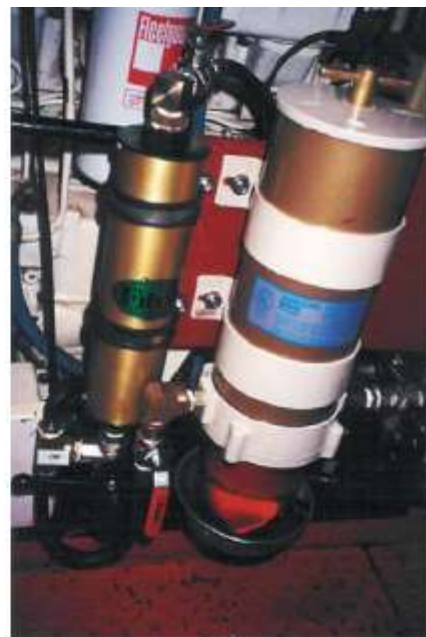


# FITCH FUEL CATALYST



Manufactured by Advanced Power Systems Int'l

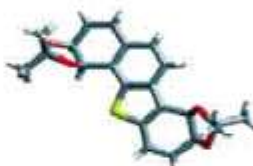
Distributed by Power Fuel Savers LLC  
Long Beach, CA ~ on the web at [www.pofusa.net](http://www.pofusa.net)  
Contact: Mark Phillips at (562) 537-0165



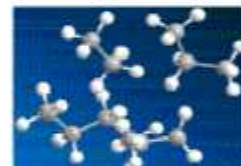
## DEFINITION OF A CATALYST

A substance that speeds up a chemical reaction without itself undergoing any permanent chemical change

What does the Fitch Fuel Catalyst do to Diesel Fuel?



Poly-nuclear Aromatic Molecule



Aliphatic Molecule

- Reduces Concentration of Aromatics
- Increases Concentration of Aliphatics
- Releases More Inherent BTU Energy

## HOW DOES FITCH CHANGE DIESEL?

- Polynuclear Aromatics reduced
- Aliphatics simultaneously increased
- Increases the H-C ratio  
Percentage of branched hydrocarbons are reduced.
- Percentage of long chain hydrocarbons are increased.  
These are ideal for combustion.
- Cetane number is increased.
- Fitch Fuel Catalyst reverses the natural degrading process of diesel

## ASTM Analysis of Low Sulfur Diesel Fuel DF-2 Discussion of Results

Both the untreated and treated fuel are within specification and suitable for commercial use. The fuel treated by the fuel catalyst had superior characteristics compared to the untreated fuel in the following categories:

- ASTM D5291 Ratio of Hydrogen to Carbon**
- ASTM D613 Cetane Number**
- ASTM D6079 Lubricity**
- ASTM D86 Distillation Points**
- ASTM D6591 Polyaromatic Hydrocarbons**

The fuel exposed to the Fitch Fuel Catalyst is preferable from the perspective of the consumer and would be our recommendation compared to the untreated fuel.

*Intertek Caleb Brett Laboratory, May 26, 2006  
(full report available upon request)*

# Commercial Diesel Marine Application

Warranted for 500,000 miles or 10,000 operating hours



Fitch HDG Units



Fitch FHD Units



Fitch Sleeve Units

- Increase Fuel Economy
- Reduce Emissions
- Reduce Equipment Maintenance
- Increases Acceleration
- Reduce bacteria growth
- Stabilize fuel
- Warranted for 10,000 operation hours



## FUEL CONSUMPTION

	Refill 1	Refill 2	Refill 3	Refill 4	Refill 5	Refill 6	Refill 7
<b>Pre-Installation (Before installing Fitch Fuel Catalyst)</b>							
Date (d/m/yy)	2/5/2007	3/5/2007	4/5/2007	5/5/2007	6/5/2007	10/5/2007	12/5/2007
Qty (Ltr)	951	486	596	157	486	720	485
<b>Post-Installation (After installing Fitch Fuel Catalyst)</b>							
Date (d/m/yy)	23/05/2007	1/6/2007	4/6/2007	6/6/2007	8/6/2007	13/06/2007	16/06/2007
Qty (Ltr)	608	284	431	396	764	406	447

Tot. Mins. Operated (Pre-Installation)
1881

Tot. Mins. Operated (Post-Installation)
2167

Consumption Rate Before = 3881 liters / 1881 minutes = 2.06 liters/min

Consumption Rate After = 3336 liters / 2167 minutes = 1.54 liters/min

Drop of  
~25%



OHIO RIVER TUG BOAT POWERED WITH TWO 3600 HP EMD  
ENGINES RUNNING AT THE SAME RPM



THE VIEW IS FROM THE STERN LOOKING FORWARD TOWARD  
THE BOW, THE STARBOARD OR RIGHT SIDE ENGINE IS  
EQUIPPED WITH THE FITCH FUEL CATALYST, THE OTHER  
ENGINE IS NOT

**Fitch Fuel Catalyst suppresses microbial growth in DF-2**



Untreated and Fitch Treated Diesel



# Testimonials from Commercial Fishermen

I would like to provide some information to you regarding the use of the Fitch Catalyst for my 37' Pacific Trawler with Cummins 6BT5.9M engine during 1999. During 1998, we recorded 228.7 engine hours with 683.8 gallons consumed for a figure of 2.99 gallons per operating hour.

During 1999, since last winter's installation of the Fitch, we recorded 256.1 engine hours with 646.6 gallons consumed for a figure of 2.52 gallons per operating hour. This unscientific study produced a **fuel consumption savings of 15.7%** since the previous period. In addition, there was a **marked decrease in exhaust soot** at the transom. We probably didn't wash the transom more than 3 times the whole summer. Another thing we noticed was that **pyrometer readings were consistently 10-15 degrees below identical engine rpm settings of the previous year**, although there may be some variance due to different load conditions. We did not consciously operate the engine any differently in 1999 compared with 1998, and with the number of operating hours, a significant variance probably does not exist that could be attributable to load, weather and other variable conditions.

The Fitch Catalyst in our application also treats diesel oil sent to our Espar furnace, Northern Lights generator and Dickinson cabin heater, and we have also noticed a **decrease in sooting** from all these units. In the case of the furnace, this was the first cruising year where maintenance to clean the unit was deferred until next year. We are very happy with the Fitch Catalyst. **Best Regards, Jay Niederhauser, Puget Sound Washington**



My crew and I just completed our 22<sup>nd</sup> albacore tuna fishing season operating out of Astoria, Oregon on my boat the f/v "Tommie Si". In preparing for the 2008 season, and at the suggestion of one of my fellow fishermen in Fish Harbor who had had a positive experience with your product, we installed a Fitch fuel catalyst unit on the main Detroit 671 engine. This was the year marine diesel in SOCAL reached an all-time high of \$5 plus

I am diligent about keeping accurate records on all the ship's operating expenses and pay particular attention to the amount and cost of the fuel required for each trip out of Astoria. Going back about 20 years prior to the 2008 and 2009 seasons, we would typically top off the tank with 2200 to 2300 gallons before every 2-3 week trip. Over the past 2 seasons, with the installation of the Fitch Fuel catalyst, I have noted a drop in that average to approximately 1900 gallons. *Excerpt from Testimonial letter by Lowell Jundy, Owner-Operator of f/v Tommie Si*

The first thing I noticed was an **immediate drop in the noise level** coming from both engines. They both seemed to run a lot quieter and smoother. Also, the **air quality around the boat improved dramatically** while we baited the hooks with the generator engine running (probably from reduced carbon monoxide which used to make us drowsy). The generator consumes a consistent 1 gph and it's difficult to document much fuel reduction when there is so little used to begin with, but it all adds up! One thing I was able to document was an **increase in engine speed and voltage (~4 volts) produced by the generator**. This allowed me to recalibrate the governor on the engine to achieve the normally required 117 volts and thereby know that I was saving some fuel.

The main propulsion engine is used about 6 hours at high speed while in transit to and from Catalina Island and another 4-6 hours at slow speed while we are handling our lines. After several trips, I was able to calculate, after subtracting out the consumption related to the generator, a reduction of between 8 to 10 gallons per day (~1/2 gph) over my previous burn rate. *Excerpt from Testimonial letter by Phil Schenck, Owner-Operator of f/v Terri's Gale*



We installed the Fitch Fuel Catalyst on the 3406 Caterpillar main engine in the fishing boat I am captain of. We currently fish albacore in the north and south pacific. The Fitch was installed with 3 way valves so we could choose to use it or bypass it and track any consumption differences with the "Flow Scan" fuel meter on the main. What we found was at 1250rpm we used approximately ¼ of a gallon an hour **LESS** fuel and approximately 1.5 gallon an hour **LESS** at 1450rpm. That equates to about 1500 gallons **LESS** fuel used on a 90-day trip. As you can see it effectively extends the time we can spend at sea. We should use around 4500 gallons less fuel in the coming year and that means a **dollars savings of about \$3100.00 @ .70 per gallon**. Considering the cost of the Fitch that's the best deal I've had in a long time! Please send 3 more units so we can install them on our generators, 2 sized for the 3404's and one for the 12kw Isuzu. **Captain Bart Matthews, F/V Maverick, March 2000**