ROLLER FOR A MARSHALL

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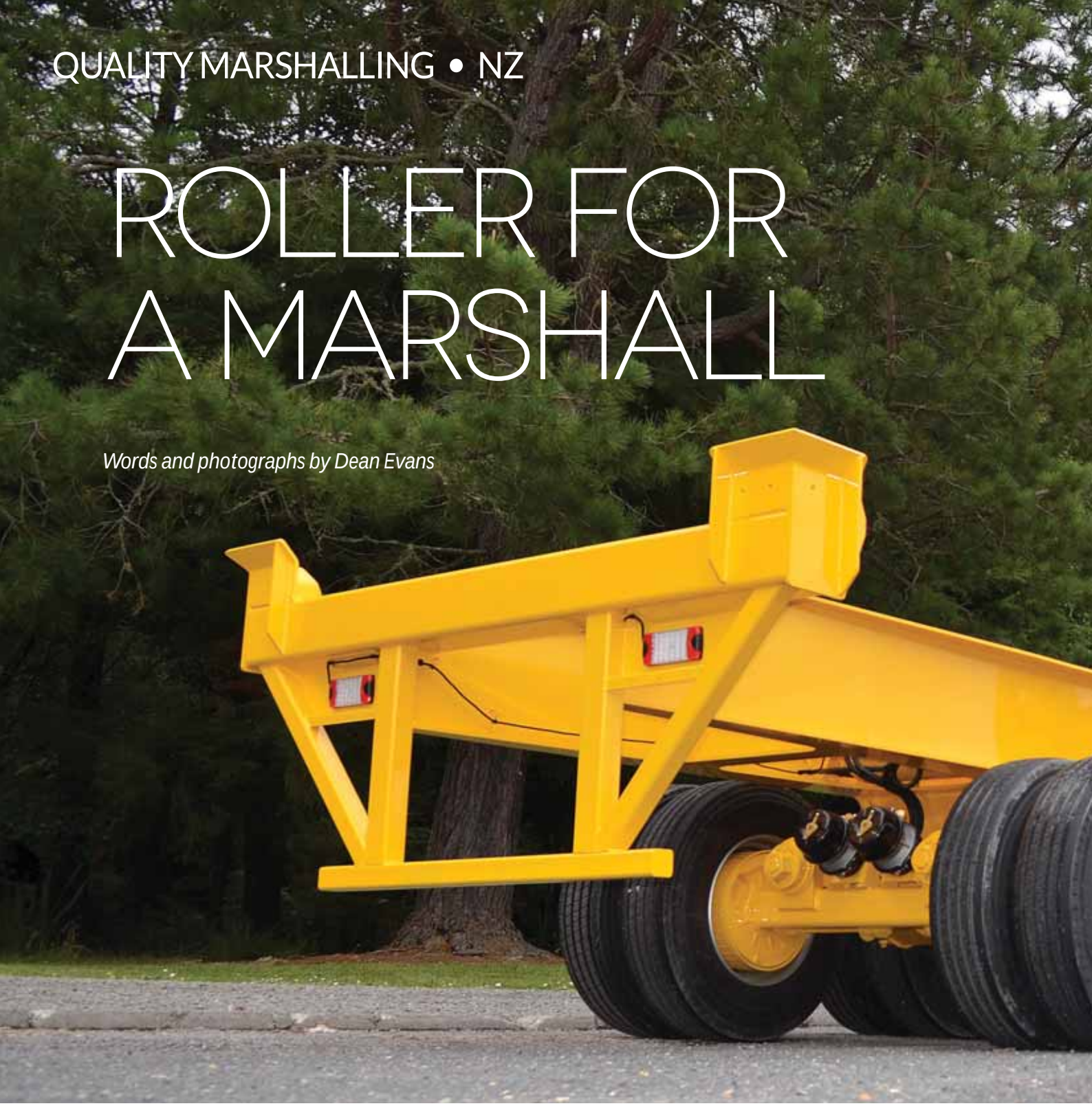

The Port of Tauranga is New Zealand's biggest and busiest port, but its tight turns required something a little special in a BPW-shod custom container runner.

Lead through innovation is one of Patchell's keys to success. As one of New Zealand's leading heavy transport trailer manufacturers, the 45-year old Rotorua-based company is often devising and delving into new ideas and areas, depending on both customer demand, and concept it thinks may lead the way into a new or improperly catered market.

With its own trailer design and manufacture starting in the late-1970s, Patchell has produced on- and off-highway logging trailers, and attachments for heavy earthmoving equipment, but there are many arrows in the Patchell trailer and engineering quiver.

This new twin-axle yellow port runner is its latest creation, an idea bred from both customer demand, and the need to develop something that was practical, yet agile, and able to carry containers short trips within a compound. The skeletal is designed and built for Quality Marshalling, one of the six marshallers who operates at the Port of Tauranga, the country's largest and most active port, about three hours south-east of Auckland, but located so that it's able to easily service not just the north island, but the entire country.

The process of marshalling is receiving cargo from road or rail transport and loading and assembling it on the wharf ready for export.

In the case of imports, marshallers remove cargo from the wharves and prepare it for dispatching, are employed under contract and provide services directly to exporters, importers and shipping companies.

The port runner trailer is a new design from Patchell, which is unique in that it foregoes the struts in the container beams, incorporating the flanges as an integral design part of the chassis, primarily aiding torsional compliance. With the trailer frame fabricated using high tensile steel, a further development is the container stop mechanism that is actuated using a torsional spring system as opposed to a hydraulic spring.

With an overall length of 12.4 metres, it was developed to move 20ft and 40ft containers back and forth around the Tauranga wharf. Weighing around seven tonnes, with a payload around 52 tonnes, the suspension is a Patchell-designed and built walking beams setup, fitted to 12 ton heavy duty BPW axles.

It was also fitted with Jost legs, for the times it's sitting dormant or not attached to a truck and put to work – which isn't often.

Agility and accessibility are two key aspects of the new design, twin axle trailer, as it needs to negotiate tight turns on a regular basis, something that wasn't ideally suited to triple or quad-axle designs. "We're extremely happy with the trailer", says Quality Marshalling's Murray Derricourt. We needed a bit more manoeuvrability, as the majority of our turns and 90 degrees, which are really tight for 50t and 60t loads. And with this tandem axle, we're able to easily do them without the wear and breakages we had with the previous triples.

"We can fit two 20 foot or one 40 foot container, with pop-up pins that allow us to format the trailer for the load."

While it's just the first of its type, this new design has been fantastic for Quality Marshalling, and offers benefits, improvements and agility that would work almost anywhere, in New Zealand or Australia.