



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
TECHNICAL SPECIFICATIONS FOR

TRUCK TRACTOR, TANDEM, 80,000# GVWR W/BRIDGE INSPECTION UNIT, 62' REACH

SERIES NO. 176-000

REV. 2/8/2024

EQUIPMENT SPECIFICATION 176-000F

GENERAL

This specification sets forth the minimum requirements for a truck, tractor, diesel, tandem, 80,000 lbs. GVWR, with bridge inspection unit, with a reach of approximately 61'-9" horizontally under a bridge, extend 47' above, and extended down approximately 65' below the bridge surface to perform inspection of areas under the bridge as directed in the performance section of these specifications.

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 Peterbilt 367 and an Aspen Aerials A-62, 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: 80,000 lbs.

Comply: Yes No

1.2. Frame

1.2.1. 3,850,000-inch pound minimum RBM (Resisting Bending Moment) - Bidder should list section modulus and yield strength below

Section Modulus: _____ Yield Strength: _____

Comply: Yes No

1.3. Cab & Axle Positions

1.3.1. Front axle: For the purposes of this solicitation, set-back-axle (SFA) is considered equal to set-back-axle (SBA); however, SBA is the preferred option

1.3.2. Cab to axle (CA): 208" clear*

1.3.3. Wheelbase: 285"*

1.3.4. *Values given here are minimums. Truck vendor and service body manufacturer/upfitter shall coordinate in selecting a cab to axle dimension and appropriate wheelbase 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

1.4. Cab

1.4.1. Conventional day 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

EQUIPMENT SPECIFICATIONS

- 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 & telescoping steering wheel

Comply: ___ Yes ___ No

EQUIPMENT SPECIFICATIONS

1.5. Engine

- 1.5.1. 14.8 L, electronic diesel, turbocharged, liquid cooled, 6-cylinder inline configuration
- 1.5.2. 450 HP
- 1.5.3. 1,500 lbs.-ft. torque
- 1.5.4. Engine must include turbo exhaust brake
- 1.5.5. Emission system must include DEF
 - 1.5.5.1. DEF tank must have a minimum capacity of 10 gallons
- 1.5.6. Horizontal exhaust

Comply: Yes No

1.6. Fuel System

- 1.6.1. Fuel tank shall be metal with drain and a 100-gallon minimum capacity; tank 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 4500 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 _____

EQUIPMENT SPECIFICATIONS

1.9. PTO

- 1.9.1. PTO must be air actuated power/hot shift; compatible with specified transmission
- 1.9.2. PTO must be activated by dash mounted factory upfitter switch
 - 1.9.2.1. Indication of PTO engagement should be accomplished by lighted switch or separate dash mounted indicator light
- 1.9.3. Provide remote PTO throttle control capability

Comply: ___Yes ___No

1.10. Front Axle

- 1.10.1. Wide track, 20,000 lbs. GAWR @ ground capacity
- 1.10.2. Shock absorbers
- 1.10.3. Integral power steering
- 1.10.4. Wet-type, visible cap axle seals, Stemco or equal
- 1.10.5. Axle should be filled with manufacturer approved synthetic lubricants

Comply: ___Yes ___No

1.11. Rear Axle

- 1.11.1. Heavy-duty, tandem, 46,000 lbs. capacity
- 1.11.2. RT-46-145 or approved equal
- 1.11.3. Tandem, walking beam type, 46,000 lbs. capacity, includes bronze center bushings, fore and aft and transverse control rods
- 1.11.4. RT-463 Hendrickson, 54" spacing
- 1.11.5. Driver controlled differential lock for rear tandem.
- 1.11.6. Heavy duty springs (low deflection rear springs are not acceptable)
- 1.11.7. Axle should be filled with manufacturer approved synthetic lubricants

Comply: ___Yes ___No

1.12. Lift Axle

- 1.12.1. A 20,000 lb. capacity non-steer lift axle installed ahead of the tandem at a distance 74" from the forward most drive axle (exact location to be determined by the manufacturer).
- 1.12.2. Hendrickson, model Ultra HLM-2 or equal
- 1.12.3. Axle to include ABS brakes and parking brake
- 1.12.4. Lift control in cab with regulator and air gauge outside of cab

Comply: ___Yes ___No

1.13. Brakes

- 1.13.1. Full air disc brake system, ABS brake system with traction control
- 1.13.2. 18 CFM air compressor
- 1.13.3. Bendix AD-9 air dryer or equal with automatic moisture drain
- 1.13.4. Advanced driver assistance system, Bendix Wingman[®], or approved equal

EQUIPMENT SPECIFICATIONS

- 1.13.4.1. Collision mitigation system
- 1.13.4.2. Stationary vehicle braking system
- 1.13.4.3. Lane departure warning system

Comply: ___Yes ___No

1.14. Wheels & Tires

- 1.14.1. Front hub piloted steel disc, size – 12.25 X 22.5
- 1.14.2. Rear hub piloted steel disc, size – 8.25 X 22.5
- 1.14.3. First line, first quality tires
- 1.14.4. Front tires - single highway tread, 425-65R X 22.5 (20 ply)
- 1.14.5. Rear tires - dual highway tread, 11R X 22.5 (16 ply)
- 1.14.6. Lift Tires and Wheels
 - 1.14.6.1. 11R X 22.5 (16 ply) highway road tread
 - 1.14.6.2. hub piloted steel disc, size – 8.25 X 22.5
- 1.14.7. Load ratings to be compatible with GVWR

Comply: ___Yes ___No

1.15. Electrical System & Lights

- 1.15.1. 12-volt system
- 1.15.2. 180-amp brushless alternator
- 1.15.3. Batteries with 2,800 CCA combined
- 1.15.4. Aluminum battery box
- 1.15.5. Remote jump start studs, with tethered protective caps, located outside of the battery box
- 1.15.6. Battery disconnect switch, located inside cab, near driver's seat, similar to the below picture.



- 1.15.7. 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.
- 1.15.8. All exterior lighting should be LED
- 1.15.9. Headlights:
 - 1.15.9.1. Automatic daytime running lights
 - 1.15.9.2. Automatic on if windshield wipers are turned on
 - 1.15.9.3. Automatic on with low ambient light levels

EQUIPMENT SPECIFICATIONS

- 1.15.9.4. Warning buzzer/alarm when headlight switch is on and ignition switch is in off position
- 1.15.10. Cruise control
- 1.15.11. Intermittent windshield wipers with washers
- 1.15.12. Self-cancelling directional signals
- 1.15.13. Backup alarm, 97 dba
- 1.15.14. AM/FM radio with auxiliary front input, Bluetooth/hands free function and steering wheel controls
- 1.15.15. Two (2) 12V accessory power outlets with covers, mounted in dash (for cell phone chargers, GPS devices, etc.)

Comply: Yes No

1.16. Paint

- 1.16.1. The complete paint film, to include rust inhibitor primer and finish coat
 - 1.16.1.1. Minimum thickness of 2.5 mils
- 1.16.2. Cab: Manufacturer's standard, white
- 1.16.3. Chassis: Manufacturer's standard, black

Comply: Yes No

1.17. FMCSA/DOT Mandated Safety Items

- 1.17.1. One (1) UL listed, 5 B:C rated, or higher, fire extinguisher securely mounted in cab
- 1.17.2. One (1) set of three (3) bidirectional reflective triangles conforming to FMVSS No. 125
- 1.17.3. 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. Inspection Unit & Body

2.1. Dimensions

- 2.1.1. Overall length of body to be sufficient for storage of booms within the body confines during transport, 42' maximum from front bumper to rear bumper
- 2.1.2. Width, overall - 8' 6" maximum
- 2.1.3. Height not to exceed 13' 6" from the pavement/ground when stored
- 2.1.4. Floor thickness - 1/4" minimum raised diamond plate steel to cover chassis and support upper works
- 2.1.5. Note: Body is to be fully supported by the truck frame rail

Comply: Yes No

2.2. Boom Support

- 2.2.1. Provisions are to be made for safely supporting and locking the unit's boom assembly in a stowed position for transportation.

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Comply: ___ Yes ___ No

2.3. Access Steps

- 2.3.1. Access ladder steps are to be provided at the rear of the vehicle, and on the left side
- 2.3.2. The distance from the bottom of the first step to the ground is to be 15" to 18" maximum
- 2.3.3. The distance from the first step to the bottom of the second is to be 18" maximum
- 2.3.4. All steps are to be of adequate construction and properly braced so as not to deflect under personnel load

Comply: ___ Yes ___ No

2.4. Compartments

- 2.4.1. There are to be two vehicle compartments, each constructed of 1/8" aluminum
- 2.4.2. Doors to be constructed with lap-seal and gutter drain with drain holes and stainless-steel hinges
- 2.4.3. Door latches are to be key locking, twist lock, T-Handle type, with all locks keyed alike

Comply: ___ Yes ___ No

2.5. Pedestal & Subframe

- 2.5.1. The pedestal shall be welded to a tubular or beam type subframe which shall extend the full length of the chassis frame
- 2.5.2. The pedestal and subframe is to be built using high strength steel, reinforced with cross members
- 2.5.3. The main pedestal and sub frame shall be mounted to the truck frame in such a way as to distribute load to the vehicle chassis without high stress concentration at critical cross sections.
- 2.5.4. The subframe shall be fastened to the chassis frame with mounting plates and grade 8 bolts
- 2.5.5. The subframe is to incorporate a rotating turret or turntable capable of a 270 degrees rotation
- 2.5.6. Rotation is to be from a boom position stowed at the rear of the vehicle to the front of the vehicle over the passenger or drive's side.

Comply: ___ Yes ___ No

2.6. Counterweights

- 2.6.1. Counterweights mounted to the pedestal and rotating with the boom are to stay within the confines of the body
- 2.6.2. The overall operating width of the vehicle is not to exceed 8' 6"
- 2.6.3. A hydraulically sliding counterweight shall be installed under the deck in the rear

Comply: ___ Yes ___ No

2.7. Rotation Turrets

- 2.7.1. Turret No.1
 - 2.7.1.1. The main turret shall be mounted on top of the pedestal and hinged to the main boom (No. 1). It shall rotate the booms off both sides of the vehicle.
- 2.7.2. Turret No.2
 - 2.7.2.1. The second turret shall be mounted at the end of Boom No. 1 and hinged to Boom No. 2
 - 2.7.2.2. It shall rotate a minimum of 180 degrees when all booms are deployed

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2.7.2.3. The turret shall be controlled automatically by a hydraulic cylinder so as to eliminate leveling arms

2.7.2.4. It shall also have the capability of being controlled manually to adjust for bridge slopes of up to 5 degrees

2.7.3. Bearing

2.7.3.1. Each turret shall rotate on a heavy-duty shear ball type bearing protected against dirt and moisture and provided with means for pressure lubrication

2.7.4. Motor and Gear Box

2.7.4.1. Rotation powered by a reversible hydraulic orbital motor driving a gear box, which shall prevent freewheeling in case of hydraulic failure

Comply: ___ Yes ___ No

2.8. First Boom

2.8.1. The first section boom is to be non-telescoping type with a 16' 11" horizontal reach and able to clear 12' 6" from the outer most portion of the truck body to the outside edge of a bridge railing/fence.

2.8.2. The first section of the boom is to tilt hydraulically in a range from 20 degrees to 35 degrees below the horizontal and 30 degrees above horizontal

2.8.3. The first section is to rotate with the main turret through 270 degrees

2.8.4. Movement above the horizontal shall allow the unit to be deployed over a safety fence installed on a bridge deck

Comply: ___ Yes ___ No

2.9. Second Boom

2.9.1. The second boom shall be 22' long

2.9.2. The second boom is to be attached to the second turret and will rotate with it

2.9.3. The second boom and platform must be able to clear a 10' high railing or fence when deploying platform over side of bridge

2.9.4. Independent double acting hydraulic cylinders shall actuate them

2.9.5. The second section shall be a fixed length with a downward reach of 24'

2.9.6. The second boom is to be hydraulically controlled through an arc of 100 degrees

Comply: ___ Yes ___ No

2.10. Third Boom

2.10.1. The third boom shall be telescopic and hinged at the end of Boom-2

2.10.2. The third boom shall articulate 150 degrees

2.10.3. The Third and Fourth Booms must be capable reaching 55' horizontal under the bridge when Boom-2 is in a vertical position of 90 degrees

Comply: ___ Yes ___ No

2.11. Fourth Boom

2.11.1. A hydraulically articulating and telescoping Fourth boom shall be supplied

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2.11.2. Pivoting end section with an articulating range of 90 degrees above horizontal, and 35 degrees below horizontal

2.11.3. It shall raise the personnel platform 13' vertically when measured from the top of Boom-3 to the top of the platform

Comply: ___ Yes ___ No

2.12. Boom Cylinders

2.12.1. Booms shall have full hydraulic powered cylinders

2.12.2. All cylinders shall be pilot operated, double-acting with integral safety holding valve

2.12.3. Nitrate rods shall be provided on all lift cylinders

2.12.4. Cylinder shall be attached to the booms with high strength steel secured pins

2.12.5. All cylinders to have replaceable bushings

Comply: ___ Yes ___ No

2.13. Hinge Points

2.13.1. All hinge points shall be reinforced (Provisions shall be made for lubricating all hinge pins and bearings)

2.13.2. Hinge pins shall be positively locked into the hinge point (i.e., welded, safety bolted, captive end design, etc.)

Comply: ___ Yes ___ No

2.14. Inspection Platform

2.14.1. One (1) 3-man aluminum platform with a minimum 700 lb. capacity shall be hinged at the end of the fourth boom and shall automatically be kept level at all times by a hydraulic leveling system

2.14.2. It shall be capable of being rotated hydraulically 180 degrees

2.14.3. Platform dimensions shall be 40" X 60" X 44" deep, and access gate provided

2.14.4. Platform shall have one full set of proportional controls to operate the machine, an intercom connection with speaker, two waterproof duplex outlets for 20 amps at 125V, and 1/2" compressed air outlet

2.14.5. Operators shall be capable of riding platform over side of bridge

2.14.6. The platform shall be kept in a level position with the ground by a positive automatic leveling system

2.14.7. A hydraulically powered leveling system is preferred

2.14.8. The platform shall stay in a level position with 0 degrees horizontal irrespective of the fore/aft positioning of the truck chassis

2.14.9. Three complete sets of controls shall be provided; one set of hydraulically operated controls shall be located at the pedestal and shall rotate as turret No. 1 rotates; one set of controls located at the personnel platform; and one set of removable controls at turret No. 1 which can also be used for operation from the side of the truck.

2.14.10. The pedestal control shall be capable of overriding the platform and remote control in case of emergency

2.14.11. A locked storage facility shall be furnished for storing the remote controls located inside a body box

2.14.12. Controls shall be arranged so as to perform each individual movement either separately or in any combination

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- 2.14.13. Controls shall be spring loaded or deadman to neutral, at which position all boom, bucket and turret movement shall stop
- 2.14.14. Control valves shall have precise metering capability
- 2.14.15. All power/control lines and controls to/on platform shall be enclosed or shielded to protect against damage

Comply: ___ Yes ___ No

2.15. Maintenance Platform

- 2.15.1. A steel maintenance platform, interchangeable with the above referenced inspection platform, shall be provided
- 2.15.2. It shall be constructed in three sections, be 4' wide and 43' long, include an additional "step-up" platform to allow inspector access behind girders, and have a 1,500 lb. load capacity
- 2.15.3. It shall be equipped with a hydraulic telescoping cylinder and hydraulic leveling system, and it shall reach 49' horizontally under the bridge when fully extended
- 2.15.4. It shall include a stand for transporting, be easily installed and removed, and shall utilize the same controls as the inspection platform

Comply: ___ Yes ___ No

2.16. Hydraulic System

- 2.16.1. The hydraulic system shall contain two separate filtering systems
- 2.16.2. A 10 micron filter in the return line with indicator gauge
- 2.16.3. All filters shall be of the replaceable element type
- 2.16.4. The hydraulic reservoir shall be 50-gallon capacity designed for adequate cooling and shall be properly baffled
- 2.16.5. The reservoir shall be located in a position where it will not be damaged by falling objects or interfere with the load space of the body
- 2.16.6. The reservoir shall be equipped with a 100 mesh suction strainer and shall have sump area, with provisions made for easy clean out
- 2.16.7. Hydraulic lines shall be of adequate size to ensure proper hydraulic flow without causing undue heat and/or back pressure
- 2.16.8. The hydraulic suction line shall be equipped with a shutoff at the reservoir, in an accessible location for easy shutoff
- 2.16.9. The return line filter shall be positioned in such a manner so that it can be replaced without undue loss of hydraulic oil
- 2.16.10. All hoses are to be mounted in or on the booms such that they are not exposed to chaffing
- 2.16.11. Bursting pressure rating of all hoses shall be at least 200% of the system operating pressure
- 2.16.12. Extendible cylinders are to have hoses mounted in a Cat Trac or reel to keep hoses from being pinched or severed
- 2.16.13. Hydraulic lines shall be flexible, reinforced hose and shall have weather and abrasive covers
- 2.16.14. Relief valve - adjustable, pre-set at factory to manufacturer's recommended setting
- 2.16.15. Piston rods on lift cylinders shall be of nitrate steel
- 2.16.16. All cylinders shall be double acting and tested to manufacturer's standards

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- 2.16.17. All cylinders shall have automatic safety check valves or load holding valves placed such that no hydraulic hose isolates the cylinders from their safety valves, and no hose failure can cause a cylinder to retract or extend without control.
- 2.16.18. All hydraulic cylinders shall be tested and certified for proper pressure/burst ratings in accordance with appropriate ASTM standards
- 2.16.19. All hydraulic lift cylinder shafts shall be nitrate type to resist corrosion and shall be able to withstand a 100-hour salt spray test in accordance with military spec. MIL-T-45398H

Comply: ___ Yes ___ No

2.17. Auxiliary Engine

- 2.17.1. This crane unit shall have two sources of power each with sufficient capacity to operate the hydraulic pumps of the bridge inspection unit without the other
- 2.17.2. One source of power shall be a power take-off from the truck's transmission, the other a separate auxiliary four stroke, 20 HP, liquid cooled diesel engine mounted under deck
- 2.17.3. The diesel auxiliary engine will be the backup source of power and shall have an electric starter connected to the truck battery and fueled from the truck fuel system
- 2.17.4. The exhaust shall be vertically mounted, below the deck. Engine shall meet current OSHA requirements for noise level. Maximum sound proofing shall be provided

Comply: ___ Yes ___ No

2.18. Stabilizers

- 2.18.1. Hydraulic suspension lockout type stabilizers shall be supplied on the truck for both the front and rear springs (Outriggers not acceptable)
- 2.18.2. An interlock shall be provided between the stabilizers and the bridge inspection unit's controls so that the latter will be inoperable unless the stabilizers are activated
 - 2.18.2.1. A manual override installed at the pedestal
- 2.18.3. The lockout system shall include indicator lights to alert engaged or disengaged, lights installed in the cab

Comply: ___ Yes ___ No

2.19. Accessories

- 2.19.1. The bridge inspection unit shall be equipped with a remote-control system to allow stopping of the truck engine from the personnel platform
 - 2.19.1.1. An illuminated master switch located in the truck cab shall activate this system
- 2.19.2. An auxiliary electric power system shall be supplied to allow the use of electric tools and shall include 7.5 KW, 120/240-volt 60 hertz alternator/generator supplying 120 volts, 20 amp 3-contact weatherproof receptacles at the platform and truck body for power tools
 - 2.19.2.1. The electric power system may be powered by auxiliary engine.
- 2.19.3. One 240-volt, 30-amp weatherproof outlet protected by a circuit breaker shall be included on the generator panel
- 2.19.4. Platform covers and enclosure skirting provided
- 2.19.5. Two 1500-watt electric heaters in the personnel platform
- 2.19.6. Two 12-volt floodlights provided for the personnel platform

EQUIPMENT SPECIFICATIONS

- 2.19.7. An electric cable that extends from the generator (110-volt receptacle) through the booms and terminated at a receptacle on the platform
 - 2.19.7.1. The cable shall be fused, terminating in a weatherproof 20 ampere, 3 contact, grounded, double receptacle
- 2.19.8. An intercommunication system between the truck cab, the ground control station, and the personnel platform shall be supplied
 - 2.19.8.1. It shall consist of a fully transistorized amplifier with on/off volume switches and an integral press-to-talk convenient to the driver
 - 2.19.8.2. Two weatherproof talk-back speakers shall be provided, one mounted on the pedestal/turret assembly and the other on the personnel platform
 - 2.19.8.3. The ground control station shall have a soundproof headset and press-to-talk microphone
 - 2.19.8.4. Voice activated switch located at the personnel platform
- 2.19.9. Air supplied to platform by installation of a 1/2" ID air hose, 150 PSI capacity with two outlet "snap-on" connections in platform
 - 2.19.9.1. An 18 CFM air compressor mounted to the truck body with 30-gallon tank installed
 - 2.19.9.2. Rear mounted quick connection, with both male and female fittings, shall be supplied with all necessary valves etc. to utilize an auxiliary air compressor
- 2.19.10. Corner marker and rear identification lights - to be in rub rails
- 2.19.11. Rear stop and tail lights to be LED design

Comply: ___ Yes ___ No

2.20. General

- 2.20.1. There shall be adequate protective coverings for the upper controls and lower controls to guard against accidental actuation of a control lever by any means.
- 2.20.2. The bridge inspection device, as a completed unit, shall be stable throughout its entire working range.
- 2.20.3. Should it be possible to place the booms in any position which would cause instability, a method shall be supplied, either hydraulically or mechanically actuated, which would prevent the booms from attaining such a position.
- 2.20.4. Fail safe limit switches shall be installed to shut off power/stop rotation when unit moves past safe limits
- 2.20.5. The bridge inspection device, as a complete unit, shall comply with all requirements of ANSI A92.20 regulations.
- 2.20.6. Proper placards shall be supplied at each control station to identify control functions by directional arrows and to remind operators of safe operational methods
- 2.20.7. In addition, all decals as required by the manufacturers of aerial devices and digger/derricks council (MADDCS) shall be supplied
- 2.20.8. All welding done to critical metal components shall be inspected by magnetic particle method and certified to be sound and proper
- 2.20.9. **Training/Descriptive Literature**
 - 2.20.9.1. Complete instructions on operation and maintenance of the unit and demonstration on the operation of the unit shall be given by a factory technician. He shall be thoroughly trained in operation, use, maintenance, and service of the unit.
 - 2.20.9.2. This instruction shall be a formal training session conducted after delivery at the convenience of DOTD on-site as determined.

EQUIPMENT SPECIFICATIONS

2.20.9.3. Two (2) copies of descriptive product advertisement/literature should be furnished with the bid.

2.20.9.4. Vendor should attach to bid a listing of Louisiana locations where parts and service can be obtained.

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:

| | |
|--------|---|
| 1.6 | Engine has 325 horsepower |
| 1.18.3 | Batteries have 2000 CCA combined. |
| 2.2.8 | Crossmembers are 4" channel on 12" centers. |

**Spec./Detail
Reference**

Exception

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