



## SECTION 11160

### LOADING DOCK EQUIPMENT

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Loading dock equipment of the following types:
  - 1. Dock levelers.
  - 2. Vehicle restraints.
  - 3. Dock seals.
  - 4. Dock shelters.
  - 5. Dock lifts.

##### 1.2 RELATED SECTIONS

- A. Section 03300 - Cast-In-Place Concrete: Coordination with dock construction.
- B. Section 16050 - Basic Electrical Methods and Materials: Coordination with power requirements and controls/safety circuits.

##### 1.3 REFERENCES

- A. American National Standards Institute (ANSI): ANSI MH29.1 Safety Requirements for Industrial Scissor Lifts.

##### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- C. Shop Drawings: Showing overall dimensions (width, height) and location of electrical service panels and motor locations. Supporting construction requirements and equipment structural attachment. Operating range and required clearances.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

##### 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Providing sole source for design, engineering, manufacturing and warranty claims handling. Company specializing in manufacturing products specified with a minimum 20 years experience.
- B. Installer Qualifications: Trained, certified and approved by manufacturer, with documented experience on similar projects.

##### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.

## 1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

## 1.8 WARRANTY

- A. Warranty: Provide manufacturer's standard warranty.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Pentalift Equipment Corp., which is located at: 21 Nicholas Beaver Rd. ; Guelph, ON, Canada N1H 6H9 ; Tel: 519-763-3625; Fax: 519-763-2894; Email: [request info \(dock@pentalift.com\)](mailto:request_info@dock@pentalift.com); Web: [www.pentalift.com](http://www.pentalift.com)
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

#### Solar Dock Leveler:

1. Product: HDS SolarDock Dock Leveler as manufactured by Pentalift Equipment Corp.
2. Model HDS66: 6.0 feet by 6.0 feet (1829 mm by 1829 mm).
3. Model HDS68: 6.0 feet by 8.0 feet (1829 mm by 2438 mm).
4. Model HDS610: 6.0 feet by 10.0 feet (1829 mm by 3048 mm).
5. Model HDS6.56: 6.5 feet by 6.0 feet (1981 mm by 1829 mm).
6. Model HDS6.58: 6.5 feet by 8.0 feet (1981 mm by 2438 mm).
7. Model HDS6.510: 6.5 feet by 10.0 feet (1981 mm by 3048 mm).
8. Model HDS76: 7.0 feet by 6.0 feet (2134 mm by 1829 mm).
9. Model HDS78: 7.0 feet by 8.0 feet (2134 mm by 2438 mm).
10. Model HDS710: 7.0 feet by 10.0 feet (2134 mm by 3048 mm).
11. Capacity: 25000 lb (11340 kg).
12. Capacity: 30000 lb (13608 kg).
13. Capacity: 35000 lb (15876 kg).
14. Capacity: 40000 lb (18144 kg).
15. Capacity: 45000 lb (20412 kg).
16. Capacity: 50000 lb (22680 kg).
17. Capacity: 60000 lb (27216 kg).
18. Dock leveler(s) shall be fully hydraulic with a wall-mounted, push button control station. The power unit shall be 12V DC lift motor, high cycle 12V storage battery and external solar panel. Power unit and battery shall be installed on the dock leveler frame. The power supply shall be 115/1/60 wall plug to provide a minimum of 1 amp.
19. Dock Leveler(s) shall be supplied with auto charge system which automatically senses the charge status of the battery and, if required, automatically turns on the AC charger to replenish the charge in the battery, then automatically turns off the AC charger and reverts back to the solar cell charging system.
20. Hydraulic functions shall be controlled by the Pentalogic Hydraulic Manifold.
21. The lip is shall be self-retracting. The lip hinge shall be full width, piano style with a full-width hinge pin. The lip hinge shall be welded to a high tensile strength headboard. The rear hinge design shall be full width, fixed style.
22. 16 inches (406 mm) lip length.
23. 18 inches (457 mm) lip length.
24. 20 inches (508 mm) lip length.

25. The deck design shall provide 4 inches (102 mm) of lateral deck compensation for canted truck/trailer beds.
26. Working Range: Dependent on application and dock leveler length. Designed to maximize the above and below level service range while maintaining a safe incline and decline angle of the deck plate.
27. Dock Leveler(s) shall be equipped with full range toe guards, night lock, hydraulic fallsafe and maintenance stand.
28. The lift cylinder shall be top-fed and forward-positioned behind the headboard.
29. Two molded rubber dock bumpers shall be provided.
30. Dock Leveler(s) shall have Pentalift gray finish.
31. Provide pour-in-place installation style.
32. Provide automatic return-to-stored position.
33. Provide deck stop with independent lip control.
34. Provide weatherseal (rubber or brush).
35. Provide hydraulic dock leveler(s) interlocked to the Pentalift model HFR32 Vehicle Restraint Safety System as manufactured by Pentalift Equipment Corporation.
36. Provide hydraulic dock leveler(s) interlocked to the Pentalift model LPR35 Vehicle Restraint Safety System as manufactured by Pentalift Equipment Corporation.
37. Provide hydraulic dock leveler(s) interlocked to the Pentalift model UHR40 Vehicle Restraint Safety System as manufactured by Pentalift Equipment Corporation.
38. Provide hydraulic dock leveler(s) interlocked to the Pentalift model RVR32 Vehicle Restraint Safety System as manufactured by Pentalift Equipment Corporation.
39. Provide interlock to overhead door.
40. Provide interlock to inflatable shelter.
41. Provide foam insulated deck.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.

### 3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION