

Kerbal Space Program - Bug #22968

Heatshield Collider is larger than the actual part

06/21/2019 10:01 PM - some1gee

Status:	Needs Clarification	Start date:	06/21/2019
Severity:	Low	% Done:	0%
Assignee:			
Category:	Bug Tracker		
Target version:			
Version:	1.7.2	Language:	English (US)
Platform:	Windows	Mod Related:	No
Expansion:	Breaking Ground, Core Game, Making History		
Description			
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The Collider of the Heatshield is bigger than the part. This is most likely due to the Heatshield always using the Collider of it with its shroud on, even when the shroud is off.			
Images			
This is a link to an Imgur Album showing the bug: https://imgur.com/a/nztH4kE			
How to reproduce:			
1)Put a heatshield on the back of a craft and attach a docking port to the bottom node of the heatsheild 2)Turn Shroud off on the heatshield 3)Attach a Docking Port (Which will be referred to from here on out as DP2) to the Heatshield Docking Port (Which will be called DP1) to create a vehicle that can be docked and undocked from the main craft 4)Attach a fairing to the bottom of DP2 and clip it down as little/much as you want. 5)Build the fairing out to a length where it closes on the heatshield. 6)Attempt to Undock and Re-dock DP2 to DP1 while the fairing is still intact.			
Test Craft used in this report download Link:			
In the files Section			
The Bug Test Quicksave Link:			
https://drive.google.com/file/d/11xAJFj8QHZuDmUUKYXlr4aKX0_VhL1kz/view?usp=sharing			
Related issues:			
Has duplicate Kerbal Space Program - Bug #22821: Heatshield Collider is large...		Duplicate	06/08/2019

History

#1 - 06/24/2019 09:14 AM - diomedea

- Status changed from New to Needs Clarification

There are a few things requiring clarification about this issue.

1. The Test Craft provided shows to depend on some add-ons (it warns to require some non-stock modules); anyway once loaded shows to have parts heavily displaced. The relative position of parts seems to be at the core of the issue reported, so any manual displacement hides the needed evidence. Recommend to provide a simpler craft, with just the minimum of parts needed to show the issue, avoiding all parts modded and any use of the editor gizmo tools.
2. A collider is the bounding box where collisions are detected. Colliders are not visible in game, but can be tested against another collider: have any of the heatshields lie on the runway or launchpad, they stand where the collider meets the runway/launchpad collider. All tests show heatshield colliders are perfectly fine.
3. A stack node is where other parts can be stack joined. Attaching e.g. a docking port, means to use one of the stack nodes with the heatshield. From what I could understand, the issue is about the position of stack nodes, not colliders. Please clarify if isn't what you mean.
4. Most heatshields have 3 stack nodes (their config file defines them): direct, bottom and top. Only the smallest size0 lacks the direct node. Position of stack nodes is designed (as with all other parts) to have these parts fit correctly when in a stack. It seems the issue is about the vertical position of the bottom node, as joining a part directly to it leaves some vertical separation. My understanding is that the bottom node needs to be lower so that the heatshields doesn't sink within the next part (anyway the shroud covers the gap), though that vertical distance could have to be improved. But if wanting to stack join a docking port to a heatshield, the correct choice would be to use the "direct" node, not the bottom one. The problem however is,

direct node is hard to use because smaller than the top and bottom (so any part would first attach to the larger nodes): it requires some care. Only the 1.875m heatshield has the same size for all (but then, KSP doesn't have nodes of size 1.5, can't because that "size" is used as an index).

So, if I got it correctly, the issue is that the bottom node with heatshields is quite below the bottom of the part. There's another node (direct) that goes the same direction, but to be used the larger nodes have to be occupied already. One trick indeed is to join any part to the top and bottom nodes, that leaves only the direct node open. Now attach the docking port to the bottom of the heatshield, and only the "direct" node will be found free. Remove the unneeded parts and you have your docking port attached properly.

#2 - 11/20/2019 04:13 PM - Robert.Keech

- Has duplicate Bug #22821: Heatshield Collider is larger than the actual part added

Files

[UC] Hawk Capsule + Trunk Guttled.craft	167 KB	06/21/2019	some1gee
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