Electro hydraulic dock leveller including a sliding (telescopic) lip. The platform as well as the lip is driven hydraulically.

Materials

Platform and lip are made of high-quality durbar plate:

- Platform: Durbar plate 8/10, S235JRG2
- Lip: Durbar plate 12/14, S355J2G3.

The telescopic lip is strengthened with guides, which slide into the profiles of the platform. This guarantees an optimal connection between lip and vehicle bed, whilst maintaining a high degree of platform 'twist'.

The rear of the top platform is connected to the lower frame by means of three hinges (each with a length of 300 mm) to the lower frame. The pins of the hinges (Ø30mm) are made from drawn steel rods with a yellow passivating coating to avoid corrosion. They can easily withstand the applied forces.

The robust lower frame and modular front channel absorb the forces created by an emergency stop, cross traffic and where goods are being loaded below dock height. The self-supporting characteristics enable either an open or closed pit floor to be selected, or for a so-called letterbox opening to be used. Furthermore the front channel fixed to the lower frame provides protection for the hydraulic and mechanical components on the underside of the PoweRamp.

Drive

Both the platform and telescopic lip are powered by separate hydraulic cylinders. The hydraulic system is completely closed and cannot, even under the most extreme circumstances, be affected by dirt, sand or dust. Thanks to the over sized cylinders a low working pressure of approximately 100 bars is created.

The chrome hardened plunger cylinders are designed with a burst pressure of 1200 bar. The hydraulic hoses are designed to hold a working pressure of 180 bars and a have a burst pressure of 600 bars. As a precautionary measure, a pipe burst valve is integrated in the main cylinder.

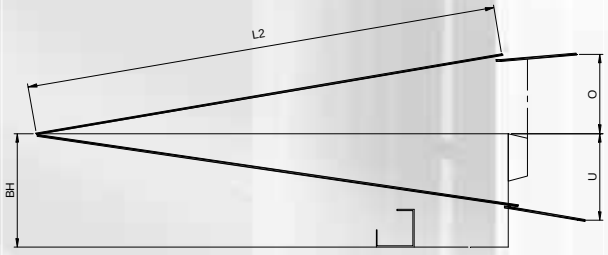
The compact hydraulic power pack is positioned under the platform to prevent it from any possible damages. All these characteristics ensure a safe hydraulic system with a long life span and a minimum of maintenance.

Dimensions

The PoweRamp 233 can be delivered tailor-made. However standard models with a construction-height of either 700 or 1000 mm are available in a large range of platform dimensions.

Dimensions (mm)					
L2	BH	500 mm lip		1000 mm lip*	
		O	U	O	U
2000	700	330	400	-	-
2500	700	400	400	460	450
3000	700	400	390	465	440
3500	700	360	380	410	420
4000	700	335	365	380	400
4500	1000	400	600	450	700
5000	1000	400	600	450	700
Platform width: 2000 or 2250 mm					

*) Option



L2 = Platform length
BH = Construction height
O = Effective working range above dock
U = Effective working range below dock

According to EN 1398 the dock leveller is not allowed to be operated outside the permissible gradient range of ± 12.5% (approximately ± 7°).

The stepless telescopic lip is extendible from 0 to 500 mm resulting in a lip location length on the vehicle bed of 250 mm. The working range is from +400 to -600 mm. The working range is measured from the front of the fully extended lip.

Technical Specification

Standards ..... CE certified
Capacity (EN 1398) ..... 60 kN
Construction height ..... 700, 1000 mm
Sliding length ..... 0 - 500 mm
Lip angle ..... (ca. 5°) 25 mm
Motor ..... 0,75 kW
Power supply ..... 400 V / 50 Hz / 2,5 A
Control current ..... 24 V DC
Protection class ..... IP 54
Working pressure ..... ca. 100 bar
Outside diameter main cylinder ..... 65 mm
Outside diameter main cylinder (L2>=4500) ..... 110 mm
Outside diameter lip cylinder ..... 50 mm
Operating temperatures between ..-30° and +50° Celsius
Standard colour ..... (carmine red) RAL 3002

Operation

With a 4-switch operation, the movement of the platform and telescopic lip can be individually controlled and they can therefore be accurately moved to the required position.

The operation is very simple. By keeping the 'raise push button' pressed, the platform goes up from the rest position until it reaches the correct loading height. By means of the 'lip out push button' the lip can subsequently slide onto the truck floor until the desired support is realised. When the button is released, the platform and lip will descend automatically to the level of the vehicle bed.

The telescopic lip is fixed into position after being extended to avoid the lip from moving away from the truck floor during loading and unloading. During loading and unloading, each up and down (suspension) movement of the vehicle is automatically followed.

After the loading and unloading process has been completed, by continuously pressing the 'R-button' the PoweRamp 233 can be returned to the rest position. In this position, the PoweRamp rests onto sturdy steel supports to prevent the platform from lowering unexpectedly as a result of load stress by cross traffic.

The PoweRamp 233 is also suitable to load or unload so-called last cargo below the dock level.

Standard safety provisions

- Full hydraulic safety stop by means of a pipe rupture valve built into cylinder;
- Emergency stop switch with reset facility;
- Non retractable sliding toe guards;
- Sturdy steel supports for transverse movements (cross traffic);
- Black / Yellow safety markings;
- Non-removable maintenance strut;
- Motor safeguards by means of a thermal relay;
- Control panel instruction symbols.

Standards

The PoweRamp 233 is CE marked. The Loading Systems dock levellers are in accordance with all safety aspects of the European standard EN 1398. The standard load capacity, which is 60 kN (axle load) is designed on a minimum surface contact per wheel of 150 x 150 mm and a maximum gradient of the platform top of 12.5 percent, in accordance with the European standard EN 1398. Any required load capacity is available as an option.

Options

- Various types of pit construction;
- PoweRamp as box model;
- Special dimensions and/or working range;
- Greater lip length;
- Tapered lip on both sides;
- Top platform plate with non-slip coating;
- Double main cylinder;
- Sliding side segments on lip to adjust to different vehicle widths.
- Hot dip galvanised;
- Hinges with stainless steel shafts;
- Platform insulation;
- Air seals on three sides of platform;
- RAL colour as required;
- Rest position switch for control of traffic light, door, etc;
- Leveller/ door interlocking;
- Integrated control panel including control for door, traffic light, etc.;
- Upgraded IP- value;
- Other voltage.

Building-in possibilities

Because of varying client specific requirements and constructional elements, a large range of build-in possibilities can be offered, such as a suspending (hang-in) frame, box model, permanent steelwork, prefab concrete elements, steel stand, dock pods including the thermal ISO version. By making the correct choice cost considerable savings can be made. Detailed building-in drawings are available upon request.

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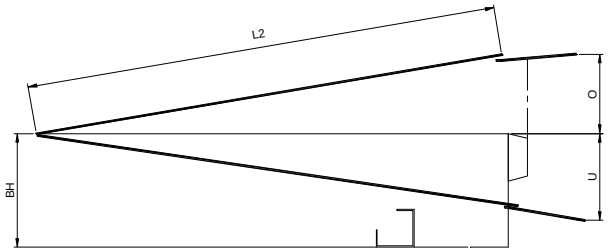

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