



If the (horse) shoe fits... delivering technical innovation to one of the oldest industries in the world

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Few industries have such an immediate association with tradition than that of horseshoe manufacture. Indeed, when most people think of horses and horseshoes, they imagine a local blacksmith, bending steel heated in his furnace, making shoes specifically for the individual horse he has there.

In reality the supply of shoes for horses is now a major international business. At its most elite level, when looking at shoes for racehorses, there are levels of innovation comparable to that of Formula 1 racing. As an example, a research project looking at 3D printing horseshoes is underway by scientists at the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia. In looking at new uses for titanium, the group was challenged to develop a lighter horseshoe as any decrease in weight may lead to an increase in speed¹.

In other markets, the numbers are staggering. In Europe there are somewhere between 6 and 7 million horses.² Each horse has on average 3 sets of shoes per year so – just in Europe – we have a market of 18-21 million shoes. There are other major markets in the USA, South America and a rapidly growing market in Asia. A conservative global estimate – though I freely confess this would be subject to a lot of variables - would be in the region of 50 million shoes per year.

For these markets, the material of choice is steel or aluminium, rather than titanium, although there is no shortage of innovation as custom fits, training and racing plates and high performance options are all available to horse owners across the globe.

¹ See <https://www.americanfarriers.com/articles/4593-three-dimensional-printing-manufacturing-of-horseshoes-is-possible>

² See <http://www.worldhorsewelfare.org/Removing-the-Blinkers>

Because modern production of shoes is highly automated, there is a substantial and consistent demand for quality steel, rolled to tight tolerances and with a high degree of straightness.

This focus on quality and innovation creates keen commercial opportunities for UK steel businesses. For example, Bromford is a major supplier for horseshoe manufacturers with steel being supplied not only into the European markets but also to the Far East and North and South America

The close relationship and European base of Bromford and its suppliers enables shorter lead times. These have been vital in competing against cheaper, low-grade imports from the Far East.

The use of more engineered steel has then allowed Bromford's customers to expand into developing shoes for diverse terrains. Considerations such as the geometry, surface quality and the formability of the metal for these shoes are critical.

Finding high value markets and then developing offerings that can compete with the threat of global competition, is critical for UK businesses in the steel industry. But as these points of collaboration and engineering for the horseshoe manufacturing industry demonstrate, it can be done.

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