

Division 14 42 00 (14420)
Vertical Platform Lift Model BC Portable

National Wheel-O-Vator
A Division of ThyssenKrupp Access

Technical Specifications
January 2009

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. All materials and labor necessary to complete the installation of the vertical platform lift.
- B. Obtain all information affecting work at job site. Include verification of field dimensions, anchoring and storage. Verify voltages and outlets on electrical drawings.

1.02 REFERENCES

- A. All designs, clearances, construction, workmanship and installation shall be in accordance with the requirements and code adopted by the authority having jurisdiction. The platform lift shall be subject to local, city and state approval prior to and following installation.

1.03 SYSTEM DESCRIPTION

- A. The product described herein manufactured by National Wheel-O-Vator, is a Vertical Platform Lift consisting of a machine tower with lifting platform, selected and dimensioned to provide adequate lifting height to suit the individual building requirements. The lift can be used either indoors or outdoors to vertically transport a wheelchair user or mobility-impaired person up and over a barrier thus creating access to or within a building.

B. Performance

1. Rated Load: 750 pound capacity
2. Travel Speed: 9 feet per minute
3. Lifting Height _____
4. Platform Size: 37"x 51", with non-skid surface
5. Two-stop Applications

1.04 SUBMITTALS

- A. Submit drawings or manufacturers literature for approval. Drawings shall show dimensional and wiring requirements.

1.05 QUALITY ASSURANCE

- A. Manufacturer: Company with not less than twenty (20) years of experience in the design and fabrication of vertical platform lifts.
- B. Technical Services: Manufacturer and authorized dealer shall work with architects, engineers and contractors to adapt the platform lift product to the design and structural requirements of the building, site, and code requirements.

1.06 WARRANTY

- A. Unit shall have a four (4) year limited parts warranty on the basic unit, including all electrical and drive system components.

1.07 MAINTENANCE

- A. Maintenance of the platform lift unit shall consist of regular cleaning of the unit and regular inspection at intervals not longer than every 6 months. Rule 10.2.1 of ASME A18.1 requires all Vertical Platform Lifts be inspected every six- (6) months.

PART 2 - PRODUCT

2.01 MANUFACTURER

- A. National Wheel-O-Vator, a division of ThyssenKrupp Access, Model BC Portable (3-Wheel) (available in 42 inch and 60 inch lifts only), as distributed
By _____

- B. No substitution shall be considered unless written request for approval has been submitted and received by the architect at least ten (10) days prior to the bid date.

Each substitution request shall include the name of the material for which it is to be substituted and a complete description of the proposed substitutions including drawings, performance and test data, a list of projects similar in scope, photographs of existing installation, design differences and other information necessary for evaluation.

2.02 FABRICATION

- A. Platform shall be constructed of 12-gauge minimum zinc clad steel and be equipped with a 15" flip-up ramp.
- B. Platform side panels must be 42" high. Side panel framework shall be a minimum of 1" x 1 1/2" x .065 steel tubing for indoor units and 1 x 1 1/2 x .125 aluminum tubing for outdoor units. Solid infill panels shall be a minimum of 24-gauge zinc clad steel.
- C. The mainframe support tubings shall be a combination of square and rectangular steel tubing with a minimum .120 wall thickness.
- D. Carriage platform supports shall be a minimum of 1" x 2" wide steel flat bar and carriage uprights shall be a minimum of 1/2" thick steel flat bar uprights. Cam rollers shall be used for axial carriage guidance and camfollowers with wear pads used for horizontal stability.
- E. Loaded fasteners shall be grade five or higher. Locking fasteners shall be used in all critical locations.
- F. The machine tower structural side plates shall be of 12-gauge steel and front and back covers shall be 18-gauge zinc clad steel minimum.
- G. The drive mechanism shall be an Acme screw design. The screw shall be a minimum of 1" diameter. The Acme screw shall have a secondary safety nut.
- H. The motor shall be instant reversing with a minimum of 3/4 HP capacity.
- I. The operating control circuit shall be 24 volts.
- J. Finish shall be electro statically applied powder coating, oven baked to cure.
- K. Color shall be selected from manufacturer's standard color or optional colors.
- L. A constant pressure up/down control switch shall be provided at each landing level and on the platform.
- M. The platform shall be equipped with an obstruction panel that will stop the downward travel if an obstruction is encountered.
- N. An emergency stop / illuminated alarm switch shall be provided on the car as a means of signaling for assistance in the event of an emergency.
- O. A grab rail shall be provided on the platform.
- P. A hand crank shall be provided as a means of manually raising and lowering the platform in the event of a power or component failure.
- Q. The main lift nut will be equipped with a continuous lube system to distribute lubrication between main lift nut and the Acme screw.
- R. A 42" front traveling platform gate with a combination mechanical lock with a positive opening electric contact shall be provided.

S. A traveling rear platform gate to a minimum height of 4” greater than the maximum lift height shall be provided with a combination mechanical lock with a positive opening electric contact.

T. Lift shall be equipped with a handle and set of wheels attached to the machine housing. The unit can be raised onto the wheels to allow the unit to be moved to and from a temporary location. When the lift is in the position to be moved to another location, it shall be electrically monitored so as not to be operable by any controls.

U. The lift’s upper limits shall be adjustable without accessing the machine housing by means of an adjustable cam. A position switch shall be used to insure the lift is within ¾” of the upper landing for operation. When lift is adjusted to proper height, it shall position the upper landing call send control 42” above the upper landing.

V. Unit must be assembled and tested in factory before shipment.

W. The lift shall have a fused disconnect and power cord attached to the housing.

X. An upper final limit switch shall be provided.

PART 3 - EXECUTION

3.01 ACCEPTABLE INSTALLERS

A. Subcontractor Qualifications: A company that is listed as an authorized National Wheel-O-Vator dealer.

B. Electrical devices, services and final connections shall be by a qualified electrician.

3.02 INSTALLATION

A. Coordinate work with general contractor.

B. Examine the areas to receive the lifts.

C. Check that all clearances and resting spaces are correctly provided.

D. A dedicated 120 VAC, 30 Amp electrical circuit shall be supplied by the electrical contractor at job site. (Depending on local electrical codes, a G.F.I. device may be required.)

1. Verify voltages and capacity of electrical connections provided for the units.

E. Leave standard electrical connection drawings with electrical contractor to make final electrical connection.

F. The installation of the vertical platform lift shall be made in accordance with the approved plans and specifications and the manufacturers installation instructions.

3.03 FIELD QUALITY CONTROL

A. Load the vertical lift to rated capacity and test for several cycles to insure proper operation. No mechanical failures shall occur and no wear that would affect the reliability of the unit shall be detected.

**For more details, call National Wheel-O-Vator’s Design Line
800-968-5438**