

Kerbal Space Program - Bug #2031

Fuel feeds to radially mounted engines when attached to a part other than a fuel tank.

01/12/2014 04:15 PM - jasool

Status:	Closed	Start date:	01/12/2014
Severity:	Normal	% Done:	100%
Assignee:			
Category:	Gameplay		
Target version:			
Version:	0.23	Language:	English (US)
Platform:	Any	Mod Related:	No
Expansion:			

Description

When a part that is not a fuel tank is radially mounted with an engine underneath it, the engine will use fuel from the center fuel tank.

This issue only manifests when the part that is radially mounted is not a fuel tank. I have tested with a fuselage and a Science Jr.

See attached screenshots and craft files for further explanation.

History

#1 - 10/23/2014 11:46 AM - newnard

- File Fuel FeedBug Control Case.craft added

- File Fuel FeedBug Example Case.craft added

Just wanted to confirm that this bug persists in stock 0.25.0.642 (tested with Science Jr). Craft files attached.

#2 - 11/24/2014 09:06 AM - Padishar

This is not really a bug. It is a well understood and well documented (here:

<http://forum.kerbal.spaceprogram.com/threads/64362-Fuel-Flow-Rules-%280-24-2%29>) consequence of how the "fuel flow" mechanism works.

#3 - 11/24/2014 05:35 PM - newnard

- File 2014-11-24_00002.jpg added

- File 2014-11-24_00003.jpg added

Padishar, thank you very much for the link. I have learned much today.

I still think this is a bug. It turns out to be a bug that behaves in accordance with the rules you linked; that just means that the rules you linked are an accurate description of the current behavior of the software, not that the current behavior is correct.

I'm attaching two screen shots. The craft are as simple as I could make them and identical with the exception of one part (the Science Jr., which is present in one but not the other).

It is my rather strong opinion that the fuel flow **SHOULD** be identical in the two cases; but it is not. (Using the most excellent post you linked, the fuel search terminates in step 5 in one case and step 7 (nested, from step 4) in the other) Why should you gain access to double the fuel, in this case, by adding a science part? Or why do you lose access to the center tank if you remove the science part?

If the devs agree with me that the fuel feed behavior shouldn't change so drastically just because you insert or remove one non-fuel-related part, fine. If they don't, then my fallback position is that the VAB should provide SOME means for the player to visualize or determine how fuel will flow through the craft so they can learn the (rather unintuitive) rules.

My first impulse after reading the linked rules is that rule 4 should maybe be modified so that rule 7 is not invoked as a child of it; or put another way, rule 7 shouldn't fire in the process of checking rule 4.

But clearly this is a complicated system and it won't be a trivial change, and without extensive testing I can't say what unintended consequences my suggestion would have.

#4 - 11/26/2014 10:08 AM - Squelch

There are plans underway for an editor overhaul, and some specifics regarding fuel lines may mean this behaviour is affected as a consequence. Once 0.90 is released, this issue may need revision.

Ref [HarvesteR's Devnote](#)

#5 - 07/17/2016 09:25 AM - TriggerAu

- Status changed from New to Needs Clarification

#6 - 08/08/2016 12:53 PM - TriggerAu

- Status changed from Needs Clarification to Closed

- % Done changed from 0 to 100

Closing this report out for now. If you find it is still occurring in the latest version of KSP please open a new report (and this one can be linked to it.) For best results, the wiki contains really useful info for when creating a report <http://bugs.kerbalspaceprogram.com/projects/ksp/wiki>.

You can also ask questions about the bug cleanup in the forum here:

<http://forum.kerbalspaceprogram.com/index.php?/topic/143980-time-to-clean-up-the-bug-tracker/> and tag @TriggerAu to get my attention

Files

screenshot3.png	1.29 MB	01/12/2014	jasool
screenshot5.png	1010 KB	01/12/2014	jasool
screenshot8.png	1.65 MB	01/12/2014	jasool
Fuel feed bug test II.craft	15.2 KB	01/12/2014	jasool
Fuel feed bug test V.craft	12.8 KB	01/12/2014	jasool
Fuel FeedBug Control Case.craft	23.7 KB	10/23/2014	newnard
Fuel FeedBug Example Case.craft	32.5 KB	10/23/2014	newnard
2014-11-24_00002.jpg	249 KB	11/24/2014	newnard
2014-11-24_00003.jpg	228 KB	11/24/2014	newnard