

GUIDE SPECIFICATION

MANUFACTURER:

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SECTION 11 13 19.33

AUTO CHOCK® - WHEEL RESTRAINT

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This guide specification section has been prepared by 4Front Entrematic - KELLEY, and is intended to assist the specifier in preparing a specification for hydraulically actuated trailer restraint devices, 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 Master Format 2004.

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

4Front Entrematic - 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 Entrematic - KELLEY makes no expressed or implied warranties regarding content, errors, or omissions in the information presented.

PART 1 – GENERAL

1.1 SUMMARY

A. Work Included:

1. Factory Assembled trailer restraint.
2. Control box, motion alarm, and light signal system.
3. Hydraulic power unit, hoses and fittings.
4. Installation/Owner's Manual.

B. Related Work

1. Section 11 13 19.13 – Dock Levelers
2. Section 11 13 13 – Dock Bumpers
3. Section 11 13 16 – Seals and Shelters

1.2 SYSTEM DESCRIPTION – Design Requirements

- A. Restraint to be independent of rear impact guard.
- B. Basic Engagement: Hydraulically actuated chock seeks and engages vehicle tire.
- C. Sustained Engagement: Chock pressure against tire is continuously monitored and maintained while restraint is engaged.

- D. Restraining Range: Restraint engages tire between 196" (16'4") and 40" (3'4") from the face of the loading dock.
- E. Storage (Retract) Position: Chock retracts below grade to leave an unobstructed driveway surface.
- F. Voltage: 208V, 230V, 460V, 575V 3 phase operation
- G. Control System: Programmable Logic Control (PLC) for all functions.
- H. Activation: Push button or switch controls for Chock, Release, Restraint Override, and Stop functions.
- I. Communication Signal Systems: Inside instruction label and Red, Amber & Green Lights. Outside caution sign and flashing Red & Green Lights. Audible Outside Motion Alarm.
- J [Option: Inside Audible Fault Alarm

1.3 SUBMITTALS

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.

- A. Submit Manufacturer's Survey showing installation layout and requirements.
- B. Submit Manufacturer's installation instructions, wiring diagrams, hydraulic schematic and operation instructions.

1.4 QUALITY ASSURANCE

Include quality assurance requirements below which are consistent with the size and scope of the project and extent of work of this section. Only request qualification statements you intend to review, and which are necessary to establish qualifications of the product, manufacturer, or installer.

- A. Single Source Responsibility: Each component of restraint device 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. Installer Qualifications: Approved in writing by manufacturer with documented experience on at least five projects of similar nature in past five years.
- D. Manufacturer to hold current ISO 9002 certification

1.5 WARRANTY

- A. Special Warranty: Prepare and submit in accordance with Section 01 78 36.
 - I. Standard manufacturer's warranty.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- B. Acceptable Manufacturers:
 - I. 4Front Entrematic – Kelley, 1612 Hutton Drive, Suite 140, Carrollton, Texas, (972) 466-0707 voice, (972) 323-2661 facsimile.

2.2 VEHICLE RESTRAINT DEVICES

The following description is for an electro-hydraulic vehicle restraint. All options are included within brackets. Select each option and choice according to project need.

- A. Restraining Unit:
 - 1. Housing: 3/16" Structural steel housing with 3/8" steel chock track and guide rails.
 - 2. Chock: 1/4" Steel weldment. 12" wide x 13-1/4" long x 12" or 16" high. 21" wheel engagement radius.
- B. Operation:
 - 2. Automatic Operating System: Provide manufacturer's standard hydraulically powered restraint, activated by a remote-control station.
 - a. Electrical Requirements: Coordinate wiring requirements and current characteristics with building electrical system. See Division 16 Sections
 - b. NEMA 12, UL listed remote Control panel, complete with push-buttons or switches for ENGAGE, RELEASE, RESTRAINT OVERRIDE and STOP functions. Control includes manufacturers standard red, amber & green lights, and instruction label. Auxiliary output of hitched condition.
- C. Controls: Control box to be operated by solid-state programmable controller with diagnostic capability.
- D. Power failure emergency release function shall be provided.
- E. Communication System: Provide manufacturer's standard system, as follows:
 - 1. Warning Signs: Set of surface-mounted signs.
 - 2. Signal Lights: Set of illuminated exterior and interior signal lights to indicate device's status to both dock worker and truck driver. Lights shall be activated automatically when device engages vehicle wheel. All lights to be LED.
 - 3. Control box to be equipped with 3-light system to include Red, Amber & Green light system.
 - 4. Visual system for indicating that vehicle wheel is not engaged.
 - 5. [Optional: Audible Alarm: Audible system for indicating that vehicle wheel is not engaged.]
- F. Acceptable Model and Manufacturer: **AC-16 [AC-12]: 4Front Entrematic - Kelley, 1612 Hutton Drive, Suite 140, Carrollton, TX 75006 (P) 972-466-0707**

2.3 FABRICATION

- 1. Restraint:
 - a. Weld base frame construction.
 - b. Unit supplied completely assembled, ready for use.

B. FINISHES

- 1. Restraint:
 - a. Preparation: Clean surfaces free from slag and splatter, loose mill scale, oil, grease, or rust.
 - b. Restraint: Factory apply manufacturer's standard DTM (Direct to Metal) Water based Paint with built in rust inhibitors.
 - c. Color: Manufacturer's standard color.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine conditions and proceed with Work in accordance with section 01 40 00.

3.2 PREPARATIONS

- A. Coordinate forming of recess to receive restraint.

- B. Ensure curb angle are square, level and flush with mounting surfaces.
- C. Ensure adequate water drains are present.

3.23 INSTALLATION

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

3.4 ADJUSTING AND CLEANING

- B. Adjust installed unit for operation per manufacturer's specifications.
- C. Remove temporary labels and coverings and protection of adjacent work areas.
- D. Repair or replace damaged parts.
- E. Remove construction debris from site and dispose.

3.5 INSTRUCTION OF OWNER'S PERSONNEL

- A. Instruct Owner's personnel in operation and maintenance of installed units. Provide bound copy of manufacturer's operation and maintenance manual at time of instruction.

END OF SECTION