



ElectroMech

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Newsletter Issue 12 : 2023



Powering
the wind energy
sector



ElectroMech Yale
association
completes 5 years



Practical thinking
provides a smart and
economical solution

EMPOWER

Lifting & Handling



**Introducing eRTG
electric Rubber Tyred Gantry Crane**

NEW

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Double Girder Gantry Crane (16t+16t) for loading locomotives on trailers at the Electric Locomotive Factory, Madhepura, India



Take My Word!

Dear Reader,

It is a pleasure interacting with you through this newsletter. I am sure, you will be interested to know the latest happenings at ElectroMech.

I would like to draw your attention to one of our most significant new product developments – the eRTG (electric Rubber Tyred Gantry Crane). We launched this product at EXCON 2022 and it has been received very well by the industry. This is a completely indigenous product and has been developed for the first time in India.

Another major development is from the wind energy sector. Due to the pandemic, supply chains across the world were heavily disrupted. This forced major European wind energy companies to look beyond China, and they thought of India as the next best destination. We are proud that we are the 'partner of choice' of almost all the MNCs in the wind energy space, for crane solutions in their new factories. With several hundred crane installations across the entire value chain of the wind energy sector in India, we now command a leadership position in this sector.

You will also be interested to know about our novel crane solutions supplied for stacking and retrieving steel coils at a leading stainless steel manufacturer, a crane solution with an advanced automation solution at a fastener manufacturer, and the recent installation in a major shipyard.

I am happy to inform you that our association with Hyster-Yale® has recently completed 5 years. We are commanding a good market share in the lift truck segment with a PAN India presence. It is also a pleasure to inform you of the successful completion of 3 years of ElectroMech Infrastructure Equipment Pvt. Ltd., a leader in the Aerial Work Platforms (AWPs) market in India.

Last but not the least, we have been recognised as a 'Great Place to Work®' for 3 consecutive years. This cements our position as one of the most preferred employers in the industrial machinery space.

I would also like to take this opportunity to wish all of you a very Happy New Year 2023!

Yours truly,

Tushar Mehendale
Managing Director

Introducing eRTG – electric Rubber Tyred Gantry Crane

The flexibility to move anywhere, effortlessly and electrically!

Developing new technologies and equipment is a continuous process at ElectroMech. It helps in meeting new application requirements, offering better customer experience and ensuring more value for our customers.

After attaining the leadership position in the EOT crane segment in India and establishing a significant presence across 60 countries, ElectroMech has introduced a new equipment – the eRTG electric Rubber Tyred Gantry Crane. The eRTG is a product of our experience earned through an in-depth study of application requirements of over 10,000 customers and continuous development efforts.

**Proud to launch eRTG
with complete indigenous
technology!**

What is an eRTG?

The eRTG is a custom-designed solution for your material handling requirement to handle load in any direction. eRTG benefits industries by addressing several material handling challenges, and provides the much required flexibility, safety and ease of operation while handling exceptionally long and heavy loads.

The eRTG is designed to operate on gradients and on various types of surfaces. It is a self-propelled equipment and is driven by electric motors using variable frequency drives, has a rigid structure designed to take dynamic forces and can easily be disassembled and transported. These features make it perfect choice for industrial, infrastructure, wind energy and other sectors to competently address various load handling challenges.



Single Girder eRTG Crane



Double Girder eRTG Crane



Tandem operational eRTG Cranes



Do visit our factory for a first-hand experience of driving the new eRTG!

Features:

- **Gradeability** - Up to 5%. Can be operated on uneven surfaces
- **Electrically driven** - No hydraulics involved (No power supply or runway needed)
- **Intact floor** - Constant pressure on floor irrespective of amount of load lifted
- **Versatility** - Capability to work on various surfaces
- **Portability** - Can be easily disassembled and transported
- **High safety** - Safe handling of long and odd-shaped items
- **Turns effortlessly** - Can easily negotiate turns
- **Robust structure** - Designed for dynamic loads
- **Tandem operation** - Two RTGs can be easily coupled to handle long objects
- **Low cost of ownership** - Low maintenance, high uptime, high productivity, low expenses on developing infrastructure
- **Lower capex & opex**
- **No risk of oil leakage/spillage**
- **Suitable for indoor + outdoor movement**
- **Movement in multiple directions** ■

Powering the wind energy sector with customised crane solutions!

Achieving leadership in providing crane solutions for the wind power sector

Sector overview

The world is witnessing a tremendous surge in the demand for power, year after year, due to growing industrialisation and urbanisation. At the same time, public awareness about environment protection and the pressure on governments to reduce carbon footprint is also increasing. No wonder, renewable energy sources such as wind energy are attracting the attention of governments and industries the world over.

Several large multinationals have ventured into the wind energy sector, considering the huge potential in the near future. Till recently, China was the leading global supplier of key components required for windmills. During the pandemic, the supply chain was hit hard and the problem persisted even thereafter. This forced major multinationals to rethink about the over-dependence on a single country and find an alternate destination. For such companies, India turned out to be a perfect choice due to its strategic location and the right ecosystem. Indian operations bring advantages such as geopolitical neutrality, lower real estate costs, lower overheads, availability of skilled manpower and connectivity with the rest of the world through sea routes. Considering these aspects, many companies have shifted their operations here to meet their global requirements.



Wind blades

Nacelles

Gearboxes

Generators

Towers

Hundreds of cranes supplied by ElectroMech are operational in the wind energy sector in India



At the same time, the wind energy sector in India is also growing. In recent years, installed domestic wind power generation capacity has significantly increased from a mere 7GW in 2005 to nearly 40GW in the year 2021 and accounts for nearly 10% of total installed power generation capacity. This makes India the fourth-largest nation in the world to have such a massive installed capacity. Majority of the wind power plants in India are strategically located in the states of Tamil Nadu, Gujarat, Karnataka, Maharashtra, Andhra Pradesh, Rajasthan and Madhya Pradesh. According to some studies, India has a gross wind power potential of about 1000GW and governments and industries are making great efforts to tap it to the fullest extent.



ElectroMech – A frontrunner in offering customised crane solutions

ElectroMech was among the few foresighted crane manufacturers to sense the need for specialised cranes in windmill component manufacturing plants. We were possibly the first company in India to develop and install specialised crane solutions for a windmill blade manufacturer, as early as 2005. Our association with Abus Crane Systems, Germany, one of the largest manufacturers of cranes and crane kits in Europe, enables us to offer advanced technology solutions to this sector. Since 2005, we have supplied several hundred cranes to various manufacturers and are the category leader with the highest market share.

Our solutions for the wind energy sector are built around our different types of cranes, which include

- **Synchronised Double Girder Cranes** for tandem handling of large windmill blades and moulds with lengths exceeding 78m.
- **Synchronised Double Girder Cranes or Semi-gantry Cranes** for most critical gearbox and nacelle assembly stations.

- **Double Girder Gantry cranes** for the loading of nacelles, blades and tower sections onto trailers.
- **Jib and Wall Travelling Cranes** for small component handling at various assembly stations and stores area.
- **electric Rubber Tyred Gantry Cranes** – Our recently developed product, suitable for handling blades, towers and nacelles.
- **Various Types of Specialised Cranes** – For handling in foundries and handling large parts of key components, such as accumulators, lock cylinders and hydraulic pitches.
- **EOT and Semi-gantry Cranes** – For handling rotors and hubs.

Our crane solutions cover practically the entire value chain of the windmill sector. They are operational in a number of plants of different companies manufacturing wind blades, towers, gearboxes, nacelles and generators, as well as mould manufacturing facilities and foundries. **Contd. »**

Significant installations across India

Here are glimpses of a few significant crane solutions for the wind power sector

ZF Wind Power Coimbatore Pvt. Ltd.

They are one of the largest global manufacturers of gearboxes for wind turbines. In India, the vast plant of ZF Wind Power is equipped with more than 170 nos. of state-of-the-art ElectroMech cranes, ranging from a small 500kg Jib Crane to Double Girder Cranes for handling gearboxes weighing around 70t. We have been associated with ZF Wind Power consistently for over 15 years and supply cranes every time a new requirement arises. The upkeep of all the cranes is managed by our services subsidiary – Cranedge, through permanently stationed engineers.

Powering the wind energy sector



LM Wind Power Blades (India) Pvt. Ltd.

Having plants in Gujarat and Tamil Nadu, LM Wind specialises in manufacturing advanced, reliable and high-quality wind turbine blades, which are key elements for efficient power generation. ElectroMech has supplied them 20 cranes, which include 12 cranes of over 20t capacity and a 42m span to cover the entire bay length and width, providing handling possibility at every point in the bay.

TPI Composites India Pvt. Ltd.

TPI is headquartered in the USA and is the only independent wind blade manufacturer with a global footprint. They have been providing composite wind blades since 2001 and have produced more than 10,600 wind blades till date. They have set up a plant in India in 2020 and partnered with ElectroMech for crane solutions for their entire requirement in the new plant. We have supplied them 22 Double Girder Cranes of 20t capacity with a 42m span. These cranes have been synchronised for tandem operation while handling 78m long wind blades and can also be used independently.

Nordex India Pvt. Ltd. (Acciona- Nordex)

Nordex is a German company with more than 35 years of experience in the wind energy sector. Recently, in 2016, they acquired Spain-based Acciona Windpower. Development, manufacturing, project management and servicing of onshore wind turbines has been the core competence of the company. They have a well-equipped manufacturing plant in Chennai and ElectroMech has supplied them 2 nos. of 40t Semi-gantry Cranes for assembly of the rotor hub and a 125t Double Girder Crane for lifting the assembled nacelle during despatch. In addition to this, there are 4 nos. of 8t x 20m span Single Girder Cranes, used for lifting frames.



Siemens Gamesa Renewable Power Pvt. Ltd.

Siemens Gamesa is a leading name in the wind energy sector across the world. We have supplied them cranes for the loading of nacelles on to the trucks. Our Double Girder Gantry Cranes are performing relentlessly at their plant in Chennai.



Enercon India Ltd.

Enercon is a global company manufacturing wind energy converters, which are characterised by their ground-breaking gearless drive concept. They have a large plant at Erode, Tamil Nadu. ElectroMech has supplied them 12 cranes of various types for ensuring efficient handling during drive assembly.



Global Wind Power Limited

Global Wind Power Limited (GWPL), an associated company of Reliance ADAG, is a leading Wind Turbine Manufacturer. World class facilities have been established in India to manufacture a range of wind turbines to cater to global markets including Tower Manufacturing Unit. We have supplied them two nos. of Double Girder Gantry cranes with nearly 30m span and 60t SWL which are being used to handle long tower sections during manufacturing process.



Baettr India

Baettr is a castings component manufacturer, exclusively supplying to the wind energy sector for more than a decade. They have their headquarters in Denmark and foundries across Denmark, Germany, Sweden, China and India. Their foundry in Chennai manufactures gearbox castings and is equipped with 10 cranes of different types from ElectroMech. They include a 150/80t Double Girder EOT Crane for casting storage and a 130t crane for handling ladles.

In the last 17 years, we have provided several hundred crane solutions to the wind power sector and have become the 'partner of choice' of all the leading names in the sector. We are proud that by working with the wind energy sector, we are contributing to reducing the carbon footprint and reinforcing industry efforts towards achieving sustainability goals. ■

Eickhoff Wind Asia Pvt. Ltd.

Eickhoff is a German company, having one of their manufacturing plants in Chennai. They manufacture machines and gearboxes for wind turbines. ElectroMech has supplied 15 cranes of different types for their ultra-modern factory, including a 100/100t Double Girder Crane for testing benches.

Suzlon Energy Ltd.

This is one of our earlier installations in the wind sector. We have supplied Single Girder Cranes with a side-mounted trolley, which requires minimum headroom and allows complete height utilisation. The cranes working in tandem are being used for handling long windmill blades.





Established in 1975, Jindal Stainless (Hisar) Ltd. (JSHL) is a part of the Jindal Stainless Group, which is India's largest manufacturer of stainless steel in certain grades. They have a fully integrated stainless steel plant, which produces steel coils.

Laborious, time-consuming storage of coils that occupied large floorspace was a major concern for JSHL.

At the Hisar plant, after production, steel coils are stored in a separate warehouse. Considering the daily production, almost 600 coils have to be stored at any given time. Each coil has a different dimension and weight as it is manufactured according to the customer's requirement. The coils weigh less than 3t. The internal diameter of the coils ranges between 500mm and 600mm, and the outer diameter and width vary from coil to coil. Conventionally, coils were either kept on the floor or stored in two-tier racks using a forklift. In such type of storage, access to individual coils is time-consuming and laborious and additionally the floorspace requirement is also high.

JSHL was looking for a suitable storage and retrieval system, which could optimise floorspace utilisation by using the vertical space and enhance stores efficiency as well.

Customised Stacker Crane – The perfect solution for a demanding job

At ElectroMech, we have a separate team that tackles such unique storage and retrieval requirements and provides Integrated Store Management Solutions (ISMS). After knowing the challenges at JSHL, our team was confident that the Stacker Crane, with a few additional customised features, could best address the requirement. A Stacker Crane is an ingeniously designed Double Girder Crane that combines the stability of an overhead crane and the flexibility of a forklift / lift truck. ElectroMech has supplied several Stacker Cranes to a wide cross-section of industries such as foundry, engineering, electricals and pharmaceuticals where material is generally palletised.

However, the requirement at JSHL was unique as the coils are not palletised. The ElectroMech team developed a complete store layout and a customised Stacker Crane solution was proposed, which comprised of –

- Double girder Stacker Crane
- Semi-automated operations using handheld remote controller
- A specially designed single fork for coil handling

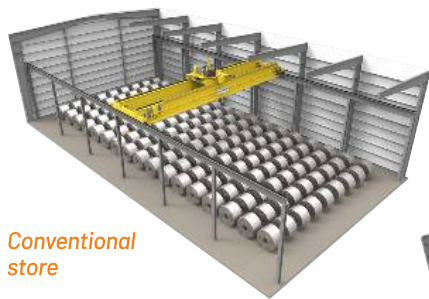
We recommended using a 4-tier (G+3) racking system. This made complete use of the available height (5.5m) and halved the floorspace requirement.

At JSHL, the Stacker Crane moves on the rails supported by the building structure during the long traverse, whereas for cross traverse, it is supported by crane girders. A rotating mechanism and a mast are fitted to the crab allowing rotation of mast and in turn the fork, through 360°. For stacking and retrieving coils, the Stacker Crane reaches the coil, the fork gets inserted, the coil is lifted and then moved to the desired location. With the 360° rotation of the fork, it is possible to approach the coil from all possible directions, requiring very small aisle space. The entire system is provided with a semi-automatic controller to ensure easy and quick access to stored coils.

Jindal Stainless (Hisar) Ltd.

An innovative Stacker Crane solution for storing steel coils

Saves nearly 50% floorspace and shortens storage and retrieval cycles.



Conventional store



New store with Stacker Crane

Using the ElectroMech Stacker Crane proved to be the most cost-efficient and space saving solution

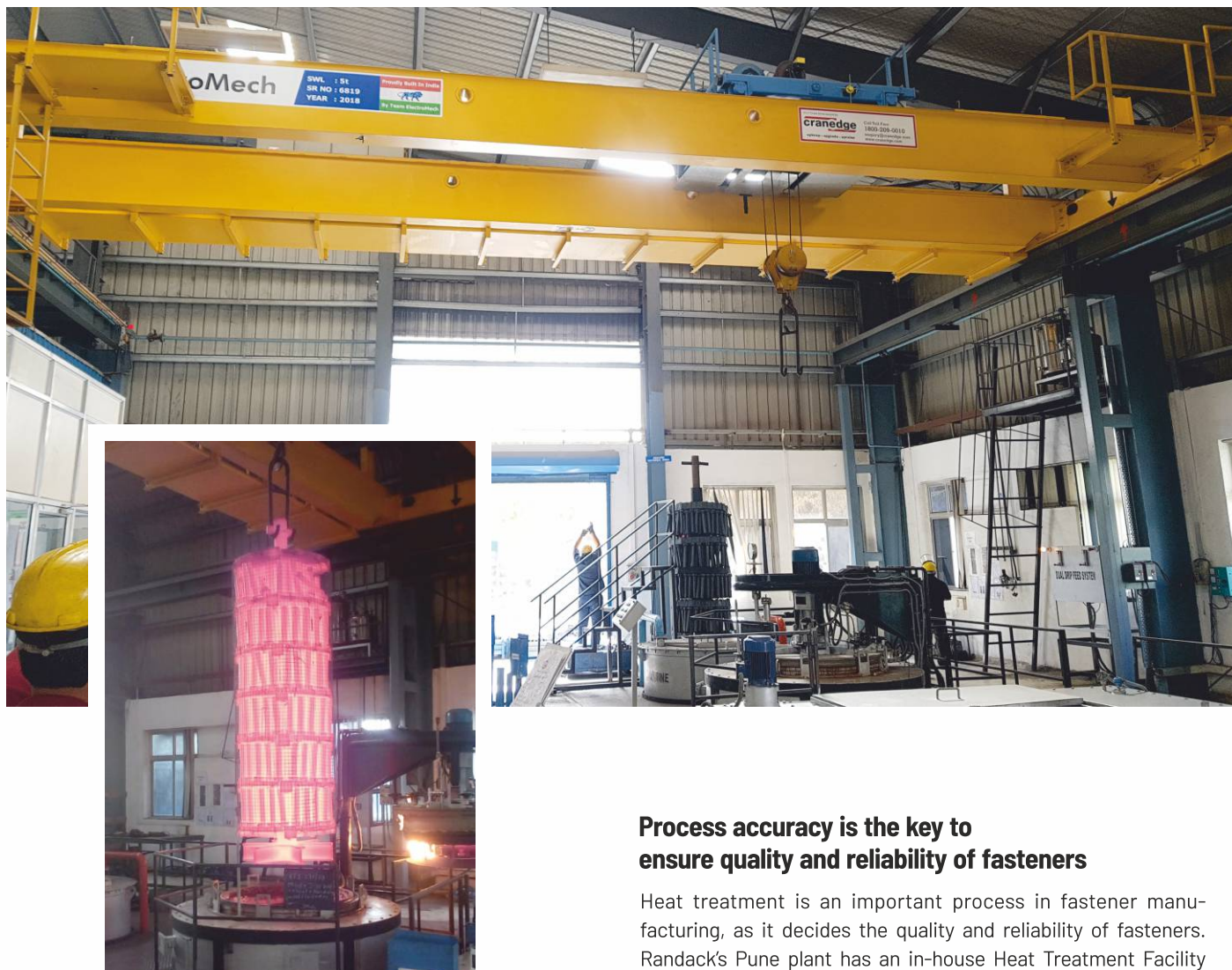
The Stacker Crane has helped JSHL to significantly cut down operational costs and increase productivity besides ensuring safe handling.

- **Floorspace requirement reduced to nearly 50%**
Use of the full available height of 5.5m due to 4-tier shelving increased storage density and smaller aisles reduced floorspace requirement.
- **Increased productivity**
Any coil can be accessed easily and quickly. Retrieval time, even from the farthest end of the aisle, is just three minutes, which saves time and increases stores efficiency.
- **Higher safety**
The specially designed fork ensures a firm grip on the coil and avoids the possibility of accidental falling or damage to the coil or operator.
- **Operator comfort**
The Stacker Crane can be operated from a distance using radio remote control, and hence, the operator does not have to travel every time with the equipment for storing or retrieving coils. ■



A heat treatment plant enhances process accuracy, reduces cycle time and ensures safe operations.

Crane with advanced automation features



Randack specialises in manufacturing high tensile fasteners for diverse markets. The Randack product range includes bolts, nuts, machined parts and fasteners, which are mainly used by energy, aviation, construction, oil & gas, transportation and heavy engineering sectors. Besides the usual low alloy steels, Randack uses a variety of alloy steels, special steels and other materials to produce high quality tensile fasteners and is known for its reliable products.

Process accuracy is the key to ensure quality and reliability of fasteners

Heat treatment is an important process in fastener manufacturing, as it decides the quality and reliability of fasteners. Randack's Pune plant has an in-house Heat Treatment Facility with SCADA control, which qualifies as per AMS 2750 standard.

In a heat treatment process, first, the materials are heated between 800°C and 900°C. The second step is the quenching process where the materials are soaked in water, oil or air to obtain certain material properties. The reliability of the process is governed by precise control on heating temperature, heating time and soaking time.

Randack intended to automate the process of handling baskets of fasteners during quenching. An automated system was required to strictly adhere to the quenching duration, which is about 40 to 60 seconds depending on the material. Manual intervention, which is risky considering the high temperature would also be reduced due to the automated system.

A crane with advanced programming features to automate the process and exercise precision control

This was a unique requirement where automation was to play a key role. We designed an automated crane solution, which could lead to safe operations and improve process accuracy. A Double Girder Crane having 5t load capacity, 13m span and 7m height of lift with the following features was supplied:

- **PLC system** – The process of handling, halting, soaking and retrieving material to the unloading station was controlled using an advanced PLC system
- Encoders for hoist and long traverse (LT) motion ensured position accuracy
- Wireless push button for auto command actuation (start button) was located near the operator's console
- Cross traverse (CT) and long traverse (LT) limit switches for position feedback were mounted in accordance to the tank position
- The hooter and the visual signal indicator denote that the system is healthy, safe and ready for use

Operational cycle with an automated crane

- Based on the tank positions and layouts, visual markings are made on the gantry and crane girder for LT and hook movement to indicate
 - the start position
 - the tank position for LT movement stop
 - the hook position
- A hooter is triggered indicating that all the sensors and limit switches are in healthy condition and the system is ready for operation.
- On hearing the hooter sound, the operator attaches the load to the hook.
- The operator activates the process via the wireless start button provided on the operator console.
- The crane automatically travels along the LT rails and halts at its pre-determined location.
- It lowers the load as per the preset time limit.
- It automatically lifts the load for drying as per the pre-defined time limit.
- This completes the quenching cycle and the process is repeated for the next jobs.
- The crane being operational in high temperature zone, special components are used, which can withstand these temperatures.

A perfectly tailored solution results in multiple benefits

- Advanced level of automation helps in reducing manual intervention.
- Being automatic, higher precision can be exercised on process duration.
- Reduction in the wastage that occurred earlier as a result of lack of precision control on process duration.
- Enhanced safety of operator and material.
- Reduced time required for completing each process cycle leading to higher productivity. From the earlier 55-60 seconds, the cycle time is reduced to 30-40 seconds.
- Energy saving as the tank idling time is reduced as a result of faster cycle completion. ■



*After the success of this project, we have installed a few more customised crane solutions for similar applications.
Thank you, team Randack for the opportunity!*

Our people make us a Great Place To Work®



ElectroMech is a frontrunner in material handling technology. We are also amongst the few companies that are growing faster than the average industry growth rate. We are present across the world in 60 countries and are relied upon by more than 10,000 customers for perfectly engineered customised solutions and benchmark services. **But, ElectroMech is much more than this.**

It is a great team of over 750 dedicated people across the globe from different cultures committed to a single cause – serving our customers to create great value for them. What binds us together are our deep-rooted values, which culminate into a great organisational culture that is responsive, responsible and committed to customer satisfaction. A culture of working together as a team for the well-being and progress of every stakeholder.

This is why we have been recognised as a 'Great Place To Work®'. Not once but for three consecutive years! ■



Crane health status? Just a tap away!



Effective use of IoT for maximising productivity and minimising downtime.

Recognising the importance of fail-safe operations of cranes for higher productivity and safety, companies lay great emphasis on predictive and proactive maintenance. Cranedge has developed EMote keeping this particular requirement in mind.

EMote is helpful in the remote diagnostics of crane health and offers remote support for maintenance. Various sensors and condition monitoring devices fitted on the crane collect and transmit data in real time. Such data can be easily accessed by the customer and the Cranedge team through a portal to make informed decisions about maintenance. Promptly attending to such maintenance issues helps in improving productivity and workplace safety.

EMote generates real-time data on the operation and condition of cranes based on several parameters such as:

- Number of incidents of non-adherence to safety norms and crossing critical limits, such as over-voltage, under-voltage, crane overloading, etc.
- Statistics related to crane operations, such as the number of operating hours, start-stops, etc.



To know more about EMote, talk to our Service Engineer.

Remotely diagnose crane health, usage patterns, and possible risks.
Get remote support for timely maintenance.

- Actual vs. designed crane utilisation pattern
- Pareto analysis of critical warnings and alerts

The information is displayed in easy-to-understand formats, such as graphs and tables. Such data can be accessed, shared and analysed for proactive and preventive maintenance.

Critical alerts are sent via emails to all stakeholders. EMote helps in the effective maintenance of multiple cranes at different locations.

By using EMote, the Cranedge team is able to provide remote support for appropriate crane operations as well as for troubleshooting. This way, you have access to expert advice 24x7 and at any remote location. ■

Practical thinking provides a smart and economical solution



Pairing an underutilised crane with the existing one to double the lifting capacity in a gearbox manufacturing plant where it was needed the most!

ZF Wind Power Coimbatore Pvt. Ltd. is a part of the globally established ZF Group and manufactures advanced gearbox solutions. They supply to major manufacturers of gear-driven wind turbines with a gearbox output range of up to 9.5MW and serve all key wind power segments.

The Coimbatore plant in India has a state-of-the-art, fully integrated wind turbine gearbox manufacturing facility. With a plant capacity of 5500MW, they are the leading suppliers in India and also cater to global wind turbine requirements.

Changed product portfolio required a crane of higher capacity

ZF Wind were earlier manufacturing gearboxes for smaller nacelles of windmills. The weight of such gearboxes did not exceed 40t and hence a 45t Abus crane supplied by ElectroMech in 2008 was perfect for the job. Since the market for large-sized windmills is growing, the larger gearboxes are in demand, which are comparatively heavier, weighing around 70t. To handle them, it was essential to have a crane with minimum 70t lifting capacity (SWL).

Not just the SWL limitation of the crane, but the load-bearing capacity of the overall structure, which was designed to handle a maximum point load of 45t crane was also a challenge.

To meet these challenges, the customer was considering two options:

- To shift the large gearbox manufacturing to a new bay / shed and install a new crane of sufficient capacity
- To procure a completely new crane of more than 70t SWL for the existing bay

The Coimbatore plant uses more than 170 different types of ElectroMech cranes. All of them are under AMC and we have a permanently stationed team of crane maintenance experts that ensures seamless service support. During the routine review meeting, the customer's team voiced its concern about the changed requirement and the challenges posed, expecting a solution from our team.

Solution from Cranedge

A cost-effective solution that would be quick to implement was the natural expectation. While resonating with it, the first and foremost thought of our team was to make use of an underutilised crane from the fleet of existing 170 cranes – a solution that would be economical, simple to execute and could be implemented immediately. Our team quickly assessed the new requirement and began evaluating whether there were any underutilised cranes that could be relocated.

Being conversant with the locations and usage patterns of all the cranes in the plant, the job was easy.

Additionally, our proprietary software tool, Computerised Maintenance Management System (CMMS), came in handy to help us narrow down the search. CMMS maintains all the data related to each crane, including its usage pattern over the years. Using CMMS, the team soon identified that there was a 45t crane in one bay, which was underutilised and had identical specifications as that of the crane in the gearbox assembly bay. The idea was to relocate this underutilised 45t crane and pair it with the existing 45t crane. This would enhance the lifting capacity to 90t.

Though the solution sounded simple, its implementation was challenging for two reasons –

- The load-bearing structure of the existing bay was designed for a 45t capacity crane
- To lift the load of 70t using two cranes, it was essential that they be synchronised for tandem operation

We could overcome these challenges by spacing the two cranes appropriately. This ensured that the wheel load of both the cranes was distributed over the gantry and column structure, and did not exceed the limit at any given time. To ensure proper distance between the two cranes, they were provided with sensors and an anti-collision device.

The hooks of both the cranes were connected using a lifting beam resulting in an effective SWL of 90t. The gearbox assembly was suspended to the lifting beam while handling. The cranes were fitted with new electricals and a control panel. Both the cranes were electronically coupled to form a pair, thus ensuring synchronous movement.

Additional features, such as VFD controllers, load limiter devices and load summation devices were added to further enhance safety.



Benefits to the customer

- Saved major costs, which would otherwise be required for
 - procuring a new crane
 - enhancing the structural strength of the existing shed or constructing a new shed
- Efficient reuse of existing underutilised asset
- Procurement process, purchasing and actual delivery of a new crane would mean a loss of four months, whereas the relocation and refurbishment work was completed in just two months
- Higher level of safety through refurbishment of both the cranes and addition of safety features/devices

We are indeed thankful to the team at ZF Wind for their trust in us for over a decade! ■

Out-of-the-box thinking and the strong urge to deliver value to our customers, always result in ingenious solutions from Cranedge.

Making an EPC project more profitable?

Did you hear 'sustainable'?

You heard it right... 'Sustainable' as well!

L&T Construction shows the way by redeploying cranes used on previous projects!

EPC companies across the world are always under pressure to manage projects on time, and cost-effectively. Reutilisation of assets procured for earlier projects can help save substantial project costs, man-hours, as well as the time required to procure new assets. An important aspect which allows such reutilisation is the carefully thought-out design at the first instance of procuring such an asset.

While working with the infrastructure sector and leading EPC companies across the world, we at ElectroMech have gained a thorough insight into the various dimensions of their businesses. It is our constant endeavour to improve our technology to meet client requirements – be it more demanding technical features, delivery schedules or 'reutilisation-compatible' designs. We help our customers in every aspect, which gives us recognition as the 'most preferred partner' by these companies.

Our supply of Double Girder Gantry Cranes to an EPC major a few years ago, is a classic case of our 'foresighted, reutilisation-compatible design' approach while designing crane solutions for infrastructure projects.

We are thankful to the entire L&T team for their continued trust in our technology and capability.

About L&T Construction

L&T Construction is a part of a large business conglomerate in India having global operations. The company has executed some monumental infrastructure projects the world over, which include bridges, flyovers, metro rail, airports, defence infrastructure, ports, hydel projects, and nuclear plants. The business group is a long-time customer of ElectroMech and uses a few hundred ElectroMech cranes in its various manufacturing facilities and projects. The company ensures complete use of the asset till the end of its life, not only to achieve economy but also as part of its sustainability initiative.

About the New Project

Earlier, the customer had procured two Gantry Cranes from ElectroMech, of which one was used on a bridge construction project in Goa and the other, for constructing a flyover in Delhi. Both the projects were completed successfully and the cranes were in good condition, but were lying idle.

When the customer received a contract for constructing a stretch of the Mumbai Trans Harbour Link project (MTHL), they decided to reuse these cranes and called us to evaluate the feasibility. For the new project, two cranes of 150t SWL were required to be placed atop the launching girders for handling large precast segments.

Our experts visited the project sites and conducted health check-ups of both



cranes. The specifications of the new requirements were not exactly the same as those of the existing cranes. They required some modifications for span and Height of Lift (HOL), which, in ordinary circumstances, was challenging. However, ElectroMech cranes inherently possess reutilisation-compatibility and are built with reliable components for a long working life, even when used outdoors. Therefore, apart from the modification in span and Height of Lift, no major reconditioning was required.

There were possibilities of heavy winds and storms at the new project site. Hence, after modification, the cranes were required to be equipped to work in rough weather.

Crane in the year 2015
on the Goa project



Crane in the year 2022
on the MTHL project



Solution from Cranedge

As one of the cranes required a modification in span, it was brought to our factory. Both the cranes were altered suitably to meet the new requirements by carrying out other modifications, such as changing wire rope drums and additions of thruster brakes for high safety, human sensors to avoid accidental collision, hydraulic CT (cross travel) to ensure trouble-free, long-term operations, anemometers, etc.

After the modifications, the cranes were as good as new and have been erected at the site and handed over after successful testing for full-load handling. Being

ElectroMech cranes, the customer was assured of their long-term, reliable performance.

This is just one example of how we think and anticipate future requirements of customers at the design stage itself. This allows our customers to carry out modifications in the most cost-effective manner and reutilise assets for enhancing project profitability. ■



What our customer says

The Cranedge team has always been helpful. They are experts at what they do, but what's more important is that they put the customer's interest above everything else.

Great job, Team Cranedge! ”

With our 'Cranes & Beyond' offerings, we are able to serve the infrastructure sector with an extended range of equipment.

ElectroMech Infrastructure Equipment Pvt. Ltd. completes 3 years!

Our leadership role in infrastructure

ElectroMech Infrastructure is a part of the ElectroMech Group. It was established in 2019 to provide world-class equipment and best-in-class services to the infrastructure sector.

ElectroMech Infrastructure marked its entry into the industry by introducing advanced technology Aerial Work Platforms (AWPs). An Aerial Work Platform is a special equipment designed for working at great heights and difficult to access areas. AWP's offer good manoeuvrability, high levels of safety and reliable performance while enhancing productivity at construction projects.

AWPs can carry both men and material, making the job easier. They can reach up to heights of 48m and are available in various types and models to meet specific requirements. Apart from infrastructure projects, AWP's are useful for ship repair and construction, civil engineering, electric power, telecommunications, gardening, advertising, venues and stadiums, airports, harbours, large factories, underground railways and mines.

ElectroMech Infrastructure also offers a range of Tower Cranes on rentals including their erection & commissioning, maintenance and relocation to various construction projects. Our Tower Cranes are available for projects across India and can be delivered in a short time. ■





As an esteemed ElectroMech customer, you can look forward to a wide range of equipment and several new technologies in the near future!

A compatible partnership that offers an extended range of material handling solutions to the Indian industry.

The ElectroMech Yale association completes 5 years

There are very few successful partnerships, which offer products complementing each others' businesses, leverage the strengths of both the brands, and go a long way and make their mark. ElectroMech Yale is one among such success stories, which has established itself with a noticeable market share within a short span of their association.

In late 2017, when two companies, Hyster-Yale® and ElectroMech joined hands, little did the market know that the new venture would pose a great challenge to existing brands. The market was already cluttered with established Indian players commanding significant market share as well as a few MNCs who were trying hard to get a piece of that pie. At the same time, with the burgeoning e-commerce activity, large warehouses were being set up across the country and industrial activity was on the rise. These factors were most favourable for increased demand and overall market expansion.





The time was just ripe for the entry of ElectroMech Yale, with their premium and advanced range of lift trucks, forklifts and warehousing solutions.

Warehouses and supply chain networks are the arteries of today's industries, ensuring seamless distribution of a variety of goods. ElectroMech Yale contributes greatly to the sector and all major players in various sectors in India rely on material handling equipment from ElectroMech Yale for efficient storage and retrieval of goods in large warehouses. Our range of Forklifts, Lift Trucks, Electric Stackers, Reach Trucks and Pallet Trucks is performing day and night to ensure high storage density, efficient retrieval of material and low operating costs while providing great operator comfort. We keep supply chains running and empower industries to manage operations in a profitable manner. Our equipment is characterised by advanced technology for efficient operations, reliability, low total cost of ownership (through low running costs and maintain-



ance costs), and a high degree of operator comfort leading to high productivity.

In a short span of five years, our range of lift trucks is being preferred by various sectors. A large number of them are deployed in sectors such as retailing, food processing, pharmaceuticals, fisheries, cold storages, consumer durables, engineering, ceramic, paper, packaging, polyfilm, 3PL and so on. The ElectroMech Yale range offers you a choice from over

300 different models, which includes the well-known range of Yale® electric (Li-ion) forklifts, reach trucks and stackers.

With the ever-growing demand for our lift truck solutions, we are confident of commanding the highest market share in the near future and will become the preferred partner of our customers just like in the crane segment.

Thank you all, for your support and trust in our range of offerings. ■

ElectroMech Lift Trucks Pvt. Ltd. is a 100% subsidiary of parent ElectroMech, and is dedicated solely for lift truck business having its own manufacturing facility.

Proud to be a part of India's major shipyard on the East coast!



50/20t Gantry Crane

Photo courtesy: www.hooghlycsl.com

ElectroMech has supplied several cranes internationally to major shipyards. However, our recently supplied cranes at the Hooghly Cochin Shipyard are unique and close to our heart. These cranes are part of a shipyard that will meet the demands for inland, coastal and sea-going segments for various types of customers, including the defence sector. Being an Indian MNC, ElectroMech derives pride in its small contribution to the progress of the nation.

Featured in the above photo is a 50/20t Gantry Crane with a span of 60m that has been installed over a dry dock, which is just one of the many cranes supplied by us to this prestigious project.

Congratulations to Hooghly Cochin Shipyard Limited for commencing commercial production! ■



40t Gantry Crane



ElectroMech

| Solutions | Service | Satisfaction |

Corporate Office & Plant

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