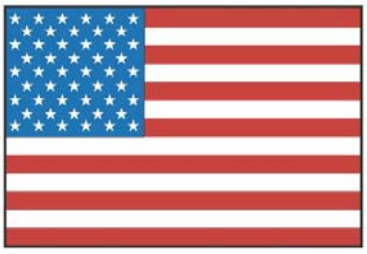
U.S. Department of Transportation
**Federal Aviation Administration**

AFS-600
Regulatory Support Division

# ADVISORY CIRCULAR

43-16A

# AVIATION MAINTENANCE ALERTS



**ALERT NUMBER 335**

**JUNE 2006**

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

# AVIATION MAINTENANCE ALERTS

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

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

# AIRPLANES

## BEECH

### Beech: 58; Pneumatic Deice System Contamination; ATA 3010

*(The following report is one of four nearly identical submissions from the same mechanic describing four different aircraft of the same model.)*

"During prolonged periods of operation in heavy precipitation considerable amounts of water enter into the pneumatic system," states the mechanic. "*(This particular aircraft)*...was operated in the heavy precipitation for a period of 9.4 hours. Subsequent flights generated complaints of moisture and condensation in the pneumatic gauge. Inspection of the pneumatic system revealed large amounts of water being passed through the deice boot ejector. Further disassembly and inspection revealed several ounces of residual water remaining in the system. The system was purged of all water and dried. The filter installed in the system is confirmed to be the proper part number. The integrity of the guard assembly was confirmed and *(its)* orientation was correct as per the aircraft maintenance manual. The aircraft was returned to service. *(Approximately 5 weeks later)* the pneumatic system was *(again)* inspected and found to be contaminated with water. The flight crew reported *(again)* the aircraft *(had been)* operated for an extended period of time in heavy precipitation. *(It should be noted)* this aircraft has a history of premature flight command indicator failures caused by rust and water contamination. Water entering the aircraft's pneumatic de-icing system renders the system inoperative at temperatures below freezing.

"Probable cause: *(both)* the location of the pneumatic system inlet filters and the design of the guard allow impact water to enter into the pneumatic system. *(I recommend)* relocating the pneumatic system filter to an area behind the engine baffle assembly where it will not be subject to impact water."

Part Total Time: (unknown).

## BOMBARDIER

### Bombardier: DHC-8-400, -401, -402; Exhaust V-Bands; ATA 7810

*(The following Transport Canada Airworthiness Directive is reprinted here as received. Not a requirement for U.S.-registered aircraft, it nonetheless bears attention.)*

Transport Canada Transports Canada

TP 7245E

| No. | 1/1 |
|---|---|
| CF-2006-06 | |
| Issue Date 4 April 2006 | |

# AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to *Canadian Aviation Regulation* (CAR) 593. Pursuant to CAR 605.84 and the further details of CAR Standard 625, Appendix H, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with CAR 605.84 and the above-referenced Standard.

This AD has been issued by the Continuing Airworthiness Division (AARDG), Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

**Number:** CF-2006-06

**Subject:** Engine Exhaust Shroud V-Band Couplings

**Effective:** 8 May 2006

**Applicability:** Bombardier Inc. Model DHC-8-400, DHC-8-401 and DHC-8-402 Serial Numbers 4001 through 4098 with engine exhaust shroud V-band clamps (part numbers VC1642A-1875-A or VC1642A-2030-A) that have manufacturer batch stamp dated earlier than 08-02 (August 2002).

**Compliance:** When indicated, unless already accomplished.

**Background:** There have been reports of a discrepancy on a V-band clamp located on the engine exhaust duct shroud during maintenance inspections. The clamp ends were found touching with the correct fastener torque applied, resulting in reduced clamp force on the flanges.

Investigation revealed that a batch of V-band clamps were not manufactured to the drawing specifications. If not corrected, this condition may cause vibration and fretting of the V-band clamp flanges, leading to flange cracking and local area overheating. This situation can trigger the fire warning system and result in an in-flight emergency such as the flight crew requiring to shut down the engine and activate the fire suppression system.

Bombardier Service Bulletin (SB) 84-78-01 was issued to introduce an inspection on the affected V-band clamps to ensure their integrity, and replacement of the affected clamps as required.

**Corrective Action:** Within 5000 flight hours after the effective date of this directive, carry out an inspection and replacement (as required) of the V-band clamps to ensure a proper gap, in accordance with Bombardier SB 84-78-01, Revision A, dated 15 September 2005, or its later revisions approved by the Chief, Continuing Airworthiness, Aircraft Certification Branch, Transport Canada.

**NOTE:** Prior inspection and replacement of the V-band clamps (before the effective date of this directive) in accordance with the original issue of SB 84-78-01, satisfies the requirements of this directive.

**Authorization:** For Minister of Transport

B. Goyaniuk

B. Goyaniuk
Chief, Continuing Airworthiness

**Contact:** Mr. Robin Lau, Continuing Airworthiness, Ottawa, telephone 613 952-4461, facsimile 613 996-9178 or e-mail laur@tc.gc.ca or any Transport Canada Centre.

Pursuant to CAR 202.51 the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address.

To request a change of address, contact the Civil Aviation Communications Centre (AARC) at Place de Ville, Ottawa, Ontario K1A 0N8, or 1-800-305-2059, or www.tc.gc.ca/civilaviation/communications/centre/ address.asp

Canada

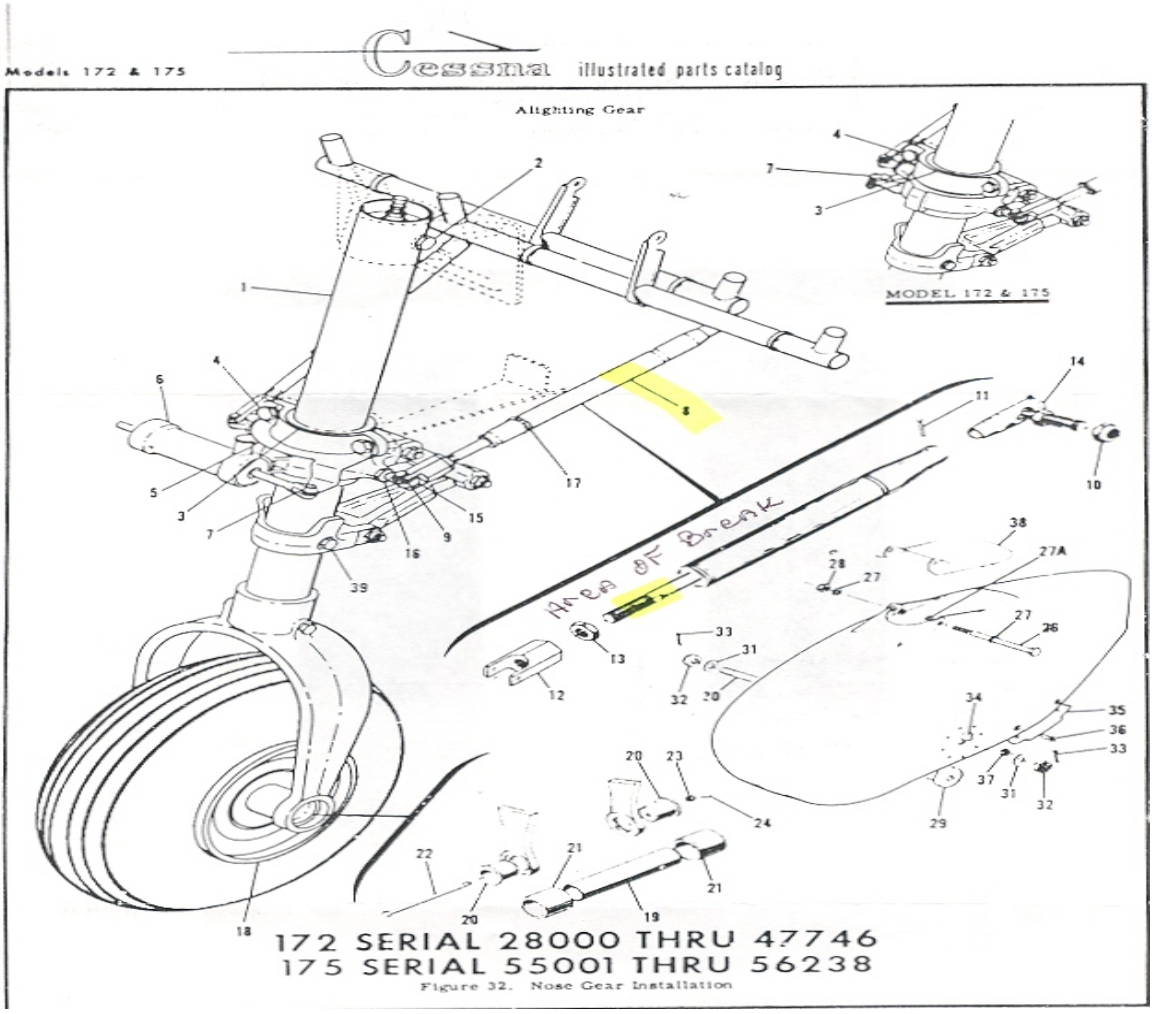
24-0022 (01-2005)

Part Total Time: (n/a).

## CESSNA

### Cessna: 172A; Failed Rod-End, Nose Gear Steering; ATA 3250

An FAA inspector from Spokane, Washington, submitted this defect report, indicating the cause of the 172's accident. The attached drawing shows the failure point on the nose gear steering tube's rod-end (P/N 0543022-1). "The aircraft turned left and impacted an embankment. A small amount of rust was *(noticed)* on the threaded area *(of the rod end)*." *(The attached drawing has been vertically compressed—fairly obvious!)*




Part Total Time: (unknown).

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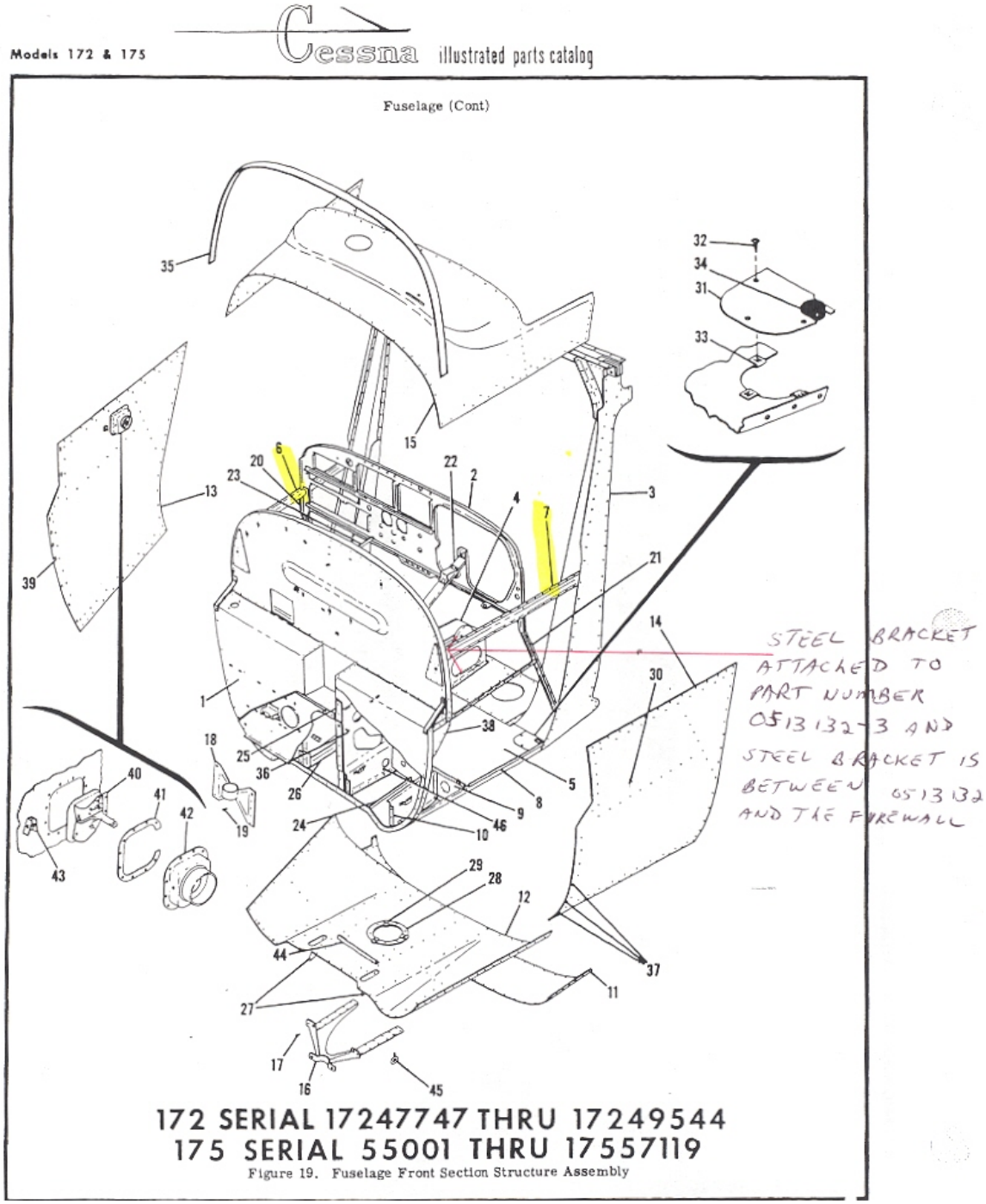
### Cessna: 175B; Cracked Engine Mount Attach Brackets; ATA 5313

*(Now we see the connection...the lack of structural connection described in May's engineering safety article for this same aircraft.)*

The submitter states, "This aircraft experienced a hard landing. During the landing the two top engine mount attach brackets failed behind the firewall, allowing the top half of the firewall to fail, pulling forward and down about 18 inches. (See the attached figure 19, items 7 and 6.) The part number 0513132-11 engine mount attach bracket fits onto the front of the hat channels (items 6 and 7). *(This same part)*--which has a hole in it for the

engine mount bolt to go through—had failed some time ago on the pilot's top side...*(as evidenced by rust being found in the break surfaces of two pieces)*. The bracket on the co-pilot's top side had an existing crack in the center third—at the bolt hole. Rust was also *(evident on these crack surfaces)."* 'This aircraft had an STC'd *(Supplemental Type Certificate)* Continental IO-360 engine installed...." *(SDRS data base records 17 entries on this particular part number.)*



Cessna illustrated parts catalog Models 172 & 175

| FIGURE AND INDEX NO. | PART NUMBER | DESCRIPTION 1 2 3 4 5 6 7 | UNITS PER ASSY | USABLE ON CODE |
|---|---|---|---|---|
| 19- | 0591301-5 | STRUCTURE ASSEMBLY-FUSELAGE FRONT SECTION | 1 | A |
| | 0591301-12 | STRUCTURE ASSEMBLY-FUSELAGE FRONT SECTION | 1 | B |
| | 0591301-14 | STRUCTURE ASSEMBLY-FUSELAGE FRONT SECTION | 1 | C |
| | 0591302-1 | STRUCTURE ASSEMBLY-FUSELAGE FRONT SECTION | 1 | H |
| | 0591302-5 | STRUCTURE ASSEMBLY-FUSELAGE FRONT SECTION | 1 | N |
| | 0591302-3 | STRUCTURE ASSEMBLY-FUSELAGE FRONT SECTION | 1 | E |
| - 1 | 0591301-7 | FIREWALL ASSEMBLY SEE FIGURE 25 | 1 | F |
| | 0591301-13 | FIREWALL ASSEMBLY SEE FIGURE 25 | 1 | C |
| | 0591302-2 | FIREWALL ASSEMBLY SEE FIGURE 25 | 1 | H |
| | 0591302-6 | FIREWALL ASSEMBLY SEE FIGURE 25 | 1 | N |
| | 0591302-4 | FIREWALL ASSEMBLY SEE FIGURE 24A | 1 | E |
| - 2 | 0513133-1 | PANEL ASSEMBLY-STATIONARY SEE FIGURE 47 | 1 | A |
| | 0513133-42 | PANEL ASSEMBLY-STATIONARY SEE FIGURES 47 & 51B | 1 | O |
| | 0513133-52 | PANEL ASSEMBLY-STATIONARY SEE FIGURE 47 | 1 | N |
| - 3 | 0591301-3 | BULKHEAD ASSEMBLY-FRONT DOORPOST SEE FIGURE 20 | 1 | |
| - 4 | 0591301-6 | TUNNEL ASSEMBLY-FUSELAGE FORWARD SEE FIGURE 22 | 1 | A |
| | 0591301-11 | TUNNEL ASSEMBLY-FUSELAGE FORWARD SEE FIGURE 22 | 1 | G |
| - 5 | 0513131-1 | FLOORBOARD ASSEMBLY-FUSELAGE FRONT SECTION LH | 1 | |
| | 0513131-2 | FLOORBOARD ASSEMBLY-FUSELAGE FRONT SECTION RH | 1 | |
| - 6 | 0513132-4 | STRINGER ASSEMBLY-ENGINE MOUNT UPPER RH | 1 | |
| - 7 | 0513132-3 | STRINGER ASSEMBLY-ENGINE MOUNT UPPER LH | 1 | |
| | 0513132-11 | BRACKET-ENGINE MOUNT ATTACHMENT | 1 | |
| - 8 | 0513132-1 | STRINGER ASSEMBLY-ENGINE MOUNT LOWER LH | 1 | |
| | 0513132-2 | STRINGER ASSEMBLY-ENGINE MOUNT LOWER RH | 1 | |
| | 0513132-9 | BRACKET-ENGINE MOUNT ATTACHMENT LH | 1 | |
| | 0513132-10 | BRACKET-ENGINE MOUNT ATTACHMENT RH | 1 | |
| - 9 | 0513053-1 | BULKHEAD-FUSELAGE STA 8.125 LH | 1 | |
| | 0513053-2 | BULKHEAD-FUSELAGE STA 8.125 RH | 1 | |
| - 10 | 0513054-1 | BULKHEAD-RUDDER PEDAL OUTBOARD LH | 1 | |
| | 0513054-2 | BULKHEAD-RUDDER PEDAL OUTBOARD RH | 1 | |
| - 11 | 0513310-9 | SKIN-FRONT SECTION LOWER AFT | 1 | |
| - 12 | 0513002-5 | SKIN-FRONT SECTION LOWER FORWARD | 1 | |
| - 13 | 0513002-4 | SKIN-FRONT SECTION RH | 1 | F |
| | 0513002-10 | SKIN-FRONT SECTION RH | 1 | P |
| | 0513002-14 | SKIN-FRONT SECTION RH | 1 | N |
| - 14 | 0513002-3 | SKIN-FRONT SECTION LH | 1 | F |
| | 0513002-9 | SKIN-FRONT SECTION LH | 1 | L |
| - 15 | 0513002-2 | SKIN-FRONT SECTION UPPER | 1 | |
| - 16 | 0543016-1 | FITTING-NOSE GEAR LOWER | 1 | |
| | | ATTACHING PARTS | | |
| - 17 | AN3-5A | BOLT | 2 | |
| | MS20365-1032C | NUT | 2 | |
| | | ---*--- | | |
| - 18 | 0543013-1 | FITTING-NOSE GEAR UPPER | 1 | |
| | | ATTACHING PARTS | | |
| - 19 | AN4-6A | BOLT | 2 | |
| | MS20365-428C | NUT | 2 | |
| | | ---*--- | | |
| - 20 | 0513055-2 | BULKHEAD-INSTRUMENT PANEL SUPPORT RH | 1 | |
| - 21 | 0513055-1 | BULKHEAD-INSTRUMENT PANEL SUPPORT LH | 1 | |
| - 22 | 0513138-1 | BRACE-STATIONARY INSTRUMENT PANEL LH | 1 | H |
| | 0513185-1 | BRACE ASSEMBLY-STATIONARY INSTRUMENT PANEL LH | 1 | J |
| - 23 | 0513152-1 | BRACE-STATIONARY INSTRUMENT PANEL RH | 1 | |
| - 24 | 0513000-10 | ANGLE-BULKHEAD REINFORCEMENT LH | 1 | |
| | 0513000-9 | ANGLE-BULKHEAD REINFORCEMENT RH | 1 | |
| - 25 | 0513048-1 | ANGLE-LH | 1 | |
| | 0513048-2 | ANGLE-RH | 1 | |
| - 26 | 0513038-2 | ANGLE-RH | 1 | |
| | 0513038-1 | ANGLE-LH | 1 | |

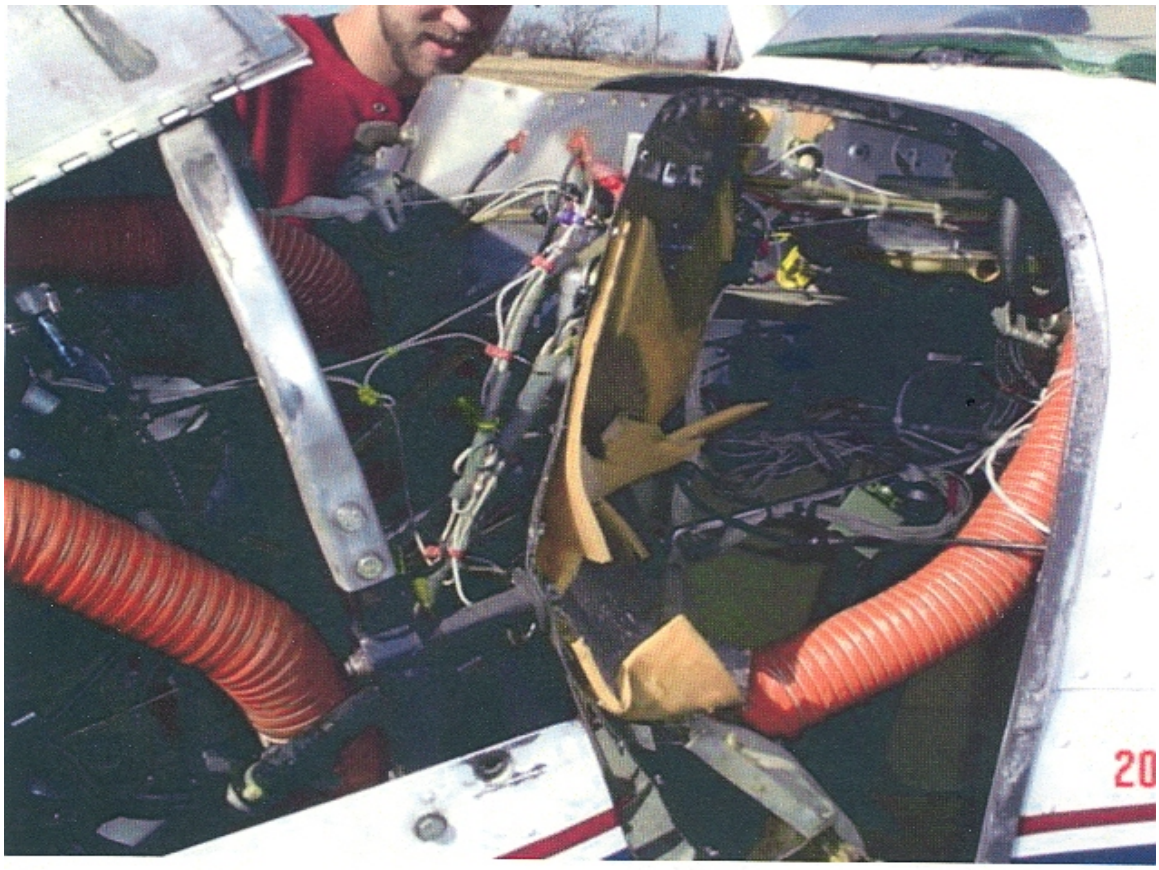
CONTINUED ON PAGE 52

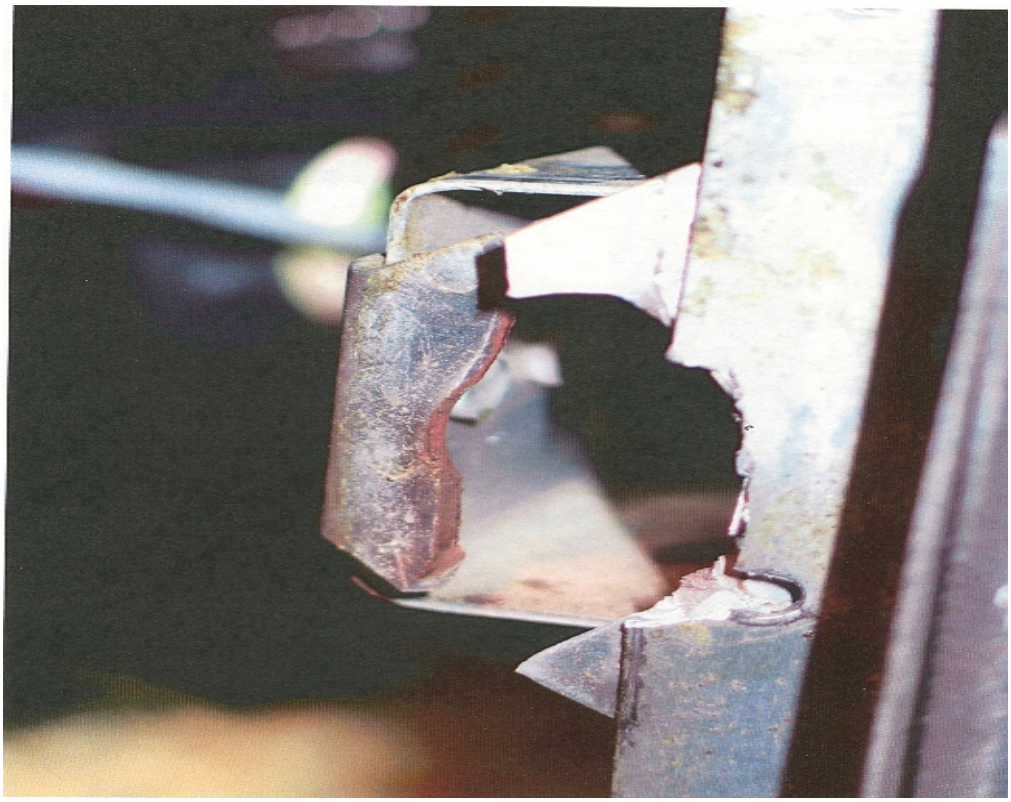
172 SERIAL 17247747 THRU 17249544

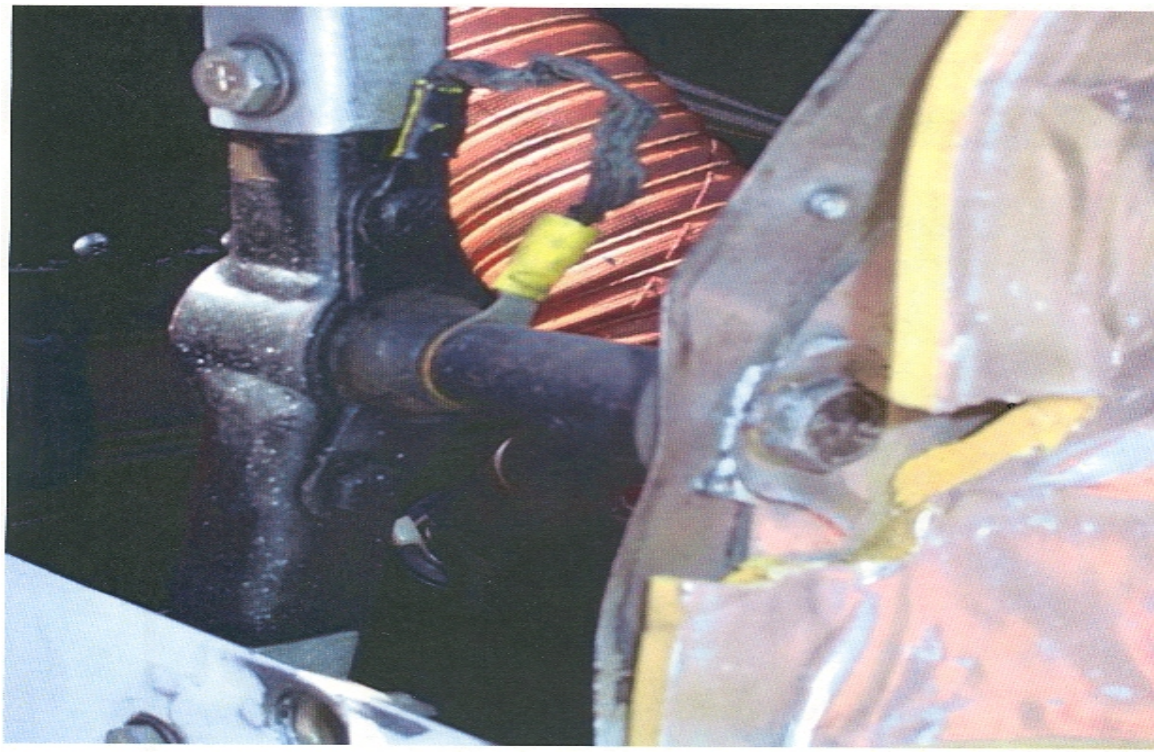
175 SERIAL 55001 THRU 17557119

*(The following pictures have been vertically compressed to conserve space.)*

2006 1 25







Part Total Time: 2,756.0 hours.

**Cessna: 402B; Broken Bellcrank Fork; ATA 3230**

"The right landing gear collapsed during a normal landing," states the submitter. *(This report gives a bellcrank assembly P/N 5041001-6...with a description of a fractured lower fork. Read on for more related failed parts.)*

Part Total Time: 10,938.6 hours

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**Cessna: 414; Collapsed Nose Landing Gear; ATA 3230**

An FAA inspector from San Antonio writes, "The nose landing gear collapsed on landing roll-out. *(During this initial investigation)* ...we were unable to find a broken part *(in the landing gear system)*, however, the linkages were worn—including parts in the gearbox. This condition could lead to insufficient over-center tension on the down-lock linkages." *(Specific part numbers were not provided at this time.)*

Part Total Time: 7,468.0 hours.

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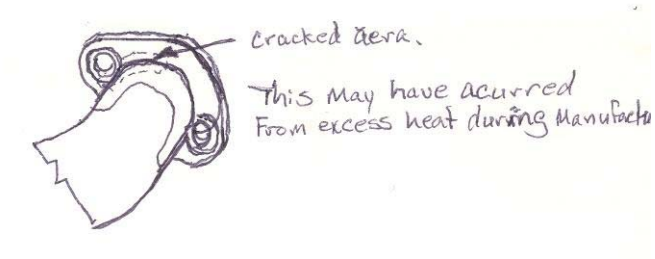
## DIAMOND

**Diamond; DA40-180; Cracked Exhaust Riser; ATA 7810**

A mechanic said he ordered a brand new exhaust riser for this aircraft's Lycoming IO360 number two cylinder. "Inspecting the riser before installation, we found a crack at the weld radius of the mount flange and the exhaust pipe.




"This is the first crack seen on new risers sent to us, but we have had two in-service risers crack at 780.4 hours *(on one aircraft)....*" *(Another aircraft is mentioned as also having experienced two cracked risers, but the time was not noted. Exhaust riser assembly P/N DA40-3. Thanks for the effort on the hand drawing. It leaves no doubt where to focus attention. Three additional entries are found in the SDRS data base.)*

Part Total Time: 0.0 hours.

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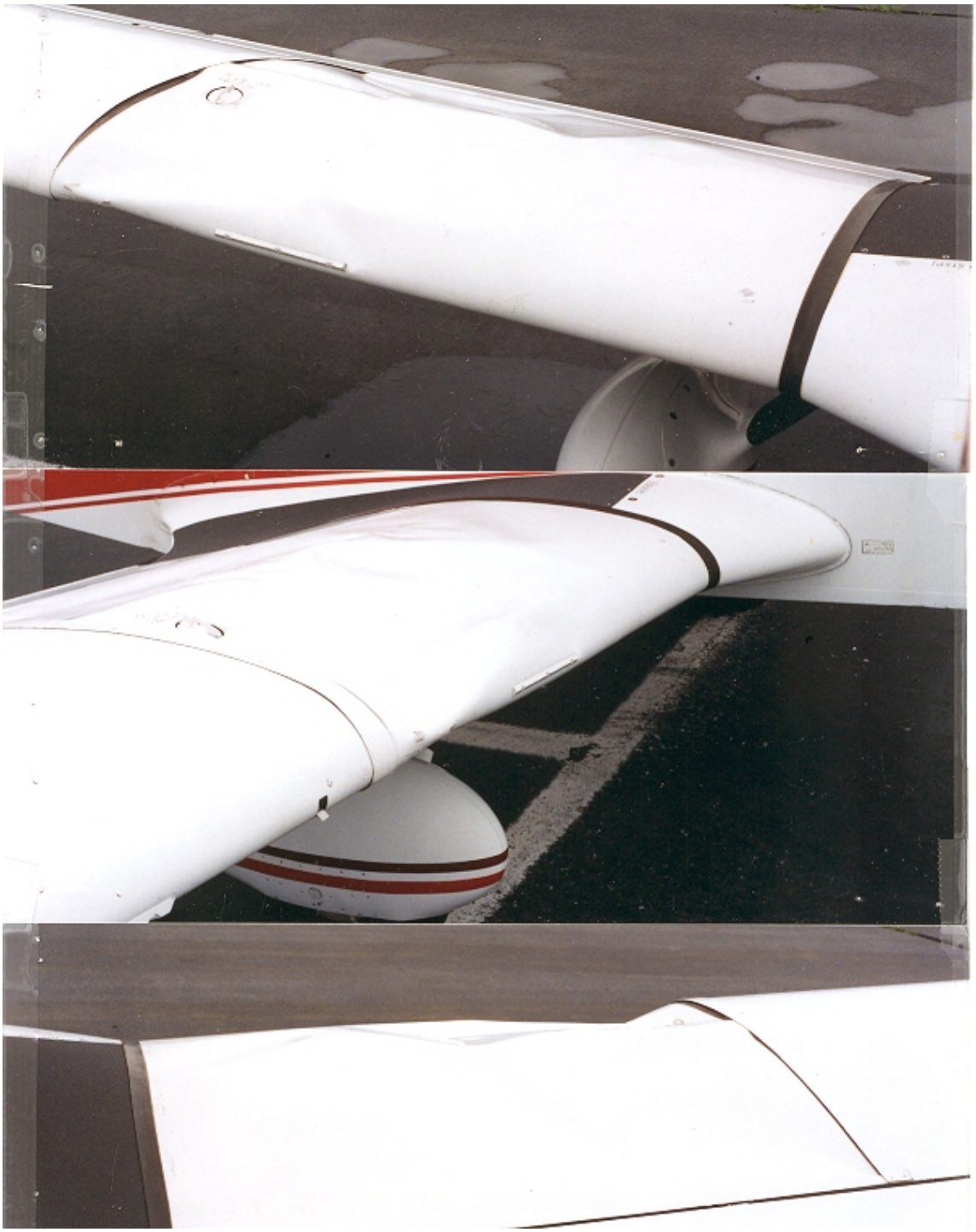
## GRUMMAN

**Grumman: AA5-A; Collapsed Wing Fuel Tank; ATA 2810**

"The right wing fuel tank collapsed during flight," states a mechanic. "A safe landing was made. We found the fuel tank vent line plugged with insect debris. *(It is recommended to...)* periodically check fuel vents for obstructions, especially when tied down on grass." *(If the following pictures don't make converts of us all, nothing will.)*

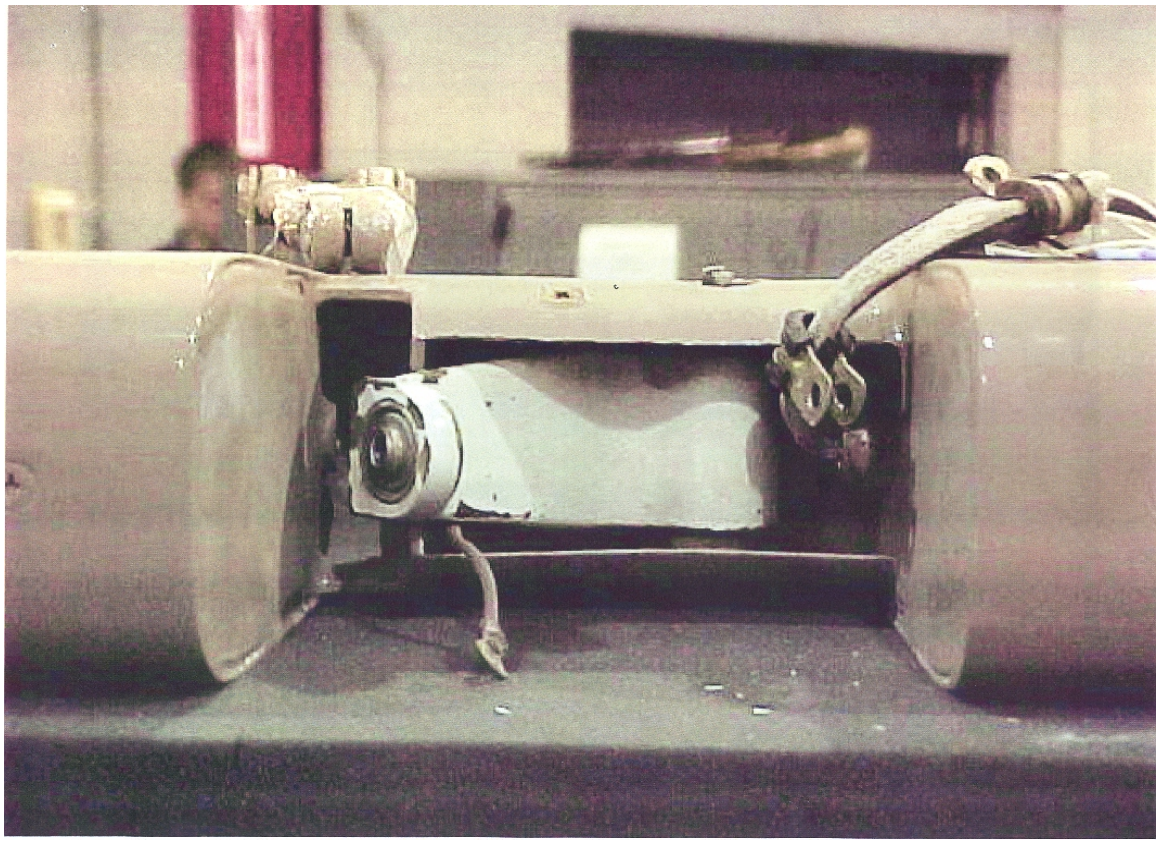


Part Total Time: (n/a).

# LEAR

## Lear: 60; Bent Aileron Drive Yoke Castings; ATA 2710

A repair station technician states, "An incoming inspection found the aileron drive yoke, attach casting—bent. Upon further inspection it was discovered the drive yoke's upper (or lower) shims were not installed. *(However)*, the drive yoke attach bolt was installed, causing the casting to be bent. *(Damage like this mandates)* replacement by OEM *(original equipment manufacturer)*. This *(error)* could have been prevented by following maintenance manual installation instructions." *(The part number given for the left aileron drive yoke attach casting: 2424000-258.)*



Part Total Time: 3,471.6 hours.

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## Lear: 35A; Cracked Trunnion Bearings; ATA 3211

A mechanic describes investigating excessive play in the main landing gear strut. "Upon strut removal we found the bearings *(P/N 16-577)* on the left and right main landing gear forward trunnions cracked *(across their width)* through the bearing race." *(Two additional entries are found in the SDRS data base.)*

Part Total Time: (unknown).

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## MOONEY

### Mooney: M20R; Burned Wire Insulation; ATA 3397

*(The following description from this repair station technician aptly demonstrates tremendous potential for significant failures in very small mistakes.)* "When troubleshooting the squawk *recognition lights—on all the time,* we found charred wire insulation in the wire harness feeding the overhead bank of switches that control the ship's exterior lighting. We traced the charred insulation to an overheated condition in the recognition light circuit. A sub-standard crimp on a wire terminal was repaired and the overheat condition *(was eliminated)*. The squawk *recognition lights—on all the time* was due to the *(burned)* insulation allowing power directly to the recognition lights, circumventing the switch." *(Electrical connector part numbers: 930021-505 and 930021-506: located behind the flight panel on the copilot's side.)*

Part Total Time: 170.0 hours.

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## PILATUS

### Pilatus; PC 12/45; Temp-Impaired Flap Actuators; ATA 2752

The submitter states, "When the aircraft is flown at very low temperatures (below-15 C) for more than 30 minutes and the flaps are *(then)* selected, the flaps *(will)* fail to move, *(causing)* a flap warning to be given on the CAWS *(caution and warning system)* panel, (*indicating)* the flaps are ... inoperative. Once the aircraft is on the ground—and at warmer temperatures, if the Flap Reset is used the flaps *(become)* functional again. Inspection reveals the flap actuators are hard to turn when cold. This is verified by performing the Current Draw test in accordance with the Pilatus Maintenance Manual (ref. 27-50-00 page 201). It is recommended the flap actuators be redesigned to tolerate the lower temperatures, or, a simpler and easier fix would be to install heaters on each flap actuator to keep them warm enough to function properly." *(Linear Flap Actuator part number 978-73-20-308; produced by Sauter, Bachmann Ltd. Two additional reports can be found in the SDRS data base on these actuators.)*

Part Total Time: 2,056.7 hours.

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## PIPER

### Piper; PA23-160; Main Gear Drag Link Failure; ATA 3230

A submitter writes, "Due to the previous failure of the right drag link, the left main landing gear drag link was removed, the paint stripped, and inspection *(performed)* with Zyglow *(dye penetrant)*. A small crack was noted extending into a weld in the same area *(where)* the other *(R/H gear)* link had broken. This drag link was replaced with a new OEM *(original equipment manufacturer)* part and the gear system checked for proper operation. Note: this aircraft had been painted recently. Detecting a crack in this area would have been impossible unless the link was stripped and Zyglow inspected." *(The L/H main gear link P/N 19043-00. Aircraft total time: 5,545.0 hours.)*

Part Total Time: (unknown).

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### Piper: PA28-161; Broken Throttle Cable; ATA 7603

"The throttle cable broke in half inside the throttle cable housing," states this submitting mechanic. "When it broke it created frayed ends that caught in the cable housing, resulting in the throttle becoming 'stuck' in the full

position." This story ends with the pilot making a successful "dead-stick" landing. The throttle cable assembly P/N provided: 455-350. *(See also mixture cable deprivations in last month's Alerts. How do we—as an industry—manage ignoring replacement of such simple, inexpensive parts? Even a lawnmower deserves occasional throttle cable replacement...look at this accumulated time!)*

Part Total Time: 9,670.0 hours.

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**Piper: PA44-180; Broken Nose Gear Drag Brace; ATA 3230**

This mechanic writes, "Upon landing and the nose gear touching down, the pilots heard a loud 'bang' from the nose area. The nose gear half-collapsed (the drag link jammed against the nose strut trunnion) and the aircraft went to the right, into a grassy area. *(Then it)* spun to the right, turning 180 degrees in a large arc, crossing back to the left side of the runway *(where it finally came to rest).* We recovered one crescent shaped fragment *(of the drag brace).*" "Probable cause *(for this failure)*: a defective drag link, bushings, or bolt at the connection point." *(The drag link/brace P/N 86280-03. The SDRS data base contains at least one similar failure.)*

Part Total Time: 251.9 hours.

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# HELICOPTERS

## GARLICK

**Garlick (Bell): 205; Broken Tail Boom Mounts; ATA 5302**

"This aircraft landed for shutdown after operating for approximately 3 flight hours," states the submitter. "The pilot remarked the aircraft was shaking during shutdown. During post flight inspection it was found the upper left hand mount hard point (P/N 205-031-821-1P) on the tail boom (P/N 205-032-800-71) was fractured and had torn through the forward tail boom bulkhead (P/N 205-030-807-123S). After removal of the tail boom from the aircraft *(facilitating replacement of the boom's hard points and bulkhead),* it was noted the lower left hand hard point (P/N 205-030-815-3) on the airframe was also cracked in 2 places, radiating from the boom mount hole to the edge of the fitting. The aircraft records do not reflect any instance of hard landing, over-torque, or other damage history. The aircraft has approximately 8,400 hours total time, and the records show the tail boom was installed approximately 5,000 hours ago (total time on the tail boom is unknown). It is suspected when the upper fitting failed inside the tail boom, the boom assembly sagged, placing excessive 'twist' on the lower left hand airframe mount—causing it to crack in two places.

Part Total Time: (unknown).

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## SIKORSKY

**Sikorsky: S76B; Chafing Fuel Line; ATA 7330**

A repair station technician states, "A fuel line from the fuel control to the fuel flow transmitter chafed approximately 30% *(into)* the wall thickness at the point where it passes through the front fire shield. Poor clamping arrangement and pass-through hole design in the fire shield are the cause of the chafing and *(this)* potential fire hazard. *(I)* suggest the manufacturer re-design the clamping *(hardware)* and pass-through holes." *(Fuel line P/N 3033606.)*

Part Total Time: (unknown).

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# POWERPLANTS

## CONTINENTAL

### Continental: IO550 D12; Broken Through-Bolt; ATA 8520

*(A Cessna A188B follows behind this engine.)*

"This broken through-bolt," says the submitter, "is located under the top of the oil cooler adapter plate, *(passing)* through to the number six cylinder—top front. It broke off flush at the cylinder base while in flight. The bolt's end—which broke off *with the cylinder base nut*—flew out of the front of the cowl, put a gouge in the face of the prop blade, and then hit the top of the cowl, leaving a large dent. When it broke, the opposite end of the bolt was forced back against the oil cooler adapter plate with such force *(the deformation penetrated)* the plate *(to its opposite,)* gasket side. This through-bolt is the replacement *(bolt)* installed last August 2005 due to the original through-bolt also breaking at the same location *(it managed 650 hours)*.

"A new cylinder base nut (P/N 652541) had been used *(in this last installation)*, and *(it was)* torqued with a calibrated torque wrench to 800 inch pounds in accordance with Teledyne Continental Motors Service Bulletin 96-7C. It is ironic both bolts broke at the same location with identical break lines, the first with 650 hours since remanufacture and the replacement with 200 hours. I contacted a TCM technical representative—he said he has seen through-bolts break like this just sitting in the TCM assembly shop overnight." *(The provided part number for the bolt given as 6416311052. It doesn't generate the expected data base response. However, the SDRS data base reflects at least 14 additional reports answering to part number 6419311075 as found in the next report. More information on this subject will be forth coming. Read also the next report.)*

Part Total Time: 200.0 hours.

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### Continental: TSIO520 NB; Broken Through-Bolt; ATA 8520

*(A pair of these engines are required to pull their Cessna 414A through the clouds.)*

"While checking the right engine over for oil leaks," writes the mechanic, "I found the *(through bolt)* nut and part of the bolt *(originating)* from the top forward number two cylinder lodged by the oil filter tube. The break *(surfaces)* on the bolt appear to be old, *(indicated)* by dark colors. Removal of the cylinder was necessary to replace the bolt *(P/N 641931-10.75)*." *(The two images below depict the same bolt. Fourteen reports on these bolts are generated by the SDRS data base.)*

Part Total Time: 828.3 hours.

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## ECI (CYLINDER)

**ECI (cylinder): IO520 series: Cracked Cylinder; ATA 8530**

The submitter for this air taxi operation writes, "I found this cylinder head cracked in the exhaust side of the head during a 50 hour inspection. This *(propensity for cylinders to crack)* is an ongoing problem with ECI cylinders." *(P/N given is ECI 71.2A. This engine is operated on a Beech A36. Five additional defect reports from the same operator all describe almost identical crack discrepancies with this ECI 71.2A part number cylinder. A Beech F-33A, 36, and 58 are the other reported host aircraft. Of the six individual cylinder time submissions, 501.0 hours was their average, with a low time of 471.9 hours and 1,147.3 hours for the high mark. Eight additional cylinders answering to this part number are found in the SDRS data base.)*

Part Total Time: 471.9 hours.

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# AIR NOTES

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

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

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

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## 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.

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## INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

The Federal Aviation Administration (FAA) Internet Service Difficulty Reporting (iSDR) web site is the front-end for the Service Difficulty Reporting System (SDRS) data base that is maintained by the Aviation Data Systems Branch, AFS-620, in Oklahoma City, Oklahoma. The iSDR web site supports the Flight Standards Service (AFS), Service Difficulty Program by providing the aviation community with a voluntary and electronic means to conveniently submit in-service reports of failures, malfunctions, or defects on aeronautical products. The objective of the Service Difficulty Program is to achieve prompt correction of conditions adversely affecting continued airworthiness of aeronautical products. To accomplish this, Mechanical Reliability Reports (MRRs), Malfunction or Defect Reports (M or Ds), or Service Difficulty Reports (SDRs) as they are commonly called, are collected, converted into a common SDR format, stored, and made available to the appropriate segments of the FAA, the aviation community, and the general public for review and analysis. SDR data is accessible through the "Query SDR data" feature on the iSDR web site at: http://av-info.faa.gov/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 data base contains records dating back to 1974. At the current time, we are receiving approximately 40,000 records per year. Reports may be submitted to the iSDR web site on active data entry form or submitted hardcopy to the address below.

The SDRS and iSDR web site point of contact is:

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

## IF YOU WANT TO CONTACT US

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

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

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

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

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

# AVIATION SERVICE DIFFICULTY REPORTS

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

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

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

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

# Federal Aviation Administration

## Service Difficulty Report Data

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

| Control Number | Aircraft Make | Engine Make | Component Make | Part Name | Part Condition |
|---|---|---|---|---|---|
| **Difficulty Date** | **Aircraft Model** | **Engine Model** | **Component Model** | **Part Number** | **Part Location** |
| 2006FA0000224 | | | MARATHON | CIRCUIT BOARD | INOPERATIVE |
| 2/28/2006 | | | | 2001012 | INVERTER |
| RECEIVED STATIC INVERTER FOR OVERHAUL. PRELIMINARY INSPECTION REVEALED THAT THE PRINTED CIRCUIT BOARD (PCB) HAD BEEN MODIFIED WITH IC SOCKETS. THE IC CHIPS WERE INSTALLED IN THE SOCKETS AND SEALED WITH A SILICONE LIKE SUBSTANCE RATHER THAN BEING SOLDERED DIRECTLY INTO THE PCB. JUMPER WIRE INSTALLED ON NON COMPONENT SIDE OF PCB. POOR (COLD) SOLDER JOINTS THROUGHOUT THE PCB NO SEALANT (CONFORMAL COATING) APPLIED TO NON COMPONENT SIDE OF PCCB AFTER REWORK. (K) | | | | | |
| 2006FA0000359 | | | | STARTER | TIGHT |
| 3/22/2006 | | | | ES6462751 | ENGINE |
| STARTER TOO TIGHT. (K) | | | | | |
| 2006FA0000348 | | | | STARTER | NOISY |
| 2/27/2006 | | | | MHB4016R | ENGINE |
| STARTER WHINING, AND WILL NOT START ENGINE. WILL START WITH HAND PROP, BUT WHINES. (K) | | | | | |
| 2006FA0000354 | | | | TURBOCHARGER | WEAK |
| 2/28/2006 | | | | 4066109005 | ENGINE |
| TURBO CHARGER WOULD NOT MAKE ENOUGH BOOST. (K) | | | | | |
| 2006FA0000351 | | | | STARTER | TIGHT |
| 3/20/2006 | | | | ES6462751 | ENGINE |
| STARTER IS TOO TIGHT AND WOULD NOT TURN. (K) | | | | | |
| 2006FA0000393 | | | | HOUSING | WORN |
| 4/11/2006 | | | | ALU1003 | ENGINE |
| THIS ALTERNATOR HAS -0- HOURS TIME-IN-SERVICE. DURING INSPECTION, PRIOR TO SALE, IT WAS DISCOVERED THAT THE ROTOR HAD EXCESSIVE LATERAL MOVEMENT AS A RESULT OF EXCESSIVE WEAR OF THE DRIVE END HOUSING BEARING BORE. THIS CONDITION WOULD HAVE LEAD TO PREMATURE FAILURE OF THE DRIVE GEAR/ALTERNATOR AND COULD HAVE LEAD TO A COMPLETE ENGINE FAILURE. HAVE SEEN THIS SAME PROBLEM IN A VERY LARGE PERCENTAGE OF THESE ALTERNATORS RETURNED TO SERVICE BY OVERHAULER. (K) | | | | | |
| 2006FA0000378 | | | | STARTER | MALFUNCTIONED |
| 3/29/2006 | | | | MHB4016 | |
| BENDIX DRIVE WOULD NOT DISENGAGE. (K) | | | | | |
| 2006FA0000227 | | | | HOUSING | WORN |
| 2/22/2006 | | | | ALU1003 | ALTERNATOR |
| THIS ALTERNATOR HAS 0 HRS TIME IN SERVICE. DURING INSPECTION OF THIS UNIT. IT WAS DISCOVERED THAT THE DRIVE-END BEARING BORE WAS .006, OVERSIZE AND THE BEARING WAS VERY LOOSE IN THE BEARING BORE. THIS END FRAME SHOULD HAVE BEEN REJECTED DURING THE OVERHAUL PROCEDED DUE TO THE | | | | | |

EXCESSIVE WEAR OF THE BEARING BORE. THIS SAME DEFECT WAS NOTED ON 2 OF THE LAST 3 UNITS RECEIVED. RECOMMENDATION INCLUDE A CLOSER INSPECTION FOR WEAR OF THE DRIVE END BEARING BORE SINCE THIS IS A FREQUENT PROBLEM WITH THIS MODEL. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000228 | | | HOUSING | OUT OF TOLERANCE |
| 3/2/2006 | | | ALU1003 | ALTERNATOR |

THIS ALTERNATOR HAS 0 HOURS. DURING INSPECTIONOF THIS UNIT PRIOR TO INSTALLING ON AIRCRAFT, IT WAS DISCOVERED THAT THE ROTOR HAD EXCESSIVE SIDE PLAY AND WAS ALLOWING THE ROTOR TO RUB AGAINST THE STATOR LAMINATIONS. THE DRIVE END BEARING BORE HAS EXCESSIVE WEAR AND THE BEARING IS LOOSE IN THE BORE. THIS CONDITION WOUD HAE RESULTED IN ALTERNATOR FAILURE AND POSSIBLY RESULTED IN ENGINE FAILURE SINCE THIS UNIT IS GEAR DRIVEN BY THE ENGINE. THIS IS THE 3RD UNIT IN 3 WEEKS FROM THIS SUPPLIER THAT HAD THIS SAME PROBLEM. RETURNED FOR EVALUATION AND WARRANTY REPLACEMENT. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000438 | | | PIN | FAILED |
| 4/17/2006 | | | BK05SL | SEAT BELT BUCKLE |

DURING DYNAMIC CERTIFICATION TESTING, 2-PLACE SIDE FACING DIVAN, THE BUCKLE ON THE AFT ANTHROPOMORPHIC TEST DUMMY (ATD) POSITION RESTRAINT SYSTEM DISENGAGED ALLOWING THE ATD TO MOVE UNRESTRAINED. PROBABLE CAUSE APPEARS TO BE FAILURE OF THE BUCKLE`S LOCKING PIN TO FULLY ENGAGE THE STRIKING PLATE (CONNECTOR) ON THE OPPOSITE HALF OF THE LAP BELT. PART MAY HAVE BEEN DEFECTIVE. MFG SHOULD IMPROVE INSPECTION PROCESS TO ENSURE THAT NO DEFECTIVE PARTS LEAVE THEIR FACILITY. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000451 | LYC | LYC | VALVE | MALFUNCTIONED |
| 5/5/2006 | O360J2A | 0360J2A | | |

NEW ENGINE IN NEW HELICOPTER. AFTER FLYING 1.5 HOURS, ENGINE WILL START POPPING AND BACKFIRING, CAUSING AN AUTOROTATION. MFG SAID IT'S A NORMAL MAINTENANCE ITEM TO REMOVE VALES AND REAM VALVE GUIDES.

| | | | | |
|---|---|---|---|---|
| 2006FA0000335 | PWA | PWA | SLEEVE | SHIFTED |
| 3/22/2006 | PT6A27 | PT6A27 | 3013132 | ENGINE |

OPERATOR ATTEMPTED TO ROTATE THE PROPELLER DURING A PREFLIGHT CHECK AND NOTED PROP SHAFT LOOSENESS AND DRAG. THE ENGINE WAS REMOVED FOR REPAIR. EXAMINATION OF THE 2ND STAGE CARRIER IN THE RGB REVEALED THAT THE SLEEVE USED TO REPAIR THE NR 5 BEARING JOURNAL HAD SHIFTED OFF OF THE JOURNAL. THERE WAS NO COLLATERAL DAMAGE DUE TO SLEEVE SHIFT.

| | | | | |
|---|---|---|---|---|
| 2006FA0000435 | AGUSTA | PWA | ROD END | SEPARATED |
| 4/11/2006 | A119 | PT6* | 109011211101 | MAIN ROTOR |

DURING DAILY INSPECTION FOUND RED BLADE MAIN ROTOR DAMPER OB ROD END HAD COME APART. BEARING HAD SEPARATED COMPLETELY FROM ROD END. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000505 | AIRBUS | GE | BEARING | WORN |
| 9/9/2005 | A340* | CFM56* | 3053519050 | POS 5,ROLLER BRG |

BEARING IS FROM SNR PRODUCTION. ROLLER BEARING WAS SENT FOR AN INSPECTION. WE COULD ONLY PERFORM A LEVEL 1 INSPECTION, WITHOUT DISASSEMBLING THE INNER RING, CAGE AND ROLLERS. DURING THE INSPECTION OF THE BEARING, NOTICED SOME HEAVY WEAR TRACES AND MARKS ON THE CIRCUMFERENCE OF DIFFERENT ROLLER. THE DIAMETER OF ONE ROLLER SHOWS AN IMPORTANT NOTCH WITH RAISED METAL ON ITS DIAMETER PARALLEL TO ITS ROTATION AXIS. ON EACH SIDE OF THE NOTCH THE DEFECT IS FOLLOWED BY A CRACK. THE TOTAL LENGTH OF THE NOTCH PLUS THE CRACK ON EACH SIDE IS ABOUT ONE THIRD OF THE ROLLER LENGTH.

| | | | | |
|---|---|---|---|---|
| 2006FA0000436 | AMD | GARRTT | PUMP | FAILED |
| 4/5/2006 | FALCON10 | TFE731* | 4005303 | LT ENGINE |

NR 1 HYDRAULIC PUMP FAILED ON TAKEOFF ROLL. REMOVED PUMP AND INSPECTED BUT FOUND NO OBVIOUS PHYSICAL DEFECTS. REMOVED HYDRAULIC SYSTEM FILTER AND INSPECTED FOR DEBRIS, NONE NOTED.

INSTALLED SERVICEABLE HYDRAULIC PUMP IN NR 1 POSITION, ALL SYSTEMS FUNCTION NORMALLY. (K)

| | | | | |
|---|---|---|---|---|
| THMN4113SQ120 | AMD | | COWLING | CRACKED |
| 5/8/2006 | FALCON20 | | MY20552302 | ENGINE |

RT UPPER ENGINE COWL AFT IB BRACKET CRACKED AT CORNER. MADE AIRWORTHY REPAIR IAW SRM 54-20-43 AND SRM 51-10-22.

| | | | | |
|---|---|---|---|---|
| 2006FA0000443 | AMD | | COWLING | SEPARATED |
| 4/19/2006 | FALCON2000 | | F2MA581200817 | LT ENGINE |

AIRCRAFT WAS RETURNING TO HOME FIELD AFTER MAINTENANCE WHEN CREW HEARD A LOUD NOISE AND ELECTED TO RETURN TO DEPARTURE. AFTER ENGINE SHUTDOWN, IT WAS DETERMINED THAT THE LT ENGINE UPPER AND LOWER COWLING HAD SEPARATED FROM THE AC IN FLIGHT. SB CONCERNING COWLING SEPARATION, HAD BEEN PREVIOUSLY APPLIED. COWL SEPARATION HAS BEEN THE SUBJECT OF PREVIOUS SERVICE ADVISORIES AND SERVICE NEWS FLASHES. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000444 | AMD | | COWLING | SEPARATED |
| 4/19/2006 | FALCON2000 | | F2MA581260813 | LT ENGINE |

AC WAS RETURNING TO HOME FIELD AFTER MAINTENANCE WHEN CREW HEARD A LOUD NOISE AND ELECTED TO RETURN TO DEPARTURE. AFTER ENGINE SHUT-DOWN, IT WAS DETERMINED THAT THE LT ENGINE UPPER AND LOWER COWLING HAD SEPARATED FROM THE AC IN FLIGHT. SB CONCERNING COWLING SEPARATION, HAD BEEN PREVIOUSLY APPLIED. COWL SEPARATION HAS BEEN THE SUBJECT OF PREVIOUS SERVICE AD AND SERVICE NEWS FLASHES. (K)

| | | | | |
|---|---|---|---|---|
| PAZR200620412 | AMD | AMD | PLUG | CORRODED |
| 4/28/2006 | FALCON20F5 | | MY201121605 | ZONE 700 |

DURING THE COURSE OF REPLACING THE LT MLG ASSEMBLY, THE TECHNICIAN, UPON VISUAL INSPECTION AFTER REMOVAL OF MLG ASSY, FOUND SIGNS OF CORROSION ON THE PLUG, P/N MY20112-1605. UPON FURTHER DISASSEMBLY, IT WAS NOTED THAT THE CORROSION HAD GONE THROUGH THE PLUG. THE SEALANT ON ONE SIDE OF THE PLUG WAS PREVENTING FUEL LEAKAGE. PART WAS ORDERED FROM MFG AND REPLACED WITH A NEW PLUG, P/N MY20112-1605-1. IT APPEARS THAT THE NEW PLUG HAS A DIFFERENT DESIGN AND PAINT PROTECTION SYSTEM; THUS AIDING IN THE PREVENTION OF FUTURE CORROSION. THE AIRCRAFT WAS MFG. IN 1979.

| | | | | |
|---|---|---|---|---|
| 2006FA0000286 | AMTR | | THROTTLE CABLE | BINDING |
| 2/27/2006 | SONEX | | | COCKPIT |

AIRCRAFT EXPERIENCED A LOSS OF POWER, AND A SUBSEQUENT FORCED LANDING RESULTING IN EXTENSIVE DAMAGE TO THE AIRCRAFT, DUE TO THE THROTTLE BEING STUCK IN THE IDLE POSITION. WHILE REDUCING POWER TO THE ENGINE PILOT EXPERIENCED BINDING IN THE THROTTLE CABLE , FURTHER ATTEMPTS TO FREE THE THROTTLE RESULTED IN THE THROTTLE BEING STUCK IN THE IDLE POSITION. FOLLOW ON INSPECTIONS OF THE CARBURETOR AND ASSOCIATED LINKAGE FOUND EXCESSIVE PLAY IN THE CABLE BETWEEN THE THROTTLE CONTROL AND THE FIREWALL. THE EXCESS SLACK IN CABLE WAS NOT SECURED OR CLAMPED CAUSING THE CABLE ASSEMBLY TO BEND WHILE MOVING THE THROTTLE AND CAUSING BINDING.

| | | | | |
|---|---|---|---|---|
| 2006FA0000500 | BBAVIA | LYC | SPAR | CRACKED |
| 4/28/2006 | 7GCBC | O320* | 271L | LT WING |

DURING WING RECOVER, FOUND LT WING FRONT SPAR WITH A CRACK ORIGINATING AT THE BUTT END, FOLLOWING THE WOOD GRAIN OB THROUGH UPPER ATTACH BRACKET HOLES AND EXTENDING APPROXIMATELY 1 INCH PAST IB MOST FUEL TANK SUPPORT BRACKET, UPPER HOLE. NO EVIDENCE OF CRACKS IN BUTT ENG SPAR DOUBLERS. TOTAL LENGTH OF CRACK APPROX 8.3750 INCHES. NO RECOMMENDATION FOR CAUSE OR RECURRENCE. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000519 | BEECH | | ACTUATOR | UNSERVICEABLE |
| 3/31/2006 | 200BEECH | | 508202085 | NOSE GEAR |

AIRCRAFT NOSE WHEEL FAILED TO EXTEND WHEN GEAR SELECTOR WAS PLACED IN DOWN POSITION. NOSE GEAR WAS OBSERVED BY TOWER PERSONNEL TO BE PARTIALLY EXTENDED BUT NOT LOCKED DOWN. PILOT

ATTEMPTED EMERGENCY EXTENSION WITHOUT SUCCESS. AIRCRAFT LANDED ON MAIN GEAR AND SLOWED AS MUCH AS POSSIBLE BEFORE LOWERING NOSE TO GROUND. AIRCRAFT SUSTAINED VERY LITTLE DAMAGE UPON LANDING. ENGINES WERE SHUT DOWN AND PROPELLERS FEATHERED PRIOR TO LOWERING NOSE. DAMAGE WAS CONTAINED TO RAYDOME, PITOT TUBES, NOSE GEAR DOORS AND PROPELLERS. AIRCRAFT WAS FURTHER DAMAGED DURING RECOVERY PHASE WHEN HOISTING STRAP BROKE AND AIRCRAFT FELL BACK TO GROUND APPROX 4 FEET CAUSING STRUCTURE DAMAGE TO AFT FUSELAGE BEHIND PRESSURE BULKHEAD.

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| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000420 | BEECH | PWA | BEECH | BUSS BAR | CORRODED |
| 4/14/2006 | 200BEECH | PT6* | | 50369101163 | RT WING |

DURING SCHEDULED INSPECTION FOUND EXCESSIVE CORROSION ON RT WS 54.80 WEB HOT BATTERY BUS PANEL BUS BAR AND FUSE HOLDERS, REQUIRING COMPONENT REPLACEMENT. AIRCRAFT PREVIOUSLY MODIFIED WITH SEALED LEAD-ACID BATTERY. HAVE NOTED SIMILAR CORROSION ISSUES ON OTHER OLDER AC MODIFIED WITH LEAD-ACID BATTERY INSTALLATIONS. RECOMMEND THAT AREAS ADJACENT TO THE BATTERY BOX SHOULD BE INSPECTED CAREFULLY FOR CORROSION EACH SCHEDULED PHASE INSPECTION, ESPECIALLY THE ELECTRICAL SYSTEM COMPONENTS, FOR AIRCRAFT RETROFITTED WITH LEAD-ACID BATTERIES. (K)

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| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000449 | BEECH | PWA | BEECH | LIGHT | BURNED OUT |
| 5/1/2006 | 200BEECH | PT6A41 | | 6900042000 | CABIN |

FLUORESCENT LIGHT ASSY FAILED AND DISPERSED SMOKE IN CABIN. POWER SUPPLY GOT HOT AND DAMAGED ADJACENT INSULATION. LIGHT ASSY WAS REPLACED WITH FACTORY NEW.

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| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000450 | BEECH | PWA | BEECH | LIGHT | BURNED OUT |
| 5/1/2006 | 200BEECH | PT6A41 | | 6900042000 | CABIN |

FLUORESCENT LIGHT ASSY FAILED AND DISPERSED SMOKE IN CABIN. POWER SUPPLY GOT HOT AND DAMAGED ADJACENT INSULATION. LIGHT ASSY WAS REPLACED WITH FACTORY NEW.

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| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000422 | BEECH | | | TUBE | BROKEN |
| 4/10/2006 | 400A | | | 45A6351771 | BLEED AIR SYS |

DURING RECURRING 400 HR INSPECTION REQUIRED BY AD, FOUND AFT FUSELAGE RT BLEED AIR DUCT ASSY. BELLOWS BRAIDED WIRE MESH BLOWN OUT OF END FITTINGS. SUSPECTED TO BE CAUSED BY BLEED AIR LEAK FROM EITHER CRACKED BELLOWS OR FATIGUE/TUBING MIS-ALIGNMENT STRESS. REPLACED TUBE ASSY WITH SUPERSEDING (PN 45A63517-075) TUBE ASSY. RECOMMEND POSSIBLE AFT FUSELAGE BLEED AIR TUBING OF OLDER PN`S HAVE A 5000 HR LIFE LIMIT. (K)

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| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000421 | BEECH | | BEECH | SCREW | WRONG PART |
| 4/10/2006 | 400A | | | MS27039109 | FLOOR PANEL |

DURING INSPECTION IAW MFG SB, FOUND BRAKE HYDRAULIC LINE DAMAGED BY FLOOR PANEL ATTACHING SCREW. REPAIRED TUBING AND MODIFIED FLOOR PANELS IAW SB. HAVE FOUND THIS SAME CONDITION ON OTHER AIRCRAFT. (K)

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| | | | | | |
|---|---|---|---|---|---|
| OMKR200600002 | BEECH | | | RIB | CRACKED |
| 5/9/2006 | 400A | | | 45A21104642 | ZONE 300 |

CRACKED ROLLER RIB ASSEMBLY.

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| | | | | | |
|---|---|---|---|---|---|
| OMKR200600003 | BEECH | | | RIB | CRACKED |
| 5/10/2006 | 400A | | | 45A21104641 | HORIZ STAB |

CRACKED ROLLER RIB SUPPORT.

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| | | | | | |
|---|---|---|---|---|---|
| 79965 | BEECH | | | HUB | CORRODED |
| 4/4/2006 | 58 | | | E71693 | PROPELLER |

HUB CORRODED BEYOND REPAIR IAW MFG OVERHAUL MANUAL.

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| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000486 | BEECH | | | GASKET | SWOLLEN |
| 5/11/2006 | 58 | | | 331996 | WHEEL WELL |

THE FUEL FILTER GASKETS SWELLED CAUSING THE FUEL FILTERS TO LEAK A LARGE AMOUNT OF FUEL OB WHILE IN FLIGHT. THE PILOT WAS UNAWARE OF THE LOSS OF FUEL UNTIL AFTER LANDING. APPARENTLY GASKETS ARE NOT COMPATIBLE WITH CURRENT BLENDS OF 100LL. WAS TOLD BY MFG TECHS THAT LOCAL AVGAS MAY HAVE LARGER AMOUNTS OF BENZENE AND TOULENE AND MAY BE CAUSING THE SWELLING OF THE GASKETS. THIS PROBLEM HAS OCCURRED MULTIPLE TIMES. PROBLEM UNRESOLVED AT THIS TIME.

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| | | | |
|---|---|---|---|
| 2006FA0000487 | BEECH | GASKET | SWOLLEN |
| 5/11/2006 | 58 | 331996 | WHEEL WELL |

THE FUEL FILTER GASKETS SWELLED CAUSING THE FUEL FILTERS TO LEAK A LARGE AMOUNT OF FUEL OVERBOARD WHILE IN FLIGHT. THE PILOT WAS UNAWARE OF THE LOSS OF FUEL UNTIL AFTER HE LANDED. APPARENTLY GASKETS ARE NOT COMPATIBLE WITH CURRENT BLENDS OF 100LL. WAS TOLD BY MFG TECHS THAT LOCAL AVGAS MAY HAVE LARGER AMOUNTS OF BENZENE AND TOULENE AND MAY BE CAUSING THE SWELLING OF THE GASKETS. THIS PROBLEM HAS OCCURRED MULTIPLE TIMES. PROBLEM UNRESOLVED AT THIS TIME.

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| | | | |
|---|---|---|---|
| 2006FA0000488 | BEECH | GASKET | SWOLLEN |
| 5/11/2006 | 58 | 331996 | WHEEL WELL |

THE FUEL FILTER GASKETS SWELLED CAUSING THE FUEL FILTERS TO LEAK A LARGE AMOUNT OF FUEL OVERBOARD WHILE IN FLIGHT. THE PILOT WAS UNAWARE OF THE LOSS OF FUEL UNTIL AFTER HE LANDED. APPARENTLY GASKETS ARE NOT COMPATIBLE WITH CURRENT BLENDS OF 100LL. WAS TOLD BY RAYTHEON TECHS THAT LOCAL AVGAS MAY HAVE LARGER AMOUNTS OF BENZENE AND TOULENE AND MAY BE CAUSING THE SWELLING OF THE GASKETS. THIS PROBLEM HAS OCCURRED MULTIPLE TIMES. PROBLEM UNRESOLVED AT THIS TIME.

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| | | | | |
|---|---|---|---|---|
| 2006FA0000538 | BEECH | CONT | CAMSHAFT | WORN |
| 5/10/2006 | 58 | IO520CB | | ENGINE |

COMPRESSION CHECKED ENGINE, NR 2 CYLINDER 40/80. REMOVED NR 2 CYL FOR REPAIR. INSP INSIDE OF ENG, FOUND NR 1 CYL EXHAUST LIFTER/CAM LOBE BADLY WORN. UNKNOWN HOW LONG IT HAS BEEN LIKE THIS, KNOW IT WOULD NOT HAVE LASTED TOO MUCH LONGER. REBUILT/ZERO TIMED. AIRPLANE SHOWN TO HAVE FLOWN AS LITTLE AS 5 HRS IN 9 MONTHS. SUSPECT TOO LONG PERIOD BETWEEN ENGINE RUNS, LOSING OIL FILM ON LIFTER/LOBE CONTACT, MAYBE LITTLE CORROSION, CAUSING METAL /METAL WEAR AND (GALLING) BEARING SURFACES. HAVE BEEN PULLING WAY TOO MANY CYLINDERS LATELY DUE TO LONG PERIODS OF STORAGE OF AIRCRAFT THAT WERE NOT PRESERVED FOR STORAGE. (K)

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| | | | | |
|---|---|---|---|---|
| 2006FA0000455 | BEECH | CONT | CYLINDER | CRACKED |
| 4/18/2006 | 58 | IO550* | AEC65385 | LT ENGINE |

NR 2 CYLINDER COMPLETELY CRACKED ALL THE WAY AROUND AFT OF VALVES. (LT ENGINE) (K)

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| | | | | |
|---|---|---|---|---|
| 2006FA0000457 | BEECH | CONT | CYLINDER | CRACKED |
| 4/18/2006 | 58 | IO550* | AEC65385 | LT ENGINE |

NR 4 CYLINDER CRACKED AFT OF VALVES. (STILL HAD GOOD COMPRESSION BUT COULD HEAR AIR) (LT ENGINE) (K)

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| | | | | |
|---|---|---|---|---|
| 2006FA0000454 | BEECH | CONT | CYLINDER | CRACKED |
| 4/18/2006 | 58 | IO550* | AEC65385 | LT ENGINE |

NR 5 CYLINDER CRACKED AFT OF VALVES. (STILL HAD GOOD COMPRESSION BUT COULD HEAR AIR) (LT ENGINE) (K)

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| | | | | |
|---|---|---|---|---|
| 2006FA0000456 | BEECH | CONT | CYLINDER | CRACKED |
| 4/18/2006 | 58 | IO550* | AEC65385 | LT ENGINE |

NR 6 CYLINDER CRACKED AFT OF VALVES. (STILL HAD GOOD COMPRESSION COULD HEAR AIR.) (LT ENGINE) (K)

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| | | | | |
|---|---|---|---|---|
| 2006FA0000453 | BEECH | CONT | CYLINDER | CRACKED |
| 4/18/2006 | 58 | IO550C | AEC65385 | RT ENGINE |

NR 1 CYLINDER CRACKED AT SPARK PLUG HOLE. (RT ENGINE) (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000511 | BEECH | CONT | LINE | CHAFED |
| 5/4/2006 | 58 | IO550C | 9696001123 | ENGINE |

2 LINES CHAFFING TOGETHER. NEED TO SEPARATE THE LINES. LOW OIL PSI IN FLIGHT. PILOT SHUTOFF ENGINE IN FLIGHT AND LANDED THE AIRCRAFT. REMOVED AND REPLACED THE LINE. (K)

| | | | | |
|---|---|---|---|---|
| EY2R0079965 | BEECH | | HUB | CORRODED |
| 4/21/2006 | 58P | | E71693 | PROPELLER |

CORROSION ON PROPELLER HUB.

| | | | | |
|---|---|---|---|---|
| PAI5200604049 | BEECH | CLEVELAND | PLATE | CRACKED |
| 4/17/2006 | 95B55 | | 7540 | RT BRAKE |

DURING ANNUAL INSPECTION FOUND RT BRAKE TORQUE PLATE CRACKED .7500 OF THE LENGTH OF THE CALIPER PIN BORE.

| | | | | |
|---|---|---|---|---|
| 2006FA0000423 | BEECH | LYC | DRAG BRACE | BROKEN |
| 4/19/2006 | A24R | IO360A1A | 1698200111 | NLG |

THE AIRCRAFT TOUCHED DOWN UNEVENTFUL. DURING ROLLOUT, THE NOSE GEAR COLLAPSED ABOUT 1500 FT AFTER TOUCHDOWN. THE DRAG BRACE FAILED AT THE YOKE WHERE IT ATTACHES TO THE NOSE GEAR. (K)

| | | | | |
|---|---|---|---|---|
| PAI5200503774 | BEECH | BEECH | BRACKET | CRACKED |
| 10/19/2005 | A36 | | 354100779 | ZONE 700 |

DURING ANNUAL INSPECTION, FOUND LT NOSE GEAR DOOR RETRACT BRACKET CRACKED COMPLETELY THROUGH ON ONE SIDE. NOSE GEAR RETRACT ROD ATTACHES TO THIS BRACKET, WHICH IS RIVETED TO THE NOSE GEAR DOOR.

| | | | | |
|---|---|---|---|---|
| 2006FA0000489 | BEECH | CONT | CYLINDER | SEPARATED |
| 5/3/2006 | A36 | IO550B | AEC631397 | ENGINE |

NR 2 CYLINDER HEAD (SN 2253724) SEPARATION WITH 170.2 TOTAL SINCE NEW. NR 6 CYLINDER HEAD (SN 223899) SEPARATION WITH 171.7 TOTAL SINCE NEW. AD 2004-08-10 N/A TO SN. RECOMMEND ALL SN`S APPLICABLE AND REOCCURING CHECKS FOR ECI CYLINDERS USING M 91-6. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000464 | BEECH | | BOLT | CRACKED |
| 5/9/2006 | B36TC | | 130909B103 | WING ATTACH |

MAG PART INSP FOUND FWD WING ATTACH POINTS BOLT P/N 130909B103 AND 131790-3 WITH CRACKS. THE BOLTS WERE INSTALLED NEW IN FWD WING BOLT FITTINGS ON BEECH MODEL 36 SERIES AIRCRAFT S/N EA-455 ON 1/25/2002. THE LH UPPER BOLT (P/N 130909B103) WAS REMOVED FOR IT'S FIRST 5 YEAR NDT INSPECTION AND WAS CRACKED AT THE HEAD RADIUS USING MAG PART NDT PROCESS. PART TOTAL TIME 142 HRS SINCE INSTALLED. NO DAMAGE NOTED ON THE ASSOCIATED WING FITTING THAT WOULD INDICATE A CONTRIBUTING STRESS CONDITION. THE RT LOWER WING BOLT ON THE OPPOSITE SIDE OF THE A/C WAS ALSO CRACKED IN THE SAME LOCATION. THIS BOLT IS A DIFFERENT P/N (131790-3). BEECH TECH SUPPORT WAS GIVEN THE BOLTS & INFO FOR EVALUATION.

| | | | | |
|---|---|---|---|---|
| 2006FA0000465 | BEECH | | BOLT | CRACKED |
| 5/9/2006 | B36TC | | 1317903 | WING ATTACH |

MAG PART INSP FOUND FWD WING ATTACH POINTS BOLT P/N 130909B103 AND 131790-3 CRACKED. BOLTS INSTALLED NEW IN FWD WING BOLT FITTINGS ON BEECH MODEL 36 SER A/C S/N EA-455 ON 1/25/2002. THE LT UPPER BOLT (P/N 130909B103) REMOVED FOR FIRST 5 YEAR NDT INSPECTION AND WAS CRACKED AT THE HEAD RADIUS. USED MAG PART INSP. TTSN 142 HRS. NO DAMAGE WAS NOTED ON THE ASSOCIATED WING FITTING THAT WOULD INDICATE A CONTRIBUTING STRESS CONDITION. RT LOWER WING BOLT ON THE OPPOSITE SIDE OF THE A/C ALSO CRACKED IN SAME LOCATION. THIS BOLT IS A DIFFERENT P/N (131790-3). BEECH TECH SUPPORT GIVEN BOLTS AND ALL THE INFO PERTINENT TO THESE PARTICULAR BOLTS FOR EVALUATION. OPERATING

CONDITIONS OF THE AIRCRAFT ARE UNKNOWN.

| | | | | |
|---|---|---|---|---|
| 2006FA0000252 | BEECH | | BOOT | MISMANUFACTURED |
| 2/22/2006 | B90 | | SMR20142112 | WINGS |

ON INSTALLATION OF NEW LT AND RT WING DE-ICE BOOTS, PMA P/N SMR2014-21-1, -2, WAS DISCOVERED AIR INLET TUBES ARE INSTALLED IN WRONG LOCATION, MAKING IT IMPOSSIBLE TO MATCH BOOT CENTERLINE WITH LE CENTERLINE. OEM DRAWINGS SHOW 1 INCH FROM BOOT CENTERLINE TO INLET TUBE CENTERLINE. SMR BOOTS HAVE 1.5625 INCH. ONLY WAY THIS BOOT CAN BE INSTALLED IS TO SHIFT ENTIRE BOOT UP ON WING AT LEAST .5626 INCH. CAUSES CONCERN FOR CHANGE IN STALLING SPEED AT SLOW FLIGHT WITH BOOTS INFLATED. SMR HAS SOLD APPROX 20 UNITS WITH NO COMPLAINTS. SEVERAL MECHANICS (THAT IS JUST REF LINE ON BOOT, GO AHEAD AND GLUE THEM ON). SMR HAS BEEN VERY HELPFUL AND CONCERNED. OEM BOOTS WERE PURCHASED, INSTALLED. SMR BOOTS WERE RETURNED.

| | | | | |
|---|---|---|---|---|
| 2006FA0000251 | BEECH | | BOOT | MISLOCATED |
| 2/22/2006 | B90 | | SMR20142112 | WINGS |

UPON INSTALLATION OF NEW LT AND RT WING DE-ICE BOOTS WITH NEW PMA P/N SMR2014-21-1, AND -2, IT WAS DISCOVERED THE AIR INLET TUBES ARE INSTALLED IN THE WRONG LOCATION, MAKING IT IMPOSSIBLE TO MATCH THE BOOT CENTERLINE WITH THE LE CENTERLINE. MFG AND OEM DRAWINGS SHOW 1 INCH FROM BOOT CENTERLINE TO INLET TUBE CENTERLINE. SMR BOOTS HAVE 1.5625 INCH. THE ONLY WAY THIS BOOT CAN BE INSTALLED IS TO SHIFT THE ENTIRE BOOT UP ON THE WING AT LEAST .5625 INCH. THIS CAUSES CONCERN FOR CHANGE IN STALLING SPEED AT SLOW FLIGHT WITH THE BOOTS INFLATED. SMR HAS BEEN VERY HELPFUL AND CONCERNED. OEM BOOTS WERE PURCHASED AND INSTALLED. SMR BOOTS WERE RETURNED.

| | | | | |
|---|---|---|---|---|
| 2006FA0000463 | BEECH | | WHEEL | CRACKED |
| 4/27/2006 | C90A | | 300257 | MLG |

CRACKED IB WHEEL HALF CAUSING LOSS OF TIRE AIR PRESSURE. NOTE: THIS WAS A BRAND NEW PART ON A NEW AIRPLANE. NOT AN OVERHAULED PART (SEE 5(I) AND 6(I)

| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000430 | BEECH | CONT | | MOUNT | CRACKED |
| 3/31/2006 | D35 | E2258 | | 34415377 | ENGINE |

MOUNT WAS CROOKED IN WELD. THINK IT HAPPENED DUE TO TIME ON PORT AND AGE OF AIRCRAFT. CLOSE INSPECTION OF THIS AREA DURING ROUTINE MAINTENANCE (UPPER LT, MOUNT CLUSTER/ WEB .1250 INCH CRACK). (K)

| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000524 | BEECH | | CONT | PUMP | BROKEN |
| 5/21/2006 | F33A | | | 1U478003 | ENGINE |

VACUUM PUMP FAILURE INFLIGHT - FIRST NOTICED ATTITUDE CHANGE (STARTED DECENDING RAPIDLY) (AUTOPILOT ENGAGED)

| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000527 | BEECH | CONT | CONT | PUMP | FAILED |
| 5/21/2006 | F33A | IO520B | | 1U478003 | ENGINE |

VACUUM PUMP FAILURE INFLIGHT, FIRST NOTICED ATTITUDE CHANGE (STARTED DECENDING RAPIDLY) (AUTOPILOT ENGAGED).

| | | | | |
|---|---|---|---|---|
| 2006FA0000492 | BELL | | COUPLING | FAILED |
| 3/2/2006 | 206B | | 5001908 | HYD PUMP |

HYDRAULIC PUMP TACH DRIVE COUPLING BRAZE WELDING FAILED, CAUSING COUPLING TO SEPARATE FROM DRIVE GEAR SHAFT. MFG SHOULD CHECK THE STRENGTH OF BRAZE AFTER WELDING. WHEN THIS COUPLING FAILS, LOSS OF ROTOR TACH OCCURS. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000490 | BELL | ALLSN | COUPLING | SEPARATED |
| 3/2/2006 | 206B | 250C20 | 5001908 | HYD PUMP |

HYDRAULIC PUMP TACH DRIVE COUPLING BRAZED WELDING FAILED CAUSING COUPLING TO SEPARATE FROM DRIVE GEAR SHAFT. MFG SHOULD CHECK THE STRENGTH OF BRAZE AFTER WELDING. WHEN THIS COUPLING

FAILS, LOSS OF ROTOR TACH OCCURS. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000491 | BELL | ALLSN | COUPLING | FAILED |
| 3/2/2006 | 206B | 250C20B | 5001908 | HYD PUMP |

HYDRAULIC PUMP TACH DRIVE COUPLING BRAZED WELDING FAILED CAUSING COUPLING TO BECOME LOOSE. MFG SHOULD CHECK THE STRENGTH OF BRAZE AFTER WELDING. WHEN THIS COUPLING FAILS, LOST OF ROTOR TACH OCCURS. (K)

| | | | |
|---|---|---|---|
| YTRR109168 | BELL | GEARBOX | CRACKED |
| 5/4/2006 | 206L4 | 206033426001A | TAIL ROTOR |

DURING ROUTINE 100-HOUR AIRFRAME INSPECTION, FOUND TAIL ROTOR GEARBOX CASTING CRACKED.

| | | | |
|---|---|---|---|
| DU4R2006367 | BOEING | SKIN | DENTED |
| 4/12/2006 | 727223 | | RT WING SLAT |

S/O 304001, N/R 23584 - RT WING NR 5 SLAT TOPSIDE L/E DENTED. CUT OUT DENT THAT WAS OUT OF LIMITS. FABRICATED AND INSTALLED REPAIR SKIN DOUBLER 5.5 INCH X 5.5 INCH FROM 2024-T3 .016 AND 2 EA. SKIN REPAIR DOUBLERS 4.1 INCH X 4.1 INCH AND 1.6 INCH X 1.6 INCH 2024-T3 .040 IAW SRM 55-50-3 FIG. 1, AND 51-30-2.

| | | | |
|---|---|---|---|
| DU4R2006368 | BOEING | AILERON | DENTED |
| 4/12/2006 | 727223 | | RT WING |

S/O 304001) N/R 24581, RT WING IB AILERON NUMEROUS DENTS. REMOVED DENTED SKIN. FABRICATED AND INSTALLED REPAIR SKIN DOUBLER 5.5 INCH X 5.5 INCH FROM 2024-T3 .016 AND 2 EA. SKIN REPAIR DOUBLER 24 INCH X 54 INCH FROM 2024-T3 .040 IAW SRM 51-10-2 AND 51-30-2.

| | | | |
|---|---|---|---|
| DU4R2006364 | BOEING | SEAT TRACK | CORRODED |
| 4/12/2006 | 727223 | 656426110 | FUSELAGE |

S/O 304001) N/R 21656, CORROSION ON LT OB SEAT TRACK AT BS 1080. MECHANICALLY REMOVED CORROSION FOUND OUT OF LIMITS. REMOVED AND REPAIRED SEAT TRACK WITH P/N 65-64261-10 IAW SRM 51-30-2.

| | | | |
|---|---|---|---|
| DU4R2006366 | BOEING | SKIN | GOUGED |
| 4/12/2006 | 727223 | | FUSELAGE |

S/O 304001) N/R 21743, 2 GOUGES IN SKIN ON LT SIDE OF FS 460 AND 4 INCHES BELOW S-14 BELOW NR 5 WINDOW. FABRICATED AND INSTALLED 2 EA. DOUBLERS 4.5 INCH AND 4.3 DIAMETER FROM 2024-T3 .071 AND 1 EA, .7500 INCH DIAMETER FROM 2024-T3 .050 IAW SRM 53-30-3 FIG. 13, MM 25-21-01.

| | | | |
|---|---|---|---|
| DU4R2006369 | BOEING | FRAME | CORRODED |
| 4/12/2006 | 727223 | 6523369 | FUSELAGE |

S/O 304001) N/R 24783 CORROSION FOUND INSIDE THE HOLE OF UPLOCK HOOK INSTALL FITTING BOTH FWD AND AFT SIDE. REMOVED 2 EA BUSHINGS (REPAIR SLEEVES) IAW SOPM 32-32-51. REWORKED FRAME HOLE 9 IAW OHM 32-37-02 AND SRM 51-10-1. FABRICATED AND INSTALLED 2 EA. REPAIR SLEEVES IAW OHM 32-37-02 FIG. 404, 405 AND SOPM 20-50-3. REINSTALLED UPLOCK FRAME AND UPLOCK ASSY IAW MM 32-32-51.

| | | | |
|---|---|---|---|
| DU4R2006365 | BOEING | FLOOR SUPPORT | CORRODED |
| 4/12/2006 | 727223 | | FUSELAGE |

S/O 304001) N/R 21660, CORROSION ON FLOOR SUPPORT THAT ATTACHES TO CUSP WEB AT BS 1070 - 1030 LT. MECHANICALLY REMOVED CORROSION FOUND OUT OF LIMITS. CUT AND TRIMMED CORRODED SECTION. FABRICATED AND INSTALLED FLOOR SUPPORT ANGLES 88.0 INCH X 4.50 FROM 7075-T6 .080 AND 10.0 INCHES X 1.80 INCHES X 1.50 INCHES 7075-T6 .090 IAW SRM 51-30-2.

| | | | |
|---|---|---|---|
| DU4R200636 | BOEING | FLOOR SUPPORT | CORRODED |
| 4/12/2006 | 727223 | | FUSELAGE |

S/O 304001) N/R 21660, CORROSION ON FLOOR SUPPORT THAT ATTACHES TO CUSP WEB AT BS 1070 - 1030 LT. MECHANICALLY REMOVED CORROSION FOUND OUT OF LIMITS. CUT AND TRIMMED CORRODED SECTION.

FABRICATED AND INSTALLED FLOOR SUPPORT ANGLES 88.0 INCHES X 4.50 FROM 7075-T6 .080 AND 10.0INCHES X 1.80 INCHES X 1.50 INCHES 7075-T6 .090 IAW SRM 51-30-2.

| | | | |
|---|---|---|---|
| DU4R2006359 | BOEING | FLAP | DELAMINATED |
| 4/12/2006 | 727223 | | LT WING |

S/O 304001 N/R 21634 - LT IB FORE FLAP UPPER SIDE HAS DISBOND AFT OF CENTER ACCESS PANEL. CUT OUT DISBONDED UPPER SKIN AND HONEYCOMB. FABRICATED AND BONDED DOUBLERS 13-5/8" X 11" AND 12-1/2" X 11-1/4" AND 9-1/4" X 8? X 5" X 5" X 5" FROM 2024-T3 .016 AND AND 2 EA. HONEYCOMB REPAIRS 9-1/4" X 5" X 5" X 5" X 8" FROM BMS4-4 IAW B727 SRM 57-50-2 PG. 5, 51-40-20 PG. 15, 22, 23, 44 - 47, 53-57, 59, 62 AND 51-40-23 PG. 1-8.

| | | | |
|---|---|---|---|
| DU4R2006358 | BOEING | TAB | DELAMINATED |
| 4/12/2006 | 727223 | | RT AILERON |

S/O 304001; NR 21453 - RT IB AILERON TAB DELAMINATED AT LOWER SURFACE OUTER L/E AREA. CUT OUT DISBONDED SKIN. FABRICATED AND BONDED DOUBLER 10.5 X 3.7500 INCH X 9 X 3.5 X 2.2500 INCH AND FILLER 8 INCH X 1.7500 INCH X 7.2500 INCH X 1 INCH X 1 INCH FROM 2024-T3, .012 IAW SRM 51-40-20 PG. 14, 15, 42 - 47 AND 62, 51-60-3 AND 51-80-3.

| | | | |
|---|---|---|---|
| DU4R2006363 | BOEING | SEAT TRACK | CORRODED |
| 4/12/2006 | 727223 | BAC1518338 | FUSELAGE |

S/O 304001, N/R 21653 - CORROSION ON IB SIDE OF SEAT TRACK ALONG RADIUS AT BS 1090 - 1030 LBL 40. CUT OUT CORRODED AREA OF SEAT TRACK. FABRICATED AND INSTALLED SEAT TRACK REPAIR 18 INCHES X 3.5 FROM BAC1520-792 IAW SRM 51-30-2, 51-20-2 AND 51-10-1.

| | | | |
|---|---|---|---|
| DU4R2006362 | BOEING | FLOORBEAM | CORRODED |
| 4/12/2006 | 727223 | BAC1518338 | FUSELAGE |

S/O 304001) N/R 21652 - CORROSION ON BS 1070 LBL 10 FLOOR BEAM. CUT OUT CORRODED AREA. FABRICATED AND INSTALLED FLOORBEAM REPAIR 22.20 INCHES FROM BAC1505-100617 7075-T73 AND 22.20 INCHES FROM BAC1490-2831 7075-T6 IAW SRM 53-10-8 FIG. 8, AND 51-10-1.

| | | | |
|---|---|---|---|
| DU4R2006360 | BOEING | FLAP | CHAFED |
| 4/12/2006 | 727223 | | LT WING |

S/O 304001) N/R 21637 - LT IB FORE FLAP UNDER SIDE LEADING EDGE 8 INCHES FROM OB END HAS CHAFED AREA. BLENDED CHAFED AREA, FOUND OUT OF LIMITS, FABRICATED AND INSTALLED DOUBLER 3.750 INCHES X 6.0 INCHES FROM 2024-T3 .063 IAW SRM 57-50-04 PG. 2-3.

| | | | |
|---|---|---|---|
| DU4R2006361 | BOEING | FLAP | DEBONDED |
| 4/12/2006 | 727223 | | LT WING |

S/O 304001) N/R 21640 - LT IB FT FLAP IB END HAS AREA OF DEBOND. REPAIRED BY CLEANING, PREPPED AND REPAIRED IAW SRM 51-40-21 FIG. 1.

| | | | |
|---|---|---|---|
| DU4R2006370 | BOEING | SKIN | DELAMINATED |
| 4/14/2006 | 727223 | | RT WING,FOREFLAP |

NR 24718 DENTED AND DISBONDED RT IB FORE FLAP UPPER SKIN 19 INCHES FROM IB EDGE. REPAIRED DENTED AND DISBONDED RT IB FORE FLAP UPPER SKIN 19 INCHES FROM IB EDGE BY CUTTING OUT DELAMINATED AREA, APPROX 5 INCHES IN DIAMETER. FABRICATED AND INSTALLED DOUBLER AND FILLER 8 INCHES DIAMETER AND 5 INCHES FROM 2024-T3 .016 IAW SRM 51-40-20 PARA. 7, 8, 10, 14, 15, 18, 20, 21, 22.

| | | | | |
|---|---|---|---|---|
| DU4R2006373 | BOEING | PWA | DISC | UNSERVICEABLE |
| 4/16/2006 | 727223 | JT8D | | ENGINE |

S/O 304001 NR 24710 C-1 DISK REQUIRES REPLACEMENT. PERFORMED VIBRATION CHECK ON NR 1 ENGINE AFTER C-1 DISK REPLACEMENT IAW P/W MM 72-00-00, PG. 571 TEST I AND MM 71-00-00 PG. 500. FOUND ALL VALVES WITHIN LIMITS.

| | | | | |
|---|---|---|---|---|
| DU4R2006371 | BOEING | PWA | SKIN | DELAMINATED |

| | | | | |
|---|---|---|---|---|
| 4/14/2006 | 727223 | JT8D | | LT FLAP |

N/R 24751) FOUND SMALL AREA OF DELAMINATION OF UPPER IB SKIN LT IB FORE FLAP. CUT OUT DELAMINATED (DISBONDED) AREA ON UPPER SKIN LT IB FORE FLAP. FABRICATED AND BONDED DOUBLER 6.5 X 5.6250 INCH AND FILLER 3.3750 INCH X 1.2500 INCH FROM 2024-T3 .016 IAW SRM 57-50-2 PG. 5, 51-40-20 PG. 11-16, 42-47, 57-59, AND 62.

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| | | | | |
|---|---|---|---|---|
| DU4R2006372 | BOEING | PWA | SKIN | TORN |
| 4/14/2006 | 727223 | JT8D* | | RT STABILIZER |

NR 24794 FOUND RT HORIZ STAB. T/E UPPER SKIN TORN BOTH IB AND OB SIDE OF NR3 BALANCE BAY STAB. STA. 157 AND 195 AFT OF AFT SPAR. CUT OUT TORN SKIN OF RT HORIZ. STAB. T/E BOTH IB AND OB END OF NR3 BALANCE BAY. FABRICATED AND INSTALLED DOUBLERS 10.8 X 5.3 INCHES, 4.7 X 4.6 INCHES AND 3.8 X .7 INCHES FROM 2024-T3 .032 IAW SRM 51-40-20 FIG. 1.

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| | | | |
|---|---|---|---|
| SROM200600001 | BOEING | LONGERON | CRACKED |
| 3/29/2006 | 737205 | 652072623 | FUSELAGE |

DURING HEAVY MAINTENANCE INSPECTION FOUND CRACKS IN UPPER FLANGE RADIUS OF LONGERON/WEB P/N 65-20726-23 AT STA 455 AND 470, STR 26R. REMOVED WEB BETWEEN STA 440 - 493, FABRICATED REPLACEMENT WEB WITH 7075-T6 .063, IN LIEU OF ORIGINAL .056, AND INSTALLED IAW SRM AND MFG DRAWING NO 65-20726 AS SPECIFIED IN 8110-3 APPROVED DRAWING 5330-236-ERA, REV ORIGINAL, DATED 03-23-2006 AND MATERIAL SUBSTITUTION REPORT NO 5330236-ER, REV. ORIGINAL, DATED 03-23-2006.

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| | | | |
|---|---|---|---|
| SROM200600002 | BOEING | THRUST REVERSER | CRACKED |
| 3/30/2006 | 737205 | 65MK784132 | ENGINE |

DURING MAINTENANCE INSPECTION FOUND CRACK IN NR 2 LOWER THRUST REVERSER DOOR P/N 65MK78413-2 ALONG IB BUMPER. REMOVED BUMPER, STOP DRILLED CRACK, FABRICATE/INSTALL DOUBLER AND TRIPLER. FABRICATE AND INSTALL NEW CAP TO COMPENSATE FOR DOUBLER AND TRIPLER. ALL WORK ACCOMPLISHED IAW 8110-3 APPROVED DRAWING NR 7830233-1, REV ORIGINAL, DATED 03-20-2006 AND MATERIAL SUBSTITUTION REPORT NR 7830233-ER, REV ORIGINAL, DATED 03-20-2006.

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| | | | |
|---|---|---|---|
| SROM200600004 | BOEING | SKIN | CRACKED |
| 4/3/2006 | 737205 | | ZONE 600 |

RT WING LEADING EDGE CRACKED AT NR 5 SLAT UPSTOP CUTOUT JUST OB OF THE ACTUATOR. REPAIRED BY INSTALLING INTERNAL STAINLESS DOUBLER IAW DER APPROVED 8110, REPORT NR SCS-5740-001SR.

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| | | | | |
|---|---|---|---|---|
| SROM200600003 | BOEING | PWA | FLAP | DENTED |
| 3/16/2006 | 737205 | JT8D17 | 657194041 | LT WING |

DURING HEAVY MAINTENANCE VISIT FOUND DENT ON UPPER SURFACE OF LT IB MIDFLAP. REPAIRED FLAP BY INSTALLING INTERNAL DOUBLER AND FLUSH PART IN IAW SRM 57-50-4, FIG. 4 PG. 8 AND 9.

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| | | | |
|---|---|---|---|
| 2006FA0000474 | BRAERO | WHEEL HALF | CRACKED |
| 5/10/2006 | BAE125800A | AHA1814 | LANDING GEAR |

DURING ROUTINE TIRE CHANGE AND EDDY CURRENT INSPECTION OF DUNLOP MAIN WHEEL HALF AND FLANGE. EDDY CURRENT INSPECTION REVEALED TWO CRACKS WHICH RADIATED OUT FROM WHEEL TIE BOLT HOLE. BOTH CRACKS WERE APPROMIXATELY .050 INCHES IN LENGTH. PART WAS REJECTED AND REPLACED WITH NEW PART. WHEEL PART NO. AHA1814 FLANGE PART NO.AH43949. PART HOURS OR CYCLES UNKNOWN.

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| | | | | |
|---|---|---|---|---|
| 2006FA0000401 | CESSNA | CESSNA | FITTING | CRACKED |
| 4/25/2006 | 152 | | 04311481 | VERTICLE STAB |

PART ATTACHES VERTICLE STABILIZER SPAR TO THE HORIZONTAL STABILIZER SPAR ATTACH FITTING P/N 0432004-9(THIS FITTING HAS BEEN THE SUBJECT OF AD 80-11-04 AND SEB 3-06)PROBABLE CAUSE IS HIGH ACTT. AGING AIRCRAFT REQUIRE DILIGENT INSPECTIONS. (REF FAA HANDBOOK"BEST PRACTICES GUIDE FOR MAINTAINING AGING GENERAL AVIATION AIRCRAFT.

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| | | | | |
|---|---|---|---|---|
| 2006FA0000402 | CESSNA | CESSNA | FITTING | CRACKED |

| | | | | |
|---|---|---|---|---|
| 4/25/2006 | 152 | | 04311481 | VERTICLE STAB |

PART ATTACHES VERTICAL STABILIZER SPAR TO THE HORIZONTAL STABILIZER SPAR ATTACH FITTING P/N 0432004-9(THIS FITTING HAS BEEN THE SUBJECT OF AD 80-11-04 AND SEB 3-06)PROBABLE CAUSE IS HIGH ACTT. AGING AIRCRAFT REQUIRE DILIGENT INSPECTIONS. (REF FAA HANDBOOK"BEST PRACTICES GUIDE FOR MAINTAINING AGING GENERAL AVIATION AIRCRAFT. AIRCRAFT TOTAL TIME IS 12,762.1

| | | | | |
|---|---|---|---|---|
| 2006FA0000458 | CESSNA | LYC | CABLE | BROKEN |
| 4/19/2006 | 152 | O235* | 0400107146 | FLAP CONT SYS |

ON FINAL, STUDENT SELECTED 30 DEGREE FLAPS, A LOUD POP WAS HEARD, RT FLAP CAME DOWN TO 30 DEGREES, NO MOVEMENT AT LT FLAP. AIRCRAFT LANDED WITHOUT INCIDENT. INVESTIGATION REVEALED SWAGGED BALL END OF CABLE, PN 0400107-146 BROKE FROM REMAINING CABLE. SUSPECT HIGH TIME AND CYCLES AS CONTRIBUTING FACTORS. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000499 | CESSNA | CONT | CYLINDER | CRACKED |
| 4/11/2006 | 172D | O300D | 641916A1 | ENGINE |

NR 1 CYLINDER WAS REMOVED DUE TO A CRACK .75 AROUND STEEL BARREL. IT APPEARS THAT AN OIL CONTROL RING BROKE AND EVENTUALLY DESTROYED THE PISTON AND JAMMED BETWEEN THE PISTON AND CYLINDER. TT ON THE ENGINE IS 4156.9 HRS. SMOH IS 1432.9 HRS, THE CYLINDER WAS LAST REMOVED AT 598.4 HOURS FOR HONE AND NEW RINGS. TT ON CYLINDERS, UNKNOWN. AIRCRAFT WAS ANNUALED 1.1 HRS PRIOR. THE OIL ANALYSIS PERFORMED AT ANNUAL WAS NORMAL AND ALL READINGS/RESULT WERE LOWER THAN THAT OF PREVIOUS AVIATION LABORATORY SAMPLES WHICH WERE ALSO NORMAL. ENGINE WILL BE TORN DOWN FOR INTERNAL INSPECTION. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000429 | CESSNA | | SWITCH | STUCK |
| 4/7/2006 | 172N | | S19062 | FLAPS |

FLAP UP LIMIT SWITCH STUCK IN THE OPEN POSITION. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000462 | CESSNA | LYC | BULKHEAD | CRACKED |
| 3/16/2006 | 172N | O320D2G | 05503214 | SPINNER |

DURING ROUTINE PHASE INSPECTION FWD PROP BULKHEAD FOUND TO BE CRACKED NEAR SEVERAL MOUNTING BOLT HOLES. HAVE SEEN THIS SEVERAL TIMES BEFORE. SUSPECT DEFECT IN CURRENT MFG PROCESS. (K)

| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000521 | CESSNA | LYC | LYC | CRANKCASE | CRACKED |
| 5/18/2006 | 172N | O360A4M | O360A4M | LW13820 | ENGINE |

DURING A 100 HR INSPECTION, AN OIL LEAK WAS NOTED AROUND THE L/H FORWARD CRANKCASE AROUND THE UPPER CRANKCASE BOLT (PN 6-34A WITH PN LW-11866 NUT). THE ENGINE WAS CLEANED AND A DYE PENETRANT INSPECTION PERFORMED. A CRACK ROUGHLY 4 INCHES LONG WAS FOUND RUNNING VERTICALLY ON THE CRANKCASE FROM ABOUT 1 INCH BELOW THE CRANKCASE SEAM DOWN TO THE EDGE OF THE BEARING SURFACE OF THE BOLT HOLE, THEN DOWN ANOTHER 3 INCHES. THE ENGINE IS BEING REMOVED FOR REPAIR OF CRANKCASE (IF POSSIBLE) OR REPLACEMENT.

| | | | | |
|---|---|---|---|---|
| 2006FA0000494 | CESSNA | LYC | AIR BOX | MAINT ERROR |
| 4/26/2006 | 172P | O360A4M | | ENGINE |

AC HAD 180 HP ENGINE INSTALLED ON 7/10/96. AC HAS 1443.5 HOURS SINCE INSTALLATION. OPERATOR NOTED 2300 RPM AT CRUISE, FULL THROTTLE. INSPECTED AND FOUND AIRBOX STILL HAD THE HOLE SIZE FOR 160 HP ENGINE. AIRBOX HAD NOT BEEN MODIFIED IAW STC. IT HAD BEEN REPAIRED ON SEVERAL OCCASIONS SINCE ENGINE INSTALLED AND HAD NOT BEEN FOUND. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000460 | CESSNA | LYC | GAUGE | FLUCTUATES |
| 4/13/2006 | 172R | IO360L2A | S38521 | LT FUEL TANK |

PART HAS A DEAD SPOT IN ITS TRAVEL CAUSING FUEL GAUGE TO FLUCTUATE RAPIDLY BETWEEN FULL AND EMPTY ALSO CAUSES LOW FUEL WARNING LIGHT TO FLASH CONTINUOUSLY. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000461 | CESSNA | LYC | SENSOR | FLUCTUATES |

| | | | | |
|---|---|---|---|---|
| 3/14/2006 | 172R | IO360L2A | S38522 | RT FUEL TANK |

PART HAS A DEAD SPOT IN ITS TRAVEL (NEAR FULL POSITION AT TOP OF TRAVEL) CAUSING FUEL GAUGE TO FLUCTUATE RAPIDLY BETWEEN FULL AND EMPTY, ALSO CAUSES LOW FUEL WARNING LIGHT TO FLASH CONTINUOUSLY. (K)

| | | | | |
|---|---|---|---|---|
| 78978 | CESSNA | | HUB | CORRODED |
| 3/6/2006 | 182 | | D7292C203 | PROPELLER |

CORRODED HUB.

| | | | | |
|---|---|---|---|---|
| 2006FA0000425 | CESSNA | CONT | SPRING | BROKEN |
| 4/17/2006 | 182H | O470R | S539800M30 | STARTER |

STARTER DRIVE WAS OVERHAULED BY A CERTIFIED REPAIR STATION. (PN S539800M30) STARTER ADAPTER SPRINGS WERE INSTALLED IAW STC DURING THE OVERHAUL. THE STARTER WAS INSTALLED ON THIS ENGINE AND WAS OPERATED FOR 4.06 HOURS (5 STARTS) BEFORE IT FAILED. AN INSPECTION OF THE STARTER DRIVE ADAPTER FOUND THE STARTER ADAPTER SPRING WAS BROKEN AND DEFORMED. THE INTERNAL PARTS WERE DISCOLORED, AND THERE WERE METAL SHAVINGS FOUND IN THE OIL. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000441 | CESSNA | CONT | OIL FILTER | MISMANUFACTURED |
| 4/17/2006 | 182P | O470* | CH48110 | ENGINE |

MOUNTING STUD TOO LONG, APPROX .200 LONGER. INSTALLED OIL FILTER AFTER OIL CHANGE, RAN ENGINE TO LEAK CHECK AND LOST ALMOST 2 QTS OF OIL. INVESTIGATION FOUND THAT THE OIL FILTER STUD WAS TOO LONG CAUSING THE FILTER TO TORQUE BEFORE SEAL TOUCHED FLANGE, LEAVING .050 GAP. REPLACED FILTER WITH SAME PN BUT WITH SHORTER STUD AND LEAK CHECKED, OK. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000410 | CESSNA | CONT | MOUNT | CRACKED |
| 4/6/2006 | 182Q | O470U | 07516001 | ENGINE |

DURING ANNUAL INSPECTION THE LT AFT ENGINE MOUNT P/N 0751600-1 WAS FOUND CRACKED THRU THE ENGINE MOUNT BOLT AREA.

| | | | | |
|---|---|---|---|---|
| 2006FA0000515 | CESSNA | | ELT | FAILED |
| 5/5/2006 | 2105 | | | FUSELAGE |

ELT FAILED UPON INSPECTION AFTER 12 MONTHS OF SERVICE, DID NOT TRANSMIT THROUGH ANTENNA, LIGHT WENT ON INDICATING FUNCTION. THIS IS THE 3RD FAILURE ON UNITS NEWER THAN ONE YEAR OLD, IN 1.5 YEARS IN OUR SHOP. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000448 | CESSNA | CONT | FCU | WORN |
| 4/14/2006 | 210E | IO520A | 6297032 | ENGINE |

FOUND SHAFT AND LINKAGE EXCESSIVELY WORN. HAD COMPLETE ASSEMBLY OVERHAULED. (K)

| | | | | | |
|---|---|---|---|---|---|
| IGL032006007 | CESSNA | CONT | CESSNA | STRUT | FAILED |
| 3/29/2006 | 310K | IO470* | | 084200077 | NLG |

NOSE GEAR STRUT ASSEMBLY COLLAPSED DURING EITHER TAXI OR TAKEOFF. WHEN GEAR WAS RETRACTED THE NOSE FENDER CAUGHT ON THE GEAR DOOR BRACKETS. MOTOR CONTINUED UNTIL IDLER BELLCRANK BROKE. AIRCRAFT MADE AN EMERGENCY LANDING WITH THE NOSE GEAR COLLAPSED. PILOT REPORTED NO ABNORMAL OBSERVATIONS OF THE NOSE GEAR DURING PREFLIGHT INSPECTION. IT IS NOT UNCOMMON FOR THE STRUT TO BLOW THE SEALS AND LOOSE ALL OF ITS FLUID AND NITROGEN DURING COLD WEATHER. LOW UTILIZATION MIGHT HAVE BEEN A CONTRIBUTING FACTOR AS WELL.

| | | | | |
|---|---|---|---|---|
| 2006FA0000333 | CESSNA | | BULKHEAD | CORRODED |
| 3/27/2006 | 340A | | 569500511 | LT WING |

DURING 500 HR. VISUAL INSPECTION PER AD2000-01-16 PARA (D) FOUND LEFT ENGINE AFT CANTED BULKHEAD NR 5695005-11 AND SUPPORT DOUBLER NR 5695005-6 CORRODED AND HEAT DAMAGED COMPLETELY THROUGH STRUCTURE. DAMAGE LOCATED NEAR OB SECTION ABOVE EXHAUST ELBOW CUT OUT AREA.

| | | | | |
|---|---|---|---|---|
| 2006FA0000404 | CESSNA | | BELLCRANK | CRACKED |
| 3/31/2006 | 340A | | 59420011 | NLG STEERING |

DURING ANNUAL INSPECTION FOUND NOSE GEAR STEERING BELLCRANK ASSY #5942001-1 CRACKED LEFT AND RIGHT SIDES AT PIVOT RADIOUS. NEW REPLACEMENT PART WITH SAME PART NUMBER OBTAINED FROM CESSNA AIRCRAFT IS MADE MUCH HEAVIER WITH ADDITIONAL MATERIAL IN CRACK PRONE AREA. PART FAILURE COULD LEAD TO LOSS OF NOSE GEAR STEERING CONTROL.

| | | | | |
|---|---|---|---|---|
| 2006FA0000405 | CESSNA | | BELLCRANK | CRACKED |
| 3/31/2006 | 340A | | 59420011 | NLG STEERING |

DURING ANNUAL INSPECTION FOUND NOSE GEAR STEERING BELLCRANK ASSY #5942001-1 CRACKED LEFT AND RIGHT SIDES AT PIVOT RADIOUS. NEW REPLACEMENT PART WITH SAME PART NUMBER OBTAINED FROM CESSNA AIRCRAFT IS MADE MUCH HEAVIER WITH ADDITIONAL MATERIAL IN CRACK PRONE AREA. PART FAILURE COULD LEAD TO LOSS OF NOSE GEAR STEERING CONTROL.

| | | | | |
|---|---|---|---|---|
| 2006FA0000468 | CESSNA | CONT | HSI | DEACTIVATED |
| 4/19/2006 | 340A | TSIO520* | NSD360 | COCKPIT |

PILOT REPORTED HSI WAS INOPERATIVE AND SUSPECTED A PLUG WAS OFF. VISUAL INSPECTION REVEALED THAT THE PUG TO THE HSI, AND THE VACUUM HOSE HAD BOTH BEEN PULLED OFF BY THE AC CONTROL WHEEL. THE HOSES AND WIRING HARNESS HAD BEEN INCORRECTLY ROUTED AROUND THE CONTROL WHEEL. THE AC HAD VERY LITTLE ROOM BEHIND THE INSTRUMENT PANEL, AND THE CORRECT ROUTING OF HOSES AND HARNESSES IS CRITICAL TO FLIGHT SAFETY. THE CONTROLS WERE FREE AFTER THE HOSE AND HARNESS CAME OFF THE PILOTS HSI. WITH MORE AC BEING UPGRADED WITH NEWER AVIONICS AND INSTRUMENTS, INSPECTIONS OF HARNESSES AND HOSES BEHIND THE INSTRUMENT PANEL IS AN AREA THAT REQUIRES INCREASED VIGILANCE. (K)

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|---|---|---|---|---|
| 2006FA0000467 | CESSNA | CONT | CYLINDER | CRACKED |
| 4/10/2006 | 340A | TSIO520NB | 631397 | ENGINE |

AT 400 HR TSO FOUND CYLINDER NR 4 CRACKED AT THE HEAD 5 FINS BACK TOWARD THE BARREL FROM THE TOP SPARK PLUG. CRACK GOES FROM THE EXHAUST VALVE SEAT TO THE TOP SPARK PLUG HOLE ON THE INSIDE OF THE CYLINDER. AD 04-08-10 DID NOT APPLY BY CLY. SN 13516-4 AND CODE A STAMPED ON THE BOSS FLANGE. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000484 | CESSNA | | TRUNNION | BROKEN |
| 2/23/2006 | 402B | | 5041000201 | LT WING |

ON FEBRUARY 23RD, 2006, PILOT WAS OPERATING AC, VISUAL FLIGHT RULES PREVAILED. UPON LANDING, THERE WAS A FAILURE OF THE TRUNNION (P/N 5041000-201) ON THE LT MAIN LANDING GEAR STRUT CAUSING THE COLLAPSE OF THE LT MAIN LANDING GEAR. THE AIRCRAFT TURNED 180 DEGREES TO THE LT AND SLID OFF THE LT SIDE OF RUNWAY 27L, CAUSING DAMAGE TO THE LT WING, HORIZONTAL STABILIZER AND LT PROPELLER.

| | | | | |
|---|---|---|---|---|
| 2006FA0000493 | CESSNA | CONT | FITTING | CRACKED |
| 5/4/2006 | 414 | TSIO520* | 50110231 | LT WING |

DURING ANNUAL INSP FOUND LT STUB WING AFT SPAR, UPPER FITTING CRACKED AT OB BOLT HOLE. FOUND NO CORROSION OR STRESS IN SURROUNDING AREAS. SUSPECT BOLT WAS OVERTORQUED. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000498 | CESSNA | CONT | CYLINDER | CRACKED |
| 5/11/2006 | 414 | TSIO520NB | AEC631397 | ENGINE |

DURING DECENT TO AIRPORT, PILOT REPORTED RT ENGINE STARTED HAVING EXCESSIVE VIBRATION. NO OTHER MAJOR ENGINE INDICATIONS WERE NOTED. AFTER LANDING, A MAGNETO CHECK WAS CONDUCTED AND NO DESCREPANCIES WERE FOUND. UPON REMOVAL OF COWLING, RT ENGINE NR 6 CYLINDER WAS FOUND TO HAVE CRACKED AROUND THE CIRCUMFERENCE OF CYLINDER HEAD AT THE NR 9 AND 10 COOLING FIN, COMPLETELY SEPARATING THE CYLINDER HEAD FROM THE BARREL AT THE VERY TOP OF STEEL CYLINDER BARREL. AFTER RESEARCHING AD, AMENDMENT, THE CYLINDER ASSY WAS FOUND NOT TO APPLY DUE TO S/N OF CYLINDER AND THE PRESENCE OF THE (A) STAMPED ON THE ROCKER BOX FLANGE. (K)

| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000520 | CESSNA | CONT | | CYLINDER | CRACKED |
| 7/16/2005 | 414A | TSIO520NB | | TISN712BCA221 | ENGINE |

418.6 HRS SINCE COMPLIANCE W19TH AD2004-08-10 ON ECI CYLINDERS. LT ENG NR2 AND RT ENG NR 4 CYLINDERS FOUND CRACKED THROUGH FROM UPPER PLUG HOLE TO EXHAUST VALVE. BOTH CYLINDERS HAVE IDENTICAL CRACKS ON RELATIVELY NEW HEADS. (K)

| | | | | | |
|---|---|---|---|---|---|
| 000 | CESSNA | CONT | CESSNA | BOLT | DEPARTED |
| 3/31/2006 | 421A | GTSIO520* | | 51410051 | RT MLG |

WHILE TAXING TO PARK THE RT MLG LINK ASSEMBLY BOLT CAME OUT CAUSING THE UPPER AND LOWER LINKS TO SEPERATE. THE RT LANDING GEAR TURNED 90 DEGREES BENDING THE GEAR DOOR COVER.

| | | | | | |
|---|---|---|---|---|---|
| 21200003AD | CESSNA | | | HINGE | DAMAGED |
| 5/10/2006 | 421B | | | 083200054 | ELEVATOR |

CUSTOMER REPORTED VIBRATION AT HIGH SPEEDS. INSPECTED AIRCRAFT AND FOUND CENTER ELEVATOR HINGE INBOARD AND OUTBOARD BRACKETS ELONGATED ON THE RIGHT ELEVATOR. INSTALLED CESSNA SERVICE KIT SK421-130B REPLACING ALUMINUM ELEVATOR HINGE BRACKETS WITH STAINLESS STEEL BRACKETS.

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|---|---|---|---|---|---|
| 2006FA0000475 | CESSNA | | CESSNA | HINGE BRACKET | ELONGATED |
| 5/10/2006 | 421B | | | 083200054 | RT ELEVATOR |

CUSTOMER REPORTED VIBRATION AT HIGH SPEEDS. INSPECTED AIRCRAFT AND FOUND CENTER ELEVATOR HINGE IB AND OB BRACKETS ELONGATED ON THE RT ELEVATOR. INSTALLED MFG SERVICE KIT SK421-130B REPLACING ALUMINUM ELEVATOR HINGE BRACKETS WITH STAINLESS STEEL BRACKETS.

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|---|---|---|---|---|---|
| 2006FA0000411 | CESSNA | | | LUG | MISDRILLED |
| 4/6/2006 | 525A | | | 632550033 | SPEED BRAKE |

AC WAS IN FOR A PHASE 1 AND 2 INSPECTION. A BROKEN BONDING STRAP AT THE UPPER LT SPEEDBRAKE DOOR NECESSITATED REMOVAL OF THE BOLT CONNECTING THE PUSH ROD TO THE UPPER DOOR LUG. DURING BOLT REMOVAL THE HELICOIL INSERT CAME OUT WITH THE BOLT AND WAS DEFORMED. PROPER INSERTION OF A NEW HELICOIL WAS UNSUCCESSFUL AS THE BOLT WOULD NOT THREAD INTO IT. A COUPLE OF ATTEMPTS INSUED AND DETERMINATION WAS MADE THAT THE HOLE WAS NOT PROPERLY DRILLED AND TAPPED TO ACCEPT THE HELICOIL. MAINTENANCE SUPPORT HOTLINE REPRESENTATIVE AGREED WITH THE ASSESSMENT AND PROVIDED TECHNICAL DATA TO REMOVE THE UPPER DOOR LUG, BACK DRILL AND TAP TO THE PROPER SIZE. INSTALLATION OF THE HELICOIL WAS THEN SUCCESSFUL.

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|---|---|---|---|---|---|
| B3OR20060111 | CESSNA | | | TERMINAL | MISINSTALLED |
| 4/19/2006 | 550 | | | | WIRING SYS |

WIRE TERMINAL WAS IMPROPERLY CRIMPED ONTO WIRE INSULATION WITH STRIPPED END OF WIRE STRANDS CONTACTING TERMINAL SCREW AT VOLTAGE METER CIRCUIT BREAKER. THIS DISCREPANCY CAUSED AN INTERMITTENT VOLTAGE METER READING FAILURE.

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|---|---|---|---|---|---|
| 2006FA0000523 | CESSNA | | CESSNA | SKIN | CORRODED |
| 5/20/2006 | 550 | | | 550 | EMPENNAGE |

AFTER A PHASE 1,2,3,4,49&59 CORROSION AND DELAMINATION WAS FOUND ON TOP AND BOTTOM SKINS LT AND RT SIDES OF THE HORIZONTAL STABILIZER, LT SKIN OF THE VERTICAL STABILIZER. TAIL SKINS 5512010-9 AND 6512010-20 (SKINS UNDER VERT. STAB.) AS WELL AS THE AFT BULKHEAD 6412016-1SP WERE REPLACED.

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|---|---|---|---|---|---|
| 2006FA0000525 | CESSNA | | CESSNA | ELEVATOR | MAINT ERROR |
| 5/20/2006 | 550 | | | 5534000204 | RT ELEVATOR |

AFTER A REPAIR AT ANOTHER FACILITY THIS ELEVATOR WAS IN A BIND AND NOT ABLE TO STREAMILINE WITH THE STABILIZER (COULD NOT RIG). IT APPEARS THAT THIS CONTROL WAS NOT INSTALLED CORRECTLY IN A JIG FIXTURE. WHILE REPLACING THE UPPER AND LOWER SKINS IT WAS ALSO FOUND THAT THE FWD. SPAR WAS DAMAGED BY ALLOWING DRILL BITS TO GO THROUGH AND IMPACT ON THE SPAR. THIS CAUSED THE FWD. SPAR

TO ALSO BE REPLACED.

| | | | | |
|---|---|---|---|---|
| 2006FA0000526 | CESSNA | CESSNA | AILERON | CRACKED |
| 5/20/2006 | 550 | | | RT AILERON |

DURING A PHASE 1,2,3,4 INSPECTION THE RT AILERON WAS FOUND TO BE CRACKED AT THE LEADING EDGE IN THE AREA OF ATTACHMENT POINTS FOR THE WEIGHTS. THE SKIN WAS REMOVED AND REPLACED. HAD SEVERAL CRACKED AILERONS IN OUR OTHER AIRCRAFT BOTH LT AND RT CRACK IN THIS AREA. WE OPERATE A FLEET OF THESE AIRCRAFT AND LOOK AT THIS ON A 300HR. INSPECTION SCH. THE CRACKS GO AROUND THE SCREW HOLES OR RADIATE OUT FROM THEM.

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|---|---|---|---|---|
| 314901 | CESSNA | | WHEEL | CRACKED |
| 5/11/2006 | 550 | | 314901 | MLG |

FINDING FATIGUE CRACKS FORMING AT THE INTERSECTION OF THREADED HOLE AND DRILLED PASSAGE OF FUSE PLUG HOLE AND VALVE STEM HOLE.

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|---|---|---|---|---|
| 2006FA0000497 | CESSNA | PWA | THRESHOLD | CRACKED |
| 5/9/2006 | 560CESSNA | JT15D5 | 551124914S | CABIN DOOR FRAME |

CABIN ENTRY THRESHOLD CRACKED AT AFT STEP ATTACH BOLT HOLE. COMBINATION OF BOLT HOLE LOCATED IN RADIUS OF FRAME AND MATERIAL THICKNESS NOT SUFFICIENT TO SUPPORT WEIGHT OF PERSON ENTERING OR EXITING AIRCRAFT. RECOMEND STRENGTHING STRUCTURE, USING THICKER METAL. NOTE: HAVE FOUND THESE CRACKS ON MFG INSPECTION PHASE 5. APPROX 75 PERCENT OF AIRCRAFT INSPECTED ARE FOUND CRACKED. (K)

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|---|---|---|---|
| CWQR2006003 | CESSNA | DRAIN VALVE | LOOSE |
| 3/8/2006 | 560XL | 68C48 | PITOT STATIC SYS |

FOUND THE STATIC SYSTEM DRAIN VALVE POPPET RETAING RING COMING LOOSE FROM VALVE BASE.

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|---|---|---|---|
| CWQR2006009 | CESSNA | CABLE ASSY | DAMAGED |
| 4/17/2006 | 560XL | 666000269 | FUSELAGE |

DURING A SCHEDULED MAINTENANCE VISIT BEFORE REPLACING A CABLE ASSEMBLY ON A THE CABLE TERMINAL END WAS FOUND TO HAVE BEEN DRILLED TO A DEPTH OF .3750-.5 INCH AT AN ANGLE AND DAMAGED THE THREADS. THIS CABLE ASSEMBLY WAS ORDERED FROM AND DOCUMENTED AS NEW.

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|---|---|---|---|
| CWQR2006010 | CESSNA | FORK | GOUGED |
| 4/27/2006 | 560XL | 55423043 | NOSE STEERING |

DURING AN INSPECTION FOUND THE NOSE GEAR STEERING LOWER FORK ASSY (5542304-3) GOUGED. FURTHER INVESTIGATION FOUND THE FORK ASSY IS GOUGED ONLY DURING A MAINTENANCE GEAR RETRACTION TEST, WHEN THE RUDDER PEDALS ARE DEFLECTED FULL RT AND LT. REMOVED FORK ASSY, MEASURED GOUGE WAS BEYOND LIMITS. REPLACED FORK AND PREFORMED GEAR RETRACTION TEST, THE NEW FORK ASSY WAS MEASURED AND PREFORMED NDT, WAS WITHIN LIMITS IAW MM. SUBMITTED SERVICE CONDITION REPORT MFG UNDER NR 234220 DATED 04/27/2006.

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|---|---|---|---|---|
| 2006FA0000406 | CESSNA | PWA | TRANSPONDER | MALFUNCTIONED |
| 3/14/2006 | 680CE | PW306B | | COCKPIT |

DEPARTED AND WAS TOLD BY DEPARTURE CONTROL THEY DID NOT HAVE A TARGET ON US. SWITCHED TO SECOND TRANSPONDER WITH SAME RESULT. BOTH TRANSPONDERS APPERARED TO BE IN NORMAL OPS. LANDED AT AND WENT TO A BLACK AIRCRAFT(COMPLETE SHUTDOWN). RESTARTED AND ALL WAS NORMAL DURING NEXT LEG. DOWNLOADED COMPUTERS ON POST FLIGHT AT HOME BASE AND FOUND NO FAULTS. HAVE FLOWN 49 LEGS SINCE THE OCCURANCE AND HAVE HAD NO FAILURES.

| | | | |
|---|---|---|---|
| 2006FA0000485 | CESSNA | JACKSCREW | STRIPPED |
| 5/11/2006 | A185F | 071250013 | TRIM SYS |

MAINTENANCE PERSONNEL WERE ADVISED BY THE PILOT THE HORIZONTAL STABILIZER TRIM QUIT WORKING. INSPECTION FOUND THE BARREL SIDE OF THE TRIM SCREW JACK HAD STRIPPED OUT. THE SYSTEM INCLUDES 2

TRIM SCREW JACKS THE OTHER TRIM SCREW JACK TOOK ALL OF THE LOAD AND JAMMED UP. INSPECTION OF SECOND TRIM SCREW JACK BARREL FOUND THE UPPER THIRD OF THE THREADS WERE STRIPPED IN THE SECOND TRIM SCREW BARREL. MFG DOES NOT SPECIFY ANY INSPECTION CRITERIA FOR WEAR OF THE JACK SCREW THREADS OR THE BARREL THREADS. RECOMMEND EITHER MANDATORY INSPECTION CRITERIA FOR THE BARRELS AND THREADS OR AN AIRWORTHINESS DIRECTIVE TO PRECLUDE LOSS OF CONTROL OF THE TAIL OF THE AIRCRAFT. (K)

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|---|---|---|---|---|
| 2006FA0000412 | CESSNA | CONT | THRU BOLT | BROKEN |
| 4/24/2006 | A188B | IO550* | 6416311052 | ENGINE |

THE ENGINE CRANKCASE THRU-BOLT BROKE. THIS THRU-BOLT IS LOCATED UNDER THE TOP OF THE OIL COOLER ADAPTER PLATE THRU TO THE NR 6 CYL TOP FRONT. IT BROKE OFF FLUSH AT THE CYL BASE WHILE IN FLIGHT. THE BOLT END WHICH BROKE OFF WITH THE CYL BASE NUT FLEW OUT THE FRONT OF THE COWL, PUT A GOUGE IN THE FACE OF THE PROP BLADE AND THEN HIT THE TOP OF THE COWL LEAVING A LARGE DENT. WHEN IT BROKE, THE OPPOSITE END OF THE BOLT WAS FORCED BACK AGAINST THE OIL COOLER ADAPTER PLATE AND DEFORMED THE PLATE. THIS THRU-BOLT IS A REPLACEMENT INSTALLED LAST AUGUST 2005 DUE TO THE ORIGINAL THRU-BOLT, 650 HRS SINCE REMAN, ALSO BREAKING AT THE SAME LOCATION. A NEW CYL BASE NUT HAD BEEN USED AND TORQUED TO 800 INCH LBS IAW SB96-7C.

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|---|---|---|---|---|
| 2006FA0000469 | CESSNA | CONT | TURBOCHARGER | LEAKING |
| 4/26/2006 | P210N | TSIO520P | 4656809004 | ENGINE |

OIL LEAKING OUT FROM JOINT IN CENTER OF TURBO. FIRST RUN ON OVERHAULED UNIT JUST INSTALLED ON AIRCRAFT. (K)

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|---|---|---|---|---|
| FCPR20060050 | CESSNA | | COMPUTER | FAILED |
| 5/9/2006 | S550 | | 4008519 | COCKPIT |

AUTOPILOT COMPUTER FAILED CAUSING PILOTS ALTIMETER/AIRDATA COMPUTER TO FAIL.

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|---|---|---|---|---|
| 2006FA0000426 | CESSNA | | ALTERNATOR | FAILED |
| 4/12/2006 | T210M | | E3FF10300AA | ENGINE |

ALTERNATOR FAILED, PLATE SCREWS FELL OUT. (K)

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|---|---|---|---|---|
| 2006FA0000514 | CESSNA | CONT | CYLINDER | ERODED |
| 4/20/2006 | T210N | IO520L | | ENGINE |

FOUND NR 6 PISTON ERODED FROM POSSIBLE DETONATION BY UNKNOWN CAUSES. FOUND NR5 CYLINDER CONNECTING ROD CAP MISSING AND INTERNAL DAMAGE TO THE CRANKCASE. NO OIL WAS NOTED ON THE DIPSTICK PRESUMED TO BE FORCED OUT OF THE ENGINE DUE TO EXCESSIVE BLOW BY FROM THE ERODED NR 5 CYL. THE ENGINE WAS SHUT DOWN AND LANDED IN A GRASS FIELD WITH NO DAMAGE TO THE AIRCRAFT. (K)

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| | | | | |
|---|---|---|---|---|
| MPVMANIFOLD | CESSNA | CONT | FUEL DIVIDER | LEAKING |
| 3/28/2006 | TU206G | TSIO520M | 63432612A2 | ENGINE |

FUEL MANIFOLD VALVE IS LEAKING FROM THE VENT PORT.

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|---|---|---|---|---|
| 2006FA0000512 | CIRRUS | | FLIGHT DIR | FAILED |
| 4/21/2006 | SR22 | | 70000006000 | COCKPIT |

PFD WAS JUST UPDATED TO REV 6. 2 DAYS AFTERWARDS, SCREEN WOULD FAIL IN FLIGHT. DISPLAY WOULD FLICKER AND NOT BE USABLE. UNIT WOULD ALSO FAIL TO BOOT UP IN HANGAR. CUSTOMER WAS GIVEN EXCHANGE. (K)

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|---|---|---|---|---|
| AMCR200600001 | CIRRUS | ACK | BATTERY | CORRODED |
| 4/5/2006 | SR22 | E01 | MN1300 | ELT |

DURING ANNUAL INSP, ELT DID NOT TEST. FOUND 2 D-CELL BATTERIES CORRODED. THESE 2 BATTERIES WERE AT THE BOTTOM OF THE STACK AND THE CORROSION WAS NOT EVIDENT AT FIRST. THERE WERE 2 YEARS REMAINING BEFORE BATTERY REPLACEMENT WAS DUE. THESE ARE THE ORIGINAL BATTERIES SINCE NEW (APRIL 2002). RECOMMEND BATTERIES BE REMOVED COMPLETELY AT EACH ANNUAL AND INSPECTED.

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|---|---|---|---|---|---|
| 2006FA0000513 | CIRRUS | | | FLIGHT DIR | FAILED |
| 4/4/2006 | SR22 | | | 70000006000 | COCKPIT |

THIS PARTICULAR PFD HAD 3 BACK TO BACK FAILURES THAT COULD ONLY BE DETECTED AFTER 1 HOUR + OF FLIGHT. DISPLAY WOULD LIGHTEN UP, TURN GREEN AND FLICKER. WOULD NOT BE USABLE. THIS UNIT WAS UPGRADED TO REV 6 SOFTWARE FOR FLIGHT DIRECTOR. FAILURES HAPPENED AFTER THIS MOD. FAILURES HAPPENED AFTER THIS MOD UNIT WAS SENT TO MFG AFTER FIRST 2 FAILURES, THIRD FAILURE RESULTED IN AN EXCHANGE. (1ST-3-6-06-W/O AVO6-6617) (2ND - 3-29-06, W/O AVO6-6658) (3RD-4-4-06 W/O AVO6-6687)

| | | | | | |
|---|---|---|---|---|---|
| AVI000021 | CIRRUS | CONT | CIRRUS | ELEVATOR | OUT OF TOLERANCE |
| 4/19/2006 | SR22 | IO550* | 10146005 | 11626002 | ELEVATOR |

DURING SA 06-05 ELEVATOR GAP VISUAL INSPECTION IT WAS NOTED THAT THE GAP BETWEEN ELEVATOR TIP AND HORIZONTAL STABILIZER WAS LESS THEN 0.10 INCH, UPON FURTHER INVESTIGATION IT WAS NOTED THAT PN 11626-002 ELEVATOR HINGE, OB WAS RUBBING ON HORIZONTAL STABILIZER OB HINGE. ELEVATOR WAS RE-SHIMMED BY INSTALLING SHIM PN 11508-005.

| | | | | |
|---|---|---|---|---|
| 2006FA0000518 | CIRRUS | CONT | SOLENOID | INTERMITTENT |
| 5/5/2006 | SR22 | IO550N | | STARTER |

THE STARTER ON THIS AIRCRAFT FAILED. THIS IS THE THIRD FAILURE OF THIS TYPE STARTER HAS A SOLENOID ATTACHED AND THE PROBLEM NOTED IS THAT THIS SOLENOID BECOMES INTERMITTENT. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000504 | CIRRUS | CONT | RIVET | LOOSE |
| 5/8/2006 | SR22 | IO550N | 10146008 | ELEVATOR |

BOTH LT AND RT ELEVATOR OB HINGE BRACKETS ARE RIVETED TO THE ELEVATORS WITH FLUSH HEAD BLIND RIVETS AND FLUSH HEAD SOLID DRIVE RIVETS. AT 121 HOURS TT. DURING A 100 HOUR INSPECTION, THE RIVETS ON THE OB HINGE BRACKETS, LT AND RT ELEVATORS, WERE FOUND TO BE SMOKING- STREAKS OF BLACK POWDER TRAILING BEHIND THEM, AND THE PAINT AROUND THE RIVET HEADS BROKEN. RECOMMEND MFG DESIGN FIND A SECURE WAY TO HOLD THE ELEVATOR HINGE BRACKETS TO THE ELEVATORS SUCH AS THROUGH USE OF SOLID-DRIVEN RIVETS INSTEAD OF BLIND RIVETS. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000482 | DIAMON | | ELT | MISINSTALLED |
| 5/1/2006 | DA20A1 | | EBC502 | BAGGAGE COMPT |

WHEN REMOVING ELT FROM AIRCRAFT TO REPLACE ELT BATTERY, FOUND THAT SOMEONE HAD PUT THE ELT IN BACKWARDS. THE DIRECTION OF FLIGHT ARROW WAS POINTING AFT. THIS INSTALLATION IS LOCATED IN THE BAGGAGE COMPT AND THE PILOT CAN SLIDE IT OUT OF ITS MOUNT AND REINSTALLED IT BACKWARDS. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000534 | DIAMON | CONT | EXHAUST RISER | CRACKED |
| 5/18/2006 | DA20C1 | IO240B | DC00015B | ENGINE |

ON A 100HR INSP #2 EX RISER CRACKED AT FLANGE. THIS HAS BEEN FOUND ON A NUMBER OF AIRCRAFT OF THIS TYPE.

| | | | | | |
|---|---|---|---|---|---|
| CMRR200604010 | DORNER | PWA | HONEYWELL | POWER SUPPLY | FAILED |
| 4/26/2006 | DO328300 | PW306B | DU870 | 7018704902 | DISPLAY UNIT |

THE NR 1 PFD DISPLAY UNIT REFERENCED HERE IN FAILED DURING TAXI OPERATIONS PRIOR TO FLIGHT. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT PN:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTIONS WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF DU FAILURE.

| | | | | | |
|---|---|---|---|---|---|
| CMRR200604011 | DORNER | PWA | HONEYWELL | POWER SUPPLY | FAILED |
| 4/26/2006 | DO328300 | PW306B | DU870 | 7018704902 | DISPLAY UNIT |

THE NR 1 MFD DISPLAY UNIT REFERENCED HERE IN FAILED DURING TAXI OPERATIONS PRIOR TO FLIGHT. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT PN:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTIONS WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF DU FAILURE.

| | | | | |
|---|---|---|---|---|
| 2006FA0000506 | DOUG | PWC | HOSE | CRACKED |
| 5/16/2006 | MD900 | PW207E | 51003400 | MAIN TRANSMSN |

DISCOVERED MAIN TRANSMISSION OIL HOSE FROM OIL COOLER TO MAIN TRANSMISSION LEAKING FROM STEEL BRAIDING. PULLED BACK BRAIDING AND FOUND HOSE TO BE CRACKED. REPLACED LINE WITH NEW. LEAK CHECK OF NEW LINE WAS SATISFACTORY. P/N 900D3409526-105.

| | | | | |
|---|---|---|---|---|
| 2006FA0000501 | DOUG | PWC | OIL COOLER | LEAKING |
| 5/16/2006 | MD900 | PW207E | 900D3658501103 | ENG OIL SYS |

FOUND WETTING OIL MAIN TRANSMISSION/ENGINE OIL COOLER CORE. REMOVED AND SENT OUT FOR EVALUATION. COOLER FOUND TO HAVE INTERNAL CORROSION THAT CAUSED MATERIAL LOSS AND SUBSEQUENT LEAKING. REPLACED COOLER WITH NEW. LEAK CHECK WAS SATISFACTORY.

| | | | | |
|---|---|---|---|---|
| 2006FA0000507 | DOUG | PWC | BEAM | CRACKED |
| 5/16/2006 | MD900 | PW207E | 900R1103001113 | MR HUB |

DURING SCHEDULED INSPECTION FOUND FLEXBEAM CRACKED IN LEG OF FLEXBEAM. REJECTED FLEXBEAM IAW INSPECTION CRITERIA IN MAINTENANCE MANUAL. REPLACED WITH NEW FLEXBEAM.

| | | | | |
|---|---|---|---|---|
| 2006FA0000503 | DOUG | PWC | HOSE | CRACKED |
| 5/16/2006 | MD900 | PW207E | 51003400 | MAINTRANSMISSION |

DISCOVERED MAIN TRANSMISSION OIL HOSE FROM OIL COOLER TO MAIN TRANSMISSION LEAKING FROM STEEL BRAIDING. PULLED BACK BRAIDING AND FOUND HOSE TO BE CRACKED. REPLACED LINE WITH NEW. LEAK CHECK OF NEW LINE WAS SATISFACTORY, P/N 900D3409526-105.

| | | | | |
|---|---|---|---|---|
| 2006FA0000508 | DOUG | PWC | BEAM | CRACKED |
| 5/16/2006 | MD900 | PW207E | 900R1103001113 | MR HUB |

DURING SCHEDULED INSPECTION FOUND FLEXBEAM CRACKED IN LEG OF FLEXBEAM. REJECTED FLEXBEAM IAW INSPECTION CRITERIA IN MM. REPLACED WITH NEW FLEXBEAM.

| | | | | |
|---|---|---|---|---|
| 2006FA0000480 | GULSTM | LYC | ROLL SERVO | MISINSTALLED |
| 5/3/2006 | 112A | IO360A1A | | AUTO PILOT SYS |

THE ROLL SERVO WAS INSTALLED AND RIGGED INCORRECTLY, THE SET WAS NOT TIGHT ON THE BRIDLE CABLE PIN AND THE BRIDLE CABLE WAS WRAPPED ON THE CAPSTAN INCORRECTLY. THE INCORRECT INSTALLATION IN CONJUNCTION WITH THE LOOSE SET SCREW ALLOWED THE BRIDLE CABLE LOCATING PIN TO PULL OUT OF THE SERVO CAPSTAN. THE LOCATING PIN LOCKED THE AILERONS AT FULL DEFLECTION AGAINST THE CAPSTAN GUARD. THIS CONDITION OCCURRED ON THE GROUND, IN FLIGHT THIS CONDITION WOULD VERY LIKELY RESULT IN AN ACCIDENT. RECOMMEND ROLL SERVO INSTALLATIONS BE INSPECTED FOR PROPER INSTALLATION AND RIGGING. THE CONDITION HAS BEEN CORRECTED IAW FLIGHT DOCUMENT AK 1056. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000466 | GULSTM | LYC | CONNECTING ROD | BROKEN |
| 4/10/2006 | 500S | IO540E1B5 | | RT ENGINE |

CUSTOMER WAS ENROUTE TO MAINTENANCE SHOP TO GET ANNUAL INSPECTION, BOTH ENGINES OVERHAULED. RT ENGINE CYLINDER NR 2 CONNECTING ROD BROKE AT THE CRANKSHAFT ATTACHMENT CAUSING MAJOR DAMAGE TO THE CAMSHAFT, AND CRANKCASE BREAKING OPEN IN SEVERAL PLACES AROUND THE FRONT PART OF THE ENGINES. (K)

| | | | | |
|---|---|---|---|---|
| 77670 | GULSTM | | CLAMP | CORRODED |
| 2/13/2006 | 680F | | | PROPELLER ASSY |

CORRODED CLAMP ASSEMBLY PN 838-17, SN U5211, U5188, U5109.

| | | | | |
|---|---|---|---|---|
| 77669 | GULSTM | HARTZL | HUB | CORRODED |
| 3/1/2006 | 680F | HCB3Z302 | | PROPELLER |

CORRODED CLAMP ASSEMBLY, PN 838-17, SN J4324, U4701, U4646. CORRODED BLADES MODEL NR 9349, SN

A41967, A41996, A41251.

| | | | | |
|---|---|---|---|---|
| 2006FA0000502 | GULSTM | RROYCE | SHUTOFF VALVE | MALFUNCTIONED |
| 5/3/2006 | GULFSTREAMGV | BR700710A110 | 1159SCH5019 | LT & RT WING |

DURING A SCHEDULED INSPECTION, OPERATIONAL CHECK OF THE AILERON HARD OVER PROTECTION TEST. BOTH LT AND RT AILERON HYD SHUT OFF CIRCUIT BREAKERS POPPED. REPLACED RT AILERON , LT HYD SYSTEM SHUTOFF VALVE AND LT AILERON, LT HYD SYS SHUTOFF VALVE. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000382 | GULSTM | RROYCE | LAMP | INOPERATIVE |
| 3/23/2006 | GV | BR700710A110 | AL1235T422C27 | GALLEY |

DURING ROUTINE LAMP REPLACEMENT, IT WAS DISCOVERED THAT ONE END OF THE REMOVED UNIT WAS DISCOLORED. THE DISCOLORATION WAS THOUGHT TO BE DUE TO OVERHEATING. THE LOCATION OF THE FAILED LAMP WAS IN THE GALLEY OVERHEAD. INSTALLED NEW UNIT OF SAME MFG AND PN. OPERATIONAL CHECK, OK. REPORTING THIS DUE TO CONCERN THAT THE OPERATION OF THIS LIGHT COULD RESULT IN A POSSIBLE FIRE CAUSED BY OVERHEATING OF THESE UNITS. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000427 | HILLER | LYC | HUB | CRACKED |
| 4/12/2006 | UH12E | VO540C2A | 5143711 | MAIN ROTOR HUB |

M/R HUB DYE CHECK INSPECTION. HUB WAS FOUND TO BE CRACKED. RETIREMENT LIFE, 2500 HOURS. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000517 | HUGHES | | ELT | FAILED |
| 3/6/2006 | 269A | | AK450 | FUSELAGE |

ELT FAILED UPON INSPECTION AFTER NINE MONTHS OF SERVICE. DID NOT SWEEP. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000516 | HUGHES | LYC | ELT | FAILED |
| 3/6/2006 | 269A | IO360A1A | AK450 | FUSELAGE |

ELT FAILED UPON INSPECTION AFTER EIGHT MONTHS OF SERVICE, DID NOT TRANSMIT THOUGH ANTENNA, LIGHT WENT ON INDICATING FUNCTION. THIS IS THE SECOND TIME THIS HAS FAILED THIS YEAR. (K)

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|---|---|---|---|---|
| 2006FA0000424 | KAMAN | | ROTOR SHAFT | CRACKED |
| 10/14/2005 | H43A | | K77461221 | MAIN ROTOR |

DURING MAGNETIC PARTICAL INSPECTION, THE SHAFT WAS FOUND CRACKED AT THE UPPER END WHERE THE ROTOR HUB ATTACHES TO THE SHAFT. THE CRACK IS APPROXIMATELY 1 INCH LONG AND LOCATED IN THE LOWER RADIUS OF THE RETANGLE CUTOUT. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000473 | LEAR | | HYDRAULIC LINE | LEAKING |
| 5/10/2006 | 35A | | 2607003453 | REAR EQUIP BAY |

PRE-FLIGHT FOR SECOND LEG OF FLIGHT CREW REPORTED HYDRAULIC FLUID DRIPPING OUT OF REAR EQUIPMENT BAY. INSPECTION REVEALED THAT THE HYDRAULIC PRESSURE LINE HAD CHAFED THROUGH AND WAS LEAKING FLUID. INSTALLED NEW LINE. COMPLIED WITH PRESSURE CHECK OF SYSTEM WITH NO ADDITIONAL LEAKS NOTED. CHECKED ROUTING OF LINE AND INSTALLED CHAFE MATERIAL WHERE NEEDED. PART HOURS OR CYCLES UNKNOWN.

| | | | | |
|---|---|---|---|---|
| 11221 | LEAR | | FRAME | CRACKED |
| 4/14/2006 | 35A | | | FUSELAGE |

RH FUSELAGE FRAME 20 CRACKED APPROX. 11/8 IN LENGTH AT THE AFT WING ATTACH POINT.

| | | | | |
|---|---|---|---|---|
| 2006FA0000479 | LEAR | GARRTT | CIRCUIT BREAKER | TRIPPED |
| 5/8/2006 | 35A | TFE731* | 70008840 | COCKPIT |

(ELECTRICAL ANOMALY), LT AND RT ESSENTIAL (A) CIRCUIT BREAKERS DEPLOYED. ALL EFIS WENT DARK. YAW DAMP AND AUTO PILOT DISENGAGED. LOST ALL NAV AND COMM. RADIOS, LOST ANNUNCIATOR PANEL LIGHTS.

MAY HAVE LOST AIRSPEED INDICATORS AND FUEL COMPUTERS. LOST BOTH N 1'S . BOTH ITT'S, DC AND AC ELECTRICAL INDICATORS FUNCTIONED NORMALLY AND INDICATED NORMAL ELECTRICAL SYSTEM CONDITION. GEAR, FLAPS, SPOILERS, TRIMS, TR'S ALL FUNCTIONED NORMALLY. TR ARM AND DEPLOY LIGHTS DID NOT WORK.

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|---|---|---|---|---|
| 2006FA0000440 | LEAR | PWA | ADC | DEFECTIVE |
| 2/23/2006 | 60LEAR | PW305 | 8220839429 | LT AFT AVIONICS |

ALL ADC OUTPUTS ON THE COPILOTS PFD (ALTIMETER, VSI AND AIRSPEED, ECT) FLAGGED IN FLIGHT INTERMITTENTLY AND WOULD RESET ITSELF. CREW REQUESTED TO LEAVE RVSM AIRSPACE. THE ADC WAS FOUND TO BE DEFECTIVE AND WAS REPLACED. THE SYSTEM WAS TESTED AND INSPECTED IAW MM AND FOUND TO COMPLY WITH FAR 91.411 PART 43 AND MFG RVSM ADC INSPECTIONS. THE AIRCRAFT REMAINS RVSM COMPLIANT. (K)

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| | | | |
|---|---|---|---|
| DOSS01 | LET | LONGERON | CRACKED |
| 5/2/2006 | L23 | | ZONE 200 |

LONGERON WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LT RUDDER PEDAL, DURING A SCHEDULED INSPECTION. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL, CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS. THIS WAS ENCOUNTERED ON TWELVE OUT OF SEVENTEEN AIRCRAFT (L13AC AND L23).

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| | | | |
|---|---|---|---|
| DOSS102 | LET | LONGERON | CRACKED |
| 5/2/2006 | L23 | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LT RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL - CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

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| | | | |
|---|---|---|---|
| D20060502 | LET | LONGERON | CRACKED |
| 5/2/2006 | L23 | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LH RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL - CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

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| | | | |
|---|---|---|---|
| DOSS04 | LET | LONGERON | CRACKED |
| 5/2/2006 | L23 | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LT RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL - CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

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|---|---|---|---|
| DOSS06 | LET | LONGERON | CRACKED |
| 5/2/2006 | L23 | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LT RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL - CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE

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ATTACH SCREWS.

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|---|---|---|---|
| DOSS07 | LET | LONGERON | CRACKED |
| 5/2/2006 | L23 | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LT RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL - CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

| | | | |
|---|---|---|---|
| DOSS08 | LET | LONGERON | CRACKED |
| 5/2/2006 | L23 | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LH RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL - CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

| | | | |
|---|---|---|---|
| DOSS10 | LET | LONGERON | CRACKED |
| 5/2/2006 | L23 | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LT RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL - CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

| | | | |
|---|---|---|---|
| DOSS11 | LET | LONGERON | CRACKED |
| 5/2/2006 | L23 | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LT RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL - CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

| | | | |
|---|---|---|---|
| DOSS02 | LET | LONGERON | CRACKED |
| 5/2/2006 | L23 | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LT RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL, CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

| | | | |
|---|---|---|---|
| DOSS002 | LET | LONGERON | CRACKED |
| 5/2/2006 | L23 | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LH RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL - CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

| | | | | |
|---|---|---|---|---|
| 20060502D | LET | | LONGERON | CRACKED |
| 5/2/2006 | L23 | | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LT RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL, CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

| | | | | |
|---|---|---|---|---|
| DOSS13 | LET | | LONGERON | CRACKED |
| 5/2/2006 | L23 | | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LT RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL, CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

| | | | | |
|---|---|---|---|---|
| DOSS03 | LET | | LONGERON | CRACKED |
| 5/2/2006 | L23 | | | REAR COCKPIT |

FIRST LONGERON (N434BA) WAS FOUND CRACKED AT THE ELEVATOR TRIM GUIDE ATTACH POINT, NEAR THE RCP LH RUDDER PEDAL, DURING A SCHEDULED INSPECTION. SUBSEQUENT FINDINGS OCCURRED AS RESULT OF QUALITY DEPARTMENT ISSUING A ONE TIME INSPECTION OF ALL MDS. IT LOOKS AS IF THE OPERATOR, IN THE REAR COCKPIT (RCP), MAY BE STRIKING THE ELEVATOR TRIM GUIDE WITH HIS/HER FOOT WHILE ACTUATING THE RUDDER PEDAL, CAUSING THE SUPPORT STRUCTURE (LONGERON) TO WEAKEN AND FORM CRACKS AT THE ATTACH SCREWS.

| | | | | |
|---|---|---|---|---|
| 200600005 | LKHEED | | PANEL | CRACKED |
| 4/27/2006 | P3A | | 9006031 | LT WING |

NR 2 FUEL CELL LOWER WING SKIN, PLANK NR 2 CRACKED RISER. NO SRM STANDARD REPAIR FOR THIS DAMAGE. REPAIR WILL BE ACCOMPLISHED IAW EO 462557001.

| | | | | |
|---|---|---|---|---|
| AUCR200600003 | LKHEED | | PANEL | CRACKED |
| 4/27/2006 | P3A | | 9006051 | RT WING |

CRACKED RISER, NR 4 FUEL TANK LOWER PLANK NR 4 AT NR 27 RISER WS397R.

| | | | | |
|---|---|---|---|---|
| AUCR200600004 | LKHEED | | SKIN PANEL | DAMAGED |
| 4/27/2006 | P3A | | 9006041 | LT WING |

BOTTOM LT WING WS68.5, 4 FUEL BOOST PUMP SCREEN ATTACHING HOLES ELONGATED IN NR 17 AND NR 18 RISER.

| | | | | |
|---|---|---|---|---|
| 2006FA0000481 | MOONEY | CONT | PISTON | ERODED |
| 4/25/2006 | M20K | TSIO360SB | 646743 | ENGINE |

THE OIL CONTROL RING LANDS ON PISTON SEVERLY ERRODED AT PISTON PIN HOLE, BOTH SIDES OF PISTON. THIS IS THE 13 TH PISTON THAT WE HAVE SEEN THIS ON, IN OUR ENGINE SHOP. SC MODIFICATIONS, HAS 12 OF THEM, HAVE SAME PROBLEM. HAVE ONE TO SHOW. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000476 | MTSBSI | GARRTT | GEAR | CRACKED |
| 4/26/2006 | MU2B36A | TPE33110T | 8687813 | LT ENGINE GRBOX |

PILOT REPORTED DURING CRUISE LEVEL FLIGHT FEELING A SUDDEN VIBRATION AND HEARING A SCREAMING NOISE FROM THE LT ENGINE. PILOT THEN NOTICED TORQUE INDICATION ON LT ENGINE INDICATING 120 PERCENT WITH NO YAW INDICATED OR NOTICED BY PILOT. WHILE RETARDING LT POWER LEVER TO REDUCE TORQUE THE LT ENGINE SHUTDOWN UNCOMMANDED. ENGINE NTS SYSTEM FUNCTIONED NORMALLY AND AN

UNEVENTFUL SINGLE ENGINE LANDING WAS MADE. UPON ENGINE ASSEMBLY A 2 INCH PIECE OF THE BULL GEAR OUTER RIM WAS LAYING IN THE BOTTOM OF THE ACCESSORY HOUSING. INSPECTION OF THE BULL GEAR REVEALED THE MISSING SECTION AND AN APPROX 4 INCH CRACK IN THE HUB AREA WHICH CAUSED LOSS OF DRIVE TO THE PROPELLER SHAFT.

| | | | | |
|---|---|---|---|---|
| 2006FA0000447 | PIPER | CONT | STRUT | CORRODED |
| 2/26/2006 | PA17 | A65* | 1180500 | LANDING GEAR |

CHANGING SHOCK CORDS, DISCOLORATION OF INNER STRUT TUBE (LONGER ONE), REMOVED IT FROM OUTER TUBE (SHORTER ONE) OF INNER STRUT TUBES WAS CORRODED APPROX 50 PERCENT OF CIRCUM. OTHER INNER STRUT HAD MULTIPLE CORROSION HOLES THROUGH METAL. BOTH SHORT TUBES (OUTER) SHOWED ELONGATION AT ENDS INDICATING FLEXING/ BENDING OF ASSY DURING LANDING/TAKEOFF. ONLY NEW BUNGEES KEPT GEAR FROM FINAL FAILURE, RESULTANT GROUND LOOP. BUNGEE CORDS, WHEN INSTALLED, COVER THIS AREA, USUALLY HAVE A CLOTH OR ALUMINUM FAIRING OVER THEM. DETECTION REQUIRES REMOVAL OF FAIRINGS AT A MINIMUM, AND REMOVAL OF BUNGEES TO CLEARLY SEE OUTER TUBES CIRCUM. NECESSARY TO DISASSEMBLE UNIT, VIEW INNER PIECE, OUTER PIECE SEPARATELY. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000413 | PIPER | LYC | DRIVE ASSY | FAILED |
| 4/27/2006 | PA23160 | O320B1A | MZ6222 | STARTER |

STARTER DRIVE FAILED.

| | | | | |
|---|---|---|---|---|
| 2006FA0000414 | PIPER | LYC | DRIVE ASSY | FAILED |
| 4/27/2006 | PA23160 | O320B1A | MZ6222 | STARTER |

STARTER DRIVE FAILED

| | | | | |
|---|---|---|---|---|
| 2006FA0000442 | PIPER | LYC | HYDRAULIC LINE | CHAFED |
| 3/23/2006 | PA23250 | IO540* | | RT CABIN SIDE |

COMPLETE INTERIOR REFURBISHING WAS DONE. 100 HRS AFTER AC WAS RETURNED TO SERV, NOSE AND LT MAIN GEAR WOULD NOT LOCK DOWN, PILOT LANDED WITH ONLY RT GEAR EXTENDED. HYD FLUID WAS DRIPPING FROM BELLY, UPON INVESTIGATION, ALUMINUM HYD LINE WAS CHAFED THROUGH BY AILERON CABLE IN FRONT OF MAIN SPAR, UNDER CABIN ENTRANCE DOOR SILL. SUSPECTED THAT AFTER AC WAS INSP, WHEN DISCREP WERE BEING CLEARED, INTERIOR WORK BEING DONE, PERSONNEL SOMEHOW BENT LINE DOWN TO WHERE IT CONTACTED CABLE. WHEN PANEL IS REMOVED UNDER DOOR, HYD LINES ARE EXPOSED, LITTLE SUPPT IN THIS AREA, LITTLE CLEARANCE BTWN LINES, CABLES. LINES, CABLES ON LT SIDE OF CABIN ARE LESS LIKELY TO BE DISTURBED AS AUTOPILOT ROLL SERVO PROTECTS THEM. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000459 | PIPER | LYC | ATTACH FITTING | OUT OF LIMITS |
| 4/19/2006 | PA25235 | O540* | | FUSELAGE |

ATTACHMENT CONNECTIONS AT RT AND LT SIDES ARE BELOW MINIMUM SPECIFIED IN AD. INSPECTION METHOD-ULTRASONIC. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000478 | PIPER | LYC | MAGNETO | DISINTEGRATED |
| 5/1/2006 | PA25235 | O540B2C5 | S6LSC21BL5005162 | ENGINE |

MAGNETO WAS REMOVED FROM ENGINE FOR ROUTINE MAINTENANCE INSPECTION. THREADS ON MAGNETO SHAFT AND NUT WERE COMPLETELY STRIPPED. SLOT IN SHAFT FOR WOODRUFF KEY WAS WALLOWED OUT. COTTER KEY WHICH RETAINED NUT TO SHAFT WAS STILL IN PLACE. AT TIME OF REMOVAL ENGINE WAS OPERATING NORMALLY. ONLY THE MAG BUSHINGS AND RETAINER WERE HOLDING THE IMPULSE COUPLING IN PLACE. THE DRIVE SHAFT AND OR THE WOODRUFF WERE DEFECTIVE AT THE TIME OF MANUFACTURE. THIS CONDITION IF UNDETECTED WILL LEAD TO COMPLETE ENGINE FAILURE. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000452 | PIPER | LYC | CARBURETOR | UNSERVICEABLE |
| 4/25/2006 | PA28161 | O320D3G | MA4SPA105135 | ENGINE |

REF: NM-02-47 DATED 9/30/02 AND CE-06-33R1, DATED 4/12/06. ENGINE QUITS AT IDLE; IDLE SET AT 600, WILL DROP OFF AND QUIT. FUEL SOMETIMES DRAINS FROM CARB AFTER SHUTDOWN. BOTH SYMPTONS MATCH THOSE IN NM-02-47. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000437 | PIPER | LYC | RIB | CRACKED |
| 4/13/2006 | PA28R180 | IO360A1A | 6701603 | WING |

DURING MODIFICATION OF AFT RIB IAW SB, 2 CRACKS WERE FOUND PROPAGATING FROM THE OB BOLT HOLE FOR THE ATTACHMENT OF (PN 9564307) BRACKET. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000431 | PIPER | LYC | PRESSURE SWITCH | CORRODED |
| 4/18/2006 | PA28R200 | IO360C1C | 211C24312 | LANDING GEAR |

LANDING GEAR FAILED TO RETRACT IN FLIGHT. PLACING THE AC ON JACKS, THE LANDING GEAR FAILED TO COMPLETELY RETRACT. BY PLACING A JUMPER WIRE BYPASSING THE HYDRAULIC PRESSURE SWITCH THE LANDING GEAR WORKED NORMALLY. AFTER REMOVING THE PRESSURE SWITCH, CORROSION AND PITTING WAS OBSERVED ON THE CONTACTOR ALLOWING IT TO HEAT, WHICH INCREASED RESISTANCE, IN TURN CAUSING A LOW VOLTAGE CONDITION THAT DID NOT ALLOW THE GEAR MOTOR TO OPERATE AND CAUSED PARTIAL RETRACTION. IT WAS NOTED THAT AS THE PRESSURE SWITCH COOLED, IT AGAIN ACTIVATED THE GEAR MOTOR AND CONTINUED THIS CYCLE UNTIL THE LANDING GEAR WAS IN THE UP POSITION. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000433 | PIPER | | RIB | CRACKED |
| 4/14/2006 | PA28R201 | | 78475005 | RT WING STA49.25 |

INSPECTED RIB IAW SB 1161 AND FOUND RIB CRACKED. THE SAME RIB HAS BEEN FOUND CRACKED IN THE SAME LOCATION ON SIX OTHER WINGS. ALL OTHER WINGS HAD EXCESS OF 6000 HRS REPAIRED AND APPEARED TO HAVE BEEN INSTALLED CROOKED. THE ASSEMBLY PROCESS HAD THIS PART INSTALLED UNDER AN INITIAL LOAD LEADING TO PART CRACKING PREMATURELY. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000432 | PIPER | | RIB | CRACKED |
| 4/18/2006 | PA28R201 | | 62021005 | WING STA 49.25 |

RIB CRACKED IN FLANGE WHERE LANDING GEAR SIDE BRACE FITTING BOLTS. THE CRACK HAS BEEN NOTED ON LIKE MODELS (6 WINGS). ALL PREVIOUS NOTATIONS FOUND ON AC IN EXCESS OF 6000 HRS TO BE CAUSED BY AN IMPRESSION LEFT BY THE AN960-4 WASHER USED UNDER THE LOCKNUT. THE WASHER APPEARS TO CUT INTO THE RADIUS AND THE CRACKS ORIGINATE AND FOLLOW THE WASHER OUTLINE UNTIL IT PROGRESSES TO A POINT OF CONTINUING IN BOTH DIRECTIONS VERTICALLY. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000495 | PIPER | LYC | OIL FILTER | LEAKING |
| 5/9/2006 | PA28R201 | IO360C1C | CH481101 | ENGINE |

PILOT REPORTED OIL SPOTS ON HANGAR FLOOR. ENGINE WAS WASHED AND GROUND RUN FOR LEAK CHECK. INSPECTED ENGINE AFTER ENGINE RUN AND FOUND OIL ON BOTTOM SIDE OF OIL FILTER. FURTHER INSPECTION OF THE OIL LEAK REVEALED THAT THE OIL WAS LEAKING FROM THE HEX NUT ON THE BACK OF THE FILTER. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000439 | PIPER | LYC | INTAKE VALVE | DISINTEGRATED |
| 1/28/2006 | PA32300 | IO540* | 73938 | CYLINDER NR 3 |

INTAKE VALVE DISINTEGRATED, FALLING INTO CYLINDER HEAD NR 3. VALVE BOUNCED AROUND, BEATING THE TOP OF PISTON AND CYL HEAD CAUSING EXTENSIVE DAMAGE, FINALLY THE VALVE WAS SUCKED INTO THE INTAKE CAUSING A GAPPING HOLE ON THE INTAKE PORT. INTAKE VALVE FAILURE IS BELIEVED TO BE THE ONLY CAUSE OF CATASTROPIC FAILURE. (K)

| | | | | |
|---|---|---|---|---|
| 4437811 | PIPER | | AIR FILTER | DEBONDED |
| 4/18/2006 | PA32R301T | | P151936 | ENGINE |

PN P560007-3, GASKET HAD SEPERATED FROM FILTER ON ONE SIDE AND WAS PULLED INTO THE AIR STREAM ON THE ENGINE SIDE OF THE FILTER. INSTALLED NEW FILTER.

| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000407 | PIPER | LYC | LYC | HOSE | DETERIORATED |
| 4/14/2006 | PA32R301T | TIO540S1AD | TIO540AH1A | LW18724 | ENGINE |

PARTIAL POWER LOSS, TWO CYLINDERS DROPPED OUT, CAUSED BY SMALL PARTICLES OF RUBBER HOSE FROM UPPER DECK AIR REFERENCE LINES FLAKING OFF AND OCCLUDING THE FUEL INJECTORS

| | | | | |
|---|---|---|---|---|
| 2006FA0000400 | PIPER | | VALVE | LEAKING |

| | | | | |
|---|---|---|---|---|
| 1/6/2006 | PA34200T | | 236405492189 | FUEL SYS |

FUEL COULD NOT BE SHUT OFF AND FUEL WAS CROSS-FEEDING. SEVERAL CROSSFEED VALVES HAVE BEEN EXAMINED AND FOUND TO HAVE DEFECTIVE SEALS. O-RINGS WERE DISSOLVED AND RESEMBLED A TAR LIKE SUBSTANCE. IF THERE IS AN ENGINE FIRE OR LEAK, FUEL CANNOT BE SHUT OFF WHICH CREATES A SAFETY OF FLIGHT CONDITION THAT MUST BE CORRECTED.

| | | | | |
|---|---|---|---|---|
| RX8R2006001 | PIPER | PWA | HYDRAULIC LINE | DAMAGED |
| 4/10/2006 | PA42720 | PT6A61 | 5777402 | LG RETRACT SYS |

AFTER TAKEOFF THE LANDING GEAR HANDLE WAS MOVED TO THE UP POSITION THE LANDING GEAR CAME UP BUT THE GEAR DOORS DID NOT CLOSE. THE LANDING GEAR HANDLE WAS PUT IN THE DOWN POSITION BUT THE LANDING GEAR DID NOT LOCK DOWN. THE EMERGENCY HAND PUMP WAS USED TO MAKE THE LANDING GEAR LOCK IN THE DOWN POSITION. THE AIRCRAFT WAS LANDED WITHOUT INCIDENT. DISCOVERED HYDRAULIC LINE FROM HYDRAULIC FILTER WAS RUBBING ON NUT PLATE AND HAD WORN A HOLE IN IT. RIGHT WING TO NACELLE AREA WAS INSPECTED AND THE SAME HYDRAULIC LINE WAS FOUND RUBBING IN THE SAME AREA BUT HAD NOT WORN THROUGH. RECOMMEND INSPECTING THIS AREA ON ALL PA42-720 AIRCRAFT. AREA LOCATED BEHIND SMALL (FOUR INCH) PANEL JUST INBOARD OF THE ENGINE NACELLE ON LE.

| | | | |
|---|---|---|---|
| 2006FA0000408 | PIPER | DRAG LINK | FRACTURED |
| 3/29/2006 | PA44180 | 67146004 | NLG |

DURING LANDING, THE NOSE GEAR RETRACT DRAG BRACE FAILED AT THE PIVOT POINT. THE NOSE GEAR COLLAPSED AND THE AIRCRAFT VEERED OFF OF THE RUNWAY STRIKING A LARGE RUNWAY SIGN WITH THE RT OB WING SECTION. THE CAUSE OF THE FAILURE IS STILL UNDER INVESTIGATION.

| | | | |
|---|---|---|---|
| 2006FA0000409 | PIPER | DRAG LINK | FRACTURED |
| 3/29/2006 | PA44180 | 67146004 | ZONE 700 |

DURING LANDING, THE NOSE GEAR RETRACT DRAG BRACE (PN-67146-004) FAILED AT THE PIVOT POINT. THE NOSE GEAR COLLAPSED AND THE AIRCRAFT VEERED OFF OF THE RUNWAY STRIKING A LARGE RUNWAY SIGN WITH THE RT OB WING SECTION. THE CAUSE OF THE FAILURE IS STILL UNDER INVESTIGATION.

| | | | |
|---|---|---|---|
| 2006FA0000510 | PIPER | BOLT | BROKEN |
| 4/21/2006 | PA44180 | 402940 | NOSE GEAR |

NOSE GEAR COLLAPSED ON TOUCHDOWN. MAINS TOUCHED FIRST THEN NOSE. 2 COMPONENTS THAT ARE DAMAGED IN NOSE GEAR RETRACT/EXTEND SYS. W/O DISASSEMBLING LINKAGE, VISUAL EVIDENCE, BOLT CONNECTING UPPER DRAG LINK TO LWR DRAG LINK FAILED DUE TO POSSIBLE OVERLOAD CONDITION. (FRACTURED END OF BOLT IS BRIGHT AND SHINNY, INDICATING AN INSTANTANEOUS FAILURE). ONE HALF OF THAT BOLT, WASHER, NUT AND COTTER PIN IS STILL INSERTED IN JOINT. OTHER DAMAGED COMPONENT IS BOLT THAT DOWNLOCK HOOK ENGAGES, BOLT IS BENT IN SUCH A WAY AS TO INDICATE IT WAS DAMAGED AS A RESULT OF NOSE GEAR COLLAPSE. AFTER UPPER AND LWR DRAG LINK ASSEMBLIES HAVE BEEN REMOVED SENT TO MFG FOR FURTHER INSP AND ANALYSIS.

| | | | | |
|---|---|---|---|---|
| 0600710 | PIPER | LYC | EXHAUST RISER | BROKEN |
| 3/31/2006 | PA44180 | LO360E1A6 | 89366003 | RT ENGINE |

PILOT'S REPORTED VIBRATION IN RT ENGINE, ALSO STATED SOMETHING SEEMED LOOSE AND RATTLING. LEANED AT DIFFERENT POWER SETTINGS WHILE IN FLIGHT WITH NO CHANGES. RETURNED TO AIRPORT WITHOUT INCIDENT. UNCOWLED RT ENGINE AND FOUND NR 2 CYLINDER EXHAUST RISER BROKEN OFF AT MOUNT FLANGE. REPLACED WITH NEW RISER AND GASKET, OPERATIONAL CHECK GOOD.

| | | | | |
|---|---|---|---|---|
| 2006FA0000434 | PIPER | LYC | CAM | WORN |
| 4/14/2006 | PA44180 | O360E1A6 | | ENGINE |

NOTED EXCESS MATERIAL IN REMOVED OIL FILTER, SAMPLE ANALYZED AND DETERMINED CAM/LIFTER WEAR. ENGINE REMOVED FOR REPAIRS. WHILE CASE SPLIT SB 569 COMPLIED WITH REPLACING CRANKSHAFT. (K)

| | | | |
|---|---|---|---|
| 2006FA0000418 | PIPER | STRUT | BROKEN |
| 4/22/2006 | PA44180T | 6703704 | LT MLG |

LT GEAR STRUT BROKE AT HOUSING.

| | | | | |
|---|---|---|---|---|
| 2006FA0000419 | PIPER | | STRUT | BROKEN |
| 4/22/2006 | PA44180T | | 6703704 | LT MLG |

LH MLG STRUT BROKE ON TAXI

| | | | | |
|---|---|---|---|---|
| HAG06002 | RAYTHN | | LONGERON | CRACKED |
| 4/6/2006 | DH125 | | 25FN86 | FUSELAGE |

CRACK IN KEEL LONGERON BETWEEN FRAMES 4 AND 5, APROXIMATE STATION 175.00. CRACK IS ONLY IN LONGERON, NOT IN MAIN BEAM. CRACK LOCATED IN LOWER AFT HOLE FOR NOSE GEAR ATTACH BRACKET. DISCOVERED DURING REQUIRED CHECK OF ATTACH BOLT TORQUE, ALL BOLTS FOUND LOOSE. BRACKET REMOVED FOR HIDDEN DAMAGE INSPECTION.

| | | | | |
|---|---|---|---|---|
| 2006FA0000445 | RAYTHN | GARRTT | WINDSHIELD | CRACKED |
| 3/30/2006 | HAWKER800XP | TFE731* | NH2401691 | COCKPIT |

LEVEL FLIGHT AT 360, PILOTS (B) PANEL OUTER HEATED LAYER CRACKED ALONG LOWER FRONT CORNER THEN CONTINUED UP AND ACROSS TOP OF WINDOW. CREW DECLARED AN EMERGENCY AND DESCENDED TO 8000 FT. OUTER PANEL STAYED WITH AIRCRAFT, NO AD OR SB APPLY TO PANEL AT THIS TIME. WINDOW REPLACED WITH NEW UNIT. PRESSURIZATION AND OPS CHECK GOOD. THIS WINDOW HAD NO VISIBLE OR OPERATIONAL PROBLEMS PRIOR TO FAILURE. (K)

| | | | | | |
|---|---|---|---|---|---|
| 2006FA0000522 | RAYTHN | GARRTT | RAYTHN | CURRENT LIMITER | MISDRILLED |
| 5/22/2006 | HAWKER800XP | TPE331* | | UAM100 | ELECT PANEL |

MOUNTING HOLES IN CURRENT LIMITER DOES NOT MATCH LUGS IN ELECTRICAL PANEL.

| | | | | |
|---|---|---|---|---|
| 2006FA0000428 | ROLSCH | GE | ACTUATOR | CRACKED |
| 4/21/2006 | LS3A | CF680 | 273T411B1 | NLG |

NLG RETRACT ACTUATOR WAS RECEIVED WITH THE PISTON ROD CRACKED. 3 CRACKS RUN AROUND THE CIRCUMFERENCE OF THE ROD AT THE THREADED END. CRACKS RUN ABOUT 95 PERCENT AROUND ROD BUT DO NOT CONNECT (RUN IN A SPIRAL) CORROSION FOUND ON INTERIOR THREADS. CORROSION APPEARS TO BE IN CRACK. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000539 | SKRSKY | PWA | BREATHER TUBE | DETERIORATED |
| 5/7/2006 | S76B | PT6B36 | 7650004503074 | ACCY GEARBOX |

ENROUTE TO A PICK UP A PATIENT. WITHIN 4 MINUTES OF TAKEOFF, MEDICAL CREW REPORTED, SMELLED SMOKE IN CABIN, BECOMING VISIBLE ALSO. PILOT NOTICED IT ABOUT SAME TIME. PILOT RETURNED WITHOUT DELAY, APPROX 30 SECONDS BEFORE TOUCHDOWN, BAGGAGE COMPARTMENT SMOKE DETECTOR WENT OFF. AC LANDED WITHOUT INCIDENT. INVESTIGATION SHOWED NR 2 ENG ACCY GEARBOX VENT TUBE HAD BROKEN FREE OF ENG DECK FITTING. THIS OVERBOARD BREATHER TUBE MADE OF A VINYL MATERIAL, HAD DETERIORATED TO POINT OF BREAKING OFF OF FITTING ON BOTTOM OF ENG DECK. TUBE RUNS THROUGH AFT CORNER OF BAGGAGE COMPT, WHEN TUBE BROKE, FILLED COMPT WITH OIL MIST/VAPOR THAT ILLUMINATED SMOKE DETECTOR. VINYL TUBE WAS REPLACED, AC RETURNED TO SERVICE. (K)

| | | | | |
|---|---|---|---|---|
| 2006FA0000496 | SNIAS | TMECA | BLADE | CRACKED |
| 5/5/2006 | AS350B | ARRIEL1 | 355A11002011 | MAIN ROTOR |

CRACK FOUND ON LOWER SURFACE OF MAIN ROTOR BLADE NEAR STATION 1000. EXACT CAUSE OF CRACK WOULD ONLY BE SPECULATIVE. (K)

| | | | | |
|---|---|---|---|---|
| 1MAC06 | SOCATA | PWA | CABLE | FRAYED |
| 4/10/2006 | TBM700 | PT6A64 | T700A2740085002 | ELEV TRIM SYS |

FRAYED ELEVATOR TRIM CABLE FOUND DURING 100 HR INSPECTION IN AFT FUSELAGE ACCESS PANEL.

**END OF REPORTS**