



'Drop-drive' way a 'win-win'

A collaborative effort between the two biggest names in Australian steel and a forward-thinking transport equipment manufacturer has halved loading times for long products and greatly alleviated truck traffic on our roads.

Technical Services Engineering Manager from BlueScope Steel, **Mike Robertson** said the task involved a broad integrated approach to improve all aspects of the logistics challenge, including re-equipping articulated trucks in new configurations and adopting specialised restraining 'racks' to streamline dock operations.

Kerry Renkema of OneSteel Freight and Logistics said that the improvements were required to address the reorganisation of manufacturing operations after OneSteel's purchase of Smorgon's production facilities.

"The product manufacturing footprint needed to be aligned to OneSteel freight infrastructure and services, hence the need to shuttle feed finished products between existing and acquired sites," he said.

This prompted Performance-Based Standards (PBS) for vehicles being introduced to help minimise delay in loading and unloading operations.

Mr Renkema explained that the development of PBS vehicles allowed single consignment loads to be substantially increased and create opportunities to streamline site operations.

"Increasing the workable load size per vehicle from 27 to 55 tonnes necessitated an improved turnaround program," he said. "The loading and unloading time has been reduced from a standard 60 minutes to less than 30 minutes by introducing specific load-restraining racks on trailers," he said.

"No other equipment like this leading edge technology currently exists. The benefits to the transport industry will be on a par with the introduction of tri-axles, 45-foot trailers or B-Doubles."

The construction of the PBS trailers and associated trailer technology was completed

by Haulmark Trailers who have completed extensive testing of the new combination dynamics to meet the requirements of the various regulatory bodies.

In terms of vehicle approval, the National Transport Commission (NTC), NSW Roads and Traffic Authority and various local authorities were engaged to ensure the new configurations satisfy road restrictions on vehicle combinations.

The team gained NTC PBS Review Panel approval for the new vehicle type in an A-double configuration with an overall length comparable with existing B Doubles.

"The trucks incorporate the next generation of smarts like a computer-adjusted steering axle, anti-lock braking and a host of safety features," Mr Robertson said.

"These improvements have also enhanced safety by allowing more responsive braking, and the increased payload reduces the number of trucks on our roads.

"The inclusion of ABS brakes, IAP controls for fatigue and speed compliance requirements will also add to overall transport safety improvements.

"And a reduction in truck traffic also equates with reduced fuel consumption, reduced carbon and noxious gas emissions and reduced noise pollution."

Designer of the new load restraint system, BlueScope Steel Logistics engineer **Sean Carlson** said that the dynamics of the vehicle was one part of the success of the project.

"Whilst the vehicle is compliant to all the PBS criteria for Level 2B road access, the key aspect of the vehicle's performance lies within its exceptional swept path performance which allows the vehicle to access Level One Infrastructure with the relevant approvals," he said.

Level One roadway access, known as 'General Access' allows vehicle combinations of 20 metres or less that are compliant to established criteria for axle loading, swept path and total Gross Mass.

"The use of the 'drop and drive' system is supported by user-friendly engineered load restraint guidelines, training packages and audit tools, which allow each driver and loader to ensure the equipment is utilised correctly," he said.

"Significant trials and testing have been completed to confirm the performance of the system and compliance to the required standards."

Monthly reviews will be undertaken to include equipment checks of road-friendly suspensions and working with authorities to develop an effective record keeping process to benchmark the PBS benefits.

Loading site modifications will include new internal road movement and handling locations to enhance the core commitment to safety which OneSteel, BlueScope Steel and Haulmark Trailers have all collaborated to achieve through this project.



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