

Re: Some propellantless propulsion fun

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- *From:* "Greg Neill" <gneillREM@xxxxxxxxxxxxxxxx>
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"Spaceman" <spaceman@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message news:pamdnXch2tOwkxvVnZ2dnUVZ_uLinZ2d@xxxxxxxxxxxx

Greg Neill wrote:

"Spaceman" <spaceman@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message news:L76dne2W7qy7mxvVnZ2dnUVZ_rfinZ2d@xxxxxxxxxxxx

The ball is shot using an acceleration rate of 1 meter per second/second.

For how much time is the ball accelerated?
(This is necessary to determine how fast the ball will be moving when it strikes the far wall).

You should be able to find that out.

Not unless you specify it. It could, for example, accelerate for only half the trip across the container. Or it could accelerate for the whole trip. You need to be precise in order to get precise answers.

Why would it do such,
I am not placing anything else in the box to slow it down this time.
Why are you so reluctant to use what is stated?

I'm not reluctant, I want to know precisely what the problem is before expending time on it. In the past

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you've exhibited a tendency to use physics terms without precision, confusing velocity with force, acceleration with velocity, etc.

There is only 10 yards of travel time minus the box motions distance. To make it easier
You can make the Box 10 cubic meters on the inside instead if you
wish. so it will have 10 meters to travel minus the motion of the
box's distance from the small masses force upon the box to move.
The device the "shoots" the ball will be in a smaller box embedded
in the wall so it will have the entire 10 meters to travel.

So this box is somehow able to keep pushing on the ball for the whole trip, and is anchored to the wall of the container. Okay.

No,
the box only pushes when the ball is "shot".
Why are you now making even more incorrect statements about what is happening?

Because YOU SAID that the ball accelerates at a rate of 1m/s/s but you didn't specify how long a time it accelerates. You then stated that it accelerates for the whole trip. That implies a constant force over the duration of its flight, not for just some short launch time. I specifically asked you how long the acceleration lasted, and you said for the whole flight! Now you're changing the problem and stating that the acceleration occurs for only a short time.

So which is it?

Look, why don't you just say that the ball is given a brief impulse that launches it at a certain velocity? That would cut out all this business dealing with the specifics of the acceleration mechanism.

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You truly are showing your reluctance now.
:)

Now, one more thing. Is the stated acceleration with respect to the little box attached to the container wall, or with respect to the original rest frame prior to the launch?

All motions should be considered from one frame only and that frame should be a frame that could detect motion, so it will not be in the box. To find out if the box actually moves, you must look outside the box. Again it is pretty funny you can't grasp that simple fact about finding out if a box is moving or not.

Since the ball launcher is attached to the container it's a valid question. In order for it to be able to apply a constant acceleration from the point of view of an external observer, it needs to adjust its force to compensate for the reaction movement of the container it's attached to; the force will not be constant over time.

Also, would you consider changing the yards to meters to keep all the units in the metric system for consistency?

Yes,
I actually stated that somewhere.
Make the box 10 cubic meters and place the firing device for the ball in a smaller box embedded into the wall that will shoot the ball so you will have the entire 10 meters of motion minus the reverse motion of the box.