



Uncaging new avenues for growth

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Harsha Engineers International (HARSHA IN)

Rating: BUY | CMP: Rs325 | TP: Rs439

Company Initiation

Uncaging new avenues for growth

Key Financials - Consolidated

Y/e Mar	FY22	FY23E	FY24E	FY25E
Sales (Rs. m)	13,215	13,307	14,698	16,948
EBITDA (Rs. m)	1,690	1,833	2,204	2,643
Margin (%)	12.8	13.8	15.0	15.6
PAT (Rs. m)	919	1,183	1,466	1,817
EPS (Rs.)	11.9	13.0	16.1	20.0
Gr. (%)	31.0	9.2	23.9	23.9
DPS (Rs.)	-	-	2.4	4.0
Yield (%)	-	-	0.7	1.2
RoE (%)	19.4	14.8	12.9	14.3
RoCE (%)	21.7	16.5	15.6	17.1
EV/Sales (x)	2.2	2.1	1.9	1.6
EV/EBITDA (x)	16.8	15.1	12.3	10.1
PE (x)	27.3	25.0	20.2	16.3
P/BV (x)	4.8	2.8	2.5	2.2

Key Data

HRSH.BO | HARSHA IN

52-W High / Low	Rs. 528 / Rs. 321
Sensex / Nifty	59,288 / 17,393
Market Cap	Rs. 30 bn/ \$ 357 m
Shares Outstanding	91m
3M Avg. Daily Value	Rs. 57.9m

Shareholding Pattern (%)

Promoter's	74.61
Foreign	3.84
Domestic Institution	9.04
Public & Others	12.51
Promoter Pledge (Rs bn)	-

Stock Performance (%)

	1M	6M	12M
Absolute	(13.8)	-	-
Relative	(13.8)	-	-

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We initiate coverage on Harsha Engineers International (HARSHA) with a 'BUY' rating at a target price of Rs439, valuing it at a PE of 22.0x FY25E. HARSHA is well placed for long-term growth given its 1) leadership position in the domestic and global organized bearing cages market (~50-60% share and ~6.5% share respectively), 2) long standing relationships with top bearing players, 3) excellence in tooling & customized precision engineering and 4) increasing share of higher value products in the mix. We estimate Revenue/PAT CAGR of 8.6%/25.5% over FY22-25E driven by outsourcing of cage production and localization of manufacturing in India, scale up in bronze bushings, precision stamped components and large-size cages, interest and power cost savings, and turnaround in Romania operations. The stock is currently trading at a P/E of 20.2x/16.3x on FY24/25E earnings. Initiate 'BUY'.

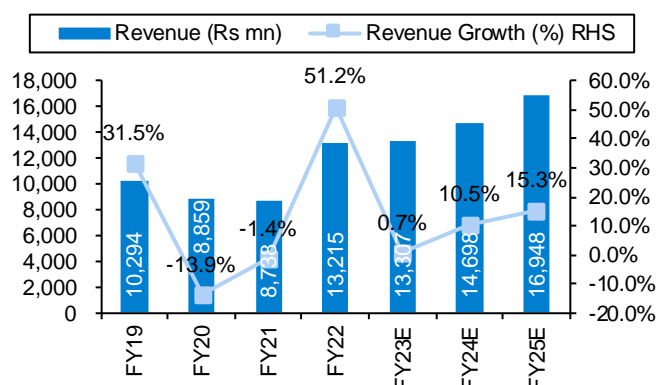
Leveraging long-term relationships to gain wallet share: HARSHA supplies cages to the top 6 global bearing players, and the average age of relationships with its top five customer groups is more than a decade. The company holds ~10-30% global wallet share with Schaeffler, SKF & Timken, and will benefit from their increased investments and localization focus in India. HARSHA has also built relatively newer relations with the 3 big Japanese players – NTN, NSK & JTEKT – and plans to increase its ~2% wallet share to ~10% within the next 3-5 years by directly supplying to these customers in Japan.

Bearing cage outsourcing to provide growth impetus: An estimated 40% of bearing cages are still produced in-house by bearing manufacturers, but this can fall to ~25-30% over the next decade, creating a significant market opportunity for cage producers like HARSHA. India is especially set to benefit because of its cost advantages, strong technical expertise and the China+1 theme. The outsourcing opportunity is considerable in large-size bearing cages, which HARSHA supplies from its Romania facility, and for which it is ramping up capacities in India to grow wallet share from ~2% to 10%+ in this high-value segment.

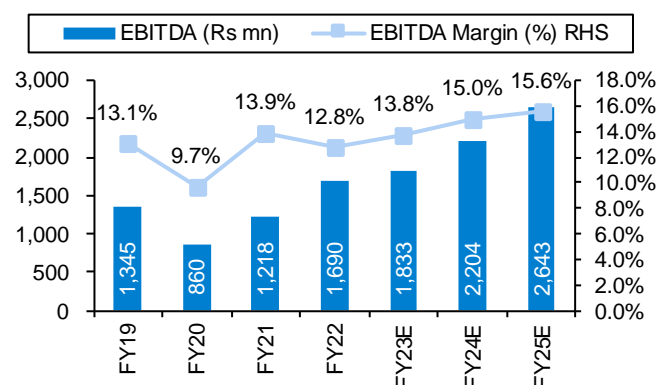
Bronze Bushings – An audacious play on wind energy: HARSHA has recently diversified into producing bronze bushings as a substitute for bearings for wind turbine gearboxes. This market has potential to expand from Rs. 2bn to Rs. 50bn, driven by cost and operational benefits of using bushings instead of bearings, along with growing demand for renewable energy sources. HARSHA's sales of bronze bushings in H1FY23 already surpassed the total of ~Rs. 130mn in FY22; it also has a healthy order book providing visibility for the next 1-1.5 years. As an early mover, HARSHA has potential to capture ~10-15% of the market over the next few years.

Turnarounds and cost efficiencies to aid margin expansion: HARSHA's underperforming Romania operations are expected to turn around on the back of improving demand in Europe and greater production of large-sized cages. Meanwhile, the Solar EPC segment has also turned profitable, registering a 0.4% PAT margin in 9MFY23 vs -8.3% in 9MFY22. Additionally, HARSHA has used its IPO proceeds to repay majority of its debt, and is investing in wind and solar plants to service its energy requirements. These measures combined can generate interest and power costs savings of Rs. 180-190mn annually, aiding margin expansion from FY23 onwards.

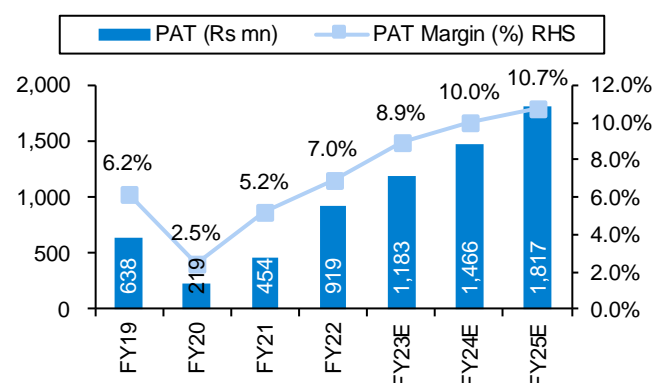
Story in Charts

Exhibit 1: Revenue to grow at a CAGR of ~9% over FY22-25E


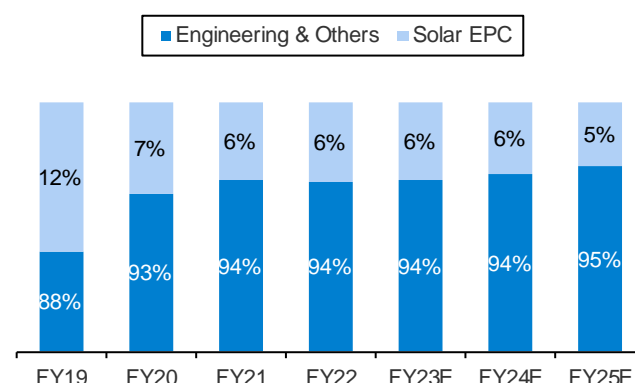
Source: Company, PL

Exhibit 2: EBITDA to grow at a CAGR of ~16% over FY22-25E


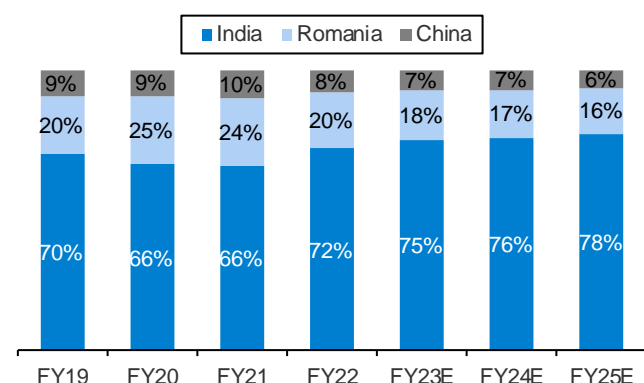
Source: Company, PL

Exhibit 3: PAT to grow at a CAGR of ~25% over FY22-25E


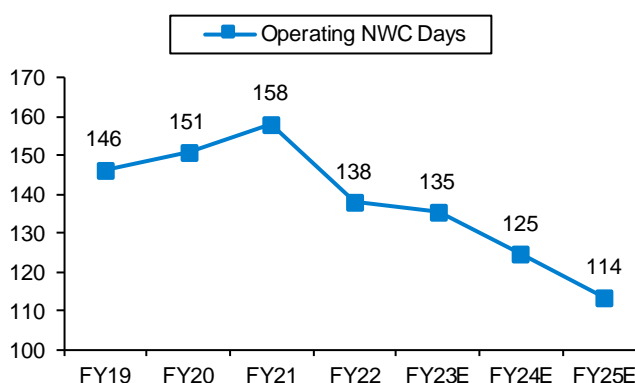
Source: Company, PL

Exhibit 4: Engineering revenue share to rise to 95%


Source: Company, PL

Exhibit 5: India manufacturing revenue share to rise to 78%


Source: Company, PL

Exhibit 6: Operating NWC Days to improve to 114 by FY25E


Source: Company, PL

HARSHA – A leading bearing cage manufacturer










HARSHA, established in 1986, is the largest manufacturer of precision bearing cages in the organised market in India with ~50-60% market share. It is also the 2nd largest manufacturer in the global organised bearing cages market for brass, steel and polyamide cages with a ~6.5% market share.

The company's primary business vertical is **Engineering** (94% of revenues) which involves production of brass, steel and polyamide bearing cages, bronze bushings, precision stamped components, and brass castings. HARSHA has developed over 7,500 types of products for its engineering business, of which more than 1,200 have been made within the last 5 years itself.

Bearing cages range from 20mm to 2,000mm in diameter and find application in Automotive, Railways, Aviation & Aerospace, Construction, Mining, Agriculture, Electrical and Electronics, and Renewables sectors. The cage portfolio includes:

- 3,700+ types of **steel** cages ranging up to 1,000mm
- 3,500+ types of **brass** cages ranging up to 2,000mm
- 80+ types of **polyamide** cages ranging up to 300mm

Exhibit 7: HARSHA's diverse suite of products with wide applications

																													
Taper Roller	Deep Groove	Angular Contact Ball	Thrust Roller	Spherical Roller	Cylindrical Roller	Sand Casting	Bronze Bushing	Precision Stamping Components																					
✓ Railways	✓ Industrial machines	✓ Pumps	✓ Compressors	✓ OEMs	✓ Engine applications	✓ Crushers	✓ Steel mills	✓ Thermal turbines	✓ Windmills	✓ Agricultural machines	✓ Automotive parts	✓ Chemical machinery	✓ Utilities	✓ White appliances	✓ Chemical machinery	✓ General industries	✓ Blowout preventers	✓ Extruders	✓ Gearboxes	✓ Offshore drilling	✓ Oil rigs	✓ Traction motors for railways	✓ Railway Seal	✓ AC Compressor Head	✓ Bronze Bushing for Wind Gear Box	✓ Chassis Parts	✓ Engine Drive	✓ Clutch Components	✓ Gear Shifter Assembly Parts

Source: Company

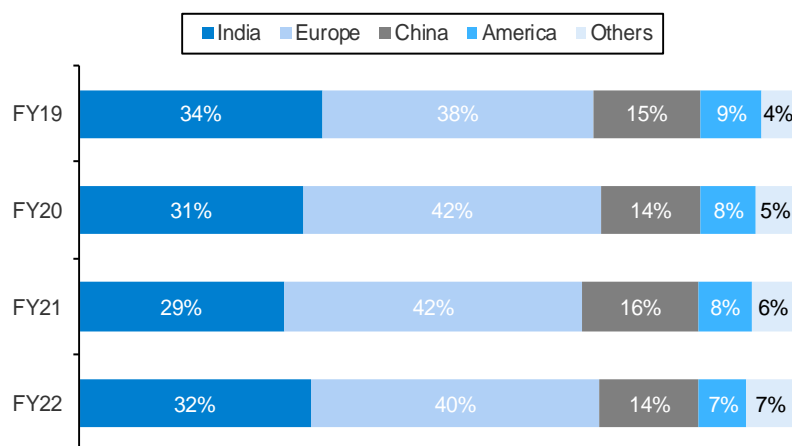
HARSHA has four strategically located manufacturing units for its engineering business in Changodar, Gujarat; Moraiya, Gujarat; Changshu, China; and Ghimbav Brasov, Romania. The plants have a combined installed annual capacity of ~1.1bn pieces of bearing cages and 4,596MT of castings. The facilities have end-to-end manufacturing, engineering & design capabilities, and are fungible across products, thereby providing flexibility to cater to market demand. Additionally, the Indian and Romanian plants are equipped with comprehensive tooling, testing and measurement infrastructure.

Exhibit 8: Total cage capacity of ~1.1mn pieces at ~62% average utilization

Bearing Cages	FY19	FY20	FY21	FY22
India				
Installed Capacity (mn pieces)	1,068.8	1,069.5	1,075.0	1,086.5
Production Volume (mn pieces)	715.7	557.0	542.2	670.6
Utilization (%)	67.0%	52.1%	50.4%	61.7%
China				
Installed Capacity (mn pieces)	11.2	11.2	11.2	11.2
Production Volume (mn pieces)	6.0	4.8	5.3	7.1
Utilization (%)	54.0%	43.2%	47.6%	63.3%
Romania				
Installed Capacity (mn pieces)	0.38	0.15	0.15	0.15
Production Volume (mn pieces)	0.14	0.08	0.12	0.12
Utilization (%)	36.8%	53.3%	80.0%	80.0%

Source: Company, PL

Globally HARSHA serves customers in over 25 countries covering Asia, Europe, North America, South America and Africa. It typically services customers from its Indian facilities, but European and Chinese customers are sometimes serviced from the Romanian and Chinese plants, respectively. Bulk of the company's customers follow a just-in-time inventory model; therefore, HARSHA stocks standard items with minimum inventory levels in 20 warehouses across the world including in Europe, US, China and South America. This enables it to meet its customers' requirements in a more cost efficient manner, while lowering the risk of stock outage.

Exhibit 9: Europe is HARSHA's largest market for its Engineering products


Source: Company, PL

HARSHA also has a **Solar EPC** vertical (6% of revenues) which provides comprehensive turnkey solutions in the solar photovoltaic industry and O&M services in the solar energy sector. With over 10 years of operating history in this business, HARSHA's design, engineering, procurement, project management and O&M team has a combined experience of installing at least 500 MW and commissioning more than 60 MW in roof top segment as of the end of FY22. This segment generated Rs. 829mn in revenues at a -3.0% EBITDA margin in FY22, and has been profitable in 9MFY23 with a 1.8% EBITDA margin and 0.4% PAT margin on Rs. 464mn in revenues.

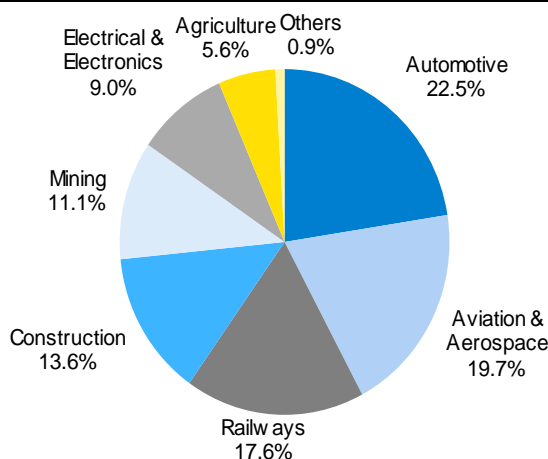
Industry Overview

Bearings – Fuelled by rising industrial capex

Bearings form an important component of many types of machines by preventing direct contact between two elements that are in relative motion, thereby helping to prevent heat and friction generation. A bearing typically consists of inner and outer rings, rolling elements (balls or rollers), the cage, and the seal.

Bearings are used across a wide range of sectors, with Automotive accounting for the largest share (22.5% in FY22). Over FY22-30, the global bearing market is estimated to grow at a 6.4% CAGR from \$105bn to \$172bn, with Construction and Railways expected to lead the way at 6.8% and 6.7% CAGRs respectively.

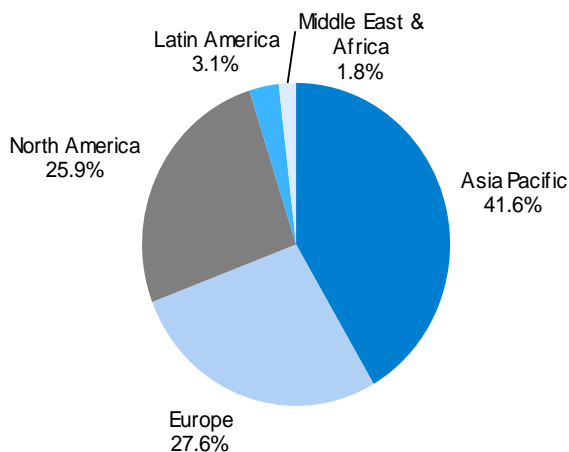
Exhibit 10: Application-wise breakup of global bearing market (FY22)



Source: Company, PL

Asia Pacific accounts for the largest share of the global bearing market, standing at \$43.5bn in FY22 (41.6% of overall market), and is forecasted to be the fastest growing region at 6.7% CAGR over FY22-30. Within Asia Pacific, the Indian bearing market was valued at \$5.5bn in FY22 with an anticipated 8.3% CAGR over FY22-30. This will be driven by increased investments in India by multinational players for domestic production of bearings, on the back of China+1 and Europe+1 trends.

Exhibit 11: Region-wise breakup of global bearing market (FY22)

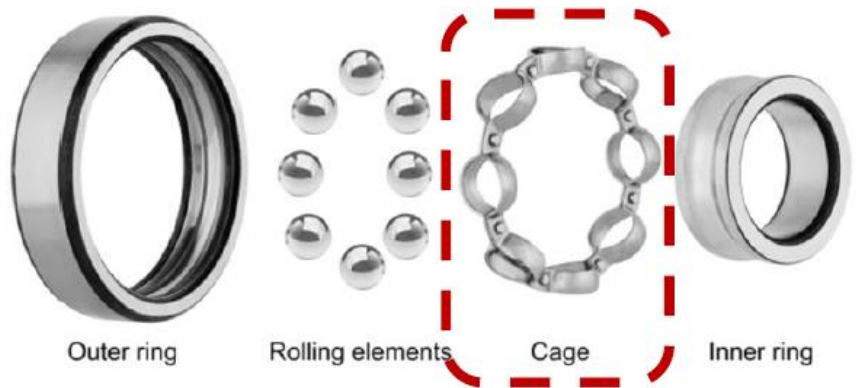


Source: Company, PL

Bearing Cages – Low value but high importance!

Bearing cage forms one of the five main components of a bearing. Although the cage accounts for only ~5% of the total bearing cost, it is still an important component providing strength, rigidity, heat resistance, and load distribution optimization. Furthermore, it requires the highest lead time for development along with technical and tooling expertise.

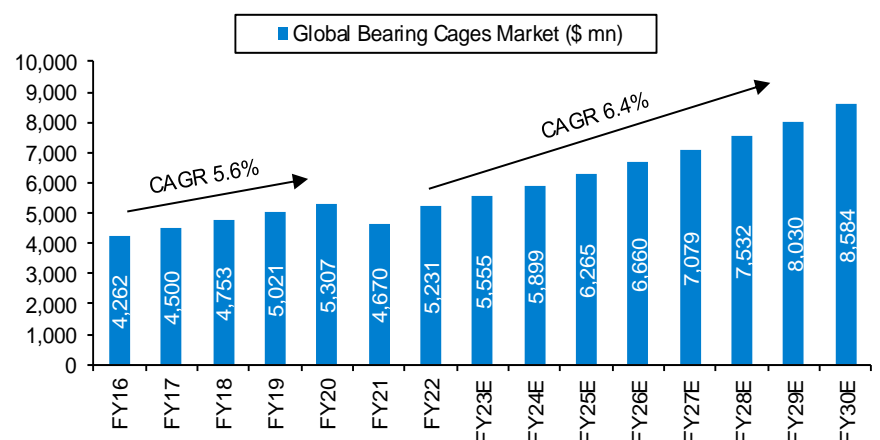
Exhibit 12: Cages form an important component within Bearings



Source: Company

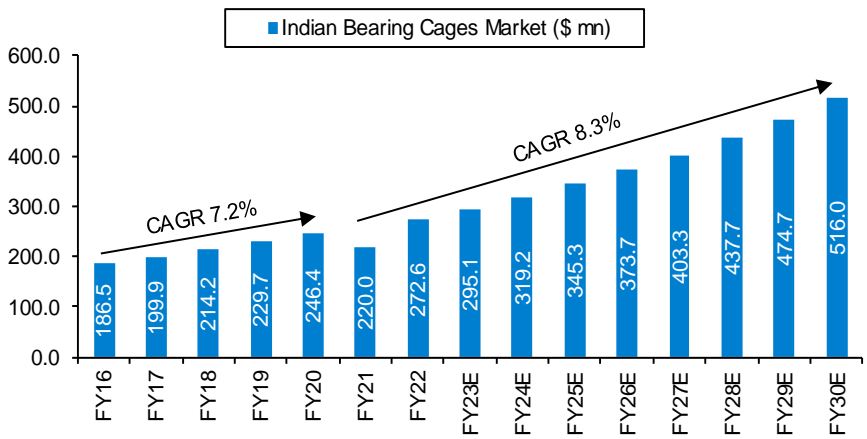
The global bearing cages market, standing at \$5.2bn in FY22, is expected to report a 6.4% CAGR over FY22-30, driven by increased requirements for high performance customized bearings and greater outsourcing of bearing cage production from in-house to low-cost manufacturing countries. Meanwhile, the \$273mn Indian bearing cages market (5.2% of global market) is expected to grow fastest within Asia Pacific at an 8.3% CAGR from FY22-30, as bearing manufacturers scale up investments for local production in India while diversifying their supply chains away from China.

Exhibit 13: Global bearing cages market to grow at a 6.4% CAGR until FY30



Source: Company, PL

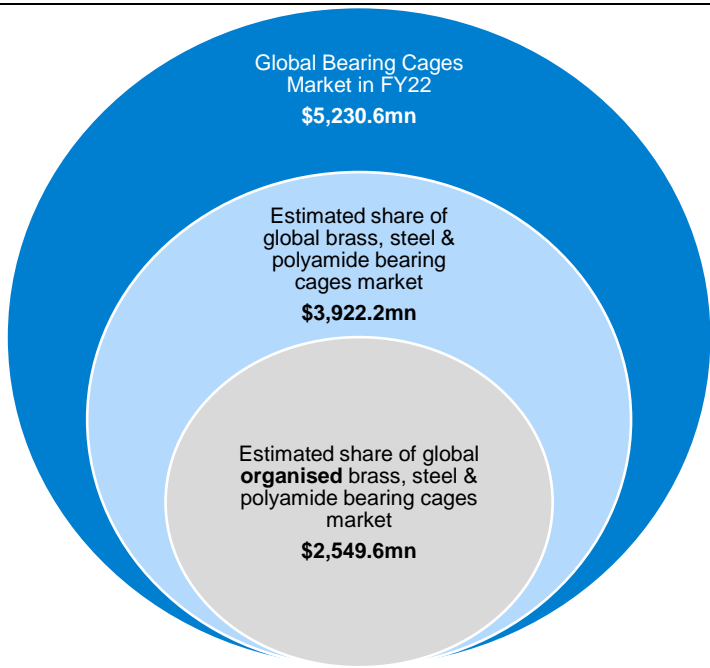
Exhibit 14: Indian bearing cages market to grow at an 8.3% CAGR until FY30



Source: Company, PL

Brass, Steel, and Polyamide cages constitute ~75% of the global bearing cages market; of this ~65% is estimated to be organised. Japanese company NKC is the largest player in the organised segment (~12.3% market share), followed by HARSHA (~6.5% market share).

Exhibit 15: Breakdown of global bearing cages market (FY22)



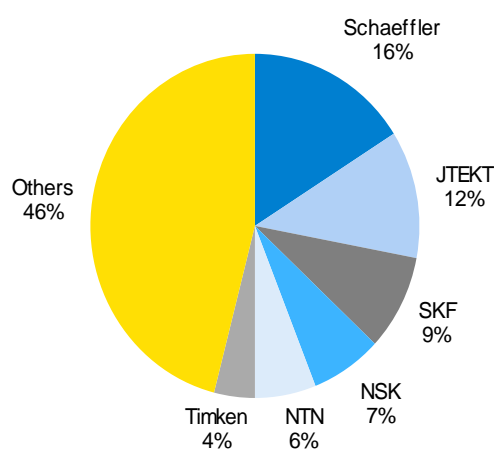
Source: Company

Investment Rationale

Leveraging long-term relationships to gain wallet share

The global bearing market is concentrated, with Schaeffler, Timken, SKF, JTEKT, NTN, and NSK commanding ~54% of the market. All six of them are HARSHA's long-term clients. Average age of HARSHA's relationship with its top five customer groups spans more than a decade. Considering the complexity of the production process for bearing cages, once a customer trusts a reliable vendor, that customer becomes sticky. HARSHA is able to win repeat orders from its key clients by being actively involved in their product development process from the design stage.

Exhibit 16: HARSHA serves the top 6 largest bearing players (~54% of market)



Source: Company, PL

Cashing in on strong wallet share in India to benefit from localization

India is forecasted to be the fastest growing bearing market in Asia Pacific, and one of the fastest globally, with an expected CAGR of 8.3% over FY22-30, given:

- Uptick in industrial activity, with rising capex across sectors such as railways, mining, renewable energy, and aerospace – all of which require bearings.
- Indian government's thrust on local manufacturing and import substitution, with Production-Linked Incentive (PLI) schemes augmenting industrial capex, which will further drive demand for bearing use-cases within India.
- Rising capital investments and focus on localization of supply chains and manufacturing by global bearing players in India.

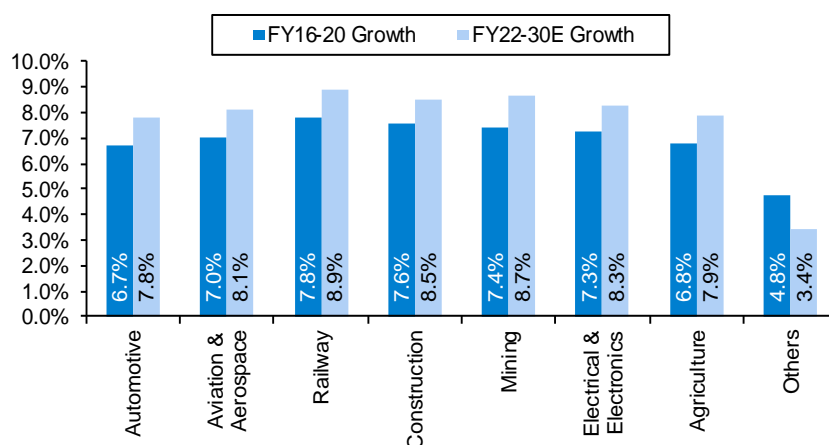
HARSHA holds ~70-80% wallet share in the Indian operations of SKF, Schaeffler and Timken, as they do not have meaningful cage production capabilities in the country. These companies have been focusing their strategies on localizing bearing production and supply chains in India in order to save costs and improve flexibility in the production process, while also capitalizing on industrial capex growth in the country. As these companies increase investments in India, we expect HARSHA to leverage its long-term relationships and large wallet share to service a significant share of their cage requirements, thereby driving incremental growth in the company's sales.

Exhibit 17: Global bearing players to invest significantly in India, with a push on localizing production and supply chains

Client	Localization %	India Capex
SKF India	Automotive: 95-97%; Industrial: 35-40%	Rs. 1.5-2bn per year going forward
Schaeffler India	74.1% localization ratio (CY21)	Rs. 15bn over next 3 years
Timken India	n/a	Rs. 6bn over next 2 years for new Cylindrical and Spherical roller bearings plant

Source: PL, Industry

Railways is estimated to be the fastest growing end-user of bearings in India over FY22-30E, driven by the government's increased focus on this sector (Railways capex in the FY24 union budget grew ~15% YoY to Rs. 2.9bn). HARSHA has developed an import substitute product used in railway bearings, which will be boosted by the government's aim of achieving 'Aatmanirbharta' in manufacturing.

Exhibit 18: Bearing usage in India to grow fastest in Railways over FY22-30


Source: Company, PL

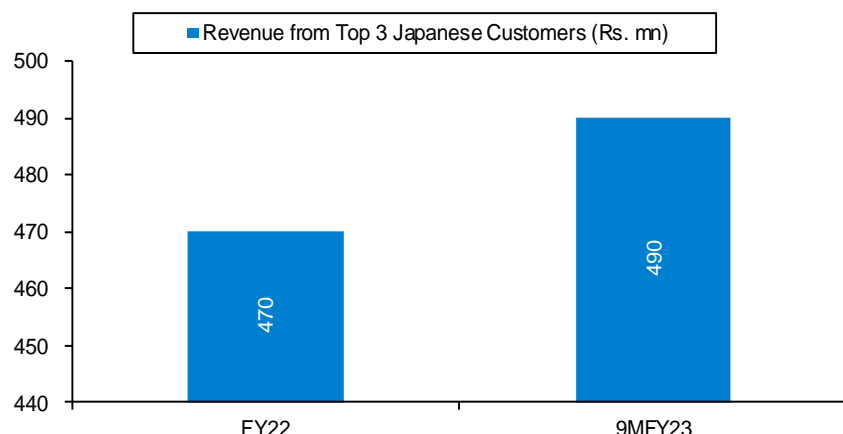
Potential to service larger pie of Japanese customers' business

HARSHA's relationships with Schaeffler, SKF, and Timken date back around 25-30 years, and it holds ~10-30% wallet share in bearing cages with them (globally). On the other hand, the remaining 3 of the top 6 players – JTEKT, NTN, and NSK – have been HARSHA's customers for a relatively shorter period (10-12 years) and HARSHA's wallet share with them is only ~2%. These three companies are all Japanese and command a combined ~25% share in the global bearing market.

HARSHA is actively looking to increase business with the Japanese players to grow its wallet share to 10%+ in the next 3-5 years. While it established relations by initially supplying cages to them outside Japan, it is now looking to directly cater to them at their local facilities in Japan, in order to establish stronger relationships and expand further into the Japanese bearing market. Furthermore, HARSHA's largest global competitor, NKC, is also Japanese, making HARSHA's penetration into the local Japanese market a strong indication of its capabilities.

The Japan business has been gaining traction in the last 2 years, with revenues from Japanese customers growing ~30-35% YoY in 9MFY23 (direct sales to Japan account for ~1/3rd of this). This strategy will also help HARSHA diversify its concentrated customer portfolio.

Exhibit 19: YTD sales to top 3 Japanese customers has exceeded FY22 sales



Source: Company, PL

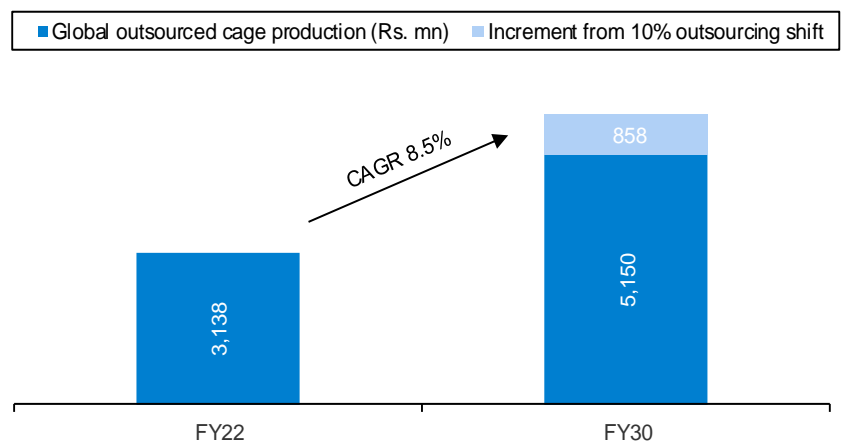
Bearing cage outsourcing to provide growth impetus

Global bearing players are increasingly outsourcing bearing cage production to specialized cage manufacturers due to the critical functions, quality constraints and precision requirements of the cage. India is especially set to benefit as:

- Production is being outsourced to low-cost manufacturing countries like India, which is on par in technological expertise but enjoys cost advantages compared to bearing producing countries like Germany and Japan.
- Bearing manufacturers are diversifying supply chains away from China and increasing investments in India.

Currently ~60% of global bearing cage production is estimated to be outsourced, and this can rise to ~70-75% by FY30, indicating a significant market opportunity for companies like HARSHA. During this period, while the overall global bearing cages market is expected grow at a 6.4% CAGR, a ~10-15% outsourcing shift translates to an 8.5-9.4% CAGR for bearing cage manufacturers. The outsourcing potential is considerable in **large-size brass and steel bearing cages**, which are still primarily made in-house due to higher manufacturing complexity.

Exhibit 20: Outsourced cage production if outsourcing rises to ~70% by FY30

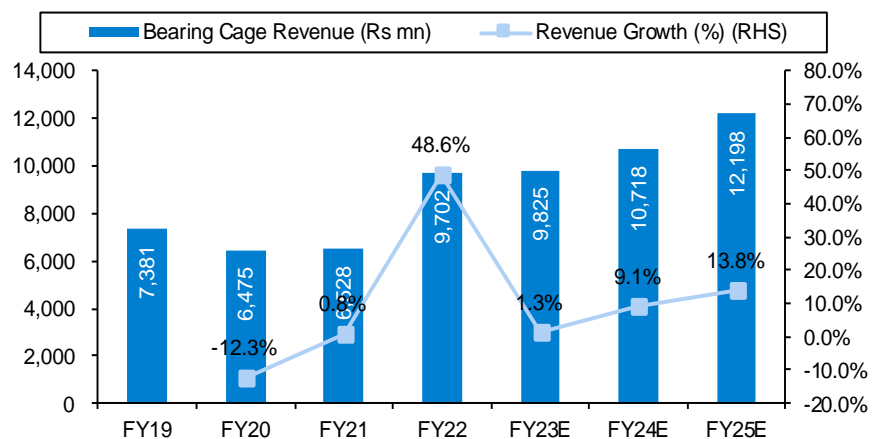


Source: Company, PL

How does HARSHA stand to benefit?

- Given HARSHA's strong market position globally and in India, coupled with its long-term relationships and healthy wallet share with top global bearing players, it is primed to gain incrementally from this outsourcing trend.
- The company is concentrating its efforts on ramping up production and sales of large-size cages from India and Romania, especially in >400mm cages.
- HARSHA's wallet share with customers for large-size cages stands at ~2%, with a target to grow this to ~10% over the next 3-5 years.
- Large-size cages are a low-volume high-value product, and thus will be margin accretive for HARSHA while also helping the company increase its overall wallet share with customers.

Exhibit 21: Bearing Cage revenue to grow at a CAGR of ~8% over FY22-25E



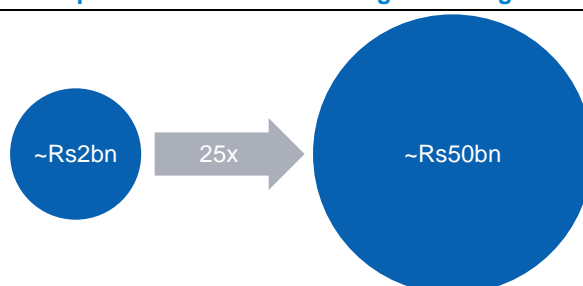
Source: Company, PL

Bronze Bushings – An audacious play on wind energy

Over the past 3-4 years, there has been a rising trend of using bronze bushings in certain wind turbine gearboxes as a substitute for bearings, due to the following:

- While a bearing has 5+ components, the bushing is a single component product. Hence, it helps reduce the size of the gearbox, and is on average estimated to be 40-50% cheaper than bearings.
- It improves the power generating capacity and efficiency of the wind turbine.

Exhibit 22: Market potential of bronze bushing for wind gearbox in 5-7 years

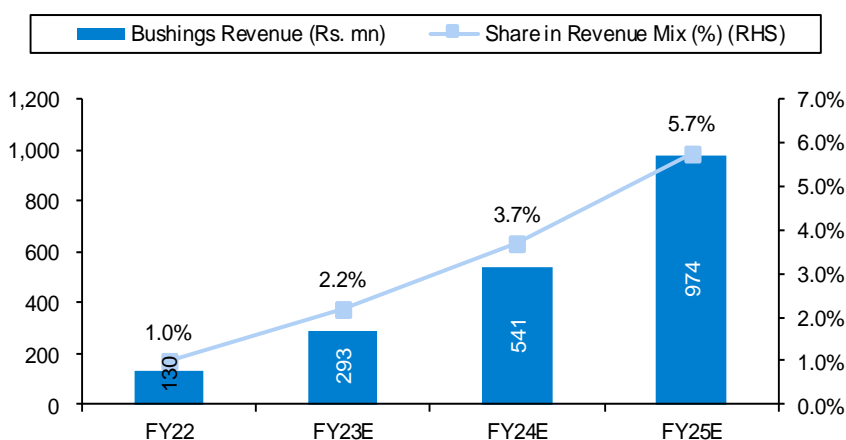


Source: Company, PL

The wind bronze bushings market is currently at a nascent stage, estimated at ~Rs. 2bn globally. The total addressable market is ~100GW of wind energy capacity. If all the 'replaceable' gearbox bearings in the ~100GW capacity are 100% replaced by bushings, the market is forecasted to be ~Rs. 50bn, translating into a ~25x growth opportunity. Growing shift towards renewable energy sources such as wind energy can enable faster growth of this market.

HARSHA has recently added bronze bushings to its product portfolio to capitalize on this potentially large opportunity. Out of a Rs. 3-4bn total capex plan for its engineering business over the next 3-4 years, a fair chunk will be spent on ramping up bushing capacities at HARSHA's Moraiya plant.

Exhibit 23: Bushings to scale rapidly and contribute 5.7% to sales by FY25E



Source: Company, PL

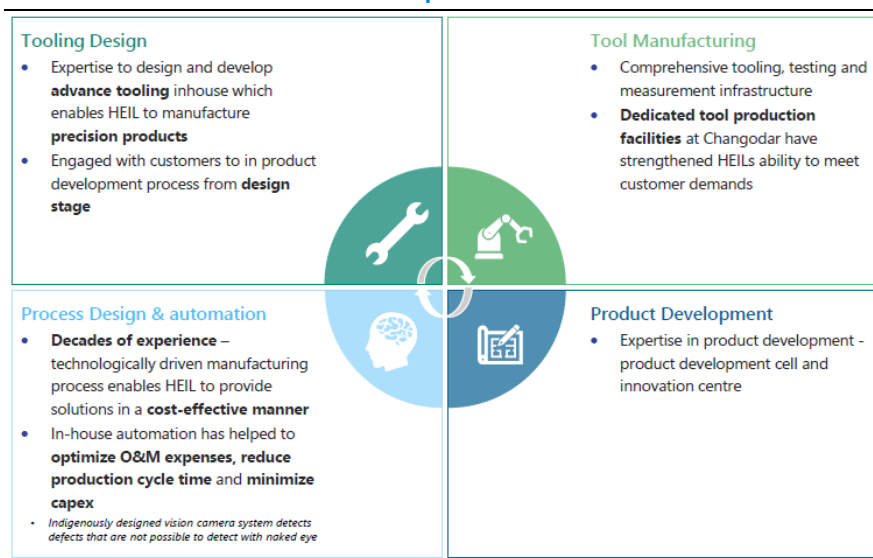
Bushings have a better EBITDA margin profile (~20%+) than HARSHA's overall business; hence, this product is a trigger for margin expansion as its share in the business mix scales up. Despite some near term headwinds due to a weak European market, this is potentially the company's largest growth opportunity. HARSHA's sales of bronze bushings in H1FY23 already surpassed the total of FY22. They also have a sizeable order book in this segment, which provides comfort on revenue visibility for the next 1-1.5 years.

HARSHA's clientele includes 2 of the world's 3 largest wind turbine gearbox manufacturers. These gearboxes are exported primarily to Europe and China. Being one of only 2-3 players globally, HARSHA is an early mover in this space and has potential to consolidate ~10-15% market share over the next 5-7 years.

HARSHA has excellence in tooling, design and development

Bearing cage is a tool dominated product, with precision in the final product coming from the quality of tools used. Cages go through multiple stages of production, with tooling and process design considered to be most important steps. HARSHA has developed strong expertise in making advance tooling in-house; additionally, it has full-service capabilities across the product cycle including product design and development, material sourcing, testing and measurement infrastructure. As a result, HARSHA is able to manufacture highly precise and customized engineering products, including bronze bushings and precision stamped components.

Exhibit 24: HARSHA's full service capabilities under one roof



Source: Company

Bronze bushings require high precision machining and assurance of all mechanical, chemical, dimensional and cleanliness properties because of the criticality of application. HARSHA collaborated with a machine maker to develop a machine which produces bushings at an accuracy level below 10 microns, which is significantly better than other machines in the market. They also signed an NDA so that this technology cannot be shared. This raises entry barriers and further demonstrates HARSHA's strength in design and manufacturing processes.

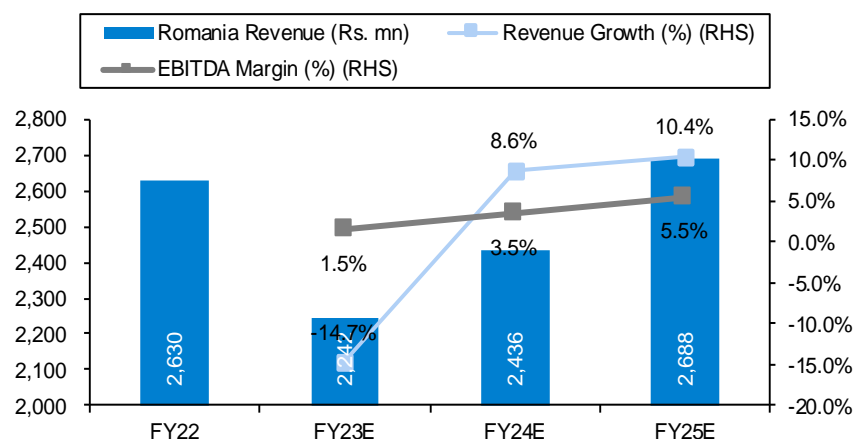
Turnarounds and cost efficiencies to aid margin growth

Romania plant to improve business mix towards large-size cages

HARSHA's Romania plant makes semi-finished brass castings (~80% of sales) and a small volume of large-size bearing cages (~20% of sales). Given recent headwinds in Europe, higher energy costs, and low-value castings dominating the mix, this plant has seen weak performance in 9MFY23. Blended EBITDA margin is only ~1-2%, while volumes have been weak. This is a drag on HARSHA's overall performance as Romania accounts for ~20% of total revenue.

Going forward, HARSHA is focusing on growing the share of large-size cages in Romania, which command 12-15% EBITDA margins. Thus, we anticipate both the top and bottom line of HARSHA Romania to turnaround favourably from FY24 onwards, given:

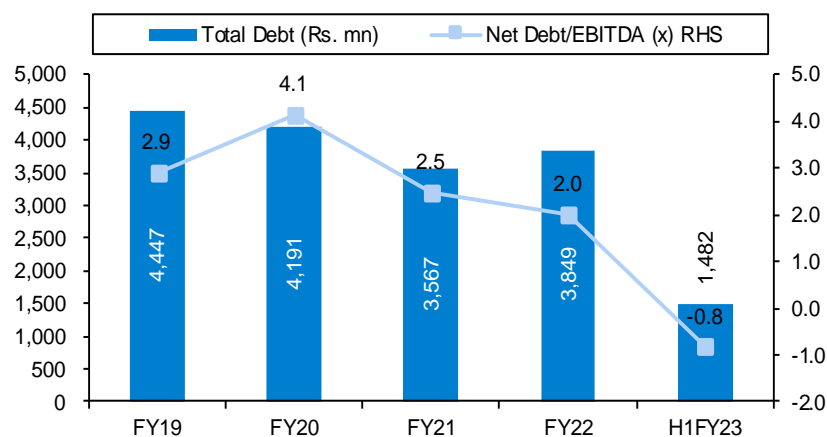
- An improving market outlook in Europe from H2CY23 onwards.
- Higher demand for renewable energy (which requires large-size bearings) following the European energy crisis.
- Increased outsourcing of large-size cages. Schaeffler (one of HARSHA's largest clients) started a new production line for large-size bearings in Romania, which is its biggest global plant.

Exhibit 25: Growth in Romania to pick up from FY24 onwards


Source: Company, PL

Cost rationalization and operational efficiencies to drive profitability

Debt Repayment: HARSHA raised Rs. 4,274mn of primary proceeds in its IPO in September 2022, of which Rs. 2,700mn was earmarked for debt repayment. The company has utilized the full amount, sharply bringing down the Net debt/EBITDA ratio from 1.0x as of FY22 to -0.8x as of H1FY23. These debt repayments can result in annual savings of ~Rs. 150-160mn in finance costs.

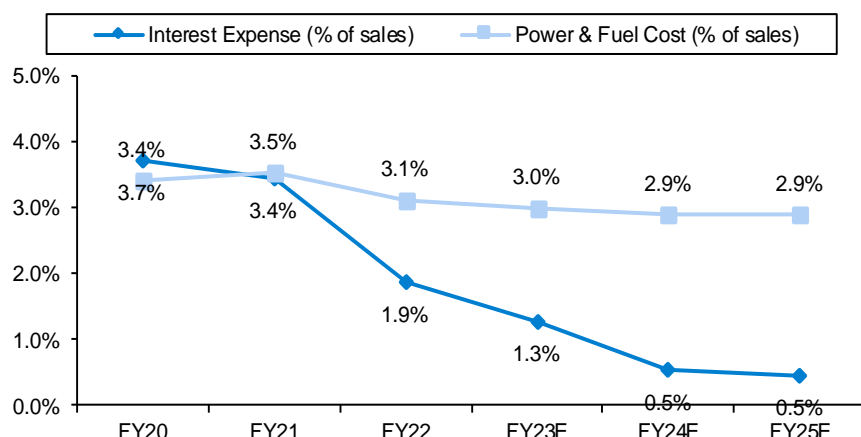
Exhibit 26: Net Debt/EBITDA ratio turned negative to -0.8x in H1FY23


Source: Company, PL

Power Cost Savings: HARSHA is undertaking ~Rs. 270mn capex in FY23 for wind and solar power generation plants which will help reduce power costs by ~Rs. 30mn annually while servicing ~45% of the company's power requirements.

Automation: HARSHA has an in-house automation department focused on automating various primary and secondary operations. Moreover, it has implemented a Total Productive Maintenance (TPM) program in its Indian plants to enhance operational efficiency and product reliability. Automation and TPM have helped HARSHA double productivity in the last 10 years, while driving additional cost savings in India. The company intends to implement the same in its Chinese and Romanian operations.

Exhibit 27: Power and Interest costs steadily falling as a % of sales

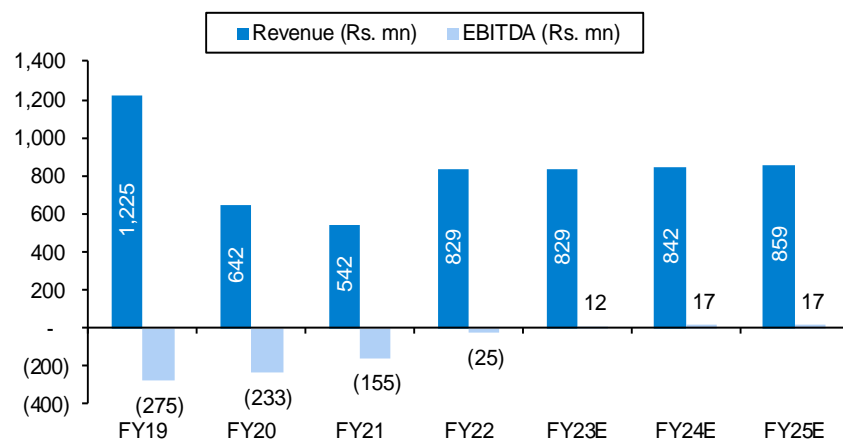


Source: Company, PL

Solar EPC business starting to contribute to the bottom line

HARSHA's Solar EPC vertical, although accounting for only ~6% of the business, has historically been a loss-making venture and thus a minor drag on margins and profitability. However, this vertical has been profitable in 9MFY23, and we expect it to continue contributing marginally to the bottom-line going forward.

Exhibit 28: Solar EPC to stop dragging down EBITDA FY23 onwards



Source: Company, PL

Financial Analysis

India Engineering Revenue / EBITDA to grow at a 15.3% / 15.7% CAGR over FY23E-FY25E

We expect India Engineering to record 15.3% revenue CAGR over FY23E-FY25E:

- **Bearing Cages** (62% of FY22 revenue) to grow at a 11.4% CAGR, as global bearing players increase capex and focus on localization in India, in-house production of large-size bearing cages is outsourced to specialized cage manufacturers, and HARSHA's Japanese wallet share continues to rise.
- **Bronze Bushings** (1% of FY22 revenue) to grow at an 82.5% CAGR, driven by a pick-up in wind energy demand in Europe from H2CY23 onwards, with HARSHA leveraging its early mover advantage.
- **Precision Stamped Components** (3% of FY22 revenue) to grow at a 27.5% CAGR, as HARSHA leverages its engineering and tooling expertise to capitalize on strong traction and order intake in this segment.

We expect India Engineering EBITDA to grow at a 15.7% CAGR over FY23E-FY25E and margin to rise to 21.5%, as:

- Share of bronze bushings (which has higher margins than the other products) more than doubles to ~8% of India Engineering revenue.
- Contribution of large-size cages and precision stamped components, which are value-added products and hence margin accretive, grows in the mix.

Exhibit 29: India Engineering growth to be driven primarily by Bushings

India Engineering (Rs mn)	FY22	FY23E	FY24E	FY25E
Bearing Cages	8,155	8,445	9,201	10,472
Bronze Bushings	130	293	541	974
Precision Stamped Components	450	554	692	899
Total Revenue	8,735	9,291	10,434	12,345
Revenue Growth (%)	67.4%	6.4%	12.3%	18.3%
EBITDA	1,863	1,984	2,233	2,654
EBITDA Growth (%)		6.5%	12.6%	18.9%
EBITDA Margin (%)	21.3%	21.4%	21.4%	21.5%

Source: Company, PL

Romania revenue to grow at a 9.5% CAGR and EBITDA to rebound over FY23E-FY25E

- Revenue growth to be driven by 24.0% CAGR in Bearing Cages, on the back of increased production of large-size cages for industrial use, as the European market outlook improves from H2CY23 onwards.
- EBITDA margin to recover to 5.5% on account of better volumes along with rising share of higher margin large-size cages in mix to 24.9% by FY25E.

Exhibit 30: Scale up of large-size cages to drive improvement in Romania

Romania (Rs mn)	FY22	FY23E	FY24E	FY25E
Bearing Cages	526	436	530	670
Brass Castings	2,104	1,807	1,905	2,018
Total Revenue	2,630	2,242	2,436	2,688
<i>Revenue Growth (%)</i>	26.2%	-14.7%	8.6%	10.4%
EBITDA		34	85	148
<i>EBITDA Growth (%)</i>			153.4%	73.4%
<i>EBITDA Margin (%)</i>		1.5%	3.5%	5.5%

Source: Company, PL

China Revenue / EBITDA to grow at a 5.8% / 10.9% CAGR over FY23E-FY25E

Exhibit 31: HARSHA China's EBITDA margin expected to steadily rise to 11%

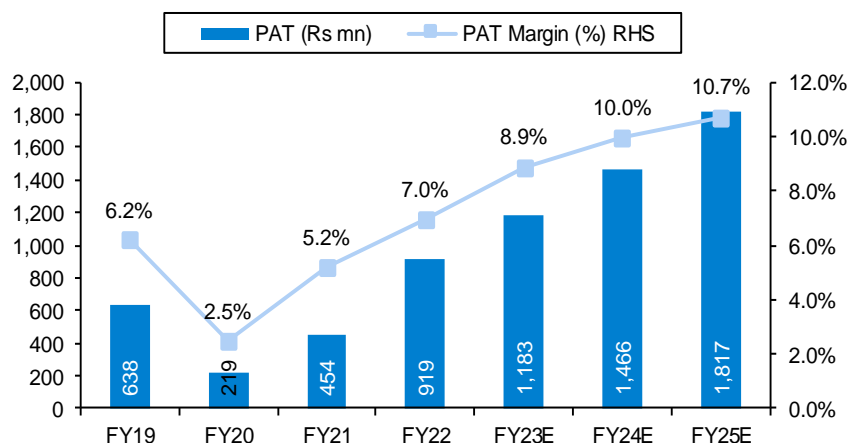
China (Rs mn)	FY22	FY23E	FY24E	FY25E
Bearing Cages	1,020	944	986	1,056
Total Revenue	1,020	944	986	1,056
<i>Revenue Growth (%)</i>	14.4%	-7.5%	4.5%	7.1%
EBITDA		94	104	116
<i>EBITDA Growth (%)</i>			9.7%	12.2%
<i>EBITDA Margin (%)</i>		10.0%	10.5%	11.0%

Source: Company, PL

PAT to grow at a ~25% CAGR over FY22-25E

HARSHA's PAT rose at a 12.9% CAGR over FY19-22 along with an improvement in margins from 6.2% to 7.0%, driven by operational cost efficiencies and lower interest expenses. We expect PAT to increase at a 25.5% CAGR and margins to rise to 10.7% over FY22-25E on the back of 1) further reduction in interest expenses following significant pay down of debt, 2) increasing share of higher margin products (large-sized cages, bronze bushings, and precision stamped components) in India Engineering business, 3) improvement in Romania margins, and 4) Solar EPC business turning profitable.

Exhibit 32: PAT to grow at a CAGR of ~25% over FY22-25E



Source: Company, PL

Valuation

We expect HARSHA to report **Revenue CAGR** of 8.6% over FY22-25E on the back of 1) increased investments in local manufacturing of bearings in India, 2) growing trend of outsourcing large-size bearing cage production, 3) scale up in sales of bronze bushings and precision stamped components, and 4) capacity expansions undertaken to capitalize on these opportunities.

We estimate **EBITDA/PAT CAGR** of 16.0%/25.5% between FY22-25E given 1) growing share of higher margin products in the mix (large-sized cages, bronze bushings, and precision stamped components), 2) improvement in Romania margins, 3) power cost savings via solar & windmill plants and 4) interest cost savings due to debt repayments.

We initiate coverage with a 'BUY' rating and TP of Rs439, valuing at P/E of 22x FY25E. The stock is currently trading at P/E of 20.2x/16.3x for FY24/25E.

- Rolex Rings is HARSHA's closest peer given it is also a component vendor to the same bearing MNCs (Schaeffler India, SKF India, and Timken India), and is thus impacted by similar business drivers. We assign a 22x target P/E to HARSHA, which is an ~8% discount to Rolex Rings' average target P/E of ~24x, factoring in the margin profile, business model, growth, and return profile.
- Given their higher position in the bearing value chain, size & scale, and global parentage, SKF India, Schaeffler India, and Timken India trade at a significant premium to HARSHA and Rolex Rings, who are their vendors. Together, HARSHA and Rolex trade at an average discount of ~51% / ~39% to the bearing MNCs on FY25E Market / Target P/E.

Peer Comparison

Exhibit 33: HARSHA to register the fastest PAT growth among peers at a 23.9% CAGR over FY23E-FY25E

Company	Sales (Rs mn)				EBITDA (Rs mn)				EBITDA Margin				PAT (Rs mn)				PAT CAGR (%)	
	FY22	FY23E	FY24E	FY25E	FY22	FY23E	FY24E	FY25E	FY22	FY23E	FY24E	FY25E	FY22	FY23E	FY24E	FY25E	FY22-25E	FY23E-25E
Schaeffler India	55,605	68,674	78,226	88,952	9,715	12,944	15,217	17,649	17.5%	18.8%	19.5%	19.8%	6,291	8,792	10,177	11,829	23.4%	16.0%
SKF India	36,659	43,198	48,882	54,405	5,557	7,668	9,020	10,169	15.2%	17.8%	18.5%	18.7%	3,950	5,517	6,482	7,356	23.0%	15.5%
Timken India	22,032	27,408	32,536	37,625	5,107	5,724	7,439	8,763	23.2%	20.9%	22.9%	23.3%	3,271	4,042	5,154	6,147	23.4%	23.3%
Rolex Rings	10,167	12,005	13,984	16,492	2,289	2,694	3,174	3,848	22.5%	22.4%	22.7%	23.3%	1,319	1,987	2,282	2,752	27.8%	17.7%
HARSHA	13,215	13,307	14,698	16,948	1,690	1,829	2,210	2,636	12.8%	13.7%	15.0%	15.6%	919	1,183	1,466	1,817	25.5%	23.9%

Source: Company, PL

Exhibit 34: HARSHA trades at a ~54% / ~42% discount to the MNC bearing players on average FY25E Market / Target P/E

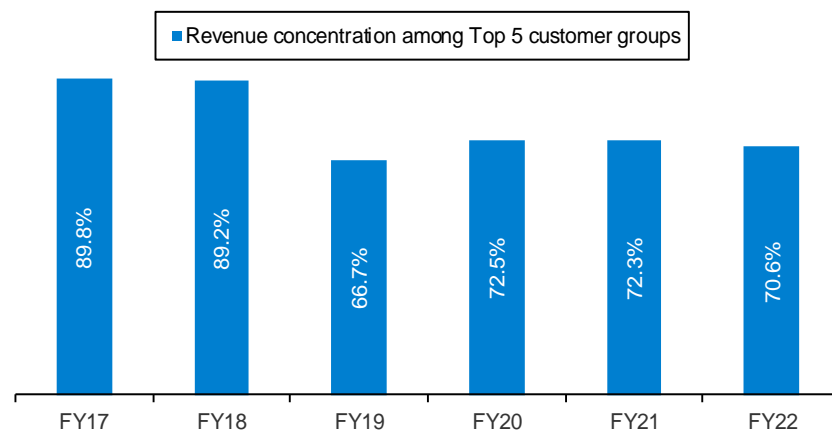
Company	Market Data (Rs. mn)		Market P/E				Target P/E		EV/EBITDA				RoE			
	MCap	EV	FY22	FY23E	FY24E	FY25E	FY24E	FY25E	FY22	FY23E	FY24E	FY25E	FY22	FY23E	FY24E	FY25E
Schaeffler India	4,61,807	4,46,836	73.4x	52.5x	44.7x	38.3x	47.6x	40.8x	46.0x	34.5x	29.4x	25.3x	18.5%	22.1%	23.0%	23.0%
SKF India	2,21,932	2,15,297	56.2x	40.6x	34.8x	30.7x	37.7x	33.2x	38.7x	28.1x	23.9x	21.2x	22.9%	25.0%	23.9%	22.8%
Timken India	2,21,974	2,19,831	67.9x	54.9x	43.1x	36.1x	47.3x	39.7x	43.0x	38.4x	29.6x	25.1x	21.8%	22.0%	22.7%	22.2%
Rolex Rings	50,282	52,348	36.8x	25.3x	22.0x	18.3x	28.8x	23.9x	22.9x	19.4x	16.5x	13.6x	29.3%	29.9%	26.4%	26.2%
HARSHA	29,612	28,492	32.2x	25.0x	20.2x	16.3x	27.3x	22.0x	16.9x	15.5x	12.9x	10.8x	19.4%	14.8%	12.9%	14.3%

Source: Company, PL, Bloomberg Estimates

Key Risks

- High revenue concentration among top 5 customer groups (70.6% in FY22).

Exhibit 35: Despite a down-trend, top 5 customer concentration stays high



Source: Company, PL

- Economic difficulties in Europe can impact demand from customers in the region, who account for the largest share of HARSHA's revenue pie (38% in FY22)
- Romania plant continues to be a drag on the overall business, given low-margin casting business as well as demand softness due to weak macroeconomic environment in Europe.
- There exists a risk of forex fluctuations, given large share of exports in the revenue mix.
- Solar EPC business is lumpy, and is not expected to grow meaningfully.

Financials

Income Statement (Rs m)

Y/e Mar	FY22	FY23E	FY24E	FY25E
Net Revenues	13,215	13,307	14,698	16,948
YoY gr. (%)	51.2	0.7	10.5	15.3
Cost of Goods Sold	7,397	7,152	7,879	9,021
Gross Profit	5,818	6,155	6,819	7,927
Margin (%)	44.0	46.3	46.4	46.8
Employee Cost	1,580	1,691	1,854	2,043
Other Expenses	779	812	911	1,051
EBITDA	1,690	1,833	2,204	2,643
YoY gr. (%)	38.7	8.5	20.2	19.9
Margin (%)	12.8	13.8	15.0	15.6
Depreciation and Amortization	354	364	393	430
EBIT	1,337	1,469	1,811	2,212
Margin (%)	10.1	11.0	12.3	13.1
Net Interest	246	170	78	77
Other Income	175	295	234	293
Profit Before Tax	1,266	1,594	1,968	2,429
Margin (%)	9.6	12.0	13.4	14.3
Total Tax	347	411	502	612
Effective tax rate (%)	27.4	25.8	25.5	25.2
Profit after tax	919	1,183	1,466	1,817
Minority interest	-	-	-	-
Share Profit from Associate	-	-	-	-
Adjusted PAT	919	1,183	1,466	1,817
YoY gr. (%)	102.3	28.7	23.9	23.9
Margin (%)	6.9	8.7	9.8	10.5
Extra Ord. Income / (Exp)	-	-	-	-
Reported PAT	919	1,183	1,466	1,817
YoY gr. (%)	102.3	28.7	23.9	23.9
Margin (%)	7.0	8.9	10.0	10.7
Other Comprehensive Income	14	-	-	-
Total Comprehensive Income	934	1,183	1,466	1,817
Equity Shares O/s (m)	77	91	91	91
EPS (Rs)	11.9	13.0	16.1	20.0

Source: Company Data, PL Research

Balance Sheet Abstract (Rs m)

Y/e Mar	FY22	FY23E	FY24E	FY25E
Non-Current Assets				
Gross Block	7,231	7,919	8,935	10,002
Tangibles	7,123	7,811	8,827	9,893
Intangibles	108	108	108	108
Acc: Dep / Amortization	4,385	4,749	5,142	5,572
Tangibles	4,294	4,654	5,043	5,469
Intangibles	91	95	99	104
Net fixed assets	2,846	3,170	3,792	4,429
Tangibles	2,829	3,157	3,783	4,424
Intangibles	18	13	9	5
Capital Work In Progress	21	133	118	51
Goodwill	711	666	666	666
Non-Current Investments	7	41	41	41
Net Deferred tax assets	(40)	(40)	(40)	(40)
Other Non-Current Assets	197	177	184	195
Current Assets				
Investments	64	650	760	900
Inventories	3,757	3,500	3,664	3,993
Trade receivables	2,828	2,771	3,020	3,483
Cash & Bank Balance	393	2,287	2,734	3,230
Other Current Assets	527	399	514	593
Total Assets	11,583	13,907	15,618	17,724
Equity				
Equity Share Capital	772	910	910	910
Other Equity	4,446	9,822	11,068	12,522
Total Networth	5,219	10,733	11,979	13,432
Non-Current Liabilities				
Long Term borrowings	1,378	-	-	-
Provisions	111	118	121	133
Other non current liabilities	22	24	28	34
Current Liabilities				
ST Debt / Current of LT Debt	2,406	1,085	1,085	1,085
Trade payables	1,828	1,276	1,691	2,182
Other current liabilities	524	582	627	770
Total Equity & Liabilities	11,583	13,907	15,618	17,724

Source: Company Data, PL Research



Cash Flow (Rs m)

Y/e Mar	FY22	FY23E	FY24E	FY25E
PBT	1,266	1,594	1,968	2,429
Add. Depreciation	354	364	393	430
Add. Interest	246	170	78	77
Less Financial Other Income	175	295	234	293
Add. Other	24	(82)	(142)	(168)
Op. profit before WC changes	1,890	2,046	2,296	2,767
Net Changes-WC	(1,214)	28	(81)	(246)
Direct tax	(311)	(411)	(502)	(612)
Net cash from Op. activities	365	1,662	1,713	1,909
Capital expenditures	(495)	(800)	(1,000)	(1,000)
Interest / Dividend Income	16	80	142	168
Others	(39)	(1,848)	(405)	(478)
Net Cash from Invt. activities	(518)	(2,568)	(1,263)	(1,310)
Issue of share cap. / premium	-	4,331	-	-
Debt changes	282	(2,705)	-	-
Dividend paid	-	-	(220)	(363)
Interest paid	(246)	(170)	(78)	(77)
Others	1	2	4	6
Net cash from Fin. activities	37	1,459	(294)	(434)
Net change in cash	(116)	553	157	166
Free Cash Flow	(131)	862	713	909

Source: Company Data, PL Research

Key Financial Metrics

Y/e Mar	FY22	FY23E	FY24E	FY25E
Per Share(Rs)				
EPS	11.9	13.0	16.1	20.0
CEPS	16.5	17.0	20.4	24.7
BVPS	67.6	117.9	131.6	147.5
FCF	(1.7)	9.5	7.8	10.0
DPS	-	-	2.4	4.0
Return Ratio(%)				
RoCE	21.7	16.5	15.6	17.1
ROIC	17.0	18.3	16.7	18.8
RoE	19.4	14.8	12.9	14.3
Balance Sheet				
Net Debt : Equity (x)	0.6	(0.2)	(0.2)	(0.2)
Net Working Capital (Days)	131	137	124	114
Valuation(x)				
PER	27.3	25.0	20.2	16.3
P/B	4.8	2.8	2.5	2.2
P/CEPS	19.7	19.1	15.9	13.2
EV/EBITDA	16.8	15.1	12.3	10.1
EV/Sales	2.2	2.1	1.9	1.6
Dividend Yield (%)	-	-	0.7	1.2

Source: Company Data, PL Research

Quarterly Financials (Rs m)

Y/e Mar	Q4FY22	Q1FY23	Q2FY23	Q3FY23
Net Revenue	3,689	3,977	3,220	3,007
YoY gr. (%)	-	29.9	(0.4)	(18.5)
Raw Material Expenses	2,076	2,334	1,667	1,521
Gross Profit	1,612	1,643	1,553	1,486
Margin (%)	43.7	41.3	48.2	49.4
EBITDA	482	495	480	410
YoY gr. (%)	-	19.6	22.8	(14.8)
Margin (%)	13.1	12.5	14.9	13.6
Depreciation / Depletion	90	88	90	92
EBIT	392	407	390	318
Margin (%)	10.6	10.2	12.1	10.6
Net Interest	55	54	56	23
Other Income	68	62	43	135
Profit before Tax	404	415	377	430
Margin (%)	11.0	10.4	11.7	14.3
Total Tax	104	107	96	113
Effective tax rate (%)	25.8	25.7	25.5	26.2
Profit after Tax	300	309	281	317
Minority interest	-	-	-	-
Share Profit from Associates	-	-	-	-
Adjusted PAT	300	309	281	317
YoY gr. (%)	-	19.6	56.6	5.8
Margin (%)	8.1	7.8	8.7	10.6
Extra Ord. Income / (Exp)	-	-	-	-
Reported PAT	300	309	281	317
YoY gr. (%)	-	19.6	56.6	5.8
Margin (%)	8.1	7.8	8.7	10.6
Other Comprehensive Income	-	-	-	-
Total Comprehensive Income	300	309	281	317
Avg. Shares O/s (m)	52	57	91	91
EPS (Rs)	5.7	5.4	3.1	3.5

Source: Company Data, PL Research



Notes



Notes

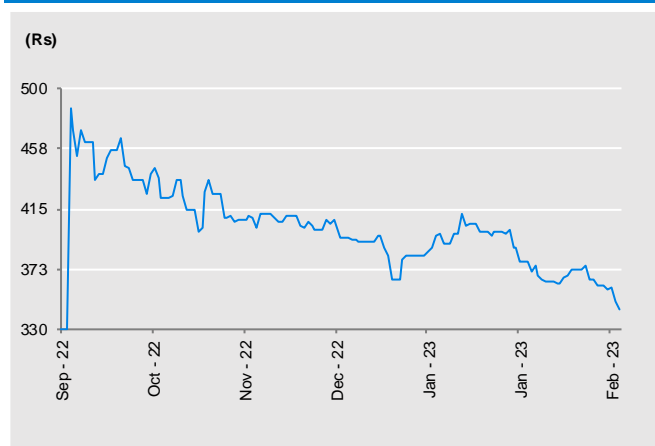


Notes



Price Chart

Recommendation History



No.	Date	Rating	TP (Rs.)	Share Price (Rs.)
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Analyst Coverage Universe

Sr. No.	Company Name	Rating	TP (Rs)	Share Price (Rs)
1	ABB India	Accumulate	3,371	3,088
2	Apar Industries	BUY	2,260	1,687
3	Bharat Electronics	BUY	125	93
4	BHEL	Sell	36	80
5	Cummins India	Accumulate	1,708	1,578
6	Engineers India	BUY	89	80
7	GE T&D India	Hold	102	116
8	Kalpataru Power Transmission	BUY	670	493
9	KEC International	Accumulate	500	457
10	Larsen & Toubro	BUY	2,481	2,113
11	Praj Industries	BUY	495	364
12	Siemens	Accumulate	3,351	3,124
13	Thermax	BUY	2,604	2,149
14	Triveni Turbine	BUY	340	276
15	Voltamp Transformers	Hold	3,055	2,949

PL's Recommendation Nomenclature

Buy	: >15%
Accumulate	: 5% to 15%
Hold	: +5% to -5%
Reduce	: -5% to -15%
Sell	: < -15%
Not Rated (NR)	: No specific call on the stock
Under Review (UR)	: Rating likely to change shortly



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