U.S. Department of Transportation
Federal Aviation Administration

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Regulatory Support Division

ADVISORY CIRCULAR

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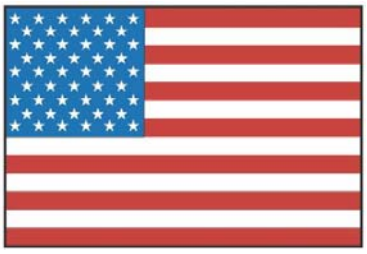
AVIATION MAINTENANCE ALERTS



ALERT NUMBER 321

APRIL 2005

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

AVIATION MAINTENANCE ALERTS

The Aviation Maintenance Alerts provide a common communication channel through which the aviation community can economically interchange service experience, cooperating in the improvement of aeronautical product durability, reliability, and safety. This publication is prepared from information submitted by those who operate and maintain civil aeronautical products. The contents include items that have been reported as significant, but have not been evaluated fully by the time the material went to press. As additional facts such as cause and corrective action are identified, the data will be published in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported via a Mechanical Reliability Report (MRR), a Malfunction or Defect Report (M or D), or a Service Difficulty Report (SDR). Your comments and suggestions for improvement are always welcome. Send to: FAA; ATTN: Aviation Data Systems Branch (AFS-620); P.O. Box 25082; Oklahoma City, OK 73125-5029.

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

AIRPLANES

BEECHCRAFT

Beechcraft; F33A; Failure of Landing Gear Retraction; ATA 3230

The pilot reported selecting "gear up" with no results. This submission describes maintenance tracking the problem to an intermittent relay: *dynamic breaker relay*; P/N SM50D7. No recommendation accompanied this report. *(See also December 2004, gear and flap extension/retraction issues involving the same relay.)*

Part Total Time: 245 hours.

CESSNA

Cessna; C150D; Rudder Separation from Aircraft; ATA 2720

The AN3-7A top rudder hinge bolt was described as having loosened from its locking nut plate, precipitating complete rudder separation while the aircraft was in flight at 2,000 feet AGL *(above ground level)*. The mechanic suggests there should be additional safeties for these rudder hinge bolts other than the mechanical locking features of the nut plates.

Part Total Time: unknown.

Cessna; 170B; Oversized Exhaust Couplings; ATA 7810

This mechanic states: "Both tail pipe/muffler connections *(P/N STC-8645SW)* were found to be oversized. The exhaust pipe clamps were not of sufficient strength to squeeze the oversized pipe down on the muffler exhaust tube. The resulting loose fit was allowing exhaust fumes to shoot into the cabin heat and carburetor heat sections

of the mufflers. One thing that aggravated the condition was the fact that the tail pipes were crammed too far up on the muffler pipe. This made it inevitable that any leakage would enter the muffler/heat shroud section. Suggest giving this area close scrutiny."

Part Total Time: unknown.

Cessna; C172F; Cracked Wing Spar; ATA 5711

Replacement of a flap-track assembly revealed a 2-inch crack running through the lower rivet holes in the L/H aft spar (P/N 0523400-50). The submitter speculates a possible cause is from flap deployment at too high of airspeeds. *(No corrective actions were included with this discrepancy report. See also the next entry.)*

Part Total Time: 15,628.63 hours.

Cessna; 172F; Cracked Wing Spar; ATA 5711

A borescope inspection of this aircraft's aft wing spar unveiled a crack around the flap-track attach points. "Probable cause is fatigue," states the submitter. "This is a very high time aircraft with over 13,000 hours total time. It has also been used as a flight trainer for its entire life. I recommend all C172s with 8000 hours or more be inspected, by borescope or other acceptable means, *(in)* the area of the rear wing spars around the flap track attach points." *(This mechanic submitted reports on two additional 172 aircraft with similar times having spar cracks in the same areas. These entries will be included in the SDRS database.)*

Part Total Time: 13,526.01 hours.

Cessna; R172E; Worn Flap-Tracks; ATA 5744

"While flaps were being retracted, the L/H inboard flap attach bracket caught on the wing cove panel support," states the mechanic. "This caused substantial damage to the cove panel support as well as the attach bracket. Cause was determined to be worn flap tracks (*P/N 0523231-13)*." The repair included installation of new tracks and rollers. He recommends replacement of these parts at 5,000-hour intervals, as they are not life limited by Cessna. The damaged flap was replaced with a serviceable unit. *(This submitter provided an almost identical report a few weeks later on a C172H. Its data will be included in the SDR database.)*

Part Total Time: unknown.

Cessna; 172S; Missing Alt-Air Door Spring; ATA 7600

Climbing to 8,000 feet, a pilot noticed a power loss and engine surging at two different times. During a phase-1 inspection, a mechanic observed the *alternate-air* door stuck in the open position. Further scrutiny revealed the spring (P/N 0550361-25) assisting the door was missing from the hinge assembly. The controlling servo was inspected for damage and the possible presence of the missing spring — neither was evident. This mechanic feels the alternate-air system "...is weak and needs to be improved."

Part Total Time: 743.1 hours.

Cessna; 182Q; Burned Electrical Wire; ATA 2460

This discrepancy was found by a mechanic while cleaning the aircraft's firewall after engine removal. An electrical cable (P/N D-PA13) between the auxiliary power and starter relays had burn marks indicative of arcing. Immediately across from the damage was the pointed end of a sheet metal screw protruding through the firewall. The function of this particular screw is for attachment of a plastic shield on the *aft* side of the firewall protecting the elevator cable pulley. This screw was reversed, allowing for its head to be on the forward side of the firewall. The damaged cable was replaced with a new part.

Part Total Time: 4,642.0 hours.

Cessna; 208B; Chafed Landing Gear Spring; ATA 3211

"The shot-peened lower surface of the main gear center spring is being damaged by contact with rivets and screws protruding from the main landing gear cover...located beneath the center spring. This is the third aircraft found in this condition." No recommendation accompanied this report.

Part Total Time: 7,713.0 hours.

DASSAULT

Dassault; DA-50; Nose Wheel Casting Flaw; ATA 3246

Maintenance personnel first became aware of a problem when the nose tire on this aircraft began to lose pressure over a 2- or 3-day period, dropping ten to fifteen percent during the night. The submitter states, "Subsequent inspection of the tire and wheel assembly revealed air escaping through the casting adjacent the raised valve core boss. Liquid leak detector also confirmed the leak and location. This is the second *(nose)* wheel *(P/N 9543426)* to develop a leak in the same area. *(The first nose wheel)* was returned to Aviall for evaluation inspection. *(Its)* disposition is not known at this time." He notes a Malfunction and Defect Report was not submitted for that first occurrence, but a Falcon Jet Service Condition Report was initiated. The wheel's manufacturer was given as Aircraft Braking Systems, Corp.

Part Total Time: 1,644.0 hours.

GULFSTREAM

Gulfstream; G200; Cracked Hydraulic Line; ATA 2910

A mechanic found a cracked hydraulic pressure line (P/N 4AS7118102-503) in the L/H aft equipment bay, close to its aft *B-nut*. He states: "Installation was post Service Bulletin 200-29-152. Probable cause was stressed installation and vibration."

Part Total Time: 438.7 hours.

ISRAEL AIRCRAFT INDUSTRIES LTD.

Israel Aircraft Industries Ltd.; 1124A; Cracked Nose Landing Gear Strut; ATA 3222

This respondent describes the nose gear "bottoming out" shortly after landing and taxiing to their host ramp. After exiting the aircraft, a large puddle of 5606 hydraulic was seen on the ramp around the nose gear. Maintenance retrieved and jacked the aircraft. A large crack was found in the lower strut body, starting from one side of the torque knee attach fitting. The gear was removed and disassembled. Both the inner body (P/N ES12858-501) and its bearing (P/N 52NBC2064YZP) were found to be cracked. It is believed the cause of these cracks stems from not having disconnected the nose gear scissors link prior to aircraft towing.

Part Total Time: 8,017.4.

PIPER

Piper; PA 24-260; Cracked Rudder Spar; ATA 2720

During service and inspection of this aircraft, its rudder was removed. The submitting mechanic found cracks in the rudder's spar (P/N 20729-10) at the upper hinge (P/N 20183-00) attach point. *(This report includes another PA 24 serial number, indicating a second aircraft was found to have a similarly cracked rudder spar.)*

Part Total Time: 7,000.0 hours.

Piper; PA 24-260; Dissimilar Metal Corrosion in Rudder; ATA 2720

An annual inspection *(of the same aircraft previously shown)* revealed more than normal surface rust/corrosion on the rudder tail post. Disassembly of the rudder found dissimilar metal corrosion where the steel stiffener attaches to the lower rib (P/N 20729-04). No corrective actions or recommendations accompanied this report.

Part Total Time: 7,000.0 hours.

ROCKWELL

Rockwell; 690D; Broken Torque Link Shaft; ATA 3230

A R/H main landing gear torque link attachment shaft (P/N ED120406-1) was found broken on this twin Commander. The torque link is mounted on top of the strut, rotating its lower portion 90 degrees during the retract/extend cycle. The described broken shaft secures the torque link to the strut. A new part was installed, but no speculation for this discrepancy was offered.

Part Total Time: unknown.

HELICOPTERS

BELL

Bell; 206L-4; Blistered Fuel Cell; ATA 2810

A scheduled 12-month fuel system inspection in accordance with Chapter 5 of the Bell 206L-4 maintenance manual revealed the following defect: The internal floor of the aft fuel cell had 1/4 inch *(sized)* blisters approximately 1/2 inch apart. This blistering continued up the walls approximately 6 inches. "The forward two cells showed no defects," states the mechanic. "All filters were normal, the two inline screens and injector pump

were clean also. The aircraft manufacturer was notified and the cell was determined to be unairworthy and will be returned to the manufacturer." No speculation for the cause of the defect was provided. The recommendation is for all such defective cells to be returned for evaluation.

Part Total Time: 3,333.3 hours.

ROBINSON

Robinson; R44; Worn Carburetor Control Rod; ATA 7322

"During a 100-hour inspection, the rod end bearing jamnut on control tube *(P/N)* C336-1 at the carburetor attachment arm was found to be only hand tight. The original safety wire installed by the factory was still in place, but the *(threaded shaft of the)* rod end bearing was allowed to move within the control tube. This movement over time wore down the threads on the rod end bearing and oblonged the hole within the control tube. Once the jamnut was backed off a few threads (by hand), the rod end bearing was able to move considerably from side to side within the tube."

Part Total Time: 1,323.1.

SCHWEIZER

Schweizer; 269C; Premature Wear of Drive Shaft; ATA 6310

An annual inspection of this aircraft detected an abnormal—"...rusty brown" coloration in the grease lubricating the drive shaft, distinctly different from the expected black hue of Anderol lubricant. This drive shaft (P/N 269A5559-003) had accumulated 414.2 hours of a 6,000-hour life limit. The submitter states, "The splines were worn beyond limits..." *(and evidenced excessive corrosion and pitting).* "The speculation of Schweizer and our facility is that the grease was contaminated." *(A separate report was submitted on this aircraft's associated drive part, the Lower Pulley Shaft, P/N 269A5498-005, reflecting the same description, time, and condition of "worn beyond limits." This appended report will be included in the SDR database. See the following article for similar findings on a second helicopter.)*

Part Total Time: 414.2 hours.

Schweizer; 269C-1; Premature Wear of Drive Shaft; ATA 6310

A 600-hour inspection revealed the same brown colored grease as reported in the previous article. This drive shaft (P/N 269A5559-003) had accumulated 600.0 hours of a 6,000-hour life limit. The submitter states, "The splines were worn to the thickness of a piece of paper..." *(from their original measurement of .090 inches.).* "The speculation of Schweizer and our facility is that the grease was contaminated. *(This is the)* first 600-hour inspection of this helicopter, *(it having)* the same grease since delivery from Schweizer Aircraft." *(A separate report was submitted on this aircraft's associated drive part, the Lower Pulley Shaft, P/N 269A5498-005, reflecting the same description, time, and condition of "worn beyond limits." This information will be included in the SDR database.)*

Part Total Time: 600.0 hours.

POWERPLANTS AND PROPELLERS

LYCOMING

Lycoming; I0-540 K1G5; Failed Oil Pump; ATA 8550

"The driven oil pump gear (P/N 61298) which was aluminum and not changed at overhaul lost a tooth. The broken tooth jammed into the drive gear (P/N 61297) which broke two teeth off the oil pump drive (P/N LW10318). This *(oil pump drive)* is the only part involved that was replaced at overhaul. The idler gear (P/N LW10284) had one broken tooth, and the crankshaft gear (P/N LW10297) had one tooth broken as well. Why this model engine is exempt from ADs *(affecting similar parts in other engines)* I don't know…."

A search of the FAA Service Difficulty Reporting System data base revealed one other report of this same engine model having lost teeth on the oil pump drive gear.

Part Total Time: 1.747.0 hours.

AIR NOTES

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

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

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

When the page opens, select "M or D Submission Form" and, when complete, use the "Add Service Difficulty Report" button at the top left to send the form. Many of you have inquired about this service. It is now available, and we encourage everyone to use this format when submitting aviation, service-related information.

PAPER COPY OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT

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

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

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

The Federal Aviation Administration (FAA) Internet Service Difficulty Reporting (iSDR) web site is the front-end for the Service Difficulty Reporting System (SDRS) 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, Mechanical Reliability Reports (MRRs),

Malfunction or Defect Reports (M or Ds), or Service Difficulty Reports (SDRs) as they are commonly called, are collected, converted into a common SDR format, stored, and made available to the appropriate segments of the FAA, the aviation community, and the general public for review and analysis. SDR data is accessible through the "Query SDR data" feature on the iSDR web site at: http://av-info.faa.gov/isdr/.

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:

John Jackson
Service Difficulty Reporting System, Program Manager
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125
Telephone: (405) 954-6486
SDRS Program Manager e-mail address: 9-AMC-SDR-ProgMgr@faa.gov

IF YOU WANT TO CONTACT US

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

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

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

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

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

AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports submitted for the previous month, which have been entered into the FAA Service Difficulty Reporting (SDR) System 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	Aircraft Make	Engine Make	Component Make	Part Name	Part Condition
Difficulty Date	**Aircraft Model**	**Engine Model**	**Component Model**	**Part Number**	**Part Location**
2005FA0000036				PITCH ROD	CRACKED
12/16/2004				C3260	YOKE

MULTIPLE CRACKS WERE FOUND DURING MAGNAFLUX INSPECTION. BOTTOM AND TOP OF PITCH CHANGE YOKE. EXCESSIVE STRESS MIGHT HAVE BEEN THE CAUSE OF FAILURE.

ZN3R200503A				TURBINE WHEEL	DAMAGED
10/1/2004				384001117	ENGINE

TURBINE BLADES WERE FOUND VISUALLY VERY "THIN" IN THE TIP AREA AFTER OPERATION.

CA040615017			DORNEMARGLN	BATTERY	LEAKING
6/15/2004				LR20	ELT

UNIT INSPECTED FOR CERTIFICATION AND BATTERY REPLACEMENT. FOUND DURACELL BATTERIES (D-CELLS) LEAKING IN BATTERY COMPARTMENT. BATTERIES REMOVED, AREA CLEANED, ALSO NOTED SURFACE CORROSION ON BATTERY CONTACT SPRING. CORROSION REMOVED WITH ACID BRUSH AND IPA (ALCOHOL). BATTERY BOX RE-INSPECTED, NEW BATTERIES INSTALLED, UNIT FUNCTION TESTED AND MET SPECIFICATIONS.

CA040618005			AMERIKING	ELT	FAILED
6/18/2004				AK450	CABIN

UPON ANNUAL INSPECTION ELT, IT WAS NOTED THAT THE MODULATION WOULD FAIL AFTER 10 SEC OF USE. THE SOUND HEARD WOULD REMAIN AS A ELT WARBLE WITH REDUCED VOLUME. THIS FAULT HAD BEEN NOTED ON ONE OTHER UNIT EARLIER THIS YEAR.

2004FA0000916			SLICK	COIL	FAILED
12/9/2004				M3975	MAGNETO

MAGNETO IMPULSE COUPLING WEAR & IGNITION COIL FAILURE, FAILED IGNITION COIL: BROKEN HIGH-TENSION SECONDARY WINDINGS RESULTING IN MISFIRING OF THE SPARK PLUGS, INDUCING MX OF MAGNETO. EXTREME WEAR AROUND MAGNET SHAFT OVER TAPERED PORTION BETWEEN IMPULSE CAM AND MAIN SHAFT COMPRISING OF A CONDITION WHERE THE HARDENED CAM ASSY HAS COME INTO ANGULAR INTERFERENCE WITH THE (SOFTER) MAGNET SHAFT WHICH IT IS DESIGNED TO MOUNT AROUND. THE CONCENTRIC WEAR ON THE SHAFT INCLUDES A SHARP RAISED EDGE AT THE LARGEST OUTER DIAMETER OF THE MAGNET SHAFT TAPER. POSSIBLE CATASTROPHIC FAILURE OF THE MAGNETO MAY HAVE RESULTED FROM THE SHAFT BREAKING AT THE EDGE NEAREST THE BASE OF THE DISPLACED MATERIAL.

CEVR200400002			EAAEROMARINE	BATTERY	BURST
12/16/2004			KSE35L8	WABH12	LIFE VEST LIGHT

DURING THE YEARLY INSPECTION OF THE LIFE VEST, THE WATER ACTIVATED BATTERY FOR THE LOCATING LIGHT HAD EXPANDED & BURST OPEN. THIS MADE THE LIGHT INOPERABLE. ACCORDING TO THE E.A.M SERVICE INFORMATION SIL-25-104 ,THIS VEST COULD HAVE A INSPECTION INTERVAL OF FIVE YEARS, WHICH MEANT THE LIGHT COULD HAVE BEEN INOPERATIVE FOR FOUR YEARS. I HAVE REPLACED THIS BATTERY/LIGHT ASSY. WITH A DIFFERENT MANUFACTURES BATTERY/LIGHT ASSY.

CEVR200400003			EAAEROMARINE	BATTERY	BULGED

12/16/2004	KSE35L8	WABH12	LIFE VEST

DURING THE YEARLY INSPECTION OF THE LIFE VEST, THE WATER ACTIVATED BATTERY FOR THE LOCATING LIGHT HAD EXPANDED & BURST OPEN. THIS MADE THE LIGHT INOPERABLE. ACCORDING TO THE E.A.M SERVICE INFORMATION SIL-25-104 ,THIS VEST COULD HAVE A INSPECTION INTERVAL OF FIVE YEARS, WHICH MEANT THE LIGHT COULD HAVE BEEN INOPERATIVE FOR FOUR YEARS. I HAVE REPLACED THIS BATTERY/LIGHT ASSY. WITH A DIFFERENT MANUFACTURES BATTERY/LIGHT ASSY.

CEVR200400004	EAAEROMARINE	BATTERY	BULGED
12/16/2004	KSE35L8	WABH12	LFE VEST

DURING THE YEARLY INSPECTION OF THE LIFE VEST, THE WATER ACTIVATED BATTERY FOR THE LOCATING LIGHT HAD EXPANDED & BURST OPEN. THIS MADE THE LIGHT INOPERABLE. ACCORDING TO THE E.A.M SERVICE INFORMATION SIL-25-104 ,THIS VEST COULD HAVE A INSPECTION INTERVAL OF FIVE YEARS, WHICH MEANT THE LIGHT COULD HAVE BEEN INOPERATIVE FOR FOUR YEARS. I HAVE REPLACED THIS BATTERY/LIGHT ASSY. WITH A DIFFERENT MANUFACTURES BATTERY/LIGHT ASSY.

CEVR200400005	EAAEROMARINE	BATTERY	BULGED
12/16/2004	KSE35L8	WABH12	LIFE VEST

DURING THE YEARLY INSPECTION OF THE LIFE VEST, THE WATER ACTIVATED BATTERY FOR THE LOCATING LIGHT HAD EXPANDED & BURST OPEN. THIS MADE THE LIGHT INOPERABLE. ACCORDING TO THE E.A.M SERVICE INFORMATION SIL-25-104 ,THIS VEST COULD HAVE A INSPECTION INTERVAL OF FIVE YEARS, WHICH MEANT THE LIGHT COULD HAVE BEEN INOPERATIVE FOR FOUR YEARS. I HAVE REPLACED THIS BATTERY/LIGHT ASSY. WITH A DIFFERENT MANUFACTURES BATTERY/LIGHT ASSY.

CEVR200400006	EAAEROMARINE	BATTERY	BURST
12/16/2004	KSE35L8	WABH12	LIFE VEST

DURING THE YEARLY INSPECTION OF THE LIFE VEST, THE WATER ACTIVATED BATTERY FOR THE LOCATING LIGHT HAD EXPANDED & BURST OPEN. THIS MADE THE LIGHT INOPERABLE. ACCORDING TO THE E.A.M SERVICE INFORMATION SIL-25-104 ,THIS VEST COULD HAVE A INSPECTION INTERVAL OF FIVE YEARS, WHICH MEANT THE LIGHT COULD HAVE BEEN INOPERATIVE FOR FOUR YEARS. I HAVE REPLACED THIS BATTERY/LIGHT ASSY. WITH A DIFFERENT MANUFACTURES BATTERY/LIGHT ASSY.

CEVR200400007	EAAEROMARINE	BATTERY	BULGED
12/16/2004	KSE35L8	WABH12	LIFE VEST

DURING THE YEARLY INSPECTION OF THE LIFE VEST, THE WATER ACTIVATED BATTERY FOR THE LOCATING LIGHT HAD EXPANDED & BURST OPEN. THIS MADE THE LIGHT INOPERABLE. ACCORDING TO THE E.A.M SERVICE INFORMATION SIL-25-104 ,THIS VEST COULD HAVE A INSPECTION INTERVAL OF FIVE YEARS, WHICH MEANT THE LIGHT COULD HAVE BEEN INOPERATIVE FOR FOUR YEARS. I HAVE REPLACED THIS BATTERY/LIGHT ASSY. WITH A DIFFERENT MANUFACTURES BATTERY/LIGHT ASSY.

CEVR200400008	EAAEROMARINE	BATTERY	BULGED
12/16/2004	KSE35L8	WABH12	LIFE VEST

DURING THE YEARLY INSPECTION OF THE LIFE VEST, THE WATER ACTIVATED BATTERY FOR THE LOCATING LIGHT HAD EXPANDED & BURST OPEN. THIS MADE THE LIGHT INOPERABLE. ACCORDING TO THE E.A.M SERVICE INFORMATION SIL-25-104 ,THIS VEST COULD HAVE A INSPECTION INTERVAL OF FIVE YEARS, WHICH MEANT THE LIGHT COULD HAVE BEEN INOPERATIVE FOR FOUR YEARS. I HAVE REPLACED THIS BATTERY/LIGHT ASSY. WITH A DIFFERENT MANUFACTURES BATTERY/LIGHT ASSY.

2005FA0000274	PALL	BYPASS SWITCH	SHEARED
12/22/2004		RC914UK096	FILTER

1 OF THE SREWS (P/N AA-2100-11D99)HAD THE HEAD SHEAR OFF JUST UNDER THE HEAD. THIS SCREW, 1 OF 4 HOLD THE FILTER BYPASS DIFFERENTIAL PRESSURE INDICATOR TO THE TOP OF THE FILTER ASSEMBLY. THE AFFECTED SYSTEM WAS THE RUDDER STANDBY. HYDRAULIC FLUID WAS LEAKING STATICLY WITH THE SYSTEM DEPRESSURIZED.

CA050118003		BEARING RACE	CRACKED

1/12/2005		A1851T	PROPELLER HUB

DURING THE NDT PROCESS OF THE PROPELLER OVERHAUL, ONE BEARING RACE, INBOARD RACE WAS DISCOVERED CRACKED.

2005FA0000318	AIRCRUISERS	LINK	BROKEN
4/15/2004		C19347102	SLIDE

RECEIVED EVACUATION SLIDE FOR RECERTIFICATION. DURING DISASSY, EACH FRANGIBLE LINK (PN C19347-101, 4EA, PN C19347-102, 1EA, PN C19347-105, 2EA), WERE FOUND WITH (4) STRANDS OF BLACK NYLON THREAD SECURING EACH HALF OF FRANGIBLE LINK TOGETHER. FRANGIBLE LINKS WERE PREVIOUSLY BROKEN, REUSED BY SECURING HALVES TOGETHER WITH BLACK NYLON THREAD. NORMAL OR UNUSED FRANGIBLE LINKS HAVE TWO LOOPS SECURED WITH STRANDS OF BREAKING WIRES HAVING SPECIFIC BREAKING STRENGTH WHICH ARE COVERED WITH HEAT SHRINK TUBING. IF SLIDE WAS DEPLOYED WITH MODIFIED FRANGIBLE LINKS, SLIDE WOULD POSSIBLE EXTEND RAPIDLY AND TOE END OF SLIDE WOULD EXTEND UNDER AC. ONCE FRANGIBLE LINKS ARE BROKEN, REQUIRED TO BE REPLACED WITH NEW. (2 OF 3)

2005FA0000335	ELECTROSYS	ROTOR	DEFECTIVE
10/4/2004		ES4307	ALTERNATOR

ALTERNATOR DEFECTIVE AS RECEIVED FROM MFG, ROTOR RUBBING ON STATOR WINDINGS. THIS CONDITION COULD EASILY BE FLET WHEN TURNING ALTERNATOR DRIVE SHAFT BY HAND. (K)

2005FA0000081		BLADE	CRACKED
9/1/2004		84334	PROPELLER

PROPELLER BLADE CRACKED .33 OF DIAMETER AT RETENTION GROVE. (K)

2005FA0000082		BOLT	MISMANUFACTURED
7/22/2004		SL12596	CONNECTING ROD

THE CONNECTING ROD BOLT, PN SL12596, LOT NR 575765, WAS FOUND TOO SHORT FOR PROPER INSTALLATION. THE FREE LENGTH OF THE BOLTS IN QUESTION WERE 2.2485 TO 2.2491. MFG SL1458B REQUIRES A TWO STEP TORQUE PROCESS. FIRST, TORQUE BOLTS TO 35 FT LBS AND MEASURE, IF THE BOLT IS SHORTER THAN 2.255, THE BOLT IS REJECTED. SECOND, THE BOLT MUST NOT EXCEED LENGTH OF 2.256 AT THE FINAL TORQUE OF 55 FT LBS. THE SUSPECT BOLTS WOULD NOT ATTAIN REQUIRED LENGTH AT 35 FT LBS. THE DEFECT IS CAUSED BY GRINDING THE BOLT TOO SHORT OF A DIMENSION AT MFG. AN INSPECTION RATE WOULD NEED TO BE INREASED TO A LEVEL THAT WOULD ENSURE PROPER QUALITY CONTROL. (K)

CA040722007	CONT	LOCK TAB	MISSING
7/2/2004	IO470*	08515591	ENGINE MT BOLTS

ON THE FOLLOWING CESSNA AIRCRAFTS, FOUND THE LOCK TABS FOR ENGINE MOUNT BOLTS TO BE EITHER MISSING, BROKEN, OR INCORRECT HARDWARE USED TO REPLACE THEM. C-205 IO470C-180 I0470C-182 IO470C-185 IO520C-206 IO550 WOULD LIKE TO NOTIFY ALL AIRCRAFT OWNERS THAT USE THESE BOLT LOCK TABS TO INSPECT THEM.

2004FA0000936	CONT	CRANKSHAFT	FRACTURED
11/15/2004	IO550C	649990	ENGINE

CRANKSHAFT FRACTURED IN FLIGHT BETWEEN THE NR 1 AND 2 CONNECTING ROD JOURNALS. AIRCRAFT MADE A SAFE LANDING.

2004FA0000937	CONT	CRANKSHAFT	FRACTURED
11/15/2004	IO550C	649990	ENGINE

CRANKSHAFT FRACTURED IN FLIGHT BETWEEN THE NR 1 AND 2 CONNECTING ROD JOURNALS. AIRCRAFT MADE A SAFE LANDING.

2005FA0000280	CONT	LIFTER	SPALLED
12/13/2004	IO550C	653888	ENGINE

ON 6 DIFFERENT ENGINES DURING OIL CHANGES OR TROUBLESHOOTING FOR LOW OIL PRESSURE, HAVE FOUND A SPALLED LIFTER. ONLY ONCE WAS THE PROBLEM CAUGHT EARLY ENOUGH THAT THE CAMSHAFT WAS NOT DAMAGED AND NEEDING REPLACEMENT. (K) (2 OF 2)

CA040617003	GARRTT	BEARING	OVERHEATED
6/15/2004	TPE33110UA	310117015	ENGINE

DURING A SCHEDULED ENGINE INSPECTION OF THE HIGH SPEED PINION ASSY A BRIGHT BLUECOLOR WAS NOTICED ON THE PINION GEAR. THE HIGH SPEED PINION SUFFERED SEVERE HEAT DAMAGE CLOSE TO THE POINT OF FAILURE. THIS PART WAS PURCHASED THROUGH AN AMERICAN PARTS DISTRIBUTOR AND CERTIFIED BY AN AMERICAN GARRETT OVERHAUL FACILITY.

2005FA0000144	LYC	GEAR SHAFT	BROKEN
8/14/2004	O540E4B5	70384	ENGINE

AT AIRCRAFT 100 HOUR ENGINE WAS FOUND WITH TIGHT SPOT. REMOVED ENGINE ACCYS AND FOUND GOVERNOR SHAFT NOT TURNING DISASSEMBLED ENGINE. FOUND GOVERNOR IDLER GEAR SHAFT (PN 70384) BROKEN IN 3 PARTS; ALL GOV GEARS HAD RG TEETH, 1 OF 2 KNOWN FAILURES, ON SHAFT (PN 70384) WITH SAME SERIAL/ BATCH NUMBERS.

CA040902006	PWA	TURBINE BLADES	FAILED
8/27/2004	JT15D1A		ENGINE

DISCOVERED HPT BLADE DAMAGE. CONFIRMED HPT BLADES DAMAGED WITH 1 BLADE MISSING ENTIRE TIP SECT. GAS GEN DEFLECTOR SEG FOUND MISSING SECTIONS & SIGNIFICANT NR OF RIVETS. EXAM OF FRACTURED BLADE SHOWED HIGH STRESS RAPID YIELD FRACTURE WITH NO EVIDENCE OF FATIGUE. FRONT SECT OF BLADE CONVEX SIDE (SUCTION SURFACE) ADJACENT TO FRACTURE BENT TOWARDS PRESSURE SURFACE AWAY FROM DIRECTION OF ROTATION AS WOULD OCCUR IF BLADE SUSTAINED A SIGNIFICANT IMPACT. BLADE NOT PRIMARY FAILURE & 2NDRY DAMAGE CAUSED FROM LIBERATED MATERIAL. MATERIAL BECAME DISLODGED & ENTERED THROUGH COMBUSTION CHAMBER LINER & TRAVELLED THROUGH GAS PATH CAUSING SEVERE HPT BLADE DAMAGE, AND MINOR IMPACT DAMAGE ON DOWNSTREAM COMPONENTS.

CA041117003	PWA	ENGINE	FLAMED OUT
10/15/2004	PT6A25		

(CAN) DURING CRUISE (10,000 FT) THE PILOT REPORTED A LOUD NOISE FOLLOWED BY ENGINE FLAMEOUT. AN ATTEMPTED RELIGHT WAS UNSUCCESSFUL AND AN EMERGENCY LANDING WAS PERFORMED. THE ENGINE IS UNDER INVESTIGATION. MFG WILL MONITOR THE PROGRESS AND FINDINGS OF THE INVESTIGATION AND WILL AMEND THIS REPORT TO REFLECT ROOT CAUSE, ONCE ESTABLISHED.

CA040727003	PWA	PWA	BOLT	FAILED
7/20/2004	PT6A67D			RGB

DURING OVERHAUL ASSY OF THE POWER SECTION AND 1ST STAGE REDUCTION CARRIER MACHINE HEX BOLT P/N MS9490-34 FAILED IN THE THREADED PORTION OF THE BOLT UNDER APPLIED TORQUE DURING INSTALLATION. THE BOLT IS USED IN THE ASSEMBLY OF THE 1ST STAGE REDUCTION GEARING CARRIER IAW P&WC O/H MANUAL P/N 3038337, SECTION 72-10-00, PAGE 503, PARAGRAPH NR B. THERE ARE TOTAL QTY. 6 BOLTS INSTALLED IN THE CARRIER WITH KEY-WASHERS AND ARE TORQUED TO 75 TO 85 IN-LBS. THE BROKEN PARTS HAVE BEEN DISPATCH TO P&WC FOR FAILURE INVESTIGATION. NOTE: THE ENGINE HAD PREVIOUSLY BEEN INVOLVED IN A PT BLADE FAILURE.

2005FA0000239	AERORS	LYC	EXHAUST PIPE	BROKEN
10/27/2004	J2	O360*		ENGINE

(ACCIDENT NR DFW05CA024) ON TAKEOFF CLIMB, EXHAUST PIPE BROKE AND WENT THROUGH 4 BLADED PROPELLER, SHEARING OFF ONE PROPELLER BLADE. EXHAUST PIPE STRUCK RT TAILBOOM, DOING STRUCTURAL DAMAGE TO TAILBOOM. (SW11200502888) (K)

2005FA0000115	AEROSP	TMECA	COUPLING	CRACKED
11/19/2004	AS365N2	ARRIEL1	365A32653000	ENG TO MR GB

DURING INSPECTION FOUND RT FORWARD ENGINE/ MGB DRIVE FLEX COUPLING CRACKED. REPLACED WITH

NEW. (RECORD NR 98086) (K)

CA050105011	AEROSP	PWA	TUBE	FRACTURED
12/24/2004	ATR42*	PW121		OIL TRANSFER

(CAN) DURING CRUISE ENGINE TEMPERATURES INCREASED ACCOMPANIED BY SMOKE AND EXHAUST ODOR IN THE CABIN. THE CREW REDUCED ENGINE POWER. FIRE WARNING INDICATION ACTIVATED 12 MINUTES LATER AND THE CREW CARRIED OUT FIRE SUPPRESSION PROCEDURE AND SHUTDOWN THE ENGINE IN FLIGHT. SUBSEQUENT INSPECTION REVEALED A FRACTURED NR 6 AND NR 7 BEARING OIL TRANSFER TUBE, A BURNED FIRE HARNESS LOOP AND METALLIC DEBRIS ON THE ENGINE CHIP DETECTOR. MFG WILL INVESTIGATE THE EVENT AND WILL SUPPLEMENT THIS REPORT TO PROVIDE ROOT CAUSE ONCE DETERMINED.

CA050110007	AEROSP	PWA	ENGINE	INOPERATIVE
12/26/2004	ATR72	PW127		

(CAN) THE CREW REPORTED A LOW OIL PRESSURE WARNING FOLLOWING TAKE-OFF. THE CREW SHUT THE ENGINE DOWN IN FLIGHT AND DIVERTED TO POINT OF DEPARTURE. MFG WILL INVESTIGATE THE EVENT AND SUPPLEMENT THIS REPORT TO PROVIDE ROOT CAUSE, ONCE DETERMINED.

CA050112005	AGUSTA	PWC	ENGINE	MALFUNCTIONED
1/9/2005	A109	PW206C		

THE ENGINE EXPERIENCED A RAPID, UNCOMMANDED DECREASE IN TORQUE IN FLIGHT, ACCOMPANIED BY AN INCREASE IN OTHER ENGINE PARAMETERS. THE ENGINE WAS SHUT DOWN AND THE AIRCRAFT RETURNED TO BASE. SUBSEQUENT INSPECTION REVEALED POWER TURBINE BLADE DAMAGE. PWC WILL INVESTIGATE THE INCIDEMT AND SUPPLEMENT THIS REPORT TO PROVIDE ROOT CAUSE, ONCE DETERMINED.

11072110704	AGUSTA	PWC	BLADE	CRACKED
11/7/2004	A109E	PW206C	109813201111	TAIL ROTOR

PILOT FELT VIBRATION IN TAIL ROTOR PEDALS DURING APPROACH. POST FLIGHT INSPECTION REVEALED THAT 1 TAIL ROTOR BLADE HAD A CHORD WISE CRACK BEGINNING AFT OF THE SPAR AND EXTENDING THROUGH THE TRAILING EDGE OF THE BLADE. THE CRACK WAS THROUGH BOTH SKINS AND THE HONEYCOMB CORE. SB109EP-30 REV B AND AD 02-25-51 PROVIDE INSPECTION CRITERIA FOR RECURRING INSPECTIONS IN THIS AREA.

2005FA0000326	AIRBUS	BYPASS VALVE	LEAKING
11/5/2004	A330*	FRM530014D	DOOR

A DOOR BYPASS VALVE WAS RETURNED FOR INVESTIGATION. THE REASON FOR RETURN WAS ON PUSHBACK, FLIGHT CREW REPORTED GREEN RESERVOIR LOW LEVEL, WHERE THE INVESTIGATION FOUND A LEAK ON THE DOOR BYPASS VALVE. INVESTIGATION IDENTIFIED THAT BOLT HAD SHEARED. FURTHER INVESTIAGATION AT MFG, THAT AN INITIATING FORCE HAD RESULTED IN A CRACK THAT PROPAGATED ACROSS THE BOLT SECTION, RESULTING IN FAILURE. BOLTS COULD BE YIELDED WHEN TIGHTENED.(K)

2005FA0000327	AIRBUS	BOLT	CRACKED
11/5/2004	A330*	HTE960023053	BYPASS VALVE

A DOOR BYPASS VALVE WAS RETURNED FOR INVESTIAGTION. THE REASON FOR RETURN WAS ON PUSHBACK, FLIGHT CREW REPORTED GREEN RESERVOIR LOW LEVEL, WHERE THE INVESTIGATION FOUND A LEAK ON THE DOOR BYPASS VALVE. INVESTIGATION IDENTIFIED THAT BOTL HAD SHEARED. FURTHER INVESTIAGTION INDICATED THAT INITAIATING FORCE HAD RESULTED IN A CRACK THAT PROPAGATED ACROSS THE BOLT SECTION, RESULTING IN FAILURE. THE BOLTS COULD BE YIELDED WHEN TIGHTENED.(K)

CA040820002	AIRBUS	RROYCE	CONNECTOR	BURNED
8/15/2004	A330243	RB211TRENT77	FIN6208VC	LCD MONITOR

(CAN) AIRCRAFT ARRIVED WITH AN INOPERATIVE LCD MONITOR FOR PASSENGER ENTERTAINMENT SYSTEM. AFTER INVESTIGATION, FOUND ONE OF THE ENTERTAINMENT CONNECTORS BADLY BURNED WITH SEVERAL PINS COMPLETELY GONE, IN THE PASSENGER COMPARTMENT CEILING. CONNECTOR WAS REPLACED AND COMPLETE SYSTEM WAS VERIFIED. A FLEET CAMPAIGN WAS INITIATED AND A ROUTINE INSPECTION WAS INTRODUCED IN THE A CHECK MAINTENANCE PROGRAM.

CA041129006	AIRBUS	RROYCE	MONITOR	BURNED
11/29/2004	A330300	RB211TRENT77	7002061002	ROW 12 A,B

(CAN) APPROX 30 MINUTES AFTER TAKEOFF, PAX IN 12B,C NOTICED A BURNING SMELL IN OVERHEAD BIN. (THERE WAS A BANGING SOUND AT TAKEOFF APPARENTLY) ALSO NOTICED WERE SMALL PUFF OF SMOKE COMING FROM VENT ABOVE THE PAX IN 12 A,C (A COUPLE OF TIMES) SMOKE SMELL WAS CONFIRMED FROM CREW. RETURNED. FOUND VIDEO MONITOR AT SEAT 12 A,C SMELLING OF SMOKE. MONITOR REMOVED AND CONNECTORS CAPPED. SEE SNAGL1443368, MONITOR REPLACED AND CHECKS OK.

CA040617006	AIRBUS	PWA	RELAY	FAILED
6/8/2004	A330322	PW4168	KR906931	COFFEEMAKER

COFFEEMAKER WAS REMOVED DUE TO TRIPPING CIRCUIT BREAKER. STRIP REPORT REVEALED THAT THE UNAPPROVED RELAY WAS FITTED TO THE COFFEEMAKER. CORRECT P/N KR-90693-1 P/N FOUND KR 14DGE24.

CA040614002	AIRBUS	CFMINT	ENGINE	FOD
6/14/2004	A340313	CFM565C4	9324M70G06	NR 4

(CAN) APPROX 30 MINS FROM DEPARTURE, NR 4 ENG EGT OVERTEMPED AND CLIMBED TO 946 DEGREES AND WAS SHUT DOWN. THERE WAS NO LOUD NOISE OR SHAKING. THE AC MADE A NORMAL LANDING AND THE CFR WERE NOT CALLED OUT. AC REMOVED FROM SERVICE AND CP CONTACTED TO CARRY OUT T/SH. NR 4 ENG PRELIMINARY BOROSCOPE INSPECTION SHOWS SIGNS OF METAL IN COMPRESSOR. BORO PICTURES BEING E-MAILED TO MOC FOR ENGINEERING EVALUATION.

CA050117008	AMD	GE	FCU	FAILED
1/11/2005	FALCON20	CF7002D2	5001T39G39G29	ENGINE

(CAN) AC WAS DISPATCHED FOR A TEST FLIGHT DUE TO DUAL ENGINE CHANGE. AT FL370 MAX ACCELERATION CHECK COMPLETED, WITHOUT INCIDENT. ON RETURN, ENGINE FLAMED OUT, ENGINE RELIGHT AT FL180. ENGINE FCU RIGGING, BLEED VALVES RIGGING AND AIR SENSOR LINES WERE INSPECTED, NOTHING UNUSUAL FOUND. SECOND TEST FLIGHT WAS CONDUCTED ON 13 JAN 05. ENGINE WAS INTENTIONALLY SHUTDOWN AT FL250 AND A RELIGHT ATTEMPTED WITH PARTIAL SUCCESS. ENGINE WOULD NOT ACCELERATE PAST 40 PERCENT N2 UNTIL AC HAD DESCENDED TO FL180. AC RETURNED WITHOUT INCIDENT AND THE AC WAS GROUNDED PENDING THE REPLACEMENT OF THE FCU CHANGE, WHICH IS CURRENTLY IN PROCESS.

122004	AMD	MESSIER	HOLDER	CRACKED
12/20/2004	FALCON200		D52177	PACKING

THE PACKING HOLDER P/N D52177 INSIDE OF THE MAIN GEAR ACTUATOR P/N A 23721 HAS BEEN FOUND CRACKED ON TWO OCCASIONS. A SERVIE BULLETIN F200-110 IS TO MODIFY THE PART TO PREVENT CRACKING. WE HAVE TWO PACKING HOLDERS THAT ARE CRACKED, ONE MODIFIED AND ONE NOT. WE HAVE NOTIFIED FALCON JET ABOUT THE PROBLEM

2004FA0000911	AMD		PRESSURE SWITCH	LEAKING
11/25/2004	FALCON50MYST		90G229	NR 1 HYD SYSTEM

LOSS OF NR 1 HYDRAULICS. INSPECTORS, FOUND HYDRAULIC NR 1 SYSTEM PRESSURE SWITCH LEAKING. PRESSURE SWITCH, HYDRAULIC PUMP NR 1 AND NR 2 REPLACED.

2005FA0000016	AMD	GARRTT	FITTING	DAMAGED
12/27/2004	FALCON50MYST	TFE731*		SLAT

FOLLOWING DAMAGE WAS FOUND WHILE LT IB SLAT (PN F50B133B8, SN 133000 WAS AT THIS FACILITY FOR REPAIR. MILLED FITTING, (PN F50B133014) IS ATTACH POINT FOR NR 4 (OB) RAIL. SIX FASTENERS WERE IMPROPERLY INSTALLED THROUGH INNER SKIN OF SLAT. FOUR BLIND FASTENERS WERE LOCATED THROUGH INNER SKIN INTO EDGE OF MILLED FITTING. ONE SOLID FASTENER WAS THROUGH INNER SKIN AND FLUSHED ON OUTER SKIN, THIS WAS ALSO DRILLED THROUGH EDGE OF MILLED FITTING. , WHICH CAUSED OUTER SKIN TO BE DISTORTED. ONE SOLID FASTENER WAS COUNTERSUNK ON OUTER SKIN THROUGH THE INNER SKIN.

MISDRILLED FASTENERS WERE FOUND DURING PRELIMINARY INSPECTION. DAMAGE TO THE MILLED FITTING WAS FOUND DURING THE TEAR DOWN PHASE OF REPAIR WORK.

2961	AMD	GARRTT	TIRE	DEFORMED
10/22/2004	FALCON50MYST	TFE73131C	M08401	MLG

THIS TIRE WAS MOUNTED ON THE RIGHT INBOARD SIDE (NR 3). CUPPING WAS NOTICED ON THE INSIDE EDGE OF THE TIRE ALL THE WAY AROUND WITH CORD SHOWING. TIRE WAS REPLACED. CONTACTED FALCON TECH OPS. HAD NOT HEARD OF THIS ITEM AND ASKED ME TO CONTACT THE TIRE MANUFACTURE. CONTACTED MICHELIN, CONFIRMED THE PROBLEM AND SAID THEY WERE WORKING ON IT.

2004FA0000912	AMD	GARRTT	TIRE	DEFORMED
10/22/2004	FALCON50MYST	TFE73131C	M08401	MLG

THIS TIRE WAS MOUNTED ON THE RIGHT INBOARD SIDE (NR 3). CUPPING WAS NOTICED ON THE INSIDE EDGE OF THE TIRE ALL THE WAY AROUND WITH CORD SHOWING. TIRE WAS REPLACED. CONTACTED FALCON TECH OPS. THEY HAD NOT HEARD OF THIS ITEM AND ASKED ME TO CONTACT THE TIRE MANUFACTURE. CONTACTED MICHELIN, CONFIRMED THE PROBLEM AND SAID THEY WERE WORKING ON IT.

2004FA0000913	AMD	GARRTT	TIRE	DEFORMED
10/22/2004	FALCON50MYST	TFE73131C	M08401	MLG

THIS TIRE WAS MOUNTED ON THE RIGHT INBOARD SIDE (NR 3). CUPPING WAS NOTICED ON THE INSIDE EDGE OF THE TIRE ALL THE WAY AROUND WITH CORD SHOWING. TIRE WAS REPLACED, CONTACTED FALCON TECH OPS. THEY HAD NOT HEARD OF THIS ITEM AND ASKED ME TO CONTACT THE TIRE MANUFACTURE, CONTACTED MICHELIN. THEY CONFIRMED THE PROBLEM AND SAID THEY WERE WORKING ON IT.

2004FA0000917	AMD	GARRTT	TIRE	DEFORMED
11/3/2004	FALCON50MYST	TFE73131C	M15101	MLG

THIS MICHELIN TIRE WAS MOUNTED ON THE LEFT INBOARD SIDE (NR 2). CUPPING WAS NOTICED ON THE INSIDE EDGE OF THE TIRE ALL THE WAY AROUND. TIRE WAS REPLACED, THEN CONTACTED FALCON TECH OPS. THIS HAD HAPPENED ON ANOTHER TIRE BUT DIFFERENT PART NUMBER (OMB NR 2120-0003). THEY HAD NOT HEARD OF THIS ITEM AND ASKED ME TO CONTACT THE TIRE MANUFACTURE. I THEN CONTACTED MICHELIN. THEY CONFIRMED THE PROBLEM AND SAID THEY WERE WORKING ON IT.

CA050117009	AMD	GARRTT	POWER LEVER	FROZEN
1/16/2005	FALCON900	TFE7315BR		ENGINE

(CAN) DURING CRUISE FLIGHT, NOTICED BY CREW THAT THE NR1 ENGINE POWER LEVER WAS FROZEN IN POSITION. THE ENGINE WAS SHUTDOWN AND AN UNEVENTFUL LANDING WAS COMPLETED. WITH WARMER TEMPERATURES, POWER LEVER WAS ABLE TO MOVE FREELY THROUGH ITS FULL RANGE OF TRAVEL. FLIGHT WAS CONDUCTED WITH NO FAULTS NOTED. ON THE 3RD FLIGHT, WHILE IN CRUISE, IT WAS NOTED THAT POWER LEVER BECAME DIFFICULT TO MOVE. ENGINE POWER WAS REDUCED TO IDLE, SCHEDULED LANDING. REVEALED WATER LEAK FROM LAV SINK SUPPLY LINE MIGRATED BELOW FLOOR ONTO NR 1 ENGINE PWR LEVER BELLCRANK, ICE ACCUMULATION WAS EVIDENT IN AREA. LEAK WAS REPAIRED, CONTAMINATED AREAS WERE CLEANED, DRIED AND LUBRICATED. ENGINE PWR LEVER FUNCTION CHECKED SERVICEABLE.

2005FA0000215	AMRGEN	LYC	PLATE	MISINSTALLED
1/4/2005	AG5B	O360A1D	51023306	SEATBELTS

WHILE REPLACING REAR PX SEATBELTS, IT WAS DISCOVERED THAT REINFORCEMENT PLATE HAD BEEN INSTALLED ON FWD SIDE OF AFT SEAT BLKHD UNDER SEATBELT ATTACH BRACKET. (-6) PLATE SHOULD HAVE BEEN INSTALLED ON AFT SIDE OF BLKHD IAW AGAG DWG 5102299. MS203641032 (THIN SHEER NUT) WAS USED TO SECURE AN3-5A RETAINING BOLTS. NUTS SHOULD HAVE BEEN INSTALLED IAW DWG. RESULTS IN REDUCED SEATBELT ATTACHMENT STRENGTH COMPARED WITH DESIGN CONFIGURATION. AC APPEARED TO HAVE ORIGINAL SEATBELTS INSTALLED, THIS IMPROPER INSTALLATION WAS ACCOMPLISHED DURING ASSY. REAR

SEAT SEATBELT OB ATTACH BRACKETS INSP FOR PROPER INSTALLATION OF PLATE AND PROPER ATTACH HARDWARE PRIOR TO CARRYING REAR SEAT PASSENGERS. (EA07200502731)(K)

2005FA0000094	AMTR	CONT	CARBURETOR	OBSTRUCTED
11/27/2004	PIETENPOLAIR	A658	NA53A1	ENGINE

PILOT REPORTED POWER LOSS IN CRUISE FLIGHT AND COULD NOT MAINTAIN ALTITUDE. PRECAUTIONARY LANDING WAS MADE ON HIGHWAY, MINOR DAMAGE TO AIRCRAFT; NO INJURIES TO PILOT. INVESTIGATION REVEALED A WAS OF STEEL WOOL IN THE VENTURI OF THE CARBURETOR. STEEL WOOL HAD BEEN PLACED IN THE HEAT MUFFS TO INCREASE HEAT TRANSFER. THE STEEL WOOL EXITED THE SMALL HOLE IN THE MUFF, WENT THROUGH THE SCAT HOSE AND INTO THE CARBURETOR CAUSING THE POWER LOSS. (SO05200505084) (K)

2005FA0000087	AVIAT	LYC	WIRE	LOOSE
4/30/2004	A1B	O360A1D	VM1000DPU	ELECTRICAL SYS

DURING TROUBLESHOOTING OF WIRES IN VM1000 SYSTEM, WIRE J4-13, VOLTAGE SENSE, CAME LOOSE AND SHORTED TO GROUND. THIS WIRE IS CONNECTED DIRECTLY TO BUS WITH NO CIRCUIT PROTECTION. LATER MODEL AIRCRAFT DO INCORPORATE CIRCUIT PROTECTION IAW MFG. RECOMMEND EARLIER AIRCRAFT BE RETRO-FITTED WITH NEW DESIGN. WIRE IS HELD IN WITH SCREW CLAMP TYPE TERMINAL. IF THIS HAD COME LOOSE IN FLIGHT AND IN-FLIGHT FIRE COULD HAVE OCCURRED. (K)

CA040527011	BAC	LYC	ROD END	FAILED
5/26/2004	146200A	ALF502R5	RMRE04UCBBFF	PAX DOOR

ON ARRIVAL, CREW UNABLE TO OPEN MAIN FWD LEFT HAND CABIN DOOR. PASSENGERS DEPLANED USING REAR PASSENGER DOOR. DOOR MEL'D AND AIRCRAFT OPERATED TO MAINTENANCE BASE. MAINTENANCE INSPECTION FOUND DOOR OPERATING MECHANISM DISCONNECTED FROM OPERATING HANDLE DUE TO FAILED CONNECTING ROD ROD END. ROD END P/N RMRE04UCBBFF REPLACED AND DOOR FUNCTION TESTED. AIRCRAFT RETURNED TO SERVICE. (PART IS CLASSIFIED AS AN EXPENDABLE IN THE MAINTENANCE TRACKING SYSTEM AND DEFINITIVE PART TIME NOT AVAILABLE, TIMES PROVIDED ARE AIRCRAFT TIMES, PART BELIEVED TO BE ORIGINAL EQUIPMENT).

CA040811006	BAC	LYC	ARM	CRACKED
7/24/2004	146200A	ALF502R5	HC524H0344002	SERVICE DOOR

(CAN) CABIN CREW REPORTED RT FORWARD SERVICE DOOR DIFFICULT TO CLOSE. MAINTENANCE INSPECTION FOUND DOOR 1R UPPER HINGE ARM ASSEMBLY CRACKED. UPPER HINGE ARM ASSEMBLY REPLACED. AIRCRAFT RETURNED TO SERVICE.

CA040525001	BBAVIA	LYC	CONTROL CABLE	FRAYED
5/21/2004	8GCBC	O360C2A	19023	TE FLAPS

STAINLESS STEEL CABLES, LT AND RT, FRAYED AT WING ROOT PULLEY. FLAP DOWN POSITION.

CA040525002	BBAVIA	LYC	CONTROL CABLE	FRAYED
5/21/2004	8GCBC	O360C2E	19023	TE FLAPS

STAINLESS STEEL CABLES, LT AND RT, FLAP CONTROL AT WING ROOT PULLEYS FRAYED.

CA041013004	BBAVIA	LYC	LEAF SPRING	BROKEN
10/13/2004	8GCBC	O360C2E	315434	TAIL WHEEL

(CAN) MAIN LEAF SPRING BROKEN AT TOW BRIDLE CAGING BOLT. APPROX 4 INCHES AFT OF SPRING ASSY U BAR. THESE ARE RECENTLY PURCHASED NEW BATCH TYPE SPRINGS.

CA040911002	BEECH	PWA	ACTUATOR	BENT
9/10/2004	100BEECH	PT6A28	A31691	TE FLAPS

(CAN) FLAPS STOPPED AT APPROACH POSITION AND COULD NOT BE LOWERED ANY FURTHER. SINCE AIRCRAFT WAS LANDING NO OTHER ACTION WAS TAKEN WHILE IN FLIGHT. ON GROUND IT WAS DETERMINED THAT FLAPS WOULD NOT LOWER OR RETRACT. FURTHER INVESTIGATION DETERMINED THE FLAP ACTUATOR HAD INTERFERED WITH THE RT IB FLAP WHILE IT WAS BEING LOWERED. SINCE THE LIMIT SWITCHES ARE LOCATED

ON THE IB RT FLAP THE FLAP MOTOR AND DYNAMIC FLAP RELAY OVERHEATED BEFORE THE CIRCUIT BREAKER TRIPPED. THE FLAP ACTUATOR WAS RETURNED TO ITS PROPER POSITION AND THE FLAP MOTOR AND FLAP RELAY WERE REPLACED WITH SERVICEABLE UNITS.

CA040528009	BEECH	PWA	FITTING	CRACKED
5/25/2004	100BEECH	PT6A28	10404900	HYD SYSTEM

AIRCRAFT HAD NO BRAKES AFTER LANDING ON A GRAVEL AIR STRIP. HYDRAULIC FLUID WAS SEEN LEAKING OUT OF THE BRAKE ASSY. ENGINEER WAS FLOWN OUT AND FOUND THE HYDRAULIC FITTING HAD BEEN HIT WITH A ROCK AND WAS BENT AND CRACKED. FITTING WAS REPLACED AND BRAKE SERVICED.

2005FA0000005	BEECH	PWA	CABLE	BROKEN
11/16/2004	1900C	PT6A27		PAX DOOR

ON CLIMBOUT THE AIRSTAIR DOOR OPENED. AC RETURNED, WHEN AIRSTAIR DOOR OPENED IN FLIGHT, DOOR DAMPER BROKE AND SUPPORT CHAINS BROKE. CHAIN HIT PROPELLER AND CAUSED NOTICEABLE DAMAGE. DOOR ANNUNCIATOR LIGHT WAS NOT ILLUMINATED SO NO INDICATION OF ANY PROBLEM WAS EVIDENT. CAUSE FOR DOOR FAILURE WAS DOOR CABLE WHICH TURNS LOCKING CAMS BROKE WHEN DOOR WAS CLOSED. PILOT NEGLECTED TO CHECK CAM MARKS FOR ALIGNMENT WITH GUN SIGHTS LOCATED ON DOOR FRAME. GROUND PERSONNEL DID NOT REALIZE THE DOOR INSIDE CAM CABLE BROKE, AS A RESULT, HANDLE IS STOWED, DOOR PIN POPS OUT INDICATING DOOR IS CLOSED. BOTH SWITCHES ON THE DOOR FOR THE ANNUNCIATOR MAKE A CLOSED CIRCUIT CAUSING THE LIGHT TO GO OUT.

CA040707002	BEECH	PWA	FILTER	SEPARATED
7/1/2004	1900C	PT6A65B	KIT11480221S	HYD SYSTEM

DURING SCHEDULED INSPECTION OF THE INLINE HYD FILTERS (INSTALLED USING RAYTHEON KIT NR 114-8022-1S) IT WAS DISCOVERED THAT TWO OF THE FILTERS HAD SEPARATED FROM THERE CONICAL END AND HAD MIGRATED DOWN THE HYD RETURN LINE ABOUT 2 INCHES FROM THERE NORMAL POSITION. IT IS SUSPECTED THAT THIS DEFECT COULD POTENTIALLY BLOCK THE RETURN LINE FOR THE GEAR ACTUATORS AND CAUSE THE GEAR TO FAIL IN THE UP POSITION IN WHICH CASE THE MANUAL EXTENSION WOULD ALSO FAIL. THE INLINE HYD FILTERS WERE REMOVED FROM THIS A/C PENDING FINDINGS OF THIS SDR. OPERATOR NOTE: REFERENCE BEECHCRAFT OPTIONAL SERVICE BULLETIN 2403 FOR INSTALLATION OF THIS KIT. ACTUAL FILTER PART NUMBER IS NOT KNOWN AT THIS TIME.

2005FA0000190	BEECH	PWA	HARTZL	FORK	CRACKED
2/23/2005	1900D	PT6*		D4951	PROPELLER

NDT SHOWS CRACKED IN 2 PLACES ON FORK. (K) (REF: 12235)

2005F00045	BEECH	PWA	ENGINE	MALFUNCTIONED
2/11/2005	1900D	PT6A67D		RIGHT

FLT - FLL/EYW - DURING FLIGHT, DETECTED SMOKE IN THE COCKPIT AND CABIN. RIGHT ENGINE LOW PRESSURE ANNUNCIATOR ILLUMINATED. REMOVED AND REPLACED RIGHT ENGINE. OPERATIONAL CHECK NORMAL. (M)

CA040707006	BEECH	PWA	MOTOR	UNSERVICEABLE
7/1/2004	1900D	PT6A67D	571302	MLG

GEAR UNSAFE LIGHT CAME ON IN FLIGHT WITH AUTO FEATHER OFF ANNUNCIATOR ALSO. GEAR HAD TO BE MANUALLY EXTENDED. REPLACED LANDING GEAR POWER PACK MOTOR WITH O/H UNIT. FUNCTIONAL TEST OF SYSTEM CARRIED OUT.

CA040618002	BEECH	PWA	RECORDER	BURNED
6/17/2004	1900D	PT6A67D	S703100000	CABIN

CREW ESTABLISHED CRUSIE AT 16000 FEET, AC BUSS DETECTED ERRORS CAUSING SEVERAL AC RELATED COMPONENTS TO BECOME ERRONEOUS. CREW NOTED SMELL AND BLUE HAZE. EVENTUALLY THE FDR 115AC C/B OPENED. RETURNED TO DEPARTURE AIRPORT FOR INVESTIGATION. MAINTENANCE FOUND THE POWER SUPPLY BOARD WITHIN THE FDR HAD BLOWN A TRANSORB CAUSING THE ELECTRICAL SMELL AND SMOKE. ONCE THE 115AC HAD OPENED, THE VOLTAGE VARIATIONS BEING CREATED STOPPED AND ALL SYSTEMS RETURNED TO NORMAL, SAVE THE FDR WHICH WAS LEFT UNPOWERED.

CA040705002	BEECH	PWA		BOOT	TORN
6/30/2004	1900D	PT6A67D		11418002823	LEFT

(CAN) CREW NOTICED A TEAR IN THE LT IB DEICE BOOT DURING WALKAROUND. THE AIRCRAFT WAS FERRIED AND THE BOOT WAS REPLACED. REASON FOR TEAR UNKNOWN.

CA040521007	BEECH	PWA		WINDSHIELD	FAILED
2/3/2004	200BEECH	PT6A41		1013840252	COCKPIT

PILOTS WINDSHIELD INNER PANE SHATTERED WHILE IN FLIGHT

CA040902009	BEECH	PWA		WINDSHIELD	CRACKED
8/2/2004	200BEECH	PT6A41		1013840252	COCKPIT

(CAN) ON DECENT, THE CREW HEARD A BANG AND THE PILOTS SIDE WINDSHIELD WAS CRACKED. THE CREW CONTINUED THE DECENT AND LANDED NORMALLY.

CA040902010	BEECH	PWA	RAYTHN	BEARING	FAILED
8/30/2004	200BEECH	PT6A41		B66	CHAIN SPROCKET

WHEN MLG EXTENDED ON ARRIVAL, GEAR CAME OUT OF WW & STOPPED. CREW EXTENDED MLG WITH THE EMERGENCY EXTENTION SYSTEM. CREW FOUND IT VERY HARD TO MOVE HANDLE FOR 1ST FEW STROKES. WERE ABLE TO KEEP GOING UNTIL 3 GREEN LIGHTS. LANDED A/C NORMALLY. A/C PUT ON JACKS & 60 AMP C/B UNDER FLOOR FOUND BLOWN. C/B RESET & GEAR SELECTED UP. GEAR WENT UP NORMALLY. GEAR SELECTED DOWN & GEAR MOVED SAME AMOUNT & STOPPED. MLG MOTOR STILL TRYING TO MOVE GEAR, BUT FRICTION CLUTCH IN GEARBOX SLIPPING. NLG CHAIN REMOVED IN ABLE TO SPLIT UP SYS FOR TROUBLESHOOTING. MLG FUNCTIONED NORMALLY. NLG SYSTEM TALKEN APART & A BEARING IN 1 OF CHAIN SPROCKETS FOUND FAILED. A NEW SPROCKET & BEARING INSTALLED & MLG FUNCTIONED NORMALLY.

CA040902011	BEECH	PWA		WINDSHIELD	CRACKED
9/1/2004	200BEECH	PT6A41		1013840252	COCKPIT

(CAN) ON DECENT, THE CREW NOTICED A CRACK IN THE PILOTS WINDSHIELD. THE CREW CONTINUEDAND LANDED NORMALLY.

CA041022001	BEECH	PWA		RETAINING RING	MISSING
10/19/2004	200BEECH	PT6A41		MS166551031	MLG

(CAN) AIRCRAFT WAS ON APPROACH AND SELECTED LANDING GEAR DOWN. LANDING GEAR FAILED TO EXTEND. THE FLIGHT CREW THEN SELECTED THE EMERGENCY LANDING GEAR EXTENSION SYSTEM. THE LANDING GEAR LOCKED DOWN AND THE AIRCRAFT LANDED SAFELY. UPON INSPECTION OF THE LANDING GEAR SYSTEM MAINTENANCE FOUND THE RETAINING RING INSTALLED IN THE SHAFT COUPLER MISSING. THIS CAUSED THE COUPLER TO SLIDE TO THE MOTOR SIDE OF THE SPLINED SHAFT, WHICH CAUSED THE MOTOR TO DISENGAGE FROM THE PUMP.

2005FA0000097	BEECH			WINDSHIELD	CRACKED
11/15/2004	300BEECH			10138402521	COCKPIT

LT POSITION, INNER PLY OF WINDSHIELD SHATTERED AT 29 K, -38 DEGREE C, 8-10 SECONDS AFTER THE RT WINDSHIELD. INNER PLY HAD SHATTERED. RECOMMEND SUBSEQUENT SCHEDULED WINDSHIELD RETORQUES BE CAREFULLY PREFORMED TO ENSURE ORIGINAL CONTOUR OF WINDSHIELD INSTALLATION PER KIT 101-5043-3 IS NOT ALTERED RESULTING IN POSSIBLE STRESS LOCATIONS IN WINDSHIELD FRAME.

2005FA0000107	BEECH	PWA		IDLER LINK	FAILED
11/11/2004	400A	JT15D5		2550012513	THRUST REVERSER

THE UPPER IDLER LINK PN 202-0008-1, FAILED AT THE DOOR END PREVENTING THE THRUST REVERSER TO STOW PROPERLY AND DAMAGED THE SUPPORT ASSY. PILOT`S WERE UNAWARE OF THE PROBLEM UNTIL THE T/R DOORS WERE NOTICED TO NOT BE FULLY STOWED ON WALK AROUND. (K)

2005FA0000089	BEECH	LYC		ARMATURE	FAILED

12/2/2004	95	O360A4A		GENERATOR

THE GENERATOR WAS JUST O/H, WITHOUT DISASSEMBLING THE GENERATOR, LOOKING IN TO PULLEY SIDE, YOU COULD SEE THAT THE ARMATURE HAD PARTIALLY UNWOUND. TO THE POINT WHERE ONE ARMATURE WIRE WAS RUBBING LARGE AMOUNTS OF FIELD COVERING OFF. THIS CAUSED THE ARMATURE WIRE TO BREAK. THIS FIELD COVERING FOD CIRCULATED THROUGH THE COMMUTATOR/BRUSHES TO DISINTEGRATE. THINK THEY AREN'T WINDING THE ARMATURES TIGHT ENOUGH. (NM01199419959) (K)

CA041029001	BEECH	PWA	ELT	INOPERATIVE
10/28/2004	99	PT6A28	ELT200	CABIN

(CAN) APPROXIMATELY 3 HOURS AFTER LANDING, ATC INFORMED THE COMPANY THAT THEY HAD A STRONG ELT SIGNAL. AFTER CHECKING ALL AIRCRAFT IT WAS NOTICED THAT THE ELT ON THIS AIRCRAFT WAS ACITVATED. THE SWITCH WAS IN THE ARM POSITION AND THE INDICATOR LIGHT WAS ON. SEVERAL ATTEMPTS WERE MADE TO RESET THE ELT. THE ELT WAS REMOVED. AS SOON AS IT WAS MOVED IT QUIT TRANSMITTING AND WOULD NOT START AGAIN. REMOVED THE COVER AND FOUND A SUBSTANTIAL AMOUNT OF WATER INSIDE, BOTH AROUND THE BATTERY AND THE SEALED SWITCHES AND BOARDS. THE ELT HAS BEEN SENT FOR REPAIR.THE ELT WAS DUE FOR RECERTIFICATION DECEMBER 19/04, THE BATTERY WAS DUE FEB/06.

2005FA0000004	BEECH	PWA	INVERTER	MALFUNCTIONED
11/19/2004	99A	PT6A27		RT ENGINE

ON CLIMB OUT, RT ENGINE TORQUE DROPPED TO 500. AC RETURNED, WHERE THE TORQUE SYSTEM WAS JET CAL, GAUGES SWAPPED SIDE TO SIDE AND ALL SYSTEMS WORKED AS REQUIRED. MAINTENANCE SUSPECTS AN ELECTRICAL SPIKE FROM THE NR 1 INVERTER. THE GAUGES STUCK ON 500 BUT DROPPED TO ZERO WHEN INVERTER NR 2 SELECTED. INVERTER NR 1 AND NR 2 INSPECTED, CONNECTOR PLUG, INSPECTED THE WIRES, NOTHING WAS FOUND AND MAINTENANCE CANNOT DUPLICATE THE PROBLEM. SWITCH OF INVERTERS PRODUCED NO PROBLEMS WITH TORQUE SYSTEM. (K)

CA040803008	BEECH	PWA	BARRYCTRLS	CASTING	SEPARATED
7/30/2004	A100	PT6A28		44911601	ENGINE MOUNT

(CAN) ENGINE WAS FOUND SAGGING. UPON INVESTIGATION THE UPPER ENGINE MOUNT WAS FOUND BROKEN OFF. ALL 3 MOUNTS REPLACED AND CHECKED OK NOTE THESE MOUNTS WERE INVOLVED IN A SUDDEN STOPPAGE, 243 HOURS PRIOR.

CA040929008	BEECH	PWA	COVER	OUT OF ADJUST
9/13/2004	A100	PT6A28		NR 3 BEARNG

(CAN) PILOTS NOTED THE ENGINE OIL GETTING DARKER AND THE ENGINE ITT GETTING HIGHER. MAINTENANCE INSPECTED THE ENGINE AND FOUND THAT THE NR3 BRG COVER HAD TURNED AND CAUSED THE EXHAUST DUCT TO CRACK AND SEPARATE INTERNALLY. THE PT BLADES HAD RUB MARK AND ALSO THE PT DISK WAS SCRAPPED. PARTS WERE REPLACED AND RETURNED TOO SERVICE. THE EXHAUST DUCT DID NOT HAVE SB1430 ACCOMPLISHED WHICH STOPS THIS FROM HAPPENING.

CA040705001	BEECH	PWA	NUT	DAMAGED
6/10/2004	A100	PT6A28		MLG ACTUATOR

DURING RECTIFICATION OF A SNAG GEAR HANDLE LIGHT STAYING ON WHEN GEAR RETRACTED, A/C JACKED UP AND L/G SWINGS WERE COMPLETED. NOTED THAT LT L/G DOORS WAS HANGING OPEN WITH GEAR RETRACTED. ACT REMOVED DUE TO SUSPICION IT HAD SLIPPED INTERNALLY, CAUSING IT TO BE OUT OF SYNC WITH NOSE AND RT MAIN GEAR ACTUATORS. INSPECTION OF ACT AFTER REMOVAL SHOWED ACT TO HAVE AN EXCESSIVE AMT OF INTERNAL RESISTANCE. SENT TO OVERHAUL FACILITY FOR EVALUATION. OVERHAUL FACILITY HAS DISASSEMBLED ACT AND FOUND EXCESSIVE WEAR AND STRIPED THREADS ON NUT AND SCORING ON SCREW THREADS. THIS UNIT IS BEING SENT TO RAYTHEON FOR FURTHER ANALYSIS.

CA040730008	BEECH	PWA	HSI	OVERHEATED
6/21/2004	A100	PT6A28	066302710	DME DISPLAY

(CAN) ON CLIMB, BURN ODOR, SMOKE WHERE DETECTED IN COCKPIT. PILOT ADVISED ATC, DIVERTED TO ALTERNATE AIRPORT WHICH HAD VFR CONDITIONS AT TIME. WHILE FLYING INTO HEAVY RAIN, TURBULENT AIR, RT ENG FIRE WARNING LIGHT ILLUMINATED. RT ENG WAS IMMEDIATELY SHUTDOWN. AC LANDED WITHOUT

INCIDENT. INSP OF RT ENG DID NOT SHOW ANY SIGNS OF FIRE, SMOKE, OR BLEED AIR LEAK. FIRE DET SYS WAS TESTED USING AC FIRE DETECTOR TEST SWITCH. FIRST TIME, RT NR2 FIRE DET INDICATED U/S. MALF COULD NOT BE DUPLICATED. BURN ODOR AND SMOKE WAS FOUND TO BE COMING FROM DISTANCE MEASURING EQUIPMENT (DME) DISPLAY SECTION OF HORIZ SITUATION INDICATOR (HSI) CIRCUIT BOARDS. DME CB WAS PULLED, GROUND RUN CARRIED OUT, AC FERRIED FOR REPAIR.

2005FA0000117	BEECH	CONT	CYLINDER HEAD	SEPARATED
1/11/2005	A36	IO550B	AEC631397ST2	ENGINE

ECI CYLINDER HEAD AND BARRLE SEPERATION. (K)

2005FA0000402	BEECH	GARRTT	WINDSHIELD	BROKEN
2/9/2005	B100	TPE331*	5042006930	COCKPIT

INSIDE LAYER OF CO-PILOT WINDSHIELD CRACKED WHILE IN-FLIGHT AT 25,000 FT. AIRCRAFT RETURNED. NO PROBABLE CAUSE OR RECOMMENDATION CAN BE MADE TO PREVENT REOCCURRENCE. WINDSHIELD CRACKED FOR NO APPARENT REASON. (K)

CA040707003	BEECH	GARRTT	MANIFOLD	CRACKED
7/6/2004	B100	TPE331*	31024741	FUEL DISTRIBUTIO

SLIGHT FUEL ODOR IN CABIN WHEN AIRCRAFT SLOWED FOR LANDING. THE CREW NOTICED FUEL DRIPPING FROM THE RT ENGINE AFTER SHUTDOWN. MAINTENANCE FOUND A CRACKED FUEL MANIFOLD INLET ELBOW. THE MANIFOLD WAS REPLACED.

FCPR200500002	BEECH		OXYGEN BOTTLE	RUPTURED
12/20/2004	B200		80129310	

DURING 3 YEAR HYDRO TEST O2 BOTTLE (20 YEARS INSERVICE 3HT 1850) RUPTURED AT OR BELOW 2100 PSI. SIGNIFICANT DAMAGE TO THE BOTTLE AND PRESSURE TEST TANK OCCURED. NO INJURIES TO TEST PERSONNEL.

2005FA0000404	BEECH		EXHAUST STACK	CRACKED
3/7/2005	B200		1019500223	ENGINE

CRACK IN BARE METAL DUE TO ENGINE VIBRATION. (K)

2004FA0000889	BEECH	PWA	TURBINE	SHIFTED
9/9/2004	B200	PT6A41	3053094	ENGINE

NEW STYLE, PN SEGMENT INSTALLED AT HSI 258 HRS PRIOR. THIS NEW STYLE SEGMENT SHIFTS AFT RESULTING IN HOT SECTION FAILURE. VERY COMMON WITH THIS PN SEGMENT 3053094/ MFG NEEDS TO CHANGE DESIGN.

CA040621006	BEECH	PWA	RECEPTACLE	CORRODED
6/17/2004	B200	PT6A42	2064862	DOOR LIGHT

COURTESY AND ENTRANCE DOOR LIGHTS REPORTED U/S. TROUBLESHOOTING LED TO CONNECTOR P406 LOCATED IN THE AIRCRAFT SIDEWALL FORWARD OF THE ENTRANCE DOOR. FOUND CONNECTOR PINS CORRODED, PRIMARILY PIN 7 THATSUPPLIES 28VDC TO THE CIRCUIT. WIRING REPAIRED AND AIRCRAFT RELEASED.

CA040902008	BEECH	PWA	ANTENNA	VIBRATION
10/20/2003	B200	PT6A42	CI2480100	GPS DATA

A/C ORIGINALLY EQUIPPED WITH ANTENNA MOD CI4510-700 IAW LSTC NR C-LSA02-377/D. ANTENNA LATER RECALLED BY MANUFACTURER. REPLACEMENT ANTENNA MOD CI2480-100. DURING FLT, REPLACEMENT ANTENNA VIBRATED LOUD ENOUGH TO BE HEARD IN COCKPIT. ANTENNA REMOVED. INSTALLED SAME ANTENNA IN SAME LOCATION. ON 2 OTHER BEECH 200'S WITH NO VIBRATION NOTICED. OPERATORS HAVE BEEN KEPT ADVISED OF SITUATION WITH OTHER A/C. SPECS SHEET FOR CI2480-100 ANTENNA STATED 350KTS TAS MAX & A CEILING OF 55,000'. SPECS SHEET FOR CI2480-100 ANTENNA TODAY STATES 210KTS IAS MAX AT 10,000' & CEILING OF 20,000 FT. ANTENNA MANUFACTURER WILL BE CONTACTED FOR CLARIFICATION.

CA041025002	BEECH	PWA	DIODE	BURNED
10/14/2004	B200	PT6A42	70HF10	DUAL FEED BUSS

(CAN) EXPERIENCED NR1 DUAL FED BUS FAILURE IN FLT. NR 1 DUAL FEED BUSS EQUIP BECAME DE-ENERGIZED. AC LANDED WITHOUT INCIDENT. MAINT DISCOVERED BOTH DIODES BURNED OPEN ON NR1 DUAL FEED BUSS SYS. REPLACED DIODES WITH NEW, PERFORMED DUAL BUSS CONFORMITY CHECK IAW MM TO CHECK BUSSES NR 1 THRU NR 4. AC CERTIFIED AND RELEASED FOR FLT. SUSPECTED 1 OF 2 DIODES ORIGINALLY FAILED, CAUSING SECOND DIODE TO TAKE REMAINING LOAD, CAUSING ITS LIFE TO BE SHORTENED. IT ALSO APPEARED THAT THESE DIODES HAD BEEN CHANGED IN PAST. SUSPECTED THAT DIODES MAY HAVE BEEN INCORRECTLY INSTALLED, DID NOT APPEAR TO BE VERY SECURE IN DIODE ASSY (50-354308-21). VERY POOR INFO ON CORRECT INSTALLATION OF DIODES.

2005FA0000257	BEECH	PWA	WINDSHIELD	BROKEN
2/17/2005	B200	PT6A60A	10138402519	COCKPIT

PILOT REPORTS THAT AT CRUISE ALTITUDE 24,000 FT, EVERYTHING NORMAL THE PILOTS WINDSHIELD OUTER GLASS SHATTERED. TO PREVENT RECURRENCE, REPLACED WITH KIT-STRESS FREE WINDOW INSTALLATION IAW INSTRUCTIONS PROVIDED. (K)

2004FA0000941	BEECH	PWA	STRINGER	CRACKED
12/21/2004	B200	PT6A60A	1014400339	FUSELAGE

STRINGER NR 9 ON THE RT SIDE WAS FOUND CRACKED DURING NON-RELATED MAINTENANCE.

2005FA0000012	BEECH	PWA	GOVERNOR	MALFUNCTIONED
12/6/2004	B300	PT6A60A	1013890293	OVERSPEED

DURING NORMAL GROUND RUN-UP. THE AIRCRAFT PROPELLER AUTO-FEATHER SYSTEM WAS OPERATIONALLY CHECKED. BOTH LT AND TR PROPELLER SWITCHES WERE SELECTED AND BOTH PROPELLERS FEATHERED CORRECTLY. WHEN THE SWITCHES WERE RELEASED THE LT PROPELLER DID NOT COME OUT OF THE FEATHERED POSITION BUT THE RT PROPELLER WORKED CORRECTLY. A SERVICEABLE OVERSPEED GOVERNOR WAS INSTALLED IN THE LT POSITION. OPERATIONAL CHECK WAS GOOD AND THE AIRCRAFT WAS RETURNED TO SERVICE. UNKNOWN WHAT CAUSED THE COMPONENT TO FAIL POSSIBLE INTERNAL SWITCH OR SERVO FAILURE, COMPONENT SENT FOR OVERHAUL/ REPAIR.

CA050120011	BEECH	PWA	WIRE HARNESS	BURNED
1/18/2005	B300B350C	PT6A60A	1303640448	LIGHTS

ACFT POWERED UP FOR DAILY INSPECT IN HANGER. CABIN INDIRECT LIGHTING TURNED ON, SOON AFTER, SMOKE NOTED COMING FROM AFT HEADLINER ASSY, OUT OF CABIN DOOR. HEADLINER REMOVED & CONNECTER W2J4 WAS BURNED, & WIRING DAMAGED. IT SHOULD BE NOTED THAT WIRING IN CLOSE PROXIMITY TO OXYGEN LINES. SYS DISABLED UNTIL FURTHER INVESTIGATION COMPLETED. FOLLOWING DAY AFT PORTION OF LIGHTING DISCONNECTED & DEFERRED FOR PARTS AVAILABILITY, FRONT PORTION REMAINS OPERATIONAL. CONSULTED WITH RAYTHEON WHO ADVISED THAT SYS HAD 3000 VOLTS, & THAT CONNECTOR DAMAGE COMMON WHEN CONNECTERS ARE MISHANDLED DURING ASSY.

CA040705006	BEECH	PWA	SHUTOFF VALVE	FAILED
6/30/2004	C90A	PT6A21	1013890253	FUEL

(CAN) DURING PILOTS START CHECKS RT HAND FUEL SHUT-OFF VALVE FAILED IN OPEN POSITION. UNABLE TO TURN LOW PRESSURE LIGHT ON. REPLACED VALVE. AIRCRAFT RETURNED TO SERVICE.

2005FA0000196	BEECH	PWA	CLEVIS PIN	BROKEN
2/10/2005	E90	PT6A60A	MS203922C45	RT MAIN GEAR

PILOT REPORTED SOUND (LIKE A TIRE BLOWING OUT) UPON LANDING. THERE WAS SEVERE VIBRATION ON ROLLOUT. THERE WAS NO VIBRATION ON TAXI BACK TO HANGAR. UPON EXITING AIRCRAFT, PILOT NOTICED RT MAIN GEAR MISALIGNED. FURTHER INSP BY MAINTENANCE, FOUND RETAINING CLEVIS PIN FOR UPPER TORQUE LINK SHEARED, CAUSING PIN TO DRIFT OB, CAUSING THE UPPER TORQUE LINK TO BREAK AND SEPARATE FROM THE TRUNNION. RECOMMEND REPLACING CLEVIS PINS WITH NEW EVERY TIEM AD 2002-01-10 IS PERFORMED. (GL11200507567) (K)

2005FA0000013	BEECH	CONT	MOTOR	INTERMITTENT
12/9/2004	F33A	IO520BB	583800901	MLG

DURING FLIGHT OF AIRCRAFT, PILOT REPORTED GEAR WOULD NOT RETRACT. MAINTENANCE TECHNICIAN FOUND LANDING GEAR MOTOR WAS INTERMITTENT AND SLOW TO RETRACT. NO RECOMMENDATIONS AT THIS TIME.

2005FA0000415	BEECH	CONT	RELAY	FAILED
3/11/2005	F33A	IO520BB	SM50D7	BRAKES

DURING GEAR RETRACTION, GEAR WAS VERY SLOW TO EXTEND. TROUBLESHOOTING SYSTEM FOUND DYNAMIC RELAY WAS LOOSING 12 VOLTS ACROSS DOWN RELAY SIDE. PROBABLE CAUSE AT THIS TIME IS UNKNOWN RETURNED TO MFG FOR ANALYSIS. NO RECOMMENDATION AT THIS TIME. (K)

2005FA0000195	BEECH	CONT	PUMP	INOPERATIVE
2/7/2005	F33A	IO520BB	64621238AZR	FUEL SYSTEM

ENGINE KEPT DYING AT IDLE. MAINTENANCE TECH TROUBLESHOT SYSTEM AND FOUND THAT THE ENGINE DRIVEN FUEL PUMP PRESSURE WILL NOT STABILIZE. VARIES BETWEEN 7.5 TO 10 PSI. REMOVED AND REPLACED ENGINE DRIVEN FUEL PUMP OPS CHECK NORMAL. PROBABLE CAUSE INTERNAL FAILURE IN FUEL PUMP. (K)

2005FA0000361	BEECH	PWA	FRAME	FRACTURED
2/5/2005	F90	PT6*	5042002857,58	FUSELAGE

DURING 6000 CYCLE AIRFRAME INSPECTION, FOUND LT AND RT CABIN FORMERS FRACTURED INTO 2 PIECES AT STA 177.00 AT WL 90-91 (APPROXIMATE) CAUSE OF FAILURE UNKNOWN (SUSPECT HARD LANDING). OBTAINED DER FOR REPAIR- CONSULTED MFG TECH SUPPORT ON FINDINGS. REMOVED AND REPLACED LT AND RT FORMERS. (K)

CA040616001	BELL		BLADE	DEBONDED
4/20/2004	206B		206016201131	TAIL ROTOR

(CAN) TAILROTOR BLADE OB DOUBLER, NEAR ROOT END OF BLABE, FOUND DEBONDED ON APPROX 6 INCHES.

CA040707001	BELL		SEAL	WORN
3/12/2004	206B		406340105101	T/R GEARBOX

TAIL ROTOR GEARBOX CHIP DETECTOR HAS ILLUMINATED IN FLIGHT. THE GEARBOX WAS SUBSEQUENTLY REMOVED FROM AIRCRAFT, REPLACED WITH SERVICEABLE UNIT AND AIRCRAFT WAS RETURNED TO SERVICE. UPON DISMANTLING OF THE GEARBOX IT WAS DISCOVERED THAT THE SEALING LIP WORE THROUGH ALLOWING THE TENSION SPRING TO CONTACT WEAR SLEEVE, RESULTING IN THE GENERATION OF METALLIC PASTE/SLUDGE.

CA040621008	BELL	ALLSN	POWERPACK	FAILED
6/18/2004	206B	250C20	206076022005	HYD SYSTEM

IT APPEARS THAT THE HYDROPACK HAD AN INTERNAL GEAR FAILURE. THE AIRCRAFT HAD NR INDICATIONS BUT NO HYDRAULIC PRESSURE. HYDROPACK WAS CHANGED AND AIRCRAFT RETURNED TO SERVICE.

CA040616002	BELL	ALLSN	TURBINE WHEEL	BURNED
6/15/2004	206B	250C20		ENGINE

(CAN) MAIN ROTOR WAS HARD TO TURN BACKWARDS INDICATING CARBON PROBLEMS. AIRCRAFT WAS GROUND RUN AS PER MANUFACTURES RECOMENDATIONS AND RELEASED FOR SERVICE AS TURBINE HAD FREED UP. COMPANY HAD REMOVED AIRCRAFT FROM SERVICE AND RETURNED IT TO BASE. ON REMOVAL OF TURBINE (TO SEND IT IN FOR CLEANING). IT APPEARED TO HAVE PARTS OF TURBINE BLADES IN BURNER CAN SECTION.

CA040601013	BELL	ALLSN	ACK	BATTERY	LEAKING
6/1/2004	206B	250C20		MN1300	ELT

DURING ANNUAL PERFORMANCE TEST, IT WAS NOTICED THAT DURACELL MN1300 BATTERIES DATED MAR 2010 WERE LEAKING WHAT APPEARED TO BE BATTERY ACID. BATTERY VOLTAGE WAS LOW. ELT BATTERY CASE WAS

CLEANED AND A FULL SET OF NEW BATTERIES WERE INSTALLED. ELT WAS PERFORMANCE TESTED AS PER CAR 571 APPENDIX G AND FOUND TO BE OK.

CA040729003	BELL	ALLSN	STATOR	FAILED
5/28/2004	206B	250C20		

AIRCRAFT HAD ENGINE DECEL IN FLIGHT AND AUTOROTATION. INITIAL FIELD INSPECTION FOUND DAMAGE AS FOLLOWS: - ENGINE COMPRESSOR FOD FOUND COULD BE SEEN ON 2ND, 3RD AND 4TH STAGES- KAFLEX DRIVE SHAFT CONTACTED ISOLATION MOUNT-TXMN DRAG PIN CONTACTED STRIKER PLATE, 2 OF 8 RIVETS FOUND SHEARED - LT CHIN BUBBLE CRACKED.

2005FA0000122	BELL	ALLSN	ENGINE	MAKING METAL
1/31/2005	206B	250C20		

PILOT REPORTED HEARING A GRINDING NOISE FROM THE ENGINE WHICH WAS FOLLOWED BY AN ENGINE CHIP LIGHT INDICATION. A POWER ON PRECAUTIONARY LANDING WAS MADE. THE ENGINE WAS REMOVED AND REPLACD WITH A LOANER ENGINE. THE DISCREPANT ENGINE AS AN ASSEMBLY WAS SENT TO REPAIR STA. FOR FURTHER EVALUATION. (K)

CA040812005	BELL	ALLSN	STRAP	CRACKED
7/23/2004	206B	250C20	206031200118S	FUSELAGE

(CAN) FOUND STRAP CRACKED AT 100 HOUR INSPECTION. PART REPLACED.

CA050104010	BELL	ALLSN	BLEED VALVE	FAILED
12/14/2004	206B	250C20	23053176	ENGINE

(CAN) BLEED VALVE WAS INSTALLED AFTER OVERHAUL TO REPLACE A TIME EXPIRED UNIT. SUBSEQUENT POWER CHECK REVEALED HIGH TOT. BLEED VALVE WAS WAS RETURNED TO VENDOR TO CORRECT FAULT. PART WAS INSTALLED AND FAILED A SECOND TIME. PART WAS REPLACED WITH ANOTHER UNIT, POWER CHECK SATISFACTORY.

2005F00043	BELL	ALLSN	STARTER	INOPERATIVE
2/17/2005	206B	250C20B	23032027	ENGINE

SHUT DOWN THE HELICOPTER AT ICY, WHEN ATTEMPTING TO RESTART THE IGNITER WAS FIRING BUT THE COMPRESSOR WAS NOT TURNING. WENT BACK THROUGH THE CHECKLIST, ON THE SECOND ATTEMPT THE SAME THING HAPPENED, WITH MAINTENANCE PRESENT ON THE THIRD ATTEMPT THE COMPERSSOR WAS TURNING AND THE FUEL LIT OFF BUT PRIOR TO REACHING FLIGHT IDEL 30-40 PERCENT THE FLAME WENT OUT. MAINTENANCE REMOVED AND REPLACED THE STARTER GENERATOR, INSPECTED THE COMPRESSOR FOR FOD, INSPECTED FUEL NOZZLE, AIR LINES AND THE FUEL. GROUND RUN CHECK COMPLIED WITH AND STARTED THREE TIMES WITH THE PILOT RESTARTING THE LAST START. NO OTHER DEFECTS FOUND AND STARTING TIME IS 25-35 SECONDS. (M)

2005FA0000405	BELL		EXHAUST STACK	CRACKED
3/11/2005	206L		206064300005	ENGINE

EXHAUST STACK CRACKED IN BASE METAL DUE TO VIBRATION. (K)

CA041006004	BELL	ALLSN	LONGERON	CRACKED
10/4/2004	206L1	250C28B	206032308003	FUSELAGE

(CAN) IN THE TASK OF CHANGING THE LONGERON, IT WAS VISUALLY NOTED THAT THIS FRAME WAS CRACKED IN TWO PLACES. THE CRACKS WERE NEAR THE UPPER TWO ATTACHMENT POINTS OUT OF THE 4 ATTACHMENT POINTS.

CA040804002	BELL	ALLSN	BLADE	DEFORMED
7/28/2004	206L3	250C30P	206016201131	TAIL ROTOR

(CAN) TRAILING EDGE SKIN WHERE THE BALANCE WEIGHTS ARE ATTACHED, WAS FOUND DISPLACED APPROXIMATELY 0.080 INCH FROM THE CHORD-LINE. DISCREPANCY WAS DETECTED WHEN A BONDING FAILURE WAS NOTICED IB FROM THE WEIGHTS ON THE BLADE ROOT CLOSE-OUT. THERE WAS NO INDICATION THAT THIS

AREA WAS SUBJECT TO IMPACT DAMAGE, WHICH LEADS TO THE POSSIBILITY THAT THE DAMAGE WAS CAUSED AT THE INSTALLATION OF THE BALANCE WEIGHTS.

2005FA0000377	BELL	ALLSN	FUEL CELL	DAMAGED
1/6/2005	206L4	250C30P	206064633105	AFT

DURING A SCHEDUALED 12 MONTH FUEL SYSTEM INSPECTION IAW MM, THE DEFECT WAS NOTED ON A CUSTOMERS AIRCRAFT. THE BOTTOM INSIDE OF THE AFT FUEL CELL WAS BLISTERED WITH .2500 INCH BLISTER IN DIAMETER, SPACED FROM .5000 INCH TO .2500 INCH APART. THE BLISTERS CONTINUED UP THE SIDE OF THE CELL 6 INCHES WITH THE SPACING BECOMING LARGER BETWEEN BLISTERS. THE FORWARD 2 FUEL CELLS SHOWED NO DEFETS, ALL FILTERS WERE NORMAL, THE 2 INLINE SCREENS AND INJECTOR PUMP WERE CLEAN ALSO. THE AIRCRAFT MFG WAS NOTIFIED AND THE CELL WAS DETERMINED TO BE UNAIRWORTHY AND WILL BE RETURNED TO THE AIRCRAFT MFG. PROBABLE CAUSE IS UNKNOWN, RECOMMENDATIONS ARE TO RETURNE THE CELL TO MFG TO EVALUATE DEFECTS.(K)

CA040908005	BELL	PWA	TURBINE	FAILED
8/19/2004	212	PT6T3		ENGINE

DURING HIGH HOVER (LONG LINE) TO PICK UP LOAD, NR 1 POWER SECTION FAILED. INITIAL COMPRESSOR INLET INSPECTION (PLENUM AREA) REVEALED MOLTEN PARTICLES. FURTHER INVESTIGATION WILL COMMENCE ON POWER SECTIONREMOVAL/TEARDOWN INSPECTION. (ALTSN-6421.0).

CA040716004	BELL	PWA	CONTROL UNIT	MALFUNCTIONED
6/28/2004	212	PT6T3	51509002R	DC SYSTEM

GENERATOR WOULDN'T COME ONLINE, NR 1 AND NR 1 SWAPPED FOR TROUBLESHOOTING, CONTROL CONFIRMED TO BE AT FAULT. CONTROL UNIT REPLACED, GENERATOR BALANCING C/O AND A/C RETURNED TO SERVICE. THIS UNIT CONTAINED WATER WHEN REMOVED.

CA040728005	BELL	PWA	ACCUMULATOR	LEAKING
5/6/2004	212	PT6T3B	212076007003	HYD SYSTEM

0.5 L OF HYDRAULIC FLUID LOST FROM NR 2 SYSTEM IN 1 HOUR OF FLIGHT. LEAK ISOLATED TO NR 2 ACCUMULATOR. ACCUMULATOR REPLACED AND A/C RETURNED TO SERVICE.

CA040531005	BELL	LYC	SUPPORT	WORN
12/3/2003	214B1	T5508D	214010404111	SWASHPLATE

DURING AN INSPECTION CHECK ON THE SWASH PLATE THE FRICTION WAS NOTED AS VERY TIGHT. UPON DISASSEMBLY, IT WAS FOUND THAT ONE OF THE FOUR BEARINGS RIDING ON THE SUPPORT HAD LOST IT'S 'COATING' ENTIRELY. THE RESULTING METAL/METAL CONTACT WORE INTO THE SUPPORT, CAUSING THE FRICTION TO STIFFEN. THE SUPPORT AND ALL FOUR BEARINGS WERE SUBSEQUENTLY SCRAPPED.

CA040601001	BELL		BELLCRANK	DAMAGED
5/28/2004	407		407001732117	TAIL ROTOR

BELLCRANK FOUND WITH HOLES (.2495 - .2505 DIA.) OVERSIZE AND OVAL RANGING FROM .253 TO .275. (3 PLACES).

2005FA0000134	BELL	ALLSN	BELL	CONE	WORN
2/16/2005	407	250C47B		407010104109	M/R MAST

REPLACED MAIN ROTOR MAST CONE PN 407-010-104-109 FOR HUB SHIFT/MAST NUT TORQUE STABILIZATION PROBLEM. ORDERED NEW CONE P/N 407-010-104-109 FROM MFG. NEW PART WAS RECEIVED WITH A WEAR GROOVE IN CENTER OF CONE FACE (APPEARED USED). REORDERED ANOTHER NEW CONE AND INSTALLED. INSTALLED MAST NUT AND STABILIZED TORQUE.

2005FA0000395	BELL	ALLSN	CHECK VALVE	MISINSTALLED
3/16/2005	407	250C47B	P49389	FUEL SYSTEM

COMPONENT INSTALLED ON THE SIDE OF ENGINE. WHEN IT WAS INSPECTED FOUND NUT DISLODGED FROM STUD COVER OF CHECK VALVE.

2005FA0000316	BELL	ALLSN	SKID	FRACTURED
9/27/2004	407	250C47B	206020110103	VERTICAL FIN

DURING PRE-FLIGHT INSPECTION, FOUND TAIL SKID LOOSE IN VERTICAL FIN. UPON CLOSER EXAMINATION, TAIL SKID PULLED OUT FROM FIN ASSEMBLY. THE TAIL SKID HAD CRACKED COMPLETELY AROUND AND THROUGH AT THE ATTACHMENT BOLT HOLE. BY APPEARANCE OF THE BROKEN ENDS OF THE TUBE, THIS CRACK PROPAGATION WAS SLOW. NO OTHER DAMAGE, OR DEFORMATION OF TAIL SKID NOTED DURING REPLACEMENT OF THE NEW TAIL SKID. HISTORY, AC WAS INVOLVED IN A HARD LANDING/ TAIL ROTOR SUDDEN STOPPAGE.(K)

2005FA0000224	BELL	ALLSN	BOLT	MISINSTALLED
2/15/2005	407	250C47B	NAS66039D	DUAL CONTROL

FOUND THAT MAX POS OF THROT (POWER LEVER ANGLE) COULD NOT BE OBTAINED USING NML ADJ PROC. FOUND COPILOT THROTTLE LINKAGE WAS FOULING ON COLLECT ELBOW (PN 206-001-203-101). LINKAGE IS ATTACHED TO COL THROTTLE LEVER WITH (NAS6603-9D) BOLT INSTALLED W/HEAD FACING FWD. DUE TO INSTALL OF AIR COMM BLEED AIR HTR KIT (PN 407H-200M12 STC:SR00221DE) BOLT HAD BEEN TURNED AROUND W/HEAD FACING AFT. INSTR CALLS TO REPLACE FACTORY BOLT (NAS6603-9D) W/SHORTER BOLT (NAS6603-8D), NOT INSTALLED ON THIS AC. FOUND THAT BOLT (NAS6603-8D) ALSO FOULS IF WASHER/COTTER PIN ARE INSTALLED INCORRECTLY. ONLY FLIGHT FADEC FAILURE WOULD PILOT MOVE THROT PAST (FLIGHT) DETENT POS, USING MAX THROT RANGE. AC TO BE CHECKED FOR COMPLIANCE.

HEEA098914	BELL		TRANSISTOR	BURNED OUT
12/31/2004	412		1300071	INSTRUMENT PANEL

IN CRUISE FLIGHT, NOTED ELECTRICAL BURNING SMELL. RETURNED TO BOOTHVILLE. MAINTENANCE FOUND TRANSISTOR 8Q2 FOR INSTRUMENT LIGHTS HAD SHORTED AND CAUSED RESISTOR 8R12 TO BURN OUT. REPLACED TRANSISTOR 8Q2, RESISTOR 8R12 AND RHEOSTAT 8R5.

2005FA0000413	BELL	PWA	BLADE	VIBRATION
1/11/2005	412EP	PT6T3	212010750105	TAIL ROTOR

ON FIRST GROUND RUN, AFTER APPROX 24 HOURS OF HARD RAIN, THE HELICOPTER DEVELOPED A SEVERE VIBRATION. THE VIBRATION WAS TRACED TO A TAIL ROTOR BLADE. SUSPECT BLADE COLLECTED THE RAIN WATER. THE BLADE WAS SCRAPPED IAW THE MM. (K)

CA040601002	BELL		BELLCRANK	DAMAGED
5/27/2004	427		407001732125	TAIL ROTOR

BELLCRANK FOUND WITH HOLES (.2495 - .2505 DIA.) OVERSIZE AND OVAL RANGING FROM .253 TO .275. (2 PLACES).

2005FA0000278	BELL	ALLSN	BELL	BEARING	WORN
2/9/2005	430	250C40B		430310461101	SWASHPLATE

SWASHPLATE DUPLEX BEARING P/N 430-310-461-101 S/N ZV10085 FOUND WORN ON LOWER RACE.

2005FA0000270	BLANCA	CONT	CYLINDER HEAD	SEPARATED
9/28/2004	1730A	IO520K	649358CN	ENGINE

AIRCRAFT ANNUAL INSP- 2 WEEKS PRIOR- REPLACED EXHAUST AND INTAKE VALVES ON NR 2 CYLINDER DUE TO LOW COMPRESSION. FLEW 6 HOURS PRIOR TO INCIDENT. IN CRUISE FLIGHT, ENGINE SUDDENLY RAN VERY ROUGH WITH VIBRATION. VFR WITH FLIGHT FOLLOWING. DECLARED EMERGENCY AND LANDED AT NEAREST AIRPORT(3F3), 18 MILES AWAY. POST FLIGHT INSPECTION: NR 2 CYLINDER BROKE INTO 2 PIECES- SEPARATED AT TOP OF BARREL AND JUNCTURE OF HEAD. HEAD WAS HELD ON BY VALVE COVER AND PUSH RODS. THIS CYLINDER IS REPORTEDLY NOT SUBJECT TO EXISTING ADS OR MANDATORY SB THAT COVER OTHER ECI CYLINDERS WITH SIMILAR PROBLEMS. (SW05200502730)

2005FA0000076	BOEING		CYLINDER	CRACKED
1/10/2005	727*		S6026	VALVE

CRACKED THROUGH THREADS IN CYL 1 PORT. FATIGUE, STRONGER BODY. MECHANIC JW2, JOB NR 191413. (K)

2005FA0000077	BOEING		CYLINDER	CRACKED
1/10/2005	727*		S6026	VALVE

CRACKED THROUGH THREADS IN CYL 1 PORT. FATIGUE, STRONGER BODY. MECHANIC JW2, JOB NR 191407. (K)

2005FA0000078	BOEING		HOUSING	CRACKED
1/10/2005	727*		S6026	VALVE

CRACKED THROUGH THREADS IN CYL 1 PORT. FATIGUE, STRONGER BODY. MECHANIC JW2, JOB NR 191405. (K)

0041005	BOEING		WIRE	SHORTED
10/5/2004	727100			DRAIN HEATER

AFTER TAKEOFF AT 1000 FT, A BURNING ODOR NOTED, NO OBVIOUS PROBLEM WITH GEN LOADS, APPROX 3000 FT VISIBLE SMOKE EMINATING BEHIND FE TABLE. NO CB'S POPPED, NO VISIBLE SYS TROUBLE. TROUBLE CEASED & SMOKE CLEARED. ENGINEER DETERMINED ALL SYSTEMS OPERATIONAL. AS IT WAS A DAY TIME FLIGHT AND VMC EXISTED WE ELECTED TO CONTINUE FOR OUR SCHEDULED MX. UPON IVESTIGATION DRAIN MAST "AIR" CB DID NOT POP, WIRING FROM CB TO DRAIN MAST BURNED EXPOSING BARE WIRES. TROUBLE TRACED TO FWD DRAIN MAST, FOUND LOOSE INSIDE MAST FAIRING. MAST HEATER WIRE SHORTED TO MAST STRUCTURE. RUN OF WIRE REPLACED, CB'S REPLACED (AIR & GRD) EXERCISED ALL CB'S IN COCKPIT, REPLACED FORWARD DRAIN MAST, MLG ACCESSORY BOX REPLACED DUE TO DAMAGED WIRES.

CA041118003	BOEING	PWA	WASHER	MISSING
8/9/2004	727221	JT8D17	MS271113AN3166R	FLAP TRACK

(CAN) RT IB AFT MID FLAP (TWO) OB TRACK CARRIAGE ROLLER BOLT TAB WASHERS AND NUTS MISSING. CORRECT HARDWARE INSTALLED, INDEPENDENT CHECK CARRIED OUT. CONTRACTED AMO ADVISED.

CA050111004	BOEING	PWA	TRANSMITTER	STICKING
1/5/2005	727223	JT8D15A	106055410	HYD SYSTEM

(CAN) 'A' SYSTEM LOW LEVEL LIGHT ILLUMINATED, 'A' SYSTEM QUANTITY DOWN TO 2 GALLONS AFTER GEAR RETRACTION. CREW RETURNED TO DEPARTURE WITHOUT FURTHER INCIDENT. MAINTENANCE ARRIVED AND INSPECTED AIRCRAFT AND FOUND 3 GALLONS INDICATING. FOUND SMALL LEAK ON B-NUT ON TAIL SKID ACTUATOR. ALSO FOUND HYDRAULIC QUANTITY TRANSMITTER STICKING ON 'A' SYSTEM RESERVOIR, INDICATION FLUCTUATED +/- 1.5 GALLONS BY TAPPING ON TRANSMITTER. TRANSMITTER REPLACED ENGINE RUNS CARRIED OUT WITH NO FURTHER LEAKS FOUND AND INDICATION WORKING CORRECTLY.

2005FA0000116	BOEING	PWA	SKIN	MISDRILLED
1/12/2005	727225	JT8D15		FUSELAGE

DRILL START NOTED AT L-BAND NR 1 ANTENNA FWD RT MOUNT HOLE. BS410, RBL 1. (IN SKIN) FOUND WHILE PERFORMING INSPECTION OF ANTENNA IAW WORKCARD NR 34X4505. (K)

CA041117002	BOEING	PWA	CONNECTOR	SHORTED
11/5/2004	727225	JT8D15A	FRF6E2821P	NR 3 ENGINE

(CAN) AT TOP OF CLIMB, THE SECOND OFFICER NOTED AND INFORMED THE CAPTAIN THAT THE NR 3 ENGINE OIL TEMP WAS WELL ABOVE REDLINE. CREW CARRIED OUT HIGH ENGINE OIL TEMP SUPPORT CHECKLIST WHICH RESULTS IN SHUTTING DOWN THE ENGINE. CREW DUMPED APPROX. 13,000 LBS OF FUEL AND RETURNED TO DEPARTURE. AIRCRAFT LANDED WITHOUT FURTHER INCIDENT. TROUBLESHOOTING CARRIED OUT BY MAINTENANCE FOUND THE FIREWALL BULKHEAD CONNECTOR SHORTING OUT. AIRCRAFT IS AOG UNTIL REPAIRS AND VERIFICATION ENGINE RUNS CARRIED OUT.

CA041027002	BOEING	PWA	BOEING	BRAKE	CONTAMINATED
10/20/2004	727225	JT8D15A		4472R170	STAB TRIM

(CAN) DURING DECENT, WHEN LEVELING AT 6000FT CREW EXPERIENCED DIFFICULTY IN CAPTURING ALTITUDE. PROBLEM WAS QUICKLY DETERMINED TO BE HORIZ STABILIZER TRIM. TRIM WHEEL WAS VERY STIFF TO MOVE BOTH MANUALLY AND ELECTRICALLY WHEN TRIMMING NOSE UP. AC LANDED WITHOUT FURTHER INCIDENT AFTER CARRYING OUT STABILIZER JAM CHECKLIST. MAINT FOUND LARGE QUANTITY OF WATER IN THE AUX BRAKE SHOE HSG. STABILIZER BRAKE, HIGH SPEED ACTUATOR AND LOW SPEED ACTUATOR REPLACED IAW

AMM. STABILIZER TRIM TESTED WITHOUT FURTHER DIFFICULTY, AIRCRAFT RETURNED TO SERVICE. IN LITE OF THESE FINDINGS, WE ARE INITIATING A FLEET CAMPAIGN TO INSPECT THE ENTIRE FLEET FOR SIMILAR DEFECTS, AND CORRECT AS NECESSARY.

CA040720003	BOEING	PWA		COMPRESSOR	ODOR
7/17/2004	727225	JT8D15A			CABIN AIR

DURING TAKEOFF, THE CREW REPORTED A RUSH OF HOT AIR IN THE COCKPIT AND A BURNING ODOR. THE CREW DECIDED TO RETURN TO BASE. AIRCRAFT LANDED WITHOUT INCIDENT. MX APPLIED MEL 36-06 WITH THE NR 1 BLEED CLOSED AND THE LT NR 2 ENGINE/APU BLEED OPENED AFTER TAKEOFF. THIS IS THE SAME SCENARIO AS THE PILOT'S QRH. THE AIRCRAFT WAS DISPATCHED AND NO FURTHER INCIDENT DURING SUBSEQUENT FLIGHT. FURTHER TROUBLESHOOTING FOUND THAT THE NR 1 AIR CYCLE MACHINE WAS UNSERVICEABLE, REPLACED AND THE MEL CLEARED.

CA040531001	BOEING	PWA		ACTUATOR	DAMAGED
5/28/2004	727225	JT8D15A			LT SLATS

DURING A SCHEDULED ROUTINE MAINTENANCE CHECK IT WAS OBSERVED THAT THE LEFT HAND OUTBOARD SLAT ACTUATOR WAS DAMAGED. THE CORNER OF THE SLAT WAS GROUNDED OFF EXPOSING A SECONDARY STRUCTURAL EXTRUSION. THE AIRCRAFT WAS GROUNDED A SUSPECTED A WING TIP STRIKE ON LANDING. TSB WAS NOTIFIED AND WITH COMPANY QUALITY ASSURANCE AN INVESTIGATION IS IN PROGRESS.

CA041007001	BOEING	PWA	GARRTT	WIRE	CHAFED
10/5/2004	727227	JT8D9A			APU

(CAN) JUST PRIOR TO ENGINE START AT AN OUTBASE, THE A/C APU SHUT DOWN ON ITS OWN. GROUND EQUIPMENT WAS USED TO POWER AND START THE A/C, AND THE FLIGHT CONTINUED. AT THE TERMINATING BASE, MAINTENANCE PERSONNEL FOUND 2 WIRES AT THE APU THAT HAD CHAFED AND SHORTED AGAINST EACH OTHER. THE WIRES WERE REPAIRED AND THE A/C RETURNED TO SERVICE.

CA050105013	BOEING	PWA		ACTUATOR	SEPARATED
12/29/2004	727233	JT8D15A		65404676	NLG DOWNLOCK

(CAN) ON APPROACH, THE CREW OBSERVED 'A' (HYDRAULIC) SYSTEM DEPLETION. SYSTEM DESELECTED, NORMAL LANDING CARRIED OUT. THE NOSE LANDING GEAR DOWN LOCK ACTUATOR SEPARATED FROM THE AIRFRAME MOUNT AND HAD DAMAGED THE HYDRAULIC LINES.

CA040521008	BOEING	PWA		SEQUENCE VALVE	CRACKED
5/21/2004	727243	JT8D15		141085	RT MLG DOOR

AFTER T/O AND GEAR RETRACTION, CREW NOTICED HYDRAULIC QUANTITY LOW. CREW MONITORED HYDRAULIC LEVEL FOR DURATION OF FLIGHT WITH NO CHANGE. UPON GEAR EXTENSION, HYDRAULIC QUANTITY DROPPED FURTHER, REQUIRING THE A/C TO BE TOWED TO RAMP FROM THE ACTIVE TAXIWAY. MAINTENANCE DISCOVERED THE RT MLG DOOR SEQUENCE VALVE HAD CRACKED. THE VALVE WAS REPLACED.

CA050105003	BOEING	PWA	BOEING	CONTROL SYSTEM	FAILED
12/20/2004	727260	JT8D17			SLAT

(CAN) DURING CLIMB FLAPS/SLATS SELECTED UP. FLAPS INDICATED UP, SLAT AMBER REMAINED ON AND AIRCRAFT ROLLED TO THE RT. SECOND OFFICERS PANEL INDICATED NR6 SLAT STILL IN TRANSIT. FLAPS AND SLATS CYCLED A NUMBER OF TIMES TO NO AVAIL. DECISION TO RETURN WAS MADE, 8000 LBS OF FUEL DUMPED. AC LANDED WITHOUT FURTHER INCIDENT AND WITHOUT DECLARING AN EMERGENCY. MAINT INSPECTED AND TESTED SLATS WITH NO FAULT FOUND ON NR6 SLAT. HOWEVER NR3 KREUGER WAS FAULTED AND REPAIRED. THIS WAS INCIDENTAL AND WE BELIEVE NOT RELATED TO THE NR6 SLAT PROBLEM. IT IS SUSPECTED THAT NR6 SLAT BECAME ASKEWED INFLIGHT WHICH COULD NOT BE DUPLICATED ON THE GROUND. AIRCRAFT WAS RELEASED WITH NO FURTHER FAULT ON THE NEXT FLIGHTLEG.

2005FA0000007	BOEING			BULKHEAD	GOUGED
1/14/2005	7272M7			65-17662	FUSELAGE

RIGHT STA 950 BULKHEAD GOUGED.

2005FA0000110	BOEING		HOUSING	CRACKED
1/24/2005	737		511531	SHUTTLE VALVE

MOUNTING LUG CRACKED ON INNER DIAMETER, FATIGUE, STEEL HOUSING. (K)

LCQ20052	BOEING		SKIN	DENTED
12/21/2004	737			FUSELAGE

DENT AT FUSELAGE STA 391, 3 INCHES ABOVE S-17L AT PERIMETER OF EXISTING REPAIR. REF NR 23648 S/O 269001.

2005FA0000074	BOEING		HOUSING	CRACKED
1/10/2005	737*		511531	VALVE

HOUSING HAS 4 MOUNTING LUG HOLES. ONE HOLE WAS FOUND CRACKED DURING NDT INSPECTION. FATIGUE, STEEL HOUSING. MECHANIC RP1, JOB NR 192167 (K)

2005FA0000075	BOEING		MANIFOLD	CRACKED
1/10/2005	737*		654484511	AILERON

MANIFOLD CRACKED AT FILTER BOWL MOUNTING PORT. FATIGUE AND OVERPRESSURIZATION. MECHANIC NH2, JOB NR 191795. (K)

2005FA0000417	BOEING	GE	LIGHT	MISINSTALLED
3/9/2005	737*	CFM56*	300909201	TAILCONE

WHILE CLEANING LENS, IT APPEARED TO BE LOOSE IN THE HOUSING. A VERY GENTLE PULL RELEASED THE LENS FROM ITS HOUSING. THE LENS IS THICK GLASS THAT COULD BE A RUNWAY HAZARD IF IT FELL FROM THE AC AND BROKE. PROBABLE CAUSE IS SKYDROL WHICH LEAKED FROM RUDDER PCU AND COMPROMISED THE ADHESIVE FEATURES OF THE SEALANT ATTACHING THE LENS TO THE HOUSING ASSEMBLY. RECOMMEND INSPECTION OF AC THAT HAVE HAD RUDDER PCU SKYDROL LEAKAGE PROBLEMS. SOME TYPE OF MECHANICAL ATTACHMENT OF LENS TO THE HOUSING SHOULD BE CONSIDERED. (K)

CA040705009	BOEING	PWA	ANTENNA	INTERMITTENT
7/3/2004	737201	JT8D9A	20675680501	WX RADAR SYS

AIRCRAFT DEPARTED AND ONCE AIRBORNE THE CREW FOUND THE WEATHER RADAR TO BE INTERMITTENT WITH INCORRECT READINGS. DUE TO THE WEATHER FORECASTED AT THE DESTINATION THE CREW RETURNED TO BASE. MAINTENANCE FOUND THAT THE RADAR ANTENNA WAS AT FAULT. THE SYSTEM WORKED SERVICEABLE AFTER REPLACEMENT OF THE ANTENNA. THIS UNIT WAS INSTALLED TO CORRECT THE SAME SNAG DURING TROUBLESHOOTING ON JUNE 10TH. THIS INTRODUCED THE SAME SNAG AND MADE THE SNAG VERY DIFFICULT TO TROUBLESHOOT AND CORRECT. THE RADAR RT, DISPLAY, RADOME, WAVE GUIDE, ADI, CONTROL PANEL WERE REPLACED IN EFFORTS TO TROUBLESHOOT AND CORRECT THE SNAG.

CA040527003	BOEING	PWA	ELECTRICAL SYS	UNKNOWN
5/23/2004	737201	JT8D9A		ALL

ON THE ROLL IN CYXY, ALL ELECTRICS WERE LOST. ALL ELECTRICS RESTORED BY THEMSELVES AFTER APPROX 30 SECONDS THEN FAILED AGAIN SHORTLY AFTER.

CA040819006	BOEING	PWA	SKIN	CRACKED
8/18/2004	737201	JT8D9A		FUSELAGE

(CAN) DURING ROUTINE CHECK A 2.7500 INCH CRACK WAS FOUND ON THE OUTER FUSELAGE SKIN AT FS 847 STRINGER 24L. CRACK REPAIRED IAW SRM REV 85.53-30-3,FIG 48 SHT 33. TIMES 59257.06 CYCLES 55392.

CA040722002	BOEING	PWA	BOLT	SHEARED
7/19/2004	737204	JT8D15	BACB30MT7T23	STAB FITTING

WHEN THIRD PARTY AMO WAS INSPECTING THE FWD STABILIZER FITTINGS ATTACHED TO THE AFT SPAR FOR SB737-57A1266 ON A/C 743 FOUND THE O/B FITTING CRACKED. ON FURTHER INVESTIGATION, FOUND THAT ALL FOUR BOLT HEADS ON THE AFT O/B FITTING WERE SHEARED OFF, AND THE FITTING BEGINNING TO LIFT OFF THE

BEAM. THIS FITTING IS NOT PART OF THE SB. AS THE BOLT HEADS ARE MISSING CAN ONLY PROVIDE THE PART NUMBERS PER THE IPC. AS THIS IS NOT PART OF ANY SB THAT CAN FIND, BUT THE SB THEY WERE WORKING FROM DESCRIBES SERIOUS MLG FAILURE AND/OR LOSS OF HYDRAULIC FLUID AS A FACTOR, SHOULD A BRACKET FAIL, THOUGHT THAT AN SDR WAS APPROPRIATE. UNFORTUNATELY HAD REMOVED THE BRACKET BEFORE COULD GET ANY BETTER PICTURES, BUT HAVE RETAINED THE BOLTS. IPC REF S FOR THIS ARE 57-40-00-54C ITEM NR 1 FOR THE FITTING AND 57-40-00-46 ITEMS NR 451, 452, AND 453 FOR THE BOLTS.

SROM200400060	BOEING		SEAL	TORN
12/21/2004	737205		6990285	PAX DOOR

"AT FL 280 & 6PSID A LOUD HIGH PITCHED NOISE AND VIBRATION AT L1 DOOR. RETURNED TO ANC AND AS A/C DEPRESSURIZED THE NOISE LESSENED BUT DID NOT GO AWAY" "INSPECTED FWD ENTRY DOOR IAW B737MM 52-11-0. ADJUSTED DOOR STOP PINS AND UPPER GATE DOOR IAW B737 MM 52-11-0, OPERATIONAL CHECK GOOD". DURING GROUND PRESSURIZATION CHECK ORIGINAL PROBLEM WAS DUPLICATED. FURTHER INSPECTION FOUND TEAR IN RUBBER SEAL OF THE HINGE FLAP ASSY LOCATED UNDER THE UPPER HINGE COVER. FURTHER GROUND PRESSURE CHECK CONFIRMED THIS TO BE THE PROBLEM. REPLACED HINGE FLAP ASSY.

CA040528005	BOEING	PWA	LINE	BURST
5/17/2004	737210C	JT8D9A	6590737329	HYD SYSTEM

ON GO-AROUND WHEN GEAR SELECTED UP. RT MAIN GEAR FAILED TO RETRACT AND LOSS OF SYSTEM 'A' HYDRAULIC FLUID. AIRCRAFT DIVERTED TO CYFB, DECLARED EMERGENCY. GEAR UP LINE P/N 65-90737-329 REPLACED, HYDRAULIC SYSTEM SERVICED, FUNCTION CHECK CARRIED OUT. AIRCRAFT SERVICEABLE. NO OTHER PROBLEMS OR ACTIONS.

CA041013010	BOEING	PWA	ACTUATOR	CRACKED
10/13/2004	737275	JT8D9A	65449617	SPOILERS

(CAN) A SYSTEM HYDRAULIC LIGHTS ILLUMINATED, A SYSTEM QTY READ ZERO. NR 8 SPOILER ACTUATOR FOUND CRACKED. ACTUATOR REPLACED MM 27-62-91. CARRIED OUT RII INSPECTION.

LCQ73	BOEING		TAB	BROKEN
2/24/2005	737522			RUDDER

COMPOSITE TAB ON L/E SPAR OF RUDDER BROKEN OFF. S/O 269004, N/R 24993.

LCQ74	BOEING		SKIN	GOUGED
2/24/2005	737522			FUSELAGE

GOUGE BETWEEN S-27L - S-28L BS 420. S/O 269004, N/R 24710.

LCQ75	BOEING		SKIN	DENTED
2/24/2005	737522			FUSELAGE

DENT IN EXTERIOR FUSELAGE SKIN AT FS 412 S-18R. S/O 269004, N/R 24964.

CA040531003	BOEING	CFMINT	FAN BLADE	BIRD INGESTION
5/27/2004	7377CG	CFM567B22	3400010260	ENGINE

AIRCRAFT STRUCK ONE, POSSIBLY TWO SEAGULLS ON TAKEOFF, IMMEDIATE VIBRATION FELT. TAKEOFF ABANDONED AND AIRCRAFT RETURNED TO GATE. MAINTENANCE CONDUCTED 'BIRD STRIKE INSPECTION' PER MM 05-51-18, DAMAGES FOUND AT NR 1 ENGINE FAN BLADES NR 11, 12, 13. FURTHER INSPECTION REVEALED BLADES 11 AND 12 DAMAGED BEYOND LIMITS, BLADES 11 AND 12 REPLACED IAW MM72-21-02, MATCHING BLADES ALSO REPLACED (23 AND 24). BLADES PLATFORMS BETWEEN FAN BLADE 11 AND 12, AND 12 AND 13 REPLACED IAW MM 72-21-02. BORESCOPE OF NR 1 ENGINE COMPLETED, NO FAULTS FOUND. ENGINE RUNS COMPLETED, SYSTEM CHECKS SERVICEABLE. AIRCRAFT RETURNED TO SERVICE WITH NO FURTHER INCIDENTS TO REPORT.

2005FA0000336	BOEING	VICKERS	ADAPTER	ERODED
2/3/2004	747*		624022	HYD PUMP

EROSION AROUND STROKING PISTON PORT. FLUID FLOW AGAINST SOFT METAL. STRONGER MATERIAL FOR HOUSING. (MECHANIC - BSI, JOB 192845) (K)

2005FA0000410	BOEING	RROYCE	THROTTLE	MISINSTALLED
3/7/2005	757200	RB211535*		NR 1 ENGINE

REF: (ATC0515) NR 1 ENGINE THROTTLE TELEFLEX CABLE OUTER SLEEVE RETAINING NUT FOUND TO HAVE COME ADRIFT, ALLOWING THE OUTER PORTION OF TELEFLEX CABLE TO MOVE. THE RETAINING NUT, ALTHOUGH DRILLED FOR WIRE LOCKING, THERE IS NO EVIDENCE OF WIRE LOCKING BEING CARRIED OUT. AC ENTER THE HANGAR WITH TECH LOG DEFECT OF THROTTLE STAGGER, PLA FAULT AND FLUCTUATING EPR. BELIEVE THAT HTIS IS RELATED TO THE ABOVE DEFECT. IN ADDITION, 4 FAN CASE BOLTS AND NUTS WERE FOUND MISSING FROM THE FAN CASE FLANGE BETWEEN 3 OCLOCK AND 10 OCLOCK POSITIONS. ALL DEFECT RECERTIFICATION HAS BEEN CARRIED OUT AND DOCUMENTED AT REPAIR STATION UNDER W/O: 5200/2005. (K)

CA041129005	BOEING	PWA	PWA	SHAFT	SHEARED
11/29/2004	767233	JT9D7R4D		350880	PUMP

(CAN) IMMEDIATELY AFTER 500FT, R PRIM PUMP EICAS MSG, STATUS QTY/PX NML. CLIMBING OUT, R QTY DECREASED STEADILY TO ZERO BUT PX NML W/DEMAND PUMP IN AUTO. CKD DEMAND PUMP OFF AND SYS PX WRNG LT DEMAND PUMP AUTO AND RETURNED TO DEPARTURE. FOUND RT EDP LEAKING INTERNALLY, RT EDP RPLD DUE DRIVE SHEARED. PX AND CASE DRAIN FILTERS CONTAMINATED SAME, REPLACED PURCHASED, PO 19E823411. RT RESERVOIR DRAINED/REFILLED 9 USG, EGR C/OUT LEAK CKD SATISFACTORY.

CA041129007	BOEING	GE	FUEL HEATER	FAILED
11/29/2004	767333	CF680C2*	702101601425	LT ENGINE

(CAN) MIDWAY THROUGH THE FLT, THE LT ENG OIL QTY BEGAN TO DECREASE AT THE RATE OF APPROX 1 LITRE EVERY 10 -15 MINUTES. LT ENG THRUST REDUCED OIL QTY STILL DECREASED TO ZERO OIL PRESS AND TEMP REMAINED NORMAL ACTION: REPLACED SERVO FUEL HEATER IAW MM 73-11-09.

CA040705005	BOLKMS	ALLSN	ENGINE	FAILED
6/24/2004	BO105S	250C20B		NR 2

ON STARTING NR 2 ENG THE WIND UP TO FUEL INTRODUCTION WAS NORMAL ENGINE LIGHT-OFF AND INITIAL SURGE WAS NORMAL, THEN THE N1 ACTUALLY DROOPED, THE ENG FLAMED OUT MOMENTARILY, CAUGHT AGAIN (WITH A LARGE PUFF OF SMOKE) ACCELERATED A LITTLE, THEN DROOPED AGAIN AND THE START WAS ABORTED. MOTORING THE STARTER AFTERWARDS PRODUCED A LOT OF NOISE WITH VERY RAPID DECELERATION ONCE THE STARTER WAS DISENGAGED. THE STARTER WAS REMOVED AND CHECKED OK. THE TRANSMISSION COWLING WAS REMOVED AND THE COMPRESSOR WAS TURNED BY HAND, IT WAS VERY STIFF AND NOISY. THE NOISE APPEARING TO COME FROM THE TURBINE. THE BURNER CAN AND LINER WAS REMOVED AND THE COMPRESSOR WAS TURNED BY HAND . IT WAS CONFIRMED THAT THE TURBINE WAS RUBBING.

CA040708001	BOLKMS	ALLSN	BUSHING	DEBONDED
7/3/2004	BO105S	250C20B	10560386	ENGINE MOUNT

A SERVICEABILITY INSPECTION WAS CARRIED OUT FOLLOWING THE LAST FLIGHT OF THE DAY AND IT WAS FOUND THAT THE LEFT ENGINE OUTBOARD MOUNT HAD VISIBLY DROPPED. THE ELASTOMER MATERIAL WAS COMPLETELY DEBONDED FROM THE METAL INNER PORTION OF THE MOUNT BUSHING P/N 105-60386 (CHAPTER 60-00-00, FIG. 14, ITEM 280, BO-105 PARTS BOOK) AND WAS EXTRUDING OUT OF THE SHELL.

CA041004006	BOMBDR	RROYCE	CONNECTOR	BURNED
9/8/2004	BD7001A10	BR700710A220	770699A	P1

(CAN) THE CREW SMELLED SMOKE IN THE COCKPIT AND RETURNED TO THE AIRPORT JUST AFTER TAKEOFF. THEY HAD SEVERAL CIRCUIT BREAKER TRIPPED FOR THE DC BUS 1 ON THE EMSCDU AND EVENTUALLY THE DC BUSS 1 FEED 4, WHICH FEED SPDA 4 TRIPPED AS WELL. SEVERAL ANOMALIES WERE NOTED IN THE COCKPIT, SUCH AS LIGHTS AND SOME AVS EQUIPMENT GOING OFF. UPON INSPECTION, THE P1 CONNECTOR WAS FOUND BURNED ON SPDA 4. THE CONNECTOR SEEMED TO BE WELDED TO THE SPDA. THE SPDA WAS REMOVED WITH THE CONNECTOR STILL ATTACHED. A NEW SPDA AND P1 WERE INSTALLED AND THE AIRCRAFT RETURNED TO SERVICE.

CA050117003	BOMBDR	PWC	MOUNT	CRACKED
1/17/2005	DHC8400	PW150A	9604209	NR 1 ENGINE

(CAN) DURING INSPECTION OF THE NR1 ENGINE MOUNT PN 96042-09, A CRACK WAS FOUND ON THE CORE ASSY PN. 19-9495-01. MFG IS INVESTIGATING THE ISSUE.

CA040730001	BOMBDR	PWC	GOOSENECK ASSY	CRACKED
7/29/2004	DHC8400	PW150A	85217051101	AIRSTAIR

FORWARD AIRSTAIR DOOR GOOSENECK FOUND CRACKED. THIS IS THE FIFTH OCCURRENCE OF THE GOOSENECK CRACKING. IT WAS ALSO FOUND ON TWO AIRCRAFT THAT THE FASTENERS WERE CORRODED AT THE DOOR PIVOT POINT. A FLEET CAMPAIGN TO INSPECT AND LUBE THESE FASTENERS IS BEING CARRIED OUT.

CA040708006	BOMBDR	PWC	PUMP	INOPERATIVE
7/4/2004	DHC8400	PW150A	6617302	HYD SYSTEM

DURING CRUISE, NR 1 HYDRAULIC CAUTION LIGHT ILLUMINATED, CONFIRMED NR 1 HYDRAULIC SYSTEM HAD NO PRESSURE. FOLLOWED QRH AND MADE NORMAL LANDING. FOUND QUILL SHAFT FOR PUMP COMPLETELY SHEARED.

CA040708008	BOMBDR	PWC	PUMP	INOPERATIVE
7/5/2004	DHC8400	PW150A	6617302	NR 2 HYD SYSTEM

NR 2 HYDRAULIC SYSTEM CASE DRAIN FILTER BYPASS INDICATOR POPPED SEVERAL TIMES DURING THE DAY. FOUND FILTER CONTAMINATED WITH METAL. REPLACED HYDRAULIC PUMP AS PRECAUTION DUE TO 2 FAILURES ON OTHER AIRCRAFT.

2005FA0000088	BRAERO	PWA	HOLDER	DESTROYED
12/9/2004	BAE1251000A	PW305		ELECTRICAL FUSE

AIRCRAFT WAS SQUAWKED WITH NR 1 ALTERNATOR DROPPING OFF IN FLIGHT. DURING TROUBLESHOOTING THE TECHNICIAN FOUND SMOKE TRAILS ON THE GG PANEL. LOCATED ON THE AFT SIDE OF THE REAR FACE OF THE PRESSURE BULKHEAD. A MORE CLOSE INSPECTION REVEALED A DESTROYED FUSE HOLDER WITH ACCOMPANING WIRE DAMAGE, GCU AND LINE CONTACTOR DAMAGE, AND A HOLE BURNED THROUGH THE GG PANEL ITSELF AT THE FUSE HOLDER LOCATION. THE DAMAGE WAS CENTERED UNDER THE LEFT SIDE OF THE FUSE BLOCK WHICH HAD DESINTERGRATED. IT WAS UNDETERMINED AS TO WHICH COMPONENT INITIATED THE DAMAGE. (EA17200504804)

2005F00053	BRAERO		BELLCRANK	OBSTRUCTED
2/11/2005	BAE125800A			MLG HANDLE

DURING APPROACH, MLG SELECTOR HANDLE WOULD NOT GO TO DOWN POSITION & ENGAGE DETENT. MLG HANDLE BINDING APPROX 1 INCH FROM BOTTOM DETENT. CYCLED MLG BUT HANDLE WOULD NOT ENGAGE DOWN DETENT. 3 GREEN DOWN & LOCKED LIGHTS & 3 RED MLG LIGHTS ILLUMINATED. MAIN AUX MLG LIGHTS GREEN & NLG MECH IND PIN INDICATING THE NLG DOWN & LOCKED. ELECTED TO DIVERT TO PERFORM A TOWER FLYBY & VISUALLY CONFIRM MLG DOWN. LANDED WITHOUT INCIDENT. DID NOT DECLARE AN EMERGENCY. UPON INVESTIGATION, FOUND AN OBJECT THAT RESEMBLED A INK PEN CAP LODGED BETWEEN FLOORBOARD & MLG HANDLE BELLCRANK IMPEEDING TRAVEL. OBSTRUCTION REMOVED & MLG SELECTOR CONTROL ADJUST PERFORMED IAW 800A MM. FOUND TO BE OK. RETURNED TO SERVICE. (M)

CA041116005	BRAERO	GARRTT	BAC	SHAFT	WORN
11/4/2004	BAE125800A	TFE7315R		25CF263321A	FLAP VANE

(CAN) UPON PERIODIC INSPECTION IT WAS NOTED THAT THERE WAS APPARENT CONTACT BETWEEN THE IB FLAP VANES ON BOTH LT AND RT ASSEMBLIES ONTO THE TORQUE SHAFT AND BEVEL HOUSING ASSY. THIS UNUSUAL CONTACT WAS DEDUCED TO OCCUR DURING FLIGHT LOADS AS THE CLEARANCE BETWEEN THESE ASSEMBLIES AT ITS CLOSEST LOCATION (ABOUT 15 DEGREES OF FLAP DEFLECTION) HAS APPROXIMATELY 0.600' CLEARANCE. EVEN WITH ANY ABNORMAL PLAY CAUSED BY WORN BUSHINGS ON THE ATTACHING HARDWARE OF THE FLAP MECHANISM COULD NOT PRODUCE THIS KIND OF CONTACT. INVESTIGATION IS ONGOING.

2005FA0000162	BRAERO	GARRTT	HAMSTD	COMPRESSOR WHEEL	DAMAGED
10/20/2004	BAE125800A	TFE7315R		A4504174	APU

RECENTLY EXPERIENCED A PROBLEM WITH A RELATIVELY LOW TIME COMPRESSOR WHEEL. THIS NEW STYLE

COMPRESSOR WHEEL IS A REPLACEMENT WHEEL TO SUPPORT AD NR20021502. THE WHEEL IN QUESTION LOST A LARGE INDUCER TIP THAT PENETRATED, AND CAME VERY CLOSE TO EXITING THE AIR INLET HOUSING. THIS WHEEL WAS INSTALLED 20 MONTHS AGO. AT THE TIME OF THIS EVENT IT HAD ACCUMULATED 265.1 HOURS AND 660 CYCLES. BESIDES THE MISSING INDUCER TIP, SEVERAL BLADES EXHIBIT INDUCER BLADE CRACKS CLOSE TO THE WHEEL BORE. THERE WAS NO INDICATION OF BEARING FAILURE, FOD, OR IMPACT WITH THE AIR INLET.

CA040902007	BRAERO	RROYCE	TRIM TAB	CRACKED
8/31/2004	HS7482A	DART5342	1G3161	RT ELEVATOR

(CAN) ON PREFLIGHT INSPECTION THE RT IB ELEVATOR TRIM TAB HINGE WAS FOUND TO BE LOOSE AND WOULD FLEX UNDER SIDE LOAD. UPON FURTHER INSPECTION IT WAS NOTICED THAT THE TRIM TAB SPAR WAS CRACKED ALONG THE LOWER EDGE BESIDE THE BOLTED ON HINGE POINT.

CA040527009	BRAERO	RROYCE	LINE	CHAFED
5/22/2004	HS7482A	DART5342	T2C5000605500	HYD SYSTEM

ON APPROACH, THE CREW OBSERVED LOW FLOW INDICATION ON BOTH SYSTEMS AND 1700 PSI. LANDING WAS CARRIED OUT WITHOUT INCIDENT. MAINTENANCE FOUND THE SUPPLY LINE FROM THE HP FILTER TO THE GEARBOX DRIP TRAY IN THE RIGHT HAND NACELLE CHAFED THROUGH. THE LINE WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE.

CA041119006	BRAERO	RROYCE	OIL COOLER	LEAKING
11/16/2004	HS7482A	DART5342	RK25198A	LT ENGINE

(CAN) ENROUTE, THE LT OIL PRESSURE WARNING LIGHT ILLUMINATED AND OIL PRESSURE WAS SEEN TO DROP. LT ENGINE WAS SHUT DOWNAND A/C LANDED WITHOUT INCIDENT. INVESTIGATION REVEALED LT OIL COOLER WAS LEAKING AND ENGINE OIL CONTENTS WERE LOW. OIL COOLER WAS REPLACED, FILTER AND ENGINE CHECKS WERE CARRIED OUT, A/C RELEASED TO SERVICE. DURING PREVIOUS DAY AC HAD BEEN EXPOSED TO BLIZZARD CONDITIONS WHILE ON GROUND. IT IS BELIEVED THAT SNOW ENTERED OIL COOLER BEFORE ENGINE COVERS COULD BE INSTALLED. THIS SNOW MELTED, THEN FROZE INSIDE COOLER MATRIX, CAUSING SOME OF MATRIX TUBES TO CRACK. NEXT DAY, WITH ENGINE RUNNING, THE ICE MELTED EXPOSING THE MATIX CRACKS, ALLOWING OIL LOSS AND, ULTIMATELY, LOSS OF OIL PRESSURE.

CA040914004	BRAERO	RROYCE	GENERATOR	INOPERATIVE
9/10/2004	HS7482A	DART5342	B3508	PORT SIDE

PORT GENERATOR WON'T COME ON LINE. PORT GENERATOR REPLACED S/N OFF 1878. GROUND RUN CHECK SERVICEABLE.

CA040531002	BRAERO	RROYCE	WIRE HARNESS	CHAFED
5/29/2004	HS7482B	DART5342		NR 1 ENG TGT

AFTER DEPARTING, THE CREW OBSERVED ABNORMALLY LOW TGT VALUE ON NR 1 ENGINE. THE AIRCRAFT RETURNED TO POINT OF DEPARTURE. MAINTENANCE FOUND CHAFED WIRING AT THE TGT JUNCTION BOX, THE EXTERNAL CALIBRATION TEST CONNECTOR ASSY WAS REMOVED AND THE AIRCRAFT RETURNED TO SERVICE AFTER OVERWEIGHT LANDING INSPECTION.

CA050104011	CARSON	GE	SKRSKY	WEB	CRACKED
12/29/2004	S61LSKRSKY	CT581401		S612066120	TAILBOOM

(CAN) DURING A ROUTINE INSPECTION, A CRACK WAS FOUND ON THE LT FORWARD CORNER OF THE LOWER WEB FITTING.

2005FA0000348	CESSNA	CONT	BRACKET	INOPERATIVE
3/18/2005	150C	O200*	0411930	EMPENAGE

(1) RIVET SHEARED AND BRACKET ROTATED, PARTIALLY. THIS WAS CAUSED BY FLAP CABLES BEING RIGGED TOO TIGHT. THIS CAUSED A TWIST IN THE CABLES ALLOWING (1) CABLE TO RIDE UP AND OVER THE OTHER CAUSING IT TO COME OFF AN210-2A PULLEY. THE PILOT REPORTED GREAT DIFFICULTY IN EXTENDING FLAPS. FOLLOW MFG INSTRUCTIONS. (K)

2005FA0000174	CESSNA	CONT	CESSNA	NUT PLATE	WORN

2/14/2005	150D	O200*		NAS682A3	RUDDER PIVOT

UPPER RUDDER PIVOT BOLT BACKED OUT OF SELF-LOCKING NUTPLATE AT UPPER RUDDER PIVOT ATTACH AND PIVOT POINT WHILE IN FLIGHT, RUDDER WAS RIPPED FROM THE LOWER BELLCRANK CONTROL AND DEPARTED AIRCRAFT. AIRCRAFT LANDED WITHOUT INCIDENT. RUDDER WAS RECOVERED AND THE UPPER PIVOT BOLT WAS RETAINED IN THE UPPER RUDDER CAP. THE BOLT COULD BE INSERTED IN THE NUTPLATE WITH LIGHT FINGER PRESSURE ONLY, AND REMOVED SAME WAY. NUTPLATE WAS WORN AND LOST ITS LOCKING ABILITY. AT INSTALLATION OF A NEW FACTORY RUDDER ASSEMBLY, A DRILLED AN BOLT WAS USED TO INCLUDE A COTTER KEY BELOW THE NUTPLATE. (NM07200503694)(K)

2005FA0000259	CESSNA	CONT		MUFFLER	CRACKED
2/22/2005	150E	O200A		045033862	ENGINE

CRACKING AROUND FRONT RISER. PART HAS BEEN INSPECTED IAW AD 67-03-01. PRESSURE CHECK AS REQUIRED AT 100 DEGREE INTERVELS. AIRCRAFT NOT FLOWN SINCE LAST ANNUAL. 8.9 HOURS SINCE LAST REQUIRED INSPECTION IAW AD. RECOMMEND INSPECTION ANNUALLY IAW AD. (K)

2005FA0000350	CESSNA	CONT		EXHAUST VALVE	STUCK
3/9/2005	150F	O200*			NR 3 CYLINDER

NR 3 CYLINDER HAS A STUCK EXHAUST VALVE. UPON CYLINDER REMOVAL IT WAS FOUND THAT THE VALVE HEAD WAS MUSHROOMED AND THE ROCKER ARM WAS ALSO DAMAGED. THIS CAUSED CONCERN DUE TO THE FACT THAT THE CYLINDER ONLY HAD 174.1 TOTAL HOURS SINCE IT WAS PURCHASED NEW. CYLINDER WAS SENT FOR REPAIRS AND THEN INSTALLED BACK ON THE ENGINE. (K)

CA041110005	CESSNA	CONT		FLAP TRACK	WORN
10/29/2004	150L	O200A		05232113	RT WING

(CAN) ON INSPECTION FLAP TRACK GROOVES WERE FOUND BADLEY WORN. PARTS WERE REPLACED AS REQUIRED.

CA040730003	CESSNA	CONT		EXHAUST VALVE	DEFORMED
1/23/2004	150L	O200A		631619	ENGINE

ON 200 HOUR INSPECTION, BOTH LEFT SIDE EXHAUST VALVES FOUND TO BE DEFORMED AT TOP OF STEM BELOW VALVE SEAT CYLINDERS 2 AND 4, JAN 12/04. ENGINE TIME AT INSPECTION 1506.5. ENGINE OVERHAULED SEPT. 20/90 BY VOWELL AVIATION. TTSB 4724,5. EXHAUST VALVES REPLACED. CYLINDERS AND ONGOING INSPECTED BEFORE INSTALLATION IN AIRCRAFT MAY 19/00. ENGINE GIVEN COMPLETE OVERHAUL AS PER ENGINE MANUFACTURER OVERHAUL MANUAL DUE TO CRACKED CRANKCASE. CRANKCASE REPLACED WITH SERVICEABLE ONE OBTAINED FROM VALLEY AERO ENGINES LANGLEY. ENGINE RETURNED TO SERVICE ZERO TIME SINCE OVERHAUL.

CA040720008	CESSNA	LYC	CESSNA	FORK	CRACKED
7/13/2004	152	O235L2C		04425037	NLG STRUT

NOSE GEAR FORK WAS FOUND 2 INCH CRACK IN THE RADIUS.

CA040618003	CESSNA	LYC		SWITCH	FAILED
6/16/2004	152	O235L2C		S21605	LANDING LIGHT

STUDENT PILOT AND INSTRUCTOR NOTED SMOKE COMING FROM LANDING LIGHT SWITCH AREA. RETURNED TO BASE AND NOTIFIED MAINTENANCE. SWITCH FOUND U/S, CIRCUIT BREAKER HAD NOT POPPED. THIS HAS HAPPENED NUMEROUS TIMES BEFORE TO THIS TYPE OF SWITCH.

CA040618004	CESSNA	LYC	MARVELSCHEBX	ACCELL PUMP	SEPARATED
6/16/2004	152	O235L2C			CARBURETOR

ACCELERATOR PUMP ON THIS CARBURETOR PUSHES FUEL THRU A BRASS TUBE APPROX 3' LONG. TUBE IS PERMANENTLY MOUNTED TO CARB BODY AT LOWER SECTION OF VENTURI ADJACENT TO ACCELERATOR PUMP. TUBE HAS A 90 DEGREE BEND NEAR WHERE IT ATTACHES TO CARB BODY & THEN TRAVELS VERTICALLY UP VENTURE APPROX 2'. TIP OF TUBE IS SHAPED TO FORM JET. PARTS CAT FOR CARB DOES NOT SHOW A PN FOR TUBE. PN 105055 IN THIS INSTANCE, CAME UNFASTENED FROM CARBURETOR & APPARENTLY SUCKED UP

VENTURI & BECAME LODGED IN THROTTLE VALVE. PILOT NOTED UNABLE TO PULL THROTTLE CONTROL BACK TO LESS THAN 2000 RPM. BY CLIMBING, PILOT ABLE TO SLOW AIRCRAFT ENOUGH TO SELECT FLAPS DOWN & MAKE A RELATIVELY NORMAL LANDING. CARB REPLACED WITH SERVICEABLE.

2005FA0000157	CESSNA	CONT	AXLE	BROKEN
11/23/2004	170A	C145*	0541124	LT MLG

LT MAIN GEAR WHEEL AXLE BROKE BETWEEN GEAR LEG AND WHEEL RACE. (GL11200505686) (K)

2005FA0000198	CESSNA	CONT	SPAR	CRACKED
1/31/2005	172H	O300D	052340051	RT WING FLAP TRA

WHILE REPLACING THE FLAP TRACK ASSY, A CRACK APPROX 2 INCHES IN LENGTH AND RUNNING THROUGH THE LOWER RIVET HOLES WAS FOUND UNDER THE IB FLAP TRACK. PROBABLE CAUSE IS FATIGUE. RECOMMEND THESE AC WITH MORE THAT 8,000 HOURS TT BE INSPECTED BY BORESCOPE OR OTHER ACCEPTABLE MEANS, AT THE REAR WING SPAR AROUND THE FLAP TRACK ATTACH AREA. (K)

2005FA0000387	CESSNA	CONT	SPAR	CRACKED
2/1/2005	172H	O300D	052340051	RT WING

DURING A BORESCOPE INSPECTION OF THE REAR WING SPAR, A CRACK WAS FOUND AT THE IB FLAP TRACK ATTACH POINT. PROBABLE CAUSE IS FATIGUE. THIS IS A VERY HIGH TIME AC WITH OVER 13,000 HOURS TT. IT HAS ALSO BEEN USED AS A FLIGHT TRAINER FOR ITS ENTIRE LIFE. (K)

2005FA0000298	CESSNA	LYC	WHEEL	FAILED
2/5/2005	172M	O320E2D	D306001	MLG

FOUND RT MAIN TIRE WAS LOCKED UP. PUT WHEEL ON DOLLY AND PULLED PLANE TO HANGER. CLOSER LOOK IN HANGER FOUND THAT RIM HAD BLOWN APART. DEFLATED TIRE AND LOOKED INSIDE RIM. FOUND PIECE BROKEN OUT OF CENTER SECTION OF RIM. CRACKS WERE FOUND AROUND BOLT HOLES OF RIM HALVES. EXAMINED BROKEN PIECE, FOUND THAT PORTION OF CRACK WAS OLD, REST BEING NEW. WITH AIR PRESSURE IN TIRE, IT WAS TRYING TO BLOW IT APART. HAVE SEEN THIS PROBLEM ALOT WITH MFG WHEELS HAVING CRACKS AROUND BOLT HOLES, BUT HAVEN`T SEEN ONE COME APART. YOU CAN ONLY SEE CRACKS WHEN CHANGING TIRE FROM THE INSIDE. I THINK IT IS FROM OVER-TIGHTENING BOLTS UPON ASSY WHEN CHANGING TIRES. ALSO, HAVING STEEL BOLTS THREADING INTO ALUMINUM HOUSING.

2005FA0000299	CESSNA	LYC	WHEEL	FAILED
2/5/2005	172M	O320E2D	D306001	ZONE 700

FOUND RT MAIN TIRE WAS LOCKED UP. PUT WHEEL ON DOLLY AND PULLED PLANE TO HANGER. CLOSER LOOK IN HANGER FOUND THAT RIM HAD BLOWN APART. DEFLATED TIRE AND LOOKED INSIDE RIM. FOUND PIECE BROKEN OUT OF CENTER SECTION OF RIM. CRACKS WERE FOUND AROUND BOLT HOLES OF RIM HALVES. EXAMINED BROKEN PIECE AND FOUND THAT PORTION OF THE CRACK WAS OLD, REST BEING NEW. WITH AIR PRESSURE IN TIRE, IT WAS TRYING TO BLOW IT APART. HAVE SEEN THIS PROBLEM ALOT WITH MFG OF WHEELS HAVING CRACKS AROUND BOLT HOLES. BUT NEVER SEEN ONE COME APART. YOU CAN ONLY SEE THE CRACKS WHEN CHANGING TIRE FROM THE INSIDE. MAYBE FROM OVER-TIGHTENING THE BOLTS UPON ASSY WHEN CHANGING TIRES. ALSO, HAVING STEEL BOLTS THREADING INTO ALUMINUM HOUSING.

2005FA0000301	CESSNA	LYC	WHEEL	FAILED
2/5/2005	172M	O320E2D	D306001	ZONE 700

FOUND RT MAIN TIRE WAS LOCKED UP. PUT WHEEL ON DOLLY AND PULLED PLANE TO HANGER. CLOSER LOOK IN HANGER FOUND THAT RIM HAD BLOWN APART. DEFLATED TIRE AND LOOKED INSIDE RIM. FOUND PIECE BROKEN OUT OF CENTER SECTION OF RIM. CRACKS WERE FOUND AROUND BOLT HOLES OF RIM HALVES. EXAMINED BROKEN PIECE AND FOUND THAT PORTION OF CRACK WAS OLD, REST BEING NEW. WITH AIR PRESSURE IN THE TIRE, IT WAS TRYING TO BLOW IT APART. HAVE SEEN THIS PROBLEM ALOT WITH MFG WHEELS HAVING CRACKS AROUND BOLT HOLES. BUT NEVER SEEN ONE COME APART. YOU CAN ONLY SEE CRACKS WHEN CHANGING TIRE FROM INSIDE. THINK IT IS FROM OVER TIGHTENING THE BOLTS UPON ASSEMBLY WHEN CHANGING TIRES. ALSO, HAVING STEEL BOLTS THREADING INTO ALUMINUM HOUSING.

2005FA0000302	CESSNA	LYC	WHEEL	FAILED

2/5/2005	172M	O320E2D	D306001	ZONE 700

FOUND RT MAIN TIRE WAS LOCKED UP. PUT WHEEL ON DOLLY AND PULLED PLANE TO HANGER. CLOSER LOOK IN HANGER FOUND THAT RIM HAD BLOWN APART. DEFLATED TIRE AND LOOKED INSIDE RIM. FOUND PIECE BROKEN OUT OF CENTER SECTION OF RIM. CRACKS WERE FOUND AROUND BOLT HOLES OF RIM HALVES. EXAMINED BROKEN PIECE AND FOUND PORTION OF CRACK WAS OLD, REST BEING NEW. WITH AIR PRESSURE IN TIRE, IT WAS TRYING TO BLOW IT APART. HAVE SEEN THIS PROBLEM ALOT WITH MFG WHEELS HAVING CRACKS AROUND BOLT HOLES, BUT NEVER SEEN ONE COME APART. CAN ONLY SEE CRACKS WHEN CHANGING TIRE FROM INSIDE. THINK IT IS FROM OVER TIGHTENING THE BOLTS UPON ASSY WHEN CHANGING TIRES. ALSO, POOR DESIGN HAVING STEEL BOLTS THREADING INTO ALUMINUM HOUSING.

CA041014002	CESSNA	LYC	MASTER SWITCH	FAILED
9/26/2004	172M	O320E2D	W31M30	ON RADIO PANEL

(CAN) RADIO MASTER SWITCH CONTROLLING POWER TO ALL RADIOS E.G. DUAL NAV COM, VDR, TRANSPONDER, BECAME INTERMITTENT THEN FINALLY FAILED SHUTTING POWER OFF TO ALL THE RADIOS. MINIMAL PLAY IN TOGGLE SWITCH EVIDENT. REPLACED SWITCH AND NO MORE FAULT. TIME ON ORIGINAL PART UNKNOWN BUT AIRCRAFT BASED IN FLYING SCHOOL, THEREFORE MANY CYCLES SUSPECTED PERHAPS INTO THE THOUSANDS.

CA040528006	CESSNA	LYC	ADAPTER	FAILED
5/9/2004	172M	O320E2D	204418156	OIL FILTER

IN FLIGHT THE ENGINE OIL TEMPERATURE INDICATION WAS IN THE RED. UPON AIRCRAFT RETURN, THE THERMOSTATIC VALVE P/N SL E19600 AND THE OIL FILTER ADAPTER 204418-156WAS REPLACED. RUN UP CARRIED OUT. TEMPERATURE INDICATION WITHIN LIMITS, P/N 69510.

2005FA0000252	CESSNA	LYC	IMPELLER	DESTROYED
1/31/2005	172M	O320E2D	LW18110	OIL PUMP

FLYING AT 1700 FT WITH PWR SETTING OF 2400 RPM, VIBRATION OCCURED. SCANNED GAGES, ALL NORMAL. PULLED CARB HEAT AND VIBRATION DISAPPEARED. SCANNED GAGES AGAIN, NOTICED OIL PRESS WAS ZERO. PWR STARTED TO BLEED OFF, RPM`S DROPPED TO 2200, DID NOT RESPOND TO THROTTLE ADVANCE. DESCENDED TO LAND, ENGINE SEIZED. LANDED AC IN A FIELD W/O DAMAGE TO AC, PERSONNEL INJURY. INSP REVEALED OIL SUPPLY AT 7 QTS. NO METAL IN OIL AND PROP WAS FREE TO ROTATE. PILOT INDICATED OIL TEMP WAS NORMAL DURING INCIDENT. UPON DISASSEMBLY OF ENG, FOUND A LARGE AMOUNT OF NON-FERROUS PARTICLES. OIL SCREEN FOUND TO BE CLEAN. DISSASSEMBLED OIL PUMP, FOUND IMPELLER PARTIALLY DESTROYED AND CRACK STARTING AT CENTER BORE. (SO35200508187)

2005FA0000091	CESSNA	LYC	SMOKE	DETECTED
11/14/2004	172N	O320*		COCKPIT

PILOT REPORTED SMOKE IN THE COCKPIT. INVESTIGATION FOUND THE (AUDIO AMP) CIRCUIT BREAKER POPPED. COULD NOT FIND THE DIRECT CAUSE. HOWEVER, THE RADIOS ARE ORIGINAL EQUIPMENT, WHICH MAY HAVE CAUSED THE SMOKE IN THE COCKPIT. (SO05200504849)

CA040720004	CESSNA	LYC	ALTERNATOR	FAILED
7/10/2004	172N	O320D2G	10300B	ENGINE

IN CRUISE, THE PILOT NOTICED THAT THE ALTERNATOR FAILED. DECIDED TO LAND AT THE NEAREST AIRPORT. ON SITE, NOTICED THAT THE ALTERNATOR GROUND WIRE WAS CUT AND WAS CONTACTING THE POSITIVE WIRE, WHICH IN TURN CAUSED THE CONTROL BOX TO FAIL. REPLACED THE ALTERNATOR, THE VOLTAGE REGULATOR AND ALL THE ELECTRICAL CONNECTIONS, AIRCRAFT SERVICEABLE.

CA050105001	CESSNA	LYC	MAGNETO	CRACKED
12/16/2004	172N	O320D2J	4371	ENGINE

(CAN) AT 500 HOUR INSPECTION, A 1.5 INCH CRACK WAS NOTICED ON THE MAGNETO COIL ADJACENT TO THE OUTPUT CONNECTOR. MAGNETO REMOVED FROM SERVICE.

CA040621010	CESSNA	LYC	THROTTLE CONTROL	LOOSE

6/21/2004	172P	O320D2J	2520851	COCKPIT

THROTTLE CONTROL WAS REPLACED AT A SCHEDULED INSPECTION RECENTLY AND HAS ALREADY COME LOOSE AT THE CRIMPED PIVOT END AFTER ONLY APPROX 160 HOURS TIS. THIS PART WAS INSTALLED AS A NEW PART SUPPLIED FROM THE MANUFACTURER. DEFECTIVE PART REMOVED AND TO BE REPLACED WITH NEW PART

2005FA0000416	CESSNA	LYC	IGNITION SWITCH	WORN
3/10/2005	172R	IO360A1A	A5109	COCKPIT

DURNG ENGINE RUNUP MAGNETO CHECK, IGNITION SWITCH WILL NOT CAUSE RPM TO DROP WHEN KEY IS TURNED TO LT POSITION. WHEN KEY IS IN LT POSITION, SLIGHT SIDE TO SIDE MOVEMENT OF KEY WILL CAUSE RPM DROP. UPON OPENING SWITCH, FOUND WORN AND ARCHING CONTACTS. THE ABOVE MALFUNCTION SEEMS TO OCCUR DUE TO WORN CONTACTS ON SWITCH INTERIOR. DURING RUNUP, FOLLOW MFG CHECKLIST FOR MAGNETO CHECK. IF ABOVE DEFECT IS FOUND, RECOMMENDATION WOULD BE TO TROUBLESHOOT SYSTEM, VERYIFYING THAT THE SIDE TO SIDE MOVEMENT OF KEY ALLOWS NORMAL SWITCH OPERATION, UPON DETERMINATION REPLACE OR OVERHAUL IGNITION SWITCH. (K)

2005FA0000120	CESSNA	LYC	BUSHING	WORN
1/10/2005	172R	IO360L2A	05412024	MLG STRUT

DURING NORMAL ANNUAL INSPECTION RT MAIN GEAR WAS JACKED AND CHECKED FOR ATTACHMENT FREEPLAY. EXCESSIVE FREEPLAY WAS NOTED AND UPON FURTHER VISUAL INSPECTION, IT WAS DETERMINED THAT RUBBER EXTRUDING OUT FROM THE GAP BETWEEN THE RT MAIN GEAR LEG AND PN 05912024, GEAR LEG BUSHING WAS RESPONSIBLE FOR THE INCREASED FREEPLAY. REPLACEMENT OF THE PIN - 05412024 RT MAIN GEAR LEG BUSHING WITH NEW ELIMINATED ALL RT GEAR LEG FREEPLAY. (K)

CA041129004	CESSNA	LYC	VALVE	MALFUNCTIONED
10/1/2004	172R	IO360L2A		OIL COOLER

(CAN) 371 HOURS AFTER OVERHAUL. METAL WAS OBSERVED IN THE OIL FILTER. ENGINE REMOVED, DISMANTLED, AND INSPECTED. CORROSION FOUND ON RODS AND CRANKSHAFT. ENGINE APPEARED TO HAVE NEVER RUN WARM ENOUGH TO BURN THE WATER OUT OF THE OIL. LACK OF ANY MARKS ON THE VERNATHERM VALVE CONFIRMS THE VALVE NEVER CLOSED TO ROUTE OIL TO COOLER. AIRCRAFT TEST FLOWN AFTER REPAIR. OIL TEMP GAUGE READ 160 DEG IN CRUISE.

2005FA0000351	CESSNA	LYC	ANGLE	CORRODED
3/2/2005	172RG	O360F1A6	24130351	FUSELAGE

THIS ANGLE IS WHAT TIES TOGETHER THE WING STRUT, ATTACHES ON THE LT AND RT SIDES OF THE FUSELAGE. IF THIS CORROSION WHERE TO PROGRESS MUCH FURTHER, IT COULD CAUSE THE STRUTS TO FAIL. (K)

2005FA0000399	CESSNA	LYC	HONEYWELL	SCREW	BACKED OUT
3/3/2005	172S	IO360A1A	KS271C		ROLL SERVO

ROLL SERVO HAD SCREW COME LOOSE AND MADE CONTACT WITH CIRCUIT BOARD CAUSING SHORT AND BURNING UP COMPONENTS ON BOARD. RECOMMEND TO USE LOCTITE ON SCREWS TO PREVENT SCREWS FROM BACKING OUT OF HOLES. (K)

2005FA0000145	CESSNA	LYC	BULKHEAD	CRACKED
12/10/2004	172S	IO360A1A	05522311	PROP SPINNER

DURING ANNUAL INSPECTION FOUND FWD BULKHEAD OF THE SPINNER CRACKED 5 PLACES AROUND PROPELLER BOLT HOLES. RECOMMEND: BULKHEAD MATERIAL STRONGER OR THICKER. (K)

2005FA0000142	CESSNA	LYC	SUPPORT	CRACKED
2/5/2005	177RG	IO360A1B6	20410141	MLG ACTUATOR

AFTER GEAR EXTENSION PILOT DID NOT GET DOWN AND LOCKED GREEN LIGHT. EMERGENCY PROCEDURES WERE COMPLETED WITH SAME RESULTS. GEAR APPEARED DOWN AND LOCKED BY OBSERVERS ON THE GROUND, DURING LOW APPROACH. UPON TOUCH DOWN THE PILOT REPORTED A SAFE GEAR INDICATION. MAINTENANCE INSPECTION REVEALED MAIN GEAR ACTUATOR SUPPORT BRACKETS (LT AND RT) WERE

CRACKED. ALSO FOUND ACTUATOR THROUGH PIN TO BE FRACTURED ON RT SIDE. SPECIFIC CAUSE OF FAILURE UNKNOWN. GEAR SYSTEM OPERATIONALLY CHECKED SATISFACTORY AFTER REPLACEMENT OF DAMAGED PARTS. AIRCRAFT HAD RECEIVED 100 HOUR INSPECTION 70 HOURS PRIOR WITH NO ABNORMALITIES NOTED IN MAIN GEAR ACTUATOR SYSTEM.

2005FA0000409	CESSNA	LYC	LINE	CHAFED
2/11/2005	177RG	IO360A1B6		HYDRAULIC SYS

WHILE INVESTIGATING A GEAR UP LANDING, IT WAS NOTED THAT THE HYDRAULIC LINE FROM THE LANDING GEAR PUMP WAS CHAFING AGAINST THE FLIGHT CONTROL CABLES ROUTED IN THE BATTERY COMPARTMENT AREA. SUGGEST INSPECTING THIS AREA FOR CHAFING AND RE-ROUTE HYDRAULIC LINE TO PREVENT CHAFING. WAS REPLACING INTERIOR PANEL AND MAY HAVE BENT THE LINE INTO THE CABLES. (K)

CA040527008	CESSNA	CONT	BULKHEAD	CRACKED
5/20/2004	180H	O470R	09520046	SPINNER

BACK PLATE CRACKS FOUND RADIATING FROM RIVET HOLES. AT MANUFACTURING THE TALL SIDE OF RIVET AREAS NOT DEBURED PROPERLY. HOLES MAY HAVE BEEN PUNCH PRESSED AND SMALL AMOUNTS OF EXCESS MATERIAL REMAINED.

CA040708004	CESSNA	CONT	DOWEL PIN	MISSING
6/29/2004	182A	O470L		PROPELLER

PROPELLER INSTALLED AFTER OVERHAUL USING CESSNA MAINTENANCE MANUAL AS REFERENCE. AIR TEST AFTER INSTALLATION REFLECTS PROPELLER VIBRATION SHORTLY AFTER TAKEOFF. AIRCRAFT LANDED IMMEDIATELY. PROPELLER REMOVED. INSPECTED BY A-1 PROPELLER SERVICES. DETERMINED DOWELS FOUND MISSING UPON RETURN FROM OVERHAUL. CESSNA MAINTENANCE MANUAL LACKING IN DETAIL WITH RESPECT TO DOWEL INSTALLATION. WRONG DOWELS MISTAKENLY DRIVEN. CESSNA PARTS MANUAL SHOWS ALL DOWELS AS PART OF PROELLER ASSEMBLY.

2005FA0000158	CESSNA	LYC	ALTERNATOR	FAILED
11/1/2004	182S	IO540AB1A5	991059111RX	ENGINE

PILOT DECLARED EMERGENCY, TOTAL ELECTRICAL FAILURE. DIAGNOSTIC INSPECTION REVEALED ALTERNATOR FAILURE. PILOT FAILED TO SEE WARNING LIGHT; DISCHARGE ON AMMETER AND LOW VOLT READING ON VOLT METER. (GL11200505028) (K)

2005FA0000086	CESSNA	LYC	PIN	OUT OF ADJUST
12/17/2004	182T	IO540*		COCKPIT

TRANSIT CUSTOMER HAD RUDDER TRIM STICK IN FULL RT TRIM CONDITION AND COULD NOT TRIM LT. FOUND THAT IF TRIMMED TOO FAR TO RT. THE INDICATOR PIN WOULD JUMP OUT OF TRIM WHEEL TRACK AND COULD LOCK TRIM WHEEL. WE READJUSTED INDICATOR PIN AND CENTERED CONTROLS. THIS IS THE 2ND INCIDENT. (K)

2005FA0000300	CESSNA		LINE	CHAFED
1/30/2005	206CESSNA			FUEL SYSTEM

WHILE PERFORMING AN ANNUAL INSPECTION IN THE CABIN SUBFLOOR AREAS, NOTED A FUEL LEAK AT THE PORT 90 DEGREE RIDGID FUEL LINE LINKING THE WING TANK, VIA THE PORT DOOR PILLAR, TO SUBFLOOR LINE THAT CONNECTS TO THE SELECTOR VALVE. IT WAS INSTALLED BACKWARD. THIS PLACED THE LINE TOO CLOSE TO A FLOOR BULKHEAD, CAUSING CHAFING AND WEAR-THROUGH. THIS CREATED A LEAK BETWEEN THE FUEL TANK AND THE SHUTOFF VALVE BENEATH THE FLOORBOARD. DO NOT HAVE A SRM FOR PN.

2005FA0000305	CESSNA	CONT	MCAULY	FERRULE	CRACKED
2/3/2005	210J	IO520*		C4451	BEARING FLANGE

DURING DISASSEMBLY FOR OVERHAUL, BLADE RETENTION FERRULE C4451 FOUND CRACKED IN BEARING FLANGE ON NR 2 BLADE. THE CRACK APPEARS TO HAVE STARTED AT AN OLD ACTUATING PIN HOLE AND IS OVER THREE INCHES LONG. S/B 196B HAD NOT BEEN ACCOMPLISHED ON THIS PROPELLER.

CA040528008	CESSNA	CONT	PUMP	LEAKING
5/11/2004	310R	IO520M	6462125	ENGINE FUEL

DURING AIRCRAFT 100 HOURS INSPECTION, THE TECHNICIAN DISCOVERED A BLUE COLORED TRACE OF FUEL ORIGINATING FROM THE FUEL PUMP LOW-METERED ADJUSTMENT SCREW. PRESSURIZED THE FUEL SYSTEM AND NOTICED MORE FUEL LEAKING FROM THE ADJUSTMENT SCREW OF THE FUEL PUMP. THE TECHNICIAN REPLACED THE FUEL PUMP MECHANISM AND RE-PRESSURIZED THE FUEL SYSTEM, NO LEAKS FOUND.

CA040720007	CESSNA	CONT	UPLOCK SWITCH	CRACKED
6/21/2004	337G	IO360GB	YZ2RQ1T	RT MLG

DISCOVERED SWITCH CRACKED ALONG MATING HALVES. SWITCH HALVES DO NOT APPEAR TO HAVE BEEN BONDED PROPERLY.

CA040621011	CESSNA	CONT	ACTUATOR	WORN
6/17/2004	401B	TSIO520EB	511523716	TE FLAP

ON APPROACH, THE FLAPS WERE LOWERED TO 45 DEG BUT ONLY WENT TO 30 DEG. THE AIRCRAFT LANDED SAFELY. THE FLAP ACTUATOR INTERNAL GEARS WERE FOUND STRIPPED. THE ACTUATOR WAS REPLACED WITH AN OVERHAULED UNIT.

CA040616011	CESSNA	CONT	DOOR	SEPARATED
5/19/2004	401B	TSIO520EB	50111302	EMERGENCY EXIT

AFTER TAKEOFF A GROWING WHISTLING SOUND DEVELOPED IN INTENSITY OVER PILOTS LEFT SHOULDER. THERE WAS A LOUD POP OF A NOISE AND THE PILOT SAW THE STARBOARD EMERGENCY EXIT SELF EJECT OUT AND BACK FROM THE REST OF THE PLANE. AIRSPEED WAS REDUCED 170 MPH. PLANE WAS CLEARED TO LAND WHICH WAS UNEVENTFUL.

2005FA0000165	CESSNA	CONT	FMU	OUT OF ADJUST
10/29/2004	402CESSNA	TSIO520E	6329168	LT ENGINE

LT ENGINE LOST POWER ON FINAL APPROACH DUE TO THE FUEL METERING UNIT BECOMING OUT OF ADJUSTMENT. UNIT WAS ADJUSTED IAW CSM AND ENGINE FUEL PRESSURES AND FLOWS WERE ADJUSTED IAW MFG SB97-3. GROUND RUN WAS PERFORMED AND FLIGHT TEST CONDUCTED. NO DEFECTS WERE NOTED WITH EITHER ACTION. NO RECOMMENDATIONS FOR NON-RECURRENCE AS THE FUEL SETTINGS CHANGE WITH THE CHANGE IN CONSULTED ON THIS BY THIS COMPANY AND OTHERS WITH THE ONLY RECOMMENDATION THAT PRESSURES AND FLOWS BE ADJUSTED AT SEASONAL CHANGE. (WP19200504117)

2005FA0000429	CESSNA	CONT	TORQUE TUBE	CRACKED
3/18/2005	414	TSIO520*	504501024	MLG

RT TORQUE TUBES CRACKED DURING GEAR RETRACTION.

2005FA0000430	CESSNA	CONT	TORQUE TUBE	CRACKED
3/18/2005	414	TSIO520*	504501025	MLG

LANDING GEAR TORQUE TUBES ARE CRACKED.

2005FA0000166	CESSNA	CONT	CRANKSHAFT	CRACKED
7/12/2004	414A	TSIO520*	649895	ENGINE

CRANKSHAFT CRACKED

2004FA0000915	CESSNA	CONT	EXHAUST ROCKER	BROKEN
10/22/2004	421	GTSIO520D	6399576	NR 3 CYLINDER

ANNUAL PRE-INSPECTION RUN-UP RAN GOOD. POST INSPECTION RUN-UP RAN ROUGH. SUSPECTED A STICKING VALVE. FURTHER INVESTIGATION REVEALED A BROKEN EXHAUST ROCKER ARM AND STUCK VALVE FOR NR 3 CYLINDER ON THE LEFT ENGINE. ALSO, NOTED IS AN APPARENT INCLUSION IN THE BROKEN ROCKER ARM.

2005FA0000397	CESSNA	CONT	CESSNA	BULKHEAD	CRACKED
2/25/2005	421B	GTSIO520C		082340063	LT TIP TANK

DURING AN ANNUAL INSPECTION, FOUND AFT BULKHEAD OF THE LT WING TIP TANK ASSY. CRACKED THROUGH

FROM APPROXIMATE CENTER OF THE IB LIGHTENING HOLE HORIZONTALLY TO THE BULKHEAD IB EDGE. CRACKED AREA IS ADJACENT TO AFT ATTACH POINT FOR THE TIP TANK ASSY. AIRCRAFT HISTORY THIS AREA UNKNOWN; MAY HAVE POSSIBLY BEEN CAUSED BY PREVIOUS GROUND MISHANDLING OR (HANGAR RASH) TYPE INCIDENT. (K)

2005FA0000396	CESSNA	CONT	RIB	CRACKED
2/25/2005	421B	GTSIO520C	502205053	WINGS

DURING AN ANNUAL INSP, NOTED CRACKS IN LT AND RT WING T/E RIBS AT FORWARD END AFT SPAR ATTACHMENT POINT AREAS. AFFECTED RIBS ARE FIRST RIBS IB OF SPOILER SYSTEM ACTUATOR ATTACH POINTS. ALSO FOUND CRACKED AREA IN WING OB T/E SKIN PANEL AT ATTACHMENT POINT TO WS 118.24 T/E RIB, ALSO ADJACENT TO THE RT SPOILER AREA. AIRCRAFT HAD A MFG ELECTRIC/HYDRAULIC SPOILER SYSTEM INSTALLED PREVIOUSLY IAW STC SA4755NM. SUSPECT IN-FLIGHT STRESSES FROM NORMAL OR HIGH-SPEED OPERATIONS CAN BE CAUSING ACCELERATED FATIGUE IN THESE AREAS. RECOMMEND ROUTINE CLOSE VISUAL INSPECTION OF THESE AREAS. (K)

2005FA0000125	CESSNA	CONT	CRANKSHAFT	BROKEN
12/2/2004	421B	GTSIO520C	TCM652832	ENGINE

CRANKSHAFT BROKE AT NR 2 MAIN. NO SIGNS OF OIL STARVATION. NO SIGNS OF CASE FRETTING. CASE WAS DAMAGED BEYOND REPAIR. (K)

2004FA0000932	CESSNA		ANGLE	CORRODED
12/13/2004	421C		515610211	LEFT WING

LEFT WING NACELLE, ANGLE JUST AFT OF FIREWALL EXHIBITED SEVERE CORROSION. CORROSION WAS TRANSFERED TO UPPER WING SKIN AND FUEL CELL.

2005FA0000128	CESSNA	CONT	CRANKCASE	CRACKED
12/22/2004	421C	GTSIO520*	292266R	ENGINE

ENGINE CASE CRACK BY NR 3 FORWARD CYLINDER UPPER THROUGH BOLT RADIATING DOWNWARD SEVERAL INCHES. AD ADDRESSES THIS PROBLEM, BUT THESE MODEL NR ENGINE ARE NOT INCLUDED. THIS HAS HAPPENED TO THIS ENGINE ONCE BEFORE, 2 YEARS AGO. (K)

2005FA0000092	CESSNA	CONT	INTAKE VALVE	BROKEN
11/17/2004	421C	GTSIO520*	655783	NR 4 CYLINDER

INTAKE VALVE IN NR 4 CYLINDER FAILED IN FLIGHT. THE VALVE FACE BROKE IN 3 PIECES. THE QUILL SHAFT BROKE AND SHUTDOWN THE ENGINE. THIS IS 3RD ONE SEEN WITH 400-500 HOURS IN SERVICE. (K)

CA040601008	CESSNA	GARRTT	BOLT	BROKEN
3/28/2004	441	TPE33110	AN17642	NLG

GROUND HANDLING PERSONAL ATTEMPTED TO TOW THE AIRCRAFT INTO THE HANGAR FOR A MAINTENANCE FUNCTION. THE TOW BAR BECAME DETATCHED FOLLOWING HOOK UP. THERE WAS NO DAMAGE TO THE AIRCRAFT OTHER THAN THE BROKEN LOWER TORQUE LINK BOLT ON THE NOSE GEAR.

2005FA0000141	CESSNA	WILINT	PRECOOLER	BLOWN
2/18/2005	525	FJ44	99144022	LT PYLON

DURING A PREFLIGHT INSPECTION IT WAS NOTED THE PAINT ON THE LOWER SKIN OF THE LEFT PYLON WAS DISCOLORED AND BUBBLED UP. VISUAL INVESTIGATION REVEALED THE PRECOOLER ASSEMBLY HAD FAILED, ALLOWING BLEED AIR INTO THE 6312209-1, DUCT ASSEMBLY, WHICH CAUSED THE 6312209-1 DUCT ASSEMBLY TO FAIL, ALLOWING BLEED AIR INTO THE PYLON. A CONDUCTIVITY CHECK OF THE COMPONENTS WHICH MAKE UP THE PYLON, PYLON SKINS AND FUSELAGE SKINS IN THE AREA OF THE PYLON SHOWED MANY OF THE COMPONENTS TEMPERATURE TO HAVE CHANGED. THE FUSELAGE SKIN IN THE PYLON AND THE AREAS SURROUNDING THE PYLON WERE NOT AFFECTED BY THE HEAT.

2005FA0000187	CESSNA	WILINT	SQUAT SWITCH	DEFECTIVE
2/15/2005	525	FJ44	622EN186	LT MLG

SQUAT SWITCH FOUND WITH ROLLER MISSING. DURING TROUBLESHOOTING FOR THRUST REVERSER (T) DEPLOYMENT SHORTLY AFTER TAKEOFF. AIRCRAFT RETURNED TO FIELD AND MADE AN UNEVENTFUL LANDING. REPLACED SQUAT SWITCH WITH NEW OF SAME PN. NO OTHER DEFECTS NOTED ON SWITCH. RECOMMEND THAT PRE-FLIGHT PROCEDURES INCLUDE CHECK FOR PRESENCE AND CONDITION OF SQUAT SWITCH ROLLERS. (K)

B30R20050105	CESSNA		ACTUATOR	MALFUNCTIONED
1/3/2005	550		511523128	ELEVATOR TRIM

DURING PREFLIGHT OF AIRCRAFT, PILOT HEARD A NOISE IN WHILE OPERATING ELEVATOR ELECTRIC TRIM. TROUBLESHOOTING REVEALED THAT THE TRIM CABLES IN THE ELEVATOR ELECTRIC TRIM ACTUATOR HAD CROSSED. A REPLACEMENT ELECTRIC TRIM ACTUATOR WAS ORDERED. UPON RECEIPT OF THE ACTUATOR IT WAS DISCOVERED THAT ONE OF THE CABLES HAD BEEN BENT OVER AND PINCHED. FURTHER INSPECTION REVEALED A BROKEN WIRE IN THE CABLE AT THE PINCHED AREA. THE ACTUATOR WAS RETURNED TO THE VENDOR AS UNSERVICABLE, AND ANOTHER ORDERED.

B3OR20050105	CESSNA		TRIM MOTOR	JAMMED
1/4/2005	550		511523128	ELEVATOR

AIRCRAFT WAS AOG FOR ELEVATOR ELECTRIC TRIM ACTUATOR. WHEN PART WAS RECIEVED FROM VENDOR IT WAS DISCOVERED THAT THE AFT TRIM CABLE WAS ROUTED BETWEEN THE CABLE DRUM AND THE CLUTCH ASSEMBLY JAMMING THE CLUTCH ASSEMBLY. THE CABLE DRUM CLUTCH COULD NOT DISENGAGE TO ALLOW ROTATION OF THE CABLE DRUM. DUE TO THE JAMMED CONDITION OF CLUTCH ASSEMBLY, THE PART COULD NOT BE USED AND A REPLACEMENT WAS ORDERED. THE TRIM ACTUATOR S/N:0313-28, WAS AN OVERHAULED UNIT AND THE WORK WAS DONE BY CESSNA.

B3OR20050205	CESSNA		TRIM MOTOR	JAMMED
1/4/2005	550		511523128	ELEVATOR

AIRCRAFT WAS AOG FOR ELEVATOR ELECTRIC TRIM ACTUATOR. WHEN PART WAS RECIEVED FROM VENDOR IT WAS DISCOVERED THAT THE AFT TRIM CABLE WAS ROUTED BETWEEN THE CABLE DRUM AND THE CLUTCH ASSEMBLY JAMMING THE CLUTCH ASSEMBLY. THE CABLE DRUM CLUTCH COULD NOT DISENGAGE TO ALLOW ROTATION OF THE CABLE DRUM. DUE TO THE JAMMED CONDITION OF CLUTCH ASSEMBLY, THE PART COULD NOT BE USED AND A REPLACEMENT WAS ORDERED. THE TRIM ACTUATOR S/N:0313-28, WAS AN OVERHAULED UNIT AND THE WORK WAS DONE BY CESSNA.

CA041115003	CESSNA	PWA	FCU	FAILED
11/1/2004	550	JT15D4	32447594	ENGINE

(CAN) ENGINE START CARRIED OUT NORMAL, AIRCRAFT TAXIED FOR TAKEOFF. POWER SETTINGS WERE SET AND RT ENGINE DID NOT ACCELERATE. MAX TURBINE SPEED WAS 56 PERCENT (37 PERCENT FAN) CREW ABORTED TAKE OFF AND RETURNED TO BASE. MAINTENANCE PERFORMED THE TROUBLESHOOTING PROCEDURES INDICATED IN PWA MM AND DETERMINED FAULT WAS FUEL CONTROL UNIT. FCU 3244759-4 (S/N A58173N) REPLACED AND AIRCRAFT ENGINE RUNS AND RIGGING CARRIED OUT SATISFACTORY. AIRCRAFT RELEASED BACK TO SERVICE NOV. 05.

CA050117002	CESSNA	PWA	SWITCH	FAILED
1/6/2005	550	JT15D4	91929	LT MLG ACTUATOR

(CAN) WHILE CARRYING OUT NIGHT LANDINGS ON A LOCAL TRAINING FLIGHT, THE LT MAIN GEAR DOWNLOCK INDICATION FAILED TO ILLUMINATE ON THE NINTH LANDING APPROACH. THE CREW CARRIED OUT AN EMERGENCY EXTENSION PROCEDURE AND LANDED SAFELY. MAINTENANCE CREW SERVICED THE LANDING GEAR IAW THE MM AND REPLACED THE LT MAIN GEAR ACTUATOR P/N 9912053-21. THE GEAR DOWNLOCK SWITCH WHICH FAILED IS INTEGRAL TO THE ACTUATOR. A SUCCESSFUL LANDING GEAR EXTENSION AND RETRACTION TEST WAS CARRIED OUT AND THE AIRCRAFT RETURNED TO SERVICE.

2005R0037	CESSNA	PWA	BFGOODRICH	BRAKE DISC	CRACKED
12/16/2004	550	JT15D4		1338932	MLG BRAKE

BRAKE ASSEMBLY P/N: 2-1528-6, S/N'S: 0110 AND 1390. BOTH OF THESE BRAKES ARE IN COMPLIANCE WITH MFG SB 2-1528-32-2, REV 5, DATED 3 APR, 2003. BOTH BRAKES WERE UNDERGOING VISUAL INSPECTION AT 202 LANDINGS AND 194.7 HRS SINCE OVERHAUL. BOTH BRAKES HAD STATORS P/N: 133-893-2 CHG D, WITH CRACKS

IN THE STOP HOLE AREA OF THE LONG EXPANSION SLOTS.

CA040715003	CESSNA	PWA	WIRE HARNESS	CHAFED
7/14/2004	550	JT15D4		COMMS

UPON VISUAL INSPECTION OF THE RADIO MANAGEMENT UNITS (RMU) WIRE BUNDLES, A WIRE IN THE NR 1 RMU BUNDLE WAS FOUND TO BE DAMAGED BEYOND THE POINT OF EXPOSURE OF BARE WIRE AND APPEARS TO BE CHAFED APPROXIMATELY ONE QUARTER THE WAY THROUGH. THE CHAFFING OCCURRED AGAINST A STATIC SOURCE TEE FITTING BEHIND AND TO THE RIGHT OF THE NUMBER ONE RMU.

2005FA0000194	CESSNA	PWA	SEAT BACK	CRACKED
2/11/2005	550	JT15D4	551900922	SEAT

UPPER CHAIR BASE ASSEMBLY CRACKED AT CHAIR BACK ATTACH POINTS. STRESS ON CHAIR BACK AND METAL FATIGUE PROBABLE CAUSE. ALSO, PREVIOUS INAPPROPRIATE REPAIR. CHAIR WAS REPORTED IAW STC ST01042WI, STRUCTURAL SEAT REPAIR. (CE05200503843) (K)

CA040621001	CESSNA	PWA	CONTROL CABLE	CHAFED
6/18/2004	550	PW530A		ELEVATOR

ELEVATOR MAIN TRIM CABLE FOUND RIDING BETWEEN ELECTRONIC TRIM SERVO DRUM AND GUARD.

FCPR200500001	CESSNA		SEAL	DISLODGED
12/23/2004	560CESSNA		31A408150	TAILCONE

CUSTOMER REPOARTS UNUSUAL SMELL FROM TAILCONE. INSPECTED BLEAD AIR LINES. FOUND PERI-SEAL CONNECTING L/H FLOW CONTROL VALVE TO WINDSHIELD BLEED AIR COUPLING LEAKING AND DISLODGEDALLOWING ENGINE BLEED AIR TO DUMP INTO THE TAIL CONE. 2SAFETY LANYARDSP/N 26A429-17 ARE BROKEN AND AFT PRESSURE BULKHEAD SHOWS SIGNS OF HEAT SCORCHING. WIRE BUNDLE FROM LH ENGINE PYLON TO AFT PRESSURE BULKHEAD IS DAMAGED CAUSING MULTIBLE SYSTEM TO INDICATE FAILURE.

CA050104007	CESSNA	PWA	RMU	FAILED
12/9/2004	560CESSNA	PW535A	7012100825	

(CAN) DISPLAY SCREEN LOST YELLOW AND GREEN COLOR LEAVING ONLY RED AND BLUE. REPLACED RMU WITH EXCHANGE UNIT. NOTE: THIS IS THE SECOND UNIT TO FAIL. THE FIRST FAILED WITH 264 HOURS TSN.

CA050104008	CESSNA	PWA	BRAKE ASSY	FAILED
11/26/2004	560CESSNA	PW535A	21656	MLG

(CAN) WEEPING OF HYDRAULIC FLUID PAST PISTON PACKINGS, MFG SB 2-1601-32-2 RECOMMENDS INSTALLATION OF OVERSIZE PACKINGS P/N 68-1507 TO REDUCE THE PROBLEM. THESE PACKINGS WERE INSTALLED WHEN THE BRAKES WERE MANUFACTURED. APPROXIMATELY 325 LANDINGS IS NOT VERY GOOD LIFE.

CA050104009	CESSNA	PWA	STARTER GEN	FAILED
10/31/2004	560CESSNA	PW535A	300SG42982	ENGINE

(CAN) GENERATOR FUNCTION OK IN FLIGHT, AFTER SHUTDOWN. ON ENGINE START, ENGINE WOULD NOT ROTATE. FOUND COMMUNTATOR AND BRUSHES DAMAGED BY ARCING.

CA041013005	CESSNA	PWA	PLUG	LEAKING
9/24/2004	560CESSNA	PW535A	49330	WHEEL

(CAN) MAIN WHEEL ASSEMBLY LEAKING 1-2 PSI PER DAY. REPLACED 2 THERMAL RELIEF PLUGS AND LEAK CHECKED. OK.

2005FA0000408	CESSNA	PWA	RELAY	FAILED
3/2/2005	560CESSNA	PW545A		SENSOR HEAT

DURING POST FLIGHT WALK AROUND, PILOT NOTICED THAT THE ROSEMONT SENSOR HAD ICE ON IT. UPON OPERATIONAL CHECK, FOUND THAT THE SENSOR WAS NOT HEATING. TROUBLESHOOTING THE SYSTEM, FOUND THAT THERE WAS NO POWER TO THE HEATING ELEMENT OF THE PROBE. UPON FURTHER INVESTIGATION, FOUND THAT THE RELAY KC311 PINS- X1 AND X2 WERE PINNED IN REVERSE ORDER. REPINNED THE RELAY AND

OPS CHECKED THE SYSTEM, GOOD. (EA09200500318) (K)

2005FA0000276	CESSNA	PWA	BFGOODRICH	HEAT SHIELD	CONTAMINATED
2/11/2005	560XL	PW545A		378941	WHEEL

AFTER LANDING, SMOKE AND SMALL FLAME OBSERVED FROM LT MAIN GEAR WHEEL. FIRE WAS EXTINGUISHED, NO DAMAGE TO LANDING GEAR OR AIRCRAFT. LT MAIN GEAR WHEEL ASSEMBLY WAS REPLACED AS A PRECAUTION. THE LT WHEEL HAD BEEN RECENTLY CLEANED WITH A WATER BASED SOLVENT IAW THE WHEEL CMM. SUSPECT THAT THE PARTS CLEANER USED TO CLEAN THE WHEEL MAY HAVE BEEN CONTAMINATED WITH A PETROLEUM BASED LIQUID. IAW MFG, THERE HAVE BEEN REPORTED CASES OF WHEEL FIRES DUE TO THE HEAT SHIELD ABSORBING A PETROLEUM SOLVENT.

2005FA0000275	CESSNA		CONNECTOR	ARCED
1/5/2005	650		3505501	

A WIRE CONNECTOR WAS INSTALLED TO REPLACE A BROKEN CONNECTOR. CONNECTOR WAS INSTALLED AND APPROVED FOR RETURN TO SERVICE BY A CERTIFIED REPAIR STATION.THE WIRE PROVIDED POWER TO THE OVERHEAD LIGHTS. APPROXIMATELY TWO WEEKS AFTER THE MAINTENANCE WAS PERFORMED, THE OPERATOR WAS PERFORMING AN OXYGEN MASK DROP TEST. HE HEARD A NOISE AND THEN SMELLED SMOKE AND SAW A SMALL FLAME IN THE HEADLINER AREA NEAR THE CABIN DOOR. THE OPERATOR SHUT OFF POWER AND EXTINGUISHED THE FLAME. INVESTIGATION REVEALED THE CONNECTOR WAS MELTED AND THE WIRING WAS BURNED. THE OXYGEN SUPPLY LINE ADJACENT THE WIRE HAD SOME BURNED STRANDS OF OUTER COVERING. THE OPERATOR REPAIRED THE WIRING AND INSTALLED A NEW OXYGEN LINE.

2005FA0000273	CESSNA		FILTER	LEAKING
1/11/2005	750		99144655	HYD SYSTEM

HYDRAULIC LEAK FROM RT PYLON NOTED DURING POST FLIGHT, CAUSE: RUDDER STANDBY FILTER ASSEMBLY DIFFERENTIAL PRESSURE INDICATOR HAD 1 RETAINING SCREW SHEARED AT THE HEAD P/N AA-2100-11D99. 3000 PSI OF SYSTEM PRESSURE CAUSED O-RING DAMAGE AND THE SUBSEQUENT LEAK.

2005FA0000437	CESSNA	CONT	ADC	MALFUNCTIONED
8/16/2004	A185E	IO520*	962830A1S8	COCKPIT

ADC PROVIDING ERRONEOUS HEADING AND ALTITUDE READINGS. ADC INSTALLED AS PART OF FLIGHT SYSTEM EFIS-SV SYSTEM. UNDER STC NR SA02203AK. (K)

2005FA0000297	CESSNA		ALTERNATOR	CORRODED
2/9/2005	A185F		DOFF10300B	ENGINE

LOW VOLTAGE LIGHT COMES ON OCCASIONALLY-RESET SWITCH AND OPERATES NORMAL. FOUND BRUSHES WORN OUT IN ALTERNATOR. REMOVING ALTERNATOR WAS EXTREMELY DIFFICULT. MOUNTING BOLT WAS FROZEN IN ALTERNATOR. USING PENETRANT HELPED TO FREE THE BOLT. DISCOVERED THAT FACILITY HAD INSTALLED A STEEL BUSHING IN MOUNTING BOSS DURING OVERHAUL. THE BOLT AND BUSHING WERE RUSTED TOGETHER. THE BUSHING APPEARS TO BE A REPAIR.

CA040525005	CESSNA	CONT	SHOULDER BELT	INADEQUATE
5/25/2004	A185F	IO520D		COCKPIT

IT WAS NOTED DURING INSPECTION, THAT THE REAR SEAT SHOULDER HARNESSES WERE NOT INCOMPLIANCE WITH AIRWORTHINESS DIRECTIVE 86-26-04. THIS DIRECTIVE IS SERIAL NUMBER SPECIFIC AND SHOULD NOT APPLY TO THIS AIRCRAFT. IT APPEARS THAT THESE HARNESSES WERE RECYCLED BY BELT MAKERS INC AND INSTALLED IN THIS AIRCRAFT WHEN THE INTERIOR WAS REDONE IN 2003.

2005FA0000068	CESSNA	CONT	BULKHEAD	CRACKED
12/2/2004	P206	IO520*		FUSELAGE

WHILE PERFORMING INSPECTION PORTION OF AD PERTAINING TO THE AFT VERTICAL FIN ATTACHMENT BULKHEAD, ONE CRACK WAS FOUND IN EACH OF LOWER IB PORTIONS OF THE RUDDER CABLE CUTOUTS AT APPROXIMATELY THE 4 O`CLOCK POSITION ON THE LT CUTOUT AND THE 8 O`CLOCK POSITION ON THE RT CUTOUT. CRACKS WERE EACH APPROX .2500 INCH LONG, ORIGINATING AT THE EDGE OF THE CUTOUT AND TRAVELING IN A DIRECTION PERPENDICULAR TO GANGENT OF RADIUS OF CUTOUT AT POINT OF ORIGIN. ALL

OTHER AREAS OF INSP PRESCRIBED BY AD WERE FOUND TO BE WITHIN LIMITS AND NO OTHER DISCREPANCIES WERE FOUND. NO OBVIOUS REASON FOR CRACKS IN THIS LOCATION UNLESS POINTS OF CONCENTRATED STRESS CAUSED BY RUDDER DEFLECTION. (SO09200502375) (SO09200502381) (K)

2005FA0000168	CESSNA	CONT	STUD	FAILED
10/26/2004	P206	IO520A		ENGINE

(2) EA DECK STUDS ON NR 1 CYLINDER FAILED. (K)

2005FA0000127	CESSNA	CONT	HEATER	CRACKED
10/25/2004	P210N	TSIO520*	24648000	ENGINE INLET

PILOT REPORTED SMELLING A BURNED ODOR WHILE DESCENDING IN SEVERE ICING CONDITIONS. ON A POST FLIGHT INSPECTION OF THE AIRCRAFT A V SHAPED CRACK WITH THE TIP MISSING WAS FOUND IN THE ENGINE INLET HEATER. IT APPEARS THAT PART OF THE HEATER HAS SHORTED OUT CAUSING THIS PART TO CRACK. THE HEATER WAS TESTED AND WAS STILL OPERATIONAL. (K)

2005FA0000085	CESSNA	CONT	FUEL LINE	SPLIT
12/14/2004	P337H	TSIO470*	151613621	FUEL SYSTEM

AIRCRAFT DEPARTED BGR, TEMPERATURE THE PREVIOUS RIGHT AND DAY WERE CLOSE TO FREEZING. AIRCRAFT RETURNED WITH FUEL SMELL IN COCKPIT. INVESTIGATION FOUND LT FUEL CROSSFEED LINE HAD SPLIT. UPON REMOVAL OF LINE, PRESENCE OF WATER WAS FOUND. PROBABLE CAUSE WAS WATER FROZEN IN LINE. THERE ARE NO PROVISIONS OR PROCEDURES TO DRAIN THIS OR THE RT CROSSFEED LINES. (NE05200503189) (K)

CA040819008	CESSNA	LYC	HOUSING	LEAKING
8/9/2004	R182	O540J3C5	LW11485	PUSHROD

(CAN) ON INSPECTION, LT ENGINE SIDE FOUND VERY OILY, AFTER CLEANING, RUN UP TEST C/O AND OIL LEAK FOUND ON NR2 INTAKE VALVE PUSH ROD HOUSING. A SMALL PIN HOLE FOUND ON THE TUBE (VISIBLE ONLY WITH A MAGNIFYING GLASS). NEW TUBE P/N LW11485 INSTALLED, OPERATIONAL TEST C/O AND NO LEAK NOTED.

2005FA0000303	CESSNA	LYC	TERMINAL	LOOSE
3/7/2005	T182T	TIO540*		STALL WARNING

STALL WARNING INOP, FOUND STALL WARNING SWITCH TERMINAL SCREW LAYING INSIDE WING, SCREW BACKED OUT IN FLIGHT.

2004FA0000859	CESSNA	LYC	CIRCUIT BREAKER	MISINSTALLED
8/27/2004	T182T	TIO540*		ELECTRICAL SYS

GPS CIRCUIT BREAKER IS PROVIDING POWER TO MULTIPLE UNITS WHICH IS CONTRARY TO AC20-138A. AC20-138 STATES THAT GPS CIRCUIT BREAKER CAN ONLY POWER GPS. REFERENCE ATTACHED DRAWINGS FROM MFG WIRING DIAGRAM MANUAL. PAGES 34-20-00-01 AND 34-52-03-01.

2005FA0000079	CESSNA	CONT	ELEVATOR	MISREPAIRED
1/27/2005	T210F	IO520*	12346204	RT & LT

DURING AN ANNUAL INSP, FOUND LT ELEVATOR TORQUE TUBE LOOSE, AFTER REPAIR WHILE CHECKING CONTROL SURFACE BALANCE, SURFACE WAS FOUND TO BE BADLY OUT OF BALANCE AT +21 IN LBS. REMOVED T/E AND FOUND IT TO HAVE BEEN REPLACED WITH A FIELD FABRICATED PART BY PERSONS UNKNOWN. FOUND THE MATERIALS USED TO BE .040 SHEET ALUMINUM, THE FACTORY T/E WAS MADE OUT OF .016 AND WAS FOAM FILLED, REPLACED THE T/E WITH FACTORY PARTS, REPLACED T/E AND TRIM TAB ON OTHER ELEVATOR DUE TO SAME CONDITION, REBALANCED CONTROL SURFACES AND FOUND TO BE WITHIN RANGE OF 0 TO +5.4 IN LBS. (WP07200509576) (K)

2005FA0000427	CESSNA	CONT	CYLINDER HEAD	SEPARATED
3/18/2005	T310R	TSIO520NB	AEC631397	ENGINE

DURING TAKEOFF PILOT NOTICED A SHUDDER OR VIBRATION. UPON LANDING ENGINE BEGAN TO RUN ROUGH. MAINTENANCE FOUND LT ENGINE NR 6 CYLINDER HEAD HAD SEPARATED. ENGINE WAS OVERHAULED ON 4-23-

2004 AND PUT IN SERVICE ON 5-18-2004. THE ENGINE HAD 475 HOURS SINCE OVERHAUL. THE CYLINDER WAS A NEW, INSTALLED AT OVERHAUL.

2005FA0000022	CESSNA		COWL FLAP	INOPERATIVE
12/28/2004	T337C			

THE OWNER INSTALLED STC SA01091AT. THIS STC REMOVES THE ELECTRIC COWL FLAP MOTOR, AND INSTALLED A COMPLETELY MECHANICAL SYSTEM. THE OWNER COMPLAINED THAT HE COULD NOT THE CLOSE REAR COWL FLAP IN FLIGHT.

2005FA0000262	CESSNA	LYC	RIB	CRACKED
10/4/2004	TR182	O540*		LT FLAP TRACK

LT WING IB FLAP TRACK RIB ASSY, PN 1221010-15, HAS 2 BRACKETS RIVETED TO EITHER SIDE OF IT TO ATTACH FLAP TRACK RIB ASSY TO WING LOWER IB T/E SKIN, REF TO AS FLAP WELL SKIN) PN 0720601-101. ONE OF BRACKETS HAD CRACKED ALLOWING BRACKET TO TWIST SLIGHTLY, DECREASING CLEARANCE BETWEEN BRACKET AND FLAP ROLLER SLOT IN FLAP TRACK RIB ASSY. ON GROUND, PILOT TRIED TO RAISE FLAPS. FRONT OF LT FLAP IB SUPPORT ARM RIB ASSY CAUGHT ON CRACKED AND TWISTED BRACKET JAMMING IB END OF FLAP. NORMALLY THERE IS ABOUT .1250 INCH CLEARANCE BETWEEN THE BRACKET AND FRONT OF FLALP SUPPORT ARM. FLAP MOTOR CONTINUED TO RUN, TRYING TO RETRACT FLAPS, CAUSING SUBSTANTIAL DAMAGE TO JAMMED LT FLAP. REPLACED CRACKED BRACKET, LT FLAP. (K)

TCMMAQ1	CESSNA	CONT	MAGNETO	DEFORMED
1/25/2005	TU206G	TSIO520M	103493504	ENGINE

COIL WEDGES OVERDRIVEN TO THE POINT OF CONTACT WITH COIL, CRACKING THE INSULATION.

TCMMAQ2	CESSNA	CONT	MAGNETO	DEFORMED
1/25/2005	TU206G	TSIO520M	103493505	ENGINE

COIL WEDGES OVERDRIVEN TO THE POINT OF CONTACT WITH COIL, CRACKING THE INSULATION.

CA041006008	CESSNA	CONT	THROTTLE CABLE	BROKEN
9/17/2004	U206F	IO550F	MCC29950501	ENGINE

(CAN) PILOT MAKING AN APPROACH TO SCHEDULED LANDING WHEN ENGINE POWER WENT TO IDLE WITH NO RESPONSE TO ACTIONS OF THROTTLE CONTROL. PILOT ELECTED TO LAND IN FIELD SHORT OF RUNWAY AND EXPERIENCED NO DIFFICULTY. AIRCRAFT EQUIPPED WITH TUNDRA TIRES. MAINTENANCE DETERMINED THE THROTTLE CABLE AT THE ENGINE CONNECTION HAD FAILED. THROTTLE CABLE WAS REPLACED AND AIRCRAFT FLOWN FROM FIELD. NO FURTHER ACTION REQUIRED. P/N MCC299505-01 IS A PMA PART.

CA040924008	CESSNA	CONT	CESSNA	FITTING	CRACKED
9/24/2004	U206G	IO520F	12910606	12116013	LT MLG

(CAN) LT MAIN LANDING GEAR OB FITTING FOUND CRACKED.

MN3525	CESSNA	CONT	ENGINE	MAKING METAL
2/24/2005	U206G	IO520F	IO520F	

DURING AIRCRAFT 50 HOUR INSPECTION, FOUND METAL IN THE OIL FILTER. TOOK OIL SAMPLE DURING ENGINE OIL CHANGE. RECOMMENDED TO OWNER TO CHANGE ENGINE. REPLACED ENGINE AFTER OWNER APPROVAL.

2005FA0000264	CESSNA	CONT	CONTACTOR	FAILED
3/9/2005	U206G	IO550*	S24432	STARTER

STARTER CONTACTOR DID NOT DISENGAGE AFTER ENGINE START. THIS RESULTED IN FAILURE OF THE STARTER AS WELL. THE SITUATION DID NOT BECOME APPARENT UNTIL AFTER TAKEOFF. THIS AIRCRAFT HAS A (STARTER ENGAGED) WARNING LIGHT INSTALLED BUT IT DID NOT INDICATE CLEARLY UNTIL AFTER TAKEOFF. PERHAPS BECAUSE AT HIGH POWER SETTINGS THE ALTERNATOR PRODUCED MAXIMUM POWER AND AT HIGH SPEED THE STARTER MOTOR WOULD DRAW FEWER AMPS THAN AT LOW SPEED, ALLOWING THE BUS VOLTAGE TO RISE AND ILLUMINATE THE LAMP BRIGHTER. FIRST LIGHTWEIGHT STARTER INSTALLED ON THIS AC, INDICATION THAT LIGHTWEIGHT STARTERS HAVE HIGHER CURRENT DRAW THAN LARGER STARTER THAT WAS

USED. SUSPECT MFG CONTACTOR CANNOT HANDLE LOAD.(K)

CA040526008	CESSNA	CONT	FAN	FAILED
5/11/2004	U206G	IO550F	C4140070101	E/E BAY

SHORTLY AFTER TAKEOFF SMOKE WAS OBSERVED IN THE COCKPIT AND EMERGENCY WAS DECLARED AND THE AIRCRAFT RETURNED FOR LANDING. AT THIS TIME THE AIRSPEED WAS READING EXTREMELY LOW. INVESTIGATION REVEALED THE STROBE/AVIONICS COOLING FAN CIRCUIT BREAKER OPEN. THE FAN ASSY EXHIBITED A STRONG BURNED ODOR AND THE PITOT LINE FOR THE LAKE AND AIR GEAR ADVISORY WAS FOUND MELTED WHERE ROUTED IN CLOSE PROXIMITY TO THE FAN MOTOR. THE PITOT LINE WAS REPAIRED AND RE-ROUTED AND A NEW BLOWER ASSY INSTALLED.

27011204	CIRRUS	CIRRUS	BOLT	CHAFED
12/23/2004	SR22		AN334	ALR AIR DOOR

THE BOLT (P/N 3-34) THAT SERVES AS THE PIVOT FOR THE ALTERNATE AIR DOOR IN THE INDUCTION DUCT ASSY (P/N 15708-001) IS BEING CHAFED BY THE INDUCTION DUCT SUPPORT BRACKET P/N 15671-002. IN ADDITION TO THE CHAFED BOLT THE PLASTIC DUCT IS SUSCEPTABLE TO CRACKING AROUND THE PIVOT BOLT ON THE BOTTOM OF THE DUCT ASSY. THIS AREA IS VERY DIFFICULT TO INSPECT WITHOUT REMOVING THE DUCT ASSY. ALSO, IT IS NECCESSARY TO REMOVE THE NUT AND SUPPORT BRACKET TO VISUALLY INSPECT THIS AREA.

27641204	CIRRUS	CIRRUS	BRACKET	CHAFED
12/23/2004	SR22		116118-001	RT INST PANEL

THE PILOT REPORTED A LOSS OF VOLTAGE INDICATION ON THE MFD WITH ALL OTHER SYSTEMS OPERATING NORMALLY. THROUGH TROUBLESHOOTING IT WAS DISCOVER THAT WIRE #ANEN983-22 WAS CHAFFED THROUGH THE INSULATION (THE AREA IN QUESTION IS LOCATED ABOVE THE CO-PILOTS KICK PANEL AND BEHIND THE RIGHT HAND INSTRUMENT PANEL). THE AIRCRAFT RECENTLY HAD THE X-M WEATHER KIT OPTION INSTALLED. IT APPEARS THAT WHEN THE KIT IS INSTALLED IT IS POSSIBLE FOR THE WIRE HARNESS TO BE MOVED TO THE POINT WHERE IT CAN CHAFFE ON THE X-M AFT MOUNTING BRACKET. SINCE THIS IS DIFFICULT TO SEE ANTI-CHAFFE MATERIAL SHOULD BE INSTALLED ON THE AFT BRACKET TO ELIMINATE THE POSSIBILITY OF THIS CONDITION.

270112	CIRRUS	CIRRUS	BOLT	CHAFED
12/23/2004	SR22		AN334	ALR AIR DOOR

THE BOLT (P/N 3-34) THAT SERVES AS THE PIVOT FOR THE ALTERNATE AIR DOOR IN THE INDUCTION DUCT ASSY (P/N 15708-001) IS BEING CHAFFED BY THE INDUCTION DUCT SUPPORT BRACKET P/N 15671-002. IN ADDITION TO THE CHAFFED BOLT THE PLASTIC DUCT IS SUSCEPTABLE TO CRACKING AROUND THE PIVOT BOLT ON THE BOTTOM OF THE DUCT ASSY. THIS AREA IS VERY DIFFICULT TO INSPECT WITHOUT REMOVING THE DUCT ASSY. ALSO, IT IS NECCESSARY TO REMOVE THE NUT AND SUPPORT BRACKET TO VISUALLY INSPECT THIS AREA.

CA040615012	CIRRUS	CONT	HINGE	CORRODED
6/15/2004	SR22	IO550N	14573002	TE FLAP

(CAN) FLAP HINGE ASSEMBLY HAS INTERGRANULAR CORROSION ON THE FORWARD EDGE OF THE HINGEJUST BELOW THE BOTTOM WING SKIN ABOVE THE HINGE FAIRING.

CA040615013	CIRRUS	CONT	HINGE	CORRODED
6/15/2004	SR22	IO550N	14572002	TE FLAP

(CAN) FLAP HINGE ASSEMBLY HAS INTERGRANULAR CORROSION ON THE FORWARD EDGE OF THE HINGEJUST BELOW THE BOTTOM WING SKIN ABOVE THE HINGE FAIRING.

CA040615014	CIRRUS	CONT	HINGE	CORRODED
6/15/2004	SR22	IO550N	14571003	TE FLAP

(CAN) FLAP HINGE ASSEMBLY HAS INTERGRANULAR CORROSION ON THE FORWARD EDGE OF THE HINGEJUST BELOW THE BOTTOM WING SKIN ABOVE THE HINGE FAIRING.

CA040615015	CIRRUS	CONT	HINGE	CORRODED
6/15/2004	SR22	IO550N	14571004	TE FLAP

(CAN) WING FLAP HINGE HAS INTERGRANULAR CORROSION ON THE LEADING EDGE OF HINGE JUST BELOW THE WING SKIN AND FLAP HINGE FAIRING.

CA040728010	CNDAIR	O-RING	BLOWN
7/27/2004	CL2151A10	MS2877810	HYD PUMP

THE AIRCRAFT WAS ON APPROACH TO THE AIRPORT. THERE WAS A LOSS OF HYDRAULIC PRESSURE. THE AIRCRAFT LANDED WITHOUT INCIDENT. UPON INVESTIGATION BY MAINTENANCE STAFF THE RT ENGINE DRIVEN HYDRAULIC PUMP O-RING AT THE PRESSURE LINE FITTING HAD BLOWN ALLOWING THE HYDRAULIC FLUID TO LEAK OUT UNDER PRESSURE. THE FAILED O-RING WAS REPLACED WITH A SERVICEABLE O-RING AND THE HYDRAULIC SYSTEM WAS REPLENISHED. THE RT HYDRAULIC PUMP CHECKED SERVICEABLE. THE LT PUMP WAS REPLACED AND THE AIRCRAFT WAS RETURNED TO SERVICE.

CA040720010	CNDAIR	PWA	BRACKET	BROKEN
7/18/2004	CL2151A10	CA3	215260994	DOOR SENSOR

DURING FOREST FIRE SUPPRESSION ACTION, THE PILOTS NOTICED THAT THE LT BOMB DOOR INDICATOR LIGHT ON THE ANNUNCIATOR PANEL DISPLAYED A 'DOOR UNLOCKED' INDICATION. FIRE SUPPRESSION ACTION WAS ABORTED AND THE AIRCRAFT RETURNED TO BASE FOR MAINTENANCE. AMES INSPECTED THE WATER DROP SYSTEM AND FOUND THE BRACKET THAT HOLDS THE LT WATER DOOR LOCKED INDICATION MICROSWITCH WAS BROKEN.(SEE ITEM 71 IN ATTACHED FIGURE). A NEW BRACKET WAS INSTALLED, MICROSWITCH ADJUSTED AND THE SYSTEM FUNCTION TESTED. AIRCRAFT WAS RELEASED FOR RETURNED TO SERVICE. IT APPEARS FROM OBSERVING THE LACK OF 'FRESH BREAKAGE METAL' ON THE BROKEN BRACKET THAT THE BRACKET MAY HAVE BEEN CRACKED FOR SOME TIME BEFORE IT FAILED.

CA041031003	CNDAIR	WINDOW	CRACKED
10/25/2004	CL6002B19	NP1393221	COCKPIT

(CAN) THE PILOT SIDE WINDOW CRACK WHILE IN APPROACH. THE WINDOW WAS REPLACED IAW AMM.

CA041013001	CNDAIR	GE	PCU	FAILED
10/10/2004	CL6002B19	CF343B1	270007	SPOILER

(CAN) RT FLT SPOILER DEPLOYED MOMENTARILY DURING FLIGHT CAUSING ROLL. FLT SPOILER FAULT MSG APPEARED. REMOVED AND REPLACED RT IB FLT SPOILER PCU.

CA040615010	CNDAIR	GE	TIRE	SEPARATED
5/20/2004	CL6002B19	CF343B1	H29X901516	MLG

(CAN) ON LANDING VIBRATION DETECTED. PILOTS' POST FLIGHT INSPECTION NOTICED NR 3 MLG TIRE HAD SEPARATED AND RUPTURED. RT IB FLAP WAS DAMAGED AS A RESULT.

CA040615011	CNDAIR	GE	WINDOW	DAMAGED
5/4/2004	CL6002B19	CF343B1	NP1393225	COCKPIT

(CAN) SMOKE IN COCKPIT DUE TO LT WINDOW HEATER. EMERGENCY DECLARED DUE TO DAMAGED INSULATION BLOCK, REPLACEMENT OF LT SIDE WINDOW AND CONTINUITY CHECK OF SUPPLY WIRES NECESSARY. TROUBLESHOOTING POINTS TO INTERNAL FAULT OF THE HEATER ELEMENT TERMINAL BLOCK AT WINDOW 'MPE4HC'. LT SIDE WINDOW REMOVED ACC. AMM 56-12-01-000-801. LT SIDE WINDOW IAW AMM 56-12-01-400-801 INSTALLED.

CA050115001	CNDAIR	GE	IDG	INOPERATIVE
1/11/2005	CL6002B19	CF343B1	755469D	GENERATOR

(CAN) LOSS OF BOTH IDGS ON APPROACH FOLLOWED BY AN ADG DEPLOYMENT. NO PROBLEM WAS REPORTED WITH THE ADG. FLIGHT CREW DECIDED TO ABORT THE APPROACH. EMERGENCY WAS DECLARED. THE CREW DECIDED TO START DE APU TO POWER THE AIRCRAFT BUSES. THE AIRCRAFT LANDED. THE IDG 2 WAS INSPECTED. OIL LEVEL WAS LOW. ANS REPORTS 2 LITERS WERE ADDED. IDG 1 OIL LEVEL WAS OK. GROUND RUNS COULD NOT DUPLICATE THE SNAG. BOTH IDG'S AND BOTH GCUS WERE REPLACED. WIRING INSPECTION INCLUDING ENGINES AND PYLONS WITH NO ANOMALY FOUND.

CA040528001	CNDAIR	GE	TRANSMITTER	FAILED

5/27/2004	CL6002B19	CF343B1	6229302003	WX RADAR SYS

DURING FLIGHT, UPON SELECTION OF WEATHER RADAR, THE BLUE 'RADAR FAULT' AND AMBER 'RADAR CONTROL FAULT' MESSAGES APPEARED ON THE MFD DISPLAY, CREW CYCLED ON AND OFF WITH NO SUCCESS, CREW DETERMINED TO RETURN AIRCRAFT WHERE MAINTENANCE ENGINEERS UPON TESTING THE SYSTEM REPLACED WEATHER RADAR RECEIVER TRANSMITTER AND ANTENNA (ALL ONE UNIT) AND RETURNED AIRCRAFT TO SERVICE. TIME ON UNIT UNKNOWN TIME ON AIRCRAFT IS 10227.58

CA040528002	CNDAIR	GE	WINDSHIELD	CRACKED
5/24/2004	CL6002B19	CF343B1	NP13932112	COCKPIT

FLIGHT EN ROUTE WHILE DESCENDING OUT OF 25,000 FT, FIRST OFFICER'S WINDSHIELD CRACKED. WINDSHIELD REPLACED. AIRCRAFT RETURNED TO SERVICE.

CA040704001	CNDAIR	GE	WINDSHIELD	CRACKED
6/30/2004	CL6002C10	CF348C1	NP13932112	COCKPIT

(CAN) ENROUTE THE F/O'S WINDSHIELD SHATTERED, CREW ELECTED TO DIVERT. MAINTENANCE REPLACED WINDSHIELD.(SEE ALSO: US NR 2004071600072)

CA041031002	CNDAIR	GE	WINDOW	CRACKED
10/27/2004	CL6002C10	CF348C1	NP13932211	COCKPIT

(CAN) THE PILOT SIDE WINDOW CRACKED WHILE IN CRUISE. THE WINDOW WAS REPLACED IN ACCORDANCE WITH AMM.

CA041129002	CNDAIR	GE	WINDOW	CRACKED
11/23/2004	CL6002C10	CF348C1	NP1393226	COCKPIT

(CAN) THE RT SIDE WINDOW CRACKED WHILE IN CRUISE. A NEW WINDOW WAS INSTALLED AS IAW AMM.

CA040729002	CNDAIR	GE	GENERATOR	FAILED
7/27/2004	CL6012A12	CF341A		AC SYS

DURING A ROUTINE POST MAJOR MAINTENANCE FLIGHT CHECK OF THE AIR DRIVEN TURBINE GENERATOR SYSTEM, THE SYSTEM FAILED TO TAKE THE ELECTRICAL LOAD, AS INDICATED BY THE AMMETER AND THE VOLTMETER, WHEN THE TURBINE WAS MANUALLY DEPLOYED. MAINTENANCE FINDINGS:- ADG OUTPUT WIRING AT CONNECTOR P1XC WAS FOUND TO BE ENTIRELY BURNT OFF AND ALSO THE BACKSHELL PRONG FOR PROVIDING STRAIN RELIEF FOR THE WIRING WAS PARTIALLY DESTROYED BY ARCING. THE WIRING WAS BURNT OFF FLUSH WITH THE CONNECTOR PINS. CONTINUITY CHECKS WERE CARRIED OUT BETWEEN THE PINS AND NO

CA040722003	CNDAIR		COMPUTER	MALFUNCTIONED
6/27/2004	CL6013A		6005915229	STALL WARNING

CREW REPORTED ON ROTATION, STICK SHAKER ACTIVATED EVEN THOUGH A/C WASN`T IN A STALL. SHAKER CONTINUED UNTIL POINT C/B`S WERE OPENED AS RECOMMENDED IN AFM. CREW ELECTED TO RETURN TO AIRPORT & LANDED UNEVENTFULLY. INVEST REVEALED THAT PRIOR TO FLT, PILOTS STALL PROTECTION SYSTEM IND NEEDLE SHOWING IN RED (PUSHER) ZONE AS SOON SINGLE CHANNEL SELF-TEST INITIATED, WHICH IS NOT PER AFM & SHOULD HAVE INITIATED SOME CONCERNS AT THAT POINT. IT IS BELIEVED THAT THE PILOTS SPS INDICATOR NEEDLE WAS IN RED POSITION AT ROTATION, WHICH GENERATED THE SHAKER ACTIVATION. THE SPS COMPUTER WAS REPLACED, FUNCTIONAL TEST WERE COMPLETED NORMALLY.

CA041101005	CNDAIR	GE	TRANSDUCER	OUT OF LIMITS
9/7/2004	CL604	CF343B1	25147A7L1T2	AOA

(CAN) WHILE CONDUCTING A LINEARITY CHECK IAW MFG TASK JIC NR 27-35-04-101 (SEE ALSO S/B A604-27-011, REV 1, PART A, B) BOTH LT AND RT AOA TRANSDUCERS WERE FOUND TO BE BEYOND SERVICE LIMITS. BOTH ASSEMBLIES WERE REPLACED WITH IMPROVED TRANSDUCER ASSEMBLIES, P/N 600-59154-5.

CA040531006	CNDAIR	GE	ENGINE	BIRD INGESTION
5/15/2004	CL604	CF343B1		RIGHT

SHORTLY AFTER TAKEOFF A BIRD STRIKE OCCURRED ON THE RIGHT ENGINE. CREW CONTINUED CLIMB-OUT AND REDUCED POWER TO IDLE. FLIGHT CONTINUED AND MADE AN UNEVENTFUL LANDING. POST FLIGHT INSPECTION REVEALED SEVERAL FAN BLADES DAMAGED BEYOND LIMITS AND DAMAGE TO THE ABRAIDABLE MATERIAL OF THE FAN STATOR CASING. THE AFFECTED ENGINE WAS REPLACED WITH LOANER AND SENT FOR REPAIR TO LOCAL SERVICE CENTER. NO INFORMATION ON EXTENT OF REPAIRS AVAILABLE.

CA040531007	CNDAIR	GE	ENGINE	BIRD INGESTION
5/15/2004	CL604	CF343B1		RIGHT

SHORTLY AFTER TAKEOFF, A BIRD STRIKE OCCURRED ON THE RIGHT ENGINE. CREW CONTINUED CLIMB-OUT AND REDUCED POWER TO IDLE. FLIGHT CONTINUED TO AND MADE AN UNEVENTFUL LANDING. POST FLIGHT INSPECTION REVEALED SEVERAL FAN BLADES DAMAGED BEYOND LIMIT AND DAMAGE TO THE ABRAIDABLE MATERIAL OF THE FAN STATOR CASING. THE AFFECTED ENGINE WAS REPLACED WITH LOANER AND SENT FOR REPAIR TO LOCAL SERVICE CENTER'S INFORMATION ON EXTENT OF REPAIRS AVAILABLE.

CA041101008	CNDAIR	GE	BRACKET	MISINSTALLED
10/20/2004	CL604	CF343B1	600913563	TRANSMITTER

(CAN) DURING TAKEOFF ATTEMPT, THE GREEN TAKE-OFF CONFIGURATION WARNING CAME ON.

CA040728006	CVAC	ALLSN	BEARING RACE	CORRODED
7/26/2004	340CVAC	501D13D	34479	MLG WHEEL

DURING LANDING, THE FLIGHT CREW NOTICED A MAIN WHEEL SHIMMY. UPON INVESTIGATION BY MAINTENANCE, NR 2 MAIN WHEEL MADE RUMBLING SOUNDS AND AXLE VIBRATED WHEN SPUN BY HAND. UPON INSPECTION OF THE BEARING, GREASE WAS FOUND TO BE BLACK IN COLOR. INNER BEARING RACE WAS FOUND TO BE CORRODED ON THE BEARING SEAT AREA AROUND THE FULL CIRCUMFERENCE. THE MAIN WHEEL WAS REPLACED WITH A SERVICEABLE UNIT. THE REMAINING AIRCRAFT IN THE FLEET WERE INSPECTED WITH NO OTHER DEFECTS NOTED.

CA040702005	CVAC	ALLSN	SWITCH	FAULTY
6/22/2004	340CVAC	501D22		AIR STARTER

(CAN) DURING CRUISE THE LT STARTER OVERSPEED LIGHT ILLUMINATED. THE ENGINE WAS SHUT DOWN AND THE PROPELLER WAS FEATHERED AS A PRECAUTION. THE AIRCRAFT RETURNED TO BASE. THE STARTER WAS REMOVED AND NO DAMAGE WAS NOTED. THE LIGHT SYSTEM WAS CHECKED FOR FAULTS NONE NOTED. IT WAS DETERMINED THAT THE INTERNAL SWITCH WAS CAUSING THE LIGHT ILLUMINATION. THE STARTER HAS BEEN SENT TO THE REPAIR SHOP FOR INVESTIGATION. THE STARTER WAS REPLACED AND THE AIRCRAFT WAS RETURNED TO SERVICE.

CA040702003	CVAC	ALLSN	BAR	BROKEN
6/30/2004	440	501D13D	6654777	FUEL FILTER

(CAN) DURING CRUISE THE FLIGHT CREW NOTICED SEVERE SURGING ON THE NR 1 ENGINE. THE FUEL FLOW WAS ALSO DROPPING AND SURGING. THE ENGINE WAS SHUT DOWN AND THE PROPELLER WAS FEATHERED. THE AIRCRAFT RETURNED TO DEPARTURE. DURING INVESTIGATION MAINTENANCE CREW FOUND THE BAR ASSY THAT SECURES THE FILTER BOWL TO THE HOUSING WAS BROKEN AT THE THREADS. THE BOWL WAS DISCOVERED HANGING BY THE LOCKWIRE. GASKET P/N 30865 WAS ALSO MISSING. REF MFG IPC 73-00-00FIG 5 ITEMS 9, 10 AND 16. THE PARTS WERE REPLACED AS REQUIRED AND THE AIRCRAFT WAS RETURNED TO SERVICE.

CA040719006	CVAC	ALLSN	TURNBUCKLE	SHEARED
7/16/2004	440	501D13D	NAS27844	TAIL PIPE

DURING INSPECTION MAINTENANCE CREW NOTED THAT THE RIGHT HAND ENGINE OUTBOARD EXHAUST SUPPORT TURNBUCKLE HAD SHEARED CAUSING THE TAILPIPE TO REST ON THE BOTTOM OF THE EXHAUST SHROUD INSTEAD OF BEING SUPPORTED IN THE CENTER. THE TURNBUCKLE WAS REPLACED WITH A SERVICEABLE PART AND THE AIRCRAFT WAS RETURNED TO SERVICE.

CA040819013	CVAC	ALLSN	LINE	RUPTURED
8/17/2004	440	501D13D	9036261	HYD PRESS

(CAN) AC WAS ORBITING OVER FIRE. A LOUD SURGING SOUND WAS HEARD. A CHECK OF HYDRAULIC RESERVOIR INDICATED THAT NO HYDRAULIC FLUID WAS REMAINING. FLAPS WERE SELECTED FROM 15 TO 0 DEGREES. HYD BYPASS WAS SELECTED UP. RETARDANT LOAD WAS JETTISONED. AC RETURNED TO BASE. FLAPS WERE SELECTED TO 15 DEGREES, GEAR WAS SELECTED DOWN. UPON LANDING A VIOLENT NOSE WHEEL SHIMMY WAS EXPERIENCED. EMERGENCY AIR BRAKE SYS WAS USED TO BRING AC TO A STOP. NO DC PUMP PRESSURE WAS AVAILABLE DUE TO FLUID LOSS. AC STOPPED SAFELY. UPON INVESTIGATION BY THE MAINT, MAIN HYDR PRESS LINE WAS FOUND BURST CAUSING FLUID LOSS. LINE WAS REPLACED WITH A SERVICEABLE COMPONENT. AC SYSTEM WAS LEAK CHECKED AND THE AC WAS RETURNED TO SERVICE.

CA040804001	CVAC	ALLSN	GASKET	MISSING
8/3/2004	440	501D13D	24346300C	LT ENGINE

(CAN) DURING DESCENT THE LT ENGINE ZONE 2 FIRE ALARM ACTIVATED.

CA040702002	DHAV	PWA	BELLOWS	FAILED
6/27/2004	DHC2*	R985AN1	C2E2215	CARBURETOR

(CAN) HAVE DETERMINED THAT CARB HEAT BELLOWS P/N C2E2215 AS RECEIVED WAS ACQUIRED DIRECTLY WITHOUT GOING THROUGH QA INSPECTION AND CERTIFICATION. PART BEARS DHC-2 PN STAMP AND APPEARS GENUINE. PART PLACED IN QUARATINE.

CA040525003	DHAV	PWA	DIAPHRAGM	CRACKED
5/21/2004	DHC2*	R985AN14B	SPE31342	FUEL PUMP

PILOT REPORTED FUEL PRESSURE INDICATOR DROPPED INTERMITTENTLY DURING ALL PHASES OF OPERATION. AIRCRAFT WAS RETURNED TO MAINTENANCE BASE. FUEL FOUND TO BE LEAKING FROM WOBBLE PUMP. WOBBLE PUMP DIAPHRAGM FOUND TO BE CRACKED. DIAPHRAGM REPLACED, ENGINE GROUND RUN SATISFACTORY. AIRCRAFT RETURNED TO SERVICE.

CA040527002	DHAV	PWA	CONTROL CABLE	FRAYED
5/20/2004	DHC2*	R985AN14B	C2CF815A	LT ELEVATOR

DURING SCHEDULED INSPECTION, THE LT ELEVATOR CONTROL CABLE WAS FOUND TO BE FRAYED AT THE FWD PULLEY LOCATED UNDER THE BATTERY BOX. NO EVIDENCE OF BATTERY ACID FOUND IN LOCATION. THE CABLE WAS REPLACED AND AIRCRAFT RETURNED TO SERVICE.

CA040913005	DHAV	PWA	CYLINDER HEAD	SEPARATED
9/1/2004	DHC2*	R985AN14B	399353	ENGINE

CYLINDER HEAD CRACKED 360 DEGREES WHILE AIRCRAFT WAS IN CRUISE FLIGHT. AIRCRAFT WAS ABLE TO MAKE IT BACK TO BASE. CYLINDER WAS CHANGED BY KOBY'S AIRCRAFT. IT WAS THEN GROUND RUN AND FOUND TO BE SERVICEABLE AND RETURNED TO SERVICE.

CA040804003	DHAV	PWA		CYLINDER HEAD	BROKEN
7/23/2004	DHC2*	R985AN14BM1	R985	R985	ENGINE

(CAN) NR 5 CYLINDER STUDS BROKE AND CYLINDER THEN DETACHED FROM CASING, RESULTING IN EMERGENCY LANDING AND LOSS OF OIL.

CA041005001	DHAV	PWA	CAM	DAMAGED
10/2/2004	DHC3	S3H1G	11768	ENGINE

(CAN) THE ENGINE DEVELOPED A NOISE INDICATING A WORN CAM LOBE OR ROLLER. SMALL AMOUNT OF METAL (STEEL) FOUND IN ENGINE SUMP. TRACE AMOUNT OF METAL FOUND IN OIL SCREEN. CAM REMOVED AND FOUND TO BE DAMAGED ON ONE EXHAUST LOBE. INSTALLED NEW CAM AND ROLLERS ON EXHAUST TAPPET ASSY. ENGINE GROUND RUN SATISFACTORY. FLIGHT TEST WAS SATISFACTORY. SUMPS AND SCREENS RECHECKED NO METAL PRESENT.

CA040521006	DHAV	PWA	BENDIX	COUPLER	CRACKED
5/20/2004	DHC3	S3H1G		11052	RT MAGNETO

ENGINE STARTED TO RUN ROUGH AT CRUISE SETTINGS AND ABOVE. ENGINE BACKFIRE VIOLENTLY WHEN RIGHT

MAG SELECTED . RUBBER DISK COUPLER BETWEEN MAG AND MAG DRIVE FOUND TO BE SEVERLY CRACKED AT EACH COG ON THE DISK, CAUSING THE MAG TO BECOME OUT OF TIME AT RPM GREATER THAN 1750. BELOW 1750 RPM ENGINE OPERATED NORMAL. THE MAD AND MAG COUPLER WERE REPLACED AND AIRCRAFT RELEASED FOR RETURN TO SERVICE.

CA040722001	DHAV	PWA	BOLT	SHEARED
7/21/2004	DHC6300	PT6A27	711731	NLG SCISSOR LINK

DURING THE DAILY INSPECTION, IT WAS DETECTED THE TOP BOLT IN THE NOSE GEAR SCISSOR LINK WAS SHEARED. THE GEAR WAS INSPECTED AND NO DEFECTS NOTED. THE BOLT WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. (HAVE SEEN THIS ONCE BEFORE ON ANOTHER TWIN OTTER ABOUT 6 MONTHS AGO) THE BOLT SHEARS WHERE THERE IS A GROOVE CUT IN THE SHANK FOR LUBRICATION.

CA050110006	DHAV	PWA	ENGINE	INOPERATIVE
12/29/2004	DHC7100	PT6A50		

(CAN) THE ENGINE EXPERIENCED AN OIL PRESSURE LOSS IN CRUISE. THE CREW SHUT THE ENGINE DOWN AND DIVERTED FLIGHT. SUBSEQUENT INSPECTION REVEALED METALLIC DEBRIS ON THE ENGINE CHIP DETECTOR AND IN THE ENGINE OIL FILTER. MFG WILL MONITOR THE INVESTIGATION OF THIS EVENT AND SUPPLEMENT THIS REPORT TO PROVIDE ROOT CAUSE ONCE DETERMINED.

CA041130003	DHAV	PWA	MENASCO	BEARING	FAILED
11/12/2004	DHC7102	PT6A50		162005	MLG

(CAN) THE AIRCRAFT ON DEPARTURE RETRACT, THE GEAR WOULD NOT RETRACT. POSITION INDICATION LIGHTS REMAINED GREEN AND THE GEAR SELECTOR LEVER WAS ILLUMINATED AND REMAINED SO. NO CIRCUIT BREAKERS WERE TRIPPED ON THE FLIGHT DECK. THE AIRCRAFT LANDED WITHOUT INCIDENT, THERE WAS NO INJUURY TO PASSENGERS OR FLIGHT CREW. THE AIRCRAFT WAS FERRIED FOR REPAIRS, ALL NOSE AND MAIN WEIGHT SWITCHES WERE CHECKED, ALL WIRING FOR THE LANDING GEAR SYSTEM WAS CHECKED INC WITH MFG WIRING MANUAL 32-00-00, NO FAULT FOUND. LANDING GEAR RETRACTIONS AND EXTENSIONS CARRIED OUT, FIVE TIMES BUT COULD NOT GET FAULT TO REPEAT ITSELF. DECIDED TO REPLACE ALL MAIN LANDING GEAR WEIGHT SWITCHES, AS A PRECAUTION, P/N 21HE23RB, QTY 4.

CA041013008	DHAV	PWA	PUMP	FAILED
10/5/2004	DHC7102	PT6A50	6305402	HYDRAULIC SYS

(CAN) WHILE THE AIRCRAFT WAS IN CRUISE AT 15,000 FEET, NR 4 HYDRAULIC PUMP CAUTION LIGHT ILLUMINATED, FOLLOWED 5 MINUTES LATER BY NR 3 HYDRAULIC PUMP CAUTION LIGHT COMING ON. ALL HYDRAULIC PRESSURE WAS LOST ON NR 2 HYDRAULIC SYSTEM AND ALTERNATE LANDING GEAR EXTENSION WAS CARRIED OUT AND THE AIRCRAFT LANDED WITHOUT INCIDENT. HYDRAULIC PUMP P/N 63054-02/05 NR 4 HYDRAULIC PUMP P/N 225961- NR 4 PUMP PRESSURE DROP TO ZERO. NR3 HYDRAULIC PUMP P/N 167136- NR 3 PUMP SHAFT BROKEN PRESSURE DROP TO ZERO.

CA040617007	DHAV	PWA	FUEL CONTROL	FAILED
6/10/2004	DHC7103	PT6A50	324475319	ENGINE

SHORTLY AFTER TAKEOFF, ON CLIMBING THROUGH 6,000 FT, PILOT NOTICED OVER TORQUE LIGHT ON FOR ENGINE NR 4. A QUICK GLANCE AT OTHER ENGINE GAUGES TO CONFIRM ENGINE OVERSPEED, AND PULLED BACK THE POWER LEVER FOR NR 4 ENGINE TO SEE IF THERE WAS ANY RESPONSE. PILOT THEN PULLED TEE HANDLE TO SHUT NR 4 ENGINE DOWN. REST OF FLT AND LANDING UNEVENTFUL. UPON INSPECTION OF ENGINE AND SUBSEQUENT REMOVAL OF FUEL CONTROL UNIT, DRIVE SHAFT BETWEEN THE FCU AND HP FUEL PUMP, FOUND TO BE SHEARED OFF AND SO CAUSING ENGINE TO OVERSPEED. DRIVE SHAFT SHEARED OFF WHERE DRIVE SPRING RETAINING CLIP GROOVE WAS ON DRIVE SHAFT. ENGINE AND ITS COMPONENTS WERE REPLACED WITH SERVICEABLE UNITS, AND GROUND RUNS CARRIED OUT SERVICEABLE.

CA050105010	DHAV	PWA	CASE	LEAKING
12/12/2004	DHC8*	PW123		ENGINE

(CAN) DURING CRUISE CREW IDENTIFIED LOW OIL PRESSURE. THE ENGINE WAS SHUTDOWN AND THE FLIGHT DIVERTED. INSPECTION REVEALED LOW ENGINE OIL QUANTITY AND SUBSEQUENT INVESTIGATION FOUND OIL LEAKAGE FROM THE FRONT INLET CASE DRAIN LOCATION. MFG WILL INVESTIGATE THE INCIDENT AND

SUPPLEMENT THIS REPORT TO IDENTIFY ROOT CAUSE ONCE DETERMINED.

CA040708002	DHAV	PWA	DOOR FRAME	CRACKED
6/25/2004	DHC8101	PW120A	85320534103	EMERGENCY EXIT

RT EMERGENCY EXIT DOOR REMOVED TO GAIN ACCESS TO LEVELLING DATUM PLATE TO JACK AIRCRAFT, A CRACK WAS DISCOVERED IN FRAME ON AFT SIDE OF THE DOOR. CRACK EXTENDS FROM LIGHTENING HOLE BETWEEN STRINGERS 22P AND 23P THROUGH THE FRAME RETURN ON THE INBOARD SIDE. FRAME WAS REPLACED WITH POST MODSUM 8/0427 FRAME P/NO.85320534-107A. THE LIGHTENING HOLE IS DELETED ON THE POST MOD 8/0427 FRAME.NOTE: MODSUM 8/0427 (FUSELAGE FRAME FLANGES AT OUTBOARD SEAT RAIL BRACKET ATTACHMENT AREA) INTRODUCED A NEW FRAME AT THIS LOCATION ALONG WITH NUMEROUS STRUCTURAL IMPROVEMENTS ALONG THE FUSELAGE DUE TO CRACKING OF FRAMES IN THE FATIGUE SPECIMEN.

CA040601006	DHAV	PWA	WIRE	LOOSE
5/31/2004	DHC8102	PW120A		INHIBIT SWITCH

ON APPROACH , WHEN CREW SELECTED GEAR DOWN AND GOT 3 RED GEAR LIGHTS. REVERTED TO ALTERNATE GEAR EXTENSION AND GOT 3 GREEN LIGHTS. MAINTENANCE FOUND LOOSE WIRING CONNECTION TO THE GEAR INHIBIT SWITCH. PROBABLY WORKED ITSELF LOOSE OVER TIME WITH VIBRATION. SWITCH REPLACED AND WIRING SECURED. GEAR SWINGS CARRIED OUT AND SYSTEM FOUND SERVICEABLE.

CA040531004	DHAV	PWA	DOWNLOCK SENSOR	DAMAGED
5/26/2004	DHC8102	PW120A	864202	MLG

DURING APPROACH WHEN LANDING GEAR SELECTED DOWN , LEFT MAIN GEAR UNSAFE INDICATION. ALTERNATE GEAR INDICATION CONFIRMED AS THREE GREEN, ALTERNATE EXTENSION PROCEDURE USED. AIRCRAFT LANDED NORMALLY. MAINTENANCE INSPECTION FOUND LT MAIN GEAR SIDESTAY SENSOR DAMAGED. SENSOR REPLACED. GEAR SWINGS CARRIED OUT. AIRCRAFT RETURNED TO SERVICE. (PART IS CONSIDERED AN EXPENDABLE AND TIMES ON PART ARE NOT TRACKED. TIMES PROVIDED ARE AIRCRAFT TOTAL TIMES.)

CA040527012	DHAV	PWA	LANDING GEAR	UNKNOWN
5/26/2004	DHC8102	PW120A		

ON TAKEOFF, CREW REPORTED WEIGHT ON WHEELS CAUTION LIGHT ILLUMINATED ON TAKEOFF AND STAYED ON FOR ABOUT 20 MINUTES. CREW DECIDED TO RETURN TO TORONTO. THE LIGHT HAD GONE OFF BY THEN. IN TORONTO THE MAINTENANCE ENGINEERS INSPECTED THE AIRCRAFT RELEVANT SYSTEMS INCLUDING ALL THE WOW SWITCHES/SENSORS, ELECTRICAL CONNECTORS AND THE PSEU(PROXIMATY SWITCH ELECTRONIC UNIT) AND SEVERAL GEAR SWINGS CARRIED OUT AND THEY COULD NOT DUPLICATE THE FAULT OR ACCERTAIN THE CAUSE OF THIS WARNING. THE AIRCRAFT WAS RETURNED TO SERVICE .

CA040615005	DHAV	PWA	RHEOSTAT	UNSERVICEABLE
6/11/2004	DHC8102	PW120A	RV4NBYSD502A	LIGHT

(CAN) RHEOSTAT (P/N RV4NBYSD502A) F/O OVERHEAD MAP LIGHT HAD SMOKE COMING FROM THE LIGHT AFTER IT WAS SWITCHED ON AND CB P3 POPPED SHORTLY THERE AFTER. OFFENDING PART POTENTIO METER 3311-R4 IPC REF 33-11-00 FIG 5 ITEM 75 NHA 82415155-001 CABLE ASSY, RHEOSTAT WAS REPLACED AND SYS WAS FUNCTIONED WITH NO REOCCURRENCE OF PROBLEM, AND AC WAS RETURNED TO SERVICE. INCIDENT HAS BEEN BROUGHT TO THE ATTENTION OF OUR FLEET GROUP AND THEY IN-TURN SENT OUT EMAIL TO THE MFG, AS THIS HAS BEEN THE SECOND OCCURRENCE WE HAVE HAD. INFORMATION WAS REQUESTED AS TO WHETHER OR NOT ANY OF THE OTHER OPERATORS HAVE BEEN EXPERIENCING THE SAME FAULT AND IF THERE HAS BEEN ANY CHANGE AS OF LATE TO THE VENDOR OF THIS PARTICULAR PART.

CA040714002	DHAV	PWA	SERVO	INOPERATIVE
7/13/2004	DHC8102	PW120A	7002260723	AUTO PILOT

THE FLIGHT CREW REPORTED A INTERMITTENT BINDING IN ROLL CONTROL ON APPROACH, ESPECIALLY TO THE RIGHT. MILD FORCE WAS REQUIRED TO OVERCOME, THE PILOT NOTED THAT IT DOES NOT APPEAR TO SIMPLY BE HEAVY AERODYNAMIC LOADING. THE MAINTENANCE AFTER TROUBLESHOOTING POINTED THE PROBLEM TO BE THE SERVO AND REPLACED IT

CA040715002	DHAV	PWA	BALLSCREW	DAMAGED
7/10/2004	DHC8102	PW120A	734181D	TE FLAPS

WHILE PERFORMING THE REPEAT INSPECTION REQUIREMENTS OF CF-2002-26R1 THE NR 4 RT BALLSCREW ACTUATOR WAS FOUND TO HAVE A TOTAL FREEPLAY BACKLASH OF .192 INCH. THE LAST INSPECTION HAD BEEN DONE 997 HRS AND 863 CYC PREVIOUSLY AND AT THAT TIME WAS .030 INCH. THE ACTUATOR WAS REPLACED WITH AN OVERHAULED UNIT FROM HAMILTON SUNDSTRAND. THE AD REQUIREMENTS INVOLVE THE MEASURING OF THE BACKLASH BETWEEN THE SCREW JACK ROD AND THE NUT WHICH WAS STILL FOUND TO BE WITHIN SERVICEABLE LIMITS HOWEVER THE TOTAL FREEPLAY BACKLASH WHICH COMPRISES OF THIS BACKLASH MEASUREMENT AS WELL AS THE FREEPLAY BETWEEN THE BALLSCREW NUT AND THE ACTUATOR BODY WAS FOUND TO BE EXCESSIVE. THE INSERVICE LIMIT FOR THIS MEASUREMENT IS .057 INCH.

CA040716002	DHAV	PWA	SELECTOR VALVE	FAILED
7/15/2004	DHC8102	PW120A	7SC0143	MLG

AFTER THE ABOVE AIRCRAFT WAS FERRIED DUE TO A GEAR INDICATION PROBLEM, THE LANDING GEAR SELECTOR VALVE WAS FOUND AT FAULT. UPON REPLACING THE INITIAL SELECTOR VALVE (P/N 7SC0143) WITH THE ABOVE (S/N 433) AND GEAR SWINGS WERE CARRIED OUT IT WAS DISCOVERED THAT WHEN THE GEAR WAS SELECTED UP THE GEAR WOULD GO DOWN AND WHEN THE GEAR WAS SELECTED DOWN THE GEAR WOULD GO UP. A SECOND LANDING GEAR SELECTOR VALVE WAS INSTALLED GEAR SWINGS CARRIED OUT AND THE AIRCRAFT WAS RETURNED TO SERVICE.

CA040729001	DHAV	PWA	GOVERNOR	MALFUNCTIONED
7/26/2004	DHC8102	PW120A	7897501	PROPELLER

IN CLIMB-OUT, WHILE SETTING PROP LVRS FROM 1200 TO 900 RPM, TQ INCREASED TO 105 PERCENT. DETERMINED THAT THE NR 1 ENGINE WAS THE SOURCE OF THE PROBLEM. MX REPLACED THE NR 1 PROP CONTROL UNIT, ENG ECU HARNESS, AND TQ SIGNAL CONDITION UNIT. GROUND RUNS WERE COMPLETED WITH NO FAULTS AND THE A/C WAS RETURNED TO SERV. TEARDOWN REPORTS HAVE BEEN REQUESTED FOR THE REPLACED COMPONENTS AND AN UPDATE WILL BE PROVIDED WHEN AVAILABLE.

CA040819011	DHAV	PWA	RCCB	INOPERATIVE
8/13/2004	DHC8102	PW120A	SM601BA20A1	HYD SYSTEM

(CAN) THE NR 2 STANDBY HYD PUMP WOULD NOT COME ON LINE WHEN SELECTED. THE CAUSE WAS DETERMINED TO BE A FAILED REMOTE CONTROL CIRCUIT BREAKER. THE UNIT HAD ONLY 24.7 HOURS.

CA040615016	DHAV	PWA	CONNECTOR	OVERHEATED
6/15/2004	DHC8102	PW120A	MS3106R10SL3S	VALVE

(CAN) AFTER TAKE-OFF THE CREW NOTED THE NR1 BLEED CONT CIRCUIT BREAKER POPPED. UPON RETURN TO DEPARTING AIRPORT MAINTENANCE FOUND THAT THE CONNECTOR PLUG CONNECTED TO THE BLEED PRESSURE REGULATING SHUT-OFF VALVE HAD BECOME OVERHEATED AND HAD LOST IT'S INSULATING PROPERTIES. THIS PLUG IS SUBJECT TO HIGH HEAT WHEN THE VALVE IS POWERED IN THE OFF SELECTED MODE.

CA041007003	DHAV	PWA	HOSE	RUPTURED
9/29/2004	DHC8201	PW123D	DSC3912	ENGINE OIL

(CAN) THE NR2 ENGINE OIL PRESSURE WARNING LIGHT ILLUMINATED WITH A CORRESPONDING FALLING OIL PRESSURE GAUGE READING. USING QRH PROCEDURES THE NR2 ENGINE WAS SHUT DOWN AND A PAN DECLARED. THE CREW THEN RETURNED THE AIRCRAFT TO BASE WHERE A SINGLE ENGINE APPROACH AND LANDING WAS CARRIED OUT WITHOUT INCIDENT. A LARGE QUANTITY OF ENGINE OIL LOSS WAS IDENTIFIED ON THE ENGINE AND ENGINEERING INVESTIGATION REVEALED A RUPTURE, FAILURE OF THE OB ENGINE OIL TANK TO OIL COOLER FLEXIBLE HOSE ASSEMBLY. THE FAILED HOSE ASSEMBLY WAS REPLACED AND FOLLOWING SATISFACTORY COMPLETION OF REQUIRED MAINTENANCE CHECKS THE AIRCRAFT WAS RELEASED BACK TO SERVICE WITHOUT FURTHER INCIDENT.

CA040720009	DHAV		RHEOSTAT	BURNED
7/17/2004	DHC8301		RV4NBYSD502A	COCKPIT

(CAN) PILOTS REPORTED SMOKE IN COCKPIT DURING FLIGHT, EMERGENCY LANDING CARRIED OUT. INVESTIGATION FOUND BURNT RHEOSTAT FOR THE PILOTS READING LIGHT.

CA050113004	DHAV	PWA	UNION	FRACTURED
1/12/2005	DHC8301	PW123	AN81510D	NR 1 HYD SYS

(CAN) DURING CRUISE, THE NR 1 HYDRAULIC SYSTEM SUFFERED A TOTAL HYDRAULIC SYSTEM FLUID LOSS. A FULL EMERGENCY LANDING WAS DECLARED INTO BASE, WHICH WAS CARRIED OUT WITHOUT FURTHER INCIDENT. UPON INSPECTION BY ENGINEERING IT WAS DISCOVERED THAT THE NR 1 HYDRAULIC PRESSURE MANIFOLD HAD SUFFERED A FAILURE OF THE AN815-10D UNION. THE AIRCRAFT MFG HAS PREVIOUSLY IDENTIFIED THIS DEFECT, AND A SYD 8-29-002 WAS ISSUED THAT PERMITS THE REPLACEMENT OF THE ALLOY UNION WITH A CORROSION RESISTANT STEEL UNION. AS A RESULT OF THIS INCIDENT, ALL DASH 8 / 315 SERIES AIRCRAFT OPERATED THIS AIRLINE HAVE HAD SYD 8-29-002 INCORPORATED.

CA041101007	DHAV	PWA	INVERTER	FAILED
10/31/2004	DHC8311	PW123	DH103024600CS11B	COCKPIT

(CAN) DURING CRUISE, FLIGHT CREW DETECTED SMOKE IN THE COCKPIT , PRIMARY INVERTER CAUTION LIGHT ILLUMINATED, AIRCRAFT DID EMERGENCY DESCENT AND DIVERSION TO NEAREST ALTERNATE AIRPORT FOR NORMAL LANDING. SMOKE HAD DISSIPATED PRIOR/ON ARRIVAL. MAINTENANCE INSPECTION FOUND PRIMARY INVERTER UNSERVICEABLE, INVERTER REPLACED. AIRCRAFT RETURNED TO SERVICE.

CA041130007	DIAMON	CONT	DIAMON	SEAL	LOOSE
11/13/2004	DA20C1	IO240B	222750010		FLAP ACTUATOR

(CAN) AC HAD THE FLAP STUCK FULL DOWN. INSP REVEALED THAT FLAP ACTUATOR SEAL HAD COME LOOSE AND INTERFERED WITH THE NR5 FLAP SWITCH. A/C WAS IN MAINT FOR A TOTALLY UNRELATED DEFECT, TROUBLESHOOTING DECIDED, THAT WE TAKE THE ACTUATOR FROM IT TO USE ON A/C. INSP REVEALED THAT THE SEAL ON A/C HAD COME LOOSE TOO, BUT HAD NOT YET CONTACTED THE SWITCHES AND THEREFORE WE RE-GLUED SEAL IAW MFG INSTRUCTIONS AND INSTALLED THIS UNIT ON MFB. THEREAFTER UNIT WHICH WAS REMOVED FROM MFB WAS FURTHER INSPECTED, SEAL RE-GLUED AND TAB OF NR5 SWITCH WAS STRAIGHTENED. UNIT INSTALLED IN OTHER A/C AND GROUND TESTED SERVICEABLE.

2005FA0000170	DIAMON	CONT	PUMP	DEFECTIVE
11/5/2004	DA20C1	IO240B	65335385	ENGINE

FUEL PUMP FAILS TO HOLD PROPER PRESSURES. SAME PROBLEM WITH ORIGINAL PUMP. CHANGED PUMP, SET PRESSURES IAW SI 097-3B. PRESSURES TO BE RE-ADJUSTED APPROXIMATELY ONCE EVERY 2-3 WEEKS. NOTICED PRESSURES CHANGE WITH SEASON TEMPERATURES. (K)

CA040618007	DOUG	PWA	SPARK PLUG	FOULED
6/17/2004	C54	R20007M2	REB37E	NR 4 ENGINE

DURING CRUISE, THE PILOTS NOTICED THE NR 4 ENGINE STARTING TO BACKFIRE, THE BACK FIRING WAS GETTING OUT OF CONTROL SO THE ENGINE WAS SHUT DOWN AND THE PROPELLER FEATHERED. DURING THE INSPECTION OF THE NR 4 ENGINE IT WAS FOUND THAT THE FRONT AND REAR SPARKS FOR THE NR 2 CYLINDER WERE FOULED. THE PLUGS WERE REPLACED AND ENGINE RUN-UP WAS FINE.

COOSDR040042	DOUG	PWA	LONGERON	CORRODED
10/11/2004	DC861F	JT3D*		FUSELAGE

FWD CARGO COMPT AT Y STA 360.0, LONGERON 28R CORRODED.

COOSDR040047	DOUG	GE	SKIN	CRACKED
10/15/2004	DC871F	CFM562C	4643785	FUSELAGE

FWD PASSENGER DOOR HOLD OPEN PAN, PN 4643785, AND FUSELAGE EXTERNAL SKIN CRACKED AT Y-STA 15.000. (K)

COOSDR040044	DOUG	GE	SKIN	CORRODED
10/15/2004	DC871F	CFM562C		FUSELAGE

LOWER FUSELAGE SKIN WITH CORROSION AT Y-STA 680.0 AND Y-STA 687.0, BETWEEN LONG 31R AND LONG 34R. (K)

COOSDR040051	DOUG	GE	SKIN	CORRODED
10/25/2004	DC871F	CFM562C		FUSELAGE

LOWER FUSELAGE SKIN WITH CORROSION AT Y STA 622.0, BETWEEN LONG 27L AND LONG 30L. (K)

COOSDR05003	DOUG	PWA	DOOR FRAME	CRACKED
1/25/2005	DC915F	JT8D*		FUSELAGE

FWD CARGO COMPARTMENT, DOOR JAMB, STUB BEAM, PN 5921718-1, SHORT FLANGES CRACKED. (K)

LCQ29	DOUG		SKIN	CRACKED
1/19/2005	DC932			FUSELAGE

SKIN CRACKED AT FS 996 STRINGER 23L. S/O 152051, OPS 29033, ZONE 1A-16.

LCQ31	DOUG		SKIN	LIGHTNING STRIKE
1/19/2005	DC932			FUSELAGE

FOUND LIGHTNING STRIKE INDICATION AT L-4R BS 659. S/O 152051, OPS 29677, ZONE 1A-54.

LCQ32	DOUG		SKIN	CRACKED
1/19/2005	DC932			FUSELAGE

FS 64.150 SKIN IS CRACKED AROUND FASTENER, 10TH FASTENER DOWN FROM CUSP LINE. S/O 152051, OPS 29845, ZONE 1A-67.

LCQ33	DOUG		SKIN	CRACKED
1/19/2005	DC932			FUSELAGE

SKIN CRACKED ON RT SIDE OF FUSELAGE CANTED FRAME STA 1155.225 MID WAY BETWEEN RIVETS 2 INCH LENGTH. S/O 152051, OPS 29866, ZONE 1A-69.

LCQ34	DOUG		LONGERON	CRACKED
1/19/2005	DC932			FUSELAGE

L-23L CRACKED AT FRAME ATTACH FASTENERS FS 200 E&E COMPARTMENT. S/O 152051, OPS 29808, ZONE 1C-16.

LCQ35	DOUG		LONGERON	CRACKED
1/19/2005	DC932			FUSELAGE

L-25L CRACKED AT FRAME ATTACH FASTENER (UPPER AND LOWER FASTENERS) FS 160 E&E COMPARTMENT. S/O 152051, OPS 29807, ZONE 1C-17.

LCQ36	DOUG		FITTING	CORRODED
1/19/2005	DC932			HORIZ STAB

HORIZONTAL STABILIZER LT MOUNT LUG FITTING FOR PIVOT BEARING O/B FACE HAS CORROSION. S/O 152051, OPS 29688, ZONE 2A-24.

LCQ39	DOUG		DOUBLER	DEBONDED
1/19/2005	DC932			RUDDER TAB

RUDDER TRIM TAB REPAIR DOUBLER DISBONDED ON RT SIDE. S/O 152051, OPS 29865, ZONE 2B-3.

LCQ40	DOUG		SEAT TRACK	BROKEN
1/19/2005	DC932			FUSELAGE

CAPTAIN'S O/B SEAT TRACK HAS THE END PIECE BROKEN OFF. S/O 152051, OPS 29443, ZONE 6A-24.

LCQ41	DOUG		FLOOR PANEL	CORRODED

1/19/2005	DC932			FUSELAGE

MAIN CABIN FLOOR PANEL NR 7 HAS SURFACE CORROSION THRU OUT TOP AND BOTTOM. S/O 152051, OPS 29210, ZONE 6C-24.

LCQ42	DOUG		FLOOR PANEL	CORRODED
1/19/2005	DC932			FUSELAGE

MAIN CABIN FLOOR PANEL NR 4 HAS SURFACE CORROSION THROUGH OUT TOP AND BOTTOM. S/O 152051, OPS 29208, ZONE 6C-26.

LCQ43	DOUG		FLOOR PANEL	CORRODED
1/19/2005	DC932			FUSELAGE

MAIN CABIN FLOOR PANEL 2A IS CORRODED. S/O 152051, OPS 29207, ZONE 6C-27.

LCQ44	DOUG		PAN	CHAFED
1/19/2005	DC932			FUSELAGE

CABIN FLOOR PAN HAS CHAFED THRU AREA STA 237 RBL 3 FROM THE CENTER. S/O 152051, OPS 29425, ZONE 6C-85.

LCQ45	DOUG		FLOOR PANEL	CRACKED
1/19/2005	DC932			FUSELAGE

CABIN FLOOR PANEL HAS GOUGE AND CRACK FWD OF FS 237 I/B OF LEFT O/B SEAT TRACK. S/O 152051, OPS 29423, ZONE 6C-87.

LCQ46	DOUG		FLOOR PANEL	CRACKED
1/19/2005	DC932			FUSELAGE

CABIN FLOOR PANEL HAS 3 EACH AREAS WORN AND CRACKED AT FS 237 LBL 7 FROM CENTER. S/O 152051, OPS 29422, ZONE 6C-88.

LCQ47	DOUG		FLOOR PANEL	DAMAGED
1/19/2005	DC932			FUSELAGE

CABIN FLOOR PANEL 73 LT CENTER HAS HOLES ON THE EDGE TORN OUT. S/O 152051, OPS 29524, ZONE 6C-119.

LCQ48	DOUG		FLOOR PANEL	CRACKED
1/19/2005	DC932			FUSELAGE

MAIN CABIN FLOOR PANEL FS 120 - 160 HAS CRACKS ON TOP SKIN AND CORROSION. TOP AND BOTTOM SIDE HAS HOLES DRILLED IN HALF SECTION. S/O 152051, OPS 29528, ZONE 6C-123.

LCQ68	DOUG		FLOOR PANEL	CORRODED
1/20/2005	DC932			FUSELAGE

L-1 FLOOR PANEL COVER HAS CORROSION UPPER AND LOWER SURFACE. S/O 152051, OPS 29737, ZONE 6C-201.

LCQ69	DOUG		PAN	CRACKED
1/20/2005	DC932			SERVICE DOOR

RIGHT SERVICE DOOR PAN CRACKED IN 4 EA PLACES AND INNER STRAP CRACKED AT FWD LOWER CORNER. S/O 152051, OPS 29879, ZONE 6C-206.

LCQ49	DOUG	PWA	FLOOR PANEL	CORRODED
1/20/2005	DC932	JT8D9A		MAIN CABIN

MAIN CABIN FLOOR PANEL NR 83 HAS SURFACE CORROSION AND A PUNCTURE. S/O 152051, OPS 29530, ZONE 6C-125

LCQ56	DOUG	PWA	CHANNEL	CRACKED

1/20/2005	DC932	JT8D9A		FUSELAGE

MAIN CABIN PANEL NR 75 HAS CHANNELS CRACKED OUT AND SURFACE CORROSION. S/O 152051, OPS 29569, ZONE 6C-146

LCQ61	DOUG	PWA	FLOOR PANEL	BROKEN
1/20/2005	DC932	JT8D9A		FUSELAGE

MAIN CABIN FLOOR PANEL NR 76 RT CENTER FS 680 - 760 IB HAS HOLES BROKEN OUT ON THE END. S/O 152051, OPS NR 29576, ZONE 6C-153

LCQ62	DOUG	PWA	FLOOR PANEL	CRACKED
1/20/2005	DC932	JT8D9A		FUSELAGE

MAIN CABIN FLOOR PANEL NR 81 HAS CRACKS AROUND RIVETS, 2 EACH PUNCTURES AND SURFACE CORROSION. S/O 152051, OPS NR 29583, ZONE 6C-156

LCQ30	DOUG	PWA	SKIN	LIGHTNING STRIKE
1/19/2005	DC932	JT8D9A		FUSELAGE

AIRCRAFT NOSE RT STA 69, APPROX. 15 INCHES ABOVE FLOOR REFERENCE PLANE HAS A LIGHTNING STRIKE. S/O 152051, OPS 29036, ZONE 1A-18

LCQ37	DOUG	PWA	DOOR FRAME	CORRODED
1/19/2005	DC932	JT8D9A		FUSELAGE

STA. 908.5, AFT CARGO DOOR FRAME WEB HAS CORROSION ON VERTICAL SUPPORT, FOUR CORNERS FWD SIDE. S/O 152051, OPS 29258, ZONE 1E-3

LCQ54	DOUG	PWA	PANEL	ELONGATED
1/20/2005	DC932	JT8D9A		CABIN

MAIN CABIN PANEL E5-3 HAS ELONGATED HOLES ON THE END OF PANEL. S/O 152051, OPS 29566, ZONE 6C-143

LCQ57	DOUG	PWA	CHANNEL	CRACKED
1/20/2005	DC932	JT8D9A		FUSELAGE

MAIN CABIN PANEL, NR A53 HAS CHANNELS CRACKED. S/O 152051, OPS 29572, ZONE 6C-149

CA040728008	DOUG	PWA	RELAY	FAILED
7/24/2004	DC983	JT8D219	9068D093	GENERATOR

DURING CRUISE, THE RT GENERATOR DID NOT POWER THE BUSS. APU STARTED BUT HAD TO SHUT DOWN DUE TO HIGH OIL TEMP. AIRCRAFT HAD TO DIVERTED TO XXX. MAINTENANCE FOUND THE RT GEN POWER RELAY IN FAULT. RELAY REPLACED AND GENERATOR POWER CHECKED SERVICEABLE. THE APU OIL LEVEL FOUND HIGH AND OIL RESERVICED AS PER MM. AIRCRAFT DISPATCHED SERVICEABLE.

CA040601005	DOUG	PWA	ACTUATOR	FAILED
5/30/2004	DC983	JT8D219		STAB TRIM

DURING CRUISE FROM YYZ, THE PRIMARY STAB TRIM CB POPPED OUT. AIRCRAFT LANDED BACK TO YYZ. MAINTENANCE FOUND THE PRIMARY TRIM ACTUATOR IN FAULT. ACTUATOR WAS REPLACED AND AIRCRAFT DISPATCHED SERVICEABLE.

CA040601007	DOUG	PWA	CSD	FAILED
5/30/2004	DC983	JT8D219	696233B	APU

DURING CRUISE FROM VRA TO YYZ, RT CSD OUTLET TEMPERATURE INCREASED. CSD HAS BEEN DISCONNECTED. FEW TIME LATER, APU OIL TEMP WHEN HIGH AND APU HAS BEEN SHUT DOWN. AIRCRAFT LANDED AT YYZ AS SCHEDULED. MAINTENANCE IN YYZ DID DEFER THE RT CSD AS PER MEL 24-1. APU OIL RESERVICED AND TESTED/CHECKED SERVICEABLE. AIRCRAFT DISPATCHED SERVICEABLE WITH RT CSD UNDER MEL. DURING CLIMB AFTER DEPARTURE FROM YYZ, APU OIL TEMP WHEN HIGH. AIRCRAFT LANDED BACK TO YYZ. RT CSD WAS REPLACED AND APU RECTIFICATION DEFERRED AS PER MEL 49-1. AIRCRAFT DISPATCHED AS PER

MEL 49-1. TEMPERATURE BULB SENSOR REPLACED AS PRECAUTIONARY MEASURE.

CA040601003	DOUG	PWA	COMPUTER	MALFUNCTIONED
5/30/2004	DC983	JT8D219		STALL WARNING

DURING FLIGHT FROM YUL TO CYO, ACFT DIVERTED TO FLL DUE TO NR 2 STALL INDICATION FAIL ILLUMINATED. FOLLOWING TROUBLE SHOOTING, MX FOUND NO SIGNAL BETWEEN HORIZONTAL STAB POSITION SENSOR NR 2 AND STALL WARNING COMPUTER NR 2 CONNECTOR CLEANED ON STAB SENSOR AND STALL WARNING COMPUTER. AIRCRAFT DISPATCHED SERVICEABLE.

CA040617001	DOUG	PWA	WARNING LIGHT	ILLUMINATED
6/10/2004	DC983	JT8D219		MLG

NOSE GEAR UNSAFE LIGHT ON WITH GEAR HANDLE DOWN DURING APPROACH IN XXX. AIRCRAFT OVERSHOOT. GEAR RESELECTED UP AND DOWN WITH 3 LIGHTS ON. MAINTENANCE DID A PSEV BITE CHECK AND ALL NOSE GEAR SWITCHES CHECKED FOR CORRECT GAP DISTANCE AND OPERATION AND NO FAULT FOUND.

CA050117004	DOUG	PWA	TIRE	OVERSERVICED
1/16/2005	DC983	JT8D219	95502675	NLG

(CAN) DURING TAKE-OFF ROLL, A NOSE WHEEL SHIMMY WAS FELT AND REJECTED TAKE-OFF WAS CARRIED OUT. THE AIRCRAFT RETURNED TO THE GATE WITHOUT INCIDENT. UPON INVESTIGATION, IT WAS OBSERVED THAT THE NR2 NOSE WHEEL TIRE WAS OVER-SERVICED. THE NOSE WHEEL TIRE WAS SERVICED CORRECTLY IAW MM 12-00-00. NO FURTHER INCIDENT DURING SUBSEQUENT FLIGHT.

CA040819012	DOUG	PWA	WARNING SWITCH	INCORRECT
8/5/2004	DC983	JT8D219		TAIL CONE

(CAN) DURING CLIMB, TAIL CONE ANNUNCIATOR UNSAFE LIGHT WENT ON. AIRCRAFT LANDED BACK TO DEPARTING AIRPORT. MAINTENANCE FOUND THE TAIL CONE SAFETY LOCK CABLE BALL END NOT SEATED PROPERLY TO CONTACT THE WARNING SWITCH. THE INVESTIGATION REVEALED THAT AN INSPECTION/TEST OF TAIL CONE RELEASE MECHANISM WAS PERFORMED ON THE PREVIOUS DAY. IT HAS BEEN CONCLUDED THAT THE WARNING SWITCH WAS NOT PROPERLY ENGAGED.

2004FA0000940	DOUG	PWC	HUB	CRACKED
12/16/2004	MD900	PW207E	900R2101006107	MAIN ROTOR

DURING ACCOMPLISHMENT OF A.D. 2002-10-05 " MAIN ROTOR UPPER HUB INSP." FOUND (3) OUT OF (10) BOLT HOLES CRACKED AS DEPICTED IN MD HELICOPTERS SERVICE BULLETIN 900-072. PART TOTAL TIME: 292 HRS

PG9R97903	DOUG	PWC	LINE	LEAKING
10/21/2004	MD900	PW207E	900D3409526105	OIL SYSTEM

FOUND TO BE LEAKING A SMALL QUANTITY OF OIL/ REPLACED OIL HOSE ASSY. (K)

2004FA0000939	DOUG	PWC	DOUG	BEAM	CRACKED
12/16/2004	MD900	PW207E		900R1103001113	M/R HUB

DURING 100 HOUR INSPECTION, FOUND FLEX BEAM CRACKED IN AREA OF LEG GOING INTO UPPER HUB. REPLACED PART WITH UPDATED SERVICEABLE PART.

2004FA0000934	DOUG	PWC	FUEL CELL	LEAKING
12/16/2004	MD900	PW207E	900P3661120101	FUSLEAGE

DURING TROUBLESHOOTING A FUEL LEAK FOUND THAT WHEN THE FUEL CELL WAS FLEXED, FUEL WOULD WEEP FROM EXTERIOR SURFACE. REMOVED FUEL CELL AND SENT OUT FOR TEST AND REPAIR. EVALUATION RESULTS SHOWED WEEPING/ POROUS CONDITION OVER 80 PERCENT OF THE CELL AND CELL TO BE BEYOND REPAIR. REPLACING CELL WITH SERVICEABLE UNIT. CELL DATE OF MANUFACTURE : 07/99, TOTAL TIME ON AIRCRAFT 1602.2

2004FA0000938	DOUG	PWC	HUB	CRACKED
12/16/2004	MD900	PW207E	900R2101006107	MAIN ROTOR

DURING ACCOMPLISHMENT OF AD 2002-10-05 "MAIN ROTOR UPPER HUB INSP" FOUND BOLT HOLES CRACKED AS DEPICTED IN MD HELICOPTERS SERVICE BULLETIN 900-072. PART TOTAL TIME: 1852 HRS

CA050117010	EMB	PWA	ENGINE	FAILED
12/4/2004	EMB110*	PT6A34		

(CAN) THE ENGINE WAS REPORTED TO HAVE EXPERIENCED AN INFLIGHT SHUTDOWN UNDER UNKNOWN CIRCUMSTANCES. SUBSEQUENT DISASSEMBLY REVEALED A SEIZED COMPRESSOR ROTOR AND METAL DEBRIS IN THE ENGINE OIL FILTER AND CHIP DETECTOR. MFG WILL MONITOR THE INVESTIGATION OF THIS EVENT AND WILL SUPPLEMENT THIS REPORT TO PROVIDE ROOT CAUSE, AS AND WHEN IT IS DETERMINED.

CA041029003	EMB	PWA	ENGINE	FAILED
9/10/2004	EMB110*	PT6A34		

(CAN) AN OIL PRESSURE FLUCTUATION WAS OBSERVED IN FLIGHT FOLLOWED BY A LOUD NOISE ACCOMPANIED BY A LOSS-OF-GENERATOR AND FIRE INDICATION. THE ENGINE WAS SECURED IN-FIGHT AND THE FIRE WARNING ABATED. A SINGLE-ENGINE LANDING PERFORMED. SUBSEQUENT INSPECTION REVEALED A FRACTURED REDUCTION GEARBOX SUN GEAR, FRACTURED POWER TURBINE AND COMPRESSOR TURBINE BLADES AND ASSOCIATED CASING DAMAGE. MFG WILL MONITOR THE INVESTIGATION OF THIS EVENT AND WILL AMEND THIS SDR TO REFLECT ROOT CAUSE ONCE IT HAS BEEN ESTABLISHED.

CA040708007	EMB	PWA	ENGINE	FAILED
7/6/2004	EMB110P1	PT6A34		LEFT

DURING CRUISE FLIGHT, THE CREW OBSERVED THE LT ENGINE T5 TEMPERATURE STARTING TOFLUCTUATE FOLLOWED BY A COMPLETE LOSS OF T5 TEMPERATURE INDICATION. ONCE ON THE GROUND, DURING A TROUBLESHOOTING MAINTENANCE RUN, IT WAS ALSO OBSERVED THAT THE ENGINE WAS MAKING ABNORMAL

CA040819010	FOKKER	RROYCE	PROBE	UNSERVICEABLE
8/18/2004	F28MK0100	TAY65015	853BR	PITOT

(CAN) NO AIRSPEED INDICATION ON F/O SIDE DURING T/O. T/O REJECTED. MAINTENANCE DID A PITOT/STATIC TESTED AND SYSTEM FOUND NORMAL. BOTH ADC COMPUTER INTERCHANGED FORT/S. THE FOLLOWING T/O WAS ALSO REJECTED FOR THE SAME REASON. MAINTENANCE FOUND THE RT F/O INTERNAL PITOT PROBE CONTAMINATED WITH RUST. THE PITOT PROBE WAS REPLACED AND AIRCRAFT DISPATCHED SERVICEABLE.

CA050119006	FOKKER	RROYCE	DISPLAY	FAILED
1/17/2005	F28MK0100	TAY65015	6228047541	COCKPIT

(CAN) DURING CLIMB, IT WAS OBSERVED THAT THE NR1 AND NR2 EMUX SINGLE CHANNELS FAILED. THE AIRCRAFT RETURNED TO BASE AND LANDED WITHOUT INCIDENT. THE NR1 AND NR2 MAIN FLIGHT DISPLAY UNITS WERE REPLACED AND CHECKED SERVICEABLE IAW MM 31-61-01. NO FURTHER INCIDENT DURING SUBSEQUENT FLIGHT.

CA040803009	FOKKER	RROYCE	VENT LINE	DISCONNECTED
7/29/2004	F28MK0100	TAY65015	A69351039	RT WING

(CAN) DEFECT WAS RECORDED, RT FUEL LEAK REPORTED FROM RT NACA FUEL VENT . THIS WAS SECOND OCCURRENCE. AFTER INSPECTION, MAINT DISCOVERED THAT FUEL VENT LINE WAS DISCONNECTED (SEPARATED) AND NOT LINED UP, (TO SHORT). PROBLEM WAS RELATED TO THE MFG NOT DELIVERING VENT LINES IAW DRAWING SPECIFICATIONS. AFTER MEASURING VENT LINES AND FIT CHECKS OF SEVERAL AC. IT APPEARED THAT BUILDING TOLERANCES WERE IN FACT CAUSING THE VENT LINES TO BE INSTALLED UNDER STRAIN AND IN COMBINATION WITH AC WING DYNAMICS DURING ITS OPERATION, THE VENT LINES MAY DISCONNECT FROM THEIR COUPLINGS, RESULTING IN FUEL LEAKING THROUGH VENT LINE FLAME ARRESTER. A REPAIR TO THE FUEL VENT LINE WAS CARRIED OUT IAW MFG LETTER TS04.52975. FO100.

CA041122009	FOKKER	RROYCE	ENGINE	VIBRATION
11/18/2004	F28MK0100	TAY65015	TAY6501510	NR 2

(CAN) AIRCRAFT ENCOUNTERED HI VIBRATION IN CLIMB ON NR2 ENGINE GAUGE, MFDS MESSAGE ALERT (REF JOURNEY LOG PAGE 031117). UNABLE TO MAINTAIN THRUST. THRUST WAS REDUCED BY .15 TO CLEAR ALERT. AIRCRAFT RETURNED TO BASE. MAINTENANCE TROUBLESHOT IAW AMM 71-00-00, 811-811A, STEP 101 TO 108.

VIBRATION SURVEY WAS C/OUT IAW AMM 71-00-00 AND VIBRATION WAS FELT AT0.6 IPS. THE NR2 ENGINE WAS REPLACED (P/N OFF: TAY650-15/10, S/N OFF: 17679,P/N ON: TAY650-15/10,S/N ON: 17653) IAW AMM 71-00-00 (REF TASK CARD 71-00-00-400-814-C).

CA041116004	FOUND	LYC	HINGE BRACKET	LOOSE
9/24/2004	FBA2C	AEIO540L1B5	S203307	STABILIZER

(CAN) DURING COMPLETION OF SGB 55-02R1 STABILIZER ATTACHMENT HINGE BRACKET BOLTS FOUND LOOSE (TURN BY FINGERS).

CA040913004	FOUND	LYC	HINGE	CRACKED
9/4/2004	FBA2C	IO540*	F5131	TRIM HINGE

DURING A ROUTINE MX INSPECTION, CRACK WAS DISCOVERED ON THE STABILIZER TRIM HINGE ASSY, (PORT SIDE) P/N: F513-1. TOTAL TIME ON AIRFRAME (AND PART) WAS 802 HOURS. THE CRACK WAS LOCATED BETWEEN THE RADIUS OF THE HINGE ARM AND LIGHTENING HOLE OF HINGE BODY. REPLACEMENT PARTS WERE INSTALLED AS PER MANUF INSTRUCTIONS PRIOR TO NEXT FLT. A/C MANUF HAS ISSUED S/B SB-55-02 HORIZ STABILIZER HINGE MOD FOR ALL MODELS FAC 2C1 A/C. THIS IS A 2-PART SERVICE BULLETIN. THE FIRST PART IS AN IMMEDIATE INSPECTION PRIOR TO NEXT FLT AND RE-INSPECTION EVERY 50 HOURS THEREAFTER UNTIL REPLACEMENT OF HINGES. THE SECOND PART OF THE SB IS IMMEDIATE REPLACEMENT OF HINGES IF CRACKS ARE DISCOVERED OR MANDATORY REPLACEMENT ON OR BEFORE NOVEMBER 30, 2004 WITH REDESIGNED ASSEMBLIES. NOTE: THE INSTRUCTIONS FOR CONTINUED AIRWORTHINESS FOR THIS MODEL A/C REQUIRE THAT ALL SERVICE BULLETINS ARE MANDATORY.

CA041117001	FOUND	LYC	SKIN	CRACKED
11/16/2004	FBA2C	IO540L1A5		FUSELAGE

(CAN) BELLY SKIN CRACKING AT VARIOUS (MULTIPLE POINTS) RIVETS LOOSENING ON INSPECTION COVER SKIN LAP RIVETS LOOSENING. SUSPECTED FROM TURBULENCE CREATED BY PROP INSTALLATION. REPAIRED BY PATCH AND REPLACEMENT OF RIVETS.

2005FA0000047	FRCHLD	GARRTT	STARTER GEN	FAILED
4/7/2004	SA227DC	TPE33111U	23079010	RIGHT

ON DESCENT RT GENERATOR FAILED, CREW TRIED TO RESET GEN, AS CREW WAS FOLLOWING PROCEDURES TO DETERMINE SOURCE OF MALFUNCTION, LT GEN TRIPPED OFFLINE, POSSIBLY DUE TO LOAD. LT GEN WAS RESET AND STAYED ON LINE BRIEFLY, THEN TRIPPED OFFLINE AGAIN. CREW WAS IN VFR CONDITIONS WITH AIRPORT IN SIGHT, LANDED WITHOUT INCIDENT. SUSPECTED GEN PARALLELING CIRCUIT PROBLEM, GCU OR STARTER GEN PROBLEM. AFTER EXTENSIVE TROUBLESHOOTING, DETERMINED THAT GENERATOR FUNCTION OF RT STARTER GENERATOR HAD FAILED. IT IS SUSPECTED THAT THER IS AN INTERNAL PROBLEM WITH STATOR WINDINGS. BRUSHES AND COMMUTER WERE INSPECTED AND FOUND IN GOOD SERVICEABLE CONDITION. START GEN TEARDOWN EVALUATION HAS BEEN REQUESTED.

2005FA0000054	FRCHLD	GARRTT	SEAL	PINCHED
8/11/2004	SA227DC	TPE33112UA	2724052005	CARGO DOOR

MRR-M04-12, CARGO DOOR WARNING LIGHT ON ANNUNCIATOR AND SECONDARY DOOR UNSAFE WARNING ON SIDE PANEL BOTH CAME ON DURING CLIMBOUT. CREW FOLLOWED PROCEDURES, RETURNED. CREW CHECKED CARGO DOOR HANDLE, FOUND FULLY STOWED UPON RETURN. RIGGING OR ADJUSTMENT OF DOOR. FOUND DOOR SEAL SHIMMED TO TIGHTLY AT DOOR LWR EDGE OPENING, CAUSING DOOR TO BE HARD TO CLOSE. SEAL WAS SHIMMED THIS TIGHTLY IN PART DUE TO SEAL NOT INFLATING TO FULL PRESSURE, DUE TO INFLATION LINE NOT BEING FULLY ALIGNED WITH FEED THROUGH FOR IT IN THE DOOR FRAME. DOOR SEAL WAS REPLACED, MAINTAINING ALIGNMENT OF SEAL. DOOR SEAL SWITCHES WERE ADJUSTED. CARGO DOOR WARNING SYS AND LATCH SYS WAS OPS CHECKED AND OPERATED CORRECTLY.

2005FA0000045	FRCHLD	GARRTT	DOOR	MALFUNCTIONED
3/20/2004	SA227DC	TPE33112UA		CARGO CLICKCLACK

THE CARGO DOOR WARNING LIGHT CAME ON DURING CLIMBOUT, CREW RETURNED TO THE STATION. ONE OF THE FOLLOWING: DOOR CLOSING PROCEDURES, DOOR HARD TO CLOSE, DOOR CLICK CLACK RIGGING/ LUBRICATION, OR SWITCH RIGGING. ALL SWITCHES AND CLICK CLACKS WERE INSPECTED AND LUBRICATED, NO

DEFECTS WERE NOTED. AIRCRAFT GROUND PRESSURIZATION RUN WAS PERFORMED, OPS CHECKED GOOD. (NM05200403789) (K)

2005FA0000056	FRCHLD	GARRTT	LINE	FAILED
10/14/2004	SA227DC	TPE33112UA		HYDRAULIC SYS

MRR-M04-15, BOTH HYDRAULIC PRESSURE LOW LIGHTS CAME ON INFLIGHT. CREW CHECKED GAGE AND FOUND HYDRAULIC PRESSURE AT (0). HYDRAULIC FLUID LOSS DO TO SYSTEM LEAK. REPLACED LINE IN LEFT WHEEL WELL. LEAK CHECKED ALL SYSTEM LINES AFTER REPAIR, NO ADDITIONAL LEAKS NOTED. (NM05200502367) (K)

2005FA0000044	FRCHLD	GARRTT	BLOCK	LEAKING
3/7/2004	SA227DC	TPE33112UA	8690671	BETA SYS

AFTER TURNING BLEEDS ON DURING CLIMB, CREW IMMEDIATELY NOTICED AN ODOR AND THEN SAW SMOKE. BLEEDS WERE TURNED OFF, CHECKLIST ITEMS COMPLETED. CHECKED FOR ANNUNCIATOR LIGHTS, PRESSURE INDICATIONS, AND FIRE LIGHT INDICATIONS, ALL WERE NORMAL. CREW RETURNED TO STATION AND LANDED WITH NO FURTHER INCIDENT. INITALLY SUSPECTED ACM FAILURE, BUT FOUND OIL LEAKING IN THE LT ENGINE SPINNER/ COWL AREA. TIGHTEN FITTING, SAFETIED AND PERFORMED GROUND RUN LEAK CHECK, OPS CHECK GOOD. PERFORMED OPERATIONAL CHECK FLIGHT, OPS CHECK GOOD. (K)

2005FA0000150	GROB		SWIVEL	CRACKED
11/24/2004	G120A		120A5211	NLG

INSPECTION OF NOSE GEAR UPPER TRUNNION BOLTS FOUND CRACKS AROUND WELDS AND ON THE EARS FOR THE SWIVEL TUBE. PROBABLE CAUSE EXCESSIVE STRESSES IN THIS AREA. AT THIS TIME NO RECOMMENDATION UNTIL MFG MAKES DETERMINATION OF CAUSES. (K)

2005FA0000112	GROB	LYC	IGNITION SWITCH	INOPERATIVE
1/18/2005	G120A	AEIO540*	103572101	COCKPIT

PILOT REPORTED STARTER WOULD NOT ENGAGE, AFTER FURTHER INVESTIGATION FOUND IGNITION SWITCH WAS BAD. NO PROBABLE CAUSE OR RECOMMENDATIONS AT THIS TIME. (K)

2005FA0000111	GROB	LYC	PUMP	SHEARED
11/17/2004	G120A	AEIO540D4D5	1U128006	VACUUM SYS

DURING RUN-UP OF AIRCRAFT PILOT REPORTED LOST OF INSTRUMENT VACUUM SUCTION. MAINTENANCE TECHNICIAN FOUND VACUUM PUMP HAD A BROKEN SHAFT. UPON REPLACEMENT OF VACUUM PUMP INSTRUMENT SUCTION WAS FOUND TO BE OK. RECOMMEND FINDING A REPLACEMENT THAT IS MORE DURABLE. (K)

CA040702004	GRUMAN	WRIGHT	O-RING	FAILED
6/28/2004	TS2ACALFORST	982C9HE2	MS28775212	ACTUATOR

(CAN) DURING CRUISE THE PILOT NOTED A RAPID DROP IN HYDRAULIC PRESSURE ON BOTH THE LT AND RT SIDE. THE AIRCRAFT DIVERTED COURSE. THE RETARDANT LOAD WAS JETTISONED AND THE FLAPS AND LANDING GEAR WERE LOWERED USING THE EMERGENCY HAND PUMP. THE AIRCRAFT LANDED WITHOUT INCIDENT. DURING INVESTIGATION BY MAINTENANCE IT WAS NOTED THAT THE SEAL IN THE NOSE LANDING GEAR ACTUATOR HAD FAILED CAUSING THE HYDRAULIC FLUID LOSS. THE ACTUATOR WAS REPLACED, AND A GEAR SWING WAS ACCOMPLISHED AFTER THE HYDRAULIC SYSTEM WAS PURGED AND REPLENISHED. THE AIRCRAFT WAS RETURNED TO SEVICE.

2005FA0000103	GULSTM	RROYCE	SKIN	CORRODED
9/2/2004	G1159	SPEY5118	1159W2000510	RT WING

DURING WING (RIGHT) NOT INSPECTION, EXFOLIATION CORROSION NOTED ON WING UPPER PLANK AND FRONT BEAM BETWEEN RBS 284 THRU 375. EXFOLIATION CORROSION REMOVED IAW SRM. REPAIRS COMPLETED.

2005FA0000269	GULSTM	RROYCE	COWLING	CORRODED
9/2/2004	G1159	SPEY5118	1159P203264	RT NACELLE

DURING RT ENGINE MID-LIFE UPDATES, RT FIXED COWL WAS INSPECTED AND CORROSION WAS NOTED. FIXED

COWL WAS REPAIRED.

2005FA0000267	GULSTM	RROYCE	BULKHEAD	CRACKED
9/2/2004	G1159	SPEY5118	1159B2156225	FUSELAGE

DURING COMPLIANCE OF NDT EDDY CURRENT INSP OF FS-793.75 BULKHEAD, CAP ANGLE WAS FOUND CRACKED. NEW CAP ANGLE WAS INSTALLED IAW DWG NR SE20000210, REV. D.

2005FA0000003	GULSTM		DOOR FRAME	CRACKED
12/9/2004	G1159B			DOOR

DURING AIRCRAFT 4000 LANDING INSPECTION, FOUND APPROX A 1 INCH CRACK AT THE UPPER FORWARD RADIUS OF DOOR FRAME. STOP DRILLED CRACK AND REPAIRED WITH AN OVERLAY DOUBLER IAW THE SRM. OVERLAY INSTALLED (WET) WITH PRC 1440. (K)

1624112304	GULSTM	RROYCE	TIRE	DAMAGED
12/1/2004	GIV	TAY6118	H34X9.2518	NR 4 POSITION

NR 4 TIRE WAS FOUND TO BE DAMAGED FOR SOME UNKNOWN REASON. THE DAMAGE WAS SUCH THAT IT APPEARED TO BE A FAILURE OF THE TREAD AREA. A SECTION LOCATED ON THE TIRE TREAD APPEARED TO HAVE BEEN RIPPED AWAY BY SOME UNKNOWN FORCE. NONE OF THE OTHER 3 TIRES DISPLAYED ANY VISIBLE DEFECTS, TRAUMA, OR DAMAGE. WEATHER AT THE LOCATION WAS FREEZING RAIN FOLLOWED BY SNOW AND ICE CONDITION. CAN NOT DETERMINE IF THE WEATHER HAD ANY EFFECT ON THE MALFUNCTION. (K)

2004FA0000922	GULSTM		TRUNNION PIN	CORRODED
11/22/2004	GV		1159SCL56613	MLG

AIRCRAFT IN MAINTENANCE FOR THE SCHEDULED 5 YEAR LANDING GEAR CORROSION INSPECTION. FOUND AFT TRUNNION PINS AND THRU BOLT PN: NAS1962C56 SEVERELY CORRODED. PART REPLACED WITH NEW.

2005FA0000418	HUGHES	LYC	SHAFT	WORN
1/7/2005	269C	HIO360*	269A5498005	DRIVE SPLINES

DURING ANNUAL INSPECTION GREASE IN LOWER PULLEY SHAFT HAD A RUSTY (BROWN) COLOR (NOTE: ANDEROL GREASE IS BLACK). UPON INSPECTION PART HAS 414.2 HOURS SINCE NEW, THE SPLINES WERE WORN BEYOND LIMITS. SPECULATION OF MFG AND OUR FACILITY IS THAT THE GREASE WAS CONTAMINATED. (K)

2005FA0000419	HUGHES	LYC	DRIVE SHAFT	CORRODED
1/7/2005	269C1	HIO360*	269A5559003	TAIL ROTOR

DURING 600 HOUR INSPECTION GREASE IN DRIVE SHAFT HAD A RUSTY (BROWN) COLOR (NOTE: ANDEROL GREASE IS BLACK). UPON INSPECTION PART HAS 600.0 HOURS SINCE NEW. LIFE LIMIT OF 6000 HRS, THE SPLINES WERE WORN TO THE THICKNESS OF A PIECE OF PAPER (APPROX .090 NEW). SPECULATION OF MFG AND OUR FACILITY IS THAT THE GREASE WAS CONTAMINATED. FIRST 600 HOUR INSPECTION ON THIS AC, SAME GREASE SINCE DELIVERY. (K)

2005FA0000420	HUGHES	LYC	SHAFT	WORN
1/7/2005	269C1	HIO360*	269A5498005	DRIVE SPLINES

DURING 600 HOUR INSPECTION GREASE IN LOWER PULLEY SHAFT HAD A RUSTY (BROWN) COLOR (NOTE: ANDEROL GREASE IS BLACK). UPON INSPECTION PART HAS 600.0 HOURS SINCE NEW, THE SPLINES SHOWED IRREGULAR WEAR. SPECULATION OF MFG AND OUR FACILITY IS THAT THE GREASE WAS CONTAMINATED. FIRST 600 HOUR INSPECTION ON THIS AC, SAME GREASE SINCE DELIVERY FROM MFG. (K)

CA041102002	HUGHES	LYC	CARRIAGE	CRACKED
11/2/2004	269C1	HO360C1A	269A5193001	M/R TRANSMISSION

DURING A SCHEDULED 4200 HR O/H THE ABOVE DESCRIBED CARRIER WAS FOUND TO HAVE 3 CRACKS AT 3 SEPARATE LOCATIONS IN THE CARRIER TO COUPLING MOUNTING HOLE LOCATIONS. THESE CRACKS WERE DETECTED DURING FLUORESCENT PENETRANT INSPECTION. FOR THE FUTURE A MIDLIFE INSPECTION MAY BE AN OPTION TO DETECT THESE CRACKS, AS THIS AREA HAS BEEN PRONE TO CRACKS IN THE PAST.

CA041013009	HUGHES	LYC	SCHLER	SWITCH	MALFUNCTIONED
10/7/2004	269C1	HO360C1A		M880511104	GRIP

(CAN)TRIGGER SWITCH MALFUNCTION, NO TRANSMISSION. REPLACED SWITCH P/N M8805/111-04.

CA040706002	HUGHES	LYC	CARBURETOR	FAILED
6/1/2004	269C1	HO360C1A	1060301	ENGINE

HIGH MANIFOLD PRESSURE. REPLACED CARBURETOR.

CA040601009	HUGHES	BLADE	UNSERVICEABLE
5/27/2004	369D	369D21100523	MAIN ROTOR

UPON INSPECTION, A LINE WAS NOTICED EXTENDING CHORDWISE FROM THE LOWER ROOT FITTING. AFTER REMOVING THE PAINT, THE DOULBER HAD ABOUT A 2.5 INCH CRACK THAT EXTENDED BOTH FOR AND AFT OF THE LOWER ROOT FITTING OF THE M/R BLADE. THE BLADE WAS REMOVED FORM SERVICE AND DISASSEMBLED. THE CRACK HAD GONE THRU THE MAIN SKIN OF THE BLADE AND THE DOUBLER. THE CRACK DID NOT GO THRU THE SPAR OF THE BLADE.

2005FA0000434	HUGHES	ALLSN	ENGINE	MAKING METAL
10/31/2004	369D	250C20B		

PILOT HAD ENGINE CHIP LIGHT ILLUMINATION FOLLOWED ALMOST IMMEDIATELY WITH A NOISE/VIBRATION, THEN A POWER LOSS/ DECEL. AC LANDED WITHOUT INCIDENT AND PILOT HAD TO SHUT OFF THE ENGINE. CHIP PLUGS AND OIL FILTERS WERE CONTAMINATED WITH METAL. DISASSEMBLY OF ENGINE AND ENGINE GEARBOX REVEALED A FAILURE OF THE 2.5 BEARING TO A POINT THAT .33 THE CIRCUMFERENCE OF THE SAG SHAFT, INNER RACE, WAS GOUGED TO AN APPROX DEPTH OF .040 INCH TO .045 INCH. NO OTHER SOURCE OF METAL WAS FOUND.

2005FA0000372	ISRAEL	HOUSING	CRACKED
11/21/2004	1124	ES12858501	NLG STRUT

AFTER LANDING, TAXIIED TO REPAIR SERVICE, THE NOSE STRUT BOTTOMS OUT, STOPPED AT RAMP. EXITED AC, NOTED A LARGE PUDDLE OF HYDRAULIC FLUID AROUND NLG. JACKED AC UP, NOTICED THE LARGE CRACK IN THE LOWER STRUT HOUSING, STARTING FROM BACK SIDE OF TORQUE KNEE ATTACH FITTING ON THE LOWER STRUT BODY. REMOVED NLG ASSY, DISASSEMBLED, INSP PN E51L858501 INNER BODY AND PN 52 NBC2064YZP BEARING CRACKED. THE CRACKS LOOKED LIKE THEY HAD STARTED BEFORE. PROBABLE CAUSE: NOT DISCONNECTING SICCORS PRIOR TO TOWING AC. (SW01200502590)

2005FA0000188	LEAR	GE	GE	PUMP	FLAKING
2/3/2005	24D	CJ6108		9234A8	RT ENG FUEL

THE INTERNAL COATING IN THE GEAR SECTION OF THE FUEL PUMP STARTED FLAKING OFF AND GOT INTO THE HIGH PRESSURE FUEL LINE THAT GOES TO THE JET PUMPS IN THE RT WING. THE MATERIAL CLOGGED UP THE ORIFICES IN THE JET PUMPS, NOT ALLOWING FUEL TO BE TRANSFERRED FROM THE TIP TANK TO THE WING. NOTE: THE FUEL PUMP HAD ABOUT 4400 HOURS SINCE O/H. THE DATE WAS 1994 AT O/H IAW SUBMITTER. (EA23200505548) (K)

2005FA0000106	LEAR	GARRTT	STARTER GEN	FAILED
9/24/2004	31A	TFE73123B	23080023	RT ENGINE

PILOT REPORTED VIBRATION, FOLLOWED BY RT GENERATOR INOPERATIVE LIGHT. PRECAUTIONARY ENGINE SHUTDOWN WAS DONE. REPLACED STARTER GEN, OPS NORMAL. A TEARDOWN REPORT WILL BE REQUESTED FROM VENDOR. (K)

2005FA0000096	LEAR	GARRTT	BOLT	CORRODED
12/6/2004	35A	TFE731*	26520023	ENG MOUNT

BOLT SHEARED AT THREADS DURING REMOVAL. SIGNS OF INTERNAL CORROSION ON BOLT.

CA040820001	LEAR	GARRTT	LINE	CRACKED

8/18/2004	35A	TFE73122B	2519C5912	OXYGEN SYS

(CAN) WHILE SERVICING THE TAIL MOUNTED OXYGEN BOTTLE, AFTER REPLACEMENT OF THE FILLER FITTING, AT ABOUT 300 PSI A LEAK WAS HEARD AND SMALL FLAME SEEN AT THE LINE LEADING TO THE CABIN, FORWARD OF THE BOTTLE. SYSTEM TURNS OFF. THE LINE HAD THREE CRACKS ON THE B-NUT FITTING. LINE REPLACED.

CA040716001	LEAR	GARRTT	PRESSURE BLKHD	TORN
7/16/2004	35A	TFE73122B		FUSELAGE

AIRCRAFT WAS PARKED ON THE RAMP. MAINTENANCE PERSONNEL WANT TO TOW THE AIRPLANE. WHEN STARTING TO PULL THE AIRPLANE THE NOSE LANDING GEAR ACTUATOR UPPER ATTACHMENT BRACKET FAILED. AFTER THE INCIDENT THE PRESSURE BULKHEAD FOUND TO BE TORN AT THE B.L 0.0 AT THE UPPER SECTIONS. ALSO, THE ACTUATOR UPPER ATTACHMENT SUPPORT BRACKET WAS TORN AT THE CONNECTION TO THE PRESSURE BULKHEAD. THE PARKING BRAKE WAS LEFT APPLIED.

CA040721001	LEAR	GARRTT	DRAIN LINE	BURST
7/20/2004	35LEAR	TFE73122B	24192273	AIR CON

DURING A SCHEDULE INSPECTION, FOUND AIR CONDITIONING DRAIN LINE BURST. THE INSPECTION OF THE CHECK VALVE WAS CARRIED AND VALVE FOUND TO BE OPERATIVE. DRAIN TUBE WAS REPLACED.

CA040715004	LEAR	GARRTT	BATTERY	INOPERATIVE
7/7/2004	45LEAR	TFE731*	7624308001001	EMERGENCY

DURING ENGINE START WITH GROUND POWER UNIT AND AVIONICS ON, ALL 4 DISPLAY UNITS WENT BLACK AND THEN LIT UP AGAIN AFTER ENGINE STARTED. MAINTENANCE DISCOVERED WITH A CAPACITY CHECK ON THE EMERGENCY BATTERY THAT 1 CELL HAD FAILED WHICH CAUSED THE VOLTAGE TO DROP BELOW 22 VOLTS UNDER A HEAVY LOAD. EMERGENCY BATTERY REPLACED. EMERGENCY BATTERY IS AN ON CONDITION ITEM WITH A CAPACITY CHECK EVERY 3 MONTHS. AS THIS BATTERY WAS OVER 5.5 YEARS OLD WE WOULD RECOMMEND A LIFE LIMIT OF NO MORE THAN 5 YEARS PUT ON THESE BATTERIES.

CA040527006	LEAR	GARRTT	CONTROL PANEL	FAILED
4/30/2004	45LEAR	TFE731*	700GC02Y07	POWER DIST

RT GENERATOR WILL DROP OFF LINE AFTER OPPOSITE ENGINE START. RT AFT POWER DISTRIBUTION PANEL REPLACER WITH NEW UNIT.

CA040527005	LEAR	GARRTT	CONTROL MODULE	STIFF
5/18/2004	45LEAR	TFE7312	6676101000013	THROTTLE

RT POWER LEVER 'PIGGYBACK' LEVER VERY STIFF, DIFFICULT TO MOVE TO STOW POSITION. THROTTLE CONTROL MODULE REPLACED.

CA040705003	LEAR	GARRTT	BELLCRANK	CRACKED
6/15/2004	45LEAR	TFE7312	4532103045002	MLG DOOR

(CAN) BELLCRANK CRACKED AT PIVOT POINT NEW BELLCRANK PT NR 4532103045-004 INSTALLED GEAR SWINGS COMPLETED.

CA040705007	LEAR	GARRTT	PNEUDRAULICS	SWITCH	OUT OF TOLERANCE
6/22/2004	45LEAR	TFE7312		6632303003001	ACTUATOR

(CAN) GEAR WOULD NOT RETRACT ON 1ST ATTEMPT, 2ND ATTEMPT WAS SUCCESSFUL FOUND ACTUATOR SWITCH OUT OF TOLERANCE ACTUATOR REPLACED WITH OVERHAULED UNIT GEAR SWINGS COMPLETED.

CA040705008	LEAR	GARRTT	POWER UNIT	NOISY
6/10/2004	45LEAR	TFE7312	C1444831	TE FLAPS

(CAN) FLAP POWER UNIT NOISY/SLOW, REPLACED WITH OVERHAULED UNIT.

2005FA0000407	LEAR	PWA	STRUT	DAMAGED
3/8/2005	60LEAR	PW305	2342100022	NLG

DURING 300 HOUR INSPECTION (GEAR SERVICE) THE INNER STRUT CHROME WAS FOUND DAMAGED APPROXIMATELY .001 INCH DEEP. PROBABLE CAUSE: WEAR OF SEALS CAUSING THE UPPER CAM TO CONTACT THE INNER CYLINDER. INSPECTION REPACK OF THE NOSE LANDING GEAR ASSY AT 3,000 LANDING INSPECTION. (EA09200504488) (K)

2005FA0000113	LEAR	PWA	PISTON	DAMAGED
10/19/2004	60LEAR	PW305A	60411022	RT MLG STRUT

DURING 3000 LANDING INSPECTION OF MLG UPPER BEARINGS AND RETENSION PINS, FOUND RT MLG PISTON TO HAVE A SECTION OF CHROME MISSING APPROX .250 INCH X .10 INCH AND AREA WHERE THE CHROME HAS CIRCUMFERENCE CRACKS MEASURING AN AREA OF APPROX 3.0 INCH X 1.0 INCH. MANUFACTURE TO EVALUATE. (K)

CA050105012	LEAR	PWA	SENSE LINE	BROKEN
12/23/2004	60LEAR	PW305A	30B1695	P 2.8

(CAN) CREW REPORTED COMPRESSOR STALL DURING TAKE-OFF. SUBSEQUENT INVESTIGATION REVEALED A BROKEN P2.8 BLEED VALVE (BOV) SENSE LINE.

CA040720005	LKHEED	ALLSN	PROPELLER	MALFUNCTIONED
7/17/2004	188A	501D13	A6441FN606	ENGINE

PROPELLER OVERSPEED ON DESCENT INTO XXXX, THE ENGINE WAS SHUT DOWN AND AIRCRAFT LANDED WITHOUT INCIDENT. PROP ASSEMBLY WAS CHANGED, GROUND RUN AND PITCH LOCK TESTED SERVICABLE. AIRCRAFT WAS RETURNED TO SERVICE.

CA050106001	LKHEED		BEARING	MISMANUFACTURED
1/5/2005	C130A		CB17663	FLAP CARRIAGE

TECHS FOUND DIFFICULTY WHILE ATTEMPING TO GREASE NEWLY INSTALLED FLAP CARRIAGE BEARINGS. BEARINGS WOULD NOT ACCEPT GREASE AS DIRECTED BY THE MM. A RECALL & INSPECT OF ALL INVENTORIED BEARINGS CARRIED OUT AT SPAR QUALITY DEPARTMENT. BEARINGS IN QUESTION WERE ACQUIRED AS NEW PARTS ACCOMPANIED BY PROPER PART CERTIFICATIONS. BEARINGS WERE MANUFACT UNDER P/N CB17663. ALL INSPECTED & RECALLED BEARINGS WERE FROM PRODUCTION LOTS 64598, 61262, 61077. A TOTAL OF 120 BEARINGS EXAMINED. A FAILURE RATE PER LOT FROM 25-50 PERCENT. OBSERVED THAT WHEN GREASE APPLIED THROUGH APPROPRIATE NEEDLE ZERK, THE ORFICE BALL FORCED TO BOTTOM OF THE GREASE ORFICE BLOCKING THE ENTRY OF GREASE TO THE BEARING SURFACE.

2004FA0000858	MOONEY	LYC	ANGLE	CORRODED
8/27/2004	M20C	O360*	35011007	FUSELAGE

CROSS MEMBER AT STA 103, SUPPORT RUDDER, ELEVATOR PUSH ROD HANGER AND SUPPORTS A HANGER FOR TAIL TRIM TUBE. (GL11200413706)

CA040712009	MOONEY	LYC	BLOCK	CORRODED
6/2/2004	M20E	IO360A1A	240014901	TE FLAP HINGE

3 HINGE BLOCKS HAD SEVERE EXFOLIATION CORROSION OVER MUCH OF THEIR SURFACE. ONE BLOCK WAS SPLIT IN HALF AT THE LEADING EDGE. THE FLAP ITSELF HAD MINOR SURFACE CORROSION. THE LEFT FLAP WAS FOUND IN NORMAL CONDITION. THE HINGE BLOCKS WILL BE REPLACED WITH NEW ONES BY AMO

2005FA0000232	MOONEY	LYC	WARNING SWITCH	LOOSE
8/8/2004	M20F	IO360A1A	V31	MLG

LANDING GEAR WARNING SWITCH FOUND LOOSE ON THE ATTACH AREA OF THROTTLE CABLE CAUSING INTERMITTENT OPERATION OF HORN. SCREWS WERE TIGHTENED AND SYSTEM OPERATES NORMALLY.(K)

2005FA0000123	MOONEY	LYC	CYLINDER	FAILED
11/16/2004	M20J	IO360A3B6		NR 2

PILOT REPORTED THAT ENGINE BEGAN RUNNING ROUGH. READINGS FORM THE ENGINE MONITOR SHOWED THAT NR 2 CYLINDER FAILED. PILOT ELECTED TO LAND. INVESTIGATION SHOWED THAT BOTH UPPER THROUGH

BOLTS AND BOTH UPPER CYLINDER ATTACH STUDS FOR NR 2 CYLINDER HAD FAILED AT THE CYLINDER FLANGE. THE LOWER AT THROUGH BOLT FOR NR 1 CYLINDER WAS ALSO FOUND FAILED AT THE CYLINDER FLANGE. ALL 4 CYLINDERS HAD BEEN REPLACED 205.2. HOURS PREVIOUSLY AT 4177.7 HOURS. FAILURE OF THE STUDS AND BOLTS APPEARS TO BE CONSISTENT WITH EITHER UNDER TORQUE OR OVER-TORQUE OF THE NUTS AT INSTALLATION. (K)

2005FA0000095	MTSBSI	GARRTT	BEARING SUPPORT	LOOSE
12/3/2004	MU2B40	TPE331*	23046110	BEARING

DURING 400 HOUR SPECIAL ENGINE INSPECTION OF STARTER GENERATOR THE AFT BEARING RETAINER SCREWS WERE FOUND BACKED OUT, WHICH CAUSED AFT BEARING TO BE LOOSE. BEARING FAILURE CAN CAUSE CATASTROPHIC FAILURE OF STARTER GENERATOR. 4 MS3526543 SCREWS HOLD RETAINER TO FRAME. THE SCREWS HAVE HOLES IN HEAD FOR SAFTEY WIRE, BUT WERE NOT SAFTIED. THE AVAILABLE CMM FOR THE S/G DOES NOT MENTION SAFTEYING THESE SCREWS. SCREWS TIGHTENED AND SAFTIED AND UNIT PUT BACK IN SERVICE. SUGGEST OPERATORS OF AIRCRAFT PERIODICALLY REMOVE UNIT AND COOLING FAN COVER AND ENSURE BEARING RETAINER IS SECURE. (K)

2005FA0000124	MTSBSI	GARRTT	HOUSING	FAILED
1/24/2005	MU2B60	TFE731*	3101320	SCAV PUMP

IN FLIGHT, PILOT NOTICED FLUCTUATING OIL PRESSURE AND TORQUE. PRECAUTIONARY LANDING MADE, FOLLOWING TROUBLESHOOTING ENGINE WAS DISASSEMBLIED GEARBOX SCAVENGE OIL PUMP WAS CRACKED. APPROXIMATELY 7 HOURS PRIOR, THE NR 8 STAINLESS OIL SCAV. LINE CRACKED. APPROXIMATELY 7 HOURS PRIOR THE NR 8 STAINLESS OIL SCAV LINE CRACKED. IT IS BELIEVED OIL PRESSURE CYCLING FROM LINE FAILURE FRACTURED SCAV PUMP HSG REPLACED PUMP. (K)

2005FA0000118	MTSBSI	GARRTT	LINE	CRACKED
1/21/2005	MU2B60	TPE33110	035A470105	GEARBOX

NR 8 SCAVENGE OIL LINE FROM ENGINE GEARBOX TO VERNATHERM CRACKED INSIDE THE B-NUT SLEEVE AT GEARBOX. THIS LED TO SIGNIFICANT LOSS OF OIL AND A PRECAUTIONARY SHUTDOWN IN FLIGHT. AC RETURNED DEPARTURE, UNEVENTFUL LANDING, REPLACED OIL LINE. (K)

2005FA0000401	MTSBSI	GARRTT	RING GEAR	BROKEN
3/3/2005	MU2B60	TPE33110	8967451	REDUCTION G/B

ON 2/26/2005, AN UNCOMMANDED, INFLIGHT CONTAINED SHUTDOWN OCCURED ON THE LT ENGINE DUE TO A GEARBOX FAILURE. THE AIRCRAFT WAS NOT DAMAGED AND MADE A NORMAL LANDING. INVESTIGATION IN THE ENGINE GEARBOX REVEALED THAT THE RING GEAR SUPPORT AND PLANETARY SPUR GEAR WERE BROKEN. (K)

2005FA0000400	MTSBSI	GARRTT	PLANETARY GEAR	FAILED
3/3/2005	MU2B60	TPE33110	8962321	REDUCTION G/B

ON 2/26-2005 AN UNCOMMANDED, INFLIGHT CONTAINED SHUTDOWN OCCURED ON THE LT ENGINE DUE TO A GEARBOX FAILURE. THE AIRCRAFT WAS NOT DAMAGED AND MADE A NORMAL LANDING. INVESTIGATION IN THE ENGINE GEARBOX REVEALED THAT THE RING GEAR SUPPORT AND PLANETARY SPUR GEAR WERE BROKEN. (K)

CA040720001	MTSBSI	GARRTT	SKIN	LIGHTNING STRIKE
7/13/2004	MU2B60	TPE33110		PROPELLER

IN CRUISE OUT OF JFK NOTICED LIGHTNING STRIKE ON LEFT PROP/SITUATION WAS EVALUATED AND ALL PARAMETERS WERE NORMAL. FLIGHT WAS CONTINUED AND UPON LANDING ON YOW BASE NOTICED UPON CLOSE INSPECTION: LEFT PROP BLADE DAMAGED, PROP REPLACED. LEFT OUTBOARD AILERON TAB DAMAGED, TAB REPLACED. REAR ELEVATOR QUADRANT DAMAGED, QUADRANT REPLACED. LOWER ELEVATOR CABLE DAMAGED, CABLE REPLACED. ELEVATOR SERVO CABLE DAMAGED, CABLE REPLACED. REAR NAV LIGHT DAMAGED, NAV LIGHT ASSEMBLY REPLACED. LEFT ENGINE REMOVED FOR INTERNAL INSPECTION, IAW/MM-CH 72-00-27R10 AND PARTS REPLACED AS REQUIRED.

CA040721003	NAMER	PWA	PISTON	BROKEN
7/16/2004	HARVARDMK4	S3H1	PN15373	NR 1 CYLINDER

PILOT EXPERIENCED PARTIAL POWER INTERUPTION ON TAKEOFF. ABORTED TAKEOFF. BORESCOPE INSPECTION

DISCOVERED BROKEN PISTON IN NR 1 CYLINDER. PISTON REPLACED WITH OVERHAULED ASSEMBLY AND ENGINE RE-ASSEMBLED AND TESTED SERVICEABLE.

CA040712004	PIAGIO	PWA		VALVE	FAILED
7/8/2004	P180	PT6A66		BYLB51824	DE-ICE SYSTEM

PILOTS REPORTED GREEN WING DE-ICE LIGHT CAME ON LEFT SIDE AFTER WING DE-ICE WAS SELECTED OFF AND REMAINED ON FOR FLIGHT. THE LEFT WING VALVE WAS REMOVED AND FOUND TO BE NOT COMPLETELY CLOSED.

CA040528003	PIAGIO	PWA	PIAGIO	LINE	DAMAGED
5/16/2004	P180	PT6A66		80197035099	BRAKE SYSTEM

THE BRAKE LINE WAS FOUND WITH MECHANICAL DAMAGE DURING THE 600 HOUR INSPECTION. DAMAGE TO THE LINE WAS ON THE UNDER SIDE AND COULD ONLY BE SEEN WITH A MIRROR. THE LINE IS LOCATED OVER A FLIGHT CONTROL CABLE WITH ABOUT 3 INCHES OF CLEARANCE. THE MARKS ON THE LINE ARE 90 DEGREES TO THE MOVEMENT OF THE FLIGHT CONTROL SO THE DAMAGE COULD NOT HAVE BEEN CAUSED BY THE CABLE. THERE WAS NO SIGN OF DEBRIS UNDER THE LINE TO INDICATE DAMAGE.

CA040908002	PIAGIO	PWA		CONTROL UNIT	FROZEN
9/3/2004	P180	PT6A66		580500018	LT PROPPELLER

(CAN) LT CONDITION LEVER FROZEN, BECAME INOPERABLE AT ALTITUDE.

CA040909010	PILATS	PWA		BOOT	MALFUNCTIONED
9/8/2004	PC1245	PT6A67B		4E305110	PROPELLER

(CAN) PILOT REPORTED A PROP DEICE MALFUNCTION AS INDICATED ON THE CAWS PANEL. ONE PROP BOOT WAS FOUND WITH AN OPEN CIRCUIT. BOOT REPLACED WITH NEW, RETURNED TO SERVICE.

CA040811005	PILATS	PWA		TIRE	LEAKING
8/9/2004	PC1245	PT6A67B		85010	MLG

(CAN) TIRE WAS LOOSING AIR PRESSURE, ON INVESTIGATION IT WAS NOTED THAT THE AIR WAS LEAKING FROM HOLES THAT ARE LOCATED JUST UP FROM THE BEAD/SEAT AREA, APPARENTLY TO VENT AIR FROM BETWEEN THE LAYERS OF THE RUBBER. THIS IS THE THIRD TIME THAT WE HAVE CHANGED A MFG TIRE FOR THIS REASON.

CA050105009	PILATS	PWA		GENERATOR	DIRTY
1/5/2005	PC1245	PT6A67B		524321215	NR 2

(CAN) DURING CRUISE FLIGHT, GEN 2 TRIPPED OFF LINE. PILOT TRIED TO RESET WITH NO SUCCESS, AND THEN RETURNED TO BASE. INVESTIGATION REVEALED THE ARMATURE TO BE VERY DIRTY. ARMATURE CLEANED, AIRCRAFT GROUND RUN AND FUNCTION TEST PREFORMED SATISFACTORY.

CA050107002	PILATS	PWA	PILATS	BOLT	BROKEN
1/4/2005	PC1245	PT6A67B		5321012077	MLG

LOWER LANDING GEAR ACTUATOR BOLT ON LEFT GEAR LEG MISSING BOLT HEAD.

CA040526009	PILATS	PWA		RELAY	FAILED
5/25/2004	PC1245	PT6A67B		9742001902	TE FLAPS

AFTER LANDING PILOTS TRIED TO RETRACT THE FLAPS BUT COULD NOT GET THEM TO MOVE. AIRCRAFT WAS INSPECTED AND FLAP UP RELAY WAS FOUND TO HAVE FAILED, P/N 974.20.01.902. RELAY WAS REPLACED AND FLAP SYSTEM TESTED. AIRCRAFT RETURNED TO FLIGHT LINE.

CA040621007	PILATS	PWA		PROXIMITY SWITCH	FAILED
6/4/2004	PC1245	PT6A67B		9733033111	NLG

NOSE GEAR DOWN PROXIMITY SWITCH NOT GIVING DOWN AND LOCKED INDICATIONS ON NOSE GEAR. REOCCURRING PROBLEM AROUND THE 9000-10000 CYCLE RANGE ON PC-12'S. PC-12'S INCORPORATE THESE SWITCHES IN THE NOSE GEAR UP AND DOWN LOCK INDICATION POSITIONS THE MAIN GEAR UPLOCK POSITIONS

AND THE MAIN GEAR WEIGHT ON WHEEL POSITIONS.

CA040621002	PILATS	PWA	DRIVE ASSY	CRACKED
6/3/2004	PC1245	PT6A67B	5275212154	FLAP

RT INBOARD FLAP DRIVE ARM FOUND CRACKED DURING SCHEDULED MAINTENANCE AT THE ATTACHMENT POINT OF THE FLAP INTERCONNECT CABLE. FREQUENT FREEZING OF THE FLAP INTERCONNECT CABLE BELIEVED TO BE THE CAUSE OF PROBLEM. PILATUS SB 27-010 STATES THAT THE DISCONNECTION OF THE INTERCONNECT CABLE WILL HAVE 'NO EFFECT ON AIRCRAFT SAFETY'. THEREFORE, THE MAINTENANCE DEPARTMENT AND THE FLIGHT CREWS HAVE COME TO THE CONSENSUS THAT THE CABLE SHOULD BE PERMANENTLY REMOVED AND AN AMENDMENT MADE TO THE PILOTS OPERATING HANDBOOK. REMOVAL OF CABLE CANNOT BE ACCOMPLISHED UNTIL APPROVAL IS GIVEN BY PILATUS.

CA040621004	PILATS	PWA	SWITCH	STICKING
6/4/2004	PC1245	PT6A67B	9733031215	TE FLAPS

FLAP UP SWITCH STICKING IN ALL ENVIRONMENTAL CONDITIONS CAUSING FLAP FAILURES IN FLIGHT AND ON GROUND. FLIGHT CREWS SHOULD BE AWARE THAT IF FAILURE OCCURS AND FLAPS ARE SET AT 15, 30 OR 40. THE ONBOARD COMPUTER WILL NOT GIVE THE AIRSPEED WARNING AT 165 KTS. BETTER SEALS OR DUST CAPS MAY SOLVE THE PROBLEM.

CA040621005	PILATS	PWA	PRESSURE SWITCH	LEAKING
6/9/2004	PC1245	PT6A67B	9738114304	HYD SYSTEM

LOW PRESSURE HYDRAULIC SWITCH (P/N 973.81.14.304) LEAKING FROM VENT HOLE. SIMILAR PROBLEMS FOUND WITH HIGH PRESSURE SWITCH (P/N 973.81.14.306).

CA040601010	PILATS	PWA	PRESSURE SWITCH	LEAKING
5/31/2004	PC1245	PT6A67B	9738114304	HYD SYSTEM

HYD PRESSURE SWITCH WAS FOUND TO HAVE A SLIGHT SEEPAGE OF HYDRAULIC FLUID AT THE SWITCH BODY SEAM. SWITCH REPLACED WITH NEW, GROUND CHECKS SATISFACTORY.

CA040601011	PILATS	PWA	ANNUNCIATOR	INOPERATIVE
5/31/2004	PC1245	PT6A67B		AUTOPILOT

'FD' ANNUNCIATOR LIGHT INOP. FLIGHT DIRECTOR COMMAND BARS FUNCTION OK. UNIT REPAIRED AT LOCAL AVIONICS FACILITY, REINSTALLED.

CA040601012	PILATS	PWA	HEATER	INOPERATIVE
5/31/2004	PC1245	PT6A67B		PITOT TUBE

P-S 2 FAIL INDICATION. NR 2 PITOT HEAT FOUND INOP. PITOT TUBE ASSY REPLACED WITH NEW. AIRCRAFT TTAF 3710.72576 CYC.

CA040616003	PILATS	PWA	RELAY	FROZEN
6/9/2004	PC1245	PT6A67B	9740926112	MLG

LANDING GEAR MOTOR CONTINUED TO RUN AFTER LANDING GEAR WAS DOWN AND LOCKED. AIRCRAFT LANDED AND TAXIED TO APRON. FLIGHT CREW TURNED OFF MASTER TO STOP MOTOR FROM RUNNING. MAINTENANCE WAS CALLED TO PULL UNDER FLOOR POWER PACK CIRCUIT BREAKER. MAINTENANCE CHECKED POWER PACK FOR A POSSIBLE OVER TEMPERATURE CONDITION BUT FOUND POWER PACK COOL. AIRCRAFT TAXIED TO HANGAR. LANDING GEAR MOTOR RELAY CONTACTS FOUND FROZEN IN THE CLOSED POSITION. MAIN GEAR RELAY REPLACED, SYSTEM FUNCTION TESTED SERVICEABLE IAW PC12/45 MAINTENANCE MANUAL ATA CHAPTER 29.

CA040616004	PILATS	PWA	SWITCH	STICKING
6/4/2004	PC1245	PT6A67B	9733031216	TE FLAPS

FLAP DOWN SWITCH IS STICKING IN ALL ENVIRONMENTAL CONDITIONS CAUSING FLAP FAILURES BOTH IN FLIGHT AND ON THE GROUND. BETTER SEALS OR DUST CAPS MAY SOLVE THE PROBLEM.

CA040616005	PILATS	PWA	FAIRING	CRACKED
6/3/2004	PC1245	PT6A67B	15702100	MLG

CRACKS FOUND AROUND SCREW HOLES ON MAIN WHEEL FAIRING. REOCCURRING PROBLEM ON MANY OF OUR AIRCRAFT. AVERAGING 600 TO 700 HOURS PER FAIRING.

CA040616007	PILATS	PWA	BUSHING	WORN
6/9/2004	PC1245	PT6A67B	5322012078	NLG

EXCESSIVE UP AND DOWN MOVEMENT FOUND IN STEERING SECTION OF NOSE LANDING GEAR. BRONZE BUSHINGS FOUND TO BE WORN (P/N 532.20.12.078) IT IS BELIEVED THAT WHEN GREASING THE NOSE GEAR ASSEMBLY, THE CONTACT SURFACES OF THE BUSHINGS ARE NOT GETTING PROPER LUBRICATION BECAUSE THE SPLIT PINS THAT ARE USED TO RETAIN THE BUSHINGS ARE ALLOWING GREASE TO ESCAPE AND THEREFORE GREASE IS NOT GETTING BETWEEN THE SURFACES. PLUGGING THE HOLES IN THE SPLIT PINS MAY SOLVE THE PROBLEM BECAUSE THE GREASE WILL THEN BE FORCED UP TO THE BEARING CONTACT SURFACES.

CA040616008	PILATS	PWA	HANDLE	BROKEN
6/3/2004	PC1245	PT6A67B	5521012187	PAX DOOR

INNER PASSENGER DOOR HANDLE BROKE OFF WHEN TRYING TO OPEN DOOR. THIS IS A REOCCURRING PROBLEM BELIEVED TO BE CAUSED BY A COMBINATION OF FACTORS INCLUDING:1) CONDENSATION IN THE DOOR CAUSES TO UNLOCKING MECHANISM CABLE TO FREEZE.2) THE SPRING USED ON THE SECONDARY LOCKOUT IS TOO WEAK.3) AND EXCESSIVE MACHINING OF THE DOOR HANDLE ITSELF. BY INCREASING THE SPRING TENSION AND REDUCING THE MACHINING DONE TO THE DOOR HANDLE THIS PROBLEM MAY BE REMEDIED.

CA040616010	PILATS	PWA	BRACKET	CRACKED
6/3/2004	PC1245	PT6A67B	5521012179	PAX DOOR

COUNTERBALANCE BRACKET ON PASSENGER DOOR FOUND CRACKED ON SCHEDULED INSPECTION. THE BRACKET IS OFTEN FOUND LOOSE DUE TO THE RIVETS USED ON INSTALLATION ARE NOT OF SUFFICIENT STRENGTH. RECOMMEND USING STRUCTURAL SCREWS OR BOLTS TO SECURE BRACKET TO PREVENT FURTHER OCCURRENCES.

2005FA0000135	PILATS	PWA	PITOT TUBE	OUT OF POSITION
10/1/2004	PC1245	PT6A67B		PITOT/STATIC SYS

PILOT LOST AIRSPEED INDICATION ON A POST 91 FLIGHT. AIRCRAFT RETURNED, FOUND PITOT TUBE SLIPPED OUT FROM B-NUT AT T-FITTING, BEHIND INTERIOR PANEL ON RT SIDE, APPROXIMATELY AT FRAME 23. SUSPECT TUBING INSERT WAS NOT INSERTED FAR ENOUGH INTO TUBING DURING MANUFACTURE. (K)

CA040730002	PILATS	PWA	CONTROL VALVE	INOPERATIVE
7/25/2004	PC1245	PT6A67B	959902013	TEMP

DURING CRUISE, THE AIR TEMP SELECTOR WHILE IN AUTO MODE WAS MOVED TO A MORE COOL POSITION, WITH NO EFFECT. ECS SWITCH WAS MOVED TO MANUAL MODE AND MORE COOL WAS TOGGLE WITH THE MANUAL SWITCH. AIR TEMP STILL NOT GETTING COOLER. MINUTES LATER THE ECS CAUTION AMBER ADVISORY LIGHT LIT AND FLIGHT WAS RESUMED TO HOME BASE AS PER FLIGHT MANUAL. THIS PROCEDURE WAS TRIED A FEW TIMES WHILE EN ROUTE WITH THE SAME RESULT.

CA040730009	PILATS	PWA	SKIN	WORN
7/27/2004	PC1245	PT6A67B	555401203	RUDDER

(CAN) THE UPPER ATTACHMENT HOLE WAS FOUND WORN. THE HOLE WAS SO LARGE THAT IT COULD NOT BE REPAIRED IAW MFG TECH MEMO ECE-12-TM-02-327. IN ORDER TO SEE THE BOLT AND DAMAGE AREA, PANEL 32AT HAD TO BE REMOVED TO SEE THE DEFECT. THIS PANEL IS NOT NORMALLY CALLED UP FOR REMOVAL ON ANY INSPECTIONS, BUT ONLY TO REMOVE THE RUDDER.

2005FA0000173	PIPER	LYC	LINK	FAILED
10/12/2004	PA18150	O320*	472681	TAIL WHEEL

ON LANDING ROLLOUT, AIRCRAFT DRIFTED TO THE LT AND WENT INTO SOFT GROUND, COMING TO REST ON IT`S

NOSE. FOUND LINK (PN 472681) PARTIALLY STRAIGHTENED, CAUSING THE RT TAIL WHEEL SPRING ASSY TO FAIL. (K)

2005FA0000304	PIPER	LYC	CYLINDER HEAD	CRACKED
2/7/2005	PA23250	IO540C4B5	LW12425	ENGINE

DESCENDING IN FLIGHT NR 3 CYL ON RT ENG FAILED. ENG WAS SHUTDOWN AND FEATHERED. AC LANDED WITHOUT FURTHER INCIDENT. THERE WAS NO FIRE. POST INCIDENT INSP OF AREA FOUND, CYLINDER HAD CRACKED AND DISLOCATED AT INTERFACE AREA OF STEEL BARREL AND CYLINDER HEAD. INTAKE PUSHROD HAD SEPARATED AND WAS LYING ON THE CYLINDER HEAD, WITH CONSIDERABLE OIL LOSS. FURTHER INSP FOUND ENGINE BAFFLING INTACT AND CORRECTLY POSITIONED. CYLINDER PRESENTED NO OBVIOUS FLAWS AT THE MOST RECENT INSP, WITH OIL CONSUMPTION AND COMPRESSION WITHIN NORMAL LIMITS. IT IS SUSPECTED THAT A DEFECT IN CYLINDER REPAIR PROCESS (I.E., GRINDING) ALLOWED AN ABNORMAL STRESS CONCENTRATION TO CAUSE A FAILURE. CYL WAS REGROUND AND HONED TO P.010. (K)

2005FA0000119	PIPER	LYC	BEARING	FAILED
1/10/2005	PA23250	IO540C4B5	67542	MAGNETO DRIVE

CUSTOMER COMPLAINED OF A VIBRATION ON RT ENGINE. INSPECTION REVEALED CAGE FAILURE OF THE RT MAGNETO DRIVE GEAR BEARING (PN 67542). CAUSE OF CAGE FAILURE NOT KNOWN. CANNOT RECOMMEND ACTION TO PREVENT REOCCURRENCE. (K)

2005FA0000015	PIPER	LYC	ROD END	BENT
11/20/2004	PA23250	TIO540*	762365	LT MLG ACTUATOR

DURING ROLL-OUT AFTER LANDING, THE LT MAIN GEAR COLLAPSED, INVESTIGATION WHILE THE AIRCRAFT WAS ON JACKS. REVEALED THAT THE ACTUATOR ROD END WAS BENT. (NE03200504405) (K)

CA040601004	PIPER	LYC	LYC	GEAR	BROKEN
5/20/2004	PA23250	TIO540C1A			CRANKSHAFT

RIGHT ENGINE STOP DURING FLIGHT. FOUND SPRING PIN OF CRANKSHAFT GEAR BROKEN. WHEN THE CRANKSHAFT WAS REMOVED, THE CHANKSHAFT BOLT SHEARED AND BROKE EASILY. THIS BOLT IS SUBJECT TO AD 2002-23-06AND AD 2004-04-25C. THE NEW BOLT KIT WAS REPLACED (MARCH 18, 2003 - REFER TO PURCHASE ORDER 11618) 343.4 HOURS BEFORE THE ENGINE STOP INCIDENT. THE NEW BOLT KIT P#N 05K19987 WERE SUPPLIED BY AVIALLON PURCHASE ORDER 11600 (01/22/2003)

2005FA0000172	PIPER	LYC	STRUT	CORRODED
10/26/2004	PA24260	IO540*	2705301	RT MLG

PERFORMING ROUTINE SERVICE, THE RT MLG STRUT WAS FOUND LEAKING 5606 HYDRAULIC FLUID. DISCOVERED THAT THE STEEL (4130) ATTACHMENT FOR THE GEAR DOOR HAD CREATED DISSIMILAR METAL CORROSION AND CREATED A PIN HOLE LEAK. THIS PART NEEDS TO BE REMOVED AND CHECKED TO PREVENT THIS FROM RE-OCCURRING.

2005FA0000374	PIPER	LYC	SPAR	CRACKED
10/15/2004	PA24260	TIO540*	2072910	RUDDER

DURING SERVICE OF AIRCRAFT THE RUDDER WAS REMOVED. NOTHING WAS FOUND ABNORMAL. REMOVAL OF THE UPPER RUDDER HINGE (PN 2018300. CRACKS WERE FOUND AT THE HINGE ATTACH POINT OF THE RUDDER SPAR (2072910). (WP07200505589) (K)

2005FA0000039	PIPER	LYC	MOUNT	BROKEN
12/7/2004	PA28140	O320*	79584008	ENGINE

FOLLOW A LANDING, THE FORWARD AND AFT MOUNTING THAT SECURE THE ALTERNATOR TO THE AIR CONDITIONER MOUNT BROKE, ALLOWING THE ALTERNATOR TO SLIP, STRIKING AND DAMAGING THE LOWER NOSE BOWL.

2005FA0000398	PIPER	LYC	ENCODER	LEAKING
2/24/2005	PA28140	O320*		ALTIMETER

UNIT HAS INTERNAL LEAK. LEAK PROBABLE CAUSE DUE TO AGE. DISCREPENCY FOUND DURING MODE C AND ALTIMETER CORRELATION CHECK IAW AC43.6B. (K)

2005FA0000411	PIPER	LYC	PISTON RING	BROKEN
10/31/2004	PA28151	O320D3G	SL3601SC	ENGINE

ON NIGHT IFR FLIGHT, DEPARTED WITH 7.5 QTS OF OIL IN THE ENGINE. WHEN ARRIVED AT DESTINATION 1.4 HOURS LATER AND PERFORMED A POST FLIGHT INSPECTION, FOUND THAT THE CRANKCASE WAS DOWN 4 QUARTS OF OIL AND THERE WAS NO SIGN OF AN OIL LEAK. UPON INSPECTION, FOUND THE NR 3 CYLINDER TO BE HEAVILY CONTAMINATED WITH OIL. THE CYLINDER WAS REMOVED AND FOUND THAT THE OIL CONTROL RING WAS BROKEN. THE CYLINDER WAS INSPECTED NEW RINGS WERE INSTALLED AND THE AIRCRAFT WAS RETURNED BACK TO SERVICE. NOW THIS SHOULDN`T HAPPEN ON BRAND NEW CYLINDERS WITH 200 HOURS ON THEM. THE CYLINDERS WERE BY MFG, ALSO RIGS WERE PN SL-3601-SC, MFG DATE 10/1/2002. (K)

2005FA0000093	PIPER	LYC	PUMP	INCORRECT
2/16/2005	PA28161	O320D3G	461740	FUEL SYSTEM

NOTICED A STICKY SUBSTANCE (OTHER THAN FUEL) LEAKING OUT OF MACHINED HOLE ON SIDE OF FUEL PUMP. THIS MACHINED HOLE COMES WITH THE HOLE SEALED FROM THE MFG. (K)

CA040902005	PIPER	LYC	BOLT	SHEARED
6/25/2004	PA28161	O320D3G	AN522	SCISSOR LINK

(CAN) BOLT SHEARED ON TAKEOFF. THIS IS BOLT FROM OTHER GEAR HAS SAME TOTAL TIME.

2005FA0000161	PIPER	LYC	CONNECTOR	BROKEN
3/1/2005	PA28181	O360*	6666100	RUDDER TRIM

RUDDER TRIM CONNECTOR FOUND BROKEN OFF DURING ANNUAL INSPECTION.

2005FA0000258	PIPER	LYC	TAB	CRACKED
2/19/2005	PA28R200	IO360A1A	6358500	STABILIZER

PILOT NOTED IN FLIGHT WITH MAX NOSE DOWN TRIM AND AIRCRAFT STILL WANTED TO CLIMB. INSP REALIZED THAT STABILATOR TAB HORN BEGAN TO TEAR AWAY FROM TAB SKINS. THIS DECREASED OVERALL TAB EFFECTIVENESS. STAB TRIM TAB SKIN AND RIBS WERE CRACKED AT THE IB JACK SCREW CONTROL HORN ATTACH POINT. TAB SKINS (PN 63586-00, 63586-01, NEW STYLE REPLACEMENT (PN 635866-800). TAB IB RIB (PN 63587-00, 63587-01, NEW STYLE REPLACEMENT (PN 63587-002, 63587-003). NOTE: KNOTS 2U STAB/TAB GAP SEAL KIT IS INSTALLED ON THIS AIRCRAFT. THIS KIT MAY HAVE CAUSED EXCESSIVE PRESSURE ON THE TAB`S AND CAUSED CRACK TO FORM AT EACH ATTACH POINT. (K)

2005FA0000167	PIPER	LYC	STUD	FAILED
10/26/2004	PA28R200	IO360C1C		NR 2 CYLINDER

(4) EA DECK STUDS ON NR 2 CYLINDER, FAILED.

2005FA0000017	PIPER	LYC	DRAG BRACE	BROKEN
11/5/2004	PA28R201	IO360A1A	7642603	NLG

PILOT REPORTED A LOUD, SHARP (POP) SOUND WHILE IN FLIGHT. PRIOR TO LANDING HE LOWERED THE LANDING GEAR AND MADE A NORMAL LANDING. THE NOSE GEAR UPPER DRAG BRACE WAS BROKEN JUST FORWARD OF THE AREA WHERE THE LANDING GEAR ACTUATOR ATTACHES TO THE BRACE. THERE DID NOT APPEAR TO BE ANY OTHER DAMAGE IN THE AREA. A POSSIBLE CAUSE OF FAILURE IS FATIGUE DUE TO THE NR OF HOURS OR CYCLES ON THE PART. (SW13200501658)

2005FA0000428	PIPER	LYC	RIB	CRACKED
3/22/2005	PA28R201	IO360C1C6	78475009	RT WING

DURING A VISUAL INSPECTION, A SMALL CRACK WAS FOUND IN THE RT NOSE RIB P/N-62021-005 AND -004. A MORE THOROUGH INSPECTION REVEALED THAT AN ADDITIONAL CRACK, MUCH LARGER (ABOUT4 INCHES LONG), WAS FOUND ON THE RIB P/N-78475-009 AND -008. THESE RIBS ARE INCLUDED IN THE MOUNTING ASSEMBLY FOR THE P/N-95643-007 AND -006 AND BRACKET(MAIN GEAR TRUSS). THE OPERATOR OF THIS AIRCRAFT OPERATES A

FLEET OF 6 OF THESE AIRCRAFT, AND ALL THE OTHER AIRCRAFT HAD SIMILAR CRACKS, ON BOTH LT AND RT WINGS. THE FLEET IS GROUNDED AND THE AFFECTED PARTS ARE BEING REPLACED.

CA050105007	PIPER	LYC	CAMSHAFT	WORN
11/30/2004	PA28R201	IO360C1C6		ENGINE

(CAN) AIRCRAFT IS OPERATED BY BUSY FLIGHT TRAINING UNIT NO COMPLAINTS OF ENGINE MALFUNCTIONS HAD BEEN REPORTED. ENGINE WAS RUN UP, FOUND NORMAL, PRIOR TO INSPECTION. OIL SUCTION SCREEN WAS INSPECTED AND FOUND CLEAN. OIL PRESSURE FILTER WAS CUT OPEN AND A SMALL AMOUNT OF STEEL FILINGS WERE FOUND ON FURTHER INVESTIGATION BY REMOVING NR 1 AND 3 CYLINDERS. THE AFT INTAKE LOBE ON THE CAMSHAFT WAS FOUND TO BE ALMOST NON-EXISTENT. THE ENGINE WAS SENT TO AN OVERHAUL SHOP FOR REPAIRS.

CA050105004	PIPER	LYC	ENGINE	FAILED
12/15/2004	PA31	TIO540A2B		LEFT

(CAN) AFTER TAKEOFF THE LT ENGINE ENCOUNTERED RPM FLUCTUATIONS, THE AIRCRAFT RETURNED TO THE AIRPORT. AFTER SOME DISCUSSION WITH THE MECHANICS, THE PILOTS DRAINED THE AIRCRAFT AGAIN AND CARRIED OUT A GROUND RUN. EVERYTHING RETURNED TO NORMAL. THE AIRCRAFT DEPARTED RIGHT AFTER THE TANKS WERE FILLED. WHEN THE AIRCRAFT RETURNED TO BASE, WE VERIFIED AND CLEANED ALL THE INJECTORS AND DRAINED THE AIRCRAFT, ALL THE ENGINE FUEL LINES WERE PURGED AS WELL. THERE WAS NO WATER IN THE TANKS AND NO INJECTORS WERE CLOGGED.

CA040720006	PIPER	LYC	SCREW	SEPARATED
7/12/2004	PA31	TIO540A2B	LW25063	ACCESSORY HOUSIN

THESE TWO BOLTS HOLD THE FUEL PUMP IDLER GEAR SHAFT TO THE ACCESSORY HOUSING. FAILURE OF THE BOLTS ALLOWED THE IDLER GEAR AND SHAFT TO DROP TO THE BOTTOM OF THE ACCESSORY CASE. THE FUEL PUMP STOPPED TURNING AND THE ENGINE QUIT. ENGINE RESTARTED, USING ELECTRIC PUMP AND AIRCRAFT RETURNED TO XXX. BOTH BOLTS WERE DISCOLORED AT FRACTURE SITE.

CA040528007	PIPER	LYC	O-RING	CUT
5/15/2004	PA31	TIO540A2C	MS28775132	BRAKE SYSTEM

UPON LANDING, THE LEFT BRAKE DID NOT WORK. TWO O-RINGS IN THE BRAKE ASSEMBLY WERE DISCOVERED TWISTED AND CUT WHICH CAUSED A LARGE BRAKE FLUID LEAK. THE O-RINGS WERE REPLACED, THE SYSTEM WAS BLED AND TESTED.

2005FA0000121	PIPER	LYC	BEARING	FAILED
9/3/2004	PA31	TIO540J2B	LW13683	ENGINE

RT REAR MAIN BEARING BEGAN TO SHRED METAL INTO OIL FILTER AFTER LANDING. OIL CHANGE AND FILTER CUT OPEN. THIS WAS FOUND ON A PRE-BUY. LETTER TO FAA SENT SEPT 03, 2005, BUT NO REPLY. (K)

CA040719004	PIPER	LYC	MAGNETO	WORN
7/16/2004	PA31	TIO540J2BD	D6LN3200	ENGINE

OIL LEAK WAS DISCOVERED AT MAGNETO MOUNTING FLANGE GASKET. UPON REMOVAL OF UPPER AND LOWER MAGNETO MOUNT CLAMPS (P/N 66M19385), WEAR AND FRETTING OF THE MAGNETO MOUNTING FLANGE WAS DISCOVERED. WHEN CHECKED, THE MAGNETO WAS STILL CORRECTLY TIMED TO THE ENGINE AND NO EXPLANATION CAN BE OFFERED AS TO WHY THE MAGNETO DID NOT PARTIALLY ROTATE AND AFFECT IGNITION TIMING. IN ADDITION, THE NUT AND LOCKWASHER WAS STILL HOLDING THE CLAMP TIGHT TO THE ENGINE. THE SUBMITTER HAS NEVER SEEN A SIMILAR PROBLEM ON MAGNETOS ATTACHED WITH OLDER STYLE (P/N 75965) MOUNT CLAMPS.

CA040719005	PIPER	LYC	MAGNETO	WORN
7/16/2004	PA31	TIO540J2BD	D6LN3200	ENGINE

OIL LEAK WAS DISCOVERED AT MAGNETO MOUNTING FLANGE GASKET. UPON REMOVAL OF UPPER AND LOWER MAGNETO MOUNT CLAMPS (P/N 66M19385), WEAR AND FRETTING OF THE MAGNETO MOUNTING FLANGE WAS DISCOVERED. WHEN CHECKED, THE MAGNETO WAS STILL CORRECTLY TIMED TO THE ENGINE AND NO EXPLANATION CAN BE OFFERED AS TO WHY THE MAGNETO DID NOT PARTIALLY ROTATE AND AFFECT IGNITION

TIMING. IN ADDITION, THE NUT AND LOCKWASHER WAS STILL HOLDING THE CLAMP TIGHT TO THE ENGINE. THE SUBMITTER HAS NEVER SEEN A SIMILAR PROBLEM ON MAGNETOS ATTACHED WITH OLDER STYLE (P/N 75965) MOUNT CLAMPS.

CA040709005	PIPER	LYC		SKIN	CRACKED
4/20/2004	PA31350	TIO540J2BD		4065903	RT WING

UPPER SKIN ON RT WING FOUND TO HAVE HAIR LINE CRACKS AT STA 174.50 AND STA 160.50 ONE RIVET FORWARD OF STRINGER IMMEDIATELY FORWARD OF MAIN SPAR.

CA040709007	PIPER	LYC		SKIN	CRACKED
5/28/2004	PA31350	TIO540J2BD		4065903	LT WING

LT WING AT STA 174.50 FOUND TO HAVE HAIR LINE CRACK FROM RIVET FORWARD OF STRINGER AHEAD OF THE MAIN SPAR.

CA040721002	PIPER	LYC		STRUCTURE	CRACKED
7/11/2004	PA31350	TIO540J2BD		42042	MLG

WHILE INSPECTING GEAR A CRACK WAS NOTICED IN THE PAINT. CRACK EXTENDS FROM INSIDE CURVE HALF WAY TO BOLT HOLE.

CA040527007	PIPER	LYC	ELECTROSYS	POST	BROKEN
5/24/2004	PA31350	TIO540J2BD		ALU8421R	ALTERNATOR

PILOT RETURNED TO BASE FOR ELECTRICAL AND AVIONICS DIFFICULTIES. ON RETURN, AIRCRAFT BATTERY DEPLETED CAUSING MULTIPLE ELECTRICAL AND AVIONICS PROBLEMS. PILOTS INITIATED PRECAUTIONARY MANUAL GEAR EXTENSION DUE TO LACK OF POSITIVE GEAR EXTEND INDICATION AT NO TIME DID EITHER ALTERNATOR FAIL LIGHT ILLUMINATE. UPON INSPECTION, FOUND RT ALTERNATOR BATTERY POST BROKEN AND SHORTING ON STARTER CASE INSTALLED BELOW ALTERNATOR.

CA050118002	PIPER	LYC	CONT	BEARING	SEIZED
1/12/2005	PA31350	TIO540J2BD		10382971	LT MAGNETO

(CAN) AFTER TAKEOFF, IN CRUISE FLIGHT, THE PILOT NOTICED THE LT ENGINE TACHOMETER NEEDLE FLUCTUATING. SHORTLY AFTER, THE ENGINE STARTED SURGING AND A NOTICEABLE VIBRATION WAS FELT. THE AIRCRAFT RETURNED, AN INVESTIGATION REVEALED THE LT ENGINE MAGNETO, UPPER BEARING, P/N 10-382971, HAD SEIZED IN THE DISTRIBUTOR BLOCK P/N 10 -682058. THIS IS THE FIRST INCIDENT OF THIS NATURE AND WITH OVER 15,000 HOURS ON THIS ENGINE TYPE, FEEL NOTHING COULD HAVE PREVENTED THIS OCCURRENCE.

CA041129012	PIPER	LYC		HOSE	CRACKED
11/9/2004	PA31350	TIO540J2BD		8004804	FUEL SYSTEM

(CAN) AIRCRAFT ON TRAINING FLIGHT. PILOT REPORTS STRONG FUEL ODOR IN COCKPIT. INVESTIGATION REVEALED LT FUEL PRESSURE FLEXIBLE HOSE TO GAUGE LEAKING FROM UNDER HOSE FITTING SOCKET WHEN FUEL BOOST PUMP TURNED ON. THIS FUEL LEAK WAS A FINE MIST SPRAY. HOSES WERE DRY AND HARDENED DUE TO AGE. REPLACED ALL FLEXIBLE RUBBER HOSES TO LT AND RT GAUGES.

2005FA0000343	PIPER	PWA		SOLENOID VALVE	FAILED
3/3/2005	PA31T	PT6A60A		CD21701	HEATER

INSTALLED A NEW C&D AIRCRAFT HEATER AS A REPLACEMENT TO THE OLD HEATER UNIT. THE NEW HEATER WOULD RUN APPROX 5 MINUTES AND THEN PRODUCE NO HEAT. TROUBLESHOOTING SHOWED THAT FUEL WAS REACHING TO THE NOZZLE SOLENOID VALVE, BUT NOT PAST. VOLTAGE WAS PRESENT, AS WELL AS A CLICK FROM THE SOLENOID. REPLACED THE SOLENOID VALVE WITH THE SAME PN, AND HAD THE SAME ISSUE. FURTHER TROUBLESHOOTING, USING SHOP AIR ON THE VALVE AND A BENCH POWER SUPPLY, SHOWED THAT AFTER VALVE WOULD HEAT UP FROM THE ELECTRICAL CURRENT RUNNING THRU IT (APPROX 5 MINUTES) THE UNIT WOULD NOT ALLOW AIR TO PASS. THE MFG WAS ADVISED OF THESE FINDINGS, AND TESTED A REPLACEMENT VALVE OF THE SAME PN, BUT OF A DIFFERENT BATCH NR AND FOUND IT TO BE SATISFACTORY. THIS SOLENOID VALVE WAS INSTALLED AND THE HEATER IS NOW OPERATIONAL. (K)

2005FA0000436	PIPER	LYC		ADC	MALFUNCTIONED

10/28/2004	PA32300	IO540K1A5	962830A1S8	COCKPIT

AIR DATA COMPUTER REPORTING 300 FEET & ERROR. UNIT INSTALLED AS PART OF FLIGHT SYSTEMS, INC STC NR SA02203AK. (AL05200500176) (K)

2005FA0000435	PIPER	LYC	AHRS	FAILED
10/21/2004	PA32300	TIO540*	8350006213	COCKPIT

THE AHRS INSTALLED AS PART OF THE FLIGHT SYSTEMS, EFIS-SV STC NR SA02203AK FAILED- WAS PROVIDING NO HEADING INFORMATION. THE CIRCUIT BREAKER HAD TO BE PULLED TO KEEP THE GPS ON LINE. (AL05200500173) (K)

N114EL2	PIPER	CONT	PIPER	CONTROL ARM	SEPARATED
12/15/2004	PA32301	O470*		63457003	ZONE 100

ON THE RUDDER PEDAL ASSY, THE RUDDER CONTROL ARM ASSY, TRIM ARM BROKE OFF AT PARENT METAL SURROUNDING THE WELD POINT. PILOT REPORTED LOSS OF RUDDER TRIM INPUT. NO HISTORY OF PART REPLACEMENT. P/N 63457-003. 2879.3 HOURS TOTAL AIRCRAFT TIME. HAND TOW BAR FOR THIS AIRCRAFT WAS FOUND BENT ABOUT 20 DEGREES ABOUT ONE MONTH PRIOR TO LOSS OF RUDDER TRIM INPUT. REPLACEMENT PART WAS INSTALLED AND FUNCTIONAL CHECK FLIGHTS WERE FLOWN WITHOUT DIFFICULTY.

2005FA0000438	PIPER	LYC	AHRS	MALFUNCTIONED
6/16/2004	PA32301	IO540K1G5	8350006214	COCKPIT

AHRS REPORTING TO IDU WANDERING HEADING AND ERRONEOUS ACCELL/DECELERATION. UNIT INSTALLED AS PART OF FLIGHT SYSTEMS, INC EFIS-SV SYSTEM. (K)

2005FA0000021	PIPER	LYC	MAGNETO	CRACKED
12/24/2004	PA32R300	IO540K1G5D	BL68256013	ENGINE

WHEN PERFORMING A VISUAL INSPECTION OF THE ENGINE COMPARTMENT EXCESSIVE OIL WAS FOUND IN THE ENGINE COMPARTMENT. FOUND THE DUEL MAGNETO MOUNTING FLANGE CRACKED. REMOVED MAGNETO, CRACKED MOUNTING FLANGE PIECE FELL OFF OF MAGNETO HOUSING.

2005FA0000159	PIPER	LYC	SUPPORT	DAMAGED
10/26/2004	PA32R300	TIO540*	6345100	RUDDER PEDAL

RUDDER PEDAL FLEXING DURING BRAKING ACTION. (K)

2005FA0000272	PIPER	LYC	WHEEL	CRACKED
11/24/2004	PA32R300	TIO540*	40120C	LT MLG

OWNER REPORTED AIRCRAFT HARD TO TOW. UPON INSPECTION, FOUND LT MLG WHEEL (ASSY 40-120C) BINDING. REMOVED LT MLG WHEEL AND FOUND INNER WHEEL HALF FLANGE WITH APPROXIMATELY 5 INCH CRACK. FLANGE HAD SEPARATED ENOUGH TO BIND ON BRAKE ASSY BACKING PLATE. REPLACED WHEEL ASSY WITH NEW. REMOVED AND INSPECTED RT MLG WHEEL ASSY. NO DEFECTS NOTED. AC RETURNED TO SERVICE. (SO05200405828)

KBUY5052	PIPER		SWITCH	OPEN
2/16/2005	PA32R301		36742016	NLG

PILOT REPORTED UNSAFE NLG ON FINAL. CYCLED AND INDICATION WAS SAFE. JACKED AC, RAN GEAR THROUGH RIG AND OPS CK. FOUND NLG DOWN LIMIT SWITCH WOULD NOT ACTIVATE PUMP IF IT WAS NOT DOWN AND LOCKED. REPLACED SWITCH AND OPS CK SYSTEM THROUGH 5 NORMAL AND 3 EMERGENCY CYCLES. AC RETURNED TO SERVICE. BENCH CHECK OF SWITCH REVEALED OPEN CONDITION WHEN IT SHOULD BE CLOSED.

2005FA0000255	PIPER	CONT	FITTING	SHEARED
1/21/2005	PA34200T	LTSIO360EB	628437	RT ENGINE

AIRCRAFT WAS IN CRUISE FLIGHT WHEN IT EXPERIENCED AN IMMEDIATE ENGINE FAILURE ON THE RIGHT ENGINE, PILOT COULD NOT RESTART ENGINE. AFTER LANDING MAINTENANCE REPORTED A FITTING ON THE FUEL PUMP FOR THE VAPOR RETURN LINE HAD SHEARED.

CA040720002	PIPER	CONT	SPAR	WORN
7/13/2004	PA34200T	LTSIO360EB	68621003	RT WING

DURNG 100 HOURS INSPECTION, RT WING REAR SPAR ATTACHMENT BOLT P/N NAS464P6LA6 FOUND LOOSE. BOLT WAS REMOVED AND FOUND SEVERLY DAMAGED (DEFORMED) AND BOTH SPAR FITTINGS P/N 68621-003 AND 66762-000 BOLT HOLES FOUND ELONGATED. BOTH SPAR FITTINGS WERE REPLACED, NEW BOLTS INSTALLED AND AIRCRAFT RETURNED TO SERVICE.

2005FA0000143	PIPER	CONT	BOLT	MISINSTALLED
1/26/2005	PA34200T	TSIO360*	400910	NLG CENTERING

DURING RAMP INSPECTION, INSPECTOR NOTICED BOLT ATTACHING NOSE GEAR CENTERING DEVICE WAS INSTALLED INCORRECTLY, HEAD OF BOLT AT TOP OF HARDWARE STACK. AD 92-13-05 AND SB 893 REQUIRE BOLT TO BE INSTALLED WITH HEAD DOWN AND A CAUTIONARY PLACARD TO BE AFFIXED. PLACARD WAS ABSENT TOO. MAINTENANCE RECORD CONTAIN DESCRIPTION OF AD BEING ACCOMPLISHED IN 1993. SUBSEQUENT RECORD ENTRY IN 2003 DESCRIBES REPLACEMENT OF CENTERING DEVICE ROD END AND BOLT. SUSPECT PLACARD WAS ABSENT THEN, TECHNICIAN NOT AWARE OF AD REQUIREMENTS AND INSTALLED BOLT IAW STANDARD PRACTICES, RATHER THAN AD.

2005FA0000090	PIPER	LYC	CARBURETOR	CONTAMINATED
11/6/2004	PA38112	O235L2C	MA3A105199	ENGINE

ENGINE QUIT DURING FLIGHT DUE TO CARBURETOR MALFUNCTION 4 MILES SOUTHEAST OF AIRPORT, MAKING AN EMERGENCY LANDING WITHOUT DAMAGE TO AIRCRAFT, PILOT OR PASSENGER. CARBURETOR WAS REMOVED FROM AIRCRAFT AND SENT FOR OVERHAUL. (WO NR 88013). AIRCRAFT HAD BEEN SETTING FOR A LONG PERIOD OF TIME, WITH FUEL TANKS HALF FULL, MAKING MOISTURE IN THE FUEL SYSTEM. RECOMMENDATION FOR OWNERS, DRAIN FUEL SYSTEM AND RUN THE ENGINE AT LEAST ONCE A WEEK FOR AIRCRAFT TIE DOWN OUTSIDE OF HANGAR. (SO15200509104) (K)

CA040621003	PIPER	PWA	FIRE DETECTOR	SHORTED
6/16/2004	PA42720	PT6A61	5064200	RT ENGINE

DURING APPROACH FOR LANDING, THE RT ENGINE FIRE WARNING ANNUNCIATOR ACTIVATED. THE PILOT DEPLOYED THE ENGINE FIRE BOTTLE, SECURED THE ENGINE AND DECLARED AN EMERGENCY. THE LANDING CONTINUED UNEVENTFUL. MX INSPECTED THE ENGINE AND FOUND NO EVIDENCE OF FIRE. THE FIRE DETECTION SYSTEM WAS INSPECTED AND EACH PROBE (3) WAS INDIVIDUALLY TESTED WITH THE MEGGER. TWO OF THE THREE WERE OK BUT ONE SHOWED A FAULT. FIRST ON THE LOW 0-200 OHMS RANGE AND IT SHOWED A RESISTANCE OF ABOUT 1 MEG OHM AND IT SHOULD BE INFINITE OR OPEN. THEN I CHECKED IT AT THE 250 V SETTING AND THE RESISTANCE DROPPED TO BASICALLY NOTHING INDICATING SHORTED OR CORRODED CONTACTS. THE FAULTY PROBE WAS REPLACED NEW AND CIRCUIT TESTS C/O SATISFACTORY. A/C RELEASED.

2005FA0000129	PIPER	LYC	SKIN	CRACKED
12/21/2004	PA44180	O320*	8656206	LT AILERON

DURING AN ANNUAL INSPECTION OF THE AIRCRAFT THE LT AILERON ASSEMBLY WAS FOUND TO HAVE A CRACK IN THE OB SKIN. PROBABLE CAUSE OF CRACKING OF THE LT AILERON ASSEMBLY IS UNKNOWN. AILERON REMOVED FOR MAINTENANCE AND REPAIRED BY REPLACING DAMAGED PART. (K)

2005FA0000130	PIPER	LYC	SKIN	CRACKED
12/21/2004	PA44180	O360*	8656206	LT AILERON

DURING AN ANNUAL INSPECTION OF THE AIRCRAFT THE LT AILERON ASSEMBLY WAS FOUND TO HAVE A CRACK IN THE OB SKIN. PROBABLE CAUSE OF CRACKING OF THE LT AILERON ASSEMBLY IS UNKNOWN. AILERON REMOVED FOR MAINTENANCE AND REPAIRED BY REPLACING DAMAGED PART. (K)

2005FA0000131	PIPER	LYC	SKIN	CRACKED
12/21/2004	PA44180	O360*	8656206	LT AILERON

DURING AN ANNUAL INSPECTION OF THE AIRCRAFT THE LT AILERON ASSEMBLY WAS FOUND TO HAVE A CRACK IN THE OB SKIN. PROBABLE CAUSE OF CRACKING OF THE LT AILERON ASSEMBLY IS UNKNOWN. AILERON REMOVED FOR MAINTENANCE AND REPAIRED BY REPLACING DAMAGED PART. (K)

2005FA0000126	PIPER	LYC	CONTROL CABLE	CORRODED
11/29/2004	PA44180	O360*	62701153	STABILATOR

AIRCRAFT EXPERIENCED COMPLETE STABILATOR PRIMARY CONTROL FAILURE. CAUSE OF FAILURE WAS DETERMINED TO BE CORROSION OF LOWER STABILATOR CONTROL CABLE FORWARD CABLE END JUST T/E OF BARREL. ESTABLISH A TIME LIFE REPLACEMENT OF CONTROL CABLE. PROBLEM IS NOT DETECTABLE DURING PERIODIC INSP IAW MM. (K)

BJ3R200400003	PIPER	LYC	PUMP	DEFECTIVE
10/11/2004	PA46350P	IO540AE2A	62E22581	ENGINE FUEL

PILOT REPORTED, WHEN TURNING ON ELECT FUEL BOOST PUMP TO PREPARE FOR DESCENT, ENG RAN VERY ROUGH AND WAS SIGNIFICANT POWER LOSS. ENG WOULD NOT REMAIN RUNNING WITH FUEL BOOST PUMP ON. WHEN THE BOOST PUMP WAS TURNED OFF THE ENG OP WAS SATISFACTORY. DURING SUBSEQUENT TAXI OPERATION, THE ENG WOULD DROP OVER 200 RPM WITH THE BOOST PUMP TURNED ON AND AT LOW RPM THE ENG WOULD SHUT DOWN. AFTER TALKING WITH LYCOMING TECH REPRESENTATIVES, IT WAS DETERMINED THAT THE ENG DRIVEN FUEL PUMP WAS PRESS SENSITIVE AND COULD NOT OPERATE WITH THE INCREASED FUEL PRESSURE THE ELECTRIC PUMP DELIVERED TO IT. AFTER REPLACING THE ENG DRIVEN FUEL PUMP, ENG OPERATION WAS SATISFACTORY WITH AND W/O THE ELECTRIC BOOST PUMP TURNED ON.

CA040706003	ROBSIN	LYC	MAGNETO	FAILED
6/14/2004	R22BETA	O320B2C	S4LN204	ENGINE

HIGH ENGINE RPM. REPLACED MAGNETO.

CA040706004	ROBSIN	LYC	CABLE	FAILED
6/16/2004	R22BETA	O320B2C	A5224	CARB HEAT

(CAN) CARB HEAT CABLE BROKEN. REPLACED CARB HEAT CABLE.

CA040706005	ROBSIN	LYC	BLADE	CRACKED
6/17/2004	R22BETA	O320B2C		ENGINE FAN

CRACKED BLADE. REPLACED FAN WHEEL.

CA050105002	ROBSIN	LYC	LYC	DISTRIBUTOR GEAR	BROKEN
12/21/2004	R22BETA	O320B2C			MAGNETO

(CAN) UNABLE TO START ENGINE. FOUND TWO PLASTIC TEETH MISSING FROM DISTRIBUTOR GEAR.

CA050113005	SAAB	GE	LANDING GEAR	FAILED
1/11/2005	340B	CT79B		NOSE

(CAN) AFTER A NORMAL LANDING, THE AIRCRAFT TAXIED OFF THE RUNWAY AND STOPPED IN FRONT OF THE AIRPORT TERMINAL. THE ENGINES WERE SHUT DOWN AND THE CREW COMPLETED THEIR COCKPIT CHECKS. WHEN THE ELECTRICAL MASTER SWITCH WAS TURNED TO OFF THE NOSE UNDERCARRIAGE RETRACTED, DROPPING THE NOSE OF THE AIRCRAFT ONTO THE TARMAC. A SHORT WHILE LATER, AS THE GROUND CREW WERE POSITIONING A TEMPORARY TAIL SUPPORT, THE MAIN UNDERCARRIAGE STARTED TO RETRACT.THE AIRCRAFT WAS RECOVERED TO A MAINTENANCE HANGAR FOR INVESTIGATION.

2005FA0000277	SCWZER	ALLSN	TUBE	WORN
1/20/2005	269D	250C20	6871461	ENGINE

THE PILOT WAS FLYING AT APPROX. 600 FEET INDICATED, WHEN HE EXPERIENCED A VIOLENT YAW TO THE RIGHT AND A HIGH PITCH ENG. SOUND. AN EMERGENCY LANDING WAS MADE WITH PARTIAL POWER UNTIL THE LAST 50 FT. AND THEN THE PILOT HAD TO ENTER AUTOROTATION WITH NO POWER DUE TO EXCESSIVE SURGING AND YAWING THAT RESULTED. IT HAD BEEN INSTALLED AND WORKING 47.1 HOURS BEFORE THE OCCURANCE. THE PROBLEM WAS A B-NUT ON THE PR LINE (REGULATED AIR PRESSURE) HAD SOMEHOW BACKED OFF FROM THE POWER TURBINE GOVERNOR. THIS CAUSED GOVERNOR FAILURE, CAUSING EXTREME ERRATIC OPERATION OF THE BENDIX FUEL SYS. COMPONENTS.

2005FA0000247	SCWZER	LYC	TRIM SYSTEM	FAILED

2/8/2005	269D	HIO360*	269A731613	CYCLIC STICK

DURING DESCENT TO LANDING THE CYCLIC STICK JAMMED SO AS TO NOT ALLOW ANY LATERAL MOVEMENT TO THE RT BEYOND NEUTRAL POSITION. THIS WAS CAUSED BY THE SPRING TUBE COMING OUT OF THE TRIM HOUSING AND LOCKING THE TRIM ARM AT A .7500 EXTENDED POSITION. THE SPRING TUBE CAME OUT OF THE TRIM HOUSING DUE TO A FAILURE OF THE EPOXY THAT HOLDS IT IN. THIS TRIM ACTUATOR HAS A DIFFERENT COLOR EPOXY THEN OLDER TRIM ACTUATORS. (WHITE-NEW/ GREEN-OLD) (K).

2005FA0000192	SCWZER	PWA	CRANKSHAFT	FRACTURED
2/7/2005	G164A	R1340*	375202	ENGINE

THE CRANKSHAFT REAR HALF FRACTURED IN TWO, JUST AFT OF THE MASTER ROD BEARING JOURNAL. (K)

2005FA0000001	SKRSKY	PWA	DUCT	WRONG PART
11/30/2004	CH54B	JFTD12A4A	575219	ENGINE

DURING TEARDOWN OF F/T ASSEMBLY, A BROKEN EPR PROBE WAS FOUND AND THE INLET DUCT WAS SITTING LOW WHICH WOULD ALLOW MORE AXIAL TRAVEL OF INLET DUCT DURING OPERATION. AFTER REMOVING INLET DUCT, FOUND THE OVERALL HEIGHT OF INLET DUCT TO BE SHORT. THIS CAUSED WEAR IN THE AFT FLANGE OF THE INLET DUCT AND PUT EXTRA LOAD ON PROBES. THIS INLET DUCT WAS PURCHASED AS A SERVICEABLE PART. HEIGHT IS NOT REQUIRED TO TAKE THIS DIMENSION AT OVERHAUL. IT IS CHECKED WHEN INLET DUCT HAS AN AFT FLANGE REPAIR AND FORWARD SNAP REPAIR BY SUPPLIER. SUPPLIER'S REPAIR RESTORES TO BLUE PRINT HEIGHT OF 7.270 INCH -7.310 INCH. THE HEIGHT OF THIS INLET DUCT IS 7.250 INCH. CHECK OVERALL HEIGHT OF INLET DUCT. (MDR04-068) (K)

2005FA0000160	SKRSKY	PWA	SKRSKY	RING GEAR	DAMAGED
11/1/2004	S58JT	PT6T3		51635200582	GEAR TEETH

RING GEAR DAMAGED.

CA040707005	SKRSKY		BELLCRANK	MISMANUFACTURED
7/7/2004	S61A		S614062122000	FLT CONTROLS

BELLCRANK CONTACTING LINK ASSY CAUSING UNWANTED MOVEMENT OF EITHER CYCLIC OR COLLECTIVE CONTROLS. BELLCRANK DIMENSIONALLY CHECKED AGAINST SIKORSKY DRAWING NR S6140-62122 AND FOUND TO BE NONCONFORMING FROM MANUFACTURE. BELLCRANK ASSEMBLY IS TRIANGULAR IN SHAPE. IT HAS ONE BEARING INSTALLED AT ITS AXIS, AND TWO OTHER HOLES ARE MACHINED FOR ATTACHMENT TO OTHER FLT CONTROL ITEMS. LOCATION OF THESE HOLES DEVIATES AS MUCH AS .064 FROM THE DRAWING, AND IT IS BELIEVED THAT THIS DEVIATION CAUSES CONFLICT IN FLT CONTROL SYSTEM. THIS DEVIATION APPEARS TO HAVE BEEN FROM MANUFACTURE AS NO SIGNS OF WEAR ARE PRESENT. BELLCRANK IS NOT SERIALIZED YET IS IDENTIFIED WITH A P/N 'S6140-62122-001' AND A VENDOR CODE '782861'.

CA040706001	SKRSKY	GE	ROD	STRIPPED
6/10/2004	S61N	CT581401	37C800410P101	ACTUATOR

SVA PILOT VALUE FEEDBACK CABLE ROD THREADS EXCESSIVELY WORN CAUSING ENGINE TO SURGE.

CA040527004	SKRSKY	PWA	DUCT	FAILED
5/6/2004	S64E	JFTD12A4A		CABIN HEAT

A/C WAS INVOLVED IN HELICOPTER LOGGING OPERATIONS IN THE AREA OF POWER RIVER BRITISH COLUMBIA. DURING THE FIRST LOGGING CYCLE OF THE DAY THE FLIGHT CREW NOTICED WHAT APPEARED TO BE SMOKE IN THE COCKPIT. AN IMMEDIATE A CHECK OF ALL SYSTEMS AND CIRCUIT BREAKERS REVEALED NO DISCREPANCIES. THE FLIGHT CREW ELECTED TO RETURN TO THE SERVICE LANDING FOR FURTHER INVESTIGATION BY THE MX CREW. A SUBSEQUENT INSPECTION AND GROUND RUN OF ALL A/C SYSTEMS RESULTED IN NO FAULT FOUND. IT WAS CONCLUDED THAT SINCE THE AIRCRAFT WAS FRESH OUT OF HEAVY MX AND IT WAS THE FIRST COOL MORNING THAT REQUIRED CABIN HEAT THAT BRAND NEW DUCTING FROM THE BLEED AIR HEATER WAS THE CAUSE. THE A/C WAS RETURNED TO SERVICE WITH NO FURTHER RELATED PROBLEMS.

2005FA0000000	SKRSKY	PWA	SKRSKY	BEVEL GEAR	CRACKED

11/30/2004	S64F	JFTD12A4A	643520048101	M/R GEARBOX

DURING NDT INSPECTION, GEAR WAS MPI`D AND REJECTED FOR CRACKS. LOCATION OF CRACKS WERE IN ATTACHMENT FLANGE BOLT HOLES (18 EACH). EVERY HOLE HAS APPROXIMATELY .1250 INCH LONG CRACK STARTING ON THE GEAR TO SHAFT ATTACHMENT SIDE EXTENDING DOWN INTO THE HOLE. UPON DISASSEMBLY, FRETTING WAS FOUND ON ATTACHMENT FLANGE OF GEAR. FRETTING BETWEEN GEAR AND SHAFT TYPICALLY CAUSES THIS DEFECT. THIS MGB ASSEMBLY WAS O/H SEVERAL YEARS AGO AND DID NOT INCORPORATE THE REVISED TORQUE PROCEDURE CURRENTLY USED. A REVISED TORQUE PROCEDURE WITH ENSURING A DRY FIT AT ASSEMBLY HAS REDUCED FRETTING THUS PREVENTS CRACKING. (NM09200504351) (K)

JYDRMDR04069	SKRSKY	PWA	HOUSING	CRACKED
12/6/2004	S64F	JFTD12A5A	643520017019	M/R GEARBOX

MGB WAS REMOVED FOR MAIN SHAFT REPLACEMENT AND OVERHAUL. AFTER DISASSEMBLY OF GEAR BOX, THE UPPER HOUSING WAS LOCALLY BLENDED, ETCHED UNDER THE INPUTS AND INSPECTED BY FPI. THE HOUSING WAS REJECTED FOR CRACKS ON THE LT AND RT SIDE. POOR REWELD QUALITY OF CASTING AT MFG. (K)

CA050105005	SKRSKY	ALLSN	EXHAUST DUCT	CRACKED
1/4/2005	S76A	250C30S		NR 2 EGINE

(CAN) PILOT REPORTED, NO N2 INDICATION FOR NR 2 ENGINE. UPON INSPECTION, WHEN N2 PICKUP WAS REMOVED FROM THE ACCY GEARBOX, IT WAS OBSERVED THAT THE NR 5 BEARING NUT HAD BACKED OFF ON THE PT OUTER SHAFT TRAVELING AWAY FROM THE N2 PICKUP, HENCE 'NO N2 INDICATION'. IT WAS OBSERVED THAT THE 12 O'CLOCK MOUNTING STRUT ON THE EXHAUST COLLECTOR HAS DEVELOPED SEVERAL CRACKS. THE LOCK WASHER APPEARED TO HAVE BEEN DEFORMED IN TWO PLACES AT SOME POINT AND TIME, HOWEVER, THE DEFORMATIONS WERE EITHER WERE NOT SUFFICIENT TO PREVENT THE NR 5 NUT FROM BACKING OFF, OR THE NUT HAS NOT BEEN TORQUED CORRECTLY TO BEGIN WITH. TURBINE HAS BEEN REPLACED AND TEARDOWN REPORT REQUESTED FROM THE AUTHORIZED MAINTENANCE CENTER.

CA040803006	SNIAS	TMECA	BATTERY	UNSERVICEABLE
7/24/2004	AS350B	ARRIEL1B	15700	MASTER

(CAN) A/C BATTERY IS WEAK. IT WILL NOT START THE A/C TWICE WITHIN 5 MINUTES. BATTERY HAS ONLY AVERAGED 115 HOURS OF LIFE IN THE LAST 6 INSTALL

2005FA0000027	SNIAS	SNIAS	CAGE	BROKEN
1/19/2005	AS350B2		704A33652036	BEARING

BEVEL REDUCTION MODULE P/N 350A32-0300-05 S/N M1899 WAS REMOVED AT TSO: 2367.5 FOR METAL CONTAMINATION. UPON TEARDOWN ANALYSIS IT WAS DISCOVERED THAT THE BEARING CAGE FOR BEARING P/N 704A33-652-036 TSN: 2367.5, WAS BROKEN. SUBSEQUENT DETERIORATION OF BEARING WAS CAUSE FOR METAL CONTAMINATION.

CA040804004	SNIAS	TMECA	TRANSMITTER	ERRATIC
7/21/2004	AS350B2	ARRIEL1D1	642790041	OIL PRESS

(CAN) ENGINE OIL PRESSURE WAS ERRATIC THEN IT WENT FULLSCALE. TRANSMITTER REPLACED WITH UNIT FROM FPBA. NEW ONE ORDERED AND INSTALLED IN PBA.

2005FA0000243	SNIAS	TMECA	FAN	MISMANUFACTURED
11/9/2004	AS350B2	ARRIEL1D1	900A6047	AIR CONDITIONER

LOCKING SET SCREW MISSING FROM FAN, FAN DETATCHED FROM MOTOR. UPON RECEIPT OF NEW FAN, FOUND SET SCREW ALSO MISSING. (K)

CA040728004	SNIAS	TMECA	SERVO	MALFUNCTIONED
5/28/2004	AS350B2	ARRIEL1D1	AC67244	CYCLIC STICK

PILOT REPORTED THAT THE CYCLIC WAS STIFF IN LT QUADRANT. REPLACED THE LEFT HAND SERVO FIRST. THIS DID NOT SOLVE PROBLEM. REINSTALLED LEFT SERVO AND REPLACED RIGHT HAND SERVO. THE DEFECT WAS CORRECTED.

CA040527001	SNIAS	TMECA	TRANSDUCER	SHORTED
5/12/2004	AS350B3	ARRIEL2B	50071550020	M/R GEARBOX

AFTER MAIN ROTOR GEAR BOX REPLACEMENT GROUND RUN WAS ACCOMPLISHED, HOWEVER NO INDICATION WAS PRESENT. DISCOVERED AFTER CONTINUITY CHECKS THAT THE TRANSDUCER WAS OPEN CIRCUIT. REPLACED PART INDICATION NORMAL

CA040728009	SNIAS	TMECA	MODULE	UNSERVICEABLE
7/23/2004	AS350BA	ARRIEL1B	70BM031090	ENGINE

MODULE 3 SUFFERED IMPACT DAMAGE ON 1ST STAGE BLADES. THE IGNITER HAD DISINTEGRATED.

CA040728007	SNIAS	TMECA	TMECA	IMPELLER	FOD
4/22/2004	AS350BA	ARRIEL1B			COMPRESSOR

AFTER REMOVAL OF THE ENGINE COWLING TO DO A 100 HOUR INSPECTION, IT WAS DISCOVERED THAT THE AXIAL COMPRESSOR HAD SUFFERED SEVERE FOREIGN OBJECT DAMAGE.

CA040819005	SNIAS	TMECA	PRESSURE SENSOR	FAILED
7/21/2004	AS350BA	ARRIEL1B	704A37642043	ENGINE OIL

(CAN) OIL PRESSURE NO READING. REPLACED ENGINE OIL PRESSURE SENSOR.

CA040803007	SNIAS	TMECA	IGNITER	BROKEN
7/12/2004	AS350BA	ARRIEL1B	9550175400	ENGINE

(CAN) DURING A 100 HOUR INSPECTION IT WAS DISCOVERED THE TIP OF THE IGNITER WAS MISSING.

CA040811004	SNIAS	TMECA	LINE	CRACKED
7/21/2004	AS350BA	ARRIEL1B	0301007720	ENGINE FUEL

(CAN) FUEL LEAK DISCOVERED AT LT INJECTOR ON START UP. START ABORTED. UPON INSPECTION, FUEL SUPPLY LINE WAS FOUND CRACKED AT FLARE. LINE REPLACED, A/C RETURNED TO SERVICE. A NUMBER OF THIS PARTICULAR P/N LINES HAVE FAILED IN THE PAST. RECOMMEND USING ADDITIONAL CLAMPING OR DIFFERENT LINE ALTOGETHER.

CA040528004	SNIAS	TMECA	FREEWHEEL UNIT	FAILED
10/23/2003	SA330J	TURMO4C	330A32600000	M/R GEARBOX

ON START UP, ROTORS BEGAN TURNING. A LOUD BANG HEARD. START ABORTED. INSPECTION REVEALED T/R SHAFT SEGMENT TWISTED AT NR 5 SHAFT. FREEWHEEL SLIPPED MOMENTARILY AND RE-ENGAGED. TRANSMISSION SENT TO FRANCE FOR DISASSEMBLY. SPRING IN FREEWHEEL FOUND BROKEN. ENGINE INSPECTED BY MANUFACTURE. ALL SHAFTING REPLACED. GEARBOXES IN T/R SYSTEM INSPECTED, FUSELAGE AND T/BOOM VISUALLY AND NDT INSPECTED, HEAD AND M/R BLADES INSPECTED (VISUALLY & NDT). TRANSMISSION, MOUNTS VISUALLY AND NDT INSPECTED. ALIGNMENT CHECKS OF A/F AND ENGINE MOUNTS CONDUCTED.

2005FA0000281	SOCATA	RIB	FAILED
8/9/2004	TBM700		TE FLAP

THE BONDED INSERTS WHICH PROVIDE THE ATTACH POINTS FOR THE METAL CARRIAGE ASSEMBLY TO THE HONEYCOMB FLAP END-RIB HAVE FAILED. INSPECTION OF THE INSERTS REVEALS THAT THE SEAL BETWEEN THE BONDED INSERT AND THE HONEYCOMB STRUCTURE BECOMES COMPROMISED. WATER IS INTRODUCED INTO THE HONEYCOMB END-RIB AND THE HONEYCOMB STRUCTURE FAILS. IMMEDIATELY INSPECT THE INTEGRITY OF THE IB AND OB FLAP ATTACH POINTS. ANY MOVEMENT NOTED BETWEEN THE FLAP CARRIAGE ASSY AND THE FLAP END-RIB (IB AND OB) SHOULD REQUIRE REMOVAL OF THE FLAP FOR FURTHER INSPECTION OF THE BONDED INSERTS. MFG NOTIFIED. (K)

2005FA0000285	SOCATA	RIB	FAILED
8/9/2004	TBM700		TE FLAPS

BONDED INSERTS WHICH PROVIDE THE ATTACH POINTS FOR THE METAL CARRIAGE ASSY TO THE HONEYCOMB

FLAP END-RIB HAVE FAILED. INSPECTION OF THE INSERTS REVEALS THAT THE SEAL BETWEEN THE BONDED INSERT AND THE HONEYCOMB STRUCTURE BECOMES COMPROMISED. WATER IS INTRODUCED INTO THE HONEYCOMB END-RIB AND THE HONEYCOMB STRUCTURE FAILS. IMMEDIATELY INSPECT THE INTEGRITY OF THE IB AND OB FLAP ATTACH POINTS. ANY MOVEMENT NOTED BETWEEN THE FLAP CARRIAGE ASSEMBLY AND THE FLAP END-RIB (IB AND OB) SHOULD REQUIRE REMOVAL OF THE FLAP FOR FURTHER INSPECTION OF THE BONDED INSERTS. MFG HAS BEEN CONTACTED. (K)

2005FA0000282	SOCATA	RIB	FAILED
8/9/2004	TBM700		TE FLAP

BONDED INSERTS WHICH PROVIDE THE ATTACH POINTS FOR THE METAL CARRIAGE ASSY TO THE HONEYCOMB FLAP END-RIB HAVE FAILED. INSPECTION OF THE INSERTS REVEALS THAT THE SEAL BETWEEN THE BONDED INSERT AND THE HONEYCOMB STRUCTURE BECOMES COMPROMISED. WATER IS INTRODUCED INTO THE HONEYCOMB END-RIB AND THE HONEYCOMB STRUCTURE FAILS. IMMEDIATELY INSPECT THE INTEGRITY OF THE IB AND OB FLAP ATTACH POINTS. ANY MOVEMENT NOTED BETWEEN THE FLAP CARRIAGE ASSEMBLY AND THE FLAP END-RIB (IB AND OB) SHOULD REQUIRE REMOVAL OF THE FLAP FOR FURTHER INSPECTION OF THE BONDED INSERTS. MFG HAS BEEN CONTACTED.

2005FA0000286	SOCATA	RIB	FAILED
8/9/2004	TBM700		TE FLAP

BONDED INSERTS WHICH PROVIDE THE ATTACH POINTS FOR THE METAL CARRIAGE ASSY TO THE HONEYCOMB FLAP END-RIB HAVE FAILED. INSPECTION OF THE INSERTS REVEALS THAT THE SEAL BETWEEN THE BONDED INSERT AND THE HONEYCOMB STRUCTURE BECOMES COMPROMISED. WATER IS INTRODUCED INTO THE HONEYCOMB END-RIB AND THE HONEYCOMB STRUCTURE FAILS. IMMEDIATELY INSPECT THE INTEGRITY OF THE IB AND OB FLAP ATTACH POINTS. ANY MOVEMENT NOTED BETWEEN THE FLAP CARRIAGE ASSY AND THE FLAP END-RIB (IB AND OB) SHOULD REQUIRE REMOVAL OF THE FLAP FOR FURTHER INSPECTION OF THE BONDED INSERTS. MFG HAS BEEN CONTACTED. (K)

2005FA0000283	SOCATA	RIB	FAILED
8/9/2004	TBM700		TE FLAP

BONDED INSERTS WHICH PROVIDE THE ATTACH POINTS FOR THE METAL CARRIAGE ASSY TO THE HONEYCOMB FLAP END-RIB HAVE FAILED. INSPECTION OF THE INSERTS REVEALS THAT THE SEAL BETWEEN THE BONDED INSERT AND THE HONEYCOMB STRUCTURE BECOMES COMPROMISED. WATER IS INTRODUCED INTO THE HONEYCOMB END-RIB AND THE HONEYCOMB STRUCTURE FAILS. IMMEDIATELY INSPECT THE INTEGRITY OF THE IB AND OB FLAP ATTACH POINTS. ANY MOVEMENT NOTED BETWEEN THE FLAP CARRIAGE ASSY AND THE FLAP END-RIB (IB AND OB) SHOULD REQUIRE REMOVAL OF THE FLAP FOR FURTHER INSPECTION OF THE BONDED INSERTS. MFG HAS BEEN CONTACTED.(K)

2005FA0000284	SOCATA	RIB	FAILED
8/9/2004	TBM700		TE FLAP

BONDED INSERTS WHICH PROVIDE THE ATTACH POINTS FOR THE METAL CARRIAGE ASSY TO THE HONEYCOMB FLAP END-RIB HAVE FAILED. INSPECTION OF THE INSERTS REVEALS THAT THE SEAL BETWEEN THE BONDED INSERT AND THE HONEYCOMB STRUCTURE BECOMES COMPROMISED. WATER IS INTRODUCED INTO THE HONEYCOMB END-RIB AND THE HONEYCOMB STRUCTURE FAILS. IMMEDIATELY INSPECT THE INTEGRITY OF THE IB AND OB FLAP ATTACH POINTS. ANY MOVEMENT NOTED BETWEEN THE FLAP CARRIAGE ASSEMBLY AND THE FLAP END-RIB (IB AND OB) SHOULD REQUIRE REMOVAL OF THE FLAP FOR FURTHER INSPECTION OF THE BONDED INSERTS. MFG HAS BEEN CONTACTED. (K)

2005FA0000288	SOCATA	RIB	FAILED
8/9/2004	TBM700		TE FLAP

BONDED INSERTS WHICH PROVIDE THE ATTACH POINTS FOR THE METAL CARRIAGE ASSY TO THE HONEYCOMB FLAP END-RIB HAVE FAILED. INSPECTION OF THE INSERTS REVEALS THAT THE SEAL BETWEEN THE BONDED INSERT AND THE HONEYCOMB STRUCTURE BECOMES COMPROMISED. WATER IS INTRODUCED INTO THE HONEYCOMB END-RIB AND THE HONEYCOMB STRUCTURE FAILS. IMMEDIATELY INSPECT THE INTEGRITY OF THE IB AND OB FLAP ATTACH POINTS. ANY MOVEMENT NOTED BETWEEN THE FLAP CARRIAGE ASSY AND THE FLAP END-RIB (IB AND OB) SHOULD REQUIRE REMOVAL OF THE FLAP FOR FURTHER INSPECTION OF THE BONDED INSERTS. MFG HAS BEEN CONTACTED. (K)

2005FA0000236	SWRNGN	GARRTT	DOOR FRAME	CRACKED
10/21/2004	SA226TC	TPE331*		CARGO DOOR

DURING A FLUORESCENT PENETRANT INSPECTION OF (CARGO DOOR FRAME LOWER END FORE AND AFT NEAR BAYONET PIN). (FC STUN-M00-2-1-1) A CRACK OF APPROXIMATELY 0.250 INCH WAS DETECTED. THE PROBABLE CAUSE IS SERVICE INDUCED FATIGUE CRACKING. AREA OF CONCERN HAS ALREADY BEEN REINFORCED WITH DOUBLER PLATE AND ADDITIONAL RIVETS. STOP HOLE WILL BE DRILLED AT CRACK END TO PREVENT FURTHER LENGTHENING.

CA050105015	SWRNGN	GARRTT	ADAPTER	CRACKED
1/4/2005	SA226TC	TPE33110UA	8941172	OIL FILTER

DURING CRUISE, RT ENG OIL PRESS WARNING LIGHT ILLUM ON ANNUNCIATOR. UPON LOOKING AT RT OIL PRESS IND FLT CREW NOTICED OIL PRESS DECREASING THROUGH 40 PSI. CREW ELECTED TO SHUTDOWN RT ENG AS A PRECAUTION. A/C CONTINUED IT'S FLIGHT TO YWG WHERE IS LANDED W/O FURTHER INCIDENT WITH EMERGENCY SERVICES STANDING BY. UPON INSPECTION BY MX OF RT ENG, OIL FILTER HOUSING ADAPTER FOUND CRACKED AT MOUNTING FLANGE WHICH PROPAGATED TO ADAPTERS O-RING GROOVE, WHICH CAUSED LOSS OF OIL. 3 OF 8 US QUARTS OF ENGINE OIL SYS LOST DUE TO LEAKING ADAPTER. ENG OIL PRESS ONLY DROPPED TO 40 PSI BEFORE ENG SHUTDOWN. OIL FILTER ADAPTER CHANGED & LEAK CHECKS PERFORMED.

CA040617005	SWRNGN	GARRTT	PIN	BROKEN
6/14/2004	SA226TC	TPE33110UA	2752529003	SCISSOR LINK

DURING A DAILY INSPECTION, IT WAS NOTICED THAT THE RT MAIN LANDING GEAR SCISSOR LINK UPPER PIN WAS FOUND BROKEN. THE PIN BROKE AT THE RETAINING HOLE IN WHICH A ROLL PIN IS INSTALLED. IT WAS ALSO DETERMINED THAT THIS PIN WAS FOR A NOSE GEAR INSTALLATION. ALTHOUGH IT IS THE SAME SIZE AND FIT AS THE MAIN GEAR SCISSOR PIN THIS PART NUMBER PIN IS NOT ELIGIBLE FOR INSTALLATION ON THE MAIN GEAR SCISSOR LINK AS PER THE MANUFACTURERS IPC. THE PIN WAS MOST LIKELY FRACTURED AT SOME POINT FROM REMOVAL OR INSTALLATION OF THE ROLL PIN WITH THE USE OF A PIN PUNCH.

CA040618006	SWRNGN	GARRTT	LINK ASSY	CRACKED
6/10/2004	SA226TC	TPE33110UA	2771004073	AILERONS

FOUND LEFT AND RIGHT LINK ASSY ON AILERON PUSH PULL TUBES CORRODED AND CRACKED ON ALL FOUR SIDES. PARTS WERE REMOVED AND A NEW LINK ASSY WERE INSTALLED.

CA040617002	SWRNGN	GARRTT	BEARING	MAKING METAL
6/16/2004	SA226TC	TPE33110UA	310117017	ENGINE

AN IMMEDIATE ENGINE INSPECTION WAS REQUESTED BY WEAR CHECK DUE TO MAJOR SILVER CONTENT IN THE OIL SAMPLE. UPON INSPECTION OF THE ENGINE GEAR CASE THE HIGH SPEED PINION BEARING AND CAGE WERE FOUND TO HAVE THE SILVER COATING FLAKING OFF. THIS PROBLEM IS IDENTICAL TO SDR20040611003. ENGINE HAS BEEN REMOVED FROM THE AIRCRAFT FOR REPAIRS. PICTURES: 019 HOLE IN OUTER RACE.020 ROLLERS SCRATCHED. 021 SILVER COMING OFF CAGE .022 SILVER COMING OFF CAGE.

CA040617004	SWRNGN	GARRTT	MASTER CYLINDER	LOCKED
6/14/2004	SA226TC	TPE33110UA	V151000	BRAKES

DURING A MAINTENANCE RUN-UP AND SUBSEQUENT TAXI, THE BRAKES LOCKED UP AND THE AIRCRAFT COULD NOT BE MOVED. BRAKE PRESSURE WAS RELIEVED AT THE BRAKE ASSY AND WAS FOUND THE NR 1 BRAKE MASTER CYLINDER HAD MALFUNCTIONED AND CAUSED THE BRAKES TO LOCK UP. REFERENCE AD 2002-08-02 ISSUED FOR THIS PROBLEM. THIS AIRCRAFT IS IN COMPLIANCE WITH THIS AD.

CA040705004	SWRNGN	GARRTT	STEERING SYS	INOPERATIVE
6/30/2004	SA226TC	TPE33110UA		NLG

(CAN) UPON LANDING, WHEN SPEED LEVERS SELECTED TO LOW AT 70 KIAS, NOSE WHEEL STEERING WAS ARMED AND THE AIRCRAFT VEERED SHARPLY RT AND DEPARTED THE RUNWAY. THE ENGINES WERE SHUTDOWN AS A PRECAUTIONARY MEASURE. NO DAMAGE NOTED. THE AIRCRAFT STOPPED ON THE ADJACENT TAXIWAY. WILL REPORT FURTHER WHEN THE SOURCE OF THE PROBLEM IS DISCOVERED. AIRCRAFT HAS BEEN REMOVED FROM SERVICE SINCE.

CA040616006	SWRNGN		UPLOCK HOOK	LACK OF LUBE
6/15/2004	SA227*			MLG

AFTER THE AIRCRAFT TOOK OFF AND THE CREW SELECTED GEAR UP THE 'UNSAFE' GEAR WARNING LIGHTS REMAINED ON. THE CREW SELECTED DOWN AND OBTAINED 3 GREEN LIGHTS AND RETURNED TO BASE. MAINTENANCE WAS ABLE TO REPEAT THE PROBLEM ON THE GROUND ON GEAR SWINGS. THE UPLOCK HOOKS WERE NOT FULLY ENGAGING ON THE UPLOCK ROLLERS. THE MECHANISMS WERE CLEANED AND LUBRICATED AND THE GEAR SWINGS WERE SERVICEABLE. AIRCRAFT RETURNED TO SERVICE.

2005FA0000064	SWRNGN	GARRTT	SCAVENGE PUMP	FAILED
12/6/2004	SA227*	TPE33111U	31080261	NR 2 ENGINE

MRR-M04-23, NR 2 ENGINE OIL PRESSURE LIGHT CAME ON AS FLIGHT LEVELED OUT IN CRUISE, OIL PRESSURE GAUGE WAS CHECKED AND FOUND PRESSURE DROPPING. CREW DID A PRECAUTIONARY INFLIGHT SHUTDOWN, AND RETURNED TO STATION. LOSS OF OIL PRESSURE DUE TO LOSS OF OIL FRM REAR SCAVANGE PUMP AREA. REMOVED ENGINE, REPLACED SCAVANGE PUMP AND REINSTALLED ENGINE. MFG HAS CHANGED PUMP DESIGN TO DECREASE REAR SCAVANGE PUMP FAILURES. (K)

CA040527010	SWRNGN		WIRE	BROKEN
5/26/2004	SA227AC		C1006	POWER LEVER SWIT

ON TAKEOFF THE CREW ABORTED DUE TO AN AMBER 'NOSE STEER FAIL' LIGHT WAS 'ON'. SYSTEM WAS TROUBLESHOT AND A BROKEN WIRE WAS FOUND ON THE LT POWER LEVER ENABLE NOSE WHEEL STEERING SWITCH. THE WIRE WAS REPAIRED AND THE SYSTEM TESTED SERVICIBLE. AIRCRAFT RETURNED TO SERVICE.

2005FA0000065	SWRNGN	GARRTT	WINDSHIELD	CRACKED
1/3/2005	SA227AC	TPE33111U		COCKPIT

MRR-M05-01, NR 1 WINDSHIELD CRACKED IN FLIGHT JUST AS CREW STARTED DESCENT. CREW DEPRESSURIZED AC, DESCENDED TO AN APPROPRIATE ALTITUDE FOR NON-PRESSURIZED FLIGHT, AND DIVERTED TO AN AIRPORT WITH VMC CONDITIONS. CREW LANDED WITH NO FURTHER INCIDENT. OAT WAS APPROXIMATELY -40 AND WINDSHIELD HEAT WAS ON LOW. INNER GLASS PANE CRACKED, UNDER INVESTIGATION WITH THE OVERHAUL/REPAIR FACILITY. INNER PANE OF THE HEATED WINDSHIELD CRACKED EXTENSIVELY. REPLACED WINDSHIELD, OPS CHECK AND LEAK CHECK GOOD. (K)

2005FA0000062	SWRNGN	GARRTT	HANDLE	OUT OF RIG
12/22/2004	SA227AC	TPE33111U		CARGO DOOR

CARGO DOOR WARNING LIGHT CAME ON IN FLIGHT, CREW DESCENDED AND DEPRESSURIZED, AND THE LIGHT WENT OUT. CREW LANDED AT CLOSEST AIRPORT. FOUND CARGO DOOR HANDLE NOT COMPLETELY STOWED WHEN CHECK AT ARRIVAL. INSPECTED CARGO DOOR AND LATCHES, CLEANED AND LUBED SWITCHES. DOOR OPS CHECK GOOD. NO FURTHER PROBLEMS NOTED WITH THE DOOR. (NM05200502388) (K)

2005FA0000063	SWRNGN	GARRTT	ACTUATOR	FAILED
12/25/2004	SA227AC	TPE33111U	2752010003	NLG

RED GEAR NOSE UNSAFE LIGHT CAME ON IN FLIGHT. LANDED, CHECKED NOSE GEAR WELL NOTICED RT GEAR ACTUATOR BROKE. FORWARD END OF ACTUATOR BROKE OFF. AIRCRAFT BROUGHT BACK, BROKEN ACTUATOR REMOVED AND BRACE MFG AND INSTALLED IAW SFP. UPON RETURN, NLG STRUT AND WHEEL WELL WERE INSPECTED FOR DAMAGE WITH NO DEFECTS NOTED. AN OVERHAULED ACTUATOR WAS INSTALLED, RIGGED, AND A LEAK AND OPERATION CHECKS WERE PERFORMED WITH NO OTHER DEFECTS NOTED. (K)

2005FA0000059	SWRNGN	GARRTT	FIRE BOTTLE	EMPTY
12/3/2004	SA227AC	TPE33111U	3030020	

MRR-M04-18, DURING FLIGHT THE LT FIRE EXTINGUISHER (E) LIGHT CAME ON BRIEFLY SEVERAL TIMES. THE CREW MONITORED THE LIGHT AND THE FLIGHT WAS CONTINUED TO THE DESTINATION WITH NO INCIDENT. FIRE EXTINGUISHER (E) LIGHT WAS FOUND ON, AND THE FIRE EXTINGUISHER BOTTLE WAS FOUND EMPTY DURING TROUBLESHOOTING BY MAINTENANCE. THE SQUIB HAD BEEN FIRED. REPLACED FIRE EXTINGUISHER BOTTLE AND SQUIB HAD BEEN FIRED. REPLACED FIRE EXTINGUISHER BOTTLE AND SQUIB. FIRE BOTTLE PN: 3030020, SN 05782B1 OH 7-14-04, INSTALLED 7-19-04. NO DEFECTS WERE NOTED DURING TROUBLESHOOTING OR PARTS

CHANGES. PRESS TO TEST FUNCTION AND ALL OTHER FUNCTION CHECKS WERE GOOD. (K)

2005FA0000043	SWRNGN	GARRTT	WARNING SYSTEM	MALFUNCTIONED
3/4/2004	SA227AC	TPE33111U		CARGO DOOR

CARGO DOOR WARNING LIGHT CAME ON IN FLIGHT DURING THE START OF THE DESCENT TO THE NEXT STATION. ATC WAS NOTIFIED. THE LIGHTS STAYED ON FOR APPROXIMATELY 10 MINUTES. DOOR CLOSING PROCEDURES, DOOR HARD TO CLOSE, DOOR CLICK CLACK RIGGING/LUBRICATION, OR SWITCH RIGGING. ALL CLICK CLACKS AND MICRO SWITCHES. NO DEFECTS NOTED. AN OPERATIONAL CHECK FLIGHT WAS COMPLETED WITH NO DISCREPANCIES. AIRCRAFT WAS RETURNED TO SERVICE. (K)

CA050113006	SWRNGN	GARRTT	BLADE	BROKEN
1/11/2005	SA227AC	TPE33111U		PROPELLER TIP

(CAN) DURING TAKE OFF ROLL OUT, THE LT PROP STRUCK DEBRIS ON RUNWAY AND A 3 INCH PORTION OF THE TIP OF THE PROP BROKE OFF AND WENT THROUGH THE FUSELAGE JUST BEHIND AND BELOW THE AIRSTAIR DOOR. A 2 -3 INCH HOLE IN RT PROP SPINNER WAS ALSO DISCOVERED AT THE SAME TIME.

2005FA0000055	SWRNGN	GARRTT	SELECTOR VALVE	FAILED
10/10/2004	SA227AC	TPE33111U	246006	MLG

MRR-M04-14, THE LANDING GEAR FAILED TO EXTEND USING NORMAL OR ALTERNATE BUSS, CREW FOLLOWED EMERGENCY CHECKLIST AND EXTENDED GEAR USING MANUAL GEAR EXTENSION SYSTEM. THE CREW LANDED WITH NO FURTHER INCIDENT. FAILED HYDRAULIC LANDING GEAR SELECTOR VALVE. INITIALLY REPOSITIONED AIRCRAFT UNDER A SPECIAL FERRY PERMIT TO MAINTENANCE BASE, THEN CHANGED THE GEAR SELECTOR VALVE. GEAR OPS CHECKED GOOD. (NM0520050916) (K)

2005FA0000324	SWRNGN	GARRTT	OIL COOLER	BLOCKED
4/6/2004	SA227AC	TPE33111U	20163A	NR 2 ENGINE

ON CLIMBOUT, NR 2 ENG OIL TEMP WENT UP TO RED LINE, OIL PRESSURE DROPPED. LOW OIL PRESSURE LIGHT HAD NOT COME ON. CREW MADE PRECAUTIONARY SHUTDOWN ON NR 2 ENG, LANDED BACK AT BASE WITH NO FURTHER INCIDENT. OIL WAS FOUND IN TAILPIPE OF NR 2 ENG, NO OIL FOUND IN ENG INLET. REAR CARBON SEAL HAD FAILED DUE TO EROSION, VIBRATION, OR COMB. OIL COOLER WAS REPLACED, OIL TEMP RETURNED TO NORMAL RANGES. INTERNAL PARTIAL BLOCKAGE IS SUSPECTED. TEARDOWN, EVALUATION OF OIL COOLER REQUESTED. BORESCOPE OF HOT SECTION DISTRESS, CK OF GEARBOX OIL FOR CONTAMINATION, IF ANYTHING FOUND, REAR CARBON SEAL WILL BE REPLACED. (NM052004040470) (K)

2005FA0000040	SWRNGN	GARRTT	FIRE DETECTOR	FAILED
12/18/2004	SA227AC	TPE33111U	1734361600F	RT ENGINE

RT ENGINE FIRE WARNING LIGHT FLICKERED ON AND OFF DURING CLIMB. CREW RETURNED TO STATION. FAILED FIRE DETECTOR PROBE (CENTER CERAMIC INSULATOR LOOSE). REPLACED FIRE DETECTOR LOCATED BELOW THE OIL COOLER MOUNTED ON THE FIREWALL. (NM05200400110) (K)

2005FA0000042	SWRNGN	GARRTT	SQUAT SWITCH	DAMAGED
3/3/2004	SA227AC	TPE33111U	MS246614	MLG

LANDING GEAR WOULD NOT RETRACT DURING CLIMBOUT, WHEN CREW WAS RETURNING FOR LANDING, GPWS GAVE (TO LOW GEAR) ALERT. THE CREW THEN INITIATED A GO-AROUND, ASKED TOWER TO CONFIRM, THREE GEAR DOWN, DID CONFIRM. CREW DECLARED EMERGENCY, MADE NORMAL LANDING, DURING TAXI, DISCOVERED NOSE WHEEL STEERING WAS INOPERATIVE. MAINTENANCE TO VERIFY DISCREPANCY, GEAR RETRACTED CORRECTLY. FURTHER TROUBLESHOOTING COULD NOT GET GEAR TO FAIL TO OPERATE WHILE ON JACKS. REPLACED LT OB MAIN GEAR SQUAT SWITCH, DUE TO SUSPECTED WATER INGRESSION, CHANGED LANDING GEAR CONTROL HANDLE AND LT LANDING GEAR CONTROL CIRCUIT BREAKER, PRECAUTIONARY ACTION. AC WAS RELEASED AND OPS CHECK FLIGHT WAS PERFORMED WITH NO FURTHER DEFECTS NOTED.

2005FA0000057	SWRNGN	GARRTT	LINE	PIN HOLE
11/14/2004	SA227AC	TPE33111U	27810321857	HYDRAULIC SYS

MRR-M04-16, DURING CRUISE, CREW NOTED LOSS OF HYDRAULIC PRESSURE, ENROUTE TO NEXT STATION. HYDRAULIC LINE LEAK. REPLACED HYDRAULIC GEAR UP LINE LOCATED UNDER THE FLOORBOARDS IN THE

CABIN ON LT SIDE OF THE AIRCRAFT. (NM05200502368) (K)

2005FA0000058	SWRNGN	GARRTT	LINE	LEAKING
11/23/2004	SA227AC	TPE33111U		HYDRAULIC SYS

MRR-M04-17, DURING CLIMBOUT, CREW NOTED LOSS OF HYDRAULIC PRESSURE ENROUTE TO NEXT STATION. HYDRAULIC LINE LEAK. REPLACED NOSE GEAR UP HYDRAULIC LINE, LEAK CHECK AND OPS CHECK GOOD. (NM05200502369) (K)

2005FA0000060	SWRNGN	GARRTT	SMOKE	DETECTED
12/5/2004	SA227AC	TPE33111U		COCKPIT

MRR-M04-19, CREW NOTICED SMOKE IN COCKPIT AS THEY WERE CLIMBING THROUGH 12,000 FT, DESCENDED TO 10,000 FT, DEPRESSURIZED, TURNED OFF BLEEDS, AND CONTINUED TO STATION UNPRESSURIZED. SUSPECTED ACM FAILURE OR BLEED HEAT CNTRL VALVE FAILURE. RAN BOTH ENG FOR 20 MIN, NO SMOKE NOTICABLE IN CABIN. INSPECTED LT AND TR TEMP CNTRL VALVES, WITH NO DEFECTS NOTED. INSPECTED LT AND RT ACMS, WITH NO DEFECTS NOTED. SERVICED BOTH ACMS AND REMOVED, CLEANED, REINSTALLED WATER SOCKS. RAN ENG SECOND TIME WITH NO DEFECTS NOTED. COULD NOT DUPL ORIGINAL WRITE-UP. WATER SEPARATOR ICED UP, AND WHEN IT WARMED UP, STEAM CAME THROUGH, MIMICING SMOKE. (NM05200502386) (K)

2005FA0000061	SWRNGN	GARRTT	LINE	CRACKED
12/19/2004	SA227AC	TPE33111U		HYDRAULIC SYS

MRR-M04-20, DURING CRUISE, CREW NOTED LOSS OF HYDRAULIC PRESSURE ENROUTE TO NEXT STATION. THEY DIVERTED TO AN AIRPORT WITH BETTER RUNWAYS FOR LANDING FLAPS UP AND WITH NO NOSE WHEEL STEERING. CREW MANUALLY EXTENDED THE GEAR, THE LANDED FLAPS UP AND WITHOUT NOSE WHEEL STEERING. CREW LANDED WITH NO FURTHER INCIDENT. HYDRAULIC LINE LEAK. REPLACED HYDRAULIC GEAR UP LINE IN THE COCKPIT, LEAK CHECK AND OPS CHECK GOOD. CRACK OR EROSION IN THE BEND RADIUS SEEMS TO ORIGINATE AT TOOLING MARKS IN THE OUTSIDE OF THE CURVE. THIS IS A MFG (FACTORY) MADE LINE. LINE WAS REPLACED, BOTH HYD PUMPS AND FILTER WERE REPLACED DUE TO BEING RUN MORE THAN 20 MIN W/O HYDRAULIC FLUID. SYSTEM OPS CHECKED GOOD. (NM05200502387) (K)

2005FA0000066	SWRNGN	GARRTT	WARNING SYSTEM	MALFUNCTIONED
1/5/2005	SA227AC	TPE33111U		PAX DOOR

CREW OBSERVED THE CABIN DOOR LIGHT CAME ON DURING CRUISE. CREW VERIFIED HANDLE WAS IN THE FULL CLOSED POSITION. THE LIGHT WENT OUT DURING DESCENT, AND WAS ON FOR APPROXIMATELY 10 MINUTES. THE LIGHT STAYED OUT FOR THE REMAINDER OF DESCENT AND LANDING. ONE OF THE FOLLOWING: DOOR CLOSING PROCEDURES, DOOR HARD TO CLOSE, DOOR CLICKCLACK RIGGING/ LUBRICATION, OR INDICATORS SWITCH RIGGING. NO FAULT FOUND, COULD NOT GET SYSTEM TO FAIL. COULD NOT DUPLICATE MALFUNCTION, CLEANED ALL CABIN DOOR SWITCHES AND OPS CHECKED DOOR SYSTEM. OPS CHECKED GOOD. (K)

2005FA0000067	SWRNGN	GARRTT	WARNING SYSTEM	MALFUNCTIONED
1/6/2005	SA227AC	TPE33111U		PAX DOOR

MRR-M05-3, CREW OBSERVED THE CABIN DOOR LIGHT CAME ON DURING CRUISE. CREW VERIFIED HANDLE WAS IN THE FULL CLOSED POSITION. THE LIGHT WENT OUT WHEN CABIN DIFFERENTIAL PRESSURE WAS LOWERED. THE LIGHT STAYED OUT FOR THE REMAINDER OF DESCENT AND LANDING. CREW ALSO NOTED THE DOOR SEAL LEAKS. ONE OF THE FOLLOWING: DOOR CLOSING PROCEDURES, DOOR HARD TO CLOSE, DOOR CLICKCLACK RIGGING/ LUBRICATION, OR INDICATOR SWITCH RIGGING. NO FAULT FOUND, COULD NOT GET SYSTEM TO FAIL. COULD NOT DUPLICATE MALFUNCTION, INITALLY DEFERRED IAW MEL. (K)

2005FA0000046	SWRNGN	GARRTT	DOOR	OUT OF ALIGNMENT
3/22/2004	SA227AC	TPE33111U	27240050027	CARGO

CARGO DOOR WARNING LIGHT CAME ON AS POWER WAS BEING APPLIED FOR TAKEOFF, CREW DISCONTINUED TAKEOFF ROLL AND RETURNED TO GATE. ONE OF THE FOLLOWING: DOOR CLOSING PROCEDURES, DOOR HARD TO CLOSE, DOOR CLICKCLACK RIGGING/ LUBRICATION, OR SWITCH RIGGING. CLICK CLACKS, BAYONET PINS, MICROSWITCHES WERE CLEANED AND LUBED. DOOR OPS CHECK GOOD, FLIGHT CONTINUED WITH NO FURTHER DOOR PROBLEMS.

N114EL1	TMPSON	CONT	PIPER	CONTROL ARM	SEPARATED

12/15/2004	NAVIOND	O470*	63457003	RUDDER PEDALS

ON THE RUDDER PEDAL ASSY, THE RUDDER CONTROL ARM ASSEMBLY , TRIM ARM BROKE OFF AT PARENT METAL SUROUNDING THE WELD POINT. PILOT REPORTED LOSS OF RUDDER TRIM INPUT. NO HISTORY OF PART REPLACMENT. P/N 63457-003. 2879.3 HOURS TOTAL AIRCRAFT TIME. HAND TOW BAR FOR THIS AIRCRAFT WAS FOUND BENT ABOUT 20 DEGREES ABOUT ONE MONTH PRIOR TO LOSS OF RUDDER TRIM INPUT. REPLACEMENT PART WAS INSTALLED AND FUNTIONAL CHECK FLIGHTS WERE FLOWN WITHOUT DIFFICULTY.

N114EL	TMPSON	CONT	PIPER	CONTROL ARM	SEPARATED
12/15/2004	NAVIOND	O470*		63457003	ZONE 100

ON THE RUDDER PEDAL ASSY, THE RUDDER CONTROL ARM ASSEMBLY, TRIM ARM BROKE OFF AT PARENT METAL SURROUNDING THE WELD POINT. PILOT REPORTED LOSS OF RUDDER TRIM INPUT. NO HISTORY OF PART REPLACEMENT. P/N 63457-003. 2879.3 HOURS TOTAL AIRCRAFT TIME. HAND TOW BAR FOR THIS AIRCRAFT WAS FOUND BENT ABOUT 20 DEGREES ABOUT ONE MONTH PRIOR TO LOSS OF RUDDER TRIM INPUT. REPLACEMENT PART WAS INSTALLED AND FUNCTIONAL CHECK FLIGHTS WERE FLOWN WITHOUT DIFFICULTY.

2005FA0000189	UNIVAR	CONT	SPAR CAP	CORRODED
6/13/2004	415C	A75*	41513027	WING

WHILE PERFORMING A 3 YEAR INSPECTION OF THE WING CENTER SECTION IAW AD, NOTE: 2002-26-02 AND MFG SB NR 31, THE FORWARD UPPER SPAR CAPSTRIP, PN 415-13027 WAS FOUND TO HAVE AN AREA OF INTERGRANULAR (IG) CORROSION NEAR THE UPPER WING ATTACH FITTING. THE CORROSION WAS BARELY VISIBLE WITH THE WING CENTER SECTION INSTALLED ON THE AIRCRAFT. THE FULL EXTENT OF THE IG CORROSION WAS NOT KNOWN TILL THE WING CENTER SECTION SPAR WAS REMOVED FROM THE AIRCRAFT, STRIPPED OF PAINT AND THOROUGHLY CLEANED. INITIALLY THE AREA OF CORROSION APPEARED TO LOOK LIKE PEALING PAINT. CLOSER INSPECTION REVEALED AN AREA .6250 WIDE X 6 INCHES LONG X .1875 INCH DEEP. RECOMMEND A CLOSE AND THOROUGH INSPECTION OF WING CENTER INSPECTION FOR CORROSION. (K)

2005FA0000148	UNIVAR	CONT	CYLINDER	FAILED
11/20/2004	415C	C8512		ENGINE

CYLINDER AND ROD FAILURE RESULTED IN CASE FAILURE CAUSING CYLINDER TO COME OF ENGINE. CAUSE UNKNOWN. NR 4 PISTON (AE-C530348) FAILURE. (WP09200502317). (K)

CA040914003	UROCOP	TMECA	PUMP	SHORTED
9/3/2004	EC120B	ARRIU2F	P94C16612	ENGINE

DURING START SEQUENCE, ELECTRIC BOOST PUMP TRIPPPED CIRCUIT (3A) BREAKER. PUMP REPLACED.AF FUEL SYSTEM FILTER CONTAINED APPROXIMATELY 10 SMALL, NON-FERROUS, METAL SLIVERS. PRESUMED TO BE ALUMINUM. (PRIOR START PUMP CHANGED DUE TO NON-FERROUS METAL GENERATION.)

2005FA0000114	UROCOP	TMECA	WINDSHIELD	CRACKED
11/13/2004	EC130B4	ARRIEL2B	350A25900400	COCKPIT

DURING DESCENT TO LANDING, PILOT NOTED CENTER WINDSHIELD CRACKED FROM JOGGLE POINT ACROSS LOWER WINDSCREEN. REPAIRED WINDSCREEN IAW SRM FOR FLIGHT MAINTENANCE. REPLACED WINDSCREEN WITH NEW. CENTER WINDSCREEN HAS PROBLEMS WITH CRACKING DURING TEMPERATURE CHANGES (COLD WEATHER). (K) (RECORD NR 98050)

2005FA0000406	UROCOP		CHANNEL	CRACKED
3/11/2005	EC135P1		L713M2071105	FUSELAGE

INLET CHANNEL, CRACKED BASE METAL DUE TO VIBRATION. (K)

2005FA0000403	UROCOP	TMECA	BRACKET	CRACKED
3/11/2005	EC135T1	ARRIEL1	L713M2055102	NACELLE

EJECTOR COWLING ALIGNMENT BRACKET CRACKED DUE TO VIBRATION. (K)

TXER099315	UROCOP	TMECA	RELAY	FAILED
1/20/2005	EC155B	ARRIEL2B	51455Y2	UNKNOWN

RELAY FAILED.

END OF REPORTS