

Division 14425

Inclined Platform Lift

PART 1 - GENERAL

1.01 SECTION INCLUDES

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

1.02 REFERENCES

- A. General: The applicable provisions of the following standards shall apply as if written here in their entirety.
- B. American Society of Mechanical Engineers / American National Standards Institute (ASME/ANSI) publications:
1. ASME/ANSI A18.1 "Safety Standard for Platform Lifts and Stairway Chairlifts".
 2. ICC/ANSI A117.1.
- C. National Fire Protection Association (NFPA) publications: NFPA 70 National Electrical Code.
- D. All designs, clearances, construction, workmanship and installation shall be in accordance with the requirements and code adopted by the authority having jurisdiction. The inclined platform lift may be subject to local, city and state approval prior to and following installation.
- E. Refer to local jurisdiction for variance applying to independent operation of lift.

1.03 SYSTEM DESCRIPTION

- A. The product described herein, produced by The National Wheel-O-Vator Co., Inc., located in Roanoke IL, is an Inclined Platform Lift consisting of a tube railway with a cable, ball and sprocket drive transporting a lifting platform with folding safety arms and platform, up and down stairways. It is designed and dimensioned to provide adequate lifting to suit individual stairway or barrier requirements. The lift can be used indoors or outdoors, with optional equipment, to transport a wheelchair user or mobility impaired person up and over a stairway or similar barrier creating access to or within a building. The lift can be mounted on the left or right side of the stairway, and make inside, outside or compound (spiral or helical) curves. The lift shall park away from the stairway either straight ahead or around a corner allowing full access to the stairway without obstructing normal traffic.

B. Performance:

1. Rated Load: 240 Kg (525 pound capacity).
2. Travel Speed: Smooth transition from 0 to .15 m/s (29 feet per minute) for starting and .15 m/s to 0 for stopping.
3. Travel Distance: Up to 60 meters, (200') distance reduced by friction from turns and horizontal distance traveled, possibly longer with few wide turns.

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 fifteen (15) years of experience in the design, fabrication and production of access equipment.
- B. Technical Services: Manufacturer, distributor and authorized dealer shall work with architects, engineers and contractors to adapt the inclined platform lift product to the design and

structural requirements of the building, site, and code requirements.

- C. Electrical control system shall be classified by Underwriters Laboratories, Inc., as to Elevator Control Panels.

1.06 WARRANTY

- A. Unit shall have a two (2) year limited parts warranty.

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. ASME A18.1 requires all Inclined Platform Lifts be inspected every six - (6) months.

1.08 SUBSTITUTIONS

- A. 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, design differences and other information necessary for evaluation.

PART 2 - PRODUCT

2.01 MANUFACTURER

- A. The unit shall be by The National Wheel-O-Vator Co., Inc., Pegasus Inclined Platform Lift as distributed
By _____

2.02 PRODUCT TYPE

- A. Model shall be the National Wheel-O-Vator Pegasus Inclined Platform Lift Model CD, which includes power platform folding, power safety barrier arm folding and operating features.

2.03 FABRICATION

- A. Car Main Frame: 4mm (5/32") sheet steel-formed uni-body mainframe.
- B. Guide Rails: Two 50mm (2") O.D. steel tubes, 3mm (1/8") wall thickness.
- C. Platform Carriage: 20mm (13/16") steel sub frame structure.
- D. Side Guards: 2mm (5/64") panel, 150mm (6") high, hinge mounted.
- E. Front Panels: 2mm (5/64") sheet steel.
- F. Platform Floor: 5mm (3/16") Aluminum deck plate, non-skid surface, 815mm x 1220mm, (32" x 48").
- G. Access Ramp: 5mm (3/16") Aluminum deck plate, non-skid surface, hinge mounted, min. 150mm, (6") high, when folded up.
- H. Folded Car Dim: Car protrudes 200mm (7 7/8") from center of railway tube or 175mm (6 7/8") from railway tube.
- I. Finish: Electro statically applied powder coat, suitable for indoor or outdoor use.
- J. Color Selection: Color shall be selected from manufacturers standard color or optional colors.
- K. Main Control Box: Single-phase 230VAC 60Hz or 208VAC 60 Hz installed near inclined platform lift drive unit.

L. Control Power: The operating control circuit is 24 Volts AC transferred by tube and cable.

M. Electrical Safety: Fully grounded and fuse protected electrical system.

N. Drive Unit: Solid State Microprocessor Variable Voltage Variable Frequency controlled motor provides slow spooling up and spooling down of motor with full power available from 0 to .15 m/s (0 to 29 ft per minute).

O. Hour Meter: Accurately totals accumulated time of usage for service requirements.

P. Drive Mechanism: Gear type, self-locking 1:36 ratio worm gear, six-tooth sprocket engaging a minimum of three ball-segments.

Q. Drive Cable: 7mm (9/32") multi-strand pre-stretched galvanized aircraft cable equipped with ball-segments at 112mm (4 13/32") intervals. Effective break load 52.8 kN, Strength 1770 Nm, minimum safety factor of 12.

R. Support Cable: 7mm (9/32") multi-strand pre-stretched galvanized aircraft cable equipped with cone-segments close mounted to serve as insulators and integral part of safety device.

S. Operation from Car: Key locked with constant pressure travel switch operated by occupant on car.

T. Position Sensors: Sensors are provided at each landing to stop the car automatically at the correct position for boarding and exiting platform.

U. Safety Limit: A final limit switch shall be provided to remove all power and stop upward travel of the platform in the event of a position sensor failure.

V. Call Switches: Key locked stations with constant pressure up/down call control switches will be installed at landing positions.

W. Over speed Control: An over speed safety device, located at the bottom tube assembly, consisting of a speed sensor and lock with electrical drive cutout protection.

X. Safety Barrier: Two heavy duty brushed finish smooth round stainless steel barrier arms encompass lift occupant during operation.

Y. Ramp Safety: Ramps are sensitive to positive or negative movement when folded up and will stop car if pressure on or off platform moves the ramp.

Z. Safety Guard: 150mm (6") side guard protects occupant from rolling off.

AA. Obstruction Safety: Pressure sensitive pan under platform stops downward travel when contacting any obstruction.

BB. Car Frame Safety: Pressure sensitive edges of car frame stop travel when contacting any obstruction.

CC. Vandal Guard: Protects controls on car from unauthorized access or vandal damage when car is in folded up configuration.

DD. Alarms: When the emergency stop switch is activated, an audible and illuminated signal is generated.

EE. Hand Safety: A safety handrail shall be provided on the platform.

FF. Power Folding: Power platform folding mechanism for remote power folding of platform and safety barrier arms from any call station switch.

GG. Power Arms: Occupant has power controls to move barrier arms down into safe travel position or to permit occupant to exit platform.

HH. Platform Seat: Folding seat for non-wheelchair confined, semi-ambulatory occupants.

II. Parking: Inclined platform lift shall be configured to park clear of stairway handrail eliminating any obstruction of stairway handrail by the inclined platform car when lift is not in use.

2.04 OPTIONS

A. Outdoor material: Stainless steel material and cold spray galvanized coatings are used as necessary to retard deterioration. Some items also electro statically coated.

B. Additional Stops: Can have up to seven stops total (including parking stops).

C. Integrated Handrail: Meets code requirements where original stairway handrail was removed.

D. Platform Lock: Locks platform in folded position, prevents vandalism damage to platform and when folded.

E. Lower safety: Lower safety limit switch where horizontal run is needed for parking at bottom landing.

F. 90 Deg. Platform: Side loading platform at the bottom landing.

2.05 APPLICABLE STANDARDS

A. Unit shall be designed and manufactured in accordance with the ICC/ANSI A117.1, NEC, and ASME A18.1 for inclined platform lifts in public places.

B. Unit shall be installed in accordance with the ICC/ANSI A117.1 standard, ASME A18.1 standard, NEC and local building codes. Inclined Platform Lift shall be parked clear of the stairway handrail, eliminating any obstruction of the stairway handrail the by inclined platform lift car when lift is not in use.

C. Refer to local jurisdiction for variance applying to independent operation of lift.

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. Unit shall be installed and operated in accordance with the ICC/ANSI A117.1, NEC, and ASME A18.1 Guidelines.

B. A dedicated electrical circuit with a lockable service disconnect shall be supplied by the electrical contractor.

C. Coordinate work with general contractor.

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

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

3.03 FIELD QUALITY CONTROL

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**

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