



# FOCUS

The Newsletter of Advanced Power Systems International, Inc. Volume 18 • Issue 14 1<sup>st</sup> Qtr. 2007

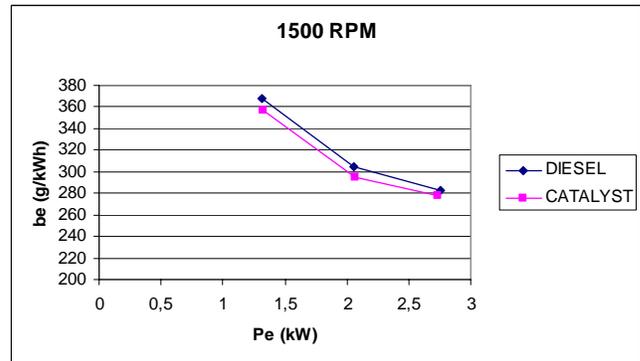
## Laboratory Test Report

### Ricardo/Cusson Diesel Engine Test

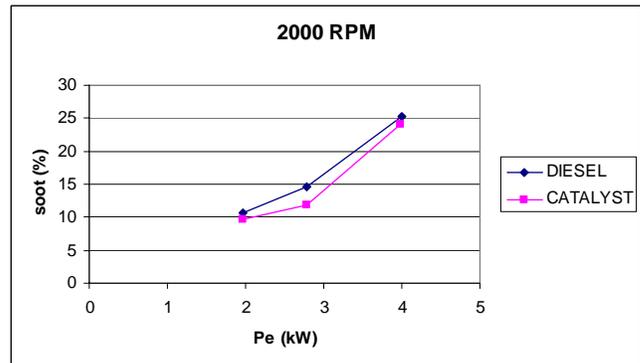
The Ricardo-Cusson Hydra engine is a widely used research tool for internal combustion engine laboratory work. The Hydra design concept enables engines to be built having cylinder bores and strokes within the range 70mm to 100 mm to achieve maximum flexibility. The Ricardo/Cussons "HYDRA" is a direct injection, four-stroke, single cylinder, natural breathing water-cooled diesel engine.

The Fitch Fuel Catalyst experimental procedure included taking measurements with the Ricardo-Cusson engine running at 1500, 2000 and 2500 rpm and capturing three (3) measurements corresponding to 40%, 60% and 80% total load capacity of the engine. During these procedures, the fuel consumption and emissions of the engine were measured for baseline values for comparison of the operation of the engine between running on normal diesel fuel and then running with the Fitch Fuel Catalyst installed.

During the experiments of baseline vs. Fitch retrofit, the following parameters of the operation of the Diesel engine were measured in PPM (Parts Per Million): Fuel consumption, Power, Emissions Temperature, CO, NO, HC, Soot. Peripheral measurements like lubricant temperature and cooling temperature, and exhaust temperature were recorded.



### Fuel consumption with & without FFC at 1500 RMP



### Soot emissions with and without FFC at 2000 RPM

The final results of the experiment demonstrated the following benefits from use of the Fitch Fuel Catalyst:

1. A reduction of up to 3% in the fuel consumption especially in low and middle rpm's and low and middle loads.
2. A reduction in the emissions of HC of 10% and in the high RPMs, 20%
3. A reduction in the emission of Soot of about 15%.
4. No increases in CO and NO,
5. Exhaust temperature of the emissions were lower, especially in low and middle RPMs which agrees with the observed reduction on the fuel consumption.

Test Facility: National Polytechnic Department of Mechanical Engineers

# A NEW LOOK FOR FITCH

# More Satisfied Customers

New Drop In Tank Application Packaging



## 2003 6.6 Duramax Pick Up Truck

Felix Esposito  
Morris, CT



Thanks for a great product!!!

I get better overall performance, smoother running engine and even a slight improvement on fuel economy even though I drive very aggressively.



# PRODUCT REVIEWS

With fuel economy being first and foremost on the minds of most Americans, it's easy to be caught up in the bolt-on modifications that claim to get better fuel mileage. When we added the Fitch Fuel Catalyst to Muscle Car Blog's [Project "Pony Up"](#), an 07 Ford Mustang GT, we found something that actually boosted our project vehicles average highway mileage from 24 to 27 miles per gallon, which is outstanding for a high performance muscle car.

<http://www.musclecarblog.com>

"The Fitch Fuel Catalyst is a maintenance-free device that easily installs in the fuel line. We like the Fitch because it lets you run 87-octane gas on a vehicle designed for 92 octane. This saves you money immediately at the pump. On our '05 Jeep Liberty CRD, we found it increased economy by 1.2 mpg on average."

[Four Wheeler Magazine](#)

Product Power -Aftermarket innovations have the muscle to tackle tough industry issues."

[Aftermarket Business](#)

I've noticed that there are a lot of products on the market these days that claim to improve fuel economy, some of which are bogus. The Fitch Fuel Catalyst is a reputable product that has been independently tested for years. In the event you are ever doing a story about saving fuel, I hope you will keep this product in mind.

[Autochannel.com](#)

## 1974 VW Beetle

In June of 2006 I installed a Fitch Fuel Catalyst on my 1974 VW Beetle. Although skeptical at first about this "magic can," I have seen continued and measurable improvement in both mileage and oil wear. Pre-Fitch the bug was averaging 20-22 mpg city, 23-24 highway. With the Fitch I'm consistently now seeing 23-25 mpg city, and 27-29 on highway. (In six years pre-Fitch, with a professional, perfect tune-up, the best I ever got was 26 mpg highway). With oil, it used to be at 1,500 miles she'd start rough, idle and run rough. Based on this I always knew 1,500 miles and when to change the oil. The last two oil changes, I've gone 3,000 miles before the shaking started.

I drive about 2,000 miles a month for work and the bug is a great car for this - cheap and durable. The Fitch Fuel Catalyst has made it even more so. I

didn't fully believe the Fitch did what it claims until I saw the results on the page. With this old car I keep meticulous records and have found that although the mileage improvement may seem small, it's consistent and translates into roughly 14% better city mileage, 16% highway miles, and 100% longer oil life. For the life of my vehicle this will be a lot of money. The Fitch does what it claims, and I thank you for the savings.

Best of luck,

**J.A. Oberle**  
**Long Beach, CA**



---

### **2003 Ford Mustang GT**

I purchased a Fitch Fuel Catalyst on December 11, 2006 for my supercharged 2003 Mustang GT. Since having the Fitch Fuel Catalyst installed I noticed my car starts easier, an increase in fuel mileage, and also more performance.

I **highly** recommend the Fitch Fuel Catalyst to anyone looking for an increase in performance or just a better running vehicle.

Sincerely,

A handwritten signature in black ink, appearing to read "Dwight Green".

Dwight Green  
11512 – Pippin Road  
Cincinnati, OH 45231

---

### **1999 GMC Sierra 5.3 liter**

I drive a 1999 GMC Sierra 4wd with a 5.3 Liter V8. I have modified the engine with a K&N oversized Air Filter, Long Tube Headers, a high performance Crane Cam, High Flow Catalytic Converters and a series 70 Flow Master Cat-Back exhaust. In addition to this I added a Pro Comp 6 inch lift and 35 inch tires. To help turn the tires I installed 4:56 gears in the differentials.

As you might surmise this list of changes and a additions did not help my MPG figures. My MPG ranged from 12.5 to 13.3. Now that I have added your Catalyst to my fuel line I am getting 15+ MPG. That's a 12.78% to 20% increase in my MPG. Your Catalyst will pay for itself. The ROI will be even quicker as gas prices continue to rise. Not only is my Gasoline bill going to be reduced, Power has increased. There is a hill near where I live that I travel frequently. In the past

I would set my cruise at 55 and let it roll. As I would proceed up the hill my cruise control would have to downshift to maintain speed. Since I installed the Fitch Fuel Catalyst my cruise control does not downshift, no loss of speed is realized and no engine bogging occurs.

This is one product that does what it says it will. Installation took less than 45 minutes. I am glad I found out about your company. I plan on purchasing additional Catalyst for other vehicles.

**Thanks Again,**  
**Dennis Gary**

---

### **2005 Ford Explorer**

"I have had your fuel catalyst on my 2005 Ford Explorer for 7 months now. My vehicle EPA highway mileage rating is 20 mpg. At 70 MPH I am now averaging 23.4 MPG driving thru Kentucky and Tennessee Hilly land. I love it. I want to become a distributor and I need to order some now for three other vehicles. Please contact me ASAP"

**Tec Inc.**  
**Bill Thiessen – President - Fri, 8 Sep 2006**  
**Hendersonville, TN**

---

### **2006 Toyota Tacoma**

Hello, I am the guy who drove up to your location when my Fitch in line unit would not fit properly on my 06 Toyota Tacoma. I wanted to give you an update. I drove to SC shortly after fitting the unit into the truck. Averaged 20.3 mpg at 70 with AC, drove home at 70 with AC averaged 22.9. Dropped units into my Volvo avg, before 17.3, now 19.8, Harley starts right up and no coughing through the carb. Thanks, PS this one is for my diesel generator.

**Thanks,**  
**Richard Shockley**

---

### **2007 Yamaha Snowmobile & 2007 Yamaha ATV**

I am writing to tell you about the great success I have had with your product since I reluctantly bought it the first time 4 years ago at the Novi Snow Show. Now, 4 years later, I am placing yet another order, my fourth, in as many years – this time for my newest acquisitions, a 2007 Yamaha Attak GT Snowmobile and a 2007 Yamaha Grizzly ATV.

I have experienced excellent results with your product and am a true believer that the product is "as advertised".

# Fitch Website News

Check out what is new on our Fitch Fuel Catalyst website – [www.fitchfuelcatalyst.com](http://www.fitchfuelcatalyst.com). New performance tests, product reviews, testimonials, new product information and other current data is now available to download directly. As new test reports, product reviews, newsletters, etc. become available, we will post them on our website making them accessible for you. This will make it easy for our dealers, distributors, reps. and even our retail customers to gather information on “what’s new” with Fitch. If anyone has any information they would like to share, please feel free to forward it to [nora@fitchfuelcatalyst.com](mailto:nora@fitchfuelcatalyst.com)

## Saratoga Auto Museum

Saratoga Auto Museum is now offering the Fitch Fuel Catalyst to their members for use in their Exotic, Classic and Antique cars as a permanent fuel stabilizer. “Drop It In” and forget about it. No more remembering to replenish liquid additive stabilizers for infrequently driven vehicles or automobiles in storage.



I have used the product in several snowmobiles and noticed an immediate gain in Fuel economy. In experimenting with the product we tested it in 2 Yamaha Vipers that were always within 1/4 gallon of each other at fill up. After installing the catalyst in 1 of the 2 sleds to test its merit there was a noticeable difference that occurred almost immediately in fuel economy. Needless to say we installed the product in the other Viper very quickly. The benefit of the product is also very apparent come fall when it is time to get the sleds ready for the season. The first year we did not use any fuel stabilizer whatsoever and I was hesitant and prepared for the worst come fall, but to my delight the sleds with the Fitch Fuel Catalyst fired right up and did not have any sign of bad fuel or carburetion related issues. The product is very affordable and simple to install, and it works. I now use the product in all of my toys and can honestly say that I do not see why anyone who owns a snowmobile, cycle, or ATV would not use this product – it is a no-brainer.

Sincerely,

Shawn Hill

**“Fitch Fuel Catalyst Junkie”**

Vice President

BEACON REALTY CAPITAL, INC.

549 W. Randolph Street, Suite 700

Chicago, IL 60661



**558 Lime Rock Rd.  
Lakeville, CT 06039**