



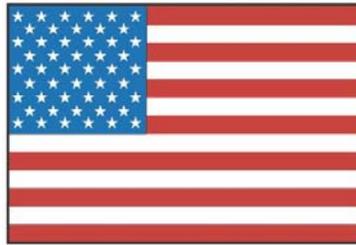
U.S. Department
of Transportation
**Federal Aviation
Administration**

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Regulatory Support Division

ADVISORY CIRCULAR

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AVIATION MAINTENANCE ALERTS



**ALERT
NUMBER
361**



**AUGUST
2008**

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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 Malfunction or Defect Report (M or D) or a Service Difficulty Report (SDR). Your comments and suggestions for improvement are always welcome. Send to: FAA; ATTN: Aviation Data Systems Branch (AFS-620); P.O. Box 25082; Oklahoma City, OK 73125-5029.

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

AIRPLANES

CESSNA

Cessna: 180J; Chafed Fuel Line; ATA 2820

A mechanic writes, "Two aileron cables, one flap cable, and the fuel line are all routed through the L/H lower aft door post area. This fuel line is protected by a plastic sleeve, but an (*aileron*) cable wore through the sleeve (*and began cutting*) into the fuel line. This line (*P/N 0500106-326*) is approximately 20 inches long with four bends. I suggest a one time inspection in case other aircraft might have this problem."

(A search of the FAA Service Difficulty Reporting System data base revealed five additional reports for this part number, all from similar chafing cables. See following pictures.)

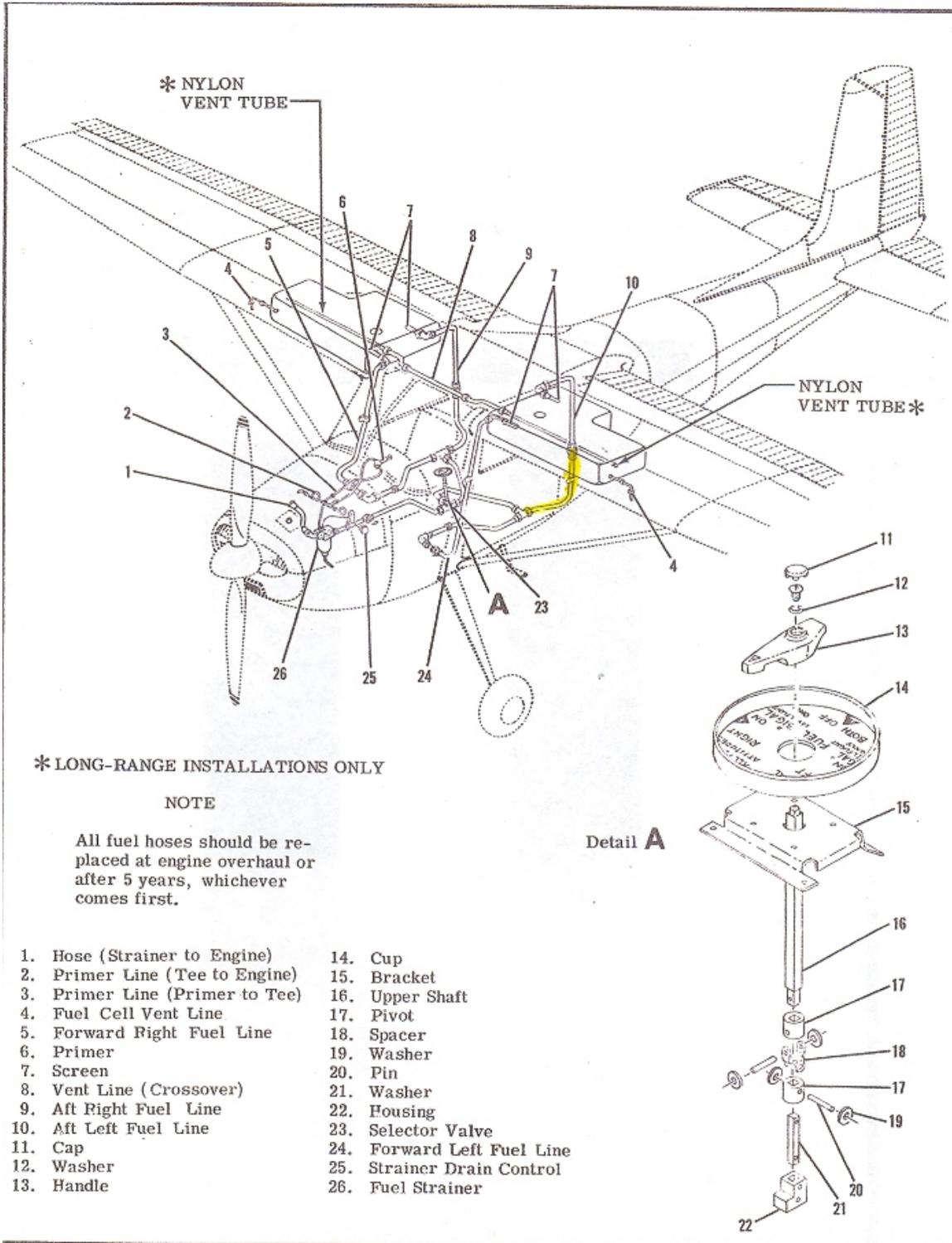
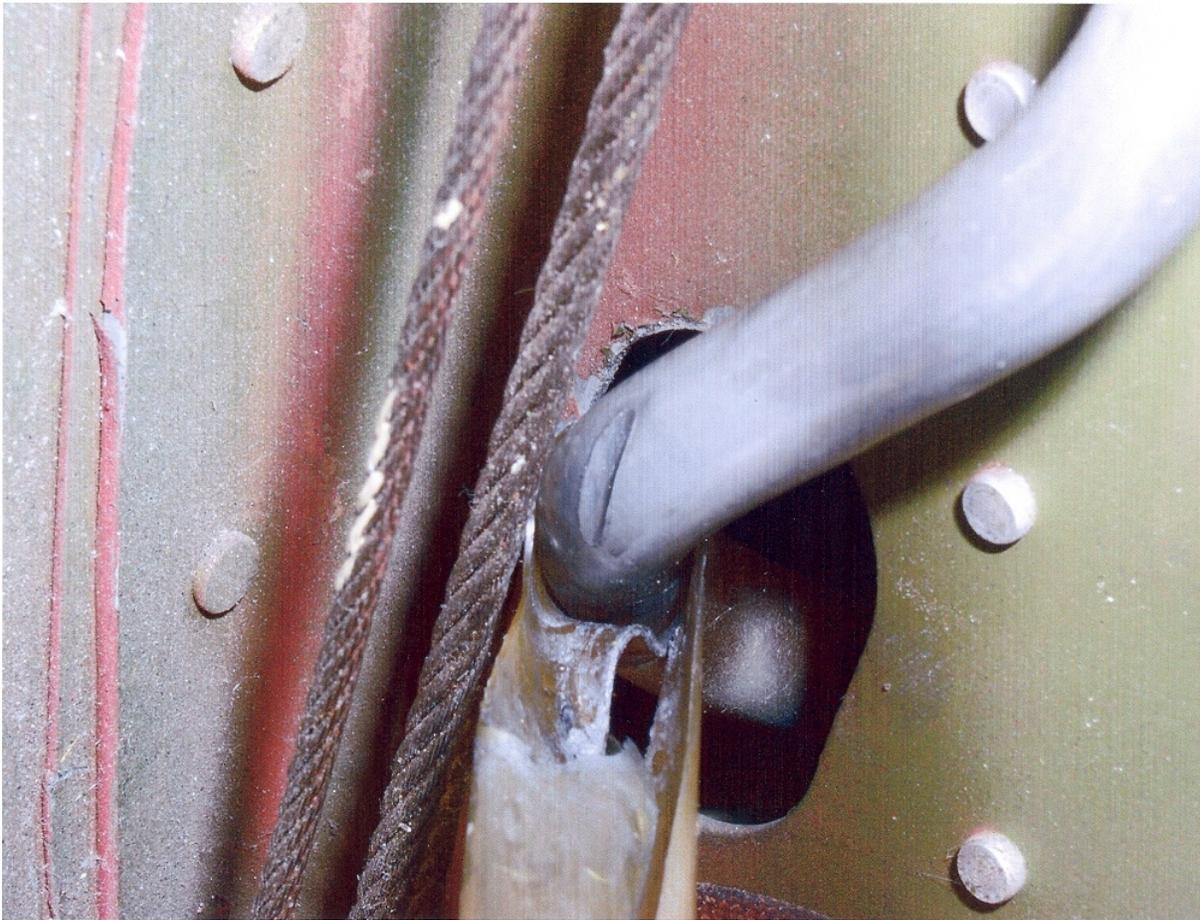


Figure 12-2. Fuel System



TOP

(Phillip...somebody owes you a steak dinner! Great eyeballs, trick photography, and good documentation. Don't underestimate how many others you may have helped with your effort. Thank you—Ed.)

Part Total Time: 2,365.0 hours.

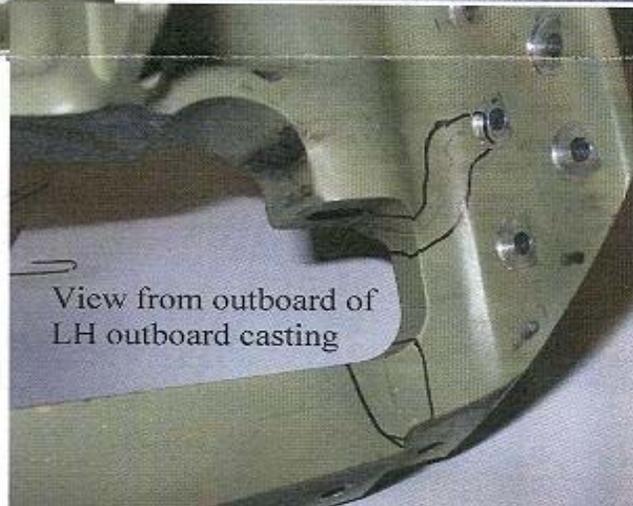
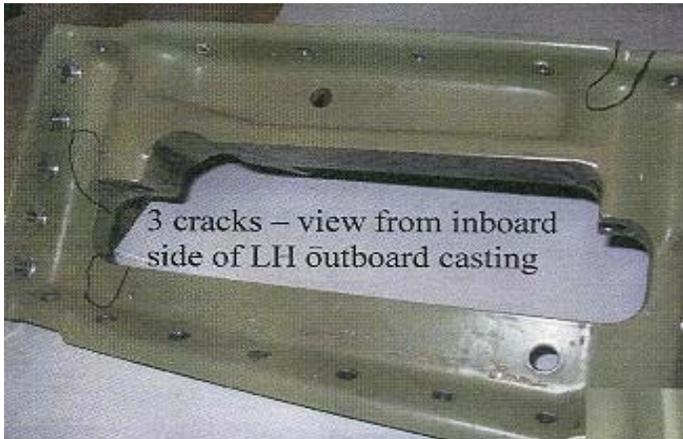
Cessna: T206H; Failed Main Gear Castings; ATA 5343

(The following combines two reports from the same submitter, each describing the same broken part found on different 206 aircraft.)

A technician states, "This aircraft is operated on mostly unimproved airstrips in Lesotho, South Africa. The part is the same *(as found on)* 206 F and G models, and was installed at the time of aircraft manufacture *(P/N 1211601-3)*. This casting cracked and failed upon landing. The aft bolt was also cracked and sheared. *(This aircraft)* had a normal approach and landing *(which resulted in)* the L/H gear leg breaking loose from the outboard casting and pushing backwards, pinching the brake line and locking up the left brake." *(Part time: 1,776.6 hours.)*



About the second aircraft Rocky says, “This casting is cracked in three different locations. We operate (*many*) of these aircraft and have a long history with the (*model*) 206. We have seen cracks of this nature before, but rarely with so little time in service.” (*Part Total Time: 1,250.0 hours.*)



(A search of the FAA Service Difficulty Reporting System data base revealed seven similar reports.)

Part(s) Total Times: 1,776.0 and 1,250.0 hours, respectively.

DE HAVILLAND

De Havilland: DH6-300; Cracked Nacelle Longeron; ATA 5413

A submitting mechanic says, "The R/H nacelle inboard longeron cracked 10.5 inches aft of the forward end (P/N C6W1512141). I removed and replaced the R/H inboard longeron...and verified modification 6/1655 is installed per AD 80-13-12 R1."





(Phone conversation with the mechanic notes four additional, similarly cracked longerons on separate de Havillands. Thanks for the pictures, John.)

Part Total Time: (unknown). Aircraft Total Time: 39,028.0 hours.

GULFSTREAM

Gulfstream: G200; Cracked Drain Line Freezes Ailerons; ATA 3830

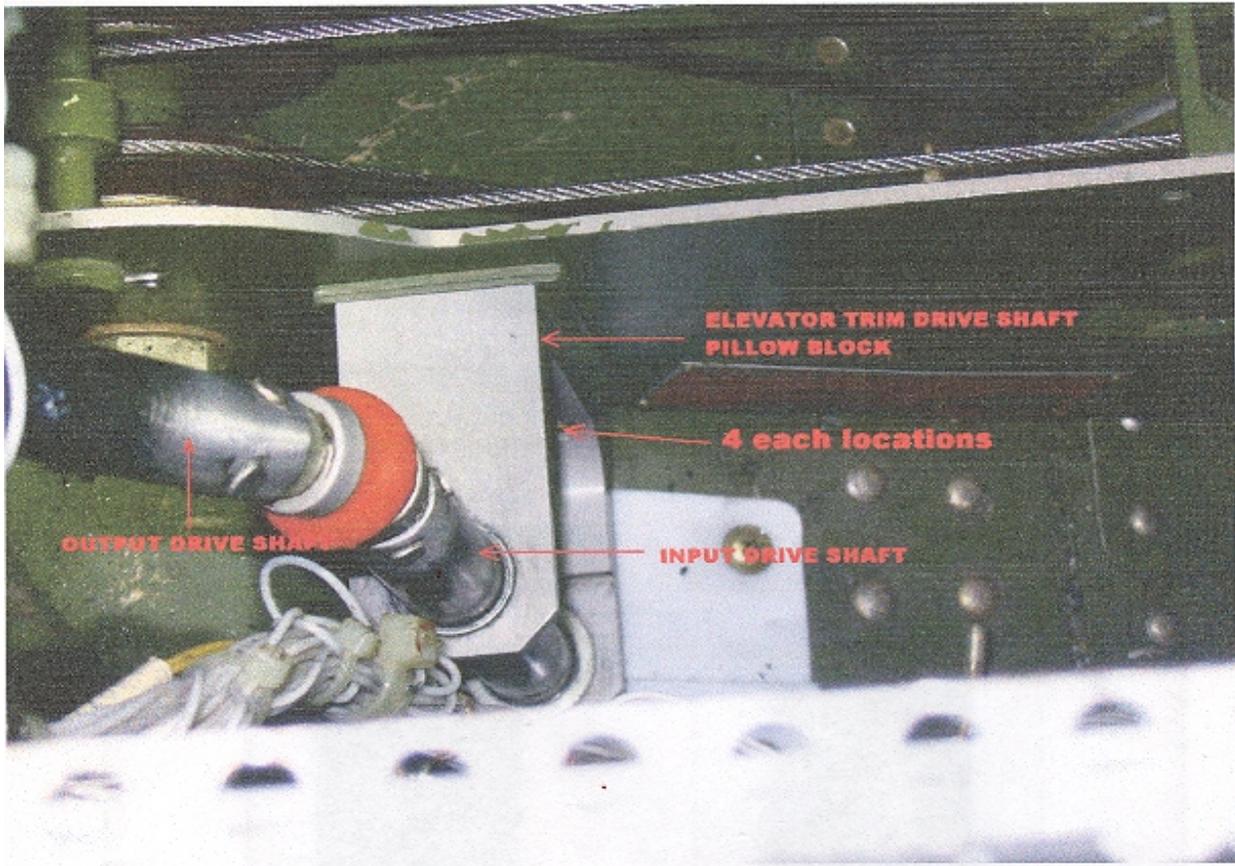
An unidentified submitter writes, “While flying at 37,000 feet the pilots were not able to move the aileron controls. The aircraft descended to a lower altitude and the controls (*subsequently*) functioned normally. The aircraft returned to home base and was inspected. It was determined water had frozen on the aileron artificial feel system, inhibiting the control inputs of the ailerons by the pilots or the autopilot. Further inspection revealed...(*the source of the water*) was a cracked drain line on the potable water system.” (*Line P/N: 4AS1271081-501.*)

Part Total Time: 2,634.3 hours.

Gulfstream: GIV; Loose Pillow-block on Elevator Trim; ATA 2742

About this aircraft the Director of Maintenance for an air carrier writes, “...upon descent from 41,000 feet (*the flightcrew*) got an ‘FGC1 fail message’ along with a ‘forward trim limit’ message. They were unable to trim the aircraft elevators. They complied with the checklist to reset both messages with no success. The autopilot was disconnected and an emergency declared with Air Traffic Control..., manually landing the aircraft without incident.” “Technicians found the hardware attaching the elevator trim, driveshaft pillow block had loosened, causing the driveshaft to separate from the output shaft. They secured the hardware and attached the output shaft

to the drive input shaft. Then the elevator trim system was rigged IAW GIV, AMM 27-04-00 (*maintenance manual*). No other discrepancies were noted. After further investigation it has been found that Gulfstream issued an ASC (Aircraft Service Change) number 70 which (1) installs cotter pins on the output to the input drive rods, and (2) changes the attachment hardware for the pillow drive block (*to accept*) cotter pins. I strongly recommend this ASC to prevent an occurrence like this in the future. It surprises me that Gulfstream only has this as a 'recommended ASC' (*instead of a*) 'mandatory'." (*The "pillow-block" part number was not provided.*)



Part Total Time: 10,192.31 hours.

HAWKER

Hawker: 700A; Leaking APU Fuel Line; ATA 4930

"The flight crew noted a strong fuel smell in the aft cabin," states an air taxi submitter. "Upon investigation fuel was found on the aft equipment access door and under the APU. The APU shroud was opened and the fuel manifold removed...it was discovered to have a small pin-hole in one of the main fuel lines and was leaking into the APU, causing the fuel odor. No leaks were found after the manifold was replaced (P/N 46704-100). The aircraft was returned to service."

(*The APU is a Sundstrand, model T-62T-39. Time since overhaul noted at 164.9 hours.*)

Part Total Time: (unknown).

Hawker: 800; Cracked Main Gear Actuator; ATA 3233

A technician says, “The R/H main landing gear actuator (*P/N 48503-4*) has a cracked attach housing, discovered during a wheel well inspection. The part was not leaking, but it could have separated at any moment and caused severe damage to the aircraft. The assembly date of this actuator was January of 1992.”

Part Total Time: 5,860.1 hours.

HELICOPTERS**MDH****MDH: 369d; Split Bypass Reference Tube; ATA 7220**

A repair station technician writes, “During an annual inspection of the particle separator it was discovered that the bypass switch reference line was split—(*its cause*) obviously from frozen water. The aircraft had (*previously*) flown in snow (*precipitation*). After landing it spent a couple of days out in subzero weather.”



(Included line P/N: 369H90149-71. Thanks for the scary picture—Ed.)

Part Total Time: (unknown).

POWERPLANTS

ECI

ECI “E” Series Cylinders: TISN71.2ACA; Cracked Heads; ATA 8530

(The following short defect description combines eight reports from the same mechanic, all concerning Continental IO520 engines on four separate aircraft.)

“(This TISN71.2ACA cylinder) was found cracked behind the injector between the first and third fins. The (crack/defect) is the same as all the others (in this group). The ‘new’ E-series cylinder head is defective....”

(Times for the eight cracked cylinders: 295.1; 531.8 x 2 each; 785.9; 811.2 x 3 each; and 901.4 hours, respectively. The group average is 684.95 hours, or approximately 38 percent of a minimal performance expectation of 1800 hours—not good to say the least. Keep squawking these cylinders, James! A search of the FAA Service Difficulty Reporting System data base revealed at least 37 reports on this part number. I summarized your defect group to a propulsion specialist; waiting to hear back—Ed.)

LYCOMING

Lycoming: IO360-L2A; Seized Exhaust Valve; ATA 8530

An inspector for a repair station provides the following discrepancy report concerning a Cessna 172. “During flight the engine started running rough and lost power. An emergency landing was completed without damage or injury. Maintenance found the number three exhaust valve seized in the valve guide. Further investigation found the guide (P/N 74230) broken in the cylinder head. This operator has seventeen Model 172S aircraft with the new roller tappet engines. We have been performing an SB388C (*service bulletin*) inspection on the rest of the fleet and have found the majority of the exhaust valves for all cylinders to be tight in the guides. Lycoming SI1485 (*service instruction*) recommends a 1000 hour interval for these engines for the SB388C inspection. Our current fleet has between 650 and 900 hours total time per aircraft. We will be initiating a 600 hour interval for the SB388C for our fleet. We have also revised our (*fuel*) leaning procedures.”



A search of the FAA Service Difficulty Reporting System data base revealed 11 reports on this part number. Nice picture, Pat. Thanks!)

Part Total Time: 888.7 hours.

AIR NOTES

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

The Federal Aviation Administration (FAA) Internet Service Difficulty Reporting (iSDR) web site is the front-end for the Service Difficulty Reporting System (SDRS) 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, 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/isdr/>.

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

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

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

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

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

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

The SDRS 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:

Pennie Thompson
Service Difficulty Reporting System, Program Manager
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125
Telephone: (405) 954-1150
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

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

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

AVIATION SERVICE DIFFICULTY REPORTS

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

FAA

Aviation Data Systems Branch, AFS-620

PO Box 25082

Oklahoma City, OK 73125

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

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

Federal Aviation Administration

Service Difficulty Report Data

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

Control Number	Aircraft Make	Engine Make	Component Make	Part Name	Part Condition
Difficulty Date	Aircraft Model	Engine Model	Component Model	Part Number	Part Location
2008FA0000434				RELEASE MECH	FAILED
6/5/2008					SEAT BELT
SEAT BELT WILL RELEASE WITHOUT PULLING ON THE RELEASE BUCKLE. DURING FLIGHT THE SEAT BELT CAME UNDONE WITHOUT ANYONE PHYSICALLY UNLATCHING THE BELT. CAUSE WAS DUE TO DEFECTIVE LATCH MECHANISM. ALL BELTS WITH CERTAIN BATCH NUMBERS ARE DEFECTIVE. (1-954/784-3178 MFG) (K)					
2008FA0000446				CYLINDER	OUT OF TOLERANCE
1/9/2008				80130700	
OXYGEN CYLINDER (PN 801307-00, SN ST26121) ARRIVED AT WORKSHOP ON 9TH JAN, 2008, REMOVED OFF OF G-EZJO FOR HAVING LOW CONTENTS PRESSURE. ON CLOSE INSPECTION, IT WAS DISCOVERED THAT THE CYLINDER NECK HAD BEEN MARKED WITH HIGH STRESS STAMPS. CYLINDER LAST OVERHAULED BY AVOX. IN THE RIN STAMP, THE NUMBER 1 CLEARLY SHOWS THAT THE INCORRECT STAMPS HAVE BEEN USED. (K)					
2008FA0000447		ALLSN		TURBINE WHEEL	FAILED
5/29/2008		250C20B		23073853	ENGINE
TURBINE ASSY RECEIVED FOR REPAIR DUE TO METAL IN OIL. UPON DISASSEMBLY, IT WAS NOTED THAT THE 1ST STAGE TURBINE WHEEL BLADES WERE MISSING PIECES OF BLADE MATERIAL. THE APPARENT IMBALANCE OF THE GP ROTOR ASSY PRODUCED BY THE MISSING BLADE PIECES CAUSED THE GP STATOR SEAL TO FRACTURE. ONE PORTION OF THE STATOR SEAL BEGAN TO ROTATE WITH THE NR 8 BEARING OUTER RACE. THE DOWNSTREAM PORTION OF THE STATOR SEAL BELOW THE FRACTURE REMAINED STATIONARY AND THE GRINDING BETWEEN THE STATIONERY PORTION OF THE SEAL AND THE ROTATING PORTION APPEARS TO BE THE SOURCE OF THE METAL. THE TURBINE WHEEL BLADE TIPS APPEAR TO HAVE FAILED DUE TO HOT - CORROSION SULFIDATION AS DEFINED IN MFG CSL-1210. SOME DOWNSTREAM PORTIONS OF THE TURBINE GAS PATH WERE DAMAGED BEYOND REPAIR BY IMPACT OF THE FAILING WHEEL BLADE PIECES. (K)					
2008FA0000442		CFMINT		COUPLING	MISSING
7/1/2008		CFM567B26US		AS18954175	ENGINE DUCT
DURING GROUND RUN AFTER INSTALLATION, HOT AIR ESCAPED FROM THE NOSE COWL ANTI-ICE DUCT AT THE 12 O'CLOCK POSITION CAUSING THERMAL DAMAGE TO THE C-DUCT THERMAL BLANKETS AND TRUST LINK TEFLON WASHERS. INVESTIGATION FOUND DUCT COUPLING PN AS1895-4-175 MISSING. ENGINE WAS RELEASED FOLLOWING MAINTENANCE TO RECTIFY HIGH OIL PRESSURE INDICATIONS IN FEB 2008. (K)					
2008FA0000380		CONT		ENGINE	MALFUNCTIONED
3/3/2008		IO520CB			
OH ENGINE AND RETURNED TO SERVICE APROX (2) YEARS AGO, 600 HOURS OPERATION. ENGINE FAILED WHEN POWER WAS REDUCED ON LANDING. THE COUNTERWEIGHT MANAGED TO HOOK ON THE CYLINDER DECK STUD AND DRAG IT INTO THE CASE, GETTING INVOLVED WITH THE ROTATING COMPONENTS. MASSIVE DAMAGE TO THE ENTIRE ROTATING MASS. IT WAS NOTED ON TEARDOWN THAT AT THE CYLINDER DECK STUDS (NECK STUDS) DO EXTEND THRU THEIR HOLES IN THE CYLINDER PAD APPROX .1875 TO .3125 BELOW THE BOTTOM OF THE HOLE IN THE CASTING. THE LATER CASTINGS HAVE .2500 TO .3125 THICKER MATERIAL CAUSING THE STUDS TO BE EVEN WITH THE BOTTOM OF THE HOLES, AND TO HAVE SEVERAL MORE THREADS IN THE CASTING. AFTER EXAMINING THE CASE, NOTED, BASED ON THE DESIGN OF THE STUDS, THERE WAS BEARLY .2500 INCH OF THREAD INSIDE OF THE HOLE. HOLDING THE STUD IN PLACE THEIR MUST HAVE BEEN NOTICE OF THIS CASTING					

FLAW, AS THE LATER CASES WERE THICKER IN THESE AREAS. WITH THIS MANY STUDS THAT ARE LIGHTLY SECURED IN THESE MODEL CASES, ARE READY TO COME OUT AGAIN AND CAUSE CASTISTROPHIC FAILURE OF MANY ENGINE THAT ARE STILL IN SERVICE THAT WERE CAST UNDER THIS NUMBER. (K)

2008FA0000369	CONT	GEAR	STRIPPED
3/22/2008	IO550N		MAGNETO

A PRE-TAKEOFF ENGINE RUNUP WAS SATISFACTORY. SHORTLY AFTER LIFTOFF THE AIRCRAFT BEGAN VIBRATING SUBSTANTIALLY. AFTER REACHING PATTERN ALITUDE, REDUCED POWER AND SWITCHED TO LT MAGNETO OPERATION AND THE ENGINE RAN SMOOTHLY. SWITCHED TO RT MAGNETO OPERATION THE ENGINE ESSENTIALLY DIED AND UPON RETURNING TO "LT" THE ENGINE EXPERIENCED AN AFTER FIRE (AKA BACKFIRE) THEN RAN SMOOTHLY ONCE AGAIN. RETURNED TO THE DEPARTURE AIRPORT AND REMOVED THE ENGINE COWLING. REMOVED THE TIMING PLUG ON THE RT MAG AND FOUND THE DISTRIBUTOR GEAR WOULD TURN FREELY. REMOVED THE MAGNETO. PARTIAL DISASSEMBLY REVEALED THE DISTRIBUTOR GEAR WAS STRIPPED OF NEARLY HALF ITS TEETH. BOTH MAGNETOS HAVE SINCE BEEN REPLACED. EACH MAGNETO HAS A THREADED HOLE ON THE TOP OF THE HOUSING WITH A SOLID PLASTIC PLUG WHICH CAN BE REMOVED TO VIEW THE DISTRIBUTOR GEAR. ADDITIONALLY EACH MAGNETO HAS A THREADED HOLE ON THE BOTTOM OF THE MAGNETO.

2008FA0000488	PWA	HOUSING	BROKEN
4/23/2008	PT6A27	3028266	RGB

ABOUT 12 INCHES OF THE RGB FRONT HOUSING SPLINES WERE FOUND BROKEN OFF DUE TO FATIGUE CRACK. (K)

2008FA0000497	ADAMAC	CONT	BOOT	MISINSTALLED
6/20/2008	A500	TSIO550E		CONTROL COLLUMN

AT LOCATION WHERE CONTROL "STICK" PASSES THROUGH L/R SIDE ARM REST, THE BOOT SURROUNDING BASE OF STICK LIES OPEN TO CONTROL MECHANISMS. WHERE THE STICK ENTERS THE COCKPIT, THE LEATHER BOOT THAT IS DESIGNED TO COVER THE AREA BENEATH THE STICK, IS PARTIALLY OPEN. THIS ALLOWS FOREIGN OBJECTS, PLACED ALONG THIS AREA, TO FALL DOWN INTO WHERE CONTROLS COULD BECOME JAMMED. THIS HAS ALREADY OCCURRED, RESULTING IN LOSS OF VERTICAL CONTROL. MFG NEEDS TO ISSUE AN IMMEDIATE AD AND ISSUE REMEDY FOR THIS SAFETY OF FLIGHT ISSUE. (K)

2008FA0000452	AEROSP	PWA	PITOT TUBE	OBSTRUCTED
6/10/2008	ATR72212	PW127		

ON TAKEOFF ROLL THE F/O AIRSPEED INDICATOR REMAINED AT ZERO. THE TAKEOFF WAS ABORTED AND THE AIRCRAFT RETURNED TO THE GATE. MAINTENANCE FOUND FOD (SPIDER) IN THE PITOT TUBE. THE TUBE WAS CLEARED AND THE SYSTEM CHECKED GOOD. THE AIRCRAFT WAS RETURNED TO SERVICE. (K)

2008FA0000340	AMD	ACTUATOR	MALFUNCTIONED
5/12/2008	FALCON50MYST	C239251103	MALF

WHILE PERFORMING THE LANDING GEAR GRAVITY EXTENSION CHECK (MP32-470) DURING THE (B) INSPECTION IT WAS DISCOVERED BOTH MAIN LANDING GEAR ACTUATORS WOULD EXTEND PARTIALLY (APPROXIMATELY 30 PERCENT OF NORMAL TRAVEL) AND STOP. FURTHER TROUBLESHOOTING REVEALED IT TOOK EXTREME PRESSURE TO MOVE THE ACTUATORS TO THE DOWN AND LOCKED POSITION. THE ACTUATORS NORMALLY FREE-FALL TO THE EXTENDED POSITION AND NEED TO BE PULLED INTO THE DOWN AND LOCKED POSITION. BOTH ACTUATOR WERE REPLACED WITH OVERHAULED ACTUATORS. THE FAULTY ACTUATORS WERE SENT TO THE MFG REPAIR FACILITY FOR TEARDOWN AND EVALUATION. THE ACTUATOR PART AND SERIAL NUMBER ARE AS FOLLOWS: LT ACTUATOR/ PN C23925-1103, SN U22, RT ACTUATOR/ PN C23926-1103.

2008FA0000341	AMD	ACTUATOR	MALFUNCTIONED
5/12/2008	FALCON50MYST	C239261103	MLG

WHILE PERFORMING THE LANDING GEAR GRAVITY EXTENSION CHECK (MP32-470) DURING THE (B) INSPECTION IT WAS DISCOVERED BOTH MAIN LANDING GEAR ACTUATORS WOULD EXTEND PARTIALLY (APPROXIMATELY 30 PERCENT OF NORMAL TRAVEL) AND STOP. FURTHER TROUBLESHOOTING REVEALED IT TOOK EXTREME PRESSURE TO MOVE THE ACTUATORS TO THE DOWN AND LOCKED POSITION. THESE ACTUATORS NORMALLY

FREE-FALL TO THE EXTENDED POSITION AND NEED TO BE PULLED INTO THE DOWN AND LOCKED POSITION. BOTH ACTUATORS WERE REPLACED WITH OVERHAULED ACTUATORS. THE FAULTY ACTUATORS WERE SENT TO THE MANUFACTURER'S REPAIR FACILITY FOR TEARDOWN AND EVALUATION. LT ACTUATOR, PN C239251103, SN U22 / RT ACTUATOR PN C239261103, SN U22. (K)

2008FA0000336	AMD	GARRTT	PUMP	FAILED
5/27/2008	FALCON50MYST	TFE7313	307194912	ENGINE OIL

IAW MFG RECOMMENDATION, WE REMOVED THE ENGINE OIL PUMP, PN 3071949-11, AND INSTALLED PN 3071949-12 PUMP BECAUSE OF AN ISSUE (ENGINE HIDING OIL) NOT ABLE TO GET A PROPER OIL QUANTITY READING AFTER SHUTDOWN. MFG SAID THE PN 3071949-12 PUMP SHOULD CORRECT THAT, WHICH IT DID. THE PUMP WE INSTALLED PN 3071949-12, SN 7018, TSO 20 HOURS WITH A ZERO TIME SINCE REPAIRED 8130 FROM MFG TRACKING NR 41056, WO NR 877515-001, DATED 2-4-2008 WITH NO FAULT FOUND. AFTER APPROXIMATELY 10 HOURS, WE HAD WRITE UP OF OIL PRESSURE FLUCTUATING. GROUND RUN AND COULD NOT DUPLICATE, SO WE SWAPPED OIL PRESSURE TRANSMITTERS AND GAUGE WITH OTHER ENGINES FOR TROUBLESHOOTING. THEN THE AIRCRAFT FLEW APPROXIMATELY 38 HOURS WITH EVERYTHING NORMAL. THEN OIL PRESSURE FLUCTUATED WITH ASSOCIATED LOW OIL PRESSURE WARNING LIGHT COMING ON AND OFF (TWO DIFFERENT INDICATION SYSTEMS). CREW ELECTED TO SHUTDOWN ENGINE FOR PRECAUTIONARY REASONS. REPLACEMENT PUMP, PN 3071949-12, INSTALLED. NEXT FLIGHT WAS NORMAL. I HAVE QUESTIONED WHY THE PUMP SN 7018 WAS REMOVED FROM THE ENGINE AFTER 20 HOURS WITH NO FAULT FOUND.

2008FA0000496	AMTR	PWA	CENTURY	TRIM SWITCH	INOPERATIVE
6/18/2008	SU26MX	PT6A21		30B641	CONTROL COLLUMN

AFTER INSTALLATION OF NEW AUTOPILOT SYSTEM, AUTOPILOT COMPUTER TRIM CIRCUITRY FAILED ON INITIAL CHECK OUT, OCT 02, 2007. COMPUTER WAS RETURNED TO MFG AND REINSTALLED AFTER REPAIR. TRIM CIRCUITRY FAILED AGAIN AND WAS RETURNED TO MFG ON JAN 18, 2008. MFG TECH SUPPORT ADVISED REPLACEMENT OF SUSPECTED BAD TRIM SWITCH ASSY AT THIS TIME AS CAUSE OF REPEATED FAILURE. MICRO SWITCHES IN ASSY FAILED ALLOWING BOTH UP AND DOWN COMMANDS AT THE SAME TIME. TRIM SWITCH ASSY PROVIDED BY MFG WAS REPLACED AND COMPUTER REPAIRED AND REINSTALLED ON FEB 17, 2008. TRIM CIRCUITRY FAILED ON INITIAL CHECKOUT. COMPUTER WAS REMOVED FOR REPAIR AND THE TRIM SWITCH WAS CONFIRMED TO BE CAUSING THE FAILURE AGAIN. THE TRIM UP MICRO SWITCH WAS STUCK IN THE ASSY, WHICH CAUSES THE TRIM CIRCUITRY IN THE AUTOPILOT TO FAIL IF TRIM DOWN IS MANUALLY SELECTED. TRIM SWITCH OR COMPUTER SHOULD BE MODIFIED TO PREVENT SIMULTANEOUS ACTIVATION ON BOTH UP AND DOWN SWITCHES. (K)

2008FA0000410	AYRES	PWA	TURBINE	DAMAGED
5/27/2008	S2RT34NORMAL	PT6A34	3013411	ENGINE

06/20/2008 REPORT: ON 5/27/08 AC UNDER LOAD IN TURN EXPERIENCED ENGINE FAILURE RESULTING IN ACCIDENT. LOUD BANG! ENGINE QUIT. CT TURBINE TEETH MISSING, NR 2 BEARING DESTROYED. 1026.1 HOURS ON PMA BLADES PQ0812NE. (K) (NTSB: DFW08CA155)

2008FA0000507	BEECH		SKIN	DAMAGED
7/15/2008	300BEECH			WING

AIRCRAFT WAS BROUGHT IN FOR INSPECTION OF DOUBLER ROW OF RIVETS AT WING STA 209.016. RIVETS WERE FOUND SMOKING AND PAINT WAS POPPED ON THE RIVET HEADS. USED BOROSCOPE TO INSPECT RIVET BUCKTAILS. FOUND ALL OF THE RIVETS IN THE DOUBLER ROW OF THE SKIN LAP AT WS 209.016 WERE UNDER DRIVEN. THESE RIVETS WERE INSTALLED NEW AT THE FACTORY. AC HAS A TT OF 1659.1. RECOMMEND INSPECTING THESE RIVETS FOR POPPED PAINT AND SMOKING CONDITION AND INSTALLING NEW RIVETS IAW AC 43..13-1B. (K)

2008FA0000501	BEECH		SKIN	DAMAGED
7/15/2008	300BEECH			WING

AIRCRAFT WAS BROUGHT IN FOR INSPECTION OF DOUBLE ROW OF RIVETS AT WING STA 209.016. RIVETS WERE FOUND SMOKING AND PAINT WAS POPPED ON THE RIVET HEADS. USED BOROSCOPE TO INSPECT RIVET BUCKTAILS. FOUND ALL OF THE RIVETS IN THE DOUBLE ROW OF THE SKIN LAP AT WS 209.016 WERE UNDER DRIVEN. THESE RIVETS WERE INSTALLED NEW AT THE FACTORY. AIRCRAFT HAS A TT OF 1659.1. RECOMMEND INSPECTING THESE RIVET FOR POPPED PAINT AND SMOKING CONDITION AND INSTALLING NEW RIVETS IAW AC

43.13-1B. (K)

2008FA0000503	BEECH	PWA	SKIN	DAMAGED
7/15/2008	300BEECH	PT6A60A		RT WING

AIRCRAFT WAS BROUGHT IN FOR PHASE INSPECTION. DURING INSPECTION A DOUBLER ROW OF RIVETS AT WING STATION 209.016 WERE FOUND WITH PAINT POPPING OFF OF THE RIVET HEADS. USED BOROSCOPE TO INSPECT RIVET BUCKTAILS. FOUND ALL OF THE RIVETS IN THE DOUBLE ROW OF THE SKIN LAP AT WS 209.016 WERE UNDER DRIVEN. THESE RIVETS WERE INSTALLED NEW AT THE FACTORY. AIRCRAFT HAS A TT OF 201.8. RECOMMEND INSPECTING THESE RIVETS FOR POPPED PAINT AND SMOKING CONDITION AND INSTALLING NEW RIVETS IAW AC 43.13-1B. (K)

2008FA0000454	BEECH	PWA	BRACKET	CRACKED
6/30/2008	400A	JT15D5	45A21085003	HORIZONTAL STAB

HORIZ STAB IB RIBS LT AND RT ROLLER BRACKETS FOUND CRACKED. REPLACED PN 45A21085-003 LT FWD BRACKET. PN 45A21086-003 LT AFT BRACKET, PN 45A21085-004 RT FWD. BRACKET PN 45A21086-004 RT AFT BRACKET WITH IMPROVED PN 128-620021-0001 (LT) AND PN 128-620021-0002 (RT) BRACKETS IAW MFG COMMUNIQUE NR 83. REPLACED PN 45A21146-005 RIB (LT) AND PN 45A21146-006 RIB (RT) WITH IMPROVED PN 128-620022-0001 (LT) AND PN 128-620022-0002 (RT) RIBS IAW MFG COMMUNIQUE NR 83. INSPECTION NEWLY INCORPORATED INTO MM 5-20-02 INSP GUIDE AND SECTION 55-30-00. (K)

2008FA0000415	BEECH		MAGNETO	FAILED
5/5/2008	58		S6LSC204T	ENGINE

SMOKE WAS REPORTED IN COCKPIT. UPON INVESTIGATION, FOUND PIN HOLE CORRODED IN METAL LINE CLOSE TO AIR CONDITIONER BLOWER MOTOR. ALCOHOL SOAKED INSULATION NEAR FRONT BULKHEAD. BURNED SOME INSULATION AND AIR CONDITION FILTER HAD HOLE BURNED IT ALSO. WAS UNABLE TO FIND LEAK WITHOUT LINE REMOVAL AND PRESSURE TEST. CONTACT POINT PN 10-382585 WAS FOUND IN MAGNETO. POINT CONTACT SURFACE WAS DEBONDED FROM BASE. RESULT WAS FAILED MAGNETO. FOR INFO ONLY - TO SEE IF MORE BREAKER POINTS SHOW SAME TYPE OF FAILURE MAY BE MFG PROCESS. (K)

2008FA0000335	BEECH	CONT	TUBE	CRACKED
4/18/2008	58	IO550C	88D7015EL	HEATER

WHILE PERFORMING A PRESSURE DECAY TEST IAW AD2004-21-05, THE COMBUSTION TUBE WOULD NOT AINTAIN PRESSURE AND AIR LEAKING WAS NOTED. INVESTIGATION FOUND A .75 INCH LONG CRACK IN THE AFT END OF THE COMBUSTION TUBE NEAR THE RADIUS. CRACK MAY HAVE BEEN CAUSED BY STRESS INDUCED WHILE FORMING THE END CAP ALONG WITH NORMAL HEATING AND COOLING OF THE HEATER. HEATER HAD 98 HOURS SINCE LANST PRESSURE TEST. A FACTORY REBUILT UNIT WAS INSTALLED AND AIRCRFAT RETURNED TO SERVICE.

2008FA0000353	BEECH	LYC	SHAFT	LACK OF LUBE
5/16/2008	65A80	IGSO540B1A		NLG ACTUATOR

NOSE LANDING GEAR WOULD NOT DEPLOY ON APPROACH TO LANDING. AFTER NLG REMOVAL, IT WAS DISCOVERED THAT THE NLG ACTUATOR DRIVE SHAFT PN 50820218 INTERNAL SPLINE WAS WORN AND SHEARED. LUBE POINTS ON DRIVE SHAFT TO LUBE SPLINES TO REDUCE WEAR. (K)

2008FA0000468	BEECH	LYC	HINGE	CRACKED
7/1/2008	65B80	IO720A1B	NAS405	CABIN DOOR

(2) OF THE HINGE LINKS HAD CRACKED OFF ON ONE END. UPON DISASSEMBLY IT WAS DETERMINED THAT A CRACK HAD FORMED LENGTHWISE BETWEEN THE FASTENERS AND THE HINGE LINKS. POSSIBLE CAUSE MAY HAVE BEEN FATIGUE. (K)

2008FA0000417	BEECH	LYC	ENGINE	SEIZED
12/21/2007	A65	GSO480*	IGSO480	LEFT

AIRCRAFT LANDED WITH LT ENGINE SHUTDOWN (IN-FLIGHT SHUTDOWN). INITIAL INVESTIGATION REVEALED THAT THE ENGINE WAS SEIZED. OIL SCREEN WAS REMOVED AND FOUND HEAVILY CONTAMINATED WITH METAL

PARTICLES. ENGINE OIL SUMP DRAIN PLUG WAS REMOVED. LARGE METAL PARTICLES, SOME APPROXIMATELY .25 IN DIAMETER WERE REMOVED FROM IMMEDIATELY INSIDE THE SUMP DRAIN HOLE. OTHER PARTICLES APPEAR TO BE GEAR TEETH, AS SHEARED FROM THE GEAR. ENGINE WAS REMOVED FROM THE AIRCRAFT(12-18-2007) AND SENT TO CUSTOMER DESIGNATED REPAIR FACILITY. (K)

N772AF	BEECH		HINGE	CORRODED
6/2/2008	B200		10164001423	RUDDER

CENTER RUDDER HINGE FOUND TO HAVE EXCESSIVE CORROSION.

772AF	BEECH		CHECK VALVE	DEFECTIVE
6/3/2008	B200		13022	BLEEDD AIR SYS

FLAPPERS IN BLEED AIR INLET CHECK VALVE CAME LOOSE AND CHAFED THE INSIDE OF THE HOUSING. ONE FLAPPER CHAFED A HOLE THROUGH THE HOUSING.

2008FA0000508	BEECH		BRACKET	MISINSTALLED
7/16/2008	B200		5043006221	PAX DOOR LATCH

PILOT REPORTED DOOR CAME OPEN IN FLIGHT. UPON LANDING, IT WAS FOUND THE MAIN CABIN DOOR HAD DEPARTED AIRCRAFT. DOOR WAS RECOVERED. DURING INSPECTION AND DISASSEMBLY OF THE DOOR, SEVERAL ISSUES WERE FOUND. 1) UPPER FORWARD LATCH HOOK WAS FOUND WITHOUT RIGGING HOLES INSTALLED AND WAS INCORRECTLY RIGGED. 2) DOOR BELLCRANK, PN 50-430031-29 WAS FOUND BENT AND TWISTED. 3) MAIN CABIN DOOR LATCH BRAZE ASSEMBLY WAS CATCHING ON HOOK. DID NOT ALLOW FOR A SMOOTH TRANSITION TO A LOCKED POSITION. (K)

2008FA0000412	BEECH	PWA	CONTROL ARM	WORN
5/28/2008	B200	PT6A42	101910026191	LT NACELLE

LT ENGINE NACELLE ICE-VANE CONTROL ARM HAD WORN OUT OR DESTROYED BUSHINGS AT ALL 3 ACTUATING CONTROL ARM DRIVE POINTS AND LINKS, CAUSING POTENTIAL FOR F.O.D. TO ENGINE. WHEN ICE VANE IS IN THE RETRACTED POSITION THERE ARE NO HARD STOPS TO KEEP IT FROM VIBRATING. (K)

2008FA0000377	BEECH	PWA	SKIN	CRACKED
7/1/2008	B200C	PT6A42	501102715	RT WING

DURING A PREFLIGHT INSPECTION, MAINTENANCE TECH NOTED A 3.75 INCH LONG CRACK IN THE RT WING LOWER WING SKIN JUST FWD OF THE IB SECTION OF THE OB FLAP. ADDITIONALLY A SUPPORT/ ANCHOR TAB THAT ATTACHES THE LOWER WING SKIN TO THE IB MOST FLAP WELL RIB OF THE OB WING, WITHIN THE FLAP WELL, WAS FOUND CRACKED THROUGH/FAILED. WE BELIEVE THIS TAB FAILURE ALLOWED THE SKIN TO VIBRATE GENERATING THE RAPID CRACK GROWTH. THIS CRACK IS DIRECTLY AFT OF THE LOWER AFT WING BOLT. THIS CRACK HAS JUST APPEARED WITHIN THEPAST (2) HOURS OF FLIGHT TIME. CAN PINPOINT THIS TIME FRAME SINCE THE 5 YEAR WING BOLTS REMOVAL AND INSPECTION PROCESS WAS COMPLETED JUST 2 FLIGHT HOURS AGO AND NO WING SKIN CRACKS WERE NOTED/ DOCUMENTED AT THAT TIME. (K)

E812008F00000	BEECH		CHANNEL	CRACKED
2/13/2008	B300		50430043619	FUSELAGE

INVESTIGATED PILOT COMPLAINT OF LOOSE FUSELAGE SKIN RIVETS AT CABIN DOOR HINGE AREA. FOUND FUSELAGE DOOR FRAME CHANNEL CRACKED. CABIN DOOR DAMPER ACTION ALSO REPORTED AND FOUND TO BE WEAK. SUSPECT CAUSED BY CABIN DOOR "BOTTOMING OUT" EXCESSIVELY HARD OR EXCESSIVE WEIGHT ON DOOR OVER REPEATED CYCLES. TECH/ INSPECTORS SHOULD CHECK DOOR DAMPNER OPERATION AT SCHEDULED PHASE INSPECTIONS AND CORRECT IF WEAK OPERATION NOTED. EVIDENCE OF LOOSE HINGE AREA RIVETS SHOULD ALSO BE INVESTIGATED FOR POSSIBLE CRACKED STRUCTURE UNDER THRESHOLD. (K)

2008FA0000445	BEECH	PWA	PIN	MISSING
6/11/2008	B300	PT6*	1014300329	PAX DOOR

UPPER AFT ENTRANCE DOOR BAYONET SHIFTED OB .7500 INCH CAUSING AC TO DEPRESSURIZE. THIS WAS CAUSED BY A PIN (PN 101-430032-9) FALLING OUT OF PLATE (101-4300323) CAUSING ROLLER (PN 50-430037-7) TO FALL OUT. THIS CAUSED ROD (PN 50-430016-11) WITH BOLT (PN 50-430177-5), (ASSY CALLED A DOOR BAYONET),

TO SHIFT OUTBOARD .7500 INCH THROUGH AFT DOOR FRAME (PN 50-430032-3 INSTALLED 180 DEGREE OUT. THE PINS THAT HOLD THE ROLLERS IN PLACE ARE STAKED. IT LOOKS AS THOUGH OVER TIME THAT THE PIN WORE THE STAKES SMOOTH AND THUS ALLOWING PIN AND ROLLER TO FALL OUT.. STAKED PINS SHOULD BE CHANGED TO COTTER KEYED TYPE PINS TO KEEP THIS FROM HAPPENING ON OTHER AC. CHECK MFG AND THESE HAVE THE COTTER PIN TYPE PINS. (K)

2008FA0000339	BEECH		WINDSHIELD	CRACKED
5/12/2008	C90		10138402521	COCKPIT

PILOT WAS ON TAKEOFF AND HAD JUST LEVELED OUT FOR FLIGHT AND WINDSHIELD CRACKED ON THE INNER PANE. PILOT RETURNED TO BASE AND THE WINDSHIELD WAS REPLACED. WINDSHIELD WAS SENT TO INSURANCE CO. LAB FOR EVALUATION. (K)

2008FA0000486	BEECH		TRIM SWITCH	FAILED
6/18/2008	C90			AUTO PILOT

AFTER INSTALLATION OF NEW AUTOPILOT SYSTEM, AUTOPILOT COMPUTER TRIM CIRCUITRY FAILED ON INITIAL CHECK OUT, 10/02/2007. COMPUTER WAS RETURNED TO MFG AND REINSTALLED AFTER REPAIR. TRIM CIRCUITRY FAILED AGAIN AND WAS RETURNED TO MFG ON 1/18/2008. TECH SUPPORT ADVISED REPLACEMENT OF SUSPECTED BAD TRIM SWITCH ASSY AT THIS TIME AS CAUSE OF REPEATED FAILURE. MICRO SWITCHES IN ASSY FAILED ALLOWING BOTH UP AND DOWN COMMANDS AT THE SAME TIME. TRIM SWITCH ASSY PROVIDED WAS REPLACED AND COMPUTER REPAIRED AND REINSTALLED. TRIM CIRCUITRY FAILED AGAIN AFTER (3) HOURS OF FLIGHT. COMPUTER WAS REPAIRED AND REINSTALLED ON 2/17/2008. TRIM CIRCUITRY FAILED ON INITIAL CHECKOUT. COMPUTER WAS REMOVED FOR REPAIR AND THE TRIM SWITCH WAS CONFIRMED TO BE CAUSING THE FAILURE AGAIN. THE TRIM UP MICRO SWITCH WAS STUCK IN THE ASSY, WHICH CAUSES THE TRIM CIRCUITRY IN THE AUTOPILOT COMPUTER TO FAIL IF TRIM DOWN IS MANUALLY SELECTED. TRIM SWITCH OR COMPUTER SHOULD BE MODIFIED TO PREVENT SIMULTANEOUS ACTIVATION OF BOTH UP AND DOWN SWITCHES. (K)

2008FA0000437	BEECH	PWA	TRIM SWITCH	FAILED
6/18/2008	C90	PT6A21	31B641	CONTROL WHEEL

AFTER INSTALLATION OF NEW MFG AUTOPILOT SYS, AUTOPILOT COMPUTER TRIM CIRCUITRY FAILED ON INITIAL CHECK OUT. COMPUTER WAS RETURNED TO MFG AND REINSTALLED AFTER REPAIR. TRIM CIRCUITRY FAILED AGAIN AND RETURNED TO MFG. MFG TECH SUPPORT ADVISED REPLACEMENT OF SUSPECTED BAD TRIM SWITCH ASSY AT THIS TIME AS CAUSE OF REPEATED FAILURE. SWITCHES IN ASSY FAILED ALLOWING BOTH UP & DOWN COMMANDS AT THE SAME TIME. TRIM SWITCH ASSY PROVIDED BY MFG, WAS REPLACED & COMPUTER REPAIRED & REINSTALLED. TRIM CIRCUITRY FAILED AGAIN AFTER 3 HOURS OF FLT. COMPUTER REPAIRED & REINSTALLED. TRIM CIRCUITRY FAILED ON INITIAL CHECKOUT. COMPUTER REMOVED FOR REPAIR & TRIM SWITCH CONFIRMED TO BE CAUSING FAILURE AGAIN. TRIM UP SWITCH STUCK IN THE ASSY, WHICH CAUSES TRIM CIRCUITRY IN AUTOPILOT COMPUTER TO FAIL IF TRIM DOWN IS MANUALLY SELECTED. TRIM SWITCH OR COMPUTER SHOULD BE MODIFIED TO PREVENT SIMULTANEOUS ACTIVATION OF BOTH UP AND DOWN SWITCHES. (K)

2008FA0000489	BEECH		INLET	CRACKED
6/20/2008	C90A		109910029165	LWR AFT COWLINGS

LT AND RT WELD ASSY CRACKED ALONG A WELDED SEAM. THE CRACKS ARE APPROXIMATELY 12 INCHES LONG. THESE WELD ASSY ARE A PORTION OF THE ENGINE INLET. A PORTION OF THE INLET AIR IS USED FOR THE OIL COOLER AND SOME AIR IS BYPASSED AND EXITS FROM THE LOWER PORTION OF THE COWLING. THE CRACK IN THE WELD ASSY HAPPENED AT THE UPPER WELDED SEAMS IN THE BYPASS PORTION OF THE DUCT. THE CRACKS POSED NO POTENTIAL PROBLEM OF BEING INGESTED INTO THE ENGINE. WE HAVE COMMUNICATED THIS ISSUE WITH THE MFG OF THE AC. WE DO NOT KNOW OR WANT TO SPECULATE AT THIS TIME WHAT CAUSED THE PROBLEM OR ARE THERE ANY RECOMMENDATIONS TO PREVENT IT FROM HAPPENING AGAIN. OUR ONLY RECOMMENDATION IS TO INSPECT THIS AREA IN BOTH LT AND RT COWLINGS CLOSELY. (K)

2008FA0000487	BEECH	CONT	BULKHEAD	CRACKED
7/17/2008	F33A	IO520*	D5258	PROP MOUNT

PROPELLER SPINNER BULKHEAD CRACKING BETWEEN ATTACH BOLT HOLES IN (2) PLACES. CRACK COULD BE INDUCED FROM VIBRATION. INSPECT VISUALLY EVERY PRE-FLIGHT. A BETTER HEAT TREATING PROCESS MAY

STRENGTHEN THE BULKHEAD AND REDUCE THE CRACKING FROM VIBRATION. (K)

2008FA0000436	BEECH	CONT	CYLINDER	CRACKED
5/6/2008	V35	IO520BA	SA52006A1	NR 4

CRACK VISIBLE AT NR 4 CYLINDER. CRACK APPEARS TO START AT CASTING ANOMALY, CONTINUES TO EDGE OF FINS, AND IS VISIBLE AT THE FIRST FOUR COOLING FINS. ALSO VERIFIED, THROUGH USE OF EDDY CURRENT, THAT THE CRACK CONTINUES TO THE SPARK PLUG HOLE. ALL OTHER CYLINDERS HAVE SIMILAR CASTING ANOMALIES WITH INDICATIONS OF DISCONTINUITIES FOUND WITH EDDY CURRENT EQUIPMENT. THIS FACILITIES OPINION IS THAT POOR CASTING TECHNIQUES BY THE MFG LEFT STRESS POINTS FOR THE FORMATION AND CONTINUATION OF CRACKS, AND MORE THAN LIKELY, ANY CYLINDER NOT YET CRACKED, PROBABLY WILL. (K)

2008FA0000459	BELL	ALLSN	METER	MALFUNCTIONED
7/1/2008	206B	250C20J	102149	

AC MAINT HOBBS METER FOUND RUNNING SLOW. THIS PROBLEM CAUSES THE ACTUAL TT OF THE AC TO BE INCORRECT. THIS PROBLEM CAUSED THE AC TO OVER RUN INSPECTIONS, AND TIME LIFE ITEM. PROBABLE CAUSE OF THIS PROBLEM, HOBBS METERS GETTING OLD AND WORN OUT. RECOMMENDATION TO PREVENT THIS PROBLEM: MAINT HOBBS METER, TO BE CHECKED BY PILOTS CLOCK WEEKLY TO MAKE SURE METER IS RUNNING PROPERLY. (K)

2008FA0000440	BELL	ALLSN	ROD	CHAFED
6/10/2008	206L3	250C30	206011725001	T/R PITCH

DURING AN INSPECTION OF THE TAIL ROTOR PITCH CONTROL TUBE SLEEVES, WE DISCOVERED THAT BELLCRANK PN 206001763001 HAD BEEN CHAFED INTO BY THE RIVET SECURING THE ROD END OF ROD ASSEMBLY PN 206011725001. THIS WEAR OCCURS WHEN LEVER ASSEMBLY PN 206011722105 PIVOT DURING CONTROL MOVEMENTS, CHANGING THE PLANE OF THE ROD. THE MM DOES NOT TELL YOU WHICH WAY TO INSTALL THE ROD, HOWEVER ALL OF THE ILLUSTRATIONS SHOW THE RIVETED END OF THE ROD TO BE CONNECTED TO THE BELLCRANK. PLEASE SEE BHT 206L SERIES IPB, FIG 64-1 AND FIG 67-12 AND BHT 206L MM, PARA 67-63, FIG 67-17 DETAIL D. PARA 64-20 AND FIG 64-14. THIS CAN BE CURED BY INSTALLING THE ROD WITH THE ADJUSTABLE END CONNECTING TO THE BELLCRANK AND THE RIVETED END CONNECTING TO THE LEVER. (K)

2008FA0000337	BELL	ALLSN	ROD	CHAFED
7/1/2008	206L3	250C30	206011725011	TAIL ROTOR

DURING AN INSPECTION THE THE TAIL ROTOR PITCH CONTROL TUBE SLEEVES, WE DISCOVERED THAT BELLCRANK PN 206-001-763-001 HAD BEEN CHAFED INTO BY THE RIVET SECURING THE ROD END OF ROD ASSEMBLY PN 206-011-725-001. THIS WEAR OCCURS WHEN LEVER ASSEMBLY PN 206-011-722-105 PIVOT DURING CONTROL MOVEMENTS, CHANGING THE PLANE OF THE ROD. THE MM DOES NOT TELL YOU WHICH WAY TO INSTALL THE ROD, HOWEVER, ALL OF THE ILLUSTRATIONS SHOW THE RIVETED END OF THE ROD TO BE CONNECTED TO THE BELLCRANK. PLEASE SEE BHT-206L-SERIES-IPB, FIG 64-1 AND FIG 67-12 AND BHT-206L-MM, PARA 67-63, FIG 67-17 DETAIL D, PARA 64-20 AND FIG 64-14. THIS CAN BE CURED BY INSTALLING THE ROD WITH THE ADJUSTABLE END CONNECTING TO THE LEVER.

2008FA0000460	BELL	ALLSN	METER	MALFUNCTIONED
7/1/2008	206L4	250C30P	102149	

AC MAINT HOBBS METER FOUND RUNNING SLOW. THIS PROBLEM CAUSES THE ACTUAL TT OF THE AC TO BE INCORRECT. THIS PROBLEM CAUSED THE AC TO OVER RUN INSPECTIONS, AND TIME LIFE ITEM. PROBABLE CAUSE OF THIS PROBLEM, HOBBS METERS GETTING OLD AND WORN OUT. RECOMMENDATION TO PREVENT THIS PROBLEM; MAINT, HOBBS METER TO BE CHECKED BY PILOTS CLOCK WEEKLY TO MAKE SURE METER IS RUNNING PROPERLY.

2008FA0000441	BELL	ALLSN	BEARING	FAILED
6/4/2008	407	250C47B	23009670	COMPRESSOR

PILOT REPORTED ENGINE CHIP LIGHT PRECAUTIONARY LANDING MADE TO INVESTIGATE. A CONSIDERABLE AMOUNT OF FERROUS MATERIAL WAS ON THE TOP AND BOTTOM CHIP DETECTORS. NO PENALTY RUNS WERE PERFORMED. AIRCRAFT WAS PLACED ONTO A TRAILER AND MOVED BACK TO BASE WHERE THE ENGINE WAS

REMOVED AND FORWARDED TO THE ENGINE SHOP FOR INVESTIGATION. THE DISMANTLE AND INVESTIGATION REVEALED THE NR 2 BEARING THAT SUPPORTS THE REAR OF THE IMPELLER HAD FAILED. THE BALL BEARING KEEPER HAD FRACTURED COMPLETELY ACROSS THE SURFACE. AT LEAST ONE OF THE BALLS HAD SPALLED AND ALSO THE OUTER RACE HAD SEVERAL AREAS OF SPALLING. THE FAILED BEARING WAS REPLACED, THE REMAINDER OF THE ENGINE OIL SYSTEM WAS FLUSHED WITH NO DISCREPANCIES NOTED. ENGINE WAS REASSEMBLED AND RETURNED TO SERVICE. (K)

2008FA0000338	BELL	ALLSN	BELL	SPRING	DAMAGED
5/30/2008	407	250C47B		407310104103	FRAHM ASSY

ONE OF EIGHT SPRINGS BROKEN CAUSING DAMAGE TO LOWER HOUSING. LOWER HOUSING, SPRINGS 2 EA. AND PLUGS WERE REPLACED. UNKNOWN WHI SPRING BROKE, SPRING WAS FOUND BROKEN ON SCHEDULED 300 HOUR INSPECTION. (K)

2008FA0000384	BELL	ALLSN		GEAR	BROKEN
5/19/2008	OH58B	T63A720		23063413	AIR/OIL SEPARATR

PILOT REPORTED ENGINE CHIP LIGHTS ON TAKEOFF. ABORTED MISSION AND RETURNED TO HELIPAD. ENG WAS REMOVED AND SENT FOR INVESTIGATION. ENG RECEIVED FOR REPAIR DUE TO ENG CHIP LIGHTS AND METAL IN OIL. DISASSEMBLY REVEALED AIR OIL SEPARATOR GEAR SHAFT HAD BROKEN WHERE STEM MEETS THE BASE. THIS IS THIRD OCCURRENCE ON THIS PARTICULAR ENG ASSY OF SIMILAR GEAR FAILURES. HAVE SEEN AT LEAST 8 OF THESE FAILURES IN T63 ENGINES SINCE THEY HAVE BEEN RELEASED TO PUBLIC. (K)

2008FA0000431	BOEING			ANGLE	CRACKED
6/30/2008	717200			715K9004507	BS 26

RT UPPER BUCKET, FWD OB Z-FRAME IS CRACKED AT STA 26 APPROXIMATELY 1 INCH LONG. FABRICATED AND INSTALLED ANGLE. (K)

SROM20080023	BOEING	PWA		ENGINE	BIRD INGESTION
5/23/2008	737205	JT8D17A		JT8D17A	NR 1

INGESTED LARGE BIRD ON APPROACH TO AKU, SHUT-DOWN ENGINE AND COMPLETED MISSED APPROACH. DIVERTED TO SCC AND MADE UNEVENTFUL LANDING. REMOVED AND REPLACED NR 1 ENGINE.

2008FA0000435	BOEING		BOEING	CYLINDER	CRACKED
6/27/2008	7373B7			656174010	MLG

AFTER AIRCRAFT TOW, FLUID WAS OBSERVED LEAKING FROM .5 INCH CRACK (APPROXIMATE) IN THE OUTER CYLINDER OF THE LT MLG SHOCK STRUT. THE CRACK IS LOCATED APPROXIMATELY 26 INCHES BELOW THE SHOCK STRUT AIR VALVE. (K)

2008FA0000388	BOEING			DOOR FRAME	CRACKED
6/10/2008	737448				FUSELAGE

(REF DU4R2008213) DURING SCHEDULED INSPECTION, FOUND 1 INCH LONG CRACK ON FWD CARGO DOOR CUT-OUT AFT FRAME INNER CHORD RADIUS. (K)

2008FA0000390	BOEING			CARGO TRACK	CORRODED
6/10/2008	737448				CARGO BAY

DURING SCHEDULED INSPECTION, FOUND CORROSION IN THE AFT CARGO COMPARTMENT LT TIE DOWN TRACK LBL 17.20 FROM STA 727B - STA 727E. PARTICULARLY IN FASTENER HOLE UPPER AND LOWER SURFACE. (K)

2008FA0000387	BOEING			ATTACH ANGLE	CORRODED
6/10/2008	737448				FUSELAGE

(REF DU4R2008212) DURING SCHEDULED INSPECTION, FOUND CORROSION IN AFT LOWER CARGO COMPARTMENT AT STA 727A ATTACH ANGLE GBGETWEEN S-27R AND S-26R. (K)

2008FA0000392	BOEING			FLOOR SUPPORT	CORRODED
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6/13/2008	737448		FUSELAGE
(REF DU4R2008216) DURING SCHEDULED INSPECTION, FOUND CORROSION ON UPPER SURFACE OF FLOOR SUPPORT BEAM BS 328, RBL-16 TO RBL-60. S/O NR 312001, OPS NR 24738. (K)			
2008FA0000393	BOEING	FRAME	DAMAGED
6/13/2008	737448		FUSELAGE
(REF DU4R2008217) DURING SCHEDULED INSPECTION, FOUND DOUBLE-DRILLED HOLE ON MAIN FRAME UPPER CAP AT BS 986.5 AT FLOOR LEVEL RT. (K)			
2008FA0000389	BOEING	SKIN	DENTED
6/10/2008	737448		BS 887 S19R
(REF DU4R2008214) DURING SCHEDULED INSPECTION, FOUND DENT ON LWR RT LOWER AFT FUSELAGE BS 887 S-19R. (K)			
2008FA0000475	BOEING	CFMINT	FLOORBEAM CORRODED
6/27/2008	737448	CFM563C	BS 986
DURING SCHEDULED INSPECTION, FOUND CORROSION ON UNDERSIDE OF "T" CAP REPLACEMENT 986.5 AROUND ATTACH HOLES BL 29R TO BL 29L, NUMEROUS HOLES. (K)			
2008FA0000474	BOEING	CFMINT	SKIN DENTED
7/9/2008	737448	CFM563C	CARGO DOOR
DURING SCHEDULED INSPECTION, FOUND NUMEROUS DENT ON AFT CARGO EXT DOOR SKIN. S/O 312001, OPS 24422. (K)			
2008FA0000396	BOEING	SKIN	DENTED
6/23/2008	73783N		FWD CARGO DOOR
(REF DU4R2008222) DURING SCHEDULED INSPECTION FOUND DENT IN EXT SKIN OF C-1 DOOR 25 INCH DOWN FROM TOP EDGE OF DOOR AND 22 INCHES AFT FROM FWD EDGE OF DOOR. (K)			
2008FA0000402	BOEING	FLOORBEAM	CORRODED
6/30/2008	73783N		FUSELAGE
DURING SCHEDULED INSPECTION, FOUND CORROSION ON AFT CABIN FLOORBEAM, BS947, RBL 5 TO LBL5. S/O 245009, N/R 26378 (K)			
2008FA0000400	BOEING	SKIN	DENTED
6/30/2008	73783N		LT HORIZ STAB
(REF DU4R2008227) DURING SCHEDULED INSPECTION, FOUND OUT OF LIMITS DENT IN LT HORIZ STAB L/E STA 280. S/O 245008, N/R 21578 (K)			
2008FA0000391	BOEING	FLOOR SUPPORT	CORRODED
6/20/2008	73783N	141A5505	FUSELAGE
(REF DU4R2008219) DURING SCHEDULED INSPECTION, FOUND CORROSION ON FLOOR SUPPORT CABIN STA 344, BL-0 TO BL-12L. (K)			
2008FA0000395	BOEING	SKIN	DENTED
6/23/2008	73783N		AFT CARGO DOOR
(DU4R2008221) DURING SCHEDULED INSPECTION, FOUND AFT CARGO DOOR EXT SKIN HAS DENT 11 INCHES AFT FROM FWD EDGE 5 INCHS UP FROM BOTTOM EDGE WIDTH OF DENT 1.25 INCHES OF DENT .070 INCH W/Y=17 DENT MEASURES WITH DEPTH GAUGE A-1979. S/O NR 245010, OPS NR 26681. (K)			
2008FA0000394	BOEING	FLOOR SUPPORT	CORRODED

6/20/2008	73783N		141A5410	FUSELAGE
(REF DU4R2008220) DURING SCHEDULED INSPECTION, FOUND CORROSION ON FLOOR SUPPORT CABIN. STA 340, LBL 11. (K)				
2008FA0000397	BOEING		SKIN	DENTED
6/24/2008	73783N			AFT CARGO DOOR
(DU4R2008223) DURING SCHEDULED INSPECTION, FOUND DENT IN AFT CARGO DOOR (C-2) EXT. SKIN. S/O NR 245010, N/R 26678. (K)				
2008FA0000401	BOEING		SKIN	DENTED
6/30/2008	73783N			HORIZ STAB
DURING SCHEDULED INSPECTION, FOUND DENT IN LT L/E OF HORIZ STAB STA 105. S/O 245008, N/R 21591. S/O 245008, N/R 21591. (K)				
2008FA0000398	BOEING		NUT CLIP	CHAFED
6/30/2008	73783N			BS 967
(DU4R2008225) DURING SCHEDULED INSP, FOUND AFT CABIN BS 967, RBL 24, TO LBL 49 FLOORBOARD ATTACH POINTS, CLIP NUTS HAVE WORN GROOVES/CHAFE MARKS. S/O NR 245010, N/R NR27070 (K)				
2008FA0000399	BOEING		FLOORBEAM	CORRODED
6/30/2008	73783N			BS986
(DU4R2008226) DURING SCHEDULED INSP, FOUND CORROSION IN PAX CABIN WET AREA ON FLOORBEAM FASTENERS AND FASTENER HOLES AT BS 986 FORM RBL45 TO LBL 45. S/O 245010 , N/R 27072 (K)				
2008FA0000463	BOEING	GE	FLOORBEAM	CORRODED
7/3/2008	73783N	CFM56*		BS328
DURING SCHEDULED INSP, FOUND CORROSION IN PAX CABIN FWD WET AREA ON FLOORBEAM AT BS 328 FROM RBL 13 TO RBL 50. (K)				
2008FA0000465	BOEING	GE	FLOORBEAM	CORRODED
7/7/2008	73783N	CFM56*		BS344, LBL10
DURING SCHEDULED INS, FUND FWD CABIN BS 344, LBL10, FLOORBEAM CORRODED. (K) SO 245010, NR27110				
2008FA0000461	BOEING	GE	FLOORBEAM	CORRODED
7/3/2008	73783N	CFM56*		BS294
DURING SCHEDULED INSP, FOUND CORROSION IN PAX CABIN FWD WET AREA ON FLOORBEAM AROUND FASTENERS AT BS 294 FROM RBL-2 TO RBL 43. SO NR 245010 NR 27077. (K)				
2008FA0000462	BOEING	GE	FLOORBEAM	CORRODED
7/4/2008	73783N	CFM56*		BS 328, RBL26
DURING SCHEDULED INSP, FOUND CORROSION IN PAX CABIN FWD WET AREA ON FLOORBEAM AT BS 328, RBL 26 AFT SIDE OF BEAM FOUND TO BE BEYOND LIMITS. (K)				
2008FA0000464	BOEING	GE	FLOORBEAM	CHAFED
7/7/2008	73783N	CFM56*		BS 344
DURING SCHEDULED INSP, FOUND CLIP NUTS CHAFING FLOORBEAM IN FWD CABIN BS 344, LBL 0 TO LBL 55. (K)				
2008FA0000466	BOEING		COMPUTER	FAILED
7/11/2008	767*		4052500927	FMC
AIR TURNBACK DUE PILOT REPORT 4273256-1; EICAS MSG L FMC FAIL DISPLAYED. FIM 34-61-00 FOLLOWED L FMC PWR RESET ALL INDICATIONS NORMAL. PLS MONITOR FURTHER. AS A PREVENTIVE ACTION DURING OVERNIGHT; IAW AMM 34-61-01/401 WAS REMOVED AND REPLACED THE FLIGHT MANAGEMENT COMPUTER. (K)				

[2008FA0000428](#) BOEING GE LIGHT ILLUMINATED
6/10/2008 767241 CF680C2* ALTITUDE INDICAT

CABIN ALT AND CABIN ALTITUDE LIGHTS ILLUM, EICAS MSG CABIN ALTITUDE WAS DISPLAYED. UNABLE TO RESTORE CABIN PRESS USING MANUAL MODE. AIRPLANE RETURNED TO DEPARTURE. IAW FIM 21-31-00, FIG 103 BLOCKS 1,2,22,23,23A, 24, 44, PLN U3 IN CONNECTOR D2712A WAS REPAIRED. REF WDM 21-31-11/21-31-21. TEST WITH AIRCRAFT PRESSURIZED ON GROUND IS SATISFACTORY. (K)

[2008FA0000427](#) BOEING GE TRANSMITTER FAULTY
6/1/2008 767241 CF680C2* 18195816 FLAP POSITION

LT FLAP DID NOT MOVE FROM 1 TO UP POSITION. FLIGHT RETURNED TO DEPARTURE. REMOVED AND REPLACED PROXIMITY SENSORS S282 AND S283 IAW SWPM 20-30-12 AND AMM 27-88-01, BITE TEST PSEU WAS PERFORMED AND IT WAS FOUND NORMAL IAW FIM 32-09-03, FIG 103. FLAP POSITION TRANSMITTER NR 5 WAS REMOVED AND REPLACED IAW MM 27-51-45, PG 201-222, OPS CHECK NORMAL, OVERWEIGHT LANDING INSPECTION WAS ACCOMPLISHED IAW MM 05-51-35 PHASE I, OPTION A, PG 201-203, NO DAMAGES WERE FOUND. (K)

[2008FA0000478](#) BOEING WINDOW LEAKING
6/18/2008 767259 COCKPIT

REJECTED TAKEOFF, VERY STRONG NOISE AT 2R WINDOW DURING ROLL. IT WAS APPLY SEALANT IN THE FINISH AROUND THE WINDOW EDGE IAW AMM 56-11-00 PAGE 801, DID THE WINDOW TEST IAW AMM 56-11-02, PAGE 601, TEST OK. (K)

[2008FA0000479](#) BOEING FLAP SYSTEM MALFUNCTIONED
6/17/2008 767283ER TE FLAPS

EMERGENCY LANDING, EICAS MSG TE FLAP DISAGREE DISPLAYED, TRAILING EDGE LIGHT ILLUMINATED WHEN ANY TE FLAP POSITION SELECTED. FLAP FAIL TO MOVE SELECTED POSITION. IAW FIM 27-51-00, FIG 105, BLOCKS 1,21,22,23,43 WAS ACCOMPLISHED AND IAW FIM 27-51-00, FIG 104 BLOCK 1 TO 4 IT IS OK, FSEU BITE WAS ACCOMPLISHED. (K)

[2008FA0000477](#) BOEING SELECTOR INOPERATIVE
6/2/2008 767284 1305027 CABIN PRESSURE

AIR TURN BACK, CABIN ALT, CABIN ALTITUDE LIGHT EICAS MSG DISPLAYED OPERATIONAL AND MANUAL MODE RESTORED CABIN PRESS CABIN AUTO INOP 1 AND 2. IAW AMM 21-31-01/401. CABIN PRESSURE SELECTOR WAS REPLACED AND WAS ACCOMPLISHED CABIN PRESSURE CONTROL SYS, OPS TEST IAW TASK 21-31-00-705-001. TEST SATISFACTORY. (K)

[2008FA0000448](#) BOEING GE NOZZLE FAILED
6/18/2008 777224 GE9092B 1975M56G03 ENGINE

ENGINE SUFFERED AN OVERTEMP AND HPC/HPT ROTOR VIBRATION EXCEEDANCE. THE CUSTOMER REPORTED METAL PARTICLES IN THE EXHAUST. DURING ENGINE MODULE DISASSEMBLY AT MFG, IT WAS NOTED THAT THE HPT STAGE 2 NOZZLE ASSY EXHIBITED SIGNIFICANT HARDWARE DAMAGE TO THE NOZZLE SEGMENTS, STAGE 1 AND STAGE 2 SHROUDS. (K)

[2008FA0000472](#) BOEING GE ENGINE FAILED
6/6/2008 7772Q8 GE9094B RIGHT

DURING TRANSIT CHECK, THE RT ENGINE WAS DETECTED WITH DAMAGES. MAINT PERFORMED BOROSCOPIC INSPECTION, DETECTING DAMAGES OUT OF LIMITS, SO RT ENGINE WAS REPLACED AND TESTED IAW MM 71-00-02 AND 71-00-00, ALL CORRECT. (K)

[2008FA0000471](#) BOEING GE SENSOR FAILED
6/1/2008 7772Q8 GE9094B PT25 RT ENGINE

AC RETURNED TO DEPARTURE DUT TO RT ENGINE STALLED. MAINT PERFORMED FIM 75-21 TASK 822 AND STALL INSPECTION IN 1ST, 5TH AND 9TH HPC STAGES. NO DAMAGES WERE DETECTED IAW MM 71-00-00. RT PT25 SENSOR WAS REPLACED IAW MM 73-21-63, TESTED CORRECT. THE OVERWEIGHT INSPECTION WAS NOT

NECESSARY DUE TO AIRCRAFT LANDED WITH 211, 400 KGS AND MAXIMUM LANDING WEIGHT IS 213 KGS. (K)

2008FA0000382	BRAERO	GARRTT	REGULATOR	DAMAGED
4/24/2008	BAE125800A	TFE7315R	1586108	OIL SYSTEM

RECEIVED O/H OIL TEMP REGULATOR FROM MFG UNDER THEIR WO 815978-001, DATED 04/22/2008. WHILE PERFORMING INCOMING PARTS INSPECTION ON 04/24/2008, FOUND FUEL INLET PORT SMASHED. THERE WAS NO DAMAGE TO THE SHIPPING CONTAINER. PROBABLE CAUSE OF DAMAGE WAS MOST LIKELY PRIOR TO PACKING OF UNIT FOR SHIPMENT. (K)

2008FA0000498	CESSNA	LYC	BRACKET	CRACKED
7/11/2008	152	O235*	04320049	HORIZONTAL STAB

WHILE CONDUCTING A 100 HOUR INSPECTION ON THE AIRCRAFT, COMPLYING WITH AD80-11-04 (NUTPLATE INSPECTION). UPON INSPECTION, IT WAS FOUND THAT NOT ONLY WAS THERE A CRACKED NUTPLATE, BUT THERE IS ALSO A (1 INCH) CRACK IN THE WELDED BRACKET- THE PART THAT THE NUTPLATES MOUNT TO. IT CAN BE SEEN IN MFG ILLUSTRATED PARTS CATALOG, FIGURE 18, ITEM NR 10. UPON REMOVING THE BRACKET FROM THE AIRCRAFT, ALSO DISCOVERED THAT A LARGE PORTION OF THE STEEL BRACKET HAD BEEN RUSTED; PARTICULARLY IN THE WELDED AREAS. BECAUSE MFG NO LONGER MAKES THIS PART, ACQUIRED A SERVICEABLE PART, INSPECTED THE WELDS, TREATED THE CORROSION, AND INSTALLED IT ON THE AIRCRAFT. (K)

2008FA0000370	CESSNA	ROTAX	LEG ASSY	BROKEN
5/7/2008	170A	ROTAX912UL		NLG

NOSE LANDING GEAR LEG BROKEN AT FORWARD WELD ON SHOCK ABSORBER ATTACHMENT BRACKET. EXISTING INTERNAL CRACK. PROBABLE CAUSE, BAD WELD. (K)

2008FA0000371	CESSNA	CONT	ENGINE	VAPOR LOCK
5/10/2008	172G	O300D		

AC WAS BEING FLOWN ON RT FUEL TANK. AFTER RUNNING TANK DRY, PILOT SELECTED RT FUEL TANK AND MOMENTS LATER THE ENG STOPPED PRODUCING POWER AND MADE AN EMERGENCY LANDING. AC FUEL SYS WAS INSPECTED FOR CONTAMINATES AND FAILURES, NONE WERE FOUND. POSSIBLE CAUSE IS VAPOR LOCK IN FUEL SYS FROM RUNNING FUEL TANK TRY. TO PREVENT THIS FROM RECURRING, WOULD BE TO SELECT ANOTHER FUEL TANK PRIOR TO RUNNING THE SELECT FUEL TANK DRY. (K)

2008FA0000365	CESSNA	LYC	CYLINDER	DAMAGED
5/22/2008	172M	O320E2D	SLC36005	ENGINE

ENGINE WAS OVERHAULED NOV 2001 USING NEW CILINDER ASSEMBLES. BREAK-IN OPERATION PERFORMED WITH MFG SERVICE INSTRUCTION 1427B AND MINERAL OIL. ENGINE OPERATED NEAR DAILY FLIGHTS AVERAGEING .5 HOUR EACH. REGULAR OIL CHANGES USING 15W50 OIL AND ADDITIVE, POST BREAK-IN TIME OF 25 HOURS. OIL SAMPLE RESULTS INDICATED PREMATURE WEAR OF RINGS AND WALLS STARTING WITH FIRST SAMPLE AT 111.0 HOURS AND EVERY 30-50 HOURS THERE AFTER. REMOVED CYLINDERS FOR INSPECTION AFTER DISCOVERING VISIBLE METAL IN SCREEN AT 681 HOURS SINCE OVERHAUL. CYLINDER WALLS ON ALL FOUR ENGINE CYLINDERS WORN/DETERIORATED TO DEGREE THAT THE PISTON PIN PLUGS WERE SCRAPING ON RIDGES FROM PISTON RINGS. NOTABLE ALUMINUM FROM PISTON PIN PLUGS WAS FOUND IN SCREEN. ALSO, NOTED CONSIDERABLE PISTON SCUFFING ON THREE OF THE FOUR CYLINDERS (1,2, AND 3 POSITIONS). NO OTHER SIGNS OF CORROSION OR DAMAGE TO REMAINING ENGINE PARTS. SUSPECT EARLY FAILURE OF RINGS OR CYLINDER WALL HONING IMMEDIATELY AFTER OVERHAUL. (K)

2008FA0000366	CESSNA	LYC	ARM	BROKEN
5/24/2008	172N	O320H2AD		THROTTLE CABLE

BOLT CONNECTING CARBURETOR THROTTLE ARM TO THROTTLE CABLE FAILED RESULTING IN THROTTLE STICKING OPEN. PILOT PLACED MIXTURE CONTROL IN IDLE CUTOFF POSITION AND ATTEMPTED TO GLIDE TO RUNWAY AT AIRPORT. AIRCRAFT IMPACTED POWER LINES SHORT OF RUNWAY. BOLT WAS NOT RECOVERED. (K)

2008FA0000413	CESSNA	LYC	BULKHEAD	CRACKED
4/23/2008	172S	IO360A1A	05522311	PROPELLER

REPEATED FINDINGS OF CRACKS AT EDGE OF WASHER FOOT PRINT. ALLOY CHANGE, OR HARDWARE CHANGE MAY HELP. (K)

2008FA0000444	CESSNA	LYC	BULKHEAD	CRACKED
6/9/2008	172S	IO360A1A		PROP SPINNER

DURING A 100 HR INSPECTION, PROPELLER SPINNER FWD BULKHEAD WAS FOUND TO BE CRACKED FROM A PROP BOLT HOLE OUT TOWARD THE OUTER EDGE OF THE BULKHEAD, APPROX 1.5 INCH LONG. THE PROP BOLTS AND THE BULKHEAD WERE REMOVED FRO THE AIRCRAFT. CLOSER INSPECTION SHOWED THE CRACK ORIGINATED FROM THE OUTER APEX OF THE WASHER MARK, NOT THE BOLT HOLE ITSELF. ALSO, ALL BOLT HOLES WERE FOUND TO BE CRACKED IN THE SAME LOCATION (OUTER APEX OF WASHER IMPRESSION), RANGING FROM .2500 TO 1.0 IN LENGTH. THE MM HAS A NOTE THAT SAYS, "THE MOUNTING BOLT HOLES IN THE FORWARD BULKHEAD MAY BE UNDERSIZED DUE TO THE ORIGINAL TORQUING OF THE MOUNTING BOLTS". IT IS PLAIN TO SEE THIS CRUSHES THE ALUMINUM, CASUING STRESS CONCENTRATIONS AROUND THE WASHERS. IT WILL NOT BE A GOOD THING IF THE SPINNER DEPARTS THE AIRCRAFT. INCLUDED ARE MM EXCERPTS, AND A PHOTOCOPY OF THE CRACKS. (K)

2008FA0000403	CESSNA	LYC	MAGNETO	OUT OF POSITION
6/16/2008	172S	IO360L2A	4371	ENGINE

CHECKED THE MAGNETO TIMING AND FOUND THAT BOTH MAGNETOS WERE OFF APPROX 5 DEGREES. CURRENTLY SET AT APPROX 30 DEGREES BEFORE TOP DEAD CENTER. MFG SPEC IS 25 DEGREES BTDC. THE AIRCRAFT ENGINE TO MAGNETO TIMING WAS CHECKED WHEN NEW, SHORTLY AFTER DELIVERY 4/14/2008- 3.5 HRS TIS AND FOUND OK. IT APPEARS THE MAGNETOS HAVE DRIFTED SIGNIFICALLY TO THE ADVANCED POSITION. ORANGE FACTORY PUTTY NOTED ON MAGNETO HOLDOWN NUTS. IT APPEARS THE MAGNETOS HAVE DRIFTED SIGNIFICALLY TO THE ADVANCED POSITION IN 80 HRS TIS. THE MAGNETOS DRIFTING TO THE ADVANCED POSITION TO THE ENGINE TIMING HAS BEEN AN ONGOING ISSUE WITH MFG. SB SB2-08 DOES NOT ADDRESS AN ADVANCED CONDITION OF THE MAGNETOS, AS IN THIS CASE.

2008FA0000406	CESSNA	LYC	MAGNETO	OUT OF POSITION
6/11/2008	172S	IO360L2A	4371	POWERPLANT

DURING THE AC FIRST PHASE 2 INSPECTION (100 HR) FOUND THAT BOTH MAGNETOS WERE OFF APPROXIMATELY 5 DEGREES. CURRENTLY SET 30 DEGREES BEFORE TOP DEAD CENTER PLUS (MFG SUM SAYS 25 DEGREES BTDC) THE AIRCRAFT MAGNETO TO ENGINE TIMING WAS CHECKED WHEN NEW, SHORTLY AFTER DELIVERY 4/25/2008, 4.3 HRS TIS. IT APPEARS THE MAGNETOS HAVE DRIFTED TO THE ADVANCED POSITION. ORANGE PUTTY ON THE MAGNETO HOLD-DOWN STUDS WAS NOTED. IT APPEARS THE MAGNETOS HAVE DRIFTED SIGNIFICANTLY TO THE ADVANCED POSITION IN 93 HOURS TIS. THE MAGNETOS DRIFTING TO THE ADVANCED POSITION TO THE ENGINE TIMING HAS BEEN AN ONGOING ISSUE WITH MFG OF ENGINE AND MFG OF MAGNETO SB2-08 DOES NOT ADDRESS AN ADVANCED CONDITION OF THE MAGNETOS AS IN THIS CASE. (K)

2008FA0000407	CESSNA	LYC	MAGNETO	OUT OF POSITION
6/11/2008	172S	IO360L2A	4371	

DURING THE AC FIRST PHASE 2 INSP (100 HR) FOUND THAT BOTH MAGNETOS WERE OFF APPROX 5 DEGREES. CURRENTLY SET 30 DEGREES BEFORE TOP DEAD CENTER PLUS MFG SRM SAYS 25 DEGREES BTDC). THE AIRCRAFT MAGNETO TO ENGINE TIMING WAS CHECKED WHEN NEW, SHORTLY AFTER DELIVERY 4/25/2008. 4.3 HOURS TIS. IT APPEARS THE MAGNETOS HAVE DRIFTED TO THE ADVANCED POSITION. ORANGE PUTTY ON THE MAGNETO HOLD-DOWN STUDS WAS NOTED. IT APPEARS THE MAGNETOS HAVE DRIFTED SIGNIFICANTLY TO THE ADVANCED POSITION IN 93 HRS TIS. THE MAGNETOS DRIFTING TO THE ADVANCED POSITION TO THE ENGINE TIMING HAS BEEN AN ONGOING ISSUE WITH ENGINE MFG AND MAGNETO MFG, SB2-08 DOES NOT ADDRESS AN ADVANCED CONDITION OF THE MAGNETOS AS IN THIS CASE. (K)

2008FA0000405	CESSNA	LYC	MAGNETO	OUT OF POSITION
6/16/2008	172S	IO360L2A		ENGINE

DURING A PHASE 2 (100 HR) CHECK THE MAGNETO TIMING AND FOUND THE RT MAGNETO ADVANCED TO APPROXIMATELY 27 DEGREES. MFG SPECS CALL FOR 25 DEGREES. LAST CHECK AT 90 HOURS PRIOR, FOUND TO BE OK. SUSPECT MAGNETO DRIFTING IS OCCURING. THE MAGNETOS DRIFTING TO THE ADVANCED POSITION TO THE ENGINE TIMING HAS BEEN AN ONGOING ISSUE WITH ENGINE AND MAGNETOS. SB SB2-08 DOES NOT

ADDRESS AN ADVANCED CONDITION OF THE MAGNETOS, AS IN THIS CASE. (K)

2008FA0000381	CESSNA		BULKHEAD	CRACKED
4/1/2008	177RG		12210628	FUSELAGE

DURING ROUTINE INSP, FOUND PART CRACKED. CHECKED (2) OTHER AC THAT HAPPENED TO BE IN SHOP, FOUND (1) OF THEM TO HAVE A SIMILAR CRACK. THIS SECTION OF BULKHEAD IS ATTACH STRUCTURE FOR LWR ATTACH ANGLE FOR IB FLAP DRIVE BELLCRANK. IT IS CURIOUS THAT THE FACTORY INSTALLED SOME EXTRA REINFORCEMENT STRUCTURE (A BRACKET) IN THIS POSITION IN LT WING. THERE ARE EVEN SOME "PILOT DRILL" (PD) HOLES DRILLED AT FACTORY IN RIB AND HEAVY ATTACH ANGLE ON THE AFFECTED RT SIDE. IT WOULD APPEAR THAT BOTH LT AND RT BELLCRANKS WOULD EXPERIENCE SAME FORE-AFT FORCES BY AIR LOADS ON FLAPS. SO WHY REINFORCE ONLY ONE SIDE? IT IS POSSIBLE THAT FACTORY ASSY LINE NEGLECTED TO INSTALL AN INTENDED SIMILAR REINFORCEMENT ON THE RT SIDE? (K)

2008FA0000404	CESSNA	LYC	SLICK	DISTRIBUTOR BLK	MISREPAIRED
6/17/2008	182T	IO540AB1A5		M3820	MAGNETO

DURING INTERNAL MAGNETO INSPECTION, FOUND DISTRIBUTOR BLOCK SPOT FACED AREA FOR POLES. APPEARS TO BE INCORRECTLY SPOT FACED. MATERIAL THAT WAS LEFT BEHIND HAS THE SAME LOFT AS BEARING BOSS AREA ON DISTRIBUTOR BLOCK. THIS CAUSES THE FINGER ON THE DISTRIBUTOR GEAR TO RUB ON THE DISTRIBUTOR BLOCK. (K)

2008FA0000414	CESSNA	LYC		INJECTOR	CLOGGED
7/1/2008	182T	TIO540AK1A		RSA5AD1	FUEL SERVO

PLANE LOST ENGINE POWER, BECAME VERY LEAN, COULD NOT GET FUEL FLOW > 9 GPH. TURNED OUT TO BE ALUMINUM SHAVING FROM ORIGINAL MFG OF FUEL SERVO. CLOGGED MIXTURE HOLE INSIDE FUEL SERVO. THIS WAS A DEFECT FROM TIME OF MANUFACTURE OF FUEL SERVO. EMERGENCY LANDING. (K)

2008FA0000368	CESSNA	CONT		ALTERNATOR	SEPARATED
5/9/2008	206CESSNA	IO520F		DOFFO10300J	ENGINE

BODY THRU SCREWS BACKING OUT CAUSING ALTERNATOR HALVES TO START TO SEPARATE, THOUGH NO IMMEDIATE ISSUES WITH AICAFTS CHARGING SYSTEM, NOTICED DISCREPANCY UPON VISUAL INSPECTION AFTER LANDING. (K)

2008FA0000367	CESSNA			MOTOR	BURNED
5/22/2008	208B			99105863	TE FLAPS

ON 5/7/08 DEPARTED AT APPROXIMATELY 8:30 LOCAL TIME. FLAPS SET TO 10 DEGREES FOR TAKEOFF. TAKEOFF & CLIMB NORMAL. AFTER 10 TO 15 MINUTES INTO FLT WITH AUTOPILOT ENGAGED, NOTICED A BURNING ODOR & SAW A SMALL AMOUNT OF SMOKE THAT LASTED FOR A SECOND OR TWO. DISENGAGED AUTOPILOT & LOOKED AT CIRCUIT BREAKERS & NOTICED STALL WARNING CIRCUIT BREAKER HAD POPPED. AFTER RETURNING TO AIRPORT, FOUND SEVERAL CIRCUIT BREAKERS HAD POPPED & FLAPS WERE INOPERATIVE & STUCK AT 10 DEGREES. AVIONICS SHOP REPORTED THE FOLLOWING: HIDDEN DAMAGE INSPECTION PERFORMED. BURNED WIRES FOUND IN WIRE BUNDLE RUNNING FROM MAIN FLAP MOTOR TO CIRCUIT BREAKER PANEL & FROM MAIN FLAP MOTOR TO GROUND BLOCK J66. INSULATION OF ADJACENT WIRES ALONG SAME WIRE BUNDLE FOUND MELTED. LOOSE RING TERMINAL FOUND ON THE NORMALLY OPEN TERMINAL OF THE UP LIMIT SWITCH ON FLAP ACTUATOR ASSY. FLAP SYS INSPECTED FOR ANY DEFECTS STRUCTURALLY, NONE FOUND. FLAP ROLLERS & TRACTS EXHIBITED NO ABNORMAL SIGNS OF WEAR & MOVED FREELY UP & DOWN. FLAP ACTUATOR JACKSCREW EXHIBITED NO ABNORMAL SIGNS OF WEAR. FURTHER INVESTIGATION FOUND PRIMARY FLAP MOTOR HAD FAILED & THAT 10 AMP PRIMARY FLAP CIRCUIT BREAKER HAD NOT TRIPPED AS IT SHOULD HAVE, CAUSING CIRCUIT TO OVERLOAD & MELT WIRE BUNDLE. PRIMARY FLAP CIRCUIT BREAKER EXHIBITED SIGNS OF OVERHEATING ON THE BOTTOM SURFACE OF PLASTIC CASING, & HAD A BURNED ODOR TO IT. PRIMARY FLAP MOTOR LOOKED GOOD PHYSICALLY, BUT FURTHER INSPECTION & OPENING MOTOR, IT EXHIBITED SERIOUS SIGNS OF OVERHEATING/BURNING INSIDE UNIT & A VERY STRONG BURNED ODOR. DURING THE INVESTIGATION TO DETERMINE THE SEVERITY OF THE DAMAGE CAUSED BY FAILED CIRCUIT IT IS ESTIMATED THAT AT LEAST 70 TO 75 PERCENT OF THE WIRE INSULATION ON THE POWER WIRE TO THE PRIMARY FLAP MOTOR HAD BEEN MELTED/BURNED OFF OF WIRE, LEAVING A BARE EXPOSED WIRE THROUGH OUT CABIN HEADLINER. WIRE FINALLY BURNED IN HALF ITSELF BEHIND THE CIRCUIT BREAKER PANEL ABOUT 2 INCHES FROM THE J37

CONNECTOR. (OPEN) (K)

2008FA0000484	CESSNA		WIRE	SHORTED
5/16/2008	208B			STARTER GEN

ON (2) RECENT OCCASIONS (2) AIRCRAFT HAVE HAD IDENTICAL DISCREPANCIES WITH THE STARTER ENERGIZED (SE) CIRCUIT. DURING A NORMAL START THE SE ANNUNCIATOR DID NOT EXTINGUISH NORMALLY/AUTOMATICALLY AS THE ENGINE NG INCREASES. THE ANNUNCIATOR STAYS ON UNTIL THE PILOT MOVES THE STAT SWITCH TO "OFF" AT WHICH TIME THE LIGHT GOES OUT AND THE GENERATOR COMES ON-LINE. TROUBLESHOOTING IN BOTH OF THESE CASES REVEALED HIGH RESISTANCE IN THE SPEED SENSOR CIRCUIT. FURTHER INSPECTION REVEALED THAT THIS WAS DUE TO POOR WORKMANSHIP (CRIMPED AND POORLY SOLDERED) ON THE WIRE CONNECTIONS INSIDE THE STARTER/GEN (S/G CONNECTOR. WIRE WAS PINCHED BETWEEN CONNECTOR AND CASE. IN BOTH CASES THE S/G HAD BEEN RECENTLY OVERHAULED. (K)

MT9R00000040	CESSNA	PWA	POWER LEVER	BROKEN
5/30/2008	208B	PT6*	SL60061	ENGINE CONTROL

ENGINE CONTROL QUADRANT POWER LEVER SPRING STOP BROKEN. (K)

2008FA0000349	CESSNA		TORQUE LINK	CRACKED
5/2/2008	210M		12434262	NLG

OUR REPAIR STATION HAS REPLACED SEVERAL OF THESE SAME UPPER TORQUE LINKS DUE TO FINDING THEM BENT AT INSPECTION (APPROX 5 TOTAL) THIS IS THE FIRST ONE FOUND CRACKED. PROBABLE CASUE IS WHAT I BELIEVE IS LANDING IMPACT WITH MORE THAN RECOMMENDED STRUT ESTENSION (5.00 INCH MAX) IAW SRM FIGURE 5-15 WHICH IS ADJUSTABLE BY ADDING SHIMS (ITEM 15) MAXIMUM OF THREE, PN 12436182 IAW THE NOTE OF FIGURE 5-18 OF THE SRM. (K)

2008FA0000458	CESSNA	CONT	FORK	FRACTURED
7/2/2008	340A	TSIO520*	50452112	MLG

LANDING GEAR DOWN ACTUATION ON 7/2/2008 PRODUCED AN INDICATED UNSAFE NOSE LANDING GEAR LIGHT. AN ATTEMPT TO ACTUATE MANUAL EXTENSION OF THE LANDING GEAR PROVED UNSUCCESSFUL SINCE THE NOSE LANDING GEAR DID NOT EXTEND TO A DOWN AND LOCKED POSITION. SUBSEQUENT DAMAGE RESULTED TO THE AIRCRAFT WHEN THE NOSE LANDING GAR COLLAPSED UPON LANDING. AN INSPECTION OF THE AC REVEALED THAT NLG LINKAGE "ADJUSTING FORK" FRACTURED THEREBY DISABLING THE EXTENSION OF THE NLG FROM EXTENDING TO A DOWN AND LOCKED POSITION. EVIDENCE SUGGESTS THAT THE FRACTURE WAS PROGRESSIVE IN NATURE DUE TO INDICATIONS THAT A DEGRADATION TO THE STRUCTURE OF THIS COMPONENT EXISTED PRIOR TO FAILURE OF THIS COMPONENT. (K)

2008FA0000491	CESSNA	WILINT	BLADE	DEPARTED
7/9/2008	525	FJ441A	66032	IP ROTOR BLADE

DURING ROUTINE INSP, FOUND DAMAGE TO THE 1ST STAGE STATOR ASSY, UPON FURTHER INSPECTION, FOUND 1 BLADE HAD FAILED AND DEPART THE LP ROTOR ASSY CAUSING DAMAGE TO THE REST OF THE ENGINE DOWN STREAM. (K)

2008FA0000485	CESSNA	PWA	FLOW DIVIDER	FAILED
7/9/2008	550	JT15D4	256072	NR 1 ENGINE FUEL

DURING CLIMB OUT AFTER TAKEOFF, NR 1 ENGINE COULD ONLY PRODUCE 85 PERCENT N1. WHILE RETURNING TO BASE , ENGINE SHUT ITSELF DOWN ON 2 MILE FINAL. TROUBLESHOOTING FOUND THAT FUEL FLOW DIVIDER HAD MALFUNCTIONED. FUEL FLOW DIVIDER WAS REMOVED FROM SERVICE, AND REPLACED WITH AN OVERHAULED UNIT. AIRCRAFT WAS RETURNED TO SERVICE. (K)

2008FA0000500	CESSNA	PWA	WIRE	CHAFED
7/13/2008	550	JT15D5		THRUST REVERSER

ON CLIMB OUT, AFTER DEPARTURE, THE LT THRUST REVERSER DEPLOY LIGHT ILLUMINATED. NO ABNORMAL FLIGHT CHARACTERISTICS WERE FELT IN THE AC. AFM PROCEDURES WERE FOLLOWED AND A SAFE LANDING BACK AT DEPARTURE AIRPORT WAS MADE. AFTER LANDING, THE PILOT CYCLED THE LT THRUST REVERSER AND

THE LIGHT EXTINGUISHED. THE TRIP WAS CANCELLED UNTIL THE AIRCRAFT COULD BE INSPECTED. INVESTIGATION REVEALED A WIRE FOR THE DEPLOY SWITCH HAD CHAFED TO GROUND AT THE STRUCTURE OF THE LT THRUST REVERSER OB STANG. THE DAMAGED WIRE WAS REPAIRED AND THE WIRE BUNDLE IN THAT AREA WAS REPOSITIONED TO PREVENT ANY FURTHER CHAFING. OPS CHECK OF THE THRUST REVERSER SYSTEM AFTER REPAIR WAS NORMAL. (K)

2008FA0000432	CESSNA	PWA	DOWNLOCK SWITCH	INOPERATIVE
6/2/2008	551	JT15D4	602EN166B	RT MAIN GEAR

RT MAIN GEAR GREEN INDICATOR DID NOT ILLUMINATE WHEN GEAR EXTENDED GOING INTO LAND. CYCLED GEAR AND GREEN INDICATOR LIGHT REMAINED OUT. AC LANDED WITHOUT INCIDENT. RT MAIN GEAR DOWNLOCK SWITCH FOUND TO BE FAULTY. (K)

2008FA0000429	CESSNA		PISTON	LOOSE
6/5/2008	560CESSNA		66420003	NLG

(REF CWQR200801) DURING A1-5 PHASE INSPECTION, FOUND EXCESSIVE PLAY INT HE NOSE GEAR FWD AND AFT PLAY CHECK. AFTER FURTHER INSPECTION , FOUND THE NOSE GEAR FORK LOOSE ON THE PISTON. THEN THE SAFETY BOLT WAS REMOVED THE FORK FELL FROM THE PISTON. THIS SHOULD BE AN INTERFERENCE FIT. THIS IS A LOW TIME AC AND APPEARS TO BE A MFG PROBLEM. FILED SCR NR 363222 WITH MFG. (K)

2008FA0000350	CESSNA		HOSE	LEAKING
4/29/2008	560CESSNA		38101550360	LAV OXYGEN

DURING SCHEDULED PHASE INSPECTION NOTED HOSE ASSY. SUPPLYING OXYGEN TO LAVATORY OXYGEN MASK COMPARTMENT FROM MAIN UPPER CABIN OXYGEN LINE ASSY LEAKING. FURTHER INVESTIGATION SHOWED MULTIPLE HOLES IN OXYGEN HOSE ASSY FLEXIBLE HOSE SECTION. SUSPECT HOSE ASSY DETERIORATED FROM AGE AND POSSIBLY HEAT FROM AIRCRAFT BEING PARKED OUTDOORS FOR EXTENDED PERIODS. RECOMMEND TECH CLOSELY INSPECT CABIN OXYGEN SYSTEM COMPONENTS DURING SCHEDULED INSPECTIONS ON OLDER AND HIGH-TIME SERIES AC FOR AGE RELATED DEFECTS. (K)

2008FA0000351	CESSNA		LATCH	BROKEN
4/29/2008	560CESSNA		991434317	CARGO DOOR

DURING SCHEDULED PHASE INSPECTION, FOUND AFT BAGGAGE COMPARTMENT DOOR AFT LATCH ASSY, NOT LOCKING. FURTHER INVESTIGATION FOUND AFT DOOR LATCH ASSY, BROKEN. REPLACED LATCH ASSY W/ SERVICEABLE LATCH ASSY, OPERATIONS NORMAL. RECOMMEND FURTHER INVESTIGATION BY MFG TO DETERMINE IF MFGED LATCHES PRONE TO EARLY FATIGUE FAILURE AND ISSUE SB TO REPLACE IF HIGH FAILURE RATES NOTED. TECHS SHOULD INSPECT THESE LATCHES CLOSELY DURING SCHEDULED PHASE CHECKS TO PREVENT POSSIBLE DOOR OPENING IN FLIGHT. (K)

2008FA0000385	CESSNA	PWA	TRUNNION	CORRODED
6/5/2008	560XL	PW545A	66426119	NLG

(REF CWQR200806) WHILE WORKING AN UNSCHEDULED NOSE GEAR VIBRATION, POPPING, DISCREPANCY. FOUND BEARING PN MS2464268G TO BE ROUGH WHEN TURNING. UPON FURTHER INSPECTION FOUND CORROSION AND PITTING BETWEEN STEEL BEARINGS AND ALUM NLG TRUNNION ASSY. NLG TRUNNION SHOULD BE TREATED TO PREVENT DISSIMILAR METAL CORROSION. FILED SLR NR 363322. (K)

2008FA0000360	CESSNA	PWC	STIFFENER	MISINSTALLED
5/15/2008	560XL	PW545B	662121126	LT MLG WW

FOUND RT STIFFENER (PN 662121126) INADVERTENTLY INSTALLED IN LT POSITION. WITH LANDING GEAR IN THE STOWED POSITION, THE ACTUATOR CONTACTED THE STIFFENER AND CAUSED MINOR CHAFFING. NEITHER THE ACTUATOR NOR THE STIFFENER WERE DEFORMED/ DAMAGED. (K)

2008FA0000362	CESSNA		HYDRAULIC LINE	LEAKING
5/7/2008	650		620701098	HYDRAULIC SYSTEM

NOTED HYDR FLUID LEAKING FROM RT WING IN THE MLG AREA. TROUBLESHOOTING REVEALED A GROUND

SPOILER HYD LINE. LOCATED ON THE REAR FACE OR THE AFT SPAR AT WS 84 (APPROX). HAD BEEN CHAFED THROUGH BY THE AILERON CABLES. DUE TO THE CLOSE PROXIMITY OF THE LINE AND CABLES, THIS AREA SHOULD BE CLOSELY INSPECTED TO DETECT ANY CHAFING PROBLEM. (K)

2008FA0000364	CESSNA	CONT	TRIM SWITCH	INOPERATIVE
5/9/2008	P206B	IO520F		PILOTS YOKE

PILOT REPORTED IN FLIGHT WHEN AUTOPILOT/ELECTRIC TRIM ENABLE, TRIM SERVO "RAN ON", WHEN ELECTRIC TRIM TURNED OFF MANUAL TRIM WHEEL OPERABLE AND NO MALFUNCTION OF SYSTEM NOTED, UPON INSPECTION NOTICED SOLDERED CONNECTION ON BASE OF SWITCH BENT AND JUMPED BETWEEN WIRE POSTS ON BASE OF SWITCH. RESOLDERED CONNECTION, SEAL WITH HEAT SHRINK AND OPERATED SYSTEM OK. (K)

2008FA0000499	CESSNA	CONT	CONTROL CABLE	DEFECTIVE
7/16/2008	T210L	TSIO520*	98600581	FLAPS

ORDERED NEW MFG FLAP FOLLOW UP CABLE; TO REPLACE ORIGINAL CABLE WHICH HAD BECOME DEFECTIVE DUE TO NORMAL USAGE AND AGE. THIS CABLE IS SIMILAR TO A THROTTLE CABLE WITH AN INSIDE CABLE WHICH SLIDES IN AN OUTSIDE HOUSING. UPON INSTALLATION, OF NEW MFG FLAP FOLLOW UP CABLE, OPERATION WAS VERY ROUGH AND INTERMITTENT. SMOOTH OPERATION IS CRITICAL TO MEET MM SPECS AND AIRCRAFTS FLIGHT MANUAL REQUIREMENTS FOR CERTAIN SPECIFIED FLIGHT CONFIGURATIONS. CONTACTED MFG SERVICE CENTER AND THEN MFG TECH SUPPORT DIRECT. MFG ASSURED, VERBALLY THE CABLE HAS BEEN MFG TO ORIGINAL SPECIFICATIONS. FROM FIRST GLANCE, CABLE IS OBVIOUSLY CONSTRUCTED IN A DIFFERENT MANNER AND OF DIFFERENT MATERIAL OF ORIGINAL PART ON THIS AND OTHER AC UTILIZING THIS SAME PART. TECH SUPPORT VERBALLY STATED CABLE MUST MEET A QC STANDARD OF OPERATING SMOOTHLY WITH A 4 INCH RADIUS 90° BEND. AFTER REMOVAL OF NEW CABLE OPERATION BECAME STIFF WITH CATCHES IN ITS TRAVEL AS IF THE CABLE WAS SNAGGING THE CABLE HOUSING WHEN PLACED IN ONE 6 INCH - 8 INCH RADIUS BEND. MULTIPLE BENDS ARE REQUIRED FOR INSTALLATION IN AIRCRAFT. EACH ADDITIONAL BEND COMPOUNDS THE ROUGHNESS OF ITS TRAVEL. THIS CABLE OPERATES TRAVEL LIMIT SWITCHES FOR SPECIFIED DEGREE OF FLAPS AS SET BY PILOT AT FLAP SELECTOR HANDLE. MM ONLY ALLOWS FOR A COUPLE DEGREES VARIANCE FROM FLAP SELECTOR SETTING AND ACTUAL FLAP POSITION. ROUGH OPERATION CAUSES AN INABILITY TO SET SWITCHES AND CABLE TO PRODUCE CONSISTENT RESULTS IN MM PARAMETERS AND AS REQUIRED IAW FLIGHT MANUAL FOR SPECIFIED FLIGHT CONFIGURATIONS. THIS IS THE FIRST OF 2 NEW CABLES IN THIS CONDITION ORDERED FOR THIS AC IN THIS CONDITION. (K)

2008FA0000443	CESSNA	CONT	GUIDE	OUT OF TOLERANCE
6/17/2008	T210N	IO550P		EXHAUST VALVE

AFTER NUMEROUS ATTEMPTS TO TROUBLESHOOT FREQUENT ENGINE MISFIRES OCCURRING PRIMARILY IN THE INITIAL CLIMB STAGES OF FLIGHT, THE ENGINE VALVE TRAIN WAS INSPECTED FOR STICKING VALVES. DIMENSIONAL INSPECTIONS OF THE EXHAUST VALVE GUIDES IN ALL 6 CYLINDERS REVEALED THAT THE EXHAUST VALVE GUIDES WERE BELOW THE MINIMUM ACCEPTABLE DIAMETERS AS PUBLISHED IN THE APPLICABLE O/H MANUAL. IT IS BELIEVED THAT THE EXCESS MATERIAL EXISTS BECAUSE THE GUIDES WERE NOT MEASURED OR REAMED DURING THEMFG ASSY PROCESS. CORRECTIVE ACTION NOT AVAILABLE AT THIS TIME. (K)

2008FA0000411	CESSNA	LYC	ROD END	BROKEN
6/12/2008	T310Q	IO360A1A		LANDING GEAR

AFTER TAKEOFF, WHEN RETRACTING GEAR, PILOT HEARD LOUD CRACK. NOSE GEAR WOULD NOT RETRACT. AIRCRAFT LANDED WITH NOSE GEAR TRAILING AFT. NOSE GEAR COLLAPSED ON LANDING. INSPECTION REVEALED ROD END UNDER PILOT'S FLOOR THAT CONNECTS NOSE GEAR RETRACT ROD TO BELLCRANK SEPARATED CAUSING NOSE GEAR TO BECOME DISCONNECTED FROM LANDING GEAR TRANSMISSION.

2008FA0000357	CIRRUS	CONT	STRUT	CRACKED
5/1/2008	SR20	IO360ES	11907005	NLG

AFTER INSPECTION OF AIRCRAFT AFTER A REPORT OF NOSE WHEEL PANT DAMAGE ON LANDING. I FOUND THE UPPER LEFT ARM ON THE NOSE STRUT WAS SERIOUSLY CRACKED. THE CRACK RAN FROM THE TOP OF THE ARM ON THE NOSE STRUT WAS SERIOUSLY CRACKED. THE CRACK RAN FROM THE TOP OF THE ARM. JUST FORWARD OF THE STRUT DATA PLATE, THROUGH THE ENTIRE ARM AND STOPPED AT THE BOTTOM WHERE A GUSSET WAS

WELDED. THE CRACK CONTINUED TO RUN PARALLEL TO GUSSET FOR ABOUT .5 OF AN INCH. A SMALLER CRACK WAS ALSO FOUND ON THE RIGHT ARM STARTING AT THE SAME POINT AS THE LEFT ARM BUT ONLY MEASURED ABOUT .5 OF AN INCH. ALSO FOUND NOSE WHEEL STOP AND NOSE FORK WAS DAMAGED. POSSIBLE CAUSE COULD BE REPEATED UNREPORTED HARD LANDINGS. WOULD RECOMMENDED ALL OPERATORS TO INSPECT IN THIS AREA AFTER ANY HARD LANDING OR ANY EXCESSIVE STRESS ON NOSE GEAR. (K)

2008FA0000457	CIRRUS	CONT	MAGNETO	BURNED
7/10/2008	SR20	IO360ES	07010003	LEFT

DURING ROUTINE MAINT, THE LT MAGNETO WAS DISCOVERED OUT OF TIME TO ENGINE. WAS UNABLE TO RE-TIME MAG WITHOUT RE-STABBING. WHEN REMOVED, OPENED COVER AND FOUND INTERNAL PLASTIC COMPONENTS BURNED WITH SIGNIFICANT AMOUNT OF LOOSE (BURNED) PLASTIC PARTS LOOSE WITHIN MAGNETO. THIS MAGNETO WAS SUPPLIED WITH NEW ENGINE 261.3 HOURS AGO, OTHER THAN MAG TO ENGINE TIMING BEING OFF, THERE WAS NO INDICATION (OPERATIONALLY) OF A PROBLEM. THIS IS FIRST TIME HAVE SEEN THIS KIND OF DAMAGE TO MAGNETO AND HAVE IT STILL OPERATE. PERFORM 500 HR INTERNAL INSP OF MAGS AND BEING HALF WAY THERE, IT THEORETICALLY WOULD NOT HAVE BEEN DISCOVERED UNTIL 500 HOUR MARK OR TOTAL FAILURE OF MAGNETO. (K)

2008FA0000378	CIRRUS	CONT	TRANSMITTER	MALFUNCTIONED
4/15/2008	SR22	IO550*		OIL PRESSURE

FOLLOWING ACTIONS WERE TAKEN AS A RESULT OF A PRECAUTIONARY LANDING, WHERE PILOT REPORTED A LOSS OF OIL PRESSURE. AT CRUISE, AT 8000 FT, OIL PRESSURE ANNUNCIATOR LIGHT ILLUMINATED, OIL PRESSURE GAUGE INDICATED NO OIL PRESSURE. AFTER LANDING, OIL PRESSURE RETURNED TO NORMAL. TECH SUPPORT WAS CONTACTED, RECOMMENDED CHECKING OIL PRESSURE SWITCH CONNECTORS. THEY FEED BOTH ANNUNCIATOR AND GAUGE. CONNECTORS WERE CLEANED, CHECKED FOR INTEGRITY AND RECONNECTED. NO PROBLEMS WERE FOUND. OIL LEVEL WAS FOUND AT APPROX (6) QTS. (1) QUART 20X50 WAS ADDED. ENGINE STARTUP AND OIL PRESSURE WAS NORMAL, WITH READING AT TOP OF THE GREEN, COLD, DECREASING TO 50 PSI, HOT. ALL OTHER ENG PARAMETERS APPEAR NORMAL. SUSPECT A CORRODED CONNECTOR. RECOMMENDED TO PILOT A TEST FLIGHT OVER AIRPORT FOR VERIFICATION OF SATISFACTORY OPERATION. TEST FLIGHT WAS SATISFACTORY, PILOT RETURNED TO HOME BASE. (K)

2008FA0000451	CIRRUS	CONT	ELBOW	MISINSTALLED
6/9/2008	SR22	IO550N		RT EXHAUST

WHILE ACCOMPLISHING SERVICE ADVISORY 08-03 IT WAS DISCOVERED THAT RT SIDE EXHAUST ELBOW WHICH IS INSERTED BETWEEN WASTEGATE OUTLET FITTING AND TAILPIPE WAS ORIGINALLY INSTALLED BACKWARDS AT THE FACTORY. THIS INCORRECT INSTALLATION RESULTED IN ELBOW HAVING ONLY A .1875 INCH ENGAGEMENT WITH WASTEGATE FITTING AND A 2.2500 INCH ENGAGEMENT IN TAILPIPE. THE .3750 INCH ENGAGEMENT COULD HAVE RESULTED IN SEPARATION OF JOINT. THE 2.2500 INCH ENGAGEMENT CAUSED A 1 INCH OBSTRUCTION IN EXHAUST GAS PATH. (K)

2008FA0000439	CIRRUS	CONT	BEARING CAP	CRACKED
7/1/2008	SR22	IO550N		ALTERNATOR CASE

PILOT REPORTE TO HAVE AN ALTERNATOR NR 1 FAILURE DURING GROUND PRE-FLIGHT RUN-UP. AC WAS BROUGHT IN FOR MAINTENANCE TO TROUBLESHOOT ALTERNATOR ISSUE. ALTERNATOR BEARING END CAP WHICH IS PART OF THE ALTERNATOR CASE COMPLETED CRACKED OFF AND WAS LYING ON THE ENGINE BAFFLING. AC WAS FURTHER INSPECTED WITH NO OTHER DISCREPANCIES FOUND. ALTERNATOR WAS REPLACED WITH NEW. GROUND AND FLIGHT TESTS CHECK GOOD. (K)

2008FA0000493	CIRRUS	CONT	WIRE	FATIGUED
6/23/2008	SR22	IO550N		ALT AIR DOOR

WIRES THAT CONNECT TO THE ALTERNATE AIR DOOR (WHICH ARE SOLDERED TO THE SWITCH) FOR THE TORNADO ALLEY TURBO SYSTEM ARE BECOMING FATIGUED AND SOLDER IS BREAKING AT SWITCH. IF THE ALTERNATE AIR WAS TO OPEN AND THESE WIRES WERE BROKEN, IT WOULD NOT GIVE THE PILOT AN INDICATION THAT THE ALTERNATE AIR DOOR WAS OPEN. (K)

2008FA0000469	CIRRUS	CONT	MOUNT	CRACKED
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6/16/2008	SR22	IO550N		ALTERNATOR
STANDBY ALTERNATOR MOUNTING FLANGE CRACKED IN (2) PLACES. OIL GALLING AT MOUNT FLANGE WHERE CRACKS WERE NOTED. (K)				
2008FA0000492	CIRRUS	CONT	FAN	CRACKED
6/30/2008	SR22	IO550N		ALTERNATOR
ALTERNATOR NR 2 (BELT DRIVEN ALTERNATOR) COOLING FAN DEVELOPED CRACK AT FAN BLADE RADIUS. CRACK ELONGATED UNTIL FAN SEPARATED FROM ALTERNATOR. (K)				
2008FA0000430	CNDAIR	GE	CONTROL PANEL	MALFUNCTIONED
6/25/2008	CL6002B16	CF34*	7455025	MLG
LANDING GEAR HANDLE DIFFICULT TO ACTUATE TO UP POSITION. REQUIRED MULTIPLE ATTEMPTS TO ACTUATE GEAR HANDLE. FOUND LIGHTED COVER PANEL LOOSE ON GEAR HANDLE ASSEMBLY. REMOVED LIGHT PANEL TO INVESTIGATE. FOUND ONE SCREW FROM BACKSIDE OF PANEL HAD FALLEN OUT AND WAS INTERFERING WITH GEAR UP RELEASE MECHANISM. REINSTALLED SCREW AND TIGHTENED ALL OTHERS . REINSTALLED LIGHT PANEL. PREFORMED MULTIPLE GEAR SWINGS, NO FAULTS NOTED. (K)				
2008FA0000358	CNDAIR	GE	CONTROL BOX	FAILED
5/19/2008	CL6002B16	CF343A	60093000123	T/E FLAPS
CREW REPORTED FLAP FAILURE DURING APPROACH APPROXIMATELY 8 HOURS AFTER INSTALLATION. RESET SYSTEM AND FLAPS WORKED FINE. FLEW AIRCRAFT HOME AND NO DISCREPANCIES. UNABLE TO DUPLICATE PROBLEM UNTIL SEVERAL WEEKS LATER DURING MAINTENANCE RUN. FLAPS WOULD IMMEDIATELY FAIL, INTERMITTENTLY. PLACED ELECTRICAL RECORDER ON SYSTEM WITH BREAKOUT BOX AND FOUND INTERMITTENT SIGNAL LOSS ON SIGNAL 2 WHEN INSTALLED ON LEFT WING. SWAPPED UNIT TO RIGHT WING AND FLAPS WOULD CONSISTANTLY FAIL INTERMITTENTLY. THIS TIME FOUND SIGNAL LOSS ON RIGHT WING, SIGNAL 1. INSTALLED REPAIRED UNIT, SYSTEM WORKING OK RIGHT NOW. THIS UNIT HAD LESS THAN 13 HOURS TT SINC REPAIR ON IT. (K)				
2008FA0000359	CNDAIR	GE	CONTROL HANDLE	DAMAGED
5/21/2008	CL6002B16	CF343A1	600930035	COCKPIT
AIRCRAFT HAD BEEN EXPERIENCING MULTIPLE INFLIGHT FLAP FAILURES WHICH WERE NOT DUPLICATED ON THE GROUND. DURING TROUBLESHOOTING OF THE FLAP SYSTEM, FLAPS WOULD NOT MOVE FROM 45 DEGREES TO 30 DEGREES WHEN SELECTED. NO FAILURE WAS DISPLAYED BY THE AIRCRAFT. FLAP HANDLE WAS JOGGLED AND FLAP MOVEMENT WOULD BEGIN. REPLACED FLAP CONTROL HANDLE. (K)				
2008FA0000361	CNDAIR	GE	FCU	FAILED
5/21/2008	CL6002B16	CF343A1	60093000117	T/E FLAPS
AC HAS BEEN EXPERIENCING INTERMITTENT FLAP SYSTEM FAILURES IN DIFFERENT MODES OF FLIGHT, PRIMARILY DURING APPROACH. TROUBLESHOOTING IAW MM RECOMMENDED REPLACEMENT OF FLAP CONTROL UNIT DUE TO IMMEDIATE (INTERMITTENT) FAILURES AFTER FLAP MOVEMENT SELECTION. AFTER INSTALLATION OF THIS UNIT IN AIRPLANE, FLAPS FAILED TAKEOFF CONFIGURATION WARNING SYSTEM CHECK WHEN UTILIZING LEFT POWER LEVER (THROTTLE LEVER). UNIT NOT RETURNED TO SERVICE. NO FLIGHT TIME PLACED ON UNIT. THIS PART HAD A FRESH INSPECTION TAG FROM VENDOR. (K)				
2008FA0000433	CNDAIR	GE	ASYMMETRY SWITCH	FAILED
5/21/2008	CL6002B16	CF343A1	60093000123	TE FLAPS
FLAPS FAIL FOUR DEGREES AFTER SELECTION. USING BREAKOUT BOX, SELECTED THIS BDU AND FLAPS WOULD CONSISTENTLY FAIL. SELECTED OTHER SIDE BDU AND FLAPS WOULD OPERATE NORMALLY. UNIT ALSO RATTLES ON BENCH WHEN CHECKING DRAG TORQUE (UNLOCKED). (K)				
2008FA0000354	DHAV	PWA	BOLT	SHEARED

6/3/2008

DHC8202

PW123

7826691

PROPELLER

WHILE DOING A RGB CHANGE ON THE NR 1 ENGINE OF DASH-8, N802MR, DURING REINSTALLATION OF THE PROPELLER WHILE DOING THE TORQUE SEQUENCE, WE BROKE ONE PROP MOUNTING BOLT. WE SENT THE HUB OUT FOR REPAIR AND SENT THE TORQUE WRENCH TO THE CAL PLACE TO BE VERIFIED. THEY REPLACED 3 MOUNTING BOLTS. WHEN THE HUB CAME BACK FROM REPAIR WE PROCEEDED TO INSTALL THE BLADE USING A DIFFERENT TORQUE WRENCH. AS WE WERE DOING THE CRISSCROSS PATTERN, I NOTICED THAT THE BOLTS THAT WERE NOT REPLACED WOULD NOT GRAB TORQUE THE TORQUE WRENCH WOULD CLICK ONCE BUT ON THE SECOND CLICK IT WOULD MOVE OVER .2500 OF A TURN, THE 3 NEW SCREWS CLICK FINE CLICK CLICK. WE FIGURED THAT THE BOLTS HAD JUST BEEN REMOVED AND REINSTALLED AND THEY WERE JUST SETTING INTO PLACE. SINCE ALL THE BOLTS HAD CLICK ONCE IN THE CRISSCROSS PATTERN WE PROCEEDED TO DO THE CIRCULAR PATTERN WE DID THE FIRST 3 BOLTS FINE BUT NOTICED THAT OUT OF THOSE 3 BOLTS, THE NR 1 AND 2 WERE SHOWING MORE THREADS THAN THE NR 3 (THIS ONE WAS REPLACED AT THE PROP SHOP) TOLD THE MECHANIC TO STOP, THERE WAS OBVIOUSLY SOMETHING WRONG WHEN ALL OF A SUDDEN ON THE BOLTS THAT WAS ALREADY TORQUED, BROKE. (K)

2008FA0000420	DIAMON	HINGE	CRACKED
6/18/2008	DA40		DOOR

FOUND CRACKS IN AFT DOOR HINGE. (K)

2008FA0000424	DIAMON	DOOR	DEPARTED
6/16/2008	DA40	DA4522100002	REAR PASSENGER

ON TAKEOFF CLIMBOUT, AFT PASSENGER DOOR DEPARTED AIRFRAME. (K)

2008FA0000426	DIAMON	HINGE	CRACKED
6/18/2008	DA40		DOOR

FOUND CRACKS IN AFT DOOR HINGE. (K)

2008FA0000423	DIAMON	DOOR	DEPARTED
11/6/2007	DA40	DA4522100002	REAR PASSENGER

WHILE TAXIING INTO TAKEOFF POSITION ON RUNWAY, AFT PASSENGER DOOR DEPARTED AIRFRAME. (K)

2008FA0000346	DIAMON	HINGE	CRACKED
6/25/2008	DA40	D4152210000	REAR CABIN DOOR

REAR HINGE DEVELOPING CRACKS IN FIBERS. NORMAL OPERATING CONDITION. PROBABLE CAUSE IS REAR HOLD OPEN CYLINDER CAUSING STRESS ON HINGE POINT. (K)

2008FA0000347	DIAMON	HINGE	CRACKED
6/25/2008	DA40	D4152210000	REAR CABIN DOOR

REAR HINGE DEVELOPING CRACKS IN FIBERS. NORMAL OPERATING CONDITION. PROBABLE CAUSE IS REAR HOLD OPEN CYLINDER CAUSING STRESS ON HINGE POINT. (K)

2008FA0000419	DIAMON	DOOR	DEPARTED
6/18/2008	DA40	DA4522100002	REAR PAX DOOR

ON TAKE-OFF ROLL AT VR, AFT PASSENGER DOOR DEPARTED AIRFRAME. (K)

2008FA0000421	DIAMON	DOOR	DEPARTED
6/18/2008	DA40	DA4522100002	REAR PAX DOOR

WHILE TAXIING INOT TAKEOFF POSITION ON RUNWAY, AFT PASSENGER DOOR DEPARTED AIRFRAME. (K)

2008FA0000422	DIAMON	DOOR	DEPARTED
6/16/2008	DA40	DA4522100002	AFT PAX DOOR

ON TAKEOFF CLIMBOUT, AFT PASSENGER DOOR DEPARTED AIRFRAME.

[2008FA0000425](#) DIAMON DOOR DEPARTED
9/10/2007 DA40 DA4522100002 REAR PAX DOOR

ON TAKEOFF ROLL AT VR, AFT PASSENGER DOOR DEPARTED AIRFRAME. (K)

[2008FA0000505](#) DIAMON CONT WOODWARD CONNECTOR DAMAGED
7/22/2008 DA40 IO360* 1219310 PROP GOVERNOR

ON JUNE 28TH, 2008, DURING CLIMB OUT, PASSING THROUGH 4000 FEET THE ENGINE SUDDENLY WENT INTO AN OVER SPEED CONDITION OF OVER 3100 RPM. THE AIRCRAFT REMAINED UNDER CONTROL AND WAS LANDED SAFELY AT AIRPORT AFTER AN EMERGENCY WAS DECLARED. UPON DISASSEMBLY OF THE GOVERNOR, IT WAS DISCOVERED THAT THE 1219-310 PLUG HAD BECOME DISLODGED FROM THE GOVERNOR BODY. THIS SEPARATION AND THE RESULTANT LOSS OF PROPELLER SERVO PRESSURE ALLOWED THE PROP TO RETRACT TO ITS LOW PITCH POSITION AND OVERSPEED THE ENGINE. A PROBABLE CAUSE WAS LACK OF PROPER TORQUE DURING ASSEMBLY. APPLICATION OF LOCK-TIGHT TO THE PLUG AND INDEPENDENT SECOND PARTY VERIFICATION OF TORQUE DURING ASSEMBLY IS SUGGESTED. (K)

[2008FA0000342](#) DIAMON LYC DOOR DEPARTED
9/10/2007 DA40 IO360LYC* DA4522100002 PAX DOOR

ON TAKEOFF ROLL AT VR, AFT PASSENGER DOOR DEPARTED AIRFRAME. (K)

[2008FA0000343](#) DIAMON LYC HINGE CRACKED
6/18/2008 DA40 IO360LYC* DOOR

FOUND CRACKS IN AFT DOOR HINGE. (K)

[2008FA0000344](#) DIAMON LYC DOOR DEPARTED
11/6/2007 DA40 IO360LYC* DA4522100002 PAX DOOR

WHILE TAXIING INTO TAKEOFF POSITION ON RUNWAY, AFT PASSENGER DOOR DEPARTED AIRFRAME. (K)

[2008FA0000345](#) DIAMON LYC DOOR DEPARTED
6/16/2008 DA40 IO360LYC* DA4522100002 PAX DOOR

ON TAKEOFF CLIMB OUT, AFT PASSENGER DOOR DEPARTED AIRFRAME. (K)

[2008FA0000476](#) DOUG PWA WHEEL LOOSE
6/17/2008 DC983 JT8D* 95502677 NLG

REJECTED TAKEOFF, DURING T/O ROLL, THERE WAS AN ABNORMAL AND ABRUPT VIBRATION IN THE NOSE SECTION. IAW AMM 32-21-04, PAGE 201/210 WAS CHECKED TORQUE LINKS ASSY BY LOOSE AND ADJUSTMENT ALSO WERE CHECK BOTH NOSE WHEELS, IAW AMM 32-40-02 PAGE 201, PRESS IN BOTH WHEELS 150 PSI IAW AMM 12-16-01 AND IAW AMM 32-22-01, PAGE 201 WERE CHECK BOTH DOORS AND LINKAGE. (K)

[2008FA0000473](#) DOUG PWA ENGINE VIBRATION
6/19/2008 DC987 JT8D219 RIGHT

CAPTAIN REPORTED STRONG VIBRATION IN RT ENGINE WITH EPR'S BETWEEN 1.7 AND 1.75. TECHS VERIFIED THE RT ENGINE CONDITION AND PERFORMED OPERATIONAL TEST IAW AMM 71-00-01 FOUND ALL CORRECT. VIBRATION WAS WITHIN LIMITS (0.4 UNITS INDICATED). (K)

[2008FA0000490](#) DOUG PWA ACOUSTIC LINER DAMAGED
6/22/2008 DC987 JT8D219 LEFT

AC RETURNED TO PLATFORM, DURING ENGINE ACCELERATION UP TO 1.4 EPR, STRONG NOISE IN THE RT ENG WAS HEARD. MAINT PERFORMED AN INSPECTION AND DETECTED ACOUSTIC LINER DELAMINATION OF THE DIFFUSER OUTER FAN DUCT, BUT WITHIN LIMITS TO OPERATE TEN HOURS IAW MM 72-00-00. AC, DURING OVERNIGHT CHECK, THE RT ENG WAS REPLACED AND TESTED IAW MM 71-00-02 AND MPCM 71-00-01, ALL CORRECT. (K)

[2008F00016](#) GIPPLD LYC ENGINE FAILED

4/15/2008 GA8 IO540K1A5

AIRCRAFT EXPERIENCED AN ENGINE FAILURE. ATTEMPTS TO RESTART ENGINE FAILED AND A SAFE LANDING WAS ACCOMPLISHED. CAUSE OF FAILURE REMAINS UNKNOWN AT THIS TIME. (K)

2008FA0000470	GULSTM	GARRTT	CLEVIS	BROKEN
7/1/2008	690A	TPE33112UHR	ED12758	RT MLG ACTUATOR

WHEN FLYING IN TO LAND, LANDING GEAR WAS SELECTED DOWN, RT MLG CAME DOWN ABOUT A FOOT AND STOPPED ON (2) ATTEMPTS, UPON (3RD) ATTEMPT GEAR CAME DOWN AND INDICATED LOCKED. AC WAS BROUGHT INTO OUR SHOP AND WHEN THE RT MLG WAS INSPECTED, IT WAS FOUND THAT CLEVIS ASSY FROM UPPER STRUT HSG TO MAIN ACTUATOR HAD BROKEN IN (2) PIECES, (1) PART STILL ATTACHED TO ACTUATOR AND THE OTHER WAS STILL IN THE UPPER STRUT ASSY. AN OEM SL REQUIRING THAT THE CLEVIS BE REMOVED EA 500 HR AND INSPECTED BY A LEVEL II INSPECTOR. THIS CLEVIS HAD 274 HR ON IT SINCE THAT INSPECTION, WHERE IT WAS FOUND AIRWORTHY. ON THESE AC THERE IS A MAIN ACTUATOR AND AN AUXILLIARY ONE WITH ITS OWN CLEVIS MOUNTING ALSO. LANDING GEAR CAME DOWN AND LOCKED BECAUSE OF AUXILLIARY ACTUATOR. THE RT MLG ACTUATOR HAD BEEN RESEALED IN 2004. IT FELT STIFF UPON INSPECTION AND WAS RESEALED BY THIS SHOP, THEN THE MOTION OF THE ACTUATOR FELT OK. (K)

2008FA0000506	GULSTM	RROYCE	TRANSMITTER	MALFUNCTIONED
7/2/2008	GIV	TAY6118	ACA500	LT ENGINE

TRANSMITTER CAUSED LT ENGINE TO SPOOL BACK TO IDLE, AC RETURNED TO AIRPORT AND LANDED WITH NO INCIDENT. (K)

2008FA0000494	GULSTM	RROYCE	WATER SEPARATOR	DAMAGED
7/15/2008	GIV	TAY6118	234018623	

BOTH UNITS O/H AT MFG. WHEN CHANGING SOCK, FOUND RUST STAINS ON SOCK. REMOVED AND FOUND RETAINING CHAIN PN 834639 RUSTED. CHAIN WAS WRONG MATERIAL (METAL) AND INCORRECT LENGTH (9.5 INCHES). REPLACEMENT UNIT WAS SS WITH A TOTAL LENGTH OF (6 INCHES). ALSO ON UNIT 67-272 (1) OF (8) INTERNAL RETAINING SCREWS WAS FOUND NOT SEATED AND IN CONTACT WITH PART GASKET. ALSO FOUND INSIDE SAME UNIT WAS A PIECE OF MASKING TAPE (2 INCHES X 6 INCHES) WITH SN OF UNIT WRITTEN WITH A RED MARKER STILL AFFIXED TO INNER COATING OF AFT SECTION. WO NR TTT91055 (SN 49-945) DATED SEPT 28, 2006. AND CLJ14812 (SN 67-272) DATED SEPT 24, 2007. (K)

2008FA0000372	HILLER	LYC	RETAINER	MISMANUFACTURED
5/14/2008	UH12E	VO540*	23688	M/R TRANSMISSION

RETAINER SUSPECTED LOCALLY MADE INSTALLATION WORD "UP" IS NOT STAMPED ON PART BUT ETCHED ON BY HAND. THICKNESS OF RETAINER IS .045, ACTUAL PART THICKNESS OF NEW RETAINER IS .051. FOUND SHAFTS THAT ARE SHIMMED WITH BAD RETAINERS TO BE SHIMMED IMPROPERLY DUE TO RETAINER THICKNESS AS REQUIRED BY MFG O/H MANUAL. SHAFTS WERE OUT OF TOLERANCE BY .014 TO .020. (K)

2008FA0000502	ISRAEL	GARRTT	AMPLIFIER	INOPERATIVE
7/18/2008	1124A	TFE731*	6222263016	AUTOPILOT

AFTER (1) HOUR DISENGAGES AUTOPILOT. PRELIMINARY INSPECTION RESULTS, NO DEFECTS NOTED AFTER BENCH CHECK. (K)

2008FA0000480	LEAR		ACTUATOR	FAILED
4/15/2008	60LEAR		2317100016	NLG

THE NLG ACTUATOR HAD IMPACT MARKS FROM THE LOCKING BALLS IN THE LOCKING CHANNEL. THESE IMPACT MARKS ALSO PUSHED PISTON MATERIAL OUT OF THE CHANNEL CAUSING INTERFERENCE WITH THE LOCKING SLEEVE. THIS INTERFERENCE CREATED METAL SHAVINGS THAT INTERFERED WITH THE DOWN LOCK MECHANISM. (K)

2008FA0000438	LEAR	PWA	HOSE	FAILED
6/30/2008	60LEAR	PW305A	605700311	HYD SYSTEM

PILOT REPORTED A LOSS OF HYDRAULICS DURING FLIGHT AT CRUISE FL400. INSPECTION REVEALED THAT THE RT ENGINE DRIVEN HYDRAULIC PUMP, PRESSUE SIDE HYDRAULIC LINE WAS LEAKING, AND ALLOWED THE AIRCRAFT'S HYDRAULIC SYSTEM FLUID TO BE DEPLETED. FURTHER INSPECTION REVEALED THAT THE LINE HAD FAILED INTERNALLY AND WHEN PRESSURE WAS APPLIED THE HOSE WOULD SWELL AND BEGIN TO LEAK. THE PROBABLE CAUSE OF THE FAIURE IS AGE AND POSSIBLE EMBRITTEMENT OF THE HOSE. TO POSSIBLY PREVENT RECURRENCE OF SUCH FAILURES AT TIME INTERVAL FOR REPLACEMENT OF AGEING TEFLON HOSES MAY BE NEEDED. (K)

2008FA0000383	MTSBSI	GARRTT	HOUSING	CRACKED
5/23/2008	MU2B25	TPE33110	31020474	GEARBOX

PILOT REPORTED LOW AND FLUCTUATING OIL PRESSURE FROM LEFT ENGINE IN FLIGHT AND ELECTED TO SHUT THE ENGINE DOWN. AN UNEVENTFUL SINGLE ENGINE LANDING WAS MADE. THE ENGINE OIL BYPASS VALVE WAS FOUND TO BE IN THE "POPPED" CONDITION, THE OIL FILTER WAS THEN REMOVED AND FOUND TO BE BLACK IN COLOR WITH THE FORWARD SEALING SURFACE BROKEN IN SEVERAL SMALL PIECES. THE REDUCTION GEAR BOX WAS DISASSEMBLED AND THE OIL PRESSURE PUMP REMOVED. THE FORWARD HOUSING WAS CRACKED APPROXIMATELY (3 INCH) RADIALLY AT FWD DETAIL. (K)

2008FA0000467	NAMER	SNAP RING	MISSING
5/12/2008	AT6F		PROP GOVERNOR

PROPELLER WAS INSTALLED IMPROPERLY. SNAP RING THAT HOLDS ON PROP NUT AND CRANKSHAFT EXTENSION WAS NOT INSTALLED. THIS ALLOWED CRANKSHAFT EXT TO UNSCREW AND LET PROP GOVERNOR PRESSURE OF 180 LBS TO BE PUT ON ENGINE AND PROPELLER. THIS CAUSED PROPELLER AND ENG TO LEAK OIL. (K)

2008FA0000386	PIAGIO	STEERING SYS	CONTAMINATED
11/1/2007	P180		NLG

STEERING SYSTEM DISENGAGEMENT DURING TAXI. STEERING DRIFT DURING ENGAGEMENT. STEERING HART TO TURN (NO INPUT). STEERING RELIABILITY VERY LOW. STEERING CONTAMINATION DURING MFG BENCH TESTING. AIRCRAFT RUNWAY EXCURSION DURING LANDING AND TAXI DUE TO STEERING CONTROL LOSS. AIRCRAFT DAMAGED FROM STEERING DRIFT DURING LANDING. (K)

5APR577Y1	PILATS	PWA	BFGOODRICH	BRAKE DISC	BROKEN
5/15/2008	PC1245	PT6A67B		244755	RT MLG

DURING AN ANNUAL INSPECTION THE RIGHT MAIN WHEEL WAS REMOVED TO REPACK THE WHEEL BEARINGS WHEN IT WAS DISCOVERED THAT THE OUTBOARD BRAKE DISK ON THE RIGHT BRAKE WAS BROKEN INTO TWO PIECES. THE BRAKE ASSEMBLY WAS REMOVED AND REPLACED.

5APR577Y2	PILATS	PWA	BFGOODRICH	BRAKE DISC	BROKEN
5/15/2008	PC1247	PT6A67B		244755	LT MLG

DURING ANNUAL INSPECTION THE LEFT MAIN WHEEL WAS REMOVED TO REPACK THE BEARINGS AND THE TWO OUTBOARD BRAKE DISCS ON THE LEFT BRAKE WERE FOUND TO BE BROKEN. REMOVED AND REPLACED BRAKE ASSEMBLY.

5APR577Y3	PILATS	PWA	BFGOODRICH	BRAKE DISC	BROKEN
5/15/2008	PC1247	PT6A67B		244755	RT MLG

DURING ANNUAL INSPECTION RIGHT MAIN WHEEL WAS REMOVED TO REPACK BEARINGS AND THE MIDDLE BRAKE DISC WAS FOUND TO BE BROKEN. REMOVED AND REPLACED BRAKE ASSEMBLY.

2008FA0000376	PIPER	LYC	CLAMP	LOOSE
12/26/2007	PA22150	O320*	1423500	EXHAUST PIPE

ENGINE DID NOT RESPOND WHEN POWER WAS APPLIED ON A LOW FLY BY OF THE RUNWAY AND CAUSED THE PLANE TO LAND NEXT TO THE RUNWAY IN THE SNOW DAMAGING THE AIRCRAFT. THE FOLLOWING PROBLEM WAS FOUND ON POST INCIDENT INSPECTION OF ENGINE AND EITHER ONE CAN CONTRIBUTE TO LOSS. THE PROBLEM FOUND WAS THE MUFFLER END WITH THE CARB HEAT SHROUD HAS A SUBSTANTIAL EXHAUST LEAK

INTO THE CARB HEAT SHROUD. THE INSIDE OF THE CARB HEAT SHROUD, SCAT HOSE AND AIR BOX ARE VERY SOOTY FROM EXHAUST GASSES. THE EXHAUST MUFFLER PN 10308-03 END THAT EXHAUST PIPE PN 12043-23 END SLIDES INTO AND HAS PN 14235-00 EXHAUST CLAMP AROUND IT IS LEAKING. THE PIPE END THAT SLIPS INTO THE MUFFLER IS VERY LOOSE, NOT A TIGHT SEAL LIKE NORMAL. THE CLAMP WAS SECURED AROUND THE PIPE JOINT AND THE CLAMP PIN WAS HOLDING THE JOINT TOGETHER BUT THE PIPE CLAMP COULD HAVE BEEN TIGHTER AND IT WOULD HAVE SQUEEZED THE JOINT TOGETHER AND MADE A BETTER SEAL. BEING LOOSE, IT ALLOWED A SUBSTANTIAL AMOUNT OF VERY HOT CARBON MONOXIDE GASSES TO ENTER THE INDUCTION SYSTEM AND REDUCE THE OXYGEN RICH INDUCTION AIR MIXTURE. THIS WILL CAUSE A POWER LOSS DUE TO THE HOT INDUCTION AIR, REDUCING THE INDUCTION AIR DENSITY AND FURTHER DEDUCING IT WITH CARBON MONOXIDE GASSES, MOISTURE OF COMBUSTION AND OTHER POLLUTANTS. THE PREVIOUS MIXTURE WILL ALL CAUSE AN ENGINE TO STALL AT IDLE OR VERY LOW POWER SETTINGS AND PREVENT IT FROM RESTARTING BECAUSE OF CARBURETOR ICING, POOR OXYGEN FUEL RATIO AND WET SPARK PLUGS. (K)

2008FA0000375	PIPER	LYC	PIPER	CLAMP	WORN
12/26/2007	PA22150	O320*		MS21919DG3	CARB HEAT

ENGINE DID NOT RESPOND WHEN POWER WAS APPLIED ON A LOW FLY BY OF THE RUNWAY AND CAUSED THE PLANE TO LAND NEXT TO THE RUNWAY IN THE SNOW DAMAGING THE AIRCRAFT. THE FOLLOWING TWO PROBLEMS WERE FOUND ON POST INCIDENT INSPECTION OF THE ENGINE AND EITHER ONE CAN CONTRIBUTE TO LOSS. THE FIRST PROBLEM FOUND WAS THE CARBURETOR HEAT CABLE CLAMP WAS LOOSE ON THE CABLE HOUSING. THIS WOULD ALLOW THE HOUSING TO SLIP IN THE CLAMP AND SOMETIME NOT MAKE STOP TO STOP TRAVEL. THE WRONG CLAMP WAS INSTALLED ON THE CARBURETOR HEAT CABLE HOUSING AT REAR OF AIR BOX. THE CLAMP INSTALLED WAS PN MS21919DG3 (3/16) INCH DIAMETER ADEL CLAMP. THE ADEL CLAMP USED HAS AN CHLOROPRENE RUBBER CUSHION WITH A MAXIMUM TEMP OF 212 DEGREES (F). THE OUTSIDE CABLE HOUSING MEASURES 0.188 (3/16) INCH AND THE MIL-C-8603 SPECIFICATION STATES THAT THE INSIDE DIAMETER OF THE MS21019-DG3 ADEL CLAMP IS 0.188 ONLY A FEW 0.000 MORE IT WON'T HOLD VERY WELL, THE ONLY WAY TO HAVE SUFFICIENT GRIP IS FOR THE TOLERANCE TO BE NEAR THE PLUS 0.015 LIMIT, IF THE RUBBER GETS OILY, OR DETERIORATES DUE TO HEAT, FLUID AND VIBRATIONS THE CLAMP CAN SLIP. THE PN 80032-34 THAT IS SUPPOSE TO BE USED IS A 0.030 INCH THICK STEEL WITH AN INSIDE DIAMETER OF 0.188 (3/16) INCH WITH 2 EA 0.125 (1/8) INCH LONG NOTCHES THAT ARE 0.280 INCH APART AND PENETRATES INTO THE 0.188 INCH DIAMETER 0.025 INCH AND THE NOTCHES ENGAGE WITH THE SPIRAL WRAPPING OF THE CABLE HOUSING WITH A PLUS 0.025 AND MINUS ZERO TOLERANCE. ENSURING A POSITIVE ENGAGEMENT THAT WILL NOT DETERIORATE OR SLIP. (K)

2008FA0000408	PIPER	LYC		WHEEL	CORRODED
5/28/2008	PA23250	IO540*		3080D	LT MLG

DURING A ROUTINE INSPECTION THE AMT ENCOUNTERED DIFFICULTY WHILE REMOVING THE LT MAIN GEAR WHEEL ASSEMBLY AXLE RETAINING NUT. HE STOPPED AND DEFLATED THE TIRE. THE WHEEL WAS THEN REMOVED EASILY. FOLLOWING REMOVAL THE WHEEL WAS FOUND TO BE SEVERELY CORRODED AND ALL BUT ONE WHEEL-HALF RETAINING BOLT HAD FAILED. THE LOG BOOK ENTRY INDICATED THAT THE WHEEL HAD LSAST BEEN DISASSEMBLED 217 HOURS AGO. (K)

2008FA0000418	PIPER	LYC		WHEEL	BROKEN
6/28/2008	PA23250	IO540*			RT MLG

DIFFICULTY WAS ENCOUNTERED WHILE AN AMT WAS REMOVING THE RETAINING NUT FROM THE AXLE ON THE RT MAIN GEAR OF AC. HE STOPPED AND DEFLATED THE TIRE. THE WHEEL ASSEMBLY WAS THEN REMOVED WITHOUT RESISTANCE. AFTER REMOVAL ALL BUT ONE OF THE ASSEMBLY RETAINING BOLTS WERE FOUND BROKEN AND THE WHEEL HALVES WERE ALSO BROKEN. CORROSION CAUSED THE PROBLEM. THE WHEEL HAD ACCUMULATED 217 HOURS SINCE IT WAS LAST DISASSEMBLED AND INSPECTED. TT ON THE WHEEL IS UNKNOWN. THE ENTIRE WHEEL ASSEMBLY WAS REPLACED. (K)

2008FA0000416	PIPER			TAPE	PEELING
6/9/2008	PA28161			494718	WING

STUDENT PILOT DECLARED AN EMERGENCY AS HE THOUGHT NOISE HE WAS HEARING WAS HIS ENGINE COMING APART. AFTER SAFELY LANDING IT WAS FOUND THAT THE NOISE WAS THE ANTI-SLIP WINGWALK MATERIAL SLAPPING THE WING, IN THE SLIP STREAM. WIND GOT UNDER THE MATERIAL AND LIFTED UP A SECTION OF IT, PEELING IT BACK ENOUGH TO MAKE THE "SLAPPING- BANGING" NOISE HE HEARD. REMOVED THE OLD WING WALK MATERIAL AND INSTALLED NEW PIECE. (K)

2008FA0000449	PIPER	LYC	FITTING	CORRODED
7/1/2008	PA28161	O320*	7955300	FUSELG TO WNDSHD

STEEL FITTINGS (PN 79553-00) LT AND (PN 79553-01(RT) WERE FOUND WITH SEVERE CORROSION DURING LT AND RT WINDSHIELD REMOVAL, THOSE FITTINGS CARRY STRUCTURAL LOADS AND LEFT UNCORRECTED COULD JEOPARDIZE THE INTEGRITY OF THE UPPER FUSELAGE SECTION, PROBABLE CAUSE COULD BE DISSIMILAR METAL CORROSION BETWEEN STEEL AND ALUMINUM AND A FOAM INSTALLED AT FACTORY WHICH KEEP MOISTURE IN, FOUND SAME PROBLEM IN OTHER AC. (K)

2008FA0000450	PIPER	LYC	FITTING	CORRODED
7/1/2008	PA28161	O320*	7955301	FUSLG TO WNDSHLD

STEEL FITTING FOUND WITH SEVERE CORROSION DURING LT AND RT WINDSHIELD REMOVAL, THOSE FITTING CARRY STRUCTURAL LOADS AND LEFT UNCORRECTED COULD JEOPARDIZE THE INTEGRITY OF THE UPPER FUSELAGE SECTION, PROBABLE CAUSE COULD BE DISSIMILAR METAL CORROSION BETWEEN STEEL AND ALUMINUM AND A FOAM INSTALLED AT FACTORY WHICH KEEP MOISTURE IN, I HAVE FOUND THE SAME PROBLEM IN OTHER AC. (K)

2008FA0000453	PIPER		BUNGEE	BROKEN
5/10/2008	PA28R201T			LT NOSE WHEEL

THE PILOT SLOWED FOR LANDING AND DEPLOYED THE GEAR. A SAFE CONDITION WAS INDICATED FOR THE MAINS, BUT NOT FOR THE NOSE. THE GEAR WAS CYCLED; HOWEVER AGAIN, NO SAFE NOSE INDICATION. AN EMERGENCY GEAR DEPLOYMENT WAS ATTEMPTED BUT STILL, NO GREEN NOSE LIGHT. THE PILOT ASSUMED THAT DUE TO PREVIOUS PROBLEMS WITH THE LANDING GEAR INDICATOR LIGHTS THAT THE NOSE GEAR HAD PROBABLY DEPLOYED AND CONTINUED THE LANDING. IMMEDIATELY AFTER TOUCHDOWN, THE NOSE LANDING GEAR COLLAPSED. POS INCIDENT INVESTIGATION REVEALED THE LT NOSE WHEEL BUNGEE ASSY; PN 76425-03 HAD BROKEN AND WEDGE IN THE NOSE LANDING GEAR PREVENTING EXTENSION. THE FAILURE APPEARS TO HAVE OCCURRED WHEN THE GEAR WAS IN THE RETRACTED POSITION. (K)

2008FA0000373	PIPER		TIMER	MISMANUFACTURED
5/15/2008	PA31T1		488699	WING DE-ICE SYS

THESE UNITS WERE BOUGHT NEW FROM MANUFACTURER AND WHEN THEY WERE INSTALLED IN THE AIRCRAFT IT WAS NOTED THAT THE SURFACE DEICE BOOTS WERE INFLATED ALL OF THE TIME WHEN THE AIRCRAFT POWER WAS TURNED ON. A SECOND TIMER UNIT WAS PURCHASED AND THE SAME PROBLEM EXISTED WHEN IT WAS INSTALLED. UPON TROUBLESHOOTING THE SYSTEM AND VERIFYING CORRECT INSTALLATION AND WIRING, IT WAS FOUND THAT TWO OF THE WIRES COMING OUT OF THE UNIT WERE SWITCHED DURING MFG AND THE BOXES WERE OPERATING OPPOSITE AS IS INTENDED. THERE ARE FOUR WIRES. RED, BLACK, WHITE AND BLUE. THE WHITE AND BLUE WIRES ARE REVERSED. (K)

2008FA0000374	PIPER		TIMER	MISMANUFACTURED
5/15/2008	PA31T1		488699	WING DE-ICE

THESE UNITS WERE BOUGHT NEW FROM MANUFACTURER AND WHEN THEY WERE INSTALLED IN THE AIRCRAFT IT WAS NOTED THAT THE SURFACE DEICE BOOTS WERE INFLATED ALL OF THE TIME WHEN THE AIRCRAFT POWER WAS TURNED ON. A SECOND TIMER UNIT WAS PURCHASED AND THE SAME PORBLEM EXISTED WHEN IT WAS INSTALLED. UPON TROUBLESHOOTING THE SYSTEM AND VERIFYING CORRECT INSTALLATION AND WIRING, IT WAS FOUNDN THAT TWO OF THE WIRES COMING OUT OF THE UNIT WERE SWITCHED DURING MFG AND THE BOXES WERE OPERATING OPPOSITE AS INTENDED. THERE ARE FOUR WIRES, RED, BLACK, WHITE AND BLUE, THE WHITE AND BLUE WIRES ARE REVERSED. (K)

2008FA0000409	PIPER	LYC	ALTERNATOR	DAMAGED
6/7/2008	PA32R301	IO540K1G5	32C22491	

4 SCREWS THAT HOLD THE RECTIFIER PLATE INTO THE BACK CASE OF ALTERNATOR CAME LOOSE AND CONTACTED THE ROTOR, DESTROYED ALTERNATOR. (K)

2008FA0000293	PIPER	LYC	SLICK	CAM	WORN
4/23/2008	PA46R350T	TIO540AE2A			MAGNETO

BREAKER CAM WORN BEYOND SERVICEABLE LIMITS, 49.9 HOURS SINCE NEW. TIMING HAD CHANGED CONSIDERABLY AND AIRCRAFT DIFFICULT TO START.

2008FA0000294	PIPER	LYC	SLICK	CAM	WORN
4/23/2008	PA46R350T	TIO540AE2A			MAGNETO

BREAKER CAM WORN BEYOND SERVICEABLE LIMITS, 49.9 HOURS SINCE NEW. TIMING HAD CHANGED CONSIDERABLY AND AIRCRAFT DIFFICULT TO START.

2008FA0000295	PIPER	LYC	SLICK	CAM	WORN
4/23/2008	PA46R350T	TIO540AE2A			MAGNETO

BREAKER CAM WORN BEYOND SERVICEABLE LIMITS, 49.9 HOURS SINCE NEW. TIMING HAD CHANGED CONSIDERABLY AND AIRCRAFT DIFFICULT TO START.

2008FA0000348	RAYTHN		ACTUATOR	MALFUNCTIONED
3/18/2008	390		EM408810	ROLL TRIM

IN CONJUNCTION WITH REPAIRS FOR UNCOMMANDED ROLL, TRIM ACTUATION AT KMDW REPLACED RT ROLL TRIM ACTUATOR (HBC PN 390-3810090010) WITH RAPID SUPPLIED REPAIRED UNIT. ATTEMPTED TO PERFORM ROLL TRIM FUNCTIONAL CHECKS IAW THE 390 MM 27-10-00-501 AFTER ACTUATOR REPLACEMENT BUT FOUND ROLL TRIM CIRCUIT BREAKER TRIPPING UPON POWER APPLICATION. (K)

2008FA0000455	RAYTHN		RELAY	STUCK
6/26/2008	390		M835366026L	STARTER GEN

INVESTIGATED PILOT REPORT OF RT ENG STARTER/GEN NOT DISENGAGING FROM START FUNCTION AFTER ENG START. FOUND 80K5 RT ENG START LATCH RELAY STUCK IN START FUNCTION. RT STARTER/GEN TERMINAL COVER AND COOLING AIR INLET DUCT SHOW SIGNS OF OVERHEATING. INSPECTED STARTER/GEN, REPLACED 80K5 RELAY, STARTER/GEN FUNCTIONS NORMAL. HAVE REPLACED NUMEROUS 80K3 AND 80K5 START LATCH RELAYS IN 390 SERIES AC THAT HAVE FAILED WITH SHORT TIS. RECOMMEND MFG INVESTIGATE WHETHER THIS IS A RELAY QC OR DESIGN/INSTALLATION ISSUE. (K)

2008FA0000456	RAYTHN		VALVE	STUCK
6/26/2008	390		5188001	ANTI ICE SYSTEM

REPLACED FAILED RT ENGINE ANTI-ICE VALVE WITH 0 TSOH VALVE ASSY SUPPLIED BY HBC/RAPID; O/H BY MFG, WO R73432, DATED 5/22/2008. VALVE ASSY FAILED IN STUCK IN OPEN POSITION, WHEN INITIALLY TESTED FOLLOWING INSTALLATION. REPLACED VALVE WITH ANOTHER RAPID-SUPPLIED VALVE ASSY, OPERATIONS NORMAL. RECOMMEND MFG INVESTIGATE WHETHER THIS IS A QC ISSUE OR IF VALVE ASSY SUBJECTED TO HIDDEN INTERNAL DAMAGE DUE TO ROUGH HANDLING DURING SHIPPING. (K)

2008FA0000495	RHNFLU	LYC	FUEL SYS	MALFUNCTIONED
5/25/2008	EA300L	AEIO540*		

APPROX 9 GALLONS OF FUEL IN CENTER TANK BECAME INACCESSIBLE DURING FLT, PRECAUTIONARY LANDING. AFTER DEPARTING USING CENTER TANK FUEL FOR A 120 MILE FERRY FLIGHT, SWITCHED TO THE WING TANKS FOR THE PREPONDERANCE OF THE TRIP. NEARING THE DESTINATION WITH THE WING TANKS ALMOST DRY, SELECTED THE FUSELAGE TANK FOR THE REMAINDER OF THE FLIGHT. THE FUEL FLOW METER INDICATED THAT AIR, RATHER THAN FUEL, WAS BEING DRAWN INTO THE SERVO. THE ENGINE STOPPED. RESELECTED THE WING TANKS; THE ENGINE RESTARTED. ATTEMPTED 4 MORE TIMES TO SOURCE FUEL FROM THE FUSELAGE; EACH TIME, THE ENGINE STOPPED. MADE A PRECAUTIONARY LANDING. MECH DEBOWLED ACFT AND CONFIRMED THAT FUEL COULD BE SOURCED INTO THE SERVO FROM EITHER THE WING OR FUSELAGE TANK. STARTED ENGINE; IT RAN WITHOUT PROBLEM ON BOTH THE FUSELAGE AND WING TANKS. THE AMBIENT TEMPERATURE UPON LANDING WAS ABOUT 80 DEGREES. SUSPECT THAT MY ENROUTE ENCOUNTER WITH RAIN, FOLLOWED BY FREEZING TEMPERATURES, IS RELATED TO THE PROBLEM. THE PROBLEM HAS NOT RECURRED IN SUBSEQUENT FLIGHT.

2008FA0000379	SCWZER	PWA	SPAR	CORRODED
5/30/2008	G164B	R1340*		RUDDER

FOUND EXTERNAL CORROSION ON RUDDER MAIN TUBULAR SPAR APPROXIMATELY (2) INCHES ABOVE RUDDER CONTROL HORN. POST WAS SEVERELY CORRODED WITH HOLES THRU TUBE. AD 78-08-09 ADDRESSES THIS PROBLEM BUT NOT FOR THIS MODEL AIRCRAFT. (K)

2008FA0000355	SKRSKY		ACTUATOR	MALFUNCTIONED
5/13/2008	S76B		L109BBM	AUTOPILOT SYS

PILOT HSI SPINS WILDLY TO THE RIGHT AND DISPLAYS A HEADING FLAG. PILOT'S FLIGHT DIRECTOR MAINTAINS HEADING AND ALTITUDE FOR APPROXIMATELY 30 SECONDS THEN LOSES ALL INPUT. THE AIRCRAFT THEN TURNS AND DESCENDS AT WILL. WHILE THIS HAPPENS THE LEFT ANTI-TORQUE PEDAL DRIVES FORWARD PLACING THE HELICOPTER OUT OF TRIM. THE PILOT SIDE HEADING COMMAND BARS JUMP WILDLY AND TURN TO THE LEFT WHILE THE AIRCRAFT IS IN STRAIGHT AND LEVEL FLIGHT. ONCE THE FLIGHT DIRECTOR LOSES INPUT THE CYCLIC TRIM WILL NOT RESPOND IN THE PITCH OR ROLL CHANNEL. TRIED TO DISENGAGE AND RE-ENGAGE THE SYSTEM BUT THE SAME PROBLEM RETURNS. THE AIRCRAFT REQUIRES MANUAL PEDAL INPUT TO REMAIN IN TRIM. NO EMERGENCY ACTIONS WERE TAKEN OR NEEDED DURING THIS EVENT. (K)

2008FA0000482	SNIAS	TMECA	BELT	BROKEN
7/6/2008	AS350B2	ARRIEL1D1	060018	AIR CONDITIONER

IMMEDIATELY AFTER TAKEOFF AND LEVELING FOR CRUISE, THE AIR CONDITIONER WAS TURNED ON. WITHIN A SHORT TIME A STRONG ACRID SMELL WAS PRESENT IN THE AIRCRAFT. THE SOURCE OF THE SMELL WAS UNKNOWN IN FLIGHT. THE AIRCRAFT WAS IMMEDIATELY LANDED NEXT TO A HARD-SURFACE ROAD JUST SOUTH OF THE HOSPITAL IN A SOY BEAN FIELD. THE SKIDS WERE DIRECTLY BETWEEN THE ROWS AND NO DAMAGE WAS DONE TO THE FIELD BY THE AIRCRAFT. AN AMBULANCE WAS IMMEDIATELY DISPATCHED TO THE SCENE AND THE PATIENT TRANSFERRED TO THE AMBULANCE FOR TRANSPORT. THE DUTY MECHANIC WAS IMMEDIATELY CALLED. THE MECHANIC INSPECTED THE AIRCRAFT, DETERMINED THE CAUSE OF THE ACRID SMELL AS THE AIR CONDITIONER BELT. THE MECHANIC THEN INSPECTED THE AIR CONDITIONER COMPRESSOR, REMOVED WHAT WAS LEFT OF THE BELT, INSPECTED THE AIRCRAFT, MEL'D THE AIR CONDITIONER MADE APPROPRIATE LOG BOOK ENTRIES AND THE AIRCRAFT WAS RETURNED TO SERVICE. (K)

2008FA0000481	SNIAS	TMECA	CONNECTOR	CONTAMINATED
7/2/2008	AS350B3	ARRIEL2B	0292697390	FIRE DETECTION

DURING CRUISE FLIGHT, THE ENGINE FIRE LIGHT ILLUMINATED. DURING THE DESCENT FOR A PRECAUTIONARY LANDING, THERE WAS NO SMOKE TRAILING THE AC AND THE ENGINE FIRE LIGHT EXTINGUISHED AND ILLUMINATED SEVERAL TIMES. AFTER SECURING THE AC UPON LANDING, THE PILOT INSPECTED THE ENGINE AREA AND NO FIRE DAMAGE WAS NOTED. THE MAINTENANCE STAFF CAME OUT AND FOUND MOISTURE IN THE CONNECTOR PLUG ON THE FIRE DETECTION SYSTEM. AFTER CLEANING AND INSPECTING THE SYSTEM, THE PILOT PERFORMED A CHECK FLIGHT AND THE AC WAS RETURNED TO SERVICE. (K)

2008FA0000483	SNIAS	TMECA	BELT	BROKEN
7/4/2008	AS350B3	ARRIUS2B1	060018	AIR CONDITIONER

GROUND CREW NOTICED THE SMELL OF FUEL AND VAPOR COMING FROM AIRCRAFT AFTER LIFTING FROM SCENE. PIC NOTIFIED OF THE CIRCUMSTANCES. PIC MADE A PRECAUTIONARY LANDING WITH PATIENT ON BOARD. PIC DETERMINED THAT THE VAPOR WAS COMING FROM THE AIR CONDITIONER, AND NO FUEL LEAK. (K)

2008FA0000363	SNIAS	TMECA	GEARBOX	DAMAGED
4/6/2008	AS350BA	ARRIEL1A2	350A32030004	MAIN ROTOR

HAD A MAIN GEARBOX CHIP EVENT. PERFORMED CHECKS IAW MM TO INCLUDE OIL DRAIN, STRAIN AND FLUSH. HAD FIVE SCALE TYPE CHIPS THE LARGEST BEING 1.5MM AND SENT IN FOR ANALYSIS. RETURNED AIRCRAFT TO SERVICE. AT RECEIPT OF ANALYSIS DATA PERFORMED A BORESCOPE OF PINION AND BEVEL WHEEL. FOUND FROSTING DAMAGE ON PINION GEAR AND REMOVED AIRCRAFT FROM SERVICE. (K)

2008FA0000352	UNIVAR		RIB	CORRODED
5/14/2008	415D		41513017	LT WING

SUBJECT PART WAS FOUND TO BE CORRODED WHILE PERFORMING INSPECTION IAW AD 2002-26-02 (D) (3 YEAR REQUIREMENT). LEFT REAR CENTER SECTION RIB, CORRODED AROUND LARGE HOLE THROUGH WHICH PITOT AND STATIC LINES, AND NAV LITE WIRE PASS TO OUTER WING PANEL. REMOVED DEFECTIVE PART AND

INSTALLED NEW PART (415-13017) SUPPLIED BY MFG. CAUSE OF CORROSION UNKNOWN, AS SURROUNDING STRUCTURE WAS NOT AFFECTED. CORRODED PART IS UNTREATED (NOT CORROSION PROOF IN ANY WAY). SUGGEST WING CENTER SECTION OF THESE AIRCRAFT BE CORROSION PROOFED WITH ACF-50 OR WITH CORROSION X OR EQUIVALENT COMPOUND TO PREVENT FURTHER PROBLEMS OF THIS NATURE. (K)

END OF REPORTS