

AUSTRALIAN SPORT ROTORCRAFT ASSOCIATION INC



ABN 53 412 417 012

AIRWORTHINESS ALERT

No. 03/2006

Date: November 30th, 2006

Subject: Stub Axles - Single-seat Gyroplanes

Background

The current owner of a single-seat gyroplane was pushing it onto a taxiway in preparation for a flight when the right hand main wheel “fell off” due to a sheared stub axle. He filed an Incident Report with ASRA in which he identified the gyroplane as being manufactured by “Rosco”.

ASRA records were consulted in an effort to trace the history of the gyroplane. It was established that the current owner was the third since the gyroplane was manufactured. Owner no. 2 has not been able to be contacted, however the Registration Form that he submitted when he purchased the gyroplane revealed the manufacturer. This form also identified the original owner, a person unknown to ASRA.

With the co-operation of the manufacturers involved and the original owner, it was established that the incident gyroplane was one of a batch of approximately 8 single-seat gyroplanes manufactured in “the early nineties”. All were of essentially similar design and construction and utilised stub axles made from aluminium. The early failure of the aluminium stub axles fitted to two of these gyroplanes prompted the manufacturers to re-engineer replacement stub axles utilising steel. These replacements were provided to the owners of the suspect gyroplanes with instructions to replace the originals immediately. All subsequent gyroplanes manufactured by the companies involved were fitted with steel stub axles. As the incident gyroplane had been involved in an accident and was in a state of disrepair at this time, the original owner failed to replace the stub axles in accordance with the instructions from the manufacturer. The gyroplane was subsequently repaired and sent to have a half-pod fitted prior to sale. It was subsequently sold to owner 2 and was first registered with ASRA at that time. The original owner acknowledged receiving the replacement stub axles and admitted that he had not replaced the originals at the time due to the state of the gyroplane. In fact, it was only early this year that he stumbled across the replacement stub axles that he discarded.

Recommendations

It is **strongly recommended** that all single-seat gyroplanes cease operations immediately, until it has been positively established that the stub axles fitted to them are either manufactured from steel, or manufactured from an alloy that is deemed suitable for the purpose.

Failure to do so could result in the failure of a stub axle.

Allan Wardill
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