



## **SPECIFICATIONS - HIGH PRESSURE SEWER CLEANER**

**HS1000**

### **GENERAL**

The machine is capable of removing stones, grit, grease, sludge and other debris from sanitary sewer and/or storm drain lines by the flushing action of high-pressure water. The high-pressure sewer cleaner operates independent of the vacuum system.

The machine includes an air conveying vacuum system to provide for the simultaneous removal of the debris flushed to the manhole by the high-pressure water system or for the removal of debris from sewers, sumps, catch basins, digesters, wet wells, bar screens, etc.

The machine is capable of being operated by one man, with all operating controls for high-pressure water pump, hose reel, and vacuum, located at the front of the machine for safety.

### **WATER SUPPLY**

The water tank has a usable capacity of 1000 U.S. gallons.

The water tank is constructed of non-corrosive, non-metallic, durable, cross-linked polyethylene to eliminate rust, corrosion, and stress cracking.

The water tank is mounted at the truck frame level to provide a low center of gravity for truck stability.

A 2-1/2 inch diameter x 25 feet long hydrant hose with hydrant wrench is supplied on the unit.

An anti-syphon fill device is installed on the unit.

Inspection port is provided to fill or to add chemicals to the water system.

A sight gauge to indicate water level is located within sight of the operator station.

The water tank has a twelve month replacement warranty.

### **WATER PUMP DRIVE**

The water pump is be driven by an auxiliary gas engine gas powered, 10-cylinder heavy-duty industrial engine with 222HP @ 3200 rpm and 415 CID.

The heavy-duty industrial diesel engine has a CID of 415 a rated gross horsepower of 222 bhp at 2500 rpm.

The engine is equipped with a counter balanced crankshaft, rubber-isolating mounts, automatic safety shut downs for low oil pressure and high water temperature, as well as an exhaust silencer.

All guages, auxiliary engine tachometer, oil pressure, water temperature, hour meter, and shut down system are located on the driver's side of the unit in a locable control panel. The auxiliary engine start and stop controls are at the hose reel operator station for safety and convenience. The shrouded auxiliary engine has a hinged driver's side door for the access to the engine. Oil checking is accomplished from ground level on driver's side of the unit.

### **AUXILIARY ENGINE (WATER PUMP DRIVE ENGINE)**

-- Select Auxiliary System--

### **HIGH-PRESSURE WATER PUMP**

The high pressure water pump is rated to deliver smooth continuous pressure and flow through the entire flow range of the pump.

A continuous duty flow of 50 g.p.m. and 3000 p.s.i. is provided.

High-pressure relief valves are provided for both the high-pressure system and hand gun system.

The water pump is capable of running dry.

Controls for starting and stoping the water pump and to vary the flow and pressure shall be at the hose reel operator's station.

The high-pressure wate pump will be equipped with a cold weather drain valve. The valve allows operator to completely drain the high-pressure pump.

### **HOSE REEL ASSEMBLY**

The hose reel assembly is mounted on the front of the vehicle. The hose reel shall have a minimum of 30" inside diameter with a capacity of 600' x 1" hose. The hose reel is hydraulically powered in both directions by means of a double chain and sprocket drive. The controls for operating the motor have a flow control device to regulate the rotational speed of the reel in both directions. All hydraulic hoses are behind a steel housing to protect operator from hydraulic oil if a hose fails. The hydraulic motor, chain, and sprockets have a protective cover or are mounted on the radiator side of the hose reel for operator safety. The hose reel articulates 180 degrees to the drivers side allowing operator to work in any position through this arc. This allows greater flexibility in truck placement for manholes located in tough areas and provides greater safety to the operator. Reel extends beyond the width of unit for greater flexibility for positioning reel over offset manholes, catch basins, etc. A hydraulically controlled outrigger leg is supplied that comes in contact with the ground at any one position. A warning light is located in the cab to warn the operator that the outrigger leg is not in its transported position prior to moving the unit. A manual bypass system for the hose reel assembly is provided to manually pull the reel assembly away from its transported position. This feature allows operator to check fluids without starting engines.

600' x 3/4" jet rodder hose will be supplied rated for 3000 working pressure and 7500 psi burst pressure.

A heavy duty hose guide with 25' of nylon rope will be provided.

Nozzles shall be hardened steel with replaceable ceramic orifices as follows: 1) Chisel head penetrator & 1) standard sanitary.

#### **MANHOLE CLEANING WATER SYSTEM (HAND GUN)**

The high-pressure pump and independent water tank assembly supplied are used for manhole cleaning.

A smooth continuous flow of 20 g.p.m. and pressure of 600 p.s.i. is provided for ease of operation.

A hand gun pressure relief valve set at 600 p.s.i. is provided.

One full functioning hand gun with on/off hand control, replaceable nozzle tip, 12 inch extension, adjustable spray and 25' x 1/2" hose hand gun hose with quick disconnects is provided.

The hand gun attaches to the system via a quick couple connection at the curbside of the unit. To avoid being coiled at the operator's station a hand gun is provided at the bumper.

#### **HYDRAULIC SYSTEM AND LUBRICATION**

The hydraulic system has a 45-gallon capacity.

The hydraulic system incorporates a main shut off valve in case of hydraulic failure.

The hydraulic system incorporates hydraulic pressure relief valves and pressure guages for ease of trouble shooting and maintenance.

The unit is equipped on the passenger side, mid-section of the module, a permanent weatherproof white vinyl lubrication chart.

The chart points out lubrication points on the module and specifies what type of lubrication and hydraulic fluids are required. The chart also specifies the frequency of each lubrication point.

Remote plumbed grease fittings are provided for the water pump drive areas.

#### **ACCESSORIES**

A minimum twelve (12) month manufacturer's guarantee on the unit will be provided.

- 1 Winter recirculating system capable of operating through the full flow range of the high-pressure rodder hose system in transport or stopped position
- 1 Artic Winter Recirculating System for rodder hose, includes plumbing to upper water tanks.
- 1 Air purge system
- 1 2 1/2" water tank drain gate valve assembly
- 2 Aluminum side mounted tool box, 16" x 13" x 72"
- 1 Low water alarm with light
- 1 Rear mounted tow hooks
- 1 Remote grease assembly for articulating hose reel (accessible from ground level)
- 1 Dual roller level wind guide ilo single

- 1 10' leader hose
- 1 Hose footage counter, driver side

#### **LIGHTING**

The entire module electrical system is vapor sealed to eliminate moisture damage.

All wiring is color-coded, labeled and run in sealed terminal enclosures.

All module circuits are protected by circuit breakers.

Clearance lights and reflectors are furnished in accordance with D.O.T. requirements.

- 2 Mirror mounted LED strobe light, with limb guard - Whelen L21HAP LED Beacon with Whelen BGH Branch Guard
- 1 LED strobe light with limb guard, rear debris tank door mounted - Whelen L21HAP LED Beacon with Whelen BGH Branch Guard
- 1 4 LED strobes - (2) front bumper, (2) rear bumper - Whelen 50A03ZCR - Amber
- 1 LED arrow board, rear debris tank door mounted - Whelen TA1251NF1 Traffic Arrow

#### **PAINT**

Unit paint surface is shot blasted, primed and sanded prior to paint.

Unit to be painted with DuPont Imron 5000 polyurethane paint.

to customer special instructions

Chassis shall be painted white.

#### **TRAINING AND MANUALS**

Operator training to be conducted by a factory-trained representative for a minimum of one day at the time of delivery.

2 copy(ies) of the operating and maintenance manual for the sewer cleaner module shall be provided upon unit delivery.

An operational video will be provided with the unit.

#### **MOUNTING AND DELIVERY**

The unit described is mounted on the truck chassis at the factory of the body manufacturer.