



Standard gauge
mainline



80 km/h
operating
speed



No track closures



Up to 60 km
non-stop grinding



+100%
Rail life extended
by up to 100 %



Reduces noise
by 3 to 10 decibels

HSG-2 High-Speed Grinding Train

Technical Datasheet

HSG-2: High-speed grinding within the normal train schedule

The HSG-2 is the ideal solution for the preventive maintenance of mainline railways. It removes minor and medium-level rail defects and lowers noise emissions by up to 10 decibels all at speeds of up to 80 km/h. And it slots right into the train schedule!

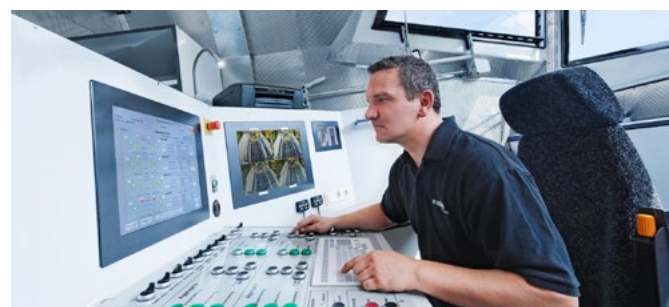


Benefits




- / Fast and safe rail defect prevention
- / Operating speed: 60 to 80 km/h
- / Grinds up to 60 km non-stop (depending on grinding wheel configuration)
- / Operates within the normal train schedule
- / No track possessions or disassembly of switching equipment
- / Suitable for tunnels with no subsequent clean-up required
- / Rail service life extended by up to 100 %
- / Recommended for "specially monitored track" (BüG)

Applications

- / Preventive rail machining
- / Corrective rail machining (with limitations)
- / Mill-scale removal from newly-laid rails (with limitations)
- / Noise reduction
- / Removal of slippery residues



Referenzen

- /  DB Netz AG
- /  China Railway
- /  Swiss Federal Railways
- / and others...

HSG-2

Technical data

Main dimensions (machining vehicle / support vehicle)

Length over buffers (LoB)	44.28 m (24.64 m / 19.64 m)
Height	4,248 mm
Width	2,982 mm
Number of bogies Number of axles	4 8 4 16 (operating mode)
Wheelbase between bogie pins	18,500 mm / 14,600 mm
Distance between axles on bogie	1,800 mm
Loading gauge / Structure gauge	G 1 / UIC 505-1

Speed

Self-propelled	no
Transport speed	120 km/h
Max. speed when hauled	120 km/h
Operating speed	60–80 km/h

Weight (machining vehicle / support vehicle)

Tare weight	120 t (75 t / 45 t)
Max. permitted overall weight	152 t (80 t / 72 t)
Maximum wheelset load	21 t

Brake system

Brake system type	KE GP-A disc brakes
Braked weight	G 139 t / P 139 t
Braked weight percentage (calculated using the braked weight and weight of the railcar)	91

On-track operability

Shunting maneuvers not permitted (e.g. hump-shunting or loose shunting)	not permitted
Smallest traversable curve radius (transport / operating mode)	transport mode – Ra 150 operating mode – Ra 180
Max. uphill and downhill gradients (transport / operating mode)	40 ‰ uphill and downhill – depending on traction type
Transport inside train set	end vehicle only
Max./min. Ambient temperature (operating mode)	not dependent on weather conditions

Equipment and features

Automatic Train Control	none
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Operating parameters

Applicable standards	DB Ril. 824.4015 A02 DIN EN 13231-5:2018-08 B6
Transverse profile grinding zone possible	Z-8 to Y+14
Personnel / machine operators / assistants (number and qualifications)	4 personnel for operating shift and 2 personnel for maintenance shift

Applications

Preventive grinding for DB Netz AG

Max. rail length	35 km
No. of passes	3
Grinding wheel configuration	course / course / medium-fine
Material removal	0.1 mm measuring points at Y-10 / Y-20

Other applications

Customized operation available on request

Traction requirements

Up to 12.5 ‰	1,500 kw
Up to 20 ‰	2,200 kw
Up to 40 ‰	5,300 kw

Line-side watering system

Length over buffers (LoB)	14,190 / 20,220 / 14,190 mm
Width	3,140 mm
Number of bogies Number of axles	2 4 2 4 2 4
Wheelbase between bogie pins	9,150 / 14,600 / 9,150 mm
Distance between axles on bogie	1,800 / 2,000 / 1,800 mm
Loading gauge / Structure gauge	G 1
Max. transport speed inside train set	100 km/h
Max. speed when hauled	100 km/h
Tare weight Max. permitted overall weight	21 90 / 23 80 / 21 90 t
Brake system type	KE-GP-A 12" / KE-GP-16" / KE-GP-A 12"
Braked weight	58 / 53 / 58 t
Shunting maneuvers not permitted (e.g. hump-shunting or loose shunting)	not permitted
Transport inside train set or as end vehicle	not permitted
Automatic Train Control	none

Global expertise
in over 100 countries

