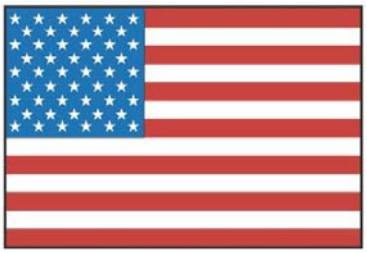
U.S. Department of Transportation
Federal Aviation Administration

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



ALERT NUMBER 378

JANUARY 2010

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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

Cessna: 172/180/185; Control Yoke Corrosion; ATA 2701

(The following "Service Difficulty Alert" from our sister agency, Transport Canada, provides helpful information.)

Transport Canada Transports Canada

TP 7244

No. N° AL-2009-07 1/2
Date 2009-10-16

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.

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.

FLIGHT CONTROL YOKE – CORROSION CESSNA 172/180/185 SERIES

A recent SDR reported that the control yoke (see diagram) on a parked aircraft broke during high ground-wind conditions. Further investigation of the yoke assembly revealed that a complete fracture had occurred between the yoke pivot area and the elevator attachment point. It was determined that the yoke fracture was due to severe internal corrosion. It is important to note that had the fracture occurred in flight, it would have resulted in a complete loss of elevator (primary pitch) authority. A complete fracture above the pivot point would have resulted in a loss of both the aileron (roll) and elevator (pitch) control authority.

Several years prior to this event; Cessna issued Service Bulletin (SB) SEB01-3 Revision 1, dated 28 May 2001. The SB provides instructions for the removal and drilling of an inspection hole at the yoke base, and the application of corrosion treatment. SEB01-3 also recommends that repeat internal and external yoke inspections, in conjunction with corrosion treatment, be carried out each following year.

In this recent case, the operator had not complied with the manufacturer's SB SEB01-3.

Additionally, while complying with SB SEB01-3 Revision 1, a foreign operator found water when the inspection hole was drilled at the yoke base. A quarter of a cup of water and black corrosion residue was drained from the lower area of the yoke tube. Significant rust and corrosion was found inside the full length of the centre tube. In another unrelated case, while complying with SB SEB01-3, the required inspection hole was drilled too large and it was mislocated. This error weakened the structural integrity of the yoke and later resulted in

MANCHE – CORROSION CESSNA DES SÉRIES 172/180/185

Un récent RDS a signalé que le manche (voir le schéma) d'un avion stationné s'était rompu dans des conditions de vent violent au sol. Une enquête plus approfondie sur ce manche a permis d'établir qu'il y avait eu fracture complète entre la région du pivot du manche et le point de fixation de la gouverne de profondeur. Il a été établi que la fracture de ce manche était attribuable à une importante corrosion interne. Il est important de noter que si cette fracture était survenue en vol, elle aurait provoqué une perte totale d'effet sur la gouverne de profondeur (commande principale de tangage). Une fracture complète au-dessus du pivot aurait provoqué une perte d'effet sur les ailerons (roulis) et sur la gouverne de profondeur (tangage).

Plusieurs années avant cet incident; Cessna a publié la Révision 1 du bulletin de service (BS) SEB01-3, en date du 28 mai 2001. Ce BS renferme des directives concernant le perçage et le remplissage d'un orifice d'inspection à la base du manche ainsi que l'application d'un traitement anticorrosion. De plus, le BS SEB01-3 recommande que l'on procède chaque année à des inspections répétitives internes et externes du manche ainsi qu'à un traitement anticorrosion.

Dans ce récent cas, l'exploitant ne s'était pas conformé au BS SEB01-3 du constructeur.

De plus, un exploitant étranger qui se conformait à la Révision 1 du BS SEB01-3 a trouvé de l'eau en perçant l'orifice d'inspection à la base du manche. On a drainé un quart de tasse d'eau et de résidus de corrosion noirs de la partie inférieure du tube du manche. On a trouvé d'importantes traces de rouille et de corrosion à l'intérieur, sur toute la longueur du tube central. Dans un autre cas sans rapport avec le précédent, même si l'orifice d'inspection était conforme au BS SEB01-3, il était trop gros et au mauvais endroit. Cette erreur avait eu pour effet de

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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.**

24-0028 (01-2005)

Canada

No. N°	AL-2009-07	2/2

a complete fracture of the yoke.

The FAA previously published a Special Airworthiness Information Bulletin (SAIB) CE-04-03 (in year 2003) on this same subject, strongly advising that operators comply with Cessna SB SEB01-3 and treat the control yoke with corrosion preventative at the earliest opportunity.

Transport Canada Civil Aviation (TCCA) strongly encourages owners, operators and other agencies to comply with the instructions contained within Cessna SB SEB01-3 Revision 1. Please note that the effectivity of the SB covers all the aircraft that have reported this widespread problem. A service history review has determined that this problem is not limited to a specific model year, geographical location or hours of operation that would make one aircraft's yoke more susceptible to having corrosion than any other models. The only definitive way to determine the internal condition of the yoke tube is to comply with the aforementioned SB.

Defects, malfunctions and failures occurring on aeronautical products should be reported to Transport Canada, Continuing Airworthiness in accordance with CAR 591 mandatory Service Difficulty Reporting requirements.

For further information, please contact a Transport Canada Centre, or Mr. Barry Caldwell at 613-952-4357 or email CAW WEB Feedback@tc.gc.ca or any Transport Canada Centre.

réduire l'intégrité structurale du manche et elle s'était par la suite traduite par une fracture complète de ce dernier.

La FAA avait antérieurement publié à ce sujet le Bulletin spécial d'information de la navigabilité (SAIB) CE-04-03 (en 2003), lequel recommandait fortement aux exploitants de se conformer au BS SEB01-3 de Cessna et d'appliquer sur le manche le traitement anticorrosion préventif à la première occasion.

Transports Canada, Aviation civile (TCAC) incite fortement les propriétaires, les exploitants et les autres organismes à se conformer aux directives que renferme la Révision 1 du BS SEB01-3 de Cessna. Prière de remarquer que ce BS s'applique à tous les avions pour lesquels on a signalé ce problème très répandu. Un examen de l'historique de l'entretien courant a permis d'établir que ce problème ne se limite pas à un modèle, à une année, à un emplacement géographique ou à un nombre d'heures d'exploitation spécifiques qui rendraient le manche d'un avion plus susceptible que celui d'un autre avion de comporter des traces de corrosion. Le seul moyen sûr de déterminer la condition interne du tube du manche consiste à se conformer au BS mentionné ci-dessus.

Les défectuosités, les mauvais fonctionnements et les pannes de produits aéronautiques devraient être signalés au Maintien de la navigabilité aérienne de Transports Canada, conformément aux exigences du RAC 591 qui obligent à transmettre des rapports de difficultés en service.

Pour de plus amples renseignements, communiquer avec un Centre de Transports Canada ou avec M. Barry Caldwell, au numéro de téléphone 613-952-4357, ou par courrier électronique à CAW WEB Feedback@tc.gc.ca.

For Director, National Aircraft Certification

Pour le Directeur, Certification nationale des aéronefs

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

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

www.tc.gc.ca/CivilAviation/certification/menu.htm

Part Total Time: (N/A)

Cessna: 208B*;* Corroded Flap Bell Crank Bolts; ATA 2750

(The following combines 20 separate submissions from the same mechanic on nine different registered aircraft over a period of approximately 3 months.)

An operator writes, "During an inspection of the left wing on a Cessna 208B, maintenance personnel found the most outboard flap bell crank (P/N 2622091-1) frozen. The bolt was frozen to the bushing (P/N 82614-4-100N). This prevented the bolt from rotating inside the bushings, elongating the bolt hole through the mounting bracket (P/N 2622101-3). This *(provided sufficient...)* play that, when the flap handle was selected 'up', *(the cable)* would wrap around the bell crank, causing the cable tension to increase. This also pushed the cable into the trailing edge rib inboard of the middle flap track (wing station 118.0) causing it to stretch and fray—requiring its replacement. The corrosion was so severe that during the process of removing the bell crank the bolt head broke off."

(The submitted part numbers ranked as follows:

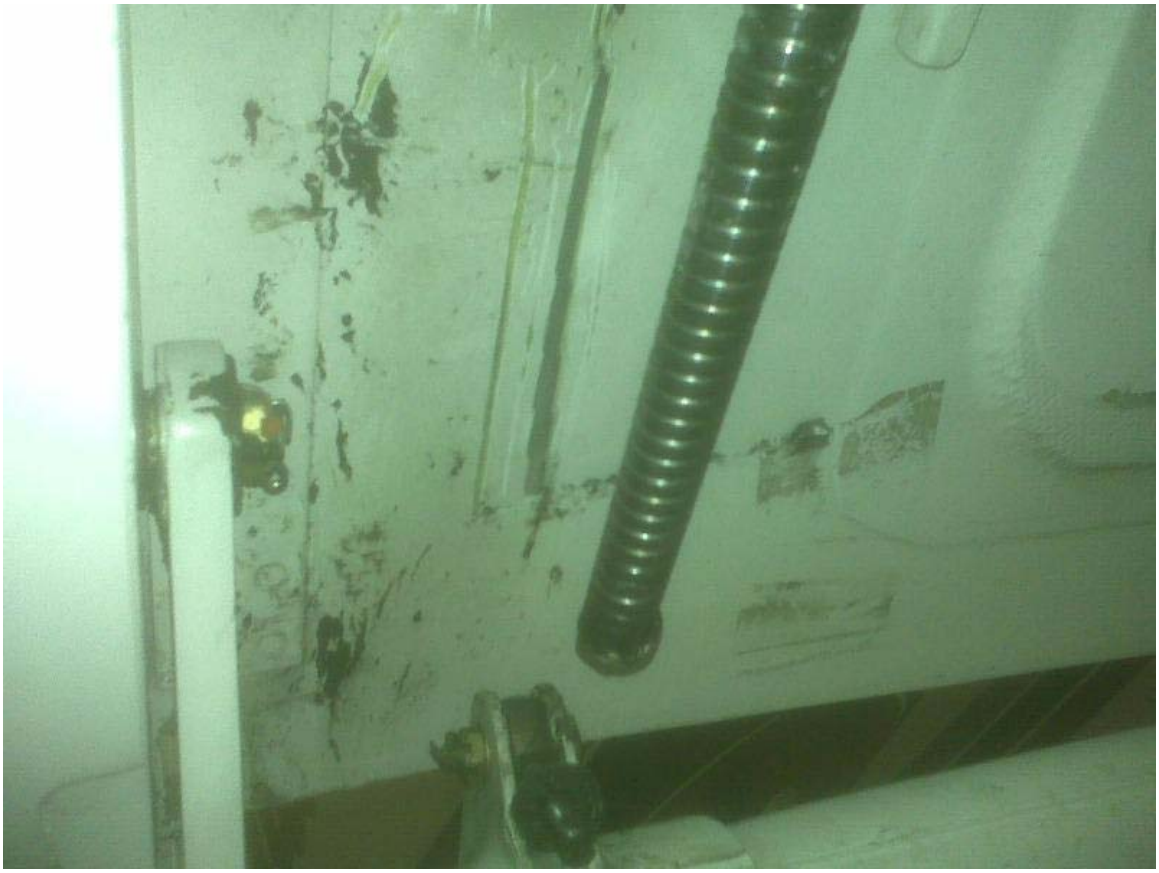
2622083-15	*2 each*
2622091-1	*3 each*
2622091-9	*4 each*
2622267-1	*6 each*
2622267-8	*5 each*

I cannot find anything in the CFR's mandating an owner/operator has to wait for an inspection/maintenance requirement to lubricate an aircraft. Is the 208 an exception? Thanks for pointing out the obvious—if applied, a little lubrication can go a long way and prevent a myriad of problems.)

Part Total Time(s): (unknown)

Cessna: CE750; Disconnected Flap Linkage; ATA 2750

An unidentified submitter writes, "On visual approach the copilot complained the aircraft was 'out of rig'—it wanted to roll right with flaps at 35 degrees. On post flight we discovered the right flap was extended full, and *(its drive)* linkage was not connected."



(Great.... I've got a detective's proverbial 'dead body'...but no plot. Does the male rod-end have mangled threads on the OTHER side? Is this mechanical or mechanic failure? Ouch! How are we going to repair that wing skin? YOU sent the scary pictures...so what do you think happened? Guess I have to buy the book—Ed.)

Part *(aircraft)* Total Time: 6,098.0 hours

HELICOPTERS

Eurocopter: EC130B4; Cracked Fairing Hinges; ATA 5344

(This report combines two identical submissions but on different N-numbered aircraft. The same air taxi technician submitted both accounts.)

"During a routine inspection the *(engine fairing hinge half)* was found cracked *(from)* the screw mounting bores to the metal's edge *(P/N 350A58-0045-23)*. This is a very common failure for this part. *(I)* suggest the part be manufactured of a more durable material, such as stainless steel."

(At least ten of these defects can be found in the SDRS database—not much of an issue for the aircraft, a potential headache for those on the ground—Ed).

Part Total Time(s): 195.4 and 203.6 hours

Eurocopter: EC130B4; Cracked Stabilizer Fitting; ATA 5302

(The following combines eight reports describing the same defect on six different aircraft of the same model.)

A helicopter submission states, "A crack was found during routine inspection radiating from a screw hole on the mounting flange surface *(of the horizontal stabilizer fitting)* and onto a reinforcement rib surface. A new fitting *(R/H; Top: P/N 350A23-4222-20)* has been matched drilled and installed.

"This is a fairly common defect. *(I)* suggest a stronger material such as stainless steel be utilized to improve part durability. Careful match drilling and shimming by the installer can improve part longevity." *(L/H P/N ends with a -21. Of the eight reports, three were R/H parts. The part times range as follows: 205.4; 311.3; 522.3; 1,100.6; 1,372.6; 1,426.8; 2,461.1; and 4,925.9 hours, respectively. The SDRS database finds twenty entries for the -20 P/N, six entries for the -21 P/N.)*

Part(s) Total Time: 1,540.8 hours (average)

Eurocopter: EC130B4; Loose Starflex End Bushing; ATA 6220

A helicopter technician writes, "During a routine inspection *(on the main rotor head)* one of the Starflex arm end bushings was found to turn slightly with applied hand pressure." The rotor head sleeve assemblies had previously been removed. "The Starflex was removed for repair of the bonding defect *(Main Rotor Head Assembly P/N: 355A31-0002-01)*.

"This is a common failure for this part. The manufacturer claims to have a repair for this defect, but *(they)* offer only an exchange assembly. *(I)* suggest a new adhesive system (or part design) be tried to reduce this type of defect *(effecting)* such an expensive part. *(Note...)* A slippage mark painted across the edge of the bushing and onto the star adhesive bead helps detect this defect...by indicating the bushing has turned."

(See the next entry with slightly different details for six more of these defects—Ed.)

Part Total Time: 535.3 hours

Eurocopter: EC130B4; Loose Starflex End Bushing; ATA 6220

(The previous submitter continues here with six additional—and identical defect reports from different N-numbered aircraft.)

"During a routine inspection, the adhesive bead for a Starflex arm end bushing was found cracked. Further examination utilizing a soap/water detection method revealed relative motion between the bushing and the Starflex arm end. With the rotor hub sleeves removed, the bushings could be moved manually. A serviceable replacement Starflex was installed.

"This is a defect that recently has become more common than in the past. *(I)* suggest a different adhesive be utilized, or the arm ends and bushings be designed to have a larger adhesive bonding surface. *(This might be accomplished by...)* adding an inner bushing, and outer Starflex arm end splines.

"There was no evidence of any imminent failure of the part or excessive play developing with the bushing. *(I)* suggest the application of a slippage mark between the Starflex arm and the bushings to show bushing rotation. *(This could be added...)* as a precaution to *(help)* detect dangerous movement."

(Main rotor hub assembly P/N: 355A31-0002-01; Starflex P/N: 350A31-1917-01. Part times for the six submissions: 202.9; 498.0; 499.7; 839.2; 1,299.1; and 1,307.0 hours, respectively. The Starflex P/N reflects nine entries in the SDRS database.)

Part Total Time: 774.3 hours (average)

POWERPLANTS

Pratt & Whitney: PW150A; Hot Section Deterioration; ATA (N/A)

(The following "Service Difficulty Alert" from our sister agency, Transport Canada, provides helpful information.)

Transport Canada Transports Canada

TP 7244

No. / N° AL-2009-08 1/2
Date 2009-10-27

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.

ALERTE AUX DIFFICULTÉS EN SERVICE

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Engine Hot Section Deterioration and Engine Condition Trend Monitoring (ECTM)

The in-flight failure of a Pratt and Whitney Canada (P&WC) PW150A engine prompted an operator to conduct unscheduled Hot Section Inspections on the rest of their engines. The resulting unscheduled inspections revealed several engines within the operator's fleet to be damaged beyond limits, particularly in the high-pressure turbine shroud area, resulting in their removal from service.

The authority of the occurrence country, Transport Canada and P&WC has investigated the original occurrence engine. Hot section distress was noted in several areas. A review of the trend data revealed an increasing upward trend in inter-turbine temperature (ITT) and gas generator speed.

This Alert is issued to bring to the attention of all operators and maintainers, utilizing Engine Condition Trend Monitoring (ECTM) systems for the on-condition maintenance of their engine fleet, the importance of diligently following relevant recommendations published by the manufacturer.

Thoroughly investigating and understanding any change in trend readings is paramount to a successful program. Where any doubt exits in the interpretation of said recommendations or identified adverse trends, it is important to communicate with engine design organization for clarification and guidance.

P&WC has issued a service information letter (SIL)150-031 to address this subject, as well as to clarify the interpretation and recommendations particular to their product.

Détérioration de la partie chaude du moteur et surveillance des tendances de l'état du moteur (ECTM)

La défaillance en vol d'un moteur PW150A de Pratt and Whitney Canada (P&WC) a incité un exploitant à procéder à des inspections non planifiées de la partie chaude du reste de ses moteurs, lesquelles inspections ont permis d'établir que plusieurs moteurs du parc aérien de l'exploitant avaient subi des dommages dépassant les limites, en particulier dans la région de l'anneau de cerclage de la turbine haute pression, ce qui s'est traduit par leur retrait du service.

Les autorités du pays où est survenu l'incident, Transports Canada et P&WC ont examiné le moteur ayant à l'origine subi l'incident. On a décelé des dommages importants à la partie chaude en plusieurs endroits. L'étude des données sur les tendances a permis d'établir que la température interturbine (ITT) et le régime du générateur de gaz avaient tendance à augmenter.

On publie la présente Alerte pour attirer l'attention de tous les exploitants et de toutes les personnes chargées de la maintenance utilisant les systèmes de surveillance des tendances de l'état des moteurs (ECTM), pour la maintenance selon état des moteurs de leur parc aérien, sur l'importance de suivre avec diligence les recommandations pertinentes publiées par le constructeur.

Il est primordial d'étudier et de comprendre toutes les données sur les tendances nécessaires au succès d'un programme. En cas de doute quant à l'interprétation des recommandations formulées ou des tendances négatives identifiées, il est important de communiquer avec l'organisme de conception du moteur pour obtenir des précisions et des directives d'orientation.

P&WC a publié le bulletin d'information sur l'entretien (SIL) 150-031 pour traiter de ce sujet ainsi que pour apporter des précisions quant à l'interprétation et aux recommandations particulières à ses produits.

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**

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24-0028 (01-2005)

Canada

No. N°	AL-2009-08	2/2

For further information regarding this SDA, contact the engine manufacturer, a Transport Canada Centre or Mr. Paul Jones, Continuing Airworthiness, Ottawa, telephone 613 952-4357 or by email at CAW WEB Feedback@tc.gc.ca

Pour de plus amples renseignements concernant la présente alerte de difficultés en service, communiquer avec le motoriste concerné, un centre de Transports Canada ou avec M. Paul Jones, Maintien de la navigabilité aérienne, à Ottawa, téléphone 613-952-4357 ou par courriel à CAW WEB Feedback@tc.gc.ca

For Director, National Aircraft Certification

Pour le Directeur, Certification nationale des aéronefs

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

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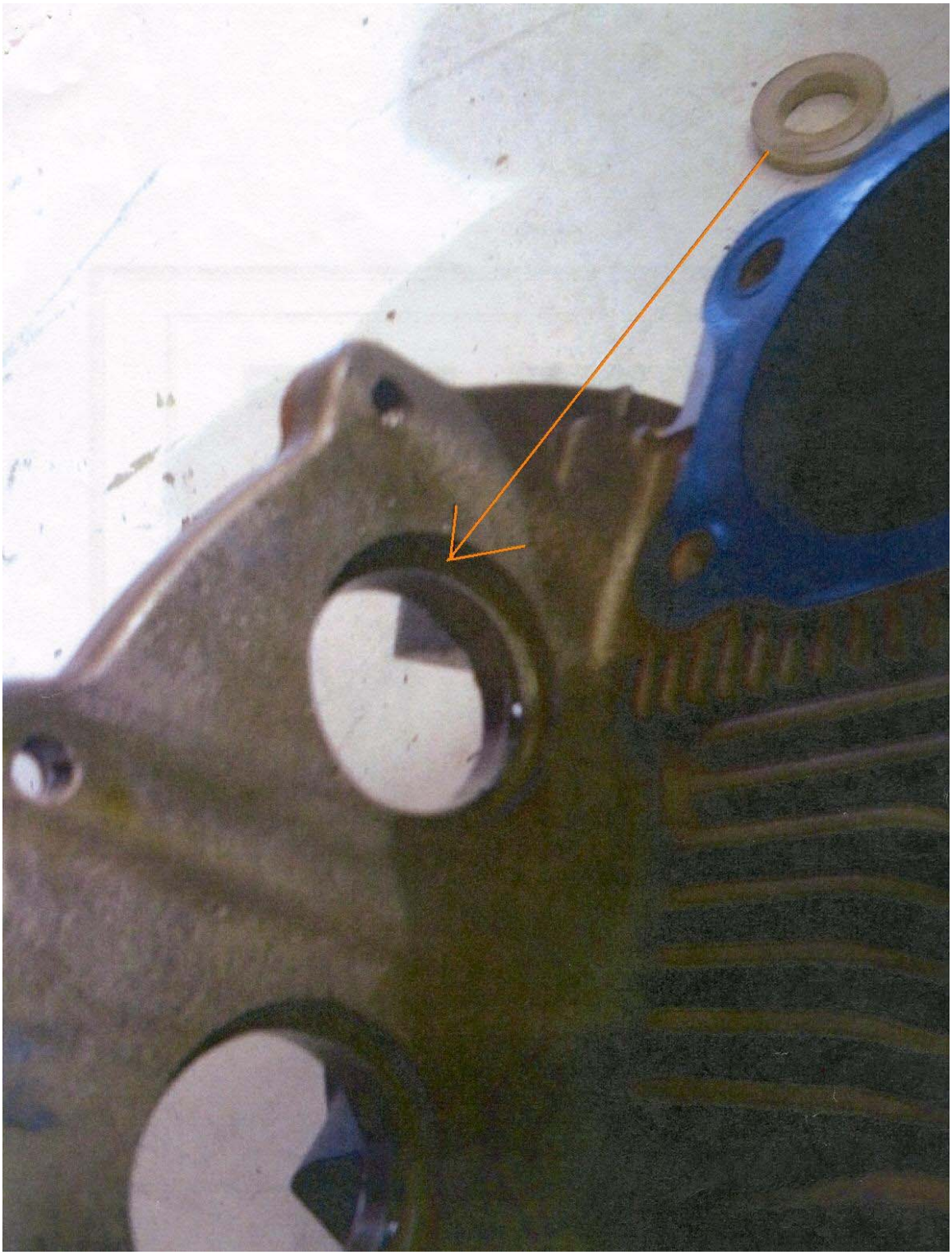
www.tc.gc.ca/CivilAviation/certification/menu.htm

Part Total Time: (N/A)

TCM Cylinder: 655484A5; Missing Seal Counterbores: ATA 8530

(This cylinder is part of an IO-550B engine assembly.)

A repair station mechanic says, "While performing incoming inspection of a new TCM cylinder (P/N 655484A5) the cylinder pushrod housing boss was found not to have been machined for the pushrod housing seal during the manufacture of the cylinder." *(The first picture points to the area of the cylinder missing the counterbore. The second shows the counterbore areas and a typical seal on a correctly machined cylinder.)*

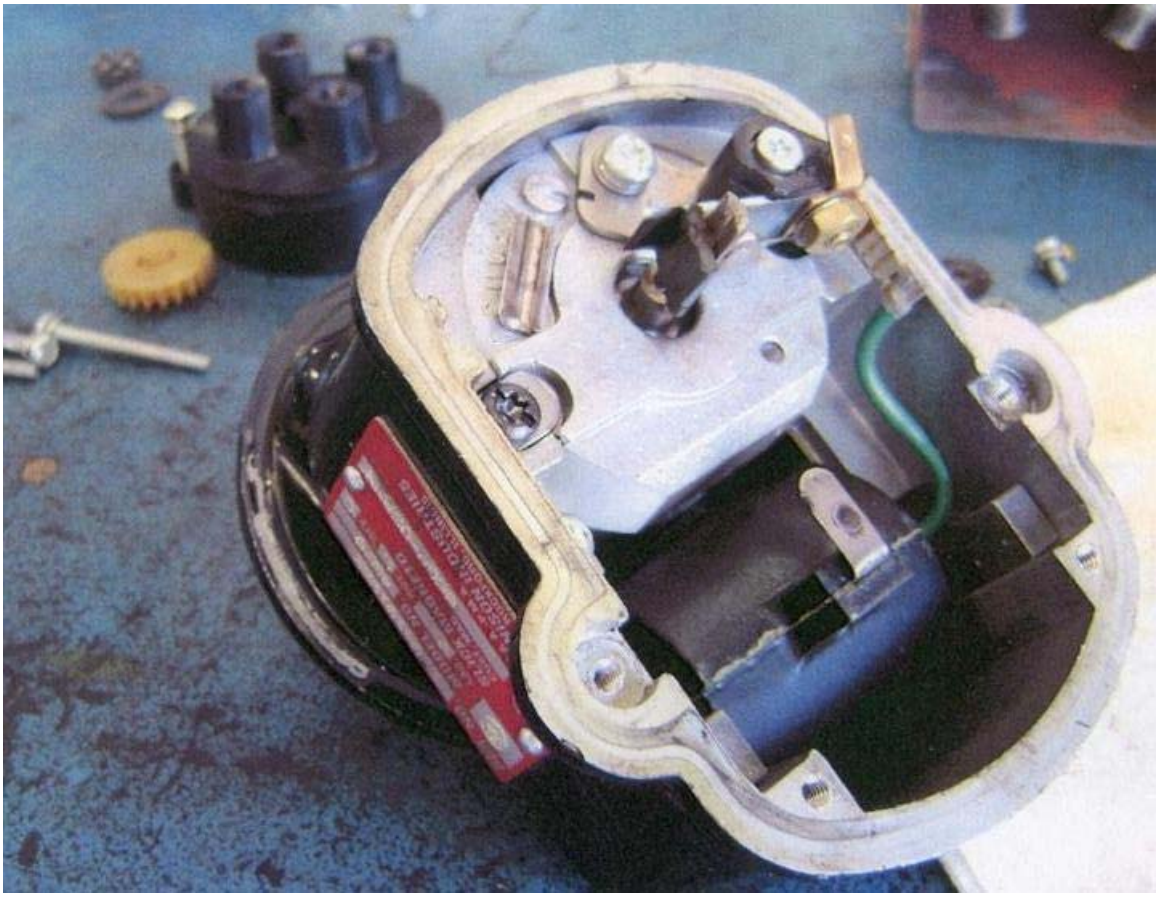


Part Total Time: 0.0 hours

ACCESSORIES

Slick Magneto: 4370; Failed Gear Shaft; ATA 7414

An unidentified submitter states, "*(This unit indicated...)* an excessive *(engine RPM)* drop. *(I)* removed the magneto for an internal inspection and found the shaft had failed at the base of the slot that retains the point cam. *(When I)* removed the shaft gear from the cam, one side of the shaft stayed attached to the gear."



(The model/ part number 4370 has 14 entries in the SDRS database.)

Part Total Time: (unknown)

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

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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

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**
CA091110003				BLADE	CORRODED
11/5/2009					PROPELLER

(CAN) PROPELLER RECEIVED FOR CORROSION INSP, FOUND SURFACE CORROSION ON BLADE CAMBER FACE, AND THRUST FACE OF BOTH BLADES. EXTRA WORK TO GRIND OUT CORROSION. PROPELLER CONTINUE IN SERVICE.

CA091110007				BEARING CAP	LOOSE
11/10/2009			6766	K3630	MAGNETO

(CAN) CUSTOMER REPORTED MAG QUIT WORKING WHEN MAG DROP CHECK WAS PERFORMED. MAG PERFORMED FINE WHEN WORKING IN LASAR ELEC MODE, BUT WHEN MAG DROP CHECK IS PERFORMED THE LASAR SYSTEM IS SHUTOFF AND THE MAGNETO WORKS IN THE BACKUP "MAGNETO" MODE. MAG WAS DISASSEMBLED AND THE BRG CAP WAS FOUND LOOSE AND TURNING SLIGHTLY IN THE HSG. THIS CAUSED FRETTING OF BRG CAP AND ALUMINUM DUST WAS FOUND THROUGHOUT THE MAG. THE BRG CAP RETAINING CLAMPS AND SCREWS DO NOT APPEAR TO HAVE BEEN TIGHTENED CORRECTLY, CAUSING THE CAP TO TURN. CONTACT POINTS AND HALL EFFECT SENSOR ARE ATTACHED TO CAP AND ANY AMOUNT OF MOVEMENT WILL CHANGE TIMING OF MAG BRG CAP ASSY, BEARING, SEAL AND CONTACT POINTS WERE REPLACED AND MAG WAS RETURNED TO SERVICE.

2009FA0001070				TURBOCHARGER	MISMANUFACTURED
11/20/2009				4091709001	

BOTH TURBOCHARGERS WERE INCORRECTLY ASSEMBLED IAW TURBOCHARGER OVERHAUL MANUAL 400660-000, REV A VOLUME 1 & 2, PAGE 2-670-01, ITEM 26 (WASHER) WAS ON THE WRONG SIDE OF THE BEARING. ITEM 26 WAS INSTALLED ON THE TURBINE WHEEL SIDE OF BEARING ITEM 25.

BAAE002				COFFEEMAKER	SHORTED
7/17/2009				647511	GALLEY

GALLEY C BEV MAKER NR5 TEA POT RETURNED TO STOWAGE, BREW HANDLE MOVED DOWN TO POT. A FLASH OF WHITE SPARK WAS SEEN FROM BEV MAKER SWITCHED OFF. VISUAL INSPECTION, FOUND THAT THE SWITCH ACTUATOR PLATE ATTACHED TO THE BREW HANDLE HAD RUBBED A THE SWITCH CABLES EXPOSING THE INNER CORE, SUBSEQUENTLY CAUSING A SHORT TO GROUND.

2009FA0001071				TURBOCHARGER	MISMANUFACTURED
11/20/2009				4091709001	

BOTH TURBOCHARGERS WERE INCORRECTLY ASSEMBLED IAW TURBOCHARGER OVERHAUL MANUAL 400660-000 REV A, VOLUME 1 & 2, PAGE 2-670-01, ITEM 26 (WASHER) WAS ON THE WRONG SIDE OF THE BEARING. ITEM 26 WAS INSTALLED ON THE TURBINE WHEEL SIDE OF BEARING ITEM 25. (K)

CA091102010				BOLT	CRACKED
10/29/2009				AN18232M	MLG STRUT

(CAN) DURING THE SCHEDULED REPLACEMENT OF THE MLG SHOCK STRUT, ONE OF THE NEW BOLTS PN AN182-

32/M APPREARED TO BE CRACKED. THE BOLT WAS SENT FOR NDT AND THE CRACK CONFIRMED. THE SUPPLIER WHERE THE BOLT WAS AQUIRED HAS BEEN NOTIFIED.

FCPR200900221		BLADE	DAMAGED
12/17/2009			PROPELLER

BLADE SN K51401 COUNTERWEIGHT MOUNTING HOLE HAS BEEN MODIFIED WITH A THREADED INSERT. INSERT IS NOT A HELI-COIL PN 1191-7CN0438 WHICH IS CALLED OUT IN THE SRM. BLADES SN K49771 SOCKET NR1 HAD GLUE UNDERBEARING RACE. BLADE SN K49771, SN K51401, SN K51447 HAVE DAMAGE IN AREA D-E WHICH IS NOT PERMITTED IAW THE SRM, DISPOSITION OF THESE BLADES IS SCRAP. BLADE SN K49771, SN K51401, HAVE CORROSION IN O-RING GROOVE WHICH IS NOT PERMITTED IAW THE SRM, DISPOSITION OF THESE BLADES IS SCRAP. HUB SN 757101 HAS A REPAIR ON THE BEARING RACE SEATING AREA. NO REPAIRS ALLOWED WITHIN 1.00" OF THE SEATING AREA IAW THE SPM 100 MANUAL. HUB SN 757101 IS SCRAP

FCPR200900220		HUB	CORRODED
12/17/2009			PROPELLER

HUB MOUNTING HOLES HAVE BEEN MODIFIED WITH A THREADED INSERT. 1 INSERT HAS BACKED OUT OF MOUNTING HOLE. INSERT IS NOT A HELI-COIL WHICH IS CALLED OUT IN THE MANUAL. ANTI-SIEZE WAS USED ON ROD PINS AND ACCU. ARMS, BUSHINGS, THE REQUIRED LUBE IS ORELUBE K2 IAW MANUAL. BLADE K51362AND K48622 HAVE DAMAGE IN AREA D-E WHICH IS NOT PERMITTED IAW THE MANUAL, DISPOSITION OF THESE BLADES IS SCRAP. HUB HAS CORROSION PITTING IN BEARING RADIUS OF BLADE SOCKET. A REPAIRED AREA NEAR THE BEARING RACE SEATING AREA. REPAIRS ARE NOT ALLOWED WITH IN 1.00” OF THE RACE SEATING AREA IAW THE MANUAL. DISPOSITION OF HUB IS SCRAP. BLADE HAS CORROSION IN O-RING GROOVE WHICH IS NOT PERMITTED IAW THE MANUAL, DISPOSITION OF BLADE IS SCRAP.

CA091116009	ALLSN	THRUST PLATE	DAMAGED
11/6/2009	250C30S	23058137	TAB

(CAN) CUSTOMER COMPLAINT OF METAL GENERATION. ENG WAS INDUCTION TESTED AND CUSTOMER COMPLAINT WAS CONFIRMED. UPON DISASSEMBLY OF NR 8 BRG AREA, IT WAS NOTICED PN 23058137 GP BG THRUST PLATE WAS DAMAGED. PN 23058137 THRUST PLATE HAS A LOCKING TAB OR KEY THAT PREVENTS THE NR 8 BRG FROM SPINNING. THIS LOCKING TAB WAS FOUND TO BE WEDGED INTO THE GP SUPPORT. FURTHER DISMANTLING AND INSP CONFIRMED THE "LOCKING TAB" OF THE PLATE WAS BROKEN OFF AT THE BRAZE JOINT. THE NR 8 BRG OUTER RACE CUT INTO THE "LOCKING TAB" LIKELY CREATED THE SOURCE OF THE METAL THAT WAS FOUND ON THE TOP PLUG. THE LOCKING TAB`S PURPOSE IS TO PREVENT THE NR 8 BRG OUTER RACE FROM SPINNING. THIS IS ACCOMPLISHED BY "LOCKING" THE NR 8 BRG OUTER RACE TO THE GP SUPPORT. REVIEW OF THE PRINT FOR PN 23058137 SPECIFIES THAT THE BRAZE JOINT BETWEEN THE LOCKING TAB AND PLATE IS A CLASS 1 FURNACE BRAZE JOINT. A CLASS 1 BRAZE JOINT REQUIRES A MINIMUM OF 80 PERCENT BOND. THE OEM HAS BEEN CONTACTED REGARDING THIS PROBLEM.

2009FA0000970	CONT	CYLINDER HEAD	CRACKED
9/22/2009	TSIO520R	AEC631397	ENGINE

CYLINDER HEAD CRACKED AT THE INTAKE PORT. THE CRACK EXTENDS FROM THE EDGE OF THE INTAKE PORT TO BETWEEN THE COOLING FINS APPROX 2.5". (K)

2009FA0000969	CONT	CYLINDER HEAD	CRACKED
9/22/2009	TSIO520R	ACE631397	ENGINE

CYLINDER HEAD CRACKED AT THE EXHAUST PORT. THE CRACK EXTENDS FROM THE INSIDE ABOVE THE VALVE SEAT THROUGH THE CYLINDER HEAD APPROX 1.7" LONG. (K)

CA090917004	GARRTT	SHUTOFF VALVE	FAILED
9/17/2009	TPE33110UA	39423091	FUEL SYS

(CAN) AFTER THE ENGINE WAS OVERHAULED AND WAS INSTALLED IN THE TEST CELL, WHEN TRYING TO DO A START, ENG WOULD NOT LIGHT OFF. IT WAS NOTED THAT THERE WAS NO FUEL GOING TO THE ENG WHEN STARTING. AFTER TROUBLESHOOTING THE STARTING ISSUES IT WAS FOUND TO BE A FAULTY OVERHAULED FUEL SHUTOFF VALVE. THE FSO WAS CHANGED AND THE ENGINE WAS TESTED WITH NO OTHER PROBLEMS.

CA091110006	GARRTT	HONEYWELL	O-RING	DAMAGED
11/9/2009	TPE33112UHR	39440881	S9412524	FLOW DIVIDER

(CAN) ON TAKEOFF ROLL, ON MONDAY, NOVEMBER 9 2009, THERE WAS A PARTIAL LOSS OF PWR ON THE NR1 ENG NOTICED BY THE FLIGHT CREW. THE TAKEOFF WAS ABORTED AND THE ACFT TAXIED BACK TO THE RAMP. FURTHER INVESTIGATION REVEALED THAT THERE WAS A SIGNIFICANT AMOUNT OF FUEL LEAKING FROM THE NR 1 FLOW DIVIDER PN 394408-8-1, SN P6667. THE PART WAS REPLACED AND THE DEFFECTIVE PART WAS SENT BACK TO THE O/H FACILITY FOR ASSESSMENT.

2009FA0000981	LYC	BUSHING	FRACTURED
11/4/2009	IO360L2A	74637	VALVE ROCKER

WHEN BURNISHING NEW VALVE ROCKER BUSHING IN VALVE ROCKER ARM, THE BUSHING FRAGMENTED. IMPROPER MFG SUSPECTED. (K)

2009FA0001047	LYC	KEY	PULLED
10/19/2009	O320*	AEL1007760009	VALVE TRAIN

VALVE KEYS (PN 60009) ARE PULLED THRU SEAT AEL 10077. ROCKER ARM TIP IS DESTROYED, HOLE WORN THRU VALVE COVER FROM UPPER SPRING SEAT. KEYS WERE STUCK ON VALVE STEM. VALVE STEM IS DAMAGED AND WILL NOT PASS THRU VALVE GUIDE.

CA090918007	PWA	SPLINE	SHEARED
9/11/2009	PT642A	3997015	FUEL PUMP DRIVE

(CAN) THE ENG SHUTDOWN UNCOMMANDED ON TAKEOFF ROLL. TAKEOFF WAS ABORTED. INVESTIGATION REVEALED A SHEARED FUEL PUMP DRIVE SPLINE.

CA090930001	PWA	BOLT	FRACTURED
9/7/2009	PT6A67D	MS949034	ADAPTER

(CAN) GAS GENERATOR SN PCE 114020 AND PWR SECTION SN PS 114217 WAS REMOVED SUBSEQUENT TO IN-FLIGHT-SHUT-DOWN DUE TO OIL PRESSURE LOSS IN FLIGHT. THE DATE OF INCIDENT WAS SEPT 7, 2009. AFTER LANDING, THE CHIP DETECTOR AND MAIN OIL FILTER WERE REMOVED AND A LARGE QUANTITY OF METAL DEBRIS WAS OBSERVED IN THE MAIN OIL FILTER AND ON THE CHIP DETECTOR. DURING INVESTIGATION, DISMANTLE OF THE PWR SECTION AND FIRST-STAGE REDUCTION CARRIER ASSY, 3 OF 6 MACHINE HEX BOLTS (IPC PN , CH. 72-10-00, FIGURE 4, ITEM 200, PN MS9490-34) WERE FOUND WITHOUT THE BOLT HEAD ATTACHED. NOTE THAT CARRIER HEX BOLTS SECURE FIRST-STAGE CARRIER AND FIRST-STAGE REDUCTION SPLINED ADAPTER. THERE ARE A QUANTITY OF SIX HEX BOLTS INSTALLED WITH KEYWASHERS AND ARE TORQUED 75 TO 85 IN LB. ENG O/H RECORDS INDICATE THAT QUANTITY SIX BOLTS WERE REPLACED WITH NEW ONES DURING ENGINE O/H.

CA091119004	PWA	CARRIER ASSY	FRACTURED
10/8/2009	PT6A67D	MS949034	ENGINE

(CAN) ENG WAS REMOVED SUBSEQUENT TO INADVERTENT IN-FLIGHT-SHUT-DOWN. DATE OF THE INCIDENT WAS OCTOBER 08, 2009. CUSTOMER INFORMED THAT DURING CRUISE FLIGHT LT ENG INADVERTENTLY SHUTDOWN. AFTER LANDING, CHIP DETECTOR AND MAIN OIL FILTER WERE CHECKED AND A LARGE QUANTITY OF METAL DEBRIS WAS OBSERVED IN THE MAIN OIL FILTER AND ON CHIP DETECTOR. 2ND STG PWR TURBINE BLADES WERE CHECKED FROM EXHAUST PORT AND FOUND SHREADED FROM THE ROOT. DURING INVESTIGATION DISMANTLE OF PWR SECTION AND FIRST-STAGE REDUCTION CARRIER ASSY, 2 OF 6 MACHINE HEX BOLTS (IPC PN 3072154, CH. 72-10-00, FIGURE 4, ITEM 200, PN MS9490-34) WERE FOUND WITHOUT THE BOLT HEAD ATTACHED. CARRIER HEX BOLTS SECURE FIRST-STAGE CARRIER AND FIRST-STAGE REDUCTION SPLINED ADAPTER. THERE ARE A QUANTITY OF SIX HEX BOLTS INSTALLED WITH KEYWASHERS AND ARE TORQUED 65 TO 85 IN.LB. ENG O/H RECORDS INDICATE THAT QUANTITY OF SIX BOLTS WERE REPLACED WITH NEW ONES DURING ENG O/H. THIS IS THE 8TH CASE THAT HAS COME TO OUR ATTENTION SINCE APRIL 2004. ON SIMILAR ISSUE AN ADVISORY (AV-2008-05 DATED 2008-07-10) WAS ISSUED, ADVISING ALL PT6 O/H AGENCIES TO LUBRICATE BOLTS ON ASSY. THE SUGGESTED REMEDY DID NOT HELP IN ARRESTING THIS 1ST STAGE REDUCTION CARRIER BOLT FAILURE.

CA090918009	PWA	FCU	FAILED

9/16/2009		PW530A	31J234712	ENGINE

(CAN) THE ENGINE FLAMED OUT ON DESCENT AND RELIGHT ATTEMPTS WERE UNSUCCESSFUL. INVESTIGATE IDENTIFIED AN UNSERVICEABLE FUEL CONTROL UNIT.

CA090918010		PWA	PUMP	UNSERVICEABLE
9/16/2009		PW530A		FUEL SYSTEM

(CAN) THE ENG ROLLED BACK UNCOMMANDED IN CLIMB AND SUBSEQUENTLY FLAMED OUT. INVESTIGATION REVEALED AN UNSERVICEABLE FUEL PUMP.

CA091120003		PWC	PUMP	LOW PRESSURE
11/18/2009		PW306C		FUEL SYSTEM

(CAN) LOW FUEL PRESSURE INDICATION ON TAKEOFF. TAKE-OFF ABORTED. MFG WILL INVESTIGATE AND PROVIDE ROOT CAUSE.

CA090918008		PWC	MOTOR	UNSERVICEABLE
9/13/2009		PW545B	31J285704	BLEED VALVE

(CAN) IN FLIGHT THE ENG EEC REVERTED TO MANUAL MODE AND THE ENGINE DID NOT RESPOND TO THROTTLE INPUT. ENGINE WAS SHUTDOWN. INVESTIGATION REVEALED A FAULTY BLEED VALVE TORQUE MOTOR ASSY.

2009FA0001027		RROYCE	TUBE	REVERSED
12/8/2009		BR700710C411	PNFW34112	COMPRESSOR

DURING THE DISASSEMBLY FOR ACCESS TO ACCOMPLISH A SB, AN INCORRECT INSTALLATION OF ONE OF THE LPC INTERNAL GEARBOX AIR DISTRIBUTION TUBES WAS DISCOVERED. THE SPECIFIC AIR TUBE IS PN FW34112 AND WAS INSTALLED IN THE UPPER LT LOCATION. THE AIR TUBE WAS INSTALLED BACKWARDS (180 DEG. OUT). INSPECTED BOTH MATING SURFACES; CASE SIDE AND MANIFOLD SIDE AND FOUND NO DAMAGE. ATTACHED IS A FILE WITH FURTHER INFORMATION REGARDING OUR FINDINGS.

CA091005004	AEROSP	PWA	SQUAT SWITCH	UNSERVICEABLE
10/4/2009	ATR42300	PW120	D228780001	MLG

(CAN) CREW REPORTED THAT THE GEAR WOULD NOT RETRACT AFTER TAKEOFF. DECISION MADE TO DIVERT FOR MX WITH THE GEAR DOWN. MX JACKED THE ACFT AND ATTEMPTED TO RETRACT THE GEAR, FOUND THE LT MLG WEIGHT ON WHEEL SWITCHES WERE UNSERVICEABLE, BOTH REPLACED AND ACFT RETURNED TO SERVICE. PN D22878000-1 AND D22883000-1.

CA090929005	AEROSP	PWA	WINDOW	CRACKED
9/26/2009	ATR42300	PW120	NP1588032	COCKPIT

(CAN) IN CRUISE AT FL220 350NM FROM CYSR A LOUD "SNAP" SOUND WAS HEARD BY F/O AND CAPT F/O OBSERVED WHAT LOOKED LIKE A CRACK AND FELT LIKE A CRACK ON AFT WINDOW. ACFT DIVERTED BASED ON FUEL AND MX. MX REPLACED THE WINDOW AND THE ACFT WAS RETURNED TO SERVICE.

CA091023001	AEROSP	PWA	CONTROL CABLE	BROKEN
8/29/2009	ATR42300	PW120	04820208	AILERON

(CAN) DURING THE COMPLETION OF ENGINEERING SERVICE ALERT 120105-01A INSPECTION OF AILERON POSTITION SENSORS, THE CABLE BETWEEN THE SENSOR AND THE AILERON WAS FOUND BROKEN. SENSOR REPLACED AND SYSTEM FUNCTION CHECKED SERVICEABLE. THIS SERVICE ALERT APPLIES TO ALL ATR 42 AIRCRAFT, WHICH HAVE STC ST01310NY FDR ENHANCED PARAMETERS. (TC# 20091023001)

CA091109004	AIRBUS	GE	GENERATOR	CRACKED
11/3/2009	A310304	CF680C2A2	729722CSN0561	APU

(CAN) ON CHECKING APU OIL QUANTITY, MX FOUND THE APU COMPARTMENT OIL SOAKED. HSG OF THE APU GENERATOR WAS FOUND CRACKED AND LEAKING. UNIT HAS BEEN REPLACED.

CA090924004	AIRBUS	CFMINT	FUEL CONTROL	MALFUNCTIONED

9/17/2009	A319114	CFM565A3		NR 1 ENGINE

(CAN) AT FL310, (NO ECAM) NR 1 ENG ROLLED BACK TO ABOUT 45 DEGREES. AUTO THRUST WAS DISCONNECTED AND ENG WAS BROUGHT BACK TO ABOUT 50 PERCENT (MAX WE COULD GET). AROUND FL 200 ENG FINALLY FLAMED OUT AND ECAM CARRIED OUT ENG SHUTDOWN. FOLLOWING PARTS WERE REPLACED: ALTERNATOR ROTOR AND STATOR, ECU, AND EIU. GROUND RUN CARRIED OUT AND NO FAULTS.

CA091116006	AIRBUS	CFMINT	UPLOCK	DAMAGED
11/3/2009	A320211	CFM565A1		MLG

(CAN) FLIGHT CREW: ON DEPARTURE LANDING GEAR WOULD NOT LOCK UP, GEAR HANDLE CYCLED NIL FIX. GEAR DOWN INDICATION NORMAL RTG. LANDING GEAR UPLOCK ASSY REPLACED.

CA090924003	AIRBUS	RROYCE	BLADE	DAMAGED
9/15/2009	A330342	RB211TRENT76		COMPRESSOR

(CAN) COMPRESSOR STALL OF RT ENG DURING CRUISE. HIGH VIBS OF N3 UP TO 9.0 UNITS. OPERATED AT REDUCED PWR DURING DIVERSION FOUND HPC DAMAGED. STAGE NR 1 BLADES SEVERLY DAMAGED. MANY NICKS, TEARS AND DENTS AND MISSING MATERIAL ON ALL BLADES. ONE BLADE BROKEN OFF AT ROOT. STATOR BLADES HAVE IMPACT DAMAGE AT MANY PLACES. ALL BLADES DAMAGED BEYOND LIMITS.

CA091102003	AIRTRC	PWA	SPRING	FAILED
10/22/2009	AT802A	PT6A67	13A06633001	NLG

(CAN) SPECIAL INSP CARRIED OUT DUE TO DEFECT BEING REPORTED BY OTHER OPERATOR. NOSE SPRING CRACKED ABOVE ATTACHMENT BOLT HOLES. GEAR SPRING TO BE REPLACED.

2009FA0000983	AMD		MODULE	MALFUNCTIONED
10/19/2009	FALCON2000		70253651901	WARNING SYSTEM

PART RECEIVED FROM MFG AFTER "FUNCTIONAL TEST". THE PART WAS SHIPPED UNPROTECTED IN A SHIPPING CONTAINER. INSTALLED IN ACFT, SEVERAL CLEARABLE FAULTS APPEARED AND THE FOLLOWING FAULT CODE CAS MESSAGE "ANLGVZLAB ERR" 2130CPS001 WAS NOT CLEARABLE. AFTER TROUBLESHOOTING IAW MM 45-60-21 THE SOLUTION WAS TO REPLACE GENERAL I/O MODULE 2 (GI02)(R10FX). A REPLACEMENT "REPAIRED" I/O MODULE WAS INSTALLED AND CHECKED OUT GOOD.

CA091110009	AMD	CFE	HONEYWELL	HYDROMECH UNIT	FAILED
10/2/2009	FALCON2000	CFE73811B		5085T40G04	LT ENGINE

(CAN) TWICE DURING CLIMB THE LT ENG PWR ROLLED BACK. CREW REPOSITIONED THE THROTTLE AND POWER WAS RESTORED. REMAINDER OF THE FLIGHT WAS NORMAL. UPON ARRIVAL AT HOME BASE THE CREW REPORTED THE EVENT. MX CONDUCTED TROUBLESHOOTING INCLUDING INTERROGATION OF THE ON BOARD COMPUTERS AND DETERMINED THAT THE LT ENGINE HMU WAS AT FAULT. A REPAIRED SERVICEABLE UNIT WAS INSTALLED AND ALL POST INSTALLATION CHECKS WERE NORMAL.

CA091103008	AMD	PWC	ZENITH	ACTUATOR	FAULTED
10/30/2009	FALCON2000	PW308C		D97D006071	SHUTOFF VALVE

(CAN) FUNCTIONAL CHECK OF THE HYD SHUT-OFF VALVES DETECTED A FAILURE OF THE NR 2 ENG FUEL SHUT-OFF VALVE STANDBY ACTUATOR. (THE 2 VALVES ARE WIRED IN SERIES.) THE INTERNAL SWITCH AND STANDBY MOTOR WINDINGS CIRCUIT SHOWS OPEN. ACTUATOR WAS REPLACED AND FAULT CLEARED. THE STANDBY CIRCUIT OF THIS MOTOR IS ONLY TESTED DURING AN `A` PHASE INSP EVERY 400 HRS. OR 8 MONTHS. THIS FAILURE WOULD NOT BE EVIDENT TO THE FLIGHT CREW DURING NORMAL OPERATIONS.

2009FA0001073	AMD	PWC	PIN	MISINSTALLED
10/21/2009	FALCON2000	PW308C	PCB414JE	CONNECTOR

REPORT TELLS THAT A FAULTY WIRING CIRCUIT CAUSED THE ACFT TO LOSE SLATS EXTENSION DURING A PRE-FLIGHT INSPECTION OF THE SLAT "STALL 2 TEST". IT APPEARS THAT THE NR 14 FEMALE CONNECTOR PIN ON THE CONNECTOR FOR PCB 414JE WAS NOT FULLY ENGAGED OR "SNAPPED" INTO THE CONNECTOR AND PUSHED BACK WHEN THE 414JE RELAY PCB CONNECTION WAS MADE. MECHANIC SURMISES THAT THIS PIN WAS NOT

FULLY SEATED EVEN THOUGH IT WAS INSTALLED BY EXPERIENCED TECH USING CORRECT DWGS AND APPROPRIATE MX INSTRUCTIONS. THEREFORE REPAIR STATION WILL DEVELOP AN ADDITIONAL INSP STEP, AS NECESSARY, ON ALL SUCH CONNECTORS TO ENSURE PROPER SEATING. TRAINING FOR THIS INSP STEP WILL BE IMPLEMENTED, AS NECESSARY FOR THOSE TECHS WHO PERFORM THIS TYPE OF WORK TO ENSURE THEIR COMPLETE UNDERSTANDING OF CORRECT MX AND INSP PRACTICES ASSOCIATED WITH CONNECTOR PINS.

2009FA0000994	AMD		CONTROL HANDLE	STUCK
11/25/2009	FALCON900EX		1233740	MLG

DURING APPROACH, THE GEAR HANDLE STUCK IN THE RETRACTED POSITION. THE CREW PERFORMED THE EMERGENCY GEAR EXTENSION CHECKLIST PROCEDURE SUCCESSFULLY EXTENDING THE GEAR AND LANDED WITHOUT INCIDENT. MAINTENANCE PERSONNEL REMOVED THE GEAR HANDLE AND INSTALLED AN INSPECTED UNIT AS REQUIRED, OPS CHECK GOOD. NO FAULTS WERE FOUND DURING TROUBLESHOOTING.

2009FA0000974	AMTR	ROTAX	PUMP	FAILED
10/20/2009	AIRCAM	ROTAX912ULS	892545	FUEL SYS

BOTH ENG PRIMER LINES AND FUEL PUMPS FAILED (PRIMER LINES DISINTEGRATED, FUEL PUMPS STARTED LEAKING) ALMOST SIMULTANEOUSLY AFTER 15 HRS EXPOSURE TO FUEL CONTAINING UP TO 10 PERCENT ETHANOL. ENG DEALER STATED ON SEVERAL OCCASIONS THAT UP TO 15 PERCENT ETHANOL WAS OK. THIS COULD BE A MAJOR SAFETY ISSUE FOR THESE ENGINE USERS. MANY ACFT USING THESE ENGINES, ALSO EXPERIMENTAL ACFT. THE USE OF AUTOMOTIVE GAS CONTAINING ETHANOL SHOULD BE CLARIFIED. (K)

2009FA0000986	AMTR	CONT	SHAFT	FRACTURED
11/20/2009	RV6A	IO360*		MAGNETO

ROTOR SHAFT FRACTURED AT THE BOTTOM OF THE RUBBING BROOK SLOT. (K)

2009FA0000968	AMTR	LYC	LEG ASSY	CRACKED
9/12/2009	VELOCITYRG	IO360A2B		NOSE GEAR

WELDMENT AT TOP OF NOSE GEAR LEG FAILED AND GEAR COLLAPSED UPON LANDING. GEAR LEG APPEARED NORMAL DURING PREFLIGHT AND IN LAST SAFETY INSPECTION. NO OUTWARD INDICATION OF DEFECT. SUBSEQUENT INSPECTION OF BROKEN WELD (BY OWNER/BUILDER) APPEARED TO SHOW SLIGHT CRACK AT ONE CORNER, WHICH, IF REAL, PROBABLY WAS SOURCE OF FAIL. (K)

CA091029005	BAG	GARRTT	PUMP	FAILED
10/29/2009	JETSTM3112	TPE33110UGR		ENGINE

(CAN) SUSPECT THAT THE HIGH PRESSURE FUEL PUMP DRIVE FAILED IN THE ENG GEARBOX CAUSING THE ENG TO SHUTDOWN IN FLIGHT. WHEN WE SPIN THE PROP NOISES ARE COMING FROM THE ENG GEARBOX.

CA091119005	BAG	GARRTT	WIRE	DAMAGED
11/18/2009	JETSTM3112	TPE33110UGR		DOWNLOCK

(CAN) ON APPROACH , WHEN LANDING GEAR WAS LOWERED, THERE WAS NO "DOWN AND LOCKED" INDICATION ON THE NLG. THE PILOT`S ABORTED LANDING AND RETURNED TO BASE. ON APPROACH TO BASE A LOW FLY BY WAS ACCOMPLISHED TO VERIFY THE NLG WAS ACTUALLY DOWN AND LOCKED, WHICH IT WAS. A NORMAL LANDING FOLLOWED AND NO FURTHER PROBLEMS WERE ENCOUNTERED. UPON INSP BY MX. THERE WAS A BROKEN WIRE FOUND ON THE DOWNLOCK SWITCH IN THE NOSE LANDING GEAR BAY. THE WIRE WAS FIXED AND THE SYS WAS FUNCTIONALLY TESTED SERVICEABLE.

CA090925002	BAG	GARRTT	FCU	LEAKING
9/22/2009	JETSTM3212	TPE33112UA	89778025	ENGINE

(CAN) REPORT OF HIGH THAN NORMAL TORQUE AT FLIGHT IDLE AND ON FLARE. UNABLE TO DUPLICATE ON GROUND. SUSPECT INTERNAL P3 LEAK IN FCU. FCU REPLACED AND TEST FLIGHT COMPLETED WITH SATISFACTORY RESULTS.

2009FA0000988	BBAVIA	LYC	RETAINER	FAILED
11/24/2009	8KCAB	AEIO360*		PROP BLADE

DURING ANNUAL INSP FOUND COULD ROTATE ONE BLADE AN EXCESSIVE DISTANCE, SENT OUT FOR REPAIR AND IT WAS FOUND THAT THE INSIDE STAINLESS STEEL RETAINER HAD FAILED AND ALLOWED THE BALL BEARINGS TO FALL OUT OF THEIR SEAT, HUB WAS DAMAGED BEYOND REPAIR AND IT WAS CLOSE TO INFLIGHT FAILURE WHICH COULD HAVE CAUSED SEPARATION OF THE BLADE FROM THE HUB.

2009FA0001024	BBAVIA	LYC		BAFFLE	MUSHROOMED
3/3/2009	8KCAB	AEIO360H1B			MUFFLER

ACFT WAS EXPERIENCING LARGE EGT DIFFERENCES BETWEEN THE RT AND LT CYL BANKS AT TAKEOFF AND CRUISE FLIGHT (BOTH FULL RICH AND LEAN OPERATIONS). ENG TREND MONITORING SHOWED THE DIFFERENCE GROWING SLOWLY OVER SEVERAL MONTHS TO MORE THAN 350F AT TAKEOFF FROM AN ORIGINAL EGT SPREAD OF 40F. OBSERVERS FAMILIAR WITH THE ACFT ON THE GROUND REPORTED 'EXHAUST LEAKAGE' TYPE SOUNDS. THIS PROGRESSION CONTINUED AND PARTIAL PWR LOSS AT TAKEOFF STARTED TO BE OBSERVED. REPLACEMENT OF THE MUFFLER WITH A NEWLY OVERHAULED PART RETURNED THE ENG TO NORMAL OPERATIONS AND NORMAL EGTS (30F EGT SPREAD AT TAKEOFF). INTERNAL INSP OF THE OFFENDING MUFFLER REVEALED THE LT SIDE INTERNAL BAFFLE AND FLAME CAN WAS BADLY MUSHROOMED RESULTING IN AN ALMOST COMPLETELY BLOCKED EXHAUST FOR CYL NR 2 AND NR 4. NO EROSION OR THINNING OF THE EXHAUST COMPONENTS WAS OBSERVED.

CA091113002	BEECH	GARRTT		VALVE	MALFUNCTIONED
9/29/2009	100BEECH	TPE3316252B		39423091	ENGINE FUEL

(CAN) DURING START UP, THE ENG DID NOT START. THE PILOT NOTICED THAT THERE WAS NO FUEL FLOW RISE UP AND NO ITT. HAVE REPLACED THE FUEL VALVE AND THE ENGINE STARTED NORMALLY.

CA070726002	BEECH	PWA	BEECH	SLEEVE	IMPROPER PART
6/20/2007	100BEECH	PT6A28		508200233	NLG

(CAN) BOGUS PART DISCOVERED ON CORROSION INSPOF NOSE GEAR ASSY. REPLACED BOGUS PART WITH CORRECT PART. WORK CARRIED OUT ON 20/06-07. BOGUS PART IS RETAINED BY THE QULITY ASSURANCE DEPT.

CA091023005	BEECH			TUBE	WORN
10/23/2009	1900C			11492000023	FUEL SYSTEM

(CAN) DURING HEAVY MAINTENANCE CHECK OF A HARD TO SEE AREA OF THE WHEEL WELL, THE MAIN FUEL FEED LINE FROM THE TANKS TO THE ENGINE WAS FOUND TO BE CHAFING ON THE AIRFRAME. THE RIGID TUBE WAS NOT YET WORN THROUGH BUT WAS WORN APPROXIMATELY 50% OF THE WAY THROUGH. THE LINE WAS REPLACED AN A FLEET CAMPAIGN WILL BE CARRIED OUT ON THE REST OF THE 1900`S IN THE FLEET. (TC 20091023005)

CA091103010	BEECH	PWA	ELECTROMECH	MOTOR	UNSERVICEABLE
11/3/2009	1900C	PT6A65B		571302	POWERPACK

(CAN) ELECTRIC POWERPACK MOTOR SUFFERED AN INTERNAL SHORT CAUSING THE MOTOR TO FAIL, CAUSE SEEMED TO BE FAULTY INTERNAL GROUND CONNECTION.

CA091020005	BEECH	PWA		SPAR	CORRODED
10/16/2009	1900C	PT6A65B		11813000025	AILERON

(CAN) DURING INCORPORATION OF SB 27-3928 OF WEIGHT BALANCE CLIP INSP AND REPLACEMENT, THE TECH DISCOVERED SEVERE EXFOILATION CORROSION OF THE AILERON REAR SPAR IN A AREA OF THE AILERON TRIM TAB. REAR SPAR WAS REPLACED WITH NEW.

CA091016002	BEECH	PWA		FITTING	CRACKED
10/14/2009	1900D	PT6A67D		310047001	OIL SYSTEM

(CAN) DEPARTED AIRPORT 10/14/09 ON FLIGHT 7435 AND BEGAN TO HAVE LT ENG OIL PRESSURE FLUXUATIONS AFTER REACHING CRUSE ALTITUDE. CAPTAIN SHUTDOWN ENG IN FLIGHT AFTER OIL PRESSURE DROPPED BELOW MINIMUMS. ACFT DIVERTED. AFTER TALKING WITH MFG, OUR PRELIMINARY REPORT POINTS TO A FATIGUE CRACK ON THE EXTERNAL OIL PRESSURE FITTING. THE FITTING WILL BE SENT TO MFG FOR TESTING TO DETERMINE THE CAUSE OF THE CRACK AND THE ENGINE IS BEING SHIPPED TO REPAIR STATION TO

INVESTIGATE POSSIBLE PWR SECTION DEFECTS.

CA091008006	BEECH	PWA	RELAY	MALFUNCTIONED
10/4/2009	1900D	PT6A67D	MS24166D1	PROP DE ICE SYS

(CAN) LT ENG PROP DE-ICE CAUGHT FIRE BEFORE THE START SEQUENCE TOOK PLACE. WITH PROP DE-ICE SWITCH IN THE OFF POSITION. BEFORE START UP GROUND INFORMED THE CREW OF A FIRE ON THE LT PROP. CREW NOTICED IT WAS THE DE-ICE SYS AND IMMEDIATELY CHECKED TO SEE IF THE SYS WAS OFF. IT WAS. CREW THEN TURNED OFF THE MASTER SWITCH AND FIRE AND SPARKS STOPPED. ALTHOUGH A SMALL FIRE CONTINUED TO BURN. THE F/O THEN WENT OUT WITH A FIRE EXTINGUISHER AND PUT OUT THE FIRE. MX DISCOVERED THAT THE AUTO RELAY PN MS24166D1 HAD FAILED IN THE CONTACTED POSITION. THIS ENABLED CURRENT TO FLOW TO DE-ICE BOOTS WITHOUT ENG RUNNING OR SWITCH ACTIVATED. RELAY PROBABLY FAILED IN THE PRIOR LEG, WENT UNOTICED UNTIL NEXT START UP. MAINTENANCE HAD TO REPLACE THE PROP AND RELAY PRIOR TO RE-ENTERING SERVICE. CLOSED, DB (TC 20091008006)

CA091112002	BEECH	PWA	ACTUATOR	CRACKED
11/11/2009	1900D	PT6A67D	1123800222	NLG

(CAN) ON PILOTS WALK AROUND AT NON MX STA. PILOT FOUND HYD FLUID COMING FROM THE NOSE GEAR AREA. ON INSP FOUND FLUID LEAKING FROM ACTUATOR END CAP.

CA091104003	BEECH	PWA	BRACKET	CRACKED
10/25/2009	1900D	PT6A67D	1015240133	RUDDER

(CAN) 6TH 200 HR DETAILED INSP - RUDDER AFT TORQUE TUBE ATTACH BRACKET, LT - CRACK 1" LONG, SLIGHT BEND AT APEX OF BRACKET. REF IPC 27-20-00 -11 ITEM 292. BRACKET REPLACED - NOTE: THIS IS A GOOD EXAMPLE OF DILIGENT VISUAL INSP AS ACCESS TO THIS AREA IS LIMITED AND LIGHTING CONDITIONS IS NIL.

CA091006005	BEECH	BEECH	BRACKET	CRACKED
10/6/2009	200BEECH		10191002221	BYPASS INLET

(CAN) ON INSPECTION ACFT, FOUND CRACKED ATTACH BRACKETS, ANGLES AND HINGE HALFS ON THE COWLING INLET AIR BYPASS DOORS. THE SECOND AND THIRD AFT HAD DAMAGE FOUND DUE TO INCREASED INSP BASED ON THE DAMAGE BEING FOUND ON THE FIRST. ALL PARTS WERE OR WILL BE REPLACED WITH NEW FROM THE MFG AND THE ACFT RETURNED TO SERVICE.

CA091031001	BEECH	PWA	LANDING GEAR	COLLAPSED
10/29/2009	200BEECH	PT642A		

(CAN) ACFT TOUCHED DOWN, ON ROLL OUT THE LT MAIN GEAR COLLASPED. ACFT WAS RAISED AND GEAR LOCKED DOWN AND ACFT RETURNED TO THE HANGER. NO FAULTS FOUND AT THIS TIME, BUT MX CONTINUES TO INVESTIGATE.

CA091102008	BEECH	PWA	WIRE HARNESS	FAILED
10/29/2009	200BEECH	PT642A	10038006127	FUEL INDICATION

(CAN) FUEL QTY INDICATION REPORTED AS UNDER-READING. TROUBLESHOOTING DETERMINED A FAILED WIRING HARNESS ASSY IN THE WET WING TANK. THIS IS THE THIRD FAILURE OF THIS HARNESS ON 2 COMPANY ACFT, IN EITHER LT OR RT WINGS. INSTALLING A NEW HARNESS HAS RECITIFED THE PROBLEM IN EACH CASE.

CA091027008	BEECH	PWA	WIRE	MISINSTALLED
10/27/2009	200BEECH	PT6A41		READING LIGHT

(CAN) AIRCRAFT RETURNED 15 MINUTES AFTER DEPARTURE DUE TO CABIN SMOKE. LANDED WITHOUT INCIDENT. AIRCRAFT SIDEWALLS AND CEILING COVERING WERE REDONE 8 DAYS PRIOR TO THE INCIDENT. THE PASSENGER READING LIGHT AND SWITCH WERE REMOVED FROM THE SIDEWALL/WINDOW PANEL (P/N 101-530058-63) TO PERMIT INSTALLATION OF NEW LEATHER COVERING OVER THE PANEL ASSY. UPON RE INSTALLATION OF THE READING LIGHT, POSITIVE AND GROUND WIRES TO THE READING LIGHT WERE FOUND INVERTED. THIS PERMITTED THE +28 VDC TO BE CONNECTED TO THE READING LIGHT SOCKET BODY (GROUND) WHICH IS MOUNTED THROUGH THE PANEL ASSY AND TOUCHING THE METAL HONEYCOMB CORE OF THE PANEL ASSY, WHICH IS ITSELF SECURED TO THE FUSELAGE BY 2 RETAINING SCREWS COMPLETING THE GROUND

CIRCUIT. THE PASSENGER AT THIS LOCATION ATTEMPTED TO TURN ON HIS READING LIGHT WHICH STARTED THE PANEL SLOW BURNING AND SMOKE EVENT. ALL OF THE PANEL ASSY WIRING WERE CHECKED TO CONFIRM CORRECT WIRING CONNECTION TO THE READING LIGHTS. (TC 20091027008)

CA091105003	BEECH	PWA	INTERCOSTAL	MISMANUFACTURED
11/2/2009	200BEECH	PT6A41	1005303595	BS 278

(CAN) OEM INTERCOSTAL 100-530359-5 (SUPERSEDED PART 100-530359-11) NEW/ REPLACEMENT PART. OVERALL LENGTH WAS TOO SHORT BY 0.75" WHEN COMPARED TO ORIGINAL FROM ACFT.

2009FA0000973	BEECH		TORQUE TUBE	LOOSE
10/16/2009	300BEECH		1016100195	ELEVATOR

RIVETS ON THE ELEVATOR TORQUE TUBE ASSY BRACKET ARE LOOSE AND WORKING. (K)

CA091118006	BEECH	PWA	SKIN	LOOSE
11/17/2009	300BEECH	PT6A60A		FUSELAGE

(CAN) THE FUSELAGE RIVETS ARE LOOSE AND LEAKING PRESSURIZATION. THESE RIVETS WERE SEALED IN AUGUST 2009 IAW MFG RECOMMENDED REPAIR. THE REPAIR WAS COMPLETED AT 1790.7 TTSN, IN 160.5 HOURS THE PROBLEM IS COMING BACK. MFG STATES THAT THIS IS NOT A STRUCTURAL PROBLEM, BUT THE REPAIR THEY RECOMMENDED DID NOT FIX THE PROBLEM. DUE TO THE CIRCUMSTANCES IT IS SUSPECTED TO HAVE STRUCTURAL PROBLEMS WITH THE RIVETS MOVING IN THE FUSELAGE.

CA091113008	BEECH	PWA	FITTING	CRACKED
11/10/2009	3NM	R985AN14B		WING TO BODY

(CAN) CRACK INDICATION WAS FOUND DURING MPI INSP AT RT WING STA (RWS) 90 (LWR WING ATTACH FITTING CLUSTER). CRACK WAS WELD REPAIRED AND RE INSPECTED BY MPI AND NO FAULTS WERE FOUND.

2009FA0000985	BEECH		PLACARD	IMPROPER PART
11/2/2009	58		6241041	TRIM WHEEL

COULD NOT GET ELEVATOR TRIM TO RIG RIGHT. INVESTIGATED AND CONSULTED WITH TECH SUPPORT AT MFG AND DETERMINED INCORRECT PN PLACARD WAS INSTALLED ON TRIM WHEEL. THE INSTALLED PLACARD PN 624104-1, TECH SUPPORT CONFIRMED THIS PN WAS FOR DIFFERENT ACFT. TAKEOFF POSITION MARKING ALSO CONFIRMED THIS. CORRECT PN 58-524029. THIS PROBLEM WOULD CAUSE INCORRECT TAKEOFF TRIM POSITION AND POSSIBLY IMPROPER RIGGING. CA SHOULD BE SB PUT OUT TO CHECK PROPPER PLACARD INSTALLATION. (K)

2009FA0001045	BEECH		THROTTLE	JAMMED
10/7/2009	58			COCKPIT

CHECK LEFT THROTTLE OPERATION, PILOT REPORTED LT THROTTLE JAMMED. INSP LT THROTTLE CABLING AT ENG AND AT INSTRUMENT PANEL, NO DEFECTS NOTED. THROTTLE OPERATED SMOOTHLY THROUGH FULL RANGE OF TRAVEL. INSP OF LT THROTTLE, REVEALED THAT THE SMALL CONDUIT HSG THE "GO-AROUND: SWITCH WIRING, ON THE LT THROTTLE LEVER HAD COME UNATTACHED AND COULD JAM BETWEEN THE OVERLAY AND THE THROTTLE LEVER. REATTACHED AND SECURED WIRING CONDUIT AS REQUIRED, NO FURTHER DEFECTS NOTED.

2009FA0001051	BEECH	CONT	SLICK	COIL	BURNED
12/18/2009	58	IO520*		M3975	MAGNETO

COIL FAILED AFTER ONLY 103.8 HRS. NEW MAG ASSY. A SECTION OF THE COIL WAS LITERALLY BURNED AWAY. WARRANTY WAS DENIED BECAUSE MAG WAS "OUT OF WARRANTY PERIOD". (K)

2009FA0001062	BEECH	CONT	MOTOR	BURNED OUT
12/1/2009	58	IO550*	583800901	MLG

AFTER TAKEOFF, GEAR WAS RESTRICTED. GEAR IN TRANSIT LIGHT STAYED ON, AND GEAR DID NOT FULLY GO TO UP AND LOCKED POSITION. GEAR HAD TO BE CRANKED DOWN MANUALLY TO GET 3 IN THE GREEN. ACFT

RETURNED TO AIRPORT AND LANDED SAFELY (NO INCIDENT DECLARED). MOTOR HAD BURNED OUT, CAUSING THE ABOVE SITUATION. LOGBOOK RESEARCH DID NOT REVEAL GEAR MOTOR (OR BRUSHES, EVER BEING CHANGED). DATE STAMPED ON MOTOR CASE WAS MAR 1986. (ACFT MFG 1987) MOTOR APPEARED TO BE "ORIGINAL" EXAM OF BRUSHES SHOWED GOO BRUSH LENGTH.

2009FA0001022	BEECH	CONT	LINE	BROKEN
12/4/2009	58	IO550C	9696001115	PROPELLER

LT ENG GOVERNOR UN-FEATHERING ACCUMULATOR OIL LINE BROKE AT THE FLARE OF THE FITTING AT THE GOVERNOR. PROPELLER FEATHERED UN-CONTROLLED. TAKEOFF WAS ABORTED. TUBE IS ALUMINUM, THE 'B' NUT IS ALUMINUM, AND IT WAS NOTED THE SLEEVE WAS MAGNETIC/FERROUS.

2009FA0001079	BEECH	LYC	BEECH	O-RING	CRACKED
12/21/2009	60	TIO541*		MS29513131	TRANSMITTER

ACFT EXPERIENCED AN IN-FLIGHT FIRE IN THE LT ENG NACELLE DUE TO A LEAKING LT FUEL FLOW TRANSMITTER. THE TRANSMITTER HAD A BRITTLE/CRACKED O-RING SEAL. THE TRANSMITTER WAS LAST O/H IN 1998. THE RT ENG FUEL FLOW TRANSMITTER HAD BEEN OVERHAULED AT THE SAME TIME AND WAS FOUND TO BE LEAKING ALSO.

CA091006003	BEECH	LYC	ACCUMULATOR	DISCHARGED
9/8/2009	76	LO360A1G6	8907021	FEATHERING SYS

(CAN) DURING ROUTINE MULTI-ENGINE FLIGHT TRAINING PREOCEEDURES, ONE ENGINE WAS SHUTDOWN AND FEATHERED TO SIMULTE AN ENGINE FAILURE. NORMAL PROCEDURE FOR GETTING ENGINE TO ROTATE FOR A RESTART IS TO MOVE PROP CONTROL LEVER FROM FEATHERED POSITION TO FULL FINE POSITION. ACCUMULATOR WHICH STORES THE PRESSURE REQUIRED TO UNFEATHER PROP HAD DEVELOPED A LEAK OVER TIME AND LOST ITS NITROGEN CHARGE. THIS ENGINE MODEL IS VERY DIFFICULT TO START WITH JUST STARTER FROM THE FEATHERED POSITION IN THE AIR. ACCUMULATOR PRESSURE IS CHECKED AT EVERY 100 HR INSP INTERVAL HOWEVER WE WILL AMEND OUR MX SCHEDULE TO INCREASE THE INTERVAL TO EVERY 50 HOURS TO CO-INCIDE WITH ROUTINE MX CHECKS.

2009FA0001011	BEECH	CIRCUIT BREAKER	FAILED
11/23/2009	A36	W31X102010	

UPON INSTALLATION OF NEW REPLACEMENT CIRCUIT BREAKERS TO COMPLY WITH AD 2008-13-7, IT WAS FOUND THAT TIGHTENING OF SWITCH RETAINER NUT ON THE INSTRUMENT PANEL CAUSED SWITCH SEPARATION AND FAILURE. AS THESE SWITCHES HAVE TO SUPPORT THE BUSS AND WIRE BUNDLE, IF A FAILURE (SWITCH SEPARATION) OCCURS IN FLIGHT DUE TO VIBRATION, THE ENSUING RESULT WOULD BE WORSE THAN THE INTENT OF THE ORIGINAL AD TO AVOID SMOKE IN THE COCKPIT. QUALITY OF NEW REPLACEMENT PART NOT AS GOOD AS ORIGINAL

2009FA0001029	BEECH	CONT	CYLINDER	FAILED
11/25/2009	A36	IO550B	SA52006A23P	ENGINE

DURING LANDING PHASE OF AN INSTRUCTION FLIGHT, THE PILOT HEARD A LOUD "BANG" AND IMMEDIATE ENG VIBRATION. UPON LANDING THE ACFT SAFELY THE INSTRUCTOR AND STUDENT NOTICED THA THE RPM COULD NOT GBE BROUGHT BACK BELOW 1500 RPM. ONCE PARKED THEY OBSERVED A LARGE OIL STREAK ON LT SIDE OF AIRCRAFT AND UPON FURTHER INSPECTIN BY AN ON-SITE MECHANIC IT WAS FOUND THAT THE NR 4 CYL (SN 6205) HAD SEPARATED AT THE HEAD/BARREL JUNCTION. IT EVENTUALLY CAUSING FAILURE. THE ACFT WAS ONLY 10 HRS OUT OF A 100 HR INSP AT WHICH TIME ALL CYLINDERS COMPRESSION HAD BEEN CHECKED WITHIN THE ACCEPTABLE RANGE, AND NO LEAKS WERE FOUND WITH A SOAP SOLUTION. ANOTHER COMPRESSION TEST WAS PERFORMED ON THE REMAINING CYLINDERS AGAIN WITH SOAP SOLUTION AND DURING THAT CHECK IT WAS FOUND THAT THE NR 6 CYL (SN 6029) WAS LEAKING OUT OF THE TOP OF THE CYLINDER HEAD BETWEEN FINS AGAIN ON THE EXHAUST SIDE. SINCE ALL CYLINDERS WERE NEW AT INSTALL AND HAD THE SAME AMOUNT OF ACCUMULATED TIME, IT WAS DECIDED THAT THE PREVENTATIVE SOLUTION WOULD BE TO CHANGE ALL 6 CYLINDERS TO PREVENT RECURRENCE OF CYLINDER FAILURE. ALL 6 CYLINDERS HAVE NOW BEEN CHANGED WITH O/H CLYINDERS.

2009FA0001030	BEECH	CONT	CYLINDER	LEAKING

11/25/2009	A36	IO550B		SA52006A23P	ENGINE

DURING A ROUTINE 100 HR INSPECTION A CYLINDER COMPRESSION TEST WAS PERFORMED ON THE ENGINE USING SOAP FOR VISUAL INSPECTION AND DURING THAT CHECK IT WAS FOUND THAT THE NR 3 CYLINDER (SN 4847) WAS LEAKING OUT OF THE TOP OF THE CYLINDER HEAD BETWEEN FINS ON THE EXHAUST SIDE. UPON FURTHER INSPECTION A SMALL CRACK CAN BE SEEN BETWEEN THE FINS ON THAT SIDE. THE CYLINDER IS NOW BEING CHANGED WITH AN O/H CYLINDER. ALL OTHER CYLINDERS WILL BE COMPRESSION AND VISUALLY CHECKED AT 50 HR INTERVALS UNTIL TBO. (K)

2009FA0001013	BEECH	LYC	LYC	CLAMP	BROKEN
12/3/2009	A36	TIO540J2B		MVT69183200LW120	EXHAUST SYS

DURING ACCIDENT INVESTIGATION, FOUND TOP LT ENGINE COWLING WITH EVIDENCE OF FIRE AND BURNED HOLES, LT EXHAUST MANIFOLD PIPE WAS LAYING LOOSE, AND LT CLAMP TO TURBO COMPRESSOR BROKEN AND LAYING IN BOTTOM OF ENGINE COWL. AIRCAFT WAS DESTROYED IN FIRE WITH ONE FATALITY, AND ENGINE HAD SEPARATED (25 FT. FROM WRECKAGE) AND WAS FULLY IN TACT STILL IN COWLING.

CA091013004	BEECH	LYC	HUB	DAMAGED
10/7/2009	A60	TIO541E1C4	C32661	PROPELLER

(CAN) PROPELLER WAS RECEIVED FOR O/H DUE TO A FOREIGN OBJECT STRIKE. WHEN THE PAINT WAS REMOVED FROM THE HUB CORROSION IN THE BLADE SEAL GROOVES WAS NOTED. AFTER CONSULTING THE MFG O/H MANUAL IT WAS FOUND THAT THE HUB IS NOT REPAIRABLE AND MUST BE REMOVED FROM SERVICE.

CA091013005	BEECH	LYC	FORK	DAMAGED
10/7/2009	A60	TIO541E1C4	B3252	PITCH CHANGE

(CAN) PROPELLER WAS RECEIVED FOR O/H DUE TO A FOREIGN OBJECT STRIKE. DURING MPI OF THE PITCH CHANGE FORK CRACKS WERE FOUND COMING FROM THE PITCH CHANGE BLOCK SLOTS. THE CRACKS DO NOT APPEAR TO BE CONSISTENT WITH THE TYPE OF BLADE DAMAGE OBSERVED DURING THE FOREIGN OBJECT STRIKE INSPECTION.

2009FA0001033	BEECH		TRIM TAB	CONTAMINATED
11/18/2009	B200			RUDDER

T/E OF RUDDER ABOVE TRIM TAB FOUND TO BE FULL OF WATER DURING INSPECTION. SUGGEST SERVICE INFORMATION BE INTRODUCED TO CHECK RUDDER FOR PROPER DRAIN HOLES AND ANY OBSTRUCTIONS. (K)

CA091028004	BEECH	PWA	CONTROL CABLE	FRAYED
10/16/2009	B200	PT642A	975240289	RUDDER

(CAN) DURING PHASE THREE INSPECTION, THE LEFT HAND RUDDER CONTROL CABLE WAS FOUND TO HAVE APPROXIMATELY 15 FRAYED STRANDS WITHIN A TWO INCH LENGTH AT THE PULLEY AT STATION 305.260 JUST AFT OF THE PASSENGER DOOR, WHERE THE LOWER FUSELAGE CURVES UP TOWARDS THE TAIL. (TC 20091028004)

CA091027005	BEECH	PWA	BFGOODRICH	ARMATURE	SHORTED
10/11/2009	B200	PT642A		230481030	STARTER GEN

(CAN) GENERATOR FAILED IN FLIGHT. SENT TO AMO FOR ASSESSMENT. AMO INSPECTED AND TESTED THE GENERATOR. BEFORE DISASSY, A FUNCTIONAL TEST WAS ATTEMPTED. THE GENERATOR HAD LOW RESIDUAL VOLTAGE AT IDLE, BUT SUFFICIENT TO ENERGIZE AND DEVELOP 30 VOLTS. IMMEDIATELY UPON ENERGIZING, IT PRODUCED A STRONG ODOR OF BURNING INSULATION, AND WAS SHUT DOWN WITHIN 5 SECONDS. NO LOAD WAS APPLIED. REMOVED FROM TEST STAND AND DISASSEMBLED. DEFECT WAS TRACED TO A SHORT INSIDE THE ARMATURE. A BURNT SPOT IS VISIBLE AT THE COMM END OF THE LAMINATION STACK BEFORE THE RETAINING BAND. RESISTANCE BETWEEN ARMATURE WINDINGS AND SHAFT IS .14 OHMS - A DEAD SHORT. THE ARMATURE HAD BEEN REWOUND SOME TIME PRIOR TO 1998, AND HAS BEEN THROUGH FIVE ST-GEN OVERHAULS SINCE THEN. DRIVE SHAFT SPLINE INSPECTED FOR EDD, NONE FOUND. (TC 20091027005)

CA091110008	BEECH	PWA	FRAME	CHAFED
11/7/2009	B200	PT642A		FUSELAGE

(CAN) WHEN PERFORMING SB 24-3939, IT WAS DISCOVERED THAT ONE OF THE WIRING HARNESS WAS CONTACTING THE FWD FRAME OF THE CO-PILOT CIRCUIT BREAKER PANEL RECESS. CHAFING HAS NOT PENETRATED THE WIRING INSULATION. CONTACT AREA WAS LIMITED TO THE FRAME `TAB` PROTRUDING AFT INTO THE RECESS AREA AND WAS TRIMMED TO PROVIDE ADEQUATE CLEARANCE AND THEN COVERED WITH ALIGATOR GROMMET MATERIAL TO PREVENT FURTHER DAMAGE.

CA091027001	BEECH	PWA	AXLE	DAMAGED
9/30/2008	B300	PT6A60A	101810045601	MLG

(CAN) OVERHAULED LANDING GEAR WAS BEING INSTALLED, UPON REMOVAL OF THE BOLT WHICH SECURES THE BRAKE ANTI-ICE ASSY TO THE GEAR, THE HOLE IN THE GEAR WAS FOUND TO BE ELONGATED BEYOND LIMITS AND WAS ASSEMBLED USING WHAT APPEARED TO BE STRUCTUAL ADHESIVE OR METAL SET TO FILL THE HOLE. NEW GEAR WAS ORDERED AND INSTALLED AND GEAR WAS RETURNED TO SELLER. (TC 20091027001)

2009FA0001037	BEECH		COMPUTER	MALFUNCTIONED
2/5/2009	C12C		013040701010	AUTOPILOT

A NEW AUTOPILOT SYS WAS INSTALLED ON 2/5/09 AT ACTT 15821.5. PERFORMANCE OF AUTOPILOT WHICH IS CERTIFIED FOR CATEGORY 1 APPROACHES IS VERY POOR AND ERRATIC. AUTOPILOT WILL FLY THE ACFT AS MUCH AS 2 DOTS OFF LATERALLY FROM THE RUNWAY CENTER LINE. AUTOPILOT ALSO HAS PROBLEMS MAINTAINING THE PROPER GLIDE PATH. OFTEN IT WILL ALLOW THE ACFT TO DROP BELOW THE GLIDE PATH. THE MFG HAS CONFIRMED OUR PROBLEMS (AND OTHER OPERATORS OF THE SAME EQUIPMENT) AND HAVE BEEN RELUCTANT OR SLOW IN RESPONDING TO THE PROBLEM. MFG ATTRIBUTES THE PROBLEM TO A CHANGE IN HARDWARE INSIDE THE COMPUTER AND SAYS THEY NEED TO REWRITE SOFTWARE THAT PROCESSES THE DATA. THIS SAME SYS WAS INSTALLED IN OUR ACFT ON 5/27/08 AND IN JUNE OF 2008 WE STARTED COMPLAINING TO MFG (AND THE INSTALLER) ABOUT THE POOR PERFORMANCE DURING ILS APPROACHES. HAVE ASKED MFG IF THEY WERE GOING TO ISSUE A SAFETY NOTICE TO THEIR CUSTOMERS WHO BOUGHT THE SYS AND THEIR RESPONSE WAS "WE ARE CONSIDERING DOING THAT". THIS IS A SAFETY ISSUE THAT NEEDS TO BE ADDRESSED.

MDG2009	BEECH	PWA	ENGINE	SHUTDOWN
11/16/2009	C90	PT6A27		

PILOTS REPORTED ENG SHUTDOWN DURING FLIGHT. MX REPORTED UPON INSP THAT THERE WAS A GRINDING SOUND INTERNAL TO THE ENG WHEN THEY TRIED TO ROTATE THE ENG BY THE STARTER. ENG WILL BE REMOVED AND SENT TO THE O/H SERVICE CTR FOR EVALUATION FOR REASON OF FAILURE.

CA090918006	BEECH	PWA	PLUNGER	WORN
9/16/2008	D18S	R985AN14B	1139	RELIEF VALVE

(CAN) THE ACFT MADE AN UNSCEDULED LANDING WHEN THE OIL PRESSURE PLUNGER BECAME JAMMED IN THE BODY OF THE OIL PRESURE RELIEF VALVE CAUSING A LOSS OF OIL PRESSURE. MX REPLACED THE PLUNGER AND THE ENGINE WAS RETURNED TO SERVICE.

CA091020001	BEECH	PWA	SPLICE	MISSING
10/20/2009	E90	PT6A28	9912005965	SKIN

(CAN) DURING INSP OF FUSELAGE BELLY SKINS JUST AFT OF FWD WING SPAR, AN UNUSUAL SKIN BUTT SPLICE WAS FOUND. SPLICE HAS ONLY A SINGLE ROW OF RIVETS IN A PRESSURIZED VESSEL, WHERE THERE IS NORMALLY A DOUBLE ROW. FURTHER INVESTIGATION OF THE INSTALLATIOIN DWG FOR THE SUPER SPAR KIT NR 90-4077, SHOWS THE SKIN IS TO BE CUT AND A SECTION REMOVED IN THIS AREA TO ACCOMMODATE THE NEW SPAR. A NEW SKIN SECTION PN 90-120035-27 IS THEN INSTALLED AND BUTT TO THE ORIGINAL SKIN. THE DRAWINGS SHOW INTERNAL STRAPS PICKING UP A SINGLE ROW OF RIVETS AND 2 WIDER EXTERNAL SPLICE PLATES PN 99-120059-65 INSTALLED OVER THIS SKIN SPLICE PICKING UP A SECOND ROW OF RIVETS. THESE EXTERNAL SPLICE PLATES WERE NEVER INSTALLED BY THE AGENCY THAT PERFORMED THE SPAR REPLACEMENT WHICH EXPLAINS WHY THERE IS ONLY A SINGLE ROW OF RIVETS. VISUAL INSP AND RECORDS SHOW NO REPAIRS OR ALTERATIONS IN THIS AREA SINCE SPAR REPLACEMENT BY MFG ON MARCH 5, 1984. THE AIRCRAFT HAS FLOWN 18858 HOURS AND APPROX 19000 CYCLES IN THIS CONDITION. THE PN OF THE AFFECTED BELLY SKINS ARE 50-120156-81 AND -82. A REPRESENTATIVE WAS INFORMED OF THIS ERROR.

CA090918005	BEECH	LYC	CYLINDER	CRACKED

9/10/2009	E95	IO360B1B	SL36006WA1	ENGINE

(CAN) DURING THE CRUISE PORTION OF FLIGHT, THE RT ENG BEGAN RUNNING VERY ROUGH. CREW REDUCED POWER SETTING ON RT ENGINE AND CONTINUED ON TO DESTINATION. UPON ARRIVAL, AN INSP REVEALED A CRACKED CYL AND LEAKING OIL ON INSIDE OF THE COWLING. MX REPLACED THE CYL WHICH WAS CRACKED IN ITS ENTIRETY AT THE CYL HEAD TO BARREL ATTACHMENT. NO DEFINATIVE CAUSE WAS DETERMINED EXCEPT FOR THE POSSIBILITY OF A MFG DEFECT. FAILURES OF THIS NATURE ARE RARE ON THESE ACFT OR ENG WITHIN THIS COMPANIES FLEET.

2009FA0001050	BEECH	CONT	CYLINDER	DESTROYED
10/18/2009	J35	IO470C		NR 2

(2) FLT HRS INTO CRUISE FLT, ENGINE LOST POWER ON NR 2 CYL AS INDICATED ON UBG-16. SHORTLY AFTER, NR 2 CYL JUG BLEW THROUGH THE ENG COWL, SPRAYING OIL OVER WINDSCREEN. ACFT WAS LANDED ON A 2 LANE STATE HWY. CYL REMAINED HANGING ON THE OUTSIDE OF THE ACFT HELD ON BY UBG-16 WIRING AND PLUG WIRES. INVESTIGATION SUSPECTED IMPROPER TORQUED CYL BOLTS DURING OVERHAUL.

CA091120004	BELL	HNYWL	IGNITER	FAILED
11/20/2009	205A1	T5313BHNYWL	FHE2112	ENGINE

(CAN) FOUND IGNITER PLUG , 2 OF 4 INSTALLED FAILED CAUSED BY IGNITER INTERIOR CATHODE BECOMING LOOSE.

CA091120005	BELL	HNYWL	IGNITER	FAILED
11/20/2009	205A1	T5313BHNYWL	FHE2112	ENGINE

(CAN) FOUND IGNITER PLUG 1 OF 4 INSTALLED, FAILED CAUSED BY IGNITER INTERIOR CATHODE BECOMING LOOSE.

CA091109002	BELL	LYC	BELL	BOOT	SEPARATED
11/6/2009	205A1	T5317BLYC		2050401767	INPUT SHAFT

(CAN) DURING THE 12 MONTH INSP AND RE-GREASE OF THE INPUT DRIVE SHAFT, IT WAS DISCOVERED THAT THE INNER DIAMETER OF THE BOOT HAD COMPLETELY SEPERATED FROM THE RING IT IS SUPPOSED TO BE GLUED TO. GREASE WAS FOUND BETWEEN THE BOOT AND THE RING WHICH SHOWS THE AIRCRAFT OPERATED FOR SOME TIME IN THIS CONDITION. THE SHAFT IS INSPECTED VISUALLY EVERY DAY AS PART OF THE DAILY INSPECTION BUT NO LARGE AMOUNT OF GREASE WAS SEEN LEAKING FROM THE BOOT AND THE BOOT SEPERATION WAS NOT VISIBLE WITH THE SHAFT INSTALLED ON THE AIRCRAFT. DURING NORMAL OPERATION OF THE SHAFT, THE GREASE IS FORCED TO THE OUTSIDE DIAMETER OF THE COUPLINGS BY CENTRIFUGAL FORCE AND AWAY FROM THE INNER DIAMETER, WHERE THE BOOT WAS SEPERATED. (TC 20091109002)

CA091006004	BELL	LYC	SHAFT	WORN
9/19/2009	205A1	T5317BLYC	117078001	FUEL PUMP

(CAN) WHILE FLYING THE PILOT HAD A CAUTION LIGHT. IT WAS THE FUEL PUMP CAUTION LIGHT THAT HAD ILLUMINATED. THE PILOT LANDED AS SOON AS PRACTICAL. THE ENG FUEL CONTROL WAS REMOVED TO CORRECT THE DEFECT. A LITTLE HISTORY OF THE FUEL CONTROL . THE FUEL CONTROL WAS O/H IN SEPT 2006, THE 1250 HRS MID INSP (AD 2006-11-16) PERFORMED IN AUGUST 2008 AT TSO 1239.1 HOURS. THE MAIN DRIVE SHAFT WEAR AT THE 1250 HR INSP WAS .001 " (LIMIT IS .002 IAW 1000 HR.).

CA091110001	BELL	ALLSN	COMBUSTION LINER	BENT
10/5/2009	206B	250C20B	23056108	ENGINE

(CAN) - AFTER AN INSP OF THE ENG FOR EXCESSIVE TOT DURING STARTUP, AT WHICH TIME COMBUSTION CASE, COMBUSTION LINER, FUEL NOZZLE, & IGNITER WERE REMOVED AND REINSTALLED. ENGINE WOULD NOT START. THERE WAS NO SPARK AT IGNITER. AFTER TROUBLESHOOTING, IGNITER WAS REMOVED AND IT WAS NOTED THAT END OF IGNITER HAD DAMAGE ON IT, FROM BEING IN CONTACT WITH BORE IN COMBUSTION LINER. IGNITER HAD NOT BEEN MISALIGNED WITH BORE IN THE COMBUSTION LINER AND HAD CAUSED COMBUSTION LINER TO ALSO BE DAMAGED, AS THE IGNITER PUSHED ON BORE FACE DURING PREVIOUS INSTALLATION. DAMAGED COMBUSTION LINER AND INGITER WERE REPLACED WITH NEW/O/H PARTS AND ENGINE STARTED

WITH NO PROBLEMS. NOTE: THIS WORK WAS CARRIED OUT AWAY FROM BASE, IN ANOTHER HANGAR, AT ANOTHER SITE, WHICH MAY HAVE CAUSED SOME OF THE ISSUES, AS THE ENGINEER WAS OUT OF HIS NORMAL PLACE OF WORK. SELF INFLICTED PRESSURE TO GET THE WORK DONE QUICKLY AND RETURN HOME MAY HAVE BEEN A CONTRIBUTING FACTOR TO THE MISTAKES MADE.

CA090928010	BELL	ALLSN		FCU	MALFUNCTIONED
9/16/2009	206B	250C20B		23070606	ENGINE

(CAN) FCU WAS CAUSE OF DELAYED LIGHT OFF. ANYWHERE FROM 1-5 SECONDS AND WORSE WHEN COLD.

CA091016003	BELL	ALLSN	ALLSN	GUIDE	BROKEN
10/15/2009	206B	250C20B		6856983	ANTI ICE VALVE

(CAN) ANTI- ICE GUIDE ASSY FOUND BROKE UNDERNEATH "B" NUT. FOUND DURING COMPRESSOR CHANGE.

CA091028010	BELL	ALLSN		CASE	CRACKED
10/5/2009	206B	250C20B		6870992H	COMBUSTION SECT

(CAN) THE MAINTENANCE CREW WERE DOING A 600 HOUR INSPECTION AND THE AME LOOKED IN THE LH ARMPIT OF THE BURNER CAN AND FOUND IT TO BE CRACKED ON A HORIZONTAL PLANE BESIDE WELD. THE COMBUSTION CASE WAS WAS REPLACED WITH A SERVICEABLE PART. IT WAS NOTED THAT THE REINFORCED AREA OF THE BURNER CAN WAS NOT AS HEAVY AS THE BURNER CAN THAT REPLACED IT. THE AIRFRAME TIME OF THE A/C WAS 15955 HOURS AT REPLACEMENT. (TC 20091028010)

CA091103006	BELL	ALLSN	ALLSN	BEARING	FAILED
6/9/2009	206L	250C20R		23034787	GEARBOX

(CAN) ENG WAS REMOVED AFTER METAL CONTAMINATION AND SENT TO A REPAIR FACILITY. THE 2.5 BEARING WAS FOUND TO HAVE SPALLED ROLLERS AND RACE AND WAS MISSING A ROLLER. THIS BEARING WAS A PMA PART PN 23034787AL SN TA NR 0511363 AND WAS INSTALLED NEW 385 HOURS AGO. OTHER BEARINGS AND PARTS RECEIVED DAMAGE AS A RESULT OF THE METAL CONTAMINATION.

CA091013003	BELL	ALLSN	BLADE	DELAMINATED
10/10/2009	206L	250C20R	206016201131	TAIL ROTOR

(CAN) DURING DAILY INSP PILOT NOTICED THE OTBD T/E SKIN WAS DELAMINATED 6 INCHES FROM THE TIP ON TAIL ROTOR BLADE PN 206-016-201-131, SN CS-12194 BLADE HAS 120.8 HOURS REMAINING BEFOR RETIREMENT. BOTH BLADES WERE REPLACE WITH NEW BLADES AND THE ASSY WAS BALANCED WITHOUT INCIDENT.

CA091008004	BELL	ALLSN	BEARING	WORN
10/8/2009	206L	250C20R	23031497	GEARBOX

(CAN) ENGINE CHIP LIGHT FOUND PROBLEM WITH THE BALL BEARING ON THE POWER TAKEOFF OUTPUT SHAFT.

CA091109007	BELL	ALLSN	INDICATOR	MISREPAIRED
11/6/2009	206L	250C20R2	12444420SN8	TOT

(CAN) RECEIVED THIS INDICATOR FROM O/H AND IT WAS FOUND TO BE INDICATING 300 DEGREES CELSIUIS TO HIGH UPON INSTALLATION AND TEST. WE ARE ASSUMING THIS PROBLEM WAS DUE TO POOR QC OR DAMAGE DUE TO SHIPPING BUT THE BOX THE T.O.T. INDICATOR CAME IN LOOKED UNDAMAGED.

2009F00122	BELL		LONGERON	CRACKED
11/13/2009	206L1		206031314037	ZONE 200

FOUND DURING INSP, AFT FUSELAGE UPPER LT LONGERON UNDER AFT UPPER LT TAILBOOM FITTING CRACKED APPROX 1.5" ORIGINATING FROM 2 FWD MOST RIVETS. APPROX FS 228.4, WL 73.7

CA091021006	BELL	ALLSN	CASE	CRACKED
10/21/2009	206L1	250C30P	S182250202	ELT

(CAN) INAVERTANT ACTIVATION OF THE ELT DURING THE MIDDLE OF THE NIGHT. ELT WAS FOUND TO HAVE A CRACKED CASE AND FOUND OIL AND OTHER CONTAMINANTS ON AND INSIDE ELT CASE. ELT WAS PROGRAMMED

WRONG WITH AN ERROR IN THE 24 BIT ADDRESS. ELT PERFORMANCE TEST FAILED RESET SWITCH FUNCTION DOES NOT WORK. (TC 20091021006)

CA091109001	BELL	ALLSN		NUT	CRACKED
10/29/2009	206L4	250C30P		NAS1022A8	TAIL ROTOR HEAD

(CAN) DURING REMOVAL OF T/R PITCH CHANGE CROSS HEAD NUT, THE NUT WAS FOUND TO BE CRACKED IN 2 OF THE RELIEF SLOTS. THE NUT WAS COMPLETELY SEPARATED AFTER REMOVAL. NUT WAS DISCARDED AND REPLACED WITH NEW.

2009FA0001038	BELL	ALLSN	BELL	SUPPORT FITTING	CRACKED
12/9/2009	206L4	250C30P		206033426001	TAILBOOM ASSY

DURING INSPECTION OF ACFT, IDENTIFIED A CRACK IN THE TAIL ROTOR GEAR BOX SUPPORT FITTING PN 206-033-426-001 AT APPROX THE 7 O'CLOCK POSITION. SHIP IS FITTED WITH A HIGH ALTITUDE TAIL ROTOR KIT.

CA091109006	BELL	PWA	BELL	BARREL	CRACKED
11/4/2009	212	PT6T3		204011143005	DRAG BRACE

(CAN) 2 CRACKS IN BARREL GRIP AREA, COURSE THREAD END, RUNNING LONGITUDLINALY, ONE 1/4 INCH, ONE 1/2 INCH LONG.

2009FA0000961	BELL	ALLSN		FUEL CONTROL	UNSERVICEABLE
11/18/2009	230	250C30		230070613	NR1 ENGINE

COMPONENT HAS A HISTORY OF CAUSING ENG TO MOMENTARILY DECELERATE AS THROTTLE IS ADVANCED PAST THE IDLE STOP TO FLIGHT. DECELERATION CAN BE OVERCOME BY CONTINUING TO ADVANCE THROTTLE THROUGH THE DECELERATION. ONCE THROUGH DECELERATION A MAXIMUM OF ONLY 90 PERCENT OF MAIN ROTOR RPM COULD BE ACHIEVED. ALL ENGINE INDICATING INSTRUMENTS ARE WITH IN LIMITS AT FULL OPEN THROTTLE AS WELL AS AT IDLE ABOVE AND BELOW IDLE STOP.

CA091002002	BELL	ALLSN		TURBINE	DAMAGED
6/10/2009	407	250C47B			ENGINE

(CAN) TURBINE RUB NOISE REPORTED ON SHUTDOWN. RECOMENDED REMOVING THE TURBINE AND SENDING OUT FOR INSP. TURBINE WAS REPAIRED FOR N1 RUB.

CA091002003	BELL	ALLSN		IGNITER BOX	FAILED
6/19/2009	407	250C47B		2306130	ENGINE

(CAN) ACFT WOULD NOT START. PILOT NOTED IGNITOR NOT FIRING. TROUBLESHOT TO FAULTY IGNITION EXCITOR BOX. REPLACED WITH SERVICEABLE UNIT.

CA091113004	BELL	ALLSN		SEAL	LEAKING
10/25/2009	407	250C47B		209340265103	FREEWHEEL ASSY

(CAN) DURING A NIGHT FLIGHT, PILOT NOTICED DECREASE IN TRANSMISSION OIL PRESSURE. ON LANDING (STILL HAD SOME PRESSURE INDICATION) FOUND OIL ALL OVER THE ENG COMPARTMENT AND THAT THE AFT FREEWHEEL ADAPTER SEAL PN: 209-340-265-103 HAD COME OUT OF THE AFT ADAPTER HSG. SEAL AND ADAPTER SHOWED EVIDENCE OF SEALANT REMAINING FROM THE ORIGINAL INSTALLATION. THIS ACFT WAS DELIVERED AFTER THE AFFECTIVITY OF ASB 407-07-79.

2009FA0000978	BELL		BELL	DUPLEX BEARING	SPALLED
10/20/2009	430			430310461101	SWASHPLATE

DUPLEX BEARING FOUND TO BE HEAVILY SPALLED. 17/125 BALLS DAMAGED (APPROX 14 PERCENT) ONE INNER RACE DAMAGED 4 PLACES; OUTER RACE DAMAGED 2 PLACES.

CA091019001	BLANCA	CONT		WIRE	BROKEN
10/16/2009	1419	IO470L			TAIL BRACE

(CAN) TAIL BRACE WIRE FOUND BROKEN AS A RESULT OF A CRACK ORIGINATING IN CORROSION PITTING.

CA091007001	BOEING	RROYCE	LOCK PIN	MISSING
10/5/2009	717200	BR700715A130		TURBINE BLADE

(CAN) DURING DISASSEMBLY OF THE ENG AFTER SPLITTING THE HP2 TURBINE DISC FROM THE HPT1 TURBINE DISC IT WAS FOUND THAT LOCKING PLUGS WERE MISSING. THE LOCKING PLUG IS PREVENTING THE LOCKING RING HOLDING THE HP1 TURBINE BLADES TO BE RELEASE. THE LOCKING RING WAS STILL IN POSITION BUT LOCKING PLUG WERE RELEASED BY DAMAGING SURROUNDING AREA OF HP 1 AND HP 2 TURBINE DISC WEBS, BLADES AND NGV. OEM ADVISE.

CA091106006	BOEING	PWA	BEARING	SEIZED
11/5/2009	727225	JT8D15	KP4A	AILERON

(CAN) TO MAINTAIN STRAIGHT FLIGHT IN CLIMB (HAND FLYING), REQUIRED AILERON TRIM 3 1/2 UNITS, CONTROL COLUMN AT 18 DEG. MX FOUND CABLE ROD END BROKEN AT SPOILER MIXER MECHANISM. BRG IN ROD END SEIZED. ROD END REPLACED.

CA091117005	BOEING	PWA	BOLT	SHEARED
11/6/2009	727227	JT8D9A	BACB30US10P37	BULKHEAD

(CAN) DURING ROUTINE WALK AROUND INSP, FOUND A BOLT MISSING AT RT ATTACH FITTING TO REAR PRESSURE BULKHEAD. FURTHER INSP FOUND BOLT HAD SHEARED AT MID POINT AND WAS RECOVERED SITTING IN LWR STURCTURE. NUT END OF BOLT HALF STILL IN POSITION. BOTH BOLT HALVES SHOWED RUST AND CORROSION AT SHEAR POINT. LOCATION STA 1183, STR 3A RT BOLT HOLE INSPECTED AND CLEANED UP, BOLT REPLACED IAW STRUCTURAL INTERIM ADVISORY DOCUMENT 727 190, AND SB 727-53-0178. VISUAL INSP OF OTHER BOLTS FOUND NO FURTHER FAULTS. ACFT TAT 65759.2 TAC 45087 LINE NR 1106.

CA091009003	BOEING	PWA	WARNING SWITCH	FAULTY
10/8/2009	727247	JT8D15	32EN144	STAB

(CAN) IN POSITION ON RWY FOR DEPARTURE. THRUST LEVERS ADVANCED TO TAKEOFF THRUST FOLLOWED BY THE TAKEOFF WARNING HORN. THRUST RETARTED TO IDLE. FLAPS RESELECTED UP THEN BACK TO FLAPS 15, STAB TRIM MOVED TO ZERO THEN BACK TO TAKEOFF POSITION, SPD BRAKES DEPLOYED AND STOWED. RE-ATTEMPED TO SET THRUST TO TAKEOFF AND HORN SOUNDED AGAIN. RETURNED TO GATE FOR MAINT FOLLOW UP. SYS INSP CARRIED OUT, FOUND UPPER STABILIZER TAKEOFF WARNING SWITCH (S532) AT FAULT.

CA091022004	BOEING	PWA	WINDSHIELD	CRACKED
10/20/2009	727260	JT8D15	5893543129	COCKPIT

(CAN) DURING CRUISE AT FL320, THE CAPTAINS L1 WINDOW OUTER PANE CRACKED. THE AIRCRAFT LANDED WITHOUT FURTHER INCIDENT AND THE WINDOW WAS REPLACED BY MAINTENANCE PERSONNEL. WHEN COMPLETE THE AIRCRAFT WAS RETURNED TO SERVICE. (TC 20091022004)

2009FA0001012	BOEING		SPAR	CORRODED
12/1/2009	72731		BAC15141687	ZONE 600

LT WING REAR SPAR UPPER SPAR CHORD CORRODED OUT OF LIMITS AT WING STA70 - STA 189 AND CRACKED AT WING STA 177. REPLACE SPAR CHORD SECTION IAW SR NR 1-1446626958 WITH ATTACHED 8100-9.

CA091013002	BOEING		FLOOR PANEL	CORRODED
10/2/2009	737*			CABIN

(CAN) WHEN COMPLYING WITH SB 737-53-1285 MAJOR CORROSION WAS NOTED IN THE SAME AREA THAT HAD ALREADY BEEN INSPECTED BY 3 C-CHECK TASK CARDS. AREA IN QUESTION IS REAR WET FLOOR AREA. STATES ON THE CLIENTS TASK CARD THAT REMOVAL OF SEALANTS, CORROSION INHIBITORS AND FLOOR LEVELING COMPOUND NOT REQUIRED FOR INSP IAW SB 737-53-1285, ORIGINAL GEL TAPE WAS REMOVED FROM UNDER FLOOR STRUCTURE TO BE REPLACED, AT WHICH POINT CORROSION WAS NOTED PARTICULARLY IN THE AREAS OF THE FLOOR PANEL CLIPNUTS. BECAUSE THE CLIPNUTS ARE STEEL IT MAY BE ASSUMED THAT GALVANIC ACTION CREATED THE CORROSION BETWEEN THE TWO DISSIMILAR METALS. (STEEL CLIPNUTS/ALUMINUM STRUCTURE)

CA090929006	BOEING		FIRE LOOP	CHAFED

9/28/2009	737*		325027302	FAN CASE

(CAN) FIRE LOOP FOUND RUBBING ON SCREW HEAD. THIS HARNESS WAS FOUND TO HAVE CHAFED ALMOST HALF THE WAY THRU. HAD THIS WIRE HARNESS CONTINUED TO CHAFE THIS LOOP COULD HAVE SHORTED CAUSING A FALSE INDICATION IN THE COCKPIT THUS GIVING FIRE WARNINGS WHEN ACTUALLY NO FIRE WAS PRESENT CAUSING THE PILOTS TO BLOW THE FIRE BOTTLE AND SHUTTING DOWN THE ENGINE.

CA090929007	BOEING	GE	WHEEL	CRACKED
9/28/2009	737*	CFM567B24	3400028160	FAN BLADE

(CAN) DURING INSP 72-020-01-01 IT WAS FOUND THE 2 BLADE PLATFORMS HAD BEEN CRACKED AND BROKEN OFF AT THE BUSHING SURROUND.

CA091029002	BOEING	GE	CONTROL CABLE	TWISTED
10/26/2009	737*	CFM567B24	BACC2A6B04398EG	AILERONS

(CAN) WHILE ACCOMPLISHING TASK CARD TC 27-226-00-03 CONTROL CABLES - LT WING AFT SPAR DURING A PHASE 4 SCHEDULED MX CHECK, THE LT AILERON CABLES ABSA-L1 AND ABSB-L1 WERE FOUND TWISTED BETWEEN WING STA 278 AND 326, AFT OF THE NR 1 ENG. WEAR ON THE CABLES WAS FOUND TO BE BEYOND LIMITS AND THE CABLES (P/N'S BACC2A6B04669FG AND BACC2A6B04398EG) WERE BOTH REPLACED. AS THIS IS A RELATIVELY NEW ACFT, IT WAS DETERMINED THAT THIS DEFECT WAS A QUALITY ESCAPE BY MFG IN PRODUCTION. SUBMITTED THIS FINDING TO THE MFG. MFG HAS SINCE RESPONDED, CONFIRMING THAT THIS INFORMATION HAS BEEN PASSED ALONG TO THE APPROPRIATE MFG AND QC PERSONNEL FOR INVESTIGATION.

TSAA0932014	BOEING		PROXIMITY SENSOR	FAILED
12/8/2009	737210C		189915	MLG

AFTER TAKEOFF, THE CREW ATTEMPTED TO MOVE THE LANDING GEAR HANDLE TO THE UP POSITION. HANDLE FAILED TO MOVE ALL THE WAY TO THE UP POSITION. CREW FOLLOWED PROCEDURES IN THE QUICK REFERENCE HANDBOOK AND RETURNED TO DEPARTURE WITHOUT FURTHER INCIDENT. MX REMOVED AND REPLACED THE K3 RELAY IN THE LANDING GEAR ACCESSORY UNIT AND ALSO REMOVED AND REPLACED THE S106 LANDING GEAR AIR SAFETY SENSOR IAW AMM 32-09-200. THE LANDING GEAR OPS CHECKED SATISFACTORY IAW AMM 32-32-0 AND 32-33-0 AND ACFT RETURNED TO SERVICE.

CA091002004	BOEING	PWA	ACCUMULATOR	OUT OF TOLERANCE
6/20/2009	737275	JT8D17	2660472M2	HYD SYSTEM

(CAN) PART WAS INSTALLED WHEN NOT IN COMPLIANCE WITH AD 2003-11-03 THIS AD EFFECTIVE O3-JULY-03 STATES THAT PN 2660 472M2 MAY NOT BE INSTALLED ON ANY ACFT.

CA091022001	BOEING	PWA	SCREW	WRONG PART
10/20/2009	737275C	JT8D17	BACB30NN4K11	WING PANELS

(CAN) FUEL PANELS HAD BEEN OPEN FOR MAINTENANCE, WHEN IT CAME TIME FOR RE-TORQUE OF THE SCREWS, THE SCREWS BOTTOMED OUT, AS THEY WERE THE WRONG LENGTH. MAINTENANCE CONTRACTOR HAS BEEN ADVISED. PROPER SCREWS HAVE BEEN INSTALLED (TC 20091022001)

2009F00138	BOEING		LAMP	INOPERATIVE
12/18/2009	737800*			EMERGENCY LIGHTS

RT FWD EMERGENCY OVER WING EXIT DOOR EXTERNAL LIGHT INOP. RELAMPED RT FWD EMER O/W EXIT DOOR LIGHT OPS CKS GOOD IAW AMM 35-51-04-960-801.

2009FA0001080	BOEING		HOUSING	BROKEN
12/23/2009	757	PS600	776635604	STARTER

PNEUMATIC STARTER (PN 784750A2) RETURNED FOR MX. THE STARTER HAS HAD A TURBINE ROTOR FAILURE WHICH RESULTED IN THE USE OF THE CONTAINMENT FEATURE OF THE INLET HOUSING (HS PN 776635-604). THIS INLET HOUSING HAS REPAIR NR 151-5 (REPAIR TECH INLET HSG, EXHAUST FLANGE REPLACEMENT). UPON LOADING OF THIS HSG DURING ROTOR FAILURE, THE WELDED WEBS OF THE INLET HSG FRACTURED THUS

ALLOWING THE HOUSING TO SEPARATE AND POTENTIAL FOR CONTAINMENT FAILURE.

2009F00110	BOEING		SKIN	DEBONDED
11/16/2009	767266			NR 8 SLAT

WHILE PERFORMING ULTRASONIC INSP IAW AD 93-14-19, SKIN TO CORE DISBAND IS DETECTED IN THE UPPER AND LWR SURFACES OF SLAT POSITION 8 T/E WEDGE AT AFT INBD CORNER AREA.

2009F00111	BOEING		FLOORBEAM	CORRODED
11/18/2009	767266			BS 955

COROSSION FOUND BELOW CABIN CTR SECTION FLOOR STRUCTURE ON REAR SPAR UPPER CHORD AT STA 955.1 BETWEEN LT BL 54.81 AND 74.81 DURING INSP IAW TASK CARD NR 53-510-00. (NOTE THAT THERE IS A PREVIOUS REPAIR AT THIS AREA AND THE COROSSION IS FOUND BENEATH IT).

2009F00112	BOEING		STRUCTURE	CORRODED
11/16/2009	767266			BS 1562-1582

COROSSION DAMAGE FOUND ON THE AFT EQUIPMENT BILGE AREA AT WASTE DISPOSAL SYSTEM AREA AND ADJACENT STRUCTURE BETWEEN STA. 1562 AND 1582 DURING INSP IAW TASK CARD NR 06-031-01. (LEVEL 2 CORROSION).

2009F00113	BOEING		SKIN	DEBONDED
11/16/2009	767266			NR 8 SLAT

WHILE PERFORMING ULTRASONIC INSP IAW AD 93-14-19, SKIN TO CORE DISBAND IS DETECTED IN THE UPPER AND LWR SURFACES OF SLAT POSITION 8 T/E WEDGE AT AFT INBD CORNER AREA.

2009F00125	BOEING		WIRE	BROKEN
12/3/2009	76733A			WHEEL TRANSDUCER

ATB: EICAS MESSAGE "ANTI SKID" ON STATUS PAGE "NORM ANTISKID AND ALT ANTI-SKID ON. FOUND BROKEN WIRE TO NR 8 WHEEL TRANSDUCER. REPLACED WIRE WDM 32-42-11 SECURITY CHECK OK IAW 32-42-00-405 NO FAULTS NOTED.

2009FA0001078	BOEING	GE	COMPRESSOR	MISMANUFACTURED
12/22/2009	777*	GE9090B		ENGINE

RECEIVED NOTIFICATION REGARDING A CONFIGURATION ISSUE WITH HP COMPRESSOR. SN WM022163 - FITTED TO ESN 900149 HAS ONE SET OF 3D STG 1 SHROUDS FITTED (350-385-202-0) INSTEAD OF A 2D SET. (350-385-002-0).

2009FA0001077	BOEING	GE	COMPRESSOR	MISMANUFACTURED
12/22/2009	777*	GE9090B		ENGINE

NOTIFICATION REGARDING A CONFIGURATION ISSUE WITH HP COMPRESSOR. SN UMO22124- FITTED TO ESN 900223 HAS A 3D CONFIG RUDDER (350-007-530-0) FITTED INSTEAD OF A 2D RUDDER (350-007-523-0).

CA091007002	BOEING	GE	UNKNOWN	ODOR
10/2/2009	777233LR	GE90110B1		CABIN

(CAN) BY DOOR L2 LT AFT J CLASS SEB TOWER HAD STRONG ELECTRICAL ODOR. IFE SWITCH TURNED OFF, SMELL DISSIPATED.

CA091022003	BOEING	GE	ALIDSG	SOFTWARE	MALFUNCTIONED
10/7/2009	777333ER	GE90115B		3676GRS10400	ASCPC

(CAN) IN CRUISE AT FL380 ENROUTE TO YVR, AIRCRAFT HAD TEMPORARY LOSS OF BOTH PACKS. BOTH PACKS RETURNED WITHIN APPROX 10 SECONDS. P/N FOR ASCPC AND S/W GIVEN ABOVE. OUTFLOW VALVE PART

NUMBER IS 2119160-2. PER IPC 21-31-03-01, THIS IS AN UNAPPROVED COMBINATION, WHICH HAS SINCE BEEN CORRECTED. (TC 20091022003)

CA091104002	BOMBDR	PARKERHANFIN	SEAL	DAMAGED
10/26/2009	BD1001A10		AE99116J	PUMP

(CAN) ON GEAR EXTENSION AN AMBER PTU FAIL CAS MESSAGE POSTED FOLLOWED BY THE LT HYD ENG PUMP FAIL CYAN CAS MESSAGE FOLLOWED BY HYD LOW CAS AND A 0 QUANTITY READING. PILOT SAID THE GEAR DID NOT EXTEND AND HE HAD TO PERFORM EMER EXTENSION, THE FLAPS WENT TO 10 DEGREES JUST FINE, HYD SYNOPTIC PAGE SHOWED DCMP WITH GREEN LINES TO OPERATED COMPONENTS BUT ZERO ON QUANTITY, HALF THE SPOILERS WERE INOP UPON LANDING AS WELL. FOUND LT EDP QUICK DISCONNECTS SEALS BLOWN. REPLACED LT ENG DRIVEN HYD PUMP AND ASSOCIATED QUICK DISCONNECTS RETAINERS AND PACKING.

CA091113007	BOMBDR	HNYWL	CONTROL UNIT	FAILED
11/2/2009	BD1001A10	AS90711A	14210451	BRAKE

(CAN) PREVIOUSLY REPORTED NOSE WHEEL SHIMMY HAS NOW RETURNED WITH CREW REPORTING SEVERE VIBRATION ON LANDING THROUGH 60 KNOTS. FOLLOWING AN UPDATE FROM THE CREW THEY NOW BELIEVE THE VIBRATION IS BEING FELT IN THE CTR CABIN AREA AND IS BEING INDUCED BY THE BRAKES, THE ACFT ALSO PULLS TO THE LT UNDER BRAKING.THE ACFT WAS TAKEN UP TO 70/80KNTS ON THE RUNWAY AND AT 60 KNTS BRAKES WERE APPLIED AS IF A LANDING WAS BEING CARRIED OUT ACFT PULLED SEVERELY TO THE LT AND CONTINUED TO PULL LT UNTIL CORRECTED BY THE STEERING TILLER, STRAIGHT LINE ROLL REGAINED AND BRAKES RE APPLIED (ACFT NOW TRAVELING AROUND 30/40 KNTS AGAIN DRAMATIC PULL TO THE LT, RECOVERED ONLY BY USE OF STEERING TILLER AND REMOVAL OF BRAKES. ON STAND -BRAKE PSI BRAKES OFF PUMPS ON (ALL FIGURES WILL READ 1 TO 4) 58,58,23,26 SLOW TAXI -BRAKE PSI BRAKES OFF PUMPS ON 125,123,82,87 HEAVY HIGH SPEED BRAKING 2036 PSI,2032PSI,880PSI 872PSI SECOND APPLICATION HIGH SPEED BUT SPEED REDUCING 700PSI,700PSI,200PSI,200PSI THIRD APPLICATION 465,465 268,265 AFTER ALL APPLICATIONS ACFT NEEDED TO BE RECOVERED BY STEERING ACFT WAS DEEMED SERVICEABLE IAW AMM AFTER BRAKE CONTROL UNIT REPLACEMENT.

CA091119002	BOMBDR	HNYWL	PUMP	FAILED
11/2/2009	BD1001A10	AS90711A	5116003	HYD SYSTEM

(CAN) SHORTLY AFTER TAKEOFF (5 MIN) CLIMBING THROUGH FL080 AN (AMBER) R HYD TEMP HIGH CAS POSTED. CREW ELECTED HYD SYNOPTIC PAGE AND THE RT HYD TEMP DISPLAYED WAS 115C AND RAPIDLY CLIMBING. CREW BEGAN TO PERFORM QRH PROCEDURES AND WITHIN ONE MINUTE RT HYD TEMP HAD CLIMBED TO 158C. QRH INSTRUCTS TO SHUTDOWN ENGI IF HYD TEMP REACHES OR IS ABOVE 155C. CREW SHUTDOWN RT ENG, IAW THE QRH, AND HYD TEMP STABILIZED. CREW DECLARED AN EMERGENCY AND ASKED TO BE DIVERTED. CREW LANDED ACFT WITHOUT INCIDENT. ON POST FLIGHT CREW COULD SMELL AN ODOR OF OVERHEATED OIL AT THE REAR OF THE ACFT. NO SMOKE OR FIRE WAS DETECTED. FOUND DEBRIS IN LT EDP CASE DRAIN FILTER. REMOVED AND REPLACED LT ENG DRIVEN HYD PUMP. REPLACED PRESSURE RETURN AND CASE DRAIN FILTERS AND FLUSHED HYD SYS. REPLACED HEAT EXCHANGER BYPASS VALVE AS A PRECAUTION DUE TO THE AMOUNT OF MATERIAL FOUND IN THE CASE DRAIN FILTER. OPS CHECK AND LEAK CHECK GOOD. ACFT RTS`D.

CA091002001	BOMBDR	HNYWL	LINE	LEAKING
9/25/2009	BD1001A10	AS90711A	1005354233009	HYDRAULIC SYS

(CAN) CUSTOMER REPORTED A HYD LEAK INSIDE RT PYLON. CREW FOUND OUT DURING DECENT ABOUT LEAKAGE. SYS NR 2 WAS EMPTY AFTER LANDING. THEY REFILLED THE RESERVOIR AND CRANKED THE ENG. BY DOING THIS THEY FOUND THE LEAK INSIDE THE PYLON. FOUND HYD PRESSURE LINE LEAKING (STAINLESS STEEL TUBE INSIDE PYLON AREA - ITEM 40 IN IPC).

CA090923002	BOMBDR	HNYWL	OIL CAP	CRACKED
9/17/2009	BD1001A10	AS90711A	30360613	NR 1 ENGINE

(CAN) AFTER LANDING, FLIGHT CREW NOTICED A LARGER AMOUNT OF OIL LEAKING FROM NR 1 ENG. THEY VERIFIED THE OIL CAP AND CONFIRMED THAT IT WAS TIGHT. AFTER THE AME INSP, IT WAS DISCOVERED THAT THE OIL CAP WAS CRACKED. CAP WAS REPLACED AND ACFT RETURNED TO SERVICE.

CA091013001	BOMBDR	PWC	PUMP	FAILED

9/30/2009	DHC8400	PW150A	6617303	HYD SYSTEM

(CAN) DURING FLIGHT, HYD PUMP EDP NR 2 FAILED. AFTER NORMAL LANDING PILOT WROTE: NR 2 ENG HYD PUMP U/S NR 2 RUD HYD CAUTION LIGHT ON ON GROUND NWS U/S WITHOUT ANY CAUTION. PERFORMED FLUSHING OF THE NR 2 HYD SYS IAW AMM TASK 29-10-00-617-803 TR 29-108. IN ADDITION TO FAILED EDP NR 2 PUMP PN 66173-03, SN K0538, REPLACED POWER TRANSFER UNIT PN 51149-04 SN K0251 AND NLG SOLENOID SEQUENCE VALVE PN 48302-5, SN FAH0754.

CA091020003	BOMBDR	PWC	STEERING UNIT	FAILED
10/19/2009	DHC8400	PW150A	4063000501	NLG

(CAN) WHEN GEAR SELECTED UP AFTER TAKEOFF, 3 RED UNSAFE LIGHTS CAME ON AND THE GEAR FAILED TO RETRACT. PILOT RAN THE QRH AND HAD 3 GREEN FOR AN UNEVENTFUL LANDING. MX DISCOVERED THE NOSE WHEEL CENTERING FUNCTION INOP WHEN THE NOSE GEAR TRANSITIONED TO WEIGHT OFF WHEELS. A NEW SCU WAS INSTALLED AND THE CENTERING FUNCTION RESTORED. ACFT RETURNED TO SERVICE.

CA091103001	BOMBDR	PWC	SEQUENCE VALVE	MALFUNCTIONED
10/13/2009	DHC8400	PW150A	483003	LT MLG DOOR

(CAN) AFTER GEAR RETRACTION L GEAR DOOR AND L GEAR UNSAFE ALONG WITH GEAR DISAGREEMENT LIGHT CYCLED ON AND OFF FOR ABOUT 20 SECONDS. THEN ALL INDICATIONS WERE NORMAL. LANDING UNEVENTFUL. MX REPLACED MLG SELECTOR VALVE.

CA091104001	BOMBDR	PWA	FRAME	CRACKED
11/3/2009	DHC8402	PW120A		BS 240

(CAN) WHILE CARRYING OUT THE KEELBEAM INSP, A SOOTY SUBSTANCE WAS OBSERVED IN THE AREA OF THE BEND OF THE LWR FRAME AT FUSELAGE STA 240.5 STR 32P AND 32S. AVIONICS RACKS WERE REMOVED FROM ABOVE THE LOCATION TO AFFORD A BETTER EXAMINATION. AS SEEN IN THE ATTACHED IMAGES, SEVERAL CRACKS WERE DISCOVERED IN THE RADIUS AND THE RIVET LINE OF THE FRAME, AS WELL AS IN A ANGLED SUPPORT MEMBER THAT WAS INSTALLED FWD OF THE FRAME TO SUPPORT THE LOADS GENERATED BY THE COM 1 BLADE ANTENNA THAT IS INSTALLED AT THIS LOCATION. FURTHER INVESTIGATION IS BEING COMPLETED VIA NDT IN ORDER TO DETERMINE IF THERE EXIST ANY CRACKS IN THE BELLY SKIN. INFO TO FOLLOW.

2009FA0000995	CASA		SPAR	CRACKED
11/26/2009	C212200		2121110009912	RT WING

DURING ROUTINE INSPECTION OF WINGS, CRACKS WERE NOTED IN SEVERAL OF THE FALSE SPAR ANGLES IN THE RIGHT WING. REFERENCE SERVICE BULLETIN SB-212-57-30 AND AD 98-12-28.

CA091113003	CESSNA	CONT	GUIDE	BROKEN
11/5/2009	140	C8512F		CYLINDER VALVE

(CAN) BROKEN VALVE GUIDE DETECTED AS THE ANNUAL 1 100 HR INSPECTION. CYLINDER ASSY REMOVED, LOW COMPRESSION ON DIFFERENTIAL TEST 20/80 SENT TO AMO FOR REPAIR NOTE: CYLINDER ASSY WAS PURCHASED NEW OCT. 2004 - 245.0 HR.

CA091007004	CESSNA	CONT	FORD	RETAINER	UNSERVICEABLE
10/7/2009	150H	O200A	DOFF10300F	352030	ALTERNATOR DRIVE

(CAN) RETAINER WHICH HOUSES THE 2 RUBBER BUSHINGS (632050) HAS WORN TO THE POINT WHERE DRIVE GEAR HAS ROTATED ALMOST 60 DEGREES WITHIN RETAINER. THIS CONSEQUENTLY CONTAMINATED ENG WITH FERROUS MATERIAL. ENG IS BEING REPAIRED FOR METAL CONTAMINATION.

CA091019006	CESSNA	CONT	CYLINDER	FAILED
10/12/2009	150M	O200A	SA102001A	ENGINE

(CAN) - STRONG SLOPE ALONG TAKEOFF (2000 RPM) - ASKED FOR PRIORITY LANDING - BURST VALVE EXHAUST CYL NR 2 WAS FOUND - REPLACED THE CYL NR 2 SAL0200-1A S/N 01344 WITH GASKET KIT AND NEW SPARK PLUG (2X) REM40E, RUN-UP CLOUT MAX RPM 2450 LEAK CHECK CLOUT AND OK, ACFT BACK IN SERVICE.

CA091019004	CESSNA	LYC	CONTACTOR	DAMAGED

10/15/2009	152	O235L2C	S24752	ELECTRICAL

(CAN) THE MASTER CONTACTOR BECAME "OPEN" AND LT ACFT WITH NO ELECTRICAL PWR. ACFT LANDED WITHOUT INCIDENT. MX REPLACED CONTACTOR AND RETURNED THE ACFT TO SERVICE.

CA091026001	CESSNA	LYC	SPAR	CRACKED
10/22/2009	152	O235L2C	04224056	RT WING

(CAN) FOUND ON INSPECTION THAT THE FRONT SPAR OH THE RIGHT WING WAS CRACKED ON BOTH SIDES OF THE FIRST FLANGED LIGHTENING HOLE AT STATION 44.12, JUST OUTBOARD OF THE FUEL TANK ON THE RIGHT HAND WING. CRACK ON BOTH SIDES OF THE LIGHTENING HOLE IS 1/4" IN LENGTH. NO OTHER DAMAGE FOUND. (TC# 20091026001)

CA091028005	CESSNA	LYC	CRANKCASE	CRACKED
10/26/2009	152	O235L2C	LW13282	ENGINE

(CAN) FWD OF THE NUMBER 2 CYLINDER THE CASE HAS A SIGNIFICANT CRACK CAUSING OIL TO LEAK FROM THE CASE. THE ENGINE DOES HAVE A CONVERSION KIT INSTALLED WITH HIGH COMPRESSION CYLINDERS. STC SE792NW 125 HP. (TC 20091028005)

CA091009001	CESSNA	LYC	FORK	DAMAGED
9/12/2009	152	O235L2C	04425037	NLG

(CAN) AFTER ACCIDENT, ARRIVED AT HANGER ON SEPT 14TH, TO RETRIEVE ACFT AND VISUALLY INSPECT DAMAGE. ACFT NOSE GEAR WAS FOUND GROUND DOWN, WHEEL WAS NOT ATTACHED TO ACFT AND FOUND INTERNALS BROKEN AND TIRE/TUBE PUNCTURED, AXLE BOLT WAS BENT AND GROUND DOWN, ENG MOUNT WAS BENT AT LOWER RT, PROPELLOR TIPS WERE MISSING, APPROX 1.5 INCHES. WINGS WERE REMOVED FOR TRANSPORTATION AND ACFT WAS BROUGHT BACK TO AIRPORT.

CA091005006	CESSNA	LYC	ENGINE	CRACKED
8/11/2009	152	O235N2C	77852	

(CAN) UPON INSP, MECHANIC DISCOVERED OIL LEAKING FROM BACK OF ENG. NEW BASE ASSY INSTALLED ACFT GROUND RUN AND LEAK CHECK OK.

CA091005007	CESSNA	LYC	MAGNETO	INOPERATIVE
8/14/2009	152	O235N2C	4381	RT

(CAN) ENGINE RUNNING ROUGH. RT MAG FOUND TO BE THE CAUSE. BOTH MAGS REPLACED WITH REPAIRED UNITS. ACFT GROUND RUN AND TESTED OK.

CA091021014	CESSNA	LYC	FIREWALL	BUCKLED
7/31/2009	172M	O320D2J	0553006202	ENGINE BAY

(CAN) DURING A ROUTINE INSPECTION, A BUCKLE ON THE LEFT HAND LOWER FIREWALL WAS NOTICED. AIRCRAFT WAS TAKEN REPAIR STATION FOR REPAIRS. FABRICATED NEW LOWER FIREWALL AS PER ORIGINAL USING 301QH AMS-5517 .025 B/N 318 AND CORNER DOUBLERS AT COWL MOUNTS. INSTALLED NEW LOWER FIREWALL DOUBLER. (TC 20091021014)

CA091117002	CESSNA	LYC	FORK	CRACKED
9/2/2009	172M	O320E2D	0543043498	NOSE GEAR

(CAN) CRACKS IN NOSE GEAR FORK: AD 71-22-02 DEALS WITH THIS SUBJECT: DWG ATTACHED.

CA091021010	CESSNA	LYC	VOLT REGULATOR	FAILED
10/16/2009	172N	O320D2J	VR500010	DC SYSTEM

(CAN) CREW REPORTED ALTERNATOR NOT CHARGING AFTER ENGINE START-UP. ENGINE SHUT DOWN. TROUBLESHOOTING INDICATED VOLTAGE REGULATOR AT FAULT. NEW REGULATOR INSTALLED AND GROUND RUNS CONFIRMED CHARGING SYSTEM FUNCTIONING CORRECTLY. (TC 20091021010)

CA091102002	CESSNA	LYC	STARTER	FAILED

10/28/2009	172N	O320D2J	14924LS	ENGINE

(CAN) STARTER WILL NOT TURN ENG OVER.

CA091110002	CESSNA	LYC	MAGNETO	FAULTY
10/30/2009	172N	O320D2J	4371	ENGINE

(CAN) DURING RUN-UP, ENG WOULD NOT RUN ON LT MAGNETO. MAGNETO REMOVED FROM ACFT. O/H MAGNETO INSTALLED ON ACFT AND GROUD RUNS CHECKED SERVICEABLE. FAULTY MAGNETO SENT FOR REPAIRS. CAUSE OF DEFECT UNKNOWN.

2009FA0000977	CESSNA	LYC	CONDENSER	FAILED
10/19/2009	172N	O320H2AD	10302807	MAGNETO

CONDENSERS, LT AND RT FAILED INTERNALLY SO AS TO CAUSE PREMATURE WEAR AND BURNING OF POINTS. (K)

CA091027006	CESSNA	LYC	CYLINDER HEAD	SEPARATED
10/25/2009	172N	O320H2AD	ECI15317	NR 4 CYLINDER

(CAN) THE LOWER SPARK PLUG (WITH HELI COIL AND GASKET STILL ATTACHED) SEPERATED FROM CYLINDER HEAD NR 4. CYLINDER HEAD NR 4 HAS MISSING THREADS AND PEICES OF HELI COIL STILL EMBEDDED IN REMAINING THREADS. IT APPEARS THAT THE HELI COIL INSERT BROKE APART AND TOOK OUT THE ALUMINUM THREADS ON CYLINDER HEAD. NO CRACKS COULD BE FOUND AROUND THE CYLINDER'S SPARK PLUG HOLE OR ON THE CYLINDER ITSELF. THE CYLINDER AND ALL ITS PARTS APPEAR TO BE IN GOOD SHAPE. TOTAL HOURS ON THE ENGINE AND CYLINDER WERE 1778.4. TBO IS 2000 HOURS. THIS ENGINE IS OPERATED ON CONDITION. LAST 2 COMPRESSION CHECKS OF THIS CYLINDER SHOW 74/80 WITH NO DEFECTS. (TC 20091027006)

CA091021003	CESSNA	LYC	CONNECTING ROD	MISMANUFACTURED
9/22/2009	172N	O320H2AD	78030	ENGINE

(CAN) THE BOLT HOLE DID NOT HAVE SUFFICIENT CHAMFER TO FULLY ACCEPT THE BOLT. THERE IS A SERVICE BULLETIN ADDRESSING THIS ISSUE FOR THE OLDER PART NUMBER CONNECTING RODS. THIS NEWER PART NUMBER ROD IS SUPPOSED TO HAVE THIS LARGER CHAMFER INCORPORATED. INSUFFICIENT CHAMFER DOES NOT ALLOW THE BOLT TO SEAT FULLY AGAINST THE CONNECTING ROD. ADEQUATE TORQUE CANNOT BE ASSURED, AND THE RISK OF CONNECTING ROD BOLT FAILURE IS PRESENT. WE HAVE DISCOVERED THIS 2 TIMES PRIOR WITH NEW PART NUMBER CONNECTING RODS. (TC# 20091021003)

CA091005012	CESSNA	LYC	VENT LINE	OUT OF POSITION
10/2/2009	172N	O360A4M		FUEL SYSTEM

(CAN) IT WAS PERIODICALLY NOTICED BY PILOTS THAT FUEL WAS VENTING OUT OF THE VENT LINE. SEVERAL ATTEMPTS WERE MADE TO PREVENT THESE OCCURENCES. THESE INCLUDED CHANGING THE CAPS AS WELL AS ADJUSTING ANGLE OF THE VENT LINE, AND REPLACING THE CHECK VALVE. AS AN END RESULT, MFG WAS PHONED FOR ADVICE ON HOW TO RECTIFY THIS PROBLEM. WE WERE TOLD TO FOLLOW OUT THE ACTIONS OF SEB88-1 IN HOPE THAT THIS WOULD WORK. IT INVOLVED INSTALLING A SEAL AT THE UPPER STRUT CUFF. THIS IS TO PREVENT DISTURBANCE OF THE AIRFLOW SURROUNDING THE VENT LINE. ALTHOUGH THIS SB DID NOT INCLUDE OUR PARTICULAR MODEL OF ACFT IT COMPLETELY SOLVED THE PROBLEM. IN ADDITION TO THE SEAL, A NEW VENT LINE WAS INSTALLED.

2009FA0000980	CESSNA	LYC	SLICK	GEAR	LOOSE
11/2/2009	172P	O320D2J		M3827	MAGNETO

CUSTOMER COMPLAINED OF DEAD LT MAGNETO ON GROUND RUN UP. REMOVED AND OPENED MAGNETO HSG TO FIND A LOT OF DUST. UPON INVESTIGATION, DISCOVERED THAT ROTOR GEAR HAD MOVED UP ON ITS SHAFT AND RUBBED DISTRIBUTOR GEAR HSG. CALLED SERVICE SUPPORT, THEY TOLD US THAT THEY WERE AWARE OF THIS PROBLEM WITH A RANGE OF SN MAGNETO`S. DUST THAT HAD WORN OFF THE GEAR GOT BETWEEN THE POINTS AND MADE THE MAGNETO INOPERATIVE. WHILE MAGNETO WAS OPEN ALSO C/W SB 02-08A CAM INSP; FOUND OK AND SB03-08A CARBON BRUSH INSP; THAT WAS BAD AND REPLACED BRUSH. ALSO, REPLACED THE POINTS WITH A NEW KIT, AND A NEW ROTOR GEAR. C/W A 500 HR INSP ON THE MAGNETO AND THEN

REINSTALLED IT ON THE ENG IN THE SAME POSITION. GROUND RUN UP FOUND NORMAL. (K)

CA091021005	CESSNA	LYC	TORQUE TUBE	DAMAGED
9/29/2009	172P	O320D2J		RUDDER PEDAL

(CAN) DURING A SCHEDULED ENGINE CHANGE IT WAS DISCOVERED THAT PAN ASSEMBLY P/N 0513109-4 WAS BUCKLED. AIRCRAFT WAS TAKEN TO CONVAIR AVIATION LTD FOR REPAIRS. ONCE THE FIREWALL WAS REMOVED FURTHER DAMAGE TO THE INTERNAL STRUCTURES WAS DISCOVERED AS FOLLOWS: FOUND RUDDER TORQUE TUBE MOUNTS CRACKED WHERE BOLTS ATTACH TORQUE TUBES TO AIRFRAME. FOUND R/H SIDE SKIN CRACKED WHERE FUELING STEPS ATTACHES. REPAIRS WERE MADE AS FOLLOWS: CRACKS IN THE FRAME REPAIRED AT RUDDER PEDAL TORQUE TUBES. REPAIR DESIGN CERTIFICATED C-RA09-270/D ISSUE NO.1 SEPTEMBER 18, 2009, DOCUMENT CONTROL LIST, DCL868 AND DRAWING NO. 86801 REV.0. FRAME AND SKIN REPAIRS LT AND RT CARRIED OUT AT FS 20. REPAIR DESIGN CERTIFICATE C-RA09-271-D ISSUE NR 1 SEPTEMBER 22, 2009, DRAWING CONTROL LIST DCL869 REV. 0 AND DRAWING 86901 REV. 0. FABRICATED NEW LOWER FIREWALL P/N 0553006-209 AND PAN ASSEMBLY P/N 0513109-4 AS PER ORIGINAL USING 301QH AMS-5517 .025 B/N 318 AND CORNER DOUBLERS AT COWL MOUNTS AND INSTALLED. AIRCRAFT RETUNED TO SERVICE AFTER THE COMPLETION OF REPAIRS AND ENGINE CHANGE. (TC 20091021005)

CA091103005	CESSNA	LYC	SWITCH	UNSERVICEABLE
11/3/2009	172R	IO360L2A	W31X100010	LANDING LIGHT

(CAN) WHILE IN THE CROSSWIND LEG FOR THE CIRCUIT FOR 36, THE STUDENT NOTICED SMOKE COMING FROM LANDING LITE SWITCH, WHICH WAS FOLLOWED BY A BURNING SMELL. THE PIC (PILOT) ELECTED TO MAKE A FULL STOP AND AN UNEVENTFUL LANDING WAS EXECUTED. UPON INSP AND REMOVAL OF LANDING LIGHT SWITCH, IT WAS FOUND THE SWITCH FAILED , NO OTHER DAMAGE NOTED.

CA091019005	CESSNA	LYC	ACTUATOR	CRACKED
10/7/2009	172RG	O360F1A6	12810016	MLG

(CAN) LEAKED WHEN PRESSURIZED, MIDWAY ALONG CASTING SEAM (MLG).

CA091116001	CESSNA	LYC	SHOCK MOUNT	BROKEN
11/13/2009	172RG	O360F1A6	125025510	TAILPIPE

(CAN) EXHAUST TAILPIPE SHOCK MOUNT BORKEN BETWEEN FIREWALL AND TAILPIPE.

2009FA0000955	CESSNA		CONTROL CABLE	CHAFED
11/13/2009	172S		0510105365	AILERONS

DURING A ROUTINE INSPECTION THE AILERON CABLE P/N-0510105-365 WAS FOUND CHAFING AND WORN IN THE CENTER CEILING AREA WHERE IS PASSES THROUGH THE 3 PULLEY CLUSTER. THE STRANDS APPEAR SHINY TO THE NAKED EYE, BUT WITH A SUITABLE MAGNIFYING GLASS CAN BE SEEN TO HAVE MANY BROKEN STRANDS.

2009FA0000956	CESSNA		CONTROL CABLE	CHAFED
11/13/2009	172S		0510105364	AILERONS

DURING A ROUTINE INSP, THE AILERON CABLE PN-0510105-364 WAS FOUND SHINY WHERE IT PASSES THROUGH THE CEILING PULLEY CLUSTER. WHEN VIEWED THROUGH A STRONG MAGNIFYING GLASS, MANY BROKEN STRANDS CAN BE SEEN.

2009FA0000975	CESSNA	LYC	BUSHING	INACCURATE
10/29/2009	172S	IO360L2A	66610	NR 4 CYL ROCKER

CYLINDER NR 4 ROCKER SHAFT BUSINGS IMPROPER INTERFERENCE FIT WITH ROCKER SHAFT. DEFECT FOUND DURING DISASSEMBLY PHASE OF OVERHAUL WHILE ATTEMPTING TO REMOVE ROCKER SHAFT FROM CYLINDER. PROBABLE CAUSE IS IMPROPER MFG. (K)

CA091020002	CESSNA	LYC	LINE	CHAFED
10/19/2009	172S	IO360L2A		BRAKE

(CAN) LT HAND BRAKE LINE WAS FOUND CHAFED WHERE IT PASSES OUT OF THE GEAR LEG FAIRING AND INTO THE FUSELAGE. BRAKE LINE REPLACED AND BRAKES BLED. SB 09-32-02 ADDRESSES SIMILAR DAMAGE ON 182

SERIES AIRCRAFT BUT IT DOES NOT INCLUDE INSP OF THE UPPER END OF THE FAIRING NOR DOES IT COVER THE 172 SERIES OF AIRCRAFT.

CA091102009	CESSNA	LYC	CESSNA	PISTON ROD	BROKEN
11/2/2009	172S	IO360L2A		98820125	MASTER CYLINDER

(CAN) LT BRAKE MASTER CYL PISTON ROD BROKE IN THREAD AREA.

CA091103009	CESSNA	CONT	CABLE	FRAYED
10/30/2009	180J	O470S	0510105173	RUDDER

(CAN) CABLE FRAYED AT TUNNEL STA 10 (APROX LOCATION).

2009FA0001015	CESSNA	LYC	VALVE	STUCK
10/29/2009	182S	IO540*		ENGINE

ON START UP AND TAXI OUT OF THE ACFT, EXHAUST AND INTAKE VALVES STUCK. THIS CAUSED BOTH PUSH RODS TO BEND. AND LIFTER PLUNGER WAS LOCKED UP UPON FURTHER INSP. ENG WAS USING W100 OIL AND HAD ONLY 634.8 HOURS SINCE NEW.

2009FA0001016	CESSNA	LYC	VALVE	STUCK
10/29/2009	182S	IO540AB1A5		ENGINE

ON START UP AND TAXI OUT OF THE ACFT, THE EXHAUST AND INTAKE VALVES STUCK. THIS CAUSED BOTH PUSH RODS TO BEND. AND THE LIFTER PLUNGER WAS LOCKED UP UPON FURTHER INSP. THE ENG WAS USING W100 OIL AND HAD ONLY 634.8 HOURS SINCE NEW.

2009FA0000992	CESSNA	LINE	CHAFED
11/25/2009	182T	070080417	FUEL SYSTEM

COPILOT'S RUDDER PEDDLE COVER IS CHAFING INTO THE FUEL LINE. THIS CHAFING IS CAUSED BY INSUFFICIENT CLEARANCE OF THE RUDDER PEDDLE COVER AND THE FUEL LINE. THE SAME CONDITION HAS BEEN FOUND ON TWO OTHER AIRCRAFT. CORRECTED THE PROBLEM BY TRIMMING THE RUDDER PEDDLE COVER FOR POSITIVE CLEARANCE BETWEEN THE FUEL LINE AND COVER ON ALL THREE AIRCRAFT. THE FUEL LINE ON 1821675 REQUIRED REPLACEMENT DUE TO DAMAGE BEYOND LIMITS.

2009FA0000991	CESSNA	LINE	CHAFED
11/25/2009	182T	070080414	FUEL FEED

COPILOT'S RUDDER PEDDLE COVER IS CHAFING INTO THE FUEL LINE. THIS CHAFING IS CAUSED BY INSUFFICIENT CLEARANCE OF THE RUDDER PEDDLE COVER AND THE FUEL LINE. THE SAME CONDITION HAS BEEN FOUND ON 2 OTHER ACFT, SN 1821675 AND SN 1821622. WE CORRECTED THE PROBLEM BY TRIMMING THE RUDDER PEDDLE COVER PN 0719085-4 FOR POSITIVE CLEARANCE BETWEEN THE FUEL LINE AND COVER ON ALL 3 ACFT. THE FUEL LINE ON 1821675 REQUIRED REPLACEMENT DUE TO CHAFE DAMAGE BEYOND LIMITS.

CA091110010	CESSNA	CONT	ANTENNA	MALFUNCTIONED
11/3/2009	207A	IO520F		ATC TRANSPONDER

(CAN) TRANSPONDER WORKING ON OUT BOUND LEG BUT FAILS ON RETURN LEG TRACKED DOWN TO FAULTY ANTENNA AWAITING PART.

2009FA0001018	CESSNA	CONT	CYLINDER	CRACKED
11/22/2009	207A	IO550F		ENGINE

A COMPRESSION CHECK ON CYL NR 5 RESULTED IN A RATIO OF 20/80. INSP REVEALED A CRACK IN THE CYL HEAD ALMOST THE ENTIRE WIDTH OF THE HEAD, THAT RAN BELOW THE SPARK PLUG HOLE AND ABOVE THE FUEL INJECTOR PORT. INSP OF THE INTERIOR OF THE CYL SHOWED THE CRACK RUNNING BETWEEN THE INTAKE AND EXHAUST VALVE HOLES. INSPECTION OF THE OTHER CYLINDERS REVEALED A SMALL CRACK RADIATING FROM THE SPARK PLUG HOLE ON CYL NR 3. BOTH CYLINDERS WERE INSTALLED NEW AT ENGINE O/H AND HAD 824 HRS. (K)

CA091002005	CESSNA	PWA	WHEEL	CRACKED

9/30/2009	208B	PT6A114A	16211800	RT MLG

(CAN) RT WHEEL ASSY MAKING NOISE DURING TAKE-OFF ROLL AND LANDING. NEW BRAKE DISC HAD BEEN INSTALLED, NEW THICKNESS PERCEIVED TO BE THE CAUSE OF RUBBING ON THE BRAKE PADS. FURTHER INVESTIGATION SHOWED THE WHEEL WAS SPUN THE BRAKE DISC WOBBLED. WHEN DISASSEMBLED IT WAS FOUND THAT ON PREVIOUS ASSY THE SPACER DID NOT LINE UP PROPERLY AND MADE CONTACT WITH THE EDGE OF THE BRG CUP STEP FLANGE ON THE OUTER WHEEL HALF. THIS CAUSED THE CASTING TO CRACK AND DISLODGE THE BRG CUP. THIS IN TURN CAUSED THE WHEEL ASSY TO WOBBLE SLIGHTLY AND WITH NEW DISC ASSY INSTALLED TO RUB ON BRAKE PAD. THE SDR IS IN RESPECT TO THE CRACKED WHEEL HALF 2.5 INCHES AROUND THE RADIUS OF THE BEARING CUP, COULD HAVE CAUSE A CATASTROPHIC WHEEL FAILURE.

CA091022005	CESSNA	PWA	SPAR	CORRODED
10/13/2009	208B	PT6A114A	26310217	VERTICAL STAB

(CAN) DURING A VERTICAL STAB SPAR INSPECTION PER CESSNA CARAVAN 208B SUPPLEMENTAL INSPECTION NUMBER 55-30-01, PART OF A 20,000 HOUR INSPECTION, FRETTING DAMAGE WAS FOUND AT VERTICAL STABILIZER REAR SPAR WEB AT W.L. 134.00. THERE WAS NO CORROSION DETECTED WHERE THE FRETTING WAS FOUND. SEE ATTACHED PICTURES. A REPAIR WAS OBTAINED FROM CESSNA AIRCRAFT COMPANY, STRUCTURES REPORT NR S-208B-0470/02RD. BLEND DEPTH WAS 0.015 INCH AT LT SIDE OF WEB SPAR AND 0.006 INCH AT RT SIDE OF WEB SPAR. REPAIR REPORT S-208B-0470/02RD STATED TO BLEND THE FRETTING, EDDY CURRENT FOR CRACKS & REPEAT AS PER 208 MM 20-31-00. THE REPAIR WAS COMPLETED AND EDDY CURRENT TESTED NO CRACKS. (TC 20091022005)

2009FA0001026	CESSNA		IDLER ASSY	BROKEN
12/7/2009	340A		08411066	MLG DOOR

PILOT DISCOVERED ON PREFLIGHT, RT MAIN INNER GEAR DOOR HANGING OPEN. UPON FURTHER INVESTIGATION, MECHANIC DISCOVERED RT GEAR IDLER BELLCRANK TO INNER GEAR DOOR BROKEN. INSTALLED A NEW BELLCRANK, CHECKED UP AND DOWN TENSIONS. FOUND INNER GEAR DOOR DOWN LOCK TENSION ABOVE MFG SPECIFICATIONS. FAILURE OF PART POSSIBLY FROM EXCESSIVE TENSION.

CA091116007	CESSNA	CONT	SKIN	CRACKED
11/13/2009	414	TSIO520J		WING

(CAN) DURING AN INSP, THE UPPER WING SKIN WAS FOUND CRACKED. THE CRACK WAS LOCATED AT THE AFT ATTACHMENT POINT OF THE MAIN FUEL TIP TANK. THE CRACK WAS 3/4 OF AN INCH IN LENGTH JUST FWD OF THE AFT WING SPAR. 2 RIVETS THAT GO THROUGH THE OTBD AILERON ATTACH BRACKET AND AFT WING SPAR WERE ALSO FOUND SHEARED OFF. THIS PROBLEM WAS FOUND ON BOTH LT AND RT WINGS.

T9ZR725Y4370/41	CESSNA	CONT	BLADE	DAMAGED
12/9/2009	421C	GTSIO520C		PROPELLER

PROP WAS OBSERVED TO BE LEAKING GREASE FROM 2 BLADE SHANK AREAS. SPINNER WAS REMOVED FOR INSP AND ALL 3 BLADES APPEAR TO BE LEAKING GREASE. 1 BLADE WAS OBSERVED TO HAVE EXCESSIVE BLADE SHANK MOVEMENT BEYOND ALLOWABLE LIMITS. WHEN BLADES WERE CHECK FOR BLADE TWIST 1 BLADE EXHIBITED AN EXCESS AMOUNT OF ROTATIONAL MOVEMENT. PROPS WERE REMOVED FOR INSP AND REPAIR AFTER AN INITIAL INSP BY A BY MFG SERVICE CTR. RT PROP HAD A TOTAL OF 472.5 HOURS SINCE OVERHAUL.

T9ZR725Y4370/40	CESSNA	CONT	BLADE	LEAKING
12/9/2009	421C	GTSIO520C		PROPELLER

PROP WAS OBSERVED TO BE LEAKING GREASE FROM TWO BLADE SHANK AREAS. SPINNER WAS REMOVED FOR INSP AND ALL 3 BLADES APPEAR TO BE LEAKING GREASE. ONE BLADE WAS OBSERVED TO HAVE EXCESSIVE BLADE SHANK MOVEMENT BEYOND ALLOWABLE LIMITS. WHEN BLADES WERE CHECK FOR BLADE TWIST ONE BLADE EXHIBITED AN EXCESS AMOUNT OF ROTATIONAL MOVEMENT. PROPS WERE REMOVED FOR INSP AND REPAIR AFTER AN INITIAL INSP BY A BY MFG SERVICE CENTER. LT PROP HAD A TOTAL OF 472.5 HOURS SINCE OVERHAUL.

CA091021007	CESSNA	PWA	PLATE	CORRODED
10/19/2009	425	PT6A135A	595105223	LT NACELLE

(CAN) DURING DISASSEMBLY OF THE LT NACELLE TO FACILITATE A SID PHASE 32 INSPECTION, IT WAS DISCOVERED THAT THE PLATE CONNECTING THE LT OUTBOARD TRUSS ASSEMBLY TO THE TOP OF THE LT WING SKIN WAS CORRODED. AFTER REMOVING THE CORROSION, THERE WERE PITS LEFT IN THE SURFACE THAT EXCEED 10% OF MATERIAL THICKNESS. PLATE WILL HAVE TO BE REPLACED. (TC 20091021007)

CA091021008	CESSNA	PWA	BRACKET	CRACKED
10/19/2009	425	PT6A135A	58341309	HORIZONTAL STAB

(CAN) WHILE PERFORMING AN EDDY CURRENT INSPECTION TO COMPLY WITH A PHASE 31 SID INSPECTION, A CRACK WAS DETECTED IN THE OUTBOARD BRACKET THAT ATTACHES THE RT ELEVATOR TO THE H STAB. THE CRACK WAS NOT DETECTABLE VISUAL INSPECTION ALONE. (TC 20091021008)

CA091021009	CESSNA	PWA	SKIN	CHAFED
10/19/2009	425	PT6A135A	512205393	RT WING TE FLAP

(CAN) RT FLAP TRAILING EDGE, NEAR INBOARD SIDE HAS CAUSED CHAFING DAMAGE TO THE WING SKIN WHERE FLAP RETRACTS. LOCAL REPAIR REQUIRED. (TC 20091021009)

2009FA0001046	CESSNA	ACTUATOR	LOOSE
11/26/2009	510	991226392	AILERON TRIM

DURING MX ON 510-0032 WHILE CARYING OUT SB510-27-01 A LOUD RATTLE WAS NOTICED FROM INSIDE THE LT AILERON PRIOR TO REFIT. THE NOISE SOUNDED LIKE MUTIPLE LOOSE ITEMS TOWARDS THE INBD END OF THE AILERON. ON REMOVAL OF THE AILERON TRIM ACTUATOR ACCESS PANEL (532EB), IT WAS DISCOVERED THAT THE NOISE WAS BEING CAUSED BY (2) AN3-3A BOLTS AND MATCHING WASHERS (PN NAS 1149F0363P) INSIDE THE COMPARTMENT WHERE MATCHING WASHERS (PN NAS1149F0363P) INSIDE THE COMPARTMENT WHERE THE ACTUATOR TRIM ACTUATOR IS LOCATED. FURTHER INVESTIAGATION REVEALED THE (2) BOLTS HAD FALLEN OUT OF THE AILERON TRIM ACTUATOR MOUNTING POINTS AND HAD DROPPED INSIDE THE AILERON. THE (2) REMAINING BOLTS WHICH SECURE THE ACTUATOR IN POSITION WERE VERY LOOSE AND ALSO IN PROCESS OF FALLING OUT. (K)

CNQR2009120600001	CESSNA	POSITION SWITCH	OUT OF ADJUST
12/6/2009	510	65430087	MLG

WHEN THE ACFT DEPARTED AND THE LANDING GEAR WAS RETRACTED AFTER TAKEOFF, THE LANDING GEAR TRANSITION LIGHT REMAINED ILLUMINATED. FLIGHT CREW CYCLED THE LANDING GEAR SEVERAL TIMES WITH SUCCESSFUL EXTENSIONS AND RETRACTIONS ON EACH EVENT. WITH EACH EVENT THE LIGHT DID STAY ILLUMINATED AND DID NOT EXTINGUISH, SO THE CREW ELECTED TO RETURN TO DEPARTURE FOR INVESTIGATION. THE NOSE GEAR UPLOCK POSITION SWITCH WAS FOUND JUST OUT OF ADJUSTMENT, THE SWITCH WAS ADJUSTED AS NECESSARY AND THE ACFT DEPARTED WITHOUT INCIDENT.

2009FA0000959	CESSNA	MARATHON	SENSOR	OUT OF LIMITS
11/4/2009	525	31169001	29570003	BATTERY TEMP

PROBLEM WAS TROUBLESHOT TO A FAULTY BATTERY TEMP SENSOR. THE SPARE SENSOR INSIDE THE BATTERY WAS CONNECTED AND TOOK THE FAULTY SENSOR OFF LINE. BATTERY WAS REINSTALLED AND THE AIRCRAFT WAS OPS CHECKED GOOD AT THAT TIME AND WAS RELEASED.

CA091015005	CESSNA	WILINT	PRESSURE SWITCH	INTERMITTENT
9/30/2009	525B	FJ44	99123734	HYD

(CAN) SWITCH INTERMITTENT OPERATION WOULD STAY ON WHEN SHOULD BE OFF. SWITCH REPLACED NEW.

2009FA0001082	CESSNA	RESERVOIR	OUT OF TOLERANCE
12/24/2009	550	99121033	ZONE 700

RECEIVED AN INSPECTED PNEUMATIC RESERVOIR (EMERGENCY BRAKE/GEAR BLOWDOWN BOTTLE) WITH 8130-3 NR AE-67615 DATED 10/29/2009. UPON INSTALLATION AND OPS CHECKS, THE INSPECTOR DETERMINED THAT THE BOTTLE MFG DATE OF JUNE 1980 MEANT THAT THE BOTTLE LIFE LIMIT OF 24 YEARS (AS STATED IN CH 5 OF THE MM) HAD BEEN EXCEEDED BY 5 YEARS. REMOVED AND REPLACED BOTTLE S/N 017 WITH ANOTHER UNIT WHICH

WAS REMOVED SERVICEABLE FROM ANOTHER CUSTOMERS ACFT.

CA091015001	CESSNA	PWA	SPACER	DEBONDED
10/14/2009	550	JT15D4		DEFOG SYS

(CAN) THE DEFOG OUTLET IS HELD OPEN BY 3 SPACERS BONDED BETWEEN FWD AND AFT SKIN OF THE OUTLET DUCT. THE LT SPACER DEBONDED FROM FWD SKIN AND THE DUCT FRETTED ON INSIDE LWR PORTION OF WINDSHIELD - NOT SURE WHETHER ONE HAD AN EFFECT ON THE OTHER. THE NEW DUCT CAME FROM MFG WITH SHORTER SPACERS MAKING THE OUTLET NARROWER AND ALLOWING MORE CLEARANCE BETWEEN THE DUCT AND THE WINDSHIELD.

CA091015002	CESSNA	PWA	LINK	CRACKED
10/14/2009	550	JT15D4	5514501111	COCKPIT SEAT

(CAN) THE LINK IS FOR THE SEAT TILT ADJUSTMENT AND WHERE THE ROUND TUBE IS SQUEEZED TO FORM A FLATTENED END, IT IS CRACKED.

CNQ8918CA	CESSNA	PWA	SPAR	DAMAGED
11/19/2009	551	JT15D4		ZONE 100

DURING INSP, FOUND SEVERAL HOLES DRILLED IN THE FD WING CARRY-THRU SPAR. HOLES APPEAR TO HAVE BEEN DRILLED DURING AN INTERIOR INSTALLATION. MFG HAS DEEMED THE SPAR UNREPAIRABLE AND MUST BE REPLACED.

2009FA0001014	CESSNA		CABIN PRESSURE	MALFUNCTIONED
12/3/2009	560CESSNA			

PRESSURIZATION FAILED DURING THE DESCENT. SYS WAS IN NORMAL, DIFFERENTIAL PRESSURE DROPPED TO NEAR ZERO, AND THE CONTROLLER RATE INDICATED ZERO THROUGHOUT. ATTEMPTED TO CONTROL PRESSURIZATION MANUALLY WITH NO RESULT.

CNQ3200901	CESSNA		WIRE	CHAFED
12/4/2009	560CESSNA			ZONE 100

FOUND WIRE BUNDLE THAT ORIGINATES IN THE BOTTOM OF THE AFT J-BOX AND RUNS HORIZONTALLY THROUGH THE BULKHEAD VERTICLE SUPPORT STRUCTURE FEED-THROUGH HOLE TOWARD THE ORANGE FRESH AIR DUCT TO BE CHAFING ON THE FRESH AIR DUCT. FOUND MINOR DAMAGE TO THE SHIELDING BUT NOT TO THE CONDUCTORS. PERFORMED CONTINUITY CHECKS, REPAIRED AND INSTALLED PROTECTIVE SLEEVING IAW THE WIRING DIAGRAM MANUAL CHAPTER 20. NOTIFIED ACFT COMPANY PRODUCT SUPPORT OF CONDITION FOUND.

2009FA0001072	CESSNA		STARTER GEN	WORN
11/24/2009	560CESSNA		99121253	

LT ENGINE VIBRATION IN FLIGHT. REMOVED LT ENGINE LOWER COWLING AND INSPECTED. REMOVED STARTER/GENERATOR (PN 9912125-3; SN 96107) FOUND BEARINGS WERE WORN. INSTALLED O/H CUSTOMER SUPPLIED PART: STARTER/GENERATOR (PN 9912125; SN 1746) IAW MM, CH 80-11-01. OPS CHECK OF STARTER/GENERATOR WAS SATISFACTORY. SINCE TIME ON THE PART, AND THE DUTY HISTORY IS UNKNOWN IT IS HARD TO STATE A PROBABLE CAUSE. FREQUENT REMINDERS TO AIR CREWS TO UTILIZE APU/GPU FOR GROUND STARTING ENGINES WHENEVER POSSIBLE. MAKE SURE THERE VOLTAGE IS AT 28.5 VDC TO MINIMIZE THE OPERATIONAL STRESS TO THE STARTER/GENERATOR UNDER LOAD WHEN STARTING ENGINES.

2009F00115	CESSNA		WARNING LIGHT	FALSE ACTIVATION
11/20/2009	560XL			PAX DOOR

ON CLIMB OUT PASSING 16000' CABIN DOOR LIGHT ILLUMINATED. PRESSURIZATION FUNCTIONED NORMALLY. DEFERRED IAW MEL 31-50-06-1, CAT B, DUE DATE 11/22/09.

2009FA0000967	CESSNA		WARNING LIGHT	FALSE ACTIVATION
11/19/2009	560XL			PAX DOOR

UPPER LT LIGHT IN CABIN DOOR INDICATOR ILLUMINATED IN FLIGHT. GREEN DOOR PIN INDICATOR SHOWED

DOOR WAS LOCKED.

2009FA0001081	CESSNA	INDICATOR	FAILED
12/23/2009	560XL		STDBY ATTITUDE

STANDBY ATTITUDE INDICATOR FAILED INFLIGHT, NO PREVIOUS PROBLEMS, NO TURBULANCE, SCREEN SHOWED "ATT FAIL 126 SEC".

2009F00126	CESSNA	PRESSURE SWITCH	CRACKED
12/7/2009	650	99141123	FUEL SYSTEM

AFTER LANDING, FLIGHT CREW OPENED THE BAGGAGE DOOR AND DISCOVERED STRONG FUEL ODOR ALONG WITH THE BAGGAGE WET WITH FUEL. MX WAS NOTIFIED AND DISCOVER THE LT ENGINE MAIN FUEL PRESSURE SWITCH LEAKING. INSTALLED NEW FUEL PRESSURE SWITCH AND NEW O-RING FROM IAW M/M. PERFORMED LEAK AND OP'S CHECK, NO OTHER DEFECTS WERE NOTED.

2009FA0001049	CESSNA	LINE	FAILED
11/12/2009	650	AS11506K0134	HYDRAULIC

UPON LANDING, PILOT REPORTED THAT ALL OF THE HYD FLUID WAS DEPLETED FROM HYD SYS AND RESERVOIR WAS SHOWING EMPTY. THE PILOT WAS ABLE TO STOP THE ACFT UPON LANDING WITH THE HELP OF THE THRUST REVERSERS AND MINIMUAL BRAKING WAS LEFT. ALL OF THE HYD FLUID WAS LOST DUE TO THE FAILURE OF THE HYDRAULIC PRESSURE HOSE ASSY ATTACHED TO THE HYD FAN LOCATED IN THE UPPER REAR BAGGAGE COMPARTMENT AND SUBSEQUENT BRAKE FAILURE. A RECOMMENDATION TO PREVENT RECURRENCE WOULD BE TO INSTALL A HIGHER PSI RATED HOSE IN PLACE OF THE CURRENT ONE. (K)

2009F00121	CESSNA	CABIN PRESSURE	MALFUNCTIONED
11/25/2009	750		

PULLING THE POWER TO IDLE DESCENDING FROM 10000' WE HEARD A LOUD POP AND THE CABIN PRESSURE DUMPED. CABIN DIFFERENTIAL REMAINED AT ZERO AND THE CABIN RATE OF CHANGE FOLLOWED WHATEVER THE PLANE WAS DOING. OCCASIONALLY THE RATE WOULD FLUCTUATE +- 200' WITH CHANGE OF POWER SETTING BUT WOULD RETURN TO THE RATE AT WHICH THE ACFT WAS DESCENDING.

CA091005002	CESSNA	CONT	THROTTLE BODY	OBSTRUCTED
9/18/2009	A185F	IO520D	625601	ENGINE

(CAN) THROTTLE WAS JAMMING AFTER INTIAL FLIGHT, FROM BEING PICKED UP AFTER THE PAINT JOB. AFTER ANOTHER GROUND RUN-UP AT AIRPORT, THE THROTTLE JAMMED AGAIN, SO THE ENGINE COWL WAS REMOVED FROM THE ACFT. THROTTLE CABLE WAS REPLACED AT OWNER REQUEST, THEN RAN THROUGH ITS TRAVELS UPON THROTTLE BEING RAN THROUGH ITS TRAVEL, IT WAS NOTICED THAT THE THROTTLE WAS NOT OPENING AS MUCH AS IT SHOULD BE. UPON LOOKING UP IN THE THROAT OF THE ENGINE`S AIR THROTTLE BODY. WE FOUND 2/3 OF A SHEET OF SCOTCH-BRITE GENERAL PURPOSE HAND PAD, STUCK IN THE THROAT OF THE THROTTLE BODY JAMMED AGAINST THROTTLE`S BUTTERFLY VALVE. AFTER REMOVING THE SCOTCH-BRITE FROM THE UNIT, THE THROTTLE WAS RUN THROUGH ITS TRAVELS AGAIN AND IT WORKED FINE. THE PLANE WAS THEN RUN-UP AND PUT THROUGH ALL ITS CHECKS, ALL CONTROLS WORK.

2009FA0000958	CESSNA	CONT	SPAR	CRACKED
11/16/2009	A185F	IO550D	0731026207310281	ZONE 300

CRACKS WERE DETECTED BY VISUAL INSP ON THE VERT STAB AFT SPAR WHERE THE SPAR ATTACHES TO THE AFT TAIL CONE BULKHEAD AT STA FS230.187. CRACKS PENETRATED THE VERT SPAR PN 0731026-2 AND DOUBLER 0731028-1, AT THE WEAK POINT AT THE BOTTOM WHERE THE SPAR IS REDUCED IN DIMENSION AND CUT OUT TO ALLOW CLEARANCE FOR THE ELEVATOR TORQUE TUBE AND PUSH ROD. DAMAGED PARTS WERE DRILLED OUT, NEW SPAR PN 0731026-1,DOUBLER 0731027-1,DOUBLER 0731028-1 WERE ASSEMBLED AND INSTALLED. MFG SERVICE KIT SK180-43 WAS INSTALLED TO STRENGTHEN THE ATTACH POINTS OF VERTICAL SPAR TO BULKHEAD BY ADDITION OF A DOUBLER ON THE BULKHEAD FWD SIDE AND ALSO THE ADDITION OF 4 STRUCTURAL SCREWS THROUGH BULKHEAD AND SPAR. THE CRACKS WERE DISCOVERED BY AN FAA INSPECTOR DURING A VISUAL INSP. AFTER DISASSEMBLY IT WAS DETERMINED THE CRACKS WERE VERY RECENT. ACFT WAS ON FLOATS.

2009FA0001074	CESSNA	BELLCRANK	OBSTRUCTED

12/21/2009	T206H		12620601	TE FLAPS

FLAP POSITION ARM BELLCRANK ASSY. PN 1262060-1 HITS BRACKET ASSY. P/N 1262045-8, WHERE THE BRACKET ATTACHES TO SUPPORT PN 1260448-4. THE SUPPORT FLEXES WHEN HIT, AND AREA HAS METAL SHAVINGS FROM THE EXCESSIVE CONTACT. THERE IS NOT ENOUGH RIVET EDGE DISTANCE TO FILE BRACKET FOR CLEARANCE. IT APPEARS THE ONLY REPAIR WOULD BE TO REPOSITION THE SUPPORT. SHAVINGS COULD CONTACT WIRING AND SWITCHES CREATING AN UNSAFE ELECTRICAL PATH.

2009FA0001075	CESSNA	LYC	BELLCRANK	OBSTRUCTED
12/21/2009	T206H	TIO540*	12620601	FLAP POSITION

FLAP POSITION ARM BELLCRANK ASSY PN 1262060-1 HITS BRACKET ASSY PN 1262045-8 WHERE THE BRACKET ASSY ATTACHES TO SUPPORT PN 1260448-4. THE SUPPORT FLEXES WHEN HIT AND AREA HAS METAL SHAVINGS FROM THE EXCESSIVE CONTACT. SHAVINGS COULD CONTACT WIRING AND SWITCHES CREATING AN UNSAFE ELECTRICAL PATH.

2009FA0000966	CESSNA	LYC	CYLINDER HEAD	DAMAGED
8/27/2009	TR182	O540L3C5	65098	ENGINE

AN INFLIGHT CYL HEAD SEPARATION OF PN 65098, SN 85550-05 CYLINDER RESULTED IN A LOSS OF ENGINE OIL AND AN EMERGENCY LANDING. (K)

CA091026002	CESSNA	CONT	HUB	CRACKED
10/21/2009	U206D	IO520F	D4197	PROPELLER

(CAN) DURING PROPELLER OVERHAUL PROCESS, EDDY CURRENT INSPECTION CARRIES OUT ON HUB UNIT THREADED BLADE SOCKET AREA`S AS PER. MANUFACTURER INSTRUCTIONS, WHERE THE INDICATIONS WERE FOUND. HUB REPLACED. (TC 20091026002)

CA091030001	CESSNA	CONT	BOLT	LOOSE
10/29/2009	U206F	IO550F		ALTERNATOR

(CAN) ALTERNATOR WAS RETURNED DUE TO FAILURE TO CHARGE BATTERY AND HAD BEEN O/H. UPON INSP THE THROUGH BOLTS WERE FOUND LOOSE. THE STATOR HAD BECOME LOOSE BETWEEN THE HSG AND HAD BEEN SPUN BY THE ROTOR, BREAKING THE STATOR WIRES. A PLACARD ON ALTERNATORS STATING THAT THE THROUGH BOLTS SHOULD BE RETORQUED AT 10 HOURS OF OPERATION AND EVERY 100 HRS AFTERWARD. THIS PLACARD GAVE A TORQUE VALUE OF 30-35 IN. LBS. WHICH IS THE TORQUE FOR THE 10-24 BOLTS USED IN OLDER HSGS. THIS ALTERNATOR HAD THE NEWER STYLE 1/4"-20 BOLTS, WHICH HAVE A PLACARD THAT GIVES A TORQUE VALUE OF 75-85 IN. LBS. IF CUSTOMER HAD RETORQUED AT THE LWR VALUE INDICATED IT WOULD HAVE CAUSED THE FAILURE OF THE ALTERNATOR. AN EXCHANGE ALTERNATOR WAS SENT TO THE CUSTOMER.

2009FA0001034	CESSNA	CONT	PLUNGER	FAILED
10/8/2009	U206G	IO520*	628333	FUEL PUMP

PLUNGER WAS SERVICED IAW O/H MANUAL 73-40-01 LAPPED AND INSTALLED. SUBSEQUENT TO O/H FUEL PUMP FAILED IN-FLIGHT, PUMP SENT BACK FOR WARRANTY. PLUNGER FOUND WORN, REPLACED, PUMP FUNCTION OK. O/H MANUAL VAGUE ON HOW LONG OR WEAR CAN BE BEFORE IT SHOULD BE REPLACED.

CA091030002	CESSNA	CONT	ELECTRODE	LOOSE
10/30/2009	U206G	IO520F	AB357586	DISTRIBUTOR GEAR

(CAN) MAG WAS RECEIVED BECAUSE IT WAS U/S. WHEN INSPECTED THE ELECTRODE OF THE DISTRIBUTOR GEAR HAD WORKED ITS WAY LOOSE FROM THE SHAFT AND EGGED THE HOLE IN THE ELECTRODE. THIS CAUSED THE ELECTRODE TO CONTACT ALL 6 OF THE DISTRIBUTOR BLOCK ELECTRODES AND WEAR THEM TO APPROX .020" THICK. GEAR WAS MFG AND HAD A DATE CODE ENGRAVED INTO THE WASHER OF 4-24-95. THE GEAR AND BLOCK WERE REPLACED AND THE MAG WAS OVERHAULED AND RETURNED TO THE CUSTOMER.

CA091005009	CESSNA	CONT	CYLINDER HEAD	CRACKED
9/28/2009	U206G	IO550F	655471A3	ENGINE

(CAN) DURING ACCOMPLISHMENT OF AD 2009-19-07, MSB 09-1, NR 5 CYL HEAD FOUND CRACKED.

CA090930003	CNDAIR	GE	TUBE	CRACKED
9/4/2009	CL600*	CF348C5	CC67058076200	FUEL SYSTEM

(CAN) RT WING FLUX VALVE DRAIN TUBE FOUND CRACKED FROM POSSIBLE WATER FREEZING AND ALLOWED FUEL TO ESCAPE THE RT WING. LINE REPLACED.

CA091013006	CNDAIR	GE	RADOME	DELAMINATED
10/11/2009	CL600*	CF348C5	GC21905045	FUSELAGE

(CAN) ON APPROACH, THE ACFT HAD A BIRD STRIKE TO THE RADOME WHICH CAUSED DELAMINATION DAMAGE TO THE LWR RADOME STRUCTURE. THE RADOME WAS REPLACED AND THE ACFT RELEASED TO SERVICE.

CA091102012	CNDAIR	GE	FILTER	CRUSHED
10/27/2009	CL600*	CF348C5	WE38817671	APU OIL SYSTEM

(CAN) FOUND APU LUBE OIL FILTER CRUSHED WHILE CARRING OUT TASK RJ9-49-360-706 (REPLACMENT OF OIL FILTER). FILTER REPLACED.

CA091009002	CNDAIR	LYC	ENGINE	FAILED
10/6/2009	CL600*	ALF502L2C	ALF5022C	RIGHT

(CAN) RT ENG IN-FLIGHT SHUTDOWN DURING CRUISE. CREW INDICATED THAT THE RT ENG OIL PRESSURE TAPE STARTED TO FLUCTUATE THEN DROP TO ZERO, IN THE RED. AFTERWARD THE (RED) LOW OIL PRESSURE LIGHT ILLUMINATED. SHORT TIME LATER THE ENG SHUTDOWN AND AN EMERGENCY WAS DECLARED. ACFT LANDED UNEVENTFULLY. ENG WILL BE REMOVED AND SENT FOR REPAIR. BOTH LP AND HP ROTORS WERE FOUND SEIZED. CHIP DETECTOR AND FILTER METAL DEBRIS WILL BE SENT TO A LAB FOR ANALYSIS. ENG SHUTDOWN WAS UNCOMMANDED.

2009F00134	CNDAIR	GE	PUSH-PULL ROD	BROKEN
12/9/2009	CL6002B16	CF34*	601R386493	PAX DOOR

ACFT CABIN WOULD NOT PRESSURIZE. PERFORM GROUND CHECK AND FOUND CABIN DOOR PRESSURE VALVE IN THE OPEN POSITION. INSP FOUND THE PUSH-PULL ROD WAS BROKEN AND NOT ALLOWING THE DOOR PRESSURE VENT FLAP, PN: 601R38634-7, TO CLOSE.

CA091118001	CNDAIR		RELAY	OVERHEATED
11/14/2009	CL6002B19			APU CONTROL

(CAN) ELECTRICAL ODOR BEHIND THE CAPTAINS COAT CLOSET. MX INSPECTED AND FOUND THE APU CONTROL RELAY HAD OVER HEATED AND DAMAGED A CONNECTING WIRE. MX REMOVED AND REPLACED RELAY K1XB.

CA091118002	CNDAIR		SELECTOR VALVE	MALFUNCTIONED
11/12/2009	CL6002B19		750005000	MLG

(CAN) ON APPROACH, THE CREW EXPERIENCED A GEAR DISAGREE MESSAGE ON EICAS AFTER SELECTING THE GEAR DOWN. IT WAS REPORTED THAT 6 UNSUCCESSFUL ATTEMPTS WERE MADE TO EXTEND THE GEAR VIA THE NORMAL SYS. EACH TIME THE NOSE GEAR WOULD EXTEND NORMALLY BUT BOTH MAIN GEAR WOULD NOT DISPLAY DOWN AND LOCKED. THE MAIN GEAR WERE SUCCESSFULLY EXTENDED USING THE ALT EXTN METHOD. A LATER REVIEW OF THE FDR INDICATED BOTH MAIN GEAR DID NOT RELEASE FROM THEIR UPLOCKS. MX WAS ABLE TO DUPLICATE THE PROBLEM IN THE HANGAR. REPLACEMENT OF THE MLG SELECTOR VALVE RETURNED THE GEAR TO NORMAL OPERATION.

CA091118003	CNDAIR		WINDOW	FAILED
11/14/2009	CL6002B19		NP1393226	COCKPIT

(CAN) RT WINDOW SHATTERED IN LEVEL FLIGHT. MX REMOVED AND REPLACED THE RT SIDE WINDOW ASSY REF AMM 56-12-01.

CA091118004	CNDAIR		WINDOW	FAILED
11/14/2009	CL6002B19		NP1393222	COCKPIT

(CAN) AT FL 300 CREW NOTICED RT REAR WINDOW HAD AN ELECTRICAL ARC AND THEN PROCEEDED TO MIDDLE

PLY SHATTERED. CREW FOLLOWED QRH. ACFT LANDED, PRESSURIZATION WAS NORMAL.

CA090924002	CNDAIR	COMPUTER	MALFUNCTIONED
9/4/2009	CL6002B19	73664320	FUEL INDICATION

(CAN) AFTER TAKEOFF WITH 2600 LBS IAW SIDE, FUEL IMBALANCE MSG ON ED1, QTY 3000 LBS IN LT AND 2000 IN RT TANK. RT WING LOWERING AND CTR TANK WAS INCREASING. ACFT RETURNED TO DEPARTURE AIRPORT AND LANDED WITHOUT FURTHER INCIDENT. MX REMOVED AND REPLACED FUEL SYS COMPUTER IAW AMM 28-41-16 AND OPS CHECKED. NO FURTHER DEFECTS NOTED.

CA091107003	CNDAIR	PCU	MALFUNCTIONED
11/5/2009	CL6002B19	270007	FLIGHT SPOILER

(CAN) DURING CRUISE FLIGHT, ACFT ROLLED LT UNCOMMANDED AND A FEW SECONDS LATER, FLIGHT SPOILER DEPLOY (C) MSG POSED. FLT CREW REFERED TO QRH. FLIGHT SPOILER HANDLE WAS FULLY STOWED. CAUTION MESSAGE APPEARED AND DISSAPPEARED SEVERAL TIMES. ALSO, FLT CREW REPORTED INTERMITTENT CAS MIS-COMPARE MESSAGE. FLT SPOILER FAULT (S) MSG STAYED ON THE ENTIRE TIME UNTIL ACFT TAXIED TO THE GATE AND THE FLT SPOILER FAULT (S) MSG EXTINGUISED. MX REMOVED AND REPLACED SECU 2 IAW AMM 27-61-05 AND OPS CHECKED IAW AMM 27-61-00. OPS CHECKED GOOD. ACFT RETURNED TO SERVICE. 05-NOV-09 LOG 204490/1: DURING CRUISE FLIGHT, RECEIVED UNCOMMANDED FLT SPOILER DEPLOY (C) MSG WITH FLT SPOILER HANDLE IN THE STOWED POSITION. REPORTED LIGHT BUFFET ASSOCIATED WITH CAUTION MSG REF TO QRH, NO FURTHER PILOT ACTION REQUIRED. FLT SPOILER DEPLOY (C) MSG APPEARED 3 TIMES DURING FLIGHT. MX REMOVED AND REPLACED RT FLIGHT SPOILER OTBD PCU AND OPS CHECKED IAW AMM 27-62-01. NO FURTHER DEFECTS NOTED. ACFT RETURNED TO SERVICE.

CA091007003	CNDAIR	GE	PDU	FAILED
10/5/2009	CL6002B19	CF343A1	865D1007	TE FLAPS

(CAN) ON APPROACH, CREW RECEIVED A FLAP FAIL CAUTION MESSAGE WHEN THEY ATTEMPTED TO EXTEND FLAPS. THE FLAPS FAILED AT ZERO DEGREES. CREW CARRIED OUT AN UNEVENTFUL FLAP ZERO LANDING. FAILURE CODES FROM THE FECU INDICATED A FLAP PDU AT FAULT. FLAP DRIVES WERE CLEANED AND RE-GREASED AND THE FLAP PDU (P/N 865D100-7, S/N 110) WAS REPLACED. SKEW DETECTION UNIT WAS RESET AND FLAP OPS CHECKS CARRIED OUT. THE ACFT WAS RELEASED TO SERVICE.

CA090924001	CNDAIR	GE	WHEEL	DAMAGED
9/17/2009	CL6002B19	CF343A1	50105711	MLG

(CAN) ON T/O ROLL. ACFT VEERS TO THE RT. DIFFICULT TO CONTROL. ABORTED T/O. RETURN TO GATE. MX FOUND 1 NR 4 MLG WHEEL HEAT SHIELD SEGMENT SEPARATED FROM WHEEL WITH MISSING SCREW AND INTERFERING WITH WHEEL SPINNING. NR 4 WHEEL WAS REPLACED.

CA091019007	CNDAIR	GE	ACTUATOR	FAILED
10/16/2009	CL6002B19	CF343A1	852D10023	TE FLAP

(CAN) FLAPS FAILED AT ZERO DEGREES (WHEN SELECTED TO 8 DEGREES) ON APPROACH. AN UNEVENTFUL FLAP ZERO LANDING WAS CARRIED OUT. ALL FLAP ACTUATORS WERE REPLACED AND THE SYS FUNCTION CHECKED. PN OF THE REMOVED ACTUATORS ARE: LT1, 852D100-23, LT 2, 852D100-25, LT NR 3, 853D100-23, LT4, 854D100-23, RT1, 852D100-25, RT2, 852D100-23, RT3, 853D100-24, RT4, 854D100-24.

CA091113009	CNDAIR	GE	ACTUATOR	FAILED
11/9/2009	CL6002B19	CF343A1	854D10023	TE FLAPS

(CAN) EICAS FLAP FAIL CAUTION MESSAGE APPEARED ON APPROACH INTO WHEN FLAPS SELECTED FROM 0 TO 8 DEGREES. AIRSPEED WAS 200 KNOTS AND OAT WAS 3 DEGREES C.MDC FAULT CODES WERE RETRIEVED AND INDICATED JAM,RIGHT BPSU, AND WIRING. JAZZ TECH OPS DEPARTMENT INITIATE AN ACTION PLAN AT THAT POINT TO ACCOMPLISH AN TORQUE CHECK OF THE SYS IAW AMM 27-53-00-750-802 AND WIRING CHECKS OF FECU TO RT BPSU WITH NO FAULTS FOUND. ALL EIGHT FLAP ACTUATORS WERE REPLACED AND THE ENTIRE FLEX DRIVE SYS WAS CLEANED AND LUBED IAW JAZZ TIB 27-06 AND TASK RJ2-12-20-27-LUB-806-FDC. THE FLAP SYS WAS RIGGED AND THE ACFT WAS SUCCESSFULLY TEST FLOWN, THEN RETURNED TO SERVICE. REMOVE 1 RT PN 852D100-25 SN5110 NR 2 RT PN 852D100-25 SN4146, NR3 RT PN 853D100-24 S/N2168 NR 4RH PN 854D100-24 S/N2283 NR 1 LH P/N 852D100-25 SN 4724 NR 2 LT PN 852D100-25 SN4784 NR 3 LT PN 853D100-23 SN 3218 NR 4 LT

PN 854D100-23 SN2914 INSTALL NR 1 RT PN 852D100-23, SN 4088 NR 2 RT PN 852D100-23 SN 4050 NR 3 RT PN 853D100-24 SN3754 NR 4 RT PN 854D100-24 SN3436 NR 1 LT PN 852D100-25 SN6762 NR 2 LT PN 852D100-25, SN4069 NR 3 LT, PN 853D100-23, SN3227, NR 4 LT PN 854D100-23, SN2307.

CA091019002	CNDAIR	GE	FITTING	CRACKED
10/15/2009	CL6002B19	CF343B1	601R3807413	CARGO DOOR

(CAN) DURING AN INTERNAL WINTER PREVENTIVE MX CHECK, AN ENGINEER OBSERVED BY COINCIDENCE A CRACK ON THE MAIN CABIN DOOR AFT COUNTERBALANCE ANCHOR FITTING. THE CRACK LENGTH WAS EXCEEDING REPAIR EO 601R-52-11-272, THE FITTING WAS REPLACED AND THE ACFT RETURNED INTO SERVICE.

CA091029001	CNDAIR	GE	ENGINE	OVERTEMP
10/7/2009	CL6002B19	CF343B1		RIGHT

(CAN) DISCREPANCY: "RT ENG LOW OIL PRESSURE INDICATED, RT ENG ITT TEMP EXCEEDED, ON APPROACH INTO. CREW FOLLOWED EMERGENCY PROCEDURES AND SHUT THE RT ENG DOWN". ENGINE WAS REPLACED.

CA091103004	CNDAIR	GE	DOWTY	ACTUATOR	UNSERVICEABLE
11/3/2009	CL6002B19	CF343B1		16300106	NLG STEERING

(CAN) THE ACFT WAS PUSHED BACK FROM THE GATE FOR DEPARTURE. WHEN THE NOSE WHEEL STEERING WAS SELECTED ON THE NOSE WHEEL STEERING INOP MESSAGE ILLUMINATED. A RESET WAS CARRIED OUT BY THE FLIGHT CREW AND THE MESSAGE CLEARED. AS THE ACFT TAXIIED TOWARDS THE DEPARTURE RUNWAY THE MESSAGE REAPPEARED. MX WAS CALLED TO THE ACFT AND INSPECTED THE NOSE GEAR, THEY DISCOVERED THAT THE ROD END HAD PULLED AWAY FROM THE STEERING ACTUATOR.

CA090918003	CNDAIR	GE	VALVE	MISSING
9/17/2009	CL6002B19	CF343B1	218423	APU FUEL PUMP

(CAN) ON AUGUST 23, 2009 CREW REPORTED A "X FLOW/APU PUMP" MESSAGE IN FLIGHT. CREW DEFERRED APU PUMP IAW MEL 28-24-01-2. ON AUGUST 24TH MX REPLACED APU PRESSURE SWITCH PN 601R62291-7 BUT NO FIX. APU PUMP REMAINED ON MEL. FURTHER TROUBLESHOOTING ON AUGUST 27TH LED TO THE REPLACEMENT OF THE APU FUEL SWING CHECK VALVE PN 2950001-101 (IPC 28-24-00 –FIG 1 ITEM 61A). LEAK AND FUNCTION CHECKS WERE COMPLETED WITH NO FAULTS FOUND. DEFERRAL WAS CLEARED AND ACFT RETURNED TO SERVICE. DURING THE REPLACEMENT OF THE CHECK VALVE IT WAS DISCOVERED THAT AN UNIDENTIFIED PART WAS LODGED IN THE CHECK VALVE FLAPPER VALVE HOLDING IT OPEN AND CAUSING THE DEFECT. AN SMS REPORT WAS FILED. ON SEPTEMBER 3RD WITH THE ASSISTANCE OF THE MFG FSR THIS PART WAS IDENTIFIED AS PROBABLY A GUIDE VALVE PN 218423 (CMM 28-20-79 ITEM 70) FROM THE APU FUEL PUMP CANISTER PN 228078 (ITEM 1). APU PUMP WAS IMMEDIATELY DEFERRED IAW MEL 28-24-01-2 AND IN SERVICE ENGINEERING ISSUED A TASK TO HAVE APU FUEL PUMP CANISTER REPLACED. TASK WAS COMPLETED SEPT 17TH. INSP OF PUMP CANISTER CONFIRMED THAT THE GUIDE VALVE WAS IN FACT MISSING.

CA091107001	CNDAIR	GE	WINDSHIELD	CRACKED
11/2/2009	CL6002B19	CF343B1	NP13932113	COCKPIT

(CAN) DIVERSION DUE TO LT WINDSHIELD CRACKED IN FL150 FLIGHT LH 391 SCHEDULED, DIVERTED BECAUSE OF A CM 1 FRONT WINDSHIELD CRACKED IN FL 150. NO EXTERNAL IMPACT. CM 1 WINDSHIELD REMOVED IAW AMM TASK 56-11-01-000-801 REV.41 CM 1 WINDSHIELD INSTALLED IAW AMM TASK 56-11-01-400-801 REV41 UNTIL SUBTASK 56-11-01-430-003 CABIN PRESSURE LEAK TEST PERFORMED IAW TASK 56-11-01-790-001. FOUND NO LEAKS AROUND WINDOW EDGES. WINDSHIELD WIPER INSTALLED IAW AMM TASK 30-42-04-400-801. ACFT RETURNED TO SERVICE.

CA091107002	CNDAIR	CONTROLLER	MALFUNCTIONED
10/29/2009	CL6002D24	GG69095026	CABIN PRESSURE

(CAN) PROGRESSIVE LOSS OF CABIN PRESSURE RESULTING IN AN EMERGENCY DESCENT AND DIVERSION. O2 MASKED DEPLOYED. ACFT TO FERRY FOR MX. MX "FOUND THE LT ACSC CONTROLLER FAULTED. REPLACED NR1 ACSC 21-61-04 OPS CHECKED GOOD".

CA091028012	CNDAIR	ROD	INOPERATIVE
10/8/2009	CL6002D24		ELEVATOR PCU

(CAN) DURING PREFLIGHT CHECK RT ELEVATOR DOES NOT OPERATE NORMALLY USING HYD SYS NR2. INSP REVEALED THAT THE RT ELEVATOR SYS NR 2 PCU ROD END BROKE.

CA091111001	CNDAIR		WINDSHIELD	CRACKED
10/30/2009	CL6002D24		NP13932114	COCKPIT

(CAN) WHEN PASSING THROUGH FL100 WITH IAS 290 KTS RT FRONT WINDOW SUDDENLY CRACKED IN THE OUTER LAYER. WINDOW HEAT WAS TURNED OFF AND FL150 REQUESTED FOR CRUISE. QRH WAS CONSULTED AND MAINTAINED A DIFF PRESS OF 6.1 PSI AND HAD A CRUISING SPEED OF 250 KTS RESULTING IN AN UNEVENTFUL CONTINUED FLIGHT. DURING DESCENT SPEED WAS REDUCED TO 200 KTS WHEN PASSING THROUGH 8000 FEET. NORMAL LANDING AND TAXI PERFORMED. PASSENGERS WAS NOT INFORMED, AND CABIN CREW WAS INFORMED AFTER PARKING. MAINT REPLACED WINDSHIELD.

CA091002007	CNDAIR	GE	PCU	MALFUNCTIONED
9/15/2009	CL6002D24	CF348C5	5120011	SPOILERS

(CAN) FL390, EICAS IB SPOILERON, IB FLT SPLRS, AP TRIM IS LWD CAUTION MSGS. FLIGHT SYNOPTIC PAGE SHOWS RT WING INBD MFS FULLY DEPLOYED, AIRPLANE TURNED VIOLENTLY ROLL LT, IAS REDUCED BY DRAG, AP DISC, THRUST INCREASED TO CLIMB TO MAINTAIN SPEED, ALL QRH CHECKLIST ACCOMPLISHED, DURING DESCENT RT MFS INBD STARTED TO LWR AS SHOWED BY ARROW VECTOR (SYNOPTIC PAGE), MESSAGE REMAINED ON EICAS. RT INBD MFS SPOILER PCU REPLACED IAW AMM 27-62-01, ACFT RETURNED TO SERVICE.

CA090924008	CNDAIR	GE	CASE	CRACKED
9/21/2009	CL604	CF343B	6052T01G08	ENGINE FAN

(CAN) UPON CLEANING OF FAN ASSY. DURING MX EVENT, IT WAS NOTICED THAT A 3 INCH CRACK AFT OF THE FAN STATOR RING WAS PRESENT. FURTHER INVESTIGATION REVEALED A CRACK PROPOGATING ALONG 2 BOLT HOLES THAT ATTACH THE FAN CASE TO THE THRUST REVERSER DEFLECTOR RING. THE AFT FAN CASE INCLUDES THE FWD ENG MOUNT ATTACH POINTS.

CA091020004	CNDAIR	GE	CASE	CRACKED
9/21/2009	CL604	CF343B	6052T01G08	ENGINE FAN

(CAN) CRACKS TO THE AFT FAN CASE PN 6052T01G08 WERE DISCOVERED PRIOR TO SCHEDULED ACFT ENG WATER WASH. 2 CRACKS ALONG THE HORIZONTAL AXIS OF THE FAN CASE CONTINUING DOWNWARD ALONG THE FLANGE. ENG HASE BEEN REMOVED FOR FAN CASE REPAIR.

CA091105001	CNDAIR	GE	FCU	OBSTRUCTED
11/4/2009	CL604	CF343B		ENGINE

(CAN) ON DESCENT LT ENG PWR LEVER COULD NOT BE RETRACTED. AN IN FLIGHT SHUTDOWN WAS CARRIED OUT. ACFT LANDED AT DESTINATION WITHOUT FURTHER INCIDENT. SUBSEQUENT INVESTIGATION FOUND THE LT ENG UPPER CORE COWL STAY OUT OF PLACE AND INTERFERING WITH THE FCU. THE SPRING CLIP PIP PIN HOLES WERE FOUND TO BE WORN AND A LIGHT TAPPING ON THE COWL WAS ENOUGH TO CAUSE THE PIP PIN TO FALL OUT. THE LOCKING MECHANISM AT THE END OF THE STAY IS EASILY SECURED IMPROPERLY AND IT IS UNDETERMINED WHETHER THE PIP PIN WAS INSTALLED IN AN UPWARDS OR DOWNWARDS DIRECTION.

CA091120002	CNDAIR	GE	ROD	LOOSE
11/1/2009	CL604	CF343B		ENGINE BAY

(CAN) DURING FLIGHT THE CREW COULD NOT RETARD THE LT THROTTLE. ENG WAS SHUTDOWN AND AN UNEVENTFUL LANDING MADE. IT WAS SUBSEQUENTLY FOUND THE UPPER COWL SUPPORT ROD HAD COME OUT OF ITS STORAGE CLIP AND FALLEN ONTO THE THROTTLE LINKAGE.

CA091027002	CURTIS	PWA	VALVE	FAILED
10/26/2009	C46DAIRLIFT	R280051M3		OIL COOLER

(CAN) DURING A 150 HOUR INSPECTION THE LEFT OIL COOLER VALVE WAS REPLACED WITH AN OVERHAULED UNIT DUE TO A STATIC OIL LEAK, THE AIRCRAFT WAS RUN UP PRIOR TO RELEASE FOR LEAK CHECK. THE AIRCRAFT DEPARTED AND THE CREW OBSERVED AN INCREASE IN THE OIL TEMP, DISPATCH AND MAINTENANCE WERE CONTACTED VIA COMPANY FREQUENCY AND IT WAS DECIDED TO RETURN TO MAINTENANCE BASE FOR

RECTIFICATION. INSTALLATION OF A REPLACEMENT VALVE PROVED TO RECTIFY THE PROBLEM AND AIRCRAFT DEPARTED ON INTENDED FLIGHT. THE FAULTY OIL COOLER VALVE WAS 0 TSO AND WILL BE SENT BACK TO VENDOR FOR WARRANTY. (TC 20091027002)

CA091118005	CVAC	ALLSN		COMPRESSOR	DAMAGED
11/11/2009	340CVAC	501D13		6828400	ENGINE

(CAN) ON START UP, ENG NR 2 IN HIGH SPEED WITH ALL THE PARAMETERS STABILIZED, WHEN CLEARED TO START NR 1 ENG, A LOUD BANG WAS HEARD FOLLOWED BY ENG FIRE WARNING AND BELLS IN ZONE NR 2. FLAMES COMING OUT OF ENG COWLS, FIRE ON GROUND DRILL EXECUTED, FIRE WENT OUT. AFTER OPENING ENG NR 2 COWLS SEVERAL PIECES OF METAL FOUND ADRIFT AND COMPRESSOR DAMAGES NOTICED FROM MID-SECTION TOWARD TURBINE SECTION. QEC REPLACEMENT CARRIED OUT, THE ACFT RETURNED TO SERVICE, THE US ENG SENT TO MAIN BASE FOR INVESTIGATION.

CA090928002	CVAC	ALLSN		GEAR	DAMAGED
9/21/2009	440	501D13D		6874191	REDUCTION G/B

(CAN) ON SEPT 21, 2009 DURING CRUISE ALTITUDE OF 22,000 FT AT APPROX 13:45 ZULU. PILOT IN COMMAND (PIC) NOTICED RAPID DECREASE IN OIL PRESSURE FOLLOWED BY A DECREASE IN RPM AND HIGH PRESSURE ON NR 2 (RT) ENG. WITH THIS INDICATION THEY PROCEEDED TO PRECAUTIONARY ENG SHUTDOWN CHECKLIST. THIS LED TO A RAPID DECREASE IN CABIN PRESSURE THAT REQUIRED AN EMERGENCY DESCENT. PIC DECLEARED AN EMERGENCY WHILE ON DESCENT TO 10,000 FT, ONCE STABILIZED THEY ASKED ATC FOR NEAREST AIRPORT WITH MINIMUM RUNWAY LENGHT OF 4500FT. ATC SUGGESTED HEARST MUNICIPAL AIRPORT AND CREW CONFIRMED WITH THE GPS DATA. ACFT LANDED SAFELY WITH NO OTHER INCIDENT REPORTED. NO MX DISPATCHED, AN ACA MECHANIC TO INSPECT ACFT, MX FINDING WAS AN ENG INTERNAL GEAR BOX FAILURE WITH VERY LITTLE FOD FOUND ON INSP MAGNETIC PLUG. IT WAS DECIDED TO PROCEED WITH A COMPLETE ENG (QEC) REPLACEMENT. U.S. ENGINE (QEC) WAS RETURNED TO AVITION MX BASE FOR INVESTIGATION AND REPAIR ARRANGEMENTS WITH AN APPROVED SHOP. A COMPLETE SHOP REPORT WILL BE FILED.

CA090930004	DHAV	PWA		LINER	DESTROYED
9/28/2009	DHC2MK3	PT6A27		06611900	BRAKE ASSY

(CAN) NATURE - ACFT WAS IN TAKEOFF WHEN BRAKE ASSY SEIZED CAUSING PERSONNEL TO BE DISPATCHED TO RETRIEVE ACFT. UPON REMOVAL AND INSP OF BRAKE, IT WAS NOTED THAT THE BRAKE LINING DISINTEGRATED ALLOWING THE BRAKE DISKS TO FLOAT EXCESSIVELY RESULTING IN A BINDING ACTION SEIZING THE BRAKE.

CA091009004	DHAV	PWA		ELBOW	CRACKED
10/8/2009	DHC2MKI	R985AN14B		C2P1107	FUEL SYS

(CAN) DURING FUEL TANK REPLACEMENT, INSTALLING HOSE FROM TANK TO FUEL SELECTOR ELBOW. ELBOW CRACKED AND BROKE OFF AT HOSE END ON FITTING, FITTING REPLACED WITH NEW.

CA091015004	DHAV	PWA		PIPE	CORRODED
10/9/2009	DHC2MKI	R985AN14B			SUMP OUTLET

(CAN) DURING A SERVICING OF ACFT, FUEL LEAK NOTICED AT REAR OF FUEL GALLERY. INVESTIGATION REVEALED LEAKING UNDER OUTLET HOSE. TANK DRAINED, REMOVED, AND REPLACED.

CA091021002	DHAV	PWA	DHAV	SCREW	BINDING
7/28/2009	DHC3	PT6A34		C3CF2913	ACTUATOR

(CAN) THE PILOT REPORTED THAT THE ELEVATOR TRIM WOULD SEEM TO TIGHTEN UP WITH AIR LOAD ON IT. AFTER INSPECTING THE TRIM SYSTEM, IT WAS DETERMINED THAT THE TRIM SCREW JACK AT THE ELEVATOR WAS HARD TO TURN UNDER LOAD. THE PART WAS DISASSEMBLED, CLEANED AND GREASED. IT APPEARED TO NOT HAVE BEEN APART FOR A LONG TIME. THIS PART NEEDS TO BE CLEANED AND REGREASED EVERY 400 HOURS ACCORDING TO THE LUBRICATION DIAGRAM FOR THIS A/C. (TC# 20091021002)

CA091030007	DHAV			CONTROL CABLE	BROKEN
10/26/2009	DHC6300			C6CF11491	ELEVATOR

(CAN) CUSTOMER REPORTED A BROKEN STRAND ON A NEW CABLE PURCHASED. MFG HAS INSPECTED THE

REMAINING INVENTORY FROM THIS LOT WITH NO FURTHER DEFECTS FOUND.

CA091102006	DHAV	PWA	FAN	BROKEN
10/30/2009	DHC6300	PT6A27	230481490	STARTER-GEN

(CAN) DURING INSTALLATION OF FAN AT ST-GEN O/H, THE CTR PART OF THE FAN HUB, AREA BENEATH THE NUT AND WASHER, BROKE OUT FROM THE REST OF THE FAN. THE BREAK HAPPENED BEFORE THE NUT REACHED REQUIRED TORQUE OF 110 INCH-LBS. THIS IS A CAST METAL ONE-PIECE FAN. THIS IS THE 4 TH OCCURRENCE IN 5 YEARS AT THIS AMO. THE OEM IS BEING CONTACTED TO SEE IF THEY WILL REDESIGN THE FAN TO STRENGTHEN THE AREA THAT BREAKS. THE OTHER 3 SDRS CAN BE FOUND BY SEARCHING ON PN 230481490. ALL 4 BROKEN FANS ARE BEING HELD IN QUARANTINE.

CA091023004	DHAV		ATTACH ANGLE	CORRODED
10/22/2009	DHC8102		85210025101102	PAX DOOR

(CAN) DURING BLOCK CHECK ON A/C THE PASSENGER DOOR WAS REMOVED AND ROUTED TO YYC OVERHAUL SHOP FOR REPAIR IN JULY OF THIS YEAR.THIS DOOR WAS BEING DISSASSEMBLED FOR REPAIR WHEN THE SHEETMETAL TECH DISCOVERED THE MAJOR INTERNAL CORROSION.

CA091014004	DHAV	PWA	WINDSCREEN	CRACKED
10/9/2009	DHC8102	PW120A	NP15790114	COCKPIT

(CAN) WHILE CLIMBING THROUGH APPROX 16 000 FT, THE CREW HEARD A LOUD POPPING SOUND. THEY THEN NOTICED THAT THE CO-PILOT WINDSCREEN OUTTER PANE HAD SHATTERED. CREW REDUCED AIRSPEED AND DESCENDED TO 10 000 FT AND DEPRESSURIZED. THEY PROCEDED TO LAND WITHOUT FURTHER INCIDENT. MX REPLACED THE WINDSCREEN AND THE ACFT WAS RETURNED TO SERVICE.

CA091013007	DHAV	PWA	PRINTER	ODOR
10/11/2009	DHC8102	PW120A	49712631	ACARS

(CAN) ON APPROACH, CREW NOTED A FAINT "ELECTRICAL" ODOR. ALL SYS WERE WORKING NORMALLY. AFTER ARRIVING AT THE GATE CREW NOTICED THE ACARS PRINTER FELT HOTTER THAN NORMAL. CREW PULLED COVER OFF AND FOUND THERMAL PRINTER PAPER WAS BLACK. C/B FOR PRINTER PULLED AND COLLARED, UNIT COOLED DOWN TO ROOM TEMP. ACFT RELEASE UNDER MEL 23-15-2 AND RETURN TO SERVICE. ACFT OVERNIGHT, THAT NIGHT AND ACARS PRINTER WAS REPLACED AND TEST SERVICEABLE.

CA091014001	DHAV	PWA	PULLEY	SPLIT
10/13/2009	DHC8102	PW120A	82742339001	SPOILERS

(CAN) WHILE INSPECTING THE ROLL SPOILER CABLE DISCONNECT MOD SWITCHES (SB 8-27-89), THE PULLEY ON TRIGGER ARM WAS FOUND SPLIT IN HALF LEAVING THE CABLE RIDING THE METAL BEARING. CLOSER INVESTIGATION REVEALED THAT DIAMETER OF THE CABLE APPEARS TOO BIG FOR THE PULLEY TYPE INSTALLED CAUSING THE CABLE TO EXERT SIDE PRESSURE ON THE INNER WALLS OF THE PULLEY. THIS MAY HAVE CAUSED PREMATURE FAILURE OF THE PULLEY. A NEW PULLEY DOES NOT RESOLVE THE CABLE DIAMETER TO PULLEY INNER DIAMETER MISMATCH. ALTHOUGH THE PULLEY WAS REPLACED UNDER WO200277 NR-00512 , ISSUE REMAINS NOTE: THIS INSTALLATION ALSO REFERENCES AD CF2006-13, DATED 12 JULY 2006.

CA091014002	DHAV	PWA	SOCKET	BROKEN
10/14/2009	DHC8102	PW120A	CL12068161	MLG

(CAN) DURING "C" CHECK, FUNCTIONAL CHECK ON TASK CARD 3230/15 (OPS CHECK OF LANDING GEAR DOOR SEQUENCE CONTROL CIRCUIT) DOES NOT WORK. AFTER INVESTIGATION, RELAY (3261-K9)SOCKET FOUND BROKEN AND PINS OLDER SOCKET UNGLUED. WIRE WERE FOUND HANGNING LOOSE WITH A HI RISK OF CONTACT WITH STRUCTURE. POSSIBILITY OF "WOW" CIRCUIT FAILURE AND THE MOST IMPORTANT, IMPOSSIBILITY OF GEARS EXTENTION IN ALTERNATED RELEASE IN CASE OF EMERGENCY EXTENSION. DURING THE SAME CHECK, RELAY SOCKET 7611-K3 (SAME RELAY SOCKET) WAS ALSO FOUND CRACK. THAT MEANT TWO SOCKETS FOUND CRACKED ON THE SAME ACFT.

CA090929008	DHAV	PWA	LINE	CHAFED
9/26/2009	DHC8102	PW120A	82970410119	HYDRAULIC SYS

(CAN) RETURNING HOME AT CRUISE ALTITUDE, THE PILOT NOTICED INDICATED FLUID LEVEL DROPPING, THEN WARNING INDICATION. EMERGENCY DECLARED AND LANDED WITHOUT FURTHER INCIDENT. UPON INVESTIGATION, IT WAS DISCOVERED THAT THE HYD NR 1 SYS PRESSURE LINE FROM PRESSURE MANIFOLD TO ENGINE FIREWALL WAS CHAFED THROUGH AS A RESULT OF AN HOSE CLAMP FROM ANOTHER LINE RUBBING AGAINST IT.

CA090924005	DHAV	PWA	TSCU	FAILED
9/23/2009	DHC8102	PW120A	30005000046	NR 1

(CAN) AFTER TAKEOFF NR 1 ENG MANUAL CAUTION LIGHT CAME ON. THIS WAS FOLLOWED BY A POWER ROLL BACK AND LOSS OF NR 1 TQ INDICATION. CREW FEATHERED ENG AND THEN SHUT IT DOWN. NR 1 TSCU (TORQUE SIGNAL CONDITIONING UNIT) WAS REPLACED AND ENG RUNS CARRIED OUT SUCCESSFULLY. ON THIS ENG MODEL TQ SIGNAL IS GENERATED BY TQ PROBE AND FED TO TSCU, TSCU IN TURN USES DATA FOR AUTOFEATHER SYS AND ALSO SENDS THE SIGNAL TO ENG ECU AS WELL AS THE TQ INDICATOR. TQ VALUE IS ONE OF SEVERAL PRIMARY DATA INPUTS TO THE ECU, THE ECU WILL REVERT TO MANUAL IF ANY ONE OF THE PRIMARY INPUTS ARE MISSING. ON THIS ENGINE MODEL THE ELECTRONIC FUEL SCHEDULE IS SET 20 PERCENT TQ HIGHER THAN MANUAL FUEL SCHEDULE, THEREFORE WHEN ECU GOES TO MANUAL IT IS NORMAL TO HAVE A 20 PERCENT TQ REDUCTION OR ROLL BACK. IN THIS CASE TQ SIGNAL OUTPUT FROM TSCU FAILED WHICH CAUSED BOTH LOSS OF TQ INDICATION AND ECU REVERTING TO MANUAL WITH CONSEQUENT PWR ROLL BACK.

CA091111002	DHAV	PWA	TORQUE TUBE	DAMAGED
11/1/2009	DHC8102	PW120A	734382D	TE FLAPS

(CAN) DURING TROUBLESHOOTING OF A REFUEL SNAG, ONE END OF THE LT NR 7 FLAP PRIMARY TORQUE TUBE WAS FOUND WITH EXTENSIVE DAMAGE. ELONGATED HOLES WHERE OBSERVED AT THE JUNCTION OF THE TUBE AND SPLINED SHAFT. LOOSE FASTENERS HAVE LIKELY CAUSED THE DAMAGE. THE TORQUE TUBE ASSY WAS REPLACED AND THE ACFT RETURNED INTO SERVICE.

CA091005005	DHAV	PWA	BRACKET	DAMAGED
10/5/2009	DHC8106	PW121	85321951101	FUSELAGE

(CAN) WHILE PERFORMING A SCHEDULED VISUAL INSP OF ACFT WIRING, THE TECH FOUND SEVERAL WIRES FOR THE AHRS SYS (1 AND 2) SHOWING EVIDENCE OF SHORTING WITH BRACKET EDGE, AND MINOR DAMAGE TO THE BRACKET AS WELL. LOCATION - LT SIDE OF FUSELAGE AT STA X309:00 BETWEEN STR 9 AND 10. EDGE GROMMET WAS NOT FOUND INSTALLED ON THE BRACKET ON DISCOVERY OF THE PROBLEM. WIRING REPAIRED, BRACKET REPLACED WITH EDGE GROMMET MATERIAL INSTALLED.

CA091007005	DHAV	PWA	CONNECTOR	LOOSE
10/1/2009	DHC8106	PW121		EXCITER

(CAN) CONNECTOR PLUG FOUND LOOSE DURING INSP. FOUND CONNECTOR PLUG REPAIRED USING A RUBBER SEALANT. EXCITER WAS INSTALLED DURING IMPORTATION OF THE ACFT IN 2008.

CA091021012	DHAV	PWA	WIRE HARNESS	CHAFED
10/15/2009	DHC8106	PW121		AUX FUEL PUMP

(CAN) DURING TROUBLESHOOTING CONCERNING A FAULTY LT AUX PUMP INDICATION. IT WAS FOUND THAT A WIRING BUNDLE WAS CHAFFED. DURING MAINTENANCE FUNCTION CHECKS OF THE SYSTEM THE WIRE BUNDLE BEGAN TO ARC AND BURN. THIS CAUSED AN IGNITION OF THE VAPORS FROM LPS CONTACT CLEANER USED TO CLEAN THE CANON PLUG ON THE PRESSURE SWITCH. THE RESULTING FLAME EXTINGUISHED ITSELF WITH NO OUTSIDE INTERVENTION. THE CHAFFED WIRING WAS CONTAMINATED WITH DE-ICE FLUID WHICH COATING ALL EQUIPMENT IN THE AREA AROUND THE REAR SPAR AND DE-ICE FLUID ALSO POOLED IN THE LOWER PORTIONS OF THE PANELS. AEROSOL CLEANERS WERE USED TO CLEAN THE AREA PRIOR TO THE FUNCTIONAL TEST. ALL POWER REMOVED, THE AREA VENTED AND THE WIRING BUNDLE REPAIRED WITH NO FURTHER COMPLICATIONS. (TC 20091021012)

CA091022002	DHAV	PWA	SHUTOFF VALVE	MISREPAIRED
10/15/2009	DHC8106	PW121		FUEL

(CAN) FUEL SHUT OFF VALVE FOUND LEAKING, WHEN PANEL OPENED UP SHUT OFF VALVE HAD A PREVIOUS NON STANDARD REPAIR WITH SILICON. NO LONG ENTRIES AS TO WHO OR WHEN THE REPAIR WAS ACCOMPLISHED.

MAINTENANCE CONTRACTOR THAT MAY HAVE BEEN INVOLVED HAS BEEN ADVISED (TC 20091022002)

CA091110004	DHAV	PWA	SUPPORT	CRACKED
11/9/2009	DHC8202	PW123D	82110730007	PRECOOLER

(CAN) HIGH FUEL FLOW AND HIGH ITT WERE REPORTED ON THE LT ENG AT ENG START. INVESTIGATION FOUND PRECOOLER PN 10558000 BEING CRACKED. UPON REMOVAL OF THE PRECOOLER, FURTHER INVESTIGATION SHOWED SUPPORT ASSY PN 82110733-005 BROKEN AT AN ATTACHMENT LUG AND CRACKED AT ANOTHER LOCATION. INVESTIGATION ALSO FOUND BUSHINGS WORN OUT AND PRE-COOLER TO SUPPORT AFT ATTACHMENT HOLE ELONGATED.

CA091016001	DHAV	PWA	PCU	MALFUNCTIONED
6/16/2009	DHC8301	PW123	782490A47	NR 1 ENGINE

(CAN) "ENGINE NR 1 PROP AND ITT DROPPED ON FINAL APPROACH TORQUE LOGGED ON 40% PROP (RPM) 910, ITT - 350 DEG TO 400 DEG. REMOVED AND REPLACED PCU AND PERFORMED FUNCTIONAL AND OPERATIONAL TEST, FOUND SATISFACTORY IN ACCORDANCE WITH CMM 71-00-02 AND AMM 71-00-00. (TC# 20091016001)

CA091021016	DHAV	PWA	TERMINAL BLOCK	FIRE
10/21/2009	DHC8311	PW123		WINDWHIELD HEAT

(CAN) CREW REPORTED THAT AT 14,000 FT, A ONE FOOT (1`) FLAME SHOT (ARCED) FROM THE TERMINAL BLOCK OF THE LT WINDSCREEN. FIRE EXTINGUISHER WAS REMOVED FROM THE HOLDER BUT BY THAT THAT TIME THE FIRE HAD GONE OUT. SMOKE FILLED THE FLIGHT DECK AND OXYGEN MASKS WERE UTILIZED AND BY THEN THE OUTTER LAYER OF THE WINDOW STARTED TO CRACK. EMERGENCY WAS DECLARED. CREW LANDED THE A/C SAFELY.BY THE TIME THE A/C LANDED THE WINDSCREEN CRACKS HAD MIGRATED THROUGH TO THE INNER PLY AND GLASS WAS FALLING INTO THE FLIGHT DECK. REF: DEFECT-877024, FOR RECTIFICATION. WINDSCREEN AND WINDSHIELD HEAT CONTROLLER TAKEN BY TSB FOR ANALYSIS. (TC 20091021016)

CA091102011	DHAV	PWA	BULKHEAD	SHORTED
10/29/2009	DHC8311	PW123	7849141	SPINNER

(CAN) CREW NOTED ON APPROACH THE THE NR 2 PROP DEICE A PHASE IS INOP. (JL2 - NR 1 "B" PHASE PROP HEAT LIGHT NOT ILLUMINATING WITH PROP HEAT). TR117. NR 2 PROP BULKEAD RING ASSY AND BRUSH BLOCK FOUND SHORTED. REPLACED.

CA091005008	DHAV	PWA	FITTING	CRACKED
10/1/2009	DHC8311	PW123	85711566101	SPOILER ACTUATOR

(CAN) DURING SPOILER ACTUATOR REPLACEMENT, ON THE LT WING REAR SPAR SHROUD AT STA YW404.00, THE BRACKET WAS FOUND CRACKED AT THE LWR END OF THE ANGLE. APROXIMATE LENGTH OF CRACK IS 1.5 INCHES.

CA091021013	DIAMON	ROTAX	THROTTLE CABLE	BROKEN
9/23/2009	DA20A1	ROTAX912F3	2076000196	THROTTLE

(CAN) TWO CONTROL CABLES ARE BOLTED TO A SINGLE THROTTLE CONTROL LEVER IN THE CABIN PEDESTAL. THESE INNER CABLES ARE THEN ROUTED THROUGH THEIR OWN RESPECTIVE OUTER SHEATHS AND CONNECTED TO EACH CARBURRETOR THROTTLE LEVER. THE RIGHT INNER CABLE BROKE AND SEPATATED FROM THE THROTTLE LEVER SO THE PILOT HAD NO MORE CONTROL OF THE RIGHT CARBURRETOR BUT STILL HAD CONTROL OF THE LEFT ONE. SHE SHUT THE ENGINE DOWN ON APPROACH AND LANDED SAFELY. UPON INSPECTION, A NEW INNER RT CABLE WAS INSTALLED PER MM, RIGGED, DUAL INSPECTED AND AIRCRAFT RELEASED BACK INTO SERVICE AFTER ENGINE GROUND RUN. (TC 20091021013)

CA091007006	DIAMON	ROTAX	SLEEVE	SLIPPED
10/5/2009	DA20A1	ROTAX912S3 EQUIPMENT		RUDDER CABLE

(CAN) INSTRUCTOR AND STUDENT WERE PRACTICING SIDE-SLIPS AND THE LT RUDDER CABLE BROKE FREE OF AFT RUDDER BELLCRANK. INSP REVEALED CABLE PULLED OUT OF NICO PRESS SWAG. INVESTIGATION IS ON GOING AT THIS TIME. MORE INFORMATION TO FOLLOW.

2009FA0001020	DIAMON		LATCH	FAILED

10/15/2009	DA40			DOOR

FWD DOOR LATCH ASSY BUSHINGS WORKED LOOSE. FAILURE OF LOCKING FLUID WHICH HOLDS THE BUSHINGS IN PLACE. USE OF A DIFFERENT METHOD TO SECURE BUSHINGS IN HINGE ASSY FOR PERHAPS A SIMPLER ASSY WITH FEWER MOVING PARTS.

2009FA0001021	DIAMON		HINGE	CRACKED
10/15/2009	DA40			AFT PAX DOOR

UPON 100 HR INSP, AFT DOOR, FWD HINGE WAS FOUND TO BE CRACKED RESULTING IN REMOVAL OF DOOR FROM SERVICE AND SENDING OUT FOR REPAIR. THIS IS EITHER THE RESULTS OF THE DOOR PROP STRUT BEING TOO STRONG OR THE DOOR BEING LEFT OPEN AND CATCHING A GUST OF WIND. CONSTRUCTION OF HINGE USING A STRONGER MATERIAL OR WEAKER DOOR PROP STRUT WOULD PROBABLY HELP.

CA091106003	DIAMON		STRUT	CORRODED
10/26/2009	DA40		D41321311501	MLG

(CAN) DURING ROUTINE MX PITTING ON THE L/E OF MLG LEGS WAS NOTED. FURTHER INVESTIGATION REVEALED EXTENSIVE CORROSION ON MAJORITY OF THE SURFACE. ALSO NOTED PAINT COATING APPEARED TO BE SEPARATING FROM GEAR LEG. PAINT WAS CHEMICALLY REMOVED AND EXCESSIVE CORROSION NOTED THROUGHOUT. MX SHOP WAS ADVISED TO REPLACE GEAR LEGS AND RETURN CORRODED LEGS FOR INVESTIGATION.

CA091102005	DIAMON	LYC	STRUT	CRACKED
10/30/2009	DA40	IO360M1A	D4132231000	NLG

(CAN) DURING PENETRANT INSP, IAW MANDATORY SB MSB40-046/3, A SMALL CRACK WAS FOUND IN RADIUS OF PIVOT AS SHOWN IN THE MSB. MSB POINTS TO FRONT SECTION OF RADIUS IN DIAGRAM, CRACK WAS FOUND ON REAR SIDE OF RADIUS. STRUT WAS REPLACED.

CA091013010	DIAMON	THIELT	FUEL TANK	CONTAMINATED
9/11/2009	DA42	TAE12501	D40281700	

(CAN) ACFT WAS UNDERGOING MX (200 HR INSP AND ENG REPAIR). ACFT HAD BEEN IN HANGAR FOR APPROX 6 MONTHS. AT COMPLETION OF MX, WHILE TRYING TO TROUBLESHOOT A FUEL QUANTITY INDICATION PROBLEM, A FUEL SAMPLE WAS TAKEN TO CHECK FOR WATER. REMOVED A LARGE QUANTITY OF CONTAMINATION. SENT A SAMPLE OF CONTAMINATION TO A LAB FOR ANALYSIS. WHILE WAITING FOR RESULTS, COMPLETELY DRAINED FUEL TANKS, ADDED A FUEL ADDITIVE THAT KILLS BACTERIAL GROWTH AND REFILLED THE TANKS. THEN TOOK MORE SAMPLES UNTIL WE HAD A "CLEAN AND BRIGHT" SAMPLE. SUBSEQUENTLY, ON SEVERAL OCCASIONS, CONTINUED TO GET FUEL SAMPLES WITH CONTAMINATION. REMOVED TANKS AND SEPARATED THEM SO THAT THEY COULD BE STEAM CLEANED. THE DA-42 USES 3 TANKS IN EACH WING JOINED TOGETHER USING FLANGES AND RUBBER COUPLINGS. ACFT WING SITTING STATICALLY HAS DIHEDRAL AND SITS ABOUT 5 DEGREES NOSE UP. ONLY INBD TANK HAS A DRAIN PORT WHICH IS LOCATED ON THE INBD END, IN THE CTR OF TANK LWR SURFACE OF THE TANK IS ROUGHLY PARALLEL TO BOTTOM SURFACE OF THE WING. WITH A 5 DEGREES NOSE UP ATTITUDE THERE IS A PORTION OF THE TANK THAT CANNOT BE DRAINED USING DRAIN VALVE. IF YOU HAVE BACTERIAL CONTAMINATION, REMOVING THE TANKS SEEM TO BE THE ONLY WAY TO FIX THIS. LAB REPORT INDICATED THAT THERE WAS MOULD, YEAST, AND BACTERIAL CONTAMINATION. FUEL ADDITIVE WOULD ONLY KILL BACTERIAL GROWTH AND ONLY IF IT WASN’T SUSPENDED IN THE MOULD/YEAST COMBINATION.

CA091117007	DIAMON	THIELT	ENGINE	FAILED
11/10/2009	DA42	TAE1250299	TAE1250299	LEFT

(CAN) LT ENG LOST PWR AND STOPPED DURING FLIGHT. ACFT WAS LANDED. ENG FIELD REP REMOVED A CAMSHAFT POSITION SENSOR AND CONFIRMED THAT THE CAMSHAFT DOES NOT MOVE WHEN THE CRANKSHAFT IS ROTATED. ENG REMOVED FROM AIRFRAME AND SHIPPED TO MFG IN GERMANY FOR INVESTIGATION.

EE4Y090392	DOUG		SKIN	CORRODED
12/1/2009	DC983			ZONE 200

LWR FUSELAGE AFT SKIN CORRODED AT STA 1163, BTWN LONG 29L AND LONG 30L.

EE4Y090393	DOUG		SUPPORT	CRACKED

12/1/2009	DC983		5936413501	DOOR BUMPER

LWR FUSELAGE RT MAIN W/W INBD DOOR HUB BUMPER CRACKED.

EE4Y090396	DOUG		SUPPORT	CRACKED
12/1/2009	DC983		5936413501	DOOR BUMPER

LT MAIN W/W INBD DOOR HUB BUMPER CRACKED.

EE4Y090368	DOUG		SKIN	CORRODED
11/13/2009	DC983		593602229	ZONE 100

LWR FUSELAGE SKIN CORRODED FROM STA 1111 TO STA 1129 BTWEEN LONGERON 26 LT AND LONGERON 28 LT.

EE4Y090400	DOUG		SUPPORT FITTING	BROKEN
12/3/2009	MD83		5956034552	ZONE 100

LWR FUSELAGE MID CARGO COMPARTMENT AT STA 788 BETWEEN LONG 27R AND 28R SUPPORT FITTING BROKEN.

2009FA0001067	EMB	ALLSN	FITTING	CRACKED
11/11/2009	EMB135BJ	AE3007A	500189	OXYGEN GAUGE

DURING ROUTINE MX, WHILE INVESTIGATING REPORTED PASSENGER AND CREW OXYGEN SYSTEMS LOW OXYGEN CONTENTS INDICATION, A GAS LEAK WAS IDENTIFIED FROM BEHIND CHARGING PANEL AT STA 3900 RT WHEN ATTEMPTING TO CHARGE THE SYSTEM. ON REMOVING THE GROUND CHARGING PANEL ASSY, CRACKS WERE DISCOVERED ON (2 EA) BRASS FITTINGS PN 500189 WHIC IS PART OF GAGE ASSY PN 171013 ON BOTH THE PASSENGER OXYGEN SYS AND THE CREW OXYGEN SYS (PN 500189) WHICH IS COMMON TO BOTH SYSTEMS. OXYGEN LEAKS WERE APPARENT AT THE SUBJECT FITTINGS. ITEM 1- PANEL ASSY PN 135-05153-401, ITEM 150- PRESSURE GAGE PN 171013, ITEM 50 CAPILLIARY TUBE-, ITEM 155- BRASS OXYGEN FITTING-PN 500189. REPLACEMENT ITEMS WERE ORDERED FROM THE MFG FOR RECTIFICATION OF THE DEFECT. UPON RECEIPT INSP OF ONE REPLACEMENT GAUGE ASSY-PN 171013, AN IDENTICAL CRACK WAS FOUND ON THE NEW FITTING-PN 500189 AND THE GAGE WAS QUARANTINED/REJECTED. THE REPLACEMENT GAGE HAD BEEN RECEIVED FROM MFG RELEASED ON ((SEGVOO 003 CERTIFICATE NR 0800153 AS "NEW")) THE CAUSE OF CRACKING IS DUE TO OVER-TORQUEING OF THE FITTINGS TO THE GAGE.

2009FA0001025	EMB		OUTFLOW VALVE	DEFECTIVE
12/7/2009	EMB500		21192864	ZONE 200

DURING APPROACH AT 4000MSL THE PILOT LOST PRESSURIZATION CONTROL IN THE AUTO AND MANUAL MODE. A "MAX DIFF" CAS MESSAGE WAS DISPLAYED.

2009FA0000987	EMB	GE	BUSHING	CRACKED
11/24/2009	ERJ170100SE	CF34*	15G0311203	THRUST REVERSER

PROBLEM FOUND ON THRUST REVERSERS REMOVED FROM ACFT. UPON PRELIMINARY INSP AT APPLIED COMPOSITES ENGINEERING (ACE) IT WAS DISCOVERED THAT 3 OF THE 4 FWD HINGE BUSHINGS PN 14G0311-203 WERE CRACKED ACROSS THE SHOULDER AND AROUND THE TRANSITION FROM THE RADIAL TO THE FLANGE ON THE OUTSIDE OF THE BUSHING. BUSHINGS FOUND ON E1 LT REVERSER PN 15G0002-013, SN HRD00144, E2 LT REVERSER PN 15G0002-014, SN HRD 00143, AND E1 RT PN 15G0003-013, SN HRD00142.

2009FA0001063	EMB	GE	BUSHING	CRACKED
12/18/2009	ERJ170100SU	CF34*	14G0311203	THRUST REVERSERS

PROBLEM FOUND ON THRUST REVERSER REMOVED FROM ACFT. UPON PRELIMINARY INSP AT APPLIED COMPOSITES ENGINEERING (ACE) IT WAS DISCOVERED THAT ONE FWD HINGE BUSHING PN 14G0311-203 WAS CRACKED ACROSS THE SHOULDER AND AROUND THE TRANSITION FROM THE RADIAL TO THE FLANGE ON THE OUTSIDE OF THE BUSHING. BUSHING FOUND ON E2 LT REVERSER PN 15G0002-014, SN HRD 00149.

CA091029004	EMB	GE	SEAL	DETERIORATED

10/26/2009	ERJ170200LR	CF348E5		NR 4 SLAT

(CAN) ON COMPLETION OF A REGULAR SLAT TRACK LUBE, A SLIGHT `CLICKING` SOUND WAS NOTED DURING THE FINAL STEP OF A SLAT OPS CHECK. UPON INSPECTION IT WAS NOTED THAT THE SOUND WAS BEING CAUSED BY: 1- RT WING OTBD SEAL ON NR 4 SLAT IS WORN AND CRACKED. 2- RT WING NR 4 SLAT INBD NR 8 SLAT TRACK MOBILE COVER ACTUATING FORKS WERE NOTED BENT. THIS CAUSES THE COVER TO RIDE UNEVENLY DURING SLAT EXTENSION AND RETRACTIONS. MFG HAS BEEN NOTIFIED OF THE ISSUE.

CA091021001	EMB	GE	PULLEY	DAMAGED
10/19/2009	ERJ170200SU	CF348E5A1	1159SCL20243	AILERON

(CAN) DURING B02N01 CHECK IT WAS DISCOVERED THAT THE LT AND RT AILERON PULLEYS BETWEEN RIB 2 AND RIB 4 IS OUT OF ALIGNMENT WITH THE CABLE RUN. AILERON PULLEY SUPPORT BRACKETS P/N 170-32541-001 AND 170-32541-002 MIS-ALIGNED WITH CABLE RUN CAUSING PREMATURE WEAR OF AILERON CABLES. (TC# 20091021001)

CA091021004	EMB	GE	WIRE HARNESS	BURNED
10/17/2009	ERJ170200SU	CF348E5A1	170166603001	FADEC

(CAN) DURING B02N01CHECK INSPECTION OF RT ENGINE PYLON, MECHANICS DISCOVERED RH PYLON FADEC WIRING HARNESS BURNED IN THE AREA AFT OF THE ENGINE BLEED PRE-COOLER ASSY. FURTHER INVESTIGATION REVEALED PART OF GASKET P/N 170-166603-001, ITEM 30 IPC 36-11-08 FIG.01 MISSING BETWEEN ENGINE BLEED PRE-COOLER AND COOLER OUTLET DUCT P/N 170-14512-403. RH ENGINE PRE-COOLER DUCT GASKET FAILED CAUSING HOT BLEED AIR STREAM TO OVERHEAT AND BURN FADEC HARNESS. (TC# 20091021004)

CA091116004	EMB	GE	FLAP SYSTEM	FAILED
11/8/2009	ERJ170200SU	CF348E5A1		TE FLAPS

(CAN) FLIGHT CREW:AFTER NORMAL LANDING FLAPS SELECTED 0 ECIAS FLAP FAIL AND INDICATOR AMBER. SLATS 0 AND GREEN.

CA091116005	EMB	GE	ACTUATOR	FAILED
11/14/2009	ERJ190100IGW	CF3410E5A1		TE FLAPS

(CAN) FLT CREW REPORTED FLAP SLAT FAILURE INBOUND. FLAPS 2, SLATS 0 NO EMERGENCY DECLARED. MX RT SLAT ACTUATOR REPLACED.

CA091116002	EMB	GE	STEERING UNIT	FAILED
11/14/2009	ERJ190100IGW	CF3410E5A1		NLG

(CAN) 1000 FEET AGL FLIGHT CREW SELECTED GEAR DOWN AND RECIEVED A GEAR STEER FAIL MESH. LANDING NORMAL HOWEVER REQUIRED TOW OFF OF RUNWAY. MX CLEARED MAU NVM CONSIDERED OK FOR FURTHER FLIGHT.

CA091116003	EMB	GE	ACTUATOR	FAILED
11/8/2009	ERJ190100IGW	CF3410E5A1		SLATS

(CAN) FLIGHT CREW. ON APPROACH, YYC SLATS FAILED AND ACFT LANDED WITH SALT 0 AND FLAP 2. MX NR 3 AND NR 5 RT SLAT ACTUATORS REPLACED, SYS SERVICABLE.

CA091116010	EMB	GE	SUPPORT BRACKET	DEBONDED
11/3/2009	ERJ190100IGW	CF3410E5A1		MLGWW

(CAN) LT AND RT MLG BAY FIRE DETECTION LOOP SUPPORT BONDED BRACKETS HAVE BECOME DISBONDED. (REPORTED INTERNALLY FROM A LINE MECHANIC) PN NOT PROVIDED, UNABLE TO LOCATE IN IPC. SIMILAR CONDITIONS EXIST ON THE FOLLOWING ACFT. C-FLWH LH WHEEL WELL C-FHOS LT & RT WHEEL WELL.

CA091118011	EMB	GE	DIFFUSER	FRAGMENTED
11/16/2009	ERJ190100IGW	CF3410E5A1	17009961403	REFUEL SYS

(CAN) ACFT WAS RECENTLY IN FOR A B-01/N-01 MX VISIT. FRAGMENTS OF REFUEL DIFFUSER ASSY WERE FOUND IN THE RT WING FUEL TANK AS SHOWN IN THE ATTACHMENTS. FURTHERMORE, THIS ISN'T AN ISOLATED INCIDENT AS THE SAME FRAGMENTS WERE RECENTLY FOUND IN THE RT WING FUEL TANK OF MSN 190-00092 DURING ITS RECENT MX VISIT, BUT THEIR ORIGINS COULD NOT BE ASCERTAINED AT THAT TIME. NO QUALITY OR DESIGN ISSUE WERE IDENTIFIED IN THE ANALYZED PARTS AND THE INVESTIGATION WAS CLOSED DUE NO REPORTED NEW EVENTS. BE AWARE THAT INADEQUATE FUEL TRUCK PRESSURE (TOO HIGH) WILL DAMAGE THE DIFFUSERS. MFG RECOMMENDS TO FOLLOW AMM PROCEDURES 12-11-01 AND MAKE SURE REFUELING PRESSURE DOES NOT EXCEEDS 50 PSIG. IT WOULD BE EXPECTED TO HAVE FUEL IMBALANCES DURING REFUELING PROCESS. MFG RECOMMENDS TO FOLLOW AMM PROCEDURES 12-11-01 AND MAKE SURE REFUELING PRESSURE DOES NOT EXCEEDS 50 PSIG.

CA091119001	EMB	GE	LANDING GEAR	MALFUNCTIONED
11/19/2009	ERJ190100IGW	CF3410E5A1		

(CAN) ON APPROACH LANDING GEAR LEVER SELECTED DOWN. EICAS MESSAGE " BRK CTRL FAULT" FOLLOWED BY LT MLG SHOWED RED AND NOT DOWN AND LOCKED. GEAR RECYCLED SAME RESULT HOWEVER AFTER A FEW SECONDS EICAS MESSAGE WENT OUT AND GOT 3 GREEN GEAR DOWN LIGHTS. LANDING GEAR SYS INSPECTED, LUBE, BLEED AIR FROM UPLOCK ACTUATOR. LANDING GEAR EXTENSION AND RETRACTION SYS TEST, EMERGENCY EXTENSION SYS TEST CARRIED OUT AS IAW SNL 190-32-0025.

CA091112001	EMB	GE	ROD	BENT
6/25/2009	ERJ190100IGW	CF3410E5A1	1909238590	TE FLAP

(CAN) DURING ACCOMPLISHMENT OF SCHEDULED JC 3-327N, IT WAS FOUND THAT BOTH LT & RT AFT FLAPS FWD/LWR OPERATIING RODS WERE BENT. BOTH ROD ASSY WERE REPLACED. THIS IS A KNOWN PROBLEM WITH THE FLEET (WORLD WIDE). IT IS SUSPECTED THE ICE AND OTHER FOREIGN MATTER ACCUMULATE ON THE L/E OF THE AFT FLAP OR FLAP OVERSPEED CAUSES BENDING OF THE FWD (LWR) ROD ASSY. MFG HAS BEEN ADVISED OF SIMILAR EVENTS OVER THE LAST 2 YEARS.

CA091028002	EMB	GE	SUPPORT	LOOSE
10/4/2009	ERJ190100IGW	CF3410E5A1		MLG WW FIRE LOOP

(CAN) LT AND RT MAIN GEARBAY FIRE DETECTION LOOP SUPPORT STRUCTURE ADRIFT FROM AIRFRAME THREE OUT OF FOUR BONDED STRUCTURE BRACKETS HAVE DISBONDED FROM THE STRUCTURE. THE REMAINING THREE MECHANICALLY FASTENED BRACKETS AFIX THE ENTIRE FIRE DETECTION LOOP SUPPORT TO THE AIRFRAME. THIS CONDITION ALLOWS CONSIDERABLE MOVEMENT OF THE FIRE DETECTION LOOP/SUPPORT ASSY. POSSIBILITY OF DAMAGE DUE TO FATIGUE. STRUCTURE DEPT TECHS APPLIED ADHESIVE TO REBOND SUPPORT ASSY TO AIRFRAME. (TC 20091028002)

CA091028003	EMB	GE	SUPPORT	LOOSE
10/10/2009	ERJ190100IGW	CF3410E5A1		MLG WW FIRE LOOP

(CAN) LH AND RH MAIN GEARBAY FIRE DETECTION LOOP SUPPORT STRUCTURE ADRIFT FROM AIRFRAME ALL FOUR BONDED SUPPORT STRUCTURE BRACKETS HAVE DISBONDED FROM THE AIRFRAME. THE REMAINING 3 MECHANICALLY FASTENED BRACKETS AFIX THE ENTIRE FIRE DETECTION LOOP SUPPORT ASSY TO THE AIRFRAME. THIS CONDITION ALLOWS CONSIDERABLE MOVEMENT OF THE FIRE DETECTION LOOP/SUPPORT ASSY. POSSIBILITY FOR DAMAGE DUE TO FATIGUE. STRUCTURE DEPT TECHS APPLIED ADHESIVE TO REBOND SUPPORT ASSY TO AIRFRAME. (TC 20091028003)

CA090921003	EMB	GE	ATTACH FITTING	CORRODED
9/13/2009	ERJ190100IGW	CF3410E5A1		MLG ACTUATOR

(CAN) DURING REMOVAL OF THE RT MLG, PITTING CORROSION WAS FOUND ON RETRACT ACTUATOR ATTACHMENT POINT, AFT LUG AFT FACE. ATTACHMENT PIN WAS FOUND CORRODED ALSO.

CA091022006	GROB	LYC	SKIN	DENTED
10/21/2009	G120A	AEIO540D4D5		RT WING

(CAN) THE STUDENT PILOT WAS CARRYING OUT THE PREFLIGHT INSPECTION OF THE ACFT & NOTED SEVERAL INDENTATIONS ON UPPER SKIN ON THE RT WING. FURTHER INSPECTION BY MX BY "TAP TESTING" REVEALED THE EXTENT OF THE DELAMINATION. OUTBOARD EDGE OF OUTBOARD DELAMINATION IS 61 CM FROM THE INBOARD EDGE OF THE WING, THE INBOARD EDGE OF THE MOST INBOARD DAMAGE IS AT 40 CM. FORE AND AFT - THE FORWARD MOST POINT IS 30 CM FROM THE LEADING EDGE, THE AFT MOST DELAMINATION POINT IS 73 CM FROM THE LEADING EDGE. THE MANUFACTURER WAS SENT IMAGES & DESCRIPTION OF THE DAMAGE IN ACCORDANCE WITH THEIR MM PROCEDURES SO THAT A REPAIR PLAN COULD BE CREATED. A REPAIR RECOMMENDATION WAS MADE BY THE MANUFACTURER. (TC 20091022006)

CA091103007	GROB	LYC	UNKNOWN	ODOR
11/3/2009	G120A	AEIO540D4D5		CABIN

(CAN) PREPARING FOR A LOCAL TRAINING FLIGHT, THE STUDENT AND INSTRUCTOR RECEIVED TAXI CLEARANCE FOR A RUN-UP FROM GROUND CONTROL. DURING THESE `BEFORE TAKE-OFF` CHECKS THE STUDENT BELIEVED THAT HE DETECTED A BURNING ODOR. THE INSTRUCTOR COULD NOT DETECT THE ODOR BUT NOTED THAT HE WAS SOMEWHAT CONGESTED AND MIGHT NOT BE ABLE TO DETECT ANYTHING IF A PROBLEM EXISTED. THE DECISION WAS MADE TO CONTACT GROUND CONTROL AND ADVISE THAT THEY SENSED A BURNING ODOR AND TO SHUTDOWN. GROUND CONTROL HAD ARFF RESPOND. THE FIRE-FIGHTERS FOUND NO EVIDENCE OF SMOKE OR ODOR AND RELEASED THE ACFT TO AMO MX TO TOW BACK TO APRON. MX TOWED THE ACFT INTO HANGAR TO FULLY INVESTIGATE SOURCE OF ODOR. THE ENG COMPARTMENT WAS INSPECTED FOR EVIDENCE OF CONTACT THAT MIGHT RESULT IN MELTED INSULATION, ETC. THE ENVIROMENTAL DUCTING AND ELECTRICAL SYS WERE ALSO INSPECTED FOR CONDITIONS THAT MAY HAVE CAUSED A BURNING ODOR. NO POSSIBLE SOURCES WERE OBSERVED. THE ACFT WAS GIVEN A THOROUGH OPS CHECK RUN-UP WITH NO ODOR NOTED. THE ATTENDING AME RELEASED THE ACFT BACK TO SERVICE. GIVEN THAT WE ARE JUST NOW BEGINNING TO SELECT THE HEATERS AS WE COMMENCE OPERATIONS IN COLDER WEATHER, THE STUDENT MAY BE NOTING `NORMAL` ODORS THAT TEND TO OCCUR FROM TIME TO TIME WITH THE USE OF HEATER MUFF TYPE SYS.

CA091105004	GROB	LYC	SPARK PLUG	FOULED
11/3/2009	G120A	AEIO540D4D5		ENGINE

(CAN) THE STUDENT AND INSTRUCTOR DEPARTED FOR A LOCAL TRAINING FLIGHT AND NOTICED A SMALL AMOUNT OF ENGINE VIBRATION DURING THE T/O. THE VIBRATION WAS NOTED AGAIN LATER WHEN THEY RETURNED TO THE AIRPORT FOR CIRCUIT PRACTICE. A PRACTICE MISSED APPROACH WAS CONDUCTED AT WHICH TIME THE VIBRATION WAS NOTED DURING THE T/O SEQUENCE AND A VERY BRIEF `ENGINE-MISS` WAS ALSO NOTED. THE AIRCREW CONTINUED WITH THE CIRCUIT WITH THE ENGINE RUNNING NORMALLY BUT ON THE SUBSEQUENT PRACTICE MISSED APPROACH THE SAME BRIEF `MISS` OCCURED. THE INSTRUCTOR THEN ELECTED TO ADVISE ATC WITH `PAN` CALL AND CARRIED OUT A CLOSE CIRCUIT PROCEDURE TO FULL STOP LANDING. THE ACFT WAS MET WITH ARFF CREWS. NO DANGER WAS OBSERVED BY THE FIRE FIGHTERS AND THE INSTRUCTOR ELECTED TO TAXI IN TO APRON. ENGINE SEEMED TO BE RUNNING SMOOTHLY DURING THE TAXI. MX CARRIED OUT OPERATION RUN-UP CHECKS IN AN ATTEMPT TO ISOLATE A SUSPECTED ENGINE IGNITION FAULT TO LT OR RT SIDE. MAGNETO RPM DROP WAS WITHIN SPECIFICATION BUT ENG ROUGHNESS WAS ALSO NOTED BY THE AME WHEN THE ENGINE WAS RAN AT FULL POWER. THE ACFT WAS BROUGHT INTO HANGAR FOR AN INSP OF THE ENG IGNITION COMPONENTS. THE SPARK PLUGS WERE OBSERVED TO BE FOULED AND WERE REPLACED WITH NEW. THE POST INSP ENGINE RUN-UP SHOWED NORMAL OPERATION WITH NO VIBRATION AT FULL PWR. THE ACFT WAS RELEASED AND RETURNED TO SERVICE.

CA091123004	GROB	LYC	INJECTOR	FAILED
11/20/2009	G120A	AEIO540D4D5	25766081	FUEL SYSTEM

(CAN) INSTRUCTOR AND STUDENT WERE ABOUT 15-20MIN INTO A LOCAL TRAINING FLIGHT WHEN SLIGHT ENG VIBRATIONS WERE NOTED DURING PWR CHANGES MADE AROUND 2300 RPM. INSTRUCTOR FOLLOWED ROUGH RUNNING CHECKLIST STEPS IN APPROVED CHECKLIST AND DETERMINED THAT ENG RAN ROUGH ON EITHER MAGNETO. INSTRUCTOR DECLARED AN EMERGENCY AND RETURNED TO AIRPORT AT 5500` ASL IN PREPARATION FOR A POSSIBLE FORCED LANDING. ACFT WAS LANDED WITHOUT INCIDENT. SUBSEQUENT ENG RUN-UP TESTS

CONFIRMED THE ROUGH RUNNING ENGINE. AFTER A THOROUGH IGNITION SYS INSP IT WAS OBSERVED THAT INJECTOR UNIT WAS WEEPING FUEL IN THE INLET THROAT AREA. EXCESSIVE PLAY ALSO EXISTED AT THE FUEL MIXTURE ARM OF THE UNIT AND IT WAS DECIDED TO REPLACE THE UNIT. ENG WAS SUCCESSFULLY RAN-UP POST ADJUSTMENTS AND FOUND TO OPERATE SMOOTHLY. ACFT WAS RELEASED SUBJECT TO HAVING A SATISFACTORY TEST FLIGHT. ACFT CONTINUED TO OPERATE SMOOTHLY ON THE SUBSEQUENT TEST FLIGHT AND WAS RELEASED FOR NORMAL FLIGHT TRAINING OPERATIONS.

CA091027009	GRUMAN	WRIGHT	BOLT	LOOSE
10/23/2009	FIRECAT	982C9HE2	RC2748	ENGINE MOUNT

(CAN) DURING ANNUAL INSPECTION, THE MAIN ENGINE MOUNT THROUGH BOLTS WERE FOUND TO BE LOSSENED OFF ACCORDING TO THE WITNESS MARKINGS. ONE BOLT INDICATED LESS THAN30 FT LBS OF TORQUE, THE REQUIRED TORQUE VALUE IS 80 FT LBS. ALL 8 BOLTS WERE FOUND LOOSENED. THE BOLTS WERE LOCKWIRED. THE QEC TSO IS 418.3 HRS. IT APPEARS THAT PERHAPS AN EXCESSIVE AMOUNT OF PAINT ON THE LORD MOUNTS UNDER THE BOLT HEADS GAVE WAY, CAUSING THE BOLTS TO LOOSEN. ALL OF THE AFFECTED BOLTS HAVE BEEN REPLACED AND RETORQUED. A FLEET CAMPAIGN HAS BEEN RAISED TOO INSPECT THE REMAINING QEC`S. CONAIR WILL REPORT THE FINDINGS UPON COMPLETION OF THE CAMPAIGN. (TC 20091027009)

CA091117003	GULSTM	LYC	BOLT	SHEARED
10/23/2009	112TCA	TO360C1A6	AN415	NLG ACTUATOR

(CAN) SELECTED GEAR UP AFTER TAKEOFF AND NOSE GEAR DIDN`T RETRACT: SELECTED GEAR DOWN AND LANDED WITH 3 GREEN INDICATING UPON INSP OF NOSE GEAR FOUND THE BOLT THAT ATTACHES NOSE GEAR ACTUATOR TO NOSE GEAR DRAG BRACE SHEARED: INSTALLED NEW BOLT, CARRIED OUT SEVERAL RETRACTION: ACFT RELEASED TO SERVICE.

CA091020006	GULSTM	LYC	LINE	RUPTURED
9/2/2009	680FLP	IO720B1B		HYDRAULIC SYS

(CAN) PILOT DECLARED EMERGENCY UPON DISCOVERING HYD SYS FAILURE AND LANDED. AFTER LANDING, THE PILOT HAD NO CONTROL OF NOSE WHEEL STEERING OR BRAKES AND ACFT VEERED OFF THE RUNWAY TO RT, ONTO GRASS AND A DITCH. THE RT MLG BROKE OFF CAUSING CONSIDERABLE DAMAGE TO THE ACFT BUT NO INJURIES. UPON INSP OF THE HYD SYS BY MX, AN ALUMINUM TUBING WHICH IS PART OF THE HYD SYS PLUMBING IN THE RT WING WAS FOUND RUPTURED AT THE BEND RADIUS CAUSING LOSS OF HYD PRESSURE AND ALLOWING SYS FLUID TO LEAK OVERBOARD.

CA091023003	GULSTM		TRANSMITTER	FAILED
10/20/2009	681		EA1502C1	TRIM SYSTEM

(CAN) DEPARTED (IFR) & SHORTLY AFTER TAKEOFF, PILOT REPORTED AN "ELEVATOR PROBLEM" & DECLARED AN EMERGENCY. ADVISED CENTRE RETURNING TO AIRPORT. ARFF CALLED OUT TO BE ON STANDBY AS THE ACFT ARRIVED SAFELY. APPROXIMATELY 1 HR LATER, SAME ACFT WAS TAKING OFF & PILOT REJECTED TAKEOFF, CITING AN EQUIPMENT PROBLEM & TAXIED BACK TO HANGAR. ORIGINALLY THOUGHT TO BE AN AUTOPILOT PROBLEM, CREW RETURNED TO AIRPORT, TESTED AUTOPILOT & ATTEMPTED A SECOND TAKEOFF WITH SAME RESULT. MX FOUND TRIM POSITION TRANSMITTER WINDING & WIPER TO HAVE FAILED CAUSING ERRONEOUS INDICATION IN COCKPIT. TAKEOFF ATTEMPTED WITH WHAT WAS THOUGHT TO BE A CORRECT TRIM SETTING WHEN IN FACT TRIM SETTING DID NOT MATCH ACTUAL TRIM POSITION. TRANSMITTER APPEARED TO BE ORIGINAL EQUIPEMENT. MX REPLACED TRANSMITTER & TESTED THE TRIM SYSTEM. (TC 20091023003)

2009FA0001043	GULSTM	GARRTT	STARTER GEN	FAILED
12/17/2009	G100	TFE73140	230650181	ENGINE

STARTER GENERATOR FAILED, NO INDICATION OF VOLTAGE PRESENT. PN 23065-018-1, SN 98004. REMOVED AND REPLACED STARTER GENERATOR, SYS OPS CHECK GOOD IAW AMM 24-30-02. ACFT HAD A PREVIOUS FAILURE OF THE HYD SUCTION LINE WHICH HAD RUPTURED. DETAIL REPORT ON THAT PART SENT ON SEPARATE REPORT.

2009FA0001044	GULSTM	GARRTT	PUMP	LEAKING
12/17/2009	G100	TFE73140	4018301	HYD SYSTEM

DISCOVERED A LARGE AMOUNT OF HYDRAULIC FLUID HAD LEAKED FROM THE RT ENG. FURTHER INVESTIGATION SHOWED A LEAK COMING FROM THE RT HYD PUMP CASE DRAIN INDICATING THAT THE HYD PUMP HAD

INTERNALLY FAILED. REMOVED AND REPLACED HYD PUMP, PN 4018301, SN AL212AB IAW AMM 29-10-04, SERVICED HYD IAW AMM 12-10-29, BLEED PERFORMED IAW AMM 29-10-04, OPS CHECKS GOOD IAW AMM 29-10-00.

2009F00123	GULSTM	TRUNNION	CRACKED
11/23/2009	GIV	1159LM406901	NLG WW

CRACKS IN NLG TRUNNION BELOW ACTUATOR ATTACH POINT. PART WAS REPLACED ON ACFT AND SENT TO MFG FOR EVALUATION.

2009FA0001017	GULSTM	LIFE RAFT	MISINSTALLED
10/29/2009	GIV	1218FAUL6301101	

UIT WAS RECEIVED FROM CUSTOMER WITH A REQUEST TO O/H. ON INITIAL INSP, IT WAS EVIDENT THAT THE LIFE RAFT ASSY WAS INCORRECTLY REPACKED AT THE PREVIOUS OVERHAUL. THE FOLLOWING WAS FOUND: MOORING LINE AND RIPCORD WERE ROUTED UNDERNEATH THE LACING FOR THE VALISE, BEFORE BEING POSITIONED UNDER THE PAINTER COVER. THE CMM CLEARLY SHOWS THAT THE MOORING LINE AND RIPCORD ARE NOT ROUTED UNDER THE VALISE LACING, BUT GO DIRECTLY UNDER THE PAINTER COVER. POTENTIAL EFFECT IF THE UNIT HAD BEEN USED IN SERVICE IS THAT THE LIFE RAFT MAY NOT HAVE INFLATED. (K)

2009FA0000984	GULSTM	O-RING	DISINTEGRATED
10/28/2009	GIVXG450		SIGHT GLASS

SIGHT GLASS O-RING IN HYD RESERVOIR APPEARS TO BE OF A NON COMPATIBLE MATERIAL WITH HYD FLUID. CAUSING O-RING TO DISINTERGRATE LEAVING PIECES OF O-RING MATERIAL IN RESERVOIR AND CAUSING SIGHT GLASS TO LEAK. THIS COULD CAUSE HYD SYS CONTAMINATION OR LOSS OF HYD POWER. (K)

2009FA0000982	GULSTM	SHAWAERO	O-RING	DISINTEGRATED
10/28/2009	GIVXG450			HYD RESERVOIR

SIGHT GLASS O-RING IN HYD RESERVOIR APPEARS TO BE OF A NON COMPATIBLE MATERIAL WITH SKYDROL. CAUSING O-RING TO DISINTEGRATE LEAVING PIECES OF O-RING MATERIAL IN RESERVOIR AND CAUSING SIGHT GLASS TO LEAK. THIS COULD CAUSE HYD SYS CONTAMINATION OR LOSS OF HYD POWER. (K)

2009FA0001068	GULSTM	LINE	FAILED
12/18/2009	GIVXG450	1159HL4709427DC1	HYD SYSTEM

DURING APPROACH, 12/08/2009 AT APPROX 21:00 EST AFTER SELECTING FLAPS 20,THE CREW HEARD A THUMP IN THE NOSE AREA AND RECEIVED THE L HYD LOW EICAS AND THE LT HYD QUANTITY DROPPED TO 0.9 GALLONS. ACFT ABORTED APPROACH AND AFTER DISCUSSION, ACFT DIVERTED. LANDING GEAR WAS EXTENDED USING EMERGENCY SYS/PROCEDURE. ACFT LANDED AND EMERGENCY BRAKES WERE USED TO STOP ACFT. ACFT WAS TOWED OFF THE RUNWAY TO A HANGER AND CREW IDENTIFIED THE LEAK FROM THE MLG WHEEL WELL LINE AND PROVIDED THE PN 1159HL47094/27 DC-10. THE FOLLOWING DAY THE LT ENGINE DRIVEN HYD PUMP WAS REPLACED, FAILED LINE REMOVED AND CAPPED IAW MFG ENGINEERING REPORT AND THE ACFT WAS FERRY FLOWN, (VIA SPECIAL AIRWORTHINESS CERTIFICATE) REMOVED AND REPLACED ALL LT COMBINED HYD SYS FILTERS, (EXCEPT THE UTILITY PUMP PRESSURE FILTER). REMOVED AND REPLACED TOTAL AIR TEMPERATURE LINE PIN 1159ACL47301-23-PC-6. VERIFIED VALVE POSITION AND RE-SAFETY WIRED MAIN ENTRY DOOR CONTROL VALVE. INSTALLED NEW HYD LINE PN 1159HL47049-27 IAW MFG DWG NR 1159HL4704 REV. D. REMOVED AND REPLACED THE LANDING GEAR SELECTOR 1 DUMP VALVE PIN 1159SCH512-19. HYD SYS SERVICED & LEAK CHECKED AND ACFT RETURNED TO SERVICE.

CA091006001	LEAR	NUT	CRACKED
10/2/2009	35A	AN622896D	MLG ACTUATOR

(CAN) CREW NOTICED HYD FLUID ON THE SIDE OF FUSELAGE WILL REMOVING CARGO FROM AFT CARGO POD. INVESTIGATION OF THE ACFT FOUND A CRACKED BACK UP NUT ON THE LT MAIN GEAR ACTUATOR RETRACTION FITTING. BACK UP NUT REPLACED, SYS FLUID REPLENISHED AND GEAR SWINGS COMPLETED IAW AMM 12, 32.

CA091123005	LEAR	GARRTT	SKIN	CRACKED
11/20/2009	35A	TFE73122B		FUSELAGE

(CAN) DURING TROUBLESHOOTING OF AN UNRELATED DOOR SNAG, A CRACK WAS DISCOVERED ON THE

FUSELAGE SKIN STARTING AT THE LWR FWD CORNER OF MAIN ENTRY DOOR CUTOUT. USING A 10X LOUPE, THE CRACK WAS MEASURED AT 0.270". EDDY CURRENT AND FPI INSP CARRIED OUT WHICH DETERMINED CRACK TO BE 0.342" IN LENGTH. MFG WAS CONTACTED AND DREW A REPAIR SCHEME USING A 0.025" STAINLESS STEEL DOUBLER. REPAIR YET TO BE ACCOMPLISHED.

2009FA0000990	LEAR		VALVE	MISALIGNED
11/24/2009	35LEAR			OXYGEN SYSTEM

DURING THE ENROUTE CLIMB, PERFORMED THE 10,000 FOOT PORTION OF CLIMB CHECKLIST. WHEN TESTING THE O2 MASKS, DISCOVERED THAT NEITHER CREW O2 MASK HAD OXYGEN FLOW. DUE TO LOSS OF THE SUPPLEMENTAL OXYGEN SYS, ELECTED TO RETURN TO BASE. LANDED WITHOUT INCIDENT. UPON LANDING, THE O2 VALVE IN THE NOSE OF THE ACFT WAS EXAMINED AND FOUND TO BE SLIGHTLY OUT OF THE "ON" DETENT.

CA091123001	LEAR	GARRTT	HOSE	LEAKING
11/20/2009	36A	TFE73121C	2307006101	HYD SYSTEM

(CAN) UPON DESCENT, PILOTS NOTICED THE HYD PRESSURE WAS AT 0. THEY DECLARED AN EMERGENCY, EXTENDED GEAR USING EMERGENCY AIR BOTTLE AND MADE A SUCCESSFUL LANDING. THERE WAS ENOUGH BRAKING PRESSURE USING STANDBY HYD PUMP, EMERGENCY BRAKES WERE NOT USED. DURING INSP, IT WAS FOUND THAT AIRFRAME SIDE OF NOSE GEAR RETRACT HOSE, PN 2307006-101, WAS LOOSE, CAUSING THE LOSS OF HYD FLUID. HOSE WAS REMOVED AND INSPECTED, NO DEFECT WAS FOUND. HOSE WAS RE-INSTALLED AND TIGHTENED, LANDING GEAR SYSTEM BLED OF ALL AIR AND OPS CHECKS CARRIED OUT. THE GEAR WAS CYCLED MULTIPLE TIMES, GEAR POSITIONED IN THE UP AND DOWN POSITIONS FOR 2 HOURS EACH AT FULL HYD PRESSURE WITH NO INDICATION OF LEAKS. HYD SYS SERVICED, EMERGENCY AIR SERVICED AND ENG DRIVEN HYD PUMPS BLED AND OPS CHECKS CARRIED OUT SERVICEABLE. ACFT RETURNED TO SERVICE.

2009FA0000972	LEAR		MOUNT BRACKET	UNKNOWN
9/30/2009	60LEAR		2625031018	TE FLAP

WORK PERFORMED: 6,000 HR TIME CHANGE ON FLAP SECTORS AND SB 60-27-29 R2 INSTALLATION OF LT AND RT IMPROVED FLAP SECTOR MOUNTING BRACKETS. DURING RIGGING CHECKS OF FLAP SYS. FOUND SECTORS TO BE CONTACTING SPAR 8 ON BOTH WINGS. MM 27-50-00, PAGE 202 REQUIRES .030-.040" CLEARANCE BETWEEN SECTORS AND SPAR 8. CONTACTED MFG AND RECEIVED APPROVAL TO BLEND A MAX OF .040" FROM SECTORS TO OBTAIN PROPER CLEARANCES

2009FA0000971	LEAR		FLAP	OBSTRUCTED
9/30/2009	60LEAR		262503117	TE FLAPS

WORK PERFORMED: 6,000 HR TIME CHANGE ON FLAP SECTORS AND SB 60-27-29 R2 INSTALLATION OF LT AND RT IMPROVED FLAP SECTOR MOUNTING BRACKETS. DURING RIGGING CHECKS OF FLAP SYS. FOUND SECTORS TO BE CONTACTING SPAR 8 ON BOTH WINGS. MM 27-50-00, PAGE 202 REQUIRES .030-.040" CLEARANCE BETWEEN SECTORS AND SPAR 8. CONTACTED MFG AND RECEIVED APPROVAL TO BLEND A MAX OF .040" FROM SECTORS TO OBTAIN PROPER CLEARANCES.

CA091007007	LKHEED	ALLSN	BEAM	CRACKED
10/4/2009	382G	501D22A	331386961	MLG WW

(CAN) CRACK WAS FOUND ON VISUAL INSP OF MLG WHEEL WELL INTIAL REPORT CRACK LOOKED 2 INCHES LONG FUTHER INVESTIGATION SHOWED CRACK MIGRATING TO MLG TRACK. REMOVAL PROGRESS OF BEAM SHOWED CRACK ALMOST THROUGH THE BEAM (.200") OF MATERIAL NOT CRACKED.

2009FA0001032	MOONEY		NUT	LOOSE
9/30/2009	M20M		AN363428	MLG

DURING ANNUAL INSP THE ACFT WAS JACKED AND LANDING GEAR TESTED. EMERGENCY ESTENSION SYS TESTED. FOUND LOOSE NUT. FINGER TIGHT ONLY AT PULLEY WITHIN BELLY AREA FOR EMERGENCY EXTENSION SYSTEM PULL CABLE. ANA-7A BOLT, AN960-10L WASHER AND AN363-428 NUT. TORQUE AND ALSO FILLED OUT DEFECT REPORT. NO TOOL MARKS. THIS LOOKS TO ME TO BE A FACTORY OVERSIGHT BECAUSE THIS AREA IS VERY HARD TO SEE AND IT LOOKS LIKE IT WAS JUST FLAT OUT MISSED AT ACFT BUILD. NUT TIGHTENED. NO OTHER FAULTS NOTED. NO OPERATION PROBLEM.

CA091006002	MTSBSI	GARRTT	MOTOR	INTERMITTENT
10/2/2009	MU2B60	TPE33110	AA5C	MLG ACTUATOR

(CAN) AFTER TAKEOFF ON CLIMB OUT GEAR UNSAFE LIGHT WAS STILL ON. ACFT RETURNED TO AIRPORT AND LANDED UNEVENTFULLY. AFTER LANDING THE GEAR UNSAFE LIGHT WENT OUT. A FERRY FLIGHT WAS COMPLETED BACK TO BASE WITH GEAR DOWN. THE ACTUATOR/MOTOR FOR THE FWD GEAR DOORS WAS REPLACED.

2009FA0001019	PIAGIO	PWA	BLOWER	FAILED
11/4/2009	P180	PT6A66	JBS2752	

PILOT REPORTED RUBBNG SOUND AND ODOR OF BURNING ELECTRICAL COMPONENTS WITH COCKPIT FAN ON. FOUND FAN CASE PARTIALLY MELTED DUE TO OVERHEATING RESISTOR WHICH DETACHED FROM THE CASE. DAMAGES LIMITED TO THE BLOWER ASSY, NO FURTHER DAMAGES FOUND ON THE ACFT.

CA091118008	PILATS	PWA	DEICE SYSTEM	CRACKED
11/13/2009	PC1245	PT6A67B	5302412140	INTAKE

(CAN) BLACK EXAUST STAIN WAS OBSERVED IN THE INTAKE COWL. REMOVAL OF THE DEICE LIP REVEALED CRACKS ON THE BACK SIDE. DE-ICE LIP REPLACED WITH NEW.

5APR577Y18	PILATS	PWA	DRAG LINK	CRACKED
12/9/2009	PC1245	PT6A67B	5322012140	NLG

DURING A 100 HOUR INSP, WHILE PERFORMING AN ULTRASONIC NDT INSP OF THE NLG RT DRAG LINK PN 532.20.12.140 IAW AD 09-14-13 AND AMM 12-A-32-20-06-00A-313-A-A DETECTED A CRACK INDICATION IN THE PRESCRIBED NDT INSP AREA. REMOVED AND REPLACED DRAG LINK IAW WITH MM AND AD 09-14-13.

5APR577Y19	PILATS	PWA	BRAKE DISC	BROKEN
12/9/2009	PC1245	PT6A67B	244755	MLG

DURING A LINE CHECK DISCOVERED THE OTBD DISC OF THE LT BRAKE BROKEN INTO 2 PIECES. REMOVED AND REPLACED BRAKE ASSY IAW MM.

5APR577Y17	PILATS	BFGOODRICH	BRAKE DISC	BROKEN
11/22/2009	PC1247		244755	ZONE 700

DURING A 100 HOUR INSPECTION DISCOVED THE RIGHT MAIN LANDING GEAR BRAKE ASSEMBLY OUTBOARD DISC WAS BROKEN. REMOVED BRAKE ASSEMBLY AND REPLACED WITH AN OVERHAULED BRAKE ASSEMBLY IN ACCORDANCE WITH MANUFACTURERS MAINTENANCE INSTRUCTIONS.

5APR577Y15	PILATS	PWA	BFGOODRICH	BRAKE DISC	BROKEN
11/11/2009	PC1247	PT6A67B		244755	MLG

WHILE REMOVING THE LEFT MAIN WHEEL ASSEMBLY FOR A FLAT TIRE DURING AN INCIDENT IN BDR, DISCOVERED THE OUTBOARD BRAKE DISC WAS BROKEN. REMOVED BRAKE ASSEMBLY, SENT TO OVERHAUL AND REINSTALLED IN ACCORDANCE WITH MAINTENANCE MANUAL INSTRUCTIONS AFTER OVERHAUL.

5APR577Y16	PILATS	PWA	BFGOODRICH	BRAKE DISC	BROKEN
11/11/2009	PC1247	PT6A67B		244755	MLG

DURING A 100 HOUR INSPECTION DISCOVED THE RIGHT MAIN LANDING GEAR BRAKE OUTBOARD DISC WAS BROKEN. REPLACED RIGHT BRAKE ASSEMBLY WITH AN OVERHAULED BRAKE ASSEMBLY IN ACCORDANCE WITH MANUFACTURERS MAINTENANCE INSTRUCTIONS.

5APR577Y20	PILATS	PWA	BRAKE DISC	BROKEN
12/19/2009	PC1247	PT6A67B	244755	LT MAIN GEAR

DURING A LINE CHECK THE LT BRAKE OTBD DISC WAS DISCOVERED TO BE BROKEN INTO 2 PIECES. REMOVED AND REPLACED BRAKE ASSY IAW MM.

5APR577Y21	PILATS	PWA	BOOT	SPLIT

12/21/2009	PC1247	PT6A67B	27S7D522114	HS DE-ICE SYS

DURING FLIGHT, CREW REPORTED AN AIRFRAME DEICE BOOT CAWS ANNUNCIATION. UPON INVESTIGATION FOUND RT HORIZONTAL STABILIZER DEICE BOOT WAS SPLIT ALONG THE UPPER AFT CELL FWD SEEM, 58 INCHES IN LENGTH, STARTING AT THE INBD SIDE OF THE DEICE BOOT. PN 959.89.01.036, MFG PN 27S-7D5221-14, SN MALP810, REMOVED AND REPLACED DEICE BOOT IAW MM.

5APR577Y22	PILATS	PWA	BFGOODRICH	BRAKE DISC	BROKEN
12/26/2009	PC1247	PT6A67B		244755	MLG

DURING A 100 HOUR INSP, THE LT BRAKE OTBD DISC WAS DISCOVERED TO BE CRACKED. REMOVED AND REPLACED THE LT BRAKE ASSY IAW MFG INSTUCTIONS.

2009FA0000976	PIPER	LYC	CYLINDER	WORN
10/5/2009	PA12	O320A2B	AEL65102ST060	ENGINE

THIS ENG WAS O/H IN MAR 2007 AND CURRENTLY HAS 237.3 HRS SINCE O/H. THE MATERIAL AT LWR END OF THE INTAKE VALVE KEYS WORE AWAY ALLOWING THE UPPER VALVE SPRING SEAT TO MOVE TOO HIGH ON THE VALVE STEM. THIS CAUSED THE ROCKER ARM TIP TO WEAR ABNORMALLY RESULTING IN MOST OF THE ROCKER ARM TIP TO WEAR ABNORMALLY RESULTING IN MOST OF THE ROCKER ARM TIP WEARING AWAY OR BREAKING OFF. THE UPPER VALVE SPRING SEAT CONTINUED MOVING UP THE VALVE STEM UNTIL IT BEGAN TO MAKE CONTACT WITH THE NECK OF THE ROCKER ARM. THIS CAUSED THE SPRING SEAT TO TILT AT AN ANGLE, EVENTUALLY TILTING ENOUGH TO MAKE CONTACT WITH THE ROCKER COVER, WEARING A 1/2 INCH CUT THRU THE COVER. THE PILOT DID NOT NOTICE ANY ROUGHNESS IN THE ENGINE`S OPERATION. HE SAID THAT IT FELT LIKE THE ENGINE MIGHT HAVE BEEN A LITTLE UNDER POWERED AND NOT REACHING FULL RPM AT TAKEOFF. THE ENG NORMALLY DOESN`T MAKE FULL TAKEOFF RPM ON THE FIRST FLIGHT OF THE DAY IF IT HAS NOT HAD ENOUGH TIME TO WARM UP AND THE OIL IS STILL COOL. AS IT WAS A COOL DAY, HE ASSUMED THAT WAS THE CASE AND CONTINUED THE TAKEOFF. THE ENGINE RAN SMOOTHLY THROUGH OUT THE FLIGHT. UPON LANDING HE NOTICED AN OIL STREAK RUNNING ALONG THE SIDE OF THE ACFT. AFTER OPENING THE COWLING, HE FOUND THE CUT THAT THE UPPER VALVE SPRING SEAT HAD WORN THRU THE ROCKER COVER. BECAUSE THE ACFT WAS NOT AT LOCATION WHERE TOOLS AND SUPPLIES WERE AVAILABLE, DECIDED TO REPLACE THE ENTIRE CYLINDER ASSY. THE CYLINDER WAS RETURNED TO MFG FOR WARRANTY CONSIDERATION.

CA091105002	PIPER	LYC	CONTROL CABLE	FRAYED
11/2/2009	PA18150	O320A2B		AILERONS

(CAN) DURING AN INSP WHICH INCLUDED REMOVING THE FLOOR, THE AME NOTICED A SHINY SPOT ON THE RT AILERON CABLE WHERE IT PASSES A PULLY AND MEETS THE FUSELAGE. UPON FURTHER INVESTIGATION IT WAS EVIDENT THAT THE CABLE WAS FRAYED. THERE WERE SEVERAL BROKEN STRANDS OF WIRE. THE CABLE WAS REMOVED, AND NEW CABLES WERE ORDERED FOR INSTALLATION ON BOTH SIDES.

CA091117001	PIPER	LYC	CONDUIT	WORN
11/8/2009	PA24250	O540A1D5	455180	RT MAIN GEAR

(CAN) RT MAIN RETACTION PUSH PULL CONDUIT AT LANDING GEAR END WAS WORN BETWEEN INNER AND OUTER SLEEVES. SEPARATION OF THE SLEEVES DID NOT ALLOW THE GEAR TO EXTEND FULLY DOWN AND CAUSED ACFT TO VEER ONE WAY UPON LANDING.

CA091109003	PIPER	LYC	STRUCTURE	CRACKED
11/9/2009	PA24250	O540A1D5		STABILATOR

(CAN) AN INSP WAS CARRIED OUT ON THE STABILATOR HORN DUE TO REPORTS OF CRACKING ON OTHER ACFT. NO CRACKS WERE VISIBLE FROM THE OUTSIDE, AND IT WAS NECESSARY TO REMOVE STABILATOR TORQUE TUBE PN20203-02 FROM HORN IN ORDER TO CHECK FOR CRACKS INSIDE HORN. THIS REQUIRES REMOVAL OF 2 STABILATOR HALVES, AND REMOVAL OF TORQUE TUBE AND HORN ASSY FROM ACFT. CRACKS WERE NOT EASILY VISIBLE, BUT UPON CLOSE EXAMINATION WITH MAGNIFYING GLASS, AND LATER, WITH DYE PENETRANT, A CRACK WAS FOUND RUNNING FROM EACH ATTACH THRU BOLT HOLE TO THE BALANCE TUBE HOLE ON THE FWD SIDE OF THE HORN. IT IS A CAST ALUMINUM PART. OTHER SIMILAR CRACKS HAVE BEEN FOUND ON OTHER ACFT AND HAVE BEEN ATTRIBUTED TO STRESS CORROSION CRACKING.

CA091119006	PIPER	LYC	HOUSING	BROKEN

11/19/2009	PA24260	IO540D4A5		MAGNETO

(CAN) ENG WAS RECEIVED FOR PROP STRIKE INSP. MAG WAS INSPECTED AND 4 OUT OF THE 5 HSG SCREWS WERE MISSING. MAG WAS DISASSEMBLED AND ONE OF 3 ALIGNMENT TABS IN THE DISTRIBUTOR HSG WAS BROKEN OFF. THIS CAUSED HSGS TO SHUFFLE AND LOOSEN SCREWS. SPOT WHERE THE TAB USED TO BE APPEARED TO HAVE BEEN GLASS BEADED AND ALODINED ALONG WITH THE REST OF HSG AT O/H. BROKEN PIECE WAS NOT FOUND IN THE MAG AT ALL. ALSO THE WRONG PN OF MAG DRIVE HAD BEEN INSTALLED AND IN ORDER TO TIME THE MAG THE INSTALLER HAD FILED THE MOUNTING SLOTS LONGER ON THE MAGNETO HSG TO ALLOW FOR MORE MOVEMENT IN ADJUSTING THE MAG TO ENG TIMING. SINCE BOTH HSGS WERE DAMAGED, MAG WAS FOUND TO BE BEYOND ECONOMIC REPAIR AND EXCHANGED.

2009FA0001061	PIPER	LYC	TUBE	CUT
4/21/2009	PA28161	O320*	600X6	TIRE

TIRE WENT FLAT ON A NORMAL LANDING. TUBE LEAKING AROUND THE STEM.

2009FA0001058	PIPER	LYC	TUBE	CUT
4/23/2009	PA28161	O320*	500X5	TIRE

TIRE WENT FLAT AS THE PLANE WAS PARKED. TIRE OK. TUBE LEAKING ON OUTER SIDEWALL.

2009FA0001056	PIPER	LYC	TUBE	PINCHED
7/23/2009	PA28161	O320*	600X6	TIRE

TIRE WENT FLAT ON RAMP. TIRE OK. TUBE PINCHED ON OUTER SIDEWALL.

2009FA0001055	PIPER	LYC	TUBE	PINCHED
2/26/2009	PA28161	O320*	500X5	TIRE

PINCHED TUBE. TIME WENT FLAT ON RAMP.

2009FA0001057	PIPER	LYC	TUBE	PINCHED
9/14/2009	PA28161	O320*	600X6	TIRE

TIRE WENT FLAT ON A NORMAL LANDING. TIRE IS FINE, BUT WAS CHANGED. TUBE LEAKING ON OUTER SIDEWALL.

2009FA0001053	PIPER	LYC	TUBE	CUT
6/17/2009	PA28161	O320*	600X6	TIRE

TIRE WENT FLAT ON RAMP (PARKED). TIRE OK. INNER TUBE CUT ON OUTER SIDEWALL.

2009FA0001054	PIPER	LYC	TUBE	CUT
11/17/2009	PA28161	O320*	500X5	TIRE

TIRE WENT FLAT ON LANDING. TIRE IS FINE. TUBE LEAKING ON INNER SIDEWALL. (K)

2009FA0001060	PIPER	LYC	TUBE	LEAKING
11/30/2009	PA28161	O320*	500X5	TIRE

TUBE HAS SEVERAL SMALL PIN HOLES. WENT FLAT ON RAMP.

2009FA0001052	PIPER	LYC	TUBE	CUT
7/15/2009	PA28161	O320*	600X6	TIRE

TIRE WENT FLAT AS THE PLANE TAXIED OUT FOR TAKEOFF. TIRE OK. TUBE LEAKING ON OUTER SIDEWALL. (K)

CA091114001	PIPER	LYC	PISTON	CRACKED
11/4/2009	PA28161	O360A4M	SL75089	ENGINE

(CAN) DURING AN ANNUAL INSP, VALVE COVERS WERE REMOVED TO INSPECT VALVE GUIDE WEAR, NR 3 AND NR 4 EXH VALVE GUIDES WERE WORN, NR 3 BEING THE WORST, WAS REMOVED FIRST. ON REMOVAL OF NR 3 CYL, NR 3 PISTON WAS DISCOVERED CRACKED AND MISSING A PIECE AT THE RT UPPER PISTON BOSS ON THE SKIRT.

AFTER INSP OF THE PISTON, ALL CYLINDERS WERE REMOVED AND NR 2 PISTON WAS FOUND CRACKED IN THE SAME LOCATION. ALL PISTONS AND CYLINDERS WERE REPLACED WITH NEW UNITS.

2009FA0000979	PIPER		SUPPORT	CRACKED
10/5/2009	PA28181		96819000	SEAT BACK

PILOT AND COPILOT SEAT BACK SUPPORTS (ITEMS 50 AND 50A, FIG 34, PG 1F14 OF PIPER PN 761-898) WERE FOUND CRACKED AT SEAT CLIP (ITEM 52) DURING 100 HR INSP. IT IS SUSPECTED THAT THE CAUSE OF THE DEFECT IS INDIVIDUALS LEANING AGAINST THE SEAT BACKS TO AID IN ENTRY TO THE COCKPIT, CAUSING THE SEAT CLIPS (ITEM 52) TO CRACK IN HALF AND OVER TIME, THE SUPPORTS (ITEMS 50 AND 50A) TO BEGIN CRACKING. IT IS RECOMMENDED THAT DOUBLERS BE INSTALLED ON THE SUPPORTS, AT THE AFFECTED AREA USING .040" 2024T3 ALUMINUM SHEET, 8 EA MS20470AD4-4 RIVETS, AND 4 EA CR3243-4-4 CHERRY RIVETS TO INSTALL SEAT CLIP OVER NEW DOUBLER. (K)

2009FA0001036	PIPER		WHEEL	WORN
12/11/2009	PA28181		600X6	MLG

ALL ACFT RANGE FROM 1500 HRS TT TO 4000 HRS TT. HAVE NOW HAD TO START REPLACING WHEEL ASSY`S ON MANY ACFT DUE TO THE TIRES WEARING A GROOVE INTO THE OUTER RIM OF THE WHEEL HALF.

CA090921006	PIPER	LYC	CYLINDER	BROKEN
9/12/2009	PA28181	O360A4M	AEL65102	ENGINE

(CAN) THIS PN OF CYL ALREADY HAS AN AD AGAINST IT (AD 2008-19-05) THIS CYLINDER IS S/N NOT APPLICABLE ACCORDING TO THE AD. THE CYLINDER HEAD POPPED RIGHT OFF OF THE CYLINDER IN NORMAL CRUISE CONDITIONS. THIS INCIDENT LOOKS A LOT LIKE WHAT IS DESCRIBED IN THE AD BUT THE CYLINDER, S/N IS 1933, SN BEYOND APPLICABILITY IN THE AD.

2009FA0000989	PIPER		SPAR	CRACKED
11/24/2009	PA28235			ZONE 500

IN THE PROCESS OF PERFORMING AN ANNUAL INSP, A FATIGUE CRACK INDICATION WAS DETECTED ON LT WING IN THE UPPER MAIN SPAR WEB JUST BELOW THE SPAR CAP RUNNING SPANWISE THE ENTIRE LENGTH OF THE EXTRUDED SPAR. REMOVAL OF LT MAIN TANK EASED INSP OF FULL LENGTH OF SPAR. A LOGBOOK REVIEW SHOWED NO PREVIOUS DAMAGE REPORTS OR REPAIRS TO THIS WING.

ZB0R20090002	PIPER		SWITCH	SHORTED
11/23/2009	PA28R200		761039	CONTROL WHEEL

FOUND ELECTRIC TRIM INOPERATIVE. TROUBLESHOT SYS AND FOUND SHORTED WIRING AT TRIM THUMB SWITCH ON CONTROL WHEEL. REPAIRED WIRING AND OPS CK OK.

2009FA0001059	PIPER	LYC	TUBE	CUT
11/5/2009	PA28R201	IO360A1C	500X5	TIRE

TIRE WENT FLAT ON "PUSH BACK". TIRE WAS OK BUT CHANGED. TUBE LEAKIN ON SIDEWALL NEAR STEM. (K)

2009FA0001039	PIPER	LYC	DRAG LINK	BROKEN
12/13/2009	PA28RT201	IO360A1A	7642603	NLG

UPON DESCENT, HAD NO NOSE GEAR DOWN INDICATION. APPARENTLY CYCLED GEAR SEVERAL TIMES AND USED THE EMERGENCY DROP PROCEDURES. ASKED TOWER FOR A VISUAL OF ALL 3 GEARS. LANDED WITH NO GEAR COLLAPSE. UPON INSP OF NOSE GEAR, FOUND DRAG LINK ASSY REAR RT LEG BROKE IN HALF JUST UNDER THE ACTUATOR ATTACHMENT BLOCK. PN 76426-03.

2009FA0001065	PIPER	LYC	SHAFT	SHEARED
11/23/2009	PA31310	LTIO540J2B		FUEL

ENGINE DRIVEN FUEL PUMP FAILURE. PUMP FAILED WITH 106.7 HRS ON IT. (K)

2009FA0001064	PIPER	LYC	SHAFT	SHEARED
11/23/2009	PA31310	LTIO540J2BD		FUEL PUMP

ENGINE DRIVEN FUEL PUMP FAILURE. PUMP FAILED WITH 77.7 HRS ON IT.

2009FA0001066	PIPER	LYC		SHAFT	SHEARED
11/23/2009	PA31310	TIO540J2B			FUEL PUMP

ENGINE DRIVEN FUEL PUMP FAILURE. PUMP FAILED WITH 39.7 HRS ON IT. (K)

CA091102007	PIPER	LYC		STARTER	INTERMITTENT
10/22/2009	PA31325	LTIO540J2BD		MHB4014R	ENGINE

(CAN) STARTER, INTERMITTENT CRANKING.

CA091023002	PIPER	LYC	BENDIX	POINTS	GROUNDED
10/23/2009	PA31350	LTIO540J2BD		10400184	MAGNETO

(CAN) DUAL MAG WAS SENT IN DUE TO TIMING ISSUES AND A 500 HOUR INSP. CUSTOMER CHECKED TIMING ON ENGINE & NOTICED MAG HAD A LARGE SPLIT BETWEEN OPENING OF LT AND RT MAIN POINTS. WHEN RECEIVED, TIMING CHECKED AND LT MAIN & RETARD POINTS WERE INDICATING THAT THEY WERE OPENING AT THE SAME TIME (11 DEGREES AFTER THE RT MAIN POINTS OPENED, WHICH IS THE NORMAL TIMING FOR THE RETARD POINTS). THE LT MAIN POINTS WERE VISUALLY OPENING BEFORE THIS AND WAS NOTICED THE FLAG TERMINAL OF THE COIL THAT ATTACHES TO THE POINTS WAS TOUCHING THE RETARD SPRING TERMINAL, GROUNDING IT UNTIL THE RETARD POINTS OPENED, GIVING THE INDICATION THAT THE LT MAIN POINTS WEREN`T OPENING UNTIL 11 DEGREES LATER. TCM CHANGED THE DESIGN OF THE FLAG TERMINALS A FEW YEARS AGO AND THE DUAL MAGS ARE THE ONLY MAGS THAT HAVE THIS ISSUE DUE TO THE CLOSE PROXIMITY OF THE LT MAIN AND RETARD POINT CONNECTIONS. BENDING THE POINTS SPADE TERMINAL SLIGHTLY AWAY FROM THE RETARD SPRING TERMINAL SOLVED THE ISSUE AND THE REST OF THE 500 HOUR INSPECTION WAS CARRIED OUT. (TC 20091023002)

CA091109005	PIPER	LYC		STUD	SHEARED
11/6/2009	PA31350	LTIO540J2BD			NR 4 CYLINDER

(CAN) WHILE IN THE CRUISE PORTION OF FLIGHT, DETECTED A SLIGHT VIBRATION, YAWING OF ACFT AND DROP IN MANIFOLD PRESSURE ON RT ENG. AFTER INCREASING PROP RPM TO HELP REMOVE SUSPECTED PROP ICING THEY WERE UNABLE TO MAINTAIN MANIFOLD PRESSURE WHICH RESULTED IN AN IN-FLIGHT SHUTDOWN OF RT ENG WHILE APPROACHING DESTINATION. A SUCCESSFUL SINGLE ENG LANDING WAS COMPLETED AND AIRPLANE WAS TOWED INTO HANGAR. IT APPEARS RT ENG DAMAGED THE FOLLOWING, NR 4 CYL RETAINING STUDS HAD ALL SHEARED NR4 CYL HAD DETACHED FROM THE CRANKCASE, ONE NR 4 CONNECTING ROD BOLT HAD SHEARED AND THE CONNECTING ROD HAD DETACHED FROM THE CRANKSHAFT ASSOCIATED NR 4 INLET TUBE, VALVE PUSH ROD TUBES AND EXHAUST PIPE HAD ALL DETACHED FROM ENG ONE CAM FOLLOWER HAD DROPPED INTO COWLING INTERNAL STRUCTURE OF CRANKCASE WERE BADLY DAMAGED AND FRACTURED NR3 CYL BASE WAS DISTORTED/FRACTURED CRANKSHAFT NR4 BRG SURFACE HAS IMPACT DAMAGE. CYL HAD DETACHED FROM THE CRANKCASE AND THEN PISTON HAD BEEN PULLED FROM THE CYL ON DOWN STROKE. PISTON DROPPED AND THE SKIRT LEFT WITNESS MARKS IN CRANKCASE WHERE IT HAD JAMMED. THIS SUDDEN STOPPAGE OF PISTON RESULTED IN FAILURE OF A CONNECTING ROD BOLT WHICH ALLOWED THE CAP TO OPEN AND FREE CONNECTING ROD FROM THE CRANKSHAFT. DURING THIS TIME OPPOSITE CYL (NR3) WAS HIT WITHIN THE CRANKCASE, DISTORTING THE BASE OF CYL SO IT COULD NOT BE REMOVED ON STRIP DOWN.

CA091008003	PIPER	LYC		BRACKET	CRACKED
10/5/2009	PA31350	TIO540J2BD		40616002	RT MLG UPLOCK

(CAN) PILOTS REPORT LANDING GEAR RED UNSAFE LIGHT STAYS ON OCCASIONALLY AFTER GEAR RETRACTION AND RECYCLE. MX INSP FOUND RT MLG UPLOCK HOOK AFT SUPPORT BRACKET PN 40616-002 CRACKED. CRACK EXTENDED 1" FROM INBD EDGE OF BRACKET TOWARDS OTBD EDGE OF BRACKET, ALONG AND JUST ABOVE THE UPLOCK HOOK PIVOT BOLT HOLE RADIUS. THIS ALLOWS UPLOCK HOOK ENOUGH PLAY AND MOVEMENT TO MISS MLG UPLOCK ROLLER DURING RETRACTION. SUPPORT BRACKET WAS REPLACED AND LG SWING CHECKED OPS NOW NORMAL.

CA091102001	PIPER	LYC		TRANSMITTER	FAILED
10/28/2009	PA32260	O540E4B5		6810102	FUEL FLOAT

(CAN) THE FLOAT, WHICH IS ATTACHED TO THE WIPER ARM OF THE FUEL SENDER, HAD DETERIORATED TO THE

POINT OF FALLING OFF OF THE ARM.

CA091008002	PIPER	LYC	CLEVELANDPNU	BOLT	SHEARED
10/7/2009	PA34200	IO360C1E6		AN536A	MLG WHEEL

(CAN) WHILE TOWING THE ACFT, GROUND CREW NOTICED AN ABNORMAL SOUND COMMING FROM THE LT MAIN WHEEL. UPON INSP BY MX STAFF, THE LT WHEEL WAS FOUND TO HAVE 2 OUT OF 3 WHEEL-HALF BOLTS BROKEN. BOLTS WERE SHEARED AT THE HEAD. WHEEL ASSY WAS REMOVED. GEAR LEG AND AXLE INSPECTED, NO FAULTS FOUND. WHEEL ASSY REPLACED WITH BUILT UP SERVICEABLE ASSY. RT WHEEL REMOVED AND DISASSEMBLED TO INSPECT BOLT CONDITION, NO FURTHER FAULTS FOUND.

CA090112006	PIPER	LYC		STUD	BROKEN
1/9/2009	PA34200	LIO360C1E6			CRANKCASE

(CAN) ON ROUTINE INSP, NR 4 CYL UPPER CTR HOLD DOWN STUD WAS FOUND SNAPPED OFF. THE CYL WAS REMOVED AND A WASHER WAS FOUND IN BETWEEN CYL AND CRANKCASE. THIS CAUSED CYL TO BE ON SLIGHTLY ANGLED CAUSING STRESS ON THE HOLD DOWN STUDS CAUSING ONE TO BREAK. ENGINE WAS REMOVED FOR INSP AND OR REPAIR. CRANK CASE HAD DAMAGE WHERE THE WASHER CONTACTED THE CASE. CYLINDERS HAD NOT BEEN REMOVED SINCE LAST O/H. ABOUT 1550 AIRTIME HOURS AGO.

CA091027003	PIPER	CONT	CONT	COUPLING	FAILED
9/30/2009	PA34200T	LTSIO360EB		635796	ALTERNATOR DRIVE

(CAN) ON FINAL APROACH FOR LANDING IN IFR CONDITIONS, THE PILOT LOST ALL ELECTRICAL POWER. PILOT INITIATED A "GO AROUND" AND LANDED AT A VFR AIRPORT NEARBY. (TC 20091027003)

2009FA0000964	PIPER			BOLT	UNDERTORQUED
11/19/2009	PA44180				MLG

DURING SCHEDULED INSP, THE STARBOARD MLG FITTING ATTACH BOLTS WERE FOUND UNDER-TORQUED. UPON REMOVAL OF FITTING FOR HIDDEN DAMAGE INSP THE WING SPAR WEB AND THE MATING FACE OF THE GEAR FITTING SHOWED EVIDENCE OF FRETTING CORROSION AROUND MOUNTING HOLES. CORROSION PITS WERE FOUND TO BE .012 ON SPAR. SPAR CURRENTLY UNDER EVALUATION FOR REPAIR, FITTING IS SCRAP.

2009FA0000965	PIPER			THROTTLE CABLE	FROZEN
11/19/2009	PA44180			554546	RT ENGINE

DURING CRUISE FLIGHT CREW DISCOVERED RT THROTTLE STUCK. ACFT RETURNED TO BASE LANDED WITH OUT INCIDENT. UPON DISASSEMBLE THE THROTTLE CABLE WAS FOUND TO BE FROZEN AT THE ENG SIDE BETWEEN SHAFT AND THE PROTECTIVE SHEATH. THIS HAS HAPPENED ON OTHER ACFT OPERATED BY THIS FLIGHT SCHOOL AND HAS BEEN REPORTED TO THE MFG.

2009FA0001040	PIPER			BRAKE CABLE	MISINSTALLED
12/14/2009	PA44180			653620	COCKPIT

CO-PILOTS LT RUDDER PEDAL BECAME WEDGED BEHIND THE EMERGENCY BRAKE CABLE, AND PILOT WAS UNABLE TO TAXI THE ACFT.

2009FA0001007	PIPER			DOWNLOCK SWITCH	BROKEN
10/26/2009	PA44180			89291003	MLG

LT MLG WIRING HARNESS WIRES ON DOWNLOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0001008	PIPER			WIRE HARNESS	BROKEN
10/10/2009	PA44180				DOWNLOCK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWNLOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0001003	PIPER			WIRE HARNESS	BROKEN

11/11/2009	PA44180			DOWNLOCK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWNLOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0001001	PIPER	PIPER	WIRE HARNESS	BROKEN
11/10/2009	PA44180			DOWNLOCK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWN LOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0001002	PIPER	PIPER	WIRE HARNESS	BROKEN
4/7/2009	PA44180			DOWNLOCK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWN LOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0000999	PIPER	PIPER	WIRE HARNESS	BROKEN
10/17/2009	PA44180			MLG DWNLK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWN LOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0000996	PIPER	PIPER	WIRE HARNESS	BROKEN
12/1/2009	PA44180			DOWNLOCK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWN LOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0000997	PIPER	PIPER	WIRE HARNESS	BROKEN
12/1/2009	PA44180			DOWNLOCK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWN LOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0001004	PIPER	PIPER	WIRE HARNESS	BROKEN
8/8/2009	PA44180			DOWNLOCK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWN LOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0001005	PIPER	PIPER	WIRE HARNESS	BROKEN
10/28/2009	PA44180			DOWNLOCK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWN LOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0001000	PIPER	PIPER	WIRE HARNESS	BROKEN
5/23/2009	PA44180			DOWNLOCK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWN LOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0001009	PIPER	PIPER	WIRE HARNESS	BROKEN
7/21/2009	PA44180			DOWNLOCK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWN LOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF UNSAFE GEAR.

2009FA0000998	PIPER		WIRE	BROKEN
12/1/2009	PA44180			DOWNLOCK SWITCH

LT MLG WIRING HARNESS WIRES ON DOWNLOCK SWITCH BROKE AT SWITCH CAUSING AN INDICATION OF

UNSAFE GEAR.

2009FA0001023	PIPER	LYC	CONTROL CABLE	FROZEN
11/30/2009	PA44180	LO360A1H6	554298	MIXTURE

DURING ENGINE SHUTDOWN, PILOT COULD NOT MOVE RT MIXTURE CONTROL. UPON FUTHER INSP, CONTROL WAS FOUND TO BE FROZEN. THIS OPERATOR HAS HAD OTHER ENGINE CONTROLS FREEZE ON SAME TYPE OF ACFT. MFG HAS BEEN NOTIFIED OF THIS PROBLEM.

CA091005013	PIPER	LYC	BOLT	CORRODED
10/2/2009	PA44180	LO360A1H6	761891AN440A	TRUNNION

(CAN) DURING A SCHEDULED REBUILD OF THE LANDING GEAR, THE LT GEAR TRUNNION WAS REMOVED FROM THE ACFT. THE RETAINING BOLT HOLDING THE AFT PIN INTO THE TRUNNION WAS FOUND TO BE CORRODED AND TWISTED. BOLT IS MISSING MATERIAL FROM THE HEAD FOR ABOUT A 1/4 INCH DOWN THE SHANK. THE BOLT WAS REPLACED AS PART OF THE REBUILD. IPC FIGURE 25 ITEM NR50.

CA091110005	PIPER	LYC	TURNBUCKLE	LOOSE
11/9/2009	PA44180	LO360A1H6		RUDDER CONTROL

(CAN) CHANGE OF OAT (MUCH COOLER OPERATING TEMPERATURES) CAUSED THE RUDDER TRIM CONTROL CABLES TO BE SLACK ENOUGH TO ALLOW TURNBUCKLE TO CONTACT BULKHEAD. BULKHEAD PROTECTION STRIP WAS FOUND TO BE LOCATED TO ONE SIDE OF AFFECTED AREA. AFTER INSP TO DETERMINE CAUSE OF INCIDENT - CABLE TENSION WAS INCREASED FROM 9 LBS - MIN ALLOWABLE - TO 11 LBS - MAX ALLOWABLE AND THE PROTECTION STRIP WAS REPOSITIONED SO AS TO PREVENT FUTURE POSSIBILITY OF REOCCURANCE.

CA091028009	PIPER	LYC	ELT	MALFUNCTIONED
10/28/2009	PA44180	LO360A1H6	ELT1104	

(CAN) ATC REPORTED AN ELT ACTIVATED IN THE AREA. THE AIRCRAFT WAS CHECKED AND THE ELT WAS FOUND TO BE ACTIVATED. THE PILOTS REPORTED THAT THEY HAD NOT NOTICED THE INDICATOR LIGHT WAS ON FOR THE ELT WHEN THEY SHUT DOWN. THE ELT WAS REMOVED FOR INSPECTION AND TO RECERTIFY IT. A SERVICABLE ELT WAS INSTALLED AND TESTED. (TC 20091028009)

CA091030003	PIPER	LYC	CRANKCASE	CRACKED
4/8/2009	PA44180	LO360E1A6	0360E1A6D	ENGINE

(CAN) DURING PRE-FLIGHT INSP, PILOT DISCOVERED OIL BEING SPRAYED UNDER THE OIL SERVICE DOOR IN THE TOP COWLING. MX REMOVED COWLING AND NO VISUAL CLUES SUGGESTED WHERE OIL MIGHT BE SPRAYING FROM. ENG CRANKCASE PRESSURED AND AIR WAS HEARD HISSING FROM THE FRONT OF THE ENG. A LARGE CRACK WAS FOUND PROBAGATING FROM A NR 3 CYL STUD TO THE CENTER LINE OF THE CRANKCASE. ENG SHOP CONFIRMED THIS TO BE A COMMON AREA ON THIS MODEL ENG. CRANKCASE WAS REPLACED.

2009FA0001041	PIPER	LYC	BRAKE CABLE	MISINSTALLED
12/14/2009	PA44180	O360A1H6	653620	CABIN

CO-PILOTS LT RUDDER PEDAL BECAME WEDGED BEHIND THE EMERGENCY BRAKE CABLE, AND PILOT WAS UNABLE TO TAXI THE ACFT.

2009FA0001042	PIPER	LYC	JANITROL	PRESSURE SWITCH	STUCK
12/15/2009	PA44180	O360A1H6	B2500		HEATER

AFTER THE CREW TURNED ON THE HEATER, IT OPERATED NORMALLY FOR A FEW MINUTES UNTIL SMOKE WAS OBSERVED COMING FROM THE COMBUSTION AIR INTAKE. INVESTIGATION REVEALED THE COMBUSTION AIR PRESSURE SWITCH STUCK CLOSED AND THE COMBUSTION BLOWER FAILED SUBSEQUENTLY CAUSING A HEATER FIRE OUT OF THE COMBUSTION BLOWER INTAKE.

CA091008005	PROPJT	PWC	TRIM TAB	CRACKED
9/30/2009	200A	PW306A	4AS5820103501	RUDDER

(CAN) THIS WAS FILED ON SEPT 30/2009. DID NOT GET ANY CONFORMATION RESUBMITTED OCT 8TH 2009. CRACK ON FWD AND AFT ENDS OF RUDDER TRIM TAB LWR ROD, FROM ACTUATOR BELLCRANK TO RUDDER TRIM TAB.

THIS WAS FOUND DURING SCHEDULE MX ON THE ACFT WHILE CARRYING OUT (A) 300 HR CHECK. THE MFG WAS NOTIFIED. THE PART WAS ORDERED AND REPLACED BEFORE THE ACFT WAS RETURNED TO SERVICE.

CA091002006	RAYTHN	WILINT	LINE	LEAKING
9/30/2009	390	FJ442A	A91941	LT ENGINE FUEL

(CAN) PILOT NOTED FUEL LEAKING OUT OF LT ENG LWR COWLING DURING WALKAROUND INSP. REMOVED COWLING, CLEANED FUEL RESIDUE FROM LT ENG ASSY, THEN ACFT GROUND RUN FOR LEAK CHECK. DURING LEAK CHECK THE AME OBSERVED A STEADY, HIGH PRESSURE FUEL SPRAY EMANATING FROM THE FUEL LINE THAT ATTACHES FROM THE ENG PYLON TO THE HYDROMECHANICAL UNIT. THE FUEL SPRAY WAS CONTACTING THE BACK OF ONE OF THE ENGINE IGNITERS. THE ENGINE WAS SHUTDOWN WITHOUT INCIDENT. THE FUEL LINE WAS REPLACED. THE UNSERVICEABLE FUEL LINE DID NOT SHOW ANY SIGNS OF WEAR AND HAD NOT CONTACTED ANY OTHER PARTS. NO CAUSE FOR THE FUEL LINE FAILURE COULD BE DETERMINED.

2009FA0001028	RAYTHN		DRAG LINK	MISINSTALLED
12/10/2009	C90GT		9081004012	MLG

DURING A PHASE 1 - 4 INSPECTION. FOUND THE LT & RT MLG DRAG BRACE, DOWN LOCK SPRING UPPER ATTACH POINT HARDWARE POSSIBLY INCORRECTLY INSTALLED. COULD NOT VERIFY CORRECT SPRING ATTACH HARDWARE WITH THE IPC OR COMPONENT MM. CONTACTED TECH SUPPORT AND VERIFIED HARDWARE CORRECT BUT IMPROPERLY INSTALLED.

2009FA0001048	RAYTHN	GARRTT	BEARING	FAILED
11/30/2009	HAWKER900XP	TFE731*	3587591	NR 4

S.O.A.P. SAMPLE REVEALED A TRACE OF CARBON STEAL, ALUMINUM AND GRIT (CARBON/GRIT) WITH MAJOR AMOUNTS OF M50 WITH SHINY PLATELETS. THE FILTER WEIGHT WAS 7,806 MGS. THE ENGINE WAS DISASSEMBLED IAW THE CURRENT MM AS REQUIRED TO ACCESS ALL BEARINGS. DISASSEMBLY FINDINGS REVEALED HEAVY SPALLING WITH MATERIAL LOSS ON THE NR 4 ROLER BRG, WITH DISCOLORATION IN THE FORM OF "BLUEING" AS WELL AS A FRACTURED ROLLER CAGE. A MATERIAL ANALYSIS WAS COMPLETED BY MFG PROJECT ENGINEERING WITH FINDINGS INCONCLUSIVE. (K)

CA091013009	ROBSIN	LYC	RESERVOIR	VENTING
9/30/2009	R44	O540F1B5	D2111	HYD SYSTEM

(CAN) HYD OIL CONTINUOUSLY VENTING OUT OF THE RESERVOIR THROUGH THE FILLER CAP LOSING APROX HALF OF THE SIGHT GLASS EVERY 50 HOURS OF OPERATION.

CA091014003	ROBSIN	LYC	GEAR	WORN
10/8/2009	R44RAVENII	IO540AE1A5		MAGNETO

(CAN) UNABLE TO TIME ENG, OUT OF ADJUSTMENT RANGE, MAIN POINTS EXCESSIVELY WORN DOWN, GEAR TEETH WORN, LACK OF GREASE. DISTRIBUTOR HSG IS THE WRONG PN, HSG IS FOR A -9 MAGNETO, IT HAS A 25 STAMPED INTO IT AND SHOULD BE A 30. MAGNETO WAS OVERHAULED.

CA091028011	ROBSIN	LYC	HOUSING	CRACKED
10/16/2009	R44RAVENII	IO540AE1A5		STARTER

(CAN) STARTER HOUSING FOUND CRACKED (TC 20091028011)

CA091027010	ROBSIN	LYC	ENGINE	MAKING METAL
10/16/2009	R44RAVENII	IO540AE1A5		

(CAN) DURING ACCOMPLISHMENT OF SB 480E, LARGE AMOUNTS ON NON-FERROUS METAL FLAKES AND FILINGS FOUND IN OIL FILTER AND SUMP SUCTION SCREEN. CYLINDER ASSEMBLIES WERE ALL REMOVED, BUT ENGINEERS WERE UNABLE TO DETERMINE CAUSE/SOURCE OF METAL GENERATION. A FLUSH OF THE OIL SYSTEM WAS CARRIED OUT, AND THE SYSTEM REPLENISHED. A SECOND GROUND RUN WAS CARRIED OUT, WITH NO ABNORMAL SOUNDS OR NOISES OBSERVED. THE OIL WAS AGAIN DROPPED AND THE FILTERS INSPECTED, WITH SMALLER AMOUNTS OF METAL FOUND. AGAIN, DRAINED AND FLUSHED THE OIL SYSTEM AND CARRIED OUT A 3RD GROUND RUN. UPON LOADING UP THE AIRCRAFT AND PULLING POWER, A VERY HIGH

FREQUENCY WHIRR/WHINE WAS OBSERVED, SO THE AIRCRAFT WAS SHUT DOWN. OPENING UP THE FILTER AND SCREEN, THERE WAS LITTLE METAL CONTAMINATION FOUND, BUT AS THE ORIGIN OF THE METAL COULD NOT BE DETERMINED OR THE CAUSE OF THE HIGH FREQUENCY WHINE DETERMINED, THE AIRCRAFT HAS BEEN GROUNDED, AND THE ENGINE WILL BE GETTING SHIPPED OUT FOR INVESTIGATION/OVERHAUL. FURTHER INFORMATION REGARDING THIS ENGINE WILL BE PROVIDED ONCE THE REPORT IS RECIEVED FROM THE OVERHUAL FACILITY. (TC 20091027010)

CA091030005	ROBSIN	LYC	LEAD	CHAFED
10/30/2009	R44RAVENII	IO540AE1A5		MAGNETO TACH

(CAN) ON DISASSEMBLY FOR O/H, FOUND TACH LEAD CHAFING ON THE OPPOSITE SPADE TERMINAL FOR THE TACH POINTS, EVEN THOUGH THE LEADS WERE ROUTED IAW SB663A.

CA091008001	ROBSIN	LYC	PUMP	LEAKING
10/1/2009	R44RAVENII	IO540AE1A5	LW15473	FUEL SYS

(CAN) FUEL PUMP LEAKING OIL. SERVICABLE FUEL PUMP INSTALLED.

CA091115001	ROBSIN	LYC	STARTER	DAMAGED
11/15/2009	R44RAVENII	IO540AE1A5	14924HTH	ENGINE

(CAN) DURING ENGINE START, STARTER WOULD NOT ENGAGE THE FLYWHEEL. STARTER WAS REPLACED WITH SERVICEABLE UNIT. NEW STARTER FUCTION TESTED, NO DEFECTS FOUND.

CA091118014	ROBSIN	LYC	MAGNETO	LEAKING
11/5/2009	R44RAVENII	IO540AE1A5	BL6006189	ENGINE

(CAN) MAGNETO LEAKING FROM CASE.

CA091122001	ROBSIN	LYC	PUMP	SHORTED
11/21/2009	R44RAVENII	IO540AE1A5	D8187B	AUX FUEL

(CAN) AUX FUEL LIGHT TURNED ON IN FLIGHT. TROUBLESHOOTING FOUND THAT AUX FUEL PUMP WOULD NOT OPERATE. AUX FUEL PUMP REPLACED WITH SERVICEABLE UNIT AND TESTED. NO DEFECT FOUND.

2009FA0001069	ROBSIN	LYC	LYC	INTAKE VALVE	BROKEN
12/18/2009	R44RAVENII	IO540AE1A5	IO540AE1A5	LW13622	ENG

IN CRUISE FLIGHT EXPERIENCED HIGH MANIFOLD PRESSURE AND ROUGH ENG OPERATION, WHICH LED TO A AUTO-ROTATION LANDING ON A PUBLIC STREET SHORT OF THE AIRPORT. ENG REMOVED FROM ACFT, DISASSEMBLED, FOUND NR 4 INTAKE VALVE MISSING. HEAD BROKE OFF THE VALVE KEEPER END WHICH LET THE REMAINDER OF INTAKE VALVE TO DROP INTO THE COMBUSTION CHAMBER WHICH BROKE THE VALVE INTO SEVERAL PIECES WHICH WERE FOUND IN THE INTAKE SUMP AND ADJACENT CYLINDERS. VALVE KEEPERS SHOWED SIGNS OF WEAR. INTAKE VALVE INSP ON THE REMAINING CYLINDERS SHOWED ROLLED METAL ON THE VALVE KEEPER AREA TO THE POINT THAT THE INTAKE VALVE WOULD NOT PASS THROUGH THE INTAKE GUIDE. POSSIBLE CAUSE FOR VALVE KEEPER WEAR WOULD BE AN ENG OVERSPEED CONDITION. SUGGEST INCORPORATING INTAKE VALVE AND VALVE KEEPER INSP TO BE CONDUCTED AT THE SAME TIME SB 388C INSP OF THE EXHAUST VALVE IS CONDUCTED.

2009FA0000960	SKRSKY	GE	FUEL CONTROL	CONTAMINATED
11/18/2009	S61N	CT581401	7257255	ENGINE

A CT-58 FUEL CONTROL UNIT (FCU) PN 725725-5 SN 29172)) , STATOR VANE ACTUATOR (SVA) PN 4004T63G10 SN KTR4579BR)) , AND PILOT VALVE (PV) PN 6028T23G01 SN KTR3098BR)) WERE DELIVERED BY THE NTSB AND CARRIER FOR INSPECTION. INITIAL DISASSEMBLY OF THE FCU, SVA, AND PV SHOWED CONTAMINATION FROM AN UNKNOWN EXTERNAL SOURCE (WHICH MAY STILL BE PRESENT ON IN-SERVICE AIRCRAFT) AND POSSIBLE CONTAMINATION FROM THE CENTRIFICAL FUEL PURIFIER (WHICH WAS NOT DELIVERED WITH THE UNIT FOR EXAMINATION). DISASSEMBLY OF THE UNIT REVEALED THAT THE MAIN FUEL CONTROL FILTER HAD ALSO BEEN REMOVED PRIOR TO DELIVERY TO CHI HOWEVER THERE WAS ONE SMALL METALLIC NON-MAGNETIC SLIVER OF DEBRIS FOUND IN THE MAIN FUEL CONTROL FILTER HOUSING. OUR INITIAL EVALUATION AND DISASSEMBLY OF THESE UNITS REVELED NO EVIDENCE OF MECHANICAL FAILURE OR IMPROPER ASSEMBLY.

CHIR0297	SKRSKY	GE	FCU	CONTAMINATED
11/20/2009	S61N	CT581401	7257255	ENGINE

ON 11/18/09 OUR REPAIR STATION PERFORMED AN INSPECTION ON A FUEL CONTROL P/N 7257255, PILOT VALVE P/N 6028T23G01, THAT WERE IN AN FAR135.415 SERVICE DIFFICULTY REPORT CONTROL NUMBER CA090820007, INCIDENT DATE 8/16/09, REPORT DATE 10/23/2009 6:57:53 AM. OUR INITIAL INSPECTION REVEALED THIS FCU WAS CONTAMINATED FROM AN EXTERNAL SOURCE (MOST LIKELY CAME FROM FUEL PURIFIER WHICH WAS NOT PROVIDED FOR INSPECTION).THERE WERE NO MECHANICAL IRREGULARITIES, OR SIGNS OF IMPROPER ASSEMBLY.

CA091021015	SNIAS	TMECA	PRESSURE SWITCH	INOPERATIVE
10/19/2009	AS350B1	ARRIEL1D1	MA12401	HYDRAULIC SYS

(CAN) A/C HAD JUST CLEARED CONTROL ZONE , WHEN THE HYDRAULIC HORN AND HYDR. LIGHT ACTIVATED, HYD ISOLATION SWITCHED OFF PROCEEDED BACK TO BASE [6 MILES] LANDED WITH HYDRAULICS OFF, WITHOUT INCIDENT. MAINTENANCE CARRIED OUT. TROUBLE SHOOTING, FOUND TO BE AN INDICATION PROBLEM ONLY. THE PRESSURE SWITCH P/N MA124-01 REMOVED (DATE OF MANUFACTURE OF FAILED PRESSURE SWITCH WAS APRIL 2009) AND A SERVICEABLE SWITCH WAS INSTALLED. A/C WAS GROUND RUN, LEAK CHECKED AND HYDR. SYSTEM TESTED. A/C RETURNED TO SERVICE. THIS WAS A CADORS (TC# 20091021015)

2009FA0001031	SNIAS		SKIN	CHAFED
8/13/2009	AS350B2		350A230000XX	TAILBOOM

MULTIPLE AREAS OF DAMAGE INSIDE TAILBOOM AT STATION 15. CAUSED BY UNSECURED ELECTRICAL HARNESS.

CA091116011	SNIAS	TMECA	TURBINE BLADES	DEFORMED
11/10/2009	AS350B2	ARRIEL1D1	229225A1L0	ENGINE

(CAN) THE ENG WAS REMOVED AND INSP WAS BEING CARRIED OUT. DURING THE BOROSCOPE INSP OF THE 1 STAGE TURBINE BLADES A DEFECT WAS FOUND, LOCATED ON THE SURFACE COATING SWELLING BUT RATHER APPEARS THAT THE BLADE STRUCTURE IS DEFORMED ON THE PLATFORM OR NEAR THE ROOT. ONE PARTICULAR BLADE PLATFORM CRACKED. WE TRIED TO TAKE A PICTURE BUT THE PICTURES DID NOT COME OUT. THE MO2 AND MO3 WILL BE SENT TO VECTOR FOR REPAIRS.

CA091015006	SWRNGN	GARRTT	WINDSHIELD	CRACKED
10/14/2009	SA226TC	TPE33110UA	2719442004	COCKPIT

(CAN) A LOUD THUD WAS HEARD AND THE CREW NOTICED THE COPILOTS WINDOW WAS SHATTERED. THEY DECENDED AND ASKED FOR PRIORITY HANDLING, BUT DID NOT DECLARE AN EMERGENCY. THEY NOTICED IT WAS THE OUTER PAIN OF GLASS, THEY LANDED UNEVENTFULLY 20 MIN LATER. MX HAS SINCE REPLACED THE WINDOW. THE FAILURE OF THIS WINDOW IS NOT UNCOMMON AND HAS BEEN OCCURING FOR SEVERAL YEARS. THE MFG OF THE WINDOW IS AWARE OF THE PROBLEM.

2009FA0000962	SWRNGN		ATTACH FITTING	BROKEN
11/18/2009	SA227*		2731264013	LT WING

DURING SCHEDULED ROUTINE INSP OF THE LT WING ATTACH FITTINGS, CLIP PN 27-31264-013 WAS FOUND CRACKED/BROKEN VERTICALLY THROUGH AT BOTH CORNERS. CLIP WAS IN 3 PIECES WHEN REMOVED.

2009FA0000963	SWRNGN		ATTACH FITTING	BROKEN
11/18/2009	SA227*		2731264013	ZONE 500

DURING SCHEDULED ROUTINE INSP OF THE LT WING ATTACH FITTINGS, CLIP PN 27-31264-013 WAS FOUND CRACKED/BROKEN VERTICALLY THROUGH AT BOTH CORNERS. CLIP WAS IN 3 PIECES WHEN REMOVED.

CA091110011	SWRNGN	GARRTT	LINE	CHAFED
11/5/2009	SA227*	TPE33112UHR	27810322511	HYDRAULIC SYS

(CAN) FLIGHT CREW DECLARED AN EMERGENCY DUE TO HYD FAILURE. RT HYD PRESS LIGHT ILLUMINATED AND HYD PRESSURE GAUGE READ O PSI MX FOUND THE RT HYD BYPASS RIGID LINE RUPTURED DUE TO CHAFING.

UPON FURTHER INVESTIGATION THE RT PRESSURE LINE WAS DISCOVERED TO BE CHAFING BUT NOT RUPTURED. BOTH LINES WERE REPLACED TO RETURN THE ACFT TO SERVICE.

CA091005003	SWRNGN	GARRTT	SWITCH	INTERMITTENT
10/4/2009	SA227AC	TPE33111U	1EN516	NOSE GEAR

(CAN) PILOT REPORTED THAT HE HAD A RED IN TRANSIT ON THE SELECTION OF GEAR DOWN. FLIGHT CREW DID 5 GEAR SWINGS AND ON THE LAST GEAR SWING THE IN TRANSIT LIGHT WENT OUT. THIS ACCOMPANIED BY THE FACT THAT THE FLIGHT CREW COULD SEE THE GEAR SWING UP AND DOWN IN THE PROP SPINNERS, ACFT LANDED WITHOUT INCIDENT. MX DID MULTIPLE GEAR SWINGS AND COULD NOT DUPLICATE THE SNAG.

CA091113001	UNIVAR	FRNKLN	TUBE	CORRODED
10/25/2009	1082	6A4165B3		FUSELAGE

(CAN) TUBING RUSTED OUT AFT FITTING.

CA091027007	UROCOP	TMECA	FUEL CONTROL	LEAKING
10/27/2009	EC120B	ARRIU2F	0319878010	ENGINE

(CAN) DURING DAILY INSPECTION FUEL WAS NOTICED IN ENGINE BAY AREA. FUEL BOOST PUMP WAS TURNED ON TO SEE WHERE LEAK WAS COMING FROM, FUEL WAS NOTICED DRIPPING FROM THE FRONT OF THE F.C.U. TURBOMECA FIELD REP WAS CALLED AND SAW THE LEAK AND ADVISED TO BE REMOVED AND SENT TO REPAIR FACILITY. (TC# 20091027007)

2009FA0001035	UROCOP		QUILL ASSY	CORRODED
6/23/2009	EC135P1			TRANSMISSION

COMPLETED INSPECTION OF INPUT QUILL PINION, FOUND PITTING BEYOND LIMITS. REMOVD MAIN TRANSMISSION FROM SERVICE.

CA091001001	ZLIN	LYC	CABLE	FRAYED
9/30/2009	Z242L	AEIO360A1B6	Z14244130000	ELEVATOR TRIM

(CAN) THE FWD ELEVATOR TRIM CABLE WAS OBSERVED FRAYED DURING A 500 HOUR INSPECTION.

CA091001002	ZLIN	LYC	CABLE	FRAYED
9/28/2009	Z242L	AEIO360A1B6	Z14242260100	RUDDER

(CAN) BOTH RUDDER CABLES WERE OBSERVED FRAYED DURING A 500 HR INSP. BOTH CABLES WERE FRAYED IN AN AREA AROUND A PULLEY.

CA090922002	ZLIN	LYC	GEAR	LOOSE
9/22/2009	Z242L	AEIO360A1B6	K3822	MAGNETO

(CAN) THE DISTRIBUTOR BLOCK GEAR FINGER WAS FOUND LOOSE DURING MX ON THE MAGNETO.

CA091028006	ZLIN	LYC	WHEEL	CRACKED
10/28/2009	Z242L	AEIO360A1B6	K2231007	MLG

(CAN) A CRACK WAS IDENTIFIED ON THE OUTER EDGE OF THE WHEEL RIM RUNNING CIRCUMFERENTIALLY APPROX. 5 CM (TC 20091028006)

CA091112003	ZLIN	LYC	SPRING	BROKEN
11/11/2009	Z242L	AEIO360A1B6	Z4242170001	STEERING SYS

(CAN) THE RT STEERING SPRING BROKE DURING TAXI FOLLOWING A FLIGHT.