

How Amplify Diesel HD cut fuel use by 4% for a national transport fleet



We tested the Amplify Diesel HD advanced fuel formulation against regular diesel fuel with a major national road transport provider. The results showed an average 4% decrease in fuel consumption.

Modern heavy-duty diesel engines are designed to keep fleet operating costs as low as possible. So it makes sense to use the modern fuel that works with today's diesel engines to keep internal combustion as clean as possible and optimise heavy vehicle fleet efficiency while cutting fuel and maintenance expenses.

The Mission

Heavy vehicles are the backbone of the road freight transport industry – a time and cost-sensitive business that must deliver under tight deadlines. As a result, fleet owners aim for reduced operating costs and emissions by maintaining the fleet in optimal condition.

Fuel injector efficiency

Engine efficiency slows as deposits form on parts of fuel injectors. The Worldwide Fuel Charter¹ states that engine performance over time depends largely on the cleanliness of the injectors. Clogged injectors lead to irregular fuel flow, increased noise, rough running, power loss and an inability to start. Associated impacts include oil dilution, EGR line fouling, increased CO₂ emissions, and reductions in the efficiency and durability of emission control systems.

Ampol answers the challenge

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 road freight trial took place over two periods of three months in 2021 and 2022. Under the supervision of the truck manufacturer, Scania, we observed from the workshop of a major national road transport provider.

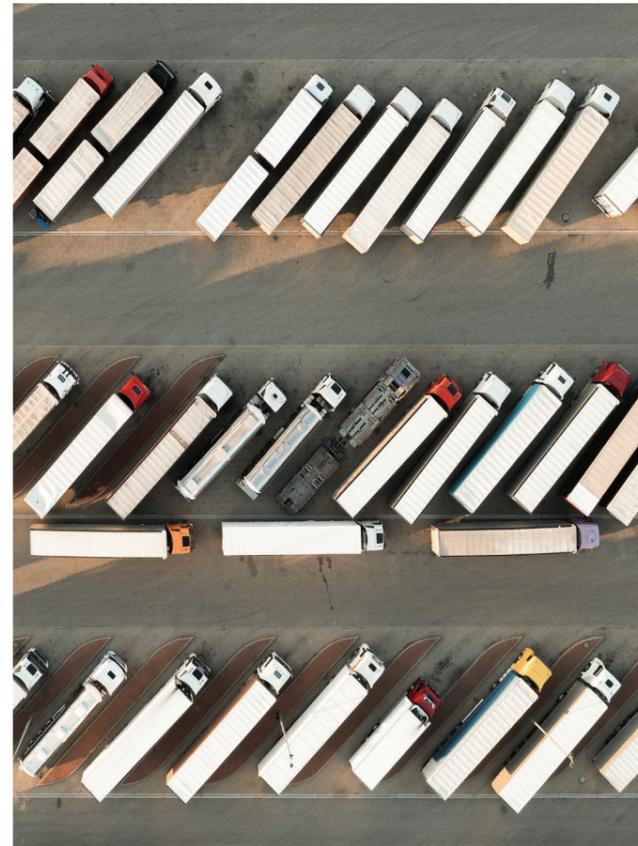
¹ 2019, Worldwide Fuel Charter Gasoline and Diesel Fuel 6th Edition, WWFC Committee

The Action

To compare Amplify Diesel HD to regular diesel fuel, we used two Scania 620 NTG Euro VI trucks operating from the customer's Victorian depot.

After 5-6 weeks of collecting regular diesel baseline fuel consumption, each test truck's fuel tank was treated with a single dose of Ampol Amplify Diesel HD Injector Cleaner to accelerate the injector cleaning process. From week seven, the test truck switched to Amplify Diesel HD for five weeks.

For consistency, trucks were only refuelled at the depot, kept the same drivers and covered similar mileage under similar load conditions. Throughout the trial, a second truck remained on regular diesel to act as a control. The customer supplied ECU fuel consumption data from both vehicles to Ampol for analysis.



The Result



After an initial dose of Ampol Amplify Diesel Injector Cleaner and five weeks using Ampol Amplify Diesel HD, the average fuel consumption for the test truck across both trial periods **decreased by an average of 4%** (see Appendix 1).

The Bottom Line

Amplify Diesel HD maximises the performance and efficiency of modern heavy-duty diesel engines.

- Fuel efficiency improvements from an improved combustion process
- Amplify Diesel HD cleans diesel injectors and lowers CO₂ emissions.

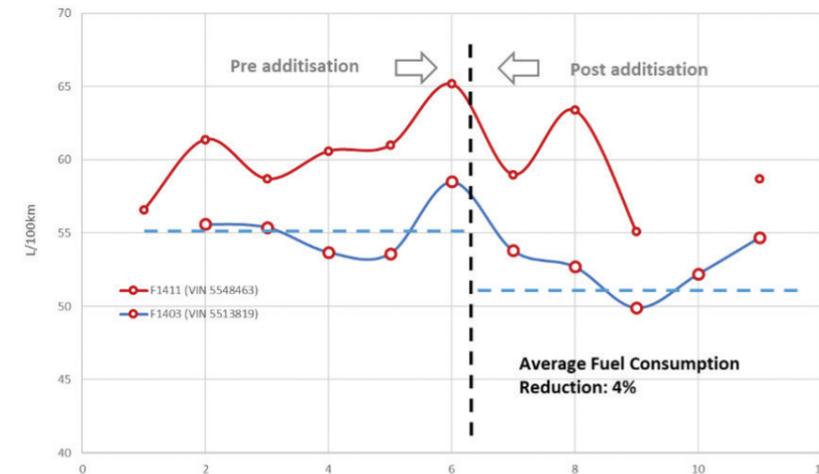
Amplify Diesel HD also delivers long-term benefits not specifically measured in this trial, including:

- 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

Maximise performance and control operating costs with Ampol Amplify Diesel HD

Appendix

1. Graph



2. Trial No. 1 - completed Q4 2021

EQUIPMENT	WEEK	DATE	DISTANCE (KM)	FUEL CONS. (L/100km)	FUEL (L)	AVERAGE L/100km
F1403 (VIN 5513819)	13/9	20/9	4096	55.6	2277	55.4
	20/9	27/9	3786	55.4	2097	
	27/9	1/10	3122	53.7	1677	
	4/10	11/10	3333	53.6	1786	
	11/10	18/10	2371	58.5	1387	
	18/10	25/10	3801	53.8	2045	52.7
	25/10	1/11	3919	52.7	2065	
	1/11	8/11	3900	49.9	1946	
	8/11	15/11	1966	52.2	1026	
	15/11	22/11	3955	54.7	2163	
Fuel Consumption Reduction:						5%

Appendix Continued

3. Trial No. 2 - completed Q2 2022

EQUIPMENT	WEEK	DATE	DISTANCE (KM)	FUEL CONS. (L/100km)	FUEL (L)	AVERAGE L/100km
F1411 (VIN 5548463)	28/2	7/3	3640	56.6	2060	60.6
	7/3	14/3	4295	61.4	2637	
	14/3	21/3	3051	58.7	1791	
	21/3	28/3	883	60.6		
	28/3	4/4	4641	61.0	2831	
	4/4	11/4		65.2	0	
	11/4	18/4	4176	59.0	2464	59.1
	18/4	25/4	4027	63.4	2553	
	25/4	2/5	3658	55.1	2016	
	2/5	9/5				
	9/5	16/5	3612	58.7	2120	
Fuel Consumption Reduction:						3%

* 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.