

## POWER TRANSMISSION BUSINESS

### Market: Overview

#### Indian Industrial Gears Industry Overview

The Company estimates the Indian industrial gear industry at ~USD 500 million, of which the high-speed gear market is estimated at ~USD 30 million. High-speed gears are used in various applications like Steam Turbine Generators / Gas Turbine Generators / Rotary & Reciprocating Compressors / Centrifugal and Reciprocating Pumps / Blowers, Hydro Turbine Generators / ID-FD Fans.

New product demand in this segment is being fuelled by investments in end use industries, which include Ethanol Blended Petrol (EBP) programme, capacity enhancement of refineries, and investments in Petrochemical complexes attached to refineries, along with captive power requirements across all segments. Aftermarket growth is driven by higher capacity utilisation, leading to higher maintenance spends, increased demand for efficiency enhancements, and the need for upgrades, to name a few.

#### Defence Industry Overview

The Government's 'Make in India' policy is propelling the Indian defence industry towards the development of indigenous capability and technology across a wide spectrum, including critical areas, to minimise import dependence.

The Defence Budget of India has seen a consistent and notable increase over the past few financial years. The Ministry of Defence (MoD) has been allocated ₹ 6.21 lakh crore, which is 13% of the total budget, for FY 25. The allocation to DRDO for Research and Development in Defence in the FY 25 budget is ₹ 23,855 crore, of which a significant portion is for capital expenditure. MoD is proactive in identifying and encouraging competent and capable vendors. The geopolitical environment is also driving higher defence budget spending due to a growing focus on national security.

#### Triveni Power Transmission Business: Overview

Triveni's Power Transmission Business (PTB) is segregated across two streams - Gears & Defence. Within gears, the business segments include Original Equipment Manufacturer (OEM), Built to Print (which together are referred as Product), and Aftermarket.

PTB was founded in 1976 to meet the increasing demand for high-speed gears for Steam Turbine Generator (STG) applications. It has, over the years, evolved and grown, and is today synonymous with cutting-edge technology, knowledge and expertise, covering installations in 80 countries across

a wide range of applications. The business has extensive expertise in design and development of all sorts of gears and gearboxes, as well as a modern, globally benchmarked manufacturing facility.

PTB has grown to become one of the largest and leading gear manufacturing companies in India with a 48-year track record and a rich legacy. It has carved a niche for itself by being ubiquitous across industry segments and application spectrums.

#### OEM Segment:

- PTB caters to international OEMs for their new product requirements, provides durable aftermarket solutions across all brands, and also manufactures built-to-print gears for some of the world's leading OEMs
- PTB is a world-class business, with an unwavering dedication to research & development, product excellence, technological superiority, and customer care
- PTB is being patronised by all the major global OEMs in India, Southeast Asia and other parts of the world, offering power transmission solutions to various applications like Steam Turbine Generators / Gas Turbine Generators / Rotary & Reciprocating Compressors / Centrifugal and Reciprocating Pumps / Blowers, Hydro Turbine Generators / ID-FD Fans
- PTB gearboxes are compliant to API and AGMA standards, and cater to various industry segments like Thermal, Oil & Gas, Petrochemicals, IPPs, Fertilisers, Steel, Cement, Sugar, Rubber & Plastics, spanning all geographies
- PTB gearboxes are optimally designed to comply with stringent API and AGMA standards for installation in extreme ambient conditions of sub-zero or high temperatures. The gearboxes are engineered to various configurations, such as multiple outputs, vertical and horizontal offset, quill shaft, etc. Accessories include in-built and skid-mounted lubrication system and temperature, as well as vibration instrumentation package suitable for hazardous area applications, meeting stringent noise and vibration limits
- Reliability, achieved through superior technology, manufacturing and product quality, coupled with over four and half decades of rich experience in high technology gears, is the Company's key strength in this business. This enables Triveni to develop customised gear drives, meeting tough demands of industries across high-speed as well as niche slow-speed applications

**Built-to-Print Segment:**

- PTB has ventured into built-to-print gears of high quality for select global customers, leveraging its high-precision specialised manufacturing capability. The precision quality requirements for these select customers resonate well with PTB’s forte in high-speed gearing
- PTB’s strong edge in this segment aids the business with recurring revenues and effective utilisation of its capacities through selective participation in opportunities

**Aftermarket Segment:**

- Aftermarket services are integral to the industry. PTB undertakes repair & refurbishment, predominantly of world-renowned brands followed by local brands as well
- A two-pronged strategy is adopted in the event of failure - short-term & long-term solutions. Short-term solutions include minor repair with minimum lead time to maximise the uptime of the equipment, whereas long-term solutions are aimed at creating higher order of reliability, and include major repair and replacement of parts
- PTB’s current product portfolio - OEM as well as repair & refurbishing - is supplemented by its service portfolio, which includes:
  - Diagnostic study and health check-up
  - Overhauling
  - Upgradation and automation of existing plants
  - Installation and commissioning
  - On-site training and assistance
- Triveni PTB provides reliable 360-degree customised services throughout the product life cycle at the lowest cost, thus maximising uptime and performance. Major end customers include global O&G companies and refineries, Cement, Sugar, Steel, Fertiliser, IPP, Thermal, Hydro, Paper and Pulp, Petrochemical and Chemical industries

**Defence Business:**

Triveni is an OEM for a host of important products for the Indian Navy and Indian Coast Guard. The Indian Navy has chosen Triveni as its reliable supplier for propulsion shafting and turbopumps for its indigenous sub-surface project.

Triveni Defence business solutions include: platform level support, propulsion systems equipment as gearboxes and propulsion shafting, gas turbine generator for auxiliary power generation, and individual equipment such as pumps,

**A new multi-modal Defence facility is being set up with large-scale infrastructure for manufacture, integration and testing of various naval marine equipment.**

etc. Based on its vast expertise and experience in rotary equipment and engineered systems, Triveni has ventured into the development of indigenous technology for many major equipment for defence.

Triveni’s expertise lends it the versatility needed to take on the development of a range of engineered equipment and systems for different applications. A new multi-modal facility is being set up with large-scale infrastructure for manufacture, integration and testing of various naval marine equipment. PTB has ventured into a specialised business vertical of propulsion shafting by partnering with an internationally renowned technology partner for all upcoming projects related to surface ships. The Company’s in-house technology for multiple products, coupled with technology partnerships for other product lines, is facilitating participation in multiple ship building projects of Indian Navy and Coast Guard. This is a pioneering initiative aligned to the Atmanirbhar Bharat policy of the Government of India.

Triveni’s offerings in this segment are backed by:

Research & development expertise on critical turbo products

Fully equipped design, engineering and analysis capability

Best-in-class manufacturing infrastructure

Compliance with the dynamic defence market demands in India

Stringent adherence to quality requirements

Vast experience in reverse engineering, retrofitting, and customisation

### State-of-the-art Infrastructure

Triveni manufactures quality products, benchmarked to the highest standards, in this segment at its state-of-the-art manufacturing facilities. The facilities have the most advanced world-class multi-axis CNC machinery and equipment-handling capacity of 80 tonnes, and are ideally suited to support the manufacturing of technologically superior products for the Indian Defence sector.

In FY 24, Triveni's Board announced Capex towards expansion of the Power Transmission business aggregating to ₹ 360 crore, of which ₹ 180 crore was approved by the Board of Directors in Q3 FY 24. This Capex enhances the capacity of gears business alone (not including Defence) from ₹ 250 crore to ₹ 500 crore. The investments are aimed towards the development of a new bay (grinder/hobber/equipment) for both power transmission and defence products.

Expansions include setting up a new multi-modal facility, dedicated to Defence products. Given the potential for further expansion and growth in this segment, Triveni is in the process of establishing a large, dedicated multi-modal manufacturing, assembly and testing facility at Mysuru for defence products. This will have 50-80 tonnes handling capability and large-scale machining facility, in addition to dedicated test benches for a range of equipment and system integration capability.

### Focus on R&D

PTB's continued focus on R&D is directed towards the development of products to address its international forays, improve product performance to stay ahead, and also to create a robust fundamental understanding of different technology elements of high-speed gearing. The new upcoming specialised R&D laboratory will strengthen PTB's ability to fast-track the introduction of new specialised products and technologies.

During the year, the business developed a high-speed high-power compressor gearbox, based on the market projections for international growth. The new gearbox can be horizontally deployed across multiple customers in the high potential Western markets. Accordingly, the project was initiated for a speed increaser compressor application for a European customer and validated through testing, both of which were completed in FY 24. This new technology is deployable for medium to high power compressor applications, utilising specialised bearings and materials.

### Triveni Power Transmission Business: Performance

PTB has consistently sustained its majority market share across high-speed applications in diverse markets, in both new products as well as Aftermarket segments.

In FY 24, PTB obtained substantial orders in 40 MW and above power ranges, including that of API standards, which incidentally shall be one of the highest power API gearboxes to be installed in India. PTB's presence in high technology compressor gearboxes, both for integrally geared as well as centrifugal compressor units, is laying the foundation for future growth in international markets. Some of the very large API gearbox orders were received from South American and European customers, including the first order from a leading Organic Rankine Cycle turbine manufacturer in Europe. During the year, PTB also saw healthy orders coming from high power small hydro turbine applications – an area of renewed potential expected to show growth in the coming years.

PTB's strong share of market in the Aftermarket space has been sustained, enabling it to maintain business-level profitability. PTB's key focus continues to be on providing replacement and refurbishment of any make of gearboxes, not just in high speed but also in niche low speed applications. PTB so far has replaced over 90 international brands in India and overseas, totalling more than 1,200 third party gearboxes.

#### Key highlights for FY 24 are:

- PTB order booking stood at ₹ 375.4 crore, registering a growth of 42%, and revenues stood at ₹ 291.8 crore - a growth of 30% over FY 23
- Aftermarket contributed ~36% to the overall revenue from the Power Transmission Business
- PBIT for the business grew faster than revenues at 40.1% to ₹ 107 crore, with PBIT margins of 36.7%, up 276 bps on a year-on-year basis
- Steam Turbine Generator segment continues to be the mainstay for PTB, while the emerging compressors segment shows the highest potential for growth in the future. From end users' point of view, sectors like Sugar, Ethanol, Oil & Gas, Steel and Cement have witnessed considerable investments, with large power range orders coming from infrastructure sectors like Steel