


# **PAL Power-Assisted Dock Levelers**



The Serco PAL is the world's only power-assisted, push button activated dock leveler that addresses the increasing occurrences of black-out/brown-outs and storm related power outages.

**SERCO<sup>®</sup>**

## THE SERCO PAL POWER-ASSISTED LEVELER™

### THE PERFECT BALANCE OF POWER AND PERFORMANCE

### LESS DOWNTIME, MORE EFFICIENCY

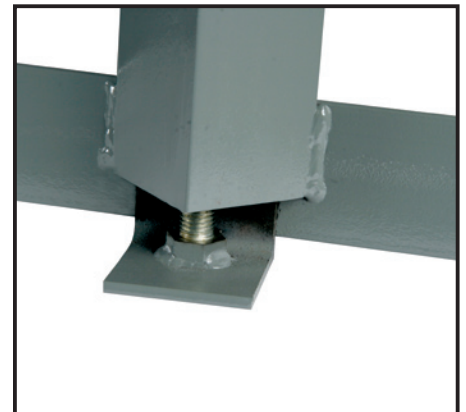
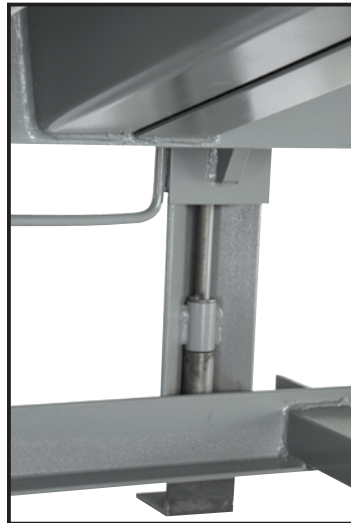
#### THE SERCO PAL POWER-ASSISTED LEVELER

is ideal for customers whose workloads demand more efficient performance than mechanical levelers can deliver. The PAL combines two proven technologies; the durability of a mechanical dock leveler along with Serco's proven, high-performance hydraulic activation system. Unlike mechanicals, which have a strong upward bias, the PAL utilizes a hydraulic power-pack assembly and counterbalance assist to produce a slight downward bias. The PAL's unique hybrid design eliminates the complex hold-down systems required by mechanicals to keep them stored. Also gone are the costs and downtime associated with frequent adjustments and hold-down replacement.



#### A SAFER, STRONGER DOCK LEVELER

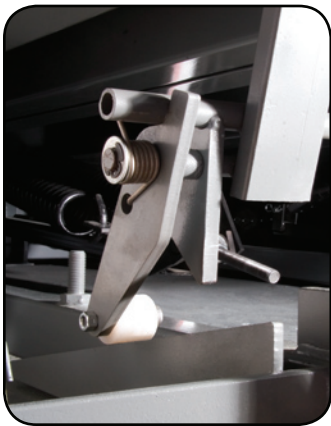
**FOR DECADES** all dock levelers installed in a concrete pit have required an installer to place and weld steel shim under the rear frame in order to level the device and provide long-term support. This conventional process can lead to install errors as installers are often working under the dock leveler in a cramped environment and may not use the correct size shim and/or weld the shim properly. The result... the dock leveler can suffer structural fatigue, which may lead to expensive repair or replacement.



#### SAFETFRAME ADVANTAGES:

- Greater structural strength & durability
- Eliminates installation issues common with conventional dock levelers
- Ensures level transition from warehouse floor to dock leveler
- Eliminates premature structural fatigue due to improperly shimmed/installed dock leveler

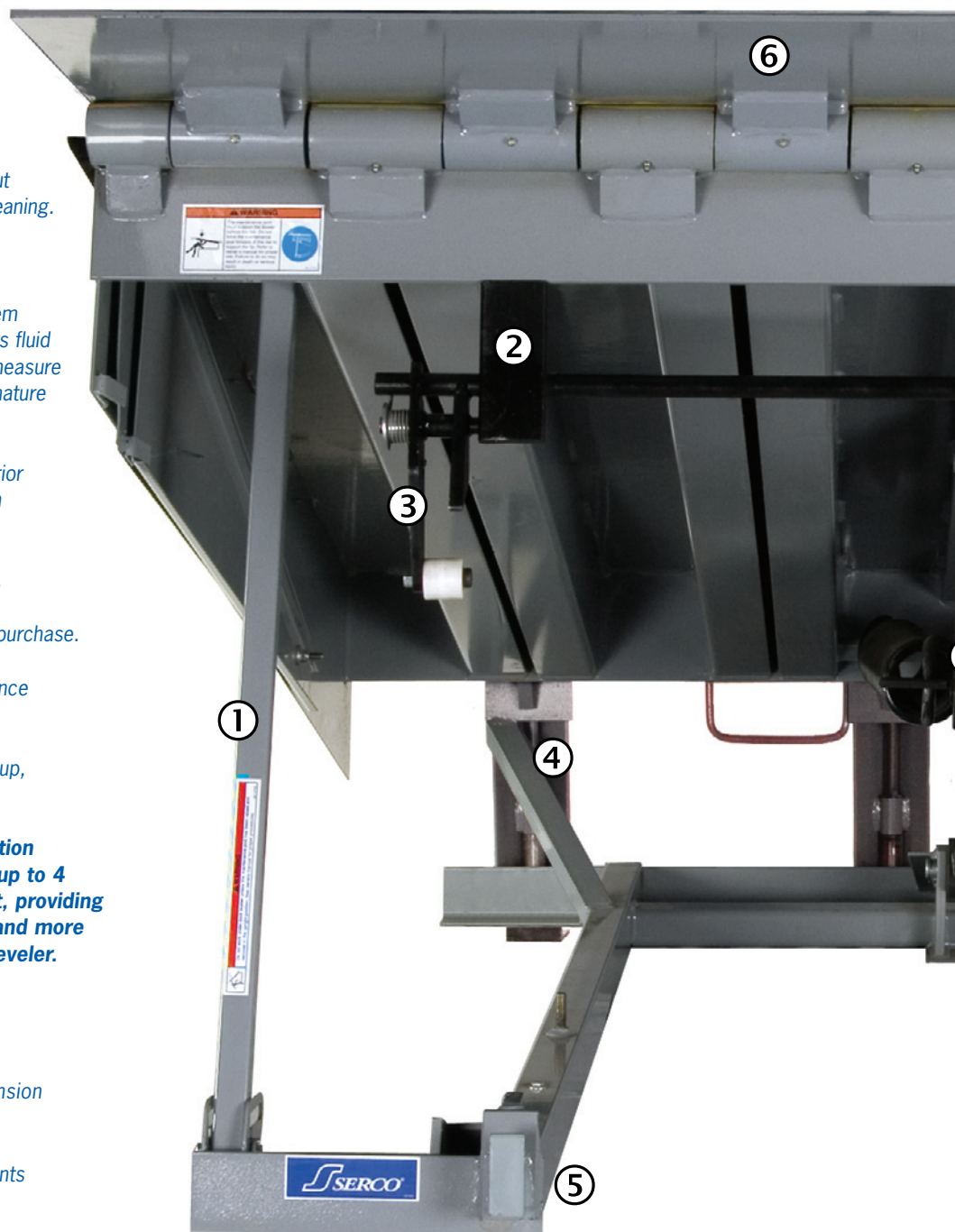




## REFLEX™ ANTI-STUMP-OUT SYSTEM

“Stump-out” is an industry term associated with some models of dock levelers. Stump-out occurs when the leveler engages and restricts the trailer’s movement during loading/unloading. The leveler lip is left in a potentially unsafe condition. With the majority of trailers on the road today equipped with air brakes, this is an ever-increasing issue on the dock. Serco’s Reflex anti-stump-out system eliminates stump-out by using a cam surface, providing fluid free-float motion while also providing a measure of free-fall protection.

- ① Integral maintenance strut with lockout capability for routine maintenance and cleaning.
- ② Structural safety legs.
- ③ Exclusive Reflex Anti-Stump-Out System with a patented sensor roller that provides fluid free-float motion, while also providing a measure of free-fall protection in the event of premature trailer separation.
- ④ Exclusive SafeTFrame provides superior structural support and level interface with warehouse floor.
- ⑤ Nite-locks prevent unauthorized entry.
- ⑥ Optional 18" or 20" lip for longer lip purchase.
- ⑦ Simple low maintenance counter-balance system with single adjustment point.
- ⑧ Clean-Frame™ design for easy clean-up, maintenance and inspection.
- ⑨ **Efficient 110v power-assist activation system draws only 5 amps, allowing up to 4 levelers to run on one 20 amp circuit, providing very low electrical installation costs and more efficient power usage for the life of leveler.**
- ⑩ Integral lip support latch for routine maintenance and cleaning.
- ⑪ Exclusive Hydra-Cam™ Plus lip extension automatically extends lip at full height.
- ⑫ Optional Dock-Guard Barrier Lip prevents accidental forklift run-off.



## 5-YEAR GUARANTEE

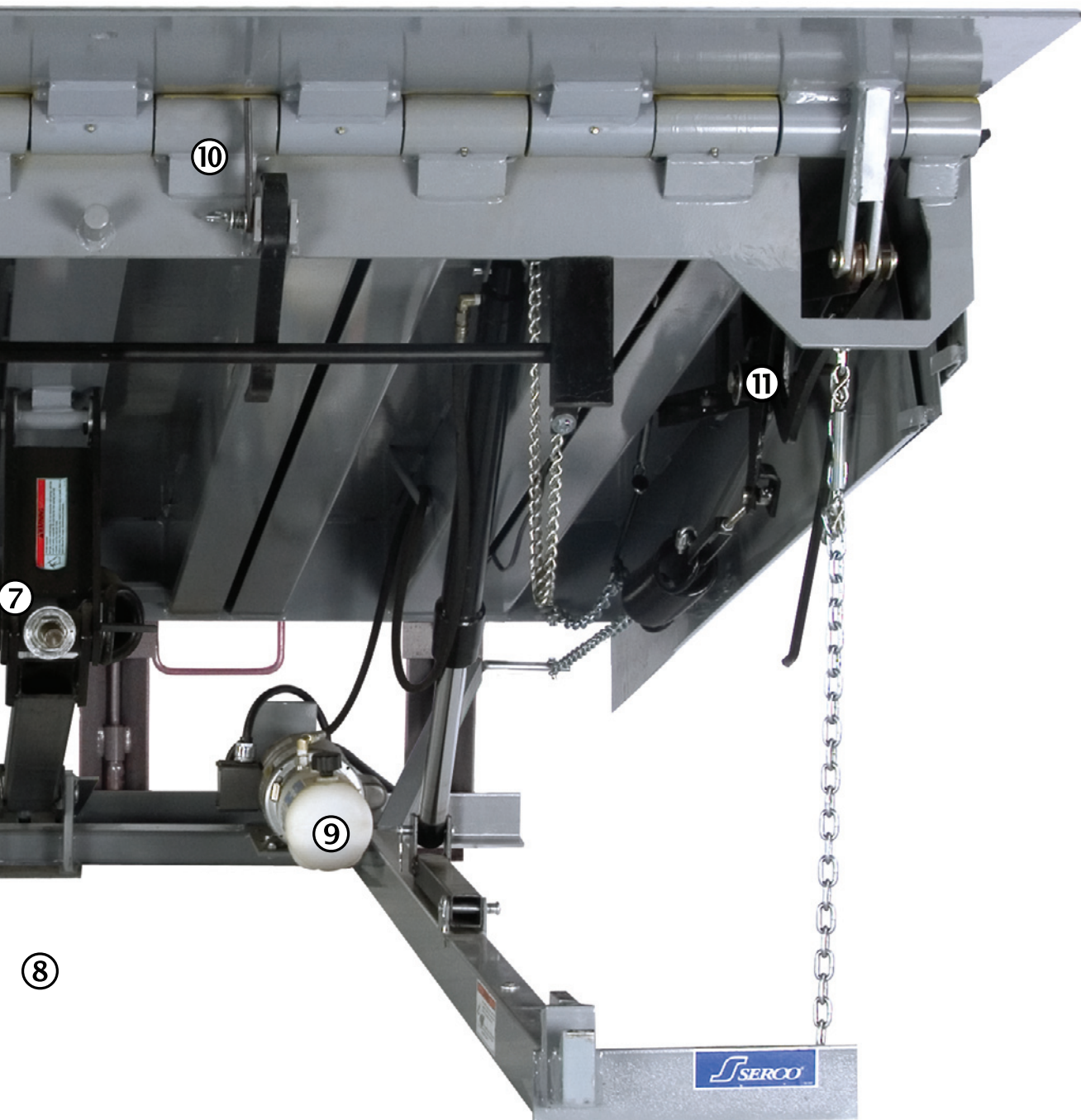
Serco guarantees the PAL Power-Assisted Leveler will stand up to the toughest conditions. To prove it, we offer a **5-Year Parts & Labor Guarantee on the activation system.**



occurs when the mechanical safety legs, or stops, on the dock  
assumes a steep angle to reach the trailer bed, which results  
with air-ride suspensions, dock leveler Stump-out has become an  
out using a patented sensor roller that rides along a reinforced  
protection in the event of premature trailer separation.



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## POWER ASSISTED DOCK LEVELERS

### POWER-ASSISTED ACTIVATION SYSTEM

Efficient 110v power-assisted activation system draws only 5 amps, which allows up to four levelers to run on one 20 amp circuit, providing much lower electrical installation costs and more efficient power usage for the life of leveler.

Simple, push-button operation.  
Push to raise the deck and release  
to lower.

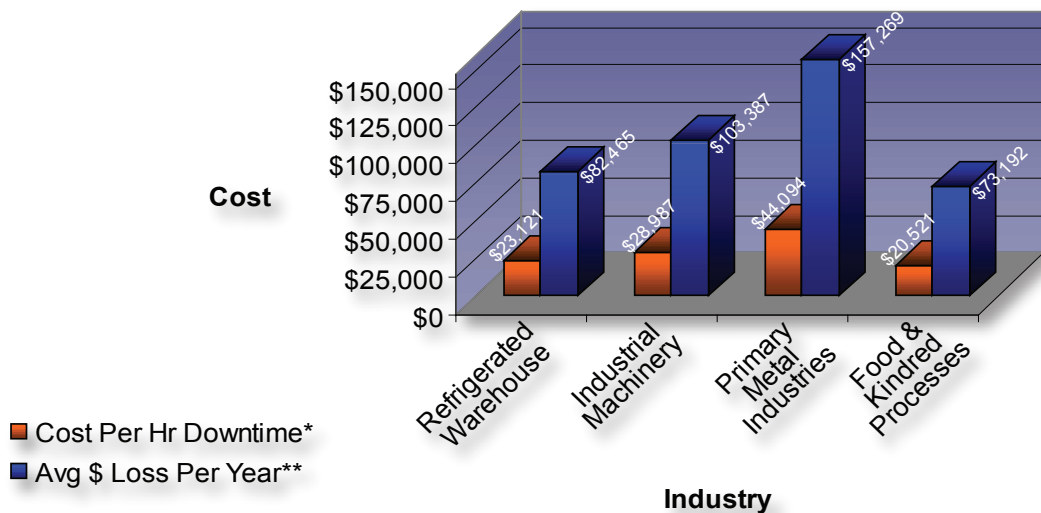




## POWERLESS LEADS TO PROFIT-LESS

**POWER OUTAGES** resulting in downtime are common and costly. On average Americans lose 214 minutes of power every year. According to the U.S. Department of Energy, there were a total of 160 major power outages in 2006 and 2007, 62% were weather related and 37% were due to inadequacies with the existing electrical networks/grids.

Depending on the industry, the costs of this downtime are high:



\* Per the U.S. Department of Energy

\*\* Based on cost per hour of downtime multiplied by 214 min/year average power loss per Carnegie Mellon Electricity Industry Center

## POWER GRID RELIABILITY QUESTIONS

**THE FUTURE OUTLOOK** does not look brighter. Experts continue to emphasize that the nation's power grid is growing more and more unreliable. In fact, the North American Electric Reliability Council projected in their 2007 Long-Term Reliability Assessment that electricity demand is expected to exceed the capacity of existing electrical networks in the next two to three years.



## SO WHAT'S THE ANSWER?

**THE SERCO PAL POWER-ASSISTED LEVELER** is designed to maintain an efficient operation 24-7. In the event of a power failure during loading or unloading, the PAL can be restored, and the building secured, with an easy-to-use manual override device. If busy schedules demand that operations continue, the tool can be used to position the leveler manually. The PAL is the only powered dock leveler that can continue to be operated without power, providing the ultimate reliability and flexibility in today's fast-moving dock environment.

# INTERLOCK SERCO PRODUCTS FOR THE ULTIMATE IN PERFORMANCE AND SAFETY

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**THE SERCO PAL DOCK LEVELER** can be interlocked with other dock devices, such as vehicle restraints, dock doors and security systems, through an optional Master Control Panel™ and programmed to act sequentially for maximum dock efficiency and safety.



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A continuing research program is in effect at Serco. We reserve the right to incorporate product improvement at any time without prior notice.