# **Commercial Fishing Boat And Tugboat Applications**



### **Reduces Fuel Consumption and Extends Range**





**Energy and Emission Solutions** 



## Rentar Fuel Catalyst is Independently Verified to:



- Reduce Fuel Consumption And Extend Range 4.0% To 12.0%
- Extend Range per Gallon
- Reduce Greenhouse Gases (NOx, CO and CO<sub>2</sub>) Up To 19.2%
- Reduce Particulate Matter (PM) Up To 58.2%
- Reduce Black Smoke (Opacity) Up To 44.8%
- Extend Engine Life Between Engine Rebuilds 20%
- Reduce Organic And Elemental Carbon Up To 35.0%
- Reduce Volatile Organics up to 63.0%

Results vary based on the applications, type of engine and type of fuel utilized

**RENTAR** Fuel Catalyst

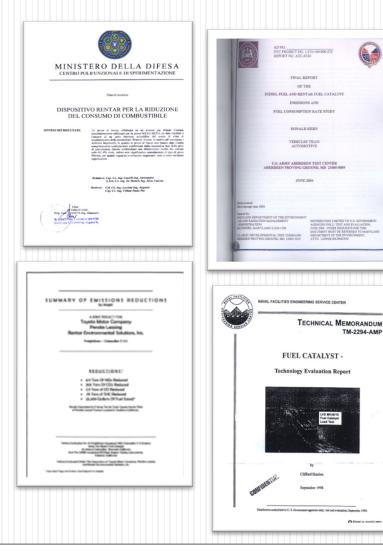
### Proven Benefits of the Rentar Fuel Catalyst to Commercial Fishing Boats

- Reduced Fuel Consumption
- Increased Range
- Reduced Greenhouse Gas Emission
- Reduced Exhaust Smoke and Soot
- Extends Engine Life
- Extends Oil Life
- Reduces Engine Maintenance
- 10 Year Warranty
- Easy to Install
- Sole Source Technology with 33 Issued Patents
- Pays for Itself in Fuel Savings in 3 to 12 Months





## Independently Laboratory Verified By:



- Southwest Research Institute
- EPA & CARB Recognized Laboratories
- US Army's Aberdeen Proving Grounds
- Olson Ecological Laboratories
- Virginia Tech University



## Commercial Fishing Boats And Tugboats Reduce Fuel Consumption and Extend Range

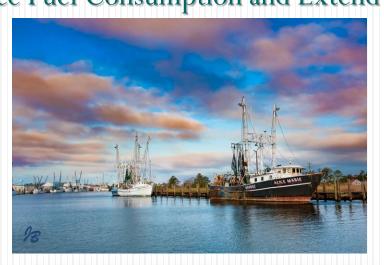




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#### **RENTAR** Fuel Catalyst

### **Testimonial Letters**



Date: 02/05/2012

#### To whom so ever it may concern

This is to certify that HBL -Rentar Fuel Catalyst having following specifications have been installed at Tata Motors Ltd., Lucknow plant

Sr No.	Model No.	Qty	Mounted on Equipment
1	HBEN 2012	02 Nos.	1010 KVA Cummins DG
2	HBEN 2012	02 Nos.	1010 KVA Cummins DG

Since the installation, Fuel catalysts are performing to our satisfaction at above mentioned DG sets. We are pleased to confirm that we have achieved saving of 15.57% on specific fuel consumption.

For M/s. Tata Motors Ltd.



TATA MOTORS LIMITED Chinhat Industrial Area Lucknow 226 019 Tel 91 522 28118012 28118020 28118032 Fax 91 522 281180346 istend Office Rearbax Hours 24 More Mark Street Murchai 400 001



Mahindra & Mahindra Ltd Agri Development Centre Tractor Division Kichha Road, Lalpur (Rudrapur) DistL Udham Singh Nagar - 283143 Tel: 91-05944-280724 Fax: 91-05944-280724

Ref no: M&M/RDP/HBL/1204/24

Fel : 91-05944-280723 / 25 Fax: 91-05944-280724 Date: 24<sup>th</sup> April'12

#### TO WHOM SO EVER IT MAY CONCERN

This is to certify that HBL RENTAR fuel catalyst has been installed on our generators and boiler applications.

The performance of HBL RENTAR Fuel Catalyst has been good and about 6% HSD saving achieved.

We appreciate the green energy efforts of M/S HBL Power System LTD. towards reducing the fuel consumption and carbon emission.



ered Office: Gateway Building Apollo Bunder, Mumbai-400001. Phone:2202 1031.Fax : (022) 2202 8780 / 8990



#### March 21st 2019

We at Mineração Maracá Indústria e Comércio, a YAMANAGOLD job site, have successfully piloted the Rentar fuel catalyst model HBEN 2012 on our CAT 785C haul trucks with results that surpassed our objectives for fuel efficiency with a payback of less than a year. As a result, we have purchased the Rentar fuel catalyst for installation on our fleet.

We are pleased with the support from SOTREQ, our Rentar dealer, and from the direct relationship with the manufacturer itself. We are also pleased with the trouble-free performance of the catalysts, to date.

We are looking forward to our continued use of the Rentar fuel catalysts.



Maintenance Coordinator Tel: +55 62 3383-4049

YAMANAGOLD 15

Mineração Maracá Indústria e Comércio Rodovia GO 347 s/n – Fazenda Genipapo Alto Horizente GO – Brasil 76560-000

http://www.yamana.com

## Charter Fishing Boat Fuel Consumption Reduced 16.64%

The charter fishing boat "WhipSaw" operates in Ko'Olina Hawai and installed the **Rentar Fuel Catalyst** on their two engines. The results as documented in a published report recorded an overall 16.64% improvement in fuel consumption. In addition, the opacity (black smoke) was cleared up so significantly that cleaning to the boat's transom was reduced from every trip to no more than once per week.







Automotive Research Association of India

#### is co-operative industrial research association by the automotive industry with the Ministry of Industries, Government Of India



Testing Conducted on 6SL8800TA 200 KW Kirloskar 250 Genset Engine Tested with ISO: 8178 D2 - 5 Mode Test Protocol 3.04% Fuel Improvement 58.2% Reduction of Particulate Matter 7.9% NOx Reduction 35.4% CO Reduction 15.4% Hydrocarbon Reduction Ever Test Study



World's Largest Inspection and Technology Verification Company

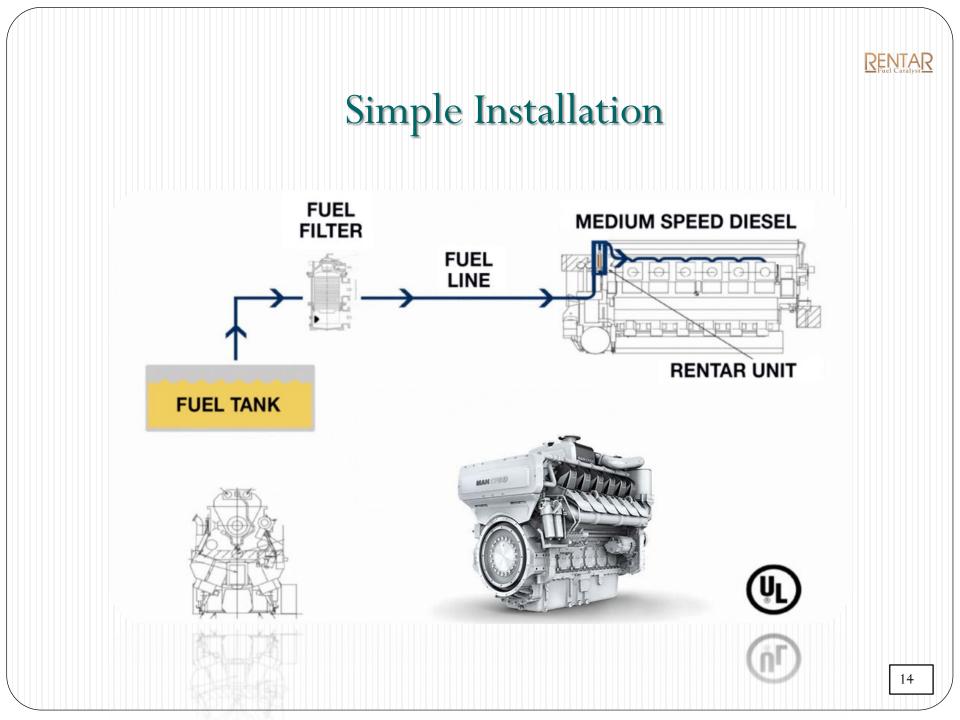


SGS Verifies a 17% Fuel Reduction\*, a 27.5% Reduction of  $NO_x$  and 32.5% Reduction of CO.



- Over 97,000 employees
- Over 2,600 offices and laboratories worldwide
- Conducted an emissions study on the Rentar fuel catalyst in 2016
- World's largest inspection and technology verification company





### Credentials







World's 4<sup>th</sup> Largest Caterpillar Dealer A Rentar Distributor 400 Offices - 4300 Employees



### Air Resources Board Wig D. Mode Colomas Ming D. Mode Colomas Ming D. Mode Colomas Automatic Advances

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Ranke Environmental Solutions, Inc. 1923 Parame Rand West Patro Beach, PL 30414 Dear Mr. Globons: This is in response to your respect for ecomption of Rental

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Committee Hackert Arretes Hackert Chief Massie Source Operations Division Entranse

California Resource Board

Executive Order (CARB)



### **Rentar Case Studies**

### CASE STUDY



#### COVANTA ENERGY

Covanta Holding Corporation (NYSE: CVA) is an international owner and operator of Energy-from-Waste power generation projects converting municipal solid waste into renewable energy for numerous communities throughout the United States.

2009 consolidated operating revenues were \$1.55 billion with \$397 million in operating cash flow and adjusted EBITDA of \$515 million.



Installed Rentar Fuel Catalyst on entire fleet of heavy-duty diesel vehicles at 28 plants around the United States.

- 5% reduction in fuel consuption.
- 43.6% reduction in CO2 emissions.
- 75.9% reduction in CO.
- 47.7% reduction in NOx
- 52.6% reduction in particulate matter.

### CASE STUDY



#### U.S. ARMY

Located in Hartford County, Maryland on 79,000 acres with research capabilities in Automotive; Environmental Effects & Technologies; Fire Control; Firepower; Support and Survivability/Lethality; Warfighter & Support Equipment.





The Aberdeen Test Center tested Rentar units on a Navistar International 359.9 cu. in, 170 hp. diesel engine and reported the following:

- 3.6% Fuel Consumption improvement.
- 3.6% Extended Range improvement.
- 12% NOx improvement.
- 14% CO2 improvement.
- 17.4% CO improvement.
- 12.6% HC improvement.
- 10.9% O2 improvement.

### CASE STUDY



#### TOYOTA

Toyota Motor Company, established in 1937, is today the world's largest automobile manufacturer by sales (7,051,000 units FY 2009), with 320,808 employees building autos under the DAIHATSU, HNO, LEXUS and TOYOTA brands.



Toyota has installed Rentar Units of all their auto transport trucks operating in the Port(s) of Long Beach & Los Angeles with the following results:

STEADY STATE (Highway Driving)

- 11.3% Fuel Consumption improvement.
- 42.2% Particulate Matter improvement.
- 9.7% CO<sub>2</sub> improvement.
- 33.5% Carbon Monoxide improvement.
- 36.8% Total Hydrocarbon improvement.

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## Logos of Rentar Fuel Catalyst Purchasers







American Bureau of Shipping







## THANK YOU

### **Rentar Environmental Solutions, Inc.**

**Manufacturer of the Rentar Fuel Catalyst** 

Contact: Joel Ratner - Telephone: (561) 790-0093 Email: JoelRatner@Rentar.com

Website: DieselCatalyst.com