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Switch transport

# Switch Transport Wagon WTW

Technical Datasheet

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## WTW: the modern way to transport switches!

The WTW switch transport wagon transports pre-assembled new switches straight to the place at the construction site where they're to be installed. The WTW has a fitted loading table which is tilted at an angled and locked in place to enable large turnouts that have been separated into their segments to be transported in compliance with the loading gauge. The concept answers the challenges of short possession times and the frequent lack of space to assemble switches. The wagons are also equipped with a modern immobilization system to ensure the load is secure.

## Benefits

/ Quick unloading and installation (Plug & Play) saves time = short track possessions
/ No on-site assembly area required, and less noise and inconvenience for nearby residents
/ Environmentally-friendly transport (lower $CO_2$ emissions)
/ Use is made of the railway infrastructure / transport all the way to the unloading point
/ High quality switches thanks to factory-standard production
/ Gentler transport and unloading of the segments

## Applications

/ Infrastructure with a track gauge of 1,435 mm
/ Switch replacement or modernization works
/ High-speed lines
/ All track construction sites without pre-assembly facilities

Video

# WTW Switch Transport Wagon
# Technical Data

| Designation | WTW 2001 – WTW 2009 | WTW 3001 – WTW 3006 | WTW 4007 – WTW 4010 |
|---|---|---|---|
| Track gauge | 1,435 mm | 1,435 mm | 1,435 mm |
| **Main dimensions** | | | |
| Length over buffers | 26.50 m | 25.24 m | 25.24 m |
| Height | 3.15 m | 4.20 m | 3.43 m |
| Width | 2.60 m | 2.57 m | 2.95 m |
| Number of bogies | 2 | 2 | 2 |
| Number of wheelsets | 4 | 4 | 4 |
| Distance between bogie pivots | 19.50 m | 19.30 m | 19.30 m |
| Distance between last wheelset and front buffer | 2.50 m | 2.07 m | 2.07 m |
| Distance between wheelsets on bogie | 2.00 m | 1.80 m | 1.80 m |
| Distance between inner wheelsets | 17.50 m | 17.50 m | 17.50 m |
| Height above TOP of vehicle floor | 1.55 m with the tilting table flat | 1.60 m with the tilting table flat | 1.50 m with the tilting table flat |
| Loading gauge/structure gauge | empty: G1/GIC1. loaded: dependent on drawing/loading | empty: G1/GIC1. loaded: dependent on drawing/loading | empty: G1/GIC2. loaded: dependent on drawing/loading |
| **Speed** | | | |
| Hauling speed as part of train set | 100 km/h | 100 km/h | 100 km/h |
| **Weight** | | | |
| Tare weight | 34.7 t | 48.0 t | 43.0 t |
| Maximum weight per meter | 2.57 t/m | 3.17 t/m | 3.13 t/m |
| Maximum axle load | empty: 16 t (for all line categories EN 15528 A-D); loaded: 18 t (for all line categories EN 15528 B-D) | empty: 16 t (for all line categories EN 15528 A-D); loaded: 20 t (for all line categories EN 15528 C-D) | empty: 16 t (for all line categories EN 15528 A-D); loaded: 20 t (for all line categories EN 15528 C-D) |
| **Brake system** | | | |
| Brake system type | KE-GP-A | KE-GP-A | KE-GP-A |
| Brake blocks | K-Jurid 816M | K-Cosid 810 | K-Cosid 810 |
| Braked weight | max. 53 t | max. 55 t | max. 55 t |
| Braking power percentage | dependent on loading weight | dependent on loading weight | dependent on loading weight |
| Transport setting (F/P) | dependent on operation and network | dependent on operation and network | dependent on operation and network |
| Handbrake/parking brake fitted | in some cases | yes | yes |

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| Designation | WTW 2001 – WTW 2009 | WTW 3001 – WTW 3006 | WTW 4007 – WTW 4010 |
|---|---|---|---|
| **On-track operability** | | | |
| Shunting maneuvers not permitted | Hump-shunting and loose shunting not permitted, Ferry (consultation) | Hump-shunting and loose shunting not permitted, Ferry (consultation) | Hump-shunting and loose shunting not permitted, Ferry (consultation) |
| Sequencing restrictions | no restrictions | no restrictions | no restrictions |
| Smallest traversable curve radius | 120 m | 120 m | 120 m |
| Max. uphill and downhill gradients | 40 ‰ | 40 ‰ | 40 ‰ |
| Transport inside train set | yes | yes | yes |
| High altitude | max. 1400 m above sea level | max. 1400 m above sea level | max. 1400 m above sea level |
| **Weather constraints** | | | |
| Ambient temperature (operating mode) | between -20° C and 40° C (Restrictions with freezing water) | between -20° C and 40° C (Restrictions with freezing water) | between -20° C and 40° C (Restrictions with freezing water) |
| **Power supply** | | | |
| Central power supply | individual for each wagon | individual for each wagon | individual for each wagon |
| **Equipment (basic equipment for each machine and features)** | | | |
| Maximum loading weight | 28 t | 32 t | 36 t |
| Loading/unloading of the switch | onto/from table | onto/from table | onto/from table |
| Performance data | dependent on loading system | dependent on loading system | dependent on loading system |
| Personnel/machine operators/ crew | 3 WTW operators | 3 WTW operators | 3 WTW operators |
| Wagon equipment | Tilting table, crossbeams on the tilting table to secure the load. Flooring: steel grating | Tilting table, holding bars on the tilting table to secure the load. Flooring: steel grating | Tilting table, holding bars on the tilting table to secure the load. Flooring: steel grating |
| Permanent charge | 5,4 t Counterweight | 5,4 t Counterweight | 5,4 t Counterweight |

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## Global expertise in over 100 countries

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