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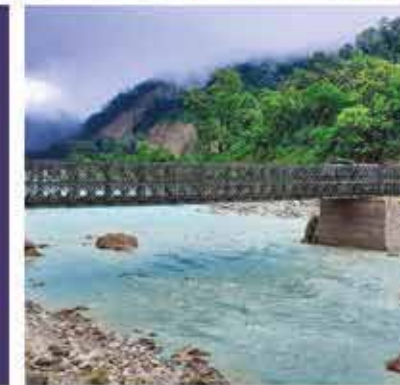
INDIA

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MOBILITY
FOR BILLIONS. GLOBALLY.



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ABOUT US

From trains to wagons to bridges to ships, Titagarh espouses the true sense of Mobility which is the core of the company's vision.

From freight to passenger trains, Titagarh rolling stock solutions are moving over billions of people across continents, the ships made by Titagarh are sailing in far wide sea ensuring the nations safety and aiding oceanographic research. Modular bridges are connecting one place to another.



In the last two decades Titagarh has evolved as a name that is synonymous with Rail and Mobility, in India and Europe.

“

Over the last two decades, Titagarh has endeavoured to become a global brand in design and manufacture of comprehensive mobility solutions, providing state of art #MobilityForBillions.

”

Umesh Chowdhary
CEO
Titagarh

OUR CORE COMPETENCY

FREIGHT ROLLING STOCK & COMPONENTS

► ROLLING STOCK

- Container Flat Wagons
- Hopper Wagons
- Tank Wagons
- Box Wagons
- Car Carrying Wagons
- Special Purpose Wagons
- Wagons For Defence Purposes

► COMPONENTS

- Cast Bogies
- Fabricated Bogies
- Couplers
- Draft Gears
- CMS Crossings
- Loco Shells

PASSENGER ROLLING STOCK PROPULSION & ELECTRICAL EQUIPMENT SERVICES

► PASSENGER ROLLING STOCK

- High-speed and Regional Trains
- EMU Train Sets (Single and Double decker)
- Urban Metro Rail System (Medium/Heavy)
- Light Rail Transport
- Diesel Electric Multiple Units (DEMU)
- Body Shells (Carbon/Stainless Steel/Aluminium)
- Bogies

► PROPULSION & ELECTRICAL EQUIPMENT

- Propulsion System
- Traction Converters and Power Electronics
- Auxiliary Power Supply
- Traction Motors
- Electronic Equipment
- Train Control and Monitoring System
- Hardware and Software



SHIPBUILDING

- Naval Vessels
- Passenger Ships
- Tug Boats
- Inland Water Transport Vessels

ENGINEERING

► BRIDGES

- Modular Panel Bridges
- Bailey Bridges
- Unibridges
- Matiere X Bridge (MXB)

► DEFENCE

- Shelters
- Specialised Wagons
- Specialized Pressure Vessels
- Draglines
- EMI/EMC Containers

► SERVICES

- Re-design
- Maintenance
- Assistance and Global Service
- Repair, Inspection and Refurbishing
- Exteriors and Interiors Facelift
- Systems and Electrical Equipment Upgrade
- Power Upgrading From 3 KV DC to 25 KV AC





ETR 500 ▶

Gauge 1435 | Design Speed - 300Km/h | Operating Speed - 280 km/h | Material - Aluminium

MOBILITY FOR THE MASSES: RAILWAY TRANSIT

The first private manufacturer of passenger rolling stock in India, Titagarh is also the first private company in India to possess modern day passenger rolling stock technology.

Titagarh Firema SpA, Italy, with decades of experience is pioneering modern day commuter railway technologies.



Single decker EMU Trainsets ▶ Gauge: 1435 | Design Speed: 160Km/h
| Operating Speed: 140Km/h | Material - Aluminium





Double Decker EMU ▶

Gauge - 1435 | Design Speed -160km/h | Operating Speed - 140km/h | Material - Aluminium



Gauge: 1435 | Design Speed: 160Km/h
| Operating Speed: 140Km/h | Material - Aluminium



* Gauge: 1435 | Design Speed: 250Km/h
* | Operating Speed: 230Km/h | Material - Aluminium

***Under Technical License**



Titagarh is bringing in India for the first time Aluminium Metro coaches manufactured in India.

Metro Heavy Metro/Light Metro

Gauge: 1435 | Design Speed: 90Km/h | Operating Speed: 70Km/h | Material - Aluminium



* Gauge: 1435 | Design Speed: 70Km/h | Operating Speed: 50Km/h | Material - Carbon Steel

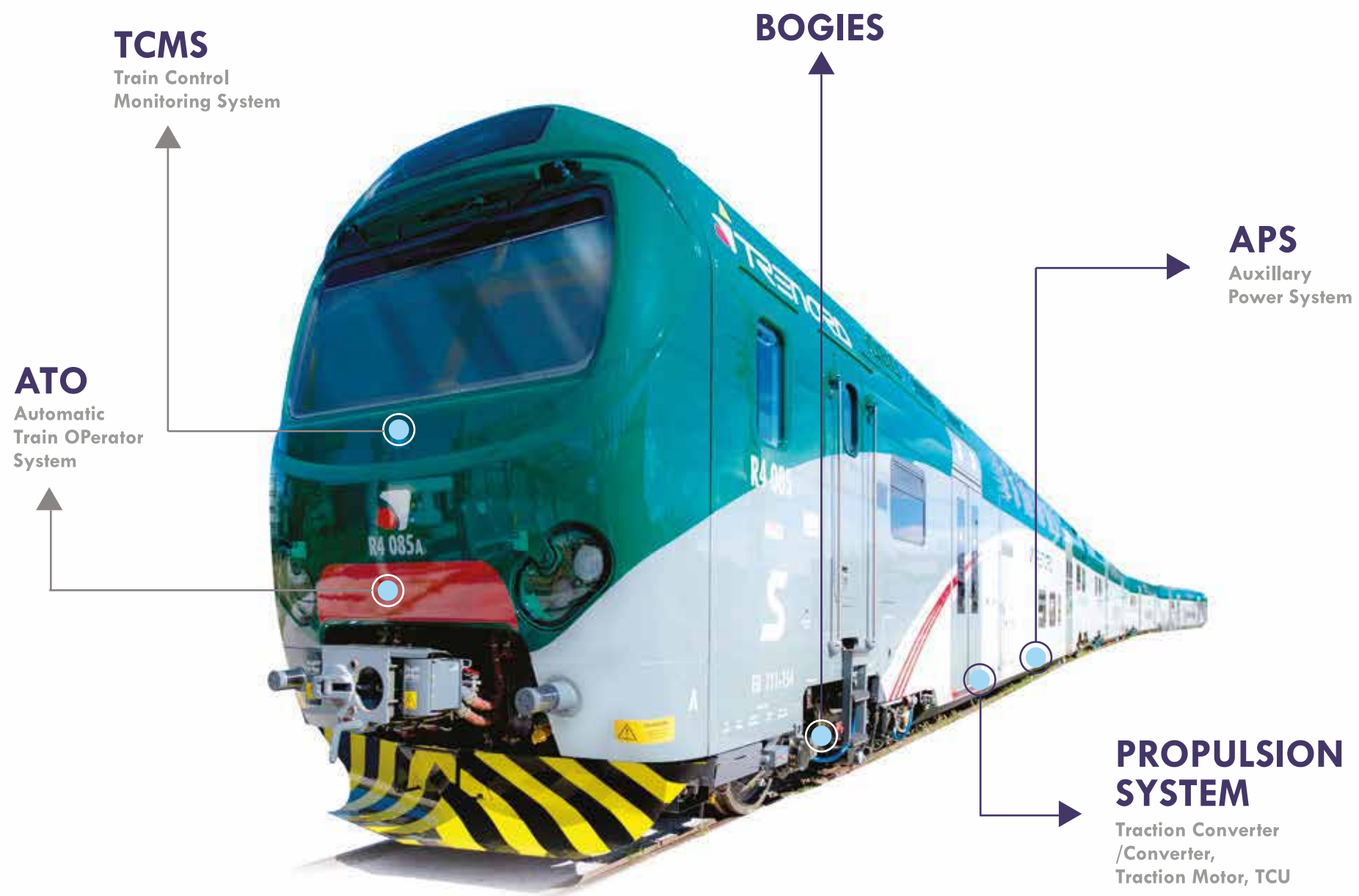


Gauge: 1435 | Design Speed: 80Km/h
| Operating Speed: 60Km/h | Material - Carbon Steel

LIGHT RAIL SOLUTIONS:

*In technical association with Blue

Titagarh develops and manufactures modern, mass transit, light rail transport systems (railway tram), which offer low-level access, clear view, low noise and comfort. Light rail transit is low on cost, has low axle load, is eco-friendly, and is electrically propelled with no pollution, noise and vibrations.



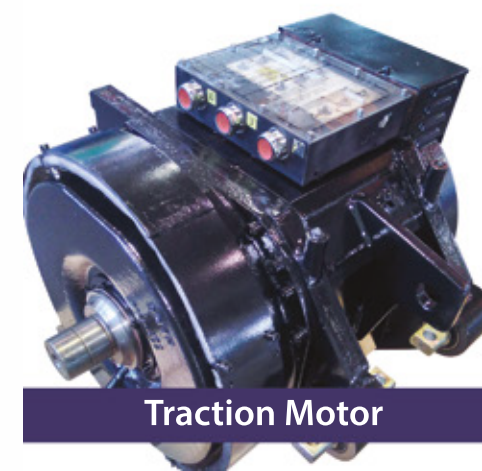
PROPULSION & TRACTION EQUIPMENT

Titagarh is one of the few companies having expertise in Propulsion & Electrical Equipment which includes Traction converters and power electronics, Auxiliary power supply, Traction motors, Train control & Monitoring System etc.

Titagarh Wagons Limited (TWL), flagship company of the Titagarh Group, one of the market leaders in the railway rolling stock (trains and freight wagons) business in india and Italy has entered into a exclusive cooperation agreement with ABB, to address the large and growing business of propulsion equipment(traction converters) for the Indian Railway EMU/MEMU market.



EMU Bogie ▶



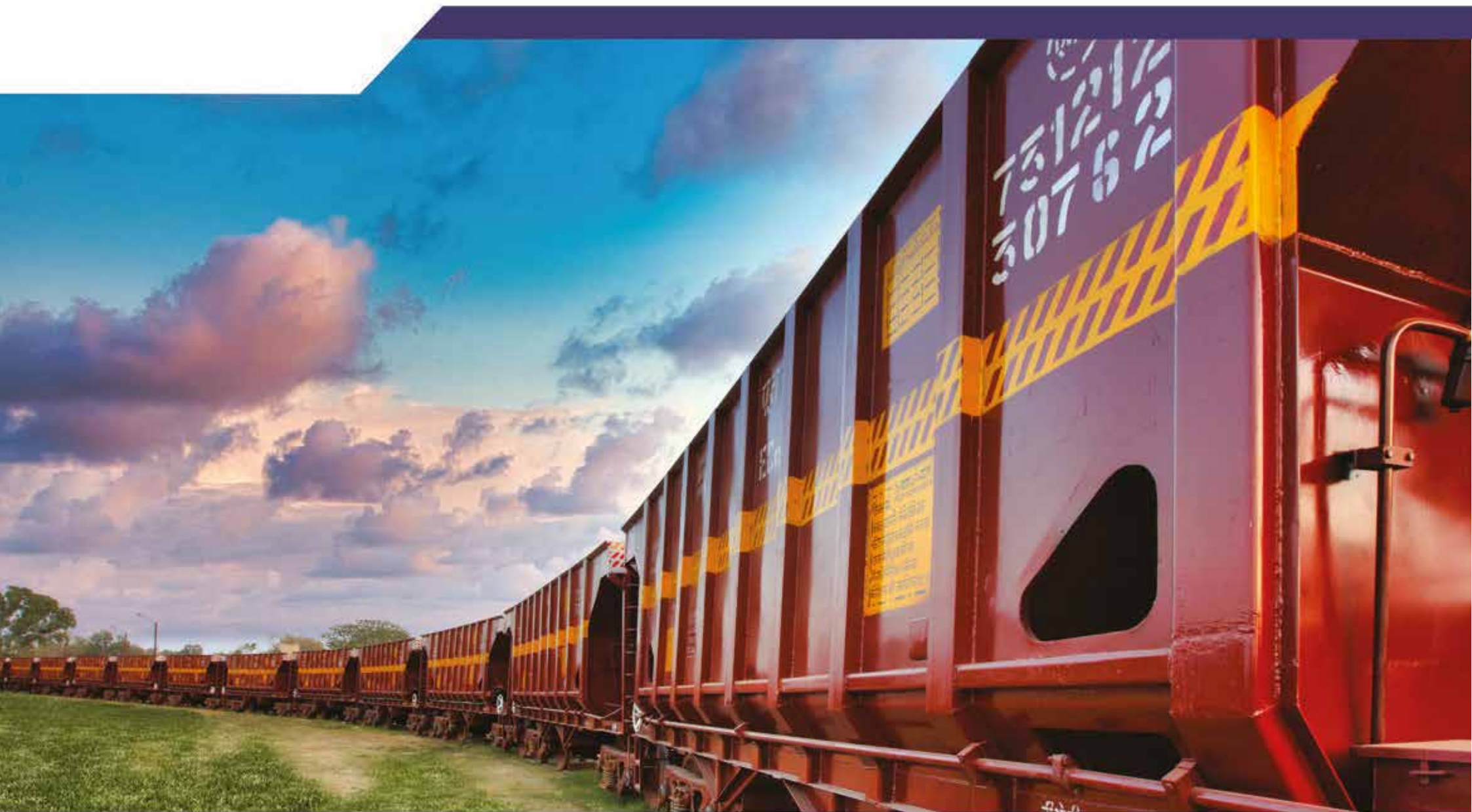
Traction Motor



Traction Converter



Driver Desk



Hopper Wagon ►

Purpose: Ballast, stones, grains | Payload: 66.6 T | Gauge: 1676 mm

MOBILITY FOR THE INDUSTRY: RAILWAY FREIGHTS

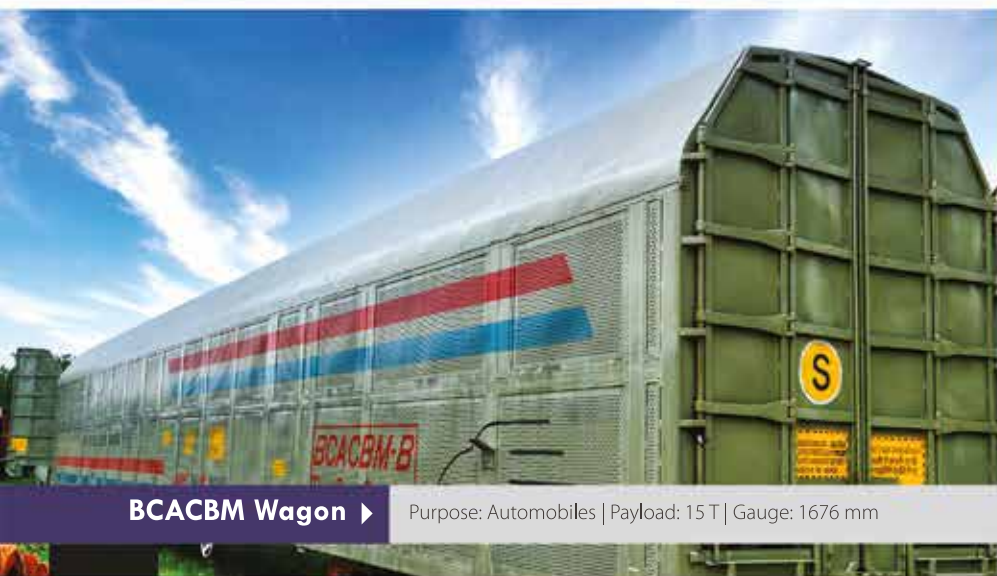
Titagarh is the largest private manufacturer of Freight Rolling Stock in India along with well established export credentials. Having facilities spread across the country, our total rated capacity is 8500 wagons a year and two class A foundries that churn out 25000 Tons of castings.





Tank Wagon ▶

Purpose: Petroleum Products | Payload: 54 T | Gauge: 1676



BCACBM Wagon ▶

Purpose: Automobiles | Payload: 15 T | Gauge: 1676 mm



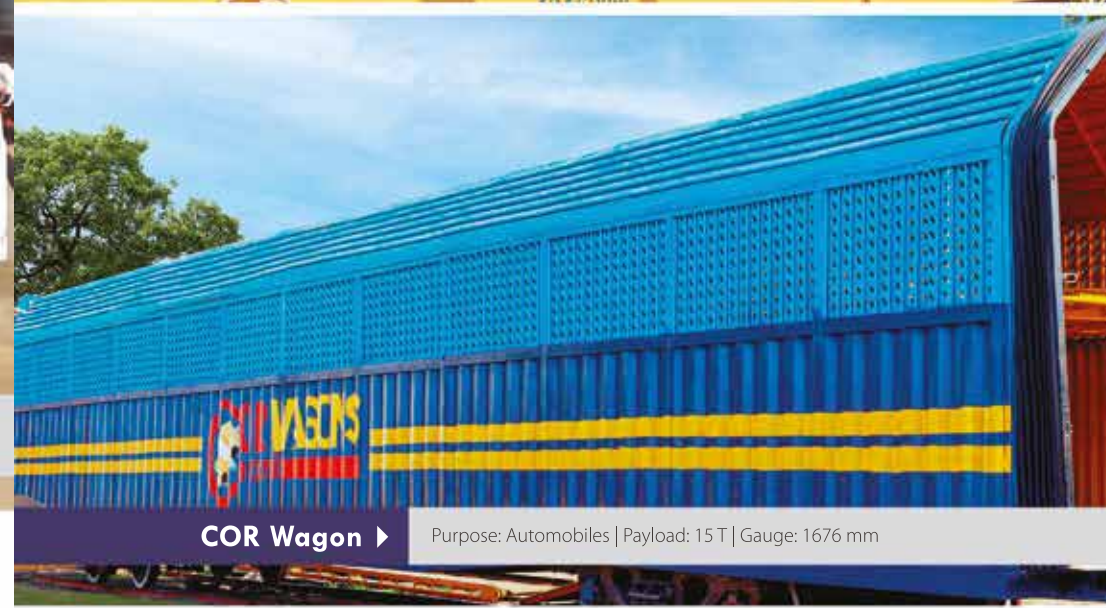
Flat Wagon ▶

Purpose: Carrying Containers | Payload: 81.9 | Gauge: 1676mm



Alumina Wagon ▶

Alumina | Payload: 54T | Gauge: 1676 mm



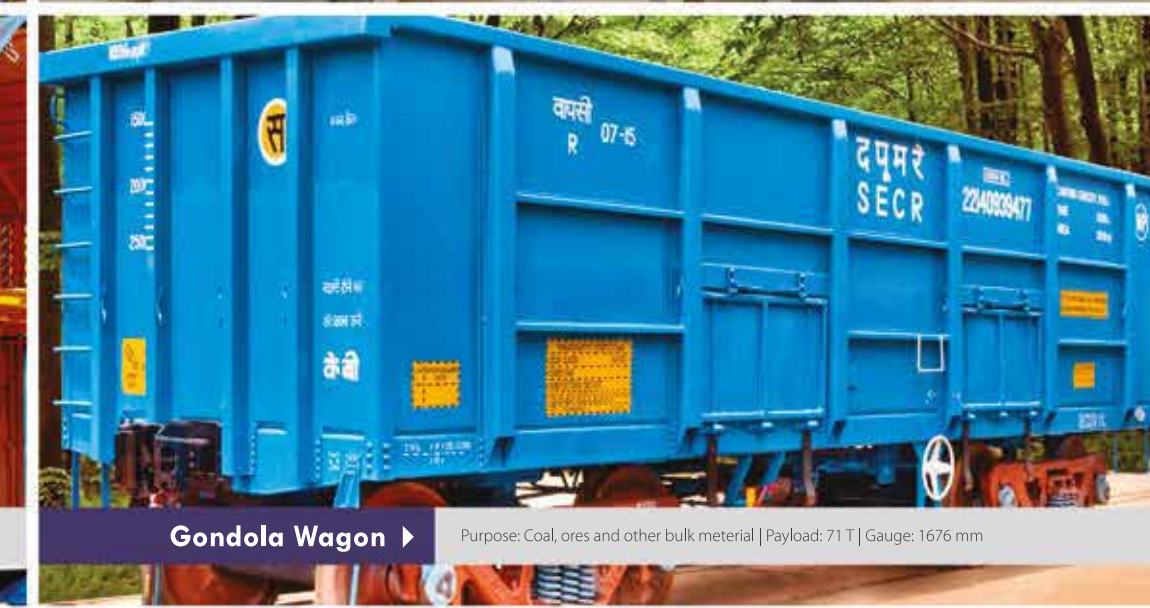
COR Wagon ▶

Purpose: Automobiles | Payload: 15 T | Gauge: 1676 mm



Flat Wagon ▶

Purpose: Carrying Containers | Payload: 54.57 | Gauge: 1676mm



Gondola Wagon ▶

Purpose: Coal, ores and other bulk material | Payload: 71 T | Gauge: 1676 mm



COMPONENTS/ FOUNDRY ITEMS

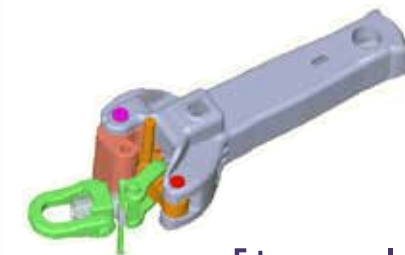
The foundry business was the maiden business venture of Titagarh that laid the foundations for the leading rolling stock manufacturer in India. Today, with two large Steel Casting Foundries that churns out 25000 Tons of MT Castings, Titagarh manufactures components for the Indian Railways, as well as the International Market.



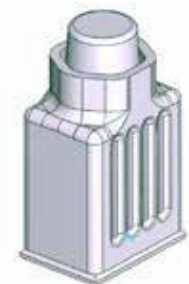
Side Frames & Bolsters



CMS Crossing



E type coupler



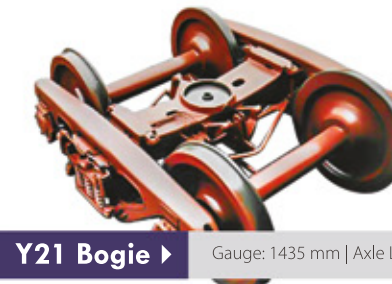
Draft-Gear



T16/17 Bogie ▶ Gauge: 1000 / 1067 mm | Axle Load: 18 T



Y25 Bogie ▶ Gauge: 1435 mm | Axle Load: 22.5 T



Y21 Bogie ▶ Gauge: 1435 mm | Axle Load: 22.5 T



Oceanographic Research Vessel



1000 Ton Fuel Barge



MOBILITY ON WATER: SHIPBUILDING

With organic expansions, Titagarh having had acquired the experience of a 25 year company, is making waves in the industry. Titagarh ensures that it consistently delivers world-class ships which include Ocean Research Vessels For NIOT and Fuel Barges for Navy ahead of time.



MOBILITY TO PROTECT: DEFENCE

Titagarh is proud to have delivered a long range of prestigious products to different Defence sectors. Recently, Titagarh delivered metal Canopies & Canisters to Ministry of Defence (MOD). The Titagarh Defence sector is also manufacturing protected integrated field shelters with various applications for the Ministry of Defence. Titagarh possesses the Defence Industrial license allowing us to manufacture the Defence products such as Mine Clearing Systems, Military Trailers, CBRNe Equipment, Armouring solutions as well as Naval Vessels & Warships.



Military tank carrying wagon

MOBILITY TO CONNECT: BRIDGES

The Matiere Titagarh combine is now one of the world's most experienced and well equipped manufacturers with its range of Bailey bridges, and ultra-high performance modular bridges. The brand manufactures these products with modular fabrication designs that have multiple options in width and span. Also, they include unique, easy-to-move and ready-to-assemble panels. The bridges can be opened to traffic immediately after installation. So far, over 14,000 projects have been executed worldwide by the brand that has also earned international certification.

Modular Bridging Solutions

Titagarh is the licensed partner of **Matière, France** for marketing, manufacture and supply of metallic and modular steel bridges for the Indian subcontinent.

- ▶ **Permanent Solution-** TBIL Unibridge (UB) is a permanent steel Bridge solution using a modular design of Box Girders and decking plates with high strength steel and composite concrete decking.
- ▶ **Ideal for remote locations-** The bridge structures do not require any welding on site and can be assembled without heavy lifting devices.
- ▶ **Quick Launching-** Only a week is needed to install a typical two-lane (nine-meter wide) bridge 40 meters in length and the only preparatory work that needs to be done is the bridge abutments.
- ▶ **Ease of Transportation-** The design is adapted to ensure the box girders could fit into standard shipping dimensions of 20' & 40' containers and trailers.
- ▶ **Wide Range of Applications-** Good solution for both urban and rural settings with its ability to handle any load class and carriageway, as well as very long single span lengths of up to 60 meters.
- ▶ **Zero Wastage and Environment Friendly-** Bridges are prefabricated and hence no waste produced on site. All scrap steel produced in Titagarh factories are recycled or reused as per our commitment to a greener environment.
- ▶ **Overall Cost and Time Effectiveness-** Lower civil costs accredited to the lower volume of civil work, compactness in transport and ease of launch makes these Bridges extremely cost-effective on a total cost analysis and can be fabricated, launched and commissioned in a highly time efficient manner.



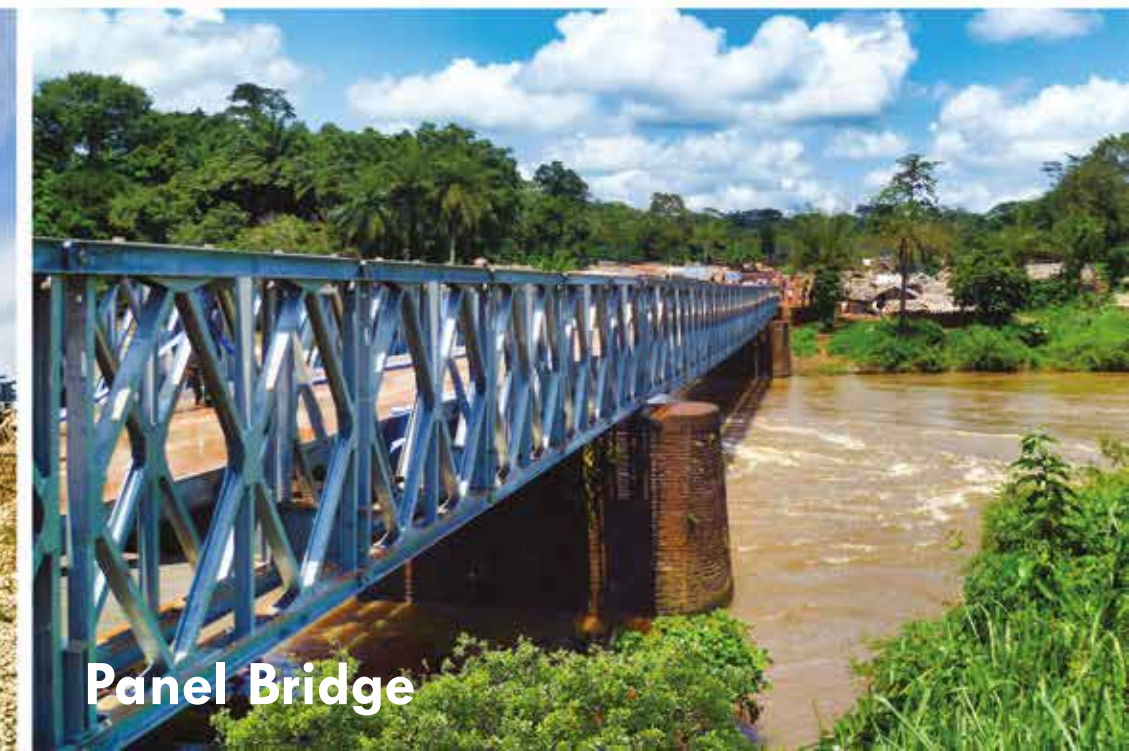
Unibridge



Bailey Bridge



Matiere X Bridge



Panel Bridge

CERTIFICATIONS

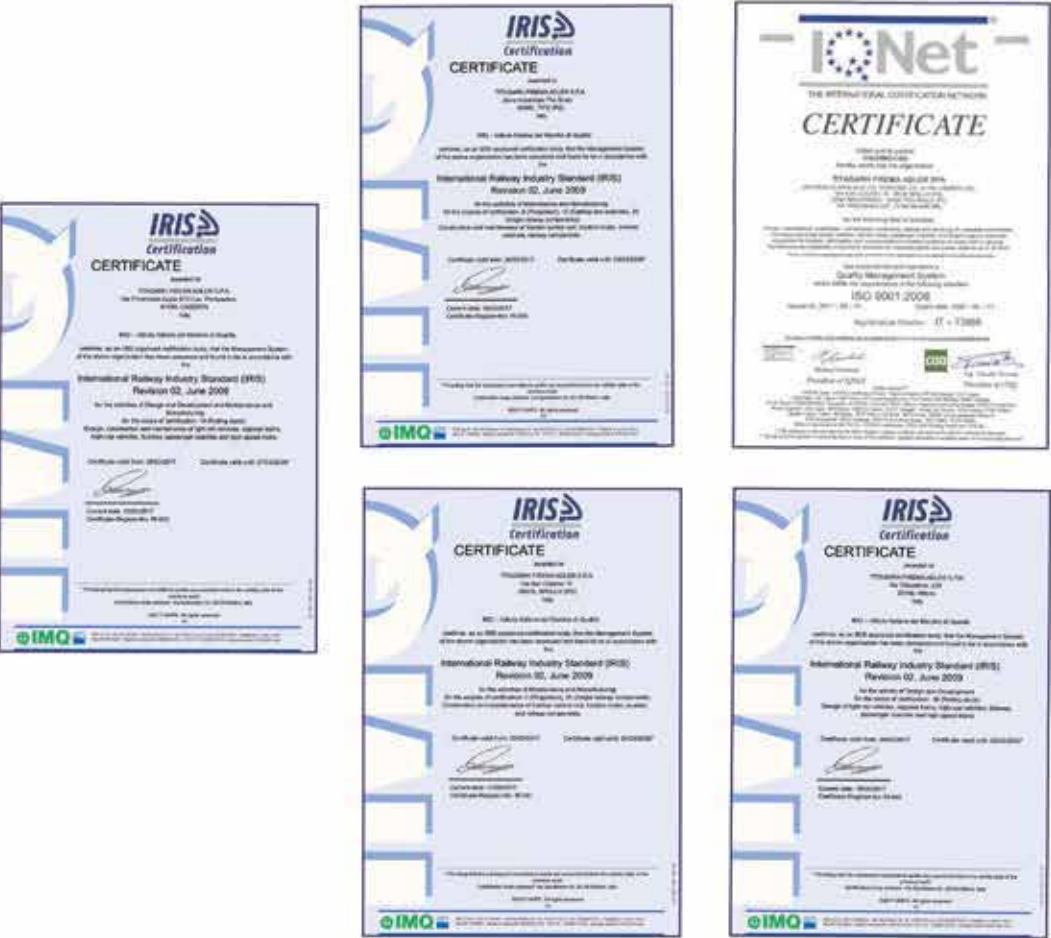
Titagarh Wagons Limited India

- ISO 9001:2015
- ISO 14001:2015
- ISO 9001:2008
- ISO 14001:2004
- ISO 3834:2006
- BS OHSAS 18001:2007
- Certificate Level CL1 according to EN 15085-2:2007 for welding of railway vehicles and components
- Certificate of Approval for quality Management system (2014 & 2015) issued by the Indian Registered Quality Systems (IRCLASS)
- ASME - U Certificate
- G-105 Certificate
- Defence Industrial License
- Registration with RDSO, MOD, DRDO & OFB



Titagarh Firema SpA Italy

- ISO TS 22163:2017 – Railway applications – Quality management system
- UNI EN ISO 9001:2015
- UNI EN ISO 3834 Part 2– System Certificate for welding process
- UNI EN 15085-2 CL1 – Process Certificate for welding process, CL1 certification level
- UNI EN ISO 14001:2004
- Competence Management System certified in conformity with Trenitalia organisational communication COCS 30.5/DT and Trenord Procedure P096
- ECM Certificate – Entity in Charge of Maintenance in conformity with Directive 2004/49/EC and Regulation (EU) No. 445/211
- BS OHSAS 18001:2007
- Laboratory for static and dynamic mechanical tests on railway rolling stock structures, certified by Italcertifer



MOVED BY SOCIETY: CORPORATE SOCIAL RESPONSIBILITY

Gyan Jyoti: Titagarh took up its Corporate Social Responsibility long before it became mandatory by law and continues to make significant contributions to its social footprint. The Company aspires to take up a leading role in Corporate Social Responsibility (CSR) as TITAGARH believes CSR connects businesses to society and helps them to participate in overall development of the nation. Gyan Jyoti is an initiative geared towards the education and upliftment of under-privileged children in the society.

Jeevan Nirog: Titagarh took up healthcare interventions with focus on local areas around its plants: one in Titagarh, two in Uttarpara and one in Barrackpore. The pilot project began by strengthening the Community Health Care in these areas, which included preventive and curative services ensuring that these services are physically accessible free of cost at the Health Camps organized by Titagarh. The cultural sensitivities of the people were kept in mind specially since the prime focus of the medical interventions were women and children.

Shail Ganga: Titagarh is committed to improve the health of children coming from underprivileged background by providing better access to clean drinking water and improved hygiene practices under a series of activities. TWL has tied up with splash as part of its CSR Initiative for proving safe, clean and filtered drinking water. Filter systems installed have estimated commercial life of ten years and provide clean and safe drinking water. The costs for the setting up of the filters and hygiene behavior change activities in these institutions will be borne by TWL as part of its overarching mission of complete improvement in schools. Currently Titagarh is bringing clean drinking water to over 10,000 under-privileged children daily.

Parvaah: Animals are a wonderful part of our lives. But, many animals in our society are suffering. They are homeless and unwanted, abused and neglected. Some go hungry on our streets; others put to death in our shelters; and many suffer silently at the hands of their owners, who either don't understand, or simply don't care. Titagarh pledges to support neglected street animals under CSR initiative Parvaah.

