## GUIDE

## SPECIFICATION

**MANUFACTURER:**

**4Front Engineered Solutions – Kelley**

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SECTION 11 13 19.23

sTATIONARY dOCK lift

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This guide specification section has been prepared by 4Front Engineered Solutions - Kelley and is intended to assist the specifier in preparing a specification for specialty dock equipment, including combination leveler/lifts, complete with all available options and accessories.

Edit entire section to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences within brackets [\_\_\_\_\_] reflect a choice to be made regarding inclusion or exclusion of a particular item or statement. This section may include performance, proprietary and descriptive type specifications. Edit to avoid conflicting requirements.

This guide specification is written around the Construction Specifications Institute (CSI), Section Format, and standard references to section names and numbers are based on the CSI MasterFormat 2010.

For specification assistance on specific product applications or information about other 4Front Engineered Solutions - Kelley products, please contact our offices above or any of our local product representatives throughout the country.

4Front Engineered Solutions - Kelley reserves the right to modify these guide specifications at any time. Updates to this guide specification will be posted to the manufacturer’s web site and/or in printed matter as they occur. 4Front Engineered Solutions - Kelley makes no expressed or implied warranties regarding content, errors, or omissions in the information presented.

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1. - GENERAL
   1. SUMMARY
      1. Related Documents: Provisions established within General and Supplementary Conditions of the Contract, Division 1 ‑ General Requirements and Drawings are collectively applicable to this Section.
      2. Related Sections:
         1. [Section 03 30 00 - Cast-In-Place Concrete: Concrete pit.]
         2. Section 05 50 00 - Metal Fabrications: [Perimeter guard rails and inserts.] [Dock slab and door protection edge angles.]
         3. [Division 16 - Electrical: Connections to dock equipment.]
   2. SYSTEM DESCRIPTION
      1. This Section describes the requirements for providing a dock scissors lift as shown on the Drawing and specified, to include:
         1. Hydraulic Dock Scissor Lift
      2. Concrete work for dock lift(s) as specified in Part 3.
      3. Comply with ANSI MHI (Material Handling Institute) 29.1.
   3. SUBMITTALS

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Include submittal requirements below which are consistent with the scope of the project and extent of work of this section. Only request submittals which are necessary for review of design intent.

Do not request submittals if drawings sufficiently describe the products of this section or if proprietary specifying techniques are used. The review of submittals increases the possibility of unintended variations to drawings.

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* + 1. General: Submit in accordance with Section 01 33 00.
    2. Product Data: Submit product data for dock equipment.
    3. Shop Drawings: Submit drawings indicating fabrication and erection of dock equipment including plans, elevations and large-scale details.
    4. Maintenance Data: Submit manufacturer’s maintenance and service data, including, address and telephone number of nearest authorized service representative.
    5. Operating Manuals: Furnish operating and maintenance manuals and advise Owner on use and maintenance of equipment.
  1. QUALITY ASSURANCE
     1. Dock Lift Standard: Comply with applicable requirements of ANSI, MH29.1, (“Safety Standard for Industrial Scissors Lifts”) for construction and operation of dock lift (s).
     2. Provide manufacturers standard 2 (two) year parts, 1 (one) year labor warranty.
     3. Single Source Responsibility: Provide dock lift(s) as complete units produced by a single manufacturer, including necessary accessories and fittings
  2. WARRANTY
     1. Special Warranty: Prepare and submit in accordance with Section 01 78 36.
        1. Manufacturer's standard one-year parts and labor warranty.

1. - PRODUCTS
   1. ACCEPTABLE MANUFACTURERS
      1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
         1. Dock Lifts (scissors Lifts):
            1. 4Front Engineered Solutions – Kelley, 1612 Hutton Drive, Suite 140, Carrollton, Texas 75006 (972) 466-0707 voice, (972) 323-2661 facsimile
   2. DOCK LIFTS (SCISSORS LIFTS)
      1. General: Provide manufacturer’s standard hydraulic dock lift of capacity, size, and construction indicated, consisting of a nonslip steel platform with beveled toe guards on all four sides, steel scissor legs, and hydraulic operating system, complete with controls, safety devices, and accessories required.
      2. Type: Provide stationary single-scissor-type hydraulic dock lift designed for permanent, recessed installation in a preformed concrete pit at location indicated.
      3. Rated Capacity: Provide lifting capacity of not less than \_\_\_\_\_ lb with \_\_\_\_\_lb axle load at ends and \_\_\_\_\_\_lb axle loads at sides
      4. Vertical Travel: Provide maximum vertical travel of 60 inches from a lowered height of \_\_ inches for a raised height of \_\_ inches.
      5. Travel Speed: Nominal raising speed of 15 fpm.
      6. Construction: Fabricate lift from structural steel shapes rigidly welded and reinforced for maximum strength, safety, and stability. Design assembly to withstand deformation during both operating and stored phases of service. Provide mounting brackets and removable lifting eyes for ease of installation.
         1. Platform: Fabricate platform from heavy steel plate with beveled toe guards on all four sides to comply with requirements of MH29.1. Provide matching, hinged, throw-over bridges where indicated and removable handrails.
2. Platform Surface: Nonskid, safety-tread deck plate.
3. Platform Size; \_\_\_ inches wide by \_\_\_ inches long
   * + 1. Hinged Bridge: Provide hinged, throw-over bridge, heavy-duty, piano-type hinge welded to toe guard at end of platform. Provide bridge complete with heavy-duty lifting chains. Chamfer edge of bridge to minimize obstructing wheels of material-handling vehicles.
4. Bridge Material: Nonskid, safety-tread steel plate.
5. Bridge Size: 18 inches long by 72 inches wide.
6. Ergonomic Spring assisted Bridge
   * + 1. Scissor Mechanism: Fabricate leg members from heavy, steel formed tube members to provide maximum strength and rigidity.
       2. Cylinders: Equip lift with not less than two heavy-duty, high-pressure, hydraulic, ram-style cylinders. Rams shall be direct-displacement plunger type with positive internal stops as standard by manufacturer. Cylinder rods shall be chrome plated and polished to prevent rusting.
       3. Bearings: Provide pivot points with self-lubricating, lifetime self lubricating bushings for minimum maintenance.
          1. Operation: Provide manufacturer’s standard, self-contained, electric, hydraulic power unit for raising and lowering lift, controlled from a remotely located push-button station.
7. Electrical Requirements: Coordinate wiring requirements and current characteristics with building electrical system.
8. Power Unit: Provide manufacturer’s standard, self-contained, remotely located power unit of size, type, and operation needed for capacity of lift indicated. Power unit shall consist of a TEFC motor, high-pressure gear pump, valve manifold and oil reservoir.
9. Manifold shall contain a relief valve, check valve, pressure-compensated flow-control valve and solenoid valve.
10. Speed control: Provide manufacturer’s standard pressure compensated flow control to maintain rated speed when the lift is loaded or unloaded.
11. Free-fall protection: Provide a hydraulic velocity fuse at each cylinder to prevent the lift platform from free falling in the event of a severed hydraulic hose or broken hydraulic fitting.
12. Oil sight gauge in the reservoir to determine oil level.
13. Manual lowering valve located on power pack in case of power loss
14. Remote located Control Station: Provide a weatherproof, multi-button control station of the constant-pressure type with NEMA 4x rated up and down push buttons. Controller shall consist of a magnetic motor starter with three pole-adjustable overloads and 115-VAC control transformer with a fused secondary prewired to terminal strips and enclosed in a NEMA , Type 12 box.
15. Upper-Travel-Limit Switch: Equip unit with manufacturer’s standard, adjustable, upper-travel-limit switch.
    * + 1. Safety Devices: Provide manufacturer’s standard and original safety devices as follows:
16. Removable Handrails: Provide removable handrails on two sides of platform with a single, removable chain across each end. Handrails shall be 42 inches high with a mid-rail and 4-inch-high kick plate at bottom. Mount rail sockets flush with platform surface.
17. Maintenance Leg: Provide manufacturer’s standard safety maintenance leg.
18. Toe Protection: Provide manufacturer’s standard toe protection along entire unprotected side(s) of lift.
    * + 1. Finish and Color: Manufacturer’s standard paint applied to factory-assembled and tested dock lifts before shipping. Provide toe guards with yellow and black stripes to comply with ANSIZ535.1, and paint remainder of surfaces in manufacturer’s standard color.
19. - EXECUTION
    1. DOCK-LIFT INSTALLATION
20. Coordinate forming recessed pit for dock lifts to ensure that depth is adequate to accommodate lift in proper relation to loading platform.
21. Attach dock lift securely, according to manufacturer’s written instructions.
    1. ADJUST AND CLEAN
22. Make necessary adjustments for safe, efficient operation of loading dock equipment.
23. After installation, restore marred abraded surfaces to the original condition.