

Subject: Re: Defiant Rhino Rudder

Date: Sun, 6 Oct 2002 19:12:47 EDT

From: N27EZ@aol.com

To: canardfinder@worldnet.att.net, Audiostuff@aol.com

In a message dated 9/16/02 10:35:07 PM, canardfinder@worldnet.att.net writes:

<< Can I , should I test fly aka fly limited crosswind takeoffs and landings without either? (while I tool up) You may crash, you will be uninsured and you may have your ticket pulled, but what the hey - what was the rudder doing when you didn't move it left or right? Does it perhance keep you straight?

Thanx! Greg Benson

Oh, Lower front Cowling available anywhere? >>

Dave, this is john steichen

I am away from home right now, but could not make any sense out of the discussion you forwarded to me.

I have had both rhino rudders and winglet rudders on my defiant at different times. I started with a rhino, destroyed it on initial flight testing, rebuilt the rhino rudder, got into ice over the cascades, got ride of it, went to winglet rudders, work great EXECEPT for the actuating system. Here is my analysis of the two rudder systems.

1. The aircraft will fly just fine without the rhino rudders. It only provides yaw control. It does it very well. Powerful. Rutan was right. What it does not do well is : a) it takes a beating from the front prop. It is effected by the location of the nose wheel. On my aircraft, nose gear up and down produced a big yaw trim change. It became a landing procedure. In the pattern, put the gear down and trim. b) the rhino rudder got weird in ice. The aircraft began to wander laterally with ice and i had to "fly" the yaw of the aircraft during a stressful situation. that is what made me get ride of the rhino rudder.

The Winglet rudders function just fine , and eliminate the problems of the rhino rudder.

2. The winglet rudders are easy to cut out and hinge. Just copy and extrapolate the long EZ plans. the problem with the winglet rudders is a simple actuating system.

I am using hydraulic (?) system, but it is not satisfactory. I eventually use some sort of cable actuating system. (1200 hrs on the aircraft with a inadequate rudder) Yes, the fact is that the aircraft does not need a rudder for normal flight. It NEEDS a rudder to back us and assist the ailerons in roll. that is the ONLY thing that I use the rudders for. To assist in roll authority, which many Defiants need due to the inboard ailerons.

I have flown long return trips in my defiant when the current rudder system failed on the way home. I don't like it, but I never slip or slide the defiant, so I only need it to activate the roll authority during a gutsy landing. John Steichen

PS join the Defiant group! :-)