Divgi-TTS

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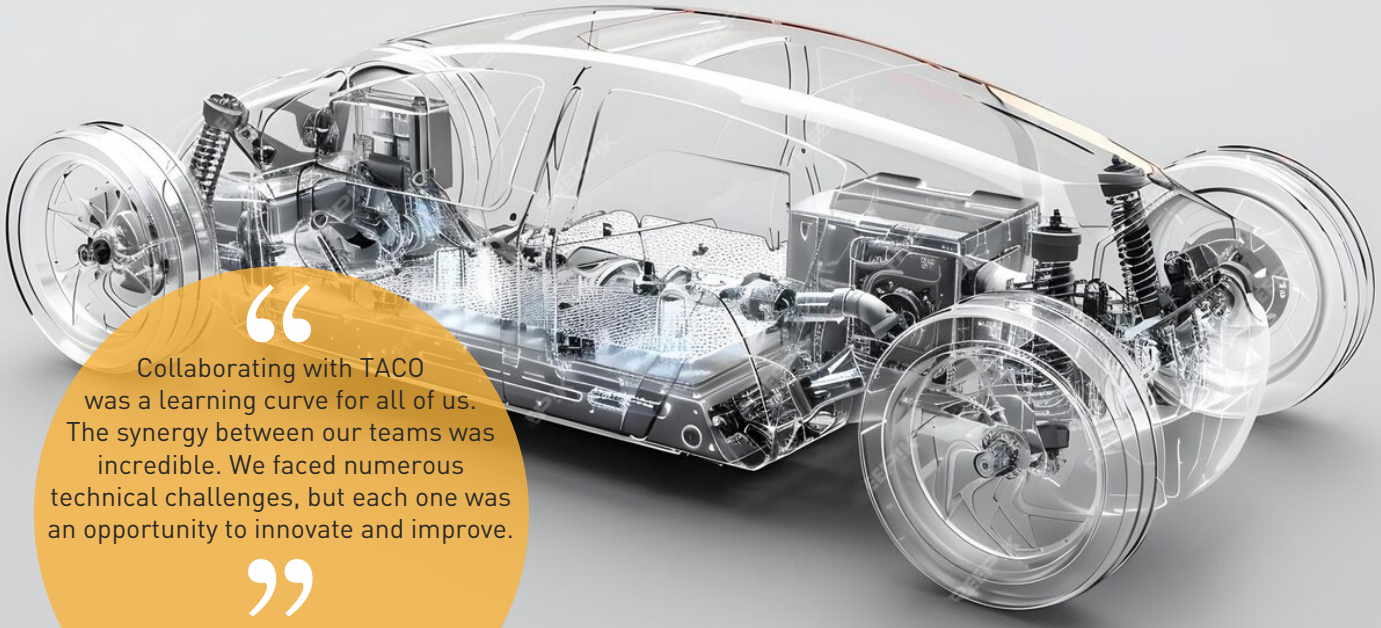
FEATURE STORY

Contributor:
Zubair Kachi
Advance Business Development

The Electric Surge

Divgi-TTS localizes EV transmissions for Tata Motors' current and upcoming electric vehicles.

In our August 2023 issue of our Newsletter, "Innovation TIMES", we had mentioned about how, as early as 2014, Divgi-TTS had recognized that the future was in "green" electric vehicles and by December 2022, had set up its state-of-the art facility at Shirwal, Maharashtra. This new facility equipped with state-of-the-art machinery – an advanced electric vehicle transmissions assembly line, a dynamometer test rig capable of testing transmissions at high speeds of up to 18,000 rpm and high torque up to 2,500 Nm and cutting-edge inspection



> "Collaborating with TACO was a learning curve for all of us. The synergy between our teams was incredible. We faced numerous technical challenges, but each one was an opportunity to innovate and improve."
>
> Abhijit Dusanis
> Team Member

tools – was aimed to be ready to roll out EV transmissions for India's largest automotive OEMs "whenever the floodgates opened".

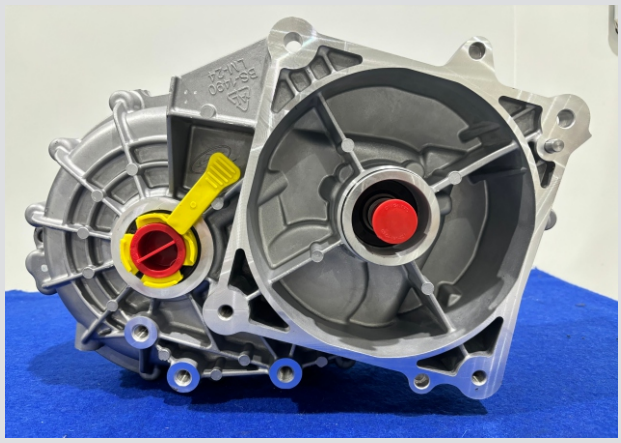
During the same period, as part of its independent business plans, Tata Motors (TML) was scouting for a supplier with the requisite expertise in the design, development and manufacture of transmissions for their upcoming line of electric vehicles. Divgi-TTS, a manufacturer of torque transfer products and a supplier to TML for over 25 years became its obvious first choice.

The design and development team at Divgi-TTS collaborated closely with TACO Prestolite Electric Private Limited, a Tata Group Company, to create transmissions with varied technical specifications. By April 2023, it had successfully begun supplying EV transmissions for the Tata Tiago, Tata Tigor and Tata Punch; popular models of Tata Motors Limited.

Market results of the performance of the EV transmissions supplied from June 2023 to September 2024 (32,000 units) was nothing short of magic – a remarkable "zero ppm" (parts per million) record i.e. not a single product failure during the specified period on critical parameters such as quality, warranty, and delivery. Additionally, Divgi-TTS earned a perfect score on cost, design & development, and management response metrics.

Buoyed by the success of the Tata Tiago and Tata Tigor launches, Divgi-TTS has begun new projects to develop EV transmissions for the Tata Nexon and Tata Curvv. The prototypes for these new platforms have been developed in an unprecedented timeframe of just eight weeks.

Through these efforts, Divgi-TTS has not only met but exceeded customer expectations. What else can this be described as but TRUE CUSTOMER DELIGHT.



Technology News

Contributor:
Raghavendra Prakash
Operations, Sirsi

Burning Desire

Divgi-TTS consolidates its in-house heat treatment capabilities.

Induction Hardening Cell

Outsourcing heat treatment requirements is typically the standard industry practice. And until 2018, Divgi-TTS would do exactly that – outsource heat treatment operations for its components to third-party vendors.

Sealed Quench Furnace

However, on becoming an independent company in 2016 and adding newer highly engineered complex products to its portfolio, strict control over the heat treatment process – lack of which could introduce unwarranted business distress such as added costs due to rejection of entire batches of components and lead time disarrays –became imperative. A careful assessment of these factors lead Divgi-TTS to switch from an outsourcing model to performing its heat treatment tasks in-house.

Hitemp Furnace

Divgi-TTS procured its first machine in 2018 for the hardening operations of the Ring Gear used on its Transfer Case products. Between 2018 and 2023, two more induction hardening heat treatment machines were procured for the treatment of Hub Reduction Gears and Shafts.

Anticipating substantial orders for the manufacture of EV components in the immediate future, Divgi-TTS, in 2023, added a state-of-the-art Sealed Quench Furnace (SQF) for the heat treatment of components through the carbonizing process. For the tempering process, a tempering furnace was also procured.

With the above heat treatment set-up, Divgi-TTS is all ready to address increased volumes of business in the foreseeable future.

Induction Hardening Machine

Technology News

Contributor:
Shiddaram Houde
Program Management

Getting teeth deeper into

Divgi-TTS sets up a full-fledged cell for the manufacture of transfer case reduction set planet pinion gears


Pinion Production Line

The planet pinion gear is a component that Divgi-TTS has been manufacturing for its transfer case products since the late 1990s. Now, with the view to expand its business and showcase its capabilities to some of the world's greatest 4WD brands, Divgi-TTS set up a full-fledged dedicated production cell for the manufacture of transfer

Liebherr Hobbing Machine

case reduction set planet pinion gears processed between its facility at Sirsi and Shirwal.

The cell at Sirsi, set up within a record period of 6 months, includes turning, hobbing, chamfering and shaving machines with autoloading facilities. A Sealed Quenching


LTL Bar Cutting Machine

Furnace was also set up within the cell for the heat treatment of the parts.

Parallely, for post heat treatment processes, high speed bore and face grinding machines with CBN wheels, shot

HOTA Shaving Machine

peening machine and auto roll tester with two components loading were installed and commissioned at Shirwal.

The new business for the transfer case reduction set planet pinion gears adds a new line of revenue in Divgi-


Muratech Turning Machine

TTS' quest to be recognized as a world-class Indian brand in automotive drive train components and systems.