ADVISORY CIRCULAR
43-16A

AVIATION MAINTENANCE ALERTS

ALERT NUMBER 340

SAFETY IS NURTURED BY MAINTENANCE & CARE

NOVEMBER 2006
CONTENTS

AIRPLANES

CESSNA ......................................................................................................................................1
GULFSTREAM ...........................................................................................................................5
LANCAIR ....................................................................................................................................5
LEARJET .....................................................................................................................................7
MOONEY ....................................................................................................................................8
PIAGGIO ...................................................................................................................................11
PIPER .........................................................................................................................................11
ROCKWELL .............................................................................................................................12

HELICOPTERS

AUGUSTA ................................................................................................................................13
BELL..........................................................................................................................................13
KAMAN ....................................................................................................................................15
ROBINSON ...............................................................................................................................17

POWERPLANTS

CFM ...........................................................................................................................................19
CONTINENTAL .......................................................................................................................21
HONEYWELL ..........................................................................................................................22
LYCOMING ..............................................................................................................................22
ROLLS ROYCE ........................................................................................................................24

AIR NOTES

ELECTRONIC VERSION OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT .........25
PAPER COPY OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT .......................26
INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE ........................................26
IF YOU WANT TO CONTACT US .........................................................................................27
AVIATION SERVICE DIFFICULTY REPORTS ....................................................................27
The Aviation Maintenance Alerts provide a common communication channel through which the aviation community can economically interchange service experience, cooperating in the improvement of aeronautical product durability, reliability, and safety. This publication is prepared from information submitted by those who operate and maintain civil aeronautical products. The contents include items that have been reported as significant, but have not been evaluated fully by the time the material went to press. As additional facts such as cause and corrective action are identified, the data will be published in subsequent issues of the Alerts. This procedure gives Alerts’ readers prompt notice of conditions reported via a Mechanical Reliability Report (MRR), a Malfunction or Defect Report (M or D), or a Service Difficulty Report (SDR). Your comments and suggestions for improvement are always welcome. 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

Cessna: 182; Broken Nose Gear Lockdown Pins; ATA 3230

A repair station technician describes the mechanical defect leading to this aircraft’s accident. “The lockdown pins broke at the groove for the roll pins. This allowed the (lockdown pins) to move out of the actuator bearing’s end to jam the actuator in the unlocked position. (See the attached parts manual illustration.) Cessna service bulletin SEB95-20 Actuator Downlock Pin Inspection says to check for loose pins. These pins were not (noticeably) loose in the end bearing until the part was thoroughly cleaned.” (New assemblies are referenced: they use a retaining key which passes through the lockdown pin—eliminating the need for a roll pin groove.) The submitter ends with the suggestion that older style actuators still in use be removed, cleaned, and checked for integrity (P/N 1280514-9).
pins broke at groove. allowed pins to move in and contact no. 11 jam lock nut (collar). This would not let down lock (pins 20 & 25) to engage to lock down pins.

Figure 105. Nose Gear Actuator Assembly

Part Total Time: 6,406.0 hours.
Cessna: 560; Cracked Threshold Frame; ATA 5344

A repair station technician describes what has become a routine discrepancy on this Cessna jet. “The cabin entry threshold (was found) cracked at the aft step attach bolt hole. The probable cause (may be) a combination of the bolt hole having been located in the radius of the frame (P/N 5511249-14S) and the material thickness not sufficient to support the weight of personnel entering or exiting the aircraft. I recommend strengthening the structure by using thicker metal.” He notes approximately 75 percent of these model 560 aircraft are found with cracks in this threshold part.
Part Total Time: 8,377.9 hours.
GULFSTREAM

Gulfstream: GIV; Defective Elect. Connector on Fuel Valve; ATA 4930

The submitter states, “The auxiliary power unit would not start. Troubleshooting led the technician to a bad fuel shutoff solenoid valve (P/N 34270-4140245-9). After removing the valve it was found not to have an alignment pin for the Cannon Plug, and (its electrically connecting) pins were badly twisted. This Cannon Plug did have (an alignment pin) groove, (however), there was no indication at all (like a painted line or stripe...) to indicate proper alignment of this plug to the valve’s connection. The loss of the alignment pin not only prevents the twisting of the pins—it also acts to correctly connect (align) the valve electrically. APU maintenance records indicate this part was original from installation.... a new valve was purchased with the correct alignment pin and installed—operational check was satisfactory.”

LANCAIR

Lancair: LC41; Cracked Oil Pressure Union; ATA 7931

An AN911-1J union supplying oil to the oil pressure transducer and Hobbs pressure switch was found cracked. It is located in back of the aircraft’s Continental TSIO 550C5 engine at the base of the oil cooler. The mechanic states, “...(this union) was (initially) cracked at the pipe threads, and then broke in process of removing the part. The weight of the (combined) fittings attached to the union (hanging out as far as they are) and the vibration of the engine may have caused the union to crack at the pipe threads. The hardness of the stainless steel union could also have been part of the problem.

“This aircraft was scheduled to fly from Salem, Oregon to Olatha, Kansas that day, but the oil leak was noticed and investigated before the flight. (It otherwise...) would have ended with catastrophic failure of the engine due to oil loss.
“The *(short-term solution)* might be as simple as changing the union material from stainless steel—to steel or brass. The permanent solution may be to remotely mount the transducer and Hobbs switch ‘T’ fitting on the firewall or engine mount, and then *(route)* a flexible hose from the engine fitting to the ‘T’ fitting at its mounting point.”
LEARJET

Learjet: 35; Failed Air Data Computer; ATA 3417

A technician for a repair station states, “On February 2 the pilot’s altimeter, the altitude alerter, and the primary transponder (mode C) all failed. The over speed warning horn activated continuously. The AZ-252 Air Data Computer was found to be defective and was replaced. The system was then tested and inspected per Weststar ICA and found to comply with CFR Part 91.411; Part 43, and to remain RVSM compliant (reduced vertical separation minimums). There has been one prior report of a problem with this system in September 2005. At that time the reported malfunction was not verified after extensive ground testing. The aircraft was returned to service.” (ADC part number: 7024900-31304. See next entry.)

Part Total Time: (unknown).

Learjet: 35; Failed Air Data Computer; ATA 3417

(This is the same airplane and technician as in the previous report, but 6 days forward in time.)

“On February 8th the pilot’s altimeter froze at 5,000 feet and the IVSI (vertical speed indication) froze at 3,000 feet per minute climb rate. The aircraft was enroute to PHL (a facility in Philadelphia). Upon testing of the number one system at PHL, no defect was noted. All functions of the ADC were found to operating normally per
WestStar ICA and to comply with the requirements of CFR 91.411. Due to the nature of the reported failure and the previous failure on this aircraft (ref. previous entry), it was determined the ADC should be replaced. After replacement of the AZ-252 ADC the number one system was retested per CFR 91.411 and the WestStar ICA and found to meet or exceed all requirements. The aircraft remains RVSM compliant and was returned to service.”

(ADC part number: 7024900-31304. See next entry.)

Part Total Time: (unknown).

Learjet: 35; Failed Air Data Computer; ATA 3417

(The technician of the previous two discrepancies provides a third report on the same model ADC, but different airplane.)

“During taxi-out from its facility in Dallas last February, (this aircraft’s…) over speed warning activated and the pilot’s altimeter and altitudealer flagged. The crew aborted the departure and returned to the ramp.

“The ADC was found to be defective and was replaced. The system was tested and inspected per Weststar ICA and found to comply with CFR Part 91.411, Part 43, and the aircraft remains RVSM compliant. There has been one prior report of a problem with this system in May of 2005.” (ADC part number: 024900-31304. (A search of the FAA Service Difficulty Reporting System data base revealed 8 similar reports on this part number.)

Part Total Time: (unknown).

MOONEY

Mooney: M20C; Collapsed Nose Gear; ATA 3230

A submitter writes, “The nose gear (on this airplane) collapsed upon landing. An initial inspection found both tubes on the nose gear leg assembly broken (P/N 540004). The retract mechanism’s tubes were bent. (I am…) unable to determine which components were damaged prior to the incident. The pilot reported the landing gear was harder than normal to retract during the last take off and easier than normal to extend during this landing.”
(A search of the FAA Service Difficulty Reporting System data base revealed 5 separate reports for this leg-assembly part number--one back to 1974!)

Part Total Time: (unknown).
PIAGGIO

Piaggio: P-180; Cracked Trim Tab Attach Lug; ATA 2721

An unidentified writer states, “On post-maintenance walk-around, inspection found the rudder trim tab lower control rod attach lug radially cracked. The cause is unknown. No other damage or defects were noted.” *(Trim tab attach lug part number given as 80-483205-801.)*

Part Total Time: 923.0 hours.

PIPER

Piper: PA44-180; Failed Drag Link Bolt; ATA 3230

A general manager for this repair station writes, “The nose gear collapsed upon touchdown. *(There was...) a light cross wind, dry pavement, and a short approach to a normal landing. The instructor stated the mains touched first then the nose. Touch down was evaluated by the instructor as firm, but not hard.

“There are two components clearly damaged in the nose gear retract/extend system. Without disassembling the linkage and performing a more detailed investigation, the visual evidence indicates the bolt connecting the upper drag link to the lower drag link failed due to a possible overload condition. (The fractured end of the bolt is bright and shiny—with no indications of corrosion part way through—indicating an instantaneous failure, not a slowly progressing failure.) One half of that bolt, washer, nut, and cotter pin is still inserted in the joint *(bolt P/N’s: NAS 464P4-27 or Piper P/N 402-940).*

“The other clearly damaged component is the bolt that the down lock hook engages (P/N 400-444). That bolt is bent in such a way as to indicate it was damaged as a result of the nose gear collapse. After the upper and lower drag link assemblies have been removed they will be sent to Piper Aircraft for further inspection and analysis. Total time in service for the drag link assembly (including the bolt that failed) is 921 tachometer hours or 1197 Hobbs hours. An evaluation of the training curriculum indicates the gear cycles could be between 2500 and 3000 cycles.”

*(A search of the FAA Service Difficulty Reporting System data base revealed 11 reports for the above Piper part number.)*

Part Total Time: 1197.0 hours.
ROCKWELL

Rockwell: 112A; Incorrect Roll Servo Rigging; ATA 2215

A repair station technician states, “The Century 2000 roll servo was installed and rigged incorrectly: the set was not tight on the bridle cable pin and the bridle cable was wrapped on the capstan incorrectly. This incorrect installation, in conjunction with the loose set screw, allowed the bridle cable locating pin to pull out of the servo capstan. The locating pin locked the ailerons at full deflection against the capstan guard. This condition occurred on the ground. In flight this condition would very likely result in an accident. I recommend the Century 2000 roll servo installations be inspected for proper installation and rigging. This condition (defect) has been corrected on this aircraft by installing and rigging the roll servo IAW Century Flight Document AK 1056.” (No part number was provided with this discrepancy.)

Part Total Time: (unknown).
HELICOPTERS

AUGUSTA

Augusta: AB139; Damaged Main Blade Bolt; ATA 6210

“Upon receipt of the aircraft (for maintenance),” says the technician, “the main rotor blades were removed for inspection. It was discovered one blade bolt (P/N 3G6220A00251) has a radial gouge mark at the lower blade-to-hub bushing location. The damage is outside of the permitted repair limits. The aircraft total time is approximately 58.4 hours. All of the blade bolts were previously changed approximately 8.5 hours prior to coming to (our repair station). Note: there are also typographical errors in the Agusta maintenance manual (see the millimeter-to-inches conversion in figure 2—not provided here): ‘Maximum Damage and Repair Depths.’ The figure calls out (mm/in) as 0.02/0.0080—it should be 0.0008.” (Good catch! Two hundredths of a millimeter equals eight ten thousandths of an inch, not eight thousandths.)

Part Total Time: 8.5 hours.

BELL

Bell: 206B; Failed Tachometer Drive Coupling; ATA 6340

(The following is a composite of three similar defect reports from the same repair station technician describing three separate aircraft.)

“The hydraulic pump’s tachometer drive coupling (brazed welding) failed, causing the coupling to separate from the drive gear shaft. When this coupling fails, loss of rotor tachometer occurs. The manufacturer should check the strength of the braze after welding.”

(A search of the FAA Service Difficulty Reporting System data base revealed four reports of coupling part number given as 5001908—separate total times are 106.3, 46.3, and 196.0 hours.)
Part(s) Total Time: 116.2 hours (average of three).

KAMAN

Kaman; H43A; Cracked Rotor Shaft; ATA 6230

A repair station technician states, “During magnetic particle inspection, this shaft (P/N K774612-21) was found cracked at the upper end, where the rotor hub attaches to the shaft. The crack is approximately one inch long and located in the lower radius of the rectangle cutout. See the attached pictures.”
(These are very dramatic photos—thank-you for the effort—Ed.)

Part Total Time: (unknown).

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**ROBINSON**

Robinson: R-22 Beta; Broken Oil Filter Adapter; ATA 8550

“While changing an oil filter during a routine 100 hour inspection,” states a mechanic, “the oil filter adapter’s center (threaded) shaft broke off, leaving half the shaft inside the adapter, and the other half threaded into the oil filter. This occurred with minimal rotational torque being applied. Inspection of the shaft revealed the machined center section of the shaft at the sheer point was machined too deep, leaving only a maximum wall thickness of 0.20, and probably much less at the sheer line judging by the knife edge condition of the break point. The cause appears to be a manufacturing defect due to design or poor quality control. Recommendation: (there should be...) further investigation at the manufacturing level (and/or) a possible Airworthiness Directive if other units currently in service have the same defect condition.” *(The adapter’s P/N is 50001-1, manufactured by Aviation Development Corporation.)*
Part Total Time: 1,004.5 hours.
POWERPLANTS

CFM

CFM: 56-3B2; Fuel Drain Tube Fretting; ATA 7240

A repair station technician describes damage found on this engine which had been removed from a Boeing 737. “...Fretting damage was found in three locations on the number three position fuel nozzle drain tube (P/N 9387M34G01; Illustrated Parts Catalog 72-41-00-06 figure 30). The deepest...(fretting damage measured 0.016 inch). The root cause of the fretting has been determined (to be) contact with rivets on the deflector assembly (P/N 332A1908-39).” “It was noted the position of the number 3 fuel nozzle drain tube was protruding further from the case than the remaining installed drain tubes. Further investigation established the position of the fuel nozzle outer cap can be adjusted, (which then allows...) the position of the fuel drain to be altered. GE Wales has made a recommendation to CFMI that an amendment to the manual should be put in place to eliminate the possibility of a re-occurrence. The recommendation is to check (during) module assembly for (1) that the fuel drain tubes are not protruding past the fuel nozzles, and (2) also to check that there is sufficient clearance when fitting the deflector assembly post test. This (defect) occurrence could also be prevented through the application of Service Bulletin 73-116 which calls for the deletion of the drain manifold and associated drain tubes.”
Part Total Time: (unknown).
CONTINENTAL

Continental: TSIO 520NB; Cracked ECI Cylinders; ATA 8530

An unknown submitter writes, “418.6 hours (have passed) since compliance with AD2004-08-10 on (this aircraft’s) ECI cylinders (P/N TISN71.2BCA-221). The left engine’s number two...and the right engine’s number four cylinders were both found cracked through, from the upper plug hole to the exhaust valve. Both cylinders have identical cracks on relatively new heads.”

(This picture is vertically compressed...a lot!)

Part Total Time: 418.6 hours.
**HONEYWELL**

Honeywell: RE100LJ; Broken APU Igniter Plug Shields; ATA 4940

*(A submitter provides identical discrepancies on the same APU types, but two different Lear 45 aircraft.)*

“The part of an igniter plug that surrounds the electrode separates—and shorts against the electrode, causing the APU not to start. This part could possibly enter the combustion area of the APU.” *(Igniter plug P/N: 304634-2; manufacturer number: CH34549. Part times were 489.2 and 792.24 hours, respectively.)*

![Image of igniter plug](image)

Part Total Time: 640.72 hours *(average of two...).*

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**LYCOMING**

Lycoming: IO360-A3B6D; Spun Accessory Drive Bushing; ATA 8540

A repair station submission provides this defect discrepancy that was discovered during an annual inspection. “An aluminum bushing that was located in the accessory case—where the magneto drive gear is located—had become loose in the case, and spun. *(This problem was noticed...) because we were not able to install the magneto correctly.... *(At times, the impulse coupling would not engage.)* We found that during the last overhaul the accessory case had been sent out to ECI. *(Conversations with the technician who performed the teardown stated installation of an aluminum bushing is an approved repair...) and if done correctly, there would have been a drilled hole in the bushing for lubrication. But there was no hole, thus not allowing for any lubrication to the bushing area. This allowed for excessive wear and part failure. We recommend *(...eliminating the aluminum bushing repair, leaving the only other approved alternative...) which is by *(...welding a new boss and drilling a new hole).”*
(No part numbers were provided with this discrepancy.)

Part Total Time: 932.0 hours.

**ROLLS ROYCE**

**Rolls Royce: 250C2OB; Broken Snap-ring Groove; ATA 7250**

*(This engine is coupled to an MD/H 500D helicopter.)*

A repair station submitter writes, “During replacement of the SAG shaft it was discovered the outer land of the snap ring groove was very thin and the inner edge was lifting—two 3/8 inch pieces came off the land when the snap ring was removed *(impeller P/N: 6876873)*. The groove for the snap ring seems to be of normal dimensions.”
(A single inquiry to an outside source having a great deal of experience with these engines indicates--this defect is really a maintenance practice error. Those who have faced similar mechanical operations can easily deduce the series of actions which may have led to the breaking of the snapring flange. Nonetheless, whoever has to pay for this expensive part might vote for a few thousandths of an inch more support for an obvious design vulnerability. A search of the FAA Service Difficulty Reporting System data base for the above part number revealed six reports since 1988.)

Part Total Time: 289.9 hours.

AIR NOTES

ELECTRONIC VERSION OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT

One of the recent improvements to the Flight Standards Service Aviation Information Internet web site is the inclusion of FAA Form 8010-4, Malfunction or Defect Report. This web site is still under construction and further changes will be made; however, the site is now active, usable, and contains a great deal of information.

Various electronic versions of this form have been used in the past; however, this new electronic version is more user friendly and replaces all other versions. You can complete the form online and submit the information electronically. The form is used for all aircraft except certificated air carriers who are provided a different electronic form. The Internet address is: http://av-info.faa.gov/sdrx

When the page opens, select “M or D Submission Form” and, when complete, use the “Add Service Difficulty Report” button at the top left to send the form. Many of you have inquired about this service. It is now available, and we encourage everyone to use this format when submitting aviation, service-related information.
PAPER COPY OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT

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/faq8010-4.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.

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) data base 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, Mechanical Reliability Reports (MRRs), 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/.

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 data base 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:

John Jackson  
Service Difficulty Reporting System, Program Manager  
Aviation Data Systems Branch, AFS-620  
P.O. Box 25082  
Oklahoma City, OK 73125  
Telephone: (405) 954-6486  
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:  

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AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports submitted for the previous month, which have been entered into the FAA Service Difficulty Reporting (SDR) System data base. 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.
### 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.

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<td>LIFE RAFT HAD A PARACHUTE CORD TIED AROUND THE INFLATABLE PORTION OF THE LIFE RAFT, WHICH WOULD HAVE CAUSED THE LIFE RAFT TO STRANGLE AND THE LIFE RAFT WOULD HAVE FAILED TO DEPLOY.</td>
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<td>POROSITY IN CRANKCASE NOSE SECTION ON THE RT SIDE BY THE OIL GALLEY PLUG. LEAKS OIL, MFG HAS BEEN NOTIFIED. (K)</td>
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<td>GEARBOX</td>
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<td>ENGINE RECEIVED FOR REPORTED METAL IN OIL. UPON DISASSEMBLY, FOUND BEARING PN: 18118 (FAA-PMA REPLACEMENT PN: 3103585-1) INSTALLED IN ACCESSORY GEAR ASSY PN: 3103598-1 HAD FAILED, CAUSING MULTIPLE ACCESSORY GEAR DAMAGE AND METAL CONTAMINATION IN GEARBOX / OIL SYSTEM.</td>
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<td>8/19/2006</td>
<td>O320E2D</td>
<td>Engine was dismantled due to metal contamination. We discovered the rear surface of the bearing was peeling away. Probable causes of this bearing failure are unknown.</td>
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<td>PT6A27</td>
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<td>9/30/2006</td>
<td>2158</td>
<td>Lt engine fire indication in decent during approach phase of flight. Shut engine down. Inspection of the fire detection system and detectors proved to have no issues, could not duplicate on ground run.</td>
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8/25/2006  ATR42300  PW120  308419030  MLG
(CAN) ON DEPARTURE A PIECE OF TIRE WAS FOUND ON THE RUNWAY. THE AIRCRAFT CARRIED OUT A NORMAL LANDING WITHOUT FURTHER INCIDENT. MAINTENANCE REPLACED NR 1 AND 2 MAIN WHEEL ASSYS, AND THE LT MAIN GEAR DOOR DUE TO DAMAGE FROM THE DEPARTED TREAD SEGMENT (APPROX. 12 INCH X 3 INCH) BEFORE RETURNING THE AIRCRAFT TO SERVICE. (TC NR 20060829003)

CA060905011  AEROSP  PWA  ENGINE  FAILED  
7/31/2006  ATR72  PW121
(CAN) DURING CLIMB THE ENGINE Emitted A LOUD NOISE. THE ENGINE WAS SHUT DOWN IN FLIGHT AND THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED METAL DEBRIS IN THE EXHAUST AND SEIZURE OF THE PROPELLER. MFG WILL MONITOR INVESTIGATION OF THE EVENT AND WILL ADVISE OF ROOT CAUSE ONCE ESTABLISHED. (TC NR 20060905011)

CA060905015  AEROSP  PWA  SWITCH  FAILED  
6/18/2006  ATR72  PW124B  311221801  P2 AIR
(CAN) DURING APPROACH, SMOKE WAS REPORTED IN THE CABIN AIR AND ENGINE CABIN BLEED WAS SELECTED OFF. SUBSEQUENT INSPECTION REVEALED DAMAGED P2.5 AIR SWITCHING VALVE COMPONENTS ON BOTH ENGINES (124335 AND 124297). (TC NR 2006090905015)

CA060906025  AEROSP  PWA  AUTOFEATHER SYS  FAULTY  
8/2/2006  ATR72  PW127  311809101  PROPELLER
(CAN) ON APPROACH THE PROPELLER FEATHERED UNCOMMANDED AND THE ENGINE WAS SHUTDOWN IN FLIGHT. SUBSEQUENT INVESTIGATION REVEALED A FAULTY AUTO FEATHER UNIT. (TC NR 2006090906025)

CA060822002  AIRBUS  GE  WHEEL  CRACKED  
8/18/2006  A310  CF680C2*  C201950001  MLG
(CAN) DURING THE AIRCRAFT PUSHBACK, IT WAS NOTED ON THE ECAM THAT NR 8 MAIN WHEEL WAS LOOSING PRESSURE. AFTER RETURNING TO THE GATE, IT WAS CONFIRMED USING A REGULAR TIRE PRESSURE GAUGE THAT THE PRESSURE WAS DROPPING. USING LEAK DETECTOR FLUID, IT WAS DETERMINED TO BE LEAKING FROM A CRACK BETWEEN TWO TIE BOLTS IN THE OUTER HUB SECTION. WHEEL WAS REPLACED AND ROUTED TO THE REPAIR SHOP FOR INVESTIGATION. (TC NR 20060822002)

CA060822003  AIRBUS  GE  LINE  CHAFED  
8/16/2006  A310  CF680C2*  A29181081000  HYDRAULIC SYS
(CAN) DURING ROUTINE MAINTENANCE INSPECTION, FOUND NR 1 ENGINE DRIVEN PUMP OUTLET PRESSURE TUBE OF GREEN HYDRAULIC SYSTEM CHAFED BY THE AILERON TRIM INPUT CABLE AT REAR SPAR OB OF RIB 5A. HYDRAULIC TUBE REPLACED. CAMPAIGN INITIALIZED TO VERIFY THE REST OF THE FLEET AND ALL FINDING WILL BE REPORTED TO MFG FOR EVALUATION. (TC NR 20060822003)

CA060906006  AIRBUS  GE  WARNING SYSTEM  MULTIPLE IND
(CAN) AT 50 KNOTS, FLIGHT CREW REJECTED TAKE OFF DUE TO NAV ADC, GPS DISAGREE WARNING. DURING TAXI TO THE GATE, FAULT CLEARED IT`S SELF. FMS WAS RESET IAW MM, GPS, IRS AND FM POSITIONAL FOUND MATCHING. AUTO FLIGHT SYSTEMS TESTED AND FOUND SERVICEABLE. AIRCRAFT WAS DISPATCHED WITH NO FURTHER PROBLEM. (TC NR 2006090906006)

CA060928002  AIRBUS  GE  ENGINE  VIBRATION
9/16/2006  A320211  CFM565A  NR 2
(CAN) T/O REJECTED AT APPROX 110 KTS DUE SERIOUS VIBRATIONS (SUSPECT RT MAIN GEAR). AUTO BRAKE USED MAX BRAKE TEMP IND 480 DEG FOR NR 2, OTHERS WERE 450-480. ON STARTING NR 2 ENGINE, FELT HIGH VIBRATION AND HIGH EGT, ABORTED ENGINE START. WHEN TURNING NR 2 FAN BY HAND, COULD HEAR N2 TURNING AS WELL. FOUND RT GEAR FIXED DOOR ASSY WITH 2 ATTACH STUDS SHEARED. SB A320-52-1100 ALREADY AVAILABLE TO INSTALL IMPROVED ATTACH STUDS.
**CA060920011**  AIRBUS  CFMINT  SLIDE  UNWANTED DEPLOY
9/18/2006  A320214  CFM565B4P  L2 DOOR
(CAN) ACCIDENTLY FLIGHT ATTENDANT DEPLOYED THE SLIDE AT L-2 DOOR. INITIALLY SHE WENT TO DEACTIVATE THE DOOR BUT WAS DISTRACTED THEN USED THE OPEN LEVER INSTEAD OF THE DISARM LEVER CAUSING THE INCIDENT. SLIDE WAS DEPLOYED BUT NOT INFLATED, DUE TO THE ACTUATION CABLE FOUND WRAPPED AROUND THE TOP OF CYLINDER WHICH PREVENT THE INFLATION. (TC NR 20060920011)

**CA060901005**  AIRTRC  PWA  BEARING  WORN
8/18/2006  AT802  PT6A67A  TACH GENERATOR
(CAN) A NOISE WAS DETECTED AND THE TACH GENERATOR WAS REMOVED AND FOUND THAT THE LOWER SHAFT BEARING WAS BADLY WORN. (TC NR 20060901005)

**CA060911006**  AMD  LAMP  MELTED
9/8/2006  FALCON2000  AL845T279  LAVATORY

**2006FA0000977**  AMD  PROXIMITY SENSOR  FAILED
10/3/2006  FALCON50MYST  803682  MLG
GEAR SELECTED (DOWN), LT GEAR DOOR INDICATION LIGHT REMAIND RED. MANUAL GEAR PROCEDURES USED TO CLOSE DOOR.

**2006FA0001006**  AMD  GARRTT  CIRCUIT CARD  FAILED
10/1/2006  FALCON50MYST  TFE731*  FE422  ADC
LOSS OF RT AIR DATA ELECTRICAL POWER CAUSES A SNEAK PATH THROUGH THE AIR DATA REVERSION RELAYS ON RELAY CARD 417J. THIS SNEAK PATH WILL CAUSE THE LT RADIO TUNING UNIT TO REVERT TO AIR DATA SOURCE NR 2. BECAUSE AIR DATA SOURCE NR 2 IS NOW INACTIVE, NEITHER TRANSPONDER WILL HAVE ALTITUDE ENCODING. ALTITUDE ENCODING SOURCE SELECTION VIA THE MOD SELECTOR SOURCE SELECTION WILL HAVE NO EFFECT, NOR WILL CHANGING SELECTED TRANSPONDER OR AIR DATA REVERSION SWITCHING ON EITHER PILOTS SIDE. THIS IS A SINGLE POINT OF FAILURE CAUSING LOSS OF ALL ALTITUDE ENCODING AND WILL ALSO CAUSE TCAS FAILURE. INSTALLATION OF A STEERING DIODE IN THE REVERSION RELAY CIRCUIT WILL PREVENT THIS PROBLEM FROM OCCURRING. THIS PROBLEM IS THOUGHT TO AFFECT THIS MODEL AC ABOVE 251 AND LOWER S/N AIRCRAFT WITH MFG PRO LINE IV INTEGRATED AVIONICS. (K)

**2006FA0001001**  AMD  GARRTT  RELAY  FAILED
9/27/2006  FALCON50MYST  TFE731*  FE422  AIR DATA
LOSS OF RT AIR DATA ELECTRICAL POWER CAUSES A SNEAK PATH THROUGH THE ARTHUR Q AIR DATA REVERSION RELAYS ON RELAY CARD 417J. THIS SNEAK PATH WILL CAUSE THE LT RADIO TUNING UNIT TO REVERT TO AIR DATA SOURCE NR 2. BECAUSE AIR DATA SOURCE NR 2 IS NOW INACTIVE, NEITHER TRANSPONDER WILL HAVE ALTITUDE ENCODING. ALTITUDE ENCODING SOURCE SELECTION VIA THE MODE SELECTOR SOURCE SELECTION WILL HAVE NO EFFECT, NOR WILL CHANGING SELECTED TRANSPONDER OR AIR DATA REVERSION SWITCH ON EITHER PILOTS SIDE. THIS IS A SINGLE POINT OF FAILURE CAUSING LOSS OF ALL ALTITUDE ENCODING AND WILL ALSO CAUSE TCAS FAILURE. INSTALLATION OF A STEERING DIODE IN THE ARTHUR Q REVERSION RELAY CIRCUIT WILL PREVENT THIS PROBLEM FROM OCCURRING. THIS PROBLEM IS THOUGHT TO AFFECT ALL THIS MODEL AC ABOVE SN 251 AND LOWER SN AIRCRAFT WITH THIS MFG PRO LINE IV INTEGRATED AVIONICS. (K)
HOSE SEPARATED AT THE FUEL LINE END. PILOT WAS INFLATING BALLOON WHEN THIS OCCURRED. NEW HOSES WERE INSTALLED ON 7/27/2006. THE BALLOON HAD BEEN FLown TWICE, WITH A TOTAL OF 2.0 HOURS ON NEW HOSES. (K)

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<td>PT6A28</td>
<td>O-RING</td>
<td>CUT</td>
<td>(CAN) REF. SDR NR 20060907002 RT BRAKE LOCKED-UP PREVIOUS SDR SUBMITTED MENTIONED THE PARK BRAKE VALVE AS THE UNSERVICEABLE PART, HOWEVER THE NEXT FLIGHT THE BRAKES ON THE RT SIDE LOCKED-UP AGAIN, BRAKES INSPECTED, PRESSURE RELIEVED AND AIRCRAFT RETURNED TO BASE FOR TROUBLESHOOTING, FOUND CO-PILOT RT BRAKE MASTER CYLINDER TRAPPING PRESSURE IN THE SYSTEM, BRAKE CYLINDER REMOVED AND EXAMINED, FOUND O-RING ON CHECK VALVE CUT, O-RINGS IN MASTER CYLINDER REPLACED WITH NEW, FUNCTION TEST CARRIED-OUT, BRAKES OPERATED NORMALLY (O-RING P/N MS28775-011) (TC NR 20060908002)</td>
</tr>
<tr>
<td>9/7/2006</td>
<td>100BEECH</td>
<td>PT6A28</td>
<td>Valve</td>
<td>FAILED</td>
<td>(CAN) RT BRAKE WOULD NOT RELEASE AFTER TOUCHDOWN, AIRCRAFT STOPPED ON RUNWAY, BRAKE PRESSURE HAD TO BE RELEASED BEFORE AIRCRAFT REMOVED FROM RUNWAY, RT BRAKE MASTER CYLINDER REPLACED WITH USED SERVICEABLE UNIT. OPERATION CHECK CARRIED OUT OKAY. DURING TAKEOFF THE CREW FELT A LUNGE FORWARD AFTER ROTATION. THEY FELT THE BRAKE WAS STILL DRAGGING SO THEY DECIDED TO DIVERT FROM AIRPORT . REQUESTED ERS STANDBY, ANTICIPATING POSSIBLE DIRECTIONAL CONTROL PROBLEMS AFTER TOUCHDOWN. AIRCRAFT LANDED WITHOUT INCIDENT. FURTHER INVESTIGATION REVEALED PROBLEMS WITH THE RT PARK BRAKE VALVE P/N 4500SA1. WHEN THE RT BRAKE PEDAL WAS DEPRESSED, THE PARK BRAKE VALVE HELD PRESSURE, AND WOULD NOT RELEASE THE RT BRAKE. THE PARK BRAKE VALVE WAS REPLACED, AND THE PROBLEM COULD NOT BE DUPLICATED. (TC NR 20060907002)</td>
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<td>BEECH</td>
<td>PT6A28</td>
<td>Line</td>
<td>LEAKING</td>
<td>(CAN) PILOT REPORTED THAT LANDING GEAR DID NOT RETRACT. 2.5 QUARTS OF HYDRAULIC FLUID WERE LOST AND HYDRAULIC PUMP CIRCUIT BREAKER POPPED AND LOW FLUID LEVEL CAUTION LIGHT ILLUMINATED. MANUAL EXTENSION WAS CARRIED OUT AND AIRCRAFT LANDED SAFELY. INVESTIGATION REVEALED RT MAIN LANDING GEAR HYDRAULIC RETRACT LINE WAS LEAKING. THE LINE WAS REPLACED, HYDRAULIC SYSTEM REPLENISHED, GEAR SWINGS CARRIED OUT AND LEAK CHECKED SERVICEABLE. HYDRAULIC LINE P/N 101-388016-7 WAS PRESSURE TESTED ON BENCH AND FOUND TO HAVE A HOLE ONE INCH FROM SWAGED FITTING. THE MFG RECOMMENDED INSPECTION CRITERIA FOR Teflon Coated Hydralic Lines CALL FOR A VISUAL INSPECTION FOR DETERIORATION AND LEAKS; HOWEVER THE OUTER SHEATHING PREVENTS SUCH AN INSPECTION TO BE EFFECTIVE. THESE ON CONDITION ITEMS CAN NOT BE INSPECTED WELL ENOUGH TO ESTABLISH LEVEL OF DETERIORATION. PLEASE NOTE ALL LANDING GEAR ACTUATOR HYDRAULIC FLEX LINES HAVE BEEN REPLACED ON AIRCRAFT AS PRECAUTIONARY MEASURE. (TC NR 20060907007)</td>
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<tr>
<td>8/29/2006</td>
<td>1900D</td>
<td>PT6A67D</td>
<td>Line</td>
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<td>CA060921004</td>
<td>BEECH</td>
<td>PT6A67D</td>
<td>Engine</td>
<td>LEAKING</td>
<td>(CAN) THE CREW REPORTED A LOW OIL PRESSURE INDICATION WHILE TAXING, SOME OIL WAS NOTED ON THE FUSELAGE SO AN AME WAS DISPATCHED. THEY COULD FIND NO AREA OF LEAKAGE DURING INSPECTION AND THE AIRCRAFT WAS REPLENISHED AND NUMEROUS GROUND RUNS DID NOT REVEAL ANYTHING FURTHER. THE AIRCRAFT WAS RETURNING TO A MAINTENANCE BASE WHEN THE AME NOTICED OIL COMING FROM THE BREATHER AREA OF THE ENGINE. THE CREW SHUT THE ENGINE DOWN AND RETURNED TO PLACE OF DEPARTURE WHERE THEY HAD AN UNEVENTFULL LANDING. FURTHER INSPECTION HEARD GRINDING NOISES COMING FROM THE POWER SECTION AREA WHICH INDICATES BEARING DAMAGE IN THAT AREA. THE ENGINE WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. THE ENGINE HAS BEEN RETURNED TO THE MAIN BASE UNTIL WE DETERMINE THE DISPOSITION.</td>
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<td>PT6A67D</td>
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### Event Log

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<tr>
<td>8/28/2006</td>
<td>200BEECH</td>
<td>PT642A</td>
<td>(CAN) ENGINE TORQUE WAS SEEN TO FLUCTUATE DURING CLIMB. DURING DESCENT ENGINE TORQUE INCREASE UNCOMMANDED AND THE ENGINE WAS SHUTDOWN IN FLIGHT. SUBSEQUENT INVESTIGATION REVEALED CONTAMINATION OF THE PNEUMATIC SECTION OF THE FUEL CONTROL UNIT. (TC NR 20060906021)</td>
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<td>9/19/2006</td>
<td>300BEECH</td>
<td>PT6A60A</td>
<td>IN FLIGHT THE LT SIDE STARTER/GENERATOR AFT BEARING AT THE COOLING FAN FAILED AND THE GENERATOR FAILED. THE AC RETURNED TO ITS DEPARTURE TERMINAL WITHOUT INCIDENT. THE STARTER/GENERATOR WAS REPLACED AND THE CARGING AND ELECTRICAL SYSTEM OPS CHECKED GOOD. NO KNOWN CAUSE, STARTER/GENERATOR WAS WITHIN THE 1000 HOURS FOR BEING OVERHAULED. (K)</td>
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<td>9/7/2006</td>
<td>400A</td>
<td>JT15D5</td>
<td>(CAN) THE AIRCRAFT ENTERED RAIN AND TURBULENCE AT 40K FEET AND THE ENGINE FLAMED OUT. ENGINE ANTI-ICE AND CONTINUOUS IGNITION HAD NOT BEEN SELECTED. THE ENGINE WAS SUCCESSFULLY RE-STARTED AT 28K FEET. MFG WILL MONITOR THE INVESTIGATION OF THIS EVENT AND WILL ADVISE OF ROOT CAUSE ONCE ESTABLISHED. (TC NR 20060906013)</td>
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<td>10/17/2006</td>
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<td>IO520C</td>
<td>CYLINDER NR 2 PISTON ROD FAILED WHILE AIRCRAFT WAS IN CRUISE FLIGHT. PROP WAS FEATHERED. AIRCRAFT LANDED WITHOUT INCIDENT. (K)</td>
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<td>8/18/2006</td>
<td>B200</td>
<td>PT642A</td>
<td>(CAN) ENGINE TORQUE WAS SEEN TO FLUCTUATE ON APPROACH AND THE ENGINE WOULD NOT RESPOND TO THROTTLE INPUT. THE ENGINE WAS SHUTDOWN IN FLIGHT. MFG WILL INVESTIGATE THE INCIDENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED. (TC NR 20060906017)</td>
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<td>IN FLIGHT THE LT SIDE STARTER/GEN AFT BEARING AT THE COOLING FAN FAILED AND THE GENERATOR FAILED. THE AC RETURNED TO ITS DEPARTURE TERMINAL WITHOUT INCIDENT. THE STARTER/GEN WAS REPLACED AND THE CHARGING AND ELECTRICAL SYSTEM OPS, CHECKED GOOD. NO KNOWN CAUSE, STARTER/GEN WAS WITHIN THE 1000 HRS FOR BEING OVERHAULED. (K)</td>
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CA060821005  BEECH  PWA  RAYTHN  BYPASS VALVE  FAILED
8/12/2006  B300  PT6A60A  723747  OIL COOLER
(CAN) RT OIL TEMPERATURE REACHED THE REDLINE WHEN CLIMBING THROUGH 25000 FT. POWER REDUCED AND A/C DESESENDED TO 20000 FT. OIL TEMP RETURNED TO NORMAL. ENG POWER SETTING RETURNED TO NORMAL, NO FURTHER FAULT. NR 2 ENGINE OIL COOLER THERMOSTATIC BYPASS VALVE REPLACED IAW MM CH 79-00-00 P 9. GROUND/LEAK CHECKS PERFORMED. SYSTEM CHECKS SERVICEABLE. (TC NR 20060821005)

CA060828002  BEECH  PWA  SELECTOR VALVE  FAILED
8/28/2006  B90  PT6A20  25800  MLG
(CAN) DURING THE SCHEDULED TASK TO LEAK CHECK THE LANDING GEAR SYSTEM (LANDING GEAR MM M-8101, ROUTINE MAINTENANCE) IT WAS NOT POSSIBLE TO BUILD PRESSURE IN THE LANDING GEAR HYDRAULIC SYSTEM WITH THE MANUAL PUMP INSTALLED. UPON INVESTIGATION IT WAS FOUND THAT FLUID WAS BEING ROUTED TO THE DOWN PORT AND THE RETURN PORT AT THE SAME TIME. ELECTRICAL POWER WAS ON THE AIRCRAFT AND THE LANDING GEAR SELECTED TO THE DOWN POSITION. THIS VALVE HAD BEEN PREVIOUSLY REMOVED FROM ANOTHER SIMILAR TYPE AIRCRAFT FOR THE SAME PROBLEM AND WAS REPAIRED. REF NR ASR-6188-011605, WHEN CYCLED USING THE AIRFRAME SYSTEM HYDRAULIC PUMP THE LANDING GEAR OPERATED CORRECTLY AND APPEARED TO NOT HAVE AN FAULTS. (TC NR 20060828002)

CA060828003  BEECH  PWA  SELECTOR VALVE  MALFUNCTIONED
8/28/2006  B90  PT6A20  25800  MLG
(CAN) ON SCHEDULED MAINTENANCE 1000 HRS HYD. SYSTEM 3000 PSI LEAK TEST (LANDING GEAR MM M-8101, ROUTINE MAINTENANCE) HYD. SELECTOR FOUND LEAKING TO RETURN ON GEAR DOWN SECTION. WAS UNABLE TO BUILD UP PRESSURE TO OPERATE GEAR WITH MANUAL EXTERNAL PUMP. NEW HYD. SELECTOR INSTALLED AND IT WAS FOUND LEAKING TO RETURN ON GEAR UP SELECTION. WHEN LANDING GEAR CYCLED WITH AIRCRAFT HYD.PUMP SYSTEM OPERATES NORMALLY. SUSPECT NOT TESTING HYD. SELECTOR VALVES BOTH OLD AND NEW VALVES OVERHAULED BY THEM. (TC NR 20060828003)

2006FA0000964  BEECH  LYC  ATTACH BOLT  WORN
9/19/2006  C23  O360A4K  AN743A  ALTERNATOR
DURING PRE-RUNUP INSPECTION FOR ANNUAL INSPECTION ALTERNATOR BELT NOTED TO BE LOOSE. UPON INSPECTION OF ALTERNATOR FOR BELT TENSION THE FOLLOWING WAS NOTED: THE CASTLE NUT WAS BACKED OUT TO THE POINT OF CHAFING ON THE A+ WIRE, THE WIRE WAS KEEPING THE NUT FROM BACKING ALL OF THE WAY OFF OF THIS ATTACHMENT BOLT. THIS AIRCRAFT AND ENGINE COMBINATION HAD BEEN INSPECTED FOR ANNUAL AIRWORTHINESS BY THE SAME INSPECTION 3 TIMES DURING THE PAST 22.1 HRS. NOTE ENCLOSED PHOTO’S. THIS ENGINE HAS 237 HRS SINCE MAJOR OVERHAUL BY AN APPROVED SHOP AND WOULD ESTIMATE THAT THE NUT HAD NOT BEEN SAFTIED DURING ANY OF THIS TIME AS THE NUT WOULD ACTUALLY SLIDE ACROSS THE THREADS OF THE BOLT. (K)

PAI52006S4330  BEECH  WHEEL  CRACKED
10/25/2006  C90A  300257  MLG
PILOT NOTED RT MAIN TIRE LOW PRESSURE ON PREFLIGHT. MAINTENANCE FOUND, UPON DISASSEMBLY OF WHEEL, THAT THE INNER WHEEL HALF WAS CRACKED IN THE O-RING GROOVE ADJACENT TO THE WHEEL TIE BOLT HOLES.

CA060822006  BEECH  PWA  FRAME  CRACKED
8/22/2006  E90  PT6A28  504200285758  BS 176
(CAN) LT SIDE OF FUSELAGE, DISCOVERED 4 LOOSE RIVETS AT FS 176.5. MAINTENANCE DEPT REMOVED INTERIOR TO INVESTIGATE DEFECT. IT WAS DISCOVERED THAT FRAME MEMBER P/N 50-420028-57 WAS CRACKED IN SEVEN SPOTS. MAINTENANCE DECIDED TO INVESTIGATE THE RIGHT HAND OF FUSELAGE EVEN THOUGH NO INDICATION FROM OUTSIDE OF AIRCRAFT. ONLY THREE CRACKS WERE DISCOVERED THERE TO FRAME P/N 50-420028-58. TOTAL CYCLES SINCE LAST DETAILED FUSELAGE INSPECTION OF THESE AREAS IN 1859. REPETITIVE EVERY 3000 CYCLES. NO PREVIOUS DAMAGE NOTED. (TC NR 20060822006)

CA060818004  BELL  LYC  BOLT  LOOSE
(CAN) DURING A 100 HOUR INSPECTION THE ENGINEER NOTED A LARGE AMOUNT OF PLAY IN THE CLEVIS OF THE TAIL ROTOR FLIGHT CONTROL ROD. INVESTIGATION REVEALED AN UNDERSIZED BOLT, IE SMALLER DIAMETER, WAS INSTALLED. THE CORRECT BOLT, P/N AN175-20 WAS INSTALLED AND A FUNCTION CHECK CARRIED OUT, WITH NO FAULT FOUND. AIRCRAFT WAS RETURNED TO SERVICE. (TC NR 20060818004)

(CAN) DURING LONG LINE SLINGING OPERATIONS, UPON APPROACHING A DROP ZONE WITH A LOAD. THE COLLECTIVE WAS RAISED TO CUSHION LANDING OF THE LOAD, THEN LOWERED TO TAKE TENSION OFF OF THE LINE. THE HELICOPTER TURNED TO THE LT AND THE RT TAIL ROTOR PEDAL WAS FOUND TO BE STUCK. THE LOAD WAS ALREADY ON THE GROUND AND SUBSEQUENTLY RELEASED. THE COLLECTIVE WAS THEN AGAIN RAISED UNTIL THE AIRCRAFT STOPPED ROTATING AND FWD FLIGHT COULD BE ACHIEVED. THE HELICOPTER MAINTAINED FWD FLIGHT WHILE THE P/C CONTINUED OPERATING THE COLLECTIVE AND TAIL ROTOR CONTROLS. THE LT PEDAL INPUT WAS FINE BUT THE RT PEDAL INPUT WAS AT FIRST JAMMED, THEN BEGAN TO OPERATE WITH RESISTANCE LIKE A HYDRAULIC FAILURE. THE HYDRAULIC ON/OFF SWITCH WAS CYCLED AND A FEW SECONDS LATER THE RT PEDAL RELEASED ITS RESISTANCE AND STARTED TO OPERATED NORMALLY. THE AIRCRAFT MADE A NORMAL LANDING AT SERVICE. THE ON-SITE AME INSPECTED THE TAIL ROTOR CONTROL SYSTEM WITH NO FAULT FOUND. THE TAIL ROTOR HYDRAULIC SERVO ACTUATOR WAS REPLACED WITH A SERVICEABLE UNIT AND THE AIRCRAFT WAS TEST FLOWN WITH A SATISFACTORY RESULT.

(CAN) A CRACK WAS FOUND FROM THE AFT TOP RIVET HOLE. THE CRACK STARTS AT THE TOP OF THE FITTING AND TRAVELS DOWNWARD THROUGH THE RIVET HOLE AND APPROXIMATELY 0.2500 FURTHER. (TC NR 20060810004)

(CAN) DURING INSPECTION, A LEAK WAS DISCOVERED IN THE HYDRAULIC SYSTEM PRESSURE SIDE CROSS FITTING (AN 937-D6). DISASSEMBLY REVEALED CORROSION AT MATING SURFACE OF O-RING AND CROSS. PART REPLACED WITH NEW. O-RINGS AND RETAINING RING REPLACED. SYSTEM SERVICED WITH HYDRO OIL. (TC NR 200609029001)

(CAN) AIRCRAFT LOST POWER RESULTING IN A HARD LANDING. DATE OF OCCURRENCE, JUNE 26, 2006. ROTORCRAFT LOST ENGINE POWER AT APPROX 400 FEET AND AUTOROTATED. AIRCRAFT IS CONSIDERED A TOTAL WRITE-OFF. TSB CURRENTLY INVESTIGATION ROOT CAUSE OF THIS EVENT. (TC NR 20060831004)

(CAN) DURING SCHEDULED 100/300 HR INSPECTION COMPRESSOR SCROLL FOUND CRACKED ON VISUAL INSPECTION. A/C GROUNDED AND COMPRESSOR REPLACED. RECOMMEND BETTER DAILY INSPECTIONS BEFORE FIRST FLIGHT. (TC NR 20060927001)

(CAN) STARTED NR 2 ENGINE FIRST. SECOND START OF THE DAY. STARTED NR 1 AND BROUGHT IT UP TO IDLE. THE AME CAME RUNNING TO THE COCKPIT AND GAVE THE SIGNAL TO SHUTDOWN THE ENGINE. ENGINE WAS SHUT DOWN AND BOOST PUMP TURNED OFF. HE SAID FUEL WAS STILL LEAKING FROM THE DRAIN AND TO TURN NR 2 BOOST PUMP OFF. NR 2 BOOST PUMP WAS TURNED OFF. SHORTLY THERE AFTER NR 2 ENGINE FLAMED OUT AND QUIT. ALL BOOST PUMPS AND FUEL VALVES CLOSED. ENGINES SECURED AND PASSENGERS EVACUATED. INVESTIGATION REVEALED THAT THE NR 1 FUEL FILTER DRAIN VALVE WAS DEFECTIVE AND
ALLOWED THE BOOST PUMP PRESSURED FUEL TO LEAK OUT THROUGH THE DRAIN. NR 2 ENGINE FLAMED OUT
BECAUSE WHEN NR 1 BOOST PUMP WAS SHUTOFF THE CROSSFEED VALVE OPENED AND ALLOWED
PRESSURIZED FUEL FROM NR 2 TO TRANSFER TO NR 1 ENGINE. THE FUEL TOOK THE EASY ROUTE AND VENTED
OVERBOARD STARVING NR 2 ENGINE OF THE REQUIRED FUEL. NR 1 DRAIN VALVE REPLACED AND AC RTS.
CONCERNED WITH WHY THE NR 2 ENGINE FLAMED OUT. THE LEAKING FUEL DRAIN VALVE COULD HAVE CAUSED
BOTH ENGINES TO FLAME OUT IN FLIGHT. GOOD WORK BY AME WHO CHECKED HELICOPTER AT EACH START
FOR LEAKS. IF HE HADN'T OBSERVED THE START THE LEAK WOULDN'T HAVE BEEN NOTICED UNTIL FUEL BURN
CHECKS WERE COMPLETED BY THE PILOTS. (TC NR 20060907004)

**CA060818002**  
BELL  
WASHER  
DAMAGED  
8/17/2006  
407  
S3526EC4  
ECU

(CAN) THE -4 WASHER IS NOT CUT TO FIT THE BOLT AT THE SHANK, CAUSING FRETTING AND CORROSION ON
THE SHANK RADIUS UNDER THE BOLT HEAD. (TC NR 20060818002)

**CA060906014**  
BELL  
PWA  
BELL  
CONNECTOR  
SHORTED  
9/6/2006  
412EP  
PT6T3  
MS3456W14S5S  
FUEL VALVE

(CAN) FLASHING LIGHT OF ENGINE FUEL VALVE NR 2 ON STARTING PROCEDURE. CONNECTOR 1B14P1 SHORTED
TOGETHER BETWEEN PINS A AND B AND WATER CONTAMINATION FOUND INSIDE BACK SHELL. INTERNAL
LEAKAGE MEASURED ON THE CONNECTOR BETWEEN PINS A AND B CAUSING ON-OFF SIMULTANEOUS
COMMANDS AND DAMAGES TO THE VALVE (205-060-612-003). CONNECTOR AND VALVE REPLACED AND A/C
RETURNED TO SERVICE. A/C HOURS 1754:16 A/C CYCLES 1904 (TC NR 20060906014)

**CA060912001**  
BOEING  
PWA  
RROYCE  
TURBINE BLADES  
FRACTURED  
9/12/2006  
717200  
BR700715A130  
BRH20351  
ENGINE

(CAN) IN CLIMB AT 11000 FT PILOT REPORTED LOUD BANG. TGT ROSE TO 1194 DEG. PILOT SHUT DOWN ENGINE.
AND TURNED BACK. FOUND HEAVY METAL CONTAMINATION IN THE TAIL PIPE. EMERGENCY LANDING
CONDUCTED WITHOUT INCIDENT. ENGINE PRESENTLY AT RRC FOR REPAIR, STRIP OF ENGINE REVEALED HP1
TURBINE BLADES FAILURE BELOW INNER PLATFORM AND SEVERE SECONDARY DAMAGE IN LP TURBINE
MODULE. ENGINE IS HIGH TIME TSN;13801 HOURS, CSN; 9396 AND THIS IS FIRST SHOP VISIT. FAILED BLADES
HAVE BEEN SHIPPED TO THE OEM (GERMANY) FOR INVESTIGATION. (TC NR 20060912001)

**CA060925009**  
BOEING  
PWA  
CONNECTOR  
FAULTED  
9/23/2006  
727223  
BR700715A130  
D4668  
ANTISKID SYS

(CAN) ON LANDING, THE NR 1 AND NR 4 TIRES SKIDDED UNTIL THEY BLEW OUT. THE A/C HAD TO BE TOWED
FROM THE RUNWAY. AVIONICS PERSONELL DISCOVERED AN INTERMITTENT FAULT IN AN ANTI-SKID CONNECTOR
(D4668) ABOVE THE RT GEAR LEG. ALL 4 TIRES AND THE CONNECTOR WERE REPLACED AND THE A/C RETURNED
to SERVICE. (TC NR 20060925009)

**CA060918010**  
BOEING  
PWA  
START VALVE  
MALFUNCTIONED  
9/13/2006  
727225  
JT8D9  
97907021  
ENGINE

(CAN) THE NR 3 ENGINE START VALVE OPEN LIGHT ILLUMINATED DURING CLIMB OUT. A/C RETURNED TO BASE.
A/C INSPECTED AND THE START VALVE REPLACED DUE CRACKED. A/C RETURNED TO SERVICE. FAULT
REOCCURRED DURING CLIMB. A/C RETURNED TO BASE. THE FUEL HEAT DUCT WAS FOUND CRACKED CAUSING
WIRING DAMAGE (HEAT) AND THE START VALVE INDICATION. DETAILED ENGINE INSPECTION CARRIED OUT. THE
FUEL HEAT DUCT WAS REPLACED AND AIRCRAFT WIRING REPAIRED AS REQUIRED. A/C RETURNED TO SERVICE.
(TC NR 20060918010)

**CA060919001**  
BOEING  
PWA  
SHUTOFF VALVE  
LEAKING  
9/16/2006  
727233  
JT8D15  
97907021  
NR 3 ENGINE

(CAN) DEPARTING THE CREW OBSERVED A STRUT OVERHEAT CONDITION ON NR 3 ENGINE. THE AIRCRAFT
DIVERTED WHERE MAINTENANCE DETECTED A LEAK AT THE WING ANTI ICE SHUT-OFF VALVE (SOV). GASKETS
WERE REPLACED AND NO FURTHER FAULT APPEARED EVIDENT AT GROUND RUN. DURING THE SUBSEQUENT
DEPARTURE THE OVER TEMP CONDITION AT APPLICATION OF TAKE-OFF POWER, THE CREW REJECTED THE
TAKE-OFF. MAINTENANCE DETECTED A LEAK AT THE PRE-COOLER WHICH WAS CORRECTED AND CARRIED OUT
MULTIPLE TAKE-OFF POWER TESTS WITH NO FAULT INDICATION. THE SUCCEEDING DEPARTURE WAS AGAIN
REJECTED AT 60KNOTS DUE TO AN OVERTEMP CONDITION ON NR 3 STRUT. MAINTENANCE REPLACED THE FIRE WIRE LOOP AND CORRECTED AN ADDITIONAL LEAK AT THE PRECOOLER BEFORE RETURNING THE AIRCRAFT TO SERVICE. NO FURTHER PROBLEM HAS RESULTED. (TC NR 20060919001)

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(CAN) DEPARTING THE CREW OBSERVED A L/E FLAP UNRETRACTED INDICATION AT THE NR 1 POSITION. THE AIRCRAFT RETURNED TO POINT WITHOUT FURTHER INCIDENT. MAINTENANCE FOUND THE POSITION INDICATION SWITCH HAD FAIL AT THE NR 1 KRUEGER FLAP LOCATION. THE SWITCH WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. (TC NR 20060929002)

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(CAN) MAIN CARGO DOOR SKIN AT NR 4 HINGE ATTACH AREA STN 492 GOUGED REPAIRED IAW CUSTOMER EA (TC NR 20060422007)

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(CAN) MAIN CARGO DOOR SKIN AT NR 4 HINGE ATTACH AREA STA 406 GOUGED AND REPAIRED IAW CUSTOMER EA (TC NR 20060422008)

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STRINGER 28RT CORRODED BETWEEN BS 312 AND BS 328. REPLACED STRINGER SECTION IAW SRM 51-40-02.

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CRACK IN BS 616 FRAME RT SIDE BELOW FLOOR. REPAIRED DAMAGED AREA IAW SB 737-53-1182.

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LOWER LT AND RT INTERNAL BEAMS CRACKED. REPAIRED BEAMS SB 737-52A1079.

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CORROSION IN FUSELAGE SKIN IN AREA OF LT KEELBEAM (STR 28LT) AND RT KEELBEAM (STR 28RT) AT BS727A-4. CUT OUT FUSELAGE SKIN FOR ACCESS TO LT AND RT KEELBEAMS. REMOVED CORROSION FROM LT AND RT KEELBEAM AREAS WITHIN LIMITS OF SRM 53-60-12 FIG. 101. REPLACED CORRODED SECTION OF FUSELAGE SKIN IAW EA NR 53-275.

<table>
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<tr>
<th>PIDR2006037</th>
<th>BOEING</th>
<th>FRAME</th>
<th>CRACKED</th>
<th>BS 663 S2-3R</th>
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<tbody>
<tr>
<td>10/23/2006</td>
<td>7373B7</td>
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CRACKS IN BS663.75 FRAME AT STR 2RT AND STR 3RT. REPAIRED FRAME IAW SRM 53-00-07.

<table>
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<tr>
<th>PIDR2006036</th>
<th>BOEING</th>
<th>SKIN</th>
<th>CRACKED</th>
<th>BS 328-332</th>
</tr>
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<tbody>
<tr>
<td>10/26/2006</td>
<td>7373B7</td>
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CRACK IN FUSELAGE SKIN AT AFT LOWER CORNER OF FORWARD SERVICE DOOR (R1). NDT CONFIRMED ADDITIONAL CRACK IN BONDED DOUBLER. REPAIRED AREA IAW SRM 53-00-01 FIG. 201 REPAIR 32 AND EA NR 53-265.

<table>
<thead>
<tr>
<th>PIDR2006023</th>
<th>BOEING</th>
<th>FLOORBEAM</th>
<th>CORRODED</th>
<th>BS 986</th>
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<td>1/5/2006</td>
<td>7373B7</td>
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BS 986.5 FLOORBEAM CORRODED AT A PREVIOUS REPAIR FROM RBL14 TO RBL18. REPLACED UPPER T CAP OF
<table>
<thead>
<tr>
<th>PIDR</th>
<th>Manufacturer</th>
<th>Component</th>
<th>Condition</th>
<th>Date</th>
<th>Part No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIDR2006026</td>
<td>Boeing</td>
<td>Frame</td>
<td>Cracked</td>
<td>10/14/2006</td>
<td>BS 767 S13L</td>
<td>Crack in BS 767 frame at STR 13 RT. Repaired per SRM 53-00-07 Fig 201. Note: Please remove PIDR as the operator designator in order to identify the operator as a general aviation operator.</td>
</tr>
<tr>
<td>PIDR2006029</td>
<td>Boeing</td>
<td>Lap Joint</td>
<td>Cracked</td>
<td>10/16/2006</td>
<td>BS 360-540</td>
<td>Crack in lower fastener row of STR 10LT skin lap at BS 500D+10 and various locations of scribe lines at STR 10LT lap area were repaired by replacing the skin lap per SB 737-53A1177. Please remove PIDR as the operator designator in order to identify the operator as a general aviation operator.</td>
</tr>
<tr>
<td>PIDR2006027</td>
<td>Boeing</td>
<td>Frame</td>
<td>Cracked</td>
<td>10/16/2006</td>
<td>BS 867 S13R</td>
<td>Found crack in BS 867 frame at STR 13RT. Repaired frame per SRM 53-00-07 Fig 201. Please remove PIDR as the operator designator in order to identify the operator as a general aviation operator.</td>
</tr>
<tr>
<td>PIDR2006028</td>
<td>Boeing</td>
<td>Keelbeam</td>
<td>Corroded</td>
<td>10/16/2006</td>
<td>BS 500D-540</td>
<td>Corrosion on right keel beam (STR28RT) from BS 500D to BS 540. Repaired area by splicing in a replacement section of keel beam per EA 53-268. Please remove PIDR as the operator designator in order to identify the operator as a general aviation operator.</td>
</tr>
<tr>
<td>PIDR2006030</td>
<td>Boeing</td>
<td>Lap Joint</td>
<td>Damaged</td>
<td>10/11/2006</td>
<td>BS 360-540</td>
<td>Several areas of scribe line damage at STR 14LT from BS 360 to BS 540. Repaired area by replacing the skin lap per SB 737-53A1177. Please remove PIDR as the operator designator in order to identify the operator as a general aviation operator.</td>
</tr>
<tr>
<td>PIDR2006024</td>
<td>Boeing</td>
<td>Floorbeam</td>
<td>Damaged</td>
<td>10/10/2006</td>
<td>BS 520</td>
<td>Vertical web of BS 520 floorbeam damaged at RBL 36. Repaired damaged area IAW EA 53-273.</td>
</tr>
<tr>
<td>PIDR2006025</td>
<td>Boeing</td>
<td>Skin</td>
<td>Damaged</td>
<td>10/11/2006</td>
<td>BS 360-540</td>
<td>STR 14 LT skin lap has scribe line damage in several places from BS 360 to BS 540. Repaired damaged area IAW SB 737-53A1177.</td>
</tr>
<tr>
<td>PIDR2006022</td>
<td>Boeing, GE</td>
<td>Floorbeam</td>
<td>Corroded</td>
<td>9/28/2006</td>
<td>BS 312</td>
<td>Floorbeam at BS 312 corroded at nutplate holes from RBL8 to RBL32. Replaced floorbeam T-cap IAW SRM 53-10-51.</td>
</tr>
<tr>
<td>PIDR2006021</td>
<td>Boeing, GE</td>
<td>Skin</td>
<td>Worn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>N-Number</td>
<td>CFM Int.</td>
<td>Equipment</td>
<td>Location</td>
<td>Condition</td>
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<tr>
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<tr>
<td>PIDR2006020</td>
<td>Boeing</td>
<td>GE</td>
<td>Skin</td>
<td>Dented</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9/28/2006</td>
<td>7373B7</td>
<td>CFM56*</td>
<td>Fuselage</td>
<td>BS 400 S23R</td>
<td>Existing Doubler on Fuselage at BS 400 and S23RT Has a Dent. Removed Existing Doubler and Installed New IAW SRM 53-00-01 Fig. 201.</td>
<td></td>
</tr>
<tr>
<td>PIDR2006019</td>
<td>Boeing</td>
<td>GE</td>
<td>Floorbeam</td>
<td>Corroded</td>
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<td></td>
</tr>
<tr>
<td>9/28/2006</td>
<td>7373B7</td>
<td>CFM56*</td>
<td>Floorbeam</td>
<td>BS 727D</td>
<td>Underside of BS 727D+5 Floorbeam in Aft Cargo Bin is Corroded from LBL17 to RBL8. Repaired Area IAW SRM 53-00-53 Fig. 201.</td>
<td></td>
</tr>
<tr>
<td>CA060901002</td>
<td>Boeing</td>
<td>CFMINT</td>
<td>Pressure Switch</td>
<td>Unserviceable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/31/2006</td>
<td>737522</td>
<td>CFM563C1</td>
<td>Pressure Switch</td>
<td>Flt Control Modu</td>
<td>(Can) Approximately One Flight Hour Enroute the (B) System Flight Control Module Low Pressure Light Illuminated. Aircraft Turned Back. (B) System Flight Control Module Replaced Due to Low Pressure Switch Unserviceable. Times: 37968:59 Cycles: 23555 (TC NR 20060901002)</td>
<td></td>
</tr>
<tr>
<td>CA060823001</td>
<td>Boeing</td>
<td>CFMINT</td>
<td>Pulley</td>
<td>Seized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/23/2006</td>
<td>737522</td>
<td>CFM563C1</td>
<td>Pulley</td>
<td>BACP30F9</td>
<td>Lt Aileron</td>
<td></td>
</tr>
<tr>
<td>(Can) During a Phase Check the Lt Aileron Cable Pulley Was Found to Have a Seized Bearing and a Worn Pulley. Pulley and Bearing Replaced. a Fleet Campaign Will Be Initiated to Check All Aileron Pulleys for Freedom of Movement and Bearing Check. Times: 36,972.52 Cycles: 23,427 (TC NR 20060823001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA060412001</td>
<td>Boeing</td>
<td>CFMINT</td>
<td>Window</td>
<td>Failed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA060413010</td>
<td>Boeing</td>
<td>CFMINT</td>
<td>Skin</td>
<td>Corroded</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/13/2006</td>
<td>757200</td>
<td>CFM563C1</td>
<td>Skin</td>
<td>NR 7 Slat</td>
<td>(Can) Exfoliated Corrosion at 2 Adjacent Locations (TC NR 20060413010)</td>
<td></td>
</tr>
<tr>
<td>2006FA0001000</td>
<td>Boeing</td>
<td>CFMINT</td>
<td>Pump</td>
<td>Cracked</td>
<td>Part Has Crack in Filter Bowl Port, Unit Leaking. (K)</td>
<td></td>
</tr>
<tr>
<td>10/9/2006</td>
<td>767*</td>
<td>CF680C2B6F</td>
<td>Pump</td>
<td>Engine Fuel</td>
<td>(Can) During Scheduled Inspection of Off-Wing Slide Compartment Door Latches and Disconnect Housing IAW SB 767-25A0260, Both Off-Wing Slides Were Inflated Without the Associated Slide Compartment Door Being Commanded Open. As a Result the Compartment Doors, Latches, Slides and IB Flight Controls Were Damaged by the Force of the Confined Slides. Zoom Airlines has had 2 Previous Similar Uncommanded Off-Wing Slide Deployments (July 29, 2005 and September 2, 2005) During Routine Maintenance. In Both Previous Incidents Zoom Has Investigated and Taken Mitigating Actions. Mfg is Well Aware of the Service Related Problems. Ref 767-FTD-25-00004, 767-FTD-25-03003, 767-FTD-25-06001. Zoom’S TCCA PMI Has Asked that This Incident be Filed as a SDR. Initial Investigation and Incident Reports Show Root Cause to Principally Human Factors This is an Interim Submission Final Will Follow When All Investigations are Complete.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>N-Number</th>
<th>CFM Int.</th>
<th>Equipment</th>
<th>Condition</th>
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</thead>
<tbody>
<tr>
<td>8/11/2006</td>
<td>767*</td>
<td>GE</td>
<td>Slide</td>
<td>No Test</td>
</tr>
</tbody>
</table>
(CAN) LT ELECTRIC HYDRAULIC PUMP PRESSURE SWITCH S27 WIRING FOUND CHAFED 6 INCHES FROM CONNECTOR D56, WIRING TEMPORARILY REPAIRED IAW AMM FAULT WAS INTERMITTENT AND 4 S27 PRESSURE SWITCHS HAD BEEN REPLACED OVER THE LAST FEW MONTHS. (TC NR 20060825001)

(CAN) CAPTAIN REJECTED TAKEOFF ROLL AT 155KTS BECAUSE OF A (TAKEOFF CONFIGURATION SAFETY WARNING) MESSAGE, 4 MAIN LANDING GEAR TIRES REPLACED DUE TO HIGH ENERGY BRAKING AND FUSE PLUGS MELTING. NEW LANDING CONFIGURATION CARD INSTALLED AND TESTED. (TC NR 20060918002)

(CAN) LANDING GEAR DID NOT RETRACT AFTER TAKE OFF, RETURN TO FIELD. FOUND FAULTY NLG WOW 2/ CENTERING HARNESS. HARNESS REPLACED. AIRCRAFT RETURNED TO SERVICE.

(CAN) DURING REMOVAL FOR ACCESS, A GENERAL VISUAL INSPECTION OF THE RT MAIN GEAR DOOR REVEALED A LARGE CRACK IN THE INNER SKIN PANEL AS WELL AS SEVERAL PULLED RIVETS ADJACENT TO THE GEAR DOOR JACK ATTACH BRACKET. SB 32-192-2845 (TO PREVENT CRACKING OF THE BRACKET ITSELF) HAD BEEN PREVIOUSLY EMBODIED AT 4608.6 HOURS TSN AND 3015 CYCLES. THE CRACK HAD PROPAGATED TO 6 INCHES IN LENGTH ALONG THE FORWARD IB EDGE OF THE STRENGTHENED (POST MOD) BRACKET IN THE STRUCTURE THE BRACKET IS ATTACHED TO: THE INNER DOOR PAN. A SOFT (TC NR 20060906011)

DURING CRUISE FLIGHT, OIL PRESSURE DROPPED TO BELOW MINIMUM REDLINE. PRECAUTIONARY LANDING WAS MADE. ON INSPECTION, DISCOVERED RECENTLY INSTALLED (2 HOURS IN SERVICE) OIL FILTER HAS DESIGN AND/OR MANUFACTURING DEFECT ALLOWING AN INTERNAL SEAL TO BE DAMAGED DURING MFG SUCH THAT RUBBER SEAL MATERIAL IS RELEASED FROM THE FILTER INTO THE ENGINE OIL. LOW OIL PRESSURE CONDITION WAS DUE TO A CHUNK OF THIS MATERIAL FOULING THE SEAT OF THE OIL PRESSURE REGULATING VALVE, KEEPING THE VALVE PARTIALLY OPEN. THE FILTER HAS BEEN DISSECTED AND I HAVE DIGITAL PHOTOS OF THE PARTS IN QUESTION AS WELL AS THE DEBRIS FOUND IN THE OIL SYSTEM. I WILL RETAIN CUSTODY OF THE PARTS, BUT I CAN MAKE THEM AVAILABLE FOR INSPECTION AT THE WICHITA, KS FAA OFFICE.

DURING CRUISE FLIGHT, OIL PRESSURE DROPPED TO BELOW MINIMUM REDLINE. PRECAUTIONARY LANDING WAS MADE. ON INSPECTION, DISCOVERED RECENTLY INSTALLED (2 HOURS IN SERVICE) OIL FILTER HAS DESIGN AND/OR MANUFACTURING DEFECT ALLOWING AN INTERNAL SEAL TO BE DAMAGED DURING MFG SUCH THAT RUBBER SEAL MATERIAL IS RELEASED FROM THE FILTER INTO THE ENGINE OIL. LOW OIL PRESSURE CONDITION WAS DUE TO A CHUNK OF THIS MATERIAL FOULING THE SEAT OF THE OIL PRESSURE REGULATING VALVE, KEEPING THE VALVE PARTIALLY OPEN. THE FILTER HAS BEEN DISSECTED AND I HAVE DIGITAL PHOTOS OF THE PARTS IN QUESTION AS WELL AS THE DEBRIS FOUND IN THE OIL SYSTEM. I WILL RETAIN CUSTODY OF THE PARTS, BUT I CAN MAKE THEM AVAILABLE FOR INSPECTION AT THE WICHITA, KS FAA OFFICE.
(CAN) ALTERNATOR FAILURE WHILE ON ROUTE TO DESTINATION WAS CAUSED BY AN AMP CONNECTOR LOOP END BREAKING OFF AND CAUSING LOSS OF ELECTRICAL POWER AND A SHORT IN THE SYSTEM. (TC NR 20060914003)

(CAN) CO PILOTS SEAT BACK WAS FOUND BROKEN ABOUT 2 INCHES ABOVE THE WELDED JOINT ON THE LT SIDE OF THE SEAT BACK. BROKEN PART REMOVED NEW SEAT BACK FRAME ON ORDER WITH CESSNA. (TC NR 20060914004)

UPON SHUTDOWN AFTER FLIGHT, PILOT PULLED ON CARBURETOR MIXTURE CABLE TO IDLE CUT-OFF. THE CABLE CAME OUT IN THE PILOTS HAND. SUSPECT CARBURETOR MIXTURE CABLE BROKE DURING FLIGHT. SUSPECT CABLE HAS A QUALITY ISSUE. NOTE: DID NOT EFFECT OPERATION OF AIRCRAFT DURING FLIGHT. REPLACED CABLE WITH NEW.

DURING PREFLIGHT, PILOT NOTICED HYD FLUID COMING FROM RT BRAKE AREA. REPORTED TO MAINTENANCE. FOUND RT BRAKE LINE LEAKING. REMOVED LINE AND DISCOVERED PINHOLE CORROSION UNDER CHAFE PROTECTOR AT LOWER BEND OF LINE. SUSPECT WATER ENTERED CHAFE PROTECTOR AND CAUSED CORROSION. THE CHAFE PROTECTOR SHOULD BE SEALED AT EACH END TO PREVENT MOISTURE FROM ENTERING. REPLACED PART - OPS CK OK.


METAL PIECES COMING OFF AIRFILTER (AIR FILTER P/N: CPE1173, PREVIOUSLY INSTALLED IAW STC NR SA01669CH. THE METAL PIECES THAT ARE COMING A PART ARE LOCATED ON THE TOP, FRONT AND REAR OF THE FILTER ASSEMBLY. AN FAA-PMA STAMP COVERS THE PN ON THE FILTER. THE ONLY IDENTIFYING FEATURES ON THE FILTER IS A K&N STAMP, AND A MESSAGE TO SERVICE AT 50,000 MILES.

(CAN) DURING CHANGEOVER FROM FLOATS TO WHEELS, AND DURING THE CHANGE FROM SEAPLANE PROP TO WHEELPLANE PROP , CLOSER INSPECTION OF THE FORWARD PROP SPINNER BULKHEAD REVEALED NUMEROUS CRACKS. THESE CRACKS WERE RADIATING FROM THE PROP ATTACHMENT BOLT HOLES, TO THE BEND RADIUS OF THE BULKHEAD (P/N 0552231-1). CRACKS WERE ALSO AROUND THE RADIUS WHERE THE PROP BOLT WASHERS MEET AGAINST THE SPINNER PLATE. AIRCRAFT HAD FLOWN 157.1 HRS ON FLOATS WITH NUMEROUS TAKEOFFS AND LANDINGS DURING FLOAT FLIGHT TRAINING. THIS SPINNER PLATE WAS LAST CHANGED 492.0 HRS AGO AFTER IT HAD AGAIN BEEN CHANGED OVER FROM FLOATS TO WHEELS. AT THAT TIME, THE PLANE HAD LOGGED 222.1 HRS OF FLOAT FLIGHT TRAINING, AND CRACKS WERE ALSO APPARENT AT THAT TIME AS WELL. AIRCRAFT HAS ONLY BEEN FLOWN 2 SUMMERS ON FLOATS. (TC NR 20060913001)

(CAN) BUSHING SEPARATED
(CAN) The main gear leg bushings are a steel outer tube, with a thick inner urethane center. During progressive care operation NR 1, inspection of the RT main gear leg revealed that the urethane inner bushing material had departed from the outer steel bushing (P/N 0541202-4). It had moved loosely along the tubular gear leg towards the center of the aircraft. This allowed the tubular gear leg to rattle on the inside of the steel outer bushing. The steel outer bushing is held in place with 2 (C) clips, however the urethane inner part of the bushing looks to be only a press fit. The aircraft was jacked up, the leg was removed, and a new bushing was installed. The other 3 model aircraft in the fleet have been inspected, and all found serviceable at this time. (TC NR 20060913002)

FAA1012002  CESSNA  LYC  BALANCE WEIGHT  TORN
9/26/2006  177RG  AEIO360A1B6  SPINNER

Propeller was balanced in place. 10 flight hours later, in cruise over Wyoming en route to Oshkosh, significant vibration occurred, causing diversion to the nearest airport. Upon landing, bystanders ran toward the airplane to effect rescue, assuming the airplane to be on fire from the large clouds of smoke. Balance weights had been attached by screw radially inside the spinner backing plate. The weights (three washers on one screw) had pulled through the aluminum of the backing plate, and the resultant projection damaged the cowl mount system and cowlung, as well as the backing plate, and separation of the balance weights. The imbalance created by this tearing of the backing plate caused severe vibration, which resulted in separation of an oil fitting on the rear of the engine. The ensuing loss of oil caused the large smoke cloud.

2006FA0000993  CESSNA  LYC  EXHAUST VALVE  STUCK
10/5/2006  182T  IO540AB1A5  LW19001  NR 5 CYLINDER

During a phase 2 inspection, cylinder NR 5 was found to have low compression (10/80) with a strong leak passed the exhaust valve. Subsequent inspection following the instructions found in Lycoming SB 388C revealed that the exhaust valve was partially stuck and would not fully close. The exhaust valve also could not be removed from the cylinder once the cylinder was removed from the engine. Lycoming recommends the following interval for inspecting non-helicopter engines, "400 hour intervals or earlier if valve sticking is suspected until exhaust valve guides are replaced with guides made of improved material (refer to latest revision of service instruction 1485)".

2006FA0001013  CESSNA  LYC  VALVE GUIDE  LEAKING
10/9/2006  182T  IO540AB1A5  ENGINE

Operator complained of an oil leak. When cowl was removed it was obvious that the NR3 and NR4 exhaust push rods and push rod housing were bent. Suspected sticking exhaust valves. Exhaust valve to guide clearance was checked on all cylinders IAW SB and the problem cylinders checked OK. Cylinders NR2 and NR5 checked below the specified clearance. Inspected the lifters associated the damaged push rods and found no other problems. All exhaust valve guides were reamed IAW SI 1425A, and exhaust valve stems were cleaned prior to reassembly. (K)

2006FA0001028  CESSNA  PWA  BEARING  BROKEN
9/12/2006  208B  PT6*  A4564  PROPELLER

Upon disassembly of this propeller IAW with MFG TECH REPORT NR940. It was discovered that the pitch change link bushings, P/N A4564, on blades NR 2 and NR 3 were broken and partially missing. At least 50 percent of the bushings were not in the link. The thickness of bushing would allow the blade angles of two of the three blades to be much different angle than they should be, leading to excessive vibration and loss of efficiency. (This was the reason for the higher vibrations reported by the flight crews). SB137AB has a mandatory specified time between overhauls for this propeller of 4000 hours or 72 calendar months, whichever comes first. This propeller was removed due to a calendar change, not due to hours in service. The TT on these parts were 1898.4, well short of the 4000 TBO. With the engine shut down the blades will be in the feather position and checking for play is difficult and not readily apparent due to the position...
OF THE BLADE ACTUATING PIN. TO CHECK FOR WEAR OR BROKEN BUSHING, P/N A4564, WITHOUT MAJOR DISSEMBLE; WILL REQUIRE THE REMOVAL OF THE FEATHERING SPRING, P/N C5022 USING SPECIAL TOOL, P/N E-5011. THIS SHOULD BE A PERIODIC CHECK AT 1000 HOURS OR ANYTIME EXCESSIVE VIBRATION IS NOTICED. (K)

CA060925001  CESSNA    PWA    FAIRING    LOOSE
9/25/2006    208B    PT6A114    264101828    RT MAIN GEAR

(CAN) DURING LANDING A SLIGHT THUMP AND A VIBRATION WAS FELT. AIRCRAFT LANDED WITHOUT INCIDENT. MAINTENANCE INSPECTED THE AIRCRAFT AND FOUND THE RT MAIN LANDING GEAR FAIRING (GEAR TO FUSELAGE FAIRING) WAS MISSING THE LOWER PORTION. THIS FAIRING IS A ONE PIECE FAIRING. THE LOWER PORTION OF THE FAIRING HAD BROKEN FREE. FURTHER INSPECTION FOUND MINOR DAMAGE TO THE RT HORIZONTAL STAB. LEADING EDGE. REPAIRS ARE CURRENTLY BEEN CARRIED AND A NEW FAIRING ORDERED TO BE REPLACED. (TC NR 20060925001)

CA060921006  CESSNA    PWA    LINE    CHAFED
9/5/2006    208B    PT6A114A    BLEED AIR


CA060908001  CESSNA    PWA    BOOT    DISTORTED
9/8/2006    208B    PT6A114A    29S7D517515    DEICE SYS

(CAN) THE CARGO POD DEICER BOOT EXHIBITS DETERIORATION DUE TO OIL/FUEL CONTAMINATION. SUSPECTED CAUSE IS LEAKING OR OPEN STOP COCKS ON THE ENGINE DRAINS. (TC NR 20060908001)

CA060906018  CESSNA    PWA    ENGINE    DAMAGED
7/17/2006    208B    PT6A114A

(CAN) DURING CLIMB THE ENGINE EMITTED A LOUD BANG ACCOMPANIED BY A LOSS IN POWER AND AN AGB CHIP DETECTOR INDICATION. THE ENGINE WAS SHUTDOWN IN FLIGHT. SUBSEQUENT INSPECTION REVEALED DEBRIS IN THE ACCESSORY AND REDUCTION GEARBOXES AND POWER TURBINE ROTOR DAMAGE. MFG WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED. (TC NR 20060906018)

CA060906015  CESSNA    PWA    ENGINE    FLAMED OUT
8/15/2006    208B    PT6A114A

(CAN) THE ENGINE WAS REPORTED TO EMIT A LOUD BANG IN FLIGHT FOLLOWED BY A FLAMEOUT. A DEAD-STICK LANDING WAS ACCOMPLISHED. SUBSEQUENT INSPECTION REVEALED DEBRIS IN THE ENGINE OIL FILTER AND SEIZURE OF THE COMPRESSOR. MFG WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED. (TC NR 20060906015)

1538T092806  CESSNA    PWA    DUCT    BLOWN
9/28/2006    421B    CM321110B335    RIGHT

CABIN BEGAN TO CLIMB AT 2000 FPM DURING CRUISE AT 12,500 FT. DESCENT TO 10,500 FT. CABIN WOULD ONLY MAINTAIN 2.5 PSID. CHECKED OUTFLOW AND SAFETY VALVES, MOISTURE DRAINS, LANDING GEAR BOOTS, FAILLEADS ALL FOUND OK. PERFORM GROUND CHECK OF SYSTEM FOUND NO AUDIBLE LEAKS ELSEWHERE IN CABIN AND DIFFERENTIAL CHECKED OK. PERFORMED SECOND GROUND CHECK AND PULLED CABIN AIR VALVES
ONE AT A TIME ISOLATED PROBLEM TO RIGHT SOURCE. FOUND DUCT PARTIALLY BLOWN OFF OF SONIC VENTURI. REMOVED DUCT AND FOUND .7500 INCH TEAR WHERE IT PASSES THROUGH WING RIB. MFG NO LONGER STOCKS A 33.5 DUCT, ONLY 38 INCH. -38 CUT DOWN IN THE FIELD AND INSTALLED BOTH WINGS. LT DUCTING REPLACED MARCH 2006. RT DUCTING WAS FOUND AIRWORTHY AT THAT TIME. RT DUCTING INSTALLED MAY 1999. 421B POH FOR LATER MODEL YEAR STATES THAT AT 65 PERCENT POWER PRESSURIZATION POSSIBLE FROM A SINGLE SOURCE. WHY THIS WAS INADEQUATE IN THIS CASE IS YET UNKNOWN.

FUEL HOSE RUPTURED, SPRAYING FUEL ON THE HOT EXHAUST MANIFOLD TO TURBO CHARGER CAUSING AN ENGINE FIRE ON THE GROUND. (K)

CREW REPORTED ALL HYDRAULIC SYSTEMS INOPERATIVE IN FLIGHT. LANDING GEAR WAS EXTENDED PNEUMATICALLY AND AIRCRAFT LANDED WITHOUT INCIDENT. IT WAS DETERMINED THE HYDRAULIC LOADING VALVE WAS NOT CLOSING ALLOWING HYDRAULIC PRESSURE TO BUILD. THE HYDRAULIC LOADING VALVE WAS REPLACED AND THE AIRCRAFT WAS RETURNED TO SERVICE. (K)

COMPONENT STUD APPEARS TO HAVE BEEN CRACKED FOR SOME TIME, RUST EVIDENT HALF WAY THRU BOLT CROSS SECTION AT THE START OF THE THREADED AREA, NEAR CENTER OF THE STUD. COULD POSSIBLY HAVE BEEN CAUSED BY MFG FLAW, OVER TORQUEING OF SAFETY JAMB NUTS, TO OVER RIGGING OF MLG DOOR (TOO TIGHT), IN THE GEAR UP POSITION. WHEN THIS LINK BREAKS, THE DOOR DROPS FURTHER THAN THE GEAR ALLOWING IT TO COME INTO CONTACT WITH THE GROUND DAMAGING THE GEAR DOOR, WHICH UNDER THE RIGHT CIRCUMSTANCE COULD CAUSE EXTENSIVE DAMAGE TO THE WING. (K)

DURING A PRE-BUY A/C INSPECTION, ENGINE SN 1903 WAS FOUND TO EXHIBIT A FRACTURED TRAILING EDGE OF HP TURBINE BLADE.

DURING A PHASE NR 5 A CRACH WAS FOUND IN THE LT & RT WHEEL WELL AREA ADJACENT TO THE INSIDE CORNER OF THE OPENING AT THE WHEEL WELL. A REPAIR WAS DONE AS PER SERRIA INDUSTRIES WING SKIN REPAIR ENGINEERING REPORT NR 3521-36 AND A DER 8110-3. THIS REPAIR HAS BEEN DONE ON SEVERAL OF OUR (26) AIRCRAFT AND IS NOT UNCOMMON TO SEE IN THE FIELD. I WOULD LIKE TO SEE CESSNA TO COME OUT WITH A SB KIT FOR THIS FIX FOR US IN THE FIELD RATHER THAN HAVING TO GET DER SUPPORTON OUR OWN.

(CAN) THE ENGINE FLAMED OUT DURING DESCENT. SUBSEQUENT INSPECTION REVEALED METAL PARTICLES IN THE FUEL SYSTEM DOWNSTREAM OF THE FUEL CONTROL UNIT. THE FUEL SYSTEM COMPONENTS WERE REPLACED. MFG WILL MONITOR INVESTIGATION OF THE FCU AND ADVISE OF ROOT CAUSE ONCE DETERMINED. (TC NR 20060905013)

DURING TAXI ON RAMP, LT BRAKE LOCKED UP (AIRCRAFT WAS MOVING AT A VERY LOW RATE OF SPEED), AFTER REMOVAL OF LT WHEEL, FOUND 1 STATOR BROKEN IN HALF, DROPPING DOWN ONTO WHEEL (BRAKE KEY), CAUSING WHEEL TO LOCK UP. NO DAMAGE NOTED TO WHEEL OR ANY OTHER PART OF AIRCRAFT. (K)

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8/14/2006  560CESSNA  PW535A  52771338  CABIN PRESSURE
(CAN) UNCOMMANDED PRESSURIZATION DURING DESCENT OF CABIN AT APPROX 10,000 FEET WHILE IN AUTO MODE - PREVENTING TO MANUAL MODE WOULD NOT DECREASE RATE OF CABIN DIVE - CREW CONTROLLED CABIN PRESSURIZATION BY CONTROLLING ENGINE BLEED AIR SOURCE VALVES SUPPLYING CABIN AIR. THIS PROBLEM IS CAUSED BY A STICKING OPEN DIVE SOLENOID VALVE IN THE PRIMARY OUTFLOW VALVE ASSEMBLY. MFG HAS INCORPORATED SB 560-21-27 TO INSTALL A PARTICULATE TRAP IN THE PNEUMATIC LINE TO PREVENT THIS PROBLEM. (TC NR 20060920005)

2006FA0001032  CESSNA  PWA  TIE ROD  CHAFED
10/25/2006  560CESSNA  PW535A  656120011  LEFT
LT BRAKE TIE-ROD CHAFING ON COCKPIT DEFROST DUCT APPROX 6 INCHES ABOVE COCKPIT FLOOR; ROD WORN APPROX. .030 INCHES. NO RELOCATION OF COMPONENTS POSSIBLE TO ALLEVIATE CHAFING. REPLACEMENT PART RECEIVED FROM MFG IS DIFFERENT PN AND SMALLER DIAMETER.

2006FA0001002  CESSNA  PWA  DOWNLOCK SWITCH  FAILED
9/6/2006  560XL  PW545A  SR008  RT MLG
AFTER TAKEOFF AND GEAR RETRACTION ALL GEAR LIGHTS WENT OUT. APPROX 5-10 INTO FLIGHT, NOTICED RT GREEN GEAR LIGHT WAS ON. NO OTHER ABNORMAL LIGHTS NOTED. 40 MINUTES LATER LIGHT EXTINGUISHED. TROUBLESHOOT SYS BY RIGING ALL DOWN LOCK SWITCH WIRING AND SWITCH MOUNTED TO RT GEAR ACTUATOR AND AFTER COLD SOAKING FOUND SWITCH SR008 (DOWNLOCK SWITCH) HAD A 2.209 M OHM READING WHEN OPEN (SHOULD BE NO READING). REPLACED MLG ACTUATOR WITH A RENTAL UNIT AND OPERATIONAL CHECKS WERE GOOD. RESERVED EMERGENCY PNEUMATIC GEAR EXTENSION. (K)

2006FA0001022  CESSNA  ALLSN  WINDSHIELD  FAILED
10/6/2006  750  AE3007C  NP13972112  COCKPIT
RT WINDSHIELD OUTER PANE FAILED IN FLIGHT. THE OUTER PANE IS NON STRUCTURAL AND DID NOT EFFECT THE INTEGRITY OF THE PRESSURE VESSEL. WINDSHIELD WAS SENT TO MFG ENGINEERING FOR FAILURE EVALUATION. (K)

F AA1012001  CESSNA  FUEL  LEAKING
10/7/2006  T182T  UNKNOWN  UNKNOW N

2006FA0000967  CESSNA  LYC  WINDOW  DAMAGED
9/22/2006  T206H  TIO540+  121140019  REAR WINDOW
THE FACTORY ORIGINAL REAR WINDOW OF THIS AC BEGAN TO DEVELOP A CONCAVE AREA IN THE CENTER OF THE WINDOW. THIS AREA WOULD BECOME MORE PRONOUNCED IN DIRECT SUNLIGHT. THIS AC IS 6 YEARS OLD AND HAS ACCUMULATED 674.52 HOURS. THE AC WAS HANGER KEPT MOST OF THE TIME. THE WINDOW WAS REPLACED WITH A NEW UNIT MEASURING .250 INCH THICK. AMPLE CLEARANCE WAS MAINTAINED TO PROVIDE ROOM FOR EXPANSION AND CONTRACTION YET STILL MAINTAINING ADEQUATE ENGAGEMENT OF WINDOW INTO WINDOW RETAINER. THE ORIGINAL WINDOW MEASURED .125 INCH THICK. THIS INSTALLATION WAS PERFORMED UNDER THE FIELD APPROVAL PROCESS AND REQUIRED ONLY MINOR BENDING AND REFORMING OF THE RETAINER FLANGE OF THE AIRCRAFT STRUCTURE TO ACCEPT THIS NEW THICKER WINDOW. HAD NOTED SIMILAR DISTORTION TO THIS SAME WINDOW IN OTHER LIKE MAKE AND MODEL AC. THIS DEFECT COULD BE CORRECTED BY REPLACING THE WINDOW AS INDICATED. (K)

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4/24/2006  CL2156B11215  PW123  215T950262

CA060516002  CNDAIR  PWA  INDICATOR MALFUNCTIONED
5/16/2006  CL2156B11215  PW123  1EN243R1  MLG
(CAN) INDICATOR ON THE LT MAIN LANDING GEAR ALWAYS INDICATES UP AFTER SELECTING DOWN. THE UP LOCK INDICATOR SWITCH HAS BEEN REPLACED. AIRCRAFT RETURNED TO SERVICE.

CA0606913004  CNDAIR  PWA  FUEL CELL LEAKING
9/6/2006  CL2156B11215  PW123  215640015  WING
(CAN) A/C DEVELOPED A FUEL LEAK. LEAK WAS MEASURED AND FOUND TO BE THE DRIP TYPE AND COMING FROM THE WING TIP AREA. UPON INSPECTION IT WAS DETERMINED THAT THE FUEL LEAK WAS COMING FROM THE RT FUEL CELLS. DUE TO PREVIOUS REPLACEMENT OF CELLS NR 3 THROUGH NR 8 IT WAS DETERMINED TO TEST CELLS NR 1 AND 2. BOTH CELLS WERE FOUND LEAKING AND SUBSEQUENTLY REPLACED. A/C GROUND CHECKED OK. P/N 215-64001-5 SERIAL NR 72672 NR 1 CELL P/N 215-64002-8 SN 72872 NR 2 CELL (TC NR 20060913004)

CA0606919004  CNDAIR  GE  VISOR CRACKED
9/17/2006  CL6002B19  CF343A1  60021134434  VERTICAL STAB
(CAN) BOTH THE LT AND RT LOWER VISOR ASSEMBLIES WERE FOUND DAMAGED FROM CRACKING AT THE AFT TOP END. THIS MAY HAVE BEEN DUE TO FLUTTER AT THE AFT END OF THE FAIRING DURING FLIGHT. SINCE IT IS ATTACHED TO THE MOVABLE HORIZONTAL STABILIZER, THERE IS NO FASTENERS AT THAT AFT END OF THE FAIRING. THERE WERE NO VIBRATIONS OR DEFECTS OF THAT THAT NATURE REPORTED ON THIS AIRCRAFT BEFORE IT CAME IN FOR A HEAVY CHECK DURING WHICH TIME THIS DAMAGED FAIRINGS WERE FOUND. HOWEVER THIS DAMAGE IS OFTEN NOTED ON OTHER AIRCRAFT AS WELL AND MAY OR MAY NOT HAVE CAUSED AIRFRAME VIBRATION OR INTERFERENCE WITH THE MOVING HORIZONTAL STABILIZER. (TC NR 20060919004)

CA0606918009  CNDAIR  GE  TRACK CRACKED
9/16/2006  CL6002B19  CF343A1  22850809119  THRUST REVERSER
(CAN) NR 2 ENGINE LT LOWER THRUST REVERSER TRACK FOUND CRACKED DURING A C-CHECK INSPECTION. PART REPLACED AS A MAIN TRACK ASSEMBLY P/N 228-50809-801. REFERENCE :MFG CSP A-006 IPC CHAP 78-34-11 FIGURE 1 , ITEM 75A AND 95A. (TC NR 20060918009)

2006FA0001008  CNDAIR  GE  CONTROL UNIT MALFUNCTIONED
10/2/2006  CL6002B19  CF343B1  HORIZONTAL STAB
REPORTED IN-FLIGHT SQUAWK, (STAB TRIM FAIL IN FLIGHT) ON AC. HSTCU WAS REMOVED AND SENT FOR TEST AND REPAIR. DURING BENCH TEST/INSPECTION THE FOLLOWING ITEMS WERE NOTED. UNIT MEMORY INDICATED (CP PITCH TRIM SWITCH JAMMED) (AC SWITCH). DURING AUTO TEST, (HSTCU DOOR SWITCH (PN 134-30901-005) FAILED) WAS INDICATED. DISSAY AND INSPECTION REVEALED SMALL AMOUNT OF CORROSION ON CIF ASSY OF HSTCU. PROBABLE CAUSES/RECOMMENDATIONS: KNOWN PROBLEM-UNRELIABLE TRIM SWITCH HAS A DOCUMENT THAT ADDRESSES THIS ISSUE. HSTCU DOOR SWITCH PROBABLY BENT AFTER INCIDENT DURING TROUBLESHOOTING, IF PRIOR TO FLIGHT FAULT WOULD HAVE BEEN INDICATED IN COCKPIT/CAUTION MECHANICS TO AVOID BENDING SWITCH ARM DURING MAINTENANCE ACTIONS. HSTCU CIF ASSY CORRODED/SB IS CURRENTLY AWAITING APPROVAL AND SUBSEQUENT RELEASE TO CORRECT THIS ISSUE. (K)

CA0606907008  CNDAIR  GE  LOCK MALFUNCTIONED
8/26/2006  CL6002B19  CF343B1  COCKPIT DOOR
(CAN) APPROXIMATELY 10 MINUTES PRIOR TO DESCENT, CALLED THE FLT ATTENDANT TO ENTER AND STAY IN THE FLIGHT DECK AS I WENT TO THE LAV. AFTER RETURNING AND ACTIVATING THE DOOR LOCK CODE THE FLIGHT ATTENDANT HAD PROBLEM UNLOCKING THE DOOR. THE FIRST OFFICER NOW HELPED AND ALSO NOT ABLE TO UNLOCK THE DOOR. I ALSO VERIFIED AND DISCUSSED ALL POSSIBLE OPTIONS VIA THE INTERPHONE. IT WAS DECIDED TO PULL THE DOOR PINS TO OPEN THE DOOR. AFTER RETURNING TO OUR POSITIONS,
RESECURED THE DOOR IN POSITION WITHOUT PINS AS NOT TO TRAP OURSELVES IN THE FLIGHT DECK IN THE EVENT OF AN EVACUATION. THE FLIGHT ATTENDANT JUMP SEAT WAS PUT INTO PLACE AS TO CREATE A BARRIER. AFTER LANDING MAINTENANCE WAS CALLED WHO RESECURED THE DOOR AND WAS UNABLE TO REPLICATE THE PROBLEM.

**CA060919006**  
9/16/2006  
CL6002C10  
CF34*  
601R3303311  
Cockpit Window Crack  
(CAN) LT SIDE-WINDOW REPLACED IAW AMM. AERODYNAMIC SEAL INSTALLED AND SEALING PERFORMED. CABIN PRESSURE TEST AND LEAK CHECK PERF, OK. WINDOW HEATING CHECKED, OK. (TC NR 20060919006)

**CA060918001**  
9/18/2006  
CL6012A12  
CF343A  
FLAP SYSTEM MALFUNCTIONED  
(CAN) FLAP FAILED ON TAKEOFF, A/C RETURNED AND LANDED SAFELY AT QB MAIN BASE, BREAKER WAS RESET IAW OPERATING MANUAL, COULDN`T DUPLICATED THE SNAG. A/C DID ONE FLIGHT AND RETURN TO BASE WITHOUT ANY SNAG.

**2006FA0001014**  
10/11/2006  
C46RCURTIS  
R280097  
23454G10  
NR 2 NACELLE  
FIRE WARNING LIGHT NR 2 ENGINE ZONE 2 AND 3 ILLUMINATED THEN EXTINGUISHED, VISUAL INSPECTION OF ENGINE SHOWS NO SIGN OF FIRE OR DAMAGE, SUSPECT FAULTY LOOP DETECTOR. (K)

**CA060925004**  
9/12/2006  
DHC2MKI  
R985*  
PISTON CRACKED  
(CAN) DURING REGULAR INSPECTION LOW COMPRESSION WAS NOTED ON NR 1 CYL. CYLINDER WAS REMOVED AND PISTON WAS CRACKED, CYLINDER ASSY WAS REPLACED. AIRCRAFT GROUND RUN WAS CARRIED OUT SATISFACTORY. (TC NR 20060925004)

**CA060822008**  
8/14/2006  
DHC2MKI  
R985AN14B  
C2P2009  
ENGINE  
FUEL SYSTEM

**CA060925002**  
8/19/2006  
DHC3  
ASZ62IRM18  
AKM621RA  
CARBURETOR LEAKING  

**CA060920009**  
8/19/2006  
DHC3  
ASZ62IRM18  
AKM621RA  
ENGINE  
CARBURETOR LEAKING  
9/6/2006  DHC6  PT6A27  C6UF10151  FRONT FLOAT
(CAN) ON TAKEOFF IN ROUGH WATER THE LT FRONT FLOAT STRUT BROKE AT THE UPPER END. STRUT REPLACED. (TC NR 20060920009)

CA060920010  DHAV  PWA  STRUT  BROKEN

9/6/2006  DHC6  PT6A27  C6UF10151  FRONT FLOAT
(CAN) ON LANDING IN ROUGH WATER THE RT FRONT FLOAT STRUT BROKE AT THE UPPER END. STRUT REPLACED. (TC NR 20060920010)

CA060920007  DHAV  PWA  GENERATOR  SHORTED

4/13/2006  DHC6  PT6A27  NR 2
(CAN) IN CLIMB BOTH GENERATORS TRIPPED OFF LINE AND WOULD NOT RESET. TROUBLE SHOOTING REVEALED AN INTERNAL SHORT IN THE NR 2 GENERATOR THAT CAUSED BOTH GENERATORS TO TRIP THROUGH THE BUSTIE. SUBMITTER FILE IS ADR 150. (TC NR 20060920007)

CA060906019  DHAV  PWA  SEAL  LEAKING

7/3/2006  DHC8102  PW120A  ENG OIL PUMP
(CAN) ENGINE OIL PRESSURE WAS REPORTED TO FLUCTUATE IN FLIGHT AND THE ENGINE WAS SHUT DOWN. SUBSEQUENT INSPECTION REVEALED A LEAKING HYDRAULIC PUMP PAD OIL SEAL. (TC NR 20060906019)

CA060818001  DHAV  PWA  LINE  CRACKED

8/3/2006  DHC8102  PW120A  2890410115  HYD SYSTEM
(CAN) HYD LINE IN UPPER FORWARD AREA OF NR 1 NACELLE CHAFED THROUGH AT ADJACENT ADELE CLAMP, LEAKAGE LOCATED AND LINE ASSY P/N 82970410-115 REPLACED, SYSTEM BLED AND REPRESSURIZED WITH NO FURTHER FAULTS. GOING THROUGH THE LAST 1 MONTH PERIOD THERE HAVE BEEN NO RELATED DEFECTS IN REGARDS TO ATA 29 ON THIS A/C. THIS WAS AN ISOLATED INCIDENT NOT A RECURRING DEFECT. NO SDR IS REQUIRED OR SUBMITTED. LAST SCHEDULED INSP WAS THE DAILY INSP OF AUG 3/06 AT TTAF 33549.3 HRS CURRENT TTAF ON A/C 33559.7 HRS. NEXT INSPI, DAILY INSPI DUE AUG 4 2006 L CHECK AUG 8 2006. (TC NR 20060818001)

CA060928001  DHAV  PWA  O-RING  DAMAGED

9/28/2006  DHC8301  S2L354  FUEL HEATER

CA060921002  DHAV  PWA  UNION  SHEARED

8/23/2006  DHC8301  PW123  AN81510D  NR 2 HYD SYST
(CAN) CREW REPORTED NR 2 ENG HYD PUMP CAUTION ILLUMINATED, PRESS AND QTY DEPLETED. FOLLOWING GEAR EXTENSION ON APPROACH. NO EMERGENCY DECLARED. MAINTENANCE FOUND THE HYD FITTING FROM THE EDP TO THE PRESS MANIFOLD SHEARED. SYD 8-29-002, REPLACEMENT OF ALUMINIUM UNION WITH STEEL UNION COMPLETED. (TC NR 20060921002)

CA060815002  DHAV  PWA  MECHANISM  SEIZED

8/14/2006  DHC8301  PW123  85220270001  EMERGENCY EXIT
(CAN) DURING INTERNALLY GENERATED MAINTENANCE FLEET CAMPAIGN TO CHECK FOR EMERGENCY DOOR OPERATING FORCE. MAINTENANCE UNABLE TO OPEN FORWARD EMERGENCY EXIT DOOR USING INTERNAL OR EXTERNAL HANDLE ( TASK 5220/07). REQUIRED DISASSEMBLY OF DOOR OUTER SHAFT MECHANISM TO ALLOW DOOR TO BE REMOVED. DISASSEMBLY OF OUTER SHAFT HANDLEFound BURR OF METAL ON SHAFT. DOOR REPAIRED AND MECHANISM LUBRICATED. AIRCRAFT HAD ACCUMULATED 1023HR/1823CY SINCE LAST SCHEDULED ACCOMPLISHMENT OF TASK 5220/07 IN JAN2006.
CA060816002  DHAV  PWA  GUARD  DAMAGED
7/7/2006  DHC8301  PW123  83231044005  RT NACELLE

(CAN) DURING CLIMB, AFTER GEAR UP SELECTION AMBER AND RED LIGHTS ILLUMINATED IN GEAR HANDLE, ALONG WITH 3 AMBER LANDING GEAR DOOR LIGHTS. A LOUD GRINDING NOISE WAS HEARD IN THE COCKPIT. AIRCRAFT RETURNED AND LANDED SAFELY TO THE ORIGINATING AIRPORT. MAINTENANCE FOUND RT NACELLE’S WHEEL WELL DEBRIS GUARD DAMAGED AND WAS REPLACED. NO MAINTENANCE WAS PREVIOUSLY PERFORMED IN THAT AREA. MAINTENANCE FEED-BACK REVEALED THAT THE DEBRIS GUARD GETS LOOSE QUITE OFTEN, DUE TO THE FASTENING SYSTEM USED. AIRFRAME HOURS WERE: 36610:07. CYCLES WERE: 40842. (TC NR 20060816002)

CA060810001  DHAV  PWA  ROD END  SEIZED
8/10/2006  DHC8301  PW123  MS2764639  EMERGENCY EXIT

(CAN) DURING A C-CHECK INSPECTION THE TASK WAS CALL UP TO INSPECT THE FWD EMERGENCY EXIT. UPON INSPECTION IT WAS DETERMINED THAT IT WAS EXTREMELY STIFF AND DIFFICULT TO OPERATE. UPON REMOVAL AND TROUBLESHOOTING IT WAS DETERMINED THAT THE CONNECTING ROD END (X10) REF IPC 52-20-00 FIG. 20 ITEM 180 WERE FOUND SEIZED INTERNALLY. THE FAILURE APPEARS TO BE DUE THE PHENOLIC BALL WIPER NOT ALLOWING THE BEARING TO ROLL FREELY. IT WAS ALSO DETERMINED THAT THE LAYSHAFT BEARINGS (X4) EXHIBITED ABNORMAL WEAR AND CORROSION ASSOCIATED WITH HIGH TIME BEARINGS REF IPC 52-20-00 FIG. 20 ITEM 590. 2 OF THE 4 HAVE FAILED DUE TO INTERNAL SEIZING. ALL PART ARE CURRENTLY BEING REPLACED.

CA060919003  DHAV  PWA  SOCKET  BURNED
9/18/2006  DHC8301  PW123  BV33001215  CABIN LIGHTS

(CAN) AFTER BOARDING WAS COMPLETED AND DOORS CLOSED, CA1 REPORTED A STRONG SMELL OF SMOKE COMBINED WITH LIGHT SMOKE DEVELOPMENT IN THE CABIN. CONTROLLED DISEMBARKATION WAS ORDERED, MAYDAY CALL PERFORMED AND ON GROUND EMERGENCY ITEMS COMPLETED ON THE FLIGHT DECK. AFTER PAX DISEMBARKATION COCKPIT CREW DISCHARGED ONE FIRE EXTINGUISHER INTO THE AREA OF SMOKE DEVELOPMENT AND THEN DISEMBARKED THE A/C. REASON FOR THE SMOKE DEVELOPMENT WAS A SHORT IN THE OVERHEAD LIGHTING SYSTEM. THE FAULT OCCURED ON THE FIRST LT OVERHEAD LAMP HOLDER. HOLDER FOUND BURNED. (TC NR 20060919003)

CA060918011  DHAV  PWA  BEARING  DAMAGED
9/6/2006  DHC8311  PW123  L312111  MLG WHEEL

(CAN) AT TIRE CHANGE, DURING WHEEL AND BEARING INSPECTION FOUND THE OUTER WHEEL OUTER BEARING CUP, WITH A PLATING SURFACE MISSING (.3750 INCH X .2500 INCH) AND ROLLER BEARING P/N L81214 * 2-629 THAT MATCH THIS CUP WITH LITTLE MARK ON ROLLER. WHEEL AFT VISUALLY INSPECTED AND FOUND OK. (TC NR 20060918011)

CA060929001  DHAV  PWA  BEARING  WORN
9/18/2006  DHC8311  PW123  DSC5108  LT AILERON

(CAN) THE DEFECT WAS FOUND DURING A REPAIR OF WING TIP LIGHTNING STRIKE ON SEPTEMBER 18, 2006 AT A/C TCSN 35,548 CYCLES. AT THE OUTER AILERON THE HINGE FITTING ASSY SHOWED A PREMATURE BEARING WEAR.

CA060918005  DIAMON  CONT  GEAR  WORN
9/8/2006  DA20C1  IO240B  656762  STARTER

(CAN) DURING THE FIRST 25/100 HR INSPECTION ON THIS AIRCRAFT, INSPECTION OF THE OIL SYSTEM REVEALED CONTAMINATION ON THE DRAIN PLUG MAGNET AND OIL FILTER. SUBSEQUENTLY, THE STARTER WAS REMOVED FOR CLUSTER AND DRIVE GEAR INSPECTION. THE STARTER AND CLUSTER GEARS WERE FOUND DAMAGED IN THE AREA OF INITIAL STARTER ENGAGEMENT. THE DAMAGE EXCEEDED THE NORMAL WEAR DESCRIBED IN SB04-07. BOTH STARTER AND CLUSTER GEARS WERE REPLACED. (TC NR 20060918005)

CA060918006  DIAMON  CONT  GEAR  WORN
9/15/2006  DA20C1  IO240B  656762  STARTER

(CAN) DURING TROUBLESHOOTING OF THE FUEL SYSTEM DUE TO ENGINE QUITTING ON ROLL OUT FROM
LANDING, THE ENGINE FUEL SYSTEM WAS BEING CHECKED IAW SID97-3C, AT WHICH TIME DURING A GROUND RUN IT WAS NOTICED THAT OIL PRESSURE HAD DROPPED TO ALMOST (0). THE ENGINE WAS SHUTDOWN IMMEDIATELY. FURTHER INSPECTION OF THE LOSS OF OIL PRESSURE REVEALED METAL CONTAMINATION ON THE OIL PRESSURE RELIEF VALVE. FURTHER INSPECTION OF THE OIL SYSTEM REVEALED MORE CONTAMINATION ON THE DRAIN PLUG MAGNET AND OIL FILTER. SUBSEQUENTLY THE STARTER WAS REMOVED FOR CLUSTER AND DRIVE GEAR INSPECTION. THE STARTER AND CLUSTER GEARS WERE FOUND DAMAGED IN THE AREA OF INITIAL STARTER ENGAGEMENT. THE DAMAGE EXCEEDED THE NORMAL WEAR DESCRIBED IN SB04-07. BOTH STARTER AND CLUSTER GEARS WERE REPLACED. (TC NR 20060918006)

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</tr>
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<tbody>
<tr>
<td>9/15/2006</td>
<td>DIAMON</td>
<td>CONT PUMP</td>
<td>OUT OF ADJ</td>
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</tr>
<tr>
<td>9/7/2006</td>
<td>DORNER</td>
<td>PWA SEAL</td>
<td>LEAKING</td>
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</tr>
</tbody>
</table>

(CAN) PILOT REPORTED ENGINE QUIT ON TOUCH DOWN, ABLE TO RESTART. FUEL INJECTION SYSTEM CHECKED IAW SID97-3C AND ADJUSTED. BOTH INLINE FUEL FILTERS INSPECTED FOR CONTAMINANTS, CLEANED AND RE-INSTALLED. SMALL AMOUNT OF CONTAMINANTS FOUND IN INLINE FILTER AFTER THE MECHANICAL FILTER. AIRCRAFT RELEASED CONDITIONAL TO SATISFACTORY TEST FLIGHT. AIRCRAFT TEST FLIGHT CARRIED OUT SATISFACTORY. A SISTER AIRCRAFT HAS REPORTED A SIMILAR DEFECT. AN SDR WILL BE SUBMITTED AFTER TROUBLESHOOTING IS COMPLETED. TROUBLESHOOTING IS BEING CARRIED OUT BY DIAMOND AIRCRAFT. THESE 2 AC EQUIPED WITH NEW ALTITUDE COMPENSATION FUEL PUMPS. (TC NR 20060918007)

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</table>

(CAN) FOLLOWING TAKEOFF ENGINE OIL PRESSURE WAS SEEN TO FLUCTUATE AND DECAY TO ZERO. THE ENGINE WAS SHUTDOWN IN FLIGHT AND THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED A LEAKING ALTERNATOR DRIVE SEAL. (TC NR 20060906022)

<table>
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THE NR 1 PFD DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF THE DU FAILURE.

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THE NR 4 MFD DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF THE DU FAILURE.
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<tr>
<th>Date</th>
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<th>PW306B</th>
<th>DU870</th>
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<td>PW306B</td>
<td>DU870</td>
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THE NR 5 PFD DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF THE DU FAILURE.

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THE NR 1 PFD DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF THE DU FAILURE.

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<td>EFIS</td>
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THE NR 2 MFD DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF THE DU FAILURE.

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THE NR 4 MFD DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF THE DU FAILURE.

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<tr>
<th>CA060915002</th>
<th>EMB</th>
<th>GE</th>
<th>SHAFT</th>
<th>BROKEN</th>
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<tr>
<td>9/14/2006</td>
<td>ERJ190100IGW</td>
<td>CF34*</td>
<td>2043M12P03</td>
<td>FUEL PUMP</td>
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(CAN) DURING CRUISE AT FL360, THE NR 1 ENGINE FAILED. THE CREW DECLARED AN EMERGENCY AND BEGAN DESCENT. DURING THE DESCENT A RE-START WAS ATTEMPTED BUT WAS UNSUCCESSFUL. THE FLIGHT DIVERTED AND LANDED APPROX 400 KG OVERWEIGHT. (TC NR 20060915002)

<table>
<thead>
<tr>
<th>CA060919005</th>
<th>FOKKER</th>
<th>RROYCE</th>
<th>ACTUATOR</th>
<th>MALFUNCTIONED</th>
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<tbody>
<tr>
<td>9/10/2006</td>
<td>F28MK0100</td>
<td>TAY65015</td>
<td>233009</td>
<td>SPEED BRAKE</td>
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</table>

(CAN) FLIGHT CREW REPORTED THAT THE SPEED BRAKE WOULD NOT RETRACT UPON SELECTION TO DO SO. FOLLOWING LANDING, BOTH PADDLES CONFIRMED OPEN. AIRCRAFT WAS FERRIED TO BASE, WHERE THE SPEED BRAKE ACTUATOR WAS REPLACED. SYSTEM TESTED SERVICEABLE AFTER REPLACEMENT. SPEED BRAKE ACTUATOR PN 23300-9 SN MC-046 WAS REPLACED MFG SERVICES HAVE REQUESTED THIS ACTUATOR FOR ANALYSIS DUE TO SIMILAR REPORTS FROM OTHER OPERATORS. ITEM OPEN TO MONITOR THE FOLLOW UP VIA
CA060920006  FOUND  LYC  BOLT  BROKEN  
9/12/2006  FBA2C  IO540*  HORIZONTAL STAB  
(CAN) UPON REMOVAL OF THE LT FINLET THE REAR ATTACH BOLT (P/N AN3-4A) BROKE. WHEN INSTALLING 4 NEW BOLTS IT WAS NOTICED THAT THE WASHER RODE UP ON THE RADIUS OF THE ATTACH BRACKET CAUSING STRESS ON THE BOLT. WHEN HOLE LOCATION WAS CHECKED AGAINST THE RT FINLET THERE WAS .100 OF AN INCH DIFFERENCE. A SMALL FLAT WAS GROUND IN THE WASHER SO IT WOULD NOT RIDE UP IN THE RADIUS WHEN BOLT INSTALLED. (TC NR 20060920006)  

2006FA0001015  GULSTM  TEE FITTING  CRACKED  
10/19/2006  G1159  AN78310D  BULKHEAD  

2006F00048  ISRAEL  PROBE  MALFUNCTIONED  
9/25/2006  1124A  6653505509  FUEL SYSTEM  
PRIOR TO REFUELING AIRCRAFT, CREW NOTICED LEFT FUEL QUANTITY GAUGE WAS 1400 LBS HEAVIER THAN RIGHT. SUBMITTED SPECIAL FLIGHT PERMIT AND RETURNED TO BASE. FOUND LEFT MAIN FUEL PROBE BAD. REMOVED AND REPLACED FUEL PROBE, CALIBRATED FUEL QUANTITY SYSTEM. PERFORMED FUNCTIONAL CHECK FLIGHT, NO DEFECTS NOTED.  

FAA1031001  ISRAEL  ALIDSG  SKIN  DELAMINATED  
10/27/2006  1125  TFE7313AR  ELEVATOR  
DEBOND AREA APPROX. 7 IN X 7 IN ON THE RT OB ELEVATOR LOWER COMPOSITE SKIN. ELEVATOR WAS SENT TO MFG FOR EVALUATION AND WAS DEEMED (BEYOND ECONOMICAL REPAIR). A LOANER UNIT WAS INSTALLED WHILE NEW/EXCHANGE UNIT PREPARED. REPLACEMENT ELEVATOR INSTALLED ON THIS DATE.  

2006FA0000987  LEAR  GARRRT  LINE  CHAFED  
9/22/2006  31  TFE731*  25160281  BOOST PUMP  
BLEED AIR CLAMP POSITIONED OB OF FUEL LINE CHAFED INTO FUEL LINE CAUSING A FUEL LEAK WITH BOOST PUMP PRESSURE. (K)  

2006FA0000989  LEAR  GARRRT  PANEL  CRACKED  
9/22/2006  45LEAR  TFE731*  4555030001803  VERTICAL STAB  
DURING MAINTENANCE, DISCOVERED PANEL HAD 6 INCHES LONG CRACK RUNNING VERTICAL AT FWD ATTACH HOLES. PANEL WAS REPLACED. (K)  

CA060925008  LEAR  GARRRT  STRUT  UNDERSERVICED  
9/19/2006  45LEAR  TFE7312  45325400018  NLG  
(CAN) AFTER TAKEOFF LANDING GEAR WAS SELECTED UP AND ALL LANDING GEAR NOT-UP AND LOCKED LIGHTS DID NOT EXTINGUISH. AIRCRAFT DIVERTED AND AFTER LANDING IT WAS DISCOVERED THE NOSE STRUT WAS COMPLETELY COLLAPSED. THE NOSE STRUT WAS RE-SERVICED WITH NITROGEN AND GEAR SWINGS ACCOMPLISHED WITH NO PROBLEMS. ON RETURN TO OUR BASE, THE NOSE STRUT WAS MODIFIED TO NEW PN 4532230001-804 (MODIFICATION OF UPPER STRUT SEAL ASSY. INSTALLATION) (TC NR 20060925008)  

CA060919002  LEAR  GARRRT  SPLINE  CRACKED  

<table>
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<th>Part/Component</th>
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<tr>
<td>9/18/2006</td>
<td>LEAR</td>
<td>TFE7312</td>
<td>(CAN) ENGINE FAILED TO START. AFTER INSPECTION FOUND THAT STARTER/GEN SPLINE INSERT HAD CRACKED CAUSING THE SPLINE TEETH TO BREAK OFF. UNABLE TO DETERMINE IF CRACK HAD OF OCCURRED BEFORE OR AFTER GEAR TEETH HAD BROKEN OFF. REPLACE SPLINE AND AIRCRAFT STARTED NORMALLY. FLEET INSPECTION TO BE C/O. (TC NR 20060919002)</td>
</tr>
<tr>
<td>10/3/2006</td>
<td>LEAR</td>
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<td>LT ENGINE</td>
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<td>BRUSH BLOCK</td>
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<td>9/21/2006</td>
<td>M20R</td>
<td>IO550G</td>
<td>SELECTOR VALVE</td>
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DURING ANNUAL INSPECTION, FOUND PRECISE FLIGHT SVS V, SN 17245 (T-FITTING) LOOSE IN HOUSING. IF FITTING PULLED OUR YOU WOULD HAVE COMPLETE VACUUM SYS FAILURE. (K)
FUEL SELECTOR VALVE STUCK IN (OFF) POSITION WHILE AIRCRAFT WAS SITTING ON THE RAMP. ONCE STUCK IN THE OFF POSITION, IT BECAME IMPOSSIBLE TO TURN USING HAND FORCE. (K) 

2006FA0001004 MTBSI GARRTT RESTRICTOR VALVE FAILED 10/9/2006 MU2B26 TPE3310T 8964214 REDUCTION GB 

FOLLOWING O/H AND INSTALLATION OF ENGINE ON AC AN IN-FLIGHT CHECK OF THE NTS SYSTEM WAS PERFORMED IAW MM INSTRUCTIONS. UPON ACTUATION OF THE STOP SWITCH BY THE PILOT FOR THE LT ENGINE THE AC YAWED NOSE LT APPROXIMATELY 20 TO 25 DEGREES. ALSO, THE ENGINE RPM HESITATED TO DECAY FOR 1 TO 2 SECONDS THEN DECAAYED NORMALLY TO 35 PERCENT RPM. TROUBLESHOOTING FOLLOWING FLIGHT SHOWED THAT THE (TRIP) PRESSURE OF THE ENGINE WAS HIGHER THAN NORMAL AND THE DECISION WAS MADE TO REPLACE THE TORQUE SENSOR ASSY PN 31017263. A SECOND IN-FLIGHT CHECK OF THE NTS SYSTEM WAS PERFORMED WITH THE SAME UNSATISFACTORY RESULTS. FURTHER TROUBLESHOOTING IAW MM. INSTRUCTION WAS CONDUCTED WITH NO DEFECTS NOTED. ENGINE REDUCTION GEARBOX WAS DISASSEMBLED FOR FURTHER INSPECTION NTS RESTRICTOR ASSY PN 8964214 WAS FOUND INSTALLED, INCORRECT PN FOR THIS ENGINE MODEL. CORRECT PN 8964212 PROCURED AND INSTALLED. A THIRD IN-FLIGHT CHECK OF THE NTS SYSTEM FUNCTIONED PROPERLY WITH NO YAW OR HESITATION NOTED. (K) 

CA060905014 PILATS PWA ENGINE SMOKE 8/4/2006 PC12 PT6A67B 

(CAN) THE ENGINE WAS REPORTED TO HAVE CAUSED SMOKE IN THE CABIN AIR, REQUIRING THE DEPLOYMENT OF OXYGEN MASKS. MFG WILL INVESTIGATE THE INCIDENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED (TC NR 20060905014) 

CA060913006 PILATS PWA WHEEL DAMAGED 9/13/2006 PC1245 PT6A67B 40424 MLG 

(CAN) DURING AN INSPECTION WHEEL ASSY WAS REMOVED, GREASE COVER FOR THE BEARING AND BEARINGS REMOVED FOR INSPECTION/REPACKING. THE WHEEL WAS THEN CLEANED AND INSPECTED FOR WEAR. AT THAT POINT IT WAS NOTICED THAT THE WHEEL HOUSING HAD SEVERAL DEEP GROOVES WHERE THE GREASE COVER SITS. WE HAVE NOTICED THIS PROBLEM ON OTHER WHEEL ASSY BUT TO A LESSER DEGREE. WE HAVE SENT AN E-MAIL TO MFG AND INFORMED THEM OF THIS PROBLEM. (TC NR 20060913006) 

CA060909001 PILATS PWA SCREW LOOSE 9/6/2006 PC1245 PT6A67B NAS1581C3T11 WINDSCREEN 

(CAN) DURING A SCHEDULED PRESSURIZATION CHECK LEAKS WHERE NOTED FROM THE WINDSCREEN ATTACHMENT SCREWS. ATTACHMENT SCREWS RE-TORQUED WHICH REVEALED THAT SEVERAL WERE LOOSE. ALTHOUGH THIS IS NOT AN UNHEARD OF SITUATION IT SEEMS TO BE HAPPENING MORE AND MORE. 2 MORE SDRS WILL BE ENTERED FOR SIMILAR ISSUES. NO OTHER PROBLEMS WERE ENCOUNTERED AND THE AIRCRAFT WAS RETURNED TO SERVICE. (TC NR 20060909001) 

CA060909002 PILATS PWA SCREW LOOSE 9/8/2006 PC1245 PT6A67B NAS1581C3T11 WINDSCREEN 

(CAN) DURING A SCHEDULED PRESSURIZATION CHECK LEAKS WHERE NOTED FROM THE WINDSCREEN ATTACHMENT SCREWS. ATTACHMENT SCREWS RE-TORQUED WHICH REVEALED THAT SEVERAL WERE LOOSE. ALTHOUGH THIS IS NOT AN UNHEARD OF SITUATION IT SEEMS TO BE HAPPENING MORE AND MORE. 2 MORE SDRS WILL BE ENTERED FOR SIMILAR ISSUES. NO OTHER PROBLEMS WERE ENCOUNTERED AND THE AIRCRAFT WAS RETURNED TO SERVICE. (TC NR 20060909002) 

CA060909003 PILATS PWA SCREW BACKED OUT 8/23/2006 PC1245 PT6A67B NAS1581C3T11 WINDSCREEN 

(CAN) ON A WALKAROUND SEVERAL WINDSCREEN ATTACHMENT SCREWS WERE NOTED AS BEING PARTIALLY BACKED OUT. ALL ATTACHMENT SCREWS RE-TORQUED AND SEVERAL MORE WERE FOUND TO BE LOOSE. SCREWS RETORQUED AND AIRCRAFT RETURNED TO SERVICE. (TC NR 20060909003) 

2006FA0000980 PIPER CONT SLICK ROTOR INOPERATIVE
9/29/2006  PA18  C90*  M3548  RT MAGNETO
PILOT NOTICED LACK OF POWER AND ROUGHNESS AFTER TAKEOFF. RETURNED TO FIELD, DISCOVERED INOPERATIVE RT MAGNETO. DISASSEMBLY OF RT MAGNETO REVEALED ROTOR SHAFT HAD SHEARED FLUSH WITH BOTTOM OF CAM CUTOUT. THE REMAINING ROTOR AND DISTRIBUTOR BOTH ROTATED FREELY. NO EVIDENCE OF PROBLEMS WITH EITHER GEAR. PROBABLE CAUSE IS A DEFECT IN MFG (POSSIBLY BAD METAL OR STRESS CRACK FROM MACHINING CAM SLOT. (K)

2006FA0000974  PIPER  LYC  SELECTOR VALVE  FAILED
9/29/2006  PA18125  O290*  1138303  FUEL SYSTEM
FUEL SELECTOR/SHUTOFF VALVE HANDLE MOVED BUT VALVE DID NOT SELECT FROM LT FUEL TANK TO RT FUEL TANK. ENGINE RAN OUT OF FUEL FROM THIS AND AIRCRAFT LANDED ON ROAD. AD 60-10-08 WAS COMPLIED WITH 45 HOURS EARLIER. IA MECHANIC SUGGESTS THAT ROUTINE CLEANING OF VALVE AND INSPECTION OF PLASTIC PLUGS AROUND SHAFT MOUNTING HOLES CRACKS OR REPLACEMENT OF PLASTIC PLUGS WITH BRASS PLUGS. TIME IN SERVICE OF SELECTOR VALVE 11383-03 UNKNOWN.

CA060905002  PIPER  LYC  PIPER  BOLT  SHEARED
8/30/2006  PA18150  O320A2B  1003306  AN626  MLG
(CAN) DURING A ROUTINE INSPECTION OF THE AIRCRAFT, IT WAS DISCOVERED THAT THE FORWARD LT LANDING GEAR ATTACH BOLT WAS LOOSENED IN THE FUSELAGE ATTACH FITTING. CLOSER EXAMINATION FOUND THE BOLT TO BE SHEARED ABOUT HALF WAY DOWN THE SHANK OF THE BOLT. ALL FOUR LANDING GEAR ATTACHMENT BOLTS WERE REMOVED AND REPLACED WITH NEW BOLTS. THE OTHER 3 BOLTS SHOWED SIGNS OF WEAR BUT ONLY THE ONE HAD SEPARATED. (TC NR 20060905002)

FAA1023001  PIPER  LYC  EXHAUST VALVE  SEPARATED
10/13/2006  PA28140  O320*  ENGINE
PILOT REPORTED ENGINE VIBRATION FOLLOWED BY PROGRESSING LOSS OF POWER WHICH EVENTUALLY LED TO COMPLETE LOSS OF POWER AND ENGINE FAILURE. PILOT EXECUTED AN UNEVENTFUL EMERGENCY LANDING ON A PAVED STATE HIGHWAY. NO DAMAGE TO AIRCRAFT UPON LANDING. RESULTS OF ENGINE EXAMINATION AND PARTICULAR PART FAILURE INFORMATION TO FOLLOW:

5292S1006  PIPER  LYC  EXHAUST VALVE  SEPARATED
10/13/2006  PA28140  O320*  ENGINE
PILOT REPORTED ENGINE VIBRATION FOLLOWED BY PROGRESSING LOSS OF POWER WHICH EVENTUALLY LED TO COMPLETE LOSS OF POWER AND ENGINE FAILURE. PILOT EXECUTED AN UNEVENTFUL EMERGENCY LANDING ON A PAVED STATE HIGHWAY. NO DAMAGE TO AIRCRAFT UPON LANDING. UPON EXAMINATION OF THE ENGINE, FOUND NR 3 CYLINDER EXHAUST VALVE HEAD FAILURE AND FRAGMENTS OF FAILED EXHAUST VALVE HEAD FOUND IN INDUCTION SYSTEM.

2006FA0000990  PIPER  LYC  BRUSH HOLDER  WORN
9/14/2006  PA28161  O320*  60A4111810R  ALTERNATOR
DURING AC OPERATION, ALTERNATION CEASED PUTTING OUT POWER. UPON INSPECTION AFTER REMOVAL, FOUND FIELD BRUSHES PREMATURELY WORN, AND COCKED OVER IN BRUSH HOLDER. (K)

2006FA0001010  PIPER  LYC  ROD END  BROKEN
9/13/2006  PA28R200  IO360C1C  89307000  CONTROL CABLE
ROD END BROKE AT POINT OF ATTACHMENT ON SERVO ARM. APPEARS BOLT MAY HAVE BEEN OVER TORQUED AT SOME POINT WHICH CAUSED A STRESS CRACK AND FAILURE OF BOLT AT POINT OF ATTACHMENT. TORQUE BOLT AT TIME OF INSTALLATION. (K)

2006FA0000991  PIPER  LYC  ALTERNATOR  INOPERATIVE
9/14/2006  PA28R201  4111810  ENGINE
ALTERNATOR CEASED OPERATION WITH ONLY 109 HOURS ON IT IN LIKE NEW CONDITION. (K)

2006FA0000969  PIPER  LYC  JANITROL  SHUTOFF VALVE  LEAKING
<table>
<thead>
<tr>
<th>Date</th>
<th>PA</th>
<th>TIO</th>
<th>PN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/27/2006</td>
<td>PA31</td>
<td>TIO540</td>
<td>A23D04</td>
<td>HEATER DURING ANNUAL INSPECTION FOUND FUEL LEAKING AROUND DIAPHRAGM JOINT. PART MADE BY DURING FIRST QUARTER OF 2001. PN A23D04, 7.5 PSI, 24 VOLT.</td>
</tr>
<tr>
<td>10/20/2006</td>
<td>PA31</td>
<td>TIO540J2BD</td>
<td>2B663OH</td>
<td>FUEL BOOST LT FUEL BOOST PUMP FAILED ON RUNUP, DEBRIS CONTAMINATED FUEL SYSTEM, DAMAGED ENGINE DRIVEN FUEL PUMP, FUEL FLOW TRANSUDER, CONTAMINATION FOUND IN FUEL SERVO FUEL INLET SCREEN. SERVO REMOVED AND SENT TO REPAIR FACILITY FOR INSPECTION AND OR REPAIRS.</td>
</tr>
<tr>
<td>10/2/2006</td>
<td>PA31</td>
<td>TIO540</td>
<td>AN617</td>
<td>BOLT BROKEN MFG SL NR 1092, DATED 06/15/2005 DEALS WITH REPLACEMENT OF RETRACTION ARMS, P/N 42042-000 OR 42042-002 AT 6000 HOURS AND TO PERFORM INSPECTION FOR CRACKS USING 10X MAGNIFYING GLASS AND DYE PENETRANT AFTER REACHING 1500 HOURS AND AT EACH 250 HOURS THEREAFTER UNTIL ACCUMULATION OF 6000 HOURS. THERE IS NO INSPECTION CRITERIA FOR INSPECTION AND REPLACEMENT OF ATTACHING HARDWARE. ATTACHMENT BOLTS HAVE BEEN VISUALLY INSPECTED EACH 250 HOURS WHEN REMOVED TO INSPECT RETRACTION ARMS. HOWEVER, BOLT FAILED AND WAS FOUND BROKEN AND SHEARED OFF WITH ONLY HEAD PORTION STILL IN PLACE. IT APPEARS THAT WITH BOLT SHEARED, THE LANDING GEAR ACTUATOR WAS PLACED IN A BIND WHICH BROKE THE BALL LINK THAT SCREWS IN THE MAIN SHAFT OF THE LANDING GEAR ACTUATOR. AIRCRAFT WAS ABLE TO LAND WITHOUT INCIDENT.</td>
</tr>
<tr>
<td>8/25/2006</td>
<td>PA31</td>
<td>TIO540</td>
<td>AN617</td>
<td>BOLT BROKEN AIRCRAFT HAD GEAR UNSAFE LIGHT AND NO LT DOWN AND LOCKED INDICATION LIGHT, AS WELL. THE GEAR HANDLE WOULD NOT RETURN TO NEUTRAL POSITION. AIRCRAFT LANDED WITHOUT INCIDENT. WE BELIEVE THAT THE UPPER BOLT THAT RETAINS THE MAIN GEAR RETRACTION ARM BROKE DUE TO FATIGUE. THIS ALLOWED THE MAIN GEAR ACTUATOR TO BIND ON THE UPPER SECTION OF THE DRAG LEG AND BROKE THE MAIN GEAR ACTUATOR BALL END OUT OF THE MAIN SHAFT OF THE ACTUATOR. THERE IS SL NR 1092, DATED JUNE 15TH, 2005 THAT REQUIRES THE MAIN GEAR RETRACTION ARMS, PN 42042000 OR 42042002 TO BE INSPECTED USING A 10X MAGNIFYING GLASS AND LIQUID PENETRANT INSPECTION AFTER REACHING 1500 HOURS TIME IN SERVICE AND THEREAFTER AT EACH 250 HOURS UNTIL THAT PART REACHES RETIREMENT AGAIN AT 6000 HOURS. THERE IS NO REQUIREMENT FOR THE 2 BOLTS, PN AN6-17 THAT RETAIN THE MAIN GEAR RETRACTION ARMS TO BE INSPECTED OR REPLACED. THESE BOLTS ARE INSPECTED DURING THE RETRACTION ARM REMOVAL AND INSPECTIONS BY A VISUAL CHECK FOR THE WEAR AND CORROSION. WE BELIEVE THAT THESE BOLTS NEED TO ALSO HAVE A LIFE LIMIT OR BE MAGNAFLUX INSPECTED. NOTE: THESE BOLTS SHOWED LITTLE WEAR AND THE BOLT THAT FAILED, APPEARS THAT IT MAY HAVE BEEN CRACKED FOR SOMETIME BEFORE IT FAILED COMPLETELY, BUT WAS NOT DETECTED DURING THE LAST COMPLIANCE WITH SL-1092.</td>
</tr>
<tr>
<td>8/29/2006</td>
<td>PA31</td>
<td>TIO540J2BD</td>
<td>486597</td>
<td>RT FLAP (CAN) DURING APPROACH AND FLAP EXTENSION TO 5 DEGREES CREW NOTICED AIRCRAFT ROLL TO THE RT AND OBSERVED THAT THE RT FLAP HAD NOT EXTENDED. THE LANDING WAS UNEVENTFUL. MAINTENANCE INVESTIGATION REVEALED THE RT FLAP DRIVE CABLE SPLINES AT THE MOTOR END WERE WORN AWAY. THE RT FLAP DRIVE CABLE ASSY WAS REPLACED AND OPERATION CHECKED NORMAL. (TC NR 20060830003)</td>
</tr>
</tbody>
</table>
| 9/5/2006   | PA31 | TIO540J2BD | 486597 | LT ENGINE (CAN) AIRCRAFT (CARGO FLIGHT, NO PASSENGERS, 2 CREW ON BOARD) RETURNED AFTER TAKEOFF WITH REPORT OF LT ENGINE RUNNING VERY ROUGH AND PARTIAL POWER LOSS AS INDICATED BY SLIGHT YAW OF THE AIRCRAFT AND LT ENGINE RPM FLUCTUATION OF APPROX. 200 RPM. MAINTENANCE INVESTIGATION REVEALED NR3 CYLINDER SPARK PLUGS FOULED; REPLACED WITH NEW FINE-WIRE TYPE PLUGS AND GROUND RUN CHECKED SERVICEABLE. SNAG REOCCURRED NEXT FLIGHT AND AIRCRAFT TAKEN OUT OF SERVICE FOR MAINTENANCE. ALL LT ENGINE FUEL INJECTOR NOZZLES CLEANED, ALL FUEL INJECTOR LINES CLEANED AND GROUND RUN CHECKED SERVICEABLE. AIRCRAFT TEST FLIGHT AND SUBSEQUENT FLIGHTS WITH LH ENGINE
<table>
<thead>
<tr>
<th>Engine</th>
<th>Manufacturer</th>
<th>Model</th>
<th>Event</th>
<th>Date</th>
<th>Part</th>
<th>Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA060816006</td>
<td>PIPER</td>
<td>LYC</td>
<td>SKIN CRACKED</td>
<td>8/15/2006</td>
<td>PA31350 TIO540J2BD</td>
<td>(CAN) WHILE DOING A MOD TO THE AIRCRAFT THE ELT ANTENNA HAD TO BE REMOVED. THE AIRCRAFT SKIN WAS FOUND TO BE CRACKED ON 2 SIDES OF THE ANTENNA. THE ANTENNA HAD NOT BEEN MOUNTED PROPERLY. (TC NR 20060816006)</td>
</tr>
<tr>
<td>2006FA0000965</td>
<td>PIPER</td>
<td>LYC</td>
<td>PRESSURE SWITCH FAILED</td>
<td>9/2/2006</td>
<td>PA32R301T TIO540AH1A 211C23412</td>
<td>AT AN ANNUAL INSPECTION IT WAS NOTED THE MAIN GEAR FAILED TO CYCLE COMPLETELY BEFORE PUMP SHUT OFF. PUMP CYCLED ON AND OFF UNTIL MAINS WERE FULLY RETRACTED. PUMP THEN REMAINED OFF. PRESSURE SHUT OFF SWITCH WAS CHECKED WITH A HIGH PRESSURE GAUGE AND IT WAS FOUND TO TRIP AT 1400 LB WELL BELOW THE 1800 LG IT WAS DESIGNED FOR. SWITCH IS ESTIMATED TO HAVE MADE 500 CYCLES BEFORE FAILING. IT IS NOTED THAT THIS IS MY FIRST INSPECTION OF THIS AIRCRAFT SO THE PROBLEM MAY HAVE BEEN OVER LOOKED IN THE PAST. (K)</td>
</tr>
<tr>
<td>CA060918004</td>
<td>PIPER</td>
<td>LYC</td>
<td>BOLT BROKEN</td>
<td>9/9/2006</td>
<td>PA44180 O360E1A6 LW38275</td>
<td>(CAN) DURING ROUTING INSPECTION IT WAS NOTED THAT ONE OF THE BOLTS SECURING THE RT BOTTOM ENGINE MOUNT BRACKET ONTO THE CRANKCASE OF THE RT ENGINE WAS BROKEN AND THE OTHER BOLT WAS LOOSE. BROKEN TREADED BOLT PIECE WAS REMOVED FROM CRANKCASE AND A SERVICEABLE BRACKET INSTALLED DUE TO ELONGATED HOLES IN OLD UNIT. TOP RT BRACKET WAS ALSO FOUND LOOSE, BRACKET REMOVED AND VISUALLY INSPECTED, NO DAMAGE FOUND. BRACKET REINSTALLED. ALL 6 ENGINE MOUNTING BRACKET BOLTS REPLACED AND TORQUED. BOLT TORQUE TO BE RECHECKED NEXT INSPECTION. ALTHOUGH THE ENGINE HAD 1445.6 HRS SINCE LAST OVERHAUL IT IS NOT MANDATORY ACCORDING TO MFG SB 240T TO REPLACE THESE BOLTS. (TC NR 20060918004)</td>
</tr>
<tr>
<td>2006FA0000992</td>
<td>RAYTHN</td>
<td>GARRTT</td>
<td>ENGINE FAILED</td>
<td>9/7/2006</td>
<td>HAWKER800XP TFE7315BR</td>
<td>(REF NR: 2006-1001) 30,000 FT, ENGINE BANG, ENGINE WAS SHUTDOWN AND FLIGHT DIVERTED. NR 2 ENGINE TURBINE WHEEL FAILURE, UNCONTAINED. INITIAL VISUAL INSPECTION POSSIBLE TURBINE WHEEL FAILURE. INVESTIGATION IN PROCESS WITH ASSISTANCE FROM MFG. PORTION OF ENGINE PROTRUDED THE ENGINE THRUST REVERSER SECTION AT THE APPROXIMATE 5 OCLOCK POSITION. ENGINE REMOVED AND RELOCATED TO MFG. (K)</td>
</tr>
<tr>
<td>2006FA0001024</td>
<td>RAYTHN</td>
<td>GARRTT</td>
<td>TURBINE WHEEL FRACTURED</td>
<td>10/2/2006</td>
<td>HAWKER800XP TFE7315BR</td>
<td>IN FLIGHT, CREW FELT SLIGHT TO MODERATE VIBRATION FROM NR 2 ENGINE. AFTER LANDING FURTHER INSPECTION FOUND APPROX ONE INCH OF ONE OF THE 3 LPT DISK BLADES MISSING. REASON FOR FAILURE AT THIS TIME UNDER INVESTIGATION BY MFG, SB 72-3689. (K)</td>
</tr>
<tr>
<td>2006FA0000975</td>
<td>ROBSIN</td>
<td>LYC</td>
<td>CONT DISTRIBUTOR BLK FAILED</td>
<td>10/3/2006</td>
<td>R22BETA O320B2C 1052949</td>
<td>DURING 500 H0UR INSPECTION AND SERVICE THE DISTRIBUTOR BLOCK BRONZE BUSHING WAS FOUND TO BE BROKEN AND FREE TO MOVE AROUND.</td>
</tr>
<tr>
<td>CA060828004</td>
<td>ROBSIN</td>
<td>LYC</td>
<td>ROBSIN BEARING WORN</td>
<td>8/27/2006</td>
<td>R44RAVENII IO540AE1A5</td>
<td>(CAN) PITCH LINKS WERE FOUND TO BE CONTACTING THEIR SPACERS, CAUSING THEM TO WEAR INTO THE STAKING AROUND THE BEARING ON THE PITCH LINKS. TAFT 53.1 HOURS. ALL HARDWARE WAS PROPERLY INSTALLED. (TC NR 20060828004)</td>
</tr>
<tr>
<td>CA060828005</td>
<td>ROBSIN</td>
<td>LYC</td>
<td>ROBSIN BEARING WORN</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8/26/2006 R44RAVENII IO540AE1A5 T/R PITCH LINK
(CAN) PITCH LINKS WERE FOUND TO BE CONTACTING THEIR SPACERS, CAUSING THEM TO WEAR INTO THE STAKING AROUND THE BEARING ON THE PITCH LINKS. TAFT 161.6 HOURS. ALL HARDWARE WAS PROPERLY INSTALLED. THIS WAS THE SECOND OCCURRENCE OF THIS ON OUR FLEET IN 2 DAYS. THE MFG HAS RECENTLY CHANGED THE PART FROM B345-2 TO B345-4. THE INSTALLATION IS THE SAME. THIS WAS NEVER A PROBLEM WITH THE -2 PART. (TC NR 20060828005)

<table>
<thead>
<tr>
<th>CA0609050001</th>
<th>ROBSIN LYC CONT SHAFT WORN</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/5/2006</td>
<td>R44RAVENII IO540AE1A5</td>
</tr>
</tbody>
</table>

(CAN) DURING A 500 HOUR INSPECTION, THE LOWER BEARING INNER RACE WAS FOUND LOOSE ON THE SHAFT. THE BEARING INNER RACE HAD BEEN SPINNING ON THE SHAFT CAUSING SHAFT JOURNAL TO WEAR. (TC NR 20060905001)

<table>
<thead>
<tr>
<th>CA0608180006</th>
<th>SKRISK GE NYAIRBREAK BOLT BROKEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/17/2006</td>
<td>S61L CT581401 66WBL200 HYD PUMP</td>
</tr>
</tbody>
</table>

(CAN) THE HYDRAULIC PUMP WAS BEING REMOVED FOR MAINTENANCE PLANNING, WHEN 2 BOLT HEADS WERE FOUND TO BE SHEARED OFF, AND HELD IN PLACE BY THE LOCK WIRE. PUMP WILL BE SENT TO VENDOR FOR INVESTIGATION. PUMP WAS OPERATING NORMALLY. (TC NR 20060818006)

<table>
<thead>
<tr>
<th>CA0609210001</th>
<th>SNIAS TMECA GEARBOX DAMAGED</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/27/2006</td>
<td>AS350* ARRIEL1B 70BM011030 ACCESSORY</td>
</tr>
</tbody>
</table>

(CAN) OIL PRESSURE LINE FITTING AT ACCESSORY GEARBOX (FELL OUT) OF GEARCASE AND SUBSEQUENT COMPLETE LOSS OF OIL IN FLIGHT. THREADS IN GEARCASE STRIPPED 90 PERCENT; NO PREVIOUS INDICATION OF DISCREPANCY, IE: OIL LEAK OR LOoseness. (TC NR 20060921001)

<table>
<thead>
<tr>
<th>CA0606300001</th>
<th>SNIAS TMECA SKID CRACKED</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/5/2006</td>
<td>AS350B2 ARRIEL1D1 350A41101606 MLG</td>
</tr>
</tbody>
</table>

(CAN) SKID TUBE FOUND CRACKED AT 2 LOCATIONS FORWARD OF THE FORWARD CROSSTUBE AND BOTH FOUND CORRODED BEYOND REPAIRABLE LIMITS WHILE PERFORMING 5000 HR LANDING GEAR INSPECTION. TUBES P/N 350A41-1016-1063 AND-1163 REPLACED WITH SAME. (TC NR 20060630001)

<table>
<thead>
<tr>
<th>CA060906012</th>
<th>SNIAS TMECA COMPRESSOR FOD ENGINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/4/2006</td>
<td>AS350B2 ARRIEL1D1 2292152810</td>
</tr>
</tbody>
</table>

(CAN) DURING ROUTINE INSPECTION IT WAS NOTED THAT THE AXIAL COMPRESSOR WHEEL HAD SUFFERED FOD, WHICH WAS BEYOND LIMITS. THERE WAS NO EVIDENCE THAT THE INTAKE COWL HAD LOST ANY HARDWARE WHICH MAY HAVE CAUSED THIS. NOR WAS THERE ANY RESIDUAL PARTICLES/OBJECTS FOUND IN THE INTAKE SCOOP. THE AXIAL COMPRESSOR WHEEL WAS CHANGED AND THE AIRCRAFT WAS RETURNED TO SERVICE. (TC NR 20060906012)

<table>
<thead>
<tr>
<th>WSAOCT182006</th>
<th>SNIAS LIGHT CORRODED INSTRUMENT PANEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/18/2006</td>
<td>AS350B3 704A46814049</td>
</tr>
</tbody>
</table>

A TECHNICIAN REMOVED THE INSTRUMENT PANEL GRADUATOR, LIGHT (LIGHTING DIMMER) FOR ACCESS PURPOSES. IT WAS FOUND UPON REMOVAL THAT THE 24 PIN ELECTRICAL CONNECTOR ON THIS DIMMER HAD MODERATE CORROSION ON OVER HALF OF THE CONNECTOR PINS WITH SIGNS OF CORROSION ON THE PC BOARD. THE SOURCE OF THE CORROSION IS BELIEVED TO BE WATER INGRESS FROM THE FRESH AIR DUCT LOCATED ABOVE THIS PART.

<table>
<thead>
<tr>
<th>CA060920002</th>
<th>SNIAS LYC LINE CRACKED</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/20/2006</td>
<td>AS350BA LTS101600A3 416113004 FCU</td>
</tr>
</tbody>
</table>

(CAN) GOVERNOR FAIL TO RESPONSE ON TAKE OFF, VISUAL CHECK OF ENGINE COMPARTMENT FOUND CRACKED LINE ON GOVERNOR TO FCU LINE NP TO PR TO PG LINE. LINE REPLACED WITH NEW A/C BACK TO SERVICE. (TC NR 20060920002)
CA060920003  SNIAS  LYC  STARTER GEN  BROKEN
9/20/2006  AS350BA  LTS101600A3  150SG116Q  ENGINE

(CAN) GENERATOR LIGHT CAME ON IN FLIGHT, LANDED AND SHOTDOWN, STARTER FOUND BROKEN. STARTER REPLACED AND SENT FOR OVERHAUL. (TC NR 20060920003)

CA060907006  SNIAS  TMECA  TRANSMITTER  MALFUNCTIONED
1/25/2006  AS350BA  ARRIEL1B

(CAN) PILOT INDICATED THE PRESSURE INDICATOR WAS FLUCTUATING. TROUBLESHOOTING DETERMINED IT WAS PRESSURE TRANSMITTER. (TC NR 20060907006)

CA060629006  SNIAS  TMECA  UROCAP  RETAINING NUT  BROKEN
6/27/2006  AS350BA  ARRIEL1B  DHS43911142  M/R GEARBOX

(CAN) RETAINING NUT FOR THE INPUT FLANGE ON THE TRANSMISSION (MAIN GEARBOX) BROKE IN 2 PIECES CAUSING THE SPLINED ADAPTER TO BACK OFF, WHICH CAUSED THE HYDRAULIC BELT TO RUN ON THE EDGE OF THE PULLEY. (TC NR 20060629006)

CA060926005  STBROS  PWA  HARTZL  BLADE  CORRODED
9/13/2006  SD360  PT6A65AR  M10876ANS  PROPELLER

(CAN) UPON VISUAL INSPECTION, CORROSION WAS FOUND ON THE BLADE SHANK. AFTER REWORK TO MINIMUM DIMENSION DAMAGE STILL REMAINS. BLADE WIDTH AND THICKNESS IS WELL ABOVE MINIMUM DIMENSION. ALL 5 BLADES ARE U/S. (TC NR 20060926005)

CA060920008  SWRNGN  GARRTT  TACH GENERATOR  SLIPPED
9/18/2006  SA227AC  TPE33111U  AG44AF  RT ENGINE

(CAN) AIRCRAFT DEPARTED AIRPORT AND UPON CLIMBOUT THE RT ENGINE RPM INDICATION BEGAN TO FLUCTUATE. ALL OTHER PARAMETERS REMAINED NORMAL. AIRCRAFT RETURNED AND UPON INVESTIGATION FOUND DRIVE SHAFT INTACT YET SLIPPING INTERNALLY. TACH GENERATOR REPLACED, RUNUP COMPLETED AND AIRCRAFT RETURNED TO SERVICE. (TC NR 20060920008)

CA060901009  SWRNGN  GARRTT  CONNECTOR  CORRODED
9/1/2006  SA227AC  TPE33111U  MS3451L10SL4P  ENGINE

(CAN) EGT INDICATION WAS ERRATIC ON LANDING. ALL OTHER PARAMETERS WERE NORMAL. THERE WAS HEAVY PRECIPITATION PRIOR TO THE ERRATIC INDICATION. THE CONNECTOR PLUG WAS CLEANED AND RETURNED TO SERVICIBLE CONDITION. EGT INDICATION WAS NOT ERRATIC AND AIRCRAFT RETURNED TO SERVICE. (TC 20060901009)

2006FA0000981  UNIVAR  FUEL LINE  CHAFED
10/6/2006  108  07166171  LT DOOR POST

AILERON CABLE HAD CHAFED 90 PERCENT THRU FUEL LINE. AREA A LITTLE HARD TO SEE. FOUND BY LOOKING FOR NAV LIGHT SQUAWK THAT LED TO THE LT UPPER DOOR POST AREA. SUGGEST THAT ALL SIMILAR STYLE MFG WITH AILERON CABLE THAT RUNS ALONG FUEL LINES TO BE INSPECTED AND INSTALL SOME FORM OF ANTI-CHAFING MATERIAL TO THE AFFECTED AREA.

END OF REPORTS