



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
TECHNICAL SPECIFICATIONS FOR

TRUCK, CREW CAB, 4x4, 19,500 LBS. GVWR, WITH DRILLING RIG

SERIES NO. 217-500

REV. 1/20/2023

EQUIPMENT SPECIFICATION 217-500E

GENERAL

This specification sets forth the minimum requirements for a class 5/6 crew cab 4x4 truck with a hydraulic drilling rig intended for collecting soil, aggregate, and pavement samples.

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 International CV Series and a Mobile Drill B31 Rig, 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. Cab & Chassis

1.1. GVWR: 19,500 lbs.

1.2. Frame: 540,000 RBM (Resisting Bending Moment) - Bidder must provide section modulus and yield strength below

Section Modulus: _____ Yield Strength: _____

1.3. Cab and Axle Positions

1.3.1. Cab to Axle (CA): 60"

1.3.2. Center of rear axle to end of frame (AF): 49"

*Values given here are minimums. The space between cab and body shall not exceed 10 inches. Truck vendor and body manufacturer/upfitter shall coordinate in selecting a cab to axle dimension that works with the specified body and ensures proper load distribution to the front and rear axles in accordance with manufacturer specifications and industry practice. The required AF must be achieved with factory frame rails. Frame extensions to meet the required AF are not allowed. The AF must be sufficient to allow support of the full length of the body.

Comply: ___ Yes ___ No

1.4. Cab

1.4.1. 4-door, crew cab

1.4.2. Tinted safety glass

1.4.3. Cab entry handles, driver & passenger side

1.4.4. Outside mirrors, driver & passenger side, power adjustable & heated

1.4.5. Manufacturer's highest level sound insulation package

1.4.6. Gauge package including the following gauges:

1.4.6.1. Air cleaner restriction (can be located under hood on air cleaner box)

1.4.6.2. Coolant temperature

1.4.6.3. DEF

1.4.6.4. Fuel

1.4.6.5. Oil pressure

1.4.6.6. Speedometer

EQUIPMENT SPECIFICATIONS

- 1.4.6.7. Tachometer
- 1.4.6.8. Voltmeter
- 1.4.6.9. Gear indicator
- 1.4.6.10. Odometer
- 1.4.6.11. Total engine hours
- 1.4.6.12. Trip odometer
- 1.4.6.13. Auto transmission oil temperature
- 1.4.7. Dual sun visors
- 1.4.8. Two (2) cup holders
- 1.4.9. 3-point seat belt for each seat. If available, all seat belt webbing should be manufacturer's high visibility color (Orange, Red, Green, or Yellow). Color will not be used as basis of award.
- 1.4.10. Climate control, including air conditioner, heater, & defroster
- 1.4.11. Power windows & power door locks
- 1.4.12. Tilting & telescoping steering wheel
- 1.4.13. Power steering
- 1.4.14. Dual note electric horn(s)

Comply: Yes No

1.5. Engine

- 1.5.1. 6.6L, Electronic diesel, liquid cooled
- 1.5.2. 300 HP, 660 ft.-lbs.
- 1.5.3. Must include turbo exhaust brake
- 1.5.4. Emission system must include DEF
- 1.5.5. Engine and complete fuel system must be biodiesel compatible
- 1.5.6. Horizontal exhaust

Comply: Yes No

1.6. Fuel System

- 1.6.1. Fuel tank with drain, 60-gallon combined capacity
- 1.6.2. Water-in-fuel sensor with indicator in cab
- 1.6.3. Entire fuel system must be biodiesel compatible

Comply: Yes No

1.7. Transmission

- 1.7.1. Allison 1750 RDS or approved equal
- 1.7.2. 6-speed automatic with PTO provision
- 1.7.3. To be filled with manufacturer approved synthetic lubricants
- 1.7.4. Transfer case skid plate

Comply: Yes No

EQUIPMENT SPECIFICATIONS

1.8. PTO

1.8.1. Single speed

1.8.2. PTO must be activated by dash mounted factory upfitter switch

1.8.2.1. Indication of PTO engagement should be accomplished by lighted switch or separate dash mounted indicator light

1.8.3. Can be provided by either truck manufacturer or body company

Comply: ___ Yes ___ No

1.9. Front Axle

1.9.1. 7,500 lbs. GAWR

1.9.2. Taper-leaf suspension to match

1.9.3. Stabilizer bar

1.9.4. Filled with manufacturer approved synthetic lubricant

Comply: ___ Yes ___ No

1.10. Rear Axle

1.10.1. 12,000 lbs. GAWR

1.10.2. Taper leaf suspension to match

1.10.3. Filled with manufacturer approved synthetic lubricant

Comply: ___ Yes ___ No

1.11. Brakes

1.11.1. Power hydraulic

1.11.2. 4-channel ABS

Comply: ___ Yes ___ No

1.12. Wheels & Tires

1.12.1. 19.5 X 6.75 hub piloted steel disc

1.12.2. First line, first quality, 225/70 R 19.5 tires

1.12.3. Single front, dual rear tires, on/off road tread

1.12.4. Load ratings must be compatible with GVWR

1.12.5. Full size spare tire and wheel, mounted to flat bed

Comply: ___ Yes ___ No

1.13. Electrical System & Lights

1.13.1. 12-volt system

1.13.2. 180-amp brushless alternator

1.13.3. Dual batteries with 1100 CCA combined

1.13.4. Remote jump start studs, with tethered protective caps, located outside of the battery box

1.13.5. Battery disconnect switch, located inside cab, near driver's seat, similar to the below picture.

EQUIPMENT SPECIFICATIONS



- 1.13.6. Four (4) dash mounted, rocker-style, factory installed, body circuit switches (upfitter switches) for simple on/off functions for accessories (PTO, warning lights, etc.; one (1) assigned to activate the PTO; one (1) assigned to operate the flashing warning lights; two (2) blank to be assigned by DOTD personnel.
- 1.13.7. Headlights:
 - 1.13.7.1. Automatic daytime running lights
 - 1.13.7.2. Automatic on if windshield wipers are turned on
 - 1.13.7.3. Automatic on with low ambient light levels
 - 1.13.7.4. Warning buzzer/alarm when headlight switch is on and ignition switch is in off position
- 1.13.8. Cruise control
- 1.13.9. Intermittent windshield wipers with washers
- 1.13.10. Self-cancelling directional signals
- 1.13.11. Backup alarm, 97 dba
- 1.13.12. AM/FM/WB radio with auxiliary front input, Bluetooth/hands free function and steering wheel controls
- 1.13.13. Two (2) 12V accessory power outlets with covers, mounted in dash (for cell phone chargers, GPS devices, etc.)

Comply: ___ Yes ___ No

- 1.14. FMCSA/DOT Mandated Safety Items
 - 1.14.1. One (1) UL listed, 5 B:C rated, or higher, fire extinguisher securely mounted in cab
 - 1.14.2. One (1) set of three (3) bidirectional reflective triangles conforming to FMVSS No. 125
 - 1.14.3. At least one (1) spare fuse for each type/size used in the truck

Comply: ___ Yes ___ No

NOTE: The truck and body manufacturers must mutually resolve any unexpected truck/body component conflicts with a sound and functional solution as a requirement of this specification.

2. Warning Lights, Wiring And High Visibility Conspicuity Tape

2.1. General

- 2.1.1. Refer to lighting layout illustration and DuTec drawings below
- 2.1.2. Truck must be delivered with warning lights & high visibility reflective conspicuity tape installed in accordance with the below specifications and layout
- 2.1.3. All warning lights to be sealed light emitting diode (LED) type, with plug-in connectors

EQUIPMENT SPECIFICATIONS

- 2.1.4. 6" oval lights and round clearance marker lights must be grommet mounted, with the exception of the upper side marker lights which are protected by location but not mounted in rubber grommets
- 2.1.5. Warning lights shall be installed by an upfitter who is experienced in and regularly engages in the installation of automotive electronics & warning lights
- 2.1.6. Installer shall use vehicle & lighting manufacturers' guidance along with industry best practices and techniques to ensure that lights are installed in a safe and neat manner
- 2.1.7. All wiring and cables should be color coded, heat shrink wrapped and logically routed, secured, and protected with convoluted loom where possible
- 2.1.8. All wiring splices must be made using butt or parallel crimp connectors
- 2.1.9. Non-metallic/rubber grommets shall be used where wires and cables penetrate any cab panels, body panels, or chassis structure
- 2.1.10. All cab and body penetrations shall be adequately sealed to prevent water from entering
- 2.1.11. All warning lights to be controlled by a single in-cab, dash-mounted upfitter switch. The switch must be labeled to read "Warning Lights"
- 2.1.12. Installer shall contact DOTD Equipment Section prior to programming to confirm intended flash pattern(s)
- 2.1.13. All lighting must meet Federal and state requirements

Comply: ___ Yes ___ No

2.2. Mid-size & Mini Light Bars

- 2.2.1. SoundOff Signal nRoads Mini/Mid-Size or equal satisfying the following requirements
- 2.2.2. Three (3) mid-size (24") light bars & one (1) mini (17") light bar shall be installed in the locations shown below
- 2.2.3. Lengths are nominal and +/- 1" is acceptable
- 2.2.4. Dual color - 12 diodes per module (equal number of green & amber)
 - 2.2.4.1. All diode positions must be capable of displaying both colors
- 2.2.5. Flash pattern capable of alternating between an asymmetric, low-frequency, "wig-wag" pattern and a low-frequency double or quad flash.
- 2.2.6. UV resistant clear polycarbonate lens
- 2.2.7. 10-16 VDC
- 2.2.8. Light bars shall meet all applicable federal/state laws and regulations
- 2.2.9. Shall be SAE J845 360-degree Class 1 certified

Comply: ___ Yes ___ No

2.3. Perimeter Lights

- 2.3.1. Brooking Industries XT12D (or ST6D) perimeter lighthouse or equal satisfying the following requirements
- 2.3.2. Size: Length: 4.25-5.25 in., Width: 1.0-2.0 in., Height: 0.3-0.4 inches
- 2.3.3. 12-24 VDC
- 2.3.4. UV resistant clear polycarbonate lens, black bezel trim
- 2.3.5. 12 diodes - dual color - (equal number of green & amber)
- 2.3.6. Lighthouse shall be capable of displaying each color across full length
- 2.3.7. Capable of alternating between an asymmetric, low-frequency, "wig-wag" pattern and a low-frequency double or quad flash

EQUIPMENT SPECIFICATIONS

2.3.8. Lighthouse shall meet all applicable federal/state laws and regulations

2.3.9. Shall be SAE J595 Class 1 certified

Comply: ___ Yes ___ No

2.4. High Visibility Reflective Tape

2.4.1. DOT C2 approved high visibility reflective conspicuity tape, 2" wide, with alternating 6" segments of red and white, shall be placed on the cab doors and bed as shown below.

Comply: ___ Yes ___ No

2.5. Warning Light & Striping Layout

TWO (2) MINI LIGHT BARS, ONE (1) ON EACH SIDE. TO BE MOUNTED TO EITHER POST BRACKETS OR A SINGLE HEADACHE RACK SPANNING THE WIDTH OF THE BODY. BOTTOM OF LIGHT BAR HOUSING TO BE 2"-3" ABOVE HIGHEST POINT OF CAB ROOF. OUTER EDGE OF LIGHT BAR TO BE ALIGNED WITH OUTER EDGE OF UTILITY BODY



EQUIPMENT SPECIFICATIONS



EQUIPMENT SPECIFICATIONS

3. Drill Rig & Bed

3.1. Power

- 3.1.1. Driven by truck engine via transmission PTO

Comply: Yes No

3.2. Hydraulic Pump

- 3.2.1. All components powered by a tandem vane-type hydraulic pump
- 3.2.2. First section powers the rotary drive and has rated capacity of 36 gpm @ 2,000 psi
- 3.2.3. Second section powers the feed and auxiliary functions
- 3.2.4. All circuits are protected by precision pilot operated relief valves
- 3.2.5. System includes a 37 gallon oil reservoir and a return line filter with a 10-micron replaceable element

Comply: Yes No

3.3. Rotary Drive

- 3.3.1. Hydraulic motor driving through a five-speed gearbox
- 3.3.2. Up to 470 rpm rotary speed
- 3.3.3. 3700 ft-lb torque

Comply: Yes No

3.4. Water System

- 3.4.1. 250 gallon fabricated steel water storage tank, baffled, with lockable under-tank tool storage compartment
- 3.4.2. 3L4 progressive cavity water pump rated @ 13 gpm and 225 psi
- 3.4.3. Includes all piping, valves, fittings, hoses, quick couplings, etc. for proper water system interconnection

Comply: Yes No

3.5. Feed System

- 3.5.1. 10,000 lbs. down and 14,000 lbs. retract forces
- 3.5.2. 130 ft/min down speed and 170 ft/min retract feed speeds
- 3.5.3. 68" feed stroke
- 3.5.4. Feed system is fixed in an upright position
- 3.5.5. Attached to an in-out slide base with 12" travel

Comply: Yes No

3.6. Spindle Attachments

- 3.6.1. Quick change adapter with quill rod and bushing
- 3.6.2. 3-1/4" TRI-LOK box and pin combination with drill rod through the spindle for instant changes between auger and core drilling

Comply: Yes No

EQUIPMENT SPECIFICATIONS

3.7. Controls

- 3.7.1. All controls are located in operator's console positioned at left rear of bed
- 3.7.2. Includes emergency shutdown system with manual reset
- 3.7.3. Console is attached to the drill/feed frame for in and out travel with slide base
- 3.7.4. Is accessible from ground level

Comply: ___ Yes ___ No

3.8. Bed & Accessories

- 3.8.1. 7'-10" wide by 9' long
- 3.8.2. Mud flaps with anti-sail brackets
- 3.8.3. Concrete/asphalt coring kit
- 3.8.4. Two locking tool boxes
- 3.8.5. Combination auger/rod storage rack
- 3.8.6. Leveling Jacks
 - 3.8.6.1. Double rear hydraulic cylinders, 36" stroke
 - 3.8.6.2. Rear jacks are mounted through the back corners of truck bed and completely encased in structural steel tubing
 - 3.8.6.3. 24" stroke Front jack mounted to truck frame extensions
 - 3.8.6.3.1. If the truck has a forward tilting hood, the front jack must easily swivel, pivot, or be removable without the use of tools to provide clearance for hood to tilt.
 - 3.8.6.4. 12" swiveling round pad on bottom of each jack

Comply: ___ Yes ___ No

NOTE: Placement of all items on truck bed are to be in complete accordance with manufacturer's normal layout.

3.9. Paint/Finish

- 3.9.1. Manufacturer's Standard

Comply: ___ Yes ___ No

