

# Telma

Retarders' specialist Telma SA plans to set up a plant in South India, for which it has already identified land. 'We are considering towards the establishment of a manufacturing facility in India. This is because we expect fresh mandates from OEMs, having already worked with some of them. And, even a couple of fleet operators have reported positive experiences after using our retarders. As such, we see a gradually increasing appreciation for Total Cost of Ownership (TCO),' explains Jan Bor, President, Telma SA. Telma has been associated with OEMs like Ashok Leyland, Tata Motors and Volvo Buses. In addition to this, fleet operators Parveen Travels and ABT have run buses fitted with retarders for some 2,50,000 kms.

So, there has to be something right about Telma's retarders. To start with they are electromagnetic. But, that is usually not considered to be too much of an advantage, especially due to perceived weight issues. That is where Telma has put in some work which has borne fruit. 'At 69 kgs, the weight of our retarder compares favourably with that of a hydraulic retarder,' states Sriram M, CEO, Race Innovations Pvt. Ltd, a consulting firm that has been working with Telma in India.

Besides weight, Sriram states that Telma's electromagnetic retarders embody a number of advantages over hydraulic retarders. The single model pancake design, mounted between the clutch and transmission, covers the full torque range from 900-3250 Nm at the input shaft of the transmission. This means full brake power in each gear at each speed. Another plus for Telma's retarders is the provision for electronic communication with the ABS and EBS as also a synchronisation with the transmission. Therefore, Telma's retarders has a rapid reaction time of just

0.2 seconds. Secondly, unlike most hydraulic retarders, electromagnetic retarders have easily customisable ratios between primary and secondary retardation, leading to better brake life. Thirdly, electromagnetic retarders can better tolerate engines with a lower power to weight ratio. The last aspect is important because electromagnetic retarders do not generate so much heat as to demand cooling and strain an already feeble engine. Not just that, Telma's retarders come with their own cooling module too.

In addition to Torque Input Retarders, Telma offers Regenerative Retarders. In the ReGen development project, Telma is moving towards the solution to combine, in a single unit, an electromagnetic retarder with a generator/motor; the objective is an EM-retarder that generates its own electrical power for the vehicle and works as a motor to support the engine while accelerating.

