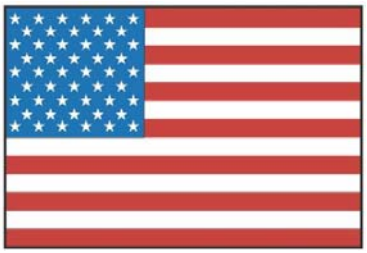
U.S. Department of Transportation
Federal Aviation Administration

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



ALERT NUMBER 369

APRIL 2009

CONTENTS

AIRPLANES

BEECH 1
CESSNA 3
MITSUBISHI.....8
PIPER.....9

HELICOPTERS

HILLER 9

ACCESSORIES

CHAMPION 9

AIR NOTES

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE.....10
IF YOU WANT TO CONTACT US.....11
AVIATION SERVICE DIFFICULTY REPORTS 11

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

AVIATION MAINTENANCE ALERTS

The Aviation Maintenance Alerts provides 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.)

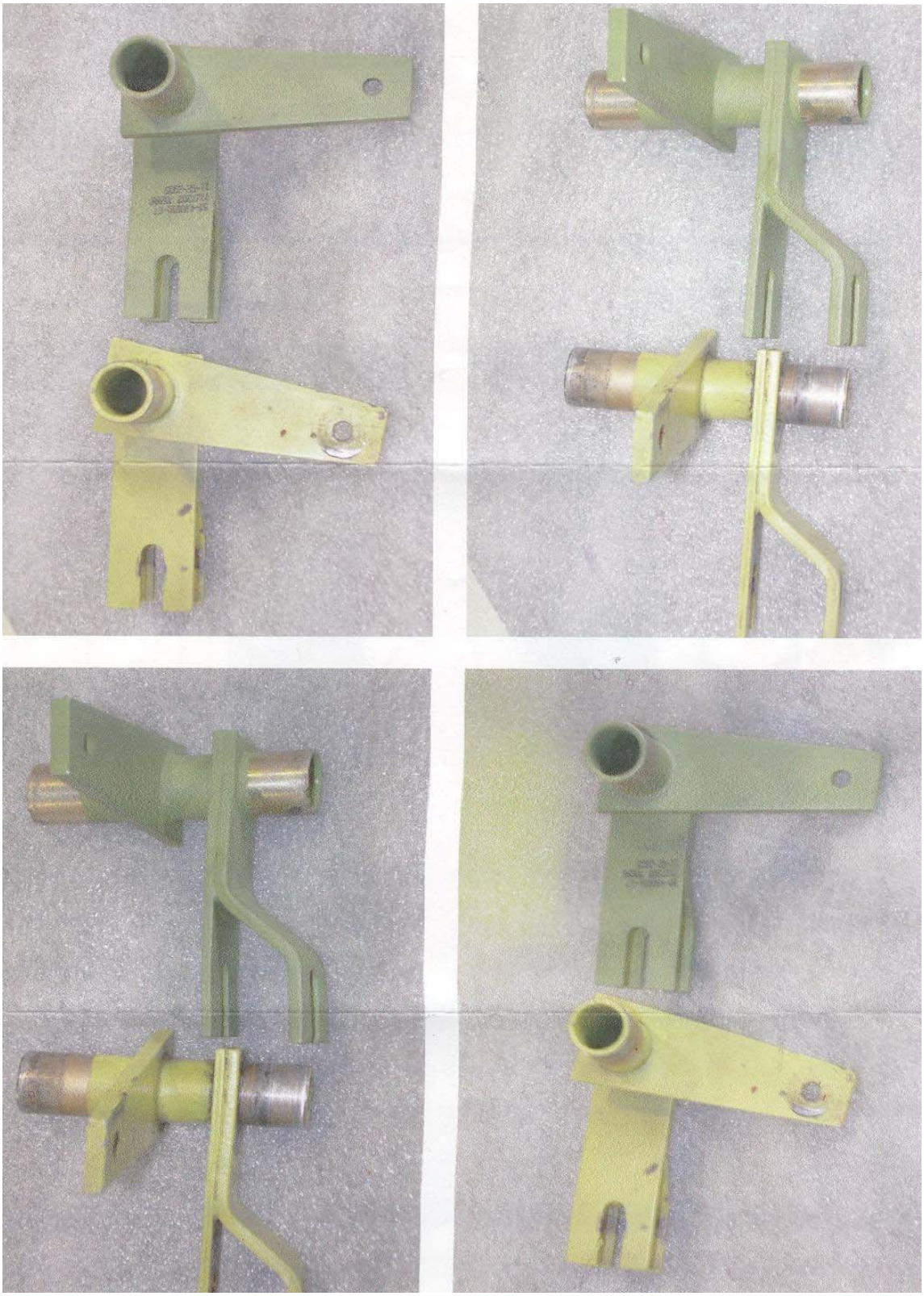
AIRPLANES

BEECH

Beech: A200; Twisted Cabin Door Bellcrank; ATA 5210

A technician for an air taxi operation states, "During a routine, Phase 3 inspection the main cabin door aft up-lock bell crank was found twisted about 10 degrees from *(that)* of a new bell crank *(P/N 50-430031-17)*. The up-lock bracket pivot bolt (P/N NAS1103-21D) was also noted to be slightly deformed. This *(condition)* was probably caused by the up-lock hook being *(improperly)* rigged. All effected parts were replaced and the up-lock hooks were *(then)* able to be rigged properly."

(Slightly deformed? Nice comparison photos.)



Part Total Time: (unknown).

Beech: B65-A80; Sheared Nose Gear Actuator; ATA 3220

"The nose landing gear would not deploy on approach to landing," says an air taxi submitter. "After nose gear removal it was discovered that the nose gear actuator drive shaft (P/N 50-820218) internal spline was worn and sheared. *(Lubrication maintenance should be consistent...)* to reduce wear."

Part Total Time: 4,383.0 hours.

Beech: B200C; Cracked Wing Skin; ATA 5730

A mechanic states, "During a pre-flight inspection, maintenance technicians noted a 3.75 inch long crack in the right wing lower wing skin, just forward of the inboard section of the outboard flap. Additionally, a support/anchor tab that attaches the lower wing skin to the inboard most flap-well rib of the outboard wing ...was found cracked through (failed). We believe this tab failure allowed the skin to vibrate, generating rapid crack growth. This crack is *(positioned)* directly aft of the lower aft wing bolt. *(It)* had just appeared within the past two hours of flight time. I can pin-point this time frame since the 5 year wing bolt removal and inspection process was completed just 2 flight hours ago. No wing skin cracks were noted or documented at that time." *(R/H trailing edge lower wing skin P/N: 50-110027-15)*

Part Total Time: 8,914.0 hours.

CESSNA

Cessna: 208; Chafed Engine Mount; ATA 7120

(This aircraft is being pulled by a Pratt & Whitney PT6A-114A.)

A mechanic writes, "During *(this)* aircraft's corrosion inspections, it was noticed that the air conditioning condenser duct clamp was cutting into the engine mount on the L/H truss. The truss was also rubbing against the condenser duct. There are four cuts measuring as follows *(length x depth; respectively)*: 9/32 inch x .020—2 each; 7/32 inch x .010; 9/16 inch x .032. I had determined the clamp was correctly installed, and that the part numbers are in accordance with the current Cessna 208 parts catalog. The clamp, when installed on the engine mount, rubs against the truss and creates damage. Cessna was notified by e-mail and *(they)* recommend using aluminum 'speed tape' under the clamp to reduce damage to the truss. Cessna has not provided an official engineering analysis, and the recommendation was provided by e-mail. This engine mount assembly was replaced. We would like to see this clamp replaced by a more suitable clamp to prevent damage to the engine mount truss. *(Operators of...)* the Cessna Caravan fleet should be notified of the possible unsafe condition created by the rubbing/cutting of the clamp, possibly causing failure of the engine mount."

(Engine mount P/N: 2651023-19. A search of the FAA Service Difficulty Reporting System (SDRS) database reflects a second, very similar defect report. Readers should note part total time!)

Part Total Time: 575.2 hours.

Cessna: 208B; Burned Flap Motor Wires, ATA 2752

A mechanic writes, " We departed *(our base)* at approximately 8:30 local time. The flaps were set at 10 degrees.... Take-off and climb were normal. After about 10 to 15 minutes into the flight (with the autopilot engaged) we noticed a burning smell and saw a small amount of smoke—lasting for about a second or two. We disengaged the autopilot and looked at the circuit breakers, noticing the stall warning circuit breaker had popped. After returning to *(base)* we found several circuit breakers had popped and that the flaps were inoperative, stuck at 10 degrees. An avionics shop was contacted to look at the aircraft—they reported back the following *(account)*."

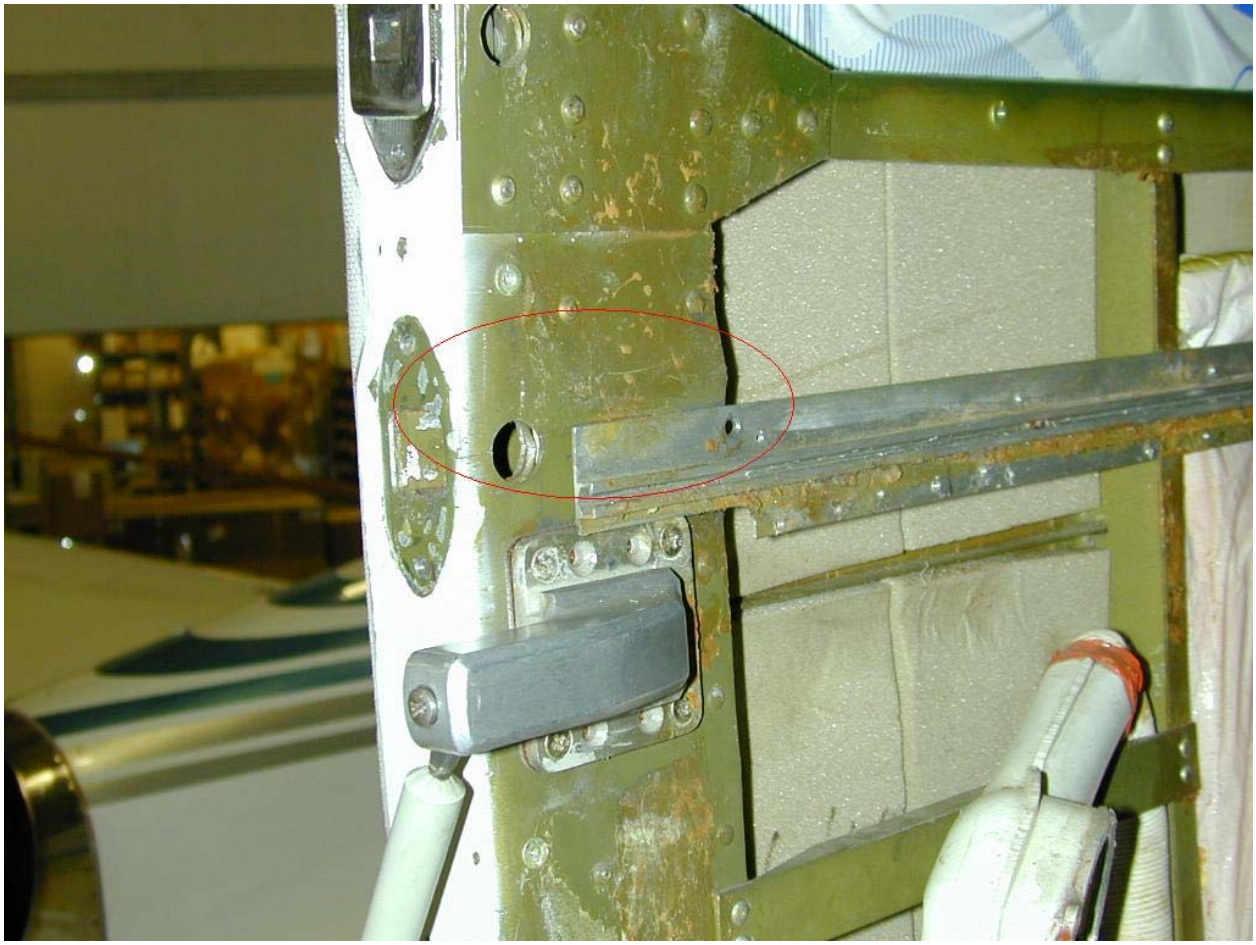
"A hidden damage inspection was performed. Burned wires were found in the wire bundle running from the main flap motor to the circuit breaker panel and from the main flap motor to the ground block J66. Insulation of adjacent wires along the same wire bundle were also found melted. A loose ring terminal was found on the normally open terminal of the up limit switch on the flap actuator assembly. The flap system was inspected for any defects structurally—none were found. The flap actuator jackscrew exhibited no abnormal signs of wear—it rotated freely when checked with the primary motor removed. Upon further investigation, it was found that the primary flap motor had failed, and the 10 amp primary flap circuit breaker had not tripped as it should have, causing the circuit to overload and melt the wire bundle. The primary flap circuit breaker exhibited signs of overheating on the bottom surface of the plastic casing, and had a burned odor to it. The primary flap motor looked good physically, but upon further investigation (opening the motor) it exhibited serious signs of overheating/burning inside the unit (this also having a very strong burned odor). During the investigation to determine the severity of the damage caused by the failed circuit, it is estimated 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 the wire, leaving a bare exposed wire throughout the cabin headliner. The wire finally burned itself in half behind the circuit breaker panel about two inches from the J37 connector. The following components were removed and sent to Cessna for investigation: Flap actuator (P/N 9910586-3); Flap Circuit breaker (P/N S1232-510); Flap Control Relays K20 and K21 (P/N MS24187D1); and the Flap overhead Normal/Standby power switch (P/N MS25068-23). We are waiting to hear from Cessna as to what was the root cause of this *(defect)*."

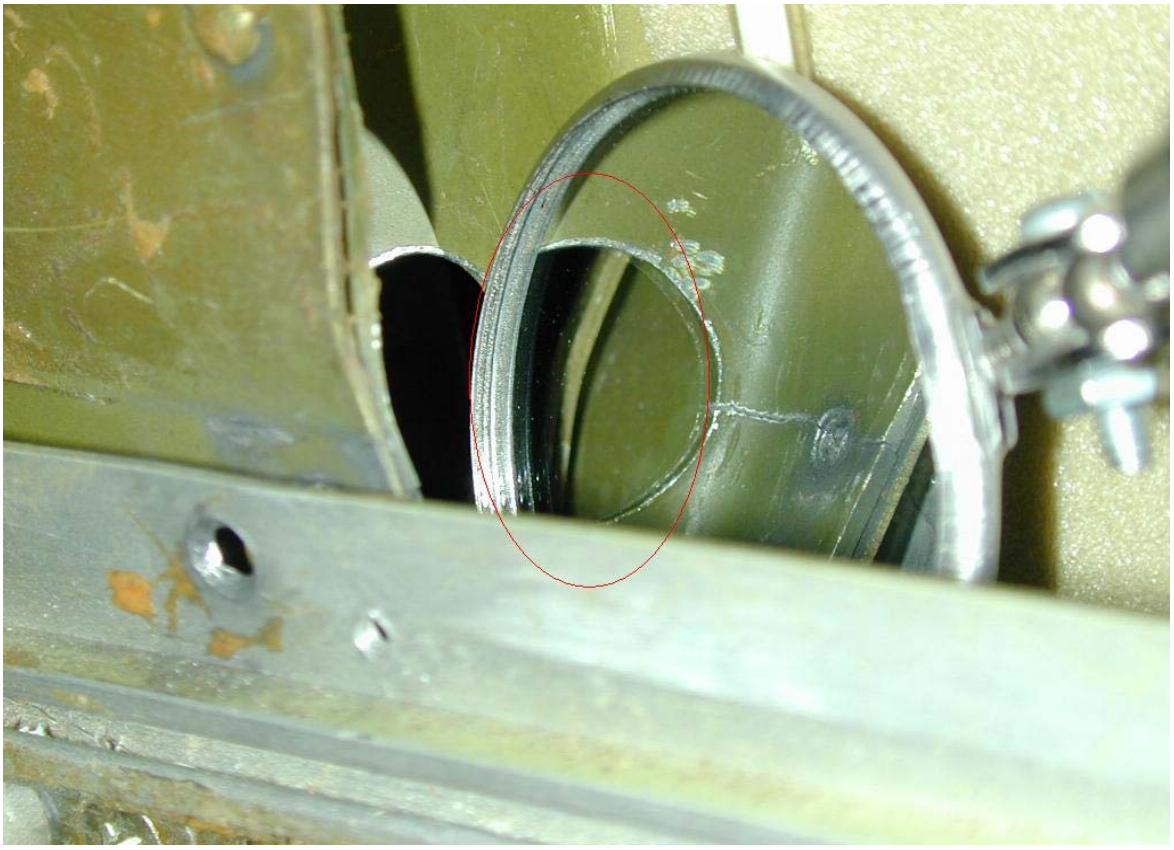
(This flap actuator/motor finds seven additional entries in the SDRS database.)

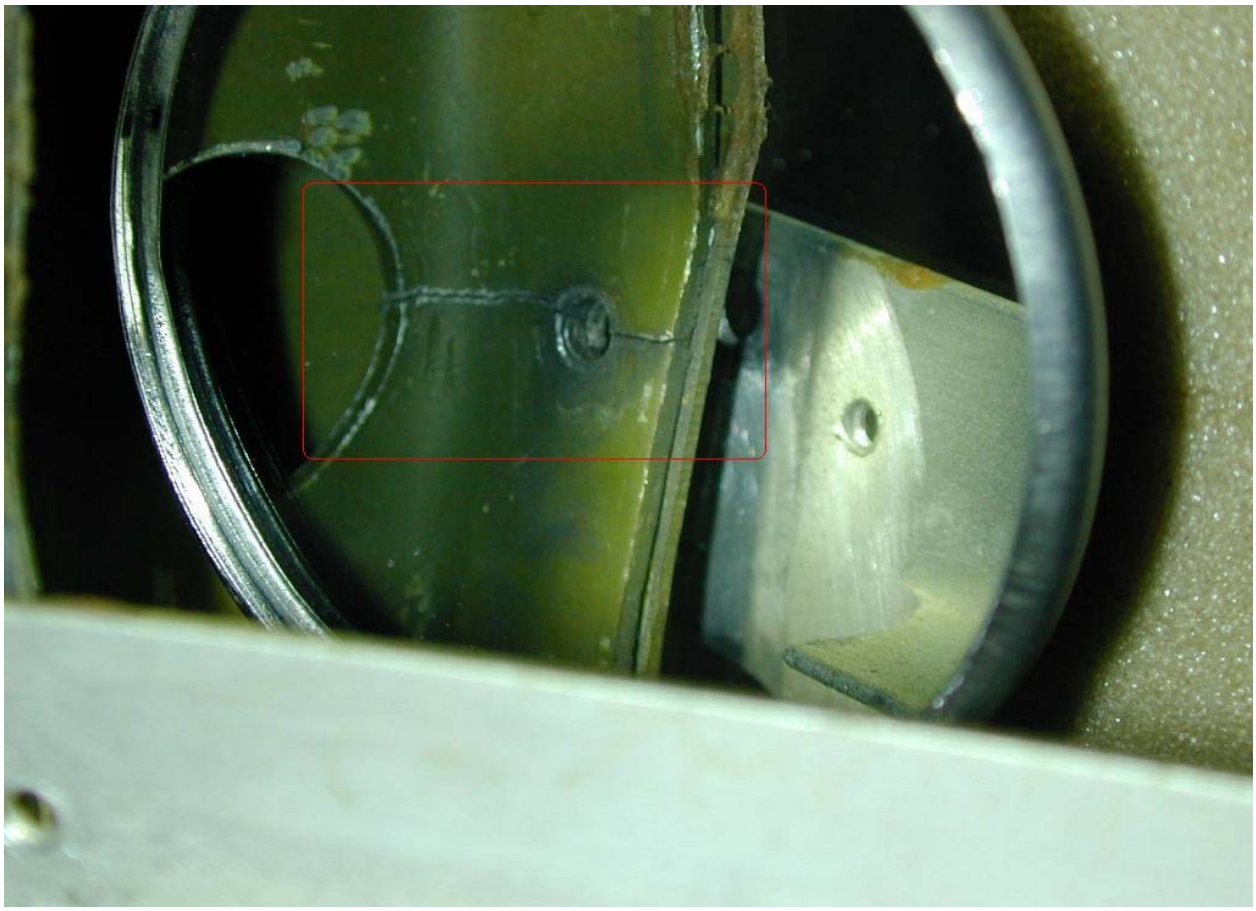
Part Total Time: 294.9 hours.

Cessna: 441; Secondary Bulkhead Cracks; ATA 5312

"During the SID *(shaft inspection device)* inspection," says an unknown submitter, "the fuselage bulkhead at the forward opening of the cabin door and secondary bulkhead were found cracked, buckled, and distorted. *(The only reason...)* this was found was the SID inspection requires removal of the door bayonet receptacles for inspection, and *(also)* the removal of the interior sidewall upholstery."







(Bulkhead P/N 57111434345. Nice camera/mirror work—Ed.)

Part Total Time: 7,246.0 hours.

MITSUBISHI

Mitsubishi: MU2B25; Cracked Gearbox Housing; ATA 7210

A repair station technician writes, "A pilot reported low and fluctuating oil pressure from the left engine while in flight, and elected to shut the engine down. An uneventful single engine landing was made *(at a landing site).* The engine oil bypass valve was found to be in the 'popped' condition. The oil filter was then removed—*(it was observed)* to be black in color, with the forward sealing surface broken in several small pieces. The reduction gearbox was disassembled and the oil pump removed. The forward *(reduction gearbox)* housing *(P/N 3102047-4)* was cracked approximately three inches radially at the forward detail."

(Oil Pressure pump assembly; Honeywell P/N 3103217-4; engine is TPE331-10AV-511M).

Part Total Time: 82.2 hours.

PIPER

Piper: PA31T1; Improperly Manufactured Pneumatic Timer; ATA 3010

An unidentified submitter states, "These Pneumatic Control Timers *(Lamar P/N 488-699)* were purchased new...and when they were installed in the aircraft it was noted the surface deice boots were inflated *(continuously)* when the aircraft power was 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 manufacture 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."

Part Total Time: 0.00 hours.

HELICOPTERS

HILLER

Hiller: UH-12E; Incorrect Transmission Retainer; ATA 6330

"*(I)* suspect this *(defective retainer part)* is locally made," says a repair station technician. The installation word 'up' is not stamped on this part (retainer; P/N 23688) but is etched on by hand. The thickness of this retainer is .045 inches—the actual part thickness of a new retainer is .051 inches. *(I)* found shafts that are shimmed with bad retainers to be shimmed improperly due to *(this)* retainer thickness—as is required by the Hiller overhaul manual. The shafts were out of tolerance by .014 to .020 inches." *(Transmission P/N: 23700-23.)*

Part Total Time: 3,749.5 hours.

ACCESSORIES

CHAMPION

Champion Oil Filter Kit: CFO100-1; Slipping Gasket; ATA 8550

(This oil filter kit fits a Lycoming O360A1F6D engine nestled under the cowling of a Cessna 177B.)

A private pilot provides the following report. "During replacement of the canister-type oil filter at the time of oil change, it is tricky to achieve a good seal of the canister against the seat *(with)* the filter gasket that is supplied with the Champion CFO100-1 filter kit. This gasket very easily slips inside the canister during tightening of the canister retainer bolt. Extreme care must be taken to ensure it does not slip inside. If it does slip, there is a strong oil leak during the run-up check. This failure of proper gasket sealing has happened—not only to me as a *(CFR)* Part 91 private pilot changing my own oil, but also to both mechanics in the shop I use. So far, removal, cleaning, and drying of the gasket has resulted in a good seal during reinstallation. A better design could save us lost oil, and having to pay the mechanic for extra time and clean-up. This has been an ongoing issue for at least three years."

(Good evaluation! The SDRS program can use all the input from private pilots it can get—Ed.)

Part Total Time: (n/a).

AIR NOTES

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

The Federal Aviation Administration (FAA) Internet Service Difficulty Reporting (iSDR) web site is the front-end for the Service Difficulty Reporting System (SDRS) database that is maintained by the Aviation Data Systems Branch, AFS-620, in Oklahoma City, Oklahoma. The iSDR web site supports the Flight Standards Service (AFS), Service Difficulty Program by providing the aviation community with a voluntary and electronic means to conveniently submit in-service reports of failures, malfunctions, or defects on aeronautical products. The objective of the Service Difficulty Program is to achieve prompt correction of conditions adversely affecting continued airworthiness of aeronautical products. To accomplish this, Malfunction or Defect Reports (M or Ds) or Service Difficulty Reports (SDRs) as they are commonly called, are collected, converted into a common SDR format, stored, and made available to the appropriate segments of the FAA, the aviation community, and the general public for review and analysis. SDR data is accessible through the "Query SDR data" feature on the iSDR web site at: http://av-info.faa.gov/sdrx/Query.aspx.

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

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

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

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

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

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

The SDRS database contains records dating back to 1974. At the current time, we are receiving approximately 40,000 records per year. Reports may be submitted to the iSDR web site on active data entry form or submitted hardcopy to the address below.

The SDRS and iSDR web site point of contact is:

Pennie Thompson
Service Difficulty Reporting System, Program Manager
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125
Telephone: (405) 954-5313
SDRS Program Manager e-mail address: 9-AMC-SDR-ProgMgr@faa.gov

IF YOU WANT TO CONTACT US

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

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

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

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

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

AVIATION SERVICE DIFFICULTY REPORTS

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

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

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

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

Federal Aviation Administration

Service Difficulty Report Data

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

Control Number / Difficulty Date	Aircraft Make / Aircraft Model	Engine Make / Engine Model	Component Make / Component Model	Part Name / Part Number	Part Condition / Part Location
CA090204009			WOODWARD	DRIVE ASSY	DAMAGED
2/3/2009				210625	OVRSPD GOVERNOR

DURING ENGINE CHANGE THE OVERSPEED GOVERNOR WAS REMOVED AND CHIPPED GEAR TOOTH WAS DISCOVERED. STATUS SHEET INDICATED THE GOVERNOR WAS INSTALLED 2006/05/26 AND HAS ACCUMULATED 2312.2 TIME SINCE OVERHAUL. THE ENGINE, THE GOVERNOR WAS INSTALLED ON, HAS BEEN SENT FOR OVERHAUL AS SCHEDULED AND THE OVERSPEED GOVERNOR HAS BEEN SENT FOR REPAIR.

CA090129002				TIRE	LEAKING
11/13/2008				0283353	MLG

TIRE WAS FOUND LOW ON PRESSURE UPON DAILY INSPECTION. ATTEMPT TO INFLATE TO PROPER PRESSURE WAS DONE, BUT TIRE FAILED TO MAINTAIN PRESSURE. WHEEL ASSEMBLY REMOVED FROM SERVICE. FURTHER INSPECTION REVEALED THAT TIRE HAS PRESSURE LEAKS FROM AROUND BEADSEAT AREA ON INNER AND OUTER SIDES OF TIRE. ALSO DISCOVERED ON INSPECTION THAT LEAKS WERE DISCOVERED FURTHER UP THE SIDEWALL TO TREAD. ALSO THAT THIS TIRE IS A RECAPPED TIRE IN ITS 1ST SCHEDULED RECAP.

CA090129003				ACTUATOR	MISMANUFACTURED
1/29/2009				215900018	TRIM TAB ROTARY

AFTER THE INSTALLATION ON A CL415, THE ACFT TECH TESTED AND FOUND OUT THAT THE ROTATION WAS IN THE OPPOSITE DIRECTION FOLLOWING THE DEMAND. THEY INSTALLED A OTHER ONE AND EVERYTHING WENT RIGHT.

CA090119002				GEAR	LOOSE
1/8/2009			4373	K3822	

THE DISTRIBUTOR FINGER WAS DISCOVERED LOOSE ON THE GEAR ASSEMBLY DURING SCHEDULED INSPECTION.

CA090225007				HEATER	CRACKED
2/24/2009				10585KFGH	FUEL/OIL

IT WAS NOTICED ON A RETURN FLIGHT THAT OUR AIRCRAFT HAD OIL STAINING AND LEAKAGE ON THE LOWER LEFT NACELLE AND LANDING GEAR. WHEN THE AIRCRAFT WAS TROUBLESHOT IT WAS FOUND THAT THE STEWART WARNER FUEL TO OIL HEATER WAS CRACKED ON THE CORNER EDGE RADIUS FOR ROUGHLY AN INCH IN LENGTH. IF YOU OBSERVE THE FOLLOWING PICTURES YOU CAN SEE THE BUBBLING FROM THE LEAK WHEN THE PART WAS PRESSURIZED.

CA090206008				STOP PIN	WORN
2/5/2009					MAGNETO

THE MAGNETO WAS REMOVED FOR A SCHEDULED MAINTENANCE CHECK ON THE DISTRIBUTOR BLOCK AND BRUSH ASSEMBLY. THE IMPULSE COUPLING STOP PIN WAS OBSERVED WORN BEYOND MANUFACTURERS LIMITS OF 0.050 INCH. MEASURED WEAR WAS 0.155 INCH MAGNETO HAS LESS THAN 30 HOURS SINCE NEW.

2009FA0000201				UNKNOWN	SMOKE

2/16/2009 CABIN & COCKPIT

ACFT ON GROUND RUNNING APU FOR ABOUT 3 HOURS BEFORE DEPARTURE. ON TAKEOFF, SMALL AMOUNT OF SMOKE IN CABIN AND COCKPIT. RETURNED TO AIRPORT AND LANDED. PERFORMED AN INSP OF APU AREA AND FOUND SMALL AMOUNT OF OIL IN AREA. PERFORMED GROUND POWER ENGINE RUNS AND NO SMOKE NOTED. PERFORMED OPS FLIGHT TO CHECK SYS. SYSTEM CHECKED OK. NO SMOKE NOTED. (K)

2009FA0000223 FITTING DEFECTIVE

3/1/2009 AN9161D HYDRAULIC SYS

FOUND THESE FITTINGS AN-916 1D TO BE DEFECTIVE. THE FITTINGS WERE BEING USED ON A HYDR SYS WITH A LOW PRESSURE OF 1,100 PSI. WHEN ASSEMBLED ORIGINALLY THE FITTINGS WERE ASSEMBLED WITH A LIGHT COAT OF FUEL LUBE. WHEN FOUND TO LEAK, THE FITTING ASSY WAS REMOVED, TIGHTENED AND REASSEMBLED. ONCE AGAIN, WE HAD A LEAK. STATED TIGHTENING EACH FITTING OF A RUGN AND THEN PLACED ON A HAND PUMP HYD MULE. EACH TIME IT LEAKED. HAD (1) SPARE SET OF FITTINGS, MADE UP THE SAME ASSY AGAIN AND THIS TIME BEGAN TO GO PAST WHAT WAS CONSIDERED A REASONABLE AMOUNT OF TORQUE FOR THE ASSY. USING THE SAME PROCEDURE OF TIGHTENING THE FITTING A TURN AND PUTTING IT BACK ON THE MULE. EACH TIME FLUID STARTED COMING OUT AROUND BOTH SIDES OF THE FITTING AT LESS THAN 200 PSI. BOTH ASSYS WERE MADE USING THE AN-9161D WITH A AN8164D ON ONE SIDE AND AN AN8254D ON THE OTHER. THESE WERE INSTALLED ON THE PLANE WHEN LEAKS WERE DISCOVERED. THE OTHER ASSY WAS MADE UP OF THE SPARE THAT WAS ORDERED USING THE SAME PARTS AS THE FIRST ASSY. ALL 3 FITTING LEAK AROUND BOTH SIDES OF THE AN916-1D. THE LAST FITTING ASSEMBLED WAS OVER TIGHTENED TO SEE IF LEAK WOULD STOP. RAN OUT OF MALE THREADS BEFORE LEAK WOULD STOP. SEEMS LIKE THE PIPE THREAD TAP WAS RUN TOO FAR INTO THE FITTING DURING THE MFG PROCESS OR THERE IS NOT ENOUGH TAPER ON THE THREAD. HAVE LABELED THE FITTINGS 1-3. NR 1 IS THE FITTING ORIGINALLY INSTALLED ON THE PLANE WITH THE AN 816-4D. NR 2 IS THE ONE THAT WAS INSTALLED ON THE PLANE IN A LOWER PRESSURE AREA. NR 3 IS THE ONE ASSEMBLED AFTER AND KEPT TIGHTENING AND TESTING. NR 3 IS THE ONE THAT THE MALE THREADS WERE COMPLETELY RUN INTO ON BOTH ENDS. WAS UNABLE TO REMOVE THE AN-816-4D FROM THE NR 3. DISTRIBUTOR WHO SUPPLIED PARTS INFORMED MECH THAT HAD RECALLED PARTS FROM LOT NR THAT WAS TRYING TO BE PUT ON ACFT. LOT NR ON BAG. (K)

2009FA0000199 POINTS DAMAGED

3/10/2009 MAGANETO

AT THE END OF THE 3 HOUR BENCH RUN FROM OVERHAUL AN INTERNAL INSP OF THE MAGNETO WAS ACCOMPLISHED. THE TIP OF THE TACHOMETER POINTS (10-400507) WAS FOUND IN THE COMPARTMENT. THE CONTACT BROKE OFF THE RIVET ON THE BREAKERS SPRING SIDE. THE CONTACTS WERE NEW WITH DATE STAMP TCM-0750 AND THE ONLY RUN TIME WAS ON THE BENCH. INSPECTION UNDER MAGNIFICATION WOULD INDICATE A JOINT FAILURE OF THE WELD BETWEEN THE RIVET AND SILVER CONTACT..

2009FA0000200 BULB CORRODED

2/26/2009 4596 LANDING LIGHT

HAVE FOUND (5) NEW 4596 LANDING LIGHT BULBS WITH CORRODED WIRE ATTACHMENT TERMINALS. CORROSION COLORING WAS EITHER WHITE OR GREEN, FLAKING TYPE POWDER. ALL BULBS WERE NEW IN BOX. TOO MUCH SOLDIER FLUX?

2009FA0000204 MAGNETO UNSERVICEABLE

2/19/2009 1068255514

DATA PLATE INDICATES D-3000 MAGNETO, HOWEVER, MAGNETO HSG HAS BEEN POSITIVELY IDENTIFIED TO BE D-2000. HSG ALSO MODIFIED FOR D-3000 DISTRIBUTOR BLOCK. AD APPLYING TO D-2000 MAGNETO HSG ARE ELIMINATED WITH D-3000 HSG. USING THE D-2000 HSG IS POTENTIALLY DANGEROUS. AD APPLICABLE TO D-2000 HSG: 78-18-06, 80-17-14. THESE AD IF NOT COMPLIED WITH BECAUSE OF MISREPRESENTATION OF DATA PLATE COULD RESULT IN FAILURE OF MAGNETO. (K)

2009FA0000192 DISTRIBUTOR BLK MISMANUFACTURED

3/9/2009 S6RN1225 ES10391586ES1034 MAGNETO

WE RECEIVED NEW DISTRIBUTOR BLOCK AND GEAR KIT FOR BENDIX MAG S6RN-1225.UPON ASSEMBLING THE

GEAR AND DISTRIBUTOR BLOCK THE HIGH TENSION TERMINAL OF THE GEAR WAS FOUND TO BE RUBBING THE DISTRIBUTOR BLOCK AT THE TIMING MARK LOCATION ON THE BLOCK. THIS HAPPENED ON 4 OF THE 5 SETS OF PARTS WE RECEIVED. PARTS WERE TAGGED AND RETURNED TO VENDOR.

2009FA0000224	LYC	NOZZLE	FAILED
3/12/2009	LTS101750B1	411109002	GP MODULE

ENGINE, SN: LE-45724AEF (REFERENCE WO NR 240967, SVS NR 45724E) WAS RETURNED TO THIS REPAIR STATION. WHILE ENGINE WAS OPERATIONAL THERE WAS A LOUD BANG JUST BEFORE THE ENGINE SHUT DOWN IN FLIGHT. THE AIRFRAME WAS A DUAL ENGINE DESIGN AND PILOT MANAGED TO PERFORM AN UNSCHEDULED LANDING (OEI) WITHOUT INJURIES OR DAMAGE TO THE ACFT. UPON DISASSEMBLY OF THE ENGINE AND SEPARATING THE POWER MODULES WE DISCOVERED THE GAS PRODUCER (GP) NOZZLE (PN 4-111-090-02, SN 972025600047 TSN 6650 HOURS) TO HAVE SEPARATED RADIALLY (ABOUT 270 DEGREES) ON THE CURL PORTION OF THE NOZZLE ASSEMBLY. WE ARE NOT CONCLUDING THIS AS THE CAUSE OF THE INCIDENT. WE ARE JUST REPORTING A PART CONDITION WE HAVE NOT WITNESSED BEFORE. UPON NOTIFYING THE ENGINE DESIGN HOLDER. WE WERE ASKED TO STOP ALL WORK AND TO SEND THE POWER MODULES TO THEM. WE PACKAGED AND SHIPPED THE POWER MODULES FOR FURTHER DISASSEMBLY AND INVESTIGATION.

CA090115009	LYC	COUNTERWEIGHT	BROKEN
12/2/2008	TIO540J2BD		CRANKSHAFT

CRANKSHAFT COUNTERWEIGHT EAR FAILED CAUSING COUNTERWEIGHT TO PUNCTURE CRANKCASE.

2009FA0000251	PWA	BLADES	CRACKED
3/25/2009	PT6A114	304574101	COMPRESSOR

DURING HOT SECTION INSP, 2 COMPRESSOR TURBINE BLADES, PN 3045741-01, WERE FOUND TO HAVE CRACKS IN THE T/E OF THE BLADE. THESE CRACKS WERE FOUND ABOUT HALF WAY UP THE T/E. ONE CRACK .3750 INCH IN LENGTH. THE OTHER WAS .1875 INCH IN LENGTH. CRACKS WERE FOUND BY FLUORESCENT PENETRANT INSPECTION. SB1703 WAS GOING TO BE COMPLIED WITH, BUT AFTER CRACKS WERE FOUND, ALL BLADES WERE SCRAPPED. COMPRESSOR TURBINE BLADES TIME SINCE NEW: 6940.1 TIME SINCE OVERHAUL: 1782.9

CA090210001	PWA	TURBINE	FAILED
2/10/2009	PT6A65B		ENGINE

EIR PT6A 2009-014 INTERNAL ENGINE FAILURE. (TC NR 20090210001)

CA090219014	PWA	WIRE HARNESS	DAMAGED
2/6/2009	PW206A		ENGINE

(CAN) SHORTLY AFTER T/O, THE ENGINE SUFFERED AN UNCOMMANDED DECREASE IN POWER. THE FLIGHT WAS ABORTED AND THE AIRCRAFT RETURNED TO BASE WITHOUT INCIDENT. THE DECREASE IN POWER WAS COMPENSATED BY THE OTHER ENGINE AND AT NO TIME DID THE ENGINE REVERT TO MANUAL NOR WAS THERE ANY FAULT INDICATED ON THE COCKPIT DISPLAY. TROUBLESHOOTING LED TO THE REPLACEMENT OF THE ENGINE HARNESS DUE TO AN ERRATIC TORQUE SIGNAL. POST REPLACEMENT GROUND CHECKS AND TEST FLIGHT WERE ALL NORMAL. MFG WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

2009FA0000232	PWA	SEAL	CRACKED
2/13/2009	PW4090	56H192	COMPRESSOR

SUBJECT ENGINE WAS RECEIVED DUE TO HIGH TIME. DURING DISASSEMBLY AND INSP OF THE HPC THE DIFFUSER AIRSEAL PN 56H192, SN CENCBG1041 WAS FOUND WITH LINEAR CRACKS IN THE BOLT HOLE FLANGE ID, IAW CIR MANUAL PN 51A750 INSP CHECK 02 (NDI) NO CRACKS ARE ALLOWED. ENGINEERING INVESTIGATING. (K)

CA090122008	RROYCE	RROYCE	INSERT	PULLED
1/21/2009	DART5342		KB6831	

AFTER TAKEOFF AT 200 FT AGL, THE RT ENGINE LOST OIL PRESSURE. THE CREW SHUT DOWN THE ENGINE AND DECLARED AN EMERGENCY AND RETURNED TO THE AIRPORT. UPON INVESTIGATION, MAINTENANCE FOUND THE

WHEELCASE SCAVENGE FILTER LYING IN THE BOTTOM OF THE COWL. THE FILTER WAS COMPLETE WITH THE SINGLE ATTACHMENT BOLT. ATTACHED TO THE BOLT WAS THE INSERT THAT CONTAINED THE THREADS TO WHICH THE BOLT THREADS. IN SHORT, THE INSERT PULLED OUT OF THE CASING CAUSING THE FILTER TO COME OUT AND DEPLETING ALL ENGINE OIL. THE INCIDENT WILL BE PUT THROUGH THE COMPANY SMS SYSTEM FOR ACTION.

2009FA0000070	AEROSP		LANDING GEAR	MALFUNCTIONED
2/7/2009	AS365N2			

RT LANDING GEAR WOULD NOT LOCK DOWN. PILOT RETURNED TO DEPARTURE WHILE TROUBLESHOOTING ISSUE AND EXECUTING EMERGENCY CHECKLIST. ADDITIONAL TROUBLESHOOTING OVER RADIO WITH PILOT AFTER CONSULTING WITH MX. GEAR WOULD NOT LOCK IN FULL DOWN AND LOCK POSITION. ELECTED TO HAVE SOMEONE TRY TO PULL THE GEAR DOWN WHILE THE PILOT HOVERED. DID EXTENSIVE COORDINATION PRIOR TO THE ATTEMPT AND WAS SUCCESSFUL. GEAR LOCKED DOWN AND ACFT WAS TOWED TO THE HANGAR.

CA090209002	AEROSP	PWA	TAB	WARPED
1/19/2009	ATR42300	PW120	S5547900090010	RUDDER ASSY

WE HAVE BEEN EXPERIENCING A VIBRATION DURING DESCENT. AFTER SUBSTANTIAL INSPECTIONS, TESTING AND CONSULTATION WITH ATR, A CHECK WAS CARRIED OUT TO MEASURE THE SPRING TAB FOR WARPAGE. THE RESULTS WERE SENT TO ATR FOR ANALYSIS. THE WARPAGE LIMITS WERE DEEMED OUT OF LIMITS. THE SPRING TAB WAS REPLACED AND THE VIBRATION CEASED DURING SUBSEQUENT FLIGHTS.

CA090122011	AEROSP	PWA	AEROSP	FITTING	OVERTORQUED
1/22/2009	ATR42300	PW120	1005383Y00	ER804D060604	

ON TWO SEPARATE OCCASIONS WHILE PERFORMING UNSCHEDULED MAINTENANCE INVOLVING THE MLG SELECTOR VALVE , TWO ALUMINUM HYDRAULIC FITTINGS HAVE BEEN FOUND DAMAGED OR CRACKED (1) OCT 27, 2008 - WHILE TROUBLESHOOTING A REPORTED HYDRAULIC LEAK UNION P/N MS21902D6 HAD A DAMAGED FLARE. (2) JAN 9, 2009, WHILE REPLACING THE MLG SELECTOR VALVE REDUCER P/N ER804D060604 WAS FOUND CRACKED. SUSPECT THAT THESE FITTING HAVE BEEN OVER TORQUED CAUSING DAMAGE AND STRESS CRACKS.

CA090218004	AEROSP	PWA	TURBINE BLADES	DAMAGED
2/2/2009	ATR72	PW124B		LT ENGINE

DURING ENGINE RUN-UP AFTER C CHECK CREW HEARD LOUD BANG FROM LT ENGINE. THIS OCCURRED BETWEEN 70 PERCENT AND 60 PERCENT TQ, DURING PL REDUCTION FROM 80 PERCENT TQ TO GI. AFTER SHUT DOWN, VISUAL INSPECTION REVEALED HEAVY DAMAGE ON THE 2ND STAGE POWER TURBINE, IMPACT DAMAGE ON THE EXHAUST PIPE AND PROPELLER COULD NOT BE ROTATED MANUALLY. METAL DEBRIS WAS FOUND APPROX 20M BEHIND THE ENGINE. THE ENGINE WILL BE BOROSCOPE TO ACCESS INTERNAL DISTRESS. P&WC WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA090219015	AEROSP	PWA	COMBUST CHAMBER	DAMAGED
2/10/2009	ATR72212	PW127		ENGINE

(CAN) DURING CRUISE, THE CREW NOTED MAIN OIL PRESSURE FLUCTUATION WHICH WAS SHORTLY FOLLOWED BY A LOUD NOISE AND A LOSS OF POWER. THE ENGINE WAS SHUTDOWN AND THE FLIGHT WAS DIVERTED, WHERE A SINGLE ENGINE LANDING FOLLOWED. POST FLIGHT INSP, FOUND OIL COVERING COWLINGS AND MAJOR METALLIC CONTAMINATION OF THE TURBOMACHINE CHIP DETECTOR. THE ENGINE WILL BE REPLACED. MFG WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

2009F00023	AIRBUS	BEARING	GALLED
2/23/2009	A300*		BOOST PUMP MOTOR

BOOSTER PUMP CIRCUIT BREAKER POPPED, FOUND THAT THE ELECTRICAL MOTOR MAIN SHAFT BRG WORN TO ALLOW IMPELLER TO HIT DIFFUSER CASE, ALLOWING GALLING OF METAL TO METAL, HEATING AND STOPPING PUMP MOTOR. MODIFICATION OF PUMP TO 2052C23 IMPROVES BEARINGS.

2009F00022	AIRBUS	INTERTECHNIQ	MOTOR	WORN
1/23/2009	A300*	MT1840	MT1840	BOOST PUMP

BOOSTER PUMP CIRCUIT BREAKER POPPED, FOUND THAT THE ELECTRICAL MOTOR MAIN SHAFT BEARING WORN TO ALLOW IMPELLER TO HIT DIFFUSER CASE, ALLOWING GALLING OF METAL TO METAL, HEATING AND STOPPING PUMP MOTOR. MODIFICATION OF PUMP TO 2052C23 IMPROVES BEARINGS.

CA090216004	AIRBUS	CFMINT	HOSE	LEAKING
2/13/2009	A320214	CFM565B4P	AE7074221	FUEL SYSTEM

(CAN) WHILE TAXING ONTO GATE, MX NOTICED FUEL COMING OUT FROM THE COWLING. CLOSER INSP REVEALED THE OUTER SLEEVE OF THE FLEXIBLE HOSE TO THE LOW PRESSURE PUMP WAS TORN DUE TO AN INTERNAL LEAK BETWEEN THE INNER LINER AND THE STAINLESS STEEL BRAIDING. THIS WAS A PRE SB RA320735 HOSE ASSY. THE HOSE WAS REPLACED.

2009FA0000197	AIRTRC	PWA	HAMSTD	SHAFT	SHEARED
3/9/2009	AT301	R1340AN1			COUNTERWEIGHT

AT THE TRANSITION FROM DECENT TO LEVEL FLIGHT ON A SEEDING PASS, PROP RPM WAS INCREASED AND A VIBRATION WAS FELT. AS THE THROTTLE WAS ADVANCED THE VIBRATION INCREASED DRAMATICALLY. THE ACFT WAS FORCED TO LAND AND AT LOW SPEED, FLIPPED OVER AS IT BROKE THROUGH A FOOT OF SNOW. ON SCENE INVESTIGATION REVEALED THAT ONE OF THE COUNTERWEIGHT BEARING SHAFTS HAD SHEARED, AND WAS NO LONGER PENETRATING THE PROPELLER BLADE.

2009FA0000181	AIRTRC	AIRTRC	RIB	CRACKED
3/5/2009	AT802A		204031	WING ASSY

DURING ANNUAL INSP, NUMEROUS CRACKED L/E RIBS WERE FOUND BETWEEN 66.3750 INCH TO 173.7500 INCH ON THE LT WING AND 86.6250 INCH TO 201 INCHES ON THE RT WING. THESE CRACKS WERE IN THE RIB BODY AND RAN ALONG THE UPPER SKIN ATTACH FLANGE. THE CRACKS STARTED AT THE AFT END OF THE FLANGE. LENGTHS WERE BETWEEN .0625 INCH TO .5 INCH. CORRECTIVE ACTION WILL CONSIST OF INSTALLING P.N 21062-(1 OR 2) AND P.N. 21068-(1 OR 2) DOUBLERS IAW DRAWING 21065 REPAIR - LE RIB - 802 AFTER THE INSTALLATION OF ADDITIONAL INSPECTION HOLES IAW DRAWING 21066 INSTALLATION - ADDITIONAL INSP. PLATE - WING L/E - 802.

2009FA0000231	AMD	PWC	FEEDER CABLE	SHORTED
3/16/2009	FALCON	PW307A		NR 2 GENERATOR

ON ACFT, ACCOMPLISHING SB 7X-106 DRAFT 1 TITLED "ELECTRICAL POWER-PRIMARY DC GENERATION SYS INSP OF THE RT MAIN FEEDER GENERATOR 2 INCH. THE BLACK BOOT WHICH SURROUNDS THE FWD FEEDER CABLE FEED THROUGH CONNECTION AT FR46LH SIDE WAS FOUND SLIGHTLY MELTED ON THE TOP SIDE. (PG8 FG 2 OF SB) THE CUSTOMER OF THE ACFT THEN WANTED A FULL INVESTIGATION OF FEEDER CONNECTION AT FR 46 WITH THE ENGINE REMOVED. AFTER THE ENGINE REMOVAL THE MAIN WIRE FEED-THROUGH CONNECTOR AT FR 46 WAS DISSEMBLED. ARCING AND OVERHEATING WAS FOUND UNDER THE FWD LUG CONNECTION AND FEED THROUGH ASSEMBLY. ALL FINDINGS WERE REPORTED TO MFG ENGINEERING. REPAIR/ REPLACEMENT OF THE NR 2 POWER FEEDER CABLE FROM FR41 POWER DISTRIBUTION BOX TO THE FR 46 BULKHEAD CONNECTOR WITH A NEW DESIGNED FR 46 BULKHEAD CONNECTOR WAS ACCOMPLISHED IAW MFG TECH INSTRUCTIONS TI-7X-R0032-M. ALL OF THE ABOVE ACCOMPLISHED AT SERVICE CENTER. DURING AN 1A INSP.

BKEA200902160	AMD	WINDSHIELD	FAILED
2/16/2009	FALCON50MYST	MY20268109	COCKPIT

WHILE FLYING, CO-PILOT`S FWD WINDSHIELD SHATTERED. RETURNED TO DEPARTURE AIRPORT. (K)

2009FA0000121	AMD	LIFE RAFT	INOPERATIVE
2/25/2009	FALCON50MYST	100118305	CABIN

DURING ANNUAL INSPECTION TO TWO 4-MAN LIFE RAFTS, BOTH LIFE RAFTS WERE FOUND TO HAVE THEIR COMPRESSED GAS CYLINDERS DEPLETED OF ALL STORED GAS PRESSURE. NEITHER RAFT WOULD HAVE WORKED IF NEEDED IN AN EMERGENCY. BOTH RAFTS WERE STILL COMPLETELY PACKED AND APPEARED TO BE UNDISTURBED AFTER THEIR LAST MX. (MAY 2008).

2009FA0000068	AYRES		CHANNEL	CRACKED
2/5/2009	S2RT15NORMAL		10962T001	ZONE 200

UPON REMOVAL OF THE HORIZONTAL STABILIZER, IT WAS NOTED THE FUSELAGE ATTACH FITTING CHANNEL APPARENTLY HAD BECOME FILLED WITH WATER, FROZE AND BURST. A (3) INCH CRACK ACROSS THE SPAN OF THE ATTACH FITTING SHOWED SIGNS OF BULGING OUTWARD. INSPECTION IN THIS AREA IS LIMITED WITHOUT STABILIZER REMOVAL.

2009FA0000067	AYRES		ATTACH FITTING	LOOSE
2/5/2009	S2RT660		952675	VERTICAL STAB

UPON REMOVAL OF VERTICAL FIN FROM HORIZONTAL STABILIZER FOR ROUTINE MX, THE VERTICAL FIN ATTACH BRACKET IN THE STABILIZER WAS FOUND LOOSE AND HAD ELONGATED MOST ALL OF THE MOUNTING HOLES IN THE STABILIZER SPAR. WITH THE TAIL FULLY ASSEMBLED, NO LOOSENESS HAD BEEN NOTED. THIS AREA HAD NEVER BEEN ACCESSED, THE LOOSENESS CAME FROM IMPROPER TORQUE FROM THE FACTORY AT ASSY.

CA090121005	BBAVIA	LYC	CRANKSHAFT	CORRODED
1/19/2009	8GCBC	O360C2A	05K22806	ENGINE

(CAN) UPON DESLUGING THE INNER BORE OF THE CRANKSHAFT, IT WAS DISCOVERED THAT THE PID COATING HAD BEGUN TO BUBBLE AND CHIP OFF. THE PID WAS REMOVED AND SURFACE CORROSION WAS DISCOVED UNDER THE PID SIMMILAR TO THAT REFERENCED IN AD 980208 AND SB 505B. IT SHOULD BE NOTED THAT THERE IS ONLY ONE CALANDER YEAR ON THIS ENGINE SINCE OVERHAUL.

CA090223015	BBAVIA	LYC	CRANKSHAFT	CORRODED
2/23/2009	8GCBC	O360C2E	13B2712185	ENGINE

UPON REMOVAL OF THE EXPANSION PLUG TO FACILITATE SLUG REMOVAL IT WAS DISCOVERED THAT THEIR WAS BUBBLING IN THE PID. BASED UPON PREVIOUS EXPERIENCE WITH THIS PROBLEM ON OTHER AIRCRAFT THE PID COATING WAS REMOVED AND PITTING SIMILAR TO THAT FOUND IN SERVICE BULLETIN NR 505B WAS FOUND.

CA090209005	BEECH	PWA	FUEL DIVIDER	LEAKING
1/22/2009	100BEECH	PT6A28		RT NACELLE

AIRCRAFT RETURNED TO BASE NOTING HIGH FUEL CONSUMPTION ON RT ENGINE. AFTER LANDING LARGE AMOUNT OF FUEL NOTED LEAKING FROM RT NACELLE. FUEL LINE WAS RUPTURED FROM FCU TO START CONTROL. REF SDR 20080513005, 20080211006 AND 20080521010. THIS WAS THE FOURTH LINE FAILURE. AIRCRAFT RETURNED TO SERVICE WITH A LINE REMOVED FROM A SPARE ENGINE. AFTER INVESTIGATION FOUND NR 2 BEARING TO HAVE EXCESSIVE MOVEMENT AND NR 2 BEARING SEAL LEAKING. ENGINE WAS REMOVED AND REPLACED WITH OVERHAULED ENGINE. IT IS THOUGHT THE VIBRATION FROM THE NR 2 BEARING CAUSED A VIBRATION THAT RESONATED THROUGH THE LINE CAUSING THE LINE TO FAIL.

CA090220004	BEECH	PWA	TURBINE BLADES	ERODED
1/2/2009	1900C	PT6A65B	310830101	GAS GENERATOR

THE TREND MONITORING PROGRAM STARTED TO SHOW SIGNS OF HOT SECTION DISTRESS ON THE GRAPHS. BOROSCOPE INSPECTION REVEALED SOME EROSION AND IMPACT DAMAGE ON THE CT BLADES. AN HOT SECTION INSPECTION WAS CARRIED OUT AND THE COMPONENTS REPLACED. WHEN THE CT BLADES AND STATOR WAS INSPECTED AT THE APPROVED OVERHAUL FACILITY IT WAS DETERMINED THAT THE DAMAGE WAS CONSISTENT WITH EXCESSIVE CARBON ERODING THE TURBINE WITH IMPACT DAMAGE FROM LARGER PIECES OF CARBON WHICH DETACHED FROM THE COMBUSTION LINER. THE COMBUSTION LINER HAD ALSO BEEN REPLACED AT THE HOT SECTION INSPECTION DUE TO EROSION. THE MANUFACTURER HAS NOT SEEN THIS TYPE OF DAMAGE BEFORE ON THIS TYPE OF ENGINE.

2009FA0000250	BEECH		DOUBLER	CORRODED
3/24/2009	1900D			ZONE 100

DURING SCHEDULED INSP, NOTED CORRODED STEEL DOUBLER INSTALLED UNDER 13R STRINGER AFT OF FS 557.5 AFT PRESSURE BULKHEAD FRAME. STEEL DOUBLERS OR SHIMS NOT TYPICALLY INSTALLED, THIS LOCATION, NOT NOTED IN IPC OR SRM. INSTALLATION INFORMATION NOT AVAILABLE FROM OPERATOR. REMOVED AREA OF STRINGER 13R AS REQUIRED FOR REPAIR ACCESS AND REMOVED STEEL DOUBLER. VISUAL

INSP OF AREA FOR CRACKING, EXCESSIVE STRINGER INSTALLATION GAP, ETC. OK. REPAIRED CORROSION AS REQUIRED AND INSTALLED SPRINGER SPLICE REPAIR IAW 1900 SERIES SRM 51-70-01.

CA090216005	BEECH	PWA	BEARING	LACK OF LUBE
1/27/2009	1900D	PT6A67D	1368520629	MLG WHEEL

(CAN) RT MLG, INBD MAIN WHEEL ASSY FELL OFF DURING TAKEOFF ROLL. REFER TO CADOR 2009C0229. INITIAL INVESTIGATION DETERMINED BEARING FAILURE, BEARING NOT AVAILABLE TO INSPECT, SUSPECTED CAUSE - BEARING LUBRICATION. MLG ASSY REMOVED AND REPLACED WITH NEW. FAILED MLG AND WHEEL ASSY SENT TO TSB FOR FURTHER INVESTIGATION.

CA090121006	BEECH	PWA	STRINGER	CRACKED
1/19/2009	1900D	PT6A67D	11444000033	FUSELAGE

(CAN) DURING 6TH, 200HR INSP, NOTED STRINGER P/N 114-440000-33 CRACKED ON AFT END APPROX. 3 INCHES LONG. THIS STRINGER IS LOCATED IN THE AFT FUSELAGE ASSY. AND SOME OF THE ANCHOR NUTS FOR THE LT STABILON ARE ATTACHED TO THIS STRINGER. THE STRINGER ON THE RT SIDE WAS INSPECTED AND NO FAULTS FOUND. STRINGER REPLACED WITH NEW.

CA090219006	BEECH	PWA	BLEED VALVE	SEIZED
2/17/2009	200BEECH	PT642A	312312201	COMPRESSOR

(CAN) WHEN WE REPLACED THE HIGH PRESSURE COMPRESSOR BLEED VALVE FOR TOUBLESHOOTING, THE OVERHAULED UNIT THAT WAS INSTALLED CAUSED THE ENGINE TO HAVE SEVERAL COMPRESSOR STALLS AT IDLE. THE OVER HAULED BLEED VALVE WAS REMOVED FROM THE ENGINE AND EXAMINED. NOTICED THAT THE PISTON IN THE BLEED VALVE WAS SEIZED IN THE CLOSED POSITION, THE HSG WAS ASSEMBLED USING SILICONE SEALER AND SOME OF IT GOT ON TO THE PISTON. THE VALVE HAD BEEN OVERHAULED ON NOV 2005 AND HAD NEVER BEEN INSTALLED.

CA090219007	BEECH	PWA	BLEED VALVE	SEIZED
2/17/2009	200BEECH	PT642A	310092302	COMPRESSOR

(CAN) REPLACED THE LOW PRESSURE COMPRESSOR BLEED VALVE FOR TROUBLE SHOOTING, THE OVERHAULED UNIT THAT WAS INSTALLED CAUSED THE ENGINE TO HAVE SEVERAL COMPRESSOR STALLS AT IDLE. THE OVERHAULED BLEED VALVE WAS REMOVED FROM THE ENGINE AND EXAMINED. NOTICED THAT PISTON IN THE BLEED VALVE SEIZED IN THE CLOSED POSITION, THE VALVE HSG WAS ASSEMBLED USING SILICONE SEALER AND THE SPRINGS WERE BROKEN INSIDE. THE VALVE HAD BEEN OVERHAULED ON NOV 2005 AND HAD NEVER BEEN INSTALLED.

2009FA0000239	BEECH	PWA	BEARING	WORN
3/20/2009	200BEECH	PT6A41		BELLCRANK

THE BUSHING PN 101-521046-5 THAT HOLDS THE BEARING PN4A INSIDE THE RT AILERON BELLCRANK PN 101-521046-3 WAS FOUND LOOSE IN THE BELLCRANK AND INDUCED A LOSS MOTION OF APPROX .75 INCH AT THE T/E WITH THE RIG PINS INSTALLED.

CA090210003	BEECH	PWA	RHEOSTAT	UNSERVICEABLE
2/4/2009	200BEECH	PT6A41	CM39569	COCKPIT LIGHTS

THE SIDE PANEL LIGHTING WOULD NOT WORK UNTIL THE RHEOSTAT KNOB WAS PULLED. WHEN THE KNOB WAS WIGGLED A CRACKLING SOUND COULD BE HEARD. THE RHEOSTAT WAS REPLACED AND OPERATED NORMALLY. THE OLD RHEOSTAT HAD BEEN REPLACED FEB 2/09.

2009FA0000079	BEECH	PWA	DUCT	CRACKED
2/3/2009	200CBEECH	PT6A42	1019100491112	ZONE 400

DURING REPLACE OF THE RT ENGINE, AFT LOWER COWLING FWD BULKHEAD P/N 101-910038-3, CRACKS WERE DISCOVERED IN THE LT AND RT COWLING AFT DUCTS P/N 101-910049-11 AND 101-910049-12 UPPER MOUNTING FLANGES. THIS AREA IS ONLY ACCESSIBLE BY REMOVING THE PANEL (DOOR) PN 101-910049-47 LOCATED IN THE CTR OF THE AFT COWL DUCT ASSY AND USING A BRIGHT LIGHT AND A MIRROR OR BY USE OF A BORESCOPE. THIS PROBLEM WAS DISCOVERED ON A HIGH TIME ACFT WITH 9010 HOURS TT IN SERVICE, BUT THE CONDITION

COULD BE PRESENT ON LOWER TIME ACFT. RECOMMEND THIS AREA BE INSPECTED DURING A 'DETAILED ENGINE INSP' SUCH AS A PHASE 4 OF THE ACFT RECOMMENDED INSP PROGRAM.

CA090209004	BEECH	PWA	WINDSHIELD	CRACKED
2/8/2009	300BEECH	PT6A60A	10138402523	COCKPIT

IN CRUISE FLIGHT, THE LT WINDSHIELD CRACKED. THE CREW LOWERED THE CABIN DIFFERENTIAL TO 4 PSI AND CONTINUED TO DESTINATION.

2009FA0000081	BEECH	CONNECTOR	DIRTY
2/17/2009	400A		

FOUND RUDDER TRIM INOPERATIVE DURING "A" AND "B" INSPECTION OP CHECKS. FOUND CORROSION ON RUDDER TRIM CONTROL SYS WIRING LINE FILTER, REF. DESIGNATOR C004. CLEANED AND REINSTALLED WIRING CONNECTIONS ON LINE FILTER ASSY. RUDDER TRIM SYS FUNCTIONAL CHECKS NORMAL.

2009FA0000101	BEECH	MOUNT	DAMAGED
2/24/2009	400A		ENGINE

DURING SCHEDULED INSP, FOUND RT FWD ENGINE MOUNT ATTACH BRACKETS, P/N 45A34361-004 AND P/N 45A34361-006, HAD UPPER PORTIONS CUT INTO BY REPAIR ANGLE INSTALLED ON RT ENGINE UPPER INBD COWL PANEL AND ADJACENT EDGE OF COWL PANEL EDGE CHANNEL. REPAIR ANGLE WAS INSTALLED IAW DER-APPROVED EA NR 01-00176 DATED 11/12/2000. REPAIR HAD BEEN INSTALLED 11/14/2000 AND 3936.4 HRS. PREVIOUSLY. NUMEROUS OTHER SRM AND DER-APPROVED REPAIRS PERFORMED SUBSEQUENT. ACFT HAD BEEN THROUGH NUMEROUS A, B, C, AND D INSPECTIONS AND ENGINE REMOVAL/INSTALLATIONS SINCE REPAIR INSTALLATION. TECHS AND INSPECTORS ARE CAUTIONED TO INSPECT AREAS OF POSSIBLE COWLING INTERFERENCE CLOSELY DURING SCHEDULED INSP AND ENGINE CHANGES WHEN ACCESS IS AFFORDED, ESPECIALLY ON OLDER, EARLIER SN WHICH TEND TO EXHIBIT COWL FIT PROBLEMS. THIS HAS BEEN ADDRESSED BY PREVIOUS MFG INFO, ESPECIALLY COMMUNIQUE NR 69, DATED 9/2004. EXPENSIVE AND TIME-CONSUMING REPAIRS INVOLVED REPLACING THE AFFECTED ENGINE MOUNT BRACKETS AND ENGINE REINSTALLATION, AFTER BLENDING AND RELIEVING THE INTERFERING COWLING AREAS. THIS SAME REPAIR MAY BE FOUND ON OTHER OLDER, EARLIER SN MODELS PREVIOUSLY OPERATED BY FLT OPTIONS.

2009FA0000098	BEECH	WIRE	MISREPAIRED
2/23/2009	400A		CABIN LIGHTS

DURING TROUBLESHOOTING OF INOPERATIVE CABIN COLD CATHODE ("FLUORESCENT") LIGHTING SYS, FOUND SEVERAL INCORRECT STANDARD BUTT SPLICE TYPE CONNECTORS IN HIGH VOLTAGE WIRING SPLICES. MFG COMMUNIQUÉ NR 28 AND OTHERS REFER TO THIS SUBJECT. HAVE PREVIOUSLY FOUND INCORRECT SPLICES DESIGNED FOR LOW VOLTAGE DC WHEN USED IN SHIELDED HIGH VOLTAGE AC WIRING TO MELT OR OVERHEAT AND CAUSE MINOR FIRES ABOVE THE HEADLINER AREA AND/OR CABIN SMOKE. RECOMMEND MFG ADD SPECIFIC WIRE SPLICE REPAIR INFORMATION TO THE APPLICABLE SECTION OF THE MM AND POSSIBLY ISSUE A ONE-TIME MANDATORY SB TO VERIFY CORRECT WIRING SPLICES INSTALLED IN CABIN LIGHTING HIGH VOLTAGE AC WIRING. INCORRECT REPAIRS SEEM TO OCCUR MORE FREQUENTLY WHEN INTERIOR REFURBISHMENT OR REPAIRS ARE ACCOMPLISHED BY FACILITIES OR PERSONNEL UNFAMILIAR WITH SYS REPAIR WIRING USING COMMON SHOP MATERIALS.

CA090224004	BEECH	PWA	ACTUATOR	FAILED
2/23/2009	65A90	PT6A20	5081016418	R MLG

(CAN) DURING A POST MAINTENANCE TEST FLIGHT THE LANDING GEAR WAS SELECTED DOWN, THE NOSE AND LEFT DOWN LIGHTS ILLUMINATED AND THE RIGHT STAYED OUT. TWO MORE GEAR CYCLES WERE PERFORMED, HOWEVER THE RIGHT DOWN AND LOCKED LIGHT FAILED TO COME ON. THE PILOT THEN PERFORMED A FLYPAST THE TOWER TO CONFIRM THE GEAR APPEARED TO BE DOWN PRIOR TO CONDUCTING AN UNEVENTFUL LANDING. A POST FLIGHT GEAR SWING WAS PERFORMED AND A LOUD SQUEALING NOISE WAS NOTED COMING FROM THE RIGHT MAIN GEAR ACTUATOR. THE ACTUATOR WAS EXCHANGED FOR ANOTHER UNIT AND THE AIRCRAFT RETURNED TO SERVICE. INSPECTION OF THE ACTUATOR REVEALED THE LOWER HOUSING BEARING WAS IN CONTACT WITH THE PINION GEAR CAUSING IT TO BIND. AN ADDITIONAL NOTE OF INTEREST IS THE ACTUATOR HOUSING WAS FILLED WITH WHAT APPEARS TO BE AEROSHELL 22 INSTEAD OF THE MOLYBDENUM DISULFIDE (MIL-G 21164) THAT IS CALLED UP IN THE COMPONENT MAINTENANCE MANUAL.

CA090120001	BEECH	PWA	FLAP TRACK	CRACKED
1/15/2009	A100	PT6A28	501600183	TE FLAP

PILOT SELECTED FLAPS DOWN THEN NOTICED A ASYMMETRICAL FLAP CONDITION, FLAPS WERE SELECTED UP WHICH RESULTED IN THE CIRCUIT BREAKER POPPING. AIRCRAFT LANDED WITHOUT INCIDENT. MAINTENANCE FOUND THAT THE LEFT OUTBOARD FLAP, INBOARD TRACK HAD FRACTURED NEAR THE TIP CAUSING THE FLAP ROLLER TO COME OUT OF THE TRACK (SEE ATTACHMENT). TRACK REPLACED AIRCRAFT INSPECTED AND RETURNED TO SERVICE.

CA090120003	BEECH	PWA	BEECH	SWITCH	FAILED
1/14/2009	A100	PT6A28	EQUIPMENT	MS250261	

THE AIRCRAFT DEPARTED FROM YAT AND AFTER REACHING CRUISE ALTITUDE, THE CREW NOTICED SMOKE IN THE CABIN. THE CREW ATTEMPTED TO RETURN TO YAT BUT THE FLAPS WOULD NOT EXTEND ON APPROACH. THE CREW DIVERTED TO YMO. THE FLAP CONTROL CIRCUIT BREAKER TRIPPED, THE SMOKE IN THE CABIN DISSIPATED AND THE AIRCRAFT LANDED SAFELY IN YMO WITH THE FLAPS UP. MAINTENANCE FOUND THAT THE RIGHT FLAPS HAD TRAVELED SLIGHTLY HIGHER THAN NORMAL. WHEN THE FLAP MOTOR AND GEARBOX WAS REMOVED SOME OF THE FLAP ACTUATOR DRIVE CABLES WERE FOUND DAMAGED. IT IS SUSPECTED THAT DUE TO THE EXTREME COLD TEMPERATURES OF THAT DAY, THE UPLIMIT MICROSWITCH DID NOT ACTUATE TO STOP THE FLAPS IN THE UP POSITION. THE FLAP MOTOR THEN CONTINUED TO OPERATE UNTIL THE POINT IT OVERHEATED AND CAUSED THE SMOKE IN THE CABIN AND DAMAGE TO THE DRIVE CABLES. ALL AFFECTED COMPONENTS ARE BEING INSPECTED AND REPLACED AS NECESSARY PRIOR TO RETURNING THE AIRCRAFT TO SERVICE.

2009FA0000208	BEECH	BELLCRANK	CORRODED	
2/26/2009	A36	355211588	ELEVATOR	

WHILE PERFORMING SB 27-3935 ELEVATOR BELLCRANK BRG REPLACEMENT, CORROSION WAS FOUND INSIDE THE BELLCRANK BEARING BOSS. THIS CORROSION IS BETWEEN THE 2 BEARING SEAT AREAS. (K)

2009FA0000145	BEECH	CONT	BEECH	BOLT	WRONG PART
2/26/2009	A36	IO550B		AN2310	ZONE 300

DURING THE COMPLIANCE WITH RECOMMENDED SB 27-3929, BOTH ELEVATOR TORQUE TUBES MOUNT BOLTS (8 TOTAL, 4 PER SIDE) WERE SHANKED OUT AND NOT TIGHT AT THE ATTACH POINTS. THE IPC CALLS FOR BOLTS AN-23-10, AND THE REPLACEMENT BOLTS ARE AN23-9. THIS SHOULD BE A MANDATORY SB SINCE IT INVOLVES THE ATTACHMENT OF PRIMARY FLIGHT CONTROLS.

2009FA0000166	BEECH	ANTENNA	BROKEN
2/27/2009	B200	110323	ELT

ELT ANTENNA BREAKS IN HALF AND LEAVES THE AIRPLANE IN FLIGHT. WE HAVE INSTALLED (2) ELT ANTENNAS P/N 110-323 AND BOTH HAVE BROKEN OFF. WE ARE NOW INSTALLING A THIRD. THEY KNOW THERE IS A PROBLEM WITH THE ANTENNAS, BUT AT THIS TIME, IT IS NOT A PRIORITY TO CORRECT THE ISSUE. ANOTHER ANTENNA TO REPLACE THE CURRENT ANTENNA, THE PAPERWORK TO ALLOW FOR THE NEW ANTENNA TO BE INSTALLED IS NOT A PRIORITY AT THIS TIME.

CA090203002	BEECH	PWA	POWER CABLE	SEIZED
1/29/2009	B200	PT642A	11538900123	ENGINE CONTROLS

THE POWER CABLE WAS REPLACED 200 HRS PRIOR DUE TO VERY STIFF OPERATION AND 200 HRS LATER DURING A SCHEDULED INSPECTION. THE SAME CABLE WAS FOUND VERY STIFF AND HAD EXCESSIVE END PLAY. SUSPECT SUB-QUALITY AIRCRAFT PART.

2009F00024	BEECH	PWA	LINE	SEPARATED
3/19/2009	B200	PT6A60A		HYDRAULIC SYS

LT MLG BEGAN LOWERING OUT OF NACELLE DURING FLIGHT.

CA090123004	BEECH	PWA	TORQUE TUBE	CRACKED
12/29/2008	B99	PT6A27	1155240463	ELEVATOR

(CAN) WHILE ACFT WAS IN FOR MAJOR OVERHAUL AND PAINT, THE ELEVATOR BELLCRANK TORQUE TUBE WAS REMOVED FOR ROUTINE MX. THE BELLCRANK ARMS WERE FOUND LOOSE. AFTER THE ARMS WERE REMOVED THE STEEL TORQUE TUBE WAS NDT INSPECTED. CRACK INDICATIONS WERE FOUND ON TWO (2) OF THE EIGHT (8) TAPER PIN HOLES. THIS WAS A NEW ASSEMBLY LESS THAN A YEAR AGO. THE PREVIOUS ELEVATOR BELLCRANK TORQUE TUBE ASSY WAS REPLACED BECAUSE OF CRACKS IN THE SAME AREA. IMPLEMENTING AN INHOUSE INSP OF THIS ELEVATOR BELLCRANK TORQUE TUBE ASSY ON OUR ACFT.

CA090206007	BEECH	PWA	CASTING	CRACKED
2/6/2009	C90A	PT6A21	508103704	MLG

DURING 72 MONTH INSPECTION IT WAS FOUND THAT THE LOWER CASTING WAS CRACKED AT THE LOWER TORQUE KNEE CONTACT POINT.

2009FA0000220	BEECH	CONT	RELAY	INTERMITTENT
2/28/2009	F33A	IO520BB	SM50D7	MLG

PILOT REPORTED AFTER PUTTING THE GEAR SELECTOR IN THE UP POSITION, THE GEAR WOULD NOT RETRACT. ON TROUBLESHOOTING, THE MECHANIC CYCLED GEAR SEVERAL TIMES AND GOT GEAR RETRACTION TO FAIL. REPLACED RELAY WITH NEW IAW DATE CODE MFD RW 0734. NO RECOMMENDATIONS AT THIS TIME. (K)

CA090116001	BELL		RING	OUT OF POSITION
1/14/2009	205A1			CARGO NET

WHILE WORKING ON THE AIRCRAFT IN THE HANGAR, IT WAS DISCOVERED THAT THE RT SLIDING DOOR WOULD ONLY OPEN APPROX SIX INCHES. IT WAS FOUND THAT ONE OF THE UPPER "D" RINGS ON THE RIGHT REAR BULKHEAD HAD ROTATED (PROBABLY WHEN THE CARGO NET WAS REMOVED FOR MAINTENANCE) AND IT WAS PREVENTING THE DOOR FROM OPENING FURTHER. THE RING WAS ROTATED TO ITS PROPER ORIENTATION AND THE DOOR NOW OPERATES NORMALLY.

CA090119010	BELL	HNYWL	BELL	BEARING	DIRTY
1/19/2009	205A1	T5313BHNYWL	212040003023	212040143103	INNER RACES

INTERMEDIATE GEARBOX RECEIVED TO INVESTIGATE HIGH ROTATIONAL FORCE TO TURN INPUT PINION. MEASURED TO BE 50 INCH POUNDS. THIS GEARBOX WAS INSTALLED ON AIRCRAFT IN 1995 AND UNTIL NOVEMBER OF 2008 HAD NEVER BEEN REMOVED. DISASSEMBLED GEARBOX AND FOUND AND ACCUMULATION OF MUD LIKE DEPOSIT INSIDE GEARBOX. THIS DEPOSIT WAS ON THE GEARS AND ALL THE BEARINGS WERE COVERED WITH IT. ALL COMPONENTS WERE THEN CLEANED IN WHITE MINERAL SPIRITS. VISUALLY UNDER INSPECTION WITH A BEARING SCOPE THE BEARINGS LOOKED GOOD. BUT UNDER PRESSURE THE DUPLEX BEARING HALVES WERE VERY DIFFICULT TO TURN. THE BEARINGS WERE TURNED OVER TO BELL HELICOPTER PRODUCT SUPPORT FOR FURTHER INVESTIGATION. AT THIS TIME I HAVE NO RESPONSE AS TO WHY THE BEARINGS WERE SO TIGHT. THE GEARBOX WAS THEN UPGRADED TO OVERHAUL AND BOTH DUPLEX BEARINGS AND ALL SEALS WERE REPLACED. AFTER REBUILD THE ROTATIONAL FORCE TO TURN PINION WAS 4 INCH POUNDS.

CA090123001	BELL	ALLSN	FAN	FAILED
1/22/2009	206B	250C20		OIL COOLER

(CAN) SLIGHT VIBRATION FELT THROUGH ACCELERATION DURING START TO FLIGHT IDLE RPM. OIL COOLER FAN BRGS REPLACED AND FAN BALANCED CHECKED SERVICEABLE. VIBRATION DISAPPEARED BUT WITHIN 30 FLIGHT HOURS BEGAN INCREASING IN FREQUENCY AGAIN DURING THE SPOOL UP THEN STOPPED. ACFT REMOVED FROM SERVICE. OIL COOLING FAN, SHAFT AND BEARING HANGARS REMOVED. CRACK IN SKIN DETECTED BELOW AFT BEARING HANGAR AT BOLT ATTACH POINT.

CA090123002	BELL	ALLSN	DRIVE GEAR	LOOSE
1/16/2009	206B	250C20	23065121	GOVERNOR

(CAN) THE EXPOXY HOLDING THE RETAINING CLIP IN PLACE CAME UNBONDED, ALLOWING THE CLIP TO MOVE, THERFORE ALLOWING THE DRIVE GEAR TO DISCONNECT FROM THE SHAFT.

CA090202006	BELL	ALLSN	FRAME	CRACKED

1/23/2009	206B	250C20	206031302173S	BS 130

DURING 1200 HR/12 MONTH INSPECTION AFT LEFT FRAME OF ROLLOVER BULKHEAD FOUND CRACKED. CRACK IS 2.5 INCHES LONG AND IS LOCATED AT STA 130, WL 68, AND BL 26.

CA090130009	BELL	ALLSN	CLUTCH	MALFUNCTIONED
11/20/2008	206B	250C20	CL422501	FREEWHEEL UNIT

ON RUNDOWN OF HELICOPTER PILOT NOTED N2 AND M/R RPM LOCKED UP. INVESTIGATED AND FOUND CLUTCH ASSY WAS NOT DISENGAGING. REMOVED AND REPLACED WITH FREE WHEEL ASSY PN206-040-270-003 TSN 11046.6 TSO 0.0HRS. CLUTCH CL42250-1 TSN0.0 HRS. SENT DAMAGED ASSEMBLY IN FOR OVERHAUL. OVERHAUL SHOP REPORTED BACK THAT THE BEARINGS WERE GONE.

CA090211003	BELL	ALLSN	SUPPORT	CRACKED
2/2/2009	206B	250C20	206031301023	RBL 13 FWD SIDE

SEVERAL CRACKS DISCOVERED WHERE SUPPORT ASSEMBLY, ATTACHES TO THE FORWARD SIDE OF THE CROSS TUBE FUNNEL. ONE CRACK EXTENDS PAST THE STANDARD REPAIR AREA AS STATED IN THE SRM. OTHER CRACKS ARE OUT SIDE THE ALLOWABLE REPAIR AREA ALONG THE 90 DEGREE BEND AT THE BOTTOM OF THE SUPPORT P/N 206-031-301-023. NEW SUPPORTS INSTALLED ON THE AIRCRAFT.

CA090114005	BELL	ALLSN	SKID	UNSERVICEABLE
1/9/2009	206B	250C20B	206020110005	TAILBOOM

THE AIRCRAFT WAS BEING POSITIONED IN THE HANGER FOR MAINTENANCE. THE TAIL SKID WAS BEING USED TO STEADY THE HELICOPTER AS IT WAS BEING HOISTED TO HAVE THE LANDING GEAR REMOVED. A PORTION OF THE TAIL SKID BROKE OFF IN THE ENGINEER’S HAND. THE CAUSE OF THE BREAK IS DUE TO CORROSION. A SERVICEABLE UNIT WAS INSTALLED.

CA090121012	BELL	ALLSN	PUMP	UNKNOWN
12/23/2008	206B	250C20B	6899253	FUEL SYSTEM

DURING ENGINE TROUBLESHOOTING A STARTING ISSUE, THE FUEL PUMP WAS REPLACED DUE TO UNDETERMINED REASONS.

CA081209002	BELL	ALLSN	CLUTCH	CRACKED
9/14/2008	206B	250C20B	CL422501	FREEWHEEL UNIT

(CAN) APPROX 100 HRS PRIOR TO SCHEDULED REMOVAL OF THE FREEWHEEL ASSY, METAL WAS DISCOVERED ON FREEWHEEL CHIP DETECTOR. CREW ORDERED REPLACEMENT ASSY AND MONITORED FURTHER INDICATIONS. UPON DISASSEMBLY AT THE OPERATOR`S OVERHAUL FACILITY, IT WAS NOTED THAT THE CLUTCH CAGE HAS BEEN CRACKED THROUGH FWD AND AFT FACES. THE "DOG BONE" POCKETS EXHIBITED UNUSUAL WEAR ON INNER SIDE AS WELL AS FWD AND AFT SURFACES. THIS O/H SHOP HAS NOTED SEVERAL CASES OF WORN POCKETS (WEAR BEYOND .004 INCH) ON CLUTCHES INSPECTED WITHIN THE LAST YEAR.

CA090122009	BELL	ALLSN	BELL	SUPPORT TUBE	CRACKED
12/16/2008	206B	250C20B	206BIII	206031301121	SUPPORT STRUCTUR

DURING A FUEL CELL CHANGE (DUE TO FUEL SEEPAGE), A SMALL CRACK WAS FOUND IN THE AFT CROSSTUBE SUPPORT STRUCTURE, ON THE RT SIDE OF THE AIRCRAFT. THE LOCATION OF THE CRACK WAS AT THE FWD BOTTOM RIVET OF THE CROSSTUBE SUPPORT. THE CRACK WAS APPROXIMATELY 1/4 INCH IN LENGTH. THIS AREA IS SUSCEPTIBLE TO CRACKS BECAUSE OF THE LOADING ON THIS AREA. THE MANUFACTURER HAS INCREASED THE WALL THICKNESS OF THE SUPPORT STRUCTURE IN THIS AREA, WITH THEIR REPLACEMENT PARTS. THE SUPPORT STRUCTURE WAS REPLACED WITH THE NEW BEEFIER PARTS, AND RETURNED TO SERVICE. IT WAS NOTED THAT THE CRACK COULD NOT BE SEEN FROM THE OUTSIDE, AND THAT ANOTHER CRACK WAS ALSO FOUND ON ANOTHER PIECE OF THE STRUCTURE, WHICH COULD NOT BE SEEN AS WELL. IT WAS ONLY WHEN THE FUEL CELL WAS REMOVED, THAT YOU COULD SEE THE CRACK STARTING FROM THE RIVET.

CA090217004	BELL	ALLSN	PUMP	FAILED

2/12/2009	206B	250C20R	850500101	HYDRAULIC SYS

(CAN) DURING NORMAL FLAT AND LEVEL CRUISE FLIGHT AT APPROX. 4000` ASL THE PILOT INITIATED A GENTLE RT TURN. UPON MOVING THE CYCLIC CONTROL THE PILOT NOTED ROUGH OPERATION AND FEEDBACK THROUGH THE CYCLIC GRIP. THE PILOT CUT HYD AND RESTORED THEM. THE CYCLIC MOVED SMOOTHLY FOR APPROX. 10 SECONDS AND THEN RESUMED ROUGH OPERATION. THE PILOT ONCE AGAIN CUT AND RESTORED HYD. THE CYCLIC MOVED FREELY FOR APPROX. 5 SECONDS AND THEN RESUMED ROUGH OPERATION. THE PILOT ONCE AGAIN CUT HYD BUT THIS TIME RETURNED TO BASE HYD OFF. UPON INSP, ON THE GROUND IT WAS NOTED THAT THE HYD FILTER`S CLOGGING INDICATOR HAD "POPPED". THE FILTER WAS REMOVED FOR VISUAL INSP AND IT WAS DISCOVERED TO BE COMPLETELY CONTAMINATED WITH WHAT APPEARED TO BE BRASS SHAVINGS. THE SOURCE OF THIS MATERIAL IS KNOWN TO BE THE HYD PUMP. THERE WAS NO CAUTION LIGHT THAT INDICATED FAILURE FOR THIS DEFECT AS THE PUMP WAS STILL FUNCTIONING AS IT FAILED. THE SERVOS WERE ESSENTIALLY STARVED OF HYD FLUID PRESSURE DUE TO THE CLOGGED FILTER. THIS PARTICULAR PUMP ONLY HAD A TSN OF 6.5 HOURS.

CA081223003	BELL	ALLSN	BELL	RELEASE CABLE	SEPARATED
12/9/2008	206L	250C20R		20803100	CARGO HOOK

(CAN) PILOT REPORTED UN-COMMANDED HOOK RELEASE (LOSS OF LEAD) UPON INSPECTION FOUND FAULTY MANUAL RELEASE CABLE WHEN HOOK PULLED TO FAR END OF SWAGED END SEPARATED CAUSING UNCOMMENDED HOOK RELEASE HOOK END CABLE REMOVED FROM A/C AND NEW CABLE ORDERED ALL OTHER ACFT INSPECTED FOR SAME DEFECT (NO FAULTS FOUND) INSPECTION OF HOOK AND MANUAL RELEASE CABLE ADDED TO DAILY CHECK PROCEDURE MANUAL.

2009FA0000093	BELL	ALLSN	VALVE	FAILED
1/9/2009	206L3	250C30	2538877	ENGINE

CUTOFF VALVE ASSY FAILED. THE EPOXY BOND THAT RETAINS THE END CAP IN THE VALVE FAILED. THEN FUEL PRESSURE WAS PRESENT IN THE VALVE ASSY THE PRESSURE WOULD PUSH THE END CAP PARTIALLY OUT OF THE VALVE ASSY. THIS EFFECTIVELY INCREASED THE LENGTH OF THE VALVE. THIS INCREASED LENGTH BLOCKED THE CUTOFF SEAT FOR AN ADDITIONAL 26 THROTTLE DEGREES, CHANGING THE FUEL FLOW CUTOFF ANGLE FROM 8-14 THROTTLE DEGREES TO APPROX 40 THROTTLE DEGREES. THIS ALSO ELIMINATED ALL START FUEL FLOW MODULATION. ENGINE WOULD NOT START. (K)

2009FA0000092	BELL	ALLSN	BEARING	FAILED
11/10/2008	206L4	250C30	2544198	INSIDE PTG

SPOOL BEARING ASSY FAILED INTERNALLY. BEARING ASSY NO LONGER ROTATES. THE UPPER BEARING LOWER SHIELD AND RETAINER HAS COME OFF, BEARING BALLS ARE LOOSE. THE LWR BEARING IS INTACT BUT NO LONGER ROTATES. (K)

CA090213002	BELL	ALLSN	FUEL CELL	LEAKING
2/11/2009	206L4	250C30P	206064633105	

(CAN) ACFT PARKED STATIC INSIDE HANGER. FUEL LEAKS THOUGH CELL MATERIAL. REQUIRES REPLACEMENT.

CA090213003	BELL	ALLSN	FUEL CELL	LEAKING
2/11/2009	206L4	250C30P	206064633105	

(CAN) ACFT PARKED STATIC IN HANGER. FUEL LEAKS THOUGH CELL MATERIAL. REQUIRES REPLACEMENT.

CA090105005	BELL		RIVET	SHEARED
1/5/2009	212			ATTACHMENT

ATTACHMENT RIVETS ATTACHING TEE CAP TO OUTBOARD TITAINIUM PANEL P/N 205-030-209-020 UPPER EDGE RIVET P/N MS20470AD4-XX SHEARED.

CA090127013	BELL	PWA	BELL	LONGERON	CORRODED
12/5/2008	212	PT6T3B	212030100	212030132150B	TAILBOOM BAGGAGE

CORROSION OF LONGERON AND SPLICE UNDER SPLICE. FOUND WHILE PERFORMING INSPECTION REQUIRED

FOR ASB212-90-63. CORROSION WAS VERY SEVERE WHEN SIGNS WERE VISIBLE BECAUSE CORROSION WAS BETWEEN LONGERON AND SPAR SPLICE FAYING SURFACES.

CA090120005	BELL	ALLSN	SUPPORT ANGLE	CRACKED
1/13/2009	407	250C47B	407023800127	TAILBOOM

(CAN) SUPPORT ANGLE P/N 407-023-800-127 FOUND CRACKED ON A DAILY INSP. PART HAS BEEN UPGRADED BY A -129 THAT WAS INSTALLED. THIS IS KNOWN TO MFG AND THEY HAVE COME OUT WITH THE -129 THAT IS THINNER MATERIAL AND HAS MORE FLEXABILITY.

CA090205007	BELL	ALLSN	RELEASE CABLE	FRAYED
2/2/2009	407	250C47B	26800400	CARGO HOOK

DURING INSPECTION CABLE TOP END OF MANUAL RELEASE CABLE WAS FOUND TO BE FRAYED AND PULLED OUT OF THE SWAGED END. SDR WAS SUMITTED DEC 09 2008 FOR A SIMILAR DEFECT BUT ON THE BOTTOM END OF CABLE, THAT CASE RESULTED IN A UN-COMMANDED RELEASE OF THE HOOK, BOTH CABLES HAVE BEEN SENT TO THE MANUFACTURE.

CA090107013	BELL		BRACKET	BROKEN
1/2/2009	427		427044223101	TAIL ROTOR

DURING A DAILY INSPECTION, THE AFT FAN SHAFT HANGAR BEARING SUPPORT BRACKET WAS FOUND TO BE BROKEN. THERE WAS NO DAMAGE TO THE SURROUNDING AREA, AND INSPECTION OF THE FORWARD BRACKET FOUND NO DAMAGE TO IT. A ONE TIME INSPECTION OF THE WHOLE AIRCRAFT WAS ALSO PERFORMED.

CA090121007	BELL	PWC	BEAM	CHAFED
1/9/2009	427	PW207D	427365281101	NACELLE

DURING ANNUAL INSPECTION, FRETTING RESIDUE WAS NOTED ON BOTTOM OF LEFT HAND PYLON BEAM ASSEMBLY 427-010-201-107. FURTHER INVESTIGATION AND SUBSEQUENT REMOVAL OF THE BEAM REVEALED CHAFING DAMAGE TO PYLON BEAM 427-010-201-107, ADAPTER 427-010-206-101 AND HOSE 427-365-281-101. THE CAUSE OF THE DAMAGE WAS SLEEVE 120-067B.

CA090119013	BNORM	LYC	LYC	SLEEVE	LOOSE
1/18/2009	BN2A26	O540E4C5	0540E4C5	71699	NR 5 CYLINDER

ON GROUND RUN IT WAS DISCOVERED THAT CYLINDER NR 5 ON THE RIGHT ENGINE, EGT WAS NOTICABLY HIGHER THAN OTHER CYLINDERS. INDUCTION TUBE WAS REMOVED FROM THE CYLINDER, THE INDUCTION TUBE SLEEVE IN THE OIL SUMP WAS FOUND TO BE LOOSE.

CA090225004	BNORM	LYC	GOVERNOR	MALFUNCTIONED
2/24/2009	BN2B21	IO540K1B5	G210659M	PROPELLER

ON GROUND RUN, RT PROP WOULD NOT FEATHER. OTHER PITCH CHANGE FUNCTIONS WORKED NORMALLY. INITIALLY THE PROP WAS REPLACED WITH SIMILAR RESULTS THE GOVERNOR WAS THEN REPLACED WITH A SERVICEABLE UNIT FROM ANOTHER AIRCRAFT AND THE PROP PITCH/FEATHER FUNCTIONED NORMALLY. THE SUSPECT GOVERNOR WILL BE SENT FOR ANALYSIS AND LIKELY OVERHAUL.

CA090223001	BOEING	RROYCE	ENGINE	MAKING METAL
2/17/2009	717200	BR700715A130		

IFSD, ACFT TURNED BACK INTO ATLANTA DUE TO, HIGH VIB, COMPRESSOR STALL, AND TGT WENT TO 1149 DEG. FOUND METAL NUGGETS IN THE TAIL PIPE, AND HPT CASE BULGED IN LINE WITH HPT1. ENGINE WILL BE INDUCTED TO MANUFACTURER ON MARCH 3 FOR INVESTIGATION. FURTHER INFORMATION WILL BE AVAILABLE FOLLOWING ENGINE DISASSEMBLY.

CA090216007	BOEING	RROYCE	COMPRESSOR	STALLED
2/10/2009	717200	BR700715A130		LT ENGINE

(CAN) SURGE/IFSD/AIR RETURN. DURING CLIMB OUT OF DEPARTURE AIRPORT AT 5000 FEET, LOUD BANG

REPORTED ACCOMPANIED BY ACFT YAW AND ENG L COMPRESSOR STALL ALERT. ENGINE AUTO SHUTDOWN. ACFT RETURNED TO DEPARTURE. INITIAL FINDINGS NOT AVAILABLE AS OF THIS WRITING. ENGINE HAD BEEN SCHEDULED FOR REMOVAL TONIGHT (10 FEB) FOR HIGH-TIME LIP5 HP TURBINE BLADES. ENGINE WILL BE INDUCTED AT MFG, FURTHER DETAILS WILL BE SUBMITTED AFTER ENGINE TEAR DOWN.

CA090203004	BOEING	PWA	TURBINE BLADES	FRACTURED
1/31/2009	720023B	JT3D1	771104	ENGINE

APPROXIMATELY 3.5 HOURS INTO THE FLIGHT TEST PROFILE, CLIMBING OUT OF FL380 TO FL410 AT CLIMB THRUST, IN SMOOTH AIR CONDITIONS, A SUDDEN YAW AND VIBRATION WAS FELT IN THE AIRPLANE. ENGINE INSTRUMENTATION OF THE ENGINE NR 1 SHOWED EGT WAS IN THE YELLOW AT ABOUT 500 C, N2 WAS 70 PERCENT AND N1 WAS AT 30 PERCENT. FLIGHT CREWMEMBERS DECIDED TO SHUTDOWN THE ENGINE, NOTIFIED ATC AND RETURN TO THE BASE, NO EMERGENCY WAS DECLARED. AFTER LANDING, AN INITIAL INSPECTION OF THE NR 1 ENGINE EXHAUSTS AREA SHOWED MISSING TURBINE TIP BLADES. THE ENGINE IS CURRENTLY BEING REMOVED AND WILL BE SENT FOR INVESTIGATION/REPAIR.

CA090119014	BOEING	PWA	DRUM	FROZEN
1/16/2009	727225	JT8D15	652459310	TE FLAP

ON APPROACH INTO YYZ WHEN FLAPS 30 WAS SELECTED NEEDLES REMAINED IN FLAPS 25 POSITION BAND. "TO LOW FLAPS" AURAL WARNING SOUNDED. MISSED APPROACH WAS EXECUTED. RECTIFICATION TROUBLESHOOTING CARRIED OUT AS PER MM 27-51-000-5. UNABLE TO FAULT. SUSPECT FROZEN DRUM AND CABLES. HEAT APPLIED AND LUBED DRUM AND CABLES GROUND CHECKED SERVICEABLE.

CA090204008	BOEING	PWA	LANDING GEAR	MALFUNCTIONED
1/31/2009	737200	JT8D17	65737625	NOSE

DEPARTING YFB FOR YOW ON JAN 31, 2009, THE CREW OBSERVED A NOSE LANDING GEAR FAIL TO LOCK CONDITION AFTER GEAR WAS SELECTED UP. THE AIRCRAFT RETURNED TO POINT OF DEPARTURE AND LANDED WITHOUT FURTHER PROBLEM. MAINTENANCE SERVICED THE NOSE GEAR AND THE AIRCRAFT WAS RETURNED TO SERVICE AND THE AIRCRAFT RETURNED TO YOW.

CA090203005	BOEING	PWA	SKIN	CORRODED
1/27/2009	737275C	JT8D9A		BS 460-480

DURING ROUTINE SCHEDULED HEAVY MAINTANANCE VISIT (C3 CHECK), CORROSION WAS FOUND ON A LAP JOINT AT STA 460 TO 480, ON STR 26L. THIS CORROSION IS BELIEVED TO BE CAUSED BY THE BONDING PROCESS AT FACTORY. THE PROCESS (COLD BONDING) WAS ACCOMPLISHED ON THE FIRST 491 B737 AIRCRAFT. THIS AIRCRAFT IS LINE NR 4481. THIS IS A KNOWN FLAW, AND HENCE THE CHANGE TO A NEW PROCESS ON AIRCRAFT LINE NR 492 AND ON. THIS CORROSION WAS CLASSIFIED, AND VERIFIED AS LEVEL 2, IAW THE CPCP DOCUMENT D6-38528, FIGURE 9 LOGIC DIAGRAM, ITEM NR 20. DUE TO THE LINE NR OF THIS AIRCRAFT THE CPCP PROGRAM HAS SOME TASKS DUE AT 18 MONTH INTERVALS INSTEAD OF MOST AIRCRAFT AT 2 YEAR INTERVALS. AN ADDITIONAL INTERNAL DVI INSPECTION WILL BE RAISED AGAINST THIS AIRCRAFT FOR THIS AREA AND ADJACENT AREAS ONLY AT NEXT HEAVY MAINTENANCE VISIT. THIS WILL BE IN ADDITION TO THE 18 MONTH CPCP INSPECTION AND THE ADDITIONAL INSPECTIONS THAT WILL BE REQUIRED DUE TO THE HMV VISIT.

COOSDR080234	BOEING		STRINGER	CRACKED
11/13/2008	737322		65458001261	FUSELAGE

UPPER FUSELAGE PAX CABIN AT STA 296.5, S10L CRACKED. (K)

COOSDR080233	BOEING		INTERCOSTAL	CRACKED
11/13/2008	737322		651768465	FUSELAGE

UPPER FUSELAGE PAX CABIN AT STA 300 AND ABOVE S10L INTERCOSTAL CRACKED. (K)

COOSDR080231	BOEING		INTERCOSTAL	CRACKED
11/13/2008	737322		6517684634	FUSELAGE

UPPER FUSELAGE PAX CABIN BETWEEN STA 294.5 AND STA 303.9 AT S-16L INTERCOSTAL CRACKED. (K)

CA090210008	BOEING	GE	HINGE	LOOSE

2/8/2009	737705	CFM567B24		L1 DOOR

ON FEBRUARY 8, 2009 LEAVING TORONTO THE AIRCRAFT FAILED TO PRESSURIZE AFTER TAKEOFF THEN RETURNED TO GATE. MAINTENANCE ACTION CONFIRMED THE L1 ENTRY DOOR GUIDE ARM JAM NUT WAS LOOSE CAUSING THE DOOR TO MIGRATE OUT OF RIG. THE GUIDE ARM WAS RE-ADJUSTED. WEST JET CONSIDERS THIS SDR CLOSED.

CA090212001	BOEING	GE	SPAR	FAILED
2/11/2009	767333	CF680C2B6F		RUDDER ACTUATOR

ON TAXI OUT, R RUDDER TEST FAILED. RUDDER PEDAL APPEARS TO BIND. UNABLE TO ACHIEVE MORE THAN HALF DEFLECTION. INITIAL INSPECTION FOUND CTR PCA (LT HYD SYS) FULLY RETRACTED IN THE LT RUDDER DEFLECTION POSITION, WITH ONLY LT HYD SYS PRESSURIZED, RUDDER APPROX 4 INCHES RIGHT OF NEUTRAL PCA REMAINED FULL LEFT. RIGHT RUDDER PEDAL INPUT APPROX 1/2 TRAVEL, PCA SUDDENLY WENT FULL RIGHT THEN BACK TO FULL LEFT AND REMAINED IN THAT POSITION FOR REMAINDER OF TEST. WITH ALL 3 HYD SYSTEMS PRESSURIZED, FULL RIGHT PEDAL RUDDER MOVED TO THE RIGHT. LEFT RUDDER PEDAL WAS STIFF TO OPERATE AND RUDDER MOVED TO THE LEFT WITH SOUNDS OF BREAKING COMPOSITE. LT HYD SYS PCA JAMMED IN FULL LEFT WITH CTR AND RIGHT SYS PCA`S FIGHTING THE LEFT. ALSO, FOUND INTERFERENCE DAMAGE TO SECONDARY INPUT CONTROL ROD AND REACTION LINK AT CTR PCA POSITION.

CA090211002	BOEING	PWA	DUCT	CRACKED
2/9/2009	767333	PW4060	213T412917	AIR CON

DURING THE INSPECTION FOUND AC DUCT CRACK, THE DAMAGE AIR CONDITIONING DUCT RUN`S FROM A TRIM AIR SUPPLY MODULATING VALVE (UNPRESSURIZED AREA) TO THE MIX MANIFOLD OUTLET DUCT (FWD CARGO PRESSURIZE AREA).

CA090210011	BOEING	PWA	DUCT	CRACKED
2/10/2009	767333	PW4060	213T412917	AIR CON SYS

DURING INSPECTION FOUND AC DUCT CRACK THE DAMAGE AIR CONDITIONING DUCT RUN'S FROM A TRIM AIR SUPPLY MODULATING VALVE (UNPRESSURIZE AREA) TO THE MIX MANIFOLD OUTLET DUCT (FWD CARGO PRESSURIZE AREA) THR : 60554 TCY : 9972 TLN : 9972.

CA090115004	BOEING		BEARING	FAILED
1/13/2009	777233LR		4100941C	COOLING FAN

INFO RECEIVED FROM MX, WHEN MX HAD BOARDED THE ACFT AFTER ARRIVAL, FRONT END CREW HAD DEPARTED THE ACFT. MX REPORTED THE ACFT AND SPECIFICALLY THE FLIGHT DECK WAS FILLED WITH SMOKE. RELATED SBS: HAMILTON STANDARD 4100941-21-4 OCT 24 2008. THIS ONE IS APPLICABLE TO THE GIVEN P/N BOEING SB 777-21-0104 REV.1 OCT 9 2008. THIS ONE IS APPLICABLE TO P/N 4100943/A/B/C, BUT DESCRIBES THE SAME ISSUE. THE ISSUE IS THE ROTOR RUBBING AGAINST THE STATOR.

CA090213001	BOEING	GE	CHECK VALVE	FAILED
2/12/2009	777233LR	GE90110B1	8102052	AIR CON

(CAN) UNABLE TO CONTROL CABIN TEMP ZONE B, D AND F. DURING MAINT INSP FOUND THE LT PACK WITH A RUPTURED DUCT CAUSED BY A FAILED LT PACK FAN AIR CHECK VALVE.

CA090204002	BOEING	GE	ENGINE	FAILED
1/30/2009	777333ER	GE90115B		LEFT

DURING CRUISE AT FL330, THE LT ENGINE FAILED ABRUPTLY. N1 WINDMILLING AND N2 ZERO. NO RELIGHT ATTEMPT. THE CREW DECLARED AN EMERGENCY AND DIVERTED TO ANC. TGB SUSPECTED. ENGINE SB 72-0263R03 IS RELATED.

CA081204004	BOLKMS	ALLSN		HANDLE	DAMAGED
12/3/2008	BO105S	250C20B	10510521	10213193	ROTOR BRAKE

(CAN) DURING CRUISE, THE ROTOR BRAKE HANDLE DOWN WARNING LIGHT TURN ON INTERMITTENTLY. THE WARNING LIGHT SWITCH IS ADJUSTED TO WARN PILOT IF THE HANDLE IS NOT IN ITS NEUTRAL OR DOWN POSITION AND TO VERIFY IF THE REASON IS NOT THE PILOT`S SEAT BELT BEING UNDER THE HANDLE. IAW THE

MM, THERE SHOULD BE A CLEARANCE OF 22 TO 28 MM BETWEEN THE HANDLE AND THE FLOOR WHEN NOT ENGAGE. A NEW ROTOR BRAKE HANDLE RUBBER BOOT, P/N: 10.2131.9.3, WAS INSTALLED DURING THE LAST O/H, REPLACING THE LEATHER BOOT, P/N: 105-10551, INITIALLY INSTALLED IN ALL MBB BO-105. THE NEW RUBBER BOOT, BEING MORE RIGID THEN THE LEATHER BOOT, KEEPS THE HANDLE UP AT 34MM CLEARANCE BETWEEN THE HANDLE AND THE FLOOR. DURING THEIR PRE-START CHECK, THE PILOT CHECKS IF THE HANDLE IS ALL THE WAY DOWN. BY DOING SO, THEY FORCE THE HANDLE AGAINST THE WARNING LIGHT MECHANISM ON A GREATER DISTANCE AND GET THE SWITCH OUT OF ADJUSTMENT, MAKING THE CONTACTS CLOSING AND TURNING THE ROTOR BRAKE WARNING LIGHT ON WHEN FLYING IN LIGHT TURBULENCES.

CA090202004	BOMBDR	OUTFLOW VALVE	MALFUNCTIONED
1/31/2009	BD1001A10	81141A010302	CABIN PRESSURE

LOSS OF PRESSURIZATION AT ALTITUDE ACFT DEPARTED AT FL410, THE CREW HEARD A LOUD NOISE IN THE BACK OF THE ACFT. PRESSURIZATION RAPIDLY LOST. CREW DECLARED EMERGENCY AND DIVERTED TO FLL. UNEVENTFUL LANDING MADE IN FLL. ACFT AT BAS FLL FACILITY. UPDATE, DEADHEAD TRIP FROM NAPLES TO TULSA, OK. WHEN EVENT OCCURRED, CREW DONNED O2 MASKS, MADE SELECTION ON AUDIO CONTROL PANEL AND INITIATED AN EMERGENCY DESCENT. CABIN ALTITUDE DID REACH 15,000 FT. CREW COMMENTED THEY HAD DIFFICULTY WITH COMMUNICATIONS WITH MASKS ON. ALL CABIN MASKED DEPLOYED. NO FAULTS FOUND IN MDC. REQUEST IASCS NVM TO BE DOWNLOADED. A VISUAL INSPECTION OF SAFETY VALVES IN BAGGAGE COMPARTMENT C/W. NO FOREIGN OBJECT DAMAGE FOUND. VISUAL OF OUTFLOW VALVE DONE, NO DEFECTS NOTED.

CA090212002	BOMBDR	HNYWL	CONNECTOR	SHORTED
2/11/2009	BD1001A10	AS90711A	A3005P1CONNECT	COFFEEMAKER

C/B A-112 FOUND POPPED DURING AIRCRAFT SERVICING. WIRES CONNECTED TO PLUG A3005P1 FOR HOT LIQUID CONTAINER NR 1 WERE FOUND ROUTED SUCH THAT CONTACT WAS MADE BETWEEN TERMINALS CAUSING A SHORT POPPING THE C/B. THE WIRES WERE REPOSITIONED TO PREVENT CONTACT. ADJACENT CONNECTOR A3006P1 FOR HOT LIQUID CONTAINER NR 2 WAS EXAMINED AS WELL AND THE SAME CONDITION EXISTED. THESE WIRES WERE ALSO REPOSITIONED TO PREVENT SHORTING. REFERENCE NR 8 (B) MANUFACTURE IS IN FACT MAPCO. THIS INFO NOT AVAILABLE IN DROP DOWN.

CA090205004	BOMBDR	HNYWL	ENGINE	POWER LOSS
2/3/2009	BD1001A10	AS90711A		LEFT

CHIEF PILOT REPORTS DESCENDING BELOW 13000 FT MSL INTO SAN ANTONIO INT`L AIRPORT FROM HOUSTON, THE LEFT ENGINE SHUTTERED, THE HIGH VIB INDICATED ON THE EICAS, THE ITT ROSE TO 700C AND THE OIL PRESSURE DROPPED ABOUT 15 PSI, FROM NORMAL. HE SHUT THE LEFT ENGINE DOWN. THE CREW DECLARED AN EMERGENCY AND LANDED THE AIRCRAFT WITHOUT INCIDENT ON THE RIGHT ENGINE ONLY. ENGINE OIL LEVEL IS REPORTED AS NORMAL, AFTER LANDING. SOME METAL HAS BEEN REPORTED ON THE CHIP DETECTOR OF THE NR 4 AND NR 5 AFT BEARING CASE SUMP RETURN. ALL OTHER CHIP DETECTORS REPORTED TO BE CLEAN OF DEBRIS. ENGINE TO BE REMOVED FOR REPAIR/INVESTIGATION AND LOANER INSTALLED.

CA090126001	BOMBDR	HNYWL	APU	FAILED
1/19/2009	BD1001A10	AS90711A	36150BD	

WHILE DESCENDING THROUGH 12000 FT ALTITUDE THE CREW TRIED TO START THE APU, BUT THEY EXPERIENCED A HUNG START. THEY THEN SHUT THE ENGINE DOWN AND WAITED TWO MINUTES BEFORE ATTEMPTING A 2ND START WHICH PROVED TO BE SUCCESSFUL. ON LANDING, THEY NOTICED THAT THE APU INTAKE HAD EXPERIENCED SOME KIND OF BACKFIRE WHICH MUST HAVE HAD FLAMES BLOWING OUT THE INTAKE, AND AS A RESULT BURNT THE AREA AROUND THE APU INTAKE. THE INLET DUCT HAS ALSO SUSTAINED SUBSTANTIAL DAMAGED, IN THAT THE COATING IN THE DUCT HAS BURNT AWAY, AND THE FIBERGLASS FIRE PROOF MATERIAL IS NOW EXPOSED. A BOROSCOPE INSPECTION OF THE APU FOUND CHUNKS OF CARBON WEDGED INTO THE TURBINE INLET STATOR. THERE IS ALSO MAJOR BUILDUP OF CARBON IN THE COMBUSTION LINER. REPAIRS WILL BE CARRIED OUT BY A MAINTENANCE FACILITY IN SOUTH AFRICA.

CA090130003	BOMBDR	RROYCE	BRACKET	LOOSE
1/27/2009	BD7001A10	BR700710A220		ELEVATOR PULLEY

QUANTITY 2 BOLTS LOOSE ON BRACKET GD417-1579-3 QUANTITY 2 BOLTS INSTALLED BUT NOT SECURED AND

TORQUED BOLT ARE NAS 6203-3 THE ELEVATOR BRACKET ASSY IS MOVING UP OR DOWN .375 INCH LOCATION: RT ELEVATOR PULLEY BRACKET ASSY REAR FUSELAGE F/S 955.

CA090130005	BOMBDR	RROYCE	BOMBDR	SUPPORT	LOOSE
1/27/2009	BD7001A10	BR700710A220			ELEVATOR PULLEY

3 BOLTS NAS6203-3 MISSING ONTO PULLEY SUPPORT GD417-1570-3 AND 3 BOLTS NAS6203-3 MISSING ONTO PULLEY SUPPORT GD417-1573-3. 1 BOLT NAS6203-3 MISSING ONTO CHANNEL GD417-1580-3. HOLES ON CLEAT GD417-1661-1 DO NOT LINE UP WITH PULLEY SUPPORT GD417-1570-3 AND HOLES ONTO CLEAT GD417-1662-1 DO NOT LINE UP WITH HOLES ONTO PULLEY SUPPORT GD417-1573-3. LOCATION: RT ELEVATOR PULLEY BRACKET ASSY REAR FUSELAGE F/S 955.

CA090204004	BOMBDR		WINDSHIELD	FAILED
2/2/2009	DHC8400		80260009	COCKPIT

APPROX 15 MINS AFTER TAKEOFF, PASSING 21000 FT, THE PILOT WINDSHIELD SHATTERED. ACFT RETURN TO BASE. WINDSHIELD REPLACED IAW AMM TASKS 56-10-01-000-801, 56-10-01-400-801 AND 30-41-00-710-802.

CA090216001	BOMBDR	PWC	SELECTOR VALVE	FAILED
2/13/2009	DHC8400	PW150A	483003	MLG

(CAN) THE LANDING GEAR FAILED TO EXTEND WHEN GEAR LEVER WAS SELECTED DOWN. A MISSED APPROACH WAS CARRIED OUT. AT A SAFE ALTITUDE (3000 FT) THE QRH CHECKLIST WAS INITIATED. THE ALTERNATE LANDING GEAR SYS WAS USED. LANDING GEAR EXTENDED (3 GREENS) AND A NORMAL APPROACH AND LANDING WAS EXECUTED. LINE MX INVESTIGATION CONFIRMED FAILURE OF THE LANDING GEAR SELECTOR VALVE. VALVE ASSY REPLACED AND LANDING GEAR FUNCTIONALLY TESTED IAW THE ACFT`S MM. ACFT RELEASED BACK TO SERVICE WITHOUT FURTHER INCIDENT.

CA090216002	BOMBDR	PWC	FADEC	FAILED
2/13/2009	DHC8400	PW150A	8193007008	NR 2

(CAN) AFTER TAKEOFF NR 2 FADEC FAIL CAUTION LIGHT ILLUMINATED. FLIGHT CREW SHUTDOWN NR 2 ENGINE AND RETURNED TO DEPARTURE AIRPORT WITHOUT INCIDENT. MX TROUBLESHOOTING DETERMINED FADEC AT FAULT. NR 2 FADEC REMOVED AND REPLACE AND ACFT RETURNED TO SERVICE.

CA090206003	BOMBDR	PWC	POWER UNIT	FAILED
2/2/2009	DHC8400	PW150A	4213403	HYD PUMP

DURING TAKEOFF ROLL (40KTS) NR 1 STBY HYD PUMP HOT CAUTION LIGHT ILLUMINATED. TAKEOFF ABORTED AIRCRAFT RETURNED TO GATE. MAINTENANCE REPLACED THE STANDBY POWER UNIT. AIRCRAFT RETURNED TO SERVICE.

CA090223010	BOMBDR	PWC	HOSE	LEAKING
2/21/2009	DHC8400	PW150A	115503008	HYDRAULIC SYS

DURING APPROACH AFTER GEAR DOWN SELECTION, THE FLIGHT CREW OBSERVED NR 2 HYDRAULIC ISOLATION VALVE CAUTION LIGHT ILLUMINATED, HYDRAULIC PRESSURE INDICATING 3000 PSI, AND QUANTITY DROPPING. LANDING GEAR CONFIRMED DOWN AND LOCKED. FLIGHT CREW CARRIED OUT EMERGENCY PROCEDURES AND AIRCRAFT LANDED UNEVENTFULLY. MAINTENANCE DISCOVERED HYDRAULIC FLUID LEAK FROM MAIN LANDING GEAR DOWN LOCK RELEASE ACTUATOR. HYDRAULIC LINE REPLACED AND HYDRAULIC SYSTEM FLUSHED. AIRCRAFT RETURNED TO SERVICE. VENDOR FOR FLEX LINE IS GOODRICH.

CA090224003	BOMBDR	PWC	BRACE	MISSING
2/23/2009	DHC8400	PW150A	464017	LT MLG

DURING A GROUND MAINTENANCE INSPECTION, THE LT MAIN GEAR STABILIZER BRACE WAS FOUND TO BE MISSING APPROXIMATELY 120 DEGREES OF BRACE BEARING SUPPORT AT THE OUTBOARD HINGE POSITION. PART VENDOR IS GOODRICH.

CA090218001	BOMBDR	PWC	COMPUTER	FAULTED

2/13/2009	DHC8400	PW150A	699018002	FUEL CONTROL

(CAN) AIR TURN BACK DUE TO POWERPLANT MESSAGE DURING CLIMB. CREW ELECTED TO RETURN TO DEPARTURE AIRPORT WITH NO FURTHER ISSUES. ON GROUND TROUBLESHOOTING DISCOVERED PEC FAULTS. PEC REPLACED AND ACFT FUNCTION TESTED ON RETURNED TO SERVICE.

CA090219012	BOMBDR	PWC	WINDSHIELD	FAILED
2/18/2009	DHC8400	PW150A	80260008	COCKPIT

(CAN) AT 4000 FEET DURING DESCENT, WITH WINDSHIELD HEAT SELECTED ON, THE CO-PILOTS WINDSHIELD SHATTERED. MX REPLACE THE WINDSHIELD AND ACFT RETURNED TO SERVICE.

2009FA0000202	BRAERO		MODULATOR	FAILED
2/3/2009	BAE125800A			RT MLG BRAKE

RT MLG BRAKE MODULATOR FAILED CAUSING NR 4 BRAKE TO DRAG. THE ACFT PULLED TO THE RT DURING TAKEOFF ROLL. (K)

CA090211001	BRAERO	RROYCE	CONE	CRACKED
1/30/2009	HS7482A	DART5342	RK37505A	EXHAUST

VISUAL INSPECTION DURING "A-CHECK" (WITH FLASHLIGHT) REVEALED LARGE CRACK IN CIRCUMFERENCE OF EXHAUST UNIT INNER CONE. CLOSER INSPECTION (CRAWLED UP JET-PIPE) INDICATED APPROX, 2/3 OF INNER CONE CIRCUMFERENCE CRACKED. DAMAGED AREA NORMALLY RESTS WITHIN 1/8 - 1/4 INCH OF 3 STAGE TURBINE BLADES/BLADE KEEPERS. ENGINE REMOVED AS A GEL, EXHAUST UNIT REPLACED WITH SERVICEABLE PART, ENGINE REINSTALLED. STATIC AND FUNCTION CHECKS COMPLETED.

CA090213004	BRAERO	RROYCE	INDICATOR	LEAKING
2/3/2009	HS7482A	DART5342		HYD SYSTEM

(CAN) SHORTLY AFTER DEPARTURE, THE CREW OBSERVED A PORT HYD PUMP INDICATION LIGHT WHICH REMAINED ILLUMINATED WITH THE MAIN SYS CYCLING EVERY 5 SECONDS. THE ACFT RETURNED TO POINT OF DEPARTURE AND LANDED WITHOUT FURTHER PROBLEM. MX IDENTIFIED THAT THE STARBOARD FLOW INDICATION SWITCH WAS LEAKING. THE UNIT WAS REPLACED AND THE ACFT RETURNED TO SERVICE.

2009FA0000252	CESSNA	LYC	DOWEL PIN	SHEARED
3/17/2009	152	O235L2C	STD1065	CRANKSHAFT

DOWEL SHEARED IN FLIGHT, THE ACFT WAS A TOTAL LOSS, NO INJURIES TO CREW, BUT WAS CLASSIFIED AS AN INCIDENT. NO PROP STRIKES EVER RECORDED, INCLUDING THE NEW DEFINITION. THE INSURANCE COMPANY REQUESTED THE DOWEL FOR METALLURGY TESTS. GIVEN THE TIMES BETWEEN THE O/H. CALENDAR - ALMOST 11 YEARS AND FLIGHT 1881, DIFFICULT TO PROVIDE ANY PREVENTATIVE ACTION FOR THIS TYPE OF OCCURRENCE. HAVE OWNED ACFT SINCE 1988. ENGINE HAS BEEN O/H TWICE IN THIS TIME. (K)

CA090130008	CESSNA	LYC	ATTACH BRACKET	CRACKED
1/30/2009	152	O235L2C	04320049	HORIZONTAL STAB

DURING A ROUTINE 200-HR INSPECTION, CRACKS WERE DETECTED ON THE REAR FIN ATTACH BRACKET THAT IS RIVETED TO THE AFT SPAR OF THE HORIZONTAL STAB. ONE HALF INCH CRACK WAS ALONG THE WELD AT THE TOP FORWARD BOXED AREA AND THE OTHER CRACK WAS PROPAGATING FROM ONE OF THE RIVET HOLES FOR THE FIN ATTACH NUT PLATES. IT SHOULD BE NOTED THAT THE NUT PLATES WERE PREVIOUSLY REMOVED TO COMPLY WITH AD 80-11-04 AND THAT NO RIVETS WERE INSTALLED IN THE RIVET HOLE IN QUESTION. FIN ATTACH BOLTS WERE SECURED WITH NUTS AS PER THE AD. WE OPERATE A LARGE FLEET OF CESSNA 152S AND HAVE REPLACED THIS BRACKET ASSEMBLY ONLY TO FIND IT CRACKING AGAIN IN THE SAME AREA. CESSNA NEEDS TO REDESIGN THE BRACKET AND BEEF IT UP.

2009FA0000205	CESSNA		FORK	DAMAGED
2/24/2009	172A			NLG

UPON PULLING THE NOSE WHEEL FAIRING. NOTED THE NOSE FORK HAD A DISTINCT, REARWARD BEND TO IT. THE CENTERLINE OF THE AXLE, RELATIVE TO THE CENTERLINE OF THE CHROME STRUT TUBE WAS APPROX 1.5 INCH AFT. THE NOSE FORK WAS REPLACED IAW MFG SK182-34C, AND ALL THE NOSE GEAR COMPONENTS AND

FIREWALL WERE CAREFULLY INSPECTED FOR DAMAGE, BUT AMAZINGLY, NONE WAS FOUND. THE EXCEPTION WAS THE NOSEWHEEL FAIRING, WHICH WAS IN POOR CONDITION, LITERALLY "POP RIVETED" TOGETHER. THE NOSE WHEEL WAS FITTED WITH WHAT APPEARED TO BE A NEW TIRE, BUT NOTHING WAS IN THE RECORDS. THE OWNER OF THE ACFT WAS NOT AWARE OF ANY INCIDENTS, ALTHOUGH HE HAD NOT OWNED THE ACFT FOR VERY LONG. (ABOUT A YEAR) AND HAD NOT FLOWN IT OVER 5 HRS OF SO. THE ACFT IS BASED AT A SMALL, COUNTRY AIRPORT, AND THE OWNER SUSPECTS SOMEONE "BORROWED" IT , DAMAGED IT, AND REPLACED THE NOSE TIRE TO TRY AND HIDE THE DAMAGE. IT WAS A LOCAL AIRPLANE BEFORE THIS OWNER BOUGHT IT, WITH SAME MECH "MAINTAINING" IT FOR SEVERAL YEARS. (K)

2009FA0000249	CESSNA	LYC		MASTER CYLINDER	FAILED
3/24/2009	172I	O320*		54113820	RT MLG

COMPLETE RT BRAKE IND SYS FAILURE WHILE TAXING THE ACFT. NO VISIBLE SIGNS OF DAMAGE OR FLUID LEAKAGE, POSSIBLY DEFECTIVE MASTER CYLINDER OR BRAKE CALIPER ASSY.

2009FA0000242	CESSNA			TUBE	FAILED
3/12/2009	172M			0923150	LT MLG WHEEL

LT MAIN TUBE FAILED. TUBE SPLIT ON THE OUTSIDE DIAMETER OF TUBE. THIS TUBE INSTALLED 5-8-06. (K)

CA090130006	CESSNA	LYC	SLICK	ROTOR	LOOSE
1/28/2009	172M	O320E2D			DISTRIBUTOR

DURING SCHEDULED 500-HR INTERNAL MAGNETO INSPECTION IT WAS DISCOVERED THAT THE ROTOR DISTRIBUTOR PLATE HAD OVERHEATED AND BECOME LOOSE. THE PLASTIC ROTOR BODY WAS MELTED IN THE VICINITY OF THE PLATE DUE TO ARCING CAUSED BY THE LOOSE PLATE. THERE WAS NO OPERATIONAL INDICATION, THE ENGINE RAN NORMALLY WITH NORMAL MAG DROPS.

CA090127007	CESSNA	LYC	SLICK	BRUSHES	DAMAGED
1/21/2009	172M	O360A4M		K3215	MAGNETO

WHILE PERFORMING SB3-08 ON BOTH LEFT AND RIGHT MAGNETOS LT P/N 4370 LT S/N 08010485 LT TSN 64.7 AND RT P/N 4371 RT S/N 07111952 RT TSO 400.6 THERE WAS EVIDENCE OF IMPROPER WEAR OF THE CARBON BRUSH. THE COIL TAB HAD RESIDUE COATING AND UNACCEPTABLE WEAR MARKS. UNDERCUTTING WAS ALSO NOTED ON THE CARBON BRUSH. IT WAS LATER LEARNED THAT BOTH MAGNETOS HAD THE NEW BRUSH REPLACEMENT AND TERMINATING ACTION IMPLEMENTED. THE AFFECTED MAGNETOS WERE SUBSEQUENTLY REPLACED WITH OTHERS AND WERE SENT OUT FOR REPAIR.

2009FA0000245	CESSNA			TUBE	FAILED
3/12/2009	172N			XA1AC	NLG TIRE

NOSE TUBE FAILED. TUBE SPLIT ON THE OUTSIDE DIAMETER OF TUBE. THIS TUBE INSTALLED 2-14-08. (K)

CA090209006	CESSNA	LYC		ROLLER	BROKEN
2/6/2009	172N	O320D2J		0523921	TE FLAP

LT FLAP OUTBOARD LOWER ROLLER BROKE COMPLETELY UP CAUSING THE FLAP TO SEIZE INTO THE FLAP TRACK DURING THE FLAPS BEING RETRACTED AFTER TAKEOFF. WITH THE FLAP SEIZE THE FLAP MOTOR CONTINUED TO PULL THE SLAVE FLAP UNTIL THE RETRACT CABLE SNAPPED IN FLIGHT. THE FLAP ROLLER HAS BEEN WELL LUBRICATED EVERY 100 HR OF AIRTIME.

CA090209003	CESSNA	LYC		CONTROL CABLE	FAILED
2/6/2009	172N	O320D2J		051010594	TE FLAPS

RT FLAP RETRACT CABLE P/N 0510105-94 FAILURE DURING FLAP RETRACTION JUST AFTER TAKEOFF. PILOT DISCOVERED DEFECT DURING FLIGHT VISUALLY AND DID NOT HEAR A FAILURE OF THE CABLE OCCUR IN THE CABIN. CABLE FAILURE CAUSED AIRCRAFT TO ROLL/TURN RIGHT IN FLIGHT DUE TO LT FLAP (SLAVE FLAP) FALLING INTO FULL EXTENDED POSITION AND RT FLAP (MASTER FLAP) FULLY RETRACTING. CONTROL OF THE AIRCRAFT WAS REGAINED ONCE PILOT DISCOVERED THE CAUSE OF THE FLIGHT CONTROL DEFECT. THE U/S CABLE BROKE IN THE AREA WHERE THE CABLE ROLLS OVER THE CENTRAL FLAP PULLEY CLUSTER IN THE

MIDDLE OF THE CABIN BEHIND THE HEAD LINER. FURTHER INVESTIGATION IS REQUIRED TO PIN POINT AND EXACT CAUSE OF WHY THIS FAILURE OCCURRED WHICH IS IN PROGRESS. JUDGING FROM MY OWN OPINION IT LOOKS AS IF ONE OF THE 7 OF 19 INTERNAL CABLE BUNDLES HAD FAILED PREVIOUSLY AND THE REST OF THE STANDS LOOK TO HAVE FAILED IN TENSION. THE FAILURE OF THE CABLE DOES NOT OCCUR IN ONLY ONE AREA BUT IN MULTIPLE SPOTS WITHIN APPROX 10 INCH LENGTH. THE AIRCRAFT WILL UNDER GO A FULL ABNORMAL OCCURRENCE INSPECTION AND THE FLAP CONTROL SYSTEM WILL BE DISMANTLED TO INSPECT THE ENTIRE SYSTEM FOR DEFECTS. I WILL KEEP ANY UPDATES POSTED. UPDATE- ONE OF THE LEFT (SLAVE) FLAP ROLLERS FAILED CAUSING THE FLAP TO COMPLETELY SEIZE IN THE FLAP TRACK CAUSING THE MOTOR TO TENSION THE RETRACT CABLE TO THE POINT OF FAILURE. ROLLER P/N 0523921. THE ROLLERS HAVE BEEN LUBRICATED ON THIS ACFT AT THE LEAST EVERY 100 HRS OF AIRTIME AND WE HAVE HAD PAST ISSUES WITH THESE ROLLER FAILING.

2009FA0000246	CESSNA		TUBE	FAILED
3/12/2009	172R		302013460	NLG TIRE

NOSE TUBE FAILED. TUBE SPLIT ON THE OUTSIDE DIAMETER OF TUBE. THIS TUBE INSTALLED 2-25-08. (K)

2009FA0000243	CESSNA		TUBE	FAILED
3/12/2009	172R		302246401	RT MAIN TIRE

RT MAIN TUBE FAILED. TUBE SPLIT ON THE OUTSIDE DIAMETER OF TUBE. THIS TUBE INSTALLED 5-11-07. (K)

2009FA0000244	CESSNA		TUBE	FAILED
3/12/2009	172R		XA1AC	NLG TIRE

NOSE TUBE FAILED. TUBE SPLIT ON THE OUTSIDE DIAMETER OF TUBE. THIS TUBE INSTALLED 6-25-08. (K)

2009FA0000089	CESSNA	LYC	PLUG	LEAKING
2/17/2009	172R	IO360L2A	STD1211	CRANKSHAFT

CRANKSHAFT PLUG IMPROPERLY INSTALLED LEAKING OIL.

2009FA0000207	CESSNA		ACTUATOR	CRACKED
2/24/2009	172RG		98820	LT MLG

AFTER LANDING GEAR WAS RETRACTED IN, IT WAS NOTED THAT THE LT LANDING GEAR ASSY DID NOT FULLY RETRACT INTO THE WELL. THE PILOT WAS INFORMED AND IMMEDIATELY RETURNED TO THE AIRPORT. DURING THE RETRACT TEST, IT WAS FOUND THAT THE LEFT GEAR HUNG UP AT THE MIDWAY POSITION BUT WAS ABLE TO EXTEND BACK DOWN FULLY. UPON REMOVAL OF THE MLG ACTUATOR IT WAS DISCOVERED THAT THE ACTUATOR HSG HAD CRACKED A THE FWD MOST SECURING BOLT HOLE. AFTER FURTHER INVESTIGATION, IT HAS BEEN DETERMINED THAT THIS OCCURRENCE HAS HAPPENED FREQUENTLY TO MANY ACFT IN SAME LOCATION BUT RESULTING IN A GEAR UP LANDING. THE ACTUATOR ASSY IS THE ORIGINAL ACTUATOR THAT CAME WITH THE ACFT AT MFG AND IS DATED 1980. (K)

2009FA0000157	CESSNA	LYC	PIVOT ASSY	CRACKED
3/2/2009	172RG	O360F1A6	244110010	LT MLG

LT MAIN LANDING PIVOT FOUND CRACKED WHEN INSPECTED IAW SEB90-1 REV 3 DURING 100 HOUR INSPECTION.

2009FA0000158	CESSNA	LYC	PIVOT SUPPORT	CRACKED
3/2/2009	172RG	O360F1A6	244110010	MLG

RT MAIN LANDING PIVOT FOUND CRACKED WHEN INSPECTED IAW SEB90-1 REV 3 DURING 100 HOUR INSPECTION.

2009FA0000159	CESSNA	LYC	PIVOT	CRACKED
3/2/2009	172RG	O360F1A6	244110010	LT MLG

LEFT MAIN LANDING PIVOT FOUND CRACKED WHEN INSPECTED IAW SEB90-1 REV 3.

2009FA0000063	CESSNA	LYC	PIN	BROKEN
2/4/2009	172RG	O360F1A6	12802091	NLG DOWNLOCK

ONE OF THE NOSE GEAR DOWNLOCK PINS BROKE, AT THE GROOVE MACHINED INTO THE PIN FOR ROLLPIN RETENTION, ALLOWING THE UNSECURED PORTION OF THE PIN TO JAM THE NOSE GEAR DOWNLOCK HOOKS. THIS RESULTED IN A GEAR UNSAFE INDICATION AND SUBSEQUENT NOSE GEAR COLLAPSE ON LANDING.

CA090115007	CESSNA	LYC	GEAR	WORN
1/7/2009	172RG	O360F1A6		MAGNETO

DURING SCHEDULED 500 HOUR MAGNETO INSPECTION IT WAS NOTED THAT THERE WAS ALOT OF WHITE DUST INSIDE MAGNETO. THEN IT WAS NOTED THAT THE PLASTIC GEAR TEETH WERE PARTIALLY WORN AWAY DUE TO BEING IMPROPERLY MESHED WITH THE PLASTIC DISTRIBUTOR GEAR DUE TO THE GEAR NOT BEING DRIVEN DOWN AND SEATED ON THE MAGNETO SHAFT, BOTH MAGNETOS HAD SAME CONDITION ALTHOUGH ONE WAS FAR WORSE THAN THE OTHER.

2009FA0000241	CESSNA		TUBE	FAILED
3/12/2009	172S		0923150	LT MLG TIRE

LT MAIN TUBE FAILED. TUBE SPLIT ON THE OUTSIDE DIAMETER OF TUBE. THIS TUBE INSTALLED 9-24-07. (K)

2009FA0000227	CESSNA	LYC	GUIDE	CHAFED
2/20/2009	172S	IO360L2A		AILERONS

DURING 100 HR INSP, FOUND LT AND RT AILERON CABLES WORN THROUGH SEVERAL STRANDS AT WING STA 71. THERE IS A CABLE RUB BLOCK INSTALLED ON THE RIB AT THIS STATION. IT IS CAUSING EXCESSIVE WEAR TO THE CABLES. REPLACED BOTH CABLES IN LT AND RT WINGS. P/N 0510105-362, 0510105-364 AND 0510105-365. RECOMMEND INSPECTING THIS AREA CLOSER SINCE IT IS HARD TO SEE AND THERE ARE NO ACCESS PANELS INSTALLED IN THE AREA. INSPECT THE CABLES LOOKING THROUGH THE FLAP PUSHROD HOLE JUST AFT OF THE REAR SPAR. MOVE THE AILERONS TO FULL UP AND FULL DOWN TO SEE THE AREA OF WEAR ON THE CABLE. WE FOUND THIS ON ANOTHER MODEL AS WELL.

CA090130012	CESSNA	LYC	KELLY	GEAR	FAILED
1/18/2009	172S	IO360L2A		MHB6018	STARTER

DURING POST INSPECTION, ENGINE FAILED TO START. INTERMITTENT ENGAGEMENT OF BENDIX. ONCE REMOVED AXIAL MOVEMENT OF INTERNAL PARTS AS COMPARED TO A NEW STARTER SEEMED EXCESSIVE. STARTER WAS REPLACED AND NOT FURTHER ISSUES WERE NOTED.

CA090206001	CESSNA	LYC	CONTROL CABLE	WORN
2/5/2009	172S	IO360L2A	0510105364	AILERON BALANCE

FOUND DURING AN INSPECTION THAT THE AILERON BALANCE CONTROL CABLE WAS WORN AT STATION 71.125.

2009FA0000210	CESSNA	LYC	CYLINDER HEAD	BROKEN
2/18/2009	172S	IO360L2A	AEL85099	ENGINE

ACFT WAS DOING A STEADY CLIMB AFTER TAKEOFF WHEN HE HEARD A LOUD BANG AND LOST RPM. PILOT LANDED THE PLANE BACK ON THE RUNWAY. FUND THE CYLINDER HEAD ON NR 4 CYLINDER COMPLETELY BLOWN OFF. PROBABLE CAUSE COULD POSSIBLY BE MORE DEFECTIVE CYL ASSY THAN CALLED OUT IN AD 08-19-05. THIS CYL ASSY IS OUTSIDE THE SN RANGE. RECOMMEND INSTALLING CYL ASSY. (K)

2009FA0000085	CESSNA	PWA	HINGE	CORRODED
1/24/2009	208B	PT6*	26310461	VERTICAL STAB

DURING THE REMOVAL OF THE RUDDER, LWR STABILIZER HINGE ASSY WAS FOUND WITH HEAVY CORROSION. THIS CORROSION WAS NOT VISIBLE WITHOUT REMOVING THE RUDDER. (K)

CA090127003	CESSNA	PWA	PUMP	FAILED
1/25/2009	208B	PT6A114A	025323150	ENGINE FUEL

AME NOTICED FUEL IN THE DRAIN CAN ON A DAILY CHECK. DURING A SUBSEQUENT GROUND RUN HE FEELS THAT THE ENGINE PERFORMANCE FROM LOW TO HIGH IDLE IS NOT AS FAST AS IT SHOULD BE. THE AIRCRAFT IS GROUNDED AND A REPLACEMENT PUMP ASSY AND SUPPORT PARTS HAVE BEEN DISPATCHED.

CA090126009	CESSNA	PWA	CLEVELANDPNU	TUBE	FAILED
1/23/2009	208B	PT6A114A	40179	302129402	

TIRE WENT FLAT IN HANGAR AFTER AIRCRAFT WAS PUT IN FOR THE NIGHT. WHEEL ASSEMBLY INSPECTED AND SMALL HOLE FOUND IN TUBE. NOTHING FOUND IN TIRE TO CAUSE HOLE.

CA090122010	CESSNA	PWA	CESSNA	PLUNGER	OUT OF POSITION
1/19/2009	208B	PT6A114A	261705713		

PILOT REPORT, EN ROUTE TO YQT AT 9000 FEET, THE UPPER HALF OF REAR CARGO DOOR OPENED IN FLIGHT AND DOOR WARNING ANNUNCIATOR ILLUMINATED. LOWERED FLAPS AND SLOWED AIRCRAFT TO 100 KTS AS PER AFM. REQUESTED DIRECT TO NEAREST AIRPORT (YQK) AND LANDED WITH OUT INCIDENT. VISUALLY INSPECTED DOOR FOR DAMAGE AS A RESULT OF FLYING WHILE OPEN. INSPECTED LOCKING MECHANISM WHICH SEEMED TO WORK PROPERLY. SECURED DOOR AND CONTINUES TO YQT WITHOUT FURTHER PROBLEMS. CARGO DOOR (UPPER) HINGE INSPECTED, DOOR SKIN INSPECTED. UPPER DOOR INSIDE PANEL REMOVED AND LATCHING MECHANISM INSPECTED. NO FAULTS FOUND. INSIDE PANEL REINSTALLED USING EXISTING HARDWARE. SUSPECT, PLUNGER P/N K5SN WAS NOT FULLY IN ITS DETENT WHICH ALLOWED THE OUTER DOOR HANDLE P/N 2617094-16 TO ROTATE OPEN IN FLIGHT AIRCRAFT 6233 HOURS TSN.

CA090206010	CESSNA	PWA	TIRE	DEFLATED
2/5/2009	208B	PT6A114A	40179	MLG

AFTER LOADING THE AIRCRAFT THE LEFT MAIN TIRE WAS FOUND TO BE FLAT. THE TIRE WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE.

CA090206006	CESSNA	PWA	TIRE	DEFLATED
2/4/2009	208B	PT6A114A	40179	MLG

PREFLIGHT INSPECTION SHOWED A FLAT RIGHT TIRE. NO CAUSE FOR THE FLAT HAS BEEN DETERMINED AT THIS TIME.

2009FA0000248	CESSNA	PWA	MOUNT	DEBONDED
3/19/2009	414A	PW545A	99124801	NR 1 ENGINE

DURING NR 1 ENGINE REMOVAL FROM ACFT, FOUND NR 1 ENGINE ISOLATOR MOUNT ALIGNMENT PUCK DEBONDED AND SEPARATED FROM THE MAIN BODY OF THE ISOLATOR. (K)

CA090209001	CESSNA	CONT	ATTACH BOLT	CRACKED
1/23/2009	421	GTSIO520D	NAS464P10LA32	WING

THIS BOLT WAS INSPECTED DURING THE ANNUAL INSPECTION OF THIS AIRCRAFT. IT WAS VISUALLY SEEN TO HAVE WHAT LOOKED LIKE A CRACK ON THE HEAD SURFACE OF THE BOLT. THIS COULD BE MISTAKEN AS DAMAGE FROM A DRIFT OR HAMMER DONE DURING INSTALLATION. THE PART WAS REMOVED FROM SERVICE, AND SENT FOR NDT INSPECTION. THE INSPECTOR PERFORMED BOTH MAG PARTICLE AND PENETRANT INSPECTIONS AND DETERMINE WITH BOTH METHODS THAT THE BOLT IS IN FACT CRACKED. THEY ARE GUESSING THE CRACK DEPTH TO BE APPROXIMATELY .020-.030 INCH DEEP. THEY ALSO SUGGESTED THAT THIS COULD HAVE BEEN A MANUFACTURING DEFECT CAUSED DURING ANY HARDENING PROCESS THAT MAY HAVE BEEN PERFORMED. THIS PART IS AVAILABLE FOR FURTHER INSPECTION. THE TIME ON THE PART HAPPENS TO BE THE TOTAL TIME OF THE AIRCRAFT AS THERE IS NO RECORD IN THE LOGS WHICH DATE BACK TO 2001 (THE ONLY LOGS AVAILABLE AT TIME OF REPORT) WHICH INDICATES BOLT HAS BEEN REPLACED.

2009F00016	CESSNA	GEARBOX	LOCKED
2/24/2009	421B		LT MLG

LANDING GEAR WOULD NOT EXTEND ELECTRICALLY OR BY UTILIZING THE EMERGENCY GEAR EXTENSION SYSTEM. THE ACFT LANDED GEAR UP. POST INCIDENT INVESTIGATION WAS CONDUCTED ON SCENE AND A COMPLETE INSPECTION OF THE LANDING GEAR SYS WAS CONDUCTED WITH NO FINDINGS AS TO THE CAUSE. THE ONLY COMPONENT THAT WAS NOT DISASSEMBLED WAS THE LANDING GEARBOX. SUSPECT THAT FOREIGN MATTER BECAME LODGED IN THE GEARBOX PREVENTING NORMAL OPERATION. HOWEVER, THE GEAR SYSTEM OPERATED NORMALLY BOTH ELECTRICALLY AND MANUALLY AFTER THE INCIDENT. SUSPECT FOREIGN MATTER BECAME DISLODGED DURING INCIDENT FORCES OR SUBSEQUENT HANDLING OF THE AIRCRAFT.

2009FA0000193	CESSNA		LINE	CUT
9/2/2008	425			PNEUMATIC SYS

PREVIOUSLY REPORTED TO MFG, DURING THE SUPPLEMENTAL INSP FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING SUPPLEMENTAL INSP NR 57-10-14 CARRY-THRU FWD SPAR CAP, FOUND MULTIPLE PNEUMATIC LINES SPLICED TOGETHER WITH STANDARD MIL-SPEC HOSE ON LT AND RT WINGS. LINES NOT AVAILABLE FROM MFG. FABRICATED LINES FROM PN R3/4X049-T3, WWT-700/4X.500, WWT-700/4X.625 AND R3/8X035-50. INSTALLED LINES AND UNION BACK TO ORIGINAL IPC 36-10-00 CONFIGURATION.

2009FA0000194	CESSNA		LINE	CUT
3/9/2009	425			ZONE 500

PERFORMED SUPPLEMENTAL INSP FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING SUP INSP NR 57-10-14 CARRY-THRU FWD SPAR CAP, FOUND MULTIPLE PNEUMATIC LINES SPLICED TOGETHER WITH STANDARD MIL-SPEC HOSE ON LT AND RT WINGS. LINES NOT AVAILABLE FROM MFG. FABRICATED LINES FROM PN R3/4X049-T3, WWT-700/4X.500, WWT-700/4X.625 AND R3/8X035-50. INSTALLED LINES AND UNION BACK TO ORIGINAL IPC 36-10-00 CONFIGURATION.

2009FA0000195	CESSNA		LINE	CUT
3/9/2009	425			ZONE 500

PERFORMED SUPPLEMENTAL INSP FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING SUPPLEMENTAL INSP NR 57-10-14 CARRY-THRU FWD SPAR CAP FOUND MULTIPLE PNEUMATIC LINES SPLICED TOGETHER WITH STANDARD MIL-SPEC HOSE ON LT AND RT WINGS. LINES NOT AVAILABLE FROM MFG. FABRICATED LINES FROM PN R3/4X049-T3, WWT-700/4X.500, WWT-700/4X.625 AND R3/8X035-50. INSTALLED LINES AND UNION BACK TO ORIGINAL IPC 36-10-00 CONFIGURATION.

2009FA0000196	CESSNA		LINE	CUT
8/4/2008	425			ZONE 500

PREVIOUSLY REPORTED DURING SUPPLEMENTAL INSP FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING SUP INSP NR 57-10-14 CARRY-THRU FWD SPAR CAP FOUND MULTIPLE PNEUMATIC LINES SPLICED TOGETHER WITH STANDARD MIL-SPEC HOSE ON LT AND RT WINGS. LINES NOT AVAILABLE FROM MFG. FABRICATED LINES FROM PN R3/4X049-T3, WWT-700/4X.500, WWT-700/4X.625 AND R3/8X035-50. INSTALLED LINES AND UNION BACK TO ORIGINAL IPC 36-10-00 CONFIGURATION.

2009FA0000178	CESSNA	CESSNA	TORQUE TUBE	CORRODED
3/5/2009	425		58330119	ZONE 300

REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THE SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RUDDER TORQUE TUBE RUSTED DURING SUPPLEMENTAL INSPECTION 27-20-04. REPLACED TORQUE TUBE PN 5833011-9.

2009FA0000179	CESSNA		FITTING	CORRODED
3/5/2009	425		081135010	ZONE 500

REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THEIR SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND LT LWR FWD FITTING CORRODED. REPLACED FITTING PN 0811350-10.

2009FA0000180	CESSNA		FITTING	CORRODED
3/5/2009	425		081135010	ZONE 600

REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THEIR SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RT LOWER FWD FITTING CORRODED. REPLACED FITTING PN 0811350-10.

2009FA0000148	CESSNA		TRUSS	CORRODED
2/27/2009	425		595105137	RT WING

DURING SUPPLEMENTAL INSP 54-10-02 FOUND LT WING INBD TRUSS ASSLY PN 5951051-37 SEVERELY PITTED.

SENT OUT FOR REPAIR.

2009FA0000165	CESSNA	HINGE	CORRODED
3/3/2009	425	51115128	ZONE 800

REPORTED TO MFG DURING SUPPLEMENTAL INSPECTION FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING SUPPLEMENTAL INSPECTION NR 52-10-01 CABIN DOOR RETENTION FOUND HARDWARE UNABLE TO REMOVE FROM UPPER CABIN DOOR DUE TO CORROSION. DRILLED OFF UPPER AND LOWER CABIN DOOR HINGE SUPPORTS TO REMOVE DOOR FOR INSPECTION. INSTALLED TWO NEW HINGE SUPPORTS. REPLACED HARDWARE, BUSHINGS, STAT-O-SEALS, BEARINGS, BOLTS, AND NUTS.

2009FA0000171	CESSNA	STRUT	SCRATCHED
8/4/2008	425	59411302	ZONE 700

PREVIOUSLY REPORTED DURING SUPPLEMENTAL INSPECTION FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. LT MLG PISTON BARREL HAS DEEP SCRATCHES IAW SUPPLEMENTAL INSPECTION NR 32-10-06. REPLACE PISTON BARREL WITH PN 5941132-8.

2009FA0000160	CESSNA	HINGE	CORRODED
9/2/2008	425	51115128	ZONE 800

PREVIOUSLY REPORTED TO MFG DURING SUPPLEMENTAL INSPECTION FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING SUPPLEMENTAL INSP NR 52-10-01 CABIN DOOR RETENTION FOUND HARDWARE UNABLE TO REMOVE FROM UPPER CABIN DOOR DUE TO CORROSION. DRILLED OFF UPPER AND LOWER CABIN DOOR HINGE SUPPORTS TO REMOVE DOOR FOR INSPECTION. INSTALLED TWO NEW HINGE SUPPORTS. REPLACED HARDWARE, BUSHINGS, STAT-O-SEALS, BEARINGS, BOLTS, AND NUTS.

2009FA0000161	CESSNA	HINGE	CORRODED
12/17/2008	425	51115128	ZONE 800

PREVIOUSLY REPORTED TO MFG DURING SUPPLEMENTAL INSP FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING SUPPLEMENTAL INSPECTION NR 52-10-01 CABIN DOOR RETENTION FOUND HARDWARE UNABLE TO REMOVE FROM UPPER CABIN DOOR DUE TO CORROSION. DRILLED OFF UPPER AND LOWER CABIN DOOR HINGE SUPPORTS TO REMOVE DOOR FOR INSPECTION. INSTALLED TWO NEW HINGE SUPPORTS. REPLACED HARDWARE, BUSHINGS, STAT-O-SEALS, BEARINGS, BOLTS, AND NUTS.

2009FA0000162	CESSNA	HINGE	CORRODED
8/4/2008	425	51115128	ZONE 800

PREVIOUSLY REPORTED DURING SUPPLEMENTAL INSPECTION FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING SUPPLEMENTAL INSPECTION NR 52-10-01 CABIN DOOR RETENTION FOUND HARDWARE UNABLE TO REMOVE FROM UPPER CABIN DOOR DUE TO CORROSION. DRILLED OFF UPPER AND LOWER CABIN DOOR HINGE SUPPORTS TO REMOVE DOOR FOR INSPECTION. INSTALLED TWO NEW HINGE SUPPORTS PART NUMBER 5111512-8. REPLACED HARDWARE, BUSHINGS, STAT-O-SEALS, BEARINGS, BOLTS, AND NUTS.

2009FA0000163	CESSNA	HINGE	CORRODED
3/3/2009	425	51115128	ZONE 800

PREVIOUSLY REPORTED TO MFG DURING SUPPLEMENTAL INSPECTION FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING SUPPLEMENTAL INSPECTION NR 52-10-01 CABIN DOOR RETENTION FOUND HARDWARE UNABLE TO REMOVE FROM UPPER CABIN DOOR DUE TO CORROSION. DRILLED OFF UPPER AND LOWER CABIN DOOR HINGE SUPPORTS TO REMOVE DOOR FOR INSPECTION. INSTALLED TWO NEW HINGE SUPPORTS PN 5111512-8. REPLACED HARDWARE, BUSHINGS, STAT-O-SEALS, BEARINGS, BOLTS, AND NUTS.

2009FA0000175	CESSNA	PISTON	CORRODED
8/4/2008	425	59411361	MLG STRUT

PREVIOUSLY REPORTED TO MFG DURING SUPPLEMENTAL INSPECTION FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING DISASSEMBLY AND INSPECTION IAW SUPPLENTAL INSPECTION NR 32-10-06 FOUND DEEP SCRATCHES AND CORROSION ON THE ISOLATION PISTON PN 5941136-1. REPLACED ISOLATION PISTON.

2009FA0000167	CESSNA	ACTUATOR	CRACKED

8/4/2008	425	57151608	ELEVATOR TRIM

PREVIOUSLY REPORTED DURING SUPPLEMENTAL INSPECTIONS FOR CONTINUED AIRWORTHINESS FOR THE AIRPLANE. DURING REASSEMBLE OF ELEVATOR TRIM TAB ACUTATOR IAW MM 27-30-02 FOUND BARREL CRACKED AND VERIFIED BY EDDY CURRENT INSPECTION. REPLACED ACTUATOR WITH PN 5715160-8.

2009FA0000168	CESSNA	ACTUATOR	CORRODED
3/3/2009	425	57151608	ELEVATOR TRIM

REPORTED DURING SUPPLEMENTAL INSPECTIONS FOR CONTINUED AIRWORTHINESS FOR THE AIRPLANE. DURING INSPECTION OF ELEVATOR TRIM TAB ACUTATOR IAW MM 27-30-02 FOUND BARREL CORRODED AND PITTED. REPLACED ACTUATOR WITH PN 5715160-8.

2009FA0000169	CESSNA	ACTUATOR	CORRODED
3/3/2009	425	57151608	ELEVATOR TRIM

REPORTED DURING SUPPLEMENTAL INSPECTIONS FOR CONTINUED AIRWORTHINESS FOR THE AIRPLANE. DURING INSPECTION OF ELEVATOR TRIM TAB ACUTATOR IAW MM 27-30-02 FOUND BARREL CORRODED. REPLACED ACTUATOR WITH PN 5715160-8.

2009FA0000170	CESSNA	ACTUATOR	CORRODED
3/3/2009	425	57151608	ELEVATOR TRIM

REPORTED DURING SUPPLEMENTAL INSPECTIONS FOR CONTINUED AIRWORTHINESS FOR THE AIRPLANE. DURING INSPECTION OF ELEVATOR TRIM TAB ACUTATOR IAW MM 27-30-02 FOUND BARREL CORRODED. REPLACED ACTUATOR WITH PN 5715160-8.

2009FA0000164	CESSNA	HINGE	CORRODED
3/3/2009	425	51115128	ZONE 800

PREVIOUSLY REPORTED TO MFG DURING SUPPLEMENTAL INSPECTION FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING SUPPLEMENTAL INSPECTION NR 52-10-01 CABIN DOOR RETENTION FOUND HARDWARE UNABLE TO REMOVE FROM UPPER CABIN DOOR DUE TO CORROSION. DRILLED OFF UPPER AND LOWER CABIN DOOR HINGE SUPPORTS TO REMOVE DOOR FOR INSPECTION. INSTALLED TWO NEW HINGE SUPPORTS. REPLACED HARDWARE, BUSHINGS, STAT-O-SEALS, BEARINGS, BOLTS, AND NUTS.

2009FA0000172	CESSNA	STRUT	WORN
2/12/2009	425	59411302	LT MAIN GEAR

PREVIOUSLY REPORTED DURING SUPPLEMENTAL INSPECTION FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. LT MLG PISTON BARREL HAS BARE METAL SPOTS FOUND DURING SUPPLEMENTAL INSP NR 32-10-06. REPAIRED PISTON BARREL WITH PROTECTIVE COATING.

2009FA0000177	CESSNA	STRUT	WORN
2/12/2009	425	59411302	ZONE 700

PREVIOUSLY REPORTED DURING SUPPLEMENTAL INSPECTION FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING DIASSEMBLY AND INSPECTION IAW SUPPLENTAL INSPECTION NR 32-10-06 FOUND PROTECTIVE COATING WORN OFF PISTON BARREL PN 5941132-8. REPAIRED PISTON BARREL WITH PROTECTIVE COATING.

2009FA0000149	CESSNA	TRUSS	CORRODED
2/27/2009	425	595105138	RT WING

DURING SUPPLEMENTAL INSPECTION 54-10-02 FOUND RT WING INBD TRUSS ASSY PN 5951051-38 SEVERELY PITTED. SENT OUT FOR REPAIR.

2009FA0000150	CESSNA	TRUSS	CORRODED
2/27/2009	425	595105137	LT WING

DURING SUPPLEMENTAL INSPECTION 54-10-02 FOUND LT WING INBD TRUSS ASSY PN 5951051-37 SEVERELY PITTED. SENT OUT FOR REPAIR.

2009FA0000151	CESSNA	TRUSS	CORRODED
2/27/2009	425	595105138	RT WING

DURING SUPPLEMENTAL INSPECTION 54-10-02 FOUND RT WING INBD TRUSS ASSY PN 5951051-38 SEVERELY PITTED. SENT OUT FOR REPAIR.

2009FA0000152	CESSNA	TRUSS	CORRODED
2/27/2009	425	595105137	LT WING

DURING SUPPLEMENTAL INSPECTION 54-10-02 FOUND LT WING INBD TRUSS ASSY PN 5951051-37 SEVERELY PITTED. SENT OUT FOR REPAIR.

2009FA0000153	CESSNA	TRUSS	CORRODED
2/27/2009	425	595105138	RT WING

DURING SUPPLEMENTAL INSPECTION 54-10-02 FOUND RT WING INBD TRUSS ASSY PN 5951051-38 SEVERELY PITTED. SENT OUT FOR REPAIR.

2009FA0000154	CESSNA	TRUSS	CORRODED
2/27/2009	425	595105135	LT WING

DURING SUPPLEMENTAL INSPECTION 54-10-02 FOUND LT WING OTBD TRUSS ASSY PN 5951051-35 SEVERELY PITTED. SENT OUT FOR REPAIR.

2009FA0000155	CESSNA	TRUSS	CORRODED
2/27/2009	425	595105135	LT WING

DURING SUPPLEMENTAL INSPECTION 54-10-02 FOUND LT WING OTBD TRUSS ASSY PN 5951051-35 SEVERELY PITTED. SENT OUT FOR REPAIR.

2009FA0000128	CESSNA	MAST	RUSTED
2/25/2009	425	58330119	RUDDER

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN THE SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. FOUND RUDDER TORQUE TUBE RUSTED DURING INSPECTION OF SUPPLEMENTAL INSPECTION 27-20-04. REPLACED TORQUE TUBE PN 5833011-9.

2009FA0000140	CESSNA	BELLCRANK	CRACKED
9/2/2008	425	59420011	ZONE 700

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR STEERING BELLCRANK PN 5942001-1 FAILED NDT IAW SUPPLEMENTAL INSPECTION 32-50-00. REPLACED BELLCRANK WITH PN 5942001-1.

2009FA0000118	CESSNA	FITTING	MISREPAIRED
2/25/2009	425	082255030	ZONE 600

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE RT WING UPPER FWD ATTACH FITTING PN 0822550-30 HAD UNAPPROVED STEEL BUSHING UNABLE TO PERFORM NDT INSPECTION. REPLACED WING FITTING.

2009FA0000119	CESSNA	FITTING	CORRODED
2/25/2009	425	081135010	ZONE 600

PREVIOUSLY REPORTED IAW INSTRUCTIONS BY MFG SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. THE RT WING LWR FWD ATTACH FITTING PN0811350-10 FAILED NDT INSPECTION. REPLACED WING FITTING.

2009FA0000134	CESSNA	FORK	CRACKED
12/17/2008	425	58420005	NLG

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS

FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR FORK FAILED NDT IAW SUPPLEMENTAL INSPECTION 32-20-02. REPLACED NOSE FORK ASSEMBLY PN 5842000-5.

2009FA0000135	CESSNA	PWA	FORK	CRACKED
2/26/2009	425	PT6*	58420005	ZONE 700

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR FORK FAILED NDT IAW SUPPLEMENTAL INSPECTION 32-20-02. REPLACED NOSE FORK ASSEMBLY PN 5842000-5.

2009FA0000136	CESSNA	PWA	FORK	CRACKED
2/26/2009	425	PT6*	58420005	ZONE 700

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR FORK FAILED NDT IAW SUPPLEMENTAL INSPECTION 32-20-02. REPLACED NOSE FORK ASSEMBLY PN 5842000-5.

2009FA0000137	CESSNA	PWA	FORK	CRACKED
2/26/2009	425	PT6*	58420005	ZONE 700

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR FORK FAILED NDT IAW SUPPLEMENTAL INSPECTION 32-20-02. REPLACED NOSE FORK ASSEMBLY PN 5842000-5.

2009FA0000141	CESSNA	PWA	BELLCRANK	CRACKED
8/4/2008	425	PT6*	59420011	NLG STEERING

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR STEERING BELLCRANK PN 5942001-1 FAILED VISUAL AND NDT INSPECTION IAW SUPPLEMENTAL INSPECTION 32-50-00. REPLACED BELLCRANK WITH PN 5942001-1.

2009FA0000142	CESSNA	PWA	BELLCRANK	CRACKED
2/26/2009	425	PT6*	59420011	NLG STEERING

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR STEERING BELLCRANK PN 5942001-1 FAILED VISUAL AND NDT INSPECTION IAW SUPPLEMENTAL INSPECTION 32-50-00. REPLACED BELLCRANK WITH PN 5942001-1.

2009FA0000143	CESSNA	PWA	BELLCRANK	CRACKED
2/26/2009	425	PT6*	59420011	NLG STEERING

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR STEERING BELLCRANK PN 5942001-1 FAILED VISUAL AND NDT INSPECTION IAW SUPPLEMENTAL INSPECTION 32-50-00. REPLACED BELLCRANK WITH PN 5942001-1.

2009FA0000144	CESSNA	PWA	BELLCRANK	CRACKED
2/26/2009	425	PT6*	59420011	NLG STEERING

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR STEERING BELLCRANK PN 5942001-1 FAILED VISUAL AND NDT INSPECTION IAW SUPPLEMENTAL INSPECTION 32-50-00. REPLACED BELLCRANK WITH PN 5942001-1.

2009FA0000138	CESSNA	PWA	STRUT	CRACKED
2/26/2009	425	PT6*	5842000230	NLG

PREVIOUSLY REPORTED TO MFG IAW INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR FORK FAILED NDT IAW SUPPLEMENTAL INSPECTION 32-20-02. REPLACED NOSE FORK ASSEMBLY PN 5842000-230.

2009FA0000176	CESSNA	PWA	CESSNA	PISTON	CORRODED
8/4/2008	425	PT6*		59411361	STRUT ASSY

PREVIOUSLY REPORTED DURING SUPPLEMENTAL INSPECTION FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. DURING DIASSEMBLY AND INSPECTION IAW SUPPLENTAL INSPECTION NR 32-10-06 FOUND DEEP SCRATCHES AND CORROSION ON THE ISOLATION PISTON PN 5941136-1. REPLACED ISOLATION PISTON.

2009FA0000139	CESSNA	PWA	FORK	CRACKED
2/26/2009	425	PT6A60A	58420005	NLG

PREVIOUSLY REPORTED TO MFG INSTRUCTIONS STIPULATED IN SUPPLEMENTAL INSPECTION DOCUMENTS FOR CONTINUED AIRWORTHINESS OF THE AIRPLANE. NOSE GEAR FORK FAILED NDT IAW SUPPLEMENTAL INSPECTION 32-20-02. REPLACED NOSE FORK ASSEMBLY PN 5842000-5.

2009FA0000183	CESSNA	BEARING	FAILED
3/6/2009	441	MS244624	RUDDER

DURING THE SID INSPECTION THE RUDDER WAS REMOVED. VISUALLY DISCOVERED THE TOP RUDDER PIVOT BEARING FALLING APART. THERE IS NO REQUIREMENT TO REMOVE THE RUDDER EXCEPT DURING THE SID INSPECTION CALLED OUT IN THE LATEST MANUAL REVISION 16. COULD NOT BE DETECTED WITHOUT RUDDER REMOVAL.

2009FA0000184	CESSNA	FRAME	CRACKED
3/6/2009	441	511130915	FUSELAGE

DURING THE SID INSPECTION THE INTERIOR UPHOLSTERY WAS REQUIRED TO BE REMOVED. VISUALLY FOUND THE FUSELAGE DOOR FRAME STRUCTURE WHERE THE AFT DOOR SUPPORT CABLE MOUNTS TO BE CRACKED. THERE IS NO REQUIREMENT TO REMOVE THE SIDE WALL TRIM EXCEPT DURING THE SID INSPECTION CALLED OUT IN THE LATEST MANUAL REVISION 16. THIS COULD NOT BE DETECTED WITHOUT UPHOLSTERY REMOVAL.

2009FA0000185	CESSNA	CESSNA	HINGE	DAMAGED
3/6/2009	441		5233001952330011	RUDDER

DURING THE SID INSPECTION THE RUDDER WAS REMOVED. VISUALLY DISCOVERED THE RUDDER BOTTOM HINGE BRACKET HOLES THAT BOLT TO THE BEARING TO BE EXCESSIVELY ELONGATED.

2009FA0000186	CESSNA	HINGE	DAMAGED
3/6/2009	441	513302037	RUDDER

DURING THE SID INSP THE RUDDER WAS REMOVED. VISUALLY DISCOVERED THE RUDDER TOP HINGE BRACKET HOLES THAT BOLT TO THE BEARING TO BE EXCESSIVELY ELONGATED. THERE IS NO REQUIREMENT TO REMOVE THE RUDDER EXCEPT DURING THE SID INSP CALLED OUT IN THE LATEST MANUAL REVISION 16. THIS WOULD NOT BE DETECTED WITHOUT RUDDER REMOVAL.

2009FA0000187	CESSNA	MOUNT BRACKET	CRACKED
3/6/2009	441	581304412EA	NLG ACTUATOR

DURING THE SID INSP, THE NLG WAS REMOVED FOR INSPECTION. THE RETRACT ACTUATOR UPPER MOUNT WAS FOUND CRACKED WHICH ALLOWED THE DOWNLOCK OVER-CENTER TENSION TO BE REDUCED. THERE IS NO REQUIREMENT TO REMOVE THE NLG EXCEPT DURING THE SID INSPECTION CALLED OUT IN THE LATEST MANUAL REVISION 16. IT WOULD HAVE BEEN VERY DIFICULT TO FIND THIS PROBLEM WITHOUT REMOVING THE NLG.

2009FA0000188	CESSNA	DRAG BRACE	LOOSE
3/6/2009	441		NLG

DURING THE SID INSP, THE NLG WAS REMOVED FOR INSP. THE DRAG BRACE LT AND RT MOUNT BOLT HOLES WERE ALL FOUND EXCESSIVLY ELONGATED REQUIRING STRUCTURAL REPAIR. SUSPECT DAMAGE WAS CAUSED BY NORMAL TOWING OVER THE 9268 HOURS. THIS WOULD NOT BE DETECTED UNLESS THE NOSE GEAR IS REMOVED AS REQUIRED BY THE SID INSP CALLED OUT IN THE LATEST MANUAL REVISION 16.

2009FA0000190	CESSNA	HINGE	CORRODED

3/6/2009	441		PAX DOOR

DURING THE SID INSP, THE UPPER CABIN DOOR WAS REMOVED FOR INSP. THE HINGE PIVOT BOLTS COULD NOT BE REMOVED BECAUSE THE BOLTS, BUSHINGS AND BEARINGS WERE ALL RUSTED SOLID. THIS CAUSED THE BOLTS TO PIVOT IN THE FUSELAGE STRUCTURE INSTEAD OF THE BEARINGS CAUSING EXCESSIVE WEAR OF THE FUSELAGE DOOR MOUNT HOLES. THERE IS NO REQUIREMENT TO REMOVE THE UPPER CABIN DOOR EXCEPT DURING THE SID INSP, CALLED OUT IN THE LATEST MANUAL REVISION 16.

2009FA0000213	CESSNA	CHANNEL	CRACKED
3/11/2009	441	5754429257544302	

DURING THE SID INSP, THE ENGINES AND TRUSS ASSEMBLIES WERE REMOVED FOR INSPECTION. THE LT ENG INBD TRUSS ATTACH POINT SUPER STRUCTURE AFT OF THE FIREWALL WAS FOUND CRACKED. ACCESS TO AREA IS LIMITED.

2009FA0000214	CESSNA	CHANNEL	CRACKED
3/11/2009	441	57111454	PAX DOOR

DURING THE SID INSP, THE LOWER DOOR WAS REMOVED FOR INSPECTION. FOUND LOWER CABIN DOOR AFT CHANNEL SUPPORTING STEP HINGE CRACKING OUT OF ACCESS HOLES. LOWER CABIN DOOR FRAME DOOR HANDLE PIVOT BOLT HOLE IS WORN OUT. CABIN DOOR FRAME IS CRACKING NEAR THE FWD END OF THE LOWER CABIN DOOR END CAP. FOUND THAT THE CABIN DOOR SKIN IS CRACKED.

2009FA0000215	CESSNA	SKIN	DEBONDED
3/11/2009	441		HORIZONTAL STAB

DURING THE SID INSP, FOUND AREA OF DE-BOND IN HORIZONTAL STABILIZER. REPAIRED DE-BOND AREA BETWEEN PN 5732133-2, STRINGERS AND HORIZONTAL STABILIZER LOWER SKIN PANEL PN 5732130-17 AND -18 IAW FORM 8110-3 INSTRUCTIONS. THIS DE-BONDING WOULD NOT HAVE BEEN FOUND WITHOUT DOING THE SID INSPECTION.

2009FA0000216	CESSNA	HINGE	DAMAGED
3/11/2009	441		PAX DOOR

DURING THE SID INSP THE UPPER CABIN DOOR WAS REMOVED FOR INSP. THE HINGE PIVOT BOLTS COULD NOT BE REMOVED BECAUSE THE BOLTS, BUSHINGS AND BRGS WERE ALL RUSTED SOLID. THIS CAUSED THE BOLTS TO PIVOT IN THE FUSELAGE STRUCTURE INSTEAD OF THE BEARINGS CAUSING EXCESSIVE WEAR OF THE FUSELAGE DOOR MOUNT HOLES. THERE IS NO REQUIREMENT TO REMOVE THE UPPER DOOR EXCEPT DURING THE SID INSP CALLED OUT IN THE LATEST MANUAL REVISION NR 16.

2009FA0000217	CESSNA	SKIN	CORRODED
3/11/2009	441		WING L/E

DURING THE SID INSP THE WING SURFACE DE-ICE BOOTS WERE REQUIRED TO BE REMOVED. AFTER REMOVAL FOUND LARGE AREAS OF MODERATE CORROSION ON THE RT WING INBD AND OTBD SECTIONS. A SMALLER AREA WAS FOUND ON THE LT WING L/E.

2009FA0000259	CESSNA	BULKHEAD	CRACKED
3/27/2009	441	57111434345	FUSELAGE

DURING THE SID INSP, THE FUSELAGE BULKHEAD AT THE FWD OPENING OF THE CABIN DOOR AND THE SECONDARY BULKHEAD WERE FOUND CRACKED, BUCKLED AND DISTORTED. THIS WAS ONLY FOUND BECAUSE THE SID INSP REQUIRES REMOVAL OF THE DOOR BAYONET RECEPTACLES FOR INSP AND THE REMOVAL OF INTERIOR SIDEWALL UPHOLSTERY.

2009FA0000212	CESSNA	GARRTT	WINDSHIELD	CRACKED
3/11/2009	441	TPE331*	991100312	COCKPIT

DURING THE SID INSP BOTH WINDSHIELDS WERE INSPECTED USING A PRISM, BOTH WINDSHIELDS WERE FOUND CRACKED. THE CRACK CRITERIA IN THE LATEST MANUAL REVISION IS - NO CRACKS ALLOWED. IF USING THE PREVIOUS MANUAL REVISION (OR OLDER REVISION) THESE CRACKS ARE ACCEPTABLE.

2009FA0000182	CESSNA	GARRTT	STRUCTURE	CRACKED
3/6/2009	441	TPE33110N	581201214	HORIZONTAL STAB

DURING THE SID INSP, THE HORIZONTAL STABILIZER WAS REMOVED. VISUALLY DISCOVERED THE SHELF UNDER THE HORIZ STAB WAS CRACKED AT THE AFT END WHERE IT IS RIVETED TO THE AFT HORIZ STAB MOUNT BULKHEAD.

2009FA0000206	CESSNA	PWA	MOTOR	FAILED
2/18/2009	560CESSNA	JT15D5	MB38A1	BLOWER

THE BLOWER MOTOR FAILED INTERNALLY SENDING SMOKE INTO THE CABIN. AC WAS AT ALTITUDE WHEN SMOKE CAME OUT OF THE GASPER SYS. ACFT DESCENDED TO A LOWER ALTITUDE AND THE CABIN CLEARED. (K)

2009FA0000173	CESSNA	PWA	MOTOR	BURNED OUT
2/17/2009	560CESSNA	JT15D5	MB38A1	OVERHEAD BLOWER

WHILE ENROUTE AT 41000 FT HEAVY ACRID BLACK SMOKE THE INUNDATED CABIN. OXYGEN MASKS WERE DEPLOYED AND AN EMERGENCY DESCENT WAS INITIATED. ACFT WAS LANDED AT THE NEAREST SUITABLE AIRPORT WITHOUT INCIDENT. ON FEB 21ST, MX IDENTIFIED THE MALFUCTION AS A OVERHEAD BLOWER FAN AND REPLACED WITH NEW FAN ASSY. THE ACFT WAS SUBSQUENTLY RETURNED TO ITS HOME BASE FOR CLEANING AND INTERIOR RESTORATION.

2009FA0000077	CESSNA		AUTOPILOT SYS	FAILED
11/16/2007	650			

AUTOPILOT WILL NOT INITIATE, UNABLE TO ENGAGE SYS.

CA090204011	CESSNA		ACTUATOR	FAILED
1/13/2008	680CE			STAB TRIM

DURING PREFLIGHT, IT WAS DISCOVERED THAT THE HORIZONTAL STABILIZER TRIM POSITION INDICATION DID NOT CHANGE TO WHITE WHEN TRIM WAS IN TAKEOFF POSITION AREA. NO TAKEOFF MESSAGE REMAINED ON IN THE EICAS AND THE RED STAB NO TAKEOFF ANNUNCIATOR ILLUMINATED WHEN THRUST LEVER TAKEOFF POSITION WAS SELECTED. THE HORIZONTAL STABILIZER TRIM ACTUATOR (HSTA) WAS REPLACED BUT THE REPLACEMENT FAILED THE INDICATION TEST AS THE STAB NO TAKEOFF ANNUNCIATOR WOULD NOT ILLUMINATE. ANOTHER HSTA (OVERHAULED) WAS INSTALLED AND TESTED SERVICEABLE.

2009FA0000191	CESSNA		CYLINDER HEAD	CRACKED
3/8/2009	M337B		2947171	MLG STRUT

WHILE INVESTIGATING A HYD FLUID LEAK IN THE NOSE WHEEL WELL, LOCATED CRACK IN THE RETRACT CYLINDER HEAD BETWEEN THE ATTACH BOLT/BUSHING BOSS AND THE BARREL THREADS, IN THE UPPER RADIUS. THERE WERE NO TOOL MARKS TO CREATE A STRESS RISER, AND NO HARD LANDINGS NOTED. THIS WAS NOT VISIBLE, WITHOUT REMOVING THE RETRACT CYLINDER, AS IT WAS HIDDEN BY THE ATTACH STRUCTURE IN THE WHEEL WELL. APPROX 800 FLIGHT HOURS AND 19 YEARS SINCE LAST CYLINDER REMOVAL/RE-SEAL.

2009FA0000146	CESSNA		TORQUE LINK	BENT
2/12/2009	P210N		12434252	LANDING GEAR

WE ARE FINDING SEVERAL DEFECTIVE UPPER TORQUE LINKS BENT, CRACKED OR BOTH WITH INCREASING POTENTIAL FOR FAILURE. (K)

2009FA0000240	CESSNA	CONT	OIL FILTER	LOOSE
3/23/2009	P337H	TSIO360*	CH481081	ENGINE

PILOT REPORTED LOW OIL PRESSURE DURING TAKEOFF PHASE OF FLIGHT FOLLOWED BY NO OIL PRESSURE INDICATION SHORTLY AFTER. PILOT THOUGHT THE LOW OIL PRESSURE WAS AN INDICATION PROBLEM. UPON INSPECTION AND FUNCTIONAL CHECK OF PRESSURE GAUGE, THE INDICATOR WAS RULED OUT. A MANUAL GAUGE WAS CONNECTED TO THE ENGINE AND A FUNCTIONAL CHECKED PERFORMED. THE OIL PRESSURE SYS INITIALLY MADE 20 POUNDS PRESSURE FOLLOWED BY A DROP TO AROUND 10 POUNDS WHEN ENGINE RPM WAS

SLIGHTLY INCREASED. THE OIL FILTER PN CH48108-1 WAS REMOVED FOR INSPECTION. UPON EXAMINATION THE RELIEF VALVE WAS FOUND DISPLACED AND LOOSE (FLOATING) ABOUT THE FILTER. A NEW FILTER WAS INSTALLED AND A FUNCTIONAL CHECKED PERFORMED AND OIL PRESSURE SYS WAS NORMAL.

2009FA0000156	CESSNA	PIVOT	SHEARED
3/2/2009	R182	22411143	RT MLG

DURING SLOW FLIGHT MANEUVERS THE INSTRUCTOR NOTICED THE GREEN GEAR SAFE LIGHT WAS OUT. THE STUDENT OBSERVED THE LEFT GEAR WAS HANGING OUT AND SWINGING. THE GEAR WAS CYCLED BUT THE GEAR REMAINED HANGING. AFTER CONTACTING DISPATCH THE INSTRUCTOR ELECTED TO RETRACT THE RIGHT AND NOSE GEARS AND LAND GEAR UP. MAINTENANCE FOUND THE LEFT GEAR PIVOT HAD SHEARED AT THE SPLINE SHAFT. THE RIGHT GEAR WAS REMOVED AND ZYGLO CHECKED. MAINTENANCE FOUND THE RIGHT PIVOT WAS CRACKED 3/4 AROUND THE SPLINE SHAFT, NEARING COMPLETE FAILURE. THIS CRACK AREA IS NOT NORMALLY ACCESSIBLE DURING REGULAR INSPECTIONS WITHOUT REMOVING THE GEAR ACTUATOR. CESSNA HAS BEEN NOTIFIED OF THE PROBLEM. AT THIS TIME THERE ARE NO REPLACEMENT STEEL PIVOTS AVAILABLE FOR THESE AIRCRAFT.

CA090206005	CESSNA	LYC	CARBURETOR	MALFUNCTIONED
2/5/2009	R182	O540J3C5	LW1596070	ENGINE

DURING START AND RUNUP, NR 3 CYLINDER WAS RELUCTANT TO FIRE UNLESS THE MIXTURE WAS LEANED ALMOST TO IDLE CUTOFF. ONCE THE ENGINE WAS WARM IT WOULD RUN NORMALLY. IN FLIGHT THE EGTS WERE UNEVEN, WITH NR 3 AND NR 6 MUCH COOLER THAN THE REST. BOTH OF THESE CYLINDERS FEED OFF THE BOTTOM OF THE PLENUM AND SUSPECT THAT POORLY ATOMIZED FUEL WAS RUNNING DOWN AND ENTERING THEM, MAKING THE MIXTURE DISTRIBUTION VERY UNEVEN. REPLACING THE CARBURETOR ELIMINATED THE PROBLEM ENTIRELY.

2009FA0000226	CESSNA	RIB	CRACKED
3/13/2009	S550	661205061	NACELLE

DURING ACCOMPLISHMENT OF STC NR ST02664CH, INSTALLATION OF ENGINES, THE PYLONS REQUIRE DISASSEMBLY AND MODIFICATION. DURING DISASSEMBLY OF THE LT PYLON, THE AFT PYLON CENTER RIB WAS FOUND CRACKED AT THE LOWER STRINGER CUT-OUT. THE CRACK EMANATES FWD FROM THE STRINGER CUT-OUT. THE LOWER FLANGE OF THE RIB IS ALSO JOGGLED AT THIS AREA.

2009FA0000225	CESSNA	WILINT	RIB	CRACKED
3/13/2009	S550	FJ443A	661205061	NACELLE

DURING ACCOMPLISHMENT OF STC ST02661CH, INSTALLATION OF ENGINES, THE PYLON REQUIRES DISASSEMBLY AND MODIFICATION. DURING DISASSEMBLY OF BOTH LT AND RT PYLONS, THE AFT PYLON CENTER RIB WAS FOUND CRACKED AT THE LOWER STRINGER CUT-OUT. THE CRACKS ARE EMANATING FWD FROM THE STRINGER CUT-OUT. THE LOWER FLANGE OF THE RIB IS ALSO JOGGLED IN THIS AREA.

2009FA0000218	CESSNA	BRACKET	BROKEN
2/16/2009	T206H	12019951	AUTOPILOT SERVO

DURING A 100 HR/ ANNUAL INSP THE AUTOPILOT PITCH TRIM SERVO BRACKET WAS FOUND TO HAVE BROKEN FREE FROM THE 90 DEGREE SUPPORT BRACKET THAT IT ATTACHES TO. THIS BRACKET IS A FACTORY INSTALLED PART FOR THE AUTOPILOT SYS AND IS RIVETED TO THE EXISTING AIRFRAME. THE PROBABLE CAUSE TO THIS FAILURE IS EXCESSIVE VIBRATION IN THIS AREA. RECOMMENDATIONS TO PREVENT A RECURRENCE WOULD BE TO INSTALL A DOUBLER BRACKET ON THE INBD SIDE OF THE ORIGINAL BRACKET TO HELP SHARE THE LOAD AND INCREASE THE SIZE OF THE MATERIAL LOCATED IN THAT AREA. (K)

2009FA0000082	CESSNA	LYC	STRUCTURE	CRACKED
2/2/2009	T206H	TIO540*	07232051	OUTER WING TIP

REMOVED CRACKED LT AND RT WING TIPS AND REPLACED WITH NEW PN`S 0723205-1 AND 0723205-20. REMOVED CRACKED ELEVATOR RT AND LT TIPS AND REPLACED WITH NEW PN`S 1234640-4 AND 1234640-3. REMOVED CRACKED HORIZONTAL STAB PLASTIC TIP ON RT SIDE & REPLACED WITH NEW. ACFT KEPT IN A 50 DEGREE HEATED HANGER. ACFT TAKEN OUTSIDE FOR FLT IN 17 DEGREE TEMP. INFLT TEMPS REACHED -17 DEGREES. UPON LANDING AT DESTINATION, OBSERVED THAT ALL PLASTIC WING, ELEVATOR & HORIZ STABILIZER TIPS

SUSTAINED CRACKS. ALL CRACKS WERE OF SEVERITY THAT SEPARATION COULD HAVE RESULTED DURING FLT. ACFT PLACED OUT OF SERVICE UNTIL PARTS COULD BE REPLACED. MFG NOTIFIED. ALL PARTS WERE REPLACED AND THE ACFT WAS PLACED BACK IN SERVICE. (K)

2009FA0000083	CESSNA	LYC	STRUCTURE	CRACKED
2/2/2009	T206H	TIO540*	07232052	OUTER WING TIP

REMOVED CRACKED LT AND RT WING TIPS AND REPLACED WITH NEW PN`S 0723205-1 AND 0723205-20. REMOVED CRACKED ELEVATOR RT AND LT TIPS AND REPLACED WITH NEW PN`S 1234640-4 AND 1234640-3. REMOVED CRACKED HORIZONTAL STAB PLASTIC TIP ON RT SIDE & REPLACED WITH NEW. ACFT KEPT IN A 50 DEGREE HEATED HANGER. ACFT TAKEN OUTSIDE FOR FLT IN 17 DEGREE TEMP. INFLT TEMPS REACHED -17 DEGREES. UPON LANDING AT DESTINATION, OBSERVED THAT ALL PLASTIC WING, ELEVATOR & HORIZ STABILIZER TIPS SUSTAINED CRACKS. ALL CRACKS WERE OF SEVERITY THAT SEPARATION COULD HAVE RESULTED DURING FLT. ACFT PLACED OUT OF SERVICE UNTIL PARTS COULD BE REPLACED. MFG NOTIFIED. ALL PARTS WERE REPLACED AND THE ACFT WAS PLACED BACK IN SERVICE. (K)

CA090126007	CESSNA		HEADER TANK	CRACKED
12/16/2008	T337E		14260147	FUEL SYSTEM

DURING A ANNUAL INSPECTION, FOUND CRACKS AND CORROSION HOLE IN HEADER AND AUXILIARY FUEL TANK, PARTS WERE REMOVED, REPAIRED AND REINSTALLED.

CA090126008	CESSNA		SUMP	CORRODED
12/16/2008	T337E		14260148	RT WING

DURING A ANNUAL INSPECTION, FOUND THE RT WING SUMP TO HAVE CORROSION PIN HOLES IN BOTTOM, REMOVED, REPAIRED AND REINSTALLED SUMP.

2009FA0000198	CESSNA	CONT	CYLINDER	CRACKED
3/10/2009	TU206G	TSIO520M	FRCN712	ENGINE

NR 4 CYLINDER BARREL CRACKED APPROX. 1INCH FROM THE TOP OF THE BARREL AND ALMOST .7500 INCH OF THE WAY AROUND THE INSIDE CIRCUMFERENCE. THIS WAS A NEW ECI FREEDOM STEEL BARREL CYLINDER. THE CYLINDER HAS TEST CELL AND GROUND RUN TIME ONLY, WHEN THE MECHANIC NOTICED OIL COMING FROM AROUND THE AREA OF THE BOTTOM COOLING FIN OF THE CYLINDER HEAD.

CA090204014	CESSNA	CONT	EXHAUST VALVE	STUCK
2/4/2009	U206E	IO520F	SA52006A20P	ENGINE

100 HOUR INSPECTION CARRIED OUT AND ENGINE LEAKDOWN CARRIED OUT NORMAL. AFTER ENGINE WAS COOL THE PROPELLER WAS ROTATED TO CHECK MAGNETO TO ENGINE TIMING. A BANG WAS HEARD IN THE FRONT AREA OF THE ENGINE. NR 5 AND NR 6 CYLINDER EXHAUST VALVES WERE STICKING OPEN AND WHEN THE PISTON CONTACTED, THEY WERE JARRED LOOSE AND RETURNED TO THEIR SEATED POSITION WITH VALVE SPRING PRESSURE. ALL CYLINDERS WERE REMOVED AND IT WAS DETERMINED THE EXHAUST VALVE PUSH RODS FOR NR 5 AND NR 1 CYLINDERS WERE BENT, ALONG WITH NR 1, NR 5, AND NR 6 PISTON HEADS HAD SIGNS OF CONTACT WITH THE EXHAUST VALVES. ALL CYLINDERS WERE REPLACED WITH REPAIRED UNITS. NR 1 CYLINDER EXHAUST VALVE WAS REMOVED AND INSPECTED VALVE STEM AND GUIDE. BOTH HAD CARBON DEPOSITS CREATING THE REDUCED CLEARANCE AND STICKING. THE AIRCRAFT HAD BEEN ON SURVEY WORK PRIOR TO INSPECTION WITH REDUCED POWER SETTINGS AND COLD AMBIENT OUTSIDE AIR TEMPERATURES. SUSPECT THIS MAY HAVE CONTRIBUTED SOMEWHAT, BUT THE PILOT REPORTED THAT ENGINE TEMPERATURES WERE NORMAL DURING THIS TIME. THERE WAS NO ROUGH RUNNING ENGINE IN FLIGHT, BUT THE PILOT REPORTED AFTERWARD THAT ONE START-UP ONE MORNING THERE WAS SOME BACKFIRING BUT IT WENT AWAY AND HE ATTRIBUTED IT TO COLD OUTSIDE AIR TEMPERATURES AND POSSIBLE OVER PRIMING.

2009FA0000055	CESSNA	CONT	DUCT	DISLODGED
2/3/2009	U206G	IO550*	12507351	ENGINE

THE BYPASS DOOR ON THE ENGINE AIR INDUCTION FILTER DUCT TO THE THROTTLE BODY WAS FOUND LAYING IN THE BOTTOM OF THE DUCT, THE DOOR PIN HAD FALLEN OUT AND THE DOOR, THE SPRING, AND THE HINGE PIN WERE FOUND IN THE BOTTOM OF THE DUCT , NO PARTS HAD GONE ANY FURTHER UP THE DUCT. THE BYPASS DUCT DOOR IS LOCATED DOWNSTREAM OF THE FILTER, ALL PARTS WERE ACCOUNTED FOR. THE PIN

FELL OUT OF THE HINGE BECAUSE THE HINGE END WAS NOT SUFFICIENTLY STAKED CLOSED.

2009FA0000147	CIRRUS	CONT	SPRING	BROKEN
2/20/2009	SR20	IO360ES	1051324	IMPULSE COUPLING

IMPULSE COUPLING SPRING BROKE INTO 2 PIECES DISRUPTING MAGNETO TIMING. 12 MONTHS SINCE CERTIFICATION. (K)

CA090210012	CNDAIR	PWA	SKIN	CRACKED
2/9/2009	CL2151A10	CA3	21530023102	FS 389

DURING WINTER MAINTENANCE, A CRACK WAS FOUND AT FUSELAGE STATION 389.0/WING STATION 43 IN THE FUSELAGE SKIN NEAR THE FORWARD LEFT WING/FUSELAGE PICKUP ANGLE ATTACHMENT. THE CRACK IS APPROXIMATELY 2.5 INCH LONG AND RUNS FORE AND AFT ALONG THE BEND RADIUS IN THE FUSELAGE ROOF SKIN.

CA090122007	CNDAIR		SKIN	CRACKED
1/20/2009	CL2156B11215		21530027116	FUSELAGE

LT SKIN AT FS 388 IS CRACKED 70 MILLIMETERS LONG AND THE CRACK CONTINUES BELOW THE WING/FUSELAGE SHEAR PANEL 215-30031-1000.

CA090129008	CNDAIR	PWA	TENSIONER	STUCK
1/29/2009	CL2156B11215	PW123	S21558500	CONTROL CABLE

DURING AN INSPECTION IN THIS AREA AN A/C ENGINEER FOUND THIS PART COMPLETELY JAMMED. THERE IS NO TASK FOR THAT PART IN THE PSP 495.

CA090125006	CNDAIR		WIRE	BROKEN
10/24/2008	CL6002B19			HYD CONNECTOR

ACCUMULATOR IS THE ORIGINAL ONE (FLT HRS: 8880.5 AND CYCLES: 6991), THE CREW WAS ONBOARD (NO PASSENGERS) PERFORMING THE PRE FLIGHT AND WHEN SELECTING THE HYDRAULIC THEY HEARD A LOUD BANG. THE EVENT DID HAPPEN AROUND 13:30 AT DETROIT INTERNATIONAL AND THE AIRCRAFT FLEW 3 LEGS BEFORE THE INCIDENT. THE CONNECTOR P3QA INSTALLED ON THE R ENG FUEL SOV (V2QA) WAS HIT AND THE WIRES WERE BROKEN, THEY HAD TO DISCONNECT THE BATTERY SINCE THE WIRES WERE "SPARKING". ONE FUEL FEED LINE DAMAGED, 14TH STAGE BLEED DUCT DAMAGED (PROBABLY BROKEN).

CA090125005	CNDAIR	GE	RUDDER PEDAL	BROKEN
9/23/2008	CL6002B19	CF343A1	600902005	COCKPIT

AIRCRAFT TOOK A CREW CANCEL BECAUSE THE FO CALL FATIGUE. THE AIRCRAFT THEN WAS RESCHEDULED TO REPOSITION AT 1000. GOT A CALL THAT THE CAPTAIN'S LEFT RUDDER PEDAL WAS BROKEN. WHEN THE MECHANICS WENT O BOARD THEY FOUND THAT THE CAPTAIN'S RUDDER PEDAL WAS BENT AND TWISTED AND LOOKING DOWN AT THE RUDDER PEDAL TUBE THEY COULD SEE THAT THERE WAS A CRACK.

CA090125002	CNDAIR	GE	TIRE	FAILED
11/13/2008	CL6002B19	CF343B1		MLG

AIRCRAFT WAS AOG DUE TO A CUT IN MAIN WHEEL TIRE NR 2. SENT A MECHANIC IN ORDER TO REPLACE THE DAMAGED MAIN WHEEL. AFTER REPLACEMENT OF THE MAIN WHEEL, THE MECHANIC WANTED TO PERFORM A TIRE SERVICING CHECK ON ALL TIRES. DURING THE TIRE CHECK THE RT NOSE WHEEL/TIRE EXPLODED. THE RT NOSE WHEEL WAS TOTALLY DESTROYED, BROKEN DOWN IN SEVERAL PARTS. IT HAS BEEN REPORTED THAT THE TIRE ITSELF IS NOT BURST. THE WHEEL BEARING WAS FOUND IN A DISTANCE OF 6 TO 8 METERS FROM THE NLG. A PRESSURE-MEASURING GAUGE WAS ALSO FOUND IN A DISTANCE OF 6 TO 8 METERS FROM THE NLG. IT IS SUSPECTED, THAT THE EXPLOSION OCCURRED DURING/AFTER THE INFLATION AND OR A PRESSURE CHECK OF THE RT NOSE WHEEL. THE MECHANIC WAS HEAVILY INJURED AND LOST ONE ARM AND ONE FOOT/LEG. THE SITUATION OF THE MECHANIC IS CURRENTLY STABLE. HE IS NOT IN DANGER OF LIFE. THE WHEEL ASSEMBLY WAS ONLY SIX DAYS (SINCE DECEMBER 6) INSTALLED ON ACFT AFTER COMING FROM AERO, A LUFTHANSA TECHNIQUE MAINTENANCE FACILITY. THE WHEEL ASSEMBLY HAS THE P/N 5010598 AND S/N SAPR000065 (LT), OCT 930173 (RT). THE TIRES INSTALLED ON THE NOSE WHEEL ARE FROM VENDOR DUNLOP. THE DESTROYED,

RIGHT NOSE WHEEL TIRE WAS NEW. THE LEFT NOSE WHEEL TIRE WAS ONE TIME RETREATED. THE DESTROYED, RIGHT WHEEL ASSEMBLY HAS BEEN OVERHAULED AT AUGUST 28, 2008. THE BRITISH AIR ACCIDENT INVESTIGATION BRANCH (AAIB) HAS QUARANTINED THE AIRCRAFT FOR INVESTIGATION AND PRESERVATION OF EVIDENCE.

CA090125003	CNDAIR	GE	ACTUATOR	MALFUNCTIONED
1/16/2009	CL6002B19	CF343B1	852D10021	TE FLAP

ON APPROACH, FLAP FAIL MSG. FLAPS STUCK AT 0 DEG. COMPLIED WITH QRH AND AIRCRAFT DIVERTED AND LANDED WITHOUT FURTHER INCIDENT UNDER NORMAL BRAKING. REMOVED AND REPLACED FLAP ACTUATORS AND OPS CHECKED FLAP SYSTEM. NO FURTHER DEFECTS NOTED. ACTUATOR, INBD (INBD FLAP, LT), OUTBD (INBD FLAP, LT) INBD (OUTBD FLAP, LT), OUTBD, (INBD FLAP, RT), INBD, (OUTBD FLAP, RT) ACTUATOR, OUTBD (OUTBD FLAP, RT) 1) 852D100-21 2) 852D100-21 3) 601R93103-19 4) 852D100-19 5) 853D100-20 6) 854D100-20 1) 4867 2) 6782 3) 3982 4) 4418 5) 2429 6) 3805 HOURS ON ACTUATORS LISTED BELOW 1) 10,780 FH 2) 3,250 FH 3) 3,250 FH 4) 10,350 FH 5) 12,559 FH 6) 3,250 FH (TC NR 20090125003).

CA090205001	CNDAIR	GE	B-NUT	LOOSE
1/26/2009	CL6002B19	CF343B1		ENGINE OIL SYS

FLT 5542, IAH-MOB, DURING CLIMB, FLT CREW REPORTED RIGHT ENGINE VIBRATION WAS HIGH AND THERE WAS AN INDICATION OF LOW OIL PRESSURE. RIGHT ENGINE SHUT DOWN AND FLIGHT RETURNED TO IAH AND LANDED WITHOUT FURTHER INCIDENT. MAINT INSPECTED ENGINE AND FOUND A LOOSE B-NUT ON LUBE/SCAVENGE PUMP. B-NUT RESECURED AND OIL WAS SERVICED. ENGINE RUNS CARRIED OUT AND NO DEFECTS NOTED. AIRCRAFT RETURNED TO SERVICE.

CA090205002	CNDAIR	GE	WIRE HARNESS	DAMAGED
1/30/2009	CL6002B19	CF343B1	601R572201	MLG

FLT CREW REPORTED THAT ON GEAR RETRACTION, THERE WAS A NOSE LANDING GEAR DISAGREE MSG AND THE NOSE LANDING GEAR DOOR INDICATION RED AND THE NOSE LANDING GEAR INDICATES IN TRANSIT. THE AIRCRAFT CONTINUED ON TO IAH AND LANDED WITHOUT FURTHER INCIDENT. MX PERFORMED GEAR SWINGS AND THE GEAR RETRACTED NORMALLY. BUT THERE WERE NO GREEN LIGHTS FOR THE NOSE GEAR DOORS. A PSEU WAS INSTALLED BUT NIL FIX. THE RIGHT NOSE LANDING GEAR PROX SWITCH HAD DAMAGED PINS ON THE HARNESS. PINS WERE REPLACED BY NIL FIX. NOSE LANDING GEAR UPLOCK PROX SENSOR HARNESS REPLACED AND LANDING GEAR EXTENSION / RETRACTIONS SYSTEM OPS CHECKED SERVICEABLE. AIRCRAFT RETURNED TO SERVICE.

CA090219019	CNDAIR	GE	COWLING	DEPARTED
1/28/2009	CL6002B19	CF343B1	22850080802	RT NACELLE

AFTER GEAR UP SELECTION, AND ALREADY IN A RIGHT TURN, TO FOLLOW THE DEPARTURE ROUTE, WE EXPERIENCED AN ABNORMAL YAW TO THE RIGHT FOR 1 SECOND AND THEN BACK TO NORMAL. WE EXPECTED A BIRDSTRIKE. NORMAL FLIGHT AND NORMAL LANDING. AFTER LANDING I PERFORMED AN IMMEDIATE INSPECTION AFTER DISEMBARKING OF THE PAX, AND FOUND THE RT ENGINE UPPER COWLING MISSING. PAX DIDN’T REALIZE ANYTHING. FURTHER FLIGHT WAS CANCELLED.

CA090129009	CNDAIR	GE	CARBON SEAL	WORN
1/28/2009	CL6002B19	CF343B1	5018T49P05	ENGINE

FLT IB 8659 FROM SXB TO MAD IN CRUISE. RHE OIL PRESS FLUCTUATIONS OBSERVED BY FLIGHT CREW. FLIGHT CREW DECIDED TO DIVERT TO ZAZ. AIRCRAFT LANDED IN ZAZ. MAINTENANCE FOUND RHE EDP CARBON SEAL WORN. RHE EDP CARBON SEAL REPLACED AS PER AMM 72-60-00-000/400-801. TEST OK. CARBON SEAL 5018T49P05 N/A WORN N/A 17279.12/14586.

CA090129010	CNDAIR	GE	COUPLING	LOOSE
1/27/2009	CL6002B19	CF343B1		ENG OIL SYS

FLIGHT LT 3606 SCHEDULED FROM STR TO VIE DIVERTED TO MUC BECAUSE DURING CLIMB AT FL 260 ENGINE NR 2 OIL PRESS WARNING CAME ON SEVERAL TIMES. AFTER LEVEL OFF ENG NR 2 WAS REDUCED TO IDLE. OIL PRESSURE BETWEEN 30 AND 35 PSI. WITH INCREASING THRUST PRESSURE STILL BETWEEN 30-35 PSI. ENGINE WAS KEPT IN IDLE FOR THE REMAINDER OF THE FLIGHT. OIL TEMPERATURE WAS DECREASING TO 48 °C.

MAINTENANCE INSPECTED ENGINE INSPECTED. ENGINE COVERED WITH OIL. FOUND 2 LOOSE COUPLINGS ON A-SUMP PUMP. COUPLINGS TIGHTENED. FOUND DURING RUN UP OIL ACCUMULATION AROUND OIL LEVEL SENSOR ON OIL TANK. LEVEL SENSOR AND PACKINGS REPLACED, NO HELP. OIL TANK PRESSURIZED. FOUND CRACK IN OIL TANK. OIL TANK REPLACED. AIRCRAFT RETURNED TO SERVICE.

CA090129011	CNDAIR	GE	PSEU	MALFUNCTIONED
1/27/2009	CL6002B19	CF343B1	S21558500	MLG

IN CRUISE, CAUTION MESSAGE PROX SYST CHAN. ON APPROACH, NORMAL LDG EXTENSION INOPERATIVE. ALTERNATE EXTENSION USED. AIRCRAFT LANDED. DURING TAXI, STEERING INOP CAUTION MESSAGE ON ED1. MAINTENANCE REPLACED PSEU AS PER AMM 32-61-01-000-/400-801. THE STEERING INOP MESSAGE WAS THE CONSEQUENCE OF LDG ALTERNATE HANDLE BEING NOT COMPLETELY PULLED IN. PSEU 8-648-08 D865 INOPERATIVE INTERNAL 16756.18/14104.

CA090129012	CNDAIR	GE	PUMP	CRACKED
1/26/2009	CL6002B19	CF343B1	887055	HYD SYSTEM

FLT CREW REPORTED HYD 2 LOW QTY (C) MSG WAS POSTED WHILE IN CRUISE. SYNOPTIC PAGE CHECKED AND INDICATED 0 PERCENT AND 2500 PSI. QRH FOLLOWED, AIRCRAFT DIVERTED AND LANDED WITHOUT FURTHER INCIDENT. UPON FURTHER INVESTIGATION BY MAINTENANCE, IT WAS DETERMINED THAT THE NR 2 ENGINE DRIVEN HYD PUMP WAS LEAKING. NR 2 EDP REPLACED AND OPS CHECKED. NO FURTHER LEAKS NOTED. AIRCRAFT RETURNED TO SERVICE. ENGINE DRIVEN HYD PUMP 887055 MX583389 CRACKED RIGHT ENGINE 2196/UNKNOWN/1641 (LRU TIMES).

CA090129013	CNDAIR	GE	VALVE	LEAKING
1/24/2009	CL6002B19	CF343B1	750005000	HYD SYSTEM

UPON GEAR RETRACTION, GEAR WOULD INDICATE UP AND LOCKED FOR A FEW SECONDS, THEN THE AMBER HASHED INDICATIONS. THIS REPEATED SEVERAL TIMES ACCOMPANIED BY LOUD THUMPING NOISE. THERE WERE NO OTHER CAUTION, WARNING OR AURAL WARNINGS REPORTED. THE GEAR WAS EXTENDED NORMALLY AND ALL GEAR INDICATED DOWN AND LOCKED. AIRCRAFT RETURNED AND LANDED WITHOUT FURTHER INCIDENT. MX WAS ABLE TO DUPLICATE DEFECT WHILE AIRCRAFT WAS ON JACKS. MAIN LANDING GEAR VALVE DETERMINED TO BE AT FAULT. VALVE REPLACED AND OPS CHECKED SERVICEABLE. VALVE 750005000 0720 LEAKING MLG 15799/12794, AIRFRAME TIMES.

CA090129014	CNDAIR	GE	NOSE COWL	SEPARATED
1/28/2009	CL6002B19	CF343B1	22850080802	

THE OPERATOR HAS REPORTED THE FOLLOWING, DURING TAKEOFF ON A FLIGHT THE NR 2 ENGINE UPPER ENGINE COWL DETACHED. THE CREW NOTED A SLIGHT BUFFET DURING THE EVENT AND CONTINUED TO THE DESTINATION AIRPORT WHERE IT WAS DISCOVERED THAT THE COWL WAS MISSING. THIS WAS THE FIRST FLIGHT AFTER THE AIRCRAFT HAD UNDERGONE AN A CHECK IN MAINTENANCE. THE CRJ TECHNICAL HELP DESK AND ISE ARE SUPPORTING THE OPERATOR. NOW THE ANSWERED QUESTIONS. WHICH SIDE IS THE COWLING IS MISSING. RT SIDE UPPER NOSE ACCESS COWLING , PROVIDE P/N OF THE MISSING COWLING, PN:228-50080-802 SN:SBRJNACC0 1183, ANY OTHER DAMAGES TO THE ACFT. NO DAMAGES, PILOT REPORTED AFTER DETAILED INSPECTION, CAN YOU EXPLAIN WHY THE COWLING DEPARTED THE ACFT. IT IS ASSUMED THAT AN ERROR APPEARED DURING A-CHECK, IT WAS THE FIRST FLIGHT AFTER THE A CHECK, IS SB 601R-71-007 HAS BEEN PERFORMED ON THE ACFT, THIS SB IS NOT APPLICABLE FOR THIS AIRCRAFT. IT SHOULD BE PERFORMED BEFORE DELIVERY. THERE WAS NO ENGINE CHANGE SINCE DELIVERY. ANY REPORT FROM THE PILOTS, HAVE THEY NOTICE BUFFETING OF ABNORMAL CONDITION. THE COWLING WAS LOST DURING TAKEOFF, AND IT IS STILL NOT FOUND ON THE AIRPORT AREA. THE PILOT NOTICED ONLY A LIGHT FORCE IN THE NOSE UP DIRECTION DURING TAKEOFF, LIKE A BIRD STRIKE. HE EXPLAINED THAT THERE WAS NO BUFFETING OR ANY OTHER FORM OF ABNORMAL CONDITION NOTICEABLE DURING THE WHOLE FLIGHT AFTER TAKEOFF. COWLING WAS REPLACED. TFH: 12205/THC: 10091.

CA090203007	CNDAIR	GE	TACTAIR	BEARING	DAMAGED
2/2/2009	CL6002B19	CF343B1		MS276413	CONTROL VALVE

WHILE RIGGING THE PARKING BRAKE CABLE SMALL BALLS WERE FOUND AT THE BOTTOM OF THE COMPARTMENT HOUSING THE BRAKE CONTROL VALVE PN 600-88101-125. UPON FURTHER INVESTIGATION IT WAS DISCOVERED THAT THE TWO FOLLOWER BEARINGS FOR THE PILOT BRAKE PEDAL INPUT TO THE BRAKE

CONTROL VALVE WERE DESTROYED. PART CYCLES, TSN AND TSO ARE UNKNOWN ON THE BEARINGS.

CA090212007	CNDAIR	GE	EEC	MALFUNCTIONED
2/10/2009	CL6002B19	CF343B1		ENGINE

(CAN) ACFT ON APPROACH, PILOT REPORTED ACFT HIT BY LIGHTNING IN THE NOSE AREA. IMMEDIATELY AFTER LIGHTNING STRIKE, RT ENG FLAMED OUT. PILOT DID NOT TRY TO RE-START RT ENG. ACFT LANDED, MX PRESENTLY INSPECTING THE ACFT. FDR TO BE DOWNLOADED. CUSTOMER CONTACTING MFG. ADDITIONAL INFORMATION 11 FEB 2009: FDR HAS BEEN DOWNLOADED. DOWNLOAD ON ITS WAY . SHOULD BE HERE TODAY AT NOON. ACFT AND ENGINE (EXTERIOR) INSPECTIONS CARRIED OUT. DAMAGES ARE MINOR. FUEL SAMPLES TAKEN. BOTH LT ENG AND RT ENG FUEL FILTERS ARE BEING DRAINED FOR QTY COMPARISON RT ENG CHIP DETECTOR OK. RT ENG BSI TO BE DONE ASAP. IT IS CONFIRMED THAT THE CONT IGN WAS ON PRIOR TO THE EVENT. DFDR CHECK SHARED WITH MFG. RT ENGINE DOES NOT FLAME OUT DURING PERIOD 180.22.23 THRU 180.23.10 BUT DOES ROLL BACK AND ITT INCREASES SIGNIFICANTLY INDICATIVE OF AN HPC STALL. THE ENGINE REMAINS IN STALL AND "ROLLS BACK" ITT INCREASES. AT APPROX 180.23.11 INDICATED FUEL FLOW DROPS TO ZERO, ITT DECLINES RAPIDLY WHICH IS CONSISTENT WITH PILOT ACTION FUEL SHUT OFF IN RESPONSE TO "ROLL BACK" AND LIKELY EICAS LOW OIL PRESSURE INDICATION LOW AND LOP AURAL WARNING. NOTE LIGHTNING APPEARS TO HAVE HIT THE FWD RT FUSELAGE AT THE LOWER PART OF THE SERVICE DOOR "SCUFF PLATE". EICAS INDICATIONS? "LOW OIL PRESS" AURAL AND INDICATION WHEN N2 GOT LOW ENOUGH? YES. YOU CAN SEE WHERE THE LIGHTNING STRUCK AND HOW CLOSE TO THE RT ENGINE INTAKE IT WAS. THE ACFT IS IN MX BUT MX REPORTS ENTRY POINT AROUND SVCE DOOR SCUFF PLATE (RT SIDE). AFTER INSP, MX REPORTS LIGHTNING ENTRY POINT.

CA090218003	CNDAIR	GE	UPLOCK	INOPERATIVE
2/13/2009	CL6002B19	CF343B1	16600101	MLG

(CAN) ACFT TOOK OFF FOR A FLIGHT TEST. THE TEMPERATURE WAS ABOUT -5 DEGREES CELSIUS, CLEAR SKIES AND WINDS FROM THE WEST BETWEEN 5 AND 10 KNOTS DURING THE INITIAL CLIMB, THE LANDING GEARS WERE RETRACTED AND HAD AN INDICATION OF 2 GREEN LIGHTS, HOWEVER THE NLG INDICATED "IN TRANSIT". THE NLG DOORS REMAINED OPENED. THE SYS INDICATED "GEAR DISAGREEMENT". PILOT DECIDED TO EXTEND THE GEARS, 3 GREEN LIGHTS, AND LANDED. MX CHECKED THE (PROXIMITY SENSOR ELECTRONIC-UNIT) PSEU FOR A FAULT CODE AND IT INDICATED A FAULTY (PROXIMITY SENSOR PS3GA) NOSE GEAR UPLOCK. RETRACTIONS OF THE NLG WERE MADE AND MX CONFIRMED THE UPLOCK MECHANISM WAS NOT FUNCTIONING CORRECTLY. FOUND THAT THE (EMERGENCY RELEASE LEVER) WHICH IS PART OF THE UPLOCK ASSY, WAS STIFF, PREVENTING THE TARGET (WHICH IS PART OF THE “MANUAL RELEASE LEVER”) FROM GETTING IN PROPER RANGE WITH THE PROXIMITY SENSOR. IT WOULD APPEAR AS IF THOSE TWO PARTS HAD BEEN ASSEMBLED TOO TIGHTLY TOGETHER. THE (UPLOCK) MECHANISM WAS REPLACED IAW AMM. THE NLG WAS RETRACTED SEVERAL TIMES AND FOUND SERVICEABLE. P/N OFF: 16600-101, S/N OFF: DCL263-96 P/N ON: 1660-103, S/N: NLG/0656/01.

CA090125004	CNDAIR		WINDOW	FAILED
1/19/2009	CL6002C10		601R3303321	COCKPIT

CAPTS WINDSHIELD BROKE ON LANDING. TEMP IS +63 DEG/WITH HIGH WINDS 35 MPH GUSTS TO 44 MPH INCH. WINDSHIELD WAS REPLACED PER AMM. WINDSHIELD IS POST MOD.

CA090129001	CNDAIR	GE	CAP	DISCONNECTED
11/3/2008	CL6002C10	CF348C5B1	4117T25P03	ENGINE FAN

RIGHT ENGINE N1 VIB ICON AND THE PILOTS REPORTED THE FAN VIBES REACHING 2.9 MILS. UPON LANDING AT AN OUTSTATION, A MECHANIC WAS SENT TO INVESTIGATE THE ISSUE. AFTER REMOVING THE FORWARD SPINNER IT WAS FOUND THAT THE FORWARD "BLIND" CAP OF THE FAN SHAFT HAD COME LOOSE AND WAS BANGING AROUND THE AFT SPINNER CAUSING THE IMBALANCE. DAMAGE WAS FOUND ON THE FORWARD BLIND CAP, RETAINING RING, AND AFT SPINNER. THE ENGINE FLEW EXACTLY 6 CYCLES BEFORE THE BLIND CAP LIBERATED FROM THE FAN SHAFT. BLIND CAP MOVEMENT IS BELIEVED TO BE DUE TO IMPROPER SEATING OF THE RETAINING RING DURING INSTALLATION, WHICH MIGHT BE A CONSEQUENCE OF RETAINING RING DEFORMATION.

CA090118008	CNDAIR	GE	GE	FUEL FILTER	RUPTURED
1/5/2009	CL6002C10	CF348C5B1	GECF348C5B1	7582591	RT ENGINE

"PILOT REPORTED A SNAG "RT ENGINE N1 READING 86 PERCENT, WHILE TARGET N1 WAS 88 PERCENT. RT

ENGINE FAILED TO ACHIEVE TARGET N1 AS PER FCOM". POWER ASSURANCE CHECK WAS CARRIED OUT BY THE ENGINEER AND THE CHECK FAILED. THE DATA OF THE POWER ASSURANCE CHECK IS PROVIDED IN THE ATTACHMENT TITLED "ENGINE DATA". ONCE THE POWER ASSURANCE CHECK FAILED, I ASKED THE OPERATOR WHEN WAS THE LAST TIME AN ENGINE PERFORMANCE RECOVERY WASH WAS DONE. THEY SAID THAT IT WAS MORE THAN AN YEAR. I ASKED TO DO A RECOVERY WASH ON THE ENGINE AND AGAIN DO THE POWER ASSURANCE CHECK. THE DATA FOR THE POWER ASSURANCE CHECK DONE AFTER THE WASH ARE GIVEN IN THE ATTACHMENT TITLED "ENGINE DATA 2". THE CHECK FAILED EVEN THEN. THE AIRCRAFT IS FITTED WITH CF348C5-B1 ENGINES. PROPULSION FROM ENGINE GRD RUNS CRJ ISE RECOMMENDED TO CHECK ENGINE FMU MAIN FUEL FILTER AND OTHER CHECKS. N1 CONFIRMED TO BE LOW BUT INDICATED FUEL FLOW ABNORMALLY HIGH. CONFIRMED FUEL FILTER HAD "RUPTURED" AND INDICATION OF FILTER "SPINNING". LOW POWER (N1) AND HIGH FUEL FLOW CONSISTENT WITH FILTER RUPTURE AND AFFECT ON FMU MAIN FUEL METERING VALVE AND METERING VALVE POSITION WHICH IS USED BY FADEC TO COMPUTE AND INDICATE FUEL FLOW IN PPH TO EICAS. GE REFUSED HELP AND SUPPORT TO BOMBARDIER OR ALLIANCE REF "NON GE NON OEM PART INVOLVED". MAIN FUEL FILTERS ARE COMMON PN`S FOR ALL CRJ 100-200 AND 700-900. MAIN ENGINE FUEL FILTER FAA PMA PN 7582591 MFG PMA HOLDER PTI TECHNOLOGIES OXNARD CA USA N/K RUPTURED ALSO "SPINNING" OF FILTER NOTED TSN: 3472 HRS, CSN: 2763 CYCLES.

CA090217005	CNDAIR	GE	RELIEF VALVE	DAMAGED
1/30/2009	CL6002C10	CF348C5B1	9752753	MLG

(CAN) GEAR DISAGREE MSG FOLLOWING T/O. PRIORITY BALANCE RELIEF VALVE WAS CHANGED AND LANDING GEAR RETRACTION SYS OPS, CHECK GOOD. ACFT RETURNED TO SERVICE. PRIORITY BALANCE RELIEF VALVE, 975275-3.

CA090217006	CNDAIR	GE	RELIEF VALVE	MALFUNCTIONED
1/13/2009	CL6002C10	CF348C5B1	9752753	MLG

(CAN) GEAR DISAGREE MSG DURING RETRACTION. ACFT RETURNED TO FIELD. MX CARRIED OUT LANDING GEAR INSPECTIONS WITH NO DEFECTS FOUND. HYD SYS PRESSURE DECAY CHECK CARRIED OUT AND FAILED. HYDR SYS NR3 RESERVIOR CHANGED AND SYS PRESSURE AND DECAY RATE GOOD. CHANGED PRIORITY BALANCE RELIEF VALVE. LANDING GEAR OPS CHECK CARRIED GOOD. PRIORITY BALANCE RELIEF VALVE, 975275-3.

CA090217007	CNDAIR	GE	RELIEF VALVE	MALFUNCTIONED
12/25/2008	CL6002C10	CF348C5B1	9752753	MLG

(CAN) GEAR DISAGREE CAUTION FOLLOWING T/O. LANDING GEAR RETRACTION SYS DEFERRED IAW MEL 32-30-01. ACFT REPOSITIONED FOR MX, WHERE THE PRIORITY BALANCE RELIEF VALVE WAS CHANGED AND LANDING GEAR RETRACTION SYS OPS CHECK GOOD. ACFT RETURNED TO SERVICE.

CA090217008	CNDAIR	GE	PSEU	MALFUNCTIONED
2/1/2009	CL6002C10	CF348C5B1	895304	MLG

(CAN) LANDING GEAR DISAGREE WARNING AFTER GEAR RETRACTION IN THE CLIMB. ALL THREE GEAR INDICATED GREEN WHEN HANDLE WAS IN THE UP POSITION. REMOVED AND REPLACED PSEU IAE MM 32-61-01. C/W POWER UP TEST OF LANDING GEAR PSS IAW MM 32-61-00. C/W LANDING GEAR OPS TEST IAW MM 32-30-00. OPS CHECK GOOD. A REQUEST OF THE PSEU NVM AS BEEN MADE. MUST WAIT UNTIL UNIT IS RECEIVED BY VENDOR TO PERFORM DOWNLOAD. PSEU 8-953-04 D280 10826:08/7737/9068:50

CA090127005	CNDAIR	GE	BUTTERFLY VALVE	BROKEN
1/20/2009	CL604	CF343B	9795804	A/C PACK

PILOT REPORTED LEFT AIR CONDITIONING PACK BLOWS HOT AIR REGARDLESS OF TEMPERATURE SELECTION. SYSTEM INTERROGATED AND DETERMINED THE LOW PRESSURE MODULATING AND SHUTOFF VALVE DEFECTIVE. CLOSE INSPECTION OF VALVE PLENUM DETERMINED BUTTERFLY VALVE HAD BEEN EJECTED DOWNSTREAM OF PLUMBING AND WAS RETRIEVED WITH ALL HARDWARE INTACT. THE SHAFT OF THE VALVE THAT CONNECTS THE BUTTERFLY VALVE HAD BROKEN, RENDERING THE VALVE INOPERATIVE REGARDLESS OF TEMPERATURE INPUT. CHALLENGER 604 IPC REFERENCE 21-51-01 FIGURE 1 ITEM NR 10.

CA090202007	CNDAIR	GE	DUCT	DENTED
1/29/2009	CL604	CF343B	601970305	APU

(CAN) WHILE IN SCOTTSDALE, ARIZONA, DURING THE PREFLIGHT CHECK THE CREW NOTICED THE APU INLET WAS DENTED AND APU INLET BELLOWS WAS RIPPED. NO OPERATIONAL ABNORMALITY WERE NOTICED BY THE CREW PRIOR TO THE DISCOVERY. MAINTENANCE TECHNICIAN WAS DISPATCHED AND BOTH PARTS WERE REPLACED WITH NEW AND APU INLET CHECKED FOR HIDDEN DAMAGE AS PER CL605 MM CHAPTER 49-14. BOMBARDIER IS INVESTIGATING THE POSSIBLE CAUSE. I HAVE LISTED THE MANUFACTURER AS CANADAIR BUT THE CORRECT MANUFACTURER NAME IS SENIOR AEROSPACE WHICH IS NOT LISTED ON THIS PROGRAM.

CA090224002	CVAC	ALLSN	TUBE	LEAKING
2/12/2009	440	501D13	6878432	ENGINE OIL SYS

ON FEBRUARY 12, 2009 NR 1 ENGINE WAS SHUT DOWN 30 MINUTE BEFORE LANDING DUE TO OIL PRESSURE INDICATION OSCILLATING AND LOW OIL PRESSURE LIGHT ON. 20 LITERS OF OIL ADDED, FOUND OIL SUPPLY TUBE FOR THE TURBINE BEARING WAS LEAKING BADLY, REF. ROLLS-ROYCE PICK 72-50-00 FIG. 2 ITEM 14, AT THE SWIVEL GLEN. THE REAR TURBINE BEARING ASSEMBLY REPLACED, ENGINE TESTED SERVICEABLE.

CA090119009	DHAV	PWA	DHAV	INTAKE	CORRODED
1/16/2009	DHC2MK3	PT6A27	CT2EC100118	C2TEC100118	MIDDLE

DURING A STRUT REPAIR, THE TECH FOUND SEVERE CORROSION, LEVEL 3, ON 2 LONGERON INTAKE COWLS, PN C2TEC1001-18 AND C2TEC1001-17. BOTH PARTS WERE REPLACED.

CA090211004	DHAV	PWA	LINK	WORN
2/9/2009	DHC2MKI	R985AN14B	C2CF347ND	BELLCRANK ASSY

DURING THE REPLACEMENT OF THE BEARING IN THE ELEVATOR BELL CRANK ASSY, THE LINKS AND SPACERS WERE THE ELEVATOR CABLE ATTACHES WERE FOUND WORN, SPACERS WERE WORN RIGHT THROUGH (PN C2CF349ND). THE AN3 BOLT THAT ATTACHES LINK IN PLACE WAS WORN 1/3 THROUGH. SPACERS AND BOLTS WERE REPLACED.

CA090203001	DHAV	PWA	HINGE	CRACKED
2/2/2009	DHC3	PT6A135	C3FS4727	HORIZONTAL STAB

ON INSPECTION FOUND LT AND RT TAILPLANE HINGE ASSEMBLIES CRACKED THROUGH RIVIT HOLE ON ATTACHMENT LT P/N C3FS473-7 AND RT P/N C3FS472-7.

CA090130007	DHAV	PWA	GEAR	FAILED
7/29/2008	DHC6100	PT6A20		RGB

THEENGINE SUFFERED A COMPLETE LOSS OF POWER DUE TO A FAILURE OF A FIRST STAGE REDUCTION GEARBOX PLANETARY GEAR. FAILURE OF THE PLANETARY GEAR WAS THE RESULT OF INTERGRANULAR AND FATIGUE CRACKING TO THE PLANETARY GEAR BORE. THE BEARING SLEEVE SPUN WITHIN THE BORE DUE TO CONTAMINANTS WITHIN THE LUBRICATING OIL ENTERING THE BEARING SLEEVE AND PLANETARY GEAR SHAFT INTERFACE. CONTAMINANTS WITHIN THE LUBRICATING OIL WERE AS A RESULT OF NORMAL OIL CONTAMINANTS BEING ALLOWED TO BYPASS THE FINGER SCREEN OF THE PLANETARY GEAR. UPON DISASSEMBLY OF THE POWER SECTION IT WAS FOUND THAT THE FINGER SCREEN WAS DEFORMED AND RESULTED IN FRETTING OF THE MAIN O-RING ON THE FINGER SCREEN, AND FRETTING OF THE FINGER SCREEN BODY AND FINGER SCREEN CHAMBER. THE FRETTING GENERATED CONTAMINANTS THAT WERE ALLOWED TO BYPASS THE FINGER SCREEN AND WEAR ON THE O-RING ALSO ALLOWED CONTAMINANTS TO BYPASS THE SCREEN. THE TEFLON PACKING WAS IMPROPERLY POSITIONED DURING THE LAST OVERHAUL OF THE ENGINE. THE IMPROPERLY INSTALLED TEFLON PACKING IMPOSED ABNORMAL STRESSES TO THE FINGER SCREEN AND RESULTED IN THE DEFORMATION OF THE FINGER SCREEN BODY. THE UNFILTERED OIL CAUSED HIGH TEMPERATURES TO THE PLANETARY GEAR RESULTING IN FAILURE OF THE GEAR AND ULTIMATELY FAILURE OF THE POWER SECTION OF THE ENGINE.

CA080924010	DHAV	PWA	LEG ASSY	CRACKED
9/24/2008	DHC6300	PT6A27	C6UM11104	MLG

(CAN) DURING THE 12 MONTH INSPECTION OF THE MLG WHICH CONSISTS OF INSPECTING THE WELDS FOR CRACKS, A CRACK WAS DETECTED ON THE BOTTOM OF THE AFT ATTACH TUBE APPROX 5 INCHES FROM THE AFT GEAR ATTACH FITTING. (TC NR 20080924010)

CA090204007	DHAV	PWA	CONTROL CABLE	SEPARATED
2/2/2009	DHC7*	PT6A50	NAS303260852	BRAKES

ON APPLICATION OF BRAKES AFTER LANDING, THE LEFT PEDAL WENT TO THE MAX POSITION WITH NO EFFECT. LT BRAKE CABLE WAS FOUND SEPARATED APPROX 8 INCHES FROM THE VALVE IN THE UPPER FUSELAGE CLOSE TO A SMALL DIAMETER PULLEY. THIS CABLE WAS THE ORIGINAL INSTALLED IN 1981 AT THE FACTORY.

CA090219013	DHAV	PWA	EEC	FAILED
1/30/2009	DHC8*	PW123		ENGINE

(CAN) DURING APPROACH, ONE ENG EXPERIENCED (2) UNCOMMANDED POWER ACCELERATIONS. THE CREW REDUCED THE POWER (PLA) AND SHUTDOWN ENGINE. THE ACFT MADE A SINGLE ENGINE LANDING AT PLANNED DESTINATION. THE FUEL CONTROL, FUEL PUMP AND EEC WERE REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. MFG WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA090219016	DHAV	PWA	LINE	FRACTURED
2/4/2009	DHC8*	PW123		OIL SYSTEM

(CAN) DURING T/O ROLL, THE CREW RECEIVED A FIRE WARNING ON NR 1 ENGINE AND IMMEDIATELY ABORTED T/O. IT IS UNKNOWN IF FIRE BOTTLES WERE DISCHARGED. THE A/C RETURNED TO THE RAMP WHERE INS REVEALED A FRACTURED 6 AND 7 BEARING OIL LINE, FRACTURED 1ST AND 2ND STAGE PT BLADES. HEAT RELATED DAMAGE WAS ALSO FOUND ON ACCESS PANNELS. THE LOCAL AUTHORITIES ARE INVESTIGATING THIS EVENT. MFG HAS OFFERED ASSISTANCE AND WILL FOLLOW UP.

CA090127006	DHAV	PWA	PUMP	FAILED
1/26/2009	DHC8102	PW120	570347	HYD SYSTEM

WHEN SPU`S WERE SELECTED OFF, HYDRAULIC PRESSURE WAS LOST ON THE NR 2 HYDRAULIC SYSTEM. ASSOCIATED "RUDDER PRESSURE", "NR 2 RUDDER HYDRAULIC" AND "RUDDER FULL PRESSURE" ILLUMINATED. RECTIFICATION, NR 2 HYDRAULIC ENGINE DRIVEN PUMP REPLACED, GROUND RUNS AND LEAK CHECK SERVICEABLE.

CA090126004	DHAV	PWA	LINK	BROKEN
1/25/2009	DHC8102	PW120		NLG

WHILE CARRYING OUT LANDING GEAR RETRACTIONS, IT WAS FOUND THAT THE NOSE LANDING (NLG) WAS HUNG UP AT THE EXTENSION CYCLE. FURTHER INVESTIGATION REVEALED THAT THE NOSE LANDING (NLG) WAS NOT CENTERED AND THIS WAS PROBABLY CAUSED BY THE CENTERING SPRING NOT OVERCOMING THE BINDING FORCE. THIS RESULTED IN THE STEERING ACTUATOR BEING TWISTED UPWARDS AS A RESULT OF THE ADJUSTABLE LINK THAT WAS FOUND TO BE BROKEN. NOSE LANDING GEAR (NLG) ADJUSTABLE LINK ASSEMBLY REPLACED, FUNCTION CHECKED AND FOUND TO BE SERVICEABLE.

CA090205003	DHAV	PWA	TORQUE TUBE	DELAMINATED
2/3/2009	DHC8102	PW120	234187B	TE FLAPS

FLAP POWER LIGHT INTERMITTENT. TORQUE TUBE P/N 234187B OF PRIMARY FLAP DRIVE SYSTEM FOUND TO HAVE 300 DEGREES OF ROTATION FREE PLAY. BONDED ENDS (RUBBER) FOUND DISINTEGRATED. TORQUE TUBE REPLACED AND LUBRICATED IAW AMM 27-52-00. ADDITIONAL CHECKS OF INSTALLED PARTS PERFORMED BY APPLYING PRESSURE OF TORQUE TO CHECK INTEGRITY OF BONDED ELASTOMER. SYSTEM CHECK SERVICEABLE.

CA090119005	DHAV	PWA	VICKERS	BRAKE	LEAKING
1/12/2009	DHC8102	PW120	214665		

LEFT INBOARD BRAKE PACK LEAKING HYDRAULIC FLUID FROM ONE PISTON PUCK.

CA090203003	DHAV	PWA	LINE	LEAKING
2/2/2009	DHC8102	PW120A	82970009101	HYDRAULIC SYS

SHORTLY AFTER TAKEOFF, NR 1 HYD SYS WAS LOST, AIR CREEBEC FLIGHT 921 DECLARED AN EMERGENCY AND TURN BACK TO YUL AIRPORT ACFT LANDED SAFELY AND WAS TOWED TO GATE FOR PASSENGER OFFLOAD.

AFTER MAINTENANCE INSPECTION THEY FOUND THE NR 1 ENG DRIVEN PUMP CASE DRAIN LINE RUPTURE AT THE FILTER AREA IN THE LT WHEEL WELL LINE AND PUMP WAS REPLACED AND THE ACFT WAS BACK IN SERVICE AROUND 11:00 AM.

CA090204010	DHAV	PWA	LINE	BROKEN
2/2/2009	DHC8102	PW120A	82970009101	HYD SYSTEM

SHORTLY AFTER TAKEOFF, THE NR 1 ENG HYD PUMP CAUTION LIGHT ILLUMINATED AND NR 1 HYD QTY GAGE WENT TO ZERO. THE CREW DECLARED AN EMERGENCY AND RETURNED FOR A SAFE FLAPLESS LANDING. MAINTENANCE FOUND IN THE LEFT WHEEL WELL A BROKEN HYDRAULIC LINE. THE LINE IS THE RETURN FROM THE ENGINE DRIVEN HYDRAULIC PUMP TO THE CASE DRAIN FILTER.

CA090210013	DHAV	PWA	INDICATOR	FAILED
1/13/2009	DHC8102	PW120A	H321ALM1	STBY ATTITUDE

PIREP, STANDBY ATTITUDE INDICATOR FAILED. MADE GRINDING NOISE THEN TOPPLED. WOULD NOT RE-ERECT. LIGHTS REMAINED POWERED AND FLAG NOT IN VIEW. STANDBY INDICATOR REPLACED AND FUNCTION TEST SERVICEABLE. STRIP REPORT FROM AVIONICS SHOP ON SN 12395 STBY ATT IND, "FOUND THE ROTOR BEARINGS BOUND UP AND FUSE BLOWN. ERECTION AND DRIVE BEARINGS WORN." UNIT HAD 1196.5 HRS ON IT SINCE LAST REPAIR.

CA090210014	DHAV	PWA	INDICATOR	MALFUNCTIONED
1/20/2009	DHC8102	PW120A	SELOC8J	FUEL FLOW

PIREP NR 1 ENGINE FUEL FLOW INDICATOR ANALOG FLICKERING FOR APPROX 1 HOUR, WITH DIGITAL READ OUT SHOWING STEADY INDICATION. ACTION, FUEL FLOW GAUGE REPLACED WITH NEW. STRIP REPORT FROM SHOP, "FINDINGS: POINTER AND FDR OUTPUTS OSCILLATING, WORK PERFORMED. REPAIRED CRACKED SOLDER JOINTS ON IC, REF DIGITAL PC BOARD ASSEMBLY. FINAL TESTS, RE-CERTIFIED AND RETURNED TO SERVICE.

CA090210010	DHAV	PWA	METER	FAILED
1/22/2009	DHC8311	PW123	67003008010	A/C POWER

PILOT REPORTED, AC POWER METER CIRCUIT BREAKER POPPING. RECTIFICATION AC POWER METER REPLACED, CHECKED SERVICEABLE. AC POWER METER SENT TO VENDOR FOR REPAIR. WILL UPDATE SDR AT RECEIVING OF STRIP REPORT. UPDATE, FEB 10 2009 STRIP REPORT FROM AVIONICS SHOP STATEMENT- "INSPECT T/S FOUND INPUT DC RF FILTER SHORTED TO CASE GRD. REPAIR ALL THREE RF FILTERS ON DC POWER INPUT LINES, ASSEMBLE AND TEST TO MAN SPEC".

CA090216003	DHAV	PWA	STRUT	CRACKED
2/15/2009	DHC8311	PW123	881517	NLG

(CAN) DURING COMPLETION OF A-1 INSP TASK NR3220/51, EXTERNAL GENERAL VISUAL INSP OF THE NLG SHOCK STRUT AND DRAG STRUT, THE ENGINEER DISCOVERED A 9 INCH LONG CRACK ON THE AFT SIDE OF THE SHOCK STRUT CYLINDER. THE CRACK IS LOCATED BETWEEN THE SHOCK STRUT CYLINDER UPPER FLANGE AND THE CASTOR NUT LOCK PIN HOLE. THE NLG ASSY IS BEING REPLACED. THE NLG ASSY COMPLETE S/N IS DCL295/90/00R/00. THE SHOCK STRUT CYLINDER S/N IS DCL-796.

CA090123003	DHAV	PWA	WIRE	BURNED
1/20/2009	DHC8311	PW123		COMPENSATOR

(CAN) AT BASE, WHEN CAPTAIN TURNED ON THE BATTERY MASTER SWITCH, SUDDENLY GOT A BURNING ODOR WITH C/B POPPING. POPPED THE CAUTION LIGHT NR 2 AND AUTO-PILOT DISENGAGE C/B. FOUND NR1 RNAV (RADIO NAVIGATION) ANNUNCIATOR PANEL P/N : 83461029-003 AT FAULT ONE COMPENSATOR OVERHEATED ON PC BOARD (P/N : 82210023-003) ON THIS ASSY. PANEL REPLACED AND ACFT RETURNED TO SERVICE.

2009FA0000230	DIAMON	CONT	PUMP	MALFUNCTIONED
3/16/2009	DA20C1	IO240B	5367001	FUEL SYSTEM

PROBLEM WAS FOUND TRYING TO START ACFT, AUX PUMP DOESN'T SUPPLY ENOUGH FUEL PSI TO OPEN MANIFOLD TO PRIME ENGINE FOR STARTING. (2) SPEED AUX/EMERGENCY FUEL PUMP WILL NOT PROVIDE ENGINE WITH SUFFICENT FUEL FLOW OR FUEL PRESSURE TO RUN ENGINE IF ENGINE DRIVEN FUEL BECOMES

INOP IN AN EMERGENCY CONDITION. AIRPLANE ENGINE WILL NOT CONTINUE TO OPERATE IN FLIGHT. MFG REP. SAYS THAT IS CORRECT AND IT IS MFG PROBLEM. (ENGINE IS FINE AIRFRAME PROBLEM) MFG REP SAYS THE ACFT IS CERTIFIED. THEY ARE NOT ABLE TO ANWSER VERY MANY QUESTIONS. PROBLEM IS HOW DID THIS BECOME CERTIFIED IT IS AN UNSAFE CONDITION.

CA090210007	DIAMON	CONT		FUEL CONTROL	OUT OF ADJUST
2/8/2009	DA20C1	IO240B			ENGINE

PILOT REPORT, UPON APPLYING POWER ON THE FIFTH TOUCH-AND-GO, WHILE ROLLING ON RUNWAY, THE ENGINE STOPPED RUNNING. ATC WAS IMMEDIATELY ADVISED THE ENGINE HAD QUIT. AFTER A FEW SECONDS WAS ABLE TO PRIME AND RESTART THE ENGINE WITHOUT PROBLEM. ATC WAS ADVISED OF THIS AND TAXIED DOWN RUNWAY AND EXITED RUNWAY ONTO TAXIWAY. THE ENGINE DID NOT GIVE ANY FURTHER TROUBLES AND SHUT DOWN AT THE MAIN BASE WITHOUT INCIDENT. MAINTENANCE RESPONSE, ADJUSTED FUEL PRESSURES AND MIXTURE SETTINGS. AIRCRAFT RUN UP AND LEAK CHECKED. AIRCRAFT RETURNED TO SERVICE SUBJECT TO SATISFACTORY TEST FLIGHT.

CA090129016	DIAMON	CONT		UNKNOWN	UNKNOWN
1/27/2009	DA20C1	IO240B			

ENGINE SHUT DOWN AFTER TOUCHDOWN. FUEL SET UP PROCEDURE WAS PERFORMED IN ACCORDANCE WITH TCM SID97-3E AND GROUND RUN SATISFACTORY WITH ALL FUEL AND POWER INDICATIONS NORMAL. PAST EXPERIENCE WITH THESE ENGINE TYPES HAVE REVEALED THAT THEY CAN BE SENSITIVE TO AMBIENT TEMPERATURE AND PRESSURE CHANGES. ANOTHER CONTRIBUTING FACTOR MAY BE THE CONDITION OF THE FUEL SYSTEM COMPONENTS AND RELATED FUNCTIONS. THE FUEL SET UP PROCEDURE USUALLY CORRECTS THIS TYPE OF CONDITION.

CA090129004	DIAMON	CONT	DIAMON	TUBE	BLOWN
1/26/2009	DA20C1	IO240B	4078E	302013400	NEAR STEM

LT MAIN TIRE BLOWN ON LANDING. AIRCRAFT REMAINED ON RUNWAY UNTIL MAINTENANCE CREWS WERE ABLE TO REPLACE THE DEFECTIVE WHEEL ASSEMBLY WITH A SERVICEABLE UNIT AND ENABLE THE AIRCRAFT TO TAXI BACK TO THE HANGAR FOR FURTHER INSPECTION.

CA090129005	DIAMON	CONT		ENGINE	MALFUNCTIONED
1/26/2009	DA20C1	IO240B		IO240B	

PILOT REPORT, ENGINE FAILED ON RUNWAY FOLLOWING FULL POWER APPLICATION AFTER DOING TOUCH AND GO. ENGINE WAS RESTARTED AFTER SEVERAL ATTEMPTS AND TAXIED OFF. MAINTENANCE RESPONSE, FUEL SET UP PROCEDURE WAS PERFORMED IN ACCORDANCE WITH TCM SID97-3E AND GROUND RUN SATISFACTORY WITH ALL FUEL AND POWER INDICATIONS NORMAL. EXPERIENCE WITH THESE ENGINE TYPES HAVE REVEALED THAT THEY CAN BE SENSITIVE TO AMBIENT TEMPERATURE AND PRESSURE CHANGES. ANOTHER CONTRIBUTING FACTOR IS THE CONDITION OF THE FUEL SYSTEM COMPONENTS AND RELATED FUNCTIONS. THE FUEL SET UP PROCEDURE USUALLY CORRECTS THIS TYPE OF CONDITION.

CA090129006	DIAMON	CONT	DIAMON	TUBE	WORN
1/29/2009	DA20C1	IO240B	EQUIPMENT	2227271100	UPPER S TUBE

INSPECTION OF THE RUDDER PEDAL ASSEMBLY REVEALED EXCESSIVE WEAR ON THE S TUBE CAUSED BY WEAR FROM THE RUDDER CABLE. THE WEAR WAS DETECTED BY VISUALLY CHECKING THE OUTER SURFACE OF THE S TUBE FOR MATERIAL DEFORMATION IN THE AREA(S) WHERE THE CABLE CAUSES THE MOST FRICTION ON THE INSIDE OF THE TUBE. THE AIRCRAFT RUDDER CABLES WERE DUE FOR REPLACEMENT AS MANDATED BY THE MANUFACTURER AT EACH 3000 HOURS TTSN. THIS DEFECT HAS BEEN ADDRESSED IN PREVIOUS REPORTS FROM THIS COMPANY. BASED ON THE NATURE OF THIS DEFECT WE REPLACED ALL RUDDER PEDAL ASSEMBLIES ALONG WITH THE CABLES AND HAVE AMENDED OUR INTERNAL MAINTENANCE TRACKING TO INSPECT/REPLACE AS NECESSARY THE PEDAL ASSEMBLIES AT 2500 HOUR INTERVALS. THIS ISSUE CONTINUES TO BE MONITORED.

CA090203006	DIAMON	CONT		RUDDER PEDAL	WORN
1/21/2009	DA20C1	IO240B		2227211200	COCKPIT

DURING THE AIRCRAFT PREFLIGHT INSPECTION, THE PILOT REPORTED THAT THE PILOTS SIDE RUDDER PEDAL CABLE WAS STUCK IN THE FULL FORWARD POSITION. CLOSER INSPECTION BY MAINTENANCE REVEALED THAT

THE PILOTS SIDE LT RUDDER CABLE HAD WORN THROUGH THE S TUBE THAT FORMS PART OF THE PEDAL ASSEMBLY. THE CABLE WAS EXPOSED THROUGH THE UPPER BEND OF THE S TUBE TO A POINT WHERE IT WAS JAMMED IN ITS WEAR HOLE THUS RESTRICTING THE SLIDE ACTION OF THE PEDAL ASSEMBLY ON THE ADJUSTMENT SLIDE TUBE. THE DEFECTIVE PART WAS REPLACED ALONG WITH THE OTHER PEDALS DUE TO THEIR SUSPECTED CONDITION NEARING THAT OF THE FAILED PART.

CA090123006	DIAMON	CONT	DIAMON	ROLL PIN	MISSING
1/23/2009	DA20C1	IO240B			FLAP ACTUATOR

PILOT REPORTED THAT THE FLAPS WOULD NOT GO DOWN. INSPECTION REVEALED THAT THE ROLL PIN WHICH IS USED TO LOCK THE ROD END BEARING AT THE END OF THE FLAP ACTUATOR WAS MISSING ALLOWING THE FLAP ACTUATOR ROD TO ROTATE AND ALLOW FOR MIS-ALIGNMENT OF ALL FLAP CONTROL SWITCHES. REPAIRED FLAP ACTUATOR INSTALLED.

2009FA0000071	DIAMON	CONT	RELIEF VALVE	STICKING
2/10/2009	DA20C1	IO240B	631687	ZONE 400

PILOT CALLED TOWER TO REQUEST PERMISSION FOR PRIORITY APPROACH TO AIRPORT DUE TO A LOW OIL PRESSURE INDICATION. ACFT LANDED WITHOUT INCIDENT. MX PROCEDURES CONSISTING OF CLEANING OIL PRESSURE RELIEF VALVE PERFORMED, WITH A SATISFACTORY OPS RUN-UP CHECK. ACFT APPROVED FOR RETURN TO SERVICE BY AUTHORIZED MX PERSONNEL.

CA081229002	DIAMON	CONT	OIL SYSTEM	MALFUNCTIONED
12/29/2008	DA20C1	IO240B		ENGINE

(CAN) PILOT REPORTED LOW OIL PRESSURE READING (15-20 PSI) WHILE PERFORMING TEST FLIGHT AFTER MAINTENANCE. NO LEAKS WERE DETECTED & ACFT GROUND RUN WITH AN EXTERNAL PRESSURE GAUGE TO VERIFY PRESSURE READINGS ON ACFT GAUGE. OIL PRESSURE RELIEF SPRINGS & PLUNGER REPLACED WITH NEW. OIL PRESSURE INDICATIONS REMAIN SUSPECT WHEN COMPARED TO INFORMATION PROVIDED IN ACFT FLT MANUAL. SECTION 2.5 (TR-1) OF AFM STATES THAT THE OIL PRESSURE SHOULD BE 30-60 PSI IN GREEN NORMAL OPS RANGE FOR TYPE. NORMAL OPERATING RANGE IS STATED AS 700-2800 RPM. BASED ON THIS INFORMATION, OIL PRESSURE SHOULD BE AT LEAST 30 PSI EVEN AT 700 RPM. PREVIOUS EXPERIENCE ON THIS ACFT TYPE HAS PROVEN THAT IT IS NOT UNCOMMON FOR OIL PRESSURE READING TO INDICATE BELOW 30 PSI AT VARIOUS PHASES OF FLT. ENGINE OPS MANUAL SECTION 6-22 STATES "IF OIL PRESSURE DROPS BELOW 30 PSI, AN ENGINE FAILURE SHOULD BE ANTICIPATED." HAVE CONSULTED WITH THE ENGINE MANUFACTURER AND AIRFRAME MANUFACTURER FOR CLARITY ON INTERPRETING THESE OIL PRESSURE INDICATIONS. VARIOUS IDEAS AND TROUBLESHOOTING TIPS HAVE BEEN EXCHANGED AND DOCUMENTED WITH AMO 62-92.

2009FA0000100	DIAMON	GEAR	CRACKED
2/24/2009	DA40		STARTER GEN

WHILE ATTEMPTING TO START THE ENGINE ON THE GROUND THE ENGINE TURNED OVER SEVERAL TIMES BUT THEN STOPPED. THE STARTER WAS STILL RUNNING AND COULD BE HEARD FROM THE COCKPIT. INVESTIGATION REVEALED THE STARTER BENDIX/GEAR HSG HAD CRACKED AND SEPARATED FROM THE CASTING.

CA090122001	DIAMON	SHAFT	DAMAGED
1/5/2009	DA42	D6032338232	NLG

THE NLG TUBULAR PIVOT ASSEMBLY SHOWS SIGNS OF FAILURE INDICATED BY THE MISALIGNMENT OF THE GUDGEON (D60-3233-82-31) WITHIN THE TUBULAR PIVOT SHAFT (D60-3233-82-32). THE MISALIGNMENT ALWAYS OCCURS ON THE LT GUDGEON AND ALWAYS OPENS TOWARD THE AFT DIRECTION WHEN THE GEAR IS DOWN AND LOCKED. FORCES ON THIS POINT ARE INDUCED BY THE NLG SPRING ASSEMBLY AND THE NLG ACTUATOR OVERDRIVING THE DOWN LOCK. REPEATED FORCES ON THE GUDGEON RESULT IN A BELLING DEFORMATION ON THE TUBULAR PIVOT SHAFT.

CA090122002	DIAMON	SHAFT	DAMAGED
12/29/2008	DA42		NLG

THE NLG TUBULAR PIVOT ASSEMBLY SHOWS SIGNS OF FAILURE INDICATED BY THE MISALIGNMENT OF THE GUDGEON (D60-3233-82-31) WITHIN THE TUBULAR PIVOT SHAFT (D60-3233-82-32). THE MISALINGMENT ALWAYS OCCURS ON THE LT GUDGEON AND ALWAYS OPENS TOWARD THE AFT DIRECTION WHEN THE GEAR IS DOWN

AND LOCKED. FORCES ON THIS POINT ARE INDUCED BY THE NLG SPRING ASSEMBLY AND THE NLG ACTUATOR OVERDRIVING THE DOWN LOCK. REPEATED FORCES ON THE GRUDGEON RESULT IN A BELLING DEFORMATION ON THE TUBULAR PIVOT SHAFT.

CA090122003	DIAMON		SHAFT	DAMAGED
12/29/2008	DA42		D6032338232	NLG

THE NLG TUBULAR PIVOT ASSEMBLY SHOWS SIGNS OF FAILURE INDICATED BY THE MISALIGNMENT OF THE GUDGEON (D60-3233-82-31) WITHIN THE TUBULAR PIVOT SHAFT (D60-3233-82-32). THE MISALIGNMENT ALWAYS OCCURS ON THE LT GUDGEON AND ALWAYS OPENS TOWARD THE AFT DIRECTION WHEN THE GEAR IS DOWN AND LOCKED. FORCES ON THIS POINT ARE INDUCED BY THE NLG SPRING ASSEMBLY AND THE NLG ACTUATOR OVERDRIVING THE DOWN LOCK. REPEATED FORCES ON THE GRUDGEON RESULT IN A BELLING DEFORMATION ON THE TUBULAR PIVOT SHAFT.

CA090122004	DIAMON		SHAFT	DAMAGED
12/29/2008	DA42		D6032338231	NLG PIVOT ASSY

THE NLG PIVOT ASSEMBLY FAILED BY SHEARING OF THE LT GUDGEON WITHIN THE TUBULAR PIVOT SHAFT. THIS FAILURE WAS NOTED UPON INSPECTION DUE TO A NLG INDICATION LIGHT NOT BEING ILLUMINATED DURING TAXI OUT. UPON RETURNING TO HANGAR THE FAILURE WAS NOTED. ALSO DISCOVERED WAS COMPOSITE DAMAGE ON THE LT WALL OF THE WHEEL WELL INFLICTED BY THE NLG COMPONENT DISLOCATION.

CA090122005	DIAMON	DIAMON	SHAFT	DAMAGED
12/29/2008	DA42	D60323382	D6032338232	END OF SHAFT

THE NLG TUBULAR PIVOT ASSEMBLY SHOWS SIGNS OF FAILURE INDICATED BY THE MISALIGNMENT OF THE GUDGEON (D60-3233-82-31) WITHIN THE TUBULAR PIVOT SHAFT (D60-3233-82-32). THE MISALIGNMENT ALWAYS OCCURS ON THE LT GUDGEON AND ALWAYS OPENS TOWARD THE AFT DIRECTION WHEN THE GEAR IS DOWN AND LOCKED. FORCES ON THIS POINT ARE INDUCED BY THE NLG SPRING ASSEMBLY AND THE NLG ACTUATOR OVERDRIVING THE DOWN LOCK. REPEATED FORCES ON THE GRUDGEON RESULT IN A BELLING DEFORMATION ON THE TUBULAR PIVOT SHAFT.

CA090122006	DIAMON	DIAMON	SHAFT	DAMAGED
12/29/2008	DA42	D60323382	D6032338232	END OF SHAFT

THE NLG TUBULAR PIVOT ASSEMBLY SHOWS SIGNS OF FAILURE INDICATED BY THE MISALIGNMENT OF THE GUDGEON (D60-3233-82-31) WITHIN THE TUBULAR PIVOT SHAFT (D60-3233-82-32). THE MISALIGNMENT ALWAYS OCCURS ON THE LT GUDGEON AND ALWAYS OPENS TOWARD THE AFT DIRECTION WHEN THE GEAR IS DOWN AND LOCKED. FORCES ON THIS POINT ARE INDUCED BY THE NLG SPRING ASSEMBLY AND THE NLG ACTUATOR OVERDRIVING THE DOWN LOCK. REPEATED FORCES ON THE GUDGEON RESULT IN A BELLING DEFORMATION ON THE TUBULAR PIVOT SHAFT.

2009FA0000234	DIAMON	THIELT	TUBE	BENT
3/17/2009	DA42	TAE12501	D6032338232	ZONE 700

DURING A PREFLIGHT INSPECTION, THE NLG DRAG BRACE PIVOT WAS FOUND TO BE LOOSE, BENT AND DAMAGED. THE FOLLOWING PARTS NEEDED TO BE CHANGED BECAUSE OF DAMAGE. 1 CAMP BOLT TUBE, 1 BRACE BEARING, 1 NIG BRACKET, 2 GUDGEON AND 2 BEARINGS. INVESTIGATION REVEALED THROUGH AN OPERATION TEST OF THE LANDING GEAR THAT THE NLG ACTUATOR IS PUTTING TO MUCH PRESSURE ON THE CAMP BOLT TUBE WHEN IN THE EXTENDED POSITION. THIS CAUSES THE CAMP BOLT TUBE TO BEND AND OVER TIME CAUSES THE ENDS TO FLARE OUT WHERE THE GUDGEONS AND INSTALLED. IF ALLOWED TO GO ON THE GUDGEONS COULD FALL OUT.

2009FA0000211	DIAMON	THIELT	WIRE HARNESS	BURNED
2/26/2009	DA42	TAE1250299	057150E000902	FADEC

DURING IMC FLIGHT, THE RT ENGINE EXPERIENCED A RAPID 50 PERCENT POWER EXCURSION DOWNWARD TO 25 PERCENT AND RAPID SURGING THEREAFTER. AN EMERGENCY WAS DECLARED TO ATC, THE FLIGHT COMPLETED SAFELY. INVESTIGATION: ON THE FADEC ENGINE WIRING LOOM, THE PROPELLER CONTROL VALVE CONNECTOR CONTACTS WERE FOUND BURNED FROM ARCING, AND THE CONTACTS WERE MECHANICALLY SPREAD AND NO LONGER ABLE TO MAKE GOOD CONTACT WITH THE PROP CONTROL VALVE SPADE TYPE PINS. IF THIS

CONNECTOR LOSES CONDUCTIVITY WITH THE PROPELLER CONTROL VALVE IN FLIGHT, THE PROP "FAIL SAFES" TO FEATHER, SHUTTING THE ENGINE DOWN. THIS OPERATOR HAS HAD SEVERAL PROBLEMS WITH THESES ENGINES DEEP SURGING, INCLUDING ONE IN-FLIGHT. (K)

2009FA0000228	ECLIPS	ATTACH FITTING	LOOSE
3/14/2009	ECLIPSEEA500		LT WING

LAST YEAR ABOUT THIS TIME WE WERE PERFORMING PERFORMANCE MODS ON THE ACFT. FOUND THE MAIN WING ATTACH POINTS TO HAVE EXCESSIVE PLAY ON BOTH WINGS WHEN ACFT WAS ON JACK. ENGINEERING LOOKED AT THE DATA WE PRESENTED TO THEM AND SAID "THE PLAY WAS WITHIN LIMITS." HAVE WORKED MANY ACFT AND NEVER SEEN THIS CONDITION ACCEPTABLE. IT HAS APPROX .020 TO .030 PLAY AT MAIN WING ATTACH FITTING. WHICH AT THE WING TIPS = OUT TO ABOUT 8 INCH. ENGINEERING DID NOT SPECIFY ANY ADDITIONAL INSP REQUIREMENTS. BELIEVE THIS WAS A COVER UP BY UPPER MANAGEMENT AT THE TIME SO THAT THE PRODUCT WOULD NOT BE DAMAGED. I AM HIGHLY CONCERNED THAT IS AN UNSAFE CONDITION AND NEEDS TO BE LOOKED INTO. THERE ARE MANY OTHER ITEMS ON THIS ACFT THAT NEED TO BE LOOKED INTO AS WELL SUCH AS AVIONICS SYS. FIRE PROTECTION AGENT IS SEVERALLY CORROSIVE WITH IN A DAY IF THE AGENT IS NOT FOUND LEAKING IT EATS STAINLESS STEEL AND ALUMINUM VERY QUICKLY. THE RT ENGINE IS EFFECTED SEVERAL BECAUSE THE IMPENDING BYPASS SWITCH FOR THE FUEL CONTROLLER IS DRIPPED ON BY THE AGENT AND COULD CAUSE AN UNSAFE CONDITION IF THERE IS BLOCKAGE WITH FUEL THE INDICATION MY NOT BE RECORDED. AT THE TIME,DID NOT REPORT IT BECAUSE MFG SCARED EMPLOYEES WITH THERE NONDISCLOSURE AGREEMENT AND TERMINATION IF ANY INFORMATION WAS LEAKED OUT. AC NR SERIAL NR 28 WAS THE AIRCRAFT THAT THE WINGS WERE FOUND LOSS ON.

2009FA0000189	ECLIPS	WINDSHIELD	DAMAGED
1/22/2009	ECLIPSEEA500	561035971004	COCKPIT

DURING A POST FLIGHT INSPECTION, IT WAS NOTED THAT THE INNER PANE OF THE PILOTS WINDSHIELD HAD LOCALIZED HAZING IN THE CRITICAL VISION AREA, AS DEFINED BY EA500 AMM 06-117751, CHAPTER 56-00-00, FIG 601; JUST BEHIND THE GLARE SHIELD MOUNTED OPTIONAL ELECTRIC ATTITUDE INDICATOR. ACFT WAS FERRIED TO SERVICE CENTER, UNDER LIMITED ALTITUDE OF NO MORE THAN 12,000 (UNPRESSURIZED) FEET WITH AIRSPEED OF NO MORE THAN 250 KNOTS, FOR THE REPLACEMENT OF PILOTS WINDSHIELD. CONTROL NO. CUXA2009-00001

CA090127001	EMB	GE	BRAKE ASSY	FAILED
12/13/2008	ERJ170200SU	CF348E5A1	900005832PR	

TRANSCRIPTION OF EMAIL RECEIVED FROM MRO: BRAKE PN 90000583-1PR SN MAR05-0550 AC PO C129RAER006 THIS BRAKE WAS RECEIVED IN PRETTY BAD CONDITION. IT LOOKS LIKE 2 ROTORS AND 1 STATOR FAILED DURING OPERATION. ATTACHED ARE SOME PICTURES OF THE BRAKE AND PIECES OF THE CARBON STACK THAT FELL OUT OF THE BRAKE. WE HAVE NOT DISASSEMBLED YET IN CASE SOMEONE NEEDS TO INVESTIGATE FURTHER. IT ALSO LOOKS LIKE SOME DAMAGE TO THE TORQUE TUBE WHERE WE CAN SEE IN THROUGH THE HOLE BY THE MISSING CARBON DISK.

CA090127004	EMB	GE	MEGGITT	DISK	DAMAGED
1/21/2009	ERJ170200SU	CF348E5A1			BRAKE ASSY

TRANSCRIPTION FROM EMAIL RECEIVED FROM ENGINEERING DEPT, FAILED WITH 2048 LANDINGS SINCE INSTALLATION, MPN: 90000583-1PR WITH SN: APR05-0595 FOUND THE DAMAGE WAS FOUND AFTER REMOVAL OF THE WHEEL TO REPAIR FLAKING PAINT WHICH WAS IDENTIFIED IN THE 14TH OF JANUARY DURING A WTL M/W CHANGE AT THAT POSITION. NO DAMAGE TO THE BRAKE WAS NOTED AT THAT TIME. SO IN MERELY 7 DAYS WE HAD SUFFICIENT DETERIORATION OF THE CARBON CONDITION TO CAUSE FAILURE DESPITE HAVING DONE THE RECOMMENDED INSPECTIONS PER THE SB.

CA090204001	EMB	GE	WHEEL	FAILED
1/29/2009	ERJ190100IGW	CF3410E5A1	90002331	MLG

THE RIGHT MAIN TIRE WAS BLOWN ON LANDING. THERE WAS TIRE DEBRIS FOUND ON RUNWAY. ENGINEERING BELIEVE THIS TO BE CAUSED BY A FROZEN BRAKE. OTHER P/N (O/B HALF WHEEL) IS 90002318, S/N IS JUL06-0529.

CA090205010	GROB	LYC	ACTUATOR	DAMAGED

1/23/2009	G120A	AEIO540D4D5	120A42614262	TE FLAPS

AIRCRAFT ON LOCAL FLIGHT TRAINING MISSION. INSTRUCTOR NOTED FLAPS CIRCUIT BREAKER POPPED WHEN FLAPS SELECTED UP. C/B RESET AS PER CHECKLIST, POPPED WHEN SELECTED UP A SECOND TIME. INSTRUCTOR ADVISED ATC OF FLAP DIFFICULTY AND RETURNED TO LAND WITH FLAPS IN LANDING, FULL DOWN, POSITION. ACFT WAS MET WITH AIRFIELD EMERGENCY RESPONSE, LANDED WITHOUT INCIDENT. MAINTENANCE BROUGHT ACFT INTO WARM HANGAR. FLAPS CYCLED REPEATEDLY WITHOUT FAULT. ACFT RELEASED SERVICEABLE. THE FLAP C/B EVENT IS TYPICAL OF TYPE IN COLD WEATHER (MID -20S C. AND COLDER). THE FLAP ACTUATOR IS AN `ACME` THREAD SCREW JACK DRIVEN BY FLEXIBLE DRIVES FROM THE FLAP MOTOR/TRANSMISSION ASSY. IT IS SUSPECTED THAT THE LUBRICANT IN THE ACTUATOR BECOMES TOO VISCOUS IN COLD WEATHER CAUSING EXCESSIVE RESISTANCE AT THE MOTOR. CONSEQUENTLY THE MOTOR IS SLOWED CAUSING THE HIGHER THAN NORMAL CURRENT DRAW, HENCE THE C/B POPS. OEM IS WORKING WITH OPERATOR TO DELIVER FLAP ACTUATORS WITH AN IMPROVED LUBRICANT THEY BELIEVE WILL IMPROVE THE COLD WEATHER RELIABILITY OF THE FLAP SYSTEM.

CA090129007	GRUMAN	WRIGHT	BUSHING	WORN
1/28/2009	TS2ACALFORST	982C9HE2	89TM109641	ELEVATOR

DURING VISUAL INSPECTION OF ELEVATOR BELLCRANK IAW SB 00-004R1, WEAR WAS FOUND IN THE BUSHING BOSS PLATE.

CA090129015	GULSTM	LYC	SHAFT	CRACKED
1/26/2009	500S	IO540E1B5	7500691	NLG

ON VISUAL INSPECTION OF THE NOSE LANDING GEAR DRAG BRACE AND BUNGEE SYSTEM, IT WAS FOUND THAT THE SHAFT LINKING THE DRAG BRACE TO THE BUNGEE WAS CRACKED AT THE BOLT HOLES. THE BOLT HOLES WERE FOUND TO ALSO BE ELONGATED. THE SHAFT WAS REMOVED AND THE HIDDEN PART OF THE SHAFT WAS SEVERELY CRACKED. SIX OTHER AERO COMMANDER 500B AND 500S ARE TO BE INSPECTED. TO DATE 2 SHAFTS ARE FOUND CRACKED.

AMCR200901	GULSTM		EXTINGUISHER	DISCHARGED
3/2/2009	GIVG400		474276	ZONE 900

DURING ROUTINE INSP, FOUND MINI-EXTINGUISHER (9 CU.IN) FOR WASTE RECEPTACLE IN GALLEY FAILED WEIGHT CHECK. FOUND DISCHARGE TUBE CHAFED FROM CONTACT WITH WASTE RECEPTACLE.

CA090130011	GULSTM	GARRTT	ACTUATOR	MALFUNCTIONED
1/23/2009	GULFSTREAMGV	TFE73140	3538000000	MLG

AFTER TAKEOFF THE GEAR LANDING GEAR WAS SELECTED UP. ALL 3 "DOWN AND LOCKED" LIGHTS EXTINGUISHED BUT THE "IN TRANSIT" RED LIGHT REMAINED ILLUMINATED AND THE TOWER REPORTED THAT THE RIGHT MAIN GEAR WAS STILL EXTENDED. THE LANDING GEAR WAS SELECTED DOWN. THE NOSE AND LEFT MAIN GEAR "DOWN AND LOCKED" LIGHTS ILLUMINATED IMMEDIATELY BUT THE RED "IN TRANSIT" LIGHT REMAINED ILLUMINATED. AFTER APPROXIMATELY 30 SECONDS THE RIGHT MAIN GEAR "DOWN AND LOCKED" INDICATOR ILLUMINATED AND THE "IN TRANSIT" LIGHT EXTINGUISHED. THE AIRCRAFT LANDED AND RETURNED TO THE HANGAR. A VISUAL INSPECTION REVEALED NO OBVIOUS DAMAGE OR LEAKAGE. A REPLACEMENT ACTUATOR WAS INSTALLED AND THE AIRCRAFT RETURNED TO SERVICE. NO RECURRENCE HAS BEEN NOTED IN THE FOLLOWING 3 FLIGHTS DURING WHICH THE LANDING GEAR WAS RETRACTED AND EXTENDED NUMEROUS TIMES. THE FAILED ACTUATOR HAS BEEN RETURNED TO THE MANUFACTURER FOR INVESTIGATION.

CA090205005	HOFFLU	ROTAX	CRANKCASE	CRACKED
2/4/2009	H36DIMONA	ROTAX914	888364	ENGINE

OIL LEAKING FROM UPPER REAR CYLINDER HOLD DOWN STUD. THE OIL WAS FOUND TO RUN DOWN THE STUD AND EXIT ONTO THE CYLINDER FINS. OIL LEAK WAS ONLY NOTICED AT HIGHER TEMPS, AREA WOULD STAY CLEAN AT NORMAL RUN-UP CONDITIONS. THIS LEAK IS UNUSUAL AS THE STUD DOES NOT PROTRUDE INTO THE CASE (SO NO O-RING OR SEALANT IS REQUIRED). CASE WAS DISASSEMBLED AND NDT LOCATED THE CRACK ON THE INSIDE WEBBING OF THE CENTER CRANKSHAFT JOURNAL. CRACK WAS NOT VISUALLY DETECTABLE AND DID NOT CONTINUE TO THE OUTSIDE SURFACE OF THE CRANKCASE. CRANKCASE TO BE REPLACED WITH NEW.

CA090126006	HUGHES	LYC	BOLT	BROKEN
1/26/2009	269C	HIO360D1A	269A60923	TAIL ROTOR

OPERATING A SCHWEIZER 269 C MODEL SERIAL NUMBER S1575 TSN 6449.5 THE CONICAL BRGS WERE REPLACE WITH NEW AT 6338.8 AND A NEW BOLT WAS INSTALLED AT THIS TIME P/N 269A6092-3 WHICH WAS PURCHASE NEW FROM SCHWEIZER ON. THE RETORQUE WAS CARRIED OUT AT 6416.1 TSN NO MOVEMENT WAS NOTED AT THIS TIME. THE AIRCRAFT WAS IN FLIGHT AT THE TIME OF THE OCCURRENCE. THE PILOT WAS TURNING SHORT FINAL WHEN HE FELT A VIBRATION SUSPECTED ENGINE PROBLEMS. HE COMPLETED A RUN ON LANDING UNDER POWER WHILE MAINTAINING DIRECTIONAL CONTROL. UPON LANDING THE AIRCRAFT WAS NOT PERFORMING CORRECTLY AND A VIBRATION WAS FELT. THE PILOT SHUT DOWN AND MAINTENANCE WAS BROUGHT OUT TO AIRCRAFT. UPON INSPECTION OF AIRCRAFT IT WAS NOTED THE FLAPPING HINGE BOLT WAS SHEARED AND THE AIRCRAFT WAS THEN GROUND HANDLED TO THE HANGAR FOR FURTHER INSPECTION.

CA090115008	HUGHES	ALLSN	ALLSN	SPRAG ASSY	UNSERVICEABLE
1/15/2009	369D	250C20B		369D25351	O/R CLUTCH

SPRAG ASSY FAILED 300 HR INSPECTION DUE TO 2 BROKEN CORNERS OF 2 DIFFERENT TEETH (SPRAGS). NO OTHER DAMAGE WAS FOUND TO THE ASSEMBLY AS A RESULT OF THIS INCIDENT. CLUTCH ASSY WAS WORKING FINE PRIOR TO INSPECTION. NEW SPRAG ASSY INSTALLED AND CLUTCH RETURNED TO SERVICE.

CA090112011	HUGHES	ALLSN	BELLCRANK	CRACKED
1/7/2009	369D	250C20B	369A7302	FLT CONTROLS

A CRACK WAS FOUND ON THIS FLIGHT CONTROL BELLCRANK DURING ANNUAL INSPECTION.

2009FA0000247	LANCAR	CONT	SPEED BRAKE	FAILED
3/2/2009	LC40550FG	IO550N	300500031	WING

THE ACFT USES PRECISE FLIGHT SPEEDBRAKES. 31 AUG 07, FOUND A PROBLEM WITH THE SPEEDBRAKES AND WERE REPLACED. THE SPEEDBRAKES HAVE BEEN OVERHAULED (5) TIMES SINCE. 2 MAR 09, DEPLOYED THE SPEEDBRAKES IN FLIGHT AND THE ACFT YAWED TO THE RIGHT. APPARENTLY ONE SPEEDBRAKE DEPLOYED BEFORE THE OTHER. INSPECTED THE SPEEDBRAKES AND FOUND SEVERAL DISCREPANCIES. THE PROBLEM COULD BE A VERY TIGHT FIT OF THE RT SPEEDBRAKE. SCRAPED AND SANDED THE RT SPEEDBRAKE HOLE. THE SPEEDBRAKES ARE CURRENTLY BEING OVERHAULED. THIS IS A SAFETY OF FLIGHT PROBLEM. WHEN THE POWER WAS REMOVED THE RT SPEEDBRAKE AND WOULD STAY DEPLOYED. (K)

2009FA0000233	LANCAR	CONT	CYLINDER HEAD	CRACKED
3/17/2009	LC42550FG	IO550N	655465B	NR 4

DURING INSP, FOUND NR (4) CYLINDER CRACKED FROM FUEL INJECTOR HOLE TOWARDS UPPER SPARK PLUG HOLE.

BHKA10FNFEB252009	LEAR	GARRTT	TURBINE BLADES	FAILED
2/25/2009	36LEAR	TFE731*		ENGINE

WHILE CLIMBING AT 17,000 FT, APPROX 40 MINUTES INTO FLIGHT, HEARD LOUD BANGS COMING FROM THE RT ENG. THE ENGINE SHUTDOWN, AND THE A/C LANDED (UNSCHEDULED) WITHOUT INCIDENT. UPON VISUAL INSPECTION, IT WAS FOUND THERE WAS CONTAINED TURBINE FAILURE, AND BLADES WERE MISSING. THE ENGINE IS BEING REMOVED FOR TEARDOWN ANALYSIS, AND INVESTIGATION BY MAINT.

CA090212004	LEAR	ALIDSG	DRIVE UNIT	LEAKING
2/11/2009	45LEAR	TFE7313AR	C1444831	TE FLAPS

(CAN) FLAP POWER DRIVE UNIT FOUND LEAKING FROM SOLENOID VALVE, THIS IS THE (4TH) UNIT WE HAVE HAD THE SAME FAULT ON, NO SDR WAS SUBMIITTED ON THE PREVIOUS UNITS. THE FIRST UNIT SN 1385P HAD 1217.9 TT WHEN IT STARTED TO LEAK FROM SOLENOID, REPLACED 2008/04/11, NEXT UNIT SN 1101 WAS ON FOR 29.1 HOURS, REPLACED 2008/05/11, NEXT UNIT SN 1387 WAS ON FOR 99.6 HOURS REPLACE 2009/07/11, UNIT SN 1322 WAS INSTALLED FOR 279.8 HOURS. ACCORDING TO MM NO LEAK RATE FROM THE SOLENOID VALVE IS GIVEN.

CA090121002	LKHEED	ALLSN	WINDSCREEN	FAILED
1/19/2009	382G	501D22A	3850201	COCKPIT

(CAN) AFTER DEPARTING, THE ACFT SUFFERED A CENTER WINDSHIELD OUTER PANE FAILURE. THE CREW REDUCED CABIN PRESSURE AND THE ACFT RETURNED TO POINT OF DEPARTURE AND LANDED WITHOUT FURTHER PROBLEM. MX REPLACED THE CTR WINDSHIELD AND THE ACFT WAS RETURNED TO SERVICE.

CA090210005	LKHEED	ALLSN	HAMSTD	HOUSING	LEAKING
2/6/2009	382G	501D22A		582855	VALVE

DEPARTING YZF THE CREW OBSERVED A LOW OIL INDICATION ON NR 3 PROPELLER IN THE CLIMB WITH NORMAL RPM. THE PROPELLER RPM INCREASED TO 103 PERCENT SHORTLY AFTER AND THE CREW SHUT THE NR 3 ENGINE DOWN. THE AIRCRAFT RETURNED TO POINT OF DEPARTURE AND LANDED WITHOUT FURTHER PROBLEM. MAINTENANCE REPLACED THE NR 3 PROPELLER, AND PROP VALVE HOUSING AND THE AIRCRAFT WAS RETURNED TO SERVICE. MAINTENANCE OBSERVED SOME DAMAGE ON 3 PROPELLER BLADE SEALS AND IT IS UNCONFIRMED THAT THE FLUID LOSS INDUCED A VALVE HOUSING PROBLEM OR IF THE OVER SPEED CONDITION WAS RESULTANT FROM AN ACTUAL PROP VALVE FAILURE. TEARDOWN RESULTS ARE BEING REQUESTED FROM THE VENDOR.

2009FA0000238	LKHEED			FITTING	CRACKED
3/20/2009	P3A			9032201	ZONE 500

DURING PHASE DEPOT INSP THE LWR FWD LT RING FITTING, PN 903220-1 WAS FOUND FRACTURED THRU THE HORIZONTAL BOTTOM FLANGE AT THE FILLET NUT PLATE HOLE AND HAD PROPAGATED ACROSS THE BOTTOM WEB AND UP THE VERTICAL THROUGH TWO FASTENERS; THE FIRST .1875 INCHAND THE SECOND .2500 INCH DIAMETER WHERE THE FRACTURE TERMINATED. THE TOTAL LENGTH IS APPROXIMATELY 2.6250 INCHES.

CA090204005	PIAGIO	PWA		INSULATION	MISINSTALLED
1/22/2009	P180	PT6A66		80909115611C	COCKPIT

(CAN) DURING AN AVIONICS SYS MODIFICATION, DIMMING CONTROL RELAY PANEL P/N 8090986-401 WAS REMOVED FROM PILOT`S SIDE OF COCKPIT FOR ACCESS. THE INSULATION BAG, P/N 80-909156-11C WAS OBSERVED TO HAVE (2) TWO BURN HOLES IN IT, APPARENTLY CAUSED BY THE (2) RESISTORS THAT ARE ATTACHED TO THE DIMMING CONTROL RELAY PANEL. UPON FURTHER INVESTIGATION, IT APPEARS THAT THE INSULATION BAG (P/N 80-909156-11C) WAS NOT INSTALLED IN THE PROPER POSITION.

CA090205009	PILATS	PWA	PILATS	BUSHING	WORN
2/2/2009	PC1245	PT6A67B			FLAP DRIVE SYS

CREW REPORTS OF INTERMITTENT FLAP OVERSPEED WARNINGS WITH FLAPS UP. SOMETIMES ASSOCIATED WITH FLAP AND PUSHER WARNINGS. NO MAINTENANCE CODES WERE NOTED FROM FCWU. SLOTTED BUSHING IN FLAP DRIVE ARM ASSY WAS FOUND UNBONDED, UPON ROTATION, THE IMPROPER ORIENTATION OF THE SLOT WOULD CAUSE THE ARM TO HAVE EXCESSIVE PLAY. THIS IN TURN WOULD ALLOW THE SWITCH ACTUATOR ARM TO COME OFF THE UPLIMIT SWITCH INTERMITTENTLY IN FLIGHT AND REMOVE THE "FLAPS UP" SIGNAL TO THE FLAP CONTROL AND WARNING UNIT, THE STICK PUSHER COMPUTERS AND THE AIRSPEED WARNING SYSTEMS. BOTH LEFT AND RIGHT ARM ASSYS WERE REPLACED WITH NEW AS RT WAS FOUND WITH UNBONDED BUSHES.

CA090206002	PILATS	PWA		GENERATOR	FAILED
2/5/2009	PC1245	PT6A67B		5243212158	NR 2

ON MORNING GROUND RUN NR 2 GENERATOR WOULD NOT TAKE A LOAD MORE THAN 60 AMPS AS READ OFF EIS. NR 2 GENERATOR WOULD GO OFF AND ON LINE BY IT SELF (FLASHING WARNING) ON ANNUNCIATOR PANEL AND OVERHEAD PANEL. REPLACED GENERATOR WITH SERVICEABLE UNIT, DEFECT GONE.

5APR577Y5	PILATS	PWA		CONTROL UNIT	FALSE INDICATION
3/5/2009	PC1247	PT6A67		065001885102	ZONE 100

DURING CLIMB AND CRUISE BOTH PRIMARY FLIGHT DISPLAYS (PFD) INDICATED A 12-20 DEGREE LT TURN WHILE THE ACFT WAS IN A WINGS LEVEL CONDITION, WHICH WAS CONFIRMED BY THE VISUAL METEOROLOGICAL CONDITIONS AND THE ATTITUDE INDICATION ON THE ELECTRONIC STANDBY INSTRUMENT SYSTEM (ESIS). THIS IS BEYOND THE 10 DEGREE ATTITUDE ROLL ATTITUDE OFFSET DESCRIBED IN AD 09-04-14 AND POH TEMPORARY REVISION 9. THIS DISCREPANCY OCCURRED AFTER MFG "BUILD 5" HAD BEEN ACCOMPLISHED ON THIS ACFT. BOTH CHANNELS OF THE ADAHRS UNIT TEST NORMALLY IAW AMM 12-B-34-25-00-00S-903S-S WITH NO DOWNLOADABLE FAULTS.

5APR577Y4	PILATS	PWA	BRAKE DISC	BROKEN
3/2/2009	PC1247	PT6A67B	244755	LT MLG

DURING AN ANNUAL INSPECTION THE LT MAIN WHEEL WAS REMOVED TO REPACK THE WHEEL BEARINGS WHEN IT WAS DISCOVERED THAT OTBD BRAKE DISC ON THE LT BRAKE WAS BROKEN INTO SEVERAL PIECES. THE BRAKE ASSY WAS REMOVED AND REPLACED.

CA090212006	PIPER	LYC	GAUGE	FAILED
1/14/2009	PA28140	O320E2A	687258	FUEL QTY

(CAN) FUEL GUAGE BECAME INTERMITTENT AND EVENTUALLY FAILED TO FUNCTION. FAULTY GUAGE REMOVED AND REPLACED WITH NEW GUAGE.

2009FA0000174	PIPER	LYC	PRECISION	BOWL	DEFECTIVE
3/3/2009	PA28161	O320D3G		15A21	CARBURETOR

ACFT WAS STARTED AND TAXIED TO ACTIVE RUNWAY FOR DEPARTURE. A NORMAL RUN-UP WAS PREFORMED AND NO PROBLEM WAS NOTED. ON TAKEOFF NORMAL RPM WAS NOTED AND AS THE ACFT BECAME AIRBORNE AND ON INITIAL CLIMB OUT ENGINE ROUGHNESS WAS NOTED AND THEN AS THE PILOT MADE A DECISION TO ENTER A DOWNWIND FOR A RETURN TO THE FIELD A NOTICEABLE ROUGHNESS AND POWER LOSS WAS NOTED AND AN UNEVENTFUL RETURN TO THE FIELD WAS MADE. UPON AN INVESTIGATION OF THE ENGINE COMPARTMENT AND OF THE INDUCTION SYSTEM IT WAS NOTED THAT THE CARBURETOR BOWL COULD BE MOVED. THE (4) FOUR SCREWS HOLDING THE BOWL ON HAD THE LOCKS ATTACHED AND THE SCREWS ARE LOOSE. THIS CAUSED AN UNEVEN FUEL FLOW AND DISRUPTION OF FLOW CAUSING ENGINE ROUGHNESS AND POWER LOSS. THE CARBURETOR HAD BEEN OVERHAULED BY THE COMPANY THAT HAD OVERHAULED THE ENGINE WITH ONLY 125.5 HR T.I.S. IN THIS CASE THE IMPROPER INSTALLATION OF BOWL TO THROTTLE BODY ASSY OR THE USE OF A BOWL ASSY. WITH DEFECTIVE THREADS WAS THE CAUSE OF THE DEFECT.

CA090126002	PIPER	LYC	SPRING	MISINSTALLED
1/24/2009	PA28R201	IO360C1C6		IMPULSE COUPLING

ENGINE DISPLAYED EXCESSIVE MAG DROP DURING PRE-FLIGHT RUNUP. MAGNETO REMOVED FOR INSPECTION. IMPULSE COUPLING SPRING FOUND INCORRECTLY INSTALLED IN HOUSING RESULTING IN DAMAGE TO HOUSING. IMPULSE COUPLING FAILED MANDATORY INSPECTION REQUIREMENTS IN SERVICE MANUAL L1363D. IMPULSE COUPLING REMOVED FROM SERVICE AND REPLACED WITH NEW UNIT. CARBON BRUSH INSTALLED INCORRECTLY, CARBON BRUSH REMOVED AND REPLACED WITH NEW BRUSH.

CA090220005	PIPER	CONT	PLUG	MISSING
2/13/2009	PA28R201T	TSIO360F	6295183	ACCESSORY CASE

ON APPROACH TO YBL, THE PILOT DETECTED BURNING OIL AND SAW SMOKE, THE PILOT LANDED THE AIRCRAFT AND NOTICED A LARGE AMOUNT OF OIL ON THE BELLY OF THE AIRCRAFT AND DRIPPING FROM THE COWLS, AFTER THE TECHNICIAN INVESTIGATED THE OIL LEAK HE FOUND A HOLE WHERE A PLUG SHOULD BE IN THE ACCESSORY CASE, AFTER A BRIEF SEARCH FOR THE MISSING PART AND NOT FINDING THE PLUG THE TECH INSTALLED A NEW PLUG (PN AN913-3) AND LOCKWIRED.

CA090212003	PIPER	LYC	TIRE	DEFLATED
2/9/2009	PA31350	LTIO540J2BD	40141	NLG

THE AIRCRAFT LANDED WITH INDICATIONS OF A SOFT NOSE TIRE ON THE ROLL OUT. ON THE TAXI TO THE HANGAR, THE TIRE WENT COMPLETELY FLAT. THE TIRE WAS REPLACED AND THE AIRCRAFT CONTINUED ON IT`S SCHEDULED FLIGHT. WHEN THE TIRE WAS DISASSEMBLED, A "ROUND SHAPED" CUT WAS FOUND IN THE TUBE SIDEWALL. IT WAS THE SHAPE AND DIAMETER OF A AS3209-009 O-RING. AN O-RING OF THIS SIZE WAS FOUND BETWEEN THE TUBE AND THE TIRE WALL. IT IS BELIEVED THAT THE O-RING WAS TRAPPED INSIDE THE TIRE DURING BUILD UP AND THE MOVEMENT OF THE TUBE CAUSED THE CHAFING WHERE THE O-RING WAS TRAPPED. A REVIEW OF PROCEDURES HAS BEEN COMPLETED WITH THE MAINTENANCE SHOP TO AVOID THIS ISSUE AGAIN. IT HAS BEEN SUBMITTED AS AN SMS REPORT.

CA090212005	PIPER	LYC	TUBE	DEFLATED
2/10/2009	PA31350	LTIO540J2BD	40141	NLG TIRE

(CAN) WHEN THE ACFT TOUCHED DOWN, A VIBRATION WAS FELT IN THE NOSEGEAR. THE NOSE TIRE WAS COMPLETELY FLAT AFTER THE ACFT STOPPED. THE ACFT WAS TOWED TO THE HANGAR AND THE WHEEL REMOVED. THE VALVE STEM HAD SHEARED OFF AS WELL AS THERE BEING SOME DAMAGE TO THE TUBE. IT WAS BELIEVED THAT MOST OF THE DAMAGED WAS CREATED DURING THE TOWING OF THE ACFT. A NEW TIRE AND TUBE WERE INSTALLED ON THE ACFT.

CA090213005	PIPER	LYC	PUMP	SEIZED
2/11/2009	PA31350	LTIO540J2BD	2B663	FUEL BOOST

(CAN) AFTER TAKEOFF THE RT BOOST PUMP CIRCUIT BREAKER POPPED. THE FLIGHT CREW THEN RETURNED TO BASE. UPON INVESTIGATION BY MX IT WAS FOUND THE RT BOOST PUMP HAD SEIZED. THE BOOST PUMP WAS REPLACED AND ACFT RETURNED TO SERVICE.

CA090210009	PIPER	LYC	DRIVE SHAFT	SHEARED
2/4/2009	PA31350	LTIO540J2BD	442CW6	VACUUM PUMP

AFTER INSTALLING THE PUMP ON THE AIRCRAFT THE PUMP SEIZED AND THE DRIVE SHEARED. THE PUMP WAS AN OVERHAULED PUMP.

CA090210004	PIPER	LYC	SHAFT	SHEARED
2/3/2009	PA31350	LTIO540J2BD		VACUUM PUMP

ON TAKEOFF THE RT PNEUMATIC SOURCE LIGHT ILLUMINATED. THE AIRCRAFT REJECTED TAKEOFF AND RETURNED TO BLOCKS. MAINTENANCE DISCOVERED THE DRIVE ON THE PNEUMATIC PUMP SHEARED.

CA090202002	PIPER	LYC	STARTER	CRACKED
1/29/2009	PA31350	LTIO540J2BD	149NLR	ENGINE

DURING A ROUTINE INSPECTION IT WAS DISCOVERED THAT THE TAB ON THE STARTER THAT THE BELT TENSIONER PULLEY ATTACHES TO WAS SHEARED AT THE HOUSING. THE PART ONLY HAD 128.4 HOURS ON IT AND WAS RETURNED FOR WARRANTY. THE PART MANUFACTURER IS SKY TEC BUT I COULDN`T ENTER THAT BRAND NAME.

CA090218006	PIPER	LYC	VALVE	FAILED
2/18/2009	PA31350	LTIO540J2BD	53E22144	VERNATHERM

(CAN) IN CRUISE, THE PILOT NOTICED THAT THE RT ENGINE OIL TEMP WAS CLIMBING TO THE RED LINE WITH A DECREASE IN OIL PRESSURE. THE PILOT DECIDED TO SHUT DOWN AND SECURE THE ENGINE ONCE THE OIL TEMP REACHED THE RED LINE. THE PILOT RETURNED TO BASE WITHOUT INCIDENT. MX FOUND THAT THE VERNATHERM VALVE SPRING WAS BROKEN AND WAS PROTRUDING OVER THE SEAT WHICH WOULD NOT ALLOW THE VERNATHERM TO DIRECT THE OIL THROUGH THE OIL COOLER. A NEW VERNATHERM VALVE WAS INSTALL AND THE ENGINE OIL TEMP RETURNED TO NORMAL.

CA090225014	PIPER	LYC	SHAFT	SHEARED
11/29/2008	PA31350	TIO540J2BD		FUEL PUMP

PILOT REPORT ENGINE FUEL PUMP ON APPROACH AND VACUUM PUMP FAILURE. FUEL PUMP AND VACUUM PUMP FOUND BOTH WITH SHAFT BROKEN. BOTH REPLACED, ENGINE DIDN`T START. ENGINE REMOVED AND SENT FOR REPAIR. REPORT FROM REPAIR SHOP RECEIVED WITH INDICATION OF METAL CONTAMINATION AND SEVERE DAMAGED TO ACCESSORIES GEAR MAYBE CAUSE BY FAILURE OF FUEL PUMP. PUMP STILL IN OUR HAND WE WOULD GET AN EXPERTISE ON THE UNIT.

2009FA0000219	PIPER	LYC	BELT	BROKEN
2/20/2009	PA31350	TIO540J2BD	LW18129	RT ALTERNATOR

BOTH RT AND LT ALTERNATOR BELTS BROKE IN FLIGHT, POSSIBLE CAUSE WAS BOTH ENGINES MAY HAVE BEEN STARTED WITH NOSE COWL PLUG WOOL BLANKETS INSTALLED, THUS, BINDING UP THE PULLEYS AND/OR BELTS WHILE THE REST OF THE MOVING PARTS SEVERELY CUT INTO THE BELTS. BOTH BELTS HAD LESS THAN 10 HOURS TIME IN SERVICE. (K)

CA090204013	PIPER	PWA	BOLT	LOOSE

1/30/2009	PA31T	PT6A28		FUEL CELL

AFTER REMOVING THE AIRCRAFT FROM JACKS, I GRABBED ONTO THE RIGHT SIDE WING TIP TANK AND GAVE THE AIRCRAFT A SHAKE IN AN EFFORT TO SETTLE THE OLEO STRUTS. IN DOING SO I NOTICED AN OBVIOUS MOVEMENT BETWEEN THE TIP TANK AND WING STRUCTURE. I REMOVED THE FAIRINGS WHICH COVER THE MOUNTING POINTS FOR THE TIP TANK AND THEN GAVE IT ANOTHER SHAKE. AT THIS POINT IT WAS OBVIOUS THAT THE TIP TANK MOUNTING BOLTS WERE LOOSE. TO BE MORE SPECIFIC, THE TIP TANK IS HELD INTO PLACE BY 6 BOLTS. ONE 4/16 INCH BOLT AT THE FORWARD END, ONE 4/16 INCH BOLT AT THE AFT END AND FOUR 3/16 INCH BOLTS IN THE CENTER WHICH ATTACH TWO (APPROX 4 INCH SQUARE) MOUNTING PLATES. THE MOVEMENT WAS NOTED AS BEING BETWEEN THESE TWO PLATES IN THE CENTER. REMOVED ONE OF THE CENTER BOLTS TO INSPECT FOR WEAR IN THE BOLT HOLE, NO ELONGATION WAS NOTED, AND THE BOLTS WAS RE-INSTALLED. THE SURROUNDING STRUCTURE, BOTH ON THE WING AND ON THE TIP TANK, WAS INSPECTED WITH NO FAULTS FOUND. ALL OF THE MOUNTING BOLTS WERE TORQUED AS PER THE MANUFACTURERS MAINTENANCE MANUAL AND THE FAIRING WAS RE-INSTALLED. I INSPECTED THE LEFT WING TIP TANK AND THERE WAS NO MOVEMENT FOUND. REMOVED THE FAIRING AND TORQUE CHECKED ALL OF THE MOUNTING BOLTS, ALL OF THE CENTRE (FOUR) BOLTS WERE FOUND TO BE UNDER TORQUED, BUT THE FORWARD AND AFT BOLTS WERE TIGHT. I TORQUED THE CENTER BOLTS AND RE-INSTALLED THE FAIRINGS. WE HAVE SCHEDULED A 50 HOUR INSPECTION INTERVAL ON THESE MOUNTING BOLTS AND WILL RE-EVALUATE THE INTERVAL AS TIME GOES ON.

CA090128003	PIPER	PWA	TUBE	PUNCTURED
1/23/2009	PA31T2	PT6A135	XA1AK	MLG TIRE

TIRE WAS REPORTED FLAT UPON PRE-FLIGHT INSPECTION. TIRE AND TUBE WERE INSPECTED AND THE TUBE REVEALED A PUNCTURE, CAUSING THE DEFLATION.

CA090202005	PIPER	PWA	TUBE	PUNCTURED
1/23/2009	PA31T2	PT6A135	XA1AK	TIRE

THE LT MAIN TIRE WAS REPORTED LOW BY OUR MAINTENANCE CREW. MAINTENANCE PERSONNEL IMMEDIATELY REPLACED THE WHEEL ASSY AS PREVENTATIVE MAINTENANCE, SINCE 3 TIRE FAILURE INCIDENTS OCCURRED THIS PAST MONTH. THE TIRE AND TUBE WERE INSPECTED AND THE TUBE REVEALED A PUNCTURE MARK, CAUSING A SLOW DEFLATION.

CA090128001	PIPER	PWA		TUBE	PUNCTURED
1/16/2009	PA31T2	PT6A135	0763561	XA1AK	OUTR CIRCMFERNCE

TIRE LOSING AIR AFTER SHUTDOWN. THE TIRE AND TUBE WERE INSPECTED AND NUMEROUS PIN HOLES WERE FOUND ON THE TUBE`S OUTER CIRCUMFERENCE, CAUSING THE DEFLATION.

CA090128002	PIPER	PWA		TUBE	DESTROYED
1/17/2009	PA31T2	PT6A135	0763561	XA1AK	

THE TIRE WAS DESTROYED ON TOUCHDOWN. UNABLE TO EVALUATE TIRE AND TUBE CONDITION.

2009FA0000253	PIPER	LINE	CHAFED
3/19/2009	PA34220T	83744139	HYD PWR PACK

WHILE COMING IN FOR A LANDING, CUSTOMER WENT TO EXTEND LANDING GEAR AND GEAR WOULD NOT EXTEND. USED EMERGENCY GEAR EXTENSION AND LANDED ACFT WITH NO INCIDENT. UPON TROUBLESHOOTING FOUND RETRACTION LINE FROM HYD POWER PACK CHAFED THROUGH. HYDRAULIC LINE WAS CHAFING ON NOSE WHEEL WELL COVER INSIDE FWD BAGGAGE COMPARTMENT. REMOVED AND REPLACED LINE ASSY WITH LOCALLY MFG LINE ASSY AND REPOSITIONED TO PREVENT FURTHER CHAFING ON WHEEL WELL COVER. OPS AND LEAK CHECKED SATISFACTORY. (K)

2009FA0000236	PIPER	TUBE	FAILED
3/1/2009	PA38112	500X5	MLG TIRE

IN LAST 6 TO 8 MONTHS, FLEET HAS HAD CRONIC PROBLEMS WITH TUBE FAILURES ON MAIN GEAR ONLY. INVESTIGATION SHOWS NO DAMAGE TO THE CORRESPONDING AREA OF THE TIRE INSIDE OR OUT. THE RUPTURE ON THE TUBES HAS BEEN VERY CONSISTENT. ALWAYS MAIN GEAR, ALWAYS O THE INBD SIDEOF THE

TUBE, ALWAYS IN THE AREA WHERE THE TREAD OF THE TIRE TRANSITIONS INTO THE SIDEWALL AND ALWAYS A VERY SMALL SLIT OR PUNCTURE. HAVE EXAMINED INSTALLATION TECHNIQUES , INFLATION PRESSURES, AND LANDING TECHNIQUES AND DO NOT SUSPECT ANY OF THESE BEING THE CAUSE. HAVE BEEN IN CONTACT WITH MFG, THEY HAVE PROVIDED US WITH SOME TUBES MADE WITH A NEW COMPOUND WHICH HAVE FAILED ALSO. (K)

CA090123005	PIPER	LYC	BRACKET	LOOSE
1/22/2009	PA44180	LO360A1H6		THROTTLE

(CAN) INSP REVEALED THAT THE THROTTLE BRACKET WHICH IS RIVETED TO THE TOP OF THE CARB HEAT BOX WITH BLIND RIVETS HAD WORKED LOOSE AND WAS ALLOWING MIS-ALIGNMENT OF THE THROTTLE CONTROL CABLE AND CAUSING THE THROTTLE TO STICK.

2009FA0000087	QUARTZ	CONT	BREATHER TUBE	LEAKING
1/17/2009	11E	IO360ES		OIL SYSTEM

AFTER A GROUND RUN UP, THE PILOT HAS NOTICED LARGE AMOUNTS OF OIL UNDER THE ACFT ON THE RAMP. FINDINGS WERE THAT THE OIL HAD COME OUT OF THE ENGINE BREATHER TUBE. UPON FURTHER INVESTIGATION, FOUND THAT THE BREATHER LINE WAS ROUTED SO THAT THERE WAS A "TRAP" IN THE LINE COLLECTING WATER AND FREEZING CAUSING THE CRANKCASE TO PRESSURIZE AND BLOW THE OIL OVERBOARD.

2009FA0000084	QUARTZ	CONT	ROD END	LACK OF LUBE
1/16/2009	11E	IO360ES		ZONE 500

INSTRUCTOR NOTED ON A PREFLIGHT THAT THE LT AILERON WAS EMITTING A SQUEAKING SOUND . FOUND THAT IT WAS DUE TO A LACK OF LUBRICATION OF THE AILERON ROD END BEARING . NOTING THIS, DUE TO A EARLIER INSTANCE OF ANOTHER SN SAME TYPE ACFT THAT A STIFF AILERON CONTROL IN FLIGHT DUE TO SAME REASONS. LUBRICATION REMEDIED THIS PROBLEM.

2009FA0000086	QUARTZ	CONT	LINE	MISROUTED
1/10/2009	11E	IO360ES		OIL BREATHER

AFTER A GROUND RUN UP, THE PILOT HAS NOTICED LARGE AMOUNTS OF OIL UNDER THE ACFT ON THE RAMP. FINDINGS WERE THAT THE OIL HAD COME OUT OF THE ENGINE BREATHER TUBE. UPON FURTHER INVESTIGATION, FOUND THAT THE BREATHER LINE WAS ROUTED SO THAT THERE WAS A "TRAP" IN THE LINE, COLLECTING WATER AND FREEZING CAUSING THE CRANKCASE TO PRESSURIZE AND BLOW THE OIL OVERBOARD.

CA090130010	RAYTHN	PWA	TURBINE BLADES	DAMAGED
1/22/2009	400ARAYTHEON	JT15D5		ENGINE

DURING TAKEOFF ROLL, THE ENGINE ELECTRONIC CONTROL WENT OFF LINE AND THE CREW ABORTED THE TAKEOFF AFTER RETURNING TO THE RAMP, INSPECTION OF THE ENGINE SHOWED POWER TURBINE BLADE DAMAGE. THE ENGINE WILL BE REMOVED AND FORWARDED FOR INVESTIGATION AND REPAIR. P&WC WILL CONTINUE INVESTIGATING THE EVENT AND ADVISE OF ROOT CAUSE ONCE ESTABLISHED.

CA090128004	RAYTHN	PWA	RIVET	SHEARED
1/28/2009	B300RAYTHEON	PT6A60A	2117T4	ATTACH BRACKET

DURING A PHASE 1A INSPECTION, THE PROPELLER CONTROL BRACKET LOCATED UNDER THE CENTER PEDESTAL WAS FOUND TO HAVE 2 SHEARED OFF RIVETS. IN LIEU OF RIVETS IT WAS FOUND THAT 2 C-CLAMPS WERE HOLDING THIS BRACKET IN PLACE. WHAT IS IMPORTANT TO NOTE IS THAT THIS WAS THE FIRST PHASE INSPECTION DONE AT THIS FACILITY. PRIOR TO THIS THE AIRCRAFT UNDERWENT A FULL PHASE 1 TO 4 INSPECTION AT A BEECHCRAFT REPAIR STATION IMMEDIATELY BEFORE BEING IMPORTED. PLEASE SEE ATTACHED PICTURES AND DOCUMENTS.

CA090302004	RAYTHN	PWA	FUEL CONTROL	FAILED
2/27/2009	B300RAYTHEON	PT6A60A	8061330	ENGINE

AIRCRAFT WAS IN CRUISE AT FL210. FIRST OFFICER ATTEMPTED TO ADJUST THE RT POWER LEVER TO BRING

THE TORQUE UP TO MATCH THE LT ENGINE. FOUND THE POWER LEVER ALREADY AT THE STOP. CREW THEN NOTICED A GRADUAL LOSS OF POWER (TORQUE, FUEL FLOW AND ITT) TO ABOUT 50 PERCENT TORQUE. THEY DEPLOYED THE ICE DOORS TO TROUBLESHOOT, AND AFTER SOME TIME, THE POWER RECOVERED TO 90 PERCENT. AFTER ABOUT 5 MINUTES, THE POWER BEGAN DECAYING AGAIN. AT 40 PERCENT TORQUE THE CAPTAIN INSTRUCTED THE F/O TO PREPARE FOR AN ENGINE FAILURE. AT APPROX 20 PERCENT TORQUE THE PROP AUTO-FEATHERED AND THE CREW SECURED THE ENGINE. AN UNEVENTFUL LANDING WAS MADE. MAINTENANCE TROUBLESHOT AND FOUND THE MAX FUEL FLOW AVAILABLE WAS APPROX 100 LB/HOUR, NOT ENOUGH TO EVEN GET THE ENGINE STARTED. THE FUEL CONTROL WAS REPLACED AND THE ENGINE GROUND RUN SERVICEABLE. PART IS BEING SENT TO STANDARD AERO FOR REPAIR. WILL ADVISE FURTHER DETAILS WHEN THEY BECOME AVAILABLE.

2009FA0000221	RAYTHN		WINDOW	CRACKED
2/16/2009	HAWKER750		258FN35343A	COCKPIT

PILOTS DV WINDOW CRACKED IN FLIGHT DURING CLIMB. FLIGHT WAS ABORTED AND RETURNED TO DEPARTURE. (K)

2009FA0000222	RAYTHN		WINDOW	CRACKED
2/23/2009	HAWKER750		258FN35344A	COCKPIT

CO-PILOTS DV WINDOW CRACKED DURING FLIGHT, FLIGHT WAS ABORTED AND RETURNED TO DEPARTURE. (K)

CA090116014	ROBSIN	LYC	ATTACH BRACKET	CRACKED
1/15/2009	R44	O540F1B5	C8303	ELT

DUE TO PAST ISSUES WITH ELT`S GOING OFF, THE ELT`S WERE FOUND TO BE AT THE INCORRECT CLOCK ANGLE. THE ELT WAS REPOSITIONED TO THE PROPER ANGLE, WHICH WE THINK MAY HAVE CAUSED THE CRACKING OVER TIME. A SMALL CRACK WAS FOUND IN THE BOTTOM ANGLE BRACKET RADIATING FROM THE MIDDLE SCREW HOLE. THE ELT`S ARE NOW BEING REPLACED WITH THE KANNAD 406 ELT WHICH IS SUPPORTED DIFFERENTLY.

CA090117001	ROBSIN	LYC	WELDON	PUMP	FAILED
1/15/2009	R44RAVENII	IO540AE1A5	C8187B	119066	

AUX FUEL PUMP FAILURE WITHIN 5.5 HOURS AFTER UNIT INSTALLED. THIS PUMP WAS ORIGINALLY REPAIRED FOR LOW PRESSURE OUTPUT AND HAS AGAIN FAILED TO PRODUCE PRESSURE. POSSIBLE QUALITY CONTROL ISSUE FROM OVERHAUL/REPAIR SHOP.

CA090210006	ROBSIN	LYC	CLUTCH	SLIPPED
1/30/2009	R44RAVENII	IO540AE1A5	C0183	MAIN ROTOR

DURING FLIGHT A LOUD BANG WAS HEARD BY THE CREW. THEY RETURNED TO BASE AND MAINTENANCE NOTIFIED. CLUTCH WAS INSPECTED AND REPLACED DUE TO SLIPPAGE.

CA081223006	ROBSIN	LYC	HOUSING	CRACKED
12/4/2008	R44RAVENII	IO540AE1A5	14924HT	STARTER GEN

(CAN) STARTER HSG FOUND CRACKED.

CA090121008	ROBSIN	LYC	STARTER GEN	INOPERATIVE
12/21/2008	R44RAVENII	IO540AE1A5	H4M440507	ENGINE

STARTER WOULD NOT ENGAGE. STARTER WAS REPLACED AND NO FURTHER ISSUES WERE NOTED.

CA090121009	ROBSIN	LYC	PUMP	UNSERVICEABLE
1/6/2009	R44RAVENII	IO540AE1A5	118241	AUX FUEL

DURING START-UP, THE AIRCRAFT FAILED TO START. AUX FUEL PUMP WAS FOUND TO BE UNSERVICEABLE. PUMP WAS REPLACED AND NO FURTHER ISSUES WERE NOTED.

CA090121010	ROBSIN	LYC	PUMP	NOISY
12/21/2008	R44RAVENII	IO540AE1A5	118287	AUX FUEL

DURING SHUT DOWN A ROUGH SOUNDING NOISE SEEMED TO BE COMING FROM THE AUX FUEL PUMP. MAINTENANCE INVESTIGATED THE INCIDENT AND PUMP WAS REPLACED. NO FURTHER ISSUES WERE NOTED.

CA090121011	ROBSIN	LYC	SERVO	LEAKING
12/21/2008	R44RAVENII	IO540AE1A5	D2121	

DURING THE REPLACEMENT OF THE AUX FUEL PUMP, IT WAS NOTED THAT THE SERVO LEAKING. SERVO WAS REPLACED AND NO FURTHER ISSUES WERE NOTED.

CA090109007	ROBSIN	LYC	HOUSING	CRACKED
12/20/2008	R44RAVENII	IO540AE1A5	F4M460701	STARTER GEN

CRACK FOUND ON THE BENDIX HOUSING.

CA090130013	ROBSIN	LYC	PUMP	FAILED
1/15/2009	R44RAVENII	IO540AE1A5	C8181B	FUEL BOOST

DURING ENGINE START, AUX FUEL PRESSURE LIGHT ILLUMINATED. PUMP WAS REPLACED AND NO FURTHER ISSUES WERE NOTED.

CA090130014	ROBSIN	LYC	PUMP	FAILED
1/10/2009	R44RAVENII	IO540AE1A5	C8187B	FUEL BOOST

DURING DI, IT WAS NOTED THAT THE AIRCRAFT AUX FUEL PUMP FAILED. PUMP WAS REPLACED AND NO FURTHER ISSUES WERE NOTED.

CA090128005	ROBSIN	LYC	BEARING	WORN
1/28/2009	R44RAVENII	IO540AE1A5	22021081806	MAGNETO

MAG WAS RECEIVED FOR AN OVERSPEED INSPECTION (500 HOUR INSPECTION PROCEDURE). BEFORE DISASSEMBLY THE BEARINGS WERE INSPECTED BY TURNING THE ROTATING MAGNET ASSEMBLY. SIDE PLAY WAS NOTED AND THE END PLAY WAS MEASURED AT 0.004 INCH. TCM DOES NOT ALLOW SIDE PLAY AND ONLY ALLOWS 0.0005 TO 0.0015 END PLAY. THE MAG WAS DISASSEMBLED AND THE BEARINGS WERE INSPECTED AND FOUND SERVICEABLE. THE 500 HOUR INSPECTION WAS CARRIED OUT WITH THE BEARINGS SHIMMED TO THE PROPER PRELOAD AND THE MAG WAS RETURNED TO SERVICE. THIS MAG WAS A FACTORY NEW UNIT WITH 412.7 HOURS IN SERVICE.

CA090127002	ROBSIN	LYC	LINE	CHAFED
1/21/2009	R44RAVENII	IO540AE1A5	C7411	FUEL SYSTEM

DURING A VISUAL INSPECTION ON A 100 HR, THE MAIN FUEL FEED LINE WAS FOUND SMOKING THOUGH THE AFT FIRE WALL. UPON FURTHER INSPECTION OF FUEL LINE THE SMALL GROMMET/BUSHING WAS FOUND WORN THROUGH CAUSING THE FIRE WALL SUPPORT TO CHAFE INTO THE LINE. THE LINE WAS REMOVED FROM SERVICE AND REPLACED NEW.

CA090116013	ROBSIN	LYC	BRACKET	CRACKED
1/15/2009	R44RAVENII	IO540AE1A5	C8303	ELT MOUNT

DUE TO PAST ISSUES WITH ELT`S GOING OFF, THE ELT`S WERE FOUND TO BE AT THE INCORRECT CLOCK ANGLE. THE ELT WAS REPOSITIONED TO THE PROPER ANGLE, WHICH WE THINK MAY HAVE CAUSED THE CRACK OVERTIME. A SMALL CRACK WAS FOUND IN THE BOTTOM ANGLE BRACKET RADIATING FROM THE MIDDLE SCREW HOLE. THE ELT`S ARE NOW BEING REPLACED WITH THE KANNAD 406 ELT WHICH IS SUPPORT DIFFERENTLY.

MALA090025	SAAB		POWER SUPPLY	INOPERATIVE
2/24/2009	340B		330151	CABIN

EMERGENCY LIGHT AT SEAT 8A INOP. REMOVED AND REPLACED LIGHT ASSY PN 2LA005115-20 AT COVE 8A IAW AMM 33-50-55. ALSO FOUND POWER SUPPLY 24LN BAD. REMOVED AND REPLACED POWER SUPPLY PN 3301-51, SN ON 1096, S/N OFF 2023. ALL WORK DONE IAW AMM 33-50-10. OPS CHECK GOOD.

2009FA0000235	SCHLER		SLIP JOINT	CORRODED

3/1/2009	ASK21				CONTROL STICK

CORROSION WAS FOUND AT THE JUNCTION OF THE UPPER AND LOWER BODY OF THE FRONT SEAT CONTROL STICK ASSY. THE UPPER STICK HALF SLIDES INTO THE LOWER STICK HALF AND IS THEN HELD TOGETHER WITH A SINGLE THROUGH BOLT. THE CORROSION WAS DETECTED PROTRUDING FROM THE TOP OF THE JOINT WHERE THE UPPER PIECE SLIDES INTO THE LOWER PIECE OF THE ASSY. THE EXTENT OF THE CORROSION COULD NOT BE DETERMINED WITHOUT REMOVEING AND DISASSEMBLING THE STICK. CORROSION WAS SEVERE ENOUGH THAT SEPARATION OF THE (2) STICK PARTS WAS ACHIEVED ONLY AFTER APPLICATION OF HIGH HEAT FROM A TORCH. THE PROBABLE CAUSE IS PERSPIRATION FROM THE PILOT`S HAND DRIPPING DOWN THE STICK TO WHERE THE PARTS ARE MATED. CORROSION EASILY DEVELOPS WHEN THE MOISTURE CONTACTS THE BARE METAL IN THE JOINT. WHAT IS DISTRUBING IS THAT THE ACFT HAS ONLY BEEN IN SERVICE FOR LESS THAN 2 YEARS SINCE NEW. MFG SHOULD HAVE PROVIDED BETTER CORROSION PREVENTION OR DESIGN. SHOULD CORROSION BE ALLOWED TO CONTINUE, THAT THE CONTROL STICK WILL ULTIMATELY FAIL. INSP OF (2) OTHER ACFT OF THE SAME MAKE, MODEL AND IN-SERVICE TIME REVEALED SIMILAR CONDITIONS. (K)

CA090206009	SKRSKY	ALLSN		TRANSMISSION	MAKING METAL
1/29/2009	S76A	250C30S		7635109500044	MAIN ROTOR

METAL CONTAMINATION, CHIP LIGHT.

CA090127011	SNIAS			BRACKET	CRACKED
1/23/2009	AS350B			417157001	ENG FUEL FILTER

ENGINE HIGH PRESSURE FUEL FILTER BRACKET, TOP HOLE CRACKING DUE TO HARMONIC VIBRATION, KNOWN PROBLEM.

CA090127012	SNIAS	LYC	HONEYWELL	BRACKET	CRACKED
1/21/2009	AS350B	LTS101*	LTS101700D	417157001	TOP BOLT HOLE

ENGINE HIGH PRESSURE FUEL FILTER BRACKET, CRACKING AT TOP BOLT HOLE DUE TO HARMONIC VIBRATION, KNOWN PROBLEM.

CA090127010	SNIAS	LYC	HONEYWELL	BRACKET	CRACKED
11/26/2008	AS350B2	LTS101750C1		417157001	TOP BOLT HOLE

HIGH PRESSURE ENGINE FUEL FILTER BRACKET CRACKING AT TOP BOLT HOLE DUE TO HARMONIC VIBRATION, KNOWN PROBLEM.

CA090223013	SNIAS	TMECA		FRICTION RING	FAILED
1/12/2009	AS350B3	ARRIEL2B			STARTER GEN

PRIOR TO INSTALLING STARTER GEN SB 80.00.07 PARA 2B2B AND 2B3 WERE APPLIED. THE STARTER WAS THEN INSTALLED AS PER MM AND A GROUND RUN WAS DONE. DURING THE GROUND RUN NO VIBRATION WAS NOTED ON THE STARTER, VOLTAGE AND AMPERAGE WAS NORMAL. I NOTICED A BURNING ODOR SIMILAR TO WHEN THE ROTOR BRAKE WAS APPLIED AND SAW PARTS OF THE FRICTION RING OF THE DAMPER ASSY ON THE ENGINE DECK AGAIN NO ABNORMAL VIBRATION WAS NOTED ON THE STARTER. THE PILOT SHUT DOWN THE ENGINE. REINSTALLED THE OLD STARTER, STILL HAD TIME LEFT TO OH. UPON CLOSER INSPECTION IT WAS NOTED THAT THE FRICTION RING WAS COMPLETELY BROKEN UP. IT WAS SENT BACK TO APC FOR FURTHER INVESTIGATION.

CA090127009	SNIAS			BRACKET	CRACKED
9/5/2008	AS350BA			417157001	FUEL FILTER

ENGINE FUEL FILTER BRACKET CRACKING DUE TO HARMONIC VIBRATION.

2009FA0000237	SWRNGN	GARRTT		IMPELLER	DAMAGED
12/2/2008	SA227AC	TPE331*			RT ENGINE

DURING TAKEOFF (ASCENT), ACFT SUFFERED A BIRD STRIKE IN THE RT ENGINE. THE PILOT VERIFIED HIS PARAMETERS AND THEY DID NOT HAVE ANY VIBRATION. HOWEVER, HE SMELLED BURNED BIRD AND DECIDED TO RETURN TO DEPARTURE AIRPORT. DURING THE WALK AROUND INSP, THE PILOT EVIDENCE DAMAGES IN THE RT ENGINE FOR BIRD INGESTION (FIRST IMPELLER DAMAGE). THE ENGINE WAS TO BE SENT TO REPAIR STATION. (K)

CA090202003	SWRNGN	GARRTT	WINDSHIELD	CRACKED
2/1/2009	SA227AC	TPE33111U	2719442004	COCKPIT

IN CRUISE AT FL230 SOUTHBOUND, A LOUD BANG HEARD BY BOTH CREW AND SAW F/O SIDE WINDSHIELD SHATTER, BUT REMAINED INTACT. NO LOSS OF PRESSURIZATION. FLIGHT DESCENDED TO FL100 AND CREW INFORMED ATC BUT DID NOT DECLARE AN EMERGENCY. LANDED WITHOUT FURTHER INCIDENT. MAINTENANCE IS IN PROCESS OF REPLACING THE WINDSHIELD. BONDING CHECKS WERE PERFORMED ON THE WINDOW PRIOR TO REMOVAL AND WERE FOUND WITHIN ACCEPTABLE RESISTANCE LIMITS IN ACCORDANCE WITH M7 AEROSPACE SB 227-56-010 WHICH WAS ISSUED TO HELP ELIMINATE THIS TYPE OF FAILURE.

CA081218002	UROCOP	TMECA	ROTOR HEAD	DAMAGED
12/16/2008	EC120B	ARRIU2F		MAIN ROTOR

(CAN) DURING PREFLIGHT INSP ON NEWLY DELIVERED ACFT, DISCOVERED A .5 INCH COUNTERSINK RESTING UNDER ACFT TRANSMISSION. NO DAMAGE WAS FOUND BUT THE TOOL IS LARGE ENOUGH TO HAVE CAUSED FLIGHT CONTROL INTERFERENCE OR TO HAVE CONTACTED THE ROTOR BRAKE DISK. TOOL WAS REMOVED. NO FURTHER ACTION TAKEN.

2009FA0000209	UROCOP	TMECA	STARTER GEN	WORN
3/10/2009	EC120B	ARRIUS2F	160SG140Q	ENGINE

GROWLING OR LOUD HOWLING NOISE COMING FROM ENGINE AREA FLUCTUATING WITH POWER CHANGES. VIBRATION TRANSMITTING THROUGH ACFT.