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); Web: www.pentalift.com

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

Stationary Dock Lifts:

1. Product: HED Series as manufactured by Pentalift Equipment Corporation.
2. Dock lift shall be built of 4-way safety tread plate with 8 inches (203 mm) bevel toe guards. The unit shall have a vertical travel of 59 inches (1499 mm) (except 84" long which is 50") and a lowered height of 12 inches (305 mm).
3. An 18 inches by 60 inches (457 mm by 1524 mm) one piece, high tensile steel bridge plate shall be provided on the rolling end. Plated access chain between guard rails on fixed end.
4. The hydraulic lift cylinder(s) shall be PentaFLOW style, equipped with an automatic bypass system at the top of cylinder stroke. A hydraulic velocity fuse shall be incorporated to prevent platform free-fall in the event a hydraulic hose is accidentally severed.
5. Pivot points to have chromed pins and "lubricated for life" bearings.
6. Unit shall have two removable guardrails 42 inches (1067 mm) high with mid rails and 4 inches (102 mm) high kick plates.
7. An integral maintenance stand shall be provided for safety during servicing.
8. Controls shall be NEMA 4X pendant type push-button.
9. The power unit shall be remote mounted and consist of a totally enclosed motor with integral hydraulic fluid reservoir. The motor shall be equipped with NEMA 12 pre-wired enclosure.
10. Power supply to be _____/_____/_____.
11. The dock lift shall be shipped complete with hydraulic fluid.
12. Unit shall have Pentalift gray finish.
13. Model HED 47: 48 inches by 84 inches (1219 mm by 2134 mm).
14. Model HED 48: 48 inches by 96 inches (1219 mm by 2438 mm).
15. Model HED 49: 48 inches by 108 inches (1219 mm by 2743 mm).
16. Model HED 410: 48 inches by 120 inches (1219 mm by 3048 mm).
17. Model HED 57: 60 inches by 84 inches (1524 mm by 2134 mm).
18. Model HED 58: 60 inches by 96 inches (1524 mm by 2438 mm).
19. Model HED 59: 60 inches by 108 inches (1524 mm by 2743 mm).
20. Model HED 510: 60 inches by 120 inches (1524 mm by 3048 mm).
21. Model HED 68: 72 inches by 96 inches (1829 mm by 2438 mm).
22. Model HED 69: 72 inches by 108 inches (1829 mm by 2743 mm).

23. Model HED 610: 72 inches by 120 inches (1829 mm by 3048 mm).
24. Model HED 612: 72 inches by 144 inches (1829 mm by 3658 mm).
25. Model HED 78: 84 inches by 96 inches (2134 mm by 2438 mm).
26. Model HED 79: 84 inches by 108 inches (2134 mm by 2743 mm).
27. Model HED 710: 84 inches by 120 inches (2134 mm by 3048 mm).
28. Model HED 712: 84 inches by 144 inches (2134 mm by 3658 mm).
29. Model HED 88: 96 inches by 96 inches (2438 mm by 2438 mm).
30. Model HED 89: 96 inches by 108 inches (2438 mm by 2743 mm).
31. Model HED 810: 96 inches by 120 inches (2438 mm by 3048 mm).
32. Model HED 812: 96 inches by 144 inches (2438 mm by 3658 mm).
33. Capacity and Load Rating: Side edge load rating is 63% of overall capacity; end edge load rating is 80% of overall rated capacity for capacities less than or equal to 15,000 lb (6804 kg).
    a. Capacity: 3,000 lb (1361 kg).
    b. Capacity: 4,000 lb (1814 kg).
    c. Capacity: 5,000 lb (2268 kg).
    d. Capacity: 6,000 lb (2722 kg).
    e. Capacity: 8,000 lb (3629 kg).
    f. Capacity: 10,000 lb (4536 kg).
    g. Capacity: 12,000 lb (5443 kg).
    h. Capacity: 15,000 lb (6804 kg).
34. Capacity and Load Rating: Side edge load rating is 50% of overall capacity; end edge load rating is 75% of overall rated capacity for capacities greater than 15,000 lb (6804 kg).
    a. Capacity: 20,000 lb (9072 kg).
35. Provide toe sensor.
36. Provide larger bridge size 48 inches to 96 inches (1219 mm to 2438 mm) wide by 18 inches to 42 inches long (457 mm to 1067 mm).
37. Provide aluminum bridge(s).
38. Provide split bridge(s).
39. Provide spring assisted bridge(s).
40. Provide hydraulic powered bridges.
41. Provide power units with increased hp for faster lift times.
42. Provide automatic hydraulic roll off Stop.
43. Provide up travel limit switch.
44. Provide platform mounted push button control.
45. Provide push button on coil cord.
46. Provide wall mounted push button.
47. Provide removable push button on post on platform.
48. Provide two second warning bell (sounds prior to lift movement).
49. Provide swing out night stops.
50. Provide overhead door interlocking kit.
51. Provide additional guard rails (platform or floor mount).
52. Provide manual lowering valve.

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