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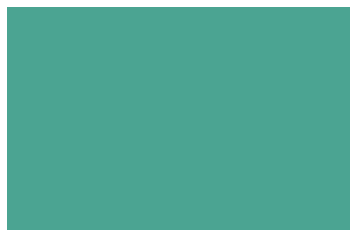
Hinowa production site dedicated to **tracked aerial platforms, minidumpers and undercarriages** has been expanded and improved. The **evolution** of the headquarters in **Nogara** has achieved remarkable results: **90 minutes** time **to build a tracked aerial platform.**



BY CRISTIANO PINOTTI



BY HINOWA



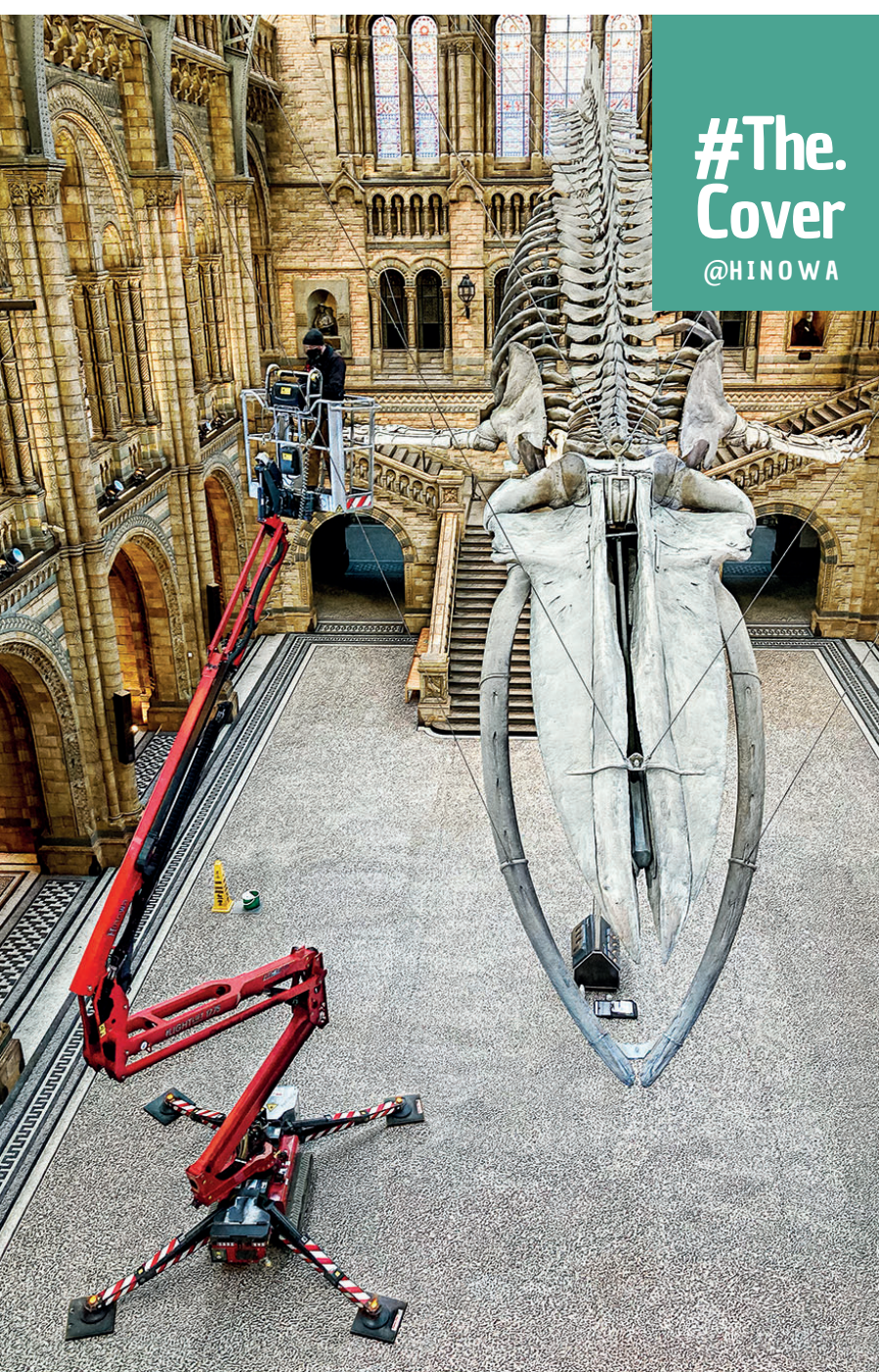
Innovation is in Hinowa's DNA. An ongoing driving force not only with regards to the machine models introduced on the market, but also for the structure itself where the aerial platforms, minidumpers and undercarriages are built. Last March we had the opportunity to see the new layout of the production site in Nogara, which is characterized by an open space that allows the production line to be served laterally, in particular the pre-assembly station. An important restyling that made possible to achieve an extraordinary result in terms of production times: in Hinowa, every 90 minutes, an aerial platform is built regardless of the model.



A restyling that looks toward the future

The reason of the renewal of the Hinowa headquarters is a series of production and logistic needs. "Given the increase in personnel (currently Hinowa employs about 200 people, 25 of them involved in R&D) and the problems related to maintaining distances between employees", Davide Fracca, vice president of Hinowa, explains "not only we have revised the layout of the plant, but we are also expanding the offices, a new cafeteria area and new changing rooms." In this regard, it is worth remembering that about 5% of Hinowa's turnover (which in 2020 was around 70 million euros) is invested in the Research & Development sector. This investment has definitively yielded interesting results.





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Assumptions

Hinowa facilities are situated on a total area of 90.000 sqm, 35.000 sqm are covered. Here in Nogara the machines are built from scratch: they are invented, designed, engineered and assembled. A completely “Made in Hinowa” process that respects (and enforces) very high quality standards. “In this regard”, Davide Fracca goes on, “also somewhat pushed by Covid related needs, since last year we have embarked on a path to approve two suppliers for each component, in order to lower the risks associated with delivery problems.”

Spare parts, undercarriages and painting

Let's start our tour from the spare parts department. An online spare parts ordering system has been introduced for Hinowa dealers, which allows instant information on availability and delivery times, with 80% of spare parts shipped within one day. “This online system”, Davide Fracca underlines “ensure an important saving of time and a better organization. We keep a stock of spare parts for 10 years from the date of production for all our machines, but most of the spare parts are available even for longer periods. Some spare parts, such as remote controls, are also available as refurbished.”

The undercarriage department is definitely another very important part of the company. In this area are produced over 100 undercarriage models, not only for Hinowa machines but also for other manufacturers, for which the product can be customized.

The Hinowa undercarriages have a capacity from 500 kg to 30 t and are designed following precise capacity, working speed, dimensions specifications and according to the type of application for which they will be used for. The components used are of excellent quality. Our gearmotor suppliers are Brevini, Trasmital and Kayaba, the main Hinowa suppliers for tracks (black rubber, non-marking or steel) are Bridgestone and McLaren.

The painting department that uses water-based paints is located in the first production hall as well.

In fact, Davide Fracca continues, “despite the forced closure of six weeks and all the difficulties related to the lack of components, 2020 closed with the minimal loss of a couple of percentage points. And although some export markets are still at a standstill, for 2021 we expect a growth of about 5%.” An increase that involves the entire Hinowa market. Fracca continues: “In this period, Italy has registered a good movement also thanks to the incentives of Industry 4.0, which certainly accelerated the natural turnover of fleets. Currently our main markets, with well proportionated sales volumes, remain Italy, France, Germany, Holland and England. The main customer for aerial platforms is the rental company, followed by green maintenance, tinsmiths and installers. The rental sector, whose share is constantly growing and as far as we are concerned, is about 60%, is then divided equally between building and gardening.”

And now let's go into the factory.





"Having integrated three welding robots helped us overcome the peaks that our supply chain could not cover in some parts of the year.

Furthermore, the structural carpentry produced internally will always be increasing, at least with regards to high rotation machines, also to optimize the logistics of suppliers, which are still concentrated in an area of 80-100 km."



Davide Fracca,
Vice President of Hinowa

An important point is that we are using a cathaphoresis treatment on the booms and many other components: an electrostatic process that makes paint more resistant to rust and bad weather.

Aerial platform production line

We are in the heart of the plant where, since 2013, the company has been applying the Lean philosophy to improve productivity. The main objective of Lean is in fact the maximization of value for the customer and at the same time the reduction of resources necessary to generate it. "With its development and optimization", Fracca continues, "the production employees have been involved as well. Still today we are organizing workshops to improve productivity and to collect suggestions for improvement. In this way, decisions are not imposed from above but are participated in, with evident positive effects on people and productivity." The pre-assembly department is divided into seven workstations where the macro-components such as motors, electric group, extensions, baskets, etc. are assembled. On the other hand the production line consists of 12 stations with similar steps for all types of aerial platforms.

The new **TC22**

The new TC22 has been added to the range of Hinowa telescopic platforms.

After the debut of the TC13 - the first electric tracked aerial platform equipped with a full electric tracked undercarriage, a machine designed in a completely different way than the Goldlift, IIS and Performance IIS series - Hinowa raises the bar again by launching the new TC22. Also in this case the platform is offered in two versions: the N (light) version with a height of 22 m and an outreach of 12.5 m with single-person basket (136 kg) and an outreach of 11 m with a standard basket of 230 kg capacity; the S (3,5 t) version with a working height of 22 m and outreach of 12.5 m with 2 persons in the dual side entry basket, equal to a capacity of 230 kg. Both versions include: full electric undercarriage with widening system from 88 to 128 cm; automatic telescopic boom extension control (scissor effect); Go Home and Go Back functions as well as total and reduced stabilization area. The Go Home function allows you to close and align the telescopic arm - automatically and safely - to return the machine to the transport position with just one button. While the Go Back function stores the last working position reached so that it can automatically return to it with by simply pushing a button. These functions save valuable time and grant a significant increase in productivity. The undercarriage is built by using electric traction motors that allow it to travel on electric power only, without the use of hydraulic oil. The full electric system is in fact more efficient than the hydraulic one and allows the utilization of a more compact lithium-ion battery pack, with a lower energy value, ensuring the same performance as a hydraulic traction platform.



For versatile use at the highest levels, the new Hinowa TeleCrawler22 aerial platform will be available in three engine variants: Kubota diesel, Lithium-ion with electric traction motors and Bi-energy. The first TC22 units will be ready for delivery next October and will definitely be available for viewing at GIS.



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#Awarded



The Hinowa TeleCrawler13 telescopic tracked aerial platform, the first tracked aerial platform with direct electric drive and automatic flush to wall function, was recently awarded in the category "The IAPA Innovative Technology Prize 2021". Among the most prestigious awards in the industry, this year the IAPA took place as a virtual event during which the winners were announced and received their trophies online.



From testing to shipping

All machines are thoroughly tested, the hydraulic oil is flushed and movements are settled by currents and ramps to achieve the smoothest movement possible, while remaining within the minimum limits of speed. Times are tested and cards are calibrated for maximum load in the basket.

Once the work of the five testing technicians is completed, each machine enters the finishing department and then the shipping department from which they are then sent to all the markets currently covered by Hinowa.

On the roof of this last warehouse have been installed solar panels whose energy production covers a large part of the company's electricity consumption.



Minidumpers and warehouses

The department dedicated to minidumpers, where the Lean philosophy has recently been introduced and which consists of eight stations. The two warehouses are quite important, specially the second one that has been built in 2018, thanks to this, picking time has been reduced and therefore also the entire production process of the aerial platforms as well.



Guido Pasqualini is the Service Manager and After Sales for Italy

Quality control and prototype area

All components arriving from suppliers are checked and measured by Hinowa technicians, who decide whether a piece complies with the standards set by the company. All critical components are checked at the material acceptance and quality control.

These components are analyzed in depth, especially in the critical welding points and in those points that have to withstand more stress or strain. In the prototype area, which will soon be subject to further expansion, new components are tested and the prototypes assembled for all machines produced, both platforms and dumpers, pre-series and pre-production. On every prototype complete cyclic tests are carried out, which include all available machine movements, such as boom openings and closings with maximum load in the basket. Before the machine goes into production, tens of thousands of cycles are carried out, corresponding to about twenty years of work.

At the end of the tests, each prototype is completely disassembled and all components are meticulously checked.

● A completely new service department

Hinowa innovations have also affected the service department, which has been moved to a new location of 3,000 sqm, located just 2 km from the company's headquarters.

In this department - led by Guido Pasqualini and with eight specialized technicians - scheduled maintenance activities are carried out, such as simple routine maintenance, but also special maintenance, such as changing ropes or used machines reconditioning. Hinowa Used Center Service is available from Monday to Friday from 08:00 to 18:00. On Saturdays the opening hours are from 08:00 to 12:00.

