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ASM International -Fuelling Metal Industry Growth Jayesh Mukadam Chairperson, ASM International

Spotlight still on Vedanta \$3 billion debt despite spinoff plan

Spotlight still on Vedanta \$3 billion debt despite spinoff plan

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D. A. Chandekar Editor Dear Readers,

n last few decades, the world had seen the emergence of the concept called 'Globalization'. An international body 'World Trade Organisation' or commonly known as WTO, was formed in 1995 to facilitate international trade. The idea was that the countries would gradually decrease the trade barriers and encourage the international trade. This concept got the support of majority of the countries and accordingly the process of lowering the trade barriers started in many countries. India along with many countries is the original signatory of WTO and since it adopted the principles of liberalizarion and globalization in 1992, the import tariffs were being lowered gradually. This did have a positive impact and India's international trade increased substantially. Further, the entry of foreign products into Indian markets put pressure on domestic manufactuerers whereas the consumer got more options to choose from. Of course many countries adopted these principles well before India and also benefitted from it in a big way.

This process of globalization encouraged the manufacturing giants world over to adopt an altogether different format and the system to procure their raw materials or inputs for their production lines. Globalization gave them the axis to almost all the countries and they could choose the right supplier no matter in which country he was located. Thus for these companies, the supply chain really became global and this naturally resulted in higher quality and competitive prices. All were happy, the global vendors, the manufacturing

Editorial Desk



company and also the customers. All was well till the Russia - Ukraine crisis erupted. The war which was supposed to end in few weeks is still going on and the end is not in sight. The war blocked many sea routes around the world and thus the supply chain of many manufacturing companies got damaged. They were procuring raw materials / inputs from different countries and those could not be shipped due to the ongoing war. Thus the production was held up and the process lines stopped. Along with many other industries, this was true for the iron & steel industry as well. The sourcing for ore and minerals, coal, refractories, ferro alloys, lime etc. was so scattered all over the world, many companies had to suffer. The manufacturing giants realized that the global supply chain did provide a distinct advantage during good days but in a war like situation, it is a big disadvantage. It can completely jeopardize the production lines and put a big question mark on the company's viability. Further, in the turbulent times like this, providing access to overseas companies into one's domestic markets may be damaging to the indigenous producers of the same product. This has supposed to have initiated the process of 'De-Globalization' and is today is being considered seriously by many countries as an effective strategy. On one hand many companies have shifted from their policy of having global supply chain to having a regional (if not local) supply chain. By doing this, they would substantially counter the risk factor in having a seamless production. Also, many countries have started debating the idea of increasing the trade barriers, directly or indirectly, in order to protect the domestic industry. Today, many countries in the world are facing the recessionary trends in their economy and have no other option but to support their local industry in this challenging period.

Write your comments : https://metalworlddac.wordpress.com

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ASM International -Fuelling Metal Industry Growth



How is the present status of metals industry in the country ? How do you see the future ?

The current state of the metal industry is highly promising and exhibits several positive trends. Steel plants across the board are experiencing robust order bookings that extend well into the next few years. This indicates a sustained demand for steel products and a positive outlook for the industry. Leading steel plants are strategically shifting their focus towards the production of valueadded steel products. This move allows them to diversify their offerings and capture higher margins in the market. The industry is in the midst of a significant growth phase, with a multitude of steel-related companies undergoing

expansion initiatives. This expansion is driven by the increased demand and the desire to compete effectively on both qualitative and quantitative fronts. Many of these expanding companies are actively competing with international players, not just in terms of quantity but also quality. This signifies a notable improvement in the standards and capabilities of the domestic steel industry, positioning it as a global contender. In summary, the metal industry is currently thriving, with strong order books, a shift towards valueadded products, widespread expansion efforts, and a heightened competitive edge in the international market. These factors collectively paint an encouraging picture for the industry's future prospects.

Jayesh Mukadam is a Bachelor's in Mechanical engineering and Master's in Management from Mumbai University with more than 35 years' experience in the field of heat treatment.

He was associated with Mukand Ltd, a prestigious steel plant for 7 years as an employee. He started his own industry – M/S Jaybee Steel Treaters Pvt Ltd more than 30 years ago and is today a preferred heat treatment vendor. The company is into annealing, hardening, quenching, normalising, tempering, etc.

Since long, he has been a part of ASM International, a leading material science society in various capacities. Currently, he is the Chairperson of ASM India Chapter. He specialises in heat treatment of long and large jobs with polymer quenching.

Jayesh Mukadam Chairperson, ASM International

How is ASM International helping the industry ? Globally as well as in India ?

ASM International is a prominent materials science and engineering organization that plays a pivotal role in advancing the industry globally and in India through various initiatives and contributions. ASM International provides a wealth of knowledge and resources to the global materials and engineering community. Their publications, conferences, and educational programs disseminate the latest research, best practices, and technological advancements, which benefit professionals, researchers, and industries worldwide. ASM International is actively involved in materials research, development, and testing. Their research activities contribute to the advancement of materials science, leading to

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Face to Face

the creation of innovative materials and processes that can be adopted by industries across the globe. The organization fosters collaboration and networking among professionals and experts in the field of materials science and engineering. This facilitates the exchange of ideas and the establishment of partnerships that can drive industry growth and innovation on a global scale. ASM International offers educational programs and training in materials science and engineering in India. This helps enhance the skills and knowledge of Indian professionals, making them more competitive in the global materials industry. ASM International's resources and publications are accessible to professionals and researchers in India. This knowledge transfer supports local industries in staying updated with the latest trends and technologies in materials science and engineering. ASM International organizes events and conferences in India, providing a platform for industry leaders, researchers, and professionals to exchange ideas, showcase innovations, and address challenges specific to the Indian context. ASM International promotes collaboration between Indian institutions, industries, and

international partners. Such collaborations facilitate joint research and development projects, leading to the creation of advanced materials and technologies that can benefit Indian industries. In essence, ASM



International serves as a catalyst for the growth and development of the materials science and engineering industry both globally and in India. Through education, research, knowledge dissemination, and collaboration, ASM contributes significantly to the industry's progress and competitiveness.

What are your plans and goals in your tenure as the president ?

At our ASM office, we have launched a monthly series of technical talks featuring industry experts in their respective fields. These sessions are designed to provide valuable insights and knowledge to our members. Over the past six months, we've hosted a total of six technical talks, and we even conducted a specialized technical course. These events are tailored to cater not only to professionals with a metallurgical

background but also to those who are new to the field, aiming to provide them with a solid understanding of the basics of metallurgy. In an effort to foster collaboration and knowledge exchange, we're actively working on an Industry-Institute initiative. This initiative aims to strengthen the connection between industry and educational institutions, promoting the practical application of engineering principles and fostering innovation in the field. One of the valuable resources that ASM can offer is access to our handbooks and library, which is located in our Mumbai office. This resource can be incredibly useful, particularly for Micro, Small, and Medium Enterprises (MSMEs) looking to make informed material choices for their projects. The ASM handbooks and library are a treasure trove of information that can aid businesses in material selection and decision-making. Notably, a significant development on the horizon is the upcoming appointment of the first Indian to assume the role of the World President of ASM International. scheduled for mid-October 2023. This historic event is set to put India on the global materials map, further highlighting the country's growing influence and expertise in the field of materials science and engineering. These initiatives and activities underscore ASM International's commitment to knowledge dissemination, education. collaboration. and the advancement of materials science and engineering both in India and on the world stage.



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Analysis

Spotlight still on Vedanta \$3 billion debt despite spinoff plan



Billionaire Anil Agarwal's Vedanta Resources Ltd. is on a quest for cash. The junk-rated mining conglomerate has approached investors to restructure about \$3 billion worth of bonds due in 2024 and 2025, while splitting its sprawling group to unlock better value for individual businesses. But debt investors aren't convinced, and the group's dollar bonds are tumbling as per the Bloomberg latest report. What is the plan for overhauling the group? Indian unit Vedanta Ltd. last week approved a plan to separate its business into six listed companies: aluminum, oil and gas, power, steel and ferrous, base metals and an incubator for new

businesses including semiconductors. The reorganization is meant to give investors direct exposure to a business of their choice and improve the value of the group's component parts. A streamlined structure could also help Agarwal sell unprofitable or low-growth assets - something the billionaire has long avoided. Vedanta expects to complete the transaction by the financial year ending March 2025 What's the state of Vedanta's

finances?

The conglomerate has bond repayments of \$3.2 billion coming up over the next two years. About \$2 billion of notes are to be redeemed in 2024 — half of which is due as early as January — and another \$1.2 billion in 2025, data compiled by *Bloomberg* show.

Company representatives have proposed to pay back a portion in cash, with the remainder of the principal deferred for three years from the original due date. The plan has met with some opposition.

Issuing unit

Vedanta Resources \$ Finance II PLC Vedanta Resources Ltd. \$ Vedanta Resources \$ Finance II PLC

Amount outstanding	Coupon	Maturity date
\$1 billion	13.875%	Jan. 21 2024
\$951 million	6.125%	Aug. 9 2024
\$1.2 billion	8.95%	Mar. 11 2025

In order to pay back bonds, Vedanta Resources also started talks with lenders such as Cerberus Capital Management LP for a private loan of \$1 billion. But the proposal to split up Vedanta Ltd. has complicated the effort. Moody's Investors Service and S&P Global Ratings have already downgraded Vedanta Resources deeper into junk. What's Agarwal saying? The Vedanta chairman told CNBC-TV18 on Tuesday that the group had lined up money for repayment of the 2024 bonds and that an announcement was due soon. If the terms were favorable. Vedanta would refinance the debt, he said. "But we are also looking at whether we can pay from our side."



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GRO



Analysis

What's the market saying? While equity investors gave the demerger plan a thumbs up, <u>'</u>Vedantas dollar bonds have tumbled. Of the four notes, three are trading below the 80 cents-on-thedollar mark typically considered distressed.

How did the company become such a big player? Agarwal, who was raised in the Indian state of Bihar, took over his father's business making aluminum conductors in the 1970s, and then branched into trading scrap metal.



The split off doesn't immediately address Vedanta's maturing overseas bonds. The group has yet to provide details on how exactly its debt will be spread under the new structure, or how shares currently being used as collateral will be treated. Vedanta Resources has pledged virtually all of its majority holdings in both Vedanta Ltd. and Hindustan Zinc Ltd., according to exchange data.

"The consolidated debt across all its proposed entities will still remain the same," according to CreditSights analysts led by Lakshmanan R. "We remain concerned that the precarious debt situation at Vedanta Resources is still unaddressed." He built Vedanta Ltd. through a series of ambitious acquisitions: In 2001, Agarwal bought a controlling



stake in then governmentowned Bharat Aluminium Co. and he followed that up with the purchase of another state-run firm, Hindustan Zinc. He successfully bid for iron ore producer Sesa Goa Ltd. in 2007 and for Cairn India. Vedanta Resources also owns copper and zinc operations in Africa.

The company was the first in India to list in London back in 2003, before Agarwal took it private 15 years later when his now known Vedanta Inc. bought out minority investors as part of efforts to streamline the group's structure. Agarwal has renamed Volcan Investments Ltd. to Vedanta Inc.

It is this acquisition spree that led the conglomerate's debt to balloon. Vedanta Resources' total debt stood at \$6.4 billion at the end of June.

Will the demerger go through? The plan, which hinges on multiple government and regulatory approvals, is "far from a done deal," Standard Chartered's Head of Asia Corporate Credit Research Bharat Shettigar wrote in a note.

Vedanta Ltd. will follow the rules as prescribed by the corporate and tax laws while it allocates debt to demerged businesses, Ajay Agarwal, president for finance, said in an investor conference call last week. The firm will consult the lenders during the process, he said.

> What are the next milestones? An implementation timeline indicates that lenders will weigh in on the plan late this

financial year, with a filing to the National Company Law Tribunal envisioned by the end of 2023. The NCLT order is due to be received in July, with the listing of the new subsidiaries in September.

As for payments, Vedanta Resources' 2026 bond has an interest due on Oct. 23, according to *Bloomberg*compiled data.



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Industry Update

Global miner - BHP to focus on cost cuts, patient on M&A



Global miner BHP Group is focussing on cutting costs to drive growth while being patient on buying assets, its chief development officer Johan van Jaarsveld said on Thursday in Melbourne.

"This is a cyclical industry, and you sometimes are going to have to wait for 10 years or may be more to get the right opportunity at the right price," van Jaarsveld said.

"If we can save 10% of our cost base, that's \$20 billion in value that's under our control. The last time someone created \$20 billion with an M&A deal – I'd like them to tell me when it was."

While lots of money would be made in lithium over the next few years, BHP was not invested in the sector because the long-term margins were not sufficient, but in nickel, BHP expects to eventually become the world's second biggest producer. It intends to ramp up to produce 200,000 metric tons a year of nickel, second only to Russia's Norilsk Nickel with its Australian operations producing 120,000-130,000 tons and its Tanzanian Kabanga operations around 60,000-70,000 tons.

Van Jaarsveld backed BHP's view that nickel sulphides remain the most attractive ore to own, because conversion costs to higher purities are cheaper than with laterites, despite a steady decline in nickel production costs in Indonesia, the world's top supplier of nickel from laterite.

He acknowledged this year's 36% slump in LME nickel prices and said the miner regularly reviews its commodity outlook.

"There has been a lot of (price) volatility and I think there has been more coming out of Indonesia than I think a lot of folks expected. As we sit here today, we haven't changed our view on nickel," he said.

Divestment downside

Van Jaarsveld said a deterrent to acquisitions was the need to later sell off assets.

For example, he said Canada's Teck Resources, whose metals business has attracted interest from a number of major miners including Glencore, arguably has some commodities that BHP would like more exposure to.

For BHP to engage in a buyout, it would need to consider price, ease of jurisdiction, and opportunity to add value, among other factors, but then would need to think about which assets it would have to divest.

"So you've just paid a 30% premium for everything," he said. "This is what makes M&A hard. You can do a great deal and then you have to sell 30% of what you just bought and you're losing all your synergy value."

BHP has been trying to sell two Queensland metallurgical coal mines since August 2020 and is assessing prospects for assets it acquired in its \$6.4 billion takeover of Oz Minerals, such as the Pantera copper and gold project in Brazil.

"BHP's Oz Minerals Brazil is not on the market," van Jaarsveld said.

"The deal only closed in May. We are looking at what we have got," adding "you don't want to sell assets, potentially and then somebody else make a big discovery."

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Industry Update



Enhancing Molten Aluminium Handling with Metallurgical Chemicals and Refractories

Aluminum is an essential material for modern manufacturing. It is a lightweight, high-strength, corrosion-resistant metal with high electrical and thermal conductivity, and it is easy to recycle. Aluminium is a chemical element in the Boron group with symbol Al and atomic number 13. It is a silverywhite, soft, nonmagnetic, ductile metal. It can't be used as it is for commercial usage, require alloying with other alloying element. Aluminium is very reactive; in molten stage immediately react with atmospheric moisture and forms Al₂O₃ and H₂. Hydrogen gas remain in molten metal and during solidification try to expel out, this raise to micro porosity sometimes blow holes. Inclusion of oxides leads to failure of finish product. To achieve Mechanical properties like Tensile, Elongation, Hardness etc., metallurgical chemical treatment is a must.

Flux:

Fluxes are inorganic compounds, available in Powder and Granular form. They can be added manually or can be automatically injected.



POWDER FLUXES



GRANULAR FLUXES
1. MELTING FLUX:

These fluxes are usually mixture of chloride and fluoride salts. Melting point of flux is in the range of 600 – 620°C. Forms a liquid layer over molten aluminium, avoids exposure of molten metal to atmosphere. Protects the melt from oxidation and hydrogen pickup.

2. DROSSING FLUX:

Drossing-off fluxes agglomerate the oxides allowing easy removal from the surface of the melt. Exothermic fluxes ensure that liquid aluminium trapped in the dross layer is returned to the melt. Fluoride



Vilas B. Jadhav Director Ceraflux India Pvt. Ltd. Kolhapur

Part-1

compounds- contribute to metal separation owing to their high wetting capacity. When the melt is ready for drossingoff, the flux is spread over the molten metal surface, allowed to stand for a few minutes and then rabbled into the dross for several minutes with a skimmer. For best results the melt should preferably in the range 690-760°C. The dross is then pulled to the door, allowed to drain and transferred to a dross bogie. If the dross in the bogie is raked, further metal will collect in the bottom. Untreated dross may contain 60 to 85% Aluminium metal. However with effective drossing flux treatment the aluminium content of dross can be reduced to 25-40%

3. REFINING FLUX:

Refining fluxes (Calcium and Magnesium removal): These fluxes are in powder and Tablet form. Used to remove alkali metals from the molten Aluminium.

4. FURNACE WALL CLEANING FLUX:

Wall cleaning fluxes contain compounds that help to soften the oxide build-up that occurs on furnace walls. These fluxes applied by sprinkling manually over the oxide build-up in the furnace area. Flux reacts exothermically with the oxide, Aluminium entrapped in the oxide trickle down in to furnace. Oxide layer get softens and easily get removed

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Industry Update

by scraping tool.

5. INJECTION FLUX:

It is a relatively new process in which fluxing compounds are introduced into the molten metal by mechanical device using an inert gas carrier.

6. DROSS METAL RECOVERY FLUX:

The dross removed after cleaning the molten metal still contain some quantity of Al trapped in it. This flux contains appropriate mix of inorganic chlorides and fluorides salts. The exothermic reaction due to fluorides salts with dross enables the recovery of Al.

7. TURNING BORING RECLAMATION FLUX:

These fluxes are recommended for reclaiming Turnings / Borings. Preheat the turning and borings to remove oil, moisture, dirt etc. Add flux in to furnace and melt down to prepare pool of molten flux. Add turning/ boring in to the pool of molten flux. As density of turning and boring is more than molten flux, it goes down into the pool and get melted. Temperature of the melt is kept about 680-710°C.

With this process melting loss can be controlled as low as 5-10%.

8. MAGNESIUM REMOVER FLUX:

Magnesium removal from molten Aluminium scrap is one of the cast shop practices that are evolving continuously, due to its technological importance. Many different technologies as well as many different products have been developed, so it is possible to establish that this area constitutes a noticeable research field of the Aluminium metallurgy. These fluxes are available in Powder and Tablet form. It is used to remove excess Mg from molten Aluminium. For best result temp. of molten metal to be maintained in the range of 740-760°C. To remove 1 kg Mg from molten metal it is recommended to use 5-8 kg of Tableted product and 8-12 kg of Powder flux.

Powder flux generates very low smoke during usage compared to tableted product.



MAGREMOVER-60



MAGREMOVER-POWDER

GRANULAR FLUXES:

By using fluxes in granular form rather than as conventional powders, the effectiveness of the flux can be greatly increased, the handling improved and the undesirable, hazardous emissions can be significantly reduced. The higher cost of granulated fluxes (arising from the additional manufacturing process involved) is compensated by the much reduced quantities needed.

Advantage of Granular Flux over Powder Flux:

- 1. The dose is $1/3^{rd}$ approx.
- 2. Smoke level is much less.
- 3. Attack on furnace refractory is much less.
- 4. Working condition is better.
- 5. Uniformity in chemical composition.

APPLICATION

PRODUCT

PRODUCI	AFFLICATION
CERAFLUX GR-2515	Melting and covering flux. Metal temp. 610-620°C.
CERAFLUX GR-510	Drossing flux, suitable for all Aluminium alloys except Al-Mg alloys having Mg >3%. Central melting system using thick section scrap and ingots. Metal temp. 690-720°C.
CERAFLUX GR-510E	Drossing flux, suitable for all Aluminium alloys except Al-Mg alloys having Mg >3%. Holding furnace in GDC and PDC. Metal temp. 700-720°C.
CERAFLUX GR-510 W	Drossing flux, suitable for all Aluminium alloys except Al-Mg alloys having Mg >3%. Tower furnace. Metal temp. 730-760°C.
CERAFLUX GR-540	Drossing flux, suitable for all Aluminium alloys except Al-Mg alloys having Mg >3%. Skelner furnace using thin section, oily, litho, twitch, trump type scrap. Metal temp 700-740°C.
CERAFLUX GR-2516	General purpose drossing flux, suitable for all Aluminium alloys except Al-Mg alloys having Mg >3%. Metal temp.730-770°C.
CERAFLUX GR-6512	Sodium & Calcium free cleaning and drossing flux.

Metal temp. 700-760°C

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Industry Update

CERAFLUX GR-2815	Grain refining granular flux. Metal temp. 680-770°C.
CERAFLUX GR-2712	Sodium base modifier for Hypo- eutectic alloy temp.>740°C
CERAFLUX GR-2715	Sodium base modifier for Eutectic alloy temp.< 740°C
CERAFLUX GR-60	Na, Ca,Li (Alkali Metal) Remover flux. Metal temp. 650°C and above.

DEGASSING OF AL ALLOYS:



2AI +3 H₂O --à Al₂O₃ +3 H₂ H₂O (Moisture from Atmosphere) $Hydrogen(H_2)$ has a high solubility in molten Al which increase with melt temperature but the solubility in solid Al is very low. As the alloy freezes, H_2 gas is expelled forming gas pores in the casting. The maximum conc. of dissolved hydrogen possible in Al Alloys can be as high as 0.8ml H₂/100gm. By careful attention to melting practices this can be reduced but with the best practice, remelted foundry alloys may be expected to contain 0.06-0.1ml H₂/100gm Al. Degassing of aluminium is done by:

1. Hexachloroethane base tablets.

2. Nitrogen gas evolving tablets.

 Nitrogen gas passing through lance for reverberatory furnaces.
 On line degassing by

using mix. of Nitrogen and

Argon.

5. MDU / Rotary Degassing-Dry Nitrogen gas is purged in to molten metal using rotary degassing system which produce well dispersed small bubbles. These bubbles will ensure effective removal of hydrogen gas.



GRAIN REFINING OF ALUMINIUM ALLOYS: A fine uniform grain structure is desired in Aluminium castings. The type and size of grains formed are determined by alloy composition, solidification rate and the addition of master alloys (grain refiners) containing inter metallic phase particles, which provide sites for heterogeneous grain nucleation. Addition of certain elements to Aluminium alloys melts can provide nuclei for grain growth. Titanium, particularly in association with boron, has a powerful nucleating effect and is the most commonly used grain refiner.



Effects of grain refinement:

Increased tear resistance. Increased pressure tightness. Improved response to thermal treatment.

Improved feeding

characteristics.

Improved appearance after surface treatments, such as anodising, electrochemical and mechanical finishing.

GRAIN REFINER: ALUMINIUM TIB 5:1

COILED ROD: 9.5mm dia. rod in standard 200 ±20 kgs coils.

PRODUCT :CERALOY TIB 5:1

Ti Content: 4.5-5.5% B Content: 0.8 - 1.2% Si Content: 0.2% Max. Fe Content: 0.3% Max. Other Impurities each < 0.05% Remainder: Aluminium Mean Particle Size of TiAl3: <50 Microns Mean Particle Size of TiB2: <2 Microns These are developed for addition in to the metal transfer launder in continuous or semicontinuous casting operations enabling continuous grain refinement. Due to its properties rod is suited for start - stop semi continuous addition in automated castings lines.



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METALWORLD MAGAZINE



Industry Update





CUT ROD: 9.5mm rod cut in to 50 cm (100gms) or 100 cm (200gms) pieces. Ideally suited for foundries to make accurate grain refiner addition to ladle and crucibles. Combining easy handling with superior metallurgical products. Exact additions are made by simply stirring the required



CAST BAR 200 GMS



WAFFLE INGOTS 200GMS



For Furnace additions Cast bar or Waffle ingot is added as the melt treatment is completed, usually within 20 minutes prior to casting ensuring reliable grain refinement of ingots.

MODIFICATION OF AL-SI ALLOYS:

Sand cast and gravity die cast alloys cool relatively slowly, resulting in a coarse lamellar eutectic Silicon structure which reduces the strength of the castings. Changing the chemical composition to alter the microstructure of eutectic Silicon Needle to rounded shape is called "modification". This phenomenon is concern

only with Si structure of Al-Si alloys (Si up to 12%).

Benefits with modification: The remarkable improvement in the mechanical properties of the castings. If not modified? Silicon will form needles which will acts as notches or

> internal stress points with damaging results on tensile properties.

What are the

modifiers? These are the chemical compounds or pure form of sodium, strontium, antimony, barium & calcium. Last three don't have commercial importance. Process of modification Silicon wetting & growth of needle is restricted by covering of sodium, strontium. (Sodium, strontium gets adsorbed on silicon particles and restricts its growth)

SODIUM AS MODIFIER:	STRONTIUM AS MODIFIER:
Sodium Salt base	Aluminium base
Products	product
Having more affinity for	Affinity towards moisture
moisture.	is nil.
Reduces life of crucible	No adverse reaction.
and furnace lining with	
chemical reaction.	
Recovery is maximum	Minimum recovery is 95%.
60-70% considering	
standard melting	
practice.	
Not advisable to use in	Advisable to use in alloys
alloys where Mg is more	where Mg is more than 1%.
than 1%	
Fluidity of melt is slightly	Fluidity of melt is
dropped.	maintained.
Fading effect limitation.	Useful for longer time of
Effective up to 40	treatment, up to 5hrs.
minutes of treatment.	
Volatile	Burn off- 1/10th of sodium.
No effect after remelting	Effect is even after
	remelting.

ALUMINIUM MASTER ALLOYS:

The mechanical and physical properties of pure Aluminium can be enhanced with the use of alloying elements. Additions of these alloying elements can be made using elemental metals. Density differences between the alloying elements and Aluminium frequently results in segregation, with high density elements sinking to the bottom of the furnace unless the melts is actively stirred.

Addition of alloys in base form to Aluminium will be having following problems, 1.Dissolution 2.Consistency

3.Low raw material and hidden cost.

ADVANTAGES OF USING MASTER ALLOYS:

- 1. Less dissolution time.
- 2. Consistency in recovery.
- 3. Increased Productivity.

to be continued...





ICSG expects big copper supply surplus in 2024

The copper market will transition from supplydemand balance in 2023 to a major supply surplus next year, the International Copper Study Group (ICSG) said after its meeting in Lisbon this week. Production is forecast to exceed usage by 467,000 metric tons in 2024, a significant upward revision from the expected 297,000metric ton surplus at the time of the Group's last meeting in April.

The Group still thinks the market will be in deficit this

year but April's 114,000metric ton forecast has been cut to just 27,000 metric tons, which is a marginal number in a 26-million metric ton global market.

The Group's statisticians stress that these forecasts are snapshots in time and note "that actual market balance outcomes have on recent occasions deviated from ICSG market balance forecasts due to unforeseen developments".

The trends behind the headlines are perhaps more significant and the two stand-outs from the latest numbers are the weakness of Western demand and the strength of Chinese production. Western slump, Chinese (apparent) boom When the ICSG last met in April, it expected demand outside of China to rise by 1.6% this year after anaemic growth of just 0.4% in 2022. Fast forward six months and the prognosis is much gloomier. Copper usage outside of China is now expected to contract by 1.0% from last year's level, "mainly impacted by declines in refined usage in EU countries and



Feature

North America," the ICSG said.

But Western demand weakness is being more than matched by strength in China, where apparent usage is forecast to grow by 4.3% this year.

Emphasis on the word "apparent", since the ICSG uses only reported data such as domestic production, net trade and changes in visible stocks to come up with an estimate of what's going on in China.

However, its assessment chimes with a copper market consensus that Chinese demand has surprised to the upside this year. Copper's usage in green transition sectors such as power and electric vehicles seems to have cushioned the metal from a broader manufacturing downturn over the last six months.

With the latest purchasing managers indices signalling a pick-up in factory activity, China will continue to be the core driver of global copper demand as high interest rates take their toll on manufacturing activity both in Europe and the United States.

The "global economic outlook is challenging", the ICSG concedes but it remains optimistic for next year. It has trimmed only very slightly its 2024 global usage growth forecast from 2.8% to 2.7%.

"An expected improvement in manufacturing activity, the ongoing energy transition and the development of new (semimanufactured product) capacity in various countries should support higher growth in world refined usage in 2024", it said. Surge in refined production Next year's expected growth in usage is still going to be exceeded by a projected 4.6% jump in global refined copper production. Indeed, the production surge has already started. The ICSG has revised upwards its 2023 refined output growth forecast to 3.8% from the 2.6% it expected in April. As with demand, rising metal production is down to China, which continues to expand its smelting and refining capacity.

Operating constraints and smelter maintenance outages in Chile, Indonesia, Sweden and the United States will cap copper production outside of China this year.

But China's smelters are aggressively ramping up production. National output rose by 11.5% year-on-year in the first eight months of 2023, according to local data provider Shanghai Metal Market.

Next year will bring more of the same with extra impetus coming in the form of new smelters and capacity expansions in Indonesia, India and the United States.

The ICSG also expects the amount of copper produced from recyclable materials to increase both this year and next thanks to investment in new secondary smelters and refineries.

Under pressure

The size of ICSG's expected supply surplus next year has

surprised the market. But then so too has its assessment that supply and demand will be broadly balanced this year.

Most analysts are anticipating a surplus over both 2023 and 2024. It's worth noting that the ICSG's most recent monthly bulletin suggests the global copper market notched up a hefty 215,000-metric ton production surplus in the first seven months of 2023.



If Western demand remains weak through the end of the year, it's unclear how the production overhang in the first part of the year will disappear to generate the Group's expected small deficit across the full year.

But while the timing may be debatable, the ICSG's update adds to a growing consensus that the copper market is heading into a period of fastrising production and uncertain demand in the world outside of China.

It's that bearish combination that is pressuring the copper price , which has this week broken down through the \$8,000-per metric ton level for the first time since May, last trading at \$7,940.

Everyone's agreed that copper has a bright future in the energy transition, but right now it's the immediate balance between supply and demand that is weighing on the market.



LME to move on from nickel crisis as traders return

The chief executive of the London Metal Exchange says he's optimistic that the 146-year-old trading venue is beginning to move on from the nickel crisis that threatened to destroy it. It's been a turbulent 19 months since Matthew Chamberlain responded to a runaway short squeeze by suspending the world's benchmark nickel market and cancelling \$12 billion of trades. The controversial decisions drove angry investors away from the LME and left the exchange wading through lawsuits and regulatory scrutiny, while its nickel contract remained in tatters.

Now, Chamberlain is sounding a cautious note of

optimism. "A degree of stability" has returned to the nickel market, he said in an interview, pointing to rising liquidity and lower volatility. And in the exchange's other metals contracts, trading volumes are showing early signs of a return to growth after years of decline. "It feels that we are back on that gentle growth trajectory," the CEO said. "We recognize the challenges that have happened but we think we can hold our head up and say ours is an exchange that's attractive to trade on," he said. "There's a lot more work to do, but we can really focus on the future." As the home of benchmark prices for key metals from copper to zinc, the LME lies

at the heart of the global metals world - and any crisis or drama at the exchange inevitably sends ripples through the whole industry. Since taking the helm six years ago, Chamberlain has had his share of fights, from an attempt to close the LME's historic trading floor to disagreements over whether it should keep accepting Russian metal, and of course the handling of the nickel saga. This week, as thousands of traders. financiers and investors descend on London for the annual LMF Week gathering, Chamberlain can point to concrete signs that his efforts to restore confidence in the market are starting to bear fruit. Nickel trading volumes have picked up in the past few



Feature

months and the extreme volatility that plagued the nickel market for much of the past year is waning, although the contract still remains a shadow of its former self.

Trading activity in other metals is also on track to halt a years-long decline that's been a constant headwind to Chamberlain's efforts to raise revenues for the LME and its owner, Hong Kong Exchanges & Clearing Ltd. With rivals circling, the turnaround comes at a crucial time. Management have also sued the LME separately, while the exchange is being investigated by the UK's Financial Conduct Authority over its handling of the crisis. Meanwhile, Chamberlain is pushing ahead with measures to modernize the exchange and fix some areas of its market structure that were criticized in an independent probe into the crisis.

The LME has already announced a series of reforms in the wake of the nickel squeeze, including a



But Chamberlain's challenges aren't over yet. The LME has a significant risk still hanging over it as it awaits the outcome of a legal battle with hedge fund Elliott Investment Management and trading firm Jane Street, which challenged the legality of its decisions during the nickel crisis and are seeking \$472 million in damages. A judgment in the case is expected in the next couple of months.

A group of other firms including AQR Capital

requirement that dealers and clients report their over-thecounter positions. The rules give the LME greater visibility on a corner of the market that previously represented a huge blind spot - and which the exchange has said was a key driver in last year's crisis, when nickel producer Tsingshan Holding Group Co. and other holders of short positions had racked up billions of dollars in offexchange trading losses with bilateral counterparties unbeknown to the LME.

However, Chamberlain is also seeking to encourage dealers to place more of their trades electronically, rather than in the



LME's large telephone-based market or bilaterally in overthe-counter deals. It's much cheaper to trade on an OTC basis, and some in the industry are bracing for the possibility that the LME could raise a levy on the trades.

Chamberlain wouldn't disclose how OTC volumes have changed over the past year, but said that anecdotally it appears the market remains "very active." He confirmed the LME is examining the cost difference, without commenting on what steps it might take to draw more business onto the exchange. Overall, the CEO said he's optimistic that the LME has turned a corner after last year's turbulence.

"While we accept that there is a huge amount more to do, we feel that the market is in a stable place," Chamberlain said. "That gives a little spring to everyone who's involved in the market."



Women4Metals - an initiatives for the Women's Empowerment from Aurubis

An initiative founded by Aurubis.

Women4Metals is an industry-specific women's empowerment initiative in the metal industry that was founded by Aurubis in 2019. Since October 2022, the network has been open to other

companies/organizations in the industry who want to join us in making the industry more attractive for womens health.

What are our goals?

- Through this network, we want to attract more women to the metal industry, fill more key positions with women and generally support women on their career paths.
- Further, we would like to put more focus on the female perspective for the further development of the metal industry.
- Women will gain more visibility in the metal industry and in their companies. Our network makes it possible for us to appear together, e.g., at trade fairs or industry meetings.
- With W4M, equal opportunities in the metal industry can be actively demanded and enforced, employer conditions for women should be revised and improved.

- What are your key benefits as participating company?
 - Increasing your company's visibility in terms of diversity and equality.
 - Strengthen your company's attractiveness as an employer on the labor market.
 - Raise the visibility of your female employees and increase their job satisfaction by enabling them to network with other women in the industry.

- Use the W4M logo on your website and other channels and link us in your initiatives around the topic of women in the metal industry.
- Be mentioned as a supporting company / organization on the upcoming. W4M website.
- As one of the first members of the network, you will benefit from leading the way as one of the pioneers in women in metals.
 Together, we will work out concrete goals and activities for the network in

the kick-off phase. This could include internal working groups for the further elaboration of specific topics, the hosting of joint events and joint appearances at panel discussions. A close cooperation from the beginning will also enable you to find direct sparring partners among likeminded experts from different companies.



Aurubis to keep European copper premium at record high next year



Credit: Aurubis AG European copper producer Aurubis AG will keep the premium it charges to deliver metal to customers in the

region at a record high next year as it anticipates a rebound in demand. The company on Thursday said that it has told customers it will keep the surcharge at \$228 a ton, ahead of the start of annual supply negotiations in London next week. The move to maintain the rate — which is charged on top of London Metal Exchange copper futures — comes despite a sustained downturn in Europe's industrial economy. Copper's demand outlook has been split between deteriorating consumption in sectors like construction, and rising usage in electric vehicles and renewables. Chinese demand has been particularly resilient, with the

International Copper Study Group forecasting consumption to grow 4.3% there this year, while weakness in Europe and the US will drive a 1% contraction for the rest of the world.

Aurubis is Europe's largest copper smelter. Its premium sets the benchmark for the rest of the European industry, alongside an offer from Chile's Codelco, which had also hiked its 2023 premium for the region sharply.

"For 2024 we see a pick-up in refined copper demand, especially in the segments related to the green energy transition," Martin Sjöberg, Aurubis' head of commercial, said in an email. "With our continuous and measurable efforts in all aspects of sustainability, we offer responsibly produced copper for the European economy."

While concerns about the demand outlook persist ahead of the LME's annual industry gathering next week, buyers in Europe are also bracing for supply constraints following a fire at a major refinery in Sweden owned by Boliden earlier this year.

Sumitomo Metal Invests \$12.5 Million in Nano One for Battery Material

In a significant development aimed at bolstering battery technology, Japan's Sumitomo Metal Mining has announced a substantial investment of C\$16.9 million in Canada's Nano One Materials. The investment is anticipated to forge lucrative ties between the two companies, focusing on advancing manufacturing technology for battery materials.

This move aligns with the recent agreement between Japan and Canada to strengthen global battery supply chains while ensuring sustainability and reliability. Sumitomo Metal Mining is renowned for supplying nickelcobalt-aluminium (NCA) cathode materials for Panasonic's lithium-ion batteries, a crucial component in Tesla's electric vehicles. The firms expect the agreement to enhance the efficiency and sustainability of these essential battery materials.

As part of the investment, Sumitomo Metal Mining will acquire approximately 5% of Nano One, a Canadian firm known for its patented processes for the sustainable production of lithium-ion battery cathode materials. Sumitomo hopes that these processes streamline production, reduce complexity, and ultimately lower costs compared to current technology standards.

The joint efforts of Sumitomo Metal and Nano One will focus primarily upon developing advanced manufacturing technology for battery cathode materials used in electric vehicles. The firm also seeks to reduce manufacturing costs and minimize the environmental footprint associated with electric vehicle battery production with this agreement.

Sumitomo Metal Mining says its commitment to expanding its cathode materials production capacity underlines the importance of this partnership and sets the stage for further expansions in the field of battery technology.

This investment and collaborative effort between Sumitomo Metal Mining and Nano One exemplify the dedication to advancing sustainable and cost-effective solutions within the battery material industry, the firm continued, contributing to the broader goal of establishing dependable global battery supply chains.

As the world transitions towards cleaner and more sustainable energy solutions, such investments and partnerships play a pivotal role in shaping the future of electric vehicles and energy storage systems, noted Sumitomo and Nano One, as they strive to lead the charge in battery innovation.



Hydro showcases sustainable **Aluminium Designs at London Festival**



Hydro, a leading player in the aluminium and renewable energy sector, is marking its presence at the London Design Festival by exhibiting a sustainable collaboration with famed designer Lars Beller Fjetland.

This partnership earlier bore fruit in the form of the Bello! bench. Made from extruded aluminium boasting 90% recycled content, the outdoor seating solution stands as a testament to sustainable design and innovation. Currently on display at Material Matters at Oxo Tower, the Bello! bench underscores Hydro's unwavering commitment to decarbonising society.

Asle Forsbak, Hydro's Marketing Director, emphasized the importance of design literacy in sustainable manufacturing, citing that "80% of a product's environmental footprint stems from its design phase".

Hydro's mission revolves around achieving net-zero emissions by 2050. The firm holds that collaborations, like their partnerships with icons such as Tom Dixon, Polestar, Porsche, and Cake, can drive the industry towards more sustainable practices.

"Choices made during the design phase dictate a product's recyclability," Forsbak highlighted. The Bello! bench, inspired by penne rigate pasta and composed of 90% recycled aluminium, illustrates this principle in action.

Fjetland, unveiling Bello! in an eye-catching shade of green, echoed Forsbak's sentiments on collaboration, remarking that united efforts result in robust outcomes.

While Hydro's exhibit at the London Design Festival might come as a surprise to many, Forsbak articulated their rationale. "The Bello! bench is our medium to showcase how the melding of industrial design and sustainable practices can yield products that are not just aesthetic but environmentally sound."

Noting the environmental implications of mass production, Forsbak stressed the importance of marketdriven sustainability. He said effective change demands a blend of expertise across sectors. "We can't address the sustainability dilemma in isolation. Collaborative efforts are pivotal to decarbonise society," Forsbak stated.

Visitors to the festival can view the Bello! bench at the Material Matters exhibition, with Hydro's stand uniquely constructed from repurposed components from previous exhibitions.

IAI Partners with ICSOBA for Technical Advancement in Aluminium Sector



The International Aluminium Institute (IAI), the prime representative of the worldwide primary aluminium industry, publicized its partnership with the International Committee for Study of Bauxite, Alumina & Aluminium (ICSOBA) to champion technical progression.

The collaboration reinforces IAI's pledge to disseminate top-tier practices and advocate aluminium's contribution to eco-friendliness. IAI Secretary General, Miles Prosser, commented on the importance of the alliance in a related press release.

"Our alliance with ICSOBA mirrors our dedication to synergistic industry endeavours for impactful solutions. ICSOBA's commendable initiatives with industry players will motivate our sector."

IAI, in the preceding year, showcased a report detailing the aluminium industry's alignment with the United Nations Sustainable Development Goals (UN SDGs) titled, 'The Aluminium Industry's Contribution to the UN Sustainable Development Goals'. This exposition shed light on IAI's strides, industry-wide endeavors, aluminium advantages, and combined ventures.

Furthering its commitment, IAI also unveiled the "Sustainable Bauxite Mining Guidelines Second Edition 2022". This guide, enriched by over five decades of mining insights, focuses specifically on bauxite's sustainable extraction.

2023 saw IAI inaugurate Aluminium Forward 2030, comprising 45 member firms, vowing to metamorphose the aluminium landscape. This coalition strives for Net Zero Emissions, concurrently charting a path cognizant of all UN SDGs.

Claude H. Vanvoren, ICSOBA CEO, has high hopes for the collaboration.

"ICSOBA, being the amalgam of eminent professionals from the aluminium domain, is ecstatic about collaborating with IAI for technical discourse. We



anticipate this association to amplify knowledge-sharing across bauxite research, mining, and alumina & aluminium manufacturing."

This partnership will debut at the 41st ICSOBA International Conference and Exhibition in Dubai, from November 5th-9th, 2023. IAI, alongside its members, will significantly contribute to 15 keynote addresses and over 160 technical documents. IAI dignitaries, including Miles Prosser and Health, Safety & Environment Program Manager, Paul Marsh, are slated to present. The rendezvous on November 5 will also witness the IAI Bauxite and Alumina Committee's congregation. The event will magnetize global experts, scholars, technicians, and aluminium sector representatives.

EU Introduces Pioneering Carbon Border Tariff on Imports



On Sunday, the European Union (EU) initiated the world's first-ever system to levy CO_2 emissions tariffs on imports. This ground-breaking tariff will be imposed on foreign goods like steel and cement, aiming to curtail the influx of foreign products that could sabotage the EU's green transition objectives.

Despite raising concerns among global trading counterparts, the EU's move is a step forward in countering more polluting imports. At a recent forum, Xie Zhenhua, China's primary climate delegate, cautioned against countries employing such unilateral measures. The system, dubbed the Carbon Border Adjustment Mechanism (CBAM), won't commence collecting CO2 tariffs at entry points until 2026. The inaugural phase, however, necessitates EU importers to disclose greenhouse gas emissions integrated during the manufacturing of imported goods, notably iron, steel, aluminium, cement, electricity, fertilisers, and hydrogen. From 2026, to maintain parity with EU industries purchasing permits from the EU carbon market, importers will be obligated to buy certificates covering these CO₂ emissions.

Paolo Gentiloni, the European Economy Commissioner, highlighted the initiative's twofold objective: to stimulate a global tilt towards eco-friendly production and to deter European producers from moving to nations with subpar environmental regulations. This move ensures that European businesses don't suffer competitively while they channel investments to achieve the EU's goal of slashing net emissions by 55% from 1990 benchmarks by 2030. For now, firms across the EU, Britain, and Ukraine anticipate minimal disruptions during this experimental phase. The European Commission has ascertained that this border tariff complies with World Trade Organization stipulations, promising equal treatment to both domestic

Reiterating the core intent behind CBAM, Gentiloni stated, "It is about safeguarding the EU's climate goal and aiming to elevate global climate commitments." The European steel association, Eurofer, expects the early phase to evaluate the CBAM's robustness against possible industrial production shifts to nations with lenient climate mandates.

Key trading allies, including China, Turkey, and the U.S., have abstained from commenting on this development.

Vedanta Ltd to split into six entities, fueling Growth



and foreign entities.

Billionaire Anil Agarwal's Vedanta Ltd announced a monumental shift on Friday, dissecting the metals-to-oil conglomerate into six distinct businesses. The decision is anticipated to boost the group's financial stature.

Suffering from financial

challenges, Vedanta Resources, the UK-based parent company, faced another setback when S&P Global Ratings downgraded its position to "CCC" from "B-". The company's stocks also experienced a 28% decline this year. The slip was notably contrasted by a 2% uplift in the Nifty Metal index. Setbacks included declining metal prices and Foxconn's withdrawal from a US\$19.5 billion chips joint venture.

The restructuring seems to hold a silver lining for Vedanta Resources. The revamp will make it more streamlined to sell stakes in these businesses, ultimately reducing its debt. Vedanta Resources holds a commanding 63.76% ownership in Vedanta Ltd.

Agarwal said there are multiple structuring options possible. One is that three companies can be listed and the other could be subsidiarisation of each of those assets under Hindustan Zinc, he said. "Once the study is



complete, we will get to know more about it." If Anil Agarwal is looking to ring fence and derive shareholder value for each of the businesses, then vertical split could be one of the option for Hindustan Zinc Ltd.

Where Vedanta's lenders are not enthused by the proposal of Vedanta Ltd to split the company into six independent units as it's expected to reduce the fungibility of cash flows across businesses and increase earnings volatility.

While Rs 68,000 crore Vedanta is yet to formally approach lenders with proposal on restructuring to spin off into six listed entities, besides looking for rationale for recast and structural details, lenders will seek business plans for each unit, approach to financial management and funding, said an official of a leading nationalised bank. Liquidity, debt levels and capex are key aspects for monitoring and the prudence in financials is crucial, the official said.

What has come under the scrutiny of banks is that the group was looking at merging and delisting at one time and now it is going for carving out businesses and listing them.

Vedanta announced a vertical split of different businesses into six different entities in its pursuit of unlocking value. "This would reduce the fungibility of cash flows across businesses and increase earnings volatility, which could be a concern for lenders," Kotak Securities said in a report.

Past endeavors by Agarwal to privatize Vedanta Ltd in 2020 did not bear fruit. This year, a proposed US\$2.98 billion deal to curtail the debt of the parent company also met resistance from the Indian government.

The upcoming listings encompass Vedanta Aluminium, Vedanta Oil & Gas, Vedanta Power, Vedanta Steel and Ferrous Materials, Vedanta Base Metals, and Vedanta Limited. Anil Agarwal remarked, "By demerging our business units, we believe that will unlock value and potential for faster growth in each vertical."

Stockholders of Vedanta Ltd, boasting a market-cap of US\$10 billion, are set to gain. For each Vedanta Ltd share owned, they will acquire one share from each of the soon-to-be-listed five companies.

Projected to culminate by the financial year 2025, the restructuring awaits approvals. Arun Misra, Hindustan Zinc CEO, is slated to helm Vedanta Ltd. Concurrently, Hindustan Zinc unveiled intentions to segregate its zinc, lead, silver, and recycling ventures and to reevaluate its corporate structure.

Hindalco sign the partnership deal with Odisha Mining for Bauxite Supply





Hindalco Industries Limited and Odisha Mining Corporation have sealed a deal with a Memorandum of Understanding (MoU) to ensure a long-term bauxite supply. Central to this

partnership is the provision of bauxite ore, essential for aluminium production.

Hindalco, a leader in aluminium production, has shared plans to build an advanced 2 million-metric-ton alumina refinery and a state-of-the-art 150-MW power plant in Kansariguda, Rayagada District. This initiative marks Hindalco Industries' second dip into alumina refining in Rayagada.

Odisha Mining Corporation will be key in supplying the bauxite for this venture. The MoU's official announcement came via an exchange filing.

The project's scale is reflected in its funding, with a remarkable proposed investment of about 8,000 crore INR, rolled out in two phases. The first phase, aiming for a 1 million-metric-ton capacity, is set for completion in the 2027 fiscal year, backed by an investment of 5,500 crore INR.

This venture further emphasizes Hindalco Industries' commitment to innovation, sustainability, and industry leadership, the firm

Hydro expects surging demand for Eco-Friendly Aluminium



Hydro, one of the leading aluminium manufacturers globally, predicts a sharp rise in the demand for its lowcarbon aluminium in the coming years. The U.S. market, in particular, shows a growing inclination towards recycled material.

Low-carbon aluminium is becoming increasingly important

in the energy transition, particularly in electric vehicles (EVs). Aluminium lightens EVs, compensating for the weight of components such as batteries.

Traditional primary aluminium production, which relies heavily on electricity, is carbon-intensive. Consequently, environmentally-conscious consumers are pivoting towards recycled and low-carbon alternatives. Hydro's version of this material incorporates recycled elements and is produced using hydroelectric power.

Hilde Merete Aasheim, Hydro's Chief Executive, said that "Growth in demand for low-carbon aluminium far exceeds expectations for average consumption." The firm anticipates that the annual demand for its eco-friendly aluminium will surge by 20% until 2030. In contrast, the primary aluminium market is expected to grow by a mere 3% annually during the same timeframe.

While the company remained tight-lipped about the pricing of its low-carbon aluminium, it did indicate that products with lower CO₂ content could fetch higher prices. Carbon emissions from aluminium production are inconsistent worldwide. For instance, manufacturing one ton of aluminium in China can produce up to 20 metric tons of carbon due to the coal-dependent power generation. In Europe, it's less than seven metric tons. Hydro's primary aluminium, for comparison, emits just four metric tons. Recycled aluminium, on the other hand, consumes 95% less energy than its primary counterpart. In the previous year, Hydro secured contracts to supply its low-carbon aluminium to major European car manufacturers, including Porsche and Mercedes-Benz. Despite aluminium's critical role in the packaging, construction industries, and its recognition as a critical mineral by the U.S. and the EU, demand remains robust. This is true even with escalating raw material costs and a slowdown in European construction. Aasheim commented on the sector's appetite for recycled aluminium products, calling it "remarkable." This year, the global demand for primary aluminium is projected to hover around 70 million metric tons. Furthermore, Hydro is amplifying its recycling endeavors in the U.S., thanks in part to the U.S. Inflation Reduction Act (IRA). This legislation emphasizes enhancing the domestic supply of pivotal minerals for the energy transition.

HCL Plans to Increase Copper Ore Production Capacity to 12.2 MTPA by FY'29



हिंदुस्तान कॉपर लिमिटेड (भारत सरकार का उद्यम) राष्ट्र का ताम्र खनिक

Hindustan Copper Ltd (HCL) said it is implementing expansion projects to increase its mine production capacity from the current level to 12.2 million tonnes per annum (MTPA) by FY 2028-29.

HCL Chairman and Managing Director Ghanshyam Sharma at the AGM told shareholders that the company has access to around 55 per cent of the copper ore reserves and resources in India with an average grade of 0.96 per cent.

"In FY 2022-23, the copper ore production in India was around 3.35 million tonnes. HCL is implementing a plan to increase its mining capacity from its current level of ore production to 12.2 MTPA in Phase-I in the next 6 to 7 years," Sharma said.

He added that the company has achieved ore production of 33.47 lakh tonnes during FY 2022-23 as against 35.70 lakh tonnes produced in FY 2021-22.



Statistics

Sustainable Mobility – Global Benchmark SIAM's 63rd Annual Convention

New Delhi, 12 September 2023: During 2nd plenary session of SIAM's 63rd Annual Convention themed "Sustainable Mobility – Global Benchmarks", Mr. Vinod Aggarwal, President of SIAM and Managing Director & CEO of Volvo Eicher Commercial Vehicles Ltd addressing the gathering, said, "We need to learn from the global strategies we have been witnessing in the automotive sector and examine their applicability in India. With increased focus on sustainability, prominent avenue for the auto industry's growth lies in the adoption and promotion of clean-energy vehicles. This includes embracing other powertrains, including eco-friendly flexi fuels and making vehicles compliant to it."

Mr. Guenther F. Apfalter, President of Magna Europe & Asia, delivered an insightful presentation on Fuel Cell Electric Vehicles (FCEVs) and Battery Electric Vehicles (BEVs) from a European perspective. Highlighting the evolving landscape of powertrains in Europe and underscored the significance of clean and efficient mobility solutions. Prof. Suani Coelho, Professor, Institute of Energy and Environment and Coordinator of the Research Group of Bioenergy, University of São Paulo, shed light on Brazil's pioneering role in sustainable transportation through biofuels, offering valuable insights into innovative approaches to clean energy.

Moving forward, Mr. Ashim Sharma, Senior Partner &

Group Head of Business Performance Improvement Consulting (Auto, Engg. & Logistics) at Nomura Research Institute, provided valuable insights into Sustainable Mobility Learnings from Japan. His presentation highlighted Japan's leadership in shaping the future of transportation, emphasizing transferable lessons that can enhance sustainability and efficiency worldwide. Mr. Andreas Tschiesner, Senior Partner at McKinsey & Company, presented a thought-provoking Global Perspective on Material Circularity.

About SIAM

The Society of Indian Automobile Manufacturers (SIAM) is an apex national body representing major vehicle and vehicular engine manufacturers in India. It is a society with charitable objectives registered under the Societies Registration Act 1860. Its objectives include enhancing the contribution of the automobile industry in the growth and development of the Indian economy, assisting the automobile industry in meeting its social obligation, encouraging the efficiency of the industry in general, particularly in India, and improving and protecting the environment, including global warming, pollution control and safety of automobile vehicle users and public at large. Recognizing these objectives, SIAM has been granted registration under the Income Tax Act 1961 as an institution with a charitable purpose.

Indian automobile domestic sales up, exports down in August: SIAM

The Indian automotive industry in August rolled out about 23.85 lakh vehicles comprising passenger carriers, three/two-wheelers and quadricycles, according to the Society of Indian Automobile Manufacturers (SIAM). While the domestic vehicle sales went up last month as compared to the corresponding period the previous year, the exports have come down. According to SIAM, during August 2023, the domestic sales of - passenger carriers (cars, utility vehicles, vans), three-wheelers, two-wheelers and quadricycles) – stood at about 19.45 lakh units up from 18.77 lakh units sold in August 2022.

As regards exports, the industry shipped out about 3.80 lakh units last month, down from about 4.02 lakh units exported during August 2022.

Commenting on sales data of August 2023, Mr Vinod Aggarwal, President, of SIAM said, "Last month saw the highest ever August month sales for Passenger Vehicles and Three-Wheelers, while Two-Wheeler sales remained at levels similar to a year ago. We have also observed good growth in the Commercial Vehicle segment in August 2023. Based on the performance of last month, we are even more optimistic for demand to pick up during the festive season, enabled by a positive economic outlook and the revival of monsoon after a deficit in August."

Terming the performance of the auto industry as encouraging in August 2023, President of the Society of Indian Automobile Manufacturers (SIAM) — Vinod Aggarwal — expects sales to improve further with the upcoming festive season. Describing growth as good in all segments, including Passenger Vehicles (PV), Commercial Vehicles (CV) & three-wheelers, he said that more consumers are considering buying (EVs) across both rural and urban areas.

Pointing to good traction for EVs among two-wheelers, and three-wheelers and an increasing migration in fourwheelers, he expressed hope that the government's new scheme on electric buses will increase their numbers on

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Commenting on the August 2023 performance, Mr Rajesh Menon, Director General, SIAM said, "3.59 lakh units of Passenger Vehicles were sold in August, with a growth of 9.40% compared to August 2022. Three-Wheelers also reported a significant growth of 68.79%, posting sales of about 0.65 lakh units in August 2023. 15.67 Lakh Two-Wheelers were sold last month in the country, with a growth of 0.59% compared to August 2022."

		SL1M				
Summary Report:	Cumulative Productio	n, Domestic Sales &	Exports data for the	e period of April-Au	igust 2023	
						Report I
					(Nurr	iber of Vehicles)
Category	Produc	tion	Domestic S	ales	Exports	;
Segment/Subsegment	April-Au	igust	April-Aug	ust	April-Aug	ust
	2022-23	2023-24	2022-23	2023-24	2022-23	2023-24
Passenger Vehicles (PVs)*						
Passenger Cars	8,51,603	8,23,465	6,88,506	6,43,613	1,70,448	1,73,366
Utility Vehicles (UVs)	8,43,905	10,20,880	7,37,157	9,09,053	98,096	98,896
Vans	60,177	59,960	59,907	59,544	178	3,381
Total Passenger Vehicles (PVs)	17,55,685	19,04,305	14,85,570	16,12,210	2,68,722	2,75,633
Three Wheelers						
Passenger Carrier	2,75,086	3,38,000	1,02,195	2,10,719	1,77,642	1,25,260
Goods Carrier	37,329	42,332	35,020	39,698	1,842	842
E-Rickshaw	7,214	11,949	7.476	13,421	-	-
E-Cart	1,300	1,168	1.295	1,434	-	-
Total Three Wheelers	3,20,929	3,93,449	1,45,986	2,65,272	1,79,484	1,26,102
Two Wheelers						
Scooter/ Scooterettee	23,81,290	24,73,088	21,91.208	22.76.285	1,92,B44	2,14,527
Motorcycle/Step-Throughs	59,04,931	57,61.386	42.92.050	45.35,363	16,15,B30	11,68.494
Mopeds	1,79,697	1,89,171	1.80.007	1.77,964	1,110	666
Total Two Wheelers	84,65,918	84,23,645	66,63,265	69,89,612	18,09,784	13,83,687
Quadricycle	817	1,768	218	371	642	1,412
Grand Total	1,05,43,349	1,07,23,167	82,95,039	88.67,465	22,58,632	17,86,834
* BMW/, Meroacea, JLR, Volvo Auto data la not available		able for Apr-June only				
Society of Indian Automobile Manufacturers (11/03/2023	()					

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	007 <i>W</i>											
Cate	Category & Company wise Summary Report for the month of August 2023 and Cumulative for April-August 2023											
	Report II											
											(Number	of Vehides)
Category		Prod	luction			Domest				Ex	ports	
Segment/Subsegment	Augu		April-Au		Aug		April-A		Augu		April-A	
Manufecturer	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24
Passenger Vehicles (PVs)												
FCA India Automobiles Pvt Ltd	1,639	523	8 4 9 2	4,514	1,321	299	6,245	2,513	435	563	1,933	2,332
nrce Motors Ltd	68	142	351	544	52	119	348	502			1	2
Honda Cars India Ltd	3,935	10.996	40 512	35,578	7,769	7,880	35,449	27,797	2,356	2,189	10,993	8,359
Hyundai Moter India Lte	61,900	71,693	2 96 100	3,21,543	49,510	53,830	2,35,305	2,52,634	12,700	17,605	60,571	68,705
Isuzu Motors India Pvt Ltd	155	-	1 440	50	45	30	250	163	-	-	194	-
Kis Motors India Pvt Ltd	31,028	23,334	I 46 188	1,34,907	22,322	19,219	1,06,105	1,00,594	8,174	6,308	37,630	34,238
Mahinera & Mahinera Ltd	32,047	36.984	1 35 115	1,76,185	29,852	37,270	1,34,215	1.73,647	682	930	3,148	5,656
Maruti Suzuki India Ltd	1,56.041	1.63,54\$	7 90 174	8,00,392	1,34,166	1.56,114	6.46.179	7,22.295	21,382	24,367	1,10,372	1,09,300
MG Notor India Pvt Ltd	3,933	3.063	10 685	23,627	3,823	3,113	18,355	21,103	-	•		-
Nissen Motor India Pvt Ltd	9.858	8,790	40/290	31,165	2,283	2,255	14.706	12.197	5,623	1,917	21,/25	11,850
PCA Motors Pyt. Ltd	930	430	1 875	4,805	850	525	1,577	3,725	-	196	-	1,045
Renault India Pvt Ltd	9.691	5,961	49 095	25,035	7,012	3,623	36.061	21.638	2,220	2,598	12,518	7,651
SkodaAuto India Pvt L.d	3,832	3,396	26 098	23,228	4,222	4,307	24,445	20,038	-	59	-	729
Tata Motors Ltd*	NA	NA	1 31 375	1,43,601	NA	NA	1.31.940	1,43.052	NA	NA.	222	361
Toyota Kinoskar Motor Pv. Etd	9,930	32,578	43 052	1,08,112	14,539	20,944	78,053	92,381	-	1.940	45	6,842
Volkswegen india Pvt Ltd	3.119	10.250	17 843	40,988	2,044	4,174	15.340	17,700	1,116	6,221	9,370	18,660
Total Passenger Vehicles (PVs)	3,34,098	3.74,018	17.55.685	19,04,305	2,81,210	3,13,715	14,85,570	16,12,210	54,698	63,883	2,68,722	2,75,633
* Only cumulative data is available for April une		NA:	 No Available 									

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Catagory & Company wise Summary Report for the month of August 2023 and Cumulative for April-August 2023												
												Report II
												of Vehicles;
Relegory			duction			Domest					eho:	
SegmentSubsegment	Aug		April-A		Aug		April-/		Aug		April-∕	
Manufacturer	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24
Three Wheelers												
At it A its 1 h	1.024	2,5(4	5 103	8 105	1.658	2,3 1	7,781	F 961	299	201	1,274	349
Bala Aup Lic	11.94/	59,647	1.97.557	2,46 698	22.853	// ; 70	79,685	1,78 807	22,351	12,169	91,525	64.011
Continental Engines Pvt Ltd	ເຜ	230	2.600	2,558	-36/	430	2.774	2,183				
Horne Motors Lite	279	2894	1.072	1 573	-				406	644	1,100	13248
Mahindra & Nehinere I xi	5 123	6,761	15 802	26.028	4 703	7,044	10,305	31, 305	56	24	152	75
Plaggio Venibles PvI Ltc	10.943	9,732	43.633	42,704	7,147	9,091	30,355	27 417	3,526	810	11,743	4 751
TVS Motor Generally Lie	17,191	15,172	0.344	1/1/911	1.351	1,014	5.591	r 599	16,997	12.024	7.1,844	54.571
Total Three Wheelers	81,035	94,790	3,20,929	3,93,449	38,369	64,783	1,45,986	2,65,272	44,188	25,970	1,79,484	1,26,102
Two Whealars												
Alter Theray Tvt. Ltd.	٤.611	9,251	15.921	42 190	٤.441	9,243	19.702	42 920				
sa a wuta Litt	3,43,146	234,820	15,18,910	14.36 903	2,33.859	1.63,797	6.12,640	9,44 802	1.21,/87	1,24.211	6.05,197	5.97466
Oterak Testina ogy i til	-	5.8	-	1424	-	2.5	-	939	-	-	-	-
Hero MotoCoro Etc.	4.76.023	4 39,282	22,95,451	21,86,321	4,50,740	4 72,547	22.09.580	21,81401	11.558	15,763	83,790	71 198
Ionida Motorovole à Socoter, india Pvt util	4,70.007	4 90,209	20,02,140	19.51.091	4,22.223	4 \$1,200	18.21.100	17,14 232	100,6C	28.390	1 32,802	1.29/377
India Kawasa- Motors Pvi Lind	19G	213	666	1.217	263	203	1,019	1.739	-	-	-	-
India Yamana Notor PvU i gi	83 227	83.3 0	3,85,677	3,75,678	58 650	53,222	2 54,785	7,86 183	30,585	15,734	1.35,388	81 530
Mahindra Two Wheelers Ltd	-	-	72	-	23		82		-	-	-	-
Okinewa Autoteon PvI. Lie	12.746	2,227	58,260	5,104	12,709	2,200	56,452	L 0/2	28		78	
Plaggie Venicles Pvilite	5 187	4,030	295 8446	21963	3.648	3,275	20,877	10,187	1,694	78/1	8,000	1-5177
Royal-Fri Teld (Unit of Ficher Motors)	77,082	33,240	3,44,531	4,07,513	52,692	69,795	2,67,057	3,42,626	7,220	8,190	45,809	\$5,730
Suzuki Motoroydel india Pv. Ltd.	92,563	97,267	0,32.307	4.59 191	34.651	33,045	2.90.020	0,80 712	14,905	26.291	74,000	1.12/4
Triumph Motorcycles India Pvi Ltd	55	100	2023	.03	92	194	445	4.8				
1995 Metar Company Lie	3,10.370	370,4-8	14,75 724	18:30,762	2,39,325	2.56,51.0	10.06,372	17,13,328	76,214	75 401	4.63,820	3 40 571
Total Two Wheelers	18,60,777	19,16,769	84,65,918	04,23.645	15,57,429	15,66,594	66,63.265	68,83,612	3,63,682	2.90,655	18,09,704	10,63.607
Quadricycle												
stip wraite	133	204	o1/	1.768	(iii	110	218	371	102	168	842	1 412
Total Quadricycle	130	304	817	1,786	64	110	216	371	102	168	642	1,412
Grand Total	22,76,041	23.95,804	1.05,43,349	1,07,23.167	18,77,072	19.45,102	02,95,008	90,67.465	4.02,688	3,00,076	22.58,632	17,05,834
Scole y el Indian Automoulie Manafastarens / 11/09/2003:												



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Sub-segment & Com	pany wise Pro	duction, Dom	iestic Sales (Exports Rep 	ort for the mon	ith of Augus	st 2023 and (Cumulative fo	r April-Augus	it 2023		Report IV
											J.Number	of Vehicles?
Category		Produ	etian			Domesti	ic Sales			Expo		ar : amaco,
Segment/Subsegment	Αμαμ		April-A	lugust	Augus			August	Aug		April-A	tauna
Menutacurer	2022	2023	2022-23	2023-24	2022	2023	2022-23	ZD23-24	2022	2023	2D22-23	2023-24
Passenger Vehicles (PVs)	EULL	2020	2022-20	1010-14	1022	1010	2022-20	2020-24	COLL	2020	EDEE EN	2020-04
A : Passenger Cars - Upto 5 Seats												
Micro (Seata upto-4, Length Normally <3200 mm, Bo	why Sthrife-Hotel	bhack English		ant Normaliv II	unto @ S II Itra							
Specialty		maan, Engine	e brapiadeni									
MG Motor India Pvt Etd (Camet EV)		NA		3.052		NA.		1 914				
Total Micro	_	-		3.052				1,914		_	_	_
Mini :Seats upto-5, Length Normally <3600 mm, Body	Stula Hatehb	ark Engine	Displacemen		to 1 Alitoa	-	-	1,014	-	-	-	-
Regular	y anjio-rianaro	ace, Engine	DISPINCETIET	t normany up								
Maruti Suzuki India Lto (Alto, Spresso)	20,768	11,932	1.11 (24	24.054	22 162	12 209	91 152	52 199	2.072	2,139	21,729	17,969
Rons , tind a Pyt Ltd (Kwid)	2,757	2,391	13 540	6.201	1 704	863	9 179	4 873	1.083	1,826	4,626	3,577
Total Mini	28,525	14,323	1.25,264	90.965	23,868	13,092	1.00,681	87,072	3,135	3,967	26,365	21,546
Compact (Seats upto-5, Length, Normally between 3									0,100	0,001	20,000	21,040
Regular		, DOMY Style-			i langer i chighte d	ispiaceniei						
Honos, Cars India Ltd /AmszelJszz)	3,991	4.351	20.084	17.731	3 566	2 534	19 870	17 073	177	69	455	424
Hvunda, Motor Ltola Ltd (Aurs.Grand i 10, 20 Santro.Xoa	25,955	25,189	1.51 205	1.17.513	21210	0.004	1.02.394	54 915	1.975	5.615	28,931	35,130
Maruti Suzuki India Ho (OEM Nood# Balenc Guleria,6	65,205	85,124	4 30 207	4,00,542	71 557	77.451	3.61 252	3 50 375	9,512	13,630	57,250	62,211
Tata Moters Lto* (Altroz, Fisco, Figer)	00.200	NA	41 997	EC.412	NA	NA	42 152	51 223	0.012 NA	NA	54	67
Toyota Kirloskar Meter Pyt Lte (Clanza)	100	196	4 99.		3.911	4 952	12 695	22 133		100		a.
Volkswagon India Pyt Lto (Pala)	-	-	674	-	30	1 852	753	22 100	-	-	1,095	-
Total Compact	1,15,161	1.15.664	6.24,345	6.16.505	99,844	98.D41	5.39.069	5,25,728	14.665	22.312	87,786	97.828
Super Compact (Seats upto-5, Length Normally betw										28,312	01,100	91:020
Regular	/een 4000 - 42:	ор шина, всязу	Style-Sedan	restatematerv	NIDICHRAIGK, ENI	gine orspia	icement Norn	naliy lipto 1.6	LIUTE			
Mahinera & Mahindra Etd (Verito)							143					
Total Super Compact	-	-	-	-	89		145	-	-	-	•	-
Mid-Size: Seats upto-5, Length Normally between 42.	-	Dente Stalle D	ada a/Catata	- Allanta h (Ni anta hita		-			-	-	-	-
Regular	au - 4500 mm,	DOGY Style-a	iedani Estate	matenyivotenis	iack, Engline Di	spiacemen	CHORMANY UP					
Honda Cars India Ltd (City)	5.768	5.010	25 197	14,700	3 198	1 154	15 857	7 902	2.171	2.115	10.345	7,665
Honda Carshi dia E.d.(o ty) Hyunda Motor India Hid (Verna)	5,845	6,697	23 097	38,516	1 734	2 576	7 578	17 123	4.094	5,403	15,491	20,119
Maruti Suzuki India Lto (Ciaz)	2,615	2,504	23 (187	11.978	15/6	849	5 537	5 950	4.054	1,609	3,803	4,112
Nissan Motor India Pvt Ltd (Sunnv)	4,250	2,604	19 135	13,163	150	545	0 0 0 0 0	2 322	4.645	1,809	18,982	9,817
Volkswagen India Pv. Lic (Vento, Virtus)	1,200	5,503	9 135	23 995	573	2 140	6 415	5 601	1.015	3,194	7,687	12,257
Total Mid-Size	19.525	24.787	87.6D4	1.02.599	7.811	7.059	35.418	39.77B	12.609	13.645	56.30B	63.970
									12,609	13,640	00,008	63.970
Executive :Seats upto-5, Length Normally between 4	54KI - 4700 mm	i, Body Style-	Sedan Cetal	erNolch Dack. D	Enkqine Displac I	ement Non	палу прто 2 і	Litre	I			
Regular SkodaA. to India Pyt Lto (Octavia,Slavia)	15 FIF-15	818	13 283	9,508	2 960	1 357	Z 25 J 25 2	E FESA				471
	2,293 2,293		15 285 13.283		2.060		12 123	5 231	-	3		12
Total Executive Premium :Seats upto-5, Length Normally between 47		818 Redu Cade 1		9.508		1.657	12,125	8,231	-	3	-	12
Premium :Seals upto-5, Length Normally between 47 Reputar	00 - 9000 mm,	Podd Pthe-s	eoan:Estate	as, i⊂ ngi ne t⊁isp	ріасеттепт Norr І	nally upto a	JL/0076					
Regular SkodaAuto India Pyt Ltd (Suberb)	137		S47		135		547	151				
	137	-	517	-	135	•	517	151	-	-	-	•
Specialty Loyota Kirloskar Motor Pyt Lto (Camry)		7147	415.5			46.5	4.4%	71.4				
TOYUE IN CONSENSE MODELINE LTC TO APPLY	77	214	480	536	62	182	449	781	-	-	-	-
	D4 1											
Total Premium Total Passenger Cars	214 1,60,708	214 1.55.806	1,107 8,51,603	836 6,23,465	197 1,33,477	182 1,20,031	1,DB5 6,88,506	892 6,43,613	30,409	39,927	1.70.448	1,73,356

SL4M												
Sub-segment & Company wise Production, Domestic Sales & Exports Report for the month of August 2023 and Cumulative for April-August 2023												
											in shou	Report IV of Venides;
Category		Produ	otion			Domestic	Calor			Expe		urvermes,
Segment/Subsegment	Augu		April-Au	and the second s	Augus		April-A	unnet	Augu		April-A	
Manufacturer	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24
B: Utility Vehicles (UVs)	LULL	2023	2022-60	2020424	EVEL	2020	2022-20	2023-24	2022	2023	2022023	2020-24
B : Utility Vehicles/ Sports Utility Vehicles; 4x2 or 4x	4 offroad capa	hility : Gener	ally ladder on	frame : 2 bm	: 5 Seats or m	ore but unt	o 10 Seats.					
UVC : Length < 4000 mm & Price <20 Lakhs		inter paratici		inectine a box		TOTO DOL UPI	0 10 00000					
Honda Cars India Ltd (WR-V)	476	-	2,951	.	415	-	2.722	-	9	.	195	266
Hvunda Mojar India Hd (Tider,Venue)	11.640	20 984	52,304	75.082	11,240	18,378	50 253	67 804	459	1913	1,958	8.631
Kis Motors Incis Pyt Lto (Spret)	10,831	7.362	50,845	55,33D	7,838	4,120	35.811	34.052	2 715	3 874	14,071	20,637
Mahintra & Mahintora Ltd (Bolero,Kuvrico, ThanXuv200	18,131	21.683	80,691	99.522	15,361	20,213	81,854	97.313	658	2/2	2.619	2.772
Maruti Suzuki India Lto (DEM Model #,Brozza, Fronk, J	20.007	32 474	1.01.199	- 35,225	15,193	29,240	61 382	1,28,902	7 665	2 440	24,493	4,169
Nissan Motor India Pyl Lto (Magnite)	5.417	4.217	19,967	17,985	3,194	2,258	13.994	12,197	957	594	2,743	2,033
PCA Motora Pvt Ltd (C3 EC3)	8/8	430	1.623	1.775	825	621	1.426	3.685		195	2,1-0	1.0/8
Rensult India Pyt I td (Kiger, Triber)	6,504	0.570	35,555	15,124	5.000	2,750	26 332	16 765	157	770	7.692	3,974
Tala Molors Lic' (Nexon,Punch)	NA	NA	73,107	79,513	NA	NA	73.167	76.330	NA NA	NA	145	272
Toyota Kinoskar Meter Pyt Lto (Urban Cruiser)	DICS -	-	110,101	19,110	5,131	-	21,803	70.0.0	105	1	12.5	212
Total UVC	77.639	90,726	4.18.142	4,85,555	63,505	78.680	3.59.308	4,36,845	13.779	10.059	54,112	41,802
UV1 : Length 4000 to 4400 mm & Price <20 Lakhes	11,200	30,720	4,10,142	4.05,555	63,303	10,000	3,38,440	4,30.043	191118	10,038	24,112	41,002
Force Viotors Ltd (Curkns)	68	-	300	10	52	_	348				1	2
Honda Cars India Ltd (Elovato)	-	3.107	335	3,147		2.822	-	2,522		4	'	2
Hyunda Motor India Eld (Creta)	14.933	13.571	73,845	72,692	12.577	13,832	62.616	70.976	2 404	435	11,141	2,086
Kis Motors Incis Pvt Lto (Selfos)	13.576	11.011	60,847	13,323	8,652	10,632	39,040	35,254	1 827	500	20,529	9,659
Maruti Suzuki India Lto (DEM Motel #,Ert da Grand Vita		14,299	61,923	00,433	9.314	24,133	01.592	SS.151	1.521	3 777	2.013	17,381
Menou Sozuni india Ele (DE Vilvisso) #,Eroga isla is vilu MG No prindia Pel Lid (Astor)	1 475	569	7,987	2,987	1,324	314	6 597	3 955			2.015	11,301
Nissan Motor India Pyt Lto (Kicke)	191	-	1,188	2,507	89	-	//2	1,800	.		.	I
SkodaAuto India Pvt Lto (Kushao)	1.208	2,169	11.057	11.004	1.870	2,400	11,142	10,793		55		717
Toynia Kiroska Molor Pvt Lio (Motel Manufacureo fo		19 632	614	62.813	1,670	4,233	11, 42	16:147		- 935	· · ·	5.840
Volkewagen India PVI Etd (Taleum)	1.492	4,482	6,803	15,938	1.017	1,543	7.651	8.304	286	3.027	588	8,403
Total UV1	43.505	68.841	2,24,919	2.90,947	34,901	60,884	1.89.698	2,47,432	8,558	9,737	35,172	43,092
UV2 : Length between 4400 - 4700 mm & Price <20 L		00.041	2,24,819	2.80,841	34,801	00,004	1,09.080	2,47.432	6.550	8,131	20,172	45,082
Hyunda Nictor India Ltd (Aleazar)	3.042	2.657	14.627	14,228	2.304	1.493	11.547	9,535	737	1 241	3.052	4,733
Kia Motors India Pvt Ltd (Carens)	6.310	2.967 7.960	33,001	35.251	5,558	493	29.737	30.552	532	934	3.030	3,972
	13 562	17.261	52,441	78,503	13,111	16,457	20.737 50.599	76.324	55Z 94	827 822	529	2,744
Mahmore & Mahmora Ltd (Marazza, Scorpio Xuv500,Xu Marufi Suzuki India Ltd (XL6)	2,450	4,422	18,164		2,425	4,184	18.082	17,594		94	28	248
MG Motor India Pvt Ltd (Hestor)	1.882	2.134	9,526	15,104	2,425		9,362	17.554	15	34	20	240
	I.edz NA			14.028		2,069	9.366 14 776		ŇA	NA		· ·
Tata Motors Lto* (Llanter Safari) Total UV2	27.246	NA GA EGA	14,760	13,631	NA 25,315	NA 28.552		12 534	1,508	2,691	3	11,668
Dial UV2 UV3 : Length >4700 mm & Price <20 Lakhs	21,246	31,504	1,42,519	1,72,746	20,310	20,002	1,34,189	1,59,164	1,6046	×.691	B.64 D	11,668
		140	-4	532		110		500				
Force Motors Htd (Trax) Isuzu, Metors india PVLLIc (Hr Lander,V Cross)	- 151	- д ()		532	- 20	119	- 232	146		· ·	- 194	
Toyota Kinoskar Motor Pvt Lto (Innova Crysta Innova –	6.291	8.923	1,410 29.512		5,036	22 8.660	28.819	28.574				
		8.923		39,285					-	•	•	-
Info cumulative data is svaliable in Apr-June NA-Not Available // Only production volume of CEW Model is reported by Maru, Suzuk India Limited,												

Statistics	

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				S143	-								
Sub-segment & Com	pany wise Pro	Huction, Dom	iestic Sales B	Exports Rep-	ort for the mo	nth of Augue	st 2023 and C	umulative fo	r April-Augue	st 2023		Report IV	
											(N., mbe	r of Vehides;	
Category		Produ	uction			Domesti	o Sales			Exporte			
Segment/Subsegment		August April-August August August August August					April-A						
Manufacturer	2D22	2023	2022-23	2023-24	2022	2D23	2022+23	2023-24	2022	2023	2022-23	2023-24	
Total UV3	6.542	9.063	30,918	39,873	5,076	8,806	29.051	39.222	-	-	194	-	
UV4 : Price between Rs. 20 to 30 Lakh													
FCA India Automopiles Pvt Ltd (Jeep Compass)	1,185	578	5,196	2,413	921	172	4.227	1.230	394	322	1,892	1,241	
Force Maters Ltd (Curkha)	-	2	-	2		-	-	-		-	-	-	
Hyunda Motor India Hiti (Kona,Tucson)	485	395	1,024	2,586	445	327	1,005	1.977	-	-		-	
Kia Motors Incia Pvt Lto (Carnival)	210	-	1,480	-	274	-	1.441	-	-	-	-	-	
Wah nota & Manifora Ltd (Alt, ras G4)	17	-	386		11	-	327	-	-	-	-	-	
Maruti Suzuki India Lto (Invicto)	-	-			-	589	-	1.545		-	-	-	
MG Motor India Pvf Ltd (ZS EV)	352	NA	1,537	1,871	397	NA	1.648	1.747					
PCA Motora Pvt Ltd (CS A (cross)	62	-	152	35	25	/	142	40		-	-	-	
Toyota Kirleskar Motor Pyt Ltd (Model Manufactured for	-	709		1,727		-	-	-			-	-	
Total UV4	2.431	1.694	10.775	B.634	2,106	1.092	8,914	6.540	394	322	1,892	1,241	
UV5 : Price >Rs. 30 Lakh													
EGA India Automopiles Pyt Ltd (Jopp Meridian)	481	245	2,296	2,101	400	127	1.911	1 250	4.	241	41	1,091	
Hyunda Motar India Lld (pr. 65)		200		620		130		704					
Isuzu Metoral nels Pvt Lto (Mu-X)	1	-	30	34	5	8	18	20			-	-	
Kia Metors Ineia Pvt Lte (EVS)	-	-	15			42	- 6	336			-	-	
MG Molar India PvI Lld (Glosler)	226	300	635	1,689	185	240	722	1.252					
SkodaA, to Incis Pvt Ltd (Kodiac)	164	411	511	2,115	151	241	533	S91		-	-	-	
Toyota Kirloska: Motor Pyt Ltd (Fortunor, Hilux, Land Cru	2,848	3,062	12,400	15,451	2.000	2,932	12.279	14,769		2	45	2	
Volkswaden India PvI II d (Tiguan)	177	294	479	1,114	154	91	518	595					
Total UV5	3.894	4.548	16.632	23,125	3,594	3.811	15.997	19.847	41	243	ВБ	1.093	
Total Utility Vehicles (UVs)	1,61,257	2,06,366	8,43,905	10.20,88D	1,35,497	1,81,825	7.37.157	9,09,053	24.230	23,252	98.095	98,896	
Vans													
C :Vans : Generally 1 or 1.5 box; seats upto 5 to 10													
V1 :Hard loop mainly used for personal transport. Pr	rice upto Re. 1	1D Lakh											
Mahmere & Manmera Lid (Maximo Sucro)	276	25	1,444	160	234		1,198			38		140	
Marufi Suzuki India Lto (Eeco)	11.856	11.511	57,069	59,758	11,999	11,859	66.813	36,572	9	885	158	3,210	
Teta Motors Lto* (Magic Express)	NA	NA	1.461		NA	NA	1.815	2.534	NA.	NA		-,	
Total V1	12,132	11,846	59,974	59,916	12,233	11.859	59,826	59,106	9	704	158	3,350	
V2 :Soft toos mainly used as Maxi Cabs. Price upto													
Mahindra & Marintora Ltd (Supro)	1	-	103	-	3	-	61	10		-		-	
Tata Motors Ltof (Madio Iris)	NA	NA	50	24	NA	NA	-	428	NA I	NA.	20	01	
Total V2	1	•	203	44	3	-	81	438		•	2D	31	
Total Vens	12.133	11.846	6D.177	50,96D	12,235	11.859	59.907	59.544	8	704	178	3,381	
Total Passenger Vehicles (PVs)	3,34,098	3,74,018	17,55,685	19,04,305	2,61,210	3,13,715	14,85,570	16,12,210	54,698	63,883	2,68,722	2,75,633	
	Avsilatile									,- / -			

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Sub-segment & Com	pany wise Proc	duction, Dom	iestic Sales 8	Exports Repo	art for the mon	th of Augua	st 2023 and C	umulative fo	r April-August	: 2023			
												Report IV	
A .									(Number of Vehicles) Exports				
Category		Produ				Domesti							
Segment/Subsegment	Augu		April-A		Augus		April-A		Augu		April-A		
Manutaclurer	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24	
Three Wheelers													
A: Passenger Carriers								I					
A: Passenger Carrier								I					
A1:No. of seats including driver not exceeding 4 & M Acut Auto Ltd (Acut Gemini Acut Rik Atut Rik + 2 1, Atut N		220 xcaeoing 1 t	2 439	1.777	374	237	1 389	1 055	292	287	1,175	756	
A di Auto Lidi (A di Genini A di Kis Aldi Kis (1, 1, Aldi A Baiai Auto Lidi (Mexima RE)	12.777	55,082	1.54 365	2,25,995	20 203	- 33 897	66 S47	1.62.576	292	12.065	91,301		
Continental Engines Pvt, tot (Baxy EVE PRO Baxy Evp.	241		922		20 208	- 33 807			22.901	12.065	91,301	65,539	
Compriorital Engines Pvt I to (Haxy Five PRC) Baxy Exp. Mahine a - Manindra Ltd (Alta Tree)	1,777	<u>95</u> 3,584	7 083	500 14.520	1 767	2 484	937 7 074	489 14 333	- 12	- 24	- 90	- 61	
vianino a ∞ivishinora Eto (Aira Teo) Piaggio Veniclea Pvt Ltd (Ate Atrio,Ape City)	1,777 5,399	3,384 7,237	50 299	14.52.	1.67 4.698	6 548	18 115	14 335	5775	24 /68	90 11.052	1.434	
Haggid Venicles Pvt Ltd (Ade Auto, Ape City) TVS Motor Company I to (TVS King 4S)	17,100	15,105	50 200 76 402	20.242	1 525	- 6 545 - 698	5421	7 445	16,828	12.024	72,000	1,434 54,566	
Total A1	70,668	81,553	2.71,484	3.34.839	28,820	51,739	99,684	2,09,315	43,624	25,168	1,76,506		
A2:No. of seats including, driver exceeding 4 but not					20,020	61,139	99,004	2,09,010	40,024	20,100	1,10,000	1,23,356	
Azino, or seats including, anver exceeding 4 but not Acut Auto Ltd. (Acut Gam Gami Paak)		5 max. wiess i 612	2 530	1 5 tonnes 1 5 00	455	577	2311	· 204			00	20	
Force Motors Ltd (Minidor)	570 278	394	1 D72	1.573	405		2011	-	- 408	- 644	1,105	<u>56</u> 1,848	
Total A2	270 851	1.005		3.161	485	577			4D6	644	1,106	1,04	
Total Az	71,509		3,602	3,38,000	485	52,316	2,311 1,02,195	1,404 2,10,719	43,930	25,812	1,136		
Total A Total Passenger Carriers	71,509	62,559 82,559	2,75,086	3,38,000	29,105	52,316	1.02,195	2,10,719	43,930	25,812	1,77,642	1,25,260	
E-Rickshaw	01 , 904	67'33A	2,10,000	2,20,000	29,100	\$2,3'IQ	1,02,190	2,10,019	43,930	20,012	1,rr, 0 42	1,20,200	
Acul Auto Ltd (Acul Elite)	282	297	655	2.105	253	455	934	2 093	.				
Confinental Engines I VI Ltd (Baxy El Kisth)	52	475	180	1.797		301	219	1 497			-		
Vahinental Ergines (Vi La (Basy El Kali) Vahindra & Marindra Ltd (e-Alfa Mini, Treo Yaari)	1,899	2,337	6179	3.243	1.757	2.357	6 323	9 851		-		-	
Total E-Rickshaw	2,233	3,110	7.214	11.949	2.095	3,116	7,476	13,421			-		
B: Goods Carrier	2,200	3,110	1,214	11,240	2,088	3,110	1,410	13,421					
B1: Max mass not exceeding 1 tonnes								I					
Aut Auto Hut Skul Gen Alut Gen n. Alut Samart Accar	325	1,169	2 609	2017	429	955	2 555	- 773	.	12	69	30	
Barar Auto Ltd (Maxima)	2,470	4,465	13 189	20.673	2 350	4 233	13 042	19 231		104	224	472	
Continental Engines Pvt Ltd /Bexy Carop Baxy Caroo S	330	30	1 (15	167	275	4 200	1 606	155		-	-	412	
Mahindra & Mahindra Lid (Alfa Trac,Zor Grand)	1,358	715	5 925	6 595	1 200	1 102	5 855	6 368	63	-	102	10	
Pisagio Venicles Pyt Ltd (Ace Xtra)	2,644	2,495	12 745	12,762	2 449	2 743	11 939	11 999	82	42	691	317	
TVS Motor Company Ltd (TVS King Kardo)	2,322	3/	912	12.102	1	29	150	151	(1		/06	5	
Total B1	7.116	8.911	37.329	42.332	7.007	9,132	35.020	39,696	236	158	1.842	842	
Total Goods Carrier	7,116	B.911	37,329	42,332	7,007	9,132	35,020 35,020	39,698	236	156	1,842	842	
E-Cart	2,110	0,311	07,325			3,152	55,020	03,050	200	100	7,042	842	
Aut Auto Fid (Aut Flite Gamp)	77	66	580	615	57	54	559	823					
Continental Engines Pv1 Ltd (Baxy E Cart)	10	29	18	56		14	12	59					
Mahindra & Mahindra Ltd (e-Alfa Cargo)	91	110	(22	167	15	197	(24	752		-	-	-	
Tolal E-Cart	178	210	1,300	1,169	162	199	1,295	1,434		-	-	-	
Total Three Wheelers	61.036	94,790	3.20.929	3.93.449	38.369	64,783	1.45.9BB	2,85,272	44,166	25.97D	1.79.484	1.26.102	



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Sub-segment & Com	pany wise Pr	aduction, Dan	restic Sales &	Exports Repo	art for the mo	nth of Augus	st 2023 and C	Cumulative fo	r April-Augusi	(2023		
												Report IV
												of Vehicies)
Category			action		Durnesti				Exp			
Segment/Subsegment	Aug	2023	April-Au		Augu	2023	April-A		Augu		April-Ai	
Manufacturer Two Wheelers	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24
A : Scooter/ Scooterettee : Wheel size is less than of												
A1: Engine capacity less than or equal to 75 CC												
Place Provides I'v: Ltd (SXR 50)	511	557	3,136	274					528	550	3 136	2.04
Total A1	511	557	3,136	2.774	-	-	-		528	560	3,136	2.774
A2: Engine capacity >75 CC but less than or equal to		221	3,130	2.174		-	-		320	560	4.1-20	2.774
TVS Motor Company Ltd (Pep +)	5.717		38,092		a.sre	-	37,429	5,132				-
Total A2	8,747		38,092		8.516	-	37,429	5,132				
A3: Engine capacity >90 CC but less than or equal to		-	00,002		0,213		01,420	9,102				-
-ero MotoCoro Ltd (Hero Destni 120,Maestro Pleasure		30 501	1.35,316	1.3577.9	31.125	31.779	1,36,010	1.39,266	681	3 754	3 990	13.272
once Mulcrayde & Social India Pv - Id (Active Avial	2 73,315	2 51 147	11,66,730	10 53 225	2 50 557	2,56 87C	10,62,543	10.10.442	25,166	17 250	1 54 844	79,183
re si Yamana Motor Pvt Ltd (Alcha, Fascino Ravi	21,188	31 890	92,394	1.26 390	19.2/4	25.42C	76,799	1,10,432	4,739	3 253	17 323	13.424
Piaggio Vohiclos Pvt Ltd (Aprilia,Vospa)	4,335	2 592	20,520	13,063	2.97	2,694	17,507	12,282	800	35	1919	1,100
Suzuki Moloroyde India PvI Lid (Access, Aver. s, Burgma	59,792	52 759	3,98,262	3 54 550	61.005	79.520	2,82,940	3,45,491	5,821	6 852	28 212	50 666
TVS Motor Company Ltd (Jupiter, Ntorg, Webo Zest)	1 11,625	1.24.005	5,00,790	6.50 205	1.02.422	1.06.686	1,66,583	4,82,605	5,774	11 919	30/297	50,927
Total A3	5.12,469	5.52,704	22,24,021	22.93.463	4,67.624	5,03,379	20,42,842	21,01,518	44,676	43,066	1.86.684	2,08.572
A4 : Engine capacity >125 CC but less than or equal	to 150 CC											
Piaggio Vehicles Pvt Ltd (Aprilia.Vaspa)	629	119	3,778	33/2	206	264	1,082	1,113	336		2747	2.132
Total A4	629	418	3,778	3,370	206	264	1,082	1,113	336	36	2,747	2,132
A5 : Engine capacity >150 CC but less than or equal	to 200 CC											
nd a Yamana Motor Pvt Ltd (Aerox)	-	1 912	-	3 992	-	1.782	-	2,967	-	-	-	-
Piaggia Vehides Pv = d (Aprilia)	709	447	2,403	2 756	471	317	2,228	1,792		148	199	971
Total A5	709	2,354	2.403	5,848	471	2.099	2.228	4,769	•	14B	199	971
AE1:Upto 250 W Electric												
Ohe ak Technology Lift (Yulu Ver 3 Dx)		815		1474		23		939				
Okinsws, Autotech Pvt, Etd (Dua, Dual-100,Lite, R-30)	1,693	871	3,782	1.745	1.67C	667	4,059	1,026	23	-	23	-
Total AE1	1,693	1,686	3,782	3,172	1,670	680	4,059	1,965	23	-	23	-
AE2- More than 250 W Electric												
Ather Energy Pvt. Ltd (450S.45000)	6.611	8 251	19,921	42 190	6.441	8.243	19,706	72,923	-	-	-	
Bajaj Auto Htd (Chetak)	3,108	363.3	12,500	33,953	2 762	8,002	12,020	33,394		-		74
Hero MotoCoro Ltd (Vida) Classica Calabrah Res Midia Desira Olda 20 Desira Des	20	811	60	€ 402		1.000		4,640	-	-	-	4
Ok nawa Autotech Pvt. Ltd (Preise, Okh 90, Preise Pro	12.055	1 356	52,507	1 356	12.038	1.708	52,393	5,046	15	-	55	-
TVS Motor Concerny Hill (TVS iQuoe Electric)	3,012	27 020	21,052	50,530	4,418	23,847	19,44R	75,795				
Total AE2 Total Scooler/ Scoolerettee	27,602	44,074	1,06.076	1.84,481	25.859	42.868	1,03.568	1,61,798	15		55	78
Total Scooler/ Scoolerettee	5.52,55D	6.01,793	23,81,290	24.73.D88	5,04.146	5,49,280	21,91,208	22,75,285	45,578	43,808	1.92.844	Z,14.527

				SIAM										
Bub-segment & Com	pany wise Pro	duction. Do	mestic Sales &	Exports Repo	art for the mo	onth of Augu	st 2023 and C	umulative fo	r April-August :	2023		Report IV		
											(N. colae:	al Venides;		
Category		Dead	luction			Domest	le Solae		Exports					
Segment/Subsegment	Aun		April-Au	aust	Aug		April-A	usuet .	Augus		April-A	taunu		
Manufacturar	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24	2022	2023	2022-23	2023-24		
B : Motorcycles/Step-Through: Big wheel size - mor	e lhan 12".													
B1: Engine capacity <75 CC	· - ·													
India Kawaseki Molrais Pvt Hol (KX65)								2						
Tatal B1			2			.	.		
B2: Engine Capacity >75 CC but less than equal to 1	10 CC													
Bajaj Auto Hol (Baxer, CT Discover Platina)	1,47,042	99 330	6,21,259	4,58,559	1,15,034	47 262	2 83,134	2,24,101	43,193	54 405	3 67 772	2 89,739		
Hero MotoCorp Ltd (H+ De Lxe,Passion,Splendor)	3,74.305	3.77 110	17,69 505	17,33,040	3,58 291	3.67 523	17 49,998	17,33,419	4,655	8 146	42 010	28,048		
Honda Motorcycle & Scooter India Pvt Ltd (Dream Livo	26.229	50 256	101 054 I	1,33,137	20.521	12 815	99,159	1.14,777	1.332	1.950	24 195	11.378		
India Yamaha Motor Pvt Httl (Crux,Saluto RX)	2,506	2 875	-5.216	16,780	-		-	-	2,256	2,756	15,838	14,034		
TVS Molor Company Ld (Bacech, Sport, Star City)	41.552	52 745	2,30 255	2,31.979	26 530	25.037	1 33,568	1,37,502	20.552	19.421	1.48.987	92,710		
Total 82	5.91,834	5.82,118	27.97,319	25,73.585	5.20,878	4.83,655	22,38,859	22,09.796	74.993	83,831	5.98,901	4,15,909		
B3: Engine Capacity >110 CC but less than equal to	125 CC													
Bajaj Aula Hol (Boxer, CT, Discover, Husovaros KTM, Pla	\$2,114	51 831	4,45,705	4,88,241	62 463	55 D85	2 73,053	3,47,715	29,767	21 191	1,74,275	1.07,028		
Hero MotoCorp Ltc (Clantour,Splendor)	57.338	64 \$52	2,96,854	2,64,565	55 702	64 844	2 85,325	2,55,042	2.748	1 190	14 550	5,790		
Honda Motorcycle & Scooter India Pvt Ltd (CB Shine,SI	1,28,195	1.17 361	0,04,035	4,82,700	1,20 139	1.14 142	5 65,027	4.70,103	3,414	2 160	13 601	9,119		
India Kawasaki Malnas Pvt Hol (KX112)								1						
India Yamaha Motor Pvt Ltd (Saluto,YD125)	3.975	3 283	21 156	16.272	-		-	-	4,784	2 865	21 248	13,492		
Suzuki Motorovole India Pvt Ltd (Havata)	\$30	360	1 180	1.020	-		-	-	544	180	Y 504	1.100		
TVS Motor Company Ltd (Raider Star Oily 125 Midtor)	50,536	79.033	2,72,503	3,50,309	20,084	42 375	51,828	1,79,515	38,586	34 053	2.21.365	1 83,637		
Total 83	3,35,781	3,46,553	16,41,464	16,03,138	2,58,368	2,76,398	11,97,133	12,63,406	79,747	61,872	4,46,574	3,01,160		
B4: Engine Capacity >125 CC but less than equal to														
Bajaj Auto Lto (Boxor,CT 150 Pulsar)	52 446	31612	2,25,880	1,51,169	28,335	17 111	65,536	66,027	20,252	16 603	1 24 578	84,589		
Hero MoloCorp Llo (Hunk)	2.443	3 830	17 197	15,102					2,749	3 535	18 532	15,632		
Honda Metoroyole & Scooter India Pvt Ltd (CB Unicorn	· ·	-	200	64	-		-	-	-	-	240	59		
India Yamaha Motor Pvt Ltd (FZ,SZ)	33,137	20.559	1,51 571	1,10,058	19 469	13/241	69,338	84,058	15,142	9 032	64 105	32.072		
Total B4	38,026	56,231	3,94,628	2,82,393	47,804	30,352	1,74,874	1,72,085	41,183	29,471	2,07,546	1,13,349		
B5: Engine Capacity >150 CC but less than equal to														
Bajaj Auto Lto (Avenger, Husqvarna, KTM Pulsar)	00.820	43 427	1,51 264	2,03,210	19,998	21 961	03,047	1.00,592	14,550	21/293	83/232	05.721		
Heid MolaCrap Hol (Xouble 200, Xhemel)	6,857	9.685	47.519	38,493	5.559	7 763	37,110	27,859	1,032	2 045	9 895	8,462		
Honda Metoroyele & Scooter India PV: Ltd (CB 200X CB		39 242	SS 266	1,22.444	27 404	33 918	83,179	1,00,729	6.312	3 756	33 799	17,938		
India Kewesaki Motors Pvt Ltd (W175)		52	-	348		54	-	346	-	-	-	-		
India Yamaha Motor Pvt Htd (MT 15,R15)	20.470	19 525	94 474	90,390	19.271	17 779	65.005	67,726	1,902	1.115	7 649	5,770		
Suzuki Materoyele India PM Ltd (Gioter, Innucer)	11.330	10 421	41 375	51,532	2 991	2 243	3,594	10,823	7,063	S 055	36 530	41,871		
TVS Motor Company Ltd (Apache)	48.692	39 159	1.71 400	2,09.350	40.520	18 865	1 15,865	1,49,628	9.089	a 212	59 061	55,113		
Total B5	1,56,541	1,61,727	6,04,598	7,19,007	1,15,773	1,02,624	3,74,400	4,83,703	39,948	45,479	2,30,169	2,01,863		

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Sub-segment & Com	pany wise Pro	duction, Dom	iesti <mark>c Sa</mark> leь 8	LExports Repo	art for the moi	th of Augus	st 2023 and 0	umulative for	r April-Augus	t 2023		
												Report IV
												of Vehicles)
Category		Produ				Domesti				Expo		
Segment/Subsegment	August		April-A		Augu		April-A		Augi		April-Au	
Menutaciurer	2022	2023	2022-23	2023-24	2022	2023	2022-23	ZD23-24	2022	2023	2022-23	2023-24
B6: Engine Capacity >200 CC but less than equal to												
Bajaj Auto Ltd. (Avenger, Dominal: Husovarna, K I M, Puls	7,685	13,332	27 517	64,102	3 443	6 439	10.045	32 493	4,250	7,264	21,002	32,368
India Kawasaki Motors Pvt Ltd (IOC250.)	-	-	-	-	-	-	- 1	1	-	-	-	-
India Yamaha Motor Pv[1td (FZ25)	1,960	600	11731	0.455	845	-	3 157	-	1.058	754	6,804	2,780
Suzuki Materoyale India Pvr Ltd (Grover 250 V-Strom S	2,101	4,117	11 003	21,758	312	879	3 833	3 338	573	4,204	7,754	17,607
TVS Motor Company Ltd (Ronin)	-	2,665	-	6.027	-	2 921	-	3 765	-	115	-	110
Total B6	11,754	20,744	50,251	94,323	4,700	9,369	16,842	39,595	6,679	12,338	37,590	52,879
B7: Engine Capacity >250 CC but less than equal to												
Honda Metorcycle & Scooter India Pvt Ltd (CB 300N.C	4,335	5,343	21 725	29.430	3.972	3457	15 756	19 184	1	1.271	6,122	12,211
India Kawasaki Metoris Petilitä (Ninja300)	140	101	812	596	144	104	836	351	-	-	-	-
Mahingra I wo Wheelers Etd. (Mojo)	-	-	72	-	23	-		-	-	-	-	-
Roval-Enfield (Unit of Eldner Motors) (Bullet 350 Bullet	\$5,671	78,761	2.95 152	3,64,715	58 274	62,553	2.41 812	3,13,559	5.962	5.140	22,565	22,282
TVS Motor Company I to (BMW/BR 010)	2,600	3,004	12,935	14 161	300	245	1 848	· 524	1,477	1,674	6,790	6,402
Total 87	70,764	87,239	3,30,498	4,08,905	62,713	67,889	2,59,935	3,33,928	5,44D	8,086	37,467	42,896
BB: Engine Capacity >350 CC but less than equal to	SDD CC											
Bajaj Auto I M (Dominar, Husqvama KTM Triumon)	5,800	6,252	35,938	06 655	1 503	4 857	5 202	12,460	ଚ.୦୦୦	3,252	34,009	28,941
Hones, Metoroyale & Sepater India PM Ltd (CB 500)	-	-	-	-	-	-	1	-	-	-	-	-
India Kewesaki Motors Pvt Ltd (KLX/50R, KX450, Vinia-	-	-		-	47	50	59	112	-	-	-	-
Royal-Enfield (Unit of Figher Motors) (II malayan)	8,174	4,778	33 7 14	21,619	3 230	3,856	17 525	17.687	1,675	029	9,729	3,356
Total 86	13,007	13,030	69,650	58,278	5,080	8,773	22,620	30,469	8,475	3,581	44,068	3D,297
B9: Engine Capacity >500 CC but less than equal to	SDD CC											
Hands Motoroyd e & Scooler India Pvt Ltd (CBR 850F)		-	65	-	33	-	55	-	-	-	-	-
India Kawasaki Notors Pvt Etd (Ninja350 Versys 650,V)	39	60	214	264	46	54	303	170	-	-	-	-
Piaggid Vehicles Pvt Ltd (Abrilia RS999)	· ·	-		-	-	-	1	-	-	-	-	-
Royal-Enfield (Unit of Figher Motors) (650 Twin,Super N	3,239	4,701	15 885	21:179	1 355	1 854	7 723	11 190	1,563	2,721	13,515	10,142
Suzuki Motorovske India Pvt Ltd (Du660XA)	7	-	30	-	5	-	29	•	-	-	-	-
Triumph Motorcycles India Pvt Ltd (Street Triple Tiger 9	75	168	212	252	45	168	212	252	-	-	-	-
Total B9	3,369	4,929	16,206	21,695	1,517	1,876	8,356	11,612	1,563	2,721	13,515	10,142

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Sub-segment & Com	namowige Pr	aduction Do	mestic Sales F		-	oth of Auroue	t 2023 and C	umulative fo	n April-Augu	et 2023					
												Report			
											(Nmbe)	r of Vehide			
Category		Prod	luction			Domesti	o Sales			Exporte					
Segment/Subsegment	Aug	ust	April-A	ugust	Aug	ust	April-A	ugust	Aug	just	April-A	August			
Manufacturer	2022	2023	2022-23	2023-24	2022	2D23	2022-23	2023-24	2022	2023	2022-23	2023-2			
B10: Engine Capacity >800 CC but less than equal t	o 1000 CC														
Hero MolaCrap Hol (553 Iron)					2		34								
India Kawasaki Motors Pvt Lto (Ninja ZX-10R Z900,Z90	-	-	40		41	36	228	364			-	-			
Piaggio Vehicles Pvt Lto (Moto Cuzzi)	-	-		-	· ·	-	-1	-	-		-				
Suzuki Matarayde India Pv. I.d (Katara)	1	-	30	-	3	-	10	-	-	-	-	-			
Triumph Motorcycles India Pvt Ltd (Bonev le 1100 Spe	10	-	84	51	22	6	SE	5E	-	-	-				
Total B10	11	-	124	51	70	42	376	450	-	-	-	-			
B11: Engine Capacity >1000 CC but less than equal	to 1600 CC														
Hero MotoCorp Ltd (1200 X Forty Eight, Nightster, Pan A					12	2	51	30							
Honda Motorcycle & Scooter India Pvt Ltd (Africa Twin)	- 1	-	40	-	· ·	-	41	-	-	-	-	-			
India Kawasaki Motora Pet Lto (Ninja1000 Mersys 1000	9	-	20	-	ő	5	49	6-	-	-	-	-			
Suzuki Malarayole India Pv. Lid (Haysbusa)	35		127	31	34		108	60							
Triumph Motorcycles India Pvt Ltd (Boney Je Bobber,B:	-	-	-	-	19	6	121	15	-	-	-	-			
Total B11	44	-	187	31	70	15	337	226	-		-	-			
B12: Engine Capacity >1600 CC															
Hero MotoCorp Lto (Hat Bob, Hat Boy 111, Hentege Class	- 1	-	-	-	17	17	35	45	-	-	-	-			
Honda Motorcycle & Scooter India Pvt Ltd (GL1800)	2	-	9	-		-	6	-	-	-	-	-			
Triumph Molorcycles India PvI Ltd (Rockel III Rookel I I					б	2	17	26							
Total 812	2	-	8	-	23	18	118	71	-	-	-	-			
Total Motorcycle/Step-Throughs	12,70,803	12,72,569	59,04,931	\$7,61,386	10,15,794	9,80,809	42,92,050	45,35.363	Z,58.048	2.46,981	16.15,830	11,58,494			
C:Moped: More than 75 CC to 100 CC and with fixed	transmissior	n Ratio, Big w	/heel aize – m	ore than 12"											
C1:Engine capacity less than or equal 100 CC															
TVS Motor Company Ltd (TVS XL)	37,314	42,427	1.79,667	1 69,171	30,489	36,495	1,20,007	1,77.964	56	96	1.110	660			
Total Mopeds	37,314	42,427	1,79,697	1,89,171	36,489	36,495	1,80,007	1,77,964	66	66	1,110	666			
Total Two Wheelers	18,60.777	19.16.789	84,66.918	84,23,645	16,67,429	15,66.594	66,63.265	69.89.612	3.03,892	2.90,855	18,09,784	13,63,687			
Quadricycle															
Bajaj Auto Hol (G., e)	130	304	-817	1,766	R4	110	218	371	102	185	642	1,41:			
Total Quadricycle	130	304	817	1,768	64	110	218	371	1D2	16B	642	1,41:			
Grand Total	22,75.041	23,85.901	1.05,43,349	1.07.23,167	18,77,072	19,45,182	82,95.039	88,67.465	4.02.558	3.80,875	22.58,632	17,85,83			
Space, of Indian Automobile Manufacturers (11/09/2022)															

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