

Van's RV-10 Service Bulletin

RAA

THE NOSEGEAR OF THE RV-10 is a third class lever that compresses an elastomeric shock absorber against a socket that is part of the engine mount. In some examples the socket has experienced cracking and Vans has issued SB14-8-29, details of which are available on the www.vansaircraft.com website.


The procedure is to take the load off the nosegear by tying the tail down so that the shock absorber unit may be removed. A careful inspection of the socket of the engine mount is to be carried out, and for this the powder coat paint may have to be removed either by abrasion or by the use of a chemical paint stripper. In some cases there will be cracks emanating from the centre hole that accepts the top end of the shock absorber unit. To date this has happened only to aircraft that have had rough field operations.

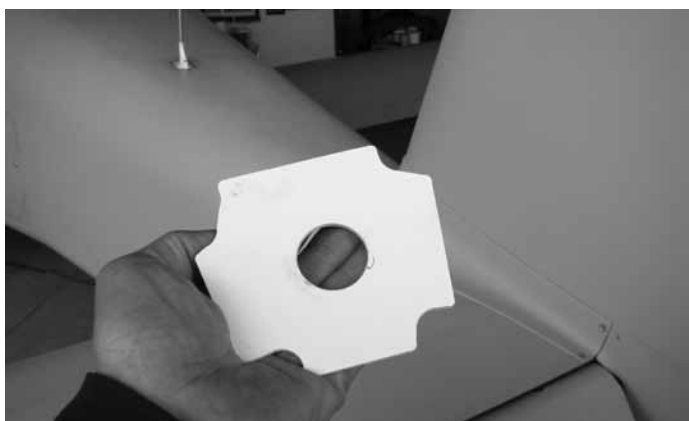
If there are no cracks the procedure is to slip the Vans-supplied doubler plate over the top of the shock absorber unit and reinstall everything. The plate is thick enough to spread the bump loads to the edges of the socket in the engine mount.

There is a second check to be done at this point. With the shock installed the owner must check for vertical play that can occur as a result of wear on the elastomeric donuts of the shock assembly. If more than 3 washers are required to remove the play the donuts must be replaced with new. The whole procedure should take only half a day.

If there are cracks the engine and mount must be removed to have Vans-supplied reinforcement pieces welded in place to reinforce the socket. For most owners this will mean that the mount must be removed from the engine to be sent out for "precision welding".

Although Vans does not specify the method it would be foolish to use a wire feed welder, either with or without argon gas. Vans specifies that ER70 S-2 filler rod must be used. This is the rod commonly used when TIG or oxyacetylene welding, and every welding supply will stock it.

As before, when installing the shock no more than 3 washers may be used to eliminate play, or the elastomeric donuts must be replaced with new. 



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- From top down: 1) The nosegear hinges to the engine mount at the base of the firewall;
2) The socket area on this plane has had the powder coat removed to inspect for cracks.
3) The steel reinforcement plate must be painted...
4) ...and dropped on top of the shock before reinstalling it to the engine mount*