



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
TECHNICAL SPECIFICATIONS FOR

TRAILER MOUNTED BITUMEN ADHESIVE APPLICATOR

SERIES NO. 258-000
EQUIPMENT SPECIFICATION 258-000A

REV. 11/14/2022

GENERAL

This specification sets forth the minimum requirements for a trailer mounted bitumen adhesive applicator.

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

A Trantex model TXEQ-2001-2, 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. A Louisiana safety inspection shall be performed on each vehicle prior to delivery and a Louisiana safety inspection sticker properly affixed.

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. General Description

- 1.1. The intent of this specification is to describe a trailer mounted, bitumen-type marker adhesive applicator capable of heating and dispensing metered quantities of thermal adhesive bitumen-type material on roadways. The unit shall have two dispensing systems for application of bitumen on either side of trailer.

2. Trailer

- 2.1. Frame: 2" x 2", 11 gauge steel square tubing with mitered and full electric welded joints
- 2.2. Cross Members and Supports: 1/8" x 1-1/2" x 1-1/2" angle steel
- 2.3. Bed of Trailer: 5' 8" x 8', 10 gauge steel plate
- 2.4. 1,700 lbs. capacity
- 2.5. Two (2) 13 x 175-80-D tires
- 2.6. L.P. Bottle Support with holding clamp
- 2.7. 2" ball hitch
- 2.8. Corrosion resistant safety chains of adequate size and length
- 2.9. Swing-away crank-style jack mounted to trailer
- 2.10. Marker basket mounted to trailer bed near operator
- 2.11. Utility box mounted to trailer, 14 gauge steel, 23" x 32" x 12"

Comply: ____ Yes ____ No

3. Operator Seating

- 3.1.1. Two (2) fold down seats, one located on the left and one on the right side in front of trailer wheel
 - 3.1.1.1. Complete with foot supports, guard rail and seat belts
 - 3.1.1.2. Foot supports adjustable for leg length
 - 3.1.1.3. The complete seat and foot frame with valve line, swivels to a vertical position and fastens in place by a pin and socket
- 3.1.2. The operator's seats are approximately 9" above ground
- 3.1.3. Operator safety containment bar welded to trailer bed

Comply: ____ Yes ____ No

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4. Power Pack

4.1. Power Pack Frame

- 4.1.1. Constructed from 1/4" x 3" angle iron
- 4.1.2. Supported by 1" rubber pads off trailer bed
- 4.1.3. Generator, air compressor, engine and belt guard are all mounted to frame
- 4.1.4. Mounted to trailer

Comply: ____ Yes ____ No

4.2. Generator

- 4.2.1. 4500 watts 120 VAC at 3600 RPM with voltage gauge
- 4.2.2. Electric power can be supplied from other source for pre-start

Comply: ____ Yes ____ No

4.3. Air Compressor

- 4.3.1. 2.5 CFM at 100 PSI
- 4.3.2. Equipped with a 15-gallon air tank with safety overload valve
- 4.3.3. Air system pressure set at 90-95 lbs. controlled by continuous run unloader valve
- 4.3.4. Tank-ASME code, all parts are UL approved

Comply: ____ Yes ____ No

4.4. Engine

- 4.4.1. 8.5 H.P. 4-cycle
- 4.4.2. LP gas fueled
- 4.4.3. Electric start
- 4.4.4. Oversize muffler

Comply: ____ Yes ____ No

5. Material Melting Unit

5.1. Vat Support Frame

- 5.1.1. Constructed from C4-5.4 channel iron
- 5.1.2. Supporting pieces made of 1/8" x 1-1/2" x 1-1/2" angle and 1/4" x 1" x 1" angle mounted to trailer frame

Comply: ____ Yes ____ No

5.2. Vat

- 5.2.1. 39 Gallons
- 5.2.2. Constructed from 10-gauge steel
- 5.2.3. Approx. 20" in diameter, 28" high with lid opening sufficiently sized to load material
- 5.2.4. Latch on lid to prevent accidental opening

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5.2.5. To be equipped with an agitator driven by a 200-inch pound, 6 RPM, 120 VAC motor with a disc clutch system

5.2.6. Vat on/off switch located in control box to control agitator motor

5.2.7. A removable manual crank handle provided to operate agitator manually

5.2.8. The agitator shaft is supported at top and bottom of vat

Comply: ____ Yes ____ No

5.3. Vat Jacket

5.3.1. Constructed of 22-gauge galvanized steel

5.3.2. One (1) inner and one (1) outer jacket supporting 1" thick fiberglass Durablanket S86-1 or equal insulating material

5.3.3. Outside dimensions of jacket is approximately 24" in diameter and 32" in height

5.3.4. 1" captive heat chamber on all sides of vat

5.3.5. Heating chamber vented by holes in top of the insulation jacket

5.3.6. 4" x 4" sliding door in jacket for lighting pilot

Comply: ____ Yes ____ No

5.4. Heating System

5.4.1. 60,000 BTU burner

5.4.2. Flame guard

5.4.3. Burner

5.4.3.1. Thermostatically controlled with an adjustable temperature range of 175 - 550 degrees

5.4.3.2. Vat to be equipped with a 0 - 650 degree thermometer with an 18" stem

5.4.3.3. Thermostat sensing bulb and thermometer located together in vat for an accurate temperature control

5.4.4. Gas Valve

5.4.4.1. Millivolt powered

5.4.4.2. 100% safety shut-off valve with block out installed for LP gas only

5.4.4.3. A pilot-generator producing 750 millivolts

Comply: ____ Yes ____ No

6. Dispensing System

6.1. Pump

6.1.1. Free floating piston and valve combination

6.1.2. Capable of 0-9 cubic inches of material per stroke at 0-20 strokes per minute

6.1.3. Pump to be operated by an air cylinder with a safety shut off valve and volume control screw

6.1.4. Pump to be enclosed in an insulated jacket and heated from heating chamber of vat.

6.1.5. When pump is held in the down position, flow from vat automatically shuts off

Comply: ____ Yes ____ No

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6.2. Dispensing Pipe

- 6.2.1. Two (2) pieces made of 1" schedule 80 pipe, connected under the trailer by a horizontal/vertical cross swivel
- 6.2.2. Supported by cross sectional hardened rods under the seat support and trailer
- 6.2.3. Both pipes are wrapped with 1 layer of 1" fiberglass blanket, 1 layer of 1/8" x 2" woven Fiberfrax (or equal) and 1 layer of hi-heat adhesive aluminum duct tape
- 6.2.4. The seat support and the lower dispensing pipe can be brought to a vertical position when not in use
- 6.2.5. The vertical position automatically stops any flow of hot material through the pipe
- 6.2.6. All items which are hot to touch are enclosed or marked red

Comply: ____ Yes ____ No

6.3. In-Line Heaters

- 6.3.1. Both line pipes are heated internally with two mineral insulated stainless steel sheathed heaters, connected in series to produce 70 watts per foot at 120 VAC
- 6.3.2. "J" thermocouple
- 6.3.3. Temperature controlled, 0-600 degrees
- 6.3.4. Watlow or equal analog on/off control

Comply: ____ Yes ____ No

6.4. Dispensing Valve

- 6.4.1. A drip free quick action plunger, operated by air cylinder
- 6.4.2. Heated by a cartridge heater and controlled by preset thermostat set at 400 degrees
- 6.4.3. Metered control of shots is activated by foot pedal
- 6.4.4. Valve head is approximately 3" above pavement in operating position
- 6.4.5. Capable of horizontal swivel action

Comply: ____ Yes ____ No

7. Control System

- 7.1. Constructed out of 1/8" aluminum and mounted to box on trailer within easy reach of operator(s)
- 7.2. Control Board
 - 7.2.1. Microprocessor-based temperature controller with four digit displays
 - 7.2.2. 15 AMP fuse holder
 - 7.2.3. Input power switch to control board on/off
 - 7.2.4. Power agitator switch on/off
 - 7.2.5. Dispenser valve heat switch on/off with indicator light
 - 7.2.6. Flow line temperature switch on/off with indicator light
 - 7.2.7. Air valve safety control switch on/off

Comply: ____ Yes ____ No

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7.3. Air Regulator

7.3.1. Constructed from 1/8" aluminum

7.3.2. Powder coat finish and mounted on tool box

7.3.3. The air regulator box consists of a pressure regulator, gauge, and solenoid valve

Comply: ____ Yes ____ No

8. Miscellaneous

8.1. Wiring

8.1.1. All wiring must be insulated and enclosed in flexible conduit or by some other form inside frame

8.1.2. Securely fastened at sufficient intervals to prevent sagging and protected from hot surface and pipes

Comply: ____ Yes ____ No

8.2. Paint

8.2.1. Manufacturer's standard color

8.2.2. All items hot to the touch are painted red, marked "HOT" or enclosed

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]