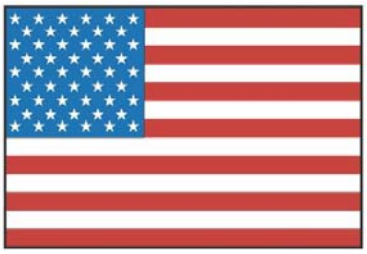
U.S. Department of Transportation
Federal Aviation Administration

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR

43-16A

AVIATION MAINTENANCE ALERTS



ALERT NUMBER 403

FEBRUARY 2012

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

AVIATION MAINTENANCE ALERTS

The Aviation Maintenance Alerts provides the aviation community with an economical means to exchange service experiences and to assist the FAA in improving aeronautical product durability, reliability, and safety. We prepare this publication from information operators and maintenance personnel who maintain civil aeronautical products pertaining to significant events or items of interest. At the time we prepared this document, we have not fully evaluated the material. As we identify additional facts such as cause and corrective action, we may publish additional data in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported to the FAA Service Difficulty Reporting System (SDRS). We welcome your participation, comments, and suggestions for improvement. Send to: FAA; ATTN: Aviation Data Systems Branch (AFS-620); P.O. Box 25082; Oklahoma City, OK 73125-5029.

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

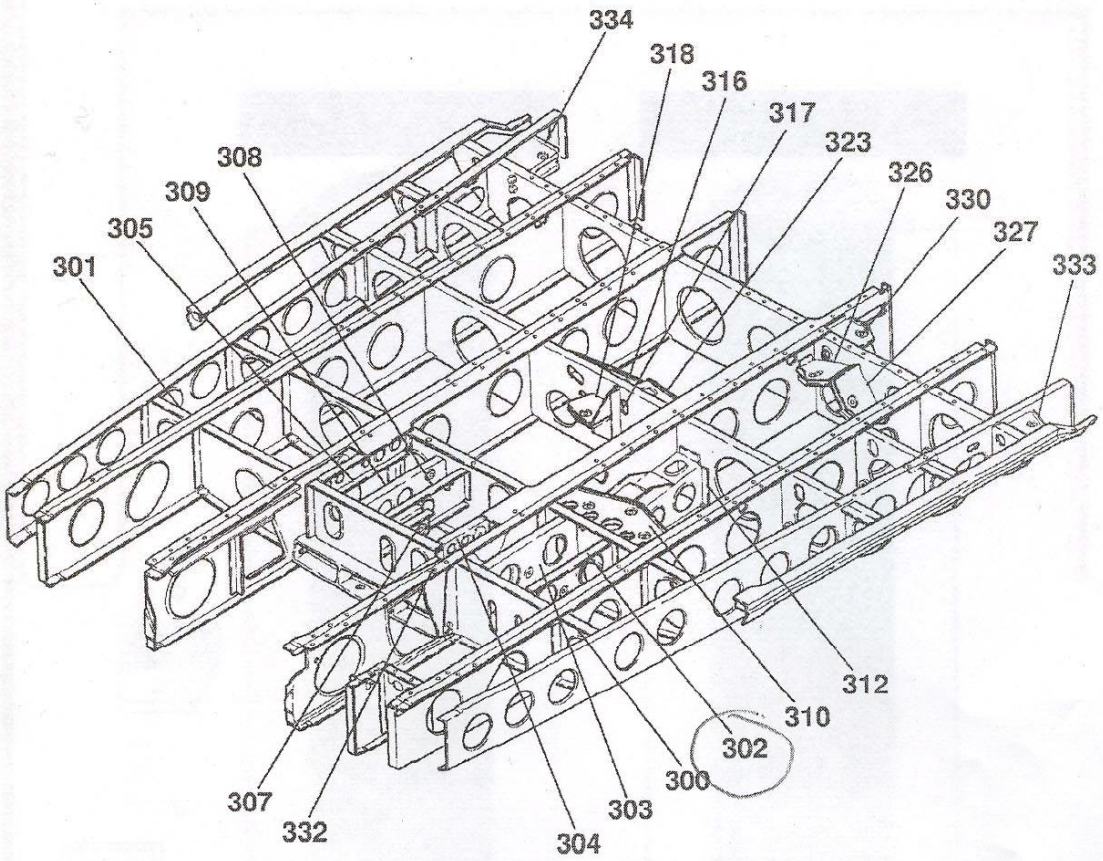
AIRPLANES

Cessna: 208B; Cracked Elevator Pulley Support; ATA 5320

An air operator's submission states, "The left pulley support web below the floor at FS *(fuselage station)* 120.0 and LBL *(butt line)* 10.0 cracked—from the left elevator bell crank mount bolt access hole to the end of the web." *(Pulley Support P/N: 2613083-1.)*

CESSNA AIRCRAFT COMPANY
MODEL 208
ILLUSTRATED PARTS CATALOG

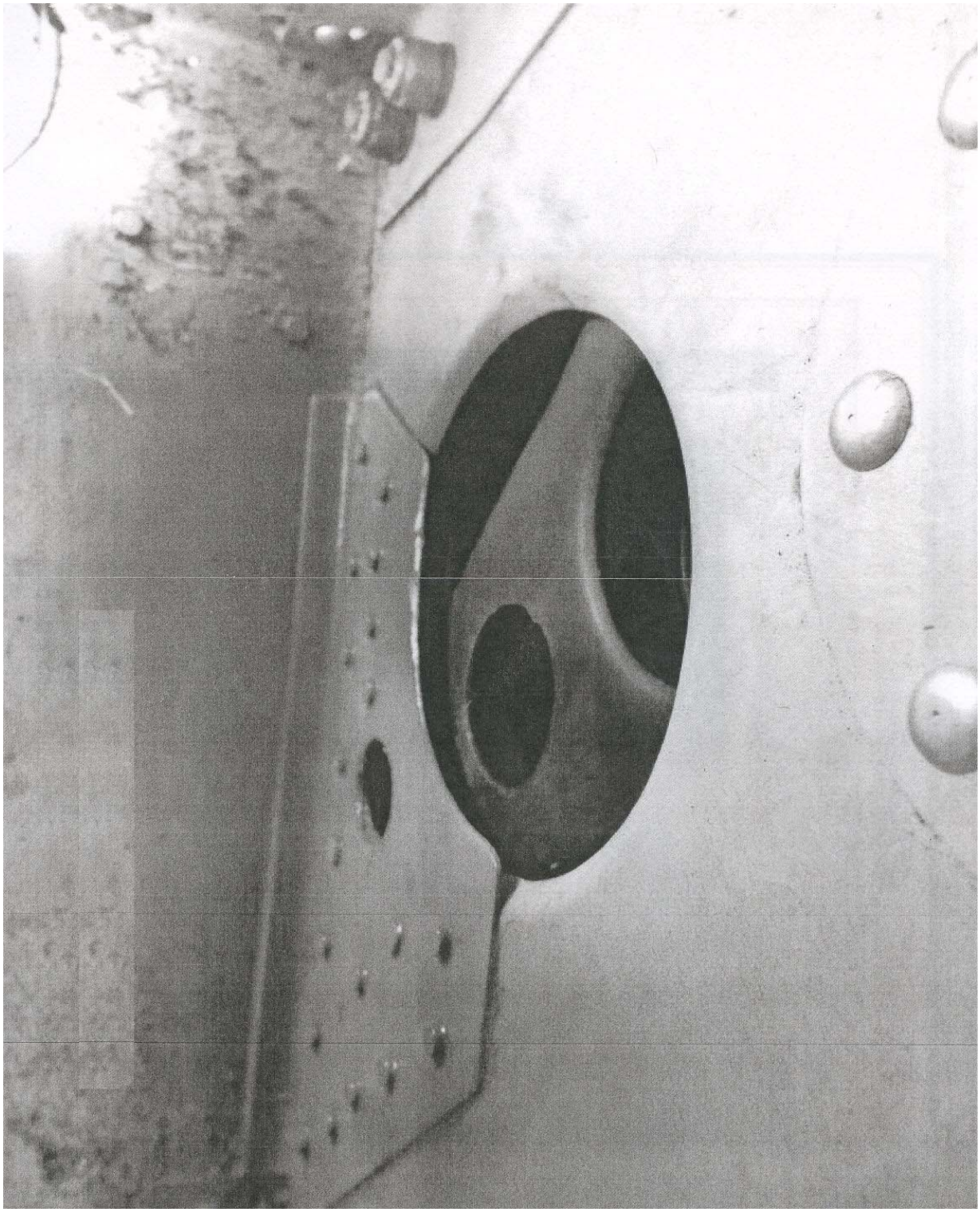
A24789



LOWER FORWARD FUSELAGE STRUCTURE
FIGURE 01 (SHEET 5)

53-11-00

Figure 01
Page 8
Jun 1/2010



Part Total Time: 12,853.3 hours

Cessna: 335; Corroded Wing Attach Fittings; ATA 5741

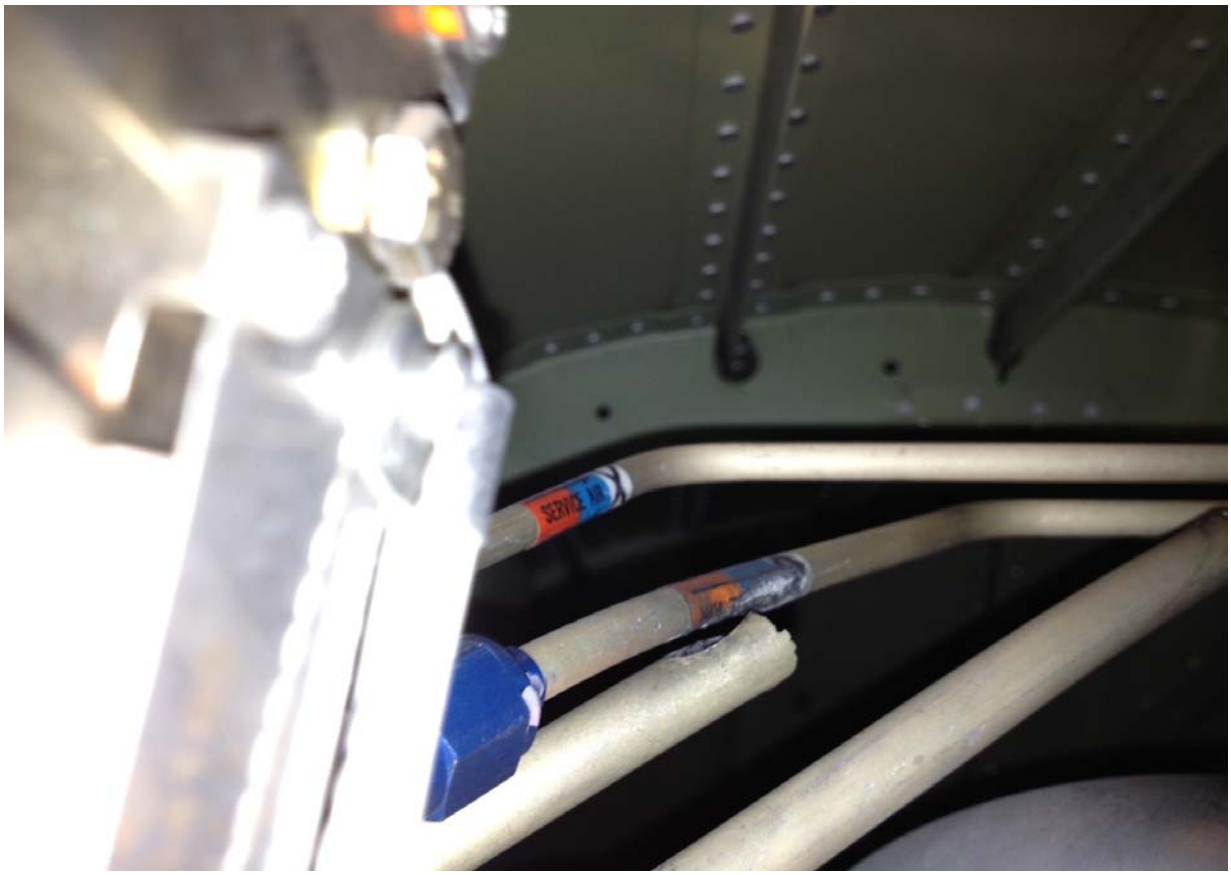
A technician for an air charter service says, "During a 100 hour inspection, the forward upper L/H wing attach point *(was found to have)* corrosion on the wing attach fitting *(P/N 08113507).* After removing the upper wing-fuselage fairing, inspection revealed intergranular corrosion on the fitting, and severe rust on the mounting bolt heads. The fitting was replaced due to the severity of the corrosion. Probable cause *(for this corrosion)* is the fuselage-wing fairing not being sealed properly in the area above the fitting. This allowed moisture to pool in the recessed area of the fitting, causing the rust and corrosion. The fuselage-wing fairing is riveted to the fuselage, making *(detailed)* inspection of the upper forward mounts difficult."

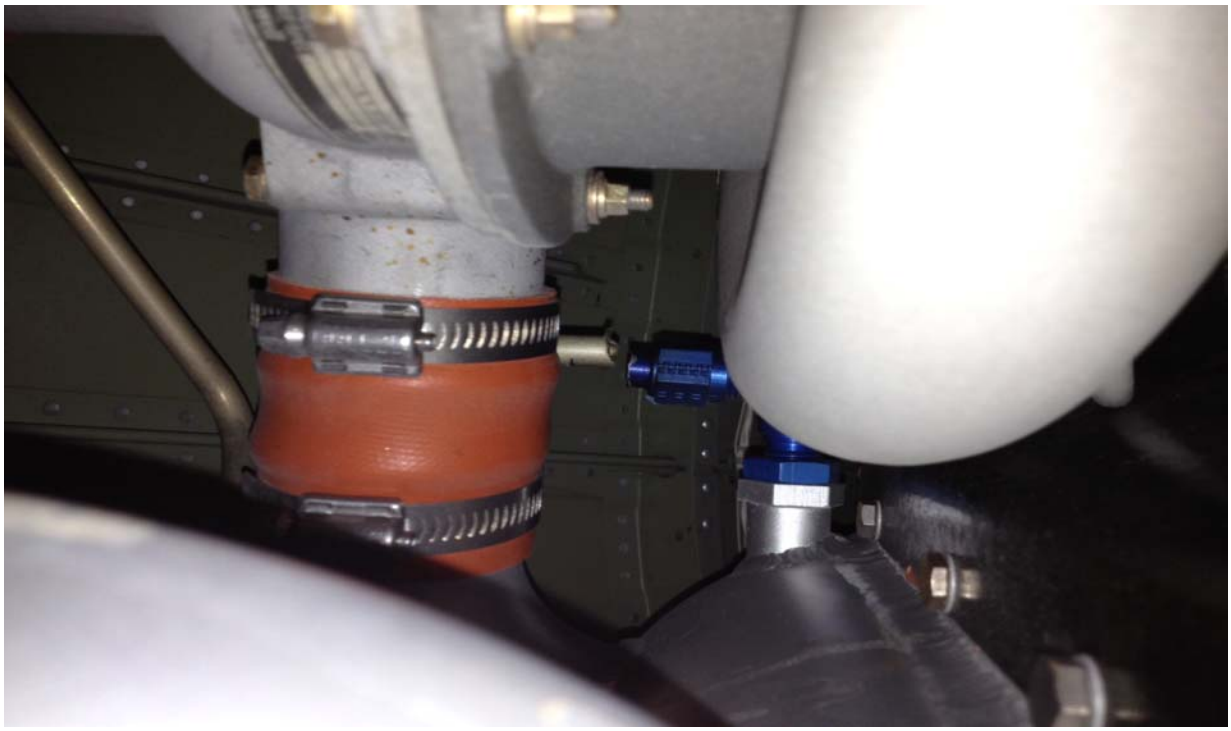
(The SDRS data system reflects four of these P/N's. Thanks for the..."ugly" photo—Ed.)

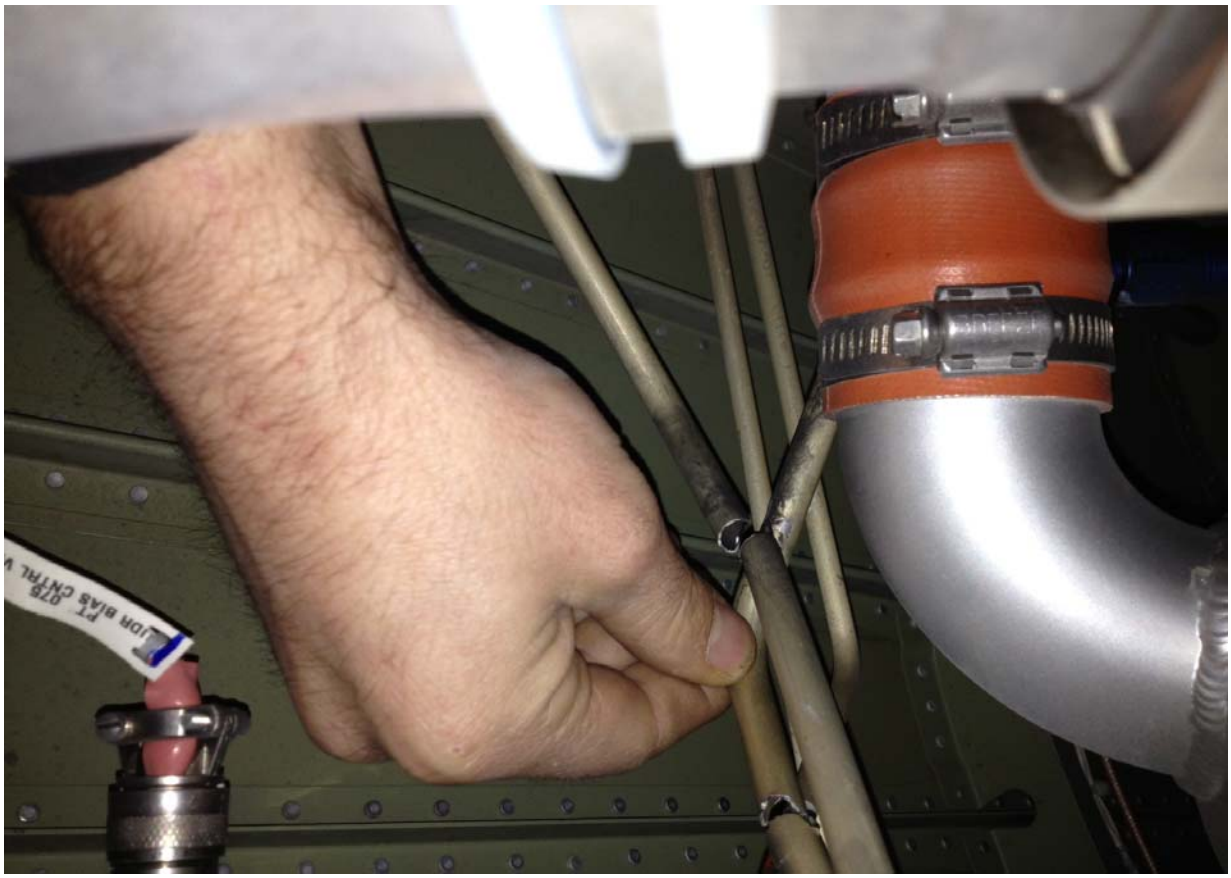
Part Total Time: 5,559.0 hours

Cessna: 560XL; Broken ECU Aspirator Tube; ATA 3600

An unidentified submitter provides this defect report. *"(I)* discovered this ECU aspirator high pressure tube...broken on preflight. I also found the bias bleed air tube chafed. This condition appears to be *(caused)* by poor tube routing, *(creating)* ongoing chafing over an unknown amount of time." *(No part numbers were provided with this report. But a couple of nice photos leave little doubt as to which tube is in reference. The photos are distorted vertically—Ed.)*







Part Total Time: 1,378.0 hours

Hawker: 800XP; Corroded Fuselage Attachment Links; ATA 5741

A repair station technician says, "Severe corrosion was found in the L/H lower, wing-to-fuselage casting lug during a 12/8 year links/brackets/bolts inspection.

"Probable cause: exposure to constant moisture from improper fuselage-to-wing fairing sealing practices *(produced the corrosion)*, and/or constant exposure to TKS anti-icing fluid from improper plumbing practices that may have lead to system leaks *(and then subsequent corrosion)*.

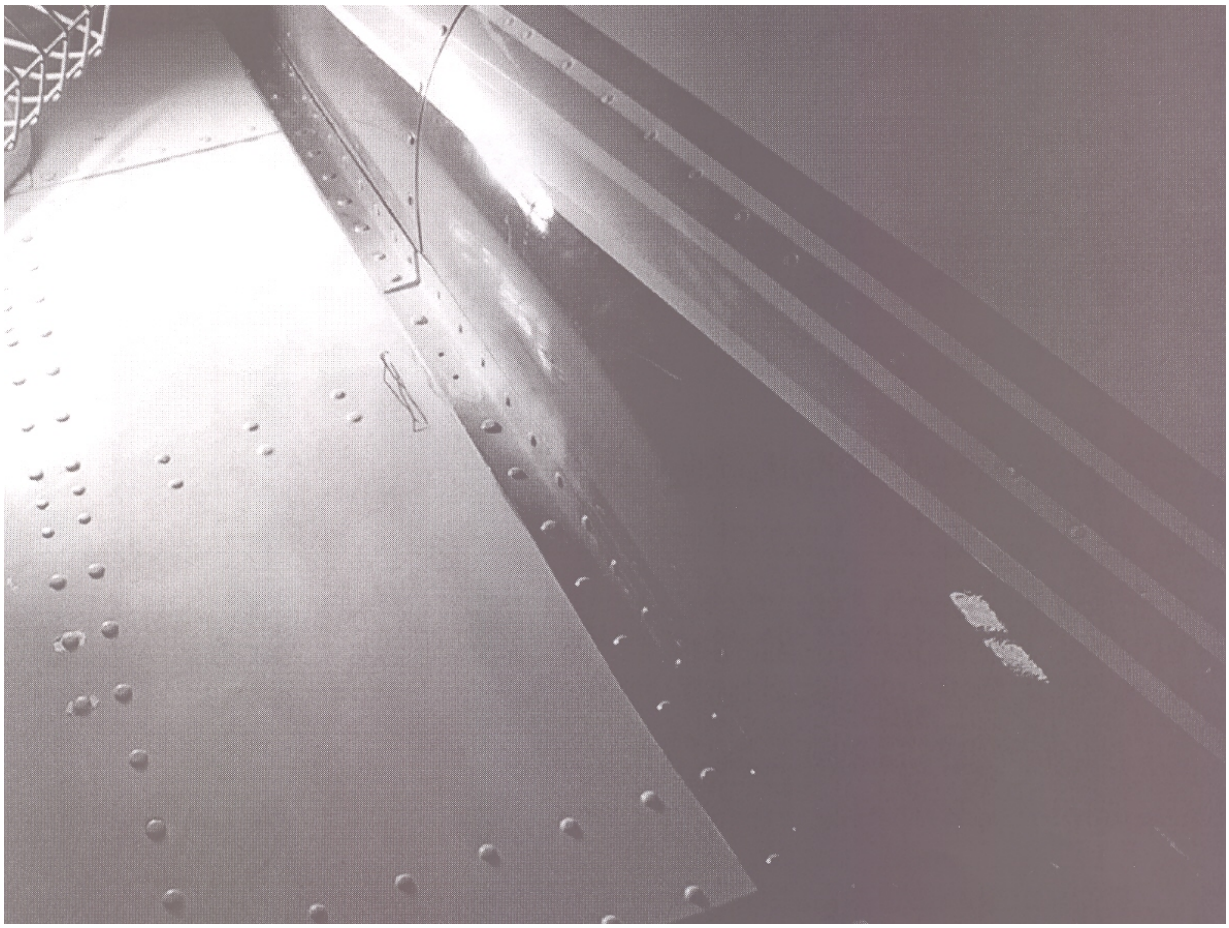
"Recommendation: proper sealing methods *(should be employed)* when attaching wing-to-fuselage fairings. And proper plumbing practices *(should be used)* when performing maintenance on wing anti-ice systems. Note: Use of a corrosion preventative compound...at this location may prevent this condition ...with scheduled applications." *(Wing-to-fuselage link/bearing P/N: 25-8WS3103-1. The following photos are distorted vertically—Ed.)*

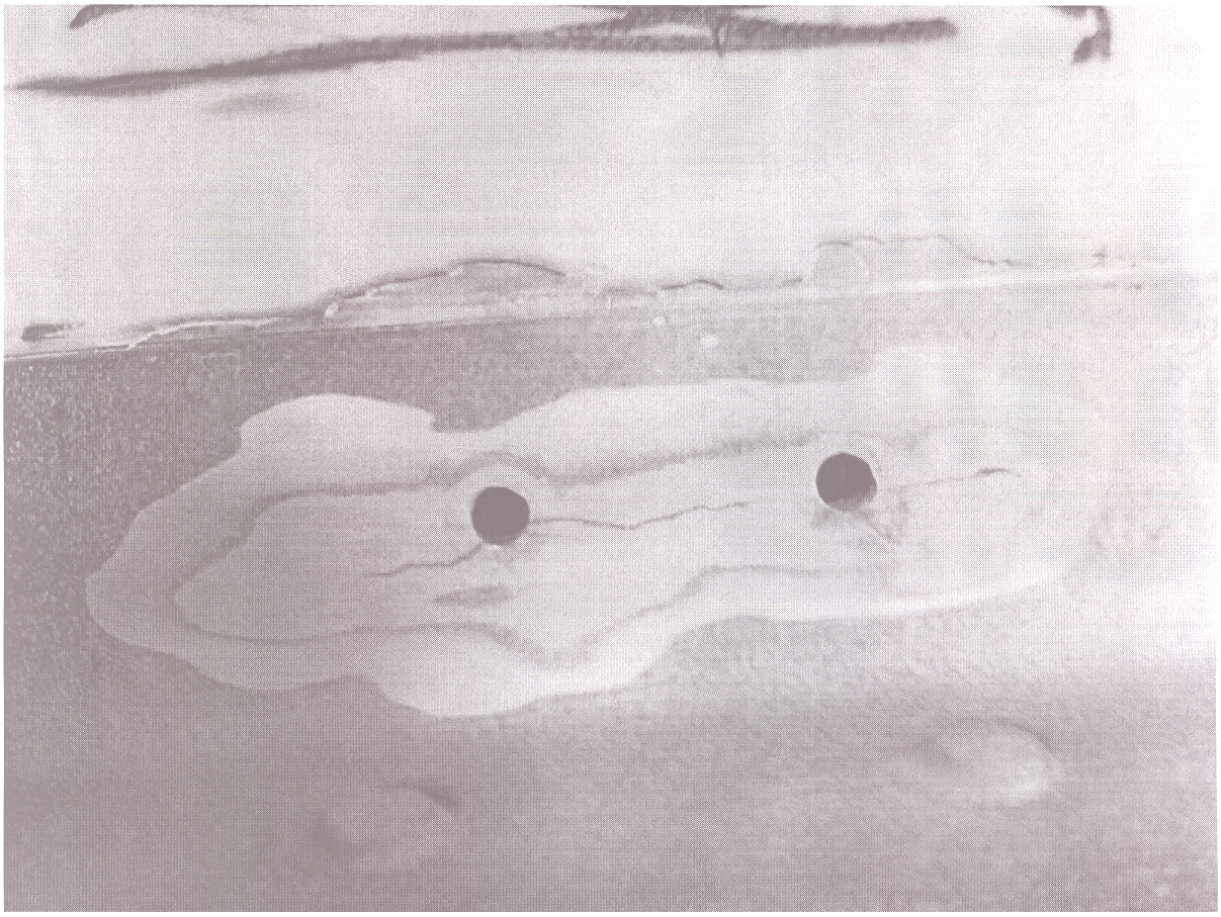
Part Total Time: 4,420.0 hours

Piper: PA44-180; Cracked Nacelle Angles; ATA 5413

"During a scheduled inspection, a crack was found in the nacelle angle," states this mechanic. "Upon further investigation the crack was found to *(run)* between the two rivets that extend through the wing skin into the cap (P/N: 67097-002 or -003) which is attached to a web (P/N 67079-000 or 001). *(This web)* is where the main gear aft attach point is mounted.

"*(I)* suspect this failure is caused by fatigue."





Part Total Time: 6,210.0 hours

HELICOPTERS

Bell: 206L-3; Improper Pitch Link Hardware; ATA (n/a)

(The following safety admonition is provided by Aerospace Engineer Charles C. Harrison from the FAA's Rotorcraft Certification Office. Contact information is found at the discussion's end—followed by another hardware Alerts article.)

Make: Bell Helicopter

Part: Main Rotor Pitch Link, Lower Attachment Clevis

Models: Bell 206L-3

Text: The following information was supplied to the FAA Rotorcraft Certification Office, ASW-170, from Bell Helicopter Textron, Hurst, Texas.

Bell Helicopter has issued Operational Safety Notice GEN-10-42, discussing the importance of using the specified hardware detailed in the various aircraft manuals. This example shows the result of using the wrong hardware that was caught prior to having an aircraft event.

The FAA would like to reiterate Bell's Safety Notice and remind all owners, operators, of the importance of using the correct hardware when performing maintenance or repair on the helicopter.

Encl:
Bell OSN Gen-10-42

Bell Helicopter
A Textron Company

OPERATIONS SAFETY NOTICE

Dec 13, 2010

OSN GEN-10-42

TO: **All Owners/Operators of Bell Helicopters**

SUBJECT: **USE OF SPECIFIED HARDWARE**

A lower main rotor pitch link clevis, bolt, washers, nut and associated spherical bearing installed on a Bell 206L-3 were returned to Bell Helicopter for investigation. The clevis and bolt were exhibiting excessive wear reportedly after only 14 hours in service. The investigation revealed that the heavy wear was a result of a loss of clamp-up torque due to a nearly completely worn away washer made of aluminium ("C" shaped washer in picture) in lieu of the required steel alloy washer.

The purpose of this Operations Safety Notice (OSN) is to remind owners/operators of the importance of using the specified hardware detailed in various aircraft manuals to avoid similar incidents.

(Interested parties may contact Mr. Harrison at the Rotorcraft Certification Office, 2601 Meacham Blvd., Fort Worth, Texas; 76137; phone 817-222-5128; e-mail charles.c.harrison@faa.gov)

Part Total Time (n/a)

Bell, Robinson, Agusta Westland: *(All)* Hardware Failures; ATA (n/a)

(This second safety admonition also comes from Aerospace Engineer Charles C. Harrison from the FAA's Rotorcraft Certification Office. Contact information is found at the article's end. "Thank-you" to our Rotorcraft office for good counsel—Ed.)

Make: Bell Helicopter, Robinson Helicopter, AgustaWestland (Potentially Any Aircraft)

Part: NAS 1291 Nuts, NAS 626 Bolts, MS 21042 Nuts.

Models: Bell (Any Model), Robinson (Any Model), AgustaWestland (Any Model)

Text: The following information applies to the above listed helicopters; however, the issue could potentially have even wider range of applicability.

Bell Helicopter has issued Operational Safety Notice "GEN-11-43," discussing the investigation of reports of self-locking nuts cracking and NAS 626-24 bolts cracking after installation. The investigation has revealed that the nuts had a high concentration of hydrogen and the cracking was a result of hydrogen embrittlement.

The Australian Government/Civil Aviation Safety Authority (CASA) have issued an Airworthiness Bulletin for all aircraft using standard hardware MS 21042/NAS 1291 series self-locking nuts. They discuss that "these failures are typical of hydrogen-induced delayed cracking (hydrogen embrittlement), a condition resulting from the presence of hydrogen in the steel…." CASA references Service Letters from Robinson Helicopter for the R22 (Service Letter SL-58), R44 (Service Letter SL-38), and R66 (Service Letter SL-01), as well as an Information Letter from Agusta Westland, Gen 11-024 concerning the same problem for their products.

The FAA would like to reiterate to all owners, operators, of the importance of inspecting standard hardware for condition and replacement if required.

Enclosures:
Bell Helicopter Operation Safety Notice, GEN-11-43; CASA Airworthiness Bulletin 14-002; Robinson Service Letter SL-01, SL-38, SL-58; AgustaWestland Information Letter Gen-11-024

Bell Helicopter
A Textron Company

OPERATION SAFETY NOTICE **GEN-11-43**

11 February 2011
Revision A, 16 September 2011

TO: **All owners and operators of Bell helicopters**

SUBJECT: NAS1291 NUTS AND NAS626 BOLTS

Revision A of this bulletin introduces additional part numbers of hardware affected by the different manufacturing processes.

Bell Helicopter recently investigated reports of NAS1291-7/-9/-10 self-locking nuts and NAS626-24 bolts cracking after installation. Investigation has revealed that the nuts had a high concentration of hydrogen and the cracking was the result of hydrogen embrittlement. Root cause of the bolt failure was a result of a quenching crack during manufacture.

Although the investigation concluded that these particular nuts and bolt were manufactured by one specific vendor, multiple vendors manufacture the same standard hardware. Standard hardware manufacturing processes are not controlled or monitored by Bell Helicopter.

Standard hardware such as AN, MS and NAS is used throughout the aviation community in multiple applications. Bell Helicopter's inspection protocols for all models specify to inspect for security, corrosion and condition of attachment hardware at specified intervals.

This OSN is released to remind all operators of the importance of inspecting standard hardware for condition and to replace if required. Corrosion, loss of tare torque and cracks are all reasons for replacement.

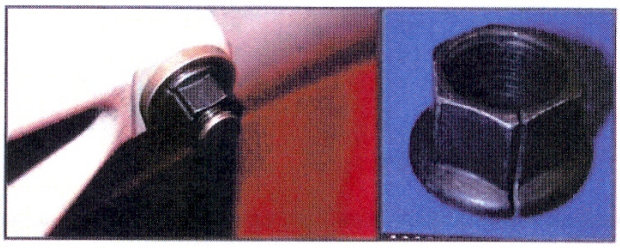


Figure 1: Typical NAS1291 nut application and crack due to hydrogen embrittlement.

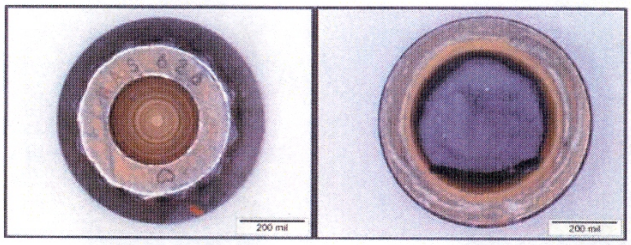


Figure 2: Broken NAS626-24 bolt has a result of incorrect quenching operation during manufacture

For any questions regarding this letter, please contact:

Bell Helicopter Product Support Engineering - Medium Helicopters
Tel: 450-437-6201 / 1-800-363-8028 / psemedium@bellhelicopter.textron.com

Australian Government
Civil Aviation Safety Authority

AIRWORTHINESS BULLETIN

Cracked MS 21042 / NAS 1291 - Series Nuts - Hydrogen Embrittlement

AWB 14-002 **Issue** : 1
Date : 12 October 2011

1. Applicability

All aircraft using aircraft Standard hardware MS 21042 / NAS 1291 - series self-locking nuts.

2. Purpose

Alert all aircraft owners, operators and maintenance personnel to in-situ failures of new MS 21042 and NAS 1291 series nuts.

3. Background

CASA has recently received a report of cracked MS21042 L4 nuts which attach the main rotor blade of the R44 helicopter main rotor blade cuff to the hub. The discovery was made following an investigation into an oil leak in the cuff region.

Robinson Helicopter Company (RHC) have issued Service Letters for the R22, R44 and R66[(i)] on these failures. Other helicopter manufacturers, including Bell[(ii)] and Agusta Westland[(iii)] have also issued Bulletins and Letters on the same subject having received similar reports of failed MS21042 and NAS 1291 series self-locking nuts; to remind all owners, operators and maintenance personnel of the importance of inspecting such Standard hardware for cracking. The in-flight failure of such items of hardware may well result in a serious accident.

It is widely acknowledged that items of aircraft Standard hardware, such as these high tensile nuts, are used throughout the aviation industry in a wide variety of locations on an aircraft and that Standard hardware manufacturing processes are outside the control of aircraft manufacturers.

These failures are typical of hydrogen-induced delayed cracking (hydrogen embrittlement), a condition resulting from the presence of hydrogen in the steel (attributed to improper heat treatment at manufacture or following re-plating [iv]) and a sustained tensile stress. The stress is induced from the moment the nut is torqued and may fail hours, days or weeks later, with one or more cracks appearing approximately in-line with the longitudinal axis of the nut, frequently splitting the nut wide open but staying in place, as if it were serviceable.

When the nut has failed in this way, it no longer functions as designed and it releases all the tension on the stud or bolt. This failure may have serious secondary effects. The bolt to which it was attached may fall out and/or as with the R22/44 main rotor blade cuffs, higher loads are now immediately transferred to the remaining fasteners, which may result in over-loading and subsequent failure of the bolts or studs some time after the nuts have been replaced.

Australian Government
Civil Aviation Safety Authority

AIRWORTHINESS BULLETIN

Cracked MS 21042 / NAS 1291 - Series Nuts - Hydrogen Embrittlement

AWB 14-002 **Issue** : 1
Date : 12 October 2011

Figure 1 - Example of a failed nut (Courtesy ATSB)

4. References

(i) Robinson Helicopter Company: R22 Service Letter SL 58; R44 Service Letter SL 38; R66 Service Letter SL 01.

(ii) Bell Helicopter Textron Operation Safety Notice GEN 11-43

(iii) Agusta Westland Information Letter GEN-11-024.

(iv) CASA AWB 85-11 Piston engine Overhaul - Dangers of Replating Engine Hardware following in-situ failures of inadequately re-plated aircraft hardware.

5. Recommendation

CASA recommends that:

(a) pilots and maintenance personnel closely monitor the occurrence of hydrogen-induced delayed cracking in high-strength steel standard aircraft hardware, such as nuts via close inspection following installation and thereafter at Daily / Preflight and periodic inspections.

(b) Before simply replacing cracked/failed nuts with new items, consider contacting the manufacturer for advice regarding replacement of associated fasteners which may have suffered over-loading as a result of the failure of one or more nuts.

(c) Report all MS 21042 and NAS 1291 series nut failures to CASA via the SDR system.

6. Enquiries

Enquiries with regard to the content of this Airworthiness Bulletin should be made via the direct link e-mail address:

AirworthinessBulletin@casa.gov.au

or in writing, to:

Airworthiness & Engineering Branch
Civil Aviation Safety Authority
GPO Box 2005, Canberra, ACT, 2601

ROBINSON
HELICOPTER COMPANY
2901 Airport Drive, Torrance, California 90505 Phone (310) 539-0508 Fax (310) 539-5198

R22 SERVICE LETTER SL-58

R44 SERVICE LETTER SL-38

R66 SERVICE LETTER SL-01

DATE: 18 August 2011

TO: R22, R44 & R44 II, and R66 owners, operators, and maintenance personnel

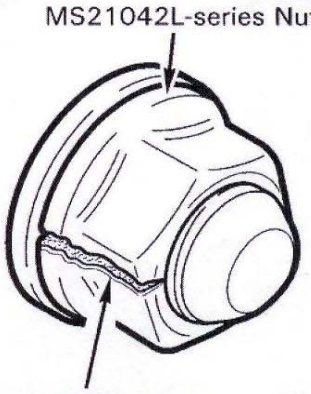
SUBJECT: Cracked MS21042L-series Nuts

BACKGROUND: RHC has received two reports of cracked MS21042L4 self-locking nuts. Other helicopter manufacturers have received similar reports. A possible cause for cracking nuts is hydrogen embrittlement, which can be introduced during hardware manufacturing. Manufacturing processes for government- and industry-standard hardware are not controlled by RHC.

COMPLIANCE PROCEDURE:

Pilots and maintenance personnel are reminded that hardware condition is equally important as hardware security. Cracked or corroded nuts require replacement.

Contact RHC Technical Support at techsupport@robinsheli.com if cracked nuts are found.



Any crack, if present, would be parallel with nut axis.

AgustaWestland
A Finmeccanica Company

Issued by
AgustaWestland S.p.A.
Customer Support & Services Italy
Via del Gregge, 100
21015 Lonate Pozzolo (VA) Italy
Tel. +39 0331 664600 Fax +39 0331 664684

INFORMATION LETTER

DATE: **July 20th, 2011**

No.: **GEN-11-024**

TO	:	All AgustaWestland Helicopters, Owners, Operators, Maintenance Centres
SUBJECT	:	AN, MS, and NAS Standard hardware
HELICOPTERS AFFECTED	:	All AgustaWestland Helicopters

Dear Customer / Operator,

We would like to inform you that recently some cases of MS21042L4 self-locking nuts cracking have been reported to AgustaWestland, detected during the helicopters inspection. Investigation has been performed and the results have revealed a high concentration of hydrogen in the alloy, leading to nuts cracking due to hydrogen embrittlement.

Standard hardware like the aforementioned self locking nuts are widely used in aviation products, they may be installed on production helicopters in several locations and for different applications and are largely used in all maintenance operations.

According to AgustaWestland procedures such standards are visually inspected for security, corrosion and attachment condition at specified intervals, in conjunction with maintenance operations on the various helicopters installations, while the manufacturing processes of the standard hardware is not monitored by AgustaWestland.

Although the investigations performed determined that all involved nuts were manufactured by the same vendor, the purpose of this Information Letter is to remind all Owners, Operators and Maintenance Centers of the importance to inspect the standard hardware for condition whenever required by the current maintenance publications and to replace them if necessary.

For further information do not hesitate to contact our AgustaWestland Product Support Engineering.

Sincerely,

Michele Sorice
VP Customer Support & Services – Italy
AgustaWestland

(Interested parties may contact Mr. Harrison at the Rotorcraft Certification Office, 2601 Meacham Blvd., Fort Worth, Texas; 76137; phone 817-222-5128; e-mail charles.c.harrison@faa.gov)

Part Total Time (n/a)

POWERPLANTS

Continental: TSIO-520C; Catastrophic Engine Failure; ATA 7100

"This aircraft engine had 35 hours since its overhaul," says this FAA inspector's ongoing report. "The overhaul facility 'broke-in' the engine. Post catastrophic failure inspection revealed extremely high temperatures: crankshaft journals melted, stretched valves, and discoloration in the rods and cylinders. The exact cause is undetermined. A possible cause is improper lean-to-peak procedures."

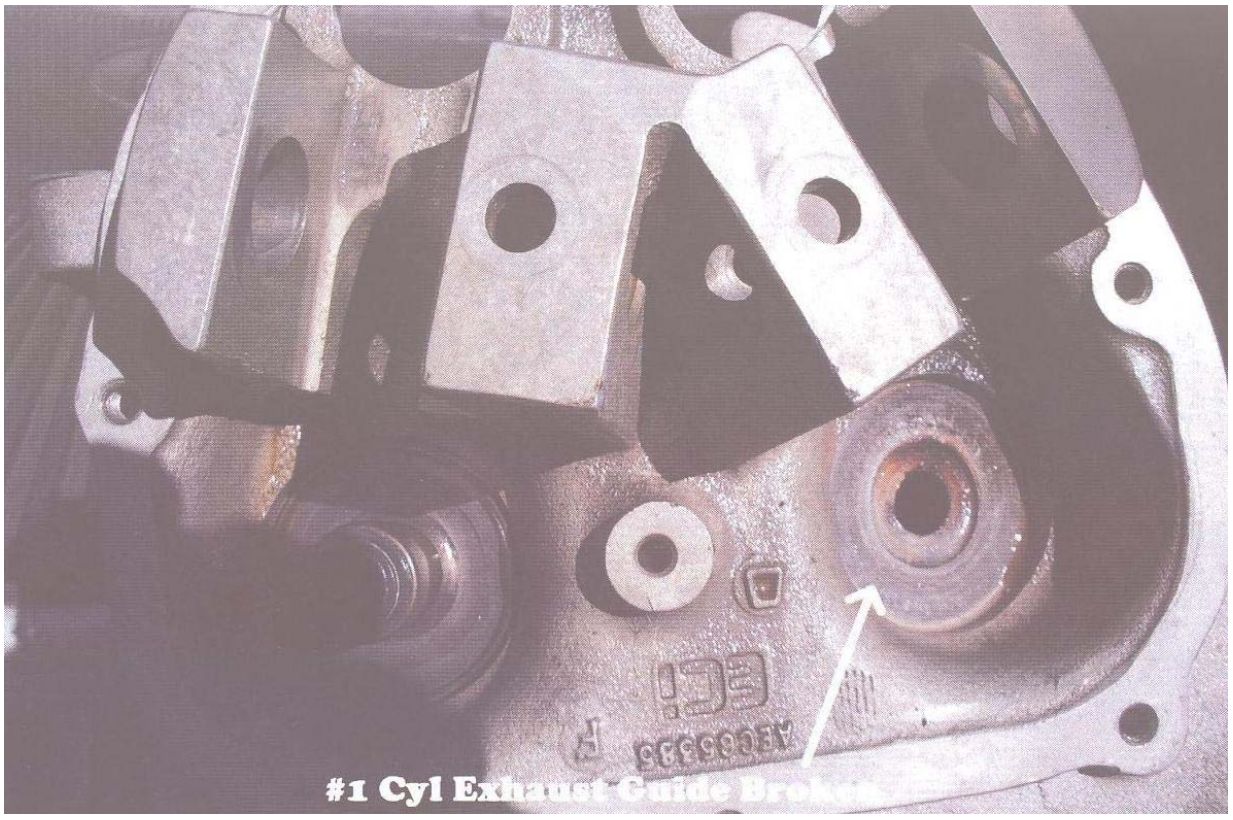
Part Total Time: 35.0 hours

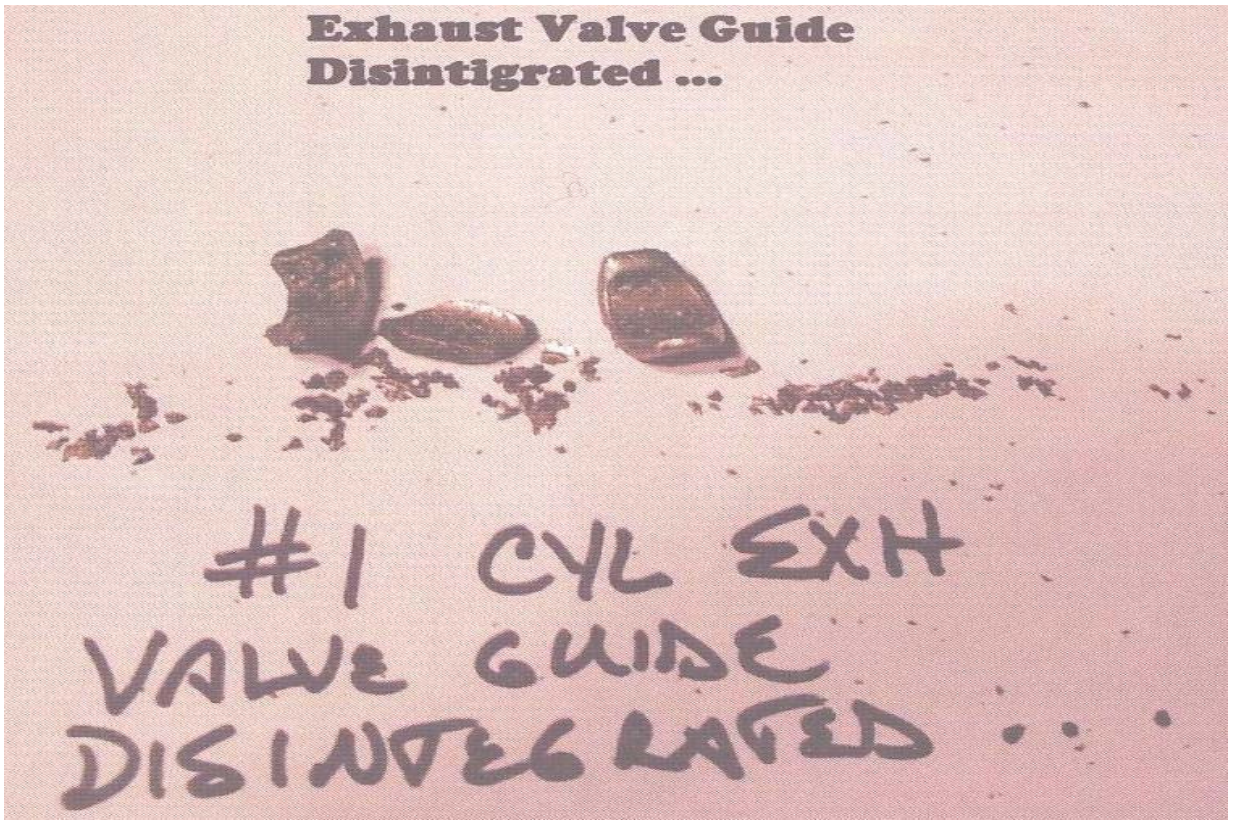
ECI Cylinders: TISN712BCA; Failed Valve Guides; ATA 8530

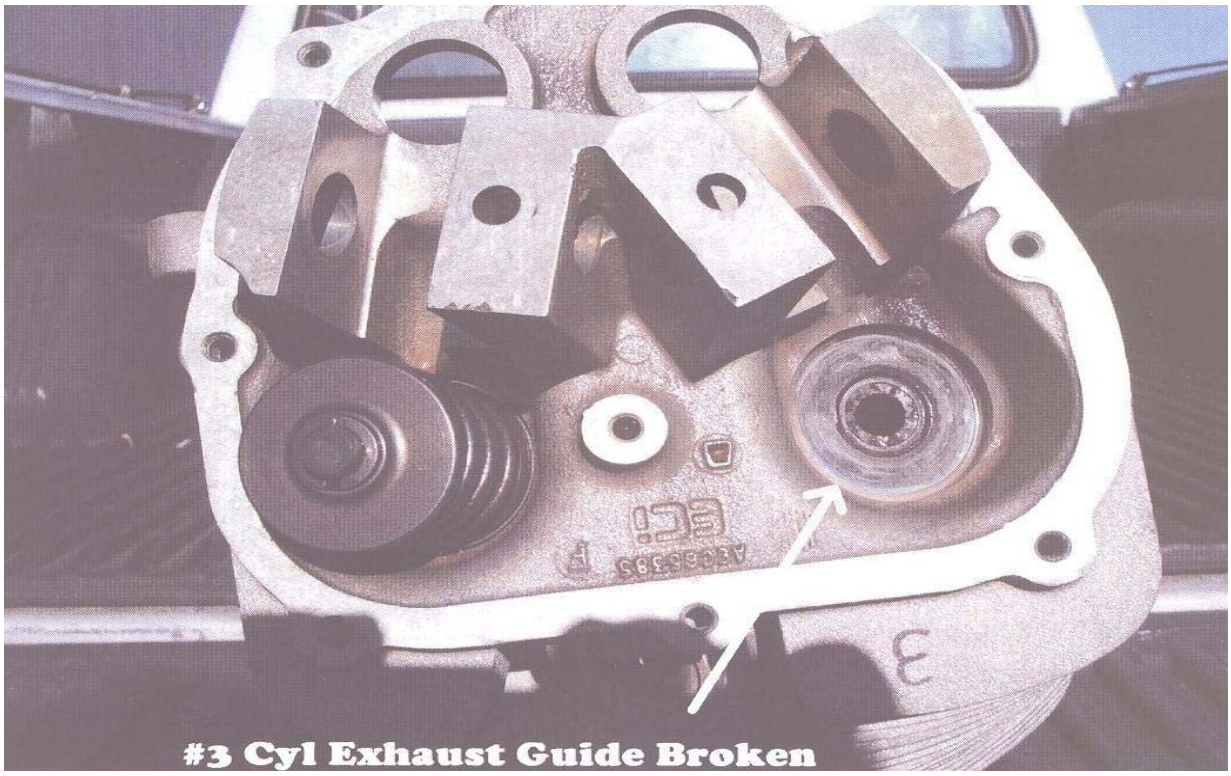
This general aviation report states, "Six new Engine Components, Inc. (ECI) cylinders were installed...at 2,812 hours total time. The ECI cylinders experienced a failure of the valve guides on three of the six cylinders at 384 hours time in service. All three failed valve guides broke off at the insert point (see photos), and one completely disintegrated—contaminating the engine with metal debris. This *(debris)* caused chafing on at least two valve lifter assemblies, and damage to the camshaft. The engine will require a complete tear down because of the metal contamination and damage.

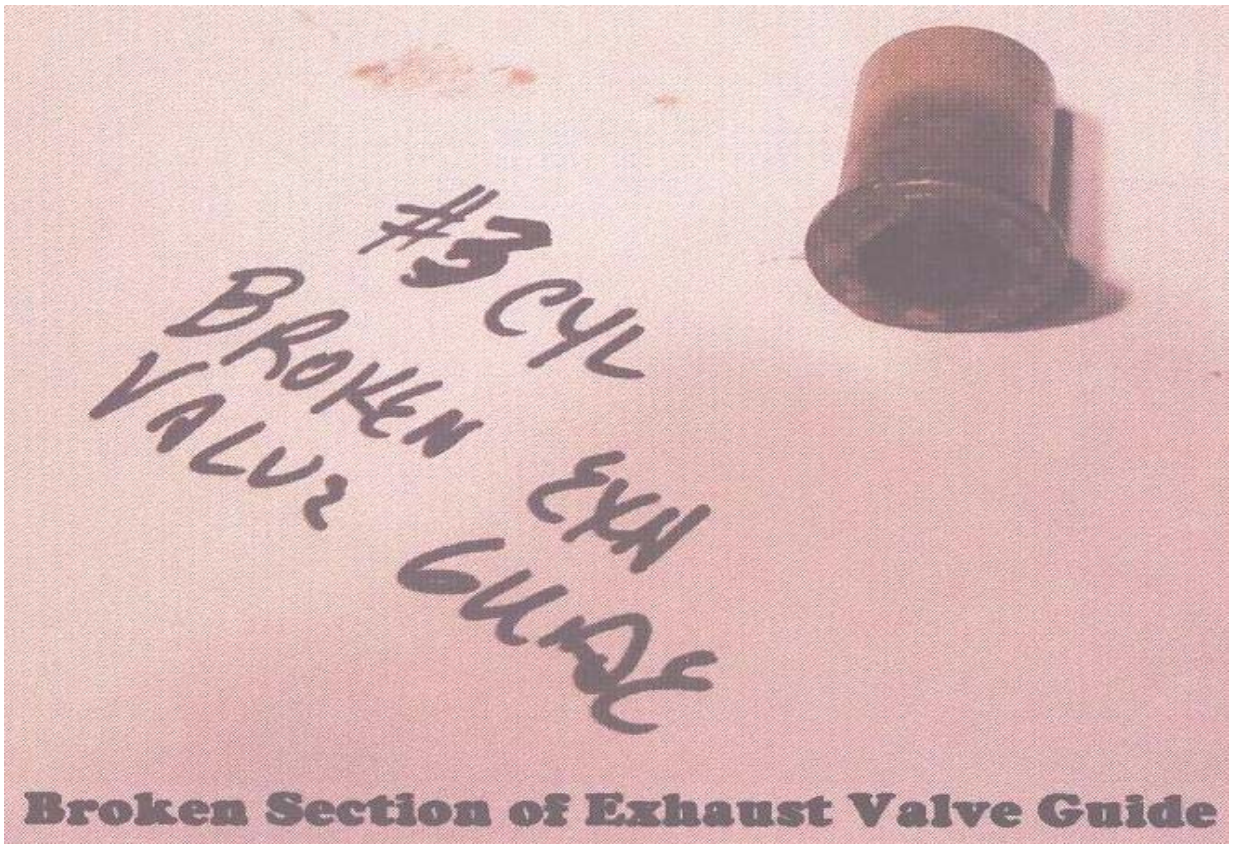
"The only initial, abnormal indication noted from the broken exhaust valve guides was excessive engine oil blowing through the engine crankcase breather. This was noted by a significant amount of oil on the belly of the aircraft. The engine operated normally with no apparent power loss or abnormal indications of EGT, TIT, or oil pressure/temperature. Eventually turbine operation became erratic, caused by momentary blockage within the turbine waste-gate controller. This condition was intermittent. Flaws were found by visual inspection after low compression was found on two of the effected cylinders...."

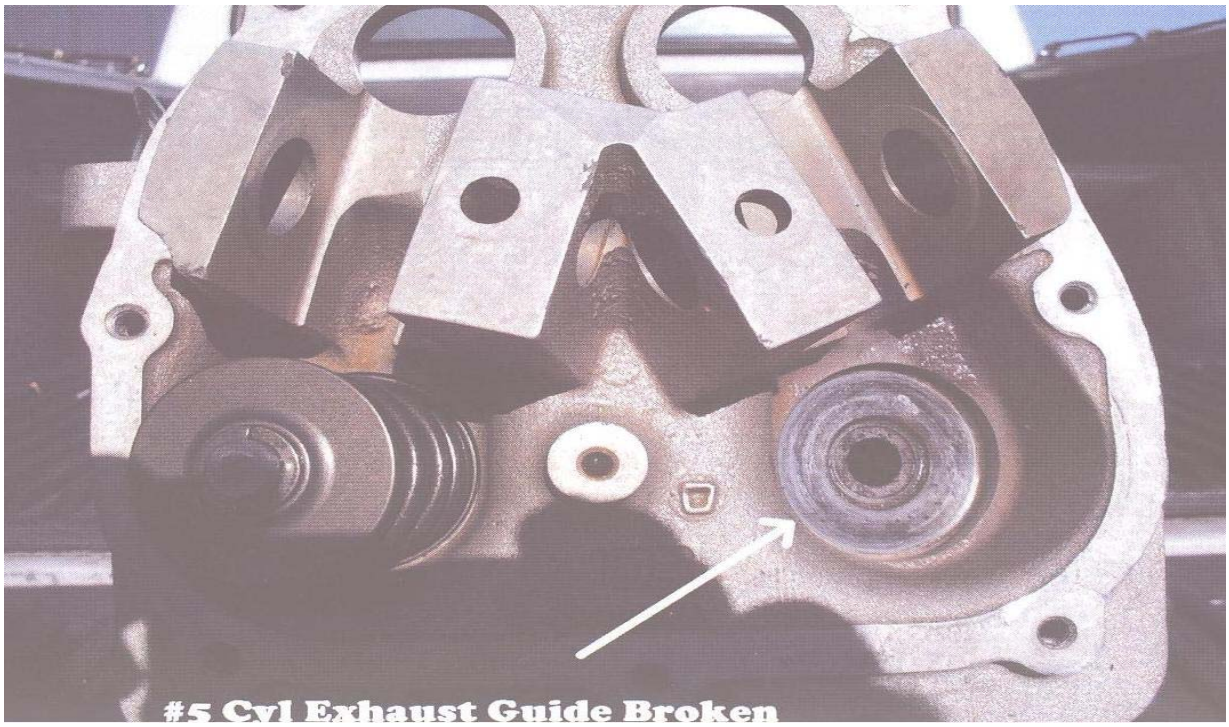
(The following photos suffer significant vertical distortion by this editor. Nine of these cylinder P/N's are found in the SDRS database. Individual part numbers were not provided with this report.)


#1 Cyl Exhaust Guide Broke


Exhaust Valve Guide
Disintigrated ...
#1 CYL EXH
VALVE GUIDE
DISINTEGRATED . . .


#3 Cyl Exhaust Guide Broken


#3 CYL
BROKEN EXH
VALVE GUIDE
Broken Section of Exhaust Valve Guide



Damage to Valve Lifters
Due to metal contamination
(Camshaft Damage also)

Part Total Time: 384.0 hours

Rotax: 912ULS; Cracked Fuel Hose; ATA 2820

(The following describes a powerplant on a Eurofox Light Sport Aircraft.)

"The engine surged like it was starved for fuel, and then quit," says this submitter. "The engine was restarted in flight, but with the same result. This aircraft was manufactured without fire sleeves on any of the fuel hoses in the engine compartment. The Rotax 912 installation manual cautions to prevent vapor lock, all fuel lines on the suction side of the fuel pump have to be insulated from fire and heat. These fuel hoses *(P/N FUB386)* were over four years old and were becoming stiff and cracked."

Part Total Time: 778.0 hours

AIR NOTES

INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

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

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

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

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

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

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

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

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

The SDRS and iSDR web site point of contact is:

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

IF YOU WANT TO CONTACT US

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

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

AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports processed for the previous month, which have been entered into the FAA Service Difficulty Reporting System (SDRS) 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**
2011FA0000744				CONVERTER	DEFECTIVE
10/18/2011				601509173	INTERNAL TO UNIT
DURING INSTALLATION OF REPAIRED CONVERTER RECEIVED FROM MFG, POWER WAS APPLIED, LT DIGITS WERE UNCONTROLLABLY BRIGHT (ALONG WITH ALL FUEL QUANTITY, EXCEPT TOTAL). ADDTIONALLY, THE RT LED'S WERE ALSO UNCONTROLLABLY BRIGHT.					
2011FA0000732		PWA		SUN GEAR	FAILED
10/14/2011		PT6A42		E3028456	RGB
ENGINE REMOVED FOR METAL IN OIL CONDITION. UPON DISASSEMBLY FOUND 1ST STAGE SUN GEAR PN E3028456, SN SG35-055 AND 1ST STAGE PLANET GEAR SET PN E310152502, SN EE4072 WITH DAMAGED, BROKEN TEETH. THESE ARE PMA GEARS.					
2011FA0000733		PWA		PUSHROD	FAILED
9/26/2011		R1340AN1		11876	CYLINDER
AN EXHAUST PUSH ROD WAS FOUND TO HAVE FAILED. THE PUSH ROD BROKE ADJACENT TO TAPPET. IT WAS FOUND THAT SB 1722 HAD NOT BEEN COMPLIED WITH. THE SB RECOMMENDS SHOT PEENING OF ALUMINUM PUSH RODS FOR STRENGTH.					
KY1R2011072510012	AEROSP	TMECA		CHIP DETECTOR	BROKEN
7/25/2010	AS365N2	ARRIEL1C		9520011655	NR 2 ENGINE
ON PREFLIGHT INSPECTION, PILOT FOUND M04 MAGNETIC DETECTOR TIP BROKEN FROM BASE. TIP OF THE DETECTOR WAS RETAINED BY THE MAGNETIC BASE, AND SUBSEQUENTLY REMOVED.					
2011FA0000740	AYRES	PWA		BEARING	FAILED
11/10/2011	S2RT34NORMAL	PT6*		3028004	ENGINE
NR 2 BEARING FAILED CAUSING LOSS OF OIL AND EMERGENCY LANDING.					
2011FA0000780	BBAVIA			BOLT	BROKEN
11/28/2011	8KCAB			MS2000732	MLG LEG
BOLT BROKE ON ACFT ROLL OUT. SRM RECOMMENDS THE BOLT BE REPLACED EVERY 500 HRS, TIS.					
V0DR20111114015	BEECH			BEARING	FAILED
11/14/2011	1900D			M4000AC3	VENT BLOWER
THE VENT BLOWER WAS REMOVED FOR MAINTENANCE. TECH REPORTED DURING DISASSEMBLY COM END BEARING HAD FAILED. INSPECTION OF THE BEARING REVEALED THE BEARING CAGE HAD LET GO.					
V0DR20111114016	BEECH			BEARING	FAILED
11/14/2011	1900D			M4000AC3	VENT BLOWER
BLOWER WAS REPORTED TO CAUSE CURRENT LIMITER TO BLOW ON CUSTOMER'S ACFT. DURING DISASSEMBLY OF THE VENT BLOWER TECHNICIAN FOUND COMM END BEARING TO HAVE FAILED AND COME APART.					

V0DR20111114017	BEECH		BEARING	FAILED
11/14/2011	1900D		M4000AC3	VENT BLOWER

TECH REPORTED THAT DURING DISSASEMBLY, FOUND THAT THE COMM END BEARING HAD FAILED.

RMIA2011112200056	BEECH		BULKHEAD	CRACKED
11/22/2011	1900D		11444002611	ZONE 100

LOWER PORTION OF FUSELAGE CANTED BULKHEAD AT FS 570 BUCKLED. THE LT SIDE OF THE BULKHEAD HAS SMALL CRACKS AROUND RIVET HOLES AT STRINGER 8L. EARLIER SN OF THIS MODEL ACFT HAD 0.032" BULKHEADS WITH A KIT TO UPSIZE THE SIDES OF THE BULKHEAD TO 0.050".

VIB8101420110001	BEECH	PWA	ACCESS PANEL	CORRODED
10/10/2011	200BEECH	PT6A60A	10112007614	ZONE 600

REMOVED LT AND RT AUXILIARY FUEL TANK ACCESS COVERS FOR INSPECTION. FOUND CORROSION ON LT AND RT WING BONDED PANEL DISH FLANGES. RIGHT ACCESS COVER HAD SEVERE CORROSION AND WAS REPLACED WITH NEW. INSTALLED NEW GASKETS IAW RECOMMENDED SB 28-4059.

E81R2011010232281	BEECH		FLAP SYSTEM	MALFUNCTIONED
1/2/2012	400A			

INVESTIGATED FLAP SYS ASSYMETRY WARNING ANNUNCIATOR LIGHT INDICATION. FOUND RT FLAP FOLLOW-UP SWITCH ACTUATING ARM .075 IN. LONGER THAN LT FOLLOW-UP SWITCH ACTUATING ARM. ADJUSTED RT FOLLOW-UP SWITCH ACTUATING ARM TO MATCH LT FOLLOW-UP SWITCH ACTUATING SWITCH ARM LENGTH. ADJUSTED LT AND RT FLAP POSITION TRANSMITTER VOLTAGES AND LT AND RT FLAP FOLLOW-UP SWITCH VOLTAGES AS REQUIRED TO BRING WITHIN MM 27-50-00 SERVICE LIMITS. VERIFIED FLAP SYS FOLLOW-UP SWITCH CLEARANCES AND FLAP SYS RIGGING WITHIN THE MM 27-50-00 SERVICE LIMITS. FLAP SYS FUNCTIONAL CHECKS SATISFACTORY, NO FAULTS INDICATED. PAST MX HISTORY ON FLAP SYS COMPONENTS UNKNOWN.

2011FA0000781	BEECH	GARMIN INTL	ANTENNA	INOPERATIVE
11/8/2011	C90		0130023500	NR 2 GPS

TROUBLESHOT BOTH NR 1 & 2 GPS SYSTEMS DUE TO BEING INOPERATIVE. FOUND NR 2 ANTENNA RESISTANCE CHECKED OK, ANY TIME NR 2 GPS SYSTEM TURNED ON IT CAUSED A BLOCKAGE OF ALL GPS SIGNALS TO ACFT. WITH NR 2 GPS SYS TURNED OFF NR 1 GPS SYS OPERATED GOOD WITH NO PROBLEMS NOTED. INSTALLED NEW NR 2 ANTENNA AND BOTH SYS OPS TESTED OK WITH NO PROBLEMS NOTED.

2011FA0000731	BEECH	CONT	CIRCUIT BREAKER	FAILED
11/4/2011	F33A	IO520BB	35380132103	BEACON

PILOT REPORTED BEACON LIGHT INTERMITTENT. ON TROUBLESHOOTING, TECH FOUND CIRCUIT BREAKER/ SWITCH TO BE AT FAULT. BEACON SWITCH WAS PREVIOUSLY REPLACED 721.9 FLIGHT HOURS PRIOR. NO PROBABLE CAUSE OR RECOMMENDATIONS AT THIS TIME.

2011FA0000737	BEECH	CONT	CIRCUIT BREAKER	FAILED
11/9/2011	F33A	IO520BB	35380132101	NAV LIGHTS

PILOT REPORTED NAV LIGHTS INOPERATIVE. MX FOUND CIRCUIT BREAKER TO BE AT FAULT. AD 2008-13-17 HAD BEEN COMPLETED 2489.0 FLIGHT HOURS PRIOR.

2011FA0000738	BEECH	CONT	CIRCUIT BREAKER	FAILED
11/9/2011	F33A	IO520BB	35380132103	TAXI LIGHT

PILOT REPORTED TAXI LIGHT INOPERATIVE. MX DISCOVERED TAXI LIGHT CIRCUIT BREAKER TO BE AT FAULT. AD 2008-13-17 HAD BEEN COMPLETED 1868.0 FLIGHT HOURS PRIOR AND THIS SWITCH HAS 834.2 FLIGHT HOURS SINCE BEING LAST REPLACED.

2011FA0000739	BEECH	CONT	CIRCUIT BREAKER	FAILED
11/10/2011	F33A	IO520BB	35380132101	ZONE 100

PILOT REPORTED NAV LIGHT ON WHEN CIRCUIT BREAKER/SWITCH IN THE OFF POSITION & OFF WHEN CIRCUIT BREAKER WAS IN THE ON POSITION. MX FOUND CIRCUIT BREAKER TO BE AT FAULT. AD 2008-13-17 HAD BEEN COMPLETED 2007.5 FLIGHT HOURS PRIOR.

2011FA0000745	BEECH	CONT	CIRCUIT BREAKER	UNSERVICEABLE
11/14/2011	F33A	IO520BB	35380132103	STROBE

PILOT REPORTED STROBE INOPERATIVE. ON TROUBLESHOOTING THE TECH FOUND THE CIRCUIT BREAKER AT FAULT. INSTALLED NEW CIRCUIT BREAKER/SWITCH. OPS CHECK OK. NO PROBABLE CAUSE OR RECOMMENDATIONS AT THIS TIME.

2011FA0000743	BELL	FITTING	FAILED
9/23/2011	206B3		T/R D/S BEARING

AFTER SUSPECTED TAIL ROTOR STRIKE IN SNOW, TAIL ROTOR DRIVE SYS WAS VISUALLY INSPECTED. TAIL TO FREEWHEELING UNIT, NO DAMAGE NOTED. ACFT GROUND RUN AND NO DISCREPANCIES NOTED. ON ATTEMPTING TO HOVER ACFT TO A MORE LEVEL SPOT ON GLACIER, NR 3 TAILROTOR DRIVESHAFT SEGMENT BONDED FITTING FAILED SLOWING TAIL ROTOR. BOND THAT SPECIFICALLY FAILED WAS FORWARD BOND NEAR TAIL ROTOR DRIVESHAFT BEARING FOR THAT SEGMENT. AIRCRAFT BEING REPAIRED IAW THE MM.

FOTR21180104091	BOEING	SKIN	MISREPAIRED
11/10/2011	727227		ZONE 100

FUSELAGE SKIN MISREPAIRED AT BS 332 S19R LAPJOINT. REPAIRED ON FASI WO 21180, NR104091.

FOTR2011111004092	BOEING	SKIN	MISREPAIRED
11/10/2011	727227		ZONE 100

FUSELAGE SKIN MISREPAIRED AT BS 412.5 S19R LAPJOINT. REPAIRED ON FASI WO 21180, NR104092.

FOTR201111104095	BOEING	SKIN	MISREPAIRED
11/10/2011	727227		ZONE 200

FUSELAGE SKIN MISREPAIRED AT BS 418 BETWEEN S15-18R. REPAIRED ON FASI WO 21180, NR 104095.

FOTR2011110804099	BOEING	SKIN	MISREPAIRED
11/8/2011	727227		ZONE 100

FUSELAGE SKIN AT BS 990, C-2 DOOR CUTOUT AFT EDGE MISREPAIRED. REPAIRED ON FASI WO 21180, NR 104099.

FOTR2011111004108	BOEING	SKIN	MISREPAIRED
11/10/2011	727227		ZONE 100

FUSELAGE SKIN AT BS 356 S23R MISREPAIRED. REPAIRED ON FASI WO 21180, NR 104108.

FOTR2011111004151	BOEING	SKIN	CORRODED
11/10/2011	727227		ZONE 100

BS 419 - 533 S19R LAP JOINT CORRODED. REPAIRED ON FASI WO 21180, NR 104151.

FOTR2011111004160	BOEING	SKIN	CORRODED
11/10/2011	727227		ZONE 100

SKIN BS 676 BETWEEN S21-22R CORRODED AROUND EDGES OF REPAIR. REPAIRED ON FASI WO 21180, NR 104160.

FOTR2011110804195	BOEING	SKIN	DENTED
11/8/2011	727227		ZONE 200

SKIN BS 690 ABOVE S4R DENTED. REPAIRED ON FASI WO 21180, NR 104195.

FOTR2011111204209	BOEING	SKIN	MISREPAIRED
11/12/2011	727227		ZONE 100

FUSELAGE SKIN AT BS 720D-740 BETWEEN S25-27 RT MISREPAIRED. REPAIRED ON FASI WO 21180, NR 104209.

FOTR2011111004230	BOEING	SKIN	MISREPAIRED
11/10/2011	727227		ZONE 100

SKIN AT BS 720C+16.5 - 720D+7.5 BETWEEN STR 27R-28R MISREPAIRED. REPAIRED ON FASI WO 21180, NR 104230.

FOTR2011102104205	BOEING	SKIN	DAMAGED
10/21/2011	727227		ZONE 100

UPON REMOVAL OF EXTERNAL DOUBLER AT BS 665 S21R FOUND DAMAGED. REPAIRED ON FASI WO 21180, NR 104205.

FOTR2011101714097	BOEING	SKIN	MISREPAIRED
10/17/2011	727227		ZONE 200

FUSELAGE SKIN, STA 254.5 BETWEEN S9-11L MISREPAIRED. REPAIRED ON FASI WO 21180, NR 104097.

FOTR2011100704143	BOEING	SKIN	MISREPAIRED
10/7/2011	727227		ZONE 100

FUSELAGE SKIN, BS 431 BETWEEN S21-23L MISREPAIRED. REPAIRED ON FASI WO 21180, NR 104143.

FOTR2011100704115	BOEING	SKIN	MISREPAIRED
10/7/2011	727227		ZONE 100

FUSELAGE SKIN STA 395.5 AT S22R MISREPAIRED. REPAIRED ON FASI WO 104115, NR 104115.

FOTR2011101704199	BOEING	INTERCOSTAL	CRACKED
10/17/2011	727227		ZONE 200

BS 375 S12R, UPPER INTERCOSTAL CRACKED. REPAIRED ON FASI WO 21180, NR 104199.

FOTR2011101704200	BOEING	INTERCOSTAL	CRACKED
10/17/2011	727227		ZONE 200

BS 375 S12R, LOWER INTERCOSTAL CRACKED. REPAIRED ON FASI WO 21180, NR 104200.

FOTR21180104148	BOEING	SKIN	BULGED
10/14/2011	727227		ZONE 100

S-19R, STA 694 SKIN HAS A BULGE (POSSIBLE CORROSION). REPAIRED ON FASI WO 21180, NR 104148.

FOTR2011100406432	BOEING	FRAME	CORRODED
10/4/2011	727232		ZONE 100

SURFACE CORROSION AT BS 727, FRAME LBL 5 TO RBL 5 , AFT SIDE, LWR AFT CARGO. REPAIRED ON FASI WO 21142, NR 06432.

ABXR2012F00007	BOEING	EXHAUST GATE	CORRODED
11/10/2011	737	65C263116	ZONE 600

LOWER SKIN OF EXHAUST GATE CORRODED AT OTBD EDGE. REPAIRED IAW SRM 51-40-02 AND PROCESS STANDARDS MANUAL.

ABXR2012F00008	BOEING		EXHAUST GATE	CORRODED
11/10/2011	737		65C263116	ZONE 600

LOWER SKIN OF EXHAUST GATE CORRODED AT OTBD EDGE. REPAIRED IAW SRM 51-40-02 AND AMES PROCESS STANDARDS MANUAL.

ZI3R201111150005	BOEING	CFMINT	VALVE	WRONG PART
11/15/2011	737*	CFM567B2US	6062120	FUEL NOZZLE

ELEVEN(11) CFM56-7B FUEL NOZZLES,PN 6840023E18,WERE RECEIVED FOR BENCH TEST AND REPAIR IAW CMM 73-11-42. NINE(9) OF THE ELEVEN(11) NOZZLES FAILED BENCH TEST AND WERE MOVED TO REPAIR. UPON REMOVAL OF THE FLOW DIVIDER VALVES, THE MACHINIST NOTICED THAT THE WRONG VALVE WAS INSTALLED IN 4 OF THE NOZZLES AS WELL AS THE WRONG O-RINGS FOR THOSE VALVES. THE CORRECT VALVE FOR FUEL NOZZLE 6840023E18 IS PN 6062120. THE CORRECT O-RING SEALS FOR VALVE PN 6062120 ARE PN'S 6062124-001 (WHITE), AND 6062125 (BROWN). THE INCORRECT VALVES FOUND INSTALLED IN THE SUBJECT NOZZLES ARE PN 6002135. THIS VALVE IS FOUND INSTALLED PRIMARILY ON FUEL NOZZLE 6840023M1 WITH A BLACK O-RING PN 6871674-965. IT APPEARS THAT THESE FOUR NOZZLES, SN PCY049E1, PCY068E1, PCY067E3, AND PCY067E6, WERE IMPROPERLY UPDATED FROM 6840023M1 TO 6840023E18 IAW SB 73-0132. EVIDENCE OF UPDATE AFTER OEM MFG INCLUDES LINED OUT MARKINGS, VISUALLY POOR QUALITY VALVE COVER WELDS, INCORRECT FLOW DIVIDER VALVE INSTALLED AND INCORRECT O-RING SEALS INSTALLED. THE SUBJECT FUEL NOZZLES HAD NOT BEEN PREVIOUSLY MAINTAINED AT THIS REPAIR STATION.

ZI3R201111150006	BOEING	CFMINT	VALVE	WRONG PART
11/15/2011	737*	CFM567B2US	6062120	FUEL NOZZLE

ELEVEN (11) CFM56-7B FUEL NOZZLES, PN 6840023E18, WERE RECEIVED FOR BENCH TEST AND REPAIR IAW CMM 73-11-42. NINE(9) OF THE ELEVEN(11) NOZZLES FAILED BENCH TEST AND WERE MOVED TO REPAIR. UPON REMOVAL OF THE FLOW DIVIDER VALVES, THE MACHINIST NOTICED THAT THE WRONG VALVE WAS INSTALLED IN 4 OF THE NOZZLES AS WELL AS THE WRONG O-RINGS FOR THOSE VALVES. THE CORRECT VALVE FOR FUEL NOZZLE 6840023E18 IS PN 6062120. THE CORRECT O-RING SEALS FOR VALVE PN 6062120 ARE PN'S 6062124-001 (WHITE), AND 6062125 (BROWN). THE INCORRECT VALVES FOUND INSTALLED IN THE SUBJECT NOZZLES ARE PN 6002135. THIS VALVE IS FOUND INSTALLED PRIMARILY ON FUEL NOZZLE 6840023M1 WITH A BLACK O-RING PN 6871674-965. IT APPEARS THAT THESE 4 NOZZLES, SNS PCY049E1, PCY068E1, PCY067E3, AND PCY067E6, WERE IMPROPERLY UPDATED FROM 6840023M1 TO 6840023E18 IAW SB 73-0132. EVIDENCE OF UPDATE AFTER OEM MFG INCLUDES LINED OUT MARKINGS, VISUALLY POOR QUALITY VALVE COVER WELDS, INCORRECT FLOW DIVIDER VALVE INSTALLED AND INCORRECT O-RING SEALS INSTALLED. THE SUBJECT FUEL NOZZLES HAD NOT BEEN PREVIOUSLY MAINTAINED AT THIS REPAIR STATION.

FOTR2011101406609	BOEING		FRAME	CORRODED
10/14/2011	737232			ZONE 100

TOP OF FRAME BS 727E, S25L CORRODED. REPAIRED ON FASI WO 21142, NR 06609.

FOTR2011103106811	BOEING		FRAME	CORRODED
10/31/2011	7373Q8			ZONE 100

AFT CARGO FRAME AT BS 807 BL 0, CORRODED. REPAIRED ON FASI WO21142, NR06811.

FOTR201110306608	BOEING		FRAME	GOUGED
10/3/2011	7373Q8			ZONE 100

TOP OF FRAME BS 747, S25L, GOUGED. REPAIRED ON FASI WO 21142, NR 06608.

FOTR2011103106450	BOEING		FRAME	CORRODED
10/31/2011	7373Q8			ZONE 100

AFT CARGO FRAME AT STA 787, S27R HAS CORROSION. REPAIRED ON FASI WO21142, NR 06450.

FOTR2011103106449	BOEING		FRAME	CORRODED
10/31/2011	7373Q8			ZONE 100

AFT CARGO FRAME AT STA 794, S28R HAS CORROSION. REPAIRED ON FASI WO21142, NR 06449.

FOTR2011101106444	BOEING	SHEAR TIE	CORRODED
10/11/2011	7373Q8		ZONE 100

CORROSION AT FRAME SHEAR TIE, BS 867, S28L TO 28R, AFT CARGO. REPAIRED ON FASI WO 21142, NR 06444.

FOTR2011101206434	BOEING	FRAME	CORRODED
10/12/2011	7373Q8		ZONE 100

CORROSION AT FRAME, BS 767 AFT SIDE, LWR RBL 2 AFT CARGO. REPAIRED ON FASI WO 21142, NR 0634. SUPPLEMENTAL.

FOTR2011110706431	BOEING	FRAME	CORRODED
11/7/2011	7373Q8		ZONE 200

LIGHT SURFACE CORROSION AT FRAME BS 727E, AFT SIDE LWR RBL 3. REPAIRED ON FASI WO 21142, NR 06431.

FOTR2011100406428	BOEING	FRAME	CORRODED
10/4/2011	7373Q8		ZONE 100

SURFACE CORROSION ON FRAME AT BS 727D AFT SIDE OF RBL 3 AFT CARGO. REPAIRED ON FASI WO 21142, NR 06428.

FOTR201110270639	BOEING	SKIN	CORRODED
10/27/2011	7373Q8		ZONE 100

CORROSION AT SKIN AND SKIN SPLICE, BS 907, S28L TO 27R, AFT CARGO. REPAIRED ON FASO WO 21142, NR 06439.

FOTR2011103106792	BOEING	DOOR FRAME	DAMAGED
10/31/2011	7373Q8		ZONE 100

AFT PIT INBD OF DOOR CUTOUT FRAME HAS 3 DRILL STARTS. REPAIRED ON FASI WO21142, NR06792.

FOTR2011101506876	BOEING	SKIN	DENTED
10/15/2011	7373Q8		HORIZONTAL STAB

RT HORIZONTAL STAB L/E DENTED AT STAB STA 75. REPAIRED ON FASI WO21142, NR 06876.

FOTR2011102606423	BOEING	SILL	DAMAGED
10/26/2011	7373Q8		ZONE 100

L2 DOOR LOWER SILL BS 986.5, S20L DAMAGED. REPAIRED ON FASI WO 21142, NR 06423.

FOTR2011103106818	BOEING	SKIN	DAMAGED
10/31/2011	7373Q8		ZONE 100

FUSELAGE BS 360 BUTT JOINT S25-27L DAMAGED. REPAIRED ON FASI WO 21142, NR 06818.

SROM2011012	BOEING	INTERCOSTAL	CRACKED
11/17/2011	7377BD	141A541012	FUSELAGE

FORWARD MAIN ENTRANCE DOOR WET AREA INTERCOSTAL AT BS 312 - BS 328, LBL 46 REPLACED WITH NEW P/N 141A5410-12 IN ACCORDANCE WITH BOEING STRUCTURAL REPAIR MANUAL (SRM) D634A201, REV 44, CHAPTER 51-40-02.

SROM2011013	BOEING	SKIN	CHAFED
11/17/2011	7377BD		FUSELAGE

FUSELAGE SKIN CHAFING WAS NOTED BELOW DORSAL FAIRING, BLENDED AND FOUND WITHIN LIMITS AT BS 847 IN ACCORDANCE WITH BOEING SR NO. 1-2034146972, MESSAGES XDV-ATR-11-0002-01C, DATED NOVEMBER 8, 2011, XDV-ATR-11-0002-05B, DATED NOVEMBER 10, 2011, AND XDV-ATR-11-0002-06C, DATED NOVEMBER 10, 2011

PER BOEING ODA-300064-NM APPROVED FORM 8100-9, DATED NOVEMBER 11, 2011. NOMINAL THICKNESS 0.640 INCH, REMAINING 0.036 INCH, MAX MATERIAL REMOVED 0.004 INCH.

TX9Y20111104001	BOEING	SPLICE PLATE	CRACKED
11/1/2011	747281F	65B035721	ZONE 300

A FASTENER HOLE WAS FOUND CRACKED AT HORIZONTAL STABILIZER CENTER SECTION LT SIDE LOWER SPLICE PLATE. REPLACED PER MN TEC-SOF-11-0082 AND SRM 51-30-05.

FOTR2011080901225	BOEING	FLOORBEAM	MISREPAIRED
8/9/2011	75721B		ZONE 200

FLOORBEAM BS 700, BL 0 MISREPAIRED. REPAIRED ON FASI WO 21119, NR 01225.

FOTR2011081201226	BOEING	FLOORBEAM	MISREPAIRED
8/12/2011	75721B		ZONE 200

FLOORBEAM, BS 1280, BL 0 MISREPAIRED. REPAIRED ON FASI WO 21119, NR 01226.

FOTR2011081601224	BOEING	FLOORBEAM	MISREPAIRED
8/16/2011	75721B		ZONE 200

FLOORBEAM BS 680 BL 0 MISREPAIRED. REPAIRED ON FASI WO 21119, NR 01224.

FOTR2011090606905	BOEING	SKIN	MISREPAIRED
9/6/2011	75721B		ZONE 100

FUSELAGE SKIN AT BS 660 STRINGER 26L MISREPAIRED. REPAIRED ON FASI WO 21118, NR 06905.

ABXR2011110700046	BOEING	STRINGER	CORRODED
11/7/2011	767231		HORIZONTAL STAB

DURING C-CHECK, FOUND HORIZONTAL STAB STRINGER S2 LWR, CORRODED ON AFT SIDE OF VERTICAL LEG BETWEEN RIB 1L-2L. REPAIRED IAW SRM AND REA B655-59478MR.

ABXR2011110700047	BOEING	STRINGER	CORRODED
11/7/2011	767231	181T41002	HORIZONTAL STAB

DURING C-CHECK, FOUND HORIZONTAL STAB STRINGER S5 LWR, CORRODED ON AFT SIDE OF VERT FLANGE BETWEEN RIB 1R-2R. REPAIRED IAW SRM AND REA B655-59479MR.

ABXR2011110700048	BOEING	BULKHEAD	CANNING
11/7/2011	767231		ZONE 200

DURING C-CHECK FOUND AFT PRESSURE BULKHEAD OIL CANNED. REPAIRED IAW WITH REA B653-59512MR.

ANZY20111120102	BOEING	STRINGER	CORRODED
11/30/2011	7673G5		ZONE 100

ON C CHECK, CORROSION OF STRINGER AT S34R HAD CAUSED MULTIPLE HOLES IN EXTRUSION TO THE POINT THAT NO STRUTURAL MATERIAL WAS LEFT. REPAIR UNDER WAY AT THIS TIME.

E81R2011122632222	BRAERO	GARRTT	PUMP	LOW PRESSURE
12/26/2011	BAE125800A	TFE731*	4202203	HYD SYSTEM

INVESTIGATED REPORTED "HYD 2 LO PRESS" ANNUNCIATOR LIGHT INDICATION. REPLACED FAILED NR 2 ENGINE HYD PUMP WITH AN O/H PUMP AND DRAINED HYD SYS RESERVOIR, REPLACED SYS SUCTION FILTER. HYDR SYS OPS NORMAL AFTER PUMP REPLACEMENT. HYD PUMP TSN/TSOH UNKNOWN, TRANSIENT ACFT. RECOMMEND O/H FACILITY INSPECT FAILED PUMP AT TEAR-DOWN FOR ANALYSIS.

2011FA0000741	CESSNA	LYC	BUSHING	MIGRATED
11/11/2011	172R	IO360L2A	0541202	ZONE 700

BUSHING INSERT MIGRATED TO THE OUTSIDE OF THE BUSHING ASSEMBLY CAUSING PLAY IN THE MAIN LANDING GEAR. THIS HAS HAPPENED ON TWO 172'S THAT ARE OPERATED IN A FLIGHT SCHOOL ENVIRONMENT. BOTH 172'S HAVE SIMILAR TOTAL TIME. THE BUSHINGS ARE RETAINED FOR INSPECTION AS NECESSARY.

FK8R2011120100001	CESSNA	CONT	SUPPORT	CRACKED
12/1/2011	2105A	IO470S	07526151	SPINNER

CENTER SPINNER SUPPORT CRACKED.

Y2GR201111333574	CESSNA	CONT	GEAR	DAMAGED
11/3/2011	310N	IO470VO	653631	CRANKSHAFT

CRANKSHAFT GEAR WAS FOUND WITH FOUR TEETH MISSING FROM THE GEAR. THE CAMSHAFT GEAR THAT IT IS MESHED WITH STILL ROTATED AROUND THE GEAR AND MESHED WITH THE REMAINING TEETH. SB 08-12 DATED 9/9/08 SUPERSEDES THIS GEAR PN WITH A NEW HEAVIER GEAR PN 657175 AT THE NEXT ENGINE DISASSEMBLY. THIS ENGINE HAD BEEN DISASSEMBLED FOR A PROPELLER STRIKE INSPECTION.

2011FA0000782	CESSNA	CONT	CYLINDER	FAILED
11/8/2011	340A	TSIO520NB	AEC631397	NR 3

NEW CYLINDERS WERE INSTALLED ON ACFT. 2 OF THE 12 CYLINDERS FAILED AT 25.3 TIME IN SERVICE, WITH WHAT LOOKED LIKE THE NICKEL COATING SEPARATING FROM THE CYLINDER WALLS. UPON REMOVAL OF THE CYLINDER (1 FROM EACH ENGINE), THE NICKEL COATING HAD SEPARATED AND THE PISTONS HAD EXTREME SIDE WALL DAMAGE. THE OIL FILTERS WERE REMOVED, CUT OPEN AND INSPECTED; ALUMINUM PARTICLES WERE FOUND IN THE FILTER ELEMENTS.

GNMA8840K112111	CESSNA		TRUNNION	CRACKED
11/21/2011	414A		51411036	RT MLG

CRACKS FOUND ON RIGHT MAIN GEAR UPPER BARREL & TRUNNION ASSEMBLY. CRACKS IN THE UPPER TORQUE LINK ATTACH POINTS WERE GREATER THAN ALLOWED PER MEB89-2 REV 1.

GNMA20111209	CESSNA	CESSNA	SKIN	WRINKLED
12/7/2011	414A		513300022	RUDDER

RUDDER WAS RUBBING ON HORIZONTAL UPPER AFT FAIRING ASSEMBLY AND CAUSED A 3" X 3" WRINKLE ON THE RT LOWER AFT SKIN.

EG6R2011101800769	CESSNA	TUBE	FAILED
10/18/2011	421B	0923150	NLG TIRE

NOSE TIRE BLEW UPON LANDING. UPON DISASSEMBLING TIRE AND WHEEL ASSY, FOUND APPROX 2 INCH HOLE IN TUBE. PROBABLE CAUSE UNKNOWN.

CWQR2011120632	CESSNA	TORQUE TUBE	CRACKED
12/6/2011	560CESSNA	55421029	RT MLG

DURING A SCHEDULED MX CHECK WE FOUND THIS RT LANDING GEAR TORQUE TUBE CRACKED AT THE MOUNT BOLT PIVOT PLATE WHERE IT IS WELDED TO THE TUBE. THIS WAS FOUND VISUALLY, WHILE PERFORMING A GEAR WELL INSPECTION. THE PART WAS R & R WITH NEW, THE ACFT HAS 1517 TOTAL CYCLES. WE HAVE SEEN THIS ISSUE SEVERAL TIMES BEFORE ON ACFT WITH SIMILAR TIMES AND CYCLES. THIS CONDITION WAS ALSO SUBMITTED TO SDR 598740.

DXTR20120113001	CESSNA	DOOR	STUCK
1/13/2012	560CESSNA		EMERGENCY EXIT

THE EMERGENCY EXIT DOOR WILL NOT RELEASE FROM AIRFRAME WHEN THE HANDLE IS TURNED AND PULLED. EXCESSIVE FORCE WAS REQUIRED TO OPEN.

DXTR20120113002	CESSNA	INLET	CRACKED
1/13/2012	560CESSNA	C46B1100022	RT ENGINE

RT ENGINE INLET IS CRACKED 2X (1 & 5 O'CLOCK POSITIONS) ON THE OUTER DUCT & FLANGE ATTACH POINTS.

17GR2011231100001	CESSNA	PWA	OIL SYSTEM	OVERSERVICED
11/23/2011	560CESSNA	PW545A		RIGHT ENGINE

DURING A CLIMB THROUGH 8,500' MSL TO 10,000' ON SBN APPROACH CONTROL, NOTICED RT ENGINE LOW OIL PRESSURE (RED) ANNUNCIATOR ILLUMINATE. ALSO NOTICED RT ENGINE MANUAL MODE WHITE ANNUNCIATOR ILLUMINATED & OIL PRESSURE GAUGE ZERO FOR RT ENGINE. WITHIN A FEW SECONDS, NOTICED SMOKE IN COCKPIT. DECLARED AN EMERGENCY, PULLED RT POWER LEVER TO IDLE & PUT ON OXYGEN MASKS. WORKED CHECKLIST & SHUTDOWN RT ENGINE. FOLLOWED RADAR VECTORS FOR AN ILS. CONTINUED WITH SMOKE EVACUATION CHECKLIST & DEPRESSURIZED CABIN TO EVACUATED SMOKE. A NORMAL, SINGLE ENGINE, APPROACH & LANDING ACCOMPLISHED. AFTER LANDING, TAXIED TO FBO. SHUTDOWN NORMAL. ENGINE MFG SERVICES PERFORMED BORESCOPE INSPECTION THROUGH COMPRESSOR BLEED VALVE, NO DEFECTS NOTED. PERFORMED MOPLO TEST ON NR 4 BEARING CARBON SEAL. RECORDED VALUE OF 54 PSIA AT TO POWER OF MOPLO TEST FOUND TO BE WITHIN MM LIMITS. RAN ENGINE FOR 1 HR AT VARIOUS POWER SETTINGS, NO DEFECTS NOTED. ENGINE DETERMINED TO HAVE BEEN OVER SERVICED WITH OIL."

DXTR2012011102	CESSNA		TRIM TAB	WORN
1/11/2012	560XL		553320042	RUDDER

RUDDER TRIM TAB HAS EXCESSIVE PLAY.

DXTR2012011103	CESSNA	CESSNA	RIB	CRACKED
1/11/2012	560XL			LT WING

LT FLAP WELL T/E RIB AT WS 64.0 IS CRACKED.

DXTR2012011104	CESSNA	CESSNA	RIB	CRACKED
1/11/2012	560XL			RT WING

RT FLAP WELL T/E RIB AT WS 88.6 IS CRACKED.

DXTR2012011105	CESSNA		STIFFENER	CRACKED
1/11/2012	560XL			NLG WW

NOSE WHEEL STEERING CABLE STIFFNER FOR PULLEY BRACKET JUST FWD OF CENTER PEDESTAL UNDER FLOORBOARD 141BTC HAS APPROX 0.25 INCH CRACK AT TOP, AFT CORNER RADIUS, FROM EDGE HEADING FWD AND DOWN TOWARDS AFT PULLEY BRACKET.

DXTR2012011101	CESSNA		SKIN	DAMAGED
1/11/2012	560XL			ZONE 600

BOTTOM OF RIGHT INBD FLAP HAS SOFT SPOT FROM IMPACT DAMAGE.

DXTR2011122900001	CESSNA		CABLE	DAMAGED
12/29/2011	680CE		99147574	NLG STEERING

DURING NOSE WHEEL STEERING CHECK, THE TILLER WILL ONLY MOVE HALF WAY TO THE LEFT. IF YOU CONTINUE TO APPLY PRESSURE THERE IS A POP IN THE TILLER AND IT CONTINUES THE REMAINER OF TRAVEL TO THE LT.

2011FA0000805	CESSNA	CONT	CYLINDER	FRACTURED
11/15/2011	T210L	GTSIO520H	TISN712BCA	ZONE 400

6 NEW CYLINDERS WERE INSTALLED AUG 10, 2008 AT 2812 TOTAL TIME. THE CYLINDERS EXPERIENCED A FAILURE OF THE VALVE GUIDES ON 3 OF THE 6 AT 384 HOURS TIME IN SERVICE. ALL 3 FAILED VALVE GUIDES BROKE OFF AT THE INSERT POINT AND 1 COMPLETELY DISINTEGRATED, CONTAMINATING THE ENGINE WITH METAL DEBRIS. THIS IN TURN CAUSED CHAFING ON AT LEAST 2 VALVE LIFTER ASSEMBLIES AND DAMAGE TO THE CAMSHAFT. THE ENGINE WILL REQUIRE A COMPLETE TEAR DOWN DUE METAL CONTAMINATION AND DAMAGE. THE ONLY INITIAL ABNORMAL INDICATION NOTED DUE TO THE BROKEN EXHAUST VALVE GUIDES WAS EXCESSIVE ENGINE OIL BLOWING THROUGH THE ENGINE CRANKCASE BREATHER AS NOTED BY SIGNIFICANT AMOUNT OF OIL ON THE BELLY OF THE ACFT. THE ENGINE OPERATED NORMALLY WITH NO APPARENT POWER

LOSS OR ABNORMAL INDICATIONS OF EGT, TIT, OR OIL PRESSURE/TEMPERATURE. EVENTUALLY THE TURBINE OPERATION WAS ERRATIC APPARENTLY CAUSED BY MOMENTARY BLOCKAGE WITHIN THE TURBINE WASTEGATE CONTROLLER. THIS CONDITION WAS INTERMITTENT. FLAWS WERE FOUND BY VISUAL INSP AFTER LOW COMPRESSION WAS FOUND ON 2 OF THE AFFECTED CYLINDERS. AFFECTED SN: 56357-17, 56229-30, 56358-11, 56375-03, 56291-22, 56258-15. CYCLES ARE ESTIMATED AT 1 PER HOUR AND ARE NOT TRACKED ON THIS ACFT.

2011FA0000768	CESSNA	CONT	ENGINE	FAILED
11/16/2011	TU206F	TSIO520C	TSIO520C	

ACFT ENGINE HAD 35 HRS SINCE O/H. O/H FACILITY "BROKE IN" ENGINE. POST CATASTROPHIC FAILURE INSPECTION REVEALED EXTREMELY HIGH TEMPERATURES, IE: CRANKSHAFT JOURNALS MELTED, STRETCHED VALVES, DISCOLORATION IN RODS AND CYLINDERS. EXACT CAUSE UNDETERMINED. PROBABLE CAUSE IS IMPROPER LEAN-TO PEAK PROCEDURE.

2011FA0000725	CIRRUS	CONT	TUBE	FLAT
11/2/2011	SR22	IO550*	G156006	MLG

APPROACH SPEED WAS APPROX 78 KTS WITH FULL FLAPS. PRIOR TO TOUCHDOWN, POWER WAS PULLED BACK TO IDLE AND THE PLANE TOUCH DOWNED PARALLEL WITH THE RUNWAY ON THE CENTERLINE. IMMEDIATELY DIRECTIONAL CONTROL WAS LOST WITH THE PLANE PULLED TO THE LT. RT BRAKE AND RUDDER INPUTS FAILED TO KEEP THE PLANE ON THE RUNWAY AND IT ROLLED OUT ONTO THE FIELD AROUND 800 FT HITTING A RUNWAY LIGHT AND MARKING SIGN AT THE TAXI WAY. IT CONTINUED PULLING TO THE LT. MARKINGS ON THE RUNWAY DISPLAYED 2 PARALLEL SKID MARKS FOR THE LT MAIN TIRE ABOUT 4" APART INDICATING POSSIBLY THE LT MAIN WAS FLAT BEFORE TOUCHDOWN. NO HEAVY SKID MARKS FROM EITHER TIRE WAS NOTED. NEITHER TIRE SHOWED SIGNS OF BEING LOCKED. AFTER DISASSEMBLING THE LT WHEEL AND TIRE. THE TUBE HAD A .1250" SLIT THAT FOLLOWED A MFG MOLD LINE. NO INDICATION AS TO WHAT COULD HAVE CAUSED THE PUNCTURE WAS FOUND.

JR2R2011110600565	CNDAIR	SILL	CORRODED
11/6/2011	CL6002D24	SH670319961	ZONE 100

SERVICE DOOR SILL FLOOR LANDING ANGLE CORRODED. R & R SERVICE DOOR SILL FLOOR LANDING ANGLE IAW SRM 51-42-06 & SRM 53-21-23 AS ON W/O 1007307 2700-0055 AND W/O 711009503.

JR2R2011110600566	CNDAIR	FLOOR PANEL	GOUGED
11/6/2011	CL6002D24	SH67035821	PRESSURE PANEL

PRESSURE FLOOR LWR FACE GOUGED/TOOL MARKS AT FS 693 RBL24 IN RT W/W. C/W PERMANENT REPAIR TO PRESSURE FLOOR LWR FACE AT FS 693 AT RBL 24 IN RT W/W IAW RO CRJ9-53-0868 AS ON WO 1007307-1700-0062 AND WO 711014235.

JR2R2011110600568	CNDAIR	SEAL	CORRODED
11/6/2011	CL6002D24	SH670314127	SERVICE DOOR

SERVICE DOOR SEAL LANDING CORRODED AT FASTNER HOLES. R & R SERVICE DOOR SEAL LANDING AND SERVICE DOOR PROTECTOR PLATE IAW SRM 51-42-06 AND 53-21-23 AS ON WO 1007307-8400-0024 AND WO 711009503.

JR2R2011110600569	CNDAIR	BULKHEAD WEB	CORRODED
11/6/2011	CL6002D24		BS 280

WHILE WORKING FS 280 BEAM FOUND CORRODED ON RT LOWER BULKHEAD WEB. R & R RT STA 280 LOWER BULKHEAD WEB IAW SRM 53-11-10 AS ON WO 1007307-1000-0175 AND WO 711009503.

JR2R2011110600570	CNDAIR	DIAPHRAGM	DAMAGED
11/6/2011	CL6002D24	CC670392052	ZONE 100

RT MLG WHEEL BIN SUPPORT WEB UPPER ATTACH FASTENER NUTPLATE BROKEN AND HOLE IS ENLOGATED. R & R DAMAGED BRACKET AND DIAPHRAGM IAW SRM 51-42-21 AS ON WO 1007307-1000-0038 AND WO 711009503.

JR2R2011110600571	CNDAIR	CROSSBEAM	DAMAGED

11/6/2011	CL6002D24	CC670341757	ZONE 100

LT 280 BEAM CRACKED. ACCOMPLISHED PERMENT REPAIR ON LT STA 280 CROSSBEAM IAW RO CRJ9-53-0843 AS ON WO 1007307-2700-0051 AND WO 711014235.

JR2R2011110600572	CNDAIR	CROSSBEAM	DAMAGED
11/6/2011	CL6002D24	CC670341757	ZONE 100

RT 280 BEAM CRACKED. ACCOMPLISHED PERMENANT REPAIR ON RT STA280 CROSSBEAM IAW RO CRJ9-53-0844 AS ON WO 1007307-1000-0093 AND WO 711014235.

JR2R2011110700574	CNDAIR	STRINGER	CORRODED
11/7/2011	CL6002D24	SH670316361	ZONE 100

STRINGER 21R HAS CORROSION BETWEEN FRAMES 280 AND 333 IN THE FWD E & E BAY. R & R STR 21R FROM FS 280 TO 333 IAW SRM 51-42-06 AND 51-42-21 AS ON WO 1007307-1000-0026 AND WO 711009503.

JR2R2011110700573	CNDAIR	STRINGER	CORRODED
11/7/2011	CL6002D24	SH670313831	ZONE 100

STRINGER 21R HAS CORROSION BETWEEN FRAMES 364 AND 379 IN THE FWD E & E BAY. R & R STR 21R BETWEEN FS 364 AND 379 IAW SRM 51-42-06 AND 51-42-21 AS ON WO 1007307-1000-0083 AND WO 711009503.

JR2R2011110700575	CNDAIR	MOUNT	CRACKED
11/7/2011	CL6002D24	601R3177457	ZONE 800

WHILE WORKING PAX DOOR MOD, FOUND CRACK ON AFT LOWER MOTOR SUPPORT. R & R AFT LOWER MOTOR SUPPORT IAW SRM 51-42-06 AS ON WO 1007307-8000-0034 AND WO 711009503.

JR2R2011114100553	CNDAIR	STRINGER	CORRODED
11/4/2011	CL6002D24	SH670313851	ZONE 100

FOUND CORRISION STR 21R FS477.40. REMOVED CORROSION WITH BLENDOUT AT STR 21R FS477.40 IAW RO CRJ9-53-0866 AS ON AAR WO 1007307-1000-0144 AMD WO 711014235.

JR2R2011114100554	CNDAIR	SKIN	CORRODED
11/4/2011	CL6002D24	SH6703115111	ZONE 100

FUSLAGE SKIN NEAR PAX DOOR AFT SIDE APROX LOCATION FS 349.00 HAS MULTIPLE SCRAPE MARKS/DAMAGE. REPAIRED FUSELAGE SKIN NEAR PAX DOOR AFT SIDE APPROX LOCATION FS 349.00 IAW RO CRJ9-53-0862 AS ON AAR WO 1007307-2000-0019 AND WO 711014235.

JR2R2011114100555	CNDAIR	SKIN	CORRODED
11/4/2011	CL6002D24	SH6703115111	ZONE 100

FUSLAGE SKIN NEAR PAX DOOR AFT SIDE APROX LOCATION FS 310.00 HAS LARGE AREA SCRAPE MARKS/DAMAGE. REPAIRED FUSELAGE SKIN NEAR PAX DOOR AFT SIDE APPROX LOCATION FS 310.00 IAW MESA RO CRJ9-53-0861 AS ON AAR WO 1007307-2200-0020 AND WO 711014235.

JR2R2011114100556	CNDAIR	STRIKER	CORRODED
11/4/2011	CL6002D24	SH670324715	ZONE 100

PAX DOOR FWD DOOR SEAL STRIKER ATTACHED TO FS 310.00 OTBD OF MID DOOR FITTING HAS DAMAGE. REPAIRED AND APPLIED TOP COAT TO PAX DOOR SEAL STRIKER IAW RO CRJ9-53-0841 AND WO 711014235.

JR2R2011114100558	CNDAIR	ATTACH BRACKET	CORRODED
11/4/2011	CL6002D24	SH670324717	ZONE 100

RIGHT LINE BRACKET BROKEN IN AFT EQUIPMENT BAY. R & R HYD BRACKET IN AFT EQUIPMENT BAY IAW SRM 51-42-21 AS ON WO 1007307-3000-0049 AND WO 711009503.

JR2R2011114100559	CNDAIR	ATTACH	CORRODED

		BRACKET	
11/4/2011	CL6002D24	CN6220020207	ZONE 100

RIGHT ENGING UPPER HINGE LINE FAIRING CTR ATTACH BRACKET BROKEN. FRABRICATED AND INSTALLED HINGE LINE FAIRING BRACKET IAW SRM 51-24-21 AND 51-42-06 AS ON WO 1007307-4100-0028 AND WO 711009503.

JR2R2011114100560	CNDAIR	ATTACH BRACKET	CORRODED
11/4/2011	CL6002D24	CN6220020205	ZONE 100

RIGHT ENGINE LOWER HINGE LINE FAIRING CTR ATTACH BRACKET BROKEN. FRABRICATED AND INSTALLED HINGE LINE FAIRING BRACKET IAW SRM 51-24-21 AND 51-42-06 AS ON WO 1007307-4000-0019 AND MESA WO 711009503.

JR2R2011114100561	CNDAIR	MOUNT	CORRODED
11/4/2011	CL6002D24	BA670370154	ZONE 100

RIGHT ENGINE FRONT MOUNT YOKE NICKED AT LOWER ENG ATTACHMENT. REPAIRED LOWER LUG ON RT ENG FRONT MOUNT YOKE IAW RO CRJ9-71-0093 AS ON WO 1007307-4200-0062 AND WO 711014235.

JR2R2011114100562	CNDAIR	TRACK	CORRODED
11/4/2011	CL6002D24	CC670387985	ZONE 100

AFT CARGO DOOR AFT TRACK DAMAGED. R & R CARGO DOOR TRACKS IAW RO CRJ9-53-0858 AS ON WO 1007307-8300-0009 AND WO 711014235.

JR2R201111410557A	CNDAIR	STRIKER	CORRODED
11/4/2011	CL6002D24	SH670324717	ZONE 100

PAX DOOR AFT DOOR SEAL STRIKER ATTACHED TO FS 349.00 HAS MULTIPLE AREAS OF DAMAGE ALONG MID SECTION OF SEAL STRIKER. REPAIRED AND APPLIED TOP COAT TO PAX DOOR AFT SEAL STRIKER IAW RO CRJ9-53-0842 AS ON WO 1007307-2000-0025 AND WO 711014235.

JR2R2011114100557	CNDAIR	ATTACH BRACKET	CORRODED
11/4/2011	CL6002D24	SH670324717	ZONE 100

RIGHT LINE BRACKET BROKEN IN AFT EQUIPMENT BAY. R & R HYD BRACKET IN AFT EQUIPMENT BAY IAW SRM 51-42-21 AS ON WO 1007307-3000-0049 AND WO 711009503.

JR2R201111060567A	CNDAIR	PRESSURE PANEL	CORRODED
11/6/2011	CL6002D24	SH670319861	ZONE 100

PRESSURE PANEL LOWER FACE DAMAGED AT FS 693 RBL24 IN RT MLG WW. REPAIRED PRESSURE PANEL IAW RO CRJ9-53-0868.

JR2R2011110600567	CNDAIR	FLOOR SUPPORT	CORRODED
11/6/2011	CL6002D24		ZONE 100

SERVICE DOOR FLOOR LANDING CORRODED. R & R SERVICE DOOR FLOOR LANDING IAW SRM 51-42-06.

FOTR2118615249	DOUG	CUSP WEB	CORRODED
11/15/2011	DC982		ZONE 200

LEFT MAIN DECK CUSP WEB SHOWS CORROSION AT FWD AIR GRILL ATTACH ANGLE FS 598-617. REPAIRED ON FASI WO 21186, NR 15249.

BQVR2011110700010	GULSTM	ATTACH FITTING	CORRODED
11/7/2011	G1159A		WING

DURING COMPLIANCE OF CMP CODES 576511 & 576516, WINGLET ATTACH HARDWARE INSPECTION (LT & RT), CORROSION FOUND IN THE WINGLET ATTACH BORES ONCE THE BUSHINGS WERE REMOVED.

ZKFR113188A	HAWBEE	FAN	INOPERATIVE
11/15/2011	4000	4013851030001	A/C HEAT XCHANGR

DURING POSTFLIGHT, FOUND BOTH AFT BAY HEAT EXCHANGER FANS INOP. R & R BOTH HEAT EXCHANGERS FANS. OPS CHECKS GOOD. MX RECOMMENDS OTHER OPERATORS CHECK FOR OPS AS THERE IS NO COCKPIT INDICATION WHEN THESE FANS FAIL AND THEY ARE FOR HEAT PROTECTION FOR THE COMPOSITE REAR PRESSURE BULKHEAD STRUCTURE.

ZKFR201111153188B	HAWBEE	FAN	INOPERATIVE
11/15/2011	4000	4013851030001	A/C HEAT XCHANGR

DURING POSTFLIGHT FOUND BOTH AFT BAY HEAT EXCHANGER FANS INOPERATIVE. R & R BOTH HEAT EXCHANGERS FANS. OPS CHECKED GOOD.

ZKFR201112223218A	HAWBEE	CHECK VALVE	FAULTY
12/22/2011	4000	4E42861	POTABLE WATER

POTABLE WATER IN LAV HAS LOW PRESSURE AND PUMP CONTINUOUSLY CYCLES. R & R DRAIN CHECK VALVE. OPS CHECKED GOOD. INSPECTED CHECK VALVE ON BENCH AND FOUND VALVE NOT COMPLETELY CLOSING AND REQUIRING EXCESSIVE PRESSURE TO CLOSE AT ALL.

2011FA0000735	LEAR	CONTROL VALVE	FAILED
11/9/2011	31A	2415010	CABIN PRESSURE

PILOT REPORTED PRESSURIZATION SYSTEM REVERTED TO UNCOMMANDED EMERGENCY PRESSURIZATION MODE.

9JLA2011101300781	LEAR	SHUTOFF VALVE	FAILED
10/13/2011	45LEAR	6627602002005	SPOILER SYS

CREW REPORTED AFTER ENGINE START AND SPOILER CHECK RECEIVED A "SPOILER FAIL" CAS MESSAGE, MESSAGE WOULD NOT CLEAR. TROUBLESHOOTING FOUND THAT THE SPOILERON COMPUTER DEFECTIVE. THE COMPUTER WAS REPLACED WITH A REPAIRED COMPUTER, HALF WAY THROUGH THE CONFIGURATION AND CALIBRATION TESTING THE NEW COMPUTER THAT WAS INSTALLED WAS FOUND TO DEFECTIVE. TROUBLESHOOTING FOUND AN ISSUE WITH THE SPOILER HYDRAULIC SHUTOFF VALVE THAT WAS MAKING THE COMPUTER FAIL UNDER A LOAD. THE SHUTOFF VALVE WAS REPLACED WITH REPAIRED UNIT, FUNCTIONAL CHECKS WERE COMPLETED PER THE AMM 27-60-02.

2011FA0000746	MOONEY	CONT	ACTUATOR	NOISY
11/15/2011	M20R	IO550G	10200013	ZONE 100

DURING ROUTINE INSPECTION OF ACFT LANDING GEAR RETRACTION SYS, THE LANDING GEAR ACTUATOR WAS EXCESSIVELY NOISEY WHEN THE LANDING GEAR WAS RETRACTED AND EXTENDED.AFTER FURTHER EXAMINATION OF THE ACTUATOR IT WAS DISCOVERED THAT THE (INTERNAL) BOLTS THAT SECURE THE RETAINER PLATE FOR THE "NO BACK SPRING" WERE MISSING. A NEW ACTUATOR WAS INSTALLED AND THE PROBLEM WAS CORRECTED.

9JLA201110062011	PILATS	CONTROL UNIT	DEFECTIVE
9/26/2011	PC1247	9753731334	FUEL SYSTEM

CREW REPORTED AN INTERMITTENT "FUEL IMBALANCE" CAS MESSAGE. TROUBLESHOOTING INDICATED THAT THE FCMU WAS DEFECTIVE P/N 975.37.31.334. INSTALLED A REPAIRED UNIT PER THE PC12/47E AMM, FUNCTIONAL CHECKS SATISFACTORY. NOTE: THIS HAS BEEN THE 3RD FCMU REPLACED IN THIS AIRCRAFT IN 12 MONTHS, ALL 3 HAVE HAD SIMILAR DISCREPANCIES.

2011FA0000770	PIPER	LYC	CRANKSHAFT	BROKEN
11/3/2011	PA32260	O540E4B5	O540E4B5	ENGINE

CRANKSHAFT BROKE IN FLIGHT. CONTINUED TO RUN BUT PILOT REPORTED KNOCKING NOISE IN ENGINE AND LANDED. ENGINE WAS REMOVED FROM AIRCRAFT AND SHIPPED TO SHOP FOR PARTIAL TEAR DOWN. FOUND METAL IN OIL SUMP AND A CRACK IN COUNTERBALANCE SECTION OF CRANKSHAFT.

2011FA0000779	SKRSKY	GARRTT	FUEL	INADEQUATE
6/26/2011	S55	TPE33110UA		

WHILE DEMONSTRATING EXTERNAL LOAD CAPABILITY DIRECTLY ABOVE A JUNGLE HELIPAD, THE ENGINE BEGAN TO LOOSE RPM AND THE ACFT LANDED BACK ON THE PAD. THE LANDING WAS CONTROLLED AND TOUCHDOWN WAS CUSHIONED SO AS TO AVOID ANY DAMAGE. POSTFLIGHT INSPECTION REVEALED NO DAMAGE OF ANY KIND OF AIRCRAFT. FOLLOWING EXTENSIVE EFFORTS TO IDENTIFY THE CAUSE, INCLUDING A COMPLETE ENGINE CHANGE, IT IS EVIDENT THAT THE LOCAL FUEL SUPPLY IS SUB-STANDARD. LABORATORY TESTING CONTINUES TO THIS DATE.

3S8R2011041600003	SNIAS	TMECA	ANGLE	CORRODED
4/16/2011	SA330J	TURMO4C	330A21904621	FUSELAGE

RIGHT INTERNAL UPPER ANGLE BETWEEN FRAME X3855 AND X5295 CORRODED BEYOND LIMITS. TO BE REPLACED WITH NEW.

KY1R201110291001	UROCOP	TMECA	STARTER GEN	FAILED
10/29/2010	AS365N3	ARRIEL2C	524031	NR 1

OVERHAULED STARTER GENERATOR INSTALLED IN NR 1 POSITION. UPON GROUND RUN, FOLLOWING SUCCESSFUL GENERATOR VOLTAGE BALANCING PROCEDURE, IT WAS OBSERVED THAT GENERATOR NR 1 INDICATED 90 AMPS AND NR 2 GENERATOR INDICATED 5 AMPS AT 28.5 VDC. FURTHER, STARTER GENERATORS INDICATED 60 AMPS EA AT 28.5 VDC WHEN THE OPPOSITE STARTER GENERATOR WAS OFF LINE. STARTER GENERATOR NR 1 WAS R & R WITH OVERHAULED UNIT. OPS CHECKED SATISFACTORY.