

TERBERG MAGAZINE



WHERE SPECIAL COMES AS STANDARD

Terberg Connect apps available in app stores

The Terberg Special Vehicles telematics software for terminal tractors has been renamed and restyled. The apps Terberg Connect GO and ON for fleet managers, service engineers and drivers are now available in app stores. We have optimised the presentation of the data, based on feedback from distributors and customers.

By using Terberg Connect telematics customers can use valuable data to optimise their terminal and shunting yard operations. The software helps fleet and maintenance managers to monitor, report out and improve fleet efficiency and uptime. Proactive maintenance can be scheduled automatically based on the number of operating hours. Vehicle notifications and codes help service engineers to diagnose remotely in order to better prepare a visit or remotely offer a solution.

Terberg Connect Manager

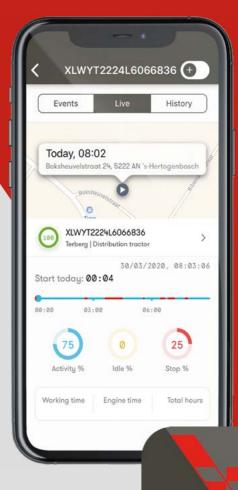
The web application Terberg Connect Manager (connect.terberg.com) gives vehicle service managers access to data about all their vehicles, in more than 10 languages. They can set alerts for upcoming scheduled services and these can be sent as e-mails or SMS text messages. The web application can generate a range of reports:

 Predefined operational reports provide information about vehicle use, e.g. the driving time and stationary time, and acceleration.

- Scheduled maintenance reports help optimise the uptime and performance of the fleet.
- Vehicle route reports can be studied to improve efficiency.
- Users can also define their own reports to suit their needs.
- Fleet analysis reports compare data and fault codes for one vehicle with those for the rest of the fleet.

Terberg Connect apps

In addition to the web application, apps are available for service engineers and drivers. The Connect GO app is designed for service technicians and also for fleet and maintenance managers. The Connect ON app is developed for drivers and can be extended with access control. It helps a driver when checking the oil level, lights, tyres, etc. at the start of a shift, and to report any problems or damage.



Important parameters









CONNECT



Ready for the future

Over the last few years we have invested heavily in zero emission drivelines, advanced driver assistance systems and autonomous driving. We have also kept the focus on the further development of reliable and robust products that can move containers and other loads at the lowest possible cost.

Many of our developments of the last years are now converging. Our newly developed yard tractor is ready for the future. You can choose from different low emission diesel drive lines or a full electric zero emission version. This year we will start testing tractors with fuel cell technology.

New YT

This new model yard tractor was developed to improve productivity in daily operations. We studied all the steps in the logistics processes in which yard tractors are used and looked for ways to further optimize everything drivers do. We found ways to improve productivity and also to provide the driver with an even safer and more comfortable work environment. We have also considered that people need to work longer before retiring. Our vehicles help older drivers to keep productive and also reduce absenteeism.

In mature economies we also see that the technicians who maintain the tractors are becoming scarcer and more expensive. We developed the new YT so that preventive maintenance can be done up to 20 – 25% more efficiently than with any other terminal tractor on the market.

AutoTUG developments

The new YT is also a good platform for the integration of various advanced driver assistance systems and autonomous driving functions. Our AutoTUG with drive-by-wire concept makes it possible to develop custom solutions. Over the years we have learned a lot about this technology. We increasingly work with selected partners to supply automation solutions for different logistics processes. We are now implementing the initial projects and working on a number of potential orders. These projects take relatively long to develop because we want to be certain that we deliver effective products which are safe in themselves and support the safety concepts of the terminals where they are used.

Continuous global support

In this magazine you can read about deliveries to customers all over the world. We have supplied tractors in more than 130 countries. These deliveries require 24/7 global support. Terberg Benschop did not have to close when the corona crisis started in the Netherlands, and production continued without interruption. We also continued to provide customer support in these extremely difficult times, and we are focusing on high parts stock availability to respond quickly to your requests. Going forward we are now developing new digital services for remote support. For example, we have started online customer training. It is important for you to know that we are a strong and financially healthy family-owned company that will keep investing in our relationship with you, to ensure our customer support is ready for the future.

Rob van Hove/Director

Terberg Benschop and international subsidiaries

Terberg's main plant is at Benschop, the Netherlands, where our tractors are designed and built to customer specifications. The division has seven international subsidiaries to bring us closer to our customers. Some of these subsidiaries also supply and support other makes of equipment.

terbergspezialfahrzeuge.de

This subsidiary supplies our tractors and Kinglifter truck-mounted forklifts to the German market, where quality and durability are highly valued. The company



emphasises flexibility, to ensure that customer expectations are not simply met, but actually

terbergmiddleeast.ae

This subsidiary is located in Dubai and supplies our tractors and spares throughout the Middle East and Africa and provides after-sales support. Our



vehicles have proven to be fully capable of dealing with the demanding climate conditions in these areas.

terbergspecialvehicles.com

This company is a joint venture of Terberg Benschop and Sime Darby Industrial Sdn.

> Bhd. In Malaysia, Terberg tractors are produced locally for the markets in Asia and the Pacific.

terbergtractorsamericas.com

This subsidiary is based in Miami and serves North, Central and South America

and brings us closer to our customers in these regions. TTA offers our full range of tractors.

terbergdts.co.uk

In addition to the full range of Terberg tractors, Terberg DTS also distributes Kinglifter truck-mounted forklifts, terminal and industrial trailers, special airport vehicles and Zagro rail shunters in the UK

> and Ireland. The company has a fully-equipped servicing workshop and a large rental fleet.

terbergtractorsbelgium.be

This subsidiary supplies our tractors and Kinglifter truck-mounted forklifts to the Belgian market and undertakes scheduled inspections in accordance with local requirements. Many of our units are

operating in the busy port of Antwerp. Terberg Belgium also supplies Still forklifts and other equipment.



manuport.it

Our latest subsidiary supplies Terberg tractors, other port equipment and





heavy-duty fork lift trucks and services these vehicles.



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The New YT

Multifunctional platform design results in more efficiency and longer vehicle life

With the new generation of YT tractors
Terberg introduces a new approach to product
development. This ensures an even higher
quality, longer vehicle life, higher residual value
and an improved time-to-market. As a result
our customers benefit from an extremely long
economic vehicle life and favourable return on
investment.



Gert van de Fliert (Project Engineer) and Frank Oerlemans (Export Manager)



From specific to generic

Terberg refers to this approach as the Multifunctional platform. Ronald van Zoelen, Engineering Manager, summarised it as: "We develop modular systems such as the electronic architecture, software or driveline so that we can use them in all our vehicle models." This helps to future-proof Terberg. Gert van de Fliert, YTxx3 Project Engineer, added: "This enables us to develop products even more efficiently and it provides an excellent platform for future developments."

Internal and external surveys

When opting for a platform approach you have to identify all stakeholder requirements. When it was decided to update the YTxx2 series our Engineering Department initiated a wide-ranging research project. To do this they visited customers throughout the world. Working with other departments, Engineering also analysed how the production process could be further optimised to assemble the vehicles more quickly, and further improve quality and minimise the likelihood of mistakes.



World class tractor

This internal and external research has delivered clear and effective results. Ronald: "The key issues our customers are interested in are high quality, being able to change orders as late in the process as possible, modular options, and minimising the time required for servicing vehicles. Given these analyses and our own know-how we decided to develop a new vehicle concept resulting in more synergy, greater economies of scale and a reduced risk of failure: a tractor we can sell worldwide."

A completely new design

The new method and outcomes provided our engineers with pointers to a completely new vehicle design, rather than a redesign of the current YT tractor. For the new generation, the YTxx3, they have covered every aspect in detail, especially ergonomics, ease of servicing, chassis, electronics, software, corrosion protection, functional safety and the driveline. This has led to a highly innovative comprehensive concept. >



H&B logistics operators enthusiastic

H&B Logistics, a warehousing service provider in the Netherlands, is one of the launch customers for the YT193 tractor.

H&B Logistics operator Mark van Hezik was very enthusiastic about the new Terberg tractor: "It's a real improvement. Even more comfortable and easier to use. I particularly like the lower step, and the airsprung cab and seat are very comfortable on uneven surfaces. The controls for forward/reverse and the fifth wheel lock are now conveniently grouped together next to the seat. The view from the cab of this new tractor is very good and it takes less than 15 seconds to couple a trailer. And they've thought about the cup holder!"

With over 160 vehicles on the road in the Benelux and more than 150,000 m² storage capacity in the Netherlands, H&B Logistics relieves customers of their logistics and volume transport worries.



Multifunctional driveline

The driveline of the new platform clearly demonstrates the multifunctional approach. There is now more space available in the chassis, which makes maintenance easier and there is now greater freedom to fit not only Stage 5 diesel engines but also electric or hydrogen drives.

Comfortable and spacious

The ergonomic design of the YTxx3 series offers comfort and lots of storage space. The cab provides optimised viewing angles, safe and comfortable entry and exit and a completely new dashboard design which was validated using mock-ups. The excellent suspension system makes the cab more comfortable. As drivers often prefer to leave the door open while working it can now be unlatched with a single movement.

Maintenance of the new tractors is even easier than before

Ease of service and maintenance

Maintenance of the new tractors is even easier than before. Gert: "As we have clustered parts such as the filters the service engineers can service the vehicles more quickly. There is now more space around the engines, so they have fewer parts to remove when undertaking repairs. Components such as the dashboard, bumper and mudguards are easily removable. This means that service engineers have full access to the parts behind them and can replace damaged parts more easily."

Corrosion resistant

The hot-dip galvanised chassis components provide excellent corrosion resistance. Another major advantage is that the risk of corrosion after damage to the chassis is greatly reduced. The new cab design avoids seams, sharp transitions and welded joints where possible. Instead pressed and rolled steel components are used, which are welded internally where necessary.

Terberg Electronic Architecture 2.0

The YTxx3 is the first vehicle which uses the completely new Terberg Electronic Architecture (TEA2.0). Ronald: "This architecture provides us with a single, universal platform. In future we will be able to use this for all vehicle models and drivelines." As a result service technicians will find it much easier to work on a range of different tractor models.

New YT allows CTH to work more efficiently



The drivers at launch customer Container Terminal Herne GmbH (CTH) like this terminal tractor so much that they are queueing up to drive it.

CTH is a modern container terminal in Herne, in the west of Germany. The company handles around 150,000 containers every year, which are delivered or collected by road or rail. Deputy operations manager Dennis Majewski commented: "This new tractor offers the driver many improvements. That saves 10 seconds every trailer operation, and almost an hour and a half every day. That is a huge time-saving!"

According to driver Michael Werner the YT193 is great to drive and operate. "The work is now much more comfortable. I no longer have to extend my arms to reach the controls, or rest my elbows on my legs. I have fingertip control from my comfortable seat with armrests. That is really convenient. And the storage compartments are great!"

YT203-EV / BC202-EV

Next Gen Electric





The advantages of Terberg electric vehicles:

- Motor performance comparable to that of a diesel engine
- The Thermal Management System (TMS) controls the temperature of the batteries, enabling worldwide use at high and low temperatures (-30° up to +50°C) *
- Wide choice of battery capacities (YT203-EV up tot 222 kWh and BC202-EV up to 148 kWh)
- Low maintenance costs
- Zero emissions at the point of use
- Low noise level, low vibration
- Universal charging connector to CCS2.0 automotive standard
- Batteries tested to the ECE-R100 rev. 2 regulation
- One-pedal drive for optimum operator convenience and maximum energy recuperation
- May qualify for environmental grants



Modular and multifunctional

Terberg developed the new generation electric drive as a multifunctional, modular concept. This makes it easy to apply this EV system in a range of vehicles. The new approach enables Terberg to develop products more efficiently, using state-of-the-art technology. The improvement of a single component can benefit several vehicle types.

Low maintenance costs

The electric drive has fewer moving parts than a diesel engine and the previous EV generation.

This contributes to lower maintenance costs. The multifunctional design of the tractor and the EV system gives mechanics good access to components such as the cooling system and the motor. All this helps to reduce downtime for maintenance.

Choice of battery capacities

Terberg uses lithium-ion batteries in all its electric vehicles. We can determine the optimum battery configuration for every customer, depending on the intended operations. You have a choice of battery capacities: the YT203-EV up tot 222 kWh and the BC202-EV up to 148 kWh.

Nap Transport very pleased with

BC202-EV

As part of the product launch process and to get customer feedback, the new Terberg fully electric Body Carrier was operated by Nap Transport at the DPD parcels site in Veenendaal for several months early in 2020.

Director Arjan Nap: "We were very pleased with the electric Terberg Body Carrier. The fact that it is very quiet is highly appreciated, and all functions of the Terberg BC202-EV operate in the same way as on the diesel version. That is why we now prefer fully electric operation. The drivers really like it."

Drive Willem Brouwer adds: "I would like to emphasize that the lack of engine noise makes the work very pleasant, and the vehicle has good acceleration and is very agile. I can easily drive 10 to 11 hours with it.

DPD also welcomes sustainable innovations such as the electric Terberg Body Carrier.
"At DPD we take our responsibilities, to our customers and to our employees and society, seriously. That is why we want to reduce our environmental impact. We are working on new, environmentally-friendly options for processing



and shipping parcels." so explains Anoek van Dooremaal, Manager Sustainability at DPD.

About family business Nap Transport

In 1986 Hans Nap set Nap Transport up and in the years after that the business developed and now has several dozen of employees. Despite the expansion, the corporate philosophy remains the same: do what you agreed to, and ensure continuous innovation. His son, Arjan Nap, is now at the helm of the business.

"It is very quiet, great to drive, and I can easily drive around 10–11 hours on 1 charge with it!"





High duty cycle applications will benefit from a battery with a higher capacity, resulting in a longer range. Customers with lower duty cycle operations and more opportunities to charge the vehicle during the day can opt for a smaller battery pack, at a lower price. The choice of large and small battery packs also enables customers who prefer a short wheelbase to get a sufficient range.

Certified batteries with temperature control

The new batteries have been thoroughly tested and certified by Millbrook Proving Ground, to the ECE-R100 rev. 2 regulation. This regulation is a key European

requirement for the approval of electric vehicles. The tests cover aspects such as resistance to vibration, acceleration, impact, thermal loads, fire and short-circuits, and electrical safety.

The new batteries have temperature control and can therefore be used at any ambient temperature from +50 °C to -30 °C*. This makes the Terberg YT203-EV and BC202-EV suitable for use anywhere in the world!

^{*} Additional measures may be required in extreme temperatures.

Port of Helsingborg orders four YT203-EV tractors



Port of Helsingborg, the Swedish container specialist, has ordered four YT203-EV electric terminal tractors. The company is both a port operator and a stevedoring business and has the second largest container port in Sweden. The storage and transshipment company aims to create the most environment-friendly port in Scandinavia with these new vehicles.

The municipality of Helsingborg, owner of the port, has decided that in 2024 all equipment in the port should have zero CO_2 and NO_{\times} emissions. Bart Steijaert, CEO, Port of Helsingborg AB: "Our strategy is to be the most environment-friendly port in Scandinavia by that time." The purchase of these four Terberg electric terminal tractors is the first investment towards realising this. He added: "Terberg is one of first to supply electric tractors, and their equipment is highly reliable. We know it works, and the service is very good."

Significant savings

The new YT203-EV vehicles will operate 24/7 for at least 10 years. Steijaert expects that the additional first cost of the electric vehicles will definitely be recouped within that period.



Comfortable and environment-friendly

The new electric motor in the YT203-EV and BC202-EV has a performance similar to that of a diesel engine, but with less noise and vibration. Additionally, the electric motor avoids CO_2 and NO_{\times} emissions at the point of use. These features enhance the driving characteristics and comfort and make the YT203-EV perfect for use in enclosed spaces, such as distribution buildings, and close to residential areas.

The new EV drive has a regenerative braking system. Instead of being wasted, the braking energy is fed back to the batteries. The regenerative braking function is controlled by the accelerator pedal, so the driver can drive and brake with one pedal. Higher axle loads result in more regenerative braking.

"The savings on maintenance and diesel make the return on investment favourable"



"The savings on maintenance and diesel make the return on investment favourable."

Sufficient battery capacity

The four identical tractors will be used at the container terminal, the logistics park, and for transport operations between the two. Given the intensity of the operations the Port of Helsingborg is considering selecting the highest capacity battery pack for the tractors, 222 kWh. The company is also considering the most appropriate type of charging station. Power company Öresunds Kraft AB, on a neighbouring site, will guarantee the supply of sustainable electricity.

Investment and conversion course

The Port of Helsingborg ordered the new tractors from Terberg distributor N.C. Nielsen AS, which will also supply spare parts. The YT203-EVs will be built by Terberg towards

the end of 2020 and the distributor will deliver them early 2021. In the meantime, the customer will give their personnel conversion courses, from diesel to electric, and purchase new maintenance tools. By the end of 2024 all the existing Terberg terminal tractors will be replaced by the new generation Terberg electric terminal tractors.





Universal charging system

The YT203-EV and BC202-EV use DC chargers and can be charged at standard charging stations. The new, universal charging connector complies with the CCS2.0 automotive standard. This means the vehicles can be charged using any charger with a CCS2.0 connection and the appropriate specifications. Customers can use a universal charging infrastructure for Terberg and other vehicles, and for trucks and cars. Terberg can advise customers about the most suitable charging station.

The temperature of the battery can be maintained during charging. This means that after a charging cycle the driver does not have to heat or cool the unit but can immediately drive off at full power. This increases the operational availability of these Terberg vehicles.

Terberg Connect telematics system

The YT203-EV and BC202-EV are supplied as standard with the Terberg Connect telematics system. This provides remote monitoring of the status and performance of each vehicle; including the charge cycle, remaining battery capacity and any faults.



GERMANY

Aurubis AG chooses Terberg Container Carrier over conventional truck

Aurubis AG is a leading worldwide provider of non-ferrous metals and the largest copper recycler worldwide. In 2006 the Lünen site invested in a YT222 Container Carrier with double rear axle (6x4). This vehicle is still used daily to handle containers weighing as much as 40 tonnes, making up to 140 cycles per day.

CC more durable

The Lünen plant also used a conventional truck with hooklift system for container handling. However, the heavy loads resulted in deformation and cracking of the chassis. Hence the site has now ordered another Terberg YT222 Container Carrier to replace this vehicle.

The main Aurubis plant in Hamburg has a fleet of RT tractors used with goosenecks and roll trailers and will also start with an electric Terberg YT202-EV tractor.





As of April 1st 2020 the Royal Terberg Group has acquired the trading activities and ten employees of Alex Tasbach GmbH in Elchingen in Germany. Owner Alex Tasbach (68) has been a dealer of Terberg Kinglifter truck-mounted forklifts for almost 20 years, and this transaction ensures the continuity of his business. He will remain associated with the company as a consultant for

another three years.

For Terberg this acquisition means that sales and servicing of our truck-mounted forklifts in the South of Germany are ensured. Additionally, having a base in this region is valuable to us as it provides a presence for servicing not only truck-mounted forklifts, but also special vehicles and refuse collection equipment.

The activities will continue under the name Terberg Tasbach Spezialfahrzeuge, and the company will become a division of Terberg Spezialfahrzeuge GmbH.



Name	Cuxport
City, country	Cuxhaven, Germany
Type of tractors	RT223
Application	RoRo

RoRo operations in Cuxhaven

This multifunctional short sea terminal handles a wide range of cargo: heavy project cargo such as wind farm components, cars (350,000/yr), and paper, timber and steel. They have a flexible shift system to minimise the waiting time when loading and unloading vessels. RoRo cargo, up to 100 tonnes, is handled by a fleet of Terberg RT223 tractors.

Marc von Riegen, Operational Manager: "We have not encountered any problems since we started working with Terberg in 2005. We select equipment on the basis of quality, flexibility and comfort. The tractors are performing well in all aspects. They have powerful engines and good brakes, and the four-wheel drive handles heavy loads. This enables us to work quickly and safely in RoRo vessels, including on the ramps. Our drivers find the spacious cabs very comfortable. Maintenance of the tractors is quick and enables maximum uptime. Additionally, Terberg are quick, flexible and relatively cheap."

"Change in urban distribution will drive demand for Tractors"

According to General Manager Arno Ortlieb, Terberg Spezialfahrzeuge will emerge stronger from the coronavirus crisis.

The German subsidiary of Terberg Benschop serves Germany, Austria and Switzerland, with a total population of 97 million. Ortlieb explained: "We have a very strong position in distribution centre logistics (intralogistics). Seventy percent of all products people use are handled by a Terberg vehicle somewhere in the supply chain."

Terberg Spezialfahrzeuge has some customers in the automotive industry, the major industry sector in Germany. However, during the coronavirus crisis car production dropped, which also impacted suppliers to this industry. "The demand for terminal tractors fell by 15% in this sector. However, that was offset by a 30% increase in the e-commerce sector, which mostly uses body carriers."

Ortlieb expects the demand for Terberg terminal tractors to be higher also after the crisis.

That will not only be due to e-commerce but also due to changes in urban distribution. "Many more urban hubs will be set up throughout Germany to avoid CO₂ emissions in city centres. As there is a tradition of direct deliveries here, there are currently relatively few hubs. However, the environmental policies are resulting in a strong demand for hubs and terminal tractors with zero CO₂ emissions." At the same time, the effects of the corona crisis have led customers to start looking for alternative approaches. For example, more of them are renting vehicles now. That makes the operations more flexible and enables them to ensure their business continuity.

In short, both the corona measures and the environmental policies are creating new opportunities for us. That means we will emerge stronger from the crisis."



"Many more urban hubs will be set up throughout Germany to avoid CO₂ emissions in city centres"





Name	Otto Dörner
City, country	Hamburg-Stellingen, Germany
Type of tractors	1 TT223-CC
Application	Recycling container handling



Rental to meet peak demand

Terberg Spezialfahrzeuge TSF has a large rental fleet of tractors and other special vehicles. These are made available to customers under both short and long term contracts and are backed-up by a full service package.

Otto Dörner Gmbh is a leading waste management operator, mostly active in the north of Germany. The company also supplies gravel and sand, undertakes demolition operations and operates landfill sites. This third-generation family businesses has around one thousand employees.

As a result of the corona pandemic the volume of waste increased suddenly. In response, Otto Dörner rented a TT223 Container Carrier from TSF under a short term contract to increase the capacity at one of the company's recycling sites. The RT-based Container Carrier is particularly suitable for this busy site because the Ergoturn® 180° swivelling seat makes manouvring safer and quicker. The vehicle is fitted with Terberg Connect so the TSF service department can schedule maintenance efficiently, with minimum interruption to the operations.

"The Ergoturn® 180° swivelling seat makes manouvring safer and quicker"



The Lehmann Group is an owner-managed, innovative and environmentally-oriented business based in Lübeck in the north of Germany. The company is active in short sea shipping and logistics, and operates a terminal with over 2,500 metres of quay. Like Terberg, Lehmann emphasises long term business relationships and stability.

One of the applications at Lehman is unloading roll trailers carrying sawn timber from a RoRo ferry with Terberg RT tractors. Most of the timber comes from Siberia and is temporarily stored at the terminal before transport to the south of Germany by train or truck. This timber is mostly used for building houses, as larch has a good weather resistance.



AUSTRIA



Standardising on Terberg for shunting duties

Gebrüder Weiss is one of Europe's largest transport and logistics companies, with around 7,300 employees working from over 150 locations. The family-owned company's history goes back 500 years. Their site in Hall is favourably located by a motorway and close to the city of Innsbruck. The on-site rail terminal handles large numbers of swap bodies and containers which are transported by road to their final destinations throughout Europe.

The site has two BC182 body carriers which are used for shunting duties. Purchasing and fleet manager Harald Linsboth explains their choice: "We were one of the first Weiss sites to use a Terberg vehicle and we have never regretted that choice. When selecting a vehicle I don't just look at the price but, especially, at the versatility and

Name	Gebrüder Weiss GmbH
City, country	Hall, Austria
Type of tractors	2 BC182
Application	Shunting
Site	60,000 swap bodies & containers/yr 400,000 shipments/yr 1.1 ha

reliability, availability of spares and residual value. Terberg does well in all these areas and therefore we recently bought another unit for our Lauterach/Voralsberg depot. Both these vehicles are used 16 hours a day. They do a good job, because of their robustness, good visibility and the fact we can easily maintain them in-house. Terberg also responds quickly to requests for support so we can keep on working."

Mr Linsboth's colleagues at other sites share his views and the company recently decided to standardise on Terberg for yard vehicles. This has led to further orders from Weiss sites in Austria and Germany.

UNITED KINGDOM

Proactively tackled the first wave of Covid 19

In late February, Terberg DTS took the decision to stand up its contingency planning models to support the activities of our business and to ensure business continuity with our clients.

Our contingency team made some very proactive decisions early on, to mobilise staff with home-working to test our communication capability whilst at the same time entering into discussions with a large number of our key supply chain customers within the United Kingdom. Terberg DTS very quickly mobilised a large quantity of vehicles. Within one week, all of these assets were working and additional units were being requested.

As we entered lockdown, Terberg DTS itself was in a calm and calculated phase delivering a high level of service to our clients but more importantly supporting our staff through daily communication, discussion and management-led strategy. We were working closely with our client base to support where appropriate the long standing relationship that we embrace. We quickly saw a dramatic growth in a number of e-commerce areas.

Terberg DTS' position has, from day one, seen the company positioned as a key service within the United Kingdom and, as such, have received the necessary documentation to allow us to travel mobilise and accommodate staff without restriction throughout this period. This capability has been limited to key businesses providing essential services to certain civilian sectors and defence activities. At one stage, Terberg DTS delivered 5 trucks to an e-commerce logistics client within 8 hours to support the dramatic escalation of their activities!

Alisdair Couper, Managing Director of Terberg DTS in the United Kingdom said: "Without the support and commitment of the staff at Terberg DTS we would have been unable to support what is an exceptional time in the history of the business. The ability of the staff to come together in supporting each other and our clients, has been exceptional and something as a family business in a global market place we remain extremely proud of. Our early adoption of the emergency planning model has clearly assisted us and we have continued to modify this plan through our ongoing learning as events unfolded.

Our thoughts however will always remain with our friends, families and customers that have very sadly lost loved ones through these tragic events.



Alisdair Couper:

"The ability of the staff
to come together in supporting
each other and our clients,
has been exceptional"





Handling heavy loads in a demanding environment

The steel industry combines an often dusty and demanding operating environment with heavy loads and a 24/7 operation 365 days a year. Terberg's industrial versions of the RT tractors are specifically designed for such applications. For example, our RT403 can handle loads up to 200 tonnes. Many of these units operate in steel factories all over the world.

Steel industry service company
UK
2 RT403
Handling heavy trailers

Terberg DTS recently supplied two RT403s with a 3.5" cardanic fifth wheel, Volvo Stage 5 engine and ZF transmission to a longstanding client in the steel industry, which operates Terberg vehicles in several countries. These tractors are replacements for equipment delivered almost 20 years ago - proving the quality and reliability of Terberg vehicles. They are customised with special kits to operate hydraulic cassette trailers and will handle around a million tonnes of steel annually. The expected lifespan is 15 years.

DFDS 25 years in Immingham



DFDS in Immingham celebrated a quarter of a century at the DFDS Nordic Terminal. Since 1866, DFDS ships have been sailing to the Humber area in the UK with goods and products. Immingham has always played a significant and responsible part in keeping trade moving across the pan-European network of DFDS. 25 years ago, the DFDS Nordic Terminal was established and became a major local employer.

DFDS in Immingham had to postpone their 25 year anniversary celebrations due to COVID-19. Lots of activities were planned and one of the five new Terberg RT223s was nicely wrapped in the Union Jack flag. -

BELGIUM

Aurubis Belgium appreciates Terberg quality and robustness

Aurubis Belgium is part of the worldwide Aurubis Group, a leading supplier of non-ferrous metals and the largest copper recycler worldwide. The company produces over one million tons of copper cathodes every year. These are converted into a vast range of products such as wire, strip and profiles. Their portfolio also includes specialist products and other metals, such as selenium, lead, zinc and the precious metals gold and silver. The group employs over 7000 people worldwide; the Olen site has around 650 employees.

	been using Terberg tractors consists of seven units, inclu supplied recently. These are and scrap. Aurubis Belgium Workshop Manager Paul He Terberg for the high quality	production plant in Olen, has for over 20 years. Their fleet ding two YT222s which were used for transporting cathodes maintains the tractors in-house. Isen commented: "We chose and robustness. We have built the years and we are familiar		THE OFFICE AND ADDRESS OF THE OFFICE AND ADDRESS OF THE OFFICE ADD	
	Name Location, country Type of tractors Application	Aurubis Belgium Olen, Belgium YT222 and older models Transport of copper cathodes			
t ex	22 TERBERG MAGAZINE 2020	Senton	SWL St COR KO Twe 3 500 KG		ST-PP-ZG CO

Willy Naessens Group uses Terberg tractors at eight concrete products plants

The group undertakes all aspects of the construction of industrial buildings: from groundworks, producing and installing precast components, through to roofing. They are the clear market leader, with over 8500 completed projects in Belgium and Luxemburg.

Naessens Group has been a Terberg customer for over twenty years and uses Terberg tractors at eight concrete products plants. The vehicles are maintained by Terberg Tractors Belgium which also supplied the Seacom roll trailers, goosenecks and parking stands used at these plants. All these tractors are covered by a Terberg maintenance contract.

The group's Structo subsidiary in Brugge produces a range of high-quality precast concrete units such as prestressed floor slabs, beams and bridge girders. This plant recently purchased the latest Terberg TT223 tractor with Ergoturn swivelling seat. This is used with a gooseneck to transport roll trailers with precast components from the production building to the storage yard. Because of the dusty operating environment the tractor is equipped with additional dust filters. This is Naessens' first tractor which is fitted with Terberg Connect, our remote monitoring package, which enables Terberg Tractors Belgium to optimise the maintenance of the tractor and maximise its uptime.



Name	Willy Naessens Group - Structo
City, country	Brugge, Belgium
Type of tractors	Current fleet: various models Recent delivery: 1 TT223
Application	Handling precast concrete products









Over a century of beer brewing

The roots of Brouwerijen Alken-Maes go back to around 1880. Over the years the company went through a number of mergers and acquisitions and is now part of Heineken. They brew a range of beers such as Maes, Hapkin and Grimbergen. The brewery in Alken has a YT222 to handle trailers loaded with beer tanks, barrels and crates.



Name	Brewery Alken-Maes
Location, country	Alken, Belgium
Type of tractors	YT222
Application	Transporting beer tanks, barrels and crates



Van Moer Logistics

The company's scope includes transport & distribution, warehousing & storage, forwarding and specialised services (repacking, tank cleaning, etc.). They offer a fully integrated service to customers such as BASF, Volvo and Total, with 120,000 tonnes of goods passing through their 400,000 m² of warehouses every week. Van Moer also offers multimodal operations and has two inland waterways terminals and a warehouse with a rail connection.

Tony Vrancken, Manager Industrial Equipment/Purchasing, comments: "We have been using Terberg tractors from the start, mostly YTs. These are used in the port of Antwerp, for transport between yards and sites, at our distribution centres in Vilvoorde and Wilsele, our container terminal in Grobbendonk and at the Umicore plant in Hoboken. Some of our tractors have special acoustic packages to minimise noise when operating in sensitive environments. We have selected Terberg vehicles because

of the whole package: the quality of the tractors, the service, and the relationship built up between Van Moer and Terberg over the years. Some of the units are covered by a full service contract, while others are maintained in our own workshops.

The tractors currently on order will be fitted with Terberg Connect to make it easier to monitor our fleet and schedule maintenance. Both our drivers and our mechanics are very happy with the vehicles. That is important to us: the people who use the tractors every day have to be satisfied. Their input and feedback weigh heavily when purchasing equipment.".

Gheeraert Transport: on the road with Kinglifter

Sister company Terberg Kinglifter manufactures truck-mounted forklifts. These are widely used in the distribution sector for handling loads at sites without conventional forklift trucks or cranes.

Gheeraert Transport in Belgium is a family-owned business with 185 employees and 125 trucks. Twenty of their trucks carry Kinglifters, mostly for deliveries to building sites. Gheeraert uses 4-way Kinglifters which can handle long loads, such as packs of timber.

Manager Peter Gheeraert commented: "Terberg has been Gheeraert's trusted supplier of truck-mounted forklifts for 20 years. We appreciate the quick, high-quality service. In our experience, Kinglifters are the best units of this type."

The company recently invested in four more Kinglifters. The unit are maintained by Gheeraert's own technicians who were trained by Terberg Kinglifter. Workshop supervisor Stephen Haeck: "We are very happy with the comprehensive maintenance manual, and the convenient and quick parts ordering process. Terberg always supports us if we have any technical questions."



ITALY

Salerno Container Terminal (SCT)

"Terberg came out on top in a comparative study"

The Port of Salerno serves southern and central Italy. Salerno Container Terminal is an efficient, privately-owned operation which can handle ships up to 15,000 TEU and has 11 ha of storage yards. SCT recently expanded its fleet of tractors with four Terberg YT223 new generation tractors, with Terberg Connect and supported by a five-year maintenance contract.

Technical Manager Mr. Verzella commented: "Our choice has fallen on Terberg for the reliability of the brand. Furthermore, it came out on top in a comparative study between competitors, mainly based on the MTBM (Mean Time Between Maintenance). We have chosen to equip the new vehicles with Terberg Connect, as we already operate monitoring systems, which we consider

essential to keep the fleet under control in terms of alarms, fuel consumption and engine hours. The relationship with Manuport has been positive and we are confident that it will be the beginning of a long and fruitful collaboration."



Name	Salerno Container Terminal (SCT)
City, country	Salerno, Italy
Type and number of tractors	4 YT223
Application	RoRo and container handling





Name	GEV
City, country	Parma, Italy
Type and number of tractors	1 YT222
Application	Semi-trailer shunting

Equipped with:



Double the productivity compared to a road truck

GEV is a transport company and part of the NUMBER 1 Logistics Group. One of the company's contracts is to undertake the yard shunting of semi-trailers at a major production plant in Parma. They used to use both a Terberg tractor and a conventional road tractor, each clocking up around 4,500 hours per year. As part of a plan to improve the efficiency of the operation, GEV undertook a detailed analysis of the operations.

Loredana Igne, the manager of GEV company, told us: "In our case, Terberg guarantees twice the productivity of a road truck: the driver does not have to leave the vehicle to connect and position the unit, but can carry out all these

operations directly from the cab. Hence we decided to purchase a special vehicle instead of an additional road truck for the yard shifts. In 2019 we conducted a comparative analysis of alternative brands. We decided to wait until 2020 so we could order a Stage V vehicle to minimise our environmental impact. We chose Terberg over other manufacturers mainly for the speed of delivery of the vehicle and for its characteristics, both in terms of operation and the lower environmental impact".

Twelve tractors to handle 300,000 vehicles every year

STA has RoRo operations 24/7, loading cars, heavy vehicles and trains onto ships transporting them to North and South America, the Middle East, Asia and other destinations. To minimise the time the vessels spend in port these operations have to be highly optimised. STA rents RT223 RoRo tractors from Manuport, which are covered by a full maintenance package.

Gianni Rollero, Technical and Operational Manager: "The collaboration between STA and Manuport started 10 years ago, with the test of some Terberg tractors previously used by Grimaldi Terminal Europa. They proved to be the most reliable and suitable machines for our type of RoRo operations, coming out on top against the competition. Thanks to its performance and technical specifications, Terberg is also perfect for handling special loads in total safety, such as turbines, boats, and even Cygnus spacecraft. Furthermore, the guaranteed maintenance service and the positive feedback from our operators have made STA choose Terberg tractors only: today our fleet consists of 12 units and we have become a single-brand terminal."



Name	Grimaldi - Savona Terminal Auto (STA)
City, country	Port of Savona, Italy
Type of tractors	RT223 (rented)
Application	RoRo
Volume	300,000 vehicles/year
Area	12 hectares

GAP Verona

"The right choice for our heavy-duty applications"

GAP was set up over 60 years ago in Northern Italy and now provides on-site logistics services at steel mills worldwide. Alberto Gallini, GAP Company Manager, explains how they use Terberg tractors: "Our cooperation with Terberg started four years ago and we have been using their equipment for heavy-duty applications. That proved to be the right choice: the vehicles are reliable and do the job very well.

For a project at a Pittini Group site in Verona we ordered an RT283 to handle bins containing processing wastes and sludges. The tractor is used with a special Liftec tipping cassette system with a capacity of 150 tonnes. As it has to operate in narrow areas, the RT with the 180° swivelling seat is much more convenient and safer than a conventional tractor. Other advantages include the steering agility and the driver's good view of the work area. This unit also loads and unloads the bins more quickly than a road tractor. Our own mechanics maintain the vehicle and are happy with it. In our experience it needs fewer repairs when used under these demanding conditions than a standard truck."

This RT283 was fitted with additional hydraulics and electrics for the cassette system. Manuport supplied not only the tractor but also the NT Liftec system, and provided training for GAP's mechanics.

Another recent delivery was their first TT223 CC with a special VDL hook lift system. They have an RT403 on order which will be used with a 100 tonne tipping trailer with a capacity of 120 m³.







APM combines RTwith container mover

The large APM terminal in Aarhus handles over 1,400 truck movements per day. Most of the containers are reefers loaded with meat and dairy products.

To complement its fleet of straddle carriers and reach stackers, the terminal recently invested in a Terberg RT223 tractor and a Kaskitek container mover, both supplied by N.C. Nielsen. The container mover handles containers from 20 to 45 feet and enables the tractor to move them efficiently across longer distances and place them on the ground or on a trailer. The RT has a customised, elevated cabin for an even better view of the work area and has high capacity hydraulics for powering the Kaskitek unit.

Per Bøch Andersen, Head of Operations at APM Terminals Aarhus: "When looking for a new type of container mover our focus was on robustness, short delivery times, stability, service packages and confidence in our partners. It is essential to us that we can serve our clients 24/7. This places great demands on our equipment.

The terminal tractor and the container mover have both been designed for easy maintenance and service at our workshop. We also chose N.C. Nielsen because of the service aspect. We can get spare parts, technical assistance and good maintenance advice at short notice. Having a single point of contact will definitely be an advantage."



Name	APM Terminals Aarhus
City, country	Aarhus, Denmark
Type and number of tractors	1 RT223
Application	Used with a container mover
TEU/yr	500,000
For terminals: area	36 hectares

Per Bøch Andersen:

"It is essential to us that we can serve our clients 24/7"

Therkelsen depends on their robust and reliable Terberg vehicles

"They are like armoured vehicles on the site"

Therkelsen is a family-owned company set up in 1918. They currently have 290 employees and 200 vehicles.

They have a large fleet of combined trailers with refrigerated and frozen compartments. These are used to provide a supply chain from food manufacturers to Therkelsen's ambient, refrigerated and frozen warehouses, and then to destinations throughout Europe.

The Therkelsen headquarters are based at the Padborg Transportcenter, a hub for a range of transport-related companies. The company recently invested in another two YT222 tractors. These are used for shunting trailers, taking them to the washing station and transporting them over public roads to external sites.

Mikael Liljegren, Foreman at Therkelsen told us: "We depend on robust, stable and reliable machines for internal transport. They must be able to tolerate hard transport work and assist our drivers in handling trailers on a busy day. We have the best experience with Terberg terminal tractors, they are like armoured vehicles on the site. Other brands do not even get close to Terberg, and it's therefore the obvious choice in this context."



Name	H.P. Therkelsen A/S
City, country	Padborg, Denmark
Type of tractors	4 YT222, new: 2 YT222
Application	Internal logistics



"Other brands do not even get close to Terberg, and it's therefore the obvious choice in this context"



Many hours behind the wheel requires a comfortable working environment



Name	Danish Crown
City, country	Sæby, Denmark
Type and number of tractors	1 YT222
Application	Trailer shunting

The Danish Crown abattoir produces 18,000 hams every day. Many are loaded onto reefer containers destined for the APM container terminal in Aarhus, also covered in this magazine.

Danish Crown has been operating a Terberg tractor for six years and recently purchased a new YT222 to support its busy operations.

Sales Manager Jørgen Peter Lund of Terberg distributor N.C. Nielsen explained: "At Danish Crown they knew exactly what they wanted. We just had to make sure that the tractor was compatible with the trestles they fit under the semi-trailers, but that wasn't a problem. The Terberg tractors transport the semi-trailers between the loading ramps and the yard and also drive on the

public road to reach different parts of the plant."

Foreman Ole Aaberg of Danish Crown commented: "We got our first terminal tractor six years ago. It's been running smoothly and with no breakdowns all this time, so it was easy to choose the same again. We had a really good dialogue with N.C. Nielsen and they modified the tractor quickly. I would like to highlight the high level of comfort in a Terberg Terminal tractor. Having to spend many hours behind the wheel, it's essential to have a comfortable working environment inside the cabin. Our drivers can enjoy the pre-heating, air conditioning, adjustable driver's seat, ergonomic instruments, mirrors and good visibility to all sides. Together, this kind of thing makes a difference during a busy working day." -

NORWAY

Posten and Bring keep the mail and parcels flowing

The Norwegian postal service has two brands: Posten for the consumer market in Norway, and Bring which serves the corporate market in the Nordic region. They operate in a low-margin industry and the geography and low population density in the region increase the costs of logistics operations. This means all their investments have to be efficient, cost-effective and environment-friendly. When Posten and Bring decided to insource terminal vehicle operations they invested in BC182 Body Carriers.

The vehicles are used for handling swap bodies/containers, semi-trailers and drawbar trailers. They were customised with remotely controlled trailer couplings and supplementary lighting for night-time operations.

Caj Holm, Terminal Manager of the Posten and Bring terminal in Drammen: "The Terberg machines have been great. We haven't had any downtime on the engine we've been running here. But if anything should happen, it is important for us to have a permanent engineer that is easy to get hold of. One that we know well and who knows us. This was also a key factor in our choice of machine brand."

Name	Posten and Bring
City, country	Kristiansand & Drammen, Norway
Type of tractors	BC182
Application	Swap body and semi-trailer handling



Interview:

Per Löthner of N.C. Nielsen

N.C. Nielsen are the Terberg distributor for Denmark, Norway, Sweden and Iceland. Our tractors have proven to be well-suited to the often bitterly cold weather in these countries. Per Löthner, Nielsen District Manager in Sweden, told us more about his work and himself.

"My first job was as a flight technician in the Swedish air force. In 1990 I moved into B2B sales, initially packaging and forklift trucks. I joined N.C. Nielsen in June 2018 and now specialise in Terberg tractors. My predecessor, Douglas, did a very good job, so Terberg is well-represented in Sweden, particularly in ports. The good reputation of Terberg terminal tractors makes my work easier and more enjoyable. Because the market is still growing I have recently been joined by Håkan Lorén, who is very familiar with the industry.

RT tractors are widely used in Sweden, in ports and in other settings, and have some clear advantages over the competition. We are also aiming to make the YT better known in Sweden. Terberg Body Carriers (BCs) are currently used by operators such as PostNord. We want to get these BCs approved for use on public roads, which would make them an attractive option for a range of other companies. There is a strong demand in our market for used Terberg tractors. However, the supply of used machines is limited.

The interest in electric terminal tractors is also increasing, especially as ports have to meet ever stricter environmental requirements.



They often need 4x4 units so I am looking forward to the development of electric RTs. Those will require a power source other than conventional batteries, perhaps fuel cells or charging while driving. The new YT203-EV is an important development and is ready to cope with the Nordic climate. I can also see opportunities to develop the market for YTs, for use in warehouses, terminals and industry. So the new YT is very welcome. A number of tractors in Sweden are now fitted with Terberg Connect. Remote monitoring of the running hours and error codes is particularly useful when planning the maintenance of our rental fleet."

Per Löthner:

"Although Terberg is now a large company, they still make you feel they are a smaller family company. Both myself and my customers who have visited the plant in Benschop are aware of how personal and welcoming Terberg is. In that respect they are quite similar to Nielsen."

THE NETHERLANDS

Cornelissen Groep selects Terberg tractors to replace fleet

For over 90 years Cornelissen Groep has provided a wide range of logistics services such as transport, warehousing and pallet production. Their customers include both retailers and pharmaceutics companies. The company operates from 12 sites with a fleet of more than 350 vehicles and has a 2.5 ha warehouse.

Cornelissen Groep rented Terberg tractors for some time, to replace tractors of a different make. The company has now purchased three YT182 units. These are deployed at distribution centres for a chemist's chain and a leading supermarket group.



Name	Cornelissen Groep
City, country	The Netherlands, multiple sites
Type and number of tractors	3 YT182
Application	Shunting trailers

Full overhaul service

Customers often run our tractors for many years, perhaps reaching 30,000 operating hours, and then replace them by a new unit. However, Terberg Service Netherlands now also offers

a full overhaul service. This can be more economical than buying a new tractor and enables customers to continue operating with their current engine type.



During a full overhaul we fit a new engine and gearbox, new axles, new wiring and hydraulic and pneumatic piping. The fifth wheel is overhauled and the whole vehicle is resprayed. This essentially results in a brand new tractor and the unit is therefore covered by the same warranty as our new vehicles. Overhauls are usually completed within three months, so this can also save time compared with buying a new Terberg tractor.

IJTG Logistics in North Holland provides a wide range of transport services. The service workshop at Terberg Service Netherlands in Benschop recently overhauled one of their vehicles to as new conditions.

Müller Fresh Food Logistics



Name	Müller Fresh Food Logistics
City, country	The Netherlands
Type and number of tractors	2 YT182
Application	Shunting trailers, internal & external transport

This family-owned business with approximately 900 employees has a history going back over 80 years. Müller provides a full range of logistics services for the food industry. Müller initially rented Terberg tractors and recently invested in two YT182 yard tractors which are currently in use at logistics centres in Holten and Nijkerk. The vehicles are used to shunt trailers between the loading docks and the yard, for transport between warehouses on the site, and for deliveries over public roads to customers in the area.

Operational Director Erwin Memelink commented: "We selected Terberg because the tractors are very reliable and convenient for heavy duty operations. Daily, during our 3 shift operation, the equipment is used almost 24/7. In the past we had road trucks for shunting but the dedicated Terberg vehicles make the work much easier. Müller has been using Terberg tractors for about ten years now and we do all the maintenance in-house."

St. van den Brink

The company serves a range of food and non-food retailers with its large fleet of trucks and trailers, carrying ambient, refrigerated and frozen products.

Their key policy is to reduce the environmental impact of the operations in terms of the CO₂ footprint and noise emissions. Solutions for this include hybrid trucks and LNG trucks, and high cube trailers to reduce the number of trips.

After operating shunter trucks of a different brand, St. van den Brink decided to invest in three YT222 tractors. These are used at the Zaandam distribution centre of Albert Heijn, a leading supermarket chain in the Netherlands. The vehicles are covered by a Terberg maintenance contract.



Name	St. van den Brink
City, country	The Netherlands, multiple sites
Type and number of tractors	3 YT222
Application	Shunting trailers

Shunting trailers at the DPD Polska warehouses and sorting plants



DPD Polska has an expanding fleet of YT tractors used for shunting semi-trailers at the warehouses and sorting plants. They selected Terberg vehicles because these match their focus on quality and efficiency. Most of the tractors have packages for use on public roads. Before purchasing their first Terberg tractor, DPD Polska tried out a vehicle from a different manufacturer. However, they chose our product because they preferred the ergonomics, fuel consumption, operational efficiency and ease of maintenance.

The company is part of DPDgroup, the second largest international courier network in Europe, and is the market leader in Poland. DPD Polska has over 3,500 employees and works with almost 7,000 external delivery drivers.



Name	DPD Polska
City, country	Various sites, Poland
Type of tractors	Current fleet: YT182 and YT222 tractors On order: 4 YT222
Application	Logistics

SPAIN

RoRo trailer handling at Estonia's largest terminal

HHLA TK Estonia operates the largest container, RoRo and general cargo terminal in Estonia, covering 56 ha. The company also has a 20,000 m² warehouse for cargo storage, transfers cargo to and from rail vehicles, and provides a range of other services. The terminal has operated Terberg tractors since 2007 and recently acquired four more RT223 RoRo tractors used with goosenecks. All the vehicles are serviced by Terberg distributor Willenbrock Baltic.





Name	HHLA
City, country	Port of Muuga, Maardu, Estonia
Type and number of tractors	4 RT223
Application	RoRo trailer handling
TEU/yr	200,000
Total berth length	Over 1 km



Name	MSC Terminal Valencia
City, country	Valencia, Spain
Type of tractors	YT222
Application	Container handling
TEU/yr	1.6 million

"It was decided to invest in Terberg tractors given their robustness, high productivity, low fuel consumption and low levels of pollution"



MSC Terminals Valencia fleet renewal programme

MSC Terminal Valencia is operated by TIL and is their western Mediterranean transshipment hub and distribution gateway for the Iberian Peninsula and Southern Europe, with excellent road and rail links to the hinterland. The terminal is served by routes linking the Far East and Africa with North Europe and America.

Guided by its quality management policy MSC Terminal Valencia started its fleet renewal programme in 2017. It was decided to invest in Terberg tractors given their robustness, high productivity, low fuel consumption and low levels of pollution. Terberg distributor Alfaland has since supplied a large number of YT tractors to the terminal.

Distributor focus: DFS

D. F. Sarantopoulos (DFS) was set up in 1972. The company imports materials handling equipment such as Terberg tractors and forklift trucks, earthmoving and construction plant and a range of other equipment. DFS has ISO 9001, 14001 and 45001 certifications.

The offices, workshop, warehouse and showroom cover 2500 m² and are centrally located in Athens. The central workshop is supported by a fleet of mobile workshops, covering all of Greece. These vans carry a range of tools and spare parts to support both dealers and end-users.

DFS serves many customers in both the private and public sector and has been Terberg's distributor in Greece since 2011. The tractors are mostly supplied to the country's largest ports such as the Piraeus Container Terminal, Piraeus Port Authority and the Thessaloniki Port Authority. DFS also sees opportunities at some smaller ports. Recent deliveries include 30 YT182s to PPC SA and 2 RT283s to PPA SA. Routine maintenance is undertaken by the port workshops while DFS provides support for more extensive repairs. There is also an aluminium plant which operates YT182 tractors.



Dimitrios Sarantopoulos:

"We think that Terberg, as a family-owned company supplies a very good product with professional support"



ETHIOPIA

Containers in a dry port

Modjo is the largest and busiest of several "dry ports" in Ethiopia, a landlocked country. This multimodal terminal mostly handles containers delivered by ship to the neighbouring Republic of Djibouti and transported to Modjo by rail & road transport. The containers with imported goods are delivered to their final destinations by road. Export traffic includes coffee, vegetables and oil seeds.

The Modjo Logistics Hub (Modjo Port & Terminal) has been using Terberg tractors for over ten years. The latest order was placed by the Ethiopian Maritime Affairs Authority (EMAA) after a competitive tender under the Ethiopia Trade Logistics Project (ETLP) financed by the World Bank. Terberg distributor QOPH Engineering Enterprise will be providing training, spare parts and servicing.

"The Modjo Logistics Hub (Modjo Port & Terminal) has been using Terberg tractors for over ten years."



Name	Modjo Logistics Hub
City, country	Modjo, Ethiopia
Type of tractors	YT182
Application	Container handling
TEU/yr	150,000

MAROC



Customer	Tanger Med Terminal TC3
Location, country	Tangier, Morocco
Type of tractors	YT222 and RT223 tractors
Application	Port operations
Terminals: TEU/yr	1.5 million, when completed



Customer	Port of Casablanca - Container terminal
Location, country	Casablanca, Morocco
Type of tractors	YT182
Application	Port operations
Terminals: TEU/yr	540,000

SPIA Maroc

SPIA Maroc supplies and maintains a wide range of port and industrial equipment, including Terberg tractors. The owner and general manager is Mr Hassan Echerei.

Tanger Med Terminal TC3

The Tanger Med port in the north of Morocco, on the Strait of Gibraltar, has connections to more than 180 ports and 70 countries. The third container terminal, TC3, is currently under construction. It is a joint venture by Contship, Eurogate and Marsa Maroc. It will have a capacity of around 1.5 million TEU per year and 800 m of quays.

Mr Echerei commented: "Contship and Eurogate already use Terberg tractors at their terminals in La Spezia in Italy. Based on the good experience with these tractors and the service and support they receive from SPIA at ports in Morocco they decided to order 37 YT222 and RT223 tractors for TC3. All Tanger Med terminals now use Terberg tractors only. We have also received an order for another 10 YTs for the Eurogate TC2 terminal."

Port of Casablanca

The Port of Casablanca has four terminals, for containers, RoRo, ore and multipurpose operations. The main cargo types are phosphate ore, steel products, cars, sugar and wood. The total volume is over 11 million tonnes and 540,000 TEU annually.

Mr Echerei: "Marsa Maroc operates Terberg tractors at several ports in Morocco. In fact, Terberg accounts for 90% of their tractor fleet. We have been supplying tractors to this port operator since 2006 and also provide maintenance services."



ARUBA

Astec sole terminal operator in Aruba

More than 95% of all products imported via sea-borne cargo

The port of the Island Aruba includes a cruise terminal in Oranjestad, an oil terminal, and a multi-cargo sea terminal in Barcadera operated by Astec which started operations in 2016. Astec currently uses both YT180 and YT182 tractors.

Managing Director Mike de L'Isle commented: "Our relationship with Terberg goes back to the early 2000s when we purchased the first units. In 2020 we will upgrade our fleet with two new Terberg YT182 units.

The continuity of our operations is very important because we are the sole terminal operator on the island with more than 95% of all products imported via sea-borne cargo.

Our in-house technical team makes sure the units remain in excellent condition with our preventative maintenance programs, essential in our highly corrosive environment. In addition, we always strive to keep our fleet up to date with relevant developments from Terberg. As such, we have taken the decision to phase out the older units and purchase new Terberg tractors. With the excellent experience we have with our current fleet, combined with the positive experience of both the technicians and the operators, as well as our stock of spare parts, our preference remained to stay with Terberg."



Astec
Aruba
YT180 and YT182
Port operations
60,000

UNITED STATES

Used RT382 from Latvia, via the Netherlands to the US



The heavy steel industry demands a lot from vehicles: the loads are heavy, the operating environment is frequently hot and dusty, and equipment may be used 24/7. In other words, the perfect setting for some of the heaviest duty Terberg tractors, such as the RT283, RT323 and RT403.

Ron van Arkel, Vice President, Terberg Tractors Americas, commented: "The duty cycle in these operation is very demanding. You must have a thorough understanding of the market and the operational conditions to advise the customer about the right vehicle for their application. Recently, one of our long-term international customers asked me if I could find a used tractor for a steel mill at short notice.

Given the required specifications I expected this to be difficult. Fortunately, Alwark, our distributor in Latvia, had an RT382 4x4 unit available, with low running hours.

Because of the tractor's engine specifications we had to get approval from the US Environmental Protection Agency, which they issued quite quickly.

The tractor was shipped from Latvia to the main Terberg plant at Benschop for some modifications, and finally to the end user in Alabama, USA. The close cooperation between Alwark, Terberg Benschop and Terberg Tractors Americas made it possible to meet the customer's needs effectively and quickly."

BRAZIL

Dealer focus: Equiport

Equiport has long been a leading supplier of port equipment, such as reach stackers, in Brazil. They used to supply another brand of terminal tractors but became a Terberg distributor in 2019. Commercial director Elisio Garcia explained: "We were very happy to partner with Terberg as their product line is



a perfect add-on to our activities." Equiport is based in Santos, the biggest port in Brazil in terms of container throughput. The company handles sales and after-sales support throughout Brazil.

Port of Santos

An international terminal operator in the port of Santos handles large quantities of paper pulp. They already operate a large fleet of YT tractors and after a tender ordered another 19 YT222s. The challenges of this particular application include the heavy weight of the loaded containers and a steep bridge on the route of the tractors. The new Terberg tractors are very similar to the units already operating on the site, to facilitate parts management and servicing. They are customised with heavy-duty Kessler rear axles with a high reduction ratio. The resulting increased torque enables the tractors to cross the bridge easily, even when handling the heaviest loads.

Port of Navegantes

Equiport also received an order for 25 YT222s to replace the complete tractor fleet of a terminal in the port of Navegantes.



Steel mill

A steel mill near Rio de Janeiro has operated a fleet of 10 RT382 heavy-duty industrial tractors for over a decade. These are used for the internal transport of heavy slabs of steel and can handle payloads of up to 120 tonnes. As part of the fleet renewal programme Equiport recently supplied two RT403 4x4 tractors to this mill.



BANGLADESH

Port of Chittagong, Bangladesh

The Port of Chittagong is the largest port in Bangladesh. It is located on the Bay of Bengal and the banks of the Karnaphuli river. The busy port facilities also provide transshipment to India, Nepal and Bhutan. The port authority has been using Terberg tractors for ten years and recently ordered three TT223 tractors. These will be used with Movella container movers.

Port of Mongla, Bangladesh

The port authority operates the second largest port in Bangladesh and recently ordered their first Terberg units, 15 YT182 tractors.

Port of Payra, Bangladesh

This port has been operating since 2016 and recently invested in its first YT tractor.



PAKISTAN



64 terminal tractors for DP World Karachi (QICT)

DP World Karachi (QICT) received 64 new Terberg terminal tractors to further improve yard productivity at its terminal in Port Qasim in Pakistan. The new tractors replace the entire fleet of road trucks.

QICT was the first modern container terminal in Pakistan launching its operation in 1997, and the only terminal with a yearly throughput of more than 1.2 million twenty-foot equivalent units (TEU).



PHILIPPINES

MICT, Port of Manila, Philippines

The Manila International Container Terminal is located at the heart of the Philippine capital. It is the largest and most modern container terminal in the Philippines and is operated by ICTSI. Terberg recently delivered 22 new tractors to MICT.



Wan Hai Lines, Taiwan

The company's liner service network covers Asia, Europe and North America and it operates a number of terminals. Their terminal in Kaohsiung recently took delivery of their first 10 Terberg tractors. These will carry containers between the quay and the stacking area. This is our first major delivery to a customer in Taiwan, supported by our distributor Accumulator International.

VIETNAM

Gemalink, Cai Mep, Vietnam

This new deepwater port will open towards the end of 2020 and will eventually have a capacity of 2.5 million TEU per year. The operator has ordered 56 Terberg YT180 tractors, with deliveries starting in 2020. This is our largest single order from a customer in Vietnam.



Name	Sri Lanka Port Authority (SLPA)
City, country	Various locations
Type and number of tractors	14 YT220
Application	Port operations

SRI LANKA

First Euro 5 units for Sri Lanka

SLPA has operated a fleet of 50 Terberg tractors for almost a decade. The Sri Lanka emissions standards were recently tighthened which is why the latest order, for 14 YT220 tractors, specified Euro 5 engines. These are the first units of this type in the country. The hand-over ceremony was attended by the Managing Director and the Director of Operations of SLPA and representatives of our distributor, Termss Global.

Terberg takes part in autonomous operation pilot in the Netherlands

Terberg is an innovation partner of Living Lab Autonomous Transport Zeeland. During this three-year project, Terberg will deploy one of its AutoTUG™ automated vehicles at both a terminal and on the public highway.

The Living Lab project provides a unique opportunity to further develop the company's vehicle technology and also to strengthen the position of the logistics industry in the Province of Zeeland, in the south-west of the Netherlands. This will be the first time in the Netherlands that a self-driving truck operates on the public highway.

Living Lab is an innovation project managed by Zeeland Connect, an independent network of businesses, research institutes and the public sector which aims to strengthen the logistics sector in Zeeland. The projects give SMEs an opportunity to learn about innovative technologies and their applications. Living Lab started on 1 November 2019, supported by an EU grant, and runs through to 1 January 2023. This project gives businesses, public sector bodies, road operators and research institutes new opportunities to analyse and test autonomous transport operations in a controlled, realistic environment.



This will be the first time in the Netherlands that a self-driving truck operates on the public highway

Real-life autonomous transport

Terberg is taking part in two pilots with mixed traffic in real-life logistics operations. A Terberg AutoTUG™ autonomous vehicle will drive between the quay and the container stack at the terminal of Kloosterboer Vlissingen BV, a logistics services provider. This vehicle will also operate on the public highway, on the 3.3 km route between the Kloosterboer terminal and MSP Onions, a leading exporter of onions and potatoes. This will provide an opportunity to identify traffic risks, improve technology and optimise safety measures. ■

Expansion at Benschop

The facilities at our Benschop site have been expanded, for the third time in a decade, using the space freed by the relocation of the Warehouse. Our factory has two production lines: High Volume Assembly (HVA) for the YT and DT tractors, and Low Volume Assembly (LVA) for all other models.

HVA facts & figures

6
new line stations

60 sections of new storage racking

20 light overhead cranes

heavy overhead cranes

2 km of lines painted



Daan de Nie, Manager Process Engineering, was responsible for the expansion project: "We extended the HVA line, which uses a conveyor chain in the floor to move the tractors being assembled, and supplemented it with pre-assembly stations by the side of the line. Our YT production capacity is now around 50% higher, which will enable us to fulfil orders more quickly. We did most of the work while production continued.

First we refurbished the former warehouse halls and installed new ceilings, floors, twenty light overhead cranes, two heavy overhead cranes, etc. During the summer break we relocated several stations of the existing line, built new stations and integrated all the systems. There was absolutely no interruption of the production.

Our suppliers and contractors were very supportive and flexible. That enabled us to finish the work within the tight schedule."



Improved axle stand

The axle stand we redesigned some time ago is a good example of continuous improvement at Terberg. In the past the operative had to lift the axle with a crane to turn it over. The new stand has rollers so the axle can be turned by hand. This saves time and reduces potential damage. The redesigned stand is also easier to work with and more ergonomic.

Assembly personnel now have more workspace available and in the new areas they use battery-powered tools so there are no air hoses to get in the way. The heating and lighting have been replaced and are now more energy-efficient. We have also installed more solar panels on the roof of the building.

"At Terberg we keep looking for improvement opportunities everywhere. This includes the expanded production area where we apply methods such as 5S, Kaizen and Continuous Improvement." Daan continued: "The new YTxx3 chassis is bolted together, and the automatic bolt tensioner unit measures and records the torque on every single bolt. We have also made other improvements to help our people build vehicles more efficiently and with an even higher quality."

Daan de Nie:

"The next step is to look for further opportunities to improve quality and efficiency in both the HVA and LVA departments"



The Terberg Academy

Terberg has always provided training, and recently set up the Terberg Academy.

Training Coordinator Oebele Deelstra: "I joined Terberg 19 years ago, working in the After-Sales department, which used to provide the training. The Academy means we now have a more structured approach. We are starting with scheduled train-the-trainer sessions for our distributors, building on the training we have always provided.

Courses for mechanics focus on understanding our products, diagnosing and fixing problems, and routine maintenance. The training materials are modular so we can tailor courses, about the engine or hydraulics – whatever the customer wants. Courses are given at Benschop and our customers' sites and via webinars. There are also training sessions for drivers, covering the vehicle controls, adjusting the seat, coupling trailers quickly and safely, etc.



Oebele Deelstra:

"The academy closely follows all product developments"

Customers ordering larger numbers of tractors, especially in ports, often book courses as well. That gives us a good opportunity to visit their sites and get feedback from their personnel.

We also train the operatives who assemble our tractors. This covers general assembly, vehicle systems, and the Terberg way of doing things (LEAN and a constant focus on quality). We currently have one full-time trainer and we are recruiting a second.

The academy closely follows all product developments and new technology used in our vehicles, so we can inform our distributors, customers and operatives in time. We are also developing an E-learning platform, so training courses will be available on demand."

Corporate structure



ROYAL TERBERG GROUP B.V. (THE NETHERLANDS)

KEY FACTS

Founded in 1869 Family-owned

Turnover: € 1.06 billion (2019)

Employees: > 3,000 Companies in 12 countries

Export worldwide: > 100 countries

SPECIAL VEHICLES

ENVIRONMENTAL EQUIPMENT

MODIFICATION CARS & VANS

MODIFICATION TRUCKS

TRUCK-MOUNTED FORKLIFTS

LEASING

TERBERG BENSCHOP B.V. (THE NETHERLANDS)

TERBERG D.T.S. (UK) LTD (UNITED KINGDOM)

TERBERG SPEZIALFAHRZEUGE GMBH (GERMANY)

TERBERG TRACTORS BELGIUM BVBA (BELGIUM)

MIDDLE EAST FZE
(DUBAI, UNITED ARAB EMIRATES)
TERBERG
TRACTORS AMERICAS INC.

(UNITED STATES OF AMERICA)
TERBERG TRACTORS
MALAYSIA, SDN.BHD.
(MALAYSIA) (JV 50/50)

MANUPORT S.R.L.

TERBERG

TERBERG ROSROCA GROUP LIMITED

TERBERG MACHINES B.V. (THE NETHERLANDS)

TERBERG MATEC NEDERLAND B.V. (THE NETHERLANDS)

TERBERG MATEC BELGIUM BVBA (BELGIUM)

TERBERG MATEC POLSKA SP.Z O.O

TERBERG MATEC SAS

DENNIS EAGLE LTD

DENNIS EAGLE INC

ROS ROCA S.A.U. (SPAIN)

ENVIRORENT XXI, S.L.U. (SPAIN)

HS FAHRZEUGBAU GMBH (GERMANY)

RESITUL LDA. (PORTUGAL) TERBERG SPECIALS BELGIUM N.V.

TERBERG SPECIALS B.V. (THE NETHERLANDS)

TERBERG
TECHNIEK B.V.

TERBERG KINGLIFTER B.V. TERBERG
BUSINESS LEASE GROUP B.V.
(THE NETHERLANDS)

TERBERG LEASING
JUSTLEASE BELGIUM BVBA
(BELGIUM)

Special vehicles

This division includes Terberg Benschop, its main factory in the Netherlands, and its subsidiaries abroad.

Environmental equipment

This division manufactures Dennis Eagle truck chassis, vehicle bodies for waste collection, a full range of binlift systems and waste loading systems for the recycling and waste disposal industry.

Car & van modification

Modifications to cars and light commercial vehicles span a wide range: for wheelchair users, police forces, mobile offices, maintenance contractors, etc.

Truck modification

This division modifies standard trucks into special trucks by changing the axle configuration and adapting the steering and suspension systems. The division's workshops also undertake truck repairs and statutory vehicle inspections.

Truck-mounted forklifts

This division produces truck-mounted forklifts.

Leasing

This division is one of the largest independent car leasing and rental companies in the Netherlands, serving both the business and consumer markets. The consumer market is served under the Justlease brand.















Distributors

Europe

Austria

Terberg Spezialfahrzeuge GmbH Hamburg terbergspezialfahrzeuge.de

Belgium

Terberg Tractors Belgium BvbA Oostakker terbergtractorsbelgium.be

Bosnia-Herzegovina

Okovje D.O.O **Podnart** okovje.com

Croatia

Okovje D.O.O. **Podnart** okovje.com

Cyprus

Alexander Dimitriou & Sons Ltd. Nicosia dimitriou.com

Czech Republic

Linde Material Handling Česká republika s.r.O. Praha linde-mh.cz

Denmark

N.C. Nielsen A/S Balling nc-nielsen.dk

Estonia

Willenbrock Baltic OÜ Harjumaa willenbrock.ee

Finland

Sigma Trukit Oy Helsinki sigmatrukit.fi

France

Francetruck S.A. Goussainville francetruck.com

Germany

Terberg Spezialfahrzeuge GmbH Hamburg terbergspezialfahrzeuge.de

Greece

D.F. Sarantopoulos S.A. sarantopoulos.com.gr

Hungary

Terberg Benschop B.V. Benschop terbergbenschop.nl

Iceland

N.C. Nielsen A/S Balling nc-nielsen.dk

Israel

David Czapnik & Sons Ltd. Rishon Le Zion czapnik.co.il

Italy

Manuport s.r.l. Genoa manuport.it

Latvia

SIA "Alwark" Marupes Novads alwark.lv

Lithuania

UAB "Alwark" Vilnius alwark.lt

Malta

Motherwell Bridge Industries Ltd. Hal Far mbmalta.com

Montenegro

Okovje D.O.O. **Podnart** okovje.com

Macedonia (Northern)

Okovje D.O.O. **Podnart** okovje.com

The Netherlands

Terberg Benschop B.V. Benschop terbergbenschop.nl

Norway N.C. Nielsen A/S Balling nc-nielsen.dk

Poland

Toyota Material Handling Polska Sp. Z.o.o. Jaktorow . toyota-forklifts.pl

Portugal

Iberlift Portugal (Sede) iberlift.pt

Romania

Cemps S.A. Bucarest cemps.ro

Russia

Konecranes Demag Rus JSC St. Petersburg konecranes.ru

Serbia

Okovje D.O.O. Podnart okovje.com

Slovakia

Linde Material Handling Slovenska republika s.r.o. Trencin linde-mh.sk

Slovenia

Okovje D.O.O. Podnart okovje.com

Spain

Alfaland S.A. Madrid alfaland.es

Sweden

N.C. Nielsen A/S Balling nc-nielsen.dk

Switzerland

Terberg Spezialfahrzeuge GmbH Hamburg terbergspezialfahrzeuge.de

Turkey

Portunus Port spares & services Istanbul portunus.com

Ukraine

LLC Trans-service KTT Odessa transservice.com.ua

United Kingdom Terberg DTS Ltd. Elland, Halifax terbergdts.co.uk

Middle East

Abu Dhabi

Specialized Technical Equipment - STE Abu Dhabi steest.net

Boranex Middle East Trading L.L.C. Dubai

Jordan

Etco Engineering Trading Contracting Amman etcogroup.com

Kuwait

Terberg Middle East FZE Dubai terbergmiddleeast.ae

Lebanon

Etco Engineering Trading Contracting Amman etcogroup.com

Qatar

Milaha Trading (Navigation Trading Agencies) Doha milaha.com

Saudi Arabia

Al-Iman for Contracting & Trading Dammam alimanmhd.com

United Arab Emirates

Terberg Middle East FZE terbergmiddleeast.ae

Africa

Algeria

Sarl KOM Algerie Ain Taya

Benin

Francetruck S.A. Goussainville francetruck.com

Botswana

EIE Heavy Lift Pomona, Gauteng eiegroup.co.za

Cameroon

Francetruck S.A. Goussainville francetruck.com

Chad

Francetruck S.A. Goussainville francetruck.com

Comoros

Novengi Ltd. Les Pailles novengi.mu

Congo-Brazzaville

Francetruck S.A. Goussainville francetruck.com

Congo-Kinshasa

Francetruck S.A. Goussainville francetruck.com

Côte d'Ivoire

Francetruck S.A. Goussainville francetruck.com

Djibouti

Tamamoul Motors Djibouti tamamoul.com

Kabadaya Co. for Specialized Equipment Cairo special-equipment.com

Equatorial Guinea

Francetruck S.A. Goussainville francetruck.com

Ghana

Paterson Simons & Co (Africa) Ltd. Brighton, East Sussex patersonsimons.com

Guinea

Francetruck S.A. Goussainville francetruck.com

Kenya

Kone Liftrucks Ltd. Mombasa kone.co.ke

Lesotho

EIE Heavy Lift Pomona, Gauteng eiegroup.co.za

Liberia

Paterson Simons & Co (Africa) Ltd. Brighton, East Sussex patersonsimons.com

Libya

Sunrise Int. Trading & Service Co. Ltd. Valletta info@sunrise.com.mt

Malawi

EIE Heavy Lift Pomona, Gauteng eiegroup.co.za

Mali

Francetruck S.A. Goussainville francetruck.com

Mauritius

Novengi Ltd. Les Pailles novengi.mu

Mayotte

Novengi Ltd. Les Pailles novengi.mu

Mauritania

Francetruck S.A. Goussainville francetruck.com

Morocco

SPIA Maroc Casablanca spia.ma

Mozambique

EIE Heavy Lift Pomona, Gauteng eiegroup.co.za

Madagascar

Novengi Ltd. Les Pailles novengi.mu

Namibia

EIE Heavy Lift Pomona, Gauteng eiegroup.co.za

Niger

Francetruck S.A. Goussainville francetruck.com

Nigeria

Paterson Simons & Co (Africa) Ltd. Brighton, East Sussex patersonsimons.com

Reunion Islands

Novengi Ltd. Les Pailles novengi.mu

Senegal

Francetruck S.A. Goussainville francetruck.com

Seychelles

Novengi Ltd. Les Pailles novengi.mu

South Africa

EIE Heavy Lift Pomona, Gauteng eiegroup.co.za

Swaziland

EIE Heavy Lift Pomona, Gauteng eiegroup.co.za

Togo

Francetruck S.A. Goussainville francetruck.com

Zambia

EIE Heavy Lift Pomona, Gauteng eiegroup.co.za

North America

Canada

Cropac Equipment, Inc. Oakville, Ontario cropac.com

Train Trailer Limited Mississauga, Ontario traintrailer.com

Williams Machinery Limited Partnership Surrey British Columbia williamsmachinery.com

USA

North & South Carolina and Florida

Linder Industrial Machinery Plant City, FL linderco.com

Indiana

Taylor's Truck & Trailer Service Indianapolis taylorstrucks.com

Maine, Vermont, New York, Pennsylvania, New Jersey, New Hampshire, Massachusetts, Connecticut, Maryland and Delaware

Mi-Jack, Inc. Howell, New Jersey Mi-jack.com

Other states

Terberg Tractors Americas, Inc. Miami terbergtractorsamericas.com

Latin America

Argentina

LMA Industrial S.A. Buenos Aires hysterarg.com.ar **Bolivia**

Moviluno Montevideo moviluno.com.uy

Brazil

Equiport Equipamentos para Portos Ltda Santos equiport.com.br

Chili

Tattersall Maquinarias S.A. Santiago tattersall-maquinarias.cl

Colombia

Global Port Equipment Colombia S.A.S. Bogotá gpeamericas.com

Costa Rica

Lemont Costa Rica LLC Ltda Limon

Dominican Republic

Avelino Abreu S.A.S. Santo Domingo avelinoabreu.com

Mexico

Madisa Nuevo Léon Madisa.com

Panama

Global Port Equipment Americas Panama gpeamericas.com

Paraguay

Moviluno Montevideo moviluno.com.uy

Peru

Eurolift Peru S.A. Lima Itperu.pe

Uruguay

MovilUno Montevideo moviluno.com.uy

Australia

Australia

Clark Equipment Sales Pty. Ltd. Hornsby clarkequipment.com

New Zealand

Clark Equipment Sales Pty. Ltd. Hornsby clarkequipment.com

Pacific Islands

Clark Equipment Sales Pty. Ltd. Hornsby clarkequipment.com

Far East

Bangladesh

Essentials Trade Lines Ltd. Dhaka essentials.com.bd

China

Hoi Tung Innotek (Shenzhen) Co., Ltd. Guangdong htinnotek.com

KCL Lifttrucks Limited Hong Kong www.kclfalcon.com

Hong Kong

KCL Lifttrucks Limited Hong Kong kclfalcon.com

India

Portrucks Equipment Pvt. Ltd. Chennai portrucks.com

Indonesia

PT. Harbarindo Baharitama Jakarta harbarindo.com

PT. Towin Innoven Jakarta

Malaysia

Terberg Tractors Malaysia Sdn. Bhd. Selangor Darul Ehsan terbergtractorsmalaysia.com.my

Pakistan

Karsaz (Pvt) Ltd. Karachi karsaz.com.pk

Philippines

Pink Armour Corporation Manila pinkarmourcorp.com

Singapore

Terberg Tractors Malaysia Sdn. Bhd. Selangor Darul Ehsan terbergtractorsmalaysia.com.my

South Korea

Portro Co. Ltd. Busan

Sri Lanka

Termss Global (Pvt) Ltd. Colombo termss.com

Taiwan

Accumulator International Inc. Taipei accumulator.com.tw

Thailand

Yasith Co. Ltd. Bangkok yasith.co.th

Vietnam

CICA Vietnam Ltd. Ho Chi Minh City cica.com.vn









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