



## SEILBAHNSYSTEME

## The 2015 introduced cone-sheave in a new generation of sheaves battery Type RB19

As a result of more than 50 years experience in cable car construction, this year's innovation at the Interalpin is the SHEAVES BATTERY RB 19, as an addition to the CONE SHEAVE introduced in 2015. Due to the new construction of the Wopfner SHEAVES BATTERY RB 19 there are fantastic advantages in assembly, service and operation, also in states of emergency such as rope derailing or evacuations.

The easier handling of the sheave and the better accessibility of the sheaves battery doesn't only reduce the labour costs, but also the transportation costs such as those for lorries or helicopters.

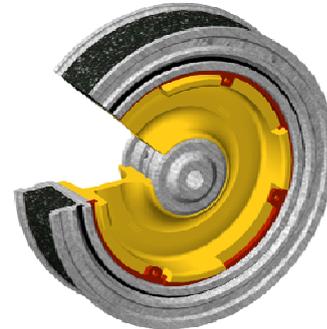
All this works due to the following:

### **The cone sheave**

The CONE SHEAVE is a 2 parts sheave, consisting of sheave body and rubber ring. In case of a rubber-liner-exchange, it is no longer necessary to exchange the whole sheave but only the rubber ring that is connected to the sheave body with a bayonet fitting.



Time and effort is much lower than when using the conventional sheave. In addition, the lower weight of the sheaves, and the fact that the service can be done from the service cabin, reduces the working effort immensely. Less expenditure of work and lower sheaves weight are a large advantage of ropeways with shorter service intervals such as urban rope ways.



### **New Bearing Block**

The new eccentric bearing block of the sheaves Battery is fixed central in the Cross Beam of the Tower Head and is constructively separated from the rocker beam. So the transport volume and the weight for the batteries are smaller. The sheaves batteries is easier and cheaper in transportation. After lifting the rope and fixing it on the lifting device, the whole sheaves battery can be lowered to the bottom of the tower. There the maintenance of the sheaves battery can be done directly or it can be prepared together with the opposite battery for the helicopter or lorry transportation. After reassembling the sheaves battery a laborious alignment of the sheaves battery is not necessary, as for this maintenance the fixing of the main bearing axis was not changed

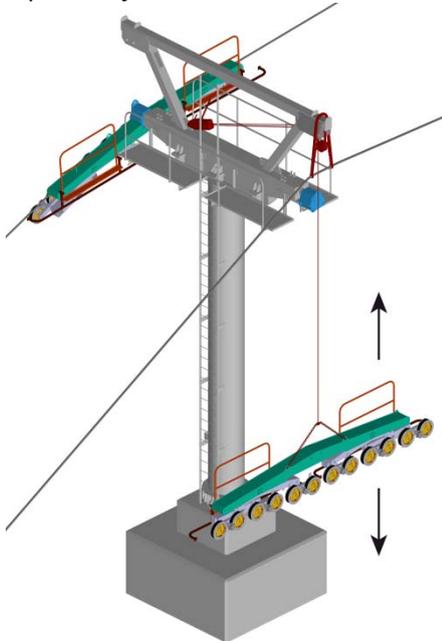
### **New Bearing Block + ROCKER BEAM**

The ROCKER BEAM has been extended up to the middle of the first pair of sheaves. Due to this, it is now possible that the ROCKER BEAM covers the whole length of the sheaves battery so the exchange of the rubber ring can be done safely and quickly. In doing so, the sheaves lifter can be fixed on the ROCKER BEAM. The rope is then lifted and the rubber ring can be exchanged. Afterwards the sheaves lifter is removed. The whole service process can be done with only one worker. Due to the new construction of the ROCKER BEAM it was also possible to reduce the work load should a rope derailment occur. Having a rope derailment



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in the first rope catcher of the sheaves battery the rope can just be lifted back with a suitable tool.



The BEARING BLOCK and ROCKER BEAM are two independent components fixed together by bolts and nuts. This brings advantages for transport and maintenance during the whole lifespan of the construction.

**Simplified Service GANGWAYS**

Up to now SERVICE GANGWAYS were needed for many tasks such as sheave exchange, service on the sheaves battery and evacuation actions. Everybody who had to do work on the tower was in need of the gangway. Now most of the work can be done from the SERVICE CABIN. The only work to be done from the tower is exchanging the safety switch on the sheaves battery and installing the tool in case of a rope derailment. Because of the reduced need the SERVICE CATWALKS can be made more simple and appropriate.

An additional rescue-tube, fixed at the mentioned rocker-beam, enables an easy passing by of the battery by the rescuer without climbing on the SERVICE GANGWAY.

**Important:** It is possible to use the advantage of our cone-sheave on existing sheaves batteries, e.g. rubber-liner exchange on site with the service cabin.

