



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
TECHNICAL SPECIFICATIONS FOR

TRUCK, CAB & CHASSIS, 35,000# GVWR WITH HYDRAULIC DRILL RIG

SERIES NO. 217-750

REV. 2/6/2024

EQUIPMENT SPECIFICATION 217-750B

GENERAL

This specification sets forth the minimum requirements for a 4x4 single axle, 35,000# GVWR hydraulic drill rig truck.

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 HV507 with a SIMCO 2800 Drill 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:

1. Notarized Bill of Sale
2. Certificate of Origin (MSO)
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: 35,000 lbs.

Comply: ___ Yes ___ No

1.2. Frame: Heat treated alloy steel, 120,000 PSI yield strength, 480.0" Maximum OAL

1.2.1. Front frame extension 20" in front of grille (see image below)

1.2.2.



Comply: ___ Yes ___ No

1.3. Cab & Axle Positions

1.3.1. Axle configuration 4x4

1.3.2. Cab to axle (CA): 109.10" clear*

1.3.3. Center of axle to end of frame (AF): 45"*

*Values given here are minimums. The space between cab and body/outriggers shall not exceed 10 inches. Truck vendor and service body manufacturer/upfitter shall coordinate in selecting a cab to axle dimension that works with the specified body. 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

EQUIPMENT SPECIFICATIONS

1.4. Cab

- 1.4.1. Conventional 6-man, crew cab
- 1.4.2. Tinted safety glass
- 1.4.3. Full width exterior cab mounted sun shade with integral clearance lights
- 1.4.4. Cab entry handles, driver & passenger side
- 1.4.5. Outside mirrors, driver & passenger side
 - 1.4.5.1. Power adjustable
 - 1.4.5.2. 90 sq. in. minimum
 - 1.4.5.3. Heated with integrated turn signals
 - 1.4.5.4. Two (2) adjustable spot mirrors, one (1) per outside mirror
- 1.4.6. Two (2) roof mounted air horns & one (1) standard electric horn
- 1.4.7. Air ride: driver and passenger seat, cab suspension
- 1.4.8. Manufacturer's highest level sound insulation package
- 1.4.9. Wing dash, if available
- 1.4.10. Gauge package including the following gauges:
 - 1.4.10.1. Air cleaner restriction
 - 1.4.10.2. Coolant temperature
 - 1.4.10.3. DEF
 - 1.4.10.4. Fuel
 - 1.4.10.5. Oil pressure
 - 1.4.10.6. Primary and secondary air pressure
 - 1.4.10.7. Speedometer
 - 1.4.10.8. Tachometer
 - 1.4.10.9. Voltmeter
 - 1.4.10.10. Gear indicator
 - 1.4.10.11. Odometer
 - 1.4.10.12. Total engine hours
 - 1.4.10.13. Trip hours
 - 1.4.10.14. Trip odometer
 - 1.4.10.15. Auto transmission oil temperature
 - 1.4.10.16. Engine oil temperature
- 1.4.11. Dual sun visors
- 1.4.12. Two (2) cup holders, integral to dash
- 1.4.13. 3-point seat belt for each seat. All seat belt webbing must be manufacturer's high visibility color (Orange, Red, Green, or Yellow).
- 1.4.14. Climate control, including air conditioning, heater, & defroster
- 1.4.15. Power windows & power door locks
- 1.4.16. Tilting steering wheel

Comply: ___ Yes ___ No

1.5. Engine

- 1.5.1. 6.7 L, diesel, liquid cooled
- 1.5.2. 300 HP, 660 FT-LBS

EQUIPMENT SPECIFICATIONS

- 1.5.3. Engine must include turbo exhaust brake
- 1.5.4. Emission system must include DEF
 - 1.5.4.1. DEF tank must have a minimum capacity of 7 gallons
- 1.5.5. Engine must be biodiesel compatible
- 1.5.6. Horizontal exhaust

Comply: Yes No

1.6. Fuel System

- 1.6.1. Fuel tank shall be metal with drain and a 50-gallon minimum capacity; located on driver's side
- 1.6.2. Davco fuel processor or equal - mounted to outside of frame
- 1.6.3. Visual element change indication that is integral to and non-removable from unit (to be located on driver's side near fuel tank)
- 1.6.4. Water-in-fuel sensor with indicator in cab
- 1.6.5. Entire fuel system must be biodiesel compatible

Comply: Yes No

1.7. Transmission

- 1.7.1. Automatic, Allison 3500 RDS or equal
- 1.7.2. Must include PTO aperture
- 1.7.3. To be filled with manufacturer approved synthetic lubricants

Comply: Yes No

1.8. Gearing, Speed Governing & Performance

- 1.8.1. Top gear road speed shall be electronically governed at 75 mph maximum
- 1.8.2. Cruise control speed shall be governed at 72 mph maximum
- 1.8.3. Transmission and axle ratio shall be selected for performance to be optimized at 65 MPH while permitting truck to operate up to 75 MPH on highway without excessive engine speed. Bidder should list the RPM @ 65 MPH in the space below.

Comply: Yes No

RPM @ 65 MPH _____

1.9. Front Axle

- 1.9.1. Single Reduction, 12,000 lb. capacity
- 1.9.2. Hub piloted wheel mounting
- 1.9.3. Shock absorbers
- 1.9.4. Integral power steering
- 1.9.5. Visible cap axle seals
- 1.9.6. Axle should be filled with manufacturer approved synthetic lubricants

Comply: Yes No

EQUIPMENT SPECIFICATIONS

1.10. Rear Axle

- 1.10.1. 23,000 lbs. at ground capacity, single speed
- 1.10.2. Heavy duty springs (low deflection rear springs are not acceptable)
- 1.10.3. Axle should be filled with manufacturer approved synthetic lubricants

Comply: ___ Yes ___ No

1.11. Brakes

- 1.11.1. Full air disc brake system, ABS brake system with traction control
- 1.11.2. 18 CFM air compressor
- 1.11.3. Bendix AD-9 air dryer or equal

Comply: ___ Yes ___ No

1.12. Wheels & Tires

- 1.12.1. Hub piloted steel disc, size - 8.25 X 22.5
- 1.12.2. First line, first quality tires, size – 11R22.5
- 1.12.3. Front tires - single highway tread
- 1.12.4. Rear tires - dual on/off road tread
- 1.12.5. Load ratings to be compatible with GVWR
- 1.12.6. Spare tire & wheel

Comply: ___ Yes ___ No

1.13. Electrical System & Lights

- 1.13.1. 12-volt system
- 1.13.2. 180-amp brushless alternator
- 1.13.3. Batteries with 2200 CCA total
- 1.13.4. Aluminum battery box
- 1.13.5. Remote jump start studs, with tethered protective caps, located outside of the battery box
- 1.13.6. Battery disconnect switch, located inside cab, near driver's seat, similar to the below picture.



- 1.13.7. 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.
- 1.13.8. All exterior lighting should be LED

EQUIPMENT SPECIFICATIONS

1.13.9. Headlights:

1.13.9.1. Automatic daytime running lights

1.13.9.2. Automatic on if windshield wipers are turned on

1.13.9.3. Automatic on with low ambient light levels

1.13.9.4. Warning buzzer/alarm when headlight switch is on and ignition switch is in off position

1.13.10. Cruise control

1.13.11. Intermittent windshield wipers with washers

1.13.12. Self-cancelling directional signals

1.13.13. Backup alarm, 97 dba

1.13.14. AM/FM/WB radio with auxiliary front input, Bluetooth/hands free function and steering wheel controls

1.13.15. Two (2) 12V accessory power outlets with covers, mounted in dash (for cell phone chargers, GPS devices, etc.)

Comply: ___ Yes ___ No

1.14. Paint

1.14.1. Cab: Manufacturer's standard, white

1.14.2. Chassis: Manufacturer's standard, black

Comply: ___ Yes ___ No

1.15. FMCSA/DOT Mandated Safety Items

1.15.1. One (1) UL listed, 5 B:C rated, or higher, fire extinguisher securely mounted in cab

1.15.2. One (1) set of three (3) bidirectional reflective triangles conforming to FMVSS No. 125

1.15.3. At least one (1) spare fuse for each type/size used in the truck

Comply: ___ Yes ___ No

Note: The truck vendor and attached equipment manufacturer/vendor must mutually resolve any unexpected truck/attached equipment component conflict with a sound and functional solution as a requirement of this specification.

2. Drill Rig and Platform

2.1. Drillhead

2.1.1. High torque/high speed (6,800 ft.lbs./0-720 RPM max)

2.1.2. Electro-hydraulically shifts to allow operator to match output to required drilling

2.1.3. Lock-up feature available to keep output speeds/torques in desired range

2.1.4. Includes hydraulic off-hole and 2" ID hollow spindle

Comply: ___ Yes ___ No

EQUIPMENT SPECIFICATIONS

2.2. Platform

- 2.2.1. Standard size, all steel diamond deck plate is approximately 8' x 14' subject to carrier Cab to axle 109.10 inches
- 2.2.2. Includes a fold down operators' platform and mast rest
- 2.2.3. Two (2) underdeck toolboxes (1 per side)

Comply: Yes No

2.3. Rod Box

- 2.3.1. Heavy duty rod box for holding 10' lengths drill rod
- 2.3.2. Tool tray with chain board and vice

Comply: Yes No

2.4. Work Light

- 2.4.1. LED lights mounted on drill rig

Comply: Yes No

2.5. Deck Engine

- 2.5.1. 74 HP, Diesel, Tier 4 final
- 2.5.2. 12 V electric starting system
- 2.5.3. Separate hydraulic oil cooler with fan
- 2.5.4. 15 gallon fuel tank with electronic throttle control

Comply: Yes No

2.6. Water Tank and Plumbing

- 2.6.1. 100 Gallon tank with drain
- 2.6.2. Water swivels topfeed with plumbing tree- top feed swivel with 2" opening

Comply: Yes No

2.7. Mast

- 2.7.1. 136" long stroke, the mast is constructed of ¼" formed structural steel single piece rectangular section
- 2.7.2. The feed system is a hydraulic motor driven/#100 double roller chain system having a maximum feed rate of 95 FPM with a pullback and pushdown of 12,000lbs
- 2.7.3. The mast is raised by two hydraulic lift cylinders and includes a mast travel rest and provisions for adding auger guides.
- 2.7.4. Adjustable height, hydraulically raised and lowered double tube mast extension with crown sheaves, and hook point for a traveling block
- 2.7.5. Extension on long stroke mast allows for pulling 20' rods or casing.
- 2.7.6. Automatic hammer for sampling mounted on the mast with NWJ anvil

Comply: Yes No

EQUIPMENT SPECIFICATIONS

2.8. Winch

2.8.1. Main winch

2.8.1.1. 4500 lbs. capacity

2.8.1.2. 135 FPM max bare drum line speed, with 80' of 3/8" cable (150 ft. max cap.)

2.8.1.3. Winch brake

2.8.2. Tool handling winch

2.8.2.1. 2550 lbs. capacity

2.8.2.2. 190 FPM max bare drum line speeds available with 80' cable

Comply: ___ Yes ___ No

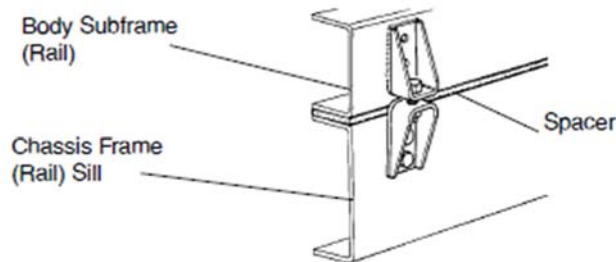
2.9. Body Installation

2.9.1. A rubber or plastic (Nylon or Delrin) sill spacer shall be used between the chassis frame and body subframe. WOOD SPACERS ARE NOT ALLOWED

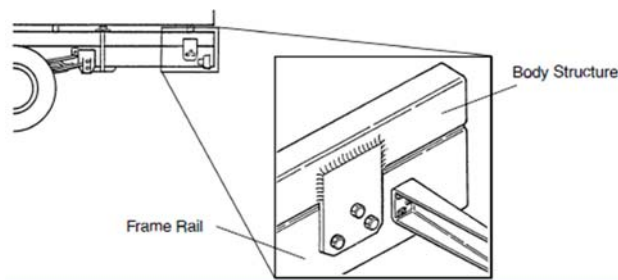
2.9.2. Body shall be bolted to frame using brackets or fishplates, similar to below. U-BOLTS ARE NOT ALLOWED

2.9.2.1. Where possible, the upfitter should use existing holes in the chassis frame web

2.9.2.2. Brackets



2.9.2.1. Fishplates – To be bolted to chassis frame and bolted or welded to body subframe



Comply: ___ Yes ___ No

2.10. Body Prep/Paint

2.10.1. Remove all weld spatter and slag, round sharp corners, grind sharp edges, buff all surfaces

2.10.2. Prepare all metal surfaces (under structure and body) per paint manufacturer's requirements

2.10.3. Prime all metal surfaces with PPG EPX Series high solids epoxy primer compatible with finish coat or equal

EQUIPMENT SPECIFICATIONS

- 2.10.4.** Primer to be 3-4 mils DFT
- 2.10.5.** Apply finish coat of PPG Concept (DCC) Acrylic Urethane or equal
- 2.10.6.** Color to be white, matching truck cab color
- 2.10.7.** Finish coat to be 4 mils DFT
- 2.10.8.** Apply all coatings in strict accordance with manufacturer's recommendations
- 2.10.9.** Note: Paint will be tested with a 7-mil magnet when it arrives at DOTD; if the paint is not in compliance, it will be rejected

Comply: ___Yes ___No

2.11. Hydraulic System

2.11.1. Off Hole

- 2.11.1.1.** Includes necessary hydraulics, mechanical latch and controls
- 2.11.1.2.** This feature greatly reduces manhandling of tools by enabling the use of the winch line to add augers or rods to existing in-hole tool string
- 2.11.1.3.** Allows for direct access to borehole for sampling or placement of casing

2.11.2. Slide Base & Wiggle Tail

- 2.11.2.1.** All welded steel on slide frame with hydraulic controls for moving unit in and out or side to side, providing approximately 8" of in/out travel and 9" of movement either side of center
- 2.11.2.2.** Wiggle tail feature built into drill platform

2.11.3. Auxiliary Pumps

- 2.11.3.1.** For operation of other functions: Main segment - 21 GPM, 2500 PSI operates fast feed, winch, water pump, and leveling jacks
- 2.11.3.2.** Second segment - 10 GPM, 2500 PSI operates slow feed, off-hole, slide base, and other cylinders

2.11.4. Breakout Wrench

- 2.11.4.1.** Mast mounted, hydraulically operated breakout wrench includes 36" pipe wrench and assists manual breakout of drill rod joints
- 2.11.4.2.** Wrench pivots to provide use in either direction

2.11.5. Slips/Clamps

- 2.11.5.1.** Designed to hold flush OD drill or core rods where flats or lugs are not present
- 2.11.5.2.** Includes hydraulic controls and serrated inserts for gripping rods
- 2.11.5.3.** Slips are mounted beneath the rod handling table
- 2.11.5.4.** Maximum rod OD is 5" diameter

2.11.6. Leveling jacks

- 2.11.6.1.** Two 36" stroke leveling jacks are mounted to the rear corners of the drill platform
- 2.11.6.2.** Extruder with 36" of Stroke
- 2.11.6.3.** The hydraulic cylinders are enclosed in an inner and outer steel sleeve for protection and greater stability
- 2.11.6.4.** The jacks are plumbed to the drill rig hydraulics and include 2-way check valves
- 2.11.6.5.** Front leveling jack: Heavy duty jack has 27-36" of stroke as space allows compatible with hood, internally mounted cylinder with 2-way check valve

2.11.7. Variable volume pump

- 2.11.7.1.** Variable volume hydraulic piston pump, 0-32 GPM, 5000 PSI maximum
- 2.11.7.2.** Provides for hydrostatic operation of rotary drill head and cathead

EQUIPMENT SPECIFICATIONS

2.11.7.3. Swash plate control is mounted on operator control panel

2.11.8. Dual feed, feed rate and bit pressure controls

2.11.8.1. Includes hydraulic flow control valving for precisely varying the rate of downward speed of drill head travel and maintaining desired bit pressures

2.11.8.2. Dual controls for feed system allow feed rate and bit pressure to remain set as desired while providing for fast raising and lowering of the drill head

2.11.9. Piston Mud Pump

2.11.9.1. Rig hydraulic system hydraulically powered to includes pump speed control, pressure gauges, pressure relief, suction hose and strainer

2.11.9.2. Typical Performance 195PSI/120GPM

Comply: ___Yes ___No

2.12. Augers

2.12.1. U-Joint

2.12.1.1. From spindle mating flange to augers Hex – 1-5/8” hex pin

2.12.2. Guide

2.12.2.1. Hinged type for augers up to 4.25” Hollow Stem Auger diameter

2.12.2.2. Prevents auger from “walking” when starting drilling

2.12.2.3. Guides are sized to match OD of augers

2.12.3. Mating Flange

2.12.3.1. Two (2) dual mating flange NWJ and 3.25HS connection and 2 saver subs for NWJ rod

Comply: ___Yes ___No

2.13. Tooling

2.13.1. Twenty (20) rods of NWJ in 10 ft. lengths

2.13.2. Two (2) rods of NWJ in 5 ft. length, 2 ft. lengths, 1 ft. lengths, hoisting plugs, quick clamp

2.13.3. Two (2) NWJ to AWJ subs

2.13.4. Three (3) – 6” OD step drag with NWJ box connection

2.13.5. Three (3)- 3-7/8” OD step drag bit with NWJ box connection

2.13.6. Three (3)- tricone roller bits fits in 4” casing with NWJ box connection

2.13.7. Three (3) split spoon samplers NWJ

2.13.8. Two (2) AW rod to 1-1/4”- 7 pin adaptor

2.13.9. One (1) 5 ft AW rod

2.13.10. One (1) NWJ 140 lb. safety hammer to extract sample tooling

2.13.11. Three (3) NWJ connection 3” Shelby tube heads

Comply: ___Yes ___No

2.14. Rod Handling Table

2.14.1. Work table mounted at bottom of mast

2.14.2. Includes hinged rod guides (specify rod Outside Diameter of NWJ rod)

2.14.3. Opening through center of table is 6½” ID

EQUIPMENT SPECIFICATIONS

2.14.4. Table supports the weight of the tool string when used in conjunction with a flat wrench and drill rods with flats or lugs

2.14.5. Table is pinned to mast allowing for convenient removal

Comply: ____ Yes ____ No

