Used & New Diesel Road/Rail Versatile Shunting Locomotives



The 'LocoTractor' (LOK) is a highly versatile diesel road/rail vehicle suitable for a range of shunting and freight handling situations.

With sufficient ground clearance to cross railway tracks in road configuration and rapid conversion between road and rail mode (and vice versa) the LOK can make cross-terminal movements quickly and efficiently.

Powered by a turbo diesel Cummins engine, the LOK is capable of hauling 1,000 tonnes, and has a maximum speed of 30km/h. At only 14 tonnes, the LOK can be easily transported by rail and confirms to European loading gauges.

Equipped with two independent hydraulic braking circuits, two UIC hooks and four heavy buffers, the LOK can also be specified with remote control, pneumatic braking, remote operated couplers and air conditioning.

Brief Specification

| Туре | Diesel Road/Rail Shunter |
|--------------------------|-----------------------------|
| Maker | Zephir |
| Wheel Arrangement | 2-axle |
| Maximum Speed | 30km/h (19 mph) |
| Gauge | 1,435mm |
| Weight | 14t |
| Standard Draw Bar Pull | 50kN |
| Maximum Power | 82kW (110 hp) |
| Starting Tractive Effort | 488kN |
| Max. Haulage Capacity | 1,000t |
| Brake Type | Hydraulic / Disc |
| Coupling Type | UIC Hook |
| | |

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Additional Photographs





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Standard Specification

ENGINE: CUMMINS, Turbo Diesel Intercooler, 4 cylinders, water cooled, total displacement 4,5 litre, power 82 kW (110 HP) at 2.500 rpm, max torque 488 Nm at 1.500 rpm.

TRANSMISSION: Powershift DANA SPICER (CLARK), assembled on block to the engine, 3 forward gears + 3 reverse gears with torque converter, semi-automatic electric gear control with anti-inversion safety device.

AIR FILTER: DONALDSON with double cartridge and electric clogging indicator.

FRONT AXLE: Heavy duty, steering, double reduction with Gleason differentials and epicyclic final drive.

REAR AXLE: Heavy duty, non-steering (double steering optional), double reduction, with Gleason differentials and epicyclic final drive.

SUSPENSION: Front and rear suspension with semi-elliptical leaf springs, width 100mm.

DRIVE: DANFOSS hydrostatic type, acting on the front wheels through 2 double-effect hydraulic cylinders, oil tank with filter hydraulic gear pump assembled on the engine.

BRAKES: With 2 independent hydraulic circuits, one on the front axle and one on the rear, hydraulic pump flanged on the engine, 3 safety accumulators able to effect 6 full powered braking cycles even if the hydraulic pump is out of order. 4 disc brakes of 416mm diameter with 4 callipers on the front axle and 4 callipers on the rear axle, brake pads with wear indicators.

HAND BRAKE: Mechanical type with negative acting, antagonist spring, working on an independent disc on the transmission.

WHEELS: Pneumatic interchangeable tires 9.00-20.

BODY WORK: Monobloc type, made of thick sheet-steel.

CABIN: Metal cabin, completely enclosed and assembled on "Silent block", wide windscreen with safety sliding glass. Rear glass with heater, 2 sun-protection visors, green antiglare strip, heating and summer ventilation.

COUPLERS: 2 standard UIC hooks.

BUFFERS: 4 heavy buffers 30 kJ.

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Standard Specification

ELECTRIC SYSTEM: 24 Volts with 2 zero maintenance batteries of 12V, 120 Ah each. Alternator 70 A, 24 V.

RAILWAY AXLES: Lifting and floating type, 4 wheels with a diameter of 400mm in pressed steel, conical bearings.

FUEL TANK: 250 litre capacity metal fuel tank.

ANTI-DERAILMENT SYSTEM: With sensors able to detect the presence of rails. If one or more sensors stop detecting the rails then the LOK will perform an emergency stop.

STONE CATCHERS: Installed on the front of the rail wheels with adjustable height.

EMERGENCY BUTTONS: Installed on all 4 sides of the vehicle, managed by an independent circuit with safety relays.

ZEPHIR TRACTION ANTISLIP SYSTEM

Optional Specification

REMOTE CONTROL: Portable remote control (0.9kg) with control over the following locomotive functions:

- Accelerator
- Brakes
- Horn
- Forward speed / reverse speed
- Front hook control
- Rear hook control
- Emergency stop

Under remote control warning lights and horn mounted on the cabin will operate automatically.

COUPLERS: ZEPHIR automatic hooks, controlled both from the cabin and the remote control.

AIR CONDITIONING: Delivering 4,100 frigories, with 4 speed-ventilator capacity 600 m3/h.

PNEUMATIC BRAKING SYSTEM: Bicylindrical compressor, delivering 1,540 litres per minute, 180 litre capacity air tanks, 2 hoses with taps, control inside the cabin with manometer.

LOW TEMPERATURE LUBRICANTS

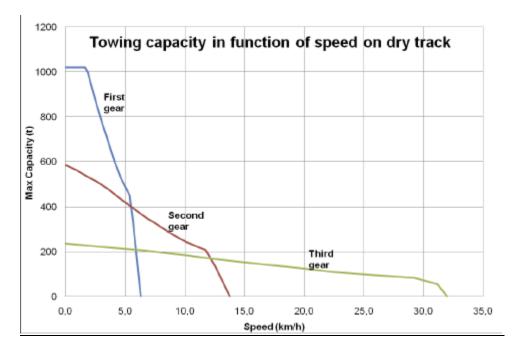
Other accessories available on demand.

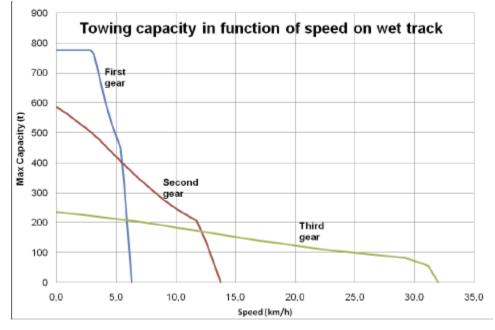
Please send expressions of interest to:

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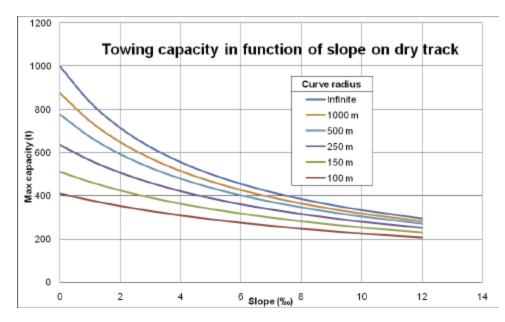
Performance

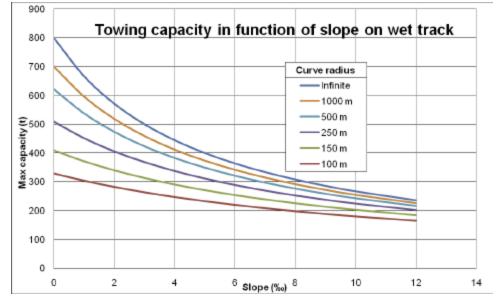




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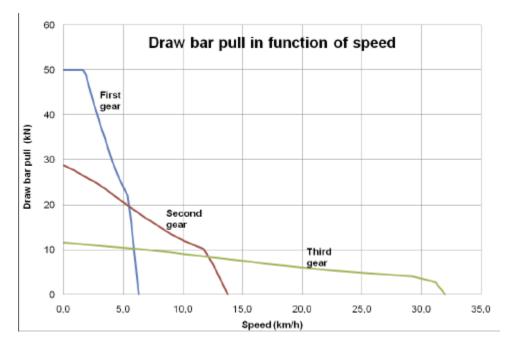
Performance





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Performance



Parameters used in the performance diagrams:

Static Rolling Resistance: 5 [kg/t]

Dynamic Rolling Resistance: 3 [kg/t]

Slope Resistance: 1 [kg/t] per 1 ‰

Curve Resistance: 750/radius [m] [kg/t]

Dry Track Rail Wheel Friction: 72%

Wet Track Rail Wheel Friction: 40%