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Water Car FAQ

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Author

Message

LaserLine
Administrator

 Posted: Thu Dec 18, 2003 12:09 am Post subject: Water Car FAQ

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Water Car Frequently Asked Questions

Posts: 342
 Joined: 06 Sep 2003
 Location: Los Angeles, CA

This is the Water Car frequently asked questions. A lot of this FAQ was derived from other various sources and credit is due to them (like Graeme in the Yahoo Warecar group). I will try to keep this FAQ updated as much as possible. Please reply to this thread if you would like to post a Q&A.

General Questions

■ Where can I find the files that have been uploaded to the server?

You can find them right here on our servers at

<http://www.icubenetwork.com/files/watercar/> .

Air/Fuel ratio

■ What is the stoichiometric air/fuel ratio for hydrogen?

The stoichiometric air/ fuel ratio for hydrogen is: mass of air/ mass of fuel= 137.33g/ 4g = 34.33: 1 I run my car at approx 30:1 as based on volume = vol (moles) of air/volume (moles) of fuel=> 4.762/ 2= 2.4:1 The percent of the combustion chamber occupied by hydrogen for a stoichiometric mixture= volum (moles) of H2/ total volume=> volume of H2/ (volume of air + volume of H2)= 2/ (4.762 + 2)= 29% All this shows is that the chemically correct ratio of hydrogen bymass is 34:1: again I run my car at approx 30:1. Ans provided by Frank Roberts.

Car

■ Hydrogen powered car?

Try <http://www.hermansinsight.com/> or

<http://www.science.edu/tech/h81001.htm#fig4> or

http://www.ott.doe.gov/otu/field_ops/pdfs/fcm03r0.pdf

■ How do I convert my car to run on Hydrogen?

See <http://www.clean-air.org/> or www.clean-air.org/Hydrogen%20Cobra%20Story/Hydrogen%20Cobra.htm

■ How do I convert my car to run on Natural Gas or Propane?

Go to <http://www.propanecarbs.com/>

- Where can I purchase Fuel injectors?
Go to <http://www.orbeng.com.au/orbital/investorRelations/news/130400.htm>

- What does "WFC" mean?
WFC stands for Water Fuel Cell.

Electrolizer

- Where can I buy one?
Go to <http://www.amer-grp.com/welcome.html>
- What current draw will there be drawn from the battery?
Franks electrolizer currently draws 10A.
- Where can I get an Acetylene Flashback arrestor?
Flash back arrestor cost £13.99 at
<http://www.welduk.com/catalogue/catalogue.asp?referringId=8> or try
<http://www.hionsolar.com>
- What level sensor should I use?
Honeywell <http://content.honeywell.com/sensing/prodinfo/liquidlevel/> have a lot of them. for say 10-15 USD you can purchase very reliable device that needs just to be connected to your pump. Another sources can be found at
<http://www.liquidlevel.com/> and
http://www.crydom.co.uk/Webpages/level_sensors.htm
- How many plates should I have?
Currently the group are looking at a 60 plate design 6"x6".

Fulcrum's calculations for 60 plates at 6"x6":

6"x6" = 36" squared = area of one side of one plate
x2 = 72" squared = area of both sides of one plate
x60 = 4320" squared = area of both sides of 60 plates
/12 = 360 feet squared = area of entire electrode

Note if being more precise to avoid an area error margin of lets say 2%:

- 1) when using a plate design a triangle may be cut from 1 corner of each plate resulting in a loss of area
- 2) the area of the metal bolts and washers that hold the plates together can be considered additional area
- 3) the 2 end plates might only conduct on one side of the plate resulting in a loss of area

The gas produced would be roughly 4.35 liters / min (provided enough current from a battery'(s) and/or alternator(s)). This would be enough to power a car with a 2.32L engine at a steady 3000 RPMs if the calculations are correct and the brown's gas to air ratio is 32 parts to 1 part.

- Where can I get stainless steel?
The price for 1mm 50*60cm sheet is about 8 USD. The recommended grades are 304/316 and 316L. Although Stanley Meyer suggested commented that stainless steel (410 not 403) was the only metal that could be used as oxides formed with all others. See also for World wide
http://www.thinstock.com/materials/301_stainless.html and for UK
<http://www.arenastock.co.uk/stainlessteel.htm> and US only

<http://www.stainless-steel.us/>

<http://www.ebay.com>

■ What spacing should there be between plates.

Frank suggests spacing each group of 20 plates 3/4" to 1" apart in case you want to use sodium hydroxide etc. as in this case you will have to isolate each cell group. The space will allow you to install a plexiglass spacer between the cells if the situation arises.

■ How much water does it use?

Frank Roberts claims to use .7lt of water per hour.

■ What frequency and duty cycle should I use?

Currently the group are looking at using 45khz 90%/10% on/off cycle.

■ How should I connect the plates. Series or Parallel?

The consensus is that they should be connected in series so that you get a drop of approx 2.3v across each bank of plates. Franks device uses 3 banks of 20 plates.

■ How much Hydrogen and Oxogen is there in 1lt of water?

It is known that from one litre of water it is possible to produce 1220 litres of hydrogen and 622 litres of oxygen.

■ What is an electro-resonator?

It has been decided by the group to call an Electroliser an electro-resonator or resonator for short as what we are building is not strictly an electrolyzer.

■ What can I make the container out of?

Frank uses VIVAK details can be found at

http://www.sheffieldplastics.com/product_vivak.cfm or

<http://www.bayplastics.co.uk/data%20sheets/axxis/prod-axxis-datasheet-Vivaksheet.htm>

■ Do you require an electrolyte?

Frank Roberts who is the only person claiming to have a car running in the group does not use an electrolyte. He uses hot water and lets it cool. Hot water used as the hot water heater drives out the chlorine.

■ How can I make fog or mist water?

You can purchase one at <http://www.ravepartytoys.com/Mini%20Mist%20Fogger.htm> or <http://www.artisticdelights.com/pummishallig1.html> or <http://www.mainlandmart.com/foggers.html>

Hydrogen

■ How to I produce Hydrogen?

Sodium hydroxide in conjunction with Aluminum is currently used in a recent patent (U.S. patent number 6 638 493) to crack water. See Watercar post No. 3467.

■ Can I buy a hydrogen generator?

Go to <http://www.idatech.com>

■ What is this brown gas?

Please see <http://www.eagle-research.com/> .

Joe Cell

- What is a Joe Cell?
See web site <http://www.joecell.com>

Pulse Generator/Circuit

- Can I purchase a Pulse Generator?
You can purchase a pulse generator that has been specifically built for this group at www.clsystem.co.uk/other.htm . This is now comonly know as the Chin Generator.
- What Pulse shape should I be using?
You can view the pulse shape at G_Mudie's files/42k90%.jpg
- Are ther pulse circuit diagrams I can use?
Yes Got to files and look in the G_Mudie files folder and Vertical Plate Electrolyser and Circuit Schematic folder.
- Where can I find data sheets for electronic components?
Try <http://users.telenet.be/educyclopedia/electronics/componentsearch.htm> or <http://www.fairchildsemi.com/ds> or <http://www.circuitspecialists.com/prod.itml/icOid/1300>
- How do I work out what values of resitors and capacitors to use in my circuit?
Go to google and search on "555 calculators" these will calculate the frequencie for a given values of resistors and caps. There are some that you can put in the frequency and it will give you values of the required components. Here is a good starting point
<http://users.telenet.be/educyclopedia/electronics/electroniccalculators.htm>

Resonace


- What is resonance?
See <http://astro.phy.sfasu.edu/courses/phy470/2001Fall/1>
- What affects the resonace of water?
I would suggest at this time we do not know all the factors involved in getting the water to resonate. But we do know that (according to Frank and some others) you can resonate the water without an electrolyte. At this time all that can be said is that plate separation water purity and temperature are expected t be factors affecting the resonance of water.

Water

- What is water made of?
See <http://www.martin.chaplin.btinternet.co.uk/index.html>

Last edited by LaserLine on Tue Jul 19, 2005 2:27 pm; edited 7 times in total

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LaserLine
Administrator



Posted: Mon Feb 09, 2004 11:18 am Post subject:

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Just wanted to make a note to everyone that please feel free to reply to this thread if you want a Question and Answer added to the FAQ. Thanks 😊

Posts: 342
Joined: 06 Sep 2003
Location: Los Angeles, CA

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Stigma

Posted: Wed Aug 02, 2006 9:46 pm Post subject:

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Sorry if this is an inappropriate place to post this.. didn't know where else to.

Posts: 12
Joined: 02 Aug 2006

I caught a math error in the above FAQ you may wish to fix for newcomers (like myself) who may not have as keen an eye as myself. 60 6" x 6" plates would equal a total surface area of 30sq.ft., not 360. If the plates were 12" x 12", the sum area would only be 120sq.ft. (1' x 1' x 2 sides x 60 plates = 120sq.ft.). Since there are 4 6" x 6" squares contained in a single 12" x 12" square, 120/4 30sq.ft.

The error came from dividing 4,320 sq.in. by 12, when in fact there are 144 sq.in. in a single sq.ft. (12x12).

Here's hoping I come across as helpful and not arrogant. 😊

Safe home,
~Stigma

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Habbovvip

Posted: Thu Sep 07, 2006 8:43 am Post subject:

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