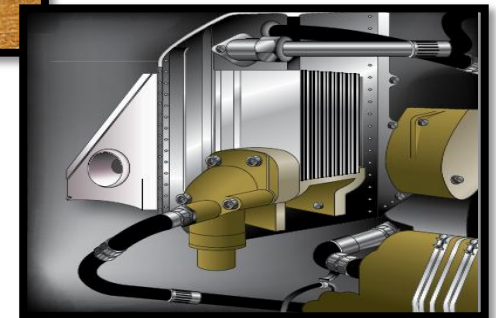
Indicador de Presión y Temperatura de Aceite



Bomba Tipo Engranaje



Filtro de Aceite



Radiador

# SISTEMA DE REFRIGERACIÓN



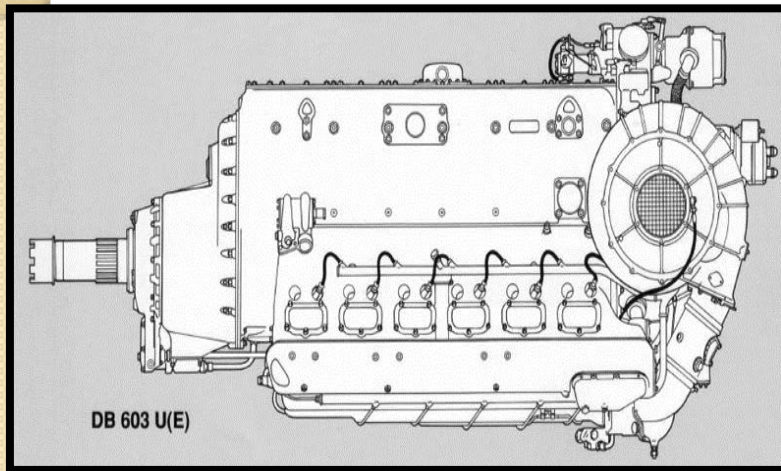
**Aletas de refrigeración**



**Baffles**



# MOTORES SOBREALIMENTADOS



**Motor Súper Cargado**



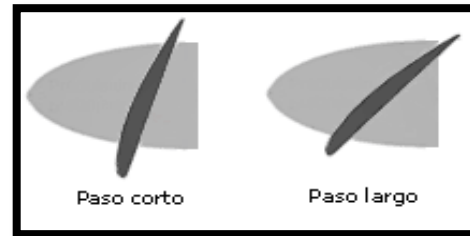
**Motor Turbo Cargado**

# HÉLICE

Hélice	
Tipo	McCauley B3D36C432/80VSA-1, 3 palas
Diámetro (Máximo a mínimo)	79.0 a 77.5 pulgadas
Extensión del paso (Alto a bajo)	33.8 a 16.9 grados

Fuente: (Cessna Aircraft Company, 2010)

## Descripción de la hélice

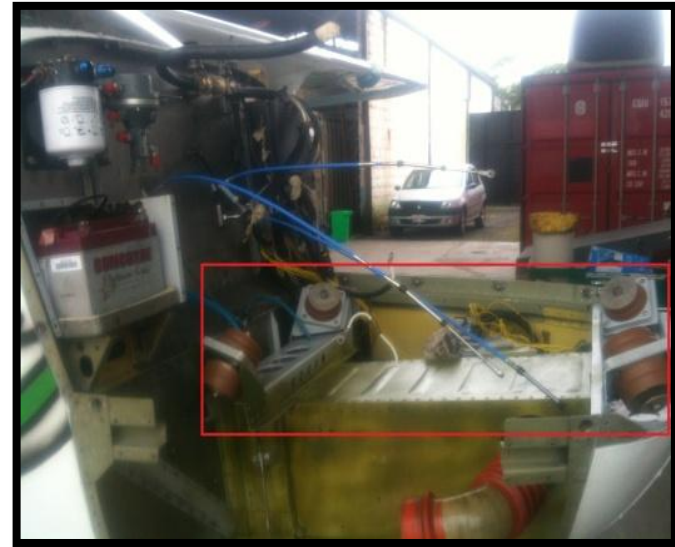


## Paso de la hélice



## Gobernador

# MONTANTE DEL MOTOR





# **DESARROLLO DEL TEMA**

# Anexo B. Montaje del Motor

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## ENGINE - MAINTENANCE PRACTICES

### 1. General

- A. This section provides instructions to remove and install the engine. For maintenance beyond the scope of this chapter, refer to applicable engine publications which are listed in Introduction - List of Manufacturers Technical Publications.

### 2. Engine Removal/Installation

#### A. Remove Engine.

- (1) Place all cabin switches and the fuel shutoff valve in the OFF position.
- (2) Remove engine cowling.
- (3) Disconnect positive and negative battery leads from battery.
- (4) Loosen C-clamp securing flexible duct to nose cap. Remove flexible duct from nose cap.
- (5) Loosen C-clamp securing flexible duct to firewall-mounted heater valve. Remove flexible duct from heater valve.
- (6) On turbocharged airplanes, loosen clamp securing induction duct to turbocharger. Remove duct from turbocharger.

**WARNING:** Disconnecting the P-lead wire from the magnetos will remove the electrical ground from the magneto circuit, resulting in hot magnetos. A separate ground wire must be run to the magnetos or the high tension wires removed from the spark plugs to prevent accidental engine start when the propeller is rotated.

- (7) Disconnect P lead wires on magnetos.
- (8) Remove propeller governor. Refer to Chapter 61, Propeller Governor - Maintenance Practices.
- (9) Disconnect electrical connector from EGT Probe (on non-turbocharged airplanes) or disconnect electrical connector from TIT Probe (on turbocharged airplanes).
- (10) Disconnect electrical terminal from CHT probe.
- (11) Disconnect fuel outlet line at the fuel strainer.
- (12) Disconnect throttle and mixture cables at fuel/air control unit. Note position of washers and spacers for later reassembly.
- (13) Disconnect throttle and mixture cables from cable attach bracket by removing screws, washers and nuts securing retaining clamps.
- (14) On turbocharged airplanes, disconnect and cap oil lines from controller assembly.
- (15) Disconnect drain lines and vent tubes.
- (16) Disconnect vacuum hose at firewall connection.
- (17) Disconnect manifold pressure line at firewall.
- (18) On turbocharged airplanes, disconnect manifold pressure line (from induction plenum) and upper deck pressure line (from induction elbow) from the controller assembly.
- (19) Disconnect and label electrical wires on vacuum switches.
- (20) Loosen and remove tachometer drive cable clamps in engine area. Disconnect tachometer drive cable from rear of accessory case.
- (21) Cut tie wraps (sta straps) securing the various wire bundles to the engine.
- (22) Loosen and remove clamp securing starter and alternator wires to forward baffle.
- (23) Remove starter wires from starter.
- (24) Remove alternator wires from alternator.
- (25) Loosen and remove clamp securing starter and alternator wires to forward baffle.
- (26) Disconnect ground wire from engine mount.
- (27) Disconnect electrical connector from fuel pressure transducer (on non-turbocharged airplanes) or disconnect electrical connector from fuel flow transducer and electrical connector from upper deck pressure transducer (on turbocharged airplanes).
- (28) Disconnect electrical connector from low oil pressure switch.
- (29) Disconnect electrical connector from oil pressure transducer.

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

- (30) Disconnect electrical terminal from oil temperature sensor.
- (31) Place stand under tail tie-down to allow for tail heavy condition, which will occur when engine is removed from airframe.
- (32) Attach hoist to lifting strap on top of engine. Begin to take up engine weight using hoist.
- (33) Remove bolts attaching engine shock mounts to engine mount assembly. Slowly raise engine using hoist until engine is free of structure.

#### B. Install Engine and Mount.

- (1) Hoist engine into position and secure using hardware removed in above steps. Refer to Engine Mount - Maintenance Practices.
- (2) Torque engine shock mount nuts from 450 to 500 inch-pounds.
- (3) Remove stand from under tail tie-down.
- (4) Connect electrical terminal to oil temperature sensor.
- (5) Connect electrical connector to oil pressure transducer.
- (6) Connect electrical connector to low oil pressure switch.
- (7) Connect electrical connector to fuel pressure transducer, or on turbo charged airplanes connect electrical connector to fuel flow transducer and electrical connector to upper deck pressure transducer.
- (8) Connect ground wire to engine mount.
- (9) Secure starter wires and alternator wires to forward baffle using clamp.
- (10) Install alternator wires to alternator.
- (11) Install starter wires to starter.
- (12) Secure various wire bundles to engine using tie wraps (sta straps).
- (13) Connect tachometer drive cable to back of accessory case. Torque drive shaft to 100 inch-pounds.
- (14) Reconnect tagged wires to respective vacuum switches.
- (15) Reconnect vacuum line to firewall connection.
- (16) Reconnect manifold pressure line at firewall.
- (17) On turbocharged airplanes, connect manifold pressure (from induction plenum) and upper deck pressure (from induction elbow) lines from the controller assembly.
- (18) Position throttle and mixture control cables on cable attach bracket. Install retaining clamp and secure, using screws, washers and nuts.
- (19) Connect throttle and mixture control cables to fuel/air control unit.
- (20) Reconnect fuel outlet line at the fuel strainer.
- (21) Connect electrical connector to EGT Probe (on non-turbocharged airplanes) or connect electrical connector to TIT Probe (on turbocharged airplanes).
- (22) Connect electrical terminal to CHT probe.
- (23) Install propeller governor. Refer to Chapter 61, Propeller Governor - Maintenance Practices.
- (24) Reconnect P leads to magnetos. If required, reconnect high tension wires to spark plugs.
- (25) Connect flexible duct to firewall-mounted heater valve.
- (26) Connect flexible duct to nose cap inlet.
- (27) On turbocharged airplanes, install clamp securing induction duct to turbocharger.
- (28) Check all controls and lines for security of installation and freedom of movement. Ensure all tie fittings are tight and leak-free.
- (29) Reconnect positive and negative leads to battery.
- (30) Reinstall engine cowling.

### 3. Engine Cleaning

- A. The engine may be cleaned using stoddard solvent or equivalent chemicals. Care should be taken to ensure that all openings are capped or plugged to prevent solvent entry into engine. All electrical accessories (starters, alternators, etc.) should be covered before cleaning solvent is applied.

### 4. Engine Storage

- A. If the engine is being removed for storage purposes, it may need to be preserved. Refer to Chapter 10, Storage - Description and Operation, for preservation techniques.



# MONTAJE DEL MOTOR

Levantamiento del motor en posición y asegurar el tecele



Ajuste de las tuercas de la bancada





# Anexo C. Montante del Motor

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## ENGINE MOUNT - MAINTENANCE PRACTICES

### 1. Description and Operation

- A. The engine mount assembly uses four rubber mounts to isolate engine noise and vibration from the engine mount assembly.

### 2. Engine Mount Procedures

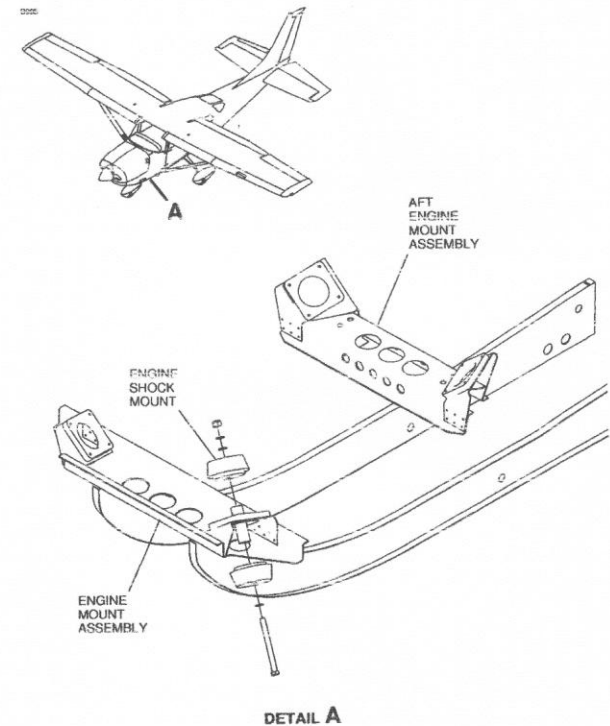
A. Shock Mount Procedures (Refer to Figure 201).

- (1) The shock mounts, which connect the engine to the engine mount assembly, are of rubber and metal construction and are assembled in a sandwich to isolate noise and vibration from the cabin area. Shock mounts should be assembled as illustrated in Figure 201. Nuts should be torqued from 450 to 500 inch-pounds upon installation.

**NOTE:** Take caution to ensure that the bolts are not shanked out.

- (2) The shock mounts should never be cleaned with any type of solvent. If shock mounts need cleaning, use a clean, dry cloth.
- (3) Shock mounts should be inspected when removed. Metal components should be inspected for cracks and excessive wear due to aging and deterioration. Rubber components should be inspected for separation, swelling, cracking or a pronounced set of the pad. Shock mounts showing any of these signs should be replaced.

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MODEL 206/T206  
MAINTENANCE MANUAL



Engine Shock Mount Installation  
Figure 201 (Sheet 1)

# MONTAJE DEL MOTOR

**Remoción del soporte debajo de la cola del avión**



**Conexión del sensor de temperatura de aceite**



# Anexo D. Indicador de Temperatura de Aceite

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## OIL TEMPERATURE INDICATOR - MAINTENANCE PRACTICES

### 1. Description and Operation

- A. The oil temperature system has three core components: a sending unit, a combination oil temperature/oil pressure indicator and a wire that connects the two components. Oil temperature is measured in the accessory case area and gives cockpit readings in degrees Fahrenheit (°F).
- B. Airplanes with the Garmin G1000 system use the same oil temperature sending unit as standard equipped airplanes.

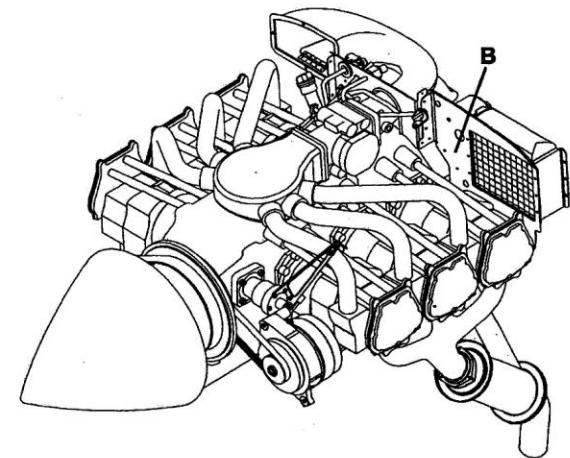
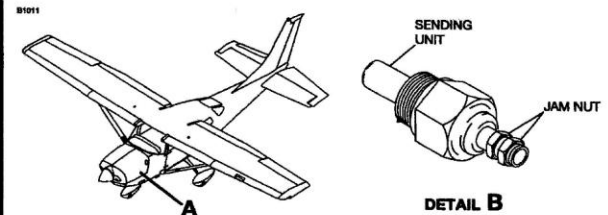
### 2. Sending Unit Removal/Installation

- A. Remove the Sending Unit (Refer to Figure 201).
  - (1) Remove the upper engine cowl. Refer to Chapter 71, Cows - Maintenance Practices.
  - (2) Disconnect the ring terminal wiring at the sending unit.
  - (3) Loosen and remove the sending unit from the accessory case.
- B. Install the Sending Unit (Refer to Figure 201).
  - (1) Install the sending unit to the accessory case.
  - (2) Attach the ring terminal wire to the sending unit. Torque the jam nut to 20 inch-pounds, maximum.
  - (3) Install the upper engine cowl. Refer to Chapter 71, Cows - Maintenance Practices.

### 3. Pressure Indicator Removal/Installation

- A. For removal and installation of the Oil Temperature/Oil Pressure Indicator, refer to Oil Pressure Indicators - Maintenance Practices.

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MODEL 206/T206  
MAINTENANCE MANUAL



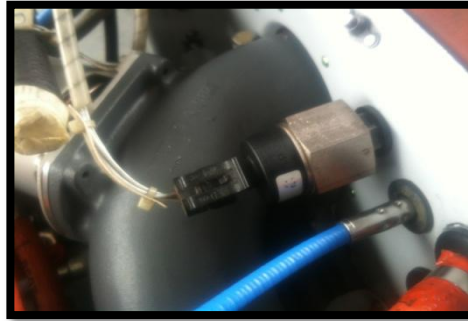
DETAIL A

Oil Temperature Installation  
Figure 201 (Sheet 1)

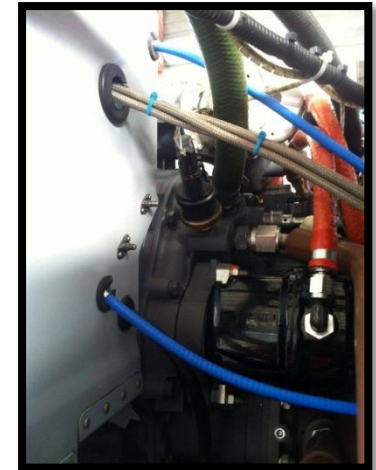
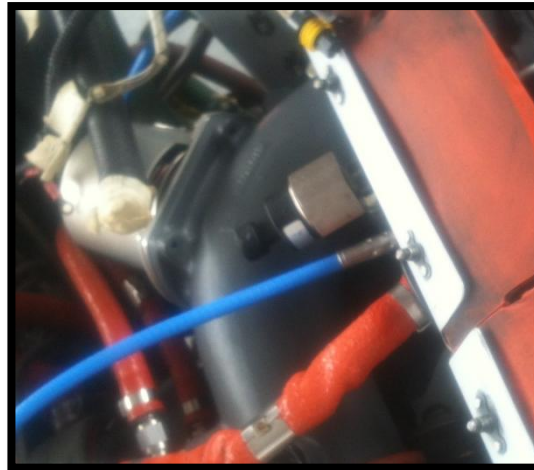
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# MONTAJE DEL MOTOR

**Conexión del transductor de presión de aceite**



**Conexión del interruptor de baja presión de aceite**





# Anexo E. Indicadores de Presión de Aceite

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## OIL PRESSURE INDICATORS - MAINTENANCE PRACTICES

### 1. Description and Operation

- A. Oil pressure is measured at two points on the engine. One point gives the oil pressure indicator reading and one gives the low oil pressure annunciation.
- (1) The oil pressure indicator system has three components: an oil pressure line, a transducer and a cockpit-mounted combination pressure/temperature indicator. The system gets oil from the top right side of the case. The oil flows through a rigid line, to a transducer found on the rear baffle area. The transducer makes an electrical signal which is sent to the pressure-side of the cockpit-mounted oil pressure/oil temperature indicator.
  - (2) The low oil pressure annunciation system has a pressure switch and the related wiring. The switch is installed on the top rear side of the engine case. It is set so that when oil pressure is less than 20 PSI, a ground is supplied to the instrument panel-mounted annunciator. This causes the OIL PRESS light on the annunciator to come on. When oil pressure is more than 20 PSI, the ground connects and starts the hobbs meter and extinguishes the OIL PRESS light.
- B. Airplanes with the Garmin G1000 system use the same oil pressure transducer and oil pressure switch as standard equipped airplanes.

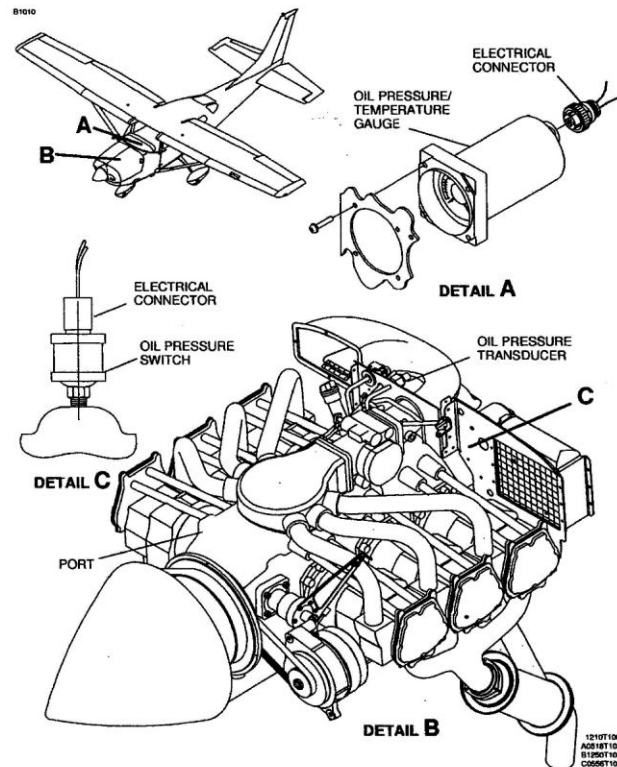
### 2. Oil Pressure Indicator and Transducer Removal/Installation

- A. Remove the Oil Pressure Indicator (Refer to Figure 201).
- (1) Make sure that electrical power to airplane is off.
  - (2) Remove the screws that attach the indicator to the instrument panel.
  - (3) Remove the electrical connector from back of the indicator.
  - (4) Carefully remove the indicator from back of the instrument panel.
- B. Install the Oil Pressure Indicator (Refer to Figure 201).
- (1) Connect the electrical connector to the back of the indicator.
  - (2) Install the indicator to the instrument panel.
  - (3) Attach the indicator to the panel with screws.
- C. Remove the Transducer (Refer to Figure 201).
- (1) Remove the upper cowl. Refer to Chapter 71, Cows - Maintenance Practices.
  - (2) Disconnect and put caps on the oil pressure line at the transducer.
  - (3) Disconnect the electrical connector from the transducer.
  - (4) Remove the nut that connects the transducer to the rear of the baffle and remove the transducer.
- D. Install the Transducer (Refer to Figure 201).
- (1) Install the transducer to the rear baffle and attach with the nut.
  - (2) Connect the electrical connector to the transducer.
  - (3) Remove the caps and connect the oil pressure line at the transducer.
  - (4) Install the upper cowl. Refer to Chapter 71, Cows - Maintenance Practices.

### 3. Low Oil Pressure Switch Removal/Installation

- A. Remove the Switch (Refer to Figure 201).
- (1) Make sure that electrical power to airplane is off.
  - (2) Remove the upper cowl. Refer to Chapter 71, Cows - Maintenance Practices.
  - (3) Disconnect the electrical connector from the switch.
  - (4) Remove the switch from the engine case.
- B. Install the Switch (Refer to Figure 201).
- (1) Tighten by hand the new switch with U544006 sealant (or equivalent) on the threads.

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MODEL 206/T206  
MAINTENANCE MANUAL



Oil Pressure Indication Installation  
Figure 201 (Sheet 1)

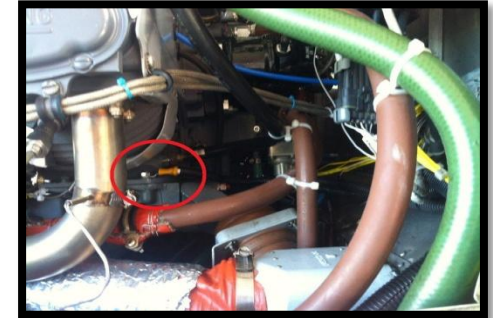
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# MONTAJE DEL MOTOR

**Conexión terminal eléctrica al transductor de flujo de combustible**



**Conexión del motor a tierra**





# Anexo F. Indicador de Flujo de Combustible

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## FUEL FLOW INDICATOR - MAINTENANCE PRACTICES

### 1. General

- A. Engine fuel flow is measured by use of an engine-mounted transducer and a cockpit-mounted indicator. The turbocharged model measures fuel flow by the use of a turbine wheel flow transducer. Components of the system include the fuel pressure transducer or turbine wheel flow transducer, the cockpit-mounted manifold pressure/fuel flow gauge, and wiring to connect the two electrical components.
- B. Removal/installation of the components is the only required maintenance.

### 2. Manifold Pressure/Fuel Flow Gauge Removal/Installation

**NOTE:** The fuel flow gauge is found on the right half of the dual function Manifold Pressure/Fuel Flow gauge, found on the left side of the instrument panel.

**NOTE:** The fuel flow transducer used with the Garmin G1000 installation is the same as the fuel flow transducer used on all standard equipped airplanes.

#### A. Remove the Fuel Flow Gauge.

- (1) Make sure that all electrical power to airplane is off.
- (2) Remove the screws that attach the gage to the instrument panel.
- (3) Carefully remove the gage from the bottom side of the instrument panel and disconnect the electrical connector from gage.

#### B. Install the Fuel Flow Gauge.

- (1) Connect the electrical connector to the gage.
- (2) Install the gage in the instrument panel with screws.
- (3) Apply electrical power to the airplane and make sure that the gage is connected and operates correctly.

### 3. Transducer and Line Removal/Installation

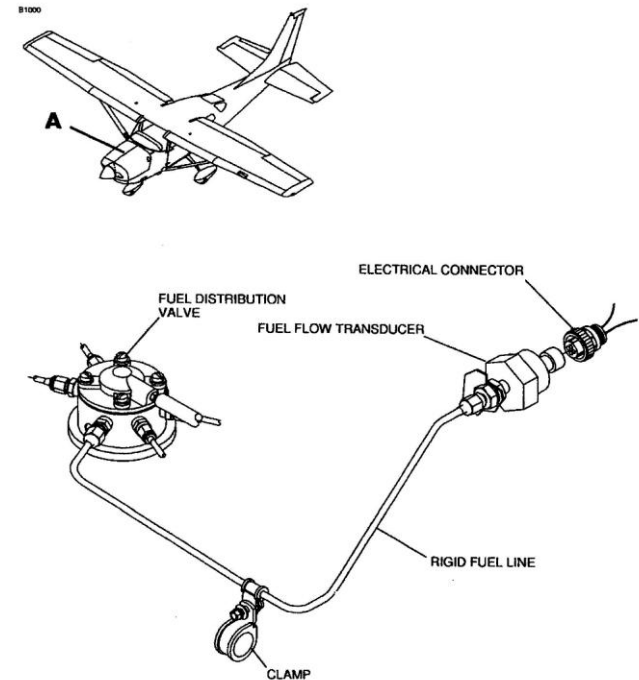
#### A. Remove the Transducer (Refer to Figure 201).

- (1) Make sure that all of the electrical power to airplane is off.
- (2) Remove the upper cowling. Refer to Chapter 71, Cowlings - Maintenance Practices.
- (3) Disconnect the electrical connector from the fuel flow transducer.
- (4) Remove the fuel flow transducer from the fitting in the rear baffle.
- (5) On turbocharged models, remove the flow transducer from the fuel supply hose.

#### B. Install the Transducer (Refer to Figure 201).

- (1) Install the fuel flow transducer into the fitting in the rear baffle.
- (2) On turbocharged models, install the flow transducer into the fuel supply hose.
- (3) Connect the rigid line that leads from the fuel distribution valve to the transducer.
- (4) Connect the electrical connector to the fuel flow transducer.
- (5) Install the upper cowling. Refer to Chapter 71, Cowlings - Maintenance Practices.
- (6) Apply electrical power to the airplane and make sure that the gage is connected and operates correctly.

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DETAIL A

Fuel Flow Indicating Installation  
Figure 201 (Sheet 1)

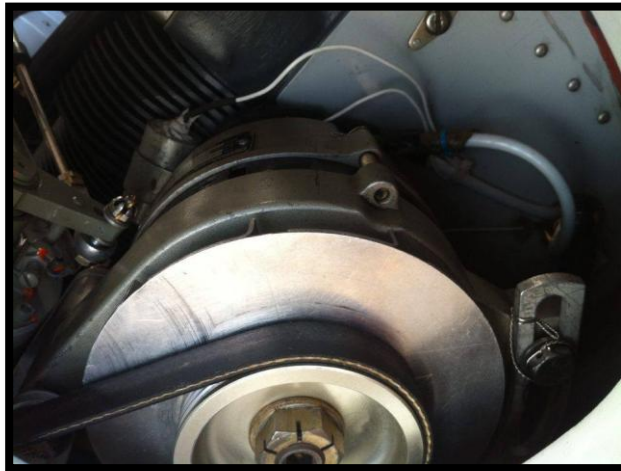
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# MONTAJE DEL MOTOR

**Sujeción de los cables del motor de arranque y del alternador**



**Instalación del alternador**



# Anexo G. Instalación del Alternador

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## ALTERNATOR - MAINTENANCE PRACTICES

### 1. General

- A. Either a 60-amp or a 95-amp alternator is installed on the forward left side of the engine.

### 2. Alternator Removal/Installation

**CAUTION:** Make sure that you are careful when you remove and install the power and ground ring terminals.

- Do not bend or twist the terminals.
- If possible, always remove the terminals from the alternator before you remove the alternator.
- If possible, always install the terminals to the alternator after you install the alternator.
- If you must remove or install the alternator with the terminals installed, make sure that the terminals do not bend or twist.
- After the terminals are installed, make sure that the cables do not apply a load to the terminals that can cause them to bend or twist.

#### A. Alternator Removal (Refer to Figure 201).

- (1) Remove the upper cowl. Refer to Chapter 71, Cows - Maintenance Practices.
- (2) Disconnect the battery cables. Refer to Battery - Maintenance Practices.
- (3) Disconnect the electrical connectors from the alternator.
- (4) Remove the safety wire from the adjustment bolt. Loosen the bolt.
- (5) Loosen the alternator mounting bolt.
- (6) Rotate the alternator and remove the drive belt from the alternator pulley.
- (7) Remove the adjustment bolt and the mounting bolt, and remove the alternator from the airplane.

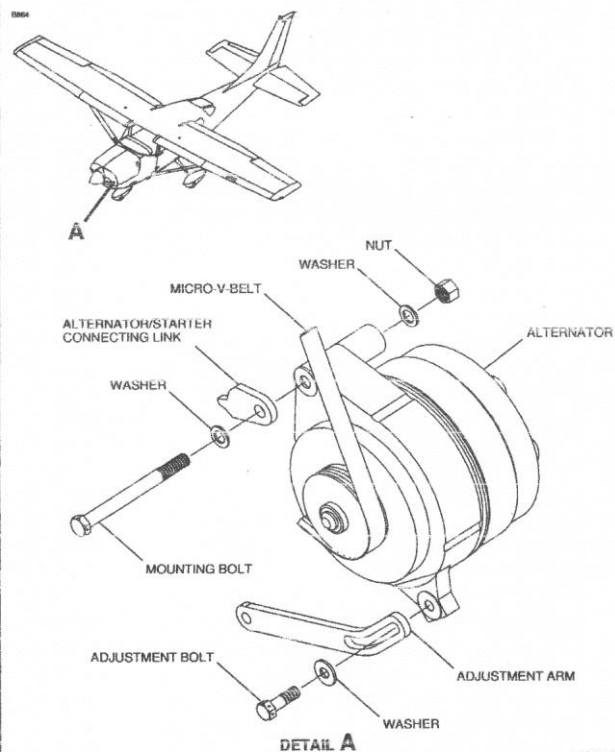
#### B. Alternator Installation (Refer to Figure 201).

- (1) Put the alternator in position on the mounting bracket and install the mounting bolt and the nut. Do not tighten at this time.
- (2) Put the drive belt on the alternator pulley.
- (3) Install the adjustment bolt.

**CAUTION:** On airplanes with a new alternator belt installed and on new airplanes, do a check of the belt tension again in the first 10 to 25 hours of operation.

- (4) Apply a torque wrench to the nut on the alternator pulley and adjust the belt tension so the belt slips at 7 to 9 foot-pounds (9.49 to 12.20 Nm) of torque with a used belt, or 11 to 13 foot-pounds (14.91 to 17.62 Nm) of torque with a new belt.
- (5) Tighten and safety wire adjusting bolt.
- (6) Tighten the alternator mounting bolt.
- (7) Connect the electrical connectors to the alternator.
- (8) Install the upper cowl. Refer to Chapter 71, Cows - Maintenance Practices.

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MODEL 206/T206  
MAINTENANCE MANUAL



Alternator Installation  
Figure 201 (Sheet 1)

# MONTAJE DEL MOTOR

**Instalación del motor de arranque**



**Sujeción de los diferentes conjuntos de cables al motor**





# Anexo H. Instalación del Motor de Arranque

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## STARTER - MAINTENANCE PRACTICES

### 1. Description and Operation

- A. The airplane is equipped with a direct drive 24 VDC starter. The starter is attached to the front (propeller end) lower left side of the engine. The ignition key in the instrument panel operates the starter solenoid. When the solenoid is operated, its contacts close and electrical current energizes the starter. A pinion gear in the starter engages the crankshaft ring gear. When the engine reaches a given speed, centrifugal action decouples the starter pinion from the crankshaft ring gear.

### 2. Starter Removal/Installation

- A. Remove the Starter (Refer to Figure 201).
- (1) Remove the upper engine cowling and the nose cap. Refer to Chapter 71, Engine Cowling - Maintenance Practices.
  - (2) Disconnect the negative terminal from the battery.
  - (3) Disconnect the large electrical wire (positive lead) at starter.
  - (4) Remove the three nuts from the crankcase studs.
  - (5) Remove the bolt from the starter and remove starter from the engine.
- B. Install the Starter (Refer to Figure 201).
- (1) Attach the starter to the engine crankcase using the bolt and nuts.
  - (2) Connect the positive lead to the starter. Make sure the protective boot fully covers the stud on the starter.
  - (3) Connect the negative terminal to the battery.
  - (4) Install the upper engine cowling and nose cap. Refer to Chapter 71, Engine Cowling - Maintenance Practices.

### 3. Bendix Drive Starter Assembly Cleaning And Lubrication

- A. Clean the Bendix starter drive assembly (Refer to Figure 201).

**CAUTION:** Use only a clean petroleum spirit. Do not use any other type of solvent.

- (1) Clean the starter drive with a clean petroleum spirit.

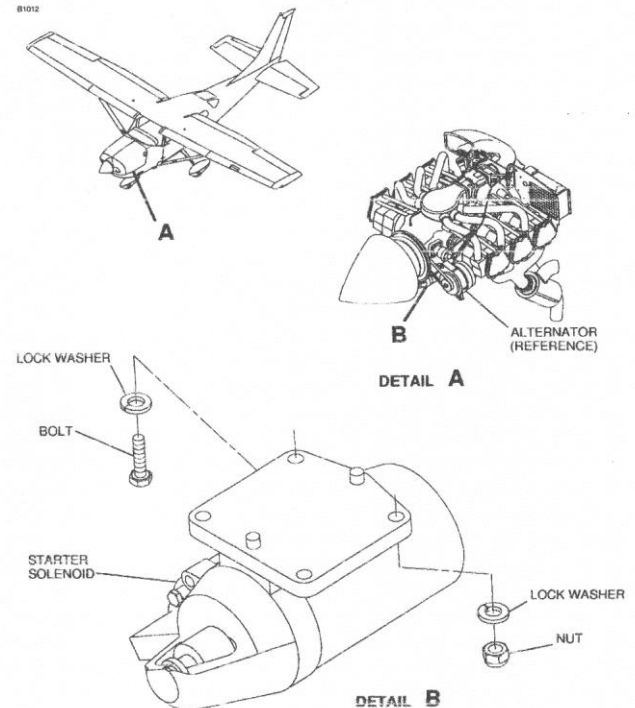
- B. Lubricate the Bendix starter drive assembly. (Refer to Figure 201).

**CAUTION:** Do not use grease, oil or graphite lubricants. Use only silicone spray lubricants which are recommended for correct operation.

- (1) Lubricate the starter drive assembly with a silicone spray such as Crown Industrial Products silicone spray 8034.

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MODEL 206/T206  
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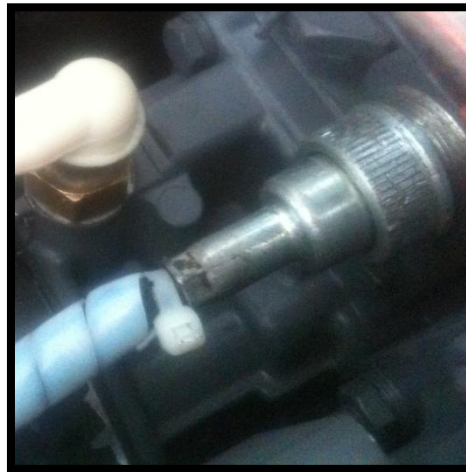
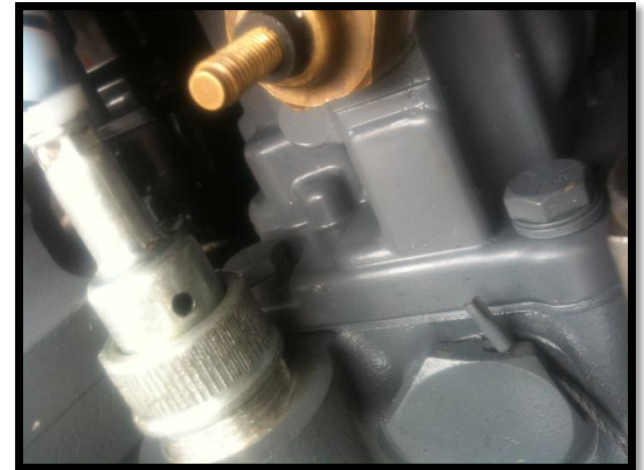
81012



Starter Installation  
Figure 201 (Sheet 1)

# MONTAJE DEL MOTOR

**Conexión del cable  
de indicación de  
tacómetro de RPM**





# Anexo I. Instalación Cable de Indicación de RPM

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## TACHOMETER - MAINTENANCE PRACTICES

### 1. Description and Operation

- A. In airplanes that do not have the Garmin G1000, engine speed (RPM) is measured by a cockpit mounted indicator. Maintenance is only the removal/installation of the tachometer and drive cable.

### 2. Tachometer and Drive Cable Removal/Installation

**NOTE:** The procedures that follow are for airplanes with standard avionics.

- A. Remove Tachometer and Drive Cable (Refer to Figure 201).
- (1) On the backside of the instrument panel, disconnect the drive cable from the tachometer.
  - (2) Disconnect the electrical connector from the backside of the tachometer.
  - (3) Remove the screws that attach the tachometer to the instrument panel and remove the tachometer.
  - (4) Remove the upper engine cowl. Refer to Chapter 71, Cowls - Maintenance Practices.
  - (5) Disconnect the drive cable at the rear of the accessory case.
  - (6) Remove the two screws that attach the firewall shield to the firewall.
  - (7) Remove the drive cable through the firewall.
- B. Install the Tachometer and Drive Cable (Refer to Figure 201).
- (1) Install the drive cable through the firewall.
  - (2) Connect the drive cable to the accessory case housing. Torque the tachdrive shaft to 100 in-lbs.
  - (3) Install the firewall shield to the firewall with screws.
  - (4) Install the tachometer to the instrument panel with four screws.
  - (5) Connect the electrical connector to the tachometer.
  - (6) Connect the drive cable to the backside of the tachometer.
  - (7) Install the upper engine cowl. Refer to Chapter 71, Cowls - Maintenance Practices.

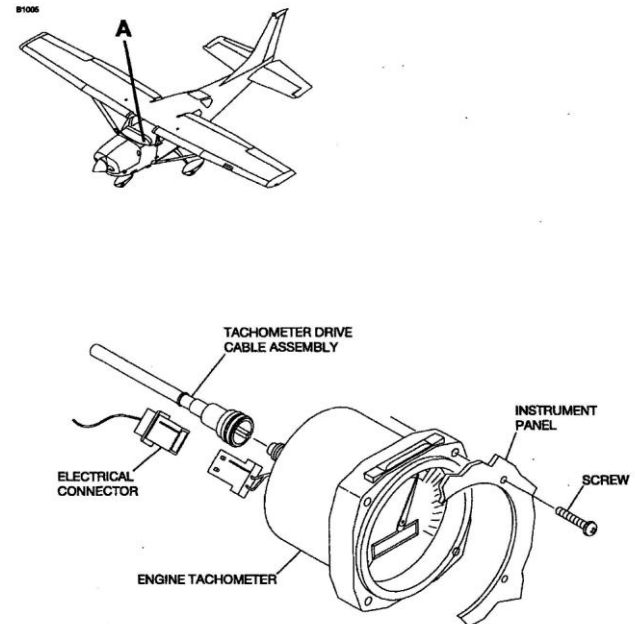
### 3. Tachometer Sending Unit Removal/Installation

**NOTE:** The procedures that follow are for airplanes with Garmin G1000.

- A. Remove the Tachometer Sending Unit (Refer to Figure 202).
- (1) Make sure that the MASTER switch is in the off position.
  - (2) Remove the top cowl. Refer to Chapter 71, Cowls - Maintenance Practices.
  - (3) Disconnect the electrical connector (PN025 or JN028).
  - (4) Loosen the knurled nut.
  - (5) Remove the tachometer sending unit from the airplane.
- B. Install the Tachometer Sending Unit (Refer to Figure 202).
- (1) Put the tachometer sending unit in position on the airplane.
  - (2) Tighten the knurled nut.
  - (3) Connect the electrical connector (PN025 or JN028).

**NOTE:** If irregular tachometer indications have occurred, the use of Stabilant 22 contact enhancer on the electrical connector (PN025) can possibly decrease the occurrence of these indications.

- (4) Install the side cowl. Refer to Chapter 71, Cowls - Maintenance Practices.



**DETAIL A**  
AIRPLANES WITH STANDARD AVIONICS

Tachometer Installation  
Figure 201 (Sheet 1)

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# MONTAJE DEL MOTOR

**Conexión de los  
terminales a los  
interruptores de  
vacío**



**Conexión de líneas  
de vacío a la  
conexión de la pared  
de fuego**



# Anexo J. Instalación de Vacío

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## VACUUM SYSTEM - MAINTENANCE PRACTICES

### 1. Description and Operation

#### A. Description and Operation

- (1) The vacuum system has a filter, vacuum gage, vacuum instruments, regulator valve, vacuum manifold, low vacuum annunciator switches, engine-driven vacuum pumps and related plumbing.
- (2) On airplanes without Garmin G1000, the source of vacuum air is in the cabin and is pulled through the system by the engine-driven vacuum pumps. This air goes through the gyro filter at the cabin inlet source before it goes through the vacuum gage and gyro instruments. The vacuum is controlled by the regulator valve. The regulator valve is on the aft side of the firewall. The vacuum air is then pulled through the vacuum manifold and past the low vacuum annunciator switches and then into the vacuum pumps.
- (3) On airplanes without Garmin G1000, vacuum pressure is measured by the low vacuum annunciator switches in the engine compartment. The vacuum gage in the instrument panel shows the vacuum pressure.
  - (a) The vacuum gage gives a direct indication of the system vacuum in inches of mercury (in. Hg.).
  - (b) The low vacuum annunciator switches are part of the panel annunciator warning system.
    - 1 If the left vacuum switch (SN012) senses a vacuum below 3.0 in. Hg., the VAC annunciator will show L VAC.
    - 2 If the right vacuum switch (SN011) senses a vacuum below 3.0 in. Hg., the VAC annunciator will show VAC R.
    - 3 If both switches sense a vacuum below 3.0 in. Hg., the VAC annunciators will show L VAC R.
  - (c) For more information on the maintenance practices for the panel-mounted annunciator (UI005), refer to Chapter 31, Annunciator Panel - Maintenance Practices.
- (4) On airplanes with Garmin G1000, the source of vacuum air is in the cabin and is pulled through the system by the engine-driven vacuum pump. The vacuum pressure is measured by a vacuum transducer. The air goes through the gyro filter at the cabin inlet source before it is going through the horizon gyro indicator. The vacuum is controlled by the regulator valve. The regulator valve and the vacuum transducer are on the aft side of the firewall.

### 2. Vacuum Pump Removal/Installation

**NOTE:** The removal/installation is typical for each vacuum pump.

#### A. Remove the Vacuum Pump (Refer to Figure 201 and Figure 202).

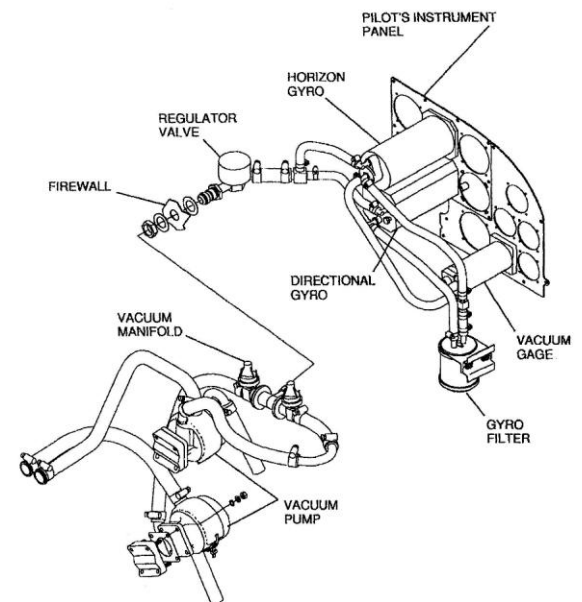
- (1) Remove the engine cowling. Refer to Chapter 71, Cowling - Maintenance Practices.
- (2) Disconnect the hoses from the inlet and outlet ports of the vacuum pump.
- (3) Cap the hoses and vacuum pump ports to keep out foreign material.
- (4) Remove the nuts, lock washers, and flat washers that attach the shroud and vacuum pump to the engine.
- (5) Remove the shroud and vacuum pump from the studs on the engine.
- (6) Remove the elbow from the pump.
- (7) Discard any damaged fittings or nuts with rounded corners.

#### B. Install the Vacuum Pump (Refer to Figure 201).

- (1) Before you install a new vacuum pump, purge the vacuum pump hoses in the system to remove foreign particles that may have been deposited in the hoses by the previous vacuum pump.

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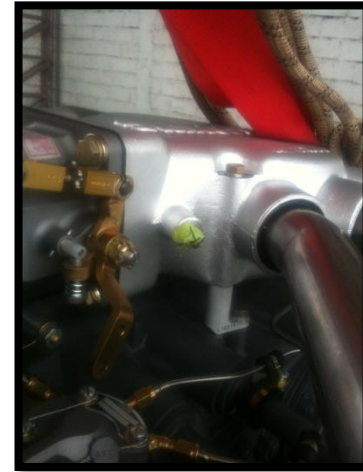
**DETAIL A**  
AIRPLANES T20608001 AND ON

Vacuum System Installation  
Figure 201 (Sheet 2)

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# MONTAJE DEL MOTOR

**Conexión de líneas de presión del múltiple a la pared de fuego**





# Anexo K. Conexión Presión del Múltiple a la Pared de Fuego

**TEXTRON Lycoming**

**TIO-540-AJ1A PARTS CATALOG**

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

**TURBOCHARGER AND EXHAUST SYSTEMS  
SLOPED CONTROLLER AND RELATED PARTS**

FIG REF. 29	PART NUMBER	DESCRIPTION	QTY. PER ASSY.
1	MS20823-6	ELBOW, 1/4 NPT to 3/8 flared tube	1
2	AN912-9	BUSHING, Reducer, 3/4 NPT to 1/4 NPT	1
3	72376**	ELBOW, 90°, 1/4 tube to 7/16 thread	1
4	LW-12799-6S144	HOSE ASSY., 3/8 hose, straight	1
5	LW-12798-4S095	HOSE ASSY., 1/4 hose, straight	1
6	74070***	ELBOW, 3/8 flared tube, 9/16-18 thread	1
7	LW-12877-6S142	HOSE ASSY., 3/8 hose, 90° elbow	1
8	LW-14445-11	VALVE ASSY., Absolute pressure relief	1
9	MS29513-138	"O" RING, 2-7/64 I.D. x 7/64 section	1
10	STD-28	WASHER, No. 10 plain	4
11	STD-251	WASHER, No. 10, internal lock	4
12	STD-375	SCREW, No. 10-24 x 5/8 long, fill. hd.	4
13	48B22314	CONTROLLER, Sloped (481058-0005)	1
14	LW-12798-4S204	HOSE ASSY., 1/4 hose, straight	1
15	75948**	TEE, 1/4 tube x 7/16 thread	1
16	LW-12876-4S120	HOSE ASSY., 1/4 hose, 90° elbow	1
17	02A22619	ELBOW, 1/8 NPT to 1/4 flared tube	1
18	MS29512-04	"O" RING, 11/32 I.D. x 1/16 section	1
19	AN814-4L	PLUG & BLEEDER, 7/16-20 UNF, dr.	1
20	LW-12876-4S250	HOSE ASSY., 1/4 hose, 90° elbow	1
21	1102	PLUG, 1/8 pipe	1
22	LW-16561***	NIPPLE, 1/4 tube to 9/16-18 thread	2
23	02G22466*	NIPPLE, 5/16-24 to 7/16-20 thread	1
24	72377***	ELBOW, 3/8 flared tube, adj.	1
25	75739***	NIPPLE, 3/8 flared tube	1
26	75739*** (+)	NIPPLE, 3/8 flared tube	1

- \* Uses a P/N MS29512-02 O-ring.
- \*\* Uses a P/N MS29512-04 O-ring.
- \*\*\* Uses a P/N MS29512-06 O-ring.
- + Ship loose (Cessna oil separator crankcase).

**TEXTRON Lycoming**

**TIO-540-AJ1A PARTS CATALOG**

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

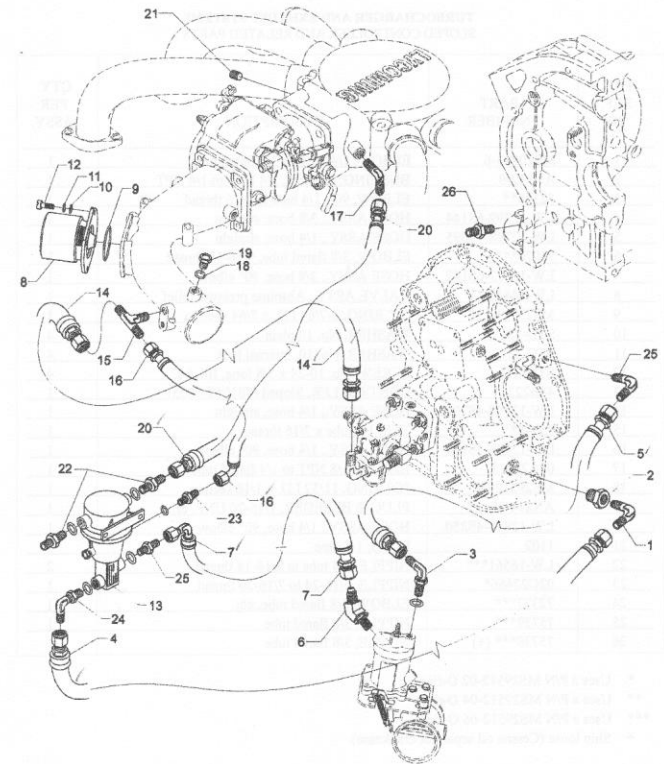


Figure 29. SLOPED CONTROLLER AND RELATED PARTS

# MONTAJE DEL MOTOR

**Conexión de línea  
de presión del  
múltiple del turbo  
cargador**



# Anexo L. Conexión Presión del Múltiple al Turbo Cargador

**TEXTRON** Lycoming

## TIO-540-AJ1A PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

### TURBOCHARGER AND EXHAUST SYSTEMS TURBO OIL DRAIN TANK, HOSES AND ATTACHING PARTS

FIG. REF.	PART NUMBER	DESCRIPTION	QTY. PER ASSY.
1	LW-12878-4S260	HOSE ASSY., 1/4 hose, 45° elbow	1
2	73152	BRACKET, Support clamp	1
3	LW-25-0-50	BOLT, 1/4-20 x 1/2 long, hex. hd.	1
4	STD-8	WASHER, 1/4 plain	1
5	STD-160	WASHER, 1/4 lock, internal teeth	1
6	LW-16266-10-63	CLAMP, 5/8 I.D. x No. 10 screw	1
7	STD-969	SCREW, No. 10-32 x 1/2 long, fill. hd.	1
8	STD-670	LOCKNUT, No. 10-32	1
9	75371	GASKET, Turbo oil inlet adapter	1
10	LW-14465	ADAPTER, Turbo oil	1
11	STD-33	WASHER, 3/8 plain	2
12	STD-678	WASHER, 3/8 lock, internal teeth	2
13	LW-38-0-75	BOLT, 3/8-16 x 3/4 long, hex. hd.	2
14	78212	CHECK VALVE ASSY.	1
15	06B22275	GASKET, Turbo drain tank	1
16	58B22273	TANK, Turbo oil drain	1
17	AN816-4	NIPPLE, 1/8 NPT to 1/4 tube	1
18	MS20823-8	ELBOW, 1/2 flared tube, 3/8 NPT	1
19	STD-33	WASHER, 3/8 plain	2
20	STD-678	WASHER, 3/8 lock, internal teeth	2
21	LW-38-0-75	BOLT, 3/8-16 x 3/4 long, hex. hd.	2
22	MS29512-08	O-RING, 41/64 I.D. x 5/64 section	1
23	LW-10637*	ELBOW, 90°, 1/2 tube, 3/4-16 thread	1
24	LW-12798-4S274	HOSE ASSY., 1/4 hose, straight	1
25	73126	BRACKET, Extension, fuel inj. line	1
26	LW-16266-10-63	CLAMP, 5/8 I.D. x No. 10 screw	1
27	STD-425	WASHER, No. 10 plain	1
28	STD-860	SCREW, No. 10-32 x 5/8 long, fill. hd.	1
29	STD-63	NUT, No. 10-32 plain	1
30	LW-16266-25-63	CLAMP, 5/8 I.D. x 1/4 dia. screw	1
31	LW-14848-8S360	HOSE ASSY., 1/2 hose, 90° elbow	1
32	LW-16266-10-88	CLAMP	1
33	76734	ZIP STRAP	3
34	07A22274	BRACKET, Turbo drain tank	1
35	STD-860	SCREW, No. 10-32 x 5/8 long, fill. hd.	2
36	STD-425	WASHER, No. 10 plain	2
37	STD-251	WASHER, No. 10 internal lock	2
38	STD-63	NUT, No. 10-32 plain	2
39	MS20822-4	ELBOW, 1/8 NPT to 1/4 tube, 90°	1

\* Uses a P/N MS29512-08 O-ring.

**TEXTRON** Lycoming

## TIO-540-AJ1A PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

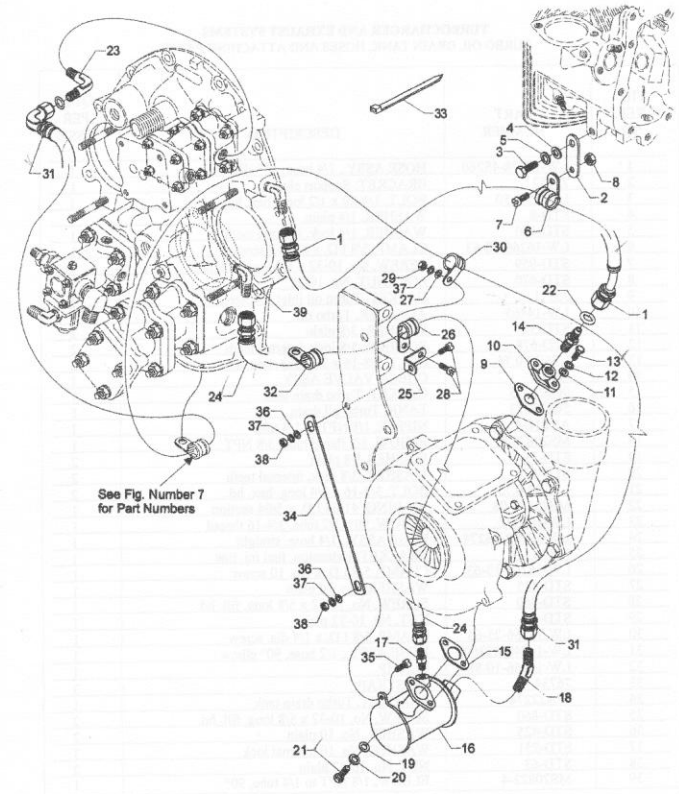
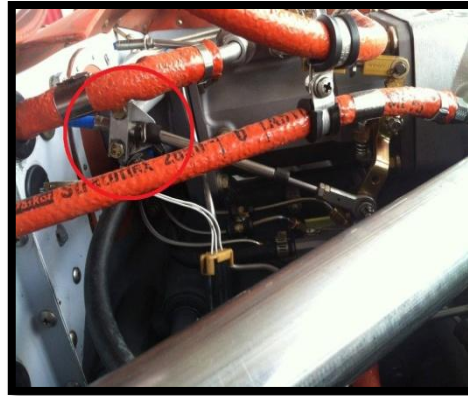


Figure 28. TURBO OIL DRAIN TANK, HOSES AND ATTACHING PARTS



# MONTAJE DEL MOTOR

**Conexión de los cables de control de mezcla y potencia**



**Conexión cables de control mezcla y potencia a unidad de control**





# Anexo M. Conexión Control de Mezcla

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## FUEL MIXTURE CONTROL - MAINTENANCE PRACTICES

### 1. General

- A. The mixture control is a push-pull type that incorporates a knurled friction knob, which prevents vibration induced "creeping" of the control. The ball bearing type rod end on the throttle is secured to the engine with a predrilled steel AN bolt, castellated nut and cotter pin.

**NOTE:** Steel AN bolts with an undrilled shank are identified with an 'A' suffix (AN3-6A). A steel bolt of the same size, with the shank drilled for castellated nut and cotter pin is identified as AN3-6. Aluminum bolts and undrilled bolts must not be used in this application.

- B. When adjusting the fuel mixture control, it is important to check that fuel mixture control slides smoothly throughout its full range of travel, that it adjusts through its full vernier range and the mixture arm operates through its full arc of travel. Do not lubricate fuel mixture control. If excessive binding is noticed, replace fuel mixture control.
- C. Whenever engine controls are being disconnected, pay particular attention to the exact position, size and number of attaching parts for reconnecting controls.

### 2. Fuel Mixture Control Removal/Installation

- A. Remove Fuel Mixture Control (Refer to Figure 201).
- (1) Remove engine cowl. Refer to Chapter 71, Cows - Removal/Installation.
  - (2) Remove cotter pin, nut, bolt and washers securing mixture control rod end to fuel/air control unit mixture arm. Discard cotter pin.
  - (3) Remove rod end, nut and jamnut from fuel mixture control.
  - (4) Remove nuts, bolts, and clamp securing fuel mixture control cable to cable bracket.
  - (5) Remove fuel mixture control nut and washer from forward side of firewall.
  - (6) In the cockpit/cabin area, remove fuel mixture control nuts and washers from forward side of instrument panel and aft side of firewall.
  - (7) Carefully pull fuel mixture control through firewall and instrument panel and remove from airplane.

- B. Install Fuel Mixture Control (Refer to Figure 201).

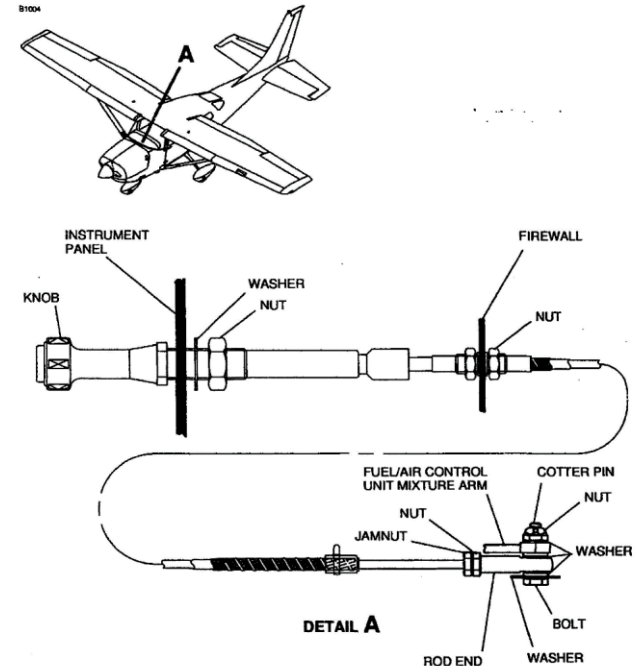
**NOTE:** When installing fuel mixture control, ensure that control is routed exactly as previously installed. Ensure that no binding or preloading occurs from a too small bend radius.

- (1) In the cabin/cockpit area, carefully route fuel mixture control through instrument panel, and then place washers and nuts over fuel mixture control.
- (2) Route fuel mixture control through firewall.
- (3) Secure fuel mixture control to instrument panel by tightening nut against washer at instrument panel.
- (4) Position washer and nut on fuel mixture control on the aft side of firewall.
- (5) In the engine compartment, place washer and nut over fuel mixture and secure against firewall.
- (6) Install jamnut, nut, and rod end on fuel mixture control and tighten.
- (7) Attach mixture control rod end to fuel/air control unit mixture arm with bolt, washers, nut. Torque nut to 30 inch-pounds and then continue tightening nut until cotter pin hole lines up with castellations in nut. Do not exceed 50 inch-pounds. Install new cotter pin.
- (8) Install nuts, bolts, and clamp securing fuel mixture control cable to cable bracket.
- (9) Check mixture control adjustment. Refer to Fuel Mixture Control Adjustment/Test.
- (10) Install engine cowl. Refer to Chapter 71, Cows - Removal/Installation.

### 3. Fuel Mixture Control Adjustment/Test

- A. Check Fuel Mixture Control.
- (1) Push fuel mixture control full in and verify that mixture arm on fuel/air control unit is fully open (rich).

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MODEL 206/T206  
MAINTENANCE MANUAL



Fuel Mixture Control  
Figure 201 (Sheet 1)

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# Anexo M. Conexión Control de Potencia

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## THROTTLE CONTROL - MAINTENANCE PRACTICES

### 1. General

- A. The throttle control is a push-pull type that incorporates a knurled friction knob, which prevents vibration induced "creeping" of the control. The ball bearing type rod end on the throttle is secured to the engine with a predrilled steel AN bolt, castellated nut and cotter pin.

**NOTE:** Steel AN bolts with an undrilled shank are identified with an "A" suffix (AN3-6A). A steel bolt of the same size, with the shank drilled for castellated nut and cotter pin is identified as AN3-6. Aluminum AN bolts are not to be used in this application.

- B. When adjusting the throttle control, it is important to check that throttle control slides smoothly throughout its full range of travel, that it locks securely with the friction lock and the throttle arm operates through its full arc of travel. Do not lubricate throttle control. If excessive binding is noticed, replace throttle control.

- C. Whenever engine controls are being disconnected, pay particular attention to the exact position, size and number of attaching parts for reconnecting controls.

### 2. Throttle Control Removal/Installation

- A. Remove Throttle Control (Refer to Figure 201).

- (1) Remove engine cowl. Refer to Chapter 71, Cowl - Removal/Installation.
- (2) Remove cotter pin, castellated nut, bolt, and washers securing throttle control rod end to fuel/air control unit throttle arm. Discard cotter pin.
- (3) Remove rod end and jamnut from throttle control.
- (4) Remove nuts, bolts, and clamp securing throttle control cable to cable bracket.
- (5) Remove throttle control jamnut and lock washer from forward side of firewall.
- (6) Inside the cockpit/cabin area, loosen throttle control jamnuts and lockwashers from forward side of instrument panel and aft side of firewall.
- (7) Carefully pull throttle control through firewall and instrument panel removing lock washers and jamnuts, and remove from airplane.

- B. Install Throttle Control (Refer to Figure 201).

**NOTE:** When installing throttle control, ensure that control is routed exactly as previously installed. Ensure that no binding or preloading occurs from a too small bend radius.

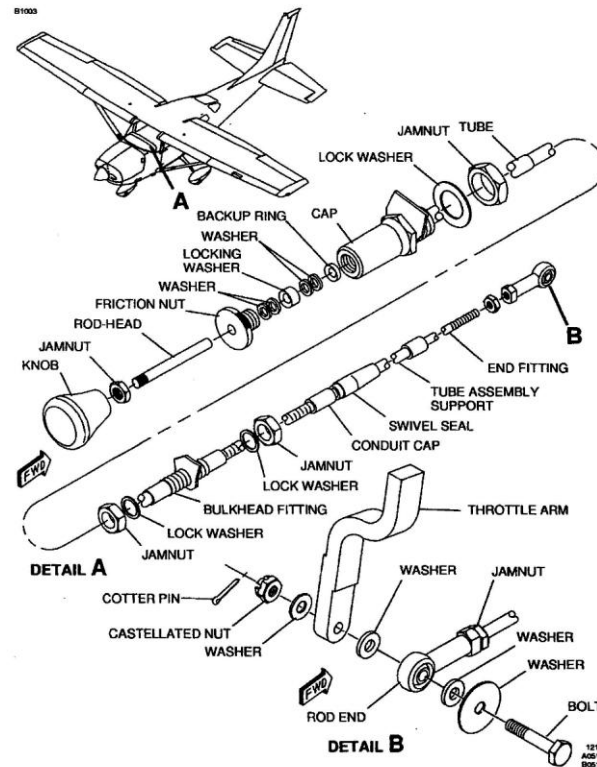
- (1) Inside the cockpit/cabin area, carefully route throttle control through instrument panel and then place lockwashers and jamnuts over throttle control.
- (2) Route throttle control through firewall and position throttle control in instrument panel.
- (3) Secure throttle control in instrument panel by tightening jamnut against lock washer at instrument panel.
- (4) Position lockwasher and locknut on throttle control on aft side of firewall.
- (5) In the engine compartment, place lockwasher and jamnut over throttle control and secure against firewall.
- (6) Install jamnut and rod end on throttle control.
- (7) Attach throttle control rod end to fuel/air control unit throttle arm with bolt, washers, castellated nut and new cotter pin.
- (8) Install nuts, bolts, and clamp securing throttle control cable to cable bracket.
- (9) Adjust throttle control as required. Refer to Throttle Control Adjustment/Test.
- (10) Install engine cowl. Refer to Chapter 71, Cows - Removal/Installation.

### 3. Throttle Control Adjustment/Test

- A. Check Throttle Control (Refer to Figure 201).

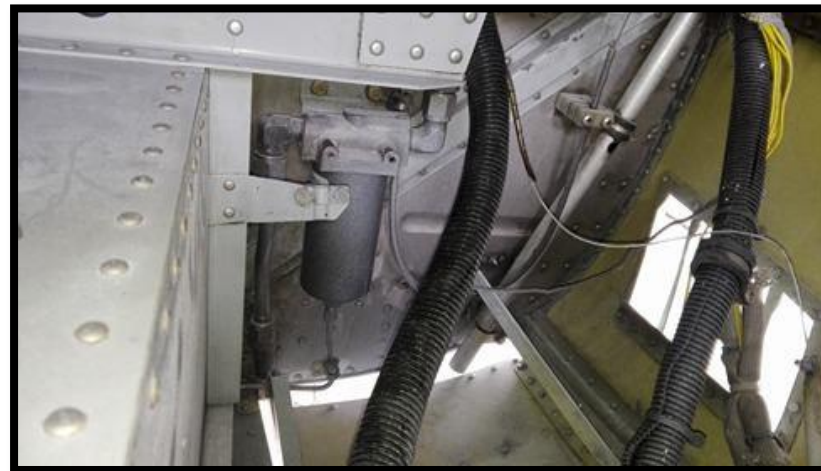
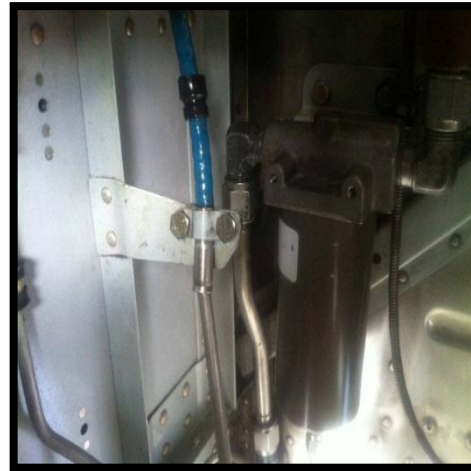
- (1) Pull throttle control knob full out and check that idle stop on throttle body is contacted.
- (2) Push throttle control knob full in and check that full power stop on throttle body is contacted.

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MODEL 206/T206  
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Throttle Control Installation  
Figure 201 (Sheet 1)

# MONTAJE DEL MOTOR

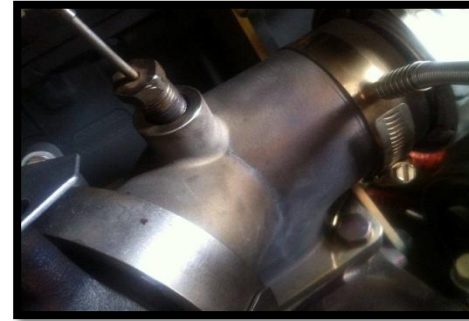


Conexión líneas de salida de combustible al filtro de combustible



# MONTAJE DEL MOTOR

Conexión de los  
sensores de EGT y  
de TIT



Conexión del  
sensor de  
CHT





# Anexo N. Sensores de Temperatura

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## ENGINE TEMPERATURE - DESCRIPTION AND OPERATION

### 1. Description

- A. The section that follows has removal and installation procedures for the system which will show different temperatures in the engine. The system that shows the temperature for the engine includes the indicators and probes for the cylinder head temperature (CHT), exhaust gas temperature (EGT) for the non-turbo airplanes, oil temperature, and the turbine inlet temperature (TIT) for airplanes with a turbo engine. For airplanes that have the Garmin G1000 avionics system, the CHT, EGT, oil temperature, and TIT indications are given on the Multi Function Display (MFD).

### 2. Operation

#### A. Non-Turbocharged Airplanes.

- (1) On the non-turbocharged airplanes, the EGT system is used to measure the temperature of the exhaust gas. The measurement gives an indication of the fuel/air mixture for the pilot. The system has one indicator installed in the instrument panel, which gives the two functions that show the EGT and CHT information. A probe installed in the exhaust and a probe installed in a cylinder, send the temperature information to the TIT/CHT indicator. The oil temperature sending unit is installed in the accessory case and gives the oil temperature in degrees Fahrenheit. On airplanes with Garmin G1000, each cylinder has EGT and CHT probes.

#### B. Turbocharged Airplanes.

- (1) On turbocharged airplanes, the TIT system is used to measure temperature of the exhaust gas as it enters the turbine. The measurement gives an indication of the fuel/air mixture for the pilot. The system has one indicator installed in the instrument panel, which gives two functions that show the TIT and CHT information. A probe installed in the turbine inlet and a probe installed in a cylinder, send the temperature information to the TIT/CHT indicator. The oil temperature sending unit is installed in the accessory case and gives the oil temperature in degrees Fahrenheit. On airplanes with Garmin G1000, each cylinder has EGT and CHT probes.

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MODEL 206/T206  
MAINTENANCE MANUAL

## ENGINE TEMPERATURE - MAINTENANCE PRACTICES

### 1. General

- A. Maintenance of the engine temperature system is only the removal and installation of the different components.

### 2. EGT/CHT Indicator Removal/Installation

**NOTE:** The procedures that follow are for airplanes with standard avionics.

- A. Remove the EGT/CHT Indicator (Refer to Figure 201).

**NOTE:** The EGT indicator has CHT readings on the right side of the instrument.

- (1) Get access to the back side of the indicator.
- (2) Disconnect the electrical connector from the indicator.
- (3) Remove the screws that attach the indicator to the instrument panel and remove the indicator from the airplane.

- B. Install EGT/CHT Indicator (Refer to Figure 201).

- (1) Put the indicator in the instrument panel and install the screws.
- (2) Connect the electrical connector to the indicator. Reset the socket connectors as necessary for a tight fit.

### 3. TIT/CHT Indicator Removal/Installation

**NOTE:** The procedures that follow are for airplanes with standard avionics.

- A. Remove the TIT/CHT Indicator (Refer to Figure 201).

**NOTE:** The cockpit-mounted TIT indicator also has CHT readings on the right side of the instrument.

- (1) Get access to the backside of the indicator.
- (2) Disconnect the electrical connector from the indicator.
- (3) Remove the screws that attach the indicator to the instrument panel and remove the indicator from the airplane.

- B. Install the TIT/CHT Indicator (Refer to Figure 201).

- (1) Put the indicator in the instrument panel and install the screws.
- (2) Connect the electrical connector to the indicator. Reset the socket connectors as necessary for a tight fit.

### 4. EGT Probe Removal/Installation

- A. Remove the EGT Probe (Refer to Figure 202).

**NOTE:** Airplanes with the Garmin G1000 will have a probe for each exhaust riser.

**NOTE:** The EGT probe is welded to the clamp.

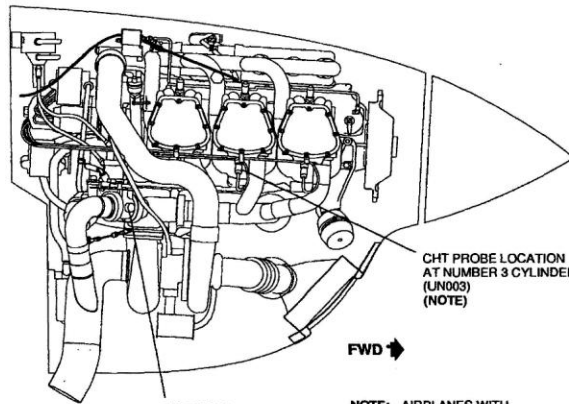
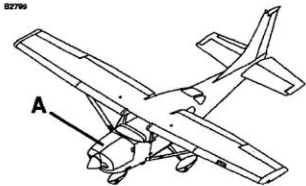
- (1) Remove the engine cowling. Refer to Chapter 71, Cowls - Maintenance Practices.

**CAUTION:** Make sure that the exhaust system is cool before the probe is removed.

- (2) Disconnect the electrical connector from the EGT probe.
- (3) Cut and remove the safety wire from the EGT probe clamp and screw.
- (4) Loosen the clamp screw.

# Anexo N. Sensores de Temperatura

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MAINTENANCE MANUAL



CHT PROBE LOCATION  
AT NUMBER 3 CYLINDER  
(UN003)  
(NOTE)

FWD →

TIT PROBE  
(UN008)

DETAIL A

NOTE: AIRPLANES WITH  
GARMIN G1000 HAVE A  
CHT PROBE AT EACH  
CYLINDER.

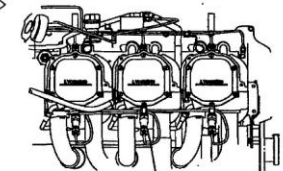
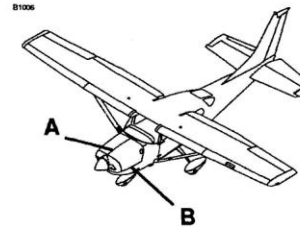
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TIT and CHT Probe Installation  
Figure 203 (Sheet 1)

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Jan 1/2008

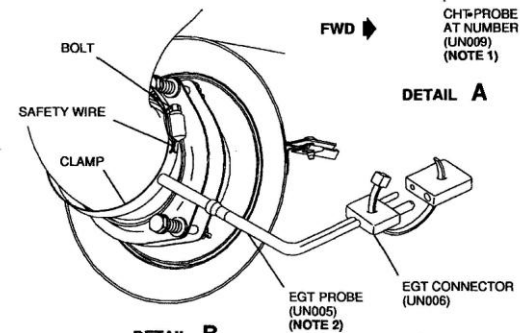
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MODEL 206/T206  
MAINTENANCE MANUAL



CHT PROBE LOCATION  
AT NUMBER 3 CYLINDER  
(UN009)  
(NOTE 1)

FWD →

DETAIL A



DETAIL B

NOTE 1: AIRPLANES WITH GARMIN  
G1000 HAVE A CHT PROBE AT  
EACH CYLINDER.  
NOTE 2: AIRPLANES WITH GARMIN  
G1000 HAVE AN EGT PROBE AT  
EACH CYLINDER.

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EGT and CHT Probe Installation  
Figure 202 (Sheet 1)

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# MONTAJE DEL MOTOR

**Instalación del  
gobernador de  
la hélice**



# Anexo O. Instalación del Gobernador

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## PROPELLER GOVERNOR - MAINTENANCE PRACTICES

### 1. General

- A. The propeller governor is a single-acting, centrifugal type, which boosts oil pressure from the engine and directs it to the propeller where the oil is used to increase blade pitch. The governor is mounted on the forward, upper left side of the engine.
- B. Maintenance practices consist of removal and installation of the propeller governor, high RPM stop adjustment, and rigging of the governor control. For additional information, troubleshooting, adjustments, and maintenance procedures not addressed in this section, see the applicable McCauley Service Manual. Refer to Introduction, List of Manufacturers Technical Publications.

### 2. Propeller Governor Removal and Installation

- A. Remove Propeller Governor (Refer to Figure 201).
- (1) Remove all power from airplane.

**WARNING:** Exercise care when working with the propeller. Always treat the propeller as if the ignition switch were on. Do not stand, nor allow anyone else to stand, within the arc of the propeller. Ensure magneto switch is in the off position before turning propeller.

- (2) Remove cowl assemblies as required for access to propeller governor located forward on left side of engine.
- (3) Remove cotter pin, nut, washers, and bolt securing control cable to control arm.

**NOTE:** Identify washers and position of washers for use when reconnecting control cable to control arm.

- (4) Loosen bolts to restraint bracket securing control cable to control cable bracket. Remove control cable from bracket.
- (5) Remove nuts and washers securing propeller governor to engine.
- (6) Remove propeller governor and mount gasket.

#### B. Install Propeller Governor (Refer to Figure 201).

- (1) Clean mating surfaces of propeller governor and engine mounting surface.
- (2) Install new mount gasket.

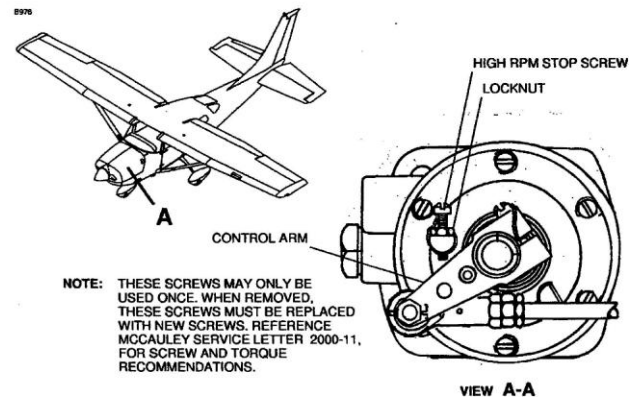
**WARNING:** Exercise care when working with the propeller. Always treat the propeller as if the ignition switch were on. Do not stand, nor allow anyone else to stand, within the arc of the propeller. Ensure magneto switch is in the off position before turning propeller.

**WARNING:** Ensure magneto is grounded before turning propeller.

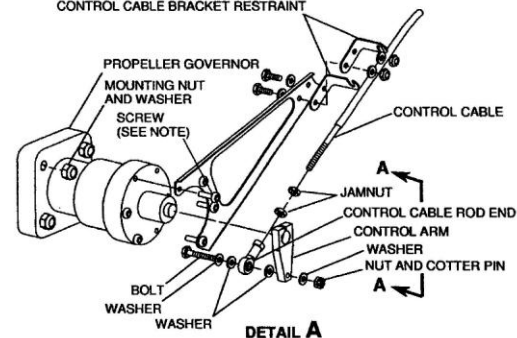
**CAUTION:** Do not force spline engagement. Rotate crankshaft slightly and splines will mesh smoothly when properly aligned.

- (3) Position propeller governor and secure to engine with washers and nuts.
- (4) Position control cable in control cable bracket. Install restraint bracket and secure by tightening bolts.
- (5) Secure control cable to control arm with bolt, washers, and nut.
  - (a) Torque nut to 30 inch-pounds.

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MODEL 206/T206  
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### CONTROL CABLE BRACKET RESTRAINT

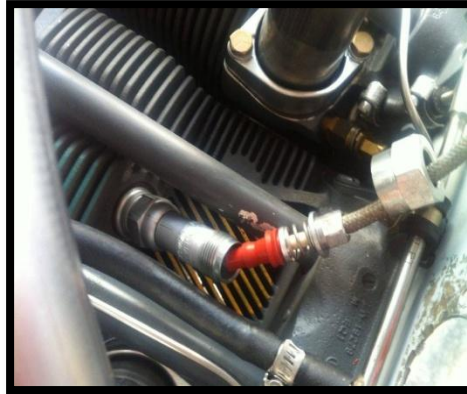


Propeller Governor Installation  
Figure 201 (Sheet 1)



# MONTAJE DEL MOTOR

**Reconectar líneas  
de magnetos y los  
arneses a las bujías**



# MONTAJE DEL MOTOR

**Conexión del ducto flexible a la válvula de calentamiento**



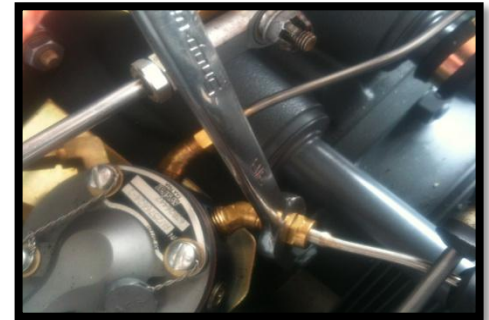
**Instalación de abrazadera en el ducto del turbo cargador**



**Conexión del ducto flexible a la cubierta delantera**



**Inspección de líneas y controles por seguridad y movimiento**



# MONTAJE DEL MOTOR

**Conexión del cable  
positivo y negativo a  
la batería**



# Anexo P. Instalación de la Batería

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## BATTERY - MAINTENANCE PRACTICES

### 1. General

- A. The battery is a 24-Volt, 12.75 Amp-hour, flooded lead-acid type. It is installed in the battery box on the front-right side of the firewall. In airplanes with the optional propeller heat, the battery is a heavy duty 24-Volt, 15.5 Amp-hour, lead-acid type.

**NOTE:** The Amp-hour rating is based on a five hour discharge rate.

### 2. Battery Removal/Installation

- A. Remove the Battery (Refer to Figure 201).  
(1) Remove the upper right cowl. Refer to Chapter 71, Cowls - Maintenance Practices.  
(2) Remove the battery box top cover.

**CAUTION:** Disconnect the negative battery cable first, then the positive cable. This will prevent an accidental short of the battery from hand tools.

- (3) Disconnect the negative and positive cable from the battery.  
(4) Remove the battery from the airplane.

- B. Install the Battery (Refer to Figure 201).

**CAUTION:** Do not tighten the hold-down bolts too much or you will damage the hold-down strap.

- (1) Place the battery in the battery support assembly.

**CAUTION:** Connect the positive battery cable first, then the negative cable. This will prevent an accidental short of the battery from hand tools.

- (2) Connect the positive and negative battery cables.  
(3) Install the top cover to the battery support assembly.  
(4) Install the upper right cowl, refer to Chapter 71, Cowls - Maintenance Practices.

### 3. Battery Cleaning

- A. Clean the Battery (Refer to Figure 201).

**NOTE:** For correct operation, the battery and connections must be clean at all times.

- (1) Remove the battery. Refer to Battery Removal/Installation.  
(2) Tighten the battery cell filler caps to prevent the cleaning solution from entering the cells.  
(3) Use a clean cloth moistened with a solution of bicarbonate (baking soda) and water to clean the battery cable ends, battery terminals and the surfaces of the battery.  
(4) Rinse with clear water.  
(5) Use a dry cloth to clean off the water and let the battery dry.  
(6) Polish the cable ends and battery terminals with an emery cloth or a wire brush.  
(7) Install the battery. Refer to Battery Removal/Installation.  
(8) Apply petroleum jelly or an ignition spray product to the battery terminals to decrease corrosion.

### 4. New Battery Activation

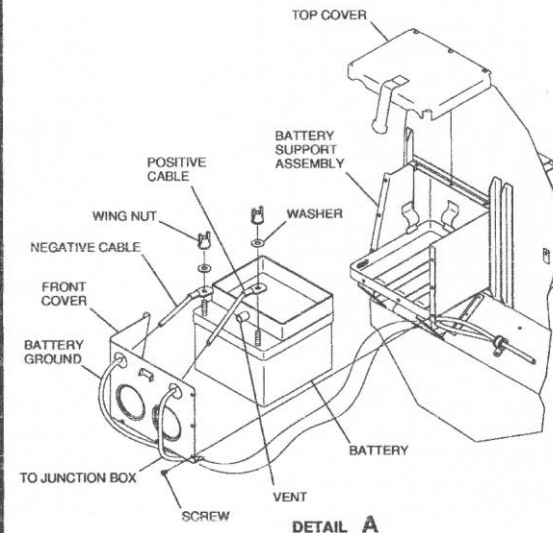
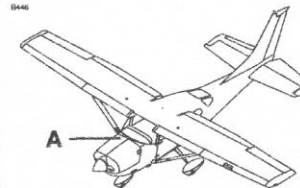
- A. Activate the New Battery.  
(1) Do a specific gravity check to make sure the correct strength of electrolyte is used. The electrolyte must be 1.285 +0.005 or -0.005 specific gravity when it is measured between 75°F to 85°F (24°C to 30°C).  
(2) To charge a new battery, use the manufacturer's instructions supplied with the battery.

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B446



Battery Installation  
Figure 201 (Sheet 1)

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# MONTAJE DEL MOTOR

**Instalación de  
las capotas del  
motor**



# Anexo Q. Instalación de las Capotas del Motor

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MAINTENANCE MANUAL

## COWLS - MAINTENANCE PRACTICES

### 1. Description and Operation

- A. The engine cowl consists of upper sheet metal halves (also, on turbocharged airplanes, a removable lower right side cowl) and left and right composite nose cap. The cowl is attached using quick-release, quarter turn fasteners to allow for easy removal and installation. The nose pieces are attached to each other using screws and nutplates.

### 2. Cowl Removal/Installation

- A. Remove Cowl (Refer to Figure 201).
- (1) Release quick-release fasteners around perimeter of left and right upper cowl.
  - (2) Remove left and right upper cowls.
  - (3) Remove screws securing left nose cap assembly from right nose cap assembly.
  - (4) Remove screws securing left and right nose cap assemblies to lower cowl.
  - (5) Remove nose cap assemblies.
  - (6) On turbocharged airplanes, remove screws around sides and bottom of lower right cowl.
  - (7) Remove lower right cowl.
- B. Install Cowl (Refer to Figure 201).
- (1) On turbocharged airplanes, install lower right cowl to engine area and secure using screws.
  - (2) Attach left nose cap to right nose cap and lower cowl using screws.
  - (3) Install left and right upper cowls to engine area and secure using quick-release fasteners.

### 3. Cowl Repair

- A. For repair procedures to the cowl, refer to the Single Engine Models 172,172, 206H/T206H 1996 and On Structural Repair Manual.

### 4. Cowl Flap Removal/Installation

- A. Remove Cowl Flap (Refer to Figure 202).
- (1) Place cowl flap control lever in the OPEN position.
  - (2) Disconnect cowl flap control clevises from cowl flap shock mounts.
  - (3) Remove safety wire securing hinge pins to cowl flaps, pull hinge pins and remove cowl flaps.
- B. Install Cowl Flap (Refer to Figure 202).
- (1) Install cowl flaps using hinge pins. Secure hinge pins to cowl flaps using safety wire.
  - (2) Connect cowl flap control clevises to cowl flap shock mounts.
  - (3) Rig cowl flaps, if necessary.

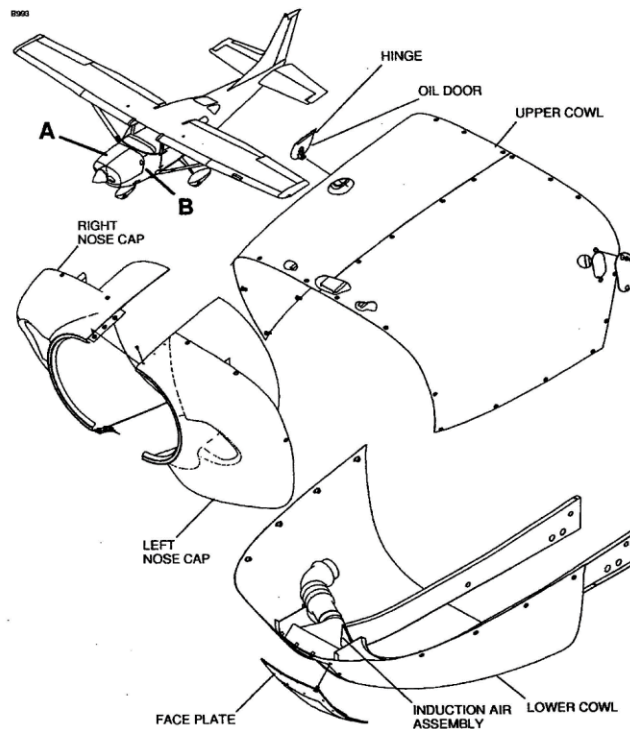
### 5. Cowl Flap Rigging (206H)

- A. Rig Cowl Flap (Refer to Figure 202).
- (1) Disconnect cowl flap control clevises from cowl flap shock mounts.
  - (2) Check to make sure that the flexible controls reach their internal stops in each direction. Mark controls so that full travel can be readily checked and maintained during the remaining rigging procedures.
  - (3) Place cowl flap control lever in the CLOSED position. If the control lever cannot be placed in the closed position, adjust controls at upper clevis to position control lever in bottom hole of position bracket.
  - (4) With the control lever in CLOSED position, hold one cowl flap closed, streamlined with trailing edge of lower cowl. Loosen jam nut and install bolt through clevis and shock-mount.

**NOTE:** Be sure threads are visible in clevis inspection holes.

- (5) Repeat the preceding step for the opposite cowl flap.
- (6) When cowl flaps are lowered they should be open 5.50 inches (minimum), and flush closed when measured in a straight line from the aft edge of cowl flap to lower edge of firewall.
- (7) Check that all clamps and jam nuts are tight.

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**DETAIL A**

Engine Cowl Installation  
Figure 201 (Sheet 1)

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A121371018

# INSTALACIÓN DE LA HÉLICE

Limpeza de la superficie del conjunto de la hélice



Montaje de la hélice



Instalación y aplicación del nuevo O-ring



# INSTALACIÓN DE LA HÉLICE

**Instalación de las  
tuercas de  
sujeción**



**Instalación  
de la tapa  
cubo**





# Anexo R. Instalación de la Hélice

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## PROPELLER - MAINTENANCE PRACTICES

### 1. General

- A. The airplane is installed with a three-bladed, constant-speed metal propeller. The maintenance practices that follow have the removal and installation procedures of the spinner and propeller. For additional information, troubleshooting, adjustments, and maintenance procedures not supplied in this section, refer to the applicable McCauley Service Manual. Refer to the List of Manufacturers Technical Publications in the introduction.

### 2. Spinner Removal/Installation

- A. Remove the Spinner (Refer to Figure 201).

- (1) Disconnect all electrical power from the airplane.
- (2) Make sure the magneto switch is in the off position and is electrically grounded before you turn the propeller.

**WARNING: Do not stand or let anyone stand close to the propeller. Do maintenance as if the power to the propeller is always on.**

- (3) Remove the screws and washers that attach the spinner to the spinner bulkhead assembly.
- (4) Remove the spinner, spinner stabilizer and spacers from the propeller assembly.
  - (a) Write the number of spacers that is removed for installation of the spinner.

- B. Install the Spinner (Refer to Figure 201).

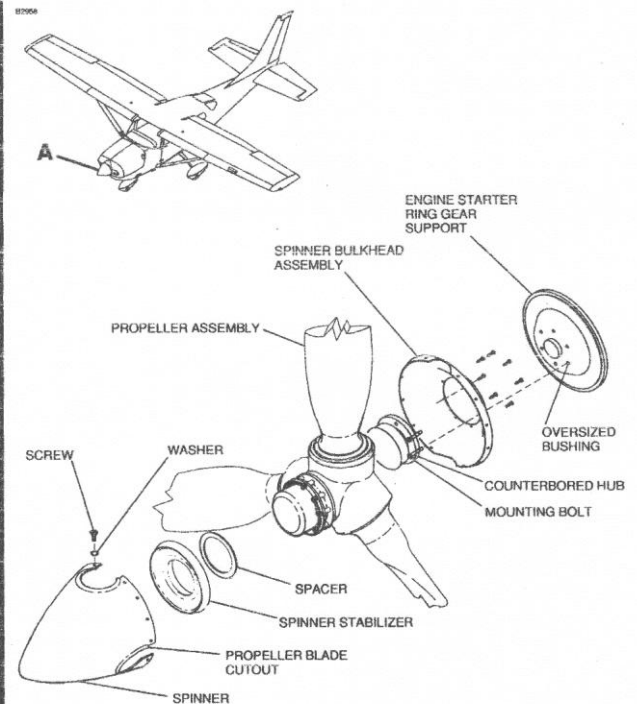
**WARNING: Do not stand or let anyone stand close to the propeller. Do maintenance as if the power to the propeller is always on.**

- (1) Make sure the magneto switch is in the off position and is electrically grounded before you turn the propeller.
- (2) Put the spacers, spinner stabilizer and spinner on propeller assembly.
- (3) Lightly press the spinner against the spinner stabilizer.
- (4) Examine the alignment of the mounting holes in the spinner with the holes in the spinner bulkhead assembly.
  - (a) Without an increase of pressure on the spinner, the mounting holes in the spinner must be set approximated 0.050 inch (1.30 mm) forward of the true center of the holes in the spinner bulkhead assembly. Add or remove spacers as necessary to set the holes in the correct position.
- (5) Push on the spinner until the spinner mounting holes are aligned with the spinner bulkhead assembly holes and install four screws and washers equally spaced around the circumference of the spinner.
  - (a) Use only the quantity of spacers that will let the correct alignment for the screws to be installed when you push against the spinner.
- (6) Release the force against the spinner and install the screws and washers that remain. Tighten all of the screws equally around the spinner.
- (7) Install the brush block if necessary.

**CAUTION:** Make sure you remove minimal spinner material as necessary to give minimum clearance between the spinner and the propeller blades.

- (8) File the spinner in the propeller blade cutout area to give a minimum clearance of 0.14 inch (3.56 mm) if necessary.
- (9) Sand the sharp edges with 400 grit abrasive paper or cloth and restore the corrosion protection.
- (10) Install the cowling assemblies.

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DETAIL A

Propeller and Spinner Installation  
Figure 201 (Sheet 1)

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# Anexo R. Instalación de la Hélice

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

### 3. Propeller Removal/Installation

#### A. Remove the Propeller (Refer to Figure 201).

- (1) Disconnect all electrical power from the airplanes.
- (2) Make sure the magneto switch is in the off position and is electrically grounded before you turn the propeller.

**WARNING: Do not stand or let anyone stand close enough to the propeller to be hit by it. Maintenance must be done as if the power to the propeller is always on.**

- (3) Remove the spinner. Refer to Spinner Removal/Installation.
- (4) Remove the cowl assemblies as necessary to get access to the propeller mounting bolts.
  - (a) If the airplane is installed with an optional prop deice system, remove the brush block assembly before you remove the propeller to prevent possible damage to the brush.
- (5) Remove the safety wire from the mounting bolts.
- (6) Remove the mounting bolts.
  - (a) The propeller mounting bolts must be magnetic particle inspected per ASTM E-1414 or liquid penetrant inspected per ASTM E-1417 or replaced at every overhaul. Propeller mounting bolts must be replaced whenever the propeller is involved in a blade strike.
  - (b) Equally loosen the mounting bolts approximately 0.25 inch (6 mm).
  - (c) Pull the propeller assembly forward, using the 0.25 inch (6 mm) given from the loosened bolts.

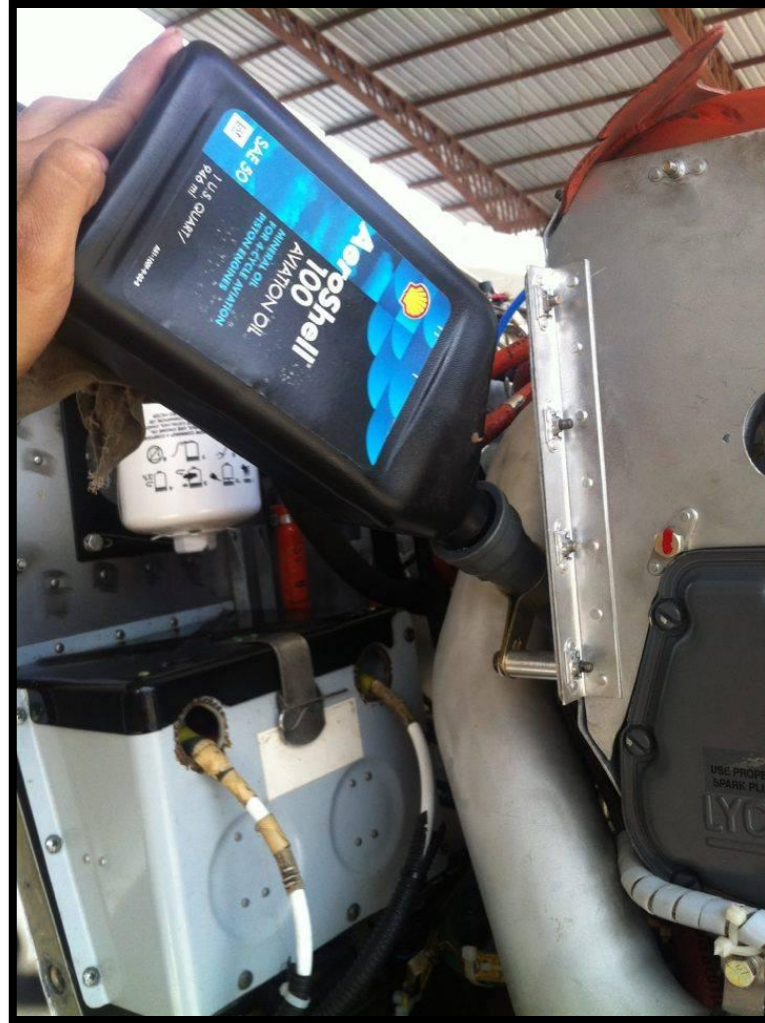
**NOTE:** As the propeller assembly is separated from the engine crankshaft, oil will drain from the propeller and engine crankshaft cavities.

- (d) Continue to equally loosen the bolts and pull the propeller assembly forward, 0.25 inch (6 mm) at a time, until all the nuts are removed.
- (7) Remove the propeller assembly and O-ring from the engine propeller shaft.

#### B. Install the Propeller (Refer to Figure 201).

- (1) Clean the mating surfaces of the propeller assembly, spinner bulkhead assembly, engine prop shaft.
- (2) Apply a layer of MIL-L-7711 lubricant, or equivalent, to the new O-ring and engine prop shaft.
- (3) Install the new O-ring.
- (4) Carefully slide the propeller assembly onto the engine propeller shaft. Make sure to align the propeller assembly as you install it.
- (5) Install the mounting bolts.
- (6) Tighten the mounting bolts incrementally in a crossing pattern to a torque of 60 foot-pounds, +5 or -5 foot-pounds (81 N-m +7 or -7 N-m).
- (7) Install safety wire to the mounting bolts in sets of two or three bolts. Refer to Chapter 20, Safelying - Maintenance Practices.
- (8) Examine the engine oil and service as necessary.
- (9) Install the spinner. Refer to Spinner Removal/Installation.

# SERVICIO DE ACEITE EN EL MOTOR



# Anexo S. Servicio de Aceite

CESSNA AIRCRAFT COMPANY  
MODEL 206/T206  
MAINTENANCE MANUAL

## ENGINE OIL - SERVICING

### 1. General

A. This section gives instructions to examine and replace the engine oil.

### 2. Oil Change Intervals

**NOTE:** An inspection of the oil filter can help find unusual engine wear. Refer to the Lycoming Service Bulletin 480D or the latest revision.

A. Non-turbocharged engines.

**NOTE:** Non-turbocharged airplanes are from the factory with aviation grade mineral oil which agrees with SAE J1966.

- (1) You must frequently do a check of the oil level and can possibly have to add oil during the first 25 hours of engine operation. Use an aviation grade mineral oil of the required viscosity which agrees with SAE J1966. Refer to Engine Oil Check.
- (2) After the first 25 hours, drain the engine oil and replace the oil filter. Fill the engine through the oil filler tube with aviation grade mineral oil of the required viscosity which agrees with SAE J1966. Refer to Engine Oil Change.
- (3) Continue to use the aviation grade mineral oil until the airplane completes a total of 50 hours of engine operation or oil consumption is stabilized. You must then drain the engine oil, replace the oil filter and add ashless dispersant oil to the engine. Refer to Engine Oil Change.
- (4) For more information on engine oil replacement intervals, refer to Chapter 5, Inspection Time Limits.

B. Turbocharged Engines.

**CAUTION:** During the engine break-in period, the turbocharged engines use only ashless dispersant oil which agrees with SAE J1899.

- (1) You must frequently do a check of the oil during the first 25 hours of engine operation. You can possibly have to add oil. Use an ashless dispersant oil of the required viscosity which agrees with SAE J1899. Refer to Engine Oil Check.
- (2) After the first 25 hours, drain the engine oil and change the oil filter. Fill the engine through the oil filler tube with ashless dispersant oil of the required viscosity which agrees with SAE J1899. Refer to Engine Oil Change.
- (3) Operate the engine until it completes a total of 50 hours of engine operation or oil consumption is stabilized. You must then drain the engine oil, replace the oil filter and add ashless dispersant oil to the engine. Refer to Engine Oil Change.
- (4) For additional engine oil replacement intervals, refer to Chapter 5, Inspection Time Limits.

### 3. Engine Oil Level

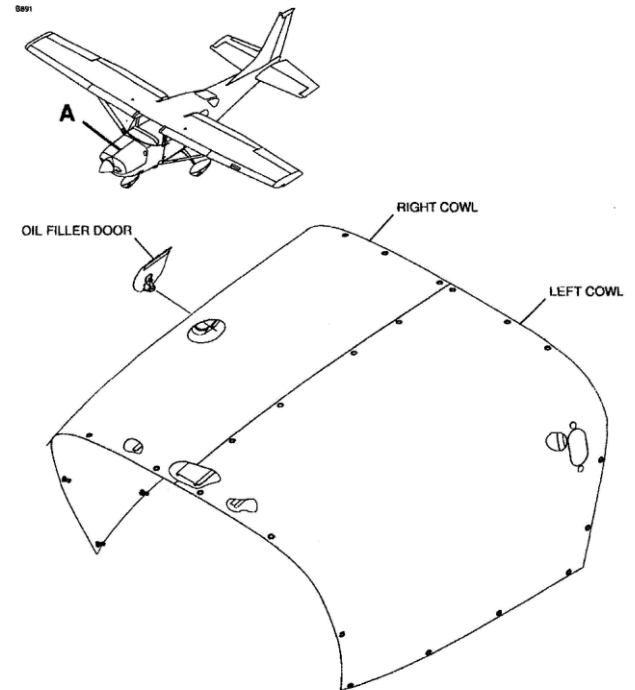
A. Engine Oil Level Check. Refer to Figure 301.

- (1) Wait five to ten minutes after the engine has stopped, then examine the engine oil level on the dipstick.

**NOTE:** The airplane must be in a level position for the best indication.

- (a) Open the oil filler door in the right cowl.
- (b) Remove the dipstick from the oil filler tube.
- (c) Clean the dipstick with a clean cloth.
- (d) Fully put the dip stick into the oil filler tube and remove the dipstick.
- (e) Examine the oil level on the dipstick.

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DETAIL A

Oil Filler Door  
Figure 301 (Sheet 1)



# COMPLIAMIENTO AD 2013-11-11

[Federal Register Volume 78, Number 124 (Thursday, June 27, 2013)]  
[Rules and Regulations]  
[Pages 38552-38553]  
From the Federal Register Online via the Government Printing Office [www.gpo.gov]  
[FR Doc No: 2013-14995]

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2012-1052; Directorate Identifier 2012-CE-014-AD; Amendment 39-17471; AD 2013-11-11]

RIN 2120-AA64

#### Airworthiness Directives; Cessna Aircraft Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

**SUMMARY:** We are superseding AD 2000-04-01 that applies to certain Cessna Aircraft Company (Cessna) Models 172R, 172S, 182S, 182T, T182T, 206H, and T206H airplanes. AD 2000-04-01 currently requires an inspection of the engine oil pressure switch and, if applicable, replacement of the engine oil pressure switch. This AD increases the applicability of the AD, places a life-limit of 3,000 hours time-in-service on the engine oil pressure switch, and requires replacement when the engine oil pressure switch reaches its life limit. This AD was prompted by new reports of internal failure of the engine oil pressure switch, which could result in complete loss of engine oil with consequent partial or complete loss of engine power or fire. We are issuing this AD to correct the unsafe condition on these products.

**DATES:** This AD is effective August 1, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of August 1, 2013.

**ADDRESSES:** For service information identified in this AD, contact Cessna Aircraft Company, Product Support, P.O. Box 7706, Wichita, Kansas 67277; telephone: (316) 517-5800; fax (316) 942-9006; Internet: [www.cessna.com/customer-service/technical-publications.html](http://www.cessna.com/customer-service/technical-publications.html). You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

#### Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal



FAA  
Aviation Safety

## AIRWORTHINESS DIRECTIVE

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

**Cessna Aircraft Company: 2013-11-11:** Amendment 39-17471; Docket No. FAA-2012-1052; Directorate Identifier 2012-CE-014-AD.

#### (a) Effective Date

This AD is effective August 1, 2013.

#### (b) Affected ADs

This AD supersedes AD 2000-04-01, Amendment 39-11583 (65 FR 8649, February 22, 2000).

#### (c) Applicability

This AD applies to Cessna Aircraft Company Models 172R, serial numbers (S/N) 17280001 through 17281618; 172S, S/N 172S8001 through 172S11256; 182S, S/N 18280001 through 18280944; 182T, S/N 18280945 through 18282357; T182T, S/N T18208001 through T18209089; 206H, S/N 20608001 through 20608349; and T206H, S/N T20608001 through T20609079; certificated in any category.

#### (d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 7931, Engine Oil Pressure.

#### (e) Unsafe Condition

This AD was prompted by new reports of internal failure of the improved engine oil pressure switch, which could result in complete loss of engine oil with consequent partial or complete loss of engine power or fire. We are issuing this AD to increase the applicability of the AD and place a life-limit of 3,000 hours time-in-service (TIS) on the engine oil pressure switch, requiring replacement when the engine oil pressure switch reaches its life limit.

#### (f) Compliance

Comply with this AD within the compliance times specified, following Cessna Service Bulletin SB 07-79-01, dated January 29, 2007, unless already done.

#### (g) Actions

(1) At the next scheduled oil change, annual inspection, or 100-hour time-in-service (TIS) inspection after August 1, 2013 (the effective date of this AD), whichever occurs later, but in no case later than 12 months after August 1, 2013 (the effective date of this AD), inspect the engine oil pressure switch to determine if it is part-number (P/N) 77041 or P/N 83278.

(2) If after the inspection required in paragraph (g)(1) of this AD, P/N 77041 engine oil pressure switch is installed, before further flight, replace the engine oil pressure switch with a new, zero time,

# REEMPLAZO DE PROBETA DE EGT

COMPANIA AERO SARAMBO TAYDASAROTA

Formulario OPR / ARNV. 002

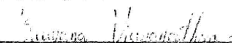
## MANTENIMIENTO - ESTADISTICA

RECORD DE VIDA DEL MOTOR PERTENECIENTE A LA AERONAVE MATRICULA HC-CPS

POSICION MOTOR CENTRAL TIPO LYCOMING TFO-540-A1A SERIE RL-10018-G1E

AÑO	MES	DIA	HORAS DIARIAS	HORAS TOTALES	SERVICIOS Y TRABAJOS	Firma Inspector o Encargado
2016	JUNIO	25			<ul style="list-style-type: none"> <li>* SE REALIZO LA INSTALACION DEL MOTOR LYCOMING TFO-540-A1A, SERIE: RL-10018-G1E.</li> <li>* SE REALIZO DE ACUERDO AL SERVICE MANUAL ATA 71 "POWER PLANT", TODOS LOS PROCEDIMIENTOS DE TRABAJO SE REALIZARON VERIFICANDO LAS INSTRUCCIONES QUE CONTENIAN EN MENCIONADO CAPITULO.</li> <li>* SE DIO TORQUE A LOS SHOCK BOLTS DE 450-500 PCH-POUNDS, QUE INGRESA EN EL PARLERO B, 71-00-01, Pte 202.</li> <li>* SE RENOVÓ EL ACEPTE PRESELOANTE Y SE PUSO ACEITE MINERAL AEROSHEN 100, Y SE RENOVÓ TODOS LOS ACCESORIOS DEL MOTOR.</li> <li>* SE CAMBIO EL SWITCH OIL PRESS P/N: 83278.</li> <li>* SE CAMBIO LA PROBE EGT P/N: 86253.</li> </ul>	<p><i>[Firma]</i> 25/06/16</p> <p><i>[Firma]</i> 25/06/16</p>

# ANEXO N. Forma 8130-3 Probeta de EGT

1. Approving Civil Aviation Authority/Country: FAA/UNITED STATES		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: 2096	
4. Organization Name and Address: Alcor, Inc., 300 Breesport St., San Antonio, Texas 78216 (PQ0148SW)				5. Work Order/Contract/Invoice Number: 000866 PAGE 2 OF 2		
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:	
6.	PROBE; CHT BAYONET	86251	3	N/A	NEW	
7.	PROBE; C/A EGT	86255	27	N/A	NEW	
8.	PROBE; C/A CLAMP TYPE	86281	1	N/A	NEW	
9.	THERMOCOUPLE; C/A UNGROUNDED	86343	4	N/A	NEW	
12. Remarks: Produced by STC SA522SW design approval data holder. Export airworthiness approval. These PMA parts are not critical components. Above listed parts meet special requirement of Brazil.						
13a. Certifies the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in a condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12.				13b. <input type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 12 Certifies that unless otherwise specified in block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.		
13b. Authorized Signature: 		13c. Approval/Authorization No.: 46558288	14b. Authorized Signature:		14c. Approval/Certificate No.:	
13d. Name (Typed or Printed): Bhuvana Viswanathan		13e. Date (dd/mm/yyyy): 28/Jun/2016	14d. Name (Typed or Printed):		14e. Date (dd/mm/yyyy):	
<b>User/Installer Responsibilities</b>						
It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/articles(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						



# PRUEBA OPERACIONAL DEL MOTOR



CESSNA  
MODEL T206H NAV III  
GFC 700 AFCS

SECTION 2  
OPERATING LIMITATIONS

## POWERPLANT INSTRUMENT MARKINGS

Powerplant instrument markings and their color code significance are shown in Figure 2-3. Operation with indications in the red range is prohibited. Avoid operating with indicators in the yellow range.

### POWERPLANT INSTRUMENT MARKINGS

INSTRUMENT	RED LINE (MIN)	RED ARC (LWR)	YELLOW ARC	GREEN ARC (NORMAL OPERATING RANGE)	RED ARC (UPR)
Tachometer	---	---	---	2000 to 2400 RPM	2500* to 2700 RPM
Manifold Pressure	---	---	---	15 to 30 in.hg.	39* to 45 in.hg.
Cylinder Head Temperature	---	---	---	200 to 480°F	480* to 500°F
Oil Temperature	---	---	---	100 to 245°F	245* to 250°F
Oil Pressure	---	0 to 20 PSI	---	50 to 90 PSI	115* to 120 PSI
Fuel Quantity	0 (2.5 Gallons Unusable Each Tank)	---	0 to 8 Gallons	8 to 35 Gallons	---
Fuel Flow	---	---	---	0 to 20 GPH 34 GPH	---
Vacuum Gage	---	---	---	4.5 to 5.5 in.hg.	---
Turbine Inlet Temperature (T.I.T.) (°F)	---	---	---	1350 to 1675°F	1675* to 1700°F

\*Maximum operating limit is lower end of red arc.

Figure 2-3\*



# Anexo X. Finalización del Proyecto y Certificado de Aeronavegabilidad

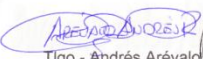



A petición verbal de la parte interesada:

Yo, **Tigo. Arévalo Rodríguez Esteban Andrés** en calidad de Director de Mantenimiento de la Compañía Aero Sarayaku Tayjaruta S.A., me permito informar lo siguiente:

El proyecto de graduación elaborado por el Señor: **TIPANTUÑA PALACIOS ANGEL JOEL** con el Tema: **"MONTAJE DEL MOTOR LYCOMING TIO-540-AJ1A, PERTENECIENTE A LA AERONAVE CESSNA T206H, CON MATRICULA HC - CPS"** DE LA EMPRESA AERO SARAYAKU TAYJARUTA S.A."

Ha sido efectuado en forma satisfactoria y el mismo que cuenta con todas las garantías de funcionamiento, por lo cual existiendo este aval respalda el trabajo realizado por el mencionado estudiante y además agradeciendo a la **UNIDAD DE GESTIÓN DE TECNOLOGÍAS ESPE**, por ayudar al desarrollo de la aviación en el Ecuador.

  
 Tigo. Andrés Arévalo  
 DIRECTOR DE MANTENIMIENTO  
 AERO SARAYAKU TAYJARUTA S.A.



REPUBLICA DEL ECUADOR DIRECCION GENERAL DE AVIACION CIVIL CERTIFICADO DE AERONAVEGABILIDAD ESTANDAR				No. 2266-UIO
1. MATRICULA REGISTRATION <b>HC-CPS</b>	2. MARCA Y MODELO MANUFACTURER AND MODEL <b>CESSNA T206H</b>	3. NUMERO DE SERIE SERIAL NUMBER <b>T20608071</b>	4. CATEGORIA CATEGORY <b>NORMAL</b>	
5. AUTORIDAD Y BASE PARA LA EMISION / AUTHORITY AND BASIS FOR ISSUANCE Este CERTIFICADO DE AERONAVEGABILIDAD es emitido de acuerdo a las Regoluciones Técnicas de Aviación Civil (RDAC) vigentes emitidas por la DAC del Ecuador, y certifica que a la fecha de su emisión, la aeronave involucrada ha sido inspeccionada y reúne las condiciones establecidas en su Certificado Tipo, cumpliendo con las exigencias establecidas en el Anexo 8 de OACI excepto como lo anota a continuación. / This AIRWORTHINESS CERTIFICATE is issued in accordance with current Technical Civil Aviation Regulations (RDAC) published by Ecuadorian CAA, and certifies that as of the date of issuance the aircraft to which issued has been inspected and found to conform to the type certificate, and has been shown to meet requirements provided by ICAO Annex 8 except as noted herein. EXCEPCIONES / EXCEPTIONS				
6. TERMINOS Y CONDICIONES / TERMS AND CONDITIONS A menos que sea suspendido, revocado, cancelado o finalizado el periodo indicado por la DAC, este CERTIFICADO DE AERONAVEGABILIDAD es efectivo siempre y cuando el mantenimiento, mantenimiento preventivo y alteraciones sean ejecutados de acuerdo con las partes 21, 43 y 91 de las Regoluciones Técnicas de Aviación Civil vigentes de la Republica de Ecuador. / Unless sooner suspended, revoked, or a termination date is otherwise established by the DAC, this AIRWORTHINESS CERTIFICATE is effective as long as the maintenance, preventive maintenance and alterations are performed in accordance with the current Technical Civil Aviation Regulation (RDAC) published by Ecuadorian CAA. La responsabilidad de su cumplimiento es del propietario u operador de la misma. / The accomplishment of maintaining in accordance with the terms of the operator.				
7. LUGAR Y FECHA DE EMISION DATE AND PLACE OF ISSUANCE <b>QUITO, 15-Agosto-2016</b>	8. FECHA DE VENCIMIENTO EXPIRATION DATE <b>14-Agosto-2017</b>	9. INSPECTOR DATO DAC INSPECTOR <b>Wilson Rócha X.</b>		
10. Cualquier alteración, raspadura o emienda será pensada por la DAC. Este certificado debe ser llevado siempre a bordo de la aeronave presentada a cualquier CAA que lo solicite. / Any alteration, reproduction or change of this certificate will be possible without the DAC. This Certificate must be carried on board and will be showed at any CAA that requires it.				
11. Fecha de vencimiento del seguro, ver certificado adjunto / Insurance expiration date see attached certificate.				

DAC FORM 8100-2

# CONCLUSIONES

- Luego de obtener los manuales actualizados necesarios para realizar el montaje del motor se pudo realizar el trabajo de acuerdo a lo establecido en los mismos.
- Con los accesorios necesarios del motor ya comprados se realizó el montaje del motor.
- Con las herramientas de trabajo en buena condición y calibradas se realizó el trabajo.
- Se realizó el montaje de acuerdo a lo pre establecido en los manuales.
- Luego del montaje del motor se realizó una operación en tierra y en vuelo verificando su correcto funcionamiento.
- De acuerdo a los parámetros del motor se determinó el correcto funcionamiento del mismo, satisfaciendo los requerimientos operacionales.

# RECOMENDACIONES

- Es importante contar con todos los manuales para seguir un orden claro.
- Siempre se debe utilizar las herramientas correctas revisando su calibración y su buen estado.
- Siempre se debe limpiar el lugar de trabajo para mantener en condición los componentes a ser trabajados.
- Se puede cerrar las aletas de refrigeración para calentar al motor más rápido.
- Para disminuir la temperatura del motor se puede variar la mezcla de combustible en rica.
- Para aumentar la temperatura del motor se puede variar la mezcla de combustible en pobre.
- La debida precaución para el manejo de herramientas a más de contar con equipo de protección.
- Realizar una inspección visual luego de cada trabajo para preservar la operación del motor.

