

Hydraulic DockLevelers

Introduction of Hydraulic DockLeveler

Sucus's hydraulic docklevelers create a perfect, safe and user-oriented bridge between the work floor in the building and the floor of a truck. When loading or unloading, materials handling equipment can be manoeuvred in and out of the vehicle across an even surface, continuously and in perfect safety.

Hydraulic dockleveler to be complete package, including unitized motor and pump assembly, integral support strut and lip lock, full operating range toe guards, and two heavy-duty dock bumpers as standard. To meet EN1398 standards.

Hydraulic dockleveler is the most frequently and widely used dockleveler at present. It is characterized by stable performance, easy-to-use operation, low maintenance rate and simplicity for repairing.



Components and construction

The Hydraulic Dock Leveler is built up of the following components

1.Platform Assembly

Platform to be constructed of unitized, robotically welded high tensile steel safety tread deck plate. Exclusive "I" beam deck supports optimize twist resistance and stress distribution. Deck to be on 8-15Tons static capacities; on 5-10Tons dynamic capacities.

2.Lip Assembly

Lip to be 5/8"(16mm) thick, 153/4" (400mm)length. Self-cleaning lug-style lip hinge. All units to be tensile steel safety tread lip plate with chamfered leading edge. Lip rod to be a minimum of 1"-1.2"(25-30mm)solid steel on all capacities.

3. Open Subframe structure

All Sucus docklevelers are built with an open frame design to provide easy access to the pit floor for routine cleaning and scheduled maintenance.

4.Power Unit

Power unit is an electric hydraulic pump and valve assembly. Power unit is mounted to unit subframe (elevated off pit floor).

5.Electrical

Available in 380V/50Hz/0.75Kw or 220V/50Hz/1.1Kw. Built-in motor overload protection as standard.

6.Hydraulic

Main cylinder minimum 2-1/2"(63mm) inner diameter bore;lip cylinder 2"(50mm)inner diameter bore. All weather hydraulic fluid with viscosity of 15 cSt at 40° C(100° F). Totally enclosed non-ventilated hydraulic pump and motor assembly with single hose to cylinder for longer life and lower maintenance costs.

7.Control Panel

Heavy-duty, single push-button activation. Optional A.R.T.D. and interlocking with other dock equipment available for added safety.

8.Safety Legs

Automatic 60,000 lbs. (28tons) structural dock level support legs. Drop tested to the full rated capacity of the dock leveler.

9.Toe Guard Protection

Full operating range toe guards with two galvanized sliding guards (yellow OSHA required markings) provided on the sides of the dock leveler.

10.Integral Support Strut & Lip Lock

A permanently mounted support strut and lip lock are provided to support the lip and leveler during routine maintenance and pit cleaning.

11.Float Compensation

Allows for vertical carrier deflection when lip is in contact with truck bed.

12.Bumpers

Unit to include two heavy-duty dock bumpers model B300-250F, 10" x 12"(250mm x 300mm).

Option

1.0EM

We can produce according to your special requirment.

2.rubber bumper

All sizes of rubber style, layered style bumper and steel made bumper available.

3.industrial integrated control casing

Industrial integrated control casing work along with sucus sectional doors or rapid doors can achieve interlock

4.emergency stop system

Anytime, you can stop the operation by pushing the red stop button.

5.transition column plate design

Platform transition column column plate can use chamfer angle or assit lateral plate design to meet different carriage inside dimension..Standard specification for transition column plate is 400mm.We can also 450mm and 500mm's non-standard specification ones to meet high bearing requirment.

6.preplace foundation pit component

It's more efficient, economical and simpler than the traditional foundation pit pouring procedure and it completely eliminate inaccuracy.

7.installation mold

all installation mold available to meet different clients' needs.





Hydraulic System

Designed For Improved Safety

SUCUS HYDRAULIC DOCK LEVELERS MODEL 650 are equipped with a unique, safety stop solenoid valve, which can interrupt the flow of hydraulics to stop the dockleveler at any stage of operation and is effective even when power is disconnected. Sucus Hydraulic docklevelers also come standard with a patented hydraulic velocity fuse built into each cylinder, which restricts free-fall of a loaded ramp to three inches, should a truck pull away from the dock prematurely.

Sucus hydraulic cylinders are positioned at the front of the deck to provide more even distribution of the load weight, especially in freefall situation. Many other hydraulic systems place the hydraulic cylinder in the center of the deck, putting enormous strain on the front of the dockleveler. Additionally, the chrome-plated cylinder rods are protected under the deck structure, far away from the pit floor and safe from dirt, debris and potential damage.







Materials

The deck is made of anti-slip checker plate and reinforced on the underside using steel profiles. The lip, which is also made of anti-slip checker plate, is connected to the deck across its full width by a pivot arrangement.

Safety Features

- 1. controlled speed of descent
- 2. all movement stops in the event of a power failure
- 3. hose rupture safety valve
- 4. extra hydraulic valve to ensure full oil flow in case of power failure
- 5. the deck is self-aligning (allowing torsion) and compensates for height differences across the width of the vehicle floor
- 6. toe-guards
- 7. recessed yellow/black safety markings on moving parts
- 8. maintenance strut with safety catch

Warranty

Limited 1-year parts and labor base warranty with an additional limited 4-year parts only warranty on hydraulic power unit and cylinder. Limited 10-year structural warranty available upon engineering approval of written application.















The platform is raised when the dock attendant pushes and holds the button on the control box. The platform will fully rise. Releasing the push button will cause the leveler platform and lip to lower to the truck bed.

Normal operating range is 12"(300mm) above and 12"(300mm) below dock level. The standard 16"(400mm) lip extends 11"(280mm) beyond the standard 4"(100mm) bumper.

The platform is designed to compensate for canted truck beds up to 4"(100mm) and remain flush with the rear of the pit to eliminate pinch points. The lip is yieldable.

Control System

A printed circuit board in the control box controls all functions. As a standard, this control box with control buttons is mounted at 1500 mm above floor level next to the clear opening. The control system includes an interlock safety (option); the leveler will only function if the interlocked industrial door is in a safe position.

Finish

As standard, all fabricated steel components are blasted, primered and then painted in RAL 5010(blue).

Installation

Unit shipped completely assembled, and ready for installation in pre-formed concrete pit. Pit depth is 20"(508mm) for 6'(1680mm) and 8'(2290mm) long units,24"(610mm) for 10'(2900mm) long unit. Pit construction to be in accordance with certified Sucus pit detail drawings. Contact Sucus for current cost and nearest distributor.



Technical Specifications

dynamic ca	apacity	5tons,6.5tons,10tons
static capa	city	8tons,10tons,15tons
deck length	١	6'(1830mm),8'(2290mm),10'(2900mm)
deck width		6'(1830mm),6.5'(1980mm),7'(2130mm)
constructio	n height	191/4"(490mm)
lip length		153/4"(400mm)
lip thick		5/8"(16mm)
effective we	orking rangel	ength 6' (1830mm): +200mm \sim -200mm
	le	ength 8' (2290mm): +300mm \sim -250mm
	le	ength10'(2900mm): +450mm \sim -250mm
main suppl	y	380V/50Hz or 220V/50 Hz
control curi	rent	24v DC
power requ	uirement	1HP, 0.75kw
temperatur	e range	30°C(-22°F) ~ +55°C(130°F)
standards.		CE/TUV EN1398



Inner diameter: 63mm Working stroke: 440mm

High-quality cylinder reduces the rate of malfunction and maintenance to the minimum; single-acting cylinder and double-acting cylinder are alternative for main cylinder.

Small Cylinder

Inner diameter: 50mm Working stroke: 175mm

Available in small cylinder and patented GRAVITY

LIP for extending the lip.



length width		6'		8'			10'			
Specification	dilli	6'	6.5'	7'	6'	6.5'	7'	6'	6.5'	7'
Table board length	L2	1680	1680	1680	2290	2290	2290	2900	2900	2900
Table board width	W1	1830	1980	2130	1830	1980	2130	1830	1980	2130
Small access board length	L3	400	400	400	400	400	400	400	400	400
Dockleveler total length	L1	1830	1830	1830	2440	2440	2440	3050	3050	3050
Dockleveler actual height	Н	490	490	490	490	490	490	490	490	490
Max hoisting height	С	650	650	650	800	800	800	950	950	950
Raising range	В	200	200	200	300	300	300	450	450	450
Sinking range	D	200	200	200	250	250	250	250	250	250
Pit length	L	1680	1680	1680	2290	2290	2290	2900	2900	2900
Pit width	W	1860	2010	2160	1860	2010	2160	1860	2010	2160
Back pit depth	H1	495	495	495	495	495	495	495	495	495
front pit depth	H2	510	510	510	510	510	510	510	510	510