

<http://energyefficientmechanism.blogspot.com/>

<http://mechanicalresearch.info/>

<http://energyefficientmechanism.blogspot.com/2008/07/stationary-force-can-be-utilized-to-do.html>

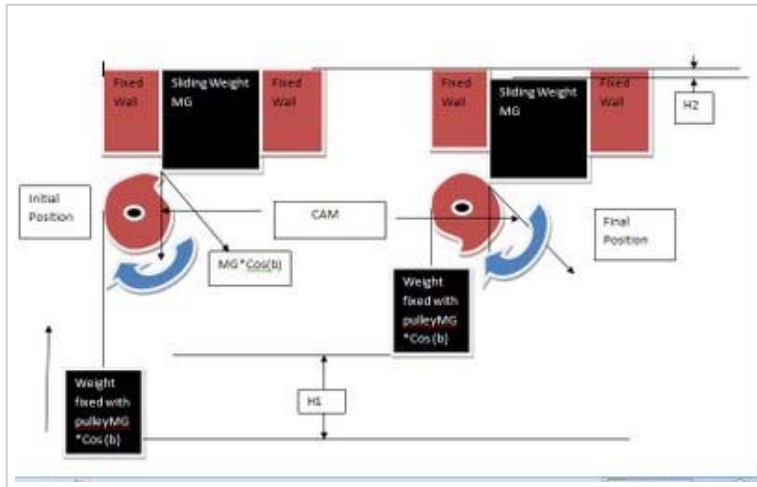
Stationary Force Can NOT Do Work as claimed above

Stationary (gravity) Force-**red** and opposing Reaction Force-**blue** (and their components-dashed) are balanced at the contact interface between Stationary Plate and Pulley. So, the resulting torque for Pulley's axis will be zero and the Pulley will not rotate without the Plate moving. For energy transfer, the acting body (Plate) has to forcibly move (displace or act) against forcibly reacting or opposing body (Pulley) to transfer momentum and energy; otherwise, **WITHOUT POSSIBLE FORCED MOTION** (as in this case), it will be a static (without motion) equilibrium forced-balance (stressed-state without any energy transfer) – by *M. Kostic* < www.kostic.niu.edu >.

Mechanism that increase energy efficiency

Friday, April 3, 2009

Mechanism To Increase Energy Efficiency.



Click on figure for large view. It is about using Cam for increase energy efficiency.

Cam are generally used to open and close valve of IC Engine. I am going to show you another use. Left side initial position. Right side final position. Radius of cam continuously decrease. Sliding weight (MG) applied on Cam. With the help of rope weight ($MG \cdot \cos(b)$) is fixed with cam. We consider b as 45° . So $\cos 45^\circ = .70$. This fixed weight should be $0.70 MG$. Which balance the sliding weight applied on cam in tangential direction. As sliding weight come down the fixed weight go up. But the twist is the radius of cam decrease nominal continuously. So sliding weight come down little bit and fixed weight go up much more. We consider sliding weight come down H_2 height and fixed weight go up H_1 height. We consider $H_1 = 5H_2$

Now we calculate energy loss by sliding weight = $MG \cdot \text{Height}$
 $= MG \cdot H_2$

Energy got by lifting fixed weight = $MG \cdot \cos(b) \cdot \text{Height}$
 $= MG \cdot \cos 45^\circ \cdot H_1$
 $= .70 MG \cdot 5H_2$ (Because $H_1 = 5H_2$)
 $= 3.5 MG H_2$

$= 3.5 \cdot \text{Energy loss by sliding weight}$

So we get 3.5 times more energy than we loss. The ratio depend on the rate we decrease radius of cam and angle (b).

Posted by Energyefficient Mechanism at [11:05 PM](#)

Wednesday, February 4, 2009

Stationary hydraulic force can help to rotate pulley.

Blog Archive

▼ 2009 (2)

▼ April (1)

[Mechanism To Increase Energy Efficiency.](#)

► February (1)

► 2008 (4)

► 2007 (1)

About Me



JIGAR PATEL

[View my complete profile](#)

Statio

nary hydraulic or spring force can help to rotate pulley. Except pulley all other part in figure are stationary.

Posted by Energyefficient Mechanism at [7:41 AM](#)

Friday, October 10, 2008

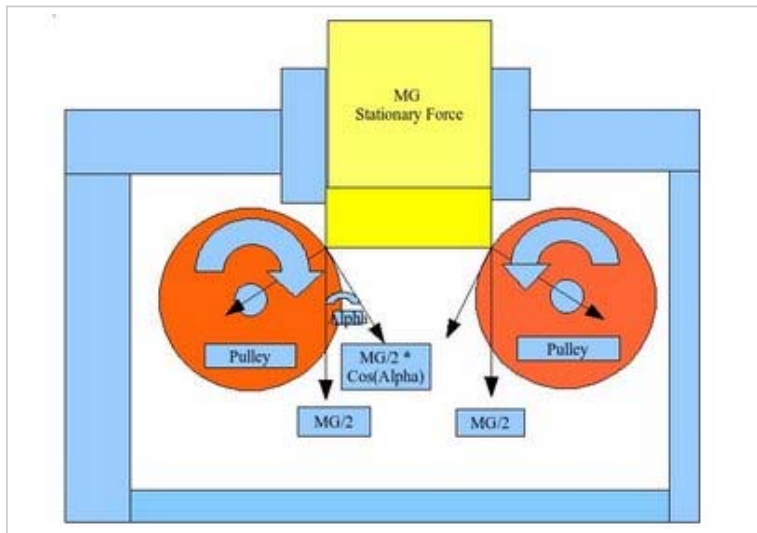
Energy Security, Global Warming and Engineering

Research report is attached with this post (Energy security.pdf). You can download it from following link. It is about how we can use engineering to solve energy and global warming problem.
<http://mechanicalresearch.info/report.pdf>

Posted by Energyefficient Mechanism at [4:00 AM](#)

Thursday, July 17, 2008

Stationary Force Can Be Utilized To Do Work.



Before explaining I want to clear some basic things.

v = Velocity. Rate of change in the position of an object

$v = dx/dt$ Meters/Second.

a = Acceleration.

a = Rate of change of velocity.

$a = dv/dt = dx/dt^2$. Meters/second²

Because $v = dx/dt$

Force (F) = $M \cdot a = M \cdot dv/dt = M \cdot dx/dt^2$ Kg-meters/second² or Newton.

Work = Force * Distance traveled Newton-Meter.

But what happen when force is stationary or can not travel and object can travel at less than 90° Angel with direction of force.

Answer is "Stationary force will help to move object."

See Figure

There are two pulleys can rotate about their respective axis. Stationary force (MG) applied on pulleys by stationary plate (stationary plate is simply supported on pulleys.). This MG is equally divided and applied on each pulley in vertical downward

direction(MG/2). This MG/2 will divided in two parts. one is tangential ($MG/2 * \cos(\alpha)$) and second is towards the center ($MG/2 * \sin(\alpha)$). Tangential force will help to rotate pulleys. Towards the center part will generate friction. Still not getting feel free to contact me. (If you want to understand.)

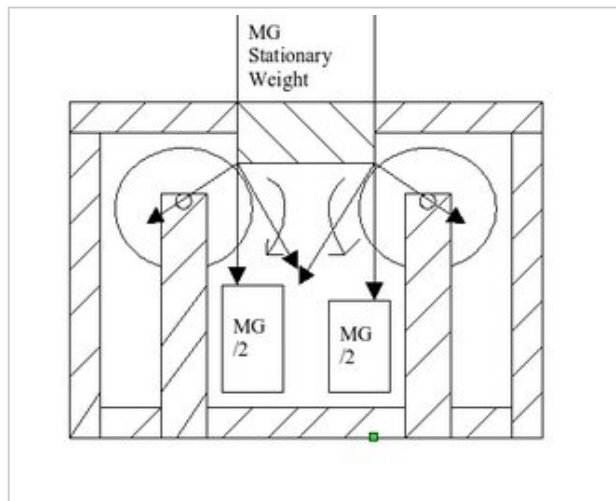
Uses and Advantages:

1. It will decrease manufacturing cost.
2. It will decrease electricity Bill.
3. It will help to reduce green house effect.
4. It provides clean energy.
5. It is cheap and available at every place.
6. It can use for both linear as well as for circular motion also.
7. It will improve quality of people's life by giving clean and cheap energy.
8. It will help to reduce carbon dioxide in environment.

Posted by Energyefficient Mechanism at [10:07 PM](#)

Sunday, June 15, 2008

Force analysis ON Off Set Cam.



You know Cam. It is generally used to open and close valve of IC Engine. In offset can the pointer is not towards the center. Now I do only one thing I dont change diameter of off set cam. You can understand by viewing my figure. So force by pointer

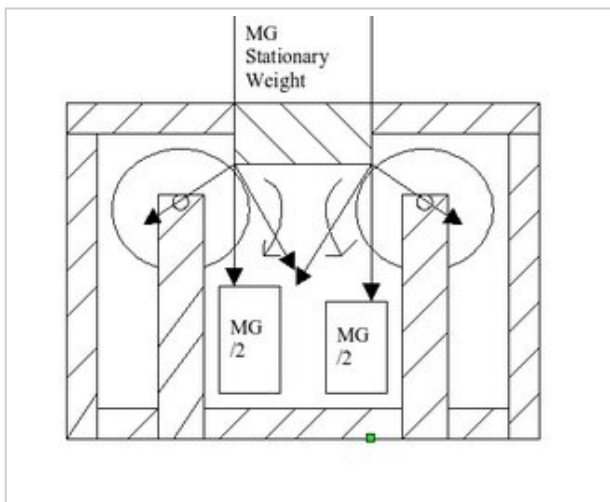
(Stationary plate) applied on cam (without change of diameter, this is special cam.) You rotate that cam in any direction. The force applied by pointer (stationary plate) is same and constant. Now if you rotate cam (without change in diameter) in opposite direction, Stationary force applied by stationary pointer against to its motion, so you have to applied more force to rotate because you have to overcome the force applied by stationary pointer. But If you rotate cam in nearly same direction than it will help to rotate. who help (Stationary force applied by stationary plate or stationary pointer). Whom help (Cam without change in diameter means pulley.) To get idea read all post in this blog.

Uses and Advantages:

1. It will decrease manufacturing cost.
2. It will decrease electricity Bill.
3. It will help to reduce green house effect.
4. It provides clean energy.
5. It is cheap and available at every place.
6. It can use for both linear as well as for circular motion also.
7. It will improve quality of people's life by giving clean and cheap energy.
8. It will help to reduce carbon dioxide in environment.

Posted by Energyefficient Mechanism at [10:19 PM](#)

Sunday, March 2, 2008

Mechanism that increase energy efficiency.

As shown in figure two pulleys can rotate about their axis. Stationary plate is simply supported on these two pulleys. Now the weight of stationary plate applied on each pulley in vertical downward direction is $Mg/2$. This $Mg/2$ will

divided in two parts. One is tangential and second is towards the center. Tangential part will help to rotate pulleys and toward the center part will generate the friction.

Posted by Energyefficient Mechanism at [11:25 PM](#)

Thursday, December 27, 2007

Mechanism that increase energy efficiency.

To view figure click on Photos.

As shown in figure sliding plates can slide over fixed plates. Stationary plate is simply supported horizontally on sliding plates. Lubrication is provided at contact surfaces of stationary plate and sliding plates. Weight or load or force (mg) is applied at center of stationary plate. This load is equally divided and applied on each sliding plate in vertical downward direction ($mg/2$). This $mg/2 \cos(\alpha)$ helps sliding plate to slide in nearly downward direction.

Force is stationary and it can help to slide the sliding plates at some angle.

Uses and Advantages:

1. It will decrease manufacturing cost.
2. It will decrease electricity Bill.
3. It will help to reduce green house effect.
4. It provides clean energy.
5. It is cheap and available at every place.
6. It can use for both linear as well as for circular motion also.
7. It will improve quality of people's life by giving clean and cheap energy.
8. It will help to reduce carbon dioxide in environment.

Jigar Y. Patel

jig_patel_1982@yahoo.com

Posted by Energyefficient Mechanism at [4:27 AM](#)

Subscribe to: [Posts \(Atom\)](#)

