

## Diesel Doctor - Fuel additives, worthwhile or just more snake-oil?

GONE ARE THE DAYS OF FILLING YOUR TANK AND FORGETTING ABOUT IT.

Some readers may recognise the term Snake Oil as the American slang term given to medical products with dubious and unverifiable benefits in the late 1800s

As a Chief Engineer in the 80s, only very occasionally did I see lacquering on pumps and never any diesel bug or lubricity problems. Diesel had not changed for decades, the engines were simple, yet there were 'fuel saving' and 'sludge busting' additives available at dose rates so small they would bemuse the best brains at NASA.

Let's face it, if they were that good owners would be beating a path to the supplier's door. The reality left few seeing any benefits and resulted in the belief that additives were useless.

### So has anything changed?

Yes, fuel has; Suppliers now refine 80% more from a barrel than in the 1980's and these barrels originate from fields deemed uneconomical and of poor quality in the 90's. As a result today's crude has more sulphur and undesirable elements posing

greater challenges to the refiners as they attempt to supply diesel which meets increasing environmental legislation. All at a time when fuel margins have been squeezed to a minimum, business is not so good now and additives are a cost, so only the bare minimum is added.

For decades there have been only two additives readily available, one to stabilize the fuel and one to kill bugs and a multitude of suppliers making wild claims for both. Bug cures and stabilisers

### Sludge in your filters?

You need to treat your tank as you have diesel-bug. There are two types of additives; enzymes and biocides. Enzymes don't kill the bugs, they remove their food. Biocides kill them acting like the antibiotics we use.

Diesel now has a shorter shelf life so stabilizers are needed but ONLY if you store fuel. If you bunker regularly and drain tanks of water then you don't need either.

### Emission Control Areas (ECA) zones

If you bunker Low sulphur fuel regularly in an ECA. A lubricity and



Malin Pier, Inishowen, Co. Donegal. Pic: Declan McGrath

deposit control additive should be used. Sulphur extraction has reduced lubricity and modern diesel suffers greater system deposits so needs to have a detergent added, especially common rail engines. If you operate and bunker regularly outside the ECA and are operating 'standard' diesel engines then most likely you don't need additives.

Modern common rail engines are the most at risk. With nozzle cooling and extremely high fuel pressures a molecule of fuel is subjected to massive cycles of heat and pressure many times before it actually gets burned, this leads to oxidation and deposits. Heating oils have many

additives to prevent this, the humble diesel has nothing.

### Snake-oil is still out there

During a recent exhibition I was presented with a product that would save 10% on fuel costs. To be clear, fuel additives WILL NOT improve fuel consumption. What additives will do is prevent an increase in fuel consumption from fouled fuel systems and will certainly help prevent fuel system wear.

For further advice or information contact us at [www.marship.eu](http://www.marship.eu) or email [info@marship.eu](mailto:info@marship.eu) or visit us at Skipper Expo Int. Bournemouth.

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