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Alternative Source of Petrol - 2

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ABSTRACT : Day by day the prices of Petrol are increasing tremendously. On account of this fact if the consumption of petrol increases then we are not able to save our Natural resources. Petroleum popularly known as "Black Gold" or "Liquid Gold" is very important for the overall industrialization and development of our economy and natural resources. So I want to save my "Black Gold". The main aim of my paper is to reduce the consumption of petrol by mixing it with alternative source of energy.

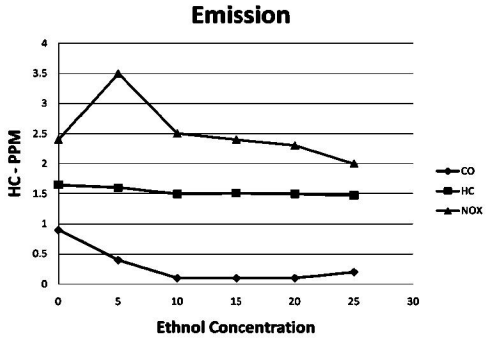
Keywords: CO, HC, NoX, RPM.

I. INTRODUCTION

Distillation from Oil we get Petrol, Kerosene, Diesel etc. Petrol was known as Black Gold and was a natural recourse. Demand of petrol on hike, it directly effect the price, that effects the burden of Pockets of the vehicle owner. In allover the world many scientists are working in this above topic, but till now nobody was success. Expert's decisions are not able to implement directly because the environmental condition of India and outside India are different.

Approach : I want to increases average of vehicle by mixing it with Bio-fuels.

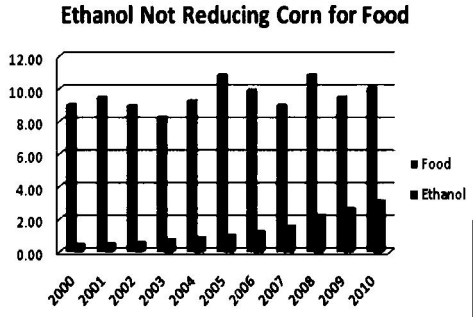
Ethanol	*CO*	*HC*	*NOX*
0	0.9	1.65	2.4
5	0.4	1.6	3.5
10	0.1	1.5	2.5
15	0.1	1.51	2.4
20	0.1	1.5	2.3
25	0.2	1.47	2



Mixing alcohol with Petrol produces gasoline. Advantages of fuel blends are that alcohol tends to increase the octane rating, which is particularly important in unleaded fuel, and reduce carbon monoxide (CO) emissions from the engine.

A mixture of 10% - Ethanol in gasoline produced more power when the carburetor was adjusted for gasoline, at 25% reduce in the power output. 10% - Blend produced a leaner and better air-fuel ratio; 25% Blend was too lean because of its higher stoichiometric air-fuel ratio, butyl alcohol can be mixed with gasoline in higher concentration without affecting performance. A fuel blend containing 20% methyl alcohol requires modification of the carburetor fuel jets to optimize power output, whereas 20% blend of butyl alcohol does not.

Gasoline Engine full throttle exhaust emission using ethanol fuel blends.



II. METHODOLOGY

Ethanol can produce from corn. Sugarcane crop is a renewable source of energy. Sugarcane can also be directly used to produce ethanol. Alcohol based chemicals Ethyl Alcohol is an important feed stock for the manufacture of chemicals. These chemicals are Acetic Acid, Acetone, Butanol, Butadiene, Acetic Anhydride, Vinyl acetate, styrene, MEG PVC etc. Synthetic rubber industry also requires large quantity of alcohol. The main product industrial alcohol is used in manufacturing of the following alcohol based chemicals, the uses of which are also given below:

(*a*) *Acetaldehyde:* Can be used for industrial use as chemicals derivatives pharmaceutical applications and synthetic resins and for manufacture of Acetic Acid.

(*b*) *Acetic Acid:* Used in pharmaceuticals application

Textiles, Dyestuffs, Ethyl Acetate and is the basic chemical for alcohol based chemicals.

(*c*) *Acetic Anhydride:* Used in Bulk Drug manufacturing.

(*d*) *Ethyl Acetate:* Used in manufacturing of paints Dyestuffs and pharmaceuticals.

(*e*) Used in manufacture of HDPE, LDPE, etc. and chemicals other petroleum based chemicals such as Ethylene Glycol. Potable Alcohol Manufacture of alcoholic beverages from alcohol is also an attractive diversification. There is large demand for alcohol for protable purpose is as high as the alcohol being used for industrial purposes. Alcohol as fuel/Ethanol Blended petrol the trend in the world (particularly Brazil and USA) is towards the use of alcohol as an alternative fuel.

III. ANALYSIS

Alcohol also has been used in diesel engines. Alcohol may be blended with diesel fuel to produced diesohol, or the alcohol may be added to the air intake of the engine. The primary function of the system is to cool the turbocharged air (using the latent heat), and thereby to increase the volumetric efficiency of the engine and produce more output power.

RPM	*2%*	*10%*	*15%*
800	15	16	18
1000	18	20	20
1200	20	22	23
1400	24	25	27
1600	26	28	30
1800	32	33	35
2000	20	22	25

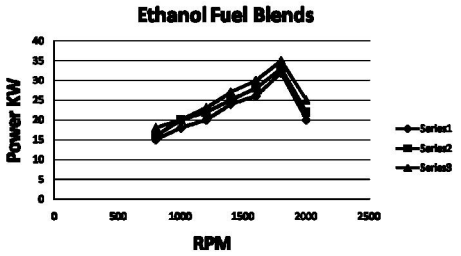
The percentage of mixing Methyl alcohol and Ethanol alcohol is fixed 20% (Power Alcohol). If the percentage of power alcohol is

- Less we are not able to take the above Benefit.
- More then also harmful to engine and environment.

Methyl alcohol, because of its highly polar nature, does not mix with diesel fuel. Ethanol can be mixed with diesel fuel provided there is little water in the ethanol. A diesel engine normally will not operate on ethanol nor will ethanol provide lubrication for the fuel injection system. Another problem with adding ethanol to diesel fuel is that the cetane number (ignition characteristic) may decrease below the level recommended by the engine manufacturer.

Butyl alcohol can be mixed with diesel fuel in virtually any concentration. It does not separate as water is added or as the temperature is decreased. Ethanol (commonly called "Alcohol") has assumed a very important place in the world's economy.

Diesel Engine Power Output Using Ethanol Fuel Blends.



Series 1 - 2 % Diesel Fuel
Series 2 - 10% Ethanol
Series 3 - 15% Ethanol

Due to these ultimate result During World War II (Second), alcohol in the form of power alcohol was used for blending with in the proportion of 80% Petrol and 20% Power Alcohol.

IV. RESULT EVALUATION

Diesel + Ethanol + Butyl Alcohol

Petrol + Methanol + Butyl Alcohol

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