

The logo for Snyder Equipment, Inc. features the word "SNYDER" in large, bold, white, sans-serif capital letters. This text is set against a solid blue rectangular background. Below the blue background is a horizontal yellow bar. To the left of the yellow bar is a solid yellow circle. To the right of the yellow bar, the words "Equipment, Inc." are written in a smaller, blue, sans-serif font. Below "Equipment, Inc." is the tagline "Storing, Rolling, Lifting since 1947" in an even smaller, blue, sans-serif font.

SNYDER

Equipment, Inc.

Storing, Rolling, Lifting since 1947

PRODUCT INFORMATION

BLUFF EDGE OF DOCK LEVELERS

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BLUFF

MANUFACTURING, INC.

DOCK AND WAREHOUSE EQUIPMENT

DOCKLEVELERS & WHEELRISERS

Bluff's edge of dockleveler is designed to have a working range of 5" above and 5" below dock. Because of gradability problems docklevelers are not recommended for use with pallet jacks or stackers.



EDGE OF DOCKLEVELER (EP)

- Capacities from 20,000 to 25,000 pounds
- Automatically returns to stored position when truck leaves
- Self-storing handle
- Bumper and bumper blocks are included

Fast and easy to operate, Bluff's edge of dockleveler is positioned by lifting a self-storing handle and pulling the handle to the dock floor. The latch assembly activates the lip forward to the floor of the trailer as the handle is lifted. When released, the handle automatically returns to a stored position. The optimum dock height for conventional trailers is 51", while the proper dock height for refrigerated equipment is 55". Refrigerated lip is optional. Widths of 72" and 78" are available.

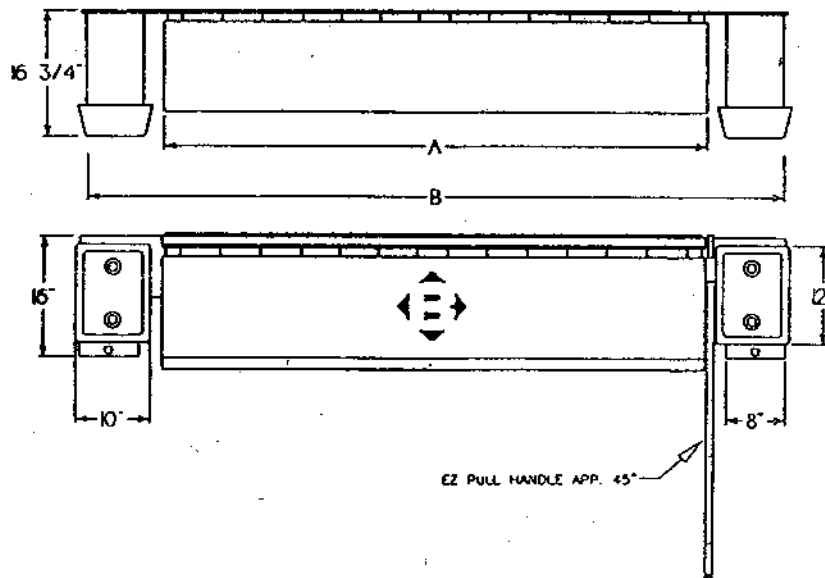
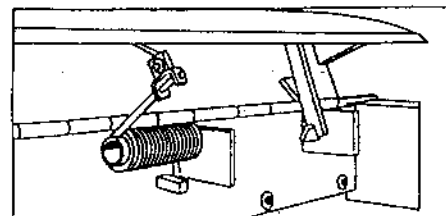
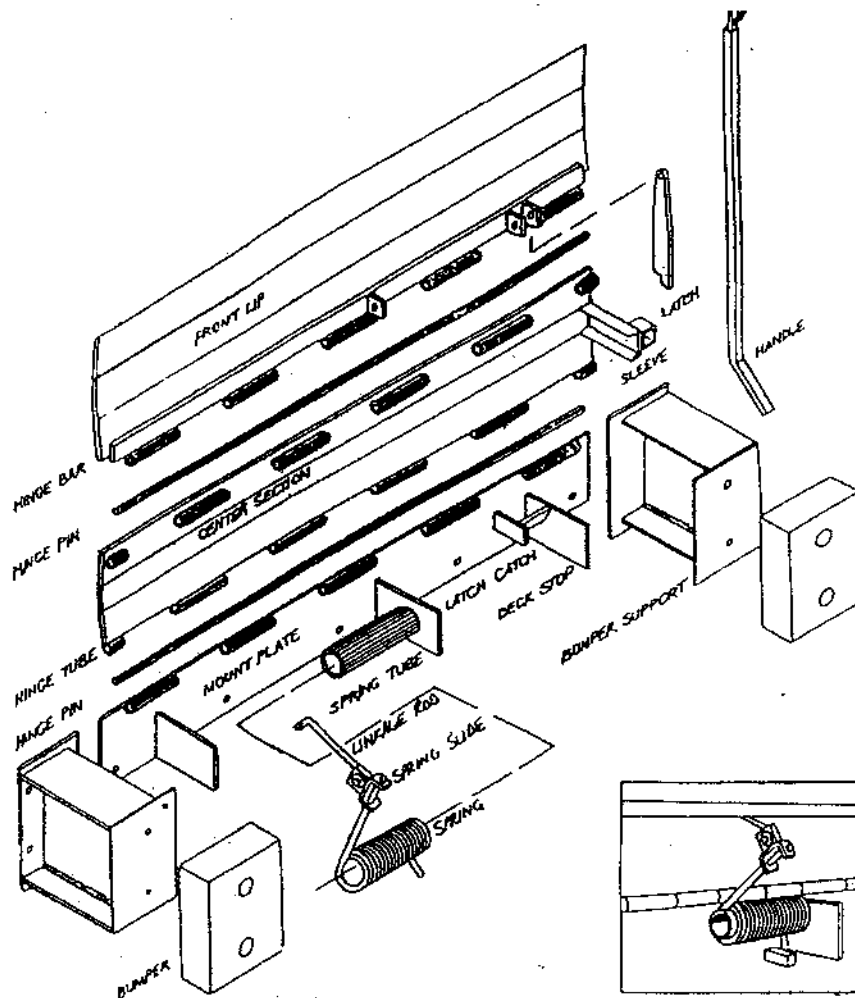
LO-DOCKLEVELER (LD)

- Raises edge-of-docklevelers to proper working height
- Completely assembled; no site welding required

Now without expensive dock alterations, you can raise the height of your present dock as much as 11". Lo-docklevelers can easily be installed on any concrete dock without welding or modifications. Refrigerated lip is optional. Complete technical information and installation instructions are available upon request.



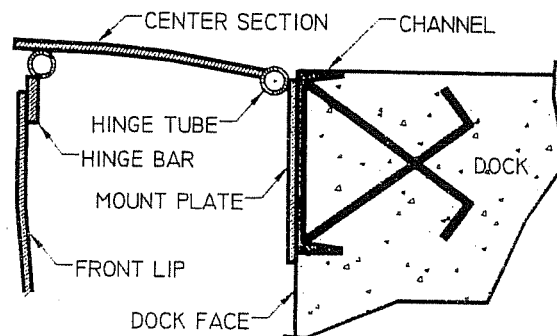
EZ-PULL EDGE OF DOCK LEVELERS MODEL EP



MODEL #	A	B
20EP66	66"	88"
25EP66	66"	88"
20EP72	72"	94"
25EP72	72"	94"
20EP78	78"	100"
25EP78	78"	100"

EZ Pull Edge of Dock Leveler INSTALLATION GUIDE

INSTALLATION (TYPE I) STEEL CHANNEL FACE OF 8" OR MORE ANCHORED TO CONCRETE AT CORRECT HEIGHT



NOTE: REMOVE LATCH AND HANDLE BEFORE INSTALLING UNIT!

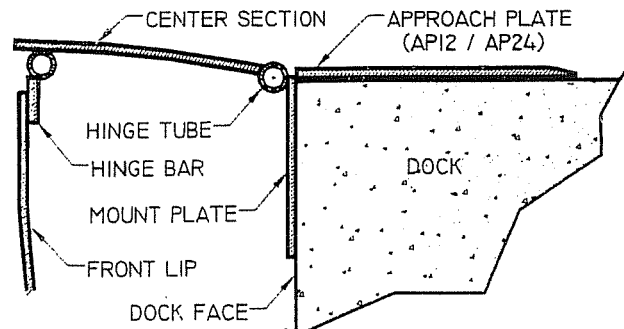
Latch and Handle are attached to mount plate for shipping purposes only!

1. Refer to EZ-Pull Edge of Dock Leveler Owners manual.
2. Check straightness of existing channel with plumb line. If out of alignment, shimming may be required. Any out of alignment condition will result in a binding problem. **DO NOT** weld to angle which is not anchored into concrete. **IMPORTANT: Make certain leveler is straight and plumb.**
3. Center EZ-Pull leveler against dock.
4. Position EZ-Pull leveler with the top of hinge tubes flush with the dock/channel.
5. Tack top of mount plate @ center point of leveler to imbed channel (dock face).
6. Tack mount plate alternating from left to right of center point. Tack vertical edges of mount plate.
Remember to shim where necessary to keep mount plate straight.
7. Weld the top of the mount plate to dock face *continuously* from the center out.
8. Weld ends (vertical edges) of mount plate to the channel.
9. Position and tack bumpers level to mount plate with 1" gap between molded bumper and front lip.
10. Drill for anchor bolts. Weld top side of bumper assembly to dock/channel.
11. Secure bottom of bumper assembly with anchor bolt or weld. (Use 3/4"x 4" wedge anchor bolts).
12. Remove slag from welds.
13. Re-grease unit. Welding will burn out any grease in the hinge tube.
14. Paint any burnt edges. (See pg.4 of Installation Guide for color numbers).
15. Attach latch arm. Position with notch facing the dock. Bolt latch. Latch should swing freely.
 (See pg.4 of EZ-Pull EOD Owners Manual - "Assembly Drawing").
16. Remove bolt from handle. Position handle into sleeve tube with bend facing out. Replace bolt.
17. Test unit for proper operation (See pg.2 of EZ-Pull EOD Owners manual).

INSTALLATION (TYPE II)

TRANSITION PLATE

FOR DOCKS WITHOUT SUITABLE STEEL @ CORRECT HEIGHT

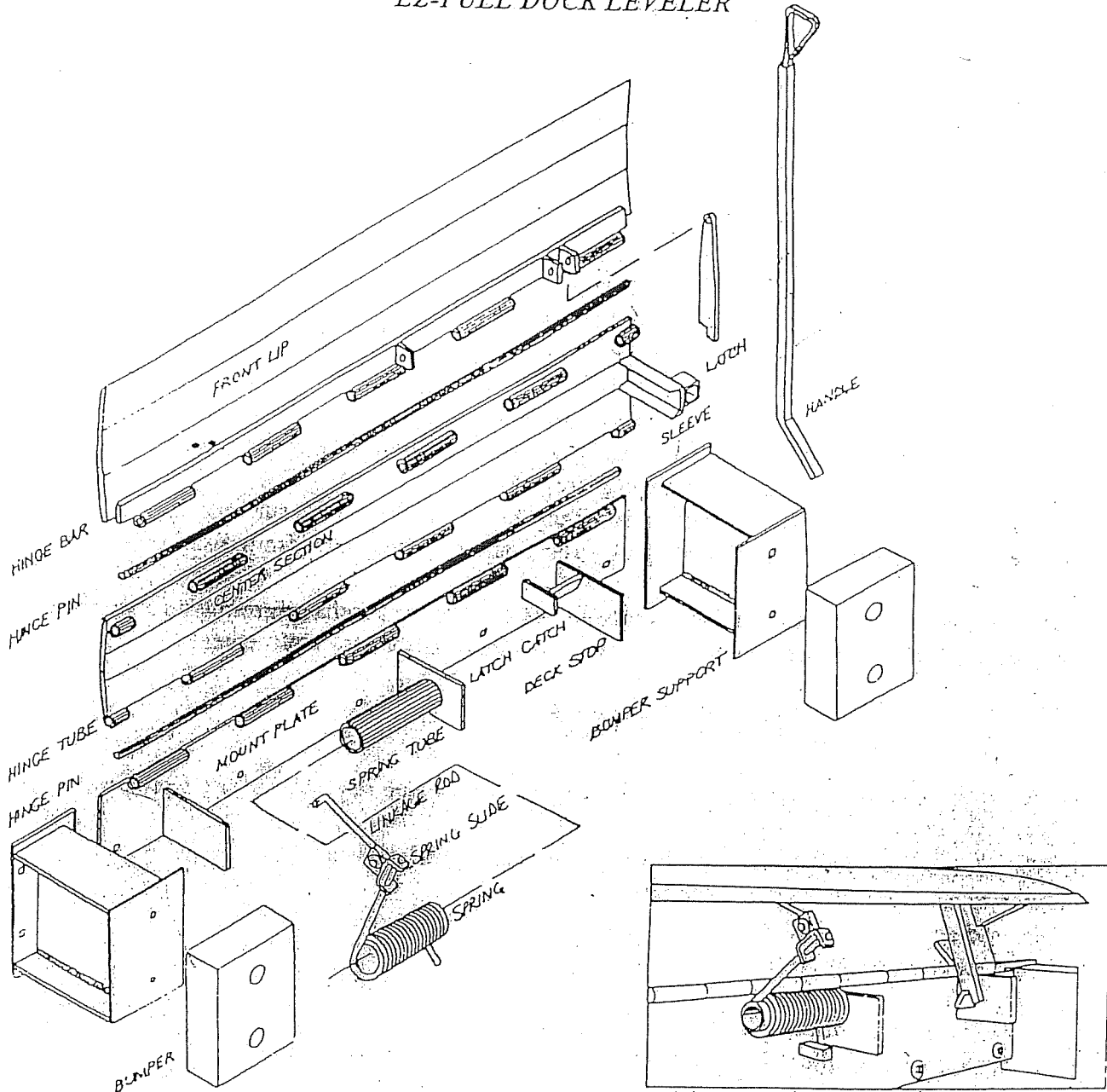


NOTE: REMOVE LATCH AND HANDLE BEFORE INSTALLING UNIT!
Latch and handle are attached to mount plate for shipping purposes only!

1. Refer to EZ-pull Edge of Dock Leveler Owners manual.
2. Center beveled approach in the desired location flush with the face of the dock. Cut if required to fit door. Two types of approach plates are available:
 - AP12 - 120" x 12" steel approach plate with beveled edge. Approach plates require (5) 3/4" x 4" or longer wedge anchor bolts. Locate and drill anchor bolt holes. Install anchors and tighten nuts. Starting in the center remove nuts and weld anchors to the approach plate. Cut and round anchors to minimize tire damage.
 - AP12C - 120" x 12" steel approach plate with countersunk holes and beveled edge. Approach plates require (5) heavy-duty expansion shield anchor bolts with 1/2" Flat Head Socket Cap Screws. Locate approach plate. Drill anchor holes with 9/16" pilot drill. Move approach plate and drill with a 7/8" drill. Place approach plate back into position and anchor. *This method permits tightening of anchors and minimizes burnt paint.*
3. Center EZ-Pull leveler against dock.
4. Position EZ-Pull leveler with the top of hinge tubes 1/8" above approach plate surface.
5. Tack top of mount plate @ center point of leveler to the approach plate.
6. **IMPORTANT: Make certain leveler is straight and plumb. Remember to shim if necessary.**
7. Drill 7/8" holes and anchor bottom of mount plate with (5) 3/4" x 4"+ wedge anchors.
8. Weld top of mount plate to the approach plate *continuously* from the center out.
9. Position and tack bumpers level to mount plate with 1" gap between molded bumper and front lip.
10. Locate and drill for anchor bolts.
11. Weld continuously top of bumper plate to approach plate and secure bottom with anchor bolt.
12. Remove slag from welds.
13. Re-grease unit. Welding will burn out any grease in the hinge tube.
14. Paint any burnt edges. (See pg.4 of Installation Guide for color numbers).
15. Attach latch arm. Position with notch facing the dock. Bolt latch. Latch should swing freely. (See pg.4 of EZ-Pull EOD Owners manual - "Assembly Drawing").
16. Remove bolt from handle. Position handle into sleeve tube with bend facing out. Replace bolt.
17. Test unit for proper operation (See pg.2 of EZ-Pull EOD Owners manual).

ASSEMBLY DRAWING

EZ-PULL DOCK LEVELER

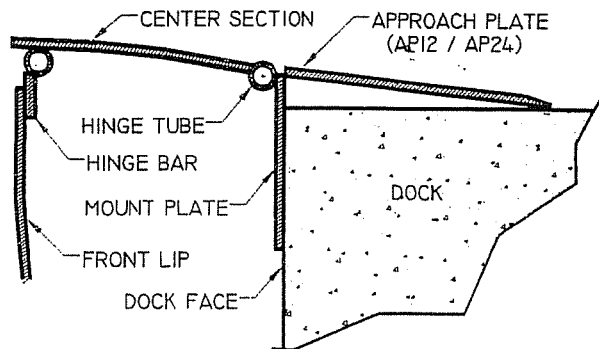


Important: Specify Model # When Ordering Parts

PART #	ITEM DESCRIPTION
EP72LIP	EZ-PULL FRONT LIP ASSY (STD) - 15" LIP LENGTH
EP72LIPR	EZ-PULL FRONT LIP ASSY (REEFER) - 17" LIP LENGTH
EP72DECK	EZ-PULL CENTER SECTION ASSY
EPBUMPBASE	EZ-PULL BUMPER SUPPORT
EPSA	EZ-PULL SPRING W/SLIDE ASSY (INCLUDES LINKAGE ROD)
EPRB10	EZ-PULL MOLDED BUMPER - 13" X 10" X 4" W/FASTENERS
EPLINKROD	EZ-PULL LINKAGE ROD W/PINS
EPHANDLE	EZ-PULL HANDLE W/BOLT
EPLAT	EZ-PULL LATCH W/BOLT

INSTALLATION (TYPE III)

LO-DOCK APPLICATION - 1" TO 2" TOO LOW

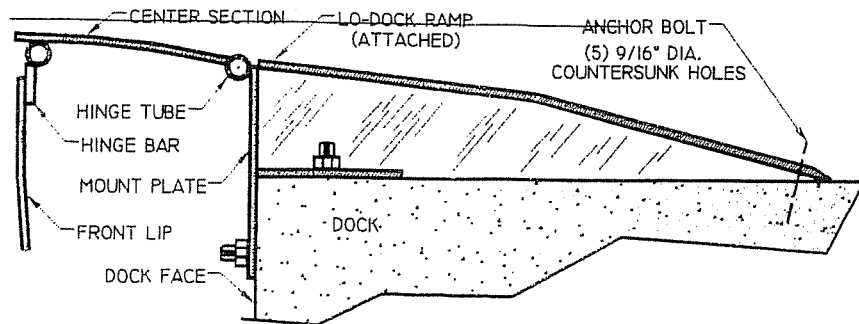


NOTE: REMOVE LATCH AND HANDLE BEFORE INSTALLING UNIT!

Latch and handle are attached to mount plate for shipping purposes only!

1. Refer to EZ-Pull Edge of Dock Leveler Owners manual.
2. Position EZ-Pull leveler at the correct height above the driveway.
3. Drill and Anchor the EZ-Pull leveler to the dock with (5) 3/4" x 4" wedge anchor bolts.
4. Position approach plate to EZ-Pull leveler with the tubes 1/8" above the top of approach plate. Cut approach plate if required to fit door.
5. **IMPORTANT: Make certain leveler is flat and plumb.**
6. Two types of approach plates are available:
 - ♦ AP24 - 120" x 24" steel approach plate with beveled edge. Approach plate requires (5) 3/4" x 4" wedge anchor bolts. Install anchors and tighten nuts. Starting in the center, remove nuts and weld anchors to the approach plate. Cut and round anchors to minimize tire damage. Weld *continuously* AP24 to the EZ-pull leveler mount plate.
 - ♦ AP24C - 120" x 24" steel approach plate with countersunk holes and beveled edge. Approach plate requires (5) heavy-duty expansion shield anchors with 1/2" Flat Head Socket Cap Screw x 3 1/2" long. Drill through approach plate in the desired position with a 9/16" pilot drill. Break tacks, remove approach plate, and drill with 7/8" drill. Place expansion shields in 7/8" hole with threaded portion facing down. Place approach plate back in position. Tack AP24C to EZ-pull leveler mount plate and install 1/2" Flat Head Socket Cap Screw. Tighten anchor bolts down and make sure plate pulls flush with floor. Weld *continuously* AP24C to the EZ-Pull leveler mount plate. *This method permits tightening of anchors and minimizes burnt paint.*
7. Position and tack bumpers level to mount plate with 1" gap between molded bumper and front lip.
8. Drill for anchor bolts. It is only necessary to anchor at bottom hole.
9. Weld **continuously** across top of bumper to AP24 or AP24C and secure bottom with anchor bolt.
10. Remove slag from welds.
11. Re-grease unit. Welding will burn out any grease in hinge tube.
12. Paint any burnt edges. (See pg. 4 Installation Guide for color numbers).
13. Attach latch arm. Position with notch facing dock. Bolt latch. Latch should swing freely. (See pg. 4 EZ-Pull EOD Owners manual - "Assembly Drawing").
14. Remove bolt from handle. Position handle into sleeve tube with bend facing out. Replace bolt.
15. Test unit for proper operation (See pg. 2 of EZ-Pull EOD Owners manual).

INSTALLATION (TYPE IV) LO-DOCK APPLICATION - 3" TO 9" TOO LOW



NOTE: REMOVE LATCH AND HANDLE BEFORE INSTALLING UNIT
Latch and handle are attached to mount plate for shipping purposes only!

1. Refer to EZ-Pull Edge of Dock Leveler Owners manual.
2. Position Lo-dock unit into desired location.
3. *This unit requires (5) heavy-duty expansion shield anchor bolts and (9) 3/4" x 4"+ wedge anchor bolts.*
4. Drill 9/16" pilot hole through top approach plate mount holes.
5. Move Lo-dock out of position and drill pilot holes with 7/8" drill.
6. Place expansion shields in holes with threads facing down.
7. Re-position Lo-dock unit and anchor with 1/2" Flat Head Socket Cap Screw x 3 1/2" long.
8. Drill and anchor front of Lo-dock with 3/4" x 4" wedge anchors.
9. Attach latch arm. Position with notch facing the dock. Bolt latch. Latch should swing freely. (See pg.4 of EZ-Pull EOD Owners manual - "Assembly Drawing").
10. Remove bolt from handle. Position handle into sleeve tube with bend facing out. Replace bolt.
11. Test unit for proper operation (See pg.2 of EZ-Pull EOD Owners manual).

SPECIAL NOTES

- ♦ REMOVE LATCH AND HANDLE BEFORE INSTALLING LEVELER.
- ♦ THE EZ-PULL LEVELER IS NOT DESIGNED FOR WELDING TO CURB ANGLE (SEE INSTALLATION TYPE II).
- ♦ TOUCH-UP PAINT - RUST-OLEUM DARK MACHINE GRAY 2187
- RUST-OLEUM DEEP BLUE 2125
- ♦ ALWAYS TRAVEL AT SPEEDS IN CONTROL AND BELOW 3 MPH.
- ♦ IT IS IMPORTANT TO WELD CONTINUOUSLY (NOT SKIP WELD) ACROSS TOP OF ENTIRE MOUNT PLATE.
- ♦ FOR PIT INSTALLATION CONTACT YOUR LOCAL DEALER.



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REV. 8/96

EZ-Pull Edge of Dock Leveler OWNERS MANUAL

Engineering Design

The Bluff EZ-Pull dock leveler design offers a tremendous ergonomic solution when compared to other available dock leveler designs. The simple, smooth performance and easy to position design eliminates the lifting and difficult positioning factors associated with passé hook type designs.

The advanced designed Bluff latch assembly allows the operator to easily position the unit. A Pull and Push action on the EZ-Pull handle activates the unit, moving the lip forward onto the trailer floor. To store the unit, the above process is reversed or the trailer simply pulls away, allowing the unit to automatically restore.

Dock Parameters

The EZ-Pull dock leveler will accommodate a maximum of five (5) inches above dock and five (5) inches below dock, providing 18.5% grade down and 20% grade up. This is acceptable for most gas or propane forklifts but is not suitable for most pallet trucks or many electric forklifts.

- Freight trailers range in height from 46 to 56 inches, therefore the EZ-Pull leveler should be mounted at 51 inches above the driveway.
- Refrigerated trailers range in height from 50 to 60 inches, therefore the EZ-Pull leveler should be mounted at 55 inches above the driveway. In addition, this application requires a Reefer Lip (17" lip length) to accommodate the offset floor of the trailer.
- Flatbed trailers have a wide range of trailer heights. Dockboards or other equipment may be needed for extreme height variations.
- Containers have variations in both floor heights and door configurations.
- Captive fleets require mounting midway between lowest and highest trailer, provided +/-5" range is maintained.

Pallet trucks and electric forklifts can be used with trailers three (3) inches above and three (3) inches below dock level. Dockboards or other equipment may be needed accommodate this range. This is due to limited clearance and gradeability of that equipment.

EZ-Pull Dock Levelers WILL NOT accommodate refrigerated and freight trailers at a single dock location due to limitations specified above.

- Solutions:
 1. Mount separate EZ-Pull levelers at different heights to handle both types correctly.
 2. Mount an EZ-Pull leveler with Reefer Lip at 55 inches and use Bluff Wheel Risers to raise low trailers to proper height.

Declining and inclining drives require special dock specifications. Call for more information.

Product Specifications

General - The Bluff EZ-Pull dock leveler is designed with a full hinged lip and utilizes a torsion spring counterbalance assembly for ease of positioning. Unit conforms to OSHA, U.S. Department of Commerce standard CS-202-55 and ANSI/MH 14.1 performance requirements.

Construction - Three piece construction. Lip and Ramp section is constructed of safety steel tread plate, 50,000 psi (min.) yield strength. Lip hinge bar is 2"x1/2", welded to ramp plate section. Hinge tube is minimum 13/64" wall thickness, seamless tubing.

Counterbalance - Single torsion spring provides counterbalance on lip section for ease of positioning. Extension springs are supplied on some models.

Product Finish - All components are painted Dark Machine Gray (2187) with Deep Blue (2125) side borders.

Features

Mechanical Operation - Lip section of dock leveler is raised by attendant via handle. The attendant simply pulls the handle back to the floor, and then pushes forward to position the ramp lip onto the truck bed. When the truck departs, leveler lip and ramp automatically returns to stored position. With trailer in position, simply reverse above process to store EZ-Pull leveler.

Range capabilities - Leveler to have 5" above and 5" below dock operating range for Propane and Gas trucks. For Pallet Jacks and Electric Fork trucks operating range is limited to +/-3".

Out of Level Compensation - Lip section tilts up to 1" to service out of level trucks. Rear edge of ramp remains flush at all times.

Flat Compensation - Unit is designed to float allowing for vertical corner deflection when the lip is in contact with truck bed.

Dock Bumpers - Unit to include two (2) molded rubber impact surfaces. Bumpers are 10"W x 13"H x 4" projection as standard. Total bumper projection from dock face is 16 1/2"

Installation - Unit shipped ready for installation. *Remove blue latch arm and handle from leveler mount plate prior to installation.* Position leveler at dock face. Adjust height of leveler to accommodate a 1/8" difference between hinge tubes and the dock re-inforcement angle. This allows for proper backward radial travel of leveler. Level unit with dock face. Weld *continuously* across top and down the sides. *Attach latch to underside assembly with notch facing the dock.* Grease unit after installation is complete. Welding will burn out existing grease from the hinge tubes. Clean hinge tube areas of any foreign debris. Install handle. SEE INSTALLATION GUIDE FOR DETAILED INSTRUCTIONS..

Warranty - One year structural warranty.

Maintenance

The Bluff EZ-Pull Leveler will provide years of efficient operation if properly maintained. Preventive maintenance should be performed every six months or as needed.

1. **Cleaning** - Check hinge tube areas for any debris. Clean hinges with wire brush to remove any foreign objects.
2. **Grease** - The unit should be greased twice a year or as needed. Grease zerts are located underneath the deck of the leveler.
3. **Structural check** - Check unit over for any obvious structural wear. Check hinge tubes for any signs of cracking or wearing.
4. **Spring assembly** - Check spring assembly to assure a proper float in the leveler deck. Check spring linkage rod for any signs of bending.
5. **Handle check** - Check EZ-Pull handle for any signs of bending or cracking. Improper handle bend may result in unit not latching properly.
6. **Latch** - Check the latch and latch catch for signs of wear to the mating surfaces. Too much wear can decrease height up allowance and may keep latch from disengaging.

Any damaged parts should be replaced immediately and can be purchased from your local Bluff distributor. Bluff levelers feature a modular design, allowing for easy replacement.

Troubleshooting

The Bluff EZ-Pull Edge-of-Dock Leveler is a mechanical device requiring leverage and gravity to operate efficiently.

1. *When I raise the dock leveler, the front lip does not extend outward?*
 - Check to ensure latch is attached to unit.
 - Check to ensure latch notch is facing the dock.
 - Check latch assembly for damage or excessive wear.
2. *When I raise the dock leveler, the handle hits dock surface?*
 - Check to ensure handle is located correctly in holster. Handle and bend facing away from dock face (towards trailer), when in stored position.
 - Check handle for damage.
3. *The leveler will not raise enough to allow latch to catch?*
 - Check for proper tube clearance. Tubes should be 1/8"+ higher than dock surface. Deck needs to rotate to approx. the one o'clock position.
 - Check handle for any damage.
 - Check hinge tubes for debris. Wood, nails, etc. can prevent proper rotation.
4. *The leveler is difficult to raise and lower in position?*
 - Check hinge tubes. Clean any debris or foreign objects from hinges. Use wire brush, if necessary.
 - Check hinge tube lubrication. Grease unit thoroughly.