

TELESCOPIC HANDLING GANTRY

MODEL PEM-XL (for S2PV method)

The **Telescopic Handling Gantry model PEM-XL** has been designed **switch laying in conjunction** with the trolley LEM460. Multiple PEM-XL's can be used simultaneously with the equivalent number of LEM 460's **to handle particularly long switches and crossings**.

The Telescopic Handling Gantry model PEM-XL can also be used with the Motorized Lifting and Transportation Caterpillar Trolley model LMC4611 B, the LEM460 trolley and the P2PV beam, together they constitute **the elements of the S2PV method**.



1. DESCRIPTION AND OPERATION

Introduction

The main feature of the PEM-XL is its ability to adapt to the stresses involved in handling switches and track panels with concrete sleepers. The PEM-XL minimizes lateral and longitudinal deformation during transportation, maintains switch geometry and optimizes slewing capacity.

The frame is composed of an enclosure and two sliding beams. Each beam supports one hydraulic lifting leg and move independently of each other.

Lifting legs are made of sliding squared section tubes and are actuated by hydraulic rams incorporated in the frame.

1. DESCRIPTION AND OPERATION (Cont'd)

PEM-XL is equipped with a load clamping system using hydraulic clamps which can slide laterally for positioning on different catch points (rail, frog), supporting under the rail foot. This clamping method allows longitudinal slewing of the load for perfect positioning of the switch.

The Telescopic Handling Gantry model PEM-XL is equipped with a soundproofed Diesel engine, hydraulic motors for site traveling and a braking safety system. It is also equipped with a manually operated emergency pump in order to off-track the machine in case of breakdown.

To fully synchronize lifting and lowering operations, the Telescopic Handling Gantry model PEM-XL is controlled by a radio remote control system. Standard equipment includes a transmitter that will control between one and eight gantries depending on the site requirements (S2PV method). Gantries can be positioned in any order.

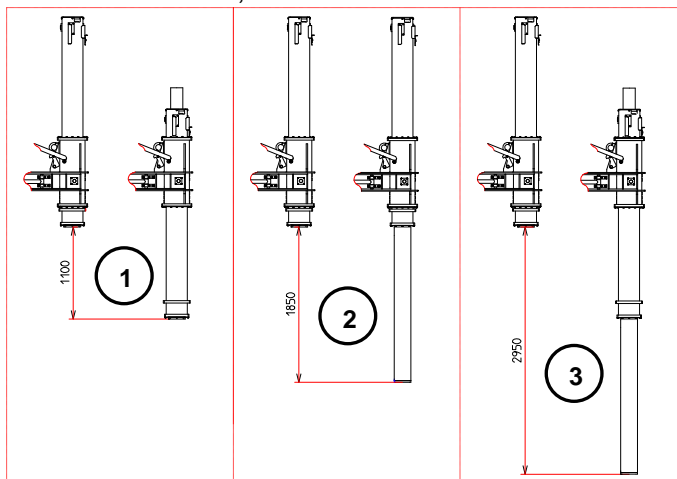


Double lifting system

PEM-XL is composed of two square section tubes each equipped with one hydraulic ram. The external ram (position 1 on the left) has a stroke of 1,100 mm in addition to the internal ram which has a stroke of 1,850 mm (position 2 in the center). Total stroke of PEM-XL is 2,950 mm (position 3 on the right).

Lifting rams can be operated manually or by the remote control system.

Each ram can be controlled individually or in combination with the others.



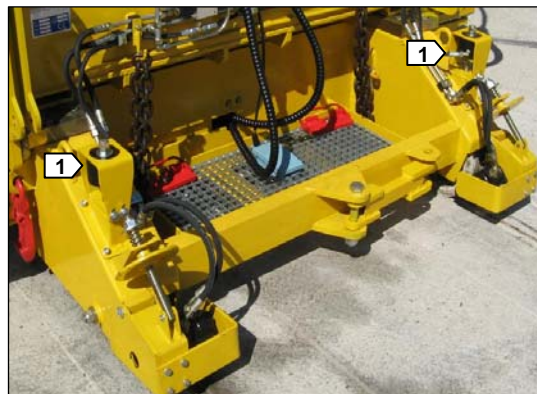
1. DESCRIPTION AND OPERATION (Cont'd)



Parking brake

PEM-XL is equipped with a hydraulic parking brake (position 1 on the right) which can be controlled from the remote control.

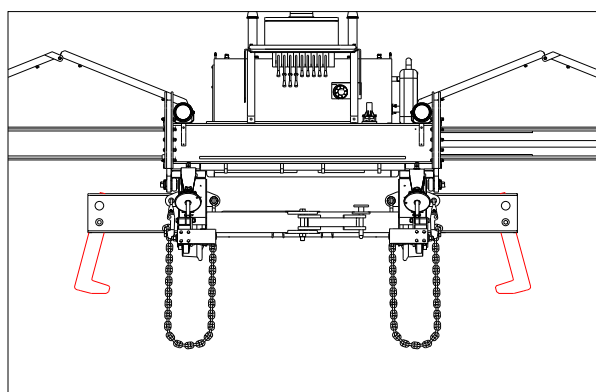
In case of failure it is possible to mechanically unlock parking brakes, to tow the machine for example (see on the right).



Lifting clamps

Lifting clamps catch the rail from underneath the foot (picture here under).

They are equipped with anti return valves controlled from the remote control.



1. DESCRIPTION AND OPERATION (Cont'd)



2. TECHNICAL DATA

- **Diesel** engine:
 - Power: 19 hp at 2,100 rpm
 - Cooling: Liquid
 - Starter type: electric
 - Acoustic level: 68 dB(A) at 7 meters
- Track gauge: 1 435 mm (*others on request*)
- Lifting capacity:
 - 20 000 daN (*ie ≈ 20 tonnes*)
 - 24 000 daN for extension limitation (S2PV method)
- Hydraulic pump: 2 x 11 cm³ (*double pump*)
- Oil tank capacity: 55 L
- Lighting: 4 Floodlights of 55 W
- Rams stroke (double lifting system):
 - Internal: 1 850 mm
 - External: 1 100 mm
- Traveling : manual or remote controlled
- Braking system: negative
- Rail clamps : manual or remote controlled
- Lifting hook: 2
- Driving post: with platform for the driver

2. TECHNICAL DATA (Cont'd)

- Dimensions (footprint during traveling):

Length:	≈ 1 945	mm
Width:	≈ 2 805	mm
Height:	≈ 2 765	mm
- Dimensions (unfolded):

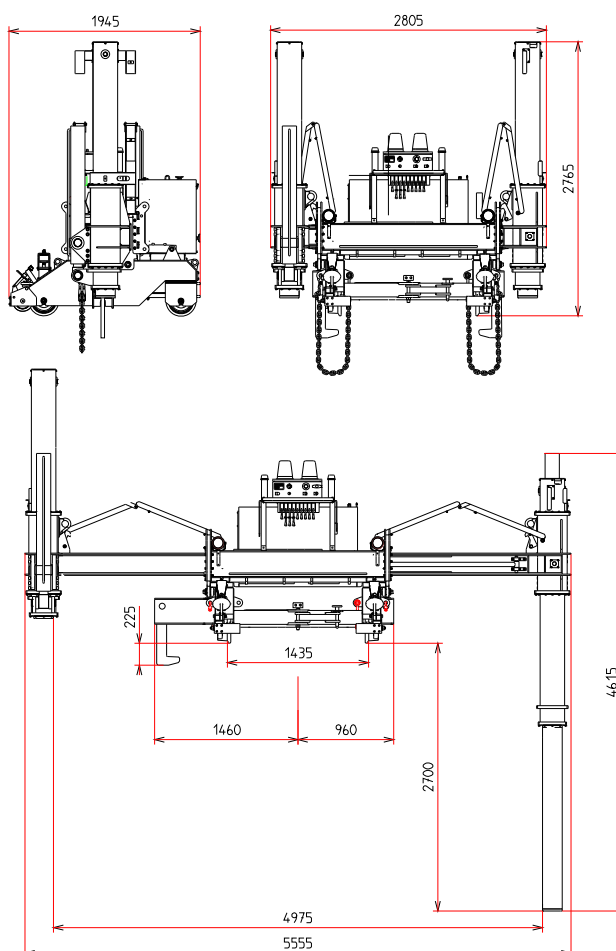
Length:	≈ 1 945	mm
Width:	≈ 5 555	mm
Height:	≈ 4 615	mm
- Mass:

	4 750	kg
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3. ACCESSORIES AND OPTIONS (at extra price)

- **Transmitter for remote control for PEM XL**
(If the customer has more than 8 PEM XL, 1 x Transmitter per set of 8 PEM 807)

4. DRAWINGS



5. PICTURES (S2PV method)



5. PICTURES (S2PV method – cont'd)



*We reserve the right to modify any equipment specification of the present offer to take into account the latest technical improvements and working conditions at the date of manufacturing.
Pictures and drawings may include some options and are not contractual.*