Single Engine

Service Bulletin

January 31, 2005

TITLE

MC01-3A MAIN ELECTRICAL POWER JUNCTION BOX CIRCUIT BREAKERS INSPECTION

EFFECTIVITY

Model | Serial Numbers
---|---
172R | 17281186 thru 17281232
172S | 172S9476 thru 172S9689 and 172S9691 thru 172S9770
182T | 18281242 thru 18281503, 18281506 and 18281507
T182T | T18208212 thru T18208357
206H | 20608195 thru 20608223, 20608225 and 20608226
T206H | T20608410 thru T20608475, T20608477 thru T20608501, T20608503 and T20608506

REASON

It has been determined that some part number S3100-297 (MC01-3A I.C. 9) or S3100-344 (MC01-3A I.C. 10) main power junction boxes may have incorrect amperage circuit breakers installed in place of the required 40 amp circuit breakers.

DESCRIPTION

The main power junction box circuit breakers shall be inspected as described in this Service Bulletin and if necessary, the incorrect circuit breakers shall be replaced. Non-compliance with this Service Bulletin may result in premature tripping of the power junction box main feeder circuit breakers, which could lead to partial or complete loss of electrical power.

COMPLIANCE

Mandatory: shall be accomplished within the next 50 hours of operation or 30 days, whichever occurs first.

NOTE: Airplane operations are limited to Day/VFR flight only until compliance with this Service Bulletin.
APPROVAL

FAA approval has been obtained on technical data in this publication that affects airplane type design.

MANPOWER

0.6 man-hour per airplane for inspection and operational check  
If necessary, 0.1 man-hour per circuit breaker to replace the circuit breaker(s)

REFERENCES


NOTE: Make sure all publications used are complete and current.  

NOTE: This information shall be considered an amendment to the Cessna Manufacturer’s Service/Maintenance Manual or Instructions for continued airworthiness and must be accomplished for ongoing airworthiness compliance as required per 14 CFR Part 43.13.

OTHER PUBLICATIONS AFFECTED

Model 172R and Model 172S Illustrated Parts Catalog  
Model 182S/182T/T182T Illustrated Parts Catalog  
Model 206H & Model T206H Illustrated Parts Catalog  

NOTE: Make sure all publications used are complete and current.

MATERIAL PRICE AND AVAILABILITY

The parts below are available from Cessna Parts Distribution through an appropriate Cessna Service Station for the suggested list price shown.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Qty/Airplane</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>P52-0011</td>
<td>Circuit Breaker Kit</td>
<td>1 (if required)</td>
<td>$40.00 (F) ea</td>
</tr>
<tr>
<td></td>
<td>(3 circuit breakers, 40 Amp)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F53-0006</td>
<td>Circuit Breaker</td>
<td>(as required)</td>
<td>$24.30 (PS) ea</td>
</tr>
<tr>
<td></td>
<td>(40 Amp)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

CREDIT INFORMATION

A labor allowance credit of 0.6 man-hour per airplane will be provided to inspect the main power junction box circuit breakers and perform the operational check as described in this Service Bulletin. If necessary, applicable circuit breaker parts credit and a labor allowance credit of 0.1 man-hour per circuit breaker will be provided to replace the circuit breaker(s).

To receive credit, the work must be completed and a Warranty Claim submitted by a Cessna Single Engine Service Station within 30 calendar days of Service Bulletin compliance before the credit expiration dates shown below. Any removed circuit breaker shall be returned with the Warranty Claim.

<table>
<thead>
<tr>
<th></th>
<th>Domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>May 30, 2005</td>
<td>July 31, 2005</td>
</tr>
</tbody>
</table>

Page 2

SB05-24-01

January 31, 2005
ACCOMPLISHMENT INSTRUCTIONS

Weight And Balance Information

WEIGHT CHANGE ............... Negligible

Material Information

The parts below may be necessary:

<table>
<thead>
<tr>
<th>New P/N</th>
<th>Quantity</th>
<th>Description</th>
<th>Old P/N</th>
<th>Disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>P52-0011</td>
<td>1 (if required)</td>
<td>Circuit Breaker Kit (3 circuit breakers, 40 Amp)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F53-0006</td>
<td>(as required)</td>
<td>Circuit Breaker (40 Amp)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Instructions

1. Prepare the airplane for maintenance.
   A. Make sure that all switches are in the OFF/NORM position.
   B. Disconnect electrical power from the airplane.
      (1) Disconnect the airplane battery.
      (2) Disconnect external electrical power.
   C. Attach maintenance warning tags to the battery and external power receptacle that have "DO NOT CONNECT ELECTRICAL POWER - MAINTENANCE IN PROGRESS" written on them.

2. Remove the upper cowl. (Refer to the Maintenance Manual, Chapter 71, Cowl - Maintenance Practices.)

3. (Refer to Figure 1, Detail A.) Remove and keep the main power junction box cover and the hardware that attaches it.

4. (Refer to Figure 1, View A-A.) Remove and replace circuit breakers that are not 40 amp.
   A. Remove the center circuit breaker.
      NOTE: With the center circuit breaker removed, the ink stamps for all three circuit breakers will be visible.
      (1) Remove the nut and washer that connects the terminal to the center circuit breaker.
      (2) Remove and keep the nuts and washers that connect the circuit breakers to the bus bars.
      (3) Remove the bus bars from the circuit breakers. Keep the bus bars.
      (4) Remove and keep the two screws that attach the center circuit breaker to the junction box.
      (5) Remove the center circuit breaker.
   B. Make sure that all three circuit breakers are 40 amp.
      (1) With a flashlight and mirror, find the ink stamp on all three of the circuit breakers and make sure that they are stamped: 24VDC and 40A.
      NOTE: The other three characters stamped on the circuit breakers are not related to this inspection.
(2) Remove any circuit breakers that are not 40 amp.

NOTE: If you must remove the inboard circuit breaker, loosen the hardware that attaches the bus bar to the K1 contactor.

(a) Do Steps 4.A.(1) through 4.A.(5) for each circuit breaker that is not a 40 amp.

(3) Keep circuit breakers that are 40 amp.

C. Install new and/or kept F53-0006 40 amp Circuit Breakers (ink stamped 24VDC and 40A).

(1) Loosely install screws in the F53-0006 Circuit Breakers.

(2) Position the bus bars on the circuit breakers.

(3) Tighten the circuit breaker screws at the base of the power junction box. Torque the screws 9-15 inch pounds.

(4) Attach the terminals and bus bars to the circuit breakers with the nuts and washers.

(5) Torque the circuit breaker nuts on the bus bars and terminal to 20-25 inch-pounds.

(6) If the inboard circuit breaker was removed, torque the nut and lock washer at the K1 contactor to 35-45 inch-pounds.

5. Reinstall the power junction box cover with the kept hardware.

6. Remove the maintenance warning tags and connect the airplane battery.

7. Apply power to the airplane and make sure of the operation of the landing and taxi lights and prop deice (if equipped).

8. Install the upper cowl. (Refer to the Maintenance Manual, Chapter 71, Cowl - Maintenance Practices.)

9. Make an entry in the airplane logbook that states compliance and method of compliance with this Service Bulletin.
Figure 1. Circuit Breaker Inspection/Replacement (Sheet 1)
NOTE: REPLACE ANY OF THE THREE CIRCUIT BREAKERS IF THEY ARE NOT 40-AMP.
On January 31, 2005 the following message will be sent to applicable owners of record in SB05-24-01A.

Dear Cessna Owner:

This Owner Advisory is to inform you that it has been determined that some part number S3100-297 (MC01-3A I.C. 9) or S3100-344 (MC01-3A I.C. 10) main power junction boxes may have incorrect amperage circuit breakers installed in place of the required 40 amp circuit breakers.

The main power junction box circuit breakers shall be inspected as described in Service Bulletin SB05-24-01 and if necessary, the incorrect circuit breakers shall be replaced. Non-compliance with SB05-24-01 may result in premature tripping of the power junction box main feeder circuit breakers, which could lead to partial or complete loss of electrical power.

Compliance is mandatory: shall be accomplished within the next 50 hours of operation or 30 days, whichever occurs first.

NOTE: Airplane operations are limited to Day/VFR flight only until compliance with Service Bulletin SB05-24-01.

The information contained in the referenced Cessna Service Bulletin shall be considered an amendment to the Cessna Manufacturer's Service/Maintenance Manual or Instructions for continued airworthiness, and must be accomplished for ongoing airworthiness compliance as required per 14 CFR Part 43.13.

A labor allowance credit of 0.6 man-hour per airplane will be provided to inspect the main power junction box circuit breakers and perform the operational check as described in SB05-24-01. If necessary, applicable circuit breaker parts credit and a labor allowance credit of 0.1 man-hour per circuit breaker will be provided to replace the circuit breaker(s).

To receive credit, the work must be completed and a Warranty Claim submitted by a Cessna Single Engine Service Station within 30 calendar days of Service Bulletin compliance before the credit expiration dates shown below.

Domestic ...................... May 30, 2005
International ..................... July 31, 2005

Please contact a Cessna Single Engine Service Station for detailed information and arrange to have Cessna Service Bulletin SB05-24-01 accomplished on your airplane.

* * * * * * * * * *
Dear Cessna Owner:

This Owner Advisory is to inform you that it has been determined that some part number S3100-297 (MC01-3A I.C. 9) or S3100-344 (MC01-3A I.C. 10) main power junction boxes may have incorrect amperage circuit breakers installed in place of the required 40 amp circuit breakers.

The main power junction box circuit breakers shall be inspected as described in Service Bulletin SB05-24-01 and if necessary, the incorrect circuit breakers shall be replaced. Non-compliance with SB05-24-01 may result in premature tripping of the power junction box main feeder circuit breakers, which could lead to partial or complete loss of electrical power.

Compliance is mandatory: shall be accomplished within the next 50 hours of operation or 30 days, whichever occurs first.

NOTE: Airplane operations are limited to Day/VFR flight only until compliance with Service Bulletin SB05-24-01.

The information contained in the referenced Cessna Service Bulletin shall be considered an amendment to the Cessna Manufacturer's Service/Maintenance Manual or Instructions for continued airworthiness, and must be accomplished for ongoing airworthiness compliance as required per 14 CFR Part 43.13.

A labor allowance credit of 0.6 man-hour per airplane will be provided to inspect the main power junction box circuit breakers and perform the operational check as described in SB05-24-01. If necessary, applicable circuit breaker parts credit and a labor allowance credit of 0.1 man-hour per circuit breaker will be provided to replace the circuit breaker(s).

To receive credit, the work must be completed and a Warranty Claim submitted by a Cessna Single Engine Service Station within 30 calendar days of Service Bulletin compliance before the credit expiration dates shown below.

<table>
<thead>
<tr>
<th>Domestic</th>
<th>May 30, 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>July 31, 2005</td>
</tr>
</tbody>
</table>

Please contact a Cessna Single Engine Service Station for detailed information and arrange to have Cessna Service Bulletin SB05-24-01 accomplished on your airplane.

* * * * * * * * *