

American Road Machinery, Inc.

16 CUBIC YARD CAPACITY SCAVENGE-VAC VACUUM CATCH BASIN CLEANER

INTENT:

It is the intent of these specifications to describe a vacuum type catch basin cleaner to mount on a truck chassis. The basin cleaner shall be used for picking up leaves, waste paper, cans, sand, stones, bottles, and street sweepings and for cleaning storm sewer catch basins of accumulated sand, gravel silt, broken glass and other debris.

GENERAL:

The bidder must quote on a unit regularly manufactured and must supply complete specifications of the particular model equipment bid on.

The vacuum unit shall be self-contained; powered by its own engine; mounted on an independent frame; and shall not depend on any other power source to operate the vacuum unit. The unit shall be suitable for mounting on a tandem axle truck chassis.

The overall width of the entire unit shall not exceed the permissible 8' traveling width with the intake hose attached to the rear door port. The overall height of the unit mounted shall not exceed 11' when in travel position. Height based on truck frame 3' high.

All operations of the intake hose shall be easily done from the right side or the rear door. All debris picked up through the intake hose shall be deposited directly into the body without passing through the blower. A filter system shall be provided to prevent debris carryover from the body into the fan assembly. This filter system shall not have openings exceeding 20 mesh screen.

POWER UNIT: (Deere 6068 T)

Type: In-Line 6-cylinder, 4-cycle Turbo charged diesel.

Displacement: 414 Cubic Inches

Gross Power: 150 Horsepower at 2300 RPM.

Torque: 426 lb-ft at 1200 RPM.

Instruments: Curb side, in shock-mounted panel.

Vernier type throttle.

On/Start/Off Switch.

Voltmeter.

Combination Tachometer - Hour Meter

Water temperature, with safety shut-off.

Oil pressure, with safety shut-off.

Heavy duty two stage Air Cleaner with restriction indicator

Vertical Muffler

Alternator: 78 Ampere.

Battery: 950 Cold Cranking Amps, 185 Minute Reserve.

Muffler: Horizontal, external.

Fuel Tank: 30 U.S. Gallons - High density, cross linking, non-permeating, polyethylene. Molded as one piece, no weld seams or add-ons.

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OVERALL SIZE:

The unit shall be 237" long, 96" wide, and 86" high above the chassis frame rails. Add 12" to the height with the optional top revolving boom .

HOPPER AND HOPPER FRAME:

The hopper frame shall be 34" wide, 136" long, and made of 4" cross and 5" structural channel and have the hopper securely welded to it. The hopper shall be 16 cubic yard volumetric capacity and be at least 84" wide x 152" long x 64" high. The hopper shall be made of at least 12 gauge sheet steel all welded construction. Floor and bottom sides shall be 3/16" thick plate steel. At least eight supporting ribs of 3" channel shall encircle the body for strength. The hopper bulk-head shall have two bolt-in removable panels. The hopper shall have a one-piece top-hinged rear door with spring compensated counter balance to aid in holding the door open for dumping. The door shall have an adjustable neoprene seal. A positive locking, easy operated door lock shall be supplied. The hopper shall be self-dumping by its own dual 8" diameter hydraulic rams.

FILTER SCREENS:

Shall consist of four sections - each section having its own frame and being held in position in a stainless steel track. All sections to be easily removed by the removal of one retainer plate and to be a one man job. Each section shall consist of 20 mesh stainless steel screen and be protected by expanded metal and steel frame. The screen shall not pass particles over 858 microns.

HOPPER DRAIN:

Shall be located in the door to permit draining the liquids from the hopper. The drain-off shall be through a 6" hose.

INTAKE HOSE AND TUBES:

The intake hose shall be 12" dia. x 8'4" long, neoprene heavy duty, rubber covered, and wire reinforced. The hose shall attach to the hopper port by means of a quick over-center clamp and not require tools. An 18" long steel tube coupling end shall be attached to connect the various basin tubes. Three catch basin tubes shall be supplied: one 12" dia. x 96" long aluminum tube with a ring for a 12" over-center clamp on one end and a steel serrated end on the other; one 12" dia. x 24" long aluminum extension tube with a ring for an over-center clamp on one end and an over-center clamp on the other; and one 12" dia. x 12" long steel tube with a ring for a 12" over-center clamp on one end and a steel serrated end on the other. There shall be a circular hopper tube handle assembly which shall adjust to the desired height by means of a clamping assembly.

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HOSE BOOM ASSEMBLY:

A remote controlled hydraulic operated boom shall be provided for cleaning catch basins. This boom shall be a minimum 7'6" long and shall permit the removal of 8' of catch basin tube from a basin without disassembly. The two-section boom is to be truss type constructed of 3" @ 9.0# per foot channel properly reinforced and shall be connected by a hinged adjustable, counter-balanced spring. It shall be raised and lowered with a 2-1/2" bore x 15" stroke, hydraulic cylinder which receives its power from an electric solenoid hydraulic valve and controlled by a remote push button control. The catch basin cleaning tube constructed of aluminum 12"dia. x 8' long, shall have a quick coupler which shall permit hookup to the hose without tools and shall have a serrated end for breaking loose compacted material.

HOPPER HOIST ASSEMBLY:

Shall be underbody type with dual lifting arms and two 8" double acting cylinders. The cylinders shall be horizontally mounted when the body is down and not interfere with cross members, etc, to permit easy mounting on the chassis. The hoist shall have a lifting capacity of 60,000# and it shall receive its hydraulic power from the main hydraulic pump driven by the truck PTO. The dumping angle shall be at least 50 degrees.

BLOWER ASSEMBLY AND DRIVE:

The fan shall be a minimum of 33" diameter constructed of a combination of 1/4" and 3/16" high alloy steel and shall be statically and dynamically balanced. The fan shall be capable of creating 47" of water negative pressure (vacuum), and 16,500 CFM. The fan speed shall be 2,900RPM. The fan shall be direct driven through a heavy duty, oil bath gear type PTO/speed increaser combination. The main supporting fan shaft bearings shall consist of two heavy duty roller bearings. The clutch shall be a heavy duty, 11 1/2" double disc, over-center type.

WATER JETTING SYSTEM:

A water jetting system shall be provided for breaking loose compacted basin material and cleaning the filter screens. Water shall be contained in a 350 gallon water storage tank constructed with 3/16" aluminum plate and equipped with a drain. The tank shall be located above the engine. The gear type jetting pump shall be belt driven through an electromagnetic clutch and shall have a capacity of 19 GPM with 130 PSI. There shall be 25 feet of 1/2" diameter industrial type pressure hose and a heavy duty, trigger type spray gun.

DUST CONTROL:

Dust control shall be accomplished at the intake tube by injection of water through the high pressure jetting hose using the existing water supply. The water hose shall be provided with quick couplers to connect the pick-up tube with the water supply and a metering valve shall regulate the flow of water.

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LADDER:

A separate 7' wood ladder shall be provided to permit hook-up of the intake hose to the hopper hose parts.

PAINT:

The entire unit shall be given two coats of rust inhibiting primer and a finish coat of white enamel paint.

OPTIONAL EQUIPMENT

RETRIEVER:

(8 Feet Long) Retrieves bulky objects of various shapes from the bottom of catch basins.

CATCH BASIN SPOON:

(10 Feet Long) Scrapes the sides and corners of catch basins.

ROTATING BEACON:

A 360 Degree rotating beacon shall be supplied and installed on the engine housing so that it is visible from the sides and rear of the unit and shall be connected to the starter switch to operate when the engine is running. Specify color desired.

TOP REVOLVING BOOM:

A low profile top revolving boom with power lift shall be provided. It shall have a remote push button control station to operate the electric hydraulic pump and 4" hydraulic cylinder. It shall rotate horizontally on two 29" long rollers with bearings a full 300° allowing the use of the intake hose from side or rear hopper ports. It shall have vertical capacities of 1000 lbs. lift and 11' minutes travel. It shall incorporate a 3-1/2" dia. spring which will allow knee action at the pick-up hose without hydraulic assist.