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Fourth generation: BladeLifter from TII SCHEUERLE is the perfect choice for even the longest rotor blades

Due to its enormous performance reserves, the fourth generation SCHEUERLE BladeLifter allows all fleet operators to have a high level of investment security as well as economic efficiency and offers excellent transport safety even when transporting the longest rotor blades. The Steil Kranarbeiten company has used this solution for numerous last-mile transports of rotor blades up to 84 metres long to wind farm facilities and is extremely impressed with the qualities of the rotor blade adapter.

Daniel Schulz, team leader at Steil Kranarbeiten, praised the vehicle stability and optimum adaptability of the rotor blade adapter: "The BladeLifter from TII SCHEUERLE actually drives really well. It is ideally suited for this rotor blade especially because we can also drive the rotor blade adapter with its maximum width of 3.49 metres which ensures a high level of transport safety given the dimensions of this load." The longest rotor blade designs are currently up to 84 metres long. The fourth generation BladeLifter (G4) from the TII Group subsidiary, TII SCHEUERLE, the industry expert for on and off-road heavy transport operations, has passed yet another endurance test at Steil Kranarbeiten, a service provider for crane work and specialist in the field of special goods logistics. The company had previously used the transport solution to safely move 79-metre long rotor blades over the last mile to wind farms and has also tested the BladeLifter G4 prototype.

This version had already met the requirements of Steil Kranarbeiten. "There were a small number of things that TII SCHEUERLE optimised after the initial use. The support we receive from TII SCHEUERLE is very good. The company's employees always listen very carefully to our concerns and the experts who advise us on site during the operation know exactly what they are doing. They are available to us at all times," according to Schulz.

Enormous performance reserves enable all customers to have a high level of investment security

The team leader is particularly impressed by the performance and functionality of the system when using the rotor blade adapter on an InterCombi self-propelled combination complete with two 6-axle lines from TII SCHEUERLE. The BladeLifter G4 provides a particularly high load moment across the entire set-up angle. The system guarantees up to 900 metre tonnes and a maximum installation angle of 60 degrees. In the case of the 84-metre long blade, the maximum load moment required during transport was 580 metre tonnes. The system therefore has sufficient reserves to accommodate future rotor blades whose length will also continue to increase accordingly. The progressively more powerful wind turbines will have rotor blades of up to 100 metres. The BladeLifter G4 thus offers all customers the greatest possible investment security.



In turn, the high set-up angle of 60 degrees ensures the best possible manoeuvrability. This means rotor blades can be swivelled over obstacles such as buildings and carriageway dividers. In avenues and wooded areas with limited clearance profiles, a high set-up angle means that less branch removals and tree felling are necessary. This increases the number of possible routes and reduces the time and effort required for route planning. Moreover, the amount of infrastructure reconstruction measures along with the number of tree prunings also decrease. This is also helped by the fact that the BladeLifter G4 can be operated using two widths, namely 3.00 and 3.49 metres. On the one hand, this facilitates a high level of driving stability as well as structural integrity when transporting large rotor blades and, on the other, more compact designs with reduced space requirements.

Functionality and high economic efficiency

In addition, the rotor blade adapter from TII SCHEUERLE can also be easily adapted to suit different root diameters and also features a new height adjustment characteristic to allow it to be driven under bridges when loaded. Furthermore, TII SCHEUERLE has developed a drawbar coupling element in order to support the self-propelled combination when negotiating extreme gradients or to be pulled quickly with a tractor unit during empty runs. Both accelerate the transportation process enormously and save time which is a particularly valuable commodity in the special transport business.

Another advance in the latest generation of the BladeLifter is the optimised remote diagnosis feature and stability monitoring. With the help of remote diagnosis, fleet operators gain access to all status messages of the transport solution. The optimised working lights system, which is activated by means of a remote control, also contributes to a high level of user-friendliness and work safety.

The new optical signalling system from TII SCHEUERLE consists of four light signals that are attached to the four outer edges of the transport which also proves to be a particularly practical aid. Depending on the stability calculation, these light pylons - visible from afar as well as in a 360 degree radius - signal to the operator whether the stability factor has been ideally calculated or whether he needs to counteract this by specifically raising the transport platform accordingly. If the pylons are lit up green, the required level of stability is at hand. On the other hand, if a yellow light is shining, the vehicle becomes unbalanced or even threatens to tip over when the light turns red. The signals can be fixed in position by means of a magnetic base and are connected to each other via a cable that is laid parallel to the supply lines.

Equipped for the tasks of the future

Since the distances on the last mile are constantly becoming longer, the transport speed has a significant impact on the cost-effectiveness of the transport. A tractor unit can be conveniently connected to the BladeLifter combination using the drawbar element. In space-restricted areas, the BladeLifter operates as a self-propelled vehicle. This procedure can reduce the transport time by up to a fifth. As rotor blade transport increasingly has to cope with demanding inclines and declines, TII SCHEUERLE offers specially profiled tyres for the required extra traction.

With the fourth generation BladeLifter, TII SCHEUERLE provides all customers with an extremely powerful transport solution for the last mile of rotor blade transport which is also suitable for meeting the challenges of the future due to its large performance reserves.

Photos





SCHEUERLE Bladelifter in continuous use at the Steil Kranarbeiten company.



Equipped for the future. The SCHEUERLE Bladelifter is also suitable for handling the longest rotor blades.



This rotor blade measures 84 metres long. The set-up angle of 60° provides the best possible manoeuvrability.



This means rotor blades can be swivelled over obstacles such as buildings and carriageway dividers...



... as well as being driven under bridges.

Company profile

The TII Group, a company owned by the Heilbronn-based Otto Rettenmaier family, is a globally active manufacturer of heavy-duty and special vehicles and has a workforce of around 900 employees. The Group includes industry specialists, TII SCHEUERLE and TII KAMAG, and has production sites in Germany and India along with a worldwide organisation of sales and service partners. With innovative vehicles for manoeuvring and transportation operations, the TII Group, which is listed in the index of world market leaders, supports its customers in the transport and logistics sectors, building industry, plant engineering, air and space travel, shipbuilding, energy, steel and mining as well as yard logistics for realising a wide range of complex transport tasks. The TII Group holds the current world record of over 17,000 tonnes for transporting extremely heavy loads on vehicles. TII stands for the tradition of innovation, customer orientation and partnership as well as for high product quality and sustainability in heavy-duty mobility.

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