

# Avtec displays future-ready electric and BS VI technologies

AVTEC, PART OF the CK Birla Group and one of the largest independent manufacturers of powertrain and precision engineered products in India, is displaying future-ready technologies including electric drive units and the Euro 6-compliant petrol and diesel engines.

In a first, the company is showcasing an electric drive unit (EDU) designed and developed by its Switzerland-based subsidiary, Assag. Developed for a European pedelec e-bike customer, Avtec aims to showcase its capability to develop EDUs for two-wheeler applications. The EDU deploys face gear technology, which enables reduced noise and wear and tear of the machine. According to a company official, the EDU is designed with unique gear geometry, and the gears are made of special plastic materials and alloys.

In yet another first, Avtec also displayed a



3cyl, 1.2-litre Euro 6-compliant petrol engine.



Shaft for electric drivetrain.



Tubular camshafts.



Avtec displays an electric drive unit for the first time at the Components Show.

locally designed and developed shaft for electric vehicles. Tubular camshafts are also on display. According to the company, these are about 25 percent lighter when compared to conventional units.

Avtec is also displaying a Euro 6-compliant three-cylinder, 1.2-litre petrol engine and four-cylinder, 1.5-litre diesel engine at its pavilion at Hall 10, Stall No. 20. [n](#)



4cyl, 1.5-litre, Euro 6 diesel.

## Jamna Auto focuses on lightweight suspension systems

JAMNA AUTO, A major component manufacturer of commercial vehicle suspension systems, is focusing on lightweight solutions at Hall 12A. The company has displayed a composite spring for LCVs and hybrid spring for heavy commercial vehicles. The upcoming BS VI emission norms are going to put a lot of pressure on suppliers to reduce vehicle weight.

Given the tighter emission norms, lightweighting of trucks is gaining ground. Composite springs are already being used in a few truck platforms in Europe and USA for over a decade now. While composite springs are more expensive than conventional springs, they are highly durable.

"Keeping the stricter emissions norms in mind, we have started developing a composite spring for LCVs which is 50 percent lighter

than parabolic springs and 70 percent lighter than conventional springs. We have also developed a hybrid spring, which is a combination of steel and composite for HCVs, offering lightweight benefits and higher durability," said Sunil Lariya, vice-president, R&D, and International Business.

Over the past few years, the heavy commercial vehicle segment has been rapidly moving to higher tonnage starting from 25T to 31T, and 37T with 10T axle will move to 40T and above. To address this growing trend, the company has developed a new 10T lift axle against the current highest axle of 6T. "Given that higher-tonnage trucks are being preferred in the industry, we have developed a 10-tonne lift axle; this will push up truck payload up to 41T. We are working with



local commercial vehicle OEMs to launch this axle commercially in next 3-5 months," added Lariya.

Besides this, the company has also developed a rubber bogie suspension. Currently, all bogie suspensions in India are on leaf springs with a lot of part replacement and maintenance cost involved. Keeping this in mind, Jamna Auto has developed the rubber bogie suspension which offers 4-5 times' higher life as compared to regular mechanical suspension.

The trailer market in India is highly unorganised but with recent legislation, every trailer supplier has to be certified by ARAI. This move will help regulate the industry much better with more organised in nature.

"We have launched our trailer suspension which is in parabolic spring that reduces suspension weight by about 200kg, helping the truck owner with a higher payload. We are also offering a one-lift axle feature which will help the trailer; when empty, this axle can be

lifted. The company is quite bullish on this segment as higher-tonnage trucks and the growing trailer market are likely to boost demand," said Lariya.

The currently buoyant growth in the domestic commercial vehicles market is driving Jamna Auto's growth with higher production resulting in production capacities. The company is operating at almost 90 percent of its production capacities across plants. Jamna Auto opened a new plant in Hosur last year; this unit has seen a pick-up in production. The company is also increasing its parabolic spring capacity to become the largest parabolic spring manufacturer in the world. "As of today, we are No. 2 in total parabolic spring capacities. In the next few years, we are likely to be No. 1," signed off Lariya. [n](#)