

EXHIBIT A

MINIMUM SPECIFICATIONS FOR 45' WORKING HEIGHT ARTICULATING-TELESCOPING AERIAL BASKET TRUCK (40 foot to bottom of bucket)

This specification is to set forth the specific requirements for a 45 foot working height (40 foot to bottom of platform), hydraulic operated, telescopic aerial device equipped with single platform and with a steel line service body mounted on an appropriate chassis/cab.

This aerial device shall be to the manufacturer's standard. It shall be equipped with the manufacturer's equipment and accessories which are included as standard in the advertised and published literature for the unit. No such item of equipment or accessories shall be removed or omitted for the reason that it was not specified in the bid.

If it is necessary to bid alternate equipment or to take exceptions to the specification as set forth, this must be so stated in your bid. Exceptions should note the bid section and line number, be clearly explained and provided on the bidder's company letter head. For each item, please place an X in the appropriate space (Yes ___ No ___) to signify whether or not you are in complete compliance with the specification. Failure to follow the format or answer the specification may cause your bid to be disqualified. If you need extra space to describe your product, please feel free to attach extra sheets on bidder's company letter head. When doing this, be sure your description references the appropriate bid section and line number.

<u>GENERAL SPECIFICATIONS:</u>	<u>COMPLY</u>	
	<u>YES</u>	<u>NO</u>
1.0 SCOPE This specification covers the procurement, the installation, testing and certification of an Aerial Device, body, and other equipment mounted on a truck cab and chassis herein specified.	_____	_____
2.0 GENERAL Trucks completed to these specifications, unless specifically stated otherwise herein, shall conform to the Department of Transportation, the truck manufacturer, and equipment manufacturers standard specifications.	_____	_____
The completed unit must be certified by the subsequent stage manufacturer to meet all applicable State and Federal requirements including, but not limited to ANSI, OSHA, and DOT.	_____	_____
Design criteria shall be in accordance with current industry and engineering standards applicable and accepted for structural and hydraulic design safety factors. The design criteria shall consider the effects of fatigue from dynamic loading and field proven past designs on Aerial Devices.	_____	_____

GENERAL SPECIFICATIONS:

COMPLY
YES **NO**

3.0 MOUNTING AND STABILIZERS

The Aerial Device must be capable of passing ANSI92.2, 2015 stability tests when installed on a chassis.

The Aerial device shall be located on the chassis so that the truck is balanced adequately for a reasonable load capacity.

Over frame torsion bar stabilizer installed on rear axle, Levelride or approved equal, with Timbren rubber cushions installed on front axle.

The hydraulic rotating Aerial Device shall be mounted behind the cab with the Basket stowed to the rear. Stowed height not to exceed 10'6".

Unit shall mount to a frame that is integral to the body frame work.

This makes the body and unit "equipment match" product. Using separate unit and body manufacturers are unacceptable.

4.0 GENERAL DESCRIPTION

Aerial device shall have a bottom of bucket height of 40' providing a working height of 45'. The aerial device shall be articulating-Telescopic in nature with a lower boom articulation of 0 degrees to +93 degrees and upper boom articulation of -17 degrees to + 75 degrees.

5.0 ROTATION

Rotation shall be provided by worm gear drive, driving an induction **hardened shear ball bearing rotation gear**, continuous and unrestricted in either direction 360 degrees at a speed of approximately one rotation in 60 seconds. It must have a 7/8" hex shaft opposite of the rotation hydraulic drive motor for manual rotation.

6.0 BASKETS

One single man basket, **24" X 30" X 42"**, end mounted with a capacity of **400** pounds. Basket shall have an entry step covered with non-skid tape. Arc flash safety harness and lanyard included. Basket with steel reinforcing is not acceptable.

Hydraulic basket tilting from the bucket allowing the operator to tilt the basket for clean out or for personnel rescue.

COMPLY

GENERAL SPECIFICATIONS:

YES

NO

Foam filled vinyl cover with lanyard to be furnished with basket.

A Polyethylene bucket liner rated for 50KV to be furnished.

The basket shall level hydraulically throughout the entire articulation of the booms.

7.0 CONTROL SYSTEM

The upper control for boom functions shall be full pressure and self centering.

The upper control for boom functions shall be 4 function **single lever** metering type control. The control will operate: lower arm up/down; outer boom up/down; inner boom in/out; and unit rotation CW/CCW.

Controls will rotate with the basket and be protected by a guard. They shall include a hard cover that is integral to the guard to protect from weather.

Lower controls will be multiple levers and have the capability of over-riding the upper controls. Located at the turret above rotation.

12 volt DC emergency power to be provided. Operation at upper controls.

8.0 BOOMS

Outer boom and lower boom shall be constructed of steel tube and weldment of (Minimum 50,000 PSI yield strength). All pivot pins shall be hardened steel with a minimum tensile strength of 160,000 PSI. Pivot pins shall turn on replaceable bushings. Booms to have compensated linkage.

The inner boom shall have a 147" **computer controlled epoxy rectangular filament wound fiberglass for accurate fiber placement and compression molded for void free laminate** to provide the unit with dielectric insulation in accordance with ANSI 92.2 class C Aerial device. The inner boom will be tested after assembly with a qualification test using A.C. voltage and the vendor will supply results of that test. The test results must be in accordance with the requirements for ANSI 92.2-2015 class C use.

Lower boom will have a Fiberglass insert providing 12" of isolation.

GENERAL SPECIFICATIONS:

COMPLY
YES **NO**

With inner boom fully retracted, it will maintain 8” of insulation gap.

Inner boom shall extend by double acting cylinder.

All hoses shall be inside boom and must be housed in a cat trac to prevent rubbing

A heavy-duty boom rest is to be furnished with a ratchet strap tie-down for the booms.

Hydraulic lower and outer boom cylinders – **The cylinder rod is threaded and screwed into the rod eye and then welded while the blind end of the cylinder is one-piece design.**

9.0 HYDRAULIC DRIVE SYSTEM

The PTO and pump shall be a combination that will deliver the necessary output to operate the aerial device at maximum performance.

A hydraulic oil reservoir, **12 gal. min.** integral with the pedestal and sufficient volume to operate the aerial device without raising oil temperature excessively.

Filtration shall include an in-tank suction strainer and in-tank filter return. The return filter shall have a bypass in case the filter is plugged. The tank will have a filter gauge so the operator can easily see the status of the return filter. 100 micron suction strainer and 10 micron filter.

10.0 BODY SECTION

A Utility Body suitable for installing on a truck chassis with a 84" cab to axle length.

BODY SPECIFICATIONS:

Fabricated from two sided A60 galvaneal steel with zinc alloy coating.

16 gauge outside panels.

16 gauge end panels.

18 gauge bright spangled galvanized shelving with 2.5" lips.

GENERAL SPECIFICATIONS:

COMPLY
YES **NO**

18 gauge double paneled doors, with hat section reinforcement and built in drainage. Vertical doors to have double spring over center door closures. Horizontal doors to have chains.

12-gauge smooth plate steel floor, with structural channel cross members, Includes integral unit mounting built into the body frame.

The top of the body is to be 12-gauge smooth plate, which shall be the actual top of the body. Top has greater rigidity with integral drip rail formed into plate top.

Stainless Steel flush type, single point rotary latches riveted to door with recessed handles including locks keyed alike.

All exposed edges to be rolled for strength and safety.

A 5/16" diameter continuous full length hinge rod formed into door edge.

Shelf clips on all vertical compartments.

Shelf dividers slots on 4" centers.

Uninterrupted automotive bulb type neoprene door seal for weather tight seal.

Paint body to match chassis cab.

BODY DIMENSIONS:

- 132" Body Length.
- 96" Body Width
- 40" Front of Body height
- 40" Rear of Body height
- 20" Compartment depth
- 56" Floor width

BODY COMPARTMENTATION:

STREETSIDE:

- Compt # 1 - 33" 1-3-1 adjustable locking swivel hooks
- Compt # 2 - 24" 3 adjustable shelves with 4 dividers each
- Compt # 3 - 48" One middle shelf with 8 dividers
- Compt # 4 - 27" 2 Adjustable shelves with 2 dividers each

GENERAL SPECIFICATIONS:

COMPLY
YES **NO**

CURBSIDE:

Compt # 1 -33" 3 adjustable shelves with 4 dividers each
Compt # 2 – 24" 3 adjustable shelves with egg crate dividers
Compt # 3 – 48" Bottom tray with 8 dividers
Compt # 4 – 27" 1-2-1 adjustable locking swivel hooks
1-Hot Stick shelf with rear drop down door built into side pack.

INSTALLATION OF BODY:

Installation of Body to include floor with 12 gauge smooth plate and protective head panel. 24" mud flaps installed behind rear wheels. Factory white primer inside compartments.
Body outside painted one color enamel to match cab

ICC type underride bumper with 4 bolt pintle hole pattern
Rated for 10,000 lb towing with 1,200 lb tongue weight.

36" tail shelf extension is required for bucket protection and access.
Side entry step with 12" grab handle on rear of body and 10.5"X27" arch grab handle to the rear.

11.0 LIGHTING:

Complete LED lighting kit to comply with DOT and FMVSS requirements.

Two (2) surface mount LED strobes on the front chassis grill.

Two (2) 4" round LED strobes recessed in tail shelf light channel.

12.0 PAINT:

Unit to be powder primed and powder colored with a powder coat process.

Body to be painted with a wet paint process and the inside of the toolboxes shall be painted with white primer. Paint shall be a high gloss acrylic enamel such as Sherwin Williams, and include use of a hardener.

13.0 DECALS:

All decals in accordance with manufacturers and ANSI specifications shall be furnished.

14.0 TESTING:

Complete unit testing per ANSI requirements shall be done prior to delivery, and copies of test results shall be furnished. A dielectric

GENERAL SPECIFICATIONS:

COMPLY
YES **NO**

test of the fiberglass boom is to be included, with test results furnished to us.

15.0 TRAINING:

Upon delivery of the completed unit, a factory trained representative is to instruct our personnel on the proper operation of the Bucket truck.. This training will include operation, safety as it relates to such operation, proper inspection procedures as required by manufacturer and ANSI, and on general maintenance.

Two sets of manuals for the Aerial device are to be provided.

16.0: WARRANTY

Warranty is for two years from date of in service and covers all parts and labor for that period. First year of transportation will be provided by the aerial manufacturer.

Chassis warranty procedures will be followed by the chassis manufacturer.

17.0 MISCELLANEOUS:

MADDDC recommended warning decals for a truck of this designation shall be provided and affixed at the proper location.

All standard safety equipment for a vehicle of this designation shall be provided.

All design criteria shall be in accordance with current industry and engineering standards applicable and accepted for structural and hydraulic design safety factors for equipment of this designation.

Equipment shall be delivered complete and operational per contained specifications.

18.0 ADDITIONAL EQUIPMENT (To be included) :

180 degree Hydraulic bucket rotator.

Unit safety switch, Parking brake must be set before unit will operate.

Chassis Start/Stop at basket.

Manual emergency lowering valve at bucket controls

GENERAL SPECIFICATIONS:

COMPLY
YES **NO**

Body to have a push/pull master lock system with handles at rear body.	_____	_____
Body floor, cargo area walls, compartment tops, tail shelf and ICC bumper to be covered with non-skid.	_____	_____
Warn Evacuator model 97 back up alarm.	_____	_____
Stainless steel grounding lug located at the rear CS near or on the ICC upright.	_____	_____
One amber strobe on a 12" post located SS front corner of the service body.	_____	_____
Two wheel chocks.	_____	_____
7 pole trailer socket on ICC bumper	_____	_____
Install two(2) 12V power outlets in SS2 near top of compartment, left side.	_____	_____
DOT kit to be furnished. Includes 5lb ABC fire extinguisher, Triangle reflective kit and spare fuses.	_____	_____
Two (2) 6" PVC tubes, 108" long with Blaylock TCK6PVC aluminum kit, includes locking cap, tube mounting brackets and end cap.	_____	_____
Frame tunnel (possum belly) approximately 34"W X 128"L X 7"H With a drop down door at the rear.	_____	_____
Punched steel metal basket approximately 19"W X 108" L X 8" H Divided into 3 sections, 2 24" sections and 1 60" section. 60" section located to the rear. Mounted on SS compartment top.	_____	_____

19.0 Chassis

Unit to be mounted on a cab chassis with the following specifications

84" CA	-----	-----
6.7L Diesel Engine	-----	-----
19,500 GVWR	-----	-----
6 Speed Automatic Transmission w/ PTO provision	-----	-----

<u>GENERAL SPECIFICATIONS:</u>	<u>COMPLY</u>	
	<u>YES</u>	<u>NO</u>
4X4 drive with manual lever and manual locking hubs	-----	-----
225/70RX19.5 Max traction tires	-----	-----
Aft fuel tank	-----	-----
Painted Oxford White	-----	-----
AM/FM Stereo Radio	-----	-----
Air Conditioning	-----	-----
Engine block heater	-----	-----
Extra heavy front suspension package	-----	-----
Limited slip rear axle	-----	-----
6 Upfitter switchets	-----	-----
Integrated trailer brake controller	-----	-----
Rear view camera and prep kit	-----	-----

19.0 Option, Price separately

Hastings Reel, #21375 with 50' of 2/0 yellow jacketed ground cable	_____	_____
Mounted on SS tail shelf against rear compartment, pays to the rear.	\$_____	

Total price of unit: \$ _____

Delivered to: _____

Delivery time: _____

Proposal submitted by: _____
(Name & Address)

Signature