



Bore support legs in use in longwall

Berendsen overhauls critical longwall roof support equipment within 24 hours

Berendsen Newcastle recently conducted emergency hydraulic repairs to outdated roof support equipment for a prominent longwall mine in the Hunter region.

THE PROJECT

Berendsen Newcastle was contracted by a long-standing longwall mining customer to conduct emergency repairs and to modify the design of 4 outdated 220mm bore support legs to comply with current mining design guidelines and Australian standards. The longwall was in an iron bound state with the shearer trapped under the roof supports. Once repaired, the support legs were going to be used to prevent further damage to the shearer by supporting the canopy tips, a crucial step to recovering the mine's longwall. Berendsen Newcastle was chosen due to their extensive knowledge and experience with longwall and underground mine hydraulics.

THE SOLUTION

The emergency overhaul involved a combination of manufacturing components as well as testing and

fitting other new components. This included the following steps:

1. Berendsen technicians firstly tested the integrity of the obsolete equipment as per the original design.
2. Hydraulic manifolds and adaptors were then designed and manufactured in-house.
3. Load-hold valves and anti-intensification components that were supplied by the customer were then fitted to the support legs and bench tested to prove integrity.
4. The complete manifold design was fitted to the 4 x 220mm bore support legs to OEM specifications.
5. The equipment was then workshop tested to specifications.

Berendsen also supplied the customer with change management documentation to support entry to the site.



Bore support legs in Berendsen workshop

The repairs to the roof support equipment was handled by Berendsen Newcastle's Engineering & Design team and Workshop Technicians whom were able to turnaround the repairs within 24 hours.

At the completion of the repair, the 4 x 220mm bore support legs were compliant with current mine guidelines and Australian standards and were able to be used immediately in the process of recovering the mine's longwall. The customer was very satisfied with the service and appreciative of Berendsen Newcastle's prompt assistance and efforts in fast-tracking the equipment overhaul.

ABOUT BERENDSEN

Backed by our Engineering & Design team, Berendsen Newcastle can provide a complete range of engineering services and specialised assistance in areas including: application engineering and re-engineering for optimum performance, installation and commissioning of complete systems, project management of small to large hydraulic projects, process improvement, reference and resource compilation, quality process maintenance and product research and development. Their fully equipped and modern 3200m2 workshop caters for in-house repairs and testing of a large range of hydraulic equipment

including servicing and testing of cylinders, pumps, motors, valves and other hydraulic components. The workshop is equipped with honing and high torque nut cracking and machining capabilities, welding, milling, in-house oil conditioning, monitoring, repair and overhaul of hydraulic components. They carry Australia's strongest range of leading edge fluid power products and brands and their manufacturing facility is complete with multiple CAD and CAM stations, enabling Berendsen Newcastle to design and manufacture standard and customised products including cylinders, manifolds, hydraulic hoses and power units quickly. As Australia's leading hydraulic provider for over 20 years, Berendsen is experienced in a variety of hydraulic service types for all types of hydraulic systems, machinery and equipment. Our branches Australia-wide are equipped with the expertise and tools to conduct service such as hydraulic overhauls, cylinder repair service, field and emergency service, hose service, lubrication unit service, preventative maintenance and pump and motor repair.

If you are looking for a customised hydraulic solution to suit the needs of your business, contact Berendsen Fluid Power today on 1800 814 411.