

- It would help save foreign exchange of more than ₹ 40,000 crore on account of crude oil import bill, and would reduce dependence on imported fossil fuel, thus helping in achieving the goal of Atmanirbhar Bharat in the Petroleum sector

Further, the Government of India has announced that from April 2023 all new vehicles will be E20 compliant. The introduction of duty differential of ₹ 2 per litre, effective October 2022, between ethanol blended petrol and unblended petrol in the budget 2022-23 should further help reduce India's dependence on imported fuels. In view of the increasing crude oil prices globally, and the resultant petrol prices in the country, additional duty and resultant hike in prices to end users would encourage higher usage of blended fuel by OMCs and accelerate the movement towards achieving the targets of EBP20.

POWER TRANSMISSION BUSINESS (PTB)

As partners in India's journey of self-reliance, Triveni has structured its Power Transmission Business (PTB) around the three distinct segments of Gears, Built to Print and Defence, with comprehensive portfolios designed to make the country self-sufficient.

INDUSTRIAL GEARS INDUSTRY – OVERVIEW

The global industrial gearbox market is expected to grow at a CAGR of 4.2%, to reach USD 31.3 billion by 2026.

Gearboxes can be broadly classified into high speed and low speed. The next level of categorisation can be based on the type of gearbox:

- Single helical and double helical
- Spiral bevel
- Worm
- Planetary
- Combination of helical and spiral bevel
- Combination of helical and planetary

PTB is focussed on high-speed gears and gearboxes, and niche low speed gearboxes, predominantly Engineered-To-Order. High-speed applications include Steam Turbine Generator, Gas Turbine Generator, Blowers, Pumps, ID / FD Fans and Centrifugal compressors. Niche Low speed applications include: Extruders, Agitators, Select mill drives (HRM / CRM / Briquetting press, VRM).

Majority of the domestic players are into standard catalogue type gearboxes, and very few players are in customised gear manufacturing, which requires technological know-how, sophisticated infrastructure for manufacturing and quality assurance, along with stringent adherence to industrial standards, in addition to highly skilled and experienced manpower having the domain knowledge from the system and application perspective.

Triveni PTB, with its extensive high-speed gearbox portfolio and superior product quality, is well placed to benefit from the industry tail winds. However, the big boost is expected from the export business, which is likely to grow rapidly in the coming years.

Gears

This segment is divided into Products and Aftermarket, which can be further split into domestic and exports.

Products – Domestic:

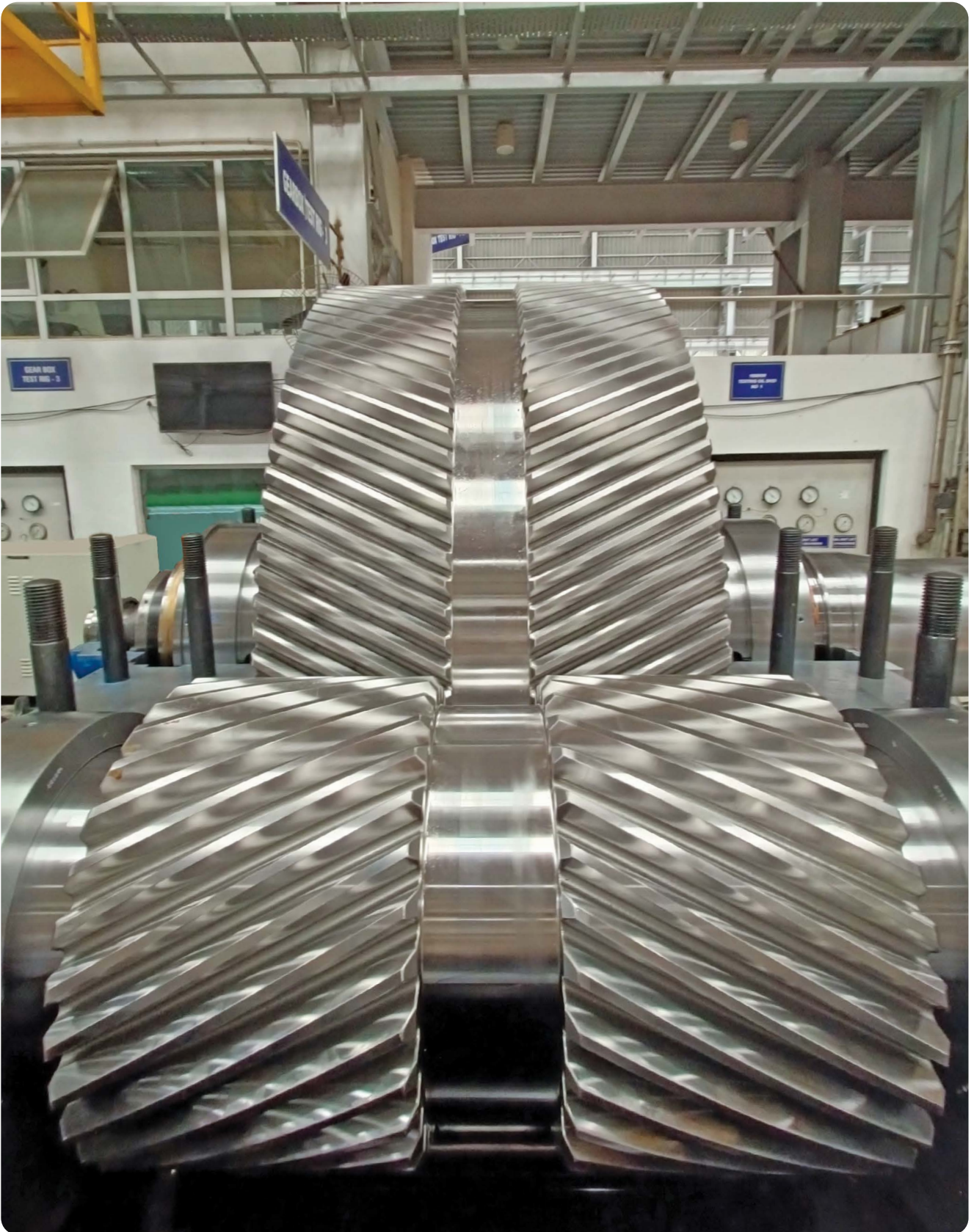
Power Transmission Business caters to the High Speed Gears segment, where the gears are used as speed reducers and increasers. It has a leadership position in this segment in India and consistently leads the market share across all major OEMs supplying Steam Turbines, Gas Turbines, Pumps, Compressors, FD and ID fans.

Major customers for the High Speed Gears segment include OEMs of these applications catering to Oil & Gas and Power generation segments, whereas in the Low Speed segment, the Company caters to the demand for gearboxes used in reciprocating compressors, pumps mainly used in Oil & Gas and Fertiliser plants. It also caters to the low head hydropower units, which require gearboxes for power generation.

Products – International:

Our Power Transmission Business is catering to the ever-changing demands of international OEMs in select geographies for varied applications. Off late, Power Transmission Business has enhanced focus in international markets leading to addition of new OEMs in new geographies.







Currently, the Power Transmission Business is supplying gearboxes to various OEMs in Japan, Korea, China, Malaysia, Indonesia and in Europe (Italy, France, Germany, and Spain), US and Latin America. During the year, the business also forayed into the UK region.

Currently, the Power Transmission Business is supplying gearboxes to various OEMs in Asia, Europe and the Americas. During the year, the business also forayed into a few new regions and our expectation is for larger quantum of business from these markets in the future.

The business is focussed on increasing the global market share and global footprint across various industrial segments through Domestic and Overseas OEMs. Sectors such as Power, Cement, Fertiliser, Petrochemicals, Steel, Paper, Sugar and Ethanol etc. are potential segments where the Company expects growth in the medium to long term.

Product Highlights:

- Overall product share in PTB business ranges around 55-60% of the total turnover
- Products – Domestic witnessed growth of 58-60% in both order booking and turnover during the year
- High potential global OEMs have been added during the year

Aftermarket Domestic:

Aftermarket encompasses high speed and niche low speed gearboxes, which include spares and services of Triveni make as well as other global brands of gearboxes across the industry spectrum. Service offerings include Diagnostic Study, Overhauling, Troubleshooting, Repair & Refurbishing and AMCs, providing full compliance to API and AGMA standards, combined with power upgrades and speed change.

PTB has been very proactive in devising strategies and action plans to be part of the Government's Make-In-India programme. It has taken steps in terms of resource allocation for shutdown tracking and creation of dimension ready sites, for offering products and services on short timeline, which gives it an edge over its competitors and enhances its chances for future business.

Over the last couple of years, PTB has forayed into highly critical areas of replacement, which include multiple stage integral rotor compressor drive gears and gearboxes, and is poised to grow at an accelerated pace in the coming years. There have been significant efforts to enter new stream of business in the Oil & Gas segment, which also has high business potential and is vital to India's self-reliance efforts.

Aftermarket Exports:

Middle East continues to be a high thrust and high potential area for PTB's growth. We have made significant inroads in the region, continuously expanding business with several high potential clientele. Southeast Asia and Africa are other focus areas for PTB and we have fared well in these three territories too, in spite of the pandemic triggered travel restrictions.

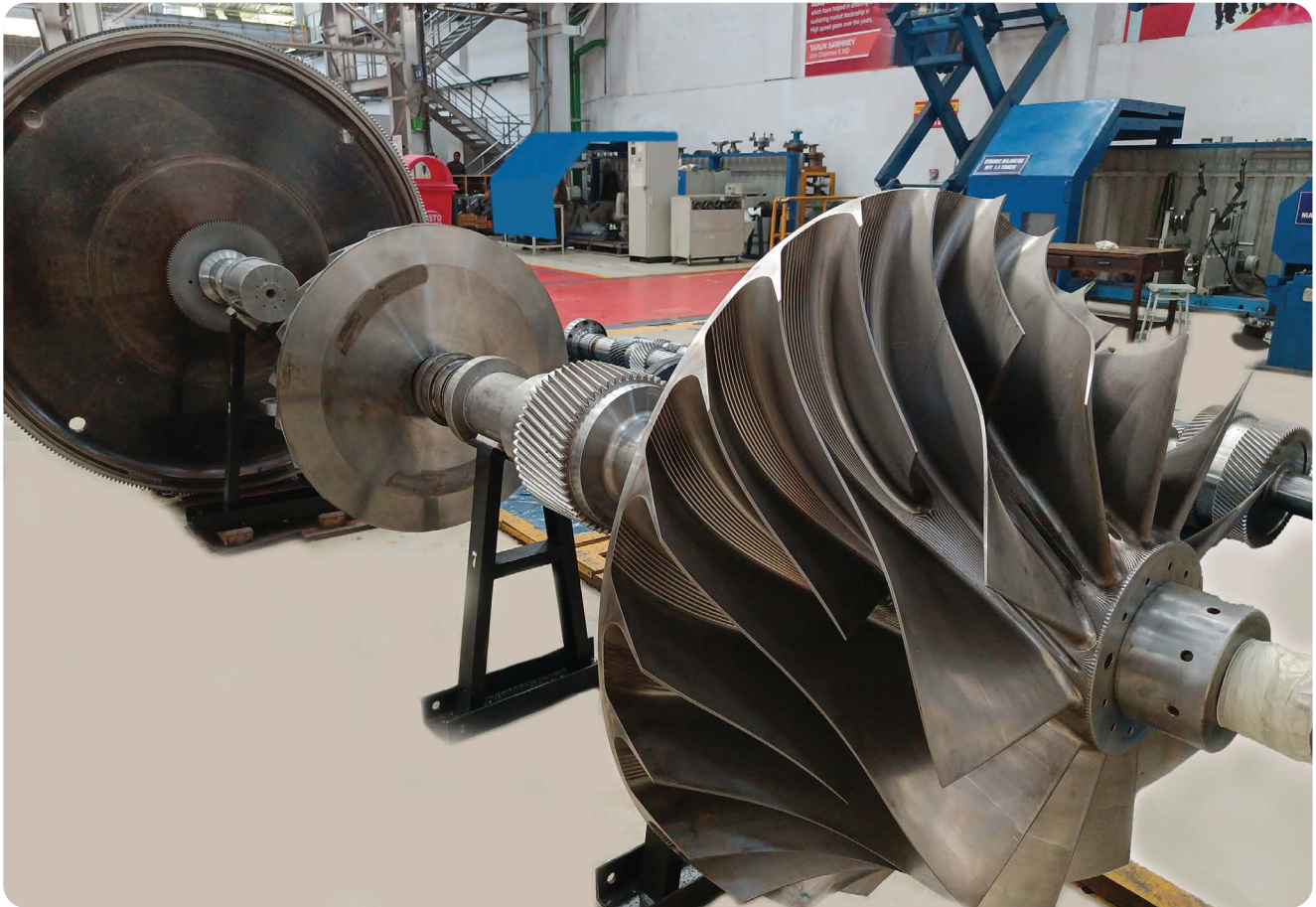
Aftermarket Highlights:

- Overall aftermarket share in PTB business ranges around 40-45% of the total turnover
- Major part of the growth was realised from exports, which grew at 150%
- While a decent number of new customers was added this year, there has been significant business from repeat customers as well, endorsing the high level of customer satisfaction and confidence in our products and services

Built To Print

PTB has partnered with global OEMs for precision manufacturing of components for wind gearboxes as well as industrial high-speed compressor gears, leading to enhanced capacity utilisation. The business has high potential to grow in the coming years.

Strategic alignment with select OEMs in India and overseas is expected to increase the share in FY 23.



DEFENCE BUSINESS

The Make in India policy of the Government of India has opened new avenues and opportunities for the industry, and Triveni, with its rich experience in the critical rotary machinery technology & systems engineering, along with its experience of supplying to defence and defence support organisations in the past, is poised to effectively capitalise on the same. Triveni is ideally positioned to expand its defence product profile, covering a range of naval marine equipment and systems. The Company has won a prestigious propulsion shafting order for a strategic project, to be completely designed and engineered indigenously. This is an important milestone in recognition of Triveni's technical capability in research & development of complex engineered products and systems.

The Government's Defence Procurement Policy 2020 focusses on self-reliance for various equipment in Design, Development and Manufacture. In order to boost indigenous design and development of defence equipment, most of the new requirements from Indian Navy are rapidly moving to promote Indian industry for major mission critical equipment, customised to specific requirements, as well as services. These

requirements offer substantial value to PTB's existing portfolio in engineered rotary products. The Power Transmission Business is focussing on expanding in the Naval Defence markets for new products, besides providing engineered replacement solutions for existing machinery. Triveni is actively engaged with Naval headquarters, Shipyards and other naval establishments to align with major upcoming projects on indigenous designs in the area of critical application products. Such products include Gas Turbine Generators for auxiliary power, critical application pumps and main propulsion shafting. Other examples include packaging agreements for propulsion gas turbines and technology agreements for stabiliser, steering gears and similar products.

Our Defence business segment also offers completely indigenous design and development of marine gearboxes, in line with the 'Atmanirbhar Bharat' mission of the Government of India. We are currently working in this segment on offering propulsion gearing solutions for several shipbuilding projects of the Indian Navy and Indian Coast Guard under the Make in India programme, along with other engineered equipment solution.

PTB has signed a long-term business agreement with GE AE for locally manufacturing Base, Enclosure and Lubricating skid for LM2500 engines. It is working towards expanding its relationship with GE AE for their upcoming Gas turbine projects.

The Defence business is also poised to grow horizontally and vertically, expanding its current portfolio in tandem with the Government of India's ambitious plans to spend on the country's defence, especially in the naval segments. This will also auger well for Triveni to achieve growth in the medium to long term.

POWER TRANSMISSION BUSINESS PERFORMANCE

PTB achieved a turnover of ₹ 184.6 crore in FY 22 - an increase of 42% over the previous year, with profitability (PBIT) of ₹ 64.2 crore (34.8% of turnover) which marks an increase of 57% over FY 21. The total order booking grew by 59% over last year, to ₹ 251.0 crore. Carry forward order book at the end of the financial year grew by 33%, and stood at ₹ 221.3 crore.

Our strong business performance in this segment is driven by our continuous and deep-rooted training initiatives covering employees across the business. About 450 man days of training was imparted during the year, helping keep employee skill sets and domain knowledge on the cutting edge and at par with the best-in-class global industrial standards.

SUCCESS STORIES FROM FY 22

PTB bagged some qualification orders for Steam Turbine Generator Application from a prominent European OEM:

- PTB's qualification and acceptability in the market after successful execution of these orders will not only be a growth driver for the Company with respect to this OEM but will also have a cascading effect on other OEMs and segments
- The first order was a qualification order, having stringent and special quality plan for approving the sourcing and sub-vendor approval process to ensure global quality of raw materials meeting European standards and the manufacturing process
- Gearbox was successfully despatched and is currently installed in a European location, and subsequent orders have been received and are under execution

- PTB is now poised to increase the OEM base and subsequently gain acceptance in the European market as a quality supplier for gearboxes and gears



Leveraging Engineering capability in the Oil & Gas sector:

Triveni-PTB's domain expertise and agile engineering methodology was leveraged to carry out repair and refurbishing of casing through in situ boring, by carrying out design and development of special machining, fixtures and mandrels. This was in addition to replacement of gear parts in a span of 3 weeks, followed by load trial run for a 35MW load cum accessory Gas Turbine load gearbox supplied by a Japanese OEM, as mandated by the customer. This has resulted in saving of substantial downtime losses for the customer. This is one of its kind service offered in the Indian Rotary Engineering space.



Our strong business performance in this segment is driven by our continuous and deep-rooted training initiatives covering employees across the business.