

Revolutions tend to start
at the ports.



Introducing the new Harbor Range.

Don't COMPROMISE.

Continental 

The Continental Harbor Range



StraddleMaster

ContainerMaster

DockMaster

CraneMaster

TerminalTransport

ContiRV20

ContiRT20

Trailer

Economy or Technology?

Don't COMPROMISE.

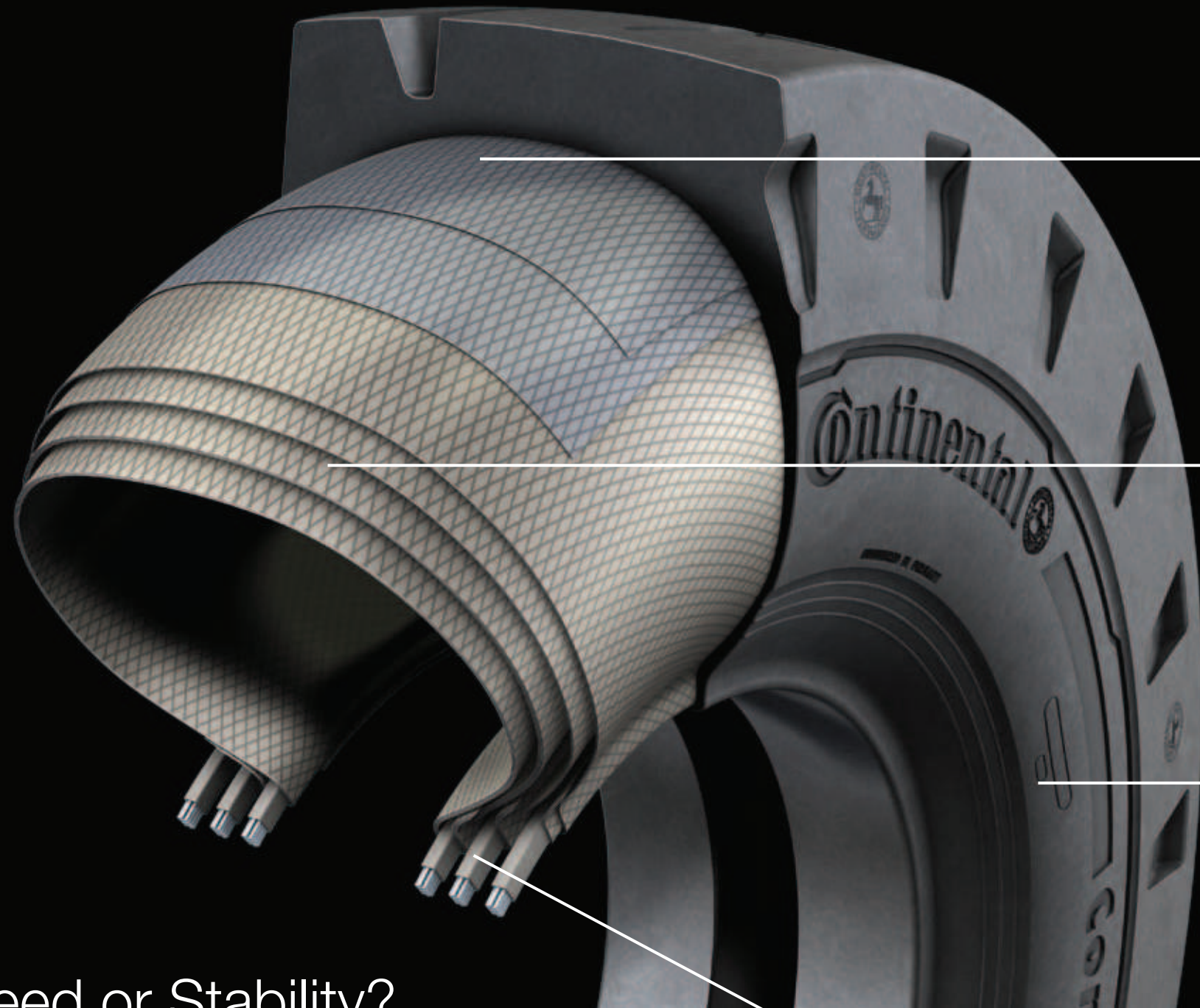
Continental is the number four tire manufacturer in the world. We design, develop, and produce a wide range of tires for nearly every vehicle on our planet, whether it has two or multiple wheels. Whether it's powered by muscular strength or by an engine with four-digit engine output.

But tires make up less than 30% of our business, because Continental is far more than an "ordinary" tire manufacturer. As a leading supplier of brake systems, instrumentation, vehicle electronics, and infotainment solutions, as well as systems and components for power trains and chassis, tires and technical elastomers, Continental contributes to enhanced driving safety and global climate protection. In short, we see ourselves as the experts for driving performance.

This is also the driver behind Continental's production of cross-ply, radial, and solid tires. This enables us to offer tires that exactly match the needs and demands of our customers, not merely fit into our product range. In 2011 we decided to join the harbor market and appointed a team of engineers, production experts, and sales and marketing people to cater to the new clients' needs.

In fact, harbor tires have extreme requirements. There are three reasons for that: vehicle height, vehicle weight, and vehicle speed. And, above all, there is the safety issue. Continental's new Harbor Range accommodates this with tires specifically designed for their particular application. We're sure that you will find the tire to meet your individual needs within this brochure.

The V.ply Technology



Speed or Stability?

Don't COMPROMISE.

If you had to design the perfect tire, the goal would be something like this: "Unrivaled traction on wet and dry surfaces, in searing hot and freezing cold conditions. Zero wear, extreme stability, and a comfortably soft ride on any surface. And the best of all – the costs would be next to nothing."

Although this exaggerated scenario is still a long way off, Continental's new V.ply Technology is in fact a huge leap forward in the quest for the perfect tire. Our V.ply design was inspired by racing tire technology and executed through the extensive use of 3-D modeling and the Continental Group's Research & Development know-how. It was also extensively field-tested in real-life conditions. V.ply Technology combines the best of cross-ply design and radial-ply design by integrating an innovative weaving pattern of multiple cords arranged at specially designed angles.

The breaker layers

Up to four V.ply breaker layers not only provide additional rigidity to the tread area, but they also function as an excellent bonding element between the outer rubber tread and inner polymer structure.

The V.ply pattern

Up to 20 layers of high-resistance polymer fiber are aligned in a specially angled V-pattern. This unique technology is inspired by racing tire design and means less inner movement for low rolling resistance.

The strengthened sidewalls

The V.ply Technology allows for the design of exceptionally strong sidewalls. They provide low deflection for high damping, excellent driving stability, and nearly unmatched protection against damage.

The profiled inner bead

In contrast to beads with a single round wire, the V.ply design is based on three wire cores. The result is a wide bead, which provides even load distribution and perfect rim fit.



■ MORE STABILITY ■ MORE SAFETY ■ MORE MILEAGE ■ LESS COSTS ■

The new **StraddleMaster** designed and developed for straddle carriers



Safety or Economy?

Don't COMPROMISE.

Straddle carriers are the ultimate high-performance machines that combine height, weight, speed, and maneuverability in the terminal yard. Unfortunately, it is exactly these important features and the extreme operating demands that cause high levels of tire wear and frequent tire damage. In fact, wear is one issue, safety is another. For this reason, the damping properties of the tires are crucial – only a tire with the necessary and correct stiffness can prevent the slip-stick effect and its serious consequences yet also provide driving stability and a safe work flow.

The summary: To use a straddle carrier to its full potential and ensure its smooth operation, tires with superior deflection properties plus outstanding maneuverability and braking capability are relied on.

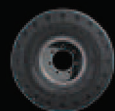
StraddleMaster dimensions

16.00-25 E4

StraddleMaster



The new **Continental StraddleMaster** is specifically developed for use on straddle carriers. The StraddleMaster carcass comprises multiple layers of high-tech fabric running diagonally from one bead to another at specially designed angles. The result is an extremely stable carcass, exceptionally strong sidewalls, low rolling resistance, and outstanding deflection properties. When compared to radial tires, vehicles equipped with StraddleMaster tires brake significantly more evenly. And in addition the braking distance is up to 25% shorter! The strong sidewalls also provide excellent protection against damage. The stability and low rolling resistance improve overall safety and handling, as well as wear and fuel consumption.



The new **StraddleMaster**



■ MORE STABILITY ■ MORE SAFETY ■ MORE MILEAGE ■ **LESS COSTS** ■

The new **ContainerMaster** series designed and developed for reach stackers, heavy forklifts, and empty container handlers



ContainerMaster series dimensions

- 12.00-24 E4
- 14.00-24 E4 *
- 16.00-25 E4
- 18.00-25 E4
- 18.00-33 E4

ContainerMaster



* TT AND TL

- 18.00-25 E4

DockMaster



Economy or Reliability?

Don't COMPROMISE.

The requirements of reach stackers, heavy forklifts, and empty container handlers are manifold. While lifting and stacking containers, they need to move with the agility of a compact car and the steadiness of a tank. And they have to be reliable and economical in the process.

Compared to straddle carriers, these vehicles handle enormous loads on single axles. Potholes and uneven surfaces can cause the vehicle to tilt, especially when carrying heavy loads at higher speeds or when turning a corner. When handling such a container, the vehicle can become unstable, which increases the risk of an accident. All in all, reach stackers, heavy forklifts, and empty container handlers require tires with exceptional load capacity, superior damping properties, and outstanding maneuverability for smooth operation at their full potential.

The new **Continental ContainerMaster** makes use of the unique V.ply Technology. Its utterly strong sidewalls mean less tilting, improved protection against damage, and a longer service life. Moreover, the advanced design of the new V.ply tires handles steering on the spot much better, and tread cracks are significantly reduced. The unique V.ply technology provides less tilting and better protection against damage compared to radial tires plus lower rolling resistance compared to cross-ply tires.

Like the ContainerMaster, the new **Continental DockMaster** benefits from the unique V.ply Technology. This massive slick tire without any tread is ideal for reach stackers and vehicles used at limited speeds or only occasionally. Due to the extreme thickness of the rubber in the DockMaster, it is the perfect choice for a medium-speed reach stacker when outstanding longevity, robustness, and puncture resistance are priorities.



The new **ContainerMaster**



The new **DockMaster**



■ MORE STABILITY ■ MORE SAFETY ■ MORE MILEAGE ■ **LESS COSTS** ■

The new **CraneMaster** series designed and developed for rubber tire gantry cranes, mobile harbor cranes, and automated guided vehicles



Economy or Durability?

Don't COMPROMISE.

At first glance, harbor cranes and AGVs don't seem to have much in common, but when it comes to tires, their requirements are pretty much the same. In fact, both machines operate only at moderate speeds around gradual bends. But both have to carry enormous weight, from two sources – firstly, the weight of the payload and secondly, the tare weight of the machine itself. Additionally, there is the turning on the spot or at extreme angles, which puts tremendous stress on the tires. Among the toughness, it is the rolling resistance of the tires that has to be considered since it has a significant influence on energy consumption. In summary, harbor cranes and AGVs require tires with exceptional load capacity, outstanding maneuverability, and low rolling resistance for optimal operation at their full potential.

CraneMaster series dimensions

- 14.00-24 E3
- 16.00-25 E3
- 18.00-25 E3
- 21.00-25 E3
- 21.00-35 E3

CraneMaster



The new **Continental CraneMaster** range of tires makes use of the unique V.ply technology, which features an exceptionally sturdy tire construction for lower rolling resistance and a longer service life. In terms of damping, this design enables a CraneMaster tire to rely not only on compressed air but also on the exceptionally robust tire construction itself. The well-distributed contact pressure in the tread area means a longer tread life and superior maneuverability. Moreover, the advanced design of the new V.ply tires handles steering on the spot much better. CraneMaster tires feature excellent resistance to casing damage and tread stress cracking. The unique V.ply technology provides less tilting and better protection against damage compared to radial tires plus lower rolling resistance compared to cross-ply tires.



The new CraneMaster



■ MORE STABILITY ■ MORE SAFETY ■ MORE MILEAGE ■ LESS COSTS ■

The **TerminalTractor** series designed and developed for terminal tractors

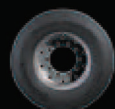


Speed or Safety?

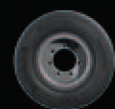
Don't COMPROMISE.

There's no vehicle in the harbor that clocks up more mileage than a terminal tractor. This means that its tires have to accelerate more often; they have to brake more often, and they have to corner more often than any other kind of tire in the harbor. They also have to operate in an environment that accelerates tire wear and hastens tire failure. Uneven surfaces with different and sometimes highly abrasive surfaces, potholes, bumps, and foreign objects are just some of the reasons.

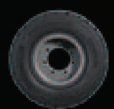
No wonder that only a fraction of all tires used on terminal tractors reach the end of their projected service life. But it's not always the environment that ends the life of a tire ahead of schedule. Since a vast number of tires just aren't designed for use on terminal tractors, sometimes it is simply a case of the wrong tire in the wrong place.



The TerminalTransport



The ContiRV20



The ContiRT20

TerminalTractor series dimensions

300/80 R 22,5	TerminalTransport	radial tire
12.00 R 20	ContiRV20	radial tire
12.00 R 20	ContiRT20	radial tire

The **Continental TerminalTransport** tire is a real all-rounder. The radial tire with its closed shoulder design and well-proven tread layout will perform on all the axle positions of a terminal tractor. The TerminalTransport is the tire of choice for an environment with newer and more even surfaces. It enables low energy consumption, excellent wet grip and traction, ride comfort, and even wear at a reasonable cost.

The **ContiRV20** is a massive radial tire for use in the most demanding conditions. Its highly resistant tread compound and closed shoulder design delivers outstanding longevity. Tearing is avoided, and heel-and-toe wear is eliminated. In addition, the design allows for excellent ride comfort and outstanding vehicle handling. The ContiRV20 is the first choice for harbors with uneven surfaces and obstacles including a high risk of foreign objects on the driving surface.

The **ContiRT20** is a radial tire with an open shoulder design. This design ensures good grip even on wet surfaces including ramps and rails. In addition, the independent tread blocks allow for excellent maneuverability even when turning on the spot. Due to the low-abrasion tread and the extra-deep tread depth with a maximum tread volume, it delivers outstanding mileage. The ContiRT20 is the tire of choice when excellent maneuverability combined with outstanding stability is crucial.

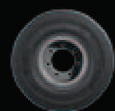
The **TerminalTrailer** series designed and developed for terminal trailers



Agility or Defensibility?

Don't COMPROMISE.

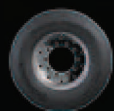
It doesn't have to transmit steering forces; it doesn't have to transmit driving forces – all it has to do is roll. The requirements of a tire used on a terminal trailer may not be remarkably high, yet if a tire on a loaded trailer fails, the consequences can still be quite severe. Moreover, terminal trailers have to operate in an environment that accelerates tire wear and tire failure: uneven or highly abrasive surfaces, potholes, and bumps. Not to mention foreign objects thrown up by the tires of the terminal truck ahead. But it's not always the harbor environment that shortens the life of a terminal trailer's tire. It is often merely a case of the wrong tire in the wrong place, causing it to fail way ahead of its projected service life.



The Continental Trailer



The ContiRV20



The TerminalTransport

TerminalTrailer series dimensions

10.00 R 20	Trailer	<i>solid tire</i>
12.00 R 20	ContiRV20	<i>radial tire</i>
300/80 R 22.5	TerminalTransport	<i>radial tire</i>

The **Continental Trailer** is a solid, very robust slick tire for superior handling. The solid construction eliminates the need to inflate the tire, and the treadless surface prevents sawtooth wear, which causes vibrations. It is tailor-made for tough applications with a high risk of impact and damage, and sets a new benchmark in terms of cost-efficiency and environmental compatibility. The Continental Trailer is the tire of choice when outstanding load capacity, the lowest possible vibration, low rolling resistance, and a long service life are priorities.



The **ContiRV20** is a massive radial tire for use under the most demanding conditions. Its highly resistant tread compound and its closed shoulder design allow for outstanding longevity. Tearing is avoided, and heel-and-toe wear is eliminated. In addition, the design allows for excellent ride comfort and outstanding vehicle handling. The ContiRV20 enables short stopping distances on slippery or sloping surfaces. The ContiRV20 is the tire of choice for harbors with uneven surfaces, obstacles, and a high risk of foreign objects on the driving surface.

The **Continental TerminalTransport** tire is a real all-rounder. A radial tire with a closed shoulder design for high mileage and low rolling resistance. Due to its load index, it is able to handle the high loads in terminal transports safely. The TerminalTransport is the tire of choice for an environment with newer and more even surfaces. It enables low energy consumption, excellent wet grip, ride comfort, and even wear at a reasonable cost.

The Harbor Range dimensions

The new StraddleMaster



16.00-25 E4	Straddle Master	
16.00-25 E4	Straddle Master Rib	



The new CraneMaster series



14.00-24 E3		
16.00-25 E3		
1.800-25 E3	CraneMaster	
21.00-25 E3		
21.00-35 E3		

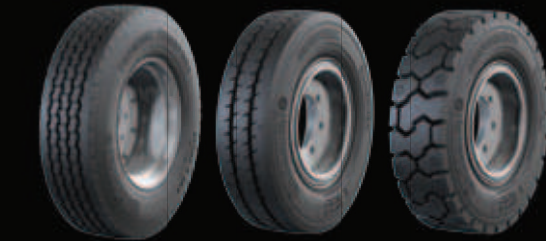
The new ContainerMaster series



12.00-24 E4		
14.00-24 E4 *		
16.00-25 E4	Container Master	
18.00-25 E4		
18.00-33 E4		
18.00-25 E4	DockMaster	

* TT AND TL

The TerminalTractor series



300/80 R 22.5	TerminalTransport	<i>radial tire</i>
12.00 R 20	ContiRV20	<i>solid tire</i>
12.00 R 20	ContiRT20	<i>radial tire</i>

The TerminalTrailer series



10.00 R 20	Trailer	<i>solid tire</i>
12.00 R 20	ContiRV 20	<i>radial tire</i>
300/80 R 22.5	TerminalTransport	<i>radial tire</i>



Choosing a tire merely by its price tag or its availability will lead to more frequent tire changes, higher rates of failure, higher maintenance costs, and a higher fuel bill. Since harbor conditions differ, Continental offers no fewer than eight completely different types of tires within the Harbor range. Each tire is specifically designed, developed, and manufactured to match the needs of every customer. For further information, please visit www.conti-harbor.com or if you are using an Apple iPad, download the Continental Harbor app.

The Continental competence

Over 140 years of innovation and progress

What began as the Continental-Caoutchouc- und Gutta-Percha-Compagnie way back on October 8, 1871, in Hanover, Germany, has become one of the key players in the world of automobiles and mobility. With sales of 32.7 billion euros and 291 locations in 46 countries, Continental is one of the top five in the automotive supplier industry today.

Continental is the inventor of the detachable rim and automobile tires with a patterned tread. Vehicles equipped with our tires have won numerous international races. Today Continental produces not only tires, hoses, and belts, but also systems for driving safety and driving assistance, plus chassis dynamics as well as systems for the power train and systems for hybrid and electric drives. Inside vehicles, Continental is present with infotainment and multimedia, telematics and instrumentation. So wherever you are and whatever you drive, in all likelihood, Continental is with you in some form.



Our vision

Continental designs, develops, and produces highly advanced, intelligent technologies for mobility, transport, and processing to make up our world. We want to provide the best solutions for each of our customers in each of our markets. All of our stakeholders will thus come to recognize us as the most value-creating, highly reliable, and respected partner.

To meet the challenges of the 21st century, we focus on the megatrends of safety, cost-efficiency, the environment, and information.



Our divisions

Continental is divided into five independent and highly flexible divisions, where we design, develop, and produce the products that it takes to make our vision happen. Chassis & Safety, Powertrain, Interior, Tires, and ContiTech.



Continental Corporation: 291 locations in 46 countries.

Shaping the megatrends in the automotive industry

Environment. Truck fuel consumption is having an increasing impact on company earnings. Fuel costs currently make up about 30% of a truck's operating costs. At the same time, increasingly stringent emissions limits necessitate new drive systems and fresh technology. These must satisfy performance and comfort requirements and aim for emissions-free driving. Continental uses its many years of experience in the field of passenger car engine technology to maximize synergies and transfer this expertise to the commercial vehicle market.

Safety. Driving safety focuses on protecting human life in today's congested motor traffic. For this reason, Continental develops products and solutions aimed at avoiding fatal traffic accidents entirely. Active safety systems, in other words systems that work to prevent accidents from happening, are therefore coming strongly into focus. Driver assistance systems in general are key technologies when it comes to further increasing road safety.

Economy. Economy and cost-efficiency are the all-important factors in business. Fleets can only generate profits while ensuring maximum sustainability if they operate efficiently. Continental develops numerous innovative technologies, products, and service solutions that allow commercial vehicle manufacturers to make their vehicles safer, more economical, and cleaner while also allowing them to exchange information more intelligently while being as easy to handle as possible.

Information. An important factor in achieving greater economy is intelligent networking within the vehicle – between the vehicle and driver and between the vehicle and its surroundings. In modern vehicles, countless types of information are exchanged between various electronic components. Through the use of electronic and nonelectronic technology, in the tire for example, the information is provided to the fleet operator to ensure the lowest overall driving costs.



www.conti-harbor.com

Date June 2013

Continental
Commercial Specialty Tires
Büttnerstrasse 25
D-30165 Hanover, Germany

Continental 