

GODREJ ELECTRIC TOW TRUCKS

2, 5 and 6 tonne capacity



Godrej Electric Tow Trucks for the long haul

Tow trucks are a vital part of the material handling chain in many operations like large factories, plants, warehouses, airports and ports where goods have to be transported over significant distances. Tow trucks offer exceptionally high productivity and economics compared to options like transporting goods on various types of forklift trucks. This advantage is even more pronounced when the load to be transported consists of a relatively large number of small items. Tow trucks are a very efficient and cost competitive form of transporting goods because they do not carry any goods themselves but pull the load placed in trolleys. A trolley train can transport a large number of items at a time, something other mobile material handling equipment cannot do.

Always conscious of the impact on the environment and the rapidly growing need for clean, quiet and energy efficient material handling equipment, Godrej brings to you electric battery powered towing solutions with 3 models of tow trucks in capacities of 2, 5 and 6 tonne with variants for stand-on and sit-down operation.

Godrej Electric Tow Trucks carry the promise of **increasing safety and productivity** while economizing the cost of transporting goods and materials around your facilities.





Electric powered tow trucks to cut your transportation costs and time

Godrej Electric Tow Trucks are ideally suited for indoor work on industrial flooring due to their compact profile and high degree of maneuverability. The 5 and 6 tonne sit-down models are also available with higher ground clearance and pneumatic tyres for outdoor use on concrete or paved surfaces.

The design emphasis on safety, operator comfort, efficiency and serviceability ensures that the user gets a productive, cost effective and durable towing solution.

Chassis

- The rugged, heavy chassis is fabricated from 10 mm thick steel plates that protect the drive unit housed within the front end.
- Generously rounded corners at the front minimize chances of impact while maneuvering in tight spaces.
- The traction battery is strategically located at the front end to utilize the force of its weight on the front drive wheel and ensure sufficient traction even when the tow truck pulls the full rated load.



Drive unit

- The AC traction motor, gearbox and polyurethane drive wheel form a well integrated, robust and powerful drive unit for the tow truck.
- The brushless AC drive motor offers the benefits of higher energy efficiency, quiet operation, lower heat losses, longer battery life and superior driving control besides being maintenance free.



Control system

- The AC microprocessor based programmable MOSFET controller governs the traction system and guarantees a smooth, energy efficient control of the machine.
- It allows us to program the machine performance parameters to suit various applications and user requirements.
- Instrumentation includes an ignition switch, full function tiller handle for steering, acceleration and forward/reverse direction control, battery discharge indicator, hour meter, and an emergency stop switch.



Traction battery

- A 24V, 320 Ah lead acid battery with 5-hour rate of discharge is the power source.
- A tough, steel door with a toggle lock clamp keeps the battery in place while a roll-out system enables a quick change within minutes.



Braking system

- An electromagnetic brake on the traction motor makes the braking system integral with the drive. By either removing his thumb off the butterfly throttle switch or taking his left foot off the operator sensing pedal, the driver automatically applies the fail-safe electromagnetic brake, bringing the truck to a stop.
- The operator sensing pedal on the floor guarantees safety by disconnecting the drive circuit instantly and applying the brake when the operator takes his left foot off this pedal.
- This electromagnetic brake also acts as a fail-safe parking brake even on slopes making the tow truck very safe to drive.



2T STAND-UP TOW TRUCK

Standard accessories

- Headlight
- Turning indicator lights
- Flashing beacon
- Rear view mirrors
- Horn
- Reversing buzzer

Options

- Front crash guard
- Front side Airport trolley attachment

GTT-20



Towing system

- For the most energy efficient and safe operation, it is desirable to have the towing bar as close to horizontal as possible. To achieve this condition while accommodating different vertical positions of the towing device on trolleys, Godrej Tow Trucks have a towing pin bracket that can be set at 3 different vertical positions on the back plate of the chassis.
- Further, since the towing pin bracket is bolted to the frame, it is easy to replace it with any other kind of towing attachment that suits your specific needs.



Ergonomics

- The floor board is less than 150 mm (6 inches) off the ground, making it possible to virtually 'walk' into or out of the truck. This, along with a spacious operator area is of vital importance when the operator has to get on and off the truck frequently, to hitch or uncouple the trolley(s) from the towing pin.
- A cushioned backrest that stretches the full height of the back plate on the chassis provides an excellent support for the operator at all times.



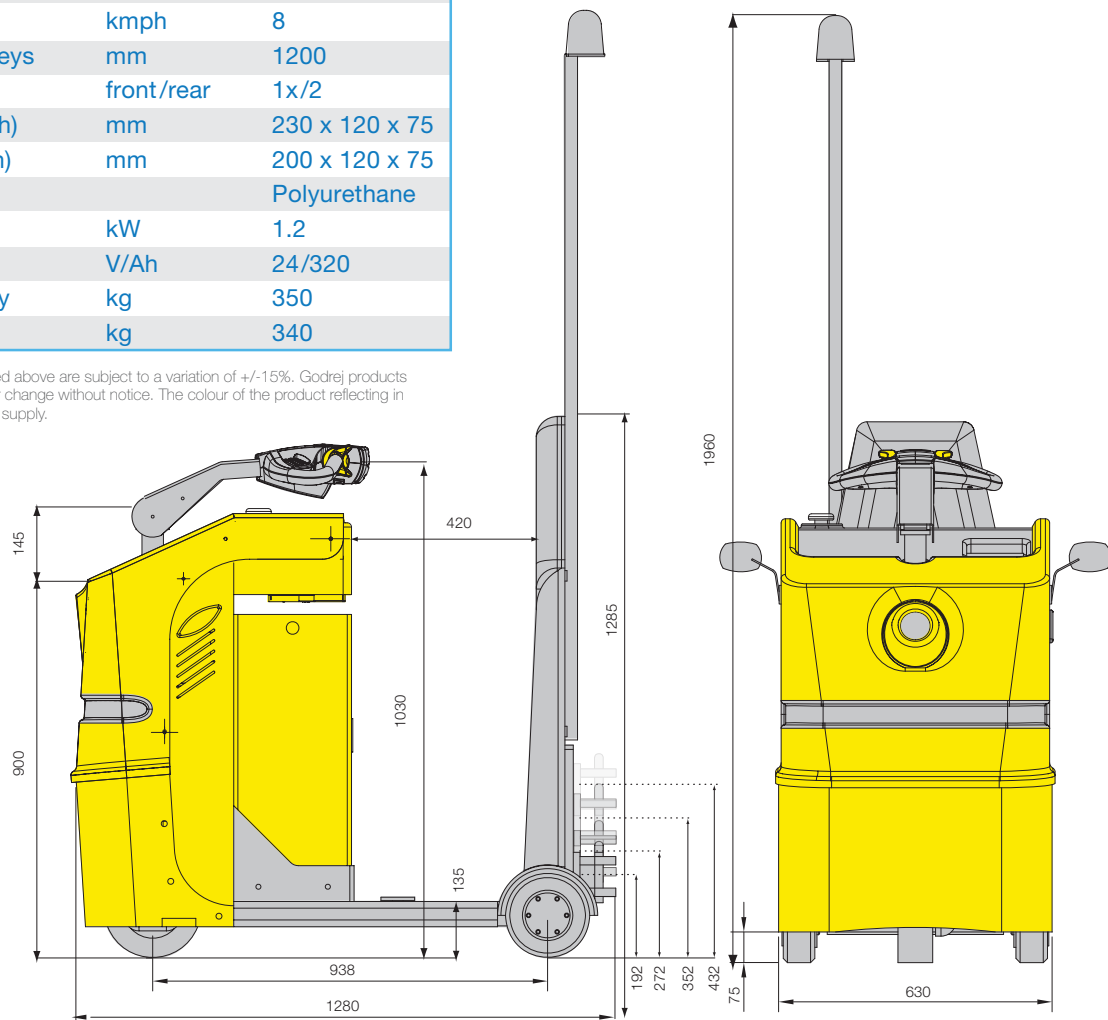
Steering system

- The drive unit is directly connected via a strong universal joint to the tiller arm and operating handle.
- The tiller handle also contains forward/reverse direction control and butterfly switches for speed control.

Technical Specification

Parameter	Unit	Value
Model		GTT 20
Towing capacity	kg	2,000
Max. tow bar pull	N	2,000
Travel speed, with rated load	kmph	7
Travel speed, without load	kmph	8
Turning radius, without trolleys	mm	1200
Wheels (x = driven)	front/rear	1x/2
Front wheel (OD x ID x width)	mm	230 x 120 x 75
Rear wheel (OD x ID x width)	mm	200 x 120 x 75
Wheels		Polyurethane
AC traction motor	kW	1.2
Traction battery	V/Ah	24/320
Truck weight without battery	kg	350
Battery weight	kg	340

NOTE: All dimensions and specifications indicated above are subject to a variation of +/-15%. Godrej products and specifications are subject to improvement or change without notice. The colour of the product reflecting in this brochure is indicative and may vary in actual supply.



GTT 50 & GTT 60

Godrej 5 and 6 tonne Electric Tow trucks are available in two variants:

- **Sit-down Rider** for transporting goods over longer distances and
- **Stand-on Rider** for shorter runs and for applications where the driver frequently needs to get on and off the truck for performing other activities

While the design principles, power train, battery and control system are essentially the same leading to the same performance parameters, there are differences in the frame construction, the steering system, throttle and brakes.



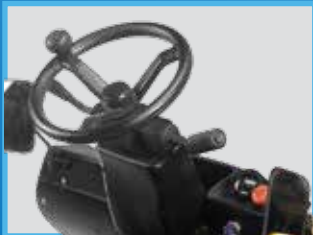
Drive unit

- The AC traction motor, gearbox, drive axle and suspension combine to form a strong and harmonized drive train for smooth acceleration and high torque that enables the truck to climb gradients of over 20% without load.
- The advanced AC drive motor offers the benefits of higher energy efficiency, and quiet running.



Control system

- The microprocessor based programmable MOSFET controller governs the traction system and guarantees a smooth, energy efficient control of the machine.
- Regenerative braking kicks in soon as the operator takes his foot off the accelerator pedal, converting the mechanical energy of motion back into electrical energy stored in the battery. It effectively acts as a brake, thereby reducing use and wear on the drum brakes.



Steering System

- Twin steer wheels at the front distribute the load and prolong tyre life while significantly reducing the effort required to steer the truck.
- **Sit-down Rider Truck:** A tilting, adjustable steering column with conventional steering wheel steers the front wheels through a robust force multiplying mechanism that steers the twin front wheels.
- **Stand-on Rider Truck:** A simple but elegant steering handle directly connected to the steering wheels through a robust linkage, antifriction bearings and universal joint offers easy, low effort steering. The hand grip also serves as an accelerator.

Standard accessories

- Headlight
- Turning indicator lights
- Flashing beacon
- Rear view mirrors
- Horn
- Reversing buzzer

Options

- Overhead sun canopy (Sit-down Rider variant only)
- Pneumatic tyres with higher ground clearance (Sit-down Rider variant only)
- Front crash guard (both variants)
- Front side airport attachment (Marketing sanction requirement)



Chassis

- The rugged chassis is fabricated from heavy steel plates that protect the steering and drive systems housed within.
- The generously rounded front of the truck makes turning in tight spaces safe and easy.
- The traction battery is strategically located close to the rear, driven axle to utilize the force of its weight on the drive axle and ensure sufficient traction even when the tow truck pulls the full rated load.
- While the Sit-down Rider version has a high mounted seat to allow the driver a clear field of vision, the Stand on Rider truck has a foot step just 280 mm (11 inches) high to make easy step in and step off easy and effortless.



Towing system

- For the most energy efficient and safe operation, it is desirable to have the towing bar as close to horizontal as possible. To achieve this condition while accommodating different vertical positions of the towing device on trolleys, Godrej Tow Trucks have a towing pin bracket that can be set at 3 different vertical positions on the back plate of the chassis.
- Further, since the towing pin bracket is bolted to the frame, it is easy to replace it with any other kind of towing attachment that suits your specific needs better.

Ergonomics

• Sit-down Rider Truck

- Vinyl molded, cushioned seat with adjustable position and back rest, fitted with a safety seat belt.
- Generous leg room for comfortable driving over long hours.

• Stand-on Rider Truck

- Low 280 mm (11 inches) floor height and spacious operator area makes stepping in and out easy and effortless. This makes the operation safer and more productive.
- Separately adjustable hip and back rest cushions make the truck comfortable for operators of different heights and build, providing them excellent support at all times.
- In both variants the tow hitch mechanism can be operated by the driver from his normal working position.
- Large diameter, solid rubber tyres provide a maintenance free long life.
- Instrumentation includes an ignition switch, a high / low speed selector, battery discharge indicator, hour meter, forward/reverse switch and an emergency stop switch.



5T/6T SIT-DOWN & STAND-UP TOW TRUCK

Service brakes

- Conventional pedal operated, easy to maintain, hydraulically operated drum brakes on the rear wheels deliver quick and safe braking performance.

Parking brake

- Sit-down Rider Truck: A locking pedal is located above the service brake pedal. Apply the brakes and press down the lock pedal. This effectively locks the brakes in applied position. Tap the brake pedal with your foot again and the parking brake is released.
- Stand-on Rider Truck: Apply the service brake and press down a knob provided on the dashboard. This locks the brakes in the applied position. A light tap on the foot brake pedal releases the parking brake.

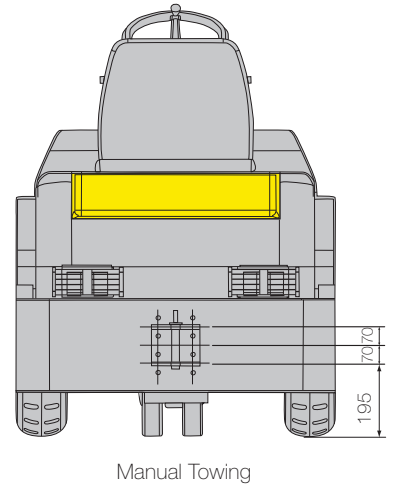
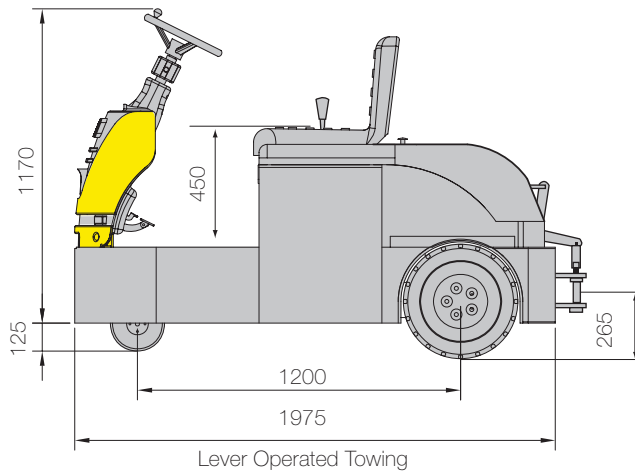
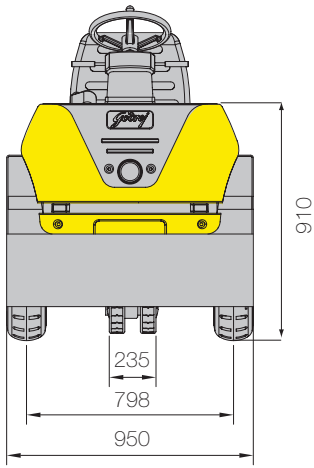


Traction battery

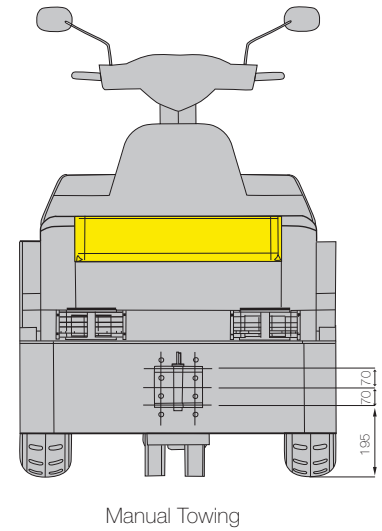
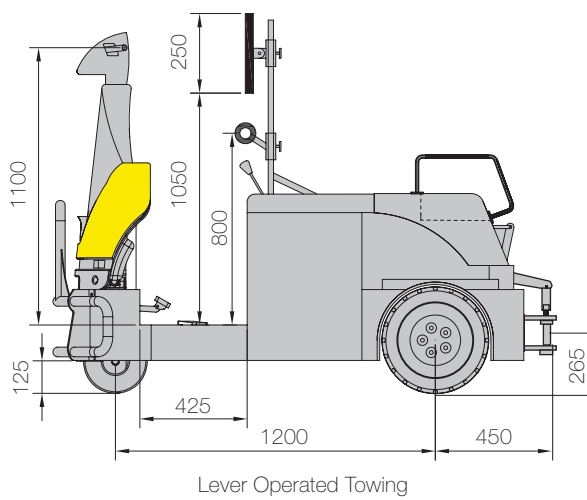
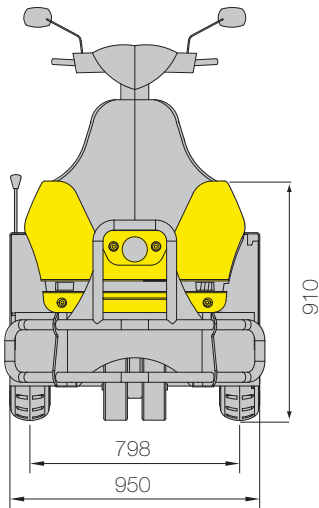
- A 48V, 240 Ah lead acid battery with 5-hour rate of discharge is the power source. A strong, steel gate with slide lock and a buffer stop keeps the battery in place while a roll-out system allows a quick change within minutes.
- The battery gate is interlocked with the electrical system, allowing the truck to be operated only if it is securely locked.
- The battery lid serves as a base for mounting the operator seat or back rest. It is securely fastened to the chassis to securely confine the battery within the truck chassis.



Godrej Tow Truck - Sit Down Type - GTT - 50/60



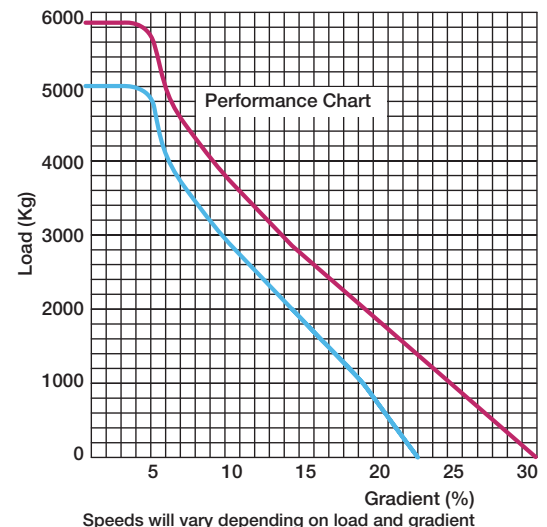
Godrej Tow Truck - Stand Up Type - GTT - 50/60



Technical Specification

Parameter	Unit	Value
Model		GTT 50/GTT 60
Towing capacity	kg	5,000/6,000
Max. tow bar pull, peak	N	4750
Max. tow bar pull, continuous	N	2000
Travel speed, with rated load	kmph	8
Travel speed, without load	kmph	11
Turning radius, without trolleys	mm	1775
Front steer tyre (OD x width)	mm	250 x 100 (twin)
Rear drive tyres (OD x width)	mm	410 x 150
Wheels		Solid rubber tyres
AC traction motor	kW	5
Traction battery	V / Ah	48 / 240
Net weight without battery	kg	500
Battery weight	kg	595

■ -GTT 50
■ -GTT 60



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