

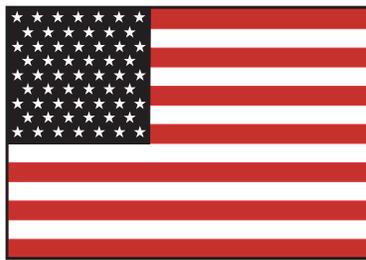


U.S. Department
of Transportation
Federal Aviation
Administration

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR 43-16A

AVIATION MAINTENANCE ALERTS



**ALERT
NUMBER
289**

**AUGUST
2002**

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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.

AIRPLANES

AMERICAN CHAMPION

American Champion; Model 8KCAB; Super Decathlon; Fuel Leak; ATA 2810

After returning from a flight, the pilot reported a strong fuel odor in the cockpit.

The technician discovered the left fuel tank (P/N 7-1537-1) internal baffle had separated where it was welded to the lower tank surface. The fuel tank was leaking from a crack adjacent to the baffle weld area.

The submitter reviewed the aircraft records and found this was the fourth reported occurrence of this defect. Also, he is aware of similar failures on other like aircraft. The internal fuel tank baffle is welded in the tank directly under the center-mounting strap, which may impose excessive stress on the structure.

Part total time-390 hours.

BEECH

Beech; Model B-23; Musketeer; Propeller Spinner Anomaly; ATA 6113

A technician ordered a new propeller spinner to replace one that was severely damaged.

When the technician received the new propeller spinner from the manufacturer (Raytheon), he immediately noticed it could not be used. The spinner was manufactured incorrectly leaving a strip of metal across the propeller blade opening. (Refer to the illustration.) The new spinner was accompanied by all the required paper work attesting to its airworthiness.

The submitter suggested that the manufacturer make improvements to their quality control system to preclude delivery of defective parts.

Part total time-0 hours.



Beech; Model F33A; Bonanza; Defective Fuel Control; ATA 7322

This aircraft uses a Teledyne Continental Motors (TCM) Model IO-520B engine and a TCM fuel control (P/N 629904-2).

The owner reported observing fuel flow fluctuations and asked a maintenance repair shop to investigate.

A technician adjusted the fuel control idle mixture, which had no effect on the fuel flow fluctuation problem. However, he did notice the mixture control operation was very stiff. Since the assembly was covered by warranty, he removed and replaced the fuel control unit without further investigation.

Part total time-34 hours.

Beech; Model F33A; Bonanza; Defective Wing Flap Indicator; ATA 2751

The aircraft owner reported a problem with the wing flaps and requested maintenance personnel to investigate.

A technician discovered the wing flap position indicator (P/N 50-38001-35) was defective and ordered a new part from the manufacturer. After receiving and installing the new indicator, he conducted an operational test. The test revealed the new indicator was also defective. The new indicator showed approximately one-half of the travel during the test. He removed the new indicator and performed a “bench test” to determine the problem. He found the new indicator had a “high amperage” draw during the test. Evidently, the new indicator was electrically shorted internally. He returned the new indicator to the manufacturer for warranty without further investigation.

The submitter recommended giving close attention to new parts during a receiving inspection.

Part total time-0 hours.

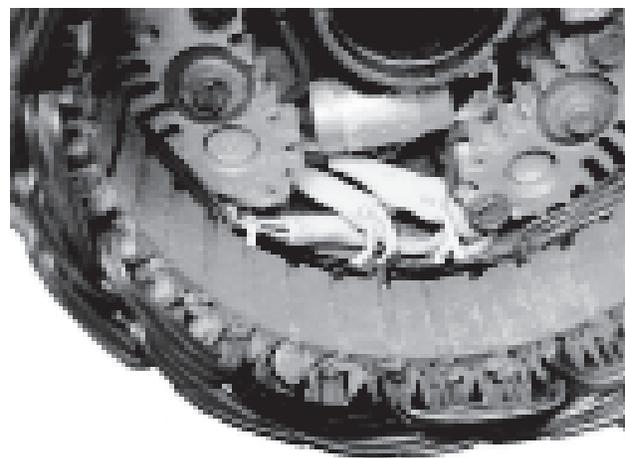
Beech; Model A-36; Bonanza; Alternator Defect; ATA 2421

While changing an engine cylinder, a technician removed the alternator to gain access to the work area.

With the alternator removed, the technician elected to perform the required 500-hour inspection even though there was still ample time remaining.

The technician disassembled the alternator (Teledyne Continental 649304), and discovered that several stator windings displayed evidence of overheating. The stator windings were severely blackened and charred. (Refer to the illustration.)

The submitter stated his facility has been performing the 500-hour inspection at 400 hours because of an increased failure rate. The 500-hour inspection is required by Teledyne Continental Motors (TCM), Service Bulletin 01-3, and Beech Service Instruction, Class 1, 0546-359R2. The alternator was “working fine” before the inspection.



The FAA Service Difficulty Program data base contains an additional eight reports of alternator failures. Of those eight reports, only six gave the operational time at failure. The reported failure times were 304, 191, 173, 143, 39, and 10 hours. One way to identify this type of damage is by conducting a “sniff” test. Any burning of the alternator interior may be detected by smell, and the human nose is an excellent instrument for that purpose.

Part total time-1,045 hours. Total time since the last 500-hour inspection-242 hours.

Beech; Model A-36; Bonanza; Engine Control Failure; ATA 7603

During a landing incident investigation, the pilot stated he lost engine throttle control.

An investigator discovered the throttle control cable (P/N 36-380084-3) was separated at the swaged end of the cable. He did not give a cause for this defect or any further circumstances surrounding the failure.

The submitter recommended that all concerned personnel pay particularly close attention to all the engine controls during scheduled inspections and maintenance.

Part total time-6,089 hours.

Beech; Model 58P; Baron; Loss of Manifold Pressure; ATA 8120

The pilot reported a loss of manifold pressure (MAP) during flight. He secured the engine and landed the aircraft safely at a nearby airport.

A maintenance technician discovered the turbocharger (P/N 409680-9011) center bearing was severely worn. The worn bearing caused the turbocharger turbine wheel to rub, wear, and generate metal. The metal entered the engine oil system. It seems the demise of this bearing was premature, especially considering the relatively short time in service.

The submitter recommended closely inspecting the turbocharger assembly at every opportunity.

Part total time-49 hours.

Beech; Model E90; King Air; Loss of Empennage Flight Controls During Flight; ATA 2700

Information of the following article was taken from an accident investigation, which occurred in January 2001. (*The article is printed as it was received.*)

The aircraft flightcrew experienced a loss of empennage flight controls, which resulted in total loss of aircraft control. The aircraft descended into an unoccupied commercial building during a nighttime instrument-landing approach, and the aircraft was destroyed. Amazingly, the six occupants of the aircraft sustained only minor injuries.

The problem began at a heater register located forward of the lavatory at Fuselage Station (FS) 277. Two inches from the heat ducting in this area is the “1010 EVA 5/8 Imperial” tubing that supplies pneumatic pressure to the empennage deice boots. The empennage deice boot tubing was collapsed from approximately 11 inches aft of FS 277 to approximately 9 inches forward of FS 277. The aft pressure bulkhead is at FS 298. The aircraft uses insulated plastic ducting of various sizes/shapes to supply heated/conditioned air to the floor outlets. The insulated plastic ducting in the area of FS 277 was given a tactile inspection, which revealed that the structural integrity of the ducting had been compromised.

During the accident investigation, a “smoke” test was conducted. Smoke was provided by a smoke generator and introduced into the insulated plastic ducting aft of the floor outlet located aft of the first officer’s station. Smoke leakage was observed at various places along the plastic ducting. Leakage was found at the FS 277 area, in the vicinity of the collapsed empennage deice boot tubing. (The probable cause of this accident has yet to be announced by the National Transportation Safety Board.) At the time of the accident, FAA Air Traffic Control reported: surface winds from 300 degrees at 10 knots, visibility of 1/2-mile with moderate snow and freezing fog.

Collapse of empennage deice boot tubing would prevent deicing of the entire empennage when surface deice was selected. There was no instrumentation that warned or cautioned the pilot that the empennage was not being deiced. After removal of the insulation, examination of the ducting revealed that the ducting had suffered severe heat distress, showing evidence of collapse and splitting along a seam line. Heat distress was most severe in the section of the ducting where it necks down to a smaller diameter necessary to connect to the floor outlets. The insulation on the ducting under the exposed areas of the cabin floor was then cut and peeled back. The ducting showed signs of heat distress throughout the run under the right cabin floorboards, though not as severe as where the ducting necks down to a smaller diameter. Part numbers, obtained from the manufacturer’s parts catalog, of the compromised ducting are as follows:

50-554210-19	Duct, Cabin Air Lower RH
130907C-PF240	Duct Assembly, Aft Compartment Air Lower
50-554244-57	Duct Assembly, Aft Compartment Air Lower
50-554244-63	Duct Assembly, Aft Compartment Air Lower
97-555011-19	Duct Assembly, Aft Compartment Air Lower
97-555011-23	Duct Assembly, Aft Compartment Air Lower.
1010 EVA 5/8 Imperial tubing	for <i>EMPENNAGE DEICE</i>

Beech; Model B-100; King Air; Wing Flap Defect; ATA 5753

While conducting a scheduled inspection, a technician found a crack in the wing flap skin.

The crack was located on the right inboard flap skin in the area of the actuator attachment bracket. The technician discovered the flap rib (P/N 50-160003-11), adjacent to the skin crack, was broken. He surmised the rib broke first and then caused the skin crack. It is very likely the flap actuator bracket broke because of flap extension at an excessive airspeed. The flap rib and flap actuator bracket are not visible for inspection and may have been neglected for a long period of time.

The submitter suggested that technicians use what ever means is necessary to ensure the airworthiness of this assembly during scheduled inspections.

Part total time-6,770 hours.

Beech; Model B200; King Air; Defective Elevator Trim Tab; ATA 5523

A technician removed a damaged left elevator trim tab and obtained a replacement part from the manufacturer.

The technician received the new trim tab (P/N 101-610000-13) and discovered it was missing some required rivets. The tab assembly was bonded and primed but had not been riveted. While investigating this problem, he learned the same basic tab assembly is used on Model B300 and Model 1900 aircraft.

The submitter reported instances of the “nonriveted” tab assemblies being installed on aircraft. It would be wise to conduct a thorough receiving inspection prior to installation of the trim tab assemblies.

Part total time-0 hours.

Beech; Model 1900D; Airliner; Vertical Stabilizer Attachment Discrepancy; ATA 5530

During a scheduled inspection (C check), a technician discovered the vertical stabilizer attachment bolts were loose.

In accordance with the manufacturer’s maintenance manual, the lower vertical stabilizer attachment bolts (P/N EWB22-5) were tightened to the proper torque.

The submitter suggested checking these bolts for proper torque at every opportunity.

Part total time-13,739 hours.

CESSNA

Cessna; Model 172S; Skyhawk; Alternator Failure; ATA 2421

After returning from a flight, the pilot reported the alternator failed, and the circuit breaker opened.

A technician investigated the problem and checked the alternator and related components. He discovered the alternator contactor (Lamar P/N X61-0007), located in the master control electrical junction box, was defective. During a “resistance test,” the contactor indicated as much as 150 ohms. When he lightly tapped the contactor case, the reading was reduced to approximately .6 ohms.

The submitter stated this was the second alternator contactor failure on this aircraft. He suggested the manufacturer use more stringent quality control standards and/or use heavier electrical contactors in the unit.

Part total time-117 hours.

Cessna; Model 182G; Skylane; Engine Airbox Defects; ATA 7160

While conducting a scheduled inspection, a technician discovered the carburetor airbox was severely cracked.

There were several cracks in both the aluminum and stainless steel sections of the airbox (P/N 0750144-21). The airbox was not airworthy or repairable. The maintenance records indicated the airbox was installed a few hundred hours prior to this incident; therefore, the demise of the airbox was premature.

The submitter recommended closely checking the airbox installation during scheduled inspections for condition and security. He speculated excessive operational vibrations might have caused the cracking damage. One source of excessive vibration could be propeller imbalance.

Part total time-375 hours.

Cessna; Model A185F; Skywagon; Possible Fuel Line Electrical Component Contact; ATA 2820 and ATA 3310

During an annual inspection, a technician discovered the left forward doorpost map light switch was in close proximity to the main fuel supply lines.

The fuel lines are routed down the forward doorpost. Airworthiness Directive (AD) 2001-23-02 deals with this subject; however, it is only applicable to Cessna Model 172 series aircraft. AD 2001-23-02 requires the installation of an insulator on the back of the switch to protect the electrical terminals from contacting the fuel lines.

The submitter suggested that AD 2001-23-02 be made applicable to all Cessna single-engine aircraft that have a map light switch on the forward doorpost.

Part total time not reported.

Cessna; Model 337D; Skymaster; Circuit Breaker Failure; ATA 2460

During ground maintenance, a technician discovered the engine cowl flaps were inoperative.

The technician checked the cowl flap system and discovered electrical power was not being supplied to the actuator motor. The cowl flap electrical system circuit breaker (P/N S-1360-2AL) had failed internally. The circuit breaker did not open (pop) but would not allow electrical power to pass.

The submitter recommended the manufacturer take action to improve their product quality control system.

Part total time-75 hours.

Cessna; Model 402C; Businessliner; Cockpit Seat Damage; ATA 2510

During a scheduled inspection, an inspector discovered serious structural damage to the pilot's seat station.

The technician found the damage when he noticed a small crack in the floor skin and excessive movement where seat pedestal attaches to the underfloor structure. The full extent of the damage was revealed when he cut and folded up the cockpit floor. The seat pedestal supports and the structural support area box were severely cracked at numerous locations.

The submitter stated the seat assembly structure was in imminent danger of complete failure. He believes age, metal fatigue, possible abuse, and neglect over a long period of time caused the damage.

Part total time-18,394 hours.

Cessna; Model 402C; Businessliner; Master Switch Failure; ATA 2300

The pilot discovered the avionics master switch would not function. He summoned maintenance personnel and explained the problem.

The technician discovered the avionics master switch (P/N CM3589-50) had failed internally. He stated he has forwarded five similar reports regarding switch failure. In addition, the FAA Service Difficulty Program data base contains 21 more reports involving avionics master switch failure.

Failure of this switch during instrument flying weather, could result in a catastrophic accident. Owners, operators, and maintenance technicians are urged to be aware of the possibility of switch failure. The submitter recommended the manufacturer take action to improve the reliability and serviceability of the avionics master switch.

Part total time-1003 hours.

Cessna; Model 441; Conquest; Fuel System Electrical Arcing; ATA 2822

In the process of completing a scheduled inspection, a technician discovered a serious problem in the wing fuel bay.

The right auxiliary fuel boost pump wiring harness (P/N 5718106-1) had chafed on the boost pump housing (P/N 5756042-1). Due to the chafing action, the wire insulation eroded, and the inner conductor and the pump housing arced. The wire harness, located inside the fuel bay, is not secured in any manner.

The technical data for the scheduled inspection (Phase 11, 1,200 hour) does not specifically require a wire inspection. Because of this finding, the technician inspected the left fuel bay. He found the same type of chafing action; however, the wire damage was not as severe as that found in the right fuel bay.

The submitter stated the electrical arcing inside the fuel bay creates great potential for a catastrophic explosion. He added an inspection item to the checklist for all fuel bay electrical wiring. He recommended securing the boost pump wire harness to prevent contact with fuel bay components.

Part total time-8,332 hours.

Cessna; Model 500 Series; Citation; Unexpected Wheel Brake Lock Up; ATA 3242

Information for this article was taken from Transport Canada's publication "Service Difficulty Alert," number AL-2002-02, dated 02-05-2002. *(This article is printed as it was received.)*

Cessna Citation Brake Stators B.F. Goodrich P/N 133-893-2

The purpose of this Alert is to notify operators of a potentially serious problem that, if undetected, could cause unexpected brake lock up.

Recently, Transport Canada received a report from an operator that has experienced multiple brake failures due to broken stators. A search of the Service Difficulty Reporting (SDR) database shows four Cessna 500 Series brake failures due to broken stators.

During a Phase 5 inspection when the stators on the brake assemblies were checked at approximately 600 landings. One disk in the stack was cracked through with all the other holes cracked approximately 75%. Most of the expansion slots were found completely closed off at the outer edge. This post service bulletin unit could have hard failed in a very short period of time if not detected.

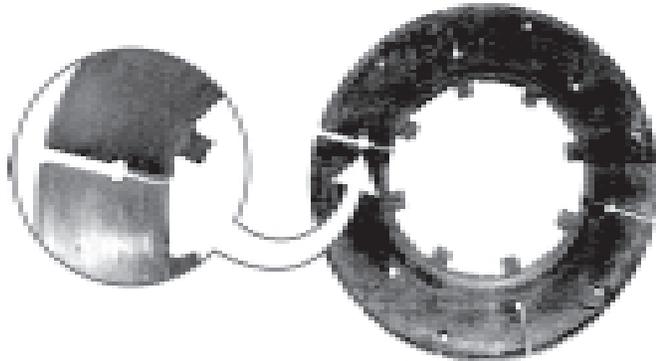
B.F. Goodrich manufactures the brake assembly (P/N 1528-4/-6) and Cessna has issued Service Bulletin 550-32-47/-48, which had been complied with on these units.

Transport Canada highly recommends that operators check these brakes at your earliest convenience to prevent possible brake lock up due to broken stator assemblies.

Any defect or further occurrences should be reported by sending a Service Difficulty Report to Transport Canada, Continuing Airworthiness, Ottawa.

For further information, contact a Transport Canada Centre, or Mr. Steve Dudka, Continuing Airworthiness, Ottawa, telephone (613) 952-4361, facsimile (613) 996-9178 or e-mail dudkas@tc.gc.ca." (Refer to the illustration.)

In addition, the FAA Service Difficulty Program data base contains eight similar reports of brake stator defects.



Cessna; Model 550; Citation; Speed Brake Failure; ATA 2760

While taxiing out for a flight, the pilot noticed "smoke" in the cabin. The "smoke" dissipated before the fire department arrived, and the pilot taxied back to the parking ramp.

The technician discovered the "smoke" was actually an oily mist of atomized "skydrol" hydraulic fluid. The hydraulic fluid was coming from the "extend" speed brakeline (P/N 6517110-23). A fresh air duct located in the tail cone had chafed through the hydraulic line. When the leaking fluid entered the air-conditioning system, it atomized and circulated through the cabin. After replacing the "extend" speed brakeline and the fresh air duct, he applied chafe protection to prevent future chafing.

The submitter was aware of four similar failures on like aircraft. He recommended that the manufacturer issue service information that provides preventive procedures to deal with this problem.

Part total time-309 hours.

Cessna; Model 550; Citation; Fuel Drain Problem; ATA 2820

The flightcrew arrived for a flight and began the preflight inspection in the hangar. When the pilot drained the right wing fuel sump, the drain valve stuck in the "open" position. A large quantity of fuel spilled onto the hangar floor before the aircraft was defueled. Of course, the fuel system had just been "topped off."

The technician removed the drain valve and found a small plastic tube (possibly a Prist nozzle) was preventing it from closing. Evidently, the tube worked through the wing fuel system and lodged in the sump drain valve.

The submitter stated, "The use of the little plastic nozzles is probably not a good idea, as they can come loose and be sprayed right into the fuel tank."

Part total time not reported.

EMBRAER**Embraer; Model EMB-145LR; Nose Landing Gear Anomaly; ATA 3230**

The pilot noticed an “unsafe” nose gear indication during the landing. He completed the landing without incident and summoned maintenance personnel.

A technician found the remains of a writing pen in the nose landing gear safety pinhole. The pen evidently caused the “unsafe” nose gear indication during the extension cycle.

The submitter did not explain how the pen survived the gear retraction cycle, but an investigation is underway to determine the origin of the writing pen. It seems odd that the pen was not found during the preflight inspection.

Aircraft total time-3,837 hours.

GROBE**Grobe; Model 120A; Aileron Control System Interference; ATA 2710**

While completing a scheduled inspection, a technician discovered interference in the aileron control system.

The technician discovered the aileron control rod (P/N 120A-4403) was rubbing against the aileron bellcrank. To prevent further interference, he replaced the control rod and shimmed the assembly in accordance with the manufacturer’s technical data.

Part total time-98 hours.

PIPER**Piper; Model PA 23-160; Apache; Nose Landing Gear Failure; ATA 3230**

While investigating an aircraft incident, an inspector found that the nose landing gear collapsed when the aircraft departed the runway surface.

After landing, the pilot taxied off the runway onto an unimproved area. Due to the rough terrain, the nose gear immediately collapsed. The nose gear downlock released causing the nose gear actuator (P/N 35030-02) rod to bend approximately 60 degrees.

Properly maintained aircraft are resilient and will endure some abuse; however, they will bear only so much before a failure occurs. Operator education appears to be the only cure for this type of failure.

Part total time-1,572 hours.

Piper; Model PA 28-161; Warrior; Electrical System Failure; ATA 2400

The aircraft was unused and parked outside in a “salt air” environment for approximately 7 months prior to being sold. The new owner had a maintenance shop complete an annual inspection. The inspection revealed corrosion exfoliation on a lower fuselage “hat” section and stiffener. No other unusual corrosion was found and the aircraft was approved for return to service.

Shortly after the annual inspection, the new owner noticed that various electrical system equipment began to fail (e.g., radio, lights, autopilot, stall-warning, etc.). In each case, the defect was attributed to circuit breaker (Potter&Brumfield P/N W58X-1009-5) failure.

The submitter believes the circuit breaker failures were caused by exposure to the corrosive “salt air” environment over an extended period of time. It is also possible the age of the parts may have contributed to the failure.

Part total time-7,620 hours.

Piper; Model PA 28-180; Cherokee; Vertical Stabilizer Damage; ATA 5530

During a scheduled inspection, a technician discovered structural damage on the vertical stabilizer.

The technician removed the rudder to fully access the condition of the vertical stabilizer. The damage was located on the lower right side of the aft end of the vertical stabilizer (P/N 66975). The aft web was bent and cracked to approximately the midpoint. (Refer to the illustration.) It appeared the vertical stabilizer damage was caused by impact of a foreign object.



Part total time-1,408 hours.

Piper; Model PA 28-181; Archer; Flight Control Cable Defect; ATA 2730

During a scheduled inspection, an inspector discovered both forward stabilator control cables were severely worn. Also, the left aileron balance cable was excessively worn.

The damage was adjacent to pulleys and fairleads where the cables are required to change direction. The submitter stated, “The cable damage was caused by “substandard cable and improper cable alignment by the manufacturer.”

The submitter recommended that operators conduct more aggressive flight-control cable inspections.

Part total time-2,592 hours.

Piper; Model PA 28R-201T; Turbo Arrow; Turbocharger AD Compliance; ATA 8120

During an annual inspection, a technician attempted to verify the turbocharger housing part number. The part number was necessary to determine the applicability of Airworthiness Directive (AD) 82-27-03.

The technician could not locate the part number marking on the turbocharger housing (P/N 600510-4C) without removing the unit. He found the part number was not included in the applicability statement of the AD. Even though the AD was not applicable to this unit, he inspected the housing in accordance with the AD. He discovered the turbocharger housing was cracked as described in the AD inspection criteria. He replaced the housing with a newly designed part (P/N CF600510-0004D).

The submitter suggested closely inspecting the turbocharger housing during scheduled inspections, regardless of the part number applicability.

Part total time not reported.

Piper; Model PA 28R-201; Arrow; Nose Landing Gear Defect; ATA 3230

After returning from a flight, the pilot reported hearing a loud bang when he retracted the landing gear after takeoff. A few seconds later, the nose gear “down-and-locked” light illuminated. He extended the gear and made a safe landing.

A technician discovered the nose gear clevis bolt (P/N 400-873 or AN23-21A) was missing. The clevis bolt attaches the nose gear actuator to the down-lock assembly (P/N 67150-04). Evidently, the clevis bolt broke, both halves migrated out, and were lost. The nose gear down-lock assembly was partially damaged when the bolt separated; however, it held up during the landing sequence.

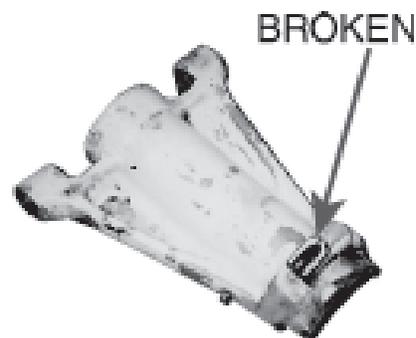
The submitter recommended removing the clevis bolt for a close inspection each 100-hours of operation.

Part total time-820 hours.

Piper; Model PA 28RT-201; Arrow IV; Nose Landing Gear Defect; ATA 3222

While conducting an annual inspection, the inspector discovered the nose landing gear strut housing was broken.

The nose gear strut housing (P/N 67054-03) boss was broken where the lower drag link attaches. Approximately half of the boss was missing. The remaining assembly was covered with grease, dirt, and other debris. (Refer to the illustration.) This discrepancy was only found after the technician cleaned the excessive grease from the assembly. He could not determine how long the part had been broken.



The submitter speculated the damage was caused by hard landings and/or misrigging the retraction system.

Part total time-5,554 hours.

Piper; Model PA 34-200; Seneca; Wing Flap Failure; ATA 5744

This aircraft was owned and operated by a certified flight school. It was being used for an instructional flight when the incident occurred.

During a landing approach (500 feet AGL), the student pilot applied the last notch of wing flaps, and the aircraft began an uncommanded roll to the right. The roll continued even when the student pilot applied full left aileron. The instructor pilot made an unsuccessful attempt to retract the flaps.

The instructor observed the right flap had separated from the two outboard hinge points and folded upward and aft to a vertical trailing position. By reducing power on the left engine, he regained aircraft control at approximately 300 feet AGL. To maintain directional control through the landing, he had to vary engine power and use approximately a 10-degree side-slip.

While inspecting the aircraft, a technician found the wing flap interior was severely corroded at the interfaces of the aluminum nose ribs (P/N 62328-00 and P/N 62328-01) and the steel flap hinge brackets (P/N 65899-00). The nose ribs were worn almost to the point of disintegration. Evidence indicated the flap had been opened for maintenance prior to this incident. Due to the corrosion on the steel hinge brackets, the two outboard hinge points failed. (Refer to the illustration.)



It is amazing that the flap did not completely separate from the aircraft. There was evidence of corrosion on the exterior of the wing flap, which should have led maintenance personnel to investigate further.

This incident was very close to a catastrophic double fatality accident. All operators are urged to check for similar defects as soon as possible.

Part total time not reported.

Piper; Model PA 44-180; Seminole; Engine Air Intake Damage; ATA 7160

During a scheduled inspection, a technician discovered that both engine carburetor heat airboxes were damaged.

The right engine carburetor heat airbox (P/N 86245-834) was cracked at the “hot air inlet” where the tube is welded to the airbox. The crack was adjacent to the weld and traveled approximately half way around the tube circumference.

The left engine airbox was cracked at the “cold air inlet.” The crack extended almost all the way around the tube circumference. The tube was in imminent danger of complete separation from the airbox.

The submitter stated, “The poor airbox design and/or deficient welds at the junction of the hot and cold inlet tubes and the airbox might cause these defects.” Also, he expressed his past experience with several other similar failures involving like aircraft in his fleet. He stated, “The new airboxes seldom last more than a few hundred hours before cracks are detected.” He recommended that the manufacturer consider design changes to improve the structural integrity of the airbox installation.

Part total time-324 hours left and 199 hours right.

Piper; Model PA 46-310P; Malibu; Deice System Inoperative; ATA 3010

The aircraft was delivered to a maintenance shop with a report that the deice boots were inoperative.

A technician investigated the report and found the deice system manifold valve (P/N 474-142) was broken. He did not give a cause for the break.

The submitter recommended the manufacturer establish a "life limit" for the manifold valve.

Part total time-3,975 hours.

ZENAIR**Zenair; Model CH-2000; Pitot Static System Defect; ATA 3411**

During a scheduled inspection, a technician discovered a problem with the pitot static system.

The technician found the line connected to the pitot static system mast was loose. He was able to remove the line nut from the fitting with his fingers. This installation uses plastic ferrules in combination with a brass nut. He speculated that exposure to the heat generated by the pitot static system caused the ferrules to shrink.

The submitter recommended the manufacturer consider using brass ferrules instead of plastic ferrules.

Part total time not reported.

HELICOPTERS**BELL****Bell; Model 407; Premature Bearing Failure; ATA 7921**

A short time after complying with the requirements of Airworthiness Directive (AD) 2002-06-52 and Bell Service Bulletin ASB-407-01-44, a technician found that the bearing grease was a dark gray color.

In accordance with AD 2002-06-52, the engine oil cooler blower bearing (P/N 407-340-339-101) grease color is white. The maintenance shop technicians discussed this problem with technicians from another maintenance facility, who had experienced problems with premature bearing failures. AD 2002-06-52 states that if the grease expelled from the oil cooler blower bearing has turned black, the bearing must be removed from service. The manufacturer's Product Support Department concurred that these bearings should be removed from service.

The submitter believes these bearings and/or the grease (Royco 13) cannot hold up to the heat generated by the bearing rotation speed and the bearing location. Until a permanent fix is offered, he recommended decreasing the lubrication frequency from 100 hours to 25 hours, which coincides with the inspection frequency required by AD 2002-06-52.

Part total time-243 hours.

EUROCOPTER

Eurocopter; Model AS-350B2; Ecureuil; Tail Rotor Control Anomaly; ATA 6720

During a scheduled inspection, a technician complied with Eurocopter Service Letter (SL) 1535-67-01. This SL gives procedures for inspecting the tail rotor control assembly for elongation of a hole on the yaw control compensator lever.

The technician removed the control unit and discovered the bearing had seized. The bearing still had very limited movement in the small range it uses for operation; however, it was not in an airworthy condition. In accordance with the SL, the inspection frequency for the elongated hole is 1,000 hours or 4 years.

The submitter stated this was the third such occurrence in this fleet of helicopters, and each failure happened with approximately the same number of operating hours. He urged concerned personnel to comply with SL 1535-67-01, and check the bearing for condition and freedom of movement at the same time. It might be wise to check this installation at more frequent intervals.

Part total time-3,267 hours.

SIKORSKY

Sikorsky; Model S-64E; Skycrane; Main Rotor Gearbox Damage; ATA 6330

During an inspection, a technician discovered corrosion damage on the main rotor gearbox lower support.

The technician removed the gearbox lower support (P/N 6435-20026-012) from service, and sent it to a shop for repair. Several years passed before the part was machined to remove the corrosion. After the machine work was accomplished, he noticed a crack in mounting lug hole number 4 as installed on the aircraft. He performed a dye-penetrant inspection on the assembly to confirm the crack characteristics and discovered two additional cracks. There were three total cracks confirmed, two in mounting lug hole number 4 and one in mounting lug hole number 1. The longest crack was approximately .75 inch long and began at the lower mating surface and extended at an angle through the 45 degree chamfer and into the wall of the mounting hole.

The submitter recommended closely inspecting the mounting holes for corrosion and cracks at frequent intervals.

Part total time since overhaul-1,297 hours.

Sikorsky; Model S-76B; Defective Cowling Security; ATA 7110

While closing the upper left engine cowling, the latching mechanism broke.

As the technician actuated the cowling latch assembly the cable (P/N 76302-07593-102), and the engagement pin broke. The cable assembly failed at the threaded area of the end fitting. This left the cowling segment in an unsafe condition, which could cause damage or separation during flight.

The submitter related this has been a repetitive failure item. He recommended closely inspecting the cowling latching mechanism at frequent intervals.

Part total time not reported.

AMATEUR, EXPERIMENTAL, AND SPORT AIRCRAFT

LANCAIR

Lancair; Model 235; Nose Landing Gear Defect; ATA 3221

After takeoff, the pilot placed the landing gear control in the “up” position. It seemed that the main gear wedged and would not fully retract. He placed the gear control in the “down” position, but the nose gear failed to extend. All attempts to extend the nose gear failed, and he landed the aircraft with only the main gear extended.

The inspector found the nut/bolt combination used to hold “preload” on the main gear shock “donuts” had failed. This allowed the main gear struts to overextend and wedge in the wheel wells during the attempted retraction cycle. An inspection of the nut and bolt revealed the last two bolt threads were severely worn. The nut used for this installation was a fiber lock type nut, which had been removed four times without changing the nut.

The inspector examined the nose gear and found the engine mount/nose gear support tube was broken on the left side. He speculated the broken support tube allowed the nose gear to shift position enough to jam the gear in the wheel well, and prevented it from moving to the “down” position when the manual extension system was used. The cause of the broken support tube could not be determined.

Part total time-178 hours.

WAGAERO

Wag Aero; Model 2+2; Sportsman; Engine Exhaust System Failure; ATA 7810

This aircraft uses a Textron Lycoming Model O-290 engine with a dual exhaust system.

Just after takeoff, the pilot noticed a loss of engine power and smoke and fumes in the cockpit. He made an off-airport landing, and the aircraft sustained damage.

After the aircraft came to rest, the pilot discovered the left exhaust manifold was broken between the two left cylinder ports and the “Y” pipe. The broken manifold appeared to be “custom made,” and there were no identification markings on the assembly. Apparently, this unit was used instead of the stainless steel manifold that came with the engine.

The submitter recommended replacing any “custom made” exhaust components with those supplied by the manufacturer.

Part total time not reported.

AIRNOTES

SUBSCRIPTIONS

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ELECTRONIC VERSION OF MALFUNCTION OR DEFECT REPORT

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

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

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

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

SERVICE DIFFICULTY REPORTING PROGRAM

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

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

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

The consolidation, collation and analysis of the data, and the rapid dissemination of trends, problems and alert information to the appropriate segments of the aviation community and FAA effectively and economically provides a method to ensure future aviation safety.

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

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

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

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

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

Point of contact is:

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ADDRESS CHANGES

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

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IF YOU WANT TO CONTACT US

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

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You can access current and back issues of this publication from the internet at: <http://afs600.faa.gov>

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

AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports submitted between June 19, 2002, and July 10, 2002, which have been entered into the FAA Service Difficulty Reporting (SDR) System data base. This is not an all inclusive listing of Service Difficulty Reports. For more information, contact the FAA, Regulatory Support Division, Aviation Data Systems Branch, AFS-620, located in Oklahoma City, Oklahoma. The mailing address is:

FAA

Aviation Data Systems Branch, AFS-620

PO Box 25082

Oklahoma City, OK 73125

These reports contain raw data that has not been edited. If you require further detail please contact AFS-620 at the address above.

FEDERAL AVIATION ADMINISTRATION

Service Difficulty Report Data

Sorted by Aircraft Make and Model then Engine Make and Model. This Report Derives from Unverified Information Submitted By the Aviation Community without FAA review for Accuracy.

ACFT MAKE	ENG MAKE	COMP MAKE	PART NAME	PART CONDITION	DIFF-DATE	T TIME
ACFT MODEL	ENG MODEL	COMP MODEL	PART NUMBER	PART LOCATION	OPER CTRL NO.	TSO
REMARKS			ELT	FAULTY	06/13/2002	50
			AK450	CABIN	2002FA0000761	11
ELT INSTALLED NEW JUNE 2001, WITH NEW BATTERIES. IN MAY 2002, IT WAS FOUND THAT THE UNIT DID NOT TRANSMIT WHEN THE G SWITCH WAS ACTIVATED. THE BATTERIES ARE STILL GOOD AND THE UNIT APPEARS TO BE GOOD. IT HAS BEEN RETURNED TO AMERI-KING FOR REPAIR. FURTHER INQUIRY BY THE TECHNICIAN FOUND THREE OTHER UNITS INSTALLED IN AIRCRAFT THAT DID NOT WORK.						
	ALLSN		NOZZLE	DETACHED	05/15/2002	3803
	250C20B		23031938	TURBINE	2002FA0000685	
A FOREIGN OPERATOR REPORTED A SUDDEN LOSS OF POWER IN-FLIGHT WITH NOISE FROM IDLE TO SHUTDOWN. THE TURBINE ASSEMBLY WAS REMOVED AND RETURNED TO THE US REPAIR FACILITY THAT PERFORMED THE LAST OVERHAUL. THE NR 1 SECTION MADE NOISE WHILE TURNING BY HAD AFTER TURBINE WAS REMOVED FROM THE ENGINE. AT DISASSEMBLY, IT WAS NOTED THAT THE NR 2 NOZZLE DIAPHRAGM BRAZE JOINT WAS COMPLETELY GONE, ALLOWING THE DIAPHRAGM TO DETACH AND MOVE INTO NR 1 AND NR 2 TURBINE WHEELS. SEPARATION OF THE DIAPHRAGM FROM THE NOZZLE INNER BAND DOES NOT ALLOW PROPER AIRFLOW THROUGH THE NOZZLE VANES. THIS FAILURE OF THE BRAZE JOINT CAUSED EXTENSIVE DAMAGE TO THE TURBINE ASSEMBLY, INCLUDING REPLACEMENT OF NR 1 AND NR 2 TURBINE WHEELS.						
	CONT	CONT	COUNTERWEIG	SEPARATED	04/19/2002	
	IO520D	639134	639195	CRANKSHAFT	CA020606009	
(CAN) ROLLER RETAINING PLATE VIBRATED THROUGH SIDE OF COUNTERWEIGHT ALLOWING ROLLER TO FALL OUT. COUNTERWEIGHT THEN STRUCK CRANKCASE CAUSING NOISE. CRANKSHAFT CRACKED AT OPPOSITE BUSHING FROM OVERLOAD. CRANKCASE AND TWO PISTONS DESTROYED.						
	LYC		BUSHING	FAILED	04/23/2002	250
	IO720D1C		SL738190	COUNTER WEIGHT	AG2R04230201	
COUNTER WEIGHT BUSHINGS (PN LS73810) HAVE FAILED AT 2 TO 250 HOURS. IT APPEARS THAT THE MATERIAL MAY BE TOO SOFT. BUSHINGS WERE REMOVED BY OPERATOR AND SENT BACK FOR EVALUATION.						
ARONCA			SPAR	CRACKED	06/14/2002	
15AC				WING	2002FA0000762	
DURING INSPECTION PER AD2000-25-02 R1 CRACKS FOUND IN LT FRONT SPAR APPROXIMATELY THE OUTBOARD 3 FEET AND ON THE RT FRONT SPAR FROM THE STRUT ATTACH POINT OUTBOARD. RIB NAILS MISSING ON THE RIB JUST OUTBOARD OF THE STRUT ATTACH POINT AND SPAR DAMAGE ACROSS THE TOP OF THE SPAR UNDER THE RIB.						
BEECH	PWA		RIB	CORRODED	06/05/2002	
1900D	PT6A67D		11812004826	WING, RIB/BULKHE	AUS20020579	
(AUS) RH WING CORRODED IN AREA OF LOWER AFT INBOARD CORNER. CORROSION AFFECTED LOWER WING SKIN, REAR SPAR AND THE UPPERSURFACE OF THE HORIZONTAL LEG OF THE CENTRE WING MAIN RIB.						
BEECH	CONT		CRANKSHAFT	SHEARED	05/13/2002	800
58TCA	TSIO520L		633620	ENGINE	2002FA0000695	
AIRCRAFT LANDED WITH RIGHT ENGINE FEATHERED. REMOVED COWLING TO INVESTIGATE ENGINE STOPPAGE REMOVED TOP SPARK PLUGS, FOUND WHEN TURNING PROPELLER THAT IT WOULD ONLY MOVE ONE REVOLUTION THEN LOCKUP. WHEN LOOKING IN CYLINDERS ONLY FRONT TWO, NR 5 AND NR 6 PISTONS WERE MOVING. NOTIFIED OWNER THAT CRACKSHAFT APPEARED TO BE BROKEN. BY CRANKSHAFT CHEEK NR 7.						
BEECH	PWA		WINDSHIELD	FAILED	03/22/2002	1395
B300	PT6A11		10138402521	COCKPIT	2002FA0000696	
WAS AT FL 280 WHEN LOUD POP WAS HEARD AND SAW THE PILOT FRONT WINDSHIELD WAS SHATTERED. INITIATED AND EMERGENCY DESCENT AND LANDED AT AIRPORT FOR REPAIRS.						
BEECH			RIB	CORRODED	05/09/2002	2951
C24R			16916000511	TE FLAP	2002FA0000729	
DURING DISASSEMBLY FROM A BELLY LANDING, FOUND SEVERE CORROSION BETWEEN INBOARD FLAP HINGE (PN 169-160005-20). PARTS WERE ON THE VERGE OF FAILURE. THIS AREA IS TOTALLY INACCESSIBLE FOR INSPECTION WITHOUT DRILLING THE FLAP APART.						
BEECH	CONT		PUMP	BROKEN	05/31/2002	
D35	E18511		8773	ENGINE FUEL	2002FA0000741	
FOLLOWING AN INFLIGHT ENGINE STOPPAGE, THE AIRCRAFT WAS FORCED TO MAKE AN UNSCHEDULED LANDING CAUSING SUBSTANTIAL DAMAGE TO THE AIRCRAFT. THE AIRCRAFT ENGINE WAS SENT TO A FACILITY APPROVED BY THE NTSB TO DETERMINE CAUSE OF THE ENGINE FAILURE. DURING THIS TIME IT WAS DISCOVERED THAT THE ENGINE DRIVEN FUEL PUMP WAS BROKEN. THE AIRCRAFT HAD PLENTY OF FUEL AT THE TIME OF THE ACCIDENT. THE FUEL PUMP WAS SENT TO THE NTSB LABORATORY FOR EXAMINATION BY THE METALLURGISTS.						
BEECH	CONT		FILTER	CRACKED	05/07/2002	
F33A	IO520*		BA7210	INDUCTION SYS	2002FA0000687	
DURING INSPECTION OF BRACKET ENGINE INDUCTION AIR FILTER FRAME ASSEMBLY FOUND THE (STEEL) SCREEN CRACKED AND SECTIONS MISSING NEAR THE RIVET RETAINING AREAS. SEE BRACKET AIR FILTER DOCUMENT.						
BEECH	CONT		FUEL CONTROL	INOPERATIVE	06/06/2002	
F33A	IO520*		6299042	ENGINE	2002FA0000715	
FLUCTUATION IN FUEL FLOW AND UNABLE TO ADJUST IDLE MIXTURE. THEY FOUND THAT THE MIXTURE CONTROL WAS STIFF WHEN MOVED, (POSSIBLE GALLING). FUEL CONTROL WAS REMOVED AND A NEW ONE INSTALLED, ENGINE WAS TRIMMED, TEST FLIGHT CHECKED NORMAL. FUEL CONTROL WAS SENT IN FOR WARRANTY.						
BEECH	CONT		PUMP	FAILED	06/04/2002	312
F33A	IO520*		7429322	ENGINE DRIVEN	2002FA0000716	
IN FLIGHT, THE ENGINE WAS ROUGH AND FUEL FLOW WAS BELOW NORMAL AND FLUCTUATING AT THAT POWER SETTING. A SAFE LANDING WAS MADE. A GROUND CHECK OF THE ENGINE OPERATION WAS PERFORMED. IT WAS FOUND THAT THE ENGINE DRIVEN FUEL PUMP WAS SUCKING AIR THRU THE CASE DRAIN VENT. PUMP WAS REMOVED AND AN NEW PUMP INSTALLED. PUMP SENT IN FOR WARRANTY.						

BEECH F33A	CONT IO520BA	CONT IO520BA	MUFFLER K70105	DISTORTED ENGINE NOISE SUP	05/31/2002 AUS20020560	
(AUS) RH MUFFLER BUCKLED AND DISTORTED IN AREA UNDER THE HEATER SHROUD. ONE HEAT TRANSFER STUD MISSING. EXHAUST GAS ESCAPING INTO CABIN HEATER SYSTEM.						
BEECH F33A	CONT IO520BB		RELAY	FAILED LANDING GEAR	06/17/2002 2002FA0000765	518
LANDING GEAR FAILED TO EXTEND IN FLIGHT, GEAR WAS HAND CRANKED DOWN AND A SAFE LANDING WAS MADE. AIRCRAFT WAS PLACED ON JACKS AND THE LANDING GEAR CYCLED IAW MM. THE RELAY CONTROL STICK IN THE UP POSITION WHEN THE GEAR WAS CYCLED. RELAY WAS REMOVED AND A NEW RELAY INSTALLED. LANDING GEAR OPERATIONAL CHECK OF THE SYSTEM WAS MADE. LANDING GEAR CHECKED NORMAL.						
BELL 205A1	LYC T5313B	BELL 02W1633140	VALVE SEAT 02W116213	FAILED VALVE SEAT	05/30/2002 CA020611003	
(CAN) DURING THE SCHEDULED 25 HOUR INSPECTION THE AME NOTED THAT THE VALVE SEAT, P/N 02W116-213 HAD UNSCREWED ITSELF FROM THE FILTER BODY P/N 02W1633-140 AND DAMAGED THE FILTER, WAFER P/N B19056. THE VALVE SEAT WAS SECURED AND THE FILTER, WAFER WAS REPLACED.						
BELL 206B	ALLSN 250C20B	BENDIX	GOVERNOR 23065121	FAILED INTERNAL	06/24/2002 CA020702003	
(CAN) PILOT NOTICED THAT RESPONSE TO RPM CHANGES WAS GETTING SLOWER UNTIL GOVERNOR WOULD NOT KEEP UP TO THE RPM CHANGES. GOVERNOR WOULD DROOP UPON COLLECTIVE UP MOVEMENT BUT WOULD NOT RECOVER OR INCREASE RPM. THE SAME FOR COLLECTION DOWN MOVEMENT, THE RPM WOULD OVERSPEED AND WOULD NOT RECOVER AND BE CONTROLLED. SIMILAR OCCURRENCES HAVE HAPPENED AS REPORTED BEFORE AND INDICATED FAILURE IN A SHORT TIME TO COME. REMOVED AT A/F 11294.6 JUNE 24/02 INSTALLED AT A/F 11063.7 JAN 03/02 TIME SINCE REPAIR 230.9 HOURS						
BELL 212	PWA PT6T3	BELL 212040001059	BEARING 204040424001	FAILED HYDRAULIC QUILL	05/19/2002 CA020621010	
(CAN) SUMP CHIP INDICATION DURING GROUND RUN PRIOR TO FLIGHT. METAL CONTAMINATION OF INTERNAL FILTER AND SUMP CHIP PLUG. TRANSMISSION REMOVED FROM SERVICE, TEARDOWN CARRIED OUT AT HELIPRO FACILITY IN LANGLEY, BC 21-JUN-02. HYDRAULIC QUILL DUPLEX BEARING IDENTIFIED AS SOURCE OF METAL GENERATION.						
BELL 407	ALLSN 250C47B	23063393	BEARING 6895007	GALLED GEARBOX	05/28/2002 ALGA079296	683
T/M JOURNAL AND INNER RACE FOUND EXCESSIVE GALLING, CAUSING METAL CONTAMINATION.						
BNORM BN2B21	LYC IO540K1B5		HINGE NB310077	CRACKED ELEVATOR	06/08/2002 CA020610007	
(CAN) DURING POST FLIGHT WALKAROUND A CRACK WAS NOTICED IN THE ELEVATOR OUTBOARD-HINGE, INBOARD-BRACKET. THIS BRACKET IS THE SUBJECT OF A 100 HOUR REPETITIVE INSPECTION UNDER BN2/SB.259. THE PREVIOUS INSPECTION 90 HOURS EARLIER SHOWED NO PROBLEMS. THE CRACK EXTENDED FROM THE LOWER FORWARD CORNER TO THE LOWEST FORWARD RIVET ON THE DISTANCE PIECE. AS WELL UPON REMOVAL OF THE ELEVATOR THE RIVETS HOLDING THE DISTANCE PIECE ON THE OUTBOARD SIDE OF THE HINGE WERE FOUND PULLED THROUGH THE RIB.						
CESSNA 152	LYC O235L2C		FORK 04425037	CRACKED MLG STRUT	06/19/2002 CA020619004	
(CAN) DURING ROUTINE INSPECTION WE TOOK A CLOSE LOOK AT THE OLEO ASSEMBLY BASED ON PREVIOUS FINDINGS OF LIKE PARTS. THE PRIMARY REASON FOR THIS DETAILED INSPECTION IS BASED UPON THE KNOWN HIGH TIME AND OPERATING ENVIRONMENT OF THESE UNITS. WE DETECTED A CRACK ON THE OUTER TOP SURFACE WHERE THE FORK CURVES. THE PART WAS REMOVED FROM SERVICE AND REPLACED WITH A SERVICEABLE UNIT.						
CESSNA 172D	CONT O300*		SELECTOR 05131206	MISINSTALLED COCKPIT	05/13/2002 2002FA0000697	
SPRING WAS INSTALLED BACKWARD. FUEL WOULD NOT SHUT OFF LEFT TANK. TO PREVENT RECURRENCE VALVE SHOULD BE INSPECTED AFTER OVERHAUL.						
CESSNA 172G	LYC O320E2D		SPAR	CRACKED HORIZONTAL STAB	06/13/2002 CA020617002	
(CAN) DURING A RECENT PAINT SHOP VISIT IT WAS DISCOVERED THAT A SIGNIFICANT NUMBER OF SERIOUS STRUCTURALLY DAMAGED AREAS WERE AHMMERED OUT WITH A DOLLY, NOT REINFORCED, AND EITHER FILLED IN WITH BODY PUTTY OR COERED OER WITH A PATCH. THE LEFT WING MAIN SPAR APPEARS TO HAVE BEEN STRAIGHTENED AND NOT REINFORCED. BLIND FASTENERS WERE USED TO ATTACH A PORTION OF THE LEADING EDGE CONTRARY TO THE MAINTENANCE MANUAL. THE HORIZONTAL STABILIZER SPAR WAS FOUND TO BE CRACKED AND BUNCKLED, ETC. ETC..... THE 'REPAIRS' APPEAR TO HAE BEEN DONE SOME 20 YEARS AGO. THE AIRCRAFT HAS BEEN REMOVED FROM THIS LOCATION AND WILL BE REPAIRED AT SOME UNKNOWN FACILITY.						
CESSNA 172P	LYC O320D2J	CESSNA 04425121	SHAFT 05421011	SHEARED SHIMMY	05/08/2002 CA020619003	
(CAN) SEVERE NOSEWHEEL SHIMMY REPORTED AFTER LANDING. INSPECTION OF THE DEFECT BY MAINTENANCE REVEALED THAT THE SHAFT WAS SHEARED. THE DAMPENER UNIT REMAINED ATTACHED BUT IN TWO SEPARATE PARTS PREVENTING IT FROM FUNCTIONING AS DESIGNED. NO FURTHER DAMAGE WAS FOUND AND THE UNIT WAS REMOVED FROM SERVICE. A REPLACEMENT UNIT WAS INSTALLED.						
CESSNA 172P	LYC O320D2J		SKIN 05135212	CORRODED FUSELAGE	06/10/2002 CA020619006	12312
(CAN) DURING A T.C. AUDIT INSPECTION INTERGRANULAR CORROSION WAS OBSERVED. THE AREA IS THE TOP SKIN FORWARD OF WINDSCREEN ON THE LEFT SIDE. THERE IS A HOLE APPROXIMATELY 1/2 INCH IN DIAMETER. AT THIS POINT, THERE IS ALSO "BUBBLING" OF THE PAINT ON THE RIGHT SIDE. THE PATTERN FOLLOWS THE TOP OF THE STEEL FIREWALL. AT THIS TIME THE TOTAL EXTENT OF THE DAMAGE OR IT'S CAUSE IS NOT KNOWN.						
CESSNA 172R	LYC IO360L2A	CESSNA 04425121	SHAFT 05421011	SHEARED MLG DAMPENER	06/18/2002 CA020619002	
(CAN) INVESTIGATION OF A SEVERE NOSEWHEEL SHIMMY REPORT REVEALED THAT THE SHIMMY DAMPENER SHAFT HAD SHEARED. BOTH HALVES OF THE ASSEMBLY REMAINED ATTACHED BUT THE UNIT COULD NO LONGER FUNCTION AS DESIGNED. THE FAULTY UNIT WAS REMOVED FROM SERVICE AND REPLACED WITH A SERVICEABLE UNIT. CAUSE OF DEFECT IS UNKNOWN AT THIS TIME.						
CESSNA 172S	LYC	CESSNA	SWITCH CM358910	FAILED LANDING LIGHT	06/05/2002 2002FA0000756	1660
LANDING LIGHT SWITCH FAILED IN THE ON POSITION. THE SWITCH WAS TURNED OFF AFTER LANDING AND WHILE TAXI TO PARKING NOTED THE LIGHT WAS STILL ON AND THE SWITCH WAS IN THE OFF POSITION. THE LANDING LIGHT WOULD ONLY TURN OFF WITH THE BATTERY SWITCH. THIS IS A CIRCUIT BREAKER SWITCH, IF A SHORT HAD OCCURED THE WIRES WOULD HAVE BURNED UP.						
CESSNA 172S	LYC	CESSNA	SWITCH CM358910	FAILED LANDING LIGHT	06/05/2002 2002FA0000757	
TAXI LIGHT SWITCH FAILED WITH THE LIGHT IN THE OFF POSITION. THIS IS A CIRCUIT BREAKER SWITCH AND THIS OPERATOR HAS HAD THREE PREVIOUS FAILURES THE OTHER FAILURES WERE WITH THE SWITCH IN THE ON POSITION.						
CESSNA 172S	LYC	CESSNA	SWITCH CM358910	FAILED LANDING LIGHT	06/05/2002 2002FA0000758	1660

TAXI LIGHT SWITCH FAILED WITH THE LIGHT IN THE OFF POSITION. THIS IS A CIRCUIT BREAKER SWITCH. THIS OPERATOR HAS HAD THREE PREVIOUS FAILURES, THE FAILURES WERE WITH THE SWITCH IN THE ON POSITION.

CESSNA	LYC	ALTERNATOR	MALFUNCTIONED	05/20/2002	721
172S	IO360A1A	991059111RX	ENGINE	2002FA0000732	

ALTERNATOR MALFUNCTIONED. NO OUTPUT. DISASSEMBLED, FOUND ONE BRUSH WORN AND OTHER MISSING. I SUSPECT BRUSH WAS WORN TO THE POINT THAT THE SPRING FOUND ITS WAY TO THE COMMUTATOR, WRAPPING ITSELF AROUND IT. BRUSH NOT LOCATED.

CESSNA	LYC	BULKHEAD	CRACKED	06/03/2002	
172S	IO360L2A	055032111	SPINNER	CA020606017	

(CAN) AFT SPINNER BULKHEAD FAILED AT RADIUS OF FLANGE AT CUTOUT FOR PROPELLER. SPINNER DISTORTED AS RESULT OF THE BULKHEAD FAILURE.

CESSNA	LYC	PUMP	FAILED	05/21/2002	
172S	IO360L2A	LW15473	FUEL SYSTEM	CA020610004	

(CAN) FOLLOWING THE SB OF THE CESSNA 01-73-01A, A NEW MECHANICAL FUEL PUMP WAS INSTALLED. WE BELIEVE THE PUMP WAS DEFECTIVE, BECAUSE IT WAS NOT POSSIBLE FOR US TO HAVE RPM HIGHER THAN 1900. MOREOVER, AT 1900 RPM, A REDUCTION IN FUEL FLOW WAS NOTICED. FOR NOW, WE INSTALLED THE OLD PUMP UNTIL THE NEW PUMP ARRIVES.

CESSNA	LYC	ALTERNATOR	FAILED	06/12/2002	1172
172S	IO360L2A	991059111	ENGINE	2002FA0000731	

CHARGING SYSTEM CEASED TO FUNCTION. DIAGNOSIS WAS ALTERNATOR FAILURE, PROBABLY BREAKDOWN OF DIODES. NO EXTERNAL SIGNS OF FAILURE.

CESSNA	CONT	NOZZLE	LOOSE	06/03/2002	435
182L	O470R	16A30	CARBURETOR	2002FA0000751	

AIRCRAFT MADE AN EMERGENCY LANDING DUE TO LOSS OF POWER. FOUND CARBURETOR MAIN JET VERY LOOSE (REQUIRED TWO COMPLETE FINGER TIGHT TURNS TO TIGHTEN). THE TAB WASHER THAT LOCKS THE MAIN JET HAD NOT BEEN LOCKED, ALL THE TABS WERE FLAT IN A "AS NEW" CONDITION.

CESSNA	LYC	LYC	CONNECTING	BROKEN	05/14/2002
182S	IO540AB1A5	IO540AB1A5	LW13865	1	CA020617003

(CAN) CONNECTING ROD APPEARS TO HAE BROKEN 1" OUT FROM CRANKSHAFT JOURNAL. THIS FLAILED ITSELF AROUND UNTIL THE CONNECTING ROD CAP DEPARTED AND THE PIECES BROKE THE CASE 60% OF THE WAY AROUND THE ENTIRE CASE AND DESTROYED THE CAMSHAFT AND JAMMED UP THE ENTIRE ENGINE. ENGINE WAS REMOVED AND SENT TO LYCOMING FOR ANALYSIS.

CESSNA		BRACKET	CORRODED	05/16/2002	
190		0322709	AILERON HINGE	2002FA0000735	

BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. WE HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.

CESSNA		BRACKET	CORRODED	05/16/2002	
190		0322709	AILERON HINGE	2002FA0000745	

BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.

CESSNA		BRACKET	CORRODED	05/16/2002	
190		0322709	AILERON HINGE	2002FA0000748	

BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.

CESSNA		BRACKET	CORRODED	05/16/2002	
195		0322709	AILERON HINGE	2002F00637	

BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. REMOVE BRACKETS FROM AIRCRAFT AND BEAD BLAST BODY WHILE PROTECTING BEARING.

CESSNA		BRACKET	CORRODED	05/16/2002	
195		0322709	AILERON HINGE	2002FA0000738	

BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. WE HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.

CESSNA		BRACKET	CORRODED	05/16/2002	
195		0322709	AILERON HINGE	2002FA0000744	

BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.

CESSNA		BRACKET	CORRODED	05/16/2002	
195		0322709	AILERON HINGE	2002FA0000746	

BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.

CESSNA		BRACKET	CORRODED	05/16/2002	
195A		0322709	AILERON HINGE	2002FA0000734	

BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.

CESSNA 195A	JACOBS L6	BRACKET 0322709	CORRODED AILERON HINGE	05/16/2002 2002FA0000733
BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. WE HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS. IF BRACKETS ARE GOOD,				
CESSNA 195A	JACOBS R7557	BRACKET 0322709,032270	CORRODED AILERON HINGE	05/16/2002 2002FA0000701
THESE BRACKETS ARE MADE OF MAGNESIUM AND ARE CORRODING AND CRACKING TO AN ALARMING DEGREE. THE ORIGINAL ALUMINUM PAINTALONG WITH TODAYS MODERN URETHANES ARE CONCEALING THE MAGNITUDE OF THIS PROBLEM. APPROX 80 PERCENT OF THE BRACKETS WE HAVE INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. THEN THERE IS THE PROBLEM OF CORROSION BETWEEN THE BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. THE SEPERATION OF THE AILERON FROM THE REAR WING SPAR WHILE STILL ATTACHED TO THE STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. WE HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS. BEAD BLAST BODY WHILE PROTECTING THE BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE THE CORROSION BY PRODUCTS.				
CESSNA 195B		BRACKET 0322709	CORRODED AILERON HINGE	05/16/2002 2002FA0000736
BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. WE HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.				
CESSNA 195B		BRACKET 0322709	CORRODED AILERON HINGE	05/16/2002 2002FA0000737
BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. WE HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.				
CESSNA 195B		BRACKET 0322709	CORRODED AILERON HINGE	05/16/2002 2002FA0000739
BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.				
CESSNA 195B		BRACKET 0322709	CORRODED AILERON HINGE	05/16/2002 2002FA0000742
BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.				
CESSNA 195B		BRACKET 0322709	CORRODED AILERON HINGE	05/16/2002 2002FA0000747
BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 80 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OFAILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING. CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.				
CESSNA 208	PWA PT6A114	8000	FITTING 8A02195006	ELONGATED LEFT STRUT
06/10/2002 CA020612005 (CAN) DURING REINSTALLATION OF FLOATS, BOTH LT FORWARD STRUT ATTACH FITTINGS WERE NOTED TO HAVE ELONGATED BOLT HOLES. AT CLOSER EXAMINATION YOU COULD SEE THAT THE HOLES WERE NOT WORN ELONGATED BUT THE POUNDING FORCE OF LANDING HAD ACTUALLY DISTORTED THE METAL AND PUSHED IT AWAY. RIGHT SIDE FITTINGS INSPECTED FOR SIMILAR DAMAGE (NO FAULTS FOUND) AND FLOATS INSPECTED FOR OTHER SIGNS OF STRESS. PARTS REPLACED WITH NEW AND AIRCRAFT RETURNED TO SERVICE.				
CESSNA 2105A	CONT IO470F	CONT IO470F	PISTON	BROKEN RECIPROCATING
06/06/2002 AUS20020564 (AUS) NO4 CYLINDER PISTON SKIRT BROKEN IN AREA BELOW THE BOTTOM PISTONRING. INVESTIGATION FOUND SIMILAR DAMAGE TO THE NO2 PISTON.				
CESSNA 210N	CONT IO520L	CESSNA 210N	BULKHEAD 2112136	CRACKED FUSELAGE MAIN, B
05/29/2002 AUS20020525 (AUS) REAR FUSELAGE BULKHEAD CRACKEDIN AREA OF TOP LH HORIZONTALATTACHMENT BOLT LOCATION.				
CESSNA 210N	CONT IO520L	CESSNA 210N	BRACKET 12324001LH	CORRODED FUSELAGE, MISCEL
05/29/2002 AUS20020526 (AUS) BRACKETS PNO 1232400-1 (LH) AND PNO 1232400-2 (RH) CORRODED.				
CESSNA 210N	CONT IO520L	MCAULY C290D4T4	CSU C290D4T4	LEAKING PROPELLER
05/16/2002 AUS20020546 (AUS) PROPELLER GOVERNOR (CSU) LEAKING OIL.				
CESSNA 305A	CONT O47011B		CYLINDER 654972A1	FAILED NR 6 POSITION
05/24/2002 2002FA0000728 (CYLINDER) FOUND HEAD OF CYLINDER NR6 SEPARATING FROM THE BARREL AT THE THREADED PORTION OF HEAD. VERIFIED ENGINE TIMING WAS CORRECT. NO EVIDENCE OF DETONATION FOUND. AL CYLINDER NEW AT OVERHAUL. AT 570 HOURS NR4 CYLINDER FAIL THE SAMEWAY. ALL CYLINDERS HAD SAME DATE CODE 5-99. APPEARS TO BE A MFG DEFECT.				
CESSNA 337G	CONT IO360D		RETAINER MS166251068	FAILED MLG DOOR
06/05/2002 CA020621007 (CAN) PILOT INBOUND FOR LANDING & SELECTED GEAR DOWN. REPORTED THAT GEAR DID NOT EXTEND & GEAR MOTOR CONTINUED RUNNING. BEGAN EMERGENCY EXTENSION OF GEAR WITH HAND PUMP BUT NO PRESSURE BUILDING ON HAND PUMP. SEVERAL PROCEDURES WERE CARRIED OUT BY PILOT & GROUND CREW, WITH NO SUCCESS. ON FLY BY IT WAS NOTED NOSE GEAR EXTENDED &				

SEEMED LOCKED, BUT MAIN GEAR HALFWAY EXTENDED. PILOT FINALLY EXECUTED GEAR UP LDG. ON INSPECTION OF MLG, IT WAS FOUND THAT REAR LT MLG DOOR ACTUATOR CYLINDER SEPARATED FROM PISTON ROD. PILOT REPORTED THAT HYDRAULIC FLUID AT NORMAL LEVEL.

CESSNA	CONT	BELLCRANK	CRACKED	06/18/2002	
414	TSIO520N	59420011	RADIUS-CNTRE BL	CA020626013	

(CAN) SMALL CRACK ON BOTH RADII OF CENTRE BLOCK ON BELLCRANK.

CESSNA	CONT	CESSNA	STRAP	FAULTY	05/30/2002
421C	GTSIO520L	421C	HDHEO00636	WING SPAR	AUS20020506

(AUS) AIRCRAFT HAS HDH SPAR STRAP MODIFICATION FITTED. INVESTIGATION FOUND NO EVIDENCE OF ONGOING NDT INSPECTION IAW HDHEDD/6 ISSUE 2 BEING CARRIED OUT. NDT TECHNIQUE IS NOT POSSIBLE IN THIS MODEL AIRCRAFT.

CESSNA	CONT	HOSE	CHAFED	06/03/2002	
441		CM3690A60XXX	HYD SYSTEM	CA020612002	

(CAN) HYDRAULIC FLUID LEAK, FROM BELLY THE MAIN LANDING GEAR RETRACTION LINE WAS RUBBING AGAINST A SCREW, THAT WAS HOLDING TWO CLAMPS AROUND TWO OTHER HYDRAULIC LINES UNDER THE RELAY BOX IN THE BELLY.

CESSNA	CONT	ANGLE	CRACKED	05/23/2002	
A185F	IO520D	07120487	TAILCONE	CA020606008	

(CAN) DURING SCHEDULED MAINTENANCE, IT WAS DISCOVERED THAT THE ANGLE - TAILCONE REINFORCEMENT RT IN THE TAILCONE BULKHEAD ASSEMBLY WERE CRACKED. NEW PARTS 0712048-7 (LT) AND 0712048-6 (RT) WERE INSTALLED USING THE EXISTING RIVET SIZE AND PATTERN.

CESSNA		BRACKET	CORRODED	05/16/2002	
LC126C		0322709	AILERON HINGE	2002FA0000743	

BRACKETS ARE MADE OF MAGNESIUM, CORRODING AND CRACKING. APPROXIMATELY 90 PERCENT OF THE BRACKETS INSPECTED BY BEAD BLASTING ARE UN-AIRWORTHY. PROBLEM OF CORROSION BETWEEN BEARING AND BOSS WHICH EXPANDS AND CRACKS THE BOSS. SEPARATION OF AILERON FROM REAR WING SPAR WHILE STILL ATTACHED TO STEEL ACTUATOR ROD WOULD MOST LIKELY RENDER THE AIRCRAFT UNCONTROLLABLE. HAVE BEEN URGING EVERYONE TO REMOVE THESE BRACKETS FROM THE AIRCRAFT AND BEAD BLAST THE BODY WHILE PROTECTING BEARING CHEMICALLY STRIPPING DOES NOT REMOVE CORROSION BY PRODUCTS.

CESSNA	CONT	MCAULY	CSU	FAULTY	03/05/2002
P210N	TSIO520P	C290D4T2	C290D4T2	PROPELLER	AUS20020547

(AUS) PROPELLER GOVERNOR (CSU) FAULTY. SUSPECT CAUSED BY FAULTY SPEEDER SPRING.

CESSNA	CONT	BUSHING	WORN	05/23/2002	1205
R172K	IO360K	632050	ALTERNATOR	2002FA0000683	

ENGINE DRIVEN ALTERNATOR DRIVE FOUND WORN.

CESSNA	CONT	BEARING	SEIZED	05/26/2002	
R172K	IO360KB	DOFF10300E	ALTERNATOR	CA020611004	

(CAN) ALTERNATOR FAILURE. REAR ROLLER BEARING SEIZED SHAFT CAUSING SHAFT TO SHEAR IMMEDIATELY AFT OF THE DRIVE ASSEMBLY. NO EVIDENCE OF OR ADEQUATE LUBRICANT IN AFFECTED BEARING. OTHER PARTS OF THE ALTERNATOR APPEARED IN GOOD CONDITION EXCEPT FOR THE BRUSHES WHICH WERE DAMAGED BY LOOSE ROLLERS AND DEBRIS FROM BEARING.

CESSNA	CONT	TRUNNION	COLLAPSED	04/04/2002	3437
T210N	TSIO520R	124340216	NLG	2002FA0000686	

WHILE RETRIEVING AIRCRAFT FROM NOSE GEAR COLLAPSE, FOUND LOWER TRUNNION ASSEMBLY. BROKEN AT AFT SIDE WHERE COLLAR WRAPS AROUND GEAR. APPEARS THERE WERE CRACKS AT LEFT AND RIGHT TOP CORNERS JUST FORWARD OF THE BRACE SUPPORT MOUNTS. THEY ARE IN A VERY DIFFICULT AREA TO SEE.

CESSNA	CONT	KEEL	CRACKED	05/30/2002	
U206G	IO520F	12136643	FUSELAGE MAIN, K	AUS20020507	

(AUS) FORWARD FUSELAGE RH KEEL MEMBER CRACKED IN UPPER FLANGE.

CESSNA	CONT	MCAULY	CSU	FAULTY	05/02/2002
U206G	IO520F	D3A32C90	C290D4T4	PROPELLER	AUS20020578

(AUS) CONSTANT SPEED UNIT (CSU) FAULTY.

CIRRUS		TUBE	LEAKING	05/23/2002	31
SR22			NOSE TIRE	2002FA0000740	

FOUND THE 5.00-5 NOSE TIRE TO HAVE A VERY SLOW LEAK. REMOVED TUBE AND FOUND IT TO BE LEAKING OUT OF SEVERAL EXTREMELY SMALL PIN HOLES WHERE THE VALVE STEM RUBBER IS BONDED TO THE TUBE. A BRAND NEW REPLACEMENT TUBE WAS FOUND TO HAVE THE SAME PROBLEM RIGHT OUT OF THE BAG. A THIRD REPLACEMENT TUBE TESTED SATISFACTORY.

DHAV	PWA	PWC	ENGINE	FAILED	06/19/2002
DHC2MK1	R985AN14B	R985AN14B	ENGINE	ENGINE	CA020626009

(CAN) SHORTLY AFTER TAKEOFF, ENGINE BACKFIRED, HESITATED AND CLEARED ITSELF 4 TIMES IN SUCCESSION. PILOT PERFORMED EMERGENCY LANDING AT BRAMPTON AIRPORT, WAS UNABLE TO LOWER GEAR IN TIME, AND LANDED ON FLOAT KEELS. DAMAGE TO FLOATS KEELS SUSTAINED. CAUSE OF BACKFIRING UNDER INVESTIGATION, FOLLOW-UP REPORT WILL BE ISSUED.

DHAV	PWA	FITTING	WORN	06/13/2002	
DHC3	PT6A34	C3WF24	CENTER FOREFLAP	CA020613001	

(CAN) PUSH PULL ROD ATTACH POINT ON THE FOREFLAP HAD PLAY. UPON INSPECTION WE FOUND THAT THE RIBS HOLDING THE BRACKET FOR THE PUSH PULL ROD WAS CRACKED AND HAD LOOSE RIVETS.

DHAV	PWA	PWA	GEARBOX	SEIZED	04/10/2002
DHC6300	PT6A34	PT6A34	3037080	TURBINE ENGINE R	AUS20020572

(AUS) LH ENGINE REDUCTION GEARBOX SEIZED. METAL CONTAMINATION OF OIL SYSTEM.

DHAV	PWA	ACTUATOR	FAILED	05/28/2002	
DHC8*	PW123		MLG	CA020613002	

(CAN) WHEN LANDING GEAR RETRACTION SELECTED LT MLG DID NOT LOCK UP, DOORS DID NOT CLOSE. UNCONFIRMED THAT THE DOORS INDICATED CLOSED, ALSO UNCONFIRMED THAT THE NOSE GEAR DOOR DID NOT CLOSE. SUBSEQUENT TEST FLIGHTS INDICATED DIFFERENT SCENARIOS WITH NLG SOMETIMES UNLOCKED SOMETIMES ALL OKAY. MLG WAS CONSISTENT IN THAT IT NEVER SHOWED LOCKED. RT MLG BEHAVED NORMALLY. UNABLE TO REPRODUCE THE FAULT ON THE GROUND/ON JACKS. THE RETRACTION ACTUATOR BRACKET WAS BROKEN CREATING THE PROBLEM. BRACKET REPLACED. AIRCRAFT RETURNED TO SERVICE.

DHAV	PWA	DHAV	WINDOW	FRACTURED	06/13/2002
DHC8102	PW120A	85323917001	75620003103	PASSENGER	AUS20020592

(AUS) RH SIDE PASSENGER WINDOW OUTER PANE CRACKED.

DHAV	PWA	LORINORDAM	OIL COOLER	LEAKING	06/17/2002
DHC8102	PW120A	28E997		GASKET	CA020620006

(CAN) #2 ENGINE OIL PRESSURE BETWEEN 45-65 PSI. MASTER WARNING OIL PRESSURE LIGHT #2 ALSO FLASHING. #2 ENGINE FEATHERED. OIL PRESSURE STEADY AT 50 PSI. #2 ENGINE OIL COOLER FOUND LEAKING, REPLACED. TIMES AND CYCLES UNKNOWN AT THIS TIME.

DHAV	PWA	CUSTOMCNTRL	PRESSURE		06/26/2002
DHC8102	PW120A	7G772		INTERNAL	CA020627003

(CAN) PILOT REJECTED TAKEOFF DUE TO ROLL SPOILER OUTBOARD HYDRAULIC CAUTION LIGHT ILLUMINATED.#2 HYDRAULIC SYSTEM ROLL SPOILER PRESSURE SWITCH REPLACED.					
DHAV	PWA	LORINORDAM	OIL COOLER	LEAKING	06/26/2002 28311
DHC8102	PW120A	28E997		RIGHT LOWER SIDE	CA020627004
(CAN) #2 ENGINE OIL PRESSURE FELL TO 45 PSI ON DESCENT. #2OIL COOLER FOUND LEAKING AND REPLACED.					
EMB	PWA		CONTROL BOX	FAULTY	05/27/2002
EMB120	PW118A		426871	BRAKE ANTISKID S	AUS20020508
(AUS) ANTISKID CONTROL BOX FAULTY.					
GROB			BAFFLE	CRACKED	05/31/2002 218
G120A			115TA601004	NR 3 CYLINDER	2002FA0000711
ENGINE BAFFLE CRACKED ON NUMBER 3 CYLINDER. PART REMOVED AND NEW BAFFLE INSTALLED. PART SENT IN FOR WARRANTY.					
GROB			BAFFLE	CRACKED	06/04/2002 193
G120A			115TA601003	NR 1 CLYINDER	2002FA0000712
ENGINE BAFFLE CRACKED ON NUMBER 1 CYLINDER. PART REMOVED AND NEW BAFFLE INSTALLED.					
GROB			SUPPORT	CRACKED	05/04/2002 194
G120A			115TA6003	ALTERNATOR	2002FA0000713
ALTERNATOR SUPPORT BRACKET CRACKED. PART REMOVED AND A NEW SUPPORT BRACKET INSTALLED.					
GROB			BAFFLE	CRACKED	06/04/2002 193
G120A			115TA601004	ENGINE	2002FA0000714
ENGINE BAFFLE CRACKED ON NUMBER 3 CYLINDER. PART REMOVED AND NEW BAFFLE INSTALLED. PART SENT IN FOR WARRANTY.					
GROB	LYC		MUFFLER	CRACKED	06/05/2002 193
G120A	AEIO540D4D5		120A6401	ENGINE EXHAUST	2002FA0000718
TAIL PIPE SUPPORT BRACKET CRACKED AT WELD. REMOVED MUFFLER AND INSTALLED NEW MUFFLER ASSEMBLY. PART SENT IN FOR WARRANTY.					
GROB	LYC		TRANSDUCER	FAILED	06/15/2002
G120A	AEIO540D4D5		P16575GB4A	FUEL SYSTEM	2002FA0000752
AFTER START UP OF THE ENGINE THE FUEL FLOW INDICATION WENT TO ZERO. AIRCRAFT WAS TAKEN TO MAINTENANCE AND FOUND THAT IF YOU TAPPED ON THE UNIT IT WILL WORK. FUEL FLOW TRANSDUCER WAS REMOVED AND AN NEW FUEL FLOW TRANSDUCER WAS INSTALLED. GROUND RUN OF THE ENGINE AND AN OPERATIONAL CHECK OF THE SYSTEM CHECKED NORMAL.					
GROB	LYC		TRANSDUCER	FAILED	06/15/2002
G120A	AEIO540D4D5		P16575GB4A	FUEL SYSTEM	2002FA0000763
FUEL PRESSURE INDICATION WAS 75 PSI WITH THE ENGINE SHUT DOWN AND THE FUEL BOOST PUMP SHUT OFF. REMOVED TRANSDUCER ANDINSTALLED NEW FUEL PRESSURE TRANSDUCER. GROUND OPERATION OF FUEL SYSTEM CHECKED NORMAL.					
GROB	LYC		TRANSDUCER	LEAKING	06/12/2002 99
G120A	AEIO540D4D5		201030W	FUEL SYSTEM	2002FA0000766
FUEL FLOW INTERMITTENT WENT TO ZERO IN FLIGHT. ENGINE FUEL FLOW SYSTEM WAS INSPECTED AND FOUND THAT FUEL FLOW TRANSDUCER WAS LEAKING FUEL. REMOVED TRANSDUCER AND INSTALLED NEW TRANSDUCER. OPERATIONAL CHECK OF THE ENGINE ON THE GROUND CHECKED NORMAL.					
GROB	LYC		SHOCK MOUNT	BROKEN	06/11/2002 99
G120A	AEIO540D4D5		B10X15M4X10	COCKPIT	2002FA0000767
INSTRUMENT SHOCK MOUNT BROKEN, IT SUPPORTS THE UPPER RIGHT HAND SIDE. REMOVED BROKEN SHOCK MOUNT AND INSTALLED NEW SHOCK MOUNT.					
GULSTM	LYC		COOLING FAN	SEIZED	05/29/2002
500B	IO540E1B5		KA33	GLOBAL POSITIONI	AUS20020563
(AUS) GPS COOLING FAN SEIZED.					
GULSTM	GARRIT		LINE	BROKEN	05/30/2002
690A	TPE3315251K		88027687	BLEED AIR	CA020604010
(CAN) DURING CLIMB THE AIRCRAFT WOULD NOT PRESSURIZE. THERE WAS A LOUD WHISTLING SOUND COMING FROM THE ENTRANCE DOOR AREA, INDICATING NO PRESSURIZATION. THE AIRCRAFT RETURNED TO BASE. UPON INVESTIGATION IT WAS NOTED THAT THE FLARE END OF ONE CONNECTION HAD PULLED THROUGH THE B-NUT. THE BLEED AIR LINE WAS REPLACED WITH A SERVICEABLE UNIT. AIRCRAFT WAS GROUND RUN BLEED AIR SYSTEM WAS LEAK CHECKED SERVICEABLE. THE AIRCRAFT WAS RETURNED TO SERVICE.					
HUGHES	LYC		BOLT	BROKEN	06/15/2002
269C	HIO360D1A		269A60923	TAIL ROTOR HEAD	AUS20020610
(AUS) TAIL ROTOR FORK BOLT BROKEN IN HALF.					
HUGHES	ALLSN		SEAL	LEAKING	04/26/2002
369D	250C20B			FUEL PUMP	2002FA0000779
AFTER OIL SEAL REPLACEMENT, AND REINSTALLATION OF FUEL PUMP, THE PUMP SHAFT SEAL WAS DISCOVERED LEAKING. DURING BOOST PUMP OPERATION FOR BLEEDING , FUEL SYSTEM ABOUT 50/60 + PER MINUTE DROP LATE. REPLACED PUMP					
LEAR	GARRIT		STRUCTURE	BROKEN	06/05/2002
24D	TFE73122B		95440265	BRAKE ASSY	CA020619005
(CAN) ON LANDING, A "TANG" ON THE WHEEL THAT ENGAGES WITH THE ROTATING BRAKE DISCS BROKE OFF. TIRE DID NOT DEFLATE. WHILE TAXIING, A RHYTHMIC SOUND COULD BE HEARD IN THE COCKPIT.					
LUSCMB	CONT		ROD END	BROKEN	05/08/2002 321
PHANTOM1	IO550G		F3114MPB	MLG	2002FA0000753 77
ROD-END BEARING FAILED ON RIGHT RETRACT ROD.					
MOONEY			STRUT	CORRODED	06/05/2002 1800
M20J			540015001	MLG	2002FA0000759
DURING ROUTINE REPLACEMENT OF NOSE STRUT LORD SHOCK DISCS, SEVERE CORROSION WAS FOUND INSIDE THE STRUT ASSEMBLY. CORROSION PENETRATED 30 PERCENT OF WALL THICKNESS. PART IS ALMOST 20 YEARS OLD. RECOMMEND LOOKING INSIDE TUBE DURING ANNUALS WITH MIRROR.					
MOONEY			ROD END	BROKEN	05/08/2002 321
M20R	IO550G		F3114MPB	MLG	2002FA0000755 77
ROD-END BEARING FAILED ON RIGHT RETRACT ROD.					
MTSBSI	GARRIT		CONTROL	FRAYED	03/26/2002 9970
MU2B35	TPE331*		311AS3146780	THROTTLE	2002FA0000749
DURING ROUTINE MAINTENANCE FOUND A FRAYED ENGINE CONTROL CABLE. THE FRAYED PORTION WAS LOCATED IN THE AFT FUSELAGE WHERE THE CABE GOES OVER A 90DEGREE TURN PULLEY. THIS IS THE FIRST OF THREE CABLE PROBLEMS THIS OPERATOR HAS FOUND IN THE LAST 90 DAYS					
MUDRY	LYC	LYC	CAMSHAFT	WORN	06/18/2002
CAP10B	AEIO360B2F	AEIO360B2F	LW18840	RECIPROCATING	AUS20020612
(AUS) CAMSHAFT LOBES AND ASSOCIATED LIFTERS (3OFF) BADLY WORN.					
PIPER	LYC		RIB	CRACKED	05/03/2002 4756

PA22	O290	43001083	HORIZONTAL STAB	2002FA0000688	
RT HORIZONTAL STABILIZER RIB CRACKED. RIB LOCATED AT LEADING EDGE. (MV5R055N)					
PIPER	LYC	RIB	CRACKED	05/03/2002	4756
PA22	O290	43001077	HORIZONTAL STAB	2002FA0000689	
RIGHT HORIZONTAL STABILIZER RIB CRACKED. RIB LOCATED AT LEADING EDGE. (MV5R055N)					
PIPER	LYC	RIB	CRACKED	05/03/2002	4756
PA22	O290*	43001081	HORIZONTAL STAB	2002FA0000691	
RIGHT HORIZONTAL STABILIZER RIB CRACKED. RIB LOCATED AT LEADING EDGE. (MV5R055N)					
PIPER	LYC	RIB	CRACKED	05/03/2002	4756
PA22	O290*	43001079	HORIZONTAL STAB	2002FA0000692	
RIGHT HORIZONTAL STABILIZER RIB CRACKED. RIB LOCATED AT LEADING EDGE.					
PIPER	LYC	MAGNETO	FAILED	06/05/2002	69
PA28181	O360A4M	01081792	ENGINE	2002FA0000717	
ROUGH ENGINE ON GROUND RUN, A MAGNETO CHECK WAS PERFORMED AND THE LEFT MAGNETO HAD EXCESSIVE MAGNETO DROP. MAGNETO WAS REMOVED AND A REPAIRED MAGNETO INSTALLED. MAGNETO OPERATION CHECK OF THE ENGINE WAS PERFORMED AND CHECKED NORMAL.					
PIPER	LYC	BELLCRANK	CRACKED	06/04/2002	
PA28181	O360A4M	7634700	SEAT	CA020617005	
(CAN) DURING ANNUAL INSPECTION, THE LOWER SEAT FORWARD RT BELLCRANK ASSEMBLY WAS FOUND DETACHED LEAVING THE SEAT BOTTOM ATTACHED IN ONLY 3 CORNERS. THE BELLCRANK WAS FOUND DETACHED IN 3 WELDS. THE WELDS WERE ONLY "TACK" WELDS. THE 3 OTHER BELLCRANKS HAVE WELDS NEARLY THE ENTIRE WAY AROUND THE TUBE. THIS APPEARS TO HAVE BEEN DONE ON MANUFACTURE. AS WELL, THERE SHOULD BE A SMALL GUSSET TO STRENGTHEN THE BELLCRANK THAT WAS ALSO MISSING.					
PIPER	LYC	BOLT	FAILED	05/06/2002	820
PA28R201		AN2321A	CLEVIS	2002FA0000684	
DURING CLIMB OUT, THE PILOT HEARD A LOUD BANG. WHEN THE LANDING GEAR WAS RETRACTED, THE PILOT REPORTED THAT THE NOSE GEAR DOWN AND LOCKED LIGHT ILLUMINATED A FEW SECONDS LATER. THE LANDING GEAR WAS EXTENDED BY THE PILOT AND A SAFE LANDING WAS MADE. A POST FLIGHT INSPECTION FOUND THAT THE CLEVIS BOLT THAT ATTACHES THE NOSE GEAR ACTUATOR TO THE NOSE GEAR DOWNLOCK ASSEMBLY TO BE SHEARED OFF. THE DOWNLOCK ASSEMBLY PARTIALLY DAMAGED WHEN THE BOLT DEPARTED. THE BOLT AND DOWNLOCK ASSEMBLY WERE REPLACED AND THE AIRPLANE WAS PUT BACK INTO SERVICE. RECOMMEND REMOVING THE CLEVIS BOLT AND INSPECTING EVERY 100 HOURS.					
PIPER	LYC	LYC	CRANKCASE	FAILED	05/01/2002
PA28R201	IO360C1C6	IO360C1C6	L1845851A	RECIPROCATING	AUS20020580
(AUS) CRANKCASE FAILED. LIMITED INFORMATION PROVIDED.					
PIPER	LYC	JANITROL	REGULATOR	LEAKING	05/21/2002
PA31350	TIO540J2BD	FR65D793EL	A23D0475	HEATING SYSTEM	AUS20020561
(AUS) COMBUSTION HEATER FUEL REGULATOR LEAKING. FOUND DURING INSPECTION IAW AD/AIRCON/9 PT2.					
PIPER	LYC	ARM	BROKEN	06/07/2002	
PA31350	TIO540J2BD	4204200	LANDING GEAR	AUS20020608	
(AUS) RH MAIN LANDING GEAR ARM BROKEN AND BENT.					
PIPER	LYC	DOOR	SEPARATED	06/18/2002	
PA32300	IO540K1A5	NSN	CARGO/BAGGAGE	AUS20020611	
(AUS) NOSE BAGGAGE DOOR SEPARATED FROM AIRCRAFT. DOOR LOCK INSPECTED AND FOUND TO BE SERVICEABLE.					
PIPER	LYC	CAMSHAFT	WORN	05/15/2002	495
PA32300	IO540K1G5		ENGINE	2002FA0000700	
DURING NORMAL INSPECTION, FOUND FERROUS METAL SLIVERS IN OIL FILTER, FURTHER INSPECTION BY REMOVING NR 1 AND NR 3 CYLINDER SHOWED, METAL IMBEDDED IN PISTON SKIRTS, AND CAM LOBE SHAIRED BY NR 3 CYLINDER INTAKE AND NR 4 CYL EXHAUST SEVERELY WORN AND PITTED AND CAM FOLLOWERS PITTED. THIS IS THE 2ND OCCURRENCE OF A PREMATURE CAM LOBE FAILURE FOUND IN A 12 MONTH PERIOD. REMOVAL NR 1 CYLINDER FOR REPAIRS FOR HIGH OIL CONSUMPTION, FOUND NR 3 CYLINDER INTAKE CAM LOBE SEVERELY WORN.					
PIPER		RELAY	CHAFED	06/06/2002	
PA46310P		RSU21	ELECTRICAL	200202	
DURING AVIONICS TROUBLE SHOOTING, AN INSPECTION PANEL WAS REMOVED FROM THE COCKPIT FLOOR IN THE AREA JUST FORWARD OF THE CO PILOT'S SEAT TO GAIN ACCESS TO A SWITCHING RELAY MOUNTED ON THE UNDERSIDE OF THAT SAME PANEL. ONCE REMOVED, IT WAS NOTED THAT THE "SWITCHING RELAY" BOX WAS DISPLACING THE OUTER SHEATHING OF THE ENGINE FUEL MIXTURE CABLE UP AGAINST A HYDRAULIC "B" NUT AND WAS IN THE INITIAL STAGES OF CHAFFING ACTIVITY. SPACE IN THIS AREA IS LIMITED AND THE SWITCHING RELAY WAS MOUNTED TO STAND OFF ANGLES ATTACHED TO A LIGHT GAUGE ACCESS PANEL. REPLACEMENT OF THE SWITCHING RELAY INCLUDED THE MANUFACTURE OF A NEW PANEL OF HEAVIER GAUGE THAT NO LONGER REQUIRED "STIFFNERS" AND RESULTED IN ADEQUATE CLEARANCE IN					
PIPER	PWA	COVER	LEAKING	05/30/2002	
PA46500TP	PT6A42		RT WING	CA020607006	
(CAN) STAIN LEAKS WERE FOUND AT THE INBOARD MOST PANEL OF THE RIGHT WING HEADER TANK. THE PANEL IS UNDERNEATH THE WHEEL FAIRING DEFLECTOR. PANEL WAS REMOVED AND RESEALED. SEALER MIGHT HAVE BEEN SLIGHTLY DRY.					
SKRSKY		INDICATOR	CONTAMINATED	04/30/2002	1102
S61N		40008330208	RADAR SYSTEM	ERAA079864	
WILL NOT POWER UP ; NO INDICATION. UNIT HAS MAJOR WATER DAMAGE. REPAIRED BURNED TRACE, REMOVED CORROSION AND TESTED.					
SKRSKY	TMECA	TMECA	SENSOR	FAULTY	05/24/2002
S76A	ARRIEL1S	ARRIEL1S1	9580115900	FUEL	AUS20020510
(AUS) NO2 ENGINE OVERSPEED SENSOR FAULTY.					
UNIVAR	CONT	ELT	ACTIVATED	05/31/2002	
415E	C85*	EBC102A	CABIN	2002FA0000760	
THE ELT SWITCH WAS IN THE ON POSITION BUT THE ELT DID NOT ACTIVATE DURING THE ACCIDENT SEQUENCE. THE REASON WAS NOT IMMEDIATELY KNOWN.					

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

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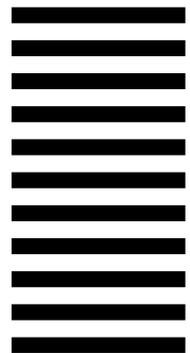
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