ROTORWAY INTERNATIONAL

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RotorWay International

Date: June 15, 2010

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

Subject: Mandatory Compliance Bulletin M26

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

HISTORY:

Recently an incident occurred to a Rotorway with a shaft driven tail rotor. An investigation into the incident showed that the helicopter lost tail rotor control resulting in a hard landing without injury.

ACTION:

The shaft driven tail rotor system is supplied power from a tail rotor belt which transfers power to the tail rotor gearbox from the secondary assembly. A spring loaded tensioner controls the tension of this tail rotor belt system. If this belt is tensioned to less than the amount specified by the Rotorway manual or if the idler arm is extended beyond the distance recommended in the Rotorway Manual, it is possible for the idler arm to extend past center. This may cause the belt to slip. It may also cause the belt to roll off of the pulley.

RotorWay International is sending replacement tensioner arms at no cost to the owners of aircraft that are affected by this bulletin. The new arm will have an additional stop to prevent this problem. As long as the tension is correct as per the Rotorway manual and the tensioner arm distances are within the limits specified in the Rotorway manual, the tensioner arm can be changed when practical. The new stop will add an additional safety measure to the belt tensioner.

Refer to enclosed drawings and photos for instructions. The following procedures are to help clarify the adjustment. Update your maintenance manual by adding the enclosed pages. Complete instructions are available and are provided with the new tensioner arm. It is important to check the condition and tension of all belts before every flight. Preflight checks are essential to the continued safe operation of your helicopter.

The new arm can be identified by a forward stop on the front side and three adjustment holes for the tensioner pulley.

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Photo #13
The tensioner arm (E18-5200) has three adjustment holes for the tensioners pulley. Assemble pulley in center hole and install on airframe. Vertical adjustment can be made by shimming the upper pulley spacer.

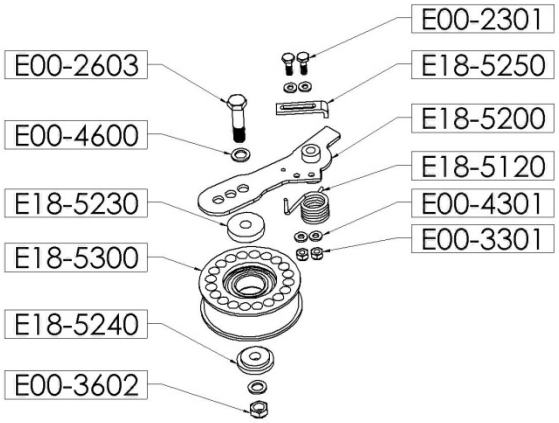

Photo #14

The tensioner pulley applies pressure against the back of the belt. To set static tension install the tensioner arm stop (see arrow in picture). The stop location will set belt tension as described in the next photo.

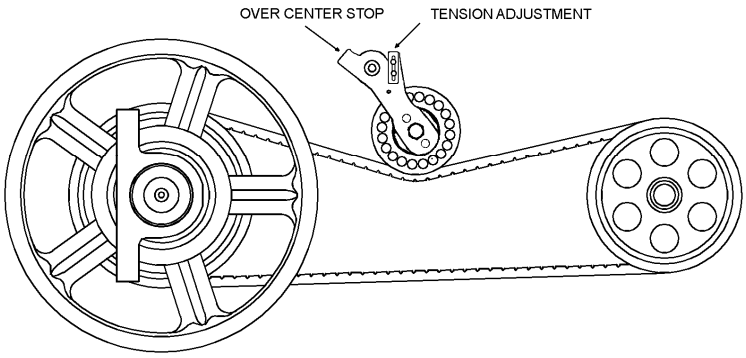

Photo #15

Spring tensioner (E49 CARD 3T) is used to set belt tension. Adjust tension arm stop until 7 lbs. is reached at a 1/2“travel. The first of three lines on the tension tool will be 7 lbs. Verify this by pushing tool against known accurate scale. The tension tool is adjustable. To adjust remove locking allen in end of tool. A second allen will adjust spring tension.

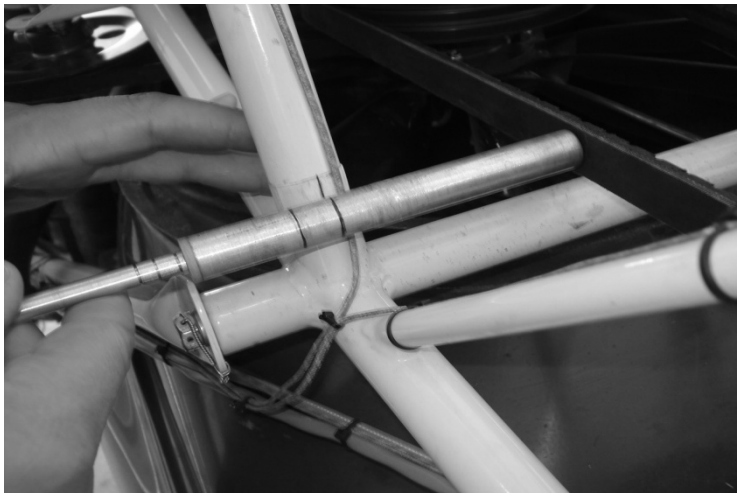

Photo #16

When correct belt tension is set (be sure the tensioner is held against the stop by the belt), mark the center of the pulleys bolt below on airframe.

Photo #17

Remove tail rotor belt. With pulley extended straight out, mark the center of the pulleys bolt. Minimum distance is 3/4” between lines. If less than 3/4” move pulley bolt to outer mounting hole. After replacing belt recheck tension per photo #15 and be sure pulley does not touch the frame.