

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER 7011EC16

ADDRESS CORRESPONDENCE TO ATTENTION OF
BUYER 33
304_558_2402

304-776-4406 ***709054014** STATE EQUIPMENT INC PO BOX 3939

CHARLESTON WV 25339

DIVISION OF HIGHWAYS **EQUIPMENT DIVISION** ROUTE 33 **BRUSHY FORK ROAD BUCKHANNON, WV** 26201

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GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

- 1. Awards will be made in the best interest of the State of West Virginia.
- 2. The State may accept or reject in part, or in whole, any bid.
- 3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
- 4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
- 5. Payment may only be made after the delivery and acceptance of goods or services.
- 6. Interest may be paid for late payment in accordance with the West Virginia Code.
- 7. Vendor preference will be granted upon written request in accordance with the West Virginia Code.
- 8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
- 10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
- 11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
- 12. BANKRUPTCY: In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
- 13. HIPAA BUSINESS ASSOCIATE ADDENDUM: The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
- 14. CONFIDENTIALITY: The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf.
- 15. LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
- 16. ANTITRUST: In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or Fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

- 1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
- 2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
- 3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
- 4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
- 5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



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STATE EQUIPMENT INC

State of West Virginia
Department of Administration
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EQUIPMENT DIVISION
ROUTE 33
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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS EQUIPMENT DIVISION

PROCUREMENT SPECIFICATIONS NO. 353-1-T

4 WHEEL DRIVE, RUBBER TIRED, ENDLOADER (TRANSMISSION WITH TORQUE CONVERTER)

1.0 PURPOSE

It is the purpose of these specifications to describe a 4 Wheel Drive Rubber Tired Endloader (hereinafter referred to as a "endloader" or a "unit") to be purchased for use by the West Virginia Division of Highways (DOH) on an Open End Contract basis.

2.0 BIDDING PROCEDURES

The current purchasing procedures regarding bidding as established by the Department of Administration, Purchasing Division, shall apply. Failure to submit the "Request for Quotation" forms, complete in its entirety and according to directions indicated, may subject the bidder to disqualification. Each bid submitted shall also be accompanied by a Bidder's Evaluation Report completed in detail. Addendums in order, along with exception sheets, should be with Bidder's Evaluation Report. FAILURE TO SUBMIT THE BIDDER'S EVALUATION REPORT, COMPLETE IN ITS ENTIRETY, WILL RESULT IN AUTOMATIC DISQUALIFICATION.

3.0 SPECIFICATIONS

The specifications named herein, mandatory and non-mandatory, establish the acceptable level of quality only and are not intended to reflect a preference or favor any particular brand or vendor.

3.1 EXCEPTIONS TO NON-MANDATORY SPECIFICATIONS

Exception to a non-mandatory unit specification may be made by the bidder, providing the exception is not available from the manufacturer. Any such exception must be noted on the bidder's evaluation report and should be accompanied by supporting documentation/literature from the manufacturer. Any exception must be indicated on a separate attachment to the bidder's evaluation report and labeled as "Exception to Specifications". The state reserves the right to waive minor irregularities in bids or specifications in accordance with §148-1-4(f) of the WV Legislative Rules and Regulations.

3.2 MANDATORY SPECIFICATIONS

All specifications preceded by "shall, will, and/or must" or are stated as a "minimum and/or maximum" are mandatory as stated in Purchasing Divisions Policies and Procedures. Any bid failing to meet any mandatory item shall be immediately disqualified. Failure to respond in the appropriate evaluation section will also be grounds for immediate disqualification at the discretion of the State.

A mandatory pre-bid conference is scheduled for this equipment purchase as stated in the RFQ. Vendors having products with variations or exceptions in specified mandatory items are expected to address any such variations or exceptions during the pre-bid conference. The State shall review and consider any such variation or exception, and may at its sole discretion, issue an addendum to change mandatory specifications deemed to be in the State's best interest. Bids from any vendor failing to attend the mandatory pre-bid shall be disqualified. Bids containing any variation or exception to a mandatory specification that was not addressed during the pre-bid conference and accepted by the issuance of an Addendum shall be disqualified.

4.0 REPRESENTATIVE UNIT FOR TEST

The successful vendor must (if specified) provide DOH one (1) completed representative unit to be observed and evaluated on each order to insure compliance with specification. If requested, the time period for testing and evaluation shall be seven (7) working days following receipt of the unit. DOH will incur no obligation for deterioration of surfaces, finishes, seals, and mechanical or electrical parts on the unit resulting from operation and testing within the limits of these specifications; nor will DOH incur obligation for damage to the unit resulting from failure to meet specifications when due care and attention is given by DOH and testing is done within the limits of these specifications. Failure of the pilot unit to satisfactorily meet specifications as bid may be cause for cancellation of the purchase order, and return of the delivered unit along with all associated equipment to the vendor at the vendor's expense.

4.1 CONDITION OF UNIT(S) UPON DELIVERY

All units must arrive at the prescribed delivery point having been completely preserviced with oil, lubricants, and coolant. All prescribed precautions pertaining to first operations and break-in of the unit are to be posted conspicuously on the unit for ready observance by the operator.

4.2 DELIVERY

Delivery point of the completely assembled representative unit will be the DOH, Equipment Division, Route 33 at Brushy Fork Road, Buckhannon, West Virginia (26201).

The vendor is responsible for guaranteeing delivery of the completed units within the time specified and agreed to by the State. Delivery is preferred within 185 days after receipt of purchase agreement. The vendor is responsible for establishing and coordinating delivery terms with allied manufacturers or suppliers. Delivery terms should be stated in the bid and the State reserves the right to accept or reject such terms. Failure to reach an agreement may result in rejection of the bid. The successful bidder shall provide their manufacturer's confirmation of the order to the WVDOH contact person within seven (7) working days after receiving the approved purchase order.

A completed pilot model for inspection must be provided within 100 calendar days after receipt of the purchase agreement by the successful vendor.

Delivery is an integral part of this specification and failure to comply will be cause to initiate a D.O.T. Administrative Form WV-82, Vendor Performance Form. The WV-82 Form will provide a means of officially notifying the Purchasing Division and the vendor of unsatisfactory performance; such as late deliveries, poor service, inadequate parts supplies, etc.

The decision to initiate subject Form will be at the sole discretion of the D.O.H. Commissioner's established Equipment Review Board.

Issuance of the WV-82 Vendor Complaint Form on unsatisfactory delivery against any vendor will be cause to refuse to consider similar items from those vendors on future Request For Quotations.

(NOTE: Delivery time could be altered due to labor strikes, severe inclement weather conditions, etc.)

- 5.0 AWARD CRITERIA
- DOH will recommend the award in accordance with the RFQ evaluation criteria described in the requisition. The award shall be made to the lowest unit cost vendor that meets or exceeds the specifications. DOH reserves the right to place multiple orders in any quantity.
- 6.0 SPECIFICATIONS AND GUIDELINES GENERAL
- 6.1 IDENTIFICATION OF THE UNIT BEING PROPOSED

The bidder must identify the unit by manufacturer, model, series, and year of manufacture, to enable identification by DOH in the manufacturer's specifications of the proposed unit. The bidder will submit complete descriptive literature of the proposed unit, to establish that the bid is the manufacturer's most current model, including latest engineering improvements, which have been, or will imminently be, regularly advertised and sold on the open market. The unit specified herein and offered

to be manufactured after January 1, 2011 and be clearly identified and marked with date of manufacture.

6.2 OPERATING AND SERVICE MANUALS AND PARTS LISTS

An operator's manual must be included with each unit upon delivery. A "line sheet" (if applicable) and Equipment Preventative Maintenance Questionnaire (as shown in X6.2 of the Bidder's Evaluation Report) must be with pilot unit upon delivery. In addition, there must be 12 service, shop, or maintenance manuals; ten (10) to be distributed to the Districts and two (2) for the Equipment Division. Also, there must be 14 parts manuals; ten (10) to be distributed to the Districts and four (4) for Equipment Division use. CD ROM is preferred in lieu of parts or service manuals.

* NOTE: MANUALS SHALL BE DELIVERED UPON COMPLETION OF DELIVERY OF TOTAL UNITS. FAILURE TO DO SO WILL DELAY PAYMENT.

6.3 TRAINING:

Manufacturers and/or dealers will be required to stage a thorough seminar on the subjects of Preventative Maintenance, Operator and Mechanic Training. In order to keep the operators and mechanics updated, the successful vendor shall conduct training with each purchase order against this open end contract. Training is preferred within 2 working days after delivery of the pilot unit on the individual purchase order.

Manufacturers and/or dealers shall be required to furnish the Training Academy with one (1) Operator's Manual to be shipped direct to WVDOH Training Academy, Post Office Box 610, Buckhannon, West Virginia 26201 prior to delivery of the pilot.

The seminar to be held at the W. Va. Division of Highways, Equipment Division, Buckhannon, West Virginia.

6.4 PREVENTIVE MAINTENANCE AND OPERATOR PROCEDURES:

Manufacturers and/or dealers will be required to submit to the Equipment Division, in addition to the operating and service manuals, booklets and pamphlets explaining the Preventive Maintenance and Operator Procedures to be used by the operators of this equipment, and must include such things as daily prestart inspection procedure, service schedule, and routine maintenance required, safety precautions, etc.

The successful vendor shall furnish all training aids; i.e., videos, projectors, etc. required in conducting the training.

6.5 WARRANTY AND SERVICE POLICY

The Manufacturers warranty or service policy is to apply to the unit. Such warranty or service policy is to be recognized at any authorized unit dealer, representing manufacturer of proposed unit throughout the State of West Virginia. The applicable warranty or service policy will not be contingent upon obtaining routine service. lubrication, and servicing of the unit from factory authorized agencies. It will be the responsibility of the bidder to have available labor to repair or replace any defective replacement parts, components and materials, and to have available those replacement parts, components, and/or materials found to be defective during the terms of the warranty period. The bidder should state the labor rates, locations where parts will be stocked, availability of parts, and discounts offered for parts, when terms of the warranty offer a pro-rated cost for parts and labor. In addition, the successful bidder should offer field work to repair or replace defective parts, components, and materials found to be defective during the terms of the warranty and should provide mechanic's travel rates, mileage charges, field mechanic rates, and any surcharge for miscellaneous items, if applicable, for field work during the warranty period. Submit to Division of Highways any technical or engineering improvements during the term of the warranty. The unit must be accompanied upon delivery by the unit's manufacturer's executed warranty or service policy.

A mandatory minimum two (2) year bumper to bumper basic parts and labor warranty excluding abuse and normal wear items is required for this unit.

THE "WARRANTY AND SERVICE POLICY QUESTIONNAIRE" ATTACHED IN THE BIDDER'S EVALUATION REPORT MUST BE COMPLETED IN ITS ENTIRETY BY THE SUCCESSFUL BIDDER OR MANUFACTURER PRIOR TO DELIVERY OF THE PILOT MODEL. (SEE SECTION X6.5 OF BIDDER'S EVALUATION REPORT).

6.6 EVALUATION COMMITTEE REQUIREMENTS

Detailed component specifications, product literature, component models, required for specification compliance determination by the Evaluation Committee should be provided with each bid. Any information supplied that is contrary to/or conflicting with the specifications and/or attached Bidders Evaluation Report may be sufficient cause for rejection of bid.

6.7 UNSPECIFIED ACCESSORIES & FEATURES

All parts, equipment, accessories, material, design and performance characteristics not specified herein, but which are necessary to provide a complete unit, must be furnished with each unit and required to conform to strength, quality of material, and quality of workmanship to those which are advertised and provided to the market in general by the unit industry.

All parts and accessories advertised and regularly supplied as standard shall be included, except those which would represent duplication of these specified, and except those which, by specification, are not to be furnished. All standard safety features, required by Federal and State Law, shall be included.

- 7.0 SPECIFICATIONS OF THE QUOTED UNIT ARE AS FOLLOWS:
- 8.0 Endloader Specification:
- 8.1 Operating weight to be approximately 22,000 pounds (exclusive of tire ballast).
- 8.1.1 Unit shall have a breakout force of 18,500 pounds minimum.
- 8.2 Overall length (bucket lowered) 23 foot approximately.
- 8.3 Loader shall have articulated frame with full hydraulic power steering.
- 8.3.1 Tipping load straight 14,500 pounds minimum.
- 8.4 Overall height 10 feet 9 inches to top of cab (maximum).
- 8.4.1 Dumping clearance at maximum height and 45° dump angle shall be 108 inches minimum
- 8.5 Loader shall be equipped with a quick coupler system for interchangeability of attachments, controlled from operator station.
- 8.6 Unit shall be equipped with manufacturers vandalism package and all machines keyed alike.
- 8.7 All daily services should be done from ground level.

8.8	Engine:	
8.8.1	Engine shall be manufacturers water cooled diesel powered and approximately 115-125 horse power and torque to operate mach hydraulic system at maximum efficiency.	<u> </u>
8.8.2	Manufacturers standard governor with key shut off, wire sealed by n	nanufacturer.
8.8.3	Engine shall have an engine block water heating element (1500-2	2000 watt).
8.8.4	Heating element to have a male plug easily accessible, 110 volt AC.	
8.9	Engine Lubrication:	
8.9.1	Full pressure lubrication with oil filter and oil by-pass system.	
8.9.2	Engine oil cooler.	
8.10	Cooling System:	
8.10.1	Manufacturer shall provide maximum cooling system available to machine to operate at full capability during all seasons.	to allow
8.10.2	Cooling system shall be supplied with Dex-cool or equal extended freeze protected to a point of -34 degrees F.	d life anti-
8.10.3	Engine coolant filter shall be provided if recommend by manufa this application.	cturer for
8.11	Air Induction System:	
8.11.1	Dry type dual element (2 stage) air cleaner with pre-cleaner.	
8.11.2	Unit shall have dash mounted air filter restriction indicator that visible when service is required.	is operator
8.12	Exhaust System:	
8.12.1	Complete exhaust system shall be manufacturers standard for u	nit specified.
8.12.2	Exhaust pipe shall be rain proof.	

8.13	Electric	cal System:
8.13.1		Unit electrical system to be manufacturers noise suppression wiring.
8.13.2		System to be 12 volts/24 volts negative ground (manufacturers standard).
8.13.3		Manufacturers heavy duty cold cranking amp battery(s), approximately 825 CCA reserve capacity 160 minimum.
8.14	Chargin	ng System:
8.14.1		Unit should have 70 amp alternator (minimum) with internal regulator.
8.15	Engine	Fuel System:
8.15.1		Fuel capacity to be 12 working hours, minimum.
8.15.2		Unit to be provided with a fuel/water separator.
8.15.3		Dual stage fuel filtering shall be provided.
8.16	Transm	ission:
8.16.1		Transmission shall be full power shift design with torque converter, capable of "On the GO" shifting in all speed ranges and full automatic feature with on-board diagnostic capabilities and kickdown controls.
8.16.2		Torque converter shall handle maximum power output of engine.
8.16.3		Transmission to have four (4) forward speeds and three (3) reverse with a top forward ground speed of approximately 23 MPH.
8.16.4		Transmission shall have a neutral start switch for safety purposes.
8.17	Differe	ntial:
8.17.1		Manufacturers front and rear conventional.
8.18	Axles:	
8.18.1		Front axle to be fixed.
8.18.2		Rear axle should oscillate 11 degrees minimum.

8.19	Brakes to be as follows:
8.19.1	- Manufacturers recommended emergency braking system.
8.19.2	Emergency brake must be independent of service brake.
8.19.3	Hydraulic actuated powered assisted service brakes.
8.19.4	Wet type disk service brakes.
8.20	Hydraulic System:
8.20.1	Unit shall provide hydraulic lift, lower, dump, roll back and float plus third spool auxiliary valve and cab controller.
8.20.2	All hydraulic cylinders shall be double action chrome plated piston type.
8.20.3	Loader to be equipped with a hydraulic oil cooler if recommend by manufacturer
8.20.4	A sight glass shall be provided for daily checking of hydraulic oil.
8.20.5	Hydraulic system relief pressure of approximately 2500 PSI.
8.20.6	Unit shall be equipped with manufacturers standard hydraulic filtering system.
8.21	Tires and Wheels:
8.21.1	Wheels shall be manufacturers recommended size for unit bid.
8.21.2	Tires shall be grader/loader type front and rear tubeless radials.
8.21.3	Overall tire width (outside left to outside right) not to exceed 8 feet.
8.22	Cab and related Accessories:
8.22.1	Cab shall be OSHA approved ROPS.
8.22.2	Cab shall be insulated and pressurized.
8.22.3	Cab shall be equipped with heater, defroster and air conditioning installed by manufacturer.
8.22.4	Cab shall have front and rear windshield wipers and washers.

8.22.5	Cab shall have safety, tinted glass at all locations.					
8.22.6	Left and right side rear view mirrors and in cab rear view mirror shall be provided.					
8.22.7	Cab must have at least one (1) entry door, lockable.					
8.22.8	Doors should be hinged at rear to provide front to back opening.					
8.22.9	Unit shall be provided with non-skid steps and hand holds.					
8.22.10	Seat to be cloth type with scotchguard (or equivalent) and with adjustable seat belt.					
8.22.11	Seat to be equipped with adjustable arm rest.					
8.22.12	Seat shall provide height and weight adjustments.					
8.22.13	Unit should have adjustable tilt and telescoping steering wheel for easier operator control.					
8.22.14	Front and rear fenders shall be provided on unit.					
8.22.15	Fire extinguisher shall be provided and mounted in unit. (Successful bidder should notify DOH before mounting).					
8.22.16	AM/FM radio must be provided and installed in unit.					
8.23 Lightin	ng System:					
8.23.1	Unit to have two (2) hi/low halogen beam front lights for tramming and working.					
8.23.2	Loader to have four (4) work lights, two (2) front and two (2) rear mounted in accordance to cab features.					
8.23.3	Unit to have flash/turn signals (front/rear) stoplights and taillights.					
8.23.4	Unit shall be provided with console and dome lighting.					
8.23.5	Low profile high intensity strobe light mounted at top rear of cab. Code 3 92QASH, 12/48 VDC, 11 Jules, five (5) flash generating not more than 1.0 UV of interference on radio receiver with 12 db of quieting.					
8.23.6	Unit shall be equipped with OSHA approved audible reverse alarm.					

8.23.7	Articulation locking bar and pin to be provided.
8.24	Unit Instrumentation to provide the following:
8.24.1	Tachometer.
8.24.2	Speedometer.
8.24.3	Hour meter shall be operable from engine operation not key switch.
8.24.4	Fuel gauge.
8.24.5	Ammeter/or volt meter.
8.24.6	Coolant temperature indicator with audible buzzer or visual warning light.
8.24.7	Engine oil pressure indicator with audible buzzer or visual warning light.
8.24.8	Transmission oil temperature indicator.
8.24.9	Transmission oil pressure indicator.
8.24.10	All features that are considered to be manufacturers standard equipment that are not specifically addressed above shall be provided.
8.24.11	Unit shall be delivered to WVDOH with all manufacturers recommended safety related decals and safety features intact.
8.24.12	One (1) complete set of replacement filters shall be provided with each unit upon delivery.
8.25	Bucket:
8.25.1	Bucket shall be general purpose 1.75 cubic yard struck and 2.1 cubic yard heaped capacity approximate
8.25.2	Bucket width to be approximately 96 inches.
8.25.3	Bucket shall roll back 40 degrees at ground level and dump at 45 degrees minimum at full height.
8.25.4	Unit shall be equipped with automatic return to work leveler for bucket and attachments.
8.25.5	Bucket cutting edge and bottom wear strips shall be replaceable.

8.25.6		The cutting edge welded to bucket and a bolt-on replaceable cutting edge shall be mounted under it.
8.25.7		Digging depth below horizontal, (bucket leveled) should be 3 inches (approximately).
8.26	Forks:	
8.26.1		Forks shall be heavy duty steel construction.
8.26.2		Carriage shall be heavy duty steel construction.
8.26.3		Carriage size approximately 3/4 inches side plates and 60 inches wide.
8.26.4		Tines/Forks are to be 6 inches wide and 48 inches long.
8.26.5		Tines/Forks to be approximately 2 inches thick at heel and to be forged solid steel.
8.26.6		Tines/Forks should be mounted on approximately 2.5 inches diameter round bar and adjustable laterally 60 inches approximate.
8.27	Materi	al Handling Boom:
8.27.1		Material handling boom shall be of heavy duty construction type with hook.
8.27.2	•	Boom of three (3) locking sections with a minimum reach of 12 feet.
8.28	Paint:	
8.28.1		The endloader and attachments shall be painted white, Federal Standard White 595A (No. 17875).
8.28.2		Detail/Decorative Stripes with Logo:
8.28.3		Width: to be 4 inches.
8.28.4		WV DOH logo (to be supplied by WV DOH) is attached (black and white copy) and is approximately 7 inches tall by 7 inches wide. Area behind logo and within ½ inches of logo is not to be striped. Stripes should be cut to follow contour of logo, in lieu of straight cut.

- 8.28.5 Striping material shall meet the requirements of ASTM D4956-91 Type V sheeting, a super high-intensity retroreflective sheeting consisting of microprismatic retroflective-elements. The conspicuity sheeting must meet the requirement of NHSTA, DOT, 49CFR, Part 571 Federal Motor Vehicle safety standards for conspicuity sheeting and be "DOT approved".
- 8.28.6 The sheeting for both applications above shall not be more than .0.008 inch thick having approximately 47,000 microprisms per square inch and shall come with an aggressive high tack pressure sensitive adhesive, reflexite or equivalent.
- 8.28.7 Upper stripe color: Dark Blue.
- 8.28.8 Lower stripe color: Light Gold.
- 8.28.9 Bidder must consult with the WV DOH on proposal for striping before inspection of pilot model.
- 8.28.10 Bidder to attach proposed paint plan with this bid. It should include chips or samples of proposed paints as well as a proposed striping detail on a cab silhouette sheet. Bidder may modify attached striping plan to fit his particular cab shape.
- 8.28.11 In order to test the adhesive quality of the paint, the DOH may, at its option, require that the vendor measure adhesion by the criteria set forth in ASTM D3359-74, Method B. A rating of less than 4 on this test would be deemed unacceptable.
- 8.28.12 The procedures used by the manufacturer in cleaning, de-greasing, priming, and painting are sufficient to meet this requirement except that the manufacturer must substitute white paint (of equivalent grade or quality to manufacturer's standard colored paint) for manufacturer's standard paint in the finish coats.
- 8.28.13 The Department reserves the right to view larger paint samples after award of contract and the right to require subtle color changes. Such changes, if any, will only be used for selecting a suitable paint color to match the WV DOH logo.
- 8.28.14 The Department is desirous of avoiding units painted white over top the standard color. However, if bidder/manufacturer is unable to substitute white paint in its normal plant painting procedures, then bidder must state so and offer his proposed paint method.

- Areas not normally painted the manufacturer's standard color(s) on standard units (e.g. some rubber parts, mirrors, exhaust pipe, etc.) Are not to be painted white on units specified herein. Also, areas painted a distinct color (e.g. safety reasons) should be painted as they normally would.
- 8.29 Vendor must certify that loader offered will meet or exceed the "Occupational Safety and Health Act of 1970" or subsequent changes that are in effect at time of manufacturer of the unit.
- 8.30 Advertising: Only one (1) manufacturer name plate, which must include model number, may appear on exterior of unit. Logos created through the stamping or casting process of manufacture are also acceptable. No logo will interfere with the Department's striping and logo.
- 8.31 Preventive Maintenance and Operators Orientation/Training:
- 8.31.1 The Manufacturer or dealer shall provide preventive maintenance/operator orientation seminar to be conducted at the Equipment Division, Buckhannon. All training aids i.e. videos, charts, manuals, etc., to be furnished by successful vendor.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS EQUIPMENT DIVISION

BIDDER'S EVALUATION REPORT

PROCUREMENT SPECIFICATIONS FOR OPEN END CONTRACT NO. 353-1-T

4 WHEEL DRIVE, RUBBER TIRED, ENDLOADER (TRANSMISSION WITH TORQUE CONVERTER)

NOTE TO BIDDER: Procurement Specification No. 353-1-T, Paragraph 2.0 recommends the completion and submittal of this Report with your bid. Purpose of this Report is to enable the West Virginia Division of Highways Evaluation Committee to make full and fair evaluation of the bid. Addendums in order, along with a summary of exception as a separate attachment, should be with Bidder's Evaluation Report. FAILURE TO SUBMIT THIS REPORT, COMPLETE IN ITS ENTIRETY, MAY SUBJECT THE BIDDER TO DISQUALIFICATION.

	Reference Requisition No.: 7011EC16		
	Bidder's Name: STATE EQUIPMENT, INC.		
	Address: P.O. BOX 3939 CHARLESTON, WV 25339		
	Telephone Number: 304-776-4405		
	Years Bidder has been registered to do business with the State of West Virginia:	25	_YRS
	Years Company has been an authorized dealer for proposed unit:	25	YRS
X3.2	Have you complied with all mandatory specifications? X YESNO		
X4.2 X4.2. 1	DELIVERY: 1 Delivery date of completed representative unit: 100 Calendar Day Receipt of Purch		ent
X4.2.2	2 Delivery date of balance of completed units: Calendar Days Aft Pu	ter Receipt of archase Agree	
N	WOTE: Vendor's should type Bidder's Evaluation Report.		

The "Bidder's Evaluation Report" is available for download on Purchasing's Web site at www.state.wv.us/admin/purchase

X5.0	AWARD CRITERIA;
X5.1	Price per unit: \$104,475.00 per unit
	SPECIFICATIONS - GENERAL Manufacturer, model, series, and date of manufacture of proposed unit:
X6.2	Will the required number of service manuals, and complete parts list be delivered to the Equipment Division at Buckhannon upon completion of delivery of total units? X_YESNO Will the required Equipment Preventive Maintenance Form (Section X6.2 of Bidders Evaluation
	Report) be provided upon inspection of the pilot unit? X YES NO

X6.2 2-10-00

EQUIPMENT PREVENTATIVE MAINTENANCE QUESTIONNAIRE

THIS FORM MUST BE COMPLETED IN ITS ENTIRETY BY SUCCESSFUL BIDDER OR MANUFACTURER'S TECHNICAL REPRESENTATIVE PRIOR TO DELIVERY OF PILOT MODEL TO THE WVDOH.

DESCRIPTION:				MA	KE:	
Mo	ODEL:	·····	YEAR:	PUI	RCHASE AMOUNT:	
ENGINE:	MAKE:		MODEL:		FUEL TYPE: _	
	HORSEPOWER: _		CYLINDER: _	ENC	GINE SERIAL:	
	COOLING SYSTE	M CAPACITY:		······································		
BELTS:	DESCRIPTION:			PART NUM	BERS:	
GVW·						REAR:
	FRONT MAKE &					KD/IK.
TIKLS.	REAR MAKE & S					
DIMENIOIC						I ENIOTHI
						LENGTH:
VENDOR (CONTACT PERSON	[:			PHONE:	
PARTS:						
BATTERY	MAKE:		MODEL:		CCA:	HEIGHT
TOP OR SI	DE POST:		DIMENSIONS	: LENGTH	WIDTH	HEIGHT
SPARK PL	UGS OR FUEL INJ	ECTORS MAKE: _		PART#		
AUTEDNIA	IP OR INJECTION I	PUMP MAKE:		MODEL:		
STARTER	TOR MAKE: MAKE:			PART #		
TURBO CI	HARGER MAKE:		· · · · · · · · · · · · · · · · · · ·	PART #:		
TRANS. M	IAKE:	MODI	EL:		AUTO/MANUA	L:
HYDRAUI	LIC PUMP MAKE: _			MODEL: _		
FILTERS	MAKE	PART NO.	LUBR	ICANT	MANUFACTU	TRER TYPE
OIL			ENGI	NE		
AIR INNE	R		TRAN	ISMISSION		
AIR INNERAIR OUTER			I O W I	TIC DITTIFICATION	}	
FUEL PRIMARY			HYDE	RAULIC		
FUEL SECONDARY			DIFFI	ERENTIALS $_$		
COOLANT HYDRAULIC			BRAK	E LLOID		
HYDRAU. OTHER			COOI			
OTHER			UIHE	·		

	TRAINING:			
	Will training seminar be conducted on Preventive Maintenance, Operator		echanic T NO	raining
	Will you conduct training with each purchase order against this open		ontract? _YES	NO
	Will training be conducted within 2 working days from the delivery of the purchase order?		unit on the	
	If NO, explain time frame		·····	******
	Will an Operator's Manual be furnished directly to Training Academ delivery of the pilot?	y prio	r to the _YES	NO
X6.4	If you are the successful vendor, will you furnish all training aids, i.e. in conducting the training? X YES NO	, video	s, project	tors, required
X6.4.1				
(%U • 7 •1	Will all manuals, booklets, etc. explaining preventive maintenance service schedule be delivered with each unit? If NO, explain	e, oper	ator proc _YES	edures, and NO
X6.5	service schedule be delivered with each unit?	e, oper	ator proc YES	edures, and NO
	service schedule be delivered with each unit? If NO, explain	in Sec	YES	NO
	service schedule be delivered with each unit? If NO, explain WARRANTY AND SERVICE POLICY Will the warranty and service you provide comply with all areas as stated X YES N	in Sec	YES	NO f specifications
	service schedule be delivered with each unit? If NO, explain WARRANTY AND SERVICE POLICY Will the warranty and service you provide comply with all areas as stated X YESN Is warranty literature attached? X Is a minimum two (2) year bumper to bumper basic parts and labor	in Seco	YES	NO f specifications ding abuse

X6.5 WARRANTY AND SERVICE POLICY QUESTIONNAIRE

THIS FORM MUST BE COMPLETED IN ITS ENTIRETY AND SUBMITTED WITH YOUR BID. (If additional lines are needed, make copies of form.)

T	WELVE MONTHS UNLIMI	
Τ	WENTY FOUR MONTHS C	OR 2,000 HOURS ON ENGINE
	(SEE ATTACHE	
manu W	facturer's representativ	be performed at DOH facilities and warranty service to be performed at the facility. List name and location of manufacturer's representative. PERFORMED AT STATE EQUIPMENT, INC. FACILITIES IN RIDGEPORT, WV PARKERSBURG, WV BECKLEY, WV
know	n.	rentories that are within the State of West Virginia. Also, list availability levels, if BRIDGEPORT, WV PARKERSBURG, WV BECKLEY, WV
	ring the term of warran	ty, list the guarantee discount to manufacturer's published list price for parts that wner.
A. B. C.	Terms: Net 30 Terms: Net 60 Terms: Net 90	Manufacturer's published list price less: 0 % discount
	ring the term of warran ways?	ty, will all manufacturers or engineering improvements be submitted to Division ofX_ YES NO
6. Du	ring the term of warran	ty, list the guaranteed rates charged for repair to the unit.
A.	Shop Rate	\$ 90.00 per mechanic hour
B.	Travel Time Charge (Specify if one-way)	\$ per mechanic hour; port to port X
C.	Mileage Charge (Specify if one-way	\$ 1.25 per vehicle mile X; port to port X
D.	Field Mechanic Rate	\$ 90.00 per mechanic hour
E.	Specify period of time	ne that prices are in effect: 12 MONTHS
F.	Surcharge for miscel	laneous items:%

X6.6	EVALUATION COMMITTEE REQUIREMENTS			
	Is all component specifications, product literature, component model. Committee bid determination?			r Evaluation NO
X6.7	Will all parts, equipment, accessories, material, design and performent performent, but which are necessary to provide a complete and conform in strength, quality of material, and quality of work advertised and provided to the market in general by the unit independent.	unit, kmaı lustr	be furni aship to	shed with the unit those which are
X6.7.1	Are all parts and accessories adequate and regularly supplied as those which may be duplications of specifications herein, and exto be furnished?	cept		specification are not
X6.7.2	Are all standard safety features that are required by Federal and X			
X7.0	SPECIFICATIONS OF THE QUOTED UNIT The bidder should complete the following schedule in order for the the actual bid unit to the specifications. Should the bidder except a such exception may be only on the basis that such feature is not offer manufacturer. The Division will have the sole discretion as to whet substitution meets the requirements of the specifications. Manufacturer: CASE Model: 521E	requi cred b her th	rement, toy the ne bidder	then
X8.0	Endloader Specification:			
X8.1	Operating weight: 22,200 pounds (exclusive of tire ballast)			
X8.1.1	Breakout force: 22,290 pounds			
X8.2	Overall length (bucket lowered): 22 foot			
X8.3	Does loader have articulated frame and full hydraulic power s		ing? YES	NO
WQ 2	1 Tinning load straight: 15,460 nounds			

X8.4	Ove	rall height: _	10'7.5"	to top of cab				
X8.4.1	-			num height and 45°		angle:	109.4 i	nches
X8.5		_	with a quick cou erator station	ipler system for inte		_	ty of attach	ments,
X8.6	Do n	nachine(s) ha	ve vandalism pa	ckage/keyed alike?	X	_YES _	NO	
X8.7	Are d	aily services	done from ground	level?	<u> X</u>	_YES _	NO	
X8.8	Engir	ne:						
X8.8.1				er cooled diesel pow nd hydraulic system	at ma	ximun		_ HP and?
		Specify HP:	146					
X8.8.2		Is unit equipposealed by Ma		turer's standard gove		•	shut off, wi	re
X8.8.3		Engine equiwatt)?	pped with an eng	gine block water hea			(1500-2000 NO	ı
X8.8.4		Does heating	g element have ma	ale plug easily accessi	•		AC? NO	
X8.9	Engine	Lubrication:						
X8.9.1		Has full pres	sure lubrication v	vith oil filter and oil b		•	n? NO	
X8.9.2		Is engine equ	nipped with oil co	oler?	<u> </u>	_YES _	NO	
X8.10	Coo	ling System:						
X8.10.	1	Is cooling sy for all seaso		cturers maximum to			pability of o	operation
X8.10.	.2	Cooling syst	tem supplied wit	h Dex-Cool or equal			e anti freezo NO	e to
X8.10.	.3	Is coolant fi	lter provided if 1	ecommended manu		_YES_	X_NO	tion?
					(NO	Γ RECO	MMENDED)	

X8.11	Air Induction System:					
X8.11.1	Is dry type (2 stage) dual element air cleaner with pro-		aner pro _YES _		O	
X8.11.2	Does unit have dash mounted air filter restriction service is required?		cator tl _YES _			
X8.12	Exhaust System:					
X8.12.1	Is complete exhaust system manufacturers standa		or unit : _YES _	_		
X8.12.2	Is exhaust pipe rain proof?	<u>X</u>	_YES_	N	0	
X8.13	Electrical System:					
X8.13.1	Is unit provided with manufacturers noise suppression	on wi	_	_YES _	NO	
X8.13.2	Is system 12 volts/24 volts negative ground		X	_YES _	NO	
X8.13.3	Are heavy duty CCA battery(s) provided?		X	_YES _	NO	
	CCA 800 reserve capacity 160					
X8.14	Charging System:					
X8.14.1	Alternator AMPS: 70 with in	itern	al regul	lator?_	X YES _	NO
X8.15	Engine Fuel System:				м	
X8.15.1	Is fuel capacity at least 12 working hours		<u> X</u>	YES	NO	
X8.15.2	Is unit provided with a fuel/water separator?		X	_YES	NO	
X8.15.3	Is dual stage fuel filtering provided?			<u> </u>	_YES	_NO
X8.16	Transmission:					
X8.16.1	Is transmission full power shift with torque conveshifting in all ranges?	erter	· capabl		n the Go'' _YES	NO
	Does it have full automatic feature with on-board kickdown controls	d dia	-	_	lities and NO	
X8.16.2	Is torque converter capable of handling maximu	m p o X			engine?	

X8.16.3	Number of forward speeds 4 Number of reverse spe	eeds 3	?		
	Top forward ground speed: 22.3 HP				
X8.16.4	Is neutral start switch provided for safety purposes?		X	_YES	_NO
X8.17	Differential:				
X8.17.1	Is front and rear differential manufacturers conventional t	type? _X	YES	NO	
X8.18	Axles:				
X8.18.1	Is front axle fixed?	X	_YES _	NO	
X8.18.2	Oscillation of rear axle: 24 degrees				
X8.19	Brakes:				
X8.19.1	Is Manufacturers recommended emergency braking syste	-		NO	
X8.19.2	Is emergency brake independent of service brake?		<u> </u>	YES	_NO
X8.19.3	Are service brakes powered assisted hydraulic actuated?	X	_YES _	NO	
X8.19.4	Are service brakes wet disk type?	X	_YES _	NO	
X8.20	Hydraulic System:				
X8.20.1	Does unit provide hydraulic lift, lower, dump, roll bac		loat YES	NO	
	Does unit have third spool auxiliary valve and cab cor	ıtroller	<u>X</u> Y	ES N	o
X8.20.2	Are hydraulic cylinders double action chrome plated	_	ype? _YES _	NO	
X8.20.3	Is hydraulic oil cooler provided if recommended by manu	ıfacture			
X8.20.4	Is sight glass provided for daily service checks?	X	_YES _	NO	
X8.20.5	Hydraulic system relief pressure: 2,750	P.S.I.			
X8.20.6	Is Manufacturers standard hydraulic filtering system	provide	ed? VES	NO	

X8.21 T	ires and Wheels:			
X8.21.1	Are wheels manufacturers recommended size for unit bid?	<u>X</u>	_YES	_NO
	Specify size 17.5 X 25			
X8.21.2	Are tires grader/loader type tubeless radials front and rear?	<u> </u>	_YES	_NO
	Specify size: 17.5R25			
X8.21.3	Overall tire width (outside left to outside right): 7 feet 8.	5	_inches	
X8.22 C	ab and related accessories:			
X8.22.1	Is cab OSHA approved ROPS?	YES _	NO	
X8.22.2	Is cab insulated and pressurized? X	YES _	NO	
X8.22.3	Is cab equipped with heater, defroster, air conditioning install manufacturer?	-	the YESN)
X8.22.4	Is cab equipped with wipers and washers front and rear?	<u>X</u>	_YES	_NO
X8.22.5	Is Manufacturers tinted safety glass at all locations?	<u>X</u>	_YES	_NO
X8.22.6	Are left and right rear view mirrors and in cab rear view mir		ovided? NO	-
X8.22.7	Does cab have one (1) lockable entry door?	X	_YES	_NO
X8.22.8	Are doors hinged at rear to provide front to back opening X	_YES _	NO	
X8.22.9	Is unit provided with non-skid steps and hand holds	<u>X</u>	_YES	_NO
X8.22.10	Is seat cloth type with scotchguard or equal and with adjustable s		t	
X8.22.11	Is seat equipped with adjustable arm rests? X YES _	N	O	
X8.22.12	Does seat provide height and weight adjustments?	_YES	NO	
X8.22.13	Is unit equipped with adjustable tilt and telescoping steering who operator control? X YES			
X8.22.14	Are fenders provided front and rear?	X	_YES	_NO
X8.22.15	Is fire extinguisher provided and mounted on unit?	X	_YES	NO
WQ 22 16	Is AM/FM radio provided and installed in unit?	VFC	NO	

X8.23	Lighting System:					
X8.23.1	Is unit equipped with two (2) hi/low halogen beam from working?	nt l		r trammi _YES		
X8.23.2	Does unit have four (4) work lights; two (2) front/two lights	(2)		b mounte _YES		
X8.23.3	Does unit have flash/turn signals (front and rear),stopl	igh		taillights' _YES		
X8.23.4	Does unit have console and dome lighting?			<u> </u>	YES	NO
X8.23.5	Is unit equipped with low profile high intensity strobe of cab as specified If NO, explain		<u>X</u>	YES	•	
X8.23.6	Is unit equipped with audible OSHA approved rev				ESI	00
X8.23.7	Is articulation locking bar and pin provided?		X	_YES _	NO	
X8.24	Unit Instrumentation:					
X8.24.1	Tachometer?	X	_YES _	NC)	
X8.24.2	Speedometer?	X	_YES _	NC)	
X8.24.3	Does hour meter operate from engine operation?		X	_YES _	NO	
X8.24.4	Fuel gauge?	X	_YES	NC)	
X8.24.5	Ammeter/ or volt meter?		X	_YES _	NO	
X8.24.6	Does coolant temperature indicator have audible buzz	er (or visua	l warning _YES _	-	
X8.24.7	Does engine oil pressure indicator have audible buzze	er o	r visual	warning _YES _	-	
X8.24.8	Does unit have transmission oil temperature indicator	?	X	_YES _	NO	
X8.24.9	Does unit have transmission oil pressure indicator?		Х	YES	NO	

X8.24.10	All features considered to be standard equipment not	addressed above:
X8.24.11	Will unit be delivered to WV DOH with manufacture intact?	er's safety decals and features X YES NO
X8.24.12	Is one (1) complete set of replacement filters for each	unit provided? XYESNO
X8.25 Bu	acket:	
X8.25.1	Bucket capacity struck: 1.75 Cu Yd. Heaped ca	pacity: _2.1 _ Cu Yd
X8.25.2	Bucket width: 102 inches	
X8.25.3	Bucket roll back 40 degrees at ground level	and dump at full height
	45 degrees	
X8.25.4	Does unit have automatic return to work leveler for l	oucket and attachmentsNO
X8.25.5	Are replaceable cutting edge and bottom wear strips	provided X YES NO
X8.25.6	Is cutting edge welded to bucket and bolt on replaces under it?	able cutting edge mounted. X YESNO
X8.25.7	Digging depth below horizontal (bucket level): 3.2	inches
X8.26 Fo	orks:	
X8.26.1	Are forks heavy duty steel construction?	X YESNO
X8.26.2	Is carriage of heavy duty steel construction?	X_YESNO
X8.26.3	Carriage size: 3/4 inch side plates and 63	inches wide?
X8.26.4	Tines/Forks: 6 inches wide and 48 inches lo	ong
X8.26.5	Tines/Forks: 2 inches thick at heel and forged	solid steelXYESNO
X8.26.6	Tines/Forks mounted on 2.5 inches diameter round	bar
	Adjustable laterally inches	

X8.27	Material Handling Boom:
X8.27.1	Is material handling boom of heavy duty construction with hook?
X8.27.2	Boom has3 locking sections Boom reach: _14 feet
X8.28	Paint:
X8.28.1	Is endloader painted Federal Standard White 595A (NO. 17875)?YESNO
X8.28.2	Will detail/decorative stripes be provided and installed on unit by successful bidder?YESNO
X8.28.3	Are stripe(s) width 4 inches as specified?YESNO
X8.28.4	Does striping method and striping material meet required specifications quoted in sections 8.28.4; 8.28.5; and 8.28.6? YESNO
	If NO, explain
X8.28.7	Describe color and type of material of upper stripe:
X8.28.8	Describe color and type of material of lower stripe:
0.20.0	WALL THE WALL DOME
8.28.9	Will bidder consult WV DOH on proposed striping? YESYES
X8.28.10	Has bidder attached paint plan (chips/samples/striping details) to compliance form? YESNO
	If no will samples be submitted?YESNO
X8.28.11	Describe manufacturers paint procedure as specified in sections 8.28.11; 8.28.12; and 8.28.13

X8.28.14	Is white paint specified applied over top of manufacturer's standard color? YESNO
X8.28.15	Are areas of distinct color(s) (e.g. safety reason) be painted as they normally
	would?YESNO
X8.29	Does proposed unit meet or exceed the "OSHA of 1970" and/or subsequent changes? X YES NO
X8.30	Does unit conform to the advertising guidelines? X YES NO
X8.31	Preventive Maintenance and Operators Orientation/Training:
X8.31.1	Have you attached a copy of proposed training program. Attach schedule describing course offered with a brief explanation of each subject with the time required for each class. Do not attach instruction material or manuals. Will you furnish all training aids; i.e. videos, projectors, etc., required in conducting the training? YESNO



RFQ COPY

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for ______

Mandria and a serior of the contraction of the cont **EUYER 33** 304-558-2402

TYPE NAME/ADDRESS HERE DIVISION OF HIGHWAYS EQUIPMENT DIVISION ROUTE 33 BRUSHY FORK ROAD BUCKHANNON, WV 26201 304-472-1750

DATE PRINTED TER	MS OF SALE	SHIP VIA	FØ8.	FREIGHT TERMS
03/18/2011 NET 3	0	OUR TRUCK	<u> </u>	PREPAID
2000.000000000000000000000000000000000	011			30PM
LINE QUANTITY	UOP CAT.	FTEM NUMBER	UNITPRICE	AMOUNT
	ADDEN	DUM NO. 1		
THIS ADDENDUM	IS ISSUEL	TO:		
1.) ADDRESS ATTACHED		SPECIFICATIONS	PER THE	
2.) ANSWER T	ECHNICAL C	UESTIONS PER THE	ATTACHED.	
ATTENDEE LIST	•	THE MANDATORY PR		
*******	*****END I	DDENDUM NO. 1***	******	
0001	A CASE 521E X	760 -44	\$104,475.00	\$104,475.00
		TRED, ENLOADER		1.
***** THIS	IS THE END	OF RFQ 7011EC	 	\$104,475.00
				<u> </u>
SIGNATURE		YERSE SIDE FOR TERMS AND CO	04-776-4405 DATE	3/22/11
GENERAL MANAGER	^{EIN} 550658298			S TO BE NOTED ABOVE

PREBID ADDENDUM 7011EC16

4 WHEEL DRIVE, RUBBER TIRED, ENDLOADER (TRANSMISSION WITH TORQUE CONVERTER)

CHANGES TO SPECIFICATIONS:

FROM:

8.8.1 Engine shall be manufacturers water cooled diesel powered and shall provide approximately 115-125 horse power and torque to operate machine and hydraulic system at maximum efficiency.

TO:

8.8.1 Engine shall be manufacturers water cooled diesel powered and shall provide minimum 115 HP and torque to operate machine and hydraulic system at maximum efficiency.

FROM:

8.13.3 Manufacturers heavy duty cold cranking amp battery(s), approximately 825 CCA; reserve capacity 160 minimum.

TO:

8.13.3 Manufacturers heavy duty cold cranking amp battery(s), minimum 800 CCA; reserve capacity 160 minimum

FROM:

8.16.3 Transmission to have four (4) forward speeds and three (3) reverse with a top forward ground speed of approximately 23 MPH.

TO:

8.16.3 Transmission to have four (4) forward speeds and three (3) reverse with a top forward ground speed minimum of 21 MPH.

FROM:

8.20.5 Hydraulic system relief pressure of approximately 2500 PSI

TO:

8.20.5 Hydraulic system relief pressure minimum 2500 PSI

FROM:

8.23.5 Low profile high intensity strobe light mounted at top rear of cab. Code 3 92QASH, 12/48 VDC, 11 Jules, five (5) flash generating not more than 1.0 UV of interference on radio receiver with 12 db of quieting.

TO:

8.23.5 Low profile high intensity Class 1 LED beacon, amber

FROM:

8.25.1 Bucket shall be general purpose 1.75 cubic yard struck and 2.1 cubic yard heaped capacity approximate.

TO:

8.25.1 Bucket shall be general purpose minimum 1.75 cubic yard struck and 2.1 cubic yard heaped capacity approximate.

FROM:

8.25.7 Digging depth below horizontal, (bucket leveled) should be 3 inches (approximately)

TO:

8.25.7 Digging depth below horizontal, (bucket leveled) should be 3 inches.

FROM:

8.26.3 Carriage size approximately ¾ inches side plates and 60 inches wide.

TO:

8.26.3 Carriage size should be 3/4 inches side plates and 60 inches wide.

FROM:

8.26.5 Tines/Forks to be approximately 2 inches thick at heel and to be forged solid steel.

TO:

8.26.5 Tines/Forks should be 2 inches thick at heel and to be forged solid steel.

FROM:

8.26.6 Tines/Forks should be mounted on approximately 2.5 inches diameter round bar and adjustable laterally 60 inches approximate.

TO:

8.26.6 Tines/Forks should be mounted on 2.5 inches diameter round bar and adjustable laterally 60 inches.

FROM:

8.28.1 The endloader and attachments shall be painted white, Federal Standard White 595A (No. 17875).

TO:

8.28.1 The endloader and attachments shall be painted manufacturers standard.

DELETE:

- 8.28.2 Detail/Decorative Stripes with Logo:
- 8.28.3 Width: to be 4 inches
- 8.28.4 WVDOH logo (to be supplied by WVDOH) is attached (black and white copy) and is approximately 7 inches tall by 7 inches wide. Area behind logo and within ½ inches of logo is not to be striped. Stripes should be cut to follow contour of logo, in lieu of straight cut.
- 8.28.5 Striping material shall meet the requirements of ASTM D4956-91 Type V sheeting, a super high-intensity retroflective sheeting consisting of microprismatic retroflective elements. The conspicuity sheeting must meet the requirement of NHSTA, DOT, 49CFR, Part 571 Federal Motor Vehicle safety standards for conspicuity sheeting and be "DOT" approved.
- 8.28.6 The sheeting for both applications above shall not be more than .0.008 inch thick \ having approximately 47,000 microprisms per square inch and shall come with an aggressive high tack pressure sensitive adhesive, reflexite or equivalent.
- 8.28.7 Upper stripe color: Dark Blue
- 8.28.8 Lower stripe color: Light Gold
- 8.28.9 Bidder must consult with the WVDOH on proposal for striping before inspection of pilot model.

DELETE:

- 8.28.10 Bidder to attach proposed paint plan with this bid. It should include chips or samples of proposed paints as well as a proposed striping detail on a cab silhouette sheet. Bidder may modify attached striping plan to fit his particular cab shape.
- 8.28.11 In order to test the adhesive quality of the paint, the DOH may, at its option, require that the vendor measure adhesion by the criteria set forth in ASTM D3359-74, Method B. A rating of less than 4 on this test would be deemed unacceptable.
- 8.28.12 The procedures used by the manufacturer in cleaning, de-greasing, priming, and painting are sufficient to meet this requirement except that the manufacturer must substitute white paint (of equivalent grade or quality to manufacturer's standard colored paint) for manufacturer's standard paint in the finish coats.
- 8.28.13 The Department reserves the right to view larger paint samples after award of contract and the right to require subtle color changes. Such changes, if any, will only be used for selecting a suitable paint color to match the WVDOH logo.
- 8.28.14 The Department is desirous of avoiding units painted white over top the standard color. However, if bidder/manufacturer is unable to substitute white paint in its normal plant painting procedures, then bidder must state so and offer his proposed paint method.
- 8.28.15 Areas not normally painted the manufacturer's standard color(s) on standard units (e.g. some rubber parts, mirrors, exhaust pipe, etc.) are not be painted white on units specified herein. Also, areas painted a distinct color (e.g. safety reasons) should be painted as they normally would.
- 8.31 Preventive Maintenance and Operators Orientation/Training:
- 8.31.1 The Manufacturer or dealer shall provide preventive maintenance/operator orientation seminar to be conducted at the Equipment Division, Buckhannon. All training aids i.e. videos, charts, manuals, etc. to be furnished by successful vendor.

PREBID ADDENDUM 7011EC16

4 WHEEL DRIVE, RUBBER TIRED, ENDLOADER (TRANSMISSION WITH TORQUE CONVERTER)

CHANGES TO BIDDER'S EVALUATION REPORT:

FROM: X8.8.1	Is engine manufacturers water cooled diesel powered providing_HP and torque to operate machine and hydraulic system at maximum efficiency? _YES_NO Specify HP:_
TO: X8.8.1	Is engine manufacturers water cooled diesel powered XYES_NO
	And provides 146 HP and torque to operate machine and hydraulic system at maximum efficiency? XYES NO
FROM: X8.13.3	Are heavy duty CCA battery(s) provided?_YES_NO CCA reserve capacity
TO: X8.13.3	Are heavy duty CCA battery(s) provided? X YESNO CCA800 reserve capacity160
FROM: X8.16.3	Number of forward speeds _ Number of reverse speeds _ Top forward ground speed: _HP
TO: X8.16.3	Number of forward speeds 4 Number of reverse speeds 3
	Top forward ground speed 22 3 MDD

FROM: X8.20.5	Hydraulic system relief pressure:PSI
TO: X8.20.5	Hydraulic system relief pressure 2,750 PSI
FROM: X8.23.5	Is unit equipped with low profile high intensity strobe light mounted at top rear of cab as specified _ YES_ NO If NO, explain
TO: X8.23.5	Is unit equipped with low profile high intensity Class 1 LED beacon, amber X YES NO
FROM: X8.25.1	Bucket capacity struck: CuYd Heaped capacity:CuYd
TO: X8.25.1	Bucket is general purpose with 1.75 cubic yard struck and 2.1 cubic yard heaped capacity X YES NO
FROM: X8.25.7	Digging depth below horizontal (bucket level):inches
TO: X8.25.7	Digging depth below horizontal (bucket leveled): 3.1 inches
FROM; X8.26.3	Carriage size: inch side plates andinches wide?
TO: X8,26.3	Carriage size: 3/4inch side plates and 63 inches wide

FROM: X8.26.5	Tines/Forks:inches thick at heel and forged solid steelYESNO
TO: X8.26.5	Tines/Forks 2 inches thick at heel and forged solid steel X YES NO
FROM: X8.26.6	Tines/Forks mounted oninches diameter round bar Adjustable laterally inches
TO: X8.26.6	Tines/Forks mounted on 2.5 inches diameter round bar and adjustable laterally
	59 inches
FROM: X8.28.1	Is endloader painted Federal Standard White 595A (No. 17875)YESNO
TO: X8.28.1	Is endloader and attachments painted manufacturers standard? X YESNO
DELETE;	
X8.28.2	Will detail/decorative stripes be provided and installed on unit by successful bidder? YES NO
X8.28.3	Are stripe(s) width 4 inches as specified? YES NO
X8.28.4	Does striping method and striping material meet required specifications quoted in sections 8.28.4, 8.28.5 and 8.28.6 YES NO If NO explain
X8.28.7	Describe color and type of material of upper stripe:
X8.28.8	Describe color and type of material of lower stripe:
X8.28.9	Will bidder consult WVDOH on proposed striping? _YES_NO
X8.28.10	Has bidder attached paint plan (chips/samples/striping details) to compliance form
X8.28.11	YESNO If No will samples be submittedYESNO Describe manufacturers paint procedure as specified in sections 8.28.11, 8.28.12 and 8.28.13

- X8.28.14 Is white paint specified applied over top of manufacturers standard color_YES_NO
- X8.28.15 Are areas of distinct color(s) e.g. safety reason be painted as they normally would_YES_NO
- X8.31 Preventive Maintenance and Operators Orientation/Training:
- X8/31/1 Have you attached a copy of proposed training program. Attach schedule describing course offered with a brief explanation of each subject with the time required for each class. Do not attach instruction material or manuals. Will you furnish all training aids' i.e. videos, projectors, etc., required in conducting the training YES_NO

Features and/or options:

- 1. Integrated digital payload scale system;
- 2. Integrated color rear view camera viewable through machine cluster (some manufacturers may have a separate cab mounted color monitor).
- 3. GPS/Satellite based remove managements system which allows access to critical machine date and GPS location through internet server. Cost of the Service and system must be included for three full year.
- 4. Fully adjustable heated operator seat with air suspension and 3" seat belt is another standard feature as is heated outside mirrors (left and right).

RESPONSE TO ALL 4 QUESTIONS: The Division of Highways has reviewed these extra options and decided not to include in spec.

PRE-BID CONFERENCE SIGN IN SHEET

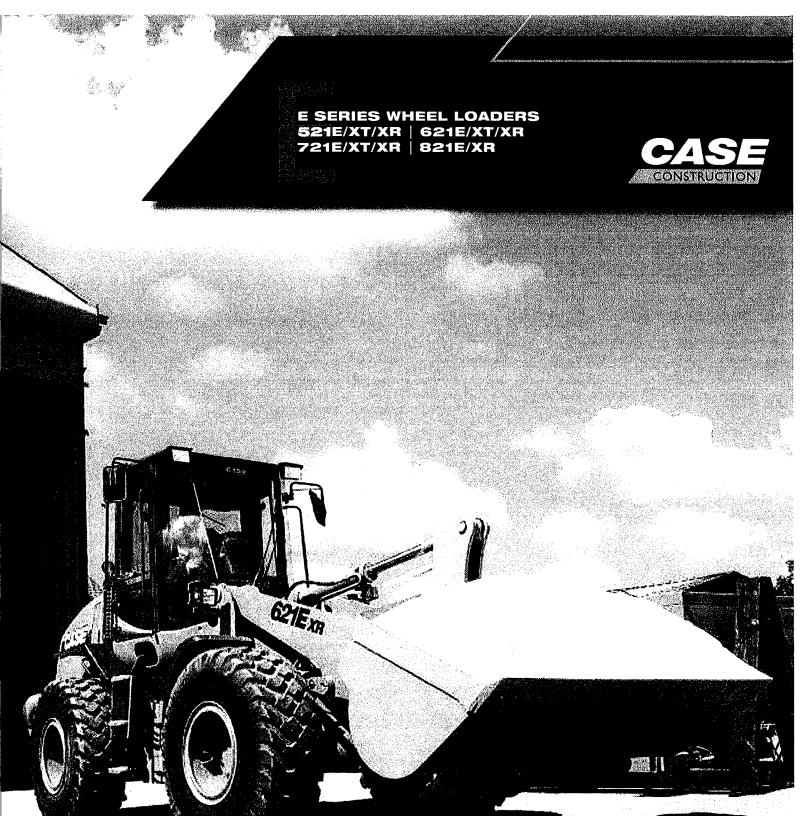
Anderson Equip 304 - 366 - 7214 BSmith BAnderson Equip. Cem 3061-642-9826 26554 Gracewood Bleed Bleed. Com PLEASE PRINT LEGIBLY. THIS INFORMATION IS ESSENTIAL TO CONTACT THE ATTENDEES IN A TIMELY MANNER. FAILURE TO DO SO 2533 temy10 state equipment 10, Box 239 Equipment Co. **Salley** ECUIAMEN 26285 Smith 13 Bert Smith Ruskin 304 776 4405 304 776 4409 Crea erue 304-656.3516 Box 3935 1 4 A R 125 TOW 154.636.6821 アラーたのの Pla sent アスカア estro w 3/10/2011 7007 21/50 7476 けるけら Oice Represenative Attending: Represenative Attending: Represenative Attending: 4 Wheel Drive, Rubber Tired, Enloader Phone Number: Phone Number: Email Address: Phone Number: Email Address: MAY RESULT IN DELAYS IN YOUR COMPANY GETTING IMPORTANT BID INFORMATION. Email Address: Firm Address: Fax Number: Firm Address: Firm Address: Fax Number: Fax Number: Firm Name: Firm Name: Firm Name: Date: 4333 アクシイン、レグ 753Y DEST VIRGIDIA COATALO CHARLESTON, UU 25322 Com WHO TO COMEN LIM INN O State Caudines CALLIDING 7011EC16 ment 603 omeckerorish, Took MAN JOSTOWI 1800 4.13 SAMPA GLANN 1000 346-5305 346-530 52-40 Bruce 151 Request for Quotation Number: Represenative Attending: Represenative Attending: Represenative Attending: Project Description: Phone Number: Email Address: Phone Number: Phone Number Email Address: Email Address: Firm Address: Fax Number: Firm Address: Firm Address: Fax Number: Fax Number: Firm Name: Firm Name: Firm Name:

PRE-BID CONFERENCE SIGN IN SHEET

mconner @walker - cat. com 25329 PLEASE PRINT LEGIBLY. THIS INFORMATION IS ESSENTIAL TO CONTACT THE ATTENDEES IN A TIMELY MANNER. FAILURE TO DO SO Moornan C.I. Wares MACHENSEY ひした 304) TS9 - 640H THEOLOGICONS WIN 304) 543-5406 SALER 7.0. Box 2437 とならら 3/10/2011 F Represenative Attending: Represenative Attending: Represenative Attending: 4 Wheel Drive, Rubber Tired, Enloader Phone Number: Phone Number: Phone Number: MAY RESULT IN DELAYS IN YOUR COMPANY GETTING IMPORTANT BID INFORMATION. Email Address: Email Address: Email Address: Firm Address: Firm Address: Firm Address: Fax Number: Fax Number: Fax Number: Firm Name: Firm Name: Firm Name: Date: saetrich a mhequipmentico (BLUT B 31322 3 BLVO Carlo RO Equapment Co. MClower G UTEC. 7011EC16 the usesity 9086-012 ICB. THEND CO 3 30-3005 - uu7. 2156 (JE) (9) 724-437-1528 724-437-2098 Bankec CUS USO NA NA 公务犯 DES. IAKUS A 317 - 769-INIONTEIN E MEAST Paster M:KE 2266 2000 505 977 Ő F Request for Quotation Number: Represenative Attending: Represenative Attending: Represenative Attending: Project Description: Phone Number: Phone Number: Phone Number: Email Address: Email Address: Email Address: Firm Address: Firm Address: Firm Address: Fax Number: Fax Number: Fax Number: Firm Name: Firm Name: Firm Name:

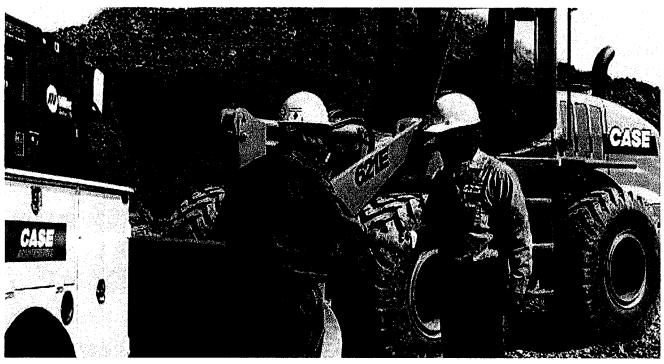
PRE-BID CONFERENCE SIGN IN SHEET

Request for Quotation Number:	7011EC16	Date:	3/10/2011
Project Description:	•	4 Wheel Drive, Rubber Tired, Enloader	
PLEASE PRINT LEGIBLY. TH	PLEASE PRINT LEGIBLY, THIS INFORMATION IS ESSENTIAL TO CONTACT THE ATTENDEES IN A TIMELY MANNER. FAILURE TO DO SO	NTACT THE ATTENDEES IN A BID INFORMATION.	TIMELY MANNER. FAILURE TO DO SO
Firm Address:	Hans Kley WVDOK	Firm Name: Firm Address:	
Represenative Attending: Phone Number: Fax Number: Email Address:		Represenative Attending: Phone Number: Fax Number: Email Address:	
Firm Name:	Stur Store	Firm Name: Firm Address:	
Represenative Attending: Phone Number: Fax Number: Email Address:		Represenative Attending: Phone Number: Fax Number: Email Address:	
Firm Name: Firm Address:		Firm Address:	
Representative Attending: Phone Number: Fax Number:		Represenative Attending: Phone Number: Fax Number: Email Address:	



E Series

CUSTOMER SUPPORT



Manage your equipment better with a Case Care^{sм} prepaid maintenance plan.

The Case dealer: Your professional partner

Your success starts with world-class Case machinery and attachments. Your Case dealer will help you work smarter and faster by selecting equipment that delivers performance and operator comfort. Your dealer has the knowledge and experience necessary to help you choose the right attachments so you can...

- Work faster and extend equipment life.
- · Increase machine utilization.
- Increase your capabilities.

Let your Case dealer service your machine on the jobsite, so you'll be back on the job faster. Advantages include...

- Responsive jobsite service to keep your equipment running.
- · Increase machine uptime.
- Certified service staff and improved parts availability.

Manage your equipment better.
Case CaresM is a prepaid maintenance plan designed especially for your machine. Factory-trained Case technicians perform routine

inspections and regular service to prevent problems. Other options, such as the Machine Protection PlanSM, can be purchased to extend protection beyond the base warranty. Add the GlobalTRACS[™] Fleet Management Communications System to give you the information to better manage your fleet while protecting it against theft.

Ask your local Case dealer about adding value to your machine and peace of mind to your workday with these helpful products.





Case technicians have access to the latest diagnostic service tools.



Dependable Case wheel loaders are the machines of choice for contractors engaged in commercial or residential construction, road building, site prep, aggregate, sewer, water and utility work.

YOU DESERVE THE BEST - CASE DELIVERS

Superior productivity, efficiency, comfort and serviceability

Our ergonomically designed cab provides operator comfort for increased productivity. The enhanced Tier III-certified power moves more material per hour. Extra work modes match the machine operation to the task at hand for lower operating costs and increased productivity. Best-in-class maintainability means easy daily service. The easier service is to perform, the more likely it will get done.

Challenging wheel loader applications require stability, superior traction, push power, lift capacity and quiet, fuel-efficient operation.

The E Series wheel loaders are loaded with innovative features and backed by Case durability and customer support.

Spacious cabs provide comfort, visibility and an all-around command of the work site. Robust horsepower and pressure-compensating hydraulics deliver superior breakout force and lift capacity. Industry-leading ease of maintenance assures maximum uptime. The Case-exclusive midmount cooling module makes these wheel loaders fuel efficient and reliable for years to come, even in the dustiont any iron ments.

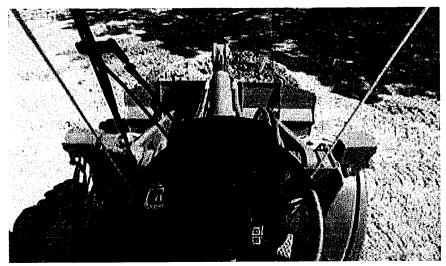


Rugged E Series wheel loaders redefine productivity.



E Series

NEWLY DESIGNED CAB



An unobstructed view to the console's analog gauges and indicator lights keeps you informed of critical machine functions.



The large, roomy cab on the Case E Series wheel loader was designed with productivity and operator comfort in mind.

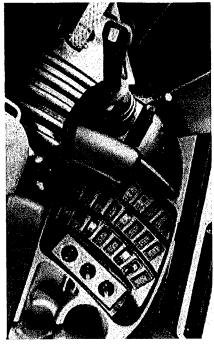
Case designed the E Series cab to match the machine environment to the operator. The adjustable tilt steering column, infinitely adjustable seat with arm rests and additional interior cab space maximizes operator comfort and productivity.

The iso-mounted cab features numerous air diffusers to provide maximum air circulation for faster, more thorough heating and cooling. Floor-to-ceiling glass in the front, along with a sloping rear engine compartment, offers a panoramic view for maximum visibility both forward and to the rear. The clear, direct view to the front tires, bucket edge and work site provides a more safe, productive and efficient operation.

The standard single-lever loader control with a forward-neutral-reverse switch and transmission downshift button puts all the controls at your fingertips. A digital display records real-time data, shows diagnostic

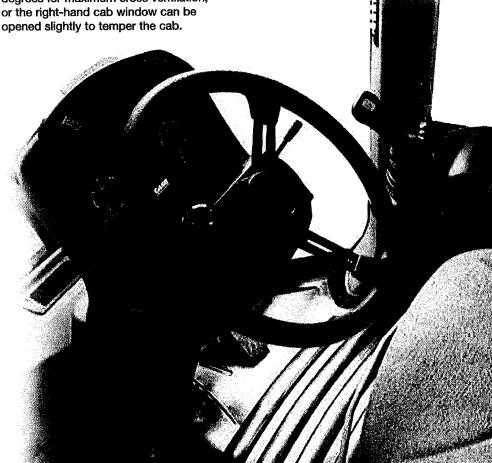
information and allows programming of operational modes.

The in-cab thermal box keeps food and drink hot or cold during a long, hard day on the job. The cab door and right-hand windows swing back 180 degrees for maximum cross ventilation, or the right-hand cab window can be opened slightly to temper the cab.



The spacious cab matches the machine to the operator through adjustable controls and easy-to-reach switch locations.

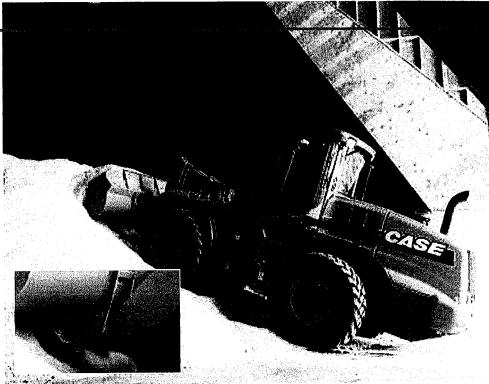
And then there's the most comfortable feature of all—knowing your new wheel loader is supported by Case and your local Case dealer.





Retain more material

Optional Ride Control™ provides greater material retention while reducing shock loads both to the operator and the machine, even over rough terrain. The loader arms work as shock absorbers to cushion the bucket and maintain a full load. Ride Control can be used full time, for cushioning when transporting material up an incline. It can also be programmed to automatically engage any time.



E Series buckets feature an extended bolt-on cutting edge for easier penetration into the pile. The hinge pins are raised up out of the dirt and debris for longer life.

Dual limited-slip axles deliver more traction, less wear

Case wheel loaders deliver the superior traction needed to work efficiently in changing jobsite conditions. Unlike competitive models, limited-slip axles are standard Case equipment. These superior axles (front and rear) transfer power automatically

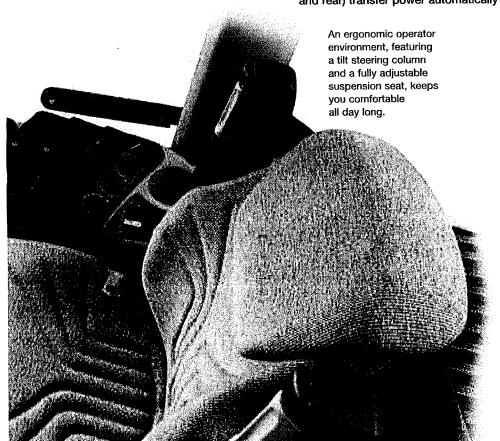
from the wheel that is slipping to the wheel that is gripping. This reduces tire wear and maximizes tractive effort into the pile. This helps move more material per gallon of fuel and reduce tire replacement costs.

Outboard planetary and wet-disc brakes provide ease of serviceability because they are positioned outside the loader frame at the wheel end. With the weight of the planetaries outside the machine, operator comfort is increased through a smoother, more stable ride.

Fili your bucket faster

The new Case bucket increases productivity and provides longer wear. The bolt-on cutting edge was extended forward for rapid and easy penetration into the pile. The bottom floor plate of the bucket has been set on a five-degree angle for easy transition of material to the back curvature of the bucket. This allows for the material to mix easily, so you'll fill your bucket rapidly and provide more heaped bucket capacities. By filling your bucket faster, you'll move more tons per hour.

The skid plates are bolted on for easier repair and replacement. The hinge pins are raised up out of the dirt and debris for longer life, but also to allow the bolt-on cutting edge to continue cutting through the pile as the bucket is being curled, enabling complete bucket fills.



E Series

ENHANCED TIER III-CERTIFIED POWER

Case engines deliver power and fuel economy

Case E Series wheel loaders are powered by fully electronic, Tier Ill-certified Case engines that allow you to match power and fuel economy to your specific application. The engine incorporates the new electronic common-rail fuel injection system, which allows high-pressure fuel and air to mix thoroughly for a cleaner, more efficient combustion.



Three power curves and four work modes

Choose between three power curves—max, standard and economy power—and four work modes—max, standard, economy and auto. For high-production activities such as excavating operations that require high breakout force and maximum power to the wheels, you can choose

to use maximum power at all times. For operations such as working in a pipe yard, handling pallets or moving light material, economy mode will complete the task with the greatest fuel efficiency. In auto mode, the electronically controlled engine automatically adjusts between power curves to move the maximum amount of material per gallon of fuel



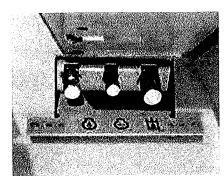
BEST-IN-CLASS MAINTAINABILITY

More uptime

Easy servicing extends machine life, lowers ownership costs and increases resale value. The easier it is to perform daily maintenance and service, the more likely it is going to be done correctly and on time—which is why Case designed the E Series wheel loaders with best-in-class maintainability.

The only tool required for daily maintenance checks is a rag to wipe oil off the dipstick.

Get your day off to a fast and productive start with easy-to-reach daily service checkpoints. The one-piece rear hood provides easy, ground-line access to the engine and all daily maintenance checkpoints. Fluid sight gauges are positioned at eye level. Three remote drains for coolant, engine and hydraulic oil provide convenient access for fast, environmentally friendly fluid changes.



Keeping your Case wheel loader in top running shape requires less effort, so you can get back to the jobsite.

The electrically actuated rear hood provides complete access to the engine and daily maintenance checks.



Mid-mount cooling module

The Case-exclusive cube-shaped mid-mount cooling module supplies clean, ambient air to all coolers, increasing cooling efficiency, reducing fluid breakdown and extending component life. With no stacked coolers, the mid-mount cooling module prevents debris from plugging between coolers. An optional temperature-controlled fan within the cooling module can be reversed to purge debris from the module within seconds. This means the machine can remain on the jobsite rather than being moved to a cleaning station.

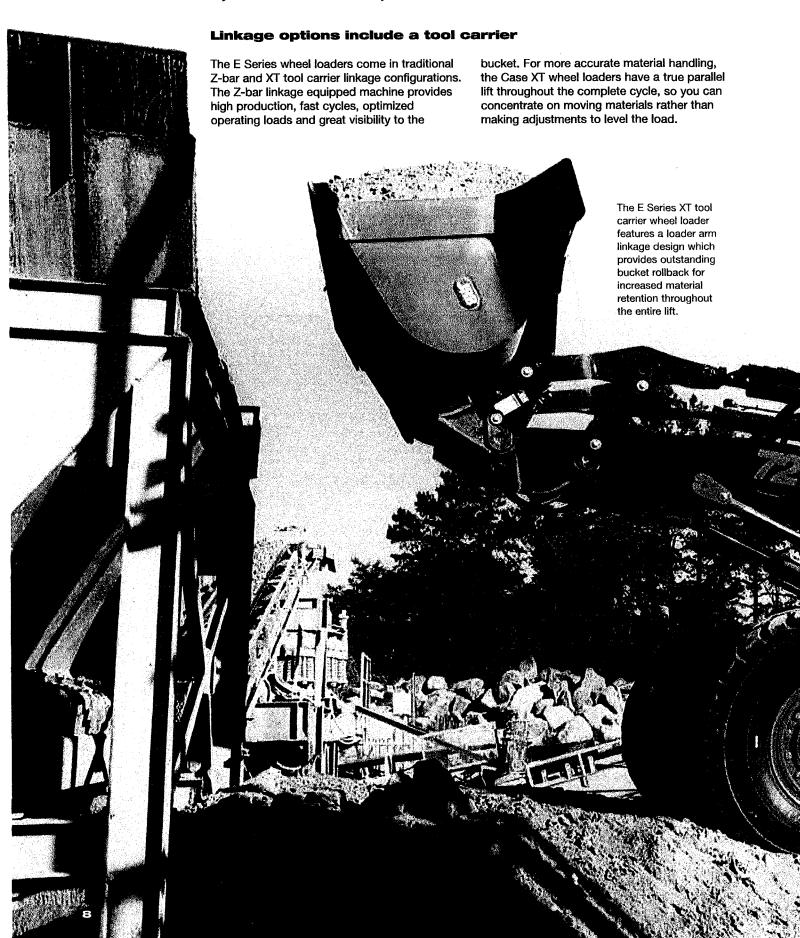


Material is removed from the cooling module by reversing the fan direction with a switch located in the cab.

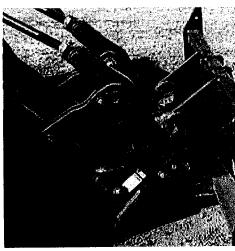


E Series

521E/XT/XR, 621E/XT/XR, 721E/XT/XR AND 821E/XR







Hydraulic quick couplers

For maximum versatility with multiple attachments, Case wheel loaders can be equipped with a hydraulic coupler. Changing attachments is quick and easy — you can do it from the cab. Case offers a factory-installed quick coupler system that matches



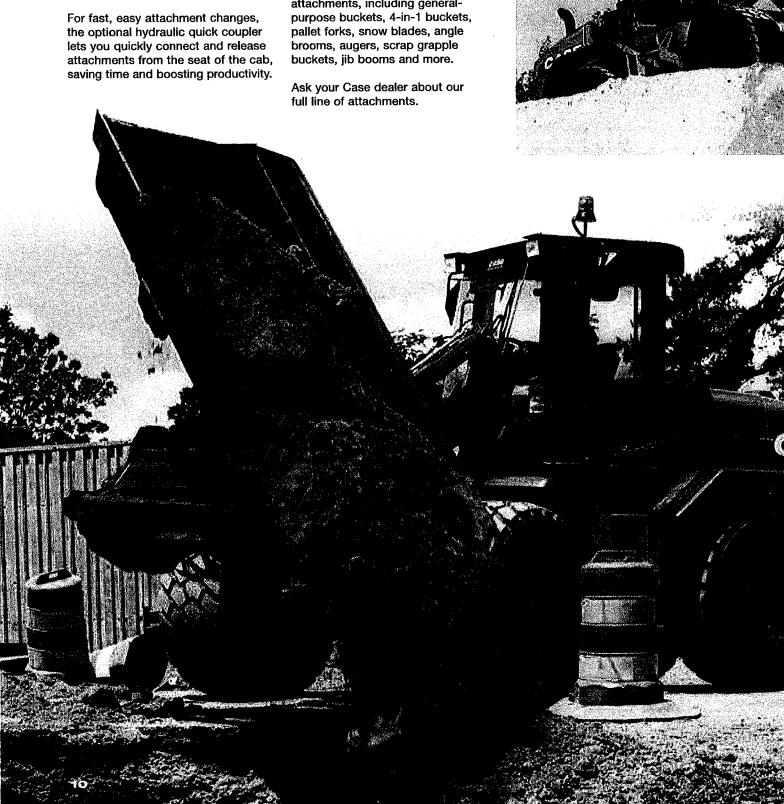
E Series

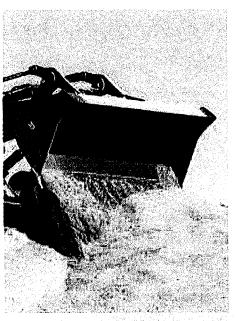
BUCKETS AND ATTACHMENTS

Get more out of your machine

Whether you're loading dirt, moving pallets, digging holes or cleaning the jobsite, the increased attachment work range of Case wheel loaders improves machine versatility.

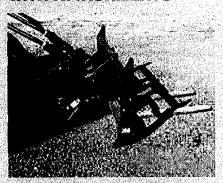
The excellent visibility to the coupler latching pins helps to quickly align attachments for faster hook-ups. With a Case E Series wheel loader, you can work with a variety of attachments, including general-purpose buckets, 4-in-1 buckets, pallet forks, snow blades, angle brooms, augers, scrap grapple buckets, jib booms and more.





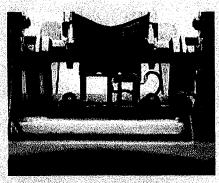


GET MORE OUT OF YOUR MACHINE WITH ATTACHMENTS



Hydraulic quick coupler

For quick and easy attachment changes, the optional hydraulic quick coupler saves time and boosts productivity.



Visibility to the pins

Excellent visibility to the hydraulic quick coupler pins assist in quickly aligning attachments for faster hook-ups as well as providing a clear view to the attachment.



Forks



General purpose buckets



Jib booms



4-in-1 buckets



Grapple/fork



Side dump bucket

Engine	135 net hp (101 kW)	135 net hp (101 kW):	135 net hp (101 kW)
Operating weight	23.069 lb (10.464 kg)	26.861 lb (12.184 kg)	23.442 fb (10 633 кд)
Max bucket capacity	2.6 cu yd (2.0 cu mi	2.1 du ya -1.6 du mi	2.6 bu ya (2.0 bu m)
Operating load	8,116 lb (3681 kg)	6.648 lb (3016 kg)	6.862 lb (3112 kg)
Breakout force	20.926 lb (9492 kg)	25.194 lb (11 428 kg)	23,463 lb +10 642 kg)
Engine	162 net hb (121 kW)	162 net hp (121 kW)	162 net hp (121 kW)
Operating weight	27,406 lb (12,431 kg)	28.709 lo (13.022 kg)	27.604 lb (12.541 kg)
Max bucket capacity	3.0 od yd (2.3 ou m)	3.0 cu yd (2.3 cu m)	3.0 ou yd (2.3 ou m)
Operating load	10.130 lb (4622 kg)	8.553 lb (3879 kg.	8.309 lb (3769 kg)
Breakout force	26.577 lb (12.055 kg)	26.756 lb (12 137 kg)	27.375 lb (12 417 kg)
Engine	183 net hp (137 kW)	183 net pp (137 kV/)	183 net hp (137 kW)
Engine Operating weight	183 net hp (137 kW) 30,644 lb (13 900 kg)	183 net op (137 kV/) 31,827 lb (14 436 kg)	183 net hp (137 kW) 31,852 lp (14 448 kg)
	30,644 lb (13 900 kg)		
Operating weight	30,644 lb (13 900 kg)	31,827 lb (14,436 kg)	31.852 lo (14 448 kg)
Operating weight Max bucket capacity	30.844 lb (13 900 kg) 3.5 cu yd (2.7 cu m)	31,827 lb (14,436 kg) 3.3 cu yo 2.3 cu m	31.852 lo (14.448 kg) 3.25 ou yd (2.5 ou m)
Operating weight Max bucket capacity Operating load	30,644 lb (13,900 kg) 5,5 cu yd (2,7 cu m) 12,067 lb (5474 kg)	31.827 lb (14 436 kg) 3.0 cu ye (2.3 cu m 11.565 lb (5246 kg)	31.852 lo (14.448 kg) 3.25 ou yd (2.5 ou m) 9.836 lo (4461 kg)
Operating weight Max bucket capacity Operating load Breakout force	30,644 lb (13,900 kg) 5.5 cu yd (2.7 cu m) 12,067 lb (5474 kg) 32,958 lb (14,950 kg)	31.827 lb (14 436 kg) 3.0 cu ye (2.3 cu m 11.565 lb (5246 kg)	31.852 lo (14.448 kg) 3.25 ou yd (2.5 ou m) 9.836 lo (4461 kg)
Operating weight Max bucket capacity Operating load Breakout force	30,844 lb (13,900 kg) 3.5 cu yd (2.7 cu m) 12,067 lb (5474 kg) 32,958 lb (14,950 kg)	31.827 lb (14 436 kg) 3.0 cu ye (2.3 cu m 11.565 lb (5246 kg)	31,852 lo (14,448 kg) 3,25 ou yd (2,5 ou m) 9,836 lo (4461 kg) 32,778 lo (14,868 kg)
Operating weight Max bucket capacity Operating load Breakout force Engine Operating weight	30,644 lb (13,900 kg) 5.5 cu yd (2.7 cu m) 12,067 lb (5474 kg) 32,958 lb (14,950 kg) 213 net hb (159 kW)	31.827 lb (14 436 kg) 3.0 cu ye (2.3 cu m 11.565 lb (5246 kg)	31,852 lo (14,448 kg) 3,25 cu yd (2,5 cu m) 9,836 lo (4461 kg) 32,778 lb (14,868 kg) 213 net hp (159 kW)
Operating weight Max bucket capacity Operating load Breakout force Engine Operating weight	30.644 lb (13 900 kg) 3.5 cu yd (2.7 cu m) 12.067 lb (5474 kg) 32.958 lb (14 950 kg) / / 213 net hb (159 kW) 37.844 lb (17 166 kg)	31.827 lb (14 436 kg) 3.0 cu ye (2.3 cu m 11.565 lb (5246 kg)	31.852 lb (14 448 kg) 3.25 ou yd (2.5 cu m) 9.836 lb (4461 kg) 32.778 lb (14 868 kg) 213 net hp (159 kW) 39.045 lb (17 710 kg)

NOTE: All engines meet current EPA emission regulations.

NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

IMPORTANT. Case Construction Eduloment Inclineserves the right to unange these specifications without notice and without incurring any obligation relating to such change. Availability of some models and eduloment builds vary according to the country in which the eduloment is used. The illustrations and text may include optional eduloment and accessories and may not include all standard eduloment. Your Case dealer distributor will be able to give you details of the products and this proposition and the products and



Almays read the Operator's Manual before before using it, and be sure it is oberating croperly. Follow, the product safety signs and use any safety features promoed.

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521E/XT/XR ARTICULATED WHEEL LOADER

ENGINE

Model	Case Family IV, 445TA/EGE, Tier III certified
Туре	4-stroke, turbocharged and air to air cooled
Cylinders	4
Bore/Stroke	4.09 in x 5.20 in (104 X 132 mm)
Displacement	274 in³ (4.5 L)
Fuel injection	Electronic
Fuel	#2 Diesel
Fuel filter	Replaceable, full flow spin-on cartridge
Air filter	Dry type element warning restriction indicator
Mid-mount coolin	g module
External indeper	ndent mounted coolers
Fan	
Style	8 blade puller
Diameter	32 in (813 mm)
Water pump	
Style	Integral
Engine oil	,
Pump operating	
Side-to-side	Rated 35°
Fore and aft	Rated 35°
Oil filtration	Replaceable, full flow spin-on cartridge
Horsepower - Pea	ık
Max Power	·
Gross	146 (109 kW) @ 1900 rpm
Net	135 (101 kW) @ 1900 rpm
Standard Power Gross	100 (101 1444 @ 1000
Net	136 (101 kW) @ 1900 rpm 125 (94 kW) @ 1900 rpm
Economy Power	
Gross	110 (82 kW) @ 1700 rpm
Net	103 (77 kW) @ 1600 rpm
Torque - Peak	
Max Power	
Gross Net	422 (573 kW) @ 1600 rpm 402 (545 kW) @ 1500 rpm

NOTE: Gross horsepower and torque per SAE J1995. Net horsepower and torque per SAE J1349.

408 (554 kW) @ 1400 rpm

393 (533 kW) @ 1300 rpm

403 (547 kW) @ 1200 rpm

392 (531 kW) @ 1200 rpm

19%

Net Standard Power Gross

Net

Gross Net

Torque rise

Economy Power

DRIVETRAIN

4F/3R Proportional w/Electronic Control Module torque sensing autoshift/manual shift and modulation

Gears		Helical cut
Gear ratios	Forward	Reverse
1st	4.012	3.804
2nd	2.174	2.061
3rd	1.088	1.031
4th	0.619	NA
Torque converte	er	

Stall ratio	2.30:1
Differential	Limited slip
	w/45% transfer on front
)	and rear axles

Planetaries	Outboard
Final axle ratio	21.53
Planetary ratio	6.40
Differential ratio	3.36
Front and rear axle	

Service brakes

Hydraulically actuated, maintenance-free. multiple wet disc w/accumulator to all four wheels

Brake surface area 480 in² per hub (0.309 m²)

Parking brakes

Spring-applied hydraulic release disc on transmission output shaft

Travel speeds - mph (km/h) w/17.5x25 L3 Tires		
	Forward	Reverse
1st	3.8 (6.1)	4.0 (6.4)
2nd	6.9 (11.1)	7.3 (11.7)
3rd	13.4 (21.6)	14.1 (22.8)
4th	22.3 (35.9)	NA

NOTE: Travel speeds at full engine throttle.

ELECTRICAL

Voltage	24 Volts, negative ground
Alternator	70 amp
Batteries	(2) 12 Volt

HYDRAULICS

Pump (steering/implement)

Closed centered pressure/flow compensated

Variable displacement

4.33 in³/rev 35.4 gpm @ 2000 rpm @ 2750 psi (134 L/min @ 2000 rpm @ 18 961 kPa)

Loader control valve

Closed-center, sectional 2, 3 or 4-spool with pilot control for lift, tilt and auxiliary hydraulics, electromagnetic detents in float, raise and rollback

Loader auxiliary steering

Hydraulic orbital center-pivot articulating w/on-demand oil flow

High pressure standby 3625 psi (25 000 kPa)

Filtration

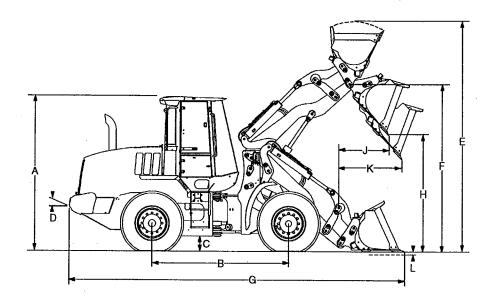
Stroke

10-micron, full flow replaceable cartridges on return line, condition indicator light for filter

WI INDEDC

CYLINDERS	
Lift cylinder	
Bore diameter	4.0 in (102 mm)
Rod diameter	2.25 in (57 mm)
Stroke	30.82 in (783 mm)
Dump cylinder (Z-Bar an	nd XR)
Bore diameter	4.5 in (114 mm)
Rod diameter	2.5 in (64 mm)
Stroke	20.84 in (529 mm)
Dump cylinders (XT)	
Bore diameter	3.75 in (95.2 mm)
Rod diameter	2.25 in (57 mm)

36.32 in (922.4 mm)



DIMENSIONS

Height to –	
A. Top of ROPS cab	129.0 in (3277 mm)
Drawbar	37.6 in (954 mm)
B. Wheelbase	108.3 in (2750 mm)
C. Ground clearance	14.9 in (377 mm)
D. Angle of departure	34°
Width -	
Overall* w/o bucket	94.1 in (2389 mm)
Centerline tread	74.8 in (1900 mm)
Turning radius* – outside	195.8 in (4972 mm)
Turning angle -	
From center	40°
Total angle	80°
Rear axle oscillation, total	24°

NOTE: *Dimensions taken with 17.5x25 XTLA TL tires. Additional dimensions on pages 3 & 4.

WEIGHT ADJUSTMENTS

Select Options	Weight Adjustment	Tipping Load Adjustment Straight	Tipping Load Adjustment 40° Turn
17.5x25 12 ply L2 tires	-408 lb (-185 kg)	-298 lb (-135 kg)	-263 lb (-120 kg)
17.5x25 12 ply L3 tires	-200 lb (-91 kg)	-146 lb (-66 kg)	-129 lb (-59 kg)
17.5-R25 XHA TL tires	+224 lb (+101 kg)	+163 lb (+74 kg)	+144 lb (+65 kg)
20.5 R25 XHA TL	+663 lb (+301 kg)	+482 lb (+219 kg)	+426 lb (+193 kg)
Base counterweight	-1,050 lb (-476 kg)	-2,370 lb (-1075 kg)	-1,995 lb (-905 kg)

NOTE: **Unit equipped with Z-Bar loader arms, 2.1 yd³ (1.61 m³) general purpose pin on bucket w/bolt-on edge, 17.5-R25 XTLA Michelin tires, ROPS cab with heater and A/C, full counterweight, standard batteries, front and rear fenders, full fuel and 175 lb (79 kg) operator. Adjust select options from rated weight.

PERFORMANCE DATA

		2.6 yd³ GP (1.99 r	n³)	2.3 yd³ GP (1.76 m³)
	521E Z-Bar*	Bucket w/Boit-on E		Bucket w/Bolt-on Edge
	AE bucket capacity - struck	2.21 yd³ (1.69 m		1.98 yd³ (1.51 m³)
	Heaped	2.6 yd³ (1.99		2.3 yd³ (1.76 m³)
	Bucket width - outside	100.4 in (2550 i		100.4 in (2550 mm)
	Bucket weight	1,619 lb (734		1,686 lb (765 kg)
E.	Operating height – fully raised w/spillguard	186.8 in (4746 i	mm)	184.4 in (4684 mm)
F.	Hinge pin height - fully raised	142.1 in (3608 i	mm)	142.1 in (3608 mm)
G.	Overall length – bucket level on ground	265.9 in (6755 i		263.2 in (6685 mm)
<u>~</u>		200:0 111 (0700)	 	55°
	Dump angle – fully raised		55°	
Н.	Dump height – fully raised, 45° dump	105.0 in (2667 i	mm)	106.6 in (2708 mm)
J.	Bucket reach - fully raised, 45° dump	41.6 in (1056	mm)	39.9 in (1013 mm)
K.	Bucket reach - 7 ft 0 in (2.13 m)	57.6 in (1463	mm)	56.9 in (1444 mm)
	height, 45° dump		•••••	,
	Operating load - ISO	7,969 lb (3615	ka)	8,006 lb (3631 kg)
	Maximum material density – ISO	3,065 lb/yd³ (1819 kg		3,481 lb/yd³ (2065 kg/m³)
		3,065 ID/yu- (1819 kg	/1117)	3,461 ID/yu" (2003 Kg/III")
	Tipping load - ISO			
	Straight	18,291 lb (8297	′kg)	18,381 lb (8337 kg)
	40° turn	15,939 lb (7230) ka)	16,011 lb (7262 kg)
	Lift capacity -	***************************************		
	Full height	10 000 lb /EE00	t tom)	10 070 lb (EE67 lcs)
	-	12,338 lb (5596		12,272 lb (5567 kg)
	Maximum reach	17,009 lb (7715		16,956 lb (7691 kg)
	Ground	21,121 lb (9580) kg)	22,328 lb (10 128 kg)
	Breakout force w/tilt cylinder	18,175 lb (8244	kg)	19,364 lb (8784 kg)
	Maximum rollback		——————————————————————————————————————	
	@ Ground		40°	40°
	@ Carry position		43°	43°
	@ Maximum reach		52°	52°
	@ Full height		54°	54°
L.	Dig depth	3.1 in (78	mm)	2.8 in (70 mm)
===	Maximum grading angle w/bucket	0.1 m (70 c	60°	60°
	back dragging		00	60
		1010: (1100		400 T : 440 004
	Loader clearance circle	434.3 in (11 032 i	mm)	432.7 in (10 991 mm)
	•			:
		2.1 yd GP (1.61 i	m³)	2.1 yd³ GP (1.61 m³)
	521E XT	ACS Bucket w/Ed		ACS Bucket w/Teeth and Segment**
E.	Operating height - fully raised w/spillguard	197.6 in (5020 i	mm)	197.6 in (5020 mm)
F.	Hinge pin height fully raised	147.4 in (3743	mm)	147.3 in (3742 mm)
G.	Overall length - bucket level on ground	261.9 in (6652		261.9 in (6652 mm)
<u> </u>	Dump angle – fully raised	201.3 11 (0032)		
		·	57°	57°
Н.	Dump height – fully raised, 45° dump	109.4 in (2780	mm)	109.4 in (2780 mm)
J.	Bucket reach fully raised, 45° dump	43.9 in (1116	mm)	43.9 in (1116 mm)
K.	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump	62.5 in (1587 i	mm)	62.5 in (1587 mm)
	Operating load - ISO	6,648 lb (3016		6,441 lb (2922 kg)
	Maximum material density – ISO	3,166 lb/yd³ (1879 kg		3,067 lb/yd³ (1820 kg/m³)
		3,100 lb/yd (10/9 kg	/1111)	3,007 lb/yu" (1620 kg/111)
	Tipping load - ISO			
	Straight	15,640 lb (7094	l kg)	15,223 lb (6905 kg)
	40° turn	13,297 lb (6031	ka)	12,882 lb (5843 kg)
	Lift capacity -			
	Full height	10,617 lb (4816	(ka)	10,216 lb (4634 kg)
	Maximum reach	14,436 lb (6548		14,054 lb (6375 kg)
	Ground	24,415 lb (11 074		24,067 lb (10 917 kg)
	Breakout force - dump cylinder	22,290 lb (10 111	kg)	25,194 lb (11 428 kg)
	Loader clearance circle	427.1 in (10 849		427.1 in (10 849 mm)
	,		•	
		2.6 yd GP (1.99 m)	2.3 yd³ GP (1.76 m³)	2.3 yd³ GP (1.76 m³)
	521E XR	Bucket w/Bolt-on Edge	Bucket w/Bolt-on Edge	Bucket w/Teeth & Segments
E.	Operating height fully raised w/spillguard	201.8 in (5125 mm)	199.3 in (5063 mm)	199.3 in (5063 mm)
F.	Hinge pin height – fully raised	157.0 in (3987 mm)	157.0 in (3987 mm)	157.0 in (3987 mm)
G.	Overall length – bucket level on ground	279.5 in (7100 mm)		282.6 in (7178 mm)
<u>~.</u>			276.8 in (7031 mm)	
	Dump angle fully raised	51°	51°	51°
H.	Dump height – fully raised, 45° dump	119.9 in (3046 mm)	121.7 in (3092 mm)	117.9 in (2994 mm)
				42.9 in (1089 mm)
J.	Bucket reach - fully raised, 45° dump	40.6 in (1032 mm)	38.9 in (988 mm)	42.9 (1009 11(1)
J. K.	Bucket reach - fully raised, 45° dump Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump		···	
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump	69.4 in (1763 mm)	68.6 in (1742 mm)	70.7 in (1795 mm)
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO	69.4 in (1763 mm) 6,747 lb (3060 kg)	68.6 in (1742 mm) 6,767 lb (3069 kg)	70.7 in (1795 mm) 6,696 lb (3037 kg)
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO Maximum material density - ISO	69.4 in (1763 mm)	68.6 in (1742 mm)	70.7 in (1795 mm)
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO	69.4 in (1763 mm) 6,747 lb (3060 kg)	68.6 in (1742 mm) 6,767 lb (3069 kg)	70.7 in (1795 mm) 6,696 lb (3037 kg)
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO Maximum material density - ISO	69.4 in (1763 mm) 6,747 lb (3060 kg)	68.6 in (1742 mm) 6,767 lb (3069 kg) 2,942 lb/yd³ (1746 kg/m³)	70.7 in (1795 mm) 6,696 lb (3037 kg)
-	Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump Operating load – ISO Maximum material density – ISO Tipping load – ISO Straight	69.4 in (1763 mm) 6,747 lb (3060 kg) 2,595 lb/yd³ (1540 kg/m³) 15,561 lb (7058 kg)	68.6 in (1742 mm) 6,767 lb (3069 kg) 2,942 lb/yd³ (1746 kg/m³) 15,615 lb (7083 kg)	70.7 in (1795 mm) 6,696 lb (3037 kg) 2,911 lb/yd³ (1727 kg/m³) 15,471 lb (7018 kg)
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO Maximum material density - ISO Tipping load - ISO Straight 40° turn	69.4 in (1763 mm) 6,747 lb (3060 kg) 2,595 lb/yd³ (1540 kg/m³)	68.6 in (1742 mm) 6,767 lb (3069 kg) 2,942 lb/yd³ (1746 kg/m³)	70.7 in (1795 mm) 6,696 lb (3037 kg) 2,911 lb/yd³ (1727 kg/m³)
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO Maximum material density - ISO Tipping load - ISO Straight 40° turn Lift capacity -	69.4 in (1763 mm) 6,747 ib (3060 kg) 2,595 ib/yd³ (1540 kg/m³) 15,561 ib (7058 kg) 13,493 ib (6120 kg)	68.6 in (1742 mm) 6,767 lb (3069 kg) 2,942 lb/yd² (1746 kg/m²) 15,615 lb (7083 kg) 13,534 lb (6139 kg)	70.7 in (1795 mm) 6,696 lb (3037 kg) 2,911 lb/yd³ (1727 kg/m³) 15,471 lb (7018 kg) 13,392 lb (6074 kg)
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO Maximum material density - ISO Tipping load - ISO Straight 40° turn Lift capacity - Full height	69.4 in (1763 mm) 6,747 ib (3060 kg) 2,595 ib/yd³ (1540 kg/m³) 15,561 ib (7058 kg) 13,493 ib (6120 kg) 11,512 ib (5222 kg)	68.6 in (1742 mm) 6,767 lb (3069 kg) 2,942 lb/yd³ (1746 kg/m³) 15,615 lb (7083 kg)	70.7 in (1795 mm) 6,696 lb (3037 kg) 2,911 lb/yd³ (1727 kg/m³) 15,471 lb (7018 kg)
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO Maximum material density - ISO Tipping load - ISO Straight 40° turn Lift capacity -	69.4 in (1763 mm) 6,747 ib (3060 kg) 2,595 ib/yd³ (1540 kg/m³) 15,561 ib (7058 kg) 13,493 ib (6120 kg)	68.6 in (1742 mm) 6,767 lb (3069 kg) 2,942 lb/yd² (1746 kg/m²) 15,615 lb (7083 kg) 13,534 lb (6139 kg)	70.7 in (1795 mm) 6,696 lb (3037 kg) 2,911 lb/yd³ (1727 kg/m³) 15,471 lb (7018 kg) 13,392 lb (6074 kg)
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO Maximum material density - ISO Tipping load - ISO Straight 40° turn Lift capacity - Full height	69.4 in (1763 mm) 6,747 ib (3060 kg) 2,595 ib/yd³ (1540 kg/m³) 15,561 ib (7058 kg) 13,493 ib (6120 kg) 11,512 ib (5222 kg) 15,104 ib (6851 kg)	68.6 in (1742 mm) 6,767 lb (3069 kg) 2,942 lb/yd² (1746 kg/m²) 15,615 lb (7083 kg) 13,534 lb (6139 kg) 11,443 lb (5190 kg) 15,050 lb (6827 kg)	70.7 in (1795 mm) 6,696 lb (3037 kg) 2,911 lb/yd³ (1727 kg/m³) 15,471 lb (7018 kg) 13,392 lb (6074 kg) 11,341 lb (5144 kg) 14,943 lb (6778 kg)
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO Maximum material density - ISO Tipping load - ISO Straight 40° turn Lift capacity - Full height Maximum reach Ground	69.4 in (1763 mm) 6,747 lb (3060 kg) 2,595 lb/yd² (1540 kg/m²) 15,561 lb (7058 kg) 13,493 lb (6120 kg) 11,512 lb (5222 kg) 15,104 lb (6851 kg) 19,067 lb (8649 kg)	68.6 in (1742 mm) 6,767 ib (3069 kg) 2,942 ib/yd² (1746 kg/m³) 15,615 ib (7083 kg) 13,534 ib (6139 kg) 11,443 ib (5190 kg) 15,050 ib (6827 kg) 19,101 ib (8664 kg)	70.7 in (1795 mm) 6,696 lb (3037 kg) 2,911 lb/yd³ (1727 kg/m³) 15,471 lb (7018 kg) 13,392 lb (6074 kg) 11,341 lb (5144 kg) 14,943 lb (6778 kg) 18,982 lb (8610 kg)
	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO Maximum material density - ISO Tipping load - ISO Straight 40° turn Lift capacity - Full height Maximum reach Ground Breakout force w/tilt cylinder	69.4 in (1763 mm) 6,747 lb (3060 kg) 2,595 lb/yd³ (1540 kg/m³) 15,561 lb (7058 kg) 13,493 lb (6120 kg) 11,512 lb (5222 kg) 15,104 lb (6851 kg) 19,067 lb (8649 kg) 23,463 lb (10 642 kg)	68.6 in (1742 mm) 6,767 ib (3069 kg) 2,942 ib/yd² (1746 kg/m³) 15,615 ib (7083 kg) 13,534 ib (6139 kg) 11,443 ib (5190 kg) 15,050 ib (6827 kg) 19,101 ib (8664 kg) 19,366 ib (8784 kg)	70.7 in (1795 mm) 6,696 lb (3037 kg) 2,911 lb/yd³ (1727 kg/m³) 15,471 lb (7018 kg) 13,392 lb (6074 kg) 11,341 lb (5144 kg) 14,943 lb (6778 kg) 18,982 lb (8610 kg) 19,257 lb (8735 kg)
-	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump Operating load - ISO Maximum material density - ISO Tipping load - ISO Straight 40° turn Lift capacity - Full height Maximum reach Ground	69.4 in (1763 mm) 6,747 lb (3060 kg) 2,595 lb/yd² (1540 kg/m²) 15,561 lb (7058 kg) 13,493 lb (6120 kg) 11,512 lb (5222 kg) 15,104 lb (6851 kg) 19,067 lb (8649 kg)	68.6 in (1742 mm) 6,767 ib (3069 kg) 2,942 ib/yd² (1746 kg/m³) 15,615 ib (7083 kg) 13,534 ib (6139 kg) 11,443 ib (5190 kg) 15,050 ib (6827 kg) 19,101 ib (8664 kg)	70.7 in (1795 mm) 6,696 lb (3037 kg) 2,911 lb/yd³ (1727 kg/m³) 15,471 lb (7018 kg) 13,392 lb (6074 kg) 11,341 lb (5144 kg) 14,943 lb (6778 kg) 18,982 lb (8610 kg)

PERFORMANCE DATA

	521E Z-Bar*	2.3 yd³ GP (1.76 m³) Bucket w/Teeth & Segments	2.1 yd³ GP (1.61 m³) Bucket w/Bolt-on Edge	2.1 yd³ GP (1.61 m³) Bucket w/Teeth & Segments
	SAE bucket capacity – struck Heaped2.3 yd³ (1.76 m³)	1.98 yd³ (1.51 m³) 2.1 yd³ (1.61 m³)	1.77 yd³ (1.35 m³) 2.1 yd³ (1.61 m³)	1.77 yd³ (1.35 m³)
	Bucket width - outside	101.1 in (2567 mm)	100.4 in (2550 mm)	101.1 in (2567 mm)
	Bucket weight	1,789 lb (811 kg)	1,599 lb (725 kg)	1,702 lb (772 kg)
E.	Operating height - fully raised w/spillguard	184.4 in (4684 mm)	181.7 in (4616 mm)	181.7 in (4616 mm)
F.	Hinge pin height - fully raised	142.0 in (3608 mm)	142.1 in (3608 mm)	142.0 in (3608 mm)
G.	Overall length – bucket level on ground	269.0 in (6834 mm)	260.2 in (6609 mm)	266.1 in (6759 mm)
	Dump angle - fully raised	55°	55°	55°
Н.	Dump height - fully raised, 45° dump	103.0 in (2615 mm)	108.8 in (2763 mm)	104.9 in (2665 mm)
J.	Bucket reach - fully raised, 45° dump	43.8 in (1114 mm)	37.9 in (963 mm)	
K.	Bucket reach - 7 ft 0 in (2.13 m) height, 45° dump	58.6 in (1490 mm)	55.9 in (1421 mm)	41.9 in (1064 mm) 57.8 in (1469 mm)
	Operating load - ISO	7,931 lb (3597 kg)	8,116 lb (3681 kg)	8,069 lb (3660 kg)
	Maximum material density - ISO	3,448 lb/yd³ (2046 kg/m³)	3,865 lb/yd³ (2293 kg/m³)	3,842 lb/yd³ (2280 kg/m³)
	Tipping load - ISO		3,000 100,000 (100,000)	0,042 10/yd (2200 Kg/III)
	Straight	18,229 lb (8268 kg)	18,620 lb (8446 kg)	18,532 lb (8406 kg)
	40° turn	15,861 lb (7194 kg)	16,232 lb (7363 kg)	16,138 lb (7320 kg)
	Lift capacity –		10,202 is (1,000 kg)	10,100 ID (7320 kg)
	Full height	12,169 lb (5520 kg)	12,360 lb (5607 kg)	12,257 lb (5560 kg)
	Maximum reach	16,849 lb (7643 kg)	17,056 lb (7737 kg)	16,954 lb (7690 kg)
	Ground	22,123 lb (10 035 kg)	23,872 lb (10 828 kg)	24,062 lb (10 914 kg)
	Breakout force w/tilt cylinder	19,259 lb (8736 kg)	20,926 lb (9492 kg)	20,822 lb (9445 kg)
	Maximum rollback -		20,020 ID (0492 Rg)	20,822 ID (9445 Kg)
	@ Ground	40°	40°	`. 40°
	@ Carry position	43°	43°	
	@ Maximum reach	52°	43 52°	43° 52°
	@ Full height 54°	54°	54°	54°
	Dig depth	3.2 in (80 mm)	2.5 in (64 mm)	2.9 in (75 mm)
	Maximum grading angle w/bucket - back dragging	61°	60°	2.9 in (75 mm)
	Loader clearance circle	436.8 in (11 095 mm)	431.0 in (10 949 mm)	435.0 in (11 050 mm)

NOTE:

*Z-Bar performance data shown w/full counterweight **XT lift arm with buckets for ACS Pro Series 2000® size 30 HD coupler.

Performance data unit equipped with 17.5X25 XTLA tires, ROPS cab w/heater and A/C, full counterweight, standard batteries, front and rear fenders, full fuel and 175 lb (79 kg) operator. Specifications per SAE J732, J1234, J695, J742 and J818.

521E XR		2.1 yd³ GP (1.61 m³) Bucket w/Bolt-on Edge	2.1 yd GP (1.61 m²) Bucket w/Teeth & Segments
E. Operating height – fully		196.6 in (4995 mm)	196.6 in (4995 mm)
 Hinge pin height – fully 		157.0 in (3987 mm)	157.0 in (3987 mm)
 Overall length – bucket 	level on ground	273.9 in (6956 mm)	297.7 in (7104 mm)
Dump angle – fully rais	ed	51°	51°
 Dump height – fully rais 		123.7 in (3142 mm)	119.8 in (3044 mm)
 Bucket reach – fully rai 		36.9 in (938 mm)	40.9 in (1039 mm)
Bucket reach – 7 ft 0 in	(2.13 m) height, 45° dump	67.5 in (1715 mm)	69.7 in (1770 mm)
Operating load - ISO		6,862 lb (3112 kg)	6,811 lb (3090 kg)
Maximum material den	sity – ISO	3,267 lb/yd³ (1939 kg/m³)	3,244 lb/yd³ (1925 kg/m³)
Tipping load ISO			
Straight		15,819 lb (7175 kg)	15,723 lb (7132 kg)
40° turn		13,723 lb (6225 kg)	13,623 lb (6179 kg)
Lift capacity		(: - - - - - - - - - -
Full height		11,527 lb (5228 kg)	11,424 lb (5182 kg)
Maximum reach		15,149 lb (6872 kg)	15,047 lb (6825 kg)
Ground		19,249 lb (8751 kg)	19,198 lb (8708 kg)
Breakout force w/tilt cy	inder	20,932 lb (9494 kg)	20,823 lb (9445 kg)
Loader clearance circle		443.6 in (11 267 mm)	448.0 in (11 378 mm)

STANDARD EQUIPMENT

OPERATOR'S ENVIRONMENT

See page 5

ENGINE

Case Family IV 445TA/EGE

Tier III certified

Selectable work modes

Max power

Auto power

Standard power

Economy power

Turbocharger

Charge air cooling

Automatic fan belt tensioner

Integral engine oil cooling

Fuel filter w/water trap

Dual element air cleaner

70 amp alternator

(2) 700 CCA 12-volt batteries

Liquid-cooled radiator

Non spark-arresting muffler

Mid-mounted cooling module

Common rail electronic fuel injection

LOADER

See page 5

DRIVETRAIN

4-wheel drive

4F/3R Selectable autoshift/manual shift

transmission

Electronic Control Module – Programmable, computer controlled proportional shifting with programmable gear selection

Onboard diagnostics

Single lever electronic shift control

F/N/R switch in loader control handle

Downshift button

Torque converter

Outboard planetary axles

Limited-slip differentials

Transmission oil cooler

Brake pedal transmission disconnect

Hydraulic wet disc brakes

Spring-applied hydraulic release parking brake

Limp-Home Mode

Lubed-for-life drive shaft

HYDRAULICS

Single lever 2-spool loader control valve

Low-effort steering

Hydraulic driven fan

(8) Diagnostic quick couplers

OTHER

Front and rear fenders

Lights -

- (2) Front driving headlights (high/low beam)
- (2) Front flood
- (2) LED stop and tail lights
- (2) Rear flood

Front and rear turn signal/flash

Standard counterweight

Drawbar hitch

Articulation locking bar

Lift arm locking bar

Lift and tie-down points - front/rear

Backup alarm

Remote drain points

OPTIONAL EQUIPMENT

OPERATOR'S COMPARTMENT

Cloth-covered air-suspension seat

Sound Shield noise suppression package

Cab air-conditioning w/heater

Radio

Radio-ready (12 or 24-volt)

Auxiliary power (12-volt)

Cab convenience package

RH steps and platform

Rotating beacon

Second brake pedal

ENGINE

Cold weather package

Heavy-duty batteries

Fuel heater

Hydraulic oil cooler bypass

Low temperature hydraulic oil

Grid heater

LOADER

Hydraulic attachment coupler

Attachment auxiliary hydraulics

Buckets (see page 3 & 4)

Loader coupler systems

XT parallel lift

XR extended reach

HYDRAULICS

Auxiliary hydraulics

Ride Control

Secondary steering

3 or 4-spool loader valves with 2 or 3-lever

loader control

Hydraulic reversing fan

Hydraulic cooler

TIRES

17.5 X 25 radial

20.5 R25 radial

20.5 R25 bias

OTHER

Special paint

Full coverage fenders

Belly pan

Tool box

Full counterweight - Z-Bar

Temperature controlled fan

NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

NOTE: All engines meet current EPA emissions requirements.

IMPORTANT: Case Construction Equipment Inc. reserves the right to change these specifications without notice and without incurring any obligation relating to such change. Case Construction Equipment Inc. does not warrant the safety or reliability of attachments from other manufacturers.

Case is a registered trademark of CNH America LLC. Any trademarks referred to herein, in association with goods and/or services of companies other than CNH America LLC, are the property of those respective companies.



www.casece.com

Performance Advantages

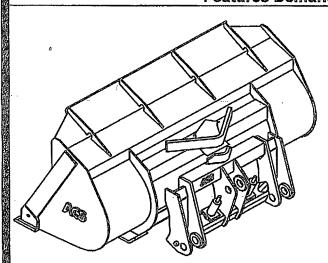
Pro Series 2000® Loader Coupler System

Patent #4,963,071

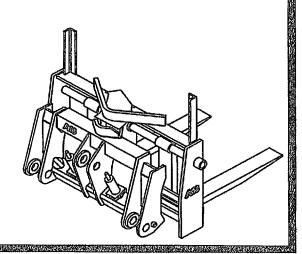
- Highly durable and productive -designed specifically for wheel loaders
- Offers the lowest CG extension in the marketplace – less than 2" for an average 2.5-yard loader.
- First industry-standard coupler system interchanges attachments among "samesize" wheel loaders of different manufacturers
- Ideally suited to both 3-arm Z-Bar and 4arm wheel loaders

The Industry Leader

Features Demanded by Professionals



- Self-aligning, single-point hook-up for positive coupling and release the first time, every time, on any terrain, at any angle of loader approach. Reducing attachment changeover time keeps the loader where it belongs working on the job.
- Picture frame design open coupler design allows operator to see through the coupler and attachment frame. Increases operator accuracy and efficiency.
- Solid faceplate contact between male and female over 300 square inches of solid contact distributes the working forces equally and prolongs the coupler's life
- Profile Shape fits the contour of the bucket. Keeping the load close to the loader increases capacity, productivity, and profit.
- Visible locking device sight rods on cylinders let operator know when locking pins are extended.
- **Easy Operation** locking pins are actuated by an electrical switch in the cab.
- Easy Installation convert new or existing vehicles using OEM bucket pins and existing loader hydraulics. Convert existing attachments by adding mating coupler blank.





Pro Series 2000® Loader Coupler System

Patent #4,963,071

Performance Advantages Product Highlights

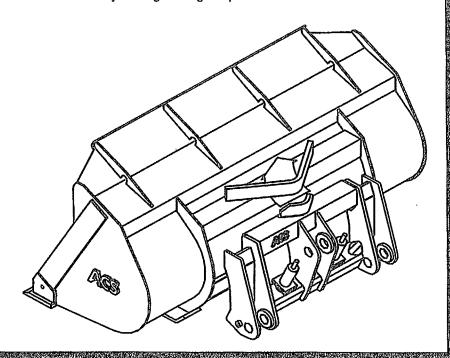
- Highly durable and productive -- designed specifically for wheel loaders
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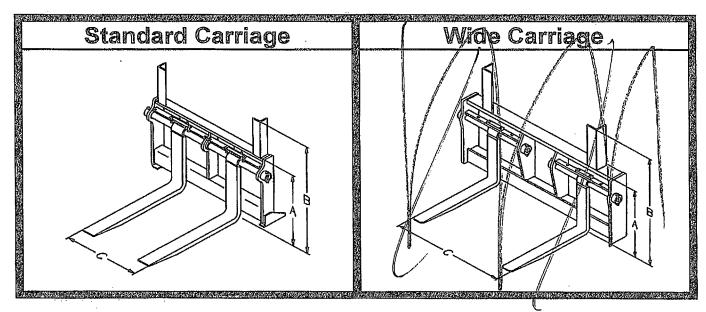


Quality that Works® Call ACS at 1-800-321-2348

Product Specifications

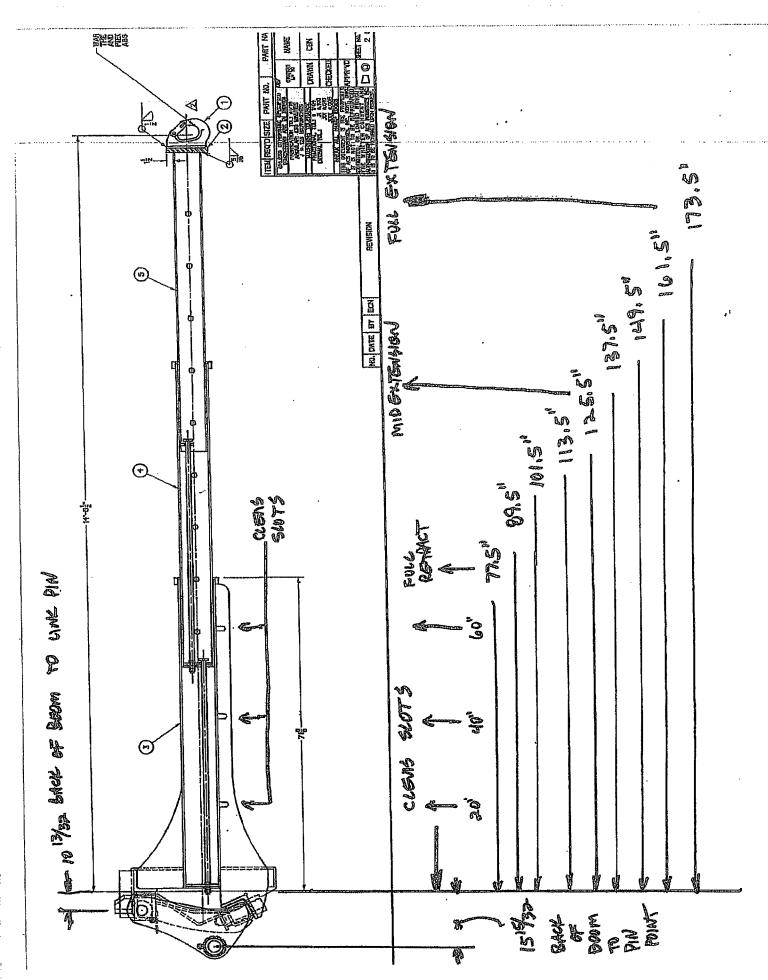
ACS[®] Material Handling Forks

- > Rugged Construction
- > Heat Treated, Forged, Adjustable Tines
- > Pin-On or Coupler-Equipped



Size		Sprea	Fork d "C"	Miπ. Sprea	Fork d "C"	₩ei	ght	Carr Heigh			rall it "B"	Max Fork	Standard (Optional)
Clas	S	Std.)	Wide	Std.	Wide	Std.)	Wide	Std.	Wide	Std.	Wide	Load*	Tine Size
10		46"	60"	9"	9″	580#	675#	-297 ""	29 + "	421/4"	421/4"	4,300#	1½x4x48
_20	a.,	-52"-	86/	1211-	-34 "	950#	1,710#	35½"	36¾"	50½	-581/4*-	 8,000#	2x5x48 (2x5x60) (2x5x72)
30		58"	92"	14"	34"	1,180#	2,360#	35¾"	40億"	50¾"	61∰"	10,000#	2x6x48 2x6x60 2x6x72
_50		<u>58"</u>	02"	44 ^{!!}	-34"-	-1;41 0 #-	-2,660#-	_3534"_	-40 © "-	-501/4"	~61 <u>~</u> 5"	12-000#	2½x6x48 (2½x6x60) (2½x6x72)
-60	-	-63"	199n	***16****	34"	2,150#	3,310#*	443/4"=	477/2"	-5 8½-	72"	18,000#_	3x7x54 (3x 7x66)
70 80	/	66 ²¹	***102"**	क्षामस् । ब्युः !! आस्त	**************************************	2,590#	"4,060#"	46%	48"	-663/4"	68"	22,000#	3½x7x54 (3½x7x66)
<u>_90</u>	<u>, , , , , , , , , , , , , , , , , , , </u>	84*	~~N/A~	28"	- N/A	*4;433 # *	=x:N\V:0=	-5 4½ -	<u>A\(A</u>	80"	N/A	25,000#	3%x8x72

*Rating of tine capacity per pair at 24" Load Center. Other tine sizes available upon request.





Forks make your Wheel Loader a versatile material handler.

ACS® Material Handling Forks

- > Available Pin-On or Coupler-Equipped
- > Rugged Construction
- > Heat Treated and Forged Tines
- > Manually Adjustable Tine Width

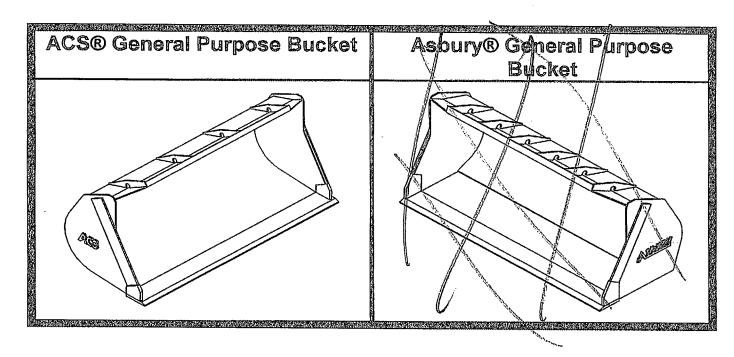
ACS Standard Construction Duty Fork **Excellent for Handling Pallets and Construction Materials** on the job-site. Open Frame Design to maximize Operator Visibility. Available with Anti-Swing Option to keep the fork tines from swinging forward. Many Standard Length Tines available as well as custom Lengths. Tines adjust manually to allow flexibility in load size. ACS Wide Carriage Log and Pipe Fork Excellent for Handling Long items on the job-site such as Pipe, Logs and Lumber. Open Frame Design to maximize Operator Visibility. Available with Anti-Swing Option to keep the fork tines from swinging forward. Many Standard Length Tines available as well as custom Lengths. Tines adjust manually to allow flexibility in load size

Quality That Works® / Call ACS at 1-800-321-2348

Product Specifications

General Purpose Buckets

- > For handling materials from 2500# to 3000# per cubic yard
- > Constructed of high-strength steel
- Available with optional lift hook
- > Available drilled to accept OEM wear parts
- > Available Pin-On or Coupler-Equipped



	ESTIMATED WEIGHT					
CAPACITY	WHEELI	CRAWLER S				
	ACS®	Asbury®	Asbury®			
1.00 Cu.Yd.	1100#	1175#	1200#			
1.25 Cu.Yd.	1250#	1350#	14\$0#			
1.50 Cu.Yd.	1500#	1600#	1700#			
1.75 Cu.Yd.	1750#	1800#	1950#			
2.00 Cu.Yd.	2000#	2150#	22\$0#			
2.25 Cu.Yd.	2100#	2200#	2300#			
2.50 Cu.Yd.	2200#	2350#	2500#			
2.75 Cu.Yd.	2325#	2485#	2650#			
3.00 Cu.Yd.	2450#	2625#	2800#			
3.25 Cu.Yd.	2700#	2850#	3000#			
3.50 Cu.Yd.	3050#	3175#	3300#			

4	ESTIMATED WEIGHT						
CAPACITY	WHEEL	LOADERS	CRAWLER				
OAI AOII I			ه سر				
	ACS®	∕ Asbùry®	Asbury®				
3.75 Cu.Yd.	3,175#	3385#	//3600#				
4.00°Cu.Yd.	33,00#	3600# 🗽	/ 3900#				
4.50 Cu,Yd.	360Q#	4200# 🧷					
5.00 Cu.\d/	4050#	4500#	\ -/				
5.50 Cu.Yd,	4450#	4850#	\ /				
6.00 Cu/Yd.	4750#	5100#					
6.50 ©u.Yd. `	5300#	<i>⁵</i> 5600#	/ \-				
7.00 Cu.Yd.	\\$5800#	6200#	1				
7,∕50 Cu.Yd.	6300#	67°QQ#	/ _\				
8.00 Cu.Yd.	6800#	7300# //	#				
9.00 Cu.Yd.	7900#	8200#					



STATE EQUIPMENT, INC.

PO BOX 3939 CHARLESTON WV 25339 PHONE: 304-776-4405 FAX: 304-776-4409 INFO@STATEEQUIPMENT.COM WWW'.STATEEQUIPMENT.COM

Division of Highways
Equipment Division
Route 33
Brush Fork Road
Buckhannon, WV 26201

State Equipment, Inc. will conduct an Operators orientation and Machine main enance seminar at the convenience of the West Virginia Division of Highways, Equipment Division, Buckhannon, WV.

Factory Representatives as well as personnel from State Equipment, Inc. will be conducting the seminar. Topics to be covered but not limited to are: Machine C peration, Daily and Scheduled Maintenance intervals and safety issues.

State Equipment, Inc. will work with the Division of Highways to put together 1 program that meets or exceeds the DOH requirements.

Sincerely.

Eddie Rowan, Jr. General Manager



WARRANTY AND LIMITATION OF LIABILITY AGREEMENT CONSTRUCTION EQUIPMENT

CNH America LLC and CNH Canada, Ltd.

The Case Warranty

The Case Warranty is a limited warranty that is provided to the initial retail purchaser in return for consideration paid as part of the purchase price of the product. The selling dealer must review the warranty coverage with the initial retail purchaser and obtain signature on the reverse side of this document.

New Limited Warranty

The warranty described here is from CNH America LLC and in Canada, CNH Canada Ltd., both of which are referred to in this brochure as "Case". This warranty is for Case products sold and registered in the United States or Canada and normally operated in the United States or Canada. This warranty does NOT apply to any product normally operated outside of the United States and/or Canada, or to any unit purchased outside of the US or Canada and imported in for any reason other than a customer relocation/personal move.

Warranty Period

For the products listed below, the Warranty Period for all coverage begins at the time that any person, dealer or agent first places the unit into service. At the latest, a unit is considered to be placed into service when purchased or delivered to a initial retail purchaser. Certain demonstrator, rental, lease, and other used units may be eligible for a portion of a new unit warranty. The availability of the remaining portion of a new unit warranty does not mean that a unit is new or unused. The Warranty Period ends when either the month or machine hour limit is reached, whichever limit occurs first.

PRODUCT	WARRANTY COVERAGE
SKID STEER / COMPACT TRACK LOADERS	12 Months / Unlimited Hours
Case Engines	24 Months / 2000 Hours
CRAWLER DOZERS	12 Months / Unlimited Hours
Case Engines	24 Months / 2000 Hours
Cummins Engine (1650K / 1850K) ¹	24 Months / 2000 Hours
LOADER BACKHOES - L and M SERIES	12 Months / Unlimited Hours
Case Engines, Torque Converter, Transmission, Drive Shafts, & Drive Axles	24 Months / 2000 Hours
Backhoe Main Boom, Standard Dipper Arm, Inner Dipper of the Extendahoe, and Swing Tower Castings	60 Months / Unlimited Hours
LOADER BACKHOES – N SERIES	12 Months / Unlimited Hours
Case Engines, Torque Converter, Transmission, Drive Shafts, & Drive Axles	24 Months / 2000 Hours
TRACTOR LOADERS / FORKLIFTS	12 Months / Unlimited Hours
Case Engines, Torque Converter, Transmission, Drive Shafts, & Drive Axles	24 Months / 2000 Hours
WHEEL LOADERS	12 Months / Unlimited Hours
Case Engines	24 Months / 2000 Hours
Cummins Engine In 921 and 1221 Wheel Loader ¹	24 Months / 2000 Hours
COMPACT WHEEL LOADERS	12 Months / Unlimited Hours
Deutz Engines ¹	24 Months / 2000 Hours
ARTICULATED TRUCKS	12 Months / Unlimited Hours
Case Engine	24 Months / 2000 Hours
Cummins Engine ¹	24 Months / 2000 Hours
COMPACTION EQUIPMENT - SINGLE OR DOUBLE DRUM	12 Months / Unlimited Hours
Cummins or Deutz Engines ¹	24 Months / 2000 Hours
MOTOR GRADERS	12 Months / Unlimited Hours
Cummins Engine ¹	24 Months / 2000 Hours
EXCAVATORS ³	12 Months / 1800 Hours
Case or Isuzu Engine	24 Months / 2000 Hours
COMPACT EXCAVATORS	12 Months / 1000 Hours
Yanmar Engines	12 Months / 1000 Hours
TELESCOPIC HANDLERS	12 Months / Unlimited Hours
Case Engines, Torque Converter, Transmission, Drive Shafts, and Drive Axles	24 Months / 2000 Hours
SEVERE APPLICATIONS	6 Months / 1000 Hours

- 1) Coverage and terms provided by Cummins or Deutz dealer.
- 2) Warranty does not cover any configuration excavator equipped with feller buncher/accumulator attachments

Definition of Severe Application:

- 1) Severe duty applications include equipment used in Forestry, Demolition, Scrap & Waste Recycling, Mining and Landfills.
- 2) Misrepresenting the application in which the product will be used on the Warranty Registration, will void Base Warranty.

Operator's Manual / Warranty Receipt Verification

The correct operator's manual has been reviewed with me by the selling dealer and will be given to me upon delivery of the product. YES \square / NO \square

The correct operator's manual has been given to me. YES □ / NO □

The selling dealer explained safety precautions to me. YES \(\sigma\) / NO \(\sigma\)

The selling dealer explained the warranty terms and coverage to me. YES \square / NO \square

The answers checked above are correct. I acknowledge that I have read and I accept this warranty policy statement.

What's Covered

If a defect in material or workmanship is found in a unit and reported during the Warranty Period, Case will pay parts and labor costs to repair the defect if the services are performed by an authorized Case dealer at the dealer's location. If parts are needed during the repair, Case will, at its option, use genuine Case new or remanufactured parts. Case replacement parts that are used in a warranty repair are warranted until the end of the machine warranty or to the end of the Case Replacement Parts Warranty, whichever is longer.

CASE PROVIDES NO WARRANTY, EXPRESS OR IMPLIED, FOR A COMPONENT OR OTHER ITEM THAT IS SEPARATELY WARRANTED TO THE PURCHASER BY ITS MANUFACTURER, SUCH AS TIRES, BATTERIES AND FUEL INJECTION COMPONENTS. CHECK WITH YOUR DEALER FOR DETAILS.

No Modification or Extension of Warranty

The Case Warranty is limited to the written terms in this document. Case does not authorize any person, dealer or agent to change or extend the terms of this warranty in any manner. Any assistance to the purchaser in the repair or operation of any Case product outside the terms or limitations or exclusions of this warranty will not constitute a waiver of the terms, limitations or exclusions of this warranty, nor will such assistance extend or re-establish the warranty.

EXCLUSIVE REMEDY

THE REMEDY OF REPAIRING A DEFECT IN MATERIALS OR WORKMANSHIP AT A CASE DEALERSHIP UNDER THE TERMS OF THIS WARRANTY IS THE PURCHASER'S EXCLUSIVE REMEDY AND IS IN LIEU OF ANY OTHER REMEDY OTHERWISE AVAILABLE.

This Warranty Is Void If

The unit's hour meter is changed or altered, unless a Case dealer, at the direction of Case, changed the meter. If the unit is used in an application for which it is not designed or the unit has been scrapped, salvaged, stolen, junked or totaled.

Limitations and Exclusions

The Case Warranty gives you specific legal rights and you may also have other rights, which vary, from state to state.

THIS DOCUMENT CONTAINS THE ENTIRE CASE WARRANTY. CASE MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, AND SPECIFICALLY EXCLUDES THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE.* CASE WILL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM A BREACH OF THE WRITTEN WARRANTY OR ANY IMPLIED WARRANTY IMPOSED BY LAW.*

* These limitations and exclusions may not be allowed by some states or provinces, and they shall not apply to the extent such limitations or exclusions are not allowed by applicable state/provincial law.

Owner's Responsibility

The Case Warranty remains in effect during the Warranty Period if the owner performs the required maintenance at the recommended intervals outlined in the product's operator's manual and the unit is operated within its rated capacity. Genuine Case service parts or Case approved service parts that meet Case specifications must be used for maintenance and repairs.

What's Not Covered

- Cost associated with performing pre-delivery or scheduled inspection service.
- Repairs arising from storage deterioration, failure to maintain the equipment, negligence, alteration, improper use of the equipment, collision or other accident, vandalism, or other casualty, or operation beyond rated capacity or specification.
- Repairs arising from abuse or neglect, including but not limited to: operation without adequate coolant or lubricants, adjustments to
 the fuel system outside equipment specifications, over-speeding, improper storage, starting, warm-up, or shutdown practices,
 incorrect fuel or contaminated fuel, oil or other fluids.
- · Normal maintenance services, such as engine tune-ups, engine fuel system cleaning, checks, adjustments, shimming, etc.
- Replacement of non-defective wear items expected to be replaced during the warranty period, including but not limited to: light bulbs, spark plugs, ignition points, brake or clutch linings, slip clutches, belts, chains, knives, bucket cutting edges and teeth, crawler track pads and track components, crop processing and cutting components, external drive sprockets and chains, soil engaging tools and accessories.
- Items replaced due to customer demand.
- Labor charges performed by anyone except a dealer authorized by contract to repair the equipment, unless they qualify under special provisions (i.e. outside labor).
- Any and all travel costs for items such as towing, service calls, or transporting a unit to and from the place where the warranty service is performed, unless specifically covered by a campaign or program.
- Claims involving loss or damage during shipment or handling, including units subsequently sold as a "salvage" unit.
- "Salvage" or other units sold on an "as is" basis, unless otherwise specified in writing at the time of sale.
- Normal maintenance costs, including but not limited to: lubricants, coolants, fluids, fuel, filters, and associated labor. Lubricants, filters, and coolants may qualify for warranty reimbursement if they require replacement as a DIRECT RESULT of a defect in material or workmanship.
- · Claims involving the inspection or reconditioning of units after storage or prior use.
- Components or items that are separately warranted directly by the manufacturer including but are not limited to: tires, tracks, engines, transmissions, batteries, fuel injection pumps, fuel injectors, etc.
- Shop comebacks: any duplicate, repeat, or comeback repair resulting from improper diagnosis, testing, or service work. This also
 includes repairs arising from service performed by agents not approved by Case.
- Repairs arising from any unauthorized modification to the product or the use of non-Case parts, implements or attachments.

Master Parts Schedule- New Construction Equipment (see exclusions in PPP Policy Document)

Downtrain Only		Percentroin Dive	Duo maila m
Powertrain Only	Powertrain Plus	Powertrain Plus	Premier
	Electronics	Hydraulics	
		,	
The Powertrain Only coverage	Powertrain Plus Electronics	Powertrain Plus Hydraulics	Premier includes the Powertrain
provides for the following	includes Powertrain Only	includes the Powertrain Only	Only,
engine and driveline	Components along with the	components along with the	Powertrain Plus Electronics, and
Components. Any Component not listed below is not covered	following Major Components systems:	following Major Component systems:	Powertrain Plus Hydraulics, along with the following Major Component
under the Powertrain Only	ayatama.	ayatems.	systems:
Coverage.	Drive Train Electronic Controls	Hydraulics	by diamo.
	Traction Control System	Main Hydraulic Pump	Fuel system
<u>Engine</u>	Electronic Control Module	Steering pump	Fuel Transfer/ lift pumps,
All internal, lubricated parts that	Wheel Speed Sensor	Main control valves	Injection pumps and lines that do not
are captured between the valve	Brake Proportional Solenoid	Hydraulic lift cylinders	fall into the Emissions Warranty
cover and oil pan, cylinder block	Valve	Hydraulic lift/dump cylinders	guidelines.
and head, front cover and	On / Off Pilot Solenoid Valve	Hydraulic steering cylinders	
flywheel housing, turbocharger	Articulation Angle Position	Hydraulic boom cylinders	<u>Electrical</u>
and water pump.	Sensor_	Hydraulic stick cylinders	Wiring harnesses
Drive Line	Brake Pressure Reducing	Hydraulic bucket cylinders	Sensors
<u>Drive Line</u> Drive (flex) plates/flywheel	Valve	Hanna makadina artamat	Instruments
Drive (nex) plates/liywheel	Drive Train Electronic Control	Hoses, excluding external	Gauges Indicators
Drive axie assembly Drive couplings	Module Brake Position Sensor	packing, seals, o-rings and bonded washers, quick	Circuit Breakers
Drive shafts	Brake Position Sensor	connects.	Relays
Final drive/planetary	Implement Electronic Controls	Connects.	Switches
Hydraulic Drive Motor (on	Implement Electronic Control	O-ring failures in hoses,	Motors
Hydrostatically Driven units	Module	not related to loose	Joysticks
only, including Excavators)	Frame Level Control	fittings or worn out	,
Hydraulic Drive Pump(on	Linkage Position Sensor	seals, are covered.	Hydraulics
Hydrostatically driven units	Control Lever Position Sensor	,	Steering Hydraulic Components
Only, including Excavators)			
Hydraulic Pump (when used as	Exclusions:	į	Chassis/ Frame/Cab
a Swing Reducer) Transmission	Wiring Harnesses,		Weldment failures
Torque converter	Instruments		A/C system (excludes Dryer
Track Steering Brakes	Gauges		Failures)
Transfer Gear Group Transmission Charge Pump	Resistors		Exhaust system: includes manifolds
Transmission/Transmission	Indicators		and muffler Internal door latch mechanisms/
Control Valve	Light Bulbs		I .
Turntable Bearing/ Swing Gear/	Circuit Breakers Fuses		Weldment failures Cooling System:
Hydraulic Swivel	Switches		Radiator and cooler failures not
Electronic Engine Controls	Motors		related to corrosion, decay, or
Injection Pumps	Electric Joysticks		deterioration
Wet Brakes/Wet clutch	Batteries		
MFWD Assemblies			Exclusions: Comfort Items listed in
Sealed Universal Joints			policy document
CV Joints			' '
Compaction Equipment			
Propulsion System Hydraulic			
Components	*		
Torque Hubs		·	
Pump Drive			
Splitter Box			
Reduction Unit			
Vibration System Hydraulic			
Components			
Eccentric Mechanism &			1
Bearings			
437 / 77 * *	one and Davis Wayyants		

*Note: Emissions and Parts Warranty related failures should be filed back to the manufacturer, and NOT through PPP; in accordance with the manufacturer's operating guidelines and conditions

**Note: Field Campaigns/factory directed repairs should NOT be filed through the PPP. Please direct to the Manufacturer.

STATE EQUIPMENT, INC.

PO BOX 3939 CHARLESTON WV 25339 PHONE: 304-776-4405 FAX: 304-776-4409 INFO@STATEEQUIPMENT.COM WWW.STATEEQUIPMENT.COM

Division of Highways Equipment Division Route 33 Brush Fork Road Buckhannon, WV 26201

State Equipment, Inc. will conduct an Operators orientation and Machine maintenance seminar at the convenience of the West Virginia Division of Highways, Equipment Division, Buckhannon, WV.

Factory Representatives as well as personnel from State Equipment, Inc. will be conducting the seminar. Topics to be covered but not limited to are: Machine Operation, Daily and Scheduled Maintenance intervals and safety issues.

State Equipment, Inc. will work with the Division of Highways to put together a program that meets or exceeds the DOH requirements.

Sincerely.

Eddie Rowan, Jr. General Manager

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MASTER PARTS SCHEDULE - NEW CONSTRUCTION EQUIPMENT

This plan excludes protection for any failure to any component caused by or resulting from the failure of a component not listed on the "Master Parts Schedule" including any resulting damage to a "covered component".

See the Terms and Conditions document for complete plan details

POWERTRAIN COMPONENTS COVERED

ENGINE and all internal lubricated components within TRANSMISSIONS/AXLES/HYDROSTATICS

Accessory Gears Axle Housing Camshaft Axle Shaft

Camshaft Bearings Clutch Discs (Wet Only)
Camshaft Drive Gear Clutch Plates (Wet Only)
Connecting Rods & Bearings Counter Shaft Clutch
Crankshaft Bearings & Gear Differential Housing

Crankshaft Including Front And Rear Crankshaft Seals Differential Pinion Gear / Ring Gear

Cylinder Heads/ Head Gaskets Drive Axle Hub

Cylinder Liners Drive Shaft with Universal Joints
Engine Block Drive Shaft Support Bearing

Engine Oil Cooler Electronic Transmission Controller and Valve
Engine Speed Controls, Linkages, and Cables Enclosed Oil Immersed Chains and Sprockets

Flywheel, Ring Gear Final Drive Pinion

Front And Rear Engine Covers And Seals
Final Drive Planetary Gears
Front Damper
Front Wheel Drive Sensors
Oil Pan And Gasket
Hydraulic Drive / Travel Motor

Oil Pump Hydraulic Drive Pump

Pistons & Rings Hydraulic Transmission-Control Valve
Pressure/Temperature Sensors & Sending Units Hydrostatic/Hydraulic Pump Drives

Rocker Arm Assembly Hydrostatic Motor

Thermostats Hydrostatic Transmission Charge Pump
Timing Gears Hydrostatic Transmission Pump
Valve Cover And Gasket Internal Lubricated Clutch Housings
Water Pumps Internal Transmission Control Linkage

Engine Components Covered after Emission Warranty Internal Wet Service Brakes

Charge Air Cooler MFWD Axle/Differential Assembly including Driveshaft and U Joint

Photos Control Market

Electronic Engine Control Module Planetary Gear Carrier

EGR System Manifold IPTO Clutch Housing (Scraper Tractors Only)

Injection Pump Rotary Hydraulic Manifold Injectors Splitter Drive/Drop Box

Intake and Exhaust Manifold And Gaskets Swing Motor And Swing Gear Box

Turbocharger And Gasket Turntable Bearing

Torque Converter

COMPACTION/PAVING EQUIPMENT Torque Converter Pump

Eccentric Mechanism & Bearings Transfer Drive

Drum Seals Transmission Case

Propulsion System Hydraulic Components Transmission Gears, Bearings, & Shafts

Pump Drive Transmission Pump
Reduction Unit Travel Control Valve

Splitter Box Travel & Swing Sections (only) Of Main Control Valve

Torque Hubs Wet Steering Clutches

Vibration System Hydraulic Components

POWERTRAIN EXCLUSIONS

Engine/Transmission Mounts, Hoses And Fittings, Filters, Belts, Pulleys, Lubricants, Antifreeze, Burnt And/Or Pitted Valves, Radiator, Wiring Harnesses, Breathers, Adjustments, Dry Clutches, Batteries, Electrical Components Not Listed Above, Pipes, And Gauges*

Revised 2.1.2011

MASTER PARTS SCHEDULE - NEW CONSTRUCTION EQUIPMENT

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See the Terms and Conditions document for complete plan details

POWERTRAIN PLUS HYDRAULIC COMPONENTS COVERED

All components listed in Powertrain, plus:

Accumulator And Related Relief Valve

Brake Accumulator Brake Pressure Sensor

Brake Pump, Brake Valve Differential Lock Valve

Fan Pumps And Motors Hydraulic Cylinders

Hydraulic Hoses and Piping

Hydraulic Motors

Hydraulic Oil Coolers Hydraulic Pumps

Hydraulic Reservoir Hydraulic Valves

Pilot Control
Pressure Reducing Valves

Unloading Valves

POWERTRAIN PLUS HYDRAULIC EXCLUSIONS

All Powertrain Exclusions, (except Hydraulic Hoses and Fittings), plus Air and Water Hoses (Including Fittings), External Hydraulic Seals,

External O-Rings And Bonded Washers, Hydraulic Quick Couplers, Oil, Filters, Breathers, Hose Chafing, and Adjustments*

PREMIER-GOMPONENTS GOVERED

All components listed in Powertrain and Powertrain + Hydraulics, plus:

ENGINEEngine Mounts And Supports

Filter Mount Fuel Lines

Fuel Tank

Fuel Transfer Pump & Gasket

Oil Filler Tube
Oil Lines

Pulleys Radiator

Water Piping

Fan And Fan Drive

Engine Components Covered after Emission Warranty

Catalytic Converter
Diesel Particulate Filter

Selective Catalytic Reduction System

Diesel Exhaust Fluid Tank and Dispensing System Cold Start Enrichment Systems

Sensors, Solenoids & Wiring Harnesses used in these systems

FACTORY INSTALLED HEAT AND AIR CONDITIONING

Accumulator

Clutch Compressor Condenser

Dryer Evaporator

Expansion Valve

Heater Core Hoses Pulley

Seals & Gaskets
Temperature Control Programmers and Valves

TRANSMISSION / AXLES / HYDROSTATICS

Control Rods External Oil Lines

Filler Tubes (Transmission)

Pneumatic Valves

Undercarriage Roller And Idler Seals And Bearings

Undercarriage Tensioners

UNDERCARRIAGE EXCLUSIONS:

.....Sprocket, Tracks, Pads, Bolts, Chains, Or Any Failure

Due To Wear, Or Breakage Caused By Wear

ELECTRICAL

Alternator Gauges Horn

Indicators Instruments

Electronic Joysticks
Electric Motors

Sensors Solenoid Valves

Starter And Starter Solenoid

Switches

Traction Control System Voltage Regulator

Wiring Harnesses Exclusions

viring namesses exclusions

....Rubbing, Chafing, Loose Or Corroded Connections

STRUCTURAL

Wiring Harnesses

Backhoe Booms

Backhoe/Excavator Dipper Sticks

Excavator Booms

Wheel Loader/Skid steer Loader Arms

PREMIER EXCLUSIONS

Filters, Belts, Lubricants, Antifreeze, Burnt And/Or Pitted Valves, Breathers, Batteries, Electrical Components Not Listed Above, External Hydraulic Seals, Dry Clutches, External O-Rings And External Bonded Washers, Hydraulic Quick Couplers, Hose Chafing, and Adjustments*

Revised 2.1.2011

This literature is descriptive only. The precise protection afforded is subject to the terms, conditions and exclusions of the contract as issued. Program participation is subject to customer credit qualification and/or other underwriting requirements. Programs may be changed or cancelled without notice. Capitalized terms used in this literature, unless defined herein, have the meanings assigned to them in the contract as issued.

MASTER PARTS SCHEDULE - NEW CONSTRUCTION EQUIPMENT

This plan excludes protection for any failure to any component caused by or resulting from the failure of a component not listed on the "Master Parts Schedule" including any resulting damage to a "covered component". See the Terms and Conditions document for complete plan details

STRUCTURAL COMPONENTS COVERED

This is a stand alone coverage and must be purchased separately

Backhoe Booms

Excavator Booms

C Frame

Forklift Masts

Car Body

Loader Arms Main Frame

Chassis Circle Frame

Moldboard Lift Arm

Dipper Stick

Engine Frame

Rollover Protection Structure (Ropes) Swing Frame

Equipment Frame

Track Frame

STRUCTURAL EXCLUSIONS

Pivot Pins, Forks, Carriages, Swingpost, Pivot Pin Bushings, Loader/Backhoe Links, 3-Point Hitch Linkage, Extending Dipper Wear Strips, Deterioration Due To Use Of Non Factory Approved Attachments, Front Shovels/Buckets, Backhoe Buckets, Including Teeth/Side-Cutters, Wear Pads, Hose Routing Guides.*

BACKHOE STRUCTURAL COMPONENTS COVERED

This is a stand alone coverage and must be purchased separately

Backhoe Main Boom

Standard Dipper Arms

Inner and Outer Dipper Arms of the Extendable Boom

Swing Tower Castings

Rev. 709/08

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with West Virginia Code, §5A-3-37. (Does not apply to construction contracts). West Virginia Code, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the West Virginia Code. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1.	Application is made for 2.5% resident vendor p Bidder is an individual resident vendor and has residing the date of this certification; or,	reference for the reason checked: led continuously in West Virginia for four (4) years immediately preced-
	Bidder is a partnership, association or corporation re business continuously in West Virginia for four (4) y ownership interest of Bidder is held by another indiv maintained its headquarters or principal place of b preceding the date of this certification; or,	sident vendor and has maintained its headquarters or principal place of ears immediately preceding the date of this certification; or 80% of the ridual, partnership, association or corporation resident vendor who has business continuously in West Virginia for four (4) years immediately
		or subsidiary which employs a minimum of one hundred state residents ipal place of business within West Virginia continuously for the four (4) cation; or,
2.	Application is made for 2.5% resident vendor published is a resident vendor who certifies that, duri working on the project being bid are residents of Weimmediately preceding submission of this bid; or,	preference for the reason checked: Ing the life of the contract, on average at least 75% of the employees est Virginia who have resided in the state continuously for the two years
3.	affiliate or subsidiary which maintains its headqua minimum of one hundred state residents who certi	um of one hundred state residents or is a nonresident vendor with an inters or principal place of business within West Virginia employing a fies that, during the life of the contract, on average at least 75% of the aployees are residents of West Virginia who have resided in the state
4 _X	Application is made for 5% resident vendor pro Bidder meets either the requirement of both subdiv	eference for the reason checked: isions (1) and (2) or subdivision (1) and (3) as stated above; or,
5.	Bidder is an individual resident vendor who is a veter	preference who is a veteran for the reason checked: an of the United States armed forces, the reserves or the National Guard r the four years immediately preceding the date on which the bid is
6.	Bidder is a resident vendor who is a veteran of the purposes of producing or distributing the commoditi continuously over the entire term of the project, or	preference who is a veteran for the reason checked: United States armed forces, the reserves or the National Guard, if, for es or completing the project which is the subject of the vendor's bid and average at least seventy-five percent of the vendor's employees are state continuously for the two immediately preceding years.
requirei against	ments for such preference, the Secretary may order	s that a Bidder receiving preference has failed to continue to meet the the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty id amount and that such penalty will be paid to the contracting agency chase order.
authoriz the requ	zes the Department of Revenue to disclose to the Dire	any reasonably requested information to the Purchasing Division and ctor of Purchasing appropriate information verifying that Bidder has paid does not contain the amounts of taxes paid nor any other information
and ac	curate in all respects; and that if a contract is is	Code, §61-5-3), Bidder hereby certifies that this certificate is true ssued to Bidder and if anything contained within this certificate of the Purchasing Division in writing immediately.
Bidder:	STATE EQUIPMENT, INC.	Signed:
Date: _	3/22/11	Title: GENERAL MANAGER

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

RFQ No.	7011EC16
1 (1 (2) (140)	

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owned is an amount greater than one thousand dollars in the aggregate

DEFINITIONS:

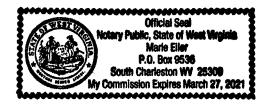
"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, Limited Liability Company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (West Virginia Code §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

Vendor's Name: STATE EQUIPMENT, INC. Date: 3/22/11 State of West County of Kanawha Taken, subscribed, and sworn to before me this 33 day of December, 2011 My Commission expires AFFIX SEAL HERE



WITNESS THE FOLLOWING SIGNATURE