Examination of the claimed inertial propulsion self-contained impulse from within an isolated system V 2.5

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Abstract: Near the end of the 20th century science-technology reached a high level of maturity mastering the vast range of thermodynamics, electrodynamics, straight-line mass-motion-dynamics, angular mass motion dynamics, material sciences, astronomical science, etc, etc! This maturity was fostering a very-high confident view that all science was already possibly explained just using these firstly established principles!

This confident view received setbacks when science **attempted** to accelerate tiny-miniscule electron **mass**-particles called then cathode-ray particles within Braun's evacuated glass tube; despite employing very-large voltage potentials not achieving velocities-accelerations **up to** the speed of light; this was expressed first in 1904 with the H. Lorentz transform factor:

$$y_{final,velocity,factor}=(1-V^2/c^2)^{-1}$$

This equation is describing a **concentration-saturation** effect, wherein c^2 is the maximum concentration! Please view the Author's recent paper:

"The overlooked high-energy accumulation capability of opposing motion flywheels"

GSjournal.net, Author: Gottfried Gutsche

Here, already then, the prominent Electrodynamic experimenter of radio transmission and radar detection invention H. Hertz cautioning-urged us to use energy sciences side by side with momentum science within his leading science book "Mechanics presented in a new form" to arrive at the complete science of inertial mass motion; this was grounded in the kinematics of motion wherein the **time** measurement-stick of momentum having a declining curve function in relation to **rational repeating distance**-displacement:

$$Time=(2s_{distane,displacement} /acceleration)^{1/2}$$

Acceleration=Force/mass; wherein, for equal forces the mass is determining the accelleration!

This relation is placing the force as the original-first-primary root cause bourn from an energy source, because Energy$_{work}$ =ForceS$_{distance}$=mdVV$_{average}$ and the acceleration as the final result arriving at an irrational non-uniform diminishing time progression for a variable force and equal-repeating distances.

However, these kinematic principles of inertial mass motion was already evident from **Galileo's** endearing gravitational-declined notch board motions having an ever increasing notch spacing-displacement for uniform repeating travel time durations between notches!

Further investigation revealed a host of science principles along the same line as the cathode ray electron-mass radiation effect.

For example:

The Special Relativity Principle of A. Einstein on relative ambient light reflections of mutual opposing inertial mass motions of trains and elevators concluding in Einstein's famous-mind searching-thinking head-spinning (famous-lonely **"GEDANKEN"** experiments **within** his head) without-experimental-foundation-reality-**verification** nor taking account of other scientists previous-historical research results pronouncement of the **equivalence** of **mass** with **energy**:
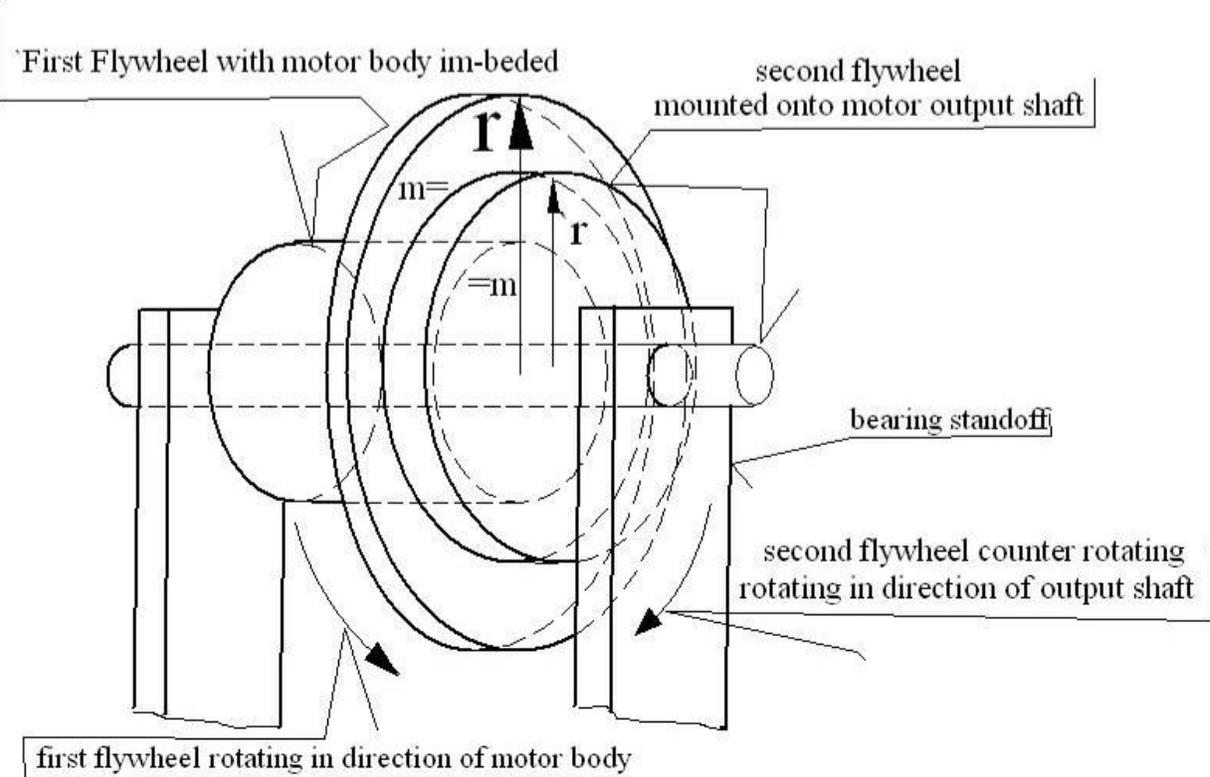
$$E=mc^2$$

Unfortunately, this science pronouncement started a secret-frantic search for verification and physical demonstration in every laboratory for weapon-armament-purposes, eventually progressing into a runaway arms race disregarding the obvious infinite ongoing-safety concerns for all of humanity using this fission of mass principle. This insane arms race finally culminated into a **mistaken** assumption of massive nuclear attack against the soviet union only stopped in the last second by a young alert observation station operator realising the rising sun glare was mistaken as a massive rocket attack!

Furthermore, the Quantum principle of black body cavity radiation of M. Plank arriving at the Plank constant.

Additinally, this new progress of science, is congruend-related to mutual-reciprocal third law type energy **accumulation-concentration** of mutual-reciprocal angular motion of **two** flywheels working internally on then **same-single** motor axis also working congruent within the Lorentz transform factor equation in comparable form needing **no** exertions-machinations onto an **external steady** backrest to obtain these opposing internal motions contrary to Newton's physics-assumptions-pronoucement, **instead here**, the backrest is obtained internally mutual and reciprocally between the large difference of the two flywheels moment of inertias:

$$R^2/r^2!$$

First Flywheel with motor body im-beded

second flywheel mounted onto motor output shaft

r

$m=$

r

$=m$

bearing standoff

second flywheel counter rotating rotating in direction of output shaft

first flywheel rotating in direction of motor body

Wherein El. Motor: $E_{mechanical,energy} = V_{voltage,potential} I_{current}/t_{time,duration}$

$$E_{small,flywheel} = (I_{current} V_{voltage})_{average}/t((I_{small,flywheel}/I_{flywheel,large})+1)$$

**This energy equation is Congruent** with the Lorentz transform

Flywheel moment of inertia is: $I = mr^2$; $m_{flyhweel,large} = m_{flyhweel,small}$

Important: **This above depicted device supported by its presented mathematical function accumulates energy and momentum self-contained <u>without</u> any exertion-machinations external to the boundary of the device!** This is already contrary to Newtonian physics-pronouncement stating **all** inertial mass motions need a fixt point of backrest for optaining a change of momentum, wherein momentum is considered "always conserved" excluding-not considering dynamic breaking using the same internal isolated mutual reciprocal exertions!

Next, the authors patented simple inertial propulsion device is presented wherein the **net** impulses against the **internal** device centre of mass boundary without external force action-machinations is:

$$p_{impulse,net} = mr1/2(\omega_a - \omega_b)$$
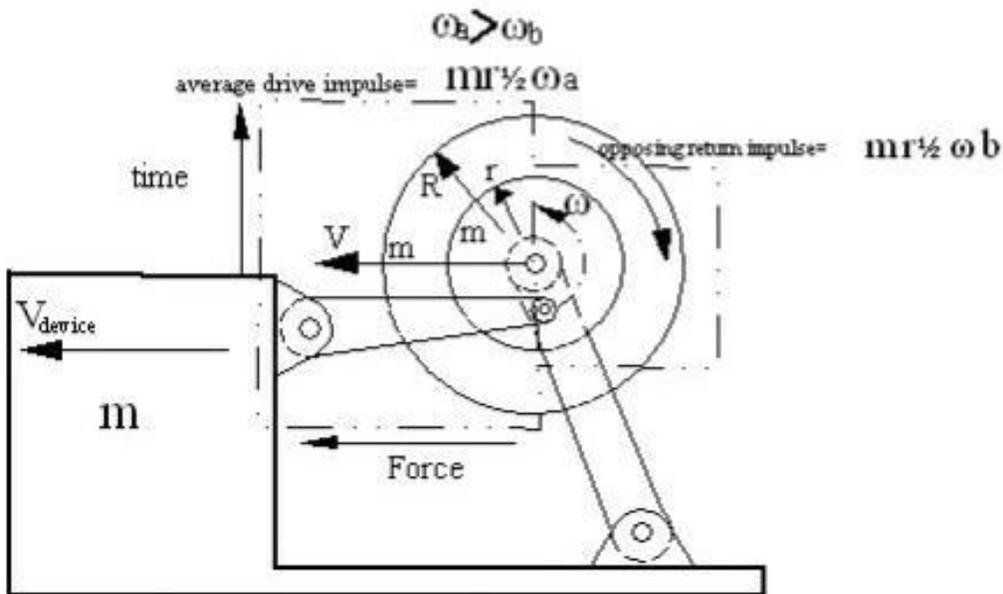
This means the internal **impulse** from within the flywheels is the **difference** of the angular motion speeds because: $p = mr\omega$; $V = r\omega_b$

Because, the **straight line** motion kinetic energy of the flywheel assembly total mass: $m+m+m_{motor}$ is conserved into the angular kinetic energy of the small

Flywheel at the **end** of the angular sinusoidal stopping motion at the reversal of the straight line motion T_{top} D_{dead} Z_{centr} causing a **peak** of inertial mass angular kinetic energy form ω_a^2 at **that point**!

Important: The total effective mass in straight line motion is called the flywheel assembly mass: $mass_{total,assembly} = m_{smal,flywheel} + m_{large,flywheel} + m_{motor}$

Next is the picture of the flywheel assembly straight line velocity plot over the total cycle duration!
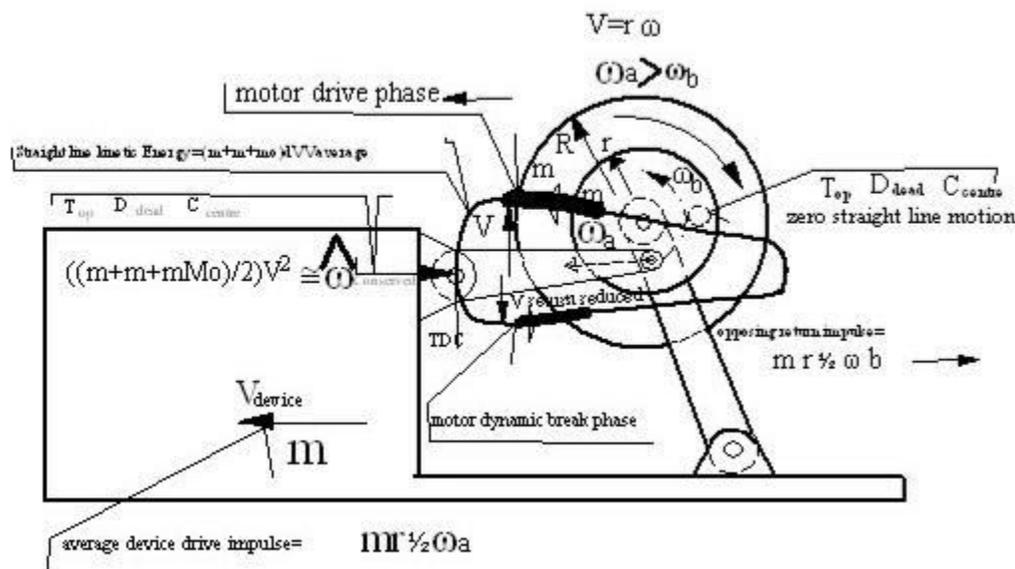
Important, the much **larger** angular accumulated kinetic energy of the small flywheel **r** is conserved and converted into straight line motion separating-accelerating **away**, being energetically thrown from the device mass m_{device} right after the T_{top} D_{dead} Z_{centr} according to:

$$F_{force,straight,line} = m_{mass,flywheel,\ assembly}\ S_{distance,displacement}\ \omega_a^2 \text{, at S}$$

Wherein the instant $S_{distant,straight,at\ time}$ is $= r\sin(\omega t)$

Important at this point is, that an increase of circulating kinetic energy shortens the impulse durations; it is therefore important to lengthen the force length-distance parameter to increase the overall power effect, because, the alternating current inductive-blind resistance **Z** is becoming **larger**, the larger-winding-size and the larger the angular speed / kinetic energy becomes!

$Z_{inductance}$ = ωL ; L=proportional with size of electrical-mechanical motor coil, therefore Inertial Propulsion is requiring motors haveing single conductor loops with very large current magnitudes!

 Next is the return motion of the flywheel assembly:

Because $(m+m+m_{motor})\omega_a^2$ is much larger than the opposing magnitude $(m+m+m_{motor})\omega_b^2$; ω_a^2 is much greater than ω_b^2 caused by the conservation of angular kinetic energy through the above drive-break phases vector-triangulation within the TDC progression.
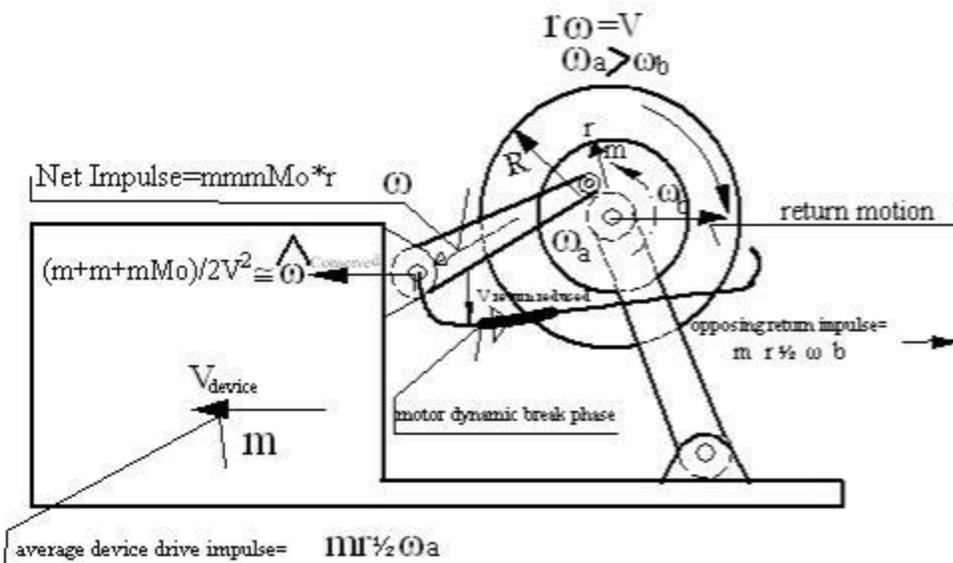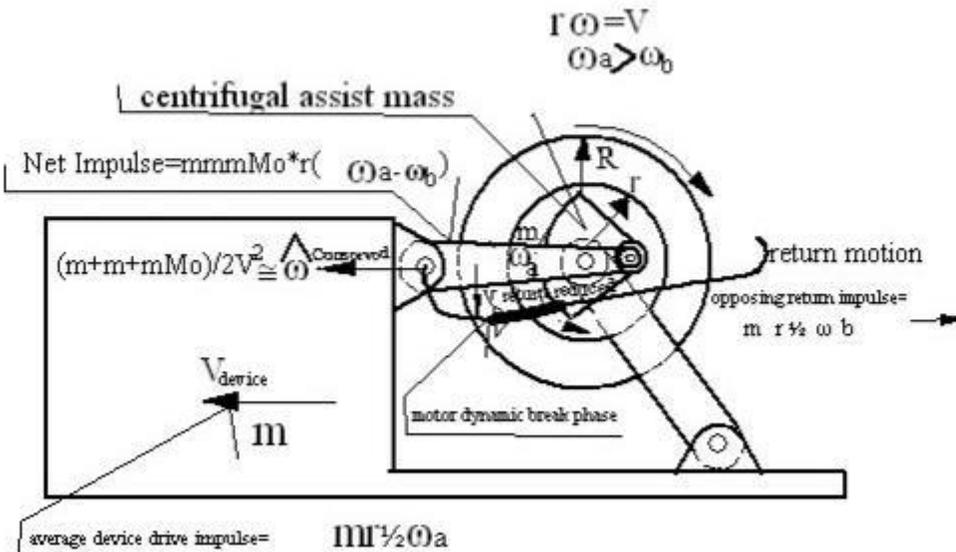

Therefore, the flywheel assembly motion is producing a **self-contained impulse from within the device!**

Very important: The drive phase and dynamic break phase is firstly related to angular distance-displacement, because, the **time** durations of these phases are an irrational inverse function of the first original **energy** installments: E=Voltage*Current/time; the more kinetic energy the shorter the time-duration for repeating distance-displacements!

$$S_{displacement,distance} = mdVV_{average} / F_{force} \; ; \; T_{time} = mdV / F_{force}$$

   There is also the accumulating of angular kinetic energy of the overall propulsion energy effect within the two large flywheels within a paired four flywheel system which is absorbed-restored into the device battery with cyclic dynamic breaking mutual and reciprocally without propulsion loss between the two large flywheels within the two flywheel tandem IP system! This mutual-reciprocal principle is also used for the steering of the device in an independent gravitational space environment!

Furthermore, the net impulse can be further improved with an orbiting inertial mass producing an additional net centrifugal force mounted onto the small flywheel because of the **peak** angular motion ω_a^2 when pointing into the device motion direction as indicate in the last drawing! The centrifugal force is bourn-root-caused out of the angular kinetic energy $E_{mechanical} = mr^2\omega_a^2$; $F_{centrifugal} = mV^2_{tangential}$ **,** this means that the straight line motion of the flywheel assembly having a combined straight-line-curved progression having additional vertical variable force progressions allowing the device to **Hover!**

$r\omega = V$

$\omega_a > \omega_b$

centrifugal assist mass

Net Impulse=mmmMo*r($\omega_a - \omega_b$)

R

r

$(m+m+mMo)/2V^2 \cong \omega$ Conserved

m

ω_a

return motion

opposing return impulse= m r ½ ω b

V input reduced

V_{device}

m

motor dynamic break phase

average device drive impulse= mr½ω_a

Important: The additional propulsion force delivered by the orbiting assist mass is related to the angular motion speed: $F_{centrifugal} = mr\omega_a^2$ at each angular position!

Please view the presentation on "youtube ggutsche1"

Please view the Authors' book on amazon.com: **"Inertial Propulsion, and you thought it's impossible"**

For a complete-full 200 page presentation of the Inertial Propulsion effects.

US Patent: **US 9995284,** Inertial Propulsion Patent available for purchase/license:

In comparison to the invention of the mass-energy equivalence **$E=mc^2$** with its inherent terrible-unimaginable-vile safety trackrecord is a play-toy for insane fools; while the here presented inertial propulsion principles poses no danger to Humanity while providing science with the proven-patented ability to go and explore the far-endless-treasures of the cosmos!