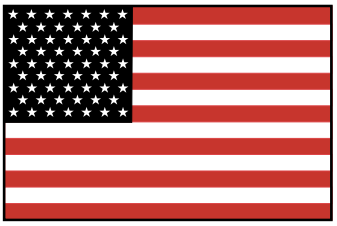
U.S. Department
of Transportation
**Federal Aviation
Administration**

AFS-600
Regulatory Support Division

ADVISORY CIRCULAR
43–16A

AVIATION MAINTENANCE ALERTS



ALERT
NUMBER
274

MAY
2001

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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

The Unapproved Parts Notifications (UPN) listed in this publication are 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 a UPN should be directed to the originating FAA office listed in each UPN. A complete listing of UPNs is found on the Internet at: <http://www.faa.gov/avr/sups.htm>.

UNAPPROVED PARTS NOTIFICATION NO. 1999-00302
MARCH 20, 2001

AFFECTED PARTS
Hamilton Standard propeller hubs - Model 2D30.

PURPOSE
The purpose of this notification is to advise all aircraft owners, operators, maintenance organizations, manufacturers, and parts distributors regarding the installation of unapproved blades into Hamilton Standard propeller hubs.

BACKGROUND
Information received during a Federal Aviation Administration (FAA) suspected unapproved parts investigation revealed that during the first half of 1996, The Prop Shop, Inc. (FAA Air Agency Certificate No. T4PR764J), located at 8231 SW Third Street, Oklahoma City, OK 73128, improperly installed Hamilton Standard propeller blades, Model 6915A-7, into Model 2D30 propeller hubs. An unapproved machining process was performed on the blades in order to accomplish the installation.

RECOMMENDATION

Aircraft owners, operators, maintenance organizations, manufacturers, and parts distributors should inspect their aircraft, aircraft records, and/or parts inventories for propellers repaired or overhauled by The Prop Shop, Inc., to verify the model and condition of blades installed on the referenced propeller hubs. Actual verification should be made, independent of information provided on any work order; FAA Form 8130-3, Airworthiness Approval Tag; or FAA Form 337, Major Repair and Alteration.

FURTHER INFORMATION

Further information can be obtained from the FAA Flight Standards District Office (FSDO) given below. The FAA would appreciate any information regarding 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 Oklahoma City FSDO, 1300 S. Meridian, 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) 661-0580, fax (703) 661-0113.

UNAPPROVED PARTS NOTIFICATION NO. 2001-00076
APRIL 2, 2001

AFFECTED PARTS

Parts maintained and approved for return to service by Total Airframe & Turbine Corporation.

PURPOSE

The purpose of this notification is to advise all aircraft owners, operators, manufacturers, maintenance organizations, and parts distributors regarding maintenance performed by Total Airframe & Turbine Corporation (d/b/a TATCO), a Federal Aviation Administration (FAA) certificated repair station located at 3437 W. El Segundo Blvd., Hawthorne, CA 90250.

BACKGROUND

Information received during a FAA suspected unapproved parts investigation revealed that TATCO performed work for which it was not rated. TATCO was issued an Air Agency Certificate (No. T31R629Y) with a limited airframe rating on June 22, 2000. TATCO's certificate limited its performance to maintenance, repair, and overhaul of sheet-metal and composite booms, nacelles, cowlings, fairings, panels, airfoil surfaces, pylons, tailpipes, thrust reversers, and landing gear doors; and included attaching brackets and fittings but excluded autoclave and radome repairs.

Evidence indicates that TATCO has performed maintenance on, and approved for return to service, various parts outside its limited airframe rating. Evidence also indicates that TATCO performed magnetic particle inspection on parts when it did

not have the proper equipment, approved personnel, or inspection program to conduct the non-destructive testing (NDT); and that they may have falsified return-to-service maintenance entries regarding NDT work it performed.

Attached to this notification is a partial list of parts that may have been improperly returned to service by TATCO.

RECOMMENDATION

Regulations require that type-certificated products conform to their type design and be properly maintained using current data, required equipment, and appropriately trained personnel. Aircraft owners, operators, manufacturers, maintenance entities, and parts distributors should inspect their aircraft and/or parts inventory for any parts approved for return to service by TATCO. You should take appropriate action if any of these parts have been installed on an aircraft. If any existing inventory includes these parts, the FAA recommends that you quarantine the parts to prevent installation on an aircraft until a determination can be made regarding each part's eligibility for installation.

FURTHER INFORMATION

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

The following is a partial list of parts that may have been improperly returned to service by TATCO.

(PART NAME)	(P/N)	(S/N)
Actuator	2518000-4	NWL03781
Quadrant	65-40529-1	101
Spoiler Control	APH7158-502	SYS07944
Spoiler Control	APH7158-501	SYS07950
Spoiler Control	APH7156-501	SYS07943
Spoiler Control	APH7157-501	SYS07949
Lateral Control Mixer	APH7279-511	SYS07942
Lateral Control Mixer	APH7279-509	SYS07941
Aileron Tension Reg.	APH7044-1	SYS07939
Roller Assy.	65-41341-1	N/A
Gear	725785-3	N/A
Coffee Server	7S235911	N/A
Flap Track	65-46428-25	3511
Diffuser	1-110-230-08	Multiple

This notice originated from the Los Angeles FSDO, 2250 East Imperial Highway, Suite 140, El Segundo, CA 90245, telephone (310) 215-2150, fax (310) 645-3768; 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 K35; Bonanza; Alternator Failure; ATA 2410

The pilot reported the alternator failed during flight, and the battery electrical supply was depleted before he could land. After turning off all nonessential electrical equipment, radio operation was only intermittent.

A technician discovered the alternator lower attachment bolt had pulled out of the bracket and caused the drivebelt to lose tension. After cleaning dirt and debris from the alternator attachment area, he discovered the bolt had been engaged in the bracket by approximately three threads when it was installed previously. The attachment bolt was found in the cowling. He found a “stack” of washers used under the head of the bolt. The washers prevented proper engagement of the bolt threads in the bracket.

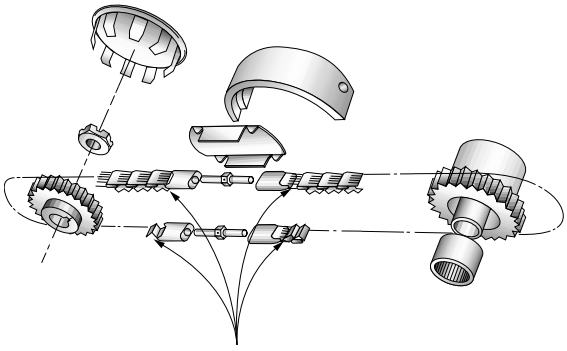
Close attention to detail and the use of current technical data should prevent recurrence of this type of defect.

Part total time not reported.

Beech; Model S35; Bonanza; Flight-Control Yoke Discrepancy; ATA 2701

This aircraft has a dual flight-control yoke system (P/N 35-524656-5) installed.

During an annual inspection, the technician discovered a serious problem with the flight-control yoke chain linkage. The chain (P/N 35-524139) master link plate and clip were missing where the lower left chain attaches to the fitting (P/N 35-524140-2). (Refer to the illustration.) If any flight-control system chain connection fails, it may cause a serious accident.



CHAIN MASTER LINK LOCATIONS

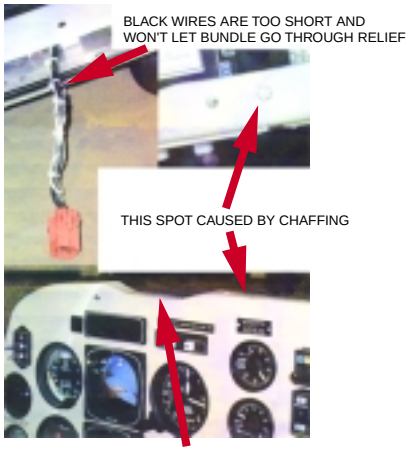
The submitter stated this area deserves close attention at every opportunity.

Part total time not reported.

Beech; Model A36; Bonanza; Improper Wire Routing; ATA 3423

The owner sent the new aircraft to a repair station for installation of avionics equipment.

Technicians installing the required equipment discovered the wiring harness going to the magnetic compass was misrouted. The wire harness is supposed to pass through a “relief” built into the top of the instrument panel. However, the harness was too short to be installed properly and was pinched between the instrument panel and the glare shield. (Refer to the illustration.)



The submitter stated this was the second like aircraft he has found with this problem.

Part total time-18 hours.

Beech; Model 58; Baron; Questionable Wing Attachment Bolts; ATA 5740

A repair station ordered eight new wing attachment bolts to install on this aircraft. The bolts were received with records traceable to the aircraft manufacturer. The inspector conducting a receiving inspection discovered the manufacturer superseded the bolt part numbers. This change involved only a part number change, which dropped the “M” designation at the end of the numbers.

The inspector discovered that three of the eight bolts were not marked (with painted heads) to indicate they had undergone a magnetic-particle inspection prior to shipment. He contacted a manufacturer’s technical representative. The representative stated all wing attachment bolts were required to undergo a magnetic-particle inspection prior to delivery. The representative also stated their parts department had been advised of this previously and should not have been shipping wing bolts that have not undergone a magnetic-particle inspection.

The submitter advises all those concerned to verify the inspection status of all wing attachment bolts prior to installation.

Part total time-0 hours.

Beech; Model C-90; King Air; Wing Attachment Structural Defect; ATA 5730

During a scheduled inspection, the technician discovered cracks in the area of the wing attachment fittings.

One of the cracks was located on the lower wing skin surface adjacent to the forward wing attachment point and just aft of the attachment fitting. The crack was located just aft of the forward wing spar. It originated at the fuel cell drain nipple cutout and extended to a number 10-screw hole just aft of the cutout. Another crack began at the inboard number 10-screw hole of the wing attachment fitting and extended to the forward edge of the skin.

The inspector checked the other wing attachment and found very similar defects at approximately the same locations. He reported finding similar defects on several other aircraft in the past.

The submitter speculated “stress loads” on the skin panel caused this damage and recommended the manufacturer design a reinforcement doubler for installation in the defect locations. The doubler will distribute the load over a larger area.

Part total time-6,612 hours.

Beech; Model F-90; Super King Air; Electrical System Short Circuit; ATA 2400

During a scheduled inspection, the inspector discovered electrical arcing in the right center wing section adjacent to a leading edge rib.

The damage was located at right wing station 39.7 where an electrical system wire bundle was chafing against the rib. Due to in-flight vibrations, the short was intermittent. The short affected the electrical poser supply to the right engine “autofeather” system, the right engine de-ice boots, and the battery charge (shunt to module) wires.

The technician repaired the wires, insulated the wire bundle, and properly secured it away from the wing rib. The rib was not significantly damaged.

Part total time-5,025 hours.

Beech; Model 95B55; Baron; Landing Gear Failure; ATA 3230

During a landing approach, the pilot placed the landing gear control handle in the “down” position with no response from the gear. The pilot stated the emergency gear extension handle would not engage in the actuator worm gear. All efforts to lower the gear failed, and the pilot made a safe gear-up landing.

After recovering the aircraft from the runway, a technician disassembled the landing gear system and found a bearing (P/N 5201K) in the emergency extension linkage was broken. The balls from the bearing were jamming the worm gear and rendering it inoperative. When the bearing failed, it allowed the worm gear drive and shaft to move far enough away from the emergency extension handle to prevent engagement.

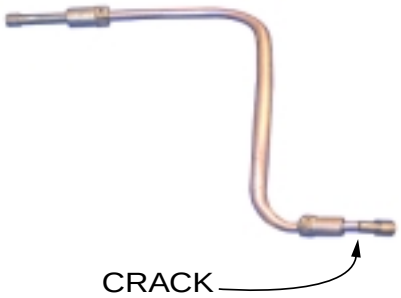
The submitter believes that sometime prior, the landing gear was cycled with the emergency extension handle engaged causing failure of the bearing and jamming of the linkage.

Part total time-3,572 hours.

Beech; Model 99; Airliner; Engine Fuel Leak; ATA 7310

The pilot reported discovering a fuel leak while he was starting the right engine.

A technician found a fuel tube assembly leaking from a crack adjacent to a "B-nut." The tube (P/N 3011857) runs from the engine fuel control and supplies fuel pressure to the "start flow control valve." The tube was cracked at the manufacturing joint next to the "B-nut" at the start flow control valve. (Refer to the illustration.)



The submitter did not state a cause for this failure.

Part total time-11,224 hours.

Beech; Model 1900C; Commuter; Defective Electrical Terminal Assembly; ATA 2435

The starter/generator improvement kit (Number 114-9034-1), furnished by Beech, has been found to include a defective terminal assembly.

The threads on the stud of the terminal adapter lug were found with an abnormal pitch and stud diameter. The kit-supplied terminal stud and nut were not compatible. The submitter believes the stud threads were improperly manufactured. Attempts to install the nut on the terminal stud resulted in stripping the stud threads. This condition can produce an unknown torque value and cause the wire terminals to remain loose and generate arcing and intermittent contact.

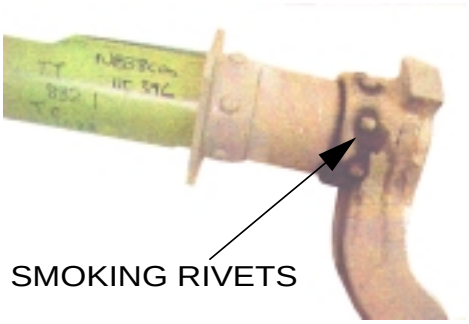
The submitter stated he has found this condition on a "vast majority" of the kits he has received from the manufacturer. He has made the manufacturer aware of his findings. He suggested inspecting the kit parts for compatibility before installation.

Part total time-0 hours.

Beech; Model 1900D; Commuter; Elevator Control Discrepancy; ATA 2730

During a scheduled inspection, the technician found excessive free play associated with the elevator control system.

Investigating further, the technician discovered the attachment of the right elevator torque tube to the end fitting/bellcrank was loose. The rivets, used to attach the end fitting to the torque tube, were extremely loose and "smoking." (Refer to the illustration.) These rivets were in imminent danger of complete failure which could have catastrophic results.



Part total time-832 hours.

BELLANCA

Bellanca; Model 1730A; Super Viking; Engine Starter Failure; ATA 8011

While conducting a preflight engine run, the pilot noticed smoke coming from the engine cowling area and lost all aircraft electrical power. He shut down the aircraft and had it towed to a maintenance hangar.

A technician inspected the aircraft and found that the starter solenoid, located on the firewall, had remained engaged after the engine started, and caused the starter motor to be driven by the engine. This condition also allowed a reverse electrical current flow to the battery, causing it to overheat and generate smoke. To prevent this type of occurrence, he recommended the manufacturer consider modifying the electrical system to include circuit protection.

This condition presented a very real and distinct possibility of producing an engine compartment fire that would have endangered the aircraft and its occupants. This is especially true with any fabric-covered aircraft!

Part total time not reported.

CESSNA

Cessna; Model 172R; Skyhawk; Firewall Crack; ATA 5412

During an annual inspection, the technician discovered the firewall was cracked.

The crack was approximately 1.8-inches long and was located behind the cowl flap shock-mount bracket on the right side of the firewall step. Cessna issued Service Bulletin (SB) 98-53-02, which deals with this subject. SB 98-53-02 gives inspection criteria and repair procedures for cracks found in the firewall.

All concerned individuals should be aware of the propensity for firewall cracks and comply with the instructions found in SB 98-53-02.

Aircraft total time-883 hours.

Cessna; Model 172S; Skyhawk; Broken Propeller Spinner Bulkhead; ATA 6113

After a training flight, the student and instructor conducted a postflight inspection. During the inspection, they discovered the propeller spinner bulkhead was broken.

After removing the spinner bulkhead, the technician discovered it was broken around one of the attaching nutplates, and the spinner was bent in that area. He suspected this damage was due to the improper fit of the spinner to the bulkhead fitting. There had been no maintenance performed on the propeller or spinner since the aircraft was new. He speculated preload stress during the factory installation caused the damage.

The submitter suggested better quality control might alleviate this type of discrepancy.

Part total time-144 hours.

Cessna; Model 172S; Skyhawk; Defective Cockpit Lighting; ATA 3310

The aircraft owner contacted a repair station and requested the cockpit lighting system be repaired. The owner stated the radio backlighting and radio control backlighting had not worked since the aircraft was new.

A repair station technician investigated this problem and found that pin 1 of electrical connector JC005 was at ground potential and prevented the dimmer potentiometer from functioning as intended. He removed the wire (number 6JC015-1JC005) from the circuit and found the radio lighting system functioned properly. This wire is connected to the warning/caution annunciator. The annunciator has its own switch located at the top of the radio stack, with bright, dim, and test positions. He suspected the manner in which the switch is integrated into the system causes the “ground” condition.

The submitter has found this condition on a new Model 182S operated by the same owner.

Part total time not reported; however, the aircraft was delivered new in February 2001.

Cessna; Model 182S; Skylane; Flight Control Interference; ATAs 2720 and 2730

During an annual inspection, the technician checked the flight control travel and rigging and found everything within limits. However, he found the rudder and elevator could come in contact.

With the rudder deflected, full left or right, the elevator hit the rudder when it was raised. The technician checked for proper rigging of both control surfaces and, again, found them within limits.

This situation could cause a serious hazard to flight safety. This is especially true if the rudder and elevator became jammed together.

Part total time not reported; however, the aircraft was manufactured in 1998.

Cessna; Model 190/195; Defective Aileron Hinge Bracket; ATA 2710

The submitter of this report stated he has found several defective aileron hinge brackets.

The original inboard aileron hinge brackets (P/N 0322709-1) are made of magnesium and are subject to severe corrosion and cracking. The cracking tends to appear at the junction of the bracket mounting feet and the bearing boss. There is a Supplemental Type Certificate (STC) that allows replacement of the original brackets with aluminum brackets, and this may alleviate the problem.

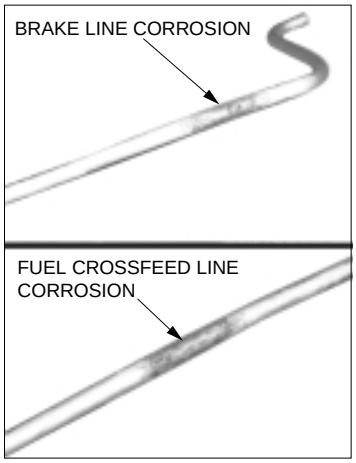
The submitter suggested the original brackets should have the paint stripped and checked with dye penetrant during each annual inspection.

Part total time-3,800 hours.

Cessna; Model 340A; Aircraft Plumbing Corrosion; ATAs 2820 and 2920

The aircraft owner delivered the aircraft to a repair station and reported the odor of fuel in the cabin and a hydraulic leak.

While investigating the fuel odor report, the technician found the fuel crossfeed line (P/N 5300108-41), located beneath the floor, was leaking. This line attaches directly to the main fuel tank. The line wall thickness was penetrated by severe corrosion. (Refer to the illustration.) He believes the fuel line corroded from the inside when water did not drain from the sumps. Since there is no way to shut off the fuel supply to this line, it created a serious hazard to flight safety.



The technician found the source of the hydraulic leak was the pilot's right brake line. The leak was located under the floor, and a pressure test of the line revealed a "pin hole." He attributed the corrosion to the "pin hole." The brake line routing placed it in contact with a heater duct hose. He speculated heat and the presence of moisture caused the corrosion.

The submitter suggested inspecting this area and rerouting and/or insulating the brake line, if necessary.

Part total time-3,792 hours.

Cessna; Model 414A; Chancellor; Premature Oil Filter Failure; ATA 8550

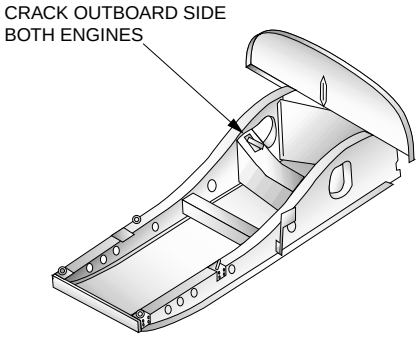
This aircraft was modified in accordance with Ram Aircraft Corporation Supplemental Type Certificate (STC) SA09287SC. The STC incorporates an oil filter/strainer in each engine turbocharger waste-gate oil supply line.

The submitter stated these filters/strainers (P/N EK9052V-10) prematurely clog with carbon particles from the oil. When this happens, the turbocharger oil supply is reduced and results in the loss of manifold pressure. If you experience this condition, he suggests contacting the STC holder for a resolution.

Part total time-10 hours.

Cessna; Model 421C; Golden Eagle; Engine Mount Structural Defect; ATA 5400

During a scheduled inspection, the technician found the engine beam assemblies cracked.



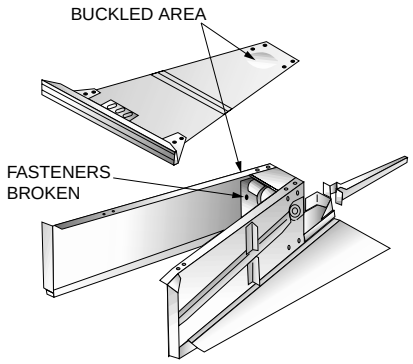
Both the left and right beams aft assemblies (P/N 5054030-42) were cracked on the outboard side of each engine. Both cracks were approximately 1.5-inches long. They were located in the bend radius of the top strap of the beam assembly close to the junction of the fore and aft running engine mount beams. (Refer to the illustration.)

This structural deficiency could result in a catastrophic aircraft accident had the inspector not found the defect.

Aircraft total time-4,800 hours.

Cessna; Model 550; Citation; Hard and Overweight Landing Damage; ATA 5343

While conducting a “hard and overweight landing inspection,” the technician found the nose wheel well upper structure cracked just forward and left of the mount for the uplock assembly. Numerous structural rivets attaching the uplock forward mount were pulled through the wheel well skin.



After removing the nose gear actuator, the technician found the actuator aft attachment structure was buckled and four fasteners adjacent to the attachment fitting were broken. (Refer to the illustration for the damage locations.)

Under these conditions, it is critical to conduct a thorough and searching inspection of all the affected areas, as well as, areas where there may be “hidden damage.”

Aircraft total time-8,932 hours.

Cessna; Model 550; Citation; Structural Defect; ATA 5345

During a scheduled inspection, the technician found an equipment rack support severely damaged.

The technician has found the same type defect on three like aircraft that he maintains. During manufacture, additional equipment racks were installed, and he believes they place an additional burden on the aircraft structure. In this case, an equipment rack

support (P/N 14550-785-19) caused a stringer (P/N 5512026-21), located at fuselage station (FS) 428.5, to crack and pull the attaching rivet loose.

The submitter suggested giving close attention to the structure supporting additional equipment installations, especially the attachment points, during scheduled inspections.

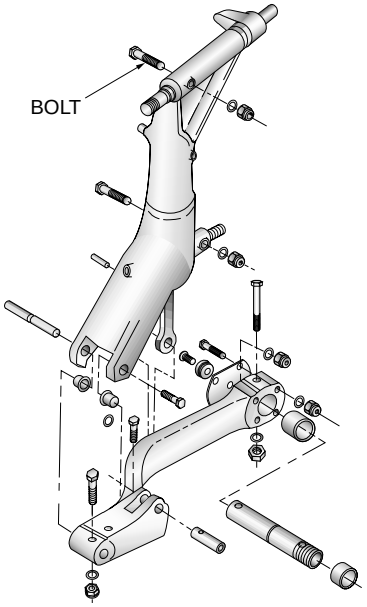
Part total time-5,215 hours.

COMMANDER

Commander; 114A; Turismo; Main Landing Gear Defect; ATA 3230

The pilot reported that during landing the right main gear felt "mushy."

A technician inspected the landing gear and found the right main gear forward trunnion bolt, washer, and nut were missing. (Refer to the illustration.) He suspects the bolt sheared and caused it to come out of the trunnion. Due to this finding, he inspected the trunnion bolt on the left main gear and discovered it was extremely worn.



The submitter suggested the manufacturer establish a frequent inspection schedule for this bolt and a life limit of 3 to 5 years and/or 500 landings.

Part total time not reported.

GULFSTREAM AMERICAN

Gulfstream American; Model AA-5A; Cheetah; Premature Engine Exhaust System Failure; ATA 7820

During an annual inspection, the technician discovered premature defects on the engine exhaust system muffler.

The walls of the muffler assembly were severely deteriorated, and the baffles were loose inside. The muffler was not considered airworthy and was replaced. The technician also conducted the previous inspection and, at that time, found the muffler assembly in good condition.

The submitter believes excessive leaning of the engine fuel/air mixture during operation caused this defect. The damage was blamed on exposure of the exhaust system much hotter exhaust gases produced by burning the lean mixture.

Time since the last inspection-13 hours.

PIPER

Piper; Model PA 23-160; Apache; Engine Fuel Leak; ATA 7310

While repairing an engine exhaust system leak, the technician noticed an engine fuel leak.

The technician found a cylinder fuel primer line on the left engine was broken. Also, another fuel primer line was severely chafed and damaged. An exhaust system leak, along with a fuel leak, presented a very serious compromise to flight safety.

The submitter encouraged all maintenance personnel to be attentive for this type defect.

Part total time not reported.

Piper; Model PA 23-160; Apache; Engine Exhaust Stack Missing; ATA 7800

While repairing an engine oil leak on the left engine, the technician noticed an exhaust stack was missing.

The technician found the exhaust stack had broken at the number 3 cylinder exhaust flange. The exhaust stack was loose in the lower cowling. The number 2 cylinder flange was cracked over half way around its diameter. After finding other “improper repairs” on the engine exhaust system, he replaced all defective parts with new ones.

Part total time-not reported.

Piper; Model PA 28-140; Cherokee; Nose Gear Steering Defect; ATA 3251

After returning from a flight, the pilot reported severe nose gear shimmy during landing and taxi.

A technician examined the aircraft and found the nose gear steering horn (P/N 63300-008) was broken. The steering horn failed adjacent to a weld. He speculated the welding process might have altered the heat treatment of the metal.

The submitter suggested a thorough inspection of the landing gear components especially in the area of weld joints.

Part total time-5,643 hours.

Piper; Model PA 28-161; Warrior; Engine Failure; ATA 7322

The engine used in this aircraft is a Textron Lycoming Model O-320B2B.

During a flight, the pilot experienced a complete engine failure, which resulted in an emergency landing.

While investigating this incident, a technician discovered the carburetor was flooded. He disassembled the carburetor (Precision Airmotive P/N 4SPA) and discovered the float assembly (P/N CF-30-766) was "hanging up" on the side of the carburetor bowl. It appears the float assembly was misaligned during the overhaul or manufacturing process. The float alignment may have been distorted during the soldering or assembly process.

Part total time-55 hours.

Piper; Model PA 28R-200; Arrow; Nose Landing Gear Defect; ATA 3230

During a landing approach, the pilot could not extend the nose landing gear. He landed the aircraft with the nose gear retracted.

A technician inspected the aircraft and found the nose gear doors were jammed shut preventing extension of the nose gear. He speculated the gear doors "overtraveled" due to a bent and damaged door linkage rod assembly (P/N 67362-00). This caused the doors to be jammed into the wheel well.

Part total time-5,169 hours.

Piper; Model PA 28R-200; Arrow; Flight Control Cable Interference; ATA 2750

While conducting an annual inspection, the technician found the wing flap cable lodged in two trim tab pulleys.

The technician discovered the flap cable had worn away a considerable portion of the trim tab pulleys, and several of the flap cable strands were broken. He checked the flight control system rigging and found everything within limits. He conducted a test to simulate the condition and found that when the flaps are retracted rapidly, as they might after sticking, the control cable becomes "slack" and interferes with the trim tab pulleys.

The submitter suggested the flight control pulley bearings and the wing flap hinge bearings be checked frequently for freedom of movement and proper lubrication.

Part total time not reported.

Piper; Model PA 28R-201; Arrow; Engine Induction System Defect; ATA 7160

While completing a scheduled inspection, the technician discovered a defect with the engine induction air system.

The technician found two of the three rivets, used to secure the alternate air door hinge, were broken. He removed the induction system airbox (P/N 99047-00) and discovered a crack that extended across a weld and into each of the tubes and formed a 90-degree angle. If the last hinge rivet failed, the alternate air door would be drawn into the induction airbox and obstruct airflow to the engine.

Part total time-781 hours.

Piper; Model PA 31-350; Chieftain; Main Landing Gear Strut Damage; ATA 3213

During a scheduled inspection, the technician discovered a crack on the right main landing gear strut.

The crack, in the upper aft strut housing (P/N 40327-000), was approximately 1-inch long. It appeared the crack originated adjacent to a strut casting mark that was under a clamp used to attach the brakeline guard to the strut housing.

The submitter suggested maintenance personnel give this area special attention during inspections and maintenance.

Part total time not reported.

Piper; Model PA 31T-500; Cheyenne; Electrical System Smoke in the Cockpit; ATA 2400

Just after takeoff, the pilot noticed smoke in the cockpit. He immediately returned to the departure airport and landed the aircraft safely.

A technician investigated and found the smoke originated from the left main circuit breaker panel. After removing the circuit breaker panel, he observed severe heat damage on the attachment clip for the “right windshield heat” circuit breaker. The circuit breakers used in this aircraft are the “plug-in style.” He determined the small brass rivet, used to attach the clip to the circuit breaker panel, was not making sufficient contact to accommodate the 35-amp electrical load placed on the system.

The submitter recommended that all operators of like aircraft conduct a one-time inspection of the circuit breaker panels for evidence of arcing or heat damage.

Part total time-3,675 hours.

Piper; Model PA 46-350P; Malibu Mirage; Landing Gear Defect; ATA 3230

During a landing approach, the right main landing gear did not indicate “down” when the pilot extended the gear. After cycling the landing gear several times and performing aerial maneuvers, the gear indicated “down and locked.” He landed the aircraft safely, and turned it over to maintenance personnel.

A technician checked the right gear actuator (P/N 89075-005) and adjusted the “down” switch in accordance with the manufacturer's technical data. The actuator operated properly during a functional test and it was reinstalled. He released the aircraft for a test flight. During the test flight, the same malfunction occurred.

The submitter believes these actuators are problematic and require proper servicing in accordance with published proprietary information. He has made the aircraft manufacturer and the actuator manufacturer (Parker Hannifin) aware of this problem.

Part total time-1,270 hours.

HELICOPTERS

BELL

Bell; Model 412; Tail Rotor Failure; ATA 6410

After a tail rotor blade failed during flight, the pilot made an emergency landing which resulted in an accident.

Accident investigators determined the tail rotor blade (P/N 212-010-750-105) separated approximately 14 inches from the outboard end. The blade failure caused a severe imbalance that resulted in separation of the tailrotor assembly (P/N 212-011-701-101) and the gearbox.

The failed parts were recovered and sent to a laboratory for metallurgical analysis. The analysis indicated the tail rotor blade failure originated from a stress fracture caused by corrosion beneath the blade skin.

Part total time not reported.

Bell; Model 412SP; Hydraulic System Failure; ATA 2913

During a flight, the “master caution light” illuminated warning of the number 2 hydraulic system failure. The pilot checked the indicator, which confirmed the failure. He diverted to a nearby airport and landed safely.

While troubleshooting the number 2 hydraulic system, a technician found the retaining clip (P/N 66948) was broken. The retaining clip keeps the hydraulic pump (P/N 752591-6605) drive spline engaged with the transmission quill shaft. Failure of the clip allowed the drive spline to disengage from the quill shaft and disable the pump.

Part total time-4,152 hours.

ENSTROM

Enstrom; Model 280F; Shark; Skid Failure; ATA 3210

While moving the helicopter on the ground, a skid leg broke.

The technician discovered the skid leg (P/N 28-17132-4) failed due to internal corrosion. The skid leg is constructed of 4130 steel and is not sealed to prevent water intrusion. He believes flying in rain and/or washing the helicopter allowed water to enter the tube where it was trapped.

The manufacturer issued Service Bulletin number SDB 0079, which offers a replacement skid leg tube that is intended to prevent corrosion and cracks from developing. He recommended the FAA consider issuing an Airworthiness Directive based on the manufacturer's SDB 0079.

Part total time-3,918 hours.

EUROCOPTER

Eurocopter; Model AS-350B2; Ecureuil; Starter Relay Failure; ATA 2435

During a cross-country flight, the pilot made a fuel stop. After refueling, he heard the engine igniters "pop," but the starter/generator was inoperative.

While investigating this problem, a technician found the K3-position start relay (P/N 410CC1Y1) was not the proper part number. This relay is intended for use in the K4-position through K7-positions. He replaced the relay with the correct one (P/N 411CC01Y1). Located in the master electrical box and on the same bus bar, there are five relays (P/N's one each 411CC01Y1, and four each 410CC01Y1).

The submitter stated believes when the five relays were installed, the installer used the same part number relay in all five positions.

Part total time-464 hours.

POWERPLANTS AND PROPELLERS

PRATT AND WHITNEY

Pratt and Whitney; Model R-1340-AN1; Cylinder Failure; ATA 8530

This engine was installed in a Grumman (Schweizer) Model G-164A aircraft.

The engine lost power just after takeoff, and the pilot landed at the departure field. The pilot landed long, the aircraft departed the end of the runway, crashed into trees, and was destroyed.

During the accident investigation, an inspector determined that number 2 cylinder (P/N 212359) had cracked from the intake valve hole to the sparkplug hole and almost completely around the cylinder. Airworthiness Directive (AD) 99-11-02 deals with this subject, and the AD was complied with during an engine overhaul less than 10 hours prior to this accident.

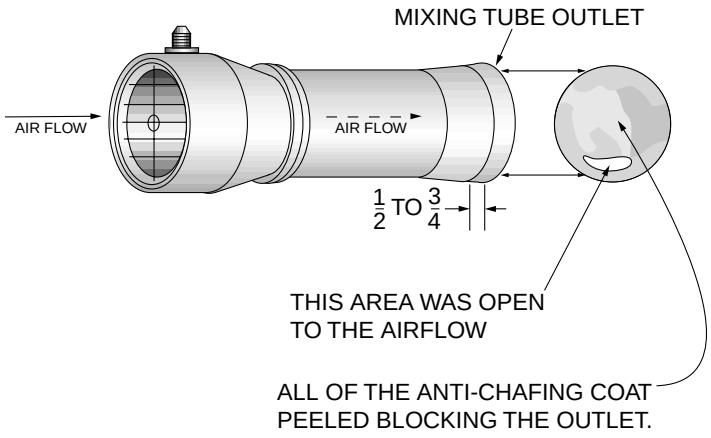
Part total time-4,214 hours.

ACCESSORIES

DEFECTIVE LIFERAFT

Hoover Industries; Model FR-46; Inflation Tube Malfunction; ATA 2564

During scheduled maintenance, a repair station technician conducted a functional test of the liferaft.



The test revealed the number one inflation tube would not properly inflate. The technician discovered the aspirator airflow was severely restricted. The "antichafing" coating in the aspirator outlet was loose and blocking approximately 90 percent of the outlet. (Refer to the illustration.) The "antichafing" coating is usually applied during the manufacturing process or while complying with the manufacturer's Service Bulletin (SB) number 4600-25-01. The coating is applied to cover the aspirator area of "faster airflow." The area normally covered with the "antichafing" coating is between .5 and .75-inch. However, in this case, the coating was approximately 2-inches long. The aspirator inlet "antichafing" coating was also excessively long but had not yet separated.

The submitter speculated the excessive length of the area covered caused the coating failure. Since the coated area of the aspirator is not normally inspected during scheduled maintenance and inspection unless the liferaft fails the functional test, he recommended giving this area more and closer attention at every opportunity.

Part total time not reported.

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.

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 PROGRAM DATA 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:

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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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You can access current and back issues of this publication from the internet at:
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AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports submitted between March 22, 2001, and April 15, 2001, 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 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
	LYC		PUMP	DEFECTIVE	02/07/2001	2177

IO360L2A 78531 ENGINE OIL NX4200315 WHEN
REASSEMBLING THE OIL PUMP, IT WAS NOTED THAT DESPITE ATTEMPTS TO CENTER THE OIL PUMP BODY, THE IMPELLERS WOUL BINDWITH TORQUE APPLIED TO THE HOUSING. ALL DIMENTIONAL INSPECTIONS WERE WITHIN LIMITS. THE PROBLEM DISAPPEARED AFTER REPLACING THE COMBINATION OF THE OIL PUMP HOUSING AND DRIVEN IMPELLER. IT IS ASSUMED THAT THERE WAS A MACHING ALIGNMENT ERROR IN THE HOUSING, DRIVEN IMPELLER SHAFT, OR POSSIBLY A COMBINATION OF BOTH.

PWA TURBINE WRONG PART 02/12/2001
PT6T3 3027102 ENGINE CA010301036 3000
(CAN) POWER TURBINE SECTION DISASSEMBLED FOR EVALUATION. POWER TURBINE BLADES SHOWED A DIFFERENT CONFIG THAN P/ N 3027102 POWER TURBINE BLA DES NORMALLY FOUND ON THIS MODEL ENGINE. ALSO PART NO (P/N 3013102) STAMPED ON BLADES WAS CROSSED OUT & P/N 3027102 WAS ENGRAVED. P&W WAS NOTIFIED & RESPONDED THAT SUBJECT BLADES WERE APPLICABLE TO A PT6A ENGINE & NOT PT6T. THEY ALSO STATED THAT THERE IS NO APPRD MODS THAT WOULD ALLOW 3013102 BLADES TO BE REIDENTIFIED. P&WSTATES BLADES MUST BE REMVD FROM SERVICE. 2001-03-05 TC: FORWAEDED TO MAINT & MFG S.U.P.

AEROSP ALLSN SPLINE CRACKED 02/16/2001 555
AS355F1 250C20F E230397911 GEARBOX 20010322CW015 555
REMOVED ENGINE ASSEMBLY FOR OIL LEAKS. REMOVED COMPRESSOR AND TURBINE FROM GEAR BOX TO REPLACE SEALS AND ORINGS. INSPECTION OF SPLINE ADAPTOR FOUND CRACK RUNNING APPROX 340 DEGREES AROUND ADAPTOR. TOTAL TIME ON PART IS 555.3 SINCE LAST OVERHAUL AT WHICH TIME THE ADAPTOR WAS REPLACED. CAUSE OF CRACK UNKNOWN AT THIS TIME.

AGUSTA ALLSN RIB CRACKED 02/15/2001 2526
A109A 250C28 1090200059 LT ELEVATOR 20010323CW014 2526
DURING A WIRING REPAIR TO THE LEFT NAVIGATION LIGHT, A CRACK WAS FOUND UNDER THE VIBRATION DAMPER WEIGHT. NO UNUSUAL VIBRATION HAD BEEN REPORTED PRIOR TO THE CRACK BEING DETECTED. A DAILY INSPECTION OF THE SYNCH ELEVATOR WOULD NOT HAVE REVEALED THIS CRACK, UNTIL THE VIBRATION WEIGHT SEPERATES FROM THE ATTACHING RIB. RECOMMENDED AN INSPECTION BE INCLUDED IN THE MFG INSP PROGRAM TO REMOVE THE SYNCH ELEVATOR TIP CAP AND VISUALLY INSPECT THIS AREA.

AVIONS LYC FITTING CRACKED 12/13/2000
R2160 O320D2A 114001021RH RT WING AU001323 (AUS) RT WING REAR SPAR INBOARD ATTACHMENT BRACKET CRACKED. CRACKSAPPEAR TO INITIATE FROM THE ACCESS PANEL ON THE LOWERWING SKIN PANELS ARE NONSTANDARD ACCESS PANELS.

BAG BRACKET CRACKED 09/30/2000 28385
JETSTM3101 137202B61 LT FLAP CA001122031 (CAN) DURING SCHEDULED MAINTENANCE INSPECTION ATTACHMENT BRACKET FOR FLAP TO SLAT FOUND BROKEN. BRACKET POSITION LT OUTBOARD FLAP, SECOND INBOARD FROM OUTBOARD END. BRACKET REPLACED WITH MADE BAG GARRTT GARRTT

DRIVE SHAFT FAILED 12/27/2000
JETSTM3101 TPE33110U TPE33110UGR AT GEARBOX CA010129005 (CAN) UPON DISASSEMBLY OF THE FCU AND FUEL PUMP, IT WAS FOUND THAT THE DRIVESHAFT FOR THESE UNITS ROTATED FREELY HAVINGBECOME DISENGAGED IN THE GEARBOX. THE ENGINE IS BEING SHIPPED TO NATIONAL FLIGHT FOR ASSESSMENT AND REPAIR. A REPORT ON FAILED PARTS WILL FOLLOW. TIME FROM GEARBOX INSPECTION WAS 1671.6 HOURS. 2001-01-30 TC: AWAIT TEARDOWN REPORT FROM ORIGINATOR.

BBAVIA CONT FASTENER MISSING 02/23/1998
11AC A658 WING SPAR/RIB CA980302004 (CAN) ON INSPECTION RIB TO SPAR NAILS MISSING. FABRIC REMOVED AND IT APPEARS THAT THE FRONT SPAR HAD BEEN REPLACED AND THE NAILS WERE NOT INSTALLED.

BBAVIA CONT SPAR CRACKED 01/17/2001 4262
7AC C9012F 7TH RIB IB END 20010223CW001
DURING INSPECTION, CRACK FOUND ORIGINATING FROM RIB NAIL RUNNING HORIZONTAL. SPAR INSTALLED 5/17/59.

BBAVIA CONT SPAR CRACKED 03/26/2001
7EC C90* RT WING 20010326CW005
DURING ANNUAL INSPECTION, FOUND COMPRESSION CRACKS ON THE RIGHT WING REAR SPAR AT TOP LOCATION ON TOP SIDE OF SPAR. THIS COMPRESSION CRACK WAS HIDDEN UNDER OLD SPAR VARNISH AND WOULD HAVE BEEN MISSED IF TOP INSPECTION HOLES WERE NOT INSTALLED.

BBAVIA LYC MOUNT CRACKED 08/03/2000 2000
8GCBC O360C2E 21583 TE FLAP CA001207026 (CAN) ON PER FLIGHT PILOT NOTICED LT FLAP WAS NOT FAIRED WITH UPPER WING GAP COVER.FURTHER INSPECTION FOUND L/H INBOARDFLAP MOUNT LOWER BOLT HOLE CRACKED OUT.DUE TO PREVIOUS FAILURES, A FLEET VIAUAL SPECIAL INSPECTION WAS CARRIED OUT, ON INBOARD FLAP MOUNTS, AND REVEALED TWO ADDITIONAL A/C WITH CRACKED MOUNTS. ADDITIONAL NDT INSPECTION WILL BE CARRIED OUT AT OUR 500 HOUR CHECKS. APPROXIMATELY TIME OF UNITS IN SERVICE 2000 HRS. PROBABLE CAUSE A GREATER SPRING (TENSION) LOAD IS USED TO COMPENSATE FOR THE LARGER FLAPS EMPLOYED ON THE METAL SPARED WINGS, AND A HIGHER NUMBER OF FLAP

BBAVIA LYC BRACKET CRACKED 09/26/2000 7826
8GCBC O360C2E 22123 STABILIZER CA001018004 (CAN) ON 100 HOUR INSPECTION, LOWER STABILIZER ATTACHMENT BRACKET, WHICH SPANS BETWEEN TAIL POST AND STAB AFT SPAR FITTING, WAS FOUND CRACKED APPROXIMATELY 1 INCH UP FROM LOWER WELD AREA. CRACKS FOUND ON BOTH SIDE ANGLES.

BEECH PWA SHUTOFF VALVE FAILED 12/11/2000
1900C PT6A60A 20010215CW008
WHILE TROUBLE SHOOTING LEFT FIREWALL FUEL SHUT OFF VALVE TROUBLE, FOUND WIRE CORR. AT CONNECTOR A124P1 SOCKET NR1. THIS IS THE POWER WIRE TO THE SWITCH AT THE T HANDLE, REPAIRED WIRE AT SOCKET BY REPLACEMENT OF SOCKET. NOTE: THE SHUT OFF VALVE GETS POWER FROM HOT BATTERY BUSS AND AC BUSS. BOTH POWERS RUN TO THE ONE LOCATION. IF THIS DOESNT WORK THE VALVE WILL NOT SHUT. CAUSE MAY BE FLUID LEAKING IN THE STORM WINDOW AND RUNNING DOWN THE SIDE WHEN AC IS SITTING ON THE GROUND.

BEECH CONTROL UNIT MALFUNCTIONED 03/23/2001 60
58 50 389012 23 RIGHT 20010326AP001
PILOT REPORTED THAT THE CONTROL WAS HARD TO MOVE. FOUND IN THE LOGS THAT THE INSTALLER HAD LUBED THE CONTROL. LUBRICATION WILL GUM UP THE DRY LUBE AND MAKE IT HARD TO MOVE.

BEECH CONT HEATER ERODED 01/18/2001 11500
58 IO520* FR81D943EL 20010214CW001
PILOT SMELLED CABIN HEATER GASES IN AIRCRAFT. INSPECTED FOUND CABIN HEATER(B4500) CERMA KOTE, COMBUSTION CAN WITH HOLEIN AFT AREA OF CAN BY REAR DRAIN. INSTALLED REBUILT HEATER.

BEECH PWA ROD END DISCONNECTED 01/30/2001 12250
65A90 PT6* HM6 NOSE GEAR STRNG 20010301CW006

NOSE GEAR STEERING ARM BECAME DISCONNECTED DURING TAXI, SENDING AC INTO HARD RIGHT TURN. ROD END BALL AND BUSHING SEPARATED FROM ROD END EYELET. NO ABNORMAL WEAR WAS NOTED. RECOMMEND INSTALLING LARGE DIAMETER WASHER UNDER HEAD OF BOLT FOR RETAINING ROD END EYELET IN CASE OF FAILURE. ROD END IS NOT PART OF NOSE GEAR OVERHAUL, SHOULD BE INSPECTED.

BEECH PRESTOLITE RELAY FAILED 02/09/2001 10775
76 MHB4016 SBC9401 LT STARTER CA010313016 (CAN) LT ENGINE STARTER REMAINED ON AFTER SWITCHING STARTER OFF. STARTER RELAY HAD STUCK ON DUE TO ERRODED CONTACTS. STARTER SUBSEQUENTLY OVERHEATED AND FUSED ITSELF. THIS CONDITION CAUSED ALL ELECTRICAL POWER AVAILABLE FROM THE AIRCRAFT CHARGING SYSTEM AND BATTERY TO GO TO THE STARTER AS A DEAD SHORT, THEREFORE ALL ELECTRICAL SYSTEMS WENT COMPLETELY DEAD IN APPROXIMATELY 30 SECONDS.

BEECH LYC BEECH DOWNLOCK FAILED 11/30/2000
76 O360* BE76 1003810061 LT MLG 20010209CW005 THIS IS A TWO WAY SWITCH, ONE HALF IS FOR THE INDICATOR LIGHT WHICH WORKS, THE OTHER HALF IS FOR THE DOWN & LOCK SYSTEM. WHICH SHUTS OFF THE MOTOR WHEN THE GEAR IS DOWN. THE MAINTENANCE MANUAL TROUBLESHOOTING SECTION IS INCORRECT, IT SAYS IF THE MOTOR KEEPS RUNNING, ONE OR MORE SWITCHES ARE OPEN. IN REALITY ONE OR MORE SWITCHES ARE CLOSED.

BEECH BRACE CRACKED 07/13/2000 4060
99 998100289 MLG CA000809011 (CAN) FATIGUE CRACKS LOCATED AT BASE OF TQ KNEE LUG ON UPPER BRACE. CRACKS RANGE IN SIZE FROM 1/4 TO 3/8 INCH LONG AND RUN PARALLEL TO THE TQ KNEE LUG RADIUS. UPPER BRACE REMOVED FROM SERVICE.

BEECH PWA CLEVELAND WHEEL CRACKED 09/23/2000
A100 PT6A28 40289 16218000 MLG CA001017008 (CAN) DURING A ROUTINE INSPECTION MAINTENANCE NOTICED A CRACK IN THE PAINT IN THE BEAD AREA. AREA WAS CLEANED WITH A LIQUID DYE PEN INSPECTION FOUND A 2.5 INCH CRACK FOLLOWING THE CIRCUMFERENCE. WHEEL ASSEMBLY WAS REPLACED.

BEECH PWA LINK CRACKED 03/10/1998 13000
A100 PT6A28 1018200141 NLG STEERING CA980317055 (CAN) DURING ROUTINE INSPECTION THE NLG STEERING LINK BRACKET FOUND CRACKED. NEW LINK RECEIVED IS MADE OF MUCH HEAVIER MATERIAL. REPLACED.

BEECH CONT GASKET DAMAGED 10/19/2000
A35 E185* RG532451 CYLINDER 20010301CW002 A BACKED OUT ROCKER COVER SCREW WAS NOTICED AND A CHECK OF ALL ROCKER SCREWS REVEALED THAT MOST HAD A TOTAL LOSS OF TORQUE, WITH THE REMAINING HAVING NEARLY A TOTAL LOSS. GASKETS WERE INSTALLED 7 HOURS EARLIER WITH NEW SCREWS, WASHERS ANDLOCKWASHERS. GASKETS WERE INSTALLED AT THE TORQUE OF 25 LBS AS PER INSTALLATION INSTRUCTIONS. INSPECTION OF THE GASKETS SHOWED NO VISIBLE DEFECTS. GASKETS MUST HAVE RELAXED DURING THE SHORT TIME IN SERVICE CAUSING A LOSS IN TORQUE. LOCKWASHERS ALONE ARE BEECH PWA

TUBE SPLIT 07/24/2000
B200C PT6A42 44EVAB4 BLEED AIR CA000809012 (CAN) DURING CLIMB CREW OBSERVED A RT BLEED AIR LIGHT. WHEN RT BLEED AIR SWITCHED OFF, LT BLEED WOULD NOT HOLD CABIN PRESSURE. AN EMERGENCY DESCENT WAS CARRIED OUT. AT 7,000 THE AIRCRAFT LEVELED OFF AND RETURNED TO BASE. THE DAMAGED PIECE OF TUBING WAS REPLACED AND THE AIRCRAFT RETURNED TO SERVICE. THIS TUBING IS PRESSURIZED BY THE BLEED AIR SYSTEM. IF IT LEAKS. AS IS THE CASE WITH THIS AIRCRAFT IT WILL GIVE A BLEED AIR INDICATION, AND A FALSE WARNING TO THE FLIGHT CREW.

BEECH PWA MOUNT CRACKED 01/03/2001
B300 PT6* 10191012253 ENGINE 20010124CW003 COWL ATTACH LUGS CRACKED ON ENGINE MOUNT. ALSO, CORROSION FOUND AT MOUNT TO FUSELAGE ATTACH POINT BOLTS AND SPACING WASHERS.

BEECH PWA BEECH BOOT DETACHED 02/12/2001 3880
B300 PT6A60A B300 10138000110 HORIZ STAB DEICE CA010308013 (CAN) AIRCRAFT WAS IN CLIMBOUT FROM ST.JOHNS AIRPORT, AT 22,000 FEET, AIRSPEED 140 KNOTS, RATE OF CLIMB 1,800 F.P.M., PILOT EXPERIENCED SEVERE BUFFETING TO THE POINT THAT A/C WAS ABOUT TO STALL. STALL WARNING DID NOT ACTIVATE, A/C WAS PLACED IN LEVEL FLIGHT AND BUFFETING STOPPED. A/C RETURNED TO ST. JOHNS FOR MAINTENANCE. UPON INSPECTION MAINTENANCE DISCOVERED THAT THE RIGHT DE-ICER BOOT HAD DETACHED FROM THE HORIZONTAL STABILIZER ON THE OUTBOARD END. NEW DE-ICER BOOTS WRE INSTALLED ON THE LEFT AND RIGHT SIDE, A/C WAS TEST FLOWN ALL FLIGHT CHARACTERISTICS NORMAL.

BEECH PWA WINDSHIELD CRACKED 02/26/2001 5
B300 PT6A60A 10138402522 COCKPIT CA010314003 (CAN) WHILE IN CRUISE FLIGHT AT FL310 AND OAT -50 DEGREES C, FLIGHT CREW OBSERVED RT WINDSHIELD OUTER PANE CRACK DEVELOP. CRACK WAS DIAGONAL IN LOWER INBOARD CORNER (APPROXIMATELY 6 INCHES). POH ABNORMAL CHECKLIST FOLLOWED AND FLIGHT RETURNED TO POINT OF DEPARTURE.

BEECH PWA BRACKET CRACKED 10/04/2000 4478
C90A PT6A21 5061000090 ELEVATOR CA001017010 (CAN) DURING A ROUTINE MAINTENANCE, IT WAS OBSERVED THAT THERE WAS A CRACK ON THE ELEVATOR INBOARD RIB BRACKET, UPON DISASSEMBLY OF THE PART FOR REPLACEMENT, IT WAS NOTICED THAT THE INBOARD RIB WAS ALSO CRACKED IN THE SAME AREA. THE CRACKON THE RIB WAS FROM A RIVET HOLE. THIS PROBLEM HAS BEEN REPORTED BY US INITIALLY ON AIRCRAFT.

BEECH LYC MOTOR FAILED 03/01/1998
E95 IO360B1B 14818 MLG CA980311005 34 (CAN) LANDING GEAR FAILED TO COMPLETELY RETRACT AFTER TAKEOFF. GEAR SELECTED DOWN AND NO MOVEMENT. GEAR RESELECTED UPN AND GEAR CIRCUIT BREAKER POPPED. FLY BY INDICATED GEAR DOWN. AIRCRAFT LANDED. GEAR RETRACT MOTOR REPLACED. ARMATURE BADLY ERODED, BRUSHES SHORT AND CARBON.

BEECH CONT CRANKCASE CRACKED 02/01/2001 5874
M35 IO470C 629288 LT TOP CTR CRKCS 20010228CW003 DURING ANNUAL INSP, OIL LEAK NOTED AT TOP OF CRANKCASE, CLEANING AND RERUN, OIL LEAK RETURNED. FOUND 1.25 IN CRACK EXTENDING FROM TOP CENTER CASE BOLT HOLE AT AREA WHERE FUEL FLOW DIVIDER BRACKET ATTACHES. CRACK IN NON-CRITICAL AREA AND WITHIN CRACK LIMITATIONS EXCEPT OIL LEAK IN EXCESS. ENGINE REMOVED FOR REPAIRS/ CRANKCASE RECONDITIONED.

BEECH CONT PUMP LEAKING 12/17/2000
V35B IO520* 63815416 BACK OF ENGINE 20010222CW004 1500 SHORTLY AFTER TAKEOFF, PILOT SMELLED SMOKE IN COCKPIT AND RETURNED TO AIRPORT. UPON INSPECTION, FOUND ENGINE DRIVEN FUEL PUMP TO BE LEAKING BETWEEN CASE HALVES. NO HEAT RELATED DAMAGE TO ENGINE AREA WAS NOTED.

BELL LYC HOUSING CRACKED 05/31/2000

205A1 T5313B 118010502 ACTUATOR CA000614015 (CAN) PART WAS SUSPECTED TO BE CRACKED DURING A DAILY INSPECTION OF THE AIRCRAFT. THE PART WAS MOVED FOR INVESTIGATION AND THE CRACK FAILED. IF THE PART HAD FAILED IN FLIGHT IT WOULD HAVE CAUSED SEVERE COMPRESSOR STALLING OF THE ENGINE.

BELL ALLSN GOVERNOR MISINSTALLED 06/21/2000
206B 250C20 23006259 ENGINE CA001013021 (CAN) WHEN CHECKING THE GOVERNOR ON RECEIPT, IT WAS NOTED THAT THE T FITTING WAS INSTALLED IN THE WRONG PORT. FITTING WAS REMOVED AND INSTALLED IN THE CORRECT PORT.

BELL ALLSN CASTING CRACKED 05/04/2000 9069
206B 250C20 206031446001 T/R GEARBOX CA000706035 (CAN) CRACK FOUND AT AFT CASTING WHERE TAIL ROTOR GEARBOX MOUNTS IN TAILBOOM ON R/H HOLE. CASTING REMOVED BY OVERHAUL SHOP FOR REPLACEMENT AND CRACK ALSO LOCATED IN LT MOUNTING AREA. CRACK WAS FOUND ON SCHEDULED 100 HOUR INSPECTION OF AIRCRAFT.

BELL ALLSN WASHER MISSING 07/12/2000
206B 250C20 B0500025 T/R PEDAL CA001205005 (CAN) WHEN INVESTIGATING EXCESSIVE PLAY OF THE PILOTS PEDAL ADJUSTMENT, IT WAS NOTED THAT MISSING AND INCORRECT PARTS EXISTED. B0500-26 WASHERS WERE MISSING FROM THE ASSEMBLY AND THE TIE BOLT HAD ALMOST 1/4 OF END PLAY. (NOTE: PARTS ON ORDER.)

BELL ALLSN PITCH LINK MISINSTALLED 06/02/2000 1089
206B 250C20 206010355007 MAIN ROTOR CA001205009 (CAN) INCORRECT P/N FORK INSTALLED ON THE UPPER END OF THE ASSEMBLY. THIS FORK HAS THE SAME DIMENSION AS THE BOTTOM FORK (.8621). WHEN INSTALLED OVER THE TRUNNION THERE IS A SPREAD STRESS OF .013 INCHES.

BELL ALLSN CONNECTOR BURNED 01/31/1998
206B 250C20B 206072903001 CARGO HOOK CA980317080 (CAN) CARGO HOOK RELEASE CABLE BURNT THROUGH DUE TO ARCING FROM DEFECTIVE PIN IN CARGO HOOK ELECTRICAL RELEASE CONNECTOR PLUG. WIRE WAS GROUNDING OUT THROUGH CARGO HOOK.

BELL NUT CRACKED 03/11/1998
206L 206010360001 PITCH LINK CA980325051 (CAN) PITCH CHANGE LINK NUTS (P/N MS35691-25) FOUND CRACKED. PROBABLE TIME ON NUTS 8841 HRS.

BELL ALLSN CHECK VALVE FAILED 04/25/2000
206L1 250C30P FUEL SYSTEM CA001013011 (CAN) C-GLMV UNDERGOING AFTER FUEL SYS MAINT CHECK, (2 MIN AT 100 PERCENT NR WITH BOOST PUMPS OFF) WHEN IT FLAMED OUT. A/C HAD BEEN RUNNING FOR APPROX. 10 MIN W/O INCID. PRIOR TO PULLING PUMPS. A/C THEN BLED & RESTARTED & RUN AT 100% FOR 20 MIN. BOOST PUMPS WERE TURNED OFF & ENG FLAMED OUT AGAIN. FUEL SYS INVESTIGATED & IT FOUND THAT BOTH OF INLINE CHECK VALVES WERE STUCK IN OPEN POSITION. ALLOWED ENG DRIVEN PUMP TO DRAW AIR INTO SYS ONCE BOOST PUMPS WERE PULLED OFF LINE. A/C ONLY HAD 125 LBS OF FUEL ON BOARD SO FWDTANKS WOULD HAVE BEEN EMPTY DURING TEST.AFTER INSP OF CHECK VALVES THEY WERE FOUND TO HAVE SAND IN THEM. INLINE FILTERS WERE ALSO DIRTY.

BELL PWA SWITCH LEAKING 02/19/2001
412 PT6T3 420218 FUEL BYPASS AU010155 (AUS) FUEL FILTER BYPASS SWITCH LEAKING FROM SWITCH BODY IN THE AREA WHERE THE ELECTRICAL CONNECTOR IS SOLDERED TO THESWITCH. FUEL WAS SEEN RUNNING INTO THE ENGINE INTAKE PLENUM. A REPLACEMENT SWITCH HAD POOR SOLDERING OF THE CONNECTOR IN THE SAME AREA ASTHE FAILED ITEM.

BLANCA FRNKLN SPINNER DESTROYED 09/16/2000 375
1413 6A4150* B2800 PROP ASSY 20010403CW003 ON CLIMBOUT A VIBRATION DEVELOPED THAT CONTINUED TO INCREASE IN AMPLITUDE. THE FLIGHT WAS ABORTED. SUBSEQUENT INVESTIGATION REVEALED THAT THE FORWARD PLASTIC SPINNER BULKHEAD HAD FAILED AROUND ITS PERIPHERY ALLOWING THE SPINNER TO WOBBLE. CONTINUED OPERATION IN THIS CONDITION WOULD HAVE RESULTED IN FAILURE OF THE AFT BULKHEAD AND DEPARTURE OF THE SPINNERFROM THE AIRCRAFT.

BOLKMS LYC SEAL LEAKING 02/19/1998 20
BK117B1 LTS101750B1 4639003007 T/R GEARBOX CA980317088 (CAN) POST FLIGHT WALK AROUND REVEALED OIL LEAK OF TAIL ROTOR GEARBOX. DISAASEMBLY SHOWED THAT INPUT SEAL DUST SEAL LIPHAD PEELED OFF AND WENT INTO THE SEALING LIP ALLOWING GEARBOX TO LOOSE IT''''S OIL DURINGA 40 MINUTE FLIGHT. CHIP DETECTOR WAS CLEAN AT THIS POINT, HOWEVER AFTER POST REASSEMBLY GROUND RUN, CHIP LIGHT ILLUMINATED. INSPECTION SHOWED EXCESSIVE METAL ON DETECTOR.

CESSNA CONT TRANSMITTER DEFECTIVE 01/08/2001 4757
150A O200A LT FUEL TANK 20010327CW009 AC LANDED SHORT OF RUNWAY AFTER ENGINE QUIT. AC HAD SUBSTANTIAL DAMAGE NO INJURIES. DETERMINED AC RAN OUT OF FUEL DUETO FAULTY FUEL GUAGE. REMVD FUEL QUANTITY TRANSMITTER TO FUNCTION TEST. FOUND TWO RUB SPOTS ON FLOAT, REASON FOR CONTACT BETWEEN FLOAT AND TANK APPEARS TO BE MISALIGNMENT OF FLOAT ARM. FOUND CONTACTOR DIMPLE HAD WORN THROUGH. CAUSE OF FUEL GUAGE TO STICK AT HALF TANK INDICATED COMBINATION OF FLOAT CONTACTING INSIDE OF FUEL TANK AND CONTACTOR BEING WORN THROUGH. RESEARCHING LOG FOUND SENDING UNIT HAD BEEN REMOVED 1 YEAR PRIOR & NEW GASKET INSTALLED. RECOMMEND FOR RECURRENCE PREVENTION: KNOWING SERVICE LIFE OF TRANSMITTERS & VERIFICATION OF NO.

CESSNA CONT SPAR CAP CORRODED 02/26/2001 10054
150G O200* RT WING 20010403CW016 CORROSION FOUND EXFOLIATING SPAR CAP OR RIGHT WING HEAVY CORROSION ON UPPER CABIN CARRY THRU STRUCTURE. VERTICAL STABILIZER SKIN PILLOWED AND RIVETS POPPED. FOUND 15 RIVET HEADS PULLED THRU SKIN ON CANTED BULKHEAD AT FUSLAGE STATION 20.5BOTTOM FUSELAGE. AIRCRAFT IS BEYOND ECONOMICAL REPAIR. A SEARCH OF AIRCRAFT REGISTRY SHOWS IT SPENT 18 YEARS IN FLORIDA AND REMAINDER ON EAST COAST. CURRENT OWNER PURCHASED AIRCRAFT AFTER BEING TOLD THAT IT HAD NO CORRROSION BY THE SELLER.
FOUND UNDER PAINT.

CESSNA LYC CESSNA CLAMP LOOSE 03/15/2001
172M O320E2D S351 THROTTLE CABLE CA010323013 (CAN) THROTTLE SHEAF HAD VIBRATED LOOSE FROM CONNECTING CLAMP WHICH LEFT NO CONTROL FOR THROTTLE ADJUSTMENT. THROTTLE CABLE WAS RE-POSITIONED IN THE SHEAF AND NEW HARDWARE WAS INSTALLED.AIRCRAFT WAS GROUND UN AND ALL PARAMETERS NORMAL.

CESSNA LYC FLAP TRACK CRACKED 08/29/2000 5667

172M O320E2D RT WING CA000927008 (CAN) THE ATTACHING PART BETWEEN THE FLAP TRACK AND LOWER WING SKIN WAS FOUND CRACKED DURING A ROUTINE INSPECTION. UPONINSPECTION OF ANOTHER AIRCRAFT OF THE SAME MODEL IT WAS FOUND THAT REINFORCING PART WERE NOT INSTALLED AT THE FACTORY ON SUBJECT AIRCRAFT.

CESSNA CESSNA PAN CRACKED 12/18/2000
172R 051422714 SEAT ASSY CA010119007 (CAN) DURING A 100 HOUR INSPECTION, IT WAS OBSERVED THAT THE SEAT PAN ASSEMBLY THAT SUPPORTS THE LOWER SET CUSHION ON BOTH PILOT AND CO-PILOT SEAT HAD A CRACK APPROXIMATELY 2 1/2 INCH TO 3 INCH LONG, RADIATING FROM BOTH REAR CORNERS TO THELIGHTENING HOLES JUST INBOARD AND FORWARD OF THE SAME LOCATION.A SHEET METAL PATCH WAS INSTALLED ON BOTH SIDES I.A.W. MANUFACTURERS RECOMMENDED REPAIR PROCEDURES TO REINFORCE THE PROBLEM AREAS.AS THIS CONDITION WAS OBSERVED ON BOTH OF THE FRONT SEATS, AND OCCURRED IN EXACTLY THE SAME AREAS.

CESSNA LYC CYLINDER CRACKED 03/06/2001 2010
172R IO360L2A L2744051A ENGINE 20010409CW016
AIRCRAFT WAS 4 MILES FROM AIRPORT WHEN A LOUD BANG WAS HEARD AND THE ENGINE STARTED VIBRATING AND MISSING. PILOT PULLED POWER BACK TO IDLE AND LANDED SAFELY AT AIRPORT. INSPECTED ENGINE AND FOUND NR 3 ENGINE CYLINDER WITH A CRACK, HALF AROUND CYLINDER. THIS CRACK STARTED AT THE 4TH FIN BACK FROM THE TOP SPARK PLUG HOLE AND PARRELLED THE FIN. DUE TO FREQUENT USE ENGINE TBO IS 2200 HOURS.

CESSNA LOCK BROKEN 02/15/2001 431
172S 161102105 PILOTS SEAT 20010323CW015
PILOT REPORTED HIS SEAT LOCK PINS WOULD NOT RELEASE. MAINTENANCE FOUND THE PILOTS SEAT LOCK CONTROL WAS BROKEN. THIS SAME CONTROL WAS REPLACED 431.0 HOURS PRIOR FOR THE SAME PROBLEM. BOTH CONTROL ASSEMBLYS HAVE PN 1611020-05 REPLACE CONTROL ASSEMBLY, OPERATIONAL CHECK SATISFACTORY.

CESSNA LYC STARTER INOPERATIVE 01/08/2001 773
172S IO360L2A 85009614 ENGINE 20010323CW017 773
PILOT ATTEMPTED ENGINE START. FIRST FLIGHT OF THE DAY, STARTER WOULD NOT ROTATE. MAINTENANCE FOUND STARTER HAD TWO TERMINALS MELTED WHERE THEY ATTACH TO COMMUTATOR BRUSHES. REPLACED STARTER, OPERATIONAL CHECKED SAT.

CESSNA LYC SERVO VAPOR LOCK 01/05/2001 163
172S IO360L2A 25765362 FUEL SERVO 20010223CW002
ENGINE START, RUN UP AND TAKEOFF NORMAL, WHEN THROTTLE WAS RETARDED, ENGINE BEGAN TO RUN ROUGH WITH POPPING OUT EXHAUST. MIXTURE WAS READJUSTED WITH NO CHANGE. ADVANCED THROTTLE AND RETURNED TO HOME STATION. LANDING UNEVENTFUL. ENGINERUN UP AFTER ENGINE HAD COOLED COMPLETELY INDICATED NO DEFECTS, ALL OPERATION NORMAL. MAINTENANCE INSPECTION OF ENGINE FOUND NO DEFECTS. CONCLUDED THAT FUEL VAPORIZATION CAUSED ROUGHNESS AT IDLE IN FLIGHT WITH INCREASED TEMPS, RETARDED THROTTLE AND REDUCED AIRFLOW THRU ENG AS THIS HAS BEEN CONTINUING PROBLEM. COOLING MODIFICATIONS HAVE BEEN ACCOMPLISHED ON AC ENGINE TO INCLUDE INVERTING FUEL FLOW DIVIDER.

CESSNA LYC HOSE LOOSE 12/27/2000 413
172S O360* S116730085 BRK CYL/BLKHD 20010213CW004
RIGHT BRAKE INOPERATIVE. FOUND LOOSE B-NUT ON BRAKE HOSE FROM MASTER CYLINDER. APPEARS TO HAVE BEEN LOOSE FROM FACTORY AS THERE IS NO RECORD OF WORK BEING PERFORMED IN THIS AREA, AND UNBROKEN TORQUE SEAL ON FITTINGS.

CESSNA LYC CYLINDER BROKEN 02/28/2001 1450
182S IO540* C1650310101 PILOT SEAT 20010323CW011
SEAT LOCK CYLINDER PN C1650310101 ON PILOTS SEAT. THE SHAFT ON CYLINDER BROKE WHERE IT GOES INTO THE FORK THAT ATTACHES TO SEAT BACK.

CESSNA LYC FLOW DIVIDER CORRODED 01/16/2001
182S IO540AB1A5 25765311 FUEL DIST AU010029 92
(AUS) ENGINE FUEL FLOW DIVIDED CORRODED. PARTICLES OF CORROSION BLOCKING FUEL INJECTORS. AIRCRAFT HAD BEEN CONTAMINATEDWITH EDAAND DECONTAMINATED IAW AD/GEN/80 AND MANUFACTURERS INSTRUCTIONS.

CESSNA PWA TRANSMISSION FAILED 02/12/2001
208B PT6A114A D14500462 TE FLAPS CA010222015 (CAN) AFTER LANDING THE PILOTS SELECTED FLAPS TO THE UP POSITION AND THE FLAP CIRCUIT BREAKER POPPED. THE FLAP CIRCUIT BREAKER WAS RESET AND THE FLAPS WERE SELECTED UP NORMALLY. WHEN THE FLAPS WERE RESELECTED TO THE DOWN POSITION THE CIRCUIT BREAKER POPPED AGAIN. THE FLAP TRANSMISSION AND MOTOR ASSEMBLY WERE REPLACED AND THE AIRCRAFT RETURNED TO SERVICE.

CESSNA CONT TUBE CRACKED 11/23/2000 6677
310L IO470VO 08421201 NLG CA001207020 (CAN) WHILE PERFORMING FLT TEST, GEAR SELECTED DOWN AND OVERSHOOT PERFORMED. GEAR SELECTED UP SUCCESSFULLY. A/C RE-JOINED CCT & ON APPROACH GEAR SELECTED DOWN WITH GREEN LIGHTS INDICATING GOOD MAINS BUT NOTHING ON NOSE. UPON LDG THROTTLES WERE PULLED BACK & IDLE MIXTURE CUT-OFF PERFORMED. NOSE OF A/C HELD UP AS LONG AS POSSIBLE, AS NOSE OF A/C SETTLED, NOSEGEAR COLLAPSED. 3 BLADES OF EACH PROP STRUCK GROUND AS PROPS WERE WINDMILLING, & A/C SKIDDED ON ITS NOSE FOR ABOUT 50 FEET. ONCE A/C REMOVED FROM RWY & PLACED IN HANGAR. IT WAS EVIDENT THAT NOSE GEAR DRIVE TUBE THAT IS NORMALLY 22.5 INCHESIN LENGTH AND DIRECTLY ATTACHED TO LDG GEAR ACTUATOR WAS BENT AND CRACKED.

CESSNA CONT CESSNA GEAR DAMAGED 02/02/2001
310R IO520M ALTERNATOR 646655 DC AU010157 185
(AUS) LH ENGINE ALTERNATOR DRIVE GEAR DAMAGED AND OUTER SHELL DISTORTED. EVIDENCE OF VICE MARKS ON OUTSIDE OF SHELL. FURTHERDAMAGE FOUND:-1. OIL SEAL INSTALLED BACKWARDS.2. SUPPRESSOR CAPACITOR LOOSE INSIDE OF ALTERNATOR AND SCREW LOOSE. 3. PITTING IN CASE HARDENING ON THE SLIP RING END OF THE ROTOR SHAFT. 4. STATOR CORE LAMINATIONS BADLY DISTORTED RENDERING CORE UNSERVICEABLE. THE ROTOR IN ALTERNATOR AT TIME OF STRIP DOWN INSPECTION SHOWED NO SIGNS OF CONTACT WITH STATOR.

CESSNA CONT CESSNA CLEVIS PIN SHEARED 03/03/2000 10038
337H IO360GB 12805043 MS203921C21 DOWNLOCK CA000713003 (CAN) ON INSPECTION OF LANDING GEAR DOWNLOCK ACTUATOR THE RT CLEVIS PIN HALF WAS MISSING. THE CLEVIS PIN WAS REMOVED AND FOUND TO BE SHEARED. A NEW PIN WAS INSTALLED.ON FURTHER INSPECTIONS TWO OTHERS WERE FOUND SHEARED AND MANY OTHER BENT ON DIFERENT AIRCRAFT.

CESSNA CONT GEAR CRACKED 11/16/2000 6163
401B TSIO520EB 51152373 TE FLAP GEARBOX CA001205021 (CAN) - IN FLIGHT, FLAPS SELECTED, FLAPS DID NOT RESPOND. ON GROUND CHECKED ELECTRICAL CONNECTIONS & TESTED. FOUND THAT THE FLAPS EXTENDED, BUT WOULD NOT RETRACT FULLY. ISOLATED PROBLEM TO STRIPPED REDUCTION GEAR BOX AS FLAPS COULD BE HELD IN POSITION BY HAND AND MOTOR WOULD RUN MOVING CAM TO LIMIT SWITCHES AND FLAPS WOULD NOT MOVE UNLESS LET GO (FREE RUN) WITH TENSION ON FLAPS AS IN FLIGHT, INPUTED SELECTION WOULD ONLY ROTATE CAM UNTIL CONTACT WITH WITH MICRO / UNIT SWITCHES MADE. REMOVED GEAR BOX OPENED UP AND FOUND CRACKED GEAR.

CESSNA CONT BULKHEAD CRACKED 11/20/2000 12758
404CESSNA GTSIO520M 58111491 FUSELAGE CA010131019 12758

(CAN) DURING A ROUTINE INSP BULKHEAD REFD ABOVE FOUND CRACKED. BULKHEAD IS LOCATED AT STA 115 BENEATH FLOOR & ATTACHED TO AFT SIDE IS A PULLEY FOR RUDDER PEDAL BALANCE CABLE. CRACK EXTENDED FROM A LARGE LIGHTENING HOLE TO A SMALLER HOLE USED FOR RUDDER PEDAL BALANCE CABLE. ADDITIONALLY, A 2ND CRACK WAS DISCOVERED EXTENDING FROM OTHER BALANCE CABLE HOLE TO A HOLE PROVIDED FOR CNTL CABLE ROUTING. BULKHEAD HAD BEEN PREV REPD BY ANOTHER OPERATOR BUT FOUND TO BE INADEQUATE. A DAR WAS CONTACTED TO PROVIDE A REPAIR SCHEME WHICH WAS THEN IMPLEMEN TED.QUITE PROBABLY THIS CRACKING IS CAUSED BY FLEXINGOF BULKHEAD WHEN BOTH PEDALS ARE DEPRESSED SIMULTANEOUSLY.

CESSNA OIL FILTER RESTRICTED 12/13/2000 10
414A EK9052V10 LT & RT FILTER 20010213CW003
OIL FILTER/STRAINER IN EACH ENGINE TURBOCHARGER OIL SUPPLY LINE, THESE FILTERS ARE PREMATURLY CLOGGING WITH CARBON PARTICLES FROM THE OIL CAUSING LOSS OF MANIFOLD PRESSURE. RAM VERBALLY RECOMMENDS REMOVING THIS STRAINER LELMENT TO PREVENT THIS OCCURANCE, NO WRITTEN NOTICE HAS BEEN CESSNA CONT

SEAT CRACKED 07/20/2000 7058
414A TSIO520NB 56140593 COCKPIT CA000824029 (CAN) PILOTS
SEAT SUPPORT LEFT/RIGHT CHANNELS CRACKED / BROKEN / MISSING PIECES. NEW LEFT / RIGHT SUPPORT CHANNELS FABRICATED AND INSTALLED. FOUND DURING ROUTINE SCHEDULED INSPECTION.

CESSNA BEAM CRACKED 02/09/2001
421C 505403042 NACELLE 20010209CW009
AC TOTAL TIME 4800 HRS , CRACK NOTED ON BOTH BEAMS RIGHT AND LEFT OUTBOARD SIDE OF EACH ENGINE. BOTH CRACKS APPROX 1.5IN LONG. CRACKS IN RADIUS OF BEND OF TOP STRAP OF BEAM ASSEMBLY NEAR JUNCTION OF FORE AND AFT RUNNING ENGINE MOUNT BEAMS.

CESSNA PWA SEAT CRACKED 06/29/2000 5137
550 JT15D4 551900921 CABIN CA000719011 (CAN) THE LEFT
AFT SEAT WAS REMOVED AND INSPECTED FOR CRACKING OF THE SEATBACK MOUNT TUBE. THE TUBE WAS FOUND CRACKED OUTBOARD OF THE OUTBOARD SEAT BACK PICKUP AND A CRACK JUST STARTING OUTBOARD OF THE INBOARD SEATBACK PICKUP. SEAT REPAIRED AND REINSTALLED.

CESSNA CONT SPAR CRACKED 01/20/2001
A185F IO520D 07326022 HORIZONTAL STAB AU010066 (AUS) HORIZONTAL
STABILISER REAR SPAR CRACKED IN AREA BEHIND THERE INFORCED HINGE BRACKET CRACK LENGTH 50MM (1.96IN). CAUSED BY SEVERE CORROSION ON THE DOUBLER BRACKET SECURING THE ATTACHMENT HINGE PNO 0732101-11.

CESSNA CONT CESSNA ROLL PIN DISPLACED 08/26/2000
A185F IO520D 07125002 NAS56138 TRIM ACTUATOR CA000928021 (CAN) ROLL PIN
ON LEFT STABILIZER ACTUATOR SLID OUT AND GOT CAUGHT ON THE ACTUATOR HINGE ASSEMBLY. THIS PREVENTED THE STABILIZER TRIM FROM MOVING. THE TRIM ACTUATORS WERE REMOVED, THE PIN RE-INSTALLED, AND LOCKWIRED. SUGGEST LOCKWIRING PINS IN ALL ACTUATORS.

CESSNA CONT FITTING CRACKED 10/24/2000 1600
A185F IO520D AN9176D FUEL LINE CA001106020 (CAN) THERE
WAS A STRONG SMELL OF FUEL WHEN THE AIRCRAFT WAS PARKED AND DOOR OPENED.A CHECK OF THE COMPLETE FUEL SYSTEM, FOUND UNDER CABIN FLOOR. LEFT SIDE WHERE FRONT AND REARFUEL TANK LINES ARE CONNECTED, TEE FITTING WAS LEAKING. UPON REMOVAL ATHE TEE FITTING P/N AN917-6D IT WAS FOUND TO BE CESSNA CONT

BELLCRANK WORN 01/01/2001 7758
A188B IO520* 071230916AGW RUDDER 20010306CW001
RUDDER BELLCRANK PN 0712309-16AGW HAD EXTREME WEAR SEVERAL PLACES, BOTH SIDES. WHERE THEY ARE LOCATED THEY ARE DIFFICULT TO INSPECT AND LUBERCATE. MADE INSPECTION PANEL TO BE ABLE TO GAIN ACCESS TO THIS VITAL AREA. FAILURE OF THIS PART WOULD POTENTIALLY CAUSE GROUND LOOP.

CESSNA LYC MCAULY PLATE MISSING 02/13/2001
R182 O540* C50462 PROPELLER HUB 20010321CW005
WHILE IN FLIGHT, THE C50462 SPINNER MOUNTING PLATES FAILED, RELEASING THE SPINNER FROM THE AIRCRAFT. THE PROPELLER BECAME LOOSE ON THE CRANKSHAFT DUE TO THE MISSING PLATES. WAS DAMAGED BEYOND REPAIR DUE TO SEVERE FRETTING. A NUMBER OF THE ATTACHING STUDS WERE SKIPPED AS WERE THE CRANKSHAFT BUSHINGS FROM THE SEVERE ABNORMAL LOADS IMPOSED UPON THEM. COMMON TO FIND THE C50462 PLATES CRACKED DURING OVERHAUL OR MINOR REPAIRS. HOWEVER, THIS IS FIRST OF IN-FLIGHT FAILURE KNOWN.

CESSNA LANDING GEAR COLLAPSED 08/08/2000 70
T206H 3450A MAINS 20010305CW002 70
GOT RT GEAR UNSAFE LIGHT, UNABLE TO GET LIGHT TO GO OUT. ON LANDING, ROLL OUT RT MAIN GEAR COLLAPSED, DAMAGING THE RTFLOAT. INSPECTION FOUND RT MAIN GEAR ACTUATING CONTROL SHAFT BROKEN. INSTALLED KIT, REPAIRED RT FLOAT KEEL AND SKINSTHAT WERE DAMAGED.

CESSNA CONT CESSNA RIB CRACKED 01/10/2001
T210M TSIO520R 183260029 12326194 HORIZONTAL STAB CA010131018 (CAN) DURING A
50 HOUR INSPECTION OF THE HORIZONTAL STAB, THE 4 RIBS WERE FOUND TO BE LOOSE & CRACKED. THIS IS DONE BY SQUEEZING THE NOSE RIBS (WITH A MODERATE AMOUNT OF PRESSURE) AND LISTEN FOR CLICKING SOUNDS & FEELING OF LOOSE RIVETS. THEREFORE, THE LOWER SKIN WAS PEELED BACK THE 4 RIBS WERE REMOVED AND REPLACED WITH NEW RIBS. THE SKIN WAS RIVETED BACK ON. STAB WAS INSTALLED AND AIRCRAFT WAS RETUNED TO SERVICE. 7 B&C S.D. FOUND DUING 50 HOUR INSPECTION. NO ACTION REQUIED BY FLIGHT CREW.

CESSNA CONT THROTTLE SEIZED 07/07/2000
U206F IO520F C2995050101 ENGINE CA001122020 (CAN) A NEW
THROTTLE CABLE RECEIVED FROM CESSNA WAS INSTALLED ON THE AIRCRAFT BUT SEIZED UP WHEN THE CABLE WAS FLEXED TO ALLOW HOOKUP TO THE THROTTLE CABLE. ANOTHER NEW CABLE FROM CESSNA WAS TRIED WITH THE SAME RESULT.A THROTTLE CABLE MADEBY MCFARLANE MCC299505-0101 WAS INSTALLED AND RIGGED PROPERLY WITHOUT FAULT.

CIRRUS CONT CARTRIDGE JAMMED 02/19/2001 1195
SR20 IO360E 10680009 ELEV CONTROL 20010322CW012
ON RUN UP & PREPARING FOR FLIGHT, ELEVATOR DOWN AUTHORITY COULD NOT BE ACHIEVED UNDER NORMAL CONTROL PRESSURE. PILOT RETURNED AND GROUNDED THE AIRCRAFT FOR MAINTENANCE. INVESTIGATION IDENTIFIED BINDING TO BE LOCATED WITHIN THE PITCH TRIMCARTRIDGE ASSEMBLY PN 10681004. DUE TO FOREIGN OBJECT INTRUSION INTO THE PITCH TRIM CARTRIDGE CUTOUT OPENING IN THE FORM OF A SINGLE DISCARDED COTTER PIN TAILING. WHILE THE PRE-TAKEOFF PITCH TRIM TEST WAS BEING PERFORMED, AND THE ELEVATOR PLACED IN THE NOSE UP ATTITUDE, THE COTTER PIN LODGED. THE AFT SPRING RETAINER IN THE PLACE NOT.

CNDAIR LINE CHAFED 02/12/2001

CL6002B16 AE3660010K027 HYDRAULIC CA010308010 (CAN) DURING A 60 MONTH/2400 HOUR INSPECTION, THE FLEXIBLE HYDRAULIC LINE (SUCTION TO THE ENGINE DRIVEN PUMP) OF THE NR1 SYSTEM WAS FOUND TO HAVE CHAFED A HOLE THROUGH FUEL SHROUD SUPPLY LINE TO THE EDP.HYDRAULIC LINE P/N: AE3660010K0270FUEL SHROUD P/N: 601R62701-45 ACTT: 2261.5TOTAL LANDINGS: 1082.

CONAER ADAPTER CRACKED 02/05/2001 1455
LA4200 26700115 FUEL SYSTEM 20010409AP001 0
FUEL SMELL IN CABIN, FUEL STAIN LEFT SIDE OF INTERNAL FUSELAGE AT AND BELOW ADAPTER. VISUALLY INSPECTED PART AND FOUNDCRACK AT SUMP DRAIN VALVE FITTING. FUEL LEAKED INTO AND WAS STANDING IN THE HULL. LEAK DETECTED DURING REPAIR OF STRUCTURE IN THAT AREA.

DHAV PWA DHAV BUSHING WORN 11/01/2000 9010
DHC2* R985AN1 C2W1104A C2W1071 LIFT STRUT CA001122006 (CAN) DURING ROUTINE INSPECTION THE RT TOP LIFT STRUT BUSHING WAS FOUND TO BE WORN. THIS CONDITION APPEARS TO BE A WEAKPART IN DESIGN AS WE ARE CONSTANTLY REPAIRING THE TOP END OF THE LIFT STRUTS. : THE ALUMINIUM LIFT STRUT ENDS ARE FIELDREPAIRABLE.

DHAV PWA FITTING CRACKED 02/13/2001
DHC2MK1 R985AN14B 901230602 LT FLOAT CA010301032 (CAN)
CORROSION AND STRESS CRACK DEVELOPED ON THE TAPER HOLE OF THE SPREADER BAR ATTACH FITTING LT FLOAT AFT SPREADER ATTACH P/N 901-23060-2 WAS REMOVED AND QUARANTINED. REPLACEMENT P/N S1901-23060-2 INSTALLED AS PER STC SF-92-7.

DHAV PWA CASTING LOOSE 02/11/1998 20223
DHC2MK1 R985AN14B C2CF1977AWD CSP832 CONTROL COLUMN CA980302001 (CAN) LOOSE RIVETS FOUND THAT HOLD THE TOP CASTING TO THE BOTTOM CONTROL COLUMN ASSEMBLY. SEE IPC FIGURE NR 46. SUBMITTER SUGGESTS THAT THE PILOT USING THE SEAT BELT AS A GUST LOCK MAY BE THE CAUSE.

DHAV PWA ATTACH CORRODED 03/04/1998 18195
DHC2MK1 R985AN14B LT MLG CA980325006 (CAN) FORWARD LEFT HAND LANDING GEAR ATTACH POINT FOUND CORRODED BEHIND FLOAT FITTING.TUBE AND ATTACH FITTING HAD LITTLE OR NO METAL LEFT.SB2/49 WAS COMPLIED WITH THIS AREA NOT CALLED UP IN INSPECTION FOR SB.THIS IS THIRD FINDING.

DHAV PWA CLAMP JAMMED 09/11/2000
DHC2MK3 PT6A27 AGS6052 ELEVATOR CA000928014 (CAN) AT THE END OF THE DAY WHEN THE PILOT WAS SECURING THE FLIGHT CONTROLS HE FOUND THAT WHEN HE PULLED THE ELEVATORS TO THE FULL BACK POSITION, THEY WOULD STICK IN THAT POSITION. IT WAS FOUND THAT THE CLAMP THAT SECURES THE COVER TO THE ELEVATOR TRIM JACK WAS GETTING CAUGHT ON THE ELEVATOR CONTROL LEVER. INSPECTION FOUND THAT THE IMPROPER CLAMP WAS INSTALLED. THE CLAMP WAS REMOVED AND REPLACED WITH THE PROPER PART. THE AIRCRAFT WAS RETURNED TO SERVICE.

DHAV WIPLINEINC SPRING BROKEN 09/28/2000
DHC3 8000 6A05533001 MLG CA001018017 (CAN) PILOT COMPLAINED OF NO GEAR DOWN AND LOCK INDICATION - RT MAIN GEAR. UPON INSPECTION FOUND LOCK SPRING BROKEN ANDHALF MISSING, PLUS COVER TORN AWAY. LOCKING MECHANISM FOUND NON FUNCTIONAL DUE TO STRAIN OF BOLT BECOMING BENT WHEN FORWARD LOCK CONTACTED GEAR TUNNEL TOP. SPRING AND BOLT WERE REPLACED. FUNCTION TESTED - OK. AIRCRAFT WAS RETURNED TO SERVICE. IT SHOULD BE FURTHER NOTED THAT THE OTHER MAIN GEAR LOCK SPRING WAS FOUND CRACKED AND REPLACED AT THE SAME TIME.

DHAV PWA HOSE BURNED 07/28/2000
DHC3 PT6A34 HEATER CA000824031 (CAN) ON TAKEOFF RUN SMOKE STARTED COMING FROM UNDER INSTRUMENT PANEL. THE TAKEOFF WAS ABORTED PRIOR TO LIFT-OFF THE WATER. MAINTENANCE FOUND THAT A SCAT HOSE IN THE HEATER SYSTEM FWD OF THE RT INSTRUMENT PANEL HAD MOVED REARWARD AND CONTACTED THE HOT BUS SIDE OF THE C/BS. CURRENT FOUND A GROUND THROUGH THE WIRE IN THE SCAT HOSE AND CAUSED ARICH SECTION OF THE SCAT HOSE TO BURN.THE EFFECT HOSE WAS REMOVED AND C/BS WITH PITTING ON THE HOT TERMINALS WERE REPLACED. ELECTRICAL SYSTEM WILL BE PROTECTED FROM ANY POSSIBLE REARWARD MOVEMENT OF SCAT HOSE WHEN HOSE IS.

DOUG SEAT BELT BROKEN 03/28/2001
600N 600N6525 501 COCKPIT 20010406AP001
THE SEAT RESTRAINT SYSTEM ROTARY BUCKLE ASSEMBLY FAILED WHEN THE SCREWS PULLED THROUGH THE BACK PLATE. OTHER SAME TYPEASSEMBLIES INSPECTED FOUND CRACKED BACK PLATES IN 5 OF THE 6 INSPECTED.

DOUG BLADE CRACKED 10/07/2000 1233
600N 369D21102523 MAIN ROTOR CA001013028 (CAN) CRACK DETECTED IN M/R BLADE ASSY LOWER SKIN APPROX 16 INCHES FROM ROOT FITTING. CRACK APPEARS TO HAVE STARTED IN THE CENTRE OF THE BLADE SKIN AND PROGRESSED IN A CHORDWISE MANNER TOWARD THE TRAILING EDGE AND THE BLADE SPAR. CRACK WASDISCOVERED DURING A 100 HOUR INSP OF THE M/R BLADES, AS A PRECAUTION ALL M/R BLADES (6) WERE REPLACED. M/R BLADES REMOVED HAVE BEEN RETURNED TO THE MANUFACTURER FOR FURTHER EVALUATION AT THEIR REQUEST.

DOUG FITTING CRACKED 10/07/2000 1496
600N 500N34215 500N34223 TAIL BOOM CA001013027 (CAN) DURING REMOVAL OF TAILBOOM ASSY TO FACILITATE MAINTENANCE A CRACK WAS DISCOVERED AT THE UPPER RT TAILBOOM ATTACH FITTING. FURTHER INVESTIGATION IN THE FUSELAGE STRUCTURE REVEALED MORE CRACKING IN THE FUSELAGE TAILBOOM SUPPORT STRUCTURE.

GROB LYC SPINNER DEBONDED 02/23/2001
G115 O360A1F6 C19042 PROPELLER AU010214 (AUS) PROPELLER SPINNERS (7OFF) FOUND TO HAVE DISBONDED OR POOR BONDING BETWEEN THE INTERNAL FORWARD SUPPORT BULKHEAD AND THE SPINNER WALL. THE SPINNERS WERE NEW ASSEMBLIES BEING INSPECTED ON RECEIPT FROM THE MANUFACTURER.

GULSTM LYC STRUT CONTAMINATED 02/23/2001 1711
112 IO360C1D6 NLG CA010314027 1711
(CAN) A/C HAD UNCOMMANDED NOSE GEAR RETRACTION UPON LDG. IT NOTICED DURING POWER PACK PRESSURE TEST THAT 700PSI ON UP SIDE WHEN GEAR EXTENDING & THAT PRESSURE WOULD NOT DECREASE BELOW 50-100 PSI WHEN GEAR WAS FULLY EXTENDED.RESIDUAL PRESSURE PREVENTING DETENT PINS FROM ENGAGING. HYDRAULIC POWER PACK REMOVED & DISASSEMBLED. FOUND ONE 8 OF INCH OF BLACK SLUDGE & 1 X 5 INCH PIECE OF PAPER IN RESERVOIR.VALVE BODY ALSO DISSASSEMBLED. FOUND GEAR UP CHECK VALVE O-RING HARD & BRITTLE & SEATS OF MOST OF VALVES COVERED WITH SLIMY GOO. NOSE GEAR ACTUATOR DISASSEMBLED. MAIN PRESSURE O-RING GULSTM LYC BRACKET CRACKED 01/20/2000 10569
500B IO540E1A5 45300655 RUDDER PULLEY CA000713002 (CAN) ON INSPECTION BOTH LT AND RT RUDDER PULLEY BRACKETS WERE FOUND CRACKED AT THE TOP PORTION. PULLEY BRACKETS WERE PATCHED USING THICKER ALUMINUM. FURTHER INSPECTIONS FOUND TWO OTHER PULLEY BRACKETS CRACKED IN THE SAME LOCATION.

GULSTM GARRTT CHANNEL FAILED 01/22/2001 10545

690A TPE331* 3107041 LT & RT E27R730 DURING PRESSURIZATION LEAK CHECKS, THE CABIN WAS FOUND TO HAVE TWO LARGE LEAKS IN THE LEFT AND RIGHT WING ROOT AREA. ON EXAMINATION OF THE SUSPECT AREAS IT WAS FOUND THAT THE LEFT AND RIGHT SUPPORT CHANNELS PN 3107041 & 3107042 HAD FAILEDFROM FS 144 WL TO FS 175 WL 14, THE FAILURE ALLOWED THE AIRCRAFT SKIN TO PULL AWAY FROM ITS SUPPORTING STRUCTURE ABOVE THE PICTURE WINDOWS IN EXCESS OF .25.

GULSTM TIRE FAILED 02/13/2001
GV 217K221 NLG 20010312CW002
NOSEWHEEL TIRE HAS SEPARATION OF TREAD FROM CARCUS. BONDING BETWEEN TREAD AND CARCUS DEBONDED.

HUGHES ALLSN COLL PITCH CORRODED 02/16/1998 7035
369D 250C20B 369H7354 TUBE CA980317056 (CAN) PILOT COLLECTIVE TUBE P/N 369H7354 HAD 2 AREAS OF EXCESSIVE WEAR AND ONE AREA OF EXCESSIVE CORROSION. COLLECTIVE FRICTION GRIP AREA HAD .007 WEAR AND THROTTLE FRICTION AREA HAD .008 WEAR. CORROSION WAS FOUND ON THE BOTTOM END OF TUBEWHERE TUBE FITS INTO SOCKET AREA.

HUGHES ALLSN PIN BROKEN 11/25/2000 5011
369D 250C20B 369A10045 M/R BLADE CA001201020 (CAN) DURING AN APPROACH FOR LANDING TO REFUEL, THE PILOT AND ENGINEER ON BOARD EXPERIENCED A NOTICEABLE VIBRATION. UPON LANDING THE ENGINEER FOUND THAT A M/R BLADE PIN WAS SITTING A BIT HIGHER THAN THE OTHERS. WHEN HE UNLATCHED TO PIN, THE THREADED PORTION OF THE PIN DROPPED OUT, INDICATING THAT IT HAD BROKEN NEAR THE SHANK AND TOP OF THE THREADED REGION. THE AIRCRAFT WAS GROUNDED, NEW PIN ORDERED, AND ALL OF THE REMAINING M/RBLADES PINS WERE INSPECTED..

HUGHES STRUT CRACKED 12/15/1999 5019
500N 369H600151 LT MLG CA000110025 (CAN) LEFT REAR LANDING GEAR STRUT STRUCTURALLY FAILED. IT APPEARS THAT THE CRACK BEGAN AT RIVET HOLE FOR STRUT FAIRINGATTACHMENT BRACKET.

MOONEY LYC OIL FILTER MISINSTALLED 09/08/1999
M20 IO360A1A ENGINE CA000824016 (CAN) FOUND OIL FILTER HOUSING INSTALLED ON AIRCRAFT, 180 OUT. CAUSED AIRCRAFT ENGINEOIL TO OVER HEAT. THIS IS THE SECOND TIMEI I HAVE FOUND THIS PROBLEM. THERMO VALVE DOES NOT LINE UP WITH OIL COOLER PASSAGE. NO COOLING FOR OIL.

MOONEY LYC LINK CORRODED 01/27/2000 4213
M20E IO360A1A 540053 NLG CA000209005 (CAN) WHILE RPLACING THE RUBBER SHOCKS ON THE NOSE GEAR SHOCK ASSEMBLY, IT WAS NOTICED THAT THERE WAS CORROSION ON THE POST WHERE THE RUBBER DISCS ARE PLACED.IN ORDER TO DETECT CORROSIONIN THIS AREA,THIS ASSEMBLY HAS TO BE REMOVED AND DISSASEMBLED.

PILATS PILATS BUSHING FAILED 01/03/2001 1351
PC1245 5551012036 9412259360 HORIZONTAL STAB CA010130009 1351
(CAN) HORIZONTAL STABILIZER HAS MOVEMENT OF .003 AT ATTACHMENT POINTS, WHEN TIP OF STAB IS MOVED IN A UP AND DOWN MOTION. THIS AIRCRAFT HAS BEEN LIKE THIS SINCE NEW. AS PER PILATUS, 0 TOLERANCE ALLOWED AT ATTACHMENT POINT. BUSHINGS WERE REPLACED WITH NO IMPROVEMENT. BOLTS PLACED ON ORDER TO TRY TO.

PIPER LYC WHEEL BROKEN 02/22/2001 3180
PA23250 IO540* 16105800 MLG 20010403CW013
PILOT NOTICED RIGHT BRAKE GRABING WHILE TAXIING OUT FOR DEPARTURE. AFTER STOPPING TO INVESTIGATE, NOTICED A BULGE ON THE INSIDE RIGHT WHEEL HALF. WHILE TAXIING BACK TO THE HANGER, THE BEAD AREA LET GO AND THE TIRE DEFLATED. AN 8 INCH PIECE BROKE OFF AT THE BEAD. THE PILOT STATED THAT A RATHER HARD LANDING HAD OCCURED JUST BEFOR THIS FLIGHT BUT DID NOT CAUSE ANY OTHER DAMAGE.

PIPER LYC CABLE FRAYED 12/20/2000 1740
PA28181 O360A4M 62701124 AILERON BAL CBL 20010227CW003
AILERON BALANCE CABLE FRAYED ABOUT 8 INCHES FROM TURN BUCKLE, NEW CABLE INSTALLED.

PIPER LYC ENGINE FAILED 01/12/2001 687
PA28R200 IO360C1C ENGINE BAY CA010214008 (CAN) ENGINE HAD STOPPED / SEIZED AFTER THE ENGINE HEATER PLATE WHICH HAD BEEN INSTALLED THE DAY BEFORE THE FLIGHT WAS DISLODGED WHEN THE NOSE LANDING GEAR DRAG LINK CONTACTED WITH THE PLATE IN GEAR UP POSITION. THE PLANE LANDED THE PILOT DIDNT NOTICE ANYTHING. ON THE SECOND FLIGHT WHEN SELECTING GEAR UP THE PLATE WAS PUSHED ON THE QUICK DRAIN BY THE LANDING GEAR AND ALLOWED THE ENGINE OIL TO DRAIN COMPLETELY. ENGINE STOPPED THE PILOT HAD TO MAKE A FORCED LANDING IN A PIPER LYC LIMIT SWITCH FAILED 11/23/2000
PA28R200 IO360C1C 67411005 MLG CA010223005 (CAN) GEAR WOULD NOT RETRACT. AIRCRAFT LANDED NORMALLY. AIRCRAFT JACKED. NEW UPLIMIT SWITCHES INSTALLED IN MAIN GEAR, RIGGED. SUBSEQUENT TEST FLIGHTS REVEALED OTHER PROBLEMS. BROKEN WIRES WITH WIRE BUNDLES POORLY REPAIRED. REPAIRS DONE TO WIRES. AUTOMATIC GEAR DOWN VALVE FOUND TO BE LEAKING INTERNALLY. VALVE REPLACED WITH SERVICEABLE PART. REVIEW OF LOG SHOWS MANY GEAR PROBLEMS/REPAIRS IN THE PAST. AGE AND CONDITION OF AIRCRAFT A FACTOR IN THIS.

PIPER LYC WIRE MISINSTALLED 02/16/1998
PA31 TIO540A2B HEATER CA980225018 (CAN) IN FLIGHT FIRE IN REAR HEATER COMPARTMENT. HEATER SHUT DOWN DUE TO PASSENGERS AND CREW DETECTED SMELL. HEATER FAILED DECAY TEST. IGNITER GASKET LEAKING, BAD VENT MOTOR, STILL RUNNING, ONE BRUSH GONE AND ARMATURE DAMAGED. FIRE SIGNS AND FUEL LEAK DETECTED ON POST INSTALLATION. WIRES BURNED ON TRIM INDICATION AND HEATER OPERATING SYSTEM. REPAIRED OR REPLACED.

PIPER SPAR CRACKED 02/28/2001 3073
PA31350 5423224 ELEVATOR 20010404CW002
INSPECTION FOUND BOTH ELEVATOR SPARS CRACKED. INITIAL INSPECTION ADVISED AT 2500 HOURS TT. THIS WAS FIRST INSPECTION NOTE: TOTAL TIME 3073.

PIPER LYC RETAINER SEPARATED 06/21/2000
PA31350 LTIO540J2BD 531035 FUEL CAP CA000712013 (CAN) WHEN THE AIRCRAFT WAS BEING REFUELED, THE GAS ATTENDANT HAD ROTATED THE GAS CAP TO REMOVE THE CAP. THIS ACTION IN TURN ROTATED THE RETAINER (P/N 531-035), CAUSING IT TO BECOME UNLOCKED FROM THE FILLER NECK. THE CAP WAS THEN PUT BACKON AND LOCKED DOWN GIVING THE APPEARANCE OF BEING LOCKED. WHEN THE AIRCRAFT ROTATED ON TAKEOFF THE GAS CAP CAME OFF. THE RETAINER IS WHAT THE FUEL CAP LOCKS ONTO AND BECAUSE IT WAS NO LONGER LOCKED ONTO THE FILLER NECK THE CAP JUST FELL OFF. IT WAS LATER FOUND THAT THE LOCKS ON THE RETAINER HAD TO BE BENT DOWN MORE TO PROVIDE A MORE SUITABLE LOCK FOR THE RETAINER. THREE OF THE FUEL CAPS ON THE AIRCRAFT HAD THE SAME PROBLEM.

PIPER LYC EXHAUST BROKEN 03/07/2001 1724

PA31350 TIO540J2BD LW16740 NR 5 CYLINDER CA010323006 (CAN) PILOT
REPORTED HIGH OIL TEMP VERNATHERN REPLACED AND ON GROUND RUN ENGINE RAN ROUGH. LARGE AMOUNT OF OIL NOTED COMING FROM SNIFFLE VALVE MIXED WITH FUEL. SPARK PLUGS REMOVED AND FOUND THOSE REMOVED FROM NR 5 CYLINDER WERE DAMAGED. REMOVED CYLINDER AND FOUND 1/3 OF VALVE FACE (EXHAUST) MISSING. REPLACED CYLINDER AND CHECKED ALL SCREENS AND FILTERS.

PIPER LYC PIPER SPAR CRACKED 02/28/2001
PA31350 TIO540J2BD PA31350 40122002 HORIZONTAL STAB AU010173 (AUS) HORIZONTAL
STABILISER SPAR CRACKED. FOUND DURING INSPECTION IAW PIPER MSB 1007. WHEN INSPECTED IAW AD/PA31/97 AMDT2 NO CRACKS WERE FOUND DUE TO CRACKS BEING HIDDEN BY THE ELEVATOR OUTBOARD HINGE ATTACHMENT FITTING.

PIPER LYC DOWNLOCK CONTAMINATED 01/06/2001
PA34200 IO360C1E6 MLG AU010007 (AUS) LT MAIN
LANDING GEAR DOWNLOCK ARM JAMMED BY A STONE PREVENTING LANDING GEAR FROM CORRECTLY LOCKING IN THE DOWN POSITION.

PIPER CONT LINER DESTROYED 02/08/2001 43
PA34200T TSIO360EB BRAKES CA010322002 (CAN) WHILE
CONDUCTING A GENERAL WALK AROUND FOR A PRE-PURCHASE, THE INBOARD PRESSURE PLATE SIDE OF THE BRAKE CALIPERS,THE BRAKE LINERS WERE TOTALLY DESTROYED, RESULTING IN THE STEEL PRESSURE PLATE TO COME IN FULL CONTACT WITH THE BRAKE DISC WHICH CREATED DEEP GROOVES AND SIGNIFICANT AMOUNT OF HEAT TO DISCOLOR THE PRESSURE PLATES AND DISCS.

PIPER LYC VALVE MALFUNCTIONED 03/15/2001 100
PA44180 O360A1D 492303 MLG 20010403CW008 100
PILOTS REPORTED THAT LANDING GEAR WOULD NOT EXTEND, THEY THEN PULLED THE EMERGENCY EXTENSION VALVE AND THE GEAR LOWEREDWITH THREE GREEN. UPON INSPECTION FOUND THE EMERGENCY GEAR EXTENSION VALVE TO BE, SPRAYING HYDRAULIC FLUID IN NOSE BELOW HEATER. THIS IN TURN DEPLENISHED ALL FLUID IN RESERVOIR AND BURNED UP HYDRAULIC POWERPAK. SUSPECT INCORRECT ORING IN VALVE.

PIPER LYC CLEVELAND ACTUATOR FAILED 02/03/1999 395
PA46350P TIO540AE2A 5913 592625 NLG CA991209026 (CAN) NOSE
GEAR SEQUENCE ACTUATOR FAILED, CAUSING MAJOR LEAK IN HYDRAULIC SYSTEM,.THIS CAUSED THE GEAR TO NOT FULLY EXTEND.

ROBSIN LYC HUB CORRODED 03/15/2001
R44 O540F1B5 C1281 TAIL ROTOR AU010230 (AUS) TAIL ROTOR
HUB CONTAINED STRESS CORROSION AND CRACKING FROM THE TEETER BEARING RACES.

SAAB GE FITTING CRACKED 01/28/2001
340B CT79B 7257800504 7257830022 TE FLAP AU010056 (AUS) RT FLAP
ASSEMBLY OUTBOARD FITTING AFT ATTACHMENT LUG CRACKED. CRACK APPEARS TO HAVE EMANATED FROM THE BOLT/BUSHING HOLE AND PROGRESSED THROUGH ONE SIDE OF THE LUG. FOUND DURING VISUAL INSPECTION IAW SB-340-57-037.

SCWZER CABLE FRAYED 01/21/2001
SGS233A 22D1174A ELEVATOR CA010314024 (CAN) BEARING
ASSEMBLY AFT END OF TORQUE TUBE ASSEMBLY, LT MOUNT NUTCONTACTING CABLE. SUSPECT ANGLE BLOCK (FAIRLEAD) AFT END OF TORQUE TUBE ASSEMBLY AMPLIFIED DAMAGE TO CAUSE CABLE WEAR IN EXCESS OF 50 PERCENT. FURTHER INVESTIGATION ONGOING BY SCHWEIZER.

SKRSKY GE O-RING LEAKING 09/21/2000
S61N CT581401 INPUT COUPLING CA001012012 (CAN) WE HAVE
HAD 5 CASES OF UNACCEPTABLE GREASE LEAKAGE RATES FROM THE INPUT COUPLINGS.WHEN THE COUPLINGS WERE DISASSEMBLED THE O-RING P/N M83248-1-132 WAS FOUND TO BE EITHER FLAT OR DETERIORATED. ACRO (LANGLEY) TOLD ME THAT THEY DID A HARDNESS TEST ON THEIR BATCH OF O-RINGS AND FOUND THAT THEY FAILED. ATTACHED TO THIS REPORT YOU WIL FIND A COPY OF THE LOTNUMBER OF THE O-RINGS IN QUESTION.

SKRSKY ALLSN HUB CRACKED 01/24/2001 3985
S76A 250C30S 7610308010103 MAIN ROTOR CA010208014 3985
(CAN) DURING THE POST FLIGHT INSPECTION BY AME A FINE LINE WAS NOTICED ON THE UPPER DAMPER ATTACH LUG. THE LUG WAS PAINT STRIPPED AND A DEFINITE CRACK CAN BE SEEN. STARTING NEAR THE BOLT HOLE PROGRESSING INBOARD FOR APPROXIMATELY 1 1/4 INCH. THE MAIN ROTOR HUB WAS REPLACED.

SKRSKY ALLSN PITCH HORN CRACKED 03/05/1998 7228
S76A 250C30S 7610105006042 TAIL ROTOR CA980317051 (CAN) CRACK
FOUND ON THE TAIL ROTOR BLADE PTCH HORNS. CRACK STARTED FROM THE OUTBOARD BASE OF THE PITCH HORN AND ENDED AT THE INBOARD BASE OF PITCH HORN ALONG RADII OF THE CUFF OF THE PITCH HORN.

SNIAS HINGE WORN 12/01/2000 454
AS350B 704A33633171 TAIL ROTOR R7MR32665 ELASTOMERICS
WORN BEYOND SERVICEABLE LIMITS. REPLACED WITH NEW UNITS FROM 1 EACH KIT PART NUMBER 355A332153-00, CORRECTED PROBLEM. 2 TEETERING BEARINGS EQUALS 1 KIT.

SNIAS TMECA SHIM MISSING 04/03/2000
AS350B ARRIEL1B FREQ ADAPTOR CA001013005 (CAN) DURING
THE MAIN ROTOR BLADE REMOVAL, NOTICED THAT THE BLADE PINS WERE HARD TO REMOVE. AFTER INSPECTION, FOUND THAT THE SHIMS WERE MISSING FROM THE FREQUENCY ADAPTERS. ONCE THE SHIMS WERE INSTALLED THE BLADE PIN INSTALL WAS NORMAL.

SNIAS SKIN WRONG PART 02/27/2001 14116
AS350BA TAILBOOM CA010228009 (CAN) - TAILBOOM
COLLAPSED AFTER LANDING. - TAIL ROTOR DRIVE DISCONNECTED, FAILING DAMAGE.- LOWER FORWARD SKIN BUCKLED AND FRACTURED BETWEEN NR 3 AND 4 BEARING. - FAILURE ANALYSIS FOUND WRONG SKIN THICKNESS.- MEASURES 0.0325 INCH, SHOULD BE 1.0MM (0.03937 INCH). - OPERATOR INSPECTED FLEET OF 6 OTHERS AND FOUND AIRCRAFT S/N 2495 ALSO HAS INCORRECT SKIN. - BOOMS ARE FACTORY ORIGINAL - NO REPAIR HISTORY. - EUROCOPTER USA ADN HAWAII FAA NOTIFIED.

SWRNGN GARRTT RIB CRACKED 02/26/2001
SA227AC TPE33111U 273102336 RT WING AU010165 (AUS) RT WING RIB
CRACKED IN BEND RADIUS. RIB FORMS THE INNER WALL OF THE BATTERY BOX. CRACK LENGTH 203.2MM (8IN).

SWRNGN GARRTT CONNECTOR COLD SOLDER JT 03/17/1998
SA227AC TPE33111U EGT HARNESS CA980325037 (CAN) AIRCRAFT
EXPERIENCED FALSE EGT READING WHICH CAUSED THE SRL TO BYPASS FUEL AND CAUSE THE RIGHT ENGINE TO SURGE. WIRE FOUND WITH A COLD SOLDER JOINT ON TOP OF THE ENGINE IN THE EGT WIRING SYSTEM. WIRE REPAIRED AND AIRCRAFT SENT ON A TEST FLIGHT. AIRCRAFT RETURNED TO SERVICE.

WSK WSK SPAR CAP CRACKED 01/30/2001 4229
M18A ASZ62IRM18 D21200380 WING CENTER BOX 20010326CW003
DURING REPAIRS OF THE WING CENTER SECTION FOR CORROSION DAMAGE TO THE TRAILING EDGE SECTION OF THE WING AND DURING HIDDEN DAMAGE INSPECTION, FOUND .1250 INCH DEEP CRACK IN THE FORWARD LOWER SPAR CAP. THE CRACK RAN APPROX 24 INCHES INBOARDIN A SPANWISE DIRECTION FROM THE LEFT LOWER WING ATTACH FITTING. CRACK PASSED THROUGH 2

BOLT HOLES IN THE SPAR THAT ATTACH THE LOWER WING ATTACH FITTING. CRACK IN SPAR CAP WAS CONFIRMED BY NDI INSP USING EDDIE CURRENT, AND DYE PENETRANT METHODS. LOWER SPAR CAP WAS REPLACED WITH NEW PZL PART AND WING CENTER SECTION WAS RETURNED TO SERVICE. RECOMMEDN A CLOSE INSPECTIONOF ALL WING ATTACH FITTINGS AND SPAR CAPS DURING ANY INSPECTION ON THIS.

ZLIN		TERMINAL	BROKEN	03/08/1998	1704
Z242L		20A075	AC GENERATOR	CA980318038 (CAN)	STUDENT

PILOT ON CROSS COUNTRY TRAINING FLT HAD REACHED HIS DESTINATION. HE WAS IN PROGRESS OF COMPLETING AIR WORK WHEN HE OBSERVED THE NAV/COMM SYS DISPLAYS CYCLING ON AND OFF. MOMENTS LATER HIS GYROINSTRUMENTS ALL FAILED ALONG WITHALL LIGHTING SYSTEMS. THE PILOT WAS LEFT WITH HIS ENG MANIFOLD PRESSURE AND RPM INDICATORS OPERATIONAL ALONG WITH TURN AND BANK INDICATOR THAT WAS NOW OPERATING ON I T''S EMERGENCY POWER SOURCE. THE PILOT LANDED WITH THE AID OF HIS FLASHLIGHT. THE ALTERNATOR FIELD WIRE TERMINAL END AT THE ALTERNATOR HAD BROKEN CAUSING THE ALTERNATOR TO GO OFF

ZLIN	LYC	LINE	FAILED	10/16/2000	
Z242L	AEIO360A1B6	13X395MOM181	ENGINE OIL	CA001031003 (CAN)	DURING

SCHEDULED MAINTENANCE (HOSES REPLACEMENT 5 YEAR) ENGINE OIL HOSES (FROM ENGINE TO OIL COOLER) P/N 13X395 MOM 1818.2 WAS FOUND: RADIUS ON THE HOSE WAS BELOW MINIMUM RECOMMANDED RADIUS (10 X DIAMETER OF THE HOSE). MEASURED RADIUS WAS 5 INCH, NEW HOSE SAME P/N INSTALLED. RECOMMENDED ACTION TO THE OWNER IN CLOSED 100 HR INSPECTION PROVIDE NEW ENGINE OIL HOSE (LONGER) AND RE-ROUTING

OMB No. 2120-0003

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

MALFUNCTION OR DEFECT REPORT

OPER. Control No.	
ATA Code	
1. **A/C Reg. No.**	**N-**

Enter pertinent data	**MANUFACTURER**	**MODEL/SERIES**	**SERIAL NUMBER**
2. **AIRCRAFT**			
3. **POWERPLANT**			
4. **PROPELLER**			

5. SPECIFIC PART *(of component)* CAUSING TROUBLE

Part Name	MFG. Model or Part No.	Serial No.	Part/Defect Location.

6. APPLIANCE/COMPONENT *(Assembly that includes part)*

Comp/Appl Name	Manufacturer	Model or Part No.	Serial Number

Part TT	Part TSO	Part Condition	7. Date Sub.

8. Comments *(Describe the malfunction or defect and the circumstances under which it occurred. State probable cause and recommendations to prevent recurrence.)*

Optional Information:

Check a box below, if this report is related to an aircraft

☐ Accident; Date _____ ☐ Incident; Date _____

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