



# Titan 9 Bogie Stacking System allows for wheel rotation in situ

## The Challenge

The conventional method of stacking train bogies is to have each bogie positioned on top of another bogie. The challenge was to design and manufacture a bogie stacking system in which the bogies sat independently of each other and where the wheels could be revolved in situ to satisfy new rail industry standards. If the wheels cannot be regularly turned this could lead to brinelling of the bearings, ultimate failure and expensive replacement.

## The Solution

Ferrartis developed the base frame and intermediate levels to create a dynamic stacking system which is 3 units high to provide storage capacity for a total of 27 tons. The spacing of the bogies enables each bogie to sit independently in its own module, eliminating bogie on bogie stacks and allowing the wheels to be mounted on custom made Ferralon 2TX rollers so that the wheel can be rotated at regular intervals during the storage period.

The design of the stacking frame is adaptable to a range of wheelbase dimensions and can be adapted to be used by different bogie manufacturers and maintenance organisations.

Space Saving / Utilisation

Safety Improvements

Cost Reductions

Environmental Savings

Asset Protection

## The Result

The use of the Bogie Stacking Frame has tripled the footprint capacity of the storage area providing a significant reduction in warehousing costs.

The need to decant the bogies for periodic wheel rotation has also been eliminated and is performed in situ by hand on the power bogies to maintain the functional integrity of the unit. The ability to rotate the wheel without moving the bogie provides large labour saving benefits both in time and the need to use additional lifting equipment.

The design of the Bogie Stacking Frame is flat pack which can be bolted together to enable the units to be easily transported for export based projects.



**REDUCTION IN  
LABOUR TIME**



**REDUCTION IN  
STORAGE COSTS**



**SAVING OF  
STORAGE SPACE**

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