



LOADING DOCK EQUIPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Loading dock equipment of the following types:
 - 1. Vehicle (truck) restraints.
 - 2. Control stations.

1.2 RELATED SECTIONS

- A. Section 03100 - Concrete Forms and Accessories: Placement of anchors into concrete.
- B. Section 03300 - Cast-In-Place Concrete: Docks and pits.
- C. Section 05500 - Metal Fabrications: Metal angles for edge of dock.

1.3 REFERENCES

- A. American National Standards Institute (ANSI):
 - 1. ANSI MH29.1 - Industrial Scissor Lifts.
 - 2. ANSI MH30.1 - Industrial Loading Dock Boards (Ramps).
 - 3. ANSI MH30.3 - Vehicle Restraining Devices (Safety, Performance, and Testing).

1.4 SUBMITTALS

- A. Section 01330 - Submittals Procedures: Procedures for submittals.
- B. Product Data: For each product specified.
 - 1. Vehicle Restraints: Indicate unit dimensions, method of anchorage, details of construction, materials and finish, installation details, and operation of unit.
- C. Shop Drawings:
 - 1. Indicate required opening dimensions, tolerances of opening dimensions, placement dimensions, and perimeter conditions of construction.
- D. Assurance/Control Submittals:
 - 1. Certificates: Manufacturer's certificate that Products meet or exceed specified requirements.
 - 2. Qualification Documentation: Submit documentation of experience indicating compliance with specified qualification requirements.

1.5 QUALITY ASSURANCE

- A. Vehicle Restraints: Conform to requirements of ANSI MH30.3.

- B. Manufacturer Qualifications:
 - 1. Manufacturer specializing in manufacturing Products specified with minimum 30 years experience.
 - 2. Manufacturer to have quality assurance improvement programs.
 - 3. Manufacturer shall be associated with Loading Dock Equipment Manufacturers (LODEM) setting ANSI standards.
 - 4. Manufacturers welding procedure compliant with A.W.S.D1 .1 specifications.
- C. Installer Qualifications: Company specializing in performing the Work of this Section with minimum 5 years experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations and industry standards. Store materials within absolute limits for temperature and humidity recommended by manufacturer. Protect from damage.
- B. Store products in manufacturer's labeled packaging until ready for installation.

1.7 WARRANTY

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

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Blue Giant Equipment Corp., which is located at:
85 Heart Lake Rd. S., Brampton, ON, Canada L6W 3K2
Toll Free Tel: 800-668-7078 Tel: 905-457-3900
Email: marketing@bluegiant.com
Web: www.BlueGiant.com
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 VEHICLE (TRUCK) RESTRAINTS

- A. Vehicle restraint shall be Model ML-10 as manufactured by BLUE GIANT.
 - 1. Type: Manually operated non-impact design.
 - 2. Size: Overall body dimension 10 inches W by 19 inches L by 10 ¾ inches H (254 by 483 by 273 mm) plus back mounting plate.
 - 3. Function:
 - a. Vertical Restraining Range: From 11 inches to 26 inches (279 mm to 660 mm) above grade.
 - b. Horizontal Restraining Range: From 0 inch to 13 inches (0 mm to 330 mm) beyond the face of the dock.
 - c. Mounting System: Dock face mounting using 6 wedge anchor bolts, 5/8 inch diameter by 6 inches long (16 by 152 mm). Transfer of pulling force to driveway improves restraining strength by equalizing forces on anchors. Trailer rear impact guard (ICC bar) during backing in does not impact restraint body.

4. Operation:
 - a. Operating System: Dock attendant deploys and releases restraint arm manually with control handle supplied with unit.
 - b. Communication Sign Package: Exterior driver mirror image warning sign.
5. Rated Capacity:
 - a. Welding procedure compliant with A.W.S.D1.1 specifications. The ML-10 unit provides restraint strength 30,000 lb (13,600 kg) and mounting force of 75,000 lb (34,090 kg).
6. Construction and Finish:
 - a. Vehicle restraint: Welded structural steel housing. Restraining arm is constructed of 1 inch (25 mm) thick steel. To resist corrosion and reduce maintenance, restraint is zinc plated and main hinge pin is made of stainless steel.
7. Warranty:
 - a. Warranties are subject to standard limitations on liability. Please consult Blue Giant warranties at <http://www.BlueGiant.com> for full details on warranty information and product registration.
8. Accessories:
 - a. Six mounting bolts.
 - b. Control rod for activating and releasing restraint arm.
9. Optional Accessories:
 - a. Manual Light Communication Package (model TLC24-M): Lights are manually operated via a keyed selector switch. Includes LED interior bulbs and LED exterior traffic lights.
 - b. Automatic Light Communication Package (model TLC24-A): Lights are automatically operated via a 24VDC proximity switch or photo-eye sensor. Can be set to manual operation. Includes LED interior bulbs and LED exterior traffic lights.
 - c. Extension plates to suit extended dock leveler pits and edge of dock levelers.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01700 - Execution Requirements: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.

3.2 INSTALLATION

- A. Install vehicle restraint in prepared opening in accordance with manufacturer's instructions.
- B. Set square and level.
- C. Anchor unit securely, flush with dock.

3.3 ADJUSTING

A. Adjust installed unit for smooth and balanced operation.

END OF SECTION