

RotorWay International  
Date: December 24, 2013

To: All Talon owners and Exec owners that have a tail rotor drive shaft conversions.

Subject: Mandatory Compliance Bulletin M27

**THIS BULLETIN IS MANDATORY. ALL OWNERS MUST COMPLY WITH THIS BULLETIN.**

**HISTORY:** Recently an incident occurred to a RotorWay Talon with the shaft driven tail rotor. On start up of the initial run ups the helicopter's tail rotor rpm was found to be running at a slower speed than normal. Upon inspection one of the two steel splined shaft weldments (E18-4200) in the center of the shaft was found to have a broken weld. Each spline has one weld located at the inside edge of the spline's teeth.

**ACTION:** Due to the seriousness of the potential danger involved with a loss of tail rotor authority, this bulletin requires at a minimum the inspection of this spline in all RotorWay helicopters with a shaft driven tail rotor. The shaft driven tail rotor system has a three piece shaft. Removal of the center shaft is necessary for inspection of welds on both splines. Use a dye penetrant inspection kit to detect any cracks.

We are currently investigating the cause of the broken weld. We are sending a sample of splines from our inventory and from this helicopter for analysis of both the welds and the welding procedure. It is anticipated that a determination of the cause and the potential additional helicopters affected will be reached within 3 to 4 weeks. At that time you will receive another bulletin of any corrective action required to allow continued operation of your aircraft.

