

# CUSTOMER REFERENCE TRANSPORT TROLLEYS WITH OMIKRON



**TENTE**

BETTER MOBILITY. BETTER LIFE.



# CASTORS THAT SUPPORT A 108 METRE ROTOR BLADE: WE CAN DO THAT

A 108-metre rotor blade for a wind turbine weighs more than 50 tons. This is as heavy as nine fullgrown elephants. Our Danish customer P. Lindberg Industri A/S produces trolleys for transportation which must also be able to carry this weight capacity. This kind of trolley is used in the production of wind turbine blades. The rotor blade does not only need to be rotated easily but the trolley itself must be movable as well. Are TENTE castors able to carry this weight? We proclaim: Yes, of course!



## THE STARTING POINT

Wind power is one of the particularly fast-growing methods of energy generation and accounts for one sixth of renewable energy worldwide. The climatic changes on earth show the significance of this area. For this very reason, wind turbine manufacturers keep on building bigger and larger turbines. Especially offshore wind turbines, i.e., those located on the coast, have repeatedly set records in terms of size during the past 25 years. These increasing sizes allow the turbines to generate more energy. Rotor blades with a length of 108 metres belong to the kind of items that require special safety even during their production. Therefore, the company P. Lindberg Industri A/S incorporates special castors from TENTE to its transport trolleys. Each of these castors can carry up to 20 tons and are suitable for all kinds of transport trolleys within the wind power industry.

## SMOOTH RUNNING AND HIGH QUALITY

P. Lindberg Industri A/S delivers its transport trolleys to international clients worldwide, including countries such as India, China, Brazil, Turkey, Spain and France. Each wind turbine incorporates three rotor blades. These are produced in a complex process from several layers of glass and carbon fibre materials, i.e. plastic and resins. The employees put the layers in moulds, which are then solidified in a baking process. This production of a blade can take up some days. In a next step, the rotor blades are lifted onto the transport trolleys, where they are further processed and given a surface finish. Since the transport trolley will be moved around within the production hall, the castors must run smoothly along with high quality and durability.



## OUR SMART MOBILITY SOLUTION

Today the special castors from TENTE's Omikron product family are used for the largest transport trolleys from P. Lindberg Industri A/S. The large castors have a wheel diameter of 600 millimetres and the castor has a tare weight of 380 kilograms. The smaller castor features a wheel diameter of 500 millimetres and a tare weight of 200 kilograms. The large castor from TENTE is, therefore, as big as a bicycle wheel but already weighs as much as three male full-grown orangutans. This castor can carry even more: a dynamic load capacity of exactly 20,000 kilograms. Dynamic load capacity shows how much a castor can carry while driving. TENTE Omikron twin wheel castors have a very high load capacity and at the same time they run particularly smoothly. But how can such a gigantic castor run smoothly? These properties result from the quality of the PUR tread, the precision ball bearings used and the design of the twin wheel castor.

## SUPPLIERS TO THE WIND POWER INDUSTRY: OUR CONTRIBUTION TO CLIMATE PROTECTION

The transport trolleys from P. Lindberg Industri A/S consist of up to 1,000 individual parts. Elaborate engineering drawings ensure a stable and precise fit when it comes to the merge of the rotor blades and the trolleys. The welders take extra care with the numerous seams they weld. Non-destructive tests of the weld seams ensure quality, because with this weight accidents would be devastating. Just like the production of the rotor blades, a lot of manual work is required because all trolleys are custom-made.

TENTE also pays particular attention to high quality to its castor production. Supported by its own specialist welding engineers and in cooperation with TENTE's product developers and welding specialists, special care is taken. This ensures the quality of the work even while producing the components. Extensive tests and trials in the laboratory and at public testing institutes ensure the quality of TENTE's castors.

**P. Lindberg Industri A/S and TENTE have been working together in a spirit of trust for 20 years. Both companies contribute to the wind power industry as they move together towards this industry of the future.**



*„We are proud to contribute to climate protection with our trolleys when it comes to the production of rotor blades. Our supplier TENTE supports us with its reliability and the quality of the heavy-duty castors.“*

**Lars Hansen**  
Managing Partner, P. Lindberg Industri A/S





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PRODUCTIVITY



SAFETY



DESIGN



DURABILITY



ENVIRONMENT