

PIT LEVELERS

Hydraulic Pit Levelers



Hydraulic Pit Leveler

Features

- Operating range 12" above and 12" below dock level
- Solid steel "C" channel deck support—provides greater resistance to elastic bending moments than other industry designs
- Unique base frame support struts make this leveler the strongest and safest in the industry
- Power operation in single phase (115 to 230 volts) or three phase (208 to 460 volts)
- Standard capacities available to 45,000 lbs. dynamic capacity
- Continuous hinge design with grease fittings provide for long life
- Lip keepers serve as night locks for safety and provide safe cross-traffic support
- Two heavy duty bumpers, a maintenance strut and working range toe guards are standard
- Inline safety stop guards against free-fall in the event of premature truck departure
- High strength 55,000 lb. minimum yield steel deck and lip

Mechanical Pit Levelers



Mechanical Pit Leveler

Features

- Operating range 12" above and 12" below dock level
- Solid steel "C" channel deck support—provides greater resistance to elastic bending moments than other industry designs
- Positive adjustable hold-down device allows up and down float when in service
- High strength 55,000 lb. minimum yield steel deck and lip
- Continuous hinge design with grease fittings provide for long life
- Direct extension spring counter-balance system with no moving parts
- Fully mechanical, single-handed pull-chain operation—no lifting or straining
- Dual cross traffic safety legs
- Two heavy duty bumpers, a maintenance strut and working range toe guards are standard
- Standard capacities available to 45,000 lbs. dynamic capacity

Hydraulic Pit Leveler Details

Model Number	Overall Width	Overall Length	Weight (lbs.)
25,000 lbs. Capacity			
H-HD600625	6'	6'	1,605
H-HD600825	6'	8'	1,785
H-HD601025	6'	10'	2,012
H-HD650625	6' 6"	6'	1,672
H-HD650825	6' 6"	8'	1,860
H-HD700625	7'	6'	1,690
H-HD700825	7'	8'	2,114
H-HD701025	7'	10'	2,124
35,000 lbs. Capacity			
H-HD600635	6'	6'	1,658
H-HD600835	6'	8'	1,940
H-HD601035	6'	10'	2,061
H-HD650635	6' 6"	6'	1,732
H-HD650835	6' 6"	8'	1,940
H-HD700635	7'	6'	1,750
H-HD700835	7'	8'	2,164
H-HD701035	7'	10'	2,184

Pit Leveler Options

Details	Weight (lbs)
18" lip With Lip Assist (Mechanical)	58 lbs.
20" lip With Lip Assist (Mechanical)	78 lbs.
18" lip (Hydraulic)	40 lbs.
20" lip (Hydraulic)	40 lbs.
3-Sides Weather Seals	10 lbs.
Telescopic Toe Guards - 6' & 8' Models	55 lbs.
Telescopic Toe Guards - 10' Models	70 lbs.
Pour-In Pan - 6' Models	270 lbs.
Pour-In Pan - 8' Models	350 lbs.
Pour-In Pan - 10' Models	430 lbs.
Curb Angles - 6' x 6'	140 lbs.
Curb Angles - 6' x 8'	160 lbs.
Curb Angles - 6' x 10'	180 lbs.
Curb Angles - 7' x 6'	150 lbs.
Curb Angles - 7' x 8'	170 lbs.
Curb Angles - 7' x 10'	190 lbs.
Mechanical Below Dock (Hydraulic)	-
Capacities over 35,000 lbs.	Consult factory
208/220/460/575 3 Phase Power Pack	-
Other options available	

Mechanical Pit Leveler Details

Model Number	Overall Width	Overall Length	Weight (lbs.)
25,000 lbs. Capacity			
H-MD600625	6'	6'	1,370
H-MD600825	6'	8'	1,655
H-MD601025	6'	10'	1,944
H-MD650625	6' 6"	6'	1,750
H-MD650825	6' 6"	8'	2,020
H-MD700625	7'	6'	1,510
H-MD700825	7'	8'	1,810
H-MD701025	7'	10'	2,675
35,000 lbs. Capacity			
H-MD600835	6'	8'	1,695
H-MD601035	6'	10'	2,455
H-MD650835	6' 6"	8'	2,225
H-MD700635	7'	6'	1,854
H-MD700835	7'	8'	2,289
H-MD701035	7'	10'	2,739

SELECTION GUIDELINES

Type of Load Being Handled

Heavier volumes of traffic and heavier load weights are best served by higher capacity levelers. Cost of the leveler is always a consideration, but the long-term cost of ownership is the primary issue. As a result, a lower cost leveler shouldn't be used if it is not adequate when considering the duty cycle involved. The higher the quality and load capacity of the leveler, the longer it will last.

Dock Leveler Capacity

- What is the configuration (number, size and arrangement of wheels—a three wheeled forklift concentrates the load) and the gross weight of the loading vehicle?
- What is the gross weight of the heaviest load carried?
- What is the maximum height difference between the truck bed and the dock?
- At what speed is the fork truck or other loading vehicle traveling?
- What is the frequency of use (*shifts per day; trucks per shift*)?

Use the following formula in determining the base capacity:

Add the weight of the load to the gross weight of the vehicle and multiply by two.

(Example: 4,000 lbs. load + 8,000 lbs. forklift weight = 12,000 lbs. × 2 = 24,000 lbs. or a 25,000 lbs. capacity unit.)

This formula will work in most cases up to a 7% grade, less than 5 MPH forklift speed and no more than 8 trucks per day and a maximum of 20 rollover cycles per vehicle. If these parameters are exceeded, the next higher capacity leveler should be used.

Mechanical vs. Hydraulic Pit Levelers



Mechanical pit levelers, while being slightly less expensive than hydraulic units to buy and install, require periodic adjustment, raising the cost of ownership.

Hydraulic units tend to have a longer life with less maintenance due to smoother automatic operation.

All Handle-It® power packs and electrical wiring are UL approved.

Pit Leveler Sizing

Nominal Size	With Lip Extended	Actual Leveler Size Lip Retracted	Pit Dimensions				Working Range	
			W × L	Depth Rear	Depth Front	Up	Down	
6' × 6'	6' × 6' 6"	72" × 63"	74" × 63"	19.5"	20"	8"	12"	
6' × 8'	6' × 8' 6"	72" × 87"	74" × 87"	19.5"	20"	12"	12"	
6' × 10'	6' × 10' 6"	72" × 111"	74" × 111"	23.5"	24"	12"	16"	
6.5' × 10'	6.5' × 6' 6"	78" × 63"	80" × 63"	19.5"	20"	8"	12"	
6.5' × 10'	6.5' × 8' 6"	78" × 87"	80" × 87"	19.5"	20"	12"	12"	
6.5' × 10'	6.5' × 10' 6"	78" × 111"	80" × 111"	23.5"	24"	12"-16"	16"*	
7' × 6'	7' × 6' 6"	83" × 63"	85" × 63"	19.5"	20"	8"	12"	
7' × 8'	7' × 8' 6"	83" × 87"	85" × 87"	19.5"	20"	12"	12"	
7' × 10'	7' × 10' 6"	83" × 111"	85" × 111"	23.5"	24"	12"-16"	16"*	

* For 10' long hydraulic levelers, the up and down working range is 16". For 10' mechanical levelers, a 16" up working range is available as an option by adding a longer upper bar to the leveler.

Typical Minimum Dock Leveler Lengths

Height Differential Truck to Dock	Leveler Length	Maximum Grade	Electric Fork Truck Operation (Max Grade: 10%)		Gas Fork Truck Operation (Max Grade: 10%)	
			Leveler Length	Maximum Grade	Leveler Length	Maximum Grade
1"-2"	6'	3.3%	6'	3.3%	6'	3.3%
3"-4"	6'	6.7%	6'	6.7%	6'	6.7%
5"-6"	6'	10.0%	6'	10.0%	6'	10.0%
7"-8"	8'	9.6%	8'	9.6%	6'	13.3%
9"-10"	10'	9.2%	10'	9.2%	8'	12.0%
11"-12"	N/A	N/A	N/A	N/A	8'	14.3%
13"-14"	N/A	N/A	N/A	N/A	10'	13.0%
15"-16"	N/A	N/A	N/A	N/A	10'	14.8%

Width of a Pit Leveler

Most trailers to be serviced will be limited to an overall width of 8'6". The dock leveler widths available from Handle-It™ range from 72" to 84".

Length of a Pit Leveler

A pit leveler is used when the dock to truck height difference is greater than 5" ± and there is available space for the longer leveler. The longer the leveler is, the less impact that will occur due to a gentler slope, which means longer leveler life. The leveler length will be determined by the available space and the height difference between the dock and the trucks being serviced. As a general rule the tables on the left can be used to determine leveler length.

Typical truck and trailer heights are:

Flatbed Trucks:	48" – 60"
Semi-Trailer	44" – 52"
High Cube Truck	36" – 42"
Straight Truck	36" – 48"

Installation

A professional installer should be used to install edge-of-dock levelers and pit levelers in accordance with installation instructions provided with each Handle-It® unit. Safety should be a primary concern, and a professional installer is the best assurance of safety.