





Transport and unload heavy diesel locomotive units from Dampier port to a Pilbara based mining company



Methodical review and engineered solution to meet changing client needs over a 15-year project span

Conclusion

An end-to-end, fully self-sufficient solution that delivers strategic flexibility across multiple project locations.

200TH DASH 9/ EVOLUTION LOCOMOTIVE DELIVERED TO A PILBARA BASED MINING COMPANY PROCESS INNOVATION THROUGH THE DECADES

Key to Tutt Bryant's longstanding success in Australia is the ability to innovate and deliver smarter solutions to problems of ever-increasing complexity.

As clients face rapid technological advances and intense competitive pressures, the changing demands require Tutt Bryant to be forward-thinking in its approach and assess fresh alternate methods as "we do complex". Following an earlier decades-long association to meet the logistical needs of previous generations of locomotives, a project partnership was established in 2003 to deliver DASH 9/ Evolution heavy diesel locomotive units from the Dampier port to Pilbara.

The original scope involved the transportation of units without their bogie axles utilising a 16 line platform trailer. They were moved into position to be unloaded by two overhead workshop cranes, which then lowered the locomotive units onto bogies to complete them as a whole.

Five years into the project however, the progressing landscape in the mining industry necessitated the transportation and unloading of the DASH 9/ Evolution locomotive units as a whole together with their bogie axles.

With an increased weight of 185 tonnes, the original methodology using overhead workshop cranes to unload the locomotive units was rendered ineffective.

Tutt Bryant had to engineer an alternate solution that delivers the client outcomes in a safe and cost-efficient manner.





NEW APPROACH

Unfazed by the changes, Tutt Bryant undertook a methodical review and engineered a solution utilising an innovative modular hydraulic jacking system. In the process, Tutt Bryant introduced the first Super Boom Lift (SBL) 1100 system to Australia.

Set up in the Pilbara workshop, the SBL 1100 system was and remains capable of lifting the DASH 9/ Evolution locomotives as a complete unit in a safe, stable and controlled manner. Its introduction allowed Tutt Bryant to reduce the requirements for road transport and speed up the process for commissioning the units.

Another review in 2012 led to further improvements with the addition of a second SBL 1100 system. The enhanced solution allowed not only a receival means, but also a discharge means. As a result, the client is now able to strategically receive multiple heavy goods from one part of the country, transport it to another and unload, at times 4,000km away.

On Australia Day 2018 – 15 years after the first unit was delivered – Tutt Bryant was proud to deliver the 200th DASH 9/ Evolution locomotive unit for the client. Underlining its methodical and forward-thinking approach, Tutt Bryant now provides the client with an end-to-end, fully self-sufficient solution to a complex engineering problem.

SOLUTION PROGRESSION

2003

- Locomotive units transported minus their bogie axles (120 tonnes).
- Utilisation of a 16 Line platform trailer.
- Unloaded by two overhead workshop cranes and lowered onto the bogie axles to complete the units as a whole

2007

- Complete locomotive units transported together with their bogie axles (185 tonnes).
- Utilisation of a 16 line platform trailer along with the introduction of the SBL 1100 system to lift and unload.

2012

- Addition of a second SBL 1100 system to provide an end-to-end, fully self-sufficient solution that allows the client to strategically receive and transport heavy goods across multiple project locations.

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