

Amplify Diesel HD reduces mine generator fuel consumption by 4%



A recent independent trial at a remote iron ore mine in Western Australia reinforced the benefits of using Amplify Diesel HD to optimise fuel efficiency, improve reliability and decrease maintenance costs.

Remote operations like mine sites often rely on stationary diesel generators to power essential systems. Reliability is the primary concern, alongside the costs of fuel and engine maintenance cycles.

The Mission

Heavy-duty diesel engines used in modern gensets are designed to respond efficiently to fluctuating load demands and work under harsh environmental conditions like mine sites. As a result, HD engines are part of the scenery wherever power generation and pumping are needed for mining operations.

In the working heart of the genset, deposits from diesel fuel can accumulate on the tips and internal moving parts of the fuel injectors. The Worldwide Fuel Charter¹ recognises the cleanliness of injectors as a major factor affecting engine power generation, fuel consumption and CO₂ emissions.

Cleaner fuel injectors key to engine performance

Amplify Diesel HD is designed to clean and protect the engine using a powerful deposit control additive to attack deposits and extend maintenance intervals. Maintaining peak performance is the best way to keep power costs down while ensuring mine operations are not interrupted.

A third-generation fuel tested to Australian conditions

Ampol developed Amplify Diesel HD in Australia to keep HD engines running clean. The third-gen formulation has been thoroughly tested under the harshest working conditions.



The Action

To quantify the reduction in fuel consumption using Amplify Diesel HD compared to regular diesel fuel, we focused on three diesel generators used at a bore water pump facility in a remote WA mine. The generators were only refuelled using site bulk fuel tanks. They continued with normal operations and regular maintenance. The customer collected the data for analysis by Ampol.

The Trial

The generators were run for three weeks on regular diesel fuel to collect baseline fuel consumption data. Then the generators were switched to Amplify Diesel HD for five weeks of data recording.



The Result



The Amplify Diesel HD test results confirmed improved fuel efficiency. Thanks to cleaner fuel injectors and improved combustion, fuel consumption **decreased by 4%** (see Appendix 2) across the three gensets

The Bottom Line

Amplify Diesel HD contributes to optimum performance in heavy-duty diesel generator engines.

- Up to 4% reduction in fuel consumption
- Cleaner fuel injectors extend engine maintenance cycles and improve internal combustion - lowering CO₂ emissions over time
- Cleaner fuel injectors deliver the right amount of fuel at the right time for more efficient combustion and power restoration

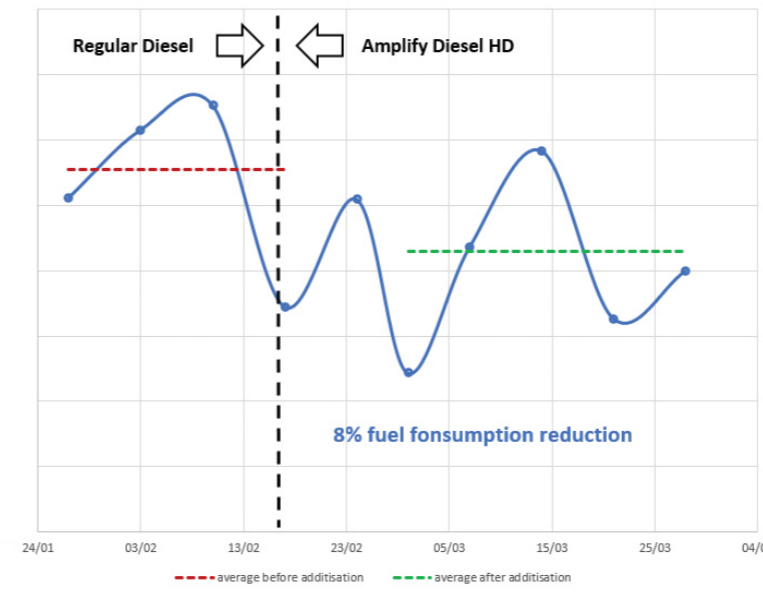
Amplify Diesel HD also delivers long-term benefits not specifically measured in this trial, including:

- Corrosion inhibitors in the fuel protect the engine from the formation of abrasive rust particles
- Foam inhibitors in the fuel allow for faster and cleaner refuelling

Reliable, economical diesel power generation fuelled by Amplify Diesel HD

Appendix

1. Amplify Diesel HD Trial (Fuel Consumption L/kW-h)



2. Raw data

GENSET NAME	FUEL EFFICIENCY %
RHDB0170	8.0%
RHDB0171	2.5%
RHDB0172	0.8%
OVERALL FUEL EFFICIENCY:	4%

* 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, and other factors such as variability in engine load factor and driver's behaviour.



Reliable, economical diesel
power generation fuelled by
Amplify Diesel HD.

Australia's Own

