



**Häggglunds hydraulic systems are driving growth at Usina Ferrari**

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**Brazilian sugar producer Usina Ferrari relies heavily on the Hägglands hydraulic direct drives that crush its cane. Over the past decade, the reliability and control offered by Hägglands drive systems have helped the company thrive and expand.**

Located in the Brazilian state of São Paulo, Usina Ferrari is one of several sugar producers in the municipality of Pirassununga, an area that derives much of its income from sugar production. Yet Usina Ferrari stands out among its peers, having grown with healthy financial figures in a sector that has seen little movement in recent years.

General Manager Hênio J. Rospendowski Jr. attributes a good deal of Usina Ferrari's success to the use of Hägglands hydraulic direct drive systems, which the company has been working with for around 10 years. "The use of Bosch Rexroth equipment has brought us high operational reliability," he says, "which, as we see it, is the main performance indicator for our area of industry."

## THE CHOICE FOR PRODUCTIVITY

Because Usina Ferrari is always looking to maximize uptime and output, the company expects reliability – both from its

equipment and from its suppliers. One reason why Usina Ferrari first turned to Bosch Rexroth was the strength of the references for Hägglands drive systems as independent roller drives on sugar mills.

Hägglands hydraulic motors provide a compact and durable solution for driving mill rollers individually, allowing friction to be perfectly adjusted for maximum extraction. In 2008/2009, Usina Ferrari installed them on an 84" milling tandem with a crushing capacity of 640 tons per hour. The mill was equipped with two Hägglands MB2400 motors on the upper roller, one on the sugar cane roller and one on the bagasse roller.

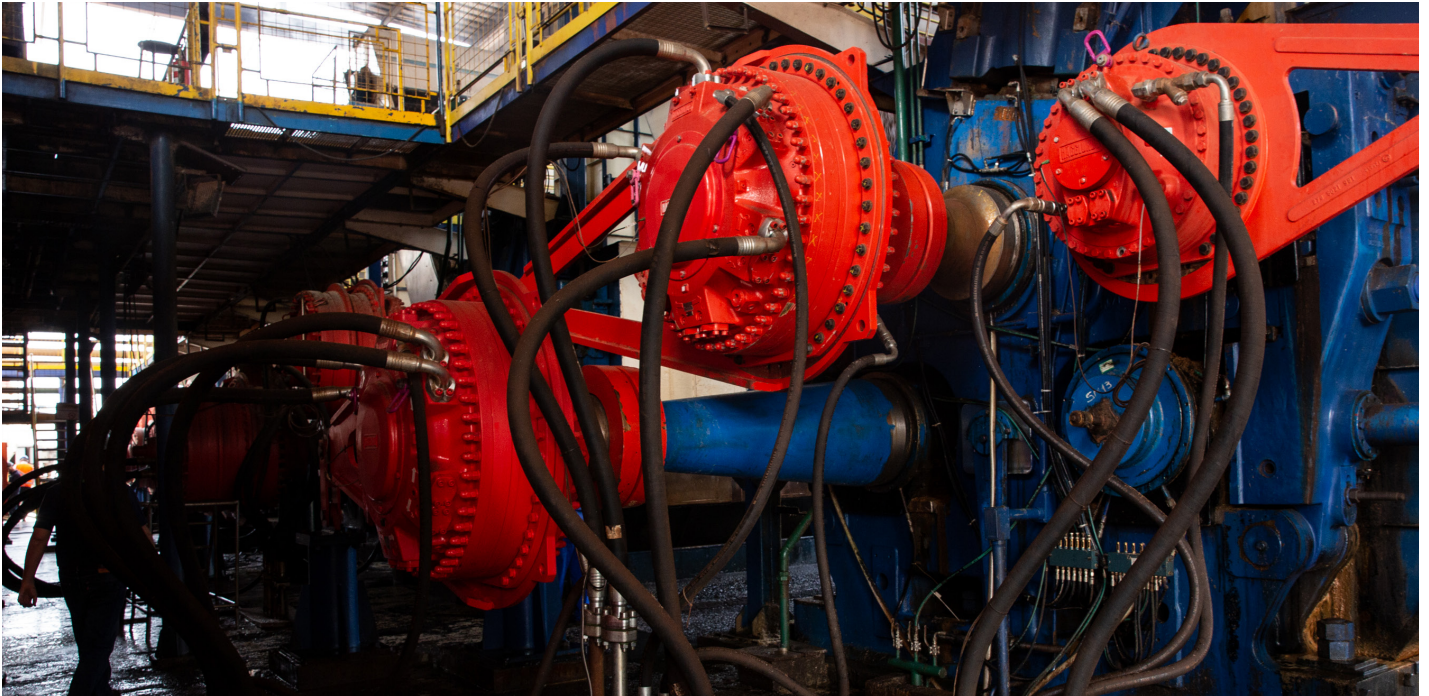
As Rospendowski Jr. relates, the advantages of the high torque and superb control were instantly clear. "The investments in Bosch Rexroth equipment immediately brought us an increased milling rate and increased juice extraction, as well better utilization of the milling time," he says.

Henrique Fantinatti, Usina Ferrari Industrial Manager, agrees. "We achieved a lot of benefits we hadn't seen before then," he says. "It became possible for us to know the torque distribution in the mill and how it might affect the rollers. We could make the necessary adjustments in mill settings, scrapers and diameter compensation, and consequently have better performance and improved productivity."

## YEARS OF RELIABLE PERFORMANCE

The Hägglands systems have also brought Usina Ferrari peace of mind, for example by making it quick and easy to reverse the shaft rotation. "Whenever we experience a





milling clog,” says Fantinatti, “we can do an inverse rotation and remove it more simply.”

In addition, the company spends little time maintaining the drives themselves. With their fully enclosed radial piston design, the motors are an excellent match for the harsh environment of sugar production. When one of the Hägglunds MB motors was removed for inspection after six years of uninterrupted operation, no wear could be seen at all – the cam rings, rollers, pistons, guide plates and bearings were all as good as new.

“The number of working years with no external maintenance says it all,” says Usina Ferrari Maintenance Supervisor Paulo Cesar Benedito. “The Bosch Rexroth hydraulic system turns a new page when it comes to how to drive a mill. I see it as a paradigm shift, bringing reliability, ease of maintenance, ease of operation and high availability.”

#### MOVING FORWARD WITH HÄGGLUNDS TECHNOLOGY

In light of the benefits Usina Ferrari has experienced, it comes as little surprise that the company has installed further Hägglunds systems over the past decade. The Hägglunds MB2400 motors on the 84” tandem were soon followed by twelve Hägglunds MB1600 motors on Usina Ferrari’s three 78” crushers.

In 2018, when Usina Ferrari decided to upgrade its capacity with yet another mill, Hägglunds systems were again the choice. This time, however, the four main rollers were

equipped Hägglunds CBm 3000 motors. The Hägglunds CBm series is the successor to the Hägglunds MB series, packing 50% more torque into motors that are smaller and up to 50% lighter than their predecessors.



At the same time, Usina Ferrari began implementing aspects of Hägglunds Inside Intelligence, Bosh Rexroth’s suite of connective technology and services for hydraulic drive systems. Taking advantage of connectivity, says Benedito, will mean still more benefits for maintenance and even better production results.

“The computerization will help us in decision making,” Benedito says. “It will help us to foresee failures that might cause productions. That will save us time – and reduce cost.”

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