



# zentrak DRAGGING EQUIPMENT DETECTION

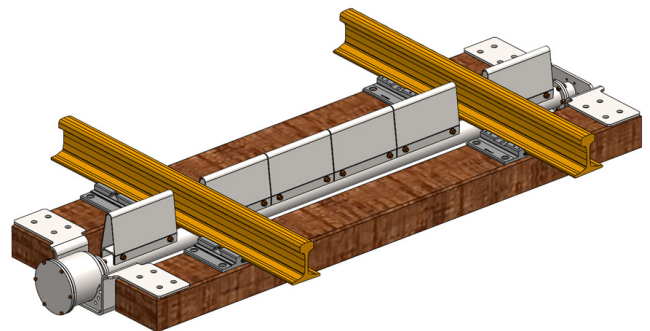
## Detection of hanging objects

### Description

Train equipment such as couplings, chains or hoses can be dragged unnoticed under a train. The timely detection of such hanging parts increases the safety for people in the vicinity of the track and protects the infrastructure, such as point machines, signal heads, balises, etc., from damage. If a dragged part causes a force on the paddles, an alarm is immediately sent to the control centre. The paddle position is recorded so that the functionality of the sensor can be monitored continuously.

As an option, the system can be equipped with a camera that provides reliable images of an impact both by day and by night.

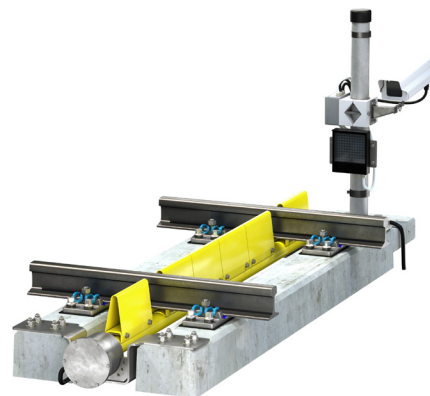
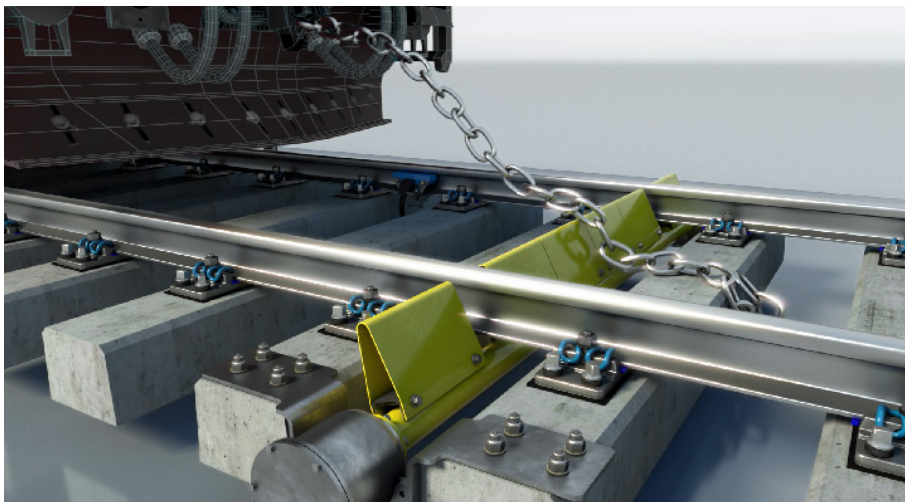
This allows the responsible dispatcher to visually check the impact and initiate the specified process steps to eliminate the danger.



**DED**  
Dragging  
Equipment  
Detection

### System advantages

- » Supports safety management in railroad operations
- » Protection for key infrastructure assets
- » Low maintenance, robust construction
- » Detection of dragging parts
- » Optional image recording of the impact by day and night
- » Higher track availability due to mitigation of consequential damages
- » Self-restoring
- » Paddle position monitoring



## SIMPLE AND RELIABLE

The Dragging Equipment Detection (DED) function protects the railroad infrastructure by reliably detecting dragging objects on trains and alerting them accordingly. Damage to e.g. rails, switches, signals and balises can thus be prevented. The dragged part triggers an alarm both between and outside the rails. Thanks to two output signals, digital output (NC) and current interface (4 - 20mA), the system can be integrated into existing installations easily.

The alarm is reported to the dispatcher and/or directly to the train driver with indication of the position on the train.

The solution is particularly characterized by low costs due to long maintenance intervals and low maintenance costs. An optimized bearing holding the impact shaft and the restoring mechanism contribute to this. With the video option, the system also offers the possibility of providing an image of the impact for alarm verification.

Technical Specification	
Impact detection	Inductive proximity sensor
Measurement signal	current interface 4 to 20mA / Digital contact (NC)
Input voltage	15 to 30V DC
Track gauge width	1435mm (others on request)
Environment	-40 to +80°C

### Options and variants



Video



Single Contact



Train Talker