

Articulated Platform – Truck Mounted – 80 Foot Working Height

Articulated platform, 80-foot working height, truck mounted (hereinafter referred to as “unit”), fully insulated, equipped with flatbed utility body, 600-pound capacity boom-mounted winch-operated jib crane, new and of current model, equipped as advertised by the manufacturer, to meet or exceed the following **MINIMUM** specifications:

Articulated/Telescopic
Lift System Proposed: Make: _____ Model: _____
Truck Proposed: Make: _____ Model: _____
Utility Body Proposed: Make: _____ Model: _____

Non-Restrictive Clause: Any use of brand name or equal within this specification is to be considered a reference for the purpose of describing the standard of quality, performance, and characteristics desired. It is not intended to limit or restrict competition.

The vendor must respond to each of the following statements. Specifications listed are **minimum** requirements that must be met for a vendor to qualify for an award. A “YES” response means the vendor guarantees that they meet or exceed this requirement. A “NO” response means the vendor cannot meet the requirement and will not be considered. The vendor must supply printed literature that shows compliance with each requirement of the Specifications and, if on inspection, an item is found not to comply, the unit(s) will be rejected.

Descriptive literature shall be furnished to substantiate the details specified throughout this bid.

SPECIFICATIONS

Articulated Platform Lift

Capacity: Articulated platform truck with one (1) platform, working load of 700-pounds, height from ground to platform floor to be 75-feet when mounted on truck chassis, working radius from center line of rotation to be 46-feet, overall height from ground in travel position to be 13-feet maximum, lower boom travel to be 0 degrees to +88 degrees, upper telescopic boom travel to be -25 degrees to +75 degrees, rotation to be 360 degrees continuous.

Minimum working load (pounds): _____

Minimum tipping load (pounds): _____

Height from ground to platform floor (feet): _____

Working radius from center line of rotation (feet): _____

Lower boom arc of travel (degrees above/below horizontal, highest to lowest): _____

Upper telescopic boom arc of travel (degrees above/below horizontal, highest to lowest): _____

Overall height in travel position (feet): _____

Comply Yes/No: _____

Hydraulic System: The hydraulic system shall be of open-center design which operates at 3,000 PSI and 10 GPM. The system shall have a 10-micron return-line filter, mounted above the hydraulic oil level and inside the pedestal, which can be easily changed without draining the reservoir. There shall be a filter gauge with a color-coded range to monitor the condition of the return line filter for replacement. The 100-mesh suction strainer in the reservoir shall

be easily removable for cleaning. There shall be a gate valve located below the reservoir to prevent oil loss when the pump is serviced. The reservoir shall have a magnetic drain plug to attract metal particles from the oil.

Comply Yes/No: _____

Control System: The system shall have a single-stick upper control which consists of a multi-jointed handle that operates all four (4) functions of the control valve. A safety trigger located on the underside of the single stick handle will not allow boom movement until it is depressed. An emergency stop control shall be provided. Upper controls to be centered on wide side of bucket.

Individual full-pressure controls located at the turret shall actuate all boom functions. The lower control station shall be equipped with a selector valve to override the upper controls.

The hydraulic control valves will be full pressure and full flow.

The start/stop system shall be designed so that the lift cannot be operated normally unless the unit power switch is activated, and the truck ignition is in the "on" position. This will make it difficult for unauthorized individuals to operate the lift when the truck is locked. Start/stop controls shall be located at the upper and lower control stations.

Comply Yes/No: _____

Emergency Lowering: The aerial device shall be equipped with a 12-volt emergency lowering system with switches located at both the lower and upper controls. This system will enable the operator to safely return to the ground should the primary system fail while the aerial lift is elevated.

Comply Yes/No: _____

Platform: The platform shall be a 24-inch (height) x 48-inch (width) x 42-inch (depth) closed two-man fiberglass unit with one step.

The platform shall be end mounted with hydraulic leveling. The leveling system shall include a master/slave cylinder arrangement that can be actuated from the upper or lower controls for cleanout or rescue.

The unit shall have a hydraulic platform rotator that is operated by a control lever and rotates the platform 180o from one side of the outer/inner boom assembly across the end-hung position to the other side of the outer/inner boom assembly.

Two body harness and lanyards shall be provided. The unit shall have the anchors for the lanyards attached to the platform support.

Comply Yes/No: _____

Liner: A 24-inch (height) by 48-inch (width) liner shall be provided to fit inside the fiberglass bucket. The liner shall be designed to be supported by the bottom of the bucket. The liner should include a lip that fits over the top of the fiberglass bucket to prevent sharp objects from lodging between the bucket and the liner. The liner shall have a molded integral non-slip step inverted inside of the liner to assist in entry/exit. The liner shall be certified to 70kV (Kilovolt) minimum.

Liner size: _____ inches (height), by _____ inches (width)

Certified Kilovolt: _____

Comply Yes/No: _____

Platform Tools: Hydraulic tool circuit shall be supplied to the upper controls. This system shall use open center hydraulic tools. The tool circuit shall provide 10 GPM at 3,000 PSI.

Comply Yes/No: _____

Upper Telescopic Boom Assembly: The telescopic boom assembly shall be comprised of an outer boom, telescopic inner boom, extension system, and hose assemblies. The outer boom shall consist of a 10-inch x 12-inch steel section, a 12-inch x 14-inch fiberglass section that allows the boom tip to maintain a 62-inch insulation gap when the inner boom is fully retracted. The 9-1/4-inch x 11-1/4-inch rectangular fiberglass inner boom is housed within the outer boom. The inner boom shall be easily removed and disassembled for service and inspection.

The extension system shall consist of a hydraulic cylinder, two integral holding valves, and dual #60 roller chains housed entirely within the boom assembly. The hoses shall be routed through the outer/inner boom assembly and be non-conductive and fully contained within the boom assembly. The inner boom extension shall be a minimum of 141-inch and the insulation gap shall be a minimum of 179-inches when fully extended.

There shall be a lifting eye attachment near the end of the outer boom rated for 1,000 pounds maximum capacity.

The outer/inner boom assembly shall be tested and certified for 69 KVA in accordance with ANSI A92.2-2001 category "B" dielectric requirements.

The outer/inner boom assembly shall articulate from 25 degrees below horizontal to 75 degrees above horizontal.

A boom support cradle and a ratchet-type boom tie down strap to be included.

Comply Yes/No: _____

Lower Boom Assembly: There shall be a high-strength fiberglass insert (chassis insulating system) installed over each end of the rectangular 10-inch x 12-inch-high strength steel section.

The lower boom design includes a parallelogram linkage that maintains the knuckle at a constant angle to the turret.

The chassis insulation system/lower boom fiberglass insert shall provide a minimum insulation gap of 24-inch and the fiberglass section in the compensation link shall maintain the 24-inch (minimum) insulation gap in all boom positions.

The steel and fiberglass sections shall be bonded with pressure-injected epoxy to fill any voids and after the adhesive cures, 32 bolts shall be added to assure maximum strength.

The double acting cylinder, with an integral holding valve, shall allow the lower boom to articulate from horizontal to 92 degrees above horizontal.

A stainless-steel stud shall be provided at each end of the insert to shunt the system during electrical testing. The insert shall be tested per ANSI A92.2.

Comply Yes/No: _____

Turret/Rotation: The rotation shall be continuous and unrestricted in either direction. The unit shall have a hydraulically driven worm and spur gear acting on a shear-ball rotation bearing. The gearbox shall have an eccentric ring mounting to allow for precise adjustments for pinion clearance.

The unit shall have a 1-1/2-inch-thick turret plate that is machined flat to support the rotation bearing. There shall be a bearing cover provided to prevent foreign material from interfering with lift rotation.

The turret shall have 5/8-inch-thick turret wings that are designed for strength and rigidity.

The bolts holding the lift to the rotation bearing and the rotation bearing to the pedestal shall be SAE grade 8. These bolts shall have a Torque Seal Marked to provide a quick means to inspect for loosening.

Comply Yes/No: _____

Pedestal: The pedestal assembly shall be round shape with an access opening on both sides. A 35-gallon hydraulic oil reservoir shall be built as an integral part of the pedestal. The reservoir shall include anti-splash baffles. The top plate of the pedestal shall be 1-1/2-inch-thick and machined flat to support the rotation bearing. The unit shall have dual sight gages on the pedestal for checking fluid level. A 100-mesh suction strainer, 10-micron return filter and shut off valves shall be located inside the pedestal.

Comply Yes/No: _____

Sub-frame and Stabilization: Outriggers shall be solidly mounted to the full-length sub-frame assembly, constructed of 6-inch x 8-inch tube and 1/4-inch plate, and attached to the chassis frame. Outrigger pads must be included.

The unit shall be stabilized by A-frame outriggers equipped with pivot feet, pilot-operated check valves, internal thermal relief valves, and separate controls. At maximum extension, the outriggers shall furnish 148-inches of spread and 7 1/4-inch penetration with 21-inch ground clearance based on 39-inch frame height. In lieu of A-frame outriggers, radial outriggers will be acceptable if they meet the same overall dimensions and safety factors.

Auxiliary H-frame outriggers shall be shear plate mounted to the frame and equipped with pilot operated check valves, internal thermal relief valves and separate controls. The outriggers shall furnish up to 158-inches of spread and a maximum of 9-inch penetration with 15-inch ground clearance. The outrigger feet shall pivot up to 10 degree angle in all directions. In lieu of auxiliary H-frame outriggers, auxiliary A-frame outriggers will be acceptable if they meet the same overall dimensions and safety factors.

Comply Yes/No: _____

Body:

Bed: Flat-Bed (18-foot steel)

Comply Yes/No: _____

Toolboxes: Three (3) toolboxes, keyed alike, of same color (either manufacturer's standard color or black), interior LED lighting, mounted to truck bed

One (1) toolbox: 24-inches deep (front to back) x 36-inches tall (top to bottom) x 98-inches wide (left to right) with two (2) locking doors, mounted immediately behind the cab.

Two (2) toolboxes: 18-inches deep (front to back) x 18-inches tall (top to bottom) x 48-inches wide (left to right) under bed toolboxes with locking doors, mounted between the rear axle and back of the truck on each side.

Generator: 5000-watt capacity, diesel, generator having at minimum four (4) outlets rated for 120 VAC at 15 amps and one (1) outlet rated for 120/240V 30 amps. Generator shall be mounted, in a permanent and theft-proof manner, to flatbed body behind cab passenger-side. Generator shall be designed for fuel supply to draw from vehicle fuel tank. Generator shall be fully plumbed and operational when vehicle is delivered.

Generator proposed: Make: _____ Model: _____

Horsepower: _____ Rated watts @ 120 VAC: _____

Comply Yes/No: _____

Material Handling Jib Crane and Winch: The material handling function shall include a 600-pound winch-operated jib crane positioned on the boom. The jib crane shall be hydraulically controlled, allowing the operator to position the load vertically with a control valve located at the upper control station. A load chart near the operator's control station shall inform the operator of the jib crane and boom carrying capacities. The hydraulic jib crane cylinder shall include its own holding valve, which prevents cylinder creep and locks the cylinder in the event of hydraulic hose failure.

The self-locking worm gear winch shall be controlled from both the upper and lower control stations.

70' of double-braided polyester rope with clevis hook shall be provided.

Cab Chassis Truck

GVWR: 33,000 pounds

GVWR (pounds): _____

Comply Yes/No: _____

CA Dimension: 138-inches

CA (inches): _____

Comply Yes/No: _____

Engine: 9-liter, 360-horsepower, water-cooled, diesel, torque of 1,000 pound-feet, meeting all current federal and EPA requirements

Make: _____ Model: _____

Displacement (liters): _____ Power (horsepower): _____

Torque (pound-feet): _____

Comply Yes/No: _____

Engine Protection: Truck shall have automatic shutdown system to include oil pressure, oil temperature, and coolant temperature.

Comply Yes/No: _____

Cooling System: Heavy-duty, high-capacity radiator, silicone hoses, designed for vocational-duty application

Comply Yes/No: _____

Transmission: Severe-duty, fully automatic, 6-speed with overdrive designed for on-road/off-road operations, geared for highway speeds up to minimum top speed of 75 MPH with fully loaded truck. Severe-duty oil cooler.

Make: _____ Model: _____

Type: _____ Speeds: _____

Comply Yes/No: _____

Brakes: Full air, disc, ABS with 4 channel/4 sensor/4 modulator configuration for front and rear axle compatibility, sized to meet all applicable state and federal safety standards for size, weight and application of truck. Mechanical spring-set rear axle parking brakes.

Manufacturer: _____ Type: _____

Style: _____ ABS configuration: _____

Comply Yes/No: _____

Axle Rating and Suspension:

Front: 13,000-pound, multi-leaf springs with shock absorbers, setback configuration, disc brake compatible hubs

Manufacturer: _____

Axle type: _____ Weight rating (pounds): _____

Suspension type: _____ Weight rating (pounds): _____

Rear: 26,000-pound, multi-leaf springs with 4,500-pound auxiliary rubber spring, single-speed, with full locking differential (driver operated), disc brake compatible hubs, minimum gear ratio of 4.80

Manufacturer: _____ Gear ratio: _____

Axle type: _____ Weight rating (pounds): _____

Suspension type: _____ Weight rating (pounds): _____

Comply Yes/No: _____

Electrical: One (1) 12-volt, 200-amp alternator. Two (2) 12-volt maintenance-free batteries, 750 CCA, combined total 1,500 CCA. Batteries to be contained in a lockable, rust-proof metal battery box.

Alternator:

Make: _____ Model: _____

Rating (amps): _____

Battery:

Power (CCA per battery/total CCA): _____

Comply Yes/No: _____

Frame: Section modulus 15", bending moment 750,000 inches-pounds

Section modulus: _____ RBM: _____

Comply Yes/No: _____

Fuel System: 100-gallon capacity, single tank, dual stage fuel filters

Capacity (gallons): _____

Comply Yes/No: _____

DEF Tank: 10-gallon tank, frame-mounted

Capacity (gallons): _____

Comply Yes/No: _____

Steering: Power – integral

Comply Yes/No: _____

Driveline: Heavy-duty u-joint

Comply Yes/No: _____

Tires: All tires must be rated equal to or higher than axle and suspension weight specifications. Steel radial, highway tread, high mileage steer axle type front; all seasons, on-road/off-road, high mileage rear drive axle type duals and spare.

Front:

Manufacturer: _____ Size: _____

Rear:

Manufacturer: _____ Size: _____

Comply Yes/No: _____

Wheels: Must be rated equal to or higher than axle and suspension weight specifications, disc brake compatible. 19.5-inch diameter.

Front:

Manufacturer: _____ Size: _____

Rear:

Manufacturer: _____ Size: _____

Comply Yes/No: _____

Back-up Alarm: Smart, self-adjusting alarm system which is activated upon engagement of the reverse gear of the vehicle, is audible above normal outdoor sounds, and meets FMVSS requirements. The back-up warning alarm shall be mounted on the rearmost part of the vehicle, be protected from water and road spray, and meet a minimum 82 dB up to 107 dB depending on surrounding ambient noise levels.

Comply Yes/No: _____

Back-up Camera: Complete, fully functional, and operational back-up camera system providing a clear view of the area directly behind the vehicle to allow safe reverse travel of vehicle.

Comply Yes/No: _____

Cab and Equipment: All standard equipment including, but not limited to:

- Five (5) cab-mounted marker lights,
- Stainless steel cab-mounted exterior sun visor
- Exterior assist handles both sides (if exhaust is in the way, then an interior assist handle will be acceptable for the side affected)
- Power and heated RH and LH C-frame or pedestal exterior mirrors with convex auxiliary mirrors
- Power windows and door locks
- Deluxe high-back air suspended driver and passenger seats with arm rests
- Sun Visor (RH and LH),
- Two (2) cup holders
- High-visibility orange safety belts
- Factory air conditioning and heater with defroster
- All dash switches including spares shall be functional
- Warning lights and buzzers for air pressure, oil pressure and water temperature
- Direct reading gauges for oil pressure, water temperature, and air pressure
- Tachometer
- 12-volt accessory dash-mounted power outlet
- AM/FM Bluetooth stereo radio with hands-free option
- Air horn(s)
- Tinted glass all around
- Multi-speed electric windshield wipers and washers with intermittent mode
- Tilt steering column
- Cruise Control
- Front tow hooks
- Heavy-duty front bumper
- Any other body builder wiring not included that would be needed to set up and run a flatbed mounted aerial lift truck with toolboxes and lighting with enough to terminate at end of frame
- Holder for operator's manuals
- Black undercoating applied to underside of body
- Triangle reflector kit
- A U/L approved 2 ½ pound BC dry chemical fire extinguisher shall be installed in the truck cab

Comply Yes/No: _____

Paint: Truck chassis to be manufacturer's standard white. All other to be manufacturer's standard color.

Comply Yes/No: _____

ADDITIONAL REQUIREMENTS

Service: The unit shall be delivered fully assembled and ready to operate. Factory-trained dealer representative is to inspect the unit upon delivery and provide receiving MDOT equipment manager with information on operational, service, and maintenance requirements.

Bidder shall maintain a representative inventory of replacement parts and service facilities as well as all necessary diagnostic tools/equipment/software and software licenses needed for diagnosis, repair, service, and maintenance.

Acknowledge Yes/No: _____

Training: Upon delivery manufacturer's representative will conduct 1-day training session on operation and maintenance of the unit. Training shall be scheduled no less than 2 weeks prior to training dates. Training shall be scheduled through the MDOT Information Systems Division Network and Security Manager at the MDOT Jackson, MS location.

Comply Yes/No: _____

Warranty: Clearly stated terms and conditions of all manufacturer warranties shall be included with the bid package. All materials, specialty equipment, or accessories that prove defective in normal operation within the warranty period shall be replaced or repaired by the manufacturer free of all cost to MDOT, including all material, labor, and transportation costs. Warranty replacement and/or repairs shall be furnished promptly by the successful bidder within a time not to exceed thirty (30) calendar days. **The bidder shall provide written assurance with the bid package regarding warranty repairs.**

The delivering dealer will have sole warranty responsibility (**all components**) for the first ninety (90) calendar days after acceptance of equipment.

The manufacturer shall provide, with the bid package, a list of warranty service locations within the State of Mississippi for all components of the unit (body, chassis, electrical, etc.) which may need warranty repair beyond the first ninety (90) calendar days.

Acknowledge Yes/No: _____

Workmanship: Workmanship throughout shall conform to the highest standard of commercially accepted practice for the class of work and shall result in a neat and finished appearance. The design which the manufacturer proposes must be of substantial and durable construction in all respects.

All parts shall be new. Used, reconditioned, or obsolete parts will not be accepted.

Acknowledge Yes/No: _____

Parts Availability: Dealer name and contact information located closest to the point of delivery:

Dealer Name: _____

Telephone: _____

Street Address: _____

City, State, ZIP: _____

Acknowledge Yes/No: _____

Tests and Testing: The complete unit and all working and moving parts and operating devices shall be thoroughly tested and put in operating condition by the manufacturer.

Prior to acceptance by MDOT, the manufacturer shall service and adjust the unit for operation.

Acknowledge Yes/No: _____

Literature:

Technical manuals: Operator's manual, service/maintenance manual, and parts book are to be made available in both hard copy and electronic (PDF file format on USB flash drive) versions. One set of technical manuals shall be provided with each unit upon delivery. Additional manuals may be ordered later.

Technical service bulletins: Successful bidder shall provide TSBs (technical service bulletins) for each unit delivered to MDOT as they are published, regardless of the date of delivery. TSBs may be furnished in paper or electronic format and shall be updated regularly.

The following additional information shall be provided by the vendor at time of delivery (electronically if possible):

- Manufacturer's recommended service/preventive maintenance intervals
- Recommended fluids, lubricants, and their SAE equivalents

Two (2) copies of descriptive literature shall be furnished to substantiate the details specified in the bid.

Acknowledge Yes/No: _____

Certification: The manufacturer(s) shall furnish certification that the unit meets or surpasses current U.S. Department of Labor Occupational Safety and Health Administration (OSHA), U.S. Department of Transportation Federal Motor Vehicle Safety Standards (FMVSS), American National Standards Institute (ANSI), and any other applicable Federal regulations.

Acknowledge Yes/No: _____

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NOTE: The Mississippi Department of Transportation is exempt, by way of contractual purchases, from Regulation Eleven and the protections provided by the Mississippi Motor Vehicle Commission. A written notice, established by public hearing on April 21, 2010, at 10:00 a.m., is on file with the Mississippi Motor Vehicle Commission, 1755 Lelia Drive, Suite 200, Jackson, MS 39216.

As a second stage or "specialty vehicle" manufacturer, you are not required to hold a Mississippi Manufacturer or Dealers' License and if you choose, may sell the finished motor vehicle directly to the Mississippi Department of Transportation.

Acknowledge Yes/No: _____

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Vehicle Title or Certificate of Origin:

Assignment: State of Mississippi/DFA – 941

Mailing address: Mississippi Department of Transportation, 9301
P.O. Box 1850
Jackson, MS 39215

Acknowledge Yes/No: _____

Lienholder: Upon award, **if** MDOT issues a **Notice to Proceed** instead of a **Purchase Order**, the unit is being purchased through the State's Master Lease Purchase Program and the specified financial institution must be listed as Lienholder.

Acknowledge Yes/No: _____