

The National Wheel-O-Vator Co., Inc.

# WOV 355

## *Vertical Platform Lift*

- **3 platform configurations:**
  - Single opening.
  - Opposite opening.
  - 90 degree opening.
- **Various platform interiors:**
  - Wood grain finishes.
  - Baked enamel steel finishes.



The WOVS 355 is a vertical platform lift with a roped hydraulic drive and 6'8" interior platform height. A smooth ride is provided by the 2 speed operation. The control panel buttons require constant pressure for the lift to raise or lower.

- **750 lb capacity (1,000 lb optional).**
- **6'8" interior height.**
- **Suspended style ceiling.**
- **Florescent lighting.**
- **1:2 roped hydraulic drive unit.**
- **Submerged motor.**
- **2 speed operation.**
- **Remote machine room up to 40' away.**



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# WOV 355 by National Wheel-O-Vator

## Specifications

### PART 1 - GENERAL

#### 1.01 SECTION INCLUDES

A vertical platform lift with 1:2 roped hydraulic lift system, full height platform walls, and constant pressure operation.

#### 1.02 WORK INCLUDED

Furnish all labor and materials, equipment and incidentals necessary to assemble and erect the lift, complete with a remote power unit and all hoses, rails, brackets, connections and controls essential for proper operation.

#### 1.03 WORK BY OTHERS

**Construct** a runway of the size required by the manufacturer, complete with all demolition, additional framing, headers, and framing components necessary to prepare the existing building to receive the lift.

1. Runway size: 53"W x 61 1/2"D (dependent upon platform size).
2. The runway shall be vertical to within 1/8" throughout the entire height.
3. Runway shall have a smooth surface throughout region traversed by the lift.
4. Provide structural members, installed, full length vertically of runway between floor plates per manufacturer's recommendation.
5. Pit requirements: Provide 8" deep pit (minimum 6" deep). Install reinforcement and concrete as necessary. Floor must sustain load specified in job drawings.

**Construct** a machine room:

1. Provide lift electrical circuit appropriate for particular motor, such as: 208/230 volt AC/1 phase/60hz (30 amp).
2. Provide lift lighting electrical circuit: 115 volt (15amp).

**Provide** system to maintain runway and machine room within 50-90 degrees F.

#### 1.04 REFERENCES

American Society of Mechanical Engineers/American National Standards Institute (ASME/ANSI) publications. ASME/ANSI A18.1, ICC/ANSI A117.1  
Canada Standards Association (CSA) B355.  
National Fire Protection (NFPA) publications: NFPA 70 National Electrical Code.

#### 1.05 SYSTEM DESCRIPTION

1. Travel: 30' max for CSA B355; 14' max for ASME/ANSI A18.1.
2. Stops: Up to 4.
3. Load Capacity: 750 lb.
4. Speed: 30 fpm.

#### 1.06 SUBMITTALS

Submittals shall be in accordance with Section 01300, SUBMITTALS.

Product Data: Submit product data, including manufacturer's specifications.

#### 1.07 QUALITY ASSURANCE

Qualifications:

1. Installer Qualifications: A company experienced in the assembly and erection of lifts of the type specified; trained and certified by the manufacturer.
2. Manufacturer Qualifications: A company specializing in the manufacture of lifts for the disabled.

#### 1.08 WARRANTY

The unit shall have a three (3) year limited parts warranty.

#### 1.09 MAINTENANCE

Maintenance of the platform lift unit shall consist of regular cleaning and inspection at intervals not longer than every 6 months.

Inspection: ASME A18.1 requires all platform lifts be inspected every 6 months.

### PART 2 - PRODUCTS

#### 2.01 MANUFACTURERS

Manufacturer: WOY 355 model by The National Wheel-O-Vator Co., Inc.

#### 2.02 COMPONENTS

**Platform:**

1. Size: 36"W x 60" D Clear (others available).
2. Enclosure: Securely fastened to the platform frame and floorboard. The platform shall be constructed of steel walls or minimum 3/4" thick wood walls. Floorboard shall be constructed of 1" AC plywood with no slip, sheet rubber flooring.
3. Handrail: One, located on the platform wall and mounted in accordance with ICC/ANSI A117.1 requirements.
4. Control panel: Provide one constant pressure illuminated button for each landing, emergency stop and alarm button, and a digital position indicator; all mounted in a control panel having a removable stainless steel cover.
5. Interior lighting: Overhead light that automatically turns on when the platform is in operation and turns off by a timer circuit.

**Runway door:**

1. Size: 3'0"W x 6'8"H swing type.
2. The general contractor or owner is to furnish (lift contractor may opt to furnish) and install runway doors, frames, hinges and passage sets at each landing. The type and installation of the doors and frames must comply with ASME A18.1, all local codes and as per manufacturer's layout drawings.
3. Locking Device: Door shall have a locking device, interlocked with the lift operation.

**Hydraulic power unit:**

1. The pump, submerged motor and valve shall be pre-wired, ready for connection to the controller in the field.
2. Up direction acceleration adjustment.
3. Two speed operation.
4. Adjustable pressure relief valves.
5. Manually operated down valve for emergency operation.
6. Pressure gauges and pressure gauge isolation valves.
7. Manual valve isolation between pump unit and jack.
8. Negative pressure switch provided.
9. Testing: Shall be factory tested prior to shipment.
10. Muffler provided for quiet operation.

**Cylinder:**

1. Construction: Steel pipe with cylinder head having an internal guide ring and self adjusting packing.
2. Safety valve: Cylinder shall be equipped with a pipe rupture safety valve.

**Plunger:**

1. Construction: Shall be a machined steel shaft equipped with a stop, electrically welded to bottom end to prevent plunger from leaving shaft cylinder.
2. Diameter: 80 mm.

**Suspension system:** 1:2 system using (2) 3/8" - 7x19 aircraft cables integrated with rams header sheave mounted to the plunger.

**Guide rail:** Shall consist of two 6 1/4 lb. tee rails assembled and fastened. Provide brackets to hold rail assembly to walls. Rail shall be furnished with steel splice plates and hardware.

**Platform frame:** Shall be equipped with non-metallic faced roller guide wheels.

**Leveling device:** Hall effect system to maintain platform within 1/4" of the landing.

**Control systems:** Constant pressure PLC.

**Motor (submerged):** 3.0 HP, 1750 RPM- 208/230 VAC, single phase.

**Wiring:**

1. Provide flexible traveling cable for electrical light and controls in platform.
2. All other electrical wiring shall be insulated, flame retardant, and moisture proof copper wiring installed in flexible metal conduit.

**Safety Devices:**

1. Slack cable protection: Provide a stainless steel linkage device that stops and sustains the platform in the event of breakage or slacking of cables.
2. Terminal stopping device: At the top and bottom of the platform travel.
3. Provide a platform toe guard at the platform entrance.

**Battery powered emergency operation system:**

1. Powers a light on the platform.
2. Powers an emergency alarm system.
3. Powers a system to allow platform to descend to floor selected by passenger.
4. The batteries shall be a rechargeable type complete with automatic charging.

#### 2.03 ACCESSORIES

1. Runway doors and door locks.
2. Flush mounted telephone box.
3. Platform trim and wood specie or color.
4. Custom platform size.
5. Hydraulic tank heater.
6. Electrical disconnects.

### PART 3 - EXECUTION

#### 3.01 INSTALLATION

1. Inspect the runway and determine if the runway meets the manufacturer's requirements for clearances and plumb.
2. All components shall be assembled and erected in strict compliance with manufacturer's printed instructions.
3. All wiring shall be in accordance with the wiring diagram furnished by the manufacturer.

#### 3.02 FIELD QUALITY CONTROL

1. Static/Running Load Test: All load rating and safety factors shall meet or exceed those specified in ASME A18.1.
2. Load the lift to rated capacity and test for several cycles to ensure proper operation. No mechanical failures should occur and no wear that would affect the reliability of the unit shall be detected.

Note: Specifications are subject to change.