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**SECTION 111319
STATIONARY LOADING DOCK EQUIPMENT
HYDRAULIC DOCK LEVELER**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Recessed loading dock levelers.

1.02 RELATED REQUIREMENTS

- A. Section 031000 - Concrete Forming and Accessories: Placement of leveler frame << **and safety lock frame; or None - N/A**>> into concrete << **loading dock; or _____**>>.
- B. Section 031000 - Concrete Forming and Accessories: Placement of seal and shelter frame into concrete.
- C. Section 033000 - Cast-in-Place Concrete.
- D. Section 055000 - Metal Fabrications.
- E. Section 111313 - Loading Dock Bumpers.
- F. Section 111316 - Loading Dock Seals and Shelters.

1.03 REFERENCE STANDARDS

- A. ANSI MH30.1 - Design, Testing, and Utilization of Dock Leveling Devices; 2022.
- B. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2025.
- C. UL 508A - Industrial Control Panels; Current Edition, Including All Revisions.

1.04 SUBMITTALS

- A. Product Data: Provide materials and finishes, installation details, roughing-in measurements, and operation of unit.
- B. Shop Drawings: Indicate required opening dimensions, tolerances, and perimeter conditions of construction.
- C. Shop Drawings: Indicate framed wall opening, dimensions and tolerances, adjacent construction, and fittings required for anchorages and anchor points.
- D. Manufacturer's Instructions: Indicate special requirements.
- E. Manufacturer's qualification statement.
- F. Installer's qualification statement.
- G. Operation Data: Provide operating instructions and identify unit limitations.
- H. Maintenance Data: Provide unit maintenance information, lubrication cycles, and spare parts manual.
- I. Specimen warranty.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least << **one; or _____**>> year of << **documented; or None - N/A**>> experience.

- B. Installer Qualifications: Company specializing in performing work of type specified and with at least << **one**; or _____>> year of<< **documented**; or **None - N/A**>> experience<< **and approved by manufacturer**; or **None - N/A**>>.

1.06 FIELD CONDITIONS

- A. Existing Conditions: Field-verify dimensions of construction related to stationary loading dock equipment prior to fabrication, including << **recessed pit dimensions**; **slope of inclined dock approach**; **dock height**; and _____>>.

1.07 WARRANTY

- A. Manufacturer Warranty: Provide << **1-year**; or ____>> manufacturer warranty for defective work from Date of Installation. 5-year hydraulic warranty on hydraulic power unit, cylinders, pressure lines and fittings. 5-year structural warranty on deck, lip, rear hinge, and front hinge. Complete forms in <<**Owner**>>'s name and register with manufacturer.
- B. Special Limited Warranty: If an Overhead Door™ Commercial Door and a leveler are purchased and installed together in the same opening this warranty shall be extended for an additional 12 months (excluding the hydraulic power unit, cylinders, pressure lines, fittings, deck, lip, rear hinge, and front hinge). Complete forms in <<**Owner**>>'s name and register with warrantor.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Overhead Door Corporation; www.overheaddoor.com; 1 (800) 929-3667.
- B. Substitutions: Not permitted.

2.02 RECESSED LOADING DOCK LEVELERS (PIT LEVELERS)

- A. Overhead Door Brand; Hydraulic Dock Leveler, Model << **H68R**; **H78R** >>.
1. Provide manufacturer's standard loading dock levelers, complying with <<**ANSI MH30.1**>>, and of capacity, size, and construction indicated. Provide nonslip steel platform with complete controls, safety devices, and required accessories.
 - a. Recessed Concrete Pit: Provide << **preformed**; or _____>> concrete pit sized to fit dimensions of specified loading dock levelers.
 - 1) Reinforce concrete slab as required to support dock leveler.
 - 2) See Section 033000 for additional cast concrete requirements.
 2. Automatic Vertical Compensation: Floating travel of dock leveler ramp edge extended to automatically compensate for upward and downward movement of truck bed during loading and unloading operations.
 3. Automatic Lateral Compensation: Tilting of dock leveler ramp edge extended and resting on truck bed to automatically compensate for canted truck bed up to << **4 inches (102 mm)**>> over width of ramp.
 4. Lip Operation: Manufacturer's standard mechanism that automatically extends and supports hinged ramp edge and rests on truck bed over dock leveler's working range, allows ramp edge to yield under incoming truck impact, and automatically retracts ramp edge when truck departs.
 - a. Adjustable Lip Extension: << **16 inches (406 mm)**; **18 inches (457 mm)**; **20 inches (508 mm)**; or _____ inches (_____ mm)>> long.
 - b. Lip Taper: << **7 by 8 feet (2.13 by 2.44 m)**>> only.
 - c. Hinged Ramp Lip: Nonskid steel plate.
 - 1) Lip Hinge: Provide self-cleaning lug hinges to avoid debris trapped in hinge and replaceable hinge pin for maintenance without breaking welds or grinding of metal.
 - d. Lip Keepers: Adjust for off-spec pits to accommodate << **18-inch (457 mm)**; **20-inch (508 mm)**; or _____-inch (_____ mm)>> lips. Provide cross-traffic support and off-hour security.

5. Hydraulic Operating System: Electronically controlled, with 1 hp, frame-mounted << **single; three; or _____**>> phase motor; NEMA 4X push-button-control operated raising and gravity lowering of unloaded ramp.
 - a. Power Voltage: << **120/240 VAC single phase; 240/480 VAC three phase; or _____**>>.
 - b. Ramp raised to top operating range limit by push-button control; ramp lowered below building floor level by gravity.
 - 1) Hydraulic Failsafe: Velocity fuse automatically engages in event of sudden truck departure; maximum fall of << **3 inches (76 mm)**>> when loaded up to full rated capacity.
 - 2) Provide petroleum-based hydraulic fluid; aircraft grade; MIL-L-5606.
 - 3) Motor overload protection in accordance with <<**UL 508A**>> requirements.
6. Construction: Fabricate loading dock leveler frame, edge, and platform supports from structural and formed C-channel shapes, with platform and continuously supported hinged edge welded to supports; chamfer edge to minimize obstructing material-handling vehicles, and ensure entire assembly fabricated to withstand deformation during operation and storage phases of service.
 - a. Platform Thickness: << **1/4 inch (6.35 mm)**>>.
 - b. Lip Thickness: << **5/8 inch (15.8 mm); 3/4 inch (19 mm); or _____ inch (_____ mm)**>>.
 - c. Forklift Protection: << **Three wheel; or _____**>>.
 - d. Toe Guards: << **Full range in safety yellow; or _____**>>.
7. Ramp Traffic Support: Provide support for ramp at platform level in stored position to support cross-dock traffic with ramp edge retracted. Provide ability to descend below platform level.
8. Ramp Maintenance Support: Provide safety brace mechanism in framework of lift, not within lip, to support ramp in UP position during dock leveler maintenance.
 - a. Rated Capacity: Capable of supporting << **30,000 lb. (13608 kg); 35,000 lb. (13063 kg); 40,000 lb. (18144 kg); 45,000 lb. (20412 kg); or _____ lb. (_____ kg)**>> without permanent deflection or distortion.
9. Platform Size: << **6 by 8 feet (1.83 by 2.44 m); 7 by 8 feet (2.13 by 2.44 m); or _____ by _____ feet (_____ by _____ m)**>>, nominal.
10. Range of Operation: Dock levelers to compensate for height differences between truck bed and loading platform, as follows: << **12 inches (305 mm)**>> above dock level and << **12 inches (305 mm)**>> below dock level.
11. Lip Extension Length: << **16 inches (406 mm); 18 inches (457 mm); 20 inches (508 mm); or _____ inches (_____ mm)**>> long.
12. Smooth Path: Beveled edge-of-lip ramp transition, edge-to-deck transition, and floor-to-deck transition to minimize jolts to equipment and workers.
13. Platform Deck: Steel checker plate deck for traction, reinforced on underside, welded to fabricated steel frame.
14. Frame: Clean-pit type, with no dirt traps from cross-pit beams in rear of pit; dock leveler supports at sides of pit, including full front-to-rear openness for cleaning.
15. Hinged Ramp Lip: Nonskid steel plate.
 - a. Lip Hinge: Provide self-cleaning lug hinges to avoid debris trapped in hinge and replaceable hinge pin for maintenance without breaking welds or grinding of metal.

16. Finish: Textured powder coat to increase durability of finish and slip resistance, and to reduce corrosion and VOCs.
17. Leveler Adjustment: Height adjusters operate above leveler deck to adjust plus or minus << **1.25 inches (32 mm)**>> without shims or welding equipment.
18. Transport Loops: Four lifting loops for top transport of leveler by forklift.
19. Bumpers: << **Standard 410-14; or _____**>>.
20. Weather Seals: << **Brush; Neoprene; or _____**>>.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify << **existing conditions; and _____**>> meet manufacturer's requirements before starting work.
- B. Examine loading dock equipment area for compliance with requirements for installation tolerances and other conditions related to this work.
- C. Examine walls and floors of loading dock equipment concrete pits for suitable conditions, and verify pits are plumb and square and properly sloped back to front of loading dock for drainage.
- D. Verify rough-in wall opening and anchors are acceptable, correctly sized, and aligned to proper tolerances.
- E. Verify frames installed in concrete and masonry are correctly located.
- F. Proceed with installation after unsatisfactory conditions corrected.

3.02 PREPARATION

- A. Prepare loading dock equipment for size and locations as indicated and provide anchoring devices with templates, diagrams, and installation instructions.
- B. Prepare metal curb angles along concrete edges of recessed pits with top flush with loading platform and fit exposed ends together to form smooth hairline joints.

3.03 INSTALLATION

- A. Install loading dock leveler unit in prepared opening in accordance with manufacturer's written instructions.
 1. Set square and level.
 2. Anchor unit securely, flush with building floor, and fillet-weld back of leveling dock to pit frame; touch up with paint.
 3. Position pit levelers above or below dock height, inclusive of end loading with lip pendant.
- B. Install edge-of-dock levelers to ensure arrangement adequate to accommodate lift in proper relation to loading platform.
 1. Anchor or weld edge-of-dock leveler securely in place in accordance with manufacturer's written instructions.
 2. Weld anchor holes in contact with continuously embedded loading dock edge channel.
 3. Weld or bolt bumper blocks to face of loading dock.
- C. Install << **seal; and shelter**>> components in accordance with manufacturer's instructions.
 1. Set plumb and level.
 2. Attach anchors and fittings to prepared wall construction and opening frame.
- D. Grease fittings to lubricate deck hinge for smooth operation.

3.04 ADJUSTING

- A. Adjust installed loading dock equipment<< **and safety devices; or None - N/A**>> for smooth and balanced operation<< **and lubricate as recommended by manufacturer; or None - N/A**>>.
- B. Test dock levelers for vertical travel within operating range as indicated and adjust as necessary for proper operation.
- C. After installation, inspect exposed factory-finished loading dock equipment and repair damaged finishes.

3.05 CLEANING

- A. See Section << **017000 - Execution and Closeout Requirements**>> for additional requirements.
- B. Clean recessed pits of debris.

3.06 CLOSEOUT ACTIVITIES

- A. See Section << **017800 - Closeout Submittals**>> for additional submittals.
- B. See Section << **017900 - Demonstration and Training**>> for additional requirements.
- C. Demonstrate proper operation of << **loading dock equipment; or _____**>> to <<**Owner**>>'s designated representative.
- D. Demonstration: Demonstrate operation of system to <<**Owner**>>'s personnel.
 - 1. Use operation and maintenance data as reference during demonstration.
 - 2. Conduct walking tour of project.
 - 3. Briefly describe function, operation, and maintenance of each component.
- E. Training: Train <<**Owner**>>'s personnel on operation and maintenance of system.
 - 1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.
 - 2. Provide minimum of << **two hours; one day; or _____**>> of training.
 - 3. Instructor: Manufacturer's training personnel.
 - 4. Location: At project site.
 - 5. Location: <<**Owner**>>'s offsite classroom facilities may be used.
 - 6. Location: Provide local classroom facilities.
 - 7. Location: At manufacturer's training facility; include travel expenses for << **one member; two members; or _____ members**>> of <<**Owner**>>'s staff.

3.07 PROTECTION

- A. Protect finishes until completion of project.
- B. Touch up damaged finishes after Substantial Completion.

3.08 MAINTENANCE

- A. See Section << **017000 - Execution and Closeout Requirements**>>, for additional requirements relating to maintenance service.
- B. Provide separate maintenance contract for specified maintenance service.
- C. Provide service and maintenance of operating equipment for period of << **one year; two years; or _____**>> from Date of Substantial Completion.
 - 1. Provide maintenance service by skilled employees of loading dock equipment installer.

2. Include<< monthly; quarterly; _____; or None - N/A>> preventive maintenance, repair, or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper operation of loading dock equipment at rated speed and capacity.
3. Provide manufacturer's authorized replacement parts and supplies.

END OF SECTION