



'Shift'ing fuel in a better way through innovation

19 metre B-double 'Fuel Shifter'

RELIANCE PETROLEUM'S MILES DEPOT IN QUEENSLAND HAS HIGH EXPECTATIONS OF ITS NEW **TIEMAN** 19 METRE B-DOUBLE 'FUEL SHIFTER'. PURCHASED TO REPLACE SEVERAL RIGID TANKS AND DOG TRAILERS ALREADY IN THE FLEET, THIS UNIT WILL PROVIDE THE COMPANY WITH GREATER SAFETY GIVING HIGHER PAYLOADS AND EFFICIENCIES.

Displayed at the 2010 International Truck, Trailer & Equipment Show, this is the very first 19 metre B-double 'Fuel Shifter' built by Tieman.

Reliance operates a fuel storage depot in Miles, approximately 240km west of Brisbane. The fuel supply logistics of the depot currently involves a 25m B-double delivering fuel into the depot from Brisbane and then the local drivers delivering the fuel to Miles customers with two 6x4 rigid truck and two 2 axle dog trailers.

The new 19m B-double 'Fuel Shifter' will replace all of these units as it will bridge fuel from the Brisbane terminal overnight to Miles and then deliver fuel direct to the customers the following day. It removes the double handling need to unload and reload fuel through the depot and removes the need for a 25m B-double to carry fuel from Brisbane. The 'Fuel Shifter' has a maximum capacity of 53,530 litres, with a payload of approximately 44,600 litres of diesel on mass managed routes. Both the lead and rear tankers have four compartments, each of which allows for more flexible delivery to fuel service stations due to the number of different products potentially carried. Another design feature is that the pipe work on the lead tanker is designed to exit through the suspension sub frame not underneath, so as to lift the outlet



A short transfer hose is used to suck fuel from the dog trailer.

heights to ensure ease of use at the loading gantry when connecting gantry fill lines to the API valves.

In other closer to terminal regional areas, greater fleet utilisation is also possible now with the 'Fuel Shifter' potentially able to deliver fuel via pumps and reels to farms and industry during the day, then double shifting of a night to gravity feed fuel to service stations.

The flexibility provided by the combination allows for more effective deliveries to both commercial and retail customers which is a great advantage to Reliance who services

rural and regional customers across Australia. The Liquip dual pumping equipment is located on the lead tanker, while a Liquip DM104 pneumatic manifold complete with a MAC pneumatic control box is coupled directly with pumping equipment to eliminate the need for jumper hoses and reduce the potential for product spills. Top and bottom loading is permitted through Liquip optic overfill protection and vapour recovery. Through close consultation with its customers, Tieman has assessed the need to address the ergonomics of operating a tanker and as such, a key design feature of the 'Fuel



Front of tanker mounted hose reels are protected from road grime and operated from shoulder height with no back bending required.

'Shifter' is that both the petrol and diesel ferris wheel type hose reels are located at the front of the lead tanker at shoulder height for easier and better access to those hard to get to farm and industrial storage fuel tanks. The combination simply 'noses' into the delivery area without the need to drive all the way in, as is often required with tankers with underslung, middle of the tanker positioned drum type hose reels. No back bending to access the front mounted reels also means a reduced risk of back injury to operators. Further benefits offered by this design is that the reels are in close proximity to the driver to allow easier access from the truck cabin and being up front they are protected from road grime and dirt. This also reduces long term maintenance costs and cleaning time required.

As the hose reels and pumping equipment are mounted to the lead tanker itself rather than the prime mover, it eliminates any future changeover costs incurred as required with rigid and dog trailer set ups once the truck has passed its use by date – a big cost saving considering the life of an articulated tanker is generally between 10-15 years.

While this is the first 'Fuel Shifter' to be purchased by Reliance, the company currently operates many Tieman tankers throughout Australia, including several 'Split Shifters' by Tieman. Reliance National Strategic Fleet Manager, Stephen Child explains, "We actually have four B-double 'Split Shifters' operating in Queensland at the moment and they are all going well. Although the 'Split Shifter' has pumping equipment and hose reels on both tankers in the combination, the 'Fuel Shifter' only has this equipment fitted to the lead trailer, yet still allows us to pump from the rear tanker and through the lead if required through a transfer line that




Side under run protection with transfer line from lead tanker outlet area running through the suspension sub frame terminating at rear of sub frame.



Pipe work on the four compartment lead tanker exits through the sub frame to optimise API valve heights for easy gantry loading.

runs through the suspension's sub frame. The higher gross combination mass of 57T allowed with a 19m B-double has increased our payload by up to 6000 litres of diesel fuel over a rigid and dog trailer combination." Despite its size, the B-double 'Fuel Shifter' is capable of achieving similar turning circles to an 6x4 rigid truck and 4 axle dog combination, but offers greater stability through a roll coupled Holland Kompensator turntable on a D'Angelo single row low profile ballrace. Further stability is provided through the BPW EBS braking system which features a roll stability sensing axle for improved safety and handling. Both tankers in the combination have been fitted with Diptronics which remove the need for the operator to access the top of the tank during deliveries. While Diptronics are a standard feature of this unit, this is something that Reliance specifies across its entire fleet. "We are really moving to a model where drivers don't need to leave the ground to operate their equipment for any reason," says Stephen. However, if the need to access the top of the tanker ever does arise, drivers are kept safe by stainless steel pneumatically operated handrails that are fitted next to the top walkway. Its operation is interlocked with the tanker's park brake system for added safety.

Reliance National Operations Manager Geoff Gruebner is committed to a Fleet Strategy built around the five pillars of operator safety, versatility, proven design, optimum tare weight and return on investment. Geoff believes that careful consideration of the needs of the business combined with innovative solutions is the key to achieving the Company's fleet strategy goals and he is very pleased to be able to invest in a configuration that fits the Company's strategy so well.

"We considered the added stability, increased payloads, versatility and safety benefits of the 'Fuel Shifter' combination and in our minds the benefits were clearly greater than the current rigid and dog combinations used for this application," says Geoff. Reliance is now considering a gradual implementation of B-double 'Fuel Shifters' to replace existing 6x4 rigid truck and 4 axle dog combinations operating throughout Australia. 'Fuel Shifters' from Tieman are available in bogie axle, tri axle, 19m B-double and 25m B-double combinations. 

Contact

Tieman Industries Pty Ltd
4-10 Keon Parade
Keon Park VIC 3061
Ph: 03 9469 6700
Fax: 03 9462 1814
Web: www.tieman.com.au