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Driving the Service business: Interview with Temur Karbassioun. Page 3.



#### **Dear Reader**

For the third year in a row the IMF has reduced its previous forecasts for global growth, showing that the world is still struggling to get an economic recovery back on track. Traditionally this would not have mattered much for India, but did you know that in 2013 exports made up 25% of India's GDP, a number very similar to China's? We have all become global citizens now and we're "all in it together" as the saying goes.

There is a huge productivity challenge that Indian companies face today trying to maintain profitability in a sluggish market where sales is not really growing by leaps and bounds but operating costs seem to be. Getting more output every year for every rupee paid in capital equipment, salary or in energy cost comes across as fundamental to maintaining a healthy bottom-line. At SEW-EURODRIVE we've organized ourselves around helping our customers achieve this, and whether we work with you on your automation challenges, on your maintenance challenges or with our range of reliable and energy efficient products, we're as focused on achieving these objectives as you are.

Our customer story in this issue features Sarda Energy and highlights a common problem for customers in more remote locations who need gualified local support and local commitment from their supplier partners to solve issues with their installed equipment. We're happy to have been able to help Sarda in this case as we have been able to help other customers in various parts of India. The product story is on Electric Cylinders: Intelligent drive systems with a high degree of flexibility and positioning accuracy.

Last but not the least we have an interview with Temur Karbassioun, our global head for the Service Business, as he shares his views on the direction of the service business and on India.

I wish you happy reading!

M J Abraham Managing Director SEW-EURODRIVE India

# SEW works with the team at SEML to build a bond in steel.

Sarda Energy & Minerals Limited (SEML), a well-known name in the steel industry, approached SEW-EURODRIVE for a complex retrofit solution in an existing system. It took the right mix of fine engineering, excellent team spirit and innovative thinking to come up with a just-right solution; the first of its kind from SEW India.

SEML is one of the steel industry's lowest cost producers of steel, with a steady output of high-quality sponge iron, billets, ingots and TMT bars. It is also one of the largest manufacturers and exporters of Ferro-alloys in India. The company has its headquarters in Raipur, Chhattisgarh, and is a leading energy and minerals company.

# About the application.

Industry: Steel.

Plant Capacity: 0.6 MTPA Iron Pellet Plant.

Equipment supplier: **OEM from China.** 

# Application: Balling Disc Pelletizer.

This is a large disc, 4 to 8 mts in diameter, installed at an angle of 30 to 40 degrees that rotates with a speed on 30 to 60 r/min.

- Iron ore in moist form is fed to this disc continuously. Since the disc is in rotation in inclined position, wet iron ore also rotates and forms small granules of size of 1 to 3 cm in diameter. These small balls then move on the horizontal conveyor, then feed into the furnace and then kiln through a roller screen.
- So the main function of the disc is to make wet iron ore into small granules which are called Pellets in the steel industry.

centered on input pinion and oil leakage. Further-

more, the system had separate dual pump and

pressure pump with a huge oil reservoir, from

which abnormal sounds were heard during

running, and the bearing failed frequently. It was

with these problems that the team approached

The task was to make the new installation without

any radical change in the existing system, which

meant a thorough understanding of the current

application upfront, so that the right 1-1 Solution

# The challenge.

SEW.

could be offered.

In its daily functioning SEML was facing frequent interruptions due to a malfunction in the gearbox which was of Chinese make. The problems often

"We have received excellent feedback after retrofitting the SEW gear unit into ity and enabled zero-maintenance."

### Why SEW?

SEW is a global leader in Drives Technology, with the expertise to deliver customized solutions to any customer problem. The technical team has the experience and skill-set to understand the application and the challenges involved, and to suggest the right retrofit solutions without any major modifications to the existing system.

SEW is also trusted for its excellent after-sales support, with trained engineers available locally for any support that the customer might need post retrofit installation.

### A first of its kind solution.

This application was developed for the first time in India by SEW's Raipur team.

SEW's team of specialist engineers observed the reason for the consistent string of system failures at the SEML plant. The environment was a large hall which was very dusty. The humid ambient temperature was 45-48 degrees, and the working

> angle was 40-50 degrees. After a thorough study of the location and technicalities onsite, SEW was able to suggest the just-right gearbox for SEML.

# Specifics of the new installation.

- SEW unit M3PSF50E supplied.
- The unit features pressure lubrication system and water-cooling heat exchanger.
- The dimensions perfectly match the existing Chinese unit.
- Total 3 nos. installed.
- Disc 1 replaced first, and upon good performance being observed, two more gearboxes of the same application installed.

the DISC Pelletizer gearbox. The installation has yielded increased productiv--- Mr. Anup Kumar Nanda, V.P. (Operations/Pellet)

# **Dynamics, force and compactness. Rolled into one futuristic Electric Cylinder.**

A future-proof modular solution.

The futuristic solution from SEW comes in

the form of the CMS..electric cylinders. In

standard and modular design these are

powerful and fast. When

Applications with linear movement very often place high demands on the travel profile. Pneumatic or hydraulic cylinders used conventionally reach their performance and system limits too soon. Which is where the next generation solution steps in; combining electric cylinders with the inverters from SEW-EURODRIVE

yields intelligent drive systems with a high degree of

# cal, modular and energy-efficient drive **CMS..STANDARD & MODULAR**

necessary safety in system operation. It can be handily integrated into

precise,

existing automation systems, such as folding systems and robotic systems.

SEW's cutting-edge solution offers numerous advantages for process engineering and packaging, material

special requirements at certain ambient conditions, such as the presence of humidity or dust.

• Integrated locking element for lifting rod (torque arm).

### Why SEW Cylinders?

- Patented Oil bath means Lubrication for life, maintenance-free:
  - Reduction of expenses (no relubrication).
  - Expensive compressed air is not necessary.
  - No downtime due to maintenance or failures.
- Higher service life:
- Double the service life compared to the state-of-the-art.

handling, the print and plastics industry and in wood processing. It can, in fact, be used wherever high demands are placed on the travel profile and more than two positions need to be traveled to.



- Ball screw in the oil bath replaces planetary roller screw:
  - Costs: Planetary roller screw = 4x ball screw.
- Increased thermal power density:
  - Less friction between rolling elements and races.
  - Very good heat dissipation.
- Low-noise operation.
- $5 \times$  faster power increase time than pneumatic cylinders.
- Simple integration into automation processes due to connection to all commercial bus systems: PROFIBUS, INTERBUS, INTERBUS LWL, DeviceNet, CAN, CANopen.

Specifications of each series.														
Data	Туре													
	CMS	50	CMSB63		CMSMB63		CMSB71		CMSMB71		CMS71			
	S	Μ	S	Μ	ACH/ACA	AP	S	Μ	ACH/ACA	AP		L		
Peak feed force FPK [kN]	5.3		10			24			20					
Maximum permanent feed force F for KGT [kN]	1.2	2.2	2.4	4.1	-		8			6.7	3.6	6.7		
Maximum permanent feed force F for PGT [kN]	-		2.8	5.2	_		-				7.2		-	
Spindle pitch P for KGT [mm]	5		6			6				6	10	10		
Spindle pitch P for PGT [mm]	-		5				-				5		-	
Nominal stroke for KGT [mm]	70 / 150 /300		100 / 200 / 400 / 600				200/400/600/800/1000/1200				200		350	
Nominal stroke for PGT [mm]	-		100 / 200				-				200			
Max velocity range	375 mm/sec up to 500 mm/sec													

PGT = Planetary roller screw; KGT = Ball screw; AP, ACA, ACH = Adapters of the modular electric cylinder CMSMB CMS: Grease lubrication; CMSB: Oil Lubrication; CMSM: Modular

**ELECTRIC CYLINDERS** 

flexibility and positioning accuracy, besides key new options in programming, power control and diagnostic functions. These further enable new and reliable concepts that can be integrated into a wide array of production processes.

### **Design variants.**

- Various spindle pitches for linear velocities (up to 0.5 m/s).
- Also available as brake servo motor with 24 V holding brake.
- Resolver feedback optional with absolute encoder.
- Optional 24 V forced cooling fan.
- Either with planetary roller screw drive or ball screw
- Numerous mounting options (between bolt/flange).
- Cardan joint.

#### Features.

· Smooth, hard-chrome-plated piston rod for

# The Service business – poised for tomorrow.

Temur Karbassioun, global head of SEW's service business, talks to Madhura Krishnaswamy about how a deeper understanding of customers is driving the Service business to embrace innovation.

### Firstly, could you tell us something about vourself?

My name is Temur Karbassioun. I am 46-years-old, married and live in Heidelberg, which is a picturesque city close to our company's headquarters in Bruchsal. I am a mechanical engineer and started my career in Quality Management of a global machinery company. In June 2013, I started

working with SEW as head of the Business Unit Service. My team comprises approximately 100 employees at the HQ, and we work to support and develop our Service organization together with more than 1200 employees worldwide.

## What is SEW's vision for the next 3-5 years for the Service business?

In the next years the focus lies on further enhancing our Service abilities in the global SEW network and to meet new requirements resulting from businesses such as the automation solution business. We make significant investments for these enhancements, but also invest in new Service locations worldwide. In addition, we intend to consult customers much more actively on our Service and continuously seek additions to our Service portfolio. Thereby we meet the demand for solutions to keep uptime on a maximum level, make maintenance a lot easier and support profitability of our customers. In a nutshell, SEW Service focuses on being the benchmark in the drive technology industry.

### How does the Service portfolio complement SEW's other businesses?

Our Service portfolio is designed to meet the requirements of all our other businesses, be it drive components, electronics, industrial gears or automation solutions. We increasingly offer maintenance complementing contracts, condition monitoring solutions and maintenance management solutions, such as CDM® (Complete Drive Management). It can be either one of these or a combination of all, together with classic repairs and spare parts service. Further, our training offers cover the full range of our products from all other Business Units.

### What are the strong points that set SEW-EURODRIVE's services apart from competition?

SEW has an outstanding global presence, which enables us to provide Services in almost every country in the world. This is complemented by a strong network of regionally supporting competence centers and state-of-the-art logistics networks. Further, we take a lot of effort to

continuously qualify our global Service staff. This way we make sure that we have highly skilled people, the right parts, components and tools, brought at the quickest possible time to wherever our customers need them. The dedication of our Service staff worldwide is another major asset.

In your experience, do Service requirements of customers vary widely by market? In

### what way?

There is some variation, especially based on the automation level of a country. The more automation and just-in-time processes are a common standard, the higher the demand is to receive a broader range of Services from one source. Also the level of sophistication of Services requested varies by markets, starting from repair and spare parts services to mutually-defined maintenance management approaches. We have customers only requiring our support in specific fields, while others seek a full Service provider. Nevertheless, all customers unite in the requirement of receiving their needed Service reliably and fast.

### And are there any differences by type of industry?

I would rather differentiate by the type of customers. On the one side, SEW closely works with original equipment manufacturers (OEMs), who use our technology in their products and applications for their own customers. These require SEW to support specific topics and complex products for their end-customers or as supplement for their own Service, and this mostly in more than one country. On the other

side, SEW directly provides Service to end-customers or users of OEM applications, possibly covering the full-drive technology maintenance. These

customers can also be global organizations, but often are local in one country.

### Where does India fit into SEW's global strategy for the Service business?

India is a challenging market by the sheer size of the country and is of high importance also for our globally operating customers. SEW India's management has adopted an active approach to offering Services already at an early stage. By establishing innovative solutions to maximize presence at our customers with dedicated representatives. SEW India is one of our leading Service organizations and a very active part in SEW's global Service presence.

### How will the increasing trend towards automation impact SEW's Service business?

It already shows an impact, and it offers promising opportunities for SEW to provide combined solutions of automation technology and tailored Service concepts. SEW strives to be a provider of comprehensive solutions, so the distinction between our businesses become blurred. The main challenge is the global management of automation's complexity. Qualification, knowledge as well as an understanding of applications and the automation technology and software used in these are key.

Companies in India will increasingly face the need for higher automation, despite being a lower cost country. Therefore SEW will gradually adapt to the resulting Service demand especially with the necessary gualification in the field of automation. Global players, such as the automotive industry, will keep driving this development and require the respective Service for automation solutions, as they know it in other markets.

### And what are some of the other major trends you see globally in the engineering service business from your perspective? How does SEW position itself against these trends?

The connectivity of machines, work pieces and people, and the huge amounts of data generated in industrial processes, which can be productively used, are an inevitable trend. For example, through data mining in combination with the continuous condition monitoring of applications and components, it will be possible to foresee critical situations, even before they occur. Machines communicating continuously with maintenance and Service centers will indicate the need for preventive maintenance automatically in the future. SEW already works

on such concepts, involving specialists for data mining and cooperating with universities. It all sounds far away in the future, but we would like

to be prepared, and significant trends usually accelerate at a certain point.

### What are some of the things that you enjoy when you visit India? What has surprised you?

During visits to India I enjoy the huge variety of food, cuisines and spices. As I like to cook myself, this is an endless inspiration. The friendliness of the people and the numerous cultural sites are unrivaled, and I definitely plan to experience more of it. A real surprise to me is the number of languages spoken in India, which makes one feel that it is rather a continent, and not just one country.

est possible time to wherever our customers need them.'



