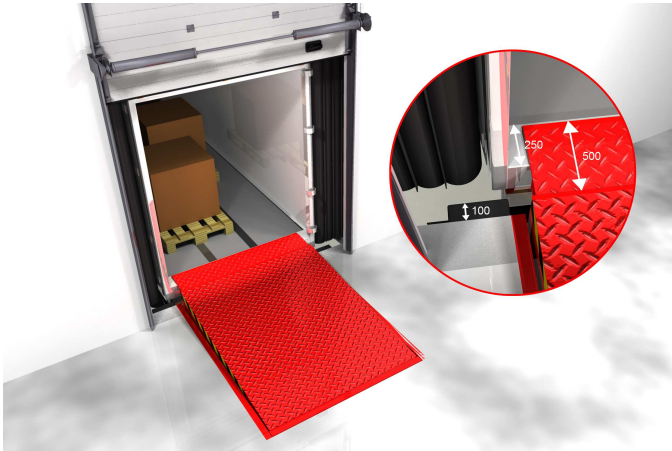# LOADING SYSTEMS

Dock leveller with telescopic lip

The PoweRamp 233NG is the newest generation electro hydraulic dock leveller including a sliding (telescopic) lip. The platform as well as the lip is driven hydraulically.

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, the dock leveller 233NG can be returned to the rest position by a single button, the 'R-button'. In this position, the dock leveller rests onto sturdy steel supports to prevent the platform from lowering unexpectedly as a result of load stress by cross traffic.

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

Materials

Platform and lip are made of high-quality durbar plate:
- Platform: Durbar plate 8/10
- Lip: Durbar plate 12/14.

Depending on the width the telescopic lip of the dock leveller 233NG is strengthened with 6 profiles in the length. Dock levellers wider than 2.000 mm are strengthened with 8 profiles. 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. In between these hinges there are additional supports to the top platform to ensure an optimal connection between the top platform and the pit frame.

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 dock leveller.

Dimensions

The dock leveller 233NG can be delivered tailor-made. However standard models with a construction-height of 700 are available in a large range of platform dimensions.

Dimensions (mm)					
L2	**BH**	**500 mm lip**		**1.000 mm lip***	
		±A	**±B**	**±A**	**±B**
2.000	700	270	340	-	-
2.500	700	330	400	395	465
3.000	700	395	385	455	435
Platform width: 2.000 or 2.250 mm					

*) Option
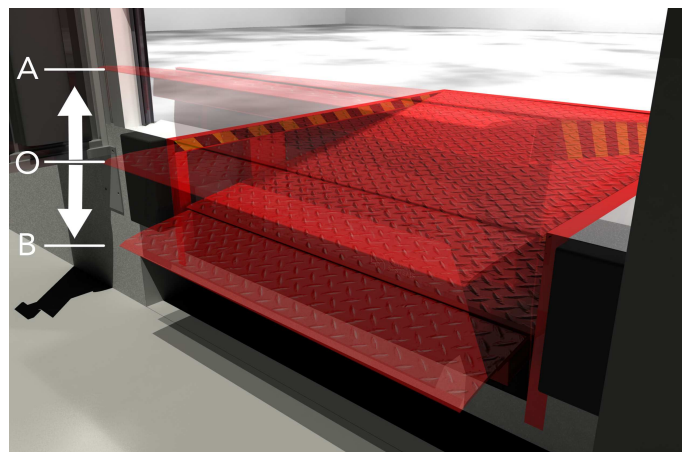
L2 = Platform length
BH = Construction height
A = Effective working range above dock
B = Effective working range below dock

Dock leveller with telescopic lip

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 measured from the front of the fully extended lip.

Drive
The platform is powered by two hydraulic cylinders. The telescopic lip is powered by a separate double-acting hydraulic cylinder. 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 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.

Standard safety provisions
- Full hydraulic safety stop;
- 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.

Technical Specification
Standards ....CE certified
Capacity (EN 1398) .... 60 kN
Construction height...700 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 lip cylinder ....50 mm
Operating temperatures between -30° and +50° Celsius
Standard colour ....(black) RAL 9005

Standards
The dock leveller 233NG 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.

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.

Options
- Various types of pit construction;
- Special dimensions;
- Air seals on three sides of platform;
- Top platform plate with non-slip coating;
- RAL colour as required;
- Platform insulation;
- Other voltage;
- Tapered lip on both sides;
- Sliding side segments on lip to adjust to different vehicle widths;
- Greater lip length;
- Double main cylinder;
- Hot dip galvanised;
- 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.

We take care.   www.loading-systems.com