



STATE OF LOUISIANA  
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT  
TECHNICAL SPECIFICATIONS FOR

**BOOM MOWER, SELF-PROPELLED, 4 WHEEL DRIVE**

**SERIES NO. 268-250**

**REV. 4/4/2025**

**EQUIPMENT SPECIFICATION 268-250G**

**GENERAL**

This specification sets forth the minimum requirements for a 4-wheel drive, rubber tires, self-propelled, boom mowing machine.

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 MowerMax Boom Mower, 4-wheel drive boom mowing machine, 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.

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. Dealer's Service Policy
2. 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
3. Service Manual(s)
  - a. One (1) Hardcopy
  - b. One (1) Digital Copy
    - i. Acceptable Formats: PDF delivered via USB "Flash Drive, or E-mail
4. 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.

## 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. Chassis/Cab

#### 1.1. Dimensions/Weight

- 1.1.1. Height: 11 ft.
- 1.1.2. Operating width: 100 inches
- 1.1.3. Total length w/ boom in stow: 236 inches (no boom attachments)
- 1.1.4. Operating Weight: 26,500 lbs.

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

#### 1.2. Cab

- 1.2.1. Fully enclosed and insulated
- 1.2.2. Mounted in front of the engine and hydraulics
- 1.2.3. ROPS and FOPS certified
- 1.2.4. Boom Front and Side Window: ½ in. high impact Lexan
- 1.2.5. Steering wheel and column with full column tilt and telescoping features
  - 1.2.5.1. Horn and steering knob
- 1.2.6. Operator's seat
  - 1.2.6.1. Cloth seat with 12-volt adjustable air ride
  - 1.2.6.2. Two armrests
  - 1.2.6.3. Operator presence switch
  - 1.2.6.4. Seatbelt
- 1.2.7. Hydraulic joystick interlock control
- 1.2.8. Control System mounted in cab within reach of Operator to provide control of multiple functions with built in safety features, to be touch screen
  - 1.2.8.1. 10 in. diagonal touchscreen color monitor
- 1.2.9. In cab inclinometer in view of the Operator to indicate angle when operating on grades or slopes
- 1.2.10. Ergonomic hydraulic piloted joystick
- 1.2.11. Foot pedal and hand controls for travel and service brake
- 1.2.12. Air conditioner and heater
- 1.2.13. Step and Handrail to provide safe access to cab
- 1.2.14. Two (2) rear view mirrors mounted on the left and right side of the cab

## EQUIPMENT SPECIFICATIONS

- 1.2.15. Back up camera with front & rear view
- 1.2.16. Windshield wiper with washer
- 1.2.17. Backup alarm, 107 dba
- 1.2.18. Audible and visible alarm for low hydraulic oil to alert operator of a hydraulic oil leak as well as high coolant temperature and low oil pressure
- 1.2.19. 6in touchscreen AM/FM stereo with Bluetooth
- 1.2.20. Tinted windows
- 1.2.21. Two (2) on board ABC rated fire extinguishers with secure and easy access
- 1.2.22. 12 VDC auxiliary socket

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

### 2. Drive Train

#### 2.1. Engine

- 2.1.1. Diesel, inline 4 cylinder
- 2.1.2. Liquid Cooled
- 2.1.3. 154 HP @ 2500 RPM
- 2.1.4. Engine and DOC/SCR system to meet all emission standards in effect at time of delivery
- 2.1.5. If system requires Diesel Exhaust Fluid (DEF), tank to hold a minimum of 5 gallons of DEF
- 2.1.6. Fuel Tank: Aluminum, 48-gallon capacity
- 2.1.7. Reversing engine cooling fan

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

- 2.2. Transmission: 4-speed with 0-8 MPH in the 2 work modes, 0-22 MPH max in the 2 travel modes

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

#### 2.3. Axles

- 2.3.1. Two (2) heavy duty 26,000lbs GVW axles with full time 4-wheel drive 4-wheel steering
- 2.3.2. 4-wheel steering with 3 steering modes: Four-wheel, Front, and Crab
  - 2.3.2.1. Rear axle shall self-center when going from 4-wheel or crab to front wheel steer
- 2.3.3. Front axle - automatic, 45% limited slip differential
- 2.3.4. Rear axle - 100% operator controlled locking differential
- 2.3.5. Rear axle stabilizer
- 2.3.6. Drive axle pump with heavy duty hydrostatic, closed loop piston pump with charge pump filter

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

#### 2.4. Electrical System & Lighting

- 2.4.1. Battery disconnect switch in locked compartment
- 2.4.2. Engine driven alternator
- 2.4.3. Two 12-volt batteries with 1000 cold cranking amps each
- 2.4.4. Color coded wiring
- 2.4.5. One (1) LED Safety Strobe Bar on top of cab

## EQUIPMENT SPECIFICATIONS

**2.4.6.** 35in LED Directional Light Bar

**2.4.7.** 12 mini-LED strobes mounted on all 4 sides (Front Main Frame, aft Cab mount and Cab A/C Housing for light bar)

**2.4.8.** Head lights with LED daytime running lights, high & low beam, front and rear turn signals, brake and reverse lights

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

### 2.5. Brakes

**2.5.1.** Hydrostatic

**2.5.2.** Service brakes: foot-controlled

**2.5.3.** Parking brakes: electric over hydraulic with an integrated seat belt safety switch

**2.5.4.** Parking brake to automatically apply if engine stops or hydraulic system pump fails

**2.5.5.** Parking brake on indicator light mounted on dash

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

**2.6.** Tires: 460/70R24 Radial with multiuse tread

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

### 3. Hydraulic System

**3.1.** Engine driven pump

**3.2.** Hydrostatic propel system

**3.3.** Charge loop filtration

**3.4.** Electric emergency pump

**3.5.** Mower blades shall be powered by a closed-loop, hydrostatic piston pump with charge pump filter and a bent axis piston motor with maximum pressures capable of 4900psi

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

### 4. Boom Features & Mowing

**4.1.** Length: 27ft with outer boom telescoping to 30ft

**4.2.** Main pivot pins constructed of 1.5-inch AISI 4140 steel

**4.3.** Each pivot pin supported by a pair of 2-inch-wide hardened steel, greaseable Connex® bushings

**4.4.** Standard boom functions shall include horizontal swing, vertical lift, dipper reach, mower head tilt and mower head door open/close

**4.5.** All boom functions as well as axle stabilizer system to be controlled by the operator's right hand and the joystick

**4.6.** Boom shall swing at a minimum of 175 degrees with a double trunnion cylinder rotator with dual cross port reliefs and an accumulator

**4.7.** The boom arm travel cradle shall come with a 2in ratchet strap to secure boom in the cradle

## EQUIPMENT SPECIFICATIONS

**4.8.** Boom mower deck/attachment tilt lifted by a 4.0 inch bore cylinder with a 1.50-inch diameter rod with 1.5in 4140 pins

**4.8.1.** The cylinder shall have an integrated counter-balance holding valve

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

**4.9.** Main Boom

**4.9.1.** Constructed of welded 9in wide x 7in high using 1/2in A-36 steel plate for all 4 sides

**4.9.2.** Lifted by a 6 inch bore cylinder with a 2.5-inch diameter rod with 1.75in 4140 pins

**4.9.3.** Mount weldment made of 3/4 inch and 5/8-inch A-36 steel and attached by a minimum of ten (10) grade 8 flange bolts with lock washers

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

**4.10.** Outer Boom

**4.10.1.** 5.5 in wide x 5-inch-high using 3/8in A-36 steel plate

**4.10.2.** Lifted by a 4.5 inch bore cylinder with a 2.0-inch diameter rod with 1.5in 4140 pins

**4.10.3.** Tilting boom attachment quick disconnect system (QDS) with an easy 1.25in pull pin and Stucchi Multi-coupling Plate for the hydraulic hoses

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

**4.11.** Mower Deck

**4.11.1.** 60in rotary deck frame made of a minimum of 9ga. steel plate and have a 1in thick blade bar with 5/8in dual double-sided sling blades

**4.11.2.** Hydraulic limb door with 180-degree deck swivel

**4.11.3.** 90 Degree articulate

**4.11.4.** Quick disconnect system with single pin removal and multi-plate hydraulic disconnect

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

**4.12.** Front Lift System

**4.12.1.** Skid Steer type quick hitch and hydraulic quick disconnect

**4.12.2.** High flow hydraulics

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

**4.13.** Counter Weight

**4.13.1.** 3,400lbs cast iron primary counterweight with integrated operator steps to be attached to the main frame with nine (9), 1-inch grade 8 bolts

**4.13.2.** Three (3) additional counter weights of 1,400lbs each to be attached to the main frame

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

## EQUIPMENT SPECIFICATIONS

### 5. Attachments

#### 5.1. 50" Mulching Head

5.1.1. 180-degree swivel actuator

5.1.2. Stucchi quick disconnect

#### 5.2. 48" Single blade saw

5.2.1. 180-degree swivel actuator

5.2.2. Stucchi Quick Disconnect

5.2.3. Carbide tipped

#### 5.3. Twin saw

5.3.1. 180-degree swivel actuator

5.3.2. Stucchi Quick Disconnect

5.3.3. Carbide tipped teeth

#### 5.4. 96" Broom

5.4.1. Power Angle

5.4.1.1. 25-degree right and left angle

5.4.2. Front mount with skid steer type quick attach

5.4.3. Hydraulic quick disconnect

5.4.4. 48 Zig Zag, 32" wafers

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

### 6. Paint: Manufacturer's standard color

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

