



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
TECHNICAL SPECIFICATIONS FOR

BUCKET TRUCK, DIESEL, 19,500# GVWR

SERIES NO. 177-400

REV. 2/20/2024

EQUIPMENT SPECIFICATION 177-400G

GENERAL

This specification sets forth the minimum requirements for a 2wd regular cab class 5 truck (19,500# gvwr) outfitted with a utility body and an insulated aerial device with an articulating, telescopic boom, material handling jib, and a single 1-man fiberglass platform.

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 Ford F550 or RAM 5500 cab & chassis with an Altec AT41M articulating aerial device and utility body, 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, bidder's 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 or multiple field service technicians that are domiciled 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 writing in plain language (not company specific codes) and include, at a minimum, all standard & optional features of the delivered unit.

NOTE: Invoices will not be processed for payment until the unit(s) have been inspected by the Equipment Engineer or their representative and deemed in compliance with the specifications.

BID SUBMITTALS

Any additions, deletions, or variations from the specifications should be noted in the "Bidder's Exceptions" page of this specification. Exceptions that are noted to be less than a minimum requirement will not be accepted.

Any additions, deletions or variations from the manufacturer's standard published specifications should be noted on the "Bidder's Exceptions" page of this specification. Unless otherwise noted, any items appearing in the manufacturer's standard published specifications furnished by the Bidder are assumed to be included in the Bidder's submittal.

Bidder should note on their submittal any installation(s) to the equipment that will be performed by the vendor instead of the manufacturer.

Failure to note any specification exceptions, manufacturer specification alterations, and/or vendor installations prior to award may result in rejection of the equipment at the time of delivery.

THE NUMBER OF DELIVERY DAYS AFTER RECEIPT OF ORDER (ARO) MAY BE USED AS A FACTOR IN THE AWARD.

EQUIPMENT SPECIFICATIONS

NOTICE TO BIDDERS

Bidder should review the detailed "Equipment Specification" completely and respond to the compliance question at the end of each section by marking "X", in the space provided, for "Yes" or "No". Mark "Yes" to indicate that the equipment bid meets the section exactly as specified. Mark "No" if there are exceptions to any part of that section. Exceptions/deviations to any part of the specification are to be detailed on the "Bidder's Exceptions" page of this specification.

IN ORDER TO BE CONSIDERED FOR AWARD, BIDDER SHOULD RETURN THIS SPECIFICATION, COMPLETED IN FULL, WITH THEIR BID SUBMITTAL.

Note: All Values listed below are minimums unless noted otherwise.

1. Cab & Chassis

1.1. GVWR: 19,500 lbs.

Comply: ___Yes ___No

1.2. Frame: 600,000 RBM (Resisting Bending Moment) - Bidder should list section modulus and yield strength below

Section Modulus: _____ Yield Strength: _____

Comply: ___Yes ___No

1.3. Cab to axle (CA) and axle to end of frame (AF)

1.3.1. CA: 84"

1.3.2. AF: 79.6"

Comply: ___Yes ___No

1.4. All steel front bumper and 2 frame mounted tow hooks

Comply: ___Yes ___No

1.5. Cab

1.5.1. Conventional day cab

1.5.2. Tinted safety glass

1.5.3. Outside mirrors, driver & passenger side

1.5.3.1. Power adjustable

1.5.3.2. Heated

1.5.3.3. Convex spot mirrors

1.5.4. Manufacturer's highest level sound insulation package

1.5.5. 40/20/40 vinyl split bench seat with fold down center console/arm rest

1.5.6. Gauge package including the following:

1.5.6.1. Coolant temperature

EQUIPMENT SPECIFICATIONS

- 1.5.6.2. Fuel
- 1.5.6.3. Oil pressure
- 1.5.6.4. Speedometer
- 1.5.6.5. Tachometer
- 1.5.6.6. Gear indicator
- 1.5.6.7. Odometer
- 1.5.6.8. Trip odometer
- 1.5.6.9. Auto transmission temperature

- 1.5.7. Dual sun visors
- 1.5.8. Two (2) cup holders, mounted in dash or center console
- 1.5.9. Climate control, including air conditioning, heater, & defroster
- 1.5.10. Power windows & power door locks
- 1.5.11. Tilting and telescoping steering wheel
- 1.5.12. Driver and passenger airbags
- 1.5.13. Running boards/cab entry steps

Comply: Yes No

- 1.6. Engine & Fuel
 - 1.6.1. 6.6L , turbo diesel
 - 1.6.2. 350 HP, 460 FT-LBS
 - 1.6.3. Fuel Tank: 40 gallon min. capacity

Comply: Yes No

- 1.7. Transmission
 - 1.7.1. 6-Speed or 10-speed automatic, with PTO provision
 - 1.7.2. To be filled with manufacturer approved synthetic lubricants

Comply: Yes No

- 1.8. PTO
 - 1.8.1. PTO must be activated by dash mounted factory upfitter switch
 - 1.8.2. Indication of PTO engagement should be accomplished by lighted switch or separate dash mounted indicator light

Comply: Yes No

- 1.9. Front Axle
 - 1.9.1. 7,000 lbs. GAWR @ ground capacity
 - 1.9.2. Shock absorbers

EQUIPMENT SPECIFICATIONS

1.9.3. Integral power steering

Comply: ___ Yes ___ No

1.10. Rear Axle

1.10.1. 13,500 lbs. GAWR @ ground capacity

1.10.2. Shock absorbers

1.10.3. Limited slip or locking differential

Comply: ___ Yes ___ No

1.11. Brakes: Power assist 4-wheel disc brakes with ABS

Comply: ___ Yes ___ No

1.12. Wheels & Tires

1.12.1. 19.5" steel wheels, 10 bolt

1.12.2. First line, first quality tires

1.12.2.1. Front – 225/70R19.5, single highway tread

1.12.2.2. Rear – 225/70R19.5, dual on/off road tread

1.12.3. Combined load ratings must to be compatible with axle ratings and GVWR

Comply: ___ Yes ___ No

1.13. Chassis Electrical System & Lights

1.13.1. 12-volt system

1.13.2. Dual alternators, 380 amps

1.13.3. Dual batteries with 750 CCA each

1.13.4. Four (4) dash or overhead mounted, 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; one (1) assigned to enable the convenience lighting circuits, and one (1) blank to be assigned by DOTD personnel.

1.13.5. Headlights:

1.13.5.1. Automatic daytime running lights

1.13.5.2. Automatic on with low ambient light levels

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

1.13.6. Roof mounted clearance marker lights

1.13.7. Cruise control

1.13.8. Intermittent windshield wipers with washers

1.13.9. Self-cancelling directional signals

1.13.10. Backup alarm, 97 dba

1.13.11. Backup camera

1.13.12. AM/FM radio, Bluetooth/hands free function and steering wheel controls

1.13.13. 110V power outlet

1.13.14. Two (2) 12V accessory power outlets with covers, mounted in dash (for cell phone chargers, GPS devices, etc.). One (1) 12V power outlet and one (1) USB charging outlet will also satisfy this requirement.

EQUIPMENT SPECIFICATIONS

1.13.15. Factory trailer brake controller

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

2. Aerial Device

Altec AT41M or equal: insulated, articulating, telescopic

2.1. Working Capacities

2.1.1. Ground to bottom of platform: 40.8 ft.

2.1.2. Working height: 45.8 ft.

2.1.3. Maximum horizontal side reach: 30 ft. to edge of platform

2.1.4. Continuous rotation

2.1.5. 400 lbs. platform capacity

2.1.6. Dielectric rating: Category C, 46 kV and below

Comply: Yes No

2.2. Hydraulics

2.2.1. Electric shifted PTO & pump

2.2.2. 15 gallon reservoir

2.2.3. 3000 psi. max. operating pressure

2.2.4. Open center

2.2.5. Hydraulic tool circuit at platform with quick disconnect couplings and control valve

Comply: Yes No

2.3. Features & options

2.3.1. Single 1-man platform, 24"x30"x42"

2.3.1.1. Fiberglass

2.3.1.2. Platform liner

2.3.1.3. Platform cover, vinyl

2.3.1.4. Platform elevator

2.3.1.5. One (1) Platform Step

2.3.2. Hydraulic boom extension (telescoping)

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2.3.3. Material handling jib & winch

2.3.3.1. 36" long stick

2.3.3.2. 1000 lb. capacity

2.3.3.3. Removable jib arm

2.3.4. 12 VDC powered secondary stowage system

2.3.4.1. Controls at platform & pedestal

2.3.5. Outriggers

2.3.5.1. Hydraulic A-frame with integrated sub-base

2.3.5.2. Located directly behind the cab

2.3.5.3. Maximum spread: 115"

2.3.5.4. Electric interlock

2.3.5.5. Weather proof sealed electric control switches, mounted in aluminum boxes at rear

2.3.6. Lighting package for platform controls

2.3.7. One (1) safety harness and 4.5 ft. lanyard, size medium to X-large

2.3.8. Slope indicator

Comply: Yes No

2.4. Upper Platform Controls

2.4.1. Single handle electronic

2.4.2. Engine start/stop

2.4.3. Emergency stop

Comply: Yes No

2.5. Paint: Manufacturer's standard, white

Comply: Yes No

3. Utility Body

3.1. Basic Construction

3.1.1. Heavy gauge welded steel frame

3.1.2. A40 zinc alloy coated steel

3.1.3. Double paneled doors

3.1.3.1. Self-sealed with built-in drainage

3.1.3.2. Stainless steel, full length hinge rods

3.1.4. Integrated door header drip rail

Comply: Yes No

3.2. Dimensions

3.2.1. Length: approx. 132" long

3.2.2. Width: 94"

3.2.3. Compartment height: 40"

3.2.4. Compartment depth: 20"

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Comply: ___ Yes ___ No

3.3. Features & Accessories

3.3.1. 2"x6" composite retaining board at rear of body

3.3.2. Locks

3.3.2.1. Stainless steel rotary paddle latches with keyed locks

3.3.2.2. All locks keyed alike

3.3.2.3. Master body locking system

3.3.3. Gas prop rigid door holder on all vertical doors

3.3.4. Chains on horizontal doors

3.3.5. Chock holders

3.3.5.1. One holder on each side of body in fender panel

3.3.5.2. One pair of heavy rubber wheel chocks

3.3.6. Outrigger Pads

3.3.6.1. One pair of outrigger pads, 18"x18", bright yellow nylon

3.3.6.2. Outrigger pad storage under body

3.3.7. Boom rest with automatic latch

3.3.8. ICC rear bumper

3.3.8.1. 2" receiver hitch, 10k lb. capacity

3.3.8.2. Safety chain d-rings

3.3.8.3. Combination 7-pin & 4-pin trailer electrical receptacle

3.3.9. Rubber mud flaps

3.3.10. Side entry steps on curb side end of tailshelf with grab bar

3.3.11. All walking surfaces (bed cargo space floor and tail shelf) coated with slip resistant coating (sprayed bed liner)

3.3.12. Six (6) floor mounted tie downs in bed, one (1) in each corner and one (1) at the midpoint of each side

3.3.13. Light bar mounting posts, front of body, each side. Alternatively, a headache rack spanning the full width of the body may be supplied for mounting two (2) mini light bars (see lighting details below).

Comply: ___ Yes ___ No

3.4. Compartmentation – Street Side (SS)

3.4.1. 1st Vertical

3.4.1.1. Two (2) adjustable shelves with removable dividers on 4" centers

3.4.1.2. Outrigger housing, with outrigger pin access as needed

3.4.2. 2nd Vertical: Two (2) adjustable shelves with removable dividers on 4" centers

3.4.3. 1st Horizontal: fixed shelf with removable dividers on 4 inch centers on bottom of compartment

3.4.4. Rear Vertical

3.4.4.1. Locking swivel hooks on an adjustable rail - left wall

3.4.4.2. Locking swivel hooks on an adjustable rail - rear wall

3.4.4.3. Locking swivel hooks on an adjustable rail - right wall

3.4.5. Hotstick shelf extending full length of body on streetside

3.4.5.1. Two hotstick brackets on streetside

3.4.5.2. Standard drop-down hotstick door for one (1) shelf on streetside, stainless steel slam paddle latch with keyed lock

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Comply: ___ Yes ___ No

3.5. Compartmentation – Curb Side (CS)

3.5.1. 1st Vertical

3.5.1.1. Two (2) adjustable shelves with removable dividers on 4" centers

3.5.1.2. Outrigger housing, with outrigger pin access as needed

3.5.2. 2nd Vertical: Two (2) adjustable shelves with removable dividers on 4" centers

3.5.3. 1st Horizontal

3.5.3.1. Adjustable shelf with removable dividers on 4" centers

3.5.3.2. Fixed shelf with removable dividers on 4 inch centers on bottom of compartment

3.5.4. Rear Vertical

3.5.4.1. Locking swivel hooks on an adjustable rail - left wall

3.5.4.2. Locking swivel hooks on an adjustable rail - rear wall

3.5.4.3. Locking swivel hooks on an adjustable rail - right wall

Comply: ___ Yes ___ No

3.6. Tailshelf

3.6.1. 29" steel tailshelf, width to match body

3.6.2. Side access steps on curb side of tailshelf with grab bar

3.6.3. Platform rest with rubber tube

3.6.4. Steel cross storage located between tailshelf floor and top of chassis frame rail, with drop down door and keyed latch on streetside, as wide as possible

3.6.5. Smooth galvanneal steel tailshelf

3.6.6. Vise mounted on tailshelf

Comply: ___ Yes ___ No

3.7. Paint

3.7.1. Body: Manufacturer's standard, white

3.7.2. Frame mounted and underbody components: Manufacturer's standard, black

Comply: ___ Yes ___ No

4. Lighting, Wiring And High Visibility Conspicuity Tape

4.1. General

4.1.1. Refer to lighting layout illustrations below

4.1.2. Truck must be delivered with warning lights & high visibility reflective conspicuity tape installed in accordance with the below specifications and layout

4.1.3. All warning lights to be sealed light emitting diode (LED) type, with plug-in connectors

4.1.4. 6" oval lights and round clearance marker lights must be grommet mounted

4.1.5. Warning lights shall be installed by an upfitter who is experienced in and regularly engages in the installation of automotive electronics & warning lights

4.1.6. Installer shall use vehicle & lighting manufacturers' guidance along with industry best practices and techniques to ensure that lights are installed in a safe and neat manner

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- 4.1.7. All wiring and cables should be color coded, heat shrink wrapped and logically routed, secured, and protected with convoluted loom where possible
- 4.1.8. All wiring splices must be made using butt or parallel crimp connectors
- 4.1.9. Non-metallic/rubber grommets shall be used where wires and cables penetrate any cab panels, body panels, or chassis structure
- 4.1.10. All cab and body penetrations shall be adequately sealed to prevent water from entering
- 4.1.11. All warning lights to be controlled by a single in-cab, dash-mounted upfitter switch. The switch must be labeled to read "Warning Lights"
- 4.1.12. Installer shall contact DOTD Equipment Section prior to programming to confirm intended flash pattern(s)
- 4.1.13. All lighting must meet Federal and state requirements

Comply: ___ Yes ___ No

4.2. Convenience Lighting

- 4.2.1. LED compartment lights
- 4.2.2. LED cargo bed lights
- 4.2.3. Five (5) undercarriage perimeter lights, waterproof, 13"L Maxxima #M84420-B or equal
- 4.2.4. One in-cab upfitter switch should serve as a master switch for all convenience lighting
- 4.2.5. Compartment lights, cargo lights, and underbody lights should each be controlled by separate switches mounted on a single control panel. Preferred location for control panel is within the 1st vertical compartment on the street side.

Comply: ___ Yes ___ No

4.3. Mini Light Bars

- 4.3.1. Two (2) mini (17") light bars installed in the locations shown below
- 4.3.2. SoundOff Signal nRoads Mini or equal satisfying the following requirements
- 4.3.3. Lengths are nominal and +/- 1" is acceptable
- 4.3.4. Dual color - 12 diodes per pod/module (equal number of green & amber)
- 4.3.5. Each pod/module must be capable of fully displaying both green and amber
- 4.3.6. Flash pattern capable of alternating between an asymmetric, low-frequency, "wig-wag" pattern and a low-frequency double or quad flash.
- 4.3.7. UV resistant clear polycarbonate lens
- 4.3.8. 10-16 VDC
- 4.3.9. Light bars shall meet all applicable federal/state laws and regulations
- 4.3.10. Shall be SAE J845 360-degree Class 1 certified

Comply: ___ Yes ___ No

4.4. Perimeter Warning Lights

- 4.4.1. Brooking Industries XT12D (or ST6D) surface mount perimeter lighthouse or equal satisfying the following requirements
- 4.4.2. Four (4) perimeter lights, two (2) front and two (2) rear, installed in the locations shown below
- 4.4.3. Size: Length: 4.25-5.25 in., Width: 1.0-2.0 in., Height: 0.3-0.4 inches
- 4.4.4. 12-24 VDC

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- 4.4.5. UV resistant clear polycarbonate lens, black bezel trim
- 4.4.6. 12 diodes - dual color - (equal number of green & amber)
- 4.4.7. Lighthouse must be capable of displaying each color across full length
- 4.4.8. Capable of alternating between an asymmetric, low-frequency, "wig-wag" pattern and a low-frequency double or quad flash
- 4.4.9. Lighthouse shall meet all applicable federal/state laws and regulations
- 4.4.10. Shall be SAE J595 Class 1 certified

Comply: Yes No

4.5. Oval Warning Light

- 4.5.1. Three (3) lights required, installed in the locations shown below
- 4.5.2. 6" L x 2¼" W , recessed, grommet, snap-in mount
- 4.5.3. Clear polycarbonate lens
- 4.5.4. Dual color – half amber, half green
- 4.5.5. Capable of double or quad flash pattern
- 4.5.6. 12-24 VDC, with plug-in connector
- 4.5.7. Shall be SAE J595 Class 2 certified

Comply: Yes No

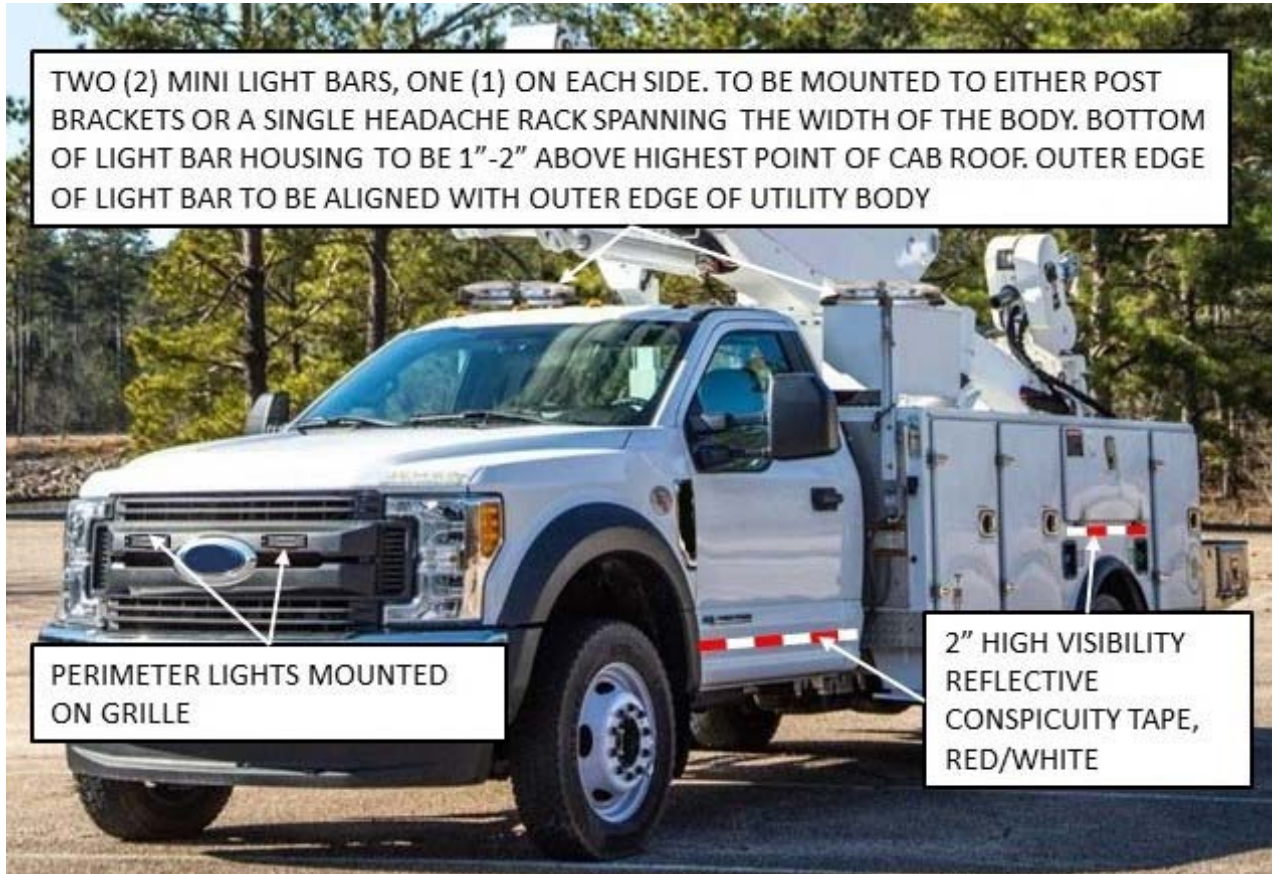
- 4.6. High Visibility Reflective Tape: DOT C2 approved high visibility reflective conspicuity tape, 2" wide, with alternating 6" segments of red and white, shall be placed on the lower portion of the door and above the rear wheels on each side of the truck, along with the rear of the body as shown in the images below

Comply: Yes No

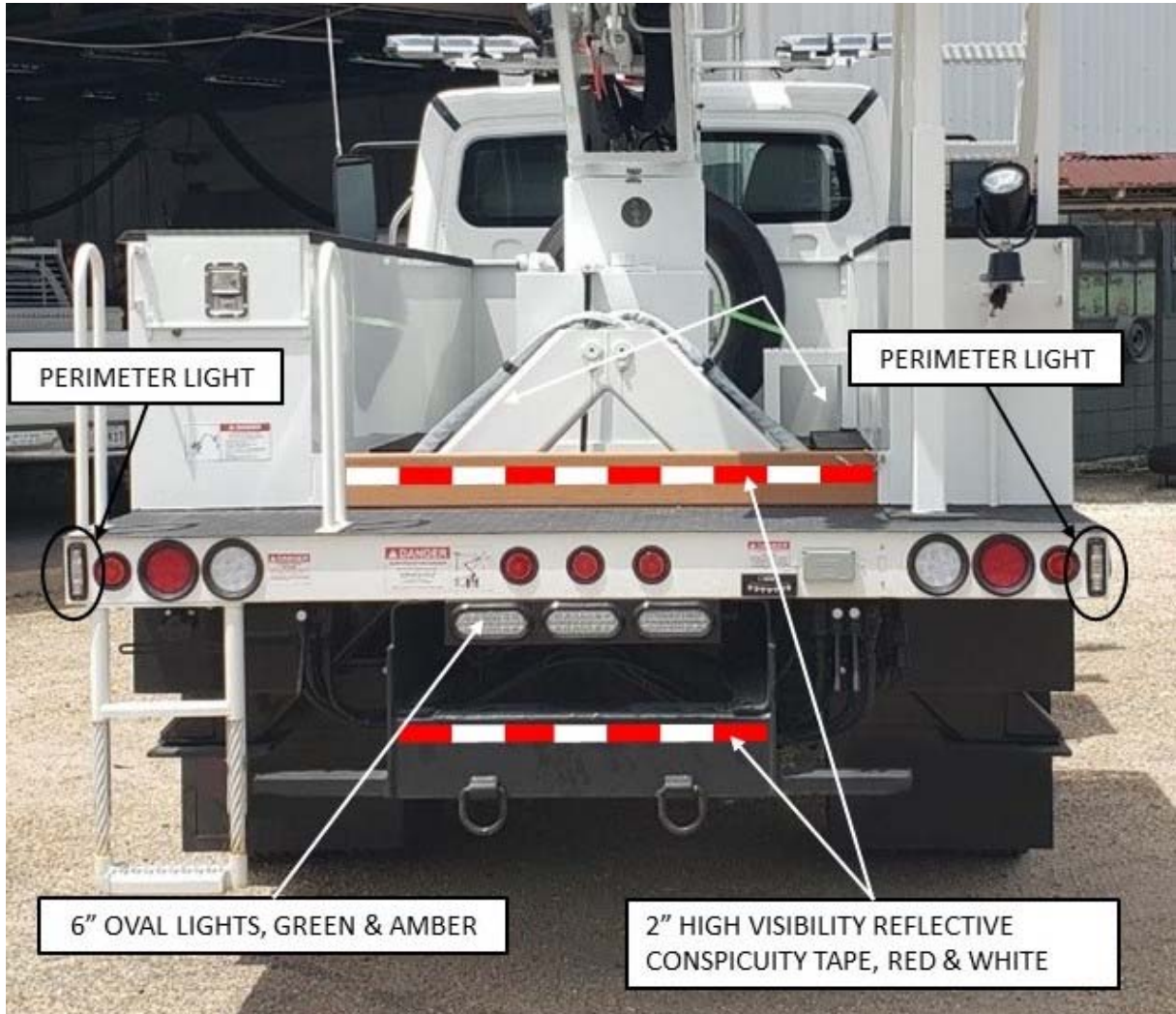
EQUIPMENT SPECIFICATIONS

4.7. Warning Lights and Conspicuity Tape Layout

Note: The following pictures are intended to show a general representation of a truck with an aerial device. No other features of the trucks shown are intended to be included unless stated elsewhere. Any names, decals, logos, or styling depicted here which are specific to a manufacturer or brand is not intended to be a requirement unless stated elsewhere in the specifications. Only the labeled lighting and conspicuity tape details apply here.



EQUIPMENT SPECIFICATIONS



Comply: ___ Yes ___ No

