

**Aviation Safety Investigation Report
198803505**

Piper PA32T-300

30 November 1988

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NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

Occurrence Number: 198803505
Location: Archerfield QLD
Date: 30 November 1988
Highest Injury Level: Nil
Injuries:

Occurrence Type: Accident
Time: 1840

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	1
Total	0	0	0	2

Aircraft Details: Piper PA32T-300
Registration: VH-MHU
Serial Number: 32R-7885278
Operation Type: Private
Damage Level: Substantial
Departure Point: Roma QLD
Departure Time: 1630
Destination: Archerfield QLD

Approved for Release: March 6th 1989

Circumstances:

The aircraft is not frequently used except for short, concentrated periods of activity. At other times it is left parked at Coolangatta Aerodrome and is subject to the harsh coastal environment. During an eight day business trip around Queensland in the aircraft, some gear problems were encountered. At Mackay, several days before the accident, the pilot discovered that a left main gear door linkage had sheared because lack of lubrication had seized the ball joint. Upon inspection, the right gear door linkage was similarly seized. The damaged items were serviced by a licenced aircraft maintenance engineer before the flight continued to Hamilton Island. Later, departing Hamilton Island, the pilot noticed that the GEAR UNSAFE light remained illuminated after gear retraction. Recycling the gear gave a correct gear down indication each time but the GEAR UNSAFE light remained lit after each retraction. A visual inspection by the Tower Controller convinced the pilot that the gear was indeed stowed and he assumed that the problem was of an electrical nature. The unsafe indication continued for the duration of the round trip. When the pilot selected gear down upon his arrival at Archerfield, the right maingear remained in the wheelwell. Attempts were made to shake the gear down but to no avail. With last light approaching, the pilot decided to commence an approach for a wheels-up landing on Runway 04R. During late final approach the pilot shut the engine down. The resultant high rate of descent surprised the pilot who realised that the aircraft would now land short of the threshold. The aircraft landed heavily on cross runway and slid onto the threshold. Investigation has revealed that the right maingear torque link bolt sheared, causing the oleo to over-extend and jam the wheel in the wheelwell. The failed bolt and bushes had corroded and seized in the torque links causing the bolt to shear with movement of the torque links. The torque link bolts are not normally removed and lubricated during routine servicing.

Significant Factors:

The following factors were considered relevant to the development of the accident

1. The pilot operated the aircraft with a known retractable gear deficiency.
2. The right main gear torque link bolt sheared due to lack of lubrication.
3. The aircraft was normally parked in a corrosive coastal environment.
4. The maintenance carried out was inadequate for the environment in which the aircraft was parked.
5. The pilot misjudged airspeed and altitude during the final approach and shut the engine down prematurely.

Recommendations:

The recommendation is that the Civil Aviation Authority consider issuing an Airworthiness Directive or Maintenance Bulletin directing owner/operator attention to the necessity of inspecting and lubricating the "low maintenance" landing gear moving parts on a regular basis.