



STATE OF LOUISIANA  
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT  
TECHNICAL SPECIFICATIONS FOR

**HIGH VELOCITY HYDRO JETTER, TRAILER MOUNTED**

**SERIES NO. 225-500**

**REV. 4/5/2023**

**EQUIPMENT SPECIFICATION 225-500B**

**GENERAL**

This specification sets forth the minimum requirements for a self-contained high velocity hydro jetter, trailer mounted.

Equipment shall be new, a production model of current manufacture, and must meet all state and Federal safety and emission standards in effect at time of order.

**REPRESENTATIVE SPECIFICATIONS**

An O'Brien 7040-SC, with appropriate options and standard features, was used to develop these specifications and establish equivalency evaluation criteria.

Equipment of similar style, type, character, quality, features, and purpose conforming to the following detailed requirements/specifications will be considered. For evaluation purposes, bidders proposing an exception/equivalent option/feature to those specified herein, may be required to provide manufacturer/product information (catalogue sheets, detailed specifications, pictures, etc.). This information will be evaluated against the minimum requirements of this specification. Proposed submittals that are determined not to be equivalent to the established criteria will be rejected.

**LOUISIANA AUTHORIZED DEALER(S)**

Proposed item(s) must be from a manufacturer who has at least one (1) authorized dealer within the State of Louisiana where parts and service can be obtained. Authorized dealer(s) must have properly trained technicians plus all other resources necessary to perform warranty and repair services in complete accordance with the manufacturer's requirements. A letter certifying the ability to meet this requirement, inclusive of the company name(s) and address(es) of the Louisiana authorized dealer(s), should be supplied with the bid submittal and may be required prior to award.

**DELIVERY & ACCEPTANCE**

Vendor shall perform a test run of each unit to verify that all features and capabilities are operating properly at time of delivery. Documentation of testing may be required prior to acceptance by the Department.

Unit(s) must be delivered completely assembled (including all components, accessories, etc.) and ready for operation without any additional preparation including, but not limited to, ensuring all fluid levels are at their full mark, fuel tank(s) is full, all necessary lubrication has been performed, etc.

Any unit delivered under this specification is subject to rejection if there is evidence of poor workmanship, by either the vendor or the original manufacturer. Noted defects and/or nonconformance findings may be corrected by the vendor. Corrections must be completed and approved by the Equipment Engineer or his representative prior to final acceptance.

Unit(s) shall be delivered “**on the ground;**” DOTD will not unload nor provide any unloading equipment to the vendor/delivery driver in order to offload the unit(s).

**NOTE:** The Department will have space available for equipment to be unloaded.

**EACH UNIT MUST BE SUPPLIED WITH THE FOLLOWING DOCUMENTATION AT TIME OF DELIVERY:**

1. Notarized Bill of Sale
2. Original Certificate of Origin (MSO), (no photocopy)
3. Dealer's Service Policy
4. Owner's/Operator's Manual(s)
  - a. One (1) Hardcopy
  - b. One (1) Digital Copy
    - i. Acceptable Formats: PDF delivered via USB “Flash Drive”, or E-mail
5. Service Manual(s)
  - a. One (1) Hardcopy
  - b. One (1) Digital Copy
    - i. Acceptable Formats: PDF delivered via USB “Flash Drive”, or E-mail
6. Build Sheet(s) – as applicable
  - a. One (1) Hardcopy
  - b. Build sheets should be written in plain language (not company specific codes) and include, at a minimum, all standard & optional features of the delivered unit.

**NOTE:** Invoices will not be processed for payment until the unit(s) have been inspected by the Equipment Engineer or their representative and deemed in compliance with the specifications.

**BID SUBMITTALS**

Any additions, deletions, or variations from the specifications should be noted in the "Bidder's Exceptions" page of this specification. Exceptions that are noted to be less than a minimum requirement will not be accepted.

Any additions, deletions or variations from the manufacturer's standard published specifications should be noted on the "Bidder's Exceptions" page of this specification. Unless otherwise noted, any items appearing in the manufacturer's standard published specifications furnished by the Bidder are assumed to be included in the Bidder's submittal.

Bidder should note on their submittal any installation(s) to the equipment that will be performed by the vendor instead of the manufacturer.

Failure to note any specification exceptions, manufacturer specification alterations, and/or vendor installations prior to award may result in rejection of the equipment at the time of delivery.

**THE NUMBER OF DELIVERY DAYS AFTER RECEIPT OF ORDER (ARO) MAY BE USED AS A FACTOR IN THE AWARD.**

## EQUIPMENT SPECIFICATIONS

### NOTICE TO BIDDERS

Bidder should review the detailed "Equipment Specification" completely and respond to the compliance question at the end of each section by marking "X", in the space provided, for "Yes" or "No". Mark "Yes" to indicate that the equipment bid meets the section exactly as specified. Mark "No" if there are exceptions to any part of that section. Exceptions/deviations to any part of the specification are to be detailed on the "Bidder's Exceptions" page of this specification.

IN ORDER TO BE CONSIDERED FOR AWARD, BIDDER SHOULD RETURN THIS SPECIFICATION, COMPLETED IN FULL, WITH THEIR BID SUBMITTAL.

**Note: All values listed below are minimums unless noted otherwise.**

### 1. Engine

- 1.1. Kohler KDI2504 or approved equal
- 1.2. 74 HP, water cooled, diesel
- 1.3. 12V electrical system with alternator and battery
- 1.4. Temperature indicator, low coolant and low oil pressure safety shut down
- 1.5. Positive locking throttle and starter with key lock starting switch
  - 1.5.1. Over center clutch type power take-off to permit operating the engine and hose reel without operating the reciprocating pump. It shall not be necessary to disengage the pump from the engine to receive or rewind sewer hose onto the reel.
- 1.6. Engine shall be installed so that it is exposed on both sides and is easily accessible for maintenance and service.
- 1.7. Fuel tank – 17 gallon

Comply: \_\_\_\_ Yes \_\_\_\_ No

### 2. Pump

- 2.1. 40 GPM at 2,000 PSI with the crankshaft speed not exceeding 800 RPM
- 2.2. Positive displacement, heavy-duty single acting triplex type
- 2.3. Pump construction
  - 2.3.1. Enclosed oil bath crankcase
  - 2.3.2. Fluid end shall be corrosion resistant construction with non-floating, hardened steel piston pins, bronze piston pin bushings
  - 2.3.3. Hardened forged steel crankshaft
  - 2.3.4. Hardened helical gears, heavy duty tapered type roller bearings on the crankshaft and pinion shaft
  - 2.3.5. NOTE: Flow and pressure must be verified at the nozzle using flow and pressure gauges before unit will be accepted

Comply: \_\_\_\_ Yes \_\_\_\_ No

### 3. Tanks

- 3.1. 750-gallon combined capacity
- 3.2. Polyethylene, baffled to minimize sloshing

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- 3.3. Vented and fitted with suitable water-tight removable port(s) to permit inspection
- 3.4. 2" dump and clean out provisions as required
- 3.5. Five-year warranty against defects in material and workmanship
- 3.6. Tank(s) shall be anchored directly to trailer frame
- 3.7. Tank height must not exceed 66" from grade fully loaded
- 3.8. Tank shall incorporate a 3" "Y" suction line strainer with stainless steel body and screen
- 3.9. Tank top hatch for inspection

Comply: \_\_\_\_Yes \_\_\_\_No

### 4. Hose Reel

- 4.1. The hose reel drum shall be constructed to withstand maximum working pressure without distortion, and have a reel hub sufficient in diameter to prevent hose damage under operating tension. Capacity of the standard reel shall be 600' of 3/4" ID high pressure sewer cleaner hose. Reel flange heads shall be included and designed to prevent hose damage during all working conditions. The reel shall be designed to allow the changing of the hose without having to disassemble the reel inner drum core.
- 4.2. The reel shall be driven by hydraulic power in both directions, either with or without the water pump in operation. The hydraulic drive shall have sufficient power to retract the hose when fully extended into the sewer with the cleaning nozzle in operation.
- 4.3. Reel flanges shall be an integral part of hose reel designed to prevent hose damage from contact during all normal working conditions. The safety reel will rotate a full 180 degrees providing easy access to manholes. The hose reel is mounted on an industrial bearing which is sealed to eliminate contamination from dirt.
- 4.4. The rotating reel will be locked at the desired position by a spring loaded anchor pin. Hose reel will be equipped with a hose level guide and emergency crank.
- 4.5. A hose guide shall be provided to permit proper alignment of the hose on the reel. The guide may be removable, or shall store against the body when not in use.
- 4.6. An air valve shall be provided to permit purging the hose while wrapped on the reel. A solid full width metal splash guard separating the hose reel from the other major components of the unit shall be supplied. The bulkhead is to minimize reel splash from entering engine, pump or water tank areas while the unit is in operation or during wash down.

Comply: \_\_\_\_Yes \_\_\_\_No

### 5. Hose Reel Drive System

- 5.1. Hydraulic power system for driving hose reel
  - 5.1.1. A pump directly driven by the engine
  - 5.1.2. Hydraulic motor with chain drive to the hose reel
  - 5.1.3. Oil filter - Replaceable, in-line type
  - 5.1.4. Oil reservoir- Minimum 10 gallons
  - 5.1.5. A direction and speed control valve with built-in overload relief
  - 5.1.6. Hydraulic hose rated to withstand maximum system pressure
  - 5.1.7. Hydraulic pump shall have a capacity of at least 14 GPM at 2,000 PSI

Comply: \_\_\_\_Yes \_\_\_\_No

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### 6. Piping

- 6.1. All high pressure piping shall be fabricated of extra strong class 80 pipe with minimal hose lengths used for flexible connections where required. Pump suction lines and low pressure return piping systems may be standard weight pipe.
- 6.2. All piping shall be installed to drain by gravity or suitable openings equipped with plugs to drain cocks when purged with air pressure. Water delivery to hose reel shall pass through a 90 degrees swivel rotary coupling.

Comply: \_\_\_\_Yes \_\_\_\_No

### 7. Hose

- 7.1. 500' of 3/4" ID cleaning hose
- 7.2. The hose shall be fitted for attachment to the reel and equipped with a nozzle extension skid
- 7.3. 15' X 3/4" double wire reinforced leader hose to be supplied

Comply: \_\_\_\_Yes \_\_\_\_No

### 8. Hand Gun Clean-Up System

- 8.1. The unit shall be provided with an auxiliary piping system, including a by-pass valve adjusting from 100 - 2000 PSI while the sewer cleaner remains on standby for full operating pressure.
- 8.2. A quick disconnect fitting shall be located at the rear of the machine
- 8.3. The clean-up systems shall include 25' of 3/8" ID hose rated at minimum burst pressure of 2,000 PSI with a quick disconnect fitting
- 8.4. Hand gun
  - 8.4.1. Pistol grip type with trigger and trigger guard with a straight stream discharge
  - 8.4.2. Discharge capacity of at least 10 GPM at 2000 PSI

Comply: \_\_\_\_Yes \_\_\_\_No

### 9. Tool Boxes & Body

- 9.1. The engine and pump must be fully enclosed by sheet metal panels with lockable doors providing easy access for maintenance.
- 9.2. Two lockable, storage compartments shall be provided for storage of nozzles, hand guns and other accessories. The storage compartments shall be mounted in such a manner that it will not protrude from any part of the unit, but rather be incorporated into the unit configuration

Comply: \_\_\_\_Yes \_\_\_\_No

### 10. Trailer

- 10.1. All welded construction, heavy steel frame
  - 10.1.1. Main frame – 6" structural steel channel
  - 10.1.2. Other frame rail sections may be considered if and only if they have a section modulus and yield strength equal or greater
- 10.2. Tandem axles, 6,000lb capacity each
- 10.3. Four wheel electric brakes

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- 10.4. Fenders
- 10.5. Three position pintle eye with a center position height of 28"
- 10.6. 6,000lbs. capacity leveling jack
- 10.7. Four (4) load range E tires
- 10.8. All LED lighting
- 10.9. Safety chains
- 10.10. 7-way electrical connector
- 10.11. Spare tire and mount

Comply: \_\_\_\_ Yes \_\_\_\_ No

### 11. Control Panel

- 11.1. Throttle control
- 11.2. Starter with key lock starting switch
- 11.3. Amp meter
- 11.4. Oil pressure gauge
- 11.5. Water pressure gauge
- 11.6. Low water warning light or alarm
- 11.7. The hydraulic controls for the rotating hose reel variable speed control; and a forward, neutral, reverse directional control

Comply: \_\_\_\_ Yes \_\_\_\_ No

### 12. Accessories

- 12.1. One (1) 15 degrees nozzle and one (1) 30 degrees nozzle
- 12.2. One (1) Cobia culvert nozzle with dual degree rear jets designed to clean 15" to 36" pipe
- 12.3. One (1) 3/4" x 12" nozzle extension
- 12.4. One (1) Tiger tail hose protector
- 12.5. One (1) Handgun with 3/8" x 25' hose
- 12.6. Fill hose 2 1/2" x 25'
- 12.7. One (1) adjustable hydrant wrench
- 12.8. Nozzle storage rack and fill hose storage rack
- 12.9. Wireless remote

Comply: \_\_\_\_ Yes \_\_\_\_ No

### 13. Paint

- 13.1. Manufacturer's standard
- 13.2. Before painting, all metal shall be cleaned and etched with a phosphoric material to insure permanent bond of primer and paint

Comply: \_\_\_\_ Yes \_\_\_\_ No

## BIDDER'S EXCEPTIONS

**Instructions:** Bidder should note all exceptions in space provided below. List the detail number from the aforementioned specification in the column to the left and the exception in the column to the right. Responses may be typed or hand-written. Handwritten responses must be legible. If additional space is needed, please print a duplicate copy of this sheet. "Bidder's Exceptions" page(s) should be returned with the bid submittal.

Examples:

<u>1.6</u>	<u>Engine has 325 horsepower</u>
<u>1.18.3</u>	<u>Batteries have 2000 CCA combined.</u>
<u>2.2.8</u>	<u>Crossmembers are 4" channel on 12" centers.</u>

[illegible]