

PART 1 GENERAL

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| <u>1.1 SUMMARY</u> | .1 | Section includes: |
| | .1 | Design, manufacture, supply, installation, testing of one 2 tonne capacity operable overhead crane. |
| <u>1.2 CERTIFICATIONS</u> | .1 | Crane and its installation shall be load tested and witnessed by Department Representative. |
| | .2 | Crane shall be inspected and certified by Labour Canada and all other applicable authorities having jurisdiction. |
| <u>1.3 COMMISSIONING AND TRAINING</u> | .1 | Commission equipment and train operators in accordance with Section 01 79 00 Demonstration and Training and 01 91 13 - General Commissioning Requirements. |

PART 2 PRODUCTS

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| <u>2.1 MATERIALS</u> | .1 | Top running single girder overhead crane. |
| | .2 | Span: approximately 12 metres. |
| | .3 | Depth: approximately 483mm. |
| | .4 | Bottom of hook to floor: approximately 6.2 meters. |
| | .5 | Hook: 737 mm. |
| | .6 | Available lift height: 14 metres. |
| | .7 | The bridge girder designed to the current CMAA specifications engineered to meet other local codes and regulations. |
| | .8 | Both rolled structural shapes and welded plate box girder designs are used depending on design requirements. |
| | .9 | Box girders fabricated 44W steel. |
| | .10 | Crane end trucks manufactured from structural sections, jig assembled to ensure alignment of bearings and axles. |
| | .11 | Dual motor bridge drives. |

- .12 Bridge to End Truck connections bolted.
- .13 Bridge wheels are flanged with anti-friction bearings.
- .14 Rail sweeps and rubber bumpers.
- .15 Hoisting machinery consists of heavy duty industrial type standard wire rope hoist unit mounted on a low headroom type trolley.
- .16 Motors totally enclosed fan cooled, hoist duty with Class "F" insulation.
- .17 Gears precision machined from alloy steel and induction hardened. All gearing is enclosed in a rugged steel housing and is oil splash lubricated.
- .18 Steel wire rope drums precision machined.
- .19 Rope drums are available double grooved configurations.
- .20 Equipped with rope guides to prevent over lapping of the rope on the drum and to extend rope life.
- .21 Upper and lower hoisting limit switches are standard equipment.
- .22 Trolley fabricated from structural shapes and plates to suit the application.
- .23 All motors are specifically designed for crane duty.
- .24 Motors are totally enclosed fan cooled with Class "F" insulation.
- .25 All trolley and bridge drive motors have disc brakes as standard equipment.
- .26 All hoists have two braking systems, one control brake and one holding brake.
- .27 Crane supplied with variable speed controls for the trolley and bridge motions. Hoist supplied with a 2-speed configuration.
- .28 The electrical components are housed in electrical cabinets to suit the applicable environment.

- .29 Bridge electrification is provided via a flat cable festoon system suspended from a track as standard equipment.
- .30 Hoist is finished in enamel paint.
- .31 Crane steel structure is thoroughly wire brushed and finished with anti-corrosion paint.
- .32 Provide the following:
 - .1 Overhead Switch
 - .2 Power Circuit Limit Switch
 - .3 Rotation Warning Beacon
 - .4 Anti-Collision Equipment
 - .5 Runway Electrification
 - .6 Travel Limits for Bridge and Trolley
 - .7 Variable Speed Hoist Control
 - .8 2 Speed Bridge Trolley and Motions
 - .9 Warning Horn

PART 3 EXECUTION

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| <u>3.1 INSTALLATION</u> | .1 | Install crane system to manufacturer's printed instructions. |
| | .2 | Install power and controls. |
| | .3 | Test system including load test. |