

GENERAL SPECIFICATIONS

750 GALLON TRAILER MOUNTED SEWER JETTER WITH PIVOTING HOSE REEL

Acceptable brands/models: Sewer Equipment Co. of America model 545,
O'Brien model 7045-SC or equivalent

GENERAL INFORMATION

Scope: It is the intent of these specifications to describe the minimum requirements for a new trailer mounted high pressure culvert cleaner. The cleaner shall be designed for high-pressure sewer flushing and removal of debris from storm lines. The unit shall come complete with all necessary equipment and accessories and shall be fully assembled and ready for use upon delivery. All manufacturers standard equipment shall be included. Manufacturers published literature shall be provided to substantiate that unit bid meets all specifications.

WATER TANKS

1. Minimum tank(s) capacity of 750 U.S. gallons. Tanks shall be constructed of 3/8", high-density polyethylene with UV stabilizers. Tank shall include a full-length sump and water level sight indicator.
2. Water fill system with a minimum 2" hydrant hose connection shall be provided. The fill system shall be air gap, anti-siphon design.
3. A minimum 1.5" drain valve shall be installed to drain and purge the water tanks for routine maintenance or winterization.
4. Water tank shall be positioned over the trailer axles to ensure proper weight distribution of machine when full of water.
5. Tank shall be equipped with a system to allow recirculation of the water through the main hose and back to the tank.
6. Water tanks shall be mounted and anchored directly to the units' sub-frame using a molded-in secure points or nylon straps.
7. Water tank(s) shall have a removable inspection lid on top. Tank opening shall include a removable strainer basket.

3.0 WATER PUMP SYSTEM

1. Heavy-duty, positive displacement, heavy duty water pump. Capacity of the pump shall be 40 GPM at 2000 PSI.
2. Water pump shall be PTO or belt driven
3. A single three-way water flow control valve shall be provided and operated by a manual lever at the operator's station.
4. The entire pressure piping system shall be designed utilizing 3/4" ID high pressure rubber hose with

double wire re-enforcement. Pump suction and low-pressure lines shall be standard PVC fittings. The entire piping system shall include drain plugs to allow adequate draining for winterization.

5. Water pump shall be capable of being operated independently or simultaneously with the hydraulic system to allow operation of the hose reel without running the water pump.
6. Water pump shall be mounted in a fashion as to allow easy access for routine inspections and maintenance without the need to remove the pump from the unit.
7. The entire pump/engine compartment must be enclosed within a metal shroud. The shrouding system shall include two (2) doors for access to the compartment.

POWER SOURCE AND PTO DRIVE SYSTEM

1. The engine shall be a water-cooled direct injected, turbo charged, 4-cylinder industrial diesel engine with a minimum rating of 60 horsepower @ 2600 RPM. The engine shall be certified to meet Tier 4 final EPA requirements. Two-year warranty on engine.
2. A heavy-duty 550 CCA battery and minimum 60 ampere alternator shall be provided.
3. The engine/pump compartment shall be enclosed within a 14-gauge steel shroud for protection and to insure overall quietness. Access to the engine, water pump, piping and hydraulic pump will be through vented side doors with lockable latches. The enclosure shall allow enough air flow for proper engine cooling in 90+ degree weather.
4. The engine fuel tank shall have a minimum capacity of 16 gallons.

CONTROLS, GAUGES AND INSTRUMENTS

1. The unit shall be operable from one position located at the rear or curb side of machine. The controls must be positioned in a way as to allow cleaning to be done by one person. Reel speed control and hose reel payout/retrieve controls must be positioned to allow operator to control both functions separately or simultaneously.
2. NEMA 4 rated control panel incorporating the following gauges and controls will be mounted at the hose reel assembly for ease of viewing and operation.

Tachometer with Hour Meter	Fuel gauge
Electronic engine throttle	Keyed ignition system
Water pressure gauge	Hydraulic pressure gauge
On/off water control valve	Voltmeter
Water level sight tube	Oil pressure gauge w/ shutdown
Hose reel speed control	Low water warning light
Temperature gauge w/ shutdown	Reel payout/retrieval controls

PIVOTING HOSE REEL ASSEMBLY

1. The hose reel shall be mounted in proximity to the control panel for single operator use. Reel shall have a pivot minimum of 190 degrees. The reel shall lock into place at various positions within its arc via a spring-loaded quick locking mechanism. The reel platform shall be mounted in a manner that provides adequate ground clearance.

2. The hose reel drum shall be constructed of 1/4" thick steel with 1.5" outer drum flanges to protect against warping from hose swelling and high torque loads. The reel must pivot on a 10" industrial type, heavy duty swivel bearing.
3. The hose reel assembly shall have a minimum useable capacity of 700' of 3/4" ID mainline sewer hose.
4. The unit shall be delivered with a minimum of 500' of 3/4" ID sewer hose with 2000 PSI rating.
5. The hose reel drum shall be hydraulically powered in both directions. It must have enough power to retrieve the full length of sewer hose under full pressure.
6. Water delivery to the pivoting hose reel shall be through a 1" heavy-duty cast iron 90-degree swivel rotary coupling.
7. A 1" 3-way ball valve shall direct the flow of water to the hose reel assembly or by-pass the water back into the water tanks.
8. A hose reel pendant control with 20' of cable with quick-disconnect shall be furnished that will allow the operator to payout and retrieve the sewer hose from remote locations.
9. A heavy-duty hand operated roller hose guide/level wind guide shall be provided to facilitate uniform alignment of the hose onto the reel.

WASH DOWN SYSTEM

1. A quick connection must be provided for wash-down hose connection. A wash-down handgun with 25' of 1/2" hose shall be included.

HYDRAULIC SYSTEM

1. The hydraulic pump shall be driven directly from the engine. A built-in overload relief valve and hydraulic hoses rated for 3000 PSI minimum pressure shall be incorporated into the system.
2. The hydraulic oil reservoir tank shall have a minimum capacity of 8.3 U.S. gallons. A fluid level sight gauge shall be provided on the hydraulic tank for quick fluid level inspection.
3. A replaceable spin-on cartridge hydraulic filter shall be required.

STORAGE

1. An additional storage compartment with a minimum of 625 sq.in shall be located either within the trailer tongue "A" frame or mounted on the passenger side fender.

PAINT

1. All exposed steel surfaces shall be professionally prepared for painting and protected with the following 4-step paint process.

- (1) Sand blasting
 - (2) Phosphoric metal washing
 - (3) One coat epoxy primer
 - (4) Two-part urethane topcoat minimum 5 mil thickness
2. The trailer frame shall be painted black while the hose reel, engine/pump enclosure and firewalls shall be painted white.

Additional Items

- One 15-degree radial nozzle
- One 35-degree radial nozzle
- One 25' fill hose
- One 20' x 3/4" rubber wire braided leader hose
- One 3" x 36" Tyger tail hose protector and rope
- 1 Operator parts and service manual

WARRANTY

Manufacturer standard warranty. Warranty to include water tank, pump and engine. Warranty information must be submitted with bid.

TRAILER

1. The trailer frame shall be heavy duty construction. The trailers' design must allow towing of the jetter at highway speeds while loaded with water.
2. Axles: (2) 7,000 lb. with EZ lube style grease fittings and electric brakes. Tires must meet manufacturers suspension rating.
3. Suspension: leaf spring type
4. Stop and turn signal taillights with license plate light at the rear, as well as all DOT specified clearance, running lights and reflectors. All lights shall be LED.
5. Heavy-duty fenders shall with non-skid surface treatment.
6. The trailer shall have an adjustable height coupler made from 2" X 4" channel, 16" long with 8 holes for maximum adjustability with 3" I.D. with eye, emergency hitch break-away switch, bolt on hand crank tongue jack, minimum of 7,000 lbs. and two safety chains with clevis hooks.