Pentalift Dock Lifts
Model HED Pit Mounted Dock Lifts
The ultimate in versatility and reliability for shipping and receiving operations

Engineered for Safety
Pentalift: The best choice for Dock Lifts

Since 1983 Pentalift has grown to be recognized as one of North America’s premier manufacturers of loading dock and dock lift equipment. In addition to loading dock equipment, Pentalift manufactures custom scissor lifts. Some examples of these custom lifts are shown on this page. The continuing success in designing, engineering, and manufacturing custom lifts and superior loading dock solutions make Pentalift the best possible choice for your dock lift requirements.

Shown below are some examples of Pentalift's application design engineering and manufacturing capabilities.

Application designed lift. One of the world’s premier jet aircraft engine manufacturers commissioned a mobile test station. During the certification process the engine must be tested and inspected on an ongoing basis. The Pentalift lift table, installed on an industrial truck chassis, is driven to and positioned under the aircraft engine. The technicians are then raised to a safe working height to perform the assigned tasks. The lift has a platform size of 16’ x 24’, raises 15’ and has a lifting capacity of 16,000 lbs.

This application designed double scissor dock lift accomplishes significant additional travel without increasing the length of the frame.
Pentalift Dock Lift Installation Arrangements
Shown below are concept depictions of a variety of common installation arrangements for dock lifts. Pentalift has extensive experience in designing, manufacturing and applying dock lifts for the widest variety of applications. Careful consideration, knowledge and experience are imperative when designing an efficient and safe loading dock. Pentalift is your best choice in achieving this objective. Contact your Pentalift representative for additional information on installation arrangements.

(A) Exterior grade level recessed pit installation

(B) Interior grade level to higher dock level full pit installation (pit mount)

(C) Exterior grade level to dock level recessed pit installation (front mount)

(D) Exterior grade level to lower dock level full pit installation (pit mount)

(E) Interior grade and floor level recessed pit installation
The Pentalift HED dock lift, is a pit mounted dock lift designed for increasing efficiency and safety in loading / unloading trucks and trailers. The design and features of the Pentalift HED make it the highest quality dock lift available. The HED dock lift is the best possible choice for a large number of loading dock applications.

**Pentalift HED 12 Inch Low Height Dock Lift Design Features**

- **Exclusive PentaFLOW hydraulic bypass cylinder** (see opposite page) with hydraulic velocity fuse.
- **Scissor legs**: Solid steel one piece construction with precision reamed holes. All pivot pins are chrome plated.
- **Hinged integral maintenance stand**.
- **OSHA compliant 42” high removable steel guard rail** c/w mid rail and 4” kick plate.
- **Plated access chain**: Prevents operator from falling.
- **“Lubricated for life” maintenance free bearings** at all pivot points.
- **Bevel toe guards** for pit mounting protection.
- **High tensile steel checker plate hinged bridge and platform with structural supports.**
- **Shipped complete**: Finished product, power unit, controls (standard push button control shown) and all other components are factory load-tested and shipped fully assembled, complete with hydraulic fluid.
Pentalift HED Dock Lift Models: The following models and sizes are available

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PLATFORM SIZE (wide x long)</th>
<th>VERTICAL LIFT (inches)</th>
<th>CAPACITY RANGE (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HED 47_</td>
<td>48” x 84”</td>
<td>50”</td>
<td>3,000 – 15,000 lb</td>
</tr>
<tr>
<td>HED 48_</td>
<td>48” x 96”</td>
<td>59”</td>
<td>3,000 – 20,000 lb</td>
</tr>
<tr>
<td>HED 49_</td>
<td>48” x 108”</td>
<td>59”</td>
<td>3,000 – 20,000 lb</td>
</tr>
<tr>
<td>HED 410_</td>
<td>48” x 120”</td>
<td>59”</td>
<td>3,000 – 20,000 lb</td>
</tr>
<tr>
<td>HED 57_</td>
<td>60” x 84”</td>
<td>50”</td>
<td>3,000 – 15,000 lb</td>
</tr>
<tr>
<td>HED 58_</td>
<td>60” x 96”</td>
<td>59”</td>
<td>3,000 – 20,000 lb</td>
</tr>
<tr>
<td>HED 59_</td>
<td>60” x 108”</td>
<td>59”</td>
<td>3,000 – 20,000 lb</td>
</tr>
<tr>
<td>HED 510_</td>
<td>60” x 120”</td>
<td>59”</td>
<td>3,000 – 20,000 lb</td>
</tr>
<tr>
<td>HED 67_</td>
<td>72” x 84”</td>
<td>50”</td>
<td>3,000 – 15,000 lb</td>
</tr>
<tr>
<td>HED 68_</td>
<td>72” x 96”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
<tr>
<td>HED 69_</td>
<td>72” x 108”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
<tr>
<td>HED 610_</td>
<td>72” x 120”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
<tr>
<td>HED 612_</td>
<td>72” x 144”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
<tr>
<td>HED 77_</td>
<td>84” x 84”</td>
<td>50”</td>
<td>3,000 – 15,000 lb</td>
</tr>
<tr>
<td>HED 78_</td>
<td>84” x 96”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
<tr>
<td>HED 79_</td>
<td>84” x 108”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
<tr>
<td>HED 710_</td>
<td>84” x 120”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
<tr>
<td>HED 712_</td>
<td>84” x 144”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
<tr>
<td>HED 88_</td>
<td>96” x 96”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
<tr>
<td>HED 89_</td>
<td>96” x 108”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
<tr>
<td>HED 810_</td>
<td>96” x 120”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
<tr>
<td>HED 812_</td>
<td>96” x 144”</td>
<td>59”</td>
<td>3,000 – 25,000 lb</td>
</tr>
</tbody>
</table>

Specifying Model Number. Example:
Model HED6812 is derived from HED (Model prefix) 68 (6 foot wide x 8 foot long platform) 12 (12,000 lb capacity). As standard, HED are available in 3,000, 4,000, 5,000, 6,000, 8,000, 10,000, 12,000, 15,000, 20,000 and 25,000 lb capacity. For models 15,000 lb capacity and lower side edge load rating is 63% of overall capacity; End edge load rating is 80% of overall rated capacity. For models greater than 15,000 lb capacity and lower edge load rating is 50% of overall capacity; End edge load rating is 75% of overall rated capacity. Low height (closed) is 12” up to and including 15,000 lb. capacity. Low height (closed) is 20” on all 20,000 and 25,000 lb capacity models. Higher capacities or additional platform sizes are available. Please contact factory to review and process specific project requirements.

Hydraulic Power Unit Considerations
Pentalift offers power units to suit a wide range of applications. As standard (shown below), each model of Pentalift HED dock lift is provided with a remote power unit, 1 HP, 115/1/60 TEFC motor, 10’ of hydraulic hose, push button on 10’ cord, pre-wired, full of hydraulic fluid. The power unit HP rating determines the lift speed of the unit (the larger the HP the faster the lift speed), as standard power units are available up to 10 HP.

3 factors to consider when selecting a Power Unit are:
1) The distance from the dock lift to the power unit (determines hydraulic hose length and push button control cord length).
2) Lift time required (approximately 30 seconds is most common) to determine HP rating.
3) Push button controls (straight cord, coil cord, or controls installed on deck).

Hydraulic Cylinder

The lift cylinder is the heart on any hydraulic lift system, Pentalift’s exclusive design ensures the longest cylinder life, reduces maintenance and eliminates oil spills.

Here’s How it works:
Pentalift’s PentaFLOW cylinder is completely sealed from the surrounding atmosphere and all components are continuously bathed in fresh oil. Contamination and deterioration of the cylinder cannot occur. When the cylinder reaches full extension, the bypass valve opens and allows oil to flow through the piston to the rod side of the cylinder, out the port, and back to the reservoir. This prevents the cylinder from dead ending and building high stresses in the cylinder, equipment structure and hydraulic system. Air in the cylinder is automatically removed through the bypass valve eliminating the need for manual bleeding which often results in oil spills and contamination.

Note: Precision turned, ground, polished and chrome plated cylinder rod and “drawn over mandrel” precision honed barrels are standard on all PentaFLOW cylinders.

Hydraulic Power Unit Considerations

Pentalift offers power units to suit a wide range of applications. As standard (shown below), each model of Pentalift HED dock lift is provided with a remote power unit, 1 HP, 115/1/60 TEFC motor, 10’ of hydraulic hose, push button on 10’ cord, pre-wired, full of hydraulic fluid. The power unit HP rating determines the lift speed of the unit (the larger the HP the faster the lift speed), as standard power units are available up to 10 HP.

3 factors to consider when selecting a Power Unit are:
1) The distance from the dock lift to the power unit (determines hydraulic hose length and push button control cord length).
2) Lift time required (approximately 30 seconds is most common) to determine HP rating.
3) Push button controls (straight cord, coil cord, or controls installed on deck).
The Pentalift HED high capacity dock lift: As shown below, this dock lift maintains the same operational features and benefits of the HED 12 inch low height dock lift with increased structural construction to facilitate heavy load handling capability. These models are frequently utilized to raise and lower a forklift and its load.

- High tensile steel checker plate hinged bridge and platform with structural supports.
- Bevel toe guards for pit mounting protection.
- Exclusive PentaFLOW hydraulic bypass cylinder (see previous page) with hydraulic velocity fuse.
- Hinged integral maintenance stand.
- Plated access chain: Prevents operator from falling.
- OSHA compliant 42” high removable steel guard rail c/w mid rail and 4” kick plate.
- Heavy duty full length deck beams.
- Scissor legs: Solid steel one piece construction with precision reamed holes. All pivot pins are chrome plated.
- Dual lower leg rollers, distribute loads equally through scissor leg.
- “Lubricated for life” maintenance free bearings at all pivot points.

Shipped complete: Finished product, power unit, controls (standard push button control shown) and all other components are factory load-tested and shipped fully assembled, complete with hydraulic fluid.
Pentalift Dock Lift Optional Features:

Optional hydraulic power units:
Dock lift power units are available to suit any incoming supply voltage and are available in a wide range of horse power ratings. Pentalift adds value by designing and assembling all control panels and wiring “In house”. Please contact your Pentalift sales representative to discuss the power unit best suited to your application.

Hydraulic pop up chock
(shown in orange) Prevents fork lift or cart from rolling off lift. Automatically raises into safety position as dock lift raises.

Deck mounted push button control
Push button on steel post is mounted on the deck.

Up travel limit switch
Stops units travel at the preset travel dimension every time.

Hydraulic powered bridge
Raising and lowering of the bridge is controlled by push button.

Other options (not shown with a photograph)
- Removable push button on post on platform.
- Wall mounted push button.
- 2 second warning bell (sounds prior to lift movement.
- Manual lowering valve.
- Overhead door interlocking kit.
- Additional guard rails (platform or floor mount).
- Swing-out night stops.
- Different size bridges.
- Aluminum bridges.

Push Button on Coil Cord
Extends from 4 ft to 20 ft.

Toe sensor
(shown in red) Surrounds the perimeter of the lift’s platform and electo/hydraulically arrests the downward decent of the lift when an obstruction is encountered.

Spring Assisted Bridge
Spring assist reduces the manual force required to raise or lower the bridge into position.
In addition to the model HED dock lifts shown in this brochure, Pentalift also offers the model LPE surface mounted dock lift, and the model LDL pit mounted dock lift. These dock lifts are described in the literature shown above. A copy of the dock lift brochures as well as our other loading dock equipment brochures, including dock levelers, vehicle restraints, dock seals and truck shelters, and more can be downloaded from our web site (www.pentalift.com) or printed copies are available from your Pentalift representative.

“Our Primary Goal is to engineer and build the best products to ensure the ultimate in user safety and product reliability”

Paul Pedersen
President
Pentalift Equipment Corporation

Individual Product Catalogs are available and can also be found on our website. Pentalift also manufactures a complete line of lift tables for your in plant material handling needs.

Note: Some photos may reflect products with optional features. All Pentalift Equipment Corporation products are subject to design improvement through modification without notice.