



Rail loading wagon SLW

Technical Datasheet

SLW Rail Loading Wagon: Positioning rails with pinpoint accuracy

This rail loading unit loads and unloads long rails onto and from rail transport wagons. The SLW rail loading wagon places the rails in the correct position next to or onto the sleeper heads or in the middle of the track. This rail loading unit is able to rotate its gantry crane so that the vehicle can be deployed in any direction.



Benefits

- / Highly efficient, versatile loading system in combination with the ROBEL transport system
- / Minimal preparatory work required.
- / Rails can be loaded and unloaded individually or in pairs
- / 2 independently-operable, outlying swivel arms
- / Hydraulic positioning equipment for loading and unloading rails up to 2 meters from the middle of the track
- / Gantry crane pivots in the required direction
- / Individual rail lengths of 15 to 240 meters
- / Rail profiles 49E1/5, 54E3/4, 60E1/2, R65 and others on request
- / Parts of the operation can be done without deactivating overhead contact lines
- / Rails can be loaded through onto ROBEL transport systems: max. 3 x 120 m or 2 x 180 m
- / Ideal for combined and relay shipments
- / Serves as a rail shuttle for collective and staggered construction sites

Einsatzgebiete

- / Infrastructure with a track gauge of 1,435 mm
- / Track + rail 1/2 renewal measures
- / High-speed lines with short track possessions
- / Serves as a rail shuttle for collective and staggered construction sites



SLW Rail Loading Wagon Technical Data

Type	Rail Loading Wagon SLW 1	Rail Loading Wagon SLW 2	Rail Loading Wagon SLW 4 – SLW 7	Rail Loading Wagon SLW 8
Track gauge	1,435 mm	1,435 mm	1,435 mm	1,435 mm

Hauptabmessungen				
Length over buffers (LoB)	2 x 13.86 m = 27.72 m	2 x 12.08 m = 24.16 m	2 x 12.04 = 24.08 m	2 x 14.5 = 29.00 m
Height	corresponds to the G2 structure gauge	corresponds to the G2 structure gauge	corresponds to the G2 structure gauge	corresponds to the G2 structure gauge
Width	2.71 meters	2.75 meters	2.61 meters	2.61 meters
Number of bogies	none	none	none	none
Number of wheelsets per wagon	2 x 2	2 x 2	2 x 2	2 x 2
Distance between last wheelsets and front buffer	2.93 meters	2.06 meters	2.02 meters	2.75 meters
Distance between inner wheelsets	8.00 meters	8.00 meters	8.00 meters	9.00 meters
Height above TOP of vehicle floor	1.25 meters	1.26 meters	1.23 meters	1.23 meters
Loading gauge / structure gauge	G2	G2 as per EBO	G2 as per EBO,	G1

Speed				
Hauling speed as part of train set	120 km/h	120 km/h	120 km/h	120 km/h
Max. speed (self-propelled)	gantry crane max. 10 km/h	gantry crane max. 10 km/h	gantry crane max. 10 km/h	gantry crane max. 10 km/h
Max. operating speed	1.08 km/h	1.08 km/h	1.08 km/h	1.08 km/h

Masse				
Tare weight	48 t (max. permitted 54 t)	41 t (max. permitted 45 t)	47 t (max. permitted 51 t)	65 t
Maximum weight per meter	1.73	1.86	2.12	2.4
Maximum axle load	20 t (for all line categories EN 15528 C-D)	20 t (for all line categories EN 15528 C-D)	20 t (for all line categories EN 15528 C-D)	22.5 t (for all line categories EN 15528 C-D)

Brake system				
Brake system type	2 x KE GP	2 x KE GP	2 x KE GP	2 x KE GP (K)
Brake blocks	cast iron	cast iron	cast iron	K
Braked weight	F: 54 / P: 54	F: 40/ P: 40	F: 40 / P: 40	F: 46/ P: 58
Braking power percentage	dependent upon loading weight	dependent upon loading weight	dependent upon loading weight	dependent upon loading weight
Transport setting (F/P)	dependent on operation and network	dependent on operation and network	dependent on operation and network	dependent on operation and network
Handbrake / parking brake fitted	yes (2x)	yes (2x)	yes (2x)	yes (2x)

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On-track operability

Shunting maneuvers not permitted (e.g. hump-shunting or loose shunting)	Hump-shunting, loose shunting, banking, separation and transport by ferry not permitted	Hump-shunting, loose shunting, banking, separation and transport by ferry not permitted	Hump-shunting, loose shunting, banking, separation and transport by ferry not permitted	Hump-shunting, loose shunting, banking, separation and transport by ferry not permitted
Sequencing restrictions	no restrictions	no restrictions	no restrictions	no restrictions
Smallest traversable curve radius (operating / transport)	190 m / 190 m	150 m / 300 m	150 m / 300 m	150 m / 280 m
Max. uphill and downhill gradients	max. 40 ‰ depending on the rail length	max. 40 ‰ depending on the rail length	max. 40 ‰ depending on the rail length	max. 40 ‰ depending on the rail length
Max. superelevation (transport/operating)	180 mm	180 mm	180 mm	150 mm
Transport inside train set	yes	yes	yes	yes
Max. permissible trailing	no restriction	no restriction	no restriction	no restriction

Weather constraints

Ambient temperature (operating mode)	freezing water between -20° and 40° C	freezing water between -20° and 40° C	freezing water between -20° and 40° C	freezing water between -20° and 40° C
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Power supply

Central power supply	diesel generator	diesel generator	diesel generator	diesel generator
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Equipment (basic equipment for each machine and features)

Max. loading capacity loading / unloading	5 pairs per hour	5 pairs per hour	5 pairs per hour	5 pairs per hour
Number of wagons	2 (as a unit)	2 (as a unit)	2 (as a unit)	2 (as a unit)
Loading / unloading of the rails (middle of track, on sleeper heads etc.)	middle of track, on sleeper heads or one in the middle of the track and one on the sleeper heads, 2 meters from middle of track	middle of track, on sleeper heads or one in the middle of the track and one on the sleeper heads, 2 meters from middle of track	middle of track, on sleeper heads or one in the middle of the track and one on the sleeper heads, 2 meters from middle of track	middle of track, on sleeper heads or one in the middle of the track and one on the sleeper heads, 2 meters from middle of track
Personnel / machine operators / crew (number & qualification)	3 machine operators 2 railway construction crew	3 machine operators 2 railway construction crew	3 machine operators 2 railway construction crew	3 machine operators 2 railway construction crew
Machinery	hydraulic equipment to rotate the gantry crane in the required direction and hydraulic positioning equipment as weight-bearing point for loading and unloading rails up to 2 meters from the middle of the track; 2 independently-operable, outlying swivel arms; rail tong grippers for rail profiles 49E1/5, 54E3/4, 60E1/2, R65 and other rail profiles on request	hydraulic equipment to rotate the gantry crane in the required direction; 2 independently-operable, outlying swivel arms; rail tong grippers for rail profiles 49E1/5, 54E3/4, 60E1/2, R65 and other rail profiles on request	hydraulic equipment to rotate the gantry crane in the required direction; 2 independently-operable, outlying swivel arms; rail tong grippers for rail profiles 49E1/5, 54E3/4, 60E1/2, R65 and other rail profiles on request	hydraulic equipment to rotate the gantry crane in the required direction; 2 independently-operable, outlying swivel arms; rail tong grippers for rail profiles 49E1/5, 54E3/4, 60E1/2, R65 and other rail profiles on request
Particulate filter	yes	yes	yes	yes

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