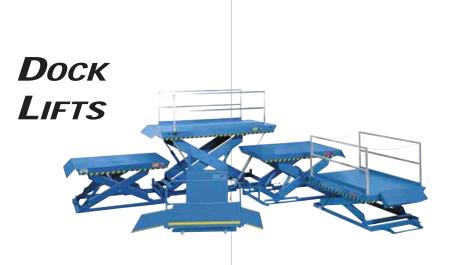


Industrial Ergonomics, Inc. 612-532-6774 <u>sales@industrial-ergonomics.com</u>





# Truck Levelers

**R**AIL TRANSFER **B**RIDGES

## **CATALOG AND APPLICATION GUIDE**

## About Advance Lifts



## Our state of the art 120,000 square foot building houses all operations including sales, design, manufacturing and shipping.

Advance Lifts was founded in 1974 and quickly became the leading dock lift manufacturer in the country. We have maintained that position through innovative design, quick deliveries and superior service. Our modern 120,000 sq. ft. facility in St. Charles, Illinois houses state of the art equipment and is manned by a well trained group of employees who are dedicated to providing our customers outstanding products. Our goal is to make the entire process of buying, installing, using and servicing of our products, as easy and trouble free as possible for our customers.

Part of our service program includes the most complete website in the industry. Our website, <u>www.advancelifts.com</u>, is available 24/7 and contains interactive product selection aids, photos, operational specifications, architectural specifications, installation drawings, product manuals and a listing of our nationwide distributor network. Therefore, if you have a question, you can get answers by calling a local distributor, calling the factory direct or visiting our website.

#### Why it pays to buy from an Advance distributor!

**SALES** – Advance distributor sales engineers are trained to help you apply the correct equipment to your specific application, thereby saving you time and money and precluding costly misapplications. Because they visit hundreds of facilities each year, they are aware of the latest equipment and techniques to solve your problems.

**INSTALLATION** – Advance distributors can install what they sell, which makes your job easier and assures you the job will be done right and the equipment will function to your satisfaction. Their trained technicians have the experience required to meet your installation requirements.

**SERVICE** – When your equipment needs service, your Advance distributor is right there to help. They have trained service personnel to get you up and running as fast as possible, thereby saving on downtime costs.

**VALUE** – It's very simple. Advance distributors save you money by applying the right equipment to the job, making sure it's installed correctly, and making sure you get service when you need it. Call the Advance distributor nearest you to insure your project's success.



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CATALOG AND APPLICATION GUIDE

## WHY BUY ADVANCE PRODUCTS

Advance products offer superior value because of the many standard features incorporated in our products. Most of our competitors offer some of these features, but none offer the full array of features that set our products apart. With over thirty years of experience as the nation's leading builder of dock lifts and with close attention to product performance in the field, we have gained the insight and knowledge to assemble the best value package available in the industry.

### PAINT FINISH:

Each unit is cleaned and etched with phosphoric acid, fully primed with a rust inhibiting primer and then the entire unit is finished with an enamel paint that is baked on. Advance provides the best paint finish in the industry.

### **MECHANICAL:**

All shafts and axles are hard chrome finished and the bearings are lifetime lubricated. Our units have a ten (10) year structural warranty.

### HYDRAULIC:

Our units are equipped with machine grade cylinders that include solid steel bearing blocks with lifetime lubricated bearings, pistons with special wear rings & quad ring seals, hard chrome plated stress proof steel cylinder rods and lathe welded cylinder housings. Each cylinder is equipped with a speed limiting flow control and a clear plastic return line to eliminate oil leakage. (*See Fig. 1*)

Fig. 2

Each unit is equipped with a minimum of three (3) oil filters to prevent contamination of valves and cylinders. (See Fig. 2)

Our hydraulic pressure hoses are 100R2 double wire braid. (See Fig. 3)

### **ELECTRICAL:**

Fig. 1

Advance Lifts is the only lift manufacturer that is a UL approved electrical controller assembler. Our entire controller assembly is covered with a UL label, not just the UL approved components.











### CATALOG AND APPLICATION GUIDE

## WHY BUY ADVANCE PRODUCTS

#### SALES LITERATURE:

We have designed our sales literature to be of maximum help in designing your dock area and selecting the right equipment for your application. In addition to the basic product photo and feature list, we have included full specifications, drawings, a detailed selection guide, a list of general questions and answers about lift applications and an installation site survey checklist.

#### **DISTRIBUTOR ASSISTANCE:**

We have a nationwide network of knowledgeable dock equipment specialists to assist you with your dock requirements and design. Their experience with hundreds of dock designs per year allows them to apply the latest thinking in dock design to insure optimum equipment choices and layout for your application. They can provide thorough support from design to installation and then they can maintain the equipment to insure many years of trouble free service.

#### **DELIVERY:**

We pride ourselves on having the fastest deliveries in the business. If you are not in a hurry, but are planning for a future construction date, simply state a "sure" shipping date and we will make that commitment.

#### **SERVICE SUPPORT:**

In addition to the support provided by your distributor, we provide the following support from the factory:

- Each unit is shipped with the most complete and useful service manuals in the industry.
- Our service department is available at 1-800-843-3625.
- All of our manuals are available on our website 24/7.









## WHY USE DOCK LIFTS

**R**EPLACES DANGEROUS CONCRETE RAMPS . . .

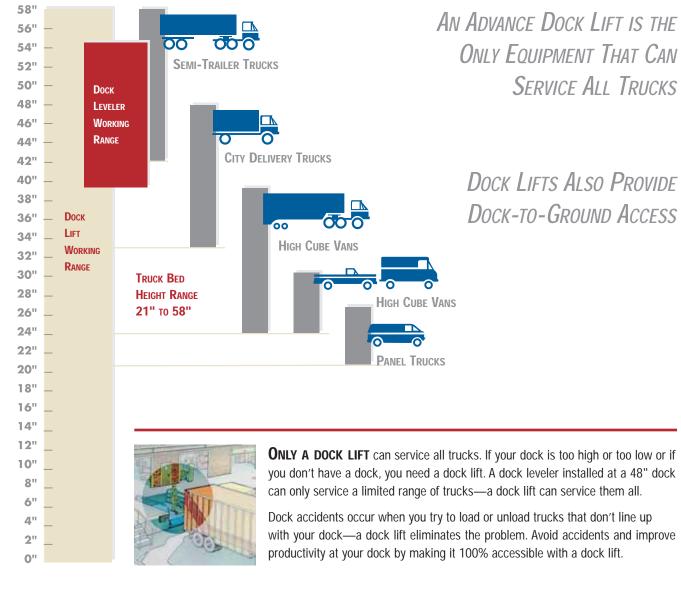


**USES LESS VALUABLE REAL ESTATE.** 

**R**EPLACES EXPENSIVE TRUCK WELLS . . .



Avoids snow, water and trash collection.





## WHY USE DOCK LIFTS

#### At a raised concrete dock . . .



#### PROVIDES 100% DOCK ACCESSIBILITY.

## At a ground level building . . .



**PROVIDES A DISAPPEARING DOCK.** 

### **EVERY DOCK COULD USE A DOCK LIFT:**

Considering the low cost versatility provided by an Advance dock lift, every dock should have one. It eliminates dangerous inclines, costly truckwell recesses and expensive concrete ramps while improving efficiency, safety and morale. It guarantees that all vehicles can be accommodated at the dock and reduces the amount of expensive real estate needed for a dock. Advance dock lifts are multifunctional and come in more than 80 models to suit any dock application.

### FOR RETAILERS:

When dock lifts are compared to slow hand unloading of trucks, savings of one to two hours in unloading time can be achieved. In addition to the obvious labor savings, the capital savings from better truck turnaround times can yield two to three year paybacks on the cost of the dock lifts.

### FOR HOSPITALS, OFFICE BUILDINGS & INSTITUTIONAL BUILDINGS:

The widest range of delivery vehicles imaginable visit these applications. Therefore the universal service range of a dock lift makes it the most logical choice for efficient accessibility to these types of facilities.

### FOR WAREHOUSES & MANUFACTURING BUILDINGS:

Bottlenecks on these docks are even worse than bottlenecks inside these buildings, because everything passes over the docks twice, when they are received and when they are shipped. Although much of the traffic may be concentrated in standard height semi trailer trucks, vehicles of lower loading heights will show up often and that is when at least one dock lift in the dock design becomes very valuable.



## **DOCK LIFT SELECTION GUIDE**

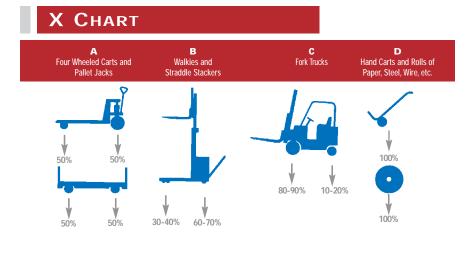
### INSTRUCTIONS

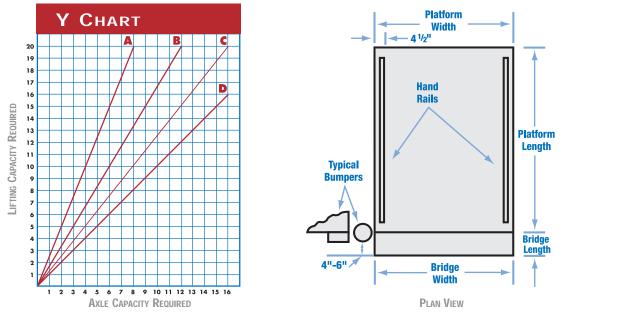
**LIFTING CAPACITY:** Add weight of the Load + Weight of Transport Vehicle + Weight of Personnel.

**AxLE CAPACITY:** From the "X" Chart: Determine the type of Axle Loading (A,B,C, or D.) On the "Y" Chart: Locate the Lifting Capacity required. Follow across the chart horizontally to the graph line (A,B,C, or D) which represents the appropriate Axle Loading type and follow the chart vertically down to the Axle Capacity required.

### EXAMPLE:

Load Weighs	4,000 lbs.
Fork Truck Weighs	7,300 lbs.
Operator Weighs	
Total Load and Lifting Capacity Required	
Type of Axle Loading "C" (Fork Truck)	
Axle Capacity Required	9,200 lbs.







## **DOCK LIFT SELECTION GUIDE**

	A	В	С	D
Usage		30-40% 60-70%	80-90% 10-20%	100% 100%
Type of Loading	Hand carts, four wheeled carts and pallet jacks	Powered pallet jacks, walkies, straddle stackers and small fork trucks	Sit down rider fork trucks and other heavy loads	This can be any lift that has an axle load rating high enough for the intended load
Lift Models	Series 1045 Series 2000 T Series Series 6568	Series 3000 Model 6200	Series 4000 Model 6300	ALL
LIFT CAPACITIES	4,000 to 6,000	8,000 to 10,000	12,000 to 20,000	ALL
Platform Size	6' x 6' to 8' x 10'	6' x 8' to 8' x 10'	6' x 10' to 8' x 12'	ALL

## DID YOU KNOW?

- The most popular wooden pallet is 40" wide so that two can be put in a truck side by side.
- Cushion tire fork trucks to 8,000 lb. capacity are generally less than 48" wide.
- Pneumatic tire fork trucks to 8,000 lb. capacity are generally less than 60" wide.
- A 6 ft. wide platform is generally adequate to handle most normal loading situations.

**PLATFORM WIDTH:** Equals the width of the widest load plus 12" minimum for operating clearance with hand rails.

**PLATFORM LENGTH:** Equals the length of the longest load plus the length of any material handling equipment which may project beyond the load plus room for the operator, if required.

- A 7 ft. length is adequate for loads transferred via manual pallet jacks.
- A 10 ft. length should be used for loads transferred via powered pallet jacks.
- A 12 ft. length should be used for loads transferred via sit down rider fork trucks.

**BRIDGE WIDTH:** 72" is the maximum recommended width to avoid truck alignment problems. Other widths are available.

**BRIDGE LENGTH:** The bridge should be long enough to project 4-6" beyond any truck bumpers to provide adequate purchase on the truck bed. 12" is the minimum recommended length.



## Series 1000 Instant Dock Lifts

These are Instant Docks that simply require positioning and plugging into a power receptacle and they are ready to go to work. They were designed for use with light equipment such as hand carts, 4 wheel carts and pallet jacks. For other Instant docks see our Series 6000 lifts on pages 18 & 19.



### SPECIAL FEATURES

- All models are equipped with a hinged bridge equipped with a pull back chain.
- All models have a combination approach ramp, wheel chock.
- All of the electrical controllers are Underwriters Laboratories approved assemblies.
- Each unit is washed with phosphoric acid, fully primed and then finished with baked enamel.
- All cylinders are machine grade with clear plastic return lines.
- All pressure hoses are double wire braid with JIC fittings.
- Reservoirs are mild steel.
- These units conform to all applicable ANSI codes.

### **FEATURE DETAILS**



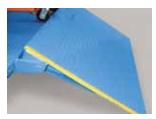
Power Unit w/Controller



Cylinder



Double Wire Braid Hose



Combination Wheel Chock/Ramp

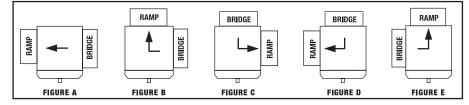


## SERIES 1000 INSTANT DOCK LIFTS

### Specification Table for 1000 Series Lifts

Model	Lift Cap. Lbs.	Axle Cap. Bridge End*	Axle Cap. Ramp End*	Platform Size	Overall Size	Low Height	Raised Height	Bridge Size	Chock/ Ramp Size	Ship Weight
1045	4,000	2,000	2,000	6 X 6	76 X 92	5-1/4	58-1/4	18 X 60	30 X 60	2,400
1055	5,000	2,000	2,000	6 X 6	76 X 92	5-1/4	58-1/4	18 X 60	30 X 60	2,500

#### ALTERNATE TRANSFER ARRANGEMENTS

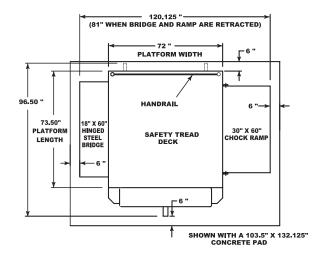


### **SPEEDS:**

- 1045 & 1055 230V/ 1 or 3 phase = 10 FPM
- ▶ 1055 115V/1 phase = 8 FPM

### MODEL 1045 & 1055:

These models were primarily designed to handle carts and dollies. When the units are raised, the ramps become wheel chocks that prevent carts from rolling off of the platforms. The pull back chain on the hinged bridge allows the operator to pull the bridge back and secure it while the unit is being lowered, without stepping around the load. Wheel and dolly transport sets are standard on these units and allow the units to be moved on smooth concrete surfaces.



Plan View of 1045 or 1055



## SERIES 2000 & T SERIES DISAPPEARING DOCK LIFTS

These are by far the most popular size Disappearing Dock lifts sold. They are sized to handle pallet jacks, four-wheel carts and dolly trucks. They are also used for dock to ground access.



Model T-50608



Model 2500K

### SPECIAL FEATURES

- All models are equipped with a hinged bridge with a pull back chain.
- > All of the electrical controllers are Underwriters Laboratories approved assemblies.
- Each unit is washed with phosphoric acid, fully primed and then finished with baked enamel.
- All cylinders are machine grade with clear plastic return lines & internal mechanical stops.
- All pressure hoses are double wire braid with JIC fittings.
- Reservoirs are mild steel.
- These units conform to all applicable ANSI codes.

### FEATURE DETAILS



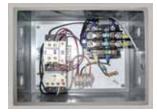
Power Unit



Cylinder



Double Wire Braid Hose



Controller



## SERIES 2000 & T SERIES DISAPPEARING DOCK LIFTS

Model	Lift Capacity	Axle Cap. Ends	Axle Cap. Sides	Platform Size	Lowered Height	Travel	Speed FPM	Power Unit HP	Ship Weight
2400	5,000	2,500	2,500	6' X 7'-2"	10"	40"	12	5	2,200
2500K	5,000	2,500	2,500	6' X 8'	10"	58"	12	5	2,400
2010K	6,000	3,000	3,000	6' X 8'	10"	58"	12	5	2,500
T-50608	5,000	2,500	2,500	6' X 8'	8"	58"	12	5	2,400
T-60608	6,000	3,000	3,000	6' X 8'	8"	58"	10	5	2,500
T-55609	5,500	2,700	3,000	6' X 9'	8"	58"	10	5	2,780
T-55610	5,500	2,500	3,000	6' X 10'	8"	58"	10	5	2,860
T-55708	5,500	2,700	2,700	7' X 8'	8"	58"	10	5	2,805
T-55709	5,500	2,700	2,700	7' X 9'	8"	58"	10	5	2,900
T-50710	5,000	2,500	2,500	7' X 10'	8"	58"	10	5	2,990
T-50808	5,000	2,500	2,500	8' X 8'	8"	58"	10	5	2,915
T-50809	5,000	2,500	2,500	8' X 9'	8"	58"	10	5	3,015
T-50810	5,000	2,500	2,500	8' X 10'	8"	58"	10	5	3,100

### SPECIFICATION TABLE FOR 2000 & T SERIES LIFTS

### **GENERAL:**

All of these units are designed for use with pallet jacks, four-wheeled carts and hand trucks. Their rugged tubular construction offers more rigidity with less weight than the solid bar leg alternatives. A wide assortment of accessories for these units is available, as shown on *page 20*.

### MODEL 2400:

This model was designed to fit into a typical dock leveler pit. The short platform length means the scissors legs are also shorter, therefore, travel is restricted to 40". However, since dock levelers are only installed in raised docks, the 40" of travel is more than sufficient.

### MODELS 2500K & 2010K:

For decades, these have been the most popular dock lifts in the country. Their 10" pits are very easy to build and afford crush space between the bottom of the bevel toe guard and the bottom of the pit, for any debris that may fall into the pit.

### T SERIES:

Many dock designers are now specifying 8" pits and this series of lifts is designed to fit them. The "T" series replaces our original "2000" series that was the industry standard for 25 years. It is not unusual for us to sell consumable parts such as wheels and cylinder packing kits for units that are 30 years old and still going strong. The new "T" series shares all of the robust engineering features of its workhorse predecessor and should serve equally well.



## SERIES 3000 DISAPPEARING DOCK LIFTS

These are our medium sized Disappearing Dock lifts. They are sized to handle pallet jacks, powered pallet jacks, straddle stackers and small fork trucks. They are also used for dock to ground access.



### **SPECIAL FEATURES**

- All models are equipped with a hinged bridge with a pull back chain.
- All of the electrical controllers are Underwriters Laboratories approved assemblies.
- Each unit is washed with phosphoric acid, fully primed and then finished with baked enamel.
- All cylinders are machine grade with clear plastic return lines & internal mechanical stops.
- All pressure hoses are double wire braid with JIC fittings.
- Reservoirs are mild steel.
- These units conform to all applicable ANSI codes.

### FEATURE DETAILS



Power Unit



▶ Cylinder



Double Wire Braid Hose



▶ Controller



## SERIES 3000 DISAPPEARING DOCK LIFTS

Model	Lift Capacity	Axle Cap. Ends	Axle Cap. Sides	Platform Size	Lowered Height	Travel	Speed FPM	Power Unit HP	Ship Weight
3200	8,000	6,500	5,000	6' X 8'	15"	58"	10	5	4,200
3210	8,000	6,500	5,000	6' X 9'	15"	58"	10	5	4,350
3220	8,000	6,500	5,000	6' X 10'	15"	58"	10	5	4,500
3230	8,000	6,500	5,000	7' X 8'	15"	58"	10	5	4,400
3240	8,000	6,500	5,000	7' X 9'	15"	58"	10	5	4,575
3250	8,000	6,500	5,000	7' X 10'	15"	58"	10	5	4,750
3260	8,000	6,500	5,000	8' X 8'	15"	58"	10	5	4,600
3270	8,000	6,500	5,000	8' X 9'	15"	58"	10	5	4,800
3280	8,000	6,500	5,000	8' X 10'	15"	58"	10	5	5,000
3300	10,000	7,500	5,000	6' X 8'	15"	58"	8	5	4,525
3310	10,000	7,500	5,000	6' X 9'	15"	58"	8	5	4,705
3320	10,000	7,500	5,000	6' X 10'	15"	58"	8	5	4,885
3330	10,000	7,500	5,000	7' X 8'	15"	58"	8	5	4,765
3340	10,000	7,500	5,000	7' X 9'	15"	58"	8	5	4,975
3350	10,000	7,500	5,000	7' X 10'	15"	58"	8	5	5,185
3360	10,000	7,500	5,000	8' X 8'	15"	58"	8	5	5,005
3370	10,000	7,500	5,000	8' X 9'	15"	58"	8	5	5,245
3380	10,000	7,500	5,000	8' X 10'	15"	58"	8	5	5,485

### SPECIFICATION TABLE FOR 3000 SERIES LIFTS

### **GENERAL:**

These units are constructed with heavy wall tubing to maximize rigidity with minimum weight. The legs are "gibbed" to both the base frame and the platform to further enhance rigidity. If the intended use of this equipment includes small fork trucks, be sure to calculate the axle loading of the fork truck and compare it to the axle load limits in the table above.



## SERIES 4000 DISAPPEARING DOCK LIFTS

These are our largest sized Disappearing Dock lifts. They are sized to handle any mobile material handling equipment you may have. They also provide dock to ground access.



### **SPECIAL FEATURES**

- All models are equipped with a hinged bridge with a pull back chain.
- > All of the electrical controllers are Underwriters Laboratories approved assemblies.
- Each unit is washed with phosphoric acid, fully primed and then finished with baked enamel.
- All cylinders are machine grade with clear plastic return lines & internal mechanical stops.
- All pressure hoses are double wire braid with JIC fittings.
- Reservoirs are mild steel.
- These units conform to all applicable ANSI codes.

### **FEATURE DETAILS**







Double Wire Braid Hose



Controller



## SERIES 4000 DISAPPEARING DOCK LIFTS

### Specification Table for 4000 Series Lifts

Model	Lift Capacity	Axle Cap. Ends	Axle Cap. Sides	Platform Size	Lowered Height	Travel	Speed FPM	Power Unit HP	Ship Weight
4100	12,000	9,600	8,400	6' X 10'	16-1/2"	58"	7	5	5,500
4110	12,000	9,600	8,400	6' X 11'	16-1/2"	58"	7	5	5,700
4120	12,000	9,600	8,400	6' X 12'	16-1/2"	58"	7	5	5,900
4130	12,000	9,600	8,400	7' X 10'	16-1/2"	58"	7	5	5,800
4140	12,000	9,600	8,400	7' X 11'	16-1/2"	58"	7	5	6,050
4150	12,000	9,600	8,400	7' X 12'	16-1/2"	58"	7	5	6,300
4160	12,000	9,600	8,400	8' X 10'	16-1/2"	58"	7	5	6,300
4170	12,000	9,600	8,400	8' X 11'	16-1/2"	58"	7	5	6,600
4180	12,000	9,600	8,400	8' X 12'	16-1/2"	58"	7	5	6,900
4200	15,000	12,000	10,500	6' X 10'	16-1/2"	58"	8	7-1/2	5,800
4210	15,000	12,000	10,500	6' X 11'	16-1/2"	58"	8	7-1/2	6,000
4220	15,000	12,000	10,500	6' X 12'	16-1/2"	58"	8	7-1/2	6,200
4230	15,000	12,000	10,500	7' X 10'	16-1/2"	58"	8	7-1/2	6,100
4240	15,000	12,000	10,500	7' X 11'	16-1/2"	58"	8	7-1/2	6,350
4250	15,000	12,000	10,500	7' X 12'	16-1/2"	58"	8	7-1/2	6,600
4260	15,000	12,000	10,500	8' X 10'	16-1/2"	58"	8	7-1/2	6,600
4270	15,000	12,000	10,500	8' X 11'	16-1/2"	58"	8	7-1/2	6,900
4280	15,000	12,000	10,500	8' X 12'	16-1/2"	58"	8	7-1/2	7,200
4300	18,000	14,400	12,600	6' X 10'	18"	58"	8	7-1/2	6,400
4310	18,000	14,400	12,600	6' X 11'	18"	58"	8	7-1/2	6,600
4320	18,000	14,400	12,600	6' X 12'	18"	58"	8	7-1/2	6,800
4330	18,000	14,400	12,600	7' X 10'	18"	58"	8	7-1/2	6,700
4340	18,000	14,400	12,600	7' X 11'	18"	58"	8	7-1/2	6,950
4350	18,000	14,400	12,600	7' X 12'	18"	58"	8	7-1/2	7,200
4360	18,000	14,400	12,600	8' X 10'	18"	58"	8	7-1/2	7,200
4370	18,000	14,400	12,600	8' X 11'	18"	58"	8	7-1/2	7,500
4380	18,000	14,400	12,600	8' X 12'	18"	58"	8	7-1/2	7,800
4400	20,000	16,000	14,000	6' X 10'	20"	58"	8	7-1/2	6,900
4410	20,000	16,000	14,000	6' X 11'	20"	58"	8	7-1/2	7,300
4420	20,000	16,000	14,000	6' X 12'	20"	58"	8	7-1/2	7,900
4430	20,000	16,000	14,000	7' X 10'	20"	58"	8	7-1/2	7,000
4440	20,000	16,000	14,000	7' X 11'	20"	58"	8	7-1/2	7,400
4450	20,000	16,000	14,000	7' X 12'	20"	58"	8	7-1/2	8,000
4460	20,000	16,000	14,000	8' X 10'	20"	58"	8	7-1/2	8,000
4470	20,000	16,000	14,000	8' X 11'	20"	58"	8	7-1/2	7,800
4480	20,000	16,000	14,000	8' X 12'	20"	58"	8	7-1/2	8,100

### **GENERAL:**

These units have cylinders in direct thrust to all four platform corners, which provides maximum rigidity. This design approach for heavy fork truck applications eliminates the spring board effect of platform overhang on lifting scissors in the raised position. When a fork truck passes onto our lift from a semi trailer, you will observe an inch or more of vertical movement of the trailer and no discernable movement of the lift. The units are plumbed for anti-interflow between cylinders when the unit is at rest. These are the most rugged and rock solid lifts in the industry.



## Series 6000 Instant Dock Lifts

These are Instant Docks that simply require lagging into position and plugging into a power receptacle and they are ready to go to work. No pit work is required.



### SPECIAL FEATURES

- All models are equipped with a hinged bridge equipped with a pull back chain.
- All models have an approach ramp.
- > All of the electrical controllers are Underwriters Laboratories approved assemblies.
- Each unit is washed with phosphoric acid, fully primed and then finished with baked enamel.
- All cylinders are machine grade with clear plastic return lines.
- All pressure hoses are double wire braid with JIC fittings.
- Reservoirs are mild steel.
- These units conform to all applicable ANSI codes.

### **FEATURE DETAILS**



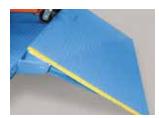
Power Unit w/Controller



Controller



Double Wire Braid Hose



Combination Wheel Chock/Ramp



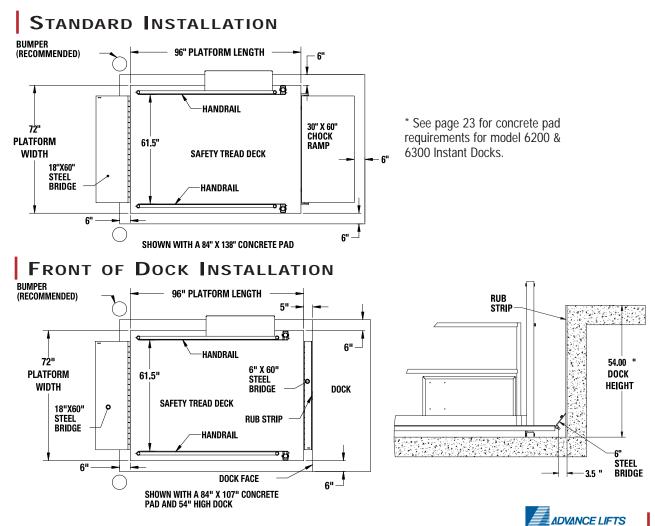
## SERIES 6000 INSTANT DOCK LIFTS

Spe	Specification Table for 6000 Series Lifts										
Model	Lift Cap Lbs.	Axle Cap. Ends	Platform Size	Overall Size	Low Height	Raised Height	Bridge Size	Ramp Size	Power Unit Hp	Speed FPM	Ship Weight
6300	12,000	9,600	6 X 12	7-1/2' X 17'	8	60	18 X 66	60 X 72	5	10	7,900
6200	8,000	6,500	6 X 10	7-1/2' X 14'	6	60	18 X 66	48 X 72	5	10	6,400
6568	5,500	2,750	6 X 8	80" x 144"	5	58	18 X 60	60 X 72	5	13	2,290

MODEL 6300: This is our heaviest duty Instant Dock. It is appropriate for all kinds of material handling equipment including fork trucks.

MODEL 6200: This unit is a very rugged 8,000 lb. capacity lift designed for use with all manual material handling equipment plus powered pallet jacks and powered straddle stackers.

**MODEL 6568:** This is our lightest and most popular Series 6000 unit which is designed for use with pallet jacks. The optional 5HP 220/60/1 power unit provides a lifting speed of 13 f.p.m. There is also an optional front of dock kit which substitutes a 6" X 60" bridge for the 30" X 60" approach ramp and includes a 4" X 48" rub strip to mount against the front of dock for the short bridge to ride against (kit includes 3 lag bolts for the rub strip).



## **DOCK LIFT ACCESSORIES**



**FIG. 1** – NEMA 4X pushbutton (Standard)

**FIG. 2** – NEMA 1 wall mount Pushbutton

**FIG. 3** – UP DOWN Key operated

**FIG. 4** – Push Button With Key Lockout

### FACTORY STANDARD RECEPTACLE CHARTS:

Voltage	NEMA TWIST	RECEPTACLE
	LOCK PLUG	TO PURCHASE
208-230/60/3	L15-20P	L15-20R
460/60/3	L16-30P	L16-30R
230/60/1	L6-20P	L6-20R
115/60/1	I5-30P	I5-30R
115V/10	230V/10 230V/10	460V/10

 115V/10
 2300/10
 230V/10
 460V/10

 NEMA #
 NEMA #
 NEMA #
 NEMA #

 L5-30R
 L6-20R
 L15-20R
 L16-30R

*Note: Standard voltage for all power units of 1HP or larger is 230/60/3. These units will operate on 208, 220, 230, 240 voltages and if the magnetic overloads are changed, they can be rewired to operate on 440, 460, and 480 voltages also.* 



**LIMIT SWITCH** – This adjustable limit switch stops the lift's upward travel at a preset level. To avoid electric lines in the pit, it should only be used where the platform must stop at the same elevation every time.



**QUICK DISCONNECT** – The push button control can be plugged into a receptacle box on the lift. Other variations are available.

**PRE-WIRED POWER UNIT** – Optional on pit mounted models due to installation considerations, but standard on all portable and top of ground models.





**Power Unit Covers** – Power unit covers are used for weather protection when other shelter is unavailable.



**OIL IMMERSION HEATERS** – These devices are popular in colder climates to keep the fluid in the reservoir at a warm temperature. They require a separate 110-volt line and simply screw into the coupling at the bottom of the reservoir.

**FLASHING LIGHT & AUDIO ALARM** – These devices are available as individual items or in combination.





### PATENTED ELECTRIC TOE GUARDS

Where personnel protection is desired beyond that required by federal regulations, specify Advance Electric Toe Guards. These stop the downward travel of a platform when an object makes contact

with the electric toe guard. Simply pushing the "UP" button on the control station raises the platform so the object can be removed and the system reset. Electric Toe Guards can be installed on any or all of the platform sides. Its hinged actuator projects down and away from the rigid platform toe guard, rather than hanging directly beneath it. Electric Toe Guards can act as an emergency down travel stop switch for anyone within arm's reach of the platform, providing added electronic protection without sacrificing the minimum 8" bevel toe guard mechanical protection required by federal regulations.

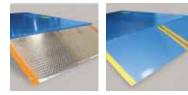


#### HANDRAILS, GATES & PIPE STANCHIONS – All dock lifts are

equipped with handrails along their long sides and safety chains across the ends as standard.

However, some applications require gates, pipe stanchions to clip chains to and other special handrail configurations. Let us know your needs.





#### ALUMINUM BRIDGES & SPLIT BRIDGES These options are used to reduce the lifting weight of bridges.

**SLIP REDUCING DECKS** – Plate manufacturers produce raised pattern plates for better traction which is standard on all dock lifts and an option on all other lifts. We can also embed silica sand in our enamel paint finish on smooth plates, which provides better traction than the embossed plates, but does not hold up to wear as well.





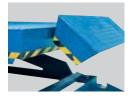


**NIGHT LOCKS** – Night locks are located on the four platform corners. They swivel 360 degrees so they can be positioned over the edge of a concrete dock to

mechanically lock the lift in a raised

position for security purposes. They are not load supporting devices and are ordered in lieu of hand rails, which are not required in a raised concrete loading dock application.

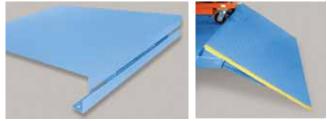




### WHEEL CHOCK

Wheel chocks are designed to automatically create a barrier for wheels whenever the unit is raised from a fully lowered position. **APPROACH RAMPS** – These are standard on "top of ground units" but they are also available for pit mounted units that are not being mounted in pits. There are two types available.

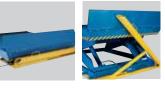
**DOCK LIFT ACCESSORIES** 



## **PAINT COLORS** – Eight standard colors available at no extra charge.



**AUTOMATIC BRIDGE ACTIVATORS** – To avoid potential injuries, the bridge activator eliminates repeated handling of the hinged bridge. Simply adjust the height of the activator to 3" below the truck bed and lean the bridge against the activator. As the lift raises or lowers, the bridge cams over the activator bar onto or off of the truck bed.



### *Item ABA-GS3* For use at ground level installations.

### Item ABA-DS1

For use at loading docks 30" and higher with the dock lift mounted on top of the dock surface.

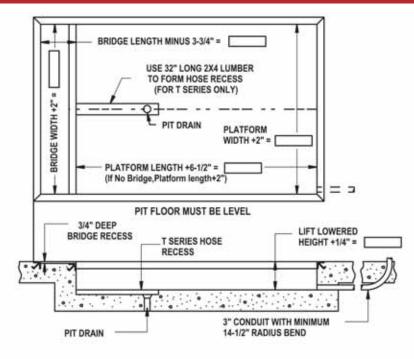
### Item ABA-DR2

For use on loading docks 30" and higher with the dock lift recessed into a pit on top of the dock.

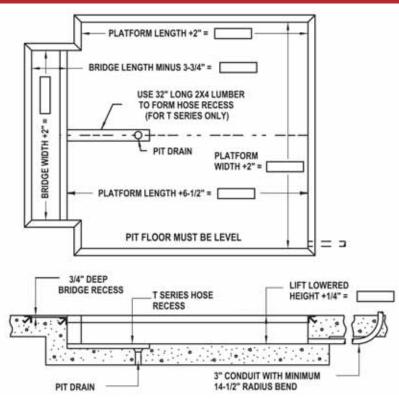


## **PIT DIAGRAMS**

#### WHERE BRIDGE WIDTH IS THE SAME AS PLATFORM WIDTH



#### WHERE BRIDGE WIDTH IS SMALLER THAN THE PLATFORM WIDTH



#### Notes

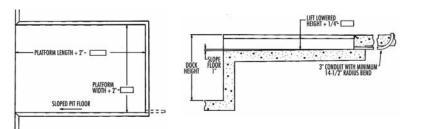
- A Consult factory for pit diagram for optional wheel chock.
- **B** Reinforce concrete to suit local soil conditions.
- C All pit work and materials shown are the responsibility of owner or his agent (by pit contractor).
- **D** Installer to run 1/2" diameter hose(s) and plastic tubing through 3" conduit from power unit to lift base.
- E Dimension tolerances are plus 1/4" minus 0" (+1/4"-0").
- F 180° steel hinge bridges require a bridge recess length equal to bridge length minus 2-3/4".
- 6 180° aluminum hinge bridges require a bridge recess length equal to bridge length minus 3-3/4" and a pit length equal to platform length plus 7-1/2".
- **H** Consult factory for bridges longer than 30". (18" on 4000 Series).

#### Installation Bill of Materials

- **1** 3" x 3" x 1/4" curb angle as required.
- **2** One (1) 3" conduit from power unit location to pit.
- 3 One (1) Advance Model \_\_\_\_\_
- 4 One (1) electric disconnect switch for 5HP or 7-1/2HP motor.
- **5** (\_\_\_\_\_) gallons of ISO46 hydraulic fluid.
- 6 One (1) 1/2" SAE 100R2 hydraulic pressure hose from power unit location to lift base – 1/2" female #8JIC threads both ends +1/4" 0.D. plastic tubing (two hoses required for 4000 Series Safetydok).
- **7** Concrete anchor bolts and material for shimming and/or grouting.
- \*Seller furnishes Advance dock lift only unless otherwise agreed to in writing.



#### TOP OF DOCK RECESSED INSTALLATION 3 SIDED PIT



#### CONCRETE PAD DIAGRAM FOR TOP OF GROUND MOUNTED LIFT MODELS



Model Number	A	В	С	D	E	
1045	9-1/2 ft.	8-1/2 ft.	2-1/2 ft.	6 ft.	7-3/4 ft.	
1055	9-1/2 ft.	8-1/2 ft.	2-1/2 ft.	6 ft.	7-3/4 ft.	
6568	11-1/2 ft.	7 ft.	2-1/2 ft.	8 ft.	6 ft.	
6200	15 ft.	8-1/2 ft.	4 ft.	10 ft.	7-1/2 ft.	

5 ft.

12 ft.

#### Notes

- **A** Reinforce concrete to suit local soil conditions.
- **B** All concrete work is the responsibility of the owner or his agent.

A Concrete Pad Length

B Concrete Pad WidthC Ramp Length

D Lift Length

E Lift Width

- **C** Installer to run 1/2" diameter hose(s) from the power unit to the lift base. 6200, 6300 Models only.
- **D** Concrete pad must be flat and level.

## **PIT DIAGRAMS**

### TOP OF DOCK INSTALLATION

### BILL OF MATERIALS

- **1** 3" x 3" x 1/4" curb angle as required.
- 2 One (1) 3" conduit from power unit location to pit.
- 3 One (1) Advance Model \_\_\_\_
- 4 One (1) electric disconnect switch for 5HP or 7-1/2 HP motor.
- 5 (\_\_\_\_\_) gallons of ISO46 hydraulic fluid.
- 6 One (1) 1/2" SAE 100R2 hydraulic pressure hose from power unit location to lift base 1/2" female #8JIC threads both ends (two hoses required for 4000 Series).
- **7** Concrete anchor bolts and material for shimming and/or grouting.

\*Seller furnishes lift only unless otherwise agreed to in writing.

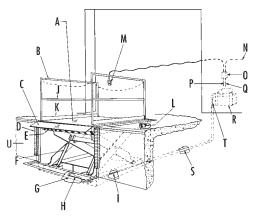
#### Concrete Pad Installation Bill of Materials

- 1 One (1) Advance Model Number \_\_\_\_
- **2** 20 ft. 1/2" SAE 100R2 hydraulic pressure hose from the power unit location to the lift base 1/2" female #8JIC threads both ends. 6200 & 6300–2 hoses.
- 3 20 ft. of metal hose cover (6200, & 6300 Models only).
- 4 One (1) electric disconnect switch for 2 or 5HP motor.
- 5 One (1) plug receptacle.
- 6 (\_\_\_\_\_) gallons of ISO46 hydraulic fluid. 6200 & 6300–10 gallons. Included with 1000 Series.

7 Concrete anchor bolts and material for shimming and/or grouting. \*Seller furnishes items 1 through 3 only unless otherwise agreed to in writing.

#### Typical Recessed Dock Lift Installation at a Raised Dock

7-1/2 ft.



- A Platform with Safety Tread Deck
- ${\bm B}\,$  Removable Handrails with Safety Chains
- C Hinged Bridge
- D Rubber Dock Bumpers

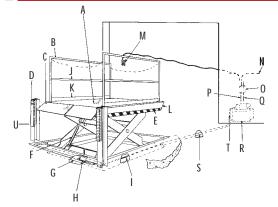
18 ft.

6300

8-1/2 ft.

- E Black and Yellow Safety Striping
- F Chrome Plated Rams
- **G** Pre-Drilled Base Frame for Lagging Lift to Floor
- H 48" long Hydraulic Connecting Hose supplied by Advance Lifts, Inc. with 1/2" Connector at center of base frame. Optional: 1/2" x 20' long Hydraulic Hose supplied by Advance Lifts, Inc.
- Connector
- J Midrail
- K Kickplate
- L Bevel Toe Guards 4-Sides

### Typical Recessed Dock Lift Installation At Ground Level



- M Up-Down Pushbutton Station NEMA 1, 3, 3R, 4, 4X W/20' Control Cord
- N Incoming Power Source
- 0 Motor Controller in NEMA 12 Enclosure
- P To Motor on Power Unit
- **Q** To Down Solenoid on Power Unit
- **R** Power Unit 5 HP 230V 60Hz 3Ph motor mounted on Reservoir 26" W x 22" L x 21" H (including motor) with brackets for wall mtg.
- **S** Run 3" Conduit from Power Unit Location to Lift Base (by others)
- T Installer to run 1/2" Hydraulic 100R2 Hose through and Plastic Return Line 3" Conduit from Power Unit to Connecting Hose and Tube
- U WF Beam or Dock face



## COMMON QUESTIONS ABOUT DOCK LIFTS

#### **ELECTRICAL:**

#### Is it okay to operate the dock lifts on other than the standard 230 volt/60 cycles/3 phase power?

Yes. Motors and electrical components are designed to operate on 208V/220V/230V/-240V/ 440V/460V/480V – 60 cycle – 3 phase at no extra charge. Just specify the voltage so that the correct overload heaters can be supplied.

#### Can lifts be operated on single phase?

Yes. Any power unit of 5 HP can be supplied for 230 volt single-phase operation with an up charge. The 2 HP 1035, 1045 and 1055 units can operate on 115-volt or 230-volt single phase current at no extra charge. The 7-1/2 HP power units require too much amperage for single-phase operation.

#### Hydraulic:

## What oil should be used to operate the lift?

The oil supplied by the factory is ISO 46 hydraulic fluid. Dexron III transmission fluid is a suitable and easily obtainable substitute. It is important not to mix fluids. Pick one and stick to it.

#### Can other hydraulic fluids be used?

Many hydraulic fluids will attack the seals in our power units or cylinders, so you must check with the factory before making a substitution.

#### What happens if a hydraulic line breaks?

The lift will not free fall. We only use double wire braid hose for our pressure lines so large ruptures are extremely unlikely. Furthermore, by ANSI code, our cylinders are equipped with flow controls which prevent a lift with a ruptured hydraulic line from lowering faster than the greater of 4 times the normal speed or 30 fpm when fully loaded.

#### What about velocity fuses?

Velocity fuses are small hydraulic valves that are screwed into the hydraulic cylinder ports. If a hydraulic line loses pressure, the fuse closes so the lift won't come down until the line is repaired. Velocity fuses are very good devices for certain equipment.

#### Why aren't velocity fuses standard on Advance dock lifts?

The problems they create outweigh their safety advantage. They can lock up in cold weather due to thick oil and under shock loading which is common to dock lifts (loads bouncing over the ends or dropped onto a platform). One fuse can lock up while the other(s) remain open which puts all the load forces on one cylinder which could result in damage to the lift. Advance offers velocity fuses as an option, but does not recommend them for multi-cylinder dock lifts.

#### **Mechanical:**

## Can the hinged bridge be mounted on the side of the platform rather than the end?

Yes, for most units and at no additional charge. In addition, they can usually be offset along the side. The single caution is to check the side load capacity of the unit, which may be considerably less than the end load capacity.

#### Can the hand rail locations be changed?

Yes, and at no additional charge. The rails can be put on the ends or in an "L" configuration.

## Can a truck or semi-trailer drive over the lift?

Yes, but only at slow speeds and only when the lift is fully lowered and resting on its mechanical stops.

#### What happens if a truck hits the lift?

The lift will probably be damaged, the extent of damage is determined by the impact forces.

## Can the platforms be made smaller than shown?

It depends upon the lift model. Some of the 6000 series lifts can be narrowed to 5' wide and many of the pit mounted 2000, 3000 and 4000 series lifts can be narrowed to 4' wide.

## How long can the hinged bridge be made?

30" on all models except the 4000 Series, which are limited to 24". Consult the factory on special requirements.

#### How does the hinged bridge work?

It's manually operated. When the lift is raised to truckbed level, simply kick the bridge onto the truckbed. When lowering the unit, simply lower the lift to cam the bridge upward then pull on the bridge chain to pull the bridge fully back.

## What about full skirts or skirting around a lift?

Federal regulations do not require full skirts; they require 8" bevel toe guards which are standard on all of our pit mounted dock lifts. Where additional personnel protection is desired, we recommend use of our electric toe guards. Fabric roller shades and accordion bellows skirting are not durable and because they do not provide a rigid physical barrier, their protection is based upon "what you can't see can't hurt you". Telescoping sheet metal skirt sections are more rigid, but extremely susceptible to damage which makes them impractical.

#### INSTALLATION:

#### Where should the power unit be located?

Wherever convenient, out of the weather, preferably inside the building within 30' of the lift.

#### Where should the pushbutton be located?

Preferably within reach of the person riding the dock lift. Generally the control is on an electrical cord and hung on the handrail while the lift is being used and then put inside the building when the lift is out of use. Wall mounted switches are also acceptable provided that they can be reached by the person using the lift.

#### Where should the pushbutton be located?

Preferably within reach of the person riding the dock lift. Generally the control is on an electrical cord and hung on the handrail while the lift is being used and then put inside the building when the lift is out of use. Wall mounted switches are also acceptable provided that they can be reached by the person using the lift.

#### How thick should the concrete pit floor be?

That depends upon the floor loading and the local soil conditions (quicksand or solid rock).

#### What kind of drain should be used?

The best drain is one that goes into the storm sewer. The next would be a sump pump arrangement and the last choice is a "french" drain or drain field.

#### What happens to the lift if the pit floods?

All new Advance dock lifts are equipped with closed return lines from the cylinders to the reservoirs. However, if the lines are not installed correctly or are damaged, then water can enter the cylinders through the breather lines and cause internal rusting. Check flooded units to be sure no water has entered the cylinders. If power units are flooded, they too must be drained and flushed with clean hydraulic fluid before being put back into service.



## COMMON QUESTIONS ABOUT DOCK LIFTS

#### Can the 3" chase for the hydraulic lines be located other than shown on the pit diagram?

Yes, it can be located anywhere along either side or end of the pit as long as it can be plumbed to the cylinders. Units with 8" lowered heights and 8" bevel toe guards must have a trench to reach under the base frame and the trench may not be under the roller path of the base frame or where the leg pivots are supported.

## Should bumper posts be used to protect the lift?

They are recommended but not required. The lift is usually down when the trucks are backed in, when this is true, there is little risk of damage to the lift.

## Where do the 8" concrete filled bumpers go?

On a 6' wide lift with a 6' wide hinged bridge, the pipes go on the sides of the lift, just outside the 3" pit curb angles and on the centerline of the bridge hinge. This will leave 8" of the 12" bridge projecting beyond the pipes. On a lift that is wider than 6', the pipes must go in front of the lift and the 3" pit curb angle and be on 84" centers. The bridge length should be increased to 18" to allow a 6" bridge projection beyond the posts.

## Can the lift be installed on top of blacktop?

No. It will sink. A concrete pad must be used.

#### GENERAL:

#### What does it cost to install a dock lift?

This is a variable depending upon the application, but as a general rule of thumb you can add 50% to the price of a lift. This 50% will usually cover the cost of the pit, electrical work, mechanical installation, freight and taxes.

### **ARCHITECTURAL SPECIFICATIONS FOR DOCK LIFTS**

#### SPECIFICATIONS FOR PIT MOUNTED DOCK LIFTS

This specification covers an Advance Model as manufactured
by Advance Lifts, Inc. of St. Charles, IL. The lift shall have a lb.
lifting capacity with an axle loading capacity of lbs. over the ends
and lbs. over the sides, a ft. safety tread steel platform
with minimum 8" bevel toe guards, a 12" x 72" hinged steel bridge,
a in. lowered height, minimum 58" travel and fpm
speed. It shall have a HP-230V/60HZ/3PH continuous duty
power unit, weatherproof pendant push button control, 20 ft. coil cord for the
control, magnetic motor starter and 24-volt control transformer.

#### SPECIFICATIONS FOR TOP OF GROUND MOUNTED DOCK LIFTS

This specification covers an Advance Model \_\_\_\_\_\_\_ as manufactured by Advance Lifts, Inc. of St. Charles, IL. The lift shall have a \_\_\_\_\_\_ Ib. lifting capacity with an axle loading capacity of \_\_\_\_\_\_ over the ends, a \_\_\_\_\_\_ ft. safety tread steel platform with ANSI required 3 in. vertical toe clearance between the platform and the floor when the lift is fully lowered, a \_\_\_\_\_\_ in. lowered height, \_\_\_\_\_\_ in. travel, \_\_\_\_\_\_\_ in. raised height, and \_\_\_\_\_\_ fpm speed. It shall have a \_\_\_\_\_\_ HP— 230V/60HZ/3PH continuous duty power unit, weatherproof pendant push button control, magnetic motor starter and 24-volt control transformer. Standard platform accessories shall include 2 removable hand rails (one on model 1045 & 1055), a \_\_\_\_\_\_\_ in. hinged steel bridge and \_\_\_\_\_\_\_ in. steel approach ramp.

#### **STANDARD FEATURES SHALL INCLUDE:**

- 1 Conformance to OSHA, ANSI, and NEC.
- 2 A 10-year structural warranty.
- 3 Positive mechanical stops within the hydraulic cylinders.
- **4** A 24-volt, 4 amp fused control circuit.
- 5 The starter, 3 pole adjustable overloads and 24-volt transformer prewired in a NEMA 12 enclosure with UL approval and label.
- 6 A removable safety maintenance leg.
- 7 Four heavy-duty torque tubes.
- 8 A minimum of 3 in-line hydraulic filters.
- 9 Minimum 2" black and yellow safety markings on the toe guards.
- A minimum 2" clearance between the bottom of the toe guard and pit floor when the lift is fully lowered, "except for T Series units".
- Lifetime lubricated bearings.
   Chrome plated axles, shafts and rods.
- Semi-trailer rollover capacity when the lift is fully lowered.
- 14 A baked-on enamel paint finish.

#### STANDARD FEATURES SHALL INCLUDE:

- 1 Conformance with OSHA, ANSI, and NEC.
- 2 Positive mechanical stops within the hydraulic cylinders.
- **3** A 24-volt, 4 amp fused control circuit.
- 4 The starter, 3 pole adjustable overloads and 24-volt transformer prewired in a NEMA 12 enclosure with UL approval and label.
- **5** Removable safety maintenance leg(s).
- 6 Lifetime lubricated bearings.
- 7 Chrome plated axles, shafts and rods.
- 8 A baked-on enamel paint finish.

CAD installation drawings are available on Advance's web site www.advancelifts.com



## WHY USE TRUCK LEVELERS

### TRUCK LEVERS ARE ESPECIALLY GOOD FOR:

- 1. ACCOMMODATING A WIDE RANGE OF TRUCK BED HEIGHTS. The 36" operating range of the truck leveler is three to four times the operating range of dock levelers, which means that you can accommodate a much wider range of trucks with a truck leveler.
- 2. PROVIDING MINIMUM INCLINE ANGLES FOR VARIOUS TRUCK BED HEIGHTS. Because the height adjustment between dock height and truck height is spread over the entire truck bed length with a truck leveler, instead of just the dock leveler length, the angle of incline with truck levelers is always substantially less than with truck levelers.
- 3. CONVEYORIZED OR CONTAINERIZED LOADING. Automated loading systems with conveyor truck beds and/or large roller containers require the low angle of incline dock alignment that only truck levelers can offer.
- 4. **HIGH SPEED FORK TRUCK LOADING.** Again, the lower angles of incline that truck levelers can provide means that fork trucks can move in and out of trucks safely at higher speeds.
- 5. MINIMIZING HEAT LOSS & MAXIMIZING BUILDING SECURITY. Because the entire truck leveler mechanism is outside of the building foundation, there is far greater security and less risk of heat loss in the winter. Doors can close securely to continuous concrete sills.
- 6. **CONSERVING INTERIOR DOCK FLOOR SPACE.** Because the entire truck leveler is outside of the building, precious floor space inside the building is preserved and remains obstruction free.

### **PRODUCT COMPARISON CHART**

	Truck Leveler	Dock Lift	Dock Leveler
Truckbed height range	30" to 36"	58"	8" to 12"
Angle of incline	Max of 4 °	Max of 0°	Max of 12°
Speed on/off truckbed	Fastest	Slowest	Depends on incline, but in the middle
Real estate usage inside the building	None	None if lift outside. Platform size if inside.	Platform Size
Real estate usage outside the building	Platform size, beneath truck	Platform size if outside. None if lift is inside.	None



## **ARCHITECTURAL SPECIFICATIONS FOR TRUCK LEVELERS**

#### SPECIFICATIONS FOR PIT MOUNTED TRUCK LEVELERS

GENERAL: This specification covers an Advance Lifts, Inc. Truck Leveler Model TL-415 (or TL-420).

**PLATFORM:** The platform shall be 10' X 15' (or 10' X 20') with a safety tread steel deck and constructed with heavy box beam undermembers for maximum rigidity. The platform shall be shipped in sections for field welding. It shall be equipped with a removable access plate which permits entry into the pit for servicing and the sides of the platform shall have full depth steel safety skirts in conformance with U. S. Commercial Standard CS 202-56.

**WHEEL LOCATOR:** The platform shall be equipped with a 36" wide X 4" high wheel locator running the full length of the deck. The wheel locator shall be tapered at the hinge end of the truck leveler and its entire length shall have rounded top edges to protect truck & trailer tires.

CAPACITY: The truck leveler shall have a lifting and sustaining capacity of 60,000 lbs.

TRAVEL: Shall be 36" at the end opposite the hinge. Travel shall be divided 18" up and 18" down or divided to suit.

**CYLINDERS:** The truck leveler shall have two (2) heavy-duty hydraulic cylinders with chrome plated rods to inhibit rust and insure long life. The cylinders shall be equipped with positive mechanical internal cylinder stops, which prevent the cylinder rods from leaving the cylinder casings when the truck leveler is fully raised. The cylinders shall also be equipped with breather return lines to the reservoir system to minimize risk of water contamination of the cylinder casings and cylinder rods.

**ANTI-INTERFLOW SYSTEM:** The truck leveler shall be equipped with a hydraulic anti-interflow system which prevents oil from transferring between the cylinders when the unit is at rest so that side to side platform deflection is minimized during loading and unloading operations. Each cylinder shall have its own independent hydraulic pressure line from the power unit.

**POWER UNIT AND CONTROLS:** The electric hydraulic power unit shall be self contained and located under the platform. It shall be consist of a 5HP-230/460V-60HZ-3PH continuous duty motor, high pressure pump, a one piece anodized aluminum hydraulic valve manifold, line strainers and oil reservoir with mounting brackets. The electrical controller shall consist of a motor starter with 3 pole adjustable overloads and a 24-volt control transformer with a 4 amp fused secondary and a 1 amp fused primary, all enclosed in a NEMA 12 oil and dust tight enclosure. All of the components and the entire control box assembly shall be UL approved. The up-down push button control shall be a weatherproof pendant type.

SPEED: The truck leveler shall raise and lower at a speed of approximately 3-fpm at the traveling end.

**WORK TO BE PERFORMED BY OWNER:** All electrical work, excavation, concrete work, building modifications, pit angle framing, pit drainage, underground piping and embedded items.

Work to be performed by INSTALLER: Furnish the hydraulic oil and install the truck leveler complete less the above exceptions.

#### SPECIFICATIONS FOR TOP OF GROUND TRUCK LEVELERS

GENERAL: This specification covers an Advance Lifts, Inc. Truck Leveler Model TL-515 (or TL-520), which shall be installed on top of a concrete drive.

**PLATFORM:** The platform shall be 10' X 15' (or 10' X 20') with a safety tread steel deck. The unit shall be equipped with a 2' X 10' approach ramp and freestanding safety skirts on the sides. The platform shall be shipped as two pieces for field assembly with all flat welding and with bolt on cylinder mounting. (1P models shall be shipped as one 9'11-3/4'' wide section with bolt on cylinder mounting).

CAPACITY: The truck leveler shall have a lifting and sustaining capacity of 60,000 lbs.

**TRAVEL:** Shall be 36" at the end opposite the hinge.

**CYLINDERS:** The truck leveler shall have two (2) heavy-duty hydraulic cylinders with chrome plated rods to inhibit rust and insure long life. The cylinders shall be equipped with positive mechanical internal cylinder stops, which prevent the cylinder rods from leaving the cylinder casings when the truck leveler is fully raised. The cylinders shall also be equipped with breather return lines to the reservoir system to minimize risk of water contamination of the cylinder casings and cylinder rods.

**ANTI-INTERFLOW SYSTEM:** The truck leveler shall be equipped with a hydraulic anti-interflow system which prevents oil from transferring between the cylinders when the unit is at rest so that side to side platform deflection is minimized during loading and unloading operations. Each cylinder shall have its own independent hydraulic pressure line from the power unit.

**Power unit AND CONTROLS:** The electric hydraulic power unit shall be self contained and located inside the building adjacent to the truck leveler where convenient. It shall be consist of a 5HP-230/460V-60HZ-3PH continuous duty motor, high pressure pump, a one piece anodized aluminum hydraulic valve manifold, line strainers and oil reservoir with mounting brackets. The electrical controller shall consist of a motor starter with 3 pole adjustable overloads and a 24-volt control transformer with a 4 amp fused secondary and a 1 amp fused primary, all enclosed in a NEMA 12 oil and dust tight enclosure. All of the components and the entire control box assembly shall be UL approved. The up-down push button control shall be a weatherproof pendant type.

SPEED: The truck leveler shall raise and lower at a speed of approximately 3-fpm at the traveling end.

SERVICING: None of the lifting mechanism shall be located under the platform deck and all components shall be readily accessible when the platform is fully lowered.

**WORK TO BE PERFORMED BY OWNER:** All electrical work, excavation, concrete work, building modifications, pit angle framing, pit drainage, underground piping and embedded items if required.



# CATALOG AND APPLICATION GUIDE

## TL-415 & TL-420 Pit Mounted Truck Levelers

These truck levelers have the cylinders mounted completely out of the way beneath the platform. The travel on these units is typically divided with 18" up travel and 18" down travel, but the pit profile can be changed to provide other travel combinations.



### **SPECIAL FEATURES**

- All of the electrical controllers are Underwriters Laboratories approved assemblies.
- Hydraulic anti-interflow system to prevent side to side tilting of platform.
- Each unit is washed with phosphoric acid, fully primed and then finished with baked enamel.
- All cylinders are machine grade with clear plastic return lines & internal cylinder stops.
- All pressure hoses are double wire braid with JIC fittings.
- Reservoirs are mild steel.
- All units are equipped with solid steel skirts.

### **FEATURE DETAILS**



Power Unit



Cylinder



Double Wire Braid Hose



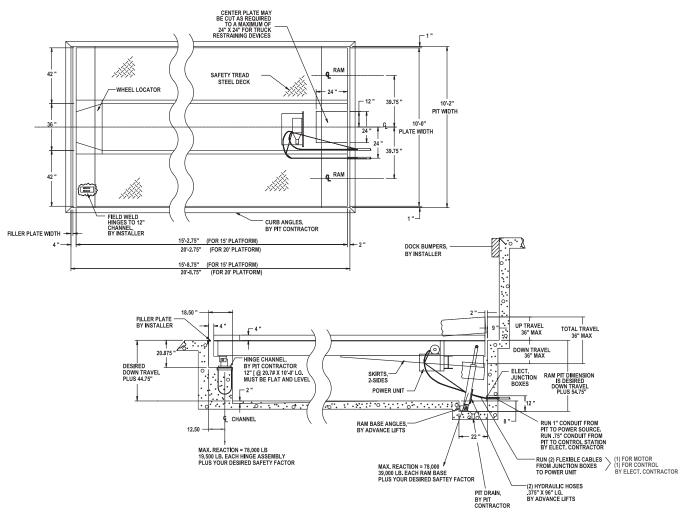
Controller



## **Typical Drawings of Pit Mounted Truck Levelers**

**SPECIFICATION TABLE FOR PIT MOUNTED TRUCK LEVELERS:** 

Model	Capacity	Platform Size	Travel	Horse Power	Speed	Weight	Overall Width	Overall Length
TL-415	60,000	10' X 15'	36"	5	3	5,800	10' 2"	15' 8-3/4"
TL-420	60,000	10' X 20'	36"	5	3	7,300	10' 2"	20' 8-3/4"



### **INSTALLATION REQUIREMENTS:**

- 1. A crane that can reach the center of the platform with a capacity of 3,000 lbs. for a TL-415 or 3,500 lbs. for a TL-420 will be required.
- 2. Typically it takes two men one day to complete an installation.
- **3.** All welding is in the flat position.

### NOTE:

- **1.** Steel faced dock bumpers are preferred because of the vertical movement of trucks against the bumpers.
- "Edge of dock" devices are often used to span the gap between the dock and truck bed.
   A 24" X 24" opening is available to accommodate truck restraints. Consult the factory if your requirements exceed those dimensions.



## TL-515 & TL-520 TOP OF GROUND TRUCK LEVELERS

These truck levelers have the cylinders straddling the platform. The units sit on top of the ground or in very shallow pits so they do not offer any down travel. In order to achieve the equivalent of down travel, some applications create a down slope from the hinge point of the leveler to the dock face, so that a truck bed lowers as it approaches the dock face when the truck leveler is fully lowered. These units are also mounted on perfectly level driveways.



### **SPECIAL FEATURES**

- All of the electrical controllers are Underwriters Laboratories approved assemblies.
- Hydraulic anti-interflow system to prevent side to side tilting of platform.
- Each unit is washed with phosphoric acid, fully primed and then finished with baked enamel.
- All cylinders are machine grade with clear plastic return lines & internal cylinder stops.
- All pressure hoses are double wire braid with JIC fittings.
- Reservoirs are mild steel.
- Units are equipped with solid steel skirts.

### **FEATURE DETAILS**



Power Unit



Cylinder



Double Wire Braid Hose



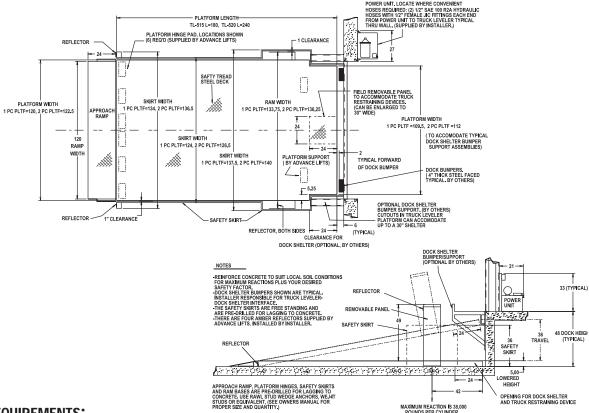
Controller



## **TYPICAL DRAWINGS OF TOP OF GROUND TRUCK LEVELERS**

SPECIFICATION TABLE FOR TOP OF GROUND TRUCK LEVELERS:

Model	Capacity	Platform Size	Travel	Horse Power	Speed	Weight	Overall Width	Overall Length
TL-515	60,000	10' X 15'	36"	5	3	6,850	11' 8"	17' 10"
TL-515-1P	60,000	10' X 15'	36"	5	3	6,750	11' 5-1/2"	17' 10"
TL-520	60,000	10' X 20'	36"	5	3	9,100	11' 8"	22' 10"
TL-520-1P	60,000	10' X 20'	36"	5	3	9,000	11' 5-1/2"	22' 10"



### **INSTALLATION REQUIREMENTS:**

- 1. A crane that can reach the center of the platform with a capacity of 3,000 lbs. for a TL-515 or 3,500 lbs. for a TL-520 will be required.
- 2. Typically it takes two men one day to complete an installation.
- **3.** All welding is in the flat position.

### **OPTIONAL ONE (1) PIECE CONSTRUCTION:**

These units can be shipped as one-piece platforms, (TL-515-1P & TL-520-1P) which saves several hours in assembly time and offers a lower unit cost. However, freight costs and permits can add as much as \$2,500 to shipping costs. Also, positioning a one-piece platform requires a heavier capacity crane than the two-piece standard unit requires. Be sure to check installation quotes and freight costs before deciding on the one-piece option.

### Note:

- 1. Steel faced dock bumpers are preferred because of the vertical movement of trucks against the bumpers.
- 2. "Edge of dock" devices are often used to span the gap between the dock and truck bed.
- 3. A 24" X 24" opening is available to accommodate truck restraints. Consult the factory if your requirements exceed those dimensions.



## Why Use Rail Transfer Bridges

The primary use of rail transfer bridges is to span from floor to floor or dock to dock over railroad tracks. The platforms are left in the horizontal position most of the time and then elevated to the vertical position when trains need to pass on the railroad spur. In the most common application there is a single bridge recessed in the face of one floor or dock and when the bridge is lowered, the traveling end of the platform rests in a recess on the opposing dock. Sometimes due to overhead clearance problems or very long spans, two bridges are positioned end to end, each hinged on opposing docks so that their traveling ends meet in the middle of the span. In these instances, the traveling ends of the bridges are either supported by a concrete pier or each bridge leaf is equipped with automatic folding legs.

Another common use is to extend a bridge leaf into an alley or open space to use it as a loading dock. Since the down position is at a fixed height, only a very limited range of truck heights can be accommodated and a portable dock plate would be advisable.

Note that if a unit is specified that is wide enough for two way traffic, then the bridge capacity specified must exceed the combined weight of the passing traffic and the axle capacity rating must exceed the combined maximum axle weight of the two (2) passing vehicles. Sometimes it is more economical to install two (2) narrower units; each limited to one way traffic.

### ARCHITECTURAL SPECIFICATIONS FOR RAIL TRANSFER BRIDGES

(Refer to chart on Page 33)

SCOPE: This specification covers Advance Lifts, Inc. Rail Transfer Bridge model number "<u>A</u>".

**PLATFORM:** The bridge deck shall be "<u>B</u>" wide x "<u>D</u>" minus 2-1/2" long. The clear span between docks is "<u>C</u>". (Actual platform length is clear span plus 24" for the ram cutout, plus 6" for lip cutout, less 1" clearance at the lip end and 1-1/2" at the ram end.) The bridge shall have a safety tread steel deck and be fabricated from structural steel shapes and forms, which are rigidly welded and reinforced for maximum stability and minimum deflection.

**CAPACITY:** The bridge shall have a loading capacity of "<u>E</u>" with an axle capacity of "<u>F</u>" at a traffic speed of 3 mph.

**TRAVEL:** The bridge travel shall be a full 90° arc so that none of the bridge mechanism projects beyond the dock when fully raised.

**RAMS:** The bridge shall be equipped with "<u>G</u>" heavy duty double acting hydraulic rams which have chrome plated rods to inhibit rusting. The rams shall also be equipped with steel internal cylinder stops and ceramic wear rings for long life and velocity fuses.

**ELECTRICAL CONTROLS:** The bridge shall be equipped with two (2) NEMA 1 "deadman" style wall mounted pushbutton control stations (one for each dock) and a UL approved controller assembly consisting of a NEMA 12 control box, magnetic motor starter and a 24 V. control transformer with fused secondary and primary.

**Power UNIT:** The electrical power unit shall be self-contained with all components built onto a single oil reservoir. It shall consist of a continuous duty 5HP 230/460V-60HZ-3PH motor, high pressure pump, counter balance valve, oil filters and mild steel reservoir. The overall dimensions shall be approximately 22" x 20" x 21" H.

**SPEED:** The bridge shall raise in "\_<u>I</u>" seconds.

**WORK TO BE PERFORMED BY OWNER:** All electrical work, excavation, concrete work, building modifications, pit angle framing, underground piping and embedded items.

**WORK TO BE PERFORMED BY INSTALLER:** Furnish the hydraulic oil and install the bridge complete less the above exceptions.



CATALOG AND A	A PPLICATION	GUIDE
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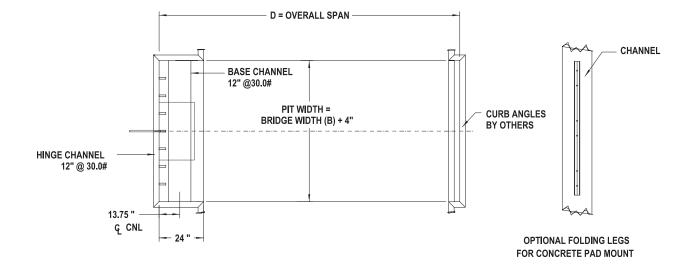
## **RAIL TRANSFER BRIDGE SELECTION CHART**

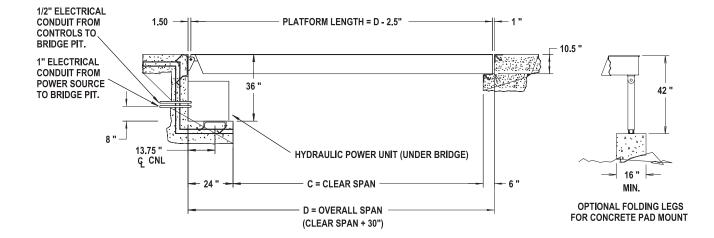
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ш	Capacity	10000	10000 10000	10000 10000		10000	15000 150	15000 15000		15000 15000		20000 20000	00 20000	00 20000	00 20000	0 25000	25000	25000	25000	25000	30000	30000	30000 3	30000 30	30000
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G	Rams	2	2	2	3	3	2	2 2	3	3		2 2	2	3	3	2	2	2	3	3	2	2	2	3	3
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**ADVANCE LIFTS RAIL TRANSFER BRIDGES** 



## **RAIL TRANSFER BRIDGE DRAWINGS**







## **INSTALLATION SITE SURVEYS AND OTHER HINTS**

In order to have a smooth (minimum cost) installation, it is necessary that the intended installation site be examined before the equipment is manufactured, so that either the equipment, the requested shipping date or installation site, may be modified so that all three are fully compatible. Some things to check are as follows:

- **1.** Be sure the site will be fully accessible on the intended installation date.
- 2. Check that the electrical power at the installation site matches what is being ordered. Sometimes a requested voltage is in the customer building, but nowhere near the intended unit location. Also, size all new electrical wiring appropriately for the run lengths.
- 3. Check the distance between remote power units and lifts and be sure hose sizes are correct in both diameter and length.
- **4.** Check the material handling equipment in the area to be sure that you have ordered the appropriate capacity lift. If there is a piece of equipment in the area that must be kept off of the lift, be sure appropriate warning signs and procedures are put in place.
- **5.** If a pit is going to be built, verify how the pit will be drained and determine where the chases for the hydraulic hoses will terminate.
- **6.** If the pit is already built, check all dimensions for accuracy and be sure the diagonals are equal to establish squareness.
- 7. Check for overhead clearances above the equipment to be sure there are no obstructions.
- **8.** Check to see if any additional equipment such as dock bumpers, bollards or safety devices will be required. If so, then check item 9 below.
- 9. On lift applications, be sure the hinged bridge that was ordered will reach far enough to overlap the truck bed by 4".
- **10.** Verify that personnel riding the equipment will have easy access to the hand control during lift operation and they will have a clear view of all sides of the lift for safety.
- **11.** Verify that the customer does not intend to modify the lift in any way without prior approval from the factory.



## QUICK PRODUCT INDEX

(See Page 3 for complete table of contents)

#### **Dock Lifts**

Page 10	Series 1000 Instant Dock Lifts (Semi-Portable Lifts for Carts)
Page 12	Series 2000 & T Disappearing Dock Lifts (Recessed Lifts for Pallet Jacks)
Page 14	Series 3000 Disappearing Dock Lifts (Recessed Lifts for Powered Pallet Jacks)
Page 16	Series 4000 Disappearing Dock Lifts (Recessed Lifts for Fork Trucks)
Page 18	Series 6000 Instant Docks Lifts (Top of Ground Lifts for Carts to Fork Trucks)
	Truck Levelers
Page 28	Pit Mounted Truck Levelers
Page 30	Top Of Ground Truck Levelers
	Rail Transfer Bridges
Page 32	Rail Transfer Bridges

## **ADVANCE LIFTS WARRANTY**

For a period of one year from date of shipment from the Company's plant, the Company agrees to replace or repair, free of charge, any defective parts, material or workmanship on new equipment. This shall include electrical and hydraulic components.

For a period of ten years or 125,000 cycles (whichever occurs first) from date of shipment from Company's plant, the Company agrees to replace or repair any defective structure.

Company authorization must be obtained prior to the commencement of any work. The Company reserves the right of choice between effecting repairs in the field or paying all freight charges and effecting the repairs at the Company's plant. The Company further reserves the right of final determination in all warranty considerations. Evidence of overloading, abuse or field modification of units without Company approval shall void this warranty. No contingent liabilities will be accepted.

### DISTRIBUTED BY:

Industrial Ergonomics 612-532-6774 jeff@Industrial-Ergonomics.com



