

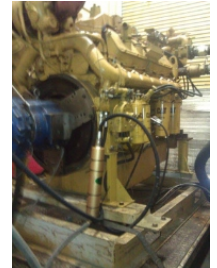
Power Generation

Worldwide Applications

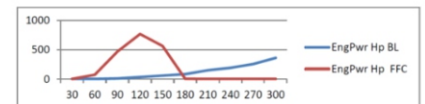
1. CAT 3412 Gen-Set, 3412 Propulsion Engine, 3406 Gen-Set-Hawthorne Caterpillar San Diego, CA

- Field test on Caterpillar 3412 gen-set on a vessel in the South Pacific.
- Water Brake dynamometer test on a Caterpillar 3412 propulsion engine at the Hawthorne Caterpillar dealer located in San Diego, CA.
- Resistive/reactive load bank test on a Caterpillar 3406 powered 300 KW gen-set at the Hawthorne Caterpillar dealer located in San Diego, CA.

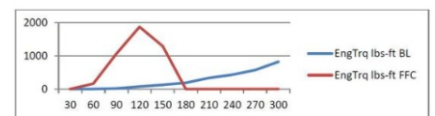
Results: Engine performance (horsepower and torque, responsiveness and noise) benefited from the presence of Fitch treatment. The ramp mode data (2 sets with FFC verses one baseline) indicated significant fuel savings when data are normalized to horsepower and torque produced by the engine. Also, it is obvious from the comparison of the 4 sets of graphs of the ramp mode data that engine performed better with the FFC fuel. The engine reached much higher levels of torque and horsepower with the FFC treated fuel. Fuel savings were significant and well documented in all three evaluations.



Horsepower Comparison second FFC run verses Baseline



Torque Comparison second FFC run verses Baseline



2. 25MW Turbine- Constellation Energy Baltimore, Maryland

Engine: Westinghouse 251AA 25 Megawatt diesel fired turbine
Facility: Operated by Constellation Energy - Baltimore, Maryland
Results with Fitch installed -

- Reduced Visible Smoke
- Improved "light-off" time from 12 to 2 sec
- Improved effective "light - off" 95% vs. 65%



3. Codetel, Dominican Republic (Testimonial)

"We have had the Fitch Fuel Catalyst working on 452 generators. During this time, we have been able to corroborate savings in fuel of at least 7.6% per unit. Furthermore, we have found with great surprise, that due to the fact that the fuel is pre-treated by Fitch, it burns better and much cleaner than before thereby reducing the maintenance that was required for the units. For example, it is our custom to give maintenance to the units as per the manufacturer's recommendation. Nevertheless, we have found our generators with the FITCH unit are in optimal condition (cleaner and with little residue) and we understand that this must clearly contribute to a longer life of the equipment."

Aníbal Sierra, Supervisor of Generators, Codetel - Republica Dominicana

4. **Phillips Semi-conductors, Philippines – (Testimonial)**

“Comparing consumption before and after the fitting of Fitch Fuel Catalyst, significant fuels savings were achieved and the Return on Investment (ROI), would likely be in the vicinity of 3 to 4 months.”

Brand: Wartsila 6L 32- output 2.3 MW

Test Fuel: Bunker C – heavy fuel oil

Results: 4 % Improvement - Consumption reduced from .274 liters per kilowatt hour to .263 liters”

N. Nuque, Manager-Energy Services, Philips Semi-conductors Phils, Inc. Philippines

5. **Indonesian Power, Bali – (Testimonial)**

“We are pleased to give you our Gas Turbine Technical Data with the following details:

Brand: Westinghouse- USA

Model: CW 251 B11

Capacity: 39 MW

Specific Fuel Consumption: .367

Serial Number: 4658126

Fuel Consumption Reduction after Retrofit with Fitch: 5.8%”

IR. DRS. Bardan KS. MM, General Manager, Indonesian Power, Bali

6. **Honda Siel Cars, India – (Testimonial)**

“We have complete power house (installed capacity of 11500 KVA), comprises of total 07 Nos. DGs Set (02 Nos. X 2000 KVA each + 05 Nos. X 1250 KVA each) and running as per production requirements. On an average, daily HSD consumption in power house is 20-21 KL. Recently we installed Fitch Fuel Catalyst in 2000 KVA DGs set and results are a >7% savings. We will also like to mention that after installation of Fitch Fuel Catalyst, there is a sharp decrease in the emissions.”

S. Aggarwal, Sr. Manager, HONDA Siel Cars India, LTD. , India

7. **Tata Industries** - Tata Industries, one of India's largest conglomerates continues to outfit diesel locomotives used in switching yards at various steel mills.



8. **Golden Alaska** - The 305 ft. fish processing vessel Golden Alaska, which first started using Fitch in 2014, closely monitors its fuel consumption at all times and reports an increase in fuel efficiency of 8.51 percent when using Fitch Fuel Catalyst to treat fuel.

In addition, “There has been a clear reduction in smoke and a significant reduction in carbon build up which translates into reduced engine maintenance and unscheduled downtime,” Mark Purdue, Chief Engineer, Golden Alaska Seafoods, LLC.

Posted by Eric Haun, January 5, 2017

<https://www.maritimepropulsion.com/news/fuel-catalyst-makes-engines-520372>

9. **Tri Marine Group** - Tri Marine Group recently launched it's newest purse seiner, the state of the art Cape Ann with 2FHD 10's (Fitch units which reformulate the diesel fuel flowing at a rate of 10 gallon per minute) at the shipyard. The 262 ft. Cape Ann was built at the Armon Gijon shipyard in Gijon, Spain and will sail out of Pago Pago, American Samoa.



10. **Pacific Islands** - In addition to the several hundred Pacific Ocean based commercial fishing vessels using the Fitch Fuel Catalyst, the Fitch Fuel Catalyst can be found on dozens of diesel or oil powered land based installations throughout the Pacific Ocean, These range from commercial fish processing plant to luxury hotels. One example is the Amanpulo Resort which has been using Fitch for 6 years on the three generators which supply all the resorts electricity. The resort has recorded a 13.5% decrease in diesel consumption. Equally important they've reduced harmful emissions by a commensurate amount.



11. **Conoco Phillips** – Mangsang Water Treatment Plant – (Recommendation Letter)
“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...”.