SELECTED SERVICE DIFFICULTY REPORTS

1 August 2008 – 30 September 2008

AIRCRAFT ABOVE 5700KG

Airbus A319115 Elevator hinge-fitting broken. Ref 510007069
No5 elevator hinge fitting lower lock tang missing.
P/No: D5528000101000. TSN: 7,967 hours/1,321 cycles.

Airbus A321231 Landing gear door actuator pressure hose ruptured. Ref 510006957 **(photo below)**
RH main landing gear door actuator hydraulic pressure hose ruptured. Loss of hydraulic fluid.
P/No: AE2463921G0181. TSN: 20,554 hours/8,052 cycles.

Airbus A330-303 Interphone system noisy. Ref 510007106
Cabin interphone system noisy. Excessive feedback/squealing could cause hearing damage to crew and could be dangerous in an emergency. Investigation continuing.
(1 similar occurrence)

Airbus A330-203 Landing gear warning system suspect faulty. Ref 510007083
Landing gear warning system faulty. Investigation continuing.
P/No: 007LG037E. TSN: 3,071 hours. TSO: 3,071 hours.

BAC 146100A Cabin airconditioning system - odour. Ref 510007021
Oil fumes/smell in cabin. Investigation could find no cause for the smells and the aircraft re-entered service.
(12 similar occurrences)

BAC 146100A Flight control systems connector contaminated. Ref 510006966
Green spoiler system control valve electrical plug very dirty and interfering with electrical circuit.

Boeing 717-200 Aircraft heavy landing. Ref 510007022
Aircraft suffered a heavy landing. Investigation iaw AMM 05-51-04 found nil defects.
(2 similar occurrences)

Boeing 717-200 APU compressor section FOD. Ref 510007140
APU compressor blade and inlet shroud contained impact damage (FOD) which was beyond maintenance manual limits. Initial investigation found the hardware in the immediate vicinity of the APU to be intact and complete. Further investigation to be carried out to determine the origin of the FOD.
P/No: 4502440. TSN: 8,390 hours/15,192 cycles. TSO: 6 hours/3 cycles.

Boeing 717-200 Hydraulic system low quantity. Ref 510006976
RH hydraulic system low quantity. Suspect air trapped in hydraulic system following component changes. System topped up and re-bled with no faults since.
TSN: 16,373 hours/12,706 cycles.

Boeing 727-277 Floor beam lower 'T' chord fitting corroded. Ref 510006896
RH floor beam lower 'T' chord fitting corroded beyond limits. Fitting is located at Stn 825.95 above the centre wing tank.
P/No: 65863572. TSN: 57,669 hours/34,845 cycles.

Boeing 727-277 Horizontal stabiliser inner hinge pin corroded. Ref 510006904
LH and RH horizontal stabiliser inner hinge pins corroded. Found during inspection iaw AD/B727/173.
P/No: 65C104201.

Boeing 727-277 Horizontal stabiliser upper chord corroded. Ref 510006898
RH horizontal stabiliser upper chord corroded in area located between HSS 69 and HSS 80.
P/No: 651687640. TSN: 57,669 hours/34,845 cycles.

Boeing 727-2J4 Hydraulic power systems hose failed. Ref 510006973
Hydraulic hose located in RH wheel-well failed. Investigation found that the hose was one of the door actuator hoses. Loss of hydraulic fluid as a white cloud of vapour.
P/No: BACH8A08NN0310T.

Boeing 727-2J4 Leading edge slat actuator failed. Ref 510006899
RH wing No5 leading edge slat actuator failed. Investigation found the threaded portion of the actuator end cap had suffered a structural failure allowing the end cap to separate.
P/No: 269002913. TSO: 2,451 hours/898cycles/30 months.

Boeing 737-229 MLG tyre failed. Ref 510007040
No2 main wheel tyre flat spotted and blew out. Nil other damage found.
(10 similar occurrences)

Boeing 737-376 Door hinge arm cutout cracked. Ref 510006998
R1 service door lower hinge arm cutout cracked. Crack length approximately 8mm (0.314in).
(1 similar occurrence)

Boeing 737-476 Air conditioning system duct leaking. Ref 510006867
Overhead airconditioning duct leaking. Investigation found that the leak occurred at a duct repair.

Boeing 737-476 Air conditioning system pressure controller faulty. Ref 510006984
Aircraft remained pressurised after landing. Investigation found a faulty pressurisation controller.
P/No: 7638102.
(1 similar occurrence)

Boeing 737-476 Door hinge seal dislodged. Ref 510006857
Door L1 hinge seal dislodged and leaking. Investigation found filler screw on door snubber had dislodged the seal. Investigation continuing.
(1 similar occurrence)

Boeing 737-476 Forward pressure bulkhead clips missing. Ref 510006873
Clips MS16529 (PNo 65C38064) missing from forward pressure bulkhead. Omission of the clips does not meet requirements Boeing SB 737-53A1173. Investigation continuing.
P/No: 65C38064.
(5 similar occurrences)

Boeing 737-476 Fuselage lower skin cracked at equipment cooling outlet hole. Ref 510006861
Fuselage lower skin cracked. Crack running aft from equipment cooling outlet hole.
(8 similar occurrences)

Boeing 737-476 IRU unserviceable. Ref 510007000
No1 inertial reference unit (IRU) unserviceable.
P/No: HG1050AD04.
(12 similar occurrences)

Boeing 737-476 Symbol generator unserviceable. Ref 510007129
First Officer's No2 symbol generator unserviceable. Investigation continuing.
P/No: 6229436101. TSN: 24,931 hours. TSO: 24,931 hours.
(2 similar occurrences)

Boeing 737-476 Toilet return-to-seat annunciator inoperative. Ref 510007101
Aft toilet return-to-seat annunciator panel inoperative. Investigation found the ribbon cable burnt by the heat of the lamps and the plastic was brittle, discoloured and a piece was missing. One of four electrical tracks also broken. Investigation continuing.
P/No: C23102497061.

Boeing 737-476 Weather radar transceiver unserviceable. Ref 510006917
Weather radar transceiver unserviceable.
P/No: 6225132106. TSN: 31,605 hours. TSO: 19,779 hours.
(14 similar occurrences)

Boeing 737-76N Aircraft lighting systems battery pack unserviceable. Ref 510006988
Emergency lighting battery pack M1674 unserviceable.
P/No: D71702001.

Boeing 737-76Q Wing tank panel leaking due to a cracked dome nut cracked. Ref 510006994
RH wing tank panel 632CB leaking due to a cracked dome nut.
P/No: 112N61014.
(1 similar occurrence)

Boeing 737-7FE APU fuel smell in cockpit. Ref 510007052
Fuel smell on flight deck when APU operating. Smell cleared when APU shut down. Investigation could find no fuel leakage in the area of the APU and no definitive cause for the smell.
TSN: 8,888 hours/10,953 cycles.
(1 similar occurrence)

Boeing 737-7Q8 Brake hydraulic pressure line leaking. Ref 510007087
No1 brake hydraulic pressure line failed and leaking at disconnect point.
P/No: BACH8A04EN0294K.

Boeing 737-7Q8 Cockpit window structural vinyl interlayer cracked. Ref 510007105
LH No1 cockpit window structural vinyl interlayer cracked at five locations. Crack lengths from 6.35mm to 12.7mm (0.25in to 0.50in).
P/No: 5893543129.
(20 similar occurrences)

Boeing 737-7Q8 Engine spar fuel valve drive shaft failed. Ref 510007051
No2 engine spar fuel valve driveshaft failed.
P/No: 125334D1.
(1 similar occurrence)

Boeing 737-838 Captain's lap belt separated from seat. Ref 510006941
Captain's lap belt separated from seat.
(1 similar occurrence)

Boeing 737-838 CDU failed. Ref 510007094
Captain's flight management computer (FMC) control display unit (CDU) failed. Investigation continuing.

Boeing 737-838 Electrical hydraulic pump failed. Ref 510006946
Hydraulic 'B' system electrical pump failed. Connector also damaged. Investigation continuing.
P/No: 887477. TSN: 15,915 hours. TSO: 15,915 hours.
(9 similar occurrences)

Boeing 737-838 Engine driven hydraulic pump leaking. Ref 510006943
No1 engine driven hydraulic pump leaking from filter bowl. Loss of hydraulic fluid required pump change.
P/No: 849589. (5 similar occurrences)

Boeing 737-838 Engine lubrication unit o-ring seals incorrect part. Ref 510007127
Engine lubrication unit o-ring seals incorrect part number. Investigation continuing.
P/No: M834851027.

Boeing 737-838 Pneumatic systems - bleed air warning message. Ref 510006932
Bleed air warning on takeoff.

Boeing 737-838 Trailing edge flap drive torque tube worn. Ref 510006989
LH trailing edge flap drive torque tube had evidence of radial wear out the outboard coupling to 'Tee' angle gearbox.
P/No: 256A37107. (2 similar occurrences)

Boeing 7378BK Elevator torque control crank bearings worn. Ref 510006893
LH and RH elevator torque control crank bearings PNo DAS10-26A1-501 and elevator input arm bearings worn.
P/No: DAS1026A1501. (1 similar occurrence)

Boeing 747-338 Aircraft stabiliser systems seal missing. Ref 510006842
LH horizontal stabiliser, upper-fairing blade seal, aft segment missing.
P/No: 65B038265.

Boeing 747-338 Cabin airconditioning smoke. Ref 510006864
Light smoke/haze in cabin. Suspect faulty No3 air cycle machine (ACM). Further investigation indicates that the temperature controller was the cause of the defect. Investigation continuing.
(2 similar occurrences)

Boeing 747-438 Air conditioning recirculation fan failed. Ref 510006887
Lower recirculation fan suspect faulty. Investigation continuing.
(5 similar occurrences)

Boeing 747-438 Aircraft oxygen system inspection required. Ref 510006828
Oxygen system inspected iaw EI 744-035-007R01.
(4 similar occurrences)

Boeing 747-338 Engine bathtub fairing skin section missing. Ref 510006890
No4 engine bathtub fairing lower aft section had a piece of the outer skin missing from the LH side at approximately the 7o'clock position.
(7 similar occurrences)

Boeing 747-438 Engine fairing missing. Ref 510007103
No2 engine RH lower 'A' frame to gas generator fairing missing.
P/No: FW49554.
(20 similar occurrences)

Boeing 747-438 Engine oil filler door missing. Ref 510006916
No2 engine oil filler door missing. Cowl damaged by departing door. Investigation continuing.

Boeing 747-438 Inflight entertainment system electrical burning smell. Ref 510007034
Electrical burning smell near door R4. Suspect coming from inflight entertainment system.
(1 similar occurrence)

Boeing 747-438 Wing flap track fitting incorrectly fitted. Ref 510007064
No7 flap track forward fitting incorrectly installed. Attachment bolts loose/finger tight. Nil evidence of sealant. Fuel leaking from fitting.

Boeing 747-48E Galley work light faulty. Ref 510006997
Galley work light lens missing causing charing/burning of panel. Investigation continuing.

Boeing 747-4H6 Horizontal stabiliser trim drive mechanism overdue servicing. Ref 510006986
Horizontal stabiliser trim drive mechanism inspection and lubrication overdue. Investigation continuing.
P/No: 65B8056231.

Boeing 767-336 Cabin airconditioning – strong electrical smell. Ref 510007049
Strong electrical smell in cabin. Smell stopped when recirculation fans switched off. Investigation could find no definitive cause for the odours.

Boeing 767-336 Centre rudder/elevator shut-off valve housing cracked. Ref 510006888
Centre rudder/elevator shutoff valve housing cracked. Investigation continuing.

Boeing 767-336 Emergency lighting section inoperative – wiring adrift. Ref 510006962
Emergency lighting between row 31AB and row 33AB inoperative. Investigation found wiring adrift at row 31AB.

Boeing 767-336 Toilet and galley water tank leaking. Ref 510006944
No water to toilets or galley. Investigation found auxiliary water tank leaking from blanking cap. Investigation continuing.

Boeing 767-338ER Electrical wiring looms chafed. Ref 510007054
Wiring looms W580, W238 and W616 burnt and damaged due to chafing under the floor beam at Stn 810, WL 198, RBL 50. Investigation found the clamp located just forward of the floor beam slightly loose. Investigation continuing.

Boeing 767-338ER Elevator control system suspect faulty. Ref 510007025
Uncommanded forward motion of elevator approximately one minute after engaging autopilot. Elevator control system inspected with no fault found.

Boeing 767-338ER Spoiler actuator leaking. Ref 510006829
No10 spoiler actuator leaking. Loss of hydraulic fluid. Investigation found the filter cap PNo 1542615 on the actuator was cracked at the first thread, extending for approximately 80 per cent of the circumference following the thread line. Suspect caused by fatigue along the threads due to stress concentrations.
P/No: 1542600. (1 similar occurrence)

Boeing 767-338ER Wing aileron seal missing. Ref 510007006
RH inboard aileron upper seal missing.
P/No: 113T61053.
(1 similar occurrence)

Bombardier DHC8102 Landing gear systems actuator contaminated. Ref 510007107
RH main landing gear door closed light failed to illuminate. Investigation found the RH main landing gear door actuator had air in the system. After bleeding the actuator, the system was declared serviceable and the aircraft was returned to service.

Bombardier DHC8314 Cabin pressure controller faulty. Ref 510007045
Cabin pressurisation controller faulty. Investigation continuing.
P/No: 1305221.
(3 similar occurrences)

Bombardier DHC8402 Cabin pressure controller suspect faulty. Ref 510007011
Cabin pressure controller suspect faulty. Investigation continuing.
(3 similar occurrences)

Embraer EMB120 Cockpit air conditioning system – smoke from air vents. Ref 510006967
Smoke in cockpit emanating from air vents. Smoke also from cabin floor vents. Investigation could find no cause for the defect.

Embraer EMB120 Fuel boost pump wiring harness chafed. Ref 510006876
RH forward fuel boost pump wiring harness chafed. Found during inspection iaw AD/EMB120/47.
TSN: 29,797 hours/30,589 cycles.
(9 similar occurrences)

Embraer EMB120 Pilot's windshield outer layer failed. Ref 510006991
Pilot's windscreen outer layer shattered/crazed.
P/No: NP1513111. (1 similar occurrence)

Embraer EMB120 Trim aural warning system breaker popped. Ref 510006934
Trim aural warning system circuit breaker popped. Circuit breaker was reset with no further problems.

Embraer ERJ190100 Fuel leaking from both wings through vent lines. Ref 510006995
Fuel leaking from both wings through vent lines. Investigation found the leak was caused by high aircraft speed and altered airflow pattern during turbulence affecting the positive pressure in the system.

Fokker F27MK50 Main wheel repairs found in the bead set area. Ref 510007128
During overhaul of main wheel, repairs were found in the bead seat area. It was determined that the blend repairs were beyond maintenance manual limits. Investigation found some other wheels were in a similar condition, and all affected wheels were removed from service.
P/No: 5007998. (1 similar occurrence)

Fokker F28MK0100 Flight warning computer faulty. Ref 510007048
Flight warning computer faulty. Unit failed installation testing. Investigation found the Channel Arinc/Power card caused the unit to fail.
P/No: 800610355. (1 similar occurrence)

Fokker F28MK0100 Pilot's brake pedal feel spring disconnected. Ref 510007060
Captain's LH brake pedal feel spring disconnected. Suspect spring became disconnected when brakes were released during pushback.
P/No: D75671005.

Saab SF340B Cabin fluorescent light fitting burnt. Ref 510006894 **(photo below)**
Cabin fluorescent light fitting burnt.
P/No: BV00330025.

AIRCRAFT BELOW 5700KG

Beech 200 Fuselage frames cracked. Ref 510006947
LH and RH fuselage frames cracked. Frames located at FS 207. Found during inspection iaw AD/Beech200/065.
(13 similar occurrences)

Beech 200 Fuselage stringer cracked aft of the rear pressure bulkhead. Ref 510006922
RH side No9 stringer cracked in area approximately 31.75mm (1.25in) aft of the rear pressure bulkhead. Found during inspection iaw AD/Beech200/55.
(3 similar occurrences)

Beech B200C Fuselage stiffener cracked. Ref 510006844
RH lower 'Zee' stiffener cracked. Stiffener located at FS 347.750. Found during inspection iaw AD/Beech200/67.
P/No: 10144010543. TSN: 16,313 hours/23,189 cycles.

Cessna 152 NLG fork failed at oleo tube attachment bolt hole. Ref 510006935 **(photo below)**
Nose landing gear fork failed at oleo tube attachment bolt hole. Fork separated and nose landing gear contacted runway. Propeller strike and engine stoppage. Suspect caused by heavy landing.
P/No: 0442504201.
(1 similar occurrence)

Cessna 172M Co-pilot's seat back adjustment cam broken. Ref 510007065 (photo below)
Co-pilot's seat back adjustment cam broken and separated from seat. See attachment for photograph.
P/No: 14142301. TSN: 6,790 hours.

Cessna 182H Fuel selector line to engine leaking. Ref 510006882
Fuel line from fuel selector to the engine leaking in the middle area of the tube. Investigation found internal corrosion.
P/No: 070009934. TSN: 6,434 hours.

Cessna 182S Elevator trim jack drive gear failed. Ref 510006990 (photo below)
Elevator trim jack drive gear sheared through roll pin hole.
P/No: 12600747. TSN: 748 hours.

Cessna 208B Trailing edge flap actuator support cracked. Ref 510007118
Trailing edge flap actuator support assembly cracked and twisted causing flap actuator to bind.
P/No: 26111441. TSN: 4,772 hours/6,370 landings.
(1 similar occurrence)

Cessna 404 Hydraulic line in the nose leaking around attachment fitting. Ref 510007044
Flexible hydraulic line leaking around attachment fittings. Line is located in the nose of the aircraft.
(1 similar occurrence)

Cessna U206G MLG leg outer support fitting cracked. Ref 510006883
Main landing gear leg outer support fitting cracked.
P/No: 12116011. (1 similar occurrence)

Cirrus SR20 NLG cracked. Ref 510006810
Nose landing gear cracked.
P/No: 11636006. TSN: 231 hours/18 months.
(8 similar occurrences)

Diamond DA42 NLG centering unit attachment housing cracked. Ref 510006960
Nose landing gear centering unit attachment housing cracked. Crack confirmed using dye penetrant NDI.
P/No: D6032236451. TSN: 434 hours. (4 similar occurrences)

Diamond DA42 NLG upper torque link arm cracked. Ref 510006981
Nose landing gear upper torque link arm cracked.
P/No: D6032231053. TSN: 434 hours. (1 similar occurrence)

Grob G115 Engine throttle cable inner cable broken. Ref 510006927
Engine throttle cable inner cable broken at cockpit end approximately 6.35mm (0.25in) from swaged section.
P/No: 1154452.

Gulfstream 500S Wing spar strap corroded – incorrect material. Ref 510006845 (photo below)
Wing spar strap corroded. Investigation found the strap was made of 4130 steel instead of 301 stainless steel. The strap was also found to be disbonded from the wing bottom skin. Found during inspection iaw AD/AC/87.

Partenavia P68B Engine mixture control inner cable failed. Ref 510007014
RH engine mixture control inner cable failed.

Partenavia P68B Fuel cross-feed line behind engine firewall corroded. Ref 510007028
Fuel cross-feed line located behind the LH engine firewall corroded. Line had also been damaged by a drill used in a previous maintenance action.

Partenavia P68B Stabilator drive keys replaced by incorrect part. Ref 510007031
Stabilator drive keys had been replaced with penny washers. Incorrect part. Personnel/maintenance error.
P/No: NOR68330252.

Partenavia P68B Wing spar cap corroded. Ref 510007030
LH wing upper spar cap contained four areas of severe exfoliation under the outer skin. The LH lower spar cap has one area of minor exfoliation corrosion, found due to bulging of the outer skin.
(1 similar occurrence)

Piper PA31350 Elevator down spring broken. Ref 510006843
Elevator down spring broken. AD/PA31/76 carried out 314 hours ago.
P/No: 71056003. TSN: 314 hours. (2 similar occurrences)

Piper PA32300 Wing spar cap cracked. Ref 510006866
LH wing lower spar cap cracked approximately half way through in area adjacent to outboard attachment bolt hole. Found during inspection iaw AD/PA32/42.
P/No: 62070006.

Piper PA32R301 Landing gear centre torque link bolt failed. Ref 510007010
RH main landing gear centre torque link bolt failed. Torque links fouled the wheel well flange during landing gear extension preventing the RH main landing gear from extending. Aircraft landed on LH and nose wheel landing gear. Aircraft sustained minor damage.
P/No: AN17414.

Piper PA36375 Engine throttle cable failed at swaged fitting. Ref 510007001
Throttle cable failed at swaged fitting in cockpit console. Aircraft landed short of runway.
P/No: 9845904.

Swearingen SA227DC Hydraulic pipe cracked around base of flare. Ref 510006931
Flaps 'up' hydraulic line cracked around base of flare at aft end. Crack extended for approximately 50 per cent of the circumference and was freshly cracked. Loss of hydraulic fluid.
P/No: 2781032135. TSN: 16,186 hours/11,314 cycles.
(5 similar occurrences)

Swearingen SA227DC Landing gear strut uplock roller bearing bolt sheared. Ref 510006996
RH main landing gear strut uplock roller bearing bolt sheared.
P/No: NAS660421. (4 similar occurrences)

ROTORCRAFT

Bell 412 Aircraft structures channel cracked. Ref 510007043
Vertical bounce on ground. Aircraft raised to the hover and then experienced severe vertical bounce. After landing and shutdown, the aircraft was inspected. Investigation found that all four main rotor pitch links had contacted the upper transmission fairing. Further inspection following transmission removal found the following: 1. RH transmission support channel cracked at the aft end. 2. Pylon mount bumpers crushed and distorted. 3. RH lateral servo boost tube dented following contact with hoist support beam. 4. LH lateral servo boost tube contacted hydraulic fitting. Investigation continuing.

Eurocopter AS332L Tail-boom frame cracked. Ref 510007116
Tail boom frame 12619 cracked on LH and RH sides. LH side crack is located below the LH forward intermediate gearbox mount. Crack length 40mm (1.57in) below LH gearbox mount.

Eurocopter AS350BA Tail rotor blade pitch change link failed. Ref 510007088 (photos below)
Tail rotor blade skin cracked and pitch change link broken. Tailcone departed aircraft. Tail rotor blade contacted tail boom. Suspect initial failure was pitch link failing at rodend bearing which caused excessive vibration. Investigation continuing.
P/No: 350A33-2145-01.

Bottom photo - pitch change link - Courtesy of the ATSB

Eurocopter AS365N Tail rotor blade debonded. Ref 510006956
Tail rotor blade disbonded. Area of disbond approximately 5mm by 10mm (0.19in by 0.39in) located on the leading edge protection strip on the suction side of the blade. A very fine crack was also found following the end curve of the strip.
P/No: 365A12007001. TSN: 308 hours. (8 similar occurrences)

Kawasaki BK117B2 Tail boom frame cracked. Ref 510007015
Tail boom frame 10L cracked. Doubler PNo 117-30106-15 and LH skin PNo 1120-30102-13 also cracked. Found during inspection iaw KSB 117-212.
P/No: 1053025151. TSN: 6,745 hours/9,637 landings. TSN: 6,745 hours/9,637 landings/196 months.

Robinson R22BETA Main rotor blade skin delaminated. Ref 510006950
Main rotor blade lower skin delaminated. Sonic testing found the skin delaminating from the leading edge 'D' spar approximately 1mm (0.039in) from the blade tip. Found during inspection iaw AD/R22/54 Amdt3.
P/No: A0164. TSN: 1,946 hours/27 months. (10 similar occurrences)

Sikorsky S76C Main rotor servo feedback linkage drive pin cover dislodged. Ref 510007121 (photo below)
Main rotor servo feedback linkage drive pin cover missing. Investigation found that the drive pin had moved laterally and was sitting proud. A large amount of black powdery debris was also present. When the drive pin retaining bolt was removed, the bearing surface of the bolt was worn to approximately 0.762mm (0.030in) total bearing surface area. It was also noted that the bearing surface was the threaded part of the bolt and not the unthreaded section of the bolt. A ridge in the centre of the wear pattern was all that was retaining the drive pin.
TSN: 9,270 hours/49,553 landings/143 months. TSO: 1,212 hours/7,727 landings/19 months.

PISTON ENGINES

Lycoming IO540K1A5 Engine fuel pump failed. Ref 510007112
Engine-driven fuel pump failed. Engine lost power and aircraft crashed. Investigation continuing.
P/No: 201F5003. (5 similar occurrences)

Lycoming IO540K1B5 Engine fuel system air lock. Ref 510007124
RH engine stopped during taxi. Investigation found air in the fuel system.

Lycoming IO540K1B5 Engine low power. Ref 510007122
RH engine lost power and was shut down. Investigation and ground runs could find no fault. Investigation continuing.
(5 similar occurrences)

Lycoming LTIO540J2BD Engine crankcase holed. Ref 510006983
RH engine idler gear shaft support missing. When the accessory housing and gear was removed, the crankcase was also missing a large section of the idler gear support. The crankcase had been machined and the idler gear location had been rebushed.
P/No: LW18541. TSO: 1,487 hours. (2 similar occurrences)

Thielert TAE12501 Engine fuel pump circlip broken. Ref 510006958
Fuel feed pump circlip broken.
P/No: 02731004114R1. TSN: 184 hours. (1 similar occurrence)

TURBINE ENGINES

Garrett TPE33112UH Engine combustion section dowel stubs cracked. Ref 510006850 (photo below)
Following engine split at diaphragm flange to repair a possible seal issue, it was found that one of the two dowel stubs was cracked through. No external indication of crack was found.

GE CFM567B Engine fuel filter blocked. Ref 510006862
No1 engine fuel filter bypass light illuminated. Suspect caused by accumulation of contaminants over an extended period, causing filter blockage.
P/No: ACC462F2038. (4 similar occurrences)

GE CFM567B Engine fuel filter blocked. Ref 510007080
No2 engine fuel filter bypass light illuminated. Suspect caused by accumulation of contaminants in filter.
(4 similar occurrences)

PWA PT6A114 Engine compressor blades, incorrect part. Ref 510006869
Engine first stage compressor blades (5off) had a different twist to the rest of the blades. Investigation found that the wrong part number blades had been fitted at overhaul.
P/No: 3012801.

PWA PT6A42 Engine AD requirement. Ref 510007059
LH and RH engines inspected iaw AD/ENG/5 Amdt9.
(4 similar occurrences)

PWA PT6A42 Engine low power. Ref 510006985
RH engine low power and fluctuations. Investigation continuing.
(5 similar occurrences)

PWA PT6A60A Engine propeller reduction gearbox filter plug missing. Ref 510006832
Propeller reduction gearbox scavenge filter plug missing. Loss of oil. Suspect plug incorrectly fitted during hot section inspection and became dislodged during flight. Personnel/maintenance error. Engine replaced.

Rolls Royce RB211524G Engine high 'N3' vibration. Ref 510006992
No4 engine high N3 vibration. Strut overheat warning message received. Engine shutdown and diversionary landing carried out. Investigation continuing.
(1 similar occurrence)

Rolls Royce TAY65015 Engine thrust reverser actuator faulty. Ref 510007009
Internal leakage of RH engine thrust reverser actuator and brake shuttle valve caused loss of hydraulic pressure.
P/No: A62H2007. TSN: 18,120 cycles. TSO: 10,429 cycles.

Turbomeca ARRIUS1A Engine torque-matching system suspect faulty. Ref 510007117
Engine torque-matching system suspect faulty. No1 engine overtorqued to approximately 95 per cent for 5-7 seconds.

PROPELLERS

Sensenich 70CM7 Propeller attachment bolts faulty manufacture. Ref 510007058
Propeller attachment bolts incorrectly manufactured. Radius between bolt head and shank was larger than expected, and prevented the AN960 washers from correctly seating. Two more sets of bolts from manufacturer had the same defect. A third set was satisfactory.
P/No: BK70CM7S16. TSN: 804 hours.

Woodcomp SR30002W Propeller blade failed. Ref 510007012
One propeller blade broken. Engine mounts damaged, exhaust broken and QEC cracked and warped. Aircraft is registered with Recreational Aviation of Australia and is not VH registered. The propeller is a wooden composite design.
TSN: 95 hours. TSO: 95 hours.

COMPONENTS

Wheel bolts failed. Ref 510007079
Main wheel bolts failed. Investigation of the wheel found four bolt heads/nuts broken and three more bolts loose. Wheel hub was held together by two bolts and the axle nut. Wheel is from a CV-580 aircraft.
TSO: 303 hours/280 landings.

Note: Occurrence figures based on data received over the past 5 years.

APPROVED AIRWORTHINESS DIRECTIVES

23 October 2008

Part 39-105 - Lighter Than Air

There are no amendments to Part 39-105 - Lighter than Air this issue

Part 39-105 - Rotorcraft

Bell Helicopter Textron Canada (BHTC) 206 and Agusta Bell 206 Series Helicopters

AD/BELL 206/3 - Forward Engine Mount Attachment - Inspection and Modification - CANCELLED
AD/BELL 206/4 - Control Tubes - Inspection - CANCELLED
AD/BELL 206/5 - Cyclic Pitch Control System Lever - Inspection and Modification - CANCELLED
AD/BELL 206/10 - Removal of Landing Gear Spacers - Modification - CANCELLED
AD/BELL 206/11 - Main Rotor Blade Retention Bolt - Inspection - CANCELLED
AD/BELL 206/12 - Transmission Magnetic Drain Plug B-734 Replacement - CANCELLED
AD/BELL 206/13 - Fan Shaft Assembly - Inspection - CANCELLED
AD/BELL 206/15 - Tail Rotor Pedal Controls Modification - CANCELLED
AD/BELL 206/17 Amdt 1 - Transmission Mount Spindle - Inspection - CANCELLED
AD/BELL 206/20 Amdt 1 - Cyclic Control Installation - Fitment of Balance Spring - CANCELLED
AD/BELL 206/23 - Overhead Console Installation - Inspection - CANCELLED
AD/BELL 206/25 - Tail Rotor Balance Check and Tail Rotor Gearbox Casing and Mounting Inspection - CANCELLED
AD/BELL 206/28 - Engine Bell Mouth Seal Doubler - Modification - CANCELLED
AD/BELL 206/29 - Cover Assembly P/N 206-001-012-1 or P/N 206-001-012-7 - Inspection and Modification - CANCELLED
AD/BELL 206/30 - Main Transmission Magnetic Plug - Inspection - CANCELLED
AD/BELL 206/31 - Main Transmission - Modification - CANCELLED
AD/BELL 206/32 - Aluminium Fuel Lines - Replacement - CANCELLED
AD/BELL 206/37 - Anti Torque Control Idler Assembly P/N 206-001-746-5 - Inspection and Rework - CANCELLED
AD/BELL 206/38 - Main Rotor Mast - Inspection - CANCELLED
AD/BELL 206/39 - Nut P/N 1022A14 Main Rotor Hub Latch Bolt and Blade Retention Bolt - Inspection - CANCELLED
AD/BELL 206/40 - Tail Rotor Control Tube Tunnel - Modification - CANCELLED
AD/BELL 206/43 - Heater Fuel Line P/N 206-070-705-1 - Inspection - CANCELLED
AD/BELL 206/45 - Tail Rotor Drive Shaft Cover and Lower Skin of Horizontal Stabilizer - Modification - CANCELLED
AD/BELL 206/49 - Hydraulic Servo Actuator Servo Valve Drive Locknut - Inspection - CANCELLED
AD/BELL 206/52 - Heater Fuel Line P/N 206-070-231-1 - Inspection - CANCELLED
AD/BELL 206/54 - Tail Rotor Gearbox Assembly - Inspection - CANCELLED
AD/BELL 206/55 - Pylon Support Link P/N 206-031-508-5 and -7 - Replacement - CANCELLED
AD/BELL 206/56 Amdt 1 - Starter Generator Retaining Clamp T Bolt - Inspection - CANCELLED
AD/BELL 206/58 - Full Cell Cavity and Vent Line Modification - CANCELLED
AD/BELL 206/59 - Oil Pressure Tube Assemblies - Inspection and Replacement - CANCELLED
AD/BELL 206/60 Amdt 1 - Flight Control System Bolts - Inspection and Replacement - CANCELLED
AD/BELL 206/67 - Tail Rotor Drive - Inspection of Clamp Type Bearing Hangars - CANCELLED
AD/BELL 206/69 - Passenger Door Attachments - Inspection - CANCELLED
AD/BELL 206/70 Amdt 2 - Hydraulic Servo Actuator Support Assembly - Inspection - CANCELLED
AD/BELL 206/71 - Main Rotor Split Cone Set - Inspection - CANCELLED
AD/BELL 206/78 - Freewheeling Outer Race Shaft - Inspection - CANCELLED
AD/BELL 206/86 - Pylon Support Installation Retaining Bolts - Inspection - CANCELLED
AD/BELL 206/88 - Battery Relay Diode Assembly P/N 30-037-13 - Replacement - CANCELLED
AD/BELL 206/96 - Fuel Supply Tube Assembly - CANCELLED
AD/BELL 206/97 Amdt 2 - Quick Disconnect Dual Controls - CANCELLED
AD/BELL 206/105 Amdt 1 - Airframe Fuel Filter Assembly - CANCELLED
AD/BELL 206/106 - Float Inflation Valve - CANCELLED
AD/BELL 206/110 - Tail Rotor Pitch Links - CANCELLED
AD/BELL 206/111 Amdt 2 - Engine Fuel Valve Electrical Connectors P/N MS3456W14S-5S - CANCELLED
AD/BELL 206/116 Amdt 1 - Bogus Tail Rotor Hub Assembly P/N 206-011-810-015 and Tail Rotor Yoke P/N 206-011-811-009 - CANCELLED
AD/BELL 206/118 - Bogus Tension Torsion Straps - CANCELLED
AD/BELL 206/120 - Bogus Pressure Gauge Emergency Floats P/N 212-073-905-1 - CANCELLED
AD/BELL 206/124 Amdt 1 - Driveshaft Seal - CANCELLED

Eurocopter AS 332 (Super Puma) Series Helicopters

AD/S-PUMA/78 Amdt 1 - Main Rotor Blade De-Icing System Clamps
AD/S-PUMA/79 - Main Rotor - Main Rotor Head

Eurocopter BK 117 Series Helicopters

AD/GBK 117/6 Amdt 5 - Main Rotor Blade

Eurocopter EC 225 Series Helicopters

AD/EC 225/1 - Main Rotor Blades - Heated
AD/EC 225/2 - State of Design Airworthiness Directives
AD/EC 225/3 - Main Rotor Blade De-Icing System Harness Connectors
AD/EC 225/4 - Main Rotor Hub Dome Fairing Attachment Screws
AD/EC 225/5 - Main Rotor Blade Leading Edge Protective Strip
AD/EC 225/6 - Main Rotor Hub Coning Stop Supports
AD/EC 225/7 - Fuselage - Frame 5295 and Outer Skin Panelling
AD/EC 225/8 - Main Gearbox (MGB) Suspension Bar Fittings
AD/EC 225/9 - Fuselage - Intermediate Gearbox Fairing Gutter
AD/EC 225/10 - Rotor Flight Controls - Tail Servo-control

Eurocopter SA 360 and SA 365 (Dauphin) Series Helicopters

AD/DAUPHIN/86 Amdt 3 - Starflex Star Arm End Bushes

McDonnell Douglas (Hughes) and Kawasaki 369 Series Helicopters

AD/HU 369/121 Amdt 1 - Vertical Stabilizer Control System Adapter Tubes

Part 39-105 - Below 5700 kgs

Aircraft Parts and Development (CALL AIR) A-9 Series Aeroplanes

AD/AC-CLA/5 - Shock Strut Assembly - CANCELLED

Cessna 206 Series Aeroplanes

AD/CESSNA 206/16 - Main Gear Wheel Assemblies - CANCELLED
AD/CESSNA 206/19 - Rudder Trim Chain - CANCELLED
AD/CESSNA 206/23 - Fuel Reservoir Fitting - CANCELLED
AD/CESSNA 206/28 - Fuel Tank Filler Neck - CANCELLED
AD/CESSNA 206/34 - Wing Tip Navigation Strobe Lights - CANCELLED

Cessna 207 Series Aeroplanes

AD/CESSNA 207/11 - Rudder Trim Chain - CANCELLED
AD/CESSNA 207/15 - Fuel Reservoir Fitting - CANCELLED
AD/CESSNA 207/25 - Wing Tip Navigation/Strobe Lights - CANCELLED

De Havilland DH 60 (Moth) Series Aeroplanes

AD/DH 60/1 - Compression Leg Tie-Rod - Inspection - CANCELLED

DH 82 (Tiger Moth) Series Aeroplanes

AD/DH 82/1 - Undercarriage Strut - Modification - CANCELLED
AD/DH 82/3 - Rudder Bar Attachment Spigot - Modification - CANCELLED
AD/DH 82/4 - Q Type Harness - Modification - CANCELLED

DH 84 (Dragon) Series Aeroplanes

AD/DH 84/2 Amdt 2 - Undercarriage Strut - Inspection - CANCELLED

DH 89 (Dragon Rapide) Series Aeroplanes

AD/DH 89/2 - Aileron Differential Pulley - Inspection - CANCELLED
AD/DH 89/3 - Interplane Strut - Inspection - CANCELLED

DH 90 (Dragonfly) Series Aeroplanes

AD/DH 90/1 - Fire Precaution Measures on Refuelling - CANCELLED

DH 104 (Dove) Series Aeroplanes

AD/DH 104/11 - Engine Instrument Arrangement - Modification - CANCELLED
AD/DH 104/16 - Flap System Modification to Prevent Crossing of Pneumatic Lines - CANCELLED

De Havilland DHC-1 (Chipmunk) Series Aeroplanes

AD/DHC-1/2 - Engine Mount Pick-Up Points - Modification - CANCELLED
AD/DHC-1/4 - Undercarriage Torque Link Centre Hinge Joint - Modification - CANCELLED
AD/DHC-1/5 Amdt 2 - Fuel System - Modification - CANCELLED
AD/DHC-1/6 - Engine Mount Pick-Up Bolt - Inspection - CANCELLED
AD/DHC-1/7 - Tailplane Attachment Lugs and Bulkhead - Inspection - CANCELLED
AD/DHC-1/8 - Fairey-Reed Propeller - Spinner Removal - CANCELLED
AD/DHC-1/9 - Rudder Torque Tube Flange - Inspection - CANCELLED
AD/DHC-1/14 - Flap Hinge Arms - Inspection and Modification - CANCELLED
AD/DHC-1/16 - Tailwheel Yoke Attachment Bolt - Inspection - CANCELLED
AD/DHC-1/18 - Fuselage Centre Top Structure - Inspection and Modification - CANCELLED
AD/DHC-1/22 Amdt 3 - Tailplane Structure
AD/DHC-1/27 - Seat Restraint Installations - Modification - CANCELLED

DHC-2 (Beaver) Series Aeroplanes

AD/DHC-2/1 - Fuel Tanks Inspection and No Smoking Placards - CANCELLED
AD/DHC-2/2 - Hydraulic Control Unit - Selector Lever Hub Inspection - CANCELLED
AD/DHC-2/3 - Rudder Pedal Assembly - Modification - CANCELLED
AD/DHC-2/4 - Undercarriage Legs - Anti-Corrosion Treatment - CANCELLED
AD/DHC-2/6 - Safety Harness Inertia Reel - Installation - CANCELLED
AD/DHC-2/14 - Main Undercarriage Lower Forward Attachment - Modification - CANCELLED
AD/DHC-2/16 - Aileron Centre Hinge Bracket - Inspection - CANCELLED
AD/DHC-2/17 - Fin Rear Attachment - Inspection - CANCELLED

Pilatus PC-12 Series Aeroplanes

AD/PC-12/53 - Pitch trim actuator attachment parts

Piper PA-24 (Comanche) Series Aeroplanes

AD/PA-24/1 - Battery Cables - Provision of Insulation Inside Battery Box - CANCELLED
AD/PA-24/3 - Nose Wheel Steering Arm Mounting Bracket - Reinforcement - CANCELLED
AD/PA-24/9 - Control Tube Guide Blocks - Safety Wiring - CANCELLED
AD/PA-24/18 - Automatic Pilot - Pitch Servomotor - Modification - CANCELLED
AD/PA-24/22 - Baggage Door Latch - Inspection - CANCELLED
AD/PA-24/24 - Propeller Inspection and Operating Instructions - CANCELLED
AD/PA-24/25 - Seat Frame - Modification - CANCELLED
AD/PA-24/29 - Rudder Balance Weight - Installation - CANCELLED
AD/PA-24/30 Amdt 1 - Uncoordinated Manoeuvres - Warning Placard - CANCELLED
AD/PA-24/31 - Landing Gear and Flap Assemblies - Inspection - CANCELLED
AD/PA-24/32 Amdt 2 - Stabilator Attachment Bolts - Inspection
AD/PA-24/34 - Automatic Pilot Roll Servo Shear Pin - Installation - CANCELLED

APPROVED AIRWORTHINESS DIRECTIVES CONTINUED...

AD/PA-24/36 Amdt 1 - Fin Forward Spar Attachment - Inspection

Piper PA-34 (Seneca) Series Aeroplanes
AD/PA-34/1 - Compass Installation - Inspection for Accuracy - CANCELLED
AD/PA-34/4 - Stabilator - Inspection and Drilling of Drain Holes - CANCELLED
AD/PA-34/8 - Wing Walk - Inspection and Modification - CANCELLED
AD/PA-34/10 - Rudder Bar Assembly - Inspection and Modification - CANCELLED
AD/PA-34/11 - Wing Skin/Rib - Inspection and Modification - CANCELLED
AD/PA-34/12 - Nose Gear Drag Link Assembly - Inspection - CANCELLED
AD/PA-34/13 - Propeller Damper Screws - Replacement - CANCELLED
AD/PA-34/15 - Outer Wing Spars - Inspection - CANCELLED
AD/PA-34/16 Amdt 1 - Wing Spar Lower Tension Strap - Inspection - CANCELLED
AD/PA-34/20 - Pneumatic De-Icer Tubing - Inspection - CANCELLED
AD/PA-34/21 - Rudder Cable Installation Rear Fuselage - Inspection - CANCELLED
AD/PA-34/22 - Fuselage Structure Rivets - Inspection - CANCELLED
AD/PA-34/23 - Induction, Air Box, Filter Locator Clips - Replacement - CANCELLED
AD/PA-34/24 - Engine Control Rod End Bearings - Inspection and Replacement - CANCELLED
AD/PA-34/26 - Fuel Line - Inspection and Modification - CANCELLED
AD/PA-34/28 - Glove Compartment - Modification - CANCELLED
AD/PA-34/29 Amdt 2 - Main Wing Spar Attaching Nuts - CANCELLED
AD/PA-34/30 - Hose Assembly - Inspection and Replacement - CANCELLED
AD/PA-34/31 - Stabilator Skin - Inspection - CANCELLED
AD/PA-34/33 - Window Curtain Rod Support Area - Inspection - CANCELLED
AD/PA-34/35 - Fuselage Structure, LH Side Sta.108 - Inspection and Modification - CANCELLED
AD/PA-34/40 - Stabilator Attach Fitting Corrosion - CANCELLED
AD/PA-34/42 Amdt 1 - Aileron Hinge Fitting Assembly - CANCELLED
AD/PA-34/47 - Nose Gear Hydraulic Actuator Mount Assembly - CANCELLED

Twin Commander (Gulfstream/Rockwell/ Aerocommander 500, 600 and 700) Series Aeroplanes
AD/AC/101 - Fuel Filler Openings - CANCELLED

Part 39-105 - Above 5700 kgs

Airbus Industrie A319, A320 and A321 Series Aeroplanes
AD/A320/178 Amdt 1 - Trimmable Horizontal Stabilizer Actuator - CANCELLED
AD/A320/207 - Flight Controls - Trimmable Horizontal Stabilizer Actuator - CANCELLED
AD/A320/225 - Elevator Servo-Control Rod Eye-End
AD/A320/226 - Trimmable Horizontal Stabilizer Actuator
AD/A320/227 - Cockpit Door Latch/Striker Assembly

Airbus Industrie A330 Series Aeroplanes
AD/A330/92 - Passenger Compartment Electrical Harness

Boeing 727 Series Aeroplanes
AD/B727/100 Amdt 4 - Elevator Rear Spar

Boeing 737 Series Aeroplanes
AD/B737/341 - Cracking of Cutout in Web of Body Station Frame
Boeing 747 Series Aeroplanes
AD/B747/128 Amdt 3 - Lower Lobe Lap Joints at Wing to Body Fairing
AD/B747/382 - Section 41 Fuselage Skins
AD/B747/383 - APU Power Feeder Wire Bundle

Boeing 767 Series Aeroplanes
AD/B767/245 - Passenger Oxygen Masks

Bombardier (Canadair) CL-600 (Challenger) Series Aeroplanes
AD/CL-600/87 Amdt 1 - Flap Failure
AD/CL-600/103 - Refuel/Defuel Valve Electrical Bonding

British Aerospace BAe 146 Series Aeroplanes
AD/BAe 146/42 Amdt 1 - Wing Centre Section Top Skin
AD/BAe 146/134 - Horizontal Stabiliser Lower Skin & Joint Plates

Casa 212 Series Aeroplanes
AD/CASA/29 - Pitot Static Tubes
AD/CASA/30 - Autopilot Servo Drive Actuators

Embraer EMB-120 (Brasilia) Series Aeroplanes
AD/EMB-120/45 Amdt 1 - Stall Warning Computer

Embraer ERJ-170 Series Aeroplanes
AD/ERJ-170/17 - Aircraft Maintenance Plan

Part 39-106 - Piston Engines

Thielert Piston Engines
AD/THIELERT/11 Amdt 1 - Propeller Control Valve - Life Limit

Part 39-106 - Turbine Engines

Rolls Royce (Allison) Turbine Engines - AE 3007 Series
AD/AE 3007/6 - High Pressure Turbine Stage 2 Wheels

Part 39-107 - Equipment

There are no amendments to Part 39-107 - Equipment this issue

NEW MAINTENANCE HUMAN FACTORS TOOLBOX

Dr. Bill Johnson is chief scientific and technical advisor for Maintenance Human Factors, Federal Aviation Administration (FAA)

The Federal Aviation Administration (FAA) has released tools to help maintenance organisations tailor human factors presentations to match their specific requirements. The FAA maintenance human factors presentation system is a large software package (over 1GB in storage) delivered on DVD. The DVD contains:

- 150 editable MS PowerPoint slides, with organised content
- 10 video clips
- Approximately 40 animations provided by Lufthansa from their human factors web-based training program (www.ltt.aero). (This DVD is not a substitute for the computer-based training (CBT) of Lufthansa or any other CBT provider.
- Information and web links to ensure continuing education opportunities

The FAA maintenance human factors presentation system is described as a 'giant Lego-like collection of human factors information.' Use the blocks to build a presentation that works for you. The DVD covers a set of generic topics blending the basics with concepts which the presenter can apply to the specific workplace. It includes the following main topics:

- Introduction to human factors
- History of human factors
- Human factors spectacles
- The PEAR model (with fatigue)
- Human error and event reporting
- Maintenance accidents
- Where to get more information

It is NOT computer-based training – it is designed for you to tailor maintenance human factors presentations by adding, deleting, and modifying slides as they relate to your organisation. CASA is distributing copies of the DVD on behalf of the FAA – to obtain your copy, email safetypromotion@casa.gov.au
For more information, go to http://www.amtonline.com/publication/article.jsp?pubId=1&id=5571