

**SECTION 11 33 19.13**

**DOCK LEVELERS**

**PART 1 – GENERAL**

**1.1 PURPOSE**

- 1.1 This guideline is intended to provide useful information to the Professional Service Provider (PSP) to establish a basis of design. PSP is to apply the principles of this section such that the University of Texas at Arlington (UTA) may achieve a level of quality and consistency in the design and construction of their facilities. Deviations from these guidelines must be approved by UTA and may require justification through Life Cycle Cost (LCC) analysis and submitted to UTA for approval.

**1.2 LESSONS LEARNED AND DESIGN CONSIDERATIONS**

**A. X**

**1.2 SUMMARY**

- A. Related Documents: Provisions established within General and Supplementary Conditions of the Contract, Division 1 - General Requirements and Drawings are collectively applicable to this Section.
- B. Related Sections:
- 1). Section 11 13 19.33: Loading Dock Truck Restraints
  - 2). Section: 11 13 16: Seals and Shelters
  - 3). Section: 11 13 13: Loading Dock Bumpers

**1.3 SYSTEM DESCRIPTION**

- A. Design Requirements: Provide fixed-in-place adjustable loading and unloading platform for difference in height and gap between truck bed and building loading dock.
- B. Provide loading dock equipment, which has been manufactured, fabricated, and installed to withstand loads specified and to maintain performance criteria stated by manufacturer without defects or failures.
- C. Comply with ANSI MH14.1-1987.

**1.4 SUBMITTALS**

- A. General: Submit in accordance with Division 01.
- B. Product Data: Submit product data for dock equipment.
- C. Shop Drawings: Submit drawings indicating fabrication and erection of dock equipment including plans, elevations and large scale details.
- 1). Show anchorage, [pit sizes,] critical installation clearances, connections, and accessory items.
  - 2). Provide location template drawings for items supported or anchored to permanent construction.
  - 3). Provide rough-in drawings for electrical service in advance of concrete work.
- D. Closeout Submittals: Submit following in accordance with Division 01.
- 1). Maintenance data.
  - 2). Warranty: Specified warranty.

**1.5 QUALITY ASSURANCE**

- A. Single Source Responsibility: Each component of dock equipment is required to be from same manufacturer.
- B. Manufacturer Qualifications: Company specializing in manufacturing Products specified in this Section with minimum ten years documented experience.
- C. Regulatory Requirements: In compliance with ANSI MH14.1-1987 and the safety and labeling requirements of ANSI MH30.1-2007.
- D. Certifications: Submit manufacturer's certification that products furnished for Project meet or exceed specified requirements.
- E. Manufacturer to hold current ISO 9001 certification.

**1.6 WARRANTY**

- A. Special Warranty: Prepare and submit in accordance with Division 01.

GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION DOCUMENTS

- 1). Five (5) year warranty for structural components upon approval of written application.
- 2). Parts include Lip, lip hinge, and shaft: deck plate and beams: rear frame and rear hinges
- B. Manufacturer's standard 1-year base parts & labor warranty plus additional 4-year parts only warranty for hydraulic power unit and cylinder.
- C. This warranty is based on a standard fork lift truck operating procedure. A standard procedure is; no load shall exceed the rated lift capacity of the truck, and no load shall be pre-staged or stacked and pushed or pulled over the dock leveler into or out of the truck.
- D. Dock leveler manufacturer shall provide with his bid a written 10 to 20 year money back warranty on dock levelers. Warranty shall be based on the following criteria:
  - 1). Gross weight of fork lift and load shall not exceed 6000 lbs.
  - 2). User's operation shall not exceed (7) full truckloads per 24-hour period over any one dock position.
  - 3). Lift truck speed shall be no more than 5 mph. Leveler grade shall be no more than the recommended grade as determined by the material handling equipment manufacturer and never more than 7.17%.
- E. Dock leveler parts covered under the warranty shall include:

Lip Assembly	Hydra Rite – 10 to 20 years
Rear Hinges & Hinge Pins	Front Hinge Assembly
Front Hinge & Hinge Pins	Platform Assembly
Base Hydraulic – 10 years	Sub frame

1.7 FABRICATION

- A. Dock Equipment:
  - 1). Welded base frame construction.
  - 2). Unit supplied completely assembled, ready for use.

1.8 FINISHES

- A. Dock Equipment Finish:
  - 1). Preparation: Clean surfaces free from slag and splatter, loose mill scale, oil, grease, or rust.
  - 2). Dock Leveler: Factory apply manufacturer's standard DTM (Direct to Metal) Water based Paint with built in rust inhibitors.
  - 3). Color: Baked enamel green paint finish.

**PART 2 - PRODUCTS**

2.1 Manufacturers:

- A. Rite Hite Model No: RHH.
- B. Kelley Model No: [       ]
- C. Substitutions: In accordance with Division 01.
- D. Recessed adjustable dock levelers shall be 7'0" wide x 8'0" long, with a minimum 18" lip and a 30,000 lb. capacity rating. The unit is to have an operational range of 12" above and below dock level. Equip each unit with two (2), 12" high x 4" deep laminated dock bumpers.

2.2 Motor (Hydraulic) Operation:

- A. Electrical power pack (includes motor, pump and valve assembly) of 1 HP, [120] [208] [240] volt [1phase motor], or [208] [240] [480] [575] volt [3 phase motor]
- B. Control Panel: Heavy duty, single push-button activation.
- C. Platform operated by single hydraulic cylinder.
- D. Lip automatically extends by gravity and holds as leveler descends to vehicle.
- E. Engineer unit to "free float" with truck bed.
- F. Provide drop-safe hydraulic safety stop.
- G. Recessed adjustable dock levelers shall be 7'0" wide x 8' 0" long, with a minimum 18" lip and a 30,000 lb. capacity rating. Unit is to have an operational range of 12" above and below dock level. Each leveler unit will be equipped with two (2), 12" high x 4" deep laminated dock bumpers.
- H. Dock leveler shall meet ANSI MH30.1-2000 test load specifications with proper documentation from a third party.

## GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION DOCUMENTS

- I. Platform shall have a minimum of (8) interior deck beams plus external working range toe guards with no more than 8" spacing between the beams.
- J. When the leveler is in stored position, the leveler lip will provide an integral and automatically- positioned, impact-rated, solid barrier 5" above building floor to help prevent accidental falls from vacant dock positions. Unobstructed end loading shall be possible from below dock level. Overlapping platform barriers or pinch points are not acceptable.
- K. Levelers shall automatically return to safe, stored position if the trailer departs.
- L. Automatic night locks to be an integral part of manufacturer's standard dock levelers.
- M. Full operating range telescoping toe guards to close off sides when leveler is in the highest upward position; working range of 12".
- N. Positive acting Safe-T-Strut© maintenance support system will support lip and deck. This system must withstand a 10,000 lb. moving load and provide OSHA approved lock-out/tag-out capabilities.
- O. Levelers shall have ramp flex of 4" to compensate for unlevelled trailer beds. Rear hinges shall be fixed and shall not rise above floor level.
- P. Dock leveler control box: All individual components, as well as the complete box unit, shall be UL-approved.
- Q. Control box shall include infinite lip control to extend the lip at any time during the operation of the leveler and shall also provide a constant pressure emergency stop.
- R. Leveler shall include brush style weather seal.
- S. Hydraulic fluid shall be biodegradable and have a pour point of -80°.

### PART 3 - EXECUTION

- 3.1 INSTALLER shall examine the substrate and conditions under which dock levelers and truck restraints are to be installed and notify the A/E and Contractor in writing of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the installer.
- 3.2 DOCK LEVELER MANUFACTURER'S REPRESENTATIVE shall install dock levelers in accordance with approved shop drawings and manufacturer's recommendations. Location of dock levelers shall be indicated on drawings.
- 3.3 SHIM DOCK LEVELERS as necessary, weld into pit.
- 3.4 ADJUST UNITS to operate smoothly.
- 3.5 AFTER INSTALLATION is completed, a representative of the manufacturer shall examine the installation and require that all connections and adjustments necessary to assure proper operation of dock levelers be made. Before acceptance, a demonstration shall be conducted in the presence of the owner's representative to guarantee that all levelers operate properly in every respect. In addition, a detailed user/operator training session shall be conducted at a time and place agreed upon by owner's representative and manufacturer's representative.

END OF SECTION