



Hiarom Rail-Road Diesel Shunters

HRS 5 / HRS 8 / HRS 11 / HRS 14

For maximum towing loads: 1000t / 1500t / 2000t / 2500t

- Specially designed for heavy shunting operation.
- Traction on all 4 rubber wheels. More than 2x higher coefficient of traction than a locomotive.
- All wheel steering. Crab steering.
- Caterpillar diesel engine.
- Hydrostatic traction with lockable differentials on both axels and inter-axis.

DIESEL ENGINE

Caterpillar C4.4 or C7.1 engine

EU Stage V. Stage IIIB available for lesser regulated regions.

Water-cooled engine with turbo charging, charge air cooling and cooled external exhaust gas recirculation.

The powerful Common Rail injection system and the electronic engine control (EMR 4) with intelligent link to the drive management ensure optimum engine performance at low fuel consumption.

Long oil change intervals and easy changing of the engine fluids reduce the running costs and increase the availability of the machine.



TRANSMISSION



Traction is done on all 4 rubber wheels. The wheels are powered using hydraulic motors with high torque produced by POCLAIN HYDRAULICS. The vehicle is also equipped with valves lockable distinctively front / rear which ensures good traction even on surfaces with low friction coefficient. The engine drives a variable flow double pump that provides an infinite variable transmission ratio. Control is electronic, this provides a continuously optimal gear ratio which results in minimum consumption and very good drive ability. The main advantage is that there is no mechanical clutch and no mechanical connection between engine and wheels. This allows a very good damping of shocks and limits the effort of the transmission.

When a failure occurs, it is possible to disconnect the brakes and put the motors in free mode for towing. Maximum towing speed is 10 km/h.

SAFETY

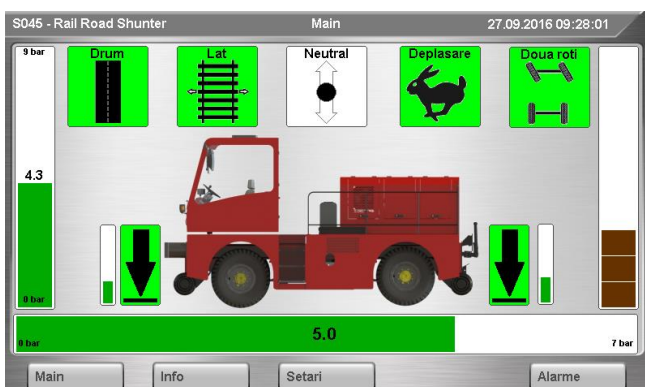
- Dead men pedal with acoustic and visual pre-warning.
- Red/White position lights for railway operation.
- Powerful working lights.
- Emergency stop buttons (2x in the cabin, one in each corner).
- Emergency brake normally closed with mechanical spring actuation. It can be actuated even in case of total loss of air, electrics, and power.
- Fire extinguishers.



CABIN / CONTROLS

The vehicle is equipped with a spacious cabin with good visibility in both directions and is furnished with two seats. The driver seat together with all the railway controls can rotate 180 degrees for reversing. The cabin is equipped with air conditioning, heater and defroster, radio-cd, suspension driver's seat, adjustable steering column.

Electronic displays are provided in the cabin for engine and transmission in addition to a video system with color display and two cameras (one for rear axle and coupler and one for driving backwards).



RAIL GUIDING SYSTEM

- Both rail axles can be lowered and raised hydraulically from the cabin.
- Automatic adjustment of the load on rail axles during railway travelling.
- Warnings if the pressure is out of range or if the axles are not in the correct road position.
- Lateral oscillating axels.
- Different track gauges available.

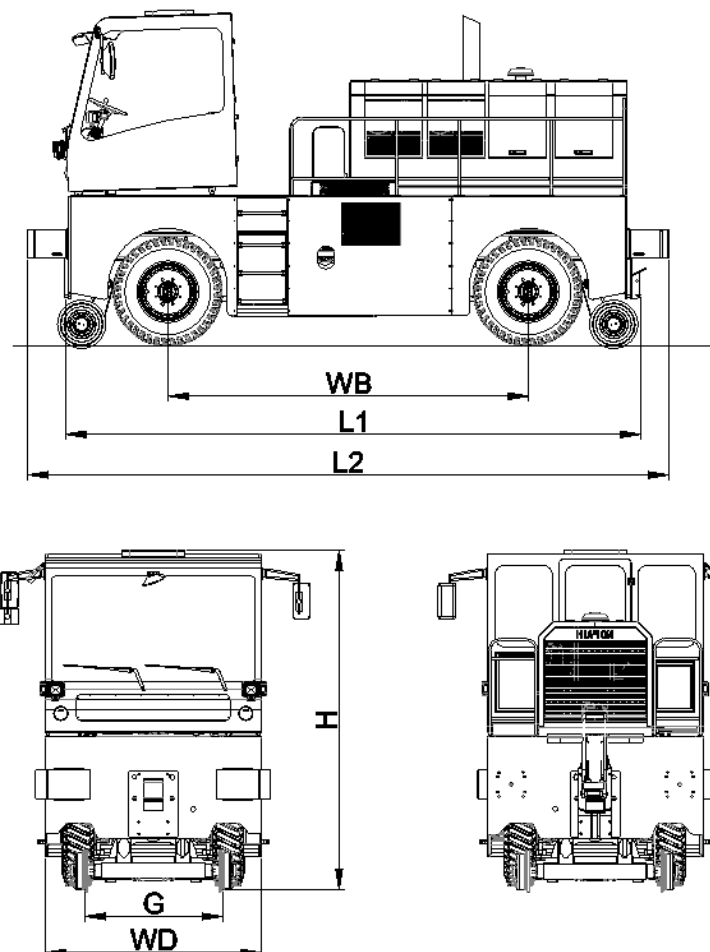


BRAKES

- Direct brake, hydraulically actuated by foot pedal for road travel or for stand-alone operation on railway.
- Indirect automatic brake according to UIC, pneumatically actuated, for shunting operation.
- Control of indirect braking from a lever in the cabin.
- Large capacity air tanks.
- Air drying system. Oil separator filter.
- Large capacity compressor mounted directly on the engine.
- Additional hydraulic compressor.
- Boost pressure function for fast filling of the railway cars.

EQUIPMENTS

UIC hook screw coupling and buffers	S	1435mm track gauge	S
SA3 or AAR coupling	O	1520, 1524, 1067 mm gauge	O
Various special couplings	O	UIC indirect brakes 5 bar	S
Four-wheel steering	S	Air supply 10 bar for railway cars	O
Air conditioner	O	Swiveling seat with panel for backward	S
Radio remote control for rail travel	O	Additional co-driver seat	S
Mirror heating	S	Additional air tanks	O
Auxiliary heater – engine independent	O	Automatic fire extinguisher for engine	O
Various front attachments	O		
Speed / distance recording device	O		



Model	HRS 5	HRS 8	HRS 11	HRS 14
Tractive force max.	50 kN	80 kN	110 kN	140 kN
Towing capacity	1000 t	1700 t	2200 t	2700 t
Machine weight	13 t	16 t	22 t	28t
Engine type	C 4.4	C 4.4	C 7.1	C 7.1
Cylinders	4	4	6	6
Power	180 HP	180 HP	280 HP	280 HP
Wheelbase - WB	3600 mm	3600 mm	3900 mm	3900 mm
Machine length - L1	5500 mm	5500 mm	5900 mm	5900 mm
Length over UIC buffers - L2	7000 mm	7000 mm	7400 mm	7400 mm
Height - H	3500 mm	3500 mm	3650 mm	3650 mm
Width - WD	2400 mm	2400 mm	2400 mm	2400 mm
Track gauge standard G	1435 mm	1435 mm	1435 mm	1435 mm
Minimum horizontal track radius	90 m	90 m	100 m	100 m
Maximum lateral cant	130 mm	130 mm	130 mm	130 mm
Fuel tank capacity	200 l	200 l	400 l	400 l
Max. speed on road	25 km/h	20 km/h	20 km/h	20 km/h
Max. speed on rail	25 km/h	20 km/h	20 km/h	20 km/h
Max. speed at max tractive effort	8 km/h	6 km/h	7 km/h	6 km/h



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