



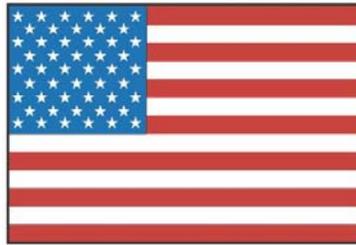
U.S. Department
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**Federal Aviation
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AVIATION MAINTENANCE ALERTS



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

AVIATION MAINTENANCE ALERTS

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

ALL POWERED MODELS

(All: Powered Models); Carbon Monoxide Poisoning Potential: ATA 7800

(The following safety admonition has been contributed by Aerospace Engineer Barry Ballenger from the Kansas City office of Continued Operational Safety. Contact information is found at the article's end.)

“With the onset of cold weather, maintenance personnel should take extra time to inspect the exhaust system components when performing engine maintenance. Many small airplanes use exhaust system heat for cabin heat and defrosting windshields. Typically, a heat exchanger or muff is used to collect the heat off the exhaust system and pipe it to the cabin through flexible ducting. If the exhaust system has leaks, improper connections, or damage, carbon monoxide from engine combustion may enter into the heat/defrost systems and into the cabin. Carbon monoxide may also enter through the firewall due to improperly installed or deteriorated seals. Other entry points for carbon monoxide include wheel well areas, windows, and fresh air vents.

“Technicians should inspect all exhaust system components for condition with particular attention to areas associated with cabin heat and defrost systems. Look for deformation, corrosion, erosion, cracks, burned spots, and loose or missing hardware. Heat muffs should be removed to inspect the condition of the exhaust system hidden by their installation. Inspect for signs of exhaust leakage such as powdery deposits or stains. Replace any defective parts. Inspect for any non-approved repairs to exhaust components. Many exhaust system components are not field repairable. Signs of any exhaust system repair without proper documentation are cause for rejection. Inspect the firewall for condition and security of all pass-through locations such as electrical or plumbing, engine controls, and steering controls. Ensure the pass-through sealant or seals are in serviceable condition and will not allow exhaust gases into the cabin area. Door and window seals should be checked for condition and security.

“Certification regulations limit the level of carbon monoxide to 1 in 20,000 parts (0.005%) of air in the passenger compartment. Reasonably priced carbon monoxide detectors are available for technicians to measure carbon monoxide levels. Measuring the carbon monoxide level is the best method to ensure dangerous exhaust gases are not entering the passenger area.

“It is the maintenance technician’s responsibility to ensure the airworthiness of any engine installation. Remember, part of being airworthy means the aircraft is safe for flight. By spending a little extra time during engine maintenance, the technician can ensure the safety of the aircraft’s exhaust system.”

(An excellent example of this discussion can be found in September’s Alerts: reference Thrush S2R: In-flight Door Deformation. Mr. Ballenger may be contacted through the Office of Continued Operational Safety, ACE-113, 901 Locust, Room 301, Kansas City, MO.; 64106-2641; 816-329-4152.)

BEECH

Beech: A36; Incorrect Starter Adapter; ATA 8011

A repair station mechanic states, “This aircraft came to our shop with smoke and oil coming out of the tailpipe. Four hours prior an annual inspection was completed and at that time the starter adapter was replaced with the wrong part. This aircraft had been modified with a Tornado Alley Turbo Charger system. The STC (*supplemental type certificate*) requires the starter adaptor assembly be changed to P/N 642087A63—which includes an oil scavenge pump. P/N 652087A64 does not have a scavenge pump installed. The replacement part was ordered by engine serial number, not by the STC modified parts list. It is recommended when ordering parts for STC modified aircraft the STC holder is contacted for parts applicability.” (*Application references a TCM IO550-B.*)

Part Total Time: 4.0 hours.

BRITTEN-NORMAN

Britten-Norman: BN-2A; Leaking Fuel Cock; ATA 2823

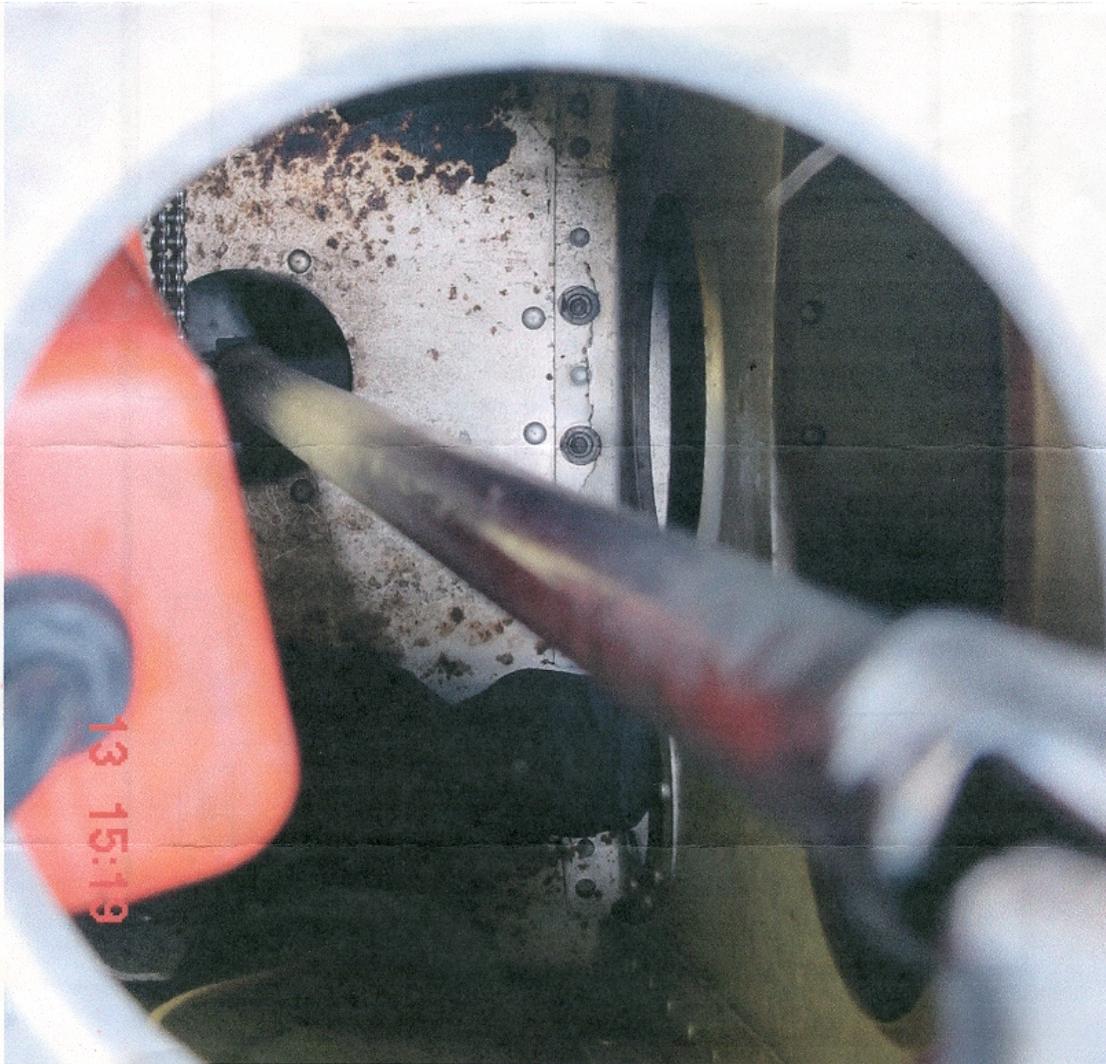
A technician describes what must have been a very challenging troubleshooting effort on this three engine *island hopper*. “The right fuel pressure (*indication*) would occasionally drop off to the bottom of the green range (*instrument markings*) after the aircraft was in cruise configuration (electric pumps off). After extended troubleshooting, it was found the right fuel cock (P/N 503CA90) had a vacuum leak at the shaft at higher manifold pressures (23-24 inches). Fuel pressures returned to normal below 23 inches or when the electric pumps were activated. No fuel leaks or stains were found. Replaced valve with overhauled unit; operational test was satisfactory (*and the aircraft was*) returned to service.”

Part Total Time: 18,000.0 hours (approx.).

CESSNA

Cessna: 182A; Cracked Bulkhead Flange; ATA 5312

A mechanic writes, “(*This*) bulkhead, P/N 0712205-10, was found cracked at the tie-down hole. Bulkhead 0712206 (*was found cracked*) at the bolt holes where the attachment-to-elevator bell crank support mount is located. (*The included photo “frames” the topic quite nicely. Yes—the missing capacity for “attachments” to electronic defect report submissions has been voiced by this editor, and yes, I know it is 2006. Be assured this feature will be added to the SDRS system...soon. Meanwhile, thank-you all for the trouble and expense of physical submissions—they are appreciated.*)



(Truncated/clipped part numbers return seven similar reports when queried in the SDRS data base.)

Part Total Time: (unknown).

Cessna: T182T; Chafing Fuel Injection Line; ATA 7324

A repair station submitter states, “(I) found the fuel injection line rubbing cylinder cooling fins, causing wear to the line (P/N LW12098-0-210).” A fuel leak onto the turbocharger could have resulted. AD 2002-26-01 (*had been complied with...*), but the clamp was loose, allowing the line to rotate.” (A Lycoming T10 540 sits under the hood of this aircraft. SDRS reflects 26 similar or associated discrepancies with the base LW12098 part number—several specifically on chafing.)

Part Total Time: 101.4 hours.

Cessna: 182T; Chafing Fuel Tube; ATA 2820

A mechanic states, “(Approximately...) 3.75 inches below the cabin floor aft of the fuel selector valve an elevator trim control cable (*was found*) chafing hard on the bottom surface of a ¼ inch diameter fuel tube (left and aft of the aircraft’s fuel selector. Left (*uncorrected*), the control cable would have cut through the fuel tube.” This report also includes the mechanic’s belief the discrepancy was present from the factory. The fuel line was repositioned away from the control lines. (*Part numbers were not provided.*)

Part Total Time: 516.3 hours.

Cessna: 206; Auxiliary Fuel Pump Failure; ATA 2822

“This fuel pump is located under the pilot’s side floorboards,” says an unidentified technician. “It is an electrically driven, auxiliary (boost) pump. This aircraft’s original fuel pump (P/N A10055-B) failed after 53 hours in service. It failed in a way to allow fuel to enter the electric side of the motor. That was a major fire hazard.” The new, replacement pump was the same part number and the basis of this report. “...it lasted 112.3 hours when it began to make high pitched noises on shut-down. It sounded as if a bearing was running dry.” (The SDRS data base records only one other entry for the same part number.)

Part Total Time: 112.3 hours.

Cessna: 550; Zero Time Flap Motor Failure; ATA 2752

An unknown submitter states, “This flap motor (*P/N 9910055-4*) experienced an out-of-box-failure immediately after installation. The motor’s internal brake mechanism malfunctioned in a way to not allow it to release. This part was in no way airworthy and I believe the malfunction should have been noticed at the repair station during the functional check—signed off by them (*on*) an 8130-3 form...” (*Two additional motors answering this part number have been entered into the SDRS data base.*)

Part Total Time: 0.0 hours.

CANADAIR**Canadair: CL600-2B19: Burned Static Inverter Wire Bundle; ATA 7410**

A technician for this air carrier states, “While performing a service check, we noticed smoke and fire in the auxiliary equipment bay (*originating*) from the wire bundle leading to the static inverter mounted to the pressure bulkhead. Maintenance removed and replaced the static inverter (*P/N 601R59323-1*). (*I*) rewired the inverter’s Cannon plug and wires: KB1A14, KB4A20, KB4B20, and KB4D20. (*I also...*) replaced relays 2K3KB and 1K3KB in accordance with maintenance manual 74-00-00. Operational check was good.”

Part Total Time: 10,575.0 hours.

DIAMOND**Diamond: DA40; Nose Shock Strut—Internal Clearance Prob. ATA 3222**

(*The following description combines two submissions from the same, unidentified technician. Two aircraft of the same make and model are observed to have the same defect.*)

“This report addresses a condition of excessive clearance (0.085 inches) between a bushing at the bottom of the nose landing gear shock strut and the shock strut center rod (*reference parts catalog*):

Strut	item 290:	P/N PAF 18220P11; figure 01, chapter 32-20-02 and
Rod	item 210:	P/N D41-3223-20-33B.

“The (*excessive*) clearance allows the end fitting (item 310) to slope approximately 10 degrees to one side. This results in the bottom elastomeric donut taking on a wedge shape and the shock loads being transmitted off the centerline of the nose landing gear shock strut.” (*Missing in this description is a part number for item 310 and a measure for “acceptable clearance”—and how it would be determined. A drawing would have been very helpful.*)

Part Total Time(s): 1963.7 and 454.6 hours (*respectively*).

GULFSTREAM

Gulfstream: G-IV; Chafed Bleed-Air Line; ATA 3610

A repair station technician writes, “During an engine change a (*R/H*) pylon inspection was performed: spiral wrap (*chafe protection material*) was noticed worn. Further investigation revealed chafe (*wear*) on a high temperature bleed air line more than 50 percent through...” *the line’s wall thickness: P/N 1159SB42000-044-CPSC-6. Not indicated in this discrepancy is the source of the chafing: pylon structure itself?*

Part Total Time: (unknown).

IAI

IAI: 1124A; Improper Pitch-Trim Actuator Assembly; ATA 2731

An unidentified technician for a charter company states, “While performing a 200 hour inspection on this aircraft, the tail section fairings and panels were removed. The pitch trim actuator (*P/N 543502-501*) was found with the dust shield down against the motor housing. It was obvious the tie bolt had been removed, dust shield lowered, and the tie bolt reinstalled without the dust shield in place. A previous fatality crash has occurred on a Westwind 1124A...due to the same inspection being performed and the tie bolt incorrectly installed. This inspection and procedure should be removed from the Chapter 5-20 guide and Chapter 27—before some A&P causes the same problem again. This inspection should only be performed by the OEM (*original equipment manufacturer*)—it is too critical for the field.” (*Time since overhaul: 1,989.6 hours. This part’s base number returns four additional SDRS entries of related concerns.*)

Part Total Time: 4,925.6 hours.

PIPER

Piper: PA-31T; Jammed Flap Jackscrew; ATA 2752

“A pilot reported an asymmetrical flap condition upon landing,” states the attending mechanic. “(*Inspection*) found the R/H flap extended approximately 10 degrees and the jackscrew flap attach bracket torn from the flap. The transmission and flap system was inspected per AD 82-27-13R2 (paragraphs A2 and A3) and found to meet specs (these measurements had not changed from previous inspections). Upon removal from the aircraft it was determined the jackscrew (*P/N 489-516*) had jammed at the end of its travel. I would recommend an additional inspection of the jackscrew each 500 hours by removal from the aircraft and inspecting for wear and free play throughout the travel range of the jackscrew and barrel assembly. This operator plans to limit the service life of this component to 1500 hours, regardless of wear limits.”

Part Total Time: (unknown).

RAYTHEON

Raytheon: 400A; Failing Rudder Servo; ATA 2215

A repair station technician states, “(I) investigated a pilot’s report of intermittent, rudder boost failure along with simultaneous autopilot and yaw damper disengagement. (*Investigation*) found the rudder servo intermittently failing. (I) replaced the rudder servo with an overhauled unit: (*subsequent*) rudder boost and autopilot functional tests (*were*) satisfactory.” (*The rudder servo is a Collins: P/N 622-6717-104.*)

Part Total Time: (unknown).

SOCATA

Socata: TBM 700; Failed Electrical Master Box; ATA 2460

A mechanic states, “During the start sequence—when the pilot selected the start position—the starter would not respond. The pilot could hear the sound of relay contacts, but the starter would not respond. The aircraft was examined by a line technician who reported the electrical master (*solenoid/contacts*) smelled overheated and burned. The unit was removed, opened, and inspected—(*this inspection confirmed*) severe overheating. A replacement unit of the same part number (*Z00N-N6024017227*) was installed, (*resulting in...*) both the starter and electrical system functioning normally. (*Time since overhaul for this master box listed as 1,280.0 hours.*)

Part Total Time: (unknown).

HELICOPTERS

EUROCOPTER

Eurocopter: EC 130-B4; Chip Detection Anomaly; ATA 7930

An operator describes a flight incident stemming from a paradoxical characteristic of chip detection systems. “(*This aircraft performed...*) a precautionary landing (off airport) due to (*activation of*) an engine oil, chip annunciation light while in flight. An uneventful landing (*ensued*). (*There was...*) no injury or damage to the aircraft or property. Maintenance investigated and found one small hair-like dark chip. The plug was cleaned and the engine test-run for ten minutes. Engine run-down time was checked. No additional chips were found. Run-down times were normal. The aircraft was flown empty back to the maintenance base. The chip plug was inspected (*again*) for additional chips. No chips noted at that time. (*Pursuant to...*) the manufacturer’s instructions, the plug is to be inspected after the first flight of the day—for the next 25 hours.

“Probable Cause: the chip detector and supporting systems worked properly, alerting the pilot of a potential problem. A false indication occurred because of the chip detector’s inability to differentiate (*between*) one and many chips. This is an inherent problem with this level technology.” (*This helicopter is powered by a Turbomeca Arriel 2B1. No part numbers were provided with this defect report—they all worked as advertised!*)

Part Total Time: (N/A).

POWERPLANTS

CONTINENTAL

Continental: TSIO 520M; Oil Pump—Accelerated Wear; ATA 8550

(An operator of a Cessna TU206F submitted the following report describing difficulty with the engine's oil pump.)

“We installed this factory new engine and followed the Continental recommended procedures for engine break-in. We removed and cut open the oil filter at 1.4 hours TTSN (*total time since new*), at 7.9 hours, and at 24.7 hours. This is our normal practice with a new or overhauled engine. At each of these times the filters were normal for a new engine. The airplane was due a 100 hour inspection at 38.9 hours TTSN. During this inspection excessive metal (which appeared to be brass) was noted in the oil filter. We then took off the starter drive and found no problem with it (*drive*). Next we took off all of the rocker covers to see if possibly there was a rocker arm bushing going bad. During the process of taking out the rocker arms we realized that the propeller, when turned backwards, would stop after just a few degrees of travel—as if something inside the engine was binding. We discovered that the bushings in the oil pump driven impeller (P/N 629218) were excessively worn. There was approximately .047 inch clearance between the bushings and the shaft. New parts limits are .0005 inch to .0025 inch; the serviceable limit is .0040 inch. This excessive clearance allowed the impeller teeth to contact the pump housing. When turned backwards, the impeller would contact an edge within the pump, which is why the prop would not turn backwards. After this discovery Continental sent us an entire new pump assembly. Before installing this new pump we did a dimensional inspection of the new impeller and shaft and it was within new parts limits. We then flew the airplane for .80 hours, then cut the oil filter open. Once again there was excessive brass metal in the filter. We then pulled off the new oil pump and measured the same bushing-to-shaft clearance described above and found it to be .0070 inch on one side, and .0088 inch on the other.” *(Oil pump part number listed: 655119A3. SDRS records four entries on this pump's impeller. Hooked into the plot line, this story abruptly ends—on the last line of the submitter's report form—with the same crushing revelation as finding the last five pages missing in a good novel. Maybe the submitter will take pity and submit “...the rest of the story”—Ed.)*

Part Total Time: 38.0 hours.

ACCESSORIES

KELLY

Kelly Alternator; ALX-9525B; Over-sized Bearing Bore; ATA 2434

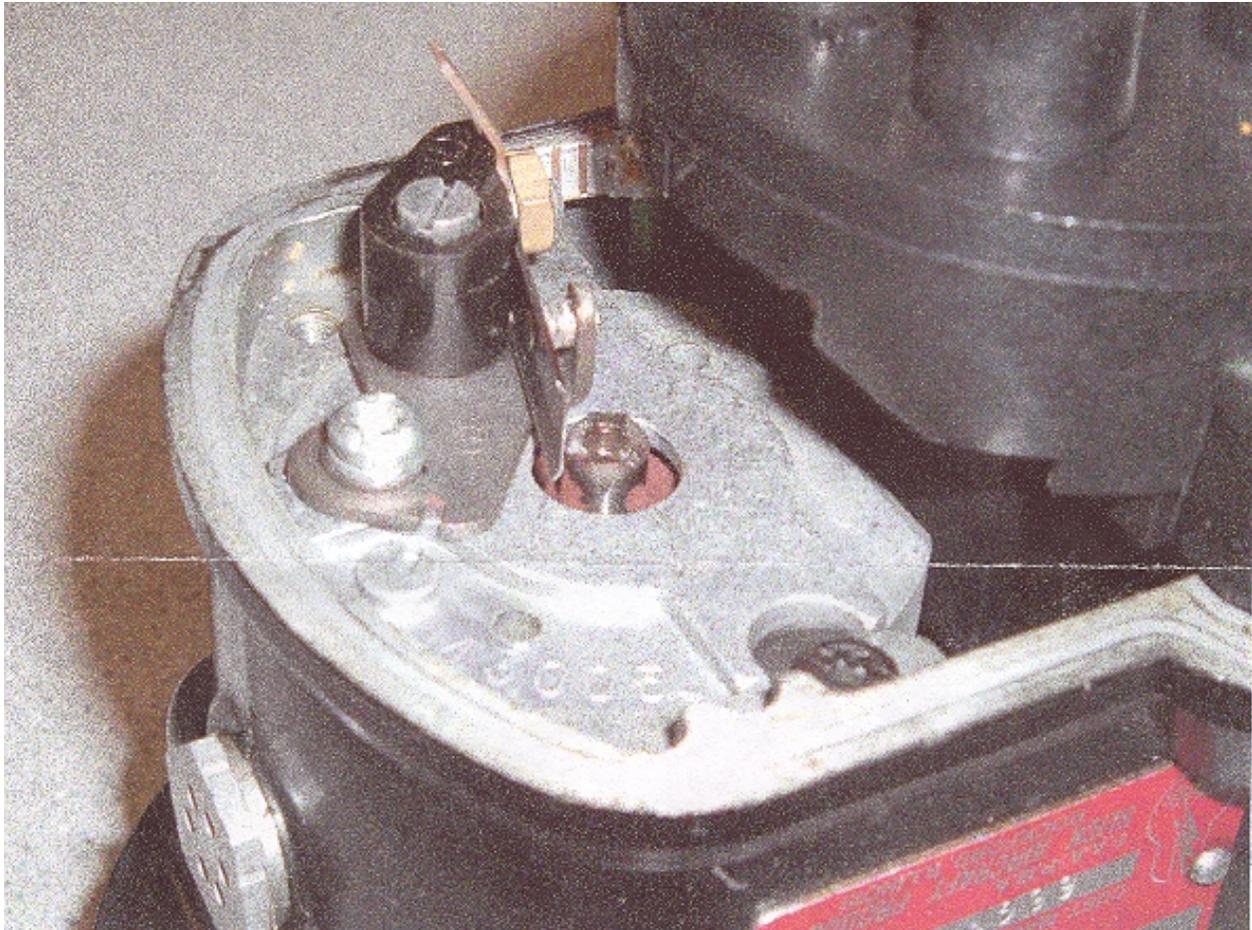
A repair station technician states, “This alternator has zero hour's time in service since the Kelly overhaul.... In preparing this unit for installation on an aircraft, excessive play of the rotor shaft was noted. Disassembly of the unit revealed the drive-end bearing bore (*in the frame*) was .015 inch oversize—the bearing was very loose in the bore. This end frame (P/N ALU-1003) should have been rejected during the overhaul process due to excessive wear of the bearing bore. Recommendations would include closer inspection of the bearing bore dimensions during the overhaul process. This unit will be returned to Kelly for their inspection and warranty replacement.” *(This end frame part number is found four times in the SDRS data base.)*

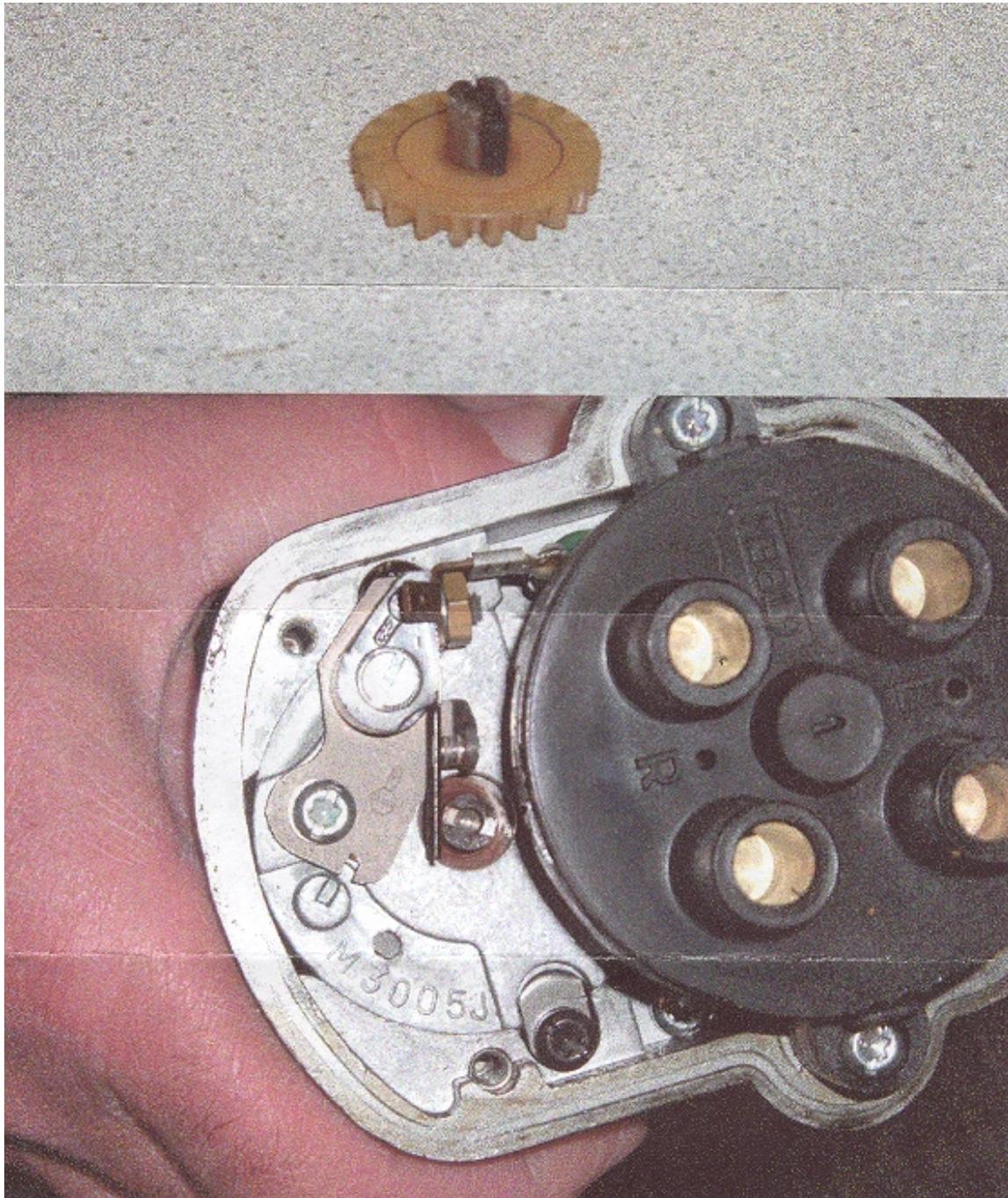
Part Time Since Overhaul: 0.0 hours.

SLICK

Slick Magneto: 4370; Sheared Rotor Shaft; ATA 7414

A mechanic writes, “The pilot noticed a lack of power and roughness after takeoff. Returning to the field, he discovered an inoperative R/H magneto. Disassembly revealed the rotor shaft had sheared flush with the bottom of the cam cut-out. The remaining rotor and distributor both rotated freely. (*There was ...*) no evidence of problems with either gear. The probable cause (*may be related*) to a defect in manufacturing (possibly bad metal or a stress crack from machining the cam slot).” (*This magneto was bolted to a Lycoming O-360-A4P. The rotor part number is M3548—reflected 20 times in the SDRS data base.*)



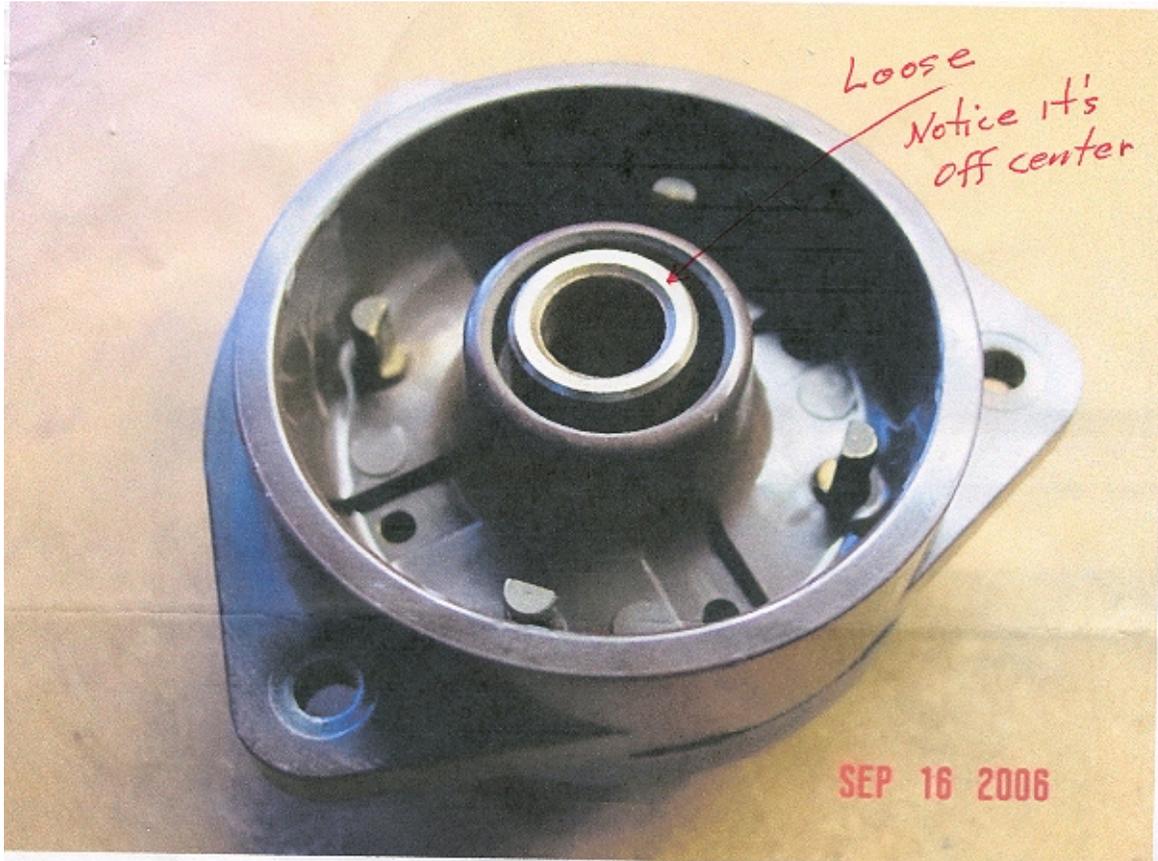


Part Total Time: *(estimated 300—400 hours).*

TCM

TCM Magneto: S4LN-200; Broken Distributor Block; ATA 7414

Another mechanic experiences magneto difficulties. "During a 500 hour inspection and service, the bronze bushing in the distributor block was found broken-loose and free to (move) around. (This unit is mounted to a Lycoming O-320-B2C. The new distributor part number is 10-52949, reflected 13 times in the SDRS data base; the old number is 10-357424 with 8 data base entries.)



Part Time Since Overhaul: 850.0 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/faa8010-4.pdf>. You can still download and complete the form as you have in the past.

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

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

IF YOU WANT TO CONTACT US

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

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

E-mail address: Daniel.Roller@faa.gov

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

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

AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports 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.

Federal Aviation Administration

Service Difficulty Report Data

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

Control Number	Aircraft Make	Engine Make	Component Make	Part Name	Part Condition
Difficulty Date	Aircraft Model	Engine Model	Component Model	Part Number	Part Location
2006FA0000886				STARTER	FAILED
8/30/2006					ENGINE
STARTER, WILL NOT SPIN ON LOAD.					
2006FA0000906		CONT		BOLT	SHEARED
8/23/2006		TSIOL550A		TCM536379	CRANKSHAFT GEAR
CRANKSHAFT GEAR BOLTS SHEARED/BROKE CAUSING ENGINE FAILURE. (ENGINE FIALED ON GROUND, DURING STARTING) (K)					
CA060821006		GE	GE	RETAINER	CRACKED
7/26/2006		CF343B1		4029T16P13P15	FAN ROTOR
(CAN) DURING ROUTINE SCHEDULED ENGINE MAINTENANCE, AFTER VISUAL, DIMENSIONAL, AND NON-DESTRUCTIVE INSPECTION, A HIGH NR OF FAN BLADE RETAINING PINS WERE REJECTED FOR CRACKING, DETAILS AS FOLLOWS: ESN 807315C QTY 28 OF 28 P/N 4029T16P15 PINS CRACKED. ESN 872933 - QTY 18 OF 28 P/N 4029T16P13 PINS CRACKED. ESN 872934 - QTY 11 OF 28 P/N 4029T16P13 PINS CRACKED. FURTHER INVESTIGATION AND REVIEW INDICATES THAT THE REJECT RATE FOR THESE COMPONENTS MAY BE UNUSUALLY HIGH ON THE SUBJECT ENGINES. DUE TO THE CRITICAL NATURE OF THE COMPONENT, HAVE INITIATED COMPONENT FAILURE INVESTIGATIONS. PRODUCT SUPPORT ENGINEERING HAS REPORTED THIS CONDITION TO THE FAA, REF. FM&D REPORT CF34-3/06-02. (TC NR 20060821006)					
2006FA0000931		PWA		RIB	CRACKED
9/20/2006		JT15D5		45A211460506	HORIZONTAL STAB
THE RIBS LOCATED UNDER THE HORIZONTAL STABILIZER BRACKETS WERE CRACKED, BOTH THE LT AND RT SIDES. THIS IS COVERED UNDER COMMUNIQUE NUMBER 70.					
CA060804006		PWA	WOODWARD	IDLER GEAR	WORN
7/28/2006		PT6A67B		5337050	PROPELLER GOVER
(CAN) ENGINE PCE-PR0055 WAS SUBMITTED FOR A SCHEDULED FIRST TIME OVERHAUL (TSN 3621.0 HRS). THE PROPELLER GOVERNOR S/N 13313260 (TSN 1583.6 HOURS) WAS DISMANTLED FOR CLEANING BEFORE OVERHAUL INSPECTION. IT WAS DISCOVERED THAT THE IDLER GEAR BUSHING WAS SEVERELY WORN AWAY RESULTING IN AN ELLIPTICAL ROTATION OF THE GEAR THAT CAUSED THE GEAR POCKET TO WEAR IN AN OVAL MANNER ON THE PRESSURE SIDE. A NORMAL IDLER GEAR BUSHING MEASURES APPROXIMATELY 0.100 IN. THE WORN IDLER GEAR BUSHING MEASURED 0.0175 IN., I.E. IT HAD WORN AWAY 0.0825 IN. IT IS NOT KNOWN WHAT CAUSED THE EXCESSIVE WEAR. THE PERIODIC OIL ANALYSIS PROGRAM (SOAP) DID NOT INDICATE A PROBLEM. AFTER DISCOVERING THIS CONDITION, WE TRIED TO ROTATE THE GEARS BY HAND AND FOUND THAT THEY WOULD STICK AND BIND. THIS RAISED CONCERNS THAT THIS COULD HAPPEN IN SERVICE RESULTING IN SEIZURE AND SUDDEN COMPLETE LOSS OF GOVERNOR OIL PRESSURE, WHICH COULD RESULT IN SUDDEN LOSS OF THRUST. (NOTE THIS IS A SINGLE ENGINE APPLICATION) THE GOVERNOR MFG ADVISED THAT THEY HAVE SEEN A SIMILAR WEAR CONDITION BEFORE, WHICH HAS PROPELLER GOVERNOR OF SIMILAR DESIGN. (TC NR 20060804006)					
CA041213003		PWA		TUBE	WRONG PART
12/13/2004		PT6T3			ENGINE

(CAN) DURING ENGINE VISUAL INSPECTION AT MFG, HAVE IDENTIFIED THAT 2 ITEMS FROM THE FUEL PRESSURE TUBING WERE NOT GENUINE AND WERE MANUFACTURED BY AN UNKNOWN SOURCE. THOSE 2 ITEMS HAVE NO IDENTIFICATION NUMBERS BUT WERE INSTALLED IN REPLACEMENT OF: FUEL CONNECTOR P/N 3100499-01 CONNECTOR BOLT P/N 3100504-01 BOTH PARTS ARE KEPT IN QUARANTINE FOR 21 DAYS FOR TCCA REVIEW, AFTER WHICH THEY WILL BE DESTROYED. (TC NR 20041213003)

CA060905009	AEROSP	PWA	ENGINE	LEAKING
7/27/2006	ATR42*	PW121		

(CAN) DURING CLIMB SMOKE AND ODORS BECAME EVIDENT IN THE CABIN. ENGINE BLEEDS WERE CLOSED AND THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED OIL LEAKAGE AT THE ENGINE INLET AND EXTERNALS. MFG WILL MONITOR INVESTIGATION OF THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED (TC NR 20060905009)

2006FA0000928	AGUSTA	TMECA	ENGINE	MAKING METAL
9/19/2006	A109E	ARRIUS2K1		

ENGINE CHIP LIGHT CAME ON APPROACH TO LANDING. REMOVED GAS GENERATOR MAG PLUG FOUND COVERED WITH METAL CHIPS. PROBABLE CAUSE BEARING FAILURE.

2006FA0000929	AGUSTA	TMECA	ENGINE	MAKING METAL
9/19/2006	A109E	ARRIUS2K1		

ENGINE CHIP LIGHT CAME ON APPROACH TO LANDING. REMOVED GAS GENERATOR MAG PLUG FOUND COVERED WITH METAL CHIPS. PROBABLE CAUSE BEARING FAILURE.

CA060728005	AIRBUS	GE	CONTROL PANEL	SMOKE
7/21/2006	A310300	CF680C2*	8992125014	VHF

(CAN) DURING FLIGHT, LIGHT SMOKE CAME FROM THE NR 1 VHF CONTROL PANEL. THE CIRCUIT BREAKER WAS PULLED AND THE FLIGHT PROCEEDED WITHOUT ANY FURTHER PROBLEM. THE PANEL WAS REPLACED AT THE ARRIVAL STATION AND WAS SYSTEM CHECKED SERVICEABLE. PANEL WAS ROUTED TO THE VENDOR FOR INVESTIGATION. (TC NR 20060728005)

CA060801007	AIRBUS	RROYCE	WIRE	BURNED
7/31/2006	A340*	RB211*		CARGO FAN

(CAN) (FWD CARGO VENT FAULT) DISPLAYED ON ECAM. TROUBLESHOOTING IDENTIFIED BURNED WIRING UNDER FWD CARGO FLOOR, APPROX 2 IN FROM ELECTRICAL CONNECTOR 285HN-A ON FWD CARGO EXTRACTION FAN. BURNED WIRES WERE LOCATED BETWEEN SUPPORT STANDOFFS WITH NO EVIDENCE OF CHAFFING. WIRING REPAIRED IAW ESPM, REPLACED FWD CARGO EXTRACT FAN. (TC NR 20060801007)

CA060725001	AIRBUS	GE	HONEYWELL	SWITCH	BURNED
7/22/2006	A340313	CFM565A		9650976003206	GPWS

(CAN) WHILE ENROUTE, ON A POLAR ROUTE IN THE MIDDLE OF HUDSON BAY, THE FLIGHT CREW REPORTED ACRID SMOKE COMING OUT OF OVERHEAD PANEL IN THE AREA OF THE TERRAIN SWITCH AND THE FAILURE OF THE GPWS. THE SMOKE THEN DISSIPATED. THE CREW DECLARED A PAN PAN (URGENCY), AND RETURNED TO YYZ, WHERE THE FLIGHT LANDED 30,000 KG OVERWEIGHT. (TC NR 20060725001)

2006FA0000954	AMD	GARRTT	CDU	BURNED
9/7/2006	FALCON50MYST	TFE731*	1017241011	COCKPIT

SMOKE EMANATING FROM NR 1 FMS CDU DURING CRUISE FLIGHT. UNIT SMELLED OF SMOKE AND WOULD NOT POWER UP DURING INITIAL BENCH CHECK. FURTHER TEARDOWN PENDING. (K)

2006FA0000924	AMD	GARRTT	CARBON SEAL	DETERIORATED
8/23/2006	FALCON900	TFE7315BR	30745742	NR 5

(NR 4 CARBON SEAL, PN30745732, SN 010515810208) (NR 5 CARBON SEAL, PN30745742, SN 011936802352) PILOTS REPORT HIGH OIL PRESSURE. OIL PRESSURE FOLLOWED THROTTLE HIGH GEARBOX PRESSURE CAUSED BY

DETERIORATION OF NR 4 AND NR 5 CARBON SEALS. (K)

2006FA0000923	AMD	GARRTT	CARBON SEAL	DETERIORATED
8/23/2006	FALCON900	TFE7315BR	30745732	ENGINE

(NR 4 CARBON SEAL, PN30745732, SN 010515810208), (NR 5 CARBON SEAL, PN 30745742, SN 0119368002352) PILOTS REPORT HIGH OIL PRESSURE. OIL PRESSURE FOLLOWED THROTTLE HIGH GEARBOX PRESSURE CAUSED BY DETERIORATION OF NR 4 AND NR 5 CARBON SEALS.

2006FA0000889	AMTR	CONT	UNION	CRACKED
8/29/2006	LC41550FG	TSIO550C		ENGINE

THE AN911-1J UNION THAT SUPPLIES OIL TO THE OIL PRESSURE TRANSDUCER, THE HOBBS PRESSURE SWITCH, AND THE OIL FEED LINE, AT THE BASE OF THE OIL COOLER, ON THE BACK OF THE ENGINE, WAS CRACKED AT THE PIPE THREADS, AND THEN BROKE IN THE PROCESS OF REMOVING THE PART. THE WEIGHT OF THE 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 PART COULD ALSO HAVE BEEN PART OF THE PROBLEM. THE AC WAS SCHEDULED THAT DAY BUT AN OIL LEAK WAS NOTICED AND INVESTIGATED BEFORE THE FLIGHT, WHICH WOULD HAVE ENDED WITH A CATASTROPHIC FAILURE OF THE ENGINE DUE TO OIL LOSS. THE TEMPORARY RECOMMENDATION MAY 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 RUN A FLEXIBLE HOSE FROM THE ENGINE FITTING TO THE T-FITTING AT ITS MOUNTING POINT. (K)

2006FA0000909	AMTR	CONT	BELT	FRACTURED
9/7/2006	WOODYPUSHER	A65*		REDUCTION BRACK

ULTRALIGHT FRACTURED ENGINE BELT REDUCTION BRACKET CAUSING IN-FLIGHT SHUTDOWN AND EMERGENCY LANDING. PROBABLE CAUSE: ENGINE BELT REDUCTION BRACKET STRESS/FATIGUE CRACK CAUSING HEAVY ENGINE VIBRATION AND SHUTDOWN. (K)

CA060810007	BAC	LYC	ARM	FAILED
7/26/2006	146200A	ALF502R5	HC273H0344	LEVER

(CAN) RESTRICTED MOVEMENT OF CONTROL COLUMN IN THE AFT DIRECTION. SEE CA1673 14 NR CTS/06/001 ATTACHED (TC NR 20060810007)

CA060719005	BAG	GARRTT	WHEEL	DAMAGED
7/19/2006	JETSTM3212	TPE33110UG	300720	MLG

(CAN) DURING TOWING OF AIRCRAFT THE PIC AND GROUND HANDLERS NOTICED A WOBBLE ON THE RH MLG. MAINTENANCE WAS CONTACTED AND IT WAS DISCOVERED THAT A 10" PIECE OF THE EDGE OF THE INNER WHEEL RIM WAS MISSING. THE TIRE STILL REMAINED INFLATED. THE WHEEL AND TIRE WAS REMOVED AND REPLACED WITH A SERVICEABLE UNIT. THE IMMEDIATE ADJACENT AREA WAS INSPECTED FOR SECONDARY DAMAGE, NONE OBSERVED. (TC# 20060719005)

R020646	BEECH	PWA	PLATE	MISMARCKED
8/24/2006	1900D	PT6*	HCE4A3J 1006411	PROPELLER

PRELOAD PLATES ARE MARKED WITH PN 100641 BUT CONFIGURED AS PN 100641-1. LOGBOOK INDICATES PROP WAS REMOVED ON 5/17/05 FROM AIRCRAFT D2-EVN, S/N UE-370 RT POSITION DUE TO DEEP GOUGE OVER ACCEPTABLE LIMITS. PROP WAS OVERHAULED ON 7/14/05 WITH 824.0 TSN. PRELOADS MAY HAVE BEEN INSTALLED AT THIS TIME IAW S/B HC-SB-61-278. I DO NOT KNOW IF THE BEARINGS WERE REMOVED TO MAKE P/N 100641-1 OR THE PART WAS INCORRECTLY MARKED AT HPI.

CA060725004	BEECH	PWA	FIRE LOOP	UNKNOWN
7/20/2006	1900D	PT6A67D	24412886	FIRE DETECTION

(CAN) DURING CRUISE FLIGHT THE CREW RECEIVED A RT ENGINE FIRE ANNUCIATION. ALTHOUGH IT WAS DETERMINED THAT NO FIRE WAS PRESENT, PROCEDURES WERE FOLLOWED TO SHUTDOWN AND SECURE THE ENGINE IN FLIGHT AND THE DISCHARGE OF THE FIRE EXTINGUISHING AGENT. MAINTENANCE FOUND THAT EITHER THE FORWARD OR AFT FIRE WIRE LOOP CAUSED THE ANNUNCIATION ALTHOUGH IT COULD NOT BE

DETERMINED AS TO WHICH ONE AS THE FAULT MODE WAS NOT HARD AND THE SYSTEM RETURNED TO NORMAL OPS. BOTH LOOPS WERE REPLACED AS A PRECAUTION WITH NO REPEAT OF THE OCCURRENCE. IT IS ALSO POSSIBLE THAT THE FORWARD LOOP MAY HAVE BEEN TOO CLOSE TO THE STACK AND CAUSED THE FALSE WARNING AS WELL. (TC NR 20060725004)

CA060810005	BEECH	PWA	TRANSMITTER	FAILED
8/6/2006	200BEECH	PT6A41	1013890053	TORQUE

(CAN) ON TAKEOFF RT TORQUE TRANSMITTER WAS READING HIGH AIRCRAFT RETURNED AIRPORT. AIRCRAFT ELECTRICAL POWER TURNED OFF AND TORQUE INDICATOR WENT TO ZERO. A GROUND RUN WAS ACCOMPLISHED AND TORQUE INDICATION WAS NORMAL AT HIGH AND LOW POWER SETTINGS. AIRCRAFT RETURNED TO DESTINATION WITHOUT FURTHER INCIDENT. MAINTENANCE REPLACED RT ENGINE TORQUE TRANSMITTER P/N 101-390005-3 AS A PRECAUTIONARY. (TC NR 20060810005)

2006FA0000891	BEECH		POWER SUPPLY	INOPERATIVE
8/24/2006	400A		8751062	EMERGENCY LIGHTS

DURING SCHEDULED 12 MONTH/200 HR INSPECTION OF AIRCRAFT SERVICES EMERGENCY LIGHTING SYS INSTALLED UNDER STS ST00344AT FOUND AFT POWER INSTALLED UNDER STC ST00344AT FOUND AFT POWER SUPPLY TO HAVE NO OUTPUT. VERIFIED POWER SUPPLY RECEIVING BATTERY CHARGING VOLTAGE AND BATTERY FULLY CHARGED. REPLACED POWER SUPPLY WITH NEW UNIT, SYSTEM TESTS SATISFACTORY IAW MANUAL INSPECTION GUIDE. (K)

2006FA0000952	BEECH	PWA	LINE	CHAFED
9/8/2006	400A	JT15D5		BRAKE

DURING A SCHEDULED INSPECTION FOUND PN 128580101-1, BRAKE LINE ASSY CHAFE DAMAGED BY EXCESS LENGTH CABIN FLOOR PANEL ATTACH SCREW AS DESCRIBED IN MFG SB 53-3511. REPAIR REQUIRED SPLICING IN OF NEW BRAKE LINE SEGMENT IAW SB 53-3511. HAVE FOUND THIS CONDITION ON NUMEROUS OTHER AC. RECOMMEND THAT SB 53-3511 BE CHANGED TO A MANDATORY SB DUE TO COMMON OCCURRENCE AND POSSIBILITY FOR LOSS OF BRAKING ACTION IF TUBING CHAFED THROUGH. ALSO RECOMMEND AN ALERT INFO BULLETIN ON THIS SUBJECT.(K)

2006FA0000932	BEECH	PWA	RIB	CRACKED
9/20/2006	400A	JT15D5	45A211460506	HORIZONTAL STAB

THE RIBS LOCATED UNDER THE HORIZONTAL STABILIZER BRACKETS WERE CRACKED, BOTH THE LT AND RT SIDES. THIS IS COVERED UNDER COMMUNIQUE NUMBER 70.

2006FA0000930	BEECH	PWA	RIB	CRACKED
9/20/2006	400A	JT15D5	45A21146006	HORIZONTAL STAB

THE HORIZONTAL STABILIZER RIB (RT SIDE) LOCATED UNDER THE ROLLER BRACKET HAD A CRACK IN IT. THIS ITEM IS COVERED UNDER COMMUNIQUE NR 70.

2006FA0000946	BEECH	LYC	ATTACH ANGLE	BROKEN
7/7/2006	76	O360*	10598000021	ENGINE MOUNT

BOTH LT AND RT ENGINE MOUNTS TO FIREWALL ATTACH POINTS BROKE OUT AFT OF THE FIREWALL IN THE UPPER OB POINT. THIS BREAKAGE IS DIFFICULT TO DETECT DUE TO VISIBILITY ACCESS. THESE BRACKETS BROKE BECAUSE OF FLIGHT THROUGH TURBULENCE. (K)

2006FA0000945	BEECH	LYC	MOUNT	BROKEN
7/7/2006	76	O360*		RT ENGINE

BOTH LT AND RT ENGINE MOUNT TO FIREWALL ATTACH POINTS BROKE OUT AFT OF THE FIREWALL IN THE UPPER OB POINT. THIS BREAKAGE IS DIFFICULT TO DETECT DUE TO VISIBILITY ACCESS. THESE BRACKETS BROKE BECAUSE OF FLIGHT THROUGH TURBULENCE. (K)

CA060731002	BEECH	PWA	PLANETARY GEAR	MAKING METAL
7/13/2006	99	PT6A28	310152501	ENGINE

(CAN) METAL CONTAMINATION WAS FOUND ON THE CHIP DETECTOR. METAL ORIGINATED FROM RGB AND WAS THE RESULT OF SIGNIFICANT MATERIAL LOSS BETWEEN THE 1ST STAGE SUN GEAR AND THE 1ST STAGE PLANETARY GEARS. THIS IS OUR 2ND SUCH CASE WITH TIME CONTINUED GEARS. (TC NR 20060731002)

CA060712008	BEECH	PWA	SUPPORT BEAM	CRACKED
7/6/2006	A100	PT6A28	504200337	FUSELAGE

(CAN) UNDER THE PILOTS FLOOR BOARDS AT FLIGHT STATION 107 THE PILOTS RUDDER QUADRANT SUPPORT BEAM WAS FOUND CRACKED. THESE CRACKS WERE FOUND AT (2) OF THE (4) NUT PLATES. WE HAVE FOUND THESE SAME CRACKS ON 4 OTHER OF OUR AIRCRAFT AROUND THE SAME LOCATIONS. THE BEAM WAS REPLACED. (TC NR 20060712008)

NA	BEECH		ANGLE	CRACKED
8/22/2006	A36		3511513022	MLG DOOR

DURING A ROUTINE ANNUAL INSPECTION IT WAS FOUND THAT BOTH THE LT AND RT IB GEAR DOOR AFT HINGE ANGLES (P/N'S 35-115130-22, -24, 35-115070-16 AND -18 WERE CRACKED. IT IS MY OPINION THAT THIS IS DUE TO THE FACT THAT MFG HAS CHANGED THE DESIGN OF THE IB GEAR DOOR FROM A STAMPED ASSY TO A MILLED PART. THIS CONDITION OBVIOUSLY IS PRESENT IN OTHER LIKE MODELS AND MFG HAS ACKNOWLEDGED THE PROBLEM IN THEIR PARTS BOOK AS THEY GIVE INSTRUCTIONS FOR ORDERING DIFFERENT PN. THE NEW PN PARTS ARE MADE FROM .050 INCH ALUMINUM WHILE THE ORIGINAL PARTS WERE MADE FROM .032 INCH ALUMINUM. THE CRACKS COULD EASILY GO UNDETECTED AND A SB IS NEEDED TO HELP OTHERS FIND AND ELIMINATE THESE CRACKS.

2006FA0000956	BEECH	CONT	CONTROL ARM	SLIPPED
8/16/2005	A36	IO550B	656219B	ENGINE

NOTICED WHILE DESCENDING THROUGH 5,000 FEET, THE MP WAS INCREASING AND NOT RESPONDING TO THROTTLE BACK. MP REMAINED AT 28 INCHES TO AIRPORT WITH THROTTLE SETTING AT IDLE. SHUTOFF ENGINE AND LANDED. FOUND THE NUT THAT HOLDS THE THROTTLE CONTROL ARM TO AIR/FUEL MIXTURE DEVICE WAS LOOSE AND THE SPLINES WERE SLIPPING. ENGINE IS SPRING LOADED SO TO STAY AT PARTIAL POWER IN CASE THIS HAPPENS. MINE FOR SOME REASON WENT TO FULL POWER.

2006FA0000955	BEECH	CONT	CYLINDER	CRACKED
9/25/2006	A36	IO550B	AEC631397CN2C	EXHAUST PORT

NOTED ON 6 ENGINE COMPONENTS, INC. ECI CYLINDERS WITH 133.1 SINCE NEW AND PUT IN SERVICE ON THE SAME ENGINE DECEMBER 2004. NR4 AND NR5 CYLINDERS WERE CRACKED IN THE EXHAUST PORT WITH A HOLE BURNED THROUGH AT THE CRACK AND WAS LEAKING EXHAUST GASSES OVERBOARD. NR 1, NR 2, NR 3 AND NR 6 CYLINDERS WERE CRACKED IN THE SAME LOCATION AS NR 4 AND NR 5. THE CRACKS ARE IB OF THE EXHAUST GUIDE BOSS. THE THICKNESS OF THE MATERIAL IN THAT AREA OF THE EXHAUST PORT APPEARS TO BE TOO THIN AND NOT ABLE TO WITHSTAND THE HEAT AND STRESS PRESENT DURING NORMAL ENGINE OPERATION.

2006FA0000908	BEECH	CONT	SWITCH	FOULED
8/17/2006	B36TC	GTSIO520*	MS250261	MLG

LANDING GEAR WOULD NOT EXTEND ELECTRICALLY UPON APPROACH TO RFD. MANUAL EXTENSION OPERATIONS NORMAL. TROUBLESHOT LANDING GEAR ELECTRICAL SYS. FOUND S45 LANDING GEAR ACTUATOR DYNAMIC BRAKE DOWNLIMIT SWITCH OIL SOAKED AND FOULED BY LINT, FUZZ, ETC. CLEANED DOWNLIMIT SWITCH AS REQUIRED AND CYCLED LANDING GEAR ELECTRICALLY; OPERATION NORMAL. SUSPECT OIL AND LINT BLOCKING FULL SWITCH TRAVEL AND/OR CAUSING HIGH RESISTANCE IN S45 SWITCH. DYNAMIC BRAKE LIMIT SWITCHES SHOULD BE INSPECTED CLOSELY AND CLEANED IF REQUIRED EACH 100 HR OR ANNUAL INSPECTION. THIS AREA CAN BE PRONE TO ATTRACTING DIRT AND UPHOLSTERY (FUZZ). (K)

2006FA0000857	BEECH	LYC	LINE	CHAFED
7/18/2006	C24R	IO360A1A	169580001143	BRAKE SYSTEM

AIRCRAFT LEAKING HYDRAULIC FLUID. INSP FOUND RT BRAKE LINE LEAKING APPROX 8 INCHES FWD OF WING SPAR. FOUND ALUMINUM BRAKE LINE CHAFING AGAINST WIRE REINFORCED HEATING DUCT. ALSO, EVIDENCE OF CORROSION FROM CONTACT WITH DISSIMILAR METALS. CUT OFF DAMAGED AREA AND REPLACED WITH NEW MATERIAL AND ON UNION. ADDED NYLON SPIRAL WRAP FOR CHAFE PROTECTION. (K)

2006FA0000866	BEECH		WHEEL	CRACKED
8/21/2006	C90A		50300001087	MLG
AFTER SEVERAL ATTEMPTS TO FIND SOURCE OF ONGOING TIRE LEAKAGE, WHEEL ASSEMBLY WAS REMOVED FROM AIRCRAFT AND INSPECTED. FOUND 2 CRACKS OPPOSITE OF (1) OTHER ALONG INNER RADIUS OF INNER WHEEL HALF. DURING DISASSEMBLY IT WAS NOTED THAT WHEEL ASSEMBLY TIE BOLT NUTS DID NOT HAVE ANY SELF LOCKING FEATURE. WHEEL WAS ORIGINAL EQUIPMENT WITH ONLY (1) TIRE CHANGE SINCE NEW. (K)				
2006FA0000894	BEECH	PWA	BOLT	OVERTORQUED
8/24/2006	C90A	PT6A21	139909B47	RUDDER SYS
DURING 1ST SCHEDULED PHASE 1 AND PHASE 2 INSPECTION INVESTIGATED PILOT COMPLAINT OF STIFF NOSEWHEEL STEERING. VERIFIED COMPLAINT, FOUND NOSEWHEEL STEERING STIFF AND LOUD POPPING NOISES COMING FROM COCKPIT UNDER FLOOR AREA WHEN TAXIED FROM COPILOTS POSITION. ACCESSED COCKPIT AREA RUDDER CONTROL SYSTEM AND FOUND PILOTS SIDE OB RUDDER CONTROL PUSHROD TO HAVE EXCESSIVE PLAY. UPON REMOVING OB PUSHROD ASSY. BEARINGS FELL OUT OF ROD END BEARING ASSY. FURTHER INVESTIGATION SHOWED PN 50-5244553 LT SIDE RUDDER BELLCRANK ASSY OPERATION TIGHT, FOUND PN 139909B47 PIVOT BOLT OVERTIGHTENED. ALSO FOUND LT TO RT RUDDER CONTROLS INTERCONNECT TUBE ATTACHING HARDWARE OVERTIGHTENED. (K)				
2006FA0000892	BEECH	PWA	MOUNT	DISTORTED
8/24/2006	C90A	PT6A21	6225735002	RUDDER SERVO
DURING FIRST SCHEDULED 1ST AND 2ND PHASE INSPECTIONS NOTED SQUEAKING AND METAL TO METAL CONTACT NOISES WHEN RUDDER MOVED SIDE TO SIDE. FOUND RUDDER SERVO CABLE RUBBING ON SMT-65 SERVO MOUNT CABLE DRUM COVER. REPLACED SMT-65 UNIT AND REINSTALLED, RIGGED SERVO CABLE. RUDDER OPERATIONS NOW NORMAL, AUTOPILOT OPERATIONAL CHECKS OK. SUSPECT SMT -65 SERVO MOUNT EITHER DISTORTED FROM PRIOR HANDLING OR NOT ASSEMBLED CORRECTLY. (K)				
2006FA0000893	BEECH	PWA	FASTENER	OVERTORQUED
8/24/2006	C90A	PT6A21		RUDDER SYS
FOUND OTHER LT SIDE RUDDER CONTROL ATTACHING HARDWARE TIGHT OR OVERTIGHTENED. EXAMINED LT RUDDER CONTROL SYSTEM HARDWARE FOR SERVICEABILITY AND REINSTALLED AS REQUIRED WITH NORMAL RECOMMENDED TORQUES, ADJUSTED INTERCONNECT ROD AS REQUIRED WITH NORMAL RECOMMENDED TORQUES, ADJUSTED INTERCONNECT ROD AS REQUIRED. REPLACED PILOT'S OB PUSHROD ASSY BEARINGS AND REINSTALLED. NOSEWHEEL STEERING AND RUDDER OPERATIONS FOUND NORMAL AFTER REASSEMBLY. SUSPECT HARDWARE POSSIBLY OVERTIGHTENED DURING INITIAL AC ASSY, AIRCRAFT WAS ALSO SUBJECT TO SPECIAL FLIGHT CONTROL SYSTEM INSPECTION FOLLOWING MFG. RECOMMENDED FURTHER INVESTIGATION BY MFG TO DETERMINE IF A ONE-TIME SB. (K)				
2006FA0000890	BEECH	PWA	CONTROL CABLE	OUT OF ADJUST
8/24/2006	C90A	PT6A21		ELEVATOR
DURING 1ST SCHEDULED PHASE 1 AND PHASE 2 INSPECTIONS NOTED ELEVATOR CONTROL SYSTEM CABLE TENSIONS OUT OF MM SERVICE LIMITS. FOUND ELEVATOR NEUTRAL POSITIONS OUT OF LIMITS FOLLOWING CABLE TENSION ADJUSTMENTS (WITH FORWARD AND AFT RIG PINS INSTALLED). FOUND FORWARD BELLCRANK DOWN STOP BOLT CLEARANCE PAST SERVICE LIMIT AND ADJUSTED. FOUND ELEVATOR BOBWEIGHT CLEARANCE GAP EXCESSIVE. REQUIRED ADJUSTING THE FORWARD PUSHROD ASSY AND ADDING WASHERS TO OBTAIN BOBWEIGHT CLEARANCE WITHIN SERVICE LIMITS. AIRCRAFT HAD BEEN SUBJECT TO SPECIAL FLIGHT CONTROL SYSTEM INSPECTION FOLLOWING MANUFACTURE LOGBOOK RECORDS. RECOMMEND FOLLOW-UP INVESTIGATION BY MFG ON OTHER AC. (K)				
2006FA0000912	BEECH	CONT	SHAFT	SHEARED
8/17/2006	F33A	IO520BB	AA3216CW	AIR PUMP
PILOT REPORTED INSTRUMENT AIR PRESSURE WENT TO -0- IN FLIGHT, PILOT THEN SELECTED STANDBY PUMP AND RETURNED TO BASE. UP ON TROUBLESHOOTING THE MECHANIC REMOVED THE AIR PUMP AND FOUND THE SHAFT WAS SHEARED. NO PROBABLE CAUSE OR RECOMMENDATIONS AT THIS TIME. (K)				
2006FA0000913	BEECH	CONT	SHAFT	SHEARED

8/17/2006 F33A IO520BB AA3216CW AIR PUMP
PILOT REPORTED INSTRUMENT AIR PRESSURE WENT TO -0- IN FLIGHT, PILOT THEN SELECTED STANDBY PUMP AND RETURNED TO BASE. UPON TROUBLESHOOTING, THE MECHANIC REMOVED THE AIR PUMP AND FOUND THE SHAFT WAS SHEARED. NO PROBABLE CAUSE OR RECOMMENDATIONS AT THIS TIME. (K)

[2006FA0000914](#) BEECH PWA TRANSFER TUBE UNKNOWN

8/21/2006 F90 PT6A135 3035890
IN FLIGHT NOTICED TORQUE METER WAS UNSTABLE, CHECKED OIL PRESSURE AND SAW IT DROPPING. REDUCED POWER TO IDLE OIL PRESSURE WAS IN YELLOW RANGE. SHUTDOWN ENGINE AND LANDED. REMOVED FRONT COWLING AND FOUND INLET DEICE TUBE HAD RUBBED A HOLE IN THE OIL PRESSURE TRANSFER TUBE RT SIDE ON ENGINE. CHECKED CHIP DETECTOR CHECKED OK. CHECKED OIL FILTER CHECKED OK. REMOVED AND REPLACED TUBE AND RELOCATED DEICE TUBE. SERVICED OIL SYSTEM AND GROUND RUN RECHECKED CHIP DETECTOR AND FILTER CHECKED OK. RECOMMEND THAT BEFORE FRONT TOP COLWING IS INSTALLED THAT DEICE TUBES BE CHECKED FOR CLEARANCE AT OTHER ITEMS IN COWLING. (K)

[CA060728003](#) BELL LYC BELL BEARING FAILED
7/14/2006 205A1 T5313B 2040406009 TAIL ROTOR DRIVE

(CAN) THE TAIL ROTOR DRIVESHAFT HANGER HAD BEEN INSTALLED THE NIGHT BEFORE THE FAILURE. WE SUSPECT AN INNER COUPLING FAILURE. THE SUSPECT COUPLING HAD BEEN RECOATED JUST BEFORE INSTALLATION BY USING AN AMS2451/4 PROCESS. (TC NR 20060728003)

[CA060727001](#) BELL LYC BELL NUT CRACKED
7/27/2006 205A1 T5317A 204011116001 M/R HUB

(CAN) THIS IS AN ON CONDITION ITEM. SO HISTORY MAY NOT BE ACCURATE. M/R HUB ASSY HAS 18437.6 TIME SINCE NEW. M/R HEAD ASSY WAS IN FOR O/H AND REQUIRES ACORN NUTS TO BE NDT. THIS ONE WAS FOUND CRACKED. (TC NR 20060727001)

[CA060803002](#) BELL ALLSN FILTER WRONG PART
8/11/2005 206B 250C20 03807205 SCAVENGE OIL

(CAN) WHILE CARRYING OUT A SCAVENGE OIL FILTER REPLACEMENT IAW INSPECTION PROGRAM IT WAS NOTED THAT THE FILTER WAS DIFFERENT THAN THE REPLACEMENT FILTER. THE CORRECT FILTER FOR THE SCAVENGE OIL FILTER IS P/N 038088-08, WHAT WAS FOUND IN THE SCAVENGE OIL FILTER HOUSING WAS AN P/N 038072-05 FILTER. WE ARE INVESTIGATING HOW THIS OCCURRED. (TC NR 20060803002)

[CA060818005](#) BELL ALLSN ALLSN CASE ERODED
8/16/2006 206B 250C20 6887167 COMPRESSOR

(CAN) AIRCRAFT WAS IN FOR AN INSPECTION. THE COMPRESSOR CASE HALVES HAD 23 HOURS LT TO A 1750 INSPECTION. MFG REQUESTED THAT WE CARRY OUT THE INSPECTION. IT WAS FOUND THAT THE 2ND AND 3RD STAGE STATOR BLADES WERE SO UNDER CUT FROM EROSION (NEAR THE ROOT OF THE BLADES) THAT A COMPRESSOR BLADE FAILURE WAS GOING TO OCCUR. IN SOME SPOTS THE PLASTIC LINEAR WAS ERODED TO THE BARE METAL. THE AIRCRAFT DOES HAVE A INTAKE PARTICLE SEPARATOR KIT INSTALLED. ANOTHER COMPRESSOR WAS INSTALLED. (TC NR 20060818005)

[CA060808005](#) BELL ALLSN ALLSN SCROLL CRACKED
7/19/2006 206L1 250C28 23056109 COMPRESSOR

(CAN) HIGH TOT WAS NOTICED IN CRUISE. ON RETURNING A POWER CHECK WAS CARRIED OUT AND LOW POWER WAS DETECTED. A HAIT LINE CRACK WAS IDENTIFIED BY VISUAL INSPECTION IN THE ELBOW AREA OF SCROLL. COMPRESSOR CHANGED. (TC NR 20060808005)

[CA060803004](#) BELL ALLSN HOSE LEAKING
7/28/2006 206L3 250C30P 70061H000T13 HYD SYSTEM

(CAN) UPON LANDING AND SHUTDOWN ON LAST UNEVENTFULL FLIGHT OF THE DAY. PILOT REPORTED HYD FLUID ON SIDE OF A/C. A/C GROUNDED UNTIL INSP, UPON INSP. HYD PRESSURE FEED LINE FOUND LEAKING. LINE REPLACED WITH SEVICEABLE UNIT. RECOMMEND OPERATORS AND MAINT FACILITIES INSPECT O/C HYD LINES

FREQUENTLY AND REPLACE. (TC NR 20060803004)

CA060815003	BELL	PWA	PRESSURE SWITCH	LEAKING
8/15/2006	212	PT6T3	2090620031	ENGINE OIL

(CAN) FLUID LEAK AT UNION OF SWITCH BODY. THE BODY NORMALLY HAS A RIVET TO KEEP THE UNIT FROM BEING TAKEN APART, BUT THIS RIVET WAS FOUND TO BE MISSING. THE THREADS HAD DAMAGE WHERE THE RIVET HOLE WAS. A HOLE IS PROVIDED IN THE THREADS TO INSTALL A RIVET. THIS DID NOT LINE UP. (TC NR 20060815003)

CA060818003	BELL	ALLSN	SKIN	CRACKED
8/3/2006	407	250C47B	407530014101	TAILBOOM

(CAN) DURING SCHEDULED 150 HOUR TAILBOOM INSPECTION A CRACK MEASURING .7500 OF AN INCH LONG WAS DISCOVERED ON THE UPPER LT SIDE OF THE TAILBOOM AT STATION 98.89. AIRCRAFT WAS GROUNDED AND A NEW TAILBOOM WAS ORDERED (200 SERIES). (TC NR 20060818003)

CA060728001	BELL	PWA	CHECK VALVE	JAMMED
7/11/2006	412EP	PT6T3	206076437003	HYD SYS 2

(CAN) UPON FIRST GROUND RUN OF M412 DURING MANUFACTURING FTP'S (WITHOUT M/R BLADES INSTALLED), A NOISE (BANG) WAS HEARD TWICE AND HYDR PRESSURE RAISED TO +1300 PSI ON THE GAGE. PILOT SHUTDOWN THE HYDR SYSTEM AND ABORTED GROUND RUN FOR INVESTIGATION. FURTHER INVESTIGATION REVEALED THAT A SWIRL OF COPPER METAL (CHIPS) JAMMED THE HYDRAULIC CHECK VALVE IN AN OPEN POSITION WHICH ALLOWED REVERSED FLOW AND AN HYDR LOCK BY PRESSURIZING THE PUMP CASE DRAIN, FOLLOWED BY A TEMPERATURE RISE. HYDRAULIC COMPONENTS REPLACED AND AIRCRAFT RETURNED TO SERVICE. FURTHER LAB TESTING WERE ABLE TO REPRODUCE THE PROBLEM AND TEMPERATURE WAS TWICE THE NORMAL RANGE WITHIN 4 MIN. OF OPERATION. THE SOURCE OF THE DEBRIS WAS NOT FOUND COULD COME FROM ANYWHERE DURING MANUFACTURING INSTALLATION. FOD CONTROL WAS RE-INFORCED ON ASSY LINE. CURRENT STOCK CHECK VALVES WILL BE INSPECTED.

2006FA0000881	BLANCA	COVER	CRACKED
8/30/2006	1730A	537650	OIL SUMP

5 INCH SPANWISE CRACK, 10 INCHES AFT OF FORWARD EDGE OF OIL SUMP COVER.

2006FA0000888	BOEING	BLADE	DEBONDED
6/8/2006	234	234R0001	MAIN ROTOR

ROTOR BLADE HAD A LARGE SKIN DEBOND ON THE LOWER SURFACE FROM THE TRIM TAB OB, BETWEEN STA 227 AND STA 329, APPROXIMATELY 475-500 SQUARE INCHES (ALLOWABLE REPAIR LIMITS ARE 20 INCHES SPAN WISE AND 13 INCHES CHORD WISE. UNBONDED SKIN WAS REMOVED TO EXPOSE HONEYCOMB CORE FOR INSPECTION. HONEYCOMB WAS OIL FREE AND APPEARED TO BE IN GOOD CONDITION. THE ROTOR BLADE WILL UNDERGO FURTHER INVESTIGATION TO DETERMINE THE PROBABLE CAUSE AND REPAIR SCHEME IF POSSIBLE. THE MANUFACTURER HAS BEEN NOTIFIED. (K)

CA060724001	BOEING	PWA	O-RING	SWOLLEN
7/13/2006	727225	JT8D15	MS28775232	STABILIZER

(CAN) ON DESCENT STABILIZER OUT OF TRIM LIGHT ILLUMINATED, STABILIZER WOULD NOT RESPOND TO COMMANDS FROM AUTOPILOT, MAIN ELECTRIC TRIM OR MANUAL TRIM. FLIGHT CREW ACCOMPLISHED THE STABILIZER JAM EMERGENCY CHECK LIST AND LANDED UNEVENTFULLY. UPON INSPECT MAINTENANCE FOUND WATER INGRESSION IN THE GEAR BOX AND BRAKE ASSEMBLY DUE TO DAMAGED O-RINGS. STABILIZER GEAR BOX ASSEMBLY REPLACED IN ACCORDANCE WITH AMM 27-40-41. CONTRIBUTING FACTOR - EXCESSIVE RAIN EXPERIENCED DURING THE GROUND LAYOVER. (TC NR 20060724001)

CA060728002	BOEING	PWA	SWITCH	OUT OF RIG
7/25/2006	727225	JT8D15A		CARGO DOOR

(CAN) DURING CLIMB THROUGH FL210 AND 6.0 PSID CABIN DIFFERENTIAL THE CARGO DOOR UNSAFE LIGHT INDICATION ILLUMINATED. AIRCRAFT DUMPED FUEL AND RETURNED TO STATION, DURING APPROACH THE CARGO DOOR UNSAFE LIGHT EXTINGUISHED. UPON INSPECTION MAINTENANCE FOUND DOOR CLOSE MICRO

SWITCH OUT OF RIG. SWITCH ADJUSTED IAW AEI MM CHAPTER 24 PAGE 26. CONTRIBUTING FACTORS: PRIOR TO DEPARTURE THE AIRCRAFT WAS UNDERGOING THE INCORPERATION OF SB AEI 04-02 REV 1R. CLARIFICATION OF RIGGING PROCEDURES WAS REQUESTED FROM AEI. (TC NR 20060728002)

CA060803003	BOEING	PWA	CONTROLLER	MALFUNCTIONED
8/3/2006	727247	JT8D*	656020916	FIRE DETECTION

(CAN) JUST AFTER ENGINE, ALL 3 ENGINES WERE STARTED AND THE FLIGHT CREW WERE CARRYING OUT THE AFTER START CHECKLIST, THE NR 2 ENGINE (FIRE WARNING) ILLUMINATED AND THE (FIRE BELL RANG). THE FIRE HAND WAS PULLED AND THE FIRE BOTTLE DISCHARGED LIGHT WENT OUT. MAINTENANCE CONFIRMED THAT THERE WAS NO FIRE AND THAT THE FIRE DETECTION UNIT HAD FAILED. THIS UNIT IS A ON CONDITION SOLID STATE PART. AIRCRAFT IS CURRENTLY ON THE GROUND AWAITING PARTS. (TC NR 20060803003)

2006FA0000916	BOEING		HOUSING	CRACKED
8/2/2006	737*		65447822	HYD PUMP

(REF NR 209606/PH30) CRACK IN HOUSING. CYCLICAL FATIGUE. (K)

2006FA0000922	BOEING	GE	AMPLIFIER	FIRE
9/15/2006	737*	CFM56*	1F220100102	ENTERTAIN SYS

WHILE MAINTENANCE PERSONNEL WERE PERFORMING A ROUTINE POST FLIGHT INSPECTION, A TECHNICIAN DISCOVERED A PROBLEM. ACFT POWERED BY EXTERNAL POWER, AND CABIN ENTERTAINMENT SYS OPERATING (PLAYING A DVD MOVIE) WITH THE AUDIO SYSTEM VOLUME AT A LOW LEVEL. AFTER A FEW MINUTES OF OPERATION, A TECHNICIAN NOTICED SMOKE AND FUMES COMING FROM TWO OF THE FORWARD CABIN SPEAKERS (LOUNGE AREA). ONE SPEAKER EMITTED A FLAME APPROXIMATELY 2 TO 3 INCHES IN LENGTH. THE TECHNICIAN QUICKLY SHUT DOWN ALL AIRCRAFT ELECTRICAL POWER, AND RETURNED TO THE DAMAGED SPEAKER AREA WITH AN ONBOARD FIRE EXTINGUISHER. THE FLAME HAD SELF EXTINGUISHED, HOWEVER, THE CABIN WAS VERY SMOKEY AT THAT POINT. UPON FURTHER EXAMINATION, (2) SPEAKERS HAD MELTED, BURNED AND WERE DESTROYED. AT THIS TIME, THE POWER AMP MODULE FOR THOSE SPEAKERS HAS BEEN SENT OUT FOR REPAIR/EVALUATION, AND THE (2) SPEAKERS WERE REPLACED WITH NEW ONES. THERE IS FUSE PROTECTION BUILT INTO THE POWER AMP MODULE, HOWEVER, IT IS EVIDENT THAT THE SYSTEM IS NOT PROPERLY DESIGNED AND POSES A SIGNIFICANT THREAT OF CAUSING AN IN-FLIGHT CABIN FIRE. WE BELIEVE ONE OUTPUT CHANNEL OF THE POWER AMP MODULE FAILED AND CAUSED THIS PROBLEM. IN THE PAST, WE HAVE HAD INSTANCES OF OVERHEATED/DAMAGED SPEAKERS, BUT NOT TO THIS DEGREE. I HAVE PHOTOS OF THE DAMAGED SPEAKERS AND WILL PROVIDE THEM UPON REQUEST.

CA060829004	BOEING	PWA	BEARING	SEIZED
8/5/2006	737217	JT8D17A	69403483	ELEVATOR CONTROL

(CAN) AIRCRAFT ENCOUNTERED INTERMITTENT REPEAT SNAGS FOR STIFF ELEVATOR MOVEMENT. FINAL RECTIFICATION CAME ON AUGUST 5 2006 WHEN THE REFERENCED BEARING AND RETAINER WERE REPLACED. REFERENCED BEARING WAS FOUND SEIZED. CURRENT MAINTENANCE PROGRAM WAS REVIEWED TOWARDS THIS FINDING. INSP TASKS ARE CONDUCTED EVERY C CHECK. HAS MFG HAD OTHER REPORTS OF STIFF ELEVATORS DUE TO THE REFERENCED BEARING. 2) IF SO, DOES MFG HAVE THE TOTAL TIME OF THE AIRCRAFT WITH THOSE REPORTS. (IE TO DETERMINE IF A LIFE LIMIT EXISTS) 3) MAINTENANCE C CHECK TASKS UTILIZE AMM 27-31-0. AMM D6-12010 IS USED FOR THE AIRCRAFT INVOLVED. AMM 27-31-0 PAGE 535 2.B CONTAINS SPRING SCALE LIMITS FOR DIFFERENT ELEVATOR DEFLECTIONS (HYDRAULICS OFF). THIS IS BELIEVED TO RELATE HOWEVER TO ELEVATOR BALANCE. THE TABLE DOES HOWEVER PROVIDE A BREAK AWAY FORCE LIMIT. CAN EITHER OF THESE LIMITS BE USED TO DETERMINE SMOOTHNESS OF THE ELEVATOR SYSTEM. AS MENTIONED IT IS BELIEVED THESE FIGURES ARE USED TO DETERMINE ELEVATOR BALANCE. IF THIS TABLE CANNOT BE USED, DOES MFG HAVE LIMITS FOR CHECKING ELEVATOR CONTROL SYSTEM STIFFNESS. (WITH HYDRAULICS OFF) 4) DOES MFG HAVE OTHER RECOMMENDED MAINTENANCE CHECKS TO PRECLUDE SUCH EVENTS. (TC NR 20060829004)

PIDR2006017	BOEING		SPAR	DAMAGED
8/1/2006	737330		654532421	BS 224

FASTENER HOLE IN THE LT UPPER REAR SPAR CHORD AT STA 224.14 (AT THE LANDING GEAR BEAM OB ATTACH FITTING) CRACKED .024 INCHES BEYOND ALLOWABLE LIMITS. REPLACED THE REAR SPAR CHORD SEGMENT FROM THE SIDE OF THE FUSELAGE BODY TO REAR SPAR STA 285. NOTE: PLEASE REMOVE PIDR AS THE

OPERATOR DESIGNATOR IN ORDER TO IDENTIFY THE OPERATOR AS A GENERAL AVIATION OPERATOR.

PIDR2006016	BOEING		FITTING	ELONGATED
8/23/2006	737330		65C365451	MLG

DURING REPLACEMENT OF THE AFT OB SUPPORT FITTING FOR THE MAIN LANDING GEAR BEAM IAW SB 737-1216R2, PART III, NOTED SEVERAL ATTACHMENT HOLES IN THE REPLACEMENT FITTING OUT OF ROUND. REPAIRED DAMAGE AREA IN FITTING IAW MESSAGE NUMBER 1-213752921-12 DATED 26 JUL 2006 AND FAA FORM 8100-9 DATED 7 AUG 2006 WHICH IS AN AMOC TO AD 2005-18-08.

PIDR2006015	BOEING		SPAR	DAMAGED
8/23/2006	737330			WING

DURING REPLACEMENT OF THE AFT OB SUPPORT FITTING FOR THE MAIN LANDING GEAR BEAM IAW SB 737-1216R2 PART III, NOTED SEVERAL ATTACHMENT HOLES IN SPAR CHORD AND WEB TO BE OUT OF ROUND. REPAIRED DAMAGE IAW MFG MESSAGE NR 1-21375291-12 DATED 26 JULY 2006 AND FAA FORM 8100-9 DATED 7 AUG 2006 AS AN AMOC TO AD 2005-18-08.

PIDR2006018	BOEING		SPAR	CRACKED
8/14/2006	737330			BS 224

TWO FASTENER HOLES IN THE RIGHT REAR SPAR AT STA 224.14 (AT THE LANDING GEAR BEAM O/B ATTACH FITTING) CRACKED. REAMED ONE HOLE PER BOEING SB 737-1216R2 AND REAMED SECOND HOLE AND INSTALLED A FREEZE PLUG PER BOEING MESSAGE 1-210954789-9 WITH FAA APPROVED 8100-9 DATED 24 AUG 2006.

CA060723001	BOEING		FRAME	CORRODED
7/17/2006	737400		654653120	BS 500B S28R-25L

(CAN) FWD CARGO PIT FRAME TO SKIN AT BS 500B CORRODED BETWEEN STR 28R AND 28L (TC NR 20060723001).

CA060723002	BOEING		FRAME	CORRODED
7/17/2006	737400		654653170	BS 500C S27-28R

(CAN) FWD CARGO PIT FRAME TO SKIN AT BS500C CORRODED STR 27R TO 28R (TC NR 20060723002).

CA060723003	BOEING		FRAME	CORRODED
7/17/2006	737400		654653170	BS 500C S28R-28L

(CAN) FWD CARGO PIT FRAME CORRODED AT BS 500C AND STR 28R TO 28L (TC NR 20060723003)

CA060723004	BOEING		FRAME	CORRODED
7/17/2006	737400		6546534	BS 520 S27-28R

(CAN) SKIN TO FRAME ATTACH ANGLE CORRODED NR BS 520, STR 27R TO 28R (TC NR20060723004)

2006FA0000896	BOEING	CFMINT	RETAINER	DISLODGED
8/24/2006	737400	CFM563C1	1975M84P01	ENGINE

(REF: 2006FA00008996) DURING STRIP OF ENGINE 857819 FOR SCHEDULED LLP REPLACEMENT IT WAS NOTED THAT THE HPT FORWARD BLADE RETAINER HAD LIBERATED 2 SECTIONS OF MATERIAL, ONG 3.5 INCHES X .8750 INCH AND 1) 2 INCH X .8750 INCH. THE LIBERATED MATERIAL HAD CAUSED MINOR LPT AND HPT IMPACT DAMAGE. MFG HAS BEEN ASKED TO INVESTIGATE THIS DEFECT. (K)

CA060822005	BOEING	CFMINT	PULLEY	CORRODED
8/22/2006	737522	CFM563C1	BACP30F9	RT AILERON

(CAN) DURING A PHASE CHECK, A GRINDING NOISE WAS HEARD WHEN THE AILERON WAS MOVED BY HAND TO CHECK FOR FREEDOM OF MOVEMENT. UPON FURTHER INVESTIGATION, THE BOLT HOLDING THE PULLEY IN PLACE WAS REMOVED AND THE BEARING FELL APART. BEARING WAS SEVERELY CORRODED AND BUSHING FOUND TO BE GOUGED. PULLEY AND BUSHING REPLACED. TIMES: 36,972.52 CYCLES: 23,427 (TC NR 20060822005)

2006FA0000915	BOEING	BOEING	CYLINDER	DAMAGED
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8/2/2006 767* 273T61027 ACTUATOR
(REF NR: 209609/QN1) PIN HOLE THROUGH CYLINDER WALL. PRESSURES CYCLES AND MATERIAL DEFECT. (K)

[FASD0601](#) BOMBDR ROLLER OUT OF ADJUST
9/4/2006 BD7001A10 PAX DOOR

AFTER TAKE-OFF AIRCRAFT CABIN WOULD NOT PRESSURIZE. AIRCRAFT RETURNED TO AIRPORT WITHOUT INCIDENT. INVESTIGATION BY GROUND CREW FOUND REAR BAGGAGE DOOR MISALIGNED AND AFT ROLLER OUT OF GUIDE TRACK AND REAR LOCKING PIN NOT FULLY ENGAGED, ALL INDICATIONS IN THE COCKPIT WERE NORMAL AS SENSORS ARE FITTED TO FRONT PIN AND DOOR LOCKING MECHANISM ONLY. DOOR WAS RE-FITTED INTO THE TRACK CORRECTLY, DOOR SECURED CLOSED NORMALY, AIRCRAFT DEPARTED AND FLIGHT CONTINUED WITHOUT INCIDENT.

[2006FA0000898](#) BOMBDR AXLE CORRODED
8/18/2006 BD7001A10 21410103 LT MLG

LT MLG TRAILING ARM AXLE FOUND TO HAVE CORROSION ON TAPERED WASTELAND AREAS AT BOTH WHEEL POSITIONS. (K)

[CA060901008](#) BOMBDR PWC SENSOR SHORTED
8/18/2006 DHC8400 PW150A NLG DOOR

(CAN) DURING CLIMB, THE LANDING GEAR STARTED TO CYCLE BY ITSELF AND SEVERAL GEAR DOOR AND GEAR UNSAFE ADVISORY LIGHTS WERE ILLUMINATED. ACCORDING QRH ALTERNATE GEAR EXTENSION PERFORMED. NORMAL LANDING PERFORMED. A/C HANDED OVER TO MAINTENANCE FOR FURTHER INVESTIGATION. INVESTIGATION FOUND THE NLGDCL SENSOR SHORTED. REPLACED NLG DOOR CLOSED SENSOR (S19) IAW FIM TASK AND PERF RIGGING OF PROXIMITY SENSOR. ALL READINGS WITHIN LIMIT. THE DAMAGE OF THE NLG DOOR CLOSED SENSOR HARNESS WAS CAUSED BY A BOLT WHICH IS INSTALLED IN THE WRONG DIRECTION. BOLT REPLACED AND DIRECTION INVERTED IAW MODSUM ISQ3200003. BOLT INSTALLATION IS CORRECTLY SHOWN IN IPC/AMM. (TC NR 20060901008)

[CA060717004](#) BOMBDR PWC SPRING BROKEN
7/14/2006 DHC8400 PW150A 478441 NLG DOOR

(CAN) OPERATOR FOUND SPRING OF ALTERNATE NLG RELEASE BROKEN AT THE LOWER END. NEW SPRING INSTALLED. FLEET INSPECTION SCHEDULED. (TC NR 20060717004)

[CA060718001](#) BOMBDR PWC PUMP SPLIT
7/14/2006 DHC8400 PW150A 6617303 HYD SYSTEM

(CAN) NR1 EDP FAILED DURING FLIGHT CAUSING NR1 HYDRAULIC SYSTEM DEPLETION. EMERGENCY CHECKLIST PERFORMED. UNEVENTFUL LANDING AND A/C STOPPED ON RWY AND LATER TOWED TO PARKING POSITION. PUMP HOUSING FOUND SPLIT. EDP REPLACED. GROUND RUNS AND LEAK CHECK CARRIED SERVICEABLE. A/C HAS BEEN RTS. (TC NR 20060718001)

[CA060719001](#) BOMBDR PWC METERING UNIT SHEARED
7/14/2006 DHC8400 PW150A 8198007 NR 1 ENG FUEL

(CAN) DURING CRUISE THE PILOT FELT A YAW-MOMENT AT THE SAME TIME THE TRQ NR 1 WENT TO 0 PERCENT, POWERPLANT MESSAGE APPEARED, ENG NR 1 PROP RPM DOWN TO 600 RPM, ENG NO.1 ITT APP. 200 DEGREES C LESS THAN ENG NR 2. PILOT CONTINUED WITH HIS CHECK LIST, MANUAL FEATHERED PROP NR 1 AND MANUAL SHUTDOWN THE ENG NR 1. AIRCRAFT LANDED SAFELY WITH SINGLE ENGINE OPS. CDS FAULT READ OUT PERFORMED AND FOLLOWING CODES ARE STORED: 360, 907, 911, 935. FAULT CODES SUPPLIED SEEM TO INDICATE A FUEL STARVATION FROM THE FMU. FOUND FMU SHAFT SHEARED. FMU TO BE REPLACED. (TC NR 20060719001)

[CA060726004](#) BOMBDR PWC CONTROL UNIT WORN
7/26/2006 DHC8402 PW150A 82742409001 AILERONS

(CAN) RT AILERON CABLES PN: 82742409-001 (WS Y14.25-Y232.00) AND CABLE PN: 82742410-001 (WS Y14.25-Y258.00) WERE APPROACHING PERMISSIBLE WEAR LIMITS AT PULLEY CONTACT AREAS. CABLES REPLACED THIS

PROBLEM IS ALREADY KNOWN BY MFG REF TO ALL OPERATOR MESSAGE NR AOM 122 AND SB 84-27-26. INSPECTED THE A/C IN APRIL 2004 FOLLOWING RECEPTION OF AOM122 AND AILERON CABLES REPLACED DUE FOUND WORN. WE ALSO REINSPECTED THE A/C IN MAY 2005 FOLLOWING RECEPTION OF THE S/B 84-27-26 AND AILERON CONTROL CABLES REPLACED AGAIN DUE STILL FOUND WORN. IN JULY 2006 DURING A FLAP INSPECTION OUR AME (KNOWING THE AILERON CONTROL CABLE PROBLEMS) WIPE THE AILERON CABLES WITH A RAG TO FOUND THAT SOME WIRES WERE BROKEN. THESE CABLES MUST ONLY BE INSPECTED WITH A 2C (8000 HRS) INSPECTION IAW TASK 271000-203 EVERYTIME (ALMOST YEARLY (1350 HRS) WE INSPECTED THE AILERON CABLES WE DO FIND DAMAGE OR WORN OUT SPOT TO THEM. THE BOMBARDIER CABLE INSPECTION IS WAY TOO LONG TO KEEP THE AIRCRAFT SAFE FOR FLIGHT.

2006FA0000934	CESSNA	LYC		ENGINE	LACK OF LUBE
9/20/2006	152	O235L2C			

LOSS OF OIL PRESSURE WHICH LED TO ENGINE FAILURE/SEIZE AND FORCED EMERGENCY LANDING ON HIGHWAY. NO VISUAL PROBLEMS ON EXTERNAL AREA OF ENGINE. REMOVED ENGINE AND SENT TO MFG FOR TEARDOWN AND EVALUATION. MFG REPORTED THAT ENGINE SUFFERED OIL STARVATION. NR 1 AND NR 3 ROD JOURNALS WERE SCORED AND HEAT CHECKED BEYOND REPAIR. SIGNATURE'S ESTIMATION OF OIL STARVATION WAS CAUSED BY DETONATION IN NR 1 CYLINDER. THE NR 1 CYLINDER DETONATION, BURNED HOLE IN THE PISTON, CAUSING OIL TO BE BLOWN OUT OF ENGINE VENT TUBE. THE NR 1 CAMSHAFT INTAKE LOBE WAS SEVERELY WORN AND THE EXHAUST LOBE MODERATELY WORN IN WHICH IS BELIEVED TO HAVE CONTRIBUTED TO THE NR 1 CYLINDER DETONATION PROBLEM.

2006FA0000871	CESSNA	LYC	PRECISION	FLOAT	LEAKING
8/19/2006	152	O235N2C		30804	CARBURETOR

AIRCRAFT NOTED AS HAVING FUEL DRIPPING FROM BOTTOM COWL, FOUND CAR LEAKING FUEL WHILE SITTING STATIC, REMOVED AND CHECKED CARBURETOR. DETERMINED (1) OF THE (2) PONTOONS OF THE PLASTIC FLOAT WAS FULL OF FUEL, CONTACT MADE WITH MFG WHO SUGGESTED THEY WERE AWARE OF THE PROBLEM AND HAVE SUPERSEDED THE FLOAT TO A NEWER VERSION, REPLACED THE FLOAT WITH THE 30-864 AND 29-184 FLOAT VALVE CLIP, OPS CHECKED OK. (K)

CA060825003	CESSNA	LYC		SPAR	CRACKED
5/13/2006	172K	O320E2D		053200198	STABILIZER

(CAN) P/N 0532001-97 SPAR REINFORCEMENT AND P/N 0532001-98 FRONT SPAR ASSEMBLY WAS REPALCED DUE TO CRACKED CENTER SECTION OF MAIN SPAR. PARTS WERE INSTALLED USING EXISTING RIVET SIZE AND PATTERN ACCORDING TO SPECIFIED APPROVED METHODS IN MFG SRM. (TC NR 20060825003)

2006FA0000880	CESSNA	LYC		PLUNGER	SEPARATED
8/30/2006	172M	O320*		075601011	FUEL STRAINER

FUEL STRAINER WOULD NOT DRAIN WHEN ACTUATED. INVESTIGATION REVEALED THAT THE RUBBER NIPPLE HAD SEPARATED FROM THE PLUNGER, (P/N 0756010-11). THE FUEL SUMP DRAIN ON THE LT WING ALSO LEAKED AND WAS REPLACED. THE AC HAD RECENTLY BEEN PURCHASED AND IT WAS NOTED THAT AUTO FUEL HAD BEEN USED IN THE PAST. AN STC WAS SECURED AND INSTALL IT ON THE AIRCRAFT. IT IS MY OPINION THAT AN AUTO FUEL WITH ETHANOL ALCOHOL HAD BEEN USED, IN THAT THE PLUNGER NIPPLE WAS (ROCK) HARD AS WAS THE FUEL SUMP DRAIN SEAL. ALL MECHANICS NEED TO MAKE NOTE AS THIS COULD HAVE CAUSED ALL THE FUEL TO LEAK OUT IN FLIGHT AND CAUSED AN OFF FIELD LANDING OR WORSE. IF YOU SMELL AUTO FUEL GO AS DEEP AS NECESSARY TO DETERMINE THE SERVICEABILITY OF THE SEALS IN THE FUEL SYSTEM TANK CAP TO CARBURETOR.

2006FA0000874	CESSNA	LYC		STARTER	FAILED
1/30/2006	172M	O320*		PM1201H	ENGINE

PM1201-H STARTER FAILED TO ENGAGE. INSTALLED DIFFERENT MFG STARTER. (K)

CA060810004	CESSNA	LYC		RIB	CRACKED
7/31/2006	172M	O320E2D		052303018	LT WING

(CAN) DURING NR 3 INSPECTION CRACK LOCATED IN (D) RIB JUST OB OF WING STRUT. LT WING. (TC NR 20060810004)

CA060806001	CESSNA	LYC	RIVET	SHEARED
7/27/2006	172M	O320E2D	RA105002	BRAKE LINING

(CAN) UPON LANDING THE PILOT EXPERIENCE A SEVERE PROBLEM WITH THE LT MAIN WHEEL BRAKE SYSTEM. DURING THE DISASSEMBLY OF THE LT BRAKE SYSTEM IT WAS DISCOVERED THAT THE BRAKE LINING RIVETS (RA105-002) HAD BOTH SHEARED AND THE LINING WAS NO LONGER ATTACHED TO THE BACKING PLATE. THE RIVETS THAT SHEARED WERE MADE FROM BRASS (RA105-002) UNLIKE THE CLEVELAND RIVETS (105-002 WHICH ARE BRASS PLATED STEEL. THE AIRCRAFT WAS RETURNED TO SERVICE WITH NEW BRAKE LININGS AND NEW CLEVELAND RIVETS. (TC NR 20060806001)

CA060804008	CESSNA	LYC	CYLINDER HEAD	CRACKED
8/1/2006	172N	O320D2J	SLC36005F	ENGINE

(CAN) ALL 4 CYLINDERS HAVE CRACKS THAT BEGIN AT THE INNER MOST EXHAUST FLANGE STUD AND MOVING TO THE EXHAUST VALVE SEAT, THEN 180 DEGREES ACROSS THE EXHAUST VALVE SEAT TO THE UPPER SPARK PLUG HOLE. SN. E36-10511 E36-10244 E36-10426 E36-10496 NOTE: THIS MAKES 10 OF THESE CYLINDERS FROM 3 DIFFERENT AIRCRAFT IN 6 WEEKS TO HAVE THE SAME CRACKS. TIME ON THESE VARY FROM 1600 TO 2100 HOURS. ALL ON AN (ON CONDITION PROGRAM) REQUIRING AN EXTERNAL SOAPY/WATER LEAK CHECK AND BORESCOPE INSPECTION WHICH IS HOW THE DEFECT IS DISCOVERED. A CYLINDER DPI DOES NOT REVEAL AND A PARTIAL ENGINE TEARDOWN IS REQUIRED FOR VISUAL DETECTION. (TC NR 20060804008)

2006FA0000897	CESSNA	LYC	CYLINDER	SEPARATED
8/25/2006	172N	O360A4M	AEL65102	ENGINE

PILOT EXPERIENCED A NOTICEABLE POP SOUND IN ENGINE COMPARTMENT FOLLOWED BY ROUGHNESS. SOON AFTER THE ENGINE OIL PRESSURE STARTED TO DETERIORATE AND PILOT ELECTED TO SHUTDOWN ENGINE AND STOPPED PROPELLER FROM TURNING BY PUTTING AIRCRAFT IN NOSE HIGH ATTITUDE. HE MANAGE TO GLIDE TO MAJOR AIRPORT AND DEAD STICK LAND SUCCESSFULLY WITHOUT ACCIDENT. INVESTIGATION SHOWED THAT THE NR 1 CYLINDER HEAD SEPARATED FROM BARREL. THIS CYLINDER WAS REPLACED 206 HOURS PRIOR WHEN ENGINE WAS OVERHAULED. THE CYLINDER WAS PURCHASED NEW. NEW CYLINDER WAS INSTALLED AND ENGINE RAN NORMALLY WITH NO ADVERSE PROBLEMS NOTED. THE SEPARATION OF CYLINDER IS THOUGHT TO BE STRESS CRACKING DUE TO THREADS CUT IN CYLINDER HEAD HAVING LITTLE OR NO RADIUS IN VALLEY OF THREADS THEREBY SETTING UP STRESS RISER. SEPARATION TEAR MARKS, EARLIER CRACKING THAT EVENTUALLY LEAD TO TOTAL FRACTURE OF HEAD ASSY. (K)

2006FA0000939	CESSNA	CONT	HOSE	FAILED
9/13/2006	172P	IO470*	S2501	VACUUM SYS

INVESTIGATION INTO FAILED ATTITUDE INDICATOR ON LISTED AIRCRAFT FOUND APPARENT CAUSE OF FAILURE TO BE FROM CONTAMINATION FROM DISINTEGRATING VACUUM HOSE. THE HOSES IN QUESTION ARE MARKED B906 AND B904 HOSE. TO PREVENT RECURRENCE, SB SEB96-10 SHOULD BE ACCOMPLISHED ON AIRCRAFT. ON OTHER AIRCRAFT HOSE SHOULD BE REPLACED WITH APPROVED EQUIVALENT. DUE TO SEVERITY OF POTENTIAL FOR HOSE TO CONTAMINATE, DAMAGE AND RENDER USELESS NEEDED EQUIPMENT IN IFR FLIGHT, SPECIAL CONSIDERATION SHOULD BE TAKEN TO REMOVE THIS PRODUCT FROM AIRCRAFT IT MIGHT HAVE BEEN INSTALLED AS SOON AS POSSIBLE.(K)

DYCR0596101	CESSNA	LYC	FUEL CONTROL	MISOVERHAULED
8/31/2006	172R	IO360L2A	25765362	ENGINE

A STUDENT PILOT WITH AN INSTRUCTOR ON BOARD WERE PRACTICING STALLS WHEN THE ENGINE CUT OFF, THEY WERE ABLE TO RESTART THE ENGINE WITHOUT FURTHER INCIDENT. DURING THE SAME FLIGHT, WHILE ON APPROACH FOR LANDING THE ENGINE CUT OFF AGAIN. THE STUDENT AND THE INSTRUCTOR WERE ABLE TO LAND THE AIRCRAFT ON THE RUNWAY WITHOUT INCIDENT. IN BOTH CASES THE PROPELLER WAS WINDMILLING. THE AIRCRAFT WAS TOWED TO MAINTENANCE FROM THE RUNWAY. MAINTENANCE CHECKED FUEL SYSTEM FOR FOD, LEAKS, CHECKED RIGGING AND COMPLIED WITH AD 2001-06-17. MAINTENANCE WAS UNABLE TO DUPLICATE PROBLEM ON THE GROUND. FUEL SERVO WAS STILL SUSPECT AFTER READING OTHER SDR'S ON LIKE MODEL AIRCRAFT WITH SIMILAR PROBLEMS SO SERVO WAS REMOVED AND SENT TO A FACILITY OTHER THAN THE FACILITY THAT OVERHAULED IT FOR AN INDEPENDENT ASSESSMENT. INDEPENDENT FACILITY FOUND REGULATOR

2006FA0000876	CESSNA	SHAFT	FAILED
9/16/2005	172S		STARTER

PINION GEAR SHAFT WEARING AND GEAR NOT RETRACTING. (K)

2006FA0000903	CESSNA	DIODE	LOOSE
9/13/2006	172S	1N6391	NR 1 BUSS

THIS OPERATOR HAS A FLEET OF 16 CESSNA 172S NAVIII AIRCRAFT. DUE TO SOME OPERATIONAL DIFFICULTIES WHERE BUSS WIRING DISCREPANCIES WERE FOUND, A FLEET WIDE INSPECTION OF THE BUSS WIRING, TERMINAL CONNECTIONS AND WIRE ROUTING WAS ACCOMPLISHED. THE FOLLOWING WAS FOUND ON THIS AIRCRAFT: REMOVED CIRCUIT BREAKER PANEL AND FOUND LOOSE WIRES COMING FROM DIODES, GOING TO DIFFERENT CIRCUIT BREAKER BUSES. TIGHTENED LOOSE NUTS AND CHECKED ALL OTHER WIRE CONNECTIONS, NONE NOTED. REMOVED SPARE WIRES LOOPED THRU OPEN BREAKER MOUNTING HOLE AND SECURED TO WIRE BUNDLE. CHECKED J-BOX FOR LOOSE CONNECTIONS, NONE NOTED. REINSTALLED BREAKER PANELS AND SECURED ALL WIRES AND FITTINGS.

2006FA0000901	CESSNA	CESSNA	DIODE	FAULTY
9/12/2006	172S		1N6391	BUSS BAR

ON A RECENT LOCAL FLIGHT, ONE OF THESE AIRCRAFT EXPERIENCED THE LOSS OF THE MFD, OR RT DISPLAY AS WELL AS THE COMM 2, NAV 2, AUDIO PANEL AND TRANSPONDER. THE CREW ELECTED TO MAKE A PRECAUTIONARY LANDING AT THE NEAREST AIRPORT. ON INSPECTION, IT WAS DISCOVERED THAT THE POWER TO BUSS 2 WAS NOT PRESENT. THE BUSS 2 CIRCUIT BREAKER WAS REPLACED AND THE SYSTEM FUNCTIONED PROPERLY. SHORTLY AFTER, THE MFD FAILED AGAIN. AFTER CLOSER INSPECTION THE WIRE PROVIDING POWER TO THE MFD BREAKER WAS FOUND LOOSE ON THE TERMINAL. THIS WIRE WAS SECURED AND THE AIRCRAFT INCURRED NO FURTHER PROBLEMS. A FLEET INSPECTION OF THE BUSS WIRING FOR THE ESSENTIAL BUSS, BUSS 1 AND BUSS 2 WAS COMMENCED. ADDITIONAL LOOSE WIRE TERMINALS WERE FOUND ON OTHER AIRCRAFT AND WILL BE INCLUDED IN SUBSEQUENT SDR REPORTS.

2006FA0000918	CESSNA	JUMPER	LOOSE
9/13/2006	172S		CB PANEL

DURING INSPECTION OF THE BUS WIRING, THE JUMPER WIRE BETWEEN THE ESSENTIAL BUS AND THE BUS 1 CONNECTION WAS FOUND LOOSE. THE REMAINDER OF THE SCREWS OF THOSE CIRCUIT BREAKERS WERE CHECKED FOR SECURITY, AND SEVERAL WERE FOUND SLIGHTLY LOOSE REQUIRING .2500 TURN OR MORE TO SECURE THEM.

2006FA0000919	CESSNA	DIODE	LOOSE
9/11/2006	172S	1N6391	ELECTRICAL

DURING INSPECTION OF THE BUSS STRIPS, THE 2 DIODES FOR THE ALT AND WARNING CIRCUIT BREAKERS WERE FOUND LOOSE AT THEIR ATTACH POINTS TO THE BUS. THE ATTACHING HARDWARE (NUTS) WERE SEVERAL COMPLETE TURNS FROM BEING SECURE, OR ABOUT THE WIDTH OF THE NUT GAP SHOWING.

2006FA0000873	CESSNA	STARTER	FAILED
3/25/2005	172S		ENGINE

PINION GEAR IN PIECES AND RING GEAR TEETH BROKEN. (K)

2006FA0000875	CESSNA	GEAR	FAILED
5/6/2005	172S		STARTER

PINION GEAR SHATTERED AND RING GEAR TEETH BROKEN. (K)

2006FA0000879	CESSNA	LYC	PINION GEAR	FAILED
6/30/2006	172S	IO360L2A		STARTER

PINION GEAR NOT ENGAGING RING GEAR COMPLETELY. (K)

2006FA0000878	CESSNA	LYC	PINION GEAR	FAILED
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2/7/2006 172S IO360L2A STARTER

PINION GEAR WOULD NOT ENGAGE RING GEAR. (K)

[2006FA0000902](#) CESSNA CONT CYLINDER SEPARATED
7/29/2006 175A GO300* 649543 ENGINE

NR (5) CYLINDER SEPARATED FROM THE CRANK-CASE IN FLIGHT RESULTING IN ENGINE FAILURE AND AN UN-PLANNED, SAFE LANDING OF THE AIRCRAFT.

[CA060716001](#) CESSNA CONT RIB CRACKED
7/14/2006 185D IO470F 07221991 WING

(CAN) WING CENTER RIBS AT STATION 190.0 IN BOTH WINGS WERE FOUND CRACKED AT THE TRAILING EDGE WERE THEY ATTACH TO THE AUX REAR SPAR OF THE WING. STN 190.0 IN THE OB AILERON HINGE ATTACH POINT. IT IS SUSPECTED THAT AT SOME TIME THIS AIRCRAFT WAS SUBJECTED TO WING GUSTS WITHOUT THE CONTROLS LOCKED. SEE ATTACHED PHOTO'S OF THE CRACKED RIBS. (TC NR 20060716001)

[AMCR200600002](#) CESSNA INDICATOR LEAKING
9/25/2006 208B EA517245CES AIRSPEED

PILOT REPORTED AN AIRSPEED SPLIT BETWEEN THE 2 INDICATORS. MAINTENANCE FOUND THE CO-PILOTS INDICATOR LEAKING INTERNALLY. FOUND INDICATOR TO BE AN OLDER, SUPERSEDED TYPE. LATEST UNIT IAW IPC INSTALLED. MFG P/N C661064-0237.

[CA060807001](#) CESSNA PWA WHEEL CRACKED
8/4/2006 208B PT6A114A 16211800 MLG

(CAN) APPROX 1.5 INCH CRACK AROUND CIRCUMFERENCE OF BEARING RACE, INSIDE OF WHEEL HALF, SUSPECT MIS-ALIGNMENT OF WHEEL HALF SPACER DURING BUILD-UP (TC NR 20060807001)

[2006FA0000925](#) CESSNA CONT SPAR CAP CORRODED
9/17/2006 310Q IO470* 082260039 WING

DURING THE ANNUAL INSPECTION, FOUND UPPER AND LOWER REAR SPAR DAMAGE ON THIS AIRCRAFT. THIS DAMAGE IS DUE TO CORROSION ON THE UPPER AND LOWER REAR SPAR CAPS. THE UPPER REAR SPAR CAP DAMAGE IS LOCATED ON THE FORWARD SIDE OF THE REAR SPAR CAP EXTENDING IB FROM UNDER RIB PN 0822175-69 AT STATION 57.50. THIS DAMAGE IS APPROX. 3 INCHES HORIZONTALLY, .7500 INCH VERTICALLY AND .2500 IN DEPTH. THE LOWER REAR SPAR CAP DAMAGE IS LOCATED ON THE FORWARD SIDE OF THE REAR SPAR CAP EXTENDING OB FROM UNDER RIB PN 0822175-69 AT STATION 57.50. THIS DAMAGE IS APPROX. 6 INCHES HORIZONTALLY AND THE ENTIRE LOWER SPAR CAP IN THIS AREA IS ESSENTIALLY MISSING. THE LT WING HAS BEEN REMOVED AND SENT FOR REPAIR.

[2006FA0000907](#) CESSNA CONT MOTOR FAILED
8/22/2006 310Q IO470* 99100023 MLG

LANDING GEAR WOULD NOT EXTEND ELECTRICALLY ON APPROACH. OPERATIONS NORMAL WHEN LANDING GEAR EXTENDED WITH MANUAL EMERGENCY EXTENSION SYS. FOUND LANDING GEAR ACTUATOR MOTOR INOPERATIVE. WOULD MAKE NOISE BUT NOT ROTATE. REPLACED MOTOR WITH OVERHAULED REPLACEMENT UNIT; LANDING GEAR SYS OPERATIONS NORMAL. CLEANED CORROSION FROM BATTERY TERMINALS, SUSPECT VOLTAGE DROP UNDER LANDING GEAR OPERATIONS LOAD MAY HAVE CONTRIBUTED. TRANSIENT AC, RECORDS NOT AVAILABLE TO VERIFY MOTOR TIME IN SERVICE. (K)

[CA060821002](#) CESSNA CONT MCAULY WIRE HARNESS WRONG PART
8/15/2006 310Q TSIO520B 3AF32C88 C1650130604 PROPELLER

(CAN) HARNESS TOO SHORT WOULD NOT ALLOW PROPELLER TO FEATHER. PILOT COULD NOT FEATHER LT OR RT PROPELLERS DURING TRAINING FLIGHT. WRONG PROPELLER DEICE WIRING HARNESSES FOUND INSTALLED AND REPLACED WITH CORRECT P/N D5855-1. (TC NR 20060821002)

[2006FA0000863](#) CESSNA CONT CLAMP CRACKED
7/18/2006 337H IO360GB 15501261 EXHAUST

WHILE DOING A PRE-TOW WALKAROUND INSPECTION, NOTICED THE FRONT ENGINE EXHAUST TAIL PIPES WERE LOOSE AND SUPPORT CLAMPS PN 15501261 BROKEN ON BOTH LT AND RT SIDES. BOTH CLAMPS HAD BOTH OUTER EARS BROKEN OFF AT WELDMENT. PREVIOUS CLAMPS FAILED AFTER EXHAUST SYSTEM OVERHAUL AFTER 191 HOURS. SUSPECT THAT FAILURES MAY BE DUE TO EXCESS VIBRATION FROM MUFFLE BALL JOINT CLAMPS INSTALLED TOO TIGHTLY. (K)

CA060901003	CESSNA	WILINT	FADEC	FAILED
8/23/2006	525	FJ44	76715	RT ENGINE

(CAN) THE RT ENGINE FADEC CHANNEL A FAULT LIGHT ILLUMINATED. MAINTENANCE ACCESSED FADEC DATA AND DOWNLOADED FAULT CODES. FAULT CODES FORWARDED TO MFG, DURING TELEPHONE CONVERSATION WITH MFG OF AC AND ENG, IT WAS DETERMINED THAT THE FADEC HAD AN INTERNAL FAULT. AC MFG SENT A FIELD SERVICE TECHNICIAN WHO REPLACED THE FADEC AND AFTER GROUND RUNS THE SYSTEM WAS SERVICEABLE. (TC NR 20060901003)

CA060905003	CESSNA	PWA	FAN BLADE	FAILED
8/31/2006	550	JT15D4	99101133	COOLING FAN

(CAN) WHEN PILOTS WERE USING FLOOD COOLING ON THE GROUND THEY HEARD A NOISE AND HAD A VIBRATION THEY SHUT THE SYSTEM DOWN . AFTER MAINTENANCE REMOVED THE FLOOD COOLING FAN MOTOR ASSY THEY FOUND A BROKEN FAN BLADE . THEY REPLACED FLOOD COOLING FAN MOTOR ASSY P/N OFF/ON 9910113-3 S/N ON 0019 GROUND CHECKED SERVICEABLE AND RETURNED AIRCRAFT TO SERVICE. (TC NR 20060905003)

CA060726007	CESSNA	PWA	LEARSIEGLER	BRUSHES	WORN
7/24/2006	550	JT15D4		230760011	STARTER GEN

(CAN) DURING BASE INSPECTION, LT ENGINE COWL WAS COVERED WITH BLACK DUST. UPON FURTHER INSPECTION THE STARTER/GEN WAS REMOVED AND THE BRUSHES INSPECTED TO BE WORN OVER HALF LIFE. STARTER/GEN HAD ONLY 2.7 HRS SINCE OVERHAUL. STARTER/GEN SENT FOR WARRANTY AND TEARDOWN REPORT. (TC NR 20060726007)

CA060731005	CESSNA	PWA	INDICATOR	SHORTED
7/28/2006	550	JT15D4	991214736	N2 SPEED

(CAN) DURING TROUBLESHOOTING OF A POSSIBLE N2 OVERSPEED OF BOTH ENGINES, THE N2 GAGE WAS TESTED BY SIMULATING SPEEDS WITH VOLTAGE AT SEVERAL FREQUENCIES. WHEN VALUES WERE BROUGHT AT LEVELS TO ILLUMINATE THE RED OVERSPEED WARNING LIGHT, IT WAS NOTED THAT THE INDICATION WAS CROSSED MEANING THAT FOR A READING OF 96 PERCENT N2 AND ABOVE ON LT ENGINE THE RT WARNING LIGHT IN THE GAGE ILLUMINATES. THE REVERSE CONDITION HAPPENS WHEN THE RT ENGINE INDICATION IS TESTED (N2 READING), MEANING THAT THE LT INDICATION (RED WARNING LIGHT) ILLUMINATES. THE SUSPECT GAUGE WAS REPLACED AND THE SYSTEM GROUND CHECKED SERVICEABLE. (TC NR 20060731005)

2006FA0000854	CESSNA		TORQUE TUBE	CRACKED
7/18/2006	560CESSNA		55421029	NLG DOORS

THE NOSE LANDING GEAR DOOR TORQUE TUBE IS CRACKED AT THE WELD THAT ATTACHES THE MOUNTING BRACKET. (K)

2006FA0000855	CESSNA		TORQUE TUBE	DAMAGED
7/20/2006	560CESSNA		55421029	NOSE GEAR DOORS

THE NOSE LANDING GEAR DOOR TORQUE TUBE RECEIVED NEW FROM MFG HAS THE ATTACHMENT ARMS MISALIGNED. HOLE FOR THE LINKAGE ATTACHMENT BOLT HAS BEEN DRILLED WITH LESS THAN ALLOWABLE EDGE DISTANCE TO COMPENSATE FOR THE MISALIGNED ARMS. (K)

2006FA0000856	CESSNA		TORQUE TUBE	CRACKED
7/12/2006	560CESSNA		55421029	NLG DOOR

THE NOSE LANDING GEAR DOOR TORQUE TUBE IS CRACKED AT THE WELD THAT ATTACHES THE MOUNTING BRACKET. (K)

2006FA0000851	CESSNA			TORQUE TUBE	CRACKED
8/12/2006	560CESSNA			55421029	NLG DOOR
THE NOSE LANDING GEAR DOOR TORQUE TUBE IS CRACKED AT THE WELD THAT ATTACHES THE MOUNTING BRACKET. (K)					
2006FA0000852	CESSNA			TORQUE TUBE	CRACKED
7/12/2006	560CESSNA			55421029	NOSE GEAR DOORS
THE NOSE LANDING GEAR DOOR TORQUE TUBE IS CRACKED AT THE WELD THAT ATTACHES THE MOUNTING BRACKET. (K)					
CA060817002	CESSNA	PWA		SENSOR	FAILED
3/28/2006	560CESSNA	PW535A		S35979	BATTERY
(CAN) INTERMITTENT FAILURE OF TEMPERATURE SENSOR CAUSING INDICATED OVERTEMP OF AIRCRAFT MAIN BATTERY FOR SEVERAL SECONDS AT A TIME IN FLIGHT CAUSING MASTER CAUTION WARNING LIGHT ALSO. REPLACED TEMPERATURE SENSOR, SYSTEM CHECKED OK. NOTE THIS IS SECOND SENSOR TO FAIL IN 1284 HOURS. (TC NR 20060817002)					
CA060817003	CESSNA	PWA	PARKERHANFIN	SEAL	LEAKING
5/1/2006	560CESSNA	PW535A		25630005	T/R ACTUATOR
(CAN) IB THRUST REVRSER ACTUATOR LEAKING HYDRAULIC FLUID, GETTING PROGRESSIVELY WORSE, LEAKING FLUID TRAIL ON TR STANG. IB STANG CANNOT BE REMOVED MAKING DIAGNOSIS OF PROBLEM DIFFICULT. REPLACED IB T/R ACTUATOR WITH OVERHAULED UNIT WHICH REQUIRED ENGINE TO BE REMOVED FROM THE AIRCRAFT. (TC NR 20060817003)					
CA060817004	CESSNA	PWA		GASKET	BROKEN
5/18/2006	560CESSNA	PW535A		305265501	BLEED VALVE
(CAN) ENGINE AT TAKEOFF AND CRUISE AT 40,000 FT AND ABOVE REQUIRED N2 TO BE HIGHER BY 1 - 1.5 PERCENT HIGHER THAN NORMAL FOR A SPECIFIC N1. PROBLEM FOUND TO BE A COMPRESSOR BLEED VALVE NOT CLOSING COMPLETELY. PROBLEM CAUSED BY LEAKING (BROKEN) GASKET BETWEEN COMPRESSOR BLEED VALVE AND BLEED VALVE SERVO (TORK MOTOR). (TC NR 20060817004)					
CA060817005	CESSNA	PWA	PACIFICSCIEN	INERTIA REEL	BROKEN
6/19/2006	560CESSNA	PW535A		01073370	SEAT BELT
(CAN) COPILOT SHOULDER HARNESS (JAMS) WHEN EXTENDING: FOUND PLASTIC END COVER OF INERTIA REEL BROKEN LOOSE, CAUSING INTERIM REEL TO MALFUNCTION. CAUSED BY COPILOT PUTTING FLIGHT MANUALS ETC BEHIND SEAT AND PUSHING SEAT AFT ON SEAT RAILS WHICH PUSHED SEAT BOTTOM SKIRT INTO INERTIA REEL. - THIS IS TO BE CORRECTED BY EDUCATING THE (PILOTS) TO THE CAUSE OF THE PROBLEM AND THE REPLACEMENT OF THE INERTIA REEL. (TC NR 20060817005)					
CWQR200624	CESSNA			CONTROL CABLE	BROKEN
8/21/2006	560XL			666000134	ELEVATOR TRIM
DURING A PHASE 1-4 INSPECTION, OPERATOR REQUESTED WE INSPECT THE AFT ELEVATOR TRIM CABLES. UPON INSPECTION WE FOUND BROKEN WIRES. TOOK CABLE TENSIONS, FOUND TO BE WITHIN LIMITS AND CABLE WAS CENTERED ON THE PULLEYS. THE CABLE WAS REMOVED AND LOOP TEST SHOWED MORE BROKEN WIRES. AN SCR HAS BEEN SUBMITTED TO MFG UNDER NR 250293.					
CWQR200625	CESSNA			CONTROL CABLE	BROKEN
8/29/2006	560XL			666000134	TRIM
DURING A ROUTINE MAINTENANCE VISIT, OPERATOR REQUESTED WE INSPECT THE AFT ELEVATOR TRIM CABLES. UPON INSPECTION WE FOUND ABOUT .333 OF THE CABLE STRANDS BROKEN. TOOK CABLE TENSIONS, FOUND TO BE WITHIN LIMITS AND CABLE WAS CENTERED ON THE PULLEYS. THE CABLE APPEARS TO HAVE THE MOST DAMAGE CENTERED ON THE PULLEY WITH THE ELEVATOR TRIM TAB IN THE NEUTRAL TO 1-2 DEGREE DOWN POSITION. AN SCR HAS BEEN SUBMITTED TO MFG UNDER NR 251700.					

2006FA0000868	CESSNA	GARRTT	SWITCH	MISMANUFACTURED
7/20/2006	650	TFE731*	62266502	FUEL LOW LEVEL

AFTER ARRIVAL, FOUND FUEL LEAK NEAR IB END OF RT WING. INVESTIGATION SHOWED THE LOW LEVEL FUEL LIMIT SWITCH WAS NOT ASSEMBLED. THE FLOAT, PN L15F2, WAS NOT ATTACHED TO THE MOUNT ASSY PN 62266503. THIS ALLOWED FUEL TO LEAK FROM THE WING. SWITCH WAS ASSEMBLED, REINSTALLED AND LEAK CHECKED. NO FURTHER LEAKS NOTED. (K)

2006FA0000910	CESSNA	GARRTT	SHUTOFF VALVE	MISINSTALLED
6/26/2006	650	TFE731*	991240217	ANTI-ICE SYS

DETERMINED THE PRESSURE REGULATOR SHUTOFF VALVE WAS LEAKING. FOUND THE REGULATOR HAD BEEN INSTALLED WITHOUT GASKETS. THE PARTS MANUAL DOES NOT CLEARLY IDENTIFY THAT GASKETS ARE REQUIRED TO BE INSTALLED WITH THIS SPECIFIC PN OF VALVE. CONTACTED AND CONFIRMED THAT GASKET PN 24096-150C IS REQUIRED TO BE INSTALLED ON THIS VALVE. MAINTENANCE PERSONNEL INSTALLED GASKETS, PERFORMED LEAK CHECK, AND DETERMINED LEAKAGE PROBLEM HAD BEEN CORRECTED BY INSTALLATION OF GASKETS. (K)

CA060822001	CESSNA	GARRTT	BFGOODRICH	BOLT	BROKEN
8/5/2006	650	TFE7313C			MLG WHEEL

(CAN) ON DAILY INSPECTION, FOUND (1) BOLT BROKEN ON NR 4 MAIN WHEEL ASSY. (TC NR 20060822001)

CA060825004	CESSNA		SOLENOID	DAMAGED
8/20/2006	750		183238001	THRUST REVERSER

(CAN) FOUND THAT THE SOLINOID SHAFT HAD BEEN GROUND DOWN TO ACCOMIDATE A CLEVIS PIN THAT WAS NOT LONG ENOUGH. HALF THE MATERIAL ON THE SHAFT HAD BEEN REMOVED. THIS WAS FOUND ON INSPECTION OF THE TR SYSTEM FOR STICKY TR LEVERS. AT THIS TIME WE DO NOT THINKING THAT IT HAD ANY THING TO DO WITH THE ORIGINAL SNAG. (TC NR 20060825004)

CA060825002	CESSNA	CONT	HINGE	CRACKED
8/23/2006	A185F	IO520D	07321008	STABILIZER

(CAN) HINGE ASSEMBLY FOR STABILIZER OB BEARING WAS FOUND CRACKED FOR BOTH ELEVATORS. ELEVATORS REMOVED. SEVERAL CRACKS WERE FOUND ON EACH HINGE ASSEMBLY. HINGE ASSEMBLIES REPLACED ON STABILIZER. ALL PARTS INSTALLED USING NEW (AN) HARDWARE. INDEPENDENT CONTROL CHECK CARRIED OUT. (TC NR 20060825002)

2006FA0000944	CESSNA	LYC	RELIEF VALVE	FAILED
9/11/2006	T182T	TIO540AK1A	4709440029	WASTEGATE

PILOT REPORTED, ON TAKEOFF ROLL, THE MANIFOLD PRESSURE WENT TO GREATER THAN 40 MP FOR 3 TO 4 SECONDS. THE PILOT WENT BACK TO RUNUP AREA AND CONFIRMED THAT MP COULD GO ABOUT 40 MP, PILOT TAXIED BACK TO RAMP AND GROUNDED AIRCRAFT. TROUBLESHOT TURBO CHARGER SYSTEM FOUND THE TURBO CHARGER WASTEGATE CONTROLLER HAD FAILED. REMOVED WASTEGATE CONTROLLER AND PRESSURE RELIEF VALVE AND SENT FOR CHECKOUT. FOUND THE WASTE CONTROLLER BAD AND THE PRESSURE RELIEF VALVE WAS FACTORY PRESENT TO THE INCORRECT MP PRESSURE WHICH IF SET CORRECTLY COULD HAVE PREVENTED THE ENGINE FROM OVERBOOSTING. THIS AC ENGINE TURBOCHARGING SYS HAD A DUEL SYS FAILURE. SB 369J ADDRESSES WHAT SHOULD BE DONE WHEN ENG IS OVERBOOSTED. MFG RECOMMENDS THAT ENGINE SHALL BE REMOVED, DISASSEMBLED AND INSPECTED FOR ANY DAMAGE. RECOMMENDATIONS TO PREVENT RECURRENCE AND TO IMPROVE QUALITY INSP SYS TO INSURE COMPONENTS ARE SET TO PROPER SPEC FOR THE COMPONENTS INSTALLED ON THEIR ENGINES. (K)

2006ADP09001	CESSNA	CONT	WIRE HARNESS	CRACKED
9/1/2006	TU206G	TSIO520M	108326841	IGNITION SYS

DURING INSPECTION ON A NEW, LOW TIME ENGINE, THE MT NOTICED A RATHER LARGE CRACK IN THE RT IGNITION HARNESS COVER, WHERE THE HARNESS ATTACHES TO THE MAGNETO. AFTER LOOKING A LITTLE CLOSER, IT IS CLEAR THAT THE CRACK WAS THERE PRIOR TO OVERHAUL AND PAINTING. THIS HARNESS WAS SUPPLIED WITH THE NEW ENGINE NOTED BELOW.

CA060808006	CESSNA	CONT	FITTING	CRACKED
8/4/2006	U206B	IO520D	12116011	MLG OUTBOARD

(CAN) DURING A 100 HOUR INSPECTION LOOSE RIVETS WERE NOTICED AROUND THE LT MAIN GEAR. ONCE THE FLOOR WAS LIFTED TO PERFORM THE REPAIRS, THE LT MAIN GEAR OB FITTING WAS FOUND TO BE CRACKED PROPOGATING FROM THE AFT END OF THE GEAR LEG OPENING TOWARDS THE AFT END OF THE FITTING. (TC NR 20060808006)

CA060821001	CESSNA	CONT	PLATE	CRACKED
8/12/2006	U206F	IO520F	075302781	LT BRAKE SYS

(CAN) TORQUE PLATE TOP GUIDE FOR BRAKE CALIPER CRACKED AND BROKE OFF LEAVING CALIPER ATTACHED BY BOTTOM GUIDE HOLE ONLY. PART REPLACED WITH NEW. (TC NR 20060821001)

2006FA0000917	CESSNA	CONT	GEAR	BROKEN
9/6/2006	U206F	IO520F	653631	CRANKSHAFT

AC FLEW A SHORT LEG TO AN ISLAND 25 NM OFFSHORE. AFTER START-UP THE PILOT HEARD AN UNUSUAL NOISE THAT SOUNDED LIKE A LOOSE VALVE TRAIN. THE PILOT QUICKLY SHUT THE POWERPLANT DOWN AND DECIDED IT WOULD NOT BE SAFE TO COMPLETE THE TRIP BACK TO MAINLAND. MECHANIC FLEW OUT TO THE ISLAND TO DETERMINE THE SOURCE OF THIS UNUSUAL NOISE. FURTHER INVESTIGATION REVEALED THAT THE SOURCE OF THE NOISE WAS 2 TEETH BROKEN OFF OF THE CRANKSHAFT GEAR. THE IDLER GEAR AND THE STARTER ADAPTER GEAR WERE ALSO DAMAGED AS A RESULT OF THE INTERACTION WITH THE DAMAGED CRANKSHAFT GEAR. THE TEETH THAT WERE BROKEN OFF HAVE NOT BEEN LOCATED. METAL SLIVERS AND PIECES WERE ALSO IDENTIFIED IN THE AREA AND OIL. THIS IS PRELIMINARY INFORMATION. THE ONLY THING REMOVED FROM THE ENGINE WAS THE STARTER ADAPTER, WITH THE STARTER ADAPTER REMOVED, 1 IS ABLE TO VIEW THE BROKEN CRANKSHAFT GEAR. FOR WARRANTY REASONS THE ENGINE HAS NOT BEEN DISASSEMBLED FURTHER. (K)

CA060901007	CESSNA	CONT	CYLINDER	SCORED
8/22/2006	U206G	IO520F	T1ST712ACA	CYL NR 5

(CAN) THE PILOT REPORTED AN IMPORTANT OIL LEAK TO THE AMO. AFTER INVESTIGATION, THE TECHNICIAN DISCOVERED THE SOURCE TO BE FROM NR 5 CYLINDER BARREL O-RING. THE PISTON WAS FOUND DAMAGED, SCORED, PROBABLY CAUSED BY EXCESSIVE HEAT. PARTS REPLACED. (TC NR 20060901007)

2006FA0000858	CIRRUS	CONT	MUFFLER	DAMAGED
7/18/2006	SR22	IO550N	14836001	LT, RT EXHAUST

LT AND RT MUFFLER FLAME ARRESTERS FOLDED OVER FROM EXHAUST GAS HEAT COMPOUNDED OVER THE 609 HOURS OF THEIR SERVICE LIFE. (K)

CA060821003	CNDAIR	PWA	FUEL CELL	LEAKING
8/12/2006	CL2151A10	PW123	21564002	FUEL SYSTEM

(CAN) UPON INSPECTION IT WAS DETERMINED THAT THE FUEL LEAK WAS COMING FROM THE RT FUEL CELLS. ALL 8 FUEL CELLS WERE REMOVED AND INSPECTED AND FUEL CELLS NRS 3 AND 4 AND 6 AND 8 WERE LEAKING P/N AND S/N AND POSITION OF LEAKING CELLS. 215-64002-4 S/N 74730 NR 3 CELL 215-64002 S/N 74770 NR 4 CELL 215-64002 S/N 74586 NR 6 CELL 215-64075-1 S/N 72476 NR 8 CELL. (TC NR 20060821003)

CA060830002	CNDAIR	PWA	NOZZLE	DETACHED
8/17/2006	CL2156B11215	PW123		RT ENG EXHAUST

(CAN) DURING ENGINE START-UP, AN OVERHEAT CONDITION WAS DETECTED IN THE RT ENGINE EXHAUST AREA. THE ENGINE WAS SHUTDOWN AND CAUSE OF OVERHEAT INVESTIGATED. THE INVESTIGATION REVEALED THAT A SECTION OF PRIMARY EXHAUST NOZZLE WAS COMPLETELY MISSING AND WAS EXPELLED THROUGH THE SECONDARY DUCT. THERE WERE NO OTHER DAMAGES FOUND. AN INVESTIGATION AS TO CAUSE OF THE PROBLEM WILL BE MADE BY MFG. (TC NR 20060830002)

2006FA0000949	CNDAIR		WINDSHIELD	CRACKED
9/7/2006	CL6002A12		6003303025	COCKPIT

LT WINDSHIELD (PILOTS) OUTER-PLY CRACKED DURING FLIGHT. NO KNOWN CAUSE AS TO THE EVENTS LEADING TO CRACK. KNOWN TO BE A COMMON FAILURE ON CHALLENGER ACRYLIC WINDSHIELD AND SIDE WINDOWS. WHETHER DUE TO IMPACT OF SOME SORTS OR WINDSHIELD NEAT FAILURE OR DELAMINATION. WINDSHIELD AND AC WAS RTSD AS AIRWORTHY. (K)

2006FA0000950	CNDAIR	GE	WINDSHIELD	CRACKED
9/7/2006	CL6002B16	CF34*	6003303025	COCKPIT

LT WINDSHIELD (PILOTS) OUTER-PLY CRACKED DURING FLIGHT. NO KNOWN CAUSE AS TO THE EVENTS OF THE CRACK. KNOWN TO BE A COMMON FAILURE ON CHALLENGER ACRYLIC WINDSHIELD AND SIDE WINDOWS. WHETHER DUE TO IMPACT OF SOME SORTS OR WINDSHIELD HEAT FAILURE OR DELAMINATION. WINDSHIELD WAS REMOVED AND REPLACED WITH A NEW WINDSHIELD AND AC WAS RETURNED AS AIRWORTHY. (K)

CA060801003	CNDAIR	GE	BALLAST	ODOR
7/13/2006	CL6002B19	CF343A1	BR90002	CABIN LIGHTS

(CAN) DURING PASSENGER BOARDING AND UPON ENTRY TO FLIGHT DECK A STRONG ELECTRICAL SMELL WAS APPARENT AND PROGRESSIVELY GOT WORSE. PASSENGERS WERE DE-PLANED. LINE MAINTENANCE CREW FOUND FORWARD BOARDING LIGHT BALLAST P/N BR9000-2 BURNED. THE BURNED BALLAST WAS REPLACED, GROUND CHECKS PERFORMED AND AIRCRAFT RETURNED TO SERVICE. AIRFRAME HOURS WERE 25426:25 AND CYCLES WERE: 20767. (TC NR 20060801003)

CA060802004	CNDAIR	GE	WARNING MESSAGE	ILLUMINATED
8/1/2006	CL6002B19	CF343B1		TE FLAPS

(CAN) 0 FLAP LANDING DUE TO FLAP FAIL EICAS MESSAGE. ON APPROACH, CREW SELECTED FLAPS AND NOTICED THEY WERE STUCK AT ZERO. CREW COMPLETED CHECKLIST, THEN CONTACTED DISPATCH/ MTC. AFTER TALKING TO MTC THE FLIGHT LANDED WITH ZERO FLAP. AIRPORT FIRE FIGHTING WAS CONTACTED AS A PRECAUTION. FLIGHT LANDED WITHOUT INCIDENT. MAINT RESET SYSTEM AND CARRIED OUT INSPECTION IAW TIB CRJ-27-04. SYTEM RESET OK. DMI APPLIED TO HAVE FAULT CODES READ AND INTERPRETTED. (801574 8/1/2006 21:01) (TC NR 20060802004)

CA060808011	CNDAIR	GE	ENGINE	MALFUNCTIONED
2/4/2006	CL6002B19	CF343B1	CF343A1	RIGHT

(CAN) EXPERIENCED THE RT ENGINE IFSD, JUST AFTER THE LIGHTNING STRIKE TODAY. PIC DID NOT TRY TO RESTART THE ENGINE DURING THE FLIGHT, BUT AFTER THE LANDING WE COULD START THE ENGINE. THERE IS NO VISIBLE DAMAGE ON THE OUTSIDE OF THE ENGINE, WE WILL DO THE BSI. WE WOULD LIKE TO KNOW THE MOST PROBABLE ROOT CAUSE OF THE IFSD. IF YOU HAVE A SIMILAR EXPERIENCE IN OTHER OPERATORS, PLEASE PROVIDE YOUR INFORMATION. THE CIRCUMSTANCES IS AS FOLLOWS, OCCURRED DATE : APRIL 02, 10:37JST ASN: 7052 ESN: 807222 FLT PHASE : DURING THE DESCENDING TO DESTINATION ALT : 13,000 FT IGNITION : CONTINUOUS IGNITION WEATHER CONDITION : IN-CLOUD, LIGHT RAIN) AFTER THE EVENT THE OPERATOR SUPPLIED THE DFDR TO MFG. MFG ANALYSIS CONCLUDED THAT: LT ENGINE CONTINUED TO OPERATE (AUTO-IGN ON) SUBSEQUENT TO THE LIGHTNING STRIKE, RT ENGINE, BASED ON DFDR DATA, (ROLLED BACK) (WITH AUTO-IGN ON) UNDER CONDITIONS CONSISTENT WITH A (ROTATING COMPRESSOR STALL) LIKELY CAUSED BY SEVERE ENGINE INTAKE AIR FLOW TURBULENCE TYPICAL OF PROXIMITY TO A LIGHTNING STRIKE. THE RT APPEARS TO HAVE REMAINED IN A ROTATING STALL WITH RESULTANT PARAMETER (ROLL BACK) TO SUB-IDLE CONDITIONS. AFTER APPROXIMATELY 4.5 MINUTES TO ENGINE PARAMETERS RECOVERED TO FLIGHT IDLE WITH NO APPARENT PILOT ACTION. SOON AFTER THE FUEL FLOW WENT TO ZERO CONSISTENT WITH POSSIBLE PILOT ACTION CLOSING FUEL AND PILOT INITIATED IN FLIGHT SHUT DOWN PROCEDURES. AFTER THE EVENT THE OPERATOR HAS NOT PROVIDED DETAILS OF CHECKS AND INSPECTIONS BUT THE ENGINE AND AIRCRAFT WERE RETURNED TO SERVICE. (TC NR 20060808011)

CA060816003	CNDAIR	GE	APU	SMOKE
8/9/2006	CL6002B19	CF343B1	38004883	

(CAN) AT THE GATE, CREW TURNED ON BOTH AIR CONDITIONING PACKS AND SMOKE/AND OR HAZE ACCOMPANIED BY ODOR BEGAN TO FILL THE COCKPIT AND CABIN. CREW IMMEDIATELY OPENED THE MAIN CABIN DOOR TO VENT THE AREA, AND SMOKE/HAZE BEGAN TO DISSIPATE. MAINTENANCE FOUND A MAJOR OIL LEAK FROM THE COMPRESSOR SECTION OF THE APU. OIL WAS INJECTED IN TO ONE OR BOTH PACKS. NEW APU INSTALLED. BOTH CONDENSOR BAGS REPLACED AND DUCTS CLEANED OF OIL. INFORMATION WILL BE UPDATED

WHEN ROOT CAUSE OF LEAK IS AVAILABLE. (TC NR 20060816003)

CA060804002	CNDAIR	GE	BALLAST	FAULTED
7/29/2006	CL6002B19	CF343B1	BR95005	CABIN LIGHTS

(CAN) DURING MAINTENANCE AN ELECTRICAL SMELL WAS APPARENT IN THE FRONT HALF OF THE CABIN. EIGHT (8) CABIN LIGHT BALLASTS WERE FOUND AT FAULT. ALL 8 WERE REPLACED AND AIRCRAFT WAS MONITORED FOR TWO HOURS FOR SNAG RE-OCCURENCE WITH NO FAULT FOUND. AIRFRAME HOURS: 3602:31. CYCLES: 2780. (TC NR 20060804002)

CA060906004	CNDAIR	GE	WINDOW	CRACKED
8/26/2006	CL6002B19	CF348C1	NP1393225	COCKPIT

(CAN) LT WINDOW CRACKED. LT SIDE WINDOW IAW AMM 56-12-01 REPLACED. (TC NR 20060906004)

CA060906005	CNDAIR	GE	ACM	SMOKE
8/28/2006	CL6002C10	CF348C1	GG67065009	LEFT

(CAN) DISC- BURN/SMOKE ODOR IN COCKPIT, SMOKE ODOR TEMPORARY LT PACK AUTO FAIL ISSUED MEL 2112. C/A - RAI LT ACM IAW CRJ 700 AMM 21-51-08 OPS CK, LEAK CHECK GOOD MEL RESTORED. (TC NR 20060906005)

CA060906001	CNDAIR	GE	WINDSHIELD	FAILED
8/11/2006	CL6002C10	CF348C1	NP139322001	COCKPIT

(CAN) CREW NOTED DURING DESCENT CAPT LT SIDE WINDOW SHATTERED THE MIDDLE PANE AND NO PRESSURE PROBLEMS. THEY LANDED WITH NO PROBLEMS. (TC NR 20060906001)

CA060906002	CNDAIR	GE	WINDOW	FAILED
8/17/2006	CL6002C10	CF348C1	NP1393226	COCKPIT

(CAN) RT SIDE WINDOW CRACK. RT SIDE WINDOW IAW AMM CHANGED, WINDOW HEAT TEST PERF. OK.PLEASE PERFORM CABIN PRESS TEST. CABIN PRESS TEST PERF. FOUND OK. (TC NR 20060906002)

CA060906003	CNDAIR	GE	WINDOW	FAILED
8/22/2006	CL6002C10	CF348C1	NP15932211	COCKPIT

(CAN) LT SIDE WINDOW SHATTERED IN FLIGHT AT FL300 CABIN DIFF 8.2, REDUCE PRESS TO 6.2. QRH INITIATED. MAINTENANCE REPLACED THE LT SIDE WINDOW. (TC NR 20060906003)

CA060808010	CNDAIR	GE	WINDSHIELD	CRACKED
7/10/2006	CL6002C10	CF348C1	601R3303317	COCKPIT

(CAN) (ENROUTE, CREW SENT ACARS MESSAGE TO DISPATCH THAT THEY HAD A BROKEN CAPTAINS WINDSHIELD, AND WERE DIVERTING) MX DISPATCHED WITH WINDSHIELD. WINDSHIELD REPLACED. (TC NR 20060808010)

CA060828001	CNDAIR	GE	PUMP	BROKEN
8/28/2006	CL6012A12	CF343A	6052T06P05	ENGINE FUEL

(CAN) LT MAIN AND SCAVENGE EJECTOR FAILURE (MOTIVE FLOW FAILURE). FUEL PUMP SHAFT FOUND BROKEN. FUEL PUMP REPLACED AND AIRCRAFT RETURNED TO SERVICE. A/C HOURS; 25194:25 CYCLES; 29896 (TC NR 20060828001)

CA060817001	CVAC	ALLSN	BOLT	WORN
7/10/2006	STC3405800	501D13D	AN4H12A	NR 2 FUEL

(CAN) THIS REPORT IS A FOLLOW-UP TO THE ORIGINAL VERBAL REPORT MADE IMMEDIATELY AFTER THE INCIDENT. THE AC LOST CONTROL OF THE NR 2 FUEL COORDINATOR AT THE TOP OF THE DECENT INTO YVR. THE (E) HANDLE WAS PULLED ON THE NR 2 ENGINE 5 MILES BACK FROM THE YVR APPROACH AND THE AIRCRAFT LANDED SAFELY. ON EXAMINATION WE DISCOVERED THAT THE PINCH BOLT THAT HOLDS THE FUEL COORDINATOR ONTO THE NOTCH IN A SPLINED SHAFT HAD WORN TO A POINT THAT THE COORDINATOR ARM CAME ADRIFT FROM THE FUEL COORDINATOR. WE HAVE CARRIED OUT A FLEET WIDE CAMPAIGN DIRECTIVE

CHECKING ALL OUR IN-SERVICE CONVAIRS FOR BOLT CONDITION AND THREAD DAMAGE. WE REPLACED 9 OUT OF 14 BOLTS DUE TO SLIGHT WEAR, AS A PRECAUTION. (TC NR 20060817001)

CA060901004	DHAV	PWA	CYLINDER HEAD	CRACKED
8/23/2006	DHC3	R134059	399359CR	NR 2 CYLINDER

(CAN) FOUND CRACK ON NR 2 CYLINDER HEAD AT EXHAUST ROCKER HOUSING WHILE CHECKING OIL LEAK AT OTHER POSITIONS. CRACK WAS NOT DETECTED AT THE LAST 100 HOUR INSPECTION. 33.5 HOURS PAST. (TC NR 20060901004)

CA060724002	DHAV		FLANGE	FAILED
7/13/2006	DHC5A		C5P156171	EXHAUST SYS

(CAN) FLANGE HEIGHT IS 0.25 INCH INSTEAD OF 0.36 INCH. THIS COULD LEAD TO JET PIPE FAILURE, WHICH IN TURN, COULD LEAD TO DAMAGE IN THE INTEGRITY OF THE WINGS AND SYSTEMS NEARBY. CUSTOMERS ARE BEING NOTIFIED OF THIS NON-CONFORMANCE. NOTE(08AUG06): ONLY MILITARY CUSTOMERS WERE AFFECTED. CAUSE: FLANGE HEIGHT DIMENSION WAS OVERLOOKED BY OPERATOR AND INSPECTOR. SPECIFIED FLANGE HEIGHT REQUIREMENT WILL BE FORMALLY STRESSED TO APPLICABLE OPERATORS AND INSPECTORS (DUE DATE: AUG/06). (TC NR 20060724002)

CA060905008	DHAV	PWA	BLADES	DAMAGED
7/29/2006	DHC6	PT6A27		COMPRESSOR

(CAN) PROBLEMS WERE REPORTED WITH THE ENGINE SHORTLY AFTER TAKE-OFF. THE AIRCRAFT SUBSEQUENTLY CRASHED. PRELIMINARY INVESTIGATION EVIDENCED COMPRESSOR BLADE DISTRESS. MFG WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE DETERMINED. (TC NR 20060905008)

CA060717007	DHAV	PWA	BALLAST	OVERHEATED
7/3/2006	DHC7*	PT6A50	BAO80061	CABINLIGHTS

(CAN) VP-FBQ (DASH 7, S/NO 111) FLUORESCENT TUBE LAMP HOLDER OVERHEATING PROBLEM SHORTLY AFTER RE-INSTATING POWER DURING A C CHECK, A STRONG SMELL OF BURNING WAS NOTED IN THE FWD SECTION OF THE AIRCRAFT. THE FAULT WAS TRACED TO A LAMP HOLDER AT THE FRONT OF THE CABIN IN THE OVERHEAD LIGHTING SYSTEM. THE LAMP HOLDER HAD SUFFERED SERIOUS OVERHEATING RESULTING IN THE MELTING OF THE CONTACTS WITH ASSOCIATED HEAT DAMAGE TO THE INSULATED PORTION OF THE HOLDER. THE FLUORESCENT TUBE HAD ALSO SUFFERED DAMAGE TO THE CONTACT PINS. THE FLUORESCENT TUBE HAD NOT BEEN DISTURBED DURING MAINTENANCE THE LIGHTING CIRCUIT BREAKERS HAD NOT TRIPPED. THE BALLAST UNIT PART NR IS BA08006-1. THE AIRCRAFT IS FITTED WITH A MIXTURE OF BA08006-1 AND BA08006-28-1 WHILE INVESTIGATING SOURCES OF REPLACEMENT UNITS IT WAS NOTED THAT THERE WAS AN AD APPLICABLE TO THE DHC-8 THAT FORBIDS THE FITTING OF THIS PART NR AS A REPLACEMENT AFTER FAILURE. THERE IS CURRENTLY NO AD IN FORCE. WE CURRENTLY HAVE 4 CONFIRMED FAILED UNITS ON THIS AIRCRAFT WITH SEVERAL MORE POSSIBLE UNDER INVESTIGATION AT THE MOMENT. THERE IS NO EVIDENCE OF ARCING ON ANY OTHER LAMPHOLDER (TC NR 20060717007)

CA060802003	DHAV	PWA	CONTROL UNIT	MALFUNCTIONED
7/22/2006	DHC8101	PW120A	7898426009	NR 1 ENGINE

(CAN) DURING THE TAKEOFF ROLL, THE FIRST OFFICER NOTED ILLUMINATION OF THE NR 1 ENGINE MANUAL CAUTION AND THE CAPTAIN ELECTED TO CONTINUE THE TAKE OFF. SHORTLY AFTER GEAR RETRACTION, THE NR 1 PROPELLER FEATHERED. THE ENGINE WAS SECURED AFTER COMPLETION OF PLATEAU HEIGHT DRILLS AND THE AIRCRAFT MANOEUVRED FOR A RETURN TO LAND. NR 1 ELECTRONIC CONTROL UNIT REPLACED. (TC NR 20060802003)

CA060801008	DHAV	PWA	TORQUE TUBE	CHAFED
7/8/2006	DHC8101	PW120A	734187B	TE FLAPS

(CAN) DURING A LINE MAINTENANCE WALK-AROUND CHECK, AN ENGINEER FOUND THAT THE LT WING FLAP IB (SECTION BETWEEN NACELLE AND FUSELAGE) TORQUE TUBE HAS BEEN CHAFED THROUGH IN ONE SPOT BY ITS RETAINING BRACKET. TORQUE TUBE ASSY PN REPLACED WITH SERVICEABLE ASSY FUNCTIONAL TEST COMPLETED ON FLAP SYSTEM AND AIRCRAFT RETURNED TO SERVICE. (TC NR 20060801008)

CA060801009	DHAV	PWA	ACTUATOR	LEAKING
5/28/2006	DHC8101	PW120A	A44700009	SERVO

(CAN) AFTER NR 2 ENGINE START CREW OBSERVED THAT THE NR 2 HYDRAULIC SYSTEM QUANTITY HAD DECREASED TO 1 QUART. ENGINES SHUTDOWN AND PASSENGERS DISEMBARKED FOR DEFECT INVESTIGATION. ENGINEERING DETERMINED SYSTEM FLUID LOSS TO BE FROM THE RT OB SERVO ACTUATOR HOUSING. THE SERVO ACTUATOR WAS REPLACED AND HYDRAULIC SYSTEM REPLENISHED IAW THE AMM. (TC NR 20060801009)

CA060831002	DHAV	PWA	STRUT	CRACKED
8/27/2006	DHC8101	PW120A	8800121	NLG

(CAN) DURING A SCHEDULED MAINTENANCE CHECK, TASK CARD 3220/01 AND 02 VISUAL INSPECTION AND LUBRICATION OF NLG ASSY, A CRACK WAS DISCOVERED IN THE NLG SHOCK STRUT HOUSING. THE NLG ASSEMBLY WAS IMMEDIATELY REPLACED. TSN=39456.7HRS / CSN=46723CYC TSO=15435.7HRS / CSO=13147CYC TSI=799.0HRS / CSI=590CYC (TC NR 20060831002)

CA060711003	DHAV		TRU	FAILED
7/11/2006	DHC8102		9498828VS20	NR 1

(CAN) THE EVENT OCCURRED DURING C-CHECK PROCEDURE AT THE EXTERNAL POWER APPLICATION. THE NR 1 TRU START TO PRODUCE HEAVY SMOKE AND SOME COPPER PARTICLES IN FUSION. COPPER PARTICLES PRODUCE SOME BURNING HOLES IN THE EXHAUST COOLING DUCT. THE NORMAL CAUTION LIGHT NEVER COME ON BEFORE THE ELECTRICAL POWER MANUALLY CUT OFF. (TC NR 20060711003)

CA060905006	DHAV	PWA	HAMSTD	BULKHEAD	DAMAGED
8/19/2006	DHC8102	PW120A		7849141	PROPELLER

(CAN) THE FLIGHT CREW SNAGGED THE PORT PROP DEICE AS U/S NO LIGHTS OR INDICATION ON AC LOAD GAUGE. UPON FURTHER INVESTIGATION, MAINTENANCE FOUND THAT ALL 3 OF THE PROP DEICE BRUSH BLOCK SLIP RINGS HAD COME OFF OF THE PROPELLER BULKHEAD AND WERE WRAPPED AROUND THE PROPELLER SHAFT. THE SURROUNDING AREA OF THE ENGINE COMPARTMENT WAS INSPECTED FOR FURTHER DAMAGE, WITH NO OTHER DAMAGE FOUND. THE PROPELLER BULKHEAD AND DEICE BRUSH BLOCK WERE REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. THE BULKHEAD HAS BEEN SENT OUT FOR REPAIR AND A STRIP REPORT. (TC NR 20060905006)

CA060707001	DHAV	PWA	WIRE	BURNED
6/26/2006	DHC8102	PW120A	2431154B10	TERMINAL END

(CAN) CREW REPORTED ELECTRICAL ODOR FROM BEHIND F/O`S SEAT DURING FLIGHT. LASTED FOR APPROX 10 MINUTES. MAINTENANCE FOUND OVERHEATED WIRES, CB`S AND BUS BARS ON THE RT SECONDARY DC CB PANEL. SPECIFIC ITEMS REPLACED AS FOLLOWS, (IPC 24-50-00 FIG.10 PAGES 0 TO 6. WIRE P/N 2431-154B10 FROM CB D1-RT FLARE LIGHT SECONDARY BUS REPLACED DUE TO ONE END OF WIRE AT TERMINAL END BADLY BURNED. APPEARS TO HAVE BEEN CAUSED BY ARCING OF THE WIRE. WIRE MAY HAVE LOOSENED OVER TIME DUE TO VIBRATION AS THERE DOES NOT APPEAR TO HAVE BEEN ANY RECENT WORK COMPLETED IN THIS AREA. WIRE P/N 2431-156A10 FROM CB C1-BUFFET POWER TO SECONDARY BUS LINK ON SECONDARY BUS BAR BETWEEN ROWS 4 AND 5 REPLACED DUE TO ONE END OF WIRE AT TERMINAL END BURNED, POSSIBLY DUE TO ARCING. BUS BAR P/N 82410144-103 (ITEM 426) BETWEEN 4B THROUGH 4E REPLACED DUE TO HEAT DAMAGE. BUS BAR TIES (2) P/N 82410216-103 BETWEEN 3D AND 4D, 4B AND 5B REPLACED DUE TO HEAT DAMAGE. THE FOLLOWING CB`S REPLACED DUE TO POSSIBLE HEAT DAMAGE. CB P/N 2TC12-10 ALTERNATE P/N FOR MS3320-10 AT C1-BUFFET POWER. CB P/N 3TC12-25 (ITEM 210)AT D1-RT FLARE LIGHT. CB`S P/N 2TC12-5 4D-AUX CONT PMP 2 AND 4E-FUEL TEMP ENG 2. SYSTEMS TESTED SERVICEABLE. AIRFRAME TOTAL TIME 46618:31, CYCLES 57936. (TC NR 20060707001)

CA060801005	DHAV	PWA	DHAV	LINE	RUPTURED
4/12/2006	DHC8102	PW120A		82950010141	HYDRAULIC SYS

(CAN) AFTER TAKEOFF NR 1 RUDDER FULL PRESSURE AND ROLL SPOILER IB HYDRAULIC CAUTION LIGHT ILLUMINATED. CREW DECLARED EMERGENCY RETURNED TO AIRFIELD. MAINTENANCE REMOVED FLAP WELL PANEL 532AB AND FOUND AREA UNDER PANEL WAS CHARRED FROM FIRE. FIRE WAS HOT ENOUGH TO RUPTURE TWO HYDRAULIC LINES, MELTED SPACER BLOCKS AND MELTED PLASTIC ON WIRE BUNDLE. (TC NR 20060801005)

CA060802009	DHAV	PWA	HOSE	LEAKING
4/5/2006	DHC8201	PW123D	DSC252A40230	BRAKES

(CAN) DURING PRE TAKE-OFF CHECKS FOR THE FIRST FLIGHT OF THE DAY (PARK BRAKE ON), THE FLIGHT CREW NOTICED THAT THE NR 2 HYDRAULIC SYSTEM HAD LOST MOST OF ITS FLUID. AIRCRAFT GROUND RETURN AND DURING THE TAXI BACK TO THE GATE, THE NR 1 HYDRAULIC SYSTEM QUANTITY WAS ALSO OBSERVED TO BE GOING DOWN. MAINTENANCE INSPECTION REVEALED THAT THE LT OB (NR 1) BRAKE HYDRAULIC FLEX HOSE TO BE LEAKING FLUID. A NEW FLEXIBLE BRAKE HOSE ASSEMBLY P/N: DSC252A4-0230 INSTALLED, BOTH HYDRAULIC SYSTEMS SERVICED AND BLEED IAW AMM (TC NR 20060802009).

CA060802005	DHAV	PWA	COUPLING	WORN
4/27/2006	DHC8202	PW123D	311496001	RT ENGINE

(CAN) DURING CRUISE, NUMBER 2 ENGINE EXPERIENCED EXTREME TORQUE FLUCTUATIONS OF UP TO 50 PRESENT WITH ASSOCIATED FUEL FLOW AND NH RPM INDICATIONS. AS A RESULT OF A SUBSEQUENT TORQUE DROP THE CREW ELECTED TO CARRY OUT A PRECAUTIONARY ENGINE SHUT DOWN IN FLIGHT. THE NO.2 PROPELLER ASSEMBLY WAS REPLACED DUE TO THE OVERTORQUE AND SENT FOR MAJOR INSPECTION. THE MECHANICAL FUEL CONTROL UNIT (MFCU) AND FUEL PUMP WERE REPLACED DURING WHICH IT WAS DISCOVERED THAT THE INTERCONNECTING COUPLING WAS STRIPPED POSSIBLY DUE TO AN INTERNAL FAILURE OF THE MFCU. (TC NR 20060802005)

CA060802007	DHAV	PWA	FUEL CONTROL	FAILED
4/19/2006	DHC8202	PW123D	311717503	NR 1 ENGINE

(CAN) DURING APPROACH NR 1 ENGINE TORQUE AND RPM SURGING 10 PERCENT WITH POWER ABOVE 80 PERCENT. ENGINE SHUTDOWN AT 5000 FEET ON DOWNWIND. MAINTENANCE REPLACED NR 1 ENGINE FUEL PUMP AND FUEL CONTROL. OPERATIONAL CHECK GOOD. AIRCRAFT RETURNED TO SERVICE. (TC NR 20060802007)

CA060804003	DHAV	PWA	FITTING	FRACTURED
6/2/2006	DHC8301	PW123	AN81510D	NR 1 HYD SYS

(CAN) DURING THE FLIGHT, OPERATOR LOST ALL HYDRAULIC QUANTITY AND PRESSURE FROM THE SYSTEM NR 1 AND ALL ASSOCIATED LIGHTS. CREW COMPLETED THE RESPECTIVE CHECKLIST AND LANDED WITH FLAPS 0° AND WITHOUT NORMAL BRAKING, INVESTIGATION REVEALED THAT THE NR 1 PRESSURE MANIFOLD INLET UNION HAD FRACTURED. (TC NR 20060804003)

CA060804004	DHAV	PWA	INDICATOR	MALFUNCTIONED
4/10/2006	DHC8301	PW123	707700301	WEATHER RADAR

(CAN) DURING DESCENT, CREW DETECTED A STRONG BURNING SMELL ON THE FLIGHT DECK. FLIGHT CREW DONNED OXYGEN MASKS AND LANDED WITHOUT FURTHER INCIDENT. FLIGHT CREW HAD REPORTED TO ENGINEERING THAT THE WEATHER RADAR WAS INOPERATIVE FROM TOP OF DESCENT. UPON INVESTIGATION BY ENGINEERING THE WEATHER RADAR INDICATOR WAS FOUND TO HAVE A STRONG BURNING SMELL. WEATHER RADAR INDICATOR REPLACED AND FUNCTIONALLY TESTED SERVICEABLE. (TC NR 20060804004)

CA060804005	DHAV	PWA	SEAL	LEAKING
3/29/2006	DHC8301	PW123	73030SOCN8173881	PROPELLER BLADE

(CAN) DURING FLIGHT, NR 1 PROP LOST APPROXIMATELY 7 QUARTS OF OIL FROM THE HUB. UPON ARRIVAL AIRCRAFT WAS COVERED IN OIL (LT). THERE WAS NOT AN INFLIGHT SHUTDOWN AND NO EMERGENCY MEASURES WERE REQUIRED OR TAKEN. THE AIRCRAFT RESPONDED NORMALLY. THE PROP SEAL WAS FOUND TORN AND THE GARTER SPRING WAS DISTORTED WHERE THE TWO ENDS OF THE SPRING ARE WELDED. (TC NR 20060804005)

CA060804001	DHAV	PWA	CONTROL ROD	MISINSTALLED
5/3/2006	DHC8301	PW123	87620136055057	POWER LEVER

(CAN) DURING CLIMB NR 2 ENGINE WAS MAKING ONLY 78 PERCENT POWER AND THE ENGINE POWER LEVER WAS JAMMED 1.5 INCH FROM FULL TRAVEL. AIRCRAFT RETURN ON GROUND SAFELY SHORTLY AFTER TAKEOFF. MAINTENANCE FOUND NR 2 CONTROL AND CONDITION LEVER RODS HARDWARE (BOLT AND NUT) INCORRECTLY

INSTALLED. PROPER HARDWARE INSTALLATION AND ENGINE RIGGING WERE PERFORMED. AN INTERNAL SAFETY ALERT WAS ISSUED ON JULY 14, 2006 IN RESPECT TO THIS EVENT. AIRFRAME HOURS: 37405:43. CYCLES:48382 (TC IN 20060804001)

CA060822004	DORNER		INTAKE	DAMAGED
7/27/2006	DO328100		001A716E1000010	NR 1 ENGINE

(CAN) OUR AC WAS ABOUT TO DEPART WHEN DEFECT WAS SPOTTED. DURING A NORMAL PRE-FLIGHT PILOT WALK AROUND OUR PILOT NOTICED A GAP/ ABNORMAL SPACE BETWEEN THE LOWER ENGINE INLET AND THE UPPER MATING COWL. WE GROUNDED THE A/C TO AOG STATUS AND SENT AME'S TO RESCUE. AME'S DISCOVERED QTY. 3 MISSING MOUNTING HARDWARE BOLTS, NUTS AND WASHERS, WHICH ARE STILL MIA. ALSO QTY. 1 MOUNTING BOLT WAS FOUND STILL IN PLACE BUT WAS SHEARED OFF COMPLETELY AND THE APPARENT STRESS CAUSED THE ENGINE METAL MATING FLANGE TO BREAK A 1 INCH DIA. APPROX SECTION OFF AT THE FWD. OB AREA. AME REPLACED THE LOWER INLET ASSY. WITH SAME P/N AND S/N AND ADDED THE WIDER WASHERS MINOR REPAIR IAW MM 72-20-00-300-801-A01-001. A (SPR) SERVICE PROBLEM REPORT HAS BEEN SENT TO 328 SUPPORT SERVICES GERMANY. (TC NR 20060822004)

CA060831006	DORNER	PWA	HARTZL	HYDRAULIC SYSTEM FAILED
7/7/2006	DO328100	PW119C	D59901	PROPELLER

(CAN) AIRCRAFT READIED AND RT ENGINE START PARAMETERS NORMAL. RT CONDITION LEVER ADVANCED TO MIN. RT PROP DOES NOT UNFEATHER. RT CONDITION LEVER RETARDED TO FEATHER. RT CONDITION LEVER ADVANCED TO MIN. RT PROP DOES NOT UNFEATHER. MAINTENANCE CALLED TO SIGHT FOR INVESTIGATION AND TROUBLESHOOTING. PASSENGERS CHARTERED. AIRCRAFT GROUNDED FOR 3 DAYS. RT HYDRAULIC UNIT D-5990-1 SN S296 UNSERVICEABLE. SN S296 TSN 4293.1. RT HYDRAULIC UNIT D-5990-1 REPLACED WITH OVERHAULED UNIT SN S53. HYDRAULIC UNIT SN S53 TSN 12735.5. (TC NR 20060831006)

CA060810006	EMB	PWA	SUPPORT	CRACKED
7/26/2006	EMB110P1	PT6A34	11030120115	BALANCE WEIGHT

(CAN) WHILE DOING AN INSPECTION OF THE LTO ELEVATOR AND ITS ASSOCIATED PARTS A CRACK WAS FOUND IN THE ELEVATOR BALANCE WEIGHT SUPPORT. THE CRACK MEASURED 2.3750 OF AN INCH IN LENGTH AND STARTED APPROXIMATELY 2 INCHES BELOW THE LOWER THROUGH-TUBE FOR THE BALANCE SUPPORT TO ELEVATOR TORQUE TUBE ATTACH POINTS. THE SUPPORT WAS REPLACED WITH A NEW ONE. (TC NR 20060810006)

CA060720002	EMB	PWA	CHANNEL	CRACKED
7/20/2006	EMB110P1	PT6A34	4A27122201	RT NACELLE

(CAN) WHILE CARRYING OUT MAINTENANCE IN THE RT LANDING GEAR AREA, A CRACK WAS FOUND IN THE IB LOWER NACELLE CHANNEL. THIS NACELLE CHANNEL IS THE ATTACH POINT FOR THE INBOARD GEAR DOOR HINGE. THE CRACK WAS LOCATED IN AFT PORTION OF THE HINGE ATTACH AREA MEASURING APPROXIMATELY 3.5 INCHES IN LENGTH. THE CRACK WAS DIFFICULT TO SPOT DUE TO THE OBSTRUCTION CAUSE BY THE GEAR DOOR HINGE WHEN IT IS INSTALLED. THE NACELLE CHANNEL HAS BEEN REPLACED. (TC NR 20060720002)

CA060906009	EMB	ALLSN	TURBINE BLADES	MISINSTALLED
9/5/2006	EMB135ER	AE3007A	23079436	ENGINE

(CAN) ENGINE HAS BEEN ASSEMBLED WITH THE WRONG HP1 TURBINE BLADES PART NUMBER CONFIGURATION. THE HP1 TURBINE BLADES INSTALLED ARE POST SB 72-260 ENGINES; NEW HIGH PRESSURE TURBINE UPGRADE (BLOCK111) WHEN THE ENGINE IS PRE SB 72-260 CONFIGURATION. THE OEM (INDIANAPOLIS) HAS BEEN NOTIFIED TO DETERMINED IF THE BLADES COULD REMAIN IN THE ENGINE IN SERVICE. (TC NR 20060906009)

CA060906008	EMB	ALLSN	TURBINE BLADES	MISINSTALLED
9/5/2006	EMB145	AE3007A	23076977	

(CAN) ENGINE HAS BEEN ASSEMBLED WITH THE WRONG HP1 TURBINE BLADES PN CONFIGURATION. THE HP1 TURBINE BLADES INSTALLED ARE POST SB 72-260 ENGINES; NEW HIGH PRESSURE TURBINE UPGRADE (BLOCK111) WHEN THE ENGINE IS PRE SB 72-260 CONFIGURATION. THE OEM (INDIANAPOLIS) HAS BEEN NOTIFIED TO DETERMINED IF THE BLADES COULD REMAIN IN THE ENGINE IN SERVICE. (TC NR 20060906008)

CA060906007	EMB	ALLSN	TURBINE BLADES	MISINSTALLED
9/5/2006	EMB145LR	AE3007A	23076977	ENGINE
(CAN) ENGINE HAS BEEN ASSEMBLED WITH THE WRONG HP1 TURBINE BLADES PN CONFIGURATION. THE HP1 TURBINE BLADES INSTALLED ARE POST SB 72-260 ENGINES; NEW HIGH PRESSURE TURBINE UPGRADE (BLOCK111) WHEN THE ENGINE IS PRE SB 72-260 CONFIGURATION. THE OEM (INDIANAPOLIS) HAS BEEN NOTIFIED TO DETERMINED IF THE BLADES COULD REMAIN IN THE ENGINE IN SERVICE. (TC NR 20060906007)				
200600077	FRCHLD	PWA	HINGE	FRACTURED
9/19/2006	C82ASTWDAVIS	R2800*	78213008	ZONE 300
LT AND RT FURTHEST OB ELEVATOR HINGE BRACKET ON THE STABILIZER WERE BROKEN. IT APPEARS TO BE FROM WIND GUSTS. THE CENTER 3 HINGES WERE UNAFFECTED.				
CA060802010	FRCHLD	GARRTT	ENGINE	LEAKING
8/1/2006	SA227DC	TPE33112UHR		LEFT
(CAN) ON CLIMB, THE LT LOW OIL PRESSURE LIGHT ILLUMINATED, ALONG WITH A OIL PRESSURE GAUGE DECREASE. THE LT ENGINE WAS SHUTDOWN IN FLIGHT AND RETURNED TO BASE. ON INSPECTION IT APPEARS THAT THE OIL EXITED OUT THE EXHAUST. ENGINE REMOVED AND SENT FOR REPAIR AND INSPECTION. (TC NR 20060802010)				
2006FA0000911	GROB	LYC	PUMP	LEAKING
8/28/2006	G120A	AEIO540D4D5	RGRG0957OK1	ENGINE FUEL
PILOT REPORTED A STRANGE ODOR AFTER THEY PUT THE GEAR UP, WHILE TROUBLESHOOTING MECHANIC FOUND ENGINE FUEL PUMP LEAKING FROM PRESSURE ADJUSTMENT SCREW. NO PROPABLE CAUSE OR RECOMMENDATIONS AT THIS TIME. (K)				
CA060725010	GRUMAN	WRIGHT	PUSHROD	BROKEN
7/23/2006	TS2ACALFORST	982C9HE2	416453	ENGINE
(CAN) PUSHROD BROKE AT TOP BALLEND AT ROCKER ARM ON NR 1 CYLINDER EXHAUST VALVE. PUSH ROD REPLACED AND ENGINE GROUND RUN, CHECKED OK. AIRCRAFT TEST FLOWN AND FOUND SATISFACTORY (TC NR 20060725010).				
CA060829002	GRUMAN	WRIGHT	ENGINE	OVERTEMP
8/28/2006	TS2ACALFORST	982C9HE2	982C9HE2	NR 2
(CAN) AIRCRAFT DEPARTED ENROUTE TO A FIRE. PILOT NOTED THE OIL TEMP ON NR 2 ENGINE WAS VERY HIGH. THE ENGINE WAS SHUTDOWN AND THE PROPELLER WAS FEATHERED. THE AIRCRAFT RETURNED AND LANDED. UPON INVESTIGATION BY MAINTENANCE STAFF, THE MAIN OIL SCREEN WAS FOUND TO BE CONTAMINATED WITH BRONZE MATERIAL. IT APPEARS THAT THE MAIN BEARING FAILED. THE ENGINE IS BEING REPLACED WITH A SERVICEABLE UNIT AND THE AIRCRAFT WILL BE RETURNED TO SERVICE. (TC NR 20060829002)				
CA060905010	GULSTM	PWA	BEARING	FRACTURED
7/31/2006	200	PW306B		TURBINE SECTION
(CAN) DURING CRUISE THE ENGINE EMITTED A LOUD NOISE ACCOMPANIED BY AN INCREEASE IN INTER-TURBINE TEMPERATURE AND VIBRATIONS AND A CHIP DETECTOR INDICATION. THE ENGINE WAS SHUTDOWN IN FLIGHT AND AN UNSCHEDULED LANDING CARRIED OUT. SUBSEQUENT INSPECTION REVEALED DAMAGE TO THE LOW PRESSURE TURBINE NR4 BEARING. (TC NR 20060905010)				
2006FA0000899	GULSTM	GARRTT	BOLT	SHEARED
8/9/2006	690C	TPE331*	ED10055	NLG
DURING ROUTINE INSPECTION FOUND NOSE GEAR LOWER DRAG BRACE BOLT SHEARED AT JUNCTION OF REDUCED DIAMETER BOLT HAD NOT YET CAME OUT OF ITS BORE AND THEREFORE THE GEAR DID NOT COLLAPSE. BUT IT WAS READY TO. (K)				
2006FA0000900	HILLER		CABLE	BROKEN

9/1/2006	UH12E		HS10537	TAIL ROTOR
LT TAIL ROTOR CABLE FAILED. OPERATOR OPERATES IN VERY DUSTY ENVIRONMENT. BUILD UP OF DUST AND OILY SUBSTANCE FROM PRODUCT FOR SPRAYING CAUSE A FINE ABRASIVE SUBSTANCE ON CABLES AT PULLEYS. CABLE NEEDS PROTECTION FROM ENVIRONMENT AND MORE FREQUENT INSPECTION AND/OR REPLACEMENT.				
CA060717006	HUGHES	ALLSN	LOCK	UNSERVICEABLE
7/15/2006	369A	250C20B	369A7010	MAIN ROTOR
(CAN) PILOT NOTICED FEEDBACK THRU CYCLIC CONTROL FROM MAIN ROTOR HEAD. HELICOPTER WAS LANDED AT MAIN BASE AND SERVICEABLE UNLOCK WAS INSTALLED TSO 00.0 AND TESTED SATISFACTORY. UNSERVICEABLE UNILOCK WILL BE SENT IN FOR OVERHAUL WITH A TEARDOWN REPORT REQUESTED (TC NR 20060717006)				
CA060717008	HUGHES	ALLSN	WINDOW	DETACHED
7/9/2006	369D	250C20B	369350542	DOOR
(CAN) HELICOPTER WAS CLIMBING OUT AT 70 KTS WHEN THE RT FWD DOOR WINDOW IMPLoded INTO THE CABIN. UPON INVESTIGATION IT WAS FOUND THE WINDOW INSTALLED REQUIRED A RUBBER GASKET TO HOLD IT IN. THINKING IT WAS A MD WINDOW IT WAS INSTALLED WITH THE ORIGINAL FRAME. THE WINDOW THAT USES THE GASKET IS ABOUT .25 SMALLER IN DIAMETER ALLOWING IT TO COME OUT OF THE FRAME INTO THE CABIN. A NEW WINDOW WITH A RUBBER GASKET WAS INSTALLED AND STAYED IN SATISFACTORY. (TC NR 20060717008)				
2006FA0000948	HUGHES	ALLSN	CASE	ERODED
9/8/2006	369D	250C20B	23057142	ENGINE
FOUND CASE HALVES SHOT. ENGINE RUNNING 35 DEGREES C, HOT. (K)				
2006FA0000958	HUGHES	ALLSN	TURBINE WHEEL	DAMAGED
9/19/2006	369D	250C20B	23038241	ENGINE
FOUND NR 1, AND NR 2 TURBINES RUBING AFTER ENGINE DISASSEMBLY FOR CHIPS. DURING 100 HR CHIPS WERE FOUND ON THE CHIP PLUGS. DISASSEMBLED ENGINE AND DISCOVERED THE N1 AND N2 TURBINES WERE RUBBING, REPLACED UNIT. (K)				
2006FA0000959	HUGHES	ALLSN	GEARBOX	MAKING METAL
9/19/2006	369D	250C20B	6894171	ENGINE
FOUND PTO , PTO BALL BEARING AND TORQUEMETER SPALLED. FOUND CHIPS ON CHIP PLUGS. DISASSEMBLED GEAR BOX AND FOUND PTO GEAR, TORQUEMETER GEAR AND PTO BALL BEARING SPALLED. REPLACED GEARBOX. (K)				
2006FA0000957	HUGHES	ALLSN	IMPELLER	DAMAGED
9/19/2006	369D	250C20B	6876873	COMPRESSOR
DURING REPLACEMENT OF THE S16 SHAFT, IT WAS DISCOVERED THAT THE OUTER LAND OF THE SNAP RING GROOVE WAS VERY THIN AND THE INNER EDGE WAS LIFTING AND (2) .3750 INCH LONG PIECES CAME OFF OF THE LAND. WHEN THE SNAP RING WAS REMOVED THE GROVE FOR THE SNAP RING SEEMS TO BE THE NORMAL DIMENSION. (K)				
2006FA0000947	HUGHES	ALLSN	COMBUSTION CASE	CRACKED
9/8/2006	369D	250C20B	6870992	ENGINE
PILOT COMPLAINED THAT THE TOT SUDDENLY WENT 40 DEGREES C, HOT. FOUND OUTER COMBUSTION CAN CRACKS. REPLACED UNIT. (K)				
CA060804010	HUGHES	ALLSN	BEARING	CRACKED
7/31/2006	369D	250C20B	369D25146	M/R TRANSMISSION
(CAN) 369D25146 ROLLER BEARING INNER RACE CRACKED, THIS RACE IS PRESSED ONTO TRANSMISSION T/R O/P PINION WITH AN INTERFERENCE FIT. CRACKED INNER RACE CAUSED THE RACE TO SPALL AND CAUSED A CHIP				

LIGHT. SEVERE METAL CONTAMINATION WAS FOUND (TC NR 20060804010)

CA060808009	HUGHES	ALLSN	STRUT	CRACKED
7/3/2006	369D	250C20B	369H600151	MLG

(CAN) DURING THE YEARLY INSPECTION, THE LT AFT LANDING GEAR STRUT WAS INSPECTED AND FOUND TO BE CRACKED, FROM THE LOWER DRAG BRACE ATTACH HOLE. THE CRACK WAS APPROX. 1.250 INCH LONG, AND EXTENDED LENGTHWISE TOWARDS THE BEND IN THE STRUT (TC NR 20060808009)

CA060811002	HUGHES	ALLSN	BELT	WORN
8/10/2006	369D	250C20B	369D25623	BLOWER OIL COOL

(CAN) ON APPROACH TO LAND THE PILOT HEARD A NOISE TO THE REAR OF THE AIRCRAFT FOLLOWED BY A VIBRATION. UPON INSPECTION THE ENGINEER NOTICED THE OIL COOLER BLOWER BELT TENSION WAS LOOSE AND THE TEETH OF THE BELT WERE WORN. (TC NR 20060811002)

2006FA0000870	HUGHES	ALLSN	GOVERNOR	MALFUNCTIONED
8/19/2006	369E	250C20B	21722	ENGINE

PILOT OBSERVED ENGINE RPM DROOPED TO APPROX 98 PERCENT N2 AND WOULD NOT BEEP UP. THIS CAUSING LOW ROTOR WARNING TO ILLUMINATE, AS WELL AS AUDIO WARNING TO SOUND. PILOT ENTERED AN AUTO ROTATION AND OBSERVED THE ENGINE SURGING AS HE APPROACHED THE GROUND. NORMAL AUTO ROTATION LANDING WAS MADE WITH NO DAMAGE TO AIRCRAFT OR INJURY TO PERSONS. FOR TROUBLESHOOTING PURPOSE MAINTENANCE CONDUCTED AN ENGINE START AND OBSERVED THE ENGINE WOULD NOT BEEP ABOVE 98 PERCENT N2 AND MINOR SURGING OF THE ENGINE. MAINTENANCE REPLACED THE PT GOVERNOR. ENGINE AND AIRCRAFT PERFORMED NORMAL. AIRCRAFT RETURNED TO SERVICE FOLLOWING OPS FLIGHT CHECK. (K)

2006FA0000872	HWKSLY	GARRTT	PUMP	FAILED
8/4/2006	HS125400F	TFE731*	65WE0103036	SPOILERS

NR 1 HYDRAULIC SYS FAILURE RESULTING IN LOSS OF HYDRAULIC FLUID. IN FLIGHT DIVERT AFTER DEPARTURE, AFTER ALTERNATE LANDING GEAR/ FLAP EXTENSION. LT HYDRAULIC SYSTEM PRESSURE LOW LIGHT ILLUMINATED ON TAKEOFF AFTER 80 KTS, CONTINUED TAKEOFF. AFTER COMPLETING HYDRAULIC FAILURE CHECK LIST, DETERMINED THERE WAS A HYDRAULIC LEAK. DECLARED AN EMERGENCY AND DIVERTED. COMPLETED THE HYDRAULIC LOSS CHECKLIST, WHICH BASICALLY INVOLVED PUMPING THE LANDING GEAR DOWN AND FLAPS TO POSITION. LANDED WITHOUT INCIDENT, STOPPED ON THE RUNWAY. REPLACED 2 PASSENGERS, PINNED THE LANDING GEAR AND TOWED THE AC TO THE FBO RAMP. (K)

CA060317002	LEAR	GARRTT	CONNECTOR	SHORTED
3/10/2006	36A	TFE7312	2B1PECC532000	GLARESHIELD

(CAN) AIRCRAFT DEPARTED APPROXIMATELY 30 MINUTES AFTER DEPARTURE SMOKE WAS NOTED UNDER GLARESHIELD AND EMERGENCY LANDING EXECUTED. MAINTENANCE PERSONNEL FOUND SOURCE OF SMOKE TO BE GLARESHIELD FLOODLIGHT. MAINTENANCE DE-ACTIVATED FLOODLIGHTING BY PULLING/COLLARING CIRCUIT BREAKER AND DEFERRING FLOODLIGHT IAW MEL. AIRCRAFT RETURNED TO HOME. FURTHER TROUBLESHOOTING REVEALED COAX CONNECTOR/COAX WAS SHORTED WHERE IT ATTACHES TO GLARESHIELD FLORESCENT LAMP ASSEMBLY. (TC NR 20060317002)

CA060320002	LEAR	GARRTT	TRANSDUCER	MALFUNCTIONED
3/15/2006	45LEAR	TFE7312	6627503000019	TE FLAP CONTROL

(CAN) ON THE FLIGHT WITH A SCHEDULED REFUELING STOP. WHILE IN CRUISE APPROXIMATELY 1.5 HOURS AFTER DEPARTURE, THE AMBER CAS MESSAGE (FLAP FAIL) ILLUMINATED. THE CREW WAS UNABLE TO RESET THE SYSTEM AND MADE A FLAP LESS LANDING, INSTEAD OF WHERE AUTHORIZED SERVICE FACILITY WAS ABLE TO CONNECT THE DIAGNOSTIC COMPUTER TO THE AIRCRAFT. THE FAULT HAD ALREADY RESET ITSELF AND THE GROUND CREW WAS UNABLE TO DUPLICATE THE PROBLEM. THE AIRCRAFT WAS RETURNED TO SERVICE. ON THE FLIGHT THE AMBER CAS MESSAGE (FLAP FAIL) ILLUMINATED AND THE AIRCRAFT MADE A FLAPLESS LANDING. A TEAM OF TECHNICIANS FROM SERVICE CENTER WAS DISPATCHED TO THE AIRCRAFT WHERE TROUBLESHOOTING WAS PERFORMED. THE TECHNICIANS WERE UNABLE TO DUPLICATE THE FAULT AND THE AIRCRAFT WAS FLOWN TO TUCSON FOR MORE EXTENSIVE TROUBLESHOOTING. (TC NR 20060320002)

[PAI5200642731](#) PIAGIO PIAGIO DUCT CRACKED
9/1/2006 P180 80232118401 WING
DURING 3000 HOUR D-CHECK FOUND ALL 4 WING LEADING EDGE PANELS WITH CRACKED HEATING DUCTS. WING LEADING EDGE ASSY P/N'S 80-232116-401, 80-232116-402, 232117-401, 232117-402.

[PAI5200642401](#) PIAGIO PWA LINE CHAFED
8/25/2006 P180 PT6A66 3040124 OIL COOLER
DURING 3000 HOUR D-CHECK FOUND OIL SCAVENGE LINE PN 3040124 AT SCAVENGE PUMP CHAFED APPROX 50 PERCENT THROUGH BY CONTACT WITH CRIMP TYPE CLAMP THAT SECURES HEAT SLEEVE ON OIL COOLER FLEX LINE. SAME CONDITION FOUND ON BOTH LT AND RT ENGINES. INSTALLED NEW SCAVENGE LINE BOTH ENGINES.

[CA060808001](#) PILATS PWA RELAY MALFUNCTIONED
7/31/2006 PC1245 PT6A67B 9740926112 HYD SYSTEM
(CAN) LANDING GEAR SELECTED DOWN ON FINAL. NO GREEN DOWN LOCK INDICATION FOR THE NOSE GEAR. PILOT DID AN EMERGENCY GEAR EXTENSION AND GOT THE LANDING GEAR DOWN AND LOCKED INDICATION FOR ALL THREE GEAR. THE SYSTEM WAS TROUBLESHOT AND FOUND TO HAVE A MALFUNCTIONING HYD PWR RELAY K601. THE RELAY WAS REPLACED AND A FUNCTIONAL CHECK OF THE LANDING GEAR SYSTEM WAS CARRIED OUT WITH NO FURTHER PROBLEMS. (TC NR 20060808001)

[CA060830001](#) PILATS PWA WARNING SYSTEM MALFUNCTIONED
8/28/2006 PC1245 PT6A67B 9787320016 TE FLAPS
(CAN) 1 HR INTO CRUISE AT FL 220 PILOT EXPERIENCED INSTANTANEOUS AURAL AND VISUAL WARNINGS OF MULTIPLE SYSTEMS FAILURE. CAUTION ADVISORY PANEL DISPLAYED PUSHER INOP, FLAPS INOP, AUTO PILOT FAIL; FLAP POSITION INDICATOR JUMPED FROM 0 DEG TO 40 DEG. ALSO INDICATING RED OVERSPEED, EADI FAILED TO RAW DATA ONLY, GEAR INDICATOR LIGHTS WENT TO THREE RED/ UNSAFE, GEAR AND FLAP WARNING TONES AUDIBLE. AFTER APPX. 20 MIN. ALL SYSTEMS SUDDENLY REVERTED TO NORMAL EXCEPT FOR THE FLAPS WHICH REQUIRED A FLAP RESET BY MAINTENANCE FLAPS THEN FUNCTION NORMALLY. PILOT COMPLETED FLIGHT AT ZERO FLAP. MAINTENANCE TROUBLESHOOTING IDENTIFIED ONE FAULT CODE ON A/C COMPUTER INDICATING A POSSIBLE FLAP CONTROL WARNING UNIT ERROR. THE FCWU WAS REPLACED ALL RELEVANT SYSTEMS FUNCTION CHECKED AIRCRAFT RELEASED TO SERVICE. THE FCWU WAS MODIFIED TO P/N 978.73.20.016 IN C/W SERVICE INSTRUCTION NO 20344A70 (TC NR 20060830001)

[CA060905004](#) PILATS PWA RIB BROKEN
9/2/2006 PC1245 PT6A67B 555401203 RUDDER
(CAN) WHILE DOING A WALK AROUND ON THE AIRCRAFT, THERE WAS LOTS OF PLAY FOUND AT THE UPPER ATTACHMENT BOLT ON THE RUDDER. THE BOLT HAD ELONGATED THE HOLE AND DAMAGED THE NOSE RIB. WHEN TRYING TO TAKE THE BOLT OUT, THE NUT PLATE BROKE AWAY AND A PIECE OF THE NOSE RIB THAT IT WAS RIVETED TO WAS ALREADY CRACKED FROM SO MUCH PLAY IN THE UPPER ATTACHMENT THAT IT WAS WHAT ACTUALLY BROKE AWAY WITH THE NUT PLATE. THE UPPER BEARING WAS ALSO DAMAGED. THE BOLT HEAD HAD TO BE CUT OFF TO GET BOLT OUT. THE RUDDER WAS REMOVED AND ANOTHER INSTALLED TO MAKE THE AIRCRAFT AIRWORTHY AGAIN. THE DAMAGED RUDDER IS NOW AWAITING PARTS TO FACILITATE A REPAIR. (TC NR 20060905004)

[CA060905005](#) PILATS PWA BRACKET CRACKED
9/2/2006 PC1245 PT6A67B 5531012326 HYD ACTUATOR
(CAN) WHILE DOING A WALKAROUND ON THE AIRCRAFT THERE WAS A CRACK FOUND ON THE UPPER ATTACHMENT BRACKET IN THE NOSE GEAR BAY THAT THE NOSE GEAR HYDRAULIC ACTUATOR ATTACHES TO. BRACKET REPLACED AND AIRCRAFT RETURNED TO SERVICE. (TC NR 20060905005)

[2006FA0000865](#) PIPER CONT STRUT DAMAGED
2/26/2006 PA17 A65* 1180500 LANDING GEAR
WHEN CHANGING SHOCK CORDS ON THIS AC, NOTICED A DISCOLORATION OF THE INNER STRUT TUBE (LONGER ONE, SUB PN 1180400) AND REMOVED IT FROM THE OUTER TUBE (SHORTER, SUB PN 1180300) ONE OF THE INNER STRUT TUBES WAS CORRODED APPROX 50 PERCENT OF CIRCUMFERENCE. THE OTHER INNER STRUT HAD

MULTIPLE CORROSION HOLES THROUGH ALL THE METAL. BOTH SHORT TUBES (OUTER) SHOWED OVAL ELONGATION AT THE ENDS INDICATING FLEXING/BENDING OF THE ASSY DURING LANDINGS AND TAKEOFF. RELATIVELY NEW (HOURS) BUNGEEES KEPT THIS GEAR FROM FINAL FAILURE AND RESULTANT GROUND LOOP. THE BUNGEE CORDS, WHEN INSTALLED, COVER THIS AREA AND ALSO USUALLY HAVE A CLOTH OR ALUMINUM FAIRING OVER THEM. DETECTION OF THIS REQUIRES REMOVAL OF THE FAIRINGS AT A MINIMUM, AND REMOVAL OF BUNGEEES TO CLEARLY SEE THE OUTER TUBES CIRCUMFERENCE. TO INSPECT THE AREA THAT FAILED IT IS NECESSARY TO DISASSEMBLY THE UNIT (11805-00) AND VIEW THE INNER PIECE (11804-00) AND OUTER PIECE (11803-00) SEPARATELY. RECOMMEND WHEN EVER BUNGEEES ARE CHANGED THE PIECES BE REMOVED FROM THE AIRCRAFT, DISASSEMBLED, AND INSPECTED FOR CORROSION. (K)

2006FA0000885	PIPER	LYC		MUFFLER	CRACKED
8/12/2006	PA18150	O320*			EXHAUST SYS

DURING ANNUAL INSP FOUND CRACK AT END OF ONE SUPPORT BRACE WITH EVIDENCE OF EXHAUST LEAK. ADVISED OWNER, HE SAID HE HAD EXPERIENCED EXHAUST LEAKAGE WITH MILD NOSE AND LEAKAGE. REPAIRED MUFFLER AND RETURNED TO US AND MUFFLER WAS REINSTALLED. (K)

CA060817006	PIPER	LYC		RING	DELAMINATED
8/4/2006	PA23250	TIO540C1A		ST203	CYLINDER

(CAN) THE TECHNICIANS OBSERVED AN ABNORMAL LOSS OF COMPRESSION ON SOME CYLINDERS FOLLOWING A ROUTINE INSPECTION. THEY REMOVED THE CYLINDERS AND SENT THEM TO OUR SHOP FOR INVESTIGATION. WE OBSERVED A DELAMINATION OF CHROME PLATING ON THE CYLINDER RINGS. WE REPAIRED THE CYLINDERS BY REPLACING THE DEFECTIVE PARTS WITH A NEW PARTS. THE MANUFACTURER HAS BEEN ADVISED ABOUT THE DEFECTIVE RINGS. (TC NR 20060817006)

2006FA0000864	PIPER	LYC	SLICK	ROTOR	BROKEN
8/7/2006	PA28161	O320D3G		M3548	MAGNETO

ROTOR SHAFT BROKEN AT CAM SLOT. REMOVED AND INSPECTED MAGNETO DUE TO 5 PERCENT TIMING DISCREPANCY. INSTALLED NEW MAGNETO. (K)

2006FA0000884	PIPER	LYC	LYC	FLOAT	FAILED
8/29/2006	PA28161	O320D3G	MA4SPA105217	30804	CARBURETOR BOWL

ON SHUTDOWN, THE RPM INCREASED 400 RPM. ON IDLE, THE ENGINE WOULD IDLE AT 600 RPM, THEN DROP TO 300 RPM THEN DIE. ON OPENING THE CARBURETOR, HALF OF THE WHITE PLASTIC FLOAT WAS 80 PERCENT FULL OF FUEL. IT DID NOT LEAK OUT OVER NIGHT. (K)

2006FA0000904	PIPER	LYC		PUMP	LEAKING
9/14/2006	PA28180	O360A3A		LW15472	FUEL SYSTEM

UPON RETURNING FROM A TRAINING FLIGHT, A FAINT SMELL OF GAS WAS NOTED. SINCE THE ELECTRIC PUMP WAS ON, IT WAS TURNED OFF. NO ENGINE PERFORMANCE PROBLEMS WERE NOTED AND LANDING WAS NORMAL. UPON LANDING IT WAS NOTICED THAT FLUID WAS DRAINING FROM THE FUEL PUMP VENT LINE. THIS APPEARED TO BE A MIX OF GAS AND OIL. IT IS ESTIMATED 3-4 QUARTS DRAINED FROM THE VENT BEFORE STOPPING. THE OIL PAN WAS DRAINED AND WAS FOUND TO CONTAIN 8-10 QUARTS OF GAS/OIL MIX. THE OIL FILTER WAS OPENED AND NO METAL WAS FOUND. THE OLD PUMP HAS NOT YET BEEN OPENED AND WAS OPERATING SUFFICIENTLY FOR THE ENGINE TO RUN, BUT IT IS PRESUMED THE PUMP DIAPHRAGM HAD RUPTURED CAUSING FUEL TO LEAK INTO THE ENGINE CRANKCASE. NO EVIDENCE OF THE PUMP BEING REPLACED AT ENGINE OVERHAUL COULD BE FOUND, SO IT IS ASSUMED THE PUMP (MANUFACTURED IN 1962), WAS ORIGINAL. NOTE: THE PN REPORTED IS FOR THE REPLACEMENT. HOWEVER, THE PN STAMPED ON THE PUMP WAS 3467-1A, BUT NO CROSS-REFERENCE BETWEEN THIS NR AND THE NEW NR COULD BE FOUND.

2006FA0000905	PIPER	LYC	AC	DIAPHRAGM	RUPTURED
9/14/2006	PA28180	O360A3A			FUEL PUMP

UPON RETURNING FROM A TRAINING FLIGHT, A FAINT SMELL OF GAS WAS NOTED. SINCE THE ELECTRIC PUMP WAS ON, IT WAS TURNED OFF. NO ENGINE PERFORMANCE PROBLEMS WERE NOTED AND LANDING WAS NORMAL. UPON LANDING IT WAS NOTICED THAT FLUID WAS DRAINING FROM THE FUEL PUMP VENT LINE. THIS APPEARED TO BE A MIX OF GAS AND OIL. IT IS ESTIMATED 3-4 QUARTS DRAINED FROM THE VENT BEFORE

STOPPING. THE OIL PAN WAS DRAINED AND WAS FOUND TO CONTAIN 8-10 QUARTS OF GAS/OIL MIX. THE OIL FILTER WAS OPENED AND NO METAL WAS FOUND. THE OLD PUMP HAS NOT YET BEEN OPENED AND WAS OPERATING SUFFICIENTLY FOR THE ENGINE TO RUN, BUT IT IS PRESUMED THE PUMP DIAPHRAGM HAD RUPTURED CAUSING FUEL TO LEAK INTO THE ENGINE CRANKCASE. NO EVIDENCE OF THE PUMP BEING REPLACED AT ENGINE OVERHAUL COULD BE FOUND, SO IT IS ASSUMED THE PUMP (MANUFACTURED IN 1962), WAS ORIGINAL. NOTE: THE PN REPORTED IS FOR THE REPLACEMENT. HOWEVER, THE PN STAMPED ON THE PUMP WAS 3467-1A, BUT NO CROSS-REFERENCE BETWEEN THIS NR AND THE NEW NR COULD BE FOUND.

CA060809002	PIPER	LYC	EXHAUST DUCT	CRACKED
5/28/2006	PA31325	TIO540F2BD	LW121127	ENGINE

(CAN) EXHAUST TRANSITION BETWEEN TURBO AND EXHAUST STACKS FROM CYLINDERS HAD CRACKED AND STARTED TO BLOW A HOLE BELOW THE EGT PROBE HOLE. THE DEFECT WAS NOTICED BY AN EXHAUST STAIN ON THE INSIDE OF THE COWL ON A MAINTENANCE DAILY INSPECTION. THE AIRCRAFT WAS 39 HOURS OUT OF INSPECTION. (TC NR 20060809002)

CA060817007	PIPER	LYC	BEARING	DAMAGED
8/17/2006	PA31350	TIO540J2BD		CRANKSHAFT

(CAN) PILOTS NOTICED SMOKE COMING FROM THE LT ENGINE AFTER SHUTDOWN. THEY ALSO NOTICED AN OIL LEAK. FURTHER INVESTIGATION REVEALED THAT ONE CRANKSHAFT BEARING HAD BEEN MOVED FROM ITS ORIGINAL PLACE AND WAS NOW LOOSE. THE ENGINE IS BEING REMOVED FOR REPLACEMENT. A TEARDOWN REPORT WILL BE REQUESTED. (TC NR 20060817007)

2006FA0000860	PIPER	LYC	CRANKSHAFT	DAMAGED
6/23/2006	PA31350	TIO540J2BD	LW12581	LT ENGINE

PILOT REDUCED POWER FOR LANDING, PUSHED NOSE OF AC OVER TO DESCEND, LF ENGINE RPM INCREASED. PULL NOSE OF AC UP, RPM DECREASED. THEN PILOT REPORTED SLIGHT VIBRATION AND THE BANG. LT ENGINE WAS SHUTDOWN. AIRCRAFT LANDED WITHOUT INCIDENT. INSPECTION OF LT ENGINE WAS PERFORMED AND FOUND THAT THE FRONT 2 CYLINDERS WERE THE ONLY ONES STILL ATTACHED TO THE FRONT THIRD OF THE CRANKSHAFT (THE CRANKSHAFT WAS IN (3) PIECES). (K)

CA060811001	PIPER	LYC	PANEL	SMOKE
8/7/2006	PA31P	TIGO541E1A		CIRCUIT BREAKER

(CAN) CIRCUIT BREAKER PANEL STARTED TO SMOKE AND SPARK DURING CRUISE AT 14000 FT. ELECTRICAL FIRE CHECKLIST WAS INITIATED AND DESCENDED TO 7500 FT. UPON COMPLETION OF ELECTRICAL FIRE CHECKLIST SMOKE AND SPARK NO LONGER PRESENT. (TC NR 20060811001)

2006FA0000862	PIPER	PWA	WIRE	BROKEN
8/28/2006	PA31T	PT6A28		

RTBETA-LIGHT CAME ON DURING TAKE-OFF ROLL. PROPELLER RPM DROPPED HEAVILY. PULLED CIRCUIT BREAKER. RPM RETURNED TO NORMAL. FOUND ALL SINGLE WIRE INSULATIONS IN WIRE BUNDLE TOENGINE/PROP SWITCHES, INCLUDING DE-ICE WIRES AT REDUCTION GEAR BOX HARDENED AND BROKEN, MAKING CONTACT. WIRE BUNDLE RUNS UNDERNEATH EXHAUST FLANGE. NO OTHER DAMAGE DUE TO FAST PULLING CIRCUIT BREAKER, IF THIS HAPPENS DURING FLIGHT, IT COULD LEAD TO A DANGEROUS SITUATION. REPLACED ALL WIRING.

2006FAA0901	PIPER	PWA	AUTOPILOT SYS	BURNED OUT
9/6/2006	PA46500TP	PT6*	841341	

THE COMPLAINANT NOTED SMOKE IN THE COCKPIT. THE SOURCE OF THE SMOKE WAS THE FAILURE OF A FILTER CAPACITOR, C20 (P/N 1131013-106035,) ON THE POWER SUPPLY BOARD (P/N 71115-05.) IT HAD BURNED OUT CAUSING THE SMOKE. IT IS A FILTER CAPACITOR FOR THE -15V SIDE OF THE DC TO DC CONVERTER. THE PART WAS INSTALLED CORRECTLY (POLARITY), AND NONE OF THE SURROUNDING DEVICES WERE ABNORMAL. IT WAS A PART THAT HAS HISTORICALLY GIVEN US THIS TYPE OF FAILURE, ALTHOUGH WE'VE NEVER HAD ISSUE WITH THE PART LOCATED HERE. IT APPEARS TO BE A ONE TIME DEFECTIVE DEVICE.

2006FA0000940	RAYTHN		FLAP SYSTEM	MISRIGGED
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8/23/2006 390

DURING PHASE INSPECTION FOUND THE LT IB AFT FLAP TRACK ATTACH BOLT CHAFED 3 LAYERS OF CARBON FIBER INTO THE FUSELAGE. FOUND FLAP MISRIGGED AND TOP 3 FLAP TRACK FASTENERS WORKING. RECOMMEND ADDITIONAL ATTENTION TO FLAP RIGGING AND ALL ATTACHING HARDWARE DURING PHASE INSPECTIONS. (K)

2006FA0000941	RAYTHN	FLAP TRACK	DAMAGED
9/6/2006	390	39005214110002	RT WING

DURING 200/600 HR PHASE INSPECTION FOUND THE RT IB AFT FLAP TRACK UPPER 3 ATTACH FASTENERS PN: MS90354S0609 WORKING. RECOMMEND ADDITIONAL ATTENTION TO FLAP RIGGING AND ALL ATTACHING HARDWARE DURING PHASE INSPECTIONS. (K)

2006FA0000942	RAYTHN	FLAP TRACK	DAMAGED
9/6/2006	390	39005214110002	RT WING

DURING 200/600 HR PHASE INSPECTION FOUND THE RT IB AFT FLAP TRACK UPPER 3 ATTACH FASTENERS PN: MS90354S0609 WORKING. RECOMMEND ADDITIONAL ATTENTION TO FLAP RIGGING AND ALL ATTACHING HARDWARE DURING PHASE INSPECTION. (K)

2006FA0000926	RAYTHN	THRUST REVERSER	CORRODED
9/19/2006	HAWKER800XP	HS78320009	

MAJOR CORROSION ON THE THRUST REVERSER DOOR RAMP SKINS DUE TO THE PAINT MISSING FROM THE RIVET HEADS. BY MAJOR CORROSION, WE ARE BLENDING THE AREAS BELOW LIMITS AND HAVING TO SEND THEM OUT FOR REPAIR. AREAS OF CORROSION ARE NOT ONLY BEING FOUND ON THE RIVET HEADS WE ARE FINDING SURFACE CORROSION ANYWHERE THE PAINT IS MISSING ON THE RAMP SKINS.

2006FA0000927	RAYTHN	SKIN	CORRODED
9/19/2006	HAWKER800XP		THRUST REVERSER

MAJOR CORROSION ON THE THRUST REVERSER DOOR RAMP SKINS DUE TO THE PAINT MISSING FROM THE RIVET HEADS. BY MAJOR CORROSION I MEAN WE ARE BLENDING THE AREAS BELOW LIMITS AND HAVING TO SEND THEM OUT FOR REPAIR. AREAS OF CORROSION ARE NOT ONLY BEING FOUND ON THE RIVET HEADS WE ARE FINDING SURFACE CORROSION ANYWHERE THE PAINT IS MISSING ON THE RAMP SKINS.

EVGR20060915	ROBSIN	LYC	COIL	WORN
9/13/2006	R44	O540F1B5	103571651	MAGNETO

DURING THE FIRST 500 HOUR MAGNETO INSPECTION, THE TAB ON THE COIL WAS MISALIGNED AND EXHIBITED EXCESSIVE WEAR.

CA060808004	ROBSIN	LYC	BEARING	BROKEN
7/3/2006	R44	O540F1B5	LW13521	CONNECTING ROD

(CAN) CONNECTING ROD BEARINGS ON NR 1,3, AND 5 RODS HAD SIGNIFICANT SURFACE DELAMINATION. BROKEN PIECES .5 INCH L X .1250 INCH W FOUND IN BETWEEN CONNECTING ROD BEARING AND CRANKSHAFT. (TC INCH 20060808004)

CA060815004	ROBSIN	LYC	STARTER	BROKEN
8/15/2006	R44RAVENII	IO540AE1A5	31B22111	ENGINE

(CAN) PILOT WENT TO START THE AIRCRAFT. HE COULD HEAR THE MOTOR TURNING, HOWEVER THE ENGINE WAS NOT TURNING OVER. THE AME FOUND THE DRIVE TO BE ENGAGED TO THE RING GEAR. WHEN THE STARTER WAS REMOVED, THE DRIVE COULD BE TURNED FREELY BY HAND. THE DRIVE FAILED INTERNALLY. NO REPORT OF ANY BACKFIRE OR KICKBACK DURING START. THE AME BELIEVES THAT AN INTERRUPTION OF THE POWER TO THE STARTER MAY HAVE CAUSED THE STARTER TO DISENGAGE AND REENGAGE, DAMAGING THE STARTER PINION. HE BELIEVES THE FAULT TO BE IN THE AIRCRAFT WIRING, NOT IN THE STARTER. (TC NR 20060815004)

CA060712009	ROBSIN	LYC	ROBSIN	BOLT	BENT
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7/11/2006 R44RAVENII IO540AE1A5 NAS4283A12 CLUTCH ACTUATOR

(CAN) A/C TAFT 36.5 HOURS. MAIN BELT TENSION WAS TO BE ADJUSTED, WHEN IT WAS FOUND THAT THE ADJUSTMENT BOLT, ON THE CLUTCH ACTUATOR, COULD NOT BE MOVED. THE BOLT IS USUALLY HELD IN PLACE WITH A BACK UP NUT. THE BACK UP NUT WAS IN PLACE, AND MOVED AS NORMAL. THE HEAD OF THE BOLT, USED TO STOP A MICRO SWITCH, WAS TIGHT UP AGAINST THE FLANGE. VARIOUS ATTEMPTS WERE MADE TO MOVE THE BOLT, UNTIL FINALLY THE ASSEMBLY WAS REMOVED FROM THE AIRCRAFT WHERE IT COULD BE MOVED, STILL WITH SOME DIFFICULTY. THE BOLT WAS REPLACED WITH A SERVICEABLE PART, AND THE CLUTCH ACTUATOR WAS REINSTALLED. NO OTHER DEFECTS WERE NOTED. (TC NR 20060712009)

[CA060802008](#) ROBSIN LYC CONT WIRE CHAFED
7/26/2006 R44RAVENII IO540AE1A5 MAGNETO

(CAN) WHEN THE COLLECTIVE LEVER WAS LOWERED DURING DESCENT FOR A LANDING AT THE HELICOPTER BASE THE ENGINE TACHOMETER BECAME ERRATIC, THE ENGINE OVERSPED ABOVE 116 PERCENT AND THE THROTTLE GOVERNOR WAS NOT WORKING. THE ROTOR TACH ALSO INDICATED AN OVERSPEED ABOVE 114 PERCENT. INSPECTION OF THE RT MAGNETO FOUND THAT THE INSULATION ON THE WIRE CARRYING THE SPEED SIGNAL FROM THE SECONDARY POINTS TO THE TACHOMETER AND SPEED GOVERNOR HAD BEEN CUT THROUGH AND SHORTED TO GROUND. THE INTERMITTENT LOSS OF SIGNAL RESULTED IN ERRATIC TACH INDICATION AND THE AIRFRAME MANUFACTURER CONFIRMED THAT WITH THAT CONDITION THE GOVERNOR COULD BE EXPECTED TO GO OFF LINE. THE MOST LIKELY CAUSE OF THE DAMAGE WAS PINCHING OF THE WIRE BETWEEN THE CAP AND THE MAGNETO CAM DURING REASSEMBLY AFTER A 100 HR. INSPECTION OF THE POINTS. WE ARE CONCERNED THAT THIS SINGLE SMALL FAULT RESULTED IN A MOMENTARY LOSS OF ENGINE AND ROTOR SPEED CONTROL WHICH COULD HAVE SERIOUS CONSEQUENCES FOR THE FLIGHT CREW. A PICTURE OF THE MAG IS ATTACHED.

[CA060725007](#) ROBSIN LYC MUFFLER CRACKED
7/25/2006 R44RAVENII IO540AE1A5 C16932 EXHAUST

(CAN) DURING A ROUTINE 100 HR INSPECTION, IT WAS NOTED THAT THE MUFFLER/TAIPIPE ASSY WAS DISTORTED AND CRACKED AT THE OUTLET PIPE. THE CRACK WAS NOTICED AFTER THE CABIN HEATER JACKET WAS REMOVED. THE CRACK WOULD NOT BE NOTICEABLE WITH THE CABIN HEATER JACKET INSTALLED. THE CABIN CARBON MONOXIDE DETECTOR SYSTEM SHOWED NO INDICATIONS OF EXCESSIVE CARBON MONOXIDE. IT IS NOTED THAT IF THE AIRCRAFT WAS FLYING IN COLD CONDITIONS, WHERE THE CABIN HEAT WOULD BE SELECTED (TC NR 20060725007)

[CA060725009](#) ROBSIN LYC AIR BOX CRACKED
7/20/2006 R44RAVENII IO540AE1A5 D0571 OUTER HOUSING

(CAN) DURING A ROUTINE 100 HR INSPECTION, A CRACK WAS NOTICED IN THE ABOVE PART. THERE IS A CHANCE THAT THE CRACK COULD BE THE RESULT OF CLEARANCE ISSUES WHEN REMOVING AND INSTALLING THE AIRBOX FROM THE AIRFRAME. THE PART WAS REPLACED WITH A NEW PART, AND IT WAS NOTED THAT THE NEW PART IS NOW MADE FROM FIBERGLASS, WHERE THE ORIGINAL PART IS MADE FROM A PLASTIC MATERIAL. THIS COULD ALSO BE ANOTHER REASON FOR THE CRACK, OR AN ATTRIBUTE. THE PART HAS 398.6 HRS SINCE NEW. THE AIRCRAFT WAS MANUFACTURED NEW IN OCTOBER 2005. (TC NR 20060725009)

[2006FA0000951](#) SKRSKY PWA AXLE CRACKED
9/8/2006 CH54B JFTD12A5A 6525108027103 MLG

(REF NR: MDR06-091) UPON DISASSEMBLY, AXLE WAS FOUND TO BE CRACKED AND RUNS AROUND THE CIRCUMFERENCE. THE FRACTURE APPEARS TO ORIGINATE IN THE WELD ON THE CENTER OF THE AXLE SHAFT. THE AXLE WAS FRACTURED UNDER THE SOCKET, PN 6425-50202-101, AS EVIDENCED BY A CRACK EXTENDING AROUND THE CIRCUMFERENCE OF THE SOCKET, FROM APPROXIMATELY THE 10:00 TO 2:00 POSITION. NO RECENT EVENTS ARE KNOWN THAT MAY HAVE CONTRIBUTED TO THIS TYPE OF FAILURE. RECOMMENDATIONS TO PREVENT RECURRENCE: A ONE PIECE AXLE IS AVAILABLE FOR USE IN LIEU OF THE 2 PIECE WELDED AXLE. (K)

[CA060726003](#) SNIAS ALLSN FREEWHEEL UNIT MAKING METAL
7/25/2006 AS350* 250C30 35013001 MAIN ROTOR

(CAN) AFTER INSTALLING A OVERHAULED FREEWHEEL, METAL WAS FOUND FOUR SEPARATE TIME IN 61.1

HOURS, SILVER FLAKES FOUND ON CHIP PLUG. (TC NR 20060726003)

CA060816004	SNIAS	TMECA	COMPRESSOR	MALFUNCTIONED
7/1/2006	AS350B2	ARRIEL1D1		ENGINE

(CAN) PILOT STARTED THE AIRCRAFT IN THE FIELD AND NOTICED THE THE START WAS VERY SLOW, HE RETURNED FROM A FLIGHT AND NOTIFIED THE MAINTENANCE STAFF OF THE PROBLEM. THEY HAD THE PILOT START THE AIRCRAFT AND NOTICED THAT THE ENGINE WAS VIBRATING, THEY MADE THE PILOT ABORT THE START. UPON FURTHER INVESTIGATION THEY MOTORED OVER THE ENGINE WITHOUT STARTING IT AND THERE WAS A SCREAMING GRINDING NOISE COMING FROM THE ENGINE. THEY INSPECTED THE STARTER GENERATOR AND CHECKED THE ENGINE AND DRIVE SHAFT FOR CONDITION BUT DIDN'T FIND ANYTHING. THEY HAND ROTATED THE POWER TURBINE BLADES AND THERE WASN'T ANY NOISE. THEY ROTATED THE COMPRESSOR AND DISCOVERED THAT THERE WAS RUBBING NOISE COMING FROM THE M03. THE ENGINE WAS REMOVED AND SENT FOR INSPECTION. WE WERE CONTACTED BY ACRO AND TOLD THAT UPON DISSASSEMBLY OF THE M03 GAS GENERATOR THAT THERE WAS EXTENSIVE T1 WHEEL RUB (6:00 POSITION). THE CAUSE OF WHICH WAS NOT OBVIOUS. THE T1 WHEEL/BLADES AND M03 HAVE BEEN SENT TO TURBOMECA FOR FURTHER INVESTIGATION. (TC 20060816004)

CA060803001	SNIAS	TMECA	SEAL	PEELING
6/14/2006	AS350B2	ARRIEL1D1	852G10	PAX DOOR

(CAN) THE PILOT WAS LONG LINING WITH THE PILOT SIDE DOORS OFF, THE WEATHER STRIPPING PEELED OFF THE DOOR FRAME. THE LAST 3 INCHES CAUGHT ON THE POCKET DOOR STOP. THE PILOT SLOWED DOWN AND LANDED TO REMOVE THE REST OF THE DOOR SEAL. THE DOOR SEAL IS 4 METERS LONG, AND ALTERNATE P/N 704A39821031. (TC NR 20060803001)

CA060807002	SNIAS	TMECA	BEARING	NOISY
8/6/2006	AS350BA		704A33651190	TAIL ROTOR

(CAN) FOUND DURING 500 HOUR INSPECTION. ABNORMAL BEARING NOISE, AXIAL WEAR BEYOND LIMITS. (TC NR 20060807002)

CA060802001	SNIAS	ALLSN	FREEWHEEL UNIT	MAKING METAL
7/25/2006	AS350BA	250C30	35013001	MAIN ROTOR

(CAN) AFTER INSTALLING A OVERHAULED FREEWHEEL, METAL WAS FOUND (4) SEPARATE TIMES IN 61.1 HOURS, SILVER FLAKES FOUND ON CHIP PLUG. (TC NR 20060802001)

2006FA0000887	SNIAS	TMECA	CONNECTOR	CONTAMINATED
8/15/2006	AS350BA	ARRIEL1B		TORQUE IND

DEPARTED BASE, HEADED FOR THE GLACIER, EN ROUTE THE PILOT NOTICED HIS TORQUE READING WAS FLUCTUATING. THE PILOT RETURNED TO BASE AND THE MECHANIC FOUND THAT THE ENGINE DECK PLUG HAD WATER IN IT FROM THE HEAVY RAINS WE HAVE BEEN ENDURING. THE MECHANIC CLEANED OUT THE PLUG AND THE AIRCRAFT WAS RETURNED TO SERVICE AFTER AN OPERATIONS CHECK WAS COMPLETED. (K)

2006FA0000933	SOCATA	FRNKLN	AXLE	BROKEN
8/6/2006	MS894A	6V350*	8904200484	NLG

INFORMATION OBTAINED FROM OWNER AND OPERATOR ENCOUNTERED AN INCIDENT UPON LANDING. AT TOUCHDOWN PILOT REPORTED THE NOSE LANDING GEAR AXLE BROKE, LIBERATING THE NOSE WHEEL FROM THE AIRCRAFT. THE NOSE WHEEL CONTACTED THE RT MAIN FLAP ASSY (DAMAGE SEVERITY UNKNOWN, REPLACEMENT APPARENTLY REQUIRED) SUBSEQUENTLY THE PROPELLER CONTACTED THE RUNWAY. PILOT REPORTED THE ENGINE DID NOT SUFFER SUDDEN STOPPAGE AND THERE WAS NO REPORTED INJURY OR DAMAGE TO AIRPORT PERSONNEL, EQUIPMENT OR PROPERTY.

CA060901006	SWRNGN	GARRTT	SWITCH	ODOR
8/31/2006	SA226TC	TPE33110UA	3055383	COCKPIT

(CAN) CREW NOTED BEFORE TAKEOFF A BURNING SMELL IN THE COCKPIT PRIOR TO TAKEOFF. NO SYSTEM FAULTS WERE NOTED OR BREAKERS POPPED AND THE SMELL WENT AWAY, SO THE FLIGHT CONTINUED IT'S LAST LEG. NO FAULTS NOTED IN FLIGHT. IT WAS LATER DISCOVERED A SPEED SWITCH HAD FAILED. THIS WAS

DETERMINED TO BE THE CAUSE OF THE ELECTRICAL SMELL. THIS UNIT HAD 77.5 HOURS TSO HOURS AND IS ONE OF A NUMBER OF FAILED SWITCHES FROM THIS VENDOR. (TC NR 20060901006)

CA060905007	SWRNGN	GARRTT	WIRE	DAMAGED
8/31/2006	SA226TC	TPE33110UA		BATTERY/CHARGER

(CAN) AIRCRAFT HAD EXPERIENCED PROBLEMS WITH BATTERY DISCONNECTING INTERMITTENTLY. FIRST TIME WAS CIRCUIT BREAKER POPPED. NEXT TIME FOUND CORROSION ON BATTERY RELAY, REPLACED RELAY. THIS IS A COMMON DEFECT WITH THESE TYPE OF RELAYS. THIRD INSTANCE WAS ON NEXT LEG AFTER BATTERY RELAY WAS REPLACED. CREW EXPERIENCED A BATTERY FAULTY ENUNCIATOR AND BOTH DISCONNECT LIGHTS INDICATED. ONCE ON THE GROUND, THEY WERE UNABLE TO GET EITHER BATTERY ON LINE. MAINTENANCE DISCOVERED THE 4 GAUGE FEEDER WIRES FROM THE RAH BATTERY TO THE SERIES-PARALLEL RELAY CHAFED INSIDE THE WING. THE WIRES WERE PROTECTED WITH FIRE SLEEVE AND HAD CHAFED THROUGH. THERE WAS ASSOCIATED DAMAGE TO THE BLEED AIR LINE THAT THE WIRES RUBBED AGAINST. REPLACED BATTERY AND WIRING. MELD BLEED AIR AND FERRIED AIRCRAFT TO MAIN BASE, WHERE THE BLEED AIR LINES AND SOME OTHER WING WIRING WAS REPLACED. WE WILL BE INITIATING FURTHER INSPECTIONS ON THE REMAINDER OF OUR FLEET. (TIC NR 20060905007)

CA060824003	SWRNGN	GARRTT	FUEL CONTROL	MALFUNCTIONED
8/18/2006	SA226TC	TPE33110UA	8978017	LT ENGINE

(CAN) UPON LANDING, CREW APPLIED REVERSE THRUST. BELOW 70 KIAS, THE RPM LEVER WAS SELECTED TO (LOW). ON THE TAXIWAY, THE CREW NOTED VERY LOW ENGINE RPM, LOW OIL PRESSURE LIGHT, AND LOW EGT. THEY DETERMINED THE ENGINE HAD FLAMED OUT AND PARTIALLY RESTARTED. A NORMAL SHUTDOWN WAS CARRIED OUT. A SUBSEQUENT MAINTENANCE GROUND RUN WAS ABLE TO DUPLICATE THE FAILURE, WHEN THE SPEED LEVER WAS RAPIDLY MOVED FROM HIGH TO LOW. THE FUEL CONTROL AND FUEL PUMP WERE REPLACED WITH SERVICEABLE UNITS. (TC NR 20060824003)

CA060824004	SWRNGN	GARRTT	LINE	LEAKING
8/22/2006	SA226TC	TPE33110UA	2781006495	HYDRAULIC SYS

(CAN) AIRCRAFT WAS IN CRUISE, CREW NOTED HYDRAULIC LEAKAGE ON THE COCKPIT FLOOR. CONDUCTED A NORMAL LANDING, NOSE GEAR UP LINE IN COKPIT WAS LEAKING. REPLACED LINE, ON NEXT LEG, A LINE FAILED IN THE LH GEAR WELL, CREW ACTIVATED EMERGENCY EXTENSION AND NORMAL LANDING CARRIED OUT. THE FOLLOWING DAY ANOTHER LINE CRACKED IN THE WHEEL WELL. MAINTENANCE SERVICED THE ACCUMULATOR AFTER THE SECOND OCCURENCE AND NOTED THE PRESSURE WAS LOW. AFTER THE THIRD OCCURENCE, THE ACCUMULATOR WAS REPLACED AS A PRECAUTION. NO OTHER OCCURENCES THAT WEEK. ON THE WEEKEND, MAINTENANCE PLACED THE AIRCRAFT ON JACKS, AND FOUND SMALL PRESSURE FLUCTUATIONS DUE TO A FAILED MAIN GEAR UPLOCK POWER PACK SWITCH. THE SWITCH WAS REPLACED, THE AIRCRAFT RETURNED TO SERVICE AND THERE HAVE BEEN NO OTHER FAULTS. THE COMPANY CARRIED OUT A RECCURING DEFECT INVESTIGATION. (TC NR 20060824004)

CA060815001	SWRNGN	GARRTT	LINE	CRACKED
8/7/2006	SA227AC	TPE33111U	2781032167	HYDRAULIC SYS

(CAN) HYDRAULIC FLUID NOTICED BY MAINTENANCE ON BELLY AREA OF AIRCRAFT. GEAR UP LINE FOUND CRACKED. LINE REPLACED AND GEAR SWINGS CHECKED SERVICIBLE. (TC NR 20060815001)

CA060809001	SWRNGN	GARRTT	LINE	LEAKING
8/9/2006	SA227AC	TPE33111U	2781006019	HYDRAULIC SYSTEM

(CAN) FOUND HYD LEAK IN LT WHEEL WELL. GEAR UP LINE FOUND CRACKED. LINE REPLACED, GEAR SWINGS CARRIED OUT. AIRCRAFT RETURNED TO SERVICE (TC NR 20060809001)

060602	UNIVAR		RIB	CORRODED
9/9/2006	415C		13017R	CENTER SECTION

THE DEFECT WAS DISCOVERED DURING THE INITIAL COMPLIANCE WITH AD 2002-26-02 ON AN AIRCRAFT THAT HAD BEEN IN STORAGE FOR A NUMBER OF YEARS. AN APPROXIMATE 0.5 INCH BY 0.25 INCH AREA AT THE BOTTOM EDGE OF A LIGHTENING HOLE WAS CORRODED AND FLAKING. A COLLECTION OF NUT SHELLS AND DEBRIS WERE FOUND NEARBY, INDICATING THAT THE CORROSION WAS PROBABLY STARTED DUE TO THE

PRESENCE OF ANIMAL WASTE PRODUCTS AND THE BLOCKAGE OF DRAINAGE PATHS. STORAGE IN A RODENT-CONTROLLED AREA, COMBINED WITH PERIODIC USE OF INSPECTION HOLES (WHICH WERE INSTALLED TO COMPLY WITH THE AFOREMENTIONED AD) TO APPLY CLEANING FLUIDS AND CORROSION PREVENTIVE COMPOUND SHOULD HELP PREVENT FUTURE RECURRENCE.

END OF REPORTS