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Press Release

Forged Technologies

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EcoDesign for Undercarriage: A Made in Italy sustainability project

- Reducing energy consumption and increasing product life expectancy
- New factory layout
- Employee training courses

Berco, a leading global company in the production and supply of undercarriage parts for the world's leading manufacturers of tracked earth-moving machinery, announces its participation in the call for tenders "Agreements for Innovation - First Window" promoted by MISE (Ministry of Enterprise and Made in Italy) with the project "EcoDesign for Undercarriage - Innovative technological solutions designed in an environmentally friendly manner for the industrial production of undercarriage components for mining, construction, forestry and agricultural tracked machinery".
Through this project, which will run for 36 months and start in October 2022, Berco aims to define new technological solutions that, by applying the principles of the circular industry to varying degrees, will enable innovation in the production of undercarriages for tracked machinery, normally intended for heavy-duty work in various sectors. The advances that will be achieved with respect to the international state of the art will have significant effects on reducing environmental impact, which can be traced back to two macro modes of intervention:

-Minimizing energy consumption in the industrial production cycle, thus, reducing direct and indirect CO2 emissions and the consumption of fossil resources; this objective will be sought through an environmentally friendly redesign of established industrial production processes in order to completely eliminate certain phases that are particularly energy-intensive, using, where appropriate, better control of the production process and/or the identification of alternative materials (alloy steels) that allow simplified cycles;

-Extension of the average useful life of products; this objective will be pursued by acting on the identification of alternative and more high-performance alloy steels (i.e. with specific performance for certain application cases), by introducing IoT electronics in the components for the implementation of remote monitoring services that will allow the residual operating life of the individual element to be continuously measured and, thus, optimize the maintenance process of the entire undercarriage system and finally by developing surface treatments for certain components that will extend their operating life.

In order to allow the start of the research activities related to the project, it was necessary to define a re-layout program of the factory aimed at reducing the movement of material between successive process steps, with the simultaneous creation of production lines that integrate several different work phases.
The new lines are characterized by a fluent and functional sequence of the various machining steps, heat treatment and finishing, with the distinction between the lines mainly based on the size of the parts produced (Mini - Medium - Mining Product).
The profound reorganization of processes has also made it necessary to start a professional development course for all the workshop leaders, who will, therefore, be trained in order to broaden their knowledge of the transversal processes they will have to manage.

Berco's reference market, i.e. the world of undercarriages, is a mature market which, during the 2000s, was characterized by a progressive shift of production towards Asia. In this context, Berco has always stood out for maintaining production activities in Europe and for its ability to use

innovation and the ability to produce "tailor-made" solutions for its customers, using these two levers to maintain market share. The commitment and resources invested in this project are further proof of this.

About Berco:
Berco is a global leading manufacturer and supplier of undercarriages for heavy machinery. With over 100 years of experience, the Italian born company creates tailor-made undercarriage solutions for all types of machinery that range in weight from 1 to 330 tons. Being a market leader in components for Compact Track Loaders (CTL) and a main player in the mining sector, the industries the company supplies include construction, forestry and agriculture. One in every five chain-driven construction vehicles relies on Berco systems. The company's commitment to innovation is demonstrated by its continual investment in R&D as well as by its supplying of best-performing, long-life solutions to leading OE manufacturers.
For the Aftermarket, the company provides drive sprockets, idlers, rollers, track chains, track shoes and undercarriage systems. Its ranges are available in three product lines: Platinum, Original and Service. Berco's main factory is located in Copparo, Italy, and the company has four other facilities in Italy, the US and Brazil, with an overall workforce of around 1,800 employees. Berco has been part of the thyssenkrupp group since 1999, and in 2017 joined the Forged Technologies Business Unit – the world's largest steel forging company.

About thyssenkrupp Forged Technologies:
thyssenkrupp Forged Technologies is a diversified supplier of components and system solutions for a wide range of different industries and markets. The forging group has a unique global footprint by operating more than 50 forging presses and over 150 machining and assembly lines in 15 locations worldwide, including in Germany, Italy, Bulgaria, the USA, Mexico, Brazil, India and China. With sales of well over 1 billion euro, the company specializes in the production of components and systems for the automotive, truck and construction machinery industries.

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