

Rapid Rapp Marine commission for Ocean Endeavour

Rapp Marine UK Ltd has supplied and installed two new split trawl winches, together with the latest generation PTS Pentagon autotrawl system, on the 30.5m Peterhead single-rig whitefish trawler Ocean Endeavour PD 625, only six weeks after the initial contact, reports **David Linkie**.

The rapid fire project started when skipper John Buchan asked Rapp Marine UK if they could supply new trawl winches while Ocean Endeavour was being re-engined by Alpha at Frederikshavn.

Although a considerable

challenge, it was one that Rapp Marine UK Service Manager Drew Elphinstone and his team are well on course to achieve.

The Rapp Marine type TWS4021 split trawl winches now in place on Ocean Endeavour have a core pull rating of 22t (7t top layer) and a capacity for 1,200 fathoms of 24mm-diameter wire, plus sweeps\ spreaders.

The new autotrawl system fitted is the very latest generation PTS Pentagon Cbus F from Rapp Marine, and the first installation on a Scottish vessel. Similar systems



The new portside 22t Rapp Marine split trawl winch is aligned while Ocean Endeavour is re-engined in Frederikshavn.



are also scheduled for installation on skippers Mark Lovie and Tommy Tulloch's new stern trawlers, scheduled for delivery in 2017.

The new PTS Pentagon is fairly unique in the industry because of the way in which the system communicates with other related equipment on the vessel using CANbus technology.

Ocean Endeavour returned to Peterhead from Denmark towards the end of last week, where local companies are now engaged in completing the remaining components of a large-scale modernisation project.

Skipper John Buchan initially took Ocean Endeavour to Frederikshavn for an anticipated 2-3-week overhaul of the MAN Alpha propulsion unit, but on opening the engine and gearbox up, the decision was made to fit a like-for-like new engine.

He subsequently took the decision to use those 11 weeks to extensively refurbish Ocean Endeavour, in order to give an extended period of fishing time in the immediate future.

At the same time as Rapp Marine UK was installing the new autotrawl system, Hytek of Frederikshavn replaced the main hydraulic pipes.

The entire inside working areas of the boat were completely shot-blasted after the fish-handling deck was stripped bare.

On Ocean Endeavour's return to Peterhead, PBP Services immediately started spraying a four-coat paint system onto all internal surfaces, before applying Epoxy non-slip deck coatings.

Seagate Fabrication will install a totally new fish-handling system, which will incorporate two gutting machines.

New flooring is also being fitted in the accommodation areas and new roofs in the cabins.

THE DIESEL DOCTOR

In previous months, we looked at Diesel Bug, where it comes from, why do you have it and why it is getting worse. We looked at how to prevent it and, if you have it, how to get rid of it.

This month, we look at the treatments that are available and how they work.

To recap, the simplest way to prevent diesel bug is to remove the water from the bottom of the tank where they thrive and feed on the fuel above. However, removing

the water is often easier said than done; if the vessel has a drain cock this should be opened once a day to drain any water. More often than not, though, there are no drain cocks fitted, so installing a water separator before the main filter will ensure any water is removed when the engine is running. As marine engines return a lot of the fuel back to the tanks this is an effective way to ensure the fuel remains dry.

But what if you already have

diesel bug? There are two treatments available on the market today, one is an enzyme and the other is a biocide.

Enzyme Diesel Bug Treatment

Enzymes are mixed with an alcohol, usually glycol. A Google search quickly reveals the action of enzymes is not simple; in a nutshell they act as a catalyst reacting with the microbes, bacteria, yeast and moulds,

removing and altering some of the proteins, making them unstable.

Enzymes are very fragile and easily destroyed through heat and pressure as they are drawn through the engine and returned to the tank. This is especially true in marine engines, which can return up to two-thirds of the fuel back to the tank. The role of the alcohol is to absorb the water and therefore the habitat the diesel bugs rely on.

Generally the treatment works, and the enzymes inhibit diesel bug – but don't kill it. The water absorbed into the fuel from the alcohol is passed through the engine. This can be a major issue; older engines could easily handle the water but it is critical that today's modern common-rail engines use only very clean and very dry fuel. Any water, in suspension or otherwise, can have a serious effect on the fuel system, potentially leading to expensive breakdowns. As the enzymes do not kill diesel bugs, tanks should be constantly dosed or the bugs will proliferate once the water returns, as it always will.

Biocide Diesel Bug Treatment

Biocides kill Diesel Bug. There are two types; one is used neat and the other is supplied with a glycol carrier – see above caution on water absorption. The neat biocide will not remove water; this must be removed with a water separator.



Peter Weide, an ex-Chief Engineer was marine lubricants manager, ship repair director and latterly head of sales for Wärtsilä UK. He is currently managing director at MarShip UK, a company specialising in maintaining the vital elements of your engine – Air, Fuel and Oil. MarShip can be contacted through Fishing News or on + (44) 1666 818 791, sales@marship.eu. www.marship.eu



A clear picture of the layers that can occur within a fuel tank.



Diesel bug produces a black slime in the tank and fuel system.



Evidence of diesel bug in the Newlyn boat Silver Dawn, which MarShip solved with its products.

As biocides kill the bugs, when the water returns, the bugs cannot breed because they are dead.

In summary, enzymes inhibit bugs, biocides kill them. The enzymes and one of the biocides contain alcohol which absorbs the water in the fuel which can cause serious damage to a modern engine. If there is more water in the bottom of the tank than the alcohol can absorb, then it will remain there. The best and safest method to remove water is with the use of a water separator, and by then adding a biocide to kill the bug, you will have safe, dry diesel.