

**NAVAJO NATION FISCAL RECOVERY FUND OFFICE**  
**INVITATION FOR BID (IFB)**  
**IFB #: 25-01-3566SB**  
**PURCHASE OF (8) MOTOR GRADERS**  
**FOR NAVAJO NATION CHAPTERS**

**I. BID INSTRUCTIONS**

Bid Proposal shall be delivered, electronically, via email ONLY to the following individual:

Attention: Dawnell Begay, Planner/Estimator  
Division of Community Development ARPA/FRF Office  
Administration Building #2, 2nd Floor South  
Window Rock, AZ 86515  
EMAIL: [dbegay@nndcd.org](mailto:dbegay@nndcd.org)

Bid Proposal shall be provided in the following format:

1. Subject Title of Email shall state: "IFB #: (BID FOR PURCHASE OF (8) MOTOR GRADERS FOR NAVAJO NATION CHAPTERS)"
2. The following documents should be labeled subject to the following name format:
  - a. Motor Grader\_(Name of Vendor)\_(Name of File)
3. The following documents (files) are required to be submitted as separate file attachments. Failure to comply with this formatting will subject the bid to being disqualified:
  - a. Letter of Interest
  - b. Specifications (Attachment 1)
  - c. Navajo Nation Suspension and Debarment Form (Exhibit A)
  - d. W-9 (Exhibit B)
  - e. Vendor Quote

Navajo Nation businesses bidding under the Navajo Business Opportunity Act shall clearly note their Priority 1 or Priority 2 status in the letter of interest.

Any bids or portion thereof received after the submittal deadline will not be considered and returned to the submitting entity.

Bid Questions shall be emailed ONLY in writing to the following individual:

Dawnell Begay  
Planner/Estimator  
Email: [dbegay@nndcd.org](mailto:dbegay@nndcd.org)

**The due date for bids is FEBRUARY 12, 2025 at 12:00 pm MST**

## II. SCOPE OF WORK

The NNDCD is soliciting bids under this IFB to accomplish the purchase and delivery of heavy equipment for various chapters on the Navajo Indian Reservation as part of the American Rescue Plan ACT (ARPA) funding from the federal government. The specific equipment under this IFB are as follows:

- (4) John Deere Model 672G motor grader or equivalent with ripper attachment.
- (4) John Deere Model 622G crawler dozer or equivalent with ripper attachment.

The following are additional requirements to be included in the bid and priced, as applicable, with the aforementioned equipment:

- Standard warranty with terms and conditions.
- Optional warranty with pricing (separately).
- Operator training at time of delivery.
- Anticipated equipment delivery timeframe.
- Length of bid price is valid.

## III. BID SCHEDULE

Issuance of Invitation for Bids:

January 29, 2025

Bids Due:

February 12, 2025

## IV. BASIS FOR AWARD

1. Completeness of the Bid Proposal, including the completed Suspension and Debarment and W9 Forms.
2. Proposal meets the specifications defined in Attachment 1
3. Proposal meets the Maximum Feasible Cost per equipment.
4. Proposal meets all the terms and conditions specified herein, including equipment availability.

## IV. REQUIREMENTS/SPECIFICATION

Bidders responding to this solicitation shall ensure the equipment proposed meets the following requirements:

1. Equipment shall be new.
2. Equipment shall meet the minimum specifications defined in Attachment 1 of this solicitation. Deviations to these specifications shall be clearly noted in accordance with paragraph XVII below.

## V. WARRANTY

The manufacturer's published warranty shall be documented in the bid. The price for a 5-year Extended Warranty must be in the response. The Bidder shall explain the specific coverage of each Warranty, including where maintenance covered under the Warranty will be performed.

## **VI. SHIPPING AND DELIVERY**

The Motor Grader is expected to be delivered to the Navajo Nation within 90 days after receiving a signed Purchase Order.

The Navajo Nation shall take delivery of the equipment at the Division of Community Development ARPA/FRF Office Administration Building #2, Window Rock, AZ 86515

\*Unless prior arrangements are made to deliver equipment to the chapter.

At time of delivery, equipment training, vehicle title, warranty, operating manual, and other licensing documentation shall be included.

Shipping and delivery costs are considered the responsibility of the bidder and shall be included in the bid proposal.

## **VII. INSPECTION AND ACCEPTANCE**

Inspection and Acceptance of each equipment shall be performed by the receiving Chapter at time of delivery. The Bidder(s) shall coordinate three business days in advance of each delivery to ensure the Chapter will have representatives available to perform Inspections and Acceptance.

## **VIII. BUY AMERICAN ACT**

The bid shall include a statement in the letter of interest that the equipment complies with the requirements of the Buy American Act.

## **IX. FULLY LICENSED DEALERSHIP**

Bidders must be an authorized and fully certified licensed equipment dealership that meets all the standards and qualifications required by the equipment manufacturers. All bidders shall include a statement certifying their Dealer licensing.

## **X. PREFERENCE OF NAVAJO AND INDIAN-OWNED BUSINESS**

Preference of Navajo and Indian-owned businesses will be given under the Navajo Nation Business Opportunity Act, 5 NNC §201 et. Seq. and the Navajo Nation Procurement Act 12 NNC §303. Certification of Navajo Owned Business will be assured by certificate held by the Navajo Business Regulatory Department. It is the responsibility of the offeror to identify themselves as certified under the Navajo Nation Business Opportunity Act in the letter of interest. As specified in the previous paragraph, vendors must demonstrate they are certified dealerships.

## **XI. PROPRIETY INFORMATION**

Any restrictions on the use of data contained within any proposals must be clearly stated in the proposal itself. Proprietary information submitted in response to this IFB will be handled in accordance with applicable purchasing procedures. Each and every page of the proprietary material must be labeled or identified with the word "Proprietary".

## **XII. RESPONSE MATERIAL OWNERSHIP**

All material submitted in this IFB shall become property of the Navajo Nation and will not be returned to the business.

## **XIII. AWARD OF BID – REJECTION OF BID**

The Navajo Nation reserves the right to accept bids all or in part. At the time of acceptance, the Navajo Nation also reserves the right to increase or decrease quantities of any item at the same price bid. The Navajo Nation reserves the right to reject any and all proposals not within the projected budget.

## **XIV. NOTIFICATION OF AWARD OF BID**

Upon Selection, the winning Bidder will be contacted by the Navajo Nation to arrange the formal contract documents (Purchase Order) to complete the purchase.

#### **XV. NAVAJO NATION SALES TAXES**

All goods delivered within the territorial jurisdiction of the Navajo Nation are subject to the six percent (6%) Navajo Sales TAX. 24 N.N.C §601 et. Seq. These taxes shall be included and itemized on the FEE schedule for all Bidders.

Bidders shall apply for exemptions of any Federal, State, and local taxes (including Federal Excise Taxes (FET)) at their own cost, including obtaining AZ5000 tax exempt forms in AZ, and equivalent exemptions in NM, Utah, or other US States. The Navajo Nation shall not be responsible for obtaining or providing tax exemptions.

#### **XVI. WITHDRAWAL OF BID**

No bid proposal shall be withdrawn for a period of 90 calendar days after the submission of the bid without the consent of the owner.

#### **XVII. DEVIATIONS**

All specifications listed in Attachment 1 are intended to be the preferred design and performance requirements. Where deviations from the specification are necessary, Bidder will annotate equivalent reliability or performance. If there is insufficient room for detailing a deviation, please indicate "see deviation" and attach, clearly indicating the requirement on any such attachments. Failure to detail all such deviations will provide a basis for rejections of the entire proposal. Substantial deviations will not be considered.

#### **XVIII. BILLING AND PAYMENTS**

Billing and payment shall conform with all Navajo Nation Procurement procedures. To receive timely payment, the winning Bidder has an obligation and responsibility to present invoices that are timely and accurate. The payment procedures established by the Division of Finance shall be adhered to and are to begin whenever Goods or Services are delivered and accepted.

#### **XIX. DISCLAIMER**

Nothing in this IFB is intended to or shall have the effect of waiving Navajo Nation sovereignty. The Navajo Nation is a sovereign government, and all procurements shall comply with Navajo Nation laws, regulations, including the Navajo Nation Business Opportunity Act, Navajo Preference in Employment, and applicable federal laws and regulations.

## Bid specifications for Deere 672/622G or Equivalent

Additional supplemental information explaining compliance can be added as an attachment to the bid. Please reference the Compliance Number. Listed below in bold are the attachments that are required to be included with the bid.

**Compliance** Additional supplemental information explaining compliance can be added as an attachment to the bid. Please reference the Compliance Number. Listed below in bold are the attachments that are required to be included with the bid.

### Overall Machine

yes\_ no\_ **Made in the U.S.A.**

### Engine

- 2 yes\_ no\_ Engine meets EPA Final Tier 4 and European Union Stage IV standards
- 3 yes\_ no\_ The engine shall have dual safety air cleaner elements, radial seal, dry type Engine shall have a wet-sleeve cylinder liner design for improved cylinder cooling over dry sleeve and cast-in-bore design and for improved cylinder and piston ring durability.
- 4 yes\_ no\_ Engine shall be a turbo-charged direct injection, four stroke, 6-cylinder diesel engine with 4 valves per cylinder designed and built by the manufacturer
- 6 yes\_ no\_ Engine displacement for standard engine shall be no less than 9.0 liters (548 cu. in.)
- 7 yes\_ no\_ Engine shall reach no less than SAE net horsepower in the gears 1-8:  
8 yes\_ no\_ 1st 210hp, 2nd 225hp, 3rd 240hp, 4th 250hp, 5th 255hp, 6th 265hp, 7th 275hp, 8th 265hp; 6WD is active in gears 1-7 onl
- 9 yes\_ no\_ Engine will have a minimum torque rise of 55% in all gears  
Unit shall be equipped with Engine Power Management System for variable horsepower for up to 265 SAE net and shall meet FT4 standards
- 11 yes\_ no\_ Ether starting aid must automatically meter ether injection to prevent engine damage.
- 12 yes\_ no\_ Machine shall be equipped with electronic over-speed protection to prevent the engine and transmission from over speeding, as a standard feature.
- 13 yes\_ no\_ Electronic Throttle Control (cruise control) shall be available, and shall be controlled by a switch, located on the right-hand console for resuming and decreasing throttle set.
- 14 yes\_ no\_ Unit shall be equipped with engine stall prevention (ESP) as standard equipment
- 15 yes\_ no\_ Engine will offer on-the-fly exhaust filter cleaning
- 16 yes\_ no\_ Engine will offer automatic de-rating
- 17 yes\_ no\_ Engine shall be rubber isolation mounted to reduce noise and vibration
- 18 yes\_ no\_ Engine will offer a lifetime viscous crankshaft damper
- 19 yes\_ no\_ Adjustable height engine pre-cleaner. Rotary Ejector Precleaner
- 20 yes\_ no\_ **Cooling**

### Cooling

- 21 yes\_ no\_ Coolant levels should be easily checked by an overflow tank
- 22 yes\_ no\_ Engine coolant shall be Cool Guard™ II Extended Life or equivalent for temperatures to -34 F
- 23 yes\_ no\_ The engine shall have an air-to-air after cooling for low engine speed lugging
- 24 yes\_ no\_ Unit shall have charged air cooler with restriction sensor and in-cab restriction warning light  
Engine fan shall automatically adjust fan speed via a variable displacement hydraulic fan pump to meet engine cooling requirements to minimize power demand from the engine, reduce vehicle noise levels, improve fuel economy, and improve vehicle performance.
- 25 yes\_ no\_ Engine power shall automatically compensate for power draw of the fan system to maintain a constant horsepower available to maintain vehicle performance independent of cooling system power draw.
- 26 yes\_ no\_ Engine fan shall be able to automatically reverse and allow the operator to choose the time interval for the reversal to occur through the vehicle monitor.
- 27 yes\_ no\_ Cooling system shall be isolated from the engine compartment
- 28 yes\_ no\_ Pivoting coolers provide access for quick cleanout of dust and debris. **Please provide cleaning procedure of coolers as an attachment named "Coolers and Radiator Cleaning Procedure."**
- 29 yes\_ no\_ A rear access fan door shall be provided to provide quick air cleanout of dust and debris for the engine radiator, charge air cooler, transmission cooler, axle cooler, hydraulic oil cooler and fuel cooler. **Please provide cleaning procedure of coolers as an attachment named "Coolers and Radiator Cleaning Procedure."**
- 30 yes\_ no\_ **Power Train**

### Power Train

- 31 yes\_ no\_ Direct-Drive Power Auto-Shift Plus Transmission
- 32 yes\_ no\_ Machine shall have no drive shafts that cross over the articulation hitch
- 33 yes\_ no\_ The transmission shall have eight forward and eight reverse speeds with built-in diagnostics
- 34 yes\_ no\_ Transmission shall have 5 working gears between 0-10.2 mph (0-16.4 km/h), for dirt applications
- 35 yes\_ no\_ Machine shall be equipped with an electronic inching pedal for improved modulation and machine control
- 36 yes\_ no\_ The transmission system shall have an independent oil reservoir, filtration and cooling system with 31 GPM hydraulic gear pump
- 37 yes\_ no\_ Transmission shall be event based shifting (EBS) or use load sensing electronic shift modulation with over speed protection  
Transmission shall have clutch overheating protection to prevent clutch failures due to excessive and overuse of the inching pedal
- 38 yes\_ no\_ Transmission shall be equipped with built-in self-diagnostic capability
- 39 yes\_ no\_ A guard to protect the machine's transmission from debris as standard equipment
- 40 yes\_ no\_ 6WD: Automatic dual-path hydrostatic drive with separate left and right systems
- 41 yes\_ no\_ 6WD: Operator-selectable 15-position rotary aggressiveness control
- 42 yes\_ no\_ 6WD: Operator-selectable 15-position rotary aggressiveness control

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- 43 yes\_ no\_ 6WD: Inching capability down to 0 mph and precision mode (propelled by front wheels only)  
6WD: Precision mode is front wheel drive only and allows for seamless shifting from front wheel drive to 6wd on-the-fly without stopping the machine.
- 44 yes\_ no\_ stopping the machine.
- 45 yes\_ no\_ 6WD: Effective Gears 1 - 7 forward and reverse

### Axles/Brakes/Tandems

- 47 yes\_ no\_ The brakes shall be continuously pressurized, filtered, oil cooled
- 48 yes\_ no\_ The brakes shall be internal self-adjusting maintenance free, wet multi-disk, inboard of tandem pivot
- 49 yes\_ no\_ The park brake shall have an independent oil reservoir, filtration and cooling system
- 50 yes\_ no\_ The parking brake shall be automatic, spring-applied, hydraulic released
- 51 yes\_ no\_ Service brakes shall be multi-disc, oil-cooled and completely sealed
- 52 yes\_ no\_ Service brakes shall be hydraulically actuated, utilizing dual independent brake circuits
- 53 yes\_ no\_ Entire braking system shall meet all requirements of ISO 3450
- 54 yes\_ no\_ Differential Lock/Unlock shall be electro-hydraulically controlled, as a standard feature  
Differential Lock/Unlock shall be capable of being engaged or disengaged at any time during vehicle operation without incurring damage to the differential and differential lock system. Engagement shall not be restricted or determined by vehicle speed, vehicle shifts, or tandem tractive conditions (tandems slipping).
- 55 yes\_ no\_ Differential Lock/Unlock shall be a multi-disc design  
Unit shall be equipped with system capable of automatically engaging and disengaging differential lock to optimize tractive capability, while at the same time providing the operator with the ability to manually engage differential lock during any vehicle operation
- 56 yes\_ no\_ Parking brake shall be multi-disc, oil-cooled, spring-applied, hydraulically released, sealed, adjustment-free, and integrated into the transmission
- 57 yes\_ no\_ Parking brake shall be serviceable without removing the transmission
- 58 yes\_ no\_ Engaged parking brake shall neutralize the transmission
- 59 yes\_ no\_ The axles shall be planetary single reduction final drive  
The rear axle shall have clutch style hydraulic differential lock that can be engaged on the go to achieve maximum traction instantly when required
- 60 yes\_ no\_ The rear-axle shall be a bolt-on modular design offering easy access to differential components, improving serviceability and contamination control
- 61 yes\_ no\_ Final drive shall be a planetary design
- 62 yes\_ no\_ Front axle shall be an arched design for maximum ground clearance while maintaining performance
- 63 yes\_ no\_ Front wheel steering angle shall be no less than 48.5 degrees left or right
- 64 yes\_ no\_ Front wheel spindle bearings shall be a large diameter taper roller bearing for radial and axial load  
Tandems shall be capable of oscillating 15 degrees front tandem up and 15 degrees front tandem down, with full machine articulation and having no interference between tandem wheel and machine structure
- 65 yes\_ no\_ Distance between center of tandem wheels shall be no less than 60.8 in (1540 mm)
- 66 yes\_ no\_ Maximum front wheel lean shall be no less than 20 degrees left or right
- 67 yes\_ no\_ Replaceable, sealed bushings shall be used at the axle and wheel pivot points

### Hydraulic System

- Motor grader shall have an option of up to six auxiliary control valves and control levers integrated into the main control rack and valve stack, 14 possible control levers on main control rack.
- 72 yes\_ no\_ Left and right blade lifts shall have hydraulic float control.
- 73 yes\_ no\_ A sight gauge will be provided for checking hydraulic reservoir fluid  
The hydraulic tank shall have a baffling system to improve reservoir effectiveness to prevent aeration, contaminant settling, and heat dispersion and dissipation.
- 74 yes\_ no\_ Hydraulic system shall be fully sealed, using O-ring seals to prevent contamination and spillage.
- 75 yes\_ no\_ Hydraulics system shall be a closed center, load sensing type, with a variable displacement, axial piston-type pump.  
The maximum hydraulic system pressure shall be no less than 2,750 psi (18.961 kPa) and the hydraulic system shall have a 56.0 gpm (212 L/min) main hydraulic axial piston pump.
- 76 yes\_ no\_ Implement valves shall be proportional priority pressure compensating for consistent response, when multi-functioning any combination of implement controls and independent of engine speed.
- 77 yes\_ no\_ Lock valves shall be integrated into the main implement valve to prevent cylinder drift.
- 78 yes\_ no\_ Steering capabilities shall be ISO 5010

- 82 yes\_ no\_ The hydraulic system filter shall have a minimum filtration rating of 5 micron rating to protect hydraulic system components

### Electrical

- 83 yes\_ no\_ The electrical system shall be 24 volt with 200 amp alternator.
- 84 yes\_ no\_ Machine shall have 1400 CCA extra heavy-duty batteries with 440 minute reserve capacity
- 85 yes\_ no\_ A 24V to 12V converter with 25-amp continuous, 30-amp peak capacity. For use with CB Radios.
- 86 yes\_ no\_ All core machine systems shall be electronically connected optimizing performance and preventing machine damage
- 87 yes\_ no\_ LED turn signal, marker and brake lights shall be provided  
Unit shall be equipped with LED driving lights, two high and two low beam LED headlights with front and rear turn signals, front and rear marker lights, brake lights and hazard warning lights.
- 88 yes\_ no\_ Premium LED (high intensity) light grading package. Includes (in addition to those listed above) 14 additional work lights all LED (2 - bottom cab, 2 - mid-frame, 2 - reversing lights on rear grill), 4 - corner cab, 2 front cab and 2 - right side cab roof) Total of 18-LED Lights.
- 89 yes\_ no\_ 18-LED Lights.

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- Unit shall have indicator or warning for: high beams, seat belt, turn signals, cruise control, low alternator voltage, engine air filter
- 90 yes\_ no\_ restriction, engine oil pressure, engine coolant temperature, wait to start (glow plugs), hydraulic filter restriction
- 91 yes\_ no\_ Machine shall have back-up lights and sounding alarm as standard when reverse gears are selected

Unit shall be equipped with a single LCD monitor displaying gauges for: DPF cleanliness level, engine coolant temperature, transmission oil temperature, hydraulic oil temperature, rear steer articulation angle and fuel level with low level visual warning. The LCD monitor should also be capable of displaying vehicle performance data, diagnostic information, and diagnostic trouble

- 92 yes\_ no\_ codes.
- Unit shall have digital readout displayed on a single LCD monitor for: engine rpm, odometer, transmission gear indicator,
- 93 yes\_ no\_ speedometer, hour meter
- 94 yes\_ no\_ Starting system shall be a 24V direct electric type
- 95 yes\_ no\_ All light and wiper switches will be solid-state distribution
- 96 yes\_ no\_ The in-cab switch module shall be sealed to keep out dirt, dust and airborne debris
- 97 yes\_ no\_ The unit shall have an electric key fuel shut-off switch
- Electrical system shall have a master disconnect switch with a padlock provision (in addition to the ignition switch), accessible
- 98 yes\_ no\_ from the ground level
- 99 yes\_ no\_ Cab shall have two beacons LH and RH side with Flip Down Brackets
- 100 yes\_ no\_ The unit shall have a LH and RH side engine compartment light

### Operator Station (GP)

Grade control ready package is standard from the factory. This package shall include integrated mounting brackets, hydraulic valves, electrical harnesses, circle rotate and slope sensors for quick, easy installation of your preferred grade control system

- 101 yes\_ no\_ (Topcon, Trimble, Leica). systems.
- 102 yes\_ no\_ Dual Joystick Controls with steering Wheel included.
- 103 yes\_ no\_ Available Fingertip armrest-mounted electro-hydraulic controls including steering lever as an option to Joystick Controls.
- 104 yes\_ no\_ Steering wheel and control console shall be tiltable
- The ergonomically designed steering wheel with EH Joystick controls or EH Fingertip Controls the steering wheel shall take 6
- 105 yes\_ no\_ 1/4 turns (lock to lock).
- 106 yes\_ no\_ Steering wheel included as standard equipment
- 107 yes\_ no\_ Left and right side cab doors are standard
- 108 yes\_ no\_ Cab doors shall have a hold-open clasp with a ground-level release and in addition to, a release in the cab
- 109 yes\_ no\_ Machine shall provide dual exits allowing for emergency egress should one side become obstructed
- 110 yes\_ no\_ Cab shall have cup holder, personal cooler holder/storage compartment for operator's manual, with a molded floor mat
- 111 yes\_ no\_ Air vents shall be provided for all front and side tinted windows
- 112 yes\_ no\_ Cab air pre-cleaner shall be installed to extend filter life by pre-cleaning outside air
- 113 yes\_ no\_ Three rear view mirrors shall be provided, one interior and two breakaway exterior mounted adjustable heated mirrors.
- 114 yes\_ no\_ AM/FM/WB Radio with Bluetooth, AUX, two speakers, antenna and wiring.
- 115 yes\_ no\_ A front window sun visor and a rear window sun shade.

The motor grader shall be equipped with low ROPS/FOPS enclosed air conditioned cab, isolation frame mounted for noise and

- 116 yes\_ no\_ vibration reduction
- Premium heated, leather/fabric, high wide back, air-suspension seat with armrest, with adjustments for fore-aft position, seat
- 117 yes\_ no\_ height, seat back angle, thigh support, and lumbar support and 3-inch (76 mm) retractable seat belts,
- A machine security system shall be available to electronically code keys selected by the user to limit usage by individuals or by
- 118 yes\_ no\_ time parameters.
- Left and right side tandem case assemblies shall be covered with punched steel plate to provide an adequate platform for
- 119 yes\_ no\_ standing and walking.
- 120 yes\_ no\_ The unit will come standard with front and rear window defrost
- 121 yes\_ no\_ Decelerator pedal.
- 122 yes\_ no\_ The upper front and rear windshield washers with intermittent wipers shall be standard

Grade Pro cab with Fixed lower front and Side Opening windows, Laminated Glass and Lower front Intermittent Wiper &

- 123 yes\_ no\_ Washer.
- 124 yes\_ no\_ Cross-slope simplifies holding a consistent slope by reducing operation to single lever as standard equipment.
- 125 yes\_ no\_ Return to straight automatically straightens an articulated frame.

### General Specifications

- 126 yes\_ no\_ Machine Wheel Base (distance from front axle to mid tandem) shall not be less than 243.0 in (6,172 mm).
- 127 yes\_ no\_ Machine shall be designed and built by the manufacturer.
- 128 yes\_ no\_ Transmission shall be designed and built by the machine manufacturer.
- 129 yes\_ no\_ Machine height to top of the cab shall not exceed 125 in (3,180 mm).
- 130 yes\_ no\_ Turning radius will be no greater than 284 in (7,214 mm)
- Max operating weight of the machine shall not be more than 55,000 lbs (21 772 kg). Weight shall be the heaviest possible
- 131 yes\_ no\_ combination of compatible attachments, also including lubricants, full fuel tank and operator of 175 lbs (79 kg).
- Typical operating weight of the machine shall be 44,570 lbs (20 217 kg). Weight shall include the base machine weight as well
- 132 yes\_ no\_ as the front Dozer Blade, rear ripper/scarifier and other equipment
- Base Machine Weight shall not be less than 38,585 lbs (17,382kg). Weight shall include: standard machine configuration,
- 133 yes\_ no\_ lubricants, coolants, full fuel tank and operator of 175 lbs (79 kg).
- 134 yes\_ no\_ Six Cylinder, turbocharged with air-to-air after cooler diesel engine and shall be designed and built by the manufacturer

## Bid specifications for Deere 672/622G or Equivalent

Additional supplemental information explaining compliance can be added as an attachment to the bid. Please reference the Compliance Number. Listed below in bold are the attachments that are required to be included with the bid.

- 135 yes\_ no\_ Hydraulic disconnect (soft start) and transmission valve solenoid guards shall be standard equipment  
136 yes\_ no\_ Ground level fueling and filling for diesel and diesel exhaust fluid shall be standard equipment  
Standard grey glare-reducing paint shall be used on the front frame and engine enclosure to decrease glare from other equipment lights and reflection from the sun and snow.  
137 yes\_ no\_  
138 yes\_ no\_ The frame shall be ready for snow wing attachment as standard equipment.

### Frames and Structures

- 139 yes\_ no\_ The angle of articulation shall be no less than 22 degrees  
140 yes\_ no\_ The articulation joint shall have mechanical locking device to prevent frame articulation while servicing or transporting machine  
141 yes\_ no\_ Unit will be provided with seven-position pin-locking saddle  
142 yes\_ no\_ Unit shall be equipped with 5 tie-down locations for ease of transporting

### Circle and Mold Board

- Circle shall be a fully sealed bearing style system. **Please provide maintenance and adjustment procedures for circle being quoted.**  
143 yes\_ no\_  
144 yes\_ no\_ Circle teeth contact surfaces shall be induction-hardened on the front 120 degrees of the circle  
145 yes\_ no\_ Circle shall have no circle adjustments or wear inserts  
146 yes\_ no\_ The unit shall have a circle drive slip clutch to protect the drive pinion from shock loads  
147 yes\_ no\_ Circle shall be rotated by a hydraulic driven motor  
Circle maintenance shall have five greaseable points serviced on a 500 hour interval and a 4000 hour gearbox oil change interval. No other adjustments or maintenance needed.  
148 yes\_ no\_  
The draft frame pivot connection shall have a double Ball-in-Socket design with a minimum ball diameter of 6.0 in (152.4 mm) and minimum stem diameter of 2.88 in (73 mm)  
149 yes\_ no\_  
The standard moldboard shall be at least 14 ft (3657 mm) long, 24 in (610 mm) high and no less than 7/8 in (22 mm) thick with 5/8 in (16 mm) hardware. 8" Culling Edges  
150 yes\_ no\_  
151 yes\_ no\_ Shall have Reversible Overlay End Bits.  
152 yes\_ no\_ The mold board shall be pre-stressed during manufacturing for superior strength and durability  
153 yes\_ no\_ The mold board will have quick change side shift wear inserts, capable of being replaced using only a 9/16" wrench.  
154 yes\_ no\_ Moldboard shall have a bank slope angle capability of at least 90 degrees to both sides.  
155 yes\_ no\_ Slide rails shall be hardened, continuously welded, and have replaceable bronze-alloy wear inserts top and bottom.  
156 yes\_ no\_ Moldboard slide rails shall be constructed of a heat-treated, high carbon steel.  
157 yes\_ no\_ Moldboard shall have a hydraulic tip control through a range of 42 degrees fore and 5 degrees aft.  
158 yes\_ no\_ Throat clearance with standard moldboard shall be at least 4.8 in (123 mm)  
Blade lift accumulators for added protection of the moldboard and draft frame from impacts with stationary objects shall be apart of machine  
159 yes\_ no\_  
Machine shall have Machine Damage Avoidance to prevent the moldboard from contacting the tires, cab and cab steps. In addition prevents the saddle linkage from contacting the top of the draft frame. Operator can override as needed.  
160 yes\_ no\_

### Serviceability

- Daily check points shall be accessible from the left side of the engine behind one service door and shall be done from ground level with a light as standard equipment.  
161 yes\_ no\_  
162 yes\_ no\_ Access to engine will be open from both sides with hinged engine side shields and full access servicedoors  
163 yes\_ no\_ Engine enclosure and daily service points shall be accessible from ground level, and grouped on the left side of the machine.  
Vandal protection package shall include locking for cab doors, engine side shields (4), top tank radiator access door, engine coolant surge tank, hydraulic reservoir cap, fuel tank cap and tool box.  
164 yes\_ no\_  
165 yes\_ no\_ The dip stick for checking transmission fluid shall be at ground-level  
166 yes\_ no\_ Engine shall have environmentally friendly fuel drain valves  
Equipped with quick service fluid ports for engine oil, transmission oil, hydraulic oil, axle oil and coolant with ground level quick connectaccess.  
167 yes\_ no\_  
168 yes\_ no\_ Hydraulic tank capacity shall not be more than 16 gallons (60.6 L).  
169 yes\_ no\_ Fuel tank capacity shall not be less than 110 gallons (416 L).  
170 yes\_ no\_ Diesel exhaust fluid (DEF) tank capacity shall not be less than 6 gallons (22.5 L)  
171 yes\_ no\_ Cooling system capacity shall not be less than 14.5 gallons (55.0 L).  
172 yes\_ no\_ Engine oil capacity shall not be less than 7.1 gallons (27.0 L).  
173 yes\_ no\_ Tandem housing capacity shall not be less than 19.5 gallons (74.0 L) each.  
174 yes\_ no\_ Circle gearbox capacity shall not be less than 1.5 gallons (5.7 L) with an 4000 Hr. Gearbox oil change interval.  
175 yes\_ no\_ Engine primary and final fuel filters shall have 500-hour service replacement interval.  
Engine shall have primary fuel filter with fuel water separator and electronicsensor; quick release dual stage filter and primer  
176 yes\_ no\_ pump  
177 yes\_ no\_ Hydraulic, transmission, and differential filters shall be banked and easily assessable through the engine compartment doors.  
178 yes\_ no\_ Engine oil filter shall be a 500-hour, vertical spin-on  
179 yes\_ no\_ Engine oil shall have a service interval of no less than 500 hours  
180 yes\_ no\_ Hydraulic oil filter shall have a service interval of no less than 2000 hours  
181 yes\_ no\_ Hydraulic oil change service interval shall be no less than 4000 hours  
182 yes\_ no\_ Transmission oil change service interval shall be no less than 2000 hours



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- 183 yes\_ no\_ Transmission oil filter service replacement interval shall be 2000 hours  
184 yes\_ no\_ Tandem oil shall have a service interval of no less than 4000 hours  
185 yes\_ no\_ Engine coolant shall have a service interval of no less than 6000 hours  
186 yes\_ no\_ Transmission, hydraulic, fuel and axle filter restriction indicator shall be displayed in the cab  
187 yes\_ no\_ The centralized lube bank shall be at the articulation joint to give access to difficult to reach zerks
- 188 yes\_ no\_ Sampling ports shall be accessible from the tandem level and provide access to the engine, hydraulic, coolant, and fuel ports. A two-way communication tool shall give service technicians easy access to stored diagnostic data and allow configuration of machine parameters.  
189 yes\_ no\_ Unit shall be equipped with OEM provided wireless communication system capable of monitoring and communicating machine location, fuel burn, as well as multiple other vehicle performance data. In addition, the system shall be capable of updating system control software wirelessly. Life Time Service. **Please provide how long service is good for and price out life time if available. Please provide subscription cost with bid as an attachment.**  
190 yes\_ no\_ Diesel particulate filter (DPF) ash service interval as needed (can go up to 15,000 hours between diesel particulate filter ash removal) **Please provide DPF warranty statement on this component as an attachment.**

### Tires/ Rims

- 192 yes\_ no\_ A 14 in (35.6 cm) by 25 in (63.5 cm) size multi-piece tire rim shall be available to provide mounting for 17.5R25 tires.  
193 yes\_ no\_ 17.5 R 25 L2 Single Start Radial Tires w/3pc. Rims  
194 yes\_ no\_ Spare tire and rim mounted but shipped loose.  
195 yes\_ no\_ 1-full set of 4-link tire chains and tighteners.

### Safety

- Standard grey glare-reducing paint shall be used on the front frame and engine enclosure to decrease glare from other equipment lights and reflection from the sun and snow.  
196 yes\_ no\_ The unit shall have a fan finger guard  
197 yes\_ no\_ Machine shall have both a Front and Rear high resolution Cameras with ability to show either front or rear in the main monitor  
198 yes\_ no\_ Machine shall come with a mounted 5.0 lbs. multi purpose (ABC) Dry Chemical Fire Extinguisher  
199 yes\_ no\_ Machine shall have installed a slow moving sign  
200 yes\_ no\_ Machine shall have wheel chocks that can be mounted and stored on the machine  
201 yes\_ no\_ Machine shall have wheel chocks that can be mounted and stored on the machine

### Other Equipment

- 202 yes\_ no\_ A front mounted Dozer Blade 105" x 37.6" shall be part of the machine  
203 yes\_ no\_ Rear ripper Combination with rear hitch and pin, shall have five ripper shank holders and 9 scarifier shank holders  
204 yes\_ no\_ Rear ripper shall come with five ripper shanks/teeth and 9-scarifier shanks/teeth  
Rear ripper shall have a working penetration of maximum 16.8 in (426 mm) and a minimum penetration force of 21,137 lb (9587 kg) at typically equipped operating weight  
205 yes\_ no\_ A toolbox shall be provided  
206 yes\_ no\_ Machine shall come with Front Fenders  
207 yes\_ no\_ Machine shall come with Front Fenders

### Warranty and Machine Maintenance Plan

- 208 yes\_ no\_ Include in the price and list Standard Factory Warranty.  
209 yes\_ no\_ Include in the price a 60-Months/3000 Hour Extended Powertrain Plus Hydraulics Warranty  
**Include as an attachment the Extended Warranty Options for more years and hours of both powertrain plus hydraulics and Full Machine (Comprehensive). Include what the deduct for the 60/3000 hour Powertrain plus hydraulics warranty quoted in bid would be if another extended warranty option is selected.**  
210 yes\_ no\_ Include in the price a 60-Month/3000 Hour Maintenance Plan with travel included up to 100-Miles. **Please list what is covered under the maintenance plan on the quote or as a separate attachment.**  
210 yes\_ no\_ Include in the price a 60-Month/3000 Hour Maintenance Plan with travel included up to 100-Miles. **Please list what is covered under the maintenance plan on the quote or as a separate attachment.**