

(Cessna P/No: 082255-22 and P/No: 082255-24) cracked. Aircraft had previously been involved in a taxiing accident which damaged the wing leading edge. It is suspected that this may have propagated the cracks. P/No: JRA4681JRA4991. TSN: 1,421 hours/48 months.

**Gippsland GA8 Horizontal stabiliser structure cracked. Ref 510004351**

Horizontal stabiliser structure cracked. Structure surrounding LH stabiliser pivot fitting attachment bolt cracked in bend radius of rear spar forward splice lower flange. Crack length approximately 19.05 mm (0.75 in). Found during dye penetrant inspection iaw AD/GA8/5 Amdt1.

P/No: GA85510111. TSN: 2,356 hours. (2 similar occurrences)

**Mooney M20J Co-pilots seat frame cracked. Ref 510004382**

Co-pilot's seat frame cracked at RH pivot point. Crack was from pivot bolt hole to edge of frame on RH side. P/No: 140215803. TSN: 6,558 hours.

**PAC 750XL Aileron spars cracked. Ref 510004290**

LH and RH aileron spars P/No 11-24021-1 and P/No 11-24022-1 cracked at inboard attachment lower bolt hole. P/Nos: 11240211 & 11240221. TSN: 1,759 hours.

**Partenavia P68C Main landing gear attachment bolt broken. Ref 510004254 (photo below)**

RH main landing gear side support trestle gear spring retainer channel forward bolt broken. Bolt was still in trestle with the broken threaded section and nut found in the fairing. Found when fairing removed during troubleshooting for hydraulic leak. P/No: AN527A. TSN: 737 hours.

**Pilatus PC12 AHRS failed. Ref 510004228**

Attitude Heading Reference System (AHRS) failed. Loss of Electronic Attitude Deviation Indicator/Electronic Horizontal Situation Indicator (EADI/EHSI). P/No: 9859911858. (1 similar occurrence)

**Pilatus PC12 Computer out of calibration. Ref 510004209**

Stickpusher computer out of calibration.

P/No: 9754423104. TSN: 523 hours/400 cycles. (3 similar occurrences)

**Pilatus PC12 Hydraulic system selector valve corroded. Ref 510004342**

Hydraulic service selector valve contained severe exfoliation corrosion on the housing adjacent to the valve outlet. The corrosion was penetrating towards the outlet port. P/No: 891392. TSN: 7,016 hours.

**Pilatus PC12 Propeller de-ice system harness wire broken. Ref 510004282**

Propeller de-ice harness wire broken at bend in harness. P/No: 3E23604. (28 similar occurrences)

**Piper PA28161 Aircraft fuel gascolator faulty. Ref 510004360**

Fuel gascolator bowl incorrectly seated allowing air to enter fuel system. P/No: 35715003. TSN: 1,814 hours.

**Piper PA31350 Engine air intake system door intermittent. Ref 510004305**

LH engine inlet air duct alternate air door intermittent in operation. P/No: 5491602. TSN: 18,530 hours. TSO: 1,575 hours/64 months.

**Piper PA31350 Horizontal stabiliser rear spar attachment angles loose. Ref 510004455**

Horizontal stabiliser rear spar attachment angles P/No 40646-00L and P/No 40646R loose and rear lower attachment rivets sheared. P/No: 4064600L01R. TSN: 18,580 hours.

**Piper PA31350 Nose landing gear collapsed. Ref 510004403**

Nose landing gear collapsed during landing run. Damage to aircraft. Investigation continuing.

**Piper PA36285 Fuselage tube cracked and corroded. Ref 510004182**

Fuselage structural tubing cracked and corroded.

**Socata TB10 TOBAGO Nose landing gear frame cracked. Ref 510004325**

Nose landing gear support frame cracked at lower RH attachment point. P/No: TB1042010005. TSN: 7,719 hours. (1 similar occurrence)

**Swearingen SA227AC Rudder trim tab rod end broken. Ref 510004317**

Rudder trim tab rod assembly rod end broken in half at actuator end. Investigation found the trim tab actuator fork end installed 90 degrees out of alignment causing the rod end to be loaded up during rudder activation. P/No: 2742025011.

**Swearingen SA227AT Elevator control system pulley incorrect fit. Ref 510004196**

Elevator control system making a scraping noise. Misalignment of brackets and pulley mounting holes caused control cable and spring fouling.

**Swearingen SA227DC Fuel boost pump worn. Ref 510004269**

LH fuel boost pump worn internally. Unable to maintain fuel flow. (1 similar occurrence)

**Swearingen SA227DC Hydraulic pipe leaking. Ref 510004253**

Hydraulic pipe located in centre wing section chafed and leaking. Loss of hydraulic fluid. P/No: 27810322612. (18 similar occurrences)

**Swearingen SA227DC Ice and rain protection wiring worn. Ref 510004181**

SAS heating system electrical wires chafed and short-circuiting against fuselage.

**Swearingen SA227DC Rudder torque tube worn. Ref 510004387**

Rudder torque tube worn by pressurisation seal. P/No: 2742051011.

**ROTORCRAFT**

**Eurocopter AS350BA Bellcrank pivot hole through transmission deck worn. Ref 510004328**

Primary flight control bellcrank pivot hole through the transmission deck worn.

**Eurocopter AS350BA Windscreen centre pillar cracked. Ref 510004327**

Windscreen centre pillar lower structure cracked through main web.

**Robinson R22BETA Engine/transmission coupling bearing failed. Ref 510004378**

Engine to transmission lower clutch bearing failed. Bearing had overheated and the temperature indicator had burnt off. P/No: A0014BEVL. (1 similar occurrence)

**Robinson R22BETA Main rotor blade delaminated. Ref 510004244**

Main rotor blade delaminated in area at the underside of the tip. P/No: A0064. TSN: 598 hours. (11 similar occurrences) (photo above right)

**PISTON ENGINES**

**Continental GTSIO520M Engine cylinder exhaust valve burnt. Ref 510004276**

RH engine No. 5 cylinder burnt with approximately 33 per cent of the valve face missing. Suspect engine run too lean. P/No: 655771. TSN: 1,161 hours.

TSO: 1,161 hours.

(4 similar occurrences)

**Continental GTSIO520M Engine transition poor design. Ref 510004245**

RH engine manifold pressure unable to be adjusted to manufacturer's limits. Suspect incorrect design of transition assembly. P/No: AEA4083. TSN: 105 hours. (3 similar occurrences)

**Continental GTSIO520M Exhaust turbocharger bearing failed. Ref 510004303**

LH engine turbocharger bearing failed. Damage to turbocharger blades and excessive movement on shaft. Oil leaking into turbine area. Turbocharger had only been installed six hours prior to failure.

P/No: 4071340000. TSO: 6 hours. (3 similar occurrences)

**Continental IO360HB Engine exhaust muffler faulty. Ref 510004369**

RH exhaust muffler baffle loose and intermittently blocking exhaust outlet. P/No: AEA4185.

**Continental IO360K Engine cylinder cracked. Ref 510004338**

No. 4 cylinder head cracked at head to barrel joint threads.

P/No: ARC20551. TSN: 2,294 hours. TSO: 506 hours. (4 similar occurrences)

**Continental IO470L Engine internal oil system sump cracked. Ref 510004186**

RH engine sump cracked. Engine had been fitted to an aircraft that had a wheels-up accident which damaged the sump. The sump had repairs to remove dents in the cracked area. P/No: 537650.

**Continental IO550C Engine power section bushing disintegrated. Ref 510004230**

Engine connecting rod little end bushing partially disintegrated. Damage to oil pressure relief valve seat. Metal contamination of engine oil system. P/No: 530658. TSO: 1,488 hours. (1 similar occurrence)

**Continental O470U Engine oil pressure pipe corroded. Ref 510004278**

Engine oil pressure indicator line contained a corrosion pinhole. Oil leaking into cockpit. (1 similar occurrence)

**Continental TSIO520N Engine power section stud incorrect fit. Ref 510004396**

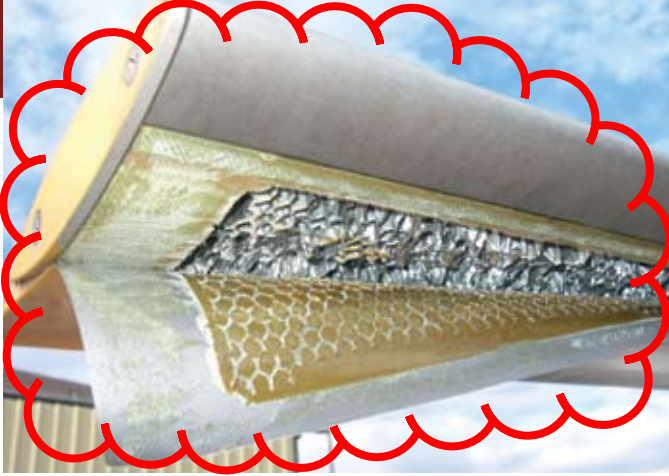
LH engine had 'O' rings fitted to bottom centre hold-down stud before cylinder fitment. Bottom cylinder nut loosened causing an oil leak. Personnel/maintenance error. P/No: TSIO520NB. (2 similar occurrences)

**De Havilland GipsyMajor1 Engine cylinder exhaust valve separated. Ref 510004341**

No. 1 cylinder exhaust valve head separated from valve stem. Valve head holed piston. TSO: 1,208 hours.

**Lycoming IO320 Magneto spring broken. Ref 510004187**





LH magneto impulse coupling spring broken. P/No: 1051324. TSN: 2,000 hours.

**Lycoming O360E1A6 Engine cylinder exhaust valve stuck. Ref 510004251**

No. 3 cylinder exhaust valve stuck. Valve guide pushed out. Rocker jammed and pushrod bent. (1 similar occurrence)

**Lycoming T10540J2BD Exhaust turbocharger pressure controller faulty. Ref 510004292**

LH engine differential pressure controller faulty. P/No: LW1009885. TSO: 1,170 hours. (1 similar occurrence)

**Lycoming T10540V2AD Engine internal oil system plate failed. Ref 510004381**

RH engine oil filter converter plate gasket failed. Gasket protruding around plate. P/No: LW13904. (1 similar occurrence)

**Rotax ROTAX912 Engine muffler broken. Ref 510004185**

Muffler failed at outlet. P/No: 978480. (1 similar occurrence)

**TURBINE ENGINES**

**Garrett TPE33112UH Engine torque loss and fire warning. Ref 510004291**

RH engine torque loss of approximately 20 per cent followed by RH engine fire warning. Engine shutdown and fire bottle discharged. Investigation continuing. P/No: TPE33112UHR. (8 similar occurrences)

**Garrett TPE3318403S Power lever out of adjust. Ref 510004235**

LH engine condition lever not fully engaged in detent. Engine shutdown during landing roll. P/No: 571430516.

**GE CF680E1 Thrust reverser**

**actuator cracked. Ref 510004215**

LH and RH engine thrust reverser ball screw actuators had damaged/cracked mechanical over-travel stops (4 actuators per engine). Suspect caused by incorrect rigging. Investigation continuing. P/No: 32755383.

**GE CFM563C Engine vibrates. Ref 510004184**

No. 2 engine high vibration levels. Investigation found four non-ferrous metal pieces in the aft sump. Pieces of metal approximately 6 mm (0.23 in) in size. Engine removed for further investigation. P/No: CFM563C1. (1 similar occurrence)

**GE CFM567B Engine HMU leaking. Ref 510004289**

RH engine Hydromechanical Unit (HMU) leaking fuel. P/No: 1853M56P07. (7 similar occurrences)

**GE CT75A2 Engine compressor section FOD. Ref 510004310**

RH engine power loss during take-off. Investigation found a paper load docket blocking some of the compressor inlet vanes. FOD. P/No: CT75A2.

**Lycoming LTS101750B1 Engine throttle control box bearing broken. Ref 510004451**

No. 1 engine throttle control box ball bearing failed. The bearing applies positive pressure against the rack when engaging the pinion gear. A segment of the outer race had broken away allowing three balls to fall from the cage and move freely in the housing. The broken segment of the outer race fell between the pinion gear and rack causing the throttle to jam. TSN: 2,478 hours/204 months.

**PWA PT6A112 Engine fuel distribution flow divider leaking. Ref 510004383**

RH engine fuel flow divider and dump valve leaking. Workshop investigation found a damaged 'O' ring seal in the flow divider. P/No: 25536. TSO: 113 hours/62 cycles.

**PWA PT6A42 Engine fuel distribution pipe cracked. Ref 510004287 (photo below)**

LH engine primary fuel line cracked at FCU. P/No: 3026779.

**PWA PW118A Fuel injector nozzle 'O' ring faulty manufacture. Ref 510004257**

LH engine fuel leakage. Investigation found the leak was from the engine fuel nozzles. Further investigation found the fuel nozzle 'O' ring seals came from a faulty batch. P/No: ST3367009. (1 similar occurrence)

**PWA PW120A Engine failed. Ref 510004258**

No. 2 engine failed. Engine oil temperature just below red line. Engine was on first flight following overhaul. Investigation continuing. (3 similar occurrences)

**PWA PW123E Engine accessory gearbox rumble/vibration. Ref 510004234**

No. 2 engine faulty. Crew experienced feedback through condition lever. Further investigation found a chip flag indication for the No. 2 engine and the main oil tank. When the engine was motored a rumble and vibration was found coming from the accessory gearbox. TSN: 12,976 hours/15,955 cycles. TSO: 1,226 hours/1,108 cycles. (4 similar occurrences)

**PWA PW123E Engine compressor seized. Ref 510004424**

LH engine failed. Metal contamination of engine. HP compressor seized. No. 5 bearing cage broken with a piece missing. Investigation continuing.

**Rolls Royce RB211524D4 Engine turbine blade separated. Ref 510004191**

No. 1 engine low frequency vibration. EGT slowly increasing. Metal found in tailpipe. Investigation found the damage was caused by the liberation of a single Low Pressure Turbine (LPT) blade which separated above the blade root. The blade separation caused TSN: 79,149 hours. TSO: 4,918 hours. (2 similar occurrences)

**Rolls Royce RB211524G Engine noisy. Ref 510004384**

Abnormal noise from area of RH engines. Investigation could find no faults. No. 4 engine had a repair in the area aft of the inlet guide vanes which it is suspected made the abnormal noises. Investigation continuing. (7 similar occurrences)

**Turbomeca MAKILA1A Engine rpm indicating system harness open circuit. Ref 510004299**

No. 2 engine speed control (NTL) harness open circuited. P/No: 301528202.

**PROPELLERS**

**Hamilton Standard 14SF23 Propeller blade damaged. Ref 510004236**

Propeller blade removed due to impact damage. Further investigation of the damaged area found extensive corrosion to aluminium core shaft extending from the tip end approximately 50.8 mm to 76.2 mm (2 in to 3 in) up the shaft. P/No: RFC11M1R6ABDE2. TSO: 337 hours/210 cycles. (2 similar occurrences)

**McCaughey 4HFR34C652 Propeller governor pipe cracked. Ref 510004273**

RH engine propeller governor high pressure oil pipe cracked and leaking. P/No: TBV. (1 similar occurrence)

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



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