



**News release:** For immediate release with accompanying photo, caption:  
  
'Taiwan's HSRC is one of several overseas companies to award railway maintenance equipment contracts to WA's Vector Lifting.'

**Subject:** International railway maintenance expertise for WA iron ore industry

**Company involved:** Vector Lifting, Jandakot, WA

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**Global railway maintenance skills for the Pilbara.**

Jandakot-based engineering firm, Vector Lifting, has been awarded railway maintenance equipment contracts by two major Pilbara iron ore miners.

Extra rail haulage lines in the Pilbara and future increases in their usage mean miner operators are under growing pressure to deliver product more quickly and more efficiently.

Vector's knowledge and experience from large overseas projects (such as the high speed Taiwan train project, pictured) will help WA's miners increase railway maintenance productivity to keep up with rising ore transporting demands.

With the advent of WA's Midwest rail expansion and port facilities upgrade, further opportunities for specialist rail maintenance equipment will likely increase, according to Vector's Sales Engineer Martin Tognala.

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"We've learnt a great deal about developing smarter, quicker and better railway maintenance procedures from our overseas and local work" he said.

"Miners are very interested in lifting their overall productivity to capitalise on these buoyant times. What they don't want is a bottleneck somewhere in the process which prevents maximum output and therefore profits" he added.

"We can help them avoid this in their rail cars and locomotives maintenance procedures, which could save them huge dollars in lost revenue" said Martin.

Vector Lifting has designed and built railway maintenance facilities and systems for many of Australia's freight and passenger rail services such as Queensland Railways (Willowburn, Acacia Ridge, Redbank and Townsville); Westrail (East Perth) and PTC Victoria (Spotswood).

It has also undertaken projects for overseas railway operators such as MTA (Hong Kong) and MTRC Kowloon Bay. More recently Vector won a large international tender for the supply of specialist maintenance equipment items for the Taiwan High Speed Rail Corporation.

This equipment ranged from simple bogie stands to a state-of-the-art underfloor lifting system and included a bogie drop table; bogie load test system; disassembly hoist; mobile jacks; bogie and wheel set turntables, and wheel set and axle rotating devices.

The underfloor lifting system (ULS) is located in the main maintenance depot at Yen Chao and is the centre-piece of the equipment supplied by Vector Lifting. It is capable of lifting a complete twelve-car, 300 metre long electric multiple unit (EMU) train set weighing over 700 tonnes.

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The cantilevered lifting system provides enough lift to enable bogies to pass under the raised railcar bodies along the full length of the track. This operation is carried out on the single ULS track without the need of intermediate turntables or an adjacent track. Up to twenty-four bogey sets can be replaced simultaneously.

Besides being able to lift a complete EMU train set, the ULS can be configured to lift a combination of individual railcars as well as groups of railcars.

The actual ULS comprises twenty-four individual hoisting systems each with four lifting screw spindles. A Programmable Logic Controller (PLC) ensures the accurate synchronisation of all ninety-six spindles in order to maintain an even lift. The PLC programming is made even more complex because of the various combinations of lifts that can be selected.

In order to maintain a safer working environment, the hoists are all concealed below ground when the system is not in use.

As with any project of this scale, an enormous amount of documentation was provided to the client. Vector Lifting produced all the technical and training documentation for the railway operators, maintenance and repair staff, as well as running the training courses. Some ten operation and maintenance manuals, as well as ten training packages were written, translated and printed over an eighteen month period.

Like each project, Vector Lifting's involvement was undertaken with a commitment to Quality Assurance and this played a large part in its successful outcome.

**ENDS**

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