Drive India

The SEW-EURODRIVE Customer Magazine

SEW EURODRIVE

Page 4

Investing in Long-Term Partnerships with the Indian Industry

Page 2
When Precision Cannot Fail: SEW Delivers a Complete Retrofit Solution for Tenneco India

Page 3
Engineered for Crane Hoists: X..e/HC Series Gear Units from SEW-EURODRIVE

Dear Reader,

We live in a world where geopolitics spills beyond boardrooms into kitchens and shop floors shaping what we consume and deliver. As we shift from VUCA to BANI, resilience, adaptability and empathy are essential. At SEW-EURODRIVE India, we're responding proactively with our new Chennai facility, fortified supply chains, and a focus on people and partnerships that guide customers through uncertainty.

This issue of Drive India showcases that commitment through real results of precision for customers, product innovation and enduring investments in India.

Our customer story reveals how, in a high-precision automotive setting, SEW-EURODRIVE's complete retrofit solution ended breakdowns and locked in micron-level accuracy proving reliability where failure isn't an option.

Our product story spotlights the X..e/HC series gear units for crane hoist applications–compact, efficient designs that reduce energy consumption while boosting performance in tough environments.

Our feature article details the Chennai assembly plant, highlighting its role in boosting responsiveness, quality and scalability for India's future growth.

Together, these stories send a clear message: In a changing world, sustainable success demands engineering excellence, strong partnerships and purposeful adaptation.

I wish you happy reading!

S. Vasudevan
Managing Director, SEW-EURODRIVE India

When Precision Cannot Fail: SEW Delivers a Complete Retrofit Solution for Tenneco India

In high-volume automotive manufacturing, even a micron-level deviation can disrupt quality and productivity. At Tenneco Automotive India's Sanand facility, a critical Centreless Grinding Machine responsible for piston rod production began facing recurring breakdowns and precision instability.

Rather than opting for repeated repairs or partial replacements, Tenneco partnered with SEW-EURODRIVE India for a complete retrofit solution.

The Customer

Tenneco Automotive India Pvt. Ltd. is a global leader in emissions control and ride performance systems. The Sanand plant manufactures suspension components for domestic and international markets. SEW has been associated with the plant since 2019, supporting various drive and automation applications.

Application

The project involved a GCH make six-axis Centreless Grinding Machine. The process relies on synchronized control of a grinding wheel, regulating wheel, X-axis infeed (requiring 2-micron accuracy), Z-axis diamond dressing system and parallel dressing axes.

Since the machine operates without spindle support, precise motion control and axis synchronization are essential to maintain dimensional accuracy and surface finish. Any instability directly impacts production quality.

Challenge

The machine, purchased from GCH USA had limited documentation and was equipped with third-party servo motors and drives that began failing frequently. The issues included:

- Repeated servo and drive failures
- Long spare part lead times
- Limited service support
- Production losses and manpower disruption
- A critical requirement for sustained 2-micron positioning accuracy

As this machine was part of the main production line, any stoppage affected the entire manufacturing cycle.

Tenneco needed more than a product replacement; they needed a reliable solution partner.

SEW Solution

SEW conducted a detailed technical evaluation covering load analysis, motion logic, axis synchronization, panel optimization and PLC communication.

The retrofit solution included CMP series servo motors, MOVIAXIS® multi-axis drives, MOVITRAC® inverters and a MOVI-PLC® master controller integrated seamlessly with the existing PLC and HMI system.

SEW also optimized motor sizing, mounting and panel design, taking full responsibility for achieving and sustaining 2-micron accuracy in critical axes. Commissioning was completed within a restricted shutdown window to minimize production impact.

Result

Since commissioning in December 2023:

- Zero breakdowns reported
- Sustained 2-micron positioning accuracy
- Improved process repeatability
- Higher machine uptime
- Quick local service and spare parts support

What previously required frequent intervention is now running continuously and reliably.

This successful retrofit reinforces SEW-EURODRIVE's capability to deliver complete, engineered solutions for high-precision manufacturing, ensuring performance, stability and long-term operational confidence.

Technical Specifications

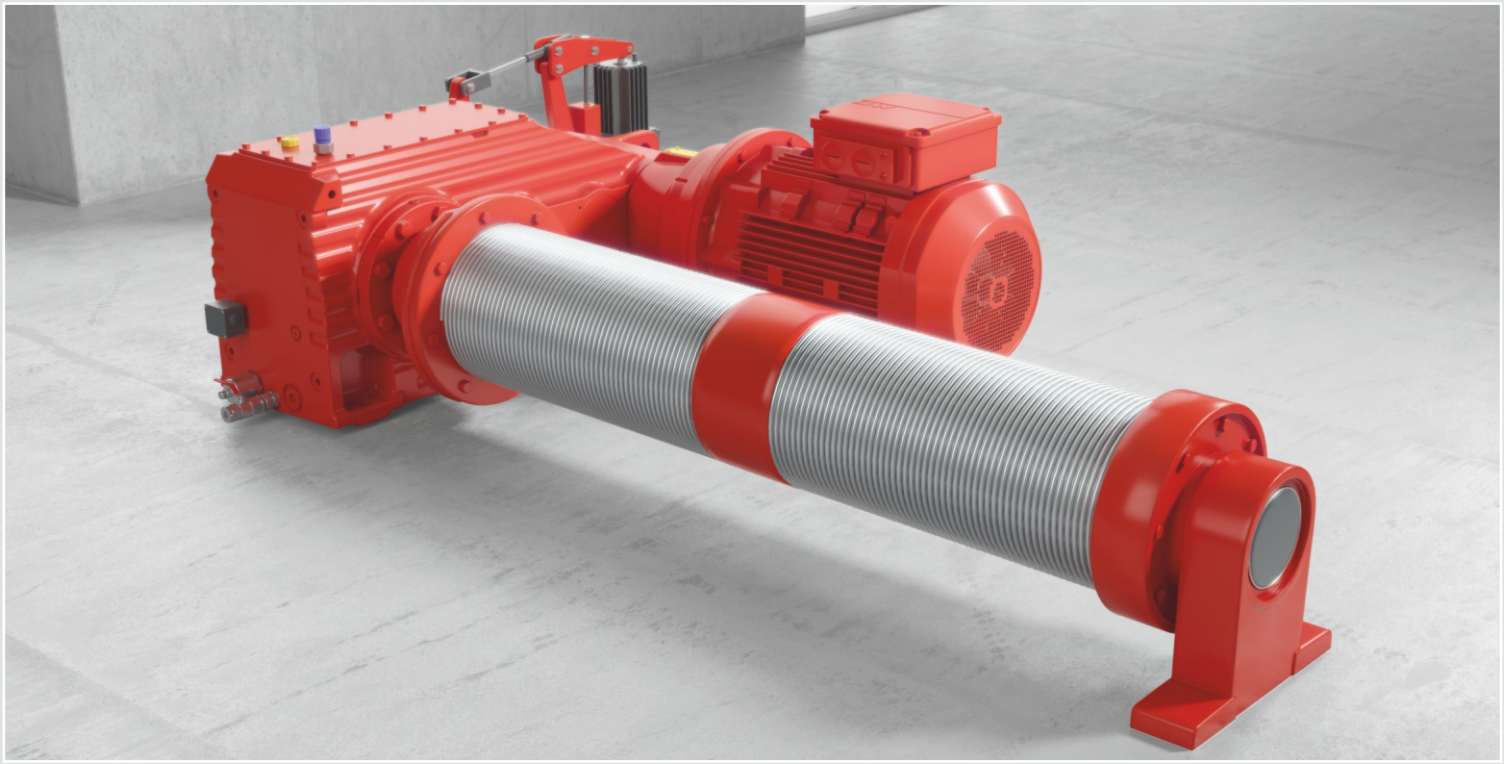
App. Name	VFD and Servomotor	Rating
Grinding Wheel	MOVITRAC® B: MC07B-0370-503-4-00/FSC11B	37 kW
Regulating Wheel	MOVIAXIS®: MXA80A-032-503-00	32 Amp
	CMP112M/PK/AK1H/SMB	45 Nm
Z-axis Diamond	MOVIAXIS®: MXA80A-008-503-00	8 Amp
	CMP63M/PK/AK1H/SM1	5.3 Nm
X-axis Infeed	MOVIAXIS®: MXA80A-012-503-00	12 Amp
	CMP71M/PK/AK1H/SM1	9.4 Nm
Power Supply Module	MOVIAXIS®: MXP80A-025-503-00	25 kW
Grinding Wheel Dressing & Regulating Wheel Dressing	MOVITRAC®: MC07B0008-5A3-4-00/FSC11B	0.75kW
MOVI-PLC® (Master Module)	MOVIAXIS®: MXM80A-000-000-00/DHE41B/OMH41B-T0	

"After switching to SEW systems, with the support of the SEW teams, we have experienced zero electrical breakdowns since December 2023. We sincerely appreciate both SEW teams for their strong technical support and for helping us resolve these long-standing issues. We are now highly satisfied with the performance and reliability of all SEW products installed on our machines.

Harshil Bhatt, Sr. Engineer - Maintenance

Engineered for Crane Hoists: X..e/HC Series Gear Units from SEW-EURODRIVE

The X..e/HC series industrial gear unit from SEW-EURODRIVE is purpose-built for crane hoist applications, delivering high-torque performance in a compact, lightweight design. Engineered to meet the demanding requirements of material handling industries such as steel, ports and heavy manufacturing, this series supports torque capacities ranging from 12.8 to 175 kNm.



Optimized for Hoist Applications

Hoist drives typically require parallel-shaft gear units, where the motor and rope drum are positioned on the same side. In conventional solutions, limited centre distance often leads to oversized gear units, increasing both weight and installation space.

The X..e/HC series addresses this challenge through an optimized design that enables proper gear unit sizing while maintaining adequate centre distance. This results in a more compact arrangement, improved efficiency and better utilization of installation space.

Lightweight Design with Operational Benefits

A key advantage of the X..e/HC series is its reduced weight. Lower mass directly contributes to decreased energy consumption during operation. Additionally, the lighter gear unit allows crane manufacturers to reduce structural steel requirements, resulting in cost savings and a more efficient system design.

Engineered for High Load Conditions

To withstand the high radial loads generated by wire rope tension, the gear unit is equipped with reinforced solid shafts and heavy-duty bearings as standard. Depending on application needs, hollow shaft variants are also available for direct mounting. Flexible installation options, including foot-mounted and torque-arm designs, ensure reliable torque transmission and adaptability.

Complete Drive Solution

The X..e/HC series can be configured as a complete drive package with a wide range of options, including motor adapters, brake consoles, couplings, brakes and brake motors. This modular approach simplifies system integration and ensures compatibility across applications.

Key Benefits

- Optimized gear unit sizing with sufficient centre distance
- Reduced weight leading to lower energy consumption
- Lower investment costs and material savings in crane structures
- Space-efficient U-arrangement of motor, gear unit and rope drum
- High flexibility through multiple configurations and mounting options

Technical Specifications

Gear Unit Type	Helical Gear Unit X.F.C120e/HC – X.F.C250e/HC
Stages	3 and 4
Gear Ratio i	14 – 250
Nominal Torque MN2 kNm	12.8-175

Investing in Long-Term Partnerships with the Indian Industry

SEW-EURODRIVE India has inaugurated its newly rebuilt Assembly Plant in Chennai, reinforcing its long-term commitment to customers across South and East India. The new facility marks another important step in SEW's steady and structured growth journey in the country, following the establishment of plants in Vadodara (2000), Chennai (2009), Pune (2014) and Tapukara (2023).

Spread across 12.27 acres with 21,350 sq. m of assembly and service space, the new Chennai plant is nearly three times larger than the previous facility. This expansion directly enhances SEW-EURODRIVE's ability to respond quickly to customer requirements, maintain delivery reliability, and support larger and more complex drive and automation projects. As industries continue to modernise and scale operations, customers require not only high-quality products but also predictable lead times and dependable execution capabilities. This new facility is designed to strengthen all three.

At the heart of the plant is a 15,000 sq. m assembly shop featuring digitisation-ready, high-productivity assembly cells based on a single-piece-flow concept. This layout supports improved process control, consistent quality and efficient throughput. SEW-EURODRIVE India's first semi-automated painting booth further enhances surface quality and production consistency, contributing to stable and repeatable output.

The facility has been built in line with green building norms, incorporating solar power generation, natural daylight, rainwater harvesting and energy-efficient construction. Advanced climate control reduces shop floor temperatures, creating stable production conditions that support quality assurance while improving working environments.

As a family-owned company with a long-term perspective, SEW-EURODRIVE continues to invest ahead of demand. The Chennai plant reflects this philosophy of building capacity today to support customers' growth tomorrow. By combining global engineering standards with strong local execution, SEW-EURODRIVE reinforces its position as a reliable and enduring partner to the Indian industry.

Customers are warmly invited to visit the facility and experience firsthand how this investment strengthens responsiveness, capability and long-term partnership.