



YELLOW GOODS

Lorch makes Hercules even stronger

The Italian manufacturer Dieci ranks among the world's leading makers of telescopic loaders. Their powerful all-rounders are engineered and produced at the company's own production facility and attached testing grounds near Parma. From there, the machinery is distributed world-wide and dispatched to the toughest construction sites on the globe. In an effort to find the perfect welding solution for their flagship "Hercules", the expert loader makers embarked on an extensive screening process. The welders at Dieci have been using high-end welding systems designed by Lorch since 2013.

CHALLENGE

The vehicle frame of the Hercules alone is awe-inspiring given its impressive dimensions of 6.70 metres in length and 2.20 metres in width. Constructing this massive frame requires the welders at Dieci to set 100 weld seams by hand – horizontal seams as well as vertical-up and vertical-down seams, at times in extremely tight corners. Each and every one of these weld seams must be positioned perfectly as it connects steel plates with a thickness of up to six centimetres that have to stand up to a colossal level of daily strain. When finished, the frame will weigh in at a monumental own weight of up to 27 tonnes. Worse yet, the chassis is subjected to extreme forces when the telescopic loader heaves weights easily exceeding 14 tonnes across distances of more than 10 metres at maximum stroke height. As with any other business, time is of the essence – never mind that you have to make 100 flawless weld seams per frame. It is, therefore, no wonder that the company opted for one of Lorch's most highly specialised welding solutions.

SMART SOLUTION PROVIDED BY LORCH: HIGH-END MIG-MAG WELDING SYSTEMS OF THE S-SPEEDPULSE SERIES PLUS S8 SYSTEMS WITH 500 A AS WELL AS SPEEDPULSE AND SPEEDARC TECHNOLOGY.

Welding steel plates with thicknesses of up to six centimetres requires a MIG-MAG welding system that can deliver a higher welding performance along with better and deeper penetration. Another aspect that was important to the company was to

provide the welder with maximum mobility that would allow him to produce top-tier results even when working in confined spaces and difficult positions. An application that is right up the alley of the S-SpeedPulse series made by Lorch.

The patented SpeedPulse process of the S-SpeedPulse series marries the speed gains of the spray arc with the application and quality advantages of the pulsed arc. In more specific terms: The welder can work up to 48 per cent faster when processing steel and stainless steel materials. This helps save valuable time and, as a result, cold hard cash. What is more, the welder is given better control over the arc and the weld pool. Best of all, the quality of the seam remains consistently high throughout.

Another significant benefit of the S-SpeedPulse series is a dramatically reduced heat penetration zone. Thanks to the concentrated arc, the thermal input into the material is notably lower than that of other welding processes. The plates warp or buckle to a much lesser extent. This reduces the need for rework to a minimum. The need to realign the chassis plates is even eliminated altogether.

The decision in favour of Lorch's S-SpeedPulse series afforded Dieci welding processes of clearly increased efficiency. Moreover, the welders themselves are impressed with the outstanding degree to which they can control the arc and with the ease of use with which they can adjust the PowerMaster torch while they are welding.

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THIS IS THE CUSTOMER'S VERDICT:

"Compared to the processes offered by other suppliers, the SpeedPulse process delivers vastly greater welding speeds at improved penetration depths. And, overall, the stable arc produces greater weld dependability. Finally, SpeedPulse process has also allowed us to reduce the need to rework significantly. This last aspect is a key factor for the quality and efficiency of our production process. We also appreciate the fact that our welders are more than satisfied with the systems we purchased from Lorch. As the Powermaster control is incorporated directly into the torch, they no longer have to deal with the inconvenience of interrupting their work and covering unnecessary distances. Another quality

they are grateful for are the lower noise emissions these new machines produce. Compared to conventional machines, Lorch's systems cut noise exposure in half by producing a more stable and more focused arc. We have set ourselves high goals for the



future and are absolutely convinced that the welding solutions supplied by Lorch will have a major share in the accomplishment of these goals."

Ciro Corregi,
Managing Director and co-owner of Dieci



The most powerful telescopic loader Dieci makes is used world-wide by companies operating in the construction industry. It is assembled with the help of Lorch welding machines.



Ideal for large components: The Powermaster remote control allows welders to adjust their welding parameters directly on the torch.



An unsurpassed weld surface, deep penetration: a crossbeam perfectly welded with just one layer.

Would you like to learn more?

Mr. Ricci accompanied this project and will be happy to receive your requests: massimo.ricci@lorch.eu

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