

TecnoRampa™



CERTIFIED COMPANY



Hydraulic minidock platform

SMALL, SMART & STRONG

tecnorampa.us

▣ We are manufacturers

- It is a product developed to support loading and unloading maneuvers, providing solutions for material movement on docks.



▶ SAFETY

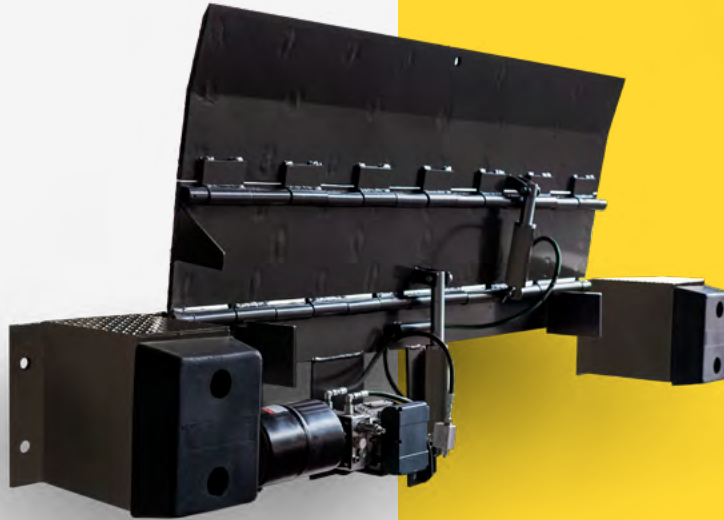
Complete control

All of our equipment has first-rate additions and is certified under rigorous standards that allow the excellent operation of our Mini Dock.

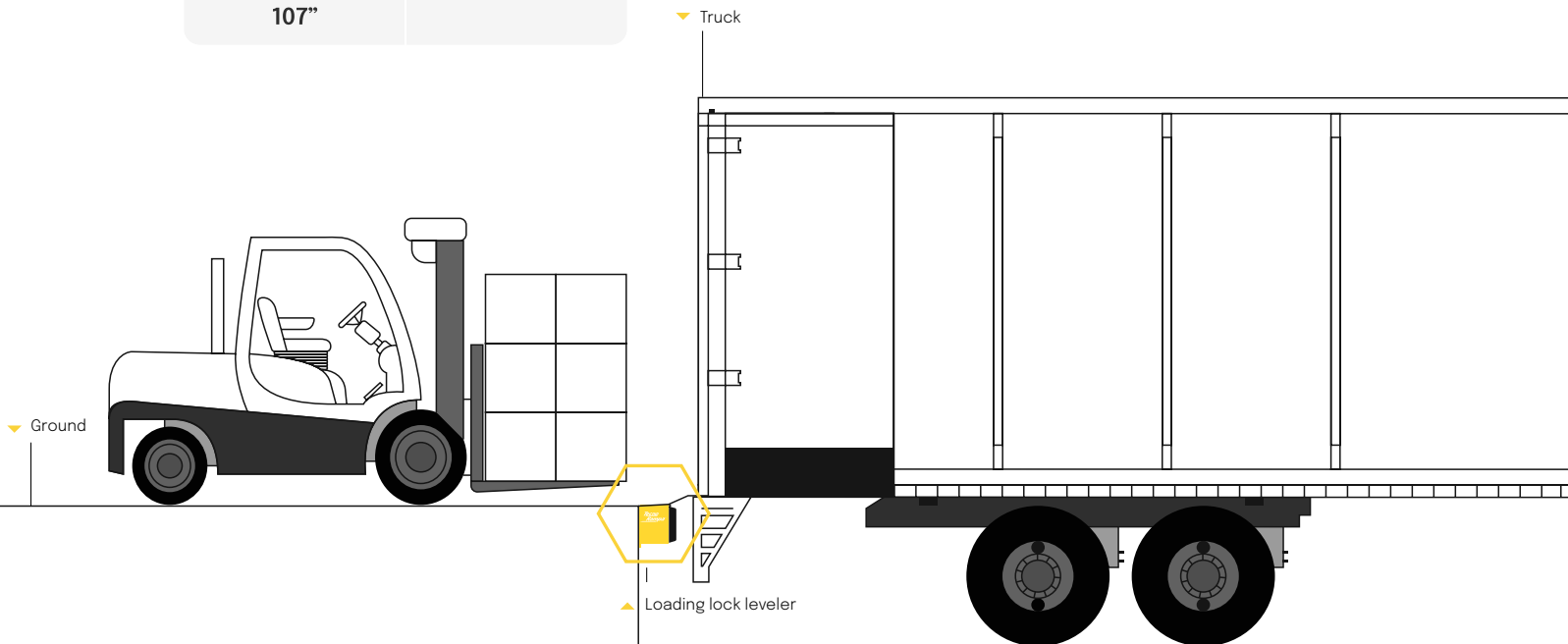


Hydraulic minidock

The Mini Hydraulic Dock has components that provide maximum safety and the perfect balance between its hydraulic and its structural system. All of our equipment has first-rate additions and is certified under rigorous standards that allow the excellent operation of our Mini Dock.

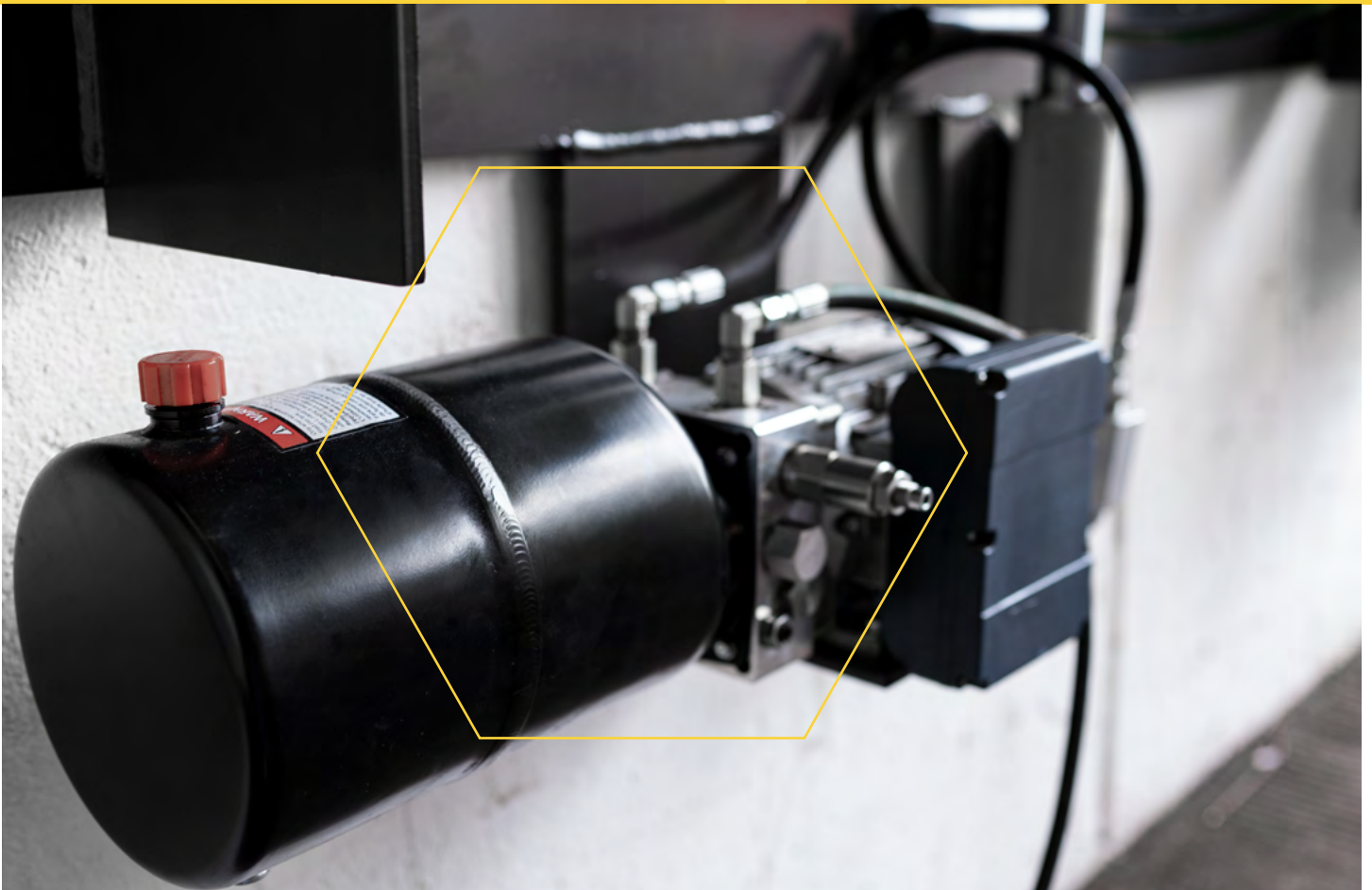


CAPACITY 30,000 LBS	
length	Lip
101"	14-3/4"
107"	





► The Hydraulic has the highest safety technology. To give you the greatest comfort in the use.



- ▶ The hydraulic system of the equipment is safe to use. Its operation is carried out by simply pressing a start button until the level reach almost 90°.



- ▶ High resistance rubber stopper



- ▶ Hydraulic unit 1 HP at 110V AC 0.75 kw with 8 liter tank.

- ▶ 30000 Lbs. Load Limit

- ▶ Deployment by 2 cylinders.

- ▶ Hydraulic system operation, safety fuse valve.

Single Plate

▶ THE RAMP PLATE IS A PIECE OF CARBONO STEEL A36

30,000 LBS

1/4"

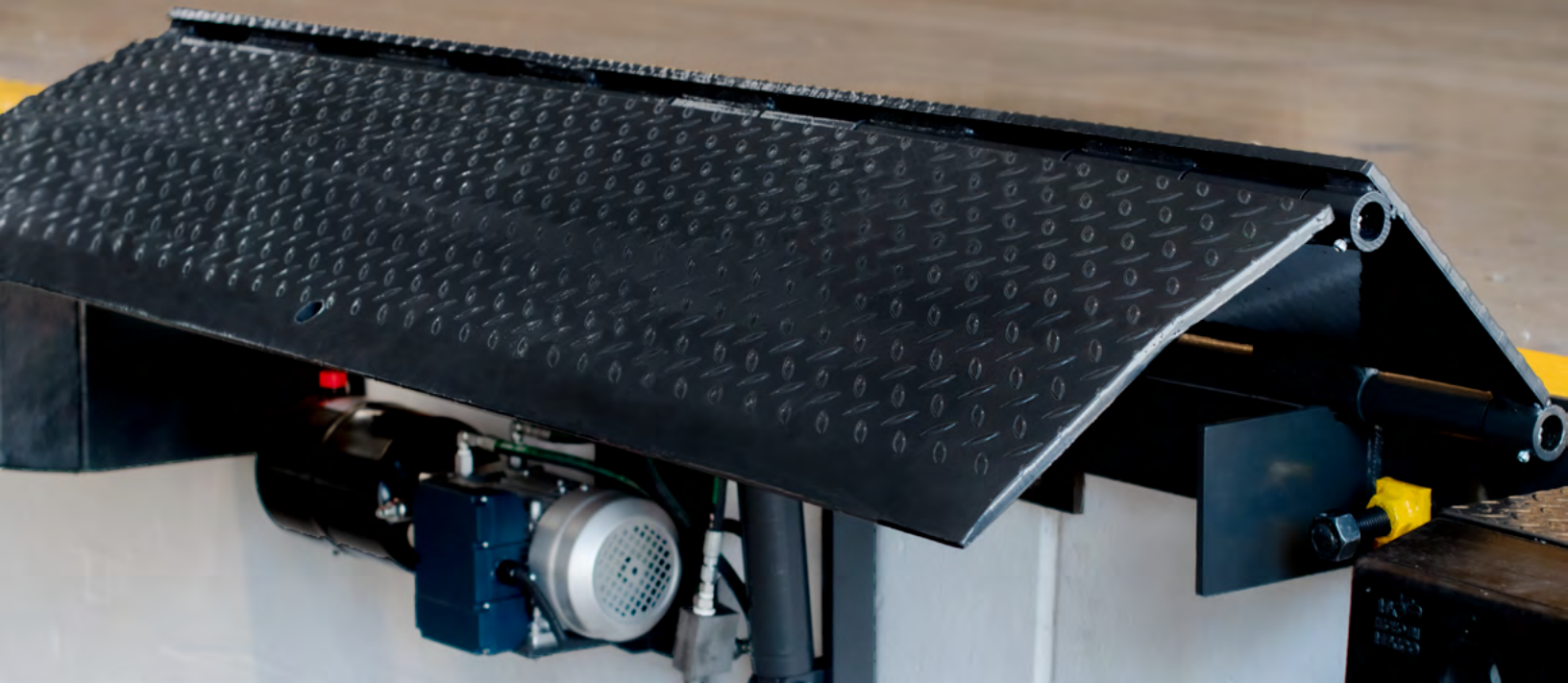


Lip

LIP IS A 36 CARBONO STEEL PLATE

30,000 LBS

3/4"



□ 2 bumpers included



- Dock bumpers, (x2 included), protect your building from impact, providing the minimum space required to activate the Brake Ramp TECNORAMPA®

Technical details

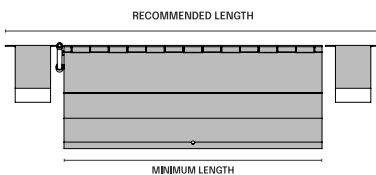
Nominal dimensions:
66" x 13.6" (1676.4mm x 345mm)

Leveling:
0 to +6" With respect to Platform level.

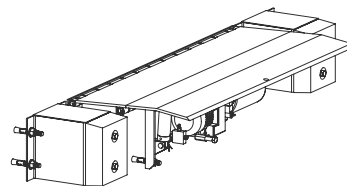
Standar Lip:
14-3/4"

Type:
Hydraulic.

Finish:
Lead Grey / Yellow



Top view



Pit isometric

installation

One-piece corner plate, minimum thickness should be 1/4", measuring 13" wide, and the face of the plate 10" wide.

TOTAL WARRANTY

Tecnorampa warrants by and for the sole benefit of the original purchaser of the manufactured Minidock that the Product will be free from defects in materials and workmanship.



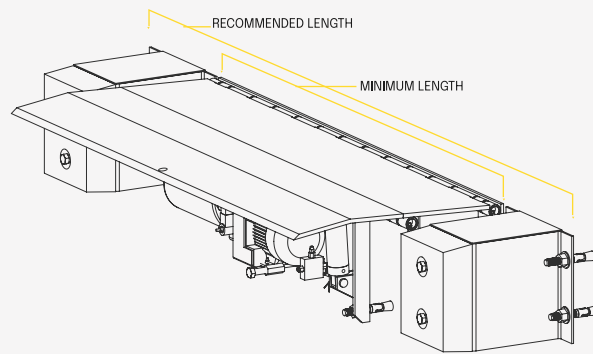
Installation requirements

TECHNICAL DETAILS

NOMINAL DIMENSIONS:
MINIMUM LENGTH:
68" (1727MM)

RECOMMENDED LENGTH:
101" (2565MM)

PIT MATERIAL:
CONCRETE WITH A STRENGTH OF 250KG/CM2 WITH AT
LEAST 15CM (6") THICK

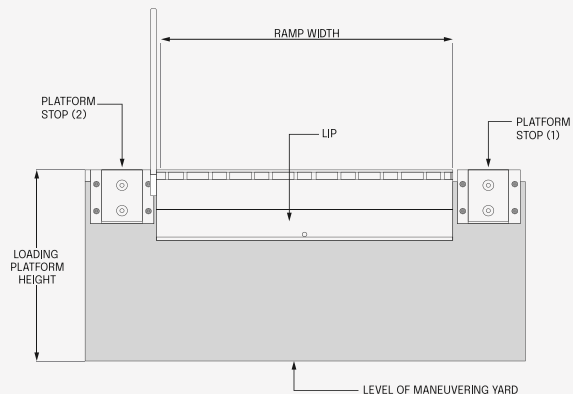


TECHNICAL DETAILS OF LEVELER

	MODEL OF MINIDOCK	
	MDH3066	MDH3072
RATED CAPACITY	30,000 LBS	30,000 LBS
RATED DIMENSIONS	66 IN	72 IN
PLATFORM DIMENSIONS	66" X 13.6" (1676.4MM X 345MM)	72" X 13.6" (1676.4MM X 345MM)
LEVELING	0 TO +12" WITH RESPECT TO PLATFORM LEVEL	+/- 12" WITH RESPECT TO PLATFORM LEVEL
STANDARD LIP	14-3/4"	14-3/4"
OPERATION SYSTEM	HYDRAULIC	HYDRAULIC
FINISH	LEAD GREY/YELLOW	LEAD GREY/YELLOW



ANGLE PLATE 13"x10"x1/4"
(MATERIAL NOT SUPPLIED BY
TECHNORAMP)



► Installation



WARNING

DO NOT INSTALL, OPERATE AND/OR REPAIR THIS LEVELER UNTIL YOU HAVE READ AND UNDERSTAND ALL SAFETY INFORMATION AND INSTRUCTIONS CONTAINED HEREIN AND ON THE LEVELER. DO NOT WORK UNDER OR AROUND THE LEVELER BEING INSTALLED WITHOUT FIRST PLACING ADEQUATE BARRIERS TO PREVENT VEHICULAR TRAFFIC FROM ENTERING THE WORK AREA. KEEP HANDS AND FEET AWAY FROM THE PLATFORM LEVELER ATTACHMENT POINTS.

► MECHANICAL INSTALLATION ON PLATFORM EDGE

- 1 Inspect the curb angle of the loading platform and verify that it is firmly embedded and anchored in the concrete. If there is no curb angle report it to the personnel in charge and do not proceed with the installation until the necessary modifications have been made.



WARNING

THE LEVELER MUST BE WELDED TO A STEEL ANGLE SECURELY. DO NOT ATTEMPT TO USE BOLTS OR ANCHORS ALONE TO SECURE THE SIDEWALK LEVELER TO THE CONCRETE. USE CARE WHEN REMOVING THE STRAPS SECURING THE LEVELER. KEEP HANDS AWAY FROM THE ATTACHMENT POINTS AND WEAR APPROPRIATE SAFETY CLOTHING: GOGGLES, GLOVES AND WORK BOOTS.

- 2 Remove the straps holding the leveler and discard all shipping material.



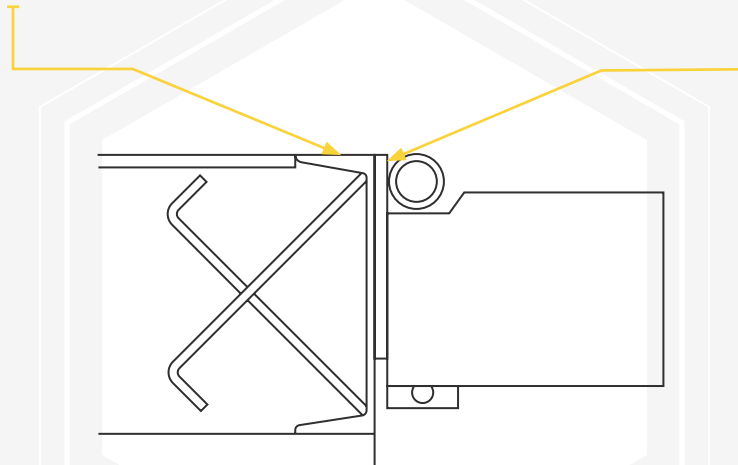
WARNING

USE CAUTION WHEN LIFTING OR MOVING THE LEVELER. DO NOT ATTEMPT TO LIFT WITHOUT PROPER LIFTING EQUIPMENT THAT IS CAPABLE OF LIFTING AT LEAST 600 POUNDS.

- 3 Position the rear frame so that the top of the frame is flush with the level of the top of the curb angle. Make sure the top of the frame is parallel to the top of the curb angle.

PLATFORM EDGE PROFILE

MINIDOCK BACK PLATE

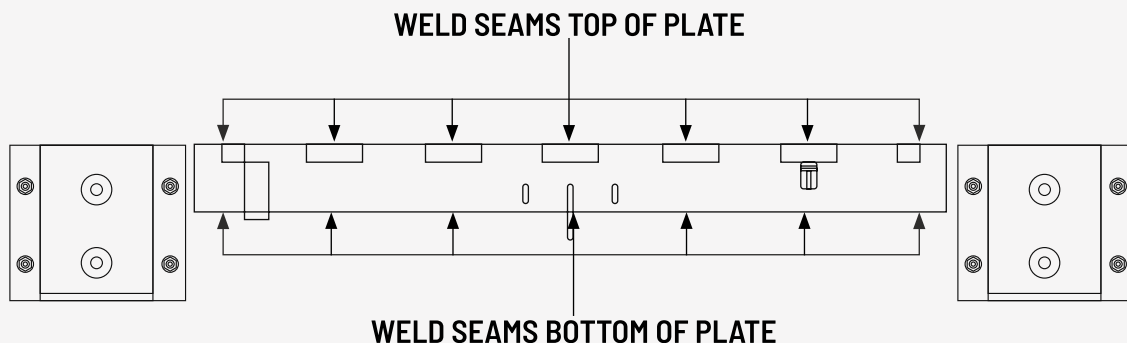


► Installation



- 4** Welding application to attach minidock.
- Tack weld the top of the rear frame securely to the curb angle.
 - Make sure the rear frame is firmly against the curb angle, and tack weld the bottom of the rear frame to the curb profile.
 - Finish welding the top of the back frame to the curb angle. Weld 1/4" x 4-1/2" (6mm x 115mm) long welds on both ends of the back frame. Repeat 1/4" welds on 10.25" (260mm) centers along the entire length of the rear frame.
 - Apply the same weld to the bottom of the rear frame at the curb angle. Weld 1/4" x 4-1/2" (6mm x 115mm) long welds at both ends of the bottom of the rear frame. Repeat 1/4" welds on 10.25" (260mm) centers along the entire length of the rear frame.
 - Vertical weld both ends of back frame to curb angle, complete length of vertical contact.

WELDING POINTS TOP SIDE OF PLATE
7018 SOLDER APPLIED WITH DIMENSIONS OF 1/4" X 4-1/2" WITH 10-1/4" CENTER-TO-CENTER SPACING.
WELDING POINTS BOTTOM SIDE OF PLATE
7018 SOLDER APPLIED WITH DIMENSIONS OF 1/4" X 4-1/2" WITH 10-1/4" CENTER-TO-CENTER SPACING.
EXTERNAL PLATE WELDING POINTS
7018 SOLDER APPLIED WITH 1/4" DIMENSIONS OVER THE ENTIRE VERTICAL CONTACT LENGTH



- 5** Placement of sockets and/or weld on bumpers once back plate weld attachment is complete.
- Position the left stop bracket (on the driveway in front of the dock leveler) so that there is a 1" (25 mm) clearance between the side of the bracket and the deck plate, and the bracket is level with the top of the curb angle. Weld all horizontal and vertical contact areas between the bracket and the curb angle and plug the mounting holes that overlap the curb angle with weld. Install 3/4" X 4-3/4" cleat anchors in the concrete in the mounting holes that are not welded.
 - Position the right stop bracket so that there is a 1" (25 mm) clearance between the bracket and the dock leveler cover plate. Weld all horizontal and vertical contact areas between bracket, curb angle and mounting holes. Install 3/4" X 4-3/4" concrete cleat anchors in the mounting holes that are not welded.

- 6** Then proceed to assemble the Hydraulic Unit on the corresponding support using the screws specified in box D of the table above and proceed to make the hydraulic connection of the equipment.
- 7** Once the previous step has been completed, proceed with the installation of the electrical and control part of the equipment.
- 8** Installation survey.
- Clean the entire work area and apply touch-up paint where required.
 - Ensure that all concrete anchors have been secured.
- 9** Try operating the unit through several complete cycles of operation.
- Refer to: OPERATING PROCEDURE. If problems are observed, refer to section HYDRAULIC MINIDOCK SETTINGS.

Form of operation



WARNING

DO NOT OPERATE THIS LEVELER UNTIL YOU HAVE CHECKED ITS CONDITION. REPORT THE NEED FOR MINIDOCK REPAIRS TO YOUR SUPERVISOR IMMEDIATELY AND DO NOT OPERATE THE LEVELER UNTIL REPAIRS ARE MADE. PREVENTION CAN CAUSE A MINOR REPAIR AND AVOID BECOMING A MAJOR SERVICE PROBLEM AND MAKING THE LEVELER UNSAFE.

BEFORE OPERATING THE PLATFORM LEVELER, ALWAYS IMMOBILIZE THE TRUCK WITH A WHEEL RESTRAINT OR WHEEL CHOCKS.

DO NOT OPERATE THE PLATFORM LEVELER IF ANYONE IS STANDING ON OR IN FRONT OF IT.

DO NOT MANUALLY RAISE THE LIP OF THE LEVELER.

ALWAYS KEEP HANDS AND FEET AWAY FROM MOVING PARTS.

AFTER SERVICING THE TRUCK, ALWAYS RETURN THE LEVELER TO THE SAFE POSITION ON THE PLATFORM LEVEL, WITH THE LIP HELD IN THE APPROPRIATE LOCKS.

DO NOT DRIVE OVER THE LEVELER UNLESS THE LIP IS FIRMLY IN CONTACT ON THE VEHICLE BED AND HAS A MINIMUM PROJECTION OF 4" (100 MM) ON THE VEHICLE BED.

DO NOT OPERATE THE LEVELER ABOVE ITS RATED CAPACITY.

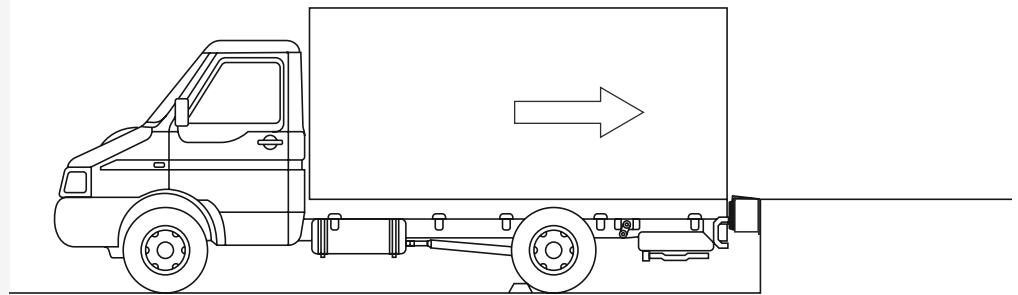
DO NOT EXCEED 3 MPH (4.8 KM/H) WHEN DRIVING ON THE LEVELER.

DO NOT DRIVE OVER THE EDGES OF THE LEVELER AND/OR THE PLATFORM BUMPERS (BUMPERS ARE NOT STRUCTURAL).

▫ LEVELER LIFTING

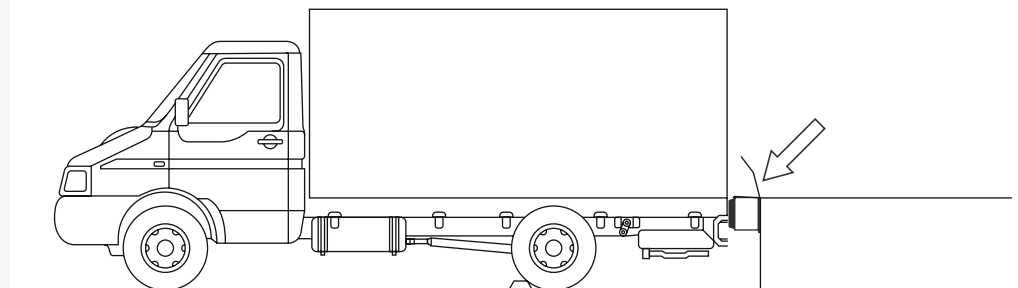
1.

The vehicle driver reverses the vehicle into position firmly against the platform stop extensions.



2.

The minidock operator presses the start button on the control box. The deck plate cylinder is activated and rotates the deck plate to a vertical position while the lip plate is held in a horizontal position. When the deck plate cylinder has completed its stroke the second cylinder is activated which brings the lip plate to a vertical position.



WARNING

DO NOT ATTEMPT TO OPERATE THE MINIDOCK WITHOUT USING THE GRAB HANDLE.

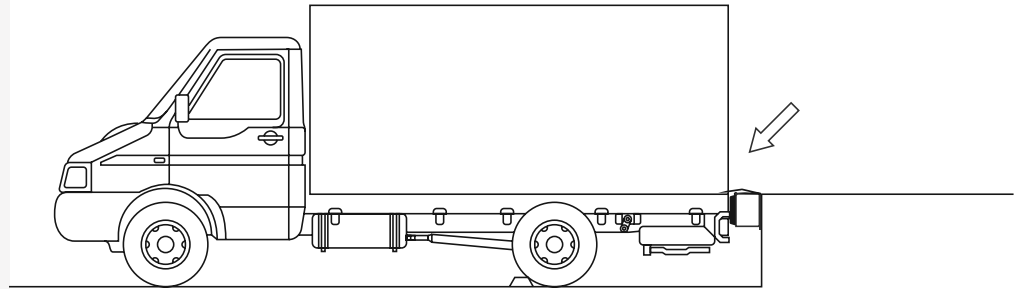
THE LIP PLATE SHOULD OVERLAP THE CONVEYOR VEHICLE AND LOAD CARRIER BY A MINIMUM OF 4" FULL WIDTH.

Form of operation



3.

Then, both plates are lowered until the lip plate is in full contact with the loading vehicle, the loading/unloading operation can be completed.



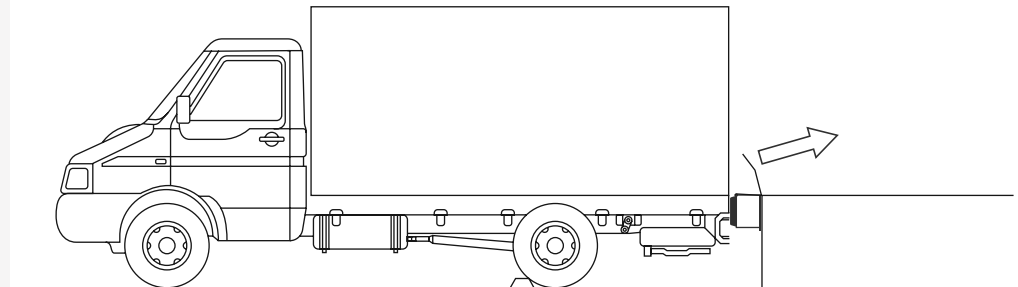
WARNING

THE VEHICLE SHOULD NEVER BE ALLOWED TO LEAVE WITH THE LIP PLATE RESTING ON THE CARGO BED.

▶ PLACE LEVELER IN THE REST POSITION

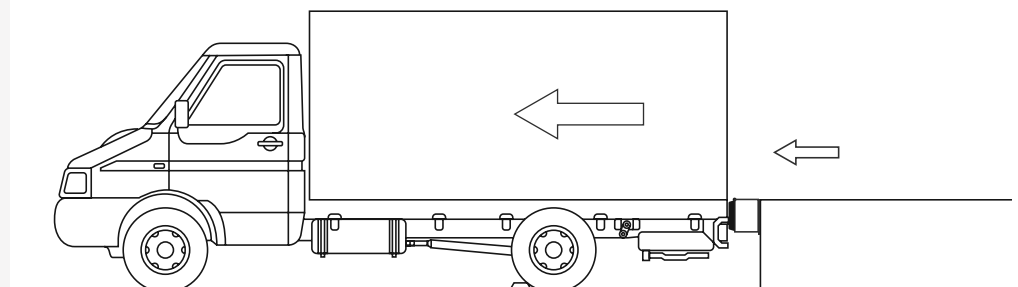
1.

When traffic through the dock leveler has ceased the operator should return the leveler to its stored position. The operator presses the start button just long enough for the lip to lift off the loading vehicle platform and drop to an upright hanging position. When this happens the button is released and the minidock will return to its stowed position.



2.

The cargo vehicle can then leave the platform.



Equipment maintenance manual



DANGER

Before installation/maintenance/adjustment, place suitable barriers to prevent unauthorized personnel and vehicle traffic from entering the work area.



DANGER

Before carrying out any adjustment work, place the maintenance baton in position.



WARNING

All repairs and maintenance work must be performed only by trained and authorized personnel.

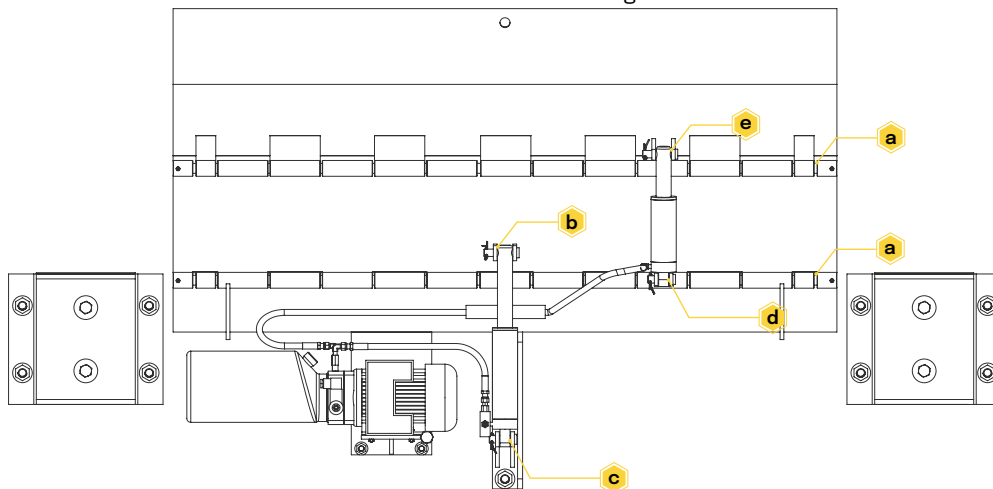
▫ PREVENTIVE MAINTENANCE

Every 10 days of operation check the following points:

- ▶ Check for debris on the lip hinge. Clean as necessary.
- ▶ Check for debris in the rear hinge area of the minidock to ensure proper operation. Clean as necessary.
- ▶ Check that the bolts have their cotter pins or slotted pins in place. Do not operate the minidock if any of the bolts are not secured. Replace them if necessary.
- ▶ Check that the walk stops are present.

Every three months or every 250 hours of operation:

- ▶ Check all minidock for proper operation.
- ▶ Inspect the following items for damage/abnormal w
 - Check welding for flaws or fatigue. Pay special attention to hinges, clevises and the minidock back plate attached to the platform.
 - Lip and platform hinge bolts.
 - Inspect spring plates and hinged cane base for bending or bumping.
 - Inspect the latch bar for bent or banged out.
- ▶ Check all warning labels and signs. Replace as necessary.
- ▶ Check the platform stops. If they are worn or missing replace them.
- ▶ Lubricate the following areas:
 - a. Platform hinge and lip area (apply oil to the entire length of the platform hinge and lip).
 - b. Latch rod bolt area.
 - c. Spring plate bolts.
 - d. Tension rod connection with spring plates.
 - e. Hinge mechanism bolts.



▫ PREVENTIVE MAINTENANCE

Semi-Annual Maintenance

- ▶ Complete quarterly maintenance.
- ▶ Re-tighten hydraulic system connections.
- ▶ Clean hydraulic cylinders and reservoir for fluid evaporation.

Annual Maintenance

Complete quarterly and semi-annual maintenance. Check the fluid level in the reservoir tank:

1. Turn off all electrical power to the dock leveler.
2. Remove the breather cap from the reservoir tank.
3. Measure the level of the fluid.
4. Add hydraulic fluid if necessary. Use only the recommended hydraulic fluid (ISO 68).
5. Replace the reservoir tank breather cap.
6. Turn on the power supply of the minidock.

▫ Hydraulic Minidock settings



WARNING

DO NOT ATTEMPT TO PERFORM INSTALLATION, REPAIR, MAINTENANCE OR ADJUSTMENT WORK. SUCH WORK SHOULD BE CARRIED OUT ONLY BY TRAINED AND AUTHORIZED PERSONNEL. CONTACT YOUR LOCAL DISTRIBUTOR FOR ASSISTANCE.

▫ DECREASING THE RATE OF ASCENT AND DESCENT OF PLATE AND PLATFORM LIP

Decreasing platform plate lowering speed

- ▶ Using an appropriate Allen wrench, turn the valve clockwise.
- ▶ Make 1/4" turn adjustments and check operation each time until the desired rate of descent is obtained.

Increased platform plate lowering speed

- ▶ Using an appropriate Allen wrench, turn the valve counterclockwise.
- ▶ Make 1/4" turn adjustments and check operation each time until the desired rate of descent is obtained.

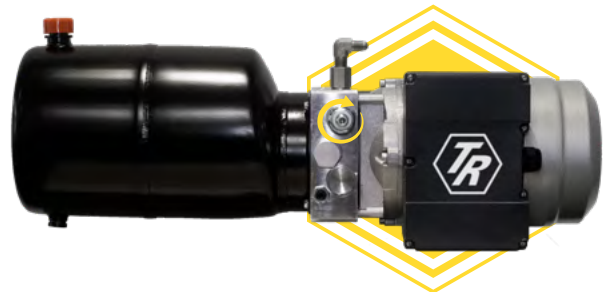


Decrease in lip lowering speed

- ▶ Using an appropriate Allen wrench, turn the valve clockwise.
- ▶ Make 1/4" turn adjustments and check operation each time until the desired rate of descent is obtained.

Increased lip lowering speed

- ▶ Using an appropriate Allen wrench, turn the valve counterclockwise.
- ▶ Make 1/2" turn adjustments and check operation each time until the desired lowering speed is obtained.



IMPORTANT

ADJUST THE NEEDLE VALVE POSITION ONLY AS LITTLE AS NECESSARY, TURNING THE VALVE TOO MUCH CAN CAUSE HYDRAULIC OIL LEAKAGE THROUGH THE NEEDLE VALVE. ADJUST THE NEEDLE VALVE POSITION ONLY AS LITTLE AS NECESSARY, TURNING THE VALVE TOO MUCH MAY CAUSE DIFFICULTIES IN LOWERING THE LIP.

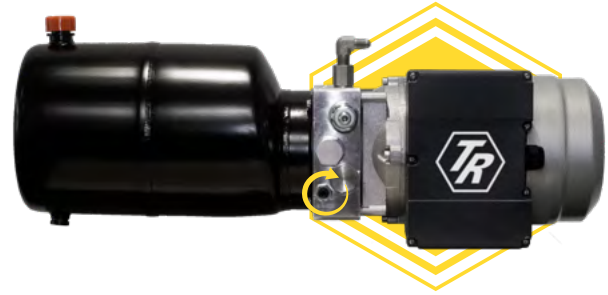
▫ DECREASING THE RATE OF ASCENT AND DESCENT OF PLATE AND PLATFORM LIP

Increased lip unfolding speed

- ▶ Using an appropriate Allen wrench, turn the valve clockwise.
- ▶ Make 1/4" turn adjustments and check operation each time until the desired rate of descent is obtained.

Decreased lip unfolding speed

- ▶ Using an appropriate Allen wrench, turn the valve counterclockwise.
- ▶ Make 1/4" turn adjustments and check operation each time until the desired speed is obtained.



IMPORTANT

THIS VALVE IS PRESET AT THE FACTORY TO THE OPTIMUM LEVEL TO ALLOW FOR PROPER RAMP OPERATION. DO NOT ATTEMPT TO MAKE ADJUSTMENTS UNLESS YOU FULLY UNDERSTAND THE OPERATION OF THE RAMP'S HYDRAULIC SYSTEM, FAILURE TO DO SO MAY CAUSE PROBLEMS WITH THE RAMP'S OPERATING CYCLE.

Hydraulic unit

This platform leveler power unit raises the ramp when the motor is activated, when the ramp has reached the maximum extension level, the sequence changes to extend the lip. The ramp and lip are lowered by separate solenoid valves during lowering.

Both ramp and lip lowering are controlled by a needle valve. The needle valves are adjustable to achieve the desired lowering speed of each function.

AW type lubricants recommended for mobile equipment where a fluid with hydraulic characteristics is required to help power transmission.

▫ ADVANTAGES

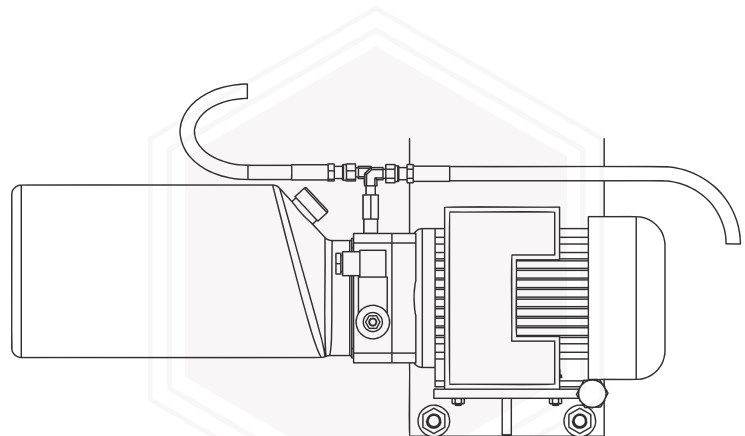
- ▶ Excellent thermal and oxidation stability providing long equipment life.
- ▶ Prolonged performance that maintains operation in heavy duty hydraulic systems operating at high pressures, temperatures and speeds.
- ▶ Excellent dimulsibility.



The power unit is of S3 service, which can only be operated intermittently, that is, 1 minute on and 9 minutes off.



Clean all affected hydraulic components before installation of the power unit.

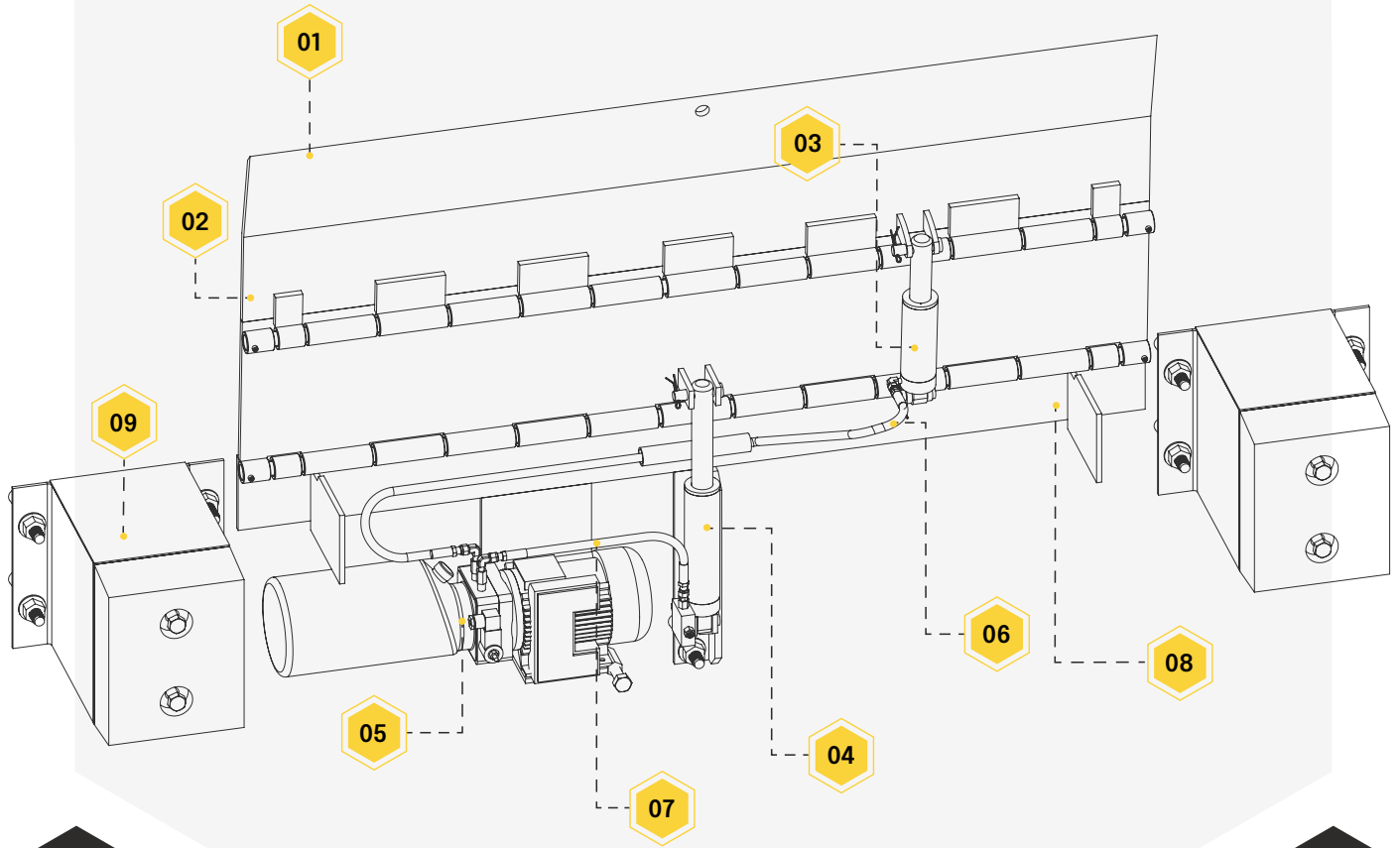


The viscosity of hydraulic oil should be 15 - 46 cst, which should also be clean and free of impurities, ISO 68 hydraulic oil is recommended.



Check the oil level in the tank after initial operation of the power unit.

Inventory of parts



NO.	DESCRIPTION
01-	Lip
02-	Platform plate
03-	lip cylinder
04-	Platform plate cylinder
05-	Hydraulic unit
06-	Lip cylinder hose
07-	Platform Plate Cylinder Hose
08-	Back plate
09-	Platform stop for minidock

TecnoRampa[™]



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