

Australian Industry

WINS!

WTIA National Diffusion Networks
Project (NDNP) funded by the
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SUCCESS STORY NUMBER M05: SPECIFICATION OF QUALITY OF WELDING IMPROVES PERFORMANCE IN MINING REPAIR – *Major Queensland coal miner helps service providers to ensure dragline bucket repair is top class*

Major investment

To a mining company, a dragline bucket is a major investment which could cost over AUD\$1M dressed and ready to dig. At the working end of the mine, these buckets, plus the “jewellery” or chains which link them to the dragline machinery, are constantly being maintained and repaired using welding technology.



Dragline with bucket and jewellery

Quality welding

WTIA has been actively promoting the qualification of Australian companies to AS/NZS ISO 3834 *Quality requirements for welding - Fusion welding of metallic materials* through the SMART Industry Groups and Mining ISP. By implementation of this quality system and the use of qualified Welding Coordination personnel, fabrication at internationally benchmarked levels of quality is assured.

An Expert Technology Tool which allows companies to easily self assess their performance against the requirements of the Standard has been widely distributed by WTIA to, and implemented in, industry.

BMA, like other members of the Mining ISP, reported problems with quality of work in the repair of dragline buckets by service providers, and felt that many of the companies historically tendering for the repair work were not able to carry out the work to specifications. They were looking for a way of pre-qualifying companies, to reduce staff time spent assessing service providers' ability to perform the work.

The Mining ISP

BHP Billiton Mitsubishi Alliance (BMA) is an active participant in the Mining Industry Sectoral Project (ISP) being run by the WTIA as part of the NDNP, with regular attendance at SMART Industry Group meetings where representatives of member companies from around Australia gather to discuss common problems, issues and potential solutions.

BMA, Australia's largest coal miner and exporter, was formed in June 2001, as a partnership between BHP Billiton and Mitsubishi Development Pty Ltd, under which the two companies share equal ownership. BMA operates eight Central Queensland coal mines and the Hay Point Coal Terminal south of Mackay. BMA produced 56 million tonnes of coal in 2005. The Queensland Government supports the WTIA's NDNP through the Department of State Development, Trade and Innovation.

BMA's operations provide significant benefits to the communities in which they operate, to the broader Central Queensland region and to the Queensland economy as a whole. In 2005, BMA employed 8,100 people, with many of these being contractors employed on specific expansion projects.

The solution

BMA is now specifying compliance with AS/NZS ISO 3834 as one quality component in a comprehensive vendor selection process initiated to consolidate the numbers of repairers, and provide a consistent end product to support their mining operations throughout the Bowen Basin. Through WTIA, service providers have been supplied with copies of the self assessment tool to enable them to identify areas of improvement in their workshops. An easily implemented Total Welding Management System is also made available to enable them to easily upgrade their operations to comply.

Service providers are now also more aware of the need to work to Standards such as AS/NZS 1554.4 *Structural steel welding - Welding of high strength quenched and tempered steels* to ensure the structural integrity of the buckets and equipment is maintained, and Steve Bloom of BMA has reported a significant improvement in quality of work and reduction in the amount of re-work needed as a result of this and other initiatives.

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