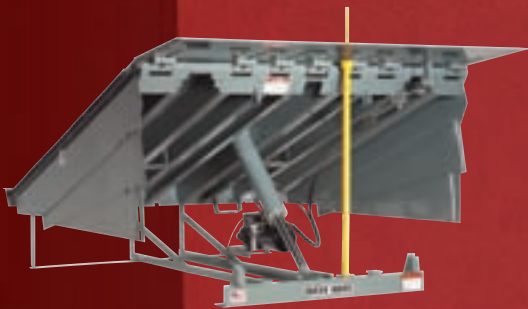


# SMOOTH TRANSITION DOK SYSTEM™

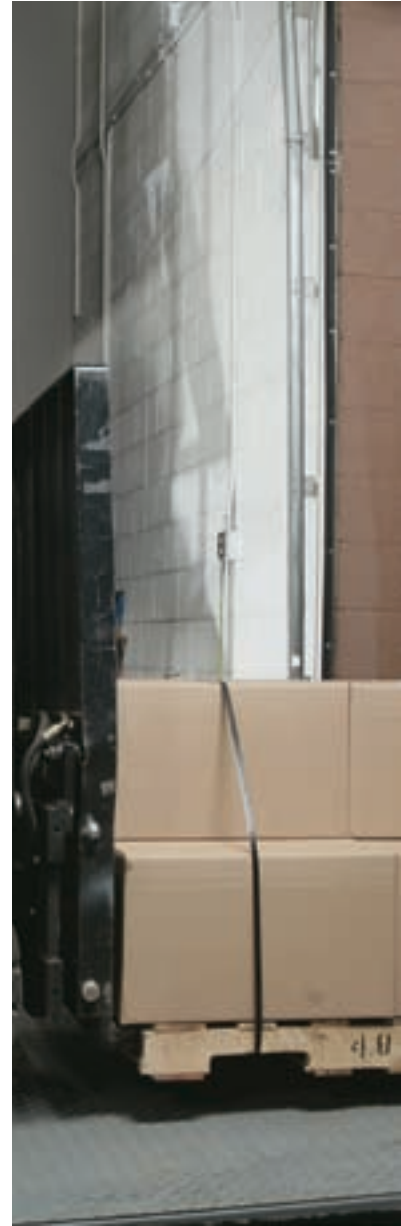
LOADING DOCK SOLUTIONS



WE'RE TALKIN' SMOOOOOTH.



**RITE·HITE®**



There's a whole lotta shakin' goin' on down on your

**It's doing big damage to your people. Your products. Your equipment. Your bottom line.**

Dock shock jars your forklift drivers each time they hit the bumps and gaps on traditional dock levelers when loading or unloading trailers. This compounds the effects of whole-body vibration forklift drivers are exposed to, which rattles their necks, backs and spines.

Trailer drop jolts forklift drivers and damages product and equipment as the trailer moves up and down from the weight of a forklift and load entering the trailer.

And the results of this repetitive exposure are costly.

# SMOOTH TRANSITION DOK SYSTEM™



## loading docks.

### Chronic and catastrophic injuries

A first-time back injury can cost up to \$10,000 for drugs, doctors and therapy.<sup>1</sup> A more severe, chronic injury – up to \$300,000 over time.<sup>1</sup> And each year, catastrophic accidents on the loading dock cost companies millions of dollars.



Overall, about 24% of U.S. workplace illness and injuries are back related,<sup>4</sup> costing an estimated \$80 billion annually.<sup>5</sup> Workers' compensation claims for neck and lower back injuries average \$14,790 and \$11,320 each respectively.<sup>6</sup>

### Damaged product

In any industry, the cost of damaged products or unsaleables is a major expense – in fact, 9 percent of all profit dollars is lost to damaged products.<sup>2</sup> As a forklift enters a trailer, fragile loads can be damaged due to trailer drop.

### Dock equipment repair and replacement

Constantly driving forklifts over traditional-style dock levelers can accelerate wear on components. It can cost approximately \$400 to replace dock bumpers, and \$1,000 for forklift tire and/or brake repairs.<sup>3</sup>

Vertical trailer movement can lead to accelerated wear on dock seals, which can cost \$2,000 to replace.<sup>3</sup> Dock leveler repairs and replacements resulting from wear and tear can be costly, too.

## Exclusive Smooth Transition Dok System™ Solution

Only the Rite-Hite Smooth Transition Dok System gives you the smoothest path between your dock floor and the trailer bed. The innovative STR-4100 Dok-Lok® Vehicle Restraint secures the trailer to the dock, firmly stabilizing it. And the Smooth Transition Dock Levelers help eliminate the bumps and gaps of traditional levelers. Count on the Smooth Transition Dok System to:

- ▶ Improve the safety and comfort of your personnel.
- ▶ Keep product damage to a minimum.
- ▶ Extend the life of your dock equipment.

<sup>1</sup> The Ohio State University

<sup>2</sup> Grocery Manufacturers Association

<sup>3</sup> Costs are estimated

<sup>4</sup> National Safety Council, Injury Facts 2004 Edition

<sup>5</sup> The Economics of Spinal Disorders, JW Frymoyer, 1991

<sup>6</sup> National Safety Council Accident Facts 1997 Edition



Front hinge design on traditional-style dock levelers provides inconsistent support and increases maintenance.



Traditional dock levelers have a gap at the rear hinge that creates a significant bump for forklift operators.

## Problem: Dock Shock

Dock shock is the jarring that occurs when a lift truck crosses between the warehouse floor and the trailer bed due to the bumps and gaps that exist on traditional levelers.

### Dock shock can cause:

- ▶ Worker back and neck injuries that are serious for your personnel and costly for your facility.
- ▶ Forklift operator muscle fatigue that reduces productivity.
- ▶ Product damage that can decrease profits.

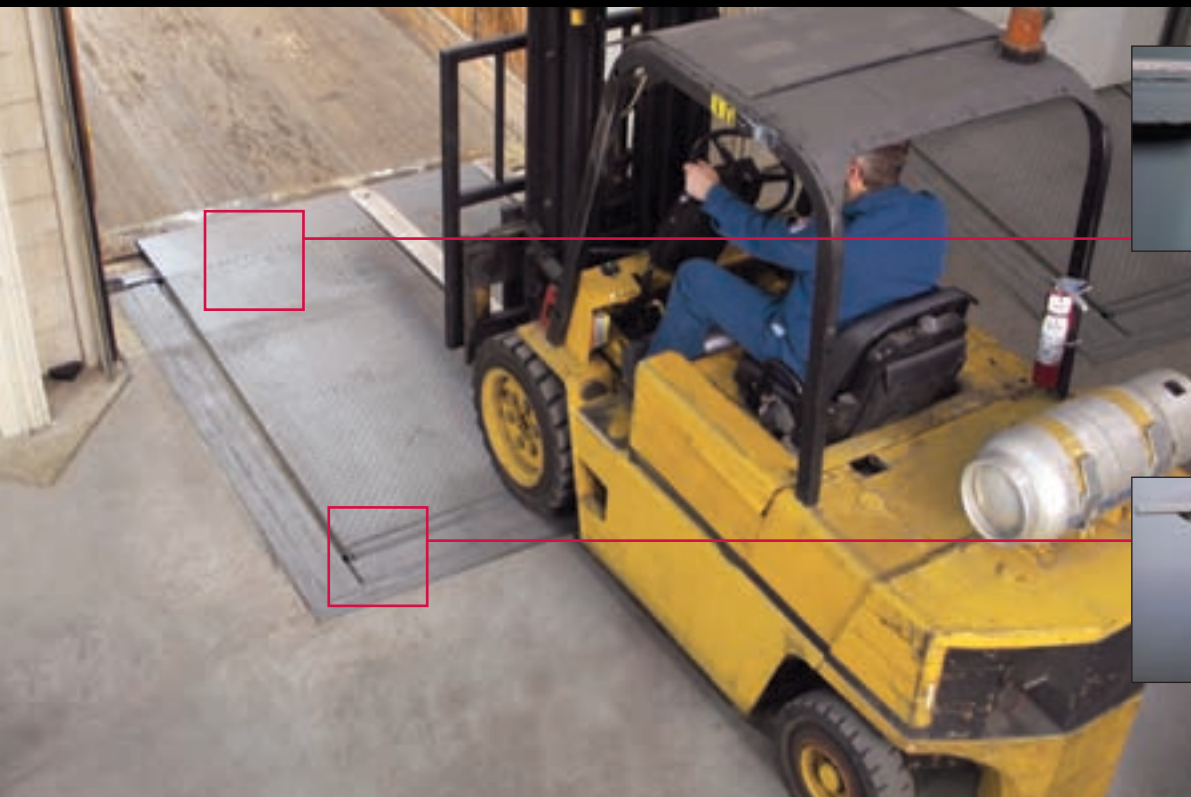


The constant "speed-bump" effect of a traditional rear hinge and front lip can damage equipment, leading to costly maintenance.



Each time forklift drivers cross over traditional-style dock levelers, the effects of whole-body vibration create stress on their necks and backs. This situation is severely compounded when their backs or necks are twisted, such as when backing up.

# SMOOTH TRANSITION DOK SYSTEM™



Two-point crown control on the front-lip hinge distributes the load evenly, smooths out the transition between the leveler and the trailer bed, and extends the hinge life.



The constant-radius rear hinge creates a smooth transition between the leveler and the warehouse floor.

## The Solution: The Rite-Hite Smooth Transition Dock System

### Smooth Transition Dock Levelers

The innovative design of Rite-Hite Smooth Transition Dock Levelers decreases whole-body vibration by as much as 70 percent\* – for the smoothest transition in the industry.

- ▶ Feature a constant-radius rear hinge that reduces the gap and provides an even surface for forklifts, regardless of the incline of the leveler.
- ▶ Offer a consistent, reliable lip crown that requires no maintenance.
- ▶ Provide an even lip-to-deck match that reduces the chance for a catch-point that can damage product and equipment.



**RHH Hydraulic Dock Levelers**



**RHA Air-Powered Dock Levelers**



**RHM Mechanical Dock Levelers**



**RHV Vertical Storing Hydraulic Levelers**

\*Based on Rite-Hite studies.



## Problem: Trailer drop

Trailer drop is the vertical trailer movement or “bounce” caused by the weight of lift trucks traveling in and out of unstable trailers.

### Trailer drop can cause:

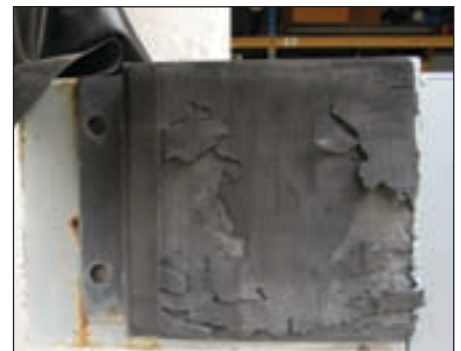
- ▶ Trailer beds to drop as much as 8" during loading/unloading especially on trailers with air-ride suspension systems.
- ▶ Air-ride suspension linkages to move forward resulting in horizontal trailer movement away from the dock.
- ▶ Catastrophic trailer-separation accidents if the trailer is not properly secured to the dock.
- ▶ Chronic back and neck injuries from constant bouncing.
- ▶ Damaged product from jostling and jarring.
- ▶ Abrasion of dock seals and bumpers from the repeated vertical movement of trailers against them.
- ▶ Stump-out on levelers without full-range free-float capabilities.



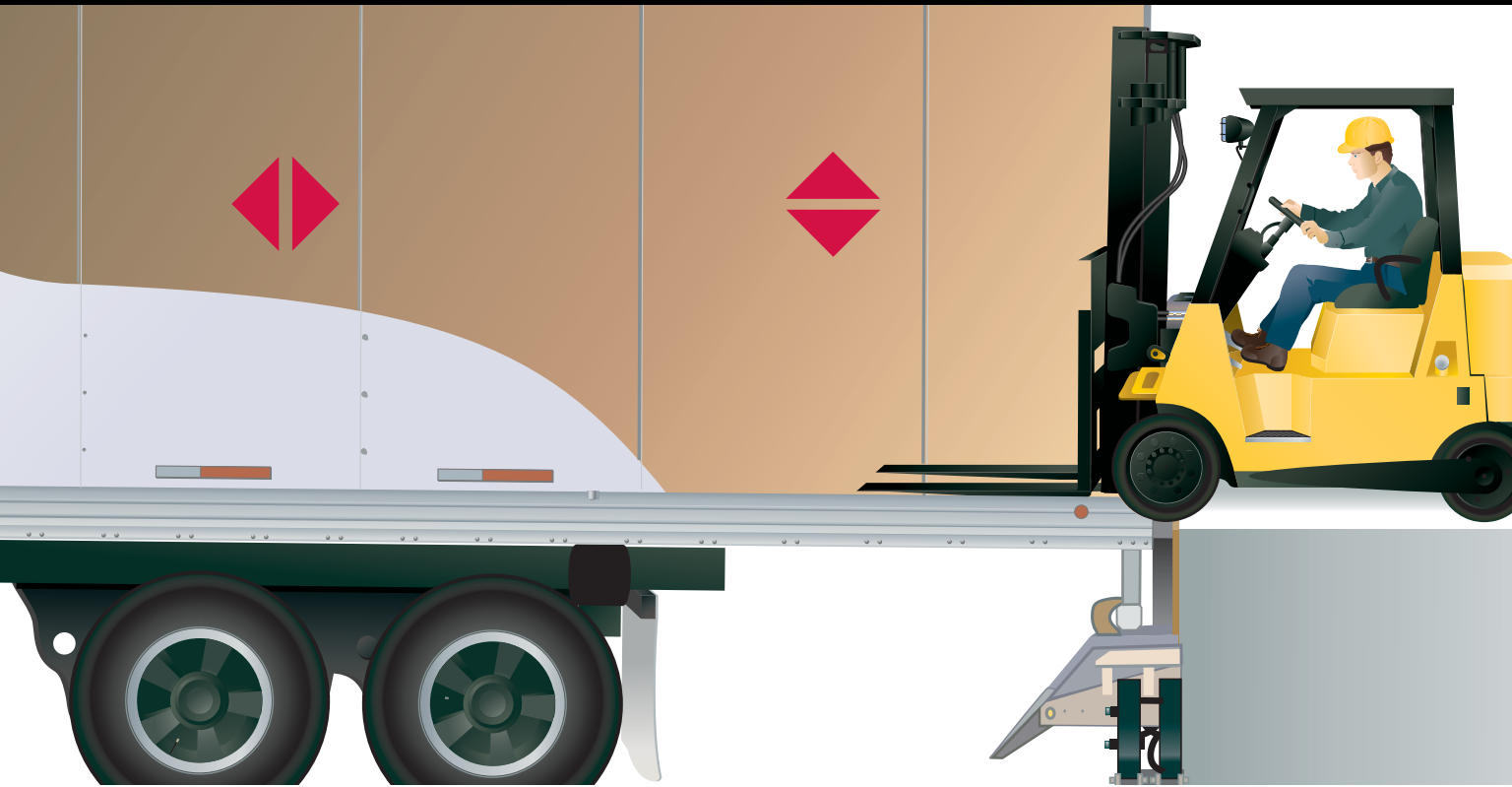
Constant forklift jostling and jarring can lead to costly product damage and reduced productivity.



Repeated vertical trailer movement leads to wear on dock seals and bumpers, resulting in higher equipment repair and replacement costs.



# SMOOTH TRANSITION DOK SYSTEM™



## The Solution: The Rite-Hite Smooth Transition Dok System

### STR-4100 Dok-Lok Vehicle Restraint

The Rite-Hite STR-4100 Dok-Lok Vehicle Restraint stabilizes the trailer to reduce vertical and horizontal trailer movement and also addresses many of the problems associated with unexpected trailer separation, air-ride suspensions and detached trailers.

- ▶ Stabilizes the trailer using durable hydraulic cylinders to minimize trailer drop.
- ▶ Ensures a smooth transition between the loading dock and the trailer, increasing productivity.
- ▶ Reduces jolts to forklift operators during loading and unloading, helping to prevent injuries.
- ▶ Minimizes product damage.
- ▶ Reduces damage to dock levelers, seals, bumpers and forklifts.

- ▶ Helps prevent catastrophic trailer separation accidents, including:
  - Unscheduled departure
  - Dock walk/trailer creep
  - Trailer tip-over
  - Trailer pop-up
  - Trailer upending
  - Landing gear collapse

### Stabilizing



The STR-4100 Dok-Lok Vehicle Restraint stabilizes the rear of the trailer. The unique rotating hook engages the trailer's rear-impact guard to secure the trailer to the dock.



### Dock Levelers

Smooth transition is created between the loading dock floor and the trailer, minimizing jolts to forklift operators and product and equipment damage. Integrated steel barrier prevents drop-off accidents at vacant dock positions.



### Vehicle Restraints

The most effective way to prevent accidents caused by trailer separation and vertical or horizontal movement.



### Frommelt® Seals and Shelters

A variety of top designs effectively maintain environmental control and protect products, equipment and personnel from weather-related hazards.



### FasTrax™ High-Performance Industrial Doors

The safest, most efficient and most reliable doors in the industry.



### Combination Controls

The Dok-Commander® system integrates multiple control components at each dock position for a total dock safety system.



### Barrier Systems

Discover new cost-effective solutions to help keep your people safe and reduce equipment and product damage.

## Count on Rite-Hite to improve safety and efficiency at your facility.

Only Rite-Hite offers you the industry's most experienced, most knowledgeable representatives who can help you gain a competitive edge by integrating our quality Rite-Hite products in your facility. Contact your Rite-Hite representative for expert advice on:

- ▶ Minimizing hazards to improve safety
- ▶ Avoiding costly equipment breakdowns and delays
- ▶ Preventing product damage
- ▶ Cutting energy bills
- ▶ Extending equipment service life
- ▶ Saving on maintenance



### Rite-Hite Corporation

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