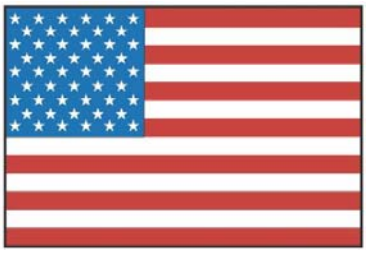
U.S. Department of Transportation
Federal Aviation Administration

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



ALERT NUMBER 331

FEBRUARY 2006

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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.

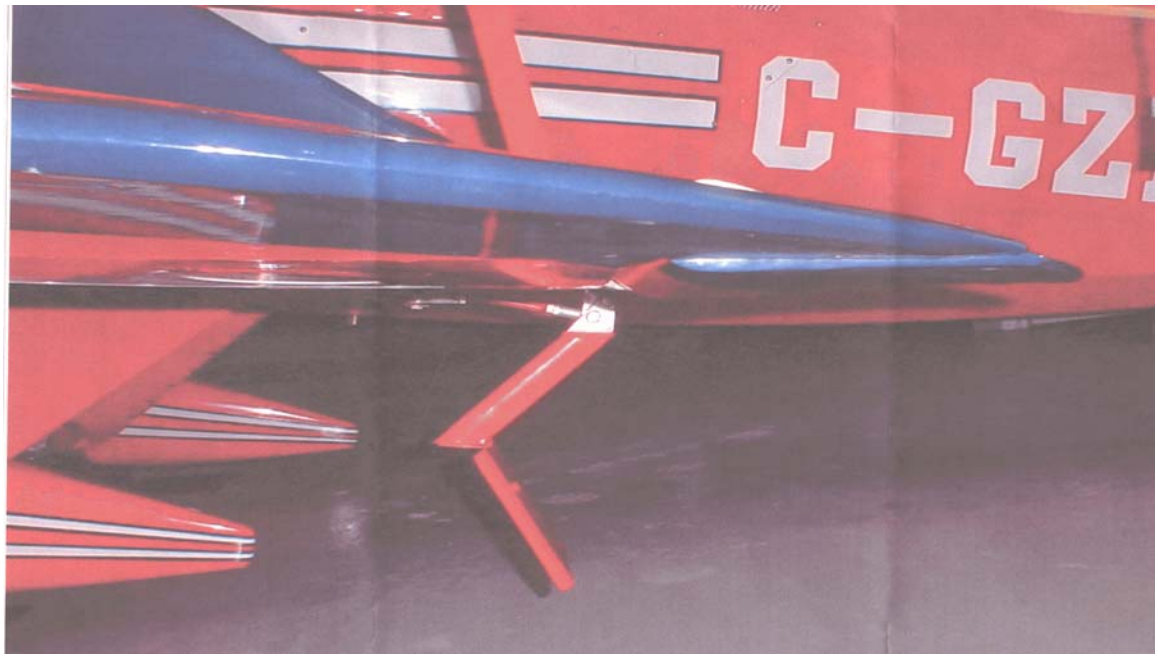
(Editor's notes are provided for editorial clarification and enhancement within an article. They will always be recognized as italicized words bordered by parentheses.)

AIRPLANES

AVIAT

Aviat: S-1T; Broken Spade Plate; ATA 2710

A submitter from the Aviat company states, "At approximately 200 MPH the left aileron spade-plate front attach point broke, allowing the spade-plate to pivot downward to a full vertical position where it stayed until landing. *(The attached photographs indicate...)* signs of previous cracking as shown by rust." "*(There are)* ...indications of aerobatic maneuvers (snap rolls) in excess of recommended limits. A daily and annual inspection of the spade assemblies will be added to the owner's maintenance manual." *(The spade assembly part number provided is: 1-0425-001; the spade plate: 1-0425-002. The following pictures have been slightly cropped.)*



Part Total Time: 800.0 hours.

BEECH

Beech: 77; Cracked Motor Mount; ATA 7120

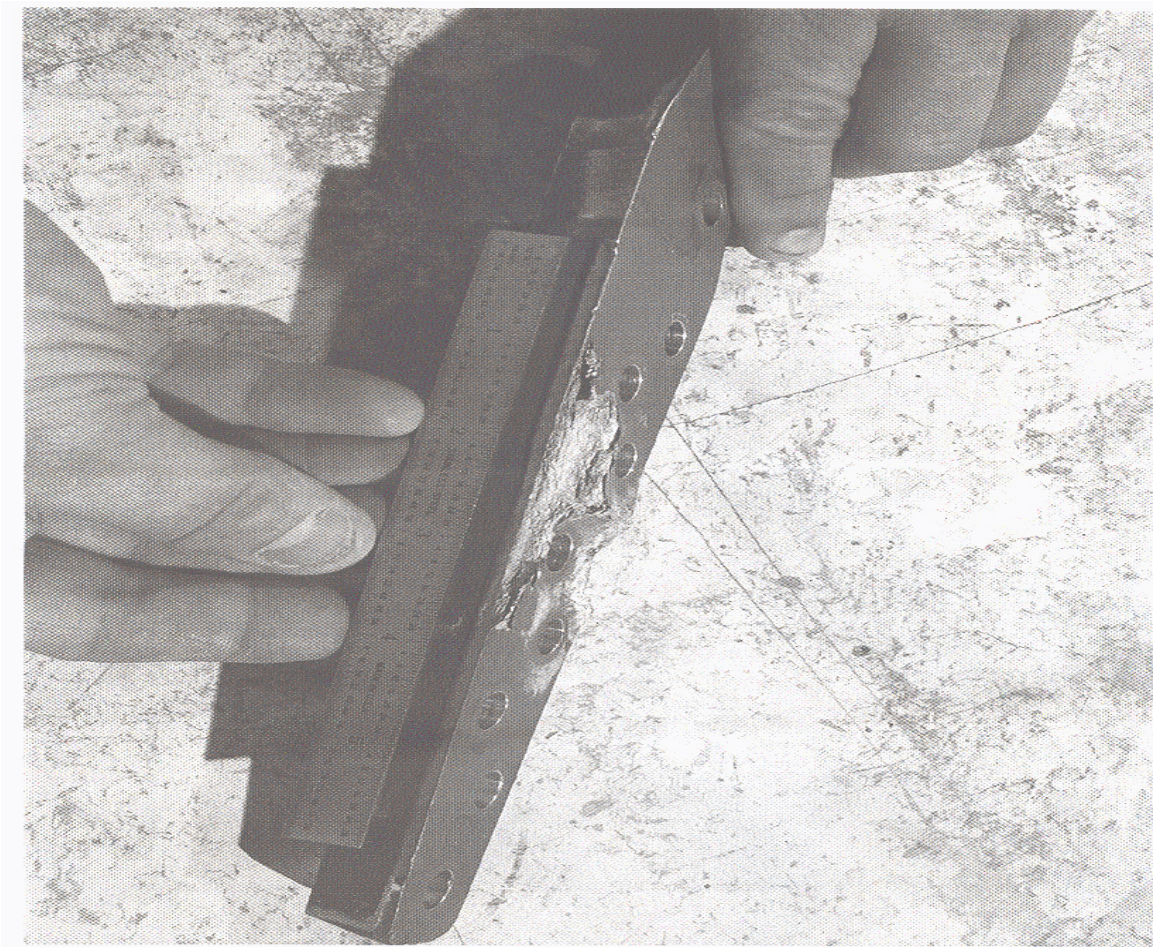
A mechanic describes finding this aircraft's upgraded motor mount cracked (provided part number included only the last two digits: ...-71). "The plug used to relieve *(tubular)* welding pressure and/or to add *(preserving)* linseed oil appears to be the problem—as a stress riser, etc. The linseed oil escaped and made a perfect crack indication without the use of dye-penetrant. The older style –1 motor mount does not have plugs in this area." *(A data base search yields motor mount part numbers 108-910011-1 and –71.)*

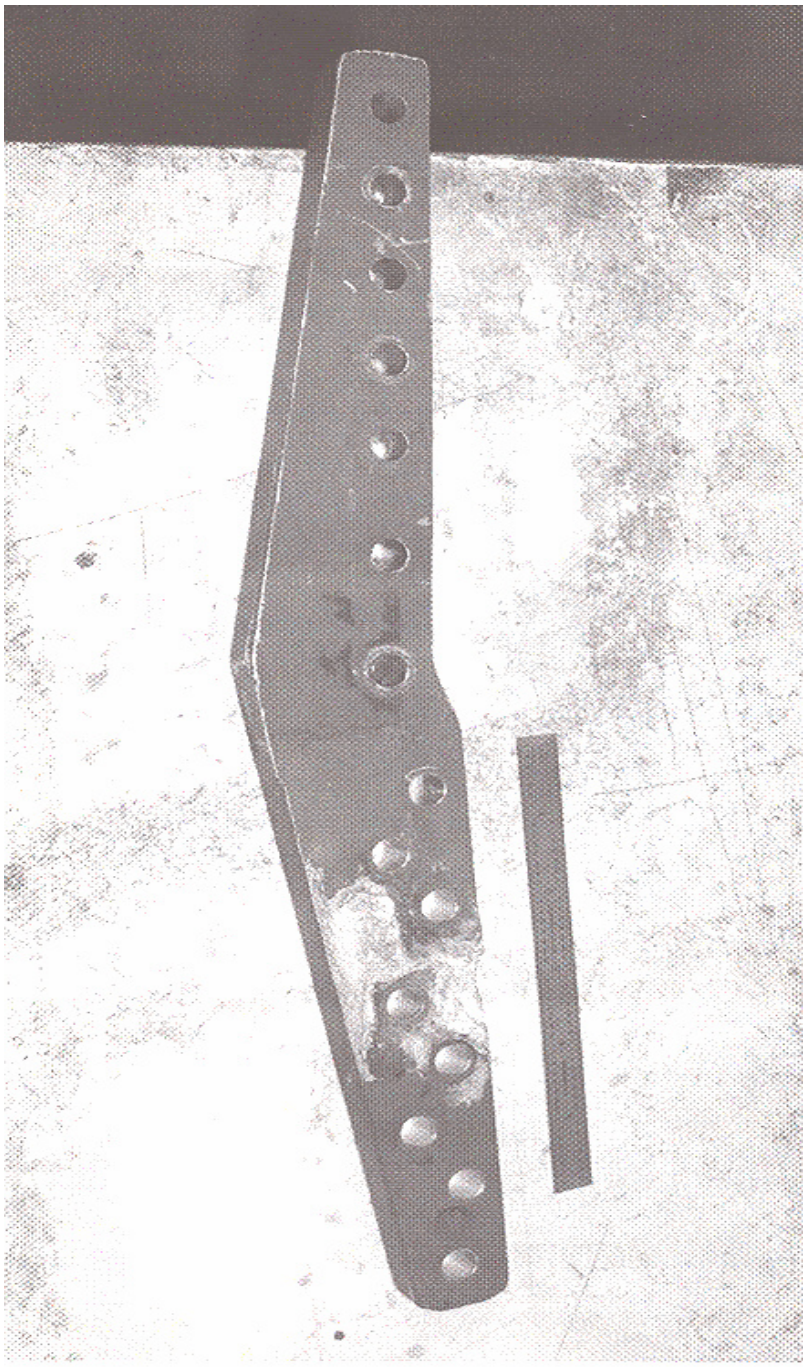
Part Total Time: (unknown).

CESSNA

Cessna: 310J; Corroded Wing Attach Fitting; ATA 5741

A mechanic found severe corrosion on this aircraft's wing attach fitting during an annual inspection (P/N 0811276-3). Its location is described as L/H wing, aft top mount. "...the corrosion was so severe it was almost 1/4th of the way through the fitting," states the submitter. *(No other condition descriptions of the remaining fittings and their related pieces accompanied this report. Four low resolution photographs were provided, two of which are shown here. The SDRS data base reflects two additional entries having this description.)*





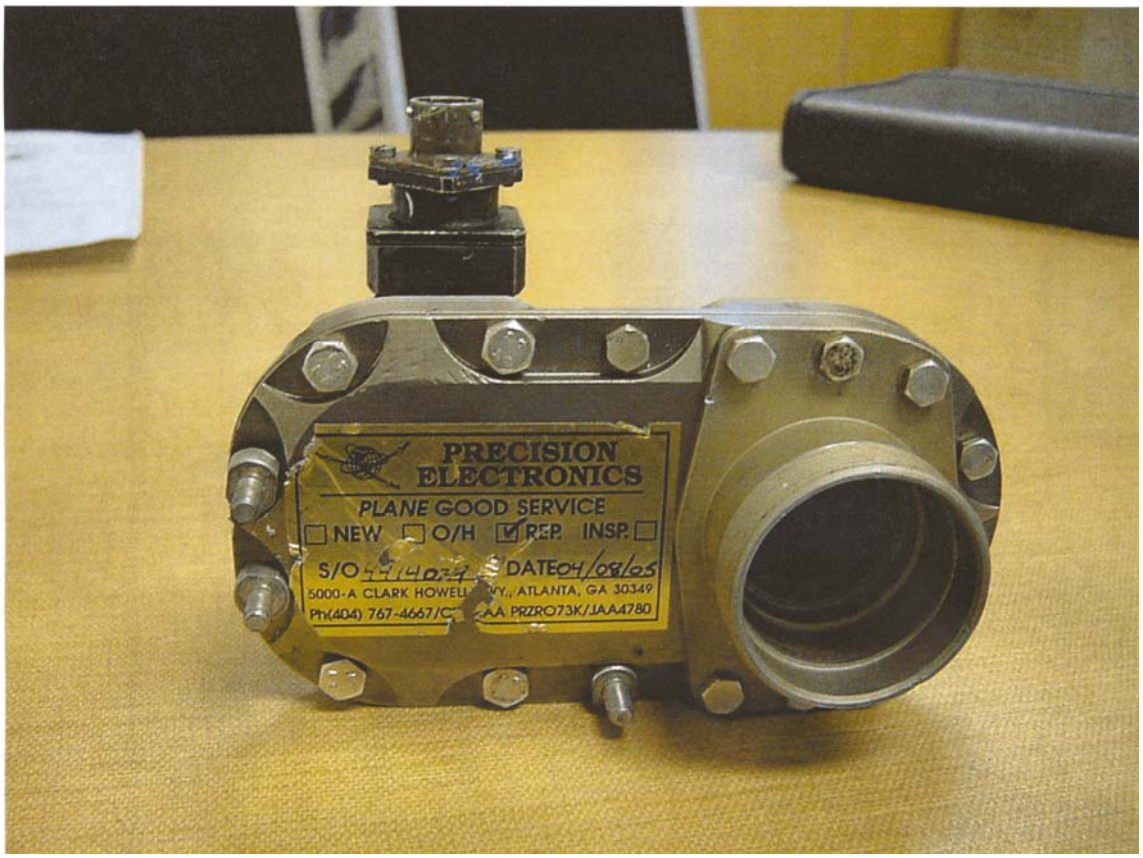
Part Total Time: (unknown).

DASSAULT

Dassault: Falcon 20-F5; Defective P3 Pressurization Valve; ATA 2130

A cabin pressurization problem gave cause for a mechanic to install an overhauled pressure shutoff valve (P/N 14632-112). Leak checks found no defects, but airflow was noted to be low, and subsequent operational checks of cabin pressurization demonstrated the aircraft would not pressurize. Again this system was troubleshot; again the same valve was determined to be the cause. Specific troubleshooting of the overhauled valve revealed *intermittent valve movement—the same discrepancy for which this valve was originally overhauled.* "I have no recommendations for preventing recurrence," states the submitter, "...except for a methods and standards review of the repair station that overhauled the part." The valve was shipped back to the source vendor.

(Photographs and documentation copies of the valve's work orders and FAA Form 8130-3, Authorized Release Certificate, accompanied this submission. Two of the photographs are shown below, slightly cropped.)



Part Total Time: 0.0 hours.

Dassault: Falcon 20-5; Failed Anti-skid Transducer; ATA 3241

This respondent writes, **"**After a normal approach with a good anti-skid check our aircraft went off the end of a 6,000 foot wet runway. Inspection of the tire marks after the accident found no evidence of braking action. We were never able to identify the cause of the failure. On the test flight after the repair of the aircraft the R/H right hand anti-skid would not test in the air. The anti-skid was left on for landing and the braking operated normally. While taxing after landing the R/H brakes quit working while the anti-skid was on. Both L/H and R/H brakes worked normally when the anti-skid was turned off. We tested all of the anti-skid transmitters and found the number 3 transmitter to have an open circuit in 70 percent of its travel. The maintenance manual test for the system specifies to hold both brake pedals and spin one transducer—which should cause all the brakes to release. This test was performed after the accident and before the test flight and checked okay both times. I would recommend overhauling the wheel transducers every 3000 landings to help prevent this type of failure." *(Anti-skid transducer P/N: 9542653-1. R/H main gear P/N: A10-23664.)*

Part Total Time: 10,215.2 hours.

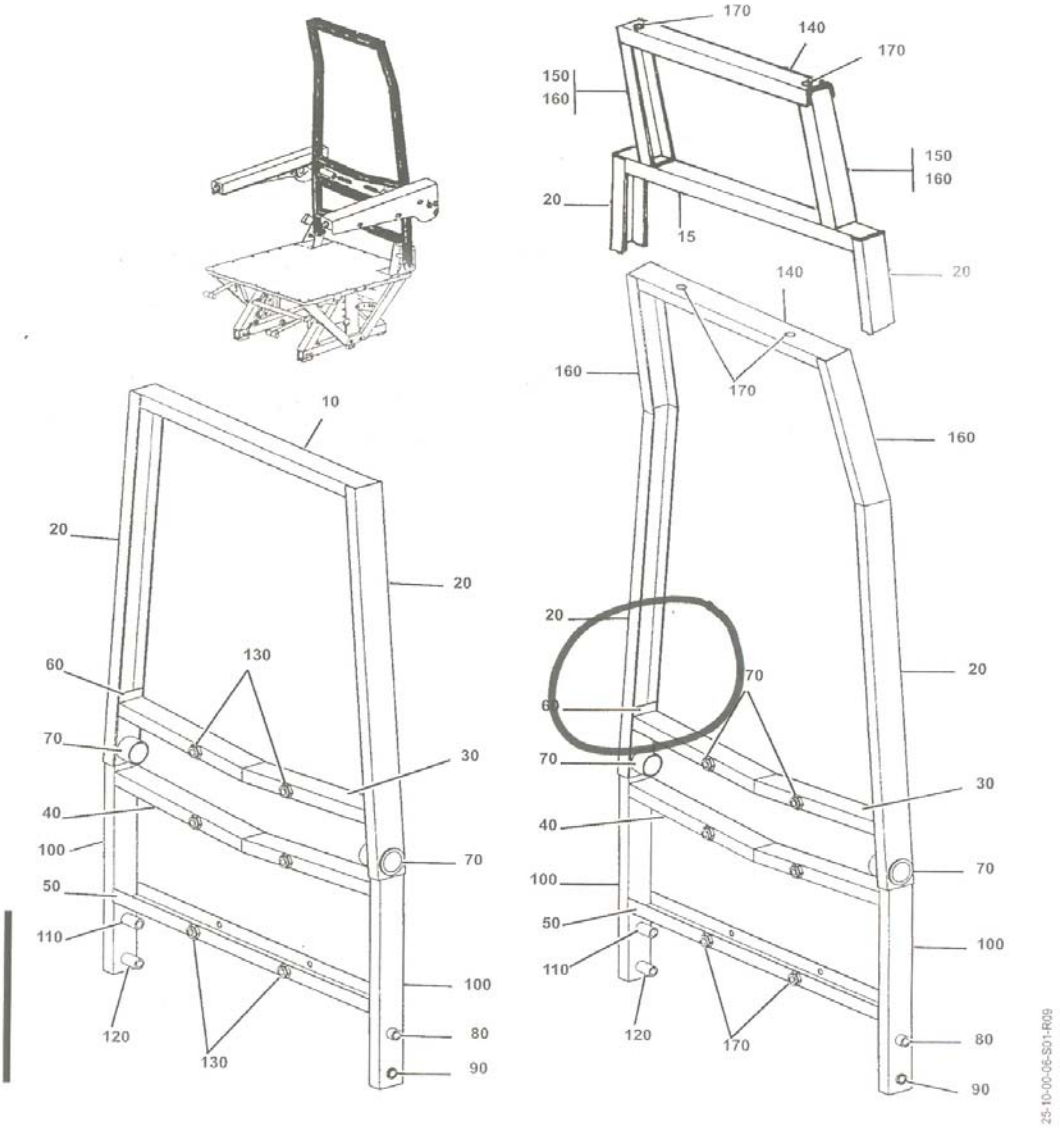
GULFSTREAM

Gulfstream: G100 *(SPX)*; Broken Seat Frame; ATA 2510

A repair station technician discovered broken back-rest structure while reupholstering this crew seat (P/N 5-1100-23-000). Contact with Gulfstream produced a repair formed with welded doublers. *(Pilot seat listed as Golan Industries: P/N G1-1105-0.)*

ASTRA ISRAEL AIRCRAFT INDUSTRIES LTD
ILLUSTRATED PARTS CATALOG

BACK
IPC TOC
MAIN

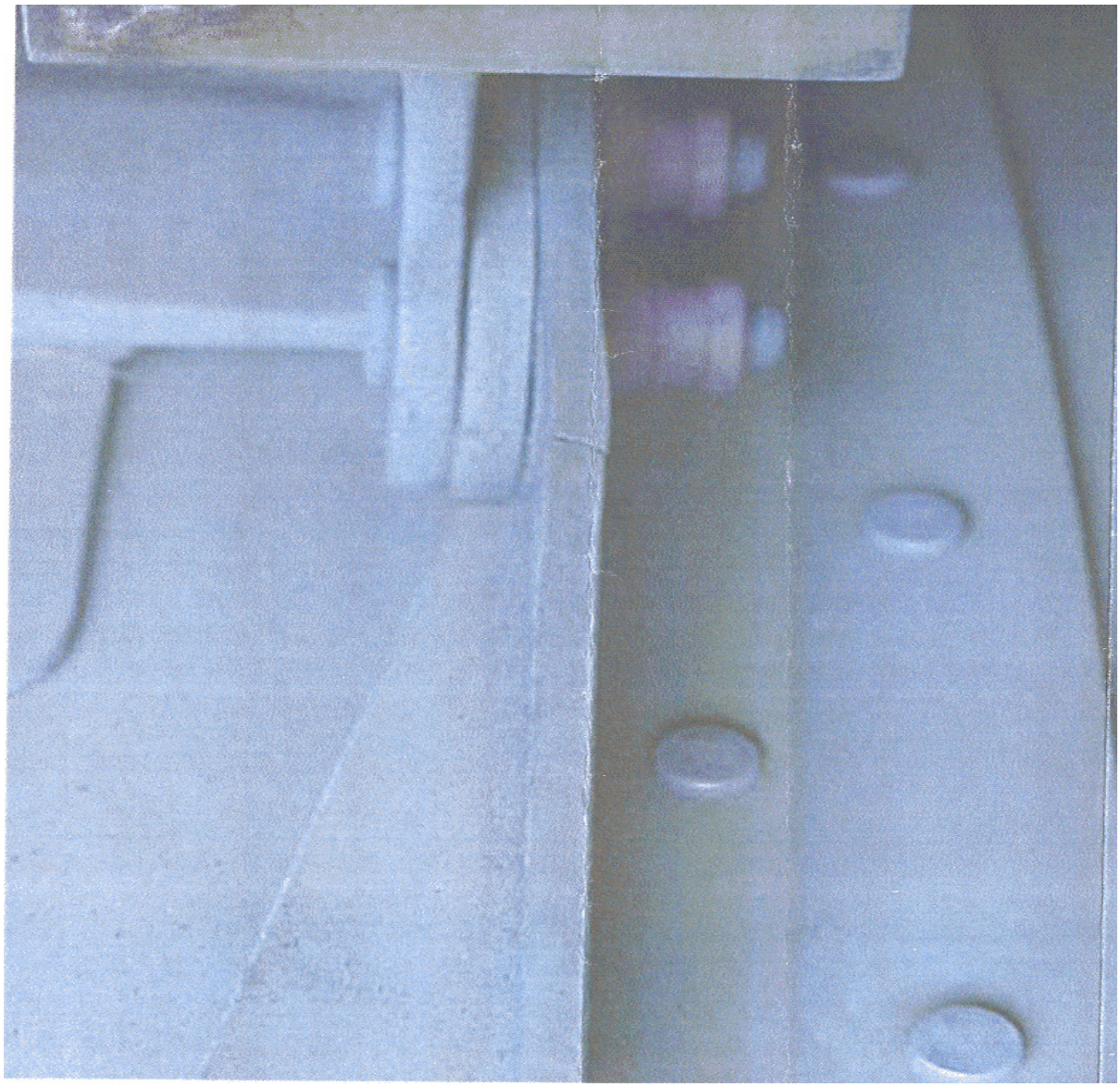


PILOT AND COPILOT SEAT, BACKREST ASSY
FIGURE 6

Part Total Time: 2,360.4 hours.

Gulfstream: G200; Cracked Thrust-Reverser Angle; ATA 7830

"The thrust-reverser assembly has stiffener angles that go around the barrel," states a mechanic. "The point where the angle attaches is cracked at one location. Several other thrust-reverser assemblies were evaluated on aircraft in house and no cracks were noticed. It appears the angle in question was preloaded and drawn down to the carriage rather than being shimmed." *(The thrust-reverser assembly stated as Nordam; P/N 266-0005-520. Shown below are two pictures of the cracked angle.)*



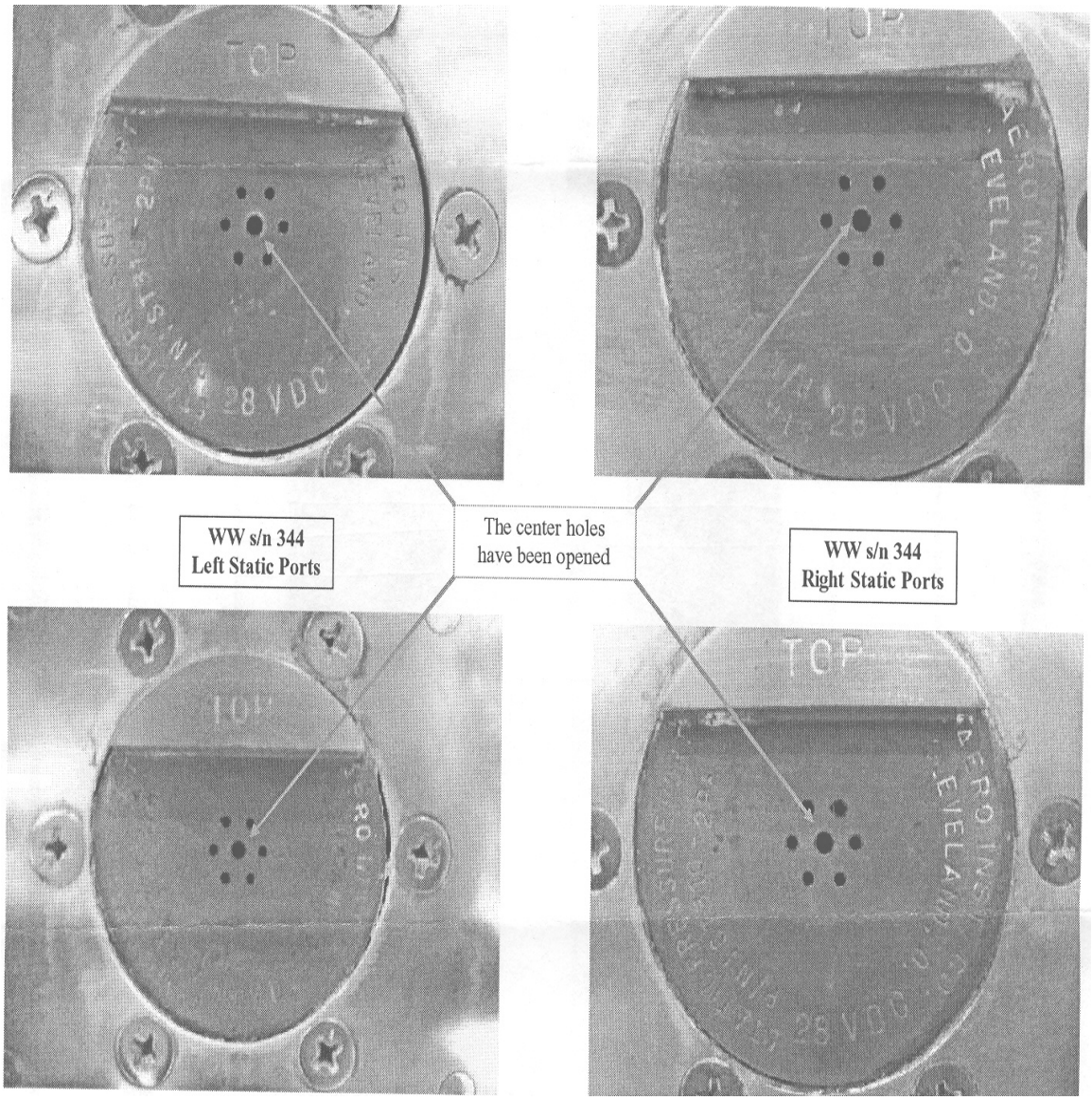
Part Total Time: (unknown).

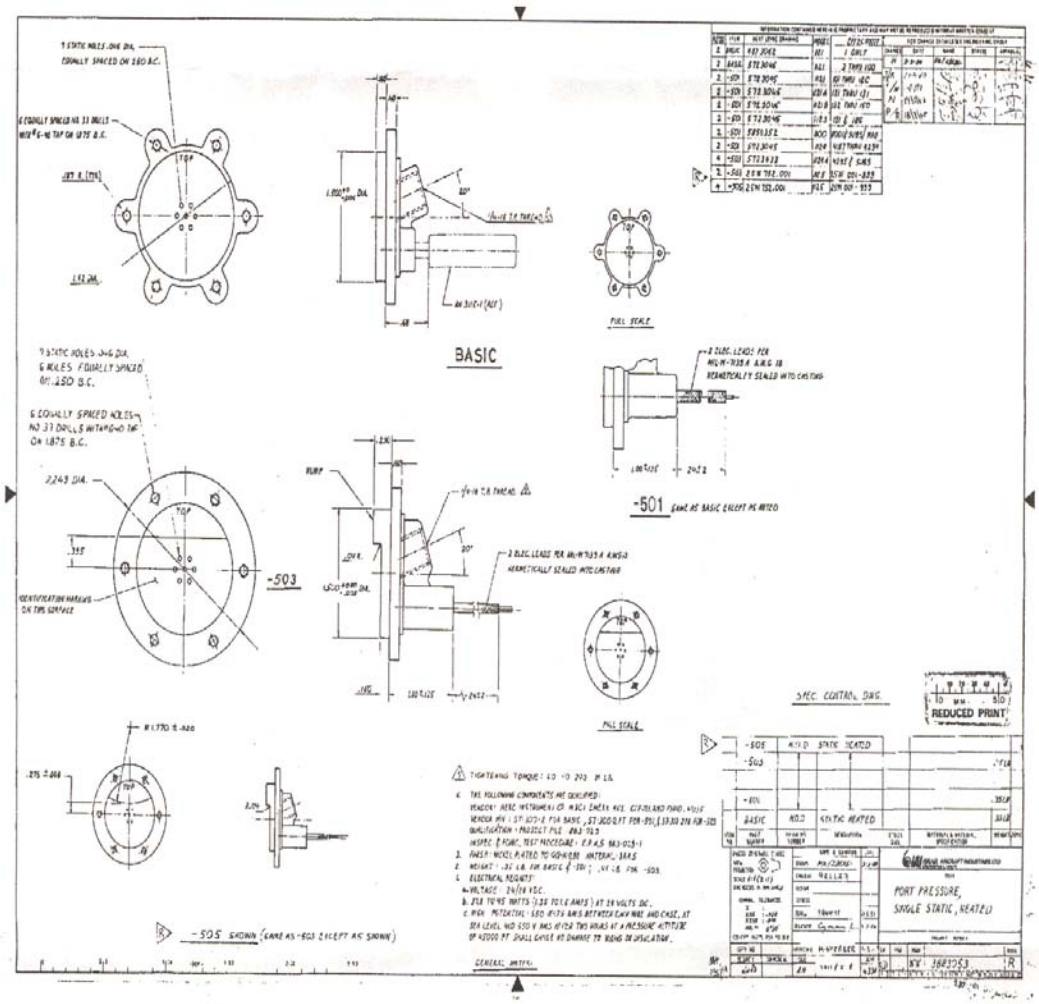
ISRAEL AIRCRAFT

Israel Aircraft: 1124; Pitot Static-Port Damage; ATA 3411

An inspector at an aircraft repair station writes, "During the accomplishment of the pitot/static system check it was noted the static ports were damaged—the center holes had been opened up. This aircraft has Aeromech RVSM *(reduced vertical separation minimum airspace)* STC# ST01221SE incorporated, meaning any work performed on the pitot/static system must be accomplished in accordance with the Instructions for Continued Airworthiness (AMI-STC-P1124A). Section 2 of this document provides the maintenance instructions for this system, and paragraph 2.1.2.2 provides the 'Visual Inspection of the RVSM Critical Region.' It is this criteria, specifically the statement '...port orifices must be inspected for abnormal elongation, deformation, and/or obstructions.' The center holes of all four static ports *(on this aircraft)* have been opened up, meaning the orifice is deformed and elongated."

"In my search *(of this topic)* I found the *(IAI)* maintenance manual has very little information regarding the serviceability of the static ports. A review of the IAI design drawing *(see below)* clearly shows that not only are these static ports not RVSM acceptable, but they have been modified from the original type design, making them unacceptable for continued service, and must be replaced before the aircraft can be returned to service. The modified static ports *(on this aircraft)* were removed and replaced with new static ports." *(The provided part number is ST310-2PH.)*





Part Total Time: 6,229.5 hours.

PIPER

Piper: PA 24-260; Contaminated Fuel Filter; ATA 2821

An experienced pilot was engaged to fly a recently purchased aircraft from a remote airfield *(not specified)* to its new owner. During runup he noticed the Lycoming TIO 540 engine failed to make full power, then subsequently quit. He called for maintenance support from a familiar repair station. The submitting mechanic provided the following analysis of this aircraft's defect(s).

"After extensive troubleshooting we found fuel injectors clogged by dirt. The fuel filter screen and filter were removed and found to be badly contaminated (photo attached). *(This)* aircraft had just received a fresh annual inspection." *(The inspection's source and date were not provided. He continues describing maintenance actions.)* "The filters and nozzles were cleaned, the fuel lines purged, and the *(subsequent)* engine run made full power. The filters were then checked again and were clean at this time.

"Very poor maintenance and inspection practice is determined to be the major factor contributing to the malfunction. The maintenance history was mostly unknown to the customer, other than the fresh inspection...." "Our customer is a professional pilot and has extensive time in this model aircraft. A less experienced pilot may not have recognized there was a problem with the aircraft until it was too late—and the engine quit while airborne."

Part Total Time: 3,245.0 hours.

Piper: PA 32-301; Cracked Rudder Bar; ATA 2720

This defect describes excessive play noticed between the left and right rudder pedals by the submitting technician. "Upon disassembly *(I)* found the tube *(P/N 63419-02)* to have an extreme crack radiating from the through-bolt hole and radiating around to the back side of the tube and going out to each side in a spiral fracture. It was near total failure.

"This part is impossible to inspect without totally removing and disassembling the rudder bar assembly. *(*I) believe this *(type)* of defect is caused by pressing hard on the pedals *(to effect turning)* of the nose wheel before the aircraft is in motion, *(thereby)* causing a strong radial force to be applied to the rudder bar." *(Both pictures have been slightly cropped.)*

Part Total Time: 11,766.9 hours.

RAYTHEON

Raytheon-Beech: A-36; Cracked Bulkhead Frames; ATA 5312

(The following is a composite of four similar defects on the same part in four different aircraft. The submissions originated from the same mechanic.)

Cracks varying from 0.25 to 1.50 inches have been found in the aft bulkheads of these aircraft, located at fuselage station 272 (P/N 002-440024-65). These cracks have all been found in the radius area of the top portion of the bulkhead frames. An associated doubler "...holding the two skins together" is also cracking. The mechanic speculates high airframe time and fatigue are the source for these cracks, and recommends the manufacturer to

increase the doubler's strength at this point to prevent future occurrences. *(Unfortunately, none of the four submissions included aircraft time. The SDRS data base includes two additional entries similar to these four defects.)*

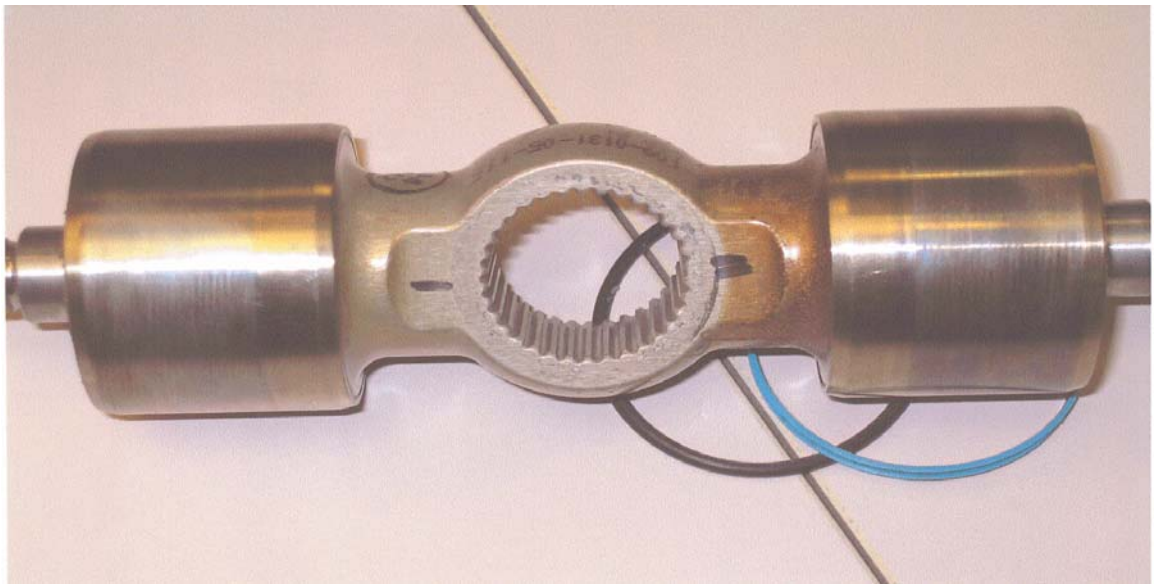
Part(s) Total Time: (unknown).

HELICOPTERS

AGUSTA

Agusta: A109K2; Tail Rotor Trunnion Overheating; ATA 6420

A helicopter mechanic describes finding heat-generated enamel paint discoloration on the tail rotor trunnion (P/N 109-0131-05-115). It was found during a 25-hour inspection. *(Offsetting the very short description is an excellent photograph clearly depicting the discoloration. Submitters are encouraged to provide relative mechanical histories, details, and free speculation as to a defect's cause and possible solution. This part number generates five additional entries of overheat defects in the SDRS data base.)*



Part Total Time: 6.3 hours.

POWERPLANT

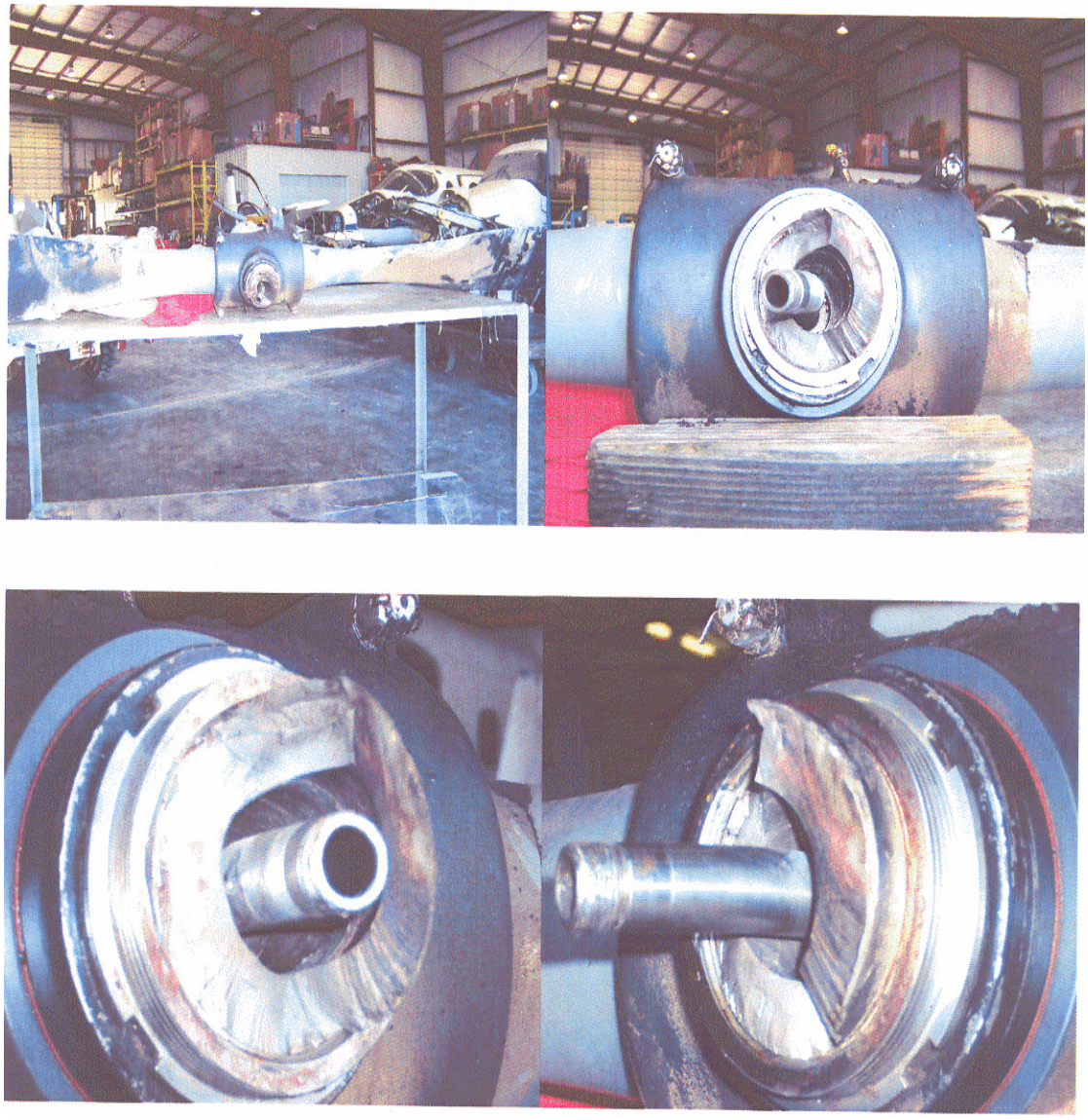
PRATT & WHITNEY

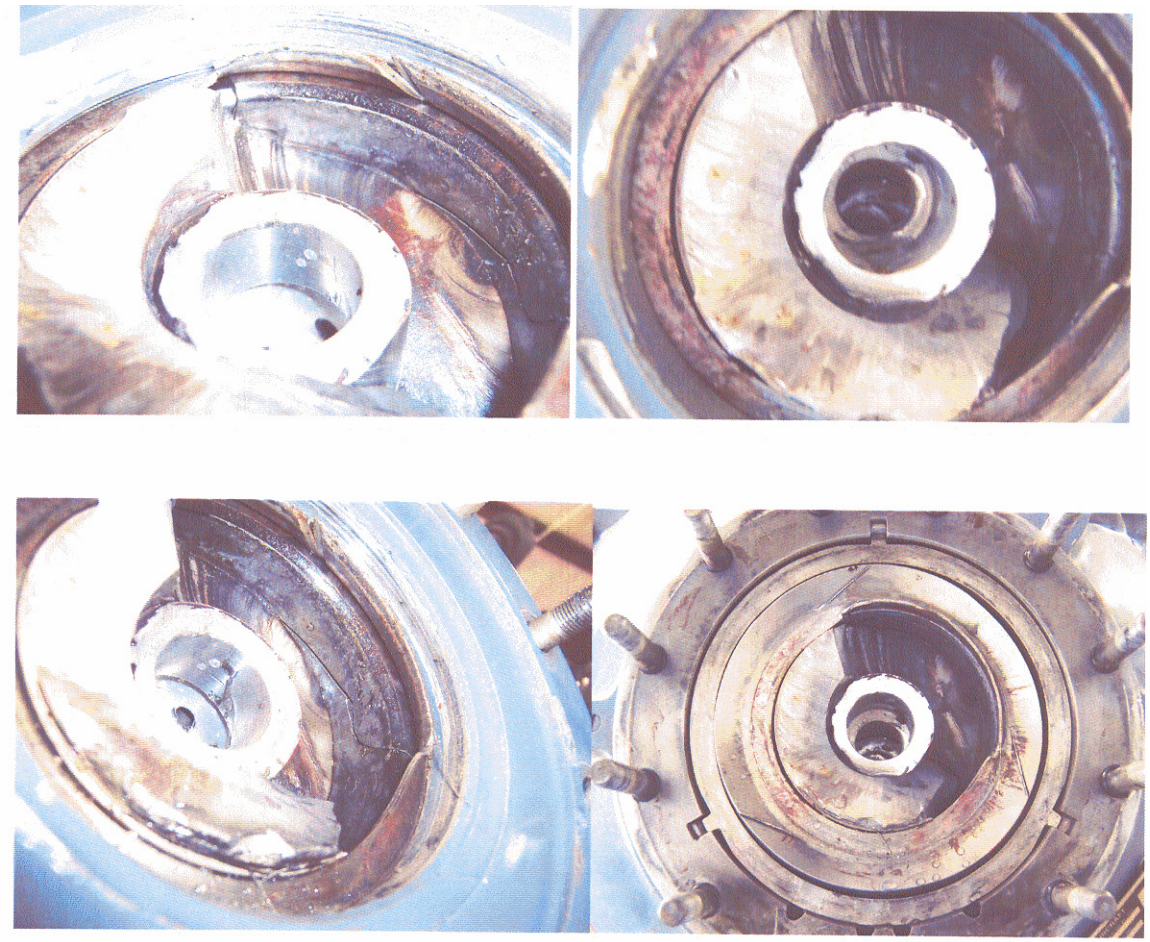
Pratt & Whitney: R1340; Broken Crankshaft; ATA 8520

(An FAA inspector with the Flight Standards District Office in Wichita, Kansas submitted the following Malfunction and Defect report and accompanying photographs. Minor redaction expands the otherwise partially abbreviated report.)

Twenty-five minutes into a ferry flight the pilot of this AT-301 (Air Tractor) reports oil on the windshield. Within moments oil collection worsens, encouraging the pilot to decrease power—which then caused severe vibration in the aircraft. Further decrease in power resulted in reduced vibration. An unplanted field provided opportunity for landing. At touchdown the aircraft skipped over a terrace as it slowed to a stop, its rollout concluding with a tip-over onto its nose. The propeller separated from the engine after striking the ground.

The subsequent inspection found "...the crankshaft had broken in the propeller thrust bearing area," writes the inspector. "Examination of the crankshaft shows fatigue cracking. There was little *(overt)* damage to the propeller blades." Secondary damage from engine cowling contact was found on the trailing edges 25 inches I/B from the propeller tips. The overhauled propeller had been in service for less than one-half hour before failure of the crankshaft. *(Engine time since overhaul provided as 1,041.9 hours. The crankshaft part number is listed as 270458.)*





Part Total Time: 5,403.9 hours.

ACCESSORIES

AERO-TRIM

Aero-Trim: Model 400 Trim Tab; ***(a notice of caution...)***

(The following admonition is published as received from the aircraft certification office in Atlanta, Georgia.)

"The Aero-Trim Model 400 trim tab has been installed on numerous general aviation aircraft rudders or ailerons. The written installation instructions in many cases did not specifically require the control surface to be checked to ensure it is properly balanced once the modification was installed.

"The Atlanta Aircraft Certification Office recommends any control surface with an Aero-Trim Model 400 trim tab installed be checked to ensure it is balanced in accordance with the aircraft manufacturer's maintenance instructions, unless previously accomplished. Contact the aircraft manufacturer if instructions for checking and balancing the control surface are not available." *(For further information contact Mr. Edward Garino, aerospace engineer; Atlanta Aircraft Certification Office, 1895 Phoenix Blvd., Room 450, Atlanta, GA. 30349: 770-703-6085.)*

Part Total Time: (n/a).

B & C SPECIALTY

B & C Specialty: Alternator; BC410-1, Broken Mount Flange; ATA 2421

The submitting technician describes finding the alternator's flange mount broken on this Cirrus SR22. A Continental IO 550N mounts up front. "The alternator's drive shaft *(was found)* sheared," he said, "...but the engine's drive shaft hub had no damage." *(No other information accompanied this report.)*

Part Total Time: (unknown).

KELLY

Kelly Aerospace: Alternator; 4111810R; No Output at Idle; ATA 2421

A mechanic providing service to a Piper 28 briefly describes the defective alternator as producing radio interference (whine) during operation, but not producing voltage at idle RPM "...voltage is battery voltage." *(Actual RPM measures would have been helpful in this description. We infer installation of a replacement alternator eliminated these two discrepancies, but that information was not provided. This submitter also provides the next defect report. Part time since overhaul noted as 342.0 hours.)*

Part Total Time: (unknown).

Kelly Aerospace: Alternator; 4111810R; Seized Armature; ATA 2421

The previous submitter inspects another Piper 28 having alternator problems. The discrepancy states, "…the alternator froze up upon engine shutdown." *(Again, there is little follow-through information. Time since overhaul noted as 214.4 hours.)*

Part Total Time: (unknown).

Kelly Aerospace: Starters (3 each); ES646275-1; ATA 8011

(The following is a composite of three similar and abbreviated defect reports from the same repair station technician on the same model starter. All bear the following identical discrepancy.)

"*(Each of these three...)* starters are new out of the box. *(Their armatures...)* are too tight. The attached 8130-3 *(maintenance release)* tags state, 'only applicable for TCM IO360 SRS' *(...engines, but I know these starters are...)* applicable to many other TCM engines."

(The reported serial numbers are: F061637, F061648, and F061655. The SDRS data base records six additional entries having this part number and similar defects, all reported in 2005.)

Part Total Times: 0.00 hours.

PRECISION AIRMOTIVE

Precision Airmotive: Carburetor; MA3SPA; Bent Float Fork; ATA 7322

(An FAA inspector with the Flight Standards District Office in Fairbanks, Alaska submitted the following Malfunction and Defect Report.)

"Witnesses to the *(Taylorcraft F-19)* accident reported the engine quit during takeoff at approximately 300-500 feet AGL *(above ground level)*. During examination of the engine components it was noted the carburetor float needle retractor fork on the advanced Polymar float *(P/N 30-804)* was bent away from the float at an approximate

45 degree angle. This condition would lead to the float having to drop almost full travel to allow fuel to flow into the carburetor. Precision SIL MS-4 Revision 1 addresses the new advanced Polymar floats, referencing installation instruction E-955. There is no warning or caution to alert overhaul *(facilities)* to be aware of this bent fork condition in either of these documents. *(The following is recommended)* ...for the overhaul manual: A) specify the clearance between the forked retractor and the float body, B) specify the float drop required to allow fuel to inflow to the carburetor bowl, C) provide clear photographs to illustrate correct retractor fork/clip positions, and D) reinstate the spring clip on the float valve to ensure positive pull *(...on this valve)*."

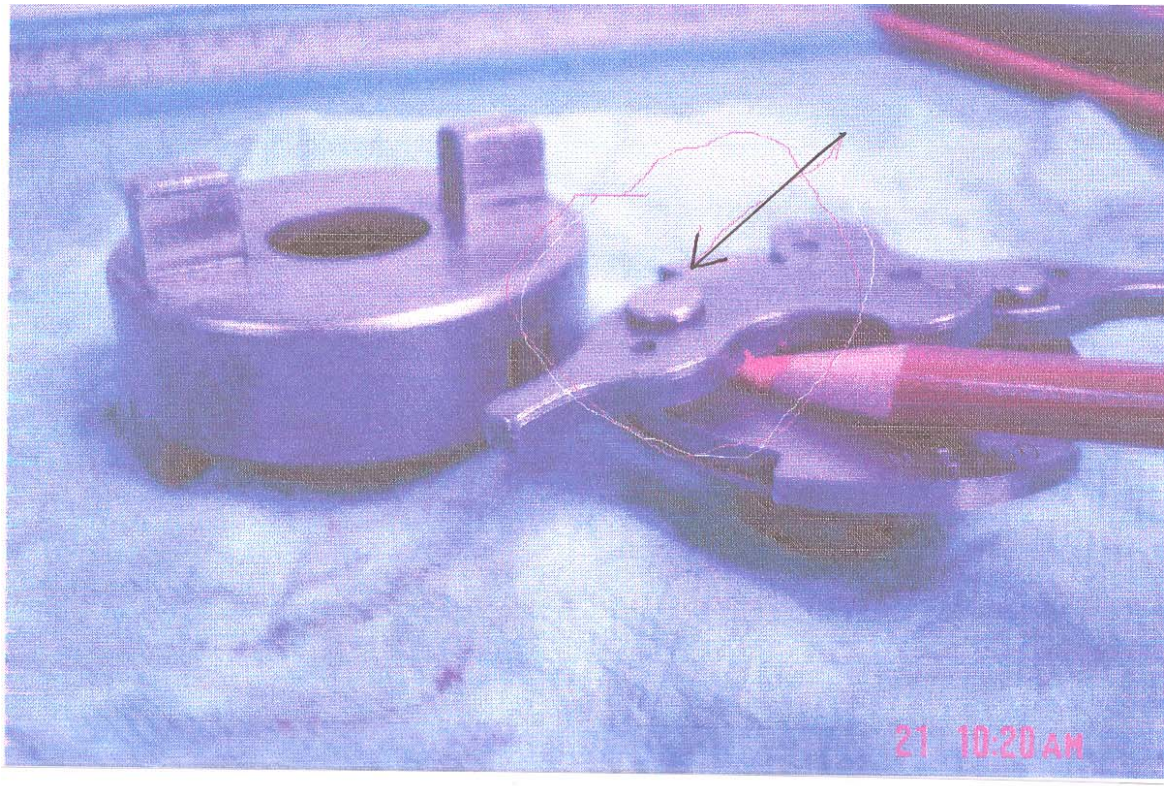
(The SDRS data base records seven additional entries on this specific part number, beginning in 2001. Defects include the float being partially to totally filled with fuel, chaffing on the housing sides, and deteriorating glue joints.)

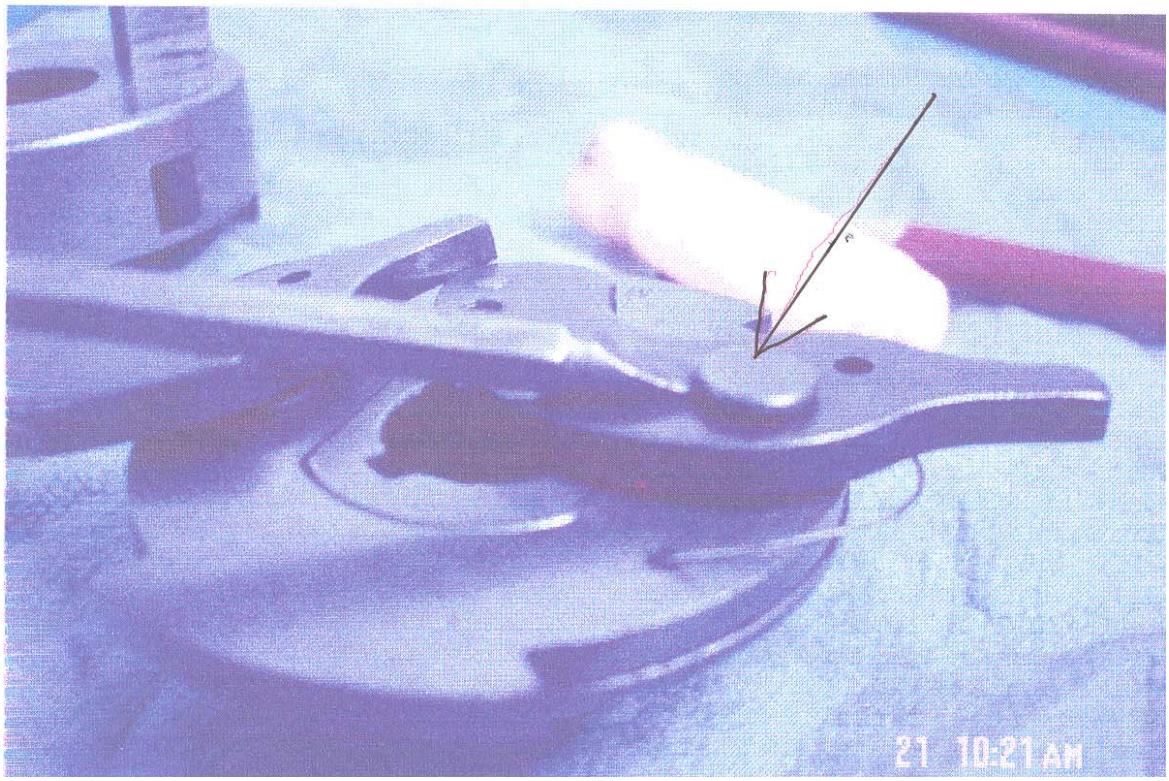
Part Total Time: 70.5 hours.

SLICK

Slick: Magneto; 6310; Worn Impulse Coupling; ATA 7414

A repair station mechanic writes, "During an Annual inspection *(on the Raytheon Beech 58)* the inspection department decided to comply with the 500 hour magneto internal inspection, which includes the impulse coupling per Slick (Unison) Service Bulletin 2-80C. One impulse coupling was found to be very loose—due to loose rivets. It would have failed very soon. A failure of this type can cause extensive damage to the magneto and the engine. The aircraft manufacturer's inspection checklist does not call for detailed inspection of the magneto impulse coupling or other magneto internal parts, other than points. This coupling was replaced with a new part—the old part only had 529 hours time since new. *(I)* suggest compliance with the 500 hour detailed inspections of all magnetos, regardless of the omission *(of said inspection criteria by some airframe manufacturers).* All magneto manufacturer's provide checklists and inspection criteria for their magnetos." "This station adheres to the 500 hour magneto and coupling detailed inspections and have found parts that do not meet magneto manufacturer's airworthiness requirements. Many low time in-service units have been found with parts worn beyond limits. This station considers *(this level of magneto care to be...)* to be another level of safety beyond the airframe manufacturer's checklist requirements." *(P/N listed is M3050, generating nine additional SDRS data base entries with similar defects.)*





Part Total Time: 529.0 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

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AVIATION SERVICE DIFFICULTY REPORTS

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

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

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

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

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 / Difficulty Date	Aircraft Make / Aircraft Model	Engine Make / Engine Model	Component Make / Component Model	Part Name / Part Number	Part Condition / Part Location
2006FA0000030			BFGOODRICH	KEYWAY	CRACKED
1/12/2006				244688	STATOR/CARRIER
HAVE RECENTLY SEEN (4) BRAKE ASSY'S COME IN WITH THE CARRIER LINING/STATOR COMPLETELY BROKEN WITH MULTIPLE CRACKS AND DISCOLORED FROM WHAT APPEARS TO BE (OVERHEATED). THESE PARTS ARE NOT LIFE LIMITED AND ARE ON CONDITION ONLY. THEY ARE NDI AT THE TIME OF OVERHAUL BUT WITH THE AGING FACTOR AND OVERHEAT CONDITIONS, THESE PARTS WILL CONTINUE TO FAIL AND CRACK. THE TABS ARE COMPLETELY SHEARING OFF AND COULD CAUSE SEVERE BRAKING FAILURE OF THE AIRCRAFT. RE: W122086, W122087, W121926					
2006FA0000031				SMOKE	DETECTED
1/12/2006					COCKPIT
SMOKE IN COCKPIT FROM AUXILIARY GENERATOR OIL SPILL. 2ND TIME FOR AA MD80 IN LAST 30 DAYS. FLIGHTS: AA1160 12/14/05 SFO TO DFWAA552 1/12/2006 SFO TO ORD.					
2006FA0000017				VALVE	FAILED
6/20/2005				23056E/GD	CROSSFEED
PART WAS RECEIVED TO REPLACE EXISTING PART DUE TIME CHANGE. WHEN PART WAS INSTALLED, PART FUNCTIONED FINE. WHEN FUEL WAS INTRODUCED TO THE SYSTEM FOR A LEAK CHECK, UNIT WAS FOUND TO NOT HOLD A SEAL. THIS IS THE SECOND UNIT FROM SAME FACILITY THAT HAD THE SAME PROBLEM. FUEL CROSSFEED VALVE. WO NR 44103345 (K)					
2006FA0000016			DUNLOP	FLANGE	CRACKED
12/28/2005					SERVO ACTUATOR
CRACK DETECTED ON LOWER LEE PLUG FLANGE. (K)					
2006FA0000011				VALVE	LEAKING
11/15/2005				23056E60	FUEL CROSSFEED
PART WAS RECEIVED TO REPLACE EXISTING PART DUE TIME CHANGE. WHEN PART WAS INSTALLED, PART FUNCTIONED FINE. WHEN FUEL WAS INTRODUCED TO SYSTEM FOR LEAK CHECK, UNIT WAS FOUND TO NOT HOLD SEAL. THIS IS THE FIRST OF 2 VALVES FROM THE SAME FACILITY THAT HAVE LEAKED WHEN INSTALLED ON AIRCRAFT. FUEL CROSSFEED VALVE. (K)					
2006FA0000100				OIL COOLER	CRACKED
1/23/2006				G05448292	
CRACKED FOOT ON OIL COOLER. (K)					
2006FA0000099				MAGNETO	INOPERATIVE
1/23/2006				BL3492901	ENGINE
SHOWER OF SPARKS DOESN`T WORK IAW TEST CELL. (K)					
2006FA0000064				CASE	LEAKING

1/12/2006				UNKNOWN

IVSI WAS RECEIVED FOR REPAIR OF A CASE LEAK EXCEEDING MFG TOLERANCES. (RC-60-VIL1) MFG ACCEPTABLE SEALANT FOR DASHPOT CYL ENDS AND FOR FEED-IN-FLANGE MNTG SCREW HEADS IS RED GLYPTAL. 5-MIN EXPOXY WAS APPLIED TO END CAPS AND FITTING FLANGE. 5-MIN EXPOXY HAS BEEN APPLIED OVER SCREW HEADS AND AROUND FITTING FLANGE THAT ATTACHES FEED-IN TUBE FROM DASHPOT ASSY TO REAR OF THE INSTRMT CASE, ALSO PACKED AROUND FEED-IN TUBE ITSELF. THIS METHOD OF SEALING WITH EXPOXY RATHER GYPTAL MAKES IT DIFFICULT TO FURTHER REPAIR THIS IVSI W/O DESTROYING DASHPOT FEED-IN TUBE. NATURE OF EPOXY, IT DOES NOT ALLOW FLEXING AT JOINT, NOT RESPONSIVE TO CHANGE IN TEMP. OVER TIME IT MAY PULL AWAY FROM ONE SURFACE AND ALLOW LEAKAGE. (K)

2005FA0001612	ALLSN	ALLSN	DIFFUSER	SEPARATED
12/20/2005	250C30P	C30P	E23051119	COMPRESSOR

COMPRESSOR REPORTED STALLING. VERIFIED ON TEST CELL. UPON DISASSEMBLY DIFFUSER VANE RING WAS FOUND TO HAVE THE AFT STUD BAND (RING) SEPARATED FROM THE DIFFUSER ASSEMBLY BODY. DIFFUSER INSTALLED NEW AT LAST OVERHAUL 449.3 HOURS PRIOR.

2005FA0001634	CONT	CRANKSHAFT	CRACKED
12/22/2005	IO360ES	653129	ENGINE

ENGINE WAS INVOLVED IN A PROPELLER STRIKE, NO CRANKSHAFT DAMAGE WAS FOUND AT THAT TIME. ENGINE WAS RETURNED TO SERVICE AND A CRACK DEVELOPED IN THE CRANKSHAFT FLANGE, CRANKSHAFT WAS REMOVED FROM THE ENGINE. THE CRACK MOST LIKELY ORIGINATED FROM A SUBSURFACE DEFECT THAT WAS NOT DETECTIBLE WITH MAG PARTICLE INSPECTION.

2005FA0001635	CONT	CRANKCASE	FAILED
12/20/2005	IO520F	IO520F	ENGINE

LT CRANKCASE MAIN BEARING SADDLE FAILURE. THIS ENGINE MADE IT TO TBO BUT WASN`T GOING TO GO VERY MUCH LONGER. (K)

CA051128001	GE	TURNBUCKLE	FRACTURED
11/25/2005	CF343B1	4020T51P02	NR 2 ENGINE

(CAN) TO DATE, (3) CF34-3B1 STAGE 2 HPC TURNBUCKLES AFFECTING 2 ENG HAVE FAILED DURING SERVICE. SEPARATION OF VG SHAFT SIDE TURNBUCKLE ROD END. SEPARATION POINT ON ROD END OCCURRED IN THREADED PORTION WHERE IT MEETS JAM NUT ON TURNBUCKLE ASSY. CAUSE CONFIRMED TO BE LOW CYCLE FATIGUE RESULTING FROM IDLE LOAD INDUCED BY INTERFERENCE OF TURNBUCKLE ASSY WITH TORQUE SHAFT CLEVIS. ONE OF 2 ENG FOUND WITH THE BROKEN TURNBUCKLE CONDITION EXPERIENCED AN INFLIGHT SHUTDOWN DUE TO BOTH TURNBUCKLES FAILING, NOT ALLOWING STAGE 2 VANES TO TRACK PROPERLY. OTHER ENG WAS FOUND WITH ONE BROKEN TURNBUCKLE. VG SYS CAN WORK PROPERLY FOR AMOUNT OF TIME ON ONE TURNBUCKLE.

CA051104006	AEROSP	PWA	ENGINE	OVERHEATED
10/23/2005	ATR42300	PW120	PW120	ENGINE

(CAN) DURING CLIMB, ENGINE TEMPERATURE INCREASED ACCOMPANIED BY AN UNCOMMANDED DECREASE IN ENGINE TORQUE. THE ENGINE WAS SHUT DOWN IN FLIGHT. MFG WILL INVESTIGATE THE EVENT AND WILL ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

2006FA0000049	AGUSTA	PWA	OIL COOLER	CRACKED
12/20/2005	A119	PT6*	109062087101	TRANSMISSION

OIL COOLER, TRANSMISSION SIDE OF COOLER CRACKED AND SPRAYED OIL BELOW ENGINE DECK. (K)

CA051101004	AIRBUS	RROYCE	ACTUATOR	UNKNOWN
10/21/2005	A300*	RB211TRENT77	47172	HORIZ STAB

(CAN) UNMODIFIED LOWER CLAW STOP FITTED WHICH IS NOT IN COMPLIANCE WITH DGAC AD NR. F2002-414R3 REF. TRW SB 47172-27-03 PARAGRAPH D (4). UNIT WAS REPAIRED AND SCREW SHAFT ASSY WAS REPLACED BY RETRO-FITTED ONE ON WHICH THE CLAW HAD NOT BEEN TO THE LATEST STANDARD.

CA051108001	AIRBUS	RROYCE	ROMEC	SHAFT	SHEARED
11/5/2005	A330243	RB211TRENT77	LR37940J		OIL PUMP

(CAN) DURING NORMAL ENGINE START AFTER PUSHBACK, NR 1 ENGINE ECAM WARNING INDICATED, LOW OIL PRESSURE. CREW ABORTED ENGINE START. T/S CARRIED OUT, FOUND NR 1 ENGINE OIL PUMP ASSY INPUT SHAFT SHEARED. PUMP WAS REPLACED AND AIRCRAFT WAS RETURNED TO SERVICE. A/C HAD BEEN PARKED FOR APPROX. 36 HOURS. TEMPERATURE AT DEPARTURE WAS 2 DEG C.

CA051104018	AIRBUS	RROYCE	ACTUATOR	FAULTY
11/3/2005	A330342	RB211TRENT77	AR03404	LANDING GEAR

(CAN) AFTER A MAIN LANDING GEAR ACTUATOR REPLACEMENT, THE NOSE LANDING GEAR WOULD NOT FREE FALL ON SYSTEM NR1 DURING TEST PROCEDURE. SYSTEM WAS OK ON SYSTEM NR2. THE FREE FALL ACTUATOR ASSEMBLY WAS REPLACED AND SYSTEM FOUND SERVICEABLE. THE FREE FALL ACTUATOR WAS SENT TO THE REPAIR SHOP FOR A STRIP REPORT.

2006FA0000054	AMD	GARRTT	DUCT	CRACKED
12/15/2005	FALCON50MYST	TFE73140	SBJ33057401	HP BLEED AIR

DURING SCHEDULED NR 2 ENGINE CHANGE INSPECTION NOTICED HP BLEED AIR DUCT WAS CRACKED AT CENTER BLEED AIR TAP. CRACK APPEARED TO ORIGINALS AT THE WELD AND PROGRESSED RADIALLY, APPROX 2.25 INCH TOWARDS THE BRAIDED FLEX COUPLING. NEW DUCT WAS ORDERED AND INSTALLED. CRACKED DUCT WILL BE SENT TO MFG FOR ENGINEERING EVALUATION. THIS IS THE SECOND HP BLEED AIR DUCT FOUND CRACKED DURING RECENT ENGINE CHANGES. THE FIRST DUCT FOUND CRACKED WAS ON NR 3 ENGINE. PN SBJ33055-401 WITH SOME DIFFERENCE IN CONFIGURATION BUT SAME APPLICATION. THE ABOVE DUCT WAS ALSO REPLACED WITH NEW PART FROM MFG. (K)

2006FA0000063	AVIAT	LYC	PUSHROD	DISCONNECTED
12/24/2005	A1A	O360A1D		ELEVATOR

REPORTED LOSS OF ELEV CNTRL ON FINAL APROACH. BOOT AROUND REAR CNTRL STICK WAS REMOVED, ELEV PUSH ROD WAS NO LONGER CONNECTED, NO NUT WAS FOUND. ROD ENDS WERE INSP, FOUND THAT SELFLOCKING NUT, BOLT FOR AFT INTERCONNECT PUSH ROD WAS LOOSE. HARDWARE WAS NOT REINSTALLED, IT WAS LOOSE ON INSP. 2 EA NEW WERE INSTALLED, BOLT, WASHERS, CASTLE NUT AND COTTER PIN IN REAR CNTRL STICK ROD END CONNT POINTS. REPAIR OF FLT CNTRLS, DETERMINED AIRWORTHY. ADVISED MFG SERV CTR INSPECT AC AND MAKE REPAIRS IAW MM. PROBABLE CAUSE, REUSE OF HARDWARE OR INCORRECT TORQUE APPLIED TO NUT AND BOLT. CASTLE NUT, COTTER PIN WAS INSTALLED IN PLACE OF SELFLOCKING TO ENSURE A PROVEN METHOD OF SAFETY WAS USED ON AIRFRAME CNTRLS. (K)

2006FA0000015	AYRES	PWA	DOOR	BULGED
1/4/2006	S2R	R1340*		RT CABIN DOOR

CARBON MONOXIDE ENTRANCE INTO CABIN AREA. INCREASED AIRSPEED RESULTING FROM THIS COMBINATION CAUSED THE RT CABIN DOOR TO BULGE SLIGHTLY. PILOT CONCERNS ABOUT CARBON MONOXIDE ENTRANCE INTO THE CABIN WERE CONFIRMED WITH THE USE OF CO DETECTORS. RT CABIN DOOR WAS REMOVED AND SENT TO SERVICE CENTER TO BE MODIFIED TO THE 2-LATCH CONFIGURATION FOUND ON TURBINE AIRCRAFT. ADDITIONAL MONITORING FOR CARBON MONOXIDE SHOWED NO FURTHER PROBLEMS.

CA051101003	BBAVIA	LYC	LYC	CRANKSHAFT	CORRODED
10/17/2005	8GCBC	O360C2E	0360C2E	74968	ENGINE

(CAN) ENGINE WAS REMOVED FROM THE AIRCRAFT AND SENT TO AN OVERHAUL FACILITY FOR AN INSPECTION DUE TO A PROP STRIKE. DURING THE INSPECTION OF THE CRANKSHAFT, IT WAS NOTICED THAT THE URETHANE INTERNAL COATING (PID) WAS BLISTERING. FURTHER INSPECTION OF THE AREA REVEALED CORROSION, WHICH WAS BEYOND LIMITS, AND THE CRANKSHAFT WAS TAKEN OUT OF SERVICE. THE ENGINE WAS A FACTORY EXCHANGE WITH 4 YEARS AND 776.0-HRS ON IT. THE CRANKSHAFT WAS MARKED PID AND DID NOT REQUIRE ANY INTERNAL INSPECTIONS UNTIL OVERHAUL AT 2000-HRS (REF AD 98-02- 08, SB 530B, SB 505B).

CA051104012	BEECH	PWA	ENGINE	SHUTDOWN
10/25/2005	1900C	PT6A65B	PT6A65B	

(CAN) DURING CRUISE, THE ENGINE WAS REPORTED TO EMIT A LOUD (BANG) FOLLOWED BY SEVERE VIBRATION.THE ENGINE WAS SHUTDOWN IN FLIGHT AND A SINGLE ENGINE LANDING ACCOMPLISHED. MFG WILL INVESTIGATE THE INCIDENT AND WILL ADVISE OF ROOT CAUSE ONCE DETERMINED.

2005FA0001624	BEECH		LINK	BROKEN
10/27/2005	200BEECH		13137825CL	MLG

LINK IN LANDING GEAR EXTENSION CHAIN WAS FOUND BROKEN AND IN THE BELLY OF THE AIRCRAFT. THIS BRAKAGE PREVENTED THE EXTENSION OF THE NOSE GEAR. (K)

2006FA0000039	BEECH	PWA	UPLOCK	OUT OF RIG
1/5/2006	400A	JT15*	45A3951141	NOSE GEAR

AFTER TAKEOFF LANDING GEAR WAS SELECTED UP AND GEAR CAME UP TO BUT RED WARNING LIGHT IN GEAR HANDLE STAYED ON AND YOU COULD HEAR THE DOORS WERE STILL OPEN. SELECTED GEAR DOWN AND RETURNED TO BASE. FOUND NOSE GEAR UPLOCK WAS INTERMITTENT. RIGGED UP LOCK AND OPS CHECK GEAR.

2006FA0000038	BEECH	PWA	UPLOCK	INTERMITTENT
1/5/2006	400A	JT15*	45A3951141	NOSE GEAR UPLOCK

AFTER TAKEOFF LANDING GEAR WAS SELECTED UP AND GEAR CAME UP TOO BUT RED WARNING LIGHT IN GEAR HANDLE STAYED ON AND YOU COULD HEAR THE DOORS WERE STILL OPEN. SELECTED GEAR DOWN AND RETURNED TO BASE. FOUND NOSE GEAR UPLOCK WAS INTERMITTENT. RIGGED UPLOCK AND OPS CHECK.

2006FA0000000	BEECH	PWA	TIRE	LEAKING
12/21/2005	400A	JT15D1	184F135	MLG

REPLACED THE FRONT TIRE, WITH THIS NEW TIRE AND HAVE HAD A SLOW LEAK EVER SINCE. TOOK THE TIRE BACK OFF AND SUBMERGED THE TIRE AND WHEEL UNDER WATER, FOUND 10 VERY SMALL PINHOLES IN THE TIRE SIDEWALL CLOSE TO THE RIM EQUALLY SPACED AROUND THE SIDEWALL, THE PINHOLES WERE IN THE TIRE FROM THE FACTORY AND NOT DUE TO ANY DAMAGE INSTALLING IT OR WHILE ON THE AIRCRAFT. SIZE OF TIRE IS 18 X 4.4, LOAD RATING 3550 LBS, 10 PLY. (K)

2005FA0001626	BEECH	PWA	LUCAS	BRUSHES	WORN
11/23/2005	400A	JT15D4		230801902	STARTER GEN

1000 HOUR OVERHAUL OF BOTH STARTER-GENERATORS, REINSTALLED AFTER OVERHAUL. (K)

2005FA0001625	BEECH	PWA	BRUSHES	WORN
11/23/2005	400A	JT15D4	230801902	STARTER GEN

1,000 HOUR OVERHAUL OF BOTH STARTER-GENERATORS BRUSHES WORN. REINSTALLED AFTER OVERHAUL. (K)

2006FA0000084	BEECH	CONT	CYLINDER HEAD	CRACKED
1/10/2006	58	IO520*	196279	ENGINE

ENGINE CYLINDER CRACKED AT BARREL AND HEAD. (K)

2006FA0000077	BEECH	CONT	CYLINDER HEAD	SEPARATED
1/16/2006	58	IO520C	SA52000	ENGINE

APPEAR THAT THERE WAS A CRACK IN THE CYLINDER HEAD AT THE EXHAUST VALVE SEAT, WHICH PROPOGATED DURING OPERATION UNTIL THE CYLINDER HEAD FAILED AND SEPARATED FROM THE CYLINDER. (K)

2006FA0000051	BEECH	CONT	CYLINDER	CRACKED
1/10/2006	58	IO520CB	1847312	ENGINE

ENGINE CYLINDER CRACKED AT BARREL AND HEAD. (K)

2006FA0000050	BEECH	CONT	CYLINDER	CRACKED

1/10/2006	58	IO520CB	1864321	ENGINE

ENGINE CYLINDER CRACKED AND BARREL AND HEAD.

2006FA0000060	BEECH	CONT	BUSHING	WORN
1/5/2006	58	IO550*	AA50723	AILERON TRIM

AILERON TRIM MADE POPPING NOISE AS CONTROL WAS ROTATED. FOUND BUSHING FOR CONTROL SHAFT IN PEDESTAL SEVERELY WORN ALLOWING U-JOINT TO CONTACT STRUCTURE AS CONTROL WAS ROTATED. TRIM CABLE TENSION WAS WITHIN LIMITS, NO REASON FOR ACCELERATED WEAR NOTED. BUSHING IS OILITE TYPE AND NO LUBRICATION IS CALLED FOR. (K)

2006FA0000006	BEECH	CONT	VALVE	OUT OF RIG
12/8/2005	58	IO550*	583801091	UNKNOWN

THE NEW VALVE RECEIVED FROM THE MFG WAS INTERNALLY CLOCKED INCORRECTLY. AFTER INSTALLATION, NO FUEL WAS AVAILABLE FROM EITHER THE ON OR CROSSFEED PORTS. AFTER MALVE REMOVAL, IT WAS CONFIRMED THAT THE VALVE REMAINED IN THE OFF POSITION REGARDLESS OF MOVMENT TO ANY OF THE 3 AVAILABLE POSITIONS. A NEW VALVE WAS ORDERED AND IT WORKED CORRECTLY. (K)

2005FA0001613	BEECH	CONT	CONTROL CABLE	CORRODED
12/9/2005	95B55A	IO470L		AILERON

AILERON CABLE RUNNING FROM LT WHEEL WELL AREA LOWER REAR SPAR THRU CABIN UNDER FLOOR TO PEDESTAL AND CONTROL SPROCKET WAS FOUND SEVERELY RUSTED AND ABOUT HALF THE WIRE STRANDS HAD FAILED IN THE AREA WHERE THE CABLE MET THE SWAGED TERMINAL END. AREA IS VERY HARD TO INSPECT, AC MUST BE ON JACKS WITH GEAR PARTIALLY RETRACTED AND INNER GEAR DOORS OPEN TO SEE, AND STILL DIFFICULT TO SEE.

2005FA0001614	BEECH	CONT	CONTROL CABLE	CORRODED
12/9/2005	95B55A	IO470L		AILERON

AILERON CABLE RUNNING FROM LT WHEEL WELL AREA LOWER REAR SPAR THRU CABIN UNDER FLOOR TO PEDESTAL AND CONTROL SPROCKET WAS FOUND SEVERELY RUSTED AND ABOUT HALF THE WIRE STRANDS HAD FAILED IN THE AREA WHERE THE CABLE MET THE SWAGED TERMINAL END. AREA IS VERY HARD TO INSPECT, A/C MUST BE ON JACKS WITH GEAR PARTIALLY RETRACTED AND INNER GEAR DOORS OPEN TO SEE, AND STILL DIFFICULT TO SEE.

2005FA0001615	BEECH	CONT	CONTROL CABLE	CORRODED
12/9/2005	95B55A	IO470L		AILERON

AILERON CABLE RUNNING FROM LT WHEEL WELL AREA LOWER REAR SPAR THRU CABIN UNDER FLOOR TO PEDESTAL AND CONTROL SPROCKET WAS FOUND SEVERELY RUSTED AND ABOUT HALF THE WIRE STRANDS HAD FAILED IN THE AREA WHERE THE CABLE MET THE SWAGED TERMINAL END. AREA IS VERY HARD TO INSPECT, A/C MUST BE ON JACKS WITH GEAR PARTIALLY RETRACTED AND INNER GEAR DOORS OPEN TO SEE, AND STILL DIFFICULT TO SEE.

CA051024007	BEECH	PWA	BEAM	CRACKED
10/21/2005	A100	PT6A28	504200337	FUSELAGE

(CAN) DURING ROUTINE INSPECTION THE RUDDER SUPPORT BEAM UNDER THE PILOTS RUDDER PEDALS WERE FOUND CRACKED. PART WAS REPLACED.

2005FA0001644	BEECH		SUPPORT	MISINSTALLED
12/7/2005	B200		1015240174	RUDDER

OPERATOR NOTED (2) NON-STANDARD RIVETS INSTALLED ATTACHING THE PN 101-524017-4 RT RUDDER MECHANISM SUPPORT BRACKET ANGLE TO THE FS 437.234 CANTED BULKHEAD. DURING RIVET REPLACEMENT FOUND THAT IB RIVET HAD FORMED A SHOP HEAD BETWEEN THE BULKHEAD AND SUPPORT ANGLE DUE TO A MOUNTING GAP. (K)

CA051103004	BEECH	PWA	WEB	CRACKED

10/11/2005	B200	PT6A42	9744001967	FUSELAGE

(CAN) WEB CRACKED HORIZONTALLY APPROX. 10 INCHES. CRACK COINCIDES WITH FLANGE OF UNDERLYING Z CHANNEL. PROBLEM APPEARS TO BE RELATED TO POOR MANUFACTURING PRACTICES. PRC SEALANT BEAD APPLIED TO Z CHANNEL FLANGE CURED BEFORE RIVETING. THE RESULT WAS THAT THE SEALANT BEAD CAUSED A STRESS RISER COMPOUNDED BY PRESSURIZATION LOADS ACCELERATING THE FATIGUE. THIS CONCLUSION WAS ARRIVED AT BY OBSERVING THAT THE CRACK EXACTLY CO-INSIDES WITH THE PATH OF THE SEALANT BEAD.

2005FA0001649	BEECH	PWA	BEECH	BRAKE	DRAGGING
12/19/2005	B300	PT6A60A		1013800961	MLG

ON TAKEOFF ROLL, BRAKES APPEARED TO BE DRAGGING. CREW DECIDED TO ABORT TAKEOFF W/O INCIDENT AND TAXIED BACK TO GATE. MAINT JACKED AC AND CHECKED BRAKES. BRAKES APPEARED TO BE DRAGGING AND NOT RELEASING ALL THE WAY. THESE ARE UNMODIFIED BRAKES (W/O STAINLESS STEEL SLEEVES) CHANGED ALL BRAKES AND THE AC IS BACK ON FLIGHT LINE. SUSPECT THAT REASON FOR BRAKES DRAGGING ARE UNMODIFIED BRAKES. THESE WILL BE SENT OUT FOR O/H AND MODIFICATION. THIS PROCESS IS RECOMMENDED BY MFG FOR CORROSION IN THE PUCK AREA. IN THE PROCESS OF CHANGING ALL OF THE BRAKES FLEET WIDE TO THE MODIFIED BRAKES TO HELP ELIMINATE THIS PROBLEM.

2006FA0000014	BEECH	LYC	EXHAUST PIPE	CORRODED
11/12/2005	C24R	IO360A1A	215CC	VACUUM PUMP

EXHAUST PORT OF DRY AIR PUMP FELL OFF DURING FLIGHT AND LODGED IN LANDING GEAR RETRACTION SYSTEM. AC HAD TO LAND NOSE GEAR UP. PIPE THREADS IN ALUMINUM PUMP HOUSING WERE WORN AND CORRODED. SUGGESTED THAT FITTINGS BE INSPECTED FOR SECURITY MORE FREQ THAN 100 HOUR/ANNUAL. ALSO INDUSTRY SHOULD ALLOW PIPE DOPE COMPOUND ON EXHAUST FITTINGS SINCE INGESTION OF FOD WOULD NOT BE A FACTOR ON THE EXIT PORT. (K)

CA051027007	BEECH	ACTUATOR	CONTAMINATED
10/16/2005	C90	50524161606	ELEVATOR TAB

(CAN) AFTER REACHING CRUISE ALTITUDE ELEVATOR TRIM FAILED TO MOVE ANY FURTHER. NOSE DOWN AIRCRAFT RETURNED TO BASE AND AN ELEVATOR TRIM SYSTEM INSPECTION WAS CARRIED OUT. NO DISCREPANCIES COULD BE FOUND IN THE SYSTEM, BUT WATER WAS FOUND ON THE TAB ACTUATOR SCREW. IT IS BELIEVED THAT THIS WATER FROZE AT ALTITUDE ALLOWING NOSEUP TRIM BUT NOT NOSE DOWN. THE WATER WAS REMOVED, ACTUATORS GREASED AND A TEST FLIGHT CARRIED OUT. THE PROBLEM COULD NOT BE DUPLICATED IN THE HANGAR OR ON THE TEST FLIGHT. THE AIRCRAFT WAS RETURNED TO SERVICE.

2006FA0000090	BEECH	PWA	PLATE	CRACKED
1/6/2006	E90	PT6A27	07515500	BRAKE CYLINDER

DURING A PHASE I AND II INSPECTION A CRACK WAS FOUND IN THIS PART ATTACHED TO THE RT GEAR ASSY. THE CRACK IS ON THE TORQUE PLATE UPPER FORWARD BRAKE CYLINDER PIN ATTACH HOLE. A BUSHING INSTALLED IN THIS HOLE HAS NO SIGN OF DAMAGE. PROBABLE CAUSE OF CRACKING WOULD BE STRESS RELATED. (K)

2006FA0000101	BEECH	CONT	RELAY	FAILED
1/7/2006	F33A	IO520*	SM50D7	MLG

MECHANIC REMOVED NEW RELAY FROM STOCK AND INSTALLED ON AIRCRAFT AND GEAR FAILED TO EXTEND, AFTER TAPPING ON THE TOP OF RELAY GEAR WENT DOWN. MECHANIC THEN INSTALLS ANOTHER NEW RELAY FROM STOCK AND SYSTEM OPERATED NORMAL. PROBABLE CAUSE AT THIS TIME UNKNOWN. (K)

CA051027008	BELL	ALLSN	PLANETARY GEAR	MISMANUFACTURED
10/24/2005	206B1	250C20	206040010103	GEARBOX

(CAN) PLANETARY GEAR FLANKS SURFACE FINISH EXCEED THE ENGINEERING DRAWING REQUIREMENT OF (RMS 8 RA).4 GEARS IAW XMSN IAW 206B.

2005FA0001637	BELL	ALLSN	OIL TANK	LEAKING

11/16/2005	206L1	250C28	206061505109	ENGINE

206-061-505-109 ENGINE OIL RESERVOIR BEGAN TO LEAK ENGINE OIL.

2005FA0001638	BELL	ALLSN	OIL TANK	LEAKING
11/16/2005	206L1	250C28	206061505109	ZONE 200

206-061-505-109 ENGINE OIL RESERVOIR BEGAN TO LEAK ENGINE OIL

AOC05003	BELL		BLADE	CRACKED
12/13/2005	407		407015001129	MAIN ROTOR

DURING A 300 HR INSPECTION, A 1.2500 INCH CRACK WAS DISCOVERED ON THE LEADING EDGE ABRASION STRIP AT APPROXIMATLEY BLADE STATION 133.5. BLADE SENT TO BHTI FOR REPAIR.

AOC05004	BELL	ALLSN	SPRING	BROKEN
12/13/2005	407	250C47B	407310104105	ROTOR HEAD

DURING A 300 HR INSPECTION, A LEAD/LAG DAMPER SPRING WAS FOUND BROKEN IN 2 PLACES. JUDGING FROM THE BREAK LINES, THE SPRING HAD BEEN CRACKED FOR SOME TIME.

CA051104009	BELL	PWA	TUBE	LEAKING
10/24/2005	412	PT6T3		FUEL

(CAN) THE ENGINE WAS REPORTED TO HAVE FLAMED OUT IN FLIGHT RESULTING IN AN UNSCHEDULED LANDING. SUBSEQUENT INSPECTION REVEALED AN ENGINE FUEL DELIVERY TUBE LEAK. THE ENGINE EXHAUST DUCT WAS ALSO FOUND CRACKED.

CA051101002	BELL		SUN GEAR	MISMANUFACTURED
10/29/2005	412EP		205040229003	M/R TRANSMISSION

(CAN) 412 MAIN TRNASMISSION SUN GEAR 205-040-229-003 MANUFACTURED WITH WRONG TYPE MATERIAL.

CA051109003	BELL		CHECK VALVE	CONTAMINATED
11/7/2005	430		222366687101	FUEL SYSTEM

(CAN) WE HAVE RECEIVED A REPORT CONCERNING A PROBLEM WITH THE FUEL SYSTEM. THE FUEL CHECK VALVE P/N: 222-366-687-101 WAS FOUND COMING APART. THEY FOUND THAT THE NUT HAD COME OFF OF THE POPPET ASSEMBLY AND CONTAMINATING THE FUEL FILTER, THE FUEL PUMP AND THE HMU.

2006FA0000059	BELL	ALLSN	RESTRAINT	FAILED
12/20/2005	430	250C40B	430310101107	M/R BLADE

PILOT REPORTED SEVERE VIBRATION AFTER INSPECTION FOUND ORANGE BLADE SHEAR RESTRAINT AT MAIN ROTOR SYSTEM FAILED. CNETER BUSHING HAD BECOME DEBONDED FROM ELASTOMERIC. VISUAL INSPECTION DIFFICULT BECAUSE OF ORIENTATION AT INSTALLATION. (K)

2005FA0001627	BELL	ALLSN	LINK	CRACKED
12/6/2005	47G5	250B*	474502524	UNKNOWN

CRACK INDICATION REVEALED TRANSVERSE BETWEEN HOLES. INSPECTION METHOD: FLOURESCENT PENETRANT. (K)

2005FA0001628	BELL	ALLSN	SLEEVE	CRACKED
12/6/2005	47G5	250B*	TTB21032	COLLECTIVE PITCH

CRACK INDICATION REVEALED AT WELD TO TUBE SLEEVE. INSPECTION METHOD: FLUORESCENT MAGNETIC PARTICLE. (K)

2005FA0001629	BELL	ALLSN	GRIP	CRACKED
12/6/2005	47G5	250B*	471202523	UNKNOWN

CRACK INDICATION REVEALED AT THE 8TH THREAD IB FROM END. INSPECTION METHOD: EDDY CURRENT. (K)

CA051103008	BOEING	PWA	TURBINE BLADES	MISSING
10/21/2005	727225	JT8D15A	500310401	NR 1 ENGINE

(CAN) IN CRUISE, LOST EGT INDICATION UPON DESCENDING AND POWER REDUCTION NR1 ENGINE RESULTED IN VIBRATION REQUIRING NR1 ENGINE TO BE SHUTDOWN. INITIAL INSPECTION INDICATED SOME VISIBLE T4 BLADE DAMAGE WHEN VIEWED THROUGH TAILPIPE.

2006FA0000070	BOEING	PWA	CHAIN	DETACHED
9/22/2005	72725C	JT8D5	BACK12BU9B	FWD DOOR SLIDE

DURING C-CHECK, INSPECTION OF FWD DOOR EMERGENCY ESCAPE SLIDE BUSTLE LATCH CHAIN WAS FOUND DETACHED FROM THE SPLIT RING. THE SPLIT RING HAD BECOME ELONGATED AND THE RING COILS HAD SEPARATED THUS ALLOWING THE CHAIN TO DETACH. THE SLIDE WOULD NOT HAVE INFLATED IF REQUIRED. THE CHAIN AND RING ASSY WILL BE REPLACED. (K)

SROM200500016	BOEING	PWA	SKIN	CRACKED
12/12/2005	737201	JT8D17		FUSELAGE

DURING ROUTINE MAINTENANCE FOUND A 3 INCH CRACK IN THE FUSELAGE SKIN AT BS 973, STR 21L. INSTALLED TEMPORARY REPAIR DOUBLER IAW 8110-3 APPROVED REPAIR, REFERENCE DWG 33-05565-1.

SROM200500017	BOEING	PWA	SPINDLE	CRACKED
12/12/2005	737201	JT8D17	654648175	FLAP CARRIAGE

DURING ROUTINE NDT INSPECTION OF OB FLAP SPINDLE IAW AD 2003-24-08 AND SB 737-57A1277 FOUND A FLAP CARRIAGE SPINDLE CRACKED 40 PERCENT AT THE RADIUS OF THE YOKE TO THE FIRST BEARING LAND. FLAP CARRIAGE ASSEMBLY REPLACED WITH A NEW UNIT. RECORDS INDICATE 5221 CYCLES SINCE OVERHAUL.

CA051101008	BOEING	PWA	FITTING	CORRODED
7/31/2005	737275C	JT8D9A	6562157505	FUSELAGE

(CAN) THE CORROSION TASK C53-107-01-01.7 IS INSPECTING THE CABIN SEAT TRACKS. THE CORROSION WAS FOUND ON THE UPPER DECK CARGO G NET FITTING P/N 65-62157-505. THE FOLLOWING INSPECTIONS OF THIS FITTING HAVE BEEN INCORPORATED IN THE MAINTENANCE PROGRAM 1) ADDITION OF WORK CARD 3039 CLEANING AND INSPECT COMPLETED 18 MONTHS OR 4000HRS 2) AMENDMENT OF WORK CARD 3031 TO INCLUDE CARGO NET FITTING CORROSION INSPECTION COMPLETED 8 YEARS.

CA051101009	BOEING	PWA	BOEING	HINGE FITTING	CORRODED
7/31/2005	737275C	JT8D9A	65593416	65593416	AFT AIRSTAIR

(CAN) NO CPCP CORROSION TASK COVERS THIS AREA, BUT DUE TO THE FINDINGS THE MAINTENANCEPROGRAM IS BEING AMENDED TO REDUCES THE CORROSION FINDINGS IN THIS AREA. THE CO RROSION WAS FOUND ON THE AFT AIRSTAIRS UPPER HINGE FITTING ON THE LOWER FOLDING SECTION. THE FOLLOWING INSPECTIONS OF THIS FITTING HAVE BEEN INCORPORATED,1) AMENDMENT OF WORK CARD 40118 FOR THE FWD AND AFT AIRSTAIR. 2) AMENDMENT OF WORK CARD 40116 FOR THE FWD AIRSTAIR. 3) AMENDMENT OF WORK CARD 41220 FOR THE AFT AIRSTAIR.

CA051024006	BOEING	CFMINT	AUTOTHROTTLE SYS	MALFUNCTIONED
10/23/2005	737522	CFM563C1		COCKPIT

(CAN) ON APPROACH, NR 2 THRUST LEVER WOULD NOT GO BACK TO IDLE. AUTO THROTTLE WAS ENGAGED AT TIME AND NR 2 LEVER STOPPED 1 TO 1.5 FROM IDLE (58 PERCENT N1) AUTO THROTTLE DISENGAGED CORRECTLY BUT STILL NO MANUAL MOVEMENT OF THRUST LEVER AFT. AUTO THROTTLE WAS ENGAGED AGAIN AND DISENGAGED. SYSTEM RETURNED TO NORMAL AT THAT TIME. CREW ELECTED TO RETURN. THE SYSTEM COULD NOT BE FAULTED BY MAINTENANCE, NOR WAS THERE ANY EVIDENCE OF SOMETHING BLOCKING THE CONTROLS. THE AUTOPILOT COMPUTER SHOWED NO FAULTS. THE SYSTEM WAS CHECKED SERVICEABLE.

CA051031002	BOEING	GE	STRIKER	BURNED
10/29/2005	767375	CF680C2B6F	AR47013	COCKPIT DOOR

(CAN) FAULT: STRONG RUBBER BURNING SMELL FIRST NOTICED IN FWD GALLEY THEN IN COCKPIT. AUTH NR175945 FOUND FLT DECK DOOR ELEC LOCK ACT BURNNED. LOCK ACT ELECT CONNECTORS REMOVED AND STOWED, C/B PULLED AND COLLARED. (RUNOUT DATE10/31/2005).

CA051107003	BOMBDR	PWC	SPAR	CRACKED
11/7/2005	DHC8400	PW150A	85713502	LT WING

(CAN) DURING REPLACEMENT OF LT WING IB LEADING EDGE, AN APPROX 12-INCH CRACK IN LOWER SPAR FLANGE WAS DISCLOSED. THE CRACKED SPAR FLANGE PIECE FOLLOWED THE LEADING EDGE DURING REMOVAL. LOCATION, YW 136.30 TO YW 157.875. THE CRACKED SPAR FLANGE PIECE IS BEING RETURNED TO MFG FOR EVALUATION.

CA051102005	BOMBDR	PWC	BUSS BAR	SHORTED
11/1/2005	DHC8400	PW150A	697070212	PROPELLER

(CAN) CRUISE, RT DC GEN HOT CAUTION LIGHT STARTED FLICK. QRH CONSULTED, FC SWITCHED OFF DC GEN NR2. AC WENT INTO ICING COND, FC SWITCHED ON PROP DEICE. AFTER PROP DEICE CAUTION WENT ON AND OFF. MADE AC GEN NR1, NR2 OFF LINE. WITH ONLY DC GEN NR1 ON LINE FC DECIDED TO DIVERT. DC GEN NR2 HOT LIGHT WAS STILL FLICKERING. CKD DC GEN TEMP, FOUND NOT HOT. CIRCUIT FROM P1 AT DC GEN TO CAUTION WARN PNL CKD W/O FINDINGS. DC GEN NR2 REPLACED, TEST RUN. TROUBLESHOOTING ON PROP DEICE FOUND THAT BUS-BAR ON BACK OF SLIP-RING WAS BURNED, ONE END WAS BENT AWAY FROM SLIP-RING. TMCU FAIL CODES SHOWED PHASE 2 SHORTED, HAS CAUSED OVERLOAD IN AC SYS, DISCONNECTED BOTH AC GEN NR1, NR2. BUS-BAR REPLACED, SYS TESTED W/O REMARK.

CA051124001	BOMBDR	PWC	GOVERNOR	LOOSE
11/12/2005	DHC8400	PW150A	697072003	OVERSPEED

(CAN) AN AC CARRIED OUT AN INFLIGHT SHUTDOWN OF THE NR 1 ENGINE DUE TO LOSS OF OIL PRESSURE. AFTER LANDING THE CREW NOTICED OIL STREAKED DOWN BOTH SIDES OF COWLING AND A SIGNIFICANT AMOUNT DRIPPING FROM DRAIN VENTS. MAINTENANCE FOUND ON THE NR 1 ENGINE, THE OVERSPEED GOVERNOR HAD AN EXCESSIVE OIL LEAK. THE BOLTS ON THE FLANGE THAT SECURES THE SPRING CASING SUB ASSY TO THE MAIN BODY OF THE OVERSPEED GOVERNOR WERE LOOSE ENOUGH TO BE ROTATED BY HAND. OVERSPEED GOVERNOR REPLACED IAW AMM 61-20-26-000-801 AND 61-20-26-400-801.

CA051102004	BOMBDR	PWC	WINDSHIELD	CRACKED
10/30/2005	DHC8400	PW150A	80260008	COCKPIT

(CAN) CREW REPORTED CO-PILOT'S WINDSHIELD CRACKED AFTER THE AIRCRAFT LANDED. MECHANICS ADVISED THAT CO-PILOT'S WINDSHIELD HAS A CRACK ABOUT 50 CM ON THE OUTER PLY.

CA051031001	BOMBDR	PWC	BFGOODRICH	BEARING	FAILED
10/28/2005	DHC8400	PW150A	31574	LM29700LA902A1	NLG

(CAN) DURING TAXI TO GATE AFTER ARRIVAL TO BASE, AIRCRAFT STOPPED DUE TO DIFFICULTY TO USE NLG STEERING. CREW FOUND LT NLG AXLE DAMAGED, DUE TO BEARING FAILURE.

CA051103001	BOMBDR	PWC	SENSOR	UNSERVICEABLE
11/1/2005	DHC8400	PW150A	471515	NLG

(CAN) LANDING GEAR WOULD NOT RETRACT AFTER TAKEOFF. A/C RETURN TO BASE. THE FAULT WAS CAUSED BY A UNSERVICEABLE NLG CENTERING SENSOR. NOSE WHEEL CENTERING SENSOR REPLACED IAW AMM 32-61-00. AIRCRAFT RTS.

CA051104003	BOMBDR	PWC	PRESSURE SWITCH	FAILED
10/7/2005	DHC8400	PW150A	312249	OIL SYSTEM

(CAN) THE ENGINE LOW OIL PRESSURE WARNING ANNUNCIATED AND THE CREW SHUT THE ENGINE DOWN IN FLIGHT. SUBSEQUENT INSPECTION REVEALED NO EVIDENSE OF OIL LOSS AND THE LOW OIL PRESSURE SWITCH WAS REPLACED.

CA051104011	BRAERO	PWA	ENGINE	POWER LOSS

10/22/2005	BAE1251000	PW305B	PW305B	

(CAN) DURING A TRAINING TOUCH-AND-GO MANEUVER, THE ENGINE ROLLED BACK IN POWER AND THE LOW OIL PRESSURE WARNING ANNUNCIATED. THE ENGINE WAS SHUT DOWN IN FLIGHT AND AN UNSCHEDULED LANDING CARRIED OUT. MFG WILL INVESTIGATE THE INCIDENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

2006FA0000001	CESSNA	CONT	ROCKER	BROKEN
12/20/2005	150K	O200A		ENG CYLINDER

AIRCRAFT IN CRUISE FLIGHT AT 2200 FT, ENGINE BEGAN TO RUN ROUGH. PILOT DECLARED AND EMERGENCY AND LANDED AT AIRPORT. AFTER LANDING THE VALVE COVER WAS REMOVED FROM THE NR 2 CYLINDER AND IT WAS DISCOVERED THAT ALL 3 BOSSES FOR THE VALVE ROCKER SHAFTS HAD BROKEN. (K)

CA051104008	CESSNA	CONT	WASHER	DAMAGED
10/7/2005	150L	O200A		INTAKE TUBE

(CAN) PARTIAL POWER LOSS IN-FLIGHT. UPON INSPECTION, CONTRACT AMO FOUND A WASHER LODGED UNDER AN INTAKE AND EXHAUST VALVE, CAUSING ZERO COMPRESSION. ON DISASSEMBLY, SCREW FOUND IN SCAT HOSE LEADING FROM CARB HEAT INTAKE PORT TO HEAT MUFF. LIKELY SCREW AND WASHER VIBRATED LOOSE FROM COWLING AND/OR WINTER KIT FELL ONTO BAFFLE AND ROLLED INTO CARB HEAT INTAKE PORT. WASHER OBVIOUSLY PASSED THROUGH HEAT MUFF, AIRBOX, CARB INTAKE TUBE AND LODGED IN CYLINDER INFLIGHT. SCREW REMAINED IN SCAT TUBE. COUNTERMEASURE; SCREEN CARB HEAT INTAKE PORT.

2006FA0000012	CESSNA	LYC	SPAR	CRACKED
11/10/2005	152	O235*		STABILIZER

ON ROUTING 100 HR INSPECTION FOUND CRACK ON HORIZONTAL STABILIZER FRONT APEK, LOWER ANGLE PN 0432001-37 AND REINFORCEMENT PLATE PN 0432001-44, 1 LOWER SKIN RIVET SEAM FRETTED AND LOOSE. UPON REMOVAL AND DISASSEMBLY DISCOVERED CRACKED SKIN (PN 0432001-55) AND CRACKED SPAR PN 0432001-56. NOTE: THIS IS AN EARLIER SN AC WHICH APPARENTLY DID NOT HAVE REINFORCEMENT ANGLE PN 0432007-3 AS INSTALLED ON LATER SN`S. THIS AC ALSO HAS A CONVERSION TO TAILWHEEL AND HAS SPENT A PORTION OF ITS TT AS A TAILWHEEL. (K)

2006FA0000081	CESSNA	CONT	ROD	RUSTED
1/8/2006	172A	O300*	0543022	LT STEERING

ROD END FAILED. AIRCRAFT TURNED LT AND IMPACTED AN EMBANKMENT. SMALL AMOUNT OF RUST ON ROD END AT THE THREADED AREA. (K)

2006FA0000013	CESSNA	LYC	SLICK	IMPULSE COUPLING	LOOSE
12/28/2005	172N	O320*		M3163	MAGNETO

DURING 500 HOUR MAG AND IMPULSE COUPLING INSPECTION FOUND ONE IMPULSE COUPLING PAWL RETAINING RIVET VERY LOOSE IN IMPULSE HOUSING. NO DAMAGE NOTED. (K)

2006FA0000061	CESSNA	LYC	DRIVE ASSY	FAILED
12/21/2005	172N	O320H2AD	EBB131A	STARTER

(.7500) OF THE DRIVE TEETH ON THE BENDIX DRIVE WERE COMPLETELY SHEARED DURING AN ENGINE START-UP. NO PROBABLE CAUSE OR RECOMMENDATIONS TO MAKE. (K)

2005FA0001631	CESSNA	LYC	SUPPORT BRACKET	CRACKED
10/14/2005	172P	O320*	052323124	WING TE

WING T/E SKIN SUPPT BRACKET CRACKED IN BEND RADIUS. LOCATION OF CRACKED PART IS IB SIDE OF RT FLAP TRACK RIB AT STA 39. PART HAS .2500 INCH CRACK FROM L/E OF TAB AFT, ANOTHER CRACK IN SAME BEND RADIUS .7500 INCH FROM T/E OF TAB FWD. BEND RADIUS CRACK IS UNDER EXCESSIVE STRESSES. DEFLECTED DOWN AS VIEW FROM FRONT OF AC FACING AFT, T/E WING SKIN MAKES A SIGNIFICANT INCREASE IN ITS CURVE AFT OF LAST TAB ATTACHING RIVET AS VIEW FROM OB EDGE OF SKIN LOOKING THROUGH FLAP TRACK SLOT. VERY LITTLE CLEARANCE BETWEEN THESE BRACKETS AND FLAP SUPPT RAILS. CRACK IN OR EXCESSIVE

DEFORMATION CAN CAUSE THE FLAP SUPPT RAILS TO GRAB BRACKET UPON RETRACTION, RESULTING IN FAILURE OF FLAP, POSSIBLE LOSS OF CONTROL OF AC. (K)

CA051102007	CESSNA	LYC	CESSNA	SKIN	CRACKED
11/1/2005	172P	O320D2J		0523914	RT TE FLAP

(CAN) OPENED LEADING EDGE OF RT FLAP SKIN FOR REPAIR. VISUALLY NOTICED CRACKED CENTER LEADING EDGE RIB AT BOLT HOLE FOR FLAP ACUATING PUSH ROD BRACKET ATTACHMENT. OUTER LEADING EDGE SKIN NOT DAMAGED AT THIS LOCATION.

2006FA0000005	CESSNA	LYC	BULKHEAD	CRACKED
12/14/2005	172R	IO360A1A	05522311	SPINNER

DURING 100 HR INSPECTION, THE FORWARD SPINNER BULKHEAD WAS FOUND TO BE CRACKED AROUND 3 OF THE 6 BOLT HOLES. CAUSE OF THE PROBLEM IS THAT WHEN THE PROP MOUNTING BOLTS ARE TORQUED TO THE LIMITS GIVEN IN THE SRM THAT THE FWD BULKHEAD GETS PULLED DOWN SLIGHTLY INTO THE CHAMFER OF THE PROP BOLT HOLES AND THIS IN TURN STRESSES THE PART LEADING EDGE TO CRACKING. TO SOLVE THIS PROBLEM, THE TORQUE OF THE MOUNTING BOLTS AND THE DESIGN OF THE BULKHEAD NEED TO BE EVALUATED AND CHANGES MADE. (K)

2006FA0000009	CESSNA	LYC	STRIP	UNSERVICEABLE
12/13/2005	172R	IO360L2A	05232333	LT WING

DURING ANNUAL INSPECTION, WHILE INSPECTING THE AILERON CABLES, FOUND A FLAT SPOT ON THE LT AILERON CROSSOVER CABLE AT THE AILERON CABLE ABRASION STRIP ATTACHED TO A RIB ASSY LOCATED AT WING STA 71.19. FURTHER INVESTIGATION FOUND THE CABLE BEGINING TO FRAY. THE CAUSE IS THE CABLE WEARING ON THE ABRASION STRIP. TO SOLVE THIS PROBLEM, THE ABRASION STRIP BE LOWERED OR A PULLEY INSTALLED. (K)

2006FA0000032	CESSNA	LYC	PUMP	LEAKING
1/12/2006	172R	IO360L2A	LW15473	ENGINE

AIRCRAFT WAS PARKED FOR 3 WEEKS. FOUND FUEL/OIL MIX LEAKING FROM MUFFLER EXHAUST PIPE. FUEL LEAKED VIA GRAVITY FROM TANKS THROUGH PUMP, INTO PUMP DRIVE LEVER AREA, THEN, VIA THE ACCESSORY SECTION INTO ENGINE . FOUND ENGINE CRANK CASE FILLED WITH AVGAS. CYLINDERS WERE ALSO FULL OF GAS/OIL MIX AND WERE HYDRAULICALLY LOCKED. FUEL/OIL MIX WAS DRAINING OUT EXHAUST VALVES INTO MUFFLER. NOTE: FUEL DID NOT DRAIN OUT OF DRAIN PORT ON FUEL PUMP. DISASSEMBLED PUMP. DRAIN PORT WAS NOT OBSTRUCTED.

2006FA0000033	CESSNA	LYC	PUMP	LEAKING
1/12/2006	172R	IO360L2A	LW15473	ENGINE

AIRCRAFT WAS PARKED FOR 3 WEEKS. FOUND FUEL/OIL MIX LEAKING FROM MUFFLER EXHAUST PIPE. FUEL LEAKED VIA GRAVITY FROM TANKS THROUGH PUMP, INTO PUMP DRIVE LEVER AREA, THEN, VIA THE ACCESSORY SECTION INTO ENGINE . FOUND ENGINE CRANK CASE FILLED WITH AVGAS. CYLINDERS WERE ALSO FULL OF GAS/OIL MIX AND WERE HYDRAULICALLY LOCKED. FUEL/OIL MIX WAS DRAINING OUT EXHAUST VALVES INTO MUFFLER. NOTE: FUEL DID NOT DRAIN OUT OF DRAIN PORT ON FUEL PUMP. DISASSEMBLED PUMP. DRAIN PORT WAS NOT OBSTRUCTED.

2005FA0001636	CESSNA	LYC	FILTER	FAILED
12/16/2005	172R	IO360L2A	CPE1173	INDUCTION

THIS IS AN INDUCTION AIR FILTER BEARING. REMOVED 5 OF THESE FILTERS FROM SERVICE IN ADDITION TO THE ONE IN THIS REPORT WITH THE SAME DAMAGE SIMILAR TIME IN SERVICE. THE WIRE MESH THAT ENCLOSES THE COTTON FIBER FILTER MATERIAL IS TEARING AND EXPOSING THE FILTER MIATERIAL.. SOME OF THE WIRE MESH AND FILTER MATERIAL IS MISSING, ASSUMED TO HAVE BEEN INGESTED BY THE ENGINE. MFG FILTERS CURRENTLY ELIMINATE THE REQUIREMENTS SET FORTH IN AD84-26-02 DEALING WITH INGESTION OF PAPER AIR FILTERS. JUDGING BY THE RESULTS SEEN FROM THIS AND THE OTHER FILTERS REMOVED FROM SERVICE, THESE FILTERS POSE A GREATER RISK OF INGESTION AND ENGINE FAILURE THAN PAPER FILTERS. (K)

2006FA0000010	CESSNA	LYC	FITTING	LEAKING

12/13/2005	172S	IO360A1A		RESERVOIR

DURING AN ANNUAL INSPECTION, FUEL STAINING WAS NOTED AT AND BELOW THE WELD TO THE INLET FITTING. THE UNIT WAS REMOVED FROM AIRCRAFT AND INSPECTED. A LEAK WAS LOCATED IN THE WELD. (K)

2006FA0000018	CESSNA		SEAL	DEFORMED
1/11/2006	182M		12161074	SELECTOR VALVE

RESEALED FUEL SELECTOR VALVE PN 0716613-1 AND DURING A LEAK TEST LEAKAGE WAS FOUND FROM ONE OF THE PN 1216107-4 SEALS. INVESTIGATION FOUND THAT THE SEAL FACE WAS DEFORMED AND THAT MOLD LINES FROM THE INJECTION MOLDING PROCESS CAUSED VOIDS IN THE SEALING SURFACE.

2006FA0000021	CESSNA	JACOBS	BRAKE ASSY	CORRODED
1/4/2006	195A	L4*	952891	WHEEL

DISASSEMBLED BRAKE AND FOUND THAT THE BRAKE CYLINDER WAS CORRODED FROM WHERE THE O-RING MAKES A SEAL TO THE IB STOP. THE O-RING WAS HARD AND HAD TAKEN A SET. MFG P/N 0341015.

2005AP052501	CESSNA	PWA	ROLL PIN	SHEARED
12/13/2005	208B	PT6A114	99105863RX	FLAP ACTUATOR

BOTH PRIMARY AND STAND-BY FLAP ACTUATOR WAS INOPERATIVE. ACTIVATION OF EITHER SYSTEM WOULD CAUSE THE RESPECTIVE CIRCUIT BREAKER TO OPEN. DISASSEMBLY OF THE ACTUATOR REVEALED A SHEARED ROLL PIN AND ROUGH WORM SHAFT BEARING.

2005AP012502	CESSNA	PWA	ROLL PIN	SHEARED
12/13/2005	208B	PT6A114	99105863RX	TE FLAPS

BOTH PRIMARY AND STAND-BY FLAP ACTUATOR WAS IN-OPERATIVE. ACTIVATION OF EITHER SYSTEM WOULD CAUSE THE RESPECTIVE CIRCUIT BREAKER TO OPEN. DISASSEMBLY OF THE ACTUATOR REVEALED A SHEARED ROLL PIN AND ROUGH WORM SHAFT BEARING.

MPFACTUATOR1	CESSNA	PWA	ACTUATOR	INOPERATIVE
12/13/2005	208B	PT6A114	99105863RX	TE FLAPS

BOTH PRIMARY AND STAND-BY FLAP ACTUATOR WAS INOPERATIVE. ACTIVATION OF EITHER SYSTEM WOULD CAUSE THE RESPECTIVE CIRCUIT BREAKER TO OPEN. DISASSASEMBLY OF THE ACTUATOR REVEALED A SHEARED ROLL PIN AND ROUGH WORM SHAFT BEARING.

CA051104004	CESSNA	PWA	ENGINE	FAILED
10/18/2005	208B	PT6A114A	PT6A114A	

(CAN) THE ENGINE WAS REPORTED TO HAVE (FAILED) IN FLIGHT AND AN EMERGENCY LANDING WAS CARRIED OUT. THE AIRCRAFT CONTACTED POWER LINES AND SUBSEQUENTLY CRASHED INTO A HOUSE. PRELIMINARY EVALUATION OF THE ENGINE REVEALED NO ANOMALIES. MFG WILL INVESTIGATE THE EVENT AND WILL ADVISE OF ROOT CAUSE ONCE ESTABLISED.

2006FA0000097	CESSNA	CONT	CONTROL CABLE	BROKEN
12/28/2005	310N	IO470*	08602073	LT RUDDER

THE LT RUDDER CABLE BROKE AT THE CLEVIS THAT ATTACHES IT TO THE RUDDER TORQUE TUBE ARM. UNDER NORMAL OPERATING CONDITIONS, DURING THE 37 YEARS AND HOURS THAT THE AIRCRAFT HAS BEEN IN SERVICE. THE RT RUDDER CABLE HAD ABOUT 25 PERCENT OF THE STRANDS BROKEN. THE BOLT FOR THE CLEVIS WAS SO TIGHT THAT THE CLEVIS COULD NOT PIVOT ON THE BOLT ATTACHING IT TO THE RUDDER TORQUE TUBE ARM. THE CONSTANT UP AND DOWN PULL ON THE CABLE BALL SWEDGE SEEMS TO HAVE BROKEN THE STRANDS OF THE CABLE A FEW AT A TIME. THE CLEVISES NEED TO BE INSPECTED FOR FREEDOM OF MOVEMENT ON THE BOLTS THAT ATTACH THEM TO ARMS. (K)

CA051108010	CESSNA	CONT	CIRCUIT BREAKER	ARCED
10/28/2005	337C	IO360G	S13605	MLG

(CAN) DURING APPROACH FLIGHT, PILOT SELECTED LANDING GEAR DOWN. LANDING GEAR CONTROL CIRCUIT BREAKER POPPED AND WOULD NOT RESET. PILOT WAS INSTRUCTED TO CARRY OUT AN EMERGENCY GEAR EXTENSION AND FOLLOW LANDING PROCEDURES IN PILOT'S OPERATING HANDBOOK. UPON INVESTIGATION, THE CONNECTION TO LANDING GEAR C/B WAS LOOSE AND ARCHING. THE CONNECTION WAS CLEARED AND SECURED. NO OTHER FAULTS WERE FOUND. SUBSEQUENT GEAR SWING AND TEST FLIGHT C/O. SERVICEABLE.

2006FA0000007	CESSNA	CONT	MCAULY	BOOT	FAILED
12/12/2005	414A	TSIO520*		P6592SW	NR 3 BLADE

BOOT PN P6592SW DEPARTED PROPELLER BLADE IN FLIGHT. CUSTOMER LANDED, REMOVED OTHER BOOTS AND CONTINUED TRIP TO HOME STATION. BOOTS HAVE 393.6 HOURS SINCE INSTALLATION. AD NOTE 2005-18-20 INSPECTION WAS ACCOMPLISHED WITH NO DEFECTS NOTED. (K)

2006FA0000002	CESSNA	CONT	CIRCUIT BREAKER	CORRODED
1/4/2006	421B	GTSIO520C	593240101	MASTER

AVIONICS MASTER CIRCUIT BREAKER SWITCH FOUND INTERMITTENT DURING COMPLIANCE WITH AD 2005-20-05, MEB05-1. PN 593-240-101 NOT FOUND IN MFG PARTS MANUAL BUT THIS WAS CLEARLY THE ORIGINAL FACTORY INSTALLED CB. PROBLEM NR1, INTERNAL COMPONENTS OF CB HAD SEVERE CORROSION AND WAS CONTAMINATED WITH DUST, DIRT AND SMALL INSECTS. AIRCRAFT HAS ALWAYS BEEN HANGARED EXCEPT ON TRIPS. PROBLEM NR2 MEB 05-1 AND AD 2005-20-05 DO NOT INCLUDE THIS PART NUMBER. THE AD AND MEB REFERENCE 539-250-101 (50 AMP BREAKER) NOT THE 40 AMP BREAKER FOUND ON ALL 421B AIRCRAFT (IAW THE MFG PARTS MANUAL).

2006FA0000029	CESSNA	CONT	DISTRIBUTOR GEAR	STRIPPED
12/6/2005	421C	GTSIO520*		LT MAGNETO

PILOT REPORTED LT ENGINE RUNNING ROUGH. TROUBLESHOT PROBLEM TO LT MAGNETO. FOUND TEETH ON DISTRIBUTOR GEAR IN LT MAGNETO STRIPPED AND NOT TURNING PROPERLY. (GL25200605792) (K)

JKWS1205	CESSNA	ALIDSG	HOSE	LEAKING
8/20/2005	441	TPE331201A	AE7013002H0194	ZONE 400

THE ENGINE OIL LINE SUPPLYING OIL TO THE OIL COOLER BEGAN TO LEAK RAPIDLY IN-FLIGHT. OIL PRESSURE WAS LOST, THE ENGINE WAS SHUTDOWN AND AN UNSCHEDULED LANDING WAS ACCOMPLISHED WITHOUT DAMAGE. INSPECTION REVEALED THAT THE LOSS WAS FROM THE P/N AE7013002H0194 OIL HOSE, THE INTERNAL LINING APPEARED TO HAVE BEEN SOFTENED AND RIPPED SUCH AS POSSIBLY A COMPOUND THAT WAS NOT COMPATIBLE WITH THE 2380 ENGINE OIL. FAILURE OCCURRED.

2006FA0000041	CESSNA	GARRTT	CONNECTOR	MISMARKED
1/12/2006	441	TPE33110	MS3126F1065	ZONE 400

WE PURCHASED A REPLACEMENT CONNECTOR FOR THE RT ENGINE FUEL FLOW TRANSDUCER. INSTALLED NEW CONNECTOR AND UPON CHECKOUT FOUND THAT FUEL FLOW INDICATOR NOW OPERATES BACKWARDS. FURTHER INVESTIGATION REVEALS THAT NEWLY INSTALLED CONNECTOR PIN HOLES ARE NOT PROPERLY MARKED. IN FACT THE MARKINGS ON THE FRONT END OF THE CONNECTOR DO NOT MATCH THE MARKINGS AT THE BACK OF THE CONNECTOR. TROUBLESHOOTING ALSO REVEALED THAT THE MISWIRING OF THE CONNECTOR HAS PERMANENTLY DAMAGED THE FUEL FLOW INDICATOR. PROBLEM WAS RESOLVED BY ORDERING A SECOND NEW CONNECTOR FROM MFG. CHECKED TO MAKE SURE THAT THE PIN LOCATION MARKINGS WERE CORRECT. NEW CONNECTOR INSTALLED WITH NEW FUEL FLOW INDICATOR.

2006FA0000034	CESSNA	GARRTT	CONNECTOR	MISMARKED
1/12/2006	441	TPE33110	MS3126F1065	ZONE 400

REPLACEMENT CONNECTOR FOR RT ENGINE FUEL FLOW TRANSDUCER. INSTALLED NEW CONNECTOR AND UPON CHECKOUT FOUND THAT FUEL FLOW INDICATOR NOW OPERATES BACKWARDS. FURTHER INVESTIGATION REVEALS THAT NEWLY INSTALLED CONNECTOR PIN HOLES ARE NOT PROPERLY MARKED. IN FACT THE MARKINGS ON THE FRONT END OF CONNECTOR DO NOT MATCH THE MARKINGS AT THE BACK OF THE CONNECTOR. TROUBLESHOOTING ALSO REVEALED THAT THE MISWIRING OF THE CONNECTOR HAS

PERMANENTLY DAMAGED THE FUEL FLOW INDICATOR. PROBLEM WAS RESOLVED BY ORDERING A SECOND NEW CONNECTOR FROM MFG. CHECKED TO MAKE SURE THAT THE PIN LOCATION MARKINGS WERE CORRECT. NEW CONNECTOR INSTALLED WITH NEW FUEL FLOW INDICATOR.

2006FA0000037	CESSNA	GARRTT	CONNECTOR	MISMARKED
1/12/2006	441	TPE33110	MS3126F1065	FUEL FLOW INDICA

PURCHASED A REPLACEMENT CONNECTOR FOR THE RT ENGINE FUEL FLOW TRANSDUCER. INSTALLED NEW CONNECTOR AND UPON CHECKOUT FOUND THAT FUEL FLOW INDICATOR NOW OPERATES BACKWARDS. FURTHER INVESTIGATION REVEALS THAT NEWLY INSTALLED CONNECTOR PIN HOLES ARE NOT PROPERLY MARKED. IN FACT THE MARKINGS ON THE FRONT END OF THE CONNECTOR DO NOT MATCH THE MARKINGS AT THE BACK OF THE CONNECTOR. TROUBLESHOOTING ALSO REVEALED THAT THE MISWIRING OF THE CONNECTOR HAS PERMANENTLY DAMAGED THE FUEL FLOW INDICATOR. PROBLEM WAS RESOLVED BY ORDERING A SECOND NEW CONNECTOR FROM MFG. CHECKED TO MAKE SURE THAT THE PIN LOCATION MARKINGS WERE CORRECT. NEW CONNECTOR INSTALLED WITH NEW FUEL FLOW INDICATOR.

JK1205	CESSNA	GARRTT	LINE	LEAKING
8/20/2005	441	TPE33110	AE7013002H0194	OIL SYSTEM

THE ENGINE OIL LINE SUPPLYING OIL TO THE OIL COOLER BEGAN TO LEAK RAPIDLY INFLIGHT. OIL PRESSURE WAS LOST, THE ENGINE WAS SHUTDOWN AND AN UNSCHEDULED LANDING WAS ACCOMPLISHED WITHOUT DAMAGE. INSPECTION REVEALED THAT THE LOSS WAS FROM THE P/N AE7013002H0194 OIL HOSE, THE INTERNAL LINING APPEARED TO HAVE BEEN SOFTENED AND RIPPED SUCH AS POSSIBLY A COMPOUND THAT WAS NOT COMPATIBLE WITH THE 2380 ENGINE OIL.

2006FA0000073	CESSNA		SEAT	CRACKED
10/20/2005	501		551900912	

UPPER CHAIR BASE ASSEMBLY CRACKED AT CHAIR BACK ATTACH POINTS. STRESS ON CHAIR BACK AND METAL FATIGUE PROBABLE CAUSE. CHAIR WAS REPAIRED IAW STC. STRUCTURAL SEAT REPAIR. (K)

2552	CESSNA	PWA	FUEL	CONTAMINATED
12/7/2005	560CESSNA	JT15D5		FUEL TANKS

AC WAS LT OUTSIDE DURING COLD PERIOD, OAT 10F, ENGINES WERE STARTED, IDLED FOR 15-20 MIN TO WARM UP. UPON TAXI OUT, RT ENGINE HAD UNCOMMANDED SHUTDOWN. MAINT CHECKED BOTH ENGINES AND AIRFRAME FUEL FILTERS WITH NO WATER OR CONTAMINATION FOUND. FURTHER TESTING OF THE FUEL REVEALED A PRIST LEVEL OF .21. NORMAL LEVEL SHOULD BE .10 TO .15. FUEL TANKS WERE DRAINED, NEW FUEL ADDED, RUN-UP AND LEAK CHECK PERFORMED OK. AC WAS RETURNED TO SERVICE. NOTIFIED LAST 4 FBOS OF POSSIBLE FUEL PROBLEMS WITH THEIR FUEL. 3 OF THE FBO'S TESTED THEIR FUEL RIGHT AWAY WITH GOOD READINGS, LAST FBO WHERE FUELED CLAIMED THEY COULD NOT TEST THEIR FUEL. 1 WEEK LATER THAT FBO INFORMED ME THAT THEY TESTED THEIR FUEL AND IT WAS OK.

2006FA0000091	CESSNA	CONT	LANDING GEAR	LACK OF LUBE
11/15/2005	A185F	IO520*	3730FLOATS	RIGHT

RT MAIN GEAR, NO GREEN GEARDOWN LIGHT. GEAR CYCLED SEVERAL TIMES, RT MAIN GEAR COLLAPSED AFTER LANDING. REMOVED GEAR ASSY FOUND LACK OF LUBE THE PROBLEM. REPLACED PARTS, BENT WHEN GEAR COLLAPSED. LUBED, REINSTALLED. OPS OK. LUBE GEAR MORE OFTEN. (K)

CA051108008	CESSNA	CONT	INJECTOR	CONTAMINATED
9/15/2005	A185F	IO520D		NR 5

(CAN) FULL POWER NOT AVAILABLE FOR TAKEOFF. STATIC RPM 150 RPM LOW. ENGINE SLIGHTLY ROUGH. REMOVED INJECTORS AND FOUND UNIDENTIFIED PARTICLE IN NR5 INJECTOR. REMOVED PARTICLE AND ENGINE RAN NORMALLY.

2006FA0000052	CESSNA	CONT	BLADE	FRACTURED
11/23/2005	P206	IO520D	S90AT8	PROPELLER

PILOT TOOKOFF, DURING CRUISE FLIGHT, SEVERE VIBRATION OCCURRED FROM ENGINE. ENGINE PULLS BACK TO IDLE AND EMERGENCY LANDING MADE ON ROAD . UPON INSPECTION IT WAS DISCOVERED THERE WAS 7.5

INCHES OF BLADE TIP MISSING. SERIAL NR OF BLADE IS NOT ACCESSIBLE AT THIS TIME, MUST DISASSEMBLE PROP. BLADE SN IS EITHER K46513YS OR K64839S ACCORDING TO PROP LOG. (K)

2006FA0000045	CESSNA	CONT	TELEDYNESYST	DISTRIBUTOR GEAR	FAILED
1/18/2006	R172K	IO360KB	S6LSC25	10357586	MAGNETO

ELEVEN GEAR TEETH FAILED ON NYLON DISTRIBUTOR GEAR.

2005FA0001643	CESSNA			RESISTOR	BURNED
12/6/2005	S550			JBS2402	BLOWER ASSY

PILOT REPORTED FREON AIR CONDITIONING SYSTEM CIRCUIT BREAKER TRIPPED WHEN SYSTEM TURNED ON. FOUND AFT EVAPORATOR BLOWER INOPERATIVE IN LOW POSITION, EXCESSIVELY NOISY IN HIGH POSITION. REMOVED FLOORBOARD FOR INVESTIGATION, FOUND BLOWER MOTOR RESISTOR ASSY. BURNED AND ADJACENT PLASTIC BLOWER MOTOR HOUSING MELTED. FREON AIR CONDITIONING SYSTEM INSTALLED UNDER STC SA2698SW, 809.7 HOURS PREVIOUSLY, NO RECORD OF COMPONENT REPLACEMENTS SINCE INSTALLED. REPLACED BLOWER ASSY AND RESISTOR, OPS CHECKS SATISFACTORY. (K)

2006FA0000089	CESSNA	LYC		FUEL LINE	WORN
12/30/2005	T182T	TIO540*		LW120980210	ENGINE

FOUND FUEL INJECTION LINE RUBBING CYLINDER COOLING FINS. CAUSING WEAR TO THE LINE. IF WORN CAN CAUSE FUEL LEAK ON TO THE TURBO CHARGER. AD WAS IN COMPLIANCE BUT THE CLAMP WAS LOOSE ALLOWING FUEL LINE TO ROTATE. (SW01200603311) (K)

2005FA0001645	CESSNA			PROBE	FAILED
12/29/2005	T210M		EDM800C	400510	AIR TEMP PROBE

OUTSIDE AIR TEMP PROBE FAILED SELF TEST INDICATING OPEN.

2006FA0000008	CESSNA	CONT		EXHAUST VALVE	STUCK
12/21/2005	U206G	IO520F			ENGINE

THE EXHAUST VALVE GUIDE HAD .0035 INCH OF BUILD UP MATERIAL, CAUSING THE VALVE TO STICK OPEN, WHERE IT STRUCK THE PISTON. POSSIBLY DUE TO RICH MIXTURE. (K)

2006FA0000058	CHRIS	LYC		VENT LINE	BLOCKED
1/2/2006	A1	O360*			FUEL VENT

BOTH LT FUEL VENT LINES BLOCKED BY ICE. ENGINE STOPPED DURING TAXI TO RUNWAY. ALTHOUGH PREFLIGHT LISTS CHECKING FUEL VENT LINES ARE CLEAR, THIS NEEDS TO BE EMPHASIZED MORE. (K)

2005FA0001577	CHRIS	LYC		VENT LINE	BLOCKED
12/3/2005	A1	O360C1G			FUEL SYSTEM

ENGINE STOPPED DUE TO BLOCKED FUEL VENT LINE. THIS OCCURRED ON THE GROUND DURING TAXIING. NO DAMAGE TO PLANE. PROBABLE CAUSE WAS SNOW BUILD UP ON THE WING EXTENDING OVER THE ENDS OF THE VENT LINES FOLLOWED BY FREEZING.

2005FA0001568	CHRIS	LYC		VENT LINE	BLOCKED
12/3/2005	A1	O360C1G			FUEL SYSTEM

ENGINE STOPPED DUE TO BLOCKED FUEL VENT LINE. THIS OCCURRED ON THE GROUND DURING TAXIING. NO DAMAGE TO PLANE. PROBABLE CAUSE WAS SNOW BUILD UP ON THE WING EXTENDING OVER THE ENDS OF THE VENT LINES FOLLOWED BY FREEZING.

2006FA0000004	CIRRUS	CONT		DIPSTICK	BROKEN
1/4/2006	SR22	IO550*			ENGINE

DURING PREFLIGHT WHILE CHECKING OIL LEVEL ON DIPSTICK, THE ENTIRE ROD PORTION OF THE DIPSTICK CAME APART IN MY HANDS UPON LIFTING IT OUT OF THE OIL FILLER TUBE. BARELY CAUGHT IT WITH MY HAND

BEFORE IT WOULD'VE FALLEN DOWN INSIDE THE ENGINE CRANK CASE WITH POTENTIALLY CATASTROPHIC RESULTS. ROD IS SWAGED IN 2 PLACES ONTO A LOWER CALIBRATED AREA FOR DETERMINING OIL LEVEL AS WELL AS AT THE TOP WHERE IT AFFIXES TO THE DIPSTICK COVER. IT HAS COME UNSWAGED IN BOTH UPPER AND LOWER PLACES. IF THIS OCCURRED IN FLIGHT, IT APPEARS A CATASTROPHIC ENGINE FAILURE COULD OCCUR AS THE METAL ROD PARTS FELL DOWN INTO THE ENGINE CRANK CASE / SUMP REGION.

2006FA0000003	CIRRUS	CONT	DIPSTICK	BROKEN
1/4/2006	SR22	IO550*		OIL CAP

DURING PREFLIGHT WHILE CHECKING OIL LEVEL ON DIPSTICK, ENTIRE ROD PORTION OF DIPSTICK CAME APART IN MY HANDS UPON LIFTING IT OUT OF OIL FILLER TUBE. BARELY CAUGHT IT WITH MY HAND BEFORE IT WOULD'VE FALLEN DOWN INSIDE THE ENGINE CRANKCASE WITH POTENTIALLY CATASTROPHIC RESULTS. ROD IS SWAGED IN 2 PLACES ONTO A LOWER CALIBRATED AREA FOR DETERMINING OIL LEVEL AS WELL AS AT TOP WHERE IT AFFIXES TO DIPSTICK COVER. IT HAS COME UNSWAGED IN BOTH UPPER AND LOWER PLACES. IF THIS OCCURRED IN FLIGHT, IT APPEARS A CATASTROPHIC ENGINE FAILURE COULD OCCUR AS METAL ROD PARTS FELL DOWN INTO ENG CRANKCASE/SUMP REGION. BELIEVE THIS DESERVES AN EMERGENCY AD. THIS PLANE IS A 2005 - JUST A FEW MONTHS OLD!

CA051102008	CNDAIR	PWA	BULKHEAD	CRACKED
11/2/2005	CL2151A10	BWASP		FUSELAGE

(CAN) WHERE THE JANITROL CABIN HEATER MOUNTS TO THE FORWARD CABIN ENTRANCE BULKHEAD FS234.5, A 4 INCH CRACK WAS DISCOVERED DURING A 6 YEAR C-CHECK INSPECTION. THE CRACK RUNS PARALLEL TO THE HEATER MOUNTING FLANGE. THE 5 OTHER AIRCRAFT OF THE FLEET ARE TO BE INSPECTED BEFORE UPCOMING FIRE SEASON. FINDINGS WILL BE RECORDED.

CA051104017	CNDAIR	GE	SKIN PANEL	DAMAGED
10/20/2005	CL6002B19	CF343B1	60012112	RT WING

(CAN) DURING DESCENT, AIRCRAFT HIT GOOSE. AIRCRAFT LANDED NORMALLY. DAMAGE FOUND ON IB RT LE (DENT .7500 INCH DEEP 4.5 INCH WIDE AND 8.5 INCH LONG). MFG AUTHORIZED FERRY FLIGHT WITH THIS DAMAGE TO MAINTENANCE BASE. MAINTENANCE REMOVED LEADING EDGE FOR INSPECTION. MAINTENANCE REPLACED DAMAGED SKIN PANEL , DAMAGED RIB BETWEEN WING STATIONS WS 50.54 - WS66.20 AND ALSO FOUND DENT ON WING PICCOLO (ANTI-ICE) TUBE. WING PICCOLO TUBE ALSO REPLACED.

CA051028001	CNDAIR	GE		TORQUE LINK	DISCONNECTED
10/16/2005	CL6002C10	CF348C1	492009		LT MLG

(CAN) HVY VIBRATION AFTER TD UNTIL TAXI SPEED IS REACHED. INDEPENDENT FROM BRAKE APPLICATION. AC WAS SMOOTH DURING TAXI AND TAKEOFF ROLL. ON ARRIVAL FOUND LT MLG TORQUE LINK DISCONNECTED. WHEEL NR 2 DESTROYED. SHIMMY DAMPER TORN OFF. VARIOUS DAMAGE ON BRAKE NR2, UPPER AND LOWER LINK, HYD LINE AND HARNESS FIXTURE. ALMOST ALL PARTS COLLECTED ON RWY. SUSPECT DISCONNECT WAS CAUSED BY INCOMPLETE OR MISSING ASSY OF TORQUE LINK CONNECTING PIN SAFETY BOLT IPC REF 32-11-42 ITEM 35, NOT FOUND ON RUNWAY. NOTICED INITIAL OIL LEAKAGE FROM LT MLG SHOCK STRUT. LT MLG REPLACED. LT SIDE STAY REPLACED. DVI OF STRUCTURE SURROUNDING GEAR ATTACHMENT PERFORMED, NO FINDING. FDR DOWNLOAD PERFORMED. NO ACTION REQUIRED AFTER ANALYSIS.

CA051028002	CNDAIR	GE	ACTUATOR	LEAKING
10/24/2005	CL6002C10	CF348C1	4120T03P04	LT ENGINE

(CAN) FOUND FUEL LEAKING FROM LT ENGINE VG ACTUATOR (SECONDARY).

2006FA0000072	CNDAIR	CONT	WIRE	SHORTED
10/15/2005	CL6013A	O200*		VERT STABILIZER

WHILE TROUBLESHOOTING INTERMITTENT UPPER BEACON CIRCUIT BREAKER FAULT, DISCOVERED LT ELEVATOR CONTROL CABLE HAD TORN THROUGH WIRING CONDUIT IN VERTICAL STABILIZER. THE CABLE WORE THROUGH THE CONDUIT AND SHORTED OUT THE WIRING FOR THE UPPER BEACON. REPAIRED WIRING CONDUIT, REPLACED WIRING AND REPLACED CONTROL CABLE IAW MFG INSTRUCTIONS. REPAIR OF CONDUIT ALLOWED SUFFICIENT CLEARANCE BETWEEN CABLE AND CONDUIT. UNCLEAR IF CONDUIT WAS INSTALLED AT FACTORY OR AT TIME OF COMPLETION. SUGGEST INSPECTION OF THIS AREA ON OTHER SIMILAR AIRCRAFT. DEFECT

DIFFICULT TO NOTICE DUE TO ACCESSIBILITY OF AREA IN TAIL. (K)

2005FA0001618	DHAV	CONT	BENDIX	DISTRIBUTOR GEAR	DISINTEGRATED
12/15/2005	DHC2*	GTSIO520N			MAGNETO

DURING CRUISE LT ENGINE BEGAN TO RUN ROUGH. MAINTENANCE TRACED PROBLEM TO LT MAG. UPON OPENING THE MAGNETO, DISCOVERED THE DISTRIBUTOR GEAR MISSING 98 PERCENT OF ITS TEETH WITH MANY BROKEN PIECES AND SHAVINGS INSIDE THE MAG. THE DISTRIBUTOR GEAR BUSHING IS LOOSE INSIDE THE DISTRIBUTOR BLOCK. THIS MAGNETO OVERHAULED.

2005FA0001633	DHAV	PWA	MOUNT	CRACKED
11/15/2005	DHC2MK1	R985*	612826	ADC

DURING THE REPLACEMENT OF THE AIR DATA COMPUTER. FOUND THE MOUNTING TRAY ASSY CRACKED COMPLETELY ACROSS ON THE OPPOSITE END OF THE THUMBSCREW. AIRCRAFT IS CONFIGURED ON AMPHIBIAN FLOATS. (K)

CA051108004	DHAV	PWA	PITOT HEAD	DAMAGED
11/4/2005	DHC6200	PT6A20	PH506L	PITOT/STATIC SYS

(CAN) THE CAPTAIN REPORTED A 10 - 15 KTS SPLIT ON AIRSPEED INDICATIONS BETWEEN PILOT-F/O INDICATORS. MAINTENANCE INVESTIGATION REVEALED THAT THE CAPTAINS (LT) PITOT HEAD WAS RESTRICTED SLIGHTLY. FURTHER INVESTIGATION REVEALED THAT THE AIR TUBE HAD BEGUN TO EXFOLIATE INTERNALLY AT THE 90 DEGREE BEND IN THE PITOT HEAD. THE HEAD WAS REPLACED AND THE AIRCRAFT WAS RETURNED TO SERVICE. THE AIRCRAFT IS OPERATED EXCLUSIVELY ON FLOATS IN A CORROSIVE ENVIRONMENT.

CA051104010	DHAV	PWA	ENGINE	LEAKING
10/25/2005	DHC8*	PW123	PW123	

(CAN) DURING CRUISE, THE ENGINE LOW OIL PRESSURE WARNING ANNUNCIATED. THE ENGINE WAS SHUTDOWN IN FLIGHT AND THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED A LARGE OIL LEAK NEAR THE PROP CONTROL UNIT AND INPUT DRIVE HOUSING.

CA051104002	DHAV	PWA	PWA	ENGINE	MAKING METAL
10/15/2005	DHC8201	PW123	PW123C		ENGINE

(CAN) DURING TAKE-OFF AND CLIMB THE ENGINE WAS REPORTED TO SURGE AND LOSE POWER. THE ENGINE WAS SHUTDOWN IN FLIGHT AND THE AIRCRAFT RETURNED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED METALIC DEBRIS ON THE TURBOMACHINE CHIP DETECTOR . MFG WILL INVESTIGATE THE EVENT AND WILL ADVISE OF ROOT CAUSE ONCE DETERMINED.

CA051103011	DHAV	PWA	SELECTOR VALVE	FAILED
11/2/2005	DHC8311	PW123	574205A	LANDING GEAR

(CAN) WHEN SELECTING GEAR DOWN FOR ARRIVAL , RECEIVED 3 RED GEAR INDICATION AND NO GEAR EXTENSION. ALTERNATE GEAR EXTENSION USED. AIRCRAFT LANDED NORMALLY. MAINTENANCE REPLACED LANDING GEAR SELECTOR VALVE. GEAR FUNCTION TESTED. AIRCRAFT RETURNED TO SERVICE.

CA051104016	DHAV	PWA	RADOME	BIRD STRIKE
10/20/2005	DHC8311	PW123	4426X212	FUSELAGE

(CAN) DURING DESCENT, IMPACT WITH GOOSE. AIRCRAFT LANDED NORMALLY. MAINTENANCE FOUND RADOME BADLY DAMAGED AND ALSO DAMAGE TO BULKHEAD AT STATION X-7.0. RADOME ASSEMBLY REPLACED AND FACTORY REPAIR DRAWING CARRIED OUT TO REPAIR UPPER RT CORNER OF RADOME BULKHEAD AT STATION X-7.0

2005FA0001646	DIAMON	CONT	ROLL PIN	LOOSE
12/20/2005	DA20C1	IO240A		NOSE STRUT

ROLL PIN LOCKING THE NOSE STRUT ELECTROMETRIC SPRING PLATE (PN 20-3220-05-02) TO THE SHOCK ABSORBER ROD (PN 20-3220-05-01) HAD WORKED OUT UNLOCKING THE ASSY.

2005FA0001647	DIAMON	CONT		ROLL PIN	LOOSE
12/20/2005	DA20C1	IO240A			NOSE GEAR

ROLL PIN LOCKING THE NOSE STRUT ELECTROMETRIC SPRING PLATE (PN 20-3220-05-02) TO THE SHOCK ABSORBER ROD (PN 20-3220-05-01) HAD WORKED OUT UNLOCKING THE ASSY.

2006FA0000019	DIAMON	CONT		ROLL PIN	MISSING
1/9/2006	DA20C1	IO240A			NLG STRUT

ROLL PIN LOCKING THE NOSE STRUT ELASTOMERIC SPRING PLATE (PN 20-3220-05-02) TO THE SHOCK ABSORBER ROD (PN 20-3220-05-01) HAD WORKED OUT UNLOCKING THE ASSY.

CA051102001	DIAMON	CONT	DIAMON	WASHER	WRONG PART
4/21/2005	DA20C1	IO240B	225510000	MS932013	HORIZ STAB

(CAN) THE FOLLOWING SUBMISSION WAS FOUND MISSED DURING OUR MOST RECENT INTERNAL AUDIT. DURING THE 1000HR INSPECTION IS REQUIRED THAT THE HORIZONTAL STABILIZER BE REMOVED FROM THE AIRCRAFT WHICH REQUIRES THE 4 BOLTS OF BRACKET ATTACHING THE REAR HORIZONTAL STABILIZER SPAR TO THE VERTICAL TAIL FIN RIB REMOVED. PRIOR TO REMOVAL IT WAS NOTED THAT THE 4 WASHERS ON THE NUT SIDE SEEMED TO BE OFF CENTER AND ONCE REMOVED IT BECAME APPARENT. THE 4 WASHERS WERE MS9320-13 AND NOT MS9320-12 AS CALLED OUT IN THE IPC, MAKING THE INSIDE DIAMETER OF THE WASHER ONE SIZE LARGER THAN THE AN6-16A BOLT USED IN THE ASSEMBLY. WASHERS WERE REPLACED AND AIRCRAFT RELEASED.

CA051024004	DIAMON	CONT	DIAMON	GROMMET	WORN
10/21/2005	DA20C1	IO240B	227521860	RB215	ENGINE BAFFLE

(CAN) AC WAS SNAGGED WITH GEN LIGHT NOT ILLUMINATING WITH BATTERY AND GENERATOR SWITCHES ON. DURING TROUBLESHOOTING IT WAS FOUND THAT WHERE ALTERNATOR CONTROL AND BATTERY WIRES PASS THROUGH GROMMET OF ENGINE BAFFLE, WIRES HAD CHAFFED THROUGH PLASTIC INSULATOR OF WIRE. WEAR WAS CAUSED BY CHAFFING OF GROMMET, WIRES. SNAG WAS CONFIRMED WHEN ONE OF CONTROL WIRES AT ALTERNATOR PLUG WAS FOUND BROKEN AT SPADE TERMINAL. ALTHOUGH UNRELATED TO SNAG, WIRE CHAFING WAS SECOND AC FOUND WITH SIMILAR WIRE DAMAGE. WIRES WERE REPAIRED AND AIRCRAFT RELEASED. MFG HAS BEEN ADVISED.

2006FA0000093	DORNER	PWA	DORNER	SHEAR PIN	BROKEN
1/26/2006	DO328300	PW306B			

CREW REPORTED DURING GEAR RETRACTION THEY HEARD AND FELT A VIBRATION FROM NOSE GEAR DOOR NOT CLOSING FULLY. DURING INSPECTION THE RIGHT HAND FORWARD GEAR DOOR BREAKING ROD ASSEMBLY WAS FOUND TO HAVE A BROKEN SHEAR PIN.

CA051104013	EMB	PWA		ENGINE	POWER LOSS
10/25/2005	EMB110*	PT6A34		PT6A34	ENGINE

(CAN) THE ENGINE EXPERIENCED AN UNCOMMANDED POWER ROLL-BACK ON TAKE-OFF. THE ENGINE WAS SHUTDOWN IN FLIGHT AND THE AIRCRAFT DIVERTED TO POINT OF DEPARTURE. SUBSEQUENT INSPECTION REVEALED DAMAGE TO THE COMPRESSOR AND ENGINE INLET AREA. MFG WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE DETERMINED.

CA051104001	EMB	PWA		SPLINE	DAMAGED
10/5/2005	EMB110P1	PT6A34	3031709	025332310103	FUEL PUMP

(CAN) DURING CRUISE THE ENGINE WAS REPORTED TO HAVE LOST POWER AND THE CREW SHUTDOWN THE ENGINE IN FLIGHT. SUBSEQUENT INSPECTION REVEALED A DAMAGED FUEL PUMP DRIVE SPLINE.

2006FA0000065	EMB	PWA		WINDOW FRAME	CRACKED
1/11/2006	EMB120RT	PW118		12034535001	WINDSHIELD

PILOT`S SIDE WINDOW LOWER STRUCTURAL BEAM IS CRACKED AT LT WINDSHIELD AFT BEAM. NORMAL OPERATIONS. (K)

2006FA0000046	EMB	PWA		WINDOW FRAME	CRACKED

1/11/2006	EMB120RT	PW118	12034535003	RT COCKPIT

COPILOTS SIDE WINDOW LOWER STRUCTURAL BEAM IS CRACKED AT RT WINDSHIELD AFT BEAM. NORMAL OPS. (K)

2006FA0000047	EMB	PWA	WINDOW FRAME	CRACKED
1/11/2006	EMB120RT	PW118	12034535001	LT COCKPIT

PILOTS SIDE WINDOW LOWER STRUCTURAL BEAM IS CRACKED AT LEFT WINDSHIELD AFT BEAM. NORMAL OPS. (K)

2006FA0000086	EMB		TIRE	LEAKING
1/12/2006	EMB135BJ		304K632	MLG

AFTER INSTALLING NEW TIRE ON WHEEL ASSEMBLY AND INFLATING, THE TIRE WAS DISCOVERED TO BE LEAKING AT ALL SIDEWALL WEEP HOLES. THIS CONDITION CONTINUED EVEN AFTER THE 12 HOUR LEAK CHECK TIME HAD EXPIRED. (K)

CA051101007	EMB	GE	SLIDE	MALFUNCTIONED
10/11/2005	ERJ170100LR	CF348E5A1	4A40302	L1 DOOR

(CAN) L1 DOOR ESCAPE SLIDE PARTIALLY DEPLOYED WHEN DOOR OPENED FROM OUTSIDE. L1 DOOR DEACTIVATED IAW MEL 52-00-00. SLIDE REMOVED, DID NOT INFLATE AND BOTTLE DEACTIVATED.

2006FA0000092	GULSTM		RISER	CRACKED
1/13/2006	114			EXHAUST

TURBO SYSTEM INSTALLED IAW STL, BOTH LT AND RT EXHAUST RISERS HAD MANY CRACKS AND DEEMED UNSERVICEABLE. 207.8 HRS SINCE NEW, REPLACED UNITS FAILED IN 140.0 MORE. (K)

2006FA0000083	GULSTM		SKIN	CORRODED
1/2/2006	690B		250000225	RT WING AILERON

CORROSION BEYOND 10 PERCENT LIMITS IN LEADING EDGE SKIN UNDER BALANCE WEIGHTS. FOUND DURING SB238. (K)

2006FA0000067	GULSTM	GARRTT	ANGLE	MISLOCATED
1/11/2006	695A	TPE331*	K6600006	FUSELAGE

JOGGLE IN PART NEEDS TO BE RELOCATED .2500 INCH FURTHER FROM NEAR END OF ANGLE IN ORDER TO HAVE SUFFICIENT ED TO FASTENER. (K)

2006FA0000066	GULSTM	GARRTT	ANGLE	MISLOCATED
1/11/2006	695A	TPE331*	K660000	FUSELAGE

JOGGLE IN PART NEEDS TO BE RELOCATED .2500 INCH FURTHER FROM NEAR END OF ANGLE IN ORDER TO HAVE SUFFICIENT ED TO FASTENER. (K)

2006FA0000068	GULSTM	GARRTT	ANGLE	MISLOCATED
1/11/2006	695A	TPE331*	K6600005	FUSELAGE

JOGGLE IN PRAT NEEDS TO BE RELOCATED .2500 INCH FURTHER FROM NEAR END OF ANGLE IN ORDER TO HAVE SUFFICIENT ED TO FASTENER. (K)

2006FA0000069	GULSTM	GARRTT	ANGLE	MISLOCATED
1/11/2006	695A	TPE331*	K6600004	FUSELAGE

JOGGLE IN PART NEEDS TO BE RELOCATED .2500 INCH FURTHER FROM NEAR END OF ANGLE IN ORDER TO HAVE SUFFICIENT ED TO FASTENER. (K)

EC3R20050001	GULSTM	AID	LANDING GEAR	MALFUNCTIONED
11/21/2005	GULFSTREAMGV			RT MLG

RT MAIN LANDING GEAR STUCK IN TRANSIT. WOULD NOT FULLY RETRACT OR EXTEND. EVENTUALLY WAS ABLE TO GET GEAR DOWN AND LOCKED, UNEVENTFUL LANDING.

20051129	HELIO		TUBE	CRACKED
11/29/2005	H295		295030401	WING SPAR

WING SPAR CARRY THRU P/N 295-030-401 IS CRACKED ON LT VERTICAL TUBE, TOP, FRONT SIDE.

2006FA0000082	HWKSLY	GARRTT	SWITCH	PILOT ERROR
1/9/2006	BH125400A	TFE731*		APU START PANEL

PILOT MISTAKENLY TRIPPED THE APU FIRE EXTINGUISHER SWITCH INSTEAD OF THE APU START SWITCH. BOTH SWITCHES ARE OF THE SAME STYLE, ARE LOCATED CLOSE TOGETHER AND BOTH HAVE THE SAME STYLE OF RED GUARDED SWITCHES. (K)

CA051101001	ISRAEL	GARRTT	TUBE	RUPTURED
10/30/2005	1124	TFE73131G	F10A5P202413	BYPASS DUCT

(CAN) ENGINE NACELLE HEAT WOULD NOT TEST PROPERLY ON GROUND. FURTHER TROUBLESHOOTING REVEALED THAT THE BLEED SUPPLY PIPE WAS RUPTERED IN THE BYPASS DUCT AREA. PIPE WAS REPLACED AND SYSTEM WAS GROUND CHECK WITH NO FURTHER FAULTS FOUND.

1054822	LEAR	GARRTT	FRAME	CRACKED
1/10/2006	35LEAR	TFE73122B		WING ROOT

FOUND CRACKS ON THE FUSELAGE SIDE OF FRAME 20 ON BOTH LT AND RT SIDE. FRAME 20 IS THE WING ATTACH POINT. ON THE LT SIDE THE LENGTH OF THE CRACK WAS 1.25 INCH IN LENGTH AND ON THE RT SIDE, 1.50 INCH.

10548226	LEAR	GARRTT	FRAME	CRACKED
1/10/2006	35LEAR	TFE73122B		WING ROOT

FOUND CRACKS ON THE FUSELAGE SIDE OF FRAME 20 ON BOTH LT AND RT SIDE. FRAME 20 IS THE WING ATTACH POINT. ON THE LT SIDE THE LENGTH OF THE CRACK WAS 1.25 INCH IN LENGTH AND ON THE RT SIDE, 1.5 INCH.

2006FA0000098	LEAR	GARRTT	LENS	SPLIT
1/24/2006	36LEAR	TFE73122B	RN24885023	TAIL STROBELIGHT

FAA/PMA APPROVED REPLACEMENT SPLITS/CRACKS ON INSTALL. SHAPE IS SLIGHTLY DIFFERENT FROM PN 248850237. (K)

2006FA0000055	LEAR	GARRTT	CARBON SEAL	WORN
1/9/2006	45LEAR	TFE7312	30745732	ENGINE

PERFORMED SOAP SAMPLE DUE TO FILTER BYPASSED. SAMPLE CAME BACK NORMAL. PERFORMED ANOTHER SOAP SAMPLE 50 HOURS LATER AND FILTER FAILED DELTA P-CHECK. RESULTS CAME BACK (INSPECT THIS ENGINE IMMEDIATELY) INSTALLED LOANER ENGINE. ORIGINAL ENGINE HAD NR 1, NR 3, NR 4 AND NR 5 CARBON SEALS REPLACED. RE-INSTALLED ORIGINAL ENGINE AFTER REPAIRE. 25 HOUR SOAP SAMPLE RESULTS ARE NORMAL. PROBABLE CAUSE IS PREMATURE WEAR/FAILURE OF CARBON SEALS. RECOMMEND IMPROVING CARBON SEAL MATERIAL AND QUALITY. (K)

2006FA0000056	LEAR	GARRTT	CARBON SEAL	WORN
1/9/2006	45LEAR	TFE7312	30745742	ENGINE

PERFORMED SOAP SAMBLE DUE TO FILTER BYPASSED. SAMPLE CAME BACK NORMAL. PERFORMED ANOTHER SOAP SAMPLE 50 HOURS LATER AND FILTER FAILED DELTA P-CHECK. RESULTS CAME BACK (INSPECT THIS ENGINE IMMEDIATELY). INSTALLED LOANER ENGINE. ORIGINAL ENGINE HAD NR1, NR3, NR4 AND NR5 CARBON SEALS REPLACED. REINSTALLED ORIGINAL ENGINE AFTER REPAIR. 25 HOUR SOAP SAMPLE RESULTS ARE NORMAL. PROBABLE CAUSE IS PREMATURE WEAR/FAILURE OF CARBON SEALS. RECOMMEND IMPROVING CARBON SEAL MATERIAL AND QUALITY. (K)

2006FA0000024	LEAR	GARRTT	CABLE	DAMAGED

11/3/2005	45LEAR	TFE7312	7627302026001	ELEV CNTRL CABLE

DURING THE INITIAL 5,000 HOUR CABLE INSPECTIONON THIS AIRCRAFT NOTED EXTENSIVE DAMAGE TO THE LOWER LEFT AFT ELEVATOR CONTROL CABLE AND PRESSURIZATION SYSTEM VACUUM LINE WAS FOUND MISROUTED CAUSING DAMAGE TO THE ELEVATOR CONTROL CABLE AND VACCUM LINE. ENGINEERING EVALUATE THE NEED FOR A ONE-TIME INSPECTION OF THIS AREA ON ALL LIKE AIRCRAFT WITH LESS THAN 5,000 ACCLUMATED FLIGHT HOURS. (K)

2006FA0000028	LEAR	GARRTT	TORQUE TUBE	CORRODED
10/31/2005	45LEAR	TFE7312	4555401134009	RUDDER

DURING 5,000 HOUR INSPECTION, THE RUDDER WAS REMOVED FOR SB (REPAIR OF RUDDER TORQUE TUBE ASSY BONDING JUMPERS) FOUND CORROSION ON TORQUE TUBE INTERNAL AND EXTERNAL. MOISTURE INGRESSION THROUGH WIRE BUNDLE HOLE. ENGINEERING EVALUATE FOR POSSIBLE INTERNAL INSPECTION CRITERIA OF TORQUE TUBE AND ENVIRONMENTA SEALING AS REQUIRED. (EA09200600888) (K)

2006FA0000027	LEAR	GARRTT	TORQUE TUBE	CORRODED
10/31/2005	45LEAR	TFE7312	4555401134009	RUDDER

DURING 5,000 HR INSPECTION, THE RUDDER WAS REMOVED FOR SB, REPAIR OF (RUDDER TORQUE TUBE ASSY BONDING JUMPERS) FOUND CORROSION ON TORQUE TUBE INTERNAL AND EXTERNAL. MOISTURE INGRESSION THROUGH WIRE BUNDLE HOLE. ENGINEERING EVALUATE FOR POSSIBLE INTERNAL INSPECTION CRITERIA OF TORQUE TUBE AND ENVIRONMENTAL SEALING AS REQUIRED. (EA09200600887) (K)

2006FA0000026	LEAR	GARRTT	TORQUE TUBE	CORRODED
10/18/2005	45LEAR	TFE7312	4555401134009	RUDDER

DURING 5,000 HOUR INSPECTION, THE RUDDER WAS REMOVED FOR S/B (REPAIR OF RUDDER TORQUE TUBE ASSY BONDING JUMPERS) FOUND CORROSION ON TORQUE TUBE INTERNAL AND EXTERNAL. ON FURTHER INVESTIGATION (EDDY CURRENT INSP) A CRACK INDICATION WAS NOTED .020 INCH DEEP BY 1 INCH LONG. TORQUE TUBE WAS REMOVED AND REPLACED. PROBABLE CAUSE: MOISTURE INGRESSION THROUGH WIRE BUNDLE HOLE. ENGINEERING EVALUATE FOR POSSIBLE INTERNAL INSPECTION CRITERIA OF TORQUE TUBE AND ENVIRONMENTAL SEALING AS REQUIRED. (K)

CA051103009	LEAR	ALIDSG	ACTUATOR	INOPERATIVE
10/31/2005	55LEAR	TFE7313AR	24170161	UPLOCK

(CAN) AFTER T/O AND UPON GEAR RETRACTION, NOSE GEAR UNSAFE LIGHT REMAINED ILLUMINATED. MULTIPLE GEAR SELECTIONS HAD NO EFFECT. CREW ELECTED TO CIRCLE FOR ABOUT AN HOUR TO BURN OFF FUEL BEFORE RETURNING TO BASE. MAINT WAS ABLE TO CONFIRM SNAG, RECTIFY BY BLEEDING HYDRAULICS. PREVIOUS TO THIS OCCURRENCE ALL HYDRAULIC HOSES IN NOSE BAY WERE CHANGED AND SYSTEM BLED IAW MM PROCEDURES. AIRPLANE THEN SAT FOR 7 DAYS. THERE IS NO SPECIFIC TEST CALLED OUT IN THE MM. FOR BLEEDING THE LANDING GEAR HYDRAULIC LINES AFTER REPLACEMENT. IN THE PROCEDURES FOR REPLACING THE NOSE GEAR ACTUATOR, THERE IS MENTION TO PRESSURIZE AND BLEED THE SYSTEM, BUT IS NOT SPECIFIC ABOUT WHAT SHOULD BE DONE.

CA051104007	LEAR	PWA	ENGINE	FLAMED OUT
10/23/2005	60LEAR	PW305A	PW305A	

(CAN) THE ENGINE FLAMED OUT DURING DESCENT. A SUCCESSFUL IN-FLIGHT RE-LIGHT WAS ACCOMPLISHED. MFG WILL INVESTIGATE THE EVENT AND WILL ADVISE OF ROOT CAUSE ONCE DETERMINED.

CA051104014	LEAR	PWA	SENSOR	FAILED
10/28/2005	60LEAR	PW305A	30B615004	ENGINE RPM

(CAN) THE ENGINE FLAMEDOUT ON DESCENT FOLLOWING A COMMANDED REDUCTION TO IDLE POWER. AN IN-FLIGHT RE-LIGHT WAS SUCCESSFULLY CARRIED OUT. THE ENGINE N1 SPEED SENSOR S WERE SUBSEQUENTLY REPLACED.

2006FA0000025	LEAR	PWA	ANGLE	CRACKED
9/30/2005	60LEAR	PW305A		RUDDER STOP

UPON REMOVAL OF RUDDER, TO REPAIR SKIN DAMAGE AT HINGE POINTS FOUND RUDDER SUPPORT STIFFENER ANGLE (PN 5412481-004) CRACKED UNDER RUDDER PRIMARY TRAVEL STOP AT FRAME STATION 48. RUDDER OVER TRAVELING WHEN GUST LOCK NOT INSTALLED AND WHEN PARKED OUTSIDE IN WINDY CONDITIONS. ENSURE FLIGHT CONTROL GUST LOCKS ARE INSTALLED WHEN PARKED OUTSIDE. (EA09200600885) (K)

AUCR200500005	LKHEED		SKIN PANEL	CORRODED
12/2/2005	P3A		9006072	RT WING

RT WING LOWER SKIN PANEL NR 7 AT BUTT LINE 65 INTERNAL INTERGRANULAR CORROSION. THE DEFECTIVE PANEL WAS FIRST DETECTED BY A FUEL LEAK AT BUTT LINE 65. FURTHER INVESTIGATION REVEALED EXFOLIATION FROM INTERGRANULAR CORROSION. THE CORROSION WAS CONCEALED BY LAYERS OF FUEL TANK BARRIER SEALANT.

2005FA0001578	MAULE	LYC	TUBE	CORRODED
4/15/2005	M5235C	O540*		FUSELAGE

ANNUAL INSPECTION DISCOVERED WIDESPREAD CORROSION OF 4130 STEEL FUSELAGE STRUCTURE. LOWER DOOR POST TUBES WERE CORRODED NEARLY THROUGH, RENDERING AIRPLANE UNAIRWORTHY. SIGNIFICANT PORTIONS OF APPARENT ORIGINAL YELLOW FIBERGLASS INSTALLATION WERE WET. AIRCRAFT WAS KEPT OUTSIDE. MOISTURE MIGHT HAVE ENTERED THROUGH WING ROOT, WITH PROBLEM POSSIBLY COMPOUNDED BY HEADLINER BEING FACTORY SALINE-IMPREGNATED (FOR FIRE RESISTANCE), AND BY WICKING OF MOISTURE BY FIBERGLASS INSULATION. THE MOST SIGNIFICANT CORROSION WAS NOT VISIBLE WITHOUT TEARING OUT INTERIOR THAT IS NOT TYPICALLY AND CONVENIENTLY REMOVABLE. AC HAD BEEN FLOATPLANE, SEASONALLY, SINCE 1999.

2006FA0000053	MAULE	LYC	PISTON	BROKEN
1/7/2006	M7235	IO540W1A5	LW13923	ENGINE

INSPECTION OF THE OIL FILTER DURING ROUTINE OIL CHANGE FOUND 2 EA (.1250 INCH) DIAMETER PIECES OF ALUMINUM. FURTHER DISASSEMBLY OF THE ENGINE/ CYLINDERS FOUND THE NR 1 CYLINDER PISTON SKIRT WAS MISSING A SECTION (.5 INCH X 1.1250 INCH LONG). PERFORMED A DY PENETRANT INSP TO THE OTHER PISTONS. 3 WERE CRACKED AT THE SAME LOCATION. 1 HAD INDICATION OF POSSIBLE CRACK AND 1 WAS IN SERVICEABLE CONDITION. NO OTHER DAMAGE TO THE PISTON WAS DIAMETER WAS WITHIN SERVICE LIMITS. CYLINDER DIAMETER WAS WITHIN SERVICE LIMITS. (K)

2006FA0000094	MOONEY	LYC	TRANSMITTER	DETERIORATED
1/29/2006	M20J	IO360A1A	AK450	ELT

ELT TRANSMITTER WAS REMOVED DURING ANNUAL FOR BATTERY REPLACEMENT AND TESTING. UNIT HAD BATTERIES REPLACED. DURING TESTING THE UNIT MADE A WEAK SIGNAL OUTPUT AND HAS NO RANGE. USED DIFFERENT SET OF BATTERIES FOR RETESTING, SAME RESULTS. HOOKED BACK IN AIRCRAFT TO AIRCRAFT ANTENNA, TEST RESULTS THE SAME. ARMED UNIT AND TESTED THROUGH REMOTE MOUNTED SWITCH WITH SAME UNSATISFACTORY RESULTS. UNIT IS APPROXIMATELY 2 YEARS OLD. TREND OF FAILURES ON THIS MAKE AND MODEL OF ELT. SUSPECT INTERNAL DETERIORATION OF COMPONENT SECURITY. (K)

2006FA0000095	MOONEY	LYC	TRANSMITTER	INOPERATIVE
10/29/2005	M20J	IO360A1A	AK450	ELT

ELT TRANSMITTER WAS REMOVED DURING ANNUAL FOR BATTERY REPLACEMENT AND TESTING. UPON REMOVAL THE ELT WENT OFF WHEN TURNED UPSIDE DOWN. PIECES CAN BE HEARD RATTLING AROUNG INSIDE UNIT. SUSPECT G-SWITCH CAME LOOSE. THIS IS OUT 2ND EXPERIENCE OF SAME CONDITION. LOOSE COMPONENT INSIDE RATTLING AROUND. FIRST UNIT, ELT DID NOT ACTIVATE. UNIT IS APPROXIMATELY 4 YEARS OLD. TREND OF FAILURES ON THIS MAKE AND MODEL OF ELT. SUSPECT INTERNAL DETERIORATION OF COMPONENT SECURITY. (K)

2006FA0000085	MOONEY	LYC	VOLT REGULATOR	FAILED
10/13/2005	M20M	TIO540*	800397503	

COMBINATION VOLTAGE AND OVERVOLTAGE REGULATOR FAILED. THIS FAILURE CAUSED A VOLTAGE SPIKE IN THE ELECTRICAL SYSTEM WHICH IN TURN DAMAGED ALL OF THE COM AND NAV RADIOS, THE ANNUNCIATOR

PANEL, AND NUMEROUS COMPUTER RELATED AVIONICS ITEMS. MULTIPLE LIGHT BULBS IN THE AIRCRAFT WERE ALSO REPLACED. THE REASON FOR THE REGULATOR FAILURE IS STILL UNCLEAR AT THIS TIME.

2006FA0000048	MOONEY	LYC	PLUG	DISLODGED
12/30/2005	M20M	TIO540A1B		CRANKSHAFT

DURING PROP REMOVAL FOR A GROUND STRIKE, FOUND CRANKSHAFT WELSH PLUG LOGGED IN THE PROP HOUSING, RESTRICTING OIL FLOW TO PROP. ENGINE HAD BEEN INSTALLED 30 DAYS EARLIER, 4 HOURS SINCE INSTALL. (K)

2006FA0000096	MOONEY	CONT	TRANSMITTER	INTERMITTENT
1/17/2006	M20R	IO550*		ELT

ELT TRANSMITTER WAS REMOVED DURING ANNUAL FOR BATTERY REPLACEMENT AND TESTING. UPON TEST WITH BATTERIES REPLACED. THE UNIT ON/OFF WAS INTERMITTENT AND THE REMOTE OPERATION WAS INTERMITTENT. UNIT IS APPROXIMATELY 7 YEARS OLD. TREND OF FAILURES ON THIS MAKE AND MODEL OF ELT. SUSPECT INTERNAL DETERIORATION OF COMPONENT SECURITY. (K)

2006FA0000062	MTSBSI	GARRTT	GOVERNOR	DEFECTIVE
12/9/2005	MU2B25	TPE33110	89365120	PROPELLER

ENGINE/PROPELLER RPM WAS UNSTABLE AND PROP GOVERNOR HIGH SETTING WOULD DECREASE FROM 100 PERCENT RPM TO 98 PERCENT RPM WITH NO INPUT BY THE PILOT. INSPECTION OF THE PROP GOVERNOR REVEALED THAT THE BUSHING IN THE IDLER GEAR HAD EXCESSIVE WEAR WITH .139 INCH GAP BETWEEN THE BUSHING AND SHAFT. NOTE: EARLIER MODELS OF THIS PROP GOVERNOR HAD EARLIER MODELS OF THIS PROP GOVERNOR HAD NEEDLE BEARINGS INSTEAD OF A BUSHING IN THIS LOCATION. THE DEFECTIVE PROP GOVERNOR WAS REPLACED. (K)

CA051109005	NAMER	PWA	LEAD	UNKNOWN
10/31/2005	HARVARD4	S3H1		

(CAN) AIRCRAFT TTSN 5412.7 HOURS. AD CF-2005-10 C/W SEPT 12/05. NO FAULT FOUND.

2005FA0001648	PARTEN	LYC	PARTEN	SPAR CAP	CORRODED
12/29/2005	P68CTC	TO360A1A6		14101B1	RT WING

SEVERE INTERGRANULAR CORROSION OF MAIN WING SPAR WEB AND UPPER SPAR CAP AFT OF ENGINE FIREWALL. REQUIRES REMOVAL OF ENGINE, ENGINE MOUNT, FIREWALL. SUSPECT SOURCE OF CORROSION TO BE FIRE SHEATH INSTALLED OVER FUEL LINES BEHIND FIREWALL. SB 61 ADDRESSES INSPECTION OF FUEL LINES AND REMOVAL OF FIRE SHEATHING, WITH CORRESPONDING INSPECTION FOR SPAR CORROSION. BULLETIN IS MISLEADING, DOES NOT PLACE EMPHASIS ON SPAR. WING SPAR IS UNAIRWORTHY, FACTORY AND DER CONTACTED FOR POSSIBLE REPAIR. RECOMMEND AD FOR THIS CONDITION.

CA051028005	PILATS	PWA	ACTUATOR	BINDING
10/25/2005	PC1245	PT6A67B	9787320309	FLAP SYSTEM

(CAN) ON FLAP RETRACTION AFTER TAKEOFF, FLAP WARNING LIGHT CAME ON. AIRCRAFT RETURNED TO AIRPORT AND CARRIED OUT A SUCCESSFUL FLAP RESET. AIRCRAFT DEPARTED, AND ON FLAP RETRACTION, FLAP WARNING CAME ON WITH FLAPS STOPPING BETWEEN 0 AND 15 DEGREES. AIRCRAFT RETURNED TO BASE. FLAP FAULT CHECK WAS CARRIED OUT AND FAULTS INDICATED A STIFFNESS IN THE SYSTEM. FOUR FLAP CYCLES WERE CARRIED OUT AND FLAP ACTUATORS CHECKED.THE RT IB ACTUATOR WAS FOUND EXTREMELY HOT. ACTUATOR WAS CHANGED AND AIRCRAFT RETURNED TO SERVICE.

CA051027002	PILATS	PWA	STOP	MISSING
10/3/2005	PC1245	PT6A67B	5552012186	ELEVATOR

(CAN) THIS IS THE SECOND PC-12 IN WHICH THE COMPANY HAS DISCOVERED THIS ELEVATOR STOP TO BE MISSING. THE MISSING STOP WAS DISCOVERED WHEN REMOVING FLIGHT CONTROLS TO PAINT THE AIRCRAFT.

CA051027003	PILATS	PWA	STOP	MISSING
2/7/2005	PC1245	PT6A67B	5552012186	ELEVATOR

(CAN) THIS IS THE SECOND PC-12 THAT THE COMPANY HAS DISCOVERED THIS PART TO BE MISSING. OBSERVATION NOTED WHEN REMOVING FLIGHT CONTROLS FOR PAINT.

CA051103005	PILATS	PWA	ADAPTER	FAULTY
10/29/2005	PC1245	PT6A67B	065001640100	AUTOPILOT SYS

(CAN) AUTO PILOT TRIPPED OFF LINE. RED TRIM ANNUNCIATOR ILLUMINATED ON MODE CONTROLLER. FLIGHT DIRECTOR WAS FUNCTIONING NORMAL. ALL ELECTRIC TRIMS FUNCTIONING NORMAL. AUTO PILOT WOULD NOT TEST, THEREFORE NOT ENGAGE. PITCH TRIM ADAPTER FOUND AT FAULT.

CA051103006	PILATS	PWA	ADI	FAULTY
10/31/2005	PC1245	PT6A67B	066031252500	COCKPIT

(CAN) EADI ON COPILOTS SIDE WOULD GO (FUZZY) INTERMITTENTLY. PART REPLACED WITH SERVICEABLE UNIT. THIS SEEMS TO BE A RECURRING DEFECT.

CA051103007	PILATS	PWA	GOVERNOR	CONTAMINATED
10/31/2005	PC1245	PT6A67B	8210137	PROPELLER

(CAN) DURING A ROUTINE PHASE 4 INSPECTION, METALLIC POWDER WAS DISCOVERED TRAPPED IN THE ENGINE MAIN OIL FILTER. SOURCE OF CONTAMINATION WAS CONFIRMED TO BE THE PROPELLER GOVERNOR AS SOME NON-METALLIC DEBRIS WAS FOUND IN THE OVERSPEED GOVERNOR GASKET SCREEN. ONCE REMOVED, THE CSU SPLINED SHAFT CAN ONLY BE ROTATED IN ONE DIRECTION AND FEELS (ROUGH). CSU REPLACED. O/S GOVERNOR INSPECTED BY APPROVED SHOP, REINSTALLED. MFG AND PC12 MANUALS CONSULTED FOR PROPER FLUSHING ETC.

2005FA0001630	PIPER	LYC	FUEL TANK	LEAKING
11/7/2005	PA18150	O320*	DC1084924G32L	LEFT

LT FUEL TANK WAS LEAKING. PILOT ADVISED US OF LEAK. WE DRAINED BOTH TANKS AND TURNED THEM INTO REP. THEY ADVISED US THERE WAS AS/L ON BOTH TANKS. WERE REMOVED AND SENT IN TO MFG FOR REPAIR AND APPROVAL. (K)

2005FA0001639	PIPER	LYC	SPARK PLUG	DEFECTIVE
8/6/2005	PA18A150	O320*	REM40E	ENGINE

AIRCRAFT LOST POWER WHILE TAKING OFF WITH GLIDER IN TOW. GLIDER WAS RELEASED AND WAS DAMAGED DURING LANDING IN PASTURE. AIRCRAFT RETURNED TO AIRPORT AND LANDED. TWO SPARK PLUGS ON NR 2 CYLINDER WERE COLD. ALL EIGHT SPARK PLUGS WERE REPLACED.

2005FA0001632	PIPER	LYC	TAIL WHEEL	WORN
8/31/2005	PA22150	O320*	3200	MLG

PILOT REPORTED SEVERE TAILWHEEL SHIMMY DURING LANDING ROLLOUT LEADING TO LOSS OF CONTROL AND GROUND LOOP WITH SIGNIFICANT DAMAGE TO AIRCRAFT. POST ACCIDENT INSP FOUND PLAY IN THE ALUMINUM SPACER BETWEEN THE TAILWHEEL ASSY AND THE TAILWHEEL SPRING. ALSO, THERE WAS LITTLE RESISTANCE TO TURNING THE WHEEL OUT OF THE STRAIGHT FORWARD POSITION. SOME EXTERNAL DAMAGE HAD OCCURRED TO THE TAILWHEEL ASSY DURINT THE GROUND LOOP. RECOMMENDED THAT WEIGHT BE REMOVED FROM THE TAILWHEEL ASSY DURING INSPECTIONS TO DETERMINE THE TRUE INTERNAL CONDITION AS WELL AS THE MOUNTING ADAPTER CONDITION AND THE TAILWHEEL PIVOT AXIS GEOMETRY BE INSPECTED IAW MM. (K)

CA051103010	PIPER	LYC	SCREW	BACKED OUT
10/16/2005	PA28140	O320E3D	6367400	LANDING LIGHT

(CAN) THE THUMB SCREW HOLDING THE AIR FILTER/LANDING LIGHT ASSY BACKED OFF AND THE ASSY CAME OFF DURING RUNUP. NO OTHER DAMAGE WAS INCURRED.

2006FA0000057	PIPER	LYC	BALANCE WEIGHT	BROKEN
1/12/2006	PA28150	O320*	6538834	LT AILERON

REMOVED EXISTING BALANCE WEIGHT ASSEMBLY, PN 65388-34 ON THE LT AILERON AND REPLACED WITH A SERVICEABLE BALANCE WEIGHT ASSEMBLY OF THE SAME PN AND WEIGHT. AT ANNUAL INSPECTION, THE

WEIGHT WAS FOUND BROKEN OFF AT THE ATTACHMENT TUBE. THE EXISTING RIVET PATTERN WAS REUSED. SINCE THE WEIGHT AND ATTACHMENT POINTS WERE IDENTICAL BETWEEN THE ASSEMBLIES, THERE WAS NO CHANGE TO THE WEIGHT AND BALANCE. THE PILOT DID NOT NOTICE ANY DIFFERENCE IN THE HANDLING OF THE RESPONSE OF THE AC PRIOR TO THE REPAIR. THE BROKEN OFF WEIGHT WAS FOUND IN THE WING BETWEEN THE OUTER RIB AND THE ADJACENT IB RIB. (K)

050143850	PIPER		BOLT	CORRODED
12/13/2005	PA28181			PROPELLER

DURING REMOVAL OF PROP TO ACCESS BELTS, FOUND ONE PROP BOLT SEVERELY PITTED. ONLY THE ONE BOLT SHOWED ANY SIGNS OF CORROSION. BOLT HAD ONLY 350 HOURS FROM ORIGINAL FACTORY INSTALL. BOLT WAS REPLACED AND DIGITAL PHOTO'S WERE SUPPLIED MFG TECH SERVICES.

1120057261	PIPER	LYC	PUMP	MISMANUFACTURED
11/20/2005	PA28R180	IO360B1E	W2046	AIR-SIPHON PUMP

PILOT NOTED RAPID LOSS OF ENGINE OIL PRESSURE. INITIATED PRECAUTIONARY LANDING. VISUAL INSPECTION OF MODIFIED P/N 68761 DRAINBACK LINE CUTOFF FOR AIR-SIPHON PUMP (AIR-OIL SEPARATOR STC NR SA3687WE INSTALLATION FOUND SHARP, UNDRESSED AND UNBEADED IAW ORIGINAL INSTALLATION INSTRUCTIONS (CIRCA 1993 BY 337) CAUSED INSIDE OF MIL-6000-5/6 HOSE TO BE CUT CAUSING MASSIVE OIL LEAK. PRESENT STC HOLDER, NOW SUPPLIES ONE-PIECE AIR-SIPHON PUMP P/N W-2046 TO REPLACE THIS ASSEMBLY. RECOMMEND REPLACING ORIGINAL CUTOFF DRAIN TUBES WITH NEW PART TO PREVENT OIL LOSS.

CA051104015	PIPER	LYC	LYC	STUD	BROKEN
10/27/2005	PA28R200	IO360C1C	IO360C1C	50153813	CRANKCASE

(CAN) 7 OF THE 8 STUDS ON NR 2 CYL BROKE ALLOWING THE CYL TO SHIFT CAUSING A VIBRATION. 5 MIN AFTER TAKEOFF THE PILOT NOTED A VIBRATION AND RETURNED FOR A NORMAL LANDING. INSPECTION OF THE LOG BOOK IT WAS NOTED THAT NR2 CYL HAD BEEN REMOVED 375 HRS PRIOR BY THE PREVIOUS OWNER.

CA051025006	PIPER	LYC	AUDIO PANEL	FAILED
10/18/2005	PA31350	TIO540J2BD	GMA340	INTERNAL

(CAN) AIRCRAFT EXPERIENCED A COMPLETE COMM FAILURE IN CLIMB STAGE OF FLIGHT. CREW WAS ABLE TO CONTACT ATC VIA A CELL PHONE AND RECEIVE INSTRUCTIONS AND CLEARANCES. ALL AVIONICS WERE TESTED AND REPORTED TO BE FUNCTIONING FINE. WIRING ON AIRCRAFT WAS CHECKED AND AIRCRAFT BATTERY WAS REPLACED. NEXT DAY AFTER A HALF HOUR FLIGHT, THE PROBLEM RECCURRED. ALTHOUGH THERE WAS NO SIGN OF PROBLEMS WITH THE AUDIO PANEL IT WAS THE COMMON DENOMINATOR, WHEN THE FAILURE OCCURED IT TOOK OUT BOTH PILOT AND CO-PILOT COMM SYSTEMS AS WELL AS THE COCKPIT INTERCOM. THE INTERCOM IS PART OF THE AUDIO PANEL. SINCE THE REPLACEMENT OF THE PANEL THERE HAVE BEEN NO FURTHER FAILURES. THE AUDIO PANEL WAS NEW IN AUGUST.

CA051104005	PIPER	PWA	PWC	ENGINE	MAKING METAL
10/7/2005	PA31T	PT6A11	PT6A11		ENGINE

(CAN) IN FLIGHT, COMPRESSOR SPEED DECREASED UNCOMMANDED ACCOMPANIED BY AN INCREASE IN TURBINE TEMPERATURE. THE ENGINE WAS SHUTDOWN IN FLIGHT AND THE AIRCRAFT DIVERTED FOR AN UNSCHEDULED LANDING. SUBSEQUENT INSPECTION REVEALED METAL DEBRIS IN THE ENGINE OIL AND DIFFICULTY IN ROTATING THE COMPRESSOR SECTION. MFG WILL INVESTIGATE THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

2006FA0000020	PIPER	PWA	CONDUIT	LEAKING
12/21/2005	PA31T	PT6A60A	50954000	FUEL SYSTEM

LT NACELLE TANK SENDER WAS LEAKING OUT OF TOP OF NACELLE. SENDER SCREWS HAD BEEN TIGHTENED AND GASKETS REPLACED BUT STILL LEAKED. TECH FOUND ALUMINUM CONDUIT THAT SENDER WIRING IS ROUTED THROUGH IN TANK TO HAVE APPROX 10-15 PINHOLES IN IT FROM CORRODING FROM THE INSIDE OF ALUMINUM CONDUIT. FUEL LEAKS INTO CONDUIT AND UP TO TOP OF SENDER THEN WOULD LEAK OUT TOP AND DOWN/AFT ON NACELLE.

43881	PIPER	CONT	FUEL LINE	CHAFED

12/13/2005	PA34220T	TSIO360*			RT ENGINE

THE FUEL INJECTOR LINE FROM THE FLOW DIVIDER TO THE NR3 CYLINDER ON THE RT ENGINE WAS ROUTED UNDER A COWL LATCH FOR THE COWLING NOSE BOWL WHICH CAUSED SEVER CHAFING IN A LOCALIZED AREA. THIS WAS ORIGINAL FACTORY ROUTING. NO FAILURE OCCURRED, PART WAS REPLACED AND DIGITAL PHOTO'S WERE PROVIDED TO MFG TECH SERVICES.

2005FA0001517	PIPER	LYC	LYC	BOLT	BROKEN
11/7/2005	PA44180	O360E1A6	O360E1A6D	LW382.75	RT ENGINE

FOUR BOLTS FOUND BROKEN ON LT SIDE OF RT ENGINE MOUNT DURING INSPECTION. LT SIDE OF MOUNT HAD 2 LOOSE BOLTS.

2006FA0000074	PIPER	LYC	CYLINDER	MISMANUFACTURED
11/18/2005	PA60600A	TIO540*	40005401	MLG

COLLAR SEPARATING FROM TUBE DUE TO INSUFFICIENT PENETRATION WHEN PART WAS FURNACE BRAZED OR SILVER SOLDERED TOGETHER-WORKING COLLAR CAUSED PART TO WORK AND CRACK BOSS. RECOMMEND INSPECTION OF COLLAR AT BOTTOM OF GEAR STRUT FOR ANY MOVEMENT OR WORKING BETWEEN COLLAR AND THE STRUT CYLINDER ASSY. DYE CHECK COLLAR WHERE PART IS MACHINED FOR CLEARANCE ON TORQUE LINKS. (K)

2006FA0000071	PIPER		CYLINDER	CRACKED
1/2/2006	PA60601P		40005401	MLG STRUT

COLLAR SEPARATING FROM TUBE DUE TO INSUFFICIENT PENETRATION WHEN PART WAS FURNACE BRAZED OR SILVER SOLDERED TOGETHER WORKING COLLAR CAUSED PART TO WORK AND CRACK BOSS. RECOMMEND INSPECTION OF COLLAR AT BOTTOM OF GEAR STRUT FOR ANY MOVEMENT OR WORKING BETWEEN COLLAR AND THE STRUT CYLINDER ASSY DYE CHECK WHERE PART IS MACHINED FOR CLEARANCE ON TORQUE LINKS. (K)

2006FA0000078	RAYTHN	GARRTT	LEVER	CORRODED
1/3/2006	HAWKER800	TFE731*	25CX1123AC	FUEL TRANSFER

FOUND WING FUEL TRANSFER LEVER ASSY CORRODED AT FORKED END. THIS LEVER ASSY IS NOT A DIRECT INSPECTION ITEM NOR IS IT A DIRECT LUBE ITEM. (K)

2006FA0000079	RAYTHN	GARRTT	LEVER	CORRODED
1/5/2006	HAWKER800	TFE731*		FUEL TRANSFER

FOUND WING FUEL TRANSFER LEVER ASSY CORRODED AT THE FORK END. THIS LEVER ASSY IS NOT A DIRECT INSPECTION ITEM NOR IS IT A DIRECT LUBE ITEM. (CE09200602408) (K)

2006FA0000080	RAYTHN	GARRTT	LEVER	CORRODED
1/5/2006	HAWKER800	TFE731*	25CX1123AC	FUEL TRANSFER

FOUND WING FUEL TRANSFER LEVER CORRODED AT BOTH ENDS. THIS LEVER ASSY IS NOT A DIRECT INSPECTION ITEM NOR IS IT A DIRECT LUBE ITEM. (K)

2005FA0001579	RHNFLU	LYC	LONGERON	CRACKED
12/14/2005	EA300L	AEIO540*		FUSELAGE

DURING ROUTINE 1,000 HR INSPECTION CRACKS WERE FOUND IN THE UPPER LONGERON AT THE HORIZONTAL STABILIZER ATTACHMENT, THESE WERE VERIFIED USING A FLUORESCENT DYE CHECK PENETRANT METHOD, CRACKS WERE ALSO FOUND IN THE VERTICAL TUBE SUPPORTING FORCES FROM THE TAIL LANDING GEAR FORWARD ATTACH POINT.

2006FA0000075	SMITH	LYC	CYLINDER	MISMANUFACTURED
11/18/2005	STC600	TIO540*	40005401	ENGINE

COLLAR SEPARATING FROM TUBE DUE TO INSUFFICIENT PENETRATION WHEN PART WAS FURNACE BAZED OR SILVER SOLDERED TOGETHER-WORKING COLLAR CAUSED PART TO WORK AND CRACK BOSS. RECOMMEND INSPECTION OF COLLAR AT BOTTOM OF GEAR STRUT FOR ANY MOVEMENT OR WORKING BETWEEN COLLAR AND

THE STRUT CYLINDER ASSY- DYE CHECK COLLAR WHERE PART IS MACHINED FOR CLEARANCE ON TORQUE LINKS. (K)

CA051028003	SNIAS	TMECA	PUMP	UNSERVICEABLE
10/10/2005	AS350B2	ARRIEL1D1	704A34310006	HYD SYS

(CAN) DURING A 100-HR INSPECTION THE HYDRAULIC PUMP SPLINES AND HYD PUMP DRIVE SPLINES WERE INSPECTED IAW FORM AS350B-INS-100. BOTH THE HYDRAULIC PUMP AND HYDRAULIC PUMP SPLINES WERE FOUND TO BE WORN IN EXCESS OF THE .3333 ALLOWED. THE LUBRICATION WAS INSUFFICIENT IN THAT THE HYDRAULIC PUMP DRIVE CAVITY WAS DRY. THE SPLINES APPEARED TO BE DRY. THE LITTLE REMAINING GREASE WAS BROWN OR RUSTY IN COLOR. BOTH THE HYDRAULIC PUMP AND HYDRAULIC PUMP DRIVE HAD TO BE REPLACED.

CA051031004	SNIAS	TMECA	PUMP	FAILED
10/14/2005	AS350B2	ARRIEL1D1	704A34310006	HYDRAULIC SYS

(CAN) HYDRAULIC FILTER INDICATOR POPPED, FILTER DIRTY AND REPLAYED. METAL CHIPS FOUND ON CHIP PLUG. TECH REP SUGGESTED CHANGING HYD PUMP.

B3OR20060126	SNIAS	TMECA	DRIVE ASSY	MISOVERHAULED
1/26/2006	AS350B2	ARRIEL1D1	350A34021006	TAIL ROTOR

DURING ROUTINE TBO REPLACEMENT, DISCOVERED THE NEWLY OVERHAULED TAIL ROTOR DRIVESHAFT FORWARD END WAS UNPAINTED CAUSING AN UNSERVICEABLY LOOSE FIT OF THE NR 5 BEARING. MANUFACTURER TECHNICAL REPRESENTATIVES VERIFIED THAT THE AREA IN QUESTION IS SUPPOSED TO BE PAINTED UP TO THE SPLINES. PART WAS RETURNED FOR FURTHER REWORK.

2005FA0001641	SNIAS	TMECA	TMECA	FCU	UNCONTROLLABLE
12/29/2005	AS350B2	ARRIEL1D1	ARRIEL 1D1	0164248850	ENGINE

FCU WOULD NOT GOVERN ENGINE AT GROUND IDLE.

2005FA0001640	SNIAS	TMECA	TMECA	FCU	UNCONTROLLABLE
12/29/2005	AS350B2	ARRIEL1D1	ARRIEL 1D1	0164248850	ENGINE

FCU WOULD NOT GOVERN ENGINE FROM START.

2006FA0000076	SNIAS	TMECA	TURBINE WHEEL	MIGRATED
1/16/2006	AS350B3	ARRIEL2B	2292260060	GAS GENERATOR

DURING A ROUTINE 600 HR BORESCOPE INSP OF THE GAS GENERATOR TURBINE BLADES, 2 BLADES WERE FOUND TO HAVE MOVED AFT IN THEIR (FIR-TREE) TYPE MOUNTS IN THE TURBINE DISK. 1 BLADE WAS FOUND TO HAVE MOVED .1250-.2500 INCH, AND THE OTHER LESS THAN .1250 INCH. THE BLADES HAD TO MOVE PAST A RETAINING CLIP TO ACHIEVE THE AMOUNT OF MOVEMENT OBSERVED. THIS TYPE OF DEFECT IS NOT LISTED AS A POSSIBLE DEFECT IN THE ENGINE MM AND SMALL AMOUNTS OF INSP REGIME. DUE TO THE POTENTIAL EFFECTS OF THE RECOMMEND A BORESCOPE INSP OF THE BLADE ALIGNMENT BEFORE FURTHER FLIGHT AND AT AN INTERVAL OF 300 HOURS ENGINE IS BEING RETURNED TO MFG. (K)

CA051107001	SNIAS	TMECA	UROCOP	BUSHING	CRACKED
11/6/2005	AS350BA	ARRIEL1B	350A33214501		TAIL ROTOR

(CAN) UPON VISUAL INSPECTION, THERE WAS CORROSION FOUND ON THE INSIDE DIAMETER OF THE INNER STEEL BUSHING. THE CORROSION WAS REMOVED AND THE CRACKS WERE THEN VISIBLE. THE CRACKS WERE FOUND RUNNING AXIALLY. THE PITCH LINK WAS REPAIRED IN 2003, AND HAS 804.4 HOURS SINCE REPAIR.

CA051027009	SWRNGN	GARRTT	WEB	CRACKED
10/25/2005	SA226TC	TPE33110UA	272008478	FUSELAGE

(CAN) DURING INSPECTION, MAINTENANCE FOUND SEVERAL FATIGUE CRACKS IN THE CENTER AISLE FLOORBOARD WEBS AND FLOOR FRAMES BETWEEN STATIONS 174 AND 427. THESE CRACKS WERE FOUND ON BOTH THE LT AND RT SIDES OF THE AISLE. BOTH WEBS WERE REPLACED.

CA051108009	SWRNGN	GARRTT	FITTING	CRACKED
11/20/2004	SA226TC	TPE33110UA	2722136006	RT WING

(CAN) DURING A ROUTINE PHASE INSPECTION OF THE WING AND CENTER SECTION OF THE AIRCRAFT, SMALL CRACKS WERE FOUND IN THE RT WING AFT SPAR WING TO FUSELAGE ATTACH FITTINGS (PN 27-22136-006 AND 27-22135-006). THE CRACKS WERE FOUND VISUALLY AND CONFIRMED USING EDDY CURRENT. THE MANUFACTURER WAS CONTACTED FOR A REPAIR AND ANALYSIS AND DETERMINED THE SPAR FITTINGS REQUIRED REPLACING. NEW FITTINGS WERE PROCURED AND REPLACED. THE MANUFACTURER DID NOT FEEL IT WAS NECESSARY TO DO A FLEET INSPECTION ON THESE SPAR FITTINGS DUE TO THIS ONE INSTANCE.

2006FA0000036	ZINAIR	MUFFLER	CRACKED
1/12/2006	CH2000	20M911	ENGINE

TAILPIPE CRACKED WHERE WELDED TO CAN, CRACKED .7500 OF WAY AROUND TAILPIPE LETTING EXHAUST INTO CABIN HEAT SHROUD. PART TOTAL TIME IN SERVICE OF 80 HRS. FOUND DURING 50 HR OIL CHANGE.

2006FA0000035	ZINAIR	MUFFLER	CRACKED
1/12/2006	CH2000	20M911	ENGINE

TAILPIPE CRACKED WHERE WELDED TO CAN, CRACKED .7500 OF WAY AROUND TAILPIPE LETTING EXHUAST INTO CABIN HEAT SHROUD. PART TOTAL TIME IN SERVE OF 80 HRS. FOUND DURING 50 HR OIL CHANGE.

END OF REPORTS