



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

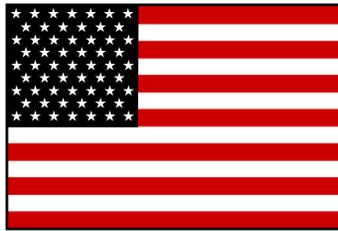
**AFS-600**  
*Regulatory Support Division*

## ADVISORY CIRCULAR 43-16A

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# AVIATION MAINTENANCE ALERTS

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NUMBER  
267**

**OCTOBER  
2000**

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

## AVIATION MAINTENANCE ALERTS

The Aviation Maintenance Alerts provide a common communication channel through which the aviation community can economically interchange service experience 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.

### UNAPPROVED PARTS NOTIFICATIONS

#### NOTE CONCERNING UNAPPROVED PARTS NOTIFICATIONS

All of the Unapproved Parts Notifications (UPN) listed in this publication were issued by the FAA, Suspected Unapproved Parts Program Office, AVR-20, and published by the Airworthiness Programs Branch, AFS-610.

Any questions or comments concerning these UPN's should be directed to the originating FAA office listed in each UPN. A complete listing of UPN's is found on the Internet at:

<http://www.faa.gov/avr/sups.htm>

#### UNAPPROVED PARTS NOTIFICATION NO. 99-123, DATED AUGUST 18, 2000

##### **AFFECTED AIRCRAFT:**

DeHAVILLAND DHC-6 Aircraft, Series 100/200/300.

##### **PURPOSE:**

The purpose of this notification is to advise all aircraft owners, operators, maintenance organizations, and parts suppliers and distributors regarding hydraulic pump and motor assemblies applicable to the above-referenced aircraft that have been overhauled without using data approved by the Federal Aviation Administration (FAA).

##### **BACKGROUND:**

Information received during an FAA suspected unapproved parts investigation revealed that prior to March 1999, Avitech Engineering Corporation (Avitech), 21300 Cloud Way, Hayward, CA 94545, overhauled and approved for return to service various hydraulic pump and motor assemblies without using technical data approved by the FAA.

Hydraulic pump and motor assemblies overhauled by Avitech include the following:

##### **Great Lakes:**

Part No. 100-689-4, Hydraulic pump and motor assembly  
Part No. 4100-689-4, Hydraulic pump and motor assembly  
Part No. 100-689-3, Hydraulic pump and motor assembly

**AC Delco:**

Part No. A9375, motor (of any of the above hydraulic pump and motor assemblies)

**Delaval Turbine:**

Part No. 4217-544000, motor (of any of the above hydraulic pump and motor assemblies)

**RECOMMENDATION:**

Regulations require that type-certificated products conform to their type design. Aircraft owners, operators, maintenance organizations, and parts suppliers and distributors should inspect their aircraft, aircraft records, and/or aircraft parts inventories for any above-referenced hydraulic pump and motor assembly overhauled prior to March 1999 by Avitech. If any referenced pumps and motor assemblies are installed on aircraft, appropriate action should be taken. If any of the pump and motor assemblies are found in existing stock, it is recommended that the parts be quarantined to prevent installation until a determination can be made regarding each assembly's eligibility for installation.

**FURTHER INFORMATION:**

Further information may be obtained from the FAA Flight Standards District Office (FSDO) given below. The FAA would appreciate any information concerning the discovery of the above-referenced unapproved parts from any source, the means used to identify the source, and the action taken to remove the parts from service.

This notice originated from the Oakland FSDO, 8517 Earhart Road, Suite 100, Oakland, CA 94621-4500, telephone (510) 273-7155, fax (510) 632-4773; and was published through the FAA Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 661-0581, fax (703) 661-0113.

**UNAPPROVED PARTS NOTIFICATION  
NO. 98-071, DATED AUGUST 29, 2000****AFFECTED AIRCRAFT:**

**American General:** AA1A, AA1B, AA5A, AA5B

**Beechcraft:** 19A, 23A, 24R

**Bellanca:** 7GCAA, 7KCAB, 8GCBC, 8KCAB

**Cessna:** 150, 152, 172, 175, 177, 177RG, 180, 182, 206, 210, T206, T210, P210, 310, 320, 336, 337, P337, 401, 402, 411, 414, 421, 421B, 421C

**Machen:** 600, 601, 601P, 602

**Mooney:** M20(C, D, E, F, G), M20J (201), M20K (231)(232), M20M (TLS), M20R (OVATION)

**Piper:** PA24-180, 250, 260; PA28-140, 150; PA28-151, 161, 180, 181, 235; PA28-200R, 201T, 236, 236T, PA 30

**Rockwell:** 112-114, 112TC-114TC

**PURPOSE:**

The purpose of this notification is to advise all aircraft owners, operators, maintenance organizations, manufacturers, and parts distributors regarding aircraft seals produced without benefit of a Federal Aviation Administration (FAA) production approval.

**BACKGROUND:**

Information received during an FAA suspected unapproved parts investigation revealed that since 1995, GEE-BEE, 16 Flying F Dr., Palm Springs, CA 92263, had produced silicone baffle seals and landing gear door seal kits for installation on type-certificated aircraft. GEE-BEE does not hold any FAA production approval to produce the seals.

**RECOMMENDATION:**

Regulations require that type-certificated products conform to their type design. Aircraft owners, operators, maintenance organizations, manufactures, and parts

distributors should inspect their aircraft, aircraft records, and/or aircraft parts inventory for the above-referenced seals and kits. If any of the referenced seals are installed on type-certificated aircraft, appropriate action should be taken. If any of the seals are found in existing parts inventory, it is recommended that the seals or kits be quarantined to prevent installation until a determination can be made regarding each part's eligibility for installation.

**FURTHER INFORMATION:**

Further information may be obtained from the FAA Manufacturing Inspection District Office (MIDO) given below. The FAA would appreciate any information concerning the discovery of the above-referenced parts from any source, the means used to identify the source, and the action taken to remove the parts from service.

This notice originated from the Los Angeles MIDO, 3960 Paramount Blvd., Lakewood, CA 90712-4137, telephone (562) 627-5385; and was published through the FAA Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 661-0581, fax (703) 661-0113.

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**UNAPPROVED PARTS NOTIFICATION  
NO. 2000-001, DATED AUGUST 29, 2000**

**AFFECTED PART:**

Door and window seals typically installed on, but not limited to, Cessna, Piper, Beech, and Mooney aircraft.

**PURPOSE:**

The purpose of this notification is to advise all aircraft owners, operators, maintenance organizations, manufacturers, and parts distributors regarding door and window seals produced without Federal Aviation Administration (FAA) production approval and offered for sale for installation on type-certificated aircraft.

**BACKGROUND:**

Information received during an FAA Suspected Unapproved Part (SUP) investigation indicated that Aero Improvements, 1807 McKinley Avenue, LaVerne, CA 91750, had produced door and window seals without an FAA production approval. Parts discovered during the SUP investigation included the following:

Inflatable Door Seals, (P/N: various)  
Side Door Seals (SDS), (P/N: various)  
Baggage Door Seals, (P/N: various)  
Window Seals, (P/N: various)

The door seals were sold between January 1997 and December 1999. The total number of door seals sold during this time period is approximately 564. Aero Improvements instructed customers that the door seals could be installed with an FAA field approval using FAA Form 337, Major Repair and Alteration.

**RECOMMENDATIONS:**

Regulations require that type-certificated products conform to the type design. Aircraft owners, operators, manufacturers, maintenance organizations, and aircraft parts distributors are encouraged to inspect their aircraft and/or aircraft parts inventory for parts manufactured by Aero Improvements. Appropriate action should be taken if any of the referenced parts have been installed on aircraft. If found in existing aircraft parts inventory, it is recommended that the referenced door and window seals be quarantined to prevent installation on aircraft until a determination can be made regarding each part's eligibility for installation.

**FURTHER INFORMATION:**

Further information may be obtained from the FAA Manufacturing Inspection District Office (MIDO) listed below. The FAA would appreciate any information concerning the discovery of the above-referenced unapproved parts from any source, the means used to identify the source, and the actions taken to remove the parts from aircraft and/or stock.

This notice originated from the FAA Los Angeles MIDO, 3960 Paramount Blvd., Lakewood, CA 90712-4137, telephone (562) 627-5291, fax (562) 627-5293; and was published through the FAA Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 661-0581, fax (703) 661-0113.

**AIRPLANES**

**BEECH**

**Beech; Model A36; Bonanza; Wing Flap System Defect; ATA 2750**

During a landing approach, the owner/pilot experienced a “split-flap” condition when he selected the wing flaps to the “down” position. He immediately retracted the flaps and found it necessary to use differential aileron input to maintain control of the aircraft for landing.

During an inspection of the system, the technician found the left flap flexible drive cable (P/N 12163y63-31) crimp loose which allowed the cable core to slip. The left flap did not extend as much right. When the left flap contacted the up limit switch, the right flap stopped at approximately 20 degrees down.

The submitter believes this malfunction resulted from a “manufacturing defect” with the crimp connection of the flexible drive cable. He suggested the manufacturer issue service information for inspection of in-service flap flexible drives.

Part total time-857 hours.

**Beech; Model A36; Bonanza; Engine Cowling Structural Defect; ATA 7110**

During an annual inspection, the technician discovered numerous cracks in an engine cowling pan.

The pan (P/N 002-410014-3) is located in the cowling nose section just below the crankshaft flange and above the air filter. A piece of the pan approximately 2 inches by 4 inches was broken and missing.

The submitter speculated excessive vibration, and/or pan structure (.032), and security caused this damage. In addition, the left aft baffle at the oil cooler was cracked. The FAA Service Difficulty data base contains a total of three reports concerning failure of this part.

Part total time-155 hours.

**Beech; Model B55; Baron; Defective Nose Wheel; ATA 3246**

During a scheduled inspection, the technician discovered a crack in the nose landing gear wheel assembly.

The crack was located on the outer half, horizontal surface of the wheel assembly (P/N 36-8002-5) between the hub and the wheel flange and was approximately 4 inches long.

The submitter stated the wheel assembly was in imminent danger of complete failure. He did not give the cause of this failure.

Part total time not reported.

**Beech; Model 58; Baron; Chafing Flight Control Cables; ATA 2711**

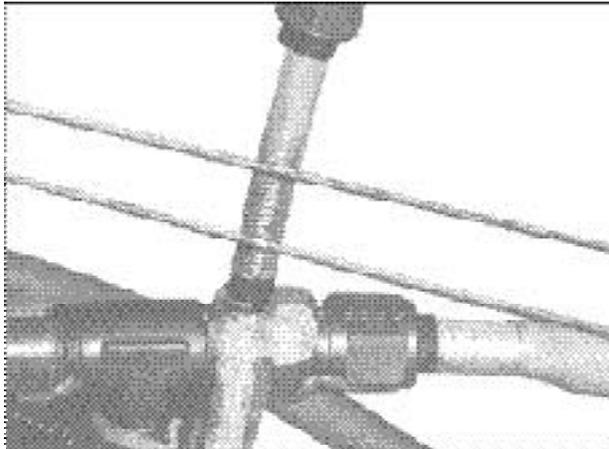
During a scheduled inspection, the technician discovered the aileron trim tab control cables chafing against an air-conditioning system freon line.

This defect was located between fuselage stations 100.0 and 118.5, under the floor on the left side of the aircraft. Both the cables and the freon line (P/N 58-555028-13) were damaged. (Refer to the following illustration.)

The submitter stated the freon line should be re-routed to provide adequate clearance at

this location and recommended this area be given close attention during maintenance and inspections.

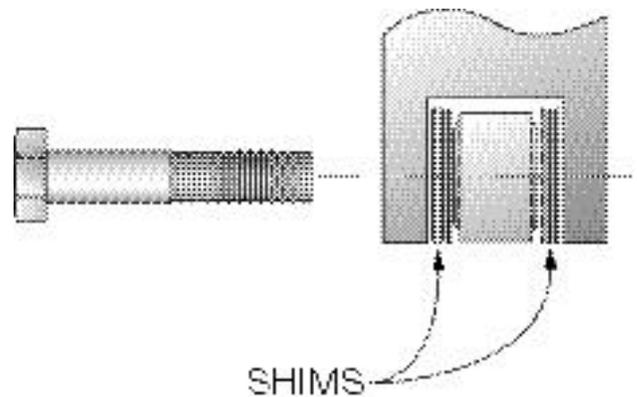
Part total time-46 hours.



During an inspection of the nose steering system, the technician found the pilot's right rudder pedal arm (P/N 50-524326-10) pivot holes were severely elongated. Also, the steering torque arm (P/N 35-825054-5) hole used to attach it to the actuator was elongated.

The submitter stated these hole elongations could have been prevented by proper lubrication and the installation of shims between the clevis arm and the rod-end. (Refer to the following illustration.) Even though it is not specifically required by the manufacturer's technical data, he recommended lubricating this assembly periodically. The exceptionally high number of operating hours on this aircraft may have been an important factor contributing to this defect.

Part total time-25,936 hours.



#### **Beech; Model A65; Queen Air; Elevator Linkage Damage; ATA 2730**

During a scheduled inspection, the inspector discovered a crack in the elevator control linkage.

It appeared the crack originated at a .25-inch hole used to mount the elevator torque tube fitting (P/N 50-610015) to the bellcrank.

The submitter speculated the crack was caused by overtorque of the attachment bolt during installation. He suggested that all flight-control hardware be installed using the appropriate torque values required by approved technical data.

Part total time not reported.

#### **Beech; Model 99; Airliner; Nose Wheel Steering Free-Play; ATA 3250**

After the completion of a flight, the crew reported an exceptional amount of free-play in the nose steering system.

#### **Beech; Model 99; Airliner; Engine Oil Leak; ATA 7323**

During a ground engine operational test, the technician noticed an oil leak on the right engine. After securing the engines, he investigated the oil leak source.

The technician determined the oil was leaking from a crack in the autofeather dump solenoid housing. As a precautionary measure, he replaced the entire overspeed governor assembly (P/N 21062V).

The submitter speculated the crack resulted from “uneven mating surfaces” which caused preload stress when the autofeather dump solenoid was installed.

Part total time-35,110 hours.

**Beech; Model 100; King Air; Smoke in the Cockpit; ATA 2400**

During a landing approach, the flightcrew noticed smoke coming from the center pedestal. They shut off all nonessential electrical power and completed the landing safely.

A technician discovered the source of the smoke was an electrical short in a printed circuit board. He determined the circuit board defect was caused by spilled liquid which entered the center pedestal. After he removed and cleaned the circuit board, he conducted a bench test and found it serviceable.

The submitter recommended that flightcrew members keep their cups off the center pedestal and utilize the cup holders for their refreshments!

Part total time not reported.

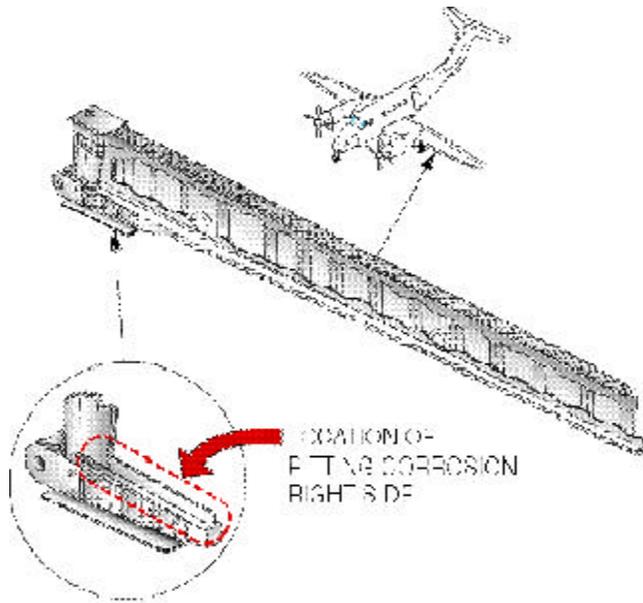
**Beech; Model 300; King Air; Structural Corrosion; ATA 5711**

After removing the right inboard leading edge fuel cell to repair a leak, the technician discovered severe corrosion.

The corrosion was located on the upper surface of the inboard spar cap casting. (Refer to the following illustration.) The available evidence indicated the corrosion was caused by entrapment of water behind the protective tape used to line the interior of the fuel cell bay. There were five areas of very severe corrosion that penetrated to as much as .15 inch in depth.

The submitter urged all operators of like aircraft to inspect this area at the earliest opportunity.

Part total time-8,612 hours.



**Beech; Model 300; King Air; Pitch Trim Anomaly; ATA 2731**

Approximately 20 minutes after establishing cruise flight at 27,000 feet, the crew noticed the autopilot trim light illuminated. The flightcrew disengaged the autopilot system and found that the elevator trim system could not be moved from its position.

A technician determined the elevator trim system was rendered inoperative by frozen moisture that prevented movement of the trim surface. Evidently, environmental moisture accumulated in sufficient amounts to cause this defect.

Part total time-4,500 hours.

**CESSNA**

**Cessna; Model 150/152; Vertical Fin Attachment Bracket; ATA 5553**

The following article was submitted by the FAA, Aircraft Certification Office, ACE-118W, located in Wichita, Kansas.

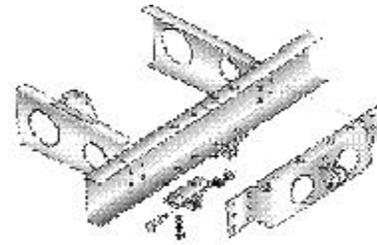
The FAA has become aware that during compliance with the requirements of Airworthiness Directive (AD) 80-11-04, maintenance technicians are finding cracks in the vertical fin attachment bracket (P/N 0432004-9). The AD deals with cracking failure of the vertical fin attachment bracket nut plates. Approximately 80 percent of the attachment bracket cracks found are associated with Cessna model 152-series airplanes that were manufactured in 1978, including models 152, A152, F152, and FA152.

Cracks in the vertical fin attachment brackets (P/N's 0432004-1 and 0432004-9) have also been found in Cessna models 150F, 150H, 150J, 150L, and 150M. Therefore, all Cessna model 150/152 airplanes built between 1966 and 1980, should be inspected. This part should be inspected initially within the next 100 hours of time in service and every 100 hours of time in service thereafter or during inspections required by the AD.

The prevalent crack location is along the edge of the plate welded on the back of the attachment bracket. Some cracks turn and run diagonally across the plate. (Refer to the following illustration.) Use of mirrors and extra light to look through the holes in the back face will help to find these cracks.

In addition, cracks in both the stabilizer spar (P/N 0432001-56) and its reinforcement (P/N 0432001-15) are being reported to the FAA. The vertical fin attachment bracket (as shown in the following illustration) is attached to this spar and reinforcement. Therefore, the spar and reinforcement need to be inspected during the inspection intervals mentioned above.

If these cracks are allowed to go undetected, the vertical and/or horizontal tail assembly could possibly separate from the airplane.



Drawing Index	Part Number	Description of the Part	Notes
1	0432004-1	Vertical Fin Attachment Bracket	Use replacement nut plate 0432004-9 on 0432004-1
2	0432004-9	Vertical Fin Attachment Bracket	Use replacement nut plate 0432004-9 on 0432004-9
3	0432004-1	Nut Plate	Reference to AD 80-11-04
4	0432001-56	Stabilizer Spar	Product to help locate the part
5	0432001-15	Reinforcement Plate	Product to help locate the part

**Cessna; Model 172RG; Cutlass; Nose Landing Gear Failure; ATA 3230**

During a landing approach, the pilot selected the landing gear to the “down” position. The main gear extended normally, but the nose gear remained in the “up” position. All attempts to lower the nose gear failed, and the pilot landed the aircraft with the gear “up.”

As part of the recovery process, maintenance technicians raised the aircraft and found the right nose gear door outer skin wrinkled and distorted. After prying the door away from the airframe skin, the nose gear came out of the wheel well and fell to the “down-and-locked” position. After investigating further, a technician discovered the spot welds, used to attach the inner and outer door skins, broken.

The submitter speculated the broken door skin spot welds allowed the door skin to bind on the gear well skin. This interference prevented the nose gear from extending. He recommended inspecting this area closely for proper clearance and spot weld security.

Part total time not reported.

**Cessna; Model 182P; Skylane; Poor Engine Operation; ATA 7160**

The pilot reported the engine ran rough and would not develop full power.

During an investigation, the technician discovered the alternate air door (P/N 1652013-25) was loose in the induction airbox. Evidently, the door hinge pin migrated out and allowed the door to partially obstruct the engine airflow. Further engine damage resulted from ingestion of the hinge spring which the technician found lodged in the exhaust muffler baffle. It is truly amazing the hinge spring traveled completely through the combustion chamber without causing a catastrophic engine failure.

A short time prior to this incident, the induction airbox (P/N 1652013-38) was installed in accordance with Supplemental Type Certificate (STC) SA3825SW. The submitter stated the hinge manufacturing procedure was not adequate to provide secure retention of the hinge pin. He obtained a new unit from the STC holder, and the hinge pin retention qualities were the same as the unit that failed. He recommended inspecting all like units as soon as possible.

Part total time-33 hours.

**Cessna; Model 182S; Skylane; Unserviceable Part; ATA 2730**

While complying with Cessna Mandatory Service Bulletin (SB) 00-27-01, the technician discovered that a new part was defective.

The data contained in SB 00-27-01 recommends replacing the elevator control system cable support bracket (P/N 2213063-203) with a new bracket supplied by Cessna. When the technician removed the old bracket and attempted to install the new one, he found it was improperly manufactured and would not perform its intended function.

The submitter recommended the manufacturer consider improvements in their engineering and quality-control departments.

Part total time-0 hours.

**Cessna; Model 185; Skywagon; Engine Exhaust System Failure; ATA 7810**

Immediately after takeoff, the pilot heard an abnormal noise and the engine sound noticeably increased. He returned to the departure airport and made a safe landing.

The technician discovered the engine muffler outlet pipe was missing. The outlet pipe separated at the point it attaches to the muffler and departed the aircraft.

The submitter recommended conducting a thorough inspection at the junction of the muffler and the outlet pipe for cracks and corrosion, which might jeopardize the security of the installation.

Part total time not reported.

**Cessna; Model 206H; Incorrect Parts Installed; ATA 2400**

During a scheduled inspection, the inspector found the alternator drive support misaligned with the alternator pulley. This aircraft has a Textron Lycoming Model IO-540-AC1A5 engine installed.

The misalignment caused the drivebelt to slip partially off the alternator pulley. After checking further, the technician determined the incorrect starter ring gear support (P/N 31M22045) was installed. The incorrect part positioned the drivebelt support forward of the alternator drive pulley.

The submitter researched the problem and discovered this part is intended for installation on a Cessna Model 182S aircraft

with a Textron Lycoming Model IO-540-AB1A5 engine. He speculated the incorrect part was installed during the manufacturing process.

Part total time-498 hours.

**Cessna; Model 402B; Businessliner; Split Flap; ATA 2750**

During a landing approach, the pilot selected the wing flap approach setting. Immediately, the aircraft entered an uncontrolled right roll. The pilot placed the wing flap selector in the full up position, regained control of the aircraft, and made a safe landing.

A technician discovered the upper flap extend cable (P/N 5000008-4) on the right side was broken approximately 6 inches outboard of the actuator chain attachment point. He did not find any evidence of cable chafing. He discovered that a scheduled inspection was completed 132 operating hours prior to this occurrence where the cable tension was checked and found within limits.

The submitter speculated this defect may have been caused by extending the wing flaps at an excessively high airspeed.

Part total time-9,424 hours.

**Cessna; Model 402C; Businessliner; Nose Landing Gear Crack; ATA 3221**

During a preflight inspection, the flightcrew noticed an area on the nose landing gear which they suspected was cracked.

The suspect area was located at the point where the nose gear drag brace (P/N 5142002-5) lug attaches to the actuator. The technician confirmed the suspected crack by nondestructive testing (NDT). He replaced the drag brace but did not offer a cause for this defect.

Part total time-1,737 hours.

**Cessna; Model 414A; Chancellor; Structural Corrosion Damage; ATA 5740**

During a scheduled inspection, the technician discovered extensive and severe corrosion on a wing attachment fitting.

The corrosion was located on the bottom of the upper aft left wing attachment fitting (P/N 5011023-1). The extent of the corrosion damage rendered the fitting unairworthy. After this discovery, he inspected the right wing fitting and found similar corrosion. The right wing fitting damage was much less severe and was repairable.

The submitter believes this damage was caused by moisture trapped and held in contact with the wing attachment fittings.

Part total time-5,076 hours.

**Cessna; Model 560; Citation; Pitot Heat System Inoperative; ATA 3411**

After completing a flight, the pilot reported the standby pitot heat system was not operating even though the system circuit breaker was still set.

The technician investigated and found a wire bundle in the nosewheel well chafing against the nose-steering torque tube. He credited the chafing action for severing the pitot heat power supply wire which was routed through the wire bundle.

The submitter stated the wire bundle was not routed in accordance with the manufacturer's technical data. He recommended that technicians become familiar with, and use, the proper technical data for routing this wire bundle.

Part total time not reported.

**PIPER**

**Piper; Model PA 22-150; Tri-Pacer; Fuel Flow Defect; ATA 2820**

While cleaning and testing the fuel strainer during an annual inspection, the technician discovered the fuel flow to the strainer was severely restricted.

The technician discovered both of the rubber hoses (MIL-H-6000), used to connect the fuel tank outlet fittings to the aluminum fuel tubing, were deteriorated. After removing the hoses, he found the interior lining of the hoses had collapsed. This almost completely shut off the fuel supply from the tanks. The markings on the hoses indicated they were manufactured in the third quarter of 1972 (3Q72). Also, the aircraft used "auto fuel" under a Supplemental Type Certificate for many years. Prior to this inspection, the aircraft was parked in a hangar for 2 years.

The submitter speculated the deterioration of the hoses may have been caused by exposure to an "additive" in the auto fuel. He recommended that all operators inspect and replace rubber plumbing in accordance with the manufacturer's requirements, especially on aircraft using auto fuel.

Part total time not reported.

**Piper; Model PA 23-250; Aztec; Landing Gear Hardware Failure; ATA 3210**

The pilot reported the left main landing gear collapsed after landing.

After moving the aircraft to the parking ramp, a technician discovered the landing gear link assembly was separated. A bolt (P/N AN177-42) sheared and caused the linkage to separate, and the landing gear collapsed aft. When the aircraft came to a stop, the left main gear tire was resting on the wing flap.

The submitter recommended inspecting these bolts closely during scheduled inspections.

Part total time not reported.

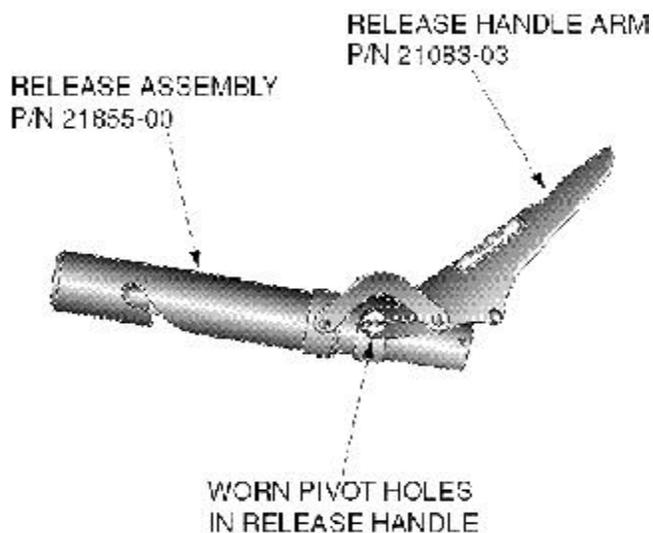
**Piper; Model PA 24-260; Comanche; Landing Gear Emergency-Extension System Failure; ATA 3230**

During an annual inspection, the landing gear emergency-extension system failed during testing.

The technician found the emergency-release assembly (P/N 21855-00) would not disengage the landing gear linkage from the transmission assembly. He discovered the emergency-release handle arm (P/N 21083-03) travel was restricted when it hit the forward edge of an access cutout in a floorboard panel (P/N 22720-00). With the floor panel removed, the emergency gear-release mechanism functioned properly. However, the release mechanism demonstrated excessive wear at the pivot points. (Refer to the following illustration.) The excessive wear resulted in free-play and lost motion in the release mechanism which required extra forward movement of the release handle arm to achieve emergency operation of the gear.

The submitter suspects this condition existed for some time considering the amount of wear at the pivot point holes. Also, he believes this defect was not discovered during previous annual inspection because the landing gear emergency-extension tests were conducted with the floor panel removed. He recommended that the emergency gear extension tests be conducted with the floor panel installed and the aircraft configured as it would be in normal service.

Part total time not reported.

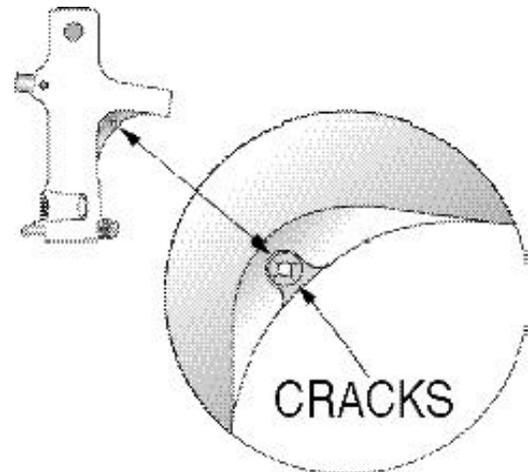


**Piper; Model PA 28R-180; Arrow; Landing Gear Defect; ATA 3213**

While conducting an annual inspection, the inspector discovered a crack in the left main landing gear trunnion.

The trunnion (P/N 67735-00V) was cracked through the web area and into the casting approximately .75 inch. The crack originated at the edge of the hole (.191-inch diameter) in the web. Piper Service Letter 616 allows for the removal of cracks adjacent to the .191-inch hole in the web by enlarging the hole to .5 inch. (Refer to the following illustration.) In this case, however, the crack traveled well beyond repairable limits and required replacement of the trunnion assembly. The replacement trunnion incorporates a much thicker web area.

Part total time-3,352 hours.



**Piper; Model PA 28-181; Archer; Fuel Pump Failure; ATA 2822**

After a flight, the pilot reported that when he turned on the electric fuel pump (Facet P/N 35328-800), the fuel pump and alternator circuit breakers opened (popped).

A technician inspected the system and found the electrical power wire going to the fuel pump was pulled out of the housing and was shorted to ground.

The submitter did not offer a cause for this problem. He stated it would be wise to check the wire attachment security during scheduled inspections.

Part total time not reported.

**Piper; Model PA 28-181; Archer; Defective Fuel Cap Gaskets; ATA 2810**

A submitter reported six occurrences of defective fuel cap gaskets in his fleet of aircraft.

The gaskets (P/N 462-056) do not appear to be compatible with aviation fuel (100LL). The gasket material swells and deteriorates after

being exposed to fuel for only a short time. The gasket material becomes very soft and is vulnerable to tearing when swelling occurs.

This is a persistent problem in this operator's fleet of aircraft and may affect other aircraft makes and models. The submitter recommended that the manufacturer of this gasket consider changing the material composition to acquire compatibility with aviation fuel. All aviation personnel should be aware of this possible condition and check the gasket at every opportunity.

These six failures occurred with operating times of 11 to 28 hours.

**Piper; Model PA 31-350; Chieftain; Defective Engine Oil Filter Adapter Gasket; ATA 8550**

These aircraft use Textron Lycoming Model TIO-540-J2BD engines, which incorporate an oil filter adapter (P/N 13388).

On several occasions, the gasket used between the oil filter adapter and the engine accessory case failed. Failure of the gasket results in leakage of a large quantity of engine oil and, in one case, resulted in a fire. These cases involving defective gaskets appear to be caused by deterioration of the gasket material exposed to hot engine oil. The gasket material seems to deteriorate to a "soft consistency" and extrudes beyond its normal dimensions.

The FAA issued Emergency Airworthiness Directive (AD) 2000-18-53, dated September 5, 2000, which deals with this subject and applies to a variety of engines. These engines may be used on other aircraft and it is recommended that all operators refer to AD 2000-18-53 for specific applicability.

The submitter stated that any gasket material found extruded beyond the sealing surface is cause for further investigation and gasket replacement. Many of the gasket failures occurred within a relatively low number of operating hours.

Part total time-367 hours.

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

During an engine operational test, a technician discovered fuel dripping from the front heater and the fuel pressure regulator drain.

The technician removed the heater (Janitrol) fuel pressure regulator (P/N A23D04) and discovered fuel leaking from the point where the electrical power wires enter the case. He stated this was the fourth such occurrence on the same aircraft during the past year.

This defect presents a very hazardous situation and is detrimental to flight safety. Technicians and operators are advised to check for fuel pressure regulator leakage at every opportunity.

Part total time-61 hours.

**Piper; Model; PA 34-220T; Seneca; Elevator Trim System Defect; ATA 2731**

During a scheduled inspection, the technician discovered excessive free play in the elevator trim system.

After further investigation, the technician found excessive wear and elongation of the trim tab upper link (P/N 96003-000) holes caused the free play. After receiving a replacement part, he noticed the upper link holes incorporated brass bushings. Evidently, this is a product improvement initiated by the manufacturer.

Part total time-2,957 hours.

**Piper; Model PA 46-310P; Malibu; Flight Control System Corrosion; ATA 2730**

While conducting an annual inspection, the technician discovered severe corrosion on an elevator push-pull tube.

The push-pull tube (P/N 82836-002) displayed corrosion on the bottom aft surface. The defect was evidenced by loose and flaking paint. The technician removed the corrosion and found deep pitting of the metal. At several locations

in the metal, he could easily puncture the metal with an awl. One area, which he punctured while testing with the awl, did not display any outward sign of corrosion damage.

The submitter believes the corrosion was caused by water and other contaminants becoming trapped inside the push-pull tube for an extended period of time. He recommended that new flight control push-pull tubes be treated with a corrosion inhibitor both internally and externally prior to installation.

Part total time-3,181 hours.

## ROCKWELL INTERNATIONAL

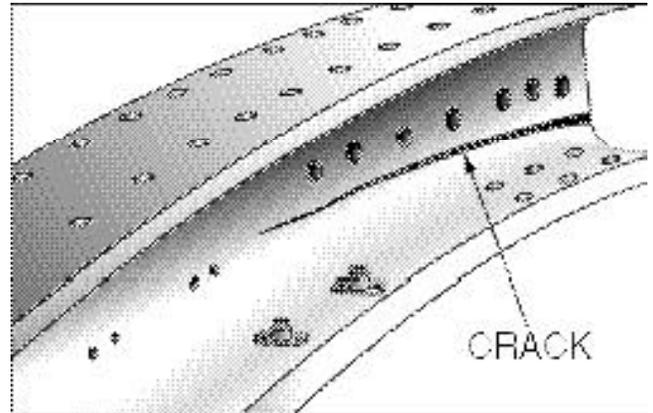
**Rockwell International; Model NA265-65; Sabreliner; Structural Defect; ATA 5311**

While complying with the requirements of a scheduled fuselage inspection, the technician discovered a severe crack in a fuselage mainframe.

The crack was located on the right side at fuselage station (FS) 264. (Refer to the following illustration.) Although the submitter did not give the crack measurements, the illustration clearly shows the extent of the damage. When the technician removed the frame (P/N 265-312264-004), the crack opened further indicating the existing preload on the structure. Also located at FS 264 is the aft wing attachment.

The submitter recommended a thorough inspection of this area at every opportunity. The failure of this structural frame could have a catastrophic effect on flight safety. He urged all operators to give this area close attention.

Part total time-8,121 hours.



## HELICOPTERS

### BELL

**Bell; Model 407; Flight Control Malfunction; ATA 6730**

During an attempted takeoff, the pilot discovered the collective lever movement was restricted. He immediately aborted the takeoff and summoned maintenance personnel.

A maintenance technician inspected the system and discovered the collective servo actuator (P/N 206-076-062-107) bypass spool was binding in its sleeve. This caused the primary control spool hydraulic null to shift and limit the movement of the servo actuator. After disassembly, he found the spools and sleeve coated with a substance that he could not identify. When the assembly was cleaned and reassembled, normal function was restored.

The submitter did not give any further information concerning the nature of the contamination.

Part total time-1,331 hours.

**Bell; Model 430; Defective Emergency Equipment; ATA 2564**

While conducting a scheduled inspection, the inspector found that the jettisonable liferaft would not pass the 25-pound pull test for deployment.

The maintenance technician discovered the torsion spring was too tight. Additionally, extra washers had been added to the release handle at the pivot point. The extra washers are not included in the manufacturer's parts manual or other technical data. After properly adjusting the torsion spring and removing the extra washers, the liferaft release system functioned correctly.

Aircraft total time-1,710 hours.

**SIKORSKY**

**Sikorsky; Model S-76; Flight Control System Anomaly; ATA 6720**

After returning from a flight, the pilot reported the tail rotor pedals were driving the collective control.

A technician investigated, and discovered the tail rotor quadrant bearings (P/N MKB-16B) worn and rough. After replacing the bearings, he conducted an operational test and found the system operated normally. He recommended replacing these bearings at the same time the tail rotor cables are replaced. He stated this was the third set of bearings found defective in his fleet of like aircraft.

Part total time not reported.

**AMATEUR, EXPERIMENTAL, AND SPORT AIRCRAFT**

**EUROPA**

**Europa; Model XS Tri-Gear; Nose Landing Gear Failure; ATA 3221**

The pilot stated that immediately after a takeoff during touch-and-go landings, the nose landing gear separated from the aircraft. The pilot landed safely by using the remainder of the nose gear strut.

While investigating this accident, the inspector discovered the nose landing gear assembly failed at all the welded attachment points. He found the remaining nose gear weld joints either cracked or broken.

The submitter speculated the nose gear weldments were not properly accomplished during manufacture. He reported this aircraft had a total of 45 landings at the time of this accident.

**SWEARINGEN**

**Swearingen; Model SX-300; Defective Fuel System; ATA 2820**

During a flight, the pilot ran the aircraft on the left fuel tank until it was almost empty. He then switched to the right fuel tank, and the engine failed. He made an off-airport landing, and the aircraft sustained substantial damage.

While investigating this accident, the FAA inspector found the electric fuel pump failed to pick up fuel from the right fuel tank. During construction of the aircraft, the fuel pump was installed on the firewall instead of the nose wheel well as directed by the manufacturer's kit/plans instructions. He determined the location of the fuel pump caused the supply line to the right tank to fill with air and prevented it from supplying fuel from the right fuel tank.

The submitter recommended that all builders strictly follow the kit plans and instructions. If modifications are necessary, builders should contact the manufacturer and follow their advice.

Part total time-984 hours.

## POWERPLANTS AND PROPELLERS

### UNAPPROVED PARTS NOTIFICATION NO. 2000-107, DATED JULY 17, 2000

#### **AFFECTED ENGINES:**

General Aviation Aircraft – Continental and Lycoming reciprocating engines.

#### **PURPOSE:**

The purpose of this notification is to advise all aircraft owners, operators, maintenance entities, and parts suppliers and distributors regarding improper maintenance or overhaul performed on the above-referenced engines between May 23, 1997, and January 25, 2000, by Colonial Aviation, 8640 Airway Blvd., New Port Richey, FL 34654-5106, or returned to service under Mechanic Certificate (Airframe and Powerplant Ratings) No. 043341932.

#### **BACKGROUND:**

Information received during a Federal Aviation Administration (FAA) suspected unapproved parts investigation indicated that Colonial Aviation overhauled a Lycoming engine without using the current maintenance manual, instructions for continued airworthiness, or other acceptable data. Evidence also indicates that the engine overhaul was performed without conducting the required magnetic particle inspection required by Avco Lycoming Overhaul Manual and Service Instruction 1285.

A facility inspection conducted at Colonial Aviation revealed that Colonial Aviation did not possess magnetic particle inspection equipment, glass bead cleaning equipment, nor the engine test stand instrumentation required by Lycoming to conduct overhauls.

#### **RECOMMENDATIONS:**

Regulations require that type-certificated products conform to their type design. It is recommended that aircraft, aircraft records, and aircraft parts inventories be inspected and reviewed for engines or engine parts maintained, overhauled, or returned to service by Colonial Aviation, or under the Mechanic Certificate (Airframe and Powerplant Ratings) No. 043341932. If any of these parts are installed or found in existing stock, it is recommended that appropriate action be taken to verify that maintenance or overhaul instructions have been complied with.

#### **FURTHER INFORMATION:**

The Tampa Flight Standards District Office (FSDO), 5601 Mariner Street, Balboni Bldg., Suite 310, Tampa, FL 33609, telephone (813) 639-1540, would appreciate any information regarding the discovery of these engines from any source, the means used to identify the source, and the actions taken to remove the affected engines from aircraft and/or stock.

This notice originated from the South Carolina FSDO. Additional information regarding this notice may be obtained by contacting Donald V. Dodge, FAA Aviation Safety Inspector, at (803) 765-5931. This notice was published through the FAA Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 661-0580, fax (703) 661-0113.

## **UNAPPROVED PARTS NOTIFICATION NO. 97-012, DATED JULY 26, 2000**

### **AFFECTED PARTS:**

All propellers maintained, altered, or approved for return to service by Thunderbird Propellers, Inc., of Bethany, Oklahoma.

### **PURPOSE:**

The purpose of this notification is to advise all aircraft owners, operators, maintenance organizations, parts suppliers, and distributors regarding propellers improperly maintained, altered, or approved for return to service by Thunderbird Propellers, Inc. (Thunderbird), 5410 N. Rockwell, Bethany, OK 73008. Thunderbird previously held Air Agency Certificate No. IG2R897K.

### **BACKGROUND:**

Information received during a Federal Aviation Administration (FAA) suspected unapproved parts investigation revealed that Thunderbird had failed to accomplish maintenance in accordance with the manufacturer's maintenance manuals or FAA-accepted procedures. Improper procedures included machining and shot-peening of propellers that may have obliterated defects that were beyond repairable limits. Evidence indicated that Thunderbird installed incorrect hardware and falsified work orders and other documentation associated with approving the propellers for return to service. The FAA has been unable to determine the exact timespan during which these improprieties occurred; therefore, all propellers are considered suspect.

### **RECOMMENDATION:**

Regulations require that type-certificated products conform to their type design. Aircraft owners, operators, maintenance organizations, parts suppliers, and distributors should inspect their aircraft,

aircraft records, and/or aircraft parts inventories for any propeller work accomplished by Thunderbird. If any propellers are installed on aircraft, appropriate action should be taken. If any are found in existing aircraft stock, it is recommended that the propellers be quarantined to prevent installation until a determination can be made regarding each propeller's eligibility for installation.

### **FURTHER INFORMATION:**

Further information may be obtained from the FAA Flight Standards District Office (FSDO) given below. The FAA would appreciate any information concerning the discovery of the above-referenced propellers from any source, the means used to identify the source, and the action taken to remove the propellers from service.

This notice originated from the Oklahoma City FSDO, 1300 S. Meridian Blvd., Suite 601, Oklahoma City, OK 73108, telephone (405) 951-4200, fax (405) 951-4282; and was published through the FAA Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 661-0581, fax (703) 661-0113.

## **ENGINE EXHAUST COLLECTOR (MUFFLER) END PLATE FAILURES**

The following article was submitted by the FAA, Aircraft Certification Office, ACE-116W, located in Wichita, Kansas.

The FAA was recently advised that engine exhaust collectors are failing at the end plates at an increasing rate.

We believe defects are being overlooked because scheduled inspections are being concentrated on the portion of the exhaust collector used for engine induction (carburetor) heat and cabin heat.

We strongly recommend inspecting exhaust collectors (mufflers) carefully in

the area of the muffler cylindrical end plates. The end plates are reported failing in a manner that results in loss of engine magneto operation, electrical power, as well as battery failure, and smoke in the cockpit of single-engine airplanes.

Part total time not applicable.

**ENGINE AUTOMATIC ALTERNATE INDUCTION AIR DOORS**

The following article was submitted by the FAA, Aircraft Certification Office located in Wichita, Kansas.

The FAA continues to receive reports of inadequate maintenance inspections being accomplished on engine alternate air doors and particularly the door hinges.

The method of notification to the FAA is sometimes in the form of an accident or incident report that resulted from a significant power reduction. Many of these cases were determined to have been caused by the door, door spring, or door magnet being lodged in the fuel metering throttle plate, the turbocharger, or inside the engine.

This article is intended to remind maintenance inspection personnel to be vigilant during inspection of these systems. Often a single operational test and observation of these systems will reveal that there is a need for some repair to the components that are generally located in areas of the engine compartment which are subject to high vibration.

**HARTZELL**

**Hartzell; Model EHC-A3VF-2B; Broken Hardware; ATA 6111**

This propeller was installed on an unspecified model Beech Baron aircraft.

While conducting a preflight inspection, the pilot noticed a broken propeller blade clamp bolt.

The available evidence suggests the propeller blade clamp (P/N C-3-5A), used to hold the blade in the hub, made contact with and exerted force on the latch bracket. The contact and force, which caused the bolt to fail, is a function of the propeller blade angle selected by the pilot. Although, it was unclear why the clearance between the blade clamp and the latch bracket deteriorated, the propeller manufacturer is investigating.

It was recommended that owners, operators, and maintenance personnel be aware of these circumstances and conduct a thorough inspection of the propeller blade clamp installation.

Part total time not reported.

**ACCESSORIES**

**CESSNA ENGINE OIL FILTER ADAPTER USE**

Several years ago, Cessna designed, manufactured, and approved an engine oil filter adapter for use on Teledyne Continental Motors (TCM) engines installed on their aircraft. The oil filter adapter was made available to the public through the Cessna parts distribution system and was installed on various other aircraft using TCM engines via FAA field approval.

On July 31, 1996, the FAA issued Airworthiness Directive (AD) 96-12-22 dealing with the Cessna-produced oil filter adapters. AD 96-12-22 was issued because of the possibility of the adapter becoming loose and/or separating from the accessory case and causing loss of engine oil. Many oil filter adapter installations were accomplished on TCM engines used on other than Cessna

aircraft. These installations, if properly accomplished, were installed using FAA field approval authority.

Therefore, a problem arises when a technician researches AD's during a scheduled inspection. Since AD 96-12-22 is listed in the airworthiness directive, "Appliance" section, and is issued for "Cessna Aircraft Company," the units installed on other Cessna aircraft, using the field approval process, will not be found.

We recommend scheduled inspections include a physical check of the engine oil filter adapter to determine if it is subject to AD 96-12-22. If an adapter covered by AD 96-12-22 is identified, the technician should initiate a maintenance record entry and include an airworthiness directive log entry to properly annotate this finding for future inspections.

It seems odd that a Cessna airworthiness directive could apply to Beech, Piper, and other aircraft.

Part total time not applicable.

## AIR NOTES

### SUBSCRIPTIONS

The Government Printing Office (GPO) distributes this publication. If you have any questions regarding a subscription to this publication, please direct your questions to GPO.

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In the past, we furnished the GPO subscription form in this publication. The older issues which contain the subscription form, may not have current pricing information. Since GPO controls price increases, contact GPO for current subscription information.

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### ELECTRONIC VERSION OF THE FAA FORM 8010-4, 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 "SDR Submissions Forms" 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 PROGRAM DATA AVAILABLE ON THE INTERNET

The FAA, Service Difficulty Reporting (SDR) Program is managed by the Aviation Data Systems Branch, AFS-620, located in Oklahoma City, Oklahoma. The information supplied to the FAA in the form of Malfunction or Defect Reports, Service Difficulty Reports, or by other means, is entered into the SDR data base. This information has been available to the public through individual written request. This method has provided the aviation public with an invaluable source of data for research or finding specific problems and trends.

The Service Difficulty Reporting Program relies on the support of the aviation public to maintain the high quality of data. AFS-620 has included the SDR data on an Internet web site, which is now available to the public. Using the web site will expedite the availability of information. The Internet web site address is: <http://av-info.faa.gov>

On this web site, select "Aircraft" along the top of the page, next select "Service Difficulty Reporting," and then select "Query SDR Data."

This web site is now active; however, it is still under development and improvements are being made. We ask for your patience, ideas, and suggestions. If you find the web site useful, let us know. Also, spread the word about the availability of information on the web site. To offer comments or suggestions, you may contact the web master or call Tom Marcotte at (405) 954-4391.

Please remember that the information contained in the SDR data base is only as good as the input we receive from the aviation public. Also, the data used in production of this publication is derived from the SDR data base. In that regard, we solicit and encourage your participation and input of information.

This publication, as well as many other publications, was previously included on the "FedWorld" internet site. The FedWorld site was terminated on April 15, 2000. The data previously listed there is presently being transferred to the "av-info" web site.

## 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

You may also send your address change to GPO via FAX at: (202) 512-2168. If you FAX your address change, please address it to the attention of: **SSOM, ALERT-2G**.

Whether you mail or FAX your address change, please include a copy of your old address label, and write your new address clearly.

## IF YOU WANT TO CONTACT US

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

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**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>

This web site also has view, search, E-Mail, and M or D submit functions.

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**AVIATION SERVICE DIFFICULTY REPORTS**

The following are abbreviated reports submitted between August 22, 2000, and September 20, 2000, 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. The full SDR reports can be found on the internet at: <<http://www.fedworld.gov/pub/faa-asi/faa-asi.htm>>. This internet address takes you to the FAA ASI Library and the SDR reports are listed by weekly entries. This data base is maintained by 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.**

ACFT MAKE ACFT MODEL REMARKS	ENG MAKE ENG MODEL	COMP MAKE COMP MODEL	PART NAME PART NUMBER	PART CONDITION PART LOCATION	DIFF-DATE FAA REPORT NO.	T TIME TSO
	CONT IO520C	CONT COVER	STUD 402711	MISSING ENGINE	09/01/2000 2000090900108	
(AUS) LEFT ENGINE TACHOMETER DRIVE COVER STUD MISSING. OIL LEAKING ONTO HOT EXHAUST. (X)						
AIRTRC AT502B	PWA PT6A15AG		TUBE 1044841	CRACKED FUSELAGE MAIN FR	05/04/2000 2000082300052	
(AUS) FUSELAGE VERTICAL TUBE CRACKED AT WING ANGLE ATTACHMENT POINT.						
AMD FALCON900EX			NUT MS17825 7	IMPROPER PART UPPER RT T/R	09/01/2000 2000090900155	300
UPPER RT T/R DOOR HINGE BOLT, P/N NAS6307U-23D, HAD AN ALTERNATE PART NUMBER NUT INSTALLED, P/N MS17825-7. THIS P/N NUT WAS NOT LISTED IN THE IPC (REF IPC78-30-10-10 ,ITEM 60, F12NE4753-070). ONLY THE UPPER RT T/R HINGE BOLT HAD THE ALTERNATE P/N NUT INSTALLED. DURING THE FIRST ACCESS TO THIS AREA , (REMOVAL OF BOLT FOR LUBRICATION) DAMAGE WAS OBSERVED ON THE AFT BODY SKIN BELLOW SUPPORT ASSEMBLY P/N FGFB583842150D2. DAMAGE APPEARED TO HAVE BEEN CAUSED BY NUT ROTATION DURING INSTALLATION. DAMAGED AREA MEASURED .60 INCH IN DIAMETER AND .030 TO .050 INCH IN DEPTH. SUBMITTER SUGGESTED MANUFACTURER MAY HAVE ALLOWED DAMAGE TO BE BLENDED (REF DASSAULT STRUCTURES PROJECT NR 3557). (X)						
AMTR 320LANCAIR	LYC O320*		ALTIMETER B43E	FAULTY ALTIMETER,	09/01/2000 2000090900121	
(AUS) ALTIMETER FAULTY. (X)						
AMTR CHRISTAVIAMK			BELT OPTIBELT8803	FAILED PROPELLER ASSY	11/13/1999 2000082900018	220
DURING TAKEOFF, BOTH PROP DRIVE BELTS BROKE CAUSING LOSS OF THRUST. ACFT DESCENDED RAPIDLY AND IMPACTED THE TERRAIN. BELTS HAD CONSUMED 220 HRS OF 300-HOUR REPLACEMENT TIME. FAILURE NOT SPECIFICALLY DETERMINED, BUT COULD INCLUDE CAUSAL FACTORS SUCH AS UNEVEN WEAR OR TENSION, OR FAILURE OF ONE BELT CAUSING FAILURE OF SECOND DUE TO ENTANGLEMENT. A SINGLE WIDE BELT IS ONLY CONFIG NOW AVAILABLE FROM ENG MFG. SUBMITTER RECOMMENDED ALL 2 BELT CONFIGS STILL IN USE BE CLOSELY INSPECTED						
AMTR MUSTANG2	PCKARD V16507		FITTING 10258162	DAMAGED LANDING GEAR	04/14/2000 2000082900033	33
(AUS) RIGHT MAIN LANDING GEAR RETRACTION RAM FITTING FAILED. INVESTIGATION FOUND THAT THE END FITTING FROM A FLAP RAM HAD BEEN FITTED INSTEAD OF THE CORRECT PART. UNAPPROVED PART.						
AMTR		106580270	ROD END	DESTROYED	07/07/2000	393

S300D2 AILERON HINGE 2000090100159  
 WHILE PERFORMING AEROBATICS (1/2 SNAP TO LEFT) THE LEFT AILERON DEPARTED AIRCRAFT. INVESTIGATION REVEALED CENTER AILERON HINGE HAD FAILED. LOW CYCLE FATIGUE. AIRCRAFT DESIGNER TO PERFORM A RE-EVALUATION OF THE HINGE DESIGN. AIRCRAFT IS LICENSED "EXPERIMENTAL EXHIBITION". (X)

AYRES PWA HAMSTD BLADE CRACKED 06/01/1999  
 S2RNORMAL R1340AN1 AG1002 42 STATION 2000083100035  
 (CAN) NOT AN SDR - PROPELLER WAS IN FOR OVERHAUL DUE TO IMPACT DAMAGE FROM GRAVEL. PROPELLER WAS OVERHAULLED AND RETURNED TO SERVICE.

BBAVIA CONT CABLE FRAYED 04/05/2000 42400  
 7EC O200A 3434 332 GR STRUT FAIRLEA 2000083100147  
 (CAN) DURING INSPECTION, NOTICED THAT THE LT AND RT BRAKE CABLES WERE BADLY FRAYED WHERE THEY PASS THROUGH THE LOWER FAIRLEADS (P/N 1-2259) ON THE AXLE STRUTS. FURTHER INSPECTION, REVEALED FRAYING OF THE CABLE BACK INSIDE THE SHEATHING UNDER THE BOOT COWL. THIS FRAYING COULD ONLY BE DETECTED BY REMOVING THE AFFECTED CABLE ASSEMBLY. BOTH CABLES REPLACED.

CESSNA CONT CYLINDER BROKEN 05/04/2000 3246  
 150H O200A 23509 ROCKER ARM 2000082300045 245  
 OWNER STATED ENGINE BEGAN RUNNING ROUGH. DEVIATED TO NEAREST AIRPORT. HAD TO KEEP PUMPING THROTTLE TO MAINTAIN ENGINE RUNNING. MADE PRECAUTIONARY LANDING AT AIRPORT. UPON COLD CYLINDER CHECK, REMOVED CYLINDER ROCKER BOSS COVER. PIN AND BOSSES FELL OUT. NEW AND OLD CRACKS EVIDENT. SUBMITTER STATED AD 94-05-05R1 PERTAINS TO THIS. (X)

CESSNA CONT SLICK POINTS LOOSE 08/23/2000 651  
 150L O200A 4371 M3081 CONTACT POINT 2000091900025  
 (CAN) THE MAGNETO WAS REMOVED FROM SERVICE DUE TO INTERMITTENT FIRING. ON INSPECTION, THE STATIONARY POINT WAS FOUND LOOSE. THE POINT, IS MANUFACTURED WITH A STEM TO BE RIVETED TO THE STEEL FRAME. TOTAL TIME ON NEW POINT SET INSTALLED AT THE 500 HOUR MAINTENANCE CHECK IS 151.2 HOURS. (X)

CESSNA BAR BROKEN 04/06/2000 7952  
 150M 0411526 2000091900009  
 UNABLE TO GET NORMAL NOSE WHEEL STEERING DUE TO BREAK IN TUBE ALLOWING PEDAL MOVEMENT WITHOUT MOVING LINKAGE TO STEERING OR RUDDER. (X)

CESSNA CONT CESSNA BOLT LOOSE 07/03/2000  
 150M O200A AN443A AILERON CONTROL 2000082200076  
 (AUS) AILERON PULLEY P/N S378-4 TO CENTER CONSOLE ATTACHMENT BOLT HAD THE NUT MISSING AND THE INCORRECT WASHER SPACING UNDER THE PULLEY GUARDS. (X)

CESSNA CONT MUFLER ERODED 10/18/1999 3781  
 150M O200A 045033818 AFT END PLATE 2000082900191 37  
 DURING CRUISE FLIGHT, SMOKE FROM UNDER INSTRUMENT PANEL NOTED. PILOT SECURED ELECTRICAL AND MAGNETO SWITCH AND EXECUTED A FORCED LANDING. HEAT DAMAGE TO ELECTRICAL WIRES NEAR THE BATTERY BOX. EXAMINATION OF THE RIGHT MUFLER P/N 0450400-26, REVEALED THE AFT END PLATE P/N 0450338-18, WAS NOT IN PLACE AND NOT RECOVERED. NO RECORD OF REPAIR OR REPLACEMENT OF THE RIGHT MUFLER. THE AIRPLANE HAD BEEN INSPECTED LAST 8 MONTHS EARLIER IN ACCORDANCE WITH AN ANNUAL INSPECTION. EROSION OF THE REMAINING FLANGE OF END PLATE WAS NOTED AND PERFORATION OF THE TUBE WAS ALSO NOTED. (X)

CESSNA CONT CESSNA MUFLER CRACKED 07/30/2000 4623  
 150M O200A 045040021 04504003 BACK END 2000090900099  
 (CAN) AFTER TAKEOFF AND IN CLIMB-OUT, PILOT EXPERIENCED POWER LOSS (90 PERCENT). PILOT RETURNED TO THE AIRPORT AND LANDED SAFELY. ON ROLL OUT, ENGINE STOPPED COMPLETELY AND COULD NOT BE RESTARTED. INVESTIGATION FOUND THE REAR SECTION OF THE LEFT HAND EXHAUST MUFF WAS CRACKED LEAVING A HOLE ALLOWING HOT EXHAUST GASES TO ESCAPE INTO THE ENGINE COMPARTMENT. THE HOT GASES MELTED THE MAGNETO P-LEAD WIRES RUNNING ALONG THE FIREWALL. BECAUSE THE P-LEADS WERE SHIELDED, THE OUTERGROUND SHIELDING MELTED AND CONTACTED THE INNER P-LEAD WIRE. THUS GROUNDING OUT THE MAGNETOS CAUSING THE ENGINE TO QUIT. THE MUFLER WAS INSPECTED PER CF-90-13R2.

CESSNA LYC PUSHROD CRACKED 06/15/2000  
 152 O235L2C 73806 2000082500170 948  
 AIRCRAFT INSPECTED 33 HRS FOLLOWING ANNUAL (1 MONTH) PRIOR TO PUTTING ON LINE FOR FLIGHT TRAINING. LAST REF TO LYC SI 1068A VALVE TAPPET CLEARANCE CHK FROM LOGS WAS 552.3 HRS PRIOR (100 HR INSP). FOUND 3 TIGHT VALVES. NR 2 EXH WAS TIGHT, PUSHROD CRACKED .5625 INCH LONGITUDINALLY, VISIBLE ON OTBD END. CRACK CONTINUED 180 DEGREES AROUND CIRCUMFERENTIALLY. PUSHROD END LOOSE. REMOVED ALL PUSHRODS, 7 OUT OF 8 CRACKED. MOST .3750 INCH LONGITUDINALLY ON INBD END. REPLACEMENT PART LYC 15F22200/S673806 IS NOW STEEL. ORIG 73806 WAS ALUM. LYC SI 1068A SUPPLEMENT NR 1 NOW APPLIES FOR STEEL PUSHRODS. (X)

CESSNA LYC LYC CYLINDER UNSERVICEABLE 03/22/2000 460  
 152 O235L2C LW11633 CYLINDER WALLS 2000090100161  
 DURING A 100-HOUR INSPECTION, ALUMINUM SHAVINGS WERE FOUND IN THE OIL FILTER. SUBMITTER STATED THIS 5TH TIME THIS SHOP HAS HAD THIS PROBLEM IN THE LAST 18-24 MONTHS). ALUMINUM IS FROM PISTON PIN PLUGS RUBBING AGAINST THE LOWER PART OF THE CYLINDER WHICH, AFTER 400-500 HOURS, DEVELOPED SEVERE PITTING THEN CREATED A WEAR STOP IN THE CYLINDER WALLS. ONE ENGINE LOST COMPRESSION IN ALL 4 CYLINDERS

CESSNA LYC MECHPRODUCTS CIRCUIT BURNED 05/15/2000 10973  
 172L O320E2D MP1601 S159660 INTERNAL 2000083100174  
 (CAN) VOLTAGE REGULATOR A WIRE SHORTED TO GROUND. THE 60 AMP ALTERNATOR CIRCUIT BREAKER SMOKED BUT DID NOT TRIP. THE MANUFACTURING DATE ON THE CIRCUIT BREAKER WAS FEB, 1972. THE CIRCUIT BREAKER WAS REPLACED WITH ONE SUPPLIED IN A CESSNA SERVICE KIT. INTERNAL EXAMINATION SHOWED HEAVY CONTACT MELTING WHILE STILL EXHIBITING CONTINUITY.

CESSNA LYC GASKET IMPROPER PART 07/24/2000 620  
 172M O320E2D OIL SUMP PAN 2000090100163

THE LOWER RIGHT ENGINE ISOLATION MOUNT IS BECOMING RUPTURED DUE TO CHAFING CAUSED BY THE PROTRUSION OF THE OIL SUMP PANGASKET. THIS GASKET, WHEN DRIED OUT DUE TO HEAT, SEEMS TO ACT LIKE A KNIFE AGAINST THE ISOLATION MOUNT. TRIMMING THE GASKET STOPS THIS. SUBMITTER STATED THIS IS 3RD OCCURRENCE ON 3 DIFFERENT AIRCRAFT. (X)

CESSNA	LYC	CONT	IGNITION	SHORTED	08/24/2000	6711
172M	O320E2D		103572001	LT MAG CONTACTS	2000091900004	

(CAN) FLIGHT SCHOOL INSTRUCTOR AND STUDENT PERFORMED POST FLIGHT MAG CHECK BEFORE SHUTDOWN. WHEN SELECTING LT MAG, AIRCRAFT STARTED TO FILL WITH SMOKE FOLLOWED BY THE INSTRUMENT BREAKER TRIPPING. AMES FOUND THE PROBLEM TO ORIGINATE AT THE IGNITION SWITCH GROUNDING OUT. SWITCH WAS REPLACED AND FUNCTION TESTED. SYSTEM FOUND TO BE SERVICEABLE. (X)

CESSNA	LYC	FACET	AIR BOX	MISSING	06/17/2000	4925
172N	O320H2AD		05521641	FLAPPER SEAL	2000082500168	

ENGINE DEVELOPED VIBRATION IN-FLIGHT AND LOSS OF POWER. MAINTENANCE REMOVED CARBURETOR AIR BOX AND CARBURETOR. FOUND PIECE OF SEAL FROM AIR BOX FLAPPER VALVE BROKEN OFF AND LODGED IN THE VENTURI.

CESSNA			AIR FILTER	DETERIORATED	06/28/2000	300
172R			P198281	INDUCTION	2000082900195	

AIR FILTER IS LISTED AS A 500-HOUR REPLACEMENT ITEM. AT 100-HOUR INSPECTION, MADE AT 300 HOURS, NOTED THE INSPECTION AT 200 HOURS AND THE INSPECTION AT 300 HOURS THE PAPER ELEMENT OF THE FILTER ASSY HAD BADLY ERODED ON APPROXIMATELY 40 PERCENT OF THE FORWARD FACING SURFACE TO A DEPTH THAT PENETRATED THE ACCORDIAN FOLDS OF THE PAPER. WHEN THE FILTER WAS HELD UP TO THE LIGHT, IT APPEARED THE ELEMENT HAD LOST 40 PERCENT OF ITS FILTERING CAPACITY. THIS AIRCRAFT HAS BEEN USED FOR PRIMARY TRAINING AND RENTAL AND HAD BEEN OPERATED FROM PAVED FIELDS ONLY. SUBMITTER SUGGESTED INSPECTING

CESSNA			BEARING	LOOSE	08/14/2000	
172R			S100343A	COPILOT LT	2000082900199	

COPILOT'S LEFT RUDDER PEDAL FOUND EXCESSIVELY LOOSE AT DUAL BRAKE TUBE DURING 100-HOUR INSPECTION. FURTHER INVESTIGATION REVEALED BEARING, PN S1003-43A, NOT INSTALLED. INSTALLED NEW BEARING. SUBMITTER SUSPECTED BEARING NOT INSTALLED AT FACTORY. AIRCRAFT TT: 1,398.2 HOURS. SUBMITTER STATED THIS IS THE SECOND TIME THIS CONDITION HAS BEEN NOTED AND REPORTED. (X)

CESSNA			BULKHEAD	CRACKED	05/19/2000	6935
172RG			24122013	BS 108.00 LT	2000082200218	

DURING INSPECTION, THE LEFT AND RIGHT BULKHEADS AT BS 108.00 WERE FOUND CRACKED. THE CRACKS EMANATED FROM THE BULKHEAD FLANGE THAT IS RIVETED TO THE HAT RACK SKIN. BOTH BULKHEADS WERE REPLACED WITH NEW. RECOMMEND CLOSE INSPECTION OF THIS AREA. ALL BAGGAGE AREA TRIM MUST BE REMOVED IN ORDER TO INSPECT THIS AREA. SUBMITTER STATED INSPECT ESPECIALLY IF HAT RACK IS USED FREQUENTLY. (X)

CESSNA		LAMAR	FUSE	BROKEN	05/23/2000	1571
172S			ATC30	F2	2000082200220	

AIRCRAFT LOST POWER TO NR 1 BUSS, TAB, NR 1 COMM, ETC. FOUND F2 PUSH IN TYPE 30-AMP FUSE IN ELECTRICAL DISTRIBUTION BOX INTERMITTANT. FUSE WAS NOT BLOWN, BUT PUSHING ON IT MADE CONTACT WITH A+. TRYING TO REMOVE FUSE, IT BROKE A TAB OFF. THERE WAS ARCING ON THE TAB THAT CAUSED THE INTERMITTANT. (X)

CESSNA		LAMAR	ALTERNATOR	INOPERATIVE	01/26/2000	1100
172S			5488	JUNCTION BOX	2000090100160	

ALTERNATOR FAILURE REPORTED BY PILOT DURING FLIGHT. INSPECTION OF CHARGING SYSTEM FOUND HIGH RESISTANCE ACROSS ALTERNATOR CONTACTOR TERMINALS. POSSIBLE CAUSE, TURNING ON ALTERNATOR WITH HIGH LOAD. SUBMITTER SUGGESTED CHANGING START-UP PROCEDURE SO ALTERNATOR IS ON DURING STARTING AND INSTALL HEAVY DUTY CONTACTOR. (X)

CESSNA			GEAR	FAILED	07/15/2000	14306
182			07410094	MOUNTING AREA	2000090100162	

DURING TAXI, LANDING GEAR SPRING FAILED AT MATING AREA OF P/N 0541121-2 SUPPORT. CAUSED SUBSTANTIAL DAMAGE TO RIGHT CABIN AFT OF CREW DOOR, RIGHT SIDE OF HORIZONTAL STABILIZER AND ELEVATOR, AND OUTBOARD SECTION OF RIGHT WING. (X)

CESSNA			BULKHEAD	CRACKED	08/08/2000	4039
182F			07126161	LT RUDDER CABLE	2000082900193	

DURING ANNUAL INSPECTION, CRACK FOUND UPPER PORTION OF LEFT RUDDER CABLE CUT OUT ON TAIL BULKHEAD. AD 72-07-09 CRACKS AND LOOSE BOLTS RUDDER/FIN LAST C/W 4/94 AT ACFT TOTAL TIME 3,845 HOURS BY DYE PENETRANT AND VISUAL INSPECTION. NO DEFECTS WERE NOTED AT THAT TIME. BULKHEAD REMOVED ALSO FOUND CRACK AT TIE-DOWN LOOP HOLE. POSSIBLE TAIL STRIKE FROM LANDING AND/OR WIND DAMAGE. (X)

CESSNA	CONT	CONT	CRANKSHAFT	SEPARATED	07/20/2000	3746
182N	IO470D		649133	FWD - NR 1 ROW	2000090900097	82

(CAN) AIRCRAFT WAS IN A CRUISE ATTITUDE, IN PREPARATION TO DISEMBARK SKYDIVERS, WHEN PILOT NOTICED AN ENGINE VIBRATION FOLLOWED BY A BANG, ENGINE CAME TO A SUDDEN STOP. AIRCRAFT LANDED AT AIRPORT OF DEPARTURE WITHOUT FURTHER INCIDENT. UPON INSPECTION, FOUND CRANKSHAFT HAD FAILED AND PUNCTURED THROUGH THE TOP OF THE CRANKCASE. THIS AIRCRAFT ENGINE HAS BEEN MODIFIED PER STA NR SA95-55 AND SE95-9.

CESSNA	CONT	CESSNA	STRINGER	MISINSTALLED	05/23/2000	37980
182P	O470R	07560051	07560052	TUBE AT FUEL INL	2000083100175	

(CAN) AIRCRAFT FUEL STRAINER INSPECTED IAW AD 2000-06-01 EVEN THOUGH THE TECHNICAL RECORDS DID NOT INDICATE THE FUEL STRAINER TOP ASSY HAD BEEN CHANGED DURING THE SPECIFIED TIME PERIOD. THE FUEL STRAINER TUBE WAS FOUND TO BE LONGER THAN THE SPECIFIED LENGTH, AND WITH A LIGHT PULL THE INLET TUBE WAS PULLED FREE OF THE TOP ASSEMBLY. THE SUBMITTER STATED THAT THE TUBE DID NOT LOOK LIKE AN ORIGINAL PART AND FEELS THAT IT HAD BEEN REPLACED PREVIOUSLY WITH AN UNAPPROVED OR HOME MADE PART. THE SUBMITTER ALSO CAUTIONS AGAINST REINSTALLING THE TUBE IN THE TOP ASSY BECAUSE INSERTING THE TUBE TOO FAR COULD RESTRICT OR BLOCK OFF THE FLOW OF FUEL INTO THE FUEL STRAINER.

CESSNA			BRACKET	CRACKED	06/13/2000	13427
182Q			7321014	LT AFT HORIZ STA	2000082200225	

DURING 100-HOUR ANNUAL INSPECTION, THE HORIZONTAL STABILIZER ATTACHMENT POINT REINFORCEMENT ON LEFT SIDE WAS FOUND CRACKED. SUSPECTED CAUSE WAS PART HIGH TIME. ALTHOUGH THE RIGHT REINFORCEMENT WAS NOT CRACKED, IT WAS REPLACED DUE TO HIGHTIME. (X)

CESSNA		LINE	BROKEN	06/13/2000	13359
182Q		0700099138	MANIFOLD/FIREWA	2000082300074	

MANIFOLD PRESSURE LINE WAS FOUND BROKEN AFTER PILOT REPORTED GAUGE READING AMBIENT PRESSURE. POSSIBLE CAUSE, HIGH PARTTOTAL TIME. (X)

CESSNA		RIB	BENT	06/13/2000	13427
182Q		1232105	HORIZ STABILIZER	2000082500171	

DURING ANNUAL/100 HOUR INSPECTION, THE SECOND RIB OUTBOARD OF CENTER ON THE RT SIDE OF THE HORIZONTAL STABILIZER WAS FOUND BENT THROUGH THE LIGHTENING HOLES. POSSIBLE CAUSE OF THIS DAMAGE, IMPROPER GROUND HANDLING (SITTING ON STABILIZER TO TURN AIRCRAFT). (X)

CESSNA	CONT	CAMSHAFT	FAILED	08/17/2000	2142
182Q	O470S	SA535661		2000082900186	118

FERROUS MATERIAL FOUND IN OIL FILTER. ENGINE DISASSEMBLED, PROBLEM FOUND TO BE FAILED CAM AND LIFTER BODIES. (X)

CESSNA		SEAL	LEAKING	04/06/2000	298
206H			PROP	2000082400003	

DURING PRE-FLIGHT INSPECTION OF THE AIRCRAFT IN A HANGAR, PILOT FOUND A LARGE POOL OF RED OIL ON THE FLOOR BENEATH THE PROPELLER. UPON REMOVAL OF THE SPINNER, DETERMINED THE FLUID WAS LEAKING FROM UNDER A PROPELLER BLADE ROOT. THE PROPELLER WAS REMOVED AND SENT OUT FOR REPAIR. (X)

CESSNA	CONT	CONT	BUSHING	WORN	06/15/2000
207	IO520F			THROTTLE SHAFT	2000082900190

AIRCRAFT HAD FUEL FLOW FLUCTUATIONS AND POWER SURGES (2-4 GPH). OCCURRED ON TAKEOFF AND WAS PROGRESSIVELY MORE NOTICEABLE AS ENGINE WARMED UP. POSSIBLE CAUSE WAS THE BUSHINGS THAT THE THROTTLE SHAFT GOES THROUGH BEING WORN CAUSING PLAY IN THROTTLE TO MIXTURE ADJUSTMENT AND SUBSEQUENT CHANGES IN FUEL/AIR RATIO AND INDUCTION LEAKAGE THROUGH WORN BUSHINGS. (X)

CESSNA		SPAR	CORRODED	06/13/2000	3000
310J		08112763	UPER INSIDE CABI	2000082200119	

EXFOLIATION CORROSION AT LEAST .01 INCH TO .1250 INCH DEEP AND GROWING. SUBMITTER STATES THAT AIRCRAFT WAS BASED IN SAN FRANCISCO BAY AREA AND SALT AIR MAY HAVE CONDENSED INSIDE THE AIRCRAFT INSULATION AND DRIPPED DOWN ON THE FITTINGS. HOWEVER, SUBMITTER BELIEVED THE ORIGINAL CORROSION MAY HAVE BEEN INTERGRANULAR THAT PROGRESSED. (X)

CESSNA		TUBE	FAILED	02/07/2000	
310L		08421201	L/G, GEARBOX	2000091500214	

ON APPROACH AFTER LOWERING GEAR, PILOT NOTICED NOSE GEAR NOT DOWN AND LOCKED. PILOT MADE NOSE-UP LANDING. FURTHER INSPECTION REVEALED EYELET OF TUBE ASSY HAD FAILED. (X)

CESSNA	CONT	PUMP	FAULTY	04/27/2000	
310R	IO520M		FUEL BOOST PUMP	2000082200113	

(AUS) LEFT FUEL TRANSFER PUMP FAILED. INVESTIGATION FOUND THAT THE PUMP POSITIVE WIRE HAD BURNED OFF AT THE HOUSING. LEFT LANDING LIGHT CIRCUIT BREAKER TRIPPED.

CESSNA	CONT	MOUNT	CRACKED	04/27/2000	59600
310R	IO520M	08119031	SUPPORT ASSY	2000083100171	

(CAN) DURING A 200-HOUR INSPECTION, LOOSENESS WAS FOUND AT THE CABIN STEP ATTACHMENT. THE STEP AND SUPPORT WERE REMOVED FOR RE-BUSHING. THE SUPPORT ASSEMBLY WAS INSPECTED AND FOUND CRACKED. THE CAUSE OF THE LOOSENESS IN THE STEP WAS CORROSION AND WEAR IN THE STEP MOUNTING HOLES. A NEW SUPPORT ASSEMBLY WAS INSTALLED.

CESSNA	CONT	BRACE	CHAFED	07/20/2000	4294
337E	IO360C	14550172	LOWER TUBE	2000091500056	

DURING INSPECTION, P/N 1455017-1 AND P/N 1455017-2 BRACE ASSYS WERE FOUND CHAFING ON THE PN 629671A2 OIL SUMP. THE P/ N1555001-1 MUFFLER CAN MOVE FWD AND AFT DUE TO ENG VIBRATION AS THERE ARE NO DOWL PINS IN P/N 1555001-1 CLAMPS TO MAINTAIN POSITION OF MUFFLER. SUBMITTER RECOMMENDED UPGRADING MUFFLER SYS TO DUAL MUFFLERS LIKE FRONT ENGINE INSTALL OF THIS ACFT, OR AT LEAST THE INSTALL OF DOWL IN P/N 1555002-1 CLAMPS. THIS IS THE THIRD OCCURRANCE ON THE ACFT IN THE LAST 5 YEARS. (X)

CESSNA	CONT	MCAULY	CABLE	FAILED	09/01/2000
340CESSNA	TSIO520K		991026915	PROP CONTROL	2000090900116

(AUS) LEFT AND RIGHT PROPELLER OUTER CONTROL CABLES SEPARATED AT SLIDE JOINT LOCATED AT PROPELLER GOVERNOR END. LEFT CABLE HAD BEEN REPAIRED BY LOCKWIRING THE ENDS TOGETHER. CABLES P/N 9910269-15 AND P/N 9910269-16. (X)

CESSNA		PARKERHANFIN	PIN	DESTROYED	07/12/2000
402C			06900400	BRAKE SYSTEM	2000091500042

ON LANDING, AFT BRAKE LOCKED UP, AND MAIN WHEEL SEIZED. MAINTENANCE FOUND ONE CALIPER ANCHOR PIN SHEARED. REMOVED AND REPLACED MAIN WHEEL ASSY, BRAKE CALIPER, AND BRAKE BACKPLATE ASSY, THEN RETURNED AIRCRAFT TO SERVICE. AT THIS TIME, ALL ANCHOR PINS ARE BEING CHANGED IN THE OPERATOR'S FLEET.

CESSNA	CONT	FUEL TANK	FOD	05/23/2000	
402C	TSIO520VB		FUEL STORAGE	2000082200130	

(AUS) RIGHT WING FUEL TANK FOD. ON REMOVAL OF THE RIGHT WING FUEL TANK ACCESS PANEL, A PIECE OF RAG MEASURING APPROXIMATELY 300 MM BY 300 MM (11.8 INCHES BY 11.8 INCHES) WAS FOUND IN THE BOTTOM OF THE TANK COVERING ONE FUEL TANK FLOW VALVE AND THE MAIN FUEL SUCTION PORT. THE PANEL WAS REMOVED DUE TO A LARGE FUEL STAIN ON THE TOP SURFACE OF THE WING. IT WAS NOTED THAT THE PANEL HAD BEEN INCORRECTLY INSTALLED AND NO SEALANT HAD BEEN USED. FOD.

CESSNA	CONT	WIRE	BROKEN	06/07/2000	
414A	TSIO520N	C3B18	TE FLAP CONTROL	2000082200098	

(AUS) TRAILING EDGE FLAP POWER WIRE BROKEN IN AREA APPROXIMATELY 100 MM( 4 INCHES) FROM THE FLAP PRESELECT SWITCHES. WIRE IS ONE IN A BUNDLE OF FIVE WIRES WHICH FLEXES WHEN THE FLAPS MOVE. (X)

CESSNA 421A		LINK 08411121	SEPARATED RT MAIN LANDING	04/13/2000 2000091900017	
THE LINK SEPARATED IN THE THREADED AREA WHERE IT ENTERS THE ROD-END IN THE LINK ASSY. THIS IS PART OF BELLCRANK 5041001-2. THE FAILURE CAUSED THE RIGHT MAIN GEAR TO COME OUT OF OVERCENTER IN THE DOWN POSITION AND THEN COLLAPSE. (X)					
CESSNA 421C		RIVET 505401033	FRETTED OUTBOARD	07/24/2000 2000091500049	4609
DURING ROUTINE INSPECTION, LOOSE RIVETS WERE FOUND IN THE TOP PLATE CURBED AREA AFT OF THE ENGINE IN BOTH MOUNT BEAMS OF LEFT ENGINE. SOME RIVET HEADS HAD FRETTED INTO THE SURFACE OF THE PLATE. THE SUSPECTED CAUSE WOULD BE A VIBRATION IN THIS AREA. AN ENGINEERING APPROVED REPAIR WAS MADE AND AIRCRAFT RETURNED TO SERVICE. (X)					
CESSNA 500CESSNA		DUCT 551530824	DISCONNECTED PRESS DUCT	05/11/2000 2000090100180	
(CAN) WHILE IN CRUISE FLIGHT AT FL 280, THE CABIN PRESSURE STARTED TO DECREASE. SHORTLY THEREAFTER A LOUD BANG WAS HEARD AND THE CABIN PRESSURE BEGAN TO RAPIDLY DECREASE. AN EMERGENCY DESCENT WAS CARRIED OUT AND THE AIRCRAFT LANDED WITHOUT FURTHER INCIDENT. INVESTIGATION REVEALED THAT THE PRESSURIZATION DUCT DOWNSTREAM OF THE WATER SEPARATOR HAD BECOME DISCONNECTED.					
CESSNA 525	WILINT FJ44	CESSNA 6354050204	CHANNEL INBD PIVOT ATTAC	CRACKED 2000082200033	03/23/2000 1016
(CAN) DURING SCHEDULED MAINTENANCE, CRACKS WERE FOUND ON THE THRUST ATTENUATOR PIVOT SUPPORT CHANNELS (UPPER AND LOWER, RIGHT SIDE). THESE CHANNELS HAD BEEN INSTALLED AS PART OF SERVICE BULLETIN					
CESSNA 550	PWA JT15D4	MOTOR 99100554	SEIZED INTERNAL	04/12/2000 2000082200037	632
(CAN) ON APPROACH, THE FLAP MOTOR CIRCUIT BREAKER TRIPPED WHEN THE FLAPS WERE SELECTED DOWN, THE CIRCUIT BREAKER WAS RESET AND WHEN THE FLAPS WERE SELECTED UP IT TRIPPED AGAIN. THE AIRCRAFT RETURNED TO BASE WITH THE FLAPS IN A PARTIAL DOWN POSITION. MAINTENANCE PERSONNEL FOUND THE LEFT FLAP MOTOR SEIZED, AND THE RIGHT MOTOR WITH EXCESSIVE END PLAY.					
CESSNA 550	PWA JT15D4	KIDDE 8980662	CARTRIDGE 873364	FAILED SQUIB	05/30/2000 2000090700124
(CAN) AFTER THE FIRE BOTTLE WAS DISCHARGED, THE SQUIB (FIRE BOTTLE CARTRIDGE) WAS FOUND BLOWN APART. THE SUMITTER SUGGESTED THAT PERSONNEL OR ADJACENT EQUIPMENT WAS AT RISK OF DAMAGE OR INJURY DUE TO THE EXTERNAL EXPLOSION OF THE SQUIB.					
CESSNA U206F	CONT IO520F		TRIM TAB 12346281	DISTORTED ELEVATOR TAB	05/31/2000 2000082200128
(AUS) RIGHT ELEVATOR TRIM TAB DISTORTED, SPLIT AND BULGED. INVESTIGATION FOUND THAT THE CORE HAD BEEN FILLED WITH EXPANDABLE FOAM WHICH HAD CONTINUED TO EXPAND AFTER FILLING THE AVAILABLE SPACE. UNAPPROVED PART.					
CESSNA U206G	CONT IO520F		WHEEL 4075D	CRACKED WHEEL/SKI/FLOAT	09/01/2000 2000090900149
(AUS) MAIN WHEEL INBOARD HALF CRACKED IN BEAD RADIUS WITH PARTIAL SEPARATION OF FLANGE. CRACK LENGTH 127 MM (5 INCHES). (X)					
CONAER LA4200	LYC IO360A1C		PISTON LW102075	FAILED ENGINE	11/21/1999 2000091900013
ENGINE PISTON ON NR 4 CYLINDER HEAD SEPARATED FROM BASE BELOW THE OIL RING LAND. TWISTED ROD AND CAUSED ENGINE TO FAIL. ENGINE FAILURE ON CLIMB-OUT AT ABOUT 700 FEET AGL AT CLIMB POWER. ENGINE TT					
DHAV DHC6300			LONGERON C6W151248	CRACKED LONGERON/STR	05/15/2000 2000082200101
(AUS) ENGINE NACELLE RIGHT OUTBOARD LONGERON CRACKED IN AN AREA APPROXIMATELY 254 MM (10 INCHES) AFT OF THE ENGINE MOUNT FITTING. CRACK LENGTH APPROXIMATELY 57.15 MM (2.25 INCHES). FOUND DURING INSPECTION IAW AD/ DHC6/51.4 (DHC6 SB 6/509).					
DHAV DHC8102	PWA PW120A		LINE 82970410119	FAILED LT NACELLE	08/18/2000 2000090900098
(CAN) HYDRAULIC PRESSURE LINE NR 1 SYSTEM WORN THROUGH 1/2 WALL THICK AT LOCATION X124 LT NACELLE ABOVE EXHAUST. LINE WORN BECAUSE ADEL CLAMPS BROKE ALONG SIDE MLG RETRACTION ACTUATOR FITTER LOCATION AND RUBBED AGAINST LINE.					
DHAVXX DH82AROBRTSN	DHAVXX GIPSYMAJOR1	DHAVXX GIPSYMAJOR10	EXHAUST	FAILED ENGINE	06/12/2000 2000082900034
(AUS) NR 1 CYLINDER EXHAUST VALVE HEAD SEPARATED FROM VALVE STEM. VALVE HEAD PUNCTURED PISTON AND EXITED THE ENGINE VIA THE TOP RIGHT SIDE OF THE CRANKCASE.					
DIAMON DA20A1		DIAMON 2057500000	HINGE AROUND HINGE PIN	CRACKED 2000092000076	07/13/2000
(CAN) - CRACKS FOUND ON SEVERAL CONTROL SURFACE HINGES ON AIRCRAFT OPERATED IN THE U.K. - CRACKS VISIBLE AS BUBBLED PAINT EXPOSED ON LOWER SURFACE. ON REMOVAL OF PAINT, CRACK WAS FOUND RUNNING FROM HINGE PIN HOLE TO SURFACE. PRESSED HINGE BUSHING WAS REMOVED FROM HINGE AND MINIMAL CORROSION WAS FOUND. HINGE, REMOVED AND REPLACED WITH NEW.					
DIAMON DA20A1	ROTAX ROTAX912	ROTAX 912A3	STATOR 888712	BROKEN RT PICKUP COIL	04/26/2000 2000090100176
(CAN) AD 98 SB 996-538 ... REMOVE STATOR AND REPLACE WITH NEW. UPON REMOVAL FOUND RT PICK-UP COIL PLASTIC SHROUD DISINTEGRATING IN PIECES, NO PERIPHERAL DAMAGE AS A RESULT. SEE ALSO SDR 20000427030. REFER AD98-9120026R3.					
LAKEAC 250(LAKE)		BEAM 2161110	CRACKED REAR WING SPAR	04/14/2000 2000091900020	1900
CRACK SEEMS TO ORIGINATE FROM A PUNCHED THROUGH .1250 INCH JIG HOLE, 2.50 INCHES OUT FROM REAR SPAR ATTACH BOLT. CAN BE SEEN FROM GEAR WALL .3750 INCH LONG CRACK. (X)					
LEAR LEAR	GARRTT	LUCAS	BEARING	DISINTEGRATED	05/04/2000 34900

31A	TFE7312	2308023	03601018	FRONT BEARING	2000090100004	15060
(CAN) LEFT GENERATOR TRIPPED OFF IN-FLIGHT AND WOULD NOT RESET. ON INSPECTION, FOUND GENERATOR FRONT BEARING UNSERVICEABLE. REMOVED GENERATOR AND REPLACED WITH O/H UNIT. VIBRATIONS FELT THROUGHOUT AIRCRAFT WHEN GEN TRIPPED OFF LINE.						
MAULE	LYC		GASKET	LOOSE	05/23/2000	
MX7180	O360C1F		DETAIL4	HEAT BOX	2000082200222	
THE DIAMETER OF HEAT BOX THROAT IS LARGER THAN SEALING SURFACE OF CARBURETOR GASKET ALLOWING CARBURETOR BASKET TO REMAIN LOOSE. COULD BE SUCKED INTO CARBURETOR. NOTED DURING ENGINE CHANGE.						
MOONEY	LYC		STRUCTURE	CORRODED	05/09/2000	28440
M20C	O360A1D			AIRFRAME	2000082300069	
(CAN) SEVERE CORROSION FOUND DURING ANNUAL INSPECTION. EXFOLIATION CORROSION FOUND AT LT FLAP 3 AND 4 HINGE BRACKET. INTERGRANULAR CORROSION FOUND AT LT MAIN GEAR LINK ATTACHMENT TO MAIN WING SPAR BRACKET. AT THE LT AND RT FUSELAGE TUBING ATTACHMENT TO MAIN WING LOWER SPAR, THE STEEL TUBING IS RUSTED RIGHT THROUGH. ALSO, GENERAL SURFACE CORROSION WAS DISCOVERED IN THE CABIN FLOOR AREA.						
MOONEY	LYC		CRANKSHAFT	BROKEN	06/15/2000	908
M20C	O360A1D				2000082900017	
AIRCRAFT INVOLVED IN AN ACCIDENT BECAUSE OF AN ENGINE FAILURE. THE ENGINE WAS DISASSEMBLED BY THE MANUFACTURER WITH THE FOLLOWING FINDINGS. THE WRONG PART NUMBER CRANKSHAFT WAS INSTALLED IN THE ENGINE. THE SLUDGE TUBES, P/N 71577, WERENOT INSTALLED ON THE CRANK PINS. THE SLUDGE TUBES AID IN THE LUBRICATION OF THE CRANKSHAFT AND RODS. IN THE CASE OF THIS ENGINE, THE NR 2 ROD CAP FAILED CAUSING THE ROD TO BREAK THROUGH THE CASE RESULTING IN THE ENGINE FAILING. (X)						
MOONEY	CONT		CLAMP	BROKEN	05/02/2000	1
M20K	TSIO360GB		633358	EXHAUST OUTLET	2000082300038	
TURBO CLAMP THAT ATTACHES EXHAUST PIPE TO TURBO BROKE. CLAMP WAS SAFTIED AROUND BOLT. BREAK OCCURRED SOMEWHERE ON CLAMP. POSSIBLE SEPARATION WHERE SPOT-WELD HOLDS BOLT IN PLACE. (X)						
MTSBSI			WIRE	CHAFED	05/22/2000	
MU2B26A					2000082200224	
PILOT REPORTED TO MAINTENANCE THAT THE LEFT AMP GAUGE WENT TO ZERO AMPS, BUT LEFT GENERATOR STAYED ON-LINE. INVESTIGATION REVEALED CHAFED WIRE BUNDLE IN LEFT MIB AT GROUND ATTACH POINT E253. REPAIRED 7 CHAFED WIRES AND PROTECTED AS NEEDED. SYSTEM OPS CHECKED SATISFACTORY. (X)						
MTSBSI	GARRTT		VALVE	MALFUNCTIONED	06/01/2000	18651
MU2B36	TPE3316		13341511	OPERATOR MOTOR	2000082900012	
(CAN) DURING CRUISE, THE CREW STARTED TO TRANSFER TIP FUEL WITH NO PROBLEM. WHEN THE CREW SELECTED TIP TRANSFER OFF, THE RT TIP TANK CONTINUED TO FLOW UNTIL TIP TANK PRESSURE WAS EXHAUSTED. THIS CAUSED ABOUT A 15 GALLON FUEL IMBALANCE BETWEEN THE TIP TANKS (RT LIGHTER). DURING LANDING AND TAXI WITH A FULL MAIN TANK AND THE LEFT WING LOW DUE TO THE FUEL IMBALANCE, A SMALL AMOUNT OF FUEL PASSED BY THE SNORKLE CHECK VALVE AND ACCUMULATED IN THE VENT SYSTEM, WHICH DRAINED ONTO THE GROUND SLOWLY AFTER THE AIRCRAFT WAS PARKED. THE VALVE WAS REPLACED WITH A SERVICEABLE VALVE AND						
NAVION	CONT		RUDDER HORN	CORRODED	06/24/2000	4557
L17A	E2254		14524401	RUDDER	2000082300072	
DURING INSPECTION FOR AD 68-20-06, FOUND CORRISION HAD CAUSED DELAMINATION AND SWELLING OF ONE SIDE OF RUDDER HORN, P/N145-24401. LAST ANNUAL 1992. (I)						
PILATS		HARTZL	PROPELLER	DAMAGED	04/05/2000	
PC12				PROPELLER ASSY	2000082900003	
(AUS) PROPELLER STRIKE (KANGAROO). PROPELLER AND ENGINE INSPECTED IAW MAINTENANCE MANUALS WITH NO DEFECTS FOUND.						
PILATS			WIRE	BROKEN	03/23/2000	270
PC1245			9717516500	INSIDE PLUG NLG	2000082200036	
(CAN) ON APPROACH, THE PILOT NOTICED THAT THE NOSE GEAR DOWN AND LOCKED LIGHT DID NOT ILLUMINATE AND THAT ALL THREE IN TRANSIT LIGHTS STAYED ON. LANDING GEAR WAS VERIFIED TO BE DOWN BY CONTROL TOWER PERSONNEL AND THE AIRCRAFT LANDED SAFELY. MAINTENANCE TRACED THE PROBLEM TO A BROKEN WIRE IN THE NOSE GEAR PROXIMITY SENSOR CANNON PLUG (P056, PIN A).						
PILATS			BRAKE	FROZEN	04/13/2000	13
PC1245			9595601511	RT GEAR	2000082200038	
(CAN) THE RIGHT BRAKE FROZE AND ON LANDING THE TIRE FAILED TO ROTATE AND WORE THROUGH THE CASING. THE TIRE WENT FLAT AND THE AIRCRAFT HAD TO BE TOWED FROM THE RUNWAY.						
PIPER			HORN	CORRODED	06/16/2000	
PA28140				RUDDER	2000082400011	
RUDDER STEEL CONTROL HORN IS MATED TO THE ALUMINUM CONTROL SURFACE BY RIVETS. THE MATING SURFACES OF THE RUDDER WERE CORRODED TO THE POINT OF REPLACEMENT OF THE LOWER RIB. THERE WAS NO EXTERIOR EVIDENCE OF POTENTIAL FAILURE EXCEPT THAT 2OF THE RIVET HEADS COULD BE FLIPPED OFF WITH A FINGER NAIL. CROSS SECTION THE RIVETS SHOWED DETERIORATION CAUSED BY ELECTROLYSIS. THIS ELECTROLYSIS WAS CAUSED BY DISSIMILAR METALS (STEEL & ALUM) IN PRESENCE OF MOISTURE. UPON DISASSEMBLY OF RUDDER COMPONENTS,						
PIPER	CONT		TRUNNION	CRACKED	05/01/2000	18500
PA28RT201T	TSIO360F		67054003	SHIMMY DAMPNER	2000090100184	
(CAN) DURING A 50-HOUR INSPECTION OF THE LANDING GEAR, THE NOSE GEAR TRUNNION WAS FOUND CRACKED AT SHIMMY DAMPNER ATTACHMENT POINT. POSSIBLE CAUSE - OVERSTEER.						
PIPER	LYC		STRUCTURE	DAMAGED	02/17/2000	
PA31	TIO540A2B		31420	FUSELAGE MAIN ST	2000082300062	
(AUS) RIGHT FORWARD WING ATTACHMENT FITTING TO FUSELAGE UNDER TENSION. THE FUSELAGE IN THIS AREA BULGING AND CRACKING. INTERNAL STRESS DAMAGE AND CRACKING. CAUSE OF DAMAGE UNKNOWN.						
PIPER	LYC	PIPER	BULKHEAD	CRACKED	04/10/2000	11156

PA31	TIO540A2C		52694005269401	STA 104.5		2000090100170	
<p>(CAN) UPON INSPECTION, A SMALL BULGE AND CRACK WAS FOUND ON THE FUSELAGE EXTERIOR AT THE WING FRONT SPAR ATTACH AREA ONBOTH LEFT AND RIGHT SIDES. FUSELAGE INTERIOR WAS REMOVED AND THE SIDE FLANGES ON THE BULKHEAD ASSYS WERE FOUND TO BE CRACKED. NO ABNORMAL HARD LANDINGS WERE REPORTED. A NEW IMPROVED BULKHEAD IS AVAILABLE WITH MORE FLANGES AT TOP AND BOTTOM. SUBMITTER STATED THE AREA OF FAULT IS WELL HIDDEN BEHIND INTERIOR PANELS AND FUSELAGE STRUCTURE.</p>							
PIPER	LYC	PIPER	O-RING	NICKED		10/02/1999	
PA31350	LTIO540J2BD	492111	757257	O-RING		2000082300066	
<p>(CAN) BOTH LT AND RT FIREWALL SHUTOFF VALVES WOULD NOT COMPLETELY SHUT OFF FUEL TO ENGINE. ON TEARDOWN OF VALVE, O-RINGS WERE FOUND TO BE NICKED. THE O-RINGS ARE NICKED EVERYTIME THE VALVE IS OPERATED. THE VALVES ARE OPERATED AS PART OF RUN-UP CHECKS. THE DESIGN OF THE VALVES IS SUCH THAT AS O-RING LUBRICATION IS WASHED AWAY BY REGULAR FLOW OF FUEL THE RING IS NICKED.</p>							
PIPER	LYC	DUKES	BOLT	JAMMED		06/06/2000	12455
PA31350	LTIO540J2BD	3487001	400440	LT WING ROOT		2000090100006	
<p>(CAN) PILOT REPORTED LT FUEL SELECTOR STIFF AND JAMMING ON INBD TANK AT PRE-TAKEOFF CHECK. WITH ENOUGH PRESSURE, SELECTOR COMPLETED TRAVEL, PILOT CHECKED OPER OF ENGINE, INBD, OTBD, POSITIONS AND IN OFF, SEVERAL TIMES PRIOR TO ELECT TO TAKEOFF AND REPORTED SNAG IN LOG AND VERBAL DEBRIEFING AT ARRIVAL. CORRECTIVE ACTIONS TAKEN IMMEDIATELY. ACCESS PANEL OFF, OPER OF SELECTOR SHOWED STIFF AT SOME TRAVEL POINT 2 TIMES OUT OF 3. POSSIBLE JAMMING. FOUND BOLT NR 400-440 (AN3-6A), AT TIMES, CHAFING ON SELECTOR CASING ASSY SCREW HEAD. FOUND WASHER BETWEEN CABLE TERMINAL NR 44668-000 (MS20668-4) AND SELECTOR ARM, WORN RENDERING BOLT TOO LONG ON NUT SIDE. ALSO, OTHER 2 WASHERS IN WRONG SEQUENCE.</p>							
PIPER	LYC	PIPER	BOLT	DAMAGED		03/23/2000	65200
PA31350	TIO540J2BD	4438800	401265	STRUT TOP		2000083100122	
<p>(CAN) AT 1,000 HR INSP, 2 BOLTS (P/N 401-265) AND BOLT (P/N 401-268) WERE REMOVED FROM NOSE GEAR STRUT ASSY FOR INSP. ONE 401-265 STARTING TO SHEAR AND OTHER SHOWING STRAIN. LONGERONS 401-268 SHOWED LIGHT BENDING. THESE BOLTS WERE REPLACED 651.5 HRS AGO ON APR 20, 1999, AND THEY ARE SHOWING WEAKNESS. SUBMITTER STATED CHIEFTAIN IS HEAVIER TO STEER THAN NAVAJOS USING SAME SYS. LUBRICATING SYS MORE OFTEN HELPS. SUBMITTER SUGGESTED PIPER PUT 500 HR LIFE LIMIT ON THESE BOLTS. SUBMITTER CITED AN INCIDENT WITH AN OPERATOR WHERE COMPLETE STEERING ARM ASSY HAD LEFT A/C AND SUSPECTED CAUSE TO</p>							
PIPER	LYC	LYC	CYLINDER	GLAZED		09/01/2000	
PA31350	TIO540J2BD		L280461A	RECIPROCATING		2000090900142	247
<p>(AUS) ENGINE SPARK PLUGS CONTAMINATED WITH OIL. INVESTIGATION FOUND NR 2, NR 4, NR 5, AND NR 6 CYLINDER BORES GLAZED WITH NR 5 AND NR 6 CYLINDERS ALSO CONTAINING CORROSION IN THE BORES. THE ENGINE WAS ONLY 247.9 HOURS OUT OF FACTORY OVERHAUL. SUBMITTER SUSPECTED GLAZING CAUSED BY INCORRECT TEST RUNNING AND CORROSION CAUSED BY INCORRECT INHIBITING FOLLOWINGTEST RUNS AT THE FACTORY. (X)</p>							
PIPER	LYC	LYC	GASKET	FRACTURED		07/20/2000	
PA31350	TIO540J2BD		LW13388	ENGINE		2000091500155	924
<p>(AUS) ENGINE OIL FILTER ADAPTER GASKET LEAKING.</p>							
PIPER	PWA	PIPER	ATTACH	CRACKED		04/05/2000	14172
PA31T	PT6A28	40288000	40287KAE	TOP REINFORC RIB		2000083100149	
<p>(CAN) DURING ROUTINE INSPECTION, A CRACK WAS FOUND ON THE LEFT AFT MAIN LANDING GEAR TRUNNION ASSEMBLY. THE CRACKS WERE FOUND TO BE ON THE UPPER REINFORCEMENT RIBS. PART WAS REPLACED.</p>							
PIPER	PWA	CLEVELAND	BOLT	BROKEN		04/10/2000	
PA31T	PT6A28	40106	AN535A	THREADED AREA		2000083100153	13200
<p>(CAN) DURING PREFLIGHT INSPECTION, MAINTENANCE PERSONNEL DISCOVERED SHEARED WHEEL BOLTS ON RIGHT MLG WHEEL ASSY. INSPECTION REVEALED 4 OUT OF 8 OF THE 5-35A BOLTS WERE BROKEN. THREE OF THE 4 BROKEN BOLTS REMAINED IN THE WHEEL ASSY AND 1HAD DEPARTED THE AIRCRAFT. DAMAGE TO THE TORQUE PLATE OCCURRED WHEN THIS BOLT WORKED OUT.</p>							
PIPER	LYC	PIPER	ACTUATOR	BROKEN		08/06/2000	2720
PA34200	IO360C1E6	6741108	451823	LT MAIN GEAR		2000091900005	
<p>(CAN) GEAR WOULD NOT RETRACT AFTER TAKEOFF. AT RETURN TO BASE, SQUAT SWITCH ACTUATOR ARM WAS FOUND TO BE BROKEN. NEW ACTUATOR INSTALLED, NORMAL FUNCTION RETURNED. (X)</p>							
PIPER			MOUNT	BROKEN		05/09/2000	
PA44180			86212002	LEFT		2000082400005	
<p>DURING 100-HOUR INSPECTION, FOUND LT ENGINE MOUNT CRACKED AND BROKEN. FAILURE WAS LOCATED BETWEEN THE UPPER AND LOWER OUTBOARD LORD MOUNT LOCATION. TUBULAR MEMBER WAS FOUND COMPLETELY SEVERED WITH SMALL PIECE OF MATERIAL MISSING. PIPER SB 937 AND SL 719, WHICH DEAL WITH MOUNT REINFORCEMENT HAD NOT BEEN COMPLIED WITH. OVERHAULLED MOUNT INCORPORATING BULLETINS WAS</p>							
RAYTHN	PWA		TRUNNION	CRACKED		03/29/2000	
100BEECH	PT6A28		9981002823	UPR TORQ		2000083100138	
<p>(CAN) RIGHT MAIN LANDING GEAR ASSEMBLY WAS FOUND TO BE CRACKED AT THE UPPER TORQUE KNEE HOUSING. BOTH SIDES OF THE LUGWERE CRACKED.</p>							
RAYTHN	PWA		RESTRICTOR	SHEARED		03/15/2000	
200BEECH	PT6A41		993880051	RESTRICTOR		2000083100132	
<p>(CAN) RESTRICTOR VALVE SHEARED OFF FROM THE LEFT MAIN LANDING GEAR RETRACT/EXTEND ACTUATOR (UP LINE) CAUSING HYDRAULIC FLUID TO BE LOST DURING FLIGHT. RESTRICTOR VALVE REPLACED.</p>							
RAYTHN			FITTING	CRACKED		07/06/2000	
65A80			50610015			2000091500211	
<p>FOUND CRACK RUNNING FROM .25 INCH MOUNTING HOLE TO EDGE OF PART. POSSIBLE CAUSE WAS OVERTORQUE OF FITTING TO ELEVATOR BELLCRANK ATTACH BOLT. FITTING TIES ELEVATOR TORQUE TUBE TO BELLCRANK</p>							
RAYTHN	PWA	CLEVELAND	BEARING	CORRODED		05/25/2000	

99A	PT6A28	04028900	21406300	CUP SURFACE	2000082300058	
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(CAN) INBOARD BEARING CUPS HAVE BEEN PITTING AND SCRATCHING ON A CONSTANT BASIS. THIS IS THE ONLY WHEEL TYPE THAT DOES THIS IN OUR OPERATION AND OCCURS ONLY ON THE INBOARD SIDE OF THE WHEEL ASSY.

RAYTHN			TORQUE TUBE	FAILED	05/16/2000	201
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A36 355211524 ROD END 2000091900022

UPON ANNUAL INSPECTION, FOUND LT AILERON WITH EXCESSIVE PLAY. REMOVED TORQUE TUBE AND FOUND THREADED PORTION OF TUBE NOT THREADED TO THE TOP OF TUBE. TUBE REMOVED FROM SERVICE AND INSTALLED NEW TUBE. THE ROD ENDS WERE ALSO REPLACED WITH NEW. (X)

RAYTHN			BOLT	RUSTED	08/03/2000	1629
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B60 AN1767A HORIZ STABILIZER 2000082900200

DURING ANNUAL INSPECTION, FOUND THE HORIZONTAL STABILIZERS TO CREAK WHEN FORCED UP OR DOWN. DURING INVESTIGATION, NOTICED MOVEMENT IN THE AFT ATTACH FITTING FOR BOTH SIDES. REMOVED THE BOLTS FROM THEIR CLOSE TOLERANCE HOLES TO DISCOVER THEY WERE TOO SHORT. THE DUKE PARTS CATALOG SHOWED THAT AN AN176-11A SHOULD BE INSTALLED. SUBMITTER VERIFIED THAT TO BE TRUE BASED ON LENGTH OF THE HOLE. PART REMOVED WAS AN AN176-7A AND SUBMITTER STATED THIS PART LOOKED TO BE A FACTORY INSTALLATION.

RAYTHN	PWA		SHUNT	BROKEN	04/11/2000	
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B90 PT6A20 MA769H200 R/H WHEEL WELL 2000083100156

(CAN) BAKELITE BASE MOUNTING PADS CRACKED ALLOWING RIGHT LOADMETER SHUNT TO MOVE FORWARD ENOUGH TO ALLOW SHUNT WIRE TERMINALS TO TOUCH HEAT SINK CONTAINING REVERSE CURRENT DIODE. RIGHT AMMETER INDICATION WAS INTERMITTENTLY LOST. FURTHER INVESTIGATION FOUND THE LOADMETER SHUNT BASE MOUNTING PADS TO BE CRACKED AS WELL IN THE LEFT WHEEL WELL.

RAYTHN			BELLCRANK	CORRODED	06/13/2000	33111
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B99 50524327 RUDDER 2000091500208

DURING A ROUTINE INSPECTION, THE RUDDER WAS FOUND TO HAVE SOME FREE-PLAY AT THE TOP PIVOT BEARING SUPPORT. IT WAS NECESSARY TO REMOVE THE RUDDER TO INSPECT FOR HIDDEN DAMAGE. UPON REMOVAL, NOTICED THE RUDDER BELLCRANK CORRODED AT THE BOLT HOLES THAT SECURE THE RUDDER TO THE BELLCRANK. THE DEFECTIVE BELLCRANK WAS REPLACED WITH A SERVICEABLE BELLCRANK. FUTURE INSPECTION TECHNIQUES WILL INCLUDE MINOR DISASSEMBLY IN THIS AREA TO INSPECT FOR CORROSION. (X)

ROBSIN			NUT	MISMANUFACTURE	09/01/2000	
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R22 A18910 MAIN ROTOR 2000090900130

(AUS) MAIN ROTOR RETENTION BOLT NUT FAULTY. NO LEAD ON THREAD. SUBMITTER STATED NUT WAS A NEW ITEM FROM ROBINSON. (X)

SOCATA			PRESSURE	FAILED	07/05/2000	128
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TB21 LANDING GEAR TB2061238001 HYDRAULIC 2000091500203

PILOTS REPORTED LANDING GEAR WOULD NOT RETRACT, CHECKED FUSES, ALL OK. BYPASSED PRESSURE SWITCH. GEAR RETRACTED, INSTALLED NEW PRESSURE SWITCH, PN TB206138001, SYSTEM CHECKED OK. NOTE: SEVERAL PRESSURE SWITCHES HAVE BEEN REPLACED. PARTTTT 128.1 HOURS, SWITCH WAS INSTALLED 3-16-00. (X)

UNIVAR	FRNKLN		HOSE	RESTRICTED	08/16/2000	
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1081 6A4145A3 1086221101 FUEL SUMP/CARB 2000090100168

AIRCRAFT LOST POWER DUE TO FUEL STARVATION. AIRCRAFT LANDED DOWN WIND ON GRASS STRIP MORE THAN HALF WAY DOWN THE STRIP. AIRCRAFT WAS PUT IN A PARTIAL SKID AT TIME OF IMPACT. RIGHT LANDING GEAR COLLAPSED CAUSING PROPELLER TO HIT GROUND AND RIGHT WING DAMAGED. PILOT WAS NOT INJURED. FOUND FUEL LINE P/N 108-6221101 HAD SWIVELLED UP FROM LOW PRESSURE MIL H-6000 3Q85 .50 INCH INNER LINING OF HOSE HAS SWIVELLED UP NEAR THE FITTING CAUSING A RESTRICTION. POSSIBLE CAUSE, AIRCRAFT HAD STC FOR AUTOFUEL. AUTOFUEL USED MOSTLY FOR SEVERAL YEARS. (X)

WACO	JACOBP		STIFFENER	BROKEN	09/01/2000	
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YMF R755B2 RUDDER 2000090900135

(AUS) RUDDER LOWER STIFFENER RUSTED AND SEPARATED FROM LOWER RUDDER BOW. SUBMITTER SUSPECTED CAUSED BY TRAPPED WATER. (X)

ZLIN			CIRCUIT	FAILED	06/15/2000	35440
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Z242L AZS5 C/B PANEL 2000092000071

(CAN) AS PART OF AN INSPECTION OF THE AIRCRAFT WIRING AND PROTECTON DEVICES, IT WAS FOUND THAT (2) CIRCUIT BRAKER SWITCHES FAILED TO PERFORM THEIR INTENDED FUNCTION. THE BREAKER SWITCHES WERE TESTED AT TWICE THEIR RATED CURRENT FOR A PERIOD OF 3 MINUTES AND THEY WOULD NOT OPEN. THE SWITCHES APPEAR TO BE NON MIL SPEC. THE REMAINING CIRCUIT BREAKERS WORKED AS INTENDED. ALL BREAKER SWITCHES ARE TO BE REPLACED WITH MS 24508-B-X MIL SPEC CIRCUIT BREAKER SWITCHES. NOTE: NORMALLY CIRCUIT BREAKERS AND SWITCHES ARE ON CONDITION AND ARE NOT TESTED UNDER THESE CIRCUMSTANCES AS PART

ZLIN			SPRING	BROKEN	02/22/2000	31900
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Z242L L24278000000 1530650012 UPPER PRT SPRING 2000083100114

(CAN) DURING INSPECTION IT WAS NOTICED THAT THE PROPELLER CONTROL FLAT SPRING WAS BROKEN. THIS SPRING IS USED TO KEEP THE PROP CONTROL TELEFLEX SHEATH RIGID DURING PROP GOVERNOR CONTROL MOVEMENT. THE SUBMITTER SUGGESTS THAT DURING INSTALLATION THEY SHOULD BE INSTALLED WITH NO STRESS ON THE SPRINGS WHICH COULD BE DETECTED BY SPRING BENDING BETWEEN THE BRACKET AND THE SUPPORT. (X)



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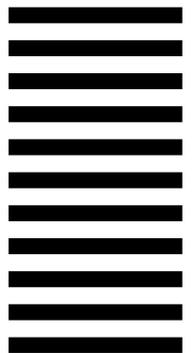
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