



U.S. Department  
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**Federal Aviation  
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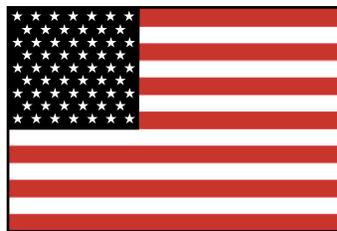
**AFS-600**  
*Regulatory Support Division*

## ADVISORY CIRCULAR 43-16A

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# AVIATION MAINTENANCE ALERTS

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**ALERT  
NUMBER  
282**

**JANUARY  
2002**

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

**AVIATION MAINTENANCE ALERTS**

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The Aviation Maintenance Alerts provide a common communication channel through which the aviation community can economically interchange service experience and thereby cooperate 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 which have not been evaluated fully by the time the material went to press. As additional facts such as cause and corrective action are identified, the data will be published in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported via Malfunction or Defect Reports. Your comments and suggestions for improvement are always welcome. Send to: FAA; ATTN: Designee Standardization Branch (AFS-640); P.O. Box 25082; Oklahoma City, OK 73125-5029.

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**AIRPLANES**

**AMERICAN GENERAL**

**American General; Model AA-1; Yankee; Defective Engine Mounts; ATA 7120**

While preparing the engine mount supports for painting, the technician discovered severe corrosion on the upper left engine mount support.

Further inspection revealed the upper right engine mount support was in the same condition. Both engine mount supports (P/N 102069-1) displayed advanced stages of intergranular corrosion as evidenced by powdery deposits and exfoliation of the metal surface. Due to the damage, he replaced both supports.

The submitter stated this damage would not normally be detected during a scheduled inspection. He suggested that technicians expend the extra effort during scheduled inspections to determine the airworthiness of these parts. Also, be aware that these same parts may be used on other models of American General aircraft. He recommended that the manufacturer issue guidance, through the issuance of service information, for the proper inspection techniques and frequency necessary for these parts.

Part total time-2,230 hours.

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**American General; Model AA5A; Cheetah; Poor Engine Performance; ATA 7322**

The aircraft owner reported the engine operated very poorly at low power settings. The carburetor used on this engine is a Marvel Schebler Precision Model 10-5009.

The technician discovered the carburetor bowl was loose and allowing excessive air into the fuel/air mixture. The carburetor bowl locking tabs were all in the "locked" position. Investigating further, he discovered the carburetor bowl threads were worn excessively. As the worn threads allowed movement of the carburetor bowl, the threads continued to wear and exacerbate the damage.

The submitter stated this was the second occurrence of this defect he has dealt with in the past 200 hours of operation. He speculated that shrinkage of the gasket may be a contributing factor for the thread wear.

Part total time-1,700 hours.

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**BEECH****Beech; Model F33A; Bonanza; Poor Engine Operation; ATA 7324**

The aircraft owner/pilot delivered the aircraft to a maintenance shop and stated the engine ran rough and sometimes would not shut down.

A technician determined the engine fuel flow divider (P/N 631427-2A20) occasionally stuck in the “open” position. When this occurred, fuel flow was continually supplied to the engine.

After replacing the fuel flow divider, an operational engine test confirmed the problem was solved.

Part total time-887 hours.

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**Beech; Model 58P; Baron; Fastener Failure; ATA 5530**

During a scheduled inspection, a technician discovered a broken fastener on the vertical stabilizer.

A rivet head was missing from the “extension fitting” (P/N 96-640010-3) used to attach the vertical stabilizer spar to the empennage. The submitter could not determine the cause of this defect and stated there was no evidence of corrosion or cracking of the surrounding structure. It appears the rivet failed in “tension.” The adjacent fasteners appeared to be sound.

Even this one fastener failure could compromise the structural integrity of the vertical stabilizer attachment, and the area should be given special attention during inspections.

Part total time-7,165 hours.

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**Beech; Model 58; Baron; Engine Starting System Failure; ATA 8000**

During a scheduled inspection and engine oil change, a technician discovered ferrous metal contamination in the left engine oil filter.

The technician suspected the engine starter assembly was responsible for the metal contamination. He removed the starter assembly, including the starter adapter (P/N 642087A55), and discovered the shaft gear needle bearing (P/N 630890) had disintegrated. The entire engine oil system was contaminated, and some of the “needles” from the bearing damaged the crankshaft and idler gears. There was extensive damage to the engine case at the bearing location.

Part total time-199 hours.

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**Beech; Model 65; Queen Air; Rudder Attachment Fasteners Missing; ATA 5540**

During a scheduled inspection, the inspector discovered broken rudder attachment fasteners.

All the rivets used to attach the rudder torque tube (P/N 50-630000-126) to the end fitting (P/N 50-600016) were broken. It appeared the rivets were sheared; however, the submitter could not determine a source of the shear stress sufficient to break the fasteners.

The submitter recommended that maintenance personnel be aware of these findings while inspecting and/or maintaining like aircraft.

Part total time not reported.

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**Beech; Model C90A; King Air; Cabin Floor Fastener Failure; ATA 5321**

The submitter of this report stated that on several occasions, he has found defective cabin floorboard fasteners.

The adjustable grip latch fasteners (P/N 43-1-13-0) are used to secure the center isle floorboard panels in the cabin. When the fasteners come apart, metal pieces can fall into the electrical equipment located below the floorboards. After the wing flap system failed, the technician discovered a piece of a floorboard fastener was shorting out the flap relay.

Maintenance personnel should be aware of the possibilities for failure of related systems caused by metallic contamination of electrical equipment.

Part total time not applicable.

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**Beech; Model C90; King Air; Defective Electrical Wiring; ATA 3230**

During a flight, the pilot discovered the right main landing gear would not indicate the “down-and-locked” position. At first, the pilot believed this was only an indication problem. However, after all attempts to attain the proper indication failed, he landed the aircraft safely.

After the flight, the pilot reported landing the aircraft with an unsafe light on the right main gear.

The technician discovered the squat switch wiring was damaged. The damage to the wiring was caused by a sharp edge at the top opening of the protective conduit. The conduit is attached to the aft side of the right main landing gear side brace.

Airframe total time-1,850 hours.

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**Beech; Model 99; Airliner; Elevator Structural Defect; ATA 5520**

During a scheduled inspection, a technician discovered a crack in the elevator structure.

The left elevator torque tube (P/N 115-610014) collar (P/N 115610016-3) had a crack extending from a taper pin fastener hole used for attachment. This defect could have resulted from age and extended normal operation. However, the manufacturer’s maintenance manual states that cracks in this area may result from “overtorque” of the taper pins.

The submitter encouraged all maintenance personnel to be cognizant of the proper installation and torque requirements for taper pin installation.

Part total time-37,440 hours.

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**Beech; Model 99; Airliner; Rudder Cable Defect; ATA 2720**

While conducting a scheduled inspection, the inspector discovered a rudder cable was defective.

The rudder cable was severely frayed at a point approximately 3 inches aft of a pulley that is just aft of the air-stair door. The inspector checked the adjacent rudder cable and found no damage. He surmised the frayed cable was the result of normal wear.

It was recommended that all concerned technicians check the flight control cables in this area closely during inspections and maintenance.

Part total time-38,272 hours.

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### **Beech; Model 200; King Air; Fuel System Defect; ATA 2810**

This aircraft fuel system tanks are designed with an “antisiphon” valve located at the fuel cap. In the process of replacing an “antisiphon” valve, the technician discovered the new part was defective.

The technician performed a receiving inspection on the new “antisiphon” valve (P/N 101-920061-37) which he had received from Raytheon. During the inspection, he discovered the “flapper” assembly gasket and backup plate were incorrectly trimmed, and the hinge was exposed. This condition left a gap, which would allow fuel siphoning during flight, if the fuel cap came loose.

The submitter notified the manufacturer, who investigated and quarantined replacement parts in their inventory. It is possible that some defective parts still remain in the supply system. The submitter cautioned everyone concerned to conduct a thorough receiving inspection of new “antisiphon” valves prior to installation.

Part total time not reported.

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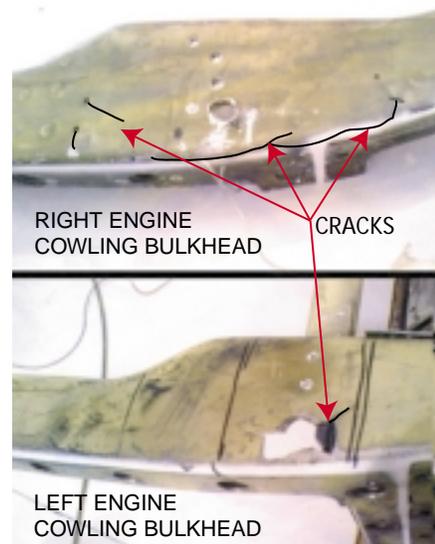
### **Beech; Model 1900; Airliner; Nacelle Structural Defects; ATA 7110**

While conducting a scheduled inspection, the technician discovered several cracks in the left and right nacelles.

The cracks on the right engine were found in the cowling bulkhead (P/N 1189100421) at station 238.18. This location is where the lower front engine cowling attaches. The cracks were located on the right lower side. (Refer to the illustration.)

The submitter found similar cracks on the left engine cowling bulkhead. He did not offer a cause or cure for this type of defect; however, he suggested that technicians be vigilant for problems in this area. It is possible that the high number of operating hours on this airframe contributed to these defects.

Part total time 31,058 hours.




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## **CESSNA**

### **Cessna; Model 152II; Poor Engine Operation and Failure; ATA 7322**

After a very short flight, the pilot reported that after takeoff, he turned downwind, and the engine began running rough and losing power. After the pilot landed the aircraft safely at the departure field, the engine quit as he turned onto the taxiway.

A technician conducted a ground operational test of the engine. During the test, the engine operated within acceptable parameters. After approximately 3 minutes, the engine began running rough, lost power, and failed.

Troubleshooting results indicated fuel starvation caused the problem. The technician discovered the carburetor (P/N MA-3PA) float was sticking, which restricted the fuel supply to the carburetor. After installing a new carburetor, the engine operated properly.

Part total time since overhaul-1,105 hours.

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**Cessna; Model 172L; Skyhawk; Uncontrollable Engine Power; ATA 7322**

After a flight, the pilot reported that during a landing descent, he was unable to reduce engine power. The pilot made a safe landing using the mixture control to adjust engine power.

A technician investigated and found the carburetor accelerator discharge tube (P/N 229-164) had separated and was lying in the bottom of the intake airbox. The evidence indicated the discharge tube sealant (Loctite) failed allowing separation from the accelerator discharge port. When the sealant failed, the discharge tube lifted up through the boost venturi blocking movement of the throttle valve. The engine in this aircraft used a Precision Airmotive, Model MA-4SPA carburetor.

Part total time since overhaul-1,618 hours.

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**Cessna; Model 172R; Skyhawk; Elevator Defect; ATA 2722**

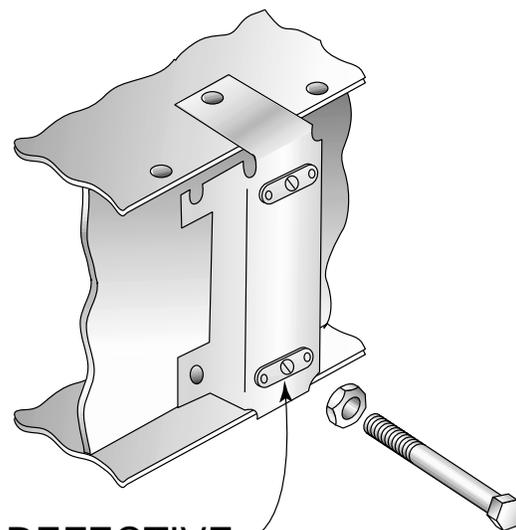
While conducting a scheduled inspection, the inspector discovered the elevator stop assembly was defective.

The lower elevator stop nut plate (P/N MS21078-3) was broken and the fiber lock portion had separated from the rest of the nut plate. (Refer to the illustration.) The dysfunctional nut plate allowed the stop bolt to move freely in the assembly. It appeared the nut plate failure began as small cracks and culminated in complete failure.

The submitter speculated this defect was caused by repeated elevator contact with the stop bolt while parked on the ramp during gusty and strong wind conditions.

This area deserves extra attention during inspections and maintenance.

Part total time-2,355 hours.



**DEFECTIVE  
NUT PLATE**

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**Cessna; Model 172S; Skyhawk; Propeller Spinner Failures; ATA 6113**

The pilot complained that the propeller spinner wobbled during engine.

The technician discovered the spinner bulkhead (P/N 0550321-11) was broken at the nut plate nearest the aft side of the number 1 blade. Some of the bulkhead material had completely separated, allowing the spinner to bend outward due to centrifugal force during operation.

While checking the maintenance records, the technician discovered the spinner bulkhead had been previously replaced at 153 hours aircraft total time. The total aircraft time at this failure was 395 hours.

The FAA Service Difficulty Reporting Program data base contains 13 similar failures. All 13 failures involved Cessna, Model 172, aircraft and 8 of the 13 were on 172S Models.

Part total time-242 hours.

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**Cessna; Model 210A; Centurion; Fuselage Structural Defect; ATA 5330**

While conducting other maintenance, a technician discovered a defect in the lower forward fuselage structure.

A crack approximately 4.5 inches long was found in a skin panel (P/N 1253018-1) located just above the nosewheel well. The correction of this damage required a major repair and was documented on FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, or Appliance).

The submitter stated it appears the crack resulted from a hard landing or a nosewheel-first landing. To prevent recurrence, it was suggested that pilots be made aware of the consequences of a hard or nosewheel-first landing.

Part total time-3,395 hours.

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**Cessna; Model 340A; Landing Gear Failure; ATA 3230**

The pilot reported that after takeoff, the landing gear would not retract. He landed the aircraft safely at the departure airport and summoned maintenance personnel.

While troubleshooting the landing gear system, a technician discovered the landing gear relay (P/N 6041H220) was inoperative and preventing operation of the gear. After removing and replacing the gear relay, a gear retraction test was satisfactory.

The submitter speculated that age and time in service were major factors contributing to this failure. Also, moisture contamination and corrosion were suspected as direct causes for the failure.

Part total time-4,851 hours.

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**Cessna; Model 402C; Businessliner; Electrical System Failure; ATA 8011**

After a flight, the pilot reported experiencing a partial loss of electrical power. The flightcrew landed the aircraft without further incident and asked maintenance personnel to investigate.

A technician discovered the right engine starter relay (P/N 9910397-1) did not disengage. The starter was inoperative, and the battery was completely dead. When this occurred, the alternator dropped offline and caused a loss of electrical power.

It was necessary to replace the starter, starter relay, and battery to correct this defect. The submitter did not offer a cause or cure for this defect to prevent recurrence.

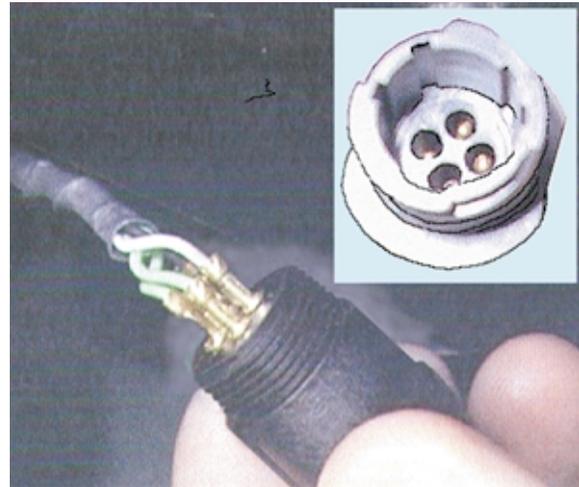
Part total time not reported.

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**Cessna; Model 550; Citation; Cabin Pressurization System Defect; ATA 2131**

After installation of a “repaired” cabin pressure controller unit, the technician found that the system would not test or pressurize the aircraft.

The technician conducted rigorous troubleshooting procedures, during which he discovered the cabin pressurization controller (P/N 130356-16) “Cannon plug” was defective. The four “Cannon plug” pins were bent slightly and were recessed in the plug far enough to prevent electrical contact. In addition, the wires installed into the pins were not stripped, but crimped into the pins with the insulation still in place. (Refer to the illustration.)



Needless to say the workmanship in this case was far less than satisfactory. Technicians are urged to pay close attention to detail and current technical data while repairing aviation equipment.

Part total time-3,686 hours.

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**Cessna; Model 560; Citation; Landing Gear Emergency Release System Defect; ATA 3230**

During a scheduled inspection, the inspector discovered the landing gear emergency release cable was damaged.

The gear release cable (P/N 6640622-17) passes just forward of the battery compartment on the inboard side of a hydraulic pressure line. At fuselage station (FS) 390, the cable was rubbing hard against the edge of a bulkhead opening. (Refer to the illustration.)

The severity of damage to the cable made replacement necessary. Since this is a relatively new aircraft, it makes one wonder if other like aircraft may suffer the same problem.

Part total time-18 hours.



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**Cessna; Model 560; Citation; Engine Starting System Defect; ATA 8000**

During engine operation to troubleshoot an anti-icing problem, the technician noticed the right engine start light remained illuminated after the start cycle was complete.

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Pushing the “start disengage” button did not extinguish the light; however, the generator came on line. When the technician shut down the engines, he cut the right engine first in the event that the start relay (P/N S2843-5) contacts were “welded” together. The shutdown sequence was normal, indicating the relay contacts were functioning.

Further troubleshooting revealed the start light stayed on even with the battery switch in the “off” position. The only way to extinguish the light was to disconnect the aircraft battery or pull the start light circuit breaker. The technician gained access to the aft electrical power junction box, tapped the relay with a screwdriver, and the start light extinguished. Apparently, the electrical connection inside the relay, which provides power for the light, had somehow come in contact with a source of battery power inside the relay; therefore, the tapping broke the contact.

This defect is one of those rare occurrences that can lead to a lengthy period of “head scratching” prior to solving the problem. Most of the time, the relay contacts “weld” themselves together causing a similar indication.

Part total time-2,844 hours.

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## PIPER

### **Piper; Model PA 22-108; Colt; Fuel System Defect; ATA 2820**

After experiencing two fuel starvation incidents, the aircraft owner asked a maintenance technician to investigate. He said he heard a “hissing” sound coming from the right fuel tank after the second incident.

The technician examined the fuel tank caps and discovered they were not “vented” as required. The fuel tank caps were made of aluminum and appeared to be fairly new. He replaced the fuel tank caps, and there were no further problems.

Airworthiness Directive (AD) 78-10-03, which references Piper Service Bulletin number 522, addresses this problem.

Part total time unknown.

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### **Piper; Model PA 28-140; Cherokee; Magneto Failure; ATA 7414**

During an engine runup prior to flight, the pilot noted an excessive RPM loss when he selected the left magneto. He heard several very loud backfires and shut down the engine.

The Textron Lycoming Engine, Model O-320, installed on this aircraft used Slick Model 4373 magnetos.

Since the engine would not restart, the technician investigated and discovered the magneto rotor gear (P/N M3827) had come loose on the rotor shaft and migrated toward the end of the shaft. The rotor came in contact with the bottom of the distributor block causing wear of the assembly and generation of “plastic” contamination.

The technician found that the rotor shaft was worn to the point where it was no longer able to maintain a “press fit” with the rotor gear.

Part total time-1,540 hours.

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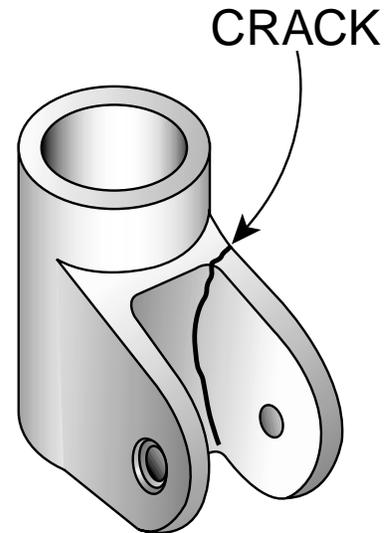
**Piper; Model PA 28-151; Warrior; Main Landing Gear Structural Defect; ATA 3213**

During a scheduled inspection, a technician discovered the left main gear strut was damaged.

One of the lower strut (P/N 48738-02) torque link attachment ears was cracked and in danger of complete failure. It appeared the crack originated at the top of the casting and traveled down following the radius. (Refer to the illustration.) The submitter stated this defect has been discovered many times, especially on middle-time aircraft and high-time aircraft that are used for flight instruction. Previous cracks have been found on either torque link attachment ear originating from either the top or bottom and following the radius.

The submitter urged all technicians to give this area special attention during inspections and maintenance.

Part total time unknown.



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**Piper; Model PA 28-181; Archer; Wing Structural Damage; ATA 5730**

While conducting a scheduled inspection, a technician discovered numerous cracks in a wing skin doubler.

The doubler, used to reinforce the wing skins (P/N's 62061-002 and -004), is located in the cabin entry walkway on the inboard right wing. This area was weakened considerably and "flexed" abnormally when weight was applied. The supporting doubler was damaged, but the top skins were not damaged.

The submitter recommended that all technicians give rigorous scrutiny to this area during inspections and maintenance.

Part total time-6,499 hours.

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**Piper; Model PA 31P; Navajo; Engine Exhaust System Defect; ATA 7800**

This aircraft uses Textron Lycoming, Model TIGO-541 engines.

After a flight, the pilot reported a loss of turbocharger output on the left engine. He shut down the engine and landed safely.

A technician investigating this incident found the outboard adapter (P/N LW 13027) flange on the left engine exhaust system was broken. Failure of the adapter flange allowed exhaust gases to escape causing loss of turbocharger input.

The submitter did not give a cause for this defect. However, considering the short time in service, the defect may have been caused by improper installation or a defective part. Stress and/or preload induced during installation may have contributed to this failure.

Part time since overhaul-7 hours.

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**Piper; Model PA 31T-620; Cheyenne; Loss of Engine Oil Pressure; ATA 7931**

The pilot stated that during a flight, he noticed a loss of engine oil pressure. He shut down the right engine and made a safe, single-engine landing.

While investigating, a technician discovered the engine oil cooler inlet hose (P/N 80026-05) was leaking severely. The hose was cracked and split in a sharp bend radius.

The submitter believes the hose had been improperly routed during a recent engine installation. He suggested that proper routing procedures be followed to avoid duplication of this defect.

Part total time-1,326 hours.

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**Piper; Model PA 31-350; Chieftain; Cabin Heater Fuel Leak; ATA 2140**

In June 2001, Airworthiness Directive (AD) 2001-08-01, which requires inspection for fuel leaks on specified JanAero combustion heaters, was complied with on this aircraft. On September 11, 2001, the FAA issued AD 2001-17-13, which superseded AD 2001-08-01. AD 2001-17-13 deals with the same combustion heater fuel leakage concern.

This aircraft uses a JanAero Model B4050 combustion heater. The technician discovered fuel leaking from the fuel regulator shutoff valve (P/N A23D04). This shutoff valve was replaced with a new part during the previous compliance with AD 2001-08-01; however, the newly installed shutoff valve was again found leaking. The new shutoff valve was manufactured in March 2001.

Technicians are urged to rigorously inspect the heater fuel shutoff valve at every opportunity. Valve leakage presents the danger of an aircraft fire, personal injuries, and damage or destruction of the aircraft.

Part total time-30 hours.

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**Piper; Model PA 31-350; Chieftain; Wing Flap Failure; ATA 2750**

While taxiing after landing, the pilot selected the wing flap to the "up" position and heard a loud popping sound. The flaps stopped the retraction cycle, and the "flap fault" light illuminated.

A maintenance technician discovered the right flap was "hanging loose" and was in the "full-down" position. The wing flap jackscrew had separated from the transmission (P/N 451813) and was still attached to the flap.

After disassembling the flap transmission, the technician found the castellated nut, used to retain the jackscrew in the transmission body, had backed all the way off. This allowed the jackscrew shaft to separate. The castellated nut is saftied in place by a tang on the lock washer that is bent into one of the nut castellations. In this case, none of the tangs on the lock washer were bent into the nut castellations.

The submitter believes that without engagement of the safety tang, normal operating vibration caused the nut to loosen to the point of failure.

This defect presented a very serious degradation of flight safety that could have resulted in the loss of aircraft control and a serious accident.

Part total time unknown.

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**Piper; Model PA 34-200T; Seneca; Nosewheel Steering Defect; ATA 3251**

The pilot reported that while taxiing, he heard a loud popping noise coming from the nose gear area.

While investigating, a technician discovered the nosewheel steering channel (P/N 95394-000) was cracked. The crack was adjacent to the right rear attachment weld on the channel.

The submitter recommended the manufacturer consider using more structurally substantial material for the steering channel construction.

Part total time not reported.

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**Piper; Model PA 34-200; Seneca; Propeller Spinner Bulkhead Defect; ATA 6113**

After installing an overhauled propeller and a “new style” hub, the technician discovered the (new) rear spinner bulkhead would not fit.

It appeared that it would be necessary to trim some of the metal away to allow a proper fit. The technician contacted the manufacturer and was informed that the rear spinner bulkhead (P/N 453-978) required for this aircraft would not fit with the “new style” hub. The correct rear spinner bulkhead (Piper P/N 587-749) for this application installation is not currently in production.

The technician then contacted a Hartzell technical representative and learned that they had notified Piper of the new propeller hub design, and that the old rear spinner bulkhead would not fit. In an effort to resolve this problem, Hartzell has issued Service Letter (SL) 61-199 that covers the modification of the (new) rear spinner bulkhead so that it will fit the “new style” hub design. However, SL 61-199 applies only to three-bladed propellers.

The submitter stated it seems that maintenance personnel are now faced with the problem that Hartzell only produces the “new style” hub, and Piper does not produce a rear spinner bulkhead for the “new style” propeller hub.

Part total time not applicable.

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**SOCATA****Socata; Model TBM-700; Wing Flap Defect; ATA 2750**

While complying with the requirements of Airworthiness Directive (AD) 2001-05-03, a technician found severe structural damage. AD 2001-05-03 incorporates by reference the manufacturer’s Service Bulletin (SB) 70-087-57.

The wing flap carriage assembly (P/N T700A5755097000) was cracked completely through the casting web. When a new replacement carriage assembly was received the technician conducted a receiving inspection and found that the casting web thickness was approximately three times greater than the original casting.

The submitter speculated that extending the wing flaps at excessive airspeeds caused this damage.

Part total time-1,954 hours.

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## HELICOPTERS

### BELL

#### **Bell; Model 47; Tail Rotor Drive System Defect; ATA 6510**

During an agricultural flight, the pilot noticed a vibration in the tail rotor control pedals. While making a precautionary landing, he lost tail rotor control; however, he landed the aircraft safely.

While investigating, a technician discovered the tail rotor drive shaft universal joint (P/N 47-644-33-5) was broken. (Refer to the illustration.)

After examining the broken universal joint, he determined that only half of the assembly was receiving grease during scheduled lubrication. The lack of adequate lubrication caused this failure. It is important that all parts of a component receive proper lubrication to prevent this type of failure.



Part total time-560 hours.

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### EUROCOPTER

#### **Eurocopter; Model AS 350BA; Ecureuil; Structural Failure; ATA 2100**

This aircraft incorporated an air-conditioning system installed in accordance with Supplemental Type Certificate (STC) SH3509SW. The air-conditioning system is manufactured by Integrated Flight Systems, and the air intake is mounted on the right cargo door. The air intake system uses fins or louvers, to direct the air supply into the system.

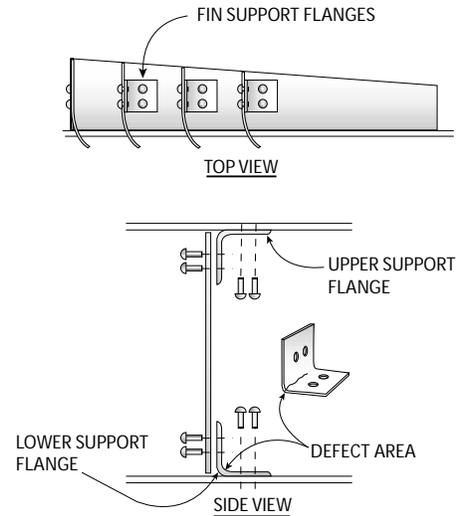
The pilot reported that during a flight, he experienced a “flutter” and heard an abnormal noise coming from the tail rotor. He was able to land the helicopter safely and summoned maintenance personnel.

The technician discovered one of the air-intake fins broke and separated from the helicopter. When the air-intake fin separated, it contacted and damaged the tail rotor assembly.

It appeared the upper fin support flange (P/N 260952) cracked and ultimately broke, which led to failure of the lower support flange. Failure of the support flanges allowed the fin to separate from the aircraft. (Refer to the illustration.) The fin traveled aft in the airstream and struck the tail rotor assembly.

The FAA, Rotorcraft Certification Directorate, is currently reviewing the data for STC 3509SW and evaluating the structural integrity of this installation.

Part total time not reported.



## AMATEUR, EXPERIMENTAL, AND SPORT AIRCRAFT

### AVIAT

#### Aviat; Model A-1B; Husky; Broken Flying Wire; ATA 5551

During a preflight inspection, the pilot/owner discovered a broken “flying wire.”

The forward horizontal stabilizer strut wire was broken at the upper terminal (P/N 81611). The failure occurred in the threaded portion of the upper wire terminal adjacent to the shank.

The submitter gave no further details for the cause of this failure; however, it is wise to pay close attention to all of the “flying wires” at every opportunity.

Part total time-1,100 hours.

### FRANKLINENGINE

#### Franklin; Model 4AC-176; Camshaft Magneto Drive Gear Failure; ATA 8520

*Since this engine was installed in an amateur-built Headwind Model M-2 aircraft, it is reported under this heading.*

After takeoff, the engine failed at approximately 200 feet altitude. The pilot was able to land the aircraft safely in a nearby field without damage or injury.

During an inspection, a technician discovered that the camshaft gear (P/N 10068), used to drive both magnetos, was broken into numerous small pieces. The submitter stated the gear “shattered.” The camshaft magneto drive gear is made of “Celeron,” which is a fiber “Mica-type” material. He speculated that age was the major factor for the gear failure.

Part total time-2,000 hours.

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## THE BALLOON WORKS

### **The Balloon Works; Model FF 7-15; Leaking Fuel Hose; ATA 5102**

During an inspection, the inspector discovered one of the fuel hoses was leaking.

This set of fuel hoses was manufactured by the holder of a Parts Manufacturing Authority (PMA) issued by the FAA. The hoses were originally installed in May 1998, and were in service until the date of this report, October 2001.

The fuel leak occurred at the junction of the hose and an end fitting and appeared to be caused by a defective fitting. The technician did not find any other defects with the hose assemblies. If the fuel leak had not been detected and corrected, it could have resulted in a catastrophic accident.

The submitter recommended everyone concerned give close attention to the fuel supply system at every opportunity.

Part total time-105 hours.

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## POWERPLANTS AND PROPELLERS

### TEXTRON LYCOMING

Textron Lycoming; Model IO-360; Fuel Supply Defects; ATA 7310

This article pertains to engines installed in Beech Model A23-24 and Mooney Model M20J aircraft and possibly others.

The submitter of this report stated he found three cracked fuel injector lines (P/N LW-12098-140) on these aircraft in 1 week. The cracks were located at the "silver sweat joints" in the fillet area. It seems the joints were not properly prepared, or the flux was not effective in creating a sound joint.

The submitter urged other technicians to check the injector lines closely during inspections and maintenance.

Part total time-1,068 hours.

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## AIRNOTES

### A TRIBUTE TO THE FORGOTTEN MECHANIC

Through the history of world aviation many names have come to the fore....  
Great deeds of the past in our memory will last,  
as they're joined by more and more....

When man first started his labor in his quest to conquer the sky he was designer, mechanic, and pilot,  
and he built a machine that would fly....

But somehow the order got twisted, and then in the public's eye the only man that could be seen was the man who knew how to fly....

The pilot was everyone's hero, he was brave, he was bold, he was grand, as he stood by his battered old biplane with his goggles and helmet in hand....

To be sure, these pilots all earned it, to fly you have to have guts....

And they blazed their names in the hall of fame on wings with bailing wire struts....

But for each of these flying heroes there were thousands of little renown, and these were the men who worked on the planes but kept their feet on the ground....

We all know the name of Lindbergh, and we've read of his flight to fame....

But think, if you can, of his maintenance man,  
can you remember his name?

And think of our wartime heroes, Gabreski,  
Jabara, and Scott....

Can you tell me the names of their crew chiefs?  
A thousand to one you cannot....

Now pilots are highly trained people, and wings are not easily won....

But without the work of the maintenance man  
our pilots would march with a gun....

So when you see mighty aircraft as they mark their way through the air, the grease-stained man with the wrench in his hand is the man who put them there....

The anonymous author of this composition must surely have had an appreciation and respect for those of us past and present who endeavor to promote aviation safety to the highest possible level. We endure the environmental extremes of the flight line and are content to allow those who are pilots to reap the glory of the public eye. We are content to remain in the background with the calm assurance that we have given our all in the pursuit of safety in aviation. We swell with pride as we watch the product of our labor rise gracefully from the runway and embrace a pristine sky.

The greatest and most valued recognition we can hope to receive comes from our peers and from within. The Aviation Awards Program, started by the FAA, has become one of the most coveted forms of recognition for maintenance personnel. Its rewards are not easily attained, and only those individuals with uncompromising and long-suffering moral and ethical values are found worthy. This program stresses education, training, and superior performance as well as the other attributes mentioned here, to praise those worthy of its tests. Our most valued assets are the tools of our trade, our reputation, integrity, and the respect of our customers who put their lives in our hands.

With the many technological and sociological advances in aviation over the years, many of the ideas put forth in this poem are no longer valid. For example, "bailing wire" is very much frowned upon as wing strut and hinge pin material. For the most part, maintenance personnel no longer fit the stereotype of a "grease-stained man." The stereotype has been distorted and propagated by the entertainment media. The "grease-stained man" with a rag hanging from his pocket, a cap with a "turned-up bill," and a "less than intelligent look on his face," is purely a fictional character conjured

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to provide contrast and further embellish the flyer. Also, not all maintenance men are men; there are many women who have earned a position among our ranks and have made significant contributions to aviation maintenance safety.

Through the evolution of aviation maintenance, the requirements of brawn has been replaced by an ever-expanding requirement for brain power. With the complex nature of today's aeronautical products, has come maintenance people who can analyze, forecast, and troubleshoot problems by use of the computer. (Usually, we don't get "grease stained" from this activity.) The ever-changing demands of maintaining today's aircraft present a new challenge each day. These challenges are met with an eager enthusiasm to learn something new and to "put things right." We approach each new challenge with a proud and confident demeanor which seems to say, "you can't break anything that I can't fix!"

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## ELECTRONIC VERSION OF MALFUNCTION OR DEFECT REPORT

One of the recent improvements to the AFS-600 Internet web site is the inclusion of FAA Form 8010-4, Malfunction or Defect Report. This web site is still under construction and further changes will be made; however, the site is now active, usable, and contains a great deal of information.

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

<http://av-info.faa.gov/isdr/>

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

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## **SERVICE DIFFICULTY REPORTING PROGRAM**

The objective of the Service Difficulty Reporting (SDR) Program is to achieve prompt and appropriate correction of conditions adversely affecting continued airworthiness of aeronautical products fleet wide. The SDR program is an exchange of information and a method of communication between the FAA and the aviation community concerning inservice problems.

A report is 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 which may impair its future function, it is considered defective and should be reported under the program.

These reports are known by a variety of names: Service Difficulty Reports (SDR), Malfunction and Defect Reports (M and D) and Maintenance Difficulty Reports (MDR).

The consolidation, collation and analysis of the data, and the rapid dissemination of trends, problems and alert information to the appropriate segments of the aviation community and FAA effectively and economically provides a method to ensure 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 of this review, 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 (AD's) to address a specific problem.

The primary source of SDR's are certificate holders operating under Parts 121, 125, 135, 145 of the Federal Aviation Regulations, and the general aviation community which voluntarily submit records. FAA Aviation Safety Inspectors may also report service difficulty information when they conduct routine aircraft and maintenance surveillance as well as accident and incident investigations.

The SDR database contains records dating back to 1974. Reports may be submitted on the Internet through an active data entry form or on hard copy. The electronic data entry form is in the AFS-600 Aviation Information web site under the heading SDR Main Menu. The URL is: <<http://av-info.faa.gov>>

A public search/query tool is also available on this same web site. This tool has provisions for printing reports or downloading data.

At the current time we are receiving approximately 45,000 records per year.

**Point of contact is:**

Tom Marcotte  
Service Difficulty Program Manager  
Aviation Data Systems Branch, AFS-620  
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Oklahoma City, OK 73125

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**ADDRESS CHANGES**

In the past, the Designee Standardization Branch (AFS-640) maintained the mailing list for this publication. Now, the Government Printing Office (GPO) sells this publication and maintains the mailing list; therefore, please send your address change to: U.S. Government Printing Office, **ATTN: SSOM, ALERT-2G**, 710 N. Capital Street N. W., Washington, DC 20402

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**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:** Phil Lomax (405) 954-6487  
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You can access current and back issues of this publication from the internet at: <http://afs600.faa.gov>

When the page opens, select "AFS-640" and then "Alerts" from the drop-down menu. The monthly issues of the Alerts are available back to July 1996, with the most recent edition appearing first.

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## AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports submitted between December 4, 2001, and January 7, 2002, 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

These reports contain raw data that has not been edited. 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.

ACFTMAKE ACFTMODEL REMARKS	ENG MAKE ENG MODEL	COMPMAKE COMPMODEL	PART NAME PART NUMBER	PART CONDITION PART LOCATION	DIFF-DATE OPER CTRL NO.	T TIME TSO
			INLET	OBSTRUCTED LIFERAFT	11/15/2001 O3HR111501	
DURING SCHEDULED MAINTENANCE INSPECTION ON RAFT (PN 64449101, SN 0150), IT WAS NOTED THAT ONE COMPARTMENT INFLATED AT AFASTER RATE THAN THE OTHER, SUBSEQUENT INSPECTION REVEALED A FOREIGN OBJECT BLOCKING THE INLET PORT. THE DEBRIS APPEARS TO BE INTERNAL HOSE MATERIAL, WHICH ACCUMULATED DURING THE MANUFACTURING PROCESS. RECOMMENDATION: INSPECT HOSE ASSEMBLIES INTERNALLY PRIOR TO BUILD UP OF MANIFOLD. MANIFOLD ASSY PN BREAKDOWN: HOSE 64457-101 (1 EA) , HOSE 64457-103(2 EA)						
AMTR	ROTAX		BEARING	FAILED	10/23/2001	260
AVIDFLYER	ROTAX277		996920	ENGINE	2001FA0000573	260
ENGINE FAILED IN-FLIGHT DUE TO FAILURE OF CONNECTING ROD ROLLER BEARINGS ON CRANKSHAFT ASSEMBLY. CAUSE UNKNOWN.						
BALWKS			FUEL LINE	LEAKING	11/24/2001	110
FIREFLY715			GL0115721688	FUEL SYSTEM	2001FA0000585	
THIS SET OF FUEL HOSES WERE OBTAINED FROM THE HOLDER OF A PMA. THEY WERE INSTALLED IN MAY. THE HOSE WAS FOUND TO BE LEAKING AT THE CRIMP CONNECTION AT THE END OF THE HOSE. THE LEAK DOES NOT APPEAR TO BE CAUSED BY MISHANDLING, BUT BY A POOR CRIMP JOB. THIS IS THE SECOND HOSE FROM THIS SET THAT HAVE STARTED LEAKING FROM THE SAME LOCATION.						
BEECH	PWA		LANDING GEAR	INOPERATIVE	10/28/2001	
1900D	PT6A67D			LANDING GEAR	AUS20011161	
(AUS) LANDING GEAR WOULD NOT EXTEND. MANUEL GEAR EXTENSION USED. INVESTIGATION COULD FIND NO PROBLEMS AND LANDING GEAR OPERATED AS NORMAL.						
BEECH	PWA		SWITCH	FAILED	08/21/2001	
1900D	PT6A67D		BZ7RW82255518	INTERNAL	CA011003008	
(CAN) DURING DESCEND IN PREPARATION FOR LANDING FLIGHT CREW SELECTED FLAPS DOWN TO 17 DEGREES. THE FLAPS DID NOT OPERATE AND THE SELECTOR WAS RETURNED TO ZERO. CREW LANDED AIRCRAFT WITH ZERO FLAPS. MAINTENANCE DISCOVERED THE R/ H SPLIT FLAPSAFETY SWITCH FAILED DISABLING POWER TO THE FLAP MOTOR. SPLIT FLAP SWITCH REPLACED AND FLAP OPERATION CHECKED OKAY.						
BEECH	PWA	PWA	COWLING	SEPARATED	11/02/2001	
200BEECH	PT6A41	PT6A41	1019100251	ENGINE COWLING S	AUS20011184	
(AUS) LH ENGINE FORWARD UPPER COWL ASSEMBLY SEPARATED IN FLIGHT. PILOTHAD RECENTLY PERFORMED MAINTENANCE ON THE COWL. MINOR DAMAGE TO COWLS AND LEADING EDGE CAUSED BY COWL SEPARATION. PERSONNEL/MAINTENANCE ERROR.						
BEECH	PWA		LENS	LOOSE	08/17/2001	
200BEECH	PT6A60A			INSTRUMENT PNL	2001FA0000598	
PILOT REPORTED THAT UPON SETUP FOR APPROACH AND GEAR DOWN SELECTION WAS MADE WITH GEAR SWITCH. THAT AN INDICATION FOR BOTH MAIN GEAR WERE DOWN AND LOCKED, BUT NO INDICATION OF THE NOSE GEAR DOWN AND LOCKED. AIRCRAFT DIVERTED AND VERIFIEDWITH ATC THAT NOSE GEAR WAS DOWN. CAUSE: NOSE GEAR GREEN LAMP SOCKET LENS CAME LOOSE. AIRCRAFT LANDED INCIDENT FREE. PLACED AIRCRAFT ON JACKS, RECHECKED EMERGENCY GEAR EXTENSION OPERATION AND RIGGING PER MM. PERFORMED NORMAL EXTENSION AND RETRACTION. TIGHTENED NOSE LAMP LENS FUNCTIONAL TEST OF ALL WORK PERFORMED CHECKS, OK.						
BEECH	CONT		RIVET	BROKEN	10/31/2001	
58P	TSIO520*			VERTICAL STAB	2001FA0000518	
RIVET HEAD MISSING ON EXTENSION FITTING OF VERTICAL STABILIZER FORWARD SPAR JUST ABOVE AREA WHERE SPAR IS BOLTED TO FUSELAGE BULKHEAD. THERE IS NO EVIDENCE OF CORROSION OR CRACKING OF STRUCTURE IMMEDIATELY SURROUNDING RIVET LOCATION. RIVET APPEARS TO HAVE FAILED IN TENSION. ADJACENT RIVETS						

BEECH	CONT		SKIN	CRACKED	10/31/2001	7165
58P	TSIO520*		1024400291	FUSELAGE	2001FA0000519	
FOUND ONE INCH LONG CRACK IN AFT UPPER FUSELAGE SKIN AT BASE OF VERTICAL FIN. CRACK STARTS AT LEFT FORWARD STABILIZER SPAR EXTENSION CUTOUT AND EXTENDS UPWARD. SUSPECT LACK OF PROPER RADIUS IN CORNER OF CUTOUT CREATED A STRESS RISER WHICH CAUSED THE SKIN TO CRACK DURING NORMAL FLEXING OF AFT						
BEECH	CONT		SKIN	CRACKED	10/31/2001	7165
58P	TSIO520*		1021000115	WING	2001FA0000520	
LOWER INBOARD LEADING EDGE SKIN CRACKED BETWEEN FUEL TANK DRAIN FITTING HOLE AND REAR EDGE OF SKIN. CRACK IS THROUGH AND AREA APPROXIMATELY 2 INCHES WIDE THAT HAS NO RIVET CONNECTING SKIN TO FRONT SPAR STRUCTURE. NORMAL FLEXING OF WING APPEARS TO BE STRESSING THE SKIN IN THIS AREA. THIS IS THE THIRD BARON FOUND WITH THIS PROBLEM.						
BEECH	LYC		LIFTER	SPALLED	11/06/2001	132
60	TIO541E1C4		77672	ENGINE	2001FA0000572	132
UPON REMOVAL OF PUSH RODS AND PUSH ROD TUBES FOR RESEAL, THE LIFTERS WERE REMOVED FOR BLEEDING. THE LIFTERS WERE INSPECTED AND WERE FOUND TO HAVE SEVERE SPALLING. MFG WAS NOTIFIED AND ENGINES ARE TO BE REMOVED AND SENT BACK FOR REPAIR. ENGINES HAVE 132.4 HRS TT. CAMSHAFT IS ALSO WORN.						
BEECH			FRAME	CRACKED	11/20/2001	4724
76				RTMLG	2001FA0000670	
DURING ANNUAL INSPECTION, THE RIGHT MAIN LANDING GEAR A-FRAME WAS FOUND CRACKED HALF WAY AROUND THE CIRCUMFERENCE OF THE A FRAME TUBE IN THE AREA WHERE RECURRING INSPECTION WAS REQUIRED BY AD. THIS A-FRAME DID NOT REQUIRE RECURRING INSPECTION BECAUSE IT WAS (PN 105-810023-76) WHICH ELIMINATED THE RECURRING INSPECTION REQUIREMENT. THE A-FRAME HAD 4724.2 HRS						
BEECH	CONT	CONT	BOLT	BROKEN	09/11/2001	
95B55	IO470L	IO470L	654811	RECIPROCATING	AUS20011091	
(AUS) LH ENGINE NO4 CYLINDER CONNECTING ROD BOLT BROKEN. COWLING HOLED.						
BEECH	CONT		SPAR	CRACKED	11/08/2001	
95B55	IO470L			WING SPAR	AUS20011174	
(AUS) WING RH FORWARD SPAR WEB CRACKED AROUND BEND RADIUS AND FORWARD FACE. FOUND DURING INSPECTION IAW BEECH SB 2269 REV1 ANDAD/BEECH55/62 AMDT4.						
BEECH	CONT		BOLT	CRACKED	11/13/2001	
95B55	IO470L		NAS15035M	FUSELAGE, WING A	AUS20011197	
(AUS) WING ATTACHMENT BOLT CRACKED. FURTHER INVESTIGATION FOUND THAT THE WASHER HAD BEEN INCORRECTLY FITTED WITH THE WASHER BEVELLED EDGE FACING AWAY FROM THE BOLT HEAD. THE WASHER WAS ALSO DAMAGED. FOUND DURING INSPECTION IAW AD/BEECH55/79AMD1.PERSONNEL/MAINTENANCE ERROR.						
BEECH	LYC		FUEL LINE	CRACKED	09/05/2001	1068
A2324	IO360A1A		LW129980104	ENGINE	2001FA0000548	
FOUND THREE CRACKED FUEL INJECTOR LINES. THE CRACKS ARE LOCATED AT THE SILVER SWEAT JOINT IN THE FILLET. IT IS AS THOUGH THE JOINT WAS NOT PROPERLY PREPARED OR THE FLUX WAS NOT EFFECTIVE. TWO OF THE TUBES HAD ONLY 1068.2 HOURS SINCE NEW.						
BEECH	CONT		SPROCKET	WORN	11/19/2001	
E55	IO520C		455260053	ELEVATOR TAB	AUS20011271	
(AUS) ELEVATOR TRIM TAB ACTUATOR SPROCKET SHAFT BADLY WORN.						
BELL			SHAFT	CORRODED	11/15/2001	1711
214ST		214540001101	214040404101	T/R GEARBOX	HEEA077215	
EXCESSIVE CORROSION AT TAIL ROTOR OUTPUT SHAFT DRIVE SPLINES.						
BELL	ALLSN		EXCITER	FAILED	10/03/2001	245
407	250C47B		23064130	ENGINE	2001FA0000536	
ENGINE FAILED TO START. IGNITORS WERE NOT HEARD AS NORMALLY HEARD. IGNITOR WAS REPLACED WITH NEGATIVE RESULTS. IGNITION EXCITOR REPLACED WITH NEW, RESOLVING DISCREPANCY.						
BELL			INDICATOR	CORRODED	10/09/2001	483
412			D120P2T	COCKPIT	ERAA076667	
PART IS CORRODED. CONNECTOR CORRODED, PIN MISSING, DIRTY INSIDE AND ALSO OUT OF CALIBRATION. ACTION TAKEN: OVERHAULED, REPAIRED LEAKS, TREATED METAL, CALIBRATED AND FUNCTIONALLY TESTED OK TO 20,000 FEET. COMPLIED WITH AIRWORTHINESS DIRECTIVES AS PER MFG PUB 7421 REV A JAN. 1993.						
BELL			STRUCTURE	CRACKED	10/09/2001	6871
412				TAILBOOM	ERAA076670	
NO. 2 BULKHEAD CRACKED ABOVE ROOF PANEL. STINGER BULKHEAD UPPER SUPPORT ANGLE CRACKED. STIFFNER P/N 212-030-099-028 CRACKED. ROOF PANEL PN 205-032-815-127 HAS CORROSION & SEPERATED. VERTICAL FIN SUPPORT BULKHEADS PN 212-030-127-029 AND021 CRACKED. L/H LOWER VERTICAL FIN SKIN CRACKED FWD BULKHEAD PN 212-030-143-009 SEPERATED. ACTION TAKEN: REPLACED STIFFNER PN 212-030-99-028. REPLACED ROOF PANEL & REPLACED FWD BULKHEAD PANEL. REPLACED BOTH VERTICAL FIN SUPPORT BULKHEADS. FABRICATED L/H LOWER VERTICAL FIN SKIN. REPAIRED NO 2 BULKHEAD ABOVE ROOF PANEL. FABRICATED STINGER BULKHEAD SUPPORT ANGLE. C/W AIRWORTHINESS DIRECTIVES OR SB'S AS PER ASB 412-90-49 PART II. THIS INFORMATION FOR FAA SDR.						
BELL			BLADE	DAMAGED	10/11/2001	4048
412			212011701003FM	TAIL ROTOR	ERAA076680	
TAIL ROTOR BLADE A-11090 HAS VOID AT TIP, TRUNNION IS ROUGH. TAIL ROTOR BLADE SENT TO CTI FOR REPAIR. TRUNNION, TRUNNION HOUSING ASSYS SCRAPPED. ACTION TAKEN: INST'D NEW TRUNNION, TRUNNION HOUSINGS, BEARINGS, & SEALS. INSTALLED SERVICEABLE TAIL ROTOR BLADE. ASSEMBLED, BALANCED & LUBED T/R ASSY IAW 412 CR& O & T.B. 412-95-134. C/W AIRWORTHINESS DIRECTIVES OR SB'S AS PER TB 412-95-134. THIS INFORMATION FOR FAA						
BELL			TRANSMISSION	CORRODED	10/11/2001	8992
412			412040002103	MAIN ROTOR	ERAA076681	
TRANSMISSION DUE 3100 HOUR INSPECTION. LOWER SPIDER BREAKING, UPPER SUN GEAR BREAKING, MAIN INPUT LINER. MAIN CASE HAS EXCESSIVE CORROSION DAMAGE, MAIN INPUT QUILL ALIGNMENT MARKS BEARING PINION OFF, RING GEAR OUTER SURFACE RUSTING, MAIN INPUT BEARING SLEEVE RUSTED. ACTION TAKEN: SENT TO ERA REPAIR STATION ALASKA FOR INSPECTION. THIS INFORMATION FOR FAA SDR.						
BELL	PWA		GEARBOX	MAKING METAL	10/16/2001	2690
412	PT6T3B		3039080	ENGINE	2001FA0000534	248
APPROXIMATELY 45 MINUTES INTO CRUISE FLIGHT A NR 2 ENGINE CHIP LIGHT ILLUMINATED. THE NR 2 ENGINE WAS SHUTDOWN AND THE AIRCRAFT RETURNED TO BASE AND PERFORMED A RUN ON LANDING DUE TO INSUFFICIENT POWER FOR HOVERING. THE MAINTENANCE TECHNICIANS PULLED THE NR 2 ENGINE CHIP DETECTORS AND FOUND SIGNIFICANT METAL DEBRIS ON THE ENGINE/ COMBINING GEARBOX CHIP DETECTOR AND IN THE OIL FILTER. THE ENGINE OIL WAS SUBSEQUENTLY DRAINED. THE OIL SYSTEM WAS FLUSHED AND THE FILTER REPLACED. THE CHIP DETECTOR WAS CLEANED OF ALL DEBRIS AND THE HELICOPTER WAS RUN FOR 5 MINUTES ON THE GROUND. THE HELICOPTER WAS SHUT DOWN AFTER 5 MINUTES AND AGAIN METAL DEBRIS WAS FOUND ON THE ENGINE/ COMBINING						

BLANCA	LYC	FUEL LINE	CORRODED	10/30/2001	1678
1731ATC	TIO540*		FUEL SYSTEM	2001FA0000514	

AIRCRAFT EXPERIENCED A MASSIVE FUEL LEAK INSIDE OF CABIN AREA CAUSING AN INFLIGHT EMERGENCY. DETERMINED FUEL LEAK CAUSED BY CORROSION OF FUEL LINE FROM FIRE WALL TO FUEL PRESSURE INDICATOR. CORROSION CAUSED BY DISSIMILAR METAL OXIDATION WHERE FUEL LINE WAS ROUTED AGAINST STEEL RIBBED DEFROSTER HOSE. ALUMINUM FUEL LINE RUBBED THROUGH OUTER MATERIAL OF DEFROSTER HOSE RESULTING IN ALUMINUM TO STEEL CONTACT. SUSPECT CONDITION EXISTED SINCE MANUFACTURE OF AIRCRAFT. EXTREME

BNORM	LYC	BENDIX	CAM	FAILED	12/14/2001
BN2A20	IO540K1B5	S6LN1227	104001678	MAGNETO/DISTRIB	AUS20011357

(AUS) MAGNETO CAM PIVOT PIN HAD EXCESSIVE PLAY. PIN HAD APPROXIMATELY 0.508MM (0.020IN) OF PLAY. MAXIMUM PLAY 0.3556MM (0.014IN).

BOLKMS		BLADE	CRACKED	09/25/2001	6969
BK117A1		117150041	MAIN ROTOR	2001FA0000553	

M/R BLADE WAS RECD AT MFG FOR INSP AND EVAL. ABR STRIP CRACK WAS ID AT BLADE STAT 2305. PORTION OF ABR STRIP WAS REMOVED TO ALLOW EVAL OF UNDERLYING SURFACE. SKIN WAS CRACKED WITH DELAM SURROUNDING AREA. REVIEW OF BLADE RECORDS INDICATE MFG REPAIR ON INNER WEIGHT 1 AND 2. CRACK IN ABR STRIP PROPAGATED FROM A DRILL MARK ON INSIDE OF ABR STRIP IN AREA OF THIS REF REPAIR. REPAIR PERFORMED FOR INSTALL OF PINS THROUGH INNER WEIGHTS 1 AND 2. THREE DRILL MARKS ON INSIDE SURFACE OF ABRASION STRIP THAT LINE UP PINS. PINS ARE INSTALLED FROM UPPER SURFACE, AND IS OBVIOUS THAT HOLES WERE DRILLED TOO DEEP ALLOWING DRILL TO MARK INSIDE OF LWR LEG OF ABR STRIP. CUST REPORTED HAVING OTHER BLADES THAT

BOLKMS	LYC	FIRE DETECTOR	FAULTY	10/19/2001	
BK117B2	LTS101750B1	173462410	FIRE DETECTION	AUS20011094	

(AUS) NO2 ENGINE FIRE DETECTOR ACTIVATION. FIRE BOTTLE OPERATED. INVESTIGATION FOUND THAT THE AIRCRAFT WAS IN AN UNUSUAL NOSE HIGH TURN AT THE TIME WHICH HAS IN THE PAST CAUSED THE FIRE DETECTOR TO ACTIVATE FOR SHORT PERIODS.

BOLKMS		BLADE	DEBONDED	10/05/2001	11317
BO105A		10515170	MAIN ROTOR	ERAA076663	

M/R BLADE IS DEBONDED. LEADING EDGE DEBONDING, POTTING NEEDS CHANGING. ACTION TAKEN: ALL ABRASION STRIPS VOID, HEAVY ERROSION ON ABRASION STRIP, P.U. FILM DETERIORATION, PAINT PEELING, HARDWARE CORRODED SWEEP OUT -13.21MM, NOSE AND NECK SHELLS CRACKED SKIN CRACKED @ NECK SHELL, SKIN DEBONDED @ NECK AREA. REPAIRED. THIS INFORMATION FOR FAA SDR.

BOLKMS		BLADE	DEBONDED	10/09/2001	11319
BO105A		10515170	MAIN ROTOR	ERAA076664	

BLADE IS DEBONDING ON LEADING EDGE. POTTING NEEDS CHANGING NOSE AND NECK SHELLS CRACKED @ NECK DOWN AREA, SKIN CRACK AND VOIDED @ NECK AREA, TEFLON MISSING FROM MAIN BUSHING, DRAG BUSHING HAS FRAYED AND MISSING TEFLON, DAMPNER WRAP VOID LOWER SURFACE, ALL ABRASION STRIPS VOID @ SCARF JOINTS, HEAVY ERROSION ON OUTBOARD ABRASION STRIP, MINOR CORROSION ON THE TABS. DU DISKS MISSING, MINOR CORROSION ON PENDULUM ARM. SWEEP OUT 10.34MM ACTION TAKEN: REPLACED NR 1 OUTBOARD ABRASION STRIP, REPLACED PT REINSTALLED NR 2,3,4 ABRASION STRIPS, REPLACED DU DISKS REPLACE MAIN BUSHING, REPLACED DRAG BUSHING, REM'D AND TREAT CORROSION OR TRIM TABS, PERFORM SMALL SKIN REPAIR @ NECK, REPLACED NOSE AND

BOLKMS		INDICATOR	CORRODED	10/09/2001	
BO105A		D120P2T	COCKPIT	ERAA076669	

PART IS CORRODED. CONNECTOR INSERTS PULLED OUT. CONNECTOR PLATE BROKEN, CORROSION ON CASE INSIDE AND ON BASE, UNIT LEAKS AND OUT OF ADJUSTMENT. ACTION TAKEN: REPAIRED, CLEANED CORROSION, REPLACED CONNECTOR PLATE, FIXED LEAKS, AND FUNCTIONALLY TESTED OK TO 20,000 FEET. C/W AIRWORTHINESS DIRECTIVES OR SB'S AS PER TSM 7421 REV A JAN 1993.

BOLKMS		STRUCTURE	CRACKED	10/12/2001	5756
BO105A			TAILBOOM	ERAA076682	

TAILBOOM REMOVED FROM AIRCRAFT DUE TO CRACKED SKIN RT SIDE BASE OF VERTICAL FIN. FOUND RUSTED, CORRODED & PITTED TAIL SKID BRACKETS. CORRODED FWD MOUNTING FLANGES. CORROSION & PITTED SPOTS ON 90 DEGREE GEARBOX FITTING BOLT HOLES. ACTION TAKEN: INSTALLED NEW TAILSKID BRACKETS, FWD & AFT, INSTALLED NEW 90 DEGREE GEARBOX FITTING AND REPLACED FWD MOUNT FLANGE. FABRICATED & INSTALLED NEW R/H FWD SKIN, PLUS VALVE MOUNT BRACKETS & DOUBLER AND CLEARED ALL OTHER MAINTENANCE DISCREPANCIES IN BLUE WORK FORMS OF WORK ORDER C298015. THIS INFORMATION IS FOR FAA SDR.

BOLKMS		BOLT	WORN	10/04/2001	
BO105S		1051410110	MAIN ROTOR	ERAA076658	

PRIMARY BLADE BOLTS HAS WORN PLATING. ACTION TAKEN : CLEANED & C/W VISUAL & NDT INSPECTION. SCRAPPED 3 BOLTS DUE TO MECHANICAL DAMAGE. THIS INFORMATION FOR FAA SDR.

BOLKMS		STRUCTURE	CRACKED	10/09/2001	
BO105S			TAIL BOOM	ERAA076671	

TAILBOOM IS CRACKED. RT SKIN CRACKED PN 105-30251-56, LT CONTOUR SKIN PN 105-30101-14 CRACKED, SPAR PN 105-30401-16-001 CRACKED, 90 DEGREE GEARBOX FITTING PN 105-30402-12 HAS CORROSION, STRINGER PN 105-30251-25 IS CRACKED, STRINGER PN 105-30251-26 IS CRACKED, FRAME SHEET PN 105-30401-29 IS CRACKED, SPAR PN 105-30412-03 HAS CORROSION. ACTION TAKEN: FAB R/H SKIN AND FAB NEW CONTOUR SKIN, REPLACE TWO STRINGERS AND CHANGED THE FITTING PN 105-30402-12, REPLACED SPAR PN 105-30401-16-001 AND SPAR PN 105-30412-003 WITH NEW SPECS. REPLACED FRAME SHEET PN 105-30401-29 WITH NEW.

BOLKMS	ALLSN	GOVERNOR	MALFUNCTIONED	10/03/2001	13707
BO105S	250C20B	252466715H	ENGINE	ERAA076655	

GOVERNOR OCCASIONALLY DROOPS IN FLIGHT. TEST RESULTS CONFIRM SNAG OF DROOP. UNIT WAS DROOPING BY 250 RPM @ T.P. 3.01 ECCENTRIC SHAFT FOUND CORRODED AND WORN BEYOND LIMITS ON LOBES. BEARINGS PN 2520503 AND 2523237 FOUND TO BE ROUGH AND DRY. ACTION TAKEN: ABOVE PARTS REPLACED WITH NEW AND UNIT WAS REPAIRED AND TESTED SERVICEABLE IAW HONEYWELL OH FORM 15-1095A. THIS INFORMATION FOR FAA SDR.

BOLKMS	ALLSN	GOVERNOR	MALFUNCTIONED	10/03/2001	11164
BO105S	250C20B	252466715H	ENGINE	ERAA076656	

NR 1 GOVERNOR IS SLOW, NR HIGH WITH REDUCED POWER. TEST RESULTS INDICATE GOVERNOR WAS DROOPING OFF SLIGHTLY (100 RPM) SEVERAL INTERNAL BEARINGS PN 2520503 & 2523237 FOUND DRY AND ROUGH. THROTTLE BUSHING WORN ALLOWING SHAFT TO HAVE EXCESSIVE PLAY. ECCENTRIC SHAFT CORRODED AND WORN BEYOND LIMITS. ACTION TAKEN: REPAIRED AND TESTED SERVICEABLE IAW HONEYWELL OHM 15-1095A. ABOVE PARTS REPLACED. CEB A-1353 R1 FOUND N/AB, UNIT S/N, CEB A-1361R1 FOUND C/W.

BOLKMS	ALLSN	GOVERNOR	WORN	10/03/2001	8461
BO105S	250C20B	2524667		ERAA076657	

SPLINES ON DRIVESHAFT OF GOVERNOR IS WORN. MAX GOVERING DROOPS OFF 300 RPM TO EARLY. THROTTLE BUSHING VERY SLOPPY WORN SPLINES ON DRIVESHAFT AS WELL AS THE MATING FACE OF THE SPOOL BEARING EXHIBITED HEAVY WEAR FROM THE GOVERNOR WEIGHT FEET. ECCENTRIC SHAFT AND CAM LEVER WERE FOUND SEIZED TOGETHER N THE DRIVE BODY BY CORROSION. AFTER CLEANING THEY WERE BOTH PITTED AND WORN BEYOND LIMITS ACTION TAKEN: OVERHAULED. NOTE: THE CONDITION OF THIS GOVERNOR SEEMS TO INDICATE A VIBRATION PROBLEM ON THE A/C, POTENTIALLY STARTER GENERATOR ON GEARBOX. CEB'S 1347 R1, A-1361R1 AND GT320. C/W CEB A-1353R1 FOUND N/A BY UNIT S/N. THIS INFORMATION FOR FAA SDR

BOLKMS	ALLSN	ENGINE	MALFUNCTIONED	10/09/2001	11039
BO105S	250C20B	6898735	NACELLE	ERA076673	
TURBINE RUNS HOT, LOW POWER. STRETCHED NR 1 BLADES. ACTION TAKEN: INSTALLED NEW NR 1 & 2 WHEEL & NR 2 NOZZLE.					
BOLKMS	ALLSN	ENGINE	MAKING METAL	10/09/2001	5449
BO105S	250C20B		NACELLE	ERA076674	
ENGINE IS MAKING METAL. HAS METAL ON MAG PLUGS. 2 1/2 BEARING INNER RFACE HAS METAL. GROOVES ON SEVERAL ROLLERS. ACTION TAKEN: DISASSEMBL3D ENGINE CAE-836436, TURBINE, COMPRESSOR, GEARBOX. CHANGED 11/2 BEARING SN MR55741, INSTALLED MP75985, GEARSHAFT SN 69437 INSTALLED CI21-543. C/W AIRWORTGHINESS DIRECTIVES OR SB'S AS PER CEB-1298. SEAL ON GEARBOX ASSY - PRESSURE OIL FITTINGS.					
CESSNA	CONT	BULKHEAD	CRACKED	11/26/2001	350
150F	O200*	04500391791	FUSELAGE	2001FA0000681	
SINCE MFG. WENT TO PLASTIC BULKHEAD, THEY CRACK ABOUT EVERY 200 HOURS.					
CESSNA	CONT	CESSNA	RIB	CRACKED	02/14/2001
150M	O200A	150M	04320016	HORIZONTAL	AUS20011086
(AUS) HORIZONTAL STABILISER RIBS PNO 0432001-6 AND PNO 0432001-36 CRACKED FROM FORWARD ATTACHMENT POINT NUTPLATE RIVETS.					
CESSNA	LYC	SPAR	CRACKED	10/23/2001	6515
152	O235*	043200121	ELEVATOR	2001FA0000599	
REMOVED ELEVATOR TO REPAIR WORN OUTBOARD HINGE BUSHINGS. AFTER ELEVATOR WAS REMOVED FOUND THE ELEVATOR SPAR CRACKED UNDER THE OUTBOARD HINGE WHERE IT ATTACHES TO THE SPAR, REPLACED SPAR WITH					
CESSNA	LYC	MOUNT	CRACKED	04/30/2001	8393
152	O235*	04115261	RUDDER PEDAL	2001FA0000586	
PILOTS RIGHT HAND LOW RUDDER PEDAL ASSEMBLY MOUNT CRACKED AROUND WELD CAUSING ON GROUND LOSS OF DIRECTIONAL CONTROL ANDMADE BRAKING DIFFICULT.					
CESSNA	LYC	LYC	EXHAUST	FAILED	07/15/2001
152	O235L2C	O235L2C		RECIPROCATING	AUS20011053
(AUS) NO3 CYLINDER EXHAUST VALVE HEAD SEPARATED FROM VALVE STEM CAUSING MAJOR DAMAGE TO CYLINDER AND PISTON. SUSPECT CAUSED BY CORROSIONAND EROSION DAMAGE. INVESTIGATION FOUND TWO OF THE OTHER THREEEXHAUST VALVES IN SIMILAR CONDITION WITH THE LAST EXHAUST VALVE NOT AS BADLY ERODED BUT STILL CONSIDERED UNSERVICEABLE. FURTHER INVESTIGATION FOUND THE CAMSHAFT AND CAM FOLLOWERS PITTED AND WORN DUE TO CORROSION.AIRCRAFT IS ONLY OPERATED FOR APPROXIMATELY 20 TO 50 HOURS PER YEAR.					
CESSNA	LYC	CABLE	CORRODED	07/15/2001	
152	O235L2C		FLIGHT CONTROL S	AUS20011057	
(AUS) SEVERAL FLIGHT CONTROL CABLES RUSTY. THE FOLLOWING CABLES WEREFOWN TO BE UNSERVICEABLE:- 1. PNO 0400107-41 AILERON CABLE (2OFF)2. PNO 0400107-21 BALANCE CABLE 3. PNO 0400107-45 FLAP CABLE4. PNO 0400107-46 FLAP CABLES 5. PNO 0400107-30 TRIM CABLE6. PNO 0400107-57 TRIM CABLE7. PNO 0400107-49 RUDDER					
CESSNA	LYC	BEARING	DEBONDED	11/02/2001	1076
152	O235L2C	69373	CONNECTING ROD	2001FA0000587	
PLATING ON BEARING UNBONDED FORM BACKING (ROD SIDE NOT THE CAP SIDE) DATE CODE ON BACK OF BEARING IS					
CESSNA	LYC	SLICK	IMPULSE	WORN	11/30/2001
152	O235L2C	M3007	LT & RT	2001FA0000657	
INSTALLED NEW M3007 IMPULSE COUPLINGS ON BOTH MAGNETOS. BOTH COUPLINGS CAME OUT OF BOXES DATED 5/25/01. INITIAL OPERATION WAS FINE. IMPULSE COUPLINGS INTERMITTENT SNAPPING. REMOVED MAGNETOS, INSPECTED COUPLINGS PAWLS SHOWED NOTICEABLE WEAR AT CONTACT POINT WITH STRIKER PIN. ALSO LOOSENESS AT PIVOT PIN ATTACH. SUSPECT BAD BATCH OF METAL OR HEAT TREATMENT. INSTALLED NEW IMPULSE COUPLING ASSEMBLIES OPERATIONAL CHECK, FINE. DEFECTIVE IMPULSE COUPLINGS TIME IN SERVICE 93 HOURS/ 119					
CESSNA	CONT	BULKHEAD	CRACKED	10/23/2001	2246
170B	O300*	05121411	FUSELAGE	2001FA0000493	
BULKHEAD CRACKED AT LOWER RIGHT CORNER WHERE STEERING CABLE PULLEY BRACKET ATTACHES.					
CESSNA	LYC	PRECISION	TUBE	SEPARATED	10/09/2001
172L	O320E2D	229164	CARBURETOR	2001FA0000487	1618
DURING DECENT, THE PILOT WAS UNABLE TO REDUCE POWER. USING THE MIXTURE CONTROL, THE PILOT MADE AN UNEVENTFUL LANDING.MAINTENANCE PERSONNEL FOUND THE ACCELERATOR DISCHARGE TUBE LAYING ON THE BOTTOM OF THE INTAKE AIRBOX. IT WAS DETERMINED THAT THE ACCELERATOR DISCHARGE TUBE SEALANT (LOCKTITE) HAD FAILED, CAUSING IT TO SEPARATE FROM THE ACCELERATOR DISCHARGE PORT. THIS CAUSED THE DISCHARGE TUBE TO LIFT UP THROUGH THE BOOST VENTURI BLOCKING ANY MOVEMENT OF THE THROTTLE VALVE.					
CESSNA	LYC	BULKHEAD	CRACKED	11/08/2001	
172M	O320E2H	0512187	FUSELAGE MAIN, B	AUS20011227	
(AUS) BULKHEAD CRACKED. FOUND DURING INSPECTION IAW CESSNA SEB 97-1 AND AAC 1-95.					
CESSNA		CYLINDER	FAILED	12/11/2001	3500
172R		05142132	SEAT	2001FA0000686	
SEAT LOCK CYLINDER FAILED TO LOCK IN POSITION WITH NORMAL SEATBACK PRESSURE. CABLE ADJUSTMENT WITHIN LIMITS. FAILURE OCCURRED DURING NORMAL USE.					
CESSNA	LYC	NUT PLATE	BROKEN	11/16/2001	2355
172R	IO360A1A	MS210783	HORZSTAB	2001FA0000571	
DURING 100 HOUR INSPECTION, TECHNICIAN FOUND LOWER ELEVATOR STOP NUTPLATE BROKEN AND FIBER LOCK PORTION OF PART SEPARATED FROM THE REST OF NUTPLATE DETAIL REPEATED ELEVATOR CONTACT WITH STOP BOLT WHEN AIRCRAFT IS PARKED AND CONTROL LOCK ISIN, SUCH AS IN WINDY CONDITIONS.(K)					
CESSNA	LYC	CONNECTOR	LOOSE	10/23/2001	
172R	IO360B1E	TED93010	COMM SYSTEM	2001FA0000494	
COM 1 AND COM 2 INTERMITTENTLY INOPERATIVE. UPON INSPECTION FOUND SMALL COLLARS THAT COME WITH 90 DEGREE CONNECTOR LOOSE IN THE REAR OF BOTH COM 1 AND COM 2 COAX CONNECTORS.					
CESSNA	LYC	LYC	IGNITION	WORN	11/13/2001
172RG	O360F1A6	O360F1A6	A3600	IGNITION SWITCHI	AUS20011201
(AUS) IGNITION SWITCH CONTACTS WORN BEYOND LIMITS AS DETAILED INSEB91-5.					
CESSNA	LYC	PIVOT	CRACKED	09/03/2001	
172RG	O360F1A6	24411001	LANDING GEAR	AUS20011216	
(AUS) LH AND RH MAIN LANDING GEAR PIVOT ASSEMBLIES CRACKED IN INSPECTION AREA 1B OF SEB 90-1 REV3.					

CESSNA 172S			BULKHEAD 055032111	BROKEN SPINNER	10/26/2001 2001FA0000546	287
REAR SPINNER BULKHEAD WAS FOUND BROKEN AT NUTPLATE NEAREST TO AFT SIDE OF NR 1 BLADE. MATERIAL HAD COMPLETELY SEPARATED FROM BULKHEAD AND ALLOWED THE SPINNER TO BEND OUTWARD FROM CENTRIFUGAL FORCE. SPINNER WAS NOT OBVIOUSLY DAMAGED. THIS BULKHEAD WAS INSTALLED ON THIS AIRCRAFT AT 153.3 HOURS ACTT. THE SPINNER WAS ALSO REPLACED AT THIS TIME DUE TO CRACKING, THE SPINNER WAS REPLACED A SECOND TIME AT 394.7 HOURS ACCT DUE TO CRACKS FROM THE BLADE CUTOUT. AT THIS TIME THE BULKHEAD WAS INSPECTED WITH NO SIGNS OF CRACKING.						
CESSNA 182K	CONT O470R		BULKHEAD 07126161	CRACKED FUSELAGE MAIN, B	09/29/2001 AUS20011037	
(AUS) AFT TAILCONE BULKHEAD CRACKED IN AREA AT TOP OF RUDDER CABLECUTOUT.						
CESSNA 182K	CONT O470R		SPAR	CORRODED HORIZONTAL	09/29/2001 AUS20011038	
(AUS) TAILPLANE REAR SPAR CONTAINED SEVERE EXFOLIATION CORROSION IN THREE SEPARATE AREAS. SUSPECT CORROSION CAUSED BY WATER INGRESS. PNO 1232610-3 (X2), PNO 0732603-2 AND PNO 1232114-1 AFFECTED. OTHER PARTS ALSO FOUND CORRODED WAS RIB PNO 1231006-1 IN THE FIN AND THE LEFT HAND ELEVATOR TORQUE TUBE AND INBOARD ADAPTOR PNO 0734110-3 AND PNO 0734110-7. THE AFFECTED AREAS WERE NOT PRIMED DURING MANUFACTURE AND THE AIRCRAFT SPENT A CONSIDERABLE AMOUNT OF ITS LIFE IN THE OPEN IN COASTAL AREAS.						
CESSNA 182S			PITOT LINE S10711	BURNED PITOT/STATIC SYS	10/31/2001 2001FA0000580	296
PITOT HEAT INSULATION, BURN MARKS WERE FOUND ON PITOT PRESSURE LINE. CONDITION RESULTS FROM HAVING PLASTIC LINE CONNECTED TO HEATED PITOT MAST. THE SB CORRECTS THIS BY ADDING PLASTIC SPIRAL WRAP TO LINE AND POWER WIRES AT THE PITOT MAST. THIS PREVENTS PITOT LINE FROM DIRECTLY CONTACTING HOT PARTS OF PITOT MAST, BUT SPIRAL WRAP INSULATION IS MADE OF SAME MATERIAL AS ORIGINAL PITOT LINE AND SUBJECT CESSNA						
BEARING 182S	DELAMINATED IO540AB1A5	11/01/2001	60 LW13884	LYC ENGINE		2001FA0000489
FRONT MAIN BEARING DELAMINATION. DEFECT AREA WAS ABOUT THE SIZE OF A DIME. THERE WAS EVIDENCE OF SUBSURFACE FLAWS IN THE SURROUNDING AREA. THE CAUSE WOULD BE IMPROPER MANUFACTURING.						
CESSNA 182S	LYC IO540AB1A5		FUEL LINE LW120980210	CHAFED ENGINE	11/14/2001 2001FA0000577	316
DURING 100 HOUR INSPECTION, DISCOVERED NR2 CYLINDER FUEL INJECTION LINE LEAKING WHILE ACCOMPLISHING MFG SB. FUEL LINE SUPPORT CLAMP HAD BECOME LOOSE AND CAUSED LINE TO CONTACT NR2 CYLINDER FINS, WHICH WORE 6 GROOVES IN LINE.						
CESSNA 207	CONT IO520F		BRACKET 122005312	CRACKED AILERONS	10/12/2001 AUS20011076	
(AUS) RH AILERON INBOARD AND OUTBOARD HINGE BRACKETS CRACKED AND DISTORTED.						
CESSNA 207	CONT IO520F	CONT IO520F	MUFFLER 125025116	FAILED ENGINE NOISE SUP	11/02/2001 AUS20011175	
(AUS) RH EXHAUST MUFFLER INTERNAL BAFFLE COLLAPSED PARTIALLY BLOCKING MUFFLER AND CAUSING LOSS OF ENGINE PERFORMANCE.						
CESSNA 207	CONT IO520F		FITTING 12412021	CRACKED MAIN LANDING	11/06/2001 AUS20011219	
(AUS) RH MAIN LANDING GEAR FITTING CRACKED AND RUBBING ON BRAKE DISC.						
CESSNA 207A	CONT IO520F		CYLINDER SA52000A20P	CRACKED ENGINE	07/17/2001 2001FA0000649	1500
CYLINDER CRACKED ON INTAKE AND EXHAUST SEATS.						
CESSNA 208B	PWA PT6A114A		LEVER SL60043	BROKEN FUEL SELECTOR/SH	10/12/2001 AUS20011140	
(AUS) FUEL CONDITION LEVER BROKE AT THE LOWER BEND IN THE CONTROL KNOB ARM.						
CESSNA 210A	CONT IO470*		PANEL	CRACKED FUSELAGE	10/25/2001 2001FA0000498	3395
WHILE AC WAS IN SHOP FOR PROP/ENGINE BALANCING, CRACK APPROX 4.5 INCHES LONG WAS FOUND ON REAR PANEL OF LOWER FORWARD FUSELAGE STRUCTURE. PANEL PN 12530181. PANEL WAS REPAIRED BY ADDITION OF DOUBLER AS SHOWN ON 377. CRACK WAS LOCATED ON SHEET METAL ABOVE WHEEL WELL.						
CESSNA 210D	CONT IO520A		SKIN 12326003	DAMAGED HORIZ STAB	11/15/2001 2001FA0000578	1710
DURING AN ANNUAL INSPECTION THE RIGHT INBOARD SKIN HAD EXCESSIVE OIL CANNING WHEN FLEXED. WHEN FAIRING, PN 12124265 AND 12124266 (RIGHT AND LEFT) WERE REMOVED, THE RIGHT UPPER SKIN SURFACE UNDER FAIRING WAS CHAFFED THROUGH 4 INCHES IN LENGTH THE LEFT SKIN IN SAME LOCATION WAS CHAFFED 50 PER CENT. .020 SKIN. REPLACED AFFECTED SKINS AND REMOVED SHARP EDGE ON FAIRING AND USED ANTI-CHAFE TAPE.						
CESSNA 310J	CONT O470M	CESSNA	BUSHING	SEPARATED TORQUE LINK	07/10/2001 2001FA0000595	
RIGHT MAIN LANDING GEAR UPPER AND LOWER TORQUE LINKS BECAME DISCONNECTED FROM EACH OTHER DURING TAKEOFF ROLL. IT APPEARS THAT A PRESSED IN BUSHING, SEPARATED FROM THE LOWER TORQUE LINK ALLOWING THE BOLT HEAD AND WASHER TO PASS THROUGH THE ENLARGED HOLE NORMALLY OCCUPIED BY THE BUSHING. CATALOG INDICATES THAT A SPECIAL WASHER IS REQUIRED UNDER THE BOLT HEAD. THE SPECIAL WASHER HAS A LARGER OUTSIDE DIAMETER THAN THE STANDARD AN WASHER WHICH WAS FOUND INSTALLED. MM INSTRUCTION DO NOT REQUIRE INSTALLATION OF SPECIAL WASHER.						
CESSNA 310R	CONT IO520M		FITTING 082255014	CORRODED WING, FUSELAGE A	11/20/2001 AUS20011225	
(AUS) RH WING UPPER FORWARD ATTACHMENT FITTING CONTAINED INTERGRANULAR CORROSION IN THE UPPER SURFACES AND TWO AREAS OF PITTING CORROSION. FOUND DURING INSPECTION IAW AD/C310/53.						
CESSNA 310R	CONT IO520M	CONT IO520M	STUD 6461401	BROKEN RECIPROCATING	09/14/2001 AUS20011244	
(AUS) LH ENGINE CYLINDER HOLDDOWN STUD BROKEN. CRANKCASE CRACKED. SEE ALSO MDR 01/1243.						
CESSNA 340A	CONT TSIO520NB		MAGNETO 6320	CORRODED ENGINE	10/25/2001 2001FA0000545	1200
PILOT NOTED INTERMITTENT ROUGH ENGINE AND FLUCTUATING EGT. DURING SUBSEQUENT TROUBLE SHOOTING, NOTED ONLY ONE IMPULSE COUPLING SOUND. WHEN PULLING ENGINE THROUGH WITH SPARK PLUGS OUT AND TIMING WAS WAY OFF. UPON REMOVAL FOUND THAT COULD BARELY TURN THE MAGNETO BY HAND. WHEN MAGNETO WAS OPENED, THERE WAS RUST SHOWING ON ROTOR AND COIL WEDGE WAS LOOSE.						
CESSNA 402C	CONT TSIO520VB	CONT TSIO520VB	STUD 646657	MISSING RECIPROCATING	10/30/2001 AUS20011157	

(AUS) RH ENGINE NO4 CYLINDER EXHAUST STUDS (4OFF) MISSING ALLOWING EXHAUST GAS TO BE DIRECTED ONTO THE CHT PROBE.  
 CESSNA CONT CONT DISTRIBUTOR BROKEN 12/04/2001  
 402C TSIO520VB 10357586 MAGNETO 2001FA0000684  
 AT FIRST POWER REDUCTION AFTER TAKE OFF RIGHT ENGINE STARTED RUNNING ROUGH. PILOT SUSPECTED A MAGNETO AND ISOLATED PROBLEM TO THE RIGHT MAGNETO. PILOT RETURNED TO THE AIRPORT WITH RIGHT ENGINE RUNNING ON JUST THE LEFT MAGNETO. UPON REMOVAL AND DISASSEMBLY OF MAGNETO, THE DISTRIBUTOR GEAR WAS FOUND WITH BROKEN TEETH AND NOT TURNING, RESULTING IN THE MAGNETO FAILING TO FUNCTION, NO OTHER DEFECTS FOUND. DISASSEMBLED LEFT MAGNETO AND NO FAULTS FOUND, POINTS CHECKED GOOD AND NO ADJUSTMENTS NEEDED. NO REASON FOUND FOR FAILURE OF DISTRIBUTOR GEAR IN RIGHT MAGNETO.  
 CESSNA CONT BEARING DRAGGING 11/03/2001 2278  
 414A TSIO520\* 4664120004 TURBOCHARGER 2001FA0000581  
 AIRCRAFT LANDED WITH LEFT ENGINE FEATHER AND SECURED. PILOT REPORTED LOW MANIFOLD PRESSURE. INSPECTION REVEALED LEFT TURBOCHARGER BEARINGS DRAGGING. REPLACED TURBOCHARGER WITH OVERHAUL UNIT. ENGINE OPERATIONALLY CHECKED OK. COMPONENT AGE SUSPECTED AS CAUSE BUT LOGBOOKS WERE  
 CESSNA CONT PIN BROKEN 11/30/2001 5064  
 414A TSIO520\* PROPELLER 2001FA0000644 1690  
 PILOT NOTICED SEVERE VIBRATION IN LEFT ENGINE, SHUTDOWN AND ATTEMPTED FEATHER, WOULD NOT FEATHER, LANDED. FOUND 1 BLADE IN FEATHER AND FREE TO ROTATE. INSPECTION REVEALED 1 ACTUATING PIN HAD FRACTURED IN THREADS. PIN HOLE IN FERRULE NOT DRILLED AND TAPPED DEEP ENOUGH TO ALLOW PIN TO TIGHTEN ON WASHER. FATIGUE TO THREADS LED TO FAILURE.(K)  
 CESSNA CONT CRANKSHAFT BROKEN 11/26/2001 2059  
 414A TSIO520NB 642396 ENGINE 2001FA0000589  
 CRANKSHAFT BROKE IN 3 SECTIONS, HAD 595.9 SMOH. NO SIGNS OF OIL STARVATION.  
 CESSNA GARRTT FCU FAULTY 08/10/2001  
 441 TPE33110 89711012 LT ENGINE 2001FA0000481 1313  
 ENGINE WOULD NOT REDUCE FUEL FLOW IN EITHER COMPUTER MODE OR MANUAL MODE TO ALLOW A NORMAL LANDING. THE AIRCRAFT HAD TO BE LANDED SINGLE ENGINE INSTALLING A REPAIRED FUEL CONTROL UNIT CURED  
 CESSNA PWA CESSNA SKIN CORRODED 09/18/2001  
 550 JT15D4 C550 552212126 WING, PLATES/SKI AUS20011045  
 (AUS) RH WING SKIN SPLICE CORRODED. SUBSEQUENT INVESTIGATION REVEALED EXTENSIVE DEBONDING. ULTRASONIC INSPECTION OF LH WING FOUND SIMILAR RESULTS.  
 CESSNA PWA CESSNA PIN WORN 10/22/2001  
 550 JT15D4 55657544 03101243 STABILIZER POSIT AUS20011114 (AUS)  
 ELEVATOR TRIM INDICATOR SKIPPED GROOVES ON TRIM WHEEL GIVING INCORRECT TRIM POSITION INDICATION. BOTH WHEEL FUSE PLUGS BLEW DUE TO EXCESSIVE BRAKING.  
 CESSNA CONT CONNECTOR LOOSE 11/08/2001  
 T210N TSIO520\* S23731 VOLTAGE REG 2001FA0000552  
 AIRCRAFT LOST ELECTRICAL POWER IN FLIGHT. PLUG THAT CONNECTED VOLTAGE REGULATOR/ WARNING INDICATOR TO ALTERNATOR DID NOT LOCK AND VIBRATED LOOSE. BECAUSE THE LOW VOLTAGE INDICATOR DIE NOT ILLUMINATE AND THE AMMETER IS ON THE FAR RIGHT SIDE OF CABIN, PILOT WAS UNAWARE OF PROBLEM UNTIL RADIO COMMUNICATION FAILED.  
 CESSNA CONT BEARING FAILED 09/28/2001  
 U206G IO520F S1997610 AILERON CONTROL AUS20011036  
 (AUS) LH AILERON OUTBOARD BELL CRANK UPPER AND LOWER BEARINGS STIFF DUE TO LACK OF LUBRICATION AND CORROSION. SUSPECT INADEQUATE SEALING OF RUBBER BUNG ON TOP OF WING ALLOWED WATER TO WASH OUT THE LUBRICATION FROM THE BEARINGS.  
 DOUG ANGLE CRACKED 10/26/2001 2125  
 600N 500N31296 FUSELAGE 2001FA0000540  
 INSPECTED RT UPPER TAILBOOM ATTACH FITTING ON FUSELAGE. WE FOUND A CRACK IN ANGLE P/N 500N3129-6. THIS ANGLE CAN ONLY BE SEEN BY REMOVAL OF THE RIVETED PANEL ON THE SIDE OF THE FUSELAGE. WE HAVE FOUND CRACKS ON ALL 3 OF OUR 600N MODELS.  
 DOUG ANGLE CRACKED 10/26/2001 2219  
 600N 500N31296 TAIL BOOM 2001FA0000541  
 DURING INSPECTION OF THE RT UPPER TAILBOOM MOUNT WE FOUND P/N 500N3129-6 ANGLE CRACKED. TO INSPECT, YOU MUST REMOVE THE RIVETED CLOSURE, ON THE SIDE OF THE FUSELAGE. WE HAVE FOUND CRACKS, ON ALL 3, OF OUR 600N MODELS.  
 DOUG FITTING CRACKED 10/26/2001 1993  
 600N 500N3422 TAIL BOOM 2001FA0000542  
 AFTER THE PILOT REPORTED UNUSUAL TAILBOOM MOVEMENT DURING HIS PREFLIGHT INSPECTION, ONE OF OUR MECHANICS REMOVE THE TAILBOOM ATTACHMENT FAIRING. HE FOUND THE RT UPPER TAILBOOM ATTACH BOLT HAD FRACTURED, AND THE BOLT HEAD WAS HELD ONLY BY SAFETY WIRE. WE THEN REMOVED THE RIVETED CLOSURE COVERING THE NUTPLATE AND ATTACH FITTING. WE FOUND FITTING, P/N 500N3422, CRACKED AND ANGLE P/N 500N3129-6, ALSO CRACKED. WE HAVE GROUNDED ALL 3 OF OUR 600N MODELS, AND HAVE FOUND CRACKS ON ALL 3  
 ENSTRM LYC VALVE SEAT LOOSE 12/11/2001  
 280C HIO360E1AD ENGINE 2001FA0000685  
 NUMBER 4 CYLINDER HAD AN INTAKE VALVE SEAT COME LOOSE AND THE PISTON HAD BROKEN RINGS. SUBSEQUENT LOSS OF POWER.  
 GULSTM LYC CRANKCASE CRACKED 10/22/2001  
 500B IO540E1A5 ENGINE 2001FA0000497 672  
 CRANKCASE WAS CRACKED AT NR 2 UPPER CYLINDER STUD AND LEAD INTO OIL PRESSURE GALLEY. ENGINE LOST OIL PRESSURE AND WAS FEATHERED.  
 GULSTM RROYCE THERMOSWITC WRONG PART 09/06/2001 263  
 GV BR700710A110 512T130B150001 FIRE DETECTION 2001FA0000484  
 FOUND THERMAL SWITCH PN 512T130B150001 INSTALLED. REMOVED SWITCH AND INSTALLED PN GAS850DF512-250 REV B. THIS SWITCH CORRECTED PROBLEM. THE REMOVED SWITCH CAUSED (FIRE WARNING LIGHT FOR THE LEFT AFT DUCT) TO COME ON. NO LEAKS NOTED. THE SWITCH REMOVED WAS NOT CORRECT PART NUMBER.  
 HUGHES LYC DAMPER LOOSE 11/19/2001  
 269C HIO360D1A 269A3150 MAIN LANDING AUS20011251  
 (AUS) LH REAR LANDING GEAR DAMPER UPPER CAP UNSCREWED AND SEPARATED FROM PISTON. SUSPECT CAUSED BY VIBRATION.  
 HUGHES LYC BRACKET CRACKED 12/11/2001  
 269C HIO360D1A 269A55177 ENGINE/TRANSMISS AUS20011318  
 (AUS) LOWER DRIVE PULLEY SUPPORT BRACKET CRACKED. ONE ATTACHMENT LUG SEPARATED.  
 LAKEAC LYC NUT MISSING 10/17/2001 616  
 250LAKE TIO540\* VERNATHERM 2001FA0000590  
 REMOVED VERNATHERM TO COMPLY WITH MFG SB (CHECK NUT TIGHTNESS). WHEN VALVE REMOVED, THE NUT WAS MISSING. AFTER A THROUGH SEARCH THE NUT WAS FOUND IN THE INBOARD HOSE, OIL COOLER END OF THE COPILOT SIDE OF OIL COOLER (2 OIL COOLERS ARE ON THIS INSTALLATION).(K)

LEAR 31A	GARRTT TFE731*	STRINGER 31120111	CRACKED FUSELAGE	11/06/2001 2001FA0000503	4814
THE RIB IS CRACKED IN 3 EACH PLACES WERE IT ATTACHES TO SKIN CRACKS ORIGINATE FROM RIVETS AND CRACKING TOWARDS OTHER RIVETS. MAULE LYC MUFFLER CRACKED 11/14/2001 300					
MXT7180A	O340*		ENGINE	2001FA0000671	
WELD SHOULD BE INSPECTED EACH 100 HOURS OR EVERY OIL CHANGE. CRACK COULD BRING EXHAUST GAS INTO CABIN. POOR DESIGN OF MUFFLER AND NOT SUPPORTED PROPERLY.					
MOONEY M20C	LYC O360*	SPAR CAP	CORRODED WING	10/28/2001 2001FA0000500	3514
DURING ANNUAL INSPECTION, WING CARRY THROUGH SPAR WAS FOUND TO HAVE EXFOLIATION CORROSION ON TOP SPAR CAP.					
MOONEY M20C	LYC O360A1D	LYC O360A1D	MAGNETO S4LN200	FAULTY MAGNETO/DISTRIB	10/30/2001 AUS20011158
(AUS) MAGNETOS INTERMITTENT IN OP. INSP FOU NDFOLLOWING FAULTS ON BOTH UNITS:-1. CAPACITORS FOUND TO LEAKING ELECT.LY.2. SPUR GEAR FOUND TO BE OF NYLON TYPE WHICH HAS BEEN OBSOLETE FOR MANY YRS&REQD AS PER BENDIX MASTER MANUAL TO BE REPL.3. DISTRIBUTOR BLOCK CONTAMINATED WITH FOREIGN MATERIAL & CRACKS WERE FOUND RADIATING OUT FROM THE ELECTRODES& THERE EVIDENCE OF TRACKING ALONG THESE CRACKS4. INTERNAL TIMING FOUND TO BE SET AT 6 DEGS MOST LIKELY DUE TO CAM FOLLOWER WEAR ON CONTACTS AS CONTACT GAPAT 0.1778MM (0.007IN). THESE VALUES COMPARED TO ACCEPTABLE LIMITS OF 10 DEGS +/-2 DEGS&CONTACT GAPOF APPROX 0.4064MM (0.016IN) SUGGESTS THAT THESE MAGNETOS HAVE NOT BEEN REMVD					
MOONEY M20K	CONT TSIO360*	SWITCH	STUCK ELEVATOR TRIM	11/01/2001 2001FA0000550	
DURING TRIM ADJUSTMENT, PILOT EXPERIENCED AN UNCOMMANDED NOSE DOWN ATTITUDE. GROUND INVESTIGATION REVEALED THAT THE ELEVATOR TRIM SWITCH HAD STUCK IN THE NOSE DOWN POSITION.					
PIPER PA18135		RUDDER PEDAL 408424	WORN COCKPIT	11/18/2001 2001FA0000664	3700
DURING DISASSEMBLY FOR REBUILD ALL AND RUDDER PEDALS WERE FOUND TO BE DAMAGED DUE TO THE RETURN SPRING(40494100) CUTTING THROUGH LOWER HINGE SHAFT, WALL. ALL HAD BEEN WELD REPAIRED BUT WERE AGAIN WORN THROUGH, ALL REPLACED NEW AND APPEAR TO HAVE SAME WALL THICKNESS. AS THE WEAR PROGRESSES THE POTENTIAL FOR BINDING EXISTS.					
PIPER PA18135		RUDDER PEDAL 404825	WORN COCKPIT	11/18/2001 2001FA0000665	3700
DURING DISASSEMBLY FOR REBUILD ALL 4 RUDDER PEDALS WERE FOUND TO BE DAMAGED DUE TO THE RETURN SPRING (40941-00) CUTTING THROUGH LOWER HINGE SHAFT WALL. ALL 4 HAD BEEN WELD REPAIRED BUT WERE AGAIN WORN THROUGH. ALL REPLACED NEW AND APPEAR TO HAVE SAME WALL THICKNESS. AS THE WEAR PROGRESSES THE POTENTIAL FOR BINDING EXISTS.					
PIPER PA22108	LYC O235*	FUEL CAP	IMPROPER PART RT WING	11/05/2001 2001FA0000554	
(2) PILOTS HAD FUEL STARVATION. BOTH PILOTS, ON LANDING, CHECK RIGHT WING TANKS AND HEARD HISSING SOUND. EXAMINED CAPS AND FOUND NOW VENT HOLES. BOTH CAPS SEEMED NEW AND MADE OF ALUMINUM. CHANGED CAPS TO VENTED STYLE, HAD NO FURTHER TROUBLE.					
PIPER PA23250	LYC TIO540*	WHEEL 16106900	CRACKED LT MLG	08/17/2001 2001FA0000600	
DURING ANNUAL INSPECTION, FOUND LEFT INNER MAIN WHEEL HALF CRACKED IN THE BEAD AREA ORIGINATING FROM BRAKE ATTACHMENT PLATE RIVETS.					
PIPER PA28*	LYC O360*	GASCOLATOR 1442800	CRACKED ENGINE	07/24/2001 2001FA0000594	
DURING ENGINE START, AN INDUCTION FIRE STARTED WHEN THE CARBURETOR BACKFIRED. THE FIRE COULD NOT BE EXTINGUISHED AND DESTROYED THE AIRCRAFT. DURING AN INVESTIGATION THE GASCOLATOR COVER WAS FOUND CRACKED. IT APPEARS THE FUEL LEAKING FROM THE COVER APPEARS TO HAVE FED THE FIRE THAT DESTROYED THE AIRCRAFT.					
PIPER PA28161	LYC O320D3G	WINDSHIELD 7929616	UNAPPROVED FLIGHT	10/19/2001 AUS20011099	
(AUS) LH WINDSHIELD INCORRECT PART. WINDSHIELD THICKNESS OF 2.5146MM(0.100IN) INSTEAD OF 6.858MM (0.270IN). EXCESSIVE SILASTIC SEALER USED TO FILL GAPS CAUSED BY POOR FIT. PERSONNEL/MAINTENANCE ERROR. UNAPPROVED PART.					
PIPER PA28181	LYC	CONTROL 62701124	WORN AILERON	11/20/2001 2001FA0000588	2125
DURING A ROUTINE INSPECTION, SUBSTANTIAL WEAR WAS FOUND WHERE THE AILERON BALANCE CABLE RUNS THROUGH THE RIGHT SIDE OF THE FUSELAGE. CABLE WEAR WAS PROBABLY CAUSED BY IMPROPER CABLE ALIGNMENT DURING ASSEMBLY BY MFG. THIS IS THE SECOND OCCURRENCE OF THIS TYPE OF DEFECT FOUND IN OUR					
PIPER PA31	LYC TIO540A2B	SPAR 4006805	CRACKED RUDDER, SPAR/RIB	11/08/2001 AUS20011237	
(AUS) RUDDER FORWARD SPAR CRACKED. FOUND DURING INSPECTION IAWAD/PA31/129.					
PIPER PA31350	LYC TIO540*	REGULATOR A2300475	LEAKING CABIN HEATER	11/14/2001 2001FA0000582	142
THE HEATER FUEL REGULATOR, WAS INSTALLED NEW, IN OUR AIRCRAFT. AD'S HAVE BEEN COMPLIED WITH. DURING ROUTINE HEATER INSPECTION AND CHECK, FOUND NEW TYPE REGULATOR SEEPING FUEL AROUND HOUSING SEAL.					
PIPER PA31350	LYC TIO540J2BD	LYC TIO540J2BD	BEARING 640761A	WORN RECIPROCATING	10/15/2001 AUS20011087
(AUS) DURING LH ENGINE STRIP FOR REPAIR TO A CRACKED CRANKCASE, THE CENTRE MAIN BEARING WAS FOUND TO BE BADLY WORN AND THE LOCATING LUGS WERE BADLY DAMAGED. THE CRANKSHAFT WAS ALSO FOUND TO BEDAMAGED ON THE FORWARD AND REAR SURFACES CONTACTED BY THE BEARING DUE TO EXTREME LONGITUDINAL MOVEMENT OF THE BEARING. SEALANT WAS FOUND ON THE BEARING WEBS. THE THROUGH STUD SEALING O'RINGS BETWEEN THE CRANKCASE HALVES WERE MISSING. TO STOP THE OIL LEAK SILK THREAD AND LOCTITE 515 WAS AROUND THE THROUGH BOLT HOLES. NON-APPROVED REPAIR. PERSONNEL/MAINTENANCE ERROR.					
PIPER PA31350	LYC TIO540J2BD	SWITCH	FAULTY LANDING GEAR POS	10/25/2001 AUS20011138	
(AUS) MAIN LANDING GEAR SQUAT SWITCH WIRE BROKEN.					
PIPER PA31350	LYC TIO540J2BD	PIPER PA31350	TUBE 5052012035	CORRODED AIRCRAFT FUEL DI	10/26/2001 AUS20011144
(AUS) FUEL CROSSFEED PIPE LOCATED BELOW CABIN FLOOR CORRODED INTERNALLY PRODUCING A SMALL PIN HOLE LEAK. LEAKING FUEL CONTAMINATED THE SURROUNDING INSULATION.					
(AUS) RH MAIN FUEL CELL RH FLAPPER VALVE DOOR MISSING.					
PIPER PA31P350	LYC	ARMATURE 313B57	IMPROPER FAN	10/15/2001 2001FA0000477	
FAN WAS TESTED AND FOUND NOT TO RUN, FAN WAS DISASSEMBLED AND FOUND TO HAVE A BRUSH LEAD WIRE CUT. THIS CAUSED THE FAN TO FAIL. THE FAN HAS AN ARMATURE IN IT THAT IS NOT OF MFG DESIGN AND DOES NOT MEET MFG SPECIFICATIONS. THE ARMATURE LAMINATIONS ARE NOT PROTECTED AND THE WIRE IS NOT WOUND PER MFG SPECIFICATIONS.					

PIPER PA31T		SNUBBER	FAILED	12/04/2001	10
RECEIVED 2 DIFFERENT SNUBBERS AND INSTALLED. NEITHER HAD ANY SNUBBING ACTION. NEW PARTS FROM THE FACTORY.					
PIPER PA32R300		BRACE	BROKEN	11/16/2001	369
INSPECTION FOUND RIGHT NOSE GEAR DOOR BRACE BROKEN AT REAR ATTACH POINT. ALSO CRACKED OUT FROM RIVETS AT AFT END OF BRACE.					
PIPER PA32R300		BRACE	BROKEN	11/16/2001	103
INSPECTION FOUND RIGHT NOSE GEAR DOOR BRACE BROKEN AT REAR ATTACH POINT. ALSO CRACKED OUT FROM RIVETS AT AFT END OF BRACE.					
PIPER PA32R300		BRACE	BROKEN	11/16/2001	321
INSPECTION FOUND RIGHT NOSE GEAR DOOR BRACE BROKEN AT REAR ATTACH POINT. ALSO CRACKED OUT FROM RIVETS AT AFT END OF BRACE.					
PIPER PA32R300	LYC	DOWNLOCK	BROKEN	08/27/2001	351
NOSE GEAR DROPPED OUT OF WHEEL WELL INFLIGHT. FOUND DOWNLOCK BROKEN WHERE NOSE ACTUATOR ROD ATTACHES. THIS HAS HAPPENED ON MORE THAN ONE OCCASION WITH SAME TYPE OF AIRCRAFT IN THE PAST. SUSPECT MFG. IS MAKING PART FROM SUBSTANDARD MATERIAL. THIS PROBLEM HAS JUST BEEN HAPPENING IN THE PREVIOUS YEAR. THIS PART WAS INSTALLED NEW ABOUT 350 HOUR PREVIOUSLY.(K)					
PIPER PA32R300	LYC	BRACE	BROKEN	11/26/2001	481
INSPECTION FOUND RIGHT NOSE GEAR DOOR BRACE CRACKED AT REAR ATTACH POINT. THIS IS A COMMON PROBLEM FOUND ON THIS MODEL AIRCRAFT.					
PIPER PA32R300	LYC	BRACE	BROKEN	11/16/2001	
INSPECTION FOUND RIGHT NOSE GEAR DOOR BRACE BROKEN AT REAR ATTACH POINT. ALSO CRACKED OUT FROM RIVETS AT AFT END OF BRACE.					
PIPER PA32R300	LYC	BRACE	BROKEN	11/16/2001	1075
INSPECTION FOUND RIGHT NOSE GEAR DOOR BRACE BROKEN AT REAR ATTACH POINT. ALSO CRACKED OUT FROM RIVETS AT AFT END OF BRACE.					
PIPER PA32R300	LYC	GEAR	BROKEN	11/26/2001	
DURING INSPECTION FOUND A DISTRIBUTOR GEAR TOOTH BROKEN AND LAYING IN MAG CAP. THIS IS AN ONGOING PROBLEM. THIS MAG HAS PLASTIC GEARS AND HAS BEEN FOUND IN THIS CONDITION ON NUMEROUS MAGNETOS OF THIS TYPE IN THE PAST.					
PIPER PA32R300	LYC	BRACE	BROKEN	11/16/2001	473
INSPECTION FOUND RIGHT NOSE GEAR DOOR BRACE BROKEN AT REAR ATTACH POINT. ALSO CRACKED OUT FROM RIVETS AT AFT END OF BRACE. PIPER					
PIPER PA34200	LYC	BRACKET	WORN	12/04/2001	
DURING PERFORMANCE OF 100 HOUR INSPECTION AND COMPLIANCE WITH AD. DURING GEAR RETRACTION NOTICED MOVEMENT OF NOSE GEAR SUPPORT CENTER ATTACH BOLT. AFTER INVESTIGATION AND INSTALLATION OF ACCESS PANEL ON BELLY OF AIRCRAFT FOUND BRACKET PART 95554-000 LOOSE AND WORN EXCESSIVELY INSTALLED NEW FACTORY PARTS. AIRCRAFT TOTAL TIME 9750.2					
PIPER PA34200T	CONT	LINE	CRACKED	11/03/2001	
(AUS) RH ENGINE FUEL PUMP SENSE LINE CRACKED APPROXIMATELY 10MM (0.393IN) FROM THE FLARED END.					
PIPER PA34200T	CONT	TORQUE TUBE	DAMAGED	12/04/2001	4230
WHILE INSPECTING RUDDER ON ANNUAL INSPECTION THE INSPECTOR FOUND LOOSENESS AT THE RUDDER TORQUE TUBE ATTACH BOLTS. TEARDOWN INSPECTION SHOWED BOLT HOLES OVERSIZE AND ELONGATED. NEW PARTS INSTALLED BECAUSE (AN 174) BOLTS WERE LARGEST SIZE BOLTS PERMITTED. MFG SB REFERS TO THIS PROBLEM.					
PIPER PA34200T	CONT	HOUSING	CRACKED	11/02/2001	
(AUS) LH AND RH ENGINE TURBOCHARGER TURBINE HOUSINGS CRACKED. FOUND DURING INSPECTION IAW AD/TURBO/1. LH ENGINE - CONTINENTAL TSIO-360-E - SERIAL NUMBER 307156 TSO 338.6 HOURS - TSLSV 119.6 HOURS RH ENGINE - CONTINENTAL LTSIO-360-E - SERIAL NUMBER 306161 TSO 338.6 HOURS - TSLSV 119.6 HOURS					
PIPER PA44180	LYC	BRACKET	CRACKED	11/13/2001	
(AUS) LH MAIN LANDING GEAR DOWNLOCK BRACKET CRACKED.					
PIPER PA44180	LYC	RIB	CRACKED	11/13/2001	
(AUS) WING RIB CRACKED. RIB SUPPORTS UNDERCARRIAGE DOWNLOCK.					
PIPER PA44180	LYC	RIB	CRACKED	11/13/2001	
(AUS) WING RIB CRACKED. RIB SUPPORTS UNDERCARRIAGE DOWNLOCK.					
PIPER PA44180	LYC	BRACKET	CRACKED	11/13/2001	
(AUS) RH MAIN LANDING GEAR UPLOCK BRACKET CRACKED.					
PIPER PA46500TP	PWA	FLUX	FAILED	12/14/2001	
AFTER 10-30 HOURS OF AIRCRAFT OPERATION FLUX VALVE IS FAILING. SUSPECT THE PROBLEM IS VIBRATION RELATED. NEED TO REPLACE HORIZONTAL STABILIZER IF PROBLEM CANNOT BE ISOLATED.					
PIPER PA60601	LYC	TAILPIPE	CRACKED	07/05/2001	
(AUS) RH ENGINE TAILPIPE CRACKED ALLOWING HOT EXHAUST GAS TO ACTIVATE FIRE WARNING SYSTEM.					
RAYTHN HAWKER800XP	GARRTT	WINDOW	DELAMINATED	12/11/2001	655
WINDOW DELAMINATED AT THE CENTER HEATING ELEMENT. POSSIBLE SHORT AT INTERNAL WIRING TO HEATING ELEMENT. THE DELAMINATION AREA IS IN THE BOTTOM CENTER. THE UNIT IS BEING SENT TO MFG FOR FURTHER					

REIMS	PWA		CHANNEL	CRACKED	12/06/2001	
F406	PT6A112		571304013	LANDING GEAR	AUS20011310	
(AUS) NOSE LANDING GEAR ACTUATOR ATTACHMENT STRUCTURE CHANNEL CRACKED.FOUND DURING INSPECTION IAW AD/F406/7.						
ROBSIN	LYC	LYC	GEAR	BROKEN	09/03/2001	
R22BETA	O320B2C	O320B2C	10357584	MAGNETO/DISTRIB	AUS20011331	400
(AUS) MAGNETO GEAR TEETH BROKEN.						
RYAN	CONT	ELECTROSYS	WIRE	MISSING	10/05/2001	
ST3KR	TSIO360KB			ALTERNATOR	2001FA0000583	
NEW EXCHANGE ALTERNATOR SUPPLIED. ALTERNATOR OUTPUT OK. PANEL INOPERATIVE LIGHT STAYS ILLUMINATED. INSPECTION OF ALTERNATOR REVEALED MISSING LEAD WIRE FROM STATOR TO STATOR. ALT LIGHT TERMINAL ON ALTERNATOR. ALTERNATOR REQUIRES ADDITIONAL LEAD WIRE FOR AIRCRAFT WITH PANEL DOWN OPERATIVE LIGHT CONNECTED TO STATOR TERMINAL ON ALTERNATOR.						
SKRSKY			INDICATOR	CONTAMINATED	10/03/2001	135
S61N			40008330202	RADAR UNIT	ERAA076652	
RADAR INDICATOR HAS WATER DAMAGE. UNIT HAD BLANK SCREEN AND WOULD NOT COME ON.MAJOR WATER DAMAGE WS FOUND IN UNIT. ACTION TAKEN: REMOVED CORROSION, REPAIRED TRACES, ALIGNED AND TESTED. THIS INFORMATION FOR FAA SDR.						
SKRSKY			INDICATOR	CONTAMINATED	10/03/2001	1073
S61N			40008330208	RADAR UNIT	ERAA076653	
RADAR INDICATOR HAS WATER DAMAGE. UNIT WOULD NOT COME ON. FOUND WATER DAMAGE. ACTION TAKEN : REMOVED CORROSION, REPLACED BLOWN RESISTOR AND TESTED UNIT.						
SKRSKY			INDICATOR	CONTAMINATED	10/03/2001	831
S61N			40008330208	RADAR	ERAA076654	
RADAR INDICATOR HAS WATER DAMAGE. INOPERABLE. UNIT HAS WATER DAMAGE ACTION TAKEN: REPLACED BLOWN RESISTOR, REMOVED CORROSION AND TESTED.						
SKRSKY			INDICATOR	MISMANUFACTURE	10/09/2001	360
S61N			D120P2T	COCKPIT	ERAA076668	
PART MISSING. FILTER MISSING ON PORT; TAKEN FROM STOCK. CONNECTOR PLATE BROKEN, CORROSION ON INSIDE OF BASE AND CASE, UNIT LEAKS, AND NEEDS ADJUSTMENT. ACTION TAKEN: REPAIRED, CLEANED CORROSION, REPLACED CONNECTOR PLATE, FIXED LEAKS, ADJUSTED AND FUNCTRIONALLY TESTED OK TO 20,000 FEET. C/W AIRWORTHINESS DIRECTIVES OR SB'S AS PER TSM 7421 REV A JAN 1993.						
SKRSKY			TIP CAP	MISMANUFACTURE	11/06/2001	16268
S76A				M/R BLADE	HEEA077200	
UNABLE TO INSTALL TIP CAP, SCREW HOLES DO NOT LINE UP.						
SKRSKY			HARNES	OUT OF ADJ	11/06/2001	
S76A			PHIS761178002	MLG	HEEA077201	
ON TAKE OFF UPON RETRACTING LANDING GEAR GOT AN UNSAFE FLIGHT. MAINTENANCE ADJUSTED THE NOSE CENTERING PROXIMITY SENSOR.						
SKRSKY	TMECA		WIRE	BROKEN	11/29/2001	
S76C	ARRIEL IS		7655200904045	LANDING GEAR POS	AUS20011272	
(AUS) RH MAIN LANDING GEAR DOWNLOCK SENSOR HARNES WIRE BROKEN.						
SNIAS	TMECA	TMECA	FCU	FAULTY	10/01/2001	
AS350B	ARRIEL1B	164448480	164448480	FUEL	AUS20011245	
(AUS) FUEL CONTROL UNIT LEAKING. FUEL LEAKING FROM FCU DRAIN WITH BOOST PUMP ON AND ENGINE NOT						
SNIAS	LYC	DART	LATCH	FAILED	10/01/2001	
AS350D	LTS101600A3	D350600042	D2586	LATCH	CA011114001 (CAN)	
PRIOR TO COMMENCING HIS FLT PILOT HAD REMVD SEAT CUSHIONS&STOWED THESE IN SIDE CARGO COMPT POD. DURING FLT POD "DOOR OPEN" LIGHT ILLUMINATED WHICH FOLLOWED BY LOUD BANG&SEVERE VIBRATIONS. PILOT IMMEDIATELY LANDED&FOUND THAT R/H POD DOOR HAD OPENED&SEAT CUSHION HAD FALLEN OUT STRIKING TAILBOOM&TAIL ROTOR WHILE IN FLT. REAR LATCH INSIDE LOCK BROKEN&SUBSTANTIAL DAMAGE TO A/C. FWD LATCH APPEARED UNDAMAGED BUT NOT POSITIVELY LATCHED. IT APPEARS THAT FWD LATCH MAY HAVE ALLOWED FRONT EDGE OF POD DOOR TO OPEN IN FLT AFTER WHICH PRESSURE FROM SLIPSTREAM PROBABLY BROKE REAR LATCH DUE TO EXCESSIVE PRESSURE B EING EXERTED ON DOOR. ALLOWED DOOR T						
SOCATA	LYC		RELAY	FAILED	11/20/2001	336
TB20TRINIDAD	IO540*		773690395	LANDING GEAR	2001FA0000597	
LANDING GEAR FAILED TO EXTEND. CIRCUIT BREAKER FOUND OPEN. INVESTIGATION FOUND LANDING GEAR UP, RELAY POINTS WELDED CLOSED.						
SWFTMS	CONT	ADEL	KEY	BROKEN	10/25/2001	1389
GC1B	IO360C		AN280H205	RTMLG	2001FA0000486	186
AC EXPERIENCED GEAR COLLAPSE ON ROLLOUT AFTER LANDING UPON DISASSEMBLY OF RT GEAR RETRACTION UNIT, WOODRUFF KEY WAS FOUND SHEARED AND PINION WAS FOUND ROTATED APPROXIMATELY .1250 OF INCH PAST CONDITION WHICH WOULD HAVE ALLOWED THE GEAR TO BE DOWN AND LOCKED. IT IS UNKNOWN WHETHER THE KEY SHEARED BEFORE OR AFTER THE COLLAPSE. PROBABLE CAUSE IS A CONDITION EITHER THE HYD-POWER PACK PRIMARY CIRCUIT BEING TRIPPED OR A STUCK MICROSWITCH GIVING A FAKE INDICATION WOULD INDICATE						

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		OPER. Control No.		8. Comments (Describe the malfunction or defect and the circumstances under which it occurred. State probable cause and recommendations to prevent recurrence.)	DISTRICT OFFICE	OPERATOR DESIGNATOR
<b>MALFUNCTION OR DEFECT REPORT</b>		ATA Code				
		1. A/C Reg. No. N-				
Enter pertinent data	MANUFACTURER	MODEL/SERIES	SERIAL NUMBER			
2.	AIRCRAFT			Optional Information: Check a box below, if this report is related to an aircraft <input type="checkbox"/> Accident; Date _____ <input type="checkbox"/> Incident; Date _____	OTHER	SUBMITTED BY:  TELEPHONE NUMBER: ( ) _____
3.	POWERPLANT				COMPUTER	
4.	PROPELLER				FAA	
5. SPECIFIC PART (of component) CAUSING TROUBLE					MFG.	
Part Name	MFG. Model or Part No.	Serial No.	Part/Defect Location.	AIR TAXI	MECH.	
6. APPLIANCE/COMPONENT (Assembly that includes part)					OPER.	
Comp/Appl Name	Manufacturer	Model or Part No.	Serial Number			
Part TT	Part TSO	Part Condition	7. Date Sub.			

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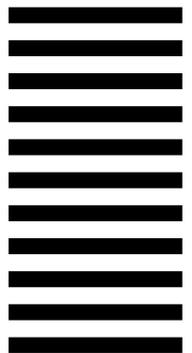
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