

# Mitchell Corp Case Study on the Westport HPDI System

Mitchell Corp is an integrated road transport company in Australia that specialises in the haulage of bulk hydrocarbons, chemicals and iron ore, with a significant focus on the delivery of innovative logistics solutions. The company was formed in 1998 and currently operates approximately 220 trucks across its subsidiary companies, Mitchell West in Western Australia and Mitchell Helidon in Queensland.

Mitchell Corp is committed to sustaining a community-orientated approach to all its business and is genuine in its endeavours to work in partnership with local communities in which their operations are based. In addition to providing bulk logistics solutions for the mining industry and the energy sector, the company hauls a range of dangerous goods for Australian industry.

Mitchell Corp's Executive General Manager – Assets and Maintenance, Craig Watson, says the company has been involved in trialling alternative fuels since 2004/2005. After hearing about the Westport system in 2006, he visited Westport Innovations in Canada to learn more about the system. "We were very impressed with what we saw there. Most impressive of all was the level of detail and the customer feedback we got from the users at the time. It was absolutely amazing."

The Westport demonstration project was undertaken by Mitchell Corp utilising the fleet based at its Kewdale depot in Perth, Western Australia. Trucks #327 and #328 were converted to the Westport HPDI system and commenced fleet operations in September 2007. By April 2008, truck #327 had accumulated 100 000 kilometres, while truck #328 had accumulated 90 000 kilometres.

"What we are doing in terms of Liquefied Natural Gas (LNG) means we are able to achieve our energy aspirations from a commercial and environmental perspective with effectively zero impact on our drivers."

Mr Watson says the drivers also feel good about driving a truck that's having less adverse impact on the environment. "So, from that perspective, I think it is a very, very significant benefit and a win-win all round."

### **The overall experience**

While there have been delays with getting the Westport HPDI system into Australia, Mitchell Corp Strategic Development Manager, Tom Lennon, says the company is happy with the performance of the HPDI engine. "The engine is doing pretty much what they told us it would."

The drivers of trucks #327 and #328 acknowledge there will be teething problems with the introduction of new technologies but they think it's great to be involved with something new. "Long journeys, small steps," says Graham West, who drives #328.

Jeff Milne, who also drives #328 adds, "we all expected there would be glitches with it. None of us have gone into this blind. We were told it's experimental, it's never been done anywhere else in the world with such high ambient temperatures, and we'll just take it as it goes."

According to Mr Lennon, there are many positives of the HPDI system, including its high gas substitution rate, and the horsepower and torque rating. He says these combine to make a huge benefit for the business. “Just the fact that you’ve got the other horsepower and torque ‘on tap’ is the upside to it – and they’re quiet. Environmentally, they’re very quiet engines too, so that’s a bonus.”

Mitchell Corp is looking to install more HPDI systems on its fleet of trucks allowing the company to expand its business to areas where it currently only works on diesel. “The HPDI system gives us an option. With the advantage of the extra horsepower and the extra torque we have the ability to run the HPDI powered vehicles in areas where we are required to operate triple road trains to 147 tonne Gross Combination Mass,” says Mr Lennon.



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