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AVIATION MAINTENANCE ALERTS

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

AVIATION MAINTENANCE ALERTS

The Aviation Maintenance Alerts provide a common communication channel through which the aviation community can economically interchange service experience, cooperating in the improvement of aeronautical product durability, reliability, and safety. This publication is prepared from information submitted by those who operate and maintain civil aeronautical products. The contents include items that have been reported as significant, but have not been evaluated fully by the time the material went to press. As additional facts such as cause and corrective action are identified, the data will be published in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported via Malfunction or Defect Reports. 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.

AIRPLANES

BEECH

Beech; Model 200; Rudder Boost Malfunction; ATA 2720

During a rudder boost test, the right rudder pedal remained at full deflection, even with the engines at idle. When the system was turned off, both pedals returned to center. (Rudder solenoid P/N 717.)

The submitter stated if the system failed on final approach or during takeoff, the end result could be devastating.

A search of the FAA Service Difficulty Reporting System database revealed two reports with rudder boost problems in flight. These aircraft experienced uncommanded yaw during flight and difficulty maintaining control in taxi operations. Moisture contamination is suspected in both cases.

Part total time: 1,185.7 hours.

DOUBLE ENGINE FLAMEOUT BE-400

(The following is printed as it was received.)

On July 12, 2004, a Beech (BE-400A) with PWA JT15D engines (without engine fuel heaters), while cruising at 41,000 feet with the out side air temperature of -59°C, was directed by ATC to descend to 33,000 feet. At approximately 39,000 feet, with engine power reduced for the descent, both engines experienced a flameout. After several start attempts, the crew was able to restart the number 2 engine at approximately 14,000 feet. The fuel, from the BE-400, was tested for density, specific gravity, anti-icing additives, freezing point, and flash point. The density, specific gravity, and flash point were normal, however, the content of the anti-icing additives and freezing point were not normal. The test showed a reading of 0.023 parts per million of *Prist* anti-icing additives. The normal percentage by volume should have been 0.10 to 0.15 parts per million.

The AFM states that fuel additives, to lower the freezing point, are required to allow the aircraft to operate at a minimum outside air temperature of -65°C with a -40°C minimum fuel temperature. The operator is responsible for the overall safe operation of an aircraft. When a flight crew lands at an airport and requests a fuel load with

Prist, they may not always know the quality of product they are getting. The following factors could have a significant affect on the quality of the fuel being delivered:

- If the fuel and *Prist* was pre-mixed, was the fuel tested for concentration of *Prist* in accordance with an industrial standard?
- If the *Prist* in the fuel was dispensed by an external delivery device, was the delivery system calibrated to an industry standard?

In order to prevent a potentially catastrophic accident, due to the possibility of an improper fuel load, operators should establish procedures that would provide for the following:

- A method for auditing and if necessary, approving fuel vendor facilities.
- Checking the fuel vendor's quality control/records system that verifies the fuel test results and calibration of delivery systems.
- Specific procedures for the crew to follow in the event that the aircraft is refueled with improper fuel.
- Detailed procedures to guide the pilot when monitoring fueling operations and reviewing quality control records.

Beech; Model 1900D; Bleed-Air Warning Switch Connections Reversed; ATA 3620

The technician conducted the first 5,000-hour inspection of the bleed air warning switch connections and found left and right connectors (P/N 90-380002-3) were swapped. This condition would warn the pilot of a possible bleed-air overheat condition on the wrong side of the aircraft; therefore, the pilot's action would be to shut down the good bleed-air system and leave the compromised system operating. In the event of an actual failure, the aircraft could experience loss of pressurization or a fire without the pilot receiving a warning.

According to the submitter, there were no prior log entries of work being accomplished on this system. He recommended inspecting the system sooner and more often than 5,000 hours or by installing connectors that cannot be swapped.

A search of the FAA Service Difficulty Reporting System database revealed two other reports with transposed connectors, both occurred in December 1997.

Part total time: 5,052 hours.

BOEING

Boeing; Model B727-243; Transformer Rectifier Unit Fire; ATA 2433

During maintenance, the technician discovered a fire emanating from the number one transformer rectifier unit (TRU) (P/N 2-299), which is located in the forward E & E bay. The power had been on approximately 1 hour and 30 minutes.

The technician extinguished the fire and removed the TRU. The fire was mostly contained within the TRU with heat damage to the drip shield located above the TRU. He replaced the TRU and inspected the E & E bay for fire, heat, and or smoke damage. He cleaned and repaired all areas as necessary.

The technician disassembled the TRU for inspection and repair. He determined a short in the capacitor C1-C6 caused an explosion, which resulted in extensive damage to the rest of the unit.

A search of the FAA Service Difficulty Reporting System database revealed eight reports with faulty TRUs. Six of the eight reports noted a burning odor or smoke.

737-4B7	Overheated with burning odor	December 1995
737-201	Failed with smoke in cabin	October 1996
737-3B7	Failed	January 1997
737-3B7	Failed with smoke in the cabin	July 1997
737-4B7	Overheated with odor in the cabin	December 1998 (Number 2 & 3 TRUs)
737-2E1	Shorted with smoke noted	June 1999
737-201	Failed with burning odor	September 2000
727-201	Faulty	July 2001

Part total time: not reported.

BOMBARDIER

Bombardier; Model CL-600-2B16; Rudder PCU Leaking; ATA 2720

The submitter has been experiencing multiple occurrences in which the rudder PCU (P/N 600-75101-29) has developed leaks around the output shaft, deeming the actuator unserviceable.

According to the submitter, the condition seems to manifest itself after cold soaking. Leaks are normally minimal and within maintenance manual limits when tested on the ground.

A search of the FAA Service Difficulty Reporting System database revealed no other occurrences of rudder PCU leakage.

Part total time: unknown.

CESSNA

Cessna; Model 150G; Windshield Departed In Flight; ATA 5610

The pilot reported that a section of the windshield (P/N 0413419-200) departed the aircraft in flight.

The aircraft records stated the windshield had been repaired on July 15, 2000 in accordance with AC 43.13-1B, Acceptable Methods, Techniques, and Practices – Aircraft Inspection and Repair, chapter 3, section 4. However, the technician did not find any evidence of reinforcement to the part remaining on the aircraft.

According to the submitter, this problem could have been prevented if the new windshield had been installed the way AC 43.13-1B implies.

Part total time: not reported.

Cessna; Model 177; Loss of Aileron Control; ATA 2710

While in flight, the pilot lost aileron control. He applied force to the control yoke and discovered that a total seizure of the ailerons had occurred. He landed the aircraft with rudder control only.

The technician removed the tube assembly (P/N 1767030-13) from the firewall and discovered that the shaft and bearing (P/N 0760633-1) were severely worn.

The submitter implied a dislodged needle bearing jammed the system, preventing yoke rotation for aileron control.

A search of the FAA Service Difficulty Reporting System database revealed two reports of worn bearings; one reported with aileron control binding in flight.

Part total time: 2,598.6 hours.

PIPER

Piper; Model PA-28R-200; Landing Gear Downlock Cracked; ATA 3230

During an inspection for an intermittent in a transit light, the technician discovered the nose landing gear downlock assembly (P/N 6715003) was cracked. Half the inboard perimeter of the actuator rod-attach point was broken off. The remaining half had several cracks emanating from the bolt hole. He replaced the broken assembly with a newly manufactured part, which has substantial structural improvements.

The submitter reported that several more gear actuations would have resulted in complete separation. He recommended giving additional attention to this area (including drag-brace attach area). He also warned against ignoring intermittent landing gear indication lights by investigating the problem thoroughly.

Part total time: 6,854 hours.

Piper; Model PA-34-200T; Inadvertent Master Switch Activation; ATA 2460

While washing the aircraft, the technician noticed that water went down the left side window into the switch panel.

Accumulated water first energized the master switch circuit, then found connections in the left engine start circuit, resulting in prop rotation.

Part total time: not reported.

Piper; Model PA-46-350P; Flap Bellcrank Shaft Sheared; ATA 2750

On the approach for landing, the right-hand inboard flap bellcrank shaft (P/N 82905-003) sheared and caused an asymmetrical flap condition.

The bellcrank showed signs of being cracked for a long time. The flap system was severely out-of-rig. The out-of-rig problem was caused by the twisting of the bellcrank shaft and further adjustments of the rod-end causing an undue load.

A search of the FAA Service Difficulty Reporting System database revealed five other aircraft with cracked, broken, or failed bellcranks in the flap system. The aircraft and dates of occurrences are as follows:

PA-46-350P	Right flap	P/N 82905-03	Broken	August 1997
PA-46-350P	Right flap	P/N 82905-03	Cracked	February 1998
PA-46-310P	Right flap	P/N 82905-03	Failed	November 1998
PA-46-310P	Left flap	P/N 82905-002	Broken	February 2003
PA-46-350P	Left flap	P/N 82905-002	Broken	May 2003

Part total time: 2,538.1 hours.

BALLOONS

BALLOON WORKS

Balloon Works; Model Firefly 9B-15; Valve Windows Separating; ATA 5101

During flight, three of the four valve windows failed by separating at the seams and the remaining window material melted away. This created three large holes in the top of the balloon. The holes raised the internal temperature, caused extremely high fuel consumption, and rendered the aircraft uncontrollable as well as unairworthy.

Part total time: not reported.

AIR NOTES

CORRECTION TO ARTICLE IN THE SEPTEMBER 2004 ALERTS SPECIAL AIRWORTHINESS INFORMATION BULLETIN (SAIB)

CORRECTIONS: The third sentence under the title "Background" has been corrected to read: "These unapproved rafts…" The telephone numbers and the fax number at the end of the article have been updated.

(This SAIB is printed as it was received.)

Introduction:
This Special Airworthiness Information Bulletin (SAIB) alerts part 135 and 91 Air Operators, Repair Stations, Mechanics holding Inspector Authorization (IA), Fixed Base Operators and all inspectors of the Flight Standards District Offices (FSDO) to the existence and use of unapproved life rafts in aircraft. During the investigation of three related Suspected Unapproved Parts (SUP) cases, this office has become increasingly aware of widespread use of non-TSO life rafts in both 14CFR part 135 and part 91 aircraft, especially in south Florida.

Simply stated, the certification requirements for U.S. civil aircraft describe, "When its intended purpose is for emergency equipment, that equipment must be approved". This statement applies, regardless of the requirement to carry or not to carry a life raft on the aircraft.

Background:
Non-TSO life rafts and emergency equipment kits, manufactured and distributed by Survival Products of Hollywood, Fl and others, do not meet the minimum TSO requirements and are not approved for use on any aircraft. Examples of non-conformity are, they may not have multiple chamber construction, lack the required freeboard when loaded and lack required buoyancy in partially inflated condition. These unapproved rafts are advertised on the internet as acceptable (approved) for use on "private" aircraft and "marine" use, when neither the FAA nor the U.S. Coast Guard has issued them approvals. These unapproved rafts have been sold to part 135 Air Operators, found on part 135 aircraft in service during FAA surveillance and are available for sale and rent at Fixed Base Operators and "Pilot Shops".

The following survival products, Inc, non-TSO life rafts and emergency equipment kits have been found on aircraft in addition to being for sale and rent:

- Life rafts; P/N 1400-1, 1400-3, RAF1104-101, 1900-1, 1900-3, 1900-1/2000-1, 1900-1/2000-3 & 1900-1/200-5
- Survival kits; P/N 1500-1, 1500-3 & 1500-5

There are additional non-TSO life raft manufacturers making their products available on the aviation market, although none have been found on aircraft or for rent during our investigations.

Recommendation:
Each person should inspect their life raft and emergency equipment kit in use or available for use on any aircraft, to ensure it is clearly marked FAA-TSO. In addition, that it is newly manufactured or has been inspected and approved for return to service by its original manufacturer or an FAA approved repair station. Any non-TSO life raft or emergency equipment kit, regardless of its manufacturer, should be removed from service and clearly marked, "NOT FOR USE ON AIRCRAFT".

FOR FURTHER INFORMATION, CONTACT:
Richard Shaffer, Principal Maintenance Inspector, FSDO-17, 1050 Lee Wagener Blvd., Ft. Lauderdale, Fl. 33315; telephone (954) 635-1347; or (954) 635-1300; fax (954) 635-1260; e-mail Richard D Shaffer@faa.gov

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

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

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

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

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

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

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

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

The Federal Aviation Administration (FAA) Internet Service Difficulty Reporting (iSDR) web site is the front-end for the Service Difficulty Reporting System (SDRS) 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), Maintenance Difficulty Reports (MDRs), or Service Difficulty Reports (SDRs) as they are commonly called, are collected, converted into a common SDR format, stored, and made available to the appropriate segments of the FAA, the aviation community, and the general public for review and analysis. SDR data is accessible through the "Query SDR data" feature on the iSDR web site at: http://av-info.faa.gov/sdrx/.

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

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

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

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

The SDRS database contains records dating back to 1974. At the current time, we are receiving approximately 45,000 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 between August 23, 2004, and September 22, 2004, which have been entered into the FAA Service Difficulty Reporting (SDR) System database. This is not an all inclusive listing of Service Difficulty Reports. For more information, contact the FAA, Regulatory Support Division, Aviation Data Systems Branch, AFS-620, located in Oklahoma City, Oklahoma. The mailing address is:

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

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

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

Federal Aviation Administration

Service Difficulty Report Data

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

Control Number / Difficulty Date	Aircraft Make / Aircraft Model	Engine Make / Engine Model	Component Make / Component Model	Part Name / Part Number	Part Condition / Part Location
2004FA0000685		CONT		CYLINDER HEAD	CRACKED
6/9/2004		IO520A		712ACA	ENGINE
HOLE THROUGH HEAD OR EXHAUST SIDE, NR7707-14, NR 7707-5 CRACKED HEAD. EST 500 HOURS SINCE NEW.					
2004FA0000671		CONT		CRANKSHAFT	MAKING METAL
3/11/2004		O300D			ENGINE
ENGINE WAS DISASSEMBLED AND INSPECTED. INSP REVEALED METAL CONTAM OF CRANKSHAFT MAIN, CONNECT ROD BRG INSERTS. ENGINE WAS REASSEMBLE WITH NEW BRG INSERTS AND REPLACEMENT STARTER ADAPTER, WHICH WAS DISASSEMBLED AND INSP BEFORE INSTALLATION ON ENGINE. DISCREPANCIES FOUND DURING INSP OF STARTER ADAPTER THAT CAUSED METAL CONTAM OF ENGINE DURING TEST RUN. BRASS SHAVINGS IN WINDINGS OF THE STARTER ADAPTER CLUTCH SPRING. STEEL BURRS ON THE CLUTCH SHAFT GEAR SERRATIONS. CLUTCH SHAFT SIZE OF 1.899 WITH A TAPER OF .006. SPRING HAS PREMATURE WEAR PATTERN. NR 1 CONNECT ROD BRG WAS DAMAGED DUE TO METAL CONTAM, CORRESPONDING CONNECT ROD JOURNAL. MATERIAL FOUND IN OIL FEED CHANNEL OF SHAFT GEAR, MORE BRASS AND STEEL.					
2004FA0000684		WILINT		DIFFUSER	CRACKED
8/30/2004		FJ44		60483	FLANGE WELD SEAM
A CRACK APPROXIMATELY 12 INCHES IN LENGTH WAS FOUND ALONG THE AFT FLANGE WELD SEAM OF THE DIFFUSER ASSY.					
TL9R200400002	AIRBUS			BRAKE	BINDING
7/24/2004	A320233			C20225310	NR 1
THE A320 NR 1 BRAKE WAS REMOVED AS WORN TO LIMITS. THERE WERE NO OPERATIONAL PROBLEMS OR UNUSUAL INDICATIONS LEADING UP TO THE REMOVAL. WHILE ATTEMPTING TO REMOVE THE NR 1 MAIN WHEEL TO FACILITATE REMOVAL OF THE BRAKE, IT WOULD NOT COME OFF AS THE BRAKE WAS JAMMED INTO THE WHEEL. THE WHEEL AND BRAKE WERE REMOVED AS ONE PIECE. BRAKE ROTOR DRIVE BLOCKS WERE DISCOVERED TO HAVE SEPARATED FROM THE ROTOR CAUSING THE WHEEL AND BRAKE TO BE JAMMED AGAINST EACH OTHER.					
2004F00269	AIRBUS	IAE		FMU	ERRATIC
5/24/2004	A320233	V2527EA5		8061633	NR 2 ENGINE
DURING TAKEOFF, AN ECAM WARNING MESSAGE, ENGINE NR 2 OVERSPEED PROTECTION FAULT CAME ON, AT LOW SPEED. WHEN MOVING TRUST LEVERS TO FLX MCT POSITION ENGINE NR 1 RESPONDED NORMAL, WHILE ENGINE NR 2 REMAINED AT LOW POWER. THE PLANE YAW TO THE RT AND THE TAKEOFF WAS ABORTED. AT TGU STATION, TECHNICIANS, PERFORMED TEST ON BOTH ENGINES IAW AMM 71-00-00. FOUND THE FMU NR 2 WORKING ERRATIC AND GIVING TOO MUCH FUEL FLOW. IT WAS REPLACED AND TESTED IAW AMM 7322-52. ALL PARAMETERS WERE FOUND NORMAL, AND AIRCRAFT RETURNED TO NORMAL OPERATION. (M)					
2004FA0000585	AMD			ACTUATOR	DELAMINATED
6/21/2004	FALCON2000			AE40142Z006	PAX DOOR
MAIN CABIN DOOR ACTUATOR (WISHBONE) DELAMINATING.					
2004FA0000586	AMD			ACTUATOR	DELAMINATED
6/21/2004	FALCON2000			AE40142Z006	PAX DOOR
MAIN CABIN DOOR ACTUATOR DELAMINATED.					
2004FA0000700	AMD	GARRTT		SIGN	BURNED
9/8/2004	FALCON50MYST	TFE731*		F-50-53136-501	EMERGENCY LIGHT
SMOKE WAS OBSERVED IN THE CABIN AFTER START OF TAXI TO ACTIVE RUNWAY. THE CREW SHUT DOWN ENGINES, SHUTOFF ALL POWER AND DISCONNECTED BATTERIES. FOUND SOURCE OF SMOKE TO BE FROM A NO SMOKING/SEATBELT					

SIGN LOCATED IN THE LT SIDE OF CABIN AT FRAME 20. THE AIRCRAFT WAS SECURED AND FERRIED TO A MAINTENANCE BASE AND UPON FURTHER INVESTIGATION WE FOUND NO CONCLUSIVE EVIDENCE BUT SUSPECT THAT THE PROBLEM ORIGINATED AT THE INTERFACE OF THE WIRING TO THE NO SMOKING/SEATBELT SIGN.

AMCR200400004	AMD	GARRTT	FUSIBLE PLUG	LEAKING
9/9/2004	FALCON900B	TFE7315BR		WHEEL

DURING A PREFLIGHT, FOUND TIRE PRESSURE TO BE DOWN SIGNIFICANTLY. INVESTIGATION FOUND ONE WHEEL FUSE PLUG TO BE LEAKING. WHEN FUSE WAS REMOVED, THERE APPEARED TO BE A SLIGHT DENT ON THE FACE OF THE FUSE, SIMILAR TO HANDLING DAMAGE. HISTORY SHOWS THIS TO BE AN ORIGINAL FUSE SINCE THE WHEEL WAS NEW.

2004FA0000694	AMTR	LYC	OIL COOLER	CRACKED
8/31/2004	ALARUSCH2T	O235N2C	P010904	ENGINE

AIRCRAFT 10 MILES FROM AIRPORT, TRAINING FLIGHT, PRACTICING FLIGHT MANEUVERS. SMELLED SOMETHING WRONG, SCANNED ENGINE GAUGES. NO OIL PRESSURE, BUT OIL TEMPERATURE WAS IN THE GREEN. DECIDED TO RETURN TO THE AIRPORT AND LANDED UNEVENTFULLY. POST FLIGHT INSPECTION - OIL COVERING THE BELLY, WING ROOT AREA, INSIDE THE COCKPIT ON THE FIREWALL, FRONT CARPET, PILOT'S SHOES. NO OIL SHOWING ON DIPSTICK. REMOVED COWLING. LEAK APPEARED TO ORIGINATE AT THE OIL COOLER. REMOVED OIL COOLER (MOUNTED TO FIREWALL) AND PRESSURE CHECKED. FOUND CRACK (APPROX 1 INCH LONG) IN END CAP, ALONG THE MIDDLE OF THE BEND RADIUS.

2004FA0000663	AMTR	AMTR	CRANKSHAFT	FAILED
2/28/2004	SF2A	4AR1200VOLKS		ENGINE

DURING CRUISE PHASE OF FLIGHT, WHILE DEPARTING TRAFFIC PATTERN, AIRCRAFT EXPERIENCED SEPARATION FAILURE OF CRANKSHAFT WITH RESULTING LOSS OF PROPELLER, LOSS OF OIL AND SUBSEQUENT ENGINE FAILURE. ENGINE SPEED APPROX. 3100 RPM, 3700 FT MSL, AIRSPEED APPROX 104 MPH. FAILURE OCCURRED APPROXIMATELY 10 INCHES BEHIND PROPELLER AND AFT OF THE FRONT BEARING. CRANKSHAFT FAILED DIAGONALLY WITH APPROXIMATE 45 DEGREE BREAK. PROPELLER AND CRANKSHAFT STUB DEPARTED CLEANLY WITH NO RESULTING DAMAGE TO AIRFRAME.

CA040121002	BAG	GARRTT	WINDOW	CRACKED
1/19/2004	JETSTM3212	TPE33110UG		CABIN

(CAN) AC WAS IN LEVEL FLIGHT AT FL190. CABIN ALTITUDE WAS 5500 FT, NEAR MAX DIFFERENTIAL OF ABOUT 5.5 PSID. SLIGHT THUD WAS HEARD FROM PASSENGER COMPARTMENT. NO DECREASE IN PRESSURIZATION OR ANY OTHER WARNINGS. FLIGHT CONTINUED WITH NO PROBLEMS. PASSENGER SEATED IN EMERGENCY EXIT SEAT REPORTED THAT HIS WINDOW HAD CRACKED IN MID FLIGHT. ON EXAMINATION BY MAINT, OUTER PANE OF TWO PANE CABIN WINDOW HAD CRACKED FROM TOP TO BOTTOM ON A DIAGONAL. CRACK APPEARS TO HAVE STARTED AT A CRAZE(1.7 IN) IN CENTER OF OUTER PANE. PORTION OF WINDOW WITH CRAZE WAS THINNER THAN THE REST. TWO PANE CONCEPT WORKED PERFECTLY, WITH INNER PANE TAKING PRESSURIZATION LOAD W/O SIGNIFICANT PRESSURE LOSS.

2004FA0000562	BBAVIA	CONT	SPAR	CRACKED
7/13/2004	11AC	A65*		LT WING

LT AFT WING SPAR HAD A VERTICAL COMPRESSION CRACK AT THE OB EDGE OF THE LIFT STRUT PLATE. ALSO, IT WAS CRACKED HORIZONTALLY FROM THE COMPRESSION CRACK TO THE OB LIFT STRUT ATTACHMENT POINT. ALSO, ALL FOUR SPARS WERE CRACKED AT THE IB WING ATTACHMENT BOLT HOLES TO THE END OF THE SPAR. SPAR WAS PROBABLY CRACKED AS THE RESULT OF A HARD LANDING WHICH VISIBLY DAMAGED THE RT WING. AFTER HARD LANDINGS RESULTING IN WING DAMAGE, THE INTERIOR WING ATTACHMENT POINTS, INCLUDING LIFT STRUT ATTACHMENT POINTS, SHOULD BE INSPECTED FOR CRACKS.

QH52004F00000	BBAVIA		HOUSING	CRACKED
5/14/2004	7AC		AC66375	SERVO ACTUATOR

THIS PART WAS TESTED IAW MFG 65-40-03. CRACKED LOCATED AT THE OIL GALLERY.

2004FA0000527	BEECH	PWA	FITTING	CORRODED
3/25/2004	200BEECH	PT6*	101620000638	HORIZONTAL STAB

DURING A PHASE 2 AIRFRAME INSPECTION, EXFOLIATION CORROSION WAS FOUND ON THE HORIZONTAL STABILIZER UPPER ATTACH FITTING IN TWO PLACES. ALSO EXFOLIATION CORROSION WAS FOUND ON THE RT UPPER SPAR CAP OF THE HORIZONTAL STABALIZER. BOTH ARTICLES ARE BEING REPLACED WITH MANUFACTURERS NEW PARTS.

2004FA0000709	BEECH	PWA	PANEL	CRACKED
8/1/2004	200BEECH	PT6A41		FUSELAGE

CLOSE OUT PANEL ON AFT SIDE OF REAR SPAR CARRY THROUGH. TWO CRACKS IN LOWER BEND RADIUS. FIRST CRACK AT END OF CENTER STRINGER AND LOWER END OF ANGLE STRIP ATTACHED TO PANEL SKIN. SECOND CRACK IS FORWARD OF

LEFT OF CENTER STRINGER IN BEND RADIUS OF PANEL. BOTH CRACKS WERE COVERED BY PRESSURE VESSEL SEALANT. (M)

20040915	BEECH	LYC	SEAT	CRACKED
9/15/2004	A2324	IO360A1A	169534024601	CABIN

LOWER SEAT DEVELOPED CRACKS WHERE UPPER SEAT BACK CONTACTS.

2004FA0000688	BEECH	CONT	CYLINDER HEAD	SEPARATED
7/24/2004	A36	IO550B	AEC631397	NR 4 CYLINDER

PILOT LANDED AIRCRAFT AT LT AFTER EXPERIENCING A ROUGH RUNNING ENGINE. UPON FURTHER INVESTIGATION FOUND THE NR 4 CYLINDER HEAD SEPARATED FROM THE BARREL. FOUND ALL CYLINDERS TO BE ECI CYLINDERS HAVING ONLY 154.73 HOURS IN SERVICE, ALL CYLINDER REQUIRE REPLACEMENT IAW AD 2004-08-10 AND ECI SB 04-1. OWNER REPORTS THAT SINCE MAY 5, 2004 THE EFFECTIVE DATE OF THE AD, THE AIRCRAFT HAS ONLY FLOWN 21.7 HOURS OF THE 50 THAT THE AD GIVES YOU.

2004FA0000697	BEECH	CONT	OIL FILTER	BLOCKED
9/14/2004	A45	O470*	CH481091	ENGINE

THE OIL FILTER WAS REPLACED AT THE NORMAL OIL CHANGE INTERVAL. THE ENGINE WAS STARTED TO VERIFY OIL PRESSURE AND LEAK CHECK. NO LEAKS NOTED BUT OIL PRESSURE WOULD NOT RISE ABOVE 20 PSI. (THIS IS THE MINIMUM OIL PRESSURE FOR IDLE POWER). OIL FILTER WAS REMOVED FOR INSPECTION AND COMPARED WITH ANOTHER NEW OIL FILTER. THE RUBBER FLAP INSIDE THE FILTER APPEARED INSTALLED INCORRECTLY WHEN THE FILTER WAS MANUFACTURED. THE LOW OIL PRESSURE WAS CAUSED BY BLOCKAGE OF THE OIL FLOW IN THE FILTER. ANOTHER FILTER WAS INSTALLED AN THE OIL PRESSURE RETUNED TO NORMAL (50 PSI).

2004FA0000695	BEECH	PWA	FUEL CONTROL	SEIZED
8/16/2004	B200	PT6A42	324476812	LT ENGINE

PILOT NOTED UNCOMMANDED LEFT ENGINE TORQUE AND ITT INCREASE IN FILGHT ON INITIAL APPROACH TO MKE. NO RESPONSE TO POWER LEVER INPUT. PILOT SHUTDOWN ENGIEN AND DIVERTED TO RFD. DURING REMOVAL OF FCU FOR TROUBLESHOOTING NOTED FCU INPUT SHAFT COUPLING SHEARED, FORWARD FCU SHAFT BEARING FAILED, INPUT SHAFT SEIZED. FUEL NOTED IN HP FUEL PUMP/FCU COUPLING AREA. E8IA (M)

2004FA0000704	BEECH		HYDRAULIC SYSTEM	CONTAMINATED
9/8/2004	B300			

DURING THE INITIAL PHASE 1 AND 2 INSPECTION BEING COMPLETED ON AC, ROUTINE INSPECTION OF HYDRAULIC SYS COMPONENTS REVEALED THAT THE HYDRAULIC SYS FILTER HAD RETAINED A LARGE AMOUNT OF RED PLASTIC MATERIAL AND THE (GEAR DOWN) PORT SCREEN WAS FOUND TO BE ALMOST COMPLETELY BLOCKED WITH LARGE PORTIONS OF SAME MATERIAL. PORT SCREEN WAS ITSELF DETACH FROM HOUSING ASSY. PLASTIC MATERIAL APPEARED TO BE CONSISTENT WITH MATERIAL THAT LINE CAPS AND PLUGS ARE MADE OF. REVIEW OF MAINTENANCE LOG REVEALED THAT NO MAINTENANCE HAD BEEN ACCOMPLISHED ON THE HYDRAULIC SYSTEM SINCE THE AIRCRAFT WAS NEW. THE FOD WAS LIKELY INTRODUCED INTO THE SYSTEM DURING PRODUCTION ASSEMBLY OF THE HYDRAULIC LINES FOR THE LANDING GEAR SYSTEM.

4101	BEECH	PWA	TIRE	GROOVED
8/16/2004	B300	PT6A6	301361311	MLG

PROBLEM FOUND DURING NORMAL WORN TIRE REPLACEMENT. CORD (WIRE LIKE MATERIAL) WAS NOT DEEP ENOUGH IN THE RUBBER OF THE TIRE SEAT AREA WHICH LEFT A GROOVE (MIRROR IMAGE OF THE CORD) IN THE NR 4 MAIN WHEEL RIMS (INNER AND OUTER HALVES). THE GROOVES COVERED A THIRD OF THE DIAMETER OF THE WHEEL RIMS TO A MAX DEPTH OF JUST UNDER .018 INCH. BECAUSE OF THE LENGTH OF THE GROOVES, THE WHEEL ASSEMBLY REQUIRED REPLACEMENT. (WHEEL P/N 101-8001-47).

2724	BEECH	PWA	TIRE	DEFECTIVE
8/16/2004	B300	PT6A6	301361311	MLG

PROBLEM FOUND DURING NORMAL WORN TIRE REPLACEMENT. CORD (WIRE LIKE MATERIAL) WAS NOT DEEP ENOUGH IN THE RUBBER OF THE TIRE SEAT AREA WHICH LEFT A GROOVE (MIRROR IMAGE OF THE CORD) IN THE NR 3 MAIN WHEEL RIMS (INNER AND OUTER HALVES). THE GROOVES COVERED MORE THAN HALF THE DIAMETER OF THE OF THE WHEEL RIMS TO A MAX DEPTH OF JUST UNDER .020 INCH. BECAUSE OF THE LENGTH OF THE GROOVES, THE WHEEL ASSEMBLY REQUIRED REPLACEMENT. (WHEEL P/N 101-8001-47)

2004FA0000638	BEECH	CONT	RELAY	INTERMITTENT
7/13/2004	F33A	IO520*	SM50D7	DYNAMIC BRAKE

DURING FLIGHT, CREW SELECTED (GEAR UP) AND GEAR FAILED TO RETRACT. AFTER ABOUT ONE MINUTE, THE GEAR RETRACTED. THE DYNAMIC BRAKE RELAY WAS FOUND TO BE OPERATING INTERMITTENTLY. RECOMMEND REPLACEMENT OF RELAY WITH SOLID STATE CIRCUIT BOARD.

2004FA0000643	BELL	ALLSN	GPS	FAILED
6/24/2004	206B	250C*	TNL200A	COCKPIT

ON A PILOT TRAINING FLIGHT, SMOKE WAS OBSERVED COMING OUT OF GPS FACE-PLATE AND THE DISPLAY WENT BLANK. CB WAS PULLED AND AIRCRAFT RETURNED TO BASE. AFTER SHUTDOWN, POWER WAS APPLIED TO GPS, OPERATION APPEARED NORMAL, BUT SELF DIAGNOSIS DISPLAYED A (DATA BASE FAILED) WARNING.

CHI2849	BOEING	GE	COMPRESSOR	CRACKED
6/19/2004	1072	CT581401	6010T57G08	ENGINE

CRACKS AT COMPRESSOR BLADE, LOCK SCREW HOLES, STAGES 3 AND 6. PARTS HAVE BEEN SUBMITTED TO THE MFG FOR EVALUATION.

CHI2848	BOEING	GE	BLADE	CRACKED
6/19/2004	1072	CT581401	6010T57G08	COMPRESSOR

CRACKS AT COMPRESSOR BLADE, LOCK SCREW HOLES, STAGES 3,5,6,7,8,AND 10 SLOTS. THE SUBJECT PARTS HAVE BEEN SUBMITTED TO THE MFG FOR EVALUATION.

SROM200400057	BOEING	PWA	POWER SUPPLY	INOPERATIVE
9/5/2004	737205	JT8D17A	582212	EMERGENCY LIGHT

R1 EMERGENCY EXIT SIGN INOPERATIVE. REMOVED AND REPLACED R-1 EMERGENCY EXIT SIGN BATTERY PACK. OPS CK GOOD IAW MM 33-51-00.

2004FA0000693	BOEING		BRACE	CRACKED
7/29/2004	747228F		65B155351	NR 4 CANOE FAIR

DURING A-CHECK ACCOMPLISHING ATLAS AIR ROUTINE WORK CARD 11FM15002 INSPECTION OF LEFT WING FOUND NR 4 FLAP CANOE FAIRING TO TRACK FORWARD OUTBOARD FITTING CRACKED IN HALF. JETIIIB WORK ORDER 1063 NON-ROUTINE NR 132.

2004FA0000669	BOEING	BOEING	BOWL	CRACKED
4/14/2004	757		271N20421	FILTER

FILTER BOWL IS CRACKED AND SEVERED AT THE BOTTOM OF THE THREADED AEA. THIS IS THE THIRD INCIDENT OF THIS PART FOUND IN THE LAST SIX MONTHS. INADEQUATE DESIGN OR MATERIAL TYPE. DESIGN AN NEW FILTER BOWL FROM A BETTER MATERIAL. (JOB NR 184025)

2004FA0000672	BOEING	GE	BUSHING	MISSING
2/10/2004	777*	GE9090B	1692M35P03	FWD MNT ASSY

DURING SHOP VISIT, IT WAS OBSERVED THAT BUSH CMM REF 71-21-03 FIG 3, ITEM 170 WAS MISSING FROM THE ASSEMBLY OF THE FWD MOUNT. THE LOAD BEARING SHOULDER BOLT WAS SUBJECTED TO A SINGLE SHEAR LOAD AS OPPOSED TO A DOUBLE SHEAR IAW DESIGN INTENT. SIMILARLY, ONLY ONE HALF OF THE CLEVIS WAS SUPPORTING THE LOAD. THE PLATFORM ITEMS, LT LINK ITEM 145, NUT ITEM 160, AND RETAINER EXHIBITED FRETTAGE ASSOCIATED WITH EXCESSIVE RADIAL MOVEMENT OF THE END OF THE SHOULDER BOLT. IT IS NOTED THAT THE FORWARD MOUNT ASSY OR SUBASSY DID NOT FAIL AND IT FULFILLED ITS FUNCTION OF SUPPORTING THE ENGINE. ALL FWD MOUNT ASSY ON SITE HAVE BEEN INSPECTED WITH NO DEFECTS FOUND. INDICATES ASSY HAS NOT BEEN DISASSEMBLED SINCE NEW.

2004F00147	BRAERO	GARRTT	BEARING	FAILED
5/24/2004	BAE125800A	TFE7315R		STARTER GEN

PILOTS NOTICED VIBRATION ASSOCIATED WITH THE NR 1 ENGINE. TECHNICIAN LOCATED SOURCE OF VIBRATION AS NR 1 STARTER/GENERATOR. THIS UNIT HAD BEEN REMOVED AND REINSTALLED TWO WEEKS PRIOR TO VIBRATION AFTER REBRUSHING BY AN OUTSIDE FACILITY. UNIT ACCUMULATED 70 HOURS AFTER REBRUSHING PRIOR TO FAILURE. TECHNICIAN SUSPECTS FAILED BEARING DUE TO THE SEVERE SIDE PLAY IN THE STARTER/GENERATOR SHAFT, WHICH SET UP SUFFICIENT VIBRATION TO CAUSE COMPLETE FAILURE AND SEPARATION OF THE GEARBOX TO ENGINE SUPPORT BRACKET FITTINGS ON THE GEARBOX.

2004F00288	BRAERO		SQUAT SWITCH	FAILED
2/5/2004	HS125700A			MLG

UPON TAKEOFF, CREW WAS UNABLE TO ENGAGE GEAR SELECT HANDLE TO RETRACT UP POSITION. INITIAL INSPECTION OF

LANDING GEAR SYSTEM INDICATED THAT GEAR SELECT SAFETY LEVER LOCK WAS ENGAGED, INDICATING A LANDING GEAR SYSTEM MALFUNCTION. FURTHER INSPECTION REVEALED THE LEFT SQUAT SWITCH WAS INTERMITTENT. REPLACED SQUAT SWITCH. GEAR SYSTEM SWING CHECKS ACCOMPLISHED WITH NO PROBLEMS NOTED. AIRCRAFT WAS RETURNED TO SERVICE. (M)

2004FA0000662	CESSNA	LYC		STARTER	STICKING
8/20/2004	152	O235L2C		MMU6001	ENGINE

STARTER BENDIX ENGAGED RING GEAR DURING FLIGHT. ENGINE RPM LOSS APPROXIMATELY 300 RPM. AIRCRAFT WOULD NOT IDLE WITHOUT APPLICATION OF POWER AFTER LANDING.

2004FA0000644	CESSNA	CONT	BENDIX	DISTRIBUTOR BLK	LOOSE
7/1/2004	172M	IO360GB		ES10357426	MAGNETO

REPLACED WORN POINTS IN MAGNETO. ON RUN UP FOUND 500 RPM DROP. REMOVED MAGNETO AND FOUND DISTRIBUTOR BLOCK CONTACT TOWERS AND DISTRIBUTOR FINGER OIL SOAKED FROM EXCESS LUBRICANT. WHILE INSPECTING FOUND DISTRIBUTOR GEAR BUSHING LOOSE IN DISTRIBUTOR BLOCK. OVERHAUL SHOULD FOLLOW MANUAL.

2004FA0000636	CESSNA	LYC		ENGINE	MAKING METAL
8/11/2004	172N	O320H2AD		O320H2AD	

FACTORY OVERHAUL FOUND FERROUS METAL FLAKES (SEVERAL HUNDRED) IN OIL FILTER. ENGINE REMOVED AND RETURNED TO MFG.

2004FA0000602	CESSNA	LYC	LYC	STUD	LOOSE
7/26/2004	172N	O320H2AD		3116	NR 3 CYL ROCKER

NR 3 CYLINDER INTAKE VALVE ROCKER ARM STUD BACKED OUT CAUSING PUSHROD TO BEND AND HYDRAULIC LIFTER FAILURE.

2004FA0000683	CESSNA	LYC		EXHAUST VALVE	STUCK
7/6/2004	172N	O320H2AD			NR 2 CYLINDER

AIRCRAFT EXPERIENCED POWER LOSS DURING CLIMBOUT. AIRCRAFT CIRCLED AND LANDED AND DEPARTED END OF RUNWAY, ROLLED OUT THRU RUNWAY LIGHTS. PROPELLER STRIKE OF ONE LIGHT. FOUND NR 2 CYLINDER EXHAUST VALVE STUCK AND VALVE GUIDE LOOSE . FURTHER INSPECTION ALSO FOUND EXHAUST PUSH ROD DAMAGED AND PISTON SLIGHTLY CONTACTED EXHAUST VALVE. REMOVED AND REPLACED CYLINDER ASSY, PUSH RODS, INTAKE AND EXHAUST ROCKERS, AND PUSH ROD TUBES WITH NEW PARTS. RECOMMENDED COMPLIANCE WITH MFG MSB PROP STRIKE INSPECTION BEFORE NEXT FLIGHT. (GL15200412166) (GL15200412587)

2004FA0000680	CESSNA	LYC		CONDUIT	CHAFED
8/2/2004	172R	IO360A1A		P610072,P610113,	ENGINE

FOUND DURING AN ENGINE CHANGE WHILE INSPECTING THE WIRES IN THE ENGINE COMPARTMENT THE CONVOLUTED TUBING USED TO PROTECT THE WIRES WAS CHAFING INTO THE WIRES. IF LEFT UNATTENDED COULD CAUSE AN OPEN IN WIRES FOR OIL PRESSURE, VACUUM MP AND VARIOUS OTHER WIRES OR COULD CAUSE IMPROPER INDICATION OR NO INDICATION OF SYSTEMS. CORRECTED AS REQUIRED. (CE07200415499)

2004FA0000681	CESSNA	LYC		STARTER	FAILED
8/2/2004	172R	IO360A1A		PM2401	ENGINE

DURING THE ENGINE START THE STARTER BENDIX STAYED ENGAGE. THIS SHREDDED THE GEARS ON THE STARTER AND DAMAGED THE ENGINE FLYWHEEL, GEARS TO THE POINT WHERE THE FLYWHEEL HAD TO BE REPLACED. ACCORDING TO THE POH THEIR IS NOT REQUIREMENT TO LOOK AT THE AMP GAUGE LIKE THE OLDER MODELS. THIS WOULD HAVE SHOWED AN EXCESSIVE AMP DRAW. THE PILOT REPORTED HE NEVER NOTICED ANY PROBLEMS. NOTE: PIECES OF GEAR FROM THE STARTER AND FLYWHEEL WAS FOUND IN THE ENGINE COWLING AREA. (CE07200415498)

2004FA0000539	CESSNA	LYC		MOUNT	BROKEN
5/25/2004	172RG	O360*		24130023	ACTUATOR

NOSE GEAR COLLAPSED DUE TO PART FAILURE ON LANDING ROLL OUT. (NM07200406705)

2004FA0000546	CESSNA	LYC		ACTUATOR	MALFUNCTIONED
6/16/2004	172RG	O360*		12810013	RT MLG

DURING A FLIGHT, THE PILOT REPORTED HEARING A LOUD POP WHEN THE GEAR WAS CYCLED DOWN. UPON INSPECTION OF THE LANDING GEAR, THE LT MLG ACTUATOR WAS FOUND TO BE CRACKED ALL THE WAY ACROSS THE LARGE BORE AT THE FORWARD BOLT HOLE AND THERE WERE TWO OTHER SMALL CRACKS IN THE LARGE BORE. THE LOWER BOLT FOR THE

ACTUATOR WAS FOUND BROKEN OFF IN THE IB GEAR CASTING, THE SECTOR GEAR WAS DAMAGED AND THE MLG PIVOT WAS CRACKED. THE MANUFACTURER SHOULD REDESIGN THE ACTUATOR AND GEAR PIVOT ASSEMBLIES, MAKING THEM OUT OF STEEL OR SOME OTHER MATERIAL THAT WILL WITH STAND THE REPEATED STRESS THAT ARE PUT ON THESE PARTS. THIS IS A RECURRING PROBLEM WITH THIS TYPE OF LANDING GEAR.

2004FA0000545	CESSNA	LYC	PIVOT	CRACKED
6/16/2004	172RG	O360*	24411003	LANDING GEAR

WHILE REPLACING A BROKEN GEAR ACTUATOR THE PIVOT WAS REMOVED AND INSPECTED. A CRACK WAS FOUND IN THE LOWER RADIUS AT THE BOTTOM OF THE GEAR SPLINES. TO PREVENT THIS PROBLEM IT IS SUGGESTED THAT THE MLG PIVOTS BE REMOVED FROM THE AIRCRAFT AND INSPECTED EVERY 1000 HOURS. IT IS ALSO SUGGESTED THAT THE MFG OF THIS PART REDESIGN THE PART OUT OF STEEL.

2004FA0000637	CESSNA	LYC	BUSHING	SPLIT
8/11/2004	172RG	O360A1D	2400021	MLG

DURING 100 HR INSPECTION, FOUND BOTH LT AND RT MLG PIVOT BUSHINGS SPLIT AND LEAKING GREASE. THESE BUSHINGS ARE REQUIRED TO BE INSTALLED IAW AD2001-06-06, SB 90-1, SK 172-151. THE SRM HAS NOT BEEN UPDATED TO SHOW ANY DETAIL OF THIS STYLE BUSHING. NO INSPECTION PROCEDURES FOR THIS STYLE BUSHING. PARTS MANUAL ALSO HAS NOT BEE UPDATED. MUCH CONFUSION ABOUNDS CONCERNING THESE BUSHINGS. (NM09200412026)

2004FA0000682	CESSNA	LYC	BOLT	SHEARED
8/2/2004	172S	IO360A1A		STARTER

DURING AN INSPECTION, FOUND 2 OF THE 3 THROUGH BOLTS SHEARED OFF AT THE THREADS, REPLACED THE STARTER. IF LT UNATTENDED WOULD CAUSE THE BACKPLATE OF THE STARTER TO COME OFF.

2004FA0000554	CESSNA	LYC	LOCK	BROKEN
6/25/2004	172S	IO360A1A	MM201057	SEAT BACK

PILOT SEAT BACK CYL LOCK ASSY ROD BROKE AT SWAGED ROD END. AC RETURNED TO AIRPORT. MFG RESCINDED SB DUE TO PROBLEMS WITH CYL LOCK ASSY. ANOTHER SB04-25-02 WHICH IS SUPPOSED TO TAKE CARE OF ANY PROBLEMS. ELECTED TO REMOVE ALL CYL LOCK ASSY, INSTALL SOLID RODS IAW SB04-25-02 UNTIL SUCH TIME AS ALL NEW CYL LOCK ASSY ARE RECEIVED FROM MFG, SEATS ARE RETURNED TO ORIGINAL CONFIGURATION. OFFSET ATTACHMENT AT BACK OF SEAT CONTRIBUTES TO BENDING MOMENT BEING APPLIED TO ROD END AND SIDE LOADS CYL LOCK ASSY. IT IS IMPOSSIBLE TO OBSERVE ROD CRACKING AT SWAGED END PRIOR TO FAILURE DUE TO PLASTIC COVER OVER END THAT IS NOT REMOVABLE. THIS IS SECOND CYL LOCK ASSY ROD END TO BREAK SINCE SB04-25-01 WAS INCORPORATED.

2004FA0000655	CESSNA	LYC	STARTER	DAMAGED
6/7/2004	172S	IO360L2A	PM2401	ENGINE

STARTER BENDIX FAILED CAUSING DAMAGE TO THE STARTER RING GEAR. THIS IS THE 6TH STARTER BENDIX FAILURE ON THIS AIRCRAFT.

2004FA0000673	CESSNA	LYC	CYLINDER	DETACHED
8/10/2004	172S	IO360L2A	05142132	SEAT BACK

THE CREW REPORTED A SEAT BACK WHICH WOULD NOT RECLINE PROPERLY. THE MAINTENANCE TECHNICIAN INSPECTED THE SEAT MECHANISM AND FOUND THE SEAT RECLINING ACTUATOR WAS BROKEN AT THE AFT ATTACH POINT. THE BREAKAGE WAS AT THE USAGE POINT.

2004FA0000641	CESSNA	CONT	CYLINDER	FAILED
6/15/2004	182A	O470L		NR 1

DURING ANNUAL INSP, CYLINDERS NR 1 AND NR 2 WERE FOUND TO HAVE A LOW COMPRESSION AND LEAKAGE PAST THE EXHAUST VALVE. ENGINE WAS STILL UNDER WARRANTY AND MFG WAS CONTACTED. MFG REP SUGGESTED TO READ SB03-3 WHICH SUPERSEDES SB84-15. SB03-3 SAYS ANY CYLINDER THAT PASSES COMPRESSION VALUE FOUND WHEN USING THE MASTER ORIFICE CAN BE RETURNED TO SERVICE REGARDLESS OF WHERE THE LEAKS WERE. SB84-15 SAID LEAKAGE PAST ANY VALVE WAS AN UNACCEPTABLE CONDITION. NR 1 AND NR 2 CYLINDERS WERE REMOVED, CLEANED AND MEASURED. NR 1 EXHAUST VALVE AND GUIDE WERE FOUND TO BE BEYOND SERVICEABLE LIMITS AND WERE REPLACED WITH NEW PARTS. THE GUIDE AND SEAT WERE FOUND NOT TO BE CONCENTRIC. GUIDE AND SEAT WERE GROUND CONCENTRIC.

FSI072304	CESSNA	CONT	CYLINDER HEAD	SEPARATED
7/23/2004	182Q	O470U		ENGINE

ON CLIMB OUT THE NR 4 CYLINDER HEAD SEPARATED FROM THE BARREL.

2004FA0000656	CESSNA	LYC	SUPPORT	CRACKED

5/13/2004	182S	IO540*		BATTERY

OB BATTERY SUPPORT ANGLE CRACKED AT BOTH ENDS. THIS IS THE THIRD INSTANCE IN FLEET. THE BATTERY SUPPORT STRUCTURE NEEDS TO STRENGTHENED WITH ADDITIONAL STRUCTURE TO PREVENT THIS. (NM01200410074)

AOC04004	CESSNA	CONT	CYLINDER	DAMAGED
7/20/2004	206CESSNA	IO520*	AEC631397SN2A	ENGINE

AFTER REPORTS OF HIGH CYLINDER TEMP, CYLINDERS WERE REMOVED FOR INSPECTION. THREE CYLINDERS FOUND TO HAVE UNUSUAL MARKS ON THE ECI CYLINDER WALLS, SIMILAR TO TWO OTHER ENGINES WITH THE SAME PROBLEMS. CYLINDERS REPLACED WITH NEW ECI CYLINDERS AND CYLINDER TEMP RETURNED TO NORMAL.

AOC04005	CESSNA	CONT	CYLINDER	CHIPPED
7/28/2004	206CESSNA	IO520A	AEC631397SN71	ENGINE

UPON RECEIVING INSPECTION OF NEW ECI CYLINDERS, ONE CYLINDER WAS FOUND TO HAVE THE NICKEL PLATING CHIPPED (.7500 INCH LONG X .0312 INCH WIDE) AT THE BASE OF THE CYLINDER SKIRT. PACKAGING APPEARED TO BE ADEQUATE AND THE CYLINDER WAS NOT DROPPED. SUSPECT PROBLEM WITH NICKEL PLATING PROCESS.

040624	CESSNA	CONT	CRANKCASE	CRACKED
6/24/2004	206CESSNA	IO520F	646520, 646521	ENGINE

IT HAD PROP STRIKE WHICH IS WHEN THE DAMAGE PROBABLY OCCURRED. OVERHAULED AND RAN FULL LIFE BUT OIL LEAKS DEVELOPED AT THE MOST FORWARD THROUGH BOLTS. BECAUSE OF THE OIL LEAK AT BOLT HOLE DURING RUNUP AFTER OVERHAUL THAT WAS JUST COMPLETED. CRACK IS IN FRONT MAIN LOWER THRU BOLT HOLE IN LEFT CASE HALF. CRACK IS ABOUT 2.5 IN. LONG, STARTS INSIDE HOLE ABOUT AN INCH FROM PARTING SURFACE AT ABOUT 9 O'CLOCK AS VIEWED FROM THE OUTSIDE CASE, SPIRALS SLIGHTLY TO ALMOST 11 O'CLOCK POSITION. CRACK CAN BE VIEWED WITH THROUGH BOLT REMOVED AND BY USING A BORESCOPE. SINCE CRACK IS ON FORWARD SIDE OF HOLE, IT COMMUNICATES WITH OIL PASSAGE THAT IS JUST FORWARD OF THROUGH BOLT HOLE, THUS CAUSING THE LEAK.

2004FA0000652	CESSNA	LYC	RESERVOIR	LEAKING
5/10/2004	206H	IO540AC1A5	121640753	FUEL SYSTEM

RESERVOIR FUEL TANKS BELOW FUEL SELECTOR WAS LEAKING FUEL FROM A SEEM WELD THAT HAD CRACKED. FOUND DURING ROUTINE WALK AROUND INSPECTION. THE LEAK WHEN FIRST NOTICED WILL INDICATE THE FUEL PEDCOK IS LEAKING UNDER THE BELLY OF THE AIRCRAFT FURTHER INSPECTION LEAD YOU TO INSPECT THE TANK BY REMOVING THE FLOOR PANEL ABOVE THE RESERVOIR. THERE ARE TWO RESERVOIR RT/ LT. ADVISE: CLOSER INSPECTION DURING 100 HOURS OR ANNUAL INSPECTION USING A MIRROR AND FLASH LIGHT YOU CAN INSPECT MOST OF THE RESERVOIR.

2004FA0000649	CESSNA	LYC	SUMP	CRACKED
8/19/2004	206H	IO540AC1A5		ENGINE OIL SYS

DURING AN ANNUAL INSPECTION THE ENGINE OIL SUMP WAS FOUND CRACKED IN THE LT REAR STUD BOSS WHERE THE STUD US THREADED INTO THE SUMP.

2004F00279	CESSNA		ADC	FAULTY
7/9/2004	208B		962830A1	NR 1

UNIT WAS REPORTING 400 PLUS FEET OFF FROM ACTUAL. PROGRESSIVE REPORTING ERROR OVER ONE MONTH TIME FRAME. (M)

2004FA0000687	CESSNA	CONT	RECEIVER	INTERFERENCE
7/22/2004	337	IO360*	AV200	WX RADAR SYS

WSI WEATHER RECEIVER CAUSES INTERFERENCE WITH COMS ON FREQS. 126.425 AND 126.450. THIS CONDITION MAY EXIST IN OTHER INSTALLATIONS AND SHOULD BE ADDRESSED IN THE MANUFACTURERS INSTALLATION MANUAL. (EA13200405796)

KRCX0101AA	CESSNA	CONT	COUNTERWEIGHT	DISPLACED
8/27/2004	337F	IO360C		PROPELLER

ON ANNUAL INSPECTION SAW FINE ALUMINUM POWDER ON ONE BLADE SHANK ON REAR PROP. FOUND SPINNER HAD A LARGE BLISTER CAUSED BY PRESSURE FROM WITHIN. WHEN WE REMOVED THE SPINNER WE SAW THE COUNTERWEIGHT FOR THAT BLADE WAS ADVANCED ABOUT 30 DEGREES IN THE CRUISE DIRECTION BUT BOTH BLADES WERE IN FULL FLAT PITCH. THE ALUMINUM POWDER CAME FROM THE BALANCE WEIGHT ARM RUBBING THE INSIDE OF THE SPINNER. SENT ENTIRE ASSEMBLY TO THE CRS UF2R211L THAT OVERHAULED IT 72.9 HOURS AGO JAN 2003. THE OWNER OF THAT SHOP CLAIMED THE COUNTER WEIGHT CANNOT REACH THE SPINNER. I HAVE EVIDENCE OTHERWISE. THE CRS CORRECTED THE LOOSE COUNTERWEIGHT AND ISSUED A YELLOW TAG WITH THE ORIGINAL SPINNER INSTALLED.

2004FA0000690	CESSNA	CONT	BENDIX	POINTS	WORN
7/1/2004	337H	IO360GB		ESIO357174	MAGNETO

PILOT REPORTED REAR ENGINE LT MAGNETO INOPERABLE ON RUN-UP. TROUBLESHOT AND FOUND CONTACT POINTS NOT OPENING FAR ENOUGH. NYLON CAM FOLLOWER FOUND MELTED AT CONTACT POINT ARM. CONTACT COMPARTMENT COVER HAS VENT HOLES THAT ARE COVERED BY INSTRUCTIONS IN MASTER SM X40000 S20/S200 . SUSPECT THAT LACK OF VENTILATION CONTRIBUTED TO SOFTENING OF CAM FOLLOWER EITHER THROUGH IONIZATION AND OR EXCESS HEAT. RECOMMEND OPENING VENT HOLES.

2004FA0000653	CESSNA	CONT	LINE	CORRODED
4/20/2004	340A	TSIO520*	530010816	OIL PRESSURE

OIL PRESSURE HARD LINES LEAKING OIL UNDER CABIN FLOOR AFT OF PILOTS AND COPILOTS SEATS. LINES MAKE A 90 DEGREE TURN FORWARD AND CONTACT CABIN DUCTWORK. LINE CORRODED AND APPROXIMATELY 2-3 QUARTS OF OIL DISCOVERED IN CABIN BELOW FLOOR.

2004FA0000631	CESSNA	CONT	CLAMP	CRACKED
6/23/2004	340A	TSIO520NB	NH100089770	TURBO TO EXHAUST

WHILE DOING THE EXHAUST AD2000-01-16, THE ONE PIECE V CLAMP THAT HOLDS THE EXHAUST TO THE TURBO WAS FOUND CRACKED APPROX 50 PERCENT AROUND, REPLACED CLAMP AND LEAK CHECKED OK. THE CRACKED CLAMP DID NOT APPEAR TO BE OVER TORQUED.

2004FA0000632	CESSNA	CONT	LINE	CRACKED
6/15/2004	421C	GTSIO520N	641481	INJECTOR

PILOT EXPERIENCED EGT FLUXUATIONS, MADE PRECAUTIONARY LANDING. INSPECTION REVEALED CYLINDER NR 4 INJECTOR LINE WAS CRACKED AND LEAKING FUEL AT THE BASE OF THE BRAZED ON SLEEVE BETWEEN THE SLEEVE AND THE BALL END.

G5203	CESSNA		CONTROL VALVE	FAILED
2/6/2004	441		9910279-1	MLG

THIS MLG CONTROL VALVE FOUND TO BE REASON THE MLG FAILED A SCHEDULED EMERGENCY EXTENTION CHECK. FOUND THE RETURN PORT CLOSED WHEN VALVE NOT ENERGIZED, PORT SHOULD BE OPEN IN THIS CONDITION & THIS CAUSED MLG TO HYDRO-LOCK IN UP POSITION. TEAR DOWN REVEALED ON 2ND VALVE NOT ASSEMBLED CORRECTLY, SPOOL WAS INSERTED BACKWARDS RESULTING IN PORTING NOT FUNCTIONING. VALVE FAILURE WAS NOT DEFINED DURING TEAR DOWN. VALVE S/N 1152 RETURNED AND FOUND THAT PIN NR 17 IN THE CORE ASSEMBLY BROKEN AT THE TIP. IT IS ASSUMED THAT THIS FAILURE OCCURED DURING THE REQUIRED TEST PROCEEDURE.

2004FA0000676	CESSNA	PWA	BATTERY	EXPLODED
8/6/2004	500CESSNA	JT15D1	G6381	EQUIPMENT BAY

WHILE ATTEMPTING TO PERFORM AN ENGINE START A LOUD NOISE WAS HEARD AND THE START WAS ABORTED. AN INVESTIGATION REVEALED THE MAIN BATTERY HAD EXPLODED. SEVEN OF THE TWELVE CELL CAPS WERE BLOWN OFF AND THE TOP COVER WAS BROKEN AND BLOWN OFF. BATTERY ELECTROLYTE HAD TO CLEANED FROM THE REAR EQUIPMENT BAY. A LOCAL BATTERY SHOP INFORMED US THEY HAD SEEN THE SAME PROBLEM WITH THIS TYPE BATTERY SEVERAL TIMES AND THE PROBLEM IS CAUSED BY INTERNAL ARCING IN THE BATTERY CAUSING FUMES TO BE IGNITED.

2004FA0000604	CESSNA		CIRCUIT BREAKER	ARCED
6/30/2004	525A		S2899L5.0	NAV/COMM SYS

THE FOLLOWING SYS FAILED IN FLIGHT: NR 1 NAV/COMM/XPDR, CO-PILOTS AUDIO PANEL, RT PITOT HEAT, STANDBY HSI, NR 2 ATTITUDE/HEADING, AUTOPILOT DISENGAGED, LANDING GEAR HYDRAULIC, SYS PRESSURE, LANDING GEAR DOWN AND LOCK INDICATOR LIGHTS, FLIGHT CREW UTILIZED THE EMERGENCY EXTENSION SYSTEM TO EXTEND THE LANDING GEAR. A LOOSE TERMINAL SCREW WAS FOUND ON BUS SIDE OF CB (HC068) LOCATED IN THE LT COCKPIT CB PANEL. TERMINAL SCREW BACKED OUT AND SHORTED TO ADJACENT STRUCTURE. THIS CAUSED EMERGENCY POWER CB (HC102) IN AFT JUNCTION BOX TO DISENGAGE. DAMAGED TERMINALS AND CIRCUIT BREAKER (HC068) WERE REPLACED. ALL WIRING AND TERMINALS IN BOTH COCKPIT CB PANELS WERE INSPECTED FOR LOOSE SCREWS AND CHAFING WIRES.

2004FA0000674	CESSNA	PWA	WIRE	DAMAGED
7/19/2004	551	JT15D4		BOOST PUMP

WHILE PERFORMING, SB550-28-14, THE FUEL BOOST PUMP WIRING INSIDE THE LT AND RT WING TANKS WAS FOUND TO HAVE RUBBED HOLES IN THE FUEL TRANSFER LINES INSIDE THE TANKS AND DAMAGED THE WIRING. THE ABOVE BULLETIN ADDRESSES THIS CONCERN AND PROVIDES INSTRUCTIONS FOR SECURING THE BOOST PUMP WIRING, THIS IS A MANDATORY BULLETIN ONLY. WE HAVE HEARD OF OPERATORS WHO HAVE BEEN UNWILLING TO DO THIS BULLETIN BECAUSE

IT IS NOT ASSOCIATED WITH AN AD AT THIS TIME. WE HAVE DIGITAL PICTURES AVAILABLE.

2004F00238	CESSNA	PWA	TRANSMITTER	MALFUNCTIONED
7/21/2004	560XL	PW545A	45350000999	ELT

THE ELT TRANSMITTER WOULD ACTIVATE ITSELF WHILE THE AIRCRAFT WAS STATIC IN THE HANGAR. THE UNIT WOULD ALSO SELF ACTIVATE WHILE SITTING ON THE BENCH. THE ON/OFF SWITCH ON THE ELT COULD BE TURNED ON THEN BACK TO OFF AND THE ELT WOULD REACTIVATE WITHIN A FEW MINUTES. THERE WERE NO VISUAL DISCREPANCIES NOTED ON THE ELT UNIT. REPLACED ELT UNIT WITH A NEW ONE. CONTACTED REGISTERED OWNER FOR ADDITIONAL INFORMATION. DISCOVERED THAT THE EMERGENCY LOCATOR TRANSMITTER IS ONE OF THE NEW TYPE: C4062AF (AUTOMATIC FIXED) WHICH WAS PART OF THE ORIGINAL FACTORY INSTALLATION. INDIVIDUAL STATED THAT THEY DID NOT TRY REPLACING THE BATTERIES, BUT OPTED FOR A COMPLETE REPLACEMENT OF THE UNIT.

2004F00283	CESSNA		FAIRING	DEPARTED
8/13/2004	650		622126161	LT WING

LEFT CENTER WING FAIRING PANEL DEPARTED AIRCRAFT WHILE DESCENDING THROUGH FL13 EN ROUTE FROM SAT-HOU. NO PASSENGERS ON BOARD. PILOTS REDUCED SPPED ON DESCENT PRIOR TO LANDING WHEN LOUD NOISE WAS HEARD. (M)

2004FA0000675	CESSNA	CONT	CRANKSHAFT	BROKEN
7/20/2004	P210N	TSIO520T	631716	ENGINE

TSIO-520-T CRANKSHAFT BROKE AT 1776 HOURS SINCE FACTORY REMANUFACTURE. OPERATED BEYOND RECOMMENDED OVERHAUL, CRANK FAILED CAUSING UNSCHEDULED LANDING THAT RESULTED IN AN AIRCRAFT ACCIDENT.

2004FA0000710	CESSNA		CLAMP	LOOSE
6/9/2004	S550		AN737TW107	ACM

CLIMBING THROUGH FL27, A POP WAS HEARD FROM THE REAR COMPARTMENT OF AC. INSTANTLY CABIN RATE OF CLIMB WENT TO 4K FPM UP. CLEARED BY ATC, AC DESCENDED TO FL10 AND CONTINUED ON TO LAND AT ITS INTENDED DESTINATION. INVESTIGATION FOUND CLAMP THAT SECURES COUPLING P/N 65153165-202 TO THE PRESSURE SIDE OF AIR CYCLE MACHINE WAS INCORRECTLY PLACED, TORQUED AND INSPECTED DURING JUST COMPLETED INSPECTION, ALLOWING DUCT TO PART, CAUSING CABIN TO VENT TO ATMOSPHERE. AC WAS REPAIRED AND RETURNED TO SERVICE WITH NO FURTHER COMPLICATIONS. A REVIEW OF INCIDENT HAS RESULTED IN A MORE AGGRESSIVE INSPECTION AND TRAINING PROGRAM FOCUSING ON SELF INSPECTION AND MORE THROUGH INSPECTION BY TECHNICIANS AND INSPECTORS. (M)

2004FA0000659	CESSNA		FUEL STRAINER	LOOSE
6/30/2004	T210M		7560052	FUEL SYSTEM

AD 2000-06-01 HAS STAND PIPE MEASUREMENT AT 1.68 INCHES. FOUND STAND PIPE LONG AT 1.75.6. REPLACED WITH NEW FUEL STRAINER WITH STAND PIPE AT 1.68 (AT FLIGHT ICE FOUND STAND PIPE LOOSE ON OTHER AND LIKE AIRCRAFT. AC; 8159 TT 3667.

06282004	CESSNA	CONT	RETAINING RING	WORN
6/28/2004	T210M	IO520L	MS166251068	MLG DOOR

A RETAINING RING SEPERATED FROM THE LT MAIN LANDING GEAR DOOR HYDRAULIC ACTUATOR. THIS LEAD TO A LOSS OF HYDRAULIC FLUID AND FAILURE OF THE LANDING GEAR SYSTEM. AIRCRAFT WAS FORCED TO LAND WITH THE NOSE GEAR EXTENDED AND NO MAIN WHEELS. PILOT REPORTED THAT THE ACTUATOR HAD JUST UNDERGONE REPLACEMENT OF INTERNAL PACKINGS A WEEK AND HALF PRIOR TO THE REPORTED FAILURE. PILOT COMMENTED THAT THE ACTUATOR FAILED AFTER ABOUT 6 GEAR CYCLES.

B3OR20040709	CESSNA	CONT	LINE	CUT
7/9/2004	T210N	IO550*	1280509101	MLG BRAKE

PILOTS ENTERED THE AC AND TAXIED DOWN THE TAXIWAY. AS BRAKES WERE BEING APPLIED, IT WAS NOTICED THAT RT BRAKE WAS NOT OPERATING. AC EXITED TAXI WAY AT A LOW SPEED CAME TO A STOP IN ABOUT FOUR INCHES OF MUD ALONGSIDE OF TAXIWAY. THERE WAS NO DAMAGE TO AC OR PROP. PIC HAD SHUTDOWN ENG WHEN IT WAS REALIZED BRAKES WERE NOT WORKING. MECH FOUND BRAKE LINE COMING FROM AIRFRAME THAT PASSES THROUGH LANDING GEAR STRUT, HAD CONTACTED RT BRAKE DISC. BRAKE LINE TUBE BEING SOFTER METAL THAN BRAKE DISC WAS CUT AND CAUSED BRAKE FLUID TO LEAK OUT CAUSING NO BRAKE SITUATION ON RT SIDE. FUTHER INVESTIGATION SHOWED THAT LINE WAS POSSIBLY STEPPED ON PRIOR TO THE TAXI OPERATION, CAUSING IT TO COME IN CONTACT WITH BRAKE DISC.

B3OR20040719	CESSNA	CONT	HINGE	LOOSE
7/19/2004	T210N	IO550N	21500351	ALTERNATE AIR

ANNUAL INSP, ALTERNATE AIR SOURCE DOOR WAS LOOSE. MECHANIC FOUND DOOR SPRING P/N 1250728-1, HINGE PIN P/N MS20253P2-364 IN INDUCTION AIR BOX DUCTING. PIN AND SPRING WERE RE-ASSEMBLED WITH DOOR. WHEN PARTS WERE

RE-ASSEMBLED, BOTH UPPER AND LOWER ENDS OF HINGE WERE CRIMPED. CRIMPING BOTH ENDS OF HINGE DOES NOT ALLOW PIN TO FALL OUT, OVER TIME, ALLOW SPRING TO COME LOOSE. ABOUT A YEAR AGO, ENGINE INGESTED SPRING AND CAUSED ENOUGH DAMAGE TO NR 5 CYLINDER AND NR 5 PISTON TO HAVE THEM BOTH REPLACED. MFG MM IS VAUGE ON HOW TO ASSEMBLE THESE PARTS. CRIMPING BOTH ENDS OF THE HINGE WOULD ENSURE THAT THESE PARTS WILL NOT COME LOOSE AND NOT GET INGESTED INTO THE ENGINE.

2688200400001	CESSNA	LYC	CROSSOVER TUBE	CRACKED
9/3/2004	TR182	O540L3C5	2254008	EXHAUST SYS

DURING ANNUAL INSPECTION, DISCOVERED CRACK APPROXIMATELY 1.5 INCHES IN LENGTH AROUND THE LT CROSSOVER ASSEMBLY (PN 2254008). UPON REMOVAL, ALSO FOUND DETERIORATION IN THE SLIP JOINT CONNECTING THE RT CROSSOVER ASSEMBLY (PN 2254013). REPLACED BOTH PARTS WITH FACTORY NEW.

2688200410001	CESSNA	LYC	CROSSOVER TUBE	CRACKED
9/3/2004	TR182	O540L3C5	2254008	EXHAUST SYS

DURING ANNUAL INSPECTION, DISCOVERED CRACK APPROXIMATELY 1.5 INCHES IN LENGTH AROUND THE LT CROSSOVER ASSEMBLY (PN 2254008). UPON REMOVAL, ALSO FOUND DETERIORATION IN THE SLIP JOINT CONNECTING THE RT CROSSOVER ASSEMBLY (PN 2254013). REPLACED BOTH PARTS WITH FACTORY NEW.

2689200410001	CESSNA	LYC	CROSSOVER TUBE	CRACKED
9/2/2004	TR182	O540L3C5	2254008	RT ENGINE

DURING ANNUAL INSPECTION, DISCOVERED CRACK APPROXIMATELY 1.5 INCHES IN LENGTH AROUND THE LT CROSSOVER ASSEMBLY. UPON REMOVAL, ALSO FOUND DETERIORATION IN THE SLIP JOINT CONNECTING THE RT CROSSOVER ASSEMBLY (PN 2254013). REPLACED BOTH PARTS WITH FACTORY NEW.

AOC04002	CESSNA	CONT	CYLINDER	DAMAGED
7/21/2004	TU206F	TSIO520C	AEC631397SN2A	ENGINE

FOLLOWING SEVERAL WRITE UPS CONCERNING HIGH CYLINDER TEMP, THE CYLINDERS WERE REMOVED AFTER PREVIOUS LIKE PROBLEMS WITH ANOTHER AIRCRAFT. UPON INSPECTION OF THE CYLINDERS, IT WAS NOTED THAT THREE CYLINDERS HAD UNUSUAL CIRCULAR MARKS ON THE CYLINDER WALLS. NEW ECI CYLINDERS WERE INSTALLED AND CYLINDER TEMP RETURNED TO NORMAL. REMOVED CYLINDERS SENT BACK TO MANUFACTURER.

AOC04003	CESSNA		ALTERNATOR	WORN
7/22/2004	U206G		F424R	ENGINE

PILOT REPORTED ALTERNATOR SYSTEM FAILURE. FOUND ALTERNATOR FAN AND PULLEY TO HAVE EXCESSIVE SIDE PLAY AS WELL AS FORE AND AFT PLAY ON THE ALTERNATOR SHAFT. SUSPECT FRONT BEARING FAILURE.

2004FA0000635	CESSNA	CONT	HANDLE	FAILED
7/7/2004	U206G	IO520*	05170392	PILOTS DOOR

INTERIOR DOOR HANDLE FELL OFF. THE INSERT WHICH HAS THE SPLINE REMAINED ON DOOR. THE DOOR HANDLE IS A NEW STYLE WHICH HAS THE PIN WHICH STOPS THE SPLINE INSERT FROM SPINNING INSIDE THE HANDLE.

2004FA0000538	CIRRUS	CONT	RISER	BROKEN
2/20/2004	SR20	IO360ES	10351002	NR 5 EXHAUST

NR 5 EXHAUST RISER BROKEN COMPLETELY OFF AT MOUNTING FLANGE. POSSIBLE DEFECTIVE WELDING.

16970704	CIRRUS	CONT	EXHAUST HEADER	CRACKED
7/19/2004	SR22	IO550N	15070001	ENGINE

THIS AIRCRAFT HAD THE NR 1,NR 3,NR 5 HEADERS REPLACED WITH NEW PARTS AT 154.0 HRS. THE AIRCRAFT THEN EXPERIENCED A CRACK IN THE NR 5 HEADER AT 180.0 HRS. THERE DOES NOT SEEM TO BE ANY ABNORMAL STRESS ON THE PART/INSTALLATION. AIRCRAFT EXHAUST SYSTEM WILL BE MONITORED TO INSURE INTEGRITY.

TL9R200400001	CNDAIR		WHEEL	DAMAGED
6/11/2004	CL600*		5010598	ZONE 700

REPORTED REMOVAL REASON WAS (BEARING FAILURE). BOTH WHEEL HALVES REJECTED DUE TO BEARING BORE DAMAGE. OPERATOR IS INVESTIGATING THE CAUSE.

2004F00282	CNDAIR		DRIVE ASSY	FAILED
8/4/2004	CL6002B16			NR 2 ENGINE

NR 2 GENERATOR CAME OFF LINE ON TO ROLL OUT OF SBM. TAKEOFF WAS ABORTED BETWEEN 65-75 KTS. GENERATOR RESET WAS SUCCESSFUL ON TAXI BACK. PROCEEDED TO TAKEOFF AND WAS UNEVENTFUL. AFTER REACHING CRUISE GEN NR 2 CAME OFF LINE AGAIN. GENERATOR REMAINED OFF. CONTINUED FLIGHT TO TEB WITHOUT FURTHER INCIDENT. REMOVED AND REPLACED INTEGRATED DRIVE GEN. O2GA (M)

2AUG04	CNDAIR	GE	TIRE	SEPARATED
8/2/2004	CL6002B16	CF343A	256K433	MLG

APPROXIMATELY 1 TO 2 SECONDS BEFORE TAKEOFF, PILOT REPORTED A SLIGHT FORWARD LURCH TO AIRCRAFT AS IF IT WAS GOING THROUGH A PUDDLE. CHECK ALL FLT PARAMETERS NO ABNORMALITIES NOTED. CALL TOWER TO ASK FOR RUNWAY INSPECTION, GROUND PERSONNEL REPORTED FINDING PIECES OF TIRE AND WHAT LOOKED LIKE AN ANTENNA (IT WAS THE IB WOW INPUT PROX SWITCH). THE ENTIRE TREAD SEPARATED FROM THE CASING AND CAUSED CONSIDERABLE DAMAGE TO AIRCRAFT.

54951	CNDAIR		ADC	FAILED
7/20/2004	CL604		8220842421	NR 2

NR 2 AIR DATA COMPUTER (ADC) FAILED SHOWING ALTITUDE FLAG AND VERTICAL SPEED FLAG. MDC CODES 350-000812 AND 351-080112, 351-0106F2.

2004FA0000650	DHAVXX	DHAVXX	CONNECTING ROD	BROKEN
8/19/2004	DH82AROBRTSN	GIPSYMAJOR1C		NR 3 CYLINDER

NR 3 CYLINDER CONNECTING ROD BROKE DURING TAKE OFF CAUSING ENGINE DAMAGE. GIPSY MAJOR 1C ENGINE MODEL INSTALLED IN A VINTAGE EXPERIMENTAL EXHIBITION AIRCRAFT.

2004FA0000588	DIAMON	LYC	SELECTOR VALVE	SEPARATED
6/5/2004	DA40	IO360A1A	3F20M	ZONE 100

DURING FLIGHT, THE FLIGHT CREW MADE A FUEL TANK SELECTION CHANGE AND NOTICED THE FUEL WAS BURNING FROM THE PREVIOUS TANK EVEN THOUGH THE SELECTOR HAD BEEN MOVED TO THE NEW TANK. AFTER LANDING, MAINTENANCE PERSONNEL FOUND THE FUEL SELECTOR SHAFT HAD BECOME SEPARATED FROM THE SELECTOR AT THE UNIVERSAL JOINT. THE UNIVERSAL JOINT RETAINING PINS ARE PRESSED INTO THE UNIVERSAL JOINT BODY AND HAD BECOME LOOSE ALLOWING THEM TO FALL OUT. THIS SHAFT IS PART OF THE FUEL SELECTOR ASSEMBLY AND HAS NO UNIQUE P/N.

2004FA0000703	DIAMON	LYC	EXHAUST HEADER	BROKEN
8/4/2004	DA40	IO360A1A	DA403REVB	ENGINE

ON 100 HOUR INSPECTION FOUND EXHAUST RISER BROKEN AT NR 2 EXHAUST IB MOUNTING BOLT. SUBMITTED REPORT TO MFG.

2004FA0000701	DIAMON	LYC	EXHAUST HEADER	BROKEN
9/7/2004	DA40	IO360A1A	DA403REVB	ENGINE

ON 100 HR INSPECTION FOUND EXHAUST RISER CRACKED AND NEARLY BROKEN AT NR 4 EXHAUST OB MOUNTING BOLT EXTENDING INTO THE WELD AROUND THE PIPE.

2004FA0000702	DIAMON	LYC	EXHAUST HEADER	BROKEN
9/7/2004	DA40	IO360A1A	DA403REVB	ENGINE

ON INSTALLATION OF NEW NR 4 EXHAUST PIPE, THE FLANGE WELD BEGAN TO CRACK. THIS WAS WITH LITTLE TORQUE APPLIED THE FLANGE. SUBMITTED REPORT TO MFG AND DISCUSSED WHAT MAY POSSIBLY BE CAUSING THIS PROBLEM. THEY SEEMED TO THINK IT WAS THE USE OF MFG EXHAUST GASKET WITH THE ASBESTOS CENTER CAUSING THE PROBLEMS, THIS IS THE SAME GASKET THAT IS CALLED FOR IN THEIR PARTS MANUAL. THEY RECOMMENDED USING TWO THIN COPPER GASKETS INSTEAD OF THE SINGLE THICKER ASBESTOS/COPPER GASKET.

2004FA0000590	DIAMON	LYC	SELECTOR VALVE	SEPARATED
6/5/2004	DA40	IO360A1A	3F20M	FUEL SYS

DURING FLIGHT, THE FLIGHT CREW MADE A FUEL TANK SELECTION CHANGE AND NOTICED THE FUEL WAS BURNING FROM THE PREVIOUS TANK EVEN THOUGH THE SELECTOR HAD BEEN MOVED TO THE NEW TANK. AFTER LANDING, MAINTENANCE PERSONNEL FOUND THE FUEL SELECTOR SHAFT HAD BECOME SEPARATED FROM THE SELECTOR AT THE UNIVERSAL JOINT. THE UNIVERSAL JOINT RETAINING PINS ARE PRESSED INTO THE UNIVERSAL JOINT BODY AND HAD BECOME LOOSE ALLOWING THEM TO FALL OUT. THIS SHAFT IS PART OF THE FUEL SELECTOR ASSEMBLY AND HAS NO UNIQUE P/N.

2004FA0000591	DIAMON	LYC	SELECTOR VALVE	SEPARATED
6/5/2004	DA40	IO360A1B	3F20M	ZONE 100

DURING FLIGHT, THE FLT CREW MADE A FUEL TANK SELECTION CHANGE AND NOTICED THE FUEL WAS BURNING FROM THE PREVIOUS TANK EVEN THOUGH THE SELECTOR HAD BEEN MOVED TO THE NEW TANK. AFTER LANDING, MAINTENANCE PERSONNEL FOUND THE FUEL SELECTOR SHAFT HAD BECOME SEPARATED FROM THE SELECTOR AT THE UNIVERSAL JOINT. THE UNIVERSAL JOINT RETAINING PINS ARE PRESSED INTO THE UNIVERSAL JOINT BODY AND HAD BECOME LOOSE ALLOWING THEM TO FALL OUT. THIS SHAFT IS PART OF THE FUEL SELECTOR ASSEMBLY AND HAS NO UNIQUE P/N.

EAHR200400001	ENSTRM	ALLSN	ALLSN	SCROLL	CRACKED
8/19/2004	ENSTROM480	250C20		23059598	COMPRESSOR

COMPRESSOR DISCHARGE SCROLL CRACKED AT LOWER RT CUSTOMER BLEED AIR FITTING.

2004F00155	GULSTM	PWA		BRUSHES	WORN
4/6/2004	200	PW306B			STARTER GEN

CREW REPORTED APU INOPERATIVE TROUBLESHOT SYSTEM AND FOUND VOLTAGE AVAILABLE AT STARTER GEN. REMOVED STARTER GEN AND BRUSH COVER. FOUND 2 OUT OF 4 BUSHES WELDED IN BRUSH HOLDERS AND BUSH WIRES BROKEN OFF. INSULATION STRIP ON INSIDE OF BRUSH COVER WORN BURNED THROUGH. INSTALLED REPAIRED STARTER GEN OF SAME PN IAW GAC G200 MM., CH 49-40-05, OPERATIONAL CHECKS GOOD.

AMCR200400003	GULSTM	RROYCE	GULSTM	SOLENOID	SHORTED
8/20/2004	GIV	TAY6118		41001	MLG

UPON LOWERING THE LANDING GEAR, TWO CIRCUIT BREAKERS POPPED FOR THE NOSE STEERING. INVESTIGATION FOUND A SHORTED SOLENOID VALVE IN THE STEERING SYSTEM. THE SOLENOID WAS SHORTED TO GROUND INTERNALLY.

20040820	HELIO	LYC		CHECK VALVE	CRACKED
7/20/2004	H295	GO480*		6225544	FUEL SYSTEM

FUEL SYSTEM CHECK VALVE PN 6-2255-44, HOUSING WAS FOUND CRACKED.

20040823	HELIO	LYC		CAMSHAFT	MAKING METAL
8/20/2004	H295	GO480G1D6		77134	ENGINE

AFTER ENGINE O/H, THE ENGINE WAS TEST RUN 5 HOURS ON THE TEST STAND AND THEN DISASSEMBLED BECAUSE OF METAL IN OIL. AS PART OF INSPECTION NOTED THAT NR 4 EXHAUST CAM LOBE APPEARED TO BE WEARING ABNORMALLY. HAS A ROUGH SURFACE WITH SOME PITTING AND APPEARANCE OF METAL SMEARING. CAM FOLLOWER SHOWED BEGINNING OF DISTRESS BELIEVED TO BE CAUSED BY CAM. THE CAMSHAFT WAS NEW.

2004FA0000646	HUGHES	LYC		BEARING	DAMAGED
7/13/2004	269B	IO360A1A			MAGNETO

MAGNETO OVERHAULED, WAS FOUND TO HAVE A LOOSE ROTOR TAB THAT CHEWED UP THE DISTRIBUTOR BLOCK TERMINALS. ALSO AN INNER BEARING RACE WAS LOOSE AND SCORED THE SHAFT AND AN OUTER BEARING RACE WAS LOOSE IN THE CASE AND THE CASE WAS THEREFORE JUNK.

2004FA0000689	HYNES	LYC		SHAFT	FAILED
6/23/2004	B2B	O360A1A		24910	T/R GEARBOX

TAIL ROTOR DRIVE FROM 90 GEARBOX TO TAIL ROTOR GEARBOX FAIL AT ATTACHING POINT IN TAIL ROTOR GEARBOX. BY THE DISCOLORATION OF THE BREAK IT APPEARS THAT IT HAD PARTIALLY CRACKED PRIOR TO TOTAL FAILURE. THIS CAUSED LOST OF DIRECTIONAL CONTROL OF AIRCRAFT. THE INSTALLATION WAS INSTALL BY THE FACTORY AND HAD NOT BEEN WORK ON BY ANY OTHER MAINTENANCE PERSONAL. THIS DID NOT FAIL AT THE ATTACHING BOLT HOLE, WHICH WOULD INDICATE AN ALIGNMENT PROBLEM. WOULD SUGGEST A FLEX COUPLING INSTALLATION TO ALLOW FOR MISALIGNMENT AND FLEXING OF THE TAIL BOOM PYLON.

07092004	MOONEY	LYC		LANDING GEAR	COLLAPSED
7/9/2004	M20F	AEIO360*		4196001C	MAINS

LANDING GEAR CIRCUIT BREAKER POPPED, ATTEMPTED TO RESET IT AND SAW SPARKS. PILOT ATTEMPTED MANUAL EXTENSION OF GEAR BUT WAS UNABLE TO GET DOWN AND LOCKED INDICATION. PILOT REPORTED GEAR PROBLEM TO TOWER. GEAR APPEARED TO BE DOWN AND THE PILOT FLEW BY TOWER AND THE CONTROLLER ALSO STATED THAT GEAR APPEARED TO BE DOWN. LANDING WAS MADE AND LANDING GEAR COLLAPSED CAUSING MINOR DAMAGE TO FUSELAGE AND PROPELLER. MECHANIC IDENTIFIED STRIPPED SPLINES ON EMERGENCY EXTENSION SHAFT WHICH WOULD NOT ALLOW THE GEAR TO FULLY EXTEND MANUALLY. IT IS UNCLEAR WHEN THE SPLINE WAS DAMAGED AND WHY. THE MECHANIC DID PERFORM A SUCCESSFUL MANUAL EXTENSION DURING THE ANNUAL INSPECTION LAST JULY.

535062004	MOONEY			CONTROL CABLE	OBSTRUCTED

7/2/2004	M20M			OXYGEN SYSTEM

A RIVE NUT ON THE BRACKET HOLDING THE O2 CONTROL CABLE HAS CAUSED THE O2 CONTROL TO FAIL TO REACH ITS (FULL ON) POSITION. IF THE O2 CONTROL CABLE IS NOT SET AT (FULL ON) OR (FULL OFF) (IN OTHER WORDS, WHEN THE CONTROL IS IN-BETWEEN EITHER SETTING) THERE IS A LIKELIHOOD OF THE O2 BOTTLE EMPTYING ITS CONTENTS INTO THE TAILCONE IN A SHORT PERIOD OF TIME. THE CRUX OF THIS PROBLEM IS A RIVNUT PREVENTING FULL TRAVEL OF THE O2 CONTROL. THIS DEFECT COULD AFFECT MORE THAN ONE AIRCRAFT.

4007053	PIAGIO	PWA	RUDDER PEDAL	LOOSE
2/25/2004	P180	PT6*	80115401401/40	COCKPIT

THE RUDDER PEDAL FOOT ASSEMBLIES ARE MADE UP OF A FOOT PEDAL WHICH SLIPS INTO A TUBE AND RIVETED TOGETHER WITH 6 BLIND RIVETS. (FOOT PEDAL IS OFFSET FROM THE TUBE, SO THE PEDAL WANTS TO ROTATE IN THE TUBE WHEN PUSHING FORWARD ON THE PEDAL) THE RIVETS WERE LOOSE IN BOTH PILOT'S RUDDER PEDAL ASSEMBLIES AND THE COPILOT'S RIGHT ASSEMBLY. OLD RIVETS WERE REMOVED, PARTS ASSEMBLED WITH LIGHT COAT OF STRUCTURAL ADHESIVE, AND NEW RIVETS INSTALLED AS RECOMMENDED BY TECHNICAL SUPPORT.

4046	PIAGIO	PWA	RUDDER PEDAL	LOOSE
9/10/2004	P180	PT6*	8011540140102	COCKPIT

THE RUDDER PEDAL FOOT ASSEMBLIES ARE MADE UP OF A FOOT PEDAL WHICH SLIPS INTO A TUBE AND RIVETED TOGETHER WITH 6 BLIND RIVETS. (FOOT PEDAL IS OFFSET FROM THE TUBE, SO THE PEDAL WANTS TO ROTATE IN THE TUBE WHEN PUSHING FORWARD ON THE PEDAL) THE RIVETS WERE LOOSE IN BOTH PILOT'S AND BOTH COPILOT'S RUDDER PEDAL ASSEMBLIES. TO REPAIR: OLD RIVETS WERE REMOVED, PARTS ASSEMBLED WITH LIGHT COAT OF STRUCTURAL ADHESIVE, AND NEW RIVETS INSTALLED AS RECOMMENDED BY TECHNICAL SUPPORT.

2004F00241	PIAGIO	PWA	SEAL	SEPARATED
6/15/2004	P180	PT6A6	80161101	EMERGENCY EXIT

AC CLIMBED THRU 25,000 FT, VERY LOUD HOWL, EMANATING FROM EMERG EXIT BEHIND COPILOT SEAT. COMMUNICATION IN AC WAS NEARLY IMPOSSIBLE AND AC WAS FORCED TO RETURN TO BASE. AT 15,000 FT NOISE SUBSIDED AND AC RETURNED TO DEPARTURE. UPON EXAM OF EMERGENCY EXIT, DOOR SEAL, PN 80-161101, WAS FOUND TO BE SEPARATED AT SPLICE, WHICH IS HELD TOGETHER BY SILICONE ADHESIVE IN BUTT END SPLICE FASHION. WHEN EMERG EXIT IS REMOVED AND INSTALLED DURING PERIODIC INSP, SEAL SPLICE IS FORCED OVER LOCK PIN PAD ON LWR WINDOW FRAME, IS DEFORMED AS IT PASSES OVER PAD. THIS TENDS TO LOOSEN SPLICE CAUSING A PRESSURIZATION LEAK THAT CAN BE VERY AUDIBLE. INSTALL SEAL WITH SPLICE AT TOP OF DOOR, ELIMINATING ABUSE OF DOOR SEAL SPLICE.

2004FA0000707	PILATS	PWA	FCU	FAILED
7/26/2004	PC1245	PT6A67B	8063042	DIAPHRAGM

LOSS OF ENGINE POWER AND LOW TORQUE INDICATION. ENGINE SHUT DOWN, PROP FEATHERED, EMERGENCY LANDING EXECUTED. (M)

2004FA0000686	PIPER	LYC	OIL COOLER	FAILED
7/8/2004	PA18150	O320A2B	8526250	ENGINE

INSTALLED OVERHAULED OIL COOLER, TO AIRCRAFT ON 4/30/04, TACH 2028.5. NO LEAKS AT RUN UP. AFTER INSTALL AND NO LEAKS NOTICED AFTER TAXI TO HANGER. AIRCRAFT WAS FLOWN. OIL COOLER FAILED IN FLIGHT WITH LESS THAN AN HOUR OF FLIGHT TIME. CAUSING TOTAL LOSS OF ENGINE OIL. AIRCRAFT MADE AN EMERGENCY LANDING AT FLYING CLOUD FIELD. ENGINE HAD TO BE DISASSEMBLED AND INSPECTED. ADDITIONAL INFORMATION WILL BE PROVIDED UPON REQUEST.

2004FA0000696	PIPER	LYC	WHEEL	CRACKED
9/9/2004	PA23250	TIO540*	40131	MLG

DURING AN ANNUAL INSPECTION, WAS UNABLE TO LOOSEN LT MAIN WHEEL AXLE NUT. TIRE PRESSURE WAS FOUND TO BE ABOUT 90 PSI INSTEAD OF RECOMMENDED 32 PSI. TIRE WAS DEFLATED AND AXLE NUT WAS ABLE TO BE REMOVED EASILY. WHEEL DISASSEMBLED AND INSPECTED. FOUND TO BE CRACKED IN TWO PLACES AROUND ADJACENT NUT PLATES. CRACKS WERE PROBABLY DUE TO OVER INFLATION OF TIRE. RT TIRE PRESSURE FOUND TO BE ABOUT 90 PSI ALSO. BOTH WHEEL ASSEEMBLIES REPLACED WITH NEW.

2004FA0000610	PIPER	LYC	BOLT	CORRODED
10/25/2002	PA24	O360*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILIATOR HORN ASSEMBLY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-

321). THE TORQUE TUBE.

2004FA0000618	PIPER	LYC	BOLT	CORRODED
10/25/2002	PA24180	O360*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321). AND THE TORQUE TUBE.

2004FA0000625	PIPER	LYC	TORQUE TUBE	CORRODED
2/20/2002	PA24250	O540*	2020302	STABILATOR

PRIOR TO ANNUAL INSPECTION. THE RT STABILATOR TIP WAS OBSERVED TO OSCILLATE SEVERAL INCHES. DURING THE ANNUAL INSPECTING THE RT STABILATOR BEARING, PN 4250383 WAS FOUND TO BE LOOSE. THIS PROCESS TOOK THREE PEOPLE SEVERAL HOURS TO COMPLETE. TO ASSIST IN THE REMOVAL, MAKE-SHIFT LEVER WAS CONSTRUCTED TO HELP IN THE TWISTING OF THE STABILATOR ON THE TORQUE TUBE. CORROSION WAS FOUND ON THE STABILATOR TORQUE TUBE AND THE BOLTS, AN175-33A, THAT ATTACH THE STABILATOR TORQUE TUBE TO THE HORN ASSY, 20397. AFTER CORROSION WAS REMOVED FROM BOLTS, OVER .45 MATERIAL WAS REMOVED. NO RECORD WAS FOUND TO SUGGEST THAT THE STABILATOR WAS REMOVED PRIOR TO THIS DATE.

2004FA0000621	PIPER	LYC	BOLT	CORRODED
11/11/2003	PA24250	O540*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321). AND THE TORQUE TUBE.

2004FA0000617	PIPER	LYC	BOLT	CORRODED
9/22/2003	PA24260	TIO540*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321). AND THE TORQUE TUBE. TT 3023.

2004FA0000620	PIPER	LYC	BOLT	CORRODED
10/10/2002	PA24260	TIO540*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321). AND THE TORQUE TUBE. TT 6132.

2004FA0000622	PIPER	LYC	BOLT	CORRODED
7/7/2002	PA24260	TIO540*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321) AND THE TORQUE TUBE. TT 3842.

2004FA0000612	PIPER	LYC	BOLT	CORRODED
5/28/2003	PA24260	TIO540*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321). AND THE TORQUE TUBE. TT 3705.

2004FA0000623	PIPER	LYC	BOLT	CORRODED

10/25/2003	PA24260	TIO540*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321) AND THE TORQUE TUBE. TT 5837.

2004FA0000711	PIPER	LYC	ANTENNA	FAILED
7/21/2004	PA24260	TIO540*	450017	ELT

DURING AN ANNUAL INSPECTION, THE ELT ANTENNA ON AIRCRAFT WAS DISCOVERED TO HAVE FAILED. THE ANTENNA FAILED AT THE BULKHEAD FITTING. IT APPEARS TO BE SIMPLY GLUED INTO THE FITTING. THIS ANTENNA P/N 450017 HAS BEEN RECENTLY UP GRADED INDICATING THE MANUFACTURER KNOWS ABOUT THIS DEFECT. PN 450017 SUPPLIED PRIOR TO JUNE 2004 ARE SUSPECT. A PULL TEST WILL DETERMINE INTEGRITY. (M)

2004FA0000654	PIPER	LYC	STRUT	FAILED
7/12/2004	PA25260	O540*	486604	LT MLG

ON MAKING A SLIP TO A LANDING, THE LT GEAR COLLAPSED. IT WAS FOUND THAT THE (VEE ASSEMBLY) PULLED OUT OF THE FITTING ASSEMBLY OF THE SHOCK STRUT. I RECOMMEND THAT THIS BECOME AN INSPECTION POINT FOR POSSIBLE CRACKS. THESE AIRCRAFT MAKE HUNDREDS OF LANDINGS THAT PLACE HIGH SIDE LOADS AT THIS POINT.

2004FA0000630	PIPER	LYC	STRUT	DAMAGED
7/9/2004	PA28140	O320*	6531903	MLG

LANDING ON GRASS STRIP WHICH WAS NOT AS SMOOTH AS THE USUAL PAVEMENT. THE STRUT APPEARED TO BE OVER EXTENDED. UPON CLOSER LOOK IT WAS NOTED THAT BOTH ON THE EARS WHICH CONNECT THE TORQUE LINK, HAD BROKEN OFF THE STRUT. CHECKING THE OTHER LANDING GEAR SHOWED CRACKS ALSO IN THE SAME AREA.

2004FA0000708	PIPER	LYC	CYLINDER	BROKEN
8/27/2004	PA28161	O320D3G	CL4P10N	ENGINE

DURING FLIGHT ENGINE STARTED RUNNING ROUGH AND WOULD ONLY DEVELOP 1800 RPM. PILOT LANDED WITHOUT INCIDENT. UPON INSPECTION FOUND NR 3 CYLINER ROCKER SHAFT BOSS BROKEN AND SHAFT AND ROCKERS LAYING LOOSE IN THE ROCKER BOX COVER. THE PUSH RODS WERE STRAIGHT AND THE VALVES WERE NOT STUCK. (M)

2004FA0000587	PIPER	LYC	CLAMP	OUT OF POSITION
7/8/2004	PA28181	O360*		CONTROL COLLUMN

FULL DOWN ELEVATOR WAS NOT ACHIEVED DUE TO THE FACT THAT TEMPORARY YOKE ATTACHMENTS WERE IMPEDING THE MOVEMENT OF THE FORWARD TRAVEL OF THE YOKE. AFTER A THOROUGH INSPECTION OF THE STABALATOR CONTROL SYSTEM IT WAS FOUND THAT THE CLAMP ON ATTACHMENTS WERE IMPEDING THE TRAVEL. OF COURSE THIS CARRY MUCH POTENTIAL DANGER.

2004FA0000642	PIPER	LYC	IMPULSE COUPLING	BROKEN
6/1/2004	PA28235	O540B4B5		MAGNETO

IMPULSE COUPLING FAILED LOCKING MAGNETO, RESULTING IN FAILURE OF GEARS IN ACCESSORY CASE, PN 13S18647, 71652 AND LW-19096 GEARS. FAILURE OCCURRED WHILE FLYING IN PATTERN. (EA23200400620)

2004FA0000648	PIPER	LYC	DOWNLOCK	CRACKED
8/19/2004	PA28R200	IO360A1A	6715003	NLG

DURING INSPECTION FOR AN INTERMITTENT IN TRANSIT LIGHT, DISCOVERED CRACKED NLG DOWNLOCK ASSY. HALF OF THE IB PERIMETER AROUND ACTUATOR ROD ATTACH POINT WAS BROKEN OFF. REMAINING HALF HAS SEVERAL CRACKS EMANATING FROM BOLT HOLE. SEVERAL MORE GEAR ACTUATIONS WOULD HAVE RESULTED IN COMPLETE SEPARATION. REPLACED ASSY WITH NEW MFG PART WHICH WAS BEEFIER THAN ORIGINAL. PAY ADDED ATTENTION TO THIS AREA (INCLUDING DRAG BRACE ATTACH AREA) AND DO NOT IGNORE FLICKERING LANDING GEAR INDICATION LIGHTS, INVESTIGATE.

2004FA0000660	PIPER	LYC	DOOR	INGESTED
5/19/2004	PA28R201	IO360C1C6	67775000	HEAT BOX ASSY

PARTIAL LOSS OF ENG PWR OCCURRED JUST AFTER T/O. MANIFOLD PRESS DROPPED TO 15 INCHES HG AND RPM DROPPED TO 1900. PRE T/O ENG RUN UP, ALTERN AIR CHECK WAS REPORTED AS (NORMAL). POST FLT INSP REVEALED THAT ALTERN AIR (HEAT BOX) DOOR HAD SEPARATED FROM ALTERNATE AIR BOX ASSY, WAS INGESTED INTO FUEL SERVO INTAKE, PARTIALLY BLOCKED ENG INDUCT AIR FLOW, RESULTED IN PARTIAL LOSS OF PWR. MS20470AD3 RIVETS (3EA) THAT SECURE

DOOR TO AIR BOX HAD FAILED. IMPROPERLY BUCKED RIVETS DUE TO EXCESS SPRING TENSION DURING ASSY AND/OR TOO MUCH SPRING TENSION FOR RIVETS TO BEAR. HEAT BOX DOOR SHOULD BE TETHERED IN SUCH WAY, IF HINGE ATTACHMENTS SHOULD FAIL DOOR WON`T BE INGESTED AND/OR SECURED WITH STRONGER FAIL SAFE HDWR.

2004FA0000615	PIPER	LYC	BOLT	CORRODED
9/19/2002	PA30	IO320*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321). AND THE TORQUE TUBE. TT 3342.

2004FA0000616	PIPER	LYC	BOLT	CORRODED
6/30/2003	PA30	IO320*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321). AND THE TORQUE TUBE.

2004FA0000614	PIPER	LYC	BOLT	CORRODED
3/26/2004	PA30	IO320*		STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TOT THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321). TT 4542

2004FA0000613	PIPER	LYC	BOLT	CORRODED
6/30/2003	PA30	IO320*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON THE PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321). AND THE TORQUE TUBE.

2004FA0000611	PIPER	LYC	BOLT	CORRODED
1/17/2003	PA30	IO320*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ASLO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321). AND THE TORQUE TUBE. TT UNKNOWN

2004FA0000624	PIPER	LYC	BOLT	CORRODED
1/17/2003	PA30	IO320*		STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321) AND TORQUE TUBE.

2004FA0000619	PIPER	LYC	BOLT	CORRODED
3/26/2004	PA30	O320*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERELY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321).. THE BOLTS ATTACHING THE STABILATOR TO THE TORQUE TUBE WERE ALSO CORRODED SEVERELY. THE BOLTS HAD TO BE REMOVED BY AN IMPACT TOOL. THESE WERE TO BE REPLACED OR INSPECTED IAW AD 74-13-03. TT 3681.

2004F00235	PIPER	LYC	DOWNLOCK	DIRTY
8/3/2004	PA31	TIO540*		MLG

THE RT MAIN LANDING GEAR COLLAPSED AFTER TOUCH DOWN, SUSPECT DIRTY GEARS WITH GRIT ON DOWNLOCK. ALSO AIRCRAFT HAD BEEN OUT OF SERVICE FOR 5 WEEKS AND RUST HAD ACCUMULATED ON DOWN LOCK. (EA05200405925)

2004FA0000645	PIPER	LYC	HOUSING	LEAKING
6/2/2004	PA31350	TIO540*		EDP

DURING ENGINE REMOVAL FOR OVERHAUL, FOUND THE ENGINE DRIVEN FUEL PUMP LEAKING FROM AROUND HOUSING ASSY. (SO05200407947)

2004FA0000633	PIPER		CONTROL CABLE	DISCONNECTED
7/19/2004	PA31T2		51757005	ELEVATOR

DURING A ROUTINE EVENT NR 1 AIRFRAME INSPECTION, IT WAS DISCOVERED THE (ELEVATOR) PRIMARY TOP CONTROL CABLE (ELEVATOR CABLE) WAS NOT CONNECTED TO THE ELEVATOR BELLCRANK. THE ELEVATOR CABLE IS SHROUDED BY A CABLE TENSIONER TUBE ASSY. THE ELEVATOR CABLE RETAINING BOLT (PN 400-052) WAS POSITIONED THROUGH THE CABLE TENSIONER TUBE (PN 81950-002) AND THE BELLCRANK (PN 40307-000), HOWEVER, THE ELEVATOR CABLE (PN 51757-005) WAS NOT SECURED TO THE BELLCRANK, THE ELEVATOR CABLE CLEVIS DISCONNECTED WITHIN THE CABLE TENSIONER. A RETAINING CLIP WITHIN THE SPRING TUBE ASSY. WAS THE ONLY DEVICE PREVENTING LOSS OF ELEVATOR CONTROL. (EA03200405977)

2004FA0000661	PIPER	LYC	GEAR	STRIPPED
8/19/2004	PA32R300	IO540K1A5	MZ6222	STARTER

BENDIX DRIVE GEAR TEETH STRIPPED OUT AFTER ENGAGING STARTER.

2004FA0000691	PIPER		RIB	CRACKED
6/11/2004	PA32R301T		6357102	STAB

A/C IS IN ANNUAL FOR USA CERT. DURING INSPECTION FOUND STAB LT OUTTER RIB CRACKING AT BALANCE WEIGHT ATTACHMENT POINTS. RIB HAS 3 CRACKS WORKING AFT FROM FORWARD END OF RIB. CRACKS RANGED FROM 12 MM TO 23 MM IN LENGTH. LARGEST TRACKING THROUGH LOWER FORWARD RIVET/NUT FOR BALANCE WEIGHT ATTACHMENT.

2004FA0000626	PIPER	CONT	CRANKCASE	CRACKED
1/16/2002	PA34200T	TSIO360EB		RIGHT

THE TURBOCHARGER ATTACHES TO THE ENGINE RT CRANKCASE, THROUGH A 21 INCH MOUNTING BRACKET, WHICH ATTACHES TO THE RT AFT ENGINE MOUNT. DURING A ROUTINE 100 HR INSPECTION, A 1.75 INCH CRACK WAS FOUND ON THE RT CRANKCASE HALF, RT AFT ENGINE MOUNT ATTACH. IT APPEARS THAT OVER TIME, THE FLEXING OF THE TURBOCHARGER INSTALLATION PRODUCES A STRESS CRACK ON THE CASE HALF AROUND THE FWD STUD. IT IS POSSIBLE THAT THIS PROBLEM IS DUE TO HIGH TIME CRANKCASE HALVES AND THE DESIGN OF THE TURBOCHARGER MOUNTING. ENGINE HAS 519.2 HRS SINCE FACTORY REMAN.

2004FA0000526	PIPER	CONT	BULKHEAD	CRACKED
12/24/2003	PA34220T	TSIO360*	D7309	LT PROP SPINNER

DURING ANNUAL INSPECTION, FOUND THE LT PROP SPINNER BULKHEAD CRACKED IN SEVERAL PLACES. THE CRACKS ARE LOCATED AT JUST ABOUT EVERY BOLT HOLE FOR ATTACHING THE BULKHEAD TO THE PROP BULKHEAD HAD TO BE REPLACED.

2004FA0000609	PIPER	LYC	BOLT	CORRODED
11/15/2002	PA39	IO320*	AN175C33A	STABILATOR

DURING ANNUAL INSPECTION THE STABILATOR WAS REMOVED FOR FURTHER INSPECTION. THIS IS DUE TO PREVIOUS PROBLEMS ON OTHER PA24 AND PA 30/39 AIRCRAFT WITH STABILATOR TORQUE TUBE AND ATTACHMENT BOLTS WITH EXCESSIVE CORROSION. BOTH BOLTS AN175C33A THAT ATTACHES THE STABILATOR HORN ASSY TO THE TORQUE TUBE WERE SEVERLY CORRODED. ALSO CORRODED WERE THE FOLLOWING BOLTS: AN24-46A (400-932), AN174-22A (402-321). AND THE TORQUE TUBE. TT3004.

RX8R2004001	PIPER	PWA	PIPER	BOLT	SHEARED
5/21/2004	PA42720	PT6A61		AN3H7A	ZONE 700

WHILE TAXIING AFTER LANDING, THE PILOT DISCOVERED THE AIRCRAFT WOULD NOT TURN TIGHT. AFTER EXAMINATION, IT WAS FOUND THE (3) AN-3 BOLTS THAT SECURE THE NOSE STEERING LINKAGE TO THE TOP OF THE NOSE LANDING GEAR STRUT HAD SHEARED. FOUR OTHER AIRCRAFT WERE EXAMINED AND ONE AIRCRAFT WAS FOUND TO HAVE ONE BOLT

STRIPPED OUT. WE RECOMMEND THESE BOLTS BE CHECKED ONCE A YEAR FOR TORQUE.

2004FA0000605	PIPER		BOLT	CRACKED
7/29/2004	PA44180		NAS464P427	NLG

DURING INSPECTION FOUND NOSE GEAR TORQUE LINK BOLT PN NAS464P4-27 SHEARED MID SPAN OF BOLT SHANK. NO SIGN OF EXCESSIVE CORROSION.

2004FA0000698	PIPER	LYC	ACTUATOR	CRACKED
9/3/2004	PA44180	O360*	455987	MLG

FOUND TWO CRACKS IN HOUSING AT PISTON SHAFT END RETAINING CLIP GROOVE AREA.

2004FA0000699	PIPER	LYC	ACTUATOR	CRACKED
9/3/2004	PA44180	O360*	455987	MLG

FOUND TWO CRACKS IN HOUSING AT PISTON SHAFT END RETAINING CLIP GROOVE AREA.

UXCR200400002	PIPER	LYC	HOSE	FLAKING
8/26/2004	PA46350P	TIO540AE2A	LW18724	FUEL SYSTEM

DURING CLIMB TO ALTITUDE, THE ENGINE EXHIBITED A ROUGH RUNNING CONDITION THAT NECESSITATED A REDUCTION IN POWER REQUIRING AN UNSCHEDULED LANDING. INSPECTION OF THE ENGINE FUEL INJECTION SYSTEM REVEALED TWO OBSTRUCTED INJECTOR NOZZLES (NR 2 AND NR 4 CYLINDERS). UPON FURTHER INSPECTION, IT WAS DETERMINED THE UPPER DECK AIR MANIFOLD HOSES WERE FLAKING MATERIAL FROM THE INTERNAL WALL SURFACE SUFFICIENT IN SIZE TO OBSTRUCT THE INJECTOR ORIFICE.

2004FA0000583	PIPER		CHECK VALVE	MISALIGNED
3/7/2003	PA46500TP			FUEL FLOW

HINGE PIN DISPLACED, FLAPPER DOOR MISALIGNED, ALLOWING REVERSE FUEL FLOW. PART MARKED 99240/2S6952.

2004FA0000628	PIPER	PWA	FLOAT SWITCH	FAILED
8/9/2004	PA46500TP	PT6*	602501	FUEL SYSTEM

OWNER COMPLAINED RT FUEL PUMP WAS INOPERATIVE. TROUBLESHOOT SYSTEM TO A HEAVY FUEL FLOAT SWITCH P/N 602-501. HEAVY FLOAT CAUSED FUEL PUMP TO BE INOPERABLE WHEN SELECTED IN MANUAL OR AUTOMATIC.

2004FA0000582	PIPER	PWA	CHECK VALVE	STUCK
3/7/2003	PA46500TP	PT6A42	102487	FUEL SYSTEM

CHECK VALVE, GRAVITY/SUPPLY LINE FOUND STUCK OPEN ALLOWING FUEL DISPLACEMENT FROM HEADER TANK. AIRCRAFT INVOLVED IN FATAL ACCIDENT 03/07/03

2004FA0000592	PIPER	PWA	CHECK VALVE	STUCK
3/7/2003	PA46500TP	PT6A42	102487	ZONE 600

CHECK VALVE ASSY. GRAVITY/SUPPLY LINE FOUND STUCK OPEN ALLOWING FUEL DISPLACEMENT FROM HEADER TANK.

2004FA0000593	PIPER	PWA	CHECK VALVE	STUCK
3/7/2003	PA46500TP	PT6A42	102487	ZONE 600

CHECK VALVE ASSY. GRAVITY/SUPPLY LINE FOUND STUCK OPEN ALLOWING FUEL DISPLACEMENT FROM HEADER TANK.

2004F00286	SKRSKY	PWA	DUCT	CRACKED
7/13/2004	S64E	JFTD12A5A	769251	DIFFUSER CASE

DURING DISASSEMBLY OF N1 SECTION, IT WAS NOTICED THAT THERE WAS A LARGE PIECE OF MATERIAL WEDGED IN BETWEEN TWO 1ST STAGE BLADES. UPON FURTHER DISASSEMBLY/INVESTIGATION THE OUTLET DUCT ASSEMBLY WAS FOUND TO BE MISSING A LARGE SECTION OF THE OUTER DUCT APPROXIMATELY 1.5 INCHES DIAMETER WHICH WAS DETERMINED TO BE THE PIECE LODGED IN THE BLADES. E8KL (M)TONY CHECK THIS

Z1RA096970	SKRSKY	TMECA	TORQUE BOX	INTERMITTENT
8/23/2004	S76C	ARRIEL1S1	0177987070	ENGINE

REPLACED TORQUE TRIM CONFORMATION BOX. NO FURTHER DEFECTS

2004FA0000603	SLINDS	LYC	NUT	LOOSE

7/29/2004	10AVOLAIRE	O320*		NLG

SAFETY WIRE BROKE FROM THE NUT THAT RETAINS THE NOSE LANDING GEAR PISTON/PISTON ROD ASSEMBLY INTO THE NOSE STRUT CYLINDER TUBE ASSEMBLY. THE PISTON/PISTON ROD ASSEMBLY SEPARATED FROM THE STRUT CYLINDER TUBE ASSEMBLY UPON LANDING. SUBSEQUENTLY THE NOSE GEAR/PISTON ROD ASSEMBLY AND WHEEL ASSEMBLY FOLDED BACK ON IMPACT CAUSING THE AIRCRAFT ROLL OUT TO BE SUPPORTED BY THE STRUT CYLINDER TUBE ASSEMBLY. THE STRUT CYLINDER TUBE ASSEMBLY LOWER LEADING EDGE WAS GROUND DOWN DURING THE LANDING ROLL OUT.

B3OR20040712	SNIAS	TMECA	EVAPORATOR	CRACKED
7/7/2004	AS350B2	ARRIEL1D1	900A4031	AIR CONDITIONER

PILOT WAS OPERATING AC AIR CONDTIONING SYSTEM AND HEARD A NOISE COMMING FROM THE FWD EVAPORATOR UNDER INSTRUMENT PANEL. UPON RETURN TO BASE, MECHANIC VERIFIED THAT THE NOISE WAS COMMING FROM THE FWD EVAPORATOR. THE EVAPORATOR WAS REMOVED AND IT WAS FOUND TO HAVE CRACKS IN THE HOUSING NEAR THE BLOWER ASSEMBLIES. THE CRACKS CAUSED THE BLOWERS TO BE MISALIGNED AND THAT WAS THE SOURCE OF THE NOISE. THE UNIT WAS REPLACED AND THE SYSTEM SERVICED AND OPERATES NORMALLY. THIS OPERATOR HAS REPLACED FOUR (4) SUCH EVAPORATOR ASSEMBLIES IN THE PAST TWO (2) YEARS DUE TO CRACKS OF THIS TYPE. MAYBE THE MANUFACTURER NEEDS TO LOOK INTO A BETTER HOUSING MATERIAL, THE HARD PLASTIC MATERIAL CURRENTLY USED IS NOT TOUGH ENOUGH.

2004FA0000705	UNIVAR	CONT	CYLINDER	DEBONDED
8/30/2004	1083	O470R	ACEC642068SNA	ENGINE

NICKEL COATING OF INSIDE CYLINDER BARREL PEELING OFF.

2004FA0000706	UNIVAR	CONT	CONT	SPRING	SLIPPED
8/30/2004	1083	O470R	O470		STARTER ADAPTER

EXCESSIVE WEAR BETWEEN STARTER ADAPTER SPRING AND DRUM. STARTER DOES NOT ALLOW STARTER ADAPTER TO RELEASE AFTER ENGINE START.

END OF REPORTS