# GEneral

## Work of this Section

### The work of this Section includes providing lifting systems and appurtenant work for a complete functional system.

### Unit Responsibility: The work requires that the lifting systems, complete with all accessories and appurtenances, be the end product of one responsible system manufacturer or responsible system supplier. Unless otherwise indicated, the Contractor shall obtain each system from the responsible supplier of the equipment, which supplier shall furnish all components and accessories of the system to enhance compatibility, ease of operation and maintenance, and as necessary to place the equipment in operation in conformance with the specified performance, features and functions without altering or modifying the Contractor’s responsibilities under the Contract Documents. The Contractor is responsible to the Region for providing the equipment system as specified herein.

## Related Sections

### Section 01300 – Submittals

### Section 01425 - Computerized Maintenance Management System Data Requirements

### Section 01430 - Operation and Maintenance Data

### Section 01640 - Manufacturer's Services

### Section 01810 – Equipment Testing and Facility Commissioning

### Section 21 – Development and Maintenance of Asset Inventory and Tagging

## References

### Comply with the latest edition of the following statutes, codes, standards, and all amendments thereto:

#### American National Standards Institute (ANSI) and American Society of Mechanical Engineers (ASME):

##### ASME B30.10-2014, Hooks.

#### Occupational Health and Safety Act (Ontario)

##### R.R.O. 1990, Regulation 851/90, Industrial Establishments as amended by Ontario Reg. 98/11

## Measurement and Payment

.1 All costs associated with the work of this Section shall be included in the price(s) for Item No(s). \_\_\_ in the Bid Form.

## Submittals

### Action Submittals, in accordance with Section 01300 - Submittals:

#### Shop Drawings:

##### Make, model, and weight of each equipment assembly.

##### Complete catalogue information, descriptive literature, materials of construction, and specifications the lifting system and accessories.

##### Detailed shop drawings of the lifting davit systems and their attachments.

##### Factory finish system.

##### Certified test results of load test for lifting davit systems.

### Informational Submittals, in accordance with Section 01300 - Submittals:

#### Manufacturer’s Certification of Compliance that the factory finish system is identical to the requirements specified in this Section.

#### Special shipping, storage and protection, and handling instructions.

#### Manufacturer’s printed installation instructions.

#### Manufacturer’s Certificate of Proper Installation.

#### Suggested spare parts list to maintain the equipment in service for a period of one year. Include a list of special tools required for checking, testing, parts replacement, and maintenance with current price information.

#### List of special tools, materials, and supplies furnished with equipment for use prior to and during startup and for future maintenance.

#### Operation and Maintenance Data: As specified in Section 01430 - Operation and Maintenance Data.

# PRODUCTS

## Design Requirements

### Hook: ANSI/ASME 30.10-2014.

### Stress and Safety Factors: ANSI MH27.1-2009 and ANSI/ASME B30.11-2010. Properly select materials of construction for stresses to which subjected.

### Safety of Operation, Accessibility, Interchangeability, and Durability of Parts: ANSI/ASME B30.11-2010 and OHSA, O. Reg. 851/90, Industrial Establishments requirements.

## Davit Crane

### Provide one (1) portable davit arm with one (1) flush mounted davit sockets.

### Davit crane machinery shall consist of a crane, hand winch, crane base, wire rope, and accessories.

### Crane Configuration: Portable davit crane, adjustable boom, 360 degree rotation, double reduction spur gear hand winch with positive load control for lifting and lowering operations, corrosion resistant finish.

### Capacity: 0.5 tonne.

### Crane Base: flushed mount base, galvanized steel.

### Wire Rope: Galvanized aircraft cable with swivel hook and swagged ball fitting, for load rating specified, lift below base level of 5,000 mm.

### Accessories: Gear cover, quick disconnect anchor for wire rope.

### Location:

#### Elevated Tower Interior roof Level

### Approved Suppliers:

#### Demag Cranes & Components Corp.

#### EME – Easily Moved Equipment

#### Approved Equivalent.

## Accessories

### Equipment Identification Plate: 16 gauge stainless steel with 6mm die stamped equipment tag number securely mounted in a readily visible location.

## Shop Fabrication

### Shop/Factory Painting: Prepare and prime coat in accordance with the manufacturer’s standard.

## Source Quality Control

### Factory Inspections: Inspect equipment for required construction connection, and intended function.

# EXECUTION

## Installation

### Install in accordance with the manufacturer’s printed instructions.

### Provide lubrication and lubrication fittings.

## Painting

### Perform field painting of equipment as specified in Section 09900 – Painting and Protective Coating.

## Field Quality Control

### Immediately upon completion of installation, perform complete tests on the crane elements with the manufacturer's technical representative.

### Apply test loads of 125 percent of indicated operating loads in the presence of the Consultant.

### Test the crane and adjust to operate in accordance with the manufacturer’s specifications to full rated capacity in the room.

### Comply with the requirements of Section 55 of the Occupational Health and Safety Act, and O.Reg. 851/91 - Industrial Establishments.

### Provide weights and suitable means for connecting the test weight to the lifting hooks.

### Submit certified in-place load test results.

## Manufacturer’s Services

### See Section 01640 - Manufacturers’ Services and Section 01810 - Equipment Testing and Facility Commissioning.

**END OF SECTION**