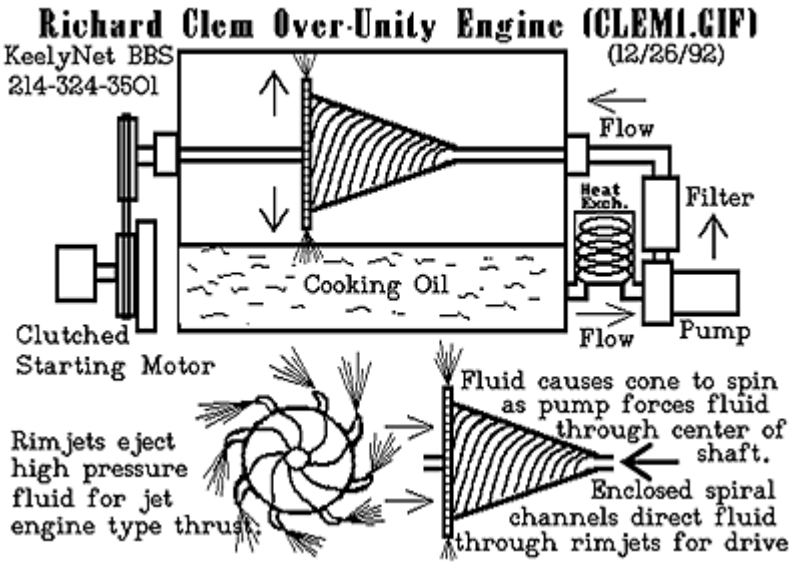
RESTORATION OF THE CLEM MOTOR

The principals involved in the operation of the motor are minimal and simple. It is perhaps this characteristic that made it a magnet to adventurous amateur innovators while at the same time it has been like a red flag to serious researchers. My opinion is that if the principles are closely examined we might be pleasantly surprised and end nearly 50 years of paying for energy when we didn't have to.

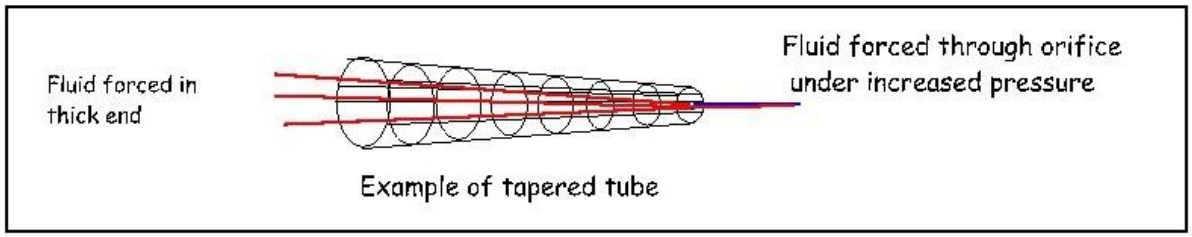
Now the whole phenomenon began when in 1972 a US worker Richard Clem used a bitumen pump to power a car which travelled hundreds of miles circulating cooking oil and using no fuel. Further information giving details on the "Clem Motor" can be found here. Of course there is plenty of negativity surrounding this issue as would be expected.

Shown below is an early sketch of the Clem motor that is said to represent a sketch by his daughter following his 'sudden' death?

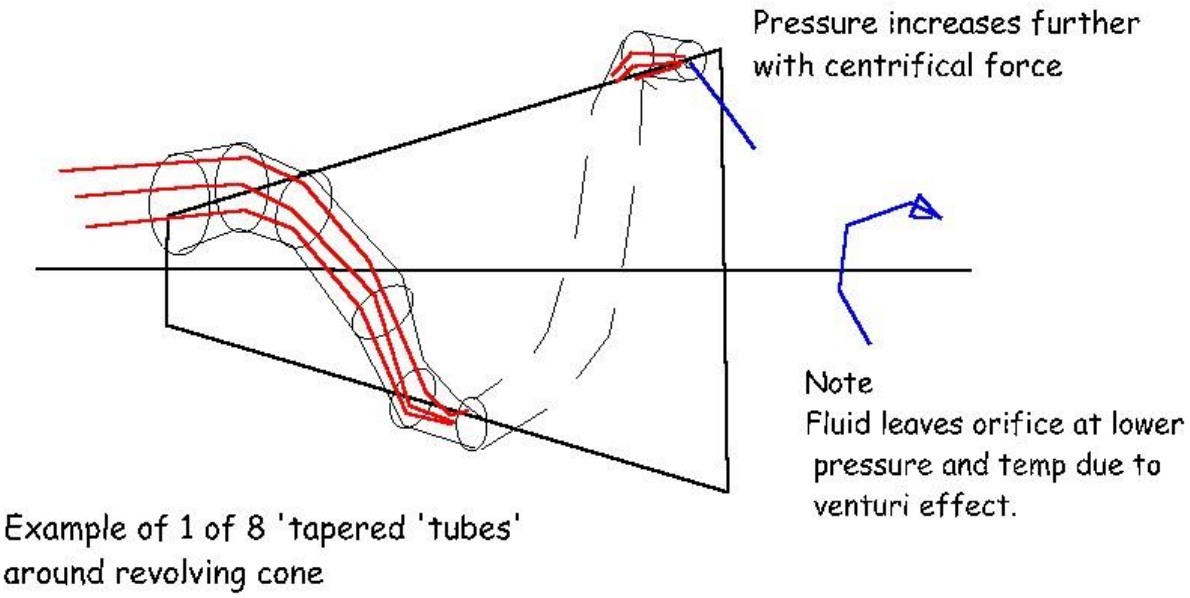


The drawing depicts the motor as 'over unity' which suggests that it gives you something from nothing. However there are some interesting concepts seemingly overlooked that can explain where the energy for the rotation comes from.

Firstly we should look closely at the flow of oil on the rotating cone. These could be considered to be like oil flowing through a tube which has a large diameter at the start and narrow at the end:



Consider this tube being one of many wound around the cone:



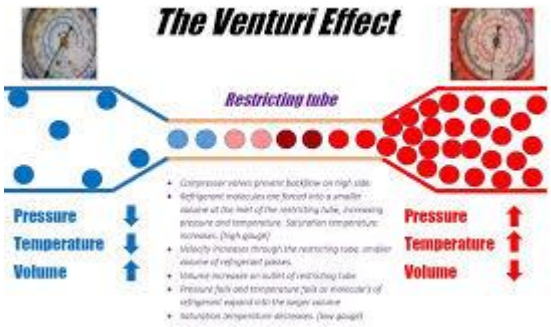
It is obvious that there will be a buildup of pressure in the oil at the thin end of the tube due to:

The same amount of oil now forced into a restricted area and

The rotation of the cone forces oil to the outer-most location by centrifugal force

As a result the oil under pressure is now forced through a restricted orifice (nozzle jet) causing rotation in the opposite direction.

Now each one of these nozzles can be considered to be a venturi and subject to the 'venturi effect 'as explained below:



Notice that before the nozzle the temperature and pressure are high but after the temperature and pressure are low. This is very important and is the basis by which the whole process works.

It is worth mentioning a few things here:

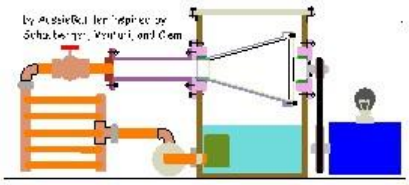
The high temperature here is what accounted for the 300 deg. F as reported. It is not the temperature that all the oil in the system reaches so that it needs to be reduced by the heat exchanger. This is where a lot of confusion has arisen.

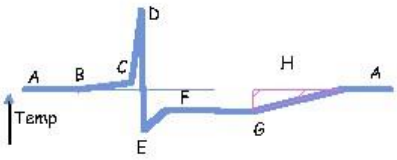
Also only at this point (before the nozzle) the pressure reaches high values. It is therefore not necessary to construct the motor to withstand high pressure throughout.

The most important feature to recognize is the reduction (giving up) of temperature after passing through the nozzle. This is not an energy loss but a transfer from heat to motion.

The next step in the process is to restore the system back to equilibrium. This is done by passing the cooled oil through the heat exchanger (absorber) thus bringing the oil back to ambient temperature. So the oil circulates due to the pressure gradient of the system and the oil rising as it heats up .

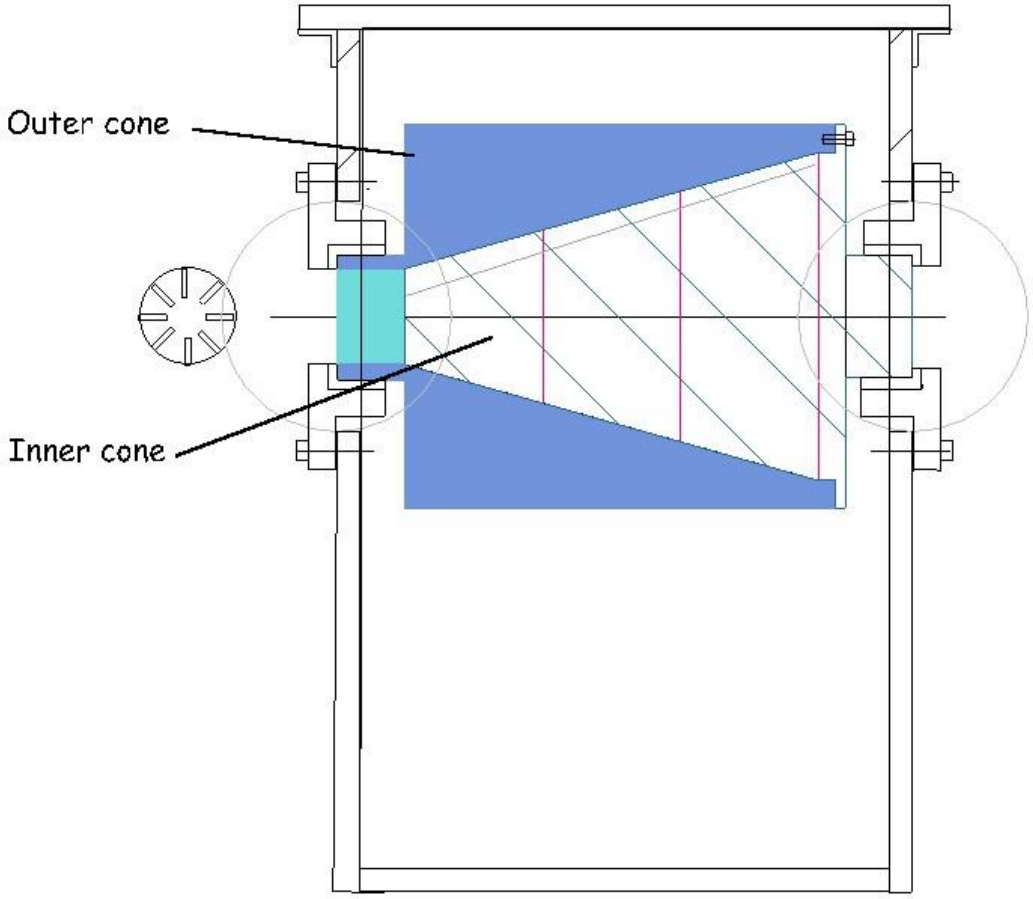
The main features of the system are shown here:





The circulating oil at 'A' is at ambient temperature and begins to heat in the revolving cone 'B' as pressure increases. At maximum pressure at 'C' the temperature rises considerably (300 deg F) just before it passes through the small nozzles 'D'. In accordance with the venturi affect the pressure and temperature drop considerably 'E' causing the oil in the tank to lower to a steady temperature 'F' As the oil now passes through the heat exchanger 'G' it regains temperature back to ambient . Note the hatched area 'H' represents the energy gained from the atmosphere that offsets the energy expended in circular motion.

There are two important parts of this device; the inner and outer cone.



Notes on construction of the device

The inner and outer cones are joined providing closed spiral pathways for the oil

The inner cone is milled with decreasing depth pathways (8) for the oil (A 5-axis simultaneous milling machine is required for this –available in premium engineering workshops in capital cities

There should be no pressure leakage throughout the device.

All other parts are basic or readily available off shelf.

There are available dimensioned CAD drawings including g-code outline for pathway milling.