Kerbal Space Program - Bug #20740

Crossfeed-enabled decouplers cause wrong dv-values with multiple engines

12/22/2018 01:25 AM - bitzoid

Status:	Confirmed		**Start date:**	12/22/2018
Severity:	Low		**% Done:**	10%
Assignee:				
Category:	Parts			
Target version:				
Version:	1.6.0		**Language:**	English (US)
Platform:	Linux, Windows		**Mod Related:**	No
Expansion:	Core Game			

Description

As far as I can tell, the bug manifests only if tanks are separated by decouplers that have the crossfeed enabled in the editor. If more than one engine is attached to the vessel, at least the burn time and delta-v value is completely off.

Steps to reproduce:

1. Place a Rockomax X200-32 fuel tank. Empty the oxigen (I **think** this is not strictly necessary).
2. Put a TD-25 Decoupler below it.
3. Enable the crossfeed of said decoupler
4. Put another X200-32 fuel tank below and empty its oxigen as well.
5. Put a TVR-200L Stack Bi-Adapter (not necessary but it's the easiest way to show the issue).
6. Attach a single Nerv to one side of the bi-adapter. The burntime is correctly computed as 1883s.
7. Attach a second Nerv to the other side of the bi-adapter. Now the burntime jumps to 471s. Correct would be 942s. (The dv is equally wrong)

Note: The engines must both be in stage 1 and the decoupler in stage 0.

Find the .craft file attached.

History

#2 - 09/23/2019 03:50 AM - Anonymous

- File confirm20740.craft added

- Status changed from New to Confirmed

- % Done changed from 0 to 10

Confirming, and attaching a different craft that shares the essential features (multiple engines, cross-feed through decouplers) from this thread:
https://forum.kerbalspaceprogram.com/index.php?/topic/188436-support-delta-v-calculation-wrong-with-clustered-engines/

Files

decoupler_bug.craft	8.44 KB	12/22/2018	bitzoid
confirm20740.craft	19.6 KB	09/23/2019	Anonymous