### **SECTION 1**

# INSTALLATION INSTRUCTIONS RECEIVING AND HANDLING

RECEIVING:



### WARNING

WARNING! Use caution when unbanding the EOD Leveler. Keep hands clear of pinch points and wear appropriate safety attire - Glasses, Gloves, and Work Boots.

Check for possible damage or missing parts immediately upon receipt of unit. Note any damage on receiving papers.

Prepare any claims against carrier if necessary.

NOTE: Damage noticed after receipt must be reported to carrier within 15 days.

HANDLING:



### WARNING

WARNING! Use caution when lifting or moving the EOD Leveler. DO NOT ATTEMPT to lift without suitable hoisting equipment capable of lifting as much as 600 lbs.

Unit is easily handled for installation by hooking a heavy chain to each buttonhead rivet.

# INSTALLATION INSTRUCTIONS INSTALLATION

GENERAL INFORMATION:



### WARNING

DO NOT EXCEED DOCK LEVELER CAPACITY. OVER LOADING DOCK LEVELER COULD RESULT IN SERIOUS INJURY OR DEATH.

Top of Dock Levelers are designed to service trailers 10" above to 4" below dock level.

Prior to installation, clean the dock face and dock area.

All prepunched holes are 13/16" diameter. Use 4" to 6" x 3/4" anchor bolts.



WARNING: Before you start to install the leveler, use proper safety signs and barriers to separate the work area from the remainder of the dock.



- 1. Remove all existing bumper materials and obstructions from dock edge and sweep clean.
- 2. Place unit at desired location on dock surface with base plate o funit tight against dock face. Remove shipping bands from hydraulic cylinder and mounting bracket. Place bracket on anchor bolts and tighten nuts in place. (Do not attach cylinder).
- 3. Anchoring: use 13/16" holes in leveler asguides for drilling holes in concrete. Use 5/8" x 5" (min.) anchors.
  - 1. Extend lip forward and support safely with timber brace or other secure means.
  - 2. Drill and anchor two outside holes in base plate and draw unit tight to dock.
  - 3. Proceed to rear of unit and anchor all six bolts.
  - 4. Next, anchor side brackets.
  - 5. Complete anchoring base plate either by continuous welding to dock edge steel, or bolting all six holes.
  - 6. Set bump blocks in place on each side of unit and secure by welding to dock edge steel and bolting to dock if steel is less than 6" channel or angle. Anchors at rear must be welded to deck plate, cut off, and ground down to no more than 1/4" above deck surface. Tack weld all hex nuts to leveler and bumpers.

- 4. Install cylinder (hose entrance at bottom) on lower mounting tab then connect to lop tab. Lock clevis in place with keys. Connect free end of hydraulic hose to pump fitting. Check fluid level to insure reservoir is full replace plug cap with vent cap supplied with unit.
- 5. Connect electrical according to prevailing codes. Standard motor: 1 h 1ph can be wired for 110 or 220 volts.
- 6. Check operation to insure unit works correctly. Unit should raise and lip will extend and lock in postion. When unit settles to floor of trailer lip lock will disengage. Unitmay be recycled with truck in place by raising unit until lip edge clears the rear of trailer then releasing switch.

## **MARNING**

All anchor bolts must be installed in accordance with the manufacturer's instruction. Improper installaliation may result in seroius personal injury or death.

DO NOT install anchor bolts in cracks of espansion joints in concrete. Installation in cracks or expansion joints may cause the anchors to come loose and pull out. Use of improperly installed anchor bolts may result in seroius personal injury and/or death.

### NOTE:

All anchor bolts lengths must suit local codes and conditions. Type and depth of concrete will determine type and length of anchor bolts required.

### **SECTION 1**

# INSTALLATION INSTRUCTIONS INSTALLATION

331/4"

611/2"

151/2"

123/4"

Side View - HTD Series

Units are shipped filled with aircraft hydraulic fluid. Check fluid level upon installation.

**IMPORTANT!** Replace plug cap with breather cap provided. DAMAGE COULD OCCUR!

### **SECTION 1**

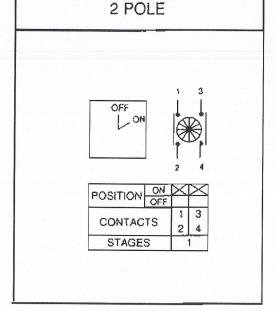
# INSTALLATION INSTRUCTIONS ELECTRIC

Motor may be wired for 120V/1 phase, 240V, 1 phase or 208/240/460V 3 phase. (Please specify when ordering.)

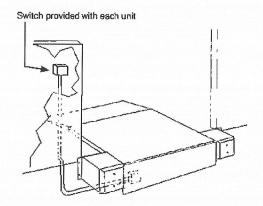
N.E.M.A. approved switch shipped with each unit.

Install conduit and wiring as per electrical schematic instructions.

Conduit may be run externally for existing construction installation.



Note: Diagram represents Single Phase ONLY



### SECTION 1 TEST OPERATION

Test operate unit:

Insure breather cap is in place of plug in reservoir.

Depress button (or turn switch) to raise unit. As unit raises, lip will extend. When lip extends, release button (switch). Unit will lower to truck bed. IF A VEHICLE IS NOT PRESENT, RESET LEVELER BY MANUALLY LIFTING LIP.

ENSURE UNIT RESTS ON SUPPORT GUSSETS IN STORED POSITION. NO WEIGHT SHOULD BE RESTING ON HYDRAULIC CYLINDER SHAFT.

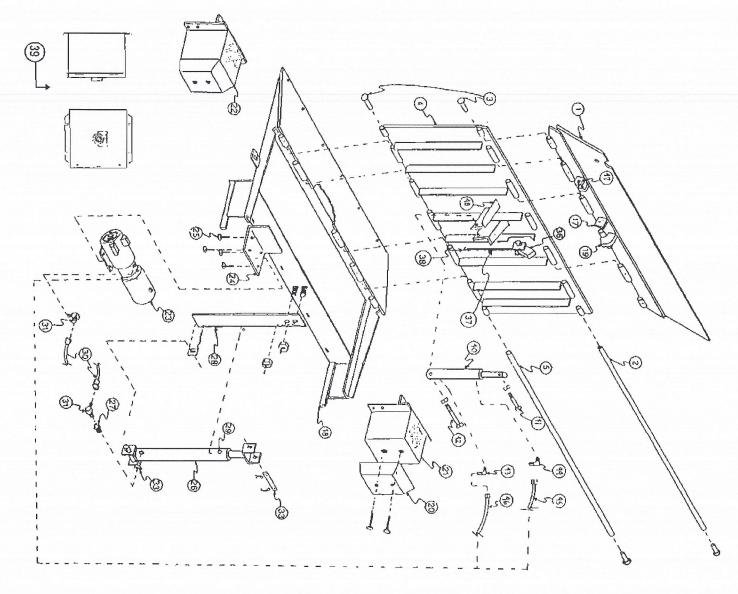
Section 2	MAINTENANCE
WEEKLY MAINTENANCE	Check unit for leaks.
CAUTION: ALWAYS BRACE LEVELER SECURELY	Check unit for physical damageCracks in tubes and welds
AND SAFELY WHEN MAINTENANCE IS REQUIRED.	Check installation
MONTHLY MAINTENANCE	Check fluid levels
YEARLY MAINTENANCE	Lubricate hinges and all other moving parts.
	Check rubber bumpers.
5 YEAR MAINTENANCE	Replace hydraulic fluid.
	HYDRAULIC FLUID: Use aircraft fluid or Dextron III for normal operation.
	For extremely cold regions fluid can be replaced by an arctic grade (or aircraft) hydraulic fluid. Check local distributors for availability.
WARNING	
WARNING! DO NOT allow lip and ramp to fall free. Allowing dock leveler to fall free could result in dock leveler coming free from dock or damaging tabs resulting in property damage, serious injuryand/or death.	

# HTD Series Hydraulic Top-Of-Dock

23 9408 N 23 9225 N 24 243 N	22 2159 22 310 22 397	21 2159D 21 309 21 899		18 311 19 1053 20 9243		ω 4 4	2 1	illus# p
		2159D 309 899	137	31 10 92	(1)			
			5   1	8 8   3	189	378 379	375 189	Part#
Motor Pump & Resv  1 hp, 1 ph (3/4 hp)  Motor Pump & Resv  1 hp, 3 ph (3/4 hp)  Motor Mounting Plate	10" Bump Block Assy. (2 hole) 12" Bump Block Assy. (4 hole) 18" Bump Block Assy.	Bump Block Steel w/ Cover (2 hole)  Bump Block Steel w/ Cover (4 hole)  18" Bump Block Steel w/ Cover		Lip Stop Bar Lip Lock Stop  Molded Cord Bumper - (2 hole)	Deck Hinge Pin Lip Tab	Rivet ( 4 ea req)  Deck Plate Assy. (HTD72)  Deck Plate Assy. (HTD72H)	Lip Plate Assy. (HTD72H) Lip Hinge Pin	Part Description Lip Plate Assy. (HTD72)

Illus#	Part#	Part Description
26	281	Hydraulic Cylinder - Deck
27	285	Reducer Fitting
28	280	Cylinder Mounting Assy.
29	282	Breather Fitting
30	283	Hydraulic Hose - Deck Cylinder
31	284	Elbow Fitting
జ	A51	Deck Cylinder Mounting Pins (set of
34	288	Deck Chain Assy. (2 req) (old style)
36	1151	Lip Lock Assy. (w/Pin & Keys)
37	A17	Lip Lock Spring
38	A13	"S" Hook
39	* * * *	Control Box
40	9231	Lip Cylinder
4 4 1	2183	Lip Cylinder Upper Mounting Bolt
		(3/8" × 3 1/4")
42	2184	Lip Cylinder Lower Mounting Bolt
		(3/8" x 4 5/8")
43	9227	Lip Cylinder Lower Elbow Fitting
		(Pressure Side)
4	9267	Lip Cylinder Upper Elbow Fitting
		(Return Line)
45	9357	Lip Cylinder Return Line (Clear)
46	546	Lip Cylinder Hose
47	245	Lip Cylinder Mounting Tab (2 req)
48	244	Lip Cylinder Mounting Angle (2 req)

# HTD Hydraulic Top-Of-Dock Exploded View



Section 3	OPERATING INSTRUCTIONS
Step 1	With leveler in stored position, back truck into position against the bumpers.
	CAUTION: ALWAYS CHOCK TRUCK WHEELS AND ENGAGE TRAILER RESTRAINT BEFORE LOADING AND UNLOADING.
Step 2	Remove end load, if any, from truck with leveler in stored position.
Step 3	Raise leveler by applying pressure to (turning) the wall mounted switch.
	Release button (switch) when both sections of leveler are fully raised. Unit will automatically lower to truck floor.
	When truck departs, unit will return to stored position.
Step 4	Unit may be recycled with truck in position against the bumpers.
	<ol> <li>Apply pressure to (turn) the wall switch. Center plate section of unit will raise off the truck floor.</li> </ol>
	<ol> <li>Release the button (switch) as soon as the leading edge of the lip plate section clears the rear edge of the truck. The unit will tuck itself and return to the stored position.</li> </ol>

Section 4	TROUBLESHOOTING
Lip not returning to stored position	1. Check for debris, lubricate if needed.
	2. Visually check lip cylinder for damage.
Unit not descending.	Check pullover chain/spring to ensure they are connected.
	2. Shuttle valve not properly adjusted.
Unit descending too slowly or quickly.	Adjust descend valve     clockwise slows descent     counter clockwise accelerates descent
Unit not raising (motor running)	<ol> <li>Visual check of hydraulic fluid tank. Should be 1/2 to 3/4 full.</li> <li>Viscosity of fluid has failed.</li> </ol>
	Change to an arctic temperature type to prevent motor/ pump burnout.
	3. Consult factory.
Unit not raising (motor not running)	Check electrical hook up - voltage, phase, and wiring.
	2. Motor/pump damaged - requires replacement.