Changing the World with

"Mother Natures Power Supply"!!!

Would you agree that there is no way you can get more output than input in a machine?

All Physhicists agree, **"its impossible"**, so therefore we must be one of the many people that would rather be the latest in a long line of sheep to yell "**You can't do that, it's impossible**" because that is what the establishment has taught us through the wonderful educational system they have created. This will keep the unbelievable status quo we have achieved that has **worked so well for so few for so long.**

Or would you rather be part of the few and be someone who believes that the future of mankind could look a bit brighter for the many and say "yeah maybe that's possible, let's see what we can do to do that" and then get your hands dirty.

I'd rather be part of the few.

So if you have nothing positive to add please don't.

A rotating mass does not really consume or dissipate energy. A rotating mass stores energy. The rotating mass either eventually returns energy to the system in a **useful way** or does not. Contrary to popular belief, rotating mass does not consume energy. A rotating (or moving) mass stores energy. We should always remember rotation, or movement of a mass, does not actually destroy energy. If it did, the earth would have stopped spinning millions of years ago! The key to understanding how weight changes affect performance is to understand some very simple basic energy flow in the system.

How much energy or horsepower would you need to rotate a 5000 Lbs(for calculator purposes 80,000 ounces)., 30 inch flywheel at 3500 R.P.M.s?

It would take a huge motor to get it to rotate to that speed,

But as i asked the question on "Ask the Physicist" website, "If a 5 ton flywheel was rotating at 5000 rpm, in a vacuum with magnetic bearings, would a 1 horsepower motor be adequate to keep the momentum going?". I was answered by "Ask the Physicist" email that "There is always some friction, no matter how hard you try to eliminate it. It would seem that for vacuum and magnetic suspension that the friction would be small and 1 hp motor might very well be fine. To do better than guess, I would need a number for frictional torque."

So keeping the stored energy does not require a lot of energy input once at speed.

How much energy would you get out of it?

Flywheel Energy Calculator:

http://www.botlanta.org/converters/dale-calc/flywheel.html

You would get :

11843186.3869 Kilograms of centrifucal force

22125052.5313 Ring KE (joules) 329.3126 Inertia (kg*mÂ²)

11062526.2656 Disk KE (joules) 164.6563 Inertia (kg*mÂ²) or approx. 80-90% of the energy required to get it to speed.

For Calculator purposes:

A 25 pound (400 oz) flywheel has about 32,916 joules of energy. Since each joule is one watt/second, and since 746 watts equal one horsepower, we have 32,916/746 = 44.12 horsepower-seconds stored. This would be one horsepower applied over 44 seconds, or 88 horsepower over 1/2-second, to reach 6000 R.P.M.s from zero.

11062526/746 = 14,829 horsepower-second to reach 3500 R.P.M.s from zero.

I dont know about you but that sounds like a lot of energy though.

How much energy would it take to KEEP a flywheel spinning at any current speed?

Not much, providing the flywheel isn't attached to a load. Basically all that must be overcome is friction (this includes wind/bearing drag etc.). A body in motion tends to stay in motion... ;)

However, you must realize that a rotating flywheel is much like a battery. It can only store energy which is supplied getting it up to speed. Once you connect it to a load (no matter how tiny), a bit of the energy is lost on every revolution if removed from power source.

So... If even you have a machine that will power itself thru 99.99% of a revolution, it will draw the other .01% from the spinning flywheel and this energy **must be replaced** or the machine will eventually slow to a stop.

What are the outside forces that affect angular momentum, kinetic energy or centrifucal force in flywheels? Air resistance, gravity, friction i.e. bearings? Can you think of anything else that would affect it?

A motor is one that most people dont consider when asked this question, to **replace any lost energy from additional load.**

Now knowing all this, you have a 100 lbs. flywheel and a power source (that is just large enough to keep rotating this 100 lbs. flywheel at speed but not large enough to get it to speed as stated previously in "Ask the Physicist" eMail that momentum will be enough to keep it going and is to be known as: the machine) rotating at full speed, with a electromagnetic clutch on the axle of said flywheel, then you have a 65 lbs. flywheel hooked up to clutch (with 1:1 ratio sprockets and chains or pulleys and belts) and you ease in this flywheel (as in a car with standard transmission, if you pop the clutch you will stall the machine and if you release it too slowly, you will burn the clutch) to rotate at full speed with the machine.

Now which will give this new flywheel the momentum to turn and increase its speed to match the full R.P.M.s of the machine? Where would the loss of energy needed to rotate this extra flywheel come from? Conservation of Energy?

A) The motor (As we know, a power source already in motion with flywheel in not really under load.)

B) The flywheel. (Now you must consider that as stated in many websites on flywheel energy storage systems that any flywheel in motion has approx. 80-90% (or lower more or less, as long as its not les than 65%) stored in inertia of the energy to get it to that speed in reserve once removed from power source (but we are not removing it)

C) Is it possible the motor and 100 lbs. flywheel never lose much momentum at all as it is always being replaced by the motor faster than the energy required to soft start with the clutch, the additional

65 lbs. flywheel to speed?

Also, maybe you can answer this

If you are like most people, you heard of compunding interest as a younger self,(i.e. put $20.00 a month in a savings account with interest as an 18 year old and you would be a millionaire by the time you were 65). Did most people do anything with that knowledge? Did you? Did I?

NOPE, We could have been rich

Therefore I propose

My formula works on the same principle as the compounding interest scenario.

If you take a 1 horsepower motor that rotates at i.e. 3500 R.P.M.s (electrical or fossil fuel based, it doesnt matter) and you hook up a 5 lbs., 10 inch diameter flywheel, hooked up with 1:1 ratio sprockets and chains or pulleys and belts, and then to an another 5lbs., 10 inch flywheel again with gears, sprockets or pulleys, then a 10 lbs. flywheel 10 inch diameter (twice the thickness). All rotating at 3500 R.P.M.s then you add in another flywheel at 15 lbs the motor will engage up to to 15 lbs flywheel, which at this point, there is **not** too much ressistance to start it all rotating. Then try to add a 25 lbs.flywheel to the machine, now at this point, there is too much weight for the motor to engage. This is where my formula starts.

Would you agree that there would be 35 lbs. of stored energy with these flywheels (two 5 lbs, the 10 lbs. and the 15 lbs.) already turning at 3500 R.P.M.s? So how much energy would it take to turn that 25 lbs. flywheel not connected with the motor and momentum of the other flywheels?

As previously stated "Not much, providing the flywheel isn't attached to a load (you will be adding a load of a 25 lbs. flywheel). Basically all that must be overcome is friction (this includes wind/bearing drag etc.). A body in motion tends to stay in motion... ;)" So... If even you have a machine that will power itself thru 99.99% of a revolution, it will draw the other .01% from the spinning flywheel and this energy **must be replaced** or the machine will eventually slow to a stop, (that is what the motor does after this next step, you will always return to the original R.P.M.s).

At this point you engage the additional 25 lbs. flywheel with a electomagnetic clutch (clutches must be soft starting clutches with locking mechanisms that lock in 100% after reaching top velocity.) and voila the 1 horsepower motor is now rotating 60 lbs of stored energy (if you add them all up, the original 35 lbs and with the 25 just added) of flywheels at 3500 R.P.M.s. Now do you think there is enough momentum (in stored energy) to engage a 40 lbs. flywheel? Again you engage with another clutch and bingo you have 100 Lbs @ 3500 R.P.M.s., all overcoming the little friction, air resistance and/or gravity that was discussed earlier and returning to speed as the motor **replaces any lost speed from adding additional flywheels**. Now with the motor humming along at 3500 R.P.M.s with 100 lbs. of flywheels engaged, would there be enough momentum (in stored energy) to engage with an electromagnetic clutch again, a 65 lbs. flywheel.? Yes of course, now you would have 165 lbs of stored energy in the flywheels (and hooked up altogether with 1:1 ratio sprockets and chains or pulleys and belt) and engaged, all turning @ 3500 R.P.M.s.

Fibonacci sequence: 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89.............

Flywheels are all multiples of 5X the above:

If you have not figured it out yet, what we are doing is multiplying all our flywheels weight by the golden mean or phi **1.618** or adding flywheels by the golden spiral or ratio or the Fibonacci sequence. With this formula we can keep adding the weight or size of the flywheels to match the ratio. next would be a 105 lbs.(we could change the size ratio (diameter) at this time or any other time to increase the centifugal momentum of the flywheels i.e. 30 inch flywheels). now we would have 270 lbs of flywheel rotating at 3500 R.P.M.s.,

you would have lbs rotating	then add	flywheel in lbs.
270	63%	170
440	62.5%	275
715	62%	445
1160	62%	720
1880	62%	1165
3045	62%	1885
4930	62%	3050
7980	61.8%	4935
12915		

at this point, we are close to the 5000 lbs. flywheel we just added that we had mentioned earlier **but** you would have a total of 6.4575 tons (or 206,640 ounces) rotating at 3500 R.P.M.s.,

Flywheel Energy Calculator

http://www.botlanta.org/converters/dale-calc/flywheel.html

You would get :

30590950.4373	Kilograms of centrifucal force		
57149010.6884	Ring KE (joules)	850.6145	Inertia (kg*mÂ²)
28574505.3442	Disk KE (joules)	425.3072	Inertia (kg*mÂ²)

As you can clearly see with this formula, clutches and a 1 horsepwer motor you always have more than enough angular momentum, cetrifical force and/or kinectic energy (in stored energy) to add another flywheel as it is **always less than** the total of the group already rotating but will always add to the total to make this go on indefinetly. As they are always rotating, the flywheels carry enough momentum to start the next flywheel in motion and the motor will always cover the resistance of any air, gravity, friction i.e. bearings.

Now all of this has been proven with my "proof of concept model" that i have built. I have **not** gone as far as the 6.475 tons seen in the chart above but i have added to above the 105 lbs. flywheel and each time I add more flywheels, the speed of the machine returns to 3500 R.P.M.s, (As I have never heard any discernable reduction in motor speed when clutching in next flywheel in series) thus proving that the concept should always continue, until which time the motor might not be able to cover the friction and drag. But any engineer should know there are ways around that as well. (i.e. Vacuums and Magnetic bearings).

Phi: Golden Spiral, Fibonacci Sequence, Golden Mean

161.8%

Mother natures way of doing things. The universes way of doing things. if you look at a spiral galaxy you will see the Fibonacci sequence in it. That took billions of years to get there. If you look at a solar system, same principle. If you look at a tornado there it is. if you look at a hurricane, same thing, but do you think Mother Nature started with a category 5 hurricane. It started as a small eddie off the coast of Africa and with the rotational speed and phi, it grew over the next couple of months to that size. that is why this works, we are always adding approx. 61.8% to the total which is equal to 100%.

Now look at all of mother natures plants there is the golden spiral in most. The sunflower, the pine cone, the pineapple, leaves on a plant, all have the Fibonacci sequence(phi) built into them, As we all know "You cant argue with Mother Nature".

From the beginning:

1 horsepower power source and 5 lbs. flywheel:

you would have lbs rotating	then add	flywheel in lbs.
5	100%	5
10	100%	10
20	75%	15

at this point is where you start easing in with clutches to your next step to add to the total:

35	71%	25
60	66.7%	40
100	65%	65
165	64%	105
270	63%	170
440	62.5%	275
715	62%	445
1160	62%	720
1880	62%	1165
3045	62%	1885
4930	62%	3050
7980	61.8%	4935
12915		

as you see, we are always heading towards phi, the golden ratio.

Now, this machine does not break, disregard or ignore any laws of physics to work. Once started, the collective goup of flywheels (100%) has more than enough angular momentum, kinetic energy or centrifucal force (in stored energy) to soft start, clutch in the next flywheel (61.8%) to full speed and thus add to the complete set of the machine, which then itself becomes the (100%). All electromagnetic clutches should be electronically monitored so the group of flywheels are never reduced too much from the additional wheels added. As I have never heard any discernable reduction in motor speed when clutching in next flywheel in series, I dont believe this is too much of a problem.The motors cheif objective is to cover the air resistance, gravity, friction i.e. bearings or any other drag on the machine as stated earlier.

http://energystorage.org/energy-storage/technologies/flywheels

http://www.damninteresting.com/the-mechanical-battery/

As seen here, flywheels can make amazing storage devices but require a lot of energy to get up to speed. Wit this machine, you could get huge amounts of angular momentum, kinetic energy or centrifucal force (in stored energy) with very little startup energy as your are using mother nature to increase and keep the process going.

At this point, Id like to mention that when adding in new flywheel, you are not restricted to weight, you can keep the next flywheel the same size but increase the speed (R.P.M.s) by 161.8% (3500 to 5663 R.P.M.s). As I have proven that this works as well. The machine was able to take the flywheels up to 8 times the original speed but as my flywheels are not balanced, they scare the Bejesus out me. For those ones, I did have laser cut discs so they were a little more balanced but still scary. All others were cut out on plasma cutter so theyre not very well balanced. Im sure with balanced wheels, magnetic bearings and a vacuum we could power the earth.

i.e.: Start with 50 lbs. flywheel then add again with clutches another 50 lbs flywheel at 1:1 ratio, next always keeping same size flywheels and adding each one with clutch you go to 1:2 ratio, then 2:3 ratio, 3:5, 5:8 ratio thus making the machine rotate the last flywheel 8X your original R.P.M.s.

A perfect Analogy for all of this!!!

Take your basic, standard transmission car and try to start moving it while in fourth gear,it will stall everytime. Try in third gear, same thing, second gear probably the same again. Now try it in first gear, pop the clutch and youll probably stall it again. You need to engage clutch with perfect amout of R.P.M.s and power to get the car moving along properly. Once you this a few time, you get the hang of it and you can start moving the car naturally. Now with momentum and power, you can shift into second, third and fourth gear without losing momentum and get the car up to 200 K.P.H.,(dont get caught though, big fines). Now can you imagine all the drag on a car, i.e. aerodynamics, wind, gravity, transmission, driveshaft, rear differential and rubber on the road, yet with momentum and power it all works.

With "Mother Natures power supply" (the machine), you have no drag, other than the wind resistance on the flywheels (which is minimal) and the resistance from bearings. (now you could remove all that with putting it all in a vacuum and using 0% resistance magnetic bearings) but as you can see all we need to do is get everything moving with momentum and keep adding to that to add power as we know that

Kinetic energy of a flywheel can be expressed as:

Ef = 1/2 I ω(squared)   (1)

where

Ef = flywheel kinetic energy (Nm (Joule), ft lb)

I = moment of inertia (kg m(squared) , lb ft(squared))

ω = angular velocity (rad/s)

Angular velocity converting units:

1 rad = 360o / 2 π =~ 57.29578o

1 rad/s = 9.55 r/min (rpm) = 0.159 r/s (rps)

Moment of inertia quantifies the rotational inertia of a rigid body and can be expressed as:

I = k m r(squared) (2)

where

k = inertial constant - depends on the shape of the flywheel

m = mass of flywheel (kg, lb(m))

r = radius (m, ft)

Therefore, this machine is different and unique is the fact that I use the kinetic energy of the flywheels while still engaged with the power supply used to keep the R.P.M.s up, where as all i ever see or hear of is the energy of a flywheel once removed for power source. As we never have to remove the power source, the machine can build more and more momentum as long as you keep adding flywheels (with clutches) to the point where there is more energy coming out of it than the original power source and thus power itself.

In conclusion!!!

I have a theory and all I need are a few (simple physics) questions to be answered to prove or disprove it. If proven correct, could really change the world and get rid of most our fossil fuel problems.

Questions for Physicists

At this point, I believe theyve all been answered

1. In a perfect vacuum and with 0 resistance magnetic bearings, you have two flywheels, one is 1 ton, the other, 2 ton, both with a diameter of 40 inches, different thickness obviously and both already rotating at 3500 R.P.M.s. Now we hook up (with 1:1 ratio sprockets and chains or pulleys and belts) both to identical power unit (that have just enough horsepower to keep the R.P.M.s. up on the bigger flywheel but not enough to get them to speed as stated previously they already at speed) that rotate fully at 3500 R.P.M.s. Now what would be the difference in resistance or load put on the motors?

2. If you have a power unit rotating at full speed and not connected to anything, what is the load on the motor? Now if you have same power unit connected to a 100 lbs. flywheel (and hooked up with 1:1 ratio sprockets and chains or pulleys and belts) again (that has just enough horsepower to keep the R.P.M.s. up on the 100 lbs. flywheel but not enough to get it to speed as stated previously the flywheel is already at speed), now rotating at motor full speed, what would the load be on said motor?

3. Now again, same motor and 100 lbs. flywheel (the machine) rotating at full speed, with a

electromagnetic clutch on the axle of said flywheel. Then you have a 65 lbs. flywheel hooked up to clutch (with 1:1 ratio sprockets and chains or pulleys and belts) and you ease in this flywheel (as in a car with standard transmission, if you pop the clutch you will stall the machine and if you release it too slowly, you will burn the clutch) to rotate at full speed with the machine. Now which will give this new flywheel the momentum to turn and increase its speed to match the full R.P.M.s of this machine? Where would the loss of energy needed to rotate this extra flywheel come from? Conservation of Energy?

A) The motor (As we know, a power source already in motion with flywheel in not really under load.)

B) The flywheel. (Now you must consider that as stated in many websites on flywheel energy storage systems that any flywheel in motion has approx. 80-90% stored in inertia of the energy to get it to that speed in reserve once removed from power source (but we are not removing it)

C) Is it possible the motor and 100 lbs. flywheel never lose much momentum at all as it is always being replaced by the motor faster than the energy required to ease the additional 65 lbs. flywheel to speed?

4. Can you explain how with this machine, Ive put together, if we have all eight flywheels (a total of 270 lbs. again hooked with 1:1 ratio sprockets and chains or pulleys and belts) mentioned above connected to motor without clutches, there is no way to get the 1 horsepower motor started. If we cut it back to 7 (165 lbs.), same result, 6 (100 lbs.), 5 (60lbs.), now at 4 (35 lbs.), and why can we get the group of flywheels (5, 5, 10 and 15 lbs. again hooked with 1:1 ratio sprockets and chains or pulleys and belts) rotating with the motor to full speed and then start clutching in the rest (one at a time, you must wait for each flywheel added to get to full speed before you clutch in the next one), a clutch for each flywheel, the motor and machine, can easily turn the 270 lbs. at full speed?

Again, which is it? The 1 horsepower motor (which does not have enough power to start it all) or is it the (inertia, angular momentum and/or the kinetic energy) that gives the extra power needed to rotate the complete set of flywheels to speed? Or is it as the answer above (C)?

Useful info collected

A rotating mass does not really consume or dissipate energy. A rotating mass stores energy. The rotating mass either eventually returns energy to the system in a useful way or does not.

Four things determine the effect of rotating mass. Every one of these things is important:

1) How quickly and often a rotating mass speeds up or slows down. Every time it is forced to speed up or slow down, it takes or releases energy.

2) How heavy the rotating mass is. More weight (with no other changes) stores or releases more energy.

3) The rotating weight's distance outwards from the centerline. The further out, the more energy pushed in and out of a given weight.

4) How fast the weight spins, or the speed the weight travels in a given circle diameter. The higher the RPM, the more energy stored.

Here are how these things work:

1) If we push energy into the rotating mass and pull energy out several times, we move more power

around than if we make a slow, smooth, change in speed. It takes much more effort to repeatedly speed and slow something in a short period of time than to gradually speed it or slow it.

2) The amount of weight is the least important thing! If we double the weight (with no other changes) we only double the stored energy.

3) Weight distance from the center line is very important, because it determines the weight's circular velocity (speed)! Stored energy goes up by the SQUARE of the radius change. If we replace a 4-inch diameter hollow driveshaft with an 8-inch diameter tube of exactly the same weight, it is not just double. It is twice the size squared, or four times the stored energy when it weighs the same!

4) The faster we spin the weight, the more energy it stores. If we double RPM, we multiply stored energy four times. Again it is a square of the change, just like weight distance from centerline is a square.

The above is very important. If we double the effective "circle size" the weight is rotating at, we get four times the stored energy. If we simply double the weight without changing the spinning radius, we just double stored energy:

-If we reduce mass from twenty pounds to ten pounds, keeping the same distance out and same peak RPM, we reduce stored energy to half the original amount. Reducing weight is a one-for-one change.

-If we cut diameter in half while keeping the same weight and RPM, stored energy will be 1/4 the original stored energy. This change is a square. Twice is a "four times" effect. 2*2=4. Four times is a sixteen time effect on stored energy. 4*4=16.

-If we cut RPM in half, we would reduce stored energy to 1/4 the original amount. Once again this is a squared change. Change RPM three times, and the stored energy changes nine times. 3*3=9.

We should carefully think about what this means when we change things. Some changes are worthwhile, some are not. We also cannot use carte blanche rules, like the silly rumor that reducing a rotating weight is like dropping the vehicle weight four times that amount. As a matter of fact, it is probably never four times. It is more likely closer to one, and might even be less than one!

Why do things work this way?

First we have to understand what power and energy are, and what rotating mass does with that power or energy. Contrary to popular belief, rotating mass does not consume energy. A rotating (or moving) mass stores energy. This effect is very much the same as pouring energy in a bucket, much like charging a capacitor in an electronics circuit. Virtually all of the stored energy, except for that lost by conversion to heat, is still there and available to do work at some time in the future. That future where energy is returned might be milliseconds later and help us out, or it could be some considerable time later and waste energy. This is why time is very important.

One example of useful energy storage is the flywheel and crankshaft of a car. The force on the crankshaft is in pulses. A common four cycle V8 has four power cycles per crankshaft revolution, and there are 100 turns of the crank per second. At 6000 RPM an 8-cylinder 4-cycle has 400 power pulses per second. The flywheel (along with the harmonic dampener and weight of the rotating assembly) smoothes these pulses out by storing and releasing the pulsed energy from the explosions in the cylinders. The result is a smooth rotation that will not tear gears up, vibrate the car, or beat on bearings.

We should always remember rotation, or movement of a mass, does not actually destroy energy. If it did, the earth would have stopped spinning millions of years ago! The key to understanding how weight changes affect performance is to understand some very simple basic energy flow in the system.

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