Response to REVIEWS ON THE MANUSCRIPT [5]

Reviewer 1:

I have included a comment on limitations of solution before the final conclusion as suggested. A spell check was done and hopefully there are no more errors such as mentioned gass-gas. Some of the equations were rewritten and reorganised for better understanding.

Additional Questions:

− What pressure sensor did you use?

I used a LabQuest gas pressure sensor (resolution 0.05 kPa) which could be calibrated every time to evaluate overpressure.

− Is there any hysteresis in inflation/deflation process? Did you calculate exactly what the losses on the rubber deformation are?

Hysteresis is shown in figure 2, it was calculated by finding the total input and output energy and the difference of these is the energy lost on material plasticity. An attempt was made to clear this also in the article.

− What do you mean with the terms progression and regression?

Regression is the function plotted on the experimental data I referred to as progression, but since this expression drawn to confusion I have replaced it with what it is – experimental data results.

− What do you mean with "basic working principle"?

This paragraph was renamed to Motion description equations. I meant that the presented equation show why the car moves, basic principle being the Newton's law motion analysis.

− What are your assumptions and simplifications, which allow you to use Bernoulli principle and the presented equation for drag?

I assume that the viscosity is negligible at the tube end and that there so the flow velocity pressure relation follows this principle.

− The equation for the elastic energy U (page 2) should be described more (how the equation is derived or what is the literature source for this equation?)

The literature source of this equation is now more visible and the derivation of the used form of it was not fully presented as it is rather long.

Recommendation:

− Change "introduction" to "abstract"

− Improve the resolution of the formulas (see Style section.)

− The difference between the colors (grades of gray) on the figures (especially, Fig. 2, left) are hard to distinguish after printing

− Rename "basic working principle" section title

− Provide a photo of your design of the car, if possible

− Attach a chapter with a discussion of limitations of your solution (the description of limitations is scattered through the article)

− Add your definition of the efficiency and comment on how the definition.

All recommendations were accepted.

Reviewer 2:

Comments were addressed to in response to Reviewer 1.

Editorial request:

10^5 : consider using a more appropriate representation.

Representation 10^5 is now used.

Concept: It appears clear that the author considers only the cars where the deflating balloon provides propulsion (a rocket-type car.)

Please report this in the introduction and justify shortly why this concept is considered and why any other possible approaches are not. This explanation would equally work as a necessary introduction for the readers into your approach.

There is an addition to the Abstract and Conclusion paragraph justifying this concept.

Thank you for the reviews and proposed suggestions.

Nives Bonačić.