

Aquametro Oil & Marine in fuel metering



Aquametro Oil & Marine our mission



Wherever you go, you'll find Aquametro Oil & Marine diesel fuel meters. From coal mines in Russia to the grain fields in the Ukraine, from the Highways in the US and Canada to the railway in Romania, our products and solutions for fuel metering are hard at work.

Aquametro Oil & Marine provides specific products and solutions that help our customers to improve fuel efficiency, increase productivity and reduce diesel fuel consumption cost.

About Aquametro

From 1928 onwards, the name Aquametro has been synonymous with metering technology - through the many generations of quality products and practical solutions we have provided. We are continually aware of the variety of specific requirements needed throughout the world - whether technological, economical, ecological or cultural - and this determines the way we act.

Our closeness to the market is based on our constant readiness to break new ground in our quest for optimum solutions. The experience and skills we have gained in this way are adopted in our daily work by both our operatives in Switzerland and our offices and representatives throughout the world.

Aquametro Oil & Marine our mission



Aquametro Oil & Marine is the world's leading manufacturer and supplier of volumetric diesel fuel metering and optimization solutions for construction and mining equipment, diesel engines and gensets, diesel-electric locomotives, agricultural equipment and marine/river ships.

The Aquametro Oil & Marine product line consists of more than 100 different fuel meters, especially designed for tractors, trucks, graders, excavators, scrapers and other heavy machinery used in the construction, mining and forestry industries.

Aquametro Oil & Marine fuel meters are the right choice!

Aquametro Oil & Marine DFM products and solutions



The fuel metering represents the most rugged-use applications in the world. To meet these demands you need strong, reliable diesel fuel meters which measure the diesel fuel consumption under all circumstances and environmental conditions!

Aquametro Oil & Marine DFM diesel fuel meters and solutions are designed especially for these rugged environmental conditions:

- ✓ Mechanical shock tested up to 30g!
- ✓ Vibration tested up to 4g to all 3 axis under constant vibration
- ✓ Tested against electrical emissions and immissions (vehicle industry standard)
- ✓ Useable for diesel fuel with temperature of -30°C ... $+80^{\circ}\text{C}$
- ✓ Ambient temperatures of -40°C ... $+125^{\circ}\text{C}$
- ✓ High protection class of IP66
- ✓ Rugged design of flow meter and housing



Aquametro Oil & Marine Fuel metering

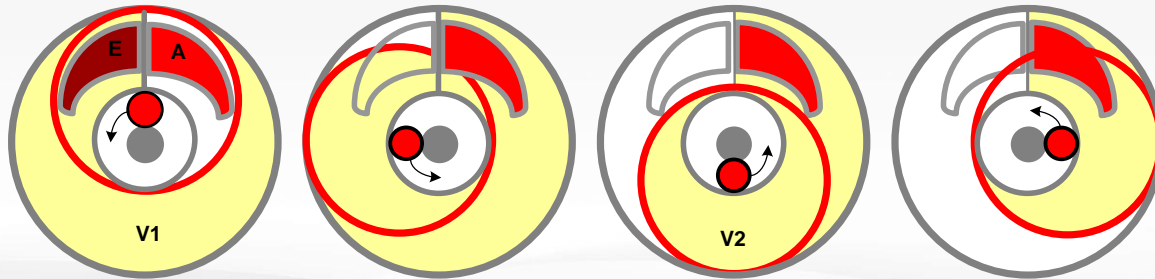
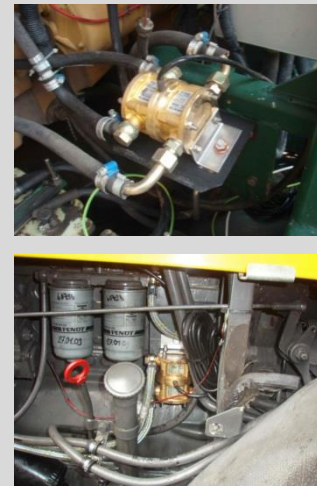


The need for accurate and reliable fuel metering methods was created by the rising cost for fuel and the need for fuel saving by theft prevention, improving driving habits and monitoring the vehicle trips. The accurate information on diesel consumption gives you feedback for:

- possible fuel theft
- lower fuel consumption through improved driving style
- real time fuel consumption
- less emission
- improved vehicle performance
- control and feedback

With the use of accurate fuel metering, savings of 6...16% on fuel consumption can be achieved!

Aquametro Oil & Marine DFM Function



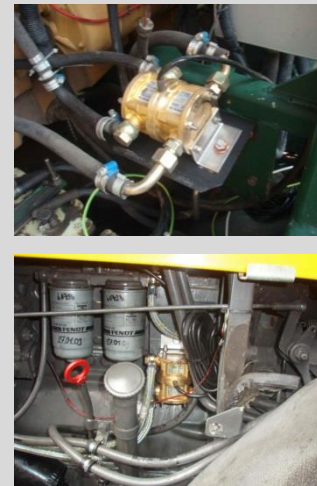
Function:

The ring piston carries out a rotational movement within the flow meter chamber. Due to the eccentric movement of the piston, the space within the ring and outer space between the wall of the flow meter is filled through the inlet opening E. After the filling sequence, the fuel is emptied through the outlet opening A.

The movement of the ring piston is recorded by means of electronic sensors. One rotation of the flow meter corresponds to a defined flow rate.

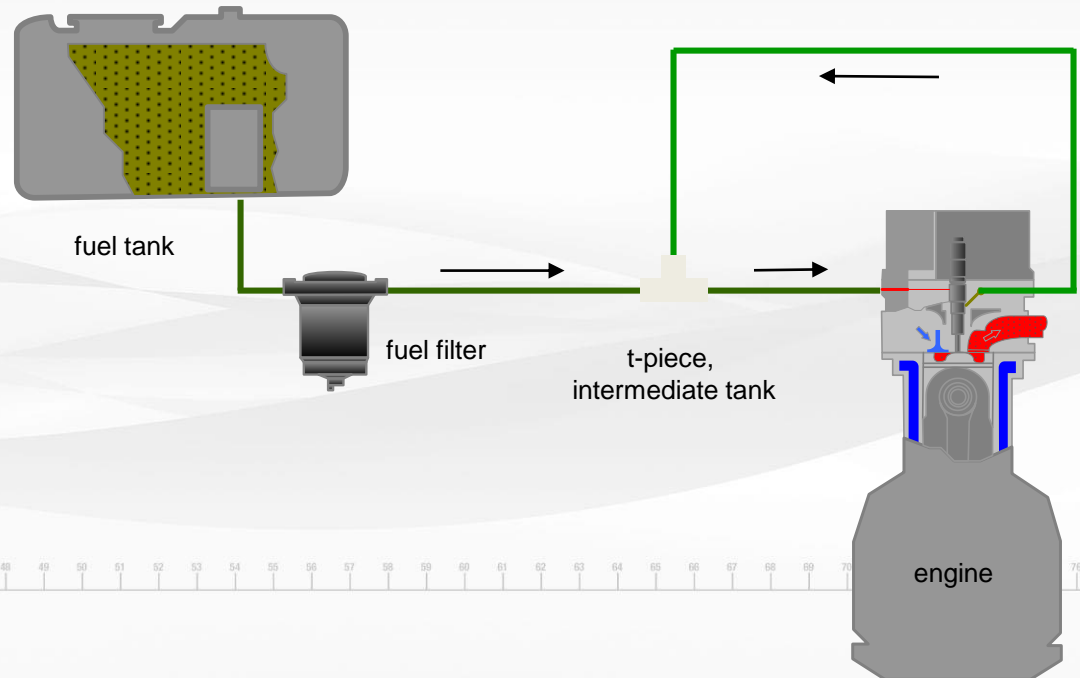
In the case of DFM 8 D, two flow meters are combined into one unit. By means of the first flow meter (V), the fuel is metered, i.e., the fuel that is delivered from the tank to the motor. By means of the second flow meter (R), the fuel return is metered; fuel return is excess fuel which is not required by the motor and thus flows back into the tank.

Aquametro Oil & Marine Fuel Schemes



Direct measurement:

Fuel supply line coming from the fuel tank is directed to engine. Exceeding fuel is flowing back to the supply line via a t-piece or intermediate tank

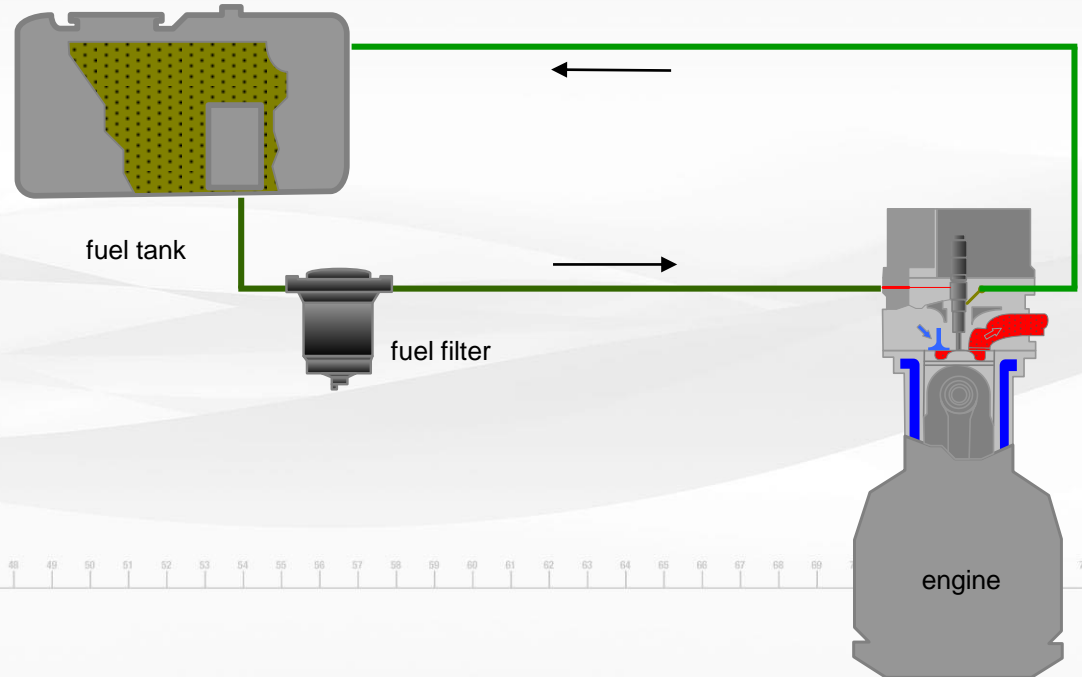


Aquametro Oil & Marine Fuel Schemes



Differential measurement:

Fuel supply line coming from the fuel tank is directed to engine. Exceeding fuel is flowing back to the tank.



Aquametro Oil & Marine DFM Product Portfolio



Product Portfolio

DFM line offers a broad range of diesel fuel meters and display for any kind of application, diameter and flow range.



Aquametro Oil & Marine Applications



Applications

DFM Diesel fuel meter are useable in all application, where diesel driven engines are used:

- Agricultural equipm.
- Trucks and trains
- Construction equipm.
- Diesel gensets
- Mining equipment
- ...and many other!



Aquametro Oil & Marine in railway



Aquametro Oil & Marine in railway



Aquametro Oil & Marine in railway



Aquametro Oil & Marine in inland navigation



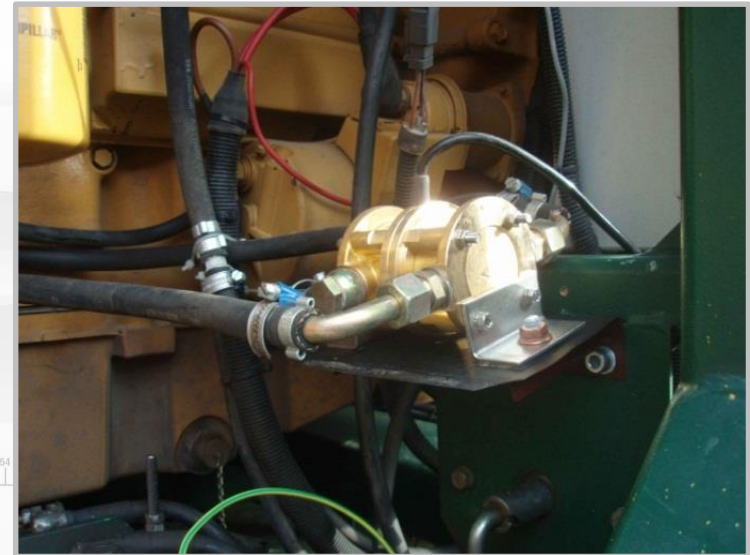
Aquametro Oil & Marine in inland navigation



Aquametro Oil & Marine in mining and construction



Aquametro Oil & Marine in mining and construction



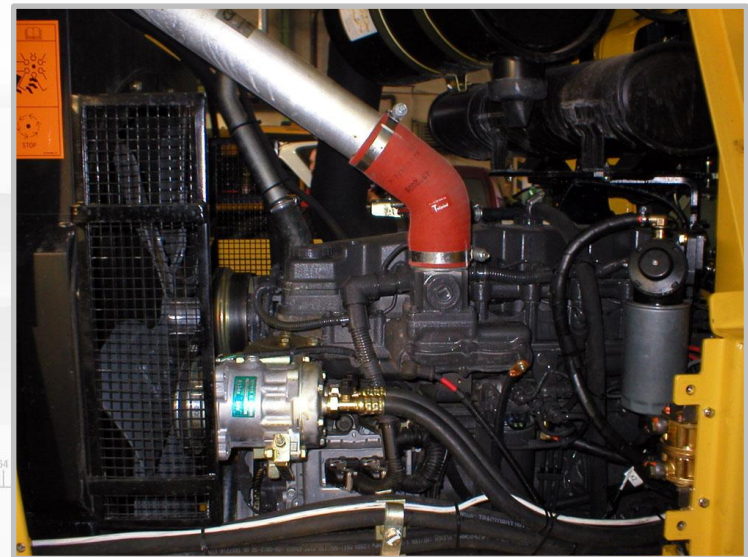
Aquametro Oil & Marine in mining and construction



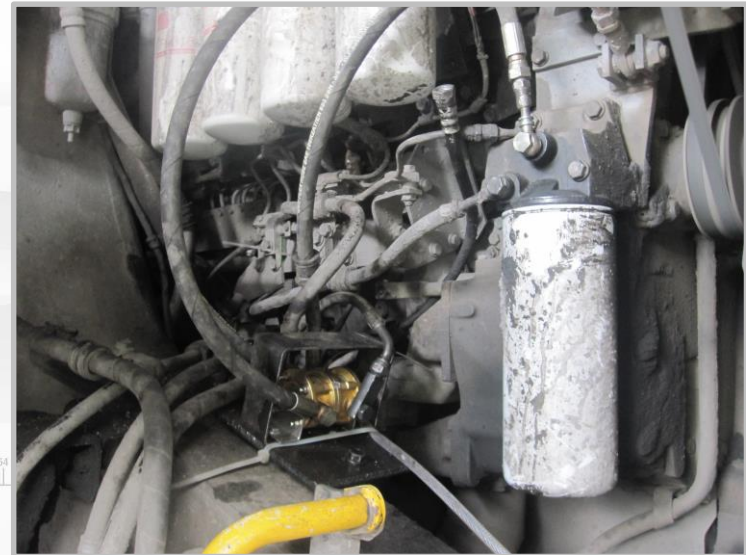
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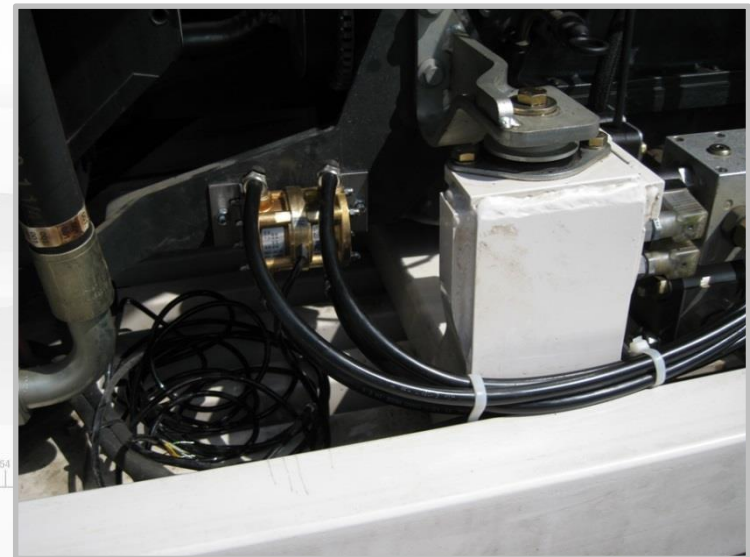
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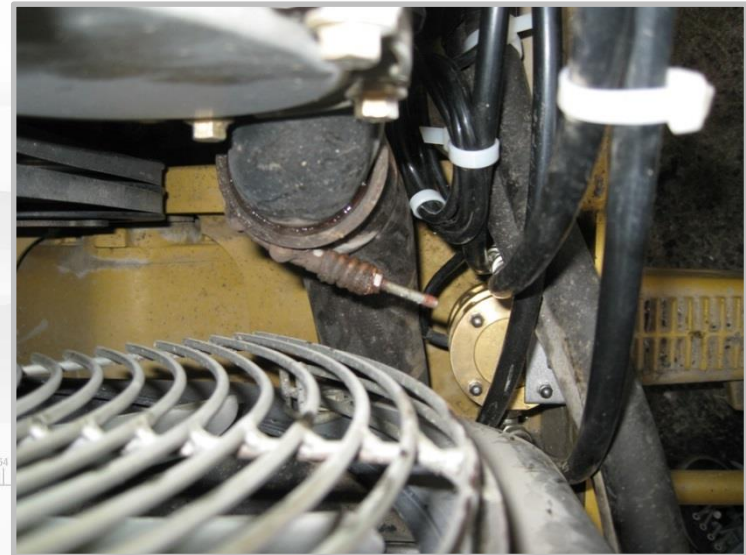
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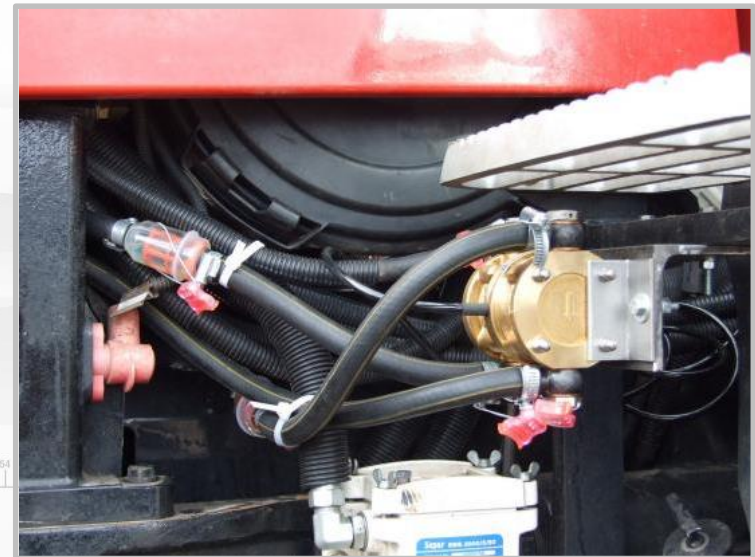
Aquametro Oil & Marine in agriculture



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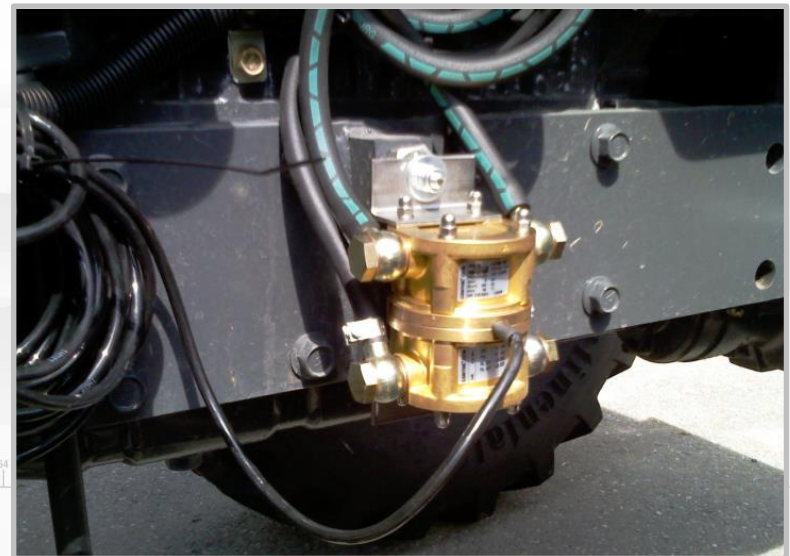
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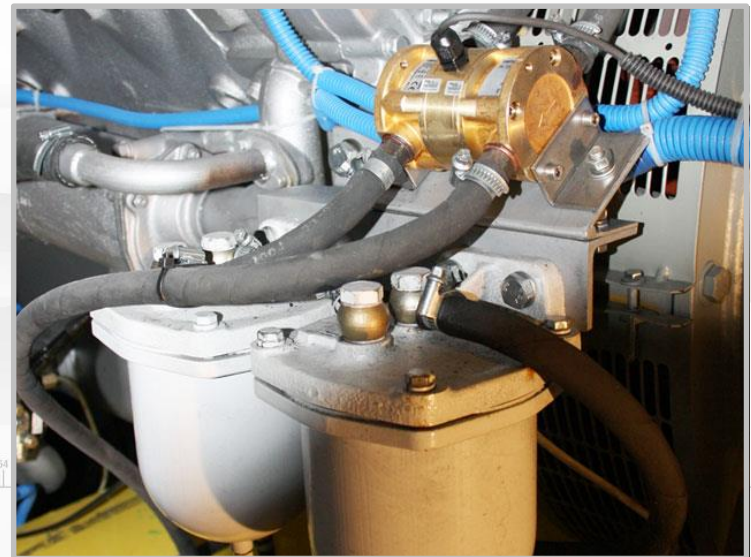
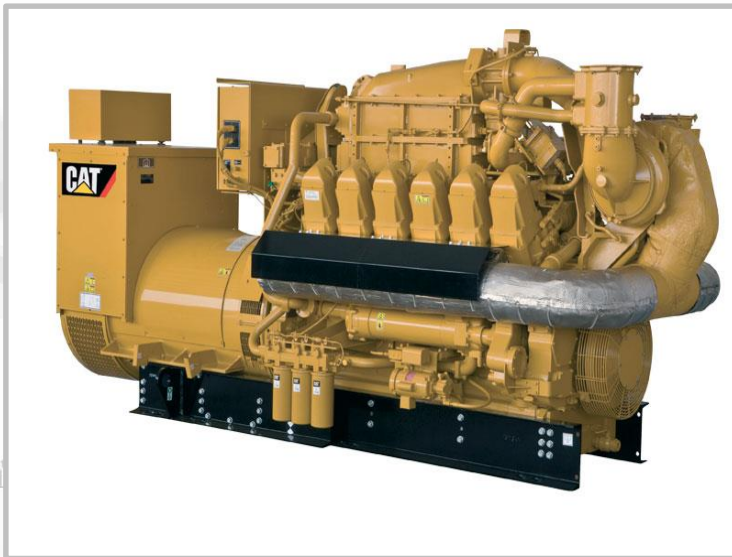
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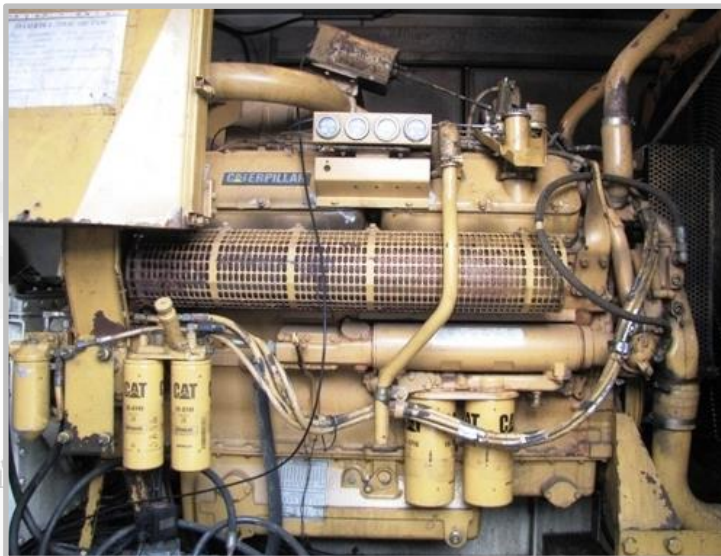
Aquametro Oil & Marine in agriculture



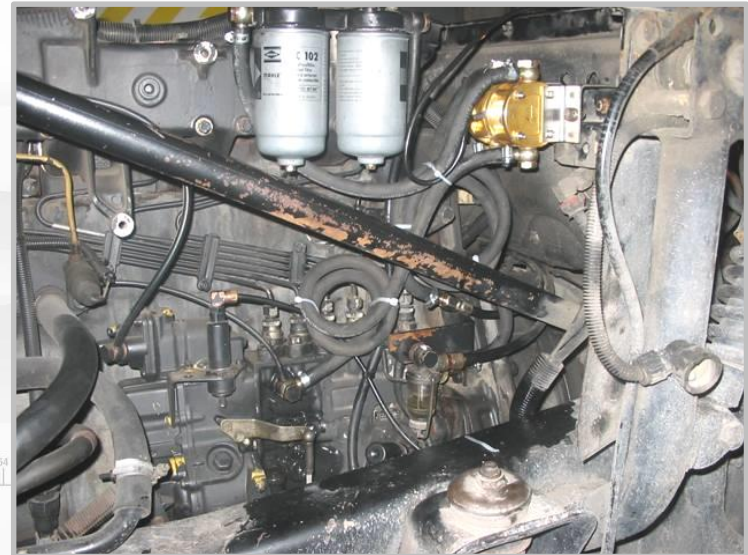
Aquametro Oil & Marine in diesel gensets



Aquametro Oil & Marine in diesel gensets



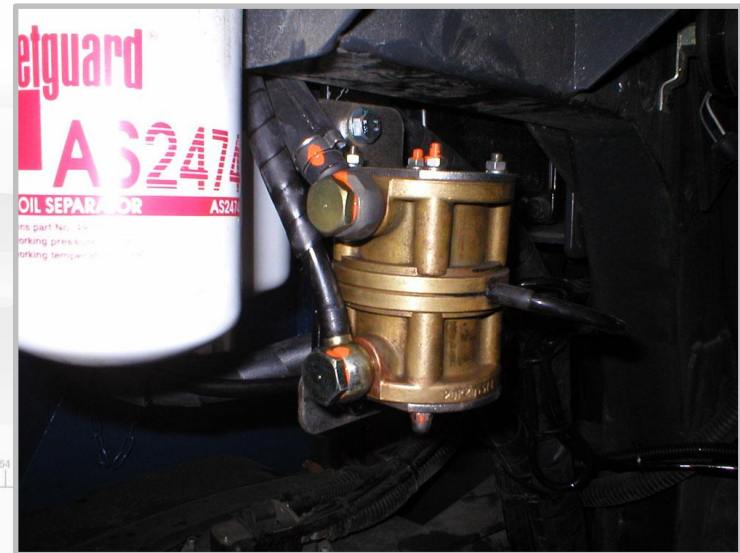
Aquametro Oil & Marine in transport and logistic



Aquametro Oil & Marine in transport and logistic



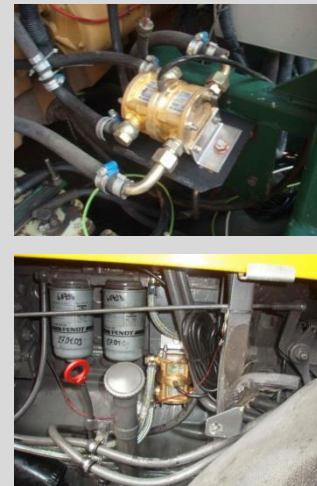
Aquametro Oil & Marine in transport and logistic



Aquametro Oil & Marine in transport and logistic



Aquametro Oil & Marine benefits of fuel metering



Calculation:

Truck with 150.000 km/year
1 liter = 3 kilometer

50.000 liter diesel = 50.000 € per year
10% savings = 5000 € per year

= 1 month free diesel per year
= 2% more profit
= ROI 2 months!

- Measure consumption
- Why is consumption high/low different?
- Measure driving style
- Accelerate, decelerate
- Analyze the data
- Take action



*Saving Fuel,
- Increase
Your Profit!*

Thank you
for your attention

AQUAMETRO
OIL & MARINE

