# Builler Automotive July Newsletter

# IN THIS ISSUE

\*Think you know about car repair?



\*On point with Butler Automotive Customers



#### The Six-Stroke Engine

Written by Alan Bellows on 18 March 2006

Under the hood of almost all modern automobiles there sits a four-stroke internal combustion engine (ICE). Though the efficiency of the design has been improved upon significantly in the intervening years, the basic concept is the same today as that used by the first practical four-stroke engine built in the 1870s. During every cycle in a typical car engine, each piston moves up and down twice in the chamber, resulting in four total strokes... one of which is the power stroke that provides the torque to move the vehicle..



\*Amazing

Automobile

Articles

In a traditional ICE cycle, 1) the fuel/air valves open as the piston moves down, which draws air and fuel into the chamber; 2) the valves close as the piston moves back up, putting the air/fuel mixture under pressure; 3) the mixture is then ignited, causing a small explosion which forces the piston back down, which turns the crank and provides the torque; and finally 4) the exhaust valves open as the piston moves back up once again, pushing the byproducts of the fuel explosion out of the chamber. This leaves the piston back in its starting position, ready for another cycle. This process is repeated thousands of times per minute.

The clever new six-stroke design was developed by 75-year-old mechanic and tinkerer Bruce Crower, a veteran of the racing industry and a the owner of a company which produces high-performance cams and other engine parts. He had long been trying to devise a way to harness the waste heat energy of combustion engines, and one day in 2004 he awoke with an idea which he immediately set to work designing and machining. He modified a single-cylinder engine on his workbench to use the new design, and after fabricating the parts and assembling the power plant, he poured in some gas and yanked the starter rope. His prototype worked..... READ MORE

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### Auto Care & Repair IOI

Fellas, do you have a girlfriend, wife or mother that you care about? Wish they knew a little more about car care and auto maintenance? Worry about repair shops ripping them off when you're not around? Or perhaps you're not so car savvy yourself and want to brush up your skills...

Have NO FEAR!! Butler Automotive is conducting an in shop FREE 90 minute class explaining all the basics in auto repair and vehicle maintenance. From how your brakes work, to properly checking the oil levels in your car. We will even tell you what to watch out for when visiting a repair shop.

Not knowing how your vehicle works is not anything to be embarrassed about. Butler Automotive is extremely dedicated to being a "different kind of auto repair" Let us show you how different we really are. Contact our marketing department today and get all the details. You can email us at:

MARKETING@BUTLERAUTOREPAIR.COM

### Did YOU Know?

It's rumored the Chevy Nova sold poorly in Mexico because the word "Nova" is close to the Spanish phrase "doesn't go."



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One of our customers came across the following post on a website not particularly suitable for all readers. However this was much too funny not to share with our fellow car enthusiasts. It is clearly a legitimate ad posting, with a not so legitimate response! Thank you for making our day John S. ② (NOTE-the ad also had a picture of her posing for the camera which was removed and some edits for language have been made by us)

#### \$1500

HELLO I AM LOOKING FOR A FORD EXPLORER! I NEED A TRUCK SO IF YOU ARE SELLING YOURS AND IT HAS NO PROBLEMS WHAT SO EVER THEN LET ME KNOW. I'M A SINGLE MOTHER OF 3 BEAUTIFUL GIRLS AND WE NEED A WAY TO GET AROUND WHERE NO BODY WILL BE ALL CRAMPED UP AND A EXPLORER WILL DO US JUST FINE. I'M LOOKING TO BUY AROUND THE END OF OCTOBER IF YOU HAVE ONE THAT YOU WANT TO SELL THEN GET AT ME A.S.AP.

#### THE RESPONSE - I have a ford explorer for you

Its not really a 1997 its a 1985 and its not really a ford explorer its a ford bronco but its like the same thing

here are the specs if your interested:

- -217,292 miles -transmission is in good shape, 5th gear and reverse work but the rest dont
- -the V6 engine was replaced with a V8, gas mileage is pretty good i got about 12 mpg highway the other day but that was with premium
- -power windows but you have to turn a crank to roll them down
- -tape player it does play but there is a def leppard tape jammed in there and it won't come out. great for def leppard fans!
- -i am a smoker so you can smell it in the car, but ill throw in an air-freshener for an extra 10 bucks
- -it came with front airbag, but it deployed in my last accident and i didnt get it replaced. broncos are safe though so you wont have to worry about an airbag.
- -the air conditioning does not work anymore, but it used to and was really cold.
- -heat works if you drive the car for a while
- -the frame is bent due to an accident with a tractor trailer, but as long as you dont drive over 40 you shouldnt have any problems
- -it can seat five which is good for kids, but the back seat has beer and urine stains. they have been professionally treated with windex
- -the rear window is missing, but has been repaired with saran wrap
- -you will need to have some minor repairs done: new brakes, the rear axle is missing, needs a new radiator and coolant system. i spoke to my friend who knows a lot about cars and he said it shouldnt cost more than a few bucks. im asking for \$7,500 but am willing to negotiate.

let me know what you think -Ted



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