June 26, 2023 | Initiating Coverage

SONA BLW PRECISION FORGINGS LIMITED

.....proxy play on EV transition

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Sona BLW Precision Forgings (Sona) is a multi-product, multi geography auto ancillary company which is into manufacturing products like differential gears (32% of revenue), differential assemblies (23%), starter motors for hybrids and ICE (21% and 15%, respectively), traction motors for two-wheeler electric vehicles (4%) and others (5%). Exports account for 71%, with the U.S. and Europe being the largest markets (43% and 20% of total exports, respectively). Strong margin profile, high and increasing return ratios, warm/cold forgings technical benefit and entry barriers to it and EV opportunity provides the moat for the company considering 77% of the current order book of ₹215 bn belongs to EV.

We believe that the rapidly growing penetration of EVs and Sona being well entrenched into it, is riding the EV wave seen globally. The company is performing well in its traditional business of Differentials and is also gaining traction in other products like EDL and ADAS (through recent Novelic acquisition). Though the starter motors business is waning due to ICE dependence, EV business is more than offsetting this fall. Sona is set to benefit from the electrification of light vehicles aided by its presence in both driveline and motors.

Capex plan is ₹11bn over the next three years. Currently, no customer accounts for more than 20% of revenues, which the company hopes to bring to 15% over time. Sona has several EV products on its roadmap, which give strong growth visibility without assuming any market growth. Production Linked Incentive (PLI) benefit may flow through from FY25 onwards after products are approved in FY24. The addition of yet another EV product this quarter reinforces our view that the addressable market for Sona will keep expanding, and hence it should trade at premium valuations. We anticipate a revenue/PAT CAGR of ~35%/43% respectively each through FY22-FY25E, with strong returns ratios – RoE of ~25% in FY25E. Currently trading at ~37xFY25E EPS, we assign a BUY rating with a TP of ₹624. Blackstone's recent exit eliminates the overhang of a large supply of shares, while we are aware that the management is professionally run.

Key Financials	FY 22	FY 23	FY 24E	FY 25E
Total sales (₹ bn)	21	27	37	48
EBITDA margins (%)	26.2%	25.4%	26.7%	27.8%
PAT margins (%)	17.0%	14.9%	15.5%	16.7%
EPS (₹)	6.0	6.8	9.9	13.8
P/E (x)	85.4	74.6	51.6	37.0
P/BV (x)	14.9	13.0	11.0	9.1
EV/EBITDA (x)	53.2	44.3	30.0	22.2
ROE (%)	17.4%	17.4%	21.4%	24.7%
ROCE (%)	18.9%	19.8%	25.7%	29.7%
Total debt/equity (x)	0.04	0.10	0.09	0.09

Rating	BUY
Current Market Price (₹)	507
12 M Price Target (₹)	624
Potential upside (%)	23

Stock Data

Sector :	Auto Components
FV (₹) :	10
Total Market Cap (₹ bn) :	297
Free Float Market Cap (₹ bn) :	138
52-Week High / Low (₹) :	609 / 398
BSE Code / NSE Symbol :	543300 / SONACOMS
Bloomberg :	SONACOMS: IN

Shareholding Pattern

(%)	Mar-23	Dec-22	Sep-22	Jun-22
Promoter	33.00	33.03	33.06	33.06
Blackstone	-	20.50	20.52	34.12
MFs	27.03	21.78	21.03	14.22
FPIs	24.69	11.27	11.56	8.80
Insurance	3.29	1.93	2.55	0.00
Others	11.99	11.49	11.28	9.80

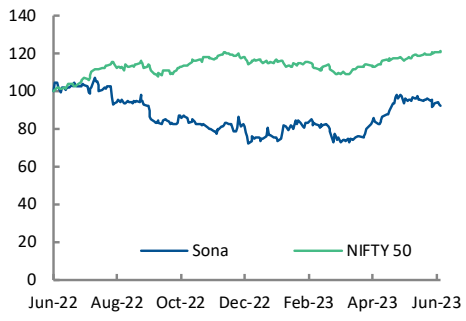
Source: BSE

Price Performance

(%)	1M	3M	6M	1YR
Sona	-4.3%	22.6%	26.6%	-8.8%
Nifty 50	1.7%	9.3%	4.8%	20.0%

** To date / current date : June 23, 2023*

Sona vs Nifty 50



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LKP Research

Sona to benefit significantly from Cold/Warm Forgings

Cold/warm forgings offer several strong benefits to the manufacturer. They a) reduce cost by up to 30% b) eliminate the need for machining c) reduce the amount of flash (wastage), and d) provide high fatigue tolerance, torque, and torsional strength. Additionally, they meet low NVH (Noise-Vibration-Harshness) requirements in electric vehicles. While Sona is currently the only large player in this space; we believe that competitive intensity is unlikely to be a major issue due to the expanding market led by the growing penetration of EVs in Light Vehicles (PV, LCVs etc).

EV thrust to be the growth driver for Sona

Sona generates 47% of revenue from supplies to EVs (Battery EVs at 26% vs. 1% in FY19) and micro-hybrid / hybrids (21%). With a robust order book of ₹215bn, ~8x FY23E revenue, and 77% of the order book coming from EVs, Sona has leveraged its forging process know-how to introduce new products such as differential assembly, spool gear, spiral bevel gears, independent suspension e-axle, and electronically locking differential. The legacy product, differential gears, has also seen an increase in global market share (7.2% in 2022 vs. 4.5% in 2019). Sona is the leader in differential gears in India, with a market share ranging from 50-80% in PV, CV, and Tractors. An additional ~ ₹80bn of net-orders have been captured in FY23 including a ₹5bn worth order from a new age North American CV player in Q4 FY23 reflecting the increasing demand for EVs by OEMs. Expect this momentum to continue given Sona's strong product pipeline. The company is currently running 42 EV programs across 26 different countries.

Starter motor shrinkage can get offset by fast growing traction motors

As demand for starter motors dwindles (36% of revenue in FY23 vs. 56% in FY20) with the rise of EVs, Sona is de-risking its operations by focusing on traction motors (BLDC+PMSM) across EV categories. Sona has already established itself in the low power segment (<15KW), primarily targeting 2Ws/3Ws in India, and is looking to expand into higher power categories in the coming years. Additionally, Sona has three technological arrangements to explore new motor technologies such as SRM (switch reluctance motors), magnetless and electrostatic drive motors. Sona's acquisition of Novelic, which will enable it to enter the ADAS sensor market, is part of its strategy to capitalize on the growing vehicle autonomy and automation market.

Company Snapshot

Company Background	• Sona is an Indian origin, global automotive systems & components manufacturer with 10 plants spread across India, China, Mexico, and the USA. Incorporated in 1995 as a joint venture between Sona Holding and Mitsubishi Materials Corporation, the company began its commercial production in 1998. The company enjoys the distinction of being the world's largest manufacturer of precision forged gears for differentials with a global market share of 7% as well as being the producer of the world's lightest starter motor. In addition to differential gears, the company produces BSG solutions for hybrid cars, traction motors for EV application, starter motors, alternators, transmission gears, axle stubs and differential assemblies for electric & combustion engine vehicles.
Promoter Background	• Surinder Kapoor - father of Sunjay Kapoor, was the founder group – which also includes notably, Sona Koyo Steering (now JTEKT – fully divested).
Blackstone investment	• In Aug-19, Blackstone completed the acquisition of 33% stake in Sona BLW and proceeded to merge the company with Comstar Automotive Technology in order to enhance synergy benefits. Blackstone had acquired close to a 100% stake in Chennai-based auto components maker Comstar for about ₹10 bn. In March 23, Blackstone completely exited in Sona Comstar.
Promoter Holdings	• Aureus Investment Pvt Ltd (Sunjay Kapur and associates) – 33.0%
Other Key Holdings (Mar-23)	• **Mutual Funds:** Axis Mutual Fund - 6.29%, SBI MF - 5.95%, Mirae Asset - 5.75%, Aditya Birla Sun Life Trustee - 2.18%, Canara Robeco MF -1.45%, Sundaram MF - 1.22%, HDFC MF -1.13%. • **FIIs:** Government of Singapore – 5.35%, Fidelity Funds - 1.30%, BNP Paribas Arbitrage-1.26%, Monetary Authority Of Singapore - 1.25%, Societe Generale - 1.04%.
Key Product Offerings	• Some of the key products include differential bevel gears, starter motors, drive assemblies, traction motors, e-axles, motor controllers, etc. • **Product mix in FY23**: Differential Assembly – 23%; Micro/ Plug-in Hybrid Starter Motors – 21%; Differential Gears – 32%; Conventional Starter Motors – 15%; Other Drivetrain parts – 4%; • Traction Motors – 4%; Others – 1%
Key Powertrain and vehicle category segmentation	• **Revenue mix by vehicle segment:** PVs – 69%, CVs – 14%, OHVs – 13%, and E2Ws/E3Ws – 4% • **Revenue mix by powertrain:** Battery EV – 26%, Micro-hybrid/ Hybrid – 21%, Power source Neutral – 38%, and ICE-dependent – 15%
Key markets/Regions	• USA, Europe, India and China
Geographical mix	• **FY23:** North America – 43%; India – 29%; Europe – 20%; Asia (excluding India) – 7%; Rest of the world – 1%
Market Shares	• Global Market Share in Differential Gears in CY22 – 7.2% • Global Market Share in Starter Motors in CY22 – 4.1%

Source: Company, LKP Research

Evolution of Business

1995	• Incorporation of the Company as Sona Okegawa Precision Forgings Ltd. a JV with Mitsubishi Metal Corporation Limited.
1997	• Commenced production of differential bevel gears at its first plant in Gurugram, Haryana, India.
1999	• Launched manufacturing plants in Chennai, Tamil Nadu and Pune, Maharashtra, India
2008 - 2010	• Acquired Thyssen Krupp's precision forging business (which had previously acquired the company BLW, the inventor of warm forging technology). thyssenkrupp
2012 - 2014	• The Company is renamed as "Sona BLW Precision Forgings Limited" • Launched final assembly and finishing plant in Tecumseh, MI, USA. • Awarded "North American OEM of PV's and CV's World Excellence Award (Silver)".
2015	• Surinder Kapoor passes away; Sunjay Kapoor assumes reins.
2016	• Launched final assembly and finishing plant in China. • Awarded "North American OEM of PV's and CV's World Excellence Award (Gold)". • JM Financial Trustee invested in the Company. • Termination of the technical know-how agreement with Mitsubishi Metal Corporation Limited and Metal One Corporation Limited.
2017	• Sona Group buys Mitsubishi Materials stake in JV firm Commencement of operations at two new plants Unit II & Unit III, located in Gurugram, Haryana, India. • Launched final assembly and finishing plant in Mexico, North America.
2018	• Acquisition of new land for a second plant in Chakan, Pune, Maharashtra, India. • Execution of investment agreements with Blackstone Group Inc. • Awarded contract for Differential Assembly supply by a renowned Global Electric Vehicle Manufacturer.
2019	• Blackstone acquires a controlling stake in Sona. • Acquisition of the Comstar Entities. • Adopted "Sona Comstar" as the brand name. • Commencement of operations at new differential assembly plant located in Manesar, Haryana, India.
2020	• Vehicle level trials for BSG (Belt Starter Generator) completed with an OEM. • Achieved a production milestone of 250 Million Gears. • Awarded contracts for BLDC motor supply by two Indian 2W EV OEMs
2021	• Listed on the Indian Stock Exchange
2022	• Signs agreement to acquire 54% stake in NOVELIC, a Serbia- based company founded in 2012, and leading provider of mmWave radar sensors, perception solutions, and full- stack embedded systems. NOVELIC

Source: Company, LKP Research

Journey

- **In the 1960s**, BLW (Germany) made a breakthrough in precision forging technology, by which, gears would directly be forged, instead of being cut from blanks. BLW was also the inventor of the warm forging technology.
- **In 1984,** Surinder Kapoor - father of Sunjay Kapoor, who was running Bharat Gears, approached BLW for a license for the above gear manufacturing technology; Bharat Gears was making differential gears. However, BLW refused.
- **In 1992,** when Mr. Kapoor started Sona, he went to Mitsubishi Materials which was a licensee of BLW and got the license from them.
- In addition, tooling solutions provided by Mitsubishi were technologically advanced.
- That is how Sona Okegawa Precision Forgings was formed - the forging arm of the Sona Group.
- **In 2005,** Surinder Kapoor approached BLW again – by this time it was taken over by the ThyssenKrupp group and was called ThyssenKrupp Precision Schwede - with an offer to merge or buy or be bought. But was refused.
- **In 2007**, the group agreed to sell.
- **In 2018,** Blackstone Group Lp acquired Chennai-based auto parts maker Comstar Automotive Technologies Pvt. Ltd for about Rs 10 bn from Comstar's controlling shareholders—private equity firm Argyle Street Management and the Chandaria family.
- Comstar, a maker of starter motors, starter motor kits and alternators for automotive applications, was founded in 1999 as a subsidiary of Visteon Corp., a unit of Ford Motor Co. in India.
- Comstar was sold to Hong Kong-based Argyle Street Management and the Chandaria family in 2007.
- At the time of the transaction, Comstar had an installed capacity of over 3.8 million starter motors and 1 million alternators in India and 800,000 starter motors in North America.
- It counts Ford Motor, Volvo, Tata Motors, Ashok Leyland-Nissan, Renault Nissan, Geely, Jaguar, Aston Martin and Mazda as customers.
- Comstar is reputed for its zero PPM quality standards and its innovation culture which has helped the company produce 'Photon' - the world's lightest starter motor.

Management

Vivek Vikram Singh
MD & Group CEO

H.B.T.I.
(1998-2003)
Bachelors of Technology, Computer Science and Engineering

IIM-A
(2003-2005)
Marketing & Strategy

Kiran Manohar Deshmukh
Group CTO

IIT-Bombay
(metallurgy)

V Vikram Verma
CEO - Driveline Business

Karnataka Regional Engineering College, Suratkal
(Mech. Engineering)

Sat Mohan Gupta
CEO - Motor Business

Delhi University
(1980-1983) B.Com
Delhi School of Economics
(1983-1985) - M. Com
(Finance)

Rohit Nanda
Group CFO

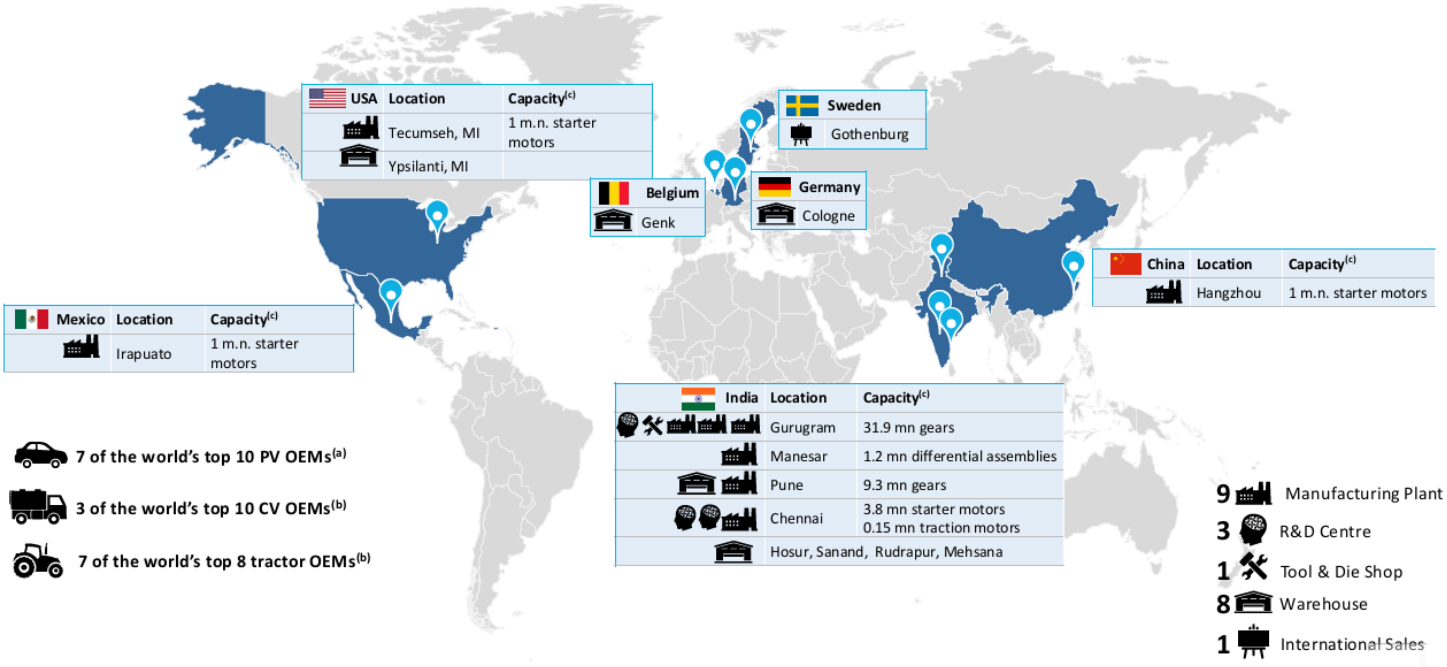
Chartered Accountant

Plant and Facilities

The Company has nine manufacturing and assembly facilities located across India, USA, Mexico and China, of which six are located in India. The facilities in India (Chennai), China, Mexico and USA manufacture conventional and micro/plug-in hybrid starter motors and BLDC/PMSM traction motors. The plants in Gurugram, Manesar and Pune (India) manufacture differential gears, differential assemblies and other gears. While the facilities in India are manufacturing plants, the facilities in the US, Mexico and China operate as satellite final assembly plants.

Capacities - : Tecumseh, USA - 1 mn starter motors; Irapuato, Mexico - 1 mn starter motors; Hangzhou, China - 1 mn starter motors; Gurugram, India – 31.9 mn gears; Manesar, India – 1.2 mn differential assemblies; Pune, India - 9.3 mn gears; Chennai, India - 3.8 mn starter motors & 0.15 mn traction motors.

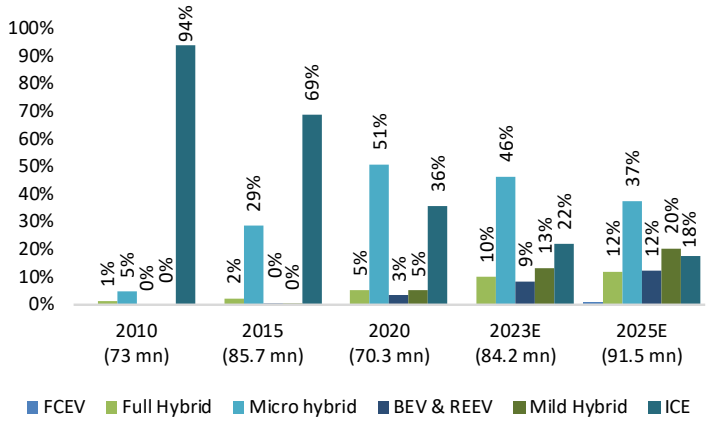
Plants and locations



Source: Company, LKP Research

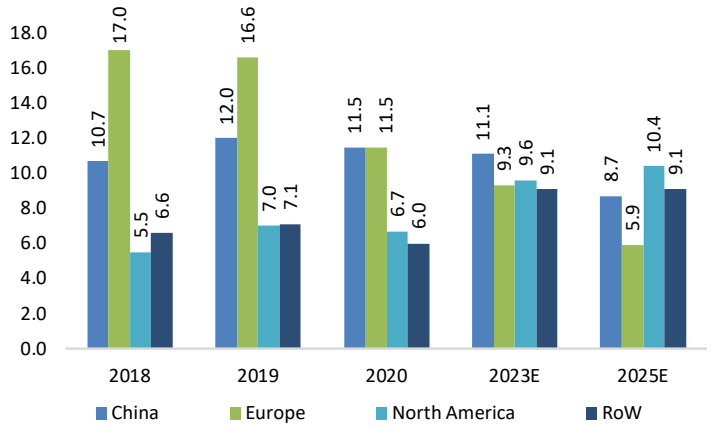
Industry

Passenger Vehicles production volumes - Global Propulsion Split



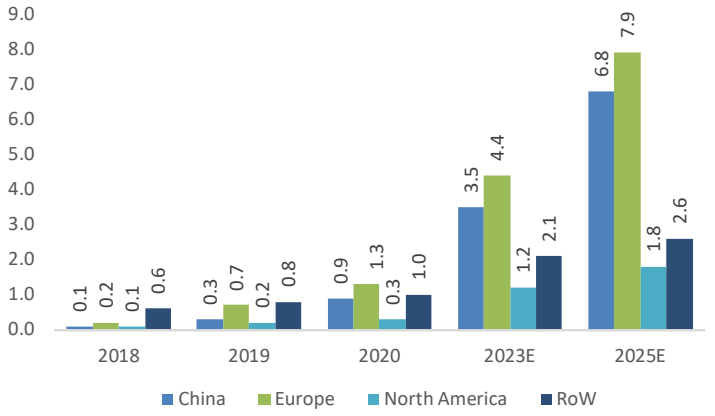
Source: Industry, LKP Research

Micro hybrid production (mn units) - By geography



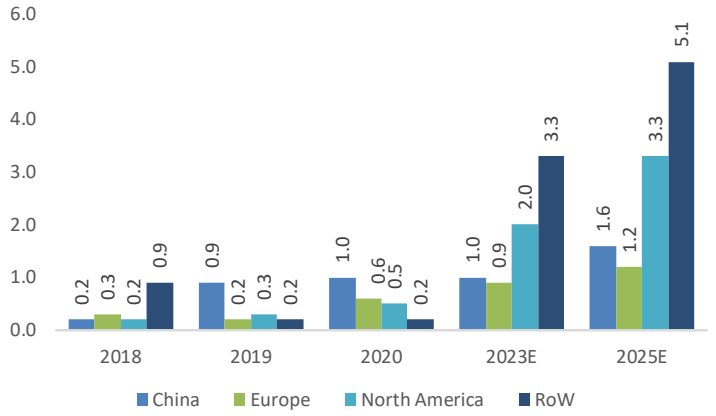
Source: Industry, LKP Research

Mild Hybrid production (mn units) - By geography



Source: Industry, LKP Research

BEV production (mn units) - By geography



Source: Industry, LKP Research

Niche technical capabilities provides the moat

Sona's multi product business is more or less shielded from new entrants. Barriers to entry remain elusive across most new product categories for EVs; in addition, in the e-2w space, OEMs too have forayed into the design and development of certain key electronic and software-intensive components like BMS and Motor Controllers. On the forging side, players having cold/warm forging capabilities like Sona, Sundram Fasteners and Bharat Forge might be better poised to capitalize on opportunities arising from the EV transition. Cold and Warm forgings are a more precise endeavor (v/s hot forgings and castings) requiring a greater level of expertise, creating a higher barrier to entry. Players in the space would benefit importantly from more stringent NVH (Noise, Vibration, Harshness) requirements for EVs. Competition in India's hot forging sector remains fierce, with ~90% of the country's installed capacity dedicated to it. Still, those with large presses and superior technical abilities would continue to hold their ground.

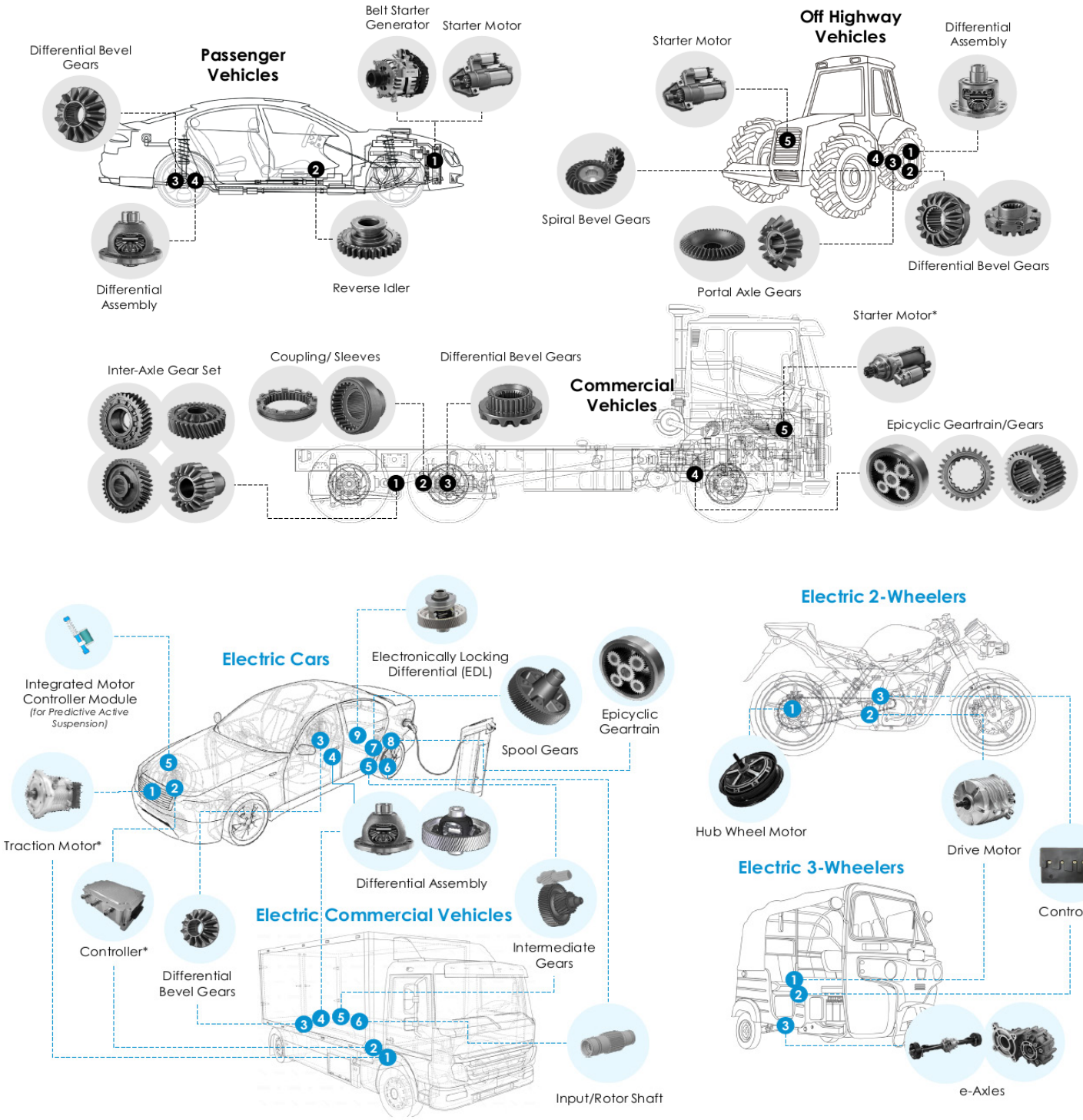
Sona being into Warm/Cold forging business earns the brownie points. Going forward, it is likely that credible forging players like Sona, Sundram Fasteners, Bharat Forge with requisite cold/warm forging knowhow might sharpen their focus on lucrative products like gears and transmission as well. Aluminium casting players are likely to experience ongoing intense competition, yet they may still benefit from increased aluminum requirements for passenger vehicles over the medium to longer term as a result of EV proliferation.

Comparision of hot and cold/warm forging

Hot Forgings	Cold Forgings/Warm Forgings
• Hot forging technology has been around for millennia. ~90%+ of forging capacities in India are for hot forgings.	• Cold/Warm forging technology was invented only in the 20th century. Only ~5% of forging capacities in India are for cold forgings.
• Low complexity; largely commoditized offerings. Margin for errors is higher in the hot forgings process – typically, the flash (Excess metal is squeezed out between the die parting lines) .	• High process complexity; cold forgings involves multiple stages including coating and heat treatment and involves a lower margin of error as compared to hot forgings.
• It is performed above the recrystallization temperature between 950–1250 °C.	• **Cold:** Forging at room temperatures, self-heating up to 150 °C due to the forming energy • **Warm:** Forging temperatures between 750–950 °C - keeps it below recrystallization temperature, so that properties do not change. Hence, complexity and size can be better than that in cold forgings.

Source: Industry, LKP Research

Product Summary and their applications in various vehicles



Source: Company, LKP Research

Product segment details

Product Segment	Product	ICE	EV	Description	Contribution to revenue FY23	Avg. realisation (US$)
DRIVELINE	**Differential Bevel Gears**	PV, OHW and CVs	**PV**	• Differential bevel gears are components that are used in almost all vehicles and are required as soon as a vehicle axle is driven. When driving around corners, the outer wheel has to cover a bigger distance than the inner wheel, which also means that the outer wheel must turn faster than the inner wheel. The differential is used to achieve the speed difference. It includes two side shaft bevel gears and two pinion bevel gears.	**32%**	**$15 (set of 4 gears)**
	Spiral Bevel Gears	OHW	**n/a**	• A spiral bevel gear is a bevel gear with helical teeth. The main application of this is in a vehicle differential, where the direction of drive from the drive shaft must be turned 90 degrees to drive the wheels. The helical design produces less vibration and noise than conventional straight-cut or spur-cut gear with straight teeth.		
	Spool Gears	n/a	**PV**	• The spool drive system uses a spool differential which transforms power from the gearbox directly to the wheels through the crown gear, without any differential mechanism so, the two wheels will get same amount of power delivered		
	Differential Assembly	PVs, OHW	**PV**	• The differential assembly is a system of gears that allows different drive wheels (the wheels to which power is delivered from the engine) on the same axle to rotate at different speeds, such as when the car is turning.	**23%**	**$40 (non-BEV DA)** **$50 (BEV DA)**
	Electronically Locking Differential (EDL)	n/a	**PV**	• An Electronic Differential Lock (EDL) is a system which works alongside a stability control and/or traction control system to alter the amount of torque (turning power) that is distributed to the wheels during turning to help the car keep a grip on the road.		
MOTORS	**Starter Motor**	PV, OHW and CVs	n/a	• Starter Motor Micro-Hybrid - An electric device that part from cranking the engine, automatically shuts the engine to reduce engine running time. Conventional - An electric device required to crank the engine and provide initial starting power to the engine	**36%**	**$40-$50**
	Belt Starter Generator	PVs	n/a	• This product combines the functionality of the starter motor and alternator in an ICE vehicle and allows for the creation of the MHEV. Implementing a BSG/ISG on an ICE vehicle enables a significant amount of extra functionality including start-stop, energy recovery during coasting/braking, energy generation from the ICE, and even electric drive (or boost) depending upon the vehicle.	**n/a**	

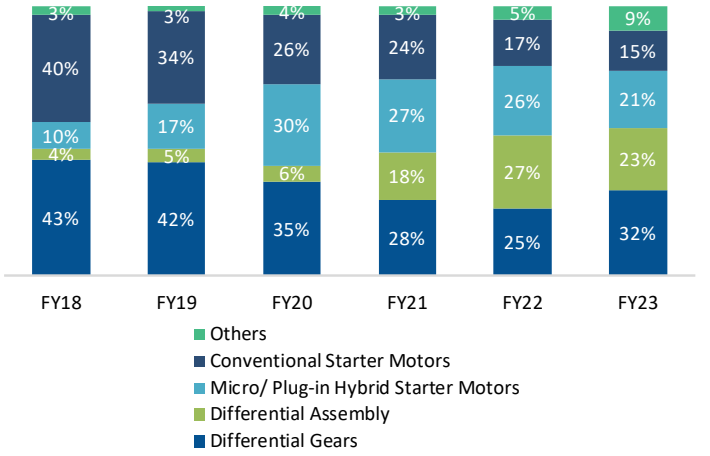
Product segment details

Product Segment	Product	ICE	EV	Description	Contribution to revenue FY23	Avg. realisation (US$)
	Traction Motor (PMSM)*	n/a	PV	• The Permanent Magnet Synchronous Motor (PMSM) is an AC synchronous motor whose field excitation is provided by permanent magnets and has a sinusoidal back EMF waveform. The PMSM is a cross between an induction motor and brushless DC motor.		
	Drive Motor (PMSM)	n/a	2W, 3W	• The Permanent Magnet Synchronous Motor (PMSM) is an AC synchronous motor whose field excitation is provided by permanent magnets and has a sinusoidal back EMF waveform. The PMSM is a cross between an induction motor and brushless DC motor.		
	Hub Wheel Motor (BLDC)	n/a	2W	• A Brushless DC Electric Motor (BLDC) is an electric motor powered by a direct current voltage supply and commutated electronically instead of by brushes like in conventional DC motors.	**4%**	**$250**
	Integrated Motor Controller Module	n/a	PV	• The IMCM is designed to generate an exact countering force to mitigate the impact of uneven surfaces so that the vehicle can glide over all kinds of roads.		
	Motor Controller	n/a	2W, 3W	• The electric vehicle controller is the electronics package that operates between the batteries and the motor to control the electric vehicle's speed and acceleration much like a carburetor does in a gasoline-powered vehicle.		
DRIVELINE + MOTORS	**e-Axles**	n/a	3W	• The e-axle, or e-drive, combines an electric vehicle's gear, motor, and power-control electronics. It's the "brain" that controls how a vehicle manages energy stored in its battery and transforms it into power. It also helps to recover energy lost in braking and returns it to the battery.	**1%**	
Others	**NOVELIC**			• Sona's acquisition of Novelic, which will enable it to enter the ADAS sensor market, is part of its strategy to capitalize on the growing vehicle autonomy and automation market		

Source: Company, LKP Research

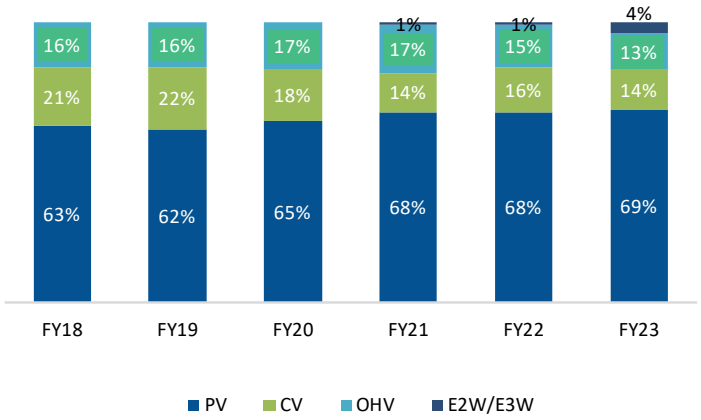
Revenue Mix

By Product



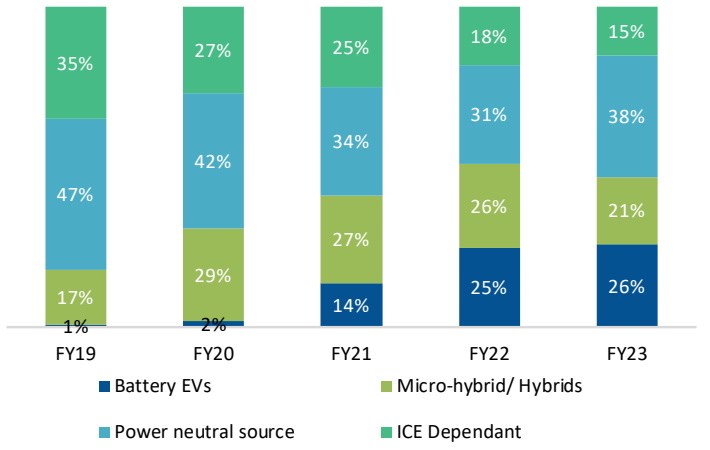
Source: Company, LKP Research

By Segment



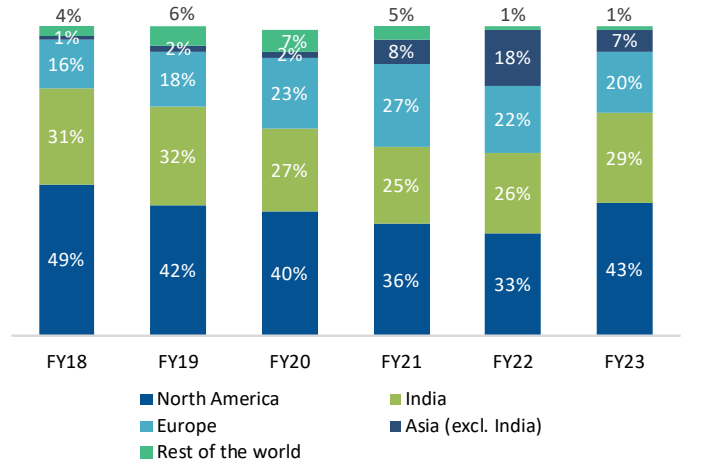
Source: Company, LKP Research

By Powertrain



Source: Company, LKP Research

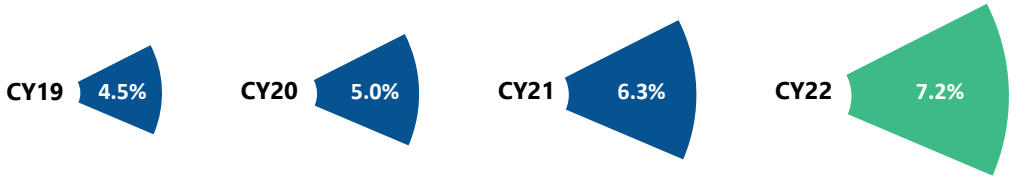
By Geography



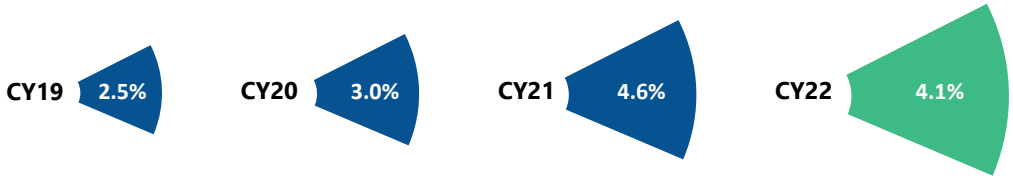
Source: Company, LKP Research

Market share and competition

Global Market Share of Differential Gears



Global Market Share of Starter Motors



While Sona continues to dominate the Indian market for Differential Gear

Passenger Vehicles	Commercial Vehicles	Tractors
		
55-60%	80-90%	75-85%

Source: Company, LKP Research

Segment	Market shares	Key competitors
Differential gears	India PV - 55-60%	PVs -Sundram Fasteners, Kalyani Group, IP Rings
	India CV - 80-90%	CVs- American Axle, Meritor, Dana
	India Tractors - 75-80%	Tractors - New Allenbery, Punjab Bevel Gears, GNA, Bharat Gears
	Global PV/CV/OHV - 7.2%	Global PVs - American Axle, Showa Corp, Musashi Seimitsu Ind, Meritor, GKN
Differential Assembly	Global ICE PV/CV/OHV - 5%	Eaton Plc, Dana, American Axles, Linamar Corp, JTEKT, ZF , Schaeffler, GKN Driveline, BorgWarner
	Global BEV - 8.7%	Hyundai Wia Corp
Starter Motors	Global - PV/CV,OHV - 4.1%	Schaeffler, Mahle, Spark Minda, Auto Ingnition, SEG Automobiles, Lucas TVS
Traction Motors for e-2Ws		Mahle, Lucas TVS, Bosch, SEG Automotive

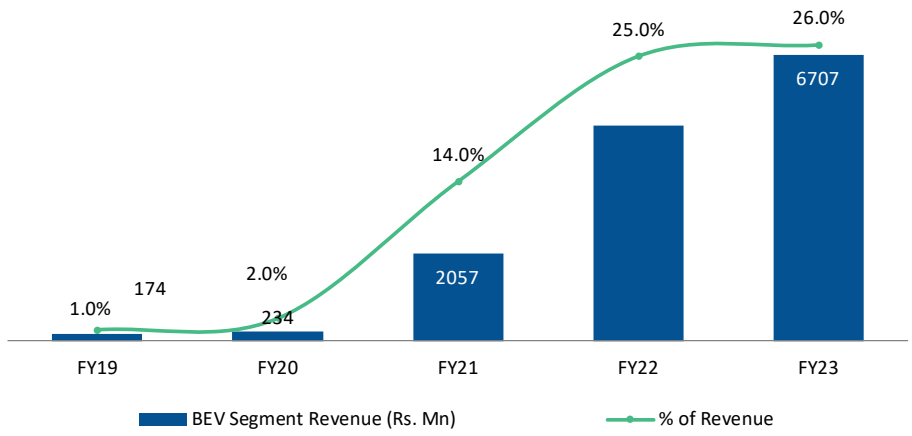
Source: Company, LKP Research

Tailwinds of Electrification to benefit Sona

As demand for starter motors (~37% of revenue), forming part of the Motors division is expected to wane with growing EV penetration; as a means of derisking, Sona is focusing on traction motors (BLDC+PMSM) across e-vehicle categories. Increased product complexity under EVs, especially in the transmission products (higher NVH requirements) would increase realisations/ margins and importantly, continue to strengthen the barrier to entry. Sona's electrification strategy is geared towards covering the entire power and voltage spectrums across driveline and traction motor products – this would enable them to cater effectively to all OEM categories from e2W to electric performance vehicles - which is in turn reflected in the new product pipeline across the driveline and motor divisions. EV now contributes 77% of the total order book of ₹215 bn at the end of FY23. In Q4 FY23, the company's BEV segment contributed 28% to the topline while growing at 37% yoy, while in FY23, BEV business grew by 26% an contributed 26% of the total revenues.

The company has several EV products on the roadmap, which give strong growth visibility without assuming any market growth. Production Linked Incentive (PLI) benefit may flow through from FY25 onwards after products are approved in FY24. FAME-II subsidy not continuing will hurt EV 2W industry growth in the short term.

Revenue Mix by Product (%)



Source: Company, LKP Research

Programs in orderbook according to powertrain

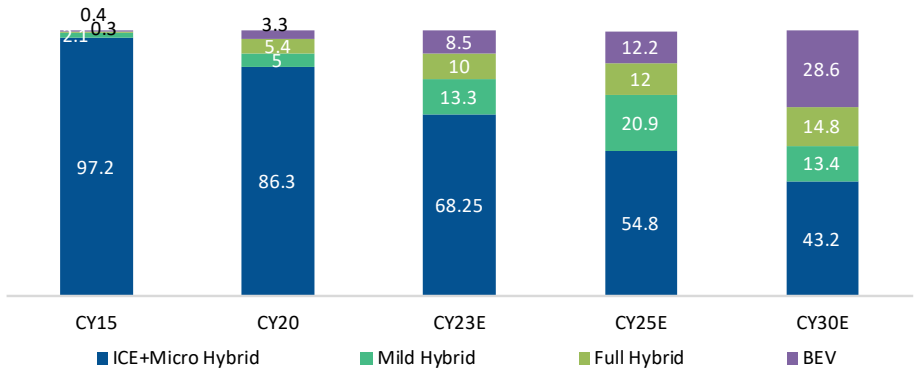
	Q1 FY22	Q2 FY22	Q3 FY22	Q4 FY22	Q1 FY23	Q2 FY23	Q3 FY23	Q4 FY23
ICE	69	79	86	87	94	91	96	93
EV	12	13	17	21	26	27	31	32
Total	**81**	**92**	**103**	**108**	**120**	**118**	**127**	**125**

Source: Company, LKP Research

Customers in orderbook	Q1 FY22	Q2 FY22	Q3 FY22	Q4 FY22	Q1 FY23	Q2 FY23	Q3 FY23	Q4 FY23
ICE	31	34	37	37	37	37	37	36
EV	9	9	13	16	19	19	21	22
Total	**40**	**43**	**50**	**53**	**56**	**56**	**58**	**58**

Source: Company, LKP Research

Industry expects BEV to have 12%/29% share in total PVs in CY25E/CY30E

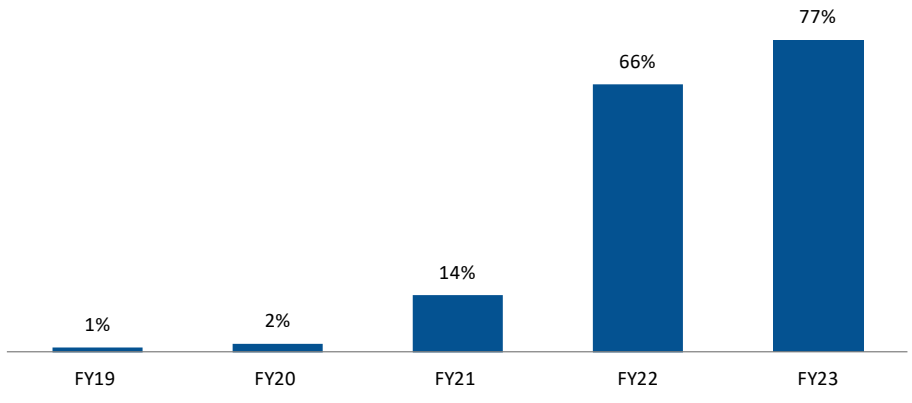


Source: Industry, LKP Research

Order book (₹ bn)		Q1 FY22	Q2 FY22	Q3 FY22	Q4 FY22	Q1 FY23	Q2 FY23	Q3 FY23	Q4 FY23
EV	PV	74	72	104	101	115	117	152	142
	2W & 3W	6	7	12	12	21	21	19	17
	CV & OTH	0	0	1	1	2	2	2	6
	Sub- Total EV	80	79	117	114	138	140	173	166
Non-EV	PV	30	26	26	37	33	27	24	17
	2W & 3W	24	22	22	21	22	23	26	19
	CV & OTH	6	9	12	13	13	13	14	13
	Sub-Total Non EV	60	57	60	71	68	63	64	49
	Total	**140**	**136**	**177**	**185**	**206**	**203**	**237**	**215**

Source: Company, LKP Research

EV contribution growing for Sona in order book



Source: Company, LKP Research

Global EV adoption trends continues to inch up well

In Q4 FY23, while US EV share has inched up to ~8%, EU/China has seen some moderation qoq. Industry expects EV adoption in key geographies such as EU to increase its contribution and touch ~21% by 2025E and ~48% by 2030E. Similarly, in the US, EV share is expected to jump from ~8% in Q4FY23 to ~10% in 2025E and ~29% by 2030E. While in China, this share is expected to reach 39% in 2025E from 30% currently.

Tesla, the market leader has been leading the EV adoption wave globally, and its global EV market share inched up to ~16% in Q4FY23 (vs 13% in 2022). However, the ramp-up in the past few quarters has been slower than anticipated, with Q1 CY23 production volumes being largely flat on a qoq basis. The company has taken multiple price cuts over the past few months, which should keep volume momentum healthy, in our view. Tesla management guided that it plans to increase production to align with its average 50% CAGR volume growth target, over a multi-year horizon, with volumes of 1.8mn for CY23. Also, with manufacturing capacities ramping up in EU/US and the Cybertruck launch planned from US, we expect overall volume growth to be much stronger in ex-China plants.

While in India, EV preference among consumers across both 2Ws and cars remains strong. In 2Ws, EV share continues to sustain at ~5-6% of the industry in FY23. Incumbents such as TVS Motors and Hero MotoCorp are ramping up capacity, while new players such as Ola (unlisted) are aggressively planning to launch new models to drive volumes. We expect 2W EV share to reach ~6%/6.5% by FY24E/25E.

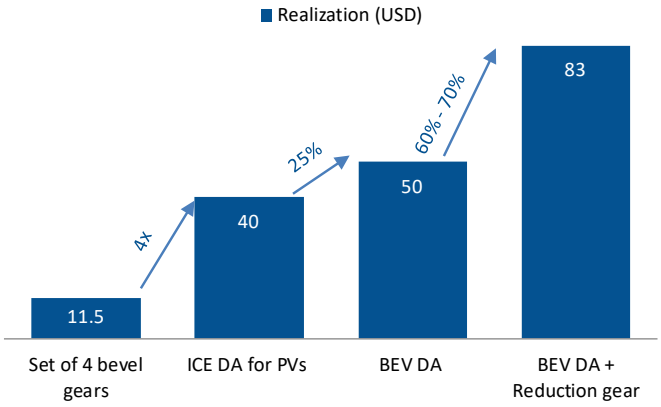
Differential gears and assemblies – Multiple positive levers for growth

The differential is a mechanical device that allows one wheel on an axle to turn faster than the other while ensuring an appropriate distribution of torque between them - by splitting the axle and putting a set of gears between the two halves.

Differential Assembly (23% of FY23 revenue) - Sona designs, develops and manufactures high torque drive units (i.e., differential assembly with final gear) and different variants of differential assemblies such as, final drive assembly, sealed differential, open differential, limited slip differential and forged case differential using special processes such as induction hardening, and hardening and tempering. Its pinion shafts which are used in assembly of gears have anti-seizure coatings such as manganese phosphating, electroless nickel plating, quench polish quench (QPQ), gas nitriding and diamond like coating which enables EVs to operate at higher speed. Sona also offer differential assemblies with precision ground drive gear to meet stringent NVH requirements for EVs.

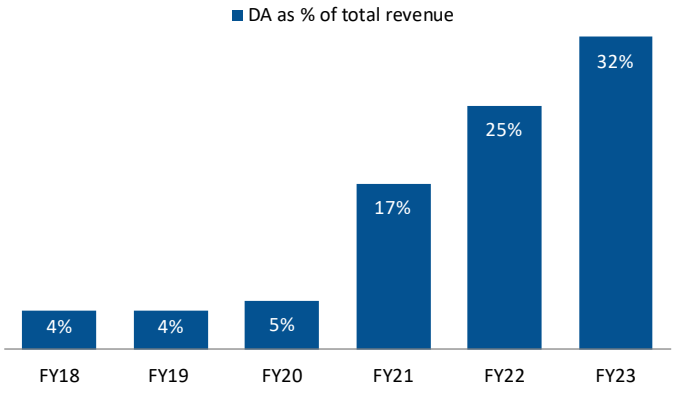
EV drivetrains are more complicated than conventional powertrains. Very high RPM in electric drives cause NVH issues in EVs. This results in higher technological complexity in differential gears and assembly design. This in turn results in higher price realization for differential gear assembly in EVs than conventional powertrains. Average realization of a nonBEV DA currently stands at ~US$40 per unit and the price of DA used in BEV is ~25% higher compared to non-BEV vehicle given the increased NVH requirements. The management has indicated that differential assemblies can go from $30/PV to $300/PV - with EDL (Electronically Locking Differential) at the higher end of the range, while can go up to $300 at the top for PVs and $900 going to the top of range. Currently the global DA market size is about $4.1 bn. Industry expects the global DA market to grow at a CAGR of ~4% through FY21-FY25E; however, importantly, expect the BEV DA market to grow at a CAGR of ~44% over this period at $4.37 bn. Sona enjoys a market share of ~12% in this space.

Forward integration in BEV DAs drives substantial increase in realizations



Source: Company, LKP Research

DA turning sizeable for Sona



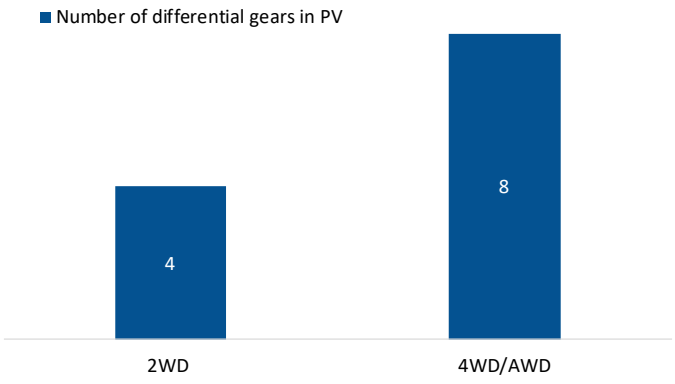
Source: Company, LKP Research

Differential gears (32% of FY 23 revenues, 7% global market share) - Sona manufactures net shaped differential gears, which provide significant advantages over conventional machine-cut gears including, superior quality, increased strength, higher durability, design flexibility, consistent uniformity, long-lasting performance and lighter weight. Since Sona designs and manufacture gears in-house using proprietary technology, including the dies used to forge gears, and form the gears' teeth from inception instead of cutting, it utilizes lower amounts of raw materials making the product cost-effective.

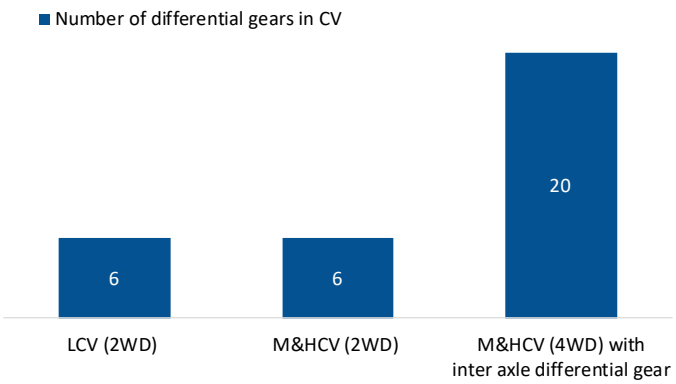
In 3QFY23, Sona launched the electronically locking differential (EDL) used in high-performance and off-road vehicles to enhance stability, traction and safety. The EDL uses electronic actuators to lock the wheels on the left and right sides of the vehicle together. This allows the wheels to rotate at the same speed, providing maximum traction and stability. The differential is controlled by a computer that receives input from various sensors such as the vehicle speed, steering angle and yaw rate. The computer then uses this information to determine when the differential should be locked or when it should be unlocked based on the driving conditions and the driver's inputs. The technology enables better performance in off-road and difficult weather conditions. Sona also launched couple of new products in Q4 such as the input shafts and intermediate gears

As popularity of SUVs and Crossover UVs increases, the proportion of Part time AWD and Full time AWD drive types would increase. Both FWD & RWD would have one DA/vehicle. However, Part time/Full time 4WD would require two DAs (one on front axle and one on rear axle) to offer the ability to steer wheels on each axle when power to transferred to the same. Typically, DAs comprise of a set of 4 DGs. Industry expects the global DG market to grow at a CAGR of ~6% through FY21-25E at US$1.45 bn from US$1.1 bn; Sona continues to improve upon its share in this space (currently ~7%)

Number of gears double going from 2WDs to 4WD

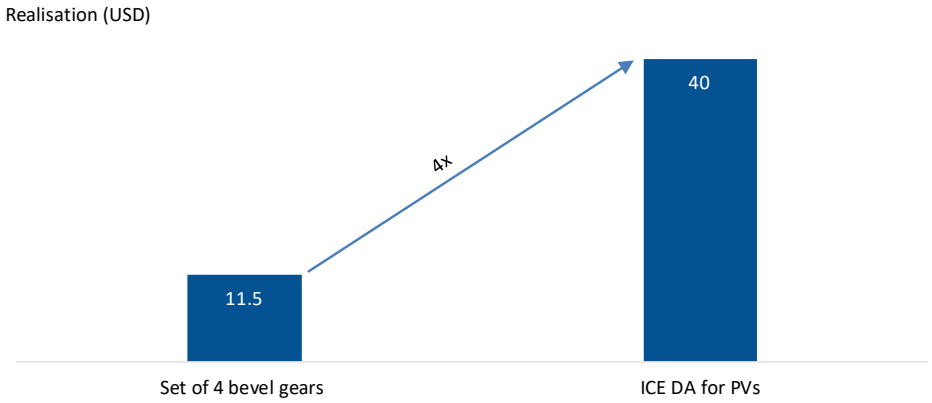


Gears increase significantly going from single-axle to multi-axle CVs



Source: Industry, LKP Research

Forward integration from gears to differential assemblies results in ~4x ASP



Source: Company, LKP Research

Traction Motors, a new entrant in Sona's portfolio, has strong potential to grow

Sona is one of the leading manufacturers of traction motors, aided by its portfolio of high efficiency/torque density motors across BLDC and PMSM motors. In Mar 22, Sona introduced its next generation of motors and controllers, Motor T with optimised controller family. As per the management, 'Motor T with optimised controller', with next generation technology, has the highest efficiency (96%), power and torque density in 48V category in the world. Sona currently has an installed capacity of ~250K units p.a. for hub motors and ~75-100K units p.a. for PMSM motors at its Chennai plant. In 3QFY22, Sona announced a new order win of ₹4 bn (Delivery FY25) for the Predictive Active Suspension Integrated Motor Controller Module (PAS-IMCM). The PAS-IMCM is a futuristic suspension system in which the motor generates an exact counteracting force to mitigate the impact of uneven road surfaces so that the vehicle glides over all kinds of roads. The e2W motor supply chain is currently dominated by Germans; Sona is making inroads in this space aided by its efficient and cost-effective motor solutions. Sona is one of the motor suppliers for TVS's and Ampere's e2Ws. Sona achieved its capacity in Aug 22 to 100K EV traction motors and announced in Nov 22 that it is further expanding its capacity at its Chennai plant for motors.

In BEV, traction motors are prime movers and located in the front/rear or both depending on the vehicle configuration. Industry estimates indicated that vehicles with traction on both axles would increase going forward, which along with the steady increase in the size of the motor (due to higher power requirements) would lead to a sharp increase in the content per vehicle. Key global players in the high voltage traction motor segment include Bosch, Valeo-Siemens, GKN, Schaeffler, LG, Hitachi, Borg Warner, ZF etc. High voltage Traction motors market size by the end of FY 22 was ₹6.65 bn, which is expected to grow at a CAGR of 40% between FY 21-26E up to ₹22 bn.

Domestic BLDC business to be driven by EV penetration

Growth in the domestic BLDC (Brush-Less DC) motor market is expected to be led by the growing penetration of electric 2W. While PMSM (Permanent Magnet Synchronous Motor) has advantage of compact nature and higher power efficiency, cost competitiveness of the BLDC motors might ensure dominance as the preferred traction motor technology over the medium term. Currently, Sona has a capacity of ~250k units p.a. for hub motors at Chennai; its market share across the domestic 2W/3W space is currently ~15%. While currently, e3W volumes as % of e2W+e3W volumes are material, going forward, e2W volumes would drive the demand for BLDC motors on the back of the sheer industry size and rapid penetration.

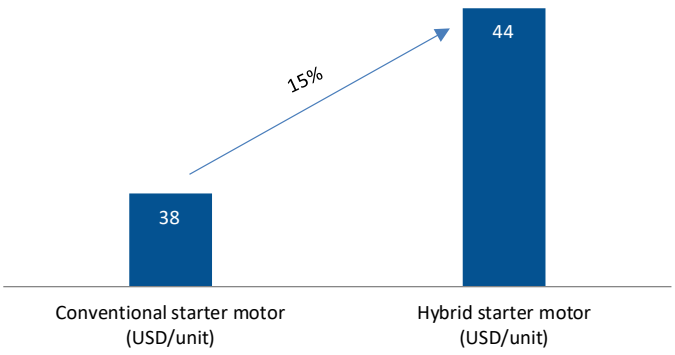
E-2W traction motor offers high value with additional content from controller The BLDC motor has become a standarized product. However, combining it with a controller (with embedded software) could deliver a differentiated solution to OEMs.The per unit cost of BLDC motor is~Rs 9000, while an addition of controller increases the cost to Rs12000, thus increasing the content per vehicle. Domestically, the BLDC market is expected to expand at CAGR of 110% to ₹7 bn in the period between FY21-26E from FY22 market size of ₹622 mn.

Starter Motors Industry may eventually shrink, Sona likely to win market share though…

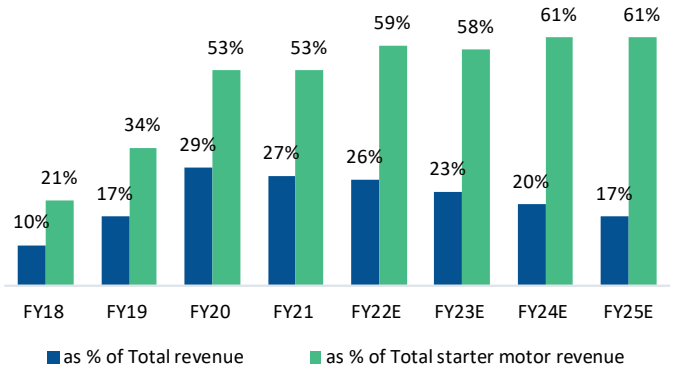
Globally across all segments (Passenger Vehicles, Commercial Vehicle, Tractors) key competitors for Sona include Denso, Borg Warner, SEG Automotive, Hitachi, Valeo etc. Given Sona's exposure to the PV segment (which also happens to be the largest segment for starter motors) Industry expert Ricardo expects Sona to be among the top ten global starter motor suppliers. Sona's global market share of starter motors stood at 4.1% in CY22. Hence, with need for starter motors in micro, mild and full hybrid vehicles being largely offset by decline in sales from pure ICE vehicles, we estimate the global market for starter motors to remain largely static over FY22-26E. Moreover, as technological interventions result in greater penetration of BEVs, making them the mainstream choice of EV buyers in the future, the market for starter motors will keep shrinking.

However, in the interim, we believe Sona will continue to grow led by market share gains given starter motors manufactured by it are 1) light and compact, 2) able to withstand a wide range of temperatures (for European/US markets) and 3) have longer life cycles as compared to peers. Sona and SEG Automotive are two of the largest starter motor exporters from India with a combined market share of 70%. Lucas TVS exported approximately 120,000 starter motors per annum for PV OEMs. Spark Minda, Auto Ignition, Mahle together export approximately 120,000 starter motors per annum catering to off-highway segments.

Micro-hybrid starter motors have over 15% higher realization…



…with increasing share of micro-hybrid starter motors in Starter Motor business



Source: Industry, LKP Research

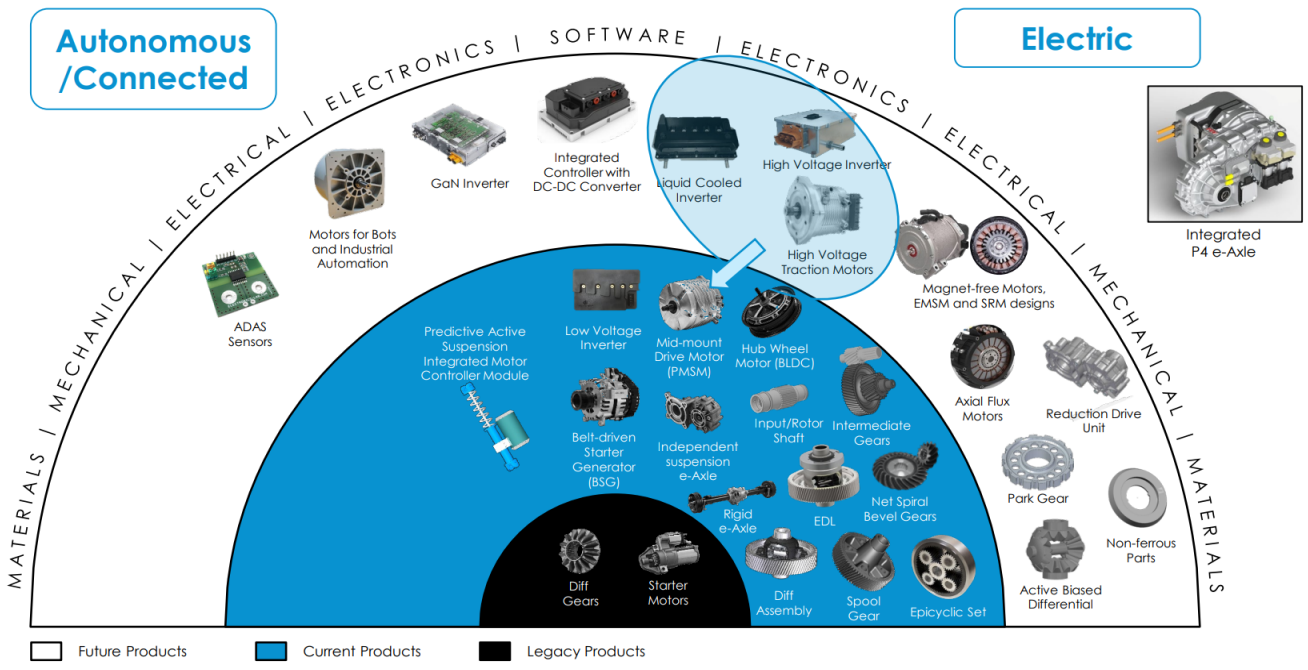
Hybridisation to drive growth for Sona's BSG (Belt Starter Generator) business

Sona has successfully completed vehicle level demonstration of the 48V BSG system to selected global OEMs, and it is currently undergoing testing in compliance with international specifications. OEMs and suppliers are competing to develop and market new and alternative technologies that can meet future Corporate Average Fuel Efficiency ("CAFÉ") norms, leading to a growth in the hybrid vehicle market. Sona has developed 48V BSG (P0 configuration) for hybrid PVs and LCVs with technology meeting global standards offering high fuel economy and CO2 reduction. These motors are designed to use high power density magnets leading to high power to weight ratio and higher efficiency over broad speed ranges. Going forward, in the mild hybrid segment the proportion of other configurations (P1 and P2) is expected to increase primarily due to the fuel consumption/CO2 benefits and the current estimate is that that this is likely to reduce the proportion of the BSG units to approximately 60-65% (from 92% in 2020) by FY 25E. But since the overall mild hybrid vehicles volume is increasing, we may see growth in 48V BSG motors. Valeo is the market leader in this space. Key competitors in the 48V BSG segment are Valeo, SEG Automotive, Continental, Hyundai Mobis.

Novelic acquisition – Smart foray into the ADAS sensor market

Sona's acquisition of the Serbian company Novelic in January 2023, which will enable it to enter the ADAS sensor market, is part of its strategy to capitalize on the growing vehicle autonomy and automation market. Sona acquired 54% equity stake in Novelic for Euro40.5 mn through a combination of primary and secondary purchases with a staggered payment structure in the ratio of 60:20:20 at closing and in 12 months and 24 months, respectively. Novelic is valued at a pre-money EV of Euro 64.5mn and post-money valuation of Euro 75mn. The transaction is funded primarily from Sona's existing resources and is closed by the end of March and will be EPS accretive for Sona from the first year itself. Novelic is a profitable high-tech, fast growing company, in $43 bn ADAS Sensors market, with ~27% net profit margin. Novelic is into Unique and patented mmWave radar technology which is the best solution for in-cabin sensing. Novelic's full vertical integration from chip and sensor design to signal processing software allows partnership across the value chain –auto OEMs, AV makers, Tier-1s & chip manufacturers. This acquisition is therefore accretive to Sona's EPS and provides significant growth opportunities over medium-term. This acquisition is also important marking Sona's diversification from non-driveline, non-motors domain.

SONACOMS introduced 4 new products to the market in FY23



Source: Company, LKP Research

Foreign acquisitions/tie-ups remained the key for technical capabilities of Sona and other players in the cold/warm forging industry

In the 1960s, BLW (Germany) made a breakthrough in precision forging technology, by which, gears would directly be forged, instead of being cut from blanks. BLW was also the inventor of the warm forging technology. In 1984, Surinder Kapoor – Founder of Sona, who was running Bharat Gears then, approached BLW for a license for the above gear manufacturing technology; Bharat Gears was making differential gears. However, BLW refused. In 1992, when Surinder started Sona, he went to Mitsubishi Materials which was a licensee of BLW and got the license from them. In addition, tooling solutions provided by Mitsubishi were technologically advanced. That is how Sona Okegawa Precision Forgings was formed - the forging arm of the Sona Group. In 2005, Surinder Kapoor approached BLW again – by this time it was taken over by the ThyssenKrupp group and was called ThyssenKrupp Precision Schwede - with an offer to merge or buy or be bought. But was refused. In 2007, the group agreed to sell. The Blackstone led merger of Comstar in FY20 brought to the fold starter motors capabilities.

In 2018, Blackstone Group acquired Chennai-based auto parts maker Comstar Automotive Technologies Pvt. Ltd for about ₹10 bn from Comstar's controlling shareholders—private equity firm Argyle Street Management and the Chandaria family. Comstar, a maker of starter motors, starter motor kits and alternators for automotive applications, was founded in 1999 as a subsidiary of Visteon Corp., a unit of Ford Motor Co. in India. Comstar was sold to Hong Kong-based Argyle Street Management and the Chandaria family in 2007. At the time of the transaction, Comstar had an installed capacity of over 3.8 million starter motors and 1 million alternators in India and 800,000 starter motors in North America. It counts Ford Motor, Volvo, Tata Motors, Ashok Leyland-Nissan, Renault Nissan, Geely, Jaguar, Aston Martin and Mazda as customers. Comstar is reputed for its zero PPM quality standards and its innovation culture which has helped the company produce 'Photon' - the world's lightest starter motor. Then, in FY23, Sona forayed into sensors with the acquisition of Novelic.

Similarly, Sona's close competitor Sundram Fasteners acquired the Cramlington Precision Forge facility of Dana Spicer Europe Limited in FY05. CPFL manufactures differential gears, dog tooth clutches, hydraulic pump gears, power tool components, tractor differential gears, earth moving vehicle components, and passenger car coupling flanges and crown wheels. This acquisition aided SFL absorb cold and warm forging technologies.

In FY09, Hirschvogel Automotive Group entered into a 51% JV with Kalyani Thermal Systems Ltd., a sister company of Bharat Forge; the new company was known as Hirschvogel Kalyani India Pvt. Ltd., Hirschvogel. The company was to produce warm/cold-forged transmission shafts and pinions as well as constant-velocity joints, diesel injection components and wheel hubs, in addition to machining and in-house die shop facilities. In FY12, Hirschvogel Automotive Group brought out Kalyani's stake in the said JV. Kalyani Thermal Systems, since renamed as Kalyani Technoforge Ltd, is engaged in the manufacture of forged and machined components like connecting rods, crankshafts, transmission gear blanks, automotive bearings and machined gears for 2W, PC, and LCVs. Kalyani Technoforge is classified as a related party by Bharat Forge.

Equipmake agreement, a step into newer but allied segment

Sona has recently signed an agreement with Equipmake, a UK-based technology company that develops high-performance electric powertrains. Equipmake's patented technology offers high power density and efficiency with high performance for electric cars, buses, and commercial vehicles. Under the agreement, Equipmake will license certain patented spoke motor and inverter technology in the power range of 100kW to 440 kW to Sona to manufacture and sell EV Powertrains, sub-systems, and components for electric cars, buses, commercial vehicles and off-road vehicles. Sona will lead the business development and customer sales in India, Thailand and select South Asian countries, while Equipmake will lead the sales in the rest of the world. Sona will exclusively manufacture EV Powertrains, sub-systems, and components, based on Equipmake's patented technology, for the target applications exclusively in India and other select markets. Sona will also manufacture and sell EV Powertrains, sub-systems, and components for the target applications to Equipmake and its global customers in other overseas markets. The companies expect the serial production of these systems to commence in 2025. Sona should get a good entry point as far as new product is concerned and also new geographies of Thailandd and South Asia.

Equipmake is a significant player in the world market with several customers	
First Group (UK)	• Repowered 12 buses for First Bus; Secured another order for repower of a double-deck bus
London Routemaster	• Launch of customer trials of an Equipmake converted fully-electric London Routemaste
Emergency One (UK)	• Delivered bespoke EV drivetrains for Emergency One Fire Trucks; Secured further orders from them
Agrale(Argentina)	• Zero-emission powertrain fitted bus completed preservice trails and started in-service trials in Nov-22
European Electric Hypercarb	• Long-term contract to supply ASIL-D compliant motor drive inverter

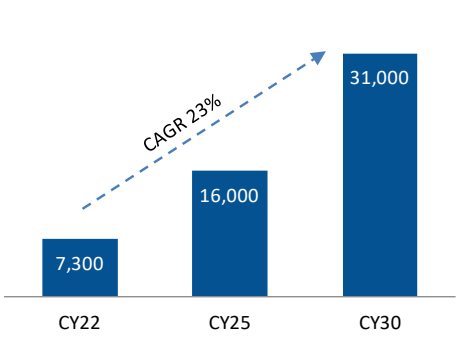
Source: Company, LKP Research

CRISIL expects the demand for electric passenger vehicles in India to increase to 25% in FY32, up from less than 1% in FY22, led by the commercial segment (fleet) due to favourable economics. In absolute numbers, it estimates the electric car market in India to grow from 30k units in FY22 to 1.6 mn in FY32. CRISIL has projected the penetration of electric buses in India to increase to 11% in FY27 and 21% in FY32, up from 5% in FY22, driven by improving unit economics, government push at state transport undertakings (STU) and ESG concerns. STU will initially drive electric bus penetration, followed by school and staff bus segments. In absolute numbers, CRISIL estimates the electric buses market in India to grow from ~1.6k units in FY22 to over 27k in FY32.

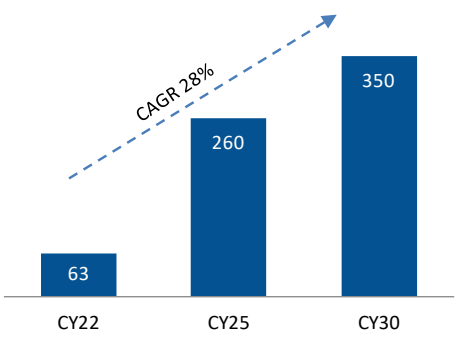
Both Global and Indian BEV markets with high-voltage applications have strong growth projections

GLOBAL

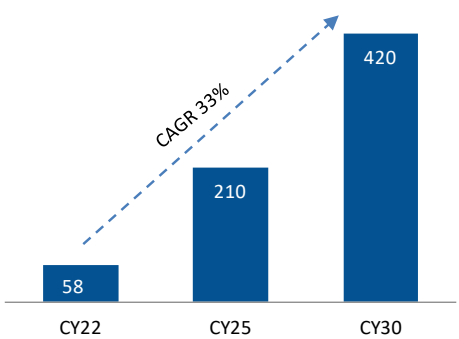
BEV Car Market – in '000s



BEV Bus Market – in '000s



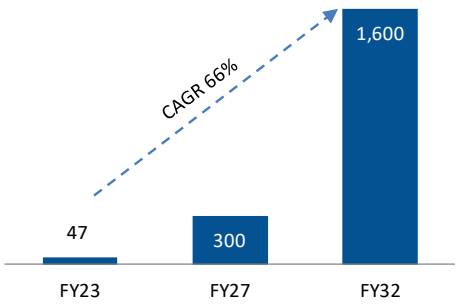
BEV MHCV Market – in '000s



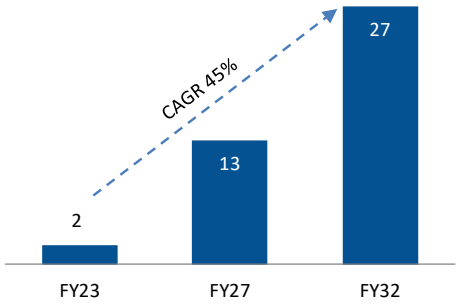
Source: CRISIL LKP Research

INDIA

BEV Car Market – in '000s



BEV Bus Market – in '000s

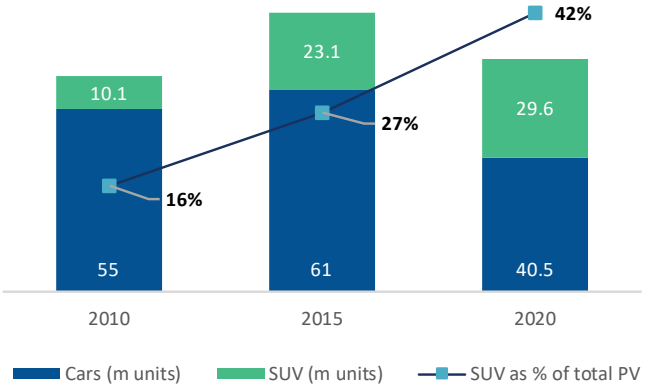


Source: CRISIL LKP Research

Premiumisation shall lead to higher content per vehicle

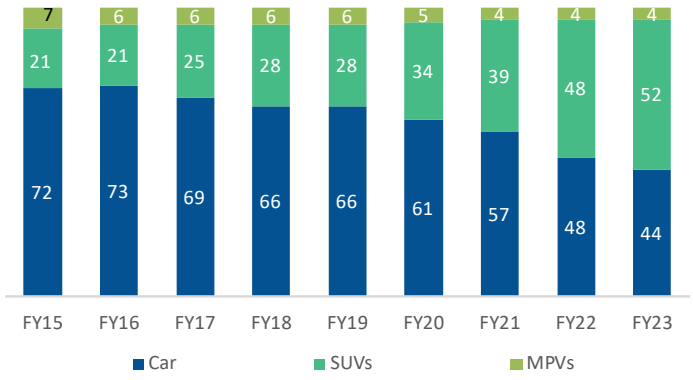
We are observing a rapidly growing trend in every segment of the automobile industry shifting from lower/mass segment vehicles to high priced premium segment. Among the PVs, the SUV segment is turning out to be the biggest contributor to the demand (~52% by the end of FY23) in line with the successful launches from almost all the automakers and affordable price ranges. Also the EV proliferation is welcomed by the customers in the industry. Globally 4WD penetration is also increasing and so is higher HP tractors driving the growth in the OTR segment. All these are pointing towards increasing content per vehicle and thus in turn higher profitability.

Increasing share of SUVs in global PVs…



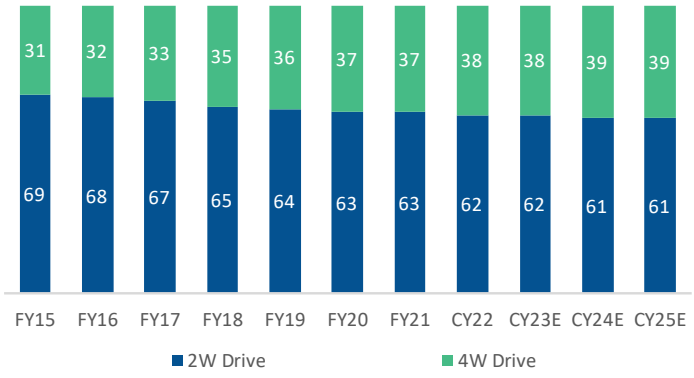
Source: Industry, LKP Research

…as well as in India



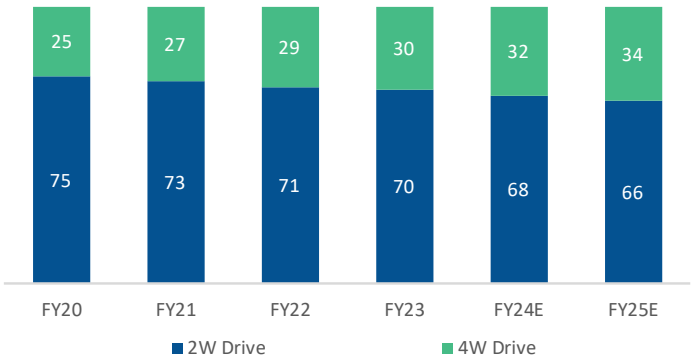
Source: Industry, LKP Research

4WDs' share in ICE PVs increasing gradually (% of total)…



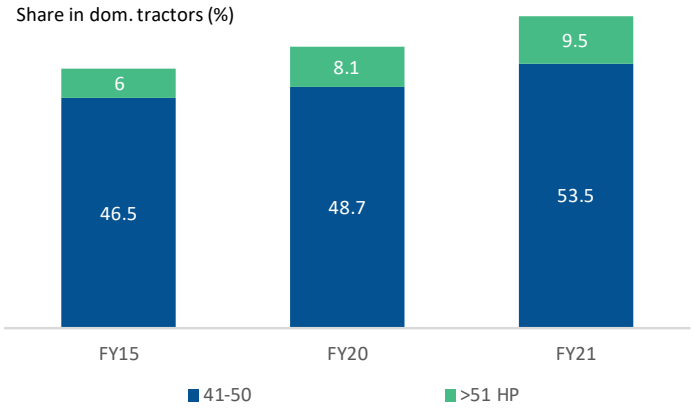
Source: Industry, LKP Research

…with BEVs also seeing similar trends towards 4WDs (% of total)



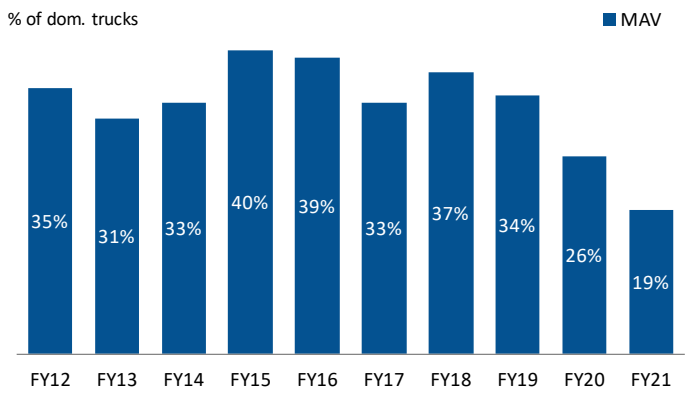
Source: Industry, LKP Research

Share of higher HP tractors going up



Source: Company, LKP Research

Share of multi-axle trucks down in last two years, but expected to normalize as cycle recovers



Source: Company, LKP Research

Outlook & Valuation

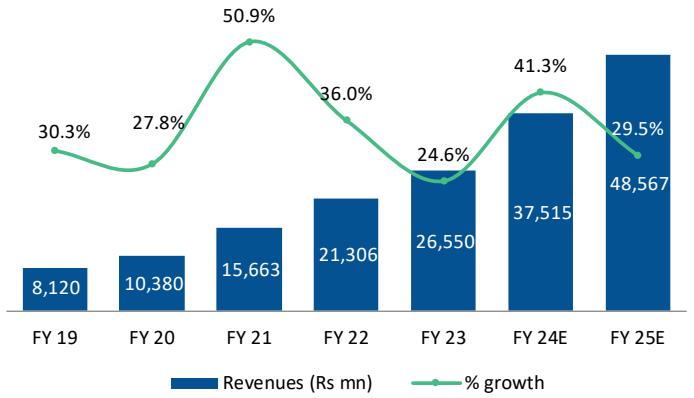
Sona BLW Precision Forgings (Sona) is a multi-product, multi geography auto ancillary company which is into manufacturing products like differential gears (32% of revenue), differential assemblies (23%), starter motors for hybrids and ICE (20% and 16%, respectively), and traction motors for two-wheeler electric vehicles (4%). Exports account for 71%, with the U.S. and Europe being the largest markets (43% and 20% of total exports, respectively). Strong margin profile, high and increasing return ratios, warm/cold forgings technical benefit and entry barriers to it, EV opportunity provides the moat for the company considering 77% of the current order book of ₹215 bn belongs to EV.

We believe that the rapidly growing penetration of EVs and Sona being well entrenched into it, is riding the EV wave seen globally. The company is performing well in its traditional business of Differentials as well, but is also gaining traction in other products like EDL and ADAS (through recent Novelic acquisition). Though the starter motors business is waning due to ICE dependence, EV business is more than offsetting this fall. Sona is set to benefit from the electrification of light vehicles aided by its presence in both driveline and motors. Capex plan is ₹11bn over the next three years. Currently, no customer accounts for more than 20% of revenues, which the company hopes to bring to 15% over time.

The company has several EV products on the roadmap, which give strong growth visibility without assuming any market growth. Production Linked Incentive (PLI) benefit may flow through from FY25 onwards after products are approved in FY24. The addition of yet another EV product this quarter reinforces our view that the addressable market for Sona will keep expanding, and hence it should trade at premium valuations. We anticipate a revenue/PAT CAGR of ~35%/43% respectively each through FY22-FY25E, with strong returns ratios – RoE of ~25% in FY25E. Currently trading at ~37xFY25E EPS, we assign a BUY rating with a TP of ₹624 based on 45x FY25E EPS. Blackstone's recent exit eliminates the overhang of a large supply of shares, while we are aware that the management is professionally run.

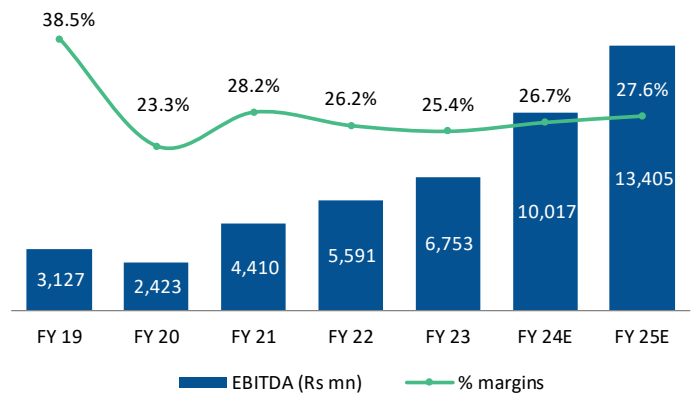
Financials

Revenues vs Revenue Growth



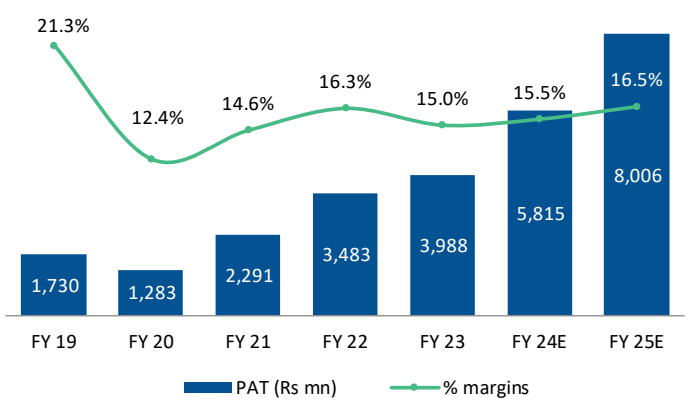
Source: LKP Research

EBITDA vs EBTDA margins



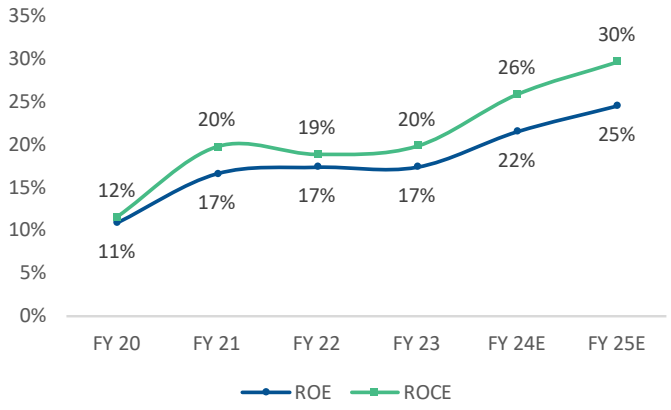
Source: LKP Research

PAT vs PAT margins



Source: LKP Research

ROE vs ROCE



Source: LKP Research

Income Statement

(₹ mn)	FY 22	FY 23	FY 24E	FY 25E
Total Revenues	**21,306**	**26,550**	**37,256**	**48,275**
Raw Material Cost	9,456	12,199	16,392	21,241
Employee Cost	1,689	1,803	2,906	3,572
Other Exp	4,571	5,795	8,010	10,041
EBITDA	**5,591**	**6,753**	**9,947**	**13,420**
EBITDA Margin(%)	*26.2%*	*25.4%*	*26.7%*	*27.8%*
Depreciation	1,420	1,780	2,452	3,052
EBIT	**4,171**	**4,973**	**7,496**	**10,369**
EBIT Margin(%)	19.6%	18.7%	20.1%	21.5%
Other Income	200	322	144	250
Interest	183	169	254	309
PBT	**4,189**	**5,126**	**7,386**	**10,310**
PBT Margin(%)	19.7%	19.3%	19.8%	21.4%
Tax	706	1,138	1,625	2,268
Adjusted PAT	**3,483**	**3,988**	**5,761**	**8,042**
APAT Margins (%)	16.3%	15.0%	15.5%	16.7%
Exceptional items	133	34	0	0
PAT	**3,615**	**3,954**	**5,761**	**8,042**
PAT Margins (%)	17.0%	14.9%	15.5%	16.7%

Key Ratios

YE Mar	FY 22	FY 23	FY 24E	FY 25E
Per Share Data (₹)				
Adj. EPS	6.0	6.8	9.9	13.8
CEPS	8.6	9.8	14.1	19.0
BVPS	34.2	39.2	46.1	55.7
DPS	0.8	2.1	3.0	4.1
Growth Ratios(%)				
Total revenues	36.0%	24.6%	40.3%	29.6%
EBITDA	26.8%	20.8%	47.3%	34.9%
EBIT	21.2%	19.2%	50.7%	38.3%
PAT	52.0%	14.5%	44.5%	39.6%
Valuation Ratios (X)				
PE	85.4	74.6	51.6	37.0
P/CEPS	59.1	51.9	36.2	26.8
P/BV	14.9	13.0	11.0	9.1
EV/Sales	14.0	11.3	8.0	6.2
EV/EBITDA	53.2	44.3	30.0	22.2
Operating Ratios (Days)				
Inventory days	140.3	182.2	165.0	160.0
Recievable Days	76.3	72.0	68.0	64.0
Payables day	37.5	34.2	32.0	26.0
Net Debt/Equity (x)	0.04	0.10	0.09	0.09
Profitability Ratios (%)				
ROCE	18.9%	19.8%	25.7%	29.7%
ROE	17.4%	17.4%	21.4%	24.7%
Dividend payout ratio (%)	12.4%	30.3%	30.0%	30.0%
Dividend yield(%)	0.0	0.0	0.0	0.0

Balance Sheet

(₹ mn)	FY 22	FY 23	FY 24E	FY 25E
Equity and Liabilities				
Equity Share Capital	5,844	5,854	5,854	5,854
Reserves & Surplus	14,159	17,047	21,080	26,709
Total Networth	**20,003**	**22,901**	**26,934**	**32,563**
Total debt	438	487	537	587
Deferred tax assets/liabilities	884	876	876	876
Other curent liabilities	798	831	831	831
Total non-current liab & provs	**2,120**	**2,194**	**2,244**	**2,294**
Current Liabilities				
Trade payables	2,189	2,489	3,266	3,439
Short term provs+ borrowings	1,540	2,944	3,144	3,344
Other current liabilities	102	172	172	172
Total current liab and provs	**2,120**	**2,194**	**2,244**	**2,294**
Total Equity & Liabilities	**25,956**	**30,597**	**35,657**	**41,708**
Assets				
Gross block	9,034	13,344	16,344	20,344
Accumulated depreciation	3,355	5,135	7,586	10,638
Net block	5,679	8,209	8,758	9,706
Capital WIP	1,409	693	1,193	1,793
Other non current assets	9,116	8,693	8,693	8,693
Total fixed assets	**16,204**	**17,596**	**18,644**	**20,193**
Cash and cash equivalents	536	441	1,119	2,497
Other bank balance	236	257	257	257
Inventories	3,634	3,229	7,410	9,311
Trade receivables	4,452	6,089	6,941	8,465
Other current assets	894	2,986	1,286	986
Total current Assets	**9,752**	**13,001**	**17,013**	**21,516**
Total Assets	**25,956**	**30,597**	**35,657**	**41,708**

Cash Flow

(₹ mn)	FY 22	FY 23	FY 24E	FY 25E
PBT	4,322	5,092	7,386	10,310
Depreciation	1,420	1,780	2,452	3,052
Interest	172	161	254	309
Chng in working capital	(890)	(630)	(4,256)	(3,252)
Tax paid	(544)	(1,102)	(1,625)	(2,268)
Other operating activities	(34)	33	-	-
Cash flow from operations (a)	**4,446**	**5,334**	**4,210**	**8,150**
Capital expenditure	(3,438)	(3,351)	(3,500)	(4,600)
Chng in investments	(210)	(101)	-	-
Other investing activities	(96)	(2,278)	1,700	300
Cash flow from investing (b)	**(3,534)**	**(5,629)**	**(1,800)**	**(4,300)**
Free cash flow (a+b)	**911**	**(295)**	**2,410**	**3,850**
Inc/dec in borrowings	450	150	50	50
Dividend paid (incl. tax)	450	1,199	1,728	2,413
Interest paid	92	12	254	309
Other financing activities	(182)	(113)	-	-
Cash flow from financing (c)	**(637)**	**187**	**(1,732)**	**(2,472)**
Net chng in cash (a+b+c)	**249**	**536**	**441**	**1,119**
Closing cash & cash equivalents	**536**	**441**	**1,119**	**2,497**

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