



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
 7011EC09

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 BUYER 33
 304-558-2402

VENDOR

*709035731 304-949-6400
 CECIL I WALKER MACHINERY COMPA
 PO BOX 2427
 CHARLESTON WV 25329

BUYER

DIVISION OF HIGHWAYS
 EQUIPMENT DIVISION
 ROUTE 33
 BRUSHY FORK ROAD
 BUCKHANNON, WV
 26201 304-472-1750

DATE PRINTED 12/09/2010	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
----------------------------	---------------	----------	--------	---------------

BID OPENING DATE: 01/18/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	EA		765-59		\$172,125.00
<p>MOTOR GRADER ARTICULATED ALL WHEEL SNOWPLOW</p> <p>REQUEST FOR QUOTATION (RFQ) OPEN END CONTRACT</p> <p>THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF HIGHWAYS, IS SOLICITING BIDS FOR AN OPEN END CONTRACT TO PROVIDE MOTOR GRADER, ARTICULATED ALL WHEEL DRIVE, REVERSIBLE FRONT MOUNTED SNOWPLOW, PER THE ATTACHED SPECIFICATIONS.</p> <p>MANDATORY PRE-BID A MANDATORY PRE-BID WILL BE HELD ON MONDAY, 01/04/11 AT 10:00 AM, BRUSHY FORK RD IN BUCKHANNON, WV 26201. ALL INTERESTED PARTIES ARE REQUIRED TO ATTEND THIS MEETING. FAILURE TO ATTEND THE MANDATORY PRE-BID SHALL RESULT I DISQUALIFICATION OF THE BID. NO ONE PERSON MAY REPRESENT MORE THAN ONE BIDDER.</p> <p>AN ATTENDANCE SHEET WILL BE MADE AVAILABLE FOR ALL POTENTIAL BIDDERS TO COMPLETE. THIS WILL SERVE AS THE OFFICIAL DOCUMENT VERIFYING ATTENDANCE AT THE MANDATOR PRE-BID. FAILURE TO PROVIDE YOUR COMPANY AND REPRESENTATIVE NAME ON THE ATTENDANCE SHEET WILL RESULT IN DISQUALIFICATION OF THE BID. THE STATE WILL NOT ACCEPT ANY OTHER DOCUMENTATION TO VERIFY ATTENDANCE. THE BIDDER IS RESPONSIBLE FOR ENSURING THEY HAVE COMPLETED THE INFORMATION REQUIRED ON THE ATTENDANCE</p>						

RECEIVED

2011 FEB 15 PM 12:51

WV PURCHASING DIVISION

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE <i>Mark Z...</i>	TELEPHONE (304) 543-5406	DATE 2/15/11	
TITLE SALES REPRESENTATIVE	FEIN 55-0352647	ADDRESS CHANGES TO BE NOTED ABOVE	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

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/vro/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).



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
7011EC09

PAGE
2

ADDRESS CORRESPONDENCE TO ATTENTION OF
BUYER 33
304-558-2402

***709035731** **304-949-6400**
CECIL I WALKER MACHINERY COMPA
PO BOX 2427

CHARLESTON WV 25329

DIVISION OF HIGHWAYS
EQUIPMENT DIVISION
ROUTE 33
BRUSHY FORK ROAD
BUCKHANNON, WV
26201 **304-472-1750**

VENDOR

SHIP TO

DATE PRINTED 12/09/2010	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
-----------------------------------	---------------	----------	--------	---------------

BID OPENING DATE: **01/18/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>SHEET. THE PURCHASING DIVISION AND THE STATE AGENCY WILL NOT ASSUME ANY RESPONSIBILITY FOR A BIDDER-S FAILURE TO COMPLETE THE PRE-BID ATTENDANCE SHEET. IN ADDITION, WE REQUEST THAT ALL POTENTIAL BIDDERS INCLUDE THEIR E-MAIL ADDRESS AND FAX NUMBER.</p> <p>ALL POTENTIAL BIDDERS ARE REQUESTED TO ARRIVE PRIOR TO THE STARTING TIME FOR THE PRE-BID. BIDDERS WHO ARRIVE LATE, BUT PRIOR TO THE DISMISSAL OF THE TECHNICAL PORTION OF THE PRE-BID WILL BE PERMITTED TO SIGN IN. BIDDERS WHO ARRIVE AFTER CONCLUSION OF THE TECHNICAL PORTION OF THE PRE-BID, BUT DURING ANY SUBSEQUENT PART OF THE PRE-BID WILL NOT BE PERMITTED TO SIGN THE ATTENDANCE SHEET.</p> <p>TECHNICAL QUESTIONS CONCERNING THIS SOLICITATION MUST BE SUBMITTED IN WRITING TO SHERI SLONE IN THE WEST VIRGINIA STATE PURCHASING DIVISION VIA MAIL AT THE ADDRESS SHOWN IN THE BODY OF THIS RFQ, VIA FAX AT 304-558-2596, OR VIA EMAIL AT SHERI.D.SLONE@WV.GOV. DEADLINE FOR ALL TECHNICAL QUESTIONS IS 12/27/2010 AT THE CLOSE OF BUSINESS. ANY TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY FORMAL ADDENDUM TO BE ISSUED BY THE PURCHASING DIVISION AFTER THE DEADLINE HAS LAPSED.</p> <p>EXHIBIT 2</p> <p>LIFE OF CONTRACT: THIS CONTRACT BECOMES EFFECTIVE ON ----- AND EXTENDS FOR A PERIOD OF ONE (1) YEAR OR UNTIL SUCH "REASONABLE TIME" THEREAFTER AS IS NECESSARY TO OBTAIN A NEW CONTRACT OR RENEW THE ORIGINAL CONTRACT. THE "REASONABLE TIME" PERIOD SHALL</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Marcus J. Com...</i>	TELEPHONE (304) 543-5406	DATE 2/15/11
TITLE Sales Representative	FEIN 55-0352647	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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
7011EC09

PAGE
3

ADDRESS CORRESPONDENCE TO ATTENTION OF:
**BUYER 33
 304-558-2402**

***709035731 304-949-6400**
CECIL I WALKER MACHINERY COMPA
PO BOX 2427
CHARLESTON WV 25329

DIVISION OF HIGHWAYS
EQUIPMENT DIVISION
ROUTE 33
BRUSHY FORK ROAD
BUCKHANNON, WV
26201 304-472-1750

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
12/09/2010				

BID OPENING DATE: **01/18/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UQP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>NOT EXCEED TWELVE (12) MONTHS. DURING THIS "REASONABLE TIME" THE VENDOR MAY TERMINATE THIS CONTRACT FOR ANY REASON UPON GIVING THE DIRECTOR OF PURCHASING THIRTY (30) DAYS WRITTEN NOTICE.</p> <p>UNLESS SPECIFIC PROVISIONS ARE STIPULATED IN THIS CONTRACT DOCUMENT, THE TERMS, CONDITIONS, AND PRICING SET HEREIN ARE FIRM FOR THE LIFE OF THE CONTRACT.</p> <p>RENEWAL: THIS CONTRACT MAY BE RENEWED UPON THE MUTUAL WRITTEN CONSENT OF THE SPENDING UNIT AND VENDOR, SUBMITTED TO THE DIRECTOR OF PURCHASING THIRTY (30) DAYS PRIOR TO THE EXPIRATION DATE. SUCH RENEWAL SHALL BE IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ORIGINAL CONTRACT AND SHALL BE LIMITED TO TWO (2) ONE (1) YEAR PERIODS.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM WITH THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.</p> <p>OPEN MARKET CLAUSE: THE DIRECTOR OF PURCHASING MAY AUTHORIZE A SPENDING UNIT TO PURCHASE ON THE OPEN MARKET, WITHOUT THE FILING OF A REQUISITION OR COST ESTIMATE, ITEMS SPECIFIED ON THIS CONTRACT FOR IMMEDIATE DELIVERY IN EMERGENCIES DUE TO UNFORESEEN CAUSES (INCLUDING BUT NOT LIMITED TO DELAYS IN TRANSPORTATION OR AN UNANTICIPATED INCREASE IN THE VOLUME OF WORK).</p> <p>QUANTITIES: QUANTITIES LISTED IN THE REQUISITION ARE APPROXIMATIONS ONLY, BASED ON ESTIMATES SUPPLIES BY THE STATE SPENDING UNIT. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACT SHALL COVER THE QUANTITIES ACTUALLY ORDERED FOR DELIVERY DURING THE TERM OF CONTRACT,</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>M. J. Com...</i>	TELEPHONE (304) 543-5406	DATE 2/15/11
TITLE Sales Representative	FEIN 55-0382647	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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

Request for Quotation

RFO NUMBER
7011EC09

PAGE
4

ADDRESS CORRESPONDENCE TO ATTENTION OF
**BUYER 33
 304-558-2402**

RODNEY HODGINS

*709035731 304-949-6400
 CECIL I WALKER MACHINERY COMPA
 PO BOX 2427

SHIP TO

DIVISION OF HIGHWAYS
 EQUIPMENT DIVISION
 ROUTE 33
 BRUSHY FORK ROAD
 BUCKHANNON, WV
 26201 304-472-1750

CHARLESTON WV 25329

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
12/09/2010				

BID OPENING DATE: **01/18/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>WHETHER MORE OR LESS THAN THE QUANTITIES SHOWN.</p> <p>ORDERING PROCEDURE: SPENDING UNIT(S) SHALL ISSUE A WRITTEN EQUIPMENT CONTRACT ORDER (FORM NUMBER WV-35) FOR COMMODITIES COVERED BY THIS CONTRACT. THE ORIGINAL WV-35 MUST BE SENT TO THE PURCHASING DIVISION OF THE DEPARTMENT OF ADMINISTRATION. AFTER APPROVAL AND ENCUMBRANCE, ONE COPY OF THE PURCHASE ORDER WILL BE RETURNED TO THE SPENDING UNIT AND ONE COPY FORWARDED TO THE VENDOR AS AUTHORIZATION FOR SHIPMENT. NO ORDER IS VALID UNLESS APPROVED AND ENCUMBERED BY THE PURCHASING DIVISION.</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FUTHER ORDER.</p> <p>REV. 5/2009</p> <p>EXHIBIT 10</p> <p style="text-align: right;">REQUISITION NO.: 7011EC09</p> <p>ADDENDUM ACKNOWLEDGEMENT</p> <p>I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.</p> <p>ADDENDUM NO.'S:</p> <p>NO. 1 ...✓...</p> <p>NO. 2 ...✓...</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE <i>M. I. Com</i>	TELEPHONE (304) 543-5406	DATE 2/15/11	
TITLE Sales Representative	FEIN 55-0352647	ADDRESS CHANGES TO BE NOTED ABOVE	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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
 7011EC09

PAGE
 5

ADDRESS CORRESPONDENCE TO ATTENTION OF
 BUYER 33
 304-558-2402

VENDOR

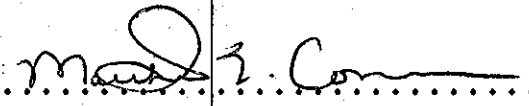
*709035731 304-949-6400
 CECIL I WALKER MACHINERY COMPA
 PO BOX 2427
 CHARLESTON WV 25329

SHIP TO


DIVISION OF HIGHWAYS
 EQUIPMENT DIVISION
 ROUTE 33
 BRUSHY FORK ROAD
 BUCKHANNON, WV
 26201 304-472-1750

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
12/09/2010				

BID OPENING DATE: 01/18/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
NO. 3	✓				
NO. 4	✓				
NO. 5	✓				
<p>I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.</p> <p>VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.</p> <p style="text-align: center;">  SIGNATURE C.I. WALKER MACHINERY Co. COMPANY ..2/15/11..... DATE </p> <p>NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE BID.</p> <p>REV. 09/21/2009</p> <p>EXHIBIT 4</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE 	TELEPHONE (304) 543-5406	DATE 2/15/11
TITLE SALES REPRESENTATIVE	FEIN 55-0352647	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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
7011EC09

PAGE
6

ADDRESS CORRESPONDENCE TO ATTENTION OF
BUYER 33 304-558-2402

*709035731 304-949-6400
 CECIL I WALKER MACHINERY COMPA
 PO BOX 2427

CHARLESTON WV 25329

DIVISION OF HIGHWAYS
 EQUIPMENT DIVISION
 ROUTE 33
 BRUSHY FORK ROAD
 BUCKHANNON, WV
 26201 304-472-1750

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
12/09/2010				

BID OPENING DATE: 01/18/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>LOCAL GOVERNMENT BODIES: UNLESS THE VENDOR INDICATES IN THE BID HIS REFUSAL TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO COUNTY, SCHOOL, MUNICIPAL AND OTHER LOCAL GOVERNMENT BODIES, THE BID SHALL EXTEND TO POLITICAL SUBDIVISIONS OF THE STATE OF WEST VIRGINIA. IF THE VENDOR DOES NOT WISH TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO ALL POLITICAL SUBDIVISIONS OF THE STATE, THE VENDOR MUST CLEARLY INDICATE SUCH REFUSAL IN HIS BID. SUCH REFUSAL SHALL NOT PREJUDICE THE AWARD OF THIS CONTRACT IN ANY MANNER.</p> <p>REV. 3/88</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p style="text-align: center;">DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: SHERI SLONE - FILE 33</p> <p>RFQ. NO.: 7011EC09</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS		
SIGNATURE <i>M. J. Comm</i>	TELEPHONE (304) 543-5406	DATE 2/15/11
TITLE SALES REPRESENTATIVE	FEIN 55-0392647	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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
7011EC09

PAGE
7

ADDRESS CORRESPONDENCE TO ATTENTION OF:
BUYER 33
304-558-2402

SUPPORT

*709035731 304-949-6400
CECIL I WALKER MACHINERY COMPA
PO BOX 2427

CHARLESTON WV 25329

SHIP TO

DIVISION OF HIGHWAYS
EQUIPMENT DIVISION
ROUTE 33
BRUSHY FORK ROAD
BUCKHANNON, WV
26201 **304-472-1750**

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
12/09/2010				

BID OPENING DATE: **01/18/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
BID OPENING DATE:				01/18/2011		
BID OPENING TIME:				1:30 PM		
PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:						
			(304) 759-6404			

CONTACT PERSON (PLEASE PRINT CLEARLY):						
			Matthew E. Conner			

***** THIS IS THE END OF RFQ 7011EC09 ***** TOTAL:						\$172,125. ⁰⁰

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Matthew E. Conner</i>	TELEPHONE (304) 543-5406	DATE 2/15/11
TITLE Sales Representative	FEIN 55-0352647	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
EQUIPMENT DIVISION

PROCUREMENT SPECIFICATIONS
NO. 405-1-I

OPEN END CONTRACT
MOTOR GRADER, ARTICULATED ALL WHEEL DRIVE,
REVERSIBLE FRONT MOUNTED SNOWPLOW

1.0 PURPOSE

It is the purpose of these specifications to describe a Motor Grader, Articulated All Wheel Drive, Reversible Front Mounted Snowplow (hereinafter referred to as a "grader" 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 180 calendar 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 120 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

5.1 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, 2010 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 GRADER ARE AS FOLLOWS:

8.0 GENERAL:

This specification covers an articulated frame, all wheel drive, front wheel steerable motor grader, with diesel engine and a full power shift transmission. The motor grader shall be of conventional design and heavy duty construction. Units shall be delivered complete with all the manufacturers currently advertised standard features unless specifically addressed herein.

8.1 Operational Use:

The grader shall perform the following types of work under full control, completely free of conditions requiring undue operator effort.

- 1. General maintenance and improvements to existing roads**
- 2. Coarse and fine grading and spreading**
- 3. High and low bank sloping**
- 4. Clearing slides**
- 5. Scarifying**

- 6. Ditching, including reconditioning old ditches and cutting new ditches, which at times will include deep ditching**
- 7. Wind Rowing**
- 8. Snow and Ice Removal**

- 8.1.1 The grader shall be capable of carrying out any of the above operations under all types of conditions ranging from light soils to rocky materials.**
- 8.1.2 The grader to be capable of operating on mountain roads of low construction standards having sustained grades in excess of 7% and steep pitches up to 18%
- 8.1.3 The State requires proof that the motor grader meets the reserve tractive effort requirements as listed in Section 8.1.4. **A copy of the test results, certified by an independent test facility with proper qualifications, must be offered with the Request For Quotation as acceptable proof.**
- 8.1.4 The minimum blade HP point shall be 30,603**
- 8.1.5 The basic operating weight should exclude: (A) Front Mounted scarifier (B) Hydro-inflation and (C) Wheel or tire ballast
- 8.1.6 The size grader covered by this specification to have a basic operating weight of not less than 34,000 lbs.
- 8.1.7 **Minimum wheelbase of ²³²233 inches.** (Distance from the center of front axle to the center line of the rear main tandem drive axles.)
- 8.1.8 Not less than 65% nor more than 75% of this weight should be carried by the tandem driving axles.
- 8.2 Engine: Shall be designed and built by the manufacturer.**
- 8.2.1 Shall be EPA Tier 3 - 2010 certified. Engine shall be a turbo-charged, direct injection, 4 stroke 6 cylinder diesel engine.**
- 8.2.2 Engine displacement shall not be less than 6.6L**
- 8.2.3 Minimum flywheel HP 148 with all wheel drive system engine**
- 8.2.4 Engine provided should be 403 C.I.D. minimum**
- 8.2.5 Engine to be equipped with an adequate and efficient lubrication system and fuel injection mechanism.
- 8.2.6 Engine manufacturers heavy duty fuel filtering system
- 8.2.7 Engine manufacturers full flow type lubricating oil filter

- 8.2.8 The air cleaner to be the dual element type (primary and safety dry type elements) with a built-in precleaner section and automatic dust ejection
- 8.2.9 Air cleaner hose to be of the metal or heavy duty flexible non-collapsible type, with metal or molded rubber elbows. (Wire reinforced hose is not acceptable.)
- 8.2.10 All air cleaner connections to be banded
- 8.2.11 Filter should be located inside of hood or at location protected from contaminants thrown by tandem wheels
- 8.3 Engine Governor:
 - 8.3.1 Engine to be equipped with a variable speed governor of the mechanical or hydraulic type and **shall be driven from the engine**
 - 8.3.2 Provisions should be made for permitting regulation of the governed speed-setting throughout the engine load range while the engine is in operation
- 8.4 Cooling System:
 - 8.4.1 **The engine cooling system to be maximum available from the manufacturer** and have an operating ambient temperature range of -34°F. to +125°F.
 - 8.4.2 Coolants system to be filled with extended life permanent type anti-freeze with freeze protection to -34°F
 - 8.4.3 Cooling system to include manufacturers heavy duty radiator protected by a guard, a rearward exhaust fan, a circulating water pump and a thermostat and by pass for warm up. **Engine fan shall automatically adjust fan speed by a variable hydraulic fan pump to meet engine cooling requirements.**
- 8.5 Engine Housing:
 - 8.5.1 The engine to be protected with a metal hood and manufacturers lockable side panels (keyed alike)
- 8.6 Engine Starting System:
 - 8.6.1 **The grader shall be provided with manufacturers heavy duty starting system and keyed ignition system with two (2) keys**
 - 8.6.2 Starting system to be capable of cranking the engine in ambient temperature of -30°

- 8.6.3 A concealed electrical disconnect switch to prevent unauthorized starting of the grader to be provided
- 8.7 Fuel Tank(s):
 - 8.7.1 **Manufacturers standard fuel tank(s) (minimum 90 gallon capacity) is (are) acceptable and are to be located so as not to be affected by heat from engine, exhaust piping, or muffler**
- 8.8 **Power Shift Transmission: Transmission shall be designed and built by the machine manufacturer**
 - 8.8.1 **The transmission shall be direct drive, power shift, counter-shaft type.**
 - 8.8.2 **Transmission direction and gear shifting shall be electronically and proportionally controlled from forward to reverse and from gear to gear.**
 - 8.8.3 **Transmission shall have no less than eight (8) forward speeds and six (6) reverse speeds**
 - 8.8.4 **Electronic throttle control shall be available**

8.9 Travel Speeds:

8.9.1 Lowest gear speed - forward (maximum) 2.4 MPH

8.9.2 Highest gear speed - forward (minimum 28.4 MPH

8.9.3 Lowest gear speed - reverse (maximum) 2.0 MPH

8.9.4 Highest gear speed - reverse (minimum) 22.4 MPH

8.10 Final Drive:

8.10.1 All shafts, gears, sprockets, chains, bearings, etc. should be of sufficient strength and capacity to safely transmit full power of the engine to the driving wheels without component failure

8.10.2 All gears and sprockets are to be machine cut

8.10.3 Drive gears to run in oil bath

8.10.4 All driving mechanisms should be fully enclosed and protected against lubricant leakage, dust, dirt, water, etc.

8.10.5 Tandem frames to be mounted on and pivot about the axle so that equal weight is carried on all four (4) wheels when operating over rough terrain without effecting the evenness of the blade cut

8.10.6 Tandem oscillation to be not less than 15° upward from the horizontal and not less than 25° down.

8.10.7 A stop to be permanently attached to the grader to limit or prevent tandem oscillation (or in lieu of a stop) lifting attachment may be located at the center of the tandem to prevent tandem case oscillation or damage during loading or shipment

8.10.8 The differential lock/unlock to be operator controlled

8.10.9 The differential lock/unlock shall be electro-hydraulically controlled with no speed restrictions for engaging/disengaging.

8.11 Front Axle:

8.11.1 The front axle shall be an arched design for maximum clearance.

8.11.2 Axle to be fitted with leaning type wheels and operating mechanism

8.11.3 The wheel tilting mechanism should eliminate locking and jumping

- 8.11.4 **Maximum front wheel lean shall be no less than 18° to the right and left of vertical**
- 8.11.5 **Positive means shall be provided to prevent tires from rubbing when in the extreme leaning position**
- 8.11.6 Front wheel hubs to not extend beyond the tire line
- 8.11.7 **Unit shall be equipped with the manufacturers all wheel drive system in order to improve tractive effort and steering control in slippery conditions**
- 8.11.8 **The all wheel drive system shall produce a maximum stall torque of no less than 10,325 lb ft.**
- 8.11.9 **All wheel drive system offered by successful dealer and/or manufacturer shall include warranties which are covered by the motor grader manufacturer**
- 8.11.10 **All wheel drive system engage/disengage must be accessible at operators station and without any manual connect/disconnect procedure.**

- 8.12 Electrical:
 - 8.12.1 The voltage rating of the electrical system to be that regularly provided by the manufacturer as standard equipment
 - 8.12.2 Wiring to be enclosed in a harness formed of non-metallic loom and securely anchored to the frame in protected locations
 - 8.12.3 Any wiring in exposed locations that are subject to damage in normal use to be enclosed in conduit
 - 8.12.4 All electrical wiring between the engine and alternator to other parts of the unit to be connected by a plug type disconnect block with a prong and a receptacle configuration such that it will fit together only one way and located convenient to the engine
 - 8.12.5 Lighting Equipment:
 - 8.12.5.1 Two (2) sealed beam halogen headlights with high/low beam switch operated from the cab
 - 8.12.5.2 Headlights to be mounted within the width of the cab
 - 8.12.5.3 Separate front (amber) and rear (red) turn signals to be provided

- 8.12.5.4 Lamps to be mounted within the width of the cab on the front and rear or rear lamps may be mounted within the width of the radiator or engine housing
- 8.12.5.5 All lamp sockets to be brass or other corrosion resistant material
- 8.12.5.6 Turn signals should incorporate a heavy duty flasher
- 8.12.5.7 Operator controlled four way hazardous warning signal with convenient cab located switch
- 8.12.5.8 Sealed beam halogen work light should be provided on each side of the front lower section of the cab
- 8.12.5.9 Work lights to be swivel mounted to facilitate lighting of the blade working area, to be switched and marked at cab location
- 8.12.5.10 Sealed beam back up light to be provided
- 8.12.5.11 Manufacturers stop-tail lights to be recessed and shock mounted
- 8.12.5.12 Manufacturers standard instrument lighting package
- 8.12.5.13 Interior cab light to be manufacturers standard for proposed model
- 8.12.6 A warning horn to be furnished and mounted at the front of the operators compartment with the horn switch within easy reach of the operator
- 8.12.7 Manufacturers OSHA approved backup alarm to be provided
- 8.12.8 All lights to be controlled by manufacturers heavy duty switches mounted at instrument panel
- 8.12.9 All circuits to be protected by re-set circuit breakers or fuses
- 8.12.10 Lighting circuits to be wired so that if a short occurs engine shutdown will not occur
- 8.12.11 **Batteries** to be the type commonly used by the manufacturer in a heavy duty application with **maximum CCA capacity available from the motor grader manufacturer**
- 8.12.12 Batteries to be maintenance free heavy duty with **minimum of 1125 CCA**
- 8.12.13 Manufacturers battery(ies) hold down device to be provided

8.12.14 Battery(ies) to be easily accessible for servicing and be delivered with electrolyte installed

8.13 Wheels/Tires:

8.13.1 Graders to be provided with six (6) wheels, two (2) wheels on the front axle and four (4) wheels arranged in tandem on the rear axle with manufacturers drive available at all six (6) wheels.

8.13.2 Both front and rear to be tubeless type radial and 14.00 x 24, 12 ply rating

8.13.3 Tires to be mounted on 10 inch wide rims

8.13.4 Rims, valves, caps shall conform to the standards of the Tire and Rim Association

8.13.5 Tires must be capable of accomplishing to the State's satisfaction all applications listed in Section 8.1, special mention is made of deep ditching and traction for steep grades when performing heavy grading functions

8.14 Braking Systems:

8.14.1 The service brakes shall be multi-disc, oil cooled and completely sealed

8.14.1.1 Service brakes shall be hydraulically actuated, utilizing dual independent brake circuits

8.14.1.2 Wet disc type inboard on all wheels

8.14.2 Parking brake shall be multi-disc, oil cooled, spring applied, hydraulically released, sealed adjustment free and integrated into the transmission.

8.14.3 All brake lines and hoses should conform to SAE-J1047

8.14.4 The service brake system to incorporate a stored energy source, and accumulator, or other means to effectively allow full operator application of the brake system in the event any of the following fail; the engine, hydraulic, or air pump

8.14.5 In addition to the above requirements, the service braking, emergency stopping, and parking systems shall conform to the requirements of SAE-J11152

8.15 Controls:

8.15.1 Controls for steering and operating the grader, including the leaning of the front wheels, should be of the full hydraulic type

- 8.15.2 Controls to permit simultaneous operation of at least three (3) functional components without appreciable loss of component speed or power
- 8.15.3 Links, cams, gears, etc. in the control mechanisms to withstand the maximum stresses imposed upon them under normal operating conditions
- 8.15.4 Ball joints and split bearing to be provided with shims or other means of adjusting for wear and to be equipped with high pressure lubrication fittings
- 8.15.5 Hydraulic power steering system to be provided with stopped engine steering capability meeting SAE-J53
- 8.15.6 Hydraulic system to be protected against the entrance of contamination and complete with the manufacturers recommended operating accessories to include an efficient filtering system easily accessible for cleaning and replacement
- 8.15.7 High pressure lines to be suitable for the system design pressure
- 8.15.8 The hydraulic control system to be equipped with a pressure relief valve and an overload relief which will automatically reset when overload is cleared or pressure-compensated system
- 8.15.9 The hydraulic system to be capable of providing a moldboard lift speed of at least 3 inches per second
- 8.15.10 Hydraulic system to have double acting anti-drift check valves on blade lift, tilt, circle shift, articulation, leaning wheels, and scarifier
- 8.16 Circle and Moldboard:
 - 8.16.1 The moldboard circle and drawbar assembly to be such as to permit the grader to perform all operations specified herein and should be attached to the frame by a swivel hitch mechanism
 - 8.16.2 Moldboard to be equipped with a hydraulically operated side shift to the right and left of center position
 - 8.16.3 Moldboard controls to provide a float position
 - 8.16.4 Moldboard to be constructed of high carbon steel or alloy steel securely mounted and designed to give a rolling tumble of materials

8.16.5 Minimum dimensions to be as follows:

8.16.5.1 Length - 12 feet

8.16.5.2 Width (measured along curve) - 2 feet

8.16.5.3 Thickness – 7/8 inches

8.16.5.4 Maximum depth of cut – up to 28.3 inches

8.16.5.5 Lift above ground level – 16.8 inches

8.16.5.6 Reach outside tire line left – 68.6 inches; right - 75 inches

8.16.5.7 Bank sloping angle - 90°left and 90°right

8.16.6 Moldboard is to be punched for standard replaceable cutting blades and replaceable end bits

8.16.7 All holes for cutting edges to be drilled or punched to accommodate a standard 3/4 inch plow bolt with hex nut

8.16.8 The moldboard circle to be provided with shims or other adequate means of adjustment for wear

8.16.9 A hydraulically operated power tilt moldboard to be furnished

8.16.10 The design of the moldboard to be such that full 360° rotation can be accomplished with the blade slightly raised without manipulation of controls other than power shifting to clear tires, transmission or other integral parts of the machine

8.16.11 The normal operating range to be controlled from the operators station and be not less than from a position of ditching forward and backward on either side of the grader to a bank-sloping position of 90° on the right side without removing the scarifier

8.16.12 For bank-sloping positions of 45° or more, the lower point of the blade at ground level to be at, or outside of, the line of tires so that a smooth cut to the bottom of the slope may be obtained without placing the wheels on the slope

8.16.13 No movement or combination of movements or adjustments of the moldboard assembly, when operated in accordance with manufacturers guidelines, shall cause any part of the actuating mechanism to contact any structural mechanism or structural part of the grader in such a manner as to damage structure or mechanism. (ELECTRIC LIMIT SWITCHES TO PROVIDE THIS PROTECTION WILL NOT BE PERMITTED)

- 8.16.14 The grader blade should not lower its position more than 1/4 inch per hour when the blade is in the raised position and all controls are in neutral and engine off
- 8.16.15 Unit to be equipped with manufacturers blade lift accumulators and side shift accumulators
- 8.17 Scarifier:
 - 8.17.1 A scarifier to be furnished with each grader; front mounted
 - 8.17.2 **Scarifier to be of the V-type, power control operated, and must be equipped with removable teeth having replaceable points**
 - 8.17.3 **Scarifier cutting width 47.4 inches minimum**
 - 8.17.4 **Number of teeth - 5 minimum**
 - 8.17.5 **Weight - 865 lbs. minimum**
 - 8.17.6 **Scarifier must allow grader to ditch when in raised position (SWINGING SCARIFIER IS NOT ACCEPTABLE)**
 - 8.17.7 Scarifier to be manufacturers standard for model bid, mounted on front of grader
- 8.18 ROPS Cab (Low Profile):
 - 8.18.1 The graders to be furnished with R.O.P.S. Cab, conforming to SAE J-1040
 - 8.18.2 Cabs to be completely enclosed, with door on each side, constructed of heavy gauge material and equipped with manufacturers tinted safety glass at all locations to provide 360° visibility
 - 8.18.3 All controls for operating and steering to be mounted inside of the cab
 - 8.18.4 The cab doors to be lockable, keyed alike, and provided with fasteners to hold doors open during operation
 - 8.18.5 Windshield and rear window to be provided with manufacturers electrically operated windshield wipers and washers
 - 8.18.6 An adjustable review convex mirror to be provided and mounted inside cab to afford a clear vision to the rear of the grader
 - 8.18.7 Cab to have heat and air; and also, front and rear windshield defroster

- 8.18.8 Instrument panel to be located convenient to the seated operator
- 8.18.9 **Manufacturers standard instrumentation to be furnished but to include a positive means of monitoring vital systems to include the following as a minimum:**
 - 8.18.9.1 **Engine oil pressure, engine coolant temperature, electrical system, torque converter temperatures and transmission pressure (if applicable) and hydraulic oil temperature**
 - 8.18.10 Manufacturers warnings: Audio and/or lights are required on engine oil pressure, engine coolant temperature, and electrical system
 - 8.18.11 Operators position to include seat fully cushioned of the full suspension type, cloth covered, vertical and horizontal adjustments, padded arm rests, and manufacturers recommended seat belt system with retractors
- 8.19 Equipment and Accessories:
 - 8.19.1 Vandalism protection kit to include locking type caps for all exposed filler caps
 - 8.19.2 Tool box to be weather resistant, lockable
 - 8.19.3 Articulation position indicator
 - 8.19.4 Hour meter at dash board location (engine oil pressure activated)
 - 8.19.5 Air cleaner rain cap
 - 8.19.6 Dash mounted air filter service indicator
 - 8.19.7 Engine block heater; thermostat controlled
 - 8.19.8 Deflector type exhaust stack
 - 8.19.9 Muffler
 - 8.19.10 Fuel gauge dial type dash mounted
 - 8.19.11 AM/FM radio, installed complete with antenna mounted in such a manner as to prevent being damaged by tree limbs, etc.
 - 8.19.12 Manufacturers installed pressurized cab air conditioning system

8.19.13 Strobe light hinged and protected to be dual flash high intensity Target Tech Model Multi-flash 5x, 12/48 UDC, 11 joules, generating not more than 1.0 uv of interference on a radio receiver with 12 db of quieting

8.20 Paint:

8.20.1 The motor grader and attachments are to be painted manufacturers standard

8.21 Safety:

8.21.1 All exposed parts subject to high operating temperature or energized electrically shall be located, insulated, enclosed, or guarded so as to prevent hazards to operating personnel.

8.21.2 All moving parts which are of such a nature or so located as to be a hazard to operating personnel shall be enclosed or guarded.

8.21.3 Protective devices shall not impair operating functions.

8.21.4 Handles and non-skid steps shall be of size, shape, and location to permit safe mounting and dismounting.

8.22 Vendor must certify that grader and attachments 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.

8.23 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.

8.24 Preventive Maintenance and Operators Orientation/Training:

8.24.1 The Manufacturer or Dealer shall provide a one (1) day 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.

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

9.0 HYDRAULICALLY CONTROLLED REVERSIBLE FRONT MOUNTED SNOWPLOW

9.1 General:

The hydraulically controlled reversible front mounted snow plows shall be designed to fit and be fully compatible with the proposed motor graders. The plows shall be designed for use in snow and light earthmoving. They should be easily removable for transportation.

9.1.1 **Blades shall be complete with all necessary cab controls and mounting hardware.**

9.2 Specifications for Plow:

9.2.1 Manufacturer's standard warranty to be provided

9.2.2 **Moldboard length: 12 feet minimum**

9.2.3 **Moldboard height: 48 inches minimum**

9.2.4 Reversing Cylinders:

9.2.4.1 Plow should consist of two (2) double acting hydraulic cylinders of at least three (3) inch inside diameter with a piston rod at least 2 (two) inches, chrome plated with a stroke of at least 10 inches.

9.2.4.2 **These cylinders to be capable of reversing the plow from 35° right and 35° left minimum**

9.2.4.3 **Cylinder mounting pins to be minimum of one (1) inch diameter**

9.2.5 Cushion Valves:

9.2.5.1 A cushion valve to be included in the hydraulic reversing system as a safety factor to help protect the cylinders.

9.2.6 **Cutting Edge: 5/8 inch x 8 inches x 120 inches minimum and compatible with the plow**

9.2.7 Wear shoes to number at least two (2)

9.2.8 **Vertical Ribs: Minimum of five (5)**

9.2.9 Hitch: Front mounted, quick coupler, coupling system

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
EQUIPMENT DIVISION

BIDDER'S EVALUATION REPORT

PROCUREMENT SPECIFICATIONS FOR OPEN END CONTRACT
NO. 405-1-I

MOTOR GRADER, ARTICULATED ALL WHEEL DRIVE,
REVERSIBLE FRONT MOUNTED SNOWPLOW

NOTE TO BIDDER: Procurement Specification No. 405-1-I, 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.: 7011EC09

Bidder's Name: C.I. WALKER MACHINERY CO.

Address: P.O. Box 2427

Telephone Number: (304) 949-6400

Years Bidder has been registered to do business with the State of West Virginia: 50⁺ YRS.

Years Company has been an authorized dealer for proposed unit: 50⁺ YRS.

X3.2 Have you complied with all mandatory specifications? YES NO

X4.2 DELIVERY:

X4.2.1 Delivery date of completed representative unit: 120 Calendar Days After
Receipt of Purchase Agreement

X4.2.2 Delivery date of balance of completed units: 180 Calendar Days After Receipt of
Purchase Agreement

X5.0 AWARD CRITERIA;

X5.1 Price per unit:

\$ 172,125.⁰⁰ per unit

X6.0 SPECIFICATIONS - GENERAL

X6.1 Manufacturer, model, series, and date of manufacture of proposed unit:

CATERPILLAR, 120M AWD, 2011 MODEL

Is descriptive literature, fully describing proposed unit attached to your bid? YES NO

If not, why? _____

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?

YES NO

Will the required Equipment Preventive Maintenance Form (Section X6.2 of Bidders Evaluation Report) be provided upon inspection of the pilot unit? 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 WVDOT.

DESCRIPTION: _____ MAKE: _____

MODEL: _____ YEAR: _____ PURCHASE AMOUNT: _____

ENGINE: MAKE: _____ MODEL: _____ FUEL TYPE: _____

HORSEPOWER: _____ CYLINDER: _____ ENGINE SERIAL: _____

COOLING SYSTEM CAPACITY: _____

BELTS: DESCRIPTION: _____ PART NUMBERS: _____

GVW: _____ AXLE CAPACITY: FRONT: _____ REAR: _____

TIRES: FRONT MAKE & SIZE: _____

REAR MAKE & SIZE: _____

DIMENSIONS OF UNIT: LENGTH: _____ WIDTH: _____ LENGTH: _____

VENDOR CONTACT PERSON: _____ PHONE: _____

PARTS:

BATTERY MAKE: _____ MODEL: _____ CCA: _____

TOP OR SIDE POST: _____ DIMENSIONS: LENGTH _____ WIDTH _____ HEIGHT _____

SPARK PLUGS OR FUEL INJECTORS MAKE: _____ PART #: _____

FUEL PUMP OR INJECTION PUMP MAKE: _____ MODEL: _____

ALTERNATOR MAKE: _____ PART #: _____

STARTER MAKE: _____ PART #: _____

TURBO CHARGER MAKE: _____ PART #: _____

TRANS. MAKE: _____ MODEL: _____ AUTO/MANUAL: _____

HYDRAULIC PUMP MAKE: _____ MODEL: _____

FILTERS	MAKE	PART NO.	LUBRICANT	MANUFACTURER TYPE
OIL	_____	_____	ENGINE	_____
AIR INNER	_____	_____	TRANSMISSION	_____
AIR OUTER	_____	_____	POWER STEERING	_____
FUEL PRIMARY	_____	_____	HYDRAULIC	_____
FUEL SECONDARY	_____	_____	DIFFERENTIALS	_____
COOLANT	_____	_____	BRAKE FLUID	_____
HYDRAULIC	_____	_____	COOLANT	_____
OTHER	_____	_____	OTHER	_____

X6.3 TRAINING:

Will training seminar be conducted on Preventive Maintenance, Operator and Mechanic Training
 YES NO

Will you conduct training with each purchase order against this open end contract?
 YES NO

Will training be conducted within 2 working days from the delivery of the pilot unit on the individual purchase order?
 YES NO

If NO, explain time frame _____

Will an Operator's Manual be furnished directly to Training Academy prior to the delivery of the pilot?
 YES NO

X6.4 If you are the successful vendor, will you furnish all training aids, i.e., videos, projectors, required in conducting the training?
 YES NO

X6.4.1 Will all manuals, booklets, etc. explaining preventive maintenance, operator procedures, and service schedule be delivered with each unit?
 YES NO
 If NO, explain _____

X6.5 WARRANTY AND SERVICE POLICY

Will the warranty and service you provide comply with all areas as stated in Section 6.5 of specifications
 YES NO

Is warranty literature attached?
 YES NO

Is a minimum two (2) year bumper to bumper basic parts and labor warranty excluding abuse and normal wear items included?
 YES NO

Describe:

CATERPILLAR 2 YEAR PREMIERE ESC new machine
WARRANTY UP TO 5,000 HOURS

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.)

1. Define the terms of the standard warranty. If not offered, so state. (Attach copy)

2 YRS OR 5,000 HRS, WHICHEVER OCCURS FIRST. CATERPILAR Premier
ESC New Machine Warranty. SEE ATTACHED

2. Define warranty service to be performed at DOH facilities and warranty service to be performed at manufacturer's representative facility. List name and location of manufacturer's representative.

WHEN WARRANTY SERVICE IS PERFORMED AT DOH FACILITIES, DOH IS RESPONSIBLE FOR
TRAVEL & MILEAGE. WHEN PERFORMED AT WALKER LOCATION, DOH IS RESPONSIBLE
FOR ROUND TRIP TRANSPORTATION.

3. List locations for parts inventories that are within the State of West Virginia. Also, list availability levels, if known.

WALKER MACHINERY LOCATIONS: BELLE, NITRO, HUNTINGTON, PARKERSBURG,
BECKLEY, SUMMERSVILLE, LOGAN

4. During the term of warranty, list the guarantee discount to manufacturer's published list price for parts that bidder will sell the parts to owner.

- | | | |
|----|---------------|---|
| A. | Terms: Net 30 | Manufacturer's published list price less: <u>0</u> % discount |
| B. | Terms: Net 60 | Manufacturer's published list price less: _____ % discount |
| C. | Terms: Net 90 | Manufacturer's published list price less: _____ % discount |

5. During the term of warranty, will all manufacturers or engineering improvements be submitted to Division of Highways? YES NO

6. During the term of warranty, list the guaranteed rates charged for repair to the unit.

A. Shop Rate \$ 84.⁰⁰ per mechanic hour

B. Travel Time Charge \$ 77.⁰⁰ per mechanic hour
(Specify if one-way) _____; port to port _____

C. Mileage Charge \$ 3.35 per vehicle mile
(Specify if one-way) _____; port to port _____

D. Field Mechanic Rate \$ 88.⁰⁰ per mechanic hour

E. Specify period of time that prices are in effect: SUBJECT TO CHANGE EACH JANUARY

F. Surcharge for miscellaneous items: 0 %

X6.6 EVALUATION COMMITTEE REQUIREMENTS

Is all component specifications, product literature, component models provided for Evaluation Committee bid determination? YES NO

X6.7 Will all parts, equipment, accessories, material, design and performance characteristics not specified herein, but which are necessary to provide a complete unit, be furnished with the unit and conform in strength, quality of material, and quality of workmanship to those which are advertised and provided to the market in general by the unit industry?

YES NO

X6.7.1 Are all parts and accessories adequate and regularly supplied as standard to be included except those which may be duplications of specifications herein, and except these by specification are not to be furnished?

YES NO

X6.7.2 Are all standard safety features that are required by Federal and State statutes of law included?

YES NO

X7.0 SPECIFICATIONS OF THE GRADER ARE AS FOLLOWS:

The bidder should complete the following schedule in order for the Division to compare the actual bid unit to the specifications. Should the bidder except a requirement, then such exception may be only on the basis that such feature is not offered by the manufacturer. The Division will have the sole discretion as to whether the bidder's substitution meets the requirements of the specifications.

X8.0 GENERALSPECIFICATIONS OF THE QUOTED UNIT - Grader

The bidder should complete the following schedule in order for the Division to compare the actual bid unit to the specifications. Should the bidder except a requirement, then such exception may be only on the basis that such feature is not offered by the manufacturer. **The Division will have the sole discretion as to whether the bidder's substitution meets the requirements of the specifications.**

Manufacturer: CATERPILLAR Model: 120M AWD

Is proposed motor grader an articulated frame all wheel drive front wheel steerable, with diesel engine, full power shift transmission **conventional design and heavy duty construction delivered complete with all manufacturers currently advertised standard features unless specifically addressed herein?**

YES NO

X8.1 Operational Use:

Does the grader perform the following types of work under full control, completely free of conditions requiring undue operator effort:

1. General maintenance and improvements to existing roads YES NO
2. Coarse and fine grading and spreading YES NO
3. High and low bank sloping YES NO
4. Clearing slides YES NO
5. Scarifying YES NO
6. Ditching, including reconditioning old ditches and cutting new ditches, which at time will include deep ditching YES NO
7. Wind Rowing YES NO
8. Snow and Ice Removal YES NO

X8.1.1 Is the grader capable of carrying out any of the above operations under all types of conditions ranging from light soils to rocky materials? YES NO

X8.1.2 Is the grader capable of operating on mountain roads of low construction standards having sustained grades in excess of 7% and steep pitches up to 18%? YES NO

- X8.1.3** Is a copy of required test results attached that proves the motor grader meets the reserve tractive effort requirements listed in Section 8.1.4? YES NO
- X8.1.4** Blade HP point: 30,603
- X8.1.5** Does the operating weight exclude:
- (A) Front mounted scarifier YES NO
- (B) Hydro-inflation YES NO
- (C) Wheel or tire ballast YES NO
- X8.1.6** What is the basic operating weight of grader: 34,003 lbs.
- X8.1.7** Wheelbase: 232 inches
- X8.1.8** Percentage of weight carried by the tandem driving axles: 66.5%
- X8.2 Engine: Is it designed and built by manufacturer** YES NO
- Manufacturer: CATERPILLAR Model: C6.6 ACERT VHP
- X8.2.1** Is it EPA Tier 3 certified YES NO
Is engine turbo charged, direct injection, 4 stroke 6 cylinder diesel engine YES NO
- X8.2.2** Engine displacement: 6.6 L
- X8.2.3** Flywheel HP 148 with all wheel drive system engine
- X8.2.4** Engine C.I.D.: 403
- X8.2.5** Is engine equipped with adequate and efficient lubrication system and fuel injection mechanism? YES NO
- X8.2.6** Is fuel filtering system engine manufacturers heavy duty system? YES NO
- X8.2.7** Is oil filter engine manufacturers full flow type lubricating type? YES NO
- X8.2.8** Is the air cleaner dual element type (primary and safety dry type elements) with a built-in precleaner section and automatic dust ejection? YES NO
- X8.2.9** Is air cleaner hose metal or heavy duty flexible non-collapsible type, with metal or molded rubber elbows? YES NO
- X8.2.10** Are all air cleaner connections banded? YES NO
- X8.2.11** Is the filter located inside of hood or at location protected from contaminants thrown by tandem wheels? YES NO

X8.3 Engine Governor:

X8.3.1 Is the engine equipped with a variable speed governor of the mechanical or hydraulic type and driven from the engine? YES NO

X8.3.2 Are provisions made for permitting regulation of the governed speed-setting throughout the engine load range while engine is in operation? YES NO

X8.4 Cooling System:

X8.4.1 Is engine cooling system maximum available from manufacturer and have an operating ambient temperature range of -34°F to +125°F? YES NO

X8.4.2 Is coolant system filled with extended life anti-freeze with freeze protection to -34°F? YES NO

X8.4.3 Does cooling system include manufacturers heavy duty radiator protected by a guard, a rearward exhaust fan, a circulating water pump, and a thermostat and by pass for warm up? YES NO

Does engine fan automatically adjust fan speed by a variable hydraulic fan pump to meet engine cooling requirements YES NO

X8.5 Engine Housing:

X8.5.1 Is engine protected with a metal hood and manufacturers lockable side panels (keyed alike)? YES NO

X8.6 Engine Starting System:

X8.6.1 Is grader provided with manufacturers heavy duty starting system and keyed ignition system with two (2) keys? YES NO

X8.6.2 Is starting system capable of cranking the engine in ambient temperature of -30°F? YES NO

X8.6.3 Is a concealed electrical disconnect switch provided to prevent unauthorized starting of the grader? YES NO

X8.7 Fuel Tank(s):

X8.7.1 Is (are) fuel tank(s) manufacturers standard 90 gallon located so as not to be affected by heat from engine, exhaust piping or muffler? YES NO

X8.8 Power Shift Transmission: Is transmission designed and built by machine manufacturer YES NO

X8.8.1 Is the transmission direct drive, power shift, counter shaft type? YES NO

- X8.8.2 Is transmission direction and gear shift electronically and proportionally controlled from forward to reverse and from gear to gear? YES NO
- X8.8.3 Number of forward speeds: 8 and number of reverse speeds 6
- X8.8.4 Is there electronic throttle control YES NO
- X8.9 Travel Speeds:
- X8.9.1 Lowest gear speed - forward 2.4 MPH
- X8.9.2 Highest gear speed - forward 28.4 MPH
- X8.9.3 Lowest gear speed - reverse 2.0 MPH
- X8.9.4 Highest gear speed - reverse 22.4 MPH
- X8.10 Final Drive:
- X8.10.1 Are all shafts, gears, sprockets, chains, bearings, etc. of sufficient strength and capacity to safely transmit full power of the engine to the driving wheels without component failure? YES NO
- X8.10.2 Are all gears and sprockets machine cut? YES NO
- X8.10.3 Do drive gears run in oil bath? YES NO
- X8.10.4 Are all driving mechanisms fully enclosed and protected against lubricant leakage, dust, dirt, water, etc? YES NO
- X8.10.5 Are tandem frames mounted on and pivot about the axle so that equal weight is carried on all four (4) wheels when operating over rough terrain without effecting the evenness of the blade cut? YES NO
- X8.10.6 Tandem oscillation from the horizontal in either direction: 15 ° ^{up} and 25 ° down
- X8.10.7 Is a stop permanently attached to the grader to limit or prevent tandem oscillation lifting attachment may be located at the center of the tandem to prevent tandem case oscillation or damage during loading or shipment? YES NO
- X8.10.8 The differential lock/unlock controlled by? *Operator* YES NO
- X8.10.9 **The differential lock/unlock electro-hydraulically controlled with no speed restrictions for engaging/disengaging** YES NO

X8.11 Front Axle:

- X8.11.1 Is the front axle arched design for maximum YES NO
- X8.11.2 Is axle fitted with leaning type wheels and operating mechanism? YES NO
- X8.11.3 Does the wheel tilting mechanism eliminate locking and jumping? YES NO
- X8.11.4 The front wheel lean is 18 ° to the right and left of vertical
- X8.11.5 Is positive means provided to prevent tires from rubbing when in extreme leaning position? YES NO
- X8.11.6 Do front wheel hubs extend beyond the tire line? YES NO
- X8.11.7 Is unit equipped with manufacturers all wheel drive system in order to improve tractive effort and steering control in slippery conditions? YES NO
- X8.11.8 Stall torque of all wheel drive system 10,325 lb ft
- X8.11.9 Does the all wheel drive system offered include warranties which are covered by the motor grader manufacturer? YES NO
- X8.11.10 Is all wheel drive system engage/disengage accessible at operators station and without any manual connect/disconnect procedure YES NO

X8.12 Electrical:

- X8.12.1 Is the voltage rating of the electrical system that regularly provided by the manufacturer as standard equipment? YES NO
- X8.12.2 Is wiring enclosed in a harness formed of non-metallic loom and securely anchored to the frame in protected locations? YES NO
- X8.12.3 Is wiring in exposed locations subject to damage in normal use enclosed in conduit? YES NO
- X8.12.4 Is all electrical wiring between the engine and alternator to other parts of the unit connected by a plug type disconnect block with a prong and a receptacle configuration such that it will fit together only one way and located convenient to the engine? YES NO

X8.12.5 Lighting Equipment:

- X8.12.5.1 Are two (2) sealed beam halogen headlights with high/low beam switch operated from the cab provided? YES NO
- X8.12.5.2 Headlights mounted within the width of the cab? YES NO

- X8.12.5.3 Separate front (amber) and rear (red) turn signals? _____ YES NO
- X8.12.5.4 Lamps mounted within the width of cab on front and rear or rear lamps mounted within the width of the radiator or engine housing? YES _____ NO
- X8.12.5.5 Lamp sockets are brass or other corrosion resistant material? YES _____ NO
- X8.12.5.6 Turn signals incorporate a heavy duty flasher? _____ YES NO
- X8.12.5.7 Operator controlled four way hazardous warning signal with convenient cab located switch? _____ YES NO
- X8.12.5.8 Sealed beam halogen work light provided on each side of front lower section of the cab? _____ YES NO
- X8.12.5.9 Are work lights swivel mounted to facilitate lighting of the blade working area, switched and marked at cab location? _____ YES NO
- X8.12.5.10 Sealed beam back up light provided? YES _____ NO
- X8.12.5.11 Manufacturers stop-tail lights recessed and shock mounted? YES _____ NO
- X8.12.5.12 Manufacturers standard instrument lighting package? YES _____ NO
- X8.12.5.13 Interior cab light manufacturers standard for proposed model? YES _____ NO
- X8.12.6 Warning horn mounted at the front of the operators compartment and horn switch within easy reach of the operator? YES _____ NO
- X8.12.7 Manufacturers OSHA approved backup alarm provided? YES _____ NO
- X8.12.8 Lights controlled by manufacturers heavy duty switches mounted and marked at instrument panel? YES _____ NO
- X8.12.9 All circuits protected by re-set circuit breakers or fuses? YES _____ NO
- X8.12.10 Lighting circuits wired so that if a short occurs engine shutdown will not occur? YES _____ NO
- X8.12.11** Are the **batteries** the type commonly used by manufacturer in a heavy duty application with **maximum CCA capacity available from the motor grader manufacturer?** YES _____ NO
- X8.12.12** Batteries are maintenance free heavy duty? YES _____ NO CCA: 1125
- X8.12.13 Is a hold down device provided for manufacturers battery(ies)? YES _____ NO
- X8.12.14 Are battery(ies) easily accessible for servicing and delivered with electrolyte installed? YES _____ NO

X8.13 Wheels/Tires:

- X8.13.1 Are graders provided with six (6) wheels, two (2) wheels on front axle and four (4) wheels arranged in tandem on the rear axle with manufacturers drive available on all six (6) wheels?
 YES NO
- X8.13.2 Are front and rear tires 14.00 x 24, 12 ply rating tubeless type radial? YES NO
- X8.13.3 Are tires mounted on 10 inch wide rims? YES NO
- X8.13.4 Do rims, valves, caps conform to the standards of the Tire and Rim Association?
 YES NO
- X8.13.5 Are tires capable of accomplishing to the State's satisfaction all applications listed in Section 8.1 with special mention made of deep ditching and traction for steep grades when performing heavy grading functions?
 YES NO

X8.14 Braking System:

- X8.14.1 Are the service brakes multi-disc, oil cooled, and completely sealed YES NO
- X8.14.1.1 Are service brakes hydraulically actuated, utilizing dual independent brake circuits
 YES NO
- X8.14.1.2 Wet disc type inboard on all wheels? YES NO
- X8.14.2 Is parking brake multi-disc, oil cooled, spring applied, hydraulically released, sealed adjustment free and integrated into the transmission? YES NO
- X8.14.3 Do all brake lines and hoses conform to SAE-J1047? YES NO
- X8.14.4 Does service brake system incorporate a stored energy source and accumulator or other means to effectively allow full operator application of the brake system in the event of engine failure, hydraulic failure, or air pump failure?
 YES NO
- X8.14.5 Does the service braking, emergency stopping, and parking systems conform to SAE-J11152?
 YES NO

X8.15 Controls:

- X8.15.1 Are controls for steering and operating the grader, including leaning of the front wheels, full hydraulic type? YES NO
- X8.15.2 Do controls permit simultaneous operation of at least three (3) functional components without appreciable loss of component speed or power? YES NO
- X8.15.3 Will links, cams, gears, etc. in the control mechanisms withstand the maximum stresses imposed upon them under normal operating conditions?
 YES NO

- X8.15.4 Are ball joints and split bearing provided with shims or other means of adjusting for wear and equipped with high pressure lubrication fittings? YES NO
- X8.15.5 Is hydraulic power steering system provided with stopped engine steering capability meeting SAE-J53? YES NO
- X8.15.6 Is hydraulic system protected against the entrance of contamination and complete with the manufacturers recommended operating accessories to include and efficient filtering system easily accessible for cleaning and replacement? YES NO
- X8.15.7 Are high pressure lines suitable for the system design pressure? YES NO
- X8.15.8 Is hydraulic control system equipped with a pressure relief valve and an overload relief which will automatically reset when overload is cleared or pressure-compensated system? YES NO
- X8.15.9 Is hydraulic system capable of providing a moldboard lift speed of at least 3 inches per second? YES NO
- X8.15.10 Does hydraulic system have double acting anti-drift check valves on blade lift, tilt, circle shift, articulation, leaning wheels, and scarifier? YES NO
- X8.16 Circle and Moldboard:
- X8.16.1 Is the moldboard circle and drawbar assembly such as to permit the grader to perform all operations specified herein and should be attached to the frame by a swivel hitch mechanism? YES NO
- X8.16.2 Is moldboard equipped with a hydraulically operated side shift to the right and left of cover position? YES NO
- X8.16.3 Do moldboard controls provide a float position? YES NO
- X8.16.4 Is moldboard constructed of high carbon steel or ally steel securely mounted and designed to give a rolling tumble of materials? YES NO
- X8.16.5 Dimensions:**
- X8.16.5.1 Length: 12 feet
- X8.16.5.2 Width (measured along curve): 2 feet
- X8.16.5.3 Thickness: 7/8 inches
- X8.16.5.4 Depth of cut: 28.3 inches
- X8.16.5.5 Lift above ground level: 16.8 inches
- X8.16.5.6 Reach outside tire line left: 68.6 inches right: 75 inches
- X8.16.5.7 Bank slipping angle - 90 ° left and 90 ° right

- X8.16.6 Is moldboard punched for standard replaceable cutting blades and replaceable end bits?
 YES NO
- X8.16.7 Are all holes for cutting edges drilled or punched to accommodate a standard 5/8 inch plow bolt with hex nut?
 * YES NO
- X8.16.8 Is moldboard circle provided with shims or other adequate means of adjustment for wear?
 Changed to 3/4" in addendum #5
 YES NO
- X8.16.9 Is hydraulically operated power tilt moldboard furnished? YES NO
- X8.16.10 Is the design of the moldboard such that full 360° rotation can be accomplished with the blade slightly raised without manipulation of controls other than power shifting to clear tires, transmission or other integral parts of the machine? YES NO
- X8.16.11 Is the normal operating range controlled from the operators station and not less than from a position of ditching forward and backward on either side of the grader to a bank-sloping position of 90° on the right side without removing the scarifier? YES NO
- X8.16.12 For bank-sloping positions of 45° or more, is the lower point of the blade at ground level at, or outside of, the line of tires so that a smooth cut to the bottom of the slope may be obtained without placing the wheels on the slope? YES NO
- X8.16.13 Does any movement or combination of movements or adjustments of the moldboard assembly, when operated in accordance with manufacturers guidelines, cause any part of the actuating mechanism to contact any structural mechanism or structural part of the grader in such a manner as to damage structure or mechanism? YES NO**
- X8.16.14 Does the grader blade lower its position more than 1/4 inch per hour when the blade is in the raised position and all controls are in neutral and engine off? YES NO
- X8.16.15 Is the unit equipped with manufacturer's blade lift accumulators and side shift accumulators?
 YES NO
- X8.17 Scarifier:
- X8.17.1 Is a scarifier furnished with each grader, front mounted? YES NO
- X8.17.2 Is the scarifier of the V-type, power control operated, and equipped with removable teeth having replaceable points? YES NO
- X8.17.3 Scarifier cutting width: 47.4 inches
- X8.17.4 Number of teeth: 5
- X8.17.5 Weight: 865 lbs.
- X8.17.6 Does scarifier allow grader to ditch when in raised position? YES NO

- X8.17.7 Scarifier
 Manufacturer: CATERPILLAR Model: 212-6032 FRONT V-TYPE
 Mounted on front of grader? YES NO
- X8.18 ROPS Cab (Low Profile):
- X8.18.1 Are graders furnished with R.O.P.S. cabs, conforming to SAE J-1040? YES NO
- X8.18.2 Are cabs completely enclosed, with door on each side, constructed of heavy gauge materials and equipped with manufacturers tinted safety glass at all locations to provide 360° visibility? YES NO
- X8.18.3 Are all controls for operating and steering mounted inside of the cab? YES NO
- X8.18.4 Are cab doors lockable, keyed alike, and provided with fasteners to hold doors open during operation? YES NO
- X8.18.5 Is windshield and rear window provided with manufacturers electrically operated windshield wipers and washers? YES NO
- X8.18.6 Is an adjustable review convex mirror provided and mounted inside cab to afford a clear vision to the rear of the grader? YES NO
- X8.18.7 Does cab have heat and air, front and rear windshield defroster? YES NO
- X8.18.8 Is instrument panel located convenient to the seated operator? YES NO
- X8.18.9 Is manufacturers following standard instrumentation furnished including a positive means of monitoring vital systems:**
- X8.18.9.1 Engine oil pressure, engine coolant temperature, electrical system, torque converter temperatures and transmission pressure (if applicable) and hydraulic oil temperature?** YES NO
- If NO, specify _____
- X8.18.10 Manufacturers warnings: Audio and/or lights on engine oil pressure, engine coolant temperature, and electrical system? YES NO
- If NO, specify _____
- X8.18.11 Does operators position include seat fully cushioned of the full suspension type, cloth covered, vertical and horizontal adjustments, padded arm rests, and manufacturers recommended seat belt system with retractors? YES NO
- If NO, specify _____

X8.19 Equipment and Accessories:

- X8.19.1 Vandalism protection kit including locking type caps for all exposed filler caps? YES NO
- X8.19.2 Weather resistant, lockable tool box YES NO
- X8.19.3 Articulation position indicator YES NO
- X8.19.4 Hour meter at dash board location (engine oil pressure activated)? YES NO
- X8.19.5 Air cleaner rain cap YES NO
- X8.19.6 Dash mounted air filter service indicator YES NO
- X8.19.7 Engine block heater; thermostat controlled YES NO
- X8.19.8 Deflector type exhaust stack YES NO
- X8.19.9 Muffler YES NO
- X8.19.10 Fuel gauge dial type dash mounted YES NO
- X8.19.11 AM/FM radio, installed complete with antenna mounted in such a manner as to prevent being damaged by tree limbs, etc. YES NO
- X8.19.12 Manufacturers installed pressurized cab air conditioning system? YES NO
- X8.19.13 Strobe light hinged and protected, dual flash high intensity type? YES NO

Manufacturer: CATERPILLAR

Model : 338-1132 LED STROBE Description: AMBER HIGH-SPEED STROBE BEACON

X8.20 Paint:

- X8.20.1 Is motor grader and attachments painted manufacturers standard? YES NO

X8.21 Safety:

- X8.21.1 Will all exposed parts subject to high operating temperature or energized electrically be located, insulated, enclosed, or guarded so as to prevent hazards to operating personnel? YES NO
- X8.21.2 Will all moving parts which are of such a nature or so located as to be a hazard to operating personnel be enclosed or guarded? YES NO
- X8.21.3 Do protective devices impair operating functions? YES NO

X8.21.4 Are handles and non-skid steps of size, shape, and located to permit safe mounting and dismounting? YES NO

X8.22 Does proposed unit meet or exceed the "OSHA OF 1970" and/or subsequent changes? YES NO

X8.23 Does unit conform to the advertising guidelines? YES NO

X8.24 Preventive Maintenance and Operators Orientation/Training:

X8.24.1 Attach a copy of Proposed Training Program. NOTE: 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. ATTACHED

X8.24.2 Will you conduct a minimum of one (1) day preventive maintenance/operator orientation seminar at the Equipment Division in Buckhannon, W. Va.? YES NO

X8.24.3 If you are the successful vendor, will you furnish all training aids? YES NO

X9.0 HYDRAULICALLY CONTROLLED REVERSIBLE FRONT MOUNTED SNOW PLOW

Manufacturer: CATERPILLAR Model: 230-7085 HYDRAULIC REVERSIBLE PLOW

X9.1 Is plow designed to fit and be fully compatible with the proposed motor grader? YES NO

Is plow designed for use in snow and light earthmoving? YES NO

Are they easily removable for transportation? YES NO

X9.1.1 Are blades complete with all necessary cab controls and mounting hardware? YES NO

X9.2 Specification for Plow:

X9.2.1 Is manufacturer's standard warranty provided and attached? YES NO

X9.2.2 Moldboard length: 12 feet

X9.2.3 Moldboard height: 48 inches

X9.2.4 Reversing Cylinders:

X9.2.4.1 Does plow consist of two (2) double acting hydraulic cylinders?
 YES NO

Inside diameter: 4 inch with a piston rod 2 inches

Chrome plated with a stroke of 17.5 inches

X9.2.4.2 Are these cylinders capable of reversing the plow from 35° right and 35° left minimum? YES NO

X9.2.4.3 Diameter of cylinder mounting pins: 2" inches

X9.2.5 Cushion Valves:

X9.2.5.1 Is a cushion valve included in the hydraulic reversing system as a safety factor to help protect the cylinders? YES NO

X9.2.6 Cutting Edge: 5/8 inch x 8 inches x 120 inches

Is it compatible with the plow? YES NO

X9.2.7 Number of wear shoes: 2

X9.2.8 Vertical Ribs: 5 CENTER, 7 TOP, 9 BOTTOM

X9.2.9 Is the hitch front mounted, quick coupler, coupling system? YES NO

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 preference for the reason checked: Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2. Application is made for 2.5% resident vendor preference for the reason checked: Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3. Application is made for 2.5% resident vendor preference for the reason checked: Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4. Application is made for 5% resident vendor preference for the reason checked: Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: C.I. WALKER MACHINERY Co. Signed: Mark Z. Com
Date: 2/15/11 Title: SALES REPRESENTATIVE

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

RFQ No. 7011EC09

STATE OF WEST VIRGINIA
Purchasing Division
PURCHASING AFFIDAVIT

West Virginia Code §6A-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 owed 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.

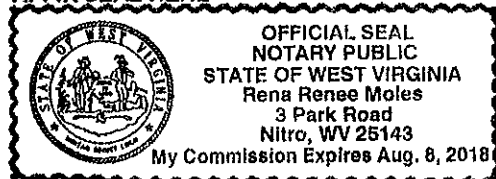
"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality 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 exceeds 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.

WITNESS THE FOLLOWING SIGNATUREVendor's Name: C. I. Walker Machinery Co.Authorized Signature: Maud Z. Com Date: 2/15/11State of West VirginiaCounty of Kanawha to-wit:Taken, subscribed, and sworn to before me this 15 day of February, 2011.My Commission expires August 8, 2018.

AFFIX SEAL HERE

NOTARY PUBLIC Rena Renee Moles



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
 7011EC09

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 BUYER 33
 304-558-2402

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

DIVISION OF HIGHWAYS
 EQUIPMENT DIVISION
 ROUTE 33
 BRUSHY FORK ROAD
 BUCKHANNON, WV
 26201 304-472-1750

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
12/13/2010				

BID OPENING DATE: 01/18/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
				ADDENDUM NO. 1		
				L.) CORRECT MANDATORY PRE-BID DATE		
				MANDATORY PRE-BID WILL BE HELD ON TUESDAY		
				JANUARY 4, 2010 10:00 AM BRUSHY FORK ROAD		
				BUCKHANNON, WV 26201		
				***** END ADDENDUM NO. 1 *****		
0001	1	EA		765-59		
				MOTOR GRADER ARTICULATED ALL WHEEL SNOWPLOW		
				***** THIS IS THE END OF RFQ 7011EC09 *****		
				TOTAL:		\$ 172,125. ⁰⁰

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>M. J. Conn</i>	TELEPHONE (304) 543-5406	DATE 2/15/11
TITLE Sales Representative	FON 55-035 2647	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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
 7011EC09

PAGE
 1

ADDRESS FOR CORRESPONDENCE TO ATTENTION OF
 BUYER 33
 304-558-2402

RFQ COPY
 TYPE NAME/ADDRESS HERE
 VENDOR

DIVISION OF HIGHWAYS
 EQUIPMENT DIVISION
 ROUTE 33
 BRUSHY FORK ROAD
 BUCKHANNON, WV
 26201 304-472-1750

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
01/11/2011				

BID OPENING DATE: 02/08/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
				ADDENDUM NO. 2		
				THIS ADDENDUM IS BEING ISSUED TO:		
				1.) EXTEND THE BID OPENING DATE FROM		
				01/18/2011 @ 1:30 PM TO 02/08/2011 @ 1:30 PM.		
				2.) PROVIDE A COPY OF THE MANDATORY PRE-BID MEETING		
				SIGN IN SHEET		
				*****END ADDENDUM NO. 2*****		
0001	1	EA		765-59		
				MOTOR GRADER ARTICULATED ALL WHEEL SNOWPLOW		
				***** THIS IS THE END OF RFQ 7011EC09 *****		
				TOTAL:		\$ 172,125.00

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: *[Signature]* TELEPHONE: (304) 543-5406 DATE: 2/15/11

TITLE: Sales Representative FEIN: 55-0352647 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

Pre-Bid Conference SIGN IN SHEET

[Please Print]

Request for Proposal No.: 7011ECO9 Date: 1/4/2011

Firm & Representative Name

Mailing Address

Telephone & FAX Numbers

- | | | | |
|-----|---|--|--|
| 1. | <u>Leslie Equipment Company</u>
<u>David Gassner</u> | <u>P.O. Box 299</u>
<u>Morken, WV 26285</u> | T: <u>304-636-6921</u>
F: <u>304-636-3576</u> |
| 2. | <u>Rudd Equipment Co.</u>
<u>Brian Reed</u> | <u>BUNCHER COMMERCE PARK</u>
<u>BLDG 1 AVE. A. LEESDALE, PA</u>
<u>15056</u> | T: <u>(304) 319-1495</u>
F: <u>(412) 741-6236</u> |
| 3. | <u>Eric Ramey</u>
<u>C.I. Walker Machinery</u> | <u>PO Box 2427</u>
<u>Charleston WV 25309</u> | T: <u>304-389-4190</u>
F: <u>304-949-7272</u> |
| 4. | <u>Curt Pavelka</u>
<u>Caterpillar Inc.</u> | <u>14009 Old Galena Rd.</u>
<u>Mossville, IL 61552</u> | T: <u>309-339-6117</u>
F: <u>309-992-6871</u> |
| 5. | <u>Matt Conner</u>
<u>C.I. Walker Machinery</u> | <u>PO Box 2427</u>
<u>Charleston, WV 25309</u> | T: <u>304-543-5406</u>
F: <u>304-759-6404</u> |
| 6. | <u>WEST VIRGINIA TRACTOR</u>
<u>BARY GRADY</u> | <u>P.O. Box 473</u>
<u>Charleston WV 25322</u> | T: <u>304-346-5301</u>
F: <u>304-346-5305</u> |
| 7. | _____ | _____ | T: _____
F: _____ |
| 8. | _____ | _____ | T: _____
F: _____ |
| 9. | _____ | _____ | T: _____
F: _____ |
| 10. | _____ | _____ | T: _____
F: _____ |

Please print or write legibly. The fax number is essential to contact the attendees in a timely manner.

Pre-Bid Conference **SIGN IN SHEET**

[Please Print]

Request for Proposal No.: _____ Date: _____

Firm & Representative Name

Mailing Address

Telephone & FAX Numbers

1. HENKE MFG SNOWPLOW
MIKE BLAKE

3070 WILSON AVE
LEAVENWORTH KS 66048

T: 913-682-9000
F: 913-682-0300

2. HENKE MFG, SNOWPLOW
PETE RUFO

3070 Wilson Ave
Leavenworth, KS 66048

T: 717-891-4725
F: 913-682-0300

3. Rudd Equipment
John Westfall

500 River Road
Nitro WV 25143

T: 804-610-0188
F: 804-755-7990

4. Rudd Equipment Co
~~Row JACOB~~
Row JACOB

P.O. Box 610
Nitro, WV 25143

T: 304-546-5253
F: 304-755-7990

5. _____

T: _____
F: _____

6. _____

T: _____
F: _____

7. _____

T: _____
F: _____

8. _____

T: _____
F: _____

9. _____

T: _____
F: _____

10. _____

T: _____
F: _____

Please print or write legibly. The fax number is essential to contact the attendees in a timely manner.

Pre-Bid Conference SIGN IN SHEET

[Please Print]

Request for Proposal No.: _____ Date: _____

Firm & Representative Name

Mailing Address

Telephone & FAX Numbers

E mail

1. Karen Cochran _____ T: _____
Marina Lee _____ F: _____

2. Ann Riley _____ T: _____
WVDA _____ F: _____

3. Angie Moore _____ T: _____
WVDOH _____ F: _____

4. Sheri Stone _____ T: _____
WVDOA _____ F: _____

5. _____ T: _____
 _____ F: _____

6. _____ T: _____
 _____ F: _____

7. _____ T: _____
 _____ F: _____

8. _____ T: _____
 _____ F: _____

9. _____ T: _____
 _____ F: _____

10. _____ T: _____
 _____ F: _____

Please print or write legibly. The fax number is essential to contact the attendees in a timely manner.



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
 7011EC09

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 BUYER 33
 304-558-2402

RFQ COPY
 TYPE NAME/ADDRESS HERE

DIVISION OF HIGHWAYS
 EQUIPMENT DIVISION
 ROUTE 33
 BRUSHY FORK ROAD
 BUCKHANNON, WV
 26201 304-472-1750

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
01/21/2011				

BID OPENING DATE: 02/08/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 3						
THIS ADDENDUM IS ISSUED TO PROVIDE REVISIONS TO THE SPECIFICATIONS, PER THE ATTACHED.						
*****END ADDENDUM NO. 3*****						
0001	1	EA		765-59		
MOTOR GRADER ARTICULATED ALL WHEEL SNOWPLOW						
***** THIS IS THE END OF RFQ 7011EC09 *****						TOTAL: \$172,125.00

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: *[Signature]* TELEPHONE: (304) 543-5406 DATE: 2/15/11

TITLE: SALES REPRESENTATIVE FEIN: 55-0352047 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

PREBID ADDENDUM #3
70-11-EC09

OPEN END CONTRACT
MOTOR GRADER ARTICULATED ALL WHEEL DRIVE,
REVERSIBLE FRONT MOUNTED SNOWPLOW

CHANGES TO SPECIFICATIONS

FROM:

8.1.3 The State requires proof that the motor grader meets the reserve tractive effort requirements as listed in Section 8.1.4. **A copy of the test results, certified by an independent test facility with proper qualifications, must be offered with the Request For Quotation as acceptable proof.**

TO:

8.1.3 The State requires proof that the motor grader meets the reserve tractive effort requirements as listed in Section 8.1.4. These efforts to be performed on asphalt 0-195 MPH. **A copy of the test results, certified by an independent test facility with proper qualifications, must be offered with the Request For Quotation as acceptable proof.**

FROM:

8.1.4 **The minimum blade HP point shall be 30,603**

TO:

8.1.4 **The minimum blade Hp shall be 30,603 lbs. force with use of all wheel drive unit being quoted at coefficient of 0.9.**

FROM:

8.1.7 **Minimum wheelbase of 233 inches.** (Distance from the center of front axle to the center line of the rear main tandem drive axles.)

TO:

8.1.7 **Minimum wheelbase of 232 inches.** (Distance from the center of front axle to the center line of the rear main tandem drive axles.)

Prebid Addendum
7011EC09

FROM:

9.1 General:

The hydraulically controlled reversible front mounted snow plows shall be designed to fit and be fully compatible with the proposed motor graders. The plows shall be designed for use in snow and light earthmoving. They should be easily removable for transportation.

TO:

9.1 General:

The hydraulically controlled reversible front mounted snow plows shall be designed to fit and be fully compatible with the proposed motor graders. The plows shall be designed for use in snow and earthmoving, and blade must be accept machine down pressure. They should be easily removable for transportation.

PREBID ADDENDUM #3
70-11-EC09

OPEN END CONTRACT
MOTOR GRADER ARTICULATED ALL WHEEL DRIVE,
REVERSIBLE FRONT MOUNTED SNOWPLOW

CHANGES TO BIDDER'S EVALUATION REPORT:

FROM:

X8.1.3 Is a copy of required test results attached that proves the motor grader meets the reserve tractive effort requirements listed in Section 8.1.4? YES NO

TO:

X8.1.3 Is a copy of required test results attached that proves the motor grader meets the reserve tractive effort requirements listed in Section 8.1.4? YES NO

Will these efforts be performed on asphalt 0-195 MPH? YES NO

FROM:

X8.1.4 Blade HP point: _____

TO:

X8.1.4 Blade HP point: 30,603 lbs. force with use of all wheel drive unit being quoted at coefficient of 0.9? YES NO

NO CHANGE REQUIRED

X8.1.7 Wheelbase: 232 inches

FROM:

X9.1 Is plow designed to fit and be fully compatible with the proposed motor grader? YES NO
Is plow designed for use in snow and light earthmoving? YES NO
Are they easily removable for transportation? YES NO

TO:

X9.1 Is plow designed to fit and be fully compatible with the proposed motor grader? YES NO
Is plow designed for use in snow and earthmoving YES NO
And blade accepts machine down pressure YES NO
Are they easily removable for transportation? YES NO



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
7011EC09

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
BUYER 33
304-558-2402

RFQ COPY

TYPE NAME/ADDRESS HERE

SHIP TO

DIVISION OF HIGHWAYS
EQUIPMENT DIVISION
ROUTE 33
BRUSHY FORK ROAD
BUCKHANNON, WV
26201 **304-472-1750**

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
02/06/2011				

BID OPENING DATE: **02/15/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 4 THIS ADDENDUM IS ISSUED TO EXTEND THE BID OPENING DATE FROM: 02/08/2011 AT 1:30 PM TO 02/15/2011 AT 1:30 PM *****END ADDENDUM NO. 4*****						
0001	1	EA		765-59		
MOTOR GRADER ARTICULATED ALL WHEEL SNOWFLOW						
***** THIS IS THE END OF RFQ 7011EC09 ***** TOTAL:						\$ 172,125. ⁰⁰

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>M. J. Conn</i>	TELEPHONE (304) 543-5406	DATE 2/15/11
TITLE SALES REPRESENTATIVE	FEIN 55-0352647	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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

Request for Quotation

BID NUMBER
7011EC09

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
BUYER 33
304-558-2402

RFQ COPY
 TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

DIVISION OF HIGHWAYS
 EQUIPMENT DIVISION
 ROUTE 33
 BRUSHY FORK ROAD
 BUCKHANNON, WV
 26201 304-472-1750

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
02/07/2011				

BID OPENING DATE: **02/15/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 5						
THIS ADDENDUM IS ISSUED TO MAKE CORRECTIONS TO THE SPECIFICATIONS PER THE ATTACHED.						
BID OPENING REMAINS 02/15/2011 AT 1:30 PM						
*****END ADDENDUM NO. 5*****						
0001	1	EA		765-59		
MOTOR GRADER ARTICULATED ALL WHEEL SNOWPLOW						
***** THIS IS THE END OF RFQ 7011EC09 ***** TOTAL:						\$ 172,125.00

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: *Max J. Com...* TELEPHONE: (304) 543-5406 DATE: 2/15/11

TITLE: SALES REPRESENTATIVE FEIN: 55-0352647 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

PREBID ADDENDUM #5
70-11-EC09

OPEN END CONTRACT
MOTOR GRADER ARTICULATED ALL WHEEL DRIVE,
REVERSIBLE FRONT MOUNTED SNOWFLOW

CHANGES TO SPECIFICATIONS

TYPOGRAPHICAL ERROR MADE IN PREBID ADDENDUM #3 - CHANGE TO READ:

FROM:

8.1.3 The State requires proof that the motor grader meets the reserve tractive effort requirements as listed in Section 8.1.4. **A copy of the test results, certified by an independent test facility with proper qualifications, must be offered with the Request For Quotation as acceptable proof.**

TO:

8.1.3 The State requires proof that the motor grader meets the reserve tractive effort requirements as listed in Section 8.1.4. These efforts to be performed on asphalt 0-19.5 MPH. **A copy of the test results, certified by an independent test facility with proper qualifications, must be offered with the Request For Quotation as acceptable proof.**

PREBID ADDENDUM #5
70-11-EC09

OPEN END CONTRACT
MOTOR GRADER ARTICULATED ALL WHEEL DRIVE,
REVERSIBLE FRONT MOUNTED SNOWPLOW

CHANGES TO BIDDER'S EVALUATION REPORT:

TYPOGRAPHICAL ERROR MADE IN PREBID ADDENDUM #3 – CHANGE TO READ:

FROM:

X8.1.3 Is a copy of required test results attached that proves the motor grader meets the reserve tractive effort requirements listed in Section 8.1.4? YES NO

TO:

X8.1.3 Is a copy of required test results attached that proves the motor grader meets the reserve tractive effort requirements listed in Section 8.1.4? YES NO

Will these efforts be performed on asphalt 0-19.5 MPH? YES NO

PREBID ADDENDUM : #5
70-11-EC09

OPEN END CONTRACT
MOTOR GRADER ARTICULATED ALL WHEEL DRIVE,
REVERSIBLE FRONT MOUNTED SNOWPLOW

CHANGES TO BIDDER'S EVALUATION REPORT:

FROM:

X8.16.7 Are all holes for cutting edges drilled or punched to accommodate a standard 5/8 inch plow bolt with hex nut? YES NO

TO:

X8:16.7 Are all holes for cutting edges drilled or punched to accommodate a standard 3/4 inch plow bolt with hex nut? YES NO

C.I. Walker Machinery Co.
Exceptions to RFQ 7011EC09
All exceptions are on non-mandatory specs

- X8.12.5.1 Are two (2) sealed beam halogen headlights with high/low beam switch operated from the cab provided?

Headlights are not standard equipment -- can be added. Standard lighting equipment includes two roof mounted work lights, reverse travel lights, and LED stop and tail lights.
- X8.12.5.2 Headlights mounted within the width of the cab?

Headlights are not standard equipment – can be added
- X8.12.5.3 Separate front (amber) and rear (red) turn signals?

Turn signals are not standard equipment – can be added
- X8.12.5.6 Turn signals incorporate a heavy duty flasher?

Turn signals are not standard equipment – can be added
- X8.12.5.7 Operator controlled four way hazardous warning signal with convenient cab located switch?

Hazardous warning signals are not standard equipment – can be added
- X8.12.5.8 Sealed beam halogen work light provided on each side of front lower section of the cab?

Sealed beam halogen work lights are not standard equipment – can be added
- X8.12.5.9 Are work lights swivel mounted to facilitate lighting of the blade working area, switched and marked at cab location?

Work lights are not standard equipment – can be added
- X8.13.2 Are front and rear tires 14.00 x 24, 12 ply rating tubeless type radial?

Front and rear tires are bias ply, which are standard equipment. Radial Tires can be added.

X8.16.15 Is the unit equipped with manufacturer's blade lift accumulators and side shift accumulators?

Blade lift and side shift accumulators are not standard equipment – can be added. However, the machine is standard equipped with a circle drive slip clutch that allows the moldboard to absorb horizontal impacts on the toe or heel of the moldboard and not transfer that impact to the drawbar or circle components.

X8.18.5 Is windshield and rear window provided with manufacturer's electrically operated windshield wipers and washers?

Machine has front wipers. Rear wipers are not standard equipment – can be added

X8.18.7 Does cab have heat and air, front and rear windshield defroster?

Machine is equipped with Heat and Air. Defrosters are not standard equipment – can be added

X8.19.11 AM/FM radio, installed complete with antenna mounted in such a manner as to prevent being damaged by tree limbs, etc.

Machine is radio ready, however a radio is not standard equipment – can be added

C.I. Walker Machinery Co.
2/15/11
Schedule of 120M Motor Grader Training

C. I. Walker Machinery Co. will provide necessary training upon delivery of 120M motor graders to the West Virginia Department of Highways. This training will be offered at the Equipment Division in Buckhannon and will be open to participants as elected by the Equipment Division. This training will last one full day and will cover Preventive Maintenance as well as Operator Training. All training aids will be provided by C.I. Walker Machinery Co. This training will be offered with each purchase order number received.

Govindappa Puttaiah, Ph.D., P.E.
No.4 Adena Drive, Box 184
Mount Carbon, WV 25136
Phone: 303 549 2338
e-mail: gputtaiah@wvutec.edu

TO WHOM IT MAY CONCERN

RE: Maximum Blade Pull of Caterpillar 120M All Wheel Drive Motor Grader

SPECIFICATIONS: Paragraph 8.1.4 in the original RFQ: "The minimum blade HP shall be 30,603 lbs. force with use of all wheel drive unit being quoted at coefficient of 0.9."

Assumptions:

1. Formula Used:
Maximum Blade Pull (Pound Force) = Gross Vehicle Weight (Pound) x
Coefficient of Traction
2. Gross weight of Caterpillar 120M All Wheel Drive Motor Grader = 35,603 lb.
3. Coefficient of Traction on Dry Concrete Level Surface = 0.9

Substituting the data:

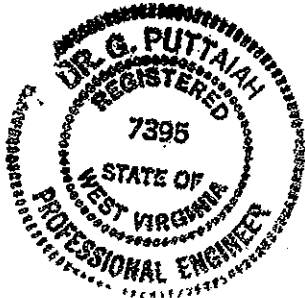
Blade Pull = $35603 \times 0.9 = 32,043$ lbs.

The maximum Blade Pull for Caterpillar 120M all wheel drive motor grader exceeds the minimum requirement as stated in paragraph 8.1.4.

I certify that the estimation of the pull force is correct and accurate per standard engineering practices.

Signed Govindappa Puttaiah Date 02/11/2011

Seal.



State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
P.O. Box 50130
Charleston, WV 25305

To whom it may concern:

Ref: CAT dealer request to provide information to support Request for Quotation (RFQ) Prebid Addendum #3, 70-11-EC09, 8.1.3 & 8.1.4

Category, Make	:	Grader, Caterpillar Inc
Type, Serial Prefix	:	120M AWD, (B9D, R9C, D9W)

As manufactured, 120M AWD with a maximum gross machine weight of 20,271 kg (44,690 lbs.) is compliant to the requirements specified in RFQ Prebid Addendum #3, 70-11-EC09, 8.1.3 & 8.1.4. We determine blade pull calculations theoretically as:

Vehicle Weight X Coefficient of Traction = Blade Pull Calculation

120M AWD blade pull * = Range [30,603 lbs. ~ 40,221 lbs.]

* based on the following:

- Considering base machine weight as 34,003 lbs. & maximum gross machine weight as 44,690 lbs., as provided by the manufacturer
- Coefficient of traction is assumed to be on a hard, level surface such as dry concrete. Only a hard, level surface will allow a high level coefficient of traction equaling 0.9.

Actual machine blade pull depends on its machine weight and operating surface. A blade pull calculation is not indicative of Motor Grader performance, but rather a reflection of gross vehicle weight. It is not intended to account for the engine horsepower settings and overall power train efficiencies of a Motor Grader.

Utilizing the formula stated above, blade pull of 120M AWD offered to the State of West Virginia Department of Highways is 32,043 lbs., exceeding the mandatory requirements of paragraph 8.1.4. (based on a 35,603 lb machine configured to meet specifications stated in the RFQ and coefficient of traction as 0.9).

For any further questions or concerns, please feel free to contact me.



Dr. Alan C. Hansen
Professor
Agricultural and Biological Engineering
University Of Illinois-Urbana/Champaign
Ph: (217) 333-2969
Fax: (217) 244-0323
E-mail: achansen@illinois.edu

120M/ 120M AWD

Motor Grader



Cat® C6.6 ACERT™ VHP

Base Power (1st gear) – Net	103 kW	138 hp
VHP Range – Net	103-114 kW	138-153 hp
VHP Plus Range – Net	103-136 kW	138-182 hp
AWD Range – Net	110-144 kW	148-193 hp

Gross Vehicle Weight – Base

Total	14 466 kg	31,891 lb
Front Axle	4209 kg	9,280 lb
Rear Axle	10 256 kg	22,611 lb
Moldboard		
Blade Width	3.668 m	12 ft

120M Motor Grader

The 120M delivers multiple technological breakthroughs to give you the best return on your investment.

Operator Station

- ✓ A technologically advanced cab, featuring joystick controls, provides unmatched comfort and visibility. **pg. 4**

Steering and Implement Controls

- ✓ Two joysticks offer precise control and unparalleled ease of operation. This advanced technology makes the 120M the most operator-friendly motor grader in the world. **pg. 6**

Structures, Drawbar, Circle and Moldboard

- ✓ The 120M frame provides a solid working platform, and the DCM delivers service ease and precise blade control for maximum productivity. **pg. 8**

Integrated Electronic Solutions

- ✓ Full systems integration with advanced electronics including Cat® Messenger, AccuGrade™ blade control system and Cat® ET, create a "Smart Machine" that optimizes performance and availability. **pg. 14**

All-Wheel Drive, Work Tools and Attachments

- ✓ The Work Tools and optional attachments for the 120M, including the industry leading All Wheel Drive system, expand machine versatility, utilization and performance. **pg. 16**

The 120M motor grader represents a revolution in operational efficiency, visibility, service ease and overall productivity, setting the new standard and building on the legacy of high quality you can trust.



Power Train

- ✓ An electronically controlled power shift transmission assures smooth shifting and maximum power to the ground. A modular rear axle and hydraulic brakes simplify serviceability and reduce operating costs. **pg. 10**

Engine

- ✓ The Cat C6.6 engine combines power management with ACERT™ Technology to deliver maximum power and efficiency in every gear while reducing the environmental impact. **pg. 12**

Hydraulics

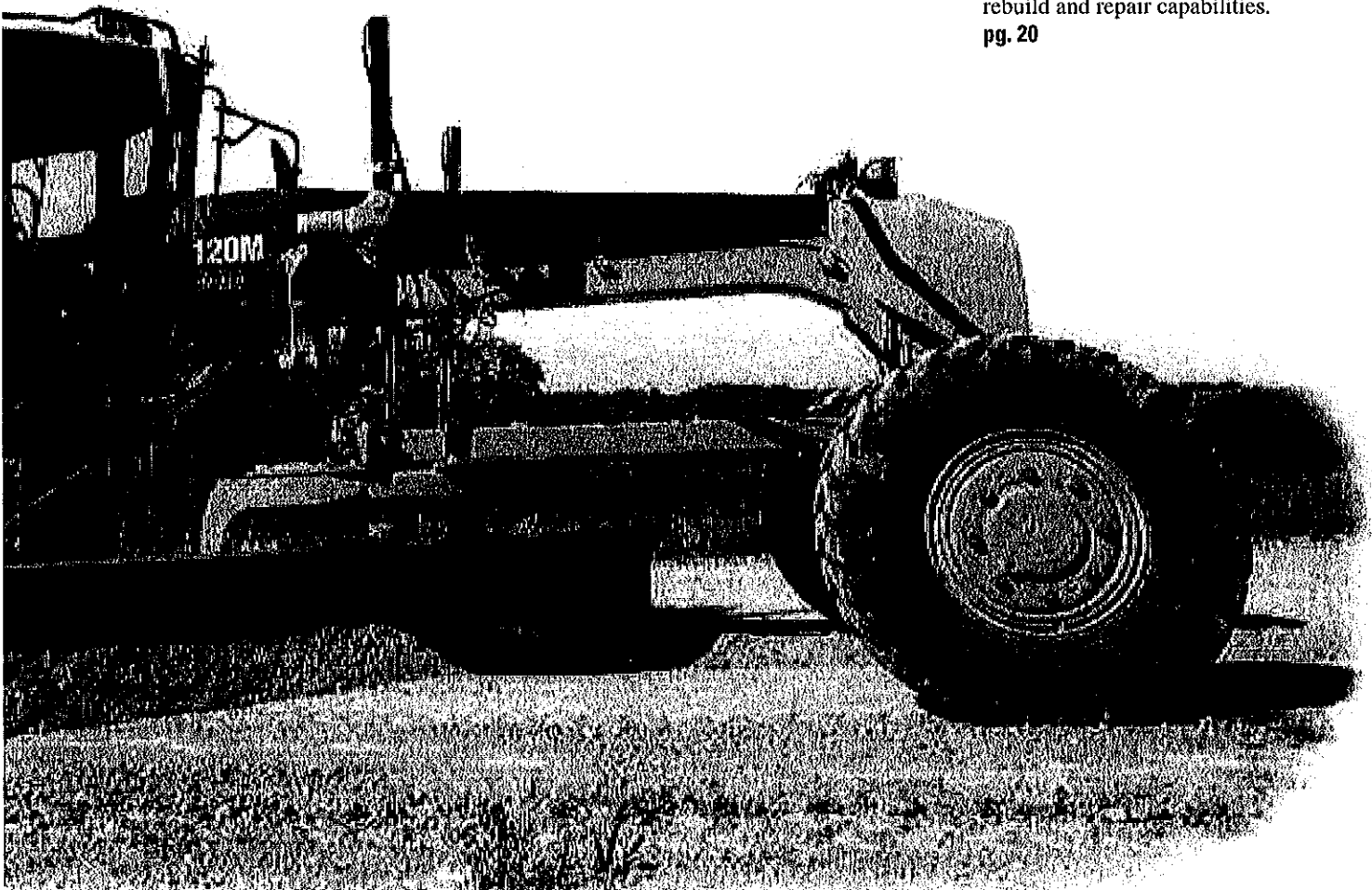
- ✓ The electro-hydraulic load-sensing system provides the foundation for advanced machine controls, enabling superior controllability and precise and predictable hydraulic movements, with the reliability you expect from Caterpillar. **pg. 13**

Safety

- ✓ Caterpillar® has been and continues to be proactive in developing machines that meet or exceed safety standards. **pg. 18**

Serviceability and Customer Support

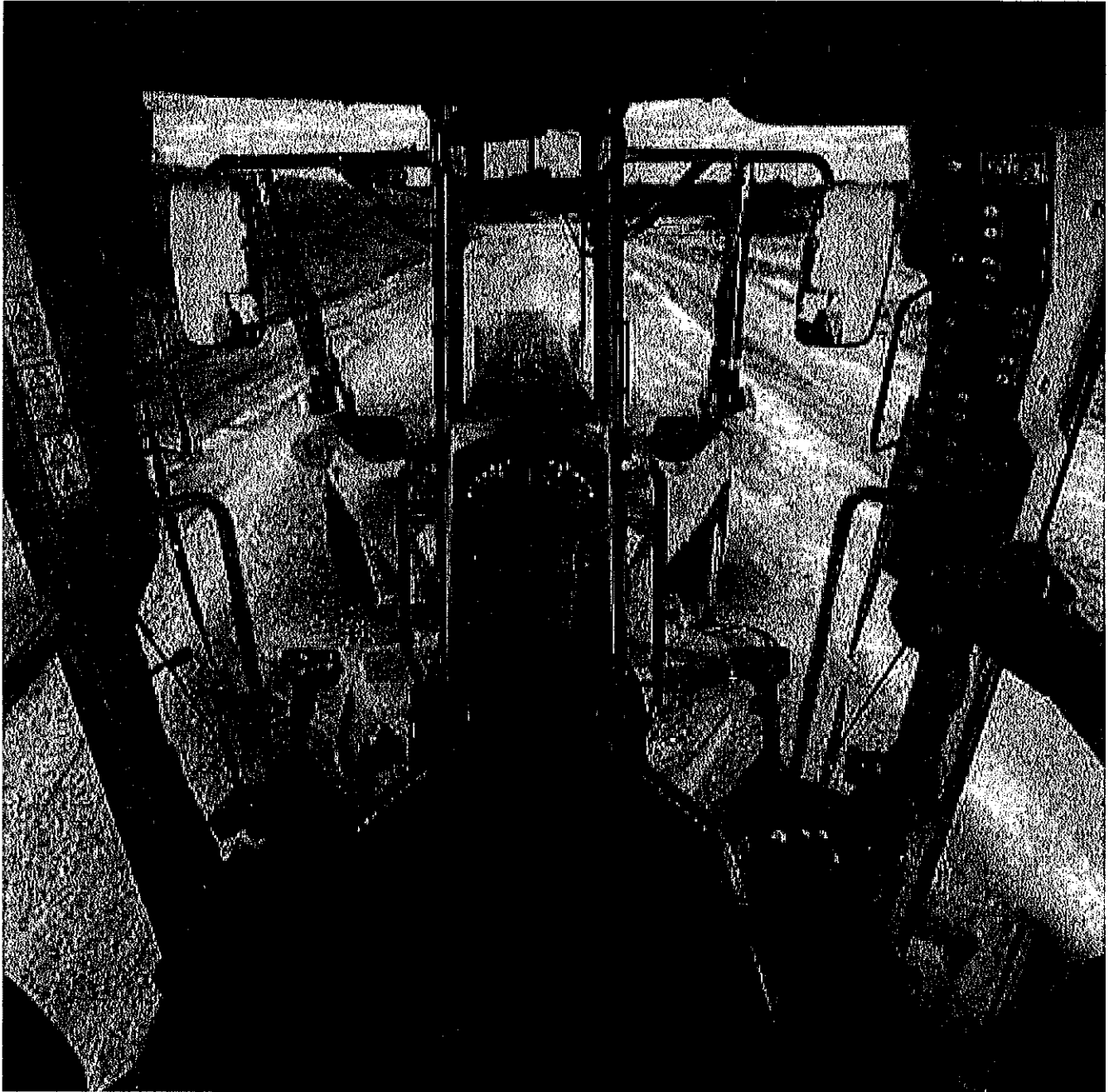
- ✓ Fast component replacement and minimum downtime are possible with Caterpillar's exceptional parts availability and dealers' advanced rebuild and repair capabilities. **pg. 20**



✓ *New Feature*

Operator Station

The 120M features a revolutionary cab design that provides unmatched comfort, visibility and ease of use, making the operator more confident and productive.



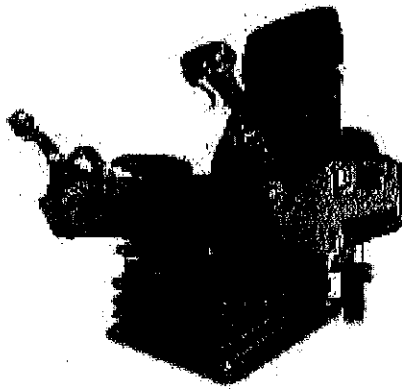
Advanced Joystick Controls.

Two electro-hydraulic joysticks reduce hand and wrist movement as much as 78% compared to conventional lever controls for greatly enhanced operator efficiency. The intuitive pattern is easy to learn and provides the precise implement control you expect from Caterpillar.

Auxiliary Pod and Ripper Control.

The optional ripper control and auxiliary control pod are ergonomically positioned to allow simple, comfortable operation for the multiple hydraulic options.

Visibility. The 120M boasts excellent visibility to the work area, made possible with angled cab doors, a tapered engine enclosure and a patented sloped rear window.



Cat Comfort Series Seat. The Cat® Comfort Series suspension seat has an ergonomic high-back design, with extra thick contoured cushions and infinitely adjustable lumbar support that evenly distributes the operator's weight. Multiple seat controls and armrests are easy to adjust for optimal support and comfort all day. The optional air suspension seat enhances ride quality for additional comfort.

In-Dash Instrument Cluster.

The instrument panel, with easy-to-read, high-visibility gauges and warning lamps, keeps the operator aware of critical system information.

Cat Messenger. Cat Messenger provides real-time machine performance and diagnostic data. You can quickly view critical performance and operating information, in multiple languages, helping to maximize the life and productivity of the machine.

Controls and Switches. Reliable, long-life rocker switches are located on the right side cab post and front instrument cluster, within easy reach for the operator.

Comfort and Convenience. Caterpillar has built the most comfortable cab in the industry by replacing the control levers and steering wheel with two joystick controls, and lengthening the cab to give more leg room.

Multiple adjustment capabilities for the arm rest, wrist rests and joystick pods help keep the operator comfortable throughout a long shift.

Low Interior Sound and Vibration Levels. Isolation mounts for the cab, engine and transmission, in addition to the relocation of the hydraulic pump and valves, provide significant sound and vibration reductions. The low vibration levels and quiet interior provide a comfortable work environment.

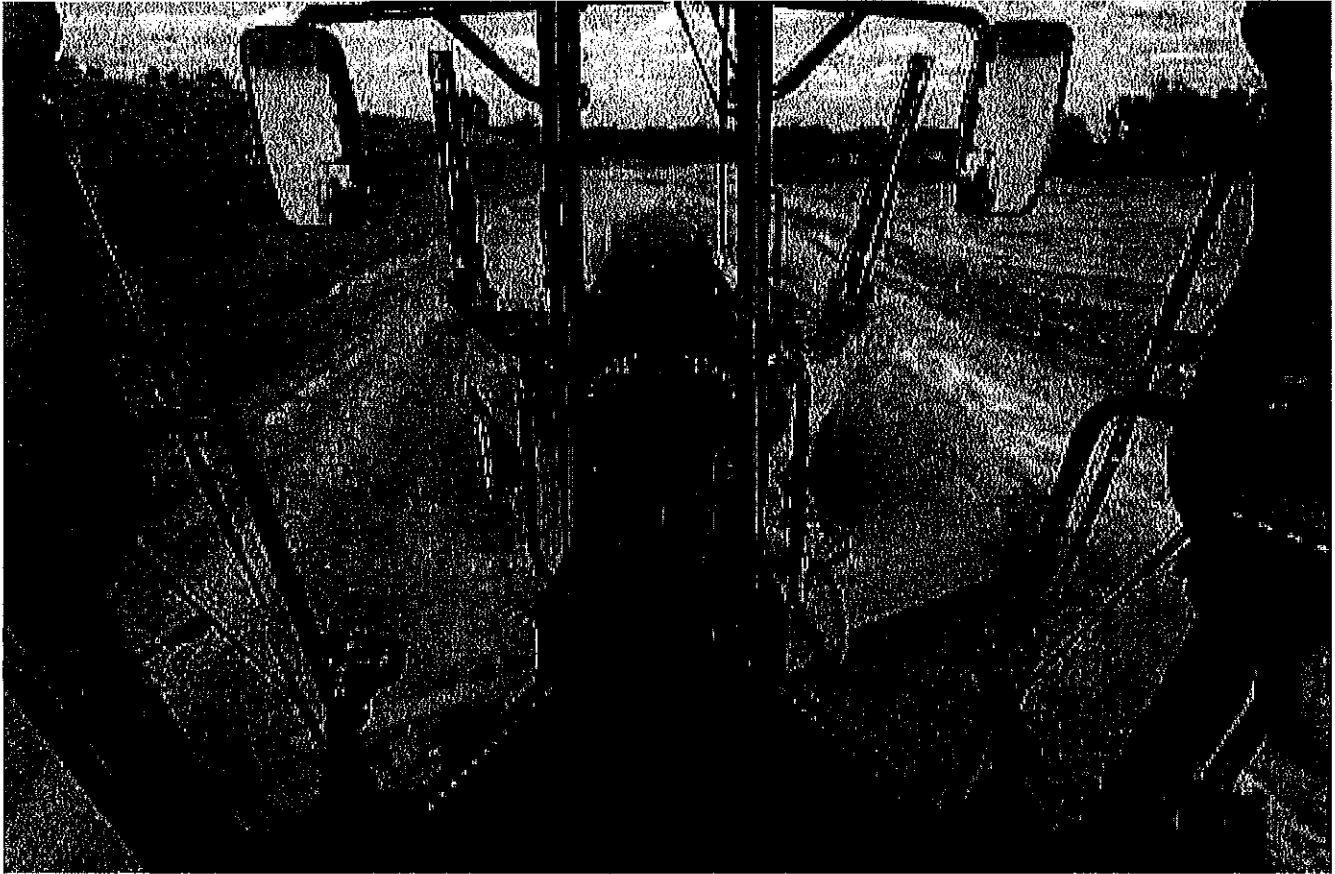


HVAC. The heating, ventilation and air conditioning system uses intelligent vent placement for consistent climate control and clear windows for every condition. The high-capacity system dehumidifies air and pressurizes the cab, circulating fresh air and sealing out dust. An easily accessible fresh air filter is located outside the cab at ground level for quick replacement or cleaning.

Additional Cab Features. Additional cab features include cup holder, lighter and ashtray, coat hook, storage area, night time light, power port and heater. Optional rearview camera, 25 amp power converter and radio are also available.

Steering and Implement Controls

The 120M sets the new standard for motor grader operational efficiency.



Ease of Operation. The revolutionary joystick controls and exceptional visibility make the 120M easier to operate without sacrificing control.

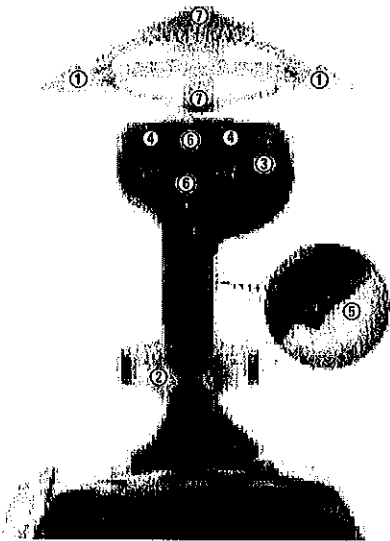
The intuitive joystick control pattern allows both new and experienced operators to become productive quickly.

Logical grouping of hydraulic functions in the joysticks allow any operator to easily control several functions at the same time. This allows the operator to be more productive and remain comfortable throughout the work shift.

Intuitive Steering Control. The 120M introduces a breakthrough in joystick steering control. This technology creates a direct relationship between the lean angle of the joystick and the turning angle of the steer tires.

A brake tensioning system holds the joystick in position until the operator moves it. In addition, the steering control automatically reduces steering sensitivity at higher ground speeds for comfortable and predictable control.

Electronic Throttle Control. Electronic Throttle Control (ETC) provides the operator with easy, precise, and consistent throttle operation. An automatic and manual mode on a single switch offers flexibility for different applications and operator preferences.



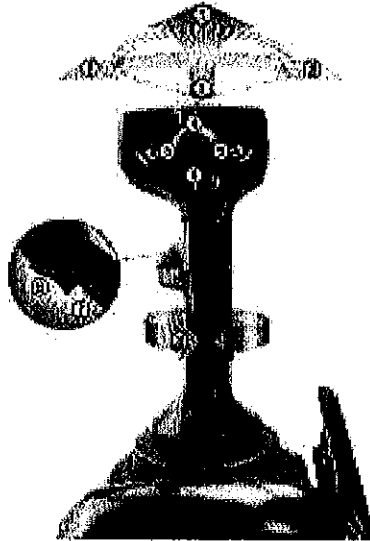
Left Joystick Functions. The left joystick primarily controls the machine direction and speed.

- 1 – Steering: Lean joystick left and right
- 2 – Articulation: Twist joystick left and right
- 3 – Articulation Return to Center: Yellow thumb button
- 4 – Wheel Lean: Two black thumb buttons
- 5 – Direction: Index trigger shifts transmission to forward, neutral or reverse
- 6 – Gear Selection: Two yellow thumb buttons upshift and downshift
- 7 – Left moldboard lift cylinder: Push joystick to lower, pull joystick to raise

Left moldboard lift cylinder float: Pushing joystick through detent engages float

Articulation Return-to-Center.

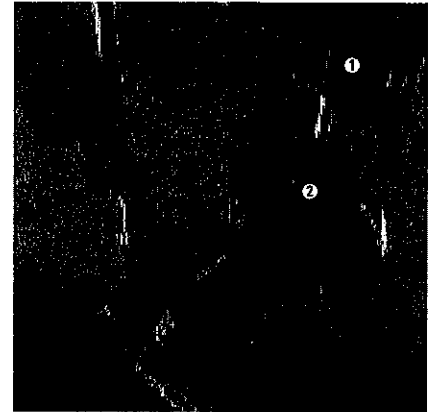
This feature automatically returns the machine to a straight frame position from any articulation angle with the touch of a single button. Return-to-Center helps improve productivity and safety by allowing the operator to focus on controlling the moldboard.



Right Joystick Functions. The right joystick primarily controls the Drawbar, Circle and Moldboard functions.

- 1 – Right moldboard lift cylinder: Push joystick to lower, pull joystick to raise

Right moldboard lift cylinder float: Pushing joystick through detent engages float
- 2 – Moldboard slide: Lean joystick left and right
- 3 – Circle turn: Twist joystick left and right
- 4 – Moldboard tip: Thumb switch fore and aft
- 5 – Drawbar center shift: Thumb switch left and right
- 6 – Electronic Throttle Control: Trigger switch is resume and decrement
- 7 – Differential Lock/Unlock: Yellow button



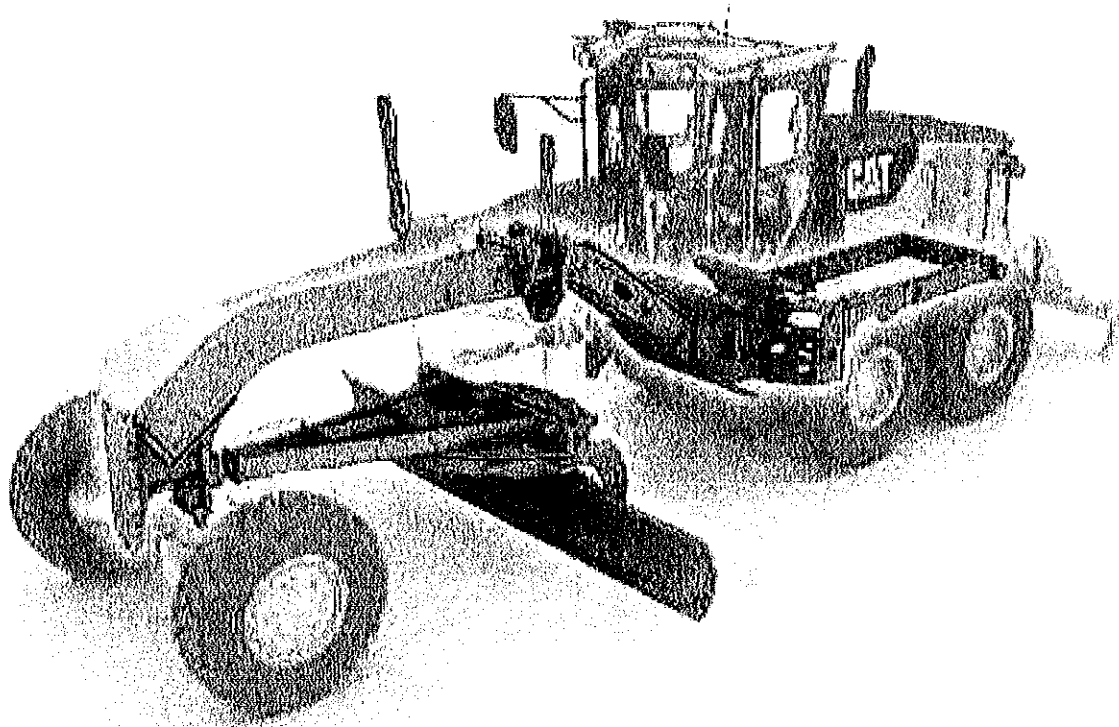
1 – Ripper Control Pod. Infinitely variable roller switches control the rear ripper and/or front lift group (when equipped), for easy and comfortable control.

2 – Programmable Auxiliary Hydraulic Pod. Four fingertip controls and a mini joystick maximize hydraulic control flexibility, accommodating up to six hydraulic circuits. Individual functions are easily programmable through Cat ET to meet the configuration you need.

The optional auxiliary hydraulic pod is provided when the machine is configured with three or more auxiliary functions.

Structures, Drawbar, Circle and Moldboard

Durable structures with fast and simple DCM adjustments deliver precise material control while lowering operating costs.



Front Frame Structure. The 120M front frame is a formed structural carbon steel tube. Advanced fabrication technology significantly reduces the number of weld joints, which more evenly distributes stress loads. The result is a robust machine that delivers the durability you expect from Caterpillar.

Rear Frame Structure. The box-sectioned hitch design helps resist torsion loads and ensure structural durability. The integrated bumper ties the rear frame together as a single, solid unit, so the frame can withstand heavy-duty applications such as ripping and winging snow.

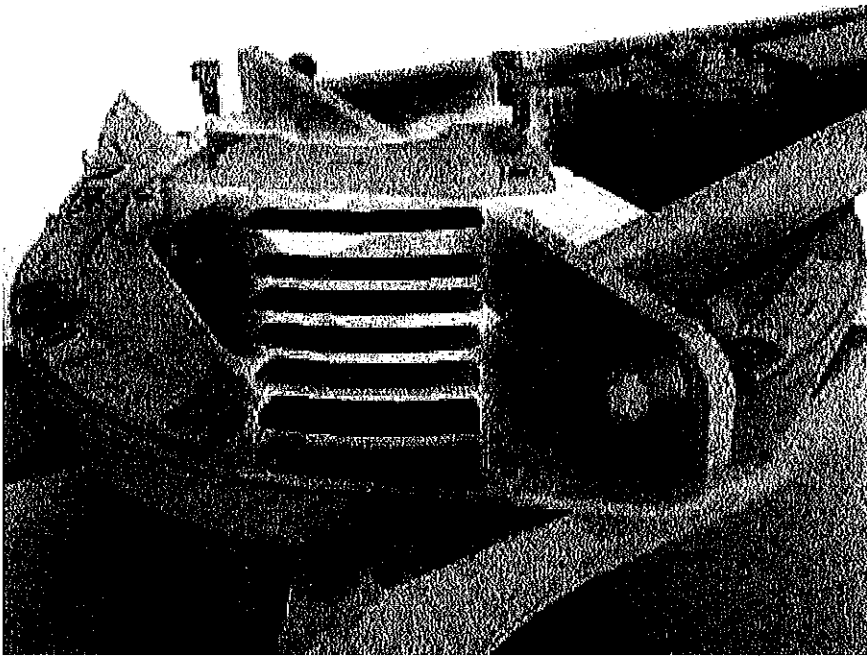
Articulation Hitch. A large tapered roller bearing at the lower pivot carries loads evenly and smoothly. This joint is sealed to prevent contamination in this critical area.

A mechanical locking pin prevents frame articulation to help ensure safety when servicing or transporting the machine.

Circle Construction. Our one-piece forged steel circle is built to stand up to high stress loads and provide structural durability. The front 240° of circle teeth are hardened to reduce wear and ensure component reliability.

Drawbar Construction. The A-frame drawbar features a tubular design for high strength and optimum durability.

Aggressive Blade Angle. With a long wheelbase the operator can obtain aggressive moldboard angles, so material rolls more freely along the length of the blade. This is particularly helpful when handling very dry materials or cohesive soils. Better material control gets the job done faster, requires less power and saves fuel.



Top-adjust drawbar wear strips

Top-Adjust Drawbar Wear Strips.

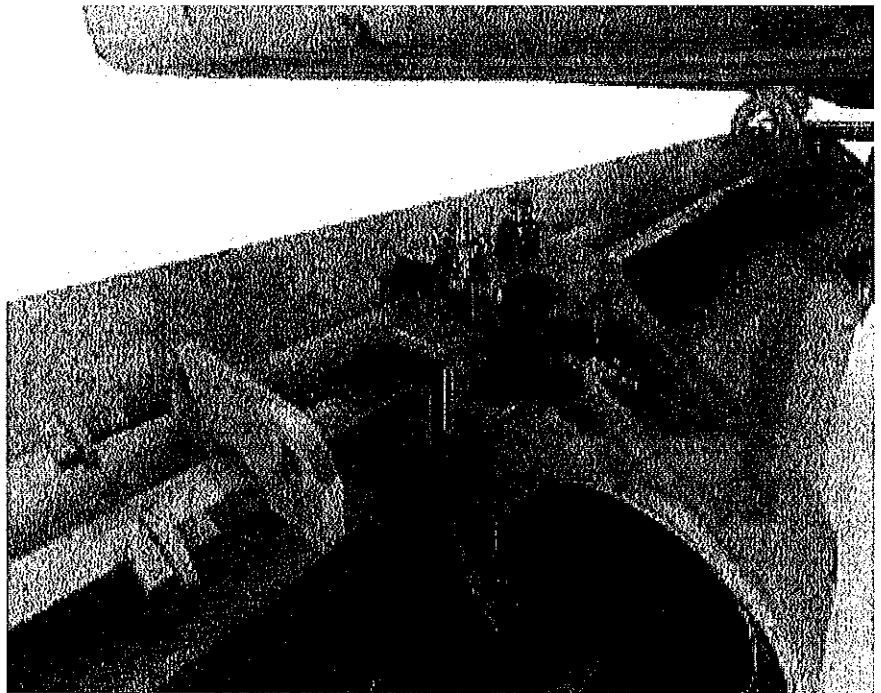
The patented top-adjust wear strips dramatically reduce drawbar/circle adjustment time. By removing the access plates on top of the drawbar, shims and wear strips can easily be added or replaced. This feature reduces service downtime and lowers overall machine operating costs.

Replaceable Wear Inserts. Tough, durable nylon composite wear inserts reduce rotational friction for maximum circle torque and longer component life. They are located between the drawbar and circle, and between the support shoes and circle. High load-resistant brass wearstrips are placed between the blade mounting group and moldboard. This sacrificial wear system can be replaced easily and helps keep components tight for fine grading.

Moldboard. The optimal curvature and large throat clearance help move material quickly and efficiently. Heat-treated moldboard rails, hardened cutting edges and end bits, and large diameter bolts assure reliability and longer service life. The moldboard side shift cylinder is positioned on the left side to eliminate snow wing interference.

Moldboard Positioning. The blade link bar design extends the possibilities for moldboard positioning, most beneficial in mid-range bank sloping and in ditch cutting and cleaning.

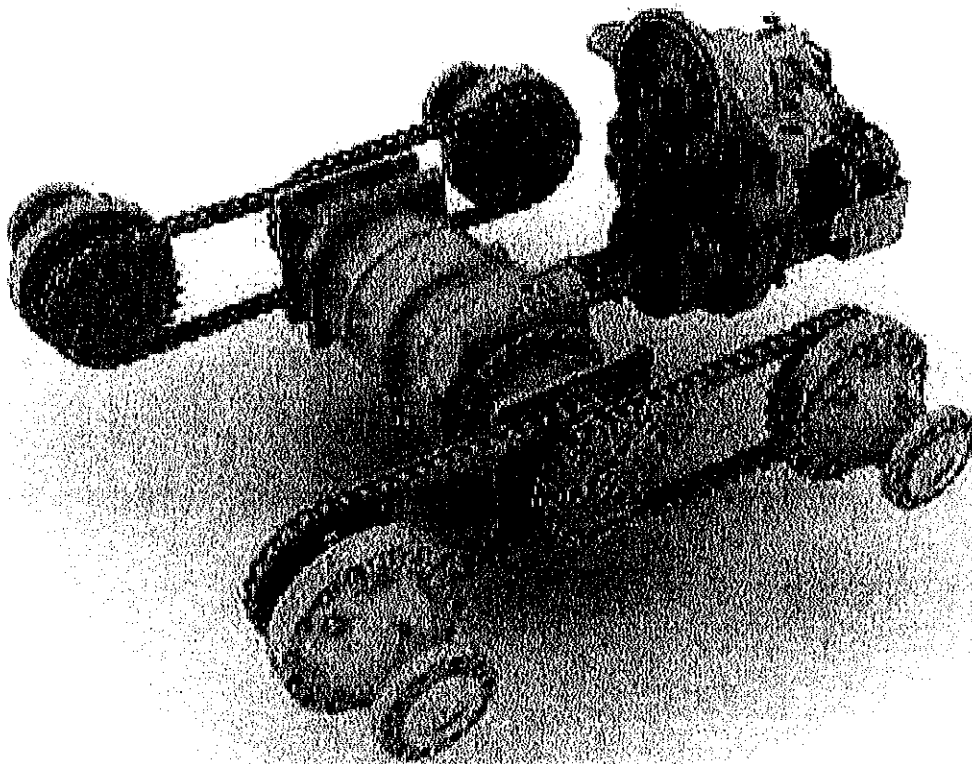
Shimless Moldboard Retention System. The unique shimless moldboard retention system reduces the potential for blade chatter. Vertical and horizontal adjusting screws keep the moldboard's wear strips aligned for precise blade control and dramatic reductions in service time.



Shimless moldboard retention system with adjusting screws

Power Train

Integrated, electronically controlled systems, deliver smooth reliable performance with reduced operating costs.



Smooth Shifting Transmission. The 120M combines several key innovations to ensure smooth, powerful shifts throughout the gear range.

Electronically Controlled Shifting. The full Electronic Clutch Pressure Control (ECPC) system optimizes inching modulation and smooths shifting between all gears and directional changes. This provides outstanding control and also extends the life of the transmission by reducing stress on gears.

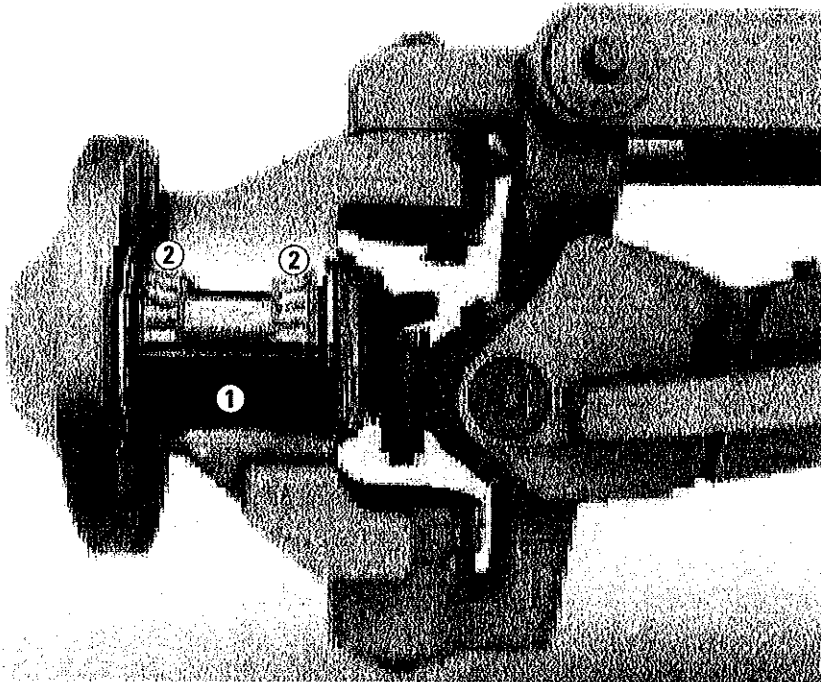
Load Compensation. This standard feature ensures consistent shift quality regardless of blade or machine load.

Controlled Throttle Shifting. This standard feature helps to smooth directional and gear changes without use of the inching pedal.

Engine Over-Speed Protection. Helps protect the transmission and extend component life by preventing downshifting until a safe travel speed has been established.

Power Shift Countershaft Transmission. Designed and manufactured specifically for the 120M motor grader, the direct drive countershaft transmission is matched with the powerful Cat C6.6 engine to maximize power to the ground.

Modular Rear Axle. The 120M incorporates a bolt-on modular rear axle design, which offers easy access to differential components, improves serviceability and contamination control, and lowers maintenance time and operating costs. The result is a rugged machine you can rely on for years to come.



Front axle

Front Axle. The Cat sealed spindle keeps the bearings free from contaminants and lubricated in a light-weight oil (1). This durable, low-maintenance design reduces your owning and operating costs. Two tapered roller bearings (2) support the wheel spindle. The Cat “Live Spindle” design places the larger tapered roller bearing outboard where the load is greater, extending bearing life.

Gear Selection. Eight forward and six reverse gears give the operator a wide operating range. The specifically designed range of gears ensures maximum productivity in all earthmoving applications.

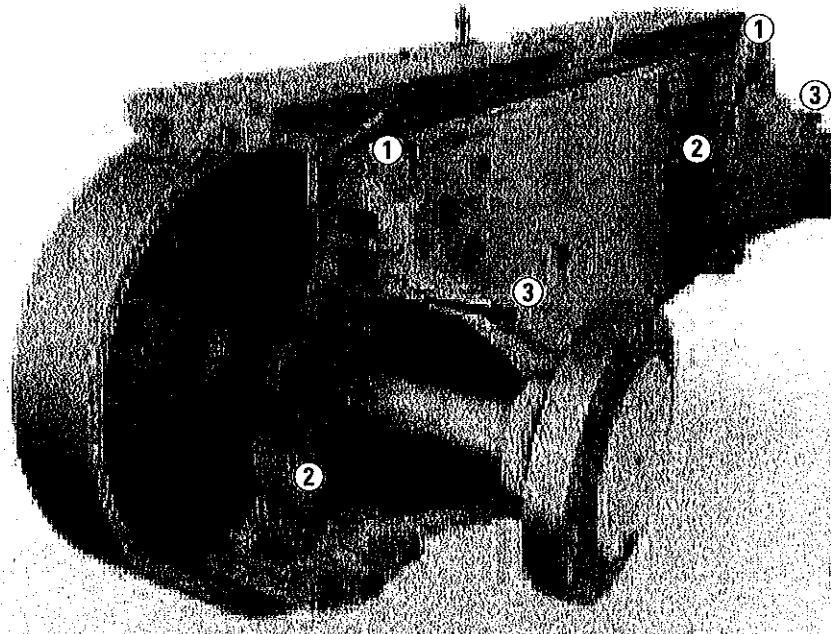
Programmable Autoshift. The operator can easily customize various shift parameters through Cat Messenger to match the specific application requirement. This feature automatically shifts the transmission at optimal points so the operator can focus on the work, improving safety, productivity and ease of operation.

Inching Pedal. Allows precise control of machine movements in any gear with low pedal effort and excellent modulation, critical in close-quarter work or finish grading.

Hydraulic Brakes. The oil bathed, multi-disc service brakes are hydraulically actuated (1), providing smooth predictable braking and lower operating costs. With brakes located at each tandem wheel, the 120M offers the largest total brake surface area in the industry (2), delivering dependable stopping power and longer brake life.

Brake Serviceability and Reliability. An easily accessible brake wear indicator/compensator system (3) maintains consistent brake performance and indicates brake wear without disassembly. This system cuts service time and extends brake service life.

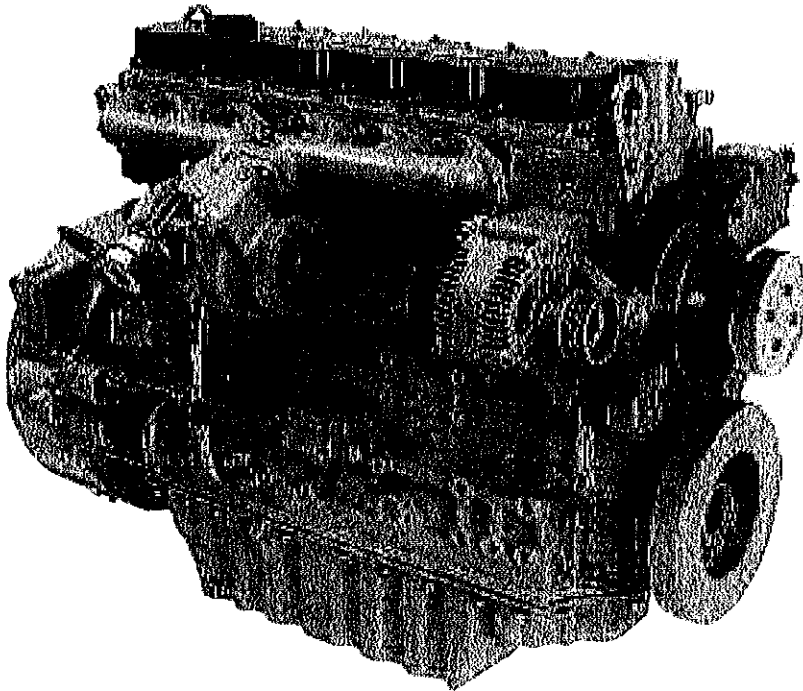
Parking Brake. The spring-applied, hydraulically released multi-disc parking brake is a sealed, oil-cooled design extending component life and reducing the need for service. The parking brake is integrated into the Operator Presence System to prevent unintended machine movement.



Brake design

Engine

The 120M combines power management with ACERT™ Technology to deliver maximum power and efficiency while reducing the environmental impact.



ACERT™ Technology. ACERT Technology allows Cat engines to supply more power per unit of displacement without causing premature wear. This breakthrough technology reduces emissions during the combustion process by using advanced technology in the air and fuel systems, in conjunction with integrated electronics. ACERT Technology enhances overall engine performance while dramatically reducing exhaust emissions.

Fuel Delivery. The C6.6 engine with ACERT Technology uses multiple injection fuel delivery to precisely shape the combustion cycle. Several small ignitions lower combustion chamber temperatures, generates fewer emissions and optimizes fuel combustion. Bottom line: more work output for your fuel cost.

Power Management. The 120M Power Management System automatically delivers an additional five horsepower in each forward gear 1st through 4th, and each reverse gear 1st through 3rd. This standard feature optimizes rimpull for all gears by balancing traction, speed and horsepower while conserving fuel. The system limits horsepower in lower gears, which helps reduce wheel slip where traction is limited. With the Variable Horsepower Plus (VHP Plus) option, an additional five-horsepower is delivered in each forward gear 5th through 8th for more power at higher speeds.

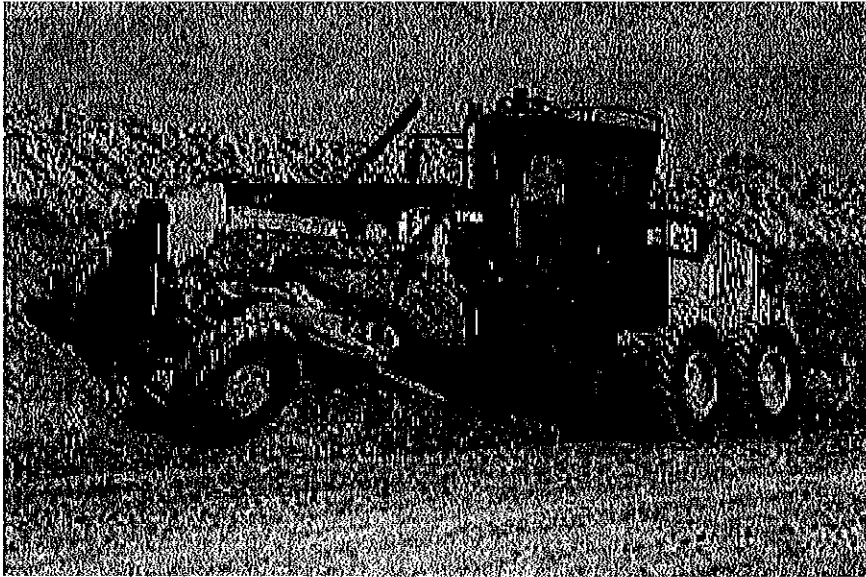
Performance. The Cat C6.6 engine meets specific performance requirements for 120M applications. Its superior torque and lugging capability can pull through sudden, short-term increases in loads, maintaining consistent, desirable grading speeds to get the work done faster without downshifting.

Hydraulic Demand Fan. The hydraulic demand fan automatically adjusts cooling fan speed according to engine cooling requirements. This system reduces demands on the engine, putting more horsepower to the ground and improving fuel efficiency.

Exhaust Emissions Certified. The Cat C6.6 with ACERT Technology meets or exceeds all U.S. EPA Tier 3 and European Union Stage IIIa emissions control standards.

Hydraulics

The 120M electro-hydraulics enable advanced machine controls with precise and predictable movements.



Advanced Electro-Hydraulic System.

The 120M incorporates a state-of-the-art electro-hydraulic system. This technology is the foundation for revolutionary changes of the machine and implement controls. Advanced joystick controls provide unmatched controllability with precise, predictable hydraulic movements and the reliability you expect from Caterpillar.

Blade Float. Blade float is built into the blade lift control valves and is optional for some auxiliary hydraulic functions. The blade float feature allows the blade to move freely under its own weight. By floating both cylinders, the blade can follow the contours of the road when removing snow. Floating only one cylinder permits the toe of the blade to follow a hard surface while the operator controls the slope with the other lift cylinder.

Independent Oil Supply. Large, separate hydraulic oil supply prevents cross-contamination and provides proper oil cooling, which reduces heat build-up and extends component life.

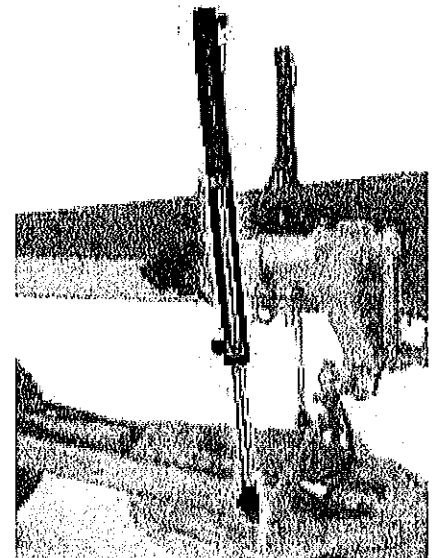
Load Sensing Hydraulics (PPPC).

The time proven load-sensing system and the advanced Proportional Priority Pressure-Compensating (PPPC, or "triple-PC") electro-hydraulic valves on the 120M are designed to provide superior implement control and enhanced machine performance in all applications. Continuous matching of hydraulic flow and pressure to power demands creates less heat and reduces power consumption.

Cat® XT™ Hose. Cat hose technology allows high pressures for maximum power and reduced downtime. Intelligent routing minimizes exposure to damage. Hose clips prevent hose rubbing and excessive vibration for lower owning and operating costs.

Balanced Flow. Hydraulic flow is proportioned to ensure all implements operate simultaneously with little effect on the engine or implement speeds. If demand exceeds pump capacity, all cylinder velocities are reduced by the same ratio. The result is improved productivity in all applications.

Consistent and Predictable Movement. PPPC valves have different flow rates for the head (red) and rod ends (blue) of the cylinder. This ensures consistent extension and retraction speeds for each cylinder, and gives the operator a consistent and predictable response every time an implement control is moved.



Predictable movements

Integrated Electronic Solutions

Full systems integration optimizes machine performance and availability.



120M with AccuGrade™ System

“Smart Machine”. The 120M fully integrates all core systems creating a “Smart Machine.” The Cat data link shares key data among systems, optimizing machine performance while preventing potential machine damage.

Diagnostics. Cat Messenger, combined with full systems integration, enhances the diagnostic capability of the 120M. Machine system errors are displayed in text as well as with fault codes, allowing service technicians and operators to quickly analyze critical data, increasing machine availability.

Optional Automatic Blade Control.

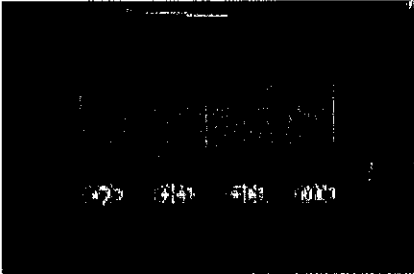
The Cat AccuGrade System automatically controls the blade, improving operator efficiency and productivity. AccuGrade™ technology reduces the need for traditional survey stakes or grade checkers, so you can reach grade faster and in fewer passes than ever before.

AccuGrade Attachment Ready Option.

The AccuGrade System is fully integrated into the machine design, making installation quick and easy. Integral hydraulic and electrical components are standard on the 120M (Grade Control Ready). The AccuGrade Attachment Ready Option provides additional mounting brackets, cab controls and electrical harnesses for easy installation of the Cross Slope, Sonic, Laser, GPS or ATS electronics kits.

Product Link. Product Link streamlines diagnostic efforts, and reduces downtime, maintenance scheduling and costs by providing a communication flow of vital machine data and location. Product Link gives automatic updates on machine parameters such as machine hours, machine condition, location, fault codes and alarms directly to your office computer.

Electronic Technician (Cat ET). Cat ET is a two-way communication tool that gives service technicians easy access to stored diagnostic data and lets them configure the machine parameters through the Cat Data Link. This integrated feature reduces machine downtime and lowers operating costs.

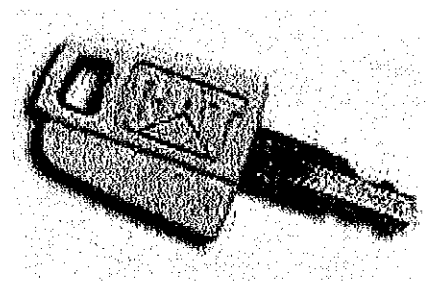


Cat Messenger. Standard on the 120M, Cat Messenger provides real-time machine performance and diagnostic data with an easy-to-use interface. Messenger monitors all system data and alerts the operator of any faults through a digital text display that can be shown in multiple languages.



Low Battery Elevated Idle. After the 120M is at low idle for an extended period and low system voltage is detected, idle speed is raised. This ensures adequate system voltage and improves battery reliability.

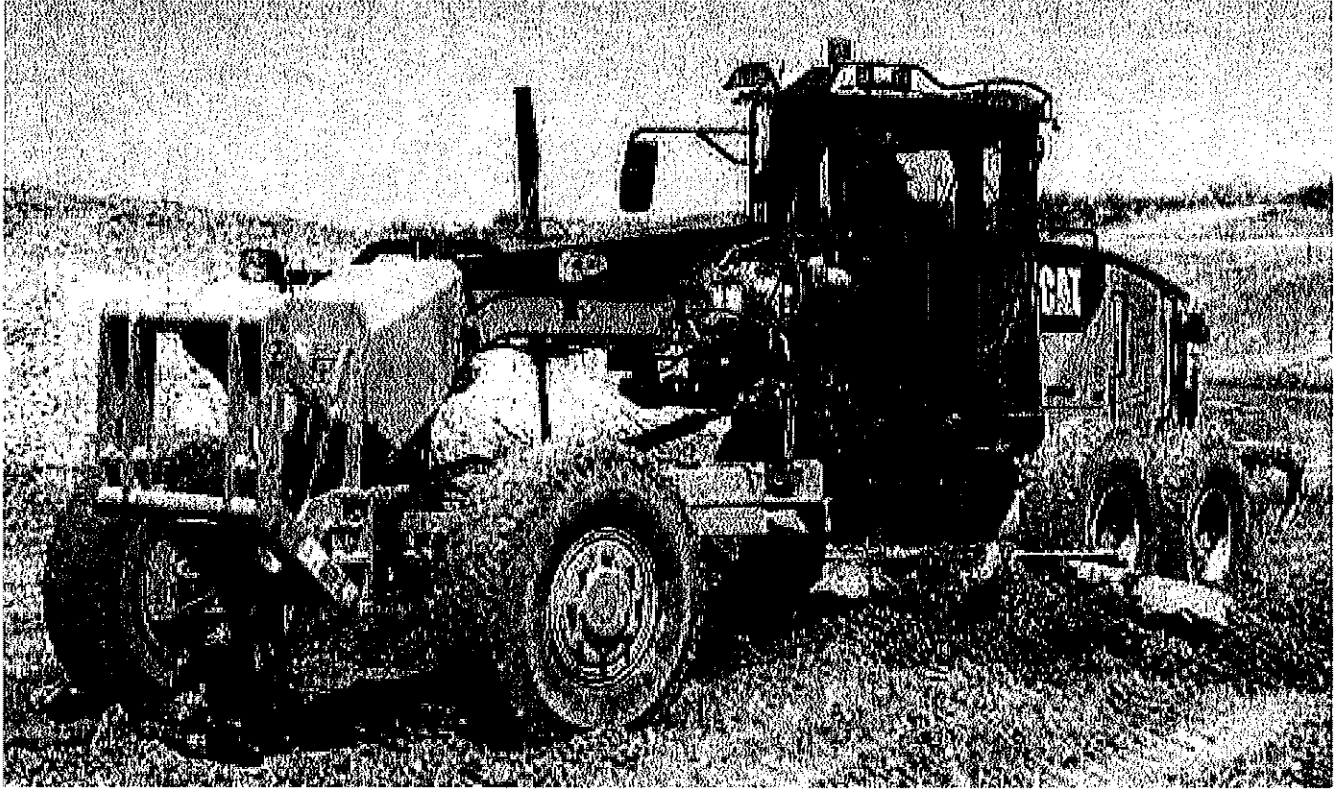
Automatic Engine Deration. Protects the C6.6 engine by automatically lowering engine torque output and alerting the operator if critical conditions are detected.



Machine Security System (MSS). The optional MSS uses electronically coded keys to limit usage by specific individuals or times of the day. MSS deters theft, vandalism and unauthorized use.

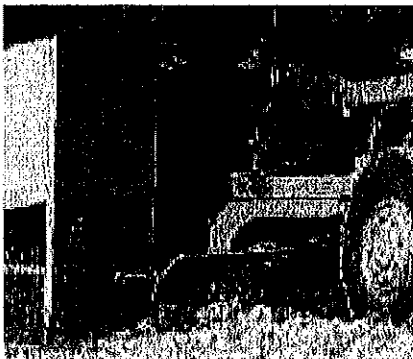
All-Wheel Drive, Work Tools and Attachments

The AWD, Work Tools and optional attachments for the 120M expand machine versatility, utilization and performance.



All Wheel Drive (AWD) System.

The optional AWD system utilizes dedicated left and right pumps for precise hydraulic control. The infinitely variable pumps and motors maximize torque in each gear delivering the most power to the ground in the industry and increasing productivity in the most demanding applications.



Precise control

AWD – Maximum Net Power.

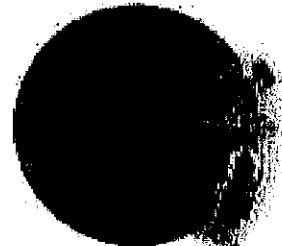
When equipped with AWD, the 120M will automatically increase power up to 26 kW (35 hp) when the system is engaged. This offsets the parasitic losses and maximizes net power to the ground for increased productivity.

AWD – Hydrostatic Mode. Standard with AWD, this mode disengages the transmission and provides hydraulic power to the front wheels only.

The ground speed is infinitely variable between 0-8 km/h (0-5 mph), perfect for precise finish work.

AWD – Steering Compensation.

The Cat Steering Compensation System is standard with All Wheel Drive. This feature enables a “powered turn” by adjusting the outside front tire speed up to 50% faster than the inside tire. The result is improved control, less damage to surfaces and a dramatic reduction of turning radius in poor underfoot conditions.

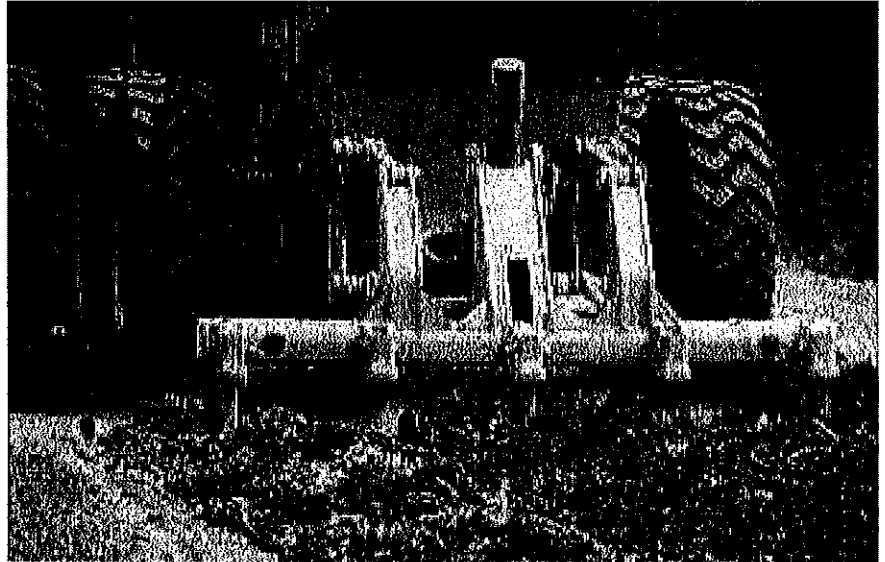




Moldboard Options. A 3.7 m (12 ft) moldboard is standard on the 120M, with an optional 4.3 m (14 ft) moldboard available from the factory. Left side moldboard extensions are also available, increasing versatility.

Ground Engaging Tools (GET). A wide variety of Cat GET is available on the 120M, including cutting edges, graderbits and end bits, all designed for maximum service life and productivity.

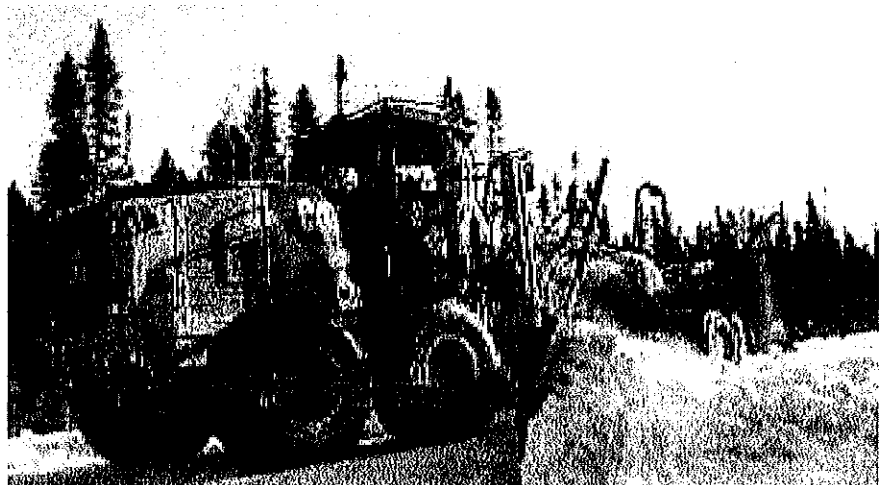
Front Mounted Groups. A front mounted push plate/counterweight or front lift group can be ordered on the 120M. The Cat Work Tools front lift group can be combined with a front dozer blade or front scarifier for added versatility.



Snow Removal Work Tools. Cat Work Tools offer a variety of snow removal equipment specifically for the 120M. Multiple snow plow, snow wing and mounting options are available, adding additional machine versatility and utilization throughout the year.

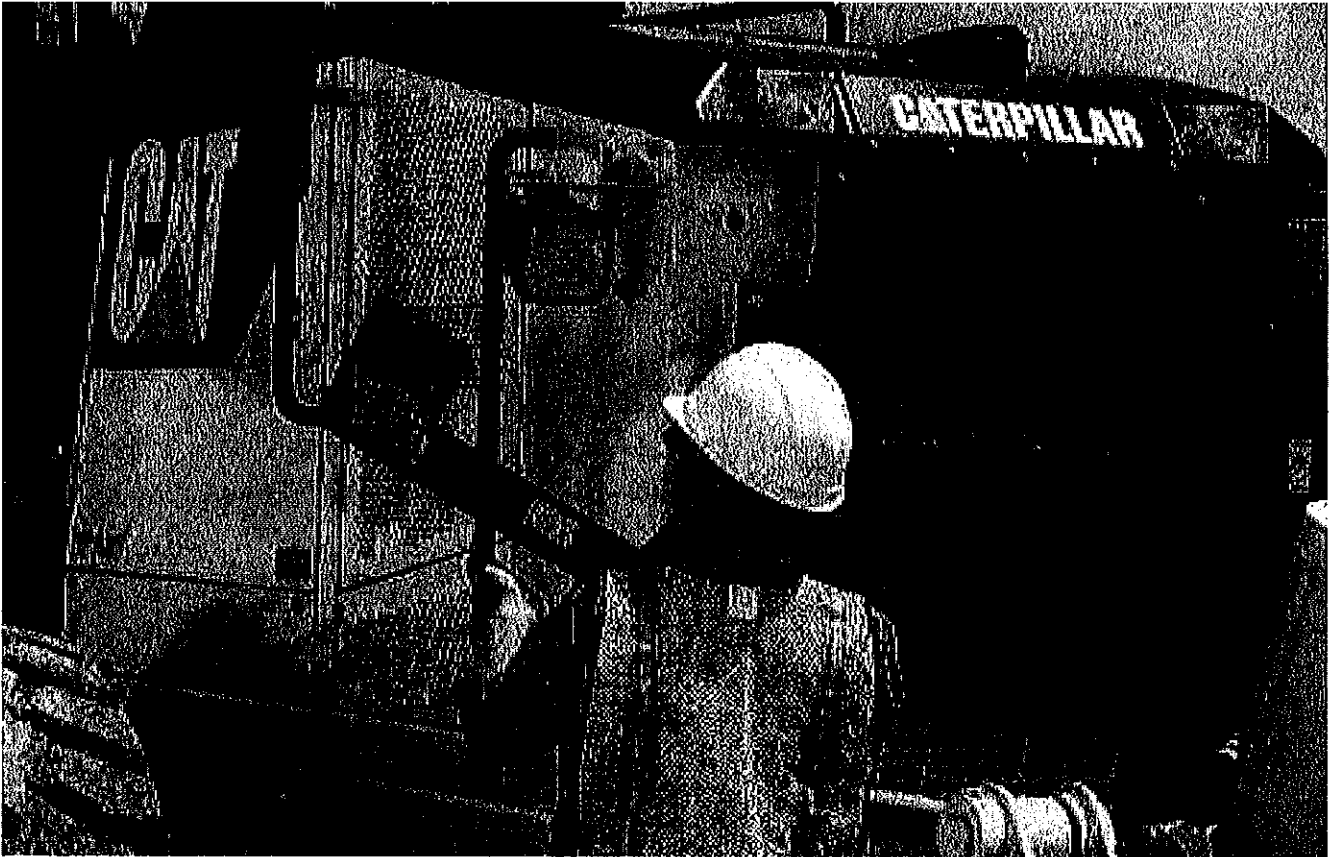
Air Compressor. An optional air compressor is available, giving you a convenient on-board air system to blow debris off the machine and operate power tools.

Rear Ripper/Scarifier. The 120M optional ripper is made to penetrate tough material fast and rip thoroughly for easier material movement with the moldboard. The ripper includes three shanks with the ability to add two more if needed. Nine scarifier shanks can also be added for additional versatility.



Safety

Safety is an integral part of all machine and system designs.



Operator Presence System. The Operator Presence System keeps the parking brake engaged and hydraulic implements disabled until the operator is seated and the machine is ready for safe operation.

Secondary Steering System. The standard secondary steering system automatically engages an electric hydraulic pump in case of a drop in steering pressure, allowing the operator to steer the machine to a stop.

Speed Sensitive Steering. The steering software automatically provides an infinitely variable ratio between the joystick and the steer tires, resulting in less sensitive steering as the ground speed increases.

Low Sound and Vibration Levels.

Isolation mounts for the cab, engine and transmission maximize operator comfort and help to minimize sound and vibration. These modifications provide a quieter and more comfortable working environment, optimizing operator focus.

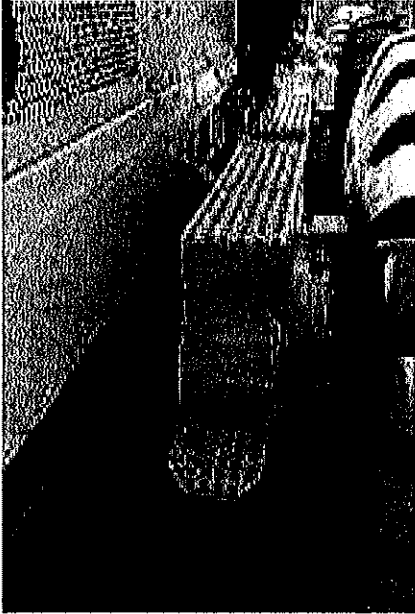
Hydraulic Lockout. A simple switch located in the cab disables all implement functions while still providing machine steering control. This safety feature is especially useful while the machine is roading.

Brake Systems. Brakes are located at each tandem wheel to eliminate braking loads on the power train. In addition, the brake systems are redundant and utilize accumulators to enable stopping in case of machine failure, further increasing operational safety.

Circle Drive Slip Clutch. This standard feature protects the drawbar, circle and moldboard from shock loads when the blade encounters an immovable object. It also reduces the possibility of abrupt directional changes in poor traction conditions, protecting the machine, operator and surroundings.

Drop-Down Rear Lights. Optional drop-down lights fold out from the rear of the machine. This creates a wider, lower profile to be better aligned with passenger cars.

Rearview Camera. Visibility is further enhanced with an optional Work Area Vision System (WAVS) through a 178 mm (7 in) LCD color monitor in the cab. Developed specifically for rugged applications, this durable camera improves productivity and increases operator awareness of surroundings.



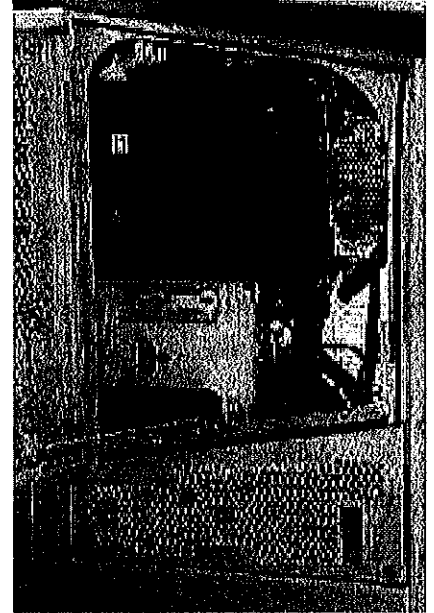
Steel Tandem Walkways. Perforated raised steel walkways cover the tandems. This provides a sturdy platform for standing and walking, and additional protection for the brake lines.

ROPS/FOPS Cab. Isolation mounted to the frame to reduce vibration and sound, the integral ROPS/FOPS structure meets ISO and SAE criteria for operator protection.

Blade Lift Accumulators. This optional feature uses accumulators to help absorb impact loads to the moldboard by allowing vertical blade travel. Blade lift accumulators reduce unnecessary wear and help to avoid unintended machine movement for increased operator safety.

Engine Shutoff Switch. An engine shutoff switch is located at ground level on the left rear of the machine, allowing anyone nearby to shut it down in case of an emergency.

Electrical Disconnect Switch. A battery disconnect switch, located inside the left rear enclosure, provides ground-level lockout of the electrical system to prevent inadvertent starting of the machine.



Fenders. To help reduce objects flying from the tires, as well as build-up of mud, snow and debris, optional fenders can be added.

Additional Safety Features. The 120M has many additional standard safety features, including laminated glass on the front windows and doors, lockable doors, back-up lights and sounding alarm, black glare-reducing paint on the front frame and engine enclosure, and conveniently located grab rails for added safety.

Serviceability and Customer Support

Simplified service, world-class product support and Cat® dealer-trained experts keep your fleet up and running, maximizing your equipment investment.



Grouped Service Points. The 120M groups daily service points in the left side service center to help ensure proper maintenance and inspection routines.

Extended Service Intervals. The 120M extended service intervals, such as 500-hour engine oil changes and 4000-hour hydraulic oil changes, reduce machine service time and increase availability.

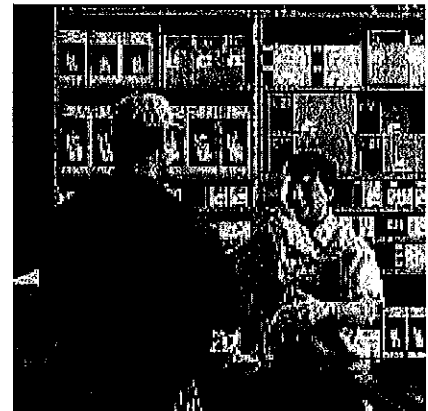
Ecology Drains. Conveniently located ecology drains shorten service times and help keep the environment safe by preventing spills.

Diagnostics and Monitoring. The 120M integrates Cat Messenger, Cat Electronic Technician and S•O•SSM Sampling Ports for easy monitoring and fast troubleshooting, keeping your machine up and running.

Machine Selection. Make detailed comparisons of the machines under consideration before purchase. Cat dealers help you size the right machine for your operations and can estimate component life, preventative maintenance cost, and the true cost of production.

Purchase. Consider the financing options available, as well as day-to-day operating costs. Look at dealer services that can be included in the cost of the machine to yield lower equipment owning and operating costs over the long run.

Maintenance Services. Repair option programs guarantee the cost of repairs up front. Diagnostics programs such as Scheduled Oil Sampling, S•O•SSM analysis, Coolant Sampling and Technical Analysis help avoid unscheduled repairs.



Product Support. You will find nearly all parts at our dealer parts counter. Cat dealers use a world-wide computer network to track in-stock parts to minimize machine down time. Save money with genuine Cat Reman parts. You receive the same warranty and reliability as new products at substantial cost savings.

Engine

Engine Model	Cat® C6.6 ACERT™ VHP	
Base Power (1st gear) – Net	103 kW	138 hp
VHP range – Net	103-114 kW	138-153 hp
VHP Plus range – Net	103-136 kW	138-182 hp
Displacement	6.6 L	403 in ³
Bore	105 mm	4.13 in
Stroke	125 mm	4.92 in
Torque rise (VHP Plus)	40%	
Max torque (VHP Plus)	906 N·m	668 lb ft
Speed @ rated power	2,000 rpm	
Number of cylinders	6	
Derating altitude	3505 m	11,500 ft

Std – Fan speed	– max	1,150 rpm	
	– min	600 rpm	
Std – Ambient Capability	43° C	109° F	
Hi Ambient – Fan speed	– max	1,650 rpm	
	– min	600 rpm	
Hi Ambient Capability	50° C	122° F	

- Max torque (VHP Plus) measured at 1,000 rpm.
- Net power is tested per ISO 9249, SAE J1349, and EEC 80/1269 Standards in effect at the time of manufacture.
- VHP Plus is an optional attachment for tandem-drive machines.
- Max torque (VHP Plus) measured at 1,400 rpm.
- Net power advertised is the power available at rated speed of 2,000 rpm, measured at the flywheel when engine is equipped with fan running at minimum speed, air cleaner, muffler and alternator.
- No engine derating required up to 3505 m (11,500 ft).

120M Net Power

Gear	VHP	VHP Plus
	kW (hp) – Net	kW (hp) – Net
Fwd. 1st	103 (138)	103 (138)
2nd	106 (143)	106 (143)
3rd	110 (148)	110 (148)
4th	114 (153)	114 (153)
5th	114 (153)	118 (158)
6th	114 (153)	121 (163)
7th	114 (153)	125 (168)
8th	114 (153)	136 (182)
Rev. 1st	103 (138)	103 (138)
2nd	106 (143)	106 (143)
3rd – 6th	110 (148)	110 (148)

Power Train

Forward/Reverse Gears	8 Fwd/6 Rev	
Transmission	Direct drive, power shift, countershaft	
Brakes – Service	Multiple oil-disc	
– Service, surface area	23 000 cm ²	3,565 in ²
– Parking	Multiple oil disc	
– Secondary	Dual circuit control system	

Hydraulic System

Circuit type	Electro-hydraulic load sensing, closed center	
Pump type	Variable piston	
Pump output	151 L/min	40 gal/min
Maximum system pressure	24 100 kPa	3,500 psi
Standby Pressure	3100 kPa	450 psi

- Pump output measured at 2,150 rpm

All-Wheel Drive System (Optional)

AWD HP Range – Net*	110-144 kW	148-193 hp
Motor Type	2 Variable axial piston	
Pump Type	2 Variable piston	
Maximum Torque	13 998 N·m	10,325 ft-lb
Operational gears	Forward = 1-7	
	Reverse = 1-5	

- * AWD Net power is an incremental increase per gear ranging from 7-26 kW (10-35 hp), depending on selected gear.

Operating Specifications

Top Speed – Fwd.	45.7 km/h	28.4 mph
– Rev.	36.1 km/h	22.4 mph
Turning radius, outside front tires	7.34 m	24 ft 1 in
Steering range – left/right	47.5°	
Articulation angle – left/right	20°	
Fwd. 1st	3.9 km/h	2.4 mph
2nd	5.3 km/h	3.3 mph
3rd	7.6 km/h	4.75 mph
4th	10.5 km/h	6.5 mph
5th	16.4 km/h	10.2 mph
6th	22.8 km/h	14.2 mph
7th	31.4 km/h	19.5 mph
8th	45.7 km/h	28.4 mph
Rev. 1st	3.3 km/h	2 mph
2nd	6.2 km/h	3.8 mph
3rd	8.9 km/h	5.6 mph
4th	13.2 km/h	8.2 mph
5th	24.8 km/h	15.4 mph
6th	36.1 km/h	22.4 mph

Service Refill

Fuel Capacity	341 L	90 gal
Cooling system	33 L	8.7 gal
Hydraulic system – tank	64 L	16.9 gal
Engine Oil	14 L	3.7 gal
Trans./Diff./Final Drives	62.5 L	16.5 gal
Tandem housing (each)	59 L	15.6 gal
Front wheel spindle bearing housing	0.5 L	0.1 gal
Circle drive housing	7 L	1.8 gal

Frame

Circle – diameter	1530 mm	60.2 in
– blade beam thickness	35 mm	1.4 in
Drawbar – height	152 mm	6 in
– width	76.2 mm	3 in
– thickness	9.5 mm	0.4 in
– yoke bar thickness	19.1 mm	0.75 in
Front frame structure		
– height	254 mm	10 in
– width	254 mm	10 in
– thickness	16 mm	0.6 in
Front axle		
– height to center	572 mm	22.5 in
– wheel lean, left/right	18°	
– total oscillation per side	32°	

Tandems

Height	502 mm	19.76 in
Width	171.7 mm	6.76 in
Sidewall thickness – inner	14 mm	0.5 in
– outer	16 mm	0.6 in
Drive chain pitch	44.5 mm	1.8 in
Wheel axle spacing	1510 mm	59.5 in
Tandem oscillation – front up	15°	
– front down	25°	

Moldboard

Blade width	3.668 m	12 ft
Moldboard – height	610 mm	24 in
– thickness	22 mm	0.87 in
Arc radius	413 mm	16.3 in
Throat clearance	123.9 mm	4.9 in
Cutting edge – width	152.4 mm	6 in
– thickness	16 mm	0.6 in
End Bit – width	152.4 mm	6 in
– thickness	16 mm	0.6 in
Blade Pull – base GVW	9230 kg	20,350 lb
– max GVW	10 985 kg	24,218 lb
Blade Pull – base GVW (AWD)	13 881 kg	30,603 lb
– max GVW (AWD)	15 887 kg	35,024 lb
Down Pressure – base GVW	7455 kg	16,435 lb
– max GVW	13 211 kg	29,125 lb

- Blade pull calculated at 0.9 traction coefficient, which is equal to ideal no-slip conditions, and Gross Machine Weight.

Blade Range

Circle centershift – right	656 mm	25.8 in
– left	656 mm	25.8 in
Moldboard sideshift – right	660 mm	26 in
– left	510 mm	20.1 in
Maximum blade position angle	90°	
Blade tip range – forward	40°	
– backward	5°	
Maximum shoulder reach outside of tires		
– right	1905 mm	75 in
– left	1742 mm	68.6 in
Maximum lift above ground	427 mm	16.8 in
Maximum depth of cut	720 mm	28.3 in

Ripper

Ripping depth, maximum	428 mm	17 in
Ripper shank holders	5	
Ripper shank holder spacing	533 mm	21 in
Penetration force	8031 kg	17,705 lb
Pryout force	11 931 kg	26,303 lb
Machine length increase, beam raised	995 mm	39.2 in

Scarifier

Front, V-Type, 5 or 11 tooth		
Working width	1205 mm	47.4 in
Scarifying depth, maximum	467 mm	18.4 in
Scarifier shank holders	5/11	
Scarifier shank holder spacing	116 mm	4.6 in
Mid, V-Type		
Working width	1184 mm	46.6 in
Scarifying depth, maximum	292 mm	11.5 in
Scarifier shank holders	11	
Scarifier shank holder spacing	116 mm	4.6 in
Mid, straight		
Working width	1800 mm	71 in
Scarifying depth, maximum	317 mm	12.5 in
Scarifier shank holders	17	
Scarifier shank holder spacing	111 mm	4.4 in

Weights

Gross Vehicle Weight – base		
– total	14 466 kg	31,891 lb
– front axle	4209 kg	9,280 lb
– rear axle	10 256 kg	22,611 lb
– total with AWD	15 424 kg	34,003 lb
Gross Vehicle Weight – max		
– total	20 271 kg	44,690 lb
– front axle	7460 kg	16,446 lb
– rear axle	12 811 kg	28,244 lb

- Base operating weight calculated on standard machine configuration with 13.00 24 12PR (G-4) tires, full fuel tank, coolant, lubricants and operator.

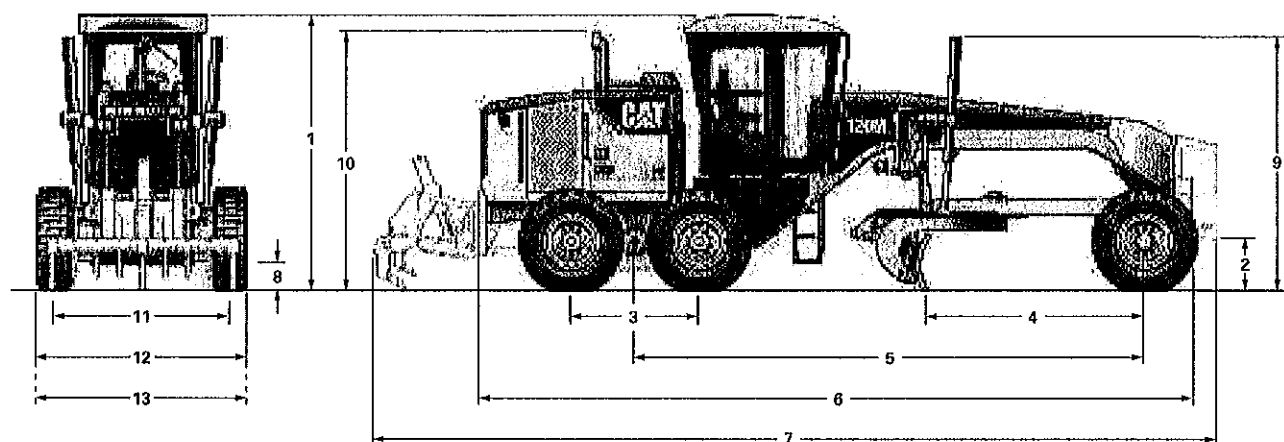
Standards

ROPS/FOPS	ISO 3471:1992/ISO 3449:1992
Steering	ISO 5010:1992
Brakes	ISO 3450:1996
Sound	ISO 6394:1998/ISO 6395:1988

- The static sound operator pressure level measured according to ISO 6394:1988 for a cab offered by Caterpillar, when properly installed, maintained and tested with doors and windows closed and hydraulic fan at maximum speed is 70 dB(A).
- The dynamic spectator sound power level for the standard machine when equipped with sound suppression package and hydraulic fan running at 70% of maximum speed, machine sound measured is less than 105 dB(A), complying with EU 2000/14/EC requirement.

Dimensions

All dimensions are approximate, based on standard machine configuration with 13.00-24 12PR (G-2) tires.



1	Height – top of cab	3308 mm	130 in
2	Height – front axle center	572 mm	22.5 in
3	Length – between tandem axles	1511 mm	59.5 in
4	Length – front axle to moldboard	2511 mm	98.9 in
5	Length – front axle to mid tandem	5915 mm	232.8 in
6	Length – front tire to rear of machine	8488 mm	334.1 in
7	Length – counterweight to ripper	9889 mm	389.3 in

8	Ground clearance at rear axle	347 mm	13.6 in
9	Height to top of cylinders	2920 mm	115 in
10	Height to exhaust stack	2885 mm	113.6 in
11	Width – tire center lines	2136 mm	84.1 in
12	Width – outside rear tires	2512 mm	98.9 in
13	Width – outside front tires	2531 mm	99.6 in

Optional Tire Arrangements

Total machine width and changes in machine weight are shown for common tire options.

Wheel Group	Tires	Outside Front Tires Width		Outside Rear Tires Width		Tire Arrangement Weight	
9x24 SP	13.00-24 Firestone SGG RB 12PR	2531 mm	99.6 in	2512 mm	98.9 in	0 kg	0 lb
10x24 MP	14.00-24 Goodyear SGG-2A 12PR	2562 mm	100.9 in	2543 mm	101.1 in	323 kg	712 lb
9x24 SP	14.00R24 Michelin XGLA2 1 Star	2553 mm	100.5 in	2534 mm	99.8 in	272 kg	600 lb
10x24 MP	14.00R24 Michelin XGLA2 1 Star	2567 mm	101.1 in	2548 mm	100.3 in	427 kg	941 lb
14x25 MP	17.5R25 Michelin XTLA 1 Star	2758 mm	108.6 in	2739 mm	107.8 in	596 kg	1314 lb
14x25 MP	17.5R25 Bridgestone VKT 1 Star	2734 mm	107.6 in	2715 mm	106.9 in	795 kg	1753 lb

• Based off the standard arrangement, AWD arrangements will have between 113 mm (4.4 in) – 309 mm (12.2 in) additional width.

Standard Equipment

Standard equipment may vary. Consult your Cat dealer for details.

OPERATOR ENVIRONMENT

- Air Conditioner with heater
- Arm and wrist rest, adjustable
- Articulation, automatic Return-to-Center
- Ashtray and lighter
- Cat Messenger, operator information system
- Centershift pin indicator
- Coat hook
- Cup holder
- Display, digital speed and gear
- Doors, left and right side with wiper
- Gauge cluster – articulation, engine coolant temp, engine RPM, fuel, system voltage
- Gauge, machine level
- Hour meter, digital
- Joystick hydraulic controls
 - implements, steering, transmission
- Ladders, cab, left and right side
- Lights, night time cab
- Mirror, inside rearview, wide angle
- Power port, 12V
- Radio Ready, Entertainment
- ROPS cab, sound suppressed
- Seat belt, retractable 76 mm (3 in)
- Seat, cloth-covered, comfort suspension
- Storage area for cooler/lunchbox
- Throttle control, electronic
- Windows, laminated glass:
 - fixed front with intermittent wiper
 - side and rear (3)

POWER TRAIN

- Air cleaner, dual stage, dry type, automatic dust ejector, service indicator through Cat Messenger
- Air-to-air after cooler (ATAAC)
- Belt, serpentine, automatic tensioner
- Brakes, four-wheel hydraulic
- Differential, lock/unlock
- Drain, engine oil, ecology
- Electronic over speed protection
- Engine, Cat® C6.6 with ACERT™ Technology
- Fuel-water separator
- Hydraulic demand fan
- Muffler, under hood
- Parking brake – multi-disc, sealed, oil-cooled
- Priming pump, fuel
- Rear axle, modular
- Sediment drain, fuel tank
- Transmission, 8F/6R, power shift, direct drive
- VHP (Variable Horsepower)
- VHP Plus (Variable Horsepower Plus) – AWD Model

ELECTRICAL

- Alarm, back up
- Alternator, 80 ampere, sealed
- Batteries, maintenance free, heavy duty 1125 CCA
- Breaker panel, ground accessible
- Electrical system, 24V
- Grade Control Ready – Cab harness, software, electrical hydraulic valves, bosses and brackets
- Lights, reversing
- Lights, roading, roof-mounted
- Product Link Ready
- Lights, stop and tail, LED
- Starter, electric

OTHER STANDARD EQUIPMENT

- Brake accumulators, dual certified
- Bumper, rear, integrated with hitch
- CD ROM Parts Book
- Clutch, circle drive slip
- Cutting edges
 - curved DH-2 steel
 - 152 mm × 16 mm (6 in × 5/8 in)
 - 19 mm (3/4 in) mounting bolts
- Doors (3), engine compartment, locking
- Drawbar – 4 shoes with replaceable wear strips
- Endbits
 - 16 mm (5/8 in) DH-2 steel
 - 19 mm (3/4 in) mounting bolts
- Extended Life Coolant to –35° C (–30° F)
- Fluid check, ground level
- Frame, articulated, with safety lock
- Fuel tank, ground level access
- Ground level engine shutdown
- Hammer (emergency exit)
- Horn, electric
- Hydraulics, base 8 implement controls
- Hydraulics, load-sensing
- Lockout, hydraulic implement for roading
- Moldboard
 - 3658 mm × 610 mm × 22 mm (12 ft × 24 in × 7/8 in)
 - hydraulic sideshift and tip
- Mounting, cab roof accessories
- Paint, glare reducing – top of front frame and rear enclosure
- Pump, hydraulic, high capacity (99cc/6 in³)
- Radiator cleanout access
- Secondary steering
- Serviceability, LH side
- S•O•SSM ports: engine, hydraulic, transmission, coolant, fuel
- Tandem walkway/guards
- Tool box
- Tow hitch

TIRES, RIMS, & WHEELS

- Partial allowance for tires and multi-piece rims

Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

	kg	lb
ELECTRICAL		
Alternator, 150 Ampere	2	5
Batteries:		
Extreme Duty, 1400 CCA	44	96
Heavy Duty, 1125 CCA	18	40
Converter, Communication (CB)	2	5
Lights:		
5 Lighting Arrangements, including rear roading, drop down Warning, LED strobe	1	2
GUARDS		
Covers, Screen	4	9
Debris	9	20
Transmission Sides/Sound	76	167
Transmission	133	293
OPERATOR ENVIRONMENT		
Fan, Defroster, Rear Window	2	4
Mirrors, Outside:		
Heated 24V	15	33
Mounted	15	32
Seat, Air Suspension, Cloth	5	10
Shade, Sun	4	9
Wiper, Each Side	0	1
Wiper/Washer, Rear	0	1
POWER TRAIN		
All Wheel Drive	680	1,500
Engine, Variable Horsepower Plus (VHP Plus)		
Precleaner, Sy-Klone	2	5
Transmission, Autoshift	2	5

	kg	lb
OTHER ATTACHMENTS		
AccuGrade ARO	41	90
Accumulators, Blade Lift	77	170
Camera, Rearview	7	15
Cat Product Link 321SR	13	29
Compressor/Tank, Air	18	40
Fenders, Front, AWD	56	124
Fenders, Rear	163	360
Heater, Engine Coolant:		
120V	0.5	1
240V	1	3
Hydraulic Arrangements with One or More Additional Hydraulic Valves are Available for Rear Ripper, Blade, Mid Mount Scarifier, Front Lift Group, Snow Plow and Snow Wing.		
Security System	5	10
Snow Wing Mounting, Frame Ready	104	229
Starting Aid, Ether	0.5	1

WORK TOOLS/G.E.T.		
Blade Extension, 610 mm (2 ft)		
Left Hand	113	250
Cutting Edges, Curved	18	40
Drawbar, 6 Shoe Circle Guide	82	180
Endbits, Overlay	24	52
Front Lift Group, Manual	680	1,500
Mid Mount Scarifier	939	2,071
Moldboard		
4267 mm × 610 mm × 22 mm (14 ft × 24 in × 7/8 in)		
4267 mm × 686 mm × 25 mm (14 ft × 27 in × 1 in)		
Push Plate, Counterweight	885	1,950
Ripper/Scarifier, Rear	998	2,200
Ripper, Tooth	30	67
Scarifier, Front	434	956
Scarifier, Tooth	69	152

MACHINE ARRANGEMENTS		
Canadian Arrangement		
European Arrangement		
Roading Arrangement, European		
Snow Arrangement		

Note: Not all attachments are available in all regions.

Notes

120M/120M AWD Motor Grader

For more complete information on Cat products, dealer services,
and industry solutions, visit us on the web at www.cat.com

© 2010 Caterpillar
All Rights Reserved
Printed in U.S.A.

Materials and specifications are subject to change without notice.
Featured machines in photos may include additional equipment.
See your Cat dealer for available options.

AEHQ5729-03 (09-10)

Replaces AEHQ5729-02

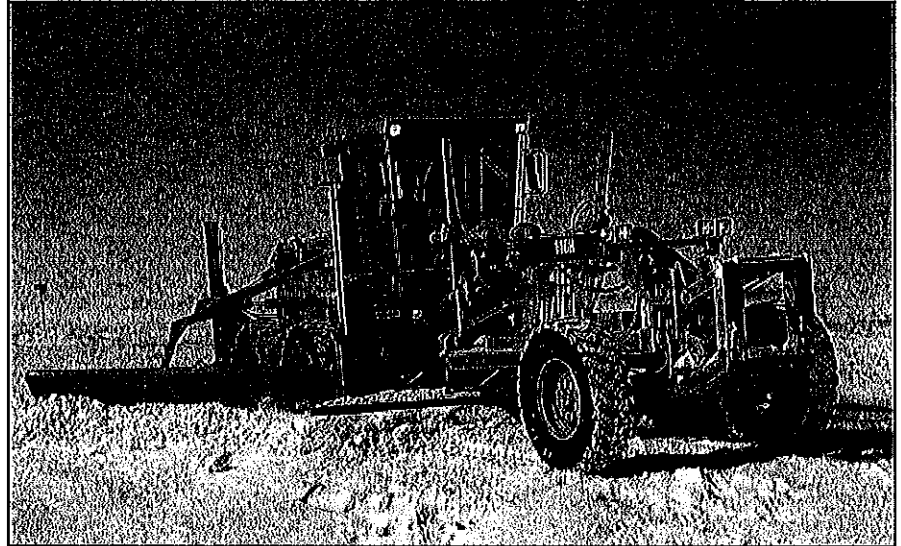
CAT, CATERPILLAR, ACERT, AccuGrade, XT, SAFETY.CAT.COM, their respective logos,
"Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product
identity used herein, are trademarks of Caterpillar and may not be used without permission.



Product Bulletin

January 2009

Snow Removal Tools for Cat® Motor Graders, Wheel Loaders and Backhoe Loaders



Snow removal is an annual challenge that puts people and machines to the test. Keeping the infrastructure operating in winter requires equipment that can stand up to handling heavy loads in the harshest of conditions; tools that will perform on demand every time.

Cat Work Tools can provide you with what you need for snow removal. Over seventy years' experience in building plows, buckets, brooms and blades for Caterpillar machines provides the performance edge that few can match, and all backed up by the most comprehensive and customer-oriented support system in the industry, bar none.

Motor Graders are the premier snow removal machines for rural roads, highways and anywhere high drifts and difficult conditions are encountered. Snow Wings, V-Plows, One-Way Plows and Angling Blades provided graders with the tools needed to take on virtually anything, and with a Parallel Lift Group, these tools can be swapped as needed.

Urban applications haven't been overlooked. Wheel Loaders, Integrated Tool-carriers and Backhoe Loaders can be equipped with Quick Couplers, Reversible Plows and Reversible Brooms to take on snow in city streets, parking lots, airports and industrial complexes. From a major airport to a church parking lot, the tools are here to move as much snow as you need to, made to fit your machines perfectly.

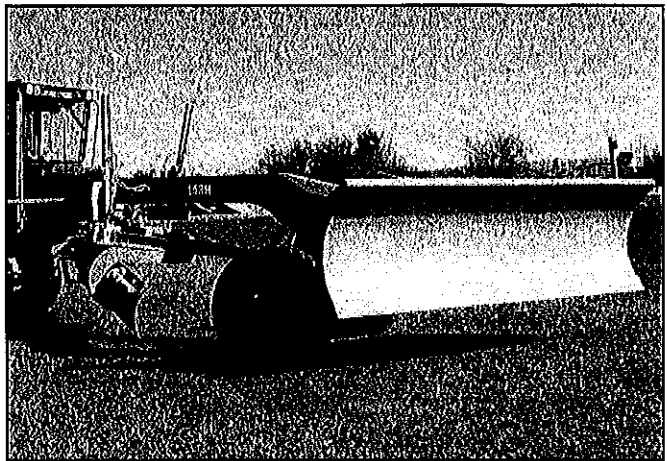
GEJQ0183-06

Reversible Plows

Hydraulic and Manual, for Cat Motor Graders

Reversible snow plows can be angled to doze or to cast snow to either side. Quick reversing action is ideal for urban, rural and mountain roads, airports, large parking lots and plant facilities.

- **Replaceable Edges.** Field-replaceable 5/8" reversible Cat cutting edges are standard.
- **Variable Angle.** Plow angles 35 degrees to the right or left for precise snow placement.
- **Horizontal Oscillation.** Blade can pivot horizontally to follow the road crown.
- **Available Hydraulic Actuation.** Hydraulic models allows operator to change plow direction in 15 seconds without leaving cab.
- **Manual Upgradeability.** Manual models are easily converted to hydraulic by adding cylinders and lines.
- **Integral Support Leg.** Retractable support leg holds plow upright for easy coupling to machine and off-season storage.

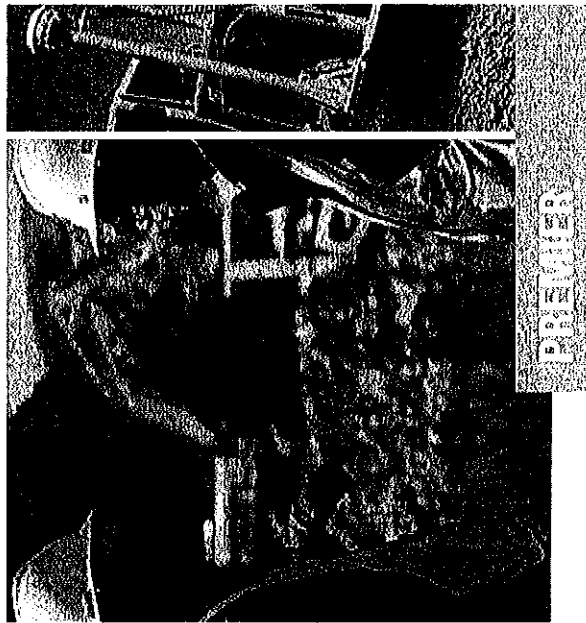


Product ID	230-7086	230-7102	230-7085	15102C	243-4598
Machine	12H, 120H, 135H, 140H, 143H, 160H, 163H, 12M, 120M, 140M, 160M	14H, 14M	12H, 120H, 135H, 140H, 143H, 160H, 163H, 12M, 120M, 140M, 160M	12H, 120H, 135H, 140H, 143H, 160H, 163H, 12M, 120M, 140M, 160M	14H, 14M
Actuation	Hydraulic	Hydraulic	Hydraulic	Manual	Manual
Weight lb (kg)	3750 (1701)	4000 (1814.4)	3500 (1588)	3800 (1725)	4000 (1814)
Height in (mm)	48 (1219)	48 (1219.2)	48 (1219)	48 (1219)	48 (1219)
Cutting Width Straight in (mm)	168 (4267)	180 (4572)	144 (3568)	168 (4267)	180 (4572)
Cutting Width Angled in (mm)	137 (3480)	147 (3733.8)	117 (2972)	137 (3480)	147 (3733.8)

Product ID	315-2655
Machine	16H, 16M
Actuation	Manual
Weight lb (kg)	4346 (1971)
Height in (mm)	55.9 (1419)
Cutting Width Straight in (mm)	191.9 (4874)
Cutting Width Angled in (mm)	154.2 (3917)

THE CAT
 THE POWER
 THE MACHINES
 THE RIGHT
 PLAY

Cat® Equipment Protection Plan



PREMIER

Our most comprehensive coverage includes powertrain and hydraulic components, as well as additional electrical and structural components. Powertrain components produce, transmit or control engine horsepower for moving the machine. Hydraulic components are associated with steering and implement control.

LEARN MORE

Contact your local Cat dealer today or visit

www.cat.com/epp

The information contained herein is provided solely for general information purposes only and is not intended to be a solicitation or an offer to sell any product or service. For all the information a complete description of all the terms, conditions and exclusions applicable to any product and services described for complete descriptions of the terms, conditions and exclusions of the Equipment Protection Plan on other products and services please contact your Cat dealer. The products and services referred to herein may not be available in all jurisdictions.

AEX00602

©2009 Caterpillar
 All Rights Reserved
 Printed in USA

CATERPILLAR®
 TODAY'S WORK. TOMORROW'S WORLD.™

CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

CATERPILLAR®

CONTROL YOUR COSTS MINIMIZE YOUR RISKS

This plan safeguards your investments in new and Cat Certified Used* machines beyond the standard warranty period. It includes all parts and labor to protect you against failures caused by defects in materials and workmanship. With the Premier Equipment Protection Plan, you can increase the predictability of service and maintenance costs—and reduce unplanned downtime.

*Product availability varies by region.

COVERED COMPONENTS

- Engine, Internal Components
- Engine Cooling System
- Oil Cooler
- Radiator
- Exhaust/Muffler
- Manifolds
- Fan Motor
- Water Pump
- Fuel Injector Pumps
- Inletors
- Air Filter/Pre-Filter
- Sensors/Solenoids/Sensors
- Thermostat
- Flywheel/Torque Converter
- Engine Oil Filter/Mount
- Intercooler
- Slacker
- Alternator
- AC Compressor/Condenser
- Electronic Control Modules
- Governor/Speed Controls & Linkage
- Fuel Lines
- Fuel Tank & Assort. Parts
- Water Piping
- Oil Hoses/Lines (non-Viscous)
- Cylinder Block
- Piston
- Piston Rings
- Piston & Connecting Rod
- Bank shafts/Main Bearings & Rod Bearings
- Cams/Shaft & Camshaft Bearings
- Lining/Accessories/Gears
- Timing Chain/Belt
- Inlet/Exhaust Valve
- Valves Cover & Base
- Valve Spring & Guide
- Rocker Arm
- Push Rod
- Balance
- Proportion/Governor Valve
- Oil Pump
- Oil Pan Group
- Pan/Chain Drive
- Transmission
- Transmission
- Transmission Oil Line
- Hydraulic Controls
- Transmission Oil Filter/Case
- Transmission Gears
- Final Drives/Planetary
- Drive Shafts
- Transfer Case
- Weld Brakes Assembly
- Hydraulic Pumps & Drive Motor
- Linkage/Linker/Connectors to Hydraulic Pump
- Shuttle/Control/Control Valves
- Sensors
- Powertrain Transmission
- Shaft/Hoses
- Transmission Oil Tank
- Drive Train Oil Lines
- Ball and Joint for Base
- Drive Train Drive Shaft
- Axles
- Axle Seals
- Final Drive & Wheel
- Final Drive Case/Bois
- Final Drive Chain
- Final Drive Gears
- Axle Shaft
- Drive Axle Oil Filter
- Universal Joint
- Countershaft/Transmission

- Steering
- Steering (Hyd)
- Steering Linkage
- Steering Control Valve
- Steering Gear & Valve
- Power Steering Logic Module
- Steering Column
- Steering Console
- Steering Knob
- Hydraulic System
- Hydraulic Steering Hoses & Fittings
- Hydraulic Cylinder
- Hydraulic Valves & Controls
- Hydraulic Accumulators
- Hydraulic Oil Coolers
- Hoses and Lines
- Hydraulic Quick Couplers & Swivels
- Hydraulic Oil Filter/Mount
- Hydraulic Oil Temperature Sensor
- Hydraulic Oil Filter Base
- Hydraulic Tank
- Washers
- Automatic Grade Control
- Axle Spring
- Boogie Suspension
- Gross Slope Control
- Equalizer Bar
- Equalizer Bar Center Pin Support
- Equalizer Bar Support
- Stabilizer
- Suspension Control
- Suspension Control Valve
- Suspension Jumper
- Braking System
- Brake Master Cylinder
- Vacuum Pump
- Wheel Cylinder
- Brake Caliper Head Assembly
- Control Valves
- Brake Lines
- Accumulator
- Electrical System
- Gauges/Indicators/Instruments
- Wiring Harnesses
- Switches
- Relays/Circuit Breakers
- Generator
- Alternator/Generator
- Battery Charger
- Main Power Relay
- Start Switch
- Fuse/Circuit Breaker Panel
- Circuit Board
- Control Panel
- Class/Implement Frame
- Weldment
- Frame
- Main Frame
- Track Roller Frame
- Track Angster
- Recall Spring

WHAT WE DO

- Perform necessary inspections to confirm eligibility
- Install parts approved by Caterpillar on covered repairs
- Validate your enrollment in the program

WHAT YOU DO

- Operate equipment according to the Cat Operation & Maintenance Manual (OMM)
- Have recommended preventive maintenance performed at intervals specified in the OMM
- Upon request, provide proof of preventive maintenance compliance (receipts, copies of work orders, invoices)
- Promptly provide the machine for repair in the event of a covered failure

EXCLUSIONS

If a component is not listed, it may not be included in the plan. Other exclusions include:

- > Improper or abusive use of the machine
- > Lubricating oil, antifreeze, filters, consumables and other maintenance items replaced during the covered component repair, unless such items are rendered unusable by a covered component failure
- > Failures caused by normal wear-out
- > Freight charges for parts shipments
- > Travel time and mileage involved in getting to a job site
- > Hauling costs and / or retrieval costs
- > Overtime labor costs
- > Repair costs resulting from the failure of any non-covered components
- > Downtime/loss
- > Equipment rental charges
- > Any incidental / consequential damages or costs incurred as a result of a covered component failure
- > Modifications unless approved by Caterpillar

Examples of covered and excluded components or items are listed here. The actual dealer contract will govern. For a complete list of included components and more information on Cat Equipment Protection Plans, contact your local Cat dealer.