

# Amplify Diesel HD delivers an increase in fuel efficiency on the water for Journey Beyond



Image to be supplied

Operating a diverse fleet of marine vessels across the continent, Journey Beyond value reliability and performance in their fuel supplier above all else. A recent trial conducted in two vessels at Cruise Whitsundays proves that Amplify Diesel HD is the best choice for heavy duty marine engines.

## The Mission

Journey Beyond are a diverse experiential tourism business that operates a number of marine vessels across the country. For this trial, we measured the impact on fuel efficiency on charter vessels in the Whitsunday Islands. Unlike typical road vehicles, marine engines have to deal with varying surf conditions, variable passenger loads and constant engine running to keep the bilge pumps and other systems operational. Tight timetables also mean vessel reliability is key and Journey Beyond were seeking a reduction in overall CO<sub>2</sub> emissions.

Regular diesel leads to the formation of deposits on the inside and on the tips of sensitive fuel injectors whilst the engines

are running which leads to reduced engine performance, increased fuel consumption and increased CO<sub>2</sub> emissions.

These diesel injector deposits can affect the flow of fuel into the combustion chamber and lead to increased noise, rough running, power loss and inability to start. Associated impacts also include oil dilution, EGR line fouling, increased emissions, and reductions in the efficiency and durability of emission control systems.

Amplify Diesel HD is designed to clean and protect the engine by using a powerful deposit control additive to attack deposits that form on the tip and internal moving parts of fuel injectors. According to the Worldwide Fuel Charter<sup>1</sup>, conformity of modern engines with their specified performance in terms of power, fuel consumption and emissions over time will depend largely on the cleanliness of their injectors.

To confirm the fuel efficiency qualities of Amplify Diesel HD, a recent trial was conducted on two vessels at Journey Beyond Cruise Whitsundays operating from Airlie Beach (QLD).

<sup>1</sup> 2019, Worldwide Fuel Charter Gasoline and Diesel Fuel 6th Edition, WWFC Committee

## The Action

The purpose of this trial was to determine fuel consumption reduction switching from regular diesel to Amplify Diesel HD. The trial was conducted and observed from the mooring facilities in Airlie Beach and consisted of two different specification marine vessels that broadly represented the fleet. After a three-month period of collecting baseline fuel consumption on regular diesel, the test vessels' fuel tanks were treated with a single dose of Ampol Amplify Diesel HD Injector Cleaner to accelerate the injector cleaning process. From month four, the vessels switched to Ampol Amplify Diesel HD for a further three-week period.

To maintain consistency during the trial period, the vessels were only refuelled at the Cruise Whitsundays dock, kept the same schedules, covered similar distances and under similar load conditions. The fuel use data was collected under their supervision of the vessel Captain and sent to Ampol for analysis.



## The Result

After the initial dose of Ampol Amplify Diesel Injector Cleaner and three months using Ampol Amplify Diesel HD, the customer noted:



Fuel burn decrease of approximately **5.1% and 2.1%** (see Appendix 1 & 2)

## The Bottom Line

**Amplify Diesel has proven cleaning power to help keep modern heavy duty diesel engines free from performance robbing deposits.**

- Fuel efficiency improvements due to an improved combustion process once a cleaner fuel system is established through the cleaning abilities of Amplify Diesel HD
- Fuel consumption reduction is the result of improved internal combustion
- Clean injectors deliver the right amount of fuel at the right time leading to a more efficient combustion and power restoration
- Amplify Diesel HD clean-up and keep clean diesel injectors
- Reduced fuel consumption translates into lower CO<sub>2</sub> emissions.

Amplify Diesel HD also contains:

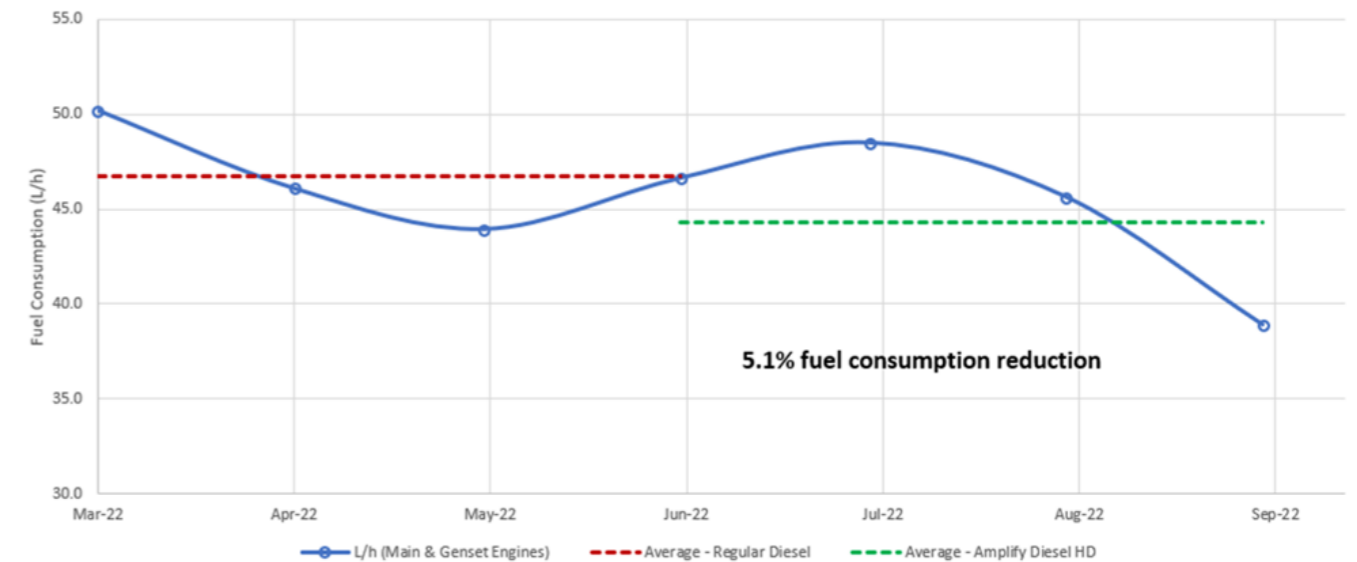
- Corrosion inhibitors to protect the engine from the formation of abrasive rust particles
- Foam inhibitors for faster and cleaner refuelling.

## Appendix

### 1. Kingfish - Fuel Consumption (main & genset engines)

MONTH	FUEL (L)	HOURS	L/H
MAR-22	49,284	982	50.2
APR-22	26,588	577	46.1
MAY-22	43,359	987	43.9
JUN-22	43,875	941	46.6
JUL-22	48,401	998	48.5
AUG-22	29,657	650	45.6
SEP-22	29,716	764	38.9

REGULAR DIESEL	46.7 L /h
AMPLIFY DIESEL HD	44.3 L /h
<b>DIFFERENCE</b>	<b>-2.4 L /h</b>
<b>FUEL EFFICIENCY</b>	<b>5.1%</b>



## Appendix Continued

### 2. Seaquest - Fuel Consumption (main & genset engines)

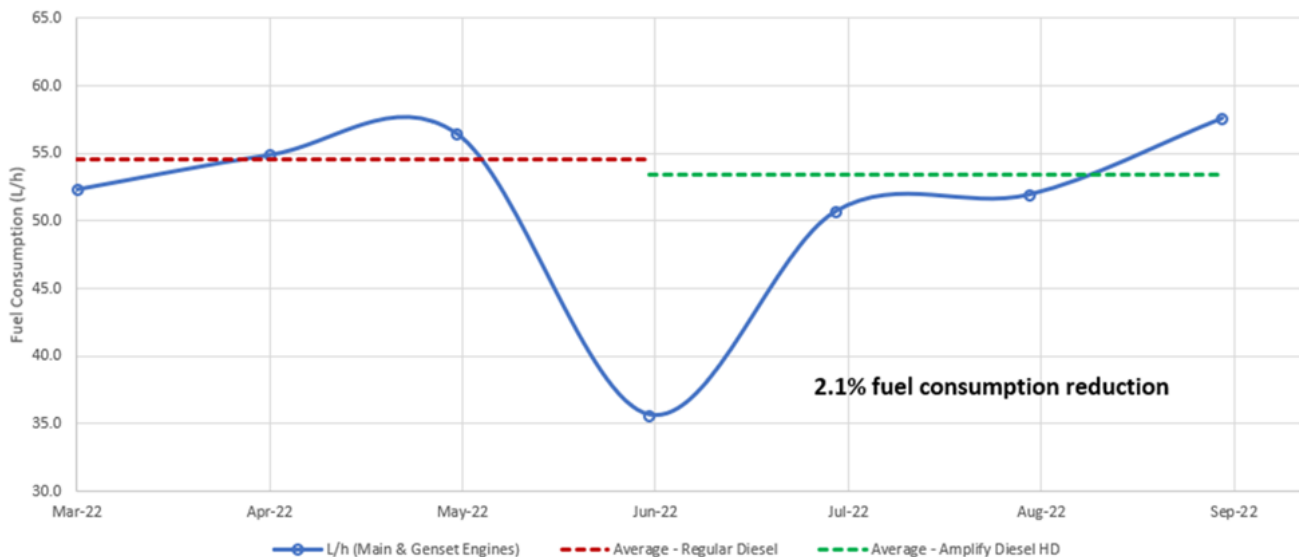
MONTH	FUEL (L)	HOURS	L/H
MAR-22	39,776	760	52.3
APR-22	39,693	723	54.9
MAY-22	39,280	695	56.5
JUN-22	24,994	701	35.7
JUL-22	37,299	735	50.7
AUG-22	37,881	729	52.0
SEP-22	40,742	707	57.6

REGULAR DIESEL 54.6 L /h

AMPLIFY DIESEL HD 53.4 L /h

**DIFFERENCE -1.1 L /h**

**FUEL EFFICIENCY 2.1%**



\* Fuel consumption was calculated using the ECU data captured and distributed by the vehicle manufacturer.

Note that all the results may vary depending on the engine itself, environmental conditions, other factors such as variability in engine load factor and driver's behaviour.