

APPROVED AIRWORTHINESS DIRECTIVES 21 DECEMBER 2006**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 206/158 Amdt 2 - Fuel Distribution System

Bell Helicopter Textron Canada (BHTC) 222 Series Helicopters

AD/BELL 222/31 Amdt 1 - Tail Rotor Blade

Bell Helicopter Textron Canada (BHTC) 430 Series Helicopters

AD/BELL 430/1 Amdt 3 - Tail Rotor Blade

Eurocopter AS 332 (Super Puma) Series Helicopters

AD/S-PUMA/66 - Main Rotor Head Spindles

Eurocopter AS 350 (Ecureuil) Series Helicopters

AD/ECUREUIL/99 Amdt 1 - Lateral Cargo Hold Doors

Eurocopter EC 135 Series Helicopters

AD/EC 135/12 - Tail Rotor Control - Linear Transducer Bearing; Rod & Floor

Eurocopter SA 315 (Lama) Series Helicopters

AD/SA 315/13 - Horizontal Stabiliser Spar

Eurocopter SA 360 and SA 365 (Dauphin) Series Helicopters

AD/DAUPHIN/86 Amdt 2 - Starflex Star Arm End Bushes

Part 39-105 - Below 5700 kgs**Airtractor 600 Series Aeroplanes**

AD/AT 600/4 - Engine Mount

Cessna 310 Series Aeroplanes

AD/CESSNA 310/33 Amdt 2 - Wing and Airframe

Cessna 400 Series Aeroplanes

AD/CESSNA 400/40 Amdt 14 - Wing and Airframe

Cirrus Design SR20 and SR22 Series Aeroplanes

AD/CIRRUS/6 - Brake Caliper Piston O-Ring Seals

Embraer EMB-110 (Bandeirante) Series Aeroplanes

AD/EMB-110/53 Amdt 2 - Nose Landing Gear Rotating Cylinder

Assembly

AD/EMB-110/54 - Corrosion of Wing and Vertical Stabiliser to Fuselage Attachments, Rib 1 Half-Wing and Cabin Seat Tracks

Pilatus PC-12 Series Aeroplanes

AD/PC-12/49 - Executive Passenger Seats

Part 39-105 - Above 5700 kgs**Airbus Industrie A319, A320 and A321 Series Aeroplanes**

AD/A320/195 Amdt 1 - Fuel Tank Safety - Fuel Airworthiness Limitations

Airbus Industrie A330 Series Aeroplanes

AD/A330/13 Amdt 4 - Life Limits/ Monitored Parts

AD/A330/31 Amdt 2 - Airworthiness Limitations Items - Time Limits/Maintenance Checks

AD/A330/65 - Main Landing Gear Retraction Link

AD/A330/66 - Inertial Reference System

AD/A330/67 - Keel Beam Fastener Holes at Frame 40 - inspection

AD/A330/68 - Fight Controls - Back-Up Control Module

AD/A330/69 - Fuel Tanks Modifications

Airtractor 800 Series Aeroplanes

AD/AT 800/9 - Engine Mount

AMD Falcon 50 and 900 Series Aeroplanes

AD/AMD 50/39 - Third Crew Member Oxygen Box

Boeing 737 Series Aeroplanes

AD/B737/119 Amdt 3 - Fuel Boost Pump Wiring

AD/B737/121 Amdt 2 - Fuel Boost Pump Wiring

AD/B737/138 Amdt 1 - Fuel Boost Pump Wiring

AD/B737/188 Amdt 1 - Main Wheel Well Electrical Connectors - CANCELLED

AD/B737/297 - De-Icing Fluids and Main Wheel Well Electrical Connectors

AD/B737/298 - Aileron Balance Tab

Boeing 747 Series Aeroplanes

AD/B747/352 - Overlapped Skin Panels in the Fuselage Skin Lap Joints

Bombardier (Canadair) CL-600**(Challenger) Series Aeroplanes**

AD/CL-600/69 Amdt 1 - Horizontal Stabiliser Trim - Uncommanded Movement

Part 39-106 - Piston Engines**Rotax Piston Engines**

AD/ROTAX/22 - Camshaft Hydraulic Tappet Wear

SMA Piston Engines

AD/SMA/2 - Engine Electronic Control Unit

Part 39-106 - Turbine Engines**Pratt and Whitney Turbine Engines - JT8D Engines**

AD/JT8D/42 Amdt 1 - 8th Stage High Pressure Compressor Discs

Part 39-107 - Equipment**Propellers - Variable Pitch - Dowty Rotol**

AD/PR/36 - Blade Counterweight Capscrow Holes

Propellers - Variable Pitch - McCauley

AD/PMC/40 - Blade Counterweight Bolt Replacement - CANCELLED

Radio Communication and Navigation Equipment

AD/RAD/64 Amdt 1 - Skywatch SKY497

Wheels and Tyres

AD/WHE/8 - MLG Wheel Assembly Part Numbers C20500000 and C20452000

APPROVED AIRWORTHINESS DIRECTIVES 18 JANUARY 2007**Part 39-105 - Lighter Than Air**

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Part 39-105 - Rotorcraft**Eurocopter AS 332 (Super Puma) Series Helicopters**

AD/S-PUMA/66 Amdt 1 - Main Rotor Head Spindles

Eurocopter AS 350 (Ecureuil) Series Helicopters

AD/ECUREUIL/122 - Emergency Flotation Gear

Sikorsky S-92 Series Helicopters

AD/S-92/1 - Main Transmission Mounting Bolt

Part 39-105 - Below 5700 kgs**Airtractor AT-300, 400 and 500 Series Aeroplanes**

AD/AT/28 - Upper Rudder Hinge

Airtractor 600 Series Aeroplanes

AD/AT 600/5 - Wing Main Spar Lower Cap Fastener Hole

AD/AT 600/6 - Upper Rudder Hinge

Part 39-105 - Above 5700 kgs**Airtractor 800 Series Aeroplanes**

AD/AT 800/10 - Upper Rudder Hinge

Casa 212 Series Aeroplanes

AD/CASA/27 - Centre Wing Lower Skin

Fokker F100 (F28 Mk 100) Series Aeroplanes

AD/F100/75 Amdt 1 - High Pressure Compressor - CANCELLED

Part 39-106 - Piston Engines

There are no amendments to Part 39-106 - Piston Engines this issue

Part 39-106 - Turbine Engines**Pratt and Whitney Canada Turbine Engines - PW500 Series**

AD/PW500/2 - Fuel Manifold Leakage

Rolls Royce Turbine Engines - Tay Series

AD/TAY/18 - HP Compressor Stator Vane Tip Clearances

Part 39-107 - Equipment

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

AIRWORTHINESS BULLETINS**11 December 2006**

AWB 83 - Accessory gearboxes

AWB 02-002 Issue 3 - Lycoming 0-235 Engine Accessory Housings

16 November 2006

AWB 02 - Maintenance general

AWB 02-018 Issue 3 - BAC 167 Strikemaster Accident

14 November 2006

AWB 85 - Reciprocating engine AWB 85-006 Issue 1 - Cracking of ECI Cylinders installed on TCM 520 and 550 series Engines

13 November 2006

AWB 62 - Main Rotor

AWB 62-003 Issue 1 - Bell 206 Main Rotor Blade Cracking

AWB 55 - Stabilisers

AWB 55-003 Issue 2 - CT4 Fin Spar Attachment Cracking

SELECTED SERVICE DIFFICULTY REPORTS NOVEMBER-DECEMBER 2006

AIRCRAFT ABOVE 5700 KG

BAC 146300 Wing, rib bolt incorrect torque. Ref 510003680

Wing rib Jo Bolts failed torque checks in the following locations:- 1. Rib No2 LH - 10 Jo Bolts loose 2. Rib No2 RH - 13 Jo Bolts loose. Found during inspection iaw AD/BAE146/76. (2 similar occurrences)

Boeing 7272J4 Landing gear attach bolt undertorqued. Ref 510003773

Nose landing gear trunnion mount attachment bolt (1 of 4) not torqued. Bolt had been tightened but not torqued during NLG replacement. Personnel/maintenance error. TSN: 61075 hours/23010 cycles. TSO: 475 hours. (1 similar occurrence)

Boeing 737376 Fuselage frame cracked. Ref 510003626

Fuselage frame located at Stn 360 cracked in two places. One crack located at Stringer 15R and one crack located on shear tie between S-14R and S-15R. Found during freighter conversion. P/No: 6558280511. (8 similar occurrences)

Boeing 737376 Landing gear downlock hose holed. Ref 510003766

RH main landing gear downlock actuator hydraulic hose holed. Loss of System "A" hydraulic fluid. P/No: AE2464163E0192. (7 similar occurrences)

Boeing 737476 Fuselage skin cracked. Ref 510003570

LH aft fuselage cracked at Stn727 and stringer 23. (5 similar occurrences)

Boeing 737708 Fuel transfer defuel valve leaking. Ref 510003664

Fuel transfer through defuel valve. Valve was selected "Closed".

Boeing 737708 Wing surge tank panel seal damaged. Ref 510003712

LH wing surge tank access panel seal torn and leaking. (5 similar occurrences)

Boeing 737810 Trailing edge flap torque tube damaged. Ref 510003770

LH and RH inboard flap primary torque tubes damaged. LH torque tube had gouge marks of approximately 2.79 mm (0.110 in) and the RH torque tube had similar gouge marks of approximately 3.429 mm (0.135 in). Gouge marks were located approximately 50.8 mm (2 in) from the inboard end of the flap where the wing to body fairing interfaces with the primary torque tube. P/No: 113A2233U1. TSN: 15316 hours/8172 cycles. (1 similar occurrence)

Boeing 73786N APU unit failed to start. Ref 510003697

APU failed to start inflight on two occasions. Investigation continuing. P/No: 38007021. TSN: 11398 hours/11532 cycles. (6 similar occurrences)

Boeing 7378BK Fuel storage panel seal damaged. Ref 510003687

Centre fuel tank panel seal damaged and leaking. (5 similar occurrences)

Boeing 7378FE Landing gear spring broken. Ref 510003610

Nose landing gear manual release mechanism spring broken. Spring failed during manual operation test. P/No: 273A45181. (2 similar occurrences)

Boeing 737838 Air conditioning system sense line holed. Ref 510003760

While carrying out investigation of wing to body overheat illumination problem, the flexible sense line from the RH Air Cycle Machine was found to be holed. Investigation continuing. P/No: AS141G0120N045L

Boeing 737838 Brake damaged. Ref 510003692

LH main landing gear outboard brake assembly damaged. Investigation found the brake had been damaged due to a migrating inner bearing outer race which rubbed on the brake. Further investigation found there was no inner bearing seal retaining circlip fitted. P/No: 26123121. (16 similar occurrences)

Boeing 737838 Flight compartment window shattered. Ref 510003679

First Officer's No4 window pane shattered. P/No: 58935734. (27 similar occurrences)

Boeing 737838 Fuel transfer valve actuator failed. Ref 510003612

Fuel crossfeed valve actuator failed. P/No: MA20A10011. (5 similar occurrences)

Boeing 737838 Trailing edge flap bellcrank broken. Ref 510003576

RH outboard aft flap inboard bellcrank broken in half. P/No: 113A39104. (2 similar occurrences)

Boeing 737838 Trailing edge flap position indicator faulty. Ref 510003767

Trailing edge flap indicator faulty. Internal synchros continually driving causing LH flap needle to lag. P/No: 2061151. TSN: 15984 hours. TSO: 15984 hours. (15 similar occurrences)

Boeing 747338 Cabin air conditioning system faulty. Ref 510003795

Fumes coming from air conditioning system. No 1 air conditioning pack selected off and fumes stopped. Suspect faulty Air Cycle Machine.

Investigation continuing.

Boeing 747338 Spoiler cracked. Ref 510003583

No 6 spoiler panel contained extensive cracking and structural failure around reinforced area. Investigation also found No 6 spoiler actuator and hinge support fitting cracked in two places on lower horizontal web and was also chafing on the inboard side of the inboard lug of the mid LH hinge point. P/No: 65B023101

Boeing 747438 Engine fairing missing. Ref 510003577

No 1 engine RH lower "A" frame upper sealing fairing missing. Lower half damaged at attachment fasteners. (18 similar occurrences)

Boeing 747438 Generator failed. Ref 510003636

APU No 2 generator internal failure. Two holes in side of case. Holes approximately 35 mm (1.37 in) in size. P/No: 28B26313. TSN: 532019 hours. TSO: 11183 hours.

Boeing 747438 Hydraulic pump failed. Ref 510003698

No 3 engine driven hydraulic pump failed. Metal contamination of hydraulic system. P/No: 3508807. (3 similar occurrences)

Boeing 747438 Landing gear actuator rod bolt missing. Ref 510003758

LH body gear tilt actuator rod end attachment bolt missing. Investigation continuing. P/No: 65B054523. (3 similar occurrences)

Boeing 767336 Fuselage, miscellaneous structure fastener damaged. Ref 510003769

During NDT inspection of RH outer chord iaw AD/JB767/146 and EI 767-053-0017R09 defect indication at upper aft fastener at area 2 and upper and lower inboard fasteners at area 3. No defects were found post fastener removal at area 2. Area 3 upper inboard fastener contains excessive mechanical damage and lower inboard fastener hole contains a crack indication within the chord.

Boeing 767338ER Drag control actuator failed. Ref 510003796

LH wing No 3 spoiler actuator leaking. Further investigation found actuator housing separated from casing towards the eye end of the housing. P/No: 15426001. (3 similar occurrences)

Bombardier DHC8102 Flight compartment window shattered. Ref 510003707

Pilot's side window outer pane shattered. P/No: NP15790213

Bombardier DHC8102 Fuselage skin corroded. Ref 510003714

Lower fuselage skin corroded and one rivet head missing from previous repair patch. Further investigation confirmed corrosion to the repair plate, fuselage skin and underlying waffle plate. Affected skin is located in area of belly ADF loop antenna. TSN: 44506 hours/46553 cycles.

Bombardier DHC8102 Passenger compartment window cracked. Ref 510003582

Cabin window located at seat 2CD cracked. Failure happened during severe icing condition which caused airframe vibrations. (1 similar occurrence)



Bombardier DHC8315 Smoke detector suspect faulty. Ref 510003771

Baggage compartment smoke warning. Suspect smoke detectors activated by active mobile phone in baggage compartment. Investigation continuing. P/No: 302313. (3 similar occurrences)

Bombardier DHC8402 Baggage door handle disengaged. Ref 510003645

Forward baggage door handle migrated from fully stowed position due to handle latch disengaging. Handle latch triggered door warning system. At no time did the door locking mechanism disengage. TSN: 168 hours/153 cycles. (3 similar occurrences)

Bombardier DHC8402 Main hydraulic system FOD. Ref 510003656

Hydraulic system contaminated. LH landing gear sequence valve hydraulic line contained two pieces of o-ring seal. FOD. (1 similar occurrence)

Fokker F28MK0100 Cabin aircycle machine cracked. Ref 510003705

No 2 Air Cycle Machine (ACM) heat exchanger cracked. Crack length approximately 152.4 mm to 177.8 mm (6 in to 7 in). P/No: 22034802. TSN: 15824 hours/15496 cycles.

Fokker F28MK0100 Cabin heat exchanger split. Ref 510003706

No 2 air conditioning system heat exchanger split.

(1 similar occurrence)

**Fokker F28MK0100 NLG steering system cable incorrect routed. Ref 510003675**

Nose landing gear steering tight in operation. Investigation found the rear feedback cable incorrectly routed around the steering box attachment frame and fouling on the structure. Inspection of the cable found two broken strands.

Lear 45 Landing gear door actuator gimbal cracked. Ref 510003742

RH main landing gear door actuator gimbal assembly PNo 4532103050-001, LH gimbal shaft PNo 4532103054-003 and LH and RH gimbal brackets PNo 4532103150 cracked. Found during dye penetrant and eddy current inspections. P/No: 4532103050. TSN: 1568 hours/3164 cycles.

(4 similar occurrence)

Lear 45 Landing gear retract/extension gimbal cracked. Ref 510003629

LH main landing gear gimbal assembly PNo 32103050, LH main landing gear gimbal bracket PNo 4532103150 and RH main landing gear gimbal shaft PNo 4532103054 cracked. Found during dye penetrant and eddy current inspections. P/No: 4532103150. TSN: 4641 hours/8015 landings.

(4 similar occurrences)

Saab SF340B Nose wheel steering universal joint loose. Ref 510003761

Nose wheel steering mechanism top universal joint roll pin missing. Roll pin is an interference fit and had worked loose over time.

P/No: 7805106.

AIRCRAFT BELOW 5700 KG**Beech 58 Wing spar web cracked. Ref 510003630**

Forward carry through spar front web PNo 002-430018-5 and aft web

PNo 002-430018-7 cracked through fasteners and flange. Following removal of fasteners, more cracking was discovered using dye penetrant inspection. Cracking originates from huck bolt collar witness marks on web face causing stress raisers.

P/No: 24300185. TSN: 10140 hours. (1 similar occurrence)

Beech 200 Main landing gear actuator failed. Ref 510003757

RH main landing gear actuator failed. Investigation found that the screwjack nut had become disengaged from the screwjack. P/No: 99810057651. TSN: 7428 landings. TSO: 7500 landings

Beech B200C Hydraulic power pack failed. Ref 510003730

Hydraulic power pack failed. Pack was unable to maintain pressure and the circuit breaker tripped. Suspect internal leak in power pack.

P/No: 101-388005-19. TSO: 635 hours/777 cycles

Britten Norman BN2A26 Engine cowl latch screw incorrect fit. Ref 510003568

LH engine cowl latch attachment screw protruding beyond nut. Screw rubbed a small hole in the engine rocker cover causing oil loss. (1 similar occurrence)

Cessna 150G Elevator trim horn cracked. Ref 510003639

Elevator trim tab horn contained two cracks from fold to rivet holes. Crack length 4.762 mm (0.1875 in).

P/No: 43200138. TSN: 2828 hours

Cessna 182P Fuselage bulkhead cracked. Ref 510003740

Fuselage bulkhead cracked in area of notch. Found during inspection iaw AD/Cessna180/75.

P/No: 7136089. TSN: 4148 hours. (5 similar occurrences)

Cessna 210N Powerpack hydraulic motor unserviceable. Ref 510003649

Power pack hydraulic motor overheated and failed internally. Caused by loss of hydraulic fluid through check valve filter seal preventing pressure switch from actuating and allowing motor to continue operating.

P/No: 98811411

Cessna 310R Wing spar fitting corroded. Ref 510003659

Lower forward carry through spar fitting corroded in bolt hole. Inspection also found fretting and the beginnings of exfoliation corrosion. Found during eddy current inspection. P/No: 8113508. TSN: 16002 hours. (1 similar occurrence)

Cessna 402C Landing gear uplock microswitch failed. Ref 510003622

LH main landing gear uplock switch

faulty. Hydraulic system running continuously caused hydraulic fluid to overheat and melt the hydraulic reservoir sight tube. Smoke and fumes in cabin. Suspect sight tube may not have been correct item/material. P/No: 63210075602EN556B

Cessna 441 Aileron control cable transposed. Ref 510003689

Autopilot roll servo to aileron bellcrank control cables transposed. Personnel/maintenance error. P/No: 571509694PS

Cessna 414 Landing gear downlock bolt failed. Ref 510003786

RH main landing gear downlock arm upper bolt failed. RH main landing gear collapsed. Damage to RH wing and propeller. TSN: 7992 hours. TSO: 7992 hours

Cessna 441 Pressurisation valve false activation. Ref 510003635

Emergency pressurisation valve had an uncommanded opening.

P/No: 47061. TSO: 323 hours/316 cycles/316 landings/22 months

Cessna 441 Wing spar skin delaminated. Ref 510003588

Two rivet heads missing from LH wing spar upper skin at CWS120.441. Several working rivets were found in the RH wing spar upper skin at CWS120.441. Further inspection by ultrasonic NDT found delamination between the upper skin and the second laminate at CWS120.411 on both LH and RH wings. No corrosion was found in the spar.

Gippsland GA8 Landing gear nut loose. Ref 510003624

RH main landing gear inner nut loose. Bolts attaching flange to fuselage structure loose allowing movement between nut and structure and causing the nut holes to become elongated. P/No: GA832102223

Gippsland GA8 Tailplane cracked. Ref 510003658

Rib and rear spar doubler assemblies associated with the pivot mounts that attach the tailplane to the fuselage found cracked. The original cracking was repaired with heavier gauge material but had cracked in a similar manner when inspected after approximately 100 hours operation. Found during inspection iaw Service Bulletin SB-GA8-2002-02. The packing pieces required by Inspection 3 (rear pivot attachment inspection) of the SB were missing. These packing pieces are installed to ensure a more even load distribution between the bolted channel mount and the tailplane structure. One AN bolt had been installed instead of the specified NAS bolt and another bolt had failed.

Gulfstream 500S Elevator control system torque tube cracked. Ref 510003700

Elevator control system torque tube cracked. P/No: 5300263.

TSN: 16648 hours

Gulfstream 500U Hydraulic pressure line corroded. Ref 510003703

Hydraulic pressure line located in LH nacelle contained a corrosion pin hole. Loss of hydraulic fluid.

P/No: 6790246185

Piper PA24250 Stabilator trim tab hinge misaligned. Ref 510003616

Stabilator trim tab to stabilator hinges (6 of) misaligned causing binding and deformation of the stabilator trailing edge during tab deflection. P/No: 20194018

Piper PA34220T Fuselage frame damaged. Ref 510003595

Aft fuselage frame located at FS285.83 contained heavy gouging and distortion on mounting faces for fin attachment. Swarf had been trapped between the frame and the fin mount fitting. Suspect occurred during manufacture.

P/No: 62445003.

TSN: 3466 hours/62 months.

(1 similar occurrence)

Piper PA34200T Landing gear drag brace out of adjust. Ref 510003734

Nose landing gear retraction link out of adjustment allowing the drag brace to move overcentre. Nose landing gear collapsed.

Piper PA34220T Rudder torque tube corroded. Ref 510003593

Rudder torque tube corroded under paint at steel fitting. P/No: 96319802. TSN: 3369 hours/63 months.

(3 similar occurrences)

**Piper PA34220T Stabiliser attach fitting oversize bolt holes. Ref 510003751**

Stabiliser attachment fittings (4off) had oversize bolt holes. Fittings PNo 62413-000, PNo 62413-001, PNo 62414-000, and PNo 62414-001

P/No: 6241300.

(2 similar occurrences)

Piper PA34220T Wing spar attach plate faulty manufacture.**Ref 510003597**

Inspection of new replacement aft wing spar attachment plate found early stages of corrosion under primer. Pre-drilled holes were not deburred. Scoring marks across surface. Edges of metal still had sharp edges left from manufacturing. Suspect sub standard quality control at manufacturer. P/No: 66762000. (2 similar occurrence)

Socata TB10 Nose landing gear support frame cracked.**Ref 510003797**

Nose landing gear support frame broken away from firewall at lower RH attachment point.

P/No: TB1042010005. TSN: 6377 hours

**Swearingen SA227AC Pressure control system failed. Ref 510003620**

Pressurisation system failed during descent. Aircraft experienced icing conditions prior to failure. Ground tests could find no defects.

ROTORCRAFT**MDHC 369E Main rotor gearbox gear cracked. Ref 510003655**

Main transmission ring gear tooth brinelled and cracked. Aircraft is foreign registered.

P/No: 369D2512711.

TSO: 2915 hours

Robinson R22Beta Cooling fan bearing unserviceable.**Ref 510003603**

Fanshaft bearing unserviceable. P/No: A1814. TSN: 721 hours/5 months

Robinson R44 Engine mount frame cracked. Ref 510003776

Engine frame cracked. Found during inspection iaw SB 59.

P/No: C04621.

TSN: 284 hours

Robinson R44 Horizontal stabiliser skin cracked. Ref 510003732

Horizontal stabiliser upper skin cracked fore and aft from rivet hole. Crack length 44.45mm (1.75in).

P/No: C0441. TSN: 345 hours

PISTON ENGINES**Continental GTS10520M Propeller shaft thrust washer damaged. Ref 510003743**

Engine propeller shaft thrust washer and rear thrust washer damaged and badly galled. Metal contamination of engine oil system. P/No: 646260

Continental GTS10520M Turbocharger bearing seized. Ref 510003652

LH engine turbocharger seized and leaking oil. Suspect bearing failure.

P/No: 4071340000AND4. TSO: 685 hours. (2 similar occurrences)

Continental IO360HB Engine starter adaptor drive spring broken. Ref 510003724

Starter adaptor drive spring failed. The broken tang entered the engine causing failure of the engine oil pump.

P/No: 643109M. TSO: 598 hours

Continental IO520B Engine cylinder head leaking. Ref 510003653

Engine cylinder leaking between head and barrel. P/No: 639272E.

TSN: 3647 hours. TSO: 257 hours. (15 similar occurrences)

Continental IO520M Engine cylinder cracked. Ref 510003678

RH engine No 6 cylinder cracked from exhaust valve seat running towards upper spark plug hole.

P/No: AEC631397. TSN: 1256 hours. (15 similar occurrences)

Continental IO520M Engine cylinder piston ring delaminated. Ref 510003677

RH engine No 6 cylinder top compression ring plasma coating delaminated. P/No: AEC648005PL.

TSN: 1256 hours.

(3 similar occurrences)

**Continental IO550N Engine seized. Ref 510003722**

During bulk strip following propeller strike the engine was found to have the oil rings seized in the pistons, the cylinders worn beyond limits and the main engine bearings worn beyond limits. Engine was a new factory item with only 705.1 hours since new.

P/No: IO550N.

(1 similar occurrence)

Continental IO550N Spark plug unserviceable. Ref 510003693

Engine spark plugs (2 of) fine wire iridium tang split. P/No: RHB32S.

TSN: 120 hours

(2 similar occurrences)

Continental LTSIO360RB FCU faulty. Ref 510003749

RH engine fuel control unit giving

excessively rich idle mixture. FCU was a factory exchange unit.

P/No: 25765407. TSN: 3 hours.

(4 similar occurrences)

Continental TSI0520R Engine cylinder cracked. Ref 510003791

Engine cylinder cracked. Refer AWB 85-006 issue1.

P/No: AEC631397REVD. TSN: 566 hours. (15 similar occurrences)

(15 similar occurrences)

De Havilland Gipsymajor1 Magneto gear stripped. Ref 510003569

RH magneto failed due to a stripped gear. TSO: 250 hours

Lycoming IO540K1A5 Engine camshaft worn. Ref 510003623

Engine camshaft lobe severely worn. Metal contamination of engine.

(10 similar occurrences)

Lycoming IO540K1A5 Engine muffler cracked. Ref 510003625

Muffler cracked around flange at inlet stub. Muffler separated from collector.

P/No: GA878101114

Lycoming O360A1G6 Engine starter bolt sheared. Ref 510003800

LH engine starter motor bolt

sheared. Bolt secures fore and aft



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sections of starter motor. Suspect bolt had been loose for some time as the aluminium housing was worn. TSN: 193 hours

Lycoming O360J2A Engine cylinder faulty. Ref 510003606

No 2 and No 3 cylinder exhaust valves sticking. Valves freed and reamed but valves continued to stick. Valves reamed constantly until at approximately 432 hours of operation the cylinders were replaced. P/No: SL36000TWA21P. TSN: 432 hours/3 months. (5 similar occurrences)

Lycoming T10540AH1A Engine oil sump baffle cracked. Ref 510003667

Engine oil scavenge filter blocked by a piece of aluminium approximately 20 mm by 10 mm (0.78 in by 0.39 in). Investigation found that the oil baffle located in the sump had major cracking along all attachment points. Inspection of new replacement baffle

found that the holes in the baffle had been punched out instead of drilled, which caused the formation of stress raisers that may have contributed to the original failure. P/No: 56G23399. TSN: 413 hours/36 months

TURBINE ENGINES

Allison 250C20 Engine fuel pipe cracked. Ref 510003739

Engine failed. Investigation found the pipe between the engine-driven fuel pump and the high pressure filter was cracked behind the "B" nut. Subsequent investigation found a PC line also cracked. Further investigation found that the starter-generator was causing a high frequency vibration due to the commutator being loose on the shaft. P/No: 6894106

Garrett TPE33110511M Engine compressor impeller unserviceable. Ref 510003720

Compressor impeller not removed iaw AD/TPE331/50. P/No: 8962233. TSN: 14020 hours/12017 cycles. (2 similar occurrences)

GE CT79B Engine DECU unserviceable. Ref 510003621

LH engine Digital Engine Control Unit (DECU) unserviceable. P/No: 607IT20P16. (2 similar occurrences)

GE CT79B Engine turbine blade separated. Ref 510003787

LH engine third stage turbine blade separated. Damage to adjacent blades. TSN: 16678 cycles. (1 similar occurrence)

PWA PT6A41 Turbine engine failed. Ref 510003681

RH engine failed. Loss of oil pressure and internal damage. Investigation continuing. (2 similar occurrences)

PWA PW150A Engine reduction gear o-ring damaged. Ref 510003711

LH engine reduction gearbox strainer

o-ring seal damaged. A large piece of damaged o-ring seal was found in the gearbox strainer. Found during inspection iaw P&WC SB35186. TSN: 1608 hours/1737 cycles

PROPELLERS

Hamilton Standard 14SF23 Propeller indication sys control box faulty. Ref 510003617

Propeller system advisory light control box faulty. P/No: 7002537

Hartzell HCC2YR1 Propeller blade incorrect part. Ref 510003764

During propeller overhaul it was found that the incorrect part number blades had been fitted. PNo F8468A-4R blades fitted instead of correct PNo F8468A-4. Personnel/maintenance error. Incorrect part. P/No: F8468A4R. TSO: 531 hours. (3 similar occurrences)

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

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