**PRESS RELEASE**

Rio-Carb nickel plated studs exceed international AWS specifications

***29 August, 2013:*** *Top CrC liner plate expert Rio-Carb continues to lead the local industry from the front, after it successfully completed nickel plated stud welding tests that exceeded internationally recognised American Welding Society (AWS) specifications in mid-2013.*

Rio-Carb is the only liner plate manufacturer in South Africa whose welding standards are compliant with the AWS, a non-profit organisation that was established with a goal to advance the science, technology and application of welding and related joining disciplines. Today, the AWS serves more than 66 000 members worldwide, and is recognised as the global authority on welding standards.

The results of the company's quality assurance testing revealed that the Rio-Carb M-16 and M-20 models of nickel plated studs both withstood double the amount of torque specified by the AWS, measuring 254 Nm and 352 Nm respectively. What's more, the company's M-12 nickel plated stud withstood 63 Nm of torque - well above the AWS standard of 50 Nm.

Rio-Carb director **Colin Maine** reveals that the company is able to achieve outstanding abrasion results by using proprietary MaxCS Technology, whereby Rio-Carb is able to take the properties of Chromium Carbide (CrC) and cast it via a welding process onto a 300-WA mild steel backing plate, giving it an optimum hardness of 58 RC, while maintaining flexibility for moulding and shaping.

"Industry standard quenched and tempered (Q&T) materials simply cannot achieve these results, because of the fact that these steels obtain their hardness through heat treatment. Our plates differ, as they are mild-steel at the back, with 25 % Chromium layer on the top. This essentially makes our plates eight times more wear resistant than the industry standard," he says.

According to Maine, nickel plated studs are more cost effective and wear resistant than countersunk holes, which are more commonly found on liner plates in South Africa."Due to the fact that Rio-Carb liners last up to eight times longer than the Q&T steels, the studs generally have a tendency to corrode before the end of the liner's lifecycle. Nickel plating the studs provides exceptional corrosion resistance that substantially increases overall life expectancy."

In addition to the strength and cost effectiveness, Maine adds that nickel plated studs are easier to install, and are electronically placed with an accuracy of 1 mm. "What's more, nickel plated studs boast a smoother surface finish than inserts and nib-head countersunk bolts, and are supplied complete with galvanised nuts and washers. They are also considerably easier to remove, as the high corrosion resistance means that rusted threads do not have to be flame-cut off."

Maine points out that all of Rio-Carb's welding techniques are independently tested in controlled laboratory conditions. "This provides our customers with the peace-of-mind that that they are being provided with products that meet the highest international standards of quality, which are independently verified by an external source."

Maine believes that Rio-Carb has placed itself in a dominant position within the local market. “AWS procedures ensure that Rio-Carb is able to comply with any welding standard that is set in South Africa at any given time, and we plan to consolidate thesecurrent successes by continuing to set industry trends.” he concludes.

***Ends***

**Notes to the Editor**There are numerous photographs specific to this press release. Please visit <http://media.ngage.co.za> and click the Rio-Carb link.

**About Rio-Carb**Rio-Carb manufactures wear-resistant Chromium Carbide clad liner plates for heavy materials handling applications in the mining and allied resources industries. The company was initially motivated by Martin Maine, who had experience in the welding and manufacturing industries. He was importing the current product from Australia, and saw the opportunity to establish local manufacture in 1982, when Rio-Tinto had ambitions to establish manufacturing companies allied to mining, and therefore, financed and capitalised the new Rio-Carb for local manufacture. After being in the Rio-Tinto (SA) stable for 16 years, there was a management buy-out by the existing and current share-holders.

**Rio-Carb Contact**Martin MaineRio-Carb director Phone: (011) 908 1014Fax: (011) 908 4139Email: [info@riocarb.co.za](mailto:info@riocarb.co.za)

**Media Contact**Benjamin IwisiNGAGE Public Relations Phone: (011) 867-7763Fax: 086 512 3352Cell: 076 263 2001Email: [benjamin@ngage.co.za](mailto:benjamin@ngage.co.za)Web: [www.ngage.co.za](http://www.ngage.co.za)

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