



STATE OF LOUISIANA  
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT  
TECHNICAL SPECIFICATIONS FOR

**LARGE MOTOR GRADER, HYDRAULIC, AWD**

**SERIES NO. 820-000**  
**EQUIPMENT SPECIFICATION 820-000A**

**REV. 10/2/2023**

**GENERAL**

This specification sets forth the minimum requirements for a heavy duty, six wheeled, all-wheel drive articulated motor grader.

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 John Deere 670G and a Caterpillar 140M, AWD 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 to not 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) level is at least ¼ of tank**, 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.



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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. 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.

**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. General Description

These specifications describe a six wheeled, all-wheel drive, all hydraulic motor grader.

#### 1.1. Engine

- 1.1.1. 140 HP (net)
- 1.1.2. 6-Cylinder diesel
- 1.1.3. Liquid cooled

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

#### 1.2. Controls: All hydraulic, controlled from operators cab

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

#### 1.3. Steering

- 1.3.1. Front wheels controlled by full-hydraulic power system
- 1.3.2. Frame articulation 20 degrees left and right

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

#### 1.4. Transmission: Full power shift

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

#### 1.5. Moldboard

- 1.5.1. Length: 12'
- 1.5.2. Height: 24"
- 1.5.3. Thickness: ¾"
- 1.5.4. Renewable overlay end bits
- 1.5.5. Full hydraulic control: blade sideshift, saddle sideshift, circle rotation, blade pitch, blade float control



## EQUIPMENT SPECIFICATIONS

1.5.6. 90 Degrees left or right bank cutting angle obtainable

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

1.6. Brakes

1.6.1. Air or hydraulic actuated, effective on 4 tandem wheels

1.6.2. Independent emergency brake

1.6.3. Braking capabilities without engine running

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

1.7. Front Axle

1.7.1. Fabricated steel box-frame with steel spindles

1.7.2. Hydraulic power wheel lean eighteen (18) degrees left or right

1.7.3. Thirty (30) degrees axle oscillation

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

1.8. Tires/Wheels

1.8.1. All six tires: 14 X 24 -10ply,

1.8.2. G2 Interchangeable rims

1.8.3. First line, first quality

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

1.9. Scarifier/Ripper

1.9.1. Front mounted V-type scarifier (and/or rear mounted ripper) with replaceable tips

1.9.2. Hydraulically controlled

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

1.10. Cab

1.10.1. Fully enclosed with ROPS

1.10.2. Designed for maximum visibility and low DBA levels meeting or exceeding EPA standards

1.10.3. Shatterproof glass

1.10.4. Lockable

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

1.11. Hitch: Heavy duty drawbar for towing

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



## EQUIPMENT SPECIFICATIONS

**1.12.** Operating Weight: 30,000lbs

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

**1.13.** Accessories

- 1.13.1.** Differential lock or limited slip differential
- 1.13.2.** Electric hour meter
- 1.13.3.** Air conditioner and heater
- 1.13.4.** Seat belt
- 1.13.5.** Backup alarm
- 1.13.6.** Muffler
- 1.13.7.** Work lights
- 1.13.8.** Tail lights
- 1.13.9.** Turn signals
- 1.13.10.** Horn
- 1.13.11.** Suspension seat
- 1.13.12.** Engine side shields
- 1.13.13.** Transmission bottom guard
- 1.13.14.** Windshield wiper front and rear
- 1.13.15.** Fire extinguisher and SMV triangle
- 1.13.16.** Floor mats
- 1.13.17.** Full instrumentation package including key switch
- 1.13.18.** All safety equipment as required by State and Federal Law

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

**1.14.** Paint: Manufacturer's standard

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

**1.15.** Warranty: One year full coverage at nearest authorized location

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

