



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

**AFS-600**

*Regulatory Support Division*

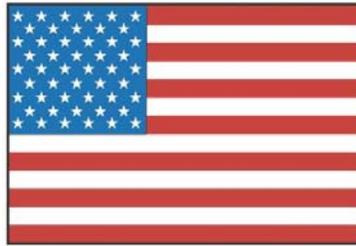
## ADVISORY CIRCULAR

43-16A

---

# AVIATION MAINTENANCE ALERTS

---



**ALERT  
NUMBER  
372**



**JULY  
2009**

# CONTENTS

## AIRPLANES

DE HAVILLAND.....	1
PIPER.....	3

## HELICOPTERS

EUROCOPTER .....	5
------------------	---

## POWERPLANTS

CONTINENTAL .....	5
ECI .....	37

## ACCESSORIES

KELLY .....	38
SKYTECH .....	38

## AIR NOTES

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE.....	38
IF YOU WANT TO CONTACT US .....	39
AVIATION SERVICE DIFFICULTY REPORTS .....	40

---

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, DC 20590**

**AVIATION MAINTENANCE ALERTS**

The Aviation Maintenance Alerts provides the aviation community with an economical means to exchange service experiences and to assist the FAA in improving aeronautical product durability, reliability, and safety. We prepare this publication from information operators and maintenance personnel who maintain civil aeronautical products pertaining to significant events or items of interest. At the time we prepared this document, we have not fully evaluated the material. As we identify additional facts such as cause and corrective action, we may publish additional data in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported to the FAA Service Difficulty Reporting System (SDRS). We welcome your participation, comments, and suggestions for improvement. Send to: FAA; ATTN: Aviation Data Systems Branch (AFS-620); P.O. Box 25082; Oklahoma City, OK 73125-5029.

---

*(Editor's notes are provided for editorial clarification and enhancement within an article. They will always be recognized as italicized words bordered by parentheses.)*

---

**AIRPLANES**

**de Havilland: DHC-6; Control Cable Inspection Advisory; ATA (n/a)**

*(The following Canadian advisory provides important discussion relevant to Twin Otter owner/operators. This reprint remains in its original format.)*



Transport  
Canada

Transports  
Canada

TP 7244

No. N°	AL-2007-03R1	1/2
Date	2009-06-10	

## SERVICE DIFFICULTY ALERT

This Service Difficulty Alert brings to your attention a potential hazard identified by the Service Difficulty Reporting Program. It is a non-mandatory notification and does not preclude issuance of an airworthiness directive.

### DHC 6 – (Twin OTTER) CONTROL CABLE INSPECTION

This Revision is further to the original issuance of the Service Difficulty Alert (SDA), wherein your attention was brought to a Twin Otter accident in French Polynesia. The investigation is now complete, with the cause attributed by the investigating body, to the failure of the up elevator control cable in the vicinity of the fairlead located at airframe station 426.

Viking Air Limited has conducted a survey of operators to gain knowledge of in-service cable wear on the DHC-6 aircraft. As a result of this survey, revisions to the maintenance recommendations have been developed. All operators should have received these publications in the form of Temporary Revisions (TR) to the pertinent maintenance publications from Viking Air.

These recommendations should be reviewed by all operators for consideration in their maintenance planning.

Transport Canada is issuing this SDA to ensure that operators and maintainers are aware of, and are following the latest Instructions for Continued Airworthiness (ICA) for the Twin Otter, which includes Inspection Requirements Manual PSM 1-6-7 and Service Bulletin 6/523 - Special Inspection of Control Cables for Wear and Corrosion. Additionally PSM 1-6-2, 1-63-2 and 1-63S-2 contain cable inspection criteria.

In addition to the cable inspection requirements, periodic replacement of cables are required according to TCCA Airworthiness Directive CF-2000-14 which mandates the DHC-6 Structural Components Service Life Limits Manual PSM 1-6-11.

## ALERTE AUX DIFFICULTÉS EN SERVICE

Cette alerte aux difficultés en service a pour but d'attirer votre attention sur une condition possiblement hasardeuse qui a été révélée par le Programme de rapports de difficultés en service. Elle est une notification facultative et n'exclut pas nécessairement la publication d'une consigne de navigabilité.

### DHC 6 – (Twin OTTER) INSPECTION DES CÂBLES DE COMMANDE

La présente révision fait suite à l'alerte de difficultés en service publiée originalement pour faire état d'un accident de Twin Otter survenu en Polynésie française. L'enquête est maintenant terminée, et les enquêteurs ont déterminé que l'accident avait été causé par la défaillance du câble de commande de la profondeur près du guide-câble situé à la référence 426.

Viking Air Limited a effectué un sondage auprès des exploitants relativement à l'usure en service des câbles des avions DHC-6. À la suite de ce sondage, des modifications aux recommandations de maintenance ont été élaborées. Tous les exploitants devraient avoir reçu ces publications sous forme de révisions temporaires aux publications de maintenance applicables de Viking Air.

Tous les exploitants devraient consulter ces recommandations et en tenir compte dans leur planification de maintenance.

Transports Canada publie la présente alerte de difficultés en service afin de veiller à ce que les personnes qui exploitent et entretiennent ces avions connaissent et suivent les plus récentes Instructions pour le maintien de la navigabilité (ICA) du Twin Otter, ce qui comprend le manuel des exigences en matière d'inspection PSM 1-6-7 et le bulletin de service 6/523 portant sur une inspection spéciale des câbles de commande à la recherche d'usure et de corrosion. De plus, les PSM 1-6-2, 1-63-2 et 1-63S-2 précisent les critères d'inspection des câbles.

En plus des exigences en matière d'inspection des câbles, ceux-ci doivent être remplacés de façon périodique en vertu de la Consigne de navigabilité CF-2000-14 de TCAC qui rend obligatoire l'application du manuel des limites de durée de vie en service des composants structuraux du DHC-6 PSM 1-6-11.

To request a change of address, contact the Civil Aviation Communications Centre (AARC) at Place de Ville, Ottawa, Ontario K1A 0N8, or 1 800 305-2059, or [www.tc.gc.ca/civilaviation/communications/centre/address.asp](http://www.tc.gc.ca/civilaviation/communications/centre/address.asp)

24-0028 (01-2005)

Pour demander un changement d'adresse, veuillez contacter le Centre des communications de l'aviation civile (AARC) à Place de Ville, Ottawa (Ontario) K1A 0N8, ou 1 800 305-2059, ou [www.tc.gc.ca/AviationCivile/communications/centre/adresse.asp](http://www.tc.gc.ca/AviationCivile/communications/centre/adresse.asp).

No. N°	<b>AL-2007-03R1</b>	2/2
-----------	---------------------	-----

Viking Air has issued DHC6-SL-27-002, dated 18 March 2009, "Flight Control Cable Return Program" requesting DHC-6 operators to provide information to Viking, of all control cables found damaged as a result of in-service wear or corrosion prior to the recommended service life limit.

Le 18 mars 2009, Viking Air a publié la lettre de service DHC6-SL-27-002 intitulée « Programme de retour des câbles de commande de vol », qui demande aux exploitants de DHC-6 de fournir à Viking tout renseignement relatif à des câbles de commande endommagés par usure en service ou corrosion avant que la limite de durée de vie en service recommandée soit atteinte.

Transport Canada supports this initiative and recommends all DHC-6 operators comply with this request.

Transports Canada appuie cette initiative et recommande que tous les exploitants de DHC-6 accèdent à cette demande.

Any further defects or occurrences should be reported to Transport Canada, Continuing Airworthiness, Ottawa, via the Service Difficulty Reporting (SDR) program.

Toute autre défectuosité ou tout autre événement de la sorte devraient être signalés au Maintien de la navigabilité aérienne de Transports Canada, à Ottawa, au moyen du programme de Rapports de difficultés en service (RDS).

For further information regarding this SDA, contact a Transport Canada Centre, or Mr. Paul Jones, Continuing Airworthiness, Ottawa, telephone 613 952-4431 or by email at [cawwebfeedback@tc.gc.ca](mailto:cawwebfeedback@tc.gc.ca)

Pour de plus amples renseignements concernant la présente alerte de difficultés en service, communiquer avec un centre de Transports Canada ou avec M. Paul Jones, Maintien de la navigabilité aérienne, à Ottawa, téléphone 613-952-4431 ou par courriel à [cawwebfeedback@tc.gc.ca](mailto:cawwebfeedback@tc.gc.ca)

For Director, National Aircraft Certification

Pour le Directeur, Certification nationale des aéronefs



Derek Ferguson  
Acting Chief, Continuing Airworthiness  
Chef intérimaire, Maintien de la navigabilité aérienne

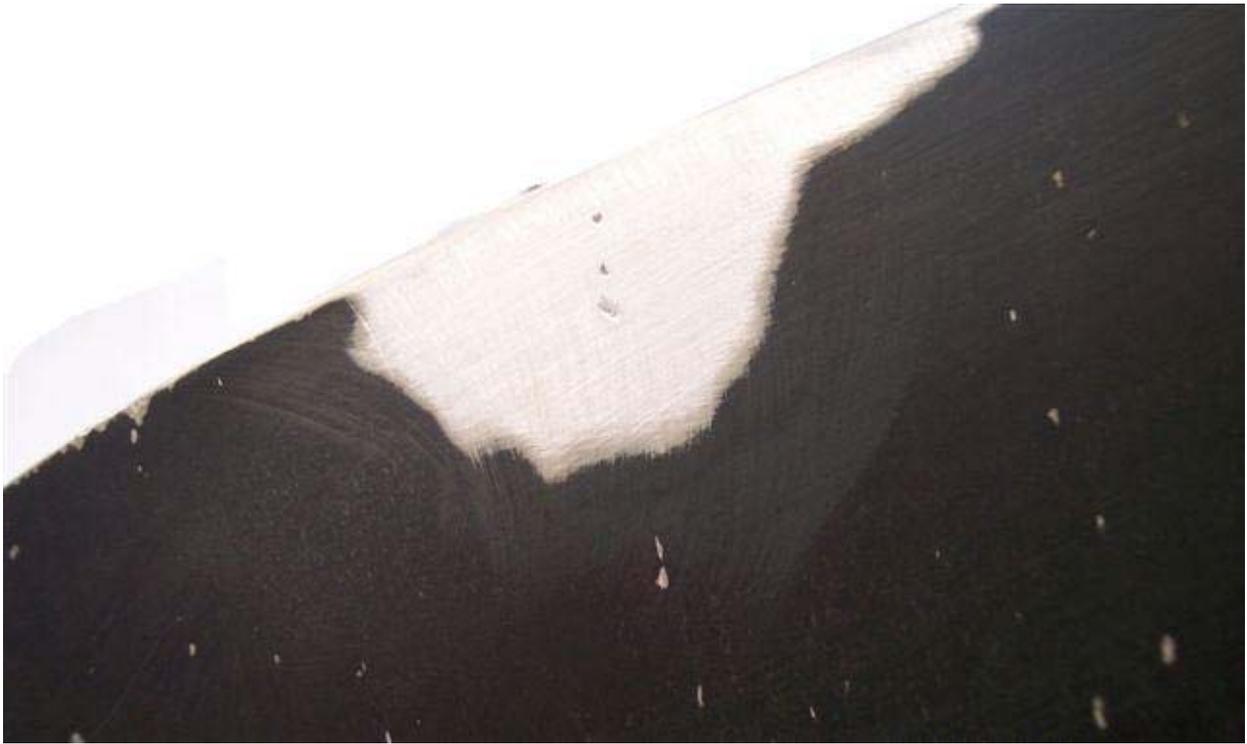
<b>Note:</b> For the electronic version of this document, please consult the following Web address:	<b>Nota :</b> La version électronique de ce document se trouve à l'adresse Web suivante :
---	---

[www.tc.gc.ca/CivilAviation/certification/menu.htm](http://www.tc.gc.ca/CivilAviation/certification/menu.htm)

Part Total Time: (n/a).

**Piper: PA44-180; Cracked Propeller; ATA 6111**

"During a routine inspection," writes a mechanic, "a nick (from rock or runway debris) was found in the face of one blade on the left propeller, 3.25 inches inboard from the tip. After minor dressing it was discovered to have three pits in the bottom of the nick. The third pit back from the leading edge was (*also*) found to have a crack. This crack was discovered from a digital picture that was enlarged. Even with a small magnifying glass and a strong light the crack did not show up very well."



*(Rather dramatic, isn't it? The propeller is a Hartzell HC-C2YR-2CEUF. Its time since overhaul: 304.5 hours. Thanks goes to the mechanic "he—who shall not be named" and Embry-Riddle inspector Pat Kelly for their submission—Ed.)*

Part Total Time: 4,696.5 hours.

---

## HELICOPTERS

### **Eurocopter: AS350; Cracked Tail Rotor Bell Crank Bracket; ATA 6720**

A Canadian technician writes, "A US operator has reported seven (*occurrences of cracks*) in the mounting bracket for the R/H tail rotor bell crank. The effected aircraft were AS 350B2 and AS 350B3 models. All of these aircraft have Eurocopter Canada Limited L/H pilot modification STC SH96-32 (FAA STC SR00429NY). Eurocopter Canada Limited has issued a service bulletin number ECL-122 requiring an inspection before next flight, repeated at 50 hours, then every 100 hours."

*(The SDRS database reflects 11 entries for this bracket part number: 350A21136324.)*

Part Total Time: (unknown).

---

## POWERPLANTS

### **Continental: MSB09-1A; Cylinder Replacement; ATA (n/a)**

*(Teledyne Continental has provided this mandatory Service Bulletin for publication.)*

**TELEDYNE CONTINENTAL® AIRCRAFT ENGINE  
MANDATORY SERVICE BULLETIN**

**Category 1  
MSB09-1A**

**The Subject Matter Of This Service Bulletin Is Incorporated  
In Whole Or In Part In An FAA Issued Airworthiness  
Directive**

**Technical Portions FAA  
Approved**

**SUBJECT: CYLINDER REPLACEMENT**

**BACKGROUND:** As of the date of this Bulletin, Teledyne Continental Motors (TCM) has identified the cause of cracks in 35 cylinders manufactured from November 1, 2007 to January 30, 2009. TCM has determined that the EQ3 cylinder head casting tool used in the manufacturing process created an area of reduced thickness that may result in a crack after prolonged operation. This crack manifests itself in the area between the upper sparkplug bore and the fuel injector/primer nozzle bore. The cracked cylinders returned to date have occurred on engines from high use fleet operations with occurrence times ranging from approximately 430 to 1,300 total hours. Replacement cylinders conforming to proven production history will be provided.

While there have been no accidents or incidents related to this cylinder head crack, TCM has elected to replace all cylinder assemblies with the EQ3 head casting. TCM will provide warranty assistance for this purpose through December 31, 2009.

**REVISION A:** TCM has identified a group of approximately 300 cylinders produced in August and September 2006 that were made from the EQ3 tooling. TCM is issuing this Revision A to MSB09-1 to incorporate this information in three key changes to the MSB. They are:

1. Update the Engine Models Affected list to include a more complete model list.
2. Adds Table 1A to list additional engine serial numbers that may be affected by this bulletin.
3. Adds Table 2A to list additional cylinder serial numbers that may be affected by this bulletin.

**PURPOSE:** This Mandatory Service Bulletin (MSB) is issued to require inspection to identify the EQ3 cylinders and to require the further inspection and replacement of those cylinders in order to ensure a timely and orderly retirement of the EQ3 cylinders.

This MSB has been divided into two sections to aid all parties in complying with its requirements.

Section 1 provides the details on cylinder inspection and replacement:

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		1 of 19 MSB09-1	A
02	12	2009	03	11	2009			

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

**Step 1:** Provides instructions to determine if your cylinders have been manufactured with the EQ3 head.

**Step 2:** Provides cylinder inspection and replacement instructions based on the total hours in service.

**Section 2** contains tables listing engines and cylinders that may have EQ3 heads installed. These engines and cylinders were shipped from November 1, 2007 through January 30, 2009.

In addition, a group of approximately 300 cylinders produced in August and September of 2006 were made from the EQ3 tooling. Suspect engines and cylinders containing that group are provided in Tables 1A and 2A.

**COMPLIANCE:** Identify all potentially affected cylinders, listed in Tables 1, 1A, 2, and 2A, within the next twenty (20) flight hours but in no case later than April 30, 2009. If any cylinder has the EQ3 head, notify TCM to schedule a replacement. All EQ3 cylinders must be replaced no later than December 31, 2009.

For cylinders with 400 hours or more total time in operation, Step 2 (Cylinder Inspection Instructions) must also be completed within twenty (20) hours of operation or by April 30, 2009, whichever is earlier, and every fifty (50) hours of operation thereafter until cylinder replacement.

Tables 1, 1A, 2, and 2A are believed to contain the cylinders produced by the EQ3 tooling. However, to assure that all EQ3 cylinders have been found, any engine or cylinder that has been purchased from TCM since August, 2006, for an engine model listed in MODELS AFFECTED, should be inspected even if not listed in Tables 1, 1A, 2, or 2A. The inspection should take place no later than the next maintenance event such as an oil change, annual or 100 hour inspection, but in time for replacement for all EQ3 cylinders no later than December 31, 2009.

**WARNING**

IF A CRACK IS PRESENT THE CYLINDER MUST BE REPLACED IMMEDIATELY. TO SUPPORT REPLACEMENT AT AN AUTHORIZED CENTER, A REPOSITIONING FLIGHT OF NOT TO EXCEED FIVE (5) HOURS IS AUTHORIZED IF NO FUEL OR COMBUSTION STAINING IS FOUND AT THE SUBJECT LOCATION. IF SUCH INDICATIONS ARE FOUND, CONTACT TCM BEFORE FURTHER FLIGHT.

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		2 of 19	A
02	12	2009	03	11	2009	MSB09-1		

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

**MODELS AFFECTED:**

O470-G, K, L, R, S, M, U; IO470-C, D, E, F, H, L, M, N, S, U, V, VO;  
 TSIO470-B, C, D; IO520-A, B, BA, BB, C, CB, D, E, F, J, K, L, M, MB;  
 TSIO520-AF, B, BB, C, CE, D, DB, E, EB, G, H, J, JB, K, KB, L, LB, M,  
 N, NB, P, R, T, UB, VB, WB; IO550-A, B, C, D, E, F, L; IOF550-B, C, D,  
 E, F, L..

**SECTION 1**

**GENERAL**

The EQ3 head casting cylinder assemblies are identified by a four (4) fin relief at the bottom lower left hand portion of the cylinder head (as installed on the engine) and a depression cast EQ3 in the cylinder head rocker boss (overhead) area as shown in Figures 1 and 2. These cylinders are to be replaced in accordance with the guidelines set forth in this bulletin and based upon applicable engine model and aircraft manufacturer procedures. All EQ3 cylinders must be replaced no later than December 31, 2009.

**STEP 1 - EQ3 CYLINDER HEAD IDENTIFICATION AND REGISTRATION**

For all engines and cylinders identified in Tables 1, 1A, 2, and 2A of this MSB: confirm affectivity in accordance with the following instructions.

Inspect all potentially affected cylinders, within the next twenty (20) flight hours, but no later than April 30, 2009. Verify affectivity of all engine models and cylinders in accordance with Tables 1, 1A, 2, and 2A and the MODELS AFFECTED section. The engine serial number is located on the engine data plate and the cylinder serial number is located on the crankcase side of the top portion of the cylinder head as installed on the engine (Reference Figure 3).

**Note: For affected cylinders with 400 hours or more total time in operation, STEP 2 is also required.**

- A. For engine models identified in MODELS AFFECTED, use the engine log book to determine if a cylinder replacement has occurred with a cylinder produced between November 1, 2007 and January 30, 2009. If cylinder replacement(s) are verified to have occurred, proceed to "Cylinders Installed on an Engine" below. If no such cylinder replacements have occurred, no further action is required. Make an engine logbook entry recording the results of this inspection and compliance with this MSB.
- B. For those engines and cylinders listed in Tables 1, 1A, 2, and 2A, or cylinders requiring further inspection in accordance with STEP 1.A above, proceed as follows.
- C. For any of the engines listed in MODELS AFFECTED that may have been shipped or had a cylinder replaced since August, 2006, proceed as follows.

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		3 of 19	A
02	12	2009	03	11	2009	MSB09-1		

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

**CYLINDERS INSTALLED ON AN ENGINE:**

**NOTE: All cylinders must be checked for affectivity. Depending on manufacturing date and/or maintenance practices an engine may have any number between zero and six of the affected cylinders.**

1. Open or remove the engine cowling in accordance with the airframe manufacturer’s instructions to the point necessary to allow visual access to the cylinders on both sides of the engine (Figure 4).
2. Access the area of the cylinder head casting as shown in Figure 5. This area is visible as you look down at the cylinders in their mounted condition from above the engine compartment.
  - a. Look for a 6 digit part number casting mark such as “649166” or similar. In addition to the casting mark number, there may be a letter indicator such as AE, AD or similar. (Reference Figure 5)
  - b. If a number casting mark is present, it indicates the cylinder head assembly is not covered by this MSB and no further action is required. . Make an engine logbook entry recording the results of this inspection and compliance with this MSB.
  - c. If a number casting mark **is not** present, then the cylinder may be covered by this MSB. Verify the EQ3 cylinder S/N as shown in Figure 3 is present and listed in Table 2. If so, proceed to completion and registration and **STEP 2**.

**CYLINDERS NOT INSTALLED ON AN ENGINE:**

1. Cylinders with a depression cast EQ3 in the cylinder head rocker boss area as shown in Figure 2 are covered by this MSB and must be exchanged.
2. Contact TCM in accordance with the completion and registration section below.

***“CAUTION”: DO NOT INSTALL EQ3 CYLINDERS ON ANY ENGINE.***

**COMPLETION AND REGISTRATION**

1. Upon completion of the required inspection, if no EQ3 cylinders are identified, reinstall or replace all items that have been removed to perform this inspection in accordance with the applicable manufacturer’s instructions. Tighten all loosened or removed hardware in accordance with the applicable manufacturer’s instructions. Make an appropriate logbook entry stating findings and compliance with this MSB.
2. If EQ3 cylinders are identified:
  - a. Complete the Customer Information form located at the end of this bulletin.
  - b. Proceed to **STEP 2**.

**STEP 2 – CYLINDER INSPECTION AND REPLACEMENT INSTRUCTIONS**

**A. For affected cylinders less than 400 hours total time in operation:**

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		4 of 19	A
02	12	2009	03	11	2009		MSB09-1	

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

1. No detailed inspection is required beyond those provided in the applicable TCM maintenance and overhaul manuals and/or the applicable airframe manufacturer's maintenance manual. Reinstall or replace all items that have been removed to perform this inspection in accordance with the applicable manufacturer's instructions. Tighten all loosened or removed hardware in accordance with the applicable manufacturer's instructions. Make an appropriate logbook entry stating findings and compliance with the MSB. Contact TCM to schedule a replacement cylinder. All EQ3 cylinders must be replaced no later than December 31, 2009.

**B. For affected cylinders with 400 hours or more total time of operation**

The following inspection must also be accomplished. Additional inspections are required at each fifty (50) hour interval until the cylinder is replaced.

**WARNING**

IF A CRACK IS PRESENT THE CYLINDER MUST BE REPLACED IMMEDIATELY. TO SUPPORT REPLACEMENT AT AN AUTHORIZED CENTER, A REPOSITIONING FLIGHT OF NOT TO EXCEED FIVE (5) HOURS IS AUTHORIZED IF NO FUEL OR COMBUSTION STAINING IS FOUND AT THE SUBJECT LOCATION. IF SUCH INDICATIONS ARE FOUND, CONTACT TCM BEFORE FURTHER FLIGHT.

1. Remove the engine cowling and cooling baffles in accordance with the airframe manufacturer's instructions to the point necessary to allow visual access to each affected cylinder's upper spark plug area.
2. Remove the ignition lead from the top spark plug. Remove the top spark plug.

**NOTE: Visual evidence of a crack in the inspection area between upper spark plug bore and fuel injection nozzle/primer port as indicated in Figure 6 does not require further verification with a dye penetrant inspection.**

3. Install a protective cap in the top spark plug bore to prevent contamination from entering the cylinder bore area.
4. Using a flashlight and a 10x power magnifying glass, perform a detailed visual inspection of the area between the fuel injector nozzle boss and the upper spark plug. (Reference Figures 6 and 7)
5. If crack indications are found, proceed to step 12(a) below.
6. If no crack indications are noted during the visual inspection or if the mechanic has any questions concerning the presence of cracks in the affected area, proceed to step 7 below.

**NOTE: Dye-penetrant inspection must be performed by a properly qualified mechanic in accordance with the manufacturer's instructions. Use "Magnaflux®"**

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		5 of 19	A
02	12	2009	03	11	2009	MSB09-1		

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

**Portable Spotcheck Kit” or equivalent. These kits can be purchased through most aviation industry distributors.**

7. Using Dye-penetrant “Cleaner/Remover”, thoroughly clean the area between the upper spark plug bore and fuel injection nozzle/primer port as shown in Figure 7.
8. Spray the “Penetrant/Dye” onto the clean/dry area indicated in Figure 7. Allow the “Penetrant/Dye” enough time to set in accordance with the manufacturer’s instructions.
9. Remove and clean the area in which the “Penetrant/Dye” was applied in accordance with the manufacturer’s instructions.
10. Spray the “Developer” onto the clean/dry area indicated in Figure 7. Allow the “Developer” enough time to dwell in accordance with the manufacturer’s instructions for the determination of the existence of a crack.
  - a. If a crack is present, its appearance and location will be similar to that shown in Figure 8.
  - b. Refer to Step 12, below, for required actions in either a “No Crack Present” or a “Crack Present” case.
11. Repeat steps 2 through 7 on all remaining identified EQ3 head casting cylinder assemblies.
12. Complete the following based on the results of the inspection.
  - a. Preceding Inspection Reveals No Cracks
    - i. If required, clean the area thoroughly to remove the Developer. Remove the protective cap from the spark plug bore. Prepare the previously removed spark plugs for re-installation in accordance with the spark plug manufacturer’s maintenance instructions. Reinstall each spark plug in its previous location. Torque the spark plug to 300 – 360 in/lbs.
    - ii. Install the ignition lead and torque 5/8” B-nut to 90 – 95 in/lbs and 3/4” B-nut to 100 – 120 in/lbs.
    - iii. Reinstall all items that have been removed to perform this inspection. Tighten all loosened or removed hardware in accordance with the applicable manufacturer’s instructions.
  - b. Preceding Inspection Reveals Cracks
    - i. If a crack is verified and fuel or combustion staining was noted in the inspection area, contact TCM before further flight.
    - ii. Contact TCM via one of the means listed below and on the Customer Information Form to schedule replacement of the affected cylinder(s).
    - iii. If a crack is verified but no evidence is found of fuel or combustion staining, then the engine may be operated for up to five (5) hours for the purpose of relocating the aircraft to a cylinder replacement location.

**WARNING**

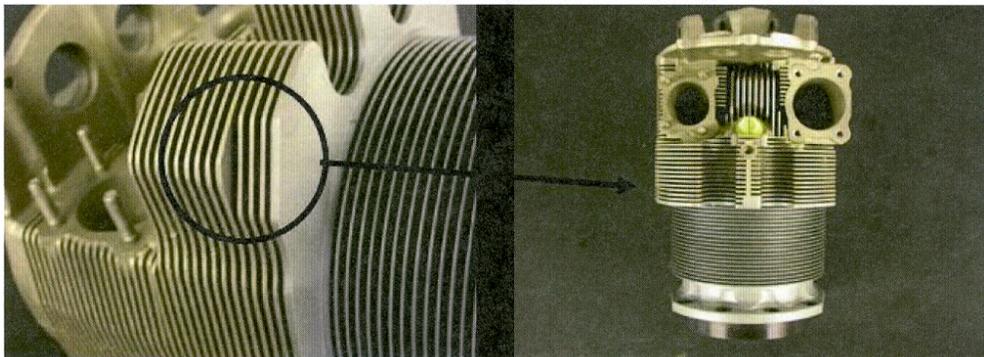
**IF A CRACK IS PRESENT THE CYLINDER MUST BE REPLACED IMMEDIATELY. TO SUPPORT REPLACEMENT AT AN AUTHORIZED**

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		6 of 19	A
02	12	2009	03	11	2009	MSB09-1		

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

CENTER, A REPOSITIONING FLIGHT OF NOT TO EXCEED FIVE (5) HOURS IS AUTHORIZED IF NO FUEL OR COMBUSTION STAINING IS FOUND AT THE SUBJECT LOCATION. IF SUCH INDICATIONS ARE FOUND, CONTACT TCM BEFORE FURTHER FLIGHT.

**NOTE:** Replacement cylinders will be readily identified by both the "NT" indented casting mark located in the cylinder head rocker arm boss region and by the absence of a four (4) fin relief. These replacement cylinders can also be identified by having a serial number sequence of AC09BA001 and higher.



**FIGURE 1**  
Cylinder Head Casting Four (4) Fin relief Location

**SECTION 2**

**TABLE 1**  
Possible EQ3 Cylinder Equipped Factory Engines

Engine Model	Engine Serial Number
0470K (Rebuilt)	049560 - 049562
0470L (Rebuilt)	832925 - 832936
0470R (New)	466902 - 466915
0470R (Rebuilt)	834219 - 834266
0470S (New)	464643 - 464645
0470S (Rebuilt)	819195 - 819207
0470U (New)	470902 - 470907
0470U (Rebuilt)	834458 - 834498
I0470C (Rebuilt)	295611 - 295615
I0470F (Rebuilt)	833666 - 833678
I0470L (New)	468685 - 468689
I0470L (Rebuilt)	298347 - 298372
I0470N (New)	458199, 458200
I0470N (Rebuilt)	096841 - 096844

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		7 of 19	A
02	12	2009	03	11	2009		MSB09-1	

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

Engine Model	Engine Serial Number
I0470S (Rebuilt)	109430 - 109432
I0470V (New)	455812
I0470V (Rebuilt)	171360 - 171362
I0520BA (Rebuilt)	822977 - 823000, 836650
I0520BB (New)	580226 - 580232
I0520BB (Rebuilt)	830218 - 830250, 836900 - 836910
I0520C (Rebuilt)	831016 - 831048
I0520CB (New)	576414 - 576424
I0520CB (Rebuilt)	831830 - 831869
I0520D (New)	581599 - 581613
I0520D (Rebuilt)	832577 - 832634
I0520E (Rebuilt)	215988 - 215993
I0520F (New)	579399 - 579413
I0520F (Rebuilt)	835185 - 835267
I0520J (Rebuilt)	216546 - 216548
I0520K (Rebuilt)	224180
I0520L (New)	577309 - 577319
I0520L (Rebuilt)	295480 - 295500 835900 - 835926
I0520M (Rebuilt)	826223, 826225, 826230, 826231, 826234 - 826237
I0520MB (Rebuilt)	829201 - 829212
I0550A (Rebuilt)	817109
I0550B (New)	688601 - 688639 690427 - 690448, 690451 690478 - 690481 690495 - 690553 690570 690624 - 690635
I0550B (Rebuilt)	834721 834732 - 834790
I0550C (New)	688375 - 688400 690151, 690152 690190 690198 - 690217 690224 - 690231 690252 - 690284 690318 - 690358 692439
I0550C (Rebuilt)	817108 833538 - 833565 833570 - 833584 833590 - 833600 833604 - 833606 833609 - 833611 833614, 833615
I0550D (New)	680099 - 680109 680113 - 680119
I0550D (Rebuilt)	833226 833250, 833253 833255 - 833287 833290 - 833297

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		8 of 19	A
02	12	2009	03	11	2009	MSB09-1		

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

Engine Model	Engine Serial Number
	833300 - 833315
	833319, 833320
I0550E (New)	681149, 681150
I0550F (New)	679602 - 679615
I0550F (Rebuilt)	824211 - 824246
I0550L (New)	678010 - 678012
I0550L (Rebuilt)	289227 - 289241
TSI0520AF (New)	525105
TSI0520AF (Rebuilt)	245264
TSI0520B (Rebuilt)	176861
TSI0520BB (Rebuilt)	287688
TSI0520C (New)	501657 - 501659
TSI0520C (Rebuilt)	178652 - 178659
TSI0520CE (New)	530186 - 530191
TSI0520E (Rebuilt)	826357 - 826359
TSI0520EB (New)	510851, 510852
TSI0520EB (Rebuilt)	815210 - 815216
TSI0520H (New)	506915, 506917
TSI0520H (Rebuilt)	217497 - 837151
TSI0520J (Rebuilt)	825255, 825256
TSI0520JB (New)	533002, 533003
TSI0520K (Rebuilt)	224611
TSI0520LB (Rebuilt)	815518 - 815522
TSI0520M (New)	532378
	532381 - 532404
	532406 - 532411
	532413 - 532416
	532418
	532423 - 532427
	532429
TSI0520M (Rebuilt)	830756 - 830781
TSI0520N (Rebuilt)	228649
TSI0520NB (Rebuilt)	822443 - 822458
TSI0520P (New)	513959
	513960
TSI0520P (Rebuilt)	278946 - 278955
TSI0520R (New)	522840 - 522856
	522858 - 522860
	522862, 522864, 522865, 522867
	522869 - 522871
TSI0520R (Rebuilt)	289626 - 289630
	289632, 289633,
	289635 - 289638
	289640 - 289643
	289645 - 289649
	289651, 289653, 289654
TSI0520T (New)	515445, 515446
TSI0520T (Rebuilt)	829573 - 829587
	829589
TSI0520UB (New)	527615 - 527620
TSI0520UB	809479
	809481 - 809484
	809487

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		9 of 19	A
02	12	2009	03	11	2009	MSB09-1		

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

Engine Model	Engine Serial Number
TSI0520VB (New)	529134 - 529142
TSI0520VB (Rebuilt)	832103 832105 - 836163 836165, 836167, 836170, 836171, 836173, 836175, 836176, 836178 836180 - 836183 836185, 836186
TSI0520WB (New)	518961 - 518964

**Table 1A**  
**Revision A Possible EQ3 Cylinder Equipped Factory Engines**

Engine Model	Engine Serial Number
0470K (Rebuilt)	049554
0470L (Rebuilt)	832916 - 832918
0470R (Rebuilt)	834174, 834175, 834181, 834184
0470S (Rebuilt)	819179
0470U (New)	470892, 470893
0470U (Rebuilt)	834414, 834415, 834421, 834426
I0470F (Rebuilt)	833658 - 833660
I0470L (New)	468679
I0470L (Rebuilt)	298324, 298326 - 298334
I0470N (Rebuilt)	096832, 096833
I0470S (Rebuilt)	109426
I0470U (Rebuilt)	118471 - 118473
I0470V (Rebuilt)	171355
IO520A (Rebuilt)	832167, 832168
IO520BA (Rebuilt)	822948, 822949, 822952
IO520BB (New)	580221
IO520BB (Rebuilt)	830172 - 830177
IO520C (Rebuilt)	830976 - 830986, 830995
IO520CB (Rebuilt)	831779 - 831782, 831786
IO520D (New)	581596
IO520D (Rebuilt)	832533 - 832538
IO520E (New)	556649
IO520F (Rebuilt)	830610 - 830614, 830620, 830647
IO520K (Rebuilt)	224177
IO520L (New)	577299 - 577301
IO520L (Rebuilt)	295431 - 295439, 295441, 295443
IO520M (Rebuilt)	826203 - 826206
IO520MB (Rebuilt)	829177 - 829181
IO550A (New)	682060
IO550B (New)	688644 - 688648 688494 - 688497 688500 - 688505, 688513 690409
IO550B (Rebuilt)	834670 - 834673, 834675
IO550C (New)	688264, 688265, 688269 - 688272 688290 690165 - 690170 690173

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		10 of 19	A
02	12	2009	03	11	2009		MSB09-1	

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

Engine Model	Engine Serial Number
I0550C (Rebuilt)	833467 - 833473
TSI0520B (Rebuilt)	176860
TSI0520C (Rebuilt)	178643 - 178645
TSI0520CE (New)	530183
TSI0520E (Rebuilt)	826348
TSI0520G (Rebuilt)	216062
TSI0520M (New)	532331
TSI0520M (Rebuilt)	830731, 830732, 830734
TSI0520P (Rebuilt)	278942
TSI0520R (New)	522813,522814
TSI0520R (Rebuilt)	289602
TSI0520T (Rebuilt)	829555
TSI0520UB (Rebuilt)	809471, 809473
TSI0520VB (Rebuilt)	832026
	832028 - 832031
	832041
TSI0520WB (New)	518957 - 518958
TSI0520WB (Rebuilt)	822622 - 822624

**TABLE 2**  
**Possible EQ3 Cylinders**

Cylinder Part	Engine Models	Cylinder Serial
655467A1,A3,A5,A7,A8	O470-G,K,L,R,S,M	IO470C
EQ7020, EQ7093		AC07KA001 through AC09AB999
655468 A1, A3, A5,A6, A7, A8, A9	O470-U	
EQ7027, EQ7094	IO470-D,E,F,H,L,M,N,S,U,V,VO	
655469A1,A6, A7, A8	TSIO470-B, C, D	
EQ6989, EQ7048	IO520-A,B,BA,BB,C,CB,D,E,F,J,K,L,M,MB	
655470A1,A3, A4	IO550-A,B,C, IOF550-B, TSIO520-AF,CE,UB	
EQ7053	TSIO520-B,BB,C,D,DB,E,EB,G,H,J,JB,K,KB,	
655471A1,A3, A4	TSIO520-L,LB,M,N,NB,P,R,T,VB,WB	
EQ7089	IO550-D,E,F,L IOF550-D,E,F,L ,	
655472A1,A3, A4	IO550-B,C	
EQ7088		
655484A1,A4, A5	IO550-B,C, IOF550-B,C	
EQ7350		
655485A1,A3, A4	IO550-D,F,L	
EQ7309		

**Cylinder Serial Number Explanation**

**ID    YEAR            MONTH    SERIAL**  
**AC    07                K            A001**

**ID = AC is the component identification code for cylinder.**

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		11 of 19	A
02	12	2009	03	11	2009		MSB09-1	

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

Year = 07 represents 2007

Month = K is the month code for November ( A = January, etc)

Serial = Begin with A001each month, After A999, will go to B001, etc.

**Table 2A**  
**Revision A Possible EQ3 Cylinders**

Cylinder Part	Engine Models	Cylinder Serial
655467A1,A3,A5,A7, A8 EQ7020, EQ7093	O470-G,K,L,R,S,M IO470C	AC06GC044 through AC06HC702
655468 A1, A3, A5,A6, A7, A8, A9 EQ7027, EQ7094	O470-U IO470-D,E,F,H,L,M,N,S,U,V,VO TSIO470-B, C, D	
655469A1,A6, A7, A8 EQ6989, EQ7048	IO520-A,B,BA,BB,C,CB,D,E,F,J,K,L,M,MB IO550-A,B,C, IOF550-B, TSIO520-AF,CE,UB	
655470A1,A3, A4 EQ7053	TSIO520-B,BB,C,D,DB,E,EB,G,H,J,JB,K,KB, TSIO520-L,LB,M,N,NB,P,R,T,VB,WB	
655471A1,A3, A4 EQ7089	IO550-D,E,F,L IOF550-D,E,F,L ,	
655472A1,A3, A4 EQ7088	IO550-B,C	
655484A1,A4, A5 EQ7350	IO550-B,C, IOF550-B,C	
655485A1,A3, A4 EQ7309	IO550-D,F,L	

**Cylinder Serial Number Explanation**

ID	YEAR	MONTH	SERIAL
AC	06	G	C044

ID = AC is the component identification code for cylinder.

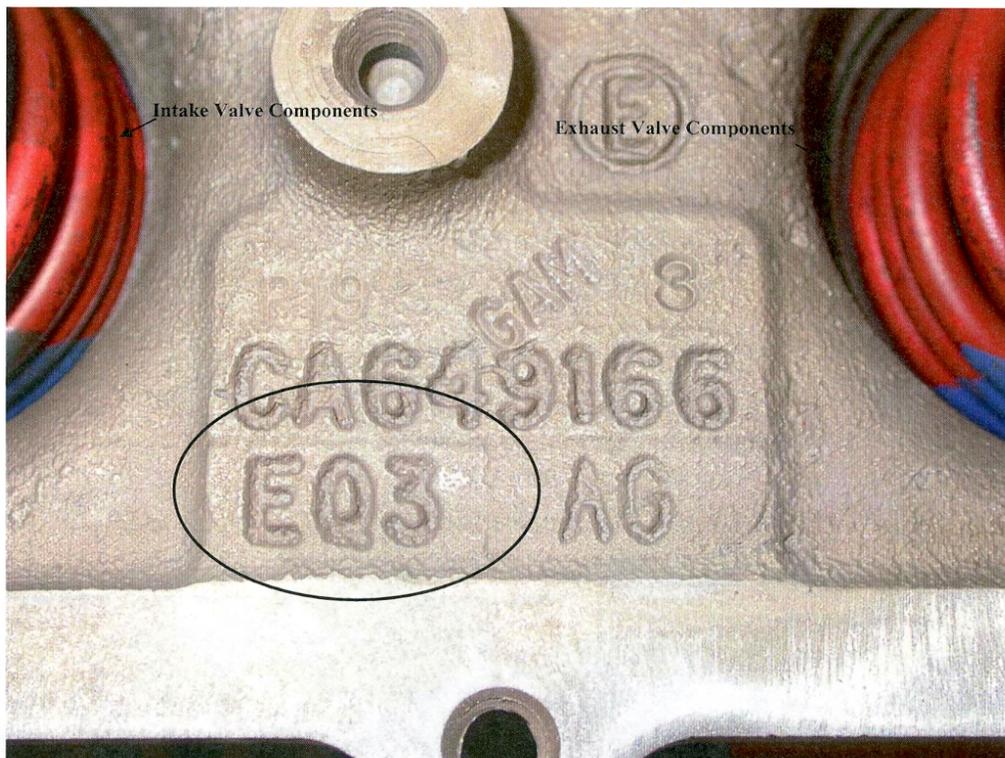
Year = 06 represents 2006

Month = K is the month code for November ( A = January, etc)

Serial = Begin with A001each month, After A999, will go to B001, etc.

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		12 of 19 MSB09-1	A
02	12	2009	03	11	2009			

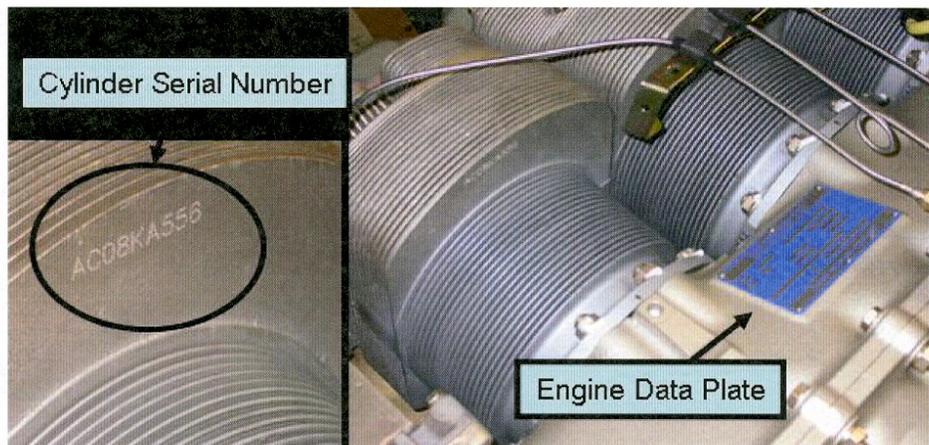
© 2009 TELEDYNE CONTINENTAL MOTORS, INC.



**FIGURE 2 Location of EQ3 Marking in the Cylinder Head Rocker Box Overhead Area**

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		13 of 19 MSB09-1	A
02	12	2009	03	11	2009			

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.



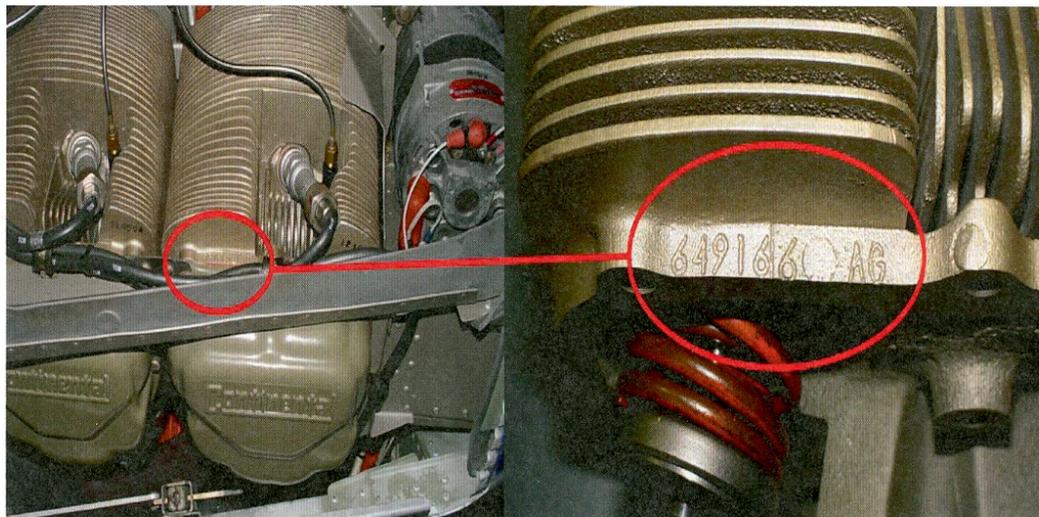
**FIGURE 3**  
**Cylinder Serial Number and Engine Data Plate Locations**



**FIGURE 4**  
**Example of Top Down View with Cowling Removed**  
**Typical Engine Installation**

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		14 of 19	A
02	12	2009	03	11	2009	MSB09-1		

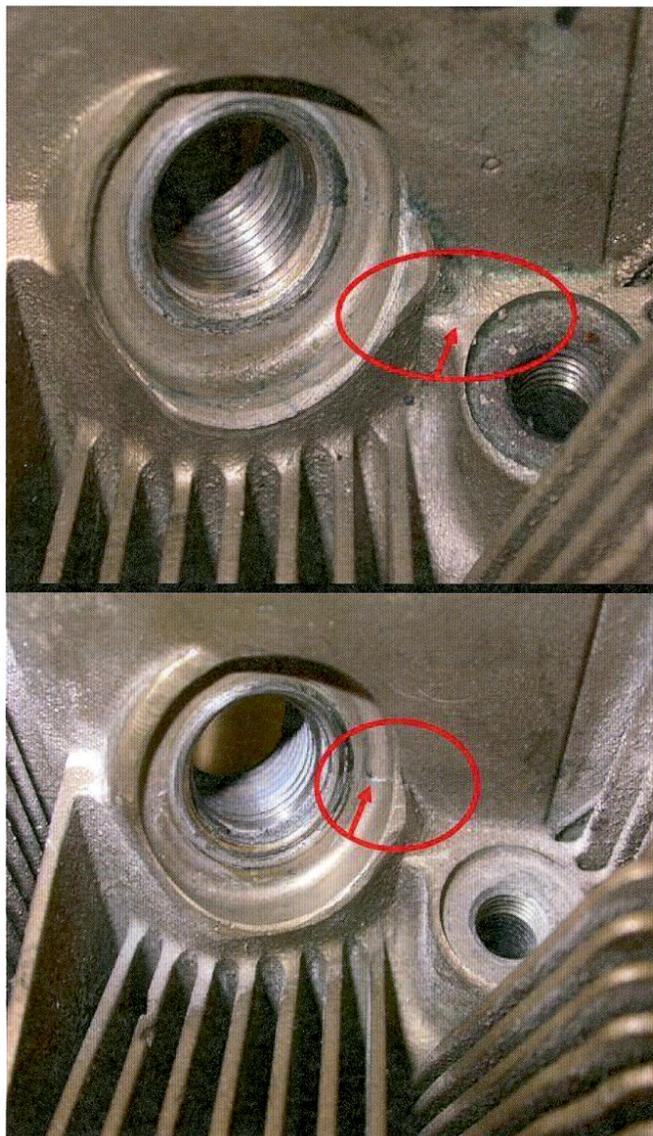
© 2009 TELEDYNE CONTINENTAL MOTORS, INC.



**FIGURE 5**  
**Rocker Arm Boss (overhead view of cylinder in mounted condition)**

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		15 of 19 MSB09-1	A
02	12	2009	03	11	2009			

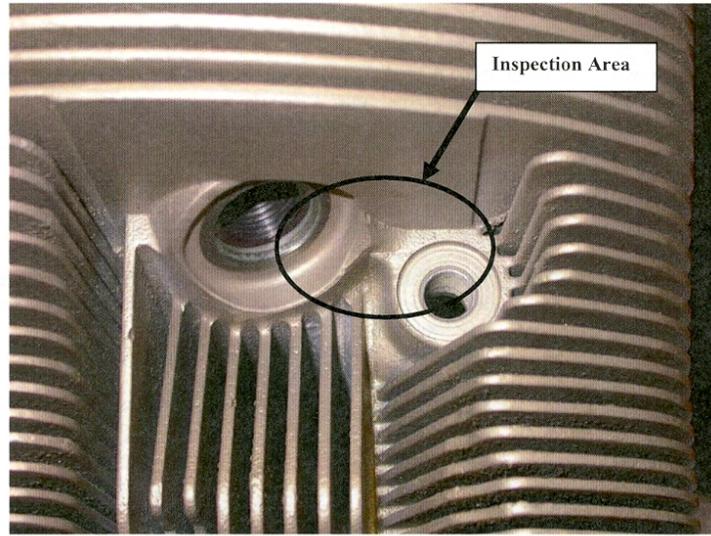
© 2009 TELEDYNE CONTINENTAL MOTORS, INC.



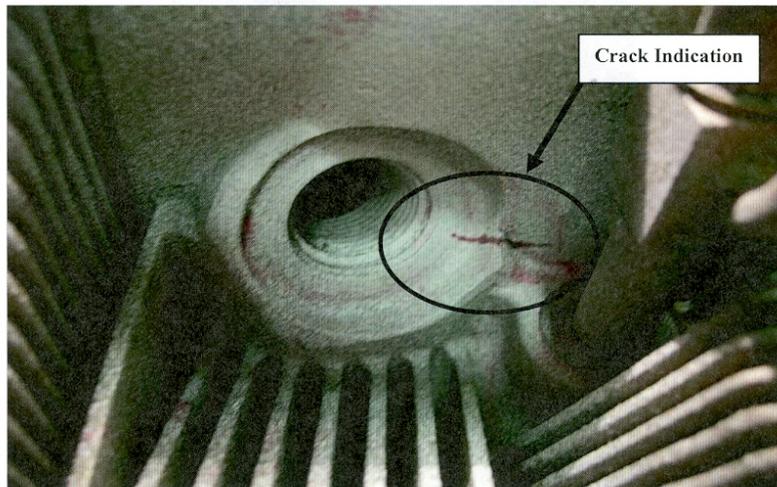
**FIGURE 6**  
**Typical Visual Crack Indications**

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		16 of 19	A
02	12	2009	03	11	2009	MSB09-1		

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.



**FIGURE 7**  
**Inspection Area Between Upper Spark Plug Bore and Fuel Injection**  
**Nozzle/Primer Port**



**FIGURE 8** Cylinder Head Crack Indication with Dye Penetrant

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		17 of 19 MSB09-1	A
02	12	2009	03	11	2009			

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

**Warranty**

1. Initial Inspection:
  - a. Up to two hours labor at the posted shop rate will be paid to cover the initial inspection performed at 400 hours engine total time.
  - b. The inspection must be performed by a TCM FBO Services member.
  - c. The Compliance Sheet attached to this bulletin or the on-line Compliance Form must be filled out in full and returned to TCM to validate this warranty adjustment.
2. Cylinder Replacement:
  - a. Cylinder replacement will be performed at designated TCM Cylinder Replacement Program Centers.
  - b. TCM will pay for parts and labor associated with the cylinder replacements performed at the designated TCM Cylinder Replacement Program Centers provided that the work is completed on or before December 31, 2009.
3. For aircraft that cannot be flown to a TCM Cylinder Program Replacement Center, contact TCM Technical Customer Service at 888-826-5465 (251-436-8299) or [TCM.CYLINDER@TELEDYNE.COM](mailto:TCM.CYLINDER@TELEDYNE.COM) for assistance.

**NOTE: IN ACCORDANCE WITH THE TERMS OF THE APPLICABLE TCM WARRANTY POLICY, FAILURE TO COMPLY WITH THIS MSB ON OR BEFORE DECEMBER 31, 2009, VOIDS ANY AND ALL WARRANTIES COVERING PRODUCTS THAT ARE THE SUBJECT OF THIS MSB.**

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		18 of 19 MSB09-1	A
02	12	2009	03	11	2009			

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

**MSB09-1 - Customer Information Form**

Date:		Aircraft Registration Number:		
Engine Position (Circle one): Front    Rear    Left    Right				
Engine Model:		Engine Serial Number:		
Total Hours:	Total hours of operation annually:			
Customer Business/Contact Name:				
Address:				
City:		State:	Zip Code:	
Country:				
Contact Telephone:		E-Mail Address:		
Maintenance Facility:				
Address:				
City:		State:	Zip Code:	
Country:				
Contact Telephone:		E-Mail Address:		
Cylinder Verification/Inspection Information				
Cylinder Position	Serial Number	CYL HOURS	EQ3 Head Verified (Circle One)	Crack Present (Circle One)
#1			Yes / No	Yes / No
#2			Yes / No	Yes / No
#3			Yes / No	Yes / No
#4			Yes / No	Yes / No
#5			Yes / No	Yes / No
#6			Yes / No	Yes / No

This form can be submitted electronically through the TCM website, by facsimile or by phone.

1. Web site entry can be accomplished at: [www.tcmlink.com/cylinder](http://www.tcmlink.com/cylinder)
2. The form can be e-mailed to TCM.CYLINDER@TELEDYNE.COM
3. The form can be faxed to (251) 432-7352.
4. You can call in your information to (888)-200-7565 or (251)-436-8665

The form may be mailed to: PO Box 1436, Mobile, AL 36633-1436

ISSUED			REVISED			 Teledyne Continental Motors, Inc. P.O. BOX 90 MOBILE, AL 36601 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		19 of 19	A
02	12	2009	03	11	2009		MSB09-1	

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.

Part Total Time: (n/a).

**Continental: SB09-2; Volare Carburetor Parts; ATA (n/a)**

*("Thanks" to Teledyne Continental for providing the next three service bulletins.)*

TELEDYNE CONTINENTAL® AIRCRAFT ENGINE  
**SERVICE BULLETIN**

Contains Important Information Pertaining to Your Aircraft Engine.  
 Compliance Will Enhance Safety

**Category 3**  
**SB09-2**  
**Technical Portions FAA**  
**Approved**

SUBJECT: Volare Carburetors, LLC SB1 Service Bulletin,

COMPLIANCE: At any time that parts are required for repair or overhaul of any Volare Carburetor used on a TCM engine as listed.

MODELS AFFECTED: A65, A75, C75, C85, C90, C125-2, 2H, C145-2 TCM O200-A,B,C,D and Rolls Royce O200-A, B , O240 TCM O300-A,B,C,D , GO300-A,C,D,E, O470-A,J,K,L,R,S,U.

**General:**

Volare Carburetors, LLC has issued Service Bulletin SB-1 dated February 1, 2009. This bulletin contains specific concerns and instructions concerning the use of UNAUTHORIZED parts in Volare's Float Carburetors.

No specific inspections are required for this informational bulletin.

TCM recommends support and compliance with this manufacturer's bulletin.

Any questions concerning this Bulletin or other specific Volare' Carburetor questions should be directed to:

Volare' Carburetors, LLC

Customer Service by phone: 336-446-0002

Customer service by email: [customerservice@volarecarbs.com](mailto:customerservice@volarecarbs.com)

ISSUED			REVISED			 <b>Teledyne Continental Motors, Inc.</b> <small>A Teledyne Technologies Company</small> P.O. Box 90 Mobile Alabama • 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		1 of 1 SB	Original
03	17	2009						

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.



Volare Carburetors LLC  
Flight Safety Service Bulletin

Bulletin No. SB-1  
Date: February 1, 2009

**Subject: Use of UNAUTHORIZED Parts in Volare’s Float Carburetors**

1. **Applicability:** This Flight Safety Service Bulletin (SB) applies to all aviation carburetors manufactured by Volare Carburetors LLC (“Volare”), and its predecessors Precision Airmotive Corporation, Facet Aerospace Products Company, and Marvel-Schebler (Borg Warner) (all collectively referred to hereafter as “Volare Float Carburetors”).
2. **Reason:** Volare is issuing this SB to remind owners, operators, over-haulers, and repairers, of Volare Float Carburetors of the possible adverse consequences resulting from the use of UNAUTHORIZED parts in Volare Float Carburetors.
3. **Background:** Some owners of Volare Float Carburetors have yet to replace superseded carburetor parts or have allowed installation of replacement carburetor parts made by various manufacturers not associated with or licensed by Volare to manufacture or distribute such replacement parts. Volare currently manufactures some carburetor parts that supersede parts made by Volare’s predecessors because such superseded parts are obsolete, have been removed from service due to service difficulties, service bulletins, service letters or instructions, airworthiness directives or for other reasons. Non-Volare parts have not been designed or tested under the same performance criteria upon which FAA granted approval to Volare Float Carburetors. Volare and its predecessors have hundreds of thousands of hours of service experience with Volare Float Carburetors that the manufacturers of such replacement parts do not.
4. **Description:** Genuine Volare Float Carburetors contain only non-superseded parts manufactured by or on behalf of Volare and its predecessors in accordance with the strict tolerances, manufacturing processes and rigorous inspection requirements contained in Volare’s detailed FAA-approved specifications, drawings, and inspection requirements. Because no superseded parts or parts manufactured by others meet these exacting standards, all such replacement parts are UNAUTHORIZED.
5. **Voiding of Warranty and Waiver of Liability:** The use of UNAUTHORIZED replacement parts in Volare Float Carburetors constitutes a modification and/or alteration of such aviation carburetors voiding all warranties express or implied, to the extent permitted by law.

Distributed by



1 of 1



- a. Volare **expressly disclaims any and all responsibility and liability** for any aviation carburetor containing UNAUTHORIZED parts to the extent permitted by law.
- b. The installation of UNAUTHORIZED parts in Volare Float Carburetors constitutes a **complete and total waiver** to the extent permitted by law of any and all rights the operator may have had to hold Volare responsible or liable for the malfunction or failure of such a modified and/or altered aviation carburetor.
- c. To the extent permitted by law, the owner, operator and/or overhaul facility or repairer responsible for installation of UNAUTHORIZED parts in Volare Float Carburetors shall bear the sole responsibility and full liability for any **damages of whatever nature, injury, or death** arising from any malfunction or failure of such a modified and/or altered aviation carburetor.



Part Total Time: (n/a).

---

**Continental: SB09-3; Volare Carburetor Float Replacement; ATA (n/a)**

TELEDYNE CONTINENTAL® AIRCRAFT ENGINE  
**SERVICE BULLETIN**

**Category 3**  
**SB09-3**  
**Technical Portions FAA**  
**Approved**

Contains Important Information Pertaining to Your Aircraft Engine.  
 Compliance Will Enhance Safety

SUBJECT: Volare Carburetors, LLC SB2 Service Bulletin, Required Replacement of Foam and Hollow Floats

COMPLIANCE: Volare's recommendation is for all Foam and Hollow Floats in service be replaced by a new Blue Epoxy float. See Service bulletin attached

MODELS AFFECTED: A65, A75, C75, C85, C90, C125-2, 2H, C145-2 TCM O200-A,B,C,D and Rolls Royce O200-A, B , O240 TCM O300-A,B,C,D , GO300-A,C,D,E, O470-A,J,K,L,R,S,U.

**General:**

Volare Carburetors, LLC has issued Service Bulletin SB-2 dated February 1, 2009. This bulletin contains specific recommendations to replace all Foam and Hollow floats in service by June 1, 2009.

TCM recommends support and compliance with this manufacturer's bulletin.

Any questions concerning this Bulletin or other specific Volare' Carburetor questions should be directed to:

Volare' Carburetors, LLC

Customer Service by phone: 336-446-0002

Customer service by email: [customerservice@volarecarbs.com](mailto:customerservice@volarecarbs.com)

ISSUED			REVISED			 <b>Teledyne Continental Motors, Inc.</b> <small>A Teledyne Technologies Company</small> P.O. Box 90 Mobile Alabama • 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		1 of 1	Original
03	17	2009				SB09-3		

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.



Volare Carburetors LLC  
Flight Safety Service Bulletin

Bulletin No. SB-2  
Date: February 1, 2009

Subject: Required Replacement of Foam and Hollow Floats

1. **Applicability:** This Flight Safety Service Bulletin (SB) applies to all aviation carburetors manufactured by Volare Carburetors, LLC (“Volare”), and its predecessors Precision Airmotive Corporation, Facet Aerospace Products Company, and Marvel-Schebler (Borg Warner) (all collectively referred to hereafter as “Volare Float Carburetors”) not equipped with a solid, blue epoxy float having one of the following part numbers: 30-860, 30-862, and 30-864, dependent on carburetor model.
2. **Reason:** Service difficulties affecting foam floats and hollow floats, whether made of brass or plastic, necessitate their replacement with solid, blue epoxy floats. Volare is issuing this Flight Safety Service Bulletin to warn owners, operators, over-haulers, and repairers of Volare Float Carburetors (all collectively referred to hereafter as “owner”) of the possible adverse consequences from failing to replace foam and hollow floats with a solid, blue epoxy float.
3. **Background:** Foam floats may deteriorate in certain fuels and fuel additives. Brass floats, regardless of manufacturer, may crack, leak, corrode, and/or mechanically fail. White plastic hollow floats may leak. Deteriorated, leaking, or broken floats can negatively affect engine performance, regardless of the identity of the manufacturers of such floats. Volare and its immediate predecessor Precision Airmotive have worked arduously to address these issues by developing the first solid, blue epoxy composite float. This float is impervious to the fuels and fuel additives used in the aviation industry today. The solid, blue epoxy float is not a “foam” float. It is not a thermoplastic. It has no soldered or riveted joints. Being solid, it cannot fill with fluid and sink, even if pierced. The float is essentially chemically inert. The stainless steel bracket is cast securely into the float body and is not subject to separation in normal use. This float design has been in production for several years. It is installed in thousands of carburetors, including carburetors sold by Volare and its predecessor to current engine manufacturers since its introduction. There are no known cases of failure or malfunction of this design.
4. **Indications of a leaking float:** Hard starting, the need for excessive leaning, flooding, fuel leaking from the carburetor, excessive fuel consumption and/or or poor idle performance or difficulty in stopping the engine with the mixture cut-off control may indicate a deteriorating or damaged float and/or flooding carburetor. However, the absence of these symptoms is not reason to ignore this Flight Safety Service Bulletin.

Distributed by

1 of 1





5. **Compliance:** In order to maintain flight safety, within 30 days of the date of issuance of this Flight Safety Service Bulletin, each owner of a Volare Float Carburetor not equipped with a solid, blue epoxy float is requested and strongly encouraged to inspect the carburetor and to re-inspect the carburetor at 30-day intervals thereafter until the float is replaced by a solid, blue epoxy float. Failure to follow this advice may result in engine malfunction, damage, injury or death.
6. **Instructions:** Inspect the carburetor for any signs of flooding and other indicators of a possible deteriorating or damaged float including those mentioned in this bulletin. (See Marvel-Schebler bulletin SIL MS-12.) Remove from service prior to further flight any carburetors exhibiting signs of flooding or possible float deterioration or damage. In addition, take the following steps:
  - a. Determine if a solid, blue epoxy float is installed in the carburetor:
    - i. Every Volare manufactured or serviced carburetor is equipped with a solid, blue epoxy float unless the float was replaced with an unauthorized float subsequent to Volare's release of the carburetor. (See Volare SB-1 warning against the use of unauthorized parts in Volare Float Carburetors.)
    - ii. If Precision Airmotive manufactured, overhauled, or rebuilt the carburetor after November 2005, and the IC number on the carburetor's data tag is 15 or higher, the carburetor is equipped with a solid, blue epoxy float, unless the float was replaced with an unauthorized float subsequent to Precision's release of the carburetor.
    - iii. If at any time Precision Airmotive performed more limited carburetor service (such as repair or testing without overhauling or rebuilding) and it cannot be conclusively determined from maintenance or other records that a solid, blue epoxy float is installed, there is no assurance that the carburetor contains a solid, blue epoxy float.
    - iv. It is each owner's and operator's responsibility to make a positive determination regarding what type float is installed in his carburetor and take appropriate action based on that determination. While we believe the information in paragraphs ii and iii is correct and regardless of any error(s) that may be contained in those paragraph, it is the owner/operators responsibility to make a positive determination and confirm that a solid, blue epoxy float is installed. If a positive determination cannot be made or there is doubt as to whether the carburetor contains a solid, blue epoxy float, the carburetor must be partially disassembled to the extent necessary to make a positive determination. Refer to the appropriate carburetor Service Manual for disassembly and reassembly instructions and the aircraft maintenance manual for removal and installation instructions.
  - b. Volare urges each owner to install a solid, blue epoxy float in any Volare Float Carburetor not so equipped prior to June 1, 2009. All carburetors must be overhauled or rebuilt every 10 calendar years after purchase or last overhaul or rebuild, or at engine overhaul, whichever comes first (See SB MSA-3). If the carburetor does not meet these requirements it should be sent to Volare for overhaul or rebuilding, including installation of a solid, blue epoxy float (if not already installed) at no extra charge.
  - c. NEVER install a solid, blue epoxy float in any carburetor containing parts not manufactured by Volare, Precision Airmotive, Borg-Warner, or Marvel Schebler as the float and or carburetor may not function properly. (See Volare Service Bulletin SB-1.)

Distributed by

2 of 2

**TEMPEST**



Volare believes compliance with this Flight Safety Service Bulletin is essential to protect against failures with unacceptable consequences. Volare strongly warns owners of the inherent risks involved in using any float other than a solid, blue epoxy float in any Volare Float Carburetor and strongly encourages owners to comply with this Flight Safety Service Bulletin.

**Pictorial Examples of Carb floats REQUIRING REPLACEMENT**



MA White Float (REPLACE)



HA White Float (REPLACE)



Brass Float (REPLACE)



MA Brown/Beige Foam (REPLACE)



MA Brown/Beige Foam (REPLACE)



MA Black Foam (REPLACE)

**Pictorial Examples of GOOD (Blue Epoxy) Carb FLOATS**



GOOD Small MA Float (BLUE)



GOOD HA Float (BLUE)



GOOD Large MA Float (BLUE)

Distributed by

4 of 4



Part Total Time: (n/a).

**Continental: SB09-5; Volare Carburetor Bowl/Float Clearance; ATA (n/a)**

TELEDYNE CONTINENTAL® AIRCRAFT ENGINE  
**SERVICE BULLETIN**

Contains Important Information Pertaining to Your Aircraft Engine.  
 Compliance Will Enhance Safety

Category 3  
**SB09-5**  
 Technical Portions FAA  
 Approved

SUBJECT: Volare Carburetors, LLC SB4 Service Bulletin, Carburetor Bowl to Float Clearance

- COMPLIANCE: 1. Volare recommendation for visual inspection of all MA carburetors prior to each flight and when indications of a sticking float are present.  
 2. Within 100 hours or 90 days after the bulletin date March 13, 2009 perform float inspection and take action as required by paragraph 4 of Volare'SB-4

MODELS AFFECTED: A65, A75, C75, C85, C90, C125-2, 2H, C145-2 TCM O200-A,B,C,D and Rolls Royce O200-A, B , O240 TCM O300-A,B,C,D , GO300-A,C,D,E, O470-A,J,K,L,R,S,U.

**General:**

Volare Carburetors, LLC has issued Service Bulletin SB-4 dated March 13, 2009. This bulletin contains specific recommendations to inspect and replace all affected Brass floats in service all Marvel Schebler, Facet, Precision and Volare carburetors (includes all MS style carburetors)

TCM recommends support and compliance with this manufacturer's bulletin.

Any questions concerning this Bulletin or other specific Volare' Carburetor questions should be directed to:

Volare' Carburetors, LLC

Customer Service by phone: 336-446-0002

Customer service by email: [customerservice@volarecarbs.com](mailto:customerservice@volarecarbs.com)

ISSUED			REVISED			 Teledyne Continental Motors, Inc. <small>A Marine Technologies Company</small> P.O. Box 90 Mobile Alabama • 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		1 of 1 SB09-5	Original
04	20	2009						

© 2009 TELEDYNE CONTINENTAL MOTORS, INC.



**Volare Carburetors, LLC**  
 125 Piedmont Avenue  
 Gibsonville, N.C. 27249, USA

**Bulletin No. SB-4**  
 Revision: Original  
 Date: March 13, 2009

**Subject: BOWL CLEARANCE – MA- SERIES CARBURETORS**

**Applicability:** *This Service Bulletin (SB-4) applies to MA-2, MA-3, MA-4, MA-4-5, MA-4-5AA, MA-5, MA-5AA, MA-6 and MA-6AA model float carburetors manufactured by Volare Carburetors LLC (“Volare”), and its predecessors Precision Airmotive Corporation, Facet Aerospace Products Company, and Marvel-Schebler (Borg Warner) (hereinafter “Volare”) that are equipped with a brass float assembly.*

1. **Reasons:** Warning: *Failure to follow this advice may result in engine malfunction, damage, injury or death.* Reports of sticking, leaking and/or worn floats have been received, see Figure 1. The specified float/bowl clearance **MUST** exist to ensure proper operation.
2. **Operational indications of insufficient float clearance:** Fuel leaks from the carburetor, hard starting, rich idle mixture, black smoke in the exhaust, excessive magneto drop, engine running roughly, difficulty stopping the engine with the mixture control, or partial or complete loss of engine power.
3. **Compliance:**
  - a. PRIOR TO EACH FLIGHT AND AT ANY OTHER TIME DURING ENGINE OPERATION, if any of the indications in paragraph 2 are observed, then the inspections and corrective actions described in paragraph 4 must be performed before further engine operation or before the next flight, unless the root cause of the operational indication is verified to be something other than the carburetor.
  - b. WITHIN 100 HOURS OF OPERATION OR 90 DAYS after the date of this Service Bulletin, which ever comes first, perform the inspections and corrective actions (if required) contained in paragraph 4 of this Service Bulletin.
4. **Instructions:** This inspection must be conducted each time the bowl is removed. Remove the bowl in accordance with Instruction E-1000 or E-1002 contained in Volare Float Replacement Kit 666-1000 or Kit 666-1002, as appropriate by carburetor model.



SB-4\_0  
 03/13/09  
 Pg 1 of 4



With the clearance tool M-510 or M-513 (dependent on model) in place, orient the carburetor body with one pontoon uppermost, see Figure 2. Check the clearance between the float pontoon and the bowl wall. A .081 inch gage pin (models MA-2, MA-3 & MA-4), or a .051 gage pin (models MA-4-5, MA-4-5AA, MA-5, MA-5AA, MA-6 and MA-6AA) must pass between the lower surface of the upper pontoon and the throttle bore wall and between the lower surface of the lower pontoon and the lower bowl wall without touching either pontoon. Reorient the carburetor so that the other pontoon is uppermost, see Figure 3. Repeat the clearance check. If, as the gage pin is moved along between the float and the bowl wall the gage pin contacts either pontoon, float clearance is inadequate and the float assembly must be replaced.

Install new parts as necessary. Torque and safety the cover screws and test the carburetor in accordance with instructions contained in the appropriate Carburetor Service Manual (MSAFSM) and Instructions E-1000 and E1002, appropriate to the model. Note: Instructions E-1000 and E1002 apply only to the installation of solid blue epoxy floats. **The float clearance requirements in this Service Bulletin apply to all Volare carburetors to which this bulletin is applicable, i.e., carburetors equipped with brass floats, regardless of the manufacturer of the float and MUST be adhered to.** *This Service Bulletin is not applicable to carburetors equipped with solid, blue epoxy floats, Volare part numbers 30-862 and 30-864.*

- i. Volare manufactured or serviced carburetors are equipped with a solid, blue epoxy float unless the float was replaced with an unauthorized float subsequent to Volare's release of the carburetor.
  - ii. If Precision Airmotive manufactured, overhauled, or rebuilt the carburetor after November 2005, and the IC number on the carburetor's data tag is 15 or higher, the carburetor is equipped with a solid, blue epoxy float unless the float has been replaced with an unauthorized float subsequent to release of the carburetor by Precision.
  - iii. While Volare believes the information in paragraphs i and ii is correct, and regardless of any error(s) that may be contained in those paragraphs, it is the owner's/operator's responsibility to make a positive determination that a solid, blue epoxy float is installed or to comply with this service bulletin. Where necessary, carburetors must be partially disassembled to make a positive determination. Refer to the aircraft maintenance manual for carburetor removal, installation and adjustment instructions.
5. **Identification/Marking:** Upon completion of this Flight Safety Service Bulletin, stamp the letters "FC" (1/8 inch tall (nominal) characters) on the flange adjacent to the throttle shaft, see Figure 6.
  6. **Service and Parts Availability:** Float clearance tools M-510 and M-513 and replacement float and parts kits can be ordered from Tempest/Volare distributors.

Distributed by  

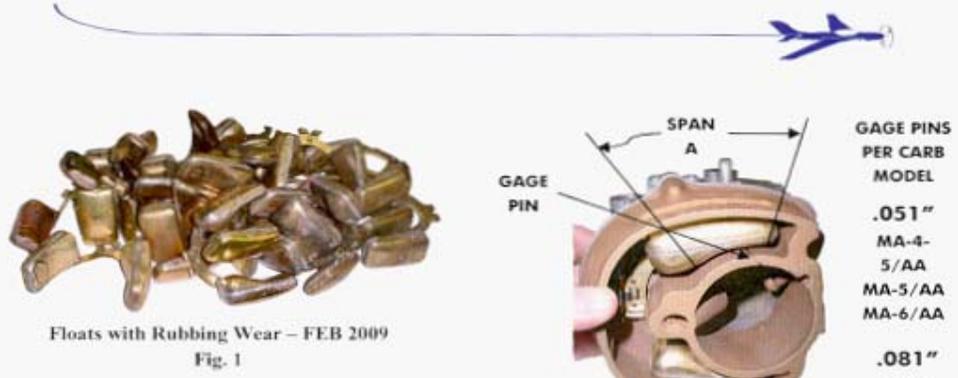

SB-4\_O  
 03/13/09  
 2 of 4



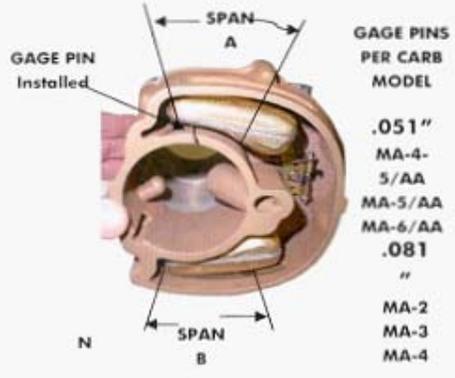
7. **Voiding of Warranty and Waiver of Liability:** An owner's/operator's failure to inspect and where necessary replace the float assembly in accordance with this bulletin, or operation of a carburetor which is non-compliant the clearance requirements set forth in this bulletin, or operation of a carburetor in which other than genuine Volare approved parts are installed, **voids any otherwise applicable warranty and constitutes a complete and total waiver** to the extent permitted by law of any and all rights the owner, operator and/or service facility or repairer may have had to hold Volare responsible or liable for the malfunction or failure of such an aviation carburetor. The owner/operator and/or service facility or repairer that returns a carburetor that is non-compliant with this service bulletin to service shall bear the sole responsibility and full liability for any **damages of whatever nature, injury, or death** arising from any malfunction or failure of such a non-compliant, modified and/or altered aviation carburetor.
8. **Safety First:** Volare is a customer-service oriented company committed to technical innovation in pursuit of aviation safety. While Volare has no authority to compel owners to act responsibly and take prudent action to insure their own safety and the safety of others, Volare believes compliance with this Service Bulletin is essential to protect against failures with unacceptable consequences. Volare strongly warns owners of the inherent risks involved in operating an airplane with a float installation having non-conforming float to bowl clearance and strongly encourages owners to comply with this Service Bulletin.

Distributed by  
**TEMPEST**  
AVIATION

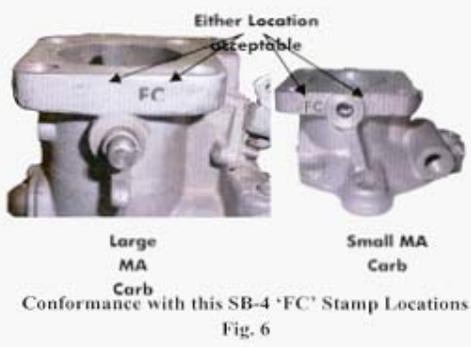
SB-4\_O  
03/13/09  
3 of 4



GAGE PINS PER CARB MODEL
.051"
MA-4-5/AA
MA-5/AA
MA-6/AA
.081"
MA-2
MA-3
MA-4



GAGE PINS PER CARB MODEL
.051"
MA-4-5/AA
MA-5/AA
MA-6/AA
.081"
MA-2
MA-3
MA-4



Distributed by  
**TEMPEST**

SB-4\_O  
03/13/09  
4 of 4

Part Total Time: (n/a).

**ECI Cylinders (6 ea.): CL13SA; Head/barrel Separation; ATA 8530**

*(A repair station technician provides identical reports on six different serial numbered cylinders—all with zero time operation.)*

"This cylinder has one hour of test cell time. The defect (*that*) was discovered (*is*) believed to be head-barrel separation. A compression test with soap and water was performed to confirm our finding. The cylinder was purchased from ECI and installed on this newly overhauled engine (*Lycoming IO540-K1G5*). All cylinders were removed from the engine. This cylinder was not placed into service (no flight time)." *(The serial numbers of the failed cylinders are: 50383-09; 56873-5; 58680-10, 59838-02, 59838-10, and 59838-11.)*

Part Total time(s): 0.00 hours.

---

**ECI Cylinders (4 each): FRCN13.0; Head/barrel Separation; ATA 8530**

*(Two months pass and the above technician again submits identical cylinder defect reports—a total of four this time, but on a different model of cylinder.)*

"*(This)* cylinder has test cell time only. After the test cell run we noticed there was head barrel leakage." *(Provided cylinder serial numbers are: 60482-04, 60482-13, 60482-20, and 60482-21.)*

Part Total time(s): 0.00 hours.

---

**ECI Cylinders (3 each); TISN71.2ACA; Cracked Cylinders; ATA 8530**

*(A mechanic for an air taxi operator provides three short, identical reports on the same model cylinders, all from the same aircraft. The cylinders were removed from a Continental IO520-BA engine.)*

"The cylinder head is cracked."

*(Serial number 39592-27 totaled 993.2 hours; 41115-07 totaled 993.2 hours; and 45312-30 totaled 296.0 hours. The SDRS database finds this cylinder at least 37 times.)*

Part Total Time(s): 760.8 hours (average).

---

**ECI Cylinders (3 each); TISN71.2BCA; Cracked Cylinders; ATA 8530**

*(The previous mechanic again submits three identical cylinder defect reports, this time from a Continental TSIO520E.)*

"*(This cylinder is...)* cracked between (*cooling*) fin numbers 1-3 (behind the injector). The product (*is*) defective."

*(Serial numbers 40887-05, 39684-28, and 41115-23 each totaled 543.7 hours. This cylinder part number records 10 times in the SDRS data base. If the last three letters are truncated the count quickly climbs to 67.)*

Part Total Time(s): 543.7 hours (average).

---

## ACCESSORIES

### **Kelly Alternator; ES4011-1LS; Loose Rectifier Screws; ATA 2434**

An A&P mechanic states, "The four screws that hold the rectifier plate into the back case of the alternator came loose and contacted the rotor. (*This event...*) destroyed the alternator."

(*This alternator was bolted to a Lycoming IO540 engine. Its single SDR entry finds one report under the included Lycoming alternator P/N: 32C22491.*)

Part Total Time: 307.0 hours.

---

### **Skytech Starter: 149NL; Bent Through-Bolts; ATA 8011**

An unidentified submitter writes, "(*This 172's IO360L2A Lycoming engine...*) failed to turn over (*at start*). Upon starter removal the unit's through bolts were observed to be bent. "This starter (*P/N 149NL*) only had 17.2 hours since it was replaced. We have had six other starters that have failed in a similar fashion. On some of the other starters I have seen the back of the starter casing completely broken off or the case blown out—like it exploded. (*These problems...*) have only been seen recently; (*these*) starters are only lasting a few hours."

(*Thank-you for this report. The SDRS database finds this part number at least 14 times. Next time, if possible, please consider offering an explanation how the bent through-bolts impeded the starter's function—or, are the bent bolts a result of the malfunctioning starter? Also, what type starters were the other six you referenced? What were their times? Lastly, do not underestimate the power of a couple of digital photos to draw attention to your reporting efforts—Ed.*)

Part Total Time: 17.2 hours.

---

## AIR NOTES

### **INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE**

The Federal Aviation Administration (FAA) Internet Service Difficulty Reporting (iSDR) web site is the front-end for the Service Difficulty Reporting System (SDRS) database that is maintained by the Aviation Data Systems Branch, AFS-620, in Oklahoma City, Oklahoma. The iSDR web site supports the Flight Standards Service (AFS), Service Difficulty Program by providing the aviation community with a voluntary and electronic means to conveniently submit in-service reports of failures, malfunctions, or defects on aeronautical products. The objective of the Service Difficulty Program is to achieve prompt correction of conditions adversely affecting continued airworthiness of aeronautical products. To accomplish this, Malfunction or Defect Reports (M or Ds) or Service Difficulty Reports (SDRs) as they are commonly called, are collected, converted into a common SDR format, stored, and made available to the appropriate segments of the FAA, the aviation community, and the general public for review and analysis. SDR data is accessible through the "Query SDR data" feature on the iSDR web site at: <http://av-info.faa.gov/sdrx/Query.aspx>.

In the past, the last two pages of the Alerts contained a paper copy of FAA Form 8010-4, Malfunction or Defect Report. To meet the requirements of \*Section 508, this form will no longer be published in the Alerts; however, the form is available on the Internet at: <http://forms.faa.gov/forms/faa8010-4.pdf>. You can still download and complete the form as you have in the past.

\*Section 508 was enacted to eliminate barriers in information technology, to make available new opportunities for people with disabilities, and to encourage development of technologies that will help achieve these goals.

A report should be filed whenever a system, component, or part of an aircraft, powerplant, propeller, or appliance fails to function in a normal or usual manner. In addition, if a system, component, or part of an aircraft, powerplant, propeller, or appliance has a flaw or imperfection, which impairs or may impair its future function, it is considered defective and should be reported under the Service Difficulty Program.

The collection, collation, analysis of data, and the rapid dissemination of mechanical discrepancies, alerts, and trend information to the appropriate segments of the FAA and the aviation community provides an effective and economical method of ensuring future aviation safety.

The FAA analyzes SDR data for safety implications and reviews the data to identify possible trends that may not be apparent regionally or to individual operators. As a result, the FAA may disseminate safety information to a particular section of the aviation community. The FAA also may adopt new regulations or issue airworthiness directives (ADs) to address a specific problem.

The iSDR web site provides an electronic means for the general aviation community to voluntarily submit reports, and may serve as an alternative means for operators and air agencies to comply with the reporting requirements of 14 Title of the Code of Federal Regulations (CFR) Section 121.703, 125.409, 135.415, and 145.221, if accepted by their certificate-holding district office. FAA Aviation Safety Inspectors may also report service difficulty information when they conduct routine aircraft maintenance surveillance as well as accident and incident investigations.

The SDRS database contains records dating back to 1974. At the current time, we are receiving approximately 40,000 records per year. Reports may be submitted to the iSDR web site on active data entry form or submitted hardcopy to the address below.

The SDRS and iSDR web site point of contact is:

Pennie Thompson  
Service Difficulty Reporting System, Program Manager  
Aviation Data Systems Branch, AFS-620  
P.O. Box 25082  
Oklahoma City, OK 73125  
Telephone: (405) 954-5313  
SDRS Program Manager e-mail address: [9-AMC-SDR-ProgMgr@faa.gov](mailto:9-AMC-SDR-ProgMgr@faa.gov)

---

### **IF YOU WANT TO CONTACT US**

We welcome your comments, suggestions, and questions. You may use any of the following means of communication to submit reports concerning aviation-related occurrences.

Editor: Daniel Roller (405) 954-3646  
FAX: (405) 954-4570 or (405) 954-4655

E-mail address: [Daniel.Roller@faa.gov](mailto:Daniel.Roller@faa.gov)

Mailing address: FAA, **ATTN: AFS-620 ALERTS**, P.O. Box 25082, Oklahoma City, OK 73125-5029

You can access current and back issues of this publication from the internet at:  
<http://av-info.faa.gov/>. Select the General Aviation Airworthiness Alerts heading.

---

## AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports processed for the previous month, which have been entered into the FAA Service Difficulty Reporting (SDR) System database. This is not an all-inclusive listing of Service Difficulty Reports. For more information, contact the FAA, Regulatory Support Division, Aviation Data Systems Branch, AFS-620, located in Oklahoma City, Oklahoma. The mailing address is:

FAA  
Aviation Data Systems Branch, AFS-620  
PO Box 25082  
Oklahoma City, OK 73125

**To retrieve the complete report, click on the Control Number located in each report.** These reports contain raw data that has not been edited. Also, because these reports contain raw data, the pages containing the raw data are not numbered.

**If you require further detail please contact AFS-620 at the address above.**

# Federal Aviation Administration

## Service Difficulty Report Data

Sorted by aircraft make and model then engine make and model. This report derives from unverified information submitted by the aviation community without FAA review for accuracy.

Control Number	Aircraft Make	Engine Make	Component Make	Part Name	Part Condition
Difficulty Date	Aircraft Model	Engine Model	Component Model	Part Number	Part Location
<a href="#">2009FA0000475</a>				CYLINDER HEAD	LEAKING
4/30/2009				FRCN130	CYLINDER
CYLINDER HAS TEST CELL TIME ONLY ON IT AND AFTER TEST CELL RUN WE NOTICED THAT THERE WAS HEAD BARREL LEAKAGE. (K)					
<a href="#">2009FA0000479</a>				CYLINDER HEAD	LEAKING
4/30/2009				FRCN130	
CYLINDER HAS TEST CELL TIME ONLY ON IT AND AFTER TEST CELL RUN WE NOTICED THAT THERE WAS HEAD BARREL LEAKAGE. (K)					
<a href="#">2009FA0000478</a>				CYLINDER HEAD	LEAKING
4/30/2009				FRCN130	ENGINE
CYLINDER HAS TEST CELL TIME ONLY ON IT AND AFTER TEST CELL RUN WE NOTICED THAT THERE WAS HEAD BARREL LEAKAGE. (K)					
<a href="#">2009FA0000477</a>				CYLINDER HEAD	LEAKING
4/30/2009				FRCN130	ENGINE
CYLINDER HAS TEST CELL TIME ONLY ON IT AND AFTER TEST CELL RUN WE NOTICED THAT THERE WAS HEAD BARREL LEAKAGE. (K)					
<a href="#">CA090507008</a>				SEAL	SPLIT
2/18/2009				C63371	PROP BLADE
(CAN) PROPELLER WAS LEAKING GREASE FROM ALL 4 BLADES. UPON DISASSEMBLY IT WAS FOUND THAT THE TEFLON WAS WORN OUT ON ALL 4 BLADES AND THAT ALL 4 BLADE SEALS WERE SPLIT IN THE MIDDLE ALLOWING GREASE TO BYPASS.					
<a href="#">CA090508004</a>				ELT	MALFUNCTIONED
5/8/2009				11530461	
(CAN) FIELDLED RESCU 406S EMERGENCY LOCATOR TRANSMITTERS (ELTS), PART NR 1151324-1, 1152794-1, 1152890-1, 1152892-1 AND 1153046-1 MAY NOT BE ABLE TO TRANSMIT A CODED SIGNAL AT 406MHZ FREQUENCY UPON ACTIVATION IAW REQUIREMENT RTCA/DO-204. THE NONCONFORMANCE IS DUE TO IMPROPER GROUNDING OF THE COVER TO THE INTERNAL FRAME OF THE ELT. THE CONDITION WAS INITIALLY IDENTIFIED WHEN TWO (2) RESCU 406S ELTS DID NOT TRANSMIT THE SIGNAL CORRECTLY WHEN ACTIVATED IN A SHIELDED ROOM.					
<a href="#">2009FA0000471</a>		LYC		CYLINDER HEAD	SEPARATED
3/22/2009		IO540K1G5		CL13SA	ENGINE
THIS CYLINDER HAS ONE (1) HOUR OF TEST CELL TIME. THE DEFECT WAS DISCOVERED AND BELIEVED TO BE HEAD BARREL SEPARATION. PERFORMED A COMPRESSION TEST WITH SOAP AND WATER TO CONFIRM OUR FINDING. THE CYLINDER WAS PURCHASED 2/17/2009 AND INSTALLED ON THIS NEWLY OVERHAULED ENGINE. ALL CYLINDER WERE REMOVED FROM THE ENGINE. THIS CYLINDER WAS NOT PLACED IN SERVICE. (NO FLIGHT TIME). (K)					

<a href="#">2009FA0000474</a>	LYC	CYLINDER HEAD	SEPARATED
3/22/2009	IO540K1G5	CL13SA	ENGINE
THIS CYLINDER HAS ONE (1) HOUR OF TEST CELL TIME. THE DEFECT WAS DISCOVERED AND BELIEVED TO BE HEAD BARREL SEPARATION. PERFORMED A COMPRESSION TEST WITH SOAP AND WATER TO CONFIRM OUR FINDING. THE CYLINDER WAS PURCHASED 2/17/2009 AND INSTALLED ON THIS NEWLY OVERHAULED ENGINE. ALL CYLINDER WERE REMOVED FROM THE ENGINE. THIS CYLINDER WAS NOT PLACED IN SERVICE. (NO FLIGHT TIME). (K)			
<a href="#">2009FA0000472</a>	LYC	CYLINDER HEAD	SEPARATED
3/22/2009	IO540K1G5	CL13SA	ENGINE
THIS CYLINDER HAS ONE (1) HOUR OF TEST CELL TIME. THE DEFECT WAS DISCOVERED AND BELIEVED TO BE HEAD BARREL SEPARATION. PERFORMED A COMPRESSION TEST WITH SOAP AND WATER TO CONFIRM OUR FINDING. THE CYLINDER WAS PURCHASED 2/17/2009 AND INSTALLED ON THIS NEWLY OVERHAULED ENGINE. ALL CYLINDER WERE REMOVED FROM THE ENGINE. THIS CYLINDER WAS NOT PLACED IN SERVICE. (NO FLIGHT TIME).(K)			
<a href="#">2009FA0000473</a>	LYC	CYLINDER HEAD	SEPARATED
3/22/2009	IO540K1G5	CL13SA	ENGINE
THIS CYLINDER HAS ONE (1) HOUR OF TEST CELL TIME. THE DEFECT WAS DISCOVERED AND BELIEVED TO BE HEAD BARREL SEPARATION. PERFORMED A COMPRESSION TEST WITH SOAP AND WATER TO CONFIRM OUR FINDING. THE CYLINDER WAS PURCHASED 2/17/2009 AND INSTALLED ON THIS NEWLY OVERHAULED ENGINE. ALL CYLINDERS WERE REMOVED FROM THE ENGINE. THIS CYLINDER WAS NOT PLACED IN SERVICE. (NO FLIGHT TIME).			
<a href="#">2009FA0000470</a>	LYC	CYLINDER HEAD	SEPARATED
3/22/2009	IO540K1G5	CL13SA	ENGINE
THIS CYLINDER HAS ONE (1) HOUR OF TEST CELL TIME. THE DEFECT WAS DISCOVERED AND BELIEVED TO BE HEAD BARREL SEPARATION. PERFORMED A COMPRESSION TEST WITH SOAP AND WATER TO CONFIRM OUR FINDING. THE CYLINDER WAS PURCHASED 2/17/2009 AND INSTALLED ON THIS NEWLY OVERHAULED ENGINE. ALL CYLINDER WERE REMOVED FROM THE ENGINE. THIS CYLINDER WAS NOT PLACED IN SERVICE. (NO FLIGHT TIME).			
<a href="#">2009FA0000469</a>	LYC	CYLINDER HEAD	SEPARATED
3/22/2009	IO540K1G5	CL13SA	ENGINE
THIS CYLINDER HAS ONE (1) HOUR OF TEST CELL TIME. THE DEFECT WAS DISCOVERED AND BELIEVED TO BE HEAD BARREL SEPARATION. PERFORMED A COMPRESSION TEST WITH SOAP AND WATER TO CONFIRM OUR FINDING. THE CYLINDER WAS PURCHASED 2/17/2009 AND INSTALLED ON THIS NEWLY OVERHAULED ENGINE. ALL CYLINDER WERE REMOVED FROM THE ENGINE. THIS CYLINDER WAS NOT PLACED IN SERVICE. (NO FLIGHT TIME).			
<a href="#">CA090608002</a>	PWA	SUN GEAR	FAILED
6/1/2009	PT642A	3028456	RGB
(CAN) EIR PT6A2009-045 RGB METAL IN OIL STAGE SUN GEAR FAILURE.			
<a href="#">CA090421002</a>	PWA	BLADES	DAMAGED
4/20/2009	PT6A41		COMPRESSOR
(CAN) EIR PT6A 2009-030 FIRST STAGE COMPRESSOR BLADE FAILURE.			
<a href="#">CA090608001</a>	PWA	TURBINE	STALLED
5/8/2009	PT6A6		ENGINE
(CAN) EIR ENGINE STALLING.			
<a href="#">UE5R052709</a>	PWA	FUEL NOZZLE	LEAKING

5/27/2009		PT6A67R		3039129	ENGINE
DURING BENCH FLOW TEST OF DUPLEX FUEL NOZZLE ASSEMBLY, IT WAS NOTED THAT THERE WAS A LEAK COMING FROM THE WELD LOCATED ON THE FUEL NOZZLE ASSEMBLY BODY.					
<a href="#">CA090507005</a>	AEROSP	PWA		WIRE HARNESS	OPEN
4/14/2009	ATR42300	PW120		3037191	RT ENGINE
(CAN) RT ENGINE ITT HOTTER THAN LT ENGINE BY 50 TO 60 DEGREES CELCIUS IN ALL PHASES OF FLIGHT APPROX 755 ON TAKEOFF. RT ENGINE PERFORMANCE INDICATING SYS INPS/CHECK 72-01-60 COMPLETED. NEW T6 THERMO TRIM HARNESS INSTALLED IAW 77-20-00. GROUND RUN. TESTED SERVICEABLE. SN OFF EM40005, SN ON EM23759.					
<a href="#">CA090512004</a>	AGUSTA	PWA	AGUSTA	CROSSTUBE	SHEARED
3/24/2009	A119	PT6B37A		109057004101	LANDING GEAR
(CAN) WHILE CLIMBING OUT FROM A LANDING AREA AT APPROX 70 KNOTS THE PILOT HEARD A LOUD BANG COMING FROM UNDERNEATH THE PILOT SEAT AREA. ALL ENGINE PARAMETERS AND FLIGHT CONTROLS WERE NORMAL AND THE PILOT LANDED AS SOON AS PRACTICAL. ONCE ON THE GROUND UPON FURTHER INVESTIGATION IT WAS REVEALED THAT THE FWD LANDING GEAR CROSSTUBE HAD SHEARED AT THE RT HAND ATTACHMENT SADDLE AREA. AT THE TIME OF THE OCCURENCE THE ACFT WAS EQUIPPED WITH AN STC APPROVED HELI-UTILITY BASKET THAT WAS FOUND PROPERLY INSTALLED IAW THE STC.					
<a href="#">CA090512005</a>	AGUSTA	PWA		CROSSTUBE	SHEARED
3/19/2009	A119	PT6B37A		109057004101	LANDING GEAR
(CAN) AFTER LANDING THE ACFT IN THE SNOW AND LOWERING THE COLLECTIVE LEVER A LOUD BANG WAS HEARD BY THE PILOT UNDER THE ACFT. UPON SHUTDOWN AND FURTHER INVESTIGATION THE FWD LANDING GEAR CROSSTUBE WAS FOUND SHEARED AT THE RT ATTACHMENT SADDLE. NO OTHER DAMAGE WAS FOUND. AT THE TIME OF THE OCCURENCE THE ACFT WAS EQUIPPED WITH AN STC APPROVED HELI-UTILITY BASKET THAT WAS FOUND PROPERLY INSTALLED IAW THE STC.					
<a href="#">ULXR2009042481807</a>	AGUSTA	PWC	AGUSTA	BEARING	WORN
4/24/2009	AB139	PT6C67C		M00601H004041	ROD END
LAG DAMPER ROD END BEARING HAS PLAY .017.					
<a href="#">ULXR2009040881808</a>	AGUSTA	PWC		WARNING SYSTEM	INOPERATIVE
4/8/2009	AB139	PT6C67C		3G3230V00632	LANDING GEAR
RT MAIN GEAR GREEN DOWN ARROW SEGMENT WILL NOT ILLUMINATE. REPLACED CONTROL UNIT.					
<a href="#">ULXR2009050581806</a>	AGUSTA	PWC		SLEEVE	WORN
5/5/2009	AW139	PT6C67C		3G6430V00258	
SLEEVE INTERNAL BORE WORN BEYOND LIMITS.					
<a href="#">CA090514004</a>	AIRBUS	GE		DISPLAY	SMOKE
5/7/2009	A310300	CF680C2A5		066500030301	COCKPIT
(CAN) CREW DETECTED SMOKE IN FLIGHT DECK. DETERMINED IT WAS COMING FROM THE TCAS DISPLAY UNIT. ODOR DISSIPATED WHEN THE CIRCUIT BREAKER FOR TCAS MONITOR WAS PULLED. MONITOR LEFT DE-ACTIVATED UNDER MEL 34-35 WHILE PART ON ORDER.					
<a href="#">CA090522001</a>	AIRBUS	GE		HOSE	LEAKING
5/16/2009	A310300	CF680C2A5		00200595	HYD SYSTEM
(CAN) AFTER LANDING, DURING TAXI, THE GREEN HYD FLUID HAS BEEN LOST. THE ACFT HAS BEEN TOWED TO THE GATE. HOSE HAS BEEN REPLACED ON LT MLG DRAG BRACE. HYD SYS HAS BEEN BLED AND ACFT RETURNED TO SERVICE.					

<a href="#">CA090602008</a>	AIRBUS	CFMINT	HUB	DAMAGED
5/29/2009	A320211	CFM565A1	300796OPT1	MLG WHEEL
<p>(CAN) AS REQUESTED, INFO NR 217 (MSN 253) MLG WHEEL NR 4 FAILURE. WHEEL NR4 INBD HUB: - PN 300-796-OPT1 - SN 0146 - TOTAL LANDINGS: 13766 LDGS - PREVIOUS OVERHAULS AT 11176 TOTAL LDGS, 6056 TOTAL LDGS AND 2909 TOTAL LDGS. L4539197 (28-MAY-2009): - SHORTLY AFTER TAKE-OFF WITH THE GEAR RETRACTING-ECAM MESSAGE- BRAKES HOT WHEEL NR 4 BRAKE TEMP INDICATED 485 C RECYCLED LANDING GEAR IAW ECAM, WHEEL. ON REMOVAL OF NR 4 MAIN WHEEL, INBD BRG FOUND DISCONNECTED, AND INBD WHEEL HALF, BRG SUPPORT BROKEN, BRAKE ASSY MANGLED, ALSO AXLE SLEEVE DAMAGED . - NR 4 MAIN WHEEL REPLACED, NR 4 BRAKE ASSY REPLACED, NR 3 MAINWHEEL REPLACED, NR 4 AXLE SLEEVE REPLACED, AXLE INSPECTED IAW AMM05-51-16.</p>				
<a href="#">CA090512001</a>	AIRBUS	CFMINT	CONNECTOR	CONTAMINATED
5/9/2009	A320214	CFM565B4P	RDAM68524	VIDEO UNIT
<p>(CAN) BURNING ODOR IN FLIGHT AFTER VIDEO SYS ACTIVATED. FAULT TRACED TO WALL DISCONNECT BOX. CONNECTOR APPEARS TO BE CONTAMINATED WITH GENERAL DIRT AND LINT.</p>				
<a href="#">CA090604002</a>	AIRTRC	PWA	INDICATOR	INOPERATIVE
5/30/2009	AT802A	PT6A67A		FUEL SYSTEM
<p>(CAN) ACFT WAS LOW ON FUEL AND GIVING INCORRECT FUEL INDICATION. PILOT ATTEMPTED TO BALANCE THE FUEL LOAD ON THE GAUGES CAUSING THE RT WING TO EMPTY AND CAUSE A FLAME-OUT. THUS FORCING A LANDING ON THE HIGHWAY.</p>				
<a href="#">2009FA0000430</a>	AMD		AUTOPILOT SYS	MALFUNCTIONED
5/22/2009	FALCON2000			
<p>AUTOPILOT DISENGAGES INFLIGHT, AIRCRAFT ROLLS TO THE RT, AFTER RETRIMING AND ENGAGING ON THE COPILOTS SIDE THE AUTOPILOT DIS-ENGAGES AFTER SEVERAL MINS DEFERRED IAW MEL 22-1-1 CAT 'B' DUE DATE 05/24/09</p>				
<a href="#">2009FA0000456</a>	AMTR	LYC	EXHAUST PIPE	CRACKED
4/18/2009	PUSHER	O540B2C5		ENGINE
<p>WHILE FLYING PART OF THE EXHAUST PIPE ON THE PILOT SIDE SEPARATED FROM THE PLANE. THE BREAK OCCURRED AT THE WELD JOINT WHERE THE LAST HEADER JOINED THE MAIN PIPE. THIS EXHAUST SYS WAS A CUSTOM BUILT EXHAUST WITH NO SLIP JOINTS OR SUPPLEMENTAL SUPPORTS. THE SYS HAD LESS THAN 5 HOURS TACH TIME SINCE INSTALLED. SUBSEQUENT INSP OF THE EXHAUST PIPE ON THE PASSENGER SIDE REVEALED CRACKS AROUND THE SAME HEADER WELDS. IN BOTH CASES THE CRACKS WERE MASKED BY HEAT SHIELD TAPE AND/OR CARB HEAT MUFF. THIS FAILURE RESULTED IN A FIRE IN THE ENGINE COMPARTMENT WHICH BURNED THE INSULATION OFF THE WIRING, GROUNDING THE P-LEADS AND KILLING THE ENGINE. OTHER RUBBER AND ELASTIC COMPONENTS ALSO BURNED. (K)</p>				
<a href="#">2009FA0000457</a>	AMTR	LYC	PRESSURE SWITCH	INTERMITTENT
4/18/2009	PUSHER	O540B2C5	A400	MLG
<p>WHILE PERFORMING VARIOUS TEST FLIGHTS, PERFORMED SLOW FLIGHT AND EXTENDED LANDING GEAR. THE GEAR FAILED TO COMPLETELY EXTEND WITH ONLY THE PILOT SIDE MAIN GEAR SHOWING GREEN LIGHT. THE GEAR WAS CYCLED A COUPLE OF TIMES WITH NO IMPROVEMENT. COMPENSATING MANEUVERS WERE FLOWN WHICH SUCCEEDED IN LOCKING THE PASSENGER SIDE MAIN IN THE DOWN POSITION, BUT THE NOSE GEAR WOULD NOT LOCK DOWN. SUBSEQUENT FAILURE OF THE EXHAUST SYSTEM RESULTING IN AN ENGINE FIRE AND FAILURE DID NOT PERMIT TIME TO PERFORM EMERGENCY BLOW-DOWN OR THE GEAR. UPON LANDING THE NOSE GEAR COLLAPSED. TESTING SHOWED THE PRESSURE SWITCH WAS SHUTTING OFF BEFORE THE ADEQUATE PRESSURE COULD EXTEND THE GEAR AGAINST THE WIND LOAD. THIS GEAR HAD EXTEND FINE IN PREVIOUS FLIGHTS. IN CHECKING WITH THE PREVIOUS OWNER, IT WAS DISCOVERED THAT HE HAD ALSO HAD PROBLEMS WITH THIS SWITCH AND HAD CONNECTED GAUGES TO THE SYS AND RAN TESTS WHICH SHOWED INCONSISTENT RESULTS. THE PRESSURE SWITCH APPARENTLY IS NOT RELIABLE FOR CONSISTENT RESULTS. THIS GEAR SYS CONSIST OF AN ELECTRICALLY DRIVEN HYDR PUMP WITH PISTONS AT EACH GEAR. THERE ARE</p>				

MICRO-SWITCHES WHICH PROVIDE FEEDBACK TO THE SYS TO VALIDATE THE GEAR POSITION. THERE IS ALSO A BYPASS RELAY THAT IS SUPPOSED TO ENSURE NOSE GEAR EXTENSION BUT THAT APPEARED TO BE FAULTY AS WELL. (K)

---

<a href="#">CA090507006</a>	AMTR	LYC	ELT	INOPERATIVE
5/7/2009	RV4	O320E2D	E01	

(CAN) WHILE PERFORMING 12 MONTH INSP OF ELT IAW CAR 571 APPENDIX G THE UNIT WOULD NOT GENERATE A AUDIO MODULATION RECOGNIZABLE AS A TYPICAL ELT SIGNAL.

---

<a href="#">CA090512008</a>	BAG	GARRTT	O-RING	TWISTED
5/4/2009	JETSTM3112	TPE33110UGR	5703503AF	PROPELLER

(CAN) OIL LEAKAGE OCCURRED ON 2 SEPARATE OCCASIONS ON PROPELLER. OIL FOUND LEAKING FROM CYL PLUG AND START LATCH HOLES. UPON DISSEMBLY OF THE PROP DOME FOUND PISTON O-RING TO BE DAMAGED, EXHIBITING SIGNIFICANT TWISTING AND DETERIORATION. THE PROPELLER HAD JUST UNDER GONE PRESSURE TESTING AT A PROPELLER OVERHAUL FACILITY WITH NO REJECTABLE INDICATIONS. A SECOND PROPELLER WAS INSPECTED AND FOUND TO HAVE THE SAME PROBLEM.

---

<a href="#">2009FA0000500</a>	BBAVIA	LYC	SPAR	CRACKED
5/15/2009	7ECA	O235*	5263	LT WING

ON 5/15/2009, DURING AN ANNUAL INSPECTION IT WAS NOTED THERE IS A COMPRESSION CRACK AT REAR STRUT ATTACH POINT TOP SIDE OF SPAR AT END OF DOUBLER. WHING TIP IMPACKED GROUND DURING A WIND STORM. (K)

---

<a href="#">2009FA0000454</a>	BBAVIA	LYC	TAIL WHEEL	CRACKED
5/28/2009	7GCBC	O360*	320000	MLG

FOUND TAILWHEEL HAD LONGITUDINAL CRACK IN BRACKET ASSEMBLY.

---

<a href="#">CA090507009</a>	BEECH	PWA	BRACKET	CRACKED
5/7/2009	100BEECH	PT6A28	B4652	PROP HUB

(CAN) ALL 4 PC BRACKETS WERE FOUND CRACKED DURING MAGNETIC PARTICLE INSP OF PARTS. THE CRACKS WERE .1250 INCH LONG AND WERE AT THE WASHER END OF THE BRACKET. THE BRACKETS WERE REPLACED AND THE PROPELLER IS BEING ASSEMBLED. THESE DEFECTS HAVE BEEN REPORTED TO MFG.

---

<a href="#">CA090526004</a>	BEECH	PWA	TERMINAL	DISCONNECTED
5/19/2009	100BEECH	PT6A28	MS2721226	ANTI ICE SYSTEM

(CAN) DURING APPROACH, THE FLIGHT CREW NOTICED THAT ICE WAS STARTING TO ACCUMULATE ON THE AIRFRAME/WINDSCREEN. ALL ANTI/DEICE SYS WERE ACTIVATED AND AFTER A FEW MINUTES THE CREW NOTICED THAT THE ICE BUILDUP ON THE BOTH WINDSCREENS WAS NOT MELTING. THE CREW COULD NOT FIND WARMER AIR TO MELT THE ICE SO AT THIS TIME ELECTED TO PROCEED BECAUSE OF THE LACK OF FWD VISIBILITY AND THE LONGER RUNWAY. AFTER LANDING THE ACFT WAS INSPECTED AND A LOOSE WIRE ON TERMINAL NR 2 OF THE PEDESTAL TERMINAL BOARD WAS FOUND. WIRE WAS CONNECTED AND SYS TESTED.

---

<a href="#">CA090511002</a>	BEECH	PWA	TUBE	CHAFED
5/11/2009	1900C	PT6A65B	3040637	FUEL SYSTEM

(CAN) FUEL LINE FOUND CHAFED AND LEAKING. LINE WAS CHAFED BY STARTER GENERATOR COOLING SCAT HOSE.

---

<a href="#">CA090605002</a>	BEECH	PWA	CLAMP	DAMAGED
6/1/2009	1900C	PT6A65B	C19771P	PROPELLER BLADE

(CAN) PROPELLER RECEIVED FOR OVERHAUL. UPON VISUAL INSP, DAMAGE TO ONE OF THE BLADE CLAMPS CONSISTENT WITH LIGHTENING STRIKE WAS OBSERVED. CLAMP IS UNSERVICABLE IAW MANUAL 118F AND 202A.

---

<a href="#">CA090508001</a>	BEECH	PWA	SELECTOR	UNKNOWN
5/7/2009	1900C	PT6A65B	1013841377	MLG

(CAN) GEAR DID NOT RETRACT WHEN HANDLE SELECTED UP. 3 GREEN INDICATED, NO RED LIGHT AND NO HYDR FLUID LOW ANNUNCIATOR INDICATED.

---

<a href="#">CA090507002</a>	BEECH	PWA	ACTUATOR	INTERMITTENT
5/7/2009	1900C	PT6A65B	993880047	STEERING

(CAN) INTERMITTENT OPERATION CONCERNING ELECTRIC NOSE WHEEL STEERING ACTUATOR.

---

<a href="#">CA090505010</a>	BEECH	PWA	BEARING	FAILED
5/2/2009	1900C	PT6A65B		START GENERATOR

(CAN) REAR BEARING FAILURE ON STARTER GENERATOR. COOLING FAN BLADES BROKE OFF AS WELL.

---

<a href="#">CA090507004</a>	BEECH	PWA	COMPRESSOR	LEAKING
4/10/2009	1900C	PT6A65B		AIR CONDITIONING

(CAN) THE PULLEY SHAFT WAS NOTED AS LEAKING. AIR CONDITIONING COMPRESSOR REPLACED.

---

<a href="#">CA090519011</a>	BEECH	PWA	STRUCTURE	CORRODED
3/20/2009	1900C	PT6A65B		WING

(CAN) DURING A YEARLY INTERNAL WING CORROSION INSP AS REQUIRED BY CHAPTER 5 REQUIREMENTS, EXTENSIVE SPAR/STRINGER/SKIN CORROSION WAS DISCOVERED IN THE INBD SECTION OF THE MAIN TANKS AND THE COLLECTOR TANKS. X-RAY INSP REVEALED UNDISCOVERED SPOTS OF CORROSION BENEATH SECURE PRC WHICH DOES NOT NORMALLY REQUIRE REMOVAL. THE ACFT HAS BEEN GROUNDED PENDING ACOMPLISHMENT OF REPAIRS AS DICTATED BY MFG.

---

<a href="#">CA090507003</a>	BEECH	PWA	SPLINE	WORN
4/29/2009	200BEECH	PT642A	P3001	HYDRAULIC PUMP

(CAN) PUMP INSTALLED AS PART OF HYDR LANDING GEAR SYS. THE WORN SPLINE WAS NOTED DURING A SCHEDULED LANDING GEAR ELECTRIC MOTOR REPLACEMENT. THE COUPLER SPLINES BETWEEN THE HYDR PUMP AND ELECTRIC MOTOR WERE ALSO WORN OUT.

---

<a href="#">CA090526003</a>	BEECH	PWA	SHUTOFF VALVE	INTERMITTENT
5/25/2009	200BEECH	PT642A	1013890253	LT FUEL SYS

(CAN) DURING MX CHECK LT FIREWALL (FUEL) SHUT-OFF VALVE WAS FOUND TO BE INTERMITTENT. THIS VALVE HAD JUST BEEN REPLACED 32.6 HOURS AGO WITH AN OVERHAULED UNIT. OVERHAULED VALVE FROM ANOTHER SUPPLIER INSTALLED ON ACFT. SYSTEM TESTED FOR OPERATION.

---

<a href="#">CA090513002</a>	BEECH	PWA	PLENUM	SEPARATED
5/11/2009	200BEECH	PT642A	1015501472	CABIN PRESSURE

(CAN) FLIGHT CREW INFORMED MX THAT THE ACFT WAS PRESSURIZING ON THE GROUND. MX FOUND THE VACUUM LINE TO THE OUTFLOW VALVE WAS MELTED. AN INVESTIGATION INTO THE CAUSE OF THE MELTED TUBE FOUND TO BE AN AIR PLENUM ASSY, DEFLECTOR HAD BECOME SEPARATED AND ALLOWED HOT AIR TO BE DEFLECTED AT THE PRESSURIZATION CONTROLLER LINE. MX REATTACHED THE DEFLECTOR AND REPLACED THE CONTROLLER LINE.

---

<a href="#">CA090511003</a>	BEECH	PWA	VICKERS	CONDENSER	SEIZED
5/10/2009	200BEECH	PT6A41	1013840045		BLOWER ASSY

(CAN) AIR CONDITIONING CONDENSER BLOWER ASSY FOUND SEIZED WHEN MX CARRYING OUT AIR CONDITIONING OPS INSP.

---

<a href="#">2009FA0000502</a>	BEECH	CONT	WOODWARD	IDLER ASSY	FAILED
5/19/2009	95B55B	IO520*		204864	GOVERNOR

FAILED NDT/ CRACKED TOOTH. (K)

---

<a href="#">CA090609003</a>	BEECH	PWA	BRACKET	CRACKED
-----------------------------	-------	-----	---------	---------

6/4/2009 A100 PT6A34 351153963 FLAP TRACK

(CAN) DURING A SCHEDULED INSP CRACKS WERE FOUND ON THE RT OTBD FLAP INBD TRACK (LOWER ATTACHMENT) BRACKETS. FURTHER INSP REVEALED THAT THE LWR 2 RIVETS ON EACH OF THE FWD ATTACHMENT BRACKETS WERE NO LONGER HOLDING, 3 RIVETS WERE SHEARED AND THE SECOND RIVET FROM THE BOTTOM ON THE OTBD BRACKET HAD PULLED THROUGH THE REAR SPARE CAUSING DAMAGE TO THE SPARE.

---

[2009FA0000460](#) BEECH CONT BOLT BROKEN  
5/1/2009 A36 IO550B 536379 CRANKSHAFT

PILOT FLEW A NORMAL FLIGHT OF 1.5 HOURS, FOUND OIL CONSUMPTION AT 5.0 QTS. INVESTIGATION FOUND A FOREIGN OBJECT BLOCKING THE TURBO OIL SCAVENGE LINE CHECK VALVE. WHEN AN ATTEMPT WAS MADE TO START THE ENGINE AFTER REPAIR OF THE CHECK VALVE, THE STARTER SPUN FREELY. REMOVAL OF THE STARTER AND THE STARTER ADAPTER REVEALED THAT THE 6 (PN 536379) BOLTS THAT ATTACH THE (PN 63289) LARGE CRANKSHAFT GEAR IN PLACE WERE BROKEN ALLOWING THE GEAR TO DROP IN THE ACCESSORY SECTION. (K)

---

[CA090526009](#) BEECH PWA SKIN CRACKED  
5/20/2009 B200C PT642A FUSELAGE

(CAN) DURING A PHASE 4 INSP, A CRACK WAS FOUND ON THE BELLY SKIN ALONG A STRINGER AT THE CENTERLINE OF THE ACFT. THIS CRACK MEASURED TO BE 3.5 INCHES LONG BETWEEN STA 139.00 AND 143.00 APPROX.

---

[CA090529004](#) BEECH PWA ACTUATOR CABLE LOOSE  
5/26/2009 B90 PT6A20 50524496 ELEVATOR

(CAN) DURING FLIGHT, THE PILOT NOTICED THAT THE ELEVATOR TRIM WAS NOT FUNCTIONING AND REMAINED IN THE NEUTRAL POSITION. AFTER LANDING, WHEN IT WAS INSPECTED, WHAT WAS FOUND WAS THAT THE KEY THAT HOLDS THE SHAFT HAD COME LOOSE ALLOWING THE SHAFT TO FALL OUT AND CAUSE ENTANGLEMENT OF THE ACTUATOR CABLES AROUND THE SHAFT. THE PART WAS REPLACED WITH ANOTHER FOR RECTIFICATION.

---

[2009FA0000445](#) BEECH DOOR MISSING  
4/9/2009 C90A 109910027311 RT NACELLE

RT INBD HINGED COWLING DOOR (PN 109-910027-31) DEPARTED AIRCRAFT. SPINE ASSY (PN 109-910060-1) HINGE ATTACHMENT DAMAGED. NO OTHER DAMAGE TO ACFT NOTED. DOOR AND SPINE ASSY REPLACED WITH SERVICEABLE PARTS. (K)

---

[CA090602009](#) BEECH PWA PIN WORN  
6/1/2009 C90A PT6A21 NAS427K26 ELEVATOR

(CAN) ON A SCHEDULED PHASE 4 INSP, A RUBBING SOUND WAS NOTED COMING FROM BENEATH CABIN FLOOR JUST AFT OF THE CABIN ENTRANCE WHEN THE ELEVATOR CONTROLS WERE MOVED. AME NOTING THE SOUND, GAINED ACCESS TO INVESTIGATE IN THIS AREA. IT WAS DISCOVERED THAT A CABLE GUIDE PIN WAS MAKING CONTACT WITH BOTH ELEVATOR CONTROL CABLES JUST FWD OF THE ELEVATOR CONTROL PULLEYS MOUNTED ON BRACKET ASSY INSTALLED BETWEEN FS 266 AND FS277. IPC CALLS FOR ONLY 2 PINS TO BE INSTALLED AT THIS LOCATION ALTHOUGH 3 PINS WERE INSTALLED IN THIS CASE. CONTACT WITH SR FIELD SUPPORT CONFIRMED THAT PIN FOUND RUBBING. IS NOT TO BE INSTALLED AT THE LOCATION IT WAS FOUND IN. CLOSER INSP OF CABLE SHOWED ONLY SLIGHT EVIDENCE OF THE CONTACT AND WAS WELL WITHIN WEAR LIMITS. IT COULD NOT BE DETERMINED HOW LONG THE PIN HAD BEEN INSTALLED IN THIS LOCATION. FASTNERS WERE SECURED IN THE MOUNT HOLES WHERE THE PIN HAD BEEN PLACED TO PREVENT ANOTHER INADVERTANT INSTALLATION OF A CABLE GUIDE PIN.

---

[CA090526005](#) BEECH PWA OIL FILTER DAMAGED  
5/25/2009 C90A PT6A21 305925701 SECONDARY

(CAN) DURING OPS NR1 INSP, ENG OIL FILTERS WERE REMOVED AND INSPECTED. THERE WAS NO EVIDENCE OF CONTAMINATION ON THE FILTER ELEMENT, HOWEVER, WHEN THE SECONDARY FILTER WAS INSPECTED IT WAS

FOUND WITH AN OPEN END. THE SECONDARY FILTER IS CONICAL SHAPED WITH THE END CRIMPED CLOSED. BOTH LT AND RT ENG FILTERS WERE FOUND TO BE IN THE SAME CONDITION. CHIP DETECTORS AND RGB SCREENS ON BOTH ENGINES INSPECTED AND FOUND CLEAN. NO EVIDENCE OF ENGINES OPERATING IN BYPASS. FILTERS PN 3059258-01 LOT 467330 INSTALLED 06-MAY-2008 - 396.2 HOURS IN OPERATION.

<a href="#">CA090504003</a>	BEECH	CONT	CONT	PLATE	CRACKED
3/31/2009	F33A	IO520BB	639195	643629	COUNTER WEIGHT

(CAN) AFTER INSP, CAUSE OF FAILURE WAS DUE TO THE PLATE (PN 643629) HOLDING THE REAR COUNTERWEIGHT PINS IN, CRACKING AND FALLING OUT OF PLACE. ONCE PLATE HAS FAILED AND FALLEN OUT OF POSITION, THE COUNTERWEIGHT PIN IS FREE TO DRIFT OUT AND MAKE CONTACT WITH THE CONNECTING RODS. CATASTROPHIC DAMAGE HAPPENS VERY QUICKLY THEREAFTER. IN BOTH CASES THE PLATES WERE RETRIEVED AND FOUND BROKEN IN 3 PIECES. THE CAUSE FOR THE PLATES BRAKING IS NOT COMPLETELY KNOWN BUT THEORY IS AS FOLLOWS. WHEN ENGINES ARE RUN AT LWR RPM FOR A LONG TIME DURING CRUISE SUCH AS 2200 OR 2100 RPM, A VIBRATION IN THE CRANKSHAFT SETS IN WHICH CAUSES THE PINS AND BUSHINGS IN THE REAR (6TH ORDER) COUNTERWEIGHT TO WEAR. THE EXTRA MOVEMENT OF THESE PINS VIBRATES ON THIS RETAINING PLATE AND SLOWLY, PIN CAUSES THE PLATE TO WEAR. THE PINS` ROTATION AND VIBRATION AGAINST THE PLATES 3 OIL HOLES CAUSING A CRACK TO FORM BETWEEN THE HOLES. EVENTUALLY THE PLATE MATERIAL FAILS BETWEEN 3 HOLES CREATING AN OPENING FOR COUNTERWEIGHT PIN TO EXIT. CHANGED OUR CRUISE POWER SETTING TO 2200 RPM. THIS SETTING IS ALLOWED BOTH IN THE ACFT OPERATING HANDBOOK AND THE ACFT ENGINE MANUAL. THE MFG REP SEEMS TO THINK THAT OPERATORS HAVE NOT USED THIS SETTING IN THE PAST AND THAT THIS PROBLEM HAS NOT COME UP BEFORE. MOST RECENTLY, AS A METHOD TO CONSERVE FUEL, SOME OPERATORS ARE MOVING TO THIS LOWER RPM SETTING. THE COUNTERWEIGHTS WERE DESIGNED TO REDUCE VIBRATIONS BETWEEN THE 2300 TO 2500 RPM OPERATING RANGE, WITH THIS REDUCTION IN RPM TO 2100 OR 2200 RPM, THERE MAY BE A VIBRATION THAT THE COUNTERWEIGHTS CANNOT HANDLE.

<a href="#">CA090512011</a>	BELL	LYC		BULKHEAD	CRACKED
5/8/2009	204B	T5311B			TAILBOOM

(CAN) DURING A VISUAL INSP, A CRACK WAS FOUND AT THE BOTTOM OF THE RT ANGLE AT TAILBOOM TO FUSELAGE JUNCTION (PN 204-030-713-101). AFTER REMOVAL OF THE TAILBOOM AND SHIM PADS THE TAILBOOM ATTACHMENT BULKHEAD WAS FOUND CRACKED AT 3 OF THE 4 ATTACHMENT POINTS. (PN 204-030-713-089).

<a href="#">CA090528003</a>	BELL	ALLSN		GEARBOX	LEAKING
5/13/2009	206B	250C20B		6894171	TAIL ROTOR

(CAN) GEARBOX LEAKING EXCESSIVELY.

<a href="#">CA090528004</a>	BELL	ALLSN		BEARING	WORN
5/13/2009	206B	250C20B			SWASHPLATE

(CAN) BEARINGS FOUND WORN.

<a href="#">CA090529002</a>	BELL	ALLSN		GOVERNOR	FLUCTUATES
5/25/2009	206B	250C20B		6896313A	ENGINE

(CAN) GOVERNOR FLUCTUATES.

<a href="#">CA090525003</a>	BELL	ALLSN		DRIVE SHAFT	MISMANUFACTURED
5/24/2009	206B	250C20B		206040330001	TAIL ROTOR

(CAN) AIRFRAME AND T/R VIBRATION. THE RUNOUT OF THE TAILROTOR DRIVESHAFT WAS CHECKED AND THE FINDING WAS THE FWD SPLINES ARE BONDED INTO THE T/R INCORRECTLY, THE FWD SPLINES WERE 0.040 INCHES OVER. THE T/R LONG DRIVE SHAFT WAS REPLACED AND THE ACFT WAS RETURNED TO SERVICE.

<a href="#">CA090518001</a>	BELL	ALLSN	BELL	BEARING	CORRODED
5/15/2009	206L	250C20R		206011118001	M/R HUB

(CAN) RECEIVED MAIN ROTOR HUB FOR 1200 HOUR INTERIM INSP. WHEN DISASSEMBLED FOUND BOTH OTBD EXCLUDERS IN GRIP ASSEMBLIES WERE NO LONGER RETAINING LUBRICANT AND ALLOWING IT TO PASS INTO

THE YOKE SPINDLE BORES. THE YOKE SPINDLES INBD RACE AREA DID NOT HAVE SUFFICIENT LUBRICATION AND FOUND SIGNIFICANT SURFACE CORROSION. ALL FOUR FEATHERING BRGS HAD CORROSION ON ROLLERS AND WERE SCRAPPED. ONE FEATHERING BEARING HAD A ROLLER BROKEN IN HALF. FOUND A CRACK IN PITCH HORN IN AREA OF GREASE VENT HOLE. ALSO SCRAPPED THE PITCH HORN. SURFACE CORROSION WAS REMOVED AND YOKE FOUND SERVICEABLE. ALL NEW BEARINGS INSTALLED AND ONE NEW PITCH HORN.

<a href="#">CA090512002</a>	BELL	ALLSN		BEARING	WORN
4/11/2009	206L	250C20R		6871505	NR 5

(CAN) PILOT HAD A ENGINE CHIP LIGHT INDICATION, ENGINE WAS REPLACED, INSP REVEALED TURBINE NR 5 BEARING WAS WORN AND SOME BALLS MISSING.

<a href="#">CA090603006</a>	BELL	PWA		DRIVE SHAFT	DAMAGED
5/31/2009	212	PT6T3B		212040005103	MAIN ROTOR

(CAN) COUPLING YELLOW TEMP PLATES FOUND TURNED BLACK, AIRFRAME AND DRIVESHAFT INSPECTED FOR CAUSE, NONE FOUND, DRIVESHAFT REMOVED AND INSPECTED, GREASE FOUND BURNED, DRIVESHAFT REPLACED, DRIVESHAFT SENT TO OVERHAUL FACILITY.

<a href="#">CA090511007</a>	BELL	PWA		WINDSHIELD	CRACKED
5/6/2009	212	PT6T3B		212030464003	COCKPIT

(CAN) WINDSHIELD FOUND CRACKED DURING DAILY CHECK.

<a href="#">CA090511008</a>	BELL	PWA		TEE FITTING	CRACKED
5/5/2009	212	PT6T3B		AS1005W060606	HYD SYS

(CAN) CRACK FOUND IN THREADED AREA DURING FLUID LEAK INVESTIGATION.

<a href="#">CA090511009</a>	BELL	PWA	BELL	SEAL	LEAKING
5/4/2009	212	PT6T3B		410082HAE	T/R GEARBOX

(CAN) SEAL FOUND LEAKING DURING DAILY CHECK.

<a href="#">CA090506007</a>	BELL	ALLSN		TUBE	FAILED
3/5/2009	407	250C47B		406012118101	TAIL ROTOR

(CAN) RECEIVED TAIL ROTOR GEARBOX FOR A 60 MONTH INSP WITH PITCH CHANGE MECHANISM ATTACHED. WHEN PITCH MECHANISM WAS REMOVED, NOTICED A RAISED SLIVER OF MATERIAL THE ENTIRE DIAMETER OF THE PITCH TUBE IN THE AREA OF THE BRG SLEEVE AND PITCH TUBE BRG SHOULDER. THE SLIVER OF MATERIAL TURNED OUT TO BE METAL FROM THE PITCH TUBE WHICH WAS POUNDED OUT. THIS WAS GOING ON FOR A WHILE BECAUSE IT MANAGED TO CREATE A GAP OF .035 INCHES WHERE THERE SHOULD NOT BE A GAP. THE CUSTOMER DID REMEMBER THAT HE HAD TO RE-TORQUE THE NUT WHICH RETAINS THE BALL BRG, BRG SLEEVE AND TUBE TOGETHER A COUPLE OF YEARS AGO. THE PITCH TUBE AND SLEEVE WERE DEEMED NOT REPAIRABLE AND RETURNED TO MFG FOR FURTHER INVESTIGATION.

<a href="#">EGRR2008070377316</a>	BELL	PWA		TUBE	CRACKED
7/3/2008	412EP	PT6*			FUEL SYSTEM

DURING INSPECTION FOUND TUBE CRACKED. REPLACED TUBE WITH SERVICABLE UNIT IAW MAINTENANCE MANUAL. OPS CHECK GOOD.

<a href="#">ULXR2009021080902</a>	BELL	PWA		THROTTLE CONTROL	WORN
2/10/2009	412EP	PT6T3		212060724033	ENGINE

THIS TUBE WAS WORN AROUND THE CIRCUMFERENCE AT THE POINT WHERE IT PASSES THROUGH THE FIREWALL BOOT. DISCOVERED DURING A 300 HOUR INSPECTION AND REPLACED.

<a href="#">AC2A2009050381739</a>	BELL	ALLSN		WARNING LIGHT	ILLUMINATED
5/3/2009	430	250C40B			

FLYING FROM THE HERCULES 120 TO 299B AND THE NR1 M/ECU CAUTION LIGHT ILLUMINATED IN FLIGHT, RETURNED TO DEPARTURE AND SHUTDOWN.

---

<a href="#">AC2A2009053181959</a>	BELL	ALLSN	PICKUP	MALFUNCTIONED
5/31/2009	430	250C40B	23054164	

ENROUTE, YELLOW M/ECU2 INDICATOR, WHITE ECU INDICATOR ABOVE THE NR 2 ENGINE TQ AND NP INDICATION FLUCTUATED FOR ABOUT FIVE MINUTES BEFORE IT RETURNED TO NORMAL INDICATION. ALTERED ROUTE FOR A DIRECT FLIGHT. SHUT DOWN ACFT AT HELIPORT AND NOTIFIED MX. REPLACED N2 PICK-UP, CURED PROBLEM.

---

<a href="#">2009FA0000343</a>	BERIEV	CONT	STUD	UNSERVICEABLE
4/21/2009	BE103	IO360ES		PROP HUB

DURING ANNUAL INSP, 2 OF THE 6 PROPELLER MOUNTING STUDS WERE FOUND TO BE SNAPPED OFF ON THE LT PROP AND LYING IN THE BOTTOM COWL. THESE STUDS ARE SET INTO THE PROP HUB ITSELF AND SECURED TO THE CRANKSHAFT FLANGE WITH NUTS. BOTH PROPS WERE REMOVED AND SENT TO MFG FOR OVERHAUL/REPAIR AND A CONDITION REPORT REQUESTED. MFG SAID THAT THEY HAD MAGNAFLUXED THE REMAINING STUDS AND FOUND THEM SATISFACTORY. (K)

---

<a href="#">CA090512006</a>	BOEING	RROYCE	CASE	BULGED
4/23/2009	717200	BR700715A130		NR 1 ENGINE

(CAN) NR 1 ENGINE IFSD AND ATB OUT OH HI LO. METAL IN TAIL PIPE AND BULGED HP T CASE, INDICATIVE OF A 1ST STAGE HPT BLADE FAILURE. THE ENGINE HAD 3480 CYCLES SINCE REPAIR. ENGINE INDUCTED AT MFG FOR REPAIR. FURTHER DETAIL WILL BE SUBMITTED UPON DISSASSEMBLY OF ENGINE.

---

<a href="#">CA090601004</a>	BOEING	PWA	DUCT	RUPTURED
5/30/2009	727200	JT8D15	470962	13TH STAGE

(CAN) ACFT RETURNED TO YOW AFTER APPROX 30 MINUTES INTO FLIGHT DUE TO FIRE ALARM ON NR 2 ENGINE. ALARM WOULD NOT GO OFF AFTER NORMAL PROCEDURE SO ENGINE SHUTDOWN AND FIRE BOTTLE DISCHARGED. MX FOUND A 4 INCH HOLE IN THE 13TH STAGE BLEED AIR DUCT TO THE NOSE ANTI-ICE VALVE. DUCT WAS REPLACED AND ACFT RETURNED TO SERVICE.

---

<a href="#">CA090520004</a>	BOEING	PWA	CONTROLLER	ARCED
5/19/2009	727243	JT8D9A		WINDOW TEMP

(CAN) ON CLIMB OUT, CREW NOTICED ARCING FROM THE R2 WINDOW. ACFT DIVERTED TO A MX BASE WHERE THE WINDOW AND TEMP CONTROLLER WERE REPLACED AND THE ACFT RETURNED TO SERVICE.

---

<a href="#">CA090526008</a>	BOEING	PWA	ACTUATOR	CORRODED
3/3/2009	727260	JT8D17		STAB TRIM

(CAN) UNIT REMOVED FOR SCHEDULED OVERHAUL. UPON DISASSEMBLY, INTERNAL COMPONENTS BADLY CORRODED AND CONTAMINATED WITH WATER. UNIT SCRAPPED. THERE WERE NO INFLIGHT DEFECTS REPORTED.

---

<a href="#">CA090601001</a>	BOEING	GE	ACCESS PANEL	CRACKED
5/31/2009	737*	CFM567B24	112N61012	RT WING

(CAN) WHILE ACFT WAS ON GROUND, A FUEL LEAK WAS DISCOVERED ON RT WING FUEL ACCESS PANEL 632GB. TROUBLESHOOTING DETERMINED THAT PANEL WAS CRACKED. SUBJECT PANEL WAS REPLACED IAW AMM 28-11-11 AND LEAK TESTED. ACFT RETURNED TO SERVICE. FURTHER INTERNAL INVESTIGATION TO BE CONDUCTED TO DETERMINE CAUSE FOR FAILURE AND WHETHER OR NOT ADDITIONAL WING FUEL PANELS SHOULD BE SUSPECT. IT IS BELIEVED THE PANEL WAS LAST REMOVED AND INSTALLED DURING THE ACFT'S PRE-DELIVERY MX CHECK APPROX 2600 HRS AND 750 CYCLES PRIOR TO THIS EVENT. FURTHER INSP OF PANEL WAS CONDUCTED, FOUND THAT CRACK WAS LOCATED IN THE RECEPTACLE OF THE ANCHOR NUT INSERT. THIS INDICATES THAT AT SOME POINT IN THE ACFT'S HISTORY AN IMPROPER LENGTH SCREW WAS USED AND DAMAGED THE SEALED RECEPTACLE. HAVE SCHEDULED A TASK TO REPLACE THE EXISTING SCREWS AS A PRECAUTION. AS WE CANNOT DETERMINE WHICH WERE REPLACED OR REUSED. REMOVED SCREWS WILL BE INSPECTED FOR

LENGTH TO DETERMINE WHETHER OR NOT THE INSTALLED PANEL MAY HAVE BEEN DAMAGED.

<a href="#">CA090514001</a>	BOEING	PWA	WINDOW	CRACKED
5/11/2009	737217	JT8D17	58935733	COCKPIT

(CAN) DURING CRUISE AT 35,000, THE NR 4 WINDOW CRACKED, CREW DESCENDED TO 14,000 AND CONTINUED THE FLIGHT. WINDOW WAS REPLACED AND ACFT RETURNED TO SERVICE.

<a href="#">EE4Y090173</a>	BOEING		ANGLE	CRACKED
6/22/2009	737290C			ZONE 100

LOWER FUSELAGE BS 1040 STR 21 ANGLE CRACKED.

<a href="#">EE4Y090168</a>	BOEING		SKIN	CORRODED
6/22/2009	737290C			ZONE 100

LOWER FUSELAGE ST BS 500 BETWEEN STR 27R AND 28R,SKIN CORRODED

<a href="#">EE4Y090174</a>	BOEING		STRINGER	DAMAGED
6/22/2009	737290C		BAC1498157	ZONE 100

LOWER FUSELAGE E&E COMPARTMENT,BETWEEN BS 355 AND BS 365,STR 19R WITH DOUBLE HOLE.

<a href="#">EE4Y090177</a>	BOEING		WEB	CRACKED
6/22/2009	737290C			ZONE 100

LOWER FUSELAGE, NOSE WHEEL WELL AT BS 250, RBL 2" UPPER WEB CRACKED.

<a href="#">SR0M20090001</a>	BOEING		WINDSHIELD	CRACKED
5/28/2009	7377BD		5893543150	COCKPIT

MULTIPLE BIRD STRIKES ON DEPARTURE, RETURNED TO AIRPORT. REPLACED F/O WINDSHIELD. REPLACED 5 RIVETS UNDER INBD STRAFE OF NR 2 ENGINE NOSE COWL. CLEANED MULTIPLE BIRD REMAINS FROM RT FUSELAGE NOSE AND TAIL OF ACFT. PERFORMED BIRD STRIKE INSP IAW AMM 05-51-18; NO ADDITIONAL DAMAGE NOTED.

<a href="#">2009FA0000428</a>	BOEING		FLOORBEAM	CORRODED
4/14/2009	737800*			BS 986

DURING AV11 CHECK , CORROSION WAS FOUND ON FLOORBEAM AT STA 986.5 LBL 22.5, RBL 23 ABOUT 0.4" X 0.4" X 0.050". THIS IS A CPCP LEVEL 2 ITEM. REPAIRED THE CORRODED AREAS IAW SRM 53-00-51.

<a href="#">2009FA0000487</a>	BOEING		DUCT	BROKEN
6/2/2009	767200		368212191221105	

AFTER A BANG HEARD DURING CL, FWD EQPT OVHT DISPLAYED AND OVHT LGT ILLUM AFTER SELECTOR WAS POSITIONED TO STBY, LGT REILLUM FOLLOWING 5MIN DELAY AFTER SELECTOR WAS POSITIONED TO OVRD. EICAS MSG FWD EQPT COOLING DISPLAYED AND NO COOLING LGT ILLUM. WX FAIL AND HSD ALTITUD COLORS WENT BLACK. INDICATIONS NORMAL. OVERWEIGHT LANDING. 139600KG. THE LANDING WAS SMOOTH AND BRAKES TEMP DID NOT EXCEED 4 ON BTMS. RT MIX-AIR CONDITIONING MANIFOLD OUTLET DUCT FOUND BROKEN. AFT RT AIR DISTRIBUTION S/O VALVE CLOSED AFT ZONE TRIM AIR MODULATIN VALVE CLOSED IAW MEL 21-51-6-2 PROCEDURES. PERFORMED CHECK IAW AMM 21-58-00 PAGE 501. CHECK RESULTS OK. NOTE: ONLY ONE PACK OPERATION.

<a href="#">TIPR200900006</a>	BOEING		FLOORBEAM	CORRODED
6/15/2009	767222		14150051	ZONE 200

PLATE ATTACHED TO FLOORBEAM UPPER TEE CORRODED STA 266.5 RBL 22. REMOVED AND REPLACED UPPER T-CAP, CLOSE-OUT WEB AND ATTACH ANGLES IAW SRM 51-40-2,51-10-02 AND DWG 14150051.

<a href="#">TIPR200900010</a>	BOEING	PWA	STRINGER	CORRODED
6/19/2009	767222	JT9D*		ZONE 100

STRINGER 38L CORRODED AT STA 1562-1582 (LAV SERVICE PAN CUT-OUT). REMOVED AND REPLACED CORRODED STRINGER SECTION IAW SRM 53-00-03 AND 51-20-01.

---

<a href="#">TIPR200900004</a>	BOEING	PWA	STRINGER	CORRODED
6/15/2009	767222	JT9D*		ZONE 200

STRINGER 38L CORRODED AT 1562-1582 (LAV SERVICE PAN CUT-OUT AREA).

---

<a href="#">TIPR200900003</a>	BOEING	PWA	STRINGER	CORRODED
6/15/2009	767222	JT9D*		ZONE 200

STRINGER 38R CORRODED AND CRACKED AT STATION 1580 (LAV SERVICE PAN CUT OUT AREA).

---

<a href="#">TIPR2009000008</a>	BOEING	PWA	STRINGER	CORRODED
6/17/2009	767222	JT9D*		ZONE 100

AREA AFT OF BULK CARGO COMPARTMENT, CORROSION ON STRINGER-39L (UNDER REPAIR DOUBLER) STA 1540 TO 1550. REMOVED AND REPAIRED CORRODED REPAIR DOUBLER(CHANNEL)AND STRINGER SECTION AT 39L LT STA 1540 TO 1580 IAW SRM 53-00-03 FIG 201.

---

<a href="#">TIPR200900005</a>	BOEING	PWA	STRINGER SPLICE	CRACKED
6/16/2009	767222	JT9D*		ZONE 100

STRINGER 39R AT STA.1562 CRACKED. REMOVED AND REPLACED REPAIRED STRINGER SECTION AT 39R AND STA 1542 TO 1562 IAW SRM 53-00-03, FIG 201 AND 53-60-03 FIG 1. REMOVED AND RE-INSTALLED STRINGER TIES AT STA 1542 AND 1552 IAW SRM 51-40-02.

---

<a href="#">TIPR200900009</a>	BOEING	PWA	STRINGER	CORRODED
6/19/2009	767222	JT9D7R4D		BS 1580 S38R

STRINGER 38 RT CORRODED AND CRACKED AT STA 1580 (LAV SERVICE PAN CUT OUT AREA). REMOVED AND REPLACED CORRODED SECTION OF STRINGER IAW SRM 53-00-03,51-20-01 AND 53-00-03.

---

<a href="#">CA090527003</a>	BOEING	PWA	STATOR	DAMAGED
5/21/2009	7673Y0	PW4060		NR 1 ENGINE

(CAN) NR 1 ENGINE AUTO SHUTDOWN 125NM EST OF YYZ. AN EMERGENCY WAS DECLARED WITH ATC THE FLIGHT LANDED. STATUS MESSAGE: L ENG EEC C1 MAINT MSG ON ARRIVAL: L ENG EEC C1 L PIMU L NECEL VENT VLV, LT ENG STARTER REMOVED FOR ACCESS. N2 TRANSDUCER STATOR REMOVED, FOUND STATOR DAMAGED, SHAFT AND ROTOR WITH DAMAGE AND SIGNIFICANT PLAY. ALSO, PMA (PERMANENT MAGNET ASSY) WHICH PROVIDES POWER TO THE FADEC USES THE SAME SHAFT AS THE N2 XDUCER. THUS THE PMA STATOR/ROTOR DISINTEGRATED, AND IT IS SUSPECTED THAT THE CAUSE WAS BEARING FAILURE. WITHOUT POWER TO THE FADEC, THERE IS NOTHING TO KEEP THE FUEL METERING UNIT OPERATIONAL, AND THUS FUEL STARVATION WOULD HAVE CAUSED THE SHUTDOWN.

---

<a href="#">2009FA0000447</a>	BOEING		CASE	DENTED
4/5/2009	777268		1893M10601	LPT

ENG SUFFERED AN LPT FAILURE (SECONDARY DAMAGE). VISUAL INSP OF THE LPT CASE NOTED QTY 1 OF DENT IN THE SG SHROUD AREA WITH A RESULTANT CRACK MEASURING APPROX 0.625 INCH IN LENGTH. THE CRACK IS POSITIONED BETWEEN 12 AND 1 O`CLOCK. (AFT LOOKING FWD).

---

<a href="#">2009FA0000459</a>	BOLKMS		FRAME	CRACKED
4/8/2009	BK117B2		1173025451	AFT TAILBOOM

FOUND CRACK ON LT SIDE OF TAILBOOM AT FUSELAGE STA 9976 MM. DURING FURTHER INVESTIGATION, OTHER CRACKS WERE FOUND ON THE RT SIDE AT THE SAME FUSELAGE STATION AND INSIDE THE TAILBOOM ON THE 10L FRAME. REPAIR SCHEMES FOR THESE CRACKS WERE PROVIDED BY AEC FOR PATCHING THE SIDES AND THE DECISION WAS MADE TO COMPLETELY REPLACE THE 10L FRAME, INSIDE OF THE TAILBOOM. (K)

---

<a href="#">GVNA2008103078903</a>	BOLKMS	TMECA	CARTRIDGE	UNKNOWN
-----------------------------------	--------	-------	-----------	---------

10/30/2008

BK117C2

ARRIEL1E2

CARTRIDGE ORDERED TO REPLACE PUMP THAT THE LIGHT WAS INTERMITTENT. THIS CARTRIDGE WOULD NOT EVEN TURN THE LIGHT OFF AND IT WAS FRESH OUT OF OVERHAUL. PUT ORIGINAL PUMP BACK IN.

[CA090508003](#)

BOLKMS

ALLSN

TAIL BOOM

DAMAGED

5/7/2009

BO105S

250C20B

BO105

(CAN) TAILBOOM WAS INSTALLED WHEN DEFORMATION WAS FIRST DISCOVERED. BOOM IS TWISTING AT THE MARKED AREAS. FWD INDENT IS .5 DEEP AT 100 PERCENT RPM FLAT PITCH AND THE 3 AFT INDENTS ARE AT LEAST .2500 INCH INDENTED AND RESEMBLE A RUBBER WAVE. AS SOON AS THE POWER LEVERS ARE PULLED BACK TO IDLE THE BADNESS GOES AWAY. IT TAKES VERY LITTLE LT PEDAL OFF NEUTRAL (15-20 PERCENT TRAVEL LIKE YOU'D DO A PEDAL CHECK FOR TR DYNAMIC BALANCING) TO AGGRAVATE THE SITUATION FURTHER PLUS THE POWER TRAIN STARTS TO HUM EVEN MORE. AREA WHERE THE FLEX IS OCCURRING IS ALSO WHERE THE BRG RUBBER SPUN THE DEEPEST INTO THE SHAFT. FEEL THIS FLEXING IS THE CAUSE OF THE SPINNING RUBBER ON THE SHAFT AND THAT IT'S LIKELY BEEN THIS WAY FOR A WHILE. THE BEARINGS AND RUBBERS WERE REPLACED 370 HOURS AGO AT O/H. SKIN AT THIS AREA IS ALSO PERMANENTLY DISTORTED LIKE IT HAS BEEN WORKING FOR SOME TIME. PILOT KNEW RIGHT AWAY SOMETHING WAS WRONG FROM THE NOISE, HEARING IT IN THE HOVER FROM INSIDE BUILDING. HE FELT NO VIBRATION. TAIL ROTOR IS BALANCED TO .1-IPS. FWD HANGAR BRG SPUN ON THE SHAFT DUE TO MISALIGNMENT, HAD MARKED THEM ALL WITH PAINT. SHAFT AND RUBBERS WERE CLEANED OF HALORIN OIL AFTER INSTALLATION AND COULD NOT BE FORCED TO SLIP BY HAND ROTATIONALLY OR AXIALLY. TAILBOOM INTERIOR LOOKS FINE AS FAR AS WE CAN SEE SO SOMETHING IN THERE APPEARS REALLY TIRED. HAVE NEVER SEEN A MACHINE DO THIS SO WE CHECKED WITH SUBSTANTIAL LT PEDAL WHICH DEMONSTRATED ABSOLUTELY NO DISTORTION. YOU COULD SEE THE VERTICAL TAIL FIN FLEX ON AS USUAL BUT NOTHING WAS LETTING GO. EXTREMELY CONCERNED WITH THIS PROBLEM AS TAIL BOOMS DO NOT "OIL CAN" AND DISTORT LIKE THIS.

[CA090604008](#)

BOMBDR

LINE

CRACKED

5/22/2009

BD1001A10

1005354233009

HYDRAULIC SYS

(CAN) CREW REPORT, GOT A AMBER (FLAPS NORM PRESS LOW) ALONG WITH AN AMBER (R HYD PRESS LOW) AS THEY WERE CLIMBING THROUGH FL410. SYNOPTIC PAGE REVEALED PRESSURE FOR THE RT SYS WAS DROPPING LOW AND ALSO THE OTBD BRAKES INDICATION WAS BOXED AMBER. ALSO NOTED THE QUANTITY WAS DROPPING ON THE RT RESERVOIR. IAW QRH THEY CLOSED THE HYD SOV AND QUANTITY SETTLED AT 12 PERCENT. REPLACED RT EDP. REPLACED RT EDP PRESSURE LINE ASSY. REPLACED RT CASE, PRESSURE AND RETURN FILTERS. LEAKS AND OPS CHECKS GOOD.

[CA090529005](#)

BOMBDR

CONTROLLER

MALFUNCTIONED

5/28/2009

BD1001A10

92175A030400

(CAN) LOSS OF CABIN PRESSURIZATION. DECLARED AN EMERGENCY AND AN EMERGENCY DESCENT. CONTROLLER REPLACED, ACFT RETURNED TO SERVICE. APPROX 30 MINUTES AFTER TAKEOFF ENROUTE AT FL400 CABIN RATE BEGAN FLUCTUATING PLUS OR MINUS 300 TO 800 F/M. CABIN ALTITUDE REMAINED APPROX 6700 FT. BEGAN REFERENCING EMERGENCY CHECKLIST AND ATTEMPTING TO CONTACT MX, CABIN RATE RAPIDLY STARTED CLIMBING IN EXCESS OF 4000 F/M. SIMULTANEOUSLY WE RECEIVED RED "CABIN ALT" CAS. COMMENCED EMERGENCY DESCENT AND COMPLETED ALL ASSOCIATED MEMORY ITEMS. ONCE COMM SWITCH WAS SELECTED TO O2 MASK AND COMMUNICATION WAS RE-ESTABLISHED WITH ATC, DECLARED AN EMERGENCY. DURING EMERGENCY DESCENT NOTED CABIN ALTITUDE STABILIZED AND NEVER REACHED HIGHER THAN 10,500 FT. AS A RESULT THE PASSENGER OXYGEN MASKS DID NOT DEPLOY. ONCE LEVEL AT 10,000 FT RECEIVED CONFIRMATION PASSENGERS WERE OKAY. CABIN HELD STEADY AT 600 FT AND THERE WERE NO FURTHER PRESSURIZATION ISSUES. THERE WAS SUFFICIENT FUEL ON-BOARD AND THE DECISION WAS MADE TO CONTINUE TO DESTINATION. IN FLIGHT THE CHIEF PILOT WAS NOTIFIED OF THE SITUATION. LANDED WITHOUT FURTHER INCIDENT.

[CA090526001](#)

BOMBDR

RROYCE

CIRCUIT CARD

BURNED

5/22/2009

BD7001A11

BR700710A220

770705D

ACPC

(CAN) ON LANDING ROLL OUT, THE CREW STARTED THE APU, THE APU GEN CAME ON LINE AND THEN FAILED. THE CREW TRIED A RESET WITH NO LUCK SO KEPT RT ENGINE RUNNING AND SHUTDOWN THE APU. BY THIS TIME THE ACFT WAS ON PARKING BAY AND PASSENGERS WERE GETTING OFF. THERE WAS A BAGGAGE BAY

SMOKE WARNING SO THE CREW SHUTDOWN THE ENGINE AND SECURED THE ACFT. MRP/ME TRAVELED AND DISCOVERED BURNED CARDS IN THE ACPC.

---

<a href="#">CA090609001</a>	BOMBDR	PWC	GENERATOR	FAILED
6/9/2009	DHC8400	PW150A	11522185	NR 2 AC

(CAN) NR 2 AC GENERATOR CAUTION LIGHT CAME DURING TAKEOFF ROLL. FLIGHT CREW ABORTED TAKEOFF AND RETURNED TO DEPARTURE GATE. AC GEN WOULD NOT RESET DURING TAXI BACK TO GATE. MX REPLACED THE AC GENERATOR AND ACFT RETURNED TO SERVICE.

---

<a href="#">CA090604001</a>	BOMBDR	PWC	SEQUENCE VALVE	INOPERATIVE
6/2/2009	DHC8400	PW150A	483026	MLG

(CAN) FLIGHT CREW REPORTED THE N. DOOR ADVISORY LIGHT REMAIN ON AFTER GEAR RETRACTION. CREW ELECTED TO CONTINUE THE SHORT FLIGHT. PERFORMED AN ALTERNATE EXTENSION FOR LANDING. MX FOUND NGDRCL UNREASONABLE FAR FAULT. THE FAULT WAS DUPLICATED ON JACKS AND THE NG DOORS CLOSED AFTER TAPPING ON THE SOLENOID SEQUENCE VALVE. THE SSV WAS REPLACED AND ACFT RETURNED TO SERVICE.

---

<a href="#">CA090604003</a>	BOMBDR	PWC	FADEC	FAULTED
5/20/2009	DHC8400	PW150A	8193007009	NR 1

(CAN) FLIGHT CREW REPORTED NR 1 ENGINE FADEC FAIL WARNING LIGHT ILLUMINATED. DURING DESCENT AND THE ENGINE ROLLED BACK TO IDLE. QRH PROCEDURES FOLLOWED AND ENGINE WAS SHUTDOWN. LANDED SAFELY WITHOUT INCIDENT. MX FOUND FADEC FAULTS 911 AND 360 ON BOTH CHANNELS OF NR1 ENG. THE FADEC WAS REPLACED AND ACFT RETURNED TO SERVICE.

---

<a href="#">CA090529003</a>	BOMBDR	PWA	FUEL TANK	LEAKING
5/29/2009	DHC8402	PW123D		LT WING

(CAN) AFTER COMPLETING A ROUTINE INSP OF THE LT WING FUEL TANK AND IN PREPARING THE FUEL TANKS FOR CLOSING, CLEANING WAS BEING ACCOMPLISHED USING AIRVACS. IT WAS NOTICED THAT THE PRC (SEALANT) ON THE BOTTOM OF THE TANKS WOULD SMEAR AND LOOSEN AS IT VACUUMED OVER. UPON INVESTIGATION BY PHYSICALLY TOUCHING THE PRC IT WAS DETERMINED THAT THE PRC WAS NOT FULLY CURED. THE REMAINING LT WING TANKS WERE CHECKED BY TOUCHING THE PRC EVERY FOOT OR SO AND NONE OF IT WAS FULLY CURED. THE RT WING WAS INSPECTED AS WELL WITH THE SAME SITUATION NOTED. A FUEL LEAK AS ALSO BEEN DISCOVERED IN THE LT WING AUX TANK. IN DISCUSSION WITH THE CUSTOMER NO SIGNIFICANT FUEL TANK MX HAS BEEN ACCOMPLISHED ON THE ACFT SINCE MFG. AS SUCH, IT IS FIRMLY BELIEVED THAT THIS IS THE FACTORY APPLIED PRC IN THE TANKS.

---

<a href="#">CA090528001</a>	BOMBDR	PWC	LINE	LEAKING
5/25/2009	DHC8402	PW150A	82910425003	HYD SYSTEM

(CAN) ON CLIMB-OUT, ABOUT THE TIME GEAR WAS RETRACTED, AN ACRID ODOR FILLED THE FLIGHT DECK, LASTED 15-30 SECONDS. BOTH PILOTS STARTED COUGHING AND RUNNY EYES, THEN THE AIR CLEARED. AFTER LANDING FA'S REPORTED EYE IRRITATION. FOUND PIN HOLE LEAK IN NLG RETRACT HYD LINE. REPAIRED NLG RETRACT LINE AND BULKHEAD FITTING JUST AFT OF PRESSURE BULKHEAD.

---

<a href="#">CA090515004</a>	BOMBDR	PWC	LINE	CHAFED
5/11/2009	DHC8402	PW150A		HYD SYSTEM

(CAN) ON 11-05-09 LQL (MSN 4249) REPORTED SMOKE IN THE CABIN AFTER LANDING. FOUND CABIN FILLED WITH A HYD FLUID MIST AND HYD FLUID DRIPPING FROM MOST OF THE FWD BELLY DRAINS. NR 2 HYD QUANTITY WAS DOWN TO 50 PERCENT, THE CREW SAID IT WAS AT 70 TO 75 PERCENT BEFORE THE LAST DEPARTURE. STARTED NR 2 ENGINE AND QUICKLY COULD SEE A HYD FLUID MIST COMING FROM UNDER SEATS 6CD. AFTER FURTHER INVESTIGATION IN THE HANGAR, FOUND THE OB RUDDER CABLE ON THE RT SIDE OF THE BELLY HAD PREVIOUSLY CHAFED THE NLG DOWN HYD TUBE TO A POINT THAT THE HYD FLUID WAS LEAKING THROUGH A PIN HOLE ONCE THE HYD PRESSURE WAS ABOVE 2000PSI. THE DAMAGED TUBE WAS CUT OUT AND REPLACED BY MFG. LEAK CHECK CARRIED OUT, NIL FINDINGS

---

<a href="#">CA090605009</a>	BRAERO	RROYCE	BOLT	BROKEN
6/1/2009	HS7482A	DART5342	1000021303	DOWNLOCK SWITCH
(CAN) BOLT THAT ACTUATED THE SWITCH FOR GEAR DOWN AND LOCKED, BROKE. THE BOLT BREAKING CAUSED THE MLG INDICATION TO SHOW IN TRANSIT AND THE MECHANICAL LANDING GEAR FLAG ARM TO BECOME DETACHED NOT SHOWING "DOWN AND LOCKED". THE GEAR WAS DOWN AND LOCKED.				
<a href="#">CA090519009</a>	BRAERO	RROYCE	OIL COOLER	LEAKING
5/17/2009	HS7482A	DART5342	RK35782A	RT ENGINE
(CAN) DURING THE CLIMB, RT ENGINE LOST OIL PRESSURE WITH ILLUMINATION OF THE WARNING LIGHT. THE CREW SHUTDOWN THE RT ENGINE AND RETURNED TO BASE. UPON INVESTIGATION BY MX, THE OIL COOLER WAS RUPTURED. THE OIL COOLER WAS REPLACED AND THE ENGINE RETURNED TO SERVICE.				
<a href="#">2009FA0000465</a>	CESSNA		TEE FITTING	CRACKED
5/1/2009	150F			
DURING COMPLIANCE OF AD 2004-19-06, DETECT AND CORRECT FATIGUE CRACKING OR CORROSION OF THE FAIL SAFE STRAPS (S/B 767-53A0100) A CRACK WAS FOUND IN BOTH SIDES. THE RT T-FITTING WAS CRACKED FROM THE FWD SIDE OF THE BOLT HOLE APPROXIMATELY 22 DEGREES ABOVE HORIZONTAL FROM THE BOLT HOLE. THE LT T-FITTING WAS CRACKED FROM THE AFT SIDE OF THE BOLT HOLE APPROX 22 DEGREES BELOW HORIZONTAL FROM THE BOLT HOLE. (K)				
<a href="#">CA090512007</a>	CESSNA	CONT	HINGE BRACKET	CRACKED
4/3/2009	172H	O300D	053101812	RUDDER
(CAN) DURING A ROUTINE INSP THERE WAS SOME PLAY FOUND IN RUDDER HINGES AND AFTER A CLEANING AND CLOSE VISUAL INSP THERE WAS A CRACK OBSERVED IN THE LWR HINGE BRACKETS BOTH THE UPPER AND LOWER BRACKETS PN 0531018-1 AND 0531018-2. THE BRACKETS WERE REPLACED AND THE RUDDER WAS REASSEMBLED.				
<a href="#">2009FA0000446</a>	CESSNA	LYC	STARTER	CRACKED
6/2/2009	172N	O320H2AD	PM2401H	ENGINE
PILOT REPORTED ENGINE WOULD NOT START. INSPECTION REVEALED STARTER BENDIX HOUSING CRACKED CIRCUMFERENTIALLY AND LONGITUDINALLY. CAUSE UNKNOWN.				
<a href="#">2009FA0000453</a>	CESSNA	LYC	BEARING	FAILED
4/10/2009	172N	O320H2AD	0523920	TE FLAP
LT OTBD AFT FLAP BEARING FAILURE. THIS CAUSED FLAP TO SEIZE ON OTBD TRACK ON FLAP RETRACTION, WHICH DISTORTED FLAP AND CAUSED RETRACTION CABLE TO BREAK. CAREFUL INSPECTION OF FLAP TRACKS FOR ABNORMAL WEAR AND INSPECTION OF ROLLERS COULD PREVENT RECURRENCE. (K)				
<a href="#">2009FA0000506</a>	CESSNA	LYC	CARBURETOR	LOOSE
6/8/2009	172P	O320D2J	105217	ENGINE
THE CARBURETOR HALVES ARE BECOMING LOOSE DUE TO THE IMPROPER INSTALLATION OF THE LOCKTAB WASHERS AT OVERHAUL. THE LOCKTABS ARE BENT DOWN ON THE "TIGHTEN" SIDE OF THE CORNERS OF THE CARBURETOR WHICH ALLOWS THE BOLTS TO LOOSEN APPROX .2500 TURN WITHOUT DISTURBING THE LOCKTAB RETAINERS. THIS IS IDENTIFIED BY VISUAL INSPECTION OR POOR, ERRATIC IDLING, INCREASED IDLE RPM, OR INCOMPLETE ENGINE SHUTDOWN WITH MIXTURE CONTROL.				
<a href="#">2009FA0000505</a>	CESSNA	LYC	ACTUATOR	CRACKED
5/20/2009	172RG	O360F1A6	98820152	MLG
DURING OCCURRENCE THE BODY OF THE MLG ACTUATOR HAS CRACKED AT THE UPPER PORTION OF THE GEAR CAVITY OR THE BOLT HOLES. THE ACTUATOR BODY (-10) IS CONSTRUCTED FROM ALUMINUM WHILE THE PISTON/TRUNNION (-5) AND THE PISTON ROLLER (-11) ARE STEEL. CONSIDERING THE OPERATIONAL CHARACTERISTICS OF THE SYS THERE SEEMS TO BE A TORQUE LOAD BEING APPLIED TO THE BODY DURING LANDING. AS A RESULT THE ACTUATOR BODY IS CRACKING AT THE ATTACH POINT BOLT HOLES.				

[2009FA0000437](#) CESSNA CABLE FRAYED  
5/27/2009 172S 0510105362 AILERON BALANCE

THE OPERATOR HAS A FLEET OF 172S AIRCRAFT. THIS IS A COMMON CONDITION. THIS AILERON CABLE WAS WORN BADLY AT THE CENTER OF THE CABIN ROOF, WHERE IS PASSES THROUGH A PULLEY. THERE WERE MANY STRANDS WORN AND SEVERAL BROKEN STRANDS.

[2009FA0000434](#) CESSNA CONTROL CABLE FRAYED  
5/27/2009 172S 0510105362 ZONE 600

THIS AILERON CABLE WAS WORN BADLY AT WS 71.125 AND 100.50 . THERE WERE MANY STRANDS WORN AND SEVERAL BROKEN STRANDS.

[2009FA0000433](#) CESSNA CESSNA CONTROL CABLE FRAYED  
5/27/2009 172S 0510105364 ZONE 500

THIS AILERON CABLE WAS WORN BADLY AT THE CENTER OF THE CABIN ROOF, WHERE IS PASSES THROUGH A PULLEY. THERE WERE MANY STRANDS WORN AND SEVERAL BROKEN STRANDS.

[2009FA0000436](#) CESSNA CONTROL CABLE FRAYED  
5/27/2009 172S 0510105364 AILERONS

THIS AILERON CABLE WAS WORN BADLY AT THE CENTER OF THE CABIN ROOF WHERE IS PASSES THROUGH A PULLEY. THERE WERE MANY STRANDS WORN AND SEVERAL BROKEN STRANDS.

[2009FA0000511](#) CESSNA TUBE CUT  
6/5/2009 172S 500X5 NLG TIRE

ON TAKE-OFF ROLL NOSE TIRE TUBE FAILED. MX FOUND CUT IN TUBE.

[ZB0R20090001](#) CESSNA STARTER FAILED  
6/8/2009 172S 149NL ZONE 400

PILOT ATTEMPTED ENGINE START. STARTER WOULD NOT ENGAGE. BYSTANDER REPORTED TO PILOT HE SAW SPARKS FROM UNDER THE COWL. PILOT WAS UNABLE TO TURN OFF ELECTRICAL POWER TO ACFT. MASTER SWITCH OPERATED, BUT POWER REMAINED ON. ACFT TAKEN TO MX. INSP REVEALED STARTER MOTOR MELTED IN 2 SPOTS, REVEALING INTERNAL WORKINGS OF MOTOR. FURTHER TROUBLESHOOTING REVEALED STARTER CONTACTOR WELDED CLOSED AND MASTER POWER CONTACTOR WELDED CLOSED. REPLACED STARTER AND BOTH CONTACTORS. INSPECTED WIRING - NO DEFECTS NOTED. GROUND RUN FOR SYSTEMS CK WAS GOOD. ACFT RETURNED TO SERVICE.

[2009FA0000435](#) CESSNA LYC CONTROL CABLE FRAYED  
5/27/2009 172S IO360L2A 0510105364 AILERON

THIS AILERON CABLE WAS WORN BADLY AT THE CENTER OF THE CABIN ROOF, WHERE IS PASSES THROUGH A PULLEY. THERE WERE MANY STRANDS WORN AND SEVERAL BROKEN STRANDS.

[2009FA0000427](#) CESSNA LYC CYLINDER FAILED  
5/21/2009 172S IO360L2A AEL65102 ENGINE

PILOT WAS TAKING OFF. THEY HEARD A LOUD BANG. ENGINE LOST POWER AND VIBRATED. PILOT TURNED AIRCRAFT AROUND AND LANDED PLANE ON RUNWAY. SHUT DOWN ENGINE AFTER LANDING. FOUND NR 1 CYLINDER BLOWN. THREE QTS OF OIL STILL IN ENGINE. CYLINDER IS AN ECI CYLINDER. IT DOES NOT APPLY TO AD 08-19-05 DUE TO THE SERIAL NUMBER BEING OUT OF RANGE AS CALLED OUT BY THE AD. THIS IS THE SECOND BLOWN ECI CYLINDER WE HAVE HAD THAT IS OUT OF THE SERIAL NR RANGE OF THE AD. I RECOMMEND THAT A REVISION BE MADE TO AD 08-19-05 THAT WILL COMPRISE OF A WIDER CYLINDER ASSY SERIAL NR RANGE.

[2009FA0000452](#) CESSNA TUBE SPLIT  
4/24/2009 182P 500X2 NLG TIRE

SPLIT IN SIDE OF NOSE WHEEL TUBE CAUSING FLAT TIRE. THIS SEEMS TO BE A PROBLEM WITH SYNTHETIC

## TUBES. (K)

<a href="#">2009FA0000432</a>	CESSNA	CONT	RIB	CRACKED
5/27/2009	182Q	O470*		ELEVATOR
ACFT EQUIPPED WITH STOL CANARDS. FOUND BOTH INBD CANARD ELEVATOR RIBS CRACKED AT ALL BOLT HOLES. BOTH ELEVATORS RETURNED TO MFG FOR MODIFICATIONS AND REPAIRS.				
<a href="#">2009FA0000467</a>	CESSNA	CONT	TUBE	SEPARATED
5/1/2009	182R	O470U		VACUUM SYSTEM
A SIGNIFICANT PROBLEM OCCURRED IN THE FUEL INDUCTION SYSTEM, WHERE A RUBBER INTAKE TUBE CONNECTS THE INTAKE MANIFOLD TO THE FUEL INDUCTION RAIL. SHORTLY AFTER A FLIGHT WHERE ENTIRELY NORMAL OPERATION WAS EXPERIENCED, ENGINE RESTART COULD NOT BE ACCOMPLISHED. THE RUBBER TUBE WAS FOUND TO BE FULLY SEPARATED FROM THE INTAKE MANIFOLD, CAUSING A LARGE VACUUM LEAK ( DOWNSTREAM OF THE CARBURETOR) AND RENDERING THE ENGINE INOPERABLE. THE PROBABLE CAUSE IS INCORRECT INSTALLATION OF THE RUBBER TUBE AT ENGINE O/H, 262 HR PREVIOUSLY. THE FAILED CONNECTION WAS BETWEEN THE Y-SHAPED INTAKE MANIFOLD AND THE FUEL RAIL ON THE RT SIDE. THIS COULD RESULT FROM FAILING TO FORCE THE RUBBER TUBE FAR ENOUGH ONTO THE MANIFOLD TUBE OR FAILING TO SEAT THE HOSE CLAMP FAR ENOUGH IN FROM THE END OF THE MANIFOLD TUBE. A POSSIBLE CAUSE IS THAT THE CLAMP OR HOSE WORKED LOOSE IN NORMAL OPERATION. THE CONSEQUENCES OF THIS FAILURE WOULD HAVE BEEN MUCH MORE SERIOUS IF THE SEPARATION HAD OCCURRED IN FLIGHT, WHICH PRESUMABLY WOULD HAVE CAUSED A COMPLETE POWER LOSS. (K)				
<a href="#">2009FA0000480</a>	CESSNA	CONT	PISTON	FAILED
4/17/2009	182R	O470U	ACE	ENGINE
CYLINDER NR 2 PISTON SKIRT BROKE FROM THE PISTON AND CREATED A METAL CONTAMINATION IN THE ENGINE. (K)				
<a href="#">2009FA0000476</a>	CESSNA		STRUT	FAILED
6/3/2009	206H		12411172	ZONE 700
RT MAIN GEAR SPRING STRUT HAD A CATASTOPHIC FAILURE. THE STRUT BROKE IN HALF APPROX 2 INCHES ABOVE THE BRAKE LINE ATTACH BRACKET. THE ACFT WAS PARKED IN THE HANGAR AND NO PERSONNEL WERE AROUND OR PRESENT WHEN THIS OCCURED. THE RT WING TIP CONTACTED THE HANGAR FLOOR WITH ENOUGH FORCE TO WRINKLE THE TOP OF THE WING AND DAMAGE THE RT AILERON. THE RT HORIZ STABILIZER CONTACTED THE HANGAR FLOOR AND SUFFERED EXTENSIVE DAMAGE TO IT AND THE ELEVATOR. IF THIS FAILURE WOULD HAVE OCCURED DURING TAXI, TAKEOFF OR LANDING IT COULD HAVE RESULTED IN LOSS OF LIFE.				
<a href="#">CA090522003</a>	CESSNA	CONT	ATTACH FITTING	CRACKED
5/19/2009	207A	IO520F	12320131	HORIZONTAL STAB
(CAN) WHILE PERFORMING A ROUTINE 50 HOUR INSP, IT WAS NOTICED THAT THERE WAS EXCESSIVE VERTICAL MOVEMENT ON THE RT SIDE OF THE HORIZONTAL STABILIZER. UPON FURTHER INVESTIGATION, THE RT FWD ATTACH FITTING WAS FOUND CRACKED COMPLETELY THROUGH, JUST BELOW THE BOLT HOLE. REPLACED BRACKET PN-1232013-1, ACFT RETURNED TO SERVICE.				
<a href="#">2009FA0000448</a>	CESSNA		CHECK VALVE	FAILED
4/24/2009	208		99120711	UNKNOWN
UPON INTERNAL INSP OF HEADER TANK FOUND SWING CHECK VALVES FRAGMENTING AND FALLING OFF PARENT MATERIAL. REPLACED ALL SWING VALVES WITH NEW AND CLEANED INTERNAL HEADER TANK. (K)				
<a href="#">CA090508005</a>	CESSNA	PWA	FCU	FAILED
5/7/2009	208B	PT6A114A	32448973	ENGINE
(CAN) DURING START FUEL FLOW CAME UP TO 120 PPH THEN BECAME ERRATIC FLUCTUATING BETWEEN 100 PPH AND 300 PPH THEN WENT TO 0 PPH. ENG SHUTDOWN NORMALLY. FCU INSTALLED AND DURING POST INSTALL GROUND RUNS THE ENGINE WAS HARD TO START AND WOULD FLAMEOUT. CHECKED AND ADJUSTED				

THE MIN FLOW FROM 35 TO 48 PERCENT NG. AND THE LOW IDLE ADJUSTED TO 53 PERCENT NG. GROUND RUN COMPLETED SATISFACTORY.

---

<a href="#">2009FA0000510</a>	CESSNA	CONT	AIR FILTER	DEFECTIVE
6/9/2009	337H	IO360*	P107736	

UPON RECEIVING INSP OF NEW MFG AIR FILTERS PN P107336 IT WAS FOUND THAT 3 OUT OF 4 NEW FILTERS HAD A DEFECTIVE SEALING SURFACE CAUSING THE SEALING/MATING SURFACE TO CRACK AND CRUMBLE. THIS DEFECTIVE SEALING SURFACE COULD POTENTIALY ENTER THE ENGINE INLET. THE DEFECTIVE FILTERS HAVE A LIGHT GREY COLOR TO THE SEALING SURFACE. THE REPLACEMENT FILTERS THAT WERE LATER RECEIVED, INSPECTED, AND FOUND TO BE IN SERVICEABLE CONDITION HAD A DARK GREY ALMOST BLACK SEALING SURFACE. SUSPECT THAT THE DEFECTIVE FILTERS HAD IMPROPER MATERIAL ON THE SEALING SURFACE OR WAS IMPROPERLY CURED.

---

<a href="#">CA090520003</a>	CESSNA	CONT	CRANKCASE	CRACKED
5/20/2009	401B	TSIO520EB	643202	ENGINE

(CAN) AN OIL LEAK WAS NOTED ON THE LT ENGINE. A CRACK WAS FOUND IN THE RT CRANKCASE HALF. THE CRACK WAS LOCATED AFT OF THE ALTERNATOR, FWD OF THE NR 5 CYL, 7TH STUD. THE ENGINE WAS REMOVED FOR REPAIR.

---

<a href="#">CA090513004</a>	CESSNA	CONT	GEAR	STRIPPED
5/13/2009	402C	TSIO520VB		LANDING LIGHT

(CAN) LANDING LIGHT FAILED TO EXTEND. MX INSPECTED UNIT AND FOUND GEARS STRIPPED.

---

<a href="#">2009FA0000483</a>	CESSNA		LINE	CRACKED
5/27/2009	404			HYDRAULIC SYS

HYDRAULIC FLUID DEPLETION HAVE OCCURRED. (TWO WERE FLAP FAILURE TO EXTEND AND ONE THE LANDING GEAR HAD TO BE EXTENDED USING THE EMERGENCY EXTENSION SYS. THESE FAILURES WERE CAUSED BY A CRACK AND LEAK FORMING IN A .3750 ALUM ALLOY HYDRAULIC LINE AT A BEND RADII. NOTE: (1ST) THE CRACKS FORMED AT A BEND THAT WERE AT THE INDUSTRY MIN RECOMMENDED RADII FOR TUBING. (2ND) THESE CRACKS FORMED AT WHAT LOOKED AS A MINOR TOOL DIE MARK OR STRESSED AREA IN THE BEND RADII. RECOMMEND ACFT HAVE ALL THE HYDRAULIC LINES INSPECTED BY REMOVING THE PAINT AT ANY BEND RADII ON HYDRAULIC LINE THAT LOOKS TO BE AT THE MINIMUM BEND RADII FOR ANY TOOLING DIE AND STRESS MARKS AND REPLACE THAT LINE. ANY LINE THAT APPEARS TO BE UNDER THE MIN BEND RADII SHOULD BE REPLACED. (K)

---

<a href="#">2009FA0000438</a>	CESSNA	CONT	BOLT	SHEARED
3/30/2009	421B	GTSIO520H	ECC721CN	ROCKER

DURING FUEL SYSTEM SETUP, SEVERE OIL LEAK WAS OBSERVED WHICH NECESSITATED UBRUPT SHUTDOWN. UPON FURTHER INSPECTION A HOLE WAS DISCOVERED IN TOP OF NR 4 EXHAUST ROCKER COVER. WHEN COVER WAS REMOVED IT WAS FOUND THAT ROCKER SHAFT RETAINING BOLT HAD SHEARED AT THE HEAD AND DROPPED DOWN AND WAS PUSHED OUT THROUGHT THE ROCKER COVER. CUTTING OPEN OIL FILTER FOUND SUBSTATIAL METAL INGESTION. ENGINE REMOVED FROM SERVICE. ENGINE OVERHAULED AT 827.6 HOURS AND 88 HOURS SINCE OVERHAULED CYLINDER INSTALLED.

---

<a href="#">2009FA0000481</a>	CESSNA		LINE	CRACKED
5/27/2009	441			HYD SYSTEM

HYDRAULIC FLUID DEPLETION HAVE OCCURRED. (TWO WERE FLAP FAILURE TO EXTEND AND ONE THE LANDING GEAR HAD TO BE EXTENDED USING THE EMERGENCY EXTENSION SYS. THESE FAILURES WERE CAUSED BY A CRACK AND LEAK FORMING IN A .3750 ALUM ALLOY HYDRAULIC LINE AT A BEND RADII. NOTE: (1ST) THE CRACKS FORMED AT A BEND THAT WERE AT THE INDUSTRY MIN RECOMMENDED RADII FOR TUBING. (2ND) THESE CRACKS FORMED AT WHAT LOOKED AS A MINOR TOOL DIE MARK OR STRESSED AREA IN THE BEND RADII. RECOMMEND ACFT HAVE ALL THE HYDRAULIC LINES INSPECTED BY REMOVING THE PAINT AT ANY BEND RADII ON HYDRAULIC LINE THAT LOOKS TO BE AT THE MINIMUM BEND RADII FOR ANY TOOLING DIE AND STRESS MARKS AND REPLACE THAT LINE. ANY LINE THAT APPEARS TO BE UNDER THE MIN BEND RADII SHOULD BE REPLACED. (K)

---

<a href="#">2009FA0000482</a>	CESSNA		LINE	CRACKED
5/27/2009	441			HYDRAULIC SYS
HYDRAULIC FLUID DEPLETION HAVE OCCURRED. (TWO WERE FLAP FAILURE TO EXTEND AND ONE THE LANDING GEAR HAD TO BE EXTENDED USING THE EMERGENCY EXTENSION SYS. THESE FAILURES WERE CAUSED BY A CRACK AND LEAK FORMING IN A .3750 ALUM ALLOY HYDRAULIC LINE AT A BEND RADII. NOTE: (1ST) THE CRACKS FORMED AT A BEND THAT WERE AT THE INDUSTRY MIN RECOMMENDED RADII FOR TUBING. (2ND) THESE CRACKS FORMED AT WHAT LOOKED AS A MINOR TOOL DIE MARK OR STRESSED AREA IN THE BEND RADII. RECOMMEND ACFT HAVE ALL THE HYDRAULIC LINES INSPECTED BY REMOVING THE PAINT AT ANY BEND RADII ON HYDRAULIC LINE THAT LOOKS TO BE AT THE MINIMUM BEND RADII FOR ANY TOOLING DIE AND STRESS MARKS AND REPLACE THAT LINE. ANY LINE THAT APPEARS TO BE UNDER THE MIN BEND RADII SHOULD BE REPLACED. (K)				
<a href="#">2009FA0000501</a>	CESSNA		ADC	FAILED
5/14/2009	501		24471	
AT APPROX 7:30 PM WE BEGAN A DESCENT OUT OF FL420 FOR OUR ARRIVAL. OUTSIDE AIR TEMP WAS AS LOW AS -46 C AT ALTITUDE FOR 2 HOURS. AT FL340 WE GOT THE YELLOW AMBER ENUCIATOR LIGHT JUST ABOVE THE PFD ILLUMINATING "AIU FAIL". OUTSIDE AIR TEMP WAS -31 C. IMMEDIATELY WE LOST THE IAS AND ALT DATA OF THE PFD. THE AUTO PILOT DID NOT DISCONNECT. THIS OUTAGE LASTED APPROX 2 MINUTES AS WE CONTINUED DESCENDING. THE AIU FAIL LIGHT FINALLY EXTINGUISHED. AT 3 HOURS AND 2 MINUTES INTO THE FLIGHT THE PFD FAILED AGAIN FOR APPROX 20 SECONDS. OUTSIDE AIR TEMP WAS +3 C. SAME SCENARIO. AP DID NOT DISCONNECT ALTHOUGH BELIEVE WE LOST THE ALT CAP ARMED MODE AND HAD TO RE-ARM ALT CAPTURE BOTH TIMES. (K)				
<a href="#">2009FA0000439</a>	CESSNA	WILINT	BRACKET	MISINSTALLED
5/28/2009	525B	FJ443A	73766	
ENGINE WAS RETURNED FOR HOT SECTION MX. DURING THIS MX ACTION, IT WAS DISCOVERED THAT THE INTERSTAGE HOUSING DAMPENERS WERE NOT INSTALLED CORRECTLY. THE DAMPENERS WERE INSTALLED ON TOP OF THE SPACERS BETWEEN THE SPACER AND NUT, RATHER THAN THE BOTTOM OF THE SPACER BETWEEN THE SPACER AND NR 2 HOUSING. THE INTERSTAGE HOUSING WAS FLUORESCENT PENETRANT INSPECTED WITH NO DEFECT NOTED.				
<a href="#">CA090609005</a>	CESSNA	PWA	UNLOCK HOOK	OUT OF ADJUST
6/5/2009	550	JT15D4		NOSE GEAR
(CAN) PILOT REPORTED AFTER GEAR RETRACTION THE HYD PRESSURE ON LIGHT REMAINED ON AND THE GEAR UNSAFE LIGHT REMAINED ON. MX FOUND THE NOSE GEAR UNLOCK HOOK OUT OF ADJUSTMENT. THE NOSE GEAR UNLOCK HOOK AND CABLE WERE READJUSTED FOR CORRECT OPERATION.				
<a href="#">CA090514006</a>	CESSNA	CONT	RETAINER	CRACKED
5/14/2009	R172K	IO360KB	631996	NR 1 INTAKE
(CAN) NR 1 CYLINDER INTAKE ROCKER RETAINER WAS FOUND CRACKED.				
<a href="#">CA090506011</a>	CESSNA	LYC	LINE	CLOGGED
5/6/2009	R182	O540J3C5		PRESSURE IND
(CAN) MANIFOLD PRESSURE STOCK AT 23 INC WHILE REDUCING FOR CRUISE SETTING, PILOT RETURN TO BASE. INSPECTION REVEAL DIRT IN MANIFOLD PRESSURE LINE AND INSTRUMENT ORIFICE. INSTRUMENT SENT TO APPROVED SHOP FOR REPAIR.				
<a href="#">CA090506006</a>	CESSNA	LYC	CLAMP	FAILED
4/24/2009	T206H	TIO540AJ1A	NH100089740	TURBOCHARGER
(CAN) TURBO TURBINE FLANGE EXHAUST V-BAND CLAMP FAILED AT T-BOLT CLAMPING SUPPORT. (CLAMP FAILED) FOUND ON WALKAROUND - PREFLIGHT INSPECTION A/C TTSN 2537.2 CLAMP SUSPECTED TTSN 2537.2				
<a href="#">CA090505009</a>	CESSNA	LYC	PIN	SPLIT
7/22/2008	T206H	TIO540AJ1A	NAS561P46	RT DOOR ASSY

(CAN) REAR CARGO/PAX DOOR SPLIT PIN, PN NAS561P4-6, FOUND TO HAVE BACKED OUT OF RT DOOR BOLT, PN 1211942-2, WHICH RELEASED PUSH ROD, PN 1511209-11, WHICH DISABLED THE DOOR OPENING AND CLOSING FUNCTION. IN THE EVENT OF AN ACFT INCIDENT/ACCIDENT, WITH THE ACFT ENDING UP ON IT'S LT SIDE, THE ACFT OCCUPANTS WOULD HAVE NOT BEEN ABLE TO EXIT THE ACFT THROUGH THE RT DOOR, AND WOULD HAVE THE FORCE AN EXIT THROUGH A WINDOW. NEW PIN INSTALLED AND SECURED WITH LOCK WIRE.

---

<a href="#">CA090601005</a>	CESSNA	CONT	CYLINDER HEAD	CRACKED
5/7/2009	U206E	IO520F	TIST712ACA	ENGINE

(CAN) FOUND 4 CYLINDERS CRACKED HEAD AT INJECTOR NOZZLE AREA.

---

<a href="#">2009FA0000442</a>	CIRRUS	CONT	STARTER	DAMAGED
2/18/2009	SR22	IO550*		ENGINE

STARTER ADAPTER FAILURE 3 TIMES SINCE BUYING THE ACFT NEW IN NOV 02. THE MFG SUPPLIED STARTER DOES NOT RELEASE THE STARTER ADAPTER AFTER START UP CAUSING DAMAGE TO THE ADAPTER. FAILURE IS NOTED AS THE STARTER FAILS TO TURN THE PROP BUT THE SOUND OF THE STARTER FUNCTIONING IS AUDIBLE. THIS IS AN ONGOING ISSUE AND HAS BEEN REPORTED BY NUMEROUS ACFT OWNERS.

---

<a href="#">2009FA0000443</a>	CIRRUS	CONT	WIRE	LOOSE
9/12/2007	SR22	IO550*		ROLL TRIM ACT

ROLL TRIM ACTUATOR HAS MALFUNCTIONED ON 3 OCCASSIONS SINCE BUYING ACFT NEW IN 02. IN EACH CASE THE WIRES LEADING TO THE ELECTRIC MOTOR HAD COME LOOSE CAUSING THE TRIM ACTUATOR TO HOLD FULL LTAILERON. WITHOUT OVERPOWERING THE UNIT A FATAL CRASH WOULD HAVE RESULTED.

---

<a href="#">2009FA0000490</a>	CIRRUS	CONT	STARTER	DEFECTIVE
6/7/2009	SR22	IO550N	656181	ENGINE

STARTER ADAPTER FAILED DUE TO STARTER STAYING ENGAGED AFTER ENGINE STARTED.

---

<a href="#">2009FA0000491</a>	CIRRUS	CONT	ADAPTER	DEFECTIVE
2/1/2008	SR22	IO550N		STARTER

STARTER ADAPTER FAILED DUE TO STARTER STAYING ENGAGED AFTER ENGINE HAD STARTED.

---

<a href="#">CA090507011</a>	CIRRUS	CONT	INJECTOR	FAILED
4/28/2009	SR22	IO550N	6576682234	NR 2 CYLINDER

(CAN) WHILE REMOVING NR2 CYLINDER INJECTOR NOZZLE FOR 300 HR CLEANING, THE PART IN QUESTION WAS FOUND TO SHEAR AT THE CYLINDER UPON REMOVAL ATTEMPT. THIS IS THE SECOND SUCH FAILURE OF THIS TYPE ON THIS ENGINE IN RECENT MONTHS. DUE TO SUSPICION OF OTHER NOZZLES FAILING, ALL 6 NOZZLES WERE REPLACED WITH NEW AT THIS TIME.

---

<a href="#">CA090527001</a>	CNDAIR	PWA	SPARK PLUG	DEFECTIVE
5/26/2009	CL2151A10	CWASP	R2800CA3	ENGINE

(CAN) WHILE IN FLIGHT THE RT ENG BEGANS BACKFIRING WITH LOSS OF POWER. AS IAW COMPANY PROCEDURES THE ENG WAS SHUTDOWN AND THE PROP FEATHERED. EMERGENCY PROCEDURE DECLARED, ACFT RETURNED TO MX FACILITY. AFTER INVESTIGATION WE FOUND THE FRONT SPARK PLUG ON CYLINDER NR15 DEFECTIVE. SPARK PLUG REPLACED AND ACFT BACK TO SERVICE.

---

<a href="#">CA090609002</a>	CNDAIR		DOOR	CORRODED
4/16/2009	CL2156B11215		215T3350617	WATER DOOR

(CAN) CUSTOMER ADVISED US ABOUT A CORROSION PROBLEM THEY HAVE WITH THE WATER DOORS HAVING SB 215-4290 (INSTALLATION OF WATER DOOR STOP PROTECTIVE COVERS) INSTALLED DUE TO SALT WATER INGRESS BETWEEN COVER PLATES AND WATER DOOR STRUCTURE.

---

<a href="#">CA090512009</a>	CNDAIR		WIRE	DAMAGED
4/23/2009	CL6002B19		756654A	ADG

(CAN) DURING OF IN-FLIGHT DEPLOYMENT OF ADG (TASK 000-24-220-701) PILOT NOTED THAT ADG DID NOT CONNECTED WITH ESS TRU 1. AFTER INVESTIGATION FOUND THAT WIRE XC1A10AWHT BEING SHORTED TO HOLDING CLAMP. ISOLATION OF THE CLAMP WAS PARTIALLY DESTROYED. ADG HAVE BEEN REPLACED DUE TO BADLY DAMAGED COIL. LOCATION OF WIRE DAMAGED IS FS 220.00 WL 79.00 OF FUSELAGE RT SIDE.

---

<a href="#">CA090525006</a>	CNDAIR	GE	COWLING	DEPARTED
2/26/2009	CL6002B19	CF343A	22850080801	

(CAN) OPERATOR REPORTED THE FOLLOWING TO MFG: DURING A PASSENGER FLIGHT THE LT UPPER ENGINE COWL ACCESS PANEL (PN 228-50080-801) DEPARTED THE ACFT DURING FLIGHT. THE INCIDENT PANEL WAS REMOVED FOR MX ON THE THRUST REVERSER THE NIGHT PRIOR TO THE INCIDENT FLIGHT. ADDITIONAL INFO PROVIDED MFG AFTER TALKING TO THE OPERATOR: NO ONE WAS INJURED AS A RESULT OF THIS INCIDENT. THE OPERATOR CANNOT CONFIRM THAT ALL FASTENERS ON THE INCIDENT ACCESS PANEL WERE SECURED PRIOR TO THE INCIDENT FLIGHT. NO DAMAGE TO THE FASTENER RECEPTACLES ON THE ENG WAS FOUND AFTER INCIDENT FLIGHT. THE OPERATOR HAS CONFIRMED THAT A DUAL INSP (AS RECOMMENDED BY MM) AND SB CF34-NAC-71-044 (WARNING DECALS ON THE ENGINE COWL ACCESS PANELS TO SECURE ALL FASTENERS) WERE NOT EMBODIED INTO THE ACFT MX. THE OPERATOR HAS NOW EMBODIED THE DUAL INSP AND SB INTO THE ACFT MX FOR THEIR FLEET. THIS INCIDENT BRINGS THE TOTAL OF ENGINE ACCESS COWL DEPARTURES DURING FLIGHT TO 38 FOR THE CF-34 POWERPLANT.

---

<a href="#">CA090513006</a>	CNDAIR	GE	HANDLE	SEIZED
5/13/2009	CL6002B19	CF343A1		LANDING GEAR

(CAN) LANDING GEAR MANUAL RELEASE HANDLE ASSY STUCK IN THE "PULLED" POSITION DURING A LANDING ALTERNATE GEAR EXTENSION CHECK. THE ACFT WAS IN THE HANGAR FOR A HEAVY MX INSP. THE HANDLE ASSY (PN 2605890-001) WAS REPLACED. THE NEW HANDLE WAS ALSO FOUND STIFF BUT FUNCTIONAL. WE CONTACTED THE MFG OF THE HANDLE ASSY WITH THE INFORMATION TO INQUIRE IF THE HANDLE ASSY REQUIRED ANY SPECIAL LUBRICANT. INFORMED BY THEM THAT NO LUBRICANT IS TO BE USED.

---

<a href="#">CA090514005</a>	CNDAIR	GE	BEARING	SEIZED
5/13/2009	CL6002B19	CF343B1	27295105	RT AILERON PCU

(CAN) DURING FUNCTION CHECKS AFTER A PCU REPLACEMENT, A BINDING NOISE WAS HEARD COMING FROM THE RT AILERON. THE RT AILERON PCU OUTPUT LINKS (PN 27295-5 IPC 27-14-01, FIG. 1-175A) WERE TAKEN APART. THE OTBD PCU OUTPUT LINK BRG WAS SEIZED SO THAT THE BOLT WAS ROTATING RATHER THAN THE BRG/BUSHING. (BUSHING PN 600-10300-670 IPC 27-14-01, FIG. 1-235, BOLT PN NAS6710DU23 IPC 27-14-01, FIG. 1-240, BRG PN 27295-105 IPC 27-14-01, FIG. 1-185). BOTH OF THE PCU OUTPUT LINKS AND THE HARDWARE WERE REPLACED.

---

<a href="#">CA090521004</a>	CNDAIR	GE	LINE	CHAFED
5/15/2009	CL6002B19	CF343B1	38834491	APU FUEL

(CAN) CREW REPORTED THAT THEY HAD AN OIL SMELL WHEN AIR CONDITIONING SYS WAS ON. APU AIR SUPPLY. TRAX DEFECT NR 846559 COMPLETED ON WO NR 191597 NR-001, APU FUEL LINE PN 3883449-1 (FCU TO NOZZLES) WAS FOUND CHAFED THRU DUE TO THE MIGRATION OF THE APU INLET BELLOWS RETAINING CLIP. PN 600-97024-9 (REF IPC 49-14-00 FIG NR 1 ITEM NR10. THIS TYPE OF DEFECT COULD POTENTIALLY OCCUR AGAIN DUE TO THE RETAINING CLIP HAS NOTHING TO SECURE IT FROM VIBRATING AROUND AND THE FUEL LINE IS SITUATED DIRECTLY AFT OF THE CLIP WITH A SEPARATION OF APPROX 1 INCH.

---

<a href="#">CA090502002</a>	CNDAIR	GE	ACTUATOR	DISCONNECTED
4/25/2009	CL6002B19	CF343B1	853D10019	TE FLAP

(CAN) THE LT OTBD FLAP SHOWS T/E DISTORTION. CONTACTED ACFT SERVICE TO INSPECT. AFTER INSP, LOCAL MX REPORTS LT FLAP LOOKS TWISTED. CAUSE IS PROBABLE ACTUATOR BROKEN. SLC MX INSPECTED FLAP. LOOKS LIKE NR3 OTBD ACTUATOR HAD FAILED AND TWISTED FLAP. SLC MX REPLACED THE LT NR3 ACTUATOR. OPS CHECK GOOD. ACFT IS TO FERRY TO SLC USING FLAPS 8. FLAP ACTUATOR 853D100-19 3540 INTERNAL DISCONNECT.

---

<a href="#">CA090502003</a>	CNDAIR	GE	APU	SMOKE
4/26/2009	CL6002B19	CF343B1	38004883	

(CAN) DURING TAXI OUT, COCKPIT BEGAN TO FILL WITH SMOKE SHORTLY AFTER, FLT CREW REPORTED APU OIL (C) MSG AND APU AUTO SHUTDOWN. COMPLIED WITH QRH AND RETURNED TO GATE. MX INSPECTED AND FOUND APU FAILED ALONG WITH CONTAMINATED COALESCER SOCKS. REMOVED AND REPLACED LT AND RT COALESCER SOCKS AND RAN BOTH PACKS AND REPORTED NO ABNORMAL ODORS. APU PLACED ON MEL AND ACFT RETURNED TO SERVICE. APU LATER REPLACED AND RAN BOTH ENGINES AND PACKS TWICE ON GROUND. NO FURTHER DEFECTS NOTED.

---

<a href="#">CA090502004</a>	CNDAIR	GE	ENGINE	SEIZED
4/26/2009	CL6002B19	CF343B1	38004883	APU

(CAN) ON CLIMB OUT, FLT CREW REPORTED TOILET SMOKE (W) MSG POSTED. COPLIED WITH QRH AND RETURNED TO DEPARTURE. TOILET SMOKE MSG EXTINGUISHED AFTER COMPLETION OF QRH CHECK. APU ASSY REPLACED AND OPS CHECKED. NO FUTHER DEFECTS NOTED. APU ASSY 3800488-3 P-1012 SEIZED.

---

<a href="#">CA090506010</a>	CNDAIR	GE	FCU	FAILED
5/5/2009	CL6002B19	CF343B1	601R9300193	TE FLAPS

(CAN) ON FLAP SELECTION FROM 20 TO 8 RECEIVED FLAP FAIL MESSAGE ON EICAS. CARRIED OUT UNSCHEDULED LANDING WITH 20 FLAP WITH NO FURTHER INCIDENT. FOUND FECU POWER LEDS AND RT PANEL LEDS ILLUMINATED ON SKEW DETECTION UNIT. RESET SDU AND FECU, CARRIED OUT OPS CK AND RETURNED ACFT TO SERVICE.

---

<a href="#">CA090527004</a>	CNDAIR	GE	WINDOW	FAILED
5/26/2009	CL6002B19	CF343B1	NP1393226	COCKPIT

(CAN) THE MSN 7190 IN ROUTE, EXPERIENCED THE RT WINDOW SHATTERING IN CRUISE. CREW COMPLIED WITH QRH AND MADE AN UNSCHEDULED LANDING.

---

<a href="#">CA090521002</a>	CNDAIR	GE	AILERON	CONTAMINATED
5/19/2009	CL6002C10	CF348C1		RIGHT

(CAN) CREW DECLARED EMERGENCY DUE TO LWD CAUTION AT FL 270 (RT AILERON JAMMED) FLIGHT DIVERTED BECAUSE OF AN AILERON JAM. DURING CLIMB TO FL270 MESSAGE "AP LWD" APPEARED - DISAPPEARED AND APPEARED SHORTLY AFTER AGAIN. CREW DISCONNECTED AUTOPILOT FOR CHECK OF AILERON. AILERON WAS ALMOST STUCK. AFTER PULLING ROLL DISCONNECT LT SIDE WAS NORMAL. CREW DECLARED EMERGENCY. RETURNED WITH PILOT CONTROLLED ROLL ON LT SIDE. MX PERFORMED AN ANTI-ICE RESIDUAL INSP ON LT AND RT WING AND AILERON. RT AILERON FOUND CONTAMINATED WITH RESIDUAL. DECONTAMINATION PERFORMED ON BOTH LT AND RT WINGS AND AILERONS. IN ADDITION ALL AILERON CABLES INSPECTED - NO FINDINGS.

---

<a href="#">CA090507001</a>	CNDAIR	GE	UNKNOWN	FAILED
5/3/2009	CL6002C10	CF348C5	900GC02Y01	

(CAN) UPON ENTERING ACFT FOR FIRST TIME, CREW NOTICED STRONG ODOR IN FRONT HALF AND FLIGHT DECK. MAIN BATTERY WAS ON WHEN CREW GOT TO THE ACFT, AC POWER WILL NOT ENGAGE, ALL GENERATOR COME ON LINE BUT WILL NOT POWER THE TRU'S. REPLACED BOTH DCPC'S WITH SERVICEABLE UNITS ALL CHECKS GOOD. LDCPC/RDCPC 900GC02Y01/920GC02Y01 404//391 FAILED AND BURNED MARK INTERNAL.

---

<a href="#">CA090502001</a>	CNDAIR	GE	CIRCUIT BREAKER	FAILED
4/25/2009	CL6002D24	CF348C1	MS220733	

(CAN) NR 2 ENG STARTED NORMALLY, DURING NR 1 START, EXPERIENCED A ENG HOT ICON WITH FADEC ABORT OF START. LOST AC ELECTRICAL POWER. NR 2 ENG & APU SHUTDOWN. ACFT TOWED BACK TO GATE. ACFT POWER SHUTDOWN. CREW REPORTED SYNOPTIC PAGE INDICATED AC BUSS 1 FAULTED. CB-N2 POPPED. F/A OBSERVED A FAINT ELECTRICAL ODOR IN CABIN, SAME ODOR EVIDENT IN COCKPIT. NR 2 CIRCUIT BREAKER RESET WITH EXT AC POWER. APU & NR 2 ENG STARTED. ANOTHER START ATTEMPT MADE ON NR 1 ENG. JUST PRIOR TO THE STARTER CUT OUT OF THE NR 1 ENG, L COWL A/I DUCT CAUTION MESSAGE BECAME EVIDENT. AT THE SAME TIME, STRONG ELECTRICAL ODOR. ENGINES SHUTDOWN & POWER REMOVED FROM THE ACFT. 3 POPPED CIRCUIT BREAKERS ON CPB2. FOUND EVIDENCE OF HIGH TEMP. ON CB'S & ASSOCIATED BUSS BAR DISCOLORED. NO DAMAGE NOTED TO WIRING OR ATTACHMENT LUGS, THE N3 CIRCUIT BREAKER SCREW FOUND LOOSE AT CB-N3 & BUSS BAR (NR250 AND NR255) INTERFACE.

---

<a href="#">CA090602002</a>	CNDAIR	GE	TRANSCEIVER	FAILED
5/27/2009	CL6002D24	CF348C5	8221115001	VHF COMM

(CAN) PILOT REPORTED RECEIVE FAILURE IN FLIGHT ON MAY 26, 2009. MX FUNCTION CHECK WAS PERFORMED, UNABLE TO DUPLICATE PROBLEM. RECEIVE PROBLEM REPORTED AGAIN ON MAY 27, 2009 AND PROBLEM VERIFIED. REPLACEMENT VHF COMM REMOVED FROM C-GSUW AND INSTALLED INTO ACFT. COMM FUNCTION CHECK SERVICABLE, NO FURTHER OCCURANCES REPORTED. THIS COMM FAILURE RESULTED IN CADOR NR 2009C1232.

<a href="#">CA090606003</a>	CNDAIR	GE	COMPRESSOR	FOD
6/5/2009	CL6002D24	CF348C5		ENGINE

(CAN) ON T/O ROLL, RT N1 DROPS FROM 86 PERCENT TO 50 PERCENT. TAKEOFF ABORTED. MX INSP REVEALED FOD DAMAGES ON FAN AND COMPRESSOR. A CIRCULAR CUT WAS FOUND ON NR 4 WHEEL TIRE. IT IS SUSPECTED THAT AN FOREIGN OBJECT EMBEDDED IN THE NR 4 WHEEL TIRE RELEASED FROM IT INTO THE RT ENGINE BEING CHANGED. FAN AND COMPRESSOR DAMAGED BY FOD.

<a href="#">CA090529001</a>	CNDAIR	GE	CABLE	WORN
5/24/2009	CL6013A	CF343A	4043T02P05	VG

(CAN) DURING APPROACH THE CREW EXPERIENCED MULTIPLE COMPRESSOR STALLS ON THE LT ENG. THEY CARRIED OUT THE APPROACH WITH THAT ENGINE AT IDLE. AT ONE POINT, THE ITT STARTED RISING AND THE CREW ELECTED TO SHUTDOWN THE ENGINE FOR THE REMAINING OF THE APPROACH. THE LANDING WAS COMPLETED SAFELY. THEY THEN TRIED TO RESTART ON THE GROUND. THE ENGINE SPOOLS UP WITH A HIGH PITCH HISSING NOISE THEN FLAMEOUT BEFORE REACHING IDLE SPEED. THE CREW PERFORMED A VISUAL INSP FOR POSSIBLE BIRD STRIKE WITHOUT FINDINGS. DURING A DETAILED INSP, A WORN VG FEEDBACK CABLE WAS REPLACED. MORE INFORMATION TO FOLLOW. JUNE 9 2009, CHECKED BOTH PN 4043T02P04 AND P05 OK.

<a href="#">2009FA0000462</a>	COLUMB	CONT	FAIRING	LOOSE
5/12/2009	LC41550FG400	TSIO550C		LG STRUT

DURING A ROUTINE ANNUAL INSP, THE MAIN STRUT FAIRINGS WERE LOOSE ENOUGH TO INSPECT. THE FAIRING WAS FOUND TO BE CHAFING BOTH BRAKE LINES JUST BELOW THE ATTACHMENT TO THE FUSELAGE. FORTUNATELY IN THIS CASE THE DAMAGE WAS MINIMAL AND COULD BE CORRECTED BY INSTALLING A TYE WRAP TO SECURE THE BRAKE LINE TO THE GEAR LEG MORE SECURE THAN IT WAS ORIGINALLY. THE ORIGINAL TYE WRAP WAS FOUND LOOSE AND HAD SLIPPED DOWN THE LEG ALLOWING THE BRAKE HOSE TO CONTACT THE FAIRING LIGHTENING HOLE. BY SIMPLY SHAVING THE INNER EDGE OF THE LIGHTENING HOLE ABOUT .1250 INCH AND SECURING THE LINE, THIS ALLOWED SUFFICIENT CLEARANCE TO PREVENT FURTHER DAMAGE TO THE BRAIDED BRAKE LINE. (K)

<a href="#">2009FA0000468</a>	CUBCFT		SHROUD	CHAFED
5/13/2009	CC18180		3236	MUFFLER

REMOVED ACFT MUFFLER (ATLEE DODGE PN 3241) TO PERFORM MUFFLER INSP AND FOUND THA THE HOSE CLAMP ON THE MUFFLER SHROUDS (ATLEE DODGE PN 3236) LEFT CABIN HEAT INLET PORT HAD WORN A NOTCH THRU THE ENGINE MOUNTS (PN 12351-15) LT LWR VERTICAL SUPPORT TUBING. A SMALL CRACK HAD FORMED AT THE TOP OF THE NOTCH IN THE TUBING. THERE WAS INSUFFICIENT CLEARANCE BETWEEN THE HEAT SHROUD AND THE ENGINE MOUNT AND THE SHROUD HOSE CLAMP WOULD VIBRATE AGAINST THE MOUNT WHEN THE ENGINE WAS RUNNING. WHEN VIEWED FROM THE LT SIDE OF THE ACFT THE ORIGINAL NLET WAS CLOKED AT ABOUT THE 8:00 POSITION. FABRICATED A NEW SHROUD WITH THE INLET CLOKED AT ABOUT THE 6:15 POSITION AND NOW THERE IS AMPLE CLEARANCE. WOULD RECOMMEND CHECKING ALL CC18-180'S FOR THIS ISSUE AND REPLACE THE SHROUDS WITH A MODIFIED SHROUD. THIS SHROUD HAD WORN THE HOLE IN THE OUNT WITHIN 1400 HRS TT. AIR FRAME TT:1365 , MUFFLER AND SHROUD TT: 1365, ENGINE MOUNT TT:1365

<a href="#">CA090601006</a>	DHAV	PWA	CONTROL CABLE	FRAYED
5/5/2009	DHC2MKI	R985AN14B	C2CF1235AND	RUDDER

(CAN) RUDDER CABLE FRAYED AT PULLEY STA 76.

<a href="#">CA090601007</a>	DHAV	PWA	CONTROL CABLE	FRAYED
-----------------------------	------	-----	---------------	--------

5/5/2009 DHC2MKI R985AN14B RUDDER

(CAN) CABLE FRAYED AT PULLEY STA 26.

---

[CA090601008](#) DHAV PWA CONTROL CABLE FRAYED

4/24/2009 DHC2MKI R985AN14B C2CF1235AND RUDDER

(CAN) CABLE FRAYED AT PULLEY STA 76.

---

[CA090521001](#) DHAV GARRTT CABLE DAMAGED

5/9/2009 DHC3 TPE33110R C3US2691

(CAN) ACFT DEPARTED DEEP SNOW AND PIC NOTICED ABNORMAL INPUTS IN THE RUDDER PEDALS UPON CLIMB OUT. GROUND PERSONNEL CONFIRMED TAIL SKI HANGING DOWN FARTHER THAN NORMAL. UPON LANDING, THE TAILSKI IMPACTED THE RWY AND NOSED OVER WITH THE DESTRUCTION OF TAIL SKI AND IMPACT DAMAGE TO REAR FUSELAGE AND BULK HEAD ON THE ACFT. ACCIDENT APPEARS TO HAVE HAPPENED FROM THE FAILURE OF TAIL SKI BUNGEEES PN C3US269-1 AND PN C3U165-7 THESE BUNGEEES HAD BEEN INSTALLED NEW PREVIOUS SEASON AND HAD LIMITED HOURS USE ON THEM. NO INDICATION OF IMPACT ON T/O ALTHOUGH IT IS POSSIBLE FOR A ROCK OR HARD DRIFT TO HAVE CAUSE THE ACCIDENT. OTHER FACTORS COULD INCLUDE A LOW TRIM ATTITUDE ON THE TAIL SKI WHICH WOULD HAVE LED TO A PLOWING ACTION IN DEEP SNOW AND THEREFORE A FAILURE OF SUPPORT BUNGEE AND CABLE. UPON INSP OF BUNGEEES IT APPEARS THAT ALTHOUGH THEY LOOKED EXCELLENT FROM OUTSIDE THE CORE HAD LOST STRENGTH DUE TO AGE OR STRETCHING. ADDITIONAL OBSERVATIONS ARE A WEAKNESS IN ATTACHMENT POINT ON THE SKI FOR THE TRIM CABLE WHICH WAS ONLY THIN ALUMINUM AND ALLOWED THE CLASP TO PULL THROUGH THE METAL.

---

[CA090606002](#) DHAV PWA BRACKET CORRODED

6/5/2009 DHC3 R134059 C3FS16911 BS 427

(CAN) ACFT WAS BEING CHANGED OVER TO FLOATS THUS THE TAILWHEEL STEERING SYS WAS REMOVED. THE BRACKET THAT SUPPORTS THE RUDDER QUADRANT ASSY AT STA 427.00 WAS FOUND TO BE BROKEN AT THE UPPER RT SUPPORT ARM. THE ASSY WAS REMOVED AND FOUND TO BE HEAVILY CORRODED. IT WAS NOTED THAT THE ACFT HAD UNDER GONE AN INSP RECENTLY. MORE DETAIL INSP MAY BE REQUIRED WITH AGING ACFT.

---

[CA090605006](#) DHAV PWA CLAMP UNSERVICEABLE

6/1/2009 DHC6100 PT6A20 C13019S PROP BLADE

(CAN) DURING VISUAL INSP, IT WAS NOTED THAT THE LOCK HOLES FOR THE A304 LINK PINS WERE DRILLED THROUGH THE PIN AND INTO THE OPPOSITE WALL. IT APPEARS THAT THIS OCCURED DURING A PREVIOUS OVERHAUL.

---

[CA090608006](#) DHAV LEG ASSY CRACKED

6/4/2009 DHC6300 MLG

(CAN) , MLG FAILURE, RT MLG LEG BROKE, INCIDENT OCCURRED DURING TAXIING PRIOR TAKEOFF. NO PERSONAL INJURIES. CRACK HAS OCCURRED IN THE AREA THAT IS AFFECTED BY THE CRACK WHERE THE PAINT HAS BEEN STRIPPED FOR NDT AND RE-PAINTED AFTERWARDS. WILL GET BACK LATER WITH MORE INFORMATION. INITIALLY WE WOULD APPRECIATE ANY ADVICE ABOUT LIFTING THE ACFT TO INSTALL A NEW LDG.

---

[CA090514002](#) DHAV PWA COVER MISMANUFACTURED

5/14/2009 DHC6300 PT6A27 C6PF105427 FUEL MANIFOLD

(CAN) NEW FUEL MANIFOLD TUBE DUST COVERS (PN PDMC6PF1054-27) WERE FOUND TO BE DIMENSIONALLY SMALLER THAN THE EXISTING FACTORY-MADE PARTS. THESE COVERS WERE PRODUCED UNDER LOT/PO NR 30322. THE RUBBER COMPOUND THAT THESE ARE CONSTRUCTED OF ALSO APPEARS TO DIFFERENT FROM THE ORIGINALS.

---

[CA090526007](#) DHAV PWA PEDESTAL CORRODED

5/26/2009 DHC8102 PW120A LM43163 ENGINE MOUNT

(CAN) 2 CORRODED LINES WERE FOUND IN THE CONICAL AREA. ONE ON THE RT SIDE FOR 50 PERCENT OF THE

---

CIRCUMFERENCE AND ONE ON THE LT SIDE FOR 33 PERCENT OF THE CIRCUMFERENCE.

---

<a href="#">CA090604007</a>	DHAV	PWA	ROLLER	SEIZED
6/3/2009	DHC8102	PW120A	YCRS14	MLG DOOR

(CAN) ACFT ARRIVED WITH LT MLG DOOR INDICATION. ACFT BROUGHT TO HANGAR & GEAR SWUNG FOR TROUBLESHOOTING. 1ST GEAR SWING UNEVENTFUL, 2ND GEAR SWING, WHEN GEAR SELECTED DOWN LT FWD MLG DOOR DID NOT OPEN & GEAR EXTENDED UNTIL CONTACT WITH DOOR. GEAR JAMMED IN POSITION. GEAR SELECTED BACK UP & ALTERNATE EXTENSION ATTEMPTED. GEAR DOOR DID NOT OPEN DURING ALTERNATE EXTENSION & GEAR AGAIN JAMMED DOOR. GEAR SELECTED BACK UP & OPERATING ROD FOR DOOR DISCONNECTED & DOOR OPENED OUT OF THE WAY. GEAR EXTENDED NORMALLY. UPON INVESTIGATION FOUND LT MLG FWD DOOR UPLOCK ROLLER, SEIZED. SEIZED ROLLER PREVENTED FWD DOOR FROM OPENING & CAUSED GEAR JAM. . INSP & LUBE OF ROLLER, TASK 3230-10 CALLS FOR VISUAL INSP OF FWD DOOR ACTUATOR, TASK IS CALLED UP EVERY A-CHECK. TASK LAST DONE ON MAY 21/09. MODIFIED TASK TO CALL FOR A DETAILED INSP OF FWD DOOR ACTUATOR & ASSOCIATED LINKAGES & ATTACHMENT POINTS. DID NOT FIND ANY SPECIFIC REQUIREMENT IN ANY OF THE TASK CARDS TO LUBRICATE MLG FWD DOOR UPLOCK ROLLER, NOR TO CHECK IT FOR FREEDOM OF MOVEMENT. OUR IN-SERVICE ENGINEERING GROUP IS CURRENTLY IN THE PROCESS OF REVISING THIS TASK FURTHER TO INCLUDE LUBRICATION OF THE FWD DOOR UPLOCK ROLLER BASED ON THIS INCIDENT.

---

<a href="#">CA090513001</a>	DHAV	PWA	ENGINE	SEIZED
5/11/2009	DHC8102	PW120A	PW120A	NR 2

(CAN) WHILE CLIMBING THROUGH 17,000 FT AFTER DEPARTURE, THE NR 2 ENGINE FAILED. THE CREW FELT A BANG FOLLOWED BY THE NR 2 OIL PRESS WARNING LIGHT COMING ON, THE NR 2 ITT WAS SEEN INCREASING RAPIDLY ABOVE 816 DEGREE C AS THE ITT INDICATOR LIGHT CAME ON, THE ENGINE WAS SHUTDOWN BY THE CREW. MX FOUND THE ENGINE SEIZED. THE ENGINE WAS REPLACED AND THE ACFT RETURNED TO SERVICE.

---

<a href="#">CA090506008</a>	DHAV	PWA	FUEL FILTER	CLOGGED
5/2/2009	DHC8106	PW120A	1111084	ENGINE FUEL PUMP

(CAN) IN FLIGHT, THE ENGINE FUEL FILTER BYPASS CAUTION LIGHT CAME ON. THE ACFT RETURNED TO BASE. THE HIGH PRESSURE FUEL FILTER WAS INSPECTED AND FOUND DIRTY. FUEL FILTER WAS REPLACED IAW THE ACFT MM PROCEDURES, THE ENGINE WAS GROUND RUN, NO CAUTION LIGHT INDICATION NOTED. THE FILTER HOUSING AREA WAS INSPECTED FOR LEAKAGE, WITH NONE FOUND. THE ACFT WAS DEEMED AIRWORTHY AND RETURNED TO SERVICE.

---

<a href="#">CA090519005</a>	DHAV	PWA	HAMSTD	BLADE	CRACKED
5/15/2009	DHC8106	PW121		SFA13MIROAD	PROPELLER

(CAN) DURING WALKAROUND, FLIGHT CREW NOTICED AN ANOMALLY WITH T/E OF NR 3 PROP BLADE ON THE LT PROP. MX WAS ADVISED, INSPECTED PROP AND DETERMINED THAT T/E CONTAINED ABOUT 8 SMALL CRACKS ABOUT MIDWAY BETWEEN BLADE ROOT AND TIP. WHEN INSPECTED FURTHER, WHAT APPEARED TO BE MOISTURE WAS NOTICED TO SEEP FROM CRACKS. WHEN WIPED AWAY, MOISTURE AGAIN WOULD SEEP OUT OF CRACKS. MX REPLACED PROP BLADE AND WILL CONTACT OVERHAUL/REPAIR FACILITY FOR POSSIBLE CAUSES FOR THE CRACKING. A COMPLETE REPORT ON THE NATURE OF THE DEFECTS HAS BEEN REQUESTED FROM THE REPAIR FACILITY. COMPANY WILL REVIEW THESE FINDINGS AND ATTEMPT TO MITGATE ANY RECOOCURENCE WHICH MAY BE ASSOCIATED WITH OPERATIONAL CONDITIONS.

---

<a href="#">CA090528002</a>	DIAMON	CONT	MOUNT BRACKET	CRACKED
5/27/2009	DA20C1	IO240B	2224121400	ALTERNATOR

(CAN) UPON ROUTINE INSP, IT WAS NOTED THAT THE ALTERNATOR MOUNTING BRACKET WAS CRACKED AT THE UPPER BEND RADIUS CLOSE TO THE MOUNTING HOLE. THE BRACKET WAS ACTUALLY SEPARATED INTO TWO PIECES RESULTING FROM THE CRACK. THE ALTERNATOR OPERATION WAS NOT AFFECTED AS ITS MOUNTING REMAINED UNDISTURBED BY THE DEFECT AT THIS TIME.

---

<a href="#">CA090604006</a>	DIAMON	CONT	MOUNT BRACKET	CRACKED
6/3/2009	DA20C1	IO240B	2224121400	ALTERNATOR

(CAN) UPON ROUTINE INSP, IT WAS NOTED THAT THE ALTERNATOR MOUNTING BRACKET WAS CRACKED AT THE

---

UPPER BOLT HOLE WHERE THE AN4-5A BOLT ATTACHES TO THE 22-2412-00-12 SPACER. THE BOLT HOLE WAS ELONGATED AND THE CRACK PROGRESSED TO THE EDGE OF THE BRACKET WHERE A SMALL PIECE OF THE BRACKET MATERIAL (ABOUT 1 INCH LONG) WAS SEPARATED FROM THE BOLT HOLE AREA. THE ALTERNATOR OPERATION WAS NOT AFFECTED AS ITS MOUNTING REMAINED UNDISTURBED BY THE DEFECT AT THIS TIME.

---

<a href="#">CA090525005</a>	DIAMON	WIRE	DEFECTIVE
5/13/2009	DA40	DA431446003	ALTERNATOR

(CAN) WEST COAST REPORTED THAT AN ALTERNATOR FAIL CONDITION WAS REPORTED AND THE VOLTAGE REGULATOR WAS REPLACED. 7-10 DAYS LATER THAT PROBLEM RE-OCCURRED. TROUBLESHOOTING REVEALED THAT THE ALTERNATOR AND REGULATOR WERE FAULTY. REGULATOR WAS REMOVED AND CHECKED FOUND TO BE SERVICEABLE. INSTALLED NEW REGULATOR AND ALTERNATOR. REMOVED INSTRUMENT PANEL TO ACCESS CIRCUIT BREAKERS AND WILL CHECKING JUMPER WIRE FOUND IT TO BE VERY HOT. REMOVED JUMPER TO INVESTIGATE AND THAT THE LUG TERMINALS HAD NOT BEEN CRIMPED AND WERE LOOSE.

---

<a href="#">2009FA0000499</a>	DIAMON	WINDOW	DEBONDED
5/19/2009	DA40	DA456222000GS	CABIN WINDOW

RT REAR FUSELAGE CABIN WINDOW DISBONDED FROM FUSELAGE ALONG THE FWD EDGE OF WINDOW. WINDOW CONTINUES TO FLEX OUTWARD WITH CABIN AIR PRESSURE DURING FLIGHT. SUBSEQUENT REMOVAL OF WINDOW CLEARLY SHOWS NO BOND BETWEEN THE STRUCTURAL ADHESIVE AND THE FWD EDGE OF THE WINDOW. REINSTALLED WINDOW IAW MFG INSTALLATION PROCEDURES. (K)

---

<a href="#">2009FA0000492</a>	DIAMON	WINDOW	DEBONDED
5/19/2009	DA40	DA456222000GS	CABIN WINDOW

RT REAR FUSELAGE CABIN WINDOW DISBONDED FROM FUSELAGE ALONG THE FWD EDGE OF WINDOW. WINDOW CONTINUES TO FLEX OUTWARD WITH CABIN AIR PRESSURE DURING FLIGHT. SUBSEQUENT REMOVAL OF WINDOW CLEARLY SHOWS NO BOND BETWEEN THE STRUCTURAL ADHESIVE AND THE FWD EDGE OF THE WINDOW. REINSTALLED WINDOW IAW MFG INSTALLATION PROCEDURE. (K)

---

<a href="#">2009FA0000493</a>	DIAMON	DOOR	INFLT SEPARATION
5/10/2009	DA40	DA4522100002	MAIN PAX

AFTER 2.5 HOURS OF FLIGHT TIME, AFTER SINGLE TOUCH AND GO AND DURING CLIMB OUT, THE PILOT NOTICED THE REAR DOOR WARNING LIGHT AND TRIED TO RE-ENGAGE PRIMARY DOOR LATCH. THIS RESULTED IN AN IN-FLIGHT SEPARATION AND SUBSEQUENT LOSS OF DOOR ASSEMBLY. (K)

---

<a href="#">2009FA0000496</a>	DIAMON	WINDOW	DEBONDED
5/19/2009	DA40	DA456222000GS	CABIN WINDOW

RT REAR FUSELAGE CABIN WINDOW DISBONDED FROM FUSELAGE ALONG THE FWD EDGE OF WINDOW. WINDOW CONTINUES TO FLEX OUTWARD WITH CABIN AIR PRESSURE DURING FLIGHT. SUBSEQUENT REMOVAL OF WINDOW CLEARLY SHOWS NO BOND BETWEEN THE STRUCTURAL ADHESIVE AND THE FWD EDGE OF THE WINDOW. REINSTALLED WINDOW IAW MFG INSTALLATION PROCEDURES. (K)

---

<a href="#">2009FA0000498</a>	DIAMON	HINGE	DEBONDED
5/19/2009	DA40		MAIN PAX

UPON PRE-FLIGHT, PILOT FOUND FWD HINGE OF LT REAR DOOR ASSY TO BE CRACKED OR DEBONDED WHERE HINGE ENTERS THE DOOR ASSY. DOOR REMOVED FOR REPAIR BY MFG. (K)

---

<a href="#">2009FA0000494</a>	DIAMON	WINDOW	DEBONDED
5/19/2009	DA40	DA456222000GS	CABIN WINDOW

RT REAR FUSELAGE CABIN WINDOW DISBONDED FROM FUSELAGE ALONG THE FWD EDGE OF WINDOW. WINDOW CONTINUES TO FLEX OUTWARD WITH CABIN AIR PRESSURE DURING FLIGHT. SUBSEQUENT REMOVAL OF WINDOW CLEARLY SHOWS NO BOND BETWEEN THE STRUCTURAL ADHESIVE AND THE FWD EDGE OF THE WINDOW. REINSTALLED WINDOW IAW MFG INSTALLATION PROCEDURE. (K)

---

<a href="#">2009FA0000497</a>	DIAMON	WINDOW	DEBONDED
-------------------------------	--------	--------	----------

5/19/2009	DA40		DA456222000GS	CABIN
RT REAR FUSELAGE CABIN WINDOW DISBONDED FROM FUSELAGE ALONG THE FWD EDGE OF WINDOW. WINDOW CONTINUES TO FLEX OUTWARD WITH CABIN AIR PRESSURE DURING FLIGHT. SUBSEQUENT REMOVAL OF WINDOW CLEARLY SHOWS NO BOND BETWEEN THE STRUCTURAL ADHESIVE AND THE FWD EDGE OF THE WINDOW. REINSTALLED WINDOW IAW MFG INSTALLATION PROCEDURES. (K)				
<a href="#">2009FA0000495</a>	DIAMON		WINDOW	DEBONDED
5/19/2009	DA40		DA456222000GS	CABIN WINDOW
RT REAR FUSELAGE CABIN WINDOW DISBONDED FROM FUSELAGE ALONG THE FWD EDGE OF WINDOW . WINDOW CONTINUES TO FLEX OUTWARD WITH CABIN AIR PRESSURE DURING FLIGHT. SUBSEQUENT REMOVAL OF WINDOW CLEARLY SHOWS NO BOND BETWEEN THE STRUCTURAL ADHESIVE AND THE FWD EDGE OF THE WINDOW. REINSTALLED WINDOW IAW MFG INSTALLATION PROCEDURE. (K)				
<a href="#">2009FA0000461</a>	DIAMON	THIELT	SENSE LINE	SPLIT
5/7/2009	DA42	TAE1250299	527150H000102	ENG MANIFOLD
THE MAP SENSE HOSE, MATING TO (PN 52-7150-H000102) HAD BURST ON 2 OF OUR ENGINES. THIS CAUSES MAP A AND MAP B PRESSURE SPLIT, FAILING EDU A AND B. IN BOTH CASES, THE BURST OCCURRED APPROX 2 INCHES FROM THE ENGINE MANIFOLD FITTING. THIS HOSE IS A TYPE 306 HOSE; RUBBER/FABRIC/RUBBER. IT IS APPARENTLY NOT ABLE TO WITH STAND PRESSURE (THE ENGINE TURBOCHARGED) AND HEAT EXCURSIONS AS EXPERIENCED ON THIS ENGINE. SUBMITTER ALSO FOUND TIE WRAPS FROM FACTORY COMPRESSING HOSE AND CAUSING COMPRESSION OF HOSE INNER DIAMETER. SUGGESTS THE HOSE IS NOT STRONG ENOUGH TO HANDLE THE MANY PRESSURE TRANSIENTS, NOT STIFF ENOUGH TO HANDLE TIE WRAP COMPRESSION IN THE HOT ENGINE COMPARTMENT. (K)				
<a href="#">DU4R2009370</a>	DOUG		SEAT TRACK	CORRODED
6/23/2009	DC821			BS 712
S/O NR 193034N N/R43800 - DURING SCHEDULED INSPECTION, FOUND CORROSION IN MID CARGO COMPARTMENT AT LT FS 712 SUPPORT AT TRACK LOCATION.				
<a href="#">DU4R2009371</a>	DOUG		SKIN	UNKNOWN
6/21/2009	DC821			BS 469
S/O NR 193034, N/R 44304 - DURING SCHEDULED INSPECTION, FOUND LIGHTNING STRIKE AT FS 469 L-26R - L-27R.				
<a href="#">DU4R2009373</a>	DOUG		SKIN	DENTED
6/25/2009	DC821			NLG DOOR
S/O NR 193034 N/R 44359- DURING SCHEDULED INSPECTION, FOUND LT NOSE W/W DOOR HAS A DENT IN INTERNAL SKIN.				
<a href="#">DU4R2009372</a>	DOUG		SKIN	DENTED
6/14/2009	DC821			BS 559
S/O NR 193034, N/R 44334 - DURING SCHEDULED INSPECTION, FOUND DENT ON RT FUSELAGE AT FS 559 L-25R-L-26R FOUND TO BE WITHIN 1 INCH OF RIVET CENTERLINE.				
<a href="#">2009FA0000451</a>	DOUG	ALLSN	IMPELLER	CRACKED
5/11/2009	MD500E	250C20B		BLOWER
IMPELLER CRACKED AT ATTACH POINT TO SHAFT. PILOT REPORTED LOUD NOISE AND LANDED THE HELICOPTER.				
<a href="#">2009F00048</a>	DOUG		WIRE	SHORTED
6/24/2009	MD83			START SWITCH
DURING LT ENGINE START, SPARKS CAME OUT OF OVERHEAD BY START SWITCH. FOUND 2 IGNITION WIRES SHORTED ON IGNITION SWITCH. REPLACED AND REPAIRED WIRE 1J9F22 AND 51521-22.				

<a href="#">2009FA0000440</a>	DOUG	PWC	DRIVE SHAFT	CORRODED
1/30/2009	MD900	PW207E	900D2436530101	TRANSMISSION

DURING AN ANNUAL INSP THE MAIN ROTOR DRIVE SHAFT AND DRIVE PLATE WHERE REMOVED TO SATISFY THE 12 MONTH REQUIREMENT. WHILE REMOVING THE DRIVE SHAFT IT WAS FOUND THAT THE GREASE COATING ON LWR DRIVE SPLINE WAS DISCOLORED AND DEGRADED. FURTHER INSP SHOWED MOISTURE ON THE DRIVE SHAFT AND THE UPPER HUB BRG AREA ALONG WITH A LARGE ACCUMULATION OF WATER IN THE MAIN TRANSMISSION OUTPUT DRIVE SPLINE POCKET. MAIN ROTOR DRIVE SHAFT AND DRIVE PLATE SPLINES WHERE CLEANED, INSPECTED AND FOUND TO BE UNSERVICEABLE. THE DEGRADATION OF THE SPLINE GREASE WAS DUE TO WATER INTRUSION. MAIN TRANSMISSION WAS REMOVED FROM THE ACFT AND THE OUTPUT DRIVE SPLINE CLEANED AND INSPECTED. THE SPLINES WHERE FOUND TO BE PITTED AND ARE CONSIDERED UNSERVICEABLE. MAIN TRANSMISSION WAS REPLACED WITH AN OVERHAULD UNIT. MAIN ROTOR DRIVE SHAFT AND DRIVE PLATE WHERE ALSO REPLACED. THIS DRIVE SHAFT AND DRIVE PLATE WHERE INSPECTED AND INSTALLED IN SERVICEABLE CONDITION APPROX 200 HOURS AND 7 MONTHS AGO. THE INSTALLATION WAS DONE IAW MM SECTION 63-10-00 REV 31. THIS REVISION OF THE MANUAL CLEARLY STATES TO "NOT INSTALL" THE BUFFER RING AND UPPER DRIVE PLATE SEAL. PRIOR TO REMOVAL OF THE DRIVE PLATE THE TORQUE WAS CHECKED ON THE DRIVE PLATE BOLTS IAW SB 900-093 AND FOUND TO HAVE NO LOSS OF TORQUE. INTEGRITY OF THE FILLET SEAL AROUND THE DRIVE PLATE AND DRIVE PLATE BOLTS WAS GOOD. RELYING ON JUST A FILLET SEAL TO PREVENT WATER INTRUSION IS INADEQUATE.

<a href="#">CA090504004</a>	EMB	GE	SLIDE	NO TEST
5/1/2009	ERJ190100IGW	CF3410E5A1	1040031	SERVICE DOOR

(CAN) DURING ESCAPE SLIDE FUNCTION CHECK ON RT SERVICE DOOR, SLIDE FAILED TO DEPLOY. ON SLIDE DEPLOYMENT DOOR PARTIALLY OPENED APPROX 6 INCHES-8 INCHES AWAY FROM FUSELAGE AND JAMMED. SLIDE WAS NOT FULLY UNLACED, FORCE WAS APPLIED TO HINGE ARM TO ASSIST DOOR OUTWARD AND THEN THE SLIDE DEPLOYED NORMALLY.

<a href="#">CA090522004</a>	FRCHLD	GARRTT	LANDING GEAR	MALFUNCTIONED
5/21/2009	SA227CC	TPE33111U	2751500001	

(CAN) ON DESCENT, GEAR WAS SELECTED DOWN AND THE RT GEAR DID NOT EXTEND AND LOCK DOWN ON FIRST ATTEMPT. AFTER MULTIPLE ATTEMPTS ALL 3 GEAR EXTENDED AND WERE VISUALLY CONFIRMED DOWN AND LOCKED. CREW ELECTED TO FLY TO ANOTHER BASE FOR ADDITIONAL MX INSTEAD OF LANDING. MX ACCOMPLISHED GEAR SWINGS AND SAW NO APPARENT DEFECTS THAT WOULD HAVE CAUSED THE SITUATION. THERE WAS AN UPLOCK STOP BOLT ANCHOR NUT WITH A MISSING LEG THAT WAS REPLACED AND GEAR WAS CLEANED AND LUBRICATED. MULTIPLE GEAR SWINGS WERE ACCOMPLISHED AND CHECKED SERVICEABLE. ACFT LEFT AND CONTINUED ON AND THE LANDING THERE WAS UNEVENTFUL. LEFT AND WENT TO ANOTHER AIRPORT THE RT GEAR WOULD NOT EXTEND. AFTER MULTIPLE ATTEMPTS THE GEAR DID EXTEND AND LOCK. TOWED IT TO THE MX FACILITY TO CONTINUE TROUBLESHOOTING PROCESS. IT WAS DISCOVERED WHEN SELECTED DOWN THEY WERE ABLE TO GET THE RT GEAR TO STAY UP IN THE WHEEL WELL BY APPLYING PRESSURE AND HOLDING THE GEAR DOORS UP. IB TIRE WOULD GET CAUGHT ON THE IB GEAR DOOR CAUSING IT TO JAM. WE WERE ABLE TO DUPLICATE THE DEFECT EVERY TIME. IT WAS FOUND BOTH RT INBD AND OTBD SWIVELS TO BE SLIGHTLY WORN CAUSING SOME SLOP, RT INBD DOOR LATCH WAS ALSO WORN CAUSING SOME SLOP AND THE RT OTBD ACTUATOR WHICH IS THE ONLY ACTUATOR USED WHILE SELECTING DOWN TO BE ON THE WEAK SIDE. THE OTBD ACTUATOR WAS REPLACED AND RIGGED. BOTH GEAR DOORS WERE TIGHTENED UP AS WELL. ONCE THE RIGGING WAS TIGHTENED UP AND THE ACTUATOR REPLACED, NO MATTER HOW HARD WE TRIED TO PUSHING UP ON THE GEAR DOORS IT WOULD PUSH THE PERSON OUT OF THE WAY.

<a href="#">CA090519004</a>	FRCHLD	GARRTT	VALVE	MALFUNCTIONED
5/15/2009	SA227DC	TPE33112UHR	701000121	

(CAN) AIRCRAFT C-GJVC DC-885B RIGHT HAND ENGINE SN: P70246C TSN: 8099.2 CSN: 6514 TSO: 1821.3 LOST COMPLETE POWER ON RIGHT HAND ENGINE 12 MILES OUT ON FINAL APPROACH. NO NTS LIGHT CAME ON. THE AIRCRAFT WAS DIFFICULT TO CONTROL. THE STOP AND FEATHER WAS PULLED. CONDITIONS WERE VERY GUSTY, WINDY TURBULENCE, WITH PRECIPITATION. THE AUTO IGNITION HAD BEEN SET TO THE AUTO POSITION. A GROUND CHECK WAS MADE ON THE NTS SYSTEM UPON ARRIVING IN NORTH BAY AND THE NTS SYSTEM WAS NOT WORKING. THE FISH SCALES WERE SENT UP THERE AND AN NTS SYSTEM CHECK WAS PERFORMED AND THE NTS SYSTEM DID NOT TRIP. THE NTS VALVE WAS REPLACED AND THE NTS VALVE WAS REPLACED THE NTS CHECK WAS ACCOMPLISHED. THE NTS SYSTEM WORKED BUT WAS SLOW TO TEST. LINE MAINTENANCE DID

START AND RUN THE ENGINE AFTERWARDS AND THE ENGINE RAN NORMAL. FUNCTIONAL CHECKS, POWER ASSURANCE CHECKS, AND FOUR POINT GROUND RUNS WERE ACCOMPLISHED AND THE ENGINE RAN GOOD. THE AIRCRAFT WAS DIRECTLY FLOWN HOME FOR ADDITIONAL TROUBLESHOOTING OF THE NTS SYSTEM. THE TRANSFER TUBE LOCATED BEHIND THE GEAR BOX WITH THE NTS ORIFICE WAS REMOVED AND REINSTALLED. AFTER WE REPLACED IT THE NTS, WHICH WAS SLOW TO TEST BEFORE, TESTED NORMALLY. NTS VALVE PN: 70100012-1 SN: 08P14941 WAS REMOVED FAULTY 10682910181068291018. THE VALVE WAS CHECKED AND WAS ADJUSTED PROPERLY AT THE TIME OF REMOVAL. ANOTHER NTS VALVE WAS PREVIOUSLY REMOVED ON 3 FEB. 2009 DUE TO THE NTS SYSTEM FAILED TRIP CHECK. BOTH REMOVED VALVES ARE THE NEW STYLE POST SB STYLE. BOTH THESE VALVES WILL BE SENT TO MANUFACTURER FOR EVALUATION.

<a href="#">CA090519008</a>	FRCHLD	GARRTT	FUEL CONTROL	MALFUNCTIONED
5/19/2009	SA227DC	TPE33112UHR		LT ENGINE

(CAN) JUST AFTER LEVELING OUT AFTER TAKE OFF LT ENGINE LOST TORQUE AS POWER LEVER WAS ADVANCED WHEN ENGINE WAS AT 600 DEG. EGT. FUEL BYPASS LIGHT CAME ON. APPARENTLY, THIS ENGINE POSSIBLE SPIKED AT OVER 700 DEG EGT BEFORE THE STOP AND FEATHER WAS PULLED. ACFT LANDED WITHOUT INCIDENT. MX IS ON ITS WAY TO INVESTIGATE.

<a href="#">CA090603002</a>	GRUMAN	WRIGHT	ENGINE	DAMAGED
5/26/2009	TS2ACALFORST	982C9HE2	R1820	NR 2

(CAN) ZERO TIME TSO ENGINE AFTER 3.3 HOURS UPON 3RD FLIGHT DURING CLIMB OUT AFTER TAKEOFF, PILOT NOTICED THE NR 2 ENGINE OIL TEM RISING UNCONTROLLABLY OVER RED LINE AND OIL PRESSURE DROPPING. RETARDANT LOAD WAS JETTISONED, ENGINE SHUTDOWN AND FEATHERED THEN ACFT RETURNED TO BASE. LARGE AMOUNT OF METAL FOUND IN MAIN OIL SCREEN AND PROP WAS DIFFICULT TO ROTATE.

<a href="#">CA090603004</a>	GRUMAN	WRIGHT	ENGINE	MAKING METAL
6/2/2009	TS2ACALFORST	982C9HE2	982C9HE2	NR 1

(CAN) NR1 ENGINE SHUTDOWN IN FLIGHT DUE TO HIGH OIL TEMP, SCREENS PULLED METAL AND ALUMINUM IN BOTH HIGH CAPACITY AND MAIN OIL SCREEN.

<a href="#">CA090603001</a>	GRUMAN	WRIGHT	SPARK PLUG	DAMAGED
5/24/2009	TS2ACALFORST	982C9HE2		NR 2 ENGINE

(CAN) UPON PRE-FLIGHT RUN UP, ENG FAILED TO PRODUCE REFERENCE RPM. ACFT RETURNED TO CHOCKS AND MX DISCOVERED AT LEAST 4 OF 9 CYL SPARK PLUGS WERE BADLY DAMAGED INDICATING THAT FOREIGN MATERIAL OR ENG PARTS HAD ENTERED INDUCTION SYS ENG REQUIRED CHANGING.

<a href="#">CA090611002</a>	GRUMAN	WRIGHT	CURTIS	TRANSFER TUBE	BROKEN
6/10/2009	TS2ACALFORST	982C9HE2	893742C		CYLINDER ASSY

(CAN) OIL TRANSFER TUBE ON NR 5 CYL, NR 1 ENGINE WAS FOUND TO BE ALLOWING ENGINE OIL TO POUR OUT INTO ENGINE COMPARTMENT. TUBE WAS FOUND TO BE SOUND AND UNDAMAGED, HOWEVER THE BANJO FITTING FROM THE CYLINDER HEAD WAS FOUND TO BE CRACKED AND BROKEN. THIS ENGINE WAS JUST INSTALLED ON JUNE 5, 2009.

<a href="#">2009FA0000484</a>	GRUMAV	LYC	SPARK PLUG	BROKEN
5/24/2009	TR2	O235C1C	UREM37BY	ZONE 100

RECENTLY INSTALLED SPARK PLUGS. RETURNING HOME, NOTICED ODOR OF FUEL VAPOR, ENGINE STARTED RUNNING VERY ROUGH & WOULD ONLY DEVELOP ABOUT 2000 RPM. MADE LANDING AND FOUND SPARK PLUG BROKEN AND THAT THE PART WITH THE CABLE WAS LAYING ON THE ENGINE AND WHAT WAS LEFT WAS STILL SCREWED INTO THE CYLINDER.

<a href="#">2009FA0000507</a>	HUGHES	ALLSN	HONEYWELL	SPRING	DEFECTIVE
4/24/2007	369D	250C20B	23065121		PT GOVERNOR

DURING LEVEL FORWARD FLIGHT, A SPRING INSIDE THE PT GOVERNOR FAILED, CAUSING THE ENGINE TO GO TO IDLE. AN AUTOROTATION WAS REQUIRED AND WAS DONE SO INTO A SOFT PLOWED FIELD. THE HELICOPTER TURNED OVER AFTER SKIDDING A SHORT DISTANCE.

---

<a href="#">2009FA0000509</a>	HUGHES	ALLSN	TURBINE	SEIZED
6/2/2009	369D	250C20B	23069745	ENGINE

DURING EXTERNAL LOAD OPERATIONS AT A HOVER, THE ENGINE STOPPED SUDDENLY CAUSING THE PILOT TO AUTO ROTATE FROM APPROX 80 FEET AGL. THE PROBABLE CAUSE OF THE ENGINE STOPPAGE IS A MALFUNCTION IN THE TURBINE MODULE. RECENT OCCURRENCE, NO PRELIMINARY REPORT PUBLISHED.

---

<a href="#">2009FA0000508</a>	HUGHES	ALLSN	TURBINE	SEIZED
10/30/2008	369D	250C20B	23069745	ENGINE

DURING EXTERNAL LOAD OPERATIONS AT A HOVER, THE ENGINE STOPPED SUDDENLY CAUSING THE PILOT TO AUTOROTATE FROM APPROXIMATELY 120-150 FEET AGL. THE PROBABLE CAUSE OF THE ENGINE STOPPAGE WAS A MALFUNCTION IN THE TURBINE MODULE. NO FINAL REPORT HAS BEEN PUBLISHED.

---

<a href="#">CA090606001</a>	HUGHES	ALLSN	ELT	CRACKED
6/5/2009	369FF	250C30	5182250202	CABIN

(CAN) SENT IN ELT FOR IT'S ANNUAL RECERTIFICATION. REMOVABLE COVER WAS BROKEN OUT AND THE MAIN CASE WAS CRACKED IN SEVERAL LOCATIONS. THIS UNIT HAD NOT BEEN DROPPED OR TAMPERED WITH. IT APPEARS THAT THE CASE HAS BEEN WEAKED BY UV LIGHT (AS WAS TOLD TO ME) AND THE AVIONICS SHOP HAVE EXPERIENCED SEVERAL OF THESE. MY CONCERN IS THE RELIABILITY OF THIS UNIT AS IT NOW HAS CRACKS IN THIS UNIT. WILL IT STILL WORK IF IT WAS INVOLVED IN AN ACCIDENT WITH THE CASE BEING IN SUCH A WEAK CONDITION. I HAVE BEEN TOLD THAT IT IS ALL OF THESE YELLOW CASES THAT ARE WEAK.

---

<a href="#">CA090519006</a>	LEAR	GARRTT	UPLOCK SWITCH	UNSERVICEABLE
5/7/2009	31A	TFE73123B	1EN18	MLG

(CAN) MAIN GEAR UPLOCK SWITCH FAILED AND CAUSED THE MAIN GEAR HYD SYS TO CONTINUE OPERATING.

---

<a href="#">CA090514003</a>	LEAR	GARRTT	LINE	LEAKING
5/12/2009	45LEAR	TFE731*	244224151	FUEL FEEDER

(CAN) DURING A BASE INSP, MX FOUND THE BOTOM FUSELAGE STROBE BEACON LIGHT LENS HAD 1 INCH OF FLUID IN THE BOTTOM FURTHER INVESTIGATION REVEALED THE FLUID TO BE JET FUEL SEEPING THROUGH FUSELAGE THE SOURCE OF THE FUEL LEAK CAME FROM THE FEEDER LINE CONNECTING THE FUEL TANK TO THE LT WING TANK. INSP OF THE FEEDER LINE PN 244224151 REVELED NO ABNORMAL DAMAGE THE FUEL WAS SEEPING THROUGH THE HOSE ITSELF. THE FITTINGS AND O-RINGS ON EACH END OF THE LINE WERE INSPECTED WITH NO FAULTS FOUND.

---

<a href="#">2009FA0000429</a>	LET		CONTROL CABLE	FRAYED
5/22/2009	L23SUPERBLAN		A740255N	RUDDER

FRAYS DISCOVERED IN RUDDER CABLES - CHRONIC PROBLEM. NO FRAYS ALLOWED IAW MAINTENANCE MANUAL. CABES ARE SUPPOSED TO LAST 1000 HOURS, THIS DISCOVERED AT 375 PART TIS

---

<a href="#">CA090513003</a>	LKHEED	ALLSN	MOUNT	CORRODED
4/7/2009	382G	501D22A	360015157	ENGINE

(CAN) AT INSPECTION THE NR 2 AND 3 POSITION OTBD LOWER ENGINE TRUSS MOUNTS WERE FOUND TO HAVE CORROSION PITTING BEYOND ACCEPTABLE LIMITS. THE UNITS WERE REPLACED IAW THE MFG MM INSTRUCTIONS.

---

<a href="#">2009FA0000449</a>	MAULE	CONT	CONTROL CABLE	BROKEN
5/12/2009	M5210C	IO360*		TE FLAPS

AN INSP OF RT WING FLAP CABLE REVEALED BROKEN STRANDS WHERE THE CABLE THIMBLE AND SHACKLE TO THE FLAP BELLCRANK INSIDE THE WING. THERE IS INSUFFICIENT CLEARANCE BETWEEN THE CABLE AS IT WRAPS AROUND THE THIMBLE AND THE BELLCRANK AND IT WAS GETTING PINCHED WHEN THE FLAPS ARE

---

RETRACTED. THIS IS THE SAME PROBLEM THAT WAS ADDRESSED IN SL NR 64 FOR THE ELEVATOR CABLES. REPLACED THE RT FLAP CABLE AND BOTH LT AND RT FLAP CABLE SHACKLES WITH NEW STYLE ELEVATOR CABLE SHACKLES AND ELIMINATED ALL INTERFERENCE. THE LT SHACKLE HAD BARELY ENOUGH CLEARANCE AND WAS NOT SHOWING ANY SIGNS OF WEAR BUT SINCE WE WERE REPLACING ONE WE WENT AHEAD AND REPLACED BOTH. (K)

<a href="#">2009FA0000488</a>	PILATS		MOTOR	INTERMITTENT
6/5/2009	PC1245		9603002104	MLG

ON TAKE-OFF, MLG FAILED TO FULLY RETRACT. WHEN GEAR HANDLE WAS PLACED IN THE "DOWN" POSITION, NLG DID NOT SHOW GREEN. CREW PERFORMED ALTERNATE EXTENSION PROCEDURE WITH HAND PUMP AND ALL 3 GEAR SHOWED "DOWN AND LOCKED". ACFT LANDED WITHOUT PROBLEMS. MX PUT ACFT ON JACKS & SWUNG MLG, PERFORMED FAULT ISOLATION PROCEDURE AMM 12-A-29-00-00A-420A-A. FOUND MLG SYSTEM'S HYD POWER-PACK MOTOR INOPERATIVE. VOLTAGE TO MOTOR VERIFIED AS PRESENT & CORRECT, AS WAS GROUND PATH. EXAMINED MOTOR & FOUND THE MOTOR WOULD OPERATE WHEN LIGHTLY TAPPED ON SIDE OF HOUSING. MOTOR ROUTED TO MFG FOR TESTING & OVERHAUL, A REQUEST WILL BE MADE FOR A FAILURE ANALYSIS.

<a href="#">CA090526002</a>	PILATS	PWA	PRESSURE SWITCH	LEAKING
5/25/2009	PC1245	PT6A67B	9738114304	HYD SYSTEM

(CAN) HYD SYS LOW PRESSURE WARNING SWITCH LEAKING HYD FLUID FROM VENT HOLE ON SIDE OF SWITCH.

<a href="#">CA090511010</a>	PILATS	PWA	CONTROLLER	FAILED
5/11/2009	PC1247	PT6A67	071015980301	JOYSTICK

(CAN) THE FLIGHT CREW REPORTED THE JOY STICK INSTALLED ON THE PILOTS MULTIFUNCTION CONTROLLER FAILED TO MOVE THE ONSCREEN CURSOR IN AN UPWARD DIRECTION. SIDE AND DOWN MOVEMENT IS POSSIBLE . THIS FAILURE DISABLES SOME FUNCTIONALITY OF THE FLIGHT MANAGEMENT SYS INSTALLED IN THIS ACFT. A REPAIRED UNIT WAS INSTALLED AND TESTED IAW THE MFG PC12/47E MM INSTRUCTION. THIS UNIT HAS BEEN REPLACED 4 TIMES PREVIOUS. THE UNIT REMOVED HAS BEEN INSTALLED SINCE NOV. 13, 2008 WITH 458 HRS INSTALLED.

<a href="#">2009FA0000466</a>	PIPER	LYC	KNOB	CORRODED
5/5/2009	PA23250	IO540C4B5		BLADE PITCH

PROPELLER WAS DISASSEMBLED FOR O/H AND THE FOLLOWING WAS FOUND AT INSPECTION, THE PITCH CHANGE KNOBS ON BOTH BLADES ARE CORRODED AND ONE PITCH CHANGE KNOB HAS BEEN REWORKED BELOW MINIMUM SPECIFICATIONS. PROPER O/H TECHNIQUES AND INSP CRITERIA WOULD HAVE CAUGHT THE REWORKED PITCH CHANGE KNOB AND OVERHAULING OF THE PROPELLER AT RECOMMENDED SERVICE TIMES WOULD HAVE PREVENTED THE CORROSION OF THE PITCH CHANGE KNOB. (K)

<a href="#">2009FA0000455</a>	PIPER		ATTACH FITTING	BROKEN
4/29/2009	PA28R201		67752002	NLG ACTUATOR

ACTUATOR CLIP WHICH IS MOUNTED ON LANDING GEAR BROKE OFF, FROM WORK HARDENING DUE TO NORMAL OPERATION. DUE TO MISSING PIECE OF ACTUATOR CLIP, THE NOSE GEAR DOWNLOCK MICROSWITCH COULD NOT BE ACTUATED, THERE FORE LEAVING DOWNLOCK ANNUNCIATOR OFF, UNSAFE GEAR WARNING HORN SOUNDING, AND GEAR MOTOR RUNNING CONTINUOUSLY. (K)

<a href="#">2009FA0000489</a>	PIPER		DOWNLOCK	BROKEN
6/5/2009	PA28R201		76426003	MLG

DURING A STALL RECOVERY, THE PILOT PLACED THE GEAR SELECTOR IN THE DOWN POSITION. HE HAD NO GEAR SAFE INDICATION AND THE GEAR HORN WOULD SOUND. AFTER AN UNEVENTFUL LANDING, THE MX CREW NOTICED THAT THE GEAR DOWNLOCK ARM, PN-76426-003 WAS BROKEN WHICH ALLOWED THE DOWNLOCK ASSY, PN-67150-005 TO BREAK FREE.

<a href="#">CA090520002</a>	PIPER	CONT	CONT	PACKING	MISMANUFACTURED
5/1/2009	PA28R201T	TSIO360FB		632878	MAIN BEARING

(CAN) ENGINE WAS REMOVED DUE TO LOW OIL PRESSURE IN FLIGHT. UPON INSP IT WAS FOUND THAT THE NYLON PACKING INSIDE THE FRONT MAIN BEARING SHELLS WERE TOO SHORT. THEY DID NOT REACH THE FULL LENGTH OF THE GROOVE THAT THEY ARE SET IN. IT IS SUSPECTED THAT THIS MAY BE THE CAUSE OF THE LOW OIL PRESSURE.

---

<a href="#">2009FA0000464</a>	PIPER			FUEL CELL	FAILED
5/20/2009	PA31350			5712	

A FUEL CELL SEAM FAILED WHILE ACFT WAS PARKED ON THE RAMP EMPTYING THE CONTENTS SUDDENLY. THERE WERE NO PRIOR INDICATIONS OF A PREFAILURE SUCH AS LEAKS NOTED. THERE WERE NO INDICATIONS OF IMPROPER INSTALLATION OR OTHER DAMAGE. THE BULK OF THE FUEL FOLLOWED THE MAIN SPAR INTO THE BELLY OF THE ACFT THEN OUT THROUGH DRAIN HOLES, VENTS, AND SEAMS IN THE SKIN. (K)

---

<a href="#">CA090506012</a>	PIPER	LYC		CYLINDER	CRACKED
5/4/2009	PA31350	LTIO540J2BD		TI0540J2BD	ENGINE

(CAN) DURING ROUTINE MX, AN OIL LEAK WAS NOTICED AROUND THE NR 2 CYLINDER. FURTHER INVESTIGATION SHOWED A CRACK RUNNING FROM THE AREA OF THE CYLINDER BASE OUTWARDS AND DOWNWARDS ALONG THE FACE OF THE CYLINDER BASE MOUNTING AREA THERE ALSO APPEARS TO BE A MACHINING MARK RUNNING IN THE SAME AREA.

---

<a href="#">CA090523001</a>	PIPER	LYC	WIEBEL	ELBOW	SEVERED
5/19/2009	PA31350	LTIO540J2BD	WTC21141	AN8374D	ACTUATOR

(CAN) ACFT LOST IT'S MAIN HYD SYS AND SYS FLUID DUE TO A SEVERED FITTING (PN AN837-4D) AT LT MLG INBD DOOR ACTUATOR LWR HYD PORT. CREW RETURNED TO DEPARTURE AFTER T/O AND EXTENDED LANDING GEAR USING EMERGENCY HYD HAND PUMP. MX REPLACED LT MLG INBD DOOR HYD HOSE PN 17766-04, FITTING PN AN837-4D, AND ACTUATOR PN WTC2114-1 DUE ACTUATOR ROD END WAS SLIGHTLY BENT. HYD PUMP FILTERS CHECKED FOR METAL - NONE FOUND. HYD SYS SERVICED, LEAK CHECKED AND LANDING GEAR CYCLED NUMEROUS TIMES TO BLEED SYS AND OPS CHECKED SERVICEABLE IAW MM. ACFT RELEASED FOR SERVICE. INVESTIGATION REVEALED THAT THE REMOVED DOOR ACTUATOR HYD PORT ALIGNMENT WAS INCORRECT, THE LWR PRESSURE PORT WAS ASSEMBLED SO THAT WHEN ACTUATOR IS INSTALLED LWR PORT IS 10-15 DEGREES TOWARDS RETRACTED MLG TIRE AND WHEN ACTUATOR VIBRATES OR ROTATES TO LIMIT OF ACTUATOR ROD-END PLAY TOWARDS MLG TIRE, LWR FITTING/HOSE CAN CONTACT TIRE. SUSPECT THIS CAUSED LWR FITTING TO SEVERE DURING MLG RETRACTION. NEW INSTALLED ACTUATOR UPPER AND LWR HYD PORTS ARE IN ALIGNMENT AND WHEN INSTALLED PROVIDE SUFFICIENT CLEARANCE BETWEEN THE RETRACTED TIRE AND ACTUATOR HOSE/FITTING.

---

<a href="#">CA090519003</a>	PIPER	LYC		MAGNETO	MALFUNCTIONED
5/15/2009	PA31350	LTIO540J2BD		1068291018	ENGINE

(CAN) MAG RECEIVED FROM CUSTOMER DUE TO ENGINE NO START. MAG OVERHAULED. MAG DISASSEMBLED, RETARD POINTS FOUND TO ONLY OPEN ON 1 OF 4 LOBES OF RETARD BREAKER CAM. POINT GAP SMALL WHEN IT DID OPEN THAT IT COULDN'T BE MEASURED WITH A WIRE FEELER GAUGE. WOULD HAVE CAUSED ENG TO BE STARTED AT NORMAL ADVANCED TIMING POSITION AND COULD RESULT IN KICKBACKS AND POSSIBLE ENG DAMAGE. THE LT MAIN POINTS WERE OPENING ON THE 4 LOBES OF THE CAM AT BETWEEN 10-11.5 DEGREES (SHOULD BE 8 DEG. +/- 2 DEG.) AND POINT GAP WAS .012 INCH(SHOULD BE .016" +/- .002". THE RT MAIN POINTS WERE OPENING AT 9-11 DEG AND .015" (SHOULD BE 8 +/- 2 DEG AND .016" +/- .004"). ORIFICE PLUG THAT RELEASES PRESSURIZED AIR FROM MAG PAINTED OVER. ORIFICE SHOULD BE .015 INCH AND IF IT IS BLOCKED THEN OZONE AND MOISTURE TRAPPED IN THE MAG WILL TURN TO NITRIC ACID AND DESTROY THE NYLON GEARS AND NYLON POINT CAM FOLLOWERS. THE MAG DID NOT APPEAR TO HAVE BEEN RUN FOR ANY GREAT LENGTH OF TIME TO CAUSE THIS TO HAPPEN. - THE WRONG GREASE WAS PUT INTO THE ROLLER BRG IN THE DISTRIBUTOR BLOCK. MFG GREASE IS WHITE AND IF THE BRG IS DRY OR THE MAG IS O/H'D THEN THE BRG MUST BE REPLACED. THIS BRG COMES PRE-LUBED WITH THE MFG GREASE. WRONG WASHERS WERE INSTALLED UNDER 2 OF THE DISTRIBUTOR BLOCK HOLD DOWN SCREWS. RETAINING RING THAT HOLDS THE WAVE WASHER AND OIL SLINGER WAS NOT PROPERLY SEATED. IF THIS RETAINER SLIPS OUT OF ITS GROOVE THE WASHER, WAVE WASHER AND POSSIBLY THE OIL SLINGER WILL SPIN ON THE MAG SHAFT. THE DRIVE NUT WAS INCORRECT, NOT REALLY A SAFETY CONCERN, BUT IT'S STILL THE WRONG PART. A 500 HOUR INSP WAS CARRIED OUT, ALL TIMING AND PARTS ISSUES WERE CHANGED TO MFG SPECS, AND THE MAG WAS RETURNED TO SERVICE.

---

<a href="#">CA090604005</a>	PIPER	LYC	THRUST BEARING	CRACKED
6/4/2009	PA31350	TIO540J2BD	B2202	PROPELLER
(CAN) UPON MPI OF THE THRUST BEARING, FOUND A CRACK RUNNING ALONG THE CENTER OF THE BEARING FROM ONE END ABOUT A .2500 INCH LONG.				
<a href="#">2009FA0000463</a>	PIPER	CONT	CRANKSHAFT	CRACKED
5/1/2009	PA34220T	TSIO360RB	653136	PROP FLANGE
DURING ANNUAL INSP, OIL WAS FOUND AT FRONT OF ENGINE. FURTHER INVESTIGATION REVEALED A CRACK OF THE CRANKSHAFT AT THE PROP MOUNTING FLANGE. CAUSE HAS NOT BEEN DETERMINED. (K)				
<a href="#">2009FA0000450</a>	PIPER		BRACE	CRACKED
5/12/2009	PA421000		75245015	RT MLG
DURING ROUTINE INSP, PART WAS FOUND CRACKED. THIS IS A POST SB817C UNIT. PART LIFE LIMIT IS 3,000 HRS.				
<a href="#">CA090519002</a>	PIPER	LYC	CONTROL CABLE	FRAYED
5/14/2009	PA44180	LO360A1H6	62701154	RUDDER
(CAN) CABLE DISCOVERED FRAYED DURING SCHEDULED MX.				
<a href="#">CA090519001</a>	PIPER	LYC	CONTROL CABLE	FRAYED
5/14/2009	PA44180	LO360A1H6	62701154	RUDDER
(CAN) CABLE DISCOVERED FRAYED DURING SCHEDULED MX.				
<a href="#">CA090515001</a>	PITTS	LYC	TUBE	DAMAGED
5/15/2009	S2B	AEIO540D4A5	22100241	FUSELAGE
(CAN) 4130 N FUSELAGE DIAGONAL TUBE PN 2-2100-241 FOUND DAMAGED BY IMPROPER CLEARANCE OF INSTALLED HARWARE OF THE FORWARD POSITION LT RUDDER PEDAL PIVOT BOLT AND SAFETY COTTER PIN. 74 PERCENT OF TUBE WALL MATERIAL GONE. RUDDER PEDAL FOUND TO BE "HOOKING AROUND" TUBING AS PEDAL IS MOVED FROM FULL FWD TO FULL AFT TRAVEL.				
<a href="#">CA090515002</a>	PITTS	LYC	AILERON	OBSTRUCTED
5/15/2009	S2B	AEIO540D4A5		
(CAN) INSP OF THE CONTROL SURFACES FOUND THAT AILERONS DO NOT MAKE TRAVEL LIMITS AND PUSH RODS ARE HITTING FWD SPARS OF THE LWR WINGS. ELEVATOR TAB IS UNABLE TO MAKE LIMITS AS STATED. BOTH TRAVEL LIMITS AS STATED IN MM 70206-001 DATED 5-20-1998 PAGE 6 STATE TRAVEL LIMITS FOR A MODEL S-2B AND NOT THE S-2C IAW FAA TYPE CERTIFICATE DATA SHEET A8S0 REVISION 22. CONTACTED FOR CURRENT REVISION OF MM AND TOLD THE CURRENT REVISION WAS WHAT WE HAD DATED 5-20-1998.				
<a href="#">CA090601002</a>	PROPJT	PWC	WIRE	BROKEN
5/29/2009	200A	PW306A		PITCH TRIM
(CAN) PILOT`S SIDE PITCH TRIM SWITCH IN-OP. MX INVESTIGATED AND FOUND PITCH TRIM WAS INTERMITTENT WHEN THE CONTROL COLUMN WAS OPERATED AFT (PULLED AFT). FLOOR ACCESS PANELS REMOVED IN COCKPIT AREA AND FOUND HARNESS ROUTING VERY TIGHT. ALLOWING WIRES TO WORK AT GROUND TERMINAL BLOCK 415P. MX FOUND A BROKEN WIRE AT SOCKET "A" OF THE TERNINAL BLOCK 415P. REMOVED FOR REPAIR, NEW PIN REINSERTED AND PITCH TRIM OPS CARRIED OUT IAW MM. FUNCTION CHECKED SERVICEABLE, HARNESS RESECURED FOR PROPER ROUTING CLEARANCE WITH FULL TRAVELS OF ALL PRIMARY CONTROLS. REINSTALLED ALL INTERIOR ACCESS PANELS REMOVED AND ACFT RELEASED FOR RETURN TO SERVICE.				
<a href="#">2009FA0000444</a>	RAYTHN		SEAL	LEAKING
9/2/2008	HAWKER800XP		25UN523	NLG STRUT
NOSE LANDING GEAR WAS OVERHAULED IN FEB. 2008, IN SEPTEMBER OF 2008 NOSE STRUT LEAKED DOWN. RESEALED THE STRUT WITH NEW SEALS AND SERVICED PER THE MM. APPEARED TO BE A NORMAL RESEAL.				
<a href="#">2009FA0000485</a>	RAYTHN	RAYTHN	SEAL	LEAKING

1/19/2009	HAWKER800XP		25YN523	NLG
NOSE LANDING GEAR WAS OVERHAULED IN FEB. 2008, IN SEPTEMBER OF 2008 NOSE STRUT LEAKED DOWN. RESEALED THE STRUT WITH NEW SEALS AND SERVICED IAW MM. APPEARED TO BE A NORMAL RESEAL. IN JANUARY OF 2009 NOSE STRUT LEAKED DOWN AGAIN, CONTACTED MFG OF POSSIBLE SOLUTION TO THIS. MFG CONFIRMED THAT OTHER OPERATORS EXPERIENCING SAME PROBLEM. RESEALED THE NOSE AGAIN WITH NEW SEALS AND SERVICED IAW MM.				
<a href="#">CA090506009</a>	RAYTHN	GARRTT	BEARING	BINDING
4/29/2009	HAWKER900XP	TFE7315R	30728851	ACCESSORY G/B
(CAN) FOUND 2 BEARINGS IN ENGINE ACCY GEARBOX INTERMITTENTLY BINDING, STARTER GENERATOR DRIVESHAFT OFF BEARING (PN 3072885-1) AND OIL PUMP DRIVESHAFT FWD BEARING (PN 3072885-1) . REPLACED STARTER GEN DRIVESHAFT FWD BEARING (PN 3072883-1) AS A PERCAUTIONARY MEASURE. ENGINE RUN PERFORMED POST REPAIR. NO REOCCURANCE OF VIBRATION NOTED AT THIS TIME.				
<a href="#">CA090513005</a>	ROBSIN	LYC	STARTER GEN	MALFUNCTIONED
5/7/2009	R44	O540F1B5	BC3151002	ENGINE
(CAN) BENDIX STICKING AND NOT EXTENDING, STARTER REPLACED.				
<a href="#">CA090519010</a>	ROBSIN	LYC	BUSHING	FAILED
5/8/2009	R44	O540F1B5	ALX8521R	ALTERNATOR
(CAN) ALTERNATOR BUSHINGS FAILED AT THE ATTACHMENT POINTS.				
<a href="#">CA090515003</a>	ROBSIN	LYC	RELIEF VALVE	FAILED
5/13/2009	R44RAVENII	IO540AE1A5		HYD RESERVOIR
(CAN) FOLLOWING SHUTDOWN, PILOT NOTICED A SEVERE HYD LEAK IN TRANSMISSION AREA. BECAUSE OF COOLING AIR HOSE THAT IS DIRECTED RIGHT AT HYD RESERVOIR, FLUID SPRAYED ALL AROUND TRANSMISSION. PILOT REFILLED RESERVOIR TO APPROPRIATE LEVEL IAW SERVICING TRAINING, BUT IT LOST APPROX 250 ML OF HYD FLUID WITHIN AN HOUR. A GROUND RUN LEAK CHECK BY MX, REVEALED FLUID LEVEL ROSE IN RESEVOIR UNTIL IT COVERED ENTIRE SIGHT GLASS, & CONTINUED TO RISE UNTIL IT FLOWED OUT OF FILLER VENT CAP RAPIDLY. RESERVOIR CHANGED OUT & ANOTHER GROUND RUN PERFORMED WITH NO LOSS OF FLUID OR ABNORMALITIES. AS PUMP PROVIDES EXCESSIVE HYD PRESSURE TO SYSTEM, IT IS SUSPECTED THE PRESSURE RELIEF VALVE INCORPORATED INTO THE RESERVOIR ASSY HAD FAILED & NOT RECIRCULATING ANY FLUID BACK TO RESERVOIR INLET. PILOT DID NOT NOTICE ANY ADVERSE AFFECT ON HIS FLT CONTROL SYS DUE TO FLUID LOSS.				
<a href="#">CA090602003</a>	ROBSIN	LYC	POINTS	FAULTY
5/27/2009	R44RAVENII	IO540AE1A5		MAGNETO TACH
(CAN) ENGINE TACH WAS NOT READING AND THE GOVERNOR WAS NOT WORKING. TACH POINTS ON THE MAGNETO FOUND FAULTY UPON REMOVAL AND INSPECTION.				
<a href="#">CA090602004</a>	ROBSIN	LYC	PUMP	LEAKING
5/30/2009	R44RAVENII	IO540AE1A5	LW15473	FUEL SYSTEM
(CAN) FUEL PUMP LEAKING.				
<a href="#">CA090602005</a>	ROBSIN	LYC	CONTROLLER	INOPERATIVE
5/23/2009	R44RAVENII	IO540AE1A5	D2782	GOVERNOR
(CAN) ENGINE RPM HUNTING, GOVERNOR CONTROL UNIT REPLACED.				
<a href="#">CA090602006</a>	ROBSIN	LYC	BEARING	WORN
5/24/2009	R44RAVENII	IO540AE1A5		COOLING UNIT
(CAN) BEARING FOUND WORN BEYOND LIMITS.				
<a href="#">CA090602007</a>	ROBSIN	LYC	RELIEF VALVE	STUCK

6/1/2009

R44RAVENII

IO540AE1A5

D3211

(CAN) CONTAMINANTS ARE MIGRATING INTO THE RELIEF VALVE SEAT AND WALLS CAUSING GALLING WITHIN THE RELIEF VALVE. THIS CAUSES THE VALVE TO STICK CAUSING PRESSURE IMPULSES FROM THE ENGINE DRIVEN PUMP NOT TO BE ABSORBED BY THE RELIEF VALVE. THE IMPULSE CAUSE THE VACUUM SWITCH IN THE GASCOLATOR TO FLICKER THE WARNING LIGHT. FURTHER INVESTIGATION DURING THE TEARDOWN REVEALED CONTAMINATES WITHIN THE HSG. WHEN THE PRESSURE RELIEF VALVE IS STUCK PROPER FUEL PRESSURE WILL NOT BE MAINTAINED CAUSING ADVERSE ENGINE OPERATING CONDITIONS.

---

<a href="#">CA090506002</a>	ROBSIN	LYC	PUMP	DEFECTIVE
4/27/2009	R44RAVENII	IO540AE1A5	A8187B	AUX FUEL

(CAN) WELDON AUX FUEL PUMP LIGHT CAME ON IN FLIGHT, TROUBLESHOOTING REVEALED A DEFECTIVE PUMP. PUMP REPLACED WITH A SERVICABLE ONE.

---

<a href="#">CA090506003</a>	ROBSIN	LYC	ACTUATOR	FAILED
5/2/2009	R44RAVENII	IO540AE1A5	C0512	CLUTCH

(CAN) CLUTCH ACTUATOR FAILED. TROUBLESHOOTING REVEALED A FAULTY MICROSWITCH. SERVICABLE ACTUATOR INSTALLED.

---

<a href="#">CA090506004</a>	ROBSIN	LYC	STARTER GEN	BROKEN
4/23/2009	R44RAVENII	IO540AE1A5	14924HTH	

(CAN) STARTER WOULD NOT ENGAGE, FOUND BROKEN.

---

<a href="#">CA090506005</a>	ROBSIN	LYC	MAGNETO	DEFECTIVE
4/23/2009	R44RAVENII	IO540AE1A5	BL60064620	ENGINE

(CAN) MAGNETO FAILED AND FOUND DEFECTIVE, SERVICABLE MAGNETO INSTALLED.

---

<a href="#">CA090508006</a>	ROBSIN	LYC	STARTER GEN	MALFUNCTIONED
5/6/2009	R44RAVENII	IO540AE1A5	BC3151003	

(CAN) STARTER MADE GRINDING NOISES DURING START UP. STARTER WAS REPLACED AND THE PROBLEM WAS RECTIFIED.

---

<a href="#">CA090525002</a>	ROBSIN	LYC	SWITCH	INTERMITTENT
5/20/2009	R44RAVENII	IO540AE1A5	D74521	FUEL SYS

(CAN) FUEL FILTER WARNING LIGHT FLICKERS WHEN THE ENGINE IS AT IDLE. THE LIGHT FLICKERING INCREASES IN BRIGHTNESS WHEN THE CLUTCH IS DISENGAGED OR AUX FUEL PUMP IS TURNED OFF. THE SWITCH ASSY WAS REPLACED WITH REVISION D FOR TROUBLESHOOTING AND THE PROBLEM WAS RESOLVED. REVISION D IS SET TO 2.0 INCHES OF HG. REVISION F IS SET TO 2.75 INCHES OF HG.

---

<a href="#">CA090525004</a>	ROBSIN	LYC	STARTER	MALFUNCTIONED
5/21/2009	R44RAVENII	IO540AE1A5	14924HTH	ENGINE

(CAN) THE BENDIX IS NOT MOVING OUT TO ENGAGE THE RING GEAR.

---

<a href="#">CA090511012</a>	ROBSIN	LYC	BEARING	DAMAGED
5/8/2009	R44RAVENII	IO540AE1A5		PITCH CHANGE

(CAN) INNER BEARING ON TAIL ROTOR PITCH CHANGE MECHANISM, INNER RACE IS SPINNING ON THE SHAFT CAUSING BEARING ASSY TO WEAR INTO THE SHOULDER ON THE PITCH CHANGE ASSY. THE RESULT WAS THE BEARING ASSY WAS MIGRATING INBD ON THE PITCH CHANGE ASSY.

---

<a href="#">CA090511004</a>	ROBSIN	LYC	STARTER GEN	WORN
5/5/2009	R44RAVENII	IO540AE1A5	BC3151004	ENGINE

(CAN) DURING INSP, STARTER FOUND WORN. STARTER REPLACED WITH SERVICABLE STARTER.

---

<a href="#">CA090511005</a>	ROBSIN	LYC	STARTER GEN	INOPERATIVE
-----------------------------	--------	-----	-------------	-------------

5/1/2009	R44RAVENII	IO540AE1A5	14924HTH	ENGINE
(CAN) STARTER WAS NOT ENGAGING ON START, REPLACED STARTER WITH SERVICABLE STARTER.				
<a href="#">CA090511006</a>	ROBSIN	LYC	PUMP	INTERMITTENT
5/6/2009	R44RAVENII	IO540AE1A5	D8187B	FUEL SYSTEM
(CAN) INTERMITTENT PRIME ON FIRST START, PUMP REPLACED.				
<a href="#">CA090603005</a>	SAAB	GE	SWIVEL	SEPARATED
6/2/2009	340B	CT79B	AIR124470	MLG BRAKES
(CAN) AFTER ARRIVAL, THE PILOT WAS STANDING BY THE LT U/C WHEN HE NOTICED THE HYD LINE TO THE INBD BRAKE UNIT WAS DETACHED AND HANGING LOOSE. HE REPORTED IT TO MX, WHO SENT OUT A REPAIR PARTY. THE MECHANIC FOUND THAT THE SWIVEL ELBOW (PN AIR124470) BETWEEN THE BRAKE AND HYD LINE HAD SEPARATED AT THE SWIVEL. HE REPLACED THE SWIVEL, SERVICED THE BRAKE SYS AND THE ACFT WAS RELEASED WITH NO FURTHER DEFECTS. THE MECHANIC ACCOMPANIED THE ACFT, WHERE HE AGAIN CHECKED THE BRAKES WITH NO FAULT FOUND. THE SWIVEL ELBOW IN QUESTION IS KNOWN TO LEAK ON OCCASION, BUT THIS IS THE FIRST TIME WE HAVE HAD ONE PULL APART.				
<a href="#">CA090522002</a>	SKRSKY		TRIPOD	CRACKED
5/20/2009	S76		7630907017044	ENGINE MOUNT
(CAN) WELD ON LEG OF ENGINE MOUNT CRACKED (SHORT LEG)				
<a href="#">CA090521003</a>	SKRSKY		TRIPOD	CRACKED
5/1/2009	S76		7630907017044	ENGINE MOUNT
(CAN) WELD ON LEG OF ENGINE MOUNT CRACKED.				
<a href="#">CA090529006</a>	SKRSKY	TMECA	SKRSKY	HOUSING
5/29/2009	S76C	ARRIEL2S1	7635109002053	M/R GEARBOX
(CAN) MGB UPPER HOUSING BEARING SUPPORT STUDS MISSING LOCK RINGS. MAIN GEAR BOX PN 76351-09600-044, SN A231-00295 DISASSEMBLED FOR OVERHAUL AT 3226:35 TSN. UPPER HSG (PN 76351-09002-053, SN A001-00566) DISSASSEMBLED AND FOUND BEARING SUPPORT ATTACHMENT STUDS (PN SFJ111-13TA11AE0301) TO BE MISSING 8 LOCK RINGS (PN MS51990-105P). MFG FIELD REPRESENTATIVE CONTACTED TO REVIEW THE MGB UPPER HOUSING FOUND WITH THE 8 STUD LOCK RINGS MISSING. AWAITING DIRECTION ON ACCEPTABLE ACTIONS TO TAKE.				
<a href="#">CA090522005</a>	SNIAS	TMECA	SPACER	FAILED
5/19/2009	AS332L	MAKILA1A	332A311401M	MAIN ROTOR HEAD
(CAN) DURING ROUTINE 500 HR INSP AND AFTER THE REMOVAL OF THE FREQUENCY ADAPTORS, THE FLAPPING HINGE PIN SPACER THAT MATES AGAINST THE FREQUENCY ADAPTER SPHERICAL BEARING WERE FOUND CRACKED. REFERENCES: MET CHP 62.35-00.601, 62.35-00.729.				
<a href="#">CA090526006</a>	SNIAS	LYC	LEAF SPRING	CRACKED
5/22/2009	AS350B2	LTS101700D2	350A2113832403	PILOT SEAT
(CAN) DURING AN INSP, A CRACK WAS FOUND ON THE FWD RT AINTI-VIBRATOR LEAF PIN 350A21-1383-2403, AS NOTED IN DRAWING.				
<a href="#">CA090525001</a>	SNIAS	TMECA	PRESSURE SWITCH	UNSERVICEABLE
5/24/2009	AS350BA	ARRIEL1B	MA12401	HYD SYSTEM
(CAN) "HYD" WARNING LIGHT WOULD NOT GO OUT DURING SERVICING GROUND RUN. REPLACEMENT PRESSURE SWITCH INDICATED PROPER OPERATION OF HYD SYS. CAN NOT DETERMINE IF PRESSURE SWITCH PROBLEM ELECTRICAL OR MECHANICAL.				
<a href="#">CA090506001</a>	SWRNGN	GARRTT		COOLING TURBINE OVERSERVICED

4/30/2009

SA227AC

TPE331\*

20475546

(CAN) FLIGHT CREW OBSERVED SMOKE IN CABIN. ACFT RETURNED TO BASE. MX WAS CALLED AND UPON INSP FOUND EXCESSIVE OIL IN UNIT AND OIL SMEARED AROUND THE PANEL BY THE AIR CYCLE MACHINE. THE OIL LEVEL WAS ADJUSTED AND THE EXCESS AMOUNT WAS REMOVED. ACFT GROUND TESTS SERVICEABLE AND RETURNED TO SERVICE.

[CA090519007](#)

SWRNGN

GARRTT

VALVE

STUCK

5/17/2009

SA227AC

TPE33111U

350501

NLG STEERING

(CAN) DURING THE LANDING ROLLOUT, FLIGHT CREW ATEMPTED TO STEER ACFT USING NOSE WHEEL STEERING WHICH WAS UNRESPONSIVE. NOSE STEERING SYS INDICATED NO FAULTS AND ALL REQUIRMENTS NEEDED FOR NOSE STEERING FUNCTION WERE OBTAINED (IE GEAR DOWN, NWS ARMED, ETC). NOSE WHEEL JUST WOULD NOT STEER AS COMMANDED. ACFT WAS FLOWN ON A FERRY PERMIT TO BASE FOR REPAIRS WHERE MX DISCOVERED ARMING VALVE (PART OF THE NWS MANIFOLD) WAS NOT OPENING ALLOWING HYD FLIUD TO NOSE STEERING ACTUATOR FOR STEERING. THIS MODE OF FAILURE WILL NOT ADVISE FLIGHT CREW OF A FAILURE OF NOSE STEERING SYS. MX REPLACED THE NWS MANIFOLD AS THE ARMING VALVE IS INTERGRAL TO THIS MANIFOLD AND TESTED THE NWS SYSTEM WITHOUT ANY FURTHER FAULTS. TOTAL TIME ON THE ARMING VALVE COULD NOT BE DETERMINED AS THIS COMPONENT IS ON CONDITION.

[CA090512003](#)

SWRNGN

GARRTT

ENGINE

SURGES

5/9/2009

SA227AC

TPE33111U

RIGHT

(CAN) DURING THE DESCENT, APPROX 30NM FROM AIRPORT, RT ENGINE SURGED, THEN LOST POWER COMPLETELY, NTS LIGHT ILLUMINATED. CONFIRMED WITH POWER LEVER (NO TORQUE MOVEMENT, NOR YAW). COMPLETED ENGINE FAILURE CHECKLIST, DECLARED EMERGENCY (TRUCKS WERE DISPATCHED). LANDED WITHOUT FURTHER INCIDENT. THE QUESTION OF THE ENGINE STOPPED IN FLIGHT OR WENT TO REDUCED POWER HAS NOT BEEN CONFIRMED. ENGINE IS BEING REMOVED AND REPLACED FOR FURTHER INVESTIGATION.

[CA090605001](#)

ZLIN

LYC

CABLE

FRAYED

6/4/2009

Z242L

AEIO360A1B6

Z14244130000

ELEVATOR TRIM

(CAN) THE FWD ELEVATOR TRIM CABLE WAS DISCOVERED FRAYED DURING SCHEDULED MX.

[CA090508002](#)

ZLIN

LYC

CABLE

FRAYED

5/6/2009

Z242L

AEIO360A1B6

Z14244130000

ELEV TRIM

(CAN) THE FWD ELEVATOR TRIM CABLE WAS DISCOVERED FRAYED DURING A SCHEDULED 500 HOUR INSP.

[CA090608004](#)

ZLIN

LYC

CABLE

SHEARED

6/5/2009

Z242L

AEIO360A1B6

Z4244120000

ELEVATOR TAB

(CAN) THE LT TRIM CABLE WAS THREADED THROUGH THE THE WASHER ON THE CABLE STOP AT MFG. TIGHTENING OF THE STOP NUT PERFORMS A SHEARING ACTION ON THE CABLE. THIS DEFECT HAS BEEN NOTED PREVIOUSLY.