

Job Report: Wheeled Excavator

A 922 Rail

Litronic®

The A 922 Rail Litronic
in operation with
Andy's Hi-Rail Concepts



LIEBHERR



Situation

By virtue of being a major resource exporter, WA has an extensive network of privately owned industrial rail. For example, transport giant ARC Infrastructure manages a network spanning an area twice the size of Great Britain, with 5,500 km of rail network transporting over 70 million tonnes of freight each year.

The network not only supports the State's largest resource enterprises, but also many smaller service contractors, who use a range of rail-specified equipment to service this infrastructure. These contractors need niche equipment able to travel on both road and rail, often called Hi-Rail equipment (from the conjunction of Highway and Rail).

Task

Andy's Hi-Rail Concepts, led by industry veteran Andy Ziersch, is one of these contractors. Operating from a core team of five experts, the specialists focus on the maintenance of industrial rail, primarily for large WA clients including ARC Infrastructure and John Holland.

Being devoted to industrial rail maintenance, the performance of the team's capital equipment is critical to the overall performance of the business. Meanwhile, rail specified excavators are an unusual piece of equipment, and so must be engineered carefully to ensure optimum performance. Due to the variability of rail maintenance, a system allowing for a quick change of working tools is also desirable.

As well as productivity – safety and ease-of-use are also key requirements. This means improved visibility using cameras, ergonomic design and intuitive operating controls. In order to minimise network disruption, many rail maintenance jobs are carried out on weekends or during the night. Therefore, the availability of spare parts and rapid delivery are also critical.

Solution

Looking to acquire the best available technology for the job, Andy's Hi-Rail Concepts was one of the first contractors in Australia to purchase three Liebherr A 922 Rail combined Hi-Rail excavators. One of the latest multi-transport excavators on the market, the A 922 Rail model as first unveiled by Liebherr in 2014, with an operating weight of approximately 21 tonnes.

Depending on the application, the machine can be supplied with either a rail-track undercarriage for standard and broad-gauge rail systems or a friction drive rail kit for narrow-gauge systems. The A 922 Rail is fitted with a Liebherr diesel engine that returns 110 kW of power. It also complies with emissions standard stage IIIB – which is quickly becoming a legal requirement in Australia.

With service centres in every Australian capital city, Liebherr were able to ensure minimum downtime. Cameras on the side and rear of the A 922 Rail improve safety, while the spaciouly ergonomic designed double cabin ensures maximum visibility. Finally, a two-piece boom stretch of up to 3.4 metres ensures no job requirement is out of reach.

While Liebherr's A 922 Rail excavators have been used extensively in Europe, the machines were engineered to meet the specifications for WA railways – while offering improved productivity, fuel efficiency and serviceability. This solid base allows Andy's Hi-Rail Concepts the safety to ensure the State's freight assignments remain on track.





Technical Data

Operating weight	approx. 21 tons
Engine type	Liebherr D 834
Engine output	110 kW (150 HP) at 1,800 RPM
Emission control	DOC (diesel oxidation catalyst)
Emissions stage	IIIB

Equipment

Two-piece boom	3.40 m
Stick	2.65 m
Max. reach	8.35 m