



# FOCUS

The Newsletter of Advanced Power Systems International, Inc. Volume 16 • Issue 12 Winter 2006

## Laboratory & Field Test Reports

Test Conducted by Ocean Air Environmental  
 Test Facility: Holt Equipment Company  
 Trucks Provided by: City of Sacramento & Lindeman Bros.  
 Type of Test: 5 Mode Steady State Testing Procedure



Test Vehicle: **Detroit Series 60**  
 Results: 5.75% Fuel Economy Increase  
 68% Opacity Reduction  
 36% NOX/HC Reduction



Test Vehicle: **Int'l DT466**  
 Results: 5.75% Fuel Economy Increase  
 23% Opacity Reduction  
 6.4% PM10 Particulate Reduction

\*\*Complete test reports available from our website

Test Conducted by: EPA Certified Laboratory, Ronkonkama, NY  
 Vehicle and Engine Emissions Test Services  
 Test Vehicle: GMC 2002 2500HD Duramax Engine



RESULTS: **12%** Fuel Economy Improvement  
**18%** Emissions Reduction

\*\*Complete test reports available from our website



### Fuel Savings: On-road Diesel Engines

Recent on-road trial results					
	DDC Series 60	Cummins M-11	Cummins N-14	CAT C-12(std)	SAE-2 Humvee
Baseline mpg	6.31	6.47	5.55	6.23	11.66
Fitch mpg	6.69	7.14	5.80	6.56	12.28
% Change	6.15↑	10.3↑	4.46↑	5.28↑	5.30↑
\$/k-mile Return	\$27.00	\$43.50	\$23.30	\$24.20	\$13.00

Original data available for inspection  
 Return in dollars per 1000 miles based on \$3.00 per gallon fuel cost

## CODORNIZ DAIRY USES FITCH TO CUT FUEL EXPENSE IN DIESEL IRRIGATION PUMPS



**Cummins 4BT DIESEL IRRIGATION**

**PERKINS-ELMER 145HP DIESEL IRRIGATION**

Before: 8.12 Gals/Hr  
**W/Fitch: 7.38 Gals/Hr**

Before: 6.2 Gals/Hr  
**W/Fitch: 4.8 Gals/Hr**

**SAVINGS: .74 Gals/Hr.**

**SAVINGS: 1.4 Gals/Hr**

**9.2%**

**22.6%**

**\*PAYBACK: 17 Days**

**\*PAYBACK: 9 Days**

## Fitch appears on TV

On July 5, 2005, Australia's Channel 7 News Show Today/Tonight televised a story headlining "A simple device that can be attached to your car is promising to cut pollution, give you more power and it could even save you up to 15c a litre on petrol".



**This TV show created Over 2000 phone calls And emails to our Australian Distributor**

**Congratulations to our Australian Fitch Distributor**  
 Fitch Fuel Catalyst Australia Pty Ltd. Operated by Mr. Don Cameron and Bill Sheather.

"Mark Wilkshire fitted 20 of the devices to vehicles in his company's fleet. With Fitch our cars are getting approximately 120km per tank. They seem to be running smoother and the diesel is blowing less smoke." Testing by the Roads and Traffic Authority would suggest Mark is right. The RTA found emissions dropped a staggering 50 percent after fitting a Fitch."

# Research & Development

Experiments have been completed demonstrating that the Fitch Fuel Catalyst suppresses growth of bacterial in Gasoline, Diesel Fuel, and Bio-Diesel. These research reports are available from APSI in PDF form. The first has been accepted for publication by the American Chemical Society and appeared in the Langmuir Journal Nov 2005 Volume 21 Issue 23.



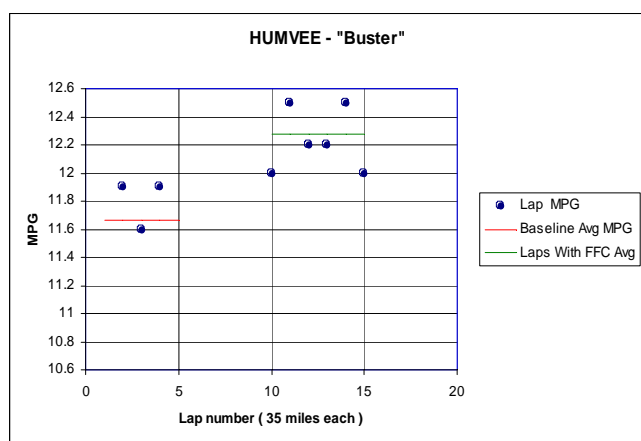
W/o FFC



Exposed to FFC

# GOVERNMENT BUSINESS & RESEARCH

## HUMVEE TEST



In a SAE Type II Road Test of a military HMMWV 6.5 Liter Diesel powered vehicle, the Fitch Fuel Catalyst improved fuel economy from 11.7 mpg to 12.3 mpg.

Another example of a 5% improvement in fuel economy.



## Government Services Administration Business

The US Government purchased \$1.35 million of the Fitch Fuel Catalyst through Advanced Power System's GSA (General Services Administration) Contract. The Fitch applications were used on a variety of diesel and gasoline powered equipment.

# Fortune 500 Companies Use the Fitch Fuel Catalyst

GTE Verizon, one of the world's leading provider of wireline and wireless communications have installed Fitch Fuel Catalyst on all stand-by generators. As GTE Verizon replaces or adds new

generators to their sites, they are equipping them with a Fitch Fuel Catalyst.

ConocoPhillips is the second largest refiner in the US and operates in more than 40 Countries.



ConocoPhillips Indonesia  
Menara Mulia 3<sup>rd</sup> - 5<sup>th</sup>, 12<sup>th</sup> Floor  
Jl. Jend. Gatot Subroto Kav. 9-11  
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Phone: (62-21) 521-0100, 522-2525  
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Philip de Ruwe  
PT. Fitch Indonesia  
Jl. Bypass Ngurah Rai No. 290  
Denpasar - Bali  
Indonesia

October 22, 2003

Dear Philip,

After weeks of testing the Fitch Fuel Catalyst on our Mangsang Water Treatment Plant power generator we have experienced over 10% reduction in fuel usage, which is on average 30 lt of fuel per day. This is in addition to the engine running much smoother and producing almost no smoke while running. Based on these results, we will be placing an order for this unit at the end of the month.

We are also in the process of identifying what other installations and equipment would benefit from the use of the fuel catalyst to maximize our cost savings. Once this list is compiled we will submit it to PT. Fitch for a quotation to supply the appropriate fuel catalysts and will then proceed with the purchase of them.

Thank you for the opportunity to test this unit and provide us the potential of cost savings and reduced emissions on all our liquid fueled equipment

Regards,

Glen McLean  
Maintenance Engineering Coordinator  
ConocoPhillips Indonesia

Philips Electronics Installs Fitch on Diesel Electric Generators Supplying Power to One of its Factories.



Davies Energy Systems, Inc.  
Mr. Dennis Padua  
AVP-Sales Fitch Fuel Catalyst  
2<sup>nd</sup> Floor, Jardine Davies Bldg.  
222 Sen. Gil Puyat Ave, Makati City 1200  
Philippines

To Whom It May Concern;

Working in conjunction with Davies Energy Systems, Inc. , we recently undertook trial for a period of 35 days on one of our gensets (Wartsila 6L32 with an output of 2.3 MW) in order to realize fuel savings. After the trial period, the results that came in were promising.

Comparing consumption before and after the fitting of the Fitch Fuel Catalyst, significant fuel savings were achieved and the Return of Investment(ROI) would likely be in the vicinity of 3 to 4 months. This is particularly encouraging in the light of rising fuel costs. This is a system that we would consider fitting to all our gensets.

Sincerely yours,

Norman A. Nuque

Manager-Energy Services, Facilities  
Plant Services Department  
Philips Semi-conductors Phils. Inc

# Worldwide Hotel Chain installs FFC

## SOFITEL SEMINYAK BALI

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Bali Indonesia  
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Fax +62 (361) 730 545 / 730 558  
Info@sofitelbali.com  
www.sofitel.com

Seminyak, October 27, 2005

Mr. Hans Lambert  
Specialist Fuel Catalyst  
PT. FITCH INDONESIA  
Jl. Danau Buyan No. 47, 2nd Floor  
Saur, Denpasar 80228  
Bali – Indonesia



Dear Mr. Lambert,

Thank you for the time to introduce your product of Fuel Catalyst to Sofitel Seminyak Bali.

After we use the fuel catalyst, we have seen improvement in efficiency. As we can reduce cost 26% from the previous fuel consumption.

This equipment is really saving our energy cost.

We highly recommended of Fuel Catalyst from PT. Fitch Indonesia, as this is not just to maximise our cost saving but for the more important one is to keep our better environment.

Best regards,

Ove SANDRITOM  
General Manager



002/026/004

01-01-2004

Mr. Hans Lambert  
Specialist Fuel Catalyst  
PT. Fitch Indonesia  
Jln. By Paes Ngurah Rai no: 250  
Denpasar \_ Bali . Indonesia

Dear Mr. Lambert,

Thanks a lot for the time to introduce your product of Fuel Catalyst to Maya Ubud Resort, and after I doubt for our boiler for about 3 weeks. We got some changing in the system, such as: the burning area and the timing to boiling of the water. All the result that we got since we used the fuel catalyst was very satisfy and the data of fuel consumption record is very incredible.

Before we used fuel catalyst, the fuel consumption of our boiler is 200 liter per day with the average occupancy 30% from the total of 108 rooms. Now after we used Fuel Catalyst the consumption of fuel drop become 175 litre. With the same average occupancy.

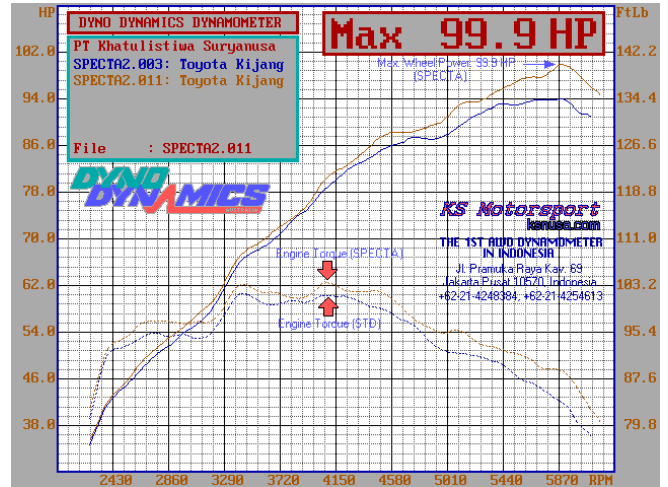
We love to say that since we use fuel catalyst we can save for 12.5% of fuel. Now we run our boiler with fuel catalyst for five month (since August 2003) and the result that we can get not just fuel saving, but the running hours of our boiler become shorter. The combustion flame colour more blue and the burning area of boiler more deans. This condition we got when we do the monthly maintenance.

On this condition I am enormously grateful to you for Introducing me of Fuel Catalyst From Fitch Indonesia.

Thank you,  
Paryono  
Chief Engineer & Spa  
Maya Ubud Resort & Spa

# Fitch Testing Performed by Independent Media in Jakarta

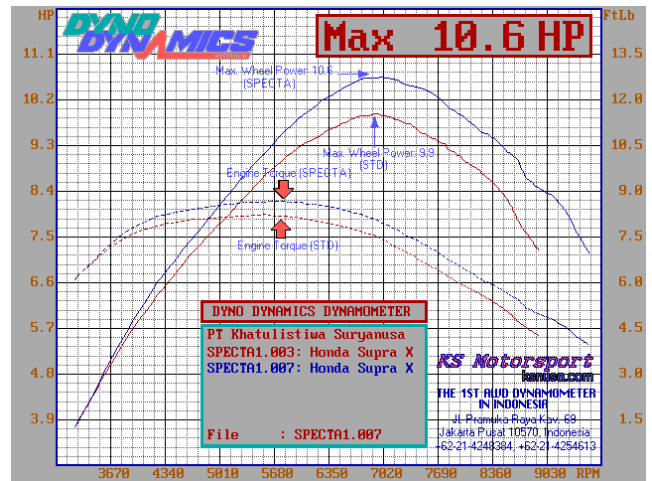
## Toyota & Honda Participate in Televised Dyno Testing



Test Vehicle : Toyota Ki-jang

Results: 5.9 increase in HP

13.3% fuel economy increase



Test Vehicle: Honda Supra X 125 CC

Results: 6% increase in HP

34% fuel economy increase

# Now Available



Easy to install "quick connect" installation kits for domestic and foreign manufactured automobiles, SUVs, & trucks.

# Automotive Testimonials

"We installed an F200 catalyst into our Toyota RAV 4, 2wd, 2003 the day before our road trip to the keys. We did not have to refuel until after 5 days and obtained around 50 extra miles. We traveled over 300 miles in that trip. Today after 3 months, I consistently receive 50 miles (city + 1 day long distance commute) to 80 extra miles (city w/ 3 days long distance commute). So far, we are very happy with the results and are going to install a catalyst in our other vehicle."

*Adriana Sanchez Gomez, Founder and CEO ~ Energy Consultants (FL)*

"I have an older model Chrysler Concorde with a 3.5 liter high performance engine that has never ran well on anything but 91 Octane or greater. I have tried using the cheaper 87 Octane fuel several times and it caused 'engine knock' and 'engine run on' which made the car sound like a diesel! After installing the drop in Fitch Fuel Catalyst I decided to try the 87 Octane fuel again just to see what happened. Amazing is all I can say! I wish that someone had sold me Fitch 10 years ago, I calculated the savings and it would have been over \$ 1500.00 in savings for my \$ 149.00 investment. Now I am getting better gas mileage and saving 20 cents per gallon just by being able to use the cheaper fuel."

*Jeff Eagle, US Navy Submarine Force, Ret (KS)*

"I have a 2000 Toyota Tundra V8 that I use for daily commutes in my insurance business, as well as on the weekend towing my boat to the lake. Jeff Eagle sold me one Fitch Fuel Catalyst ...all I can say is, what a difference! My mileage has improved about 2.5 - 3 miles per gallon depending on driving conditions. That works out to almost a 16% increase in fuel economy. I am so happy with the results that I bought one for my boat and I just ordered one for my new 2005 V8 Sequoia." *Steven Mainville, Mainville Insurance Agency - Overland Park, KS.*

"My 2004 Subaru Forester Turbo (4 cylinder) was rated on the window sticker to get 19 MPG city and 23 highway. I had the Fitch 6T installed in late April 2005 and have averaged 22 MPG in the city. That's a 16% increase, plus the car runs more smoothly and it cleans up the whole fuel injection system even though I continue to use premium grade fuel. On a recent highway trip I got 26-27 MPG (a 15% improvement over its rated highway MPG of 22). In August 2005 I ordered two more for both of our family's other vehicles, a 1998 Subaru Legacy GT (4 cyl) and a 1999 Chevy Silverado pickup (V8). I also use the small drop-in units in a gas tank for my weed eater and lawnmower. Before I used to have to pull the chain several times and a lot of black smoke came out. Now they start right up with no smoke!"  
*John Yeradi, Piano Tuning Business Owner (KS)*

## Fitch Welcomes

### Defense Product Marketing



DPM principals are retired top managers of federal vehicle programs. They average more than 25 years' hands-on experience in Federal vehicle and equipment policy, procedures, management, and acquisition. They have a thorough understanding of procurement complexities, an unequalled network of contacts — and the all-important "customer's perspective." APSI looks forward to working with the DPM team.

**APSI would also like to welcome the following new distributors and sales representatives both internationally and domestically.**

Femec – Brazil  
Karsen Automotive – Turkey  
PT Astra – Indonesia  
Depolmar – France  
Comexport – Switzerland  
ATIX – Trinidad  
Clear Air Plus – Int'l Marine Market  
Impexco – Curacao, Aruba, Bonaire

Krystal Planet  
Ecologicx First  
OEM Supply  
Rocky Mtn. Gas Saver  
Zeno Tech  
Fergan Auto Parts



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