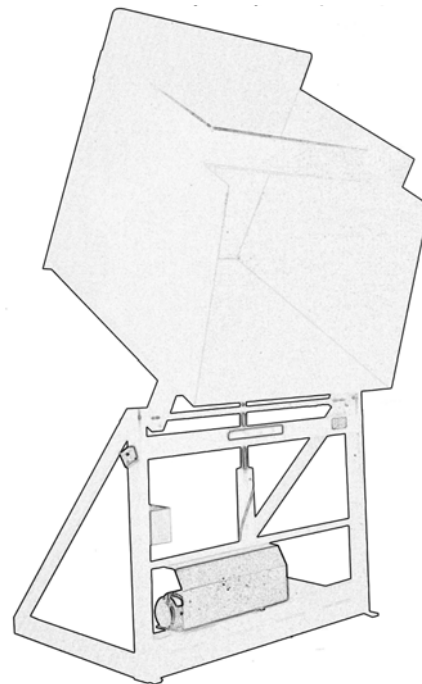
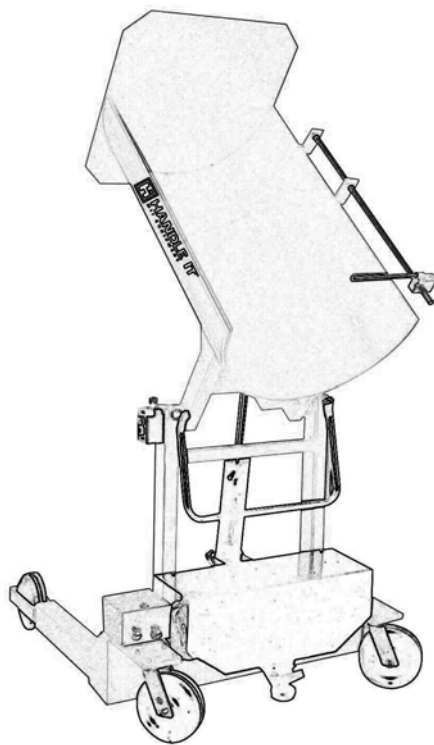




**HANDLE-IT**<sup>TM</sup>  
M I E Q U I P M E N T

## Dumper Manual





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## Operation and Maintenance manual for Dumpers.

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## **Introduction**

This manual attempts to provide all of the information necessary for the safe and proper installation, operation and maintenance of Handle-It Drum Dumpers.

The Dumper has a nameplate, which provides the load capacity ratings, serial number, drawing number and date of manufacturing. Please refer to these numbers when ordering parts, or requesting further information.

## **Safety**

Do not install or operate this Dumper without carefully reading this manual.

## **Warning**

- Do not perform any repair or work on Dumpers with the platform in the raised position.
- All personnel must stand clear of the machine when platform is in motion.
- Do not put hand or feet under platform.
- Do not stand, sit or climb on the Dumper.
- Do not use on soft, uneven, or unstable surfaces.
- Do not exceed load capacity.

# Installation

## Inspection

Upon receipt of the Dumper inspect the equipment completely to determine if there is any shipping damage, and the Dumper is complete. Do not use the Dumper if there appears to be any damage. With the Dumper in the down position check the following:

1. Signs of damage especially to the electric's and hydraulics.
2. Check connections for tightness. Are there hydraulic leaks?
3. Check the base frame for flatness.
4. Inspect for any bent or damaged metal parts.

## Installing Stationary Dumpers

Before starting, make sure that the electrical system is wired in full compliance with local electrical codes and ordinance.

1. Make sure that the floor in the installation area is flat, stable, and free from dirt and surface defects.
2. Place Dumper in exact operating position.

**Caution:** When moving the Dumper it should be picked up by the base frame only. The use of a strap or sling is suggested.

3. The Dumper is provided with anchor holes or brackets, be sure the Dumper has been placed in the exact operating position before spotting or drilling holes for anchor bolts. Bolt the Dumper securely before using it.

## Installing Portable Dumpers

1. Before starting the Dumper make sure the floorlocks are engaged. Carefully raise Dumper to full dump position and check if safe.

- Due to load conditions, which cannot always be simulated, when testing at the factory, portable Dumpers can move, or tip over if not used with caution. Handle-It cannot accept liability in case of damage or injury.

## Electrical

**CAUTION:** all wiring must conform to local codes and must be performed by licensed electricians

The following chart recommends power supply for various motors supplied with the Dumpers.

Motor Size	Fuse	Breaker
1 HP 120v, 1 Phase	30 Amp	25 Amp
1 HP 240V, 1 Phase	25 Amp	20 Amp
1.5 HP 208-240, 3 Phase	15 Amp	10 Amp
1.5 HP 460, 3 Phase	7.5 Amp	5 Amp

**Warning:** Do not tamper or remove cover of the electrical junction box. Only authorized qualified personnel should service the electrical system.

**Important:** Motor direction is critical. Make sure motor rotates according to the direction arrow on motor frame.

## Hydraulics

- Use CSR Dextron IIC automatic transmission fluid, or equivalent.
- Before using the Dumper check the hydraulic oil level and add oil if necessary. Add oil when the Dumper is in the “down position” only. Check fittings for tightness.

## Testing

1. Before testing the Dumper, clear the area of any loose material. Be sure the Dumper has no obstructions and there is enough ceiling space. Using the controls provided, briefly press the “up” button. If the Dumper begins to rise with a humming sound and functions properly, continue carefully to the fully upright position.

**Caution:** If the Dumper does not rise immediately, or there is any operational problem, stop. Before continuing, check the rotation of the pump and the voltage at the motor terminals. Review the procedures in the section on trouble shooting.

2. After raising the Dumper completely, lower the Dumper. It should move slowly and smoothly. A manual adjustable flow control at the pressure port on the pump is provided to adjust the down speed, if necessary. If the Dumper operates properly, raise and lower the Dumper and stop at different levels to get a good perspective on the Dumpers operation and movements.

## Operation

### Method of Operation

All Handle-It Dumpers are provided with a factory preset relief valve for the maximum safe capacity. (See nameplate).

Activating and holding the “up” button will energize the motor. The motor is coupled to a positive displacement pump, which draws hydraulic fluid from the reservoir and transfers it under pressure to the hydraulic cylinder. This forces the piston forward and the platform will raise. Depressing the “up” button will stop the Dumper. A check valve in the pump holds the Dumper in position.

Pressing, and holding the “down” button will energize a solenoid, which allows the oil from the cylinder to return to the reservoir through an adjustable flow control valve. This allows the Dumper to lower smoothly and at a controlled speed.

**Caution:** Do not maintain the switches energized if the Dumper does not move, or has reached its up or down limits. This may cause damage to the motor, pump and controls.

The Dumper is also equipped with a hydraulic velocity fuse mounted on the cylinder port. The fuse will stop the flow of oil (lock up) if it reaches 5 Gal/Min. This is a safety device and will prevent the load from falling in case of a hose rupture.

**Warning:** If the manual flow control valve is set too wide open, the velocity fuse may lock up.

### Operating Procedure

In order to operate the Dumper, follow these operating procedures.

1. Read and understand all the instructions before operating
2. Load Dumper correctly.
  - a. Only load the Dumper in fully lowered position.
  - b. Do not exceed the maximum rated load.
  - c. Position load, so it will be right against the back plate (minimum distance to pivot point).
  - d. Make sure, the retaining bar is in place and fits the container.
3. Stand clear of the Dumper when operating it, in order to avoid injury.
  - a. Do not stand, sit, or climb into the Dumper.
  - b. If the Dumper fails to move, or exhibits strange movement or sound, stop immediately. Do not operate the Dumper until it has been checked and repaired.

## Maintenance

Generally the Handle-It Dumper will require little maintenance. However routine maintenance and inspection will minimize costly repairs or hazardous conditions.

**Warning:** Never go under, or service Dumper in “up” position.

### Routine Maintenance

All routine maintenance should be performed monthly. Before performing any maintenance, shut the power off.

1. Check oil level. Add oil to the reservoir if necessary.
2. Check pivot bushing and pins for wear.
3. Grease bearings on pivot arms periodically.
4. Make sure all pins are secure and retained.
5. Pivot shaft must not rotate; make sure set screws are not loose.

**Warning:** Great damage and possible injury can occur if pivot pins, or cylinder pins come loose.

6. Check hydraulic lines for damage or leaking. Replace if damaged.
7. Check wiring damage. Replace immediately if any sign of wear is evident.
8. Bushings on pivot pins on cylinders are permanently lubricated and require no servicing.

### Trouble Shooting Maintenance

#### Dumper will not move:

1. No operational noises:
  - a. Check power switch, fuse and overloads.
  - b. Check voltage on motor. Motor may have failed.
2. Operational noises:

- a. Dumper may be overloaded or jammed. Check load weight and obstruction.
- b. Motor (3 Phase) single phasing. Check voltage at motor terminals.
- c. Motor (1 Phase) low voltage. Check voltage at motor terminal.
- d. Oil shortage ----- reservoir low, or hose failure. Repair or replace.
- e. Contactor chattering (1 Phase). Low supply voltage. A designated 25 Amp Power Supply is recommended. Avoid extension cords.

**Dumper will not go down:**

- 1. Velocity fuse may be locked up. Close flow control valve a few turns (clockwise). Press “up” button for a few seconds and then try again to go down. There is a distinct clicking sound if the velocity fuse locks up.
- 2. Down solenoid (burned out). Check continuity of coil.

**Dumper will descend by itself:**

- 1. Cylinder seal might leak. (red hydraulic fluid is leaking out of top cylinder port). Replace seal, or cylinder.
- 2. Check valve in pump may not be seating. Requires new pump.
- 3. Solenoid valve might be stuck open due to dirt. Unscrew and clean.

**Dumper will stall before reaching full dump position:**

- 1. Oil shortage. Top off the hydraulic fluid in the reservoir.
- 2. Cylinder seal leaking, necessary hydraulic pressure is not reached. Replace seal or cylinder.
- 3. Dumper is overloaded. Reduce Load.
- 4. Pump is worn, necessary hydraulic pressure is not reached. Pump needs to be replaced.