

Date Bids Due: May 6, 2015		Time of Bid Opening: 1:00 P.M.		Bid Opening Location: 800 Lincoln Way, Ames, IA	
Proposal Number: 14203		Description: Medium and Heavy Duty Wheel Loaders			
Contract to Begin: May 18, 2015		Date of Completion: May 17, 2016	Proposal Guaranty Amount: N/A	Performance Bond (Y/N) N/A	Liquidated Damages: N/A
Purchasing Agent: Zach Gillen		E-mail Address: zachary.gillen@dot.iowa.gov		Phone: 515-239-1347	Fax: 515-239-1538
Company Name:				Federal Tax ID:	
Street Address:			City:	State:	Zip Code:
Supplier Contact (type or print)		E-mail Address:		Phone:	Fax:
Supplier agrees to sell items/services at the same prices, terms and conditions to any other state agency. Regent or Political Subdivision upon request. Please check Yes or No. <input type="checkbox"/> Yes <input type="checkbox"/> No				Are you an Iowa Targeted Small Business? <input type="checkbox"/> Yes <input type="checkbox"/> No	

GENERAL INFORMATION

This bid proposal includes the Bid Response cover page, Schedule of Prices, Standard Terms and Conditions, Supplemental terms (if any), specifications, mailing label and all other information needed to prepare a bid response. Information in the "Bid Response" above must be typed or completed in ink, signed, and returned in a flat style envelope along with any other information required in the bid proposal prior to the bid opening date and time. Please use the furnished mailing label, or label the bid response as "Iowa Department of Transportation, proposal number & letting date" on the outside of the return envelope. Bidders may personally deliver, mail, or select a carrier that ensures timely delivery. **Faxed or e-mail bids will not be accepted.**

If required, each bid response must be accompanied by a proposal guaranty in an accepted form, in the sum indicated above. Refer to the Standard Terms and Conditions for the accepted forms in which the proposal guaranty requirement may be fulfilled. **Bids lacking a required proposal guaranty will not be considered for award.** If the intended awarded bidder fails to enter into a formal contract within fifteen (15) days after award is made for any reason on their part, the proposal guaranty may be retained by the State.

PROPOSAL STATEMENT

The entire contents of this Proposal, Addendums to the Proposal, Specifications, Supplemental Terms and Conditions, Standard Terms and Conditions, and Schedule of Prices shall become part of the contract.

We promise to furnish all materials, equipment and/or services specified, in the manner and the time prescribed, at prices hereinafter set out.

We certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a bid; that this bid has been independently arrived at without collusion with any other bidder, competitor, or potential competitor; and that this bid has not been knowingly disclosed prior to the opening of bids to any other bidder or competitor.

We certify that all materials, equipment and/or services proposed meet or exceed the specifications and will be supplied in accordance with the entire contents of this proposal.

We promise to complete the contract within the contract period, or pay any liquidated damages, if stipulated, for each calendar day as set forth in the bid documents.

Signed _____ Date _____



Schedule Of Prices

Number	14203
Date Required	05/06/2015 1:00 PM

Title Medium and Heavy Duty Wheel Loaders
Delivery Location AMES, IA 50010
Shipping Terms FOB Destination/Freight Prepaid

Vendor
PA Name Zachary Gillen
Phone 515-239-1347
E-Mail zachary.gillen@dot.iowa.gov

Description

Product Availability Days: _____

Item	Qty	Unit	Description	Part #	Unit Price	Total Price
1	2	EACH	Loader, Medium-Duty Wheel As per Spec. No. 2-A37A-5-A38-0315, ITEM-1 Loader Delivery Location: AMES, IA 50010			
Comments:						
2	5	EACH	Loader, Heavy-Duty Wheel As per Spec. No. 2-37A-5-A38-0315, ITEM-2 Loader Delivery Location: AMES, IA 50010			
Comments:						
3	2	EACH	Bucket, General Purpose As per Spec. No. 2-37A-5-A38-0315, OPTION-1, ITEM-1 Loader, 2.0-Cubic Yard Delivery Location: AMES, IA 50010			
Comments:						
4	5	EACH	Bucket, General Purpose As per Spec. No. 2-37A-5-A38-0315, OPTION-1, ITEM-2 Loader, 2.5-Cubic Yard Delivery Location: AMES, IA 50010			
Comments:						
5	3	EACH	Attachment, Pallet Fork As per Spec. No. 2-37A-5-A38-0315, OPTION-2 Delivery Location: AMES, IA 50010			
Comments:						

I HEREBY CERTIFY THAT THIS PROPOSAL MEETS OR EXCEEDS THE MINIMUM REQUIREMENT INCLUDING SPECIFICATIONS AND ADDENDUMS.

Signature: _____ Date: _____



**Iowa Department of Transportation
Standard Terms and Conditions For
Bid Proposals/Contracts
-FORMAL-**

Formal is the procurement process required by Iowa law when the estimated, aggregate amount of the purchase equals or exceeds \$50,000.

The entire contents of this bid proposal shall become a part of a contract or purchase order. In case of a discrepancy between the contents of the bid documents, the following items listed by descending order shall prevail:

- Addendums to the bid proposal
- Bid Proposal-
- Schedule of Prices
- Specifications
- Plans and Drawings
- Supplemental Terms and Conditions
- Standard Terms and Conditions

(Example - if a statement in the specifications contradicts a statement in the Standard Terms and Conditions, the statement in the specifications shall apply)

Preparation of Bid Response: All bid responses must address all aspects of the proposal including clearly answering all questions within the proposal. Bid responses must be typed or completed in ink and submitted on the forms supplied by the Iowa DOT.

Bid responses must be signed and received prior to the bid opening date and time as indicated on the Bid Response cover page or bid opportunity. The signed, submitted quotation or bidder's proposal shall become the official bid response to be considered for award.

No email, fax or web link bid responses will be accepted. Bid Responses must be signed, sealed and delivered in person or by a mail courier that ensures timely delivery.

A. Bid Proposal

1. **Bid Opening:** Bid openings are made public and conducted at the Iowa DOT, Ames complex unless otherwise specified. Bid responses received after the time of the bid opening will be returned unopened and considered non-compliant.
2. **Communications:** Questions concerning this proposal should be directed to the purchasing agent listed on the bid proposal. Inquiries can be written, phoned, or faxed. In all cases, written communication will take precedence over verbal communication
3. **Proposal Guarantee:** If required, the bid response page will indicate the amount required to be included in the bid response. A Proposal Guarantee can be supplied in one of the following ways: **(1)** Certified check or credit union certified share draft, cashier's check, or bank draft, drawn on a solvent bank or credit union. Certified checks and certified share drafts shall be drawn and endorsed in the amount indicated. Checks or drafts shall be made payable either to the Iowa Department of Transportation (Iowa DOT) or to the bidder. If payable to the bidder, the check or draft shall be endorsed without qualifications to the Iowa DOT by the bidder or an authorized agent. **(2)** An insurance or surety company may be retained to provide a bond in fulfillment of the proposal guarantee requirement. A properly completed and signed copy of the Proposal Guarantee (*Form 131084*) must accompany the bid. **The Iowa DOT's Proposal Guarantee form must be used; no other forms or formats will be accepted.**
4. **Pricing and Discount:** Unit prices shown on the bid/response shall be quoted as the price per unit (e.g., gal., case, each, etc.) as stated in the bid proposal. If there is a discrepancy between the unit bid prices, extension, or total amount of bid, the unit prices shall prevail. Unless otherwise indicated, prices shall be firm for the duration of the contract or purchase. Discounts for early payment are allowed, but not considered in award of the contract.

5. **Acceptance/Rejection:** The Iowa DOT reserves the right to accept or reject any or all bids and to waive irregularities or technicalities, provided such waiver does not substantially change the offer or provide a competitive advantage to any supplier(s). The Iowa DOT also reserves the right to accept that bid which is deemed to be in the best interests of the state. Any unauthorized changes, additions, or conditional bids including any ties to another bid or proposal or any reservations about accepting an award or entering into a contract, may result in rejection of the bid. Bids must remain available for award for thirty (30) days from date of bid opening.
6. **Bid Results & Disclosure:** Bid tabulations will be posted on the DOT website at www.iowadot.gov/purchasing under the *Bid Award* link referencing the proposal number with an award recommendation indicated. At the conclusion of the selection process, the contents of all received bid responses will be placed in the public domain and be open to inspection by interested parties, according to state law. Trade secrets or proprietary information that are recognized as such and are protected by law may be withheld if clearly identified as such in the proposal.
7. **Quality:** All material shall be new and of first quality. Items which are used, demonstrators, refurbished, obsolete, seconds, or which have been discontinued are unacceptable without prior written approval by the Iowa DOT.
8. **Recycled Content:** The Iowa Code encourages purchase of products and materials with recycled content, including but not limited to paper products, oils, plastic products, compost materials, aggregate, solvents, and rubber products. Recycled items or alternatives must be noted in the bid response, if known.
9. **Shipping Terms:** Deliveries shall be F.O.B. Destination unless otherwise specified. All deliveries shall be accompanied by a packing slip indicating the Supplier, quantities shipped, and the purchase order number(s). All delivery charges shall be included in the bid price and paid by the Supplier. No collect C.O.D. deliveries shall be accepted. When entering into a contract, the Supplier shall notify the freight company that all freight and delivery charges are to be prepaid by the Supplier. Goods delivered to the Iowa DOT Distribution Center at 800 Lincoln Way, Ames, IA shall be received between the hours of 7:30 a.m. and 3:30 p.m. on any day except Saturday, Sunday, or a holiday. For deliveries to other Iowa DOT locations, the Supplier may contact the destination location for available times to deliver as not all Iowa DOT locations have the same business hours. The Iowa DOT will not be liable for any freight claims or unpaid freight bills arising from contract or purchase order issues.

B. Award

The binding agreement (award) may be issued in the form a purchase order or contract or both depending on the requirements and complexity of the agreement.

1. **Method of Award:** Award shall be made to the lowest responsible, responsive bidder whose bid meets the requirements of the solicitation and is the most advantageous to the Iowa DOT unless otherwise specified. An Iowa bidder will be given preference over an out-of-state bidder when bid responses are equal in all aspects and are tied in price. By virtue of statutory authority preference will be given to products and provisions grown and coal produced within the State of Iowa.
2. **Award Protests:** Protests of award recommendations are to be addressed to the Director of Purchasing, and shall be made in accordance with paragraph 761--20.4(6)"e" of the Iowa Administrative Code.
3. **Contracts:** Successful contractor(s) may be sent either a formal Contract, Notification of Award or purchase order as confirmation of acceptance and award. Any of these binding agreements shall be for the term stated in the bid proposal or on a purchase order and may be renewed for additional period(s) under the same terms and conditions upon mutual agreement as defined. The successful bidder may not assign a contract to another party without written authorization from the Iowa DOT Purchasing Section. A service contract, including all optional renewals, shall not exceed a term of six years unless a state agency obtains a waiver of this provision pursuant to rule 11-11B.16 (8A).
4. **Payment Terms:** The Iowa DOT typically pays properly submitted vendor invoices within thirty (30) days of receipt, providing goods and/or services have been successfully delivered, installed or inspected (if required), and accepted. Invoices presented for payment must be only for quantities received by the Iowa DOT and must reference the purchase order number to be submitted for processing.

5. **Default:** Failure of the Supplier to adhere to specified delivery schedules or to promptly replace rejected materials shall render the Supplier liable for all costs in excess of the bid price when alternate procurement is necessary. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of the binding agreement.
6. **Default:** Failure of a Contractor other than a Supplier to meet any specified project completion deadline shall render the Contractor liable for all costs incurred by DOT that were: a) necessary to meet said deadline; or b) necessary to complete said project after said deadline. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of the agreement.

C. General

1. **Administrative Rules:** For Additional details on the rules governing the actions of the Iowa DOT Purchasing Section, refer to 761 IAC, Chapter 20, Iowa Administrative Code, entitled "Procurement of Equipment, Materials, Supplies and Services".
2. **Affirmative Action:** The Contractor (and also subcontractor, vendor or supplier) is prohibited from engaging in discriminatory employment practices forbidden by federal and state law, executive orders and rules of the Iowa Department of Management, pertaining to equal employment opportunity and affirmative action. Contractor may be required to have on file a copy of their affirmative action program, containing goal and time specifications. Contractors doing business with Iowa in excess of \$5,000 annually and employing 50 or more full time employees may be required to file with the Iowa Department of Management a copy of their affirmative action plan. Failure to fulfill these non-discrimination requirements may cause the contract to be canceled and the contractor declared ineligible for future state contracts or subject to other sanctions as provided by law or rule.
3. **Applicable Law:** The contract shall be governed under the laws of the State of Iowa. The contractor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of a contract and which in any manner affect the work or its conduct. Any legal action relating to a contract shall only be commenced in the Story County, Iowa, District Court or the United States District Court for the Southern District of Iowa.
4. **Conflict of Interest:** No state or county official or employee, elective or appointive shall be directly or indirectly interested in any contract issued by the Iowa DOT, see Code of Iowa 314.2.
5. **Debarment and Vendor Suspension:** By submitting a proposal, the contractor is certifying that it and its principals and/or subcontractors are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by the State of Iowa or any Federal department or agency.
6. **Equal Opportunity:** Firms submitting bids must be an "Equal Opportunity Employer" as defined in the Civil Rights Act of 1964 and in Iowa Executive Order Number Thirty-four.
7. **Infringement:** Goods shall be delivered free of the rightful claim of any third party by way of infringement. Contractor shall indemnify and save harmless the State of Iowa and the Iowa DOT against all claims for infringement of, and/or royalties claimed under, patents or copyrights on materials and equipment furnished under this bid.
8. **Records Audit:** The contractor agrees that the Auditor of the State of Iowa or any authorized representative of the state, and where federal funds are involved, the Comptroller General of the U.S. Government, shall have access to and the right to examine, audit, excerpt, and transcribe any directly pertinent books, documents, papers, and records of the contractor relating to orders, invoices, or payments of a contract or purchase order.
9. **Targeted Small Businesses:** The Iowa DOT seeks to provide opportunities for women and/or minority small business enterprises. To apply for certification as an Iowa Targeted Small Business, contact the Iowa Department of Inspection and Appeals (515-281-5796). Contractors shall take documented steps to encourage participation from Targeted Small Businesses for the purpose of subcontracting and supplying of good or services or both.
10. **Taxes:** Prices quoted shall not include state or federal taxes from which the state is exempt. Exemption certificates will be furnished upon request.
11. **Termination:**
 - **Termination Due to Lack of Funds or Change in Law**
The Iowa DOT shall have the right to terminate this Contract without penalty by giving thirty (30) days written notice to the vendor as a result of any of the following:
 - Adequate funds are not appropriated or granted to allow the Iowa DOT to operate as required and to fulfill its obligations under contract.
 - Funds are de-appropriated or not allocated or if funds needed by the Iowa DOT, at the

Iowa DOT's sole discretion, are insufficient for any reason.

- The Iowa DOT's authorization to operate is withdrawn or there is a material alteration in the programs administered by the Iowa DOT.
- The Iowa DOT's duties are substantially modified.

Following a 30 day written notice, the Iowa DOT may terminate a binding agreement in whole or in part without the payment of any penalty or incurring any further obligation to the Supplier. Following termination upon notice, the Supplier shall be entitled to compensation upon submission of invoices and proper proof of claim for goods and services under contract up to and including the date of termination.

**Iowa Department of Transportation
SUPPLEMENTAL TERMS & CONDITIONS
For
Medium and Heavy Duty Wheel Loaders
Proposal No.: 14203
Letting Date: May 6, 2015**

Award

It is the intent of the Iowa DOT to award the contract to the responsible bidder whose submitted quotation is the most advantageous to the Iowa DOT, cost and other factors considered. Other factors include, but are not limited to: meeting or exceeding mandatory requirements, proposed staffing, and meeting required time schedule.

Contract Period

The successful bidder will be awarded a one (1) year contract with an option to renew for three (3) additional years in twelve (12) month increments. A price adjustment may be allowed on each extension but must not exceed the CPI. (PPI or appropriate index for adjustment may be used) Any adjustment must be mutually agreed upon and be pre-approved by the Iowa Department of Transportation, Purchasing Section.

Contract Quantities

Quantity stated is the minimum quantity that will be purchased throughout the initial contract period. Quantities in any subsequent renewal periods may vary.

Alternatives or Exceptions

Any equipment being offered as an alternative to the specified make/model must be submitted on the enclosed form "Bidder's Request for Alternatives or Exceptions." The form must specifically state the requested alternative and be accompanied by adequate supporting information to evaluate the request.

The "Bidder's Request for Alternatives or Exceptions" form must be received in sufficient time *prior* to the bid opening to evaluate and respond with the appropriate action. It is suggested that any requests for alternatives be submitted either by e-mail or fax immediately upon receipt of the proposal in order to receive full consideration. Fair treatment to all vendors shall be the primary concern in evaluation of requests for of proposed alternates, particularly those submitted just prior to the bid opening. **Do not submit "Bidder's Request for Alternative or Exceptions" with your bid response.**

Training

- A. Successful vendor shall make available to the Department the services of a factory authorized training/service representative. Representative is to provide up to one (1) full day of service, safety and operational training at each Department field Maintenance facility assigned a new loader or to a group of operators at a central location. Details can be worked out at a later date, once loaders are all put in service.
- B. Training shall be completed within 30-days of each machine's field delivery date. Any training materials, such as booklets or videos used in the training shall be provided to the Department at each training location.
- C. Maintenance facilities scheduled to receive a new loader include: (ITEM-1 loader) Soldier and Storm Lake. (ITEM-2 loader) Des Moines (North shop), Grimes, Waterloo, New Hampton and Clarion. The Department reserves the right to add, change or delete assignment locations to meet critical needs.

Warranty

- A. Each loader shall be covered under warranty for a minimum of one (1) year or 1,500-hours of operation. If manufacturer's standard warranty exceeds this, the standard warranty shall apply.
- B. Successful vendor shall make arrangements for a minimum 1/2 working day of loader inspection, service checks, adjustments and if necessary, schedule and complete any repairs within 60-days prior to the expiration of the warranty. All services shall be performed at the Department's field Maintenance facility where the loader is assigned and normally housed unless the extent of a warranty repair makes this impractical.

Service and Repair Manuals

- A. Manual Requirements:
 - a. ITEM-1 loaders – Four (4) full and complete sets of manuals shall be provided with these loaders and are all to delivered with the first loader.
 - b. ITEM-2 loaders – Eight (8) full and complete sets of manuals shall be provided with these loaders and are all to delivered with the first loader.
- B. Manual set shall, at a minimum, to include an operator's manual, complete parts manual, complete troubleshooting and repair manual with wiring diagrams. Manual sets shall be all inclusive, including complete engine and hydraulic component sets and all equipment (such as the quick coupler and buckets) installed by the dealer.
- C. Manuals shall be bound/boxed into collated, identical sets, ready for distribution by the Department. Loose pages and /or unbound sets that we have to collate will not be accepted.
- D. Manual sets on CDs are acceptable as long as they are identical to the paper sets and searchable.
- E. If any type of electronic service program or application software is required to diagnose and/or retrieve fault or diagnostic features/codes from the proposed machines a full and complete software package must be provided with each set of manuals. Software must be suitable for use on Department laptop computers with current Windows operating systems.

First Service Support Kit

A complete set of all OEM factory replacement filters and/or elements necessary to service the loader shall be provided with each loader at the time of delivery. Each set shall include all fluid and air filters, including HVAC if so equipped. Filters and/or elements shall be sorted and boxed into collated, identical sets ready for distribution by the Department. Loose filters/elements that have to be identified, separated and collated will not be accepted.

IOWA DEPARTMENT OF TRANSPORTATION
OFFICE OF PROCUREMENT AND DISTRIBUTION
EQUIPMENT SERVICES SECTION

SPECIFICATIONS
for
INDUSTRIAL TOOL CARRIER WHEEL LOADERS

The following specifications shall apply to the purchase of industrial tool carrier (parallel-lift) loaders by the Iowa Department of Transportation, Iowa DOT. Loaders shall be a standard and expected size/type industrial 4-wheel drive, on pneumatic tire design with articulating frame. Proposed machine shall be suitable for all aspects of use required in state highway maintenance operations, including but not limited to: lift heights and capacities for loading any Department snow removal truck with ice and snow control materials such as salt and sand, acting as a carrier for a self-powered snow blower attachments, leveling earth and aggregate surfaces, material handling, digging and other mounted tool use. All component parts shall be of proper size, designed to insure long machine life and safely withstand maximum stresses imposed by capacity usage.

Two (2) different sized loaders will be requested and are as follows:

ITEM-1 – LOADER - Typical 2.0 Yard Loader – Operating weight of 20,000 to 24,000-pounds.
ITEM-2 – LOADER - Typical 2.5 Yard Loader – Operating weight of 25,500 to 29,500-pounds.

1. GENERAL REQUIREMENTS – Both ITEM-1 and ITEM-2 Loaders

- A. Proposed loader shall be a current model under standard production, being marketed on a national level. All standard equipment, as listed in literature and/or specification sheets, shall be provided. Dealer or vendor modifications to non-conforming loaders, for the express purpose of meeting minimum requirements, are not acceptable.
- B. Loaders shall be completely assembled, serviced and ready for immediate operation upon delivery to the Department.
- C. Vendor shall be a franchised dealership for the brand they propose. Vendor must have a full service facility in the State of Iowa where mobile and in-house repair services, parts, accessories and technical help are readily available. Technicians and support personnel must be certified and trained in all aspects of maintenance and repair of the proposed machine.
- D. Final approval of any vendor or manufacturer's equipment may require a demonstration, current user list and/or tour of their facility to determine compliance and acceptability. Vendors shall make available, upon request, and within one (1) week of notification by the Department, any or all of the following:

- a. Demonstration Loader: Same or similar model vendor is proposing to bid for the Department to use/evaluate for a minimum of 2-days. Demonstration shall be at a Department Maintenance location and operated by Department personnel.
 - b. Names, addresses and phone numbers shall be supplied for other customers using the same model loader within the State of Iowa. Purpose will be to contact, and possibly visit, those facilities that are already experienced with the operation of the make/model of the loader in question.
 - c. Facility Tour: Vendor shall provide a list of suitable times to the Department within regular daytime work hours when an inspection tour of their sales and service facility would be convenient.
- E. All costs associated with providing any or all these items are the sole responsibility of the vendor. Inability to comply with any or all will be adequate reason for rejection.
- F. All ratings, dimensions, weights, operating systems and other applicable apparatus shall be according to/in compliance with ISO/SSAE Standards for Construction and Industrial equipment.
2. ITEM-1 – LOADER - Typical 2.0 Yard Loader – Operating weight of 20,000 to 24,000-pounds.
- A. Minimum 104 net horsepower.
 - B. Published standard SAE operating weight of 20,000 to 24,000-pounds.
 - C. Minimum wheelbase of 106-inches.
 - D. Equipped with ACS (American Coupler Systems) Series 1000, Size AA20 Iowa quick implement attachment system, no exceptions. Base bid shall be for tool carrier equipped with male coupler ONLY. All bucket and attachment costs shall be bid separately (see optional equipment sections).
 - E. Minimum published standard bucket ranges/performance. For the purpose of evaluation, the following will apply:
 - a. Bucket, nominal 2-yd³ SAE heaped capacity.
 - b. Breakout force rating, minimum 17,850-pounds.
 - c. Lift height to bucket hinge pin, minimum 11-feet, 11-inches.
 - d. Bucket clearance, at full height dumped at 45⁰, minimum 8-feet, 10-inches.
 - e. Bucket reach at 7-feet clearance, dumped at 45⁰, minimum 54-inches.
 - f. Bucket reach at full height, minimum 36-inches.
 - g. Digging depth bucket flat minimum 2-inches.

3. ITEM-2 – LOADER - Typical 2.5 Yard Loader – Operating weight of 25,500 to 29,500-pounds.
- A. Minimum 129 net horsepower.
 - B. Published standard SAE operating weight of 25,500 to 29,500-pounds.
 - C. Minimum wheelbase of 110-inches.
 - D. Equipped with ACS (American Coupler Systems) Series 1000, Size AA20 Iowa quick implement attachment system, no exceptions. Base bid shall be for tool carrier equipped with male coupler ONLY. All bucket and attachment costs shall be bid separately (see optional equipment sections).
 - E. Minimum published standard bucket ranges/performance. For the purpose of evaluation, the following will apply:
 - a. Bucket, nominal 2.5-yd³ SAE heaped capacity.
 - b. Breakout force rating, minimum 18,030-pounds.
 - c. Lift height to bucket hinge pin, minimum 12-feet, 7-inches.
 - d. Bucket clearance, at full height dumped at 45⁰, minimum 9-feet.
 - e. Bucket reach at 7-feet clearance, dumped at 45⁰, minimum 54-inches.
 - f. Bucket reach at full height, minimum 36-inches.
 - g. Digging depth bucket flat minimum 2-inches.
4. ENGINE – Both ITEM-1 and ITEM-2 Loaders
- A. Engine shall be a heavy-duty, liquid cooled, high torque 4-stroke industrial diesel.
 - B. ITEM-1 Loader Engine: Minimum 4-cylinders displacing a minimum 239 in³, rated at a minimum 104 net horsepower @ 267 lb/ft net torque at manufacturer's rated RPM per SAE J1349.
 - C. ITEM-2 Loader Engine: Minimum 6-cylinders displacing a minimum 348 in³, rated at a minimum 129 net horsepower @ 401 lb/ft net torque at manufacturer's rated RPM per SAE J1349.
 - D. Required engine manufacturer's engine performance data sheet – Vendor must submit a copy of the engine manufacturer's engine performance engine performance data certification sheet along with the other literature required with this bid. It must state exact engine gross and net horsepower, exact engine gross and net torque and exact engine start-up torque (commonly classed clutch engagement torque – usually at 800 RPM) as well as rated engine fuel usage in GPH (gallons per hour). All details must be provided in US English units.
 - E. Engine air intake shall be a dry, 2-stage design with dual filter (primary/secondary) elements and vacuator valve. Intake system shall be equipped with an air filter restriction indicator as an integral part of the machine's engine monitoring system. If not available as part of the monitor system, a mechanical graduated restriction indicator must be installed in the cab instrument panel.

- F. Air intake system shall be equipped with a self-cleaning, self-powered centrifugal air intake pre-cleaner. Acrylic dust-bowl is not acceptable.
- G. Radiator shall be manufacturer's largest capacity. Anti-freeze shall test to -35°F.
- H. Engine oil filter shall be a spin-on, throw away type.
- I. Regenerative charging system with the highest amperage output alternator available. If the highest amperage output alternator is an option, it must be provided.
- J. Battery(s) must be the largest CCA available. If higher CCA battery(s) are an option, they must be provided.

5. CHASSIS – Both ITEM-1 and ITEM-2 Loaders

- A. Published SAE standard operating weight (published means as it appears on the front of or in the standard literature with general purpose bucket with cutting edge and without any optional equipment.):
 - a. ITEM-1 loader – 20,000 to 24,000-pounds.
 - b. ITEM-2 loader – 25,500 to 29,500-pounds.
- B. Lift system must be a high visibility, dual arm/dual cylinder tool carrier (parallel-lift) design. Z-bar linkage lift systems of any type are not acceptable.
- C. Published tipping load:
 - a. ITEM-1 loader, straight without optional counterweights – Minimum 12,560-pounds.
 - b. ITEM-1 loader, full turn without optional counterweights – Minimum 10,580-pounds.
 - c. ITEM-2 loader, straight without optional counterweights – Minimum of 16,950-pounds.
 - d. ITEM-2 loader, full turn without optional counterweights – Minimum of 14,660-pounds.
- D. Operator shall be able to maintain bucket rotation control with a full heaped bucket of wet sand (3,375-pound/cubic yard) regardless of load height.
- E. Operator shall be able to maintain implement rotation control of a minimum 4,500-pound pallet (ITEM-1 loader) or a minimum 6,000-pound pallet (ITEM-2 loader) with a pallet fork attachment. Both D. and E. requirements will be with a loader outfitted with the specified quick coupler system, standard bucket or pallet fork attachment. Vendor may be required to demonstrate the ability of a proposed loader to meet this minimum load control requirement prior to being awarded a contract.
- F. Published top speed:
 - a. ITEM-1 loader – approximately 19.9 MPH.
 - b. ITEM-2 loader – approximately 23.6 MPH.

- G. Ground drive system shall employ either 1) a torque converter with full power shift multi-speed transmission or 2) a full hydrostatic transmission with high/low ranges and inching feature. Transmission system shall be equipped with an easily serviced filter with dash mounted condition indicator, if available.
- H. Loader shall be equipped with hydraulic articulation power steering.
- I. Brakes shall be power assisted hydraulic, 4-wheel wet disc:
 - a. If loader transmission is a torque converter power-shift, a transmission disconnect feature shall be incorporated into the brake system, operated by a single brake pedal, if loader is so equipped, or by the left pedal of a two (2) brake pedal system.
 - b. If loader is equipped with hydrostatic drive that will dynamically brake the machine, the disconnect is not required.
- J. Loader shall be equipped with a parking brake. Parking brake shall not allow the transmission to be engaged or include an audible alarm and/or warning light to warn operator if transmission is engaged while parking brake is applied.
- K. Differentials shall be provided in one of the following three configurations:
 - a. Torque proportioning front and rear.
 - b. Limited slip front and rear.
 - c. Front axle driver controlled differential lock and limited slip rear.
- L. Tires shall be L2/G2 tread radials and be readily available from national US tire distributors.
- M. Minimum fuel tank capacity of 35-gallons. Tank shall be outfitted with a lockable, tethered filler cap.

6. ACCESSORIES

- A. All engine and gear case oil cavities shall have magnetic drain plugs installed.
- B. Loader shall come equipped with a swiveling pintle hook drawbar attachment with a minimum 6,000-pound vertical tongue weight rating and minimum lateral pull rating of 30,000-pounds. Pintle hook shall be mounted 28-32-inches from ground level (no exceptions). Dealer manufactured attachment bracket shall be of high quality, indistinguishable from an OEM component.
- C. Loader shall be outfitted with an automatic adjustable bucket leveling device capable of automatically positioning the bucket for the next loading pass and with automatic (boom kick out) bucket height control.
- D. Horn(s) with a minimum rating of 100 db(A) at 5-feet.
- E. Fenders, front and rear.
- F. Electronic back-up alarm, with automatic volume adjustment ranging from 82 to 107 dB(A).

- G. Full exterior anti-vandalism panel package to include, at a minimum, full engine compartment panels that bolt-on, equipped with lockable hinged access doors for normal service checks, minor adjustments, replenishment of lubricant, coolant and other fluids and air filter maintenance.

7. CAB

- A. Full vision, all weather ROPS cab, fabricated to be an integral part of the loader. Cab shall be of all metal construction with minimum 1-inch thick poly-foam or equal roof insulation.
- B. AM/FM radio.
- C. All glass shall be tinted safety glass.
- D. Cab entrance door(s) shall swing open and latch at a minimum of 90-degrees from the cab side. All available operable glass and /or vent panels must be provided.
- E. Cab door(s) shall be equipped with a key lock.
- F. Cab entrance steps/ladder shall have adequate exterior grab handle(s)/bar(s) to allow easy and sure access.
- G. A pair of West Coaster mirrors shall be mounted on the cab, one (1) per side.
- H. Ignition switch shall be an automotive key lock type.
- I. All electric powered accessories shall be same voltage as the electrical regenerative charging system.
- J. Cab shall be equipped with a lighted instrument/control panel. Panel shall contain instruments to monitor, at a minimum, the following functions:
 - a. Regenerative charging system.
 - b. Engine oil pressure.
 - c. Engine coolant temperature.
 - d. Fuel tank level.
 - e. Transmission/converter fluid temperature.
 - f. Transmission filter indicator, if available.
 - g. Hourmeter, electronic. Manufacturer's standard if wired to an oil pressure sensor switch or excited by the alternator (a true hours-of-operation figure is required.) If unavailable, a high quality aftermarket hourmeter must be installed and powered with an engine excited switch as mentioned above.
- K. The Department requires and automatic engine warning system for high engine coolant temperature and/or low oil pressure. System requires warning lamps and/or audible alarms.
- L. Full factory HVAC system to include circulating engine coolant cab heater, defroster and air conditioning. Defroster ducts shall be easily aimed where desired in order to defrost all cab glass. Coolant lines shall contain shut-off valve(s) at the engine.
- M. Auxiliary, 2-speed fan with swivel base suitable to aid defrosting air circulation in the winter.

- N. Windshield wipers, front minimum 2-speed with electric windshield washer and rear minimum 1-speed.
- O. Deluxe suspension seat, adjustable fore and aft and up and down with retractable seat belt. Belt must be retractable to keep it off floor and out of dirt.

8. LIGHTING

- A. Loader shall be equipped with a US legal road travel lighting package. Package shall be in compliance with all FMCSS and State of Iowa on-road use illumination requirements for both day and night travel.
- B. The following minimum lamps shall be installed. Switches shall be clearly identified and mounted in the control panel:
 - a. Four (4) front and two (2) rear work/travel lamps. Front lamps shall be mounted two (2) at a point mid-way up the loader front (such as on the fenders) and two (2) flush with (no higher than) the top of the cab roof-line. All four (4) front lamps shall be activated by a common switch.
 - b. Two (2) combination tail/stop lamps.
 - c. Turn/hazard warning lamps.
- C. Vendors shall provide and install an ECCO 5280A RotoLED minibar onto a cab mounted 7"x12" steel flip-over bracket. To locate the nearest ECCO dealer, go to www.eccolink.com. Light must be same voltage as machine. Flip-over bracket is needed to allow tool carrier access through low clearance doors and also to protect light in brushy areas.
 - a. Flip-over bracket shall be of high quality construction. Bracket installation shall look like a factory installed bracket and be mounted on the rear of the cab and as close to centered as practical.
 - b. Bracket shall be designed so when minibar assembly is flipped over, it will not contact the loader cab or glass. Design must incorporate a positive stop bumper. When in either position, light shall be positively locked or retained in that position to prevent it from bouncing up/down or accidentally flipping over during loader use.
 - c. Wiring for the minibar shall be the OEM factory beacon wiring less the OEM lamp. Factory 2-conductor (power/ground) circuit shall be of adequate amperage capacity to power the above referenced minibar. Circuit shall be always "hot" (battery circuit), properly fused for protection and of the same voltage as the regenerative charging system. The factory installed control panel OEM beacon switch shall be used to operate the minibar. Dealer installed wiring and which are not acceptable.

9. IMPLEMENT QUICK COUPLER SYSTEM

- A. Loader (tool carrier) lift system shall be equipped with an implement quick coupler system. Specified system shall be a self-aligning, single point pickup design to allow quick change of one attachment to other attachments equipped with a like female coupler half.
- B. For commonality, the Department requires that the coupler system be an ACS (American Coupler Systems) Series 1000, Size AA20 Iowa (for **both** ITEM-1 and ITEM-2 loaders). Alternative coupler systems (including ACS copies) are not acceptable.
- C. Coupler system shall include one (1) male coupler half installed on the loader lift arms and one (1) female coupler half installed on the bucket or other implement attachments.
- D. System shall employ a hydraulic actuated 2-pin implement locking mechanism, easily actuated from the loader cab.
- E. Control of the coupler locking pins shall not be tied into any other hydraulic function, such as the pilot pressure circuit or auxiliary hydraulic circuit. Pins must operate independently through their own dedicated electro/hydraulic valve and circuitry. Operation shall be by means of a separate independent engage/disengage OEM control switch in the cab switch panel. When disengaged, the switch shall have an illuminated red indicator. System failure default shall leave the lock pins in the locked position.
- F. An optional auxiliary grease Zerk shall be installed on the back side of the implement locking pin round tube assembly to help keep the lock pins cleaner by flushing out dirt, salt, sand, etc.
- G. Coupler and/or bucket must be manufactured in a manner so that sand, salt or other debris cannot be trapped in pockets or compartments of the system. Especially where the female half attaches to the bucket. If open areas exist, design shall have adequate clean-out access so debris can be easily seen and washed out.
- H. All coupler loader arm attachment pins shall be thoroughly coated with anti-seize compound upon its installation and then thoroughly greased when installation is complete. Likewise, the implement attachment hydraulic lock pins must be thoroughly coated with anti-seize compound and thoroughly greased before delivery.

10. HYDRAULICS

- A. Hydraulic system shall be of adequate design and size to allow safe and convenient machine operation and a long life. All rams shall have fixed ferrules for pressure and return lines. Cylinder shafts shall be hard chrome plated.

- B. The Department prefers a single control lever system for bucket lift, lower, rotation and dump. Such a system must be provided if not standard and listed as optional equipment. Other bucket control system will be considered but must be reviewed and pre-approved by Equipment Services prior to bid opening. All controls must be clearly marked, showing operation.
- C. System shall be adequately filtered, employing at a minimum a suction screen and easily replaceable return filter.
- D. Loader shall be equipped with a dual function, auxiliary third valve, capable of providing a minimum of two (2) factory installed hydraulic implement circuits. Valve shall be suitable to power and operate all typical coupler mounted attachments, to include but not limited to a scrap grapple bucket, 4in-1 bucket, rotary broom attachment, hydraulic pavement breaker or pickup sweeper attachment with motor and cylinder requirements.
- E. Circuits shall provide a 1) detent or positive switched on/off motor capability and 2) selectable cylinder operation, preferably controlled as a second function of the x-axis of the same lever control as the bucket. Two (2) additional fluid lines shall be ran to the front of the lift boom arms, terminated and capped (the Department will install quick couplers). Ends of auxiliary lines must have NPT threads (preferred) to easily accept standard US quick couplers. If lines are not NPT thread, proper adapter bushings from the machine thread pattern to NPT threads must be provided.
- F. Optional equipment installed by the successful vendor, such as the quick coupler system, shall be professionally installed. Hydraulic components shall be permanently installed with hoses and lines firmly attached and ran in such a way as not to interfere with other hoses, lines or equipment.

11. PAIN

Manufacturer's standard paint scheme and color is acceptable.

OPTIONAL ATTACHMENTS THAT MAY BE REQUIRED (Separate bids required for options.)

Note: Optional attachments shall be fully assembled and delivered as a ready to work attachment. Loaders ordered with multiple attachments will require that each attachment be test fit and if functional operated on the machine it is requested with. If attachments have lubrication points, they must be lubricated upon delivery. A matching ACS (American Coupler Systems) Series 1000, Size AA20 Iowa female coupler half shall in installed on each optional attachment. Alternative coupler systems (including ACS copies) are not acceptable.

OPTION-1 – GENERAL PURPOSE BUCKET (See drawing #1 on page 11 of 11.)

- A. ITEM-1 Loader – 2.0 yd³ SAE heaped capacity bucket.
- B. ITEM-2 Loader – 2.5 yd³ SAE heaped capacity bucket.

Both ITEM-1 Loader (A.) and ITEM-2 Loader (B.) bucket option shall be 102-inches in width and provided with a one-piece, bolt-on reversible cutting edge installed. Cutting edge shall be 102-inches x 11-inches x 1-inch with hole spacing, for 5/8-inch plow bolts, as per drawing #1.

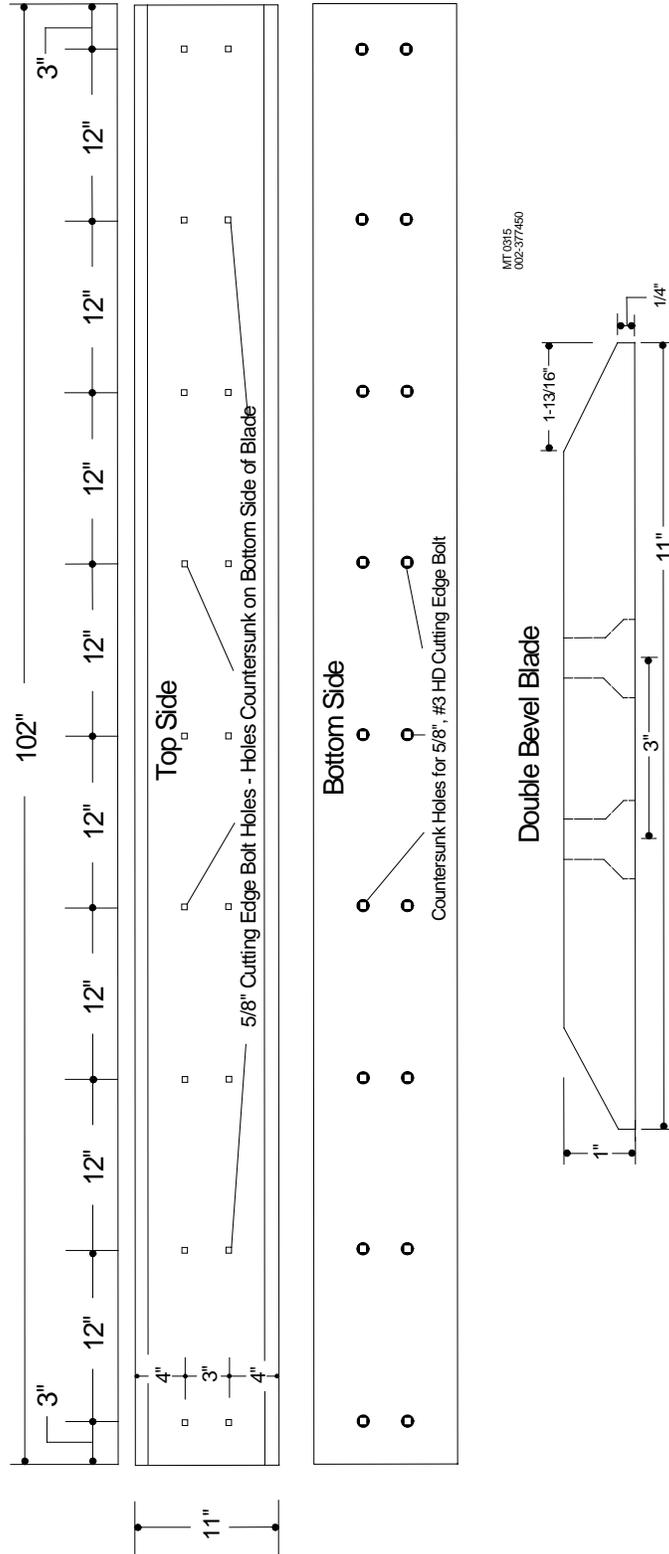
Note: Buckets purchased in the past were requested with 10-inch cutting edges. The Departments' standard requirement has been changed to an 11-inch cutting edge, however, bucket cutting edge mounting holes should be setup for a 10-inch cutting edge (same bolt spacing requirements as in drawing #1) so that either a 10 or 11-inch cutting edge can be installed when replacing the original cutting edge, the only difference being the 11-inch cutting edge will extend farther from the bucket when installed. See Picture #1.

Bucket shall be outfitted with three (3) evenly spaced chain lift hooks along the top. One (1) hook shall be centered and the other two (2) hooks approximately 1/3 of its length in from bucket end at a structurally suitable point. All hooks shall be minimum rated for the lift capacity of the loader. Bucket and female coupler half must be manufactured in such a manner so that sand, salt or other debris cannot be trapped in pockets or compartments, especially where the female half attaches to the bucket. If open areas exist, the design shall have adequate clean-out accesses so debris can be easily washed from the assembly.

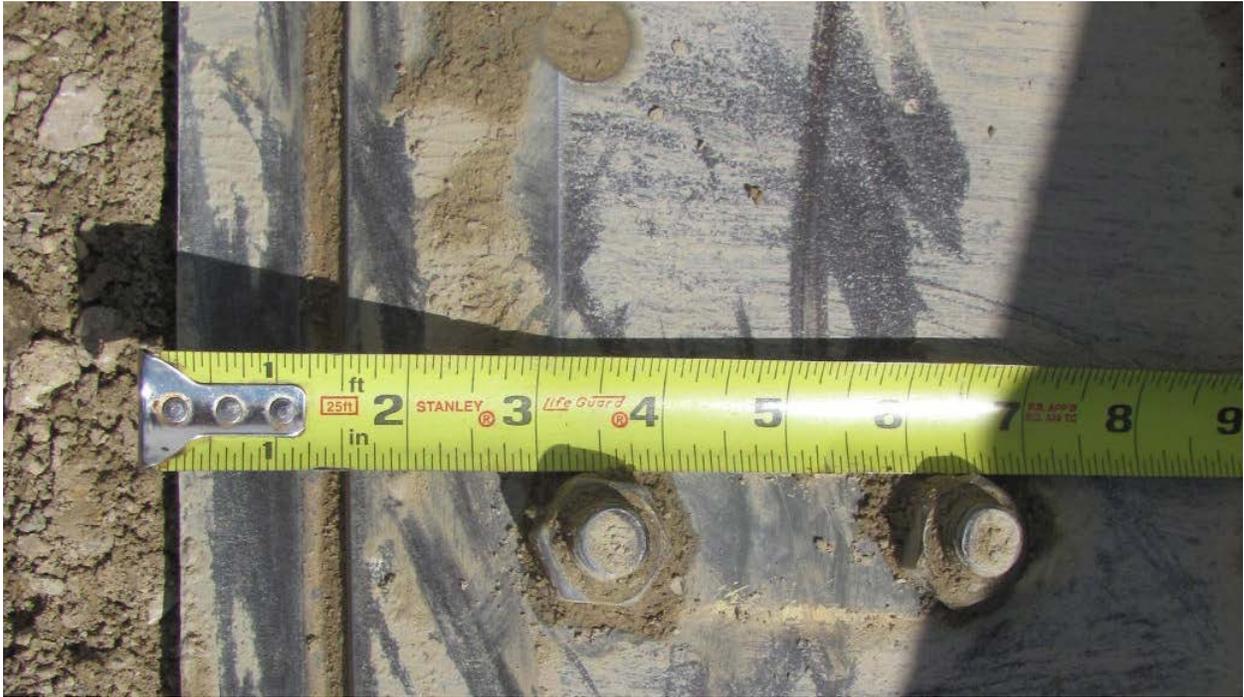
OPTION-2 – FORK ATTACHMENT, 8,000-POUND RATING

Fork tines shall be 48-inches long by 5-inches wide by 2-inches thick installed on a 60-inch slide mechanism, allowing width adjustments. Forks shall lock in numerous positions along the 60-inch slide length.

Drawing #1 – Bucket Cutting Edge



Picture #1





Bidders Request for Alternatives or Exceptions (BRAE)

Letting Date: May 6, 2015

Proposal No.: 14203

BRAE form due on or before: April 22, 2015

Item: Medium & Heavy Duty Wheel Loaders

Spec. No.: 2-A37A-5-A38-0315

Request: _____

Bidder Proposes to furnish in lieu of above: _____

NOTE: The determination of acceptance of this BRAE request is only valid for the bid for which it was submitted. BRAE approvals received for this bid do not determine or set a precedent for what is acceptable in any other bid posted by the State of Iowa.

Email/Fax to:

Iowa Department of Transportation
Purchasing Section
Attention: Zach Gillen
Email: zachary.gillen@dot.iowa.gov

Fax No.: 515-239-1538

Submitted By _____

Company _____

Address _____

City State Zip

Phone No. _____

Fax No. _____

=====

DOT USE ONLY

Approved _____

Disapproved _____

Reason _____

Signature: _____

Date: _____

Bidder _____

SEALED BID

LETTING DATE: May 6, 2015
PROPOSAL NO: 14203
PROPOSAL DESCRIPTION: Medium and Heavy Duty Wheel Loaders

Iowa Department of Transportation
PURCHASING - SEALED BID PROPOSAL
800 Lincoln Way
Ames, IA 50010