



EMP times three: equipment upgrade at Hay Speed

Parts forged at Hay Speed in Germany keep millions of vehicles moving worldwide – and the numbers are increasing daily. Quality, efficiency and a culture of continuous improvement of processes are therefore paramount at the company.

These high standards also apply to the three batch-type tumblast machines currently operational at Hay Speed's Lüchow plant in Lower Saxony. The three machines have been reliably cleaning forged parts (gear blanks, etc.) for the global automotive industry for some time - the oldest machine is 35 years old. The youngest of the trio, a Wheelabrator MB 700S was commissioned in 2014.

The two older machines have now been comprehensively modernised to adapt them to the technical standard and specification of the youngest one – and keep up with higher demands on maintenance-friendliness and uptime.

Over the course of three years and using planned breaks in production, a team from Wheelabrator has upgraded the machines part by part. The machine controls were upgraded to Siemens S7 panels and all blast wheels were replaced with high-performing Wheelabrator TITAN wheels.

Sebastian Riesch, project engineer at Hay Speed in charge of equipment and production optimisation, explains: "Initially, the main objective of the upgrades was to improve spare parts logistics and inventory, as well as reducing maintenance requirements – ultimately to reduce production costs."

"However, making TITAN wheels the standard across all machines has now also reduced cycle times, which has increased production capacity and, in turn, has had a positive impact on unit costs."

The new TITAN blast wheels, with 22kW each, contribute to much more efficient production operations – thanks to improved blast power, reduced abrasive consumption, reduced energy use and minimal downtime.

Wolfgang Krause, key account manager at Wheelabrator, adds: “The new TITAN wheels can all share the same spare and wear parts – be it wheel blades or liners. This drastically reduces the spares inventory required at the plant. Thanks to high-quality materials and the low-vibration design of the wheels, these parts also wear more slowly.”

“In our experience, we can increase the service life of, for example, wheel blade sets significantly. Even for machines with only one or two blast wheels, like the ones at Hay Speed, this type of improvement can make a huge difference to production efficiency in a plant.”

Equipment Modernisation Programmes (EMPs) are a standard offering at Wheelabrator and are able to tease high performance even out of very old machines. Beyond performance enhancements, EMPs can include adjustments to improve ergonomics, safety or environmental impact, as well as adapting machines for automation or new products.

Sebastian Riesch concludes: “After the upgrade, downtime is markedly reduced, as are maintenance requirements. All three machines are running with improved process control and are blasting faster. The result of the upgrade has vastly exceeded our initial objectives.”