



where **Passion**  
meets **Performance**

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Date: March 19,2021

SEC/MAR/SE/N&B/2021

<b>National Stock Exchange of India Limited,</b> "Exchange Plaza" 5 <sup>th</sup> Floor, Plot No. C-1, G Block, BandraKurla Complex, Bandra (East), Mumbai – 400051  <b>NSE Scrip Code - PRECAM</b>	<b>BSE Limited,</b> PhirozeJeejeebhoy Towers, Dalal Street, Mumbai - 400001  <b>BSE Scrip Code - 539636</b>
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**Subject: - Newspaper Article published in The Indian Express**

Dear Sir/Madam,

Pursuant to Regulation 30 (4) read with clause 3 of Para B and Para C of Part A of Schedule III of Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements), Regulations, 2015 and the "Policy on determination of materiality of events/Information" of the Company, we would like to submit the Newspaper Article on **Emoss: Accelerating E-Mobility**, published in The Indian Express - Mumbai, Pune and Ahmedabad on Friday , March 19,2021.

Kindly take the above information on record.

Yours Faithfully

For **Precision Camshafts Limited**

**Mayuri Kulkarni**  
**Company Secretary &**  
**Compliance Officer**



Attached herewith Article published in The Indian Express - Mumbai, Pune and Ahmedabad

**Precision Camshafts Limited**

📍 Solapur : D5 MIDC, Chincholi, Solapur, India – 413255

📍 Solapur : E102 MIDC, Akkalkot Road, Solapur, India – 413006

📍 Pune : 501/502, Kanchanban "B", Sunit Capital, Senapati Bapat Rd, Pune, India - 411016



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# EMOSS : Accelerating E-mobility

ADVERTORIAL



The **Precision Group** is a global engineering company employing over 2500 people and supplying camshafts, injector components, brake parts, balancer shafts, prismatic components and complete electric drive lines to all leading OEM's around the globe with consolidated revenues of over \$100 million (INR 720 Crores). Precision Camshafts Limited has acquired 100% Equity Shares of EMOSS Mobile Systems B.V. Netherlands ("Emoss") as of 24<sup>th</sup> July 2020 through its fully owned subsidiary PCL (International) Holding B.V.



Emoss is a one-of-a-kind business that designs, develops, produces and supplies complete electric powertrains for trucks, buses, military vehicles and heavy equipment. The Emoss business model includes conversion of diesel trucks into ready to use electric trucks within a short span of 90 days. The company also manufactures "ready to assemble modular kits" which are assembled onto the chassis by the end customer. Both the equipment and the software are extensively tested before they hit the road, resulting in reliable and durable products.

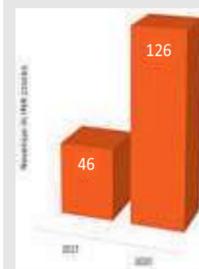
Emoss provides an end-to-end solution to its customers which includes research and development, engineering, production, testing, certification, delivery and post-sale service. The Company also provides real time power management and tracking via an integrated cockpit setup.

With over 10 years of experience in the electric drive line space, Emoss is leading the industry and is ready for rapid changes in electrical mobility and the interrelated growth in demand. Located in The Netherlands, with the Port of Rotterdam nearby, Emoss also has a strategic position to ship their products worldwide.

## New Development :

EMOSS is focussed on delivering "modular kits" to its key customers in Europe, North America and New Zealand. The company has installed high tech testing equipment and assembly machines in the workshop to improve delivery metrics, quality and reliability. EMOSS has also developed a proprietary 'range extended' version of its electric power train for heavy trailer application allowing the vehicle to drive over 500 km on a single charge. Amongst many other firsts, the company has developed a fully electric drive line for the world's first fully electric fire engine. EMOSS has also developed the electric drive line for a leading developer of fully autonomous self-driving trucks. In addition, the technical team has developed a new battery pack based on aviation and defence specifications with a major supplier.

The trucks powered with Electric Drive lines can carry a maximum payload of 50 tons with a mobility of up to 350 km which may be extended beyond 500 km with long range extenders developed by EMOSS.



**Growth :** The e-mobility business has grown substantially since the time of acquisition. From a total revenue of ~€5.5 million (INR 42 crores) in 2017, the company has posted a revenue of ~€15 million (126 crores) in calendar year 2020, delivering almost 3x top line growth in 3 years. The company now employs a total of 50 full time employees. The company sees further business growth with its key customers in the areas of waste management, refuse collections, small passenger buses, road sweepers, tractors and other commercial applications.



**India Developments :** PCL has created a fully dedicated EV team in India to develop a localised solution for electric buses and cargo vehicles. The company would bring together the best of European technology and Indian localisation to meet the technical and commercial needs of the Indian customer. The initial project work has been done in close cooperation with the Automotive Research Association of India (ARAI).

**The company would be launching a 'first of a kind' fully electric mid-size bus for the Indian market.**

The vehicle would outperform IC engine driven technical specs while providing a range of ~150+ km on a single charge. PCL EV Team has achieved over 50% localisation in the very first vehicle. The company is now in discussion with several third party logistics companies, fleet owners, large corporates, state transport authorities, etc for electrifying their fleet of buses and trucks.

The EMOSS retrofit model in India offers operating and maintenance cost savings of over 60% allowing the customer to recover initial costs within 5 years.



## Benefits of Retrofitting

Retrofitting is replacing the combustion power train in a vehicle by an electric drive line. This method is being used extensively in Europe to convert diesel trucks and buses in to zero emission CVs and has helped reduce carbon emissions within big cities while also reducing congestion. From the customer's point of view, retrofitting reduces the running cost of vehicle, prolongs the life of the vehicle and gives the pride of taking a step towards sustainability.

From the society's point of view, electric/hybrid vehicles are good for public health and cause less harm to global climate. From the government's point of view, retrofitting reduces consumption of crude oil, vehicular tail-pipe emissions and expenditure on oil imports.

Retrofitted EVs can be the first entrants to this nascent market which will help build the ecosystem for charging, localized components and batteries, service infrastructure and usage pattern understanding among others.

*"The electric vehicle market has tremendous growth potential in the commercial vehicle and niche services space. As we approach big changes in transport and mobility, we - as experts on electrical drivetrain technology for heavy equipment - are faced with large opportunities as EMOSS is at the forefront in this segment. Our company has delivered over 600 vehicles up to date with a total of 100+ million miles driven on the roads.*

*Opting for electric transport is opting for sustainability: CO2-neutral driving lowers environmental impact because it eliminates emissions of particulate matter and nitrogen oxides. EMOSS makes zero-emission transport of heavy vehicles without noise, odor or pollution a reality today.*

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*EMOSS, which is now 100% owned by PCL, is poised to grow exponentially with a strong financial partner in PCL and its experience in operations and manufacturing for over 30 years. We look forward to exciting times in the coming years!"*



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EO Charging, a company based in the United Kingdom, has developed a three-phase, 22 KW charger for this purpose. The AC electric vehicle charger installed in the Precision has a charging capacity of 22 KW per hour. The charger has been certified 'IP 65' safety range. It also has a system to protect the charger from dust, wool, wind and rain.

PCL can provide a wide range of AC as well as DC Fast Charging solutions to its customers as it has identified strong technical partners in India.



EMOSS Team (left to right) : Martijn Noordam (CTO), Bas Rottier (CSO), Peter Coenen (COO)



E-Mobility Customers



PCL India EV Team (left to right) : Bhagyashree Shinde, Pranav Mhaskar, Karan Shah, Sanket Hiremath, Salil Parulekar, Yash Vardhan





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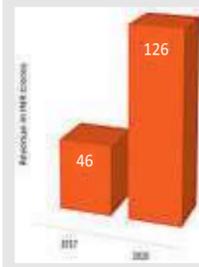
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**E-Mobility Customers**



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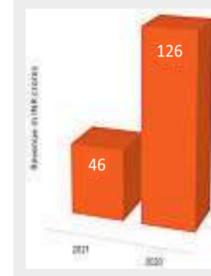
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