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SAFETY ALERT

No: SA 2021.02

Date: 23.12.2021

Subject: Magni Gyro airframe corrosion

Background

Whilst undertaking a 1000hr Service on a Magni M16 aircraft, built 2013, the owner was repairing small stone chips/scratches on the airframe (constructed from Chrome Moly Steel) as per Magni “Scheduled Maintenance”.

A small spot of surface rust was noticed on the keel under the tail. The tail was removed to allow an inspection for any further corrosion.

Surface rust was found to be extensive under the tail and the rudder bearings were also affected.

Subsequently another Magni tail was removed from an M24 gyroplane (500hrs, built 2016) to conduct an inspection at the same airfield. Although not substantial, inspection did show early signs of the same issue.

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Alert

ASRA recommends that owners, operators and maintenance personnel of all Magni Gyro's pay particular attention to the airframe for corrosion in areas that are hidden/covered or where water/moisture can be retained.

The gyroplane in question has been flown extensively around coastal regions of Australia which may have contributed to the corrosion.

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It would be prudent to remove the rudder after 500hrs or 5 years. Rudder bearings should also be replaced if they show signs of corrosion or stiff/rough movement.

Removing the tail is not covered in Magni Gyro's Ordinary Maintenance and should only be carried out by qualified or experienced personnel.

An inquiry with photos was sent to Magni Gyro who confirmed that the corrosion was only superficial. They recommended repair following normal automotive painting procedures and products.

Consideration was given to the internal surfaces of the airframe tube. It appears that the airframe tube is fully sealed once constructed, therefore no exposure to oxygen or moisture should occur.

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