



# Tata Autocomp Hendrickson bets big on rubber-metal suspension

Story by Rajesh Rajgor | Pictures by Ganesh Kalidas

**Tata Autocomp Hendrickson Suspensions Private Ltd. (THSL) is all set to carve out a niche for itself in the Indian market through supply of next-generation rubber-metal suspensions. “We have been testing this new rubber-metal suspension for at least 18 months now and will be launching it soon in the tipper segment offering at least 400 kg weight reduction (saving) compared to the existing products, with our prominent OEM partner,” informs Sanjay Sinha, CEO of the company.**

Although India has been slow in absorbing technology in the commercial vehicle segment, a lot of technological changes are being brought about by OEMs which are well accepted by the end-users. One such change was the heavy duty tipper segment where, on an average, a tipper operates not less than six days a week and 20 hours a day. The fleet operator thus requires a solution that guarantees higher vehicle life, reduced maintenance and greater durability. With growing awareness, even fleet operators are looking forward



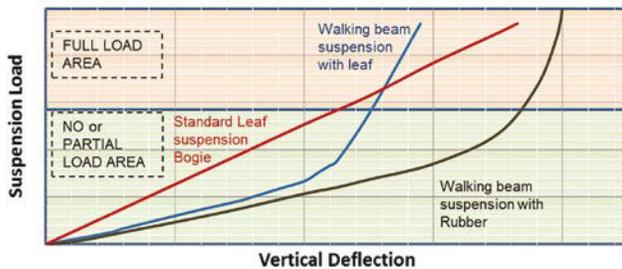
Mr. Sanjay Sinha, CEO, THSL

to reducing the total cost of ownership (TCO).

“We identified that all the traditional suspensions, including metallic springs, require a lot of maintenance in terms of lubricating or the pre-mature leaf spring breakdown, too soon; which increases the idle time of the vehicle and amounts to the loss of productive output. Today we are happy that in the next 4 to 6 months we will see this rubber-metal suspension on road with our trusted OEM partner,” beams Sinha. “THSL has gone through a lot of advanced test and validation and on various types of proving grounds and has established a strong correlation as between virtual trials, rig tests and field trials. The results of these tests are so close that they give us confidence about bringing this suspension on the road soon.”

## Understanding the benefits

Having established its name in product and technology excellence, THSL is way ahead on its journey of manufacturing excellence. It maintains a track of ZERO Customer PPM over the last many years. Rubber-metal suspension is a product range, and THSL is launching two verticals – ULTIMAAX and HAULMAAX suspension. The ULTIMAAX suspension is for heavy payload and high stress mining operation tippers, whereas HAULMAAX is for tractors, haulage trucks as well as for surface mining tippers. A progressive rate spring on the rubber-metal suspension

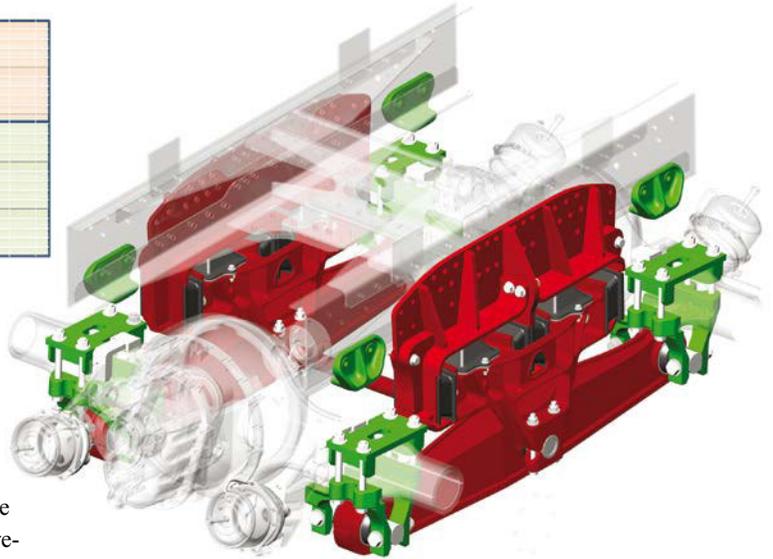


provides unique balance of empty ride quality and loaded stability.

These suspensions provide low spring rate in unladen conditions which will result in improved ride quality. As the load increases, the suspension spring rate increases (due to the unique design of progressive rate spring), which will provide high stability in laden conditions. “Drive quality, vehicle handling are largely improved resulting in reducing driver fatigue because of unique suspension architecture which changes stiffness with changes in load from empty condition to fully loaded vehicle”, explains Sinha. The turnaround time of the vehicle improves, as the premium rubber bushings require no lubrication. The walking beam design distributes load equally among axles for improved traction, stability and handling. Robust truss like saddle provides structural strength, durability and low weight leading into higher payload for the operator compared to the conventional bogie suspensions. The rugged bar pin axle connection helps extend service life and reduce re-bush time. “These unique features not only helps in improving vehicle productivity, extremely low maintenance but also helps in enhancing life of other associated vehicle aggregates like Chassis Frame and Axle”, explains Sinha.

### The way forward

“Our segment (the heavy duty tipper and haulage truck segment) is moving towards 5 axles systems and we have seen growth of about 240 per cent in recent years. Since 2013, our CAGR has been 25 to 30 per cent more than what we had anticipated in 2015,” informs Sinha.



Being a technology partner to OEMs, THSL is working on solutions that will be a benchmark in the industry. “There is no point in cribbing about Indian roads. Our job is to bring in a product that suits the Indian road conditions and improves the life of the vehicle,” avers Sinha.

THSL with its 100 per cent localized content not only fulfill its commitment to the “Make in India” program but also offers products which are specifically designed for the Indian condition.”

Contrary to the other aftermarket components, THSL works on products as a whole kit that ensures longer life. “Our intentions are to bring robustness to the entire suspension in tune with a OEMs vehicle life warranty,” explains Sinha. Although THSL doesn’t sell to the end-consumer directly, it is involved in a lot of training program through its OEM dealerships. “We have 400 plus customer-clinics aligned to our OEM partner’s dealership network. While conducting these clinics our technical staffs go and work with the fleet operators/drivers and dealers in helping them to understand our product and to maximize its utilization without damaging it,” elaborates Sinha. Such measures certainly translate into a vehicle performing better and ultimately giving more uptime.

“On the bus front, we are closely working with two OEMs to provide them better solutions than the existing first generation air bag suspension. It will not only take care of ride and comfort but also package the product to offer features that help passengers, both young and old, to get in and get off the bus easily,” reveals Sinha.

The core of the THSL business is in providing high technology suspension systems through its flexible operation to meet the needs of customers. For the uninitiated, THSL manufactures cost-effective solutions in categories like air suspension system for front and rear, tandem bogie suspension and auxiliary axle systems, including lift axle system.

