Kerbal Space Program - Feedback #22832

Rotor Blade Separation

06/09/2019 09:37 PM - XLjedi

Status:	Closed		
Severity:	Low		
Assignee:			
Category:	Parts		
Target version:	1.7.3		
Version:	1.7.1	**Language:**	English (US)
Platform:	Windows	**Mod Related:**	No
Expansion:	Breaking Ground, Core Game		

Description

As the Rotor.03 part spins (torque increases) the attached blades pull away from the spinning rotor increasing the overall blade arch diameter and causing ground strikes or other unwanted and destructive effects. Attached is a very simple RotorTest.craft file example. Launch the craft from the SPH and notice as you increase throttle, the blades separate from the hub.

History

#1 - 06/09/2019 09:38 PM - XLjedi

- Subject changed from Rotor Blade Seperation to Rotor Blade Separation

#2 - 06/10/2019 09:21 AM - Anth12

- Expansion Core Game added

Adding Core Game because this issue has been there for years.
Its something I have seen when a craft is under physwarp on entering the atmosphere.
The craft will separate parts from each other when the craft is undergoing high Gs, and then move back into their original position when the Gs go back to normal.

Also seen it happen on EJ_SAs attempts at helicopters using krakentech before BG came out.

Its not a BG issue in my opinion but with rotating parts it will be more obvious now for anything rotating quickly.

So I say its confirmed for the core game...

#3 - 06/10/2019 09:21 AM - Anth12

- Status changed from New to Confirmed

- % Done changed from 0 to 10

#4 - 06/11/2019 12:03 PM - Geschosskopf

- Tracker changed from Bug to Feedback

Anth12 wrote:

> Adding Core Game because this issue has been there for years.
> Its something I have seen when a craft is under physwarp on entering the atmosphere.
> The craft will separate parts from each other when the craft is undergoing high Gs, and then move back into their original position when the Gs go back to normal....

I agree. This is just the natural result of KSP's stretchy, wobbly joints being subjected to much higher stress than normal. As such, it's not a bug so I changed this to "feedback". But I heard that the devs did not intend the BG rotors to be used as props anyway, so I don't expect this to change. It's just what happens when you put parts in an extreme situation.

#5 - 06/12/2019 09:25 AM - dvarjas@gmail.com

It only makes me wonder, what are the rotors for, if not for propellers? This issue could also be solved by adding specifically purpose-built propeller parts to the game, which are a single part and behave well under high rotation speeds.

#6 - 06/12/2019 08:31 PM - Kirk

I've noticed that propellers work much better if the separation occurs more then when it occurs less (due to rigid attachment) so maybe we don't really want this to change at all XD

#7 - 07/11/2019 08:54 PM - chris.fulton

- Status changed from Confirmed to Ready to Test

- Target version set to 1.7.3

Several Changes and bug fixes have been made, moving this bug to RTT and can you check it in 1.7.3.2594?

#8 - 07/13/2019 02:40 PM - XLjedi

I'm pleased to see that in my limited testing...

The new rotor blades do not detach from the hub! So it appears there is a way to fix this and it's not just a Unity physics issue. I will be working with the new rotor and prop blade parts now instead of the ailerons which do still separate from the hub in the attached sample craft. This may no longer be an issue now that we have proper blades to work with.

#9 - 07/13/2019 02:52 PM - diomedea

- Status changed from Ready to Test to Resolved

Thanks for testing and showing results!

#10 - 07/16/2019 12:10 AM - chris.fulton

- Status changed from Resolved to Closed

Files

RotorTest.craft	16.6 KB	06/09/2019	XLjedi