



STATE OF LOUISIANA  
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT  
TECHNICAL SPECIFICATIONS FOR

**55-TON TRAVELING AXLE, TILTING DROP DECK TRAILER**

**SERIES NO. 510-000**  
**EQUIPMENT SPECIFICATION 510-000A**

**REV. 10/10/2022**

**GENERAL**

This specification sets forth the minimum requirements for a 55-ton drop deck, tilting semi-trailer with a traveling axle group.

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 Landoll 455B-53, with appropriate options and standard features, was used to develop these specifications and establish equivalency evaluation criteria.

Equipment of similar style, type, character, quality, features, and purpose conforming to the following detailed requirements/specifications will be considered. For evaluation purposes, bidders proposing an exception/equivalent option/feature to those specified herein, may be required to provide manufacturer/product information (catalogue sheets, detailed specifications, pictures, etc.). This information will be evaluated against the minimum requirements of this specification. Proposed submittals that are determined not to be equivalent to the established criteria will be rejected.

**LOUISIANA AUTHORIZED DEALER(S)**

Proposed item(s) must be from a manufacturer who has at least one (1) authorized dealer within the State of Louisiana where parts and service can be obtained. Authorized dealer(s) must have properly trained technicians plus all other resources necessary to perform warranty and repair services in complete accordance with the manufacturer's requirements. A letter certifying the ability to meet this requirement, inclusive of the company name(s) and address(es) of the Louisiana authorized dealer(s), should be supplied with the bid submittal and may be required prior to award.

**DELIVERY & ACCEPTANCE**

Vendor shall perform a test run of each unit to verify that all features and capabilities are operating properly at time of delivery. Documentation of testing may be required prior to acceptance by the Department.

Unit(s) must be delivered completely assembled (including all components, accessories, etc.) and ready for operation without any additional preparation including, but not limited to, ensuring all fluid levels are at their full mark, fuel tank(s) is full, all necessary lubrication has been performed, etc. A Louisiana safety inspection shall be performed on each vehicle prior to delivery and a Louisiana safety inspection sticker properly affixed.

Any unit delivered under this specification is subject to rejection if there is evidence of poor workmanship, by either the vendor or the original manufacturer. Noted defects and/or nonconformance findings may

be corrected by the vendor. Corrections must be completed and approved by the Equipment Engineer or his representative prior to final acceptance.

Unit(s) shall be delivered “**on the ground;**” DOTD will not unload nor provide any unloading equipment to the vendor/delivery driver in order to offload the unit(s).

**NOTE:** The Department will have space available for equipment to be unloaded.

**EACH UNIT MUST BE SUPPLIED WITH THE FOLLOWING DOCUMENTATION:**

1. Notarized Bill of Sale
2. Certificate of Origin (MSO)
3. Dealer's Service Policy
4. Owner's/Operator's Manual(s)
  - a. One (1) Hardcopy
  - b. One (1) Digital Copy
    - i. Acceptable Formats: CD, DVD, Flash Drive, or E-mail
5. Service Manual(s)
  - a. One (1) Hardcopy
  - b. One (1) Digital Copy
    - i. Acceptable Formats: CD, DVD, 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. Trailer Design & Construction

#### 1.1. General Description

- 1.1.1. The trailer shall be a heavy-duty single drop, sliding axle, tilting platform type, designed for heavy hauling
- 1.1.2. Complete with all standard features and accessories normally provided by the manufacturer plus all additional options and accessories specified hereinafter
- 1.1.3. Must meet all applicable OSHA requirements
- 1.1.4. Must meet all applicable FMVSS, DOT, and ICC Requirement

Comply: \_\_\_ Yes \_\_\_ No

#### 1.2. Frame

- 1.2.1. Four beam construction
  - 1.2.1.1. Main beams fabricated with 3/4"x6" top and bottom flanges (100,000 psi) and 3/16" thick web (80,000 psi)
  - 1.2.1.2. Outer beams fabricated with 3/8"x6" top flange, 3/8"x3-1/2" bottom flange, and 3/16" thick web (all 80,000 psi)
- 1.2.2. Lower deck cross members: 4" junior I-beams placed on 8"-9" centers
- 1.2.3. Frame shall be continuously welded per AWS D1.1 and shall be designed and rated for full trailer load capacity

Comply: \_\_\_ Yes \_\_\_ No

#### 1.3. Platform

- 1.3.1. Platform shall be single drop deck type
  - 1.3.1.1. 8 1/2' wide and 53' long (nominal), with 41' of usable lower deck space
- 1.3.2. Flooring shall consist of 1-3/4" decking made from recycled tire rubber & plastic (Rumber, Shelby, or equal) with traction surface on top face, adequately supported and secured in place per manufacturer's requirements.
- 1.3.3. A flat type approach plate will be load bearing and a structural part of the trailer without being hinged
- 1.3.4. Trailer shall have a low-load angle of 6-7 degrees, yet will have an increased 15 degrees of dump angle capacity

## EQUIPMENT SPECIFICATIONS

**1.3.5.** Loaded deck height: 37"± ½"

**Comply:** \_\_\_ Yes \_\_\_ No

### 1.4. Gooseneck

**1.4.1.** Gooseneck end of trailer is hinged to lower deck with a grease-able pivot on the outer beams.

**1.4.2.** The drop from upper to lower deck is 21"-22".

**1.4.3.** Kingpin plate: ½" thick, hinged to allow loading and unloading with tractor and trailer in jackknife position.

**1.4.4.** King pin setting: 18"-21"

**1.4.5.** Swing clearance: 83½"

**1.4.6.** Gooseneck shall be suitable for fifth wheel with 48" elevation.

**1.4.7.** Powder coated slope roller centered and recessed at rear of top deck. (See "Winch" section below)

**Comply:** \_\_\_ Yes \_\_\_ No

### 1.5. Traveling Undercarriage

**1.5.1.** Undercarriage shall travel forward and return hydraulically

**1.5.2.** Undercarriage shall travel on four (4) 5" 60,000 lb. grease-able needle bearing rollers and be secured by two (2) 3" 24,000 lb. keeper rollers. All rollers and bearings are replaceable.

**1.5.3.** It shall travel forward with two (2) 4" hydraulic cylinders to achieve a 6½-degree load angle

**1.5.4.** The inner beams shall have two pockets located near the rear of trailer in which rollers will rest, creating a secured undercarriage positive lock and alignment when trailer is in travel mode; the rollers will sit in two (2) inverted pockets in the inner beams near front of lower deck when trailer is in load mode.

**1.5.5.** It shall be powder coated with both primer and topcoat

**1.5.6.** All wiring and hydraulic lines must be encased in heavy plastic flex chain for maximum protection

**1.5.7.** Undercarriage shall have a centralized grease system to service axles and travelling rollers

**1.5.8.** Undercarriage shall include a heavy duty ICC type rear bumper for underride protection to satisfy DOT & FMVSS specifications

**Comply:** \_\_\_ Yes \_\_\_ No

### 1.6. Hydraulics

**1.6.1.** 20 gpm at 2500 psi

**1.6.2.** Open center control valves.

**1.6.2.1.** Valves must include integrated flow control inlet that can handle up to 53 gpm with direct relief to tank

**1.6.2.2.** Control valves must have direct acting solenoids for remote control functions

**1.6.2.3.** Zinc-plated body, sealed controls, fully enclosed spools

**1.6.3.** Hydraulic controls must be located on street-side drop area of gooseneck, and

**1.6.4.** Work section valves will flow at 20 gpm, power beyond will flow at 6 gpm.

**1.6.5.** All cylinder circuits must include counterbalance valves and must operate at full 20 gpm flow.

## EQUIPMENT SPECIFICATIONS

**1.6.6.** Dual ¾" quick-disconnect hydraulic couplers, one (1) male and one (1) female, at front of trailer plus a matching pair supplied with each unit

**1.6.6.1.** Female: DNP HNV-12-12-C or equal

**1.6.6.2.** Male: DNP HNV-12-12-N or equal

**Comply:** \_\_\_ Yes \_\_\_ No

### 1.7. Axles & Suspension

**1.7.1.** (3) axles, 25,000 lb. capacity each

**1.7.1.1.** full width through

**1.7.1.2.** oil bath bearings

**1.7.1.3.** dual tire

**1.7.2.** Air ride suspension, SAF-Holland/Neway RLU288 or equal

**Comply:** \_\_\_ Yes \_\_\_ No

### 1.8. Brakes

**1.8.1.** Full air-operated brake equipment for all wheels

**1.8.1.1.** Outboard drums

**1.8.1.2.** Automatic slack adjusters

**1.8.1.3.** Heavy-duty 12-1/4"x7-1/2" non-asbestos linings

**1.8.1.4.** Automatic spring brake application on axles upon accidental breakaway

**1.8.2.** 4S/2M ABS anti-lock brake system, Wabco or equal

**1.8.2.1.** Center axle indirect control

**1.8.3.** Must comply with all State and Federal ICC regulations.

**Comply:** \_\_\_ Yes \_\_\_ No

### 1.9. Wheels & Tires

**1.9.1.** Steel Wheels

**1.9.1.1.** 9" diameter hub-piloted disc type, 8-bolt

**1.9.1.2.** 17.5"x6.75"

**1.9.2.** First line, first quality tires (Continental, Michelin or equal)

**1.9.2.1.** Size 235/75R-17.5 regular tread, radial

**1.9.2.2.** Load range J min. (load range must be compatible with axle rating)

**1.9.3.** Two (2) spare tires & wheels

**1.9.4.** Hubometer

**1.9.5.** Air inflation system, Meritor or equal

**Comply:** \_\_\_ Yes \_\_\_ No

### 1.10. Bulkhead & Storage

**1.10.1.** DOT mesh-type bulkhead

**1.10.1.1.** 48"Hx102"W

**1.10.1.2.** Aluminum side wings

## EQUIPMENT SPECIFICATIONS

### 1.10.1.3. Chain storage rack

### 1.10.2. Storage

1.10.2.1. One (1) toolbox on each side of the upper deck

1.10.2.2. Interior lighting

1.10.2.3. Approx. 30"x34"x8-1/2"

1.10.2.4. Lockable side-opening doors

1.10.2.5. Chain and binder storage rack on bulkhead

1.10.2.6. Dual tire carriers mounted to front of bulkhead



Comply: \_\_\_ Yes \_\_\_ No

### 1.11. Tie Downs

1.11.1. Both sides of deck shall have combination chain slot/stake pockets (1-5/8"x2-7/8") on 16" centers.

1.11.2. Center keyhole chain slots on both upper deck and lower deck.

1.11.3. Two (2) keyhole chain slots shall be located at front of lower deck plus six (6) across end of rear approach plate.

1.11.4. Chain rub rail, both sides, full length

Comply: \_\_\_ Yes \_\_\_ No

### 1.12. Winch

1.12.1. Mounted at front of upper deck

1.12.2. Horizontal pull of 30,000 lbs.

1.12.3. Planetary driven with a 2-speed motor



## EQUIPMENT SPECIFICATIONS

- 1.12.4. Air clutch free wheel
- 1.12.5. Equipped with 85' of 5/8" Flex-X9 cable with an attached 3' long high-test 5/8" chain with a 5/8" grab hook included.
- 1.12.6. Cable roller guide (4-way rollers)
- 1.12.7. Slope wear protection roller on upper deck



Comply: \_\_\_Yes \_\_\_No

### 1.13. Lights & Markings

- 1.13.1. LED convenience light mounted above hydraulic controls and operational placard.
- 1.13.2. Bulkhead mounted LED Work lights
- 1.13.3. Trailer shall be equipped with clear lens LED lights plus conspicuity tape and reflectors in accordance with all applicable requirements, including turn signals, dual tail lights, mid-ship turn signals, brake lights, and license plate light.
- 1.13.4. Standard 7-way receptacle, SAE J-560a type provided.
- 1.13.5. All wiring shall be of adequate capacity and properly installed for maximum protection from damage and weather, and all lights shall be recessed or guarded to prevent accidental damage.
- 1.13.6. Wiring harness shall be Grote "Xtreme" or approved equal, with neoprene compression seals, grommets for protection when running through metal, and support clamps at intervals of no more than 24."

Comply: \_\_\_Yes \_\_\_No

### 1.14. Additional Options & Accessories

- 1.14.1. Wireless remote control; 6-function (Tilt, Travel, & Winch)
- 1.14.2. Mud flaps and brackets

## EQUIPMENT SPECIFICATIONS

**1.14.3.** Two-speed parking stands, Jost or equal

**1.14.4.** Two (2) fold-down steps, one (1) each side



Comply: \_\_\_ Yes \_\_\_ No

### 1.15. Finish

**1.15.1.** Raw trailer frame is to be baked at 400F for 60 minutes to remove oils and contamination, steel shot-blasted to bright white metal, and then coated with a zinc-rich powder primer and a TGIC polyester powder topcoat

**1.15.2.** Topcoat to be manufacturer's standard black

Comply: \_\_\_ Yes \_\_\_ No



