



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
7012EC02

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
PAUL REYNOLDS
304-558-0468

RFQ COPY
 TYPE NAME/ADDRESS HERE
 Nettles Equipment Inc.
 HC 71 Box 146
 Duck WV 25063

VENDOR

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

DATE PRINTED 09/01/2011	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
-----------------------------------	---------------	----------	--------	---------------

BID OPENING DATE: **09/28/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001		EA		020-33		54,319.00
TRACTORS, GARDEN, MOTOR DRIVEN REQUEST FOR QUOTATION OPEN END CONTRACT THE WEST VIRGINIA STATE DIVISION OF PURCHASING FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF HIGHWAYS IS SOLICITING BIDS FOR AND OPEN END CONTRACT FOR 2 WHEEL DRIVE TRACTOR PER THE ATTACHED SPECIFICATIONS. TECHNICAL QUESTIONS CONCERNING THIS SOLICITATION WILL BE RECEIVED THROUGH THE CLOSE OF THE MANDATORY PRE-BID MEETING. TECHNICAL QUESTIONS MUST BE SUBMITTED IN WRITING TO PAUL REYNOLDS WEST VIRGINIA STATE PURCHASING DIVISION. VENDORS MAY SUBMIT QUESTIONS PRIOR TO THE MANDATORY PRE-BID VIA MAIL AT THE ADDRESS LISTED IN THE BODY OF THIS RFQ, VIA FAX AT 304-558-4115, OR VIA EMAIL AT PAUL.REYNOLDS@WV.GOV. WRITTEN QUESTIONS WILL ALSO BE ACCEPTED DURING THE MANDATORY PRE-BID. DEADLINE FOR ALL TECHNICAL QUESTIONS IS THE CLOSE OF THE PRE-BID MEETING. NO ADDITIONAL QUESTIONS WILL BE ACCEPTED AFTER THE PRE-BID MEETING. ANY TECHNICAL QUESTIONS RECEIVED WILL ANSWERED BY FORMAL ADDENDUM TO BE ISSUED BY THE PURCHASING DIVISION AFTER THE MANDATORY PRE-BID MEETING. FOR YOUR CONVENIENCE A WORD DOCUMENT HAS BEEN ATTACHED FOR SUBMITTING TECHNICAL QUESTIONS. MANDATORY PRE-BID A MANDATORY PRE-BID WILL BE HELD ON 09/15/11 AT 10 AM,						

RECEIVED
 2011 NOV 16 P 1:07
 PURCHASING DIVISION
 STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE <i>Brad Nettles</i>	TELEPHONE (304) 364-2445	DATE 11-15-11	
TITLE Secretary	FEIN 55-0707403	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/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

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

INSTRUCTIONS TO BIDDERS

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



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
7012EC02

PAGE
2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
PAUL REYNOLDS
304-558-0468

RFQ COPY
 TYPE NAME/ADDRESS HERE

V
E
N
D
O
R

Nettles Equipment
 HC 71 Box 146
 Duck WV 25063

S
H
I
P
T
O

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
09/01/2011				

BID OPENING DATE: **09/28/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>AT 2019 WASHINGTON ST, EAST, CHARLESTON, WV 25305. ALL INTERESTED PARTIES ARE REQUIRED TO ATTEND THIS MEETING. FAILURE TO ATTEND THE MANDATORY PRE-BID SHALL RESULT IN 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 MANDATORY PRE-BID. FAILURE TO PROVIDE YOUR COMPANY AND 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 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>EXHIBIT 2</p> <p>LIFE OF CONTRACT: THIS CONTRACT BECOMES EFFECTIVE UPON AWARD 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 _____ TELEPHONE (304) 364-2445 DATE 11-15-11

TITLE Sec. FEIN 55-0707403 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO REQ. INSERT NAME AND ADDRESS IN SPACE ABOVE LABELLED '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
 7012EC02

PAGE
 3

ADDRESS CORRESPONDENCE TO ATTENTION OF
 PAUL REYNOLDS
 304-558-0468

RFQ COPY
 TYPE NAME/ADDRESS HERE

Nettles Equipment
 HC 71 Box 146
 Duck WV 25063

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
09/01/2011				
BID OPENING DATE: 09/28/2011		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	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	TELEPHONE	DATE	
	(304) 364-2445		
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE	
Sec.	55-0707403		

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
7012EC02

PAGE
4

ADDRESS CORRESPONDENCE TO ATTENTION OF:
PAUL REYNOLDS
304-558-0468

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

Nettles Equipment Inc.
 HC 71 Box 146
 Duck WV 25063

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
09/01/2011				

BID OPENING DATE: **09/28/2011** 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 4</p> <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>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE (304) 364-2445	DATE 11-15-11
TITLE Sec.	FEIN 55-0707403	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO REQ. 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
7012EC02

PAGE
5

ADDRESS CORRESPONDENCE TO ATTENTION OF:
PAUL REYNOLDS 304-558-0468

RFQ COPY

TYPE NAME/ADDRESS HERE

Nettles Equipment Inc.
 HC 71 Box 146
 Duck WV 25063

VENDOR

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

SHIP TO

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
09/01/2011				

BID OPENING DATE: 09/28/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p>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: PAUL REYNOLDS FILE 33</p> <p>RFQ. NO.: 7012EC02</p> <p>BID OPENING DATE: 09/28/2011</p> <p>BID OPENING TIME: 01:30 P.M.</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:</p> <p>-----304-364-8360-----</p> <p>CONTACT PERSON (PLEASE PRINT CLEARLY):</p> <p>-----Brad Nettles-----</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
	(304)- 364-2445	11-15-11
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
Sec.	55-0707403	

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. 131-1-I

OPEN END CONTRACT
2 WHEEL DRIVE TRACTOR

1.0 PURPOSE

It is the purpose of these specifications to describe a 2 Wheel Drive Tractor (hereinafter referred to as a "tractor" 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 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, 2011 and be clearly identified and marked with date of manufacture.

6.2 OPERATING AND SERVICE MANUALS AND PARTS LISTS

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

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

6.3 TRAINING:

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

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

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

6.4 PREVENTIVE MAINTENANCE AND OPERATOR PROCEDURES:

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

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

6.5 WARRANTY AND SERVICE POLICY

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

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

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

6.6 EVALUATION COMMITTEE REQUIREMENTS

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

6.7 UNSPECIFIED ACCESSORIES & FEATURES

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

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

7.0 SPECIFICATIONS OF THE QUOTED UNIT – 2 WHEEL DRIVE TRACTOR:

7.1 Tractor dry weight (without ballast, without wheel weights, without tire loading):– 10,000 lbs. minimum

7.2 Wheelbase to be approximately 94 inches

7.3 Unit to be: 2 wheel drive

7.4 Tilt up hood with manufacturers approved prop system

7.5 Unit to be equipped with manufacturers standard vandalism package

7.6. All daily services to be done from ground level

7.7 Engine:

7.7.1 Manufacturers water cooled, diesel powered engine

7.7.2 80 PTO horsepower minimum

7.7.3 Manufacturers standard governor with engine key shut off, wire sealed by manufacturer

7.7.4 Tractor front bolster and axle assembly must be designed to allow a front mounted hydraulic pump and drive kit to be installed and attached to the engine. The pulley on the front of engine must be designed to allow the pump drive kit to be attached.

7.8 Engine Lubrication System:

7.8.1 Full pressure lubrication with oil filter and oil by pass system

7.8.2 Engine oil cooler

7.9 Engine Cooling System:

7.9.1 Pressurized cooling system with thermostat and by pass, supplied with permanent OAT (organic acid technology) type extended life antifreeze or equal rated to a -30 degrees F or lower.

7.9.2 Cooling system to be equipped with a coolant recovery tank and sight glass

7.10 Air Induction System:

7.10.1 Dry type dual element (2 stage) air cleaner with self dumping valve to be provided

7.10.2 Dash mounted air filter restriction indicator with light that is operator visible when service is required

7.11 Exhaust System:

7.11.1 Muffler with manufacturers approved vertical exhaust with rain and weather protection

7.12 Electrical System:

7.12.1 Unit electrical system to be manufacturers noise suppression wiring, 12 volts negative ground

7.12.2 Neutral start switch (for safety purposes) shall be provided

7.13 Charging System:

7.13.1 Charging system to be manufacturer heavy duty for model bid

7.14 Engine Fuel System:

7.14.1 Dual stage filtering to be provided

7.14.2 Unit to be provided with a fuel water separator

7.14.3 If fuel tank is exposed, manufacturers skid plate to be provided. **(Manufactured in a manner that shall give the fuel tank maximum protection)**

7.15 Lighting System:

7.15.1 Two (2) high-low beam head light (halogen) with manufacturers heavy duty console mounted switch

7.15.2 Four (4) roof mounted work lights; two (2) front and two (2) rear

7.15.3 Fender mounted rear tail lights and turn signals to be shock mounted

7.15.4 Four (4) roof mounted flashing warning lights; two (2) front and two (2) rear (See Diagram #1)

7.15.5 Unit to be provided with console and dome lighting

7.15.6 Unit to have seven (7) terminal out socket to provide lighting for towed equipment

7.15.7 **Low profile high intensity dual flash strobe light mounted in front center of cab roof with brush guard and must meet Target Tech Model Multi-Flash 5X, 12/48 VDC, 11 Joules, generating no more than .10 UV of interference on a radio receiver with 12 db of quieting.**

7.15.8 **OSHA approved back up alarm shall be provided on unit.**

7.16 Unit Instrumentation:

7.16.1 Tachometer

7.16.2 Speedometer

7.16.3 Hourmeter operable from engine operation not key switch

7.16.4 Coolant temperature indicator with audible buzzer or warning light

7.16.5 Oil pressure indicator with audible buzzer or warning light

7.16.6 Hydraulic oil temperature indicator with audible buzzer or warning light, to warn operator when manufacturers recommended hydraulic oil temperature is exceeded.

7.17 Clutch:

7.17.1 **Shall be wet type, heaviest duty available**

7.18 Transmission to be of the following design and arrangement:

7.18.1 Power shift design and must have a transmission that can be shifted on the go without using a clutch (within the speed gears) and with a left hand reverser than can be shifted from forward to reverse without the use of a clutch and shifted on the go.

7.18.2 16 forward speeds

7.18.3 16 reverse speeds

7.18.4 Speed ranges to be 1.5 – 20 MPH

7.18.5 Transmission manual shift lever to be console mounted

7.19 Differential to have the following features:

7.19.1 Differential to be manufacturers heavy duty

7.19.2 Manufacturers differential lock engagement and disengagement capability and **must be able to engage differential lock on the go.**

7.19.3 On the go differential lock engagement and disengagement capability

7.20 Axle:

7.20.1 Front Axle:

7.20.1.1 Front axle to be manufacturers heavy duty for use with boom mounted mower

7.20.1.2 Front axle 20 degrees oscillation (approximate)

7.20.2 Rear Axle:

Rear axle to be heavy duty available

7.20.2.1 1222 lb. counterweight on left side, side step

7.20.2.2 1440 lb. minimum of tractor manufacturer wheel weights to be inserted on left rear tractor wheel

7.20.2.3 Left rear tractor tire to be loaded with a **minimum 80% full of water containing 6 lb./gallon of calcium chloride**

7.21 Planetary Final Drives:

7.21.1 In board type

7.22 Tractor Hydraulic System to be as follows:

7.22.1 Hydraulic system to provide sufficient pressure and flow to operate all tractor functions at peak efficiency

7.22.2 Tractor to have two (2) control valves with three (3) detent position and flow

7.22.3 Hydraulic hoses that can be coupled and uncoupled under pressure

7.23 Brakes to be as follows:

7.23.1 Recommended manufacturers emergency braking system shall be provided

7.23.2 Hydraulic actuated service brakes

7.23.3 Must be wet type disk brakes

7.23.4 Must be self or manual adjusting and equalizing

7.24 Wheels and Tires:

7.24.1 Front tires: 10.00 x 16 - 6 ply F2 tread

7.24.2 Rear tires 18.4 x 30 - 8 ply R1 tread

7.25 Three Point Hitch:

7.25.1 Hitch should be electro-hydraulically operated

7.25.2 Hitch must have external switch to control raising and lowering from rear of tractor for safety purposes

7.25.3 Three point hitch to be a category 2 type

7.25.4 Hitch lift capacity to be approximately 4,630 lbs at 24 inches behind lift point

7.26 Cab and Related Accessories:

7.26.1 Cab shall be OSHA approved ROPS

7.26.2 Cab to be insulated and pressurized

7.26.3 Cab to be mounted by the manufacturer

7.26.4 Cab unit to be equipped with heater, defroster, and air conditioning to be installed by the manufacturer

7.26.5 Cab shall have safety glass, tinted at all locations

7.26.6 Cab to have two (2) lockable entry doors keyed alike; one (1) left and one (1) right

7.26.7 Seat to be cloth covered type protected with scotchguard (or equal) and equipped with a seat belt

7.26.8 Seat to have a height and weight adjustment and swivel left and right 20 degrees (approximate) for easier operation.

7.26.9 Seat to be equipped with adjustable arm rests

7.26.10 Cab and tractor to be provided with a type of non-skid step (or steps) and hand holds for safety purposes

7.26.11 Unit to be equipped with a tilt/telescoping steering wheel

7.26.12 Unit to be equipped with a first aid kit mounted inside of cab

7.26.13 Tool box to be provided, weather resistant, lockable, and mounted for operator convenience

7.26.14 Cab unit to have front and rear windshield wipers and washers

7.26.15 Left and right side rear view mirrors and in cab rear view mirror to be provided

7.26.16 All features that are considered to be manufacturers standard equipment that are not specifically addressed above shall be provided

7.26.17 Unit shall be delivered to WVDOH with all manufacturers recommended safety related decals and safety features intact.

7.27 PTO Requirements:

7.27.1 540 PTO R.P.M.

7.27.2 PTO can be engaged and disengaged on the go

7.28 Paint:

7.28.1 The tractor is to be painted manufacturers standard color.

7.29 Vendor must certify that unit offered will meet or exceed the "Occupational Safety and Health Act of 1970" or subsequent changes that are in effect at time of manufacture of the unit.

7.30 Advertising: Manufacturer shall attach a metal plate on the unit stating manufacturer, serial number, or model number, etc. No large decals or painted advertisement is permitted.

7.31 Preventive Maintenance and Operators Orientation/Training:

7.31.1 The Manufacturer or Dealer shall provide preventive maintenance/operator orientation seminar to be conducted at the Equipment Division, Buckhannon. The successful vendor shall furnish all training aids; i.e. videos, projectors, etc., required in conducting the training.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 EQUIPMENT DIVISION

BIDDER'S EVALUATION REPORT

PROCUREMENT SPECIFICATIONS
 NO. 131-1-I

2 WHEEL DRIVE TRACTOR

NOTE TO BIDDER: Procurement Specification No. 130-2-E, 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.: 7012EC02

Bidder's Name: Nettles Equipment Inc.

Address: HC 71 Box 146 Duck WV 25063

Telephone Number: (304) 364-2445

Years Bidder has been registered to do business with the State of West Virginia: 5 + YRS.

Years Company has been an authorized dealer for proposed unit: 20 YRS.

X3.2 Have you complied with all mandatory specifications? YES xx NO Front
Tire Size

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: 120 Calendar Days After Receipt of
 Purchase Agreement

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

NOTE: Vendor should type Bidder's Evaluation Report

X5.0 AWARD CRITERIA;

X5.1 Price per unit:

54,319.00 per unit

X6.0 SPECIFICATIONS - GENERAL

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

Massey Ferguson, 5460, 5400, 2012

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 WVDOH.

DESCRIPTION: MF 5460, 4WD Tractor MAKE: Massey Ferguson

MODEL: 5460 YEAR: 2012 PURCHASE AMOUNT: 54,319.00

ENGINE: MAKE: Perkins MODEL: 1104-E44TA FUEL TYPE: Diesel

HORSEPOWER: 115 CYLINDER: 4 ENGINE SERIAL: _____

COOLING SYSTEM CAPACITY: 6 Gallon

BELTS: DESCRIPTION: PART NUMBERS:

A/C Belt 4284908M2

Fan Belt 3619084M91

GVW: 17,637 AXLE CAPACITY: FRONT: 6393 REAR: 11,244

TIRES: FRONT MAKE & SIZE: Factory Choice 12.4R24 R1W

REAR MAKE & SIZE: Factory Choice 18.4R30 R1W

DIMENSIONS OF UNIT: LENGTH: 154.9 WIDTH: min. 90.7 Height LENGTH: 106.3

VENDOR CONTACT PERSON: Brad Nettles PHONE: (304) 354-2445

PARTS:

BATTERY MAKE: MF/TAB MODEL: H8-49 CCA: 600

TOP OR SIDE POST: Top DIMENSIONS: LENGTH 10 WIDTH 6 HEIGHT 8

SPARK PLUGS OR FUEL INJECTORS MAKE: _____ PART # _____

FUEL PUMP OR INJECTION PUMP MAKE: Delphi MODEL: DP310

ALTERNATOR MAKE: _____ PART #: 4287014M31

STARTER MAKE: _____ PART #: 4289959M3

TURBO CHARGER MAKE: _____ PART #: 4226592M91

TRANS. MAKE: Massey Ferguson MODEL: Dyna 4 AUTO/MANUAL: Powershuttle

HYDRAULIC PUMP MAKE: Parker or Saver Dan MODEL: _____

FILTERS	MAKE	PART NO.	LUBRICANT	MANUFACTURER TYPE
OIL	MF	MF 1447031M2	ENGINE C1-4	
AIR INNER	MF	4270034M1	TRANSMISSION MF	M1145
AIR OUTER	MF	4270033M1	POWER STEERING	MF M1145
FUEL PRIMARY	MF	4226295M1	HYDRAULIC	MF M1145
FUEL SECONDARY	MF	4226708M1	DIFFERENTIALS	MF M1145
COOLANT	MF	79022729	BRAKE FLUID	MF 79016924
HYDRAULIC	MF	3618662M2	COOLANT	
OTHER			OTHER	
Water Separator	MF	72416996		
Steering	MF	4305928M91		
Clutch Filter	MF	3792285M94		
Clutch Filter	MF	3792287M1		

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:

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)

Please see attached warranty statement.

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.

All warranty work is to be done at Nettles Equipment or approved Aqco facility, any work done in field is per Nettles Equipment's discretion.

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

Duck, Ripley, Parkersburg, Glen Easton, Lewisburg, Buckhannon, Beekley

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>11</u> % discount
B.	Terms: Net 60	Manufacturer's published list price less: <u>7</u> % discount
C.	Terms: Net 90	Manufacturer's published list price less: <u>3</u> % discount

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

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

A. Shop Rate \$ 75.00 per mechanic hour

B. Travel Time Charge \$ 75.00 per mechanic hour
(Specify if one-way) one way; port to port

C. Mileage Charge \$.40 per vehicle mile
(Specify if one-way) one way; port to port

D. Field Mechanic Rate \$ 75.00 per mechanic hour

E. Specify period of time that prices are in effect: 24 months

F. Surcharge for miscellaneous items: 9 %

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 QUOTED UNIT

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: Massey Ferguson Model: 5460

X7.1 Tractor dry weight (without ballast, without wheel weights, without tire loading): 10,112 lbs.

X7.2 Wheelbase: 100.5 inches

X7.3 Is unit 2 wheel drive YES NO

X7.4 Is the hood tilt up with manufacturers approved prop system YES NO

X7.5 Is unit equipped with manufacturers lockable side panels YES NO

X7.6 Can all daily services be done from ground level YES NO

X7.7 Engine:

X7.7.1 Is engine manufacturers water cooled, diesel powered YES NO

Manufacturer: Perkins Model: 1104D

X7.7.2 PTO Horsepower: 95

X7.7.3 Manufacturers standard governor with engine key shut off, wire sealed by manufacturer YES NO

X7.7.4 Is tractor front bolster and axle assembly designed to allow a front mounted hydraulic pump and drive kit to be installed and attached to the engine YES NO

Is the pulley on the front of engine designed to allow the pump drive kit to be attached YES NO

X7.8 Engine Lubrication System:

X7.8.1 Full pressure lubrication with oil filter and oil by pass system YES NO

X7.8.2 Engine oil cooler YES NO

X7.9 Engine Cooling System:

X7.9.1 Pressurized cooling system with thermostat and by pass, supplied with permanent OAT type extended life antifreeze or equal rated at of -30 degrees F YES NO

X7.9.2 Is cooling system equipped with a coolant recovery tank and sight glass YES NO

X7.10 Air Induction System:

X7.10.1 Dry type dual element (2 stage) air cleaner with self dumping valve YES NO

X7.10.2 Dash mounted air filter restriction indicator with light that is operator visible when service is required YES NO

X7.11 Exhaust System:

X7.11.1 Is muffler manufacturers approved vertical exhaust with rain and weather protection YES NO

X7.12 Electrical System:

X7.12.1 Is unit electrical system manufacturers noise suppression wiring, 12 volts negative ground xx YES ___ NO

X7.12.2 Is neutral start switch (for safety purposes) provided xx YES ___ NO

X7.13 Charging System:

X7.13.1 Is charging system manufacturers heavy duty for model bid xx YES ___ NO

Manufacturer: _____ Model: _____

X7.14 Engine Fuel System:

X7.14.1 Is dual stage filtering provided xx YES ___ NO

X7.14.2 Is unit provided with a fuel water separator xx YES ___ NO

X7.14.3 If fuel tank is exposed, is manufacturers skid plate provided xx YES ___ NO

Is it manufactured in a manner that shall give the fuel tank maximum protection
xx YES ___ NO

X7.15 Lighting System:

X7.15.1 Two (2) high-low beam head light (halogen) with manufacturers heavy duty console mounted switch xx YES ___ NO

X7.15.2 Four (4) roof mounted work lights: two (2) front and two (2) rear
xx YES ___ NO

X7.15.3 Fenders mounted rear tail lights and turn signals shock mounted
xx YES ___ NO

X7.15.4 Four (4) roof mounted flashing warning lights; two (2) front and two (2) rear
xx YES ___ NO

X7.15.5 Unit provided with console and dome lighting xx YES ___ NO

X7.15.6 Unit has seven (7) terminal out socket to provide lighting for towed equipment
xx YES ___ NO

X7.15.7 Low profile high intensity dual flash strobe light mounted in front center of cab roof with brush guard xx YES _____ NO

Does it meet Target Tech Model Multi-Flash 5X, 12/48 VDC, 11 Joules, generating no more than .10 UV of interference on a radio receiver with 12 db of quieting xx YES _____ NO

Manufacturer: _____ Model: _____

X7.15.8 OSHA approved back up alarm provided on unit xx YES _____ NO

X7.16 Unit Instrumentation:

X7.16.1 Tachometer xx YES _____ NO

X7.16.2 Speedometer xx YES _____ NO

X7.16.3 Hourmeter operable from engine operation not key switch xx YES _____ NO

X7.16.4 Coolant temperature indicator with audible buzzer or warning light xx YES _____ NO

X7.16.5 Oil pressure indicator with audible buzzer or warning light xx YES _____ NO

X7.16.6 Hydraulic oil temperature indicator with audible buzzer or warning light, to warn operator when manufacturers recommended hydraulic oil temperature is exceeded xx YES _____ NO

X7.17 Clutch:

X7.17.1 Wet type, manufacturers heaviest duty available xx YES _____ NO

Manufacturer and Model: _____

X7.18 Transmission of the following design and arrangement:

X7.18.1 Power shift design and transmission shifted on the go without using a clutch (within the speed gears) xx YES _____ NO

Left hand reverser that can be shifted from forward to reverse without the use of a clutch and shifted on the go xx YES _____ NO

X7.18.2 16 forward speeds xx YES _____ NO

X7.18.3 16 reverse speeds xx YES _____ NO

X7.18.4 Speed ranges 1.5 – 20 MPH xx YES _____ NO

X7.18.5 Transmission manual shift lever is console mounted xx YES _____ NO

X7.19 Differential has the following features:

X7.19.1 Differential manufacturers heavy duty YES NO

X7.19.2 Manufacturers differential lock engagement and disengagement capability and able to engage differential lock on the go YES NO

X7.19.3 On-the-go differential lock engagement and disengagement capability YES NO

X7.20 Axle:

X7.20.1 Front Axle:

X7.20.1.1 Front axle manufacturers heavy duty for use with boom mounted mower YES NO

X7.20.1.2 Front axle 20 degree oscillation

X7.20.2 Rear Axle:
Is it heavy duty, adjustable flange type YES NO

X7.20.2.1 _____ lb. counterweight on left side, side step YES NO

X7.20.2.2 1440 lb. of tractor manufacturer wheel weights inserted on left rear tractor wheel YES NO

X7.20.2.3 Left rear tractor tire loaded with 80 % full of water containing 6 lb/gallon of calcium Chloride YES NO

X7.21 Planetary Final Drives:

X7.21.1 In board type YES NO

X7.22 Tractor Hydraulic System:

X7.22.1 Hydraulic system provides sufficient pressure and flow to operate all tractor functions at peak efficiency YES NO

Pressure and flow: 2900 psi - 15.0 gpm

X7.22.2 Tractor has two (2) control valves with three (3) detent position and flow YES NO

X7.22.3 Hydraulic hoses can be coupled and uncoupled under pressure YES NO

X7.23 Brakes:

X7.23.1 Recommended manufacturers emergency braking system provided
 YES NO

Manufacturer and Model: _____

X7.23.2 Hydraulic actuated service brakes YES NO

X7.23.3 Wet type disc brakes YES NO

X7.23.4 Self or manual adjusting and equalizing YES NO

X7.24 Wheels and Tires:

X7.24.1 Front Tires: 12.4-24

X7.24.2 Rear Tires: 18.4-30

X7.25 Three Point Hitch:

X7.25.1 Hitch electro-hydraulically operated YES NO

X7.25.2 Hitch has external switch to control raising and lowering from rear of tractor for safety purposes YES NO

X7.25.3 Three point hitch is a category 2 type YES NO

X7.25.4 Hitch lift capacity 7817 lbs. at 24 inches behind lift point

X7.26 Cab and Related Accessories:

X7.26.1 Cab has OSHA approved ROPS YES NO

X7.26.2 Cab is insulated and pressurized YES NO

X7.26.3 Cab mounted by the manufacturer YES NO

X7.26.4 Cab unit equipped with heater, defroster, and air conditioning installed by manufacturer YES NO

X7.26.5 Cab has safety glass, tinted at all locations YES NO

X7.26.6 Cab has two (2) lockable entry doors keyed alike: one (1) left and one (1) right
 YES NO

X7.26.7 Seat is cloth covered type protected with scotchguard (or equal) and equipped with a seat belt
 YES NO

- X7.26.8 Seat has a height and weight adjustment and swivel left and right 15 degrees for easier operation xx YES NO
- X7.26.9 Seat equipped with adjustable arm rests xx YES NO
- X7.26.10 Cab and tractor provided with a type of non-skid step (or steps) and hand holds for safety purposes xx YES NO
- X7.26.11 Unit equipped with a tilt/telescoping steering wheel xx YES NO
- X7.26.12 Unit equipped with a first aid kit mounted inside of cab xx YES NO
- X7.26.13 Tool box provided, weather resistant, lockable, and mounted for operator convenience xx YES NO
- X7.26.14 Cab unit has front and rear windshield wipers and washers xx YES NO
- X7.26.15 Left and right side rear view mirrors and in cab rear view mirror provided xx YES NO
- X7.26.16 All features that are considered manufacturers standard equipment that are not specifically addressed are provided xx YES NO**
- X7.26.17 Unit will be delivered to WVDOH with all manufacturers recommended safety related decals and safety features intact xx YES NO**
- X7.27 PTO:
- X7.27.1 PTO RPM: 540-2200
- X7.27.2 PTO can be engaged and disengaged on-the-go xx YES NO
- X7.28 Paint:
- X7.28.1 Tractor is painted manufacturers standard color xx YES NO
- X7.29 Does unit meet OSHA requirements? xx YES NO**
- X7.30 Does unit meet advertising guidelines xx YES NO**
- X7.31 Preventive Maintenance and Operators Orientation/Training:**

Describe: Ben Howell-Service Rep with Agco Corp.

Clinton Boome- Product Specialist with Agco

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: Nettles Equipment Signed: 
Date: 11-15-11 Title: Sec.

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

RFQ No. 7012FC02

STATE OF WEST VIRGINIA
Purchasing Division
PURCHASING AFFIDAVIT

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

DEFINITIONS:

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

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

Vendor's Name: Nettles Equipment

Authorized Signature: *Brad Nettles* Date: 11-16-11

State of WV

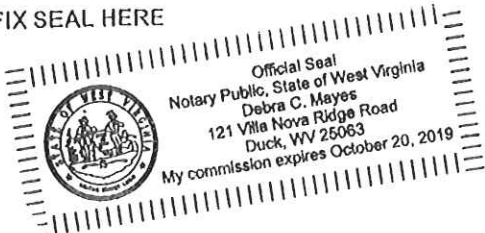
County of Clay, to-wit:

Taken, subscribed, and sworn to before me this 16th day of November 2011

My Commission expires Oct. 20, 2019

AFFIX SEAL HERE

NOTARY PUBLIC *Debra C. Mayes*



Please use this document for technical questions, posing in question format.

Technical Questions for RFQ: _____

Vendor Name: _____

Questions:

1. Specifications

2 Delivery

3 Invoicing

4 Award

Other:



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
7012EC02

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
PAUL REYNOLDS 304-558-0468

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

Nettles Equipment Inc.
 HC 71 Box 146
 Duck WV 25063

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
10/11/2011				

BID OPENING DATE: 11/08/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 4						
CHANGES TO THE SPECIFICATIONS PER THE ATTACHED						
BID OPENING DATE AND TIME REMAINS 11/08/11 @1:30 P.M.						
NO OTHER CHANGES						
0001		EA		020-33		
TRACTORS, GARDEN, MOTOR DRIVEN						
***** THIS IS THE END OF RFQ 7012EC02 ***** TOTAL:						54,319.00

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Paul Nettles</i>	TELEPHONE (304) 354-2445	DATE 11-15-11
TITLE Sec.	FEIN 55-0707403	ADDRESS CHANGES TO BE NOTED ABOVE

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

PREBID ADDENDUM #4
7012EC02

2 WHEEL DRIVE TRACTORS

CHANGES TO SPECIFICATIONS:

FROM:

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.

TO:

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. On-line manuals are acceptable.

FROM:

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.

TO:

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. On line manuals are acceptable.

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

FROM:

7.1 Tractor dry weight (without ballast, without wheel weights, without tire loading): - 10,000 lbs. minimum

TO:

7.1 Tractor manufacturers published (without ballast, without wheel weight, without tire loading): - 10,000 lbs. minimum

FROM:

7.5 Unit to be equipped with manufacturers standard vandalism package

TO:

7.5 Unit shall have manufacturers standard vandalism package which shall include but not be limited to: locking fuel and hydraulic caps, tool box and side doors

FROM:

7.7.2 80 PTO horsepower minimum

TO:

7.7.2 95 PTO horsepower minimum

DELETE:

7.15.4 Four (4) roof mounted flashing warning lights; two (2) front and two (2) rear-(See Diagram#1)

FROM:

7.15.7 Low profile high intensity dual flash strobe light mounted in front center of cab roof with brush guard and must meet Target Tech Model Multi-Flash 5X, 12/48 VDC 11 Joules, generating no more than .10 UV of interference on a radio receiver with 12 db of quieting.

TO:

7.15.7 Class 1 LED amber beacon; mounted in front center of cab roof with brushguard

DELETE:

7.20.2.1 1222 Lb. counterweight on left side, side step

FROM:

7.20.2.2 1440 Lb. minimum of tractor manufacturer wheel weights to be inserted on left rear tractor wheel

TO:

7.20.2.2 1440 Lb. minimum of wheel weights to be inserted on left rear tractor wheel

FROM:

7.20.2.3 Left rear tractor tire to be loaded with a **minimum 80% full of water containing 6 lb/gallon of calcium chloride**

TO:

7.20.2.3 Left rear tractor tire to be loaded with a **minimum 80% full of water containing a minimum of 6 lb/gallon of a non-corrosive/biodegradable tire ballast; Rim Guard or equal**

FROM:

7.24.2 Rear tires 18.4 x 30 – 8 ply R1 tread

TO:

7.24.2 Rear tires 18.4 x 30 R1W

FROM:

7.25.4 Hitch lift capacity to be approximately 4,630 lbs. at 24 inches behind lift point

TO:

7.25.4 **Hitch lift capacity of 4450 lbs minimum** at 24 inches behind lift point

DELETE:

7.31 Preventive Maintenance and Operators Orientation/Training:

7.31.1 The Manufacturer or Dealer shall provide preventive maintenance/operator orientation seminar to be conducted at the Equipment Division, Buckhannon. The successful vendor shall furnish all training aids; i.e. videos, projectors, etc., required in conducting the training.

PREBID ADDENDUM
7012EC02

2 WHEEL DRIVE TRACTORS

CHANGES TO BIDDER'S EVALUATION REPORT:

FROM:

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

TO:

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 manuals be hard copies CD Rom or on line which ever state prefers

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

YES NO

FROM:

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

TO:

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

Will the manuals be hard copies _____ CD Rom _____ or on line _____

FROM:

X7.1 Tractor dry weight (without ballast, without wheel weights, without tire loading):-
_____ lbs

TO:

X7.1 Tractor manufacturers published (without ballast, without wheel weights, without tire loading): - 10,112 lbs. minimum

FROM:

X7.5 Is unit equipped with manufacturers lockable side panels _YES_NO

TO:

X7.5 Does unit have manufacturers standard vandalism package which shall include but not be limited to: locking fuel and hydraulic caps, tool box and side doors
 YES NO

NO CHANGE REQUIRED:

X7.7.2 PTO Horsepower: 95

DELETE:

X7.15.4 Four (4) roof mounted flashing warning lights; two (2) front and two (2) rear
_____ YES _____ NO

FROM:

X7.15.7 Low profile high intensity dual flash strobe light mounted in front center of cab roof with brush guard YES NO

Does it meet Target Tech Model Multi-Flash 5X, 12/48 VDC, 11 Joules, generating no more than .10 UV of interference on a radio receiver with 12 db of quieting YES NO

Manufacturer: _____ Model: _____

TO:

X7.15.7 Is there a Class 1 LED amber beacon; mounted in front center of cab roof with Brushguard xx YES NO

DELETE:

X7.20.2.1 lb. counterweight on left side, side step YES NO

FROM:

X7.20.2.2 Lb. of tractor manufacturer wheel weights inserted on left rear tractor wheel YES NO

TO:

X7.20.2.2 1440 Lb. of wheel weights inserted on left rear tractor wheel xx YES NO

FROM:

X7.20.2.3 Left rear tractor tire loaded with % full of water containing 6 lb/gallon of calcium chloride YES NO

TO:

X7.20.2.3 Left rear tractor loaded with 80 % full of water containing 6 lb/gallon of a non-corrosive//biodegradable tire ballast xx YES NO

Manufacturer/Model: Rim Guard

NO CHANGE REQUIRED:

X7.24.2 Rear Tires: 18.4-30

FROM:

X7.25.4 Hitch lift capacity lbs. at inches behind lift point

TO:

X7.25.4 Hitch lift capacity 9189 lbs. at 24 inches behind lift point

DELETE:

X7.31.1 Preventive Maintenance and Operators Orientation/Training:
Describe:



MASSEY FERGUSON®

MF 5460

(F.O.B. PORT OF ENTRY)

FEATURES

ENGINE SYSTEM

- Tier III with New Style Hood
- Perkins 1104D Series 4 Cylinder Diesel Engine
Wastegate Turbocharged Inter-cooled with Common
Rail Injection and Electronic Engine Management
269 Cu. In. (4.4 L)
115 Engine Hp
95 PTO Hp @ 2200 RPM
- Air Cleaner: Dual Element Dry type with Electrical
Restriction Indicator
- Exhaust: Vertical Right Side Exhaust
- Cooling System: Antifreeze to minus 30F
- Fuel Tank Capacity: 38 Gallons (145L)

FRONT AXLE

- 2wd, Adjustable Width
- 4wd - Heavy Duty Front Axle with Electro-Hydraulic
Engagement.

POWER TRAIN

- Transmission: Dyna-4 16x 16 Semi-Powershift
(4 Ranges, 4 Speeds/Range), Single Right Hand
Control Lever, Left Multi-Function Shuttle
- Rear Axle: Inboard Planetary Axle w/ Electro-hydraulic
Differential Lock
- Brakes: Independent Hydraulic Oil Cooled Disk Brakes
with Mechanical Adjustment
- Hand Brake
- PTO: Independent PTO 540/1000

HYDRAULIC SYSTEM

- Hydrostatic Steering
- **Choice of Hydraulic Options:**
 - Option 1:** Open Center System with 15 gal/min
(57 l/min) at the Remotes
 - Option 2:** Open Center System with Combined Flow
26 gal/min (100 l/min) at the Remotes
 - Option 3:** Load Sensing Closed Center System with
29 gal/min (110 l/min) at the Remotes
(Cab Model Only)
- Spool Valves: 2 Single / Double Acting Spool Valves with
SRN
- 3-pt Linkage: Electronic Draft Control (ELC)
- Lower Link Draft Sensing
- 3-pt Cat II Telescopic Link Ends
- 7,817 (3546 kg) Lift Capacity

ELECTRICAL

- Alternator: 80 Amp Platform - 120 Amp Cab
- One Wet, Maintenance Free, 775 CCA Battery
- Ignition Key with Safety Start and Engine Shutoff
- Lighting: 2 Headlights, 4 Worklights, 2 Tail Lights,
4 Flashing Safety Lights

INSTRUMENTS

- Analog Instrument Panel
- Digital Readout of PTO & Forward Travel Speeds
- Tachometer / Hour Meter
- Fuel Gauge
- Coolant Temperature Gauge
- Warning / Information Lights
- Engaged Differential Lock Indicator
- Engine and Transmission Service Indicator
- Speed Charts MPH

WHEELS AND TIRES

- 2wd: Front, 10.00-16 F2 Fixed Pressed Steel
Rear, 460/85R34 (18.4R34) R1W 8 Lug Steel
- 4wd: Front, 380/85R24 (14.9R24) R1W Waffle
Rear, 460/85R34 (18.4R34) R1W 8 Lug Steel

OPERATORS ENVIRONMENT- CAB MODEL

- Deluxe Cab with Heater, Air Conditioner, Tinted Glass,
Front Windshield Wiper/Washer, Sunshade, and Two
Non Telescoping Exterior Side Mirrors
- Steering: Tilt, Telescopic
- Mechanical Spring Suspension Seat with Arm Rest and
Seat Belt
- Audio Speakers, Antenna and Wiring for Radio,
but Less Radio

OPERATORS ENVIRONMENT- PLATFORM MODEL

- Folding ROPS 2 Post
- Steering: Tilt, Telescopic
- Mechanical Spring Suspension Seat

MISCELLANEOUS

- Toolbox
- SMV Sign



USA and Canada (English) Change

Enter Keywords

Home Wednesday, November, 16 2011

[PRODUCTS](#) [SALES & SUPPORT](#) [NEWS & EVENTS](#) [ABOUT US](#) [DOWNLOAD CENTER](#) [FARM LIFE](#)



You are in: [Home](#) | [Products](#) | [Tractors](#) | [5400 Series](#)

5400 Series 75 - 115 hp

[Highlights](#) | [Features](#)

Farming is not just a job. This is not just a tractor.

Introducing Massey Ferguson 5450 "Ultimate Loader Tractor"

- Increase you loading efficiency and accuracy
- Hi-Visibility Hood for an unparalleled view while performing loader work
- Award Winning Dyna-4 Transmission

5400 Series mid-range tractors were overbuilt on purpose to be the most rugged and reliable tractors on the market today, and for years to come.

- So comfortable that when the day is done, you aren't.
- Reach key engine points in seconds.
- 16-speed transmission translates into getting the job done faster.



Model	Engine	Displacement CID (L)	PTO hp (kW) *	Transmission
MF 5445	Perkins 1104D	269 (4.4)	75 (56)	Dyna-4™
MF 5450	Perkins 1104D	269 (4.4)	75 (56)	Dyna-4™
MF 5455	Perkins 1104D	269 (4.4)	85 (63)	Dyna-4™
MF 5460	Perkins 1104D	269 (4.4)	95 (71)	Dyna-4™
MF 5465	AGCO SISU POWER™ 66 CTA	402 (6.6)	100 (75)	Dyna-4™
MF 5470	AGCO SISU POWER™ 44 CTA	269 (4.4)	105 (78)	Dyna-4™
MF 5475	AGCO SISU POWER™ 66 CTA	402 (6.6)	110 (82)	Dyna-4™
MF 5480	AGCO SISU POWER™ 49 CTA	299 (4.9)	115 (86)	Dyna-4™

Click on the model number to view complete specs in AGCO Compare

[MF 5400 Series Brochure](#)
2Mb (PDF)

[MF 5450 Spec Sheet](#)
566Kb (PDF)

[MF 5400 Series Spec Sheet](#)
182Kb (PDF)

[MF 5400 Series Cab Suspension Brochure](#)
561Kb (PDF)

[Mid Range and HHP Loader Brochure](#)
1004Kb (PDF)

What do you want to do next?

[Dealer Locator](#)

[Find Your Dealer](#)

[Brochure Request](#)

[Request a Brochure](#)

Testimonial

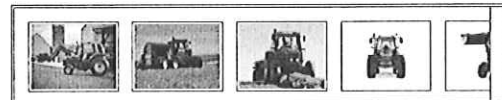
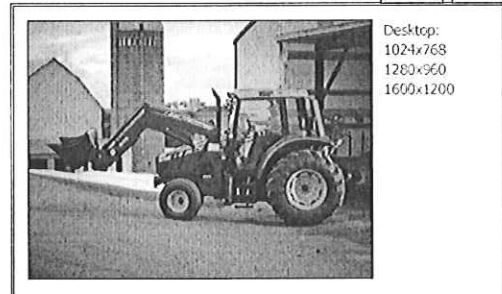
About the Massey Ferguson 5475 tractor Cary received for being named Farmer of the Year: "It's very dependable, and I like the visibility in the cab and how easy it is to change implements on the tractor."

"Even when I'm pulling a trailer with tanks," says Cary, "that tractor gets up and goes."

Cary Lightsey, Lake Wales, Florida

[Tell us what you think](#)

[Gallery](#) | [Video](#)



Sponsored Programs!



Build My Massey Ferguson
Build and share your own new Massey Ferguson!
[Find out more](#)



AGCO Compare
Evaluate an AGCO product versus up to three other products
[Find out more](#)

[Products](#) [Sales & Support](#) [News & Events](#) [About Us](#) [Download Center](#) [Farm Life](#)



The last tractor
you may ever need.

65-115 PTO HP Tractors

5400 Series

MASSEY FERGUSON



Let's get acquainted.

It's hard to believe in this day and age of high-horsepower machines that it was the 1960s before any rigid-frame tractor ever broke the 100-horsepower barrier. Yet, mid-size tractors continue to play an important role in agriculture, ranching and commercial applications.

And Massey Ferguson continues to hold its position at the forefront of tractor development by listening to producers like you and building products to meet your requirements.

We recognize the need for a tractor with a solid mix of strength, agility and technology, no matter what the size.

We also realize you have a number of tractor choices. So we just want to say thanks for stopping by and we invite you to sit back, relax and put some enjoyment back into choosing a tractor that's right for you.

I am the frontier. And the dust bowl. And abundant waves of grain.

I am six generations of farmers, looking forward to sunrise.

And six generations, working into the night.

The Spirit of the Brand

I am the sun on your back. And the swagger in your step.

I am your independence. I am hard work. And bountiful rewards.

I am an easier ride on that rough row to hoe.

A steadier hand. And a comfortable companion.



I am resolute. Resourceful. Inventive. And honest.



I understand your dreams. And your realities.

I am the next chore. The next crop. The next harvest. The next opportunity.

I am your tractor. Your tool. Your edge.



I am your strong right hand.

I am Massey Ferguson.



The heart of the farm. And the joy in the work.



Once a pioneer, always a pioneer.

Daniel Massey was a family man, working man, businessman, inventor, tradesman, manager, entrepreneur and genius. In other words, he was a farmer. And since Massey Ferguson began, 160 years ago, farmers have been our only reason for being.

We've continued to grow — in fact there are more Massey Ferguson tractors on the job worldwide than any other brand — but we've never lost our focus. With each new style, each new innovation, our one and only motivation is to provide what farmers need. And what farmers want.

Today more than ever, we're determined to prove that the heart of the original Massey Ferguson brand still beats under the shiny new exteriors of every model we make.

"Beauty in engineering is that which is simple, has no superfluous parts and which answers exactly its purpose."

—Harry Ferguson

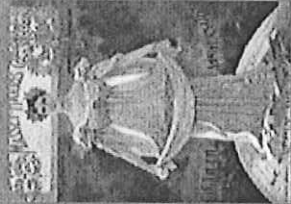
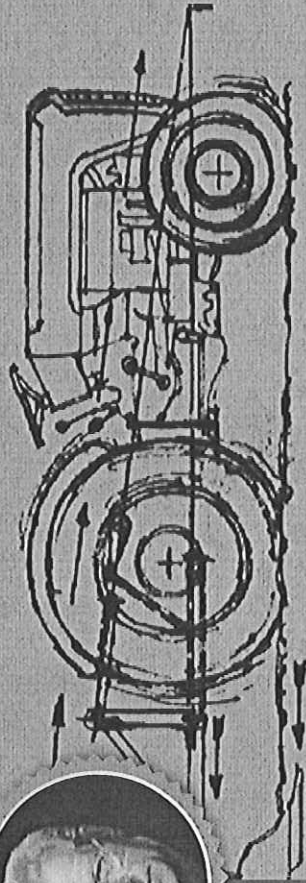
MASSEY MFG. COMPANY



In a humble tool shed in Newcastle, Ontario, Daniel Massey begins manufacturing simple farm implements — the same year Thomas Edison, Joseph Pulitzer and Jesse James were born.

Massey opens a branch in London, England, to handle the expanding European market — the first North American company to do so under its own name.

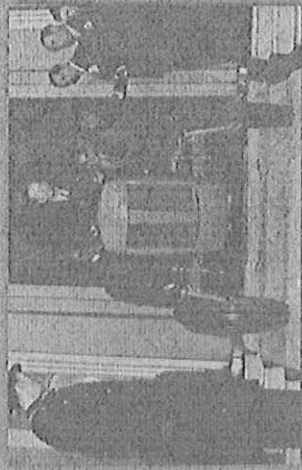
Canada's top two farm equipment companies merge to form Massey-Harris Limited.



50-year anniversary of the company's origins.

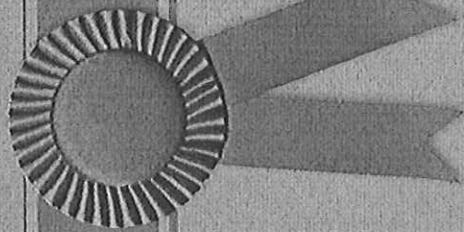


Henry Ford and Harry Ferguson enter into partnership.



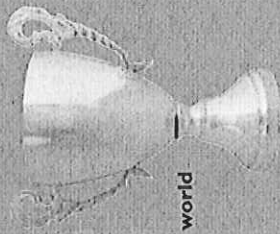
Harry Ferguson opens the Banner Lane plant in Coventry, England, which grows to become the world's largest factory devoted solely to the production of tractors.

Sir Edmund Hillary makes the first land crossing of Antarctica using converted Massey Ferguson tractors.



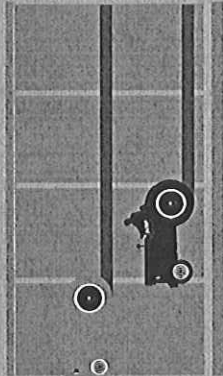
Massey Ferguson became the world's best-selling tractor brand in 1962.

Massey Ferguson becomes world plowing contest winner.



Massey Ferguson introduces the exclusive Autotronic System of electronic control for many tractor functions. The Datatronic System is also introduced.

Massey Ferguson sells 25% more tractors worldwide than its nearest competitor.



Massey Ferguson adopts ISOBUS technology, becoming a leader in achieving "plug & play" capability with other ISOBUS-compatible equipment.

2006

TABLE OF OPPORTUNITIES

MF5400 Series overview p. 6 & 7

Control & comfort p. 8 & 9

Power p. 10 & 11

Dyna-4™ transmission p. 12 & 13

3-point hitch & PTO p. 14 & 15

Loaders & hydraulics p. 16 & 17

Value p. 18 & 19

Service & dealer support p. 20 - 23

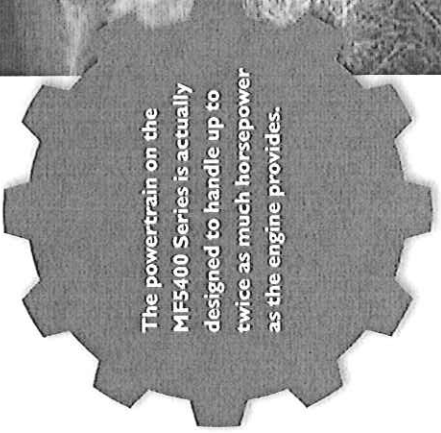
Specifications p. 24 & 25

Adaptability to match any need.

The redesigned Massey Ferguson® 5400 Series gives you exactly what you need in a mid-range model, no matter what those needs may be. For loader work, baling, mowing or light-duty tillage, there's a 5400 Series model that's just right for you. In fact, we overbuilt these on purpose to be the most rugged and reliable tractors on the market today, and for years to come.

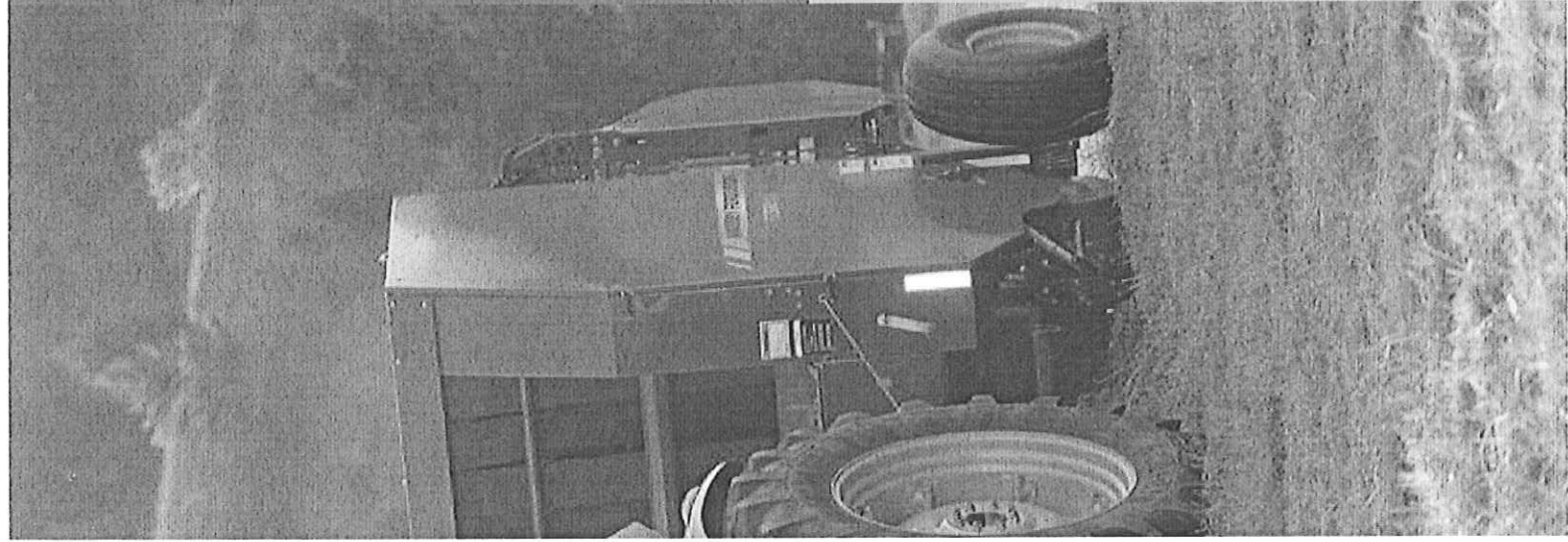
Your options start with two new models that extend the horsepower range by another 10 hp over previous levels. Until now, achieving this leap in horsepower meant upgrading to a bigger, more sophisticated and more expensive tractor, with features many producers don't consider essential. Enter the MF5475 and MF5480, which stretch the line-up to eight individual models.

Your choices also include the option of 2-wheel-drive or all-wheel-drive on all models, as well as a cab or open platform on the MF5425, MF5445, MF5455 and MF5460. Then add your choice of PTO, hydraulic capacity, hood design and creeper transmission options. Massey Ferguson even offers you a wide choice of front-end loaders to push versatility even further.



The powertrain on the MF5400 Series is actually designed to handle up to twice as much horsepower as the engine provides.





MODEL	ENGINE	DISPLACEMENT	HORSEPOWER	TRANSMISSION
5425	Perkins I104D	4.4 L (269 cu. in.)	65 PTO hp (45 kW)	Dyna-4™
5445	Perkins I104D	4.4 L (269 cu. in.)	75 PTO hp (56 kW)	Dyna-4™
5455	Perkins I104D	4.4 L (269 cu. in.)	85 PTO hp (71 kW)	Dyna-4™
5460	Perkins I104D	4.4 L (269 cu. in.)	95 PTO hp (71 kW)	Dyna-4™
5465	Perkins I106D	6.6 L (402 cu. in.)	100 PTO hp (75 kW)	Dyna-4™
5470	SisuDiesel 44 CTA	4.4L (269 cu. in.)	105 PTO hp (78 kW)	Dyna-4™
5475	Perkins I106D	6.6 L (402 cu. in.)	110 PTO hp (82 kW)	Dyna-4™
5480	SisuDiesel 49 CTA	4.9 L (299 cu. in.)	115 PTO hp (86 kW)	Dyna-4™

MF5400 Series highlights

- 1 Modern, Functional Styling:** All models feature new-generation styling that includes a one-piece hood that raises for quick and easy access to the engine and cooling system.
- 2 Tier III Engines:** New-generation Tier III Perkins® and SisuDiesel™ engines allow up to 5 more horsepower per model over previous levels while delivering excellent fuel economy, outstanding torque and lower emissions.
- 3 Two New Models:** The versatile line of 5400 Series models has been expanded by two more models — the MF5475 rated at 110 PTO hp (82 kW) and the MF5480 with 115 PTO hp (86 kW).
- 4 New Front Hitch Option:** A new front axle support casting on the six-cylinder Models 5465 and 5475 allows the use of a fully integrated front 3-point hitch along with the added option of a 1,000-rpm PTO.
- 5 An Efficient Transmission:** The standard equipment Dyna-4 transmission features clutchless operation and smooth operation to give you even more power and torque for PTO and drawbar work.
- 6 Tight Steering Angle:** The front axle provides a 55-degree steering angle and 22 degrees of oscillation for improved maneuverability.

Mid-size tractors with large size comfort.

Did you ever notice how some manufacturers seem to put less importance on comfort as the tractor size decreases? That's certainly not the case on an MF5400 Series model... or any Massey Ferguson tractor for that matter.

Granted, you may not spend all day, every day on your tractor. But there will be days when you do, so why settle for anything less than complete comfort?

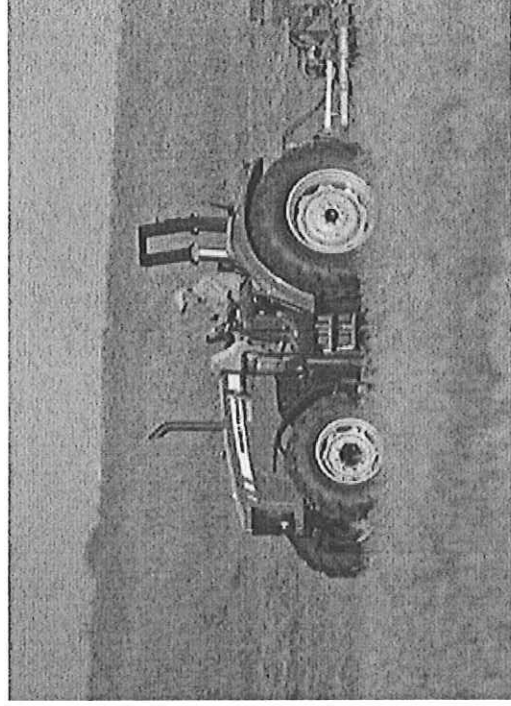
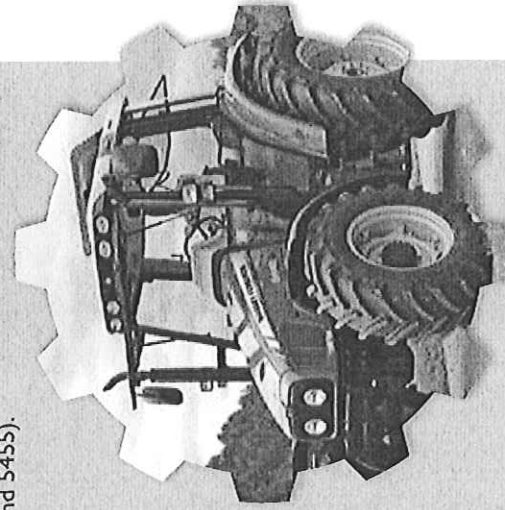
Choose a cab or platform 5400 Series model and you can expect state-of-the-art comfort and convenience that starts with a wide, mechanically suspended operator's seat and controls that are easy to reach and ergonomically arranged. Should you select a cab model, you can also count on best-in-class design with 61 square feet (5.7 m²) of glass and a sound level of 75 dB(A)... not to mention an inviting environment on cold, blustery mornings and hot, dusty afternoons.

Attention to detail and an understanding of the operator's needs have helped Massey Ferguson engineers provide you with a working environment that helps reduce fatigue, while improving productivity.



Enjoy these remarkable yet standard features:

- The right-hand control console has all switches and levers ergonomically arranged by function so you're never taking your eyes off the field longer than necessary.
- Plenty of adjustable outlets provide excellent air distribution and accurate temperature control from the heater and optional air conditioner system.
- Clear instrumentation combines analog and digital displays to present data in the most appropriate form for optimum clarity.
- A roomy cab roof, designed for more headroom and better forward visibility, puts radio access and climate control within easy reach.
- Select options that further increase comfort and convenience and include a fully adjustable air-ride seat; a foldaway passenger seat with seat belt, and rear washer and wiper.
- Wide doors and self-cleaning steps provide convenient and easy access to either side of the flat-floor cab.
- Sixty-one square feet of glass provides plenty of visibility on cab models. The view is further enhanced by the large front windshield, well-placed "B" pillars and rounded three-quarter rear windows.
- Unique Hi-Vis sheet metal slopes to the front for an even better line-of-sight ahead (available on models 5425, 5445 and 5455).

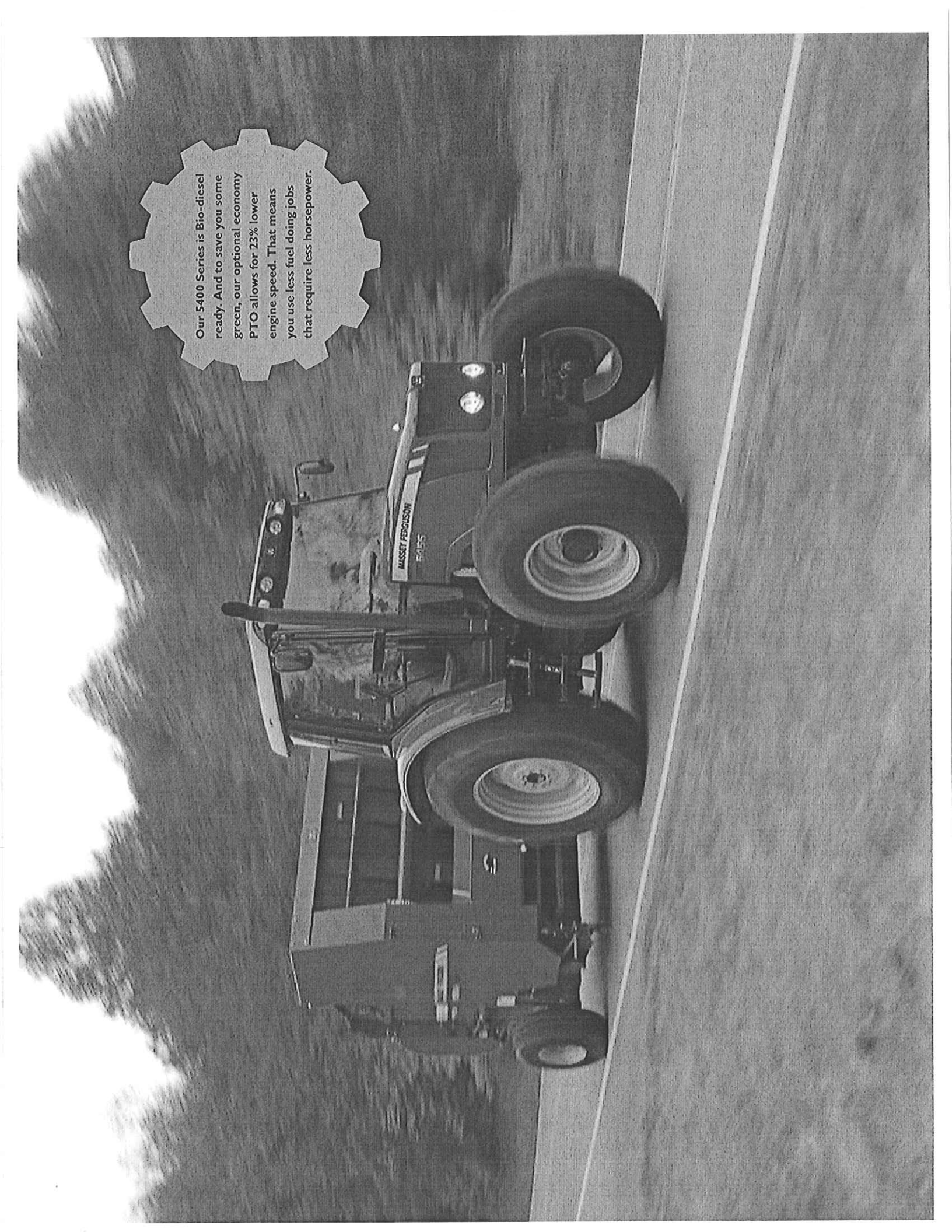


Experience a breath of fresh air.

Looking for a more economical model, or a tractor for use in areas where climate is not a big issue? A 5400 Series open-platform model may be the perfect tractor for your needs. It features all the control and monitoring functions of our cab models in combination with a large, uncluttered, flat-floor platform.

Available as an optional configuration on all 5400 Series models under 100 horsepower (75 kW) (MF5425, MF5445, MF5455 and MF5460), the open-platform versions feature a foldable ROPS; UV-resistant dash and console; fender-mounted halogen lights for front and rear visibility, and a mechanical suspension, vinyl covered operator seat as standard equipment. A down-swept exhaust further contributes to a low profile when it's needed most.

Available options include an overhead canopy; fully adjustable, scissor-suspension operator's seat, and tilting steering column. For even more visibility, the open platform configuration can be combined with Massey Ferguson's unique Visio hood for an unobstructed view of the field or work area.

A black and white photograph of a Massey Ferguson tractor driving on a paved road. The tractor is moving from left to right, and the background is blurred to indicate motion. A gear-shaped callout box is positioned in the upper right quadrant of the image, containing text. The tractor has 'MASSEY FERGUSON' and '5400' visible on its side.

Our 5400 Series is Bio-diesel ready. And to save you some green, our optional economy PTO allows for 23% lower engine speed. That means you use less fuel doing jobs that require less horsepower.

The perfect blend of power with Perkins® and SisuDiesel™.

Four different engine models on one tractor series? You bet. You see, when it comes to horsepower, we matched the best available engine to each model to ensure the perfect blend of fuel efficiency, versatility, torque and horsepower coupled with low emissions. Still, the 4.4 L (268 in.³) Perkins, 6.6 liter (402 in.³) Perkins and 4.4-liter (268 in.³) and 4.9-liter (298 in.³) SisuDiesel engines share a number of advanced technology features. All four engines, for example, feature common-rail fuel delivery, Tier III emission compliance, four valves per cylinder and electronic engine management.

A number of models are also equipped with a wastegate turbocharger and/or air-to-air intercooling. As a result, every gallon of fuel works harder and lasts longer so you get more productivity out of every fuel dollar you spend.

- Precise electronic control of the common rail fuel injection system provides quicker response to changes in field conditions and engine load for more power, more torque and better fuel economy.
- Four valves per cylinder ensure better fuel/air mixture, improved gas flow and optimum fuel combustion, which translates into lower emissions and better fuel economy.
- A cross-flow cylinder head improves combustion for less fuel consumption and minimal emissions.
- The single-piece, cast-iron block on both engines boasts exceptional structural strength and a narrow profile. When combined with the new "narrow waist" frame, it results in a tight turning radius and a superior line of sight.
- Single-side servicing gets you into the field quicker and simplifies maintenance.



Redesigned for optimum airflow, the new one-piece, styled hood on the 5400 Series lifts at the front for quick, easy access to the cooling system and front of the engine.

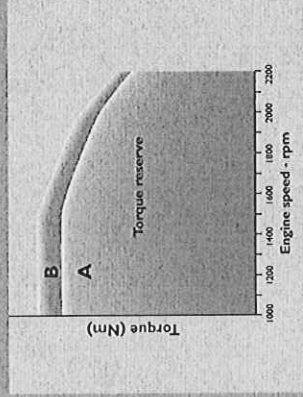


The new Tier III engines provide significantly more power at 2,000 rpm than the previous models did at 2,000 rpm.

Electronic engine control.

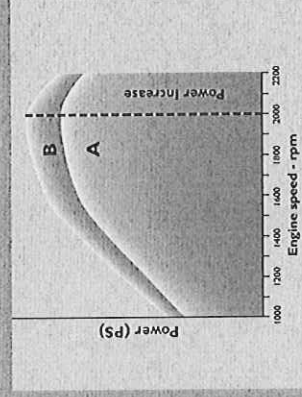
Full-authority Electronic Engine Management (EEM) works in perfect unity with the electronic fuel injection system to provide quick and precise response to throttle movement.

The EEM system is also in constant communication with the transmission, providing the ability to maintain a consistent ground speed, regardless of engine speed or vice versa.



The torque curve shows how pulling power is maintained as engine speed falls and how it also increases with boost.

- A: Normal torque curve
- B: Extra torque available when 3rd or 4th gear are selected



High power, with power increase as engine speed falls between 2,000 and 2,000 rpm.

- A: Normal power curve
- B: Extra power available when 3rd or 4th gear are selected

We've got you covered, with Powershift flexibility and a wide range of speeds.

5400 Series Dyna-4™ transmission

At a minimum, producers demand two things out of a transmission — fast, easy shifting and plenty of gears to handle the variety of jobs they face on a daily basis. That's exactly the reason we specified the Dyna-4 as standard equipment on the 5400 Series. The powershift offers four Dynashift ratios that can be shifted up or down under full load within four electrohydraulically selected main ranges. That translates into a total of 16 speeds in both forward and reverse to optimize performance and minimize fuel consumption.

Creep and supercreeper options

For jobs that require full power and control at the lowest possible speed, all MF5400 Series tractors are available with creeper and supercreeper transmission options. Respectively, they provide an additional eight or 16 gears at speeds down to .4 mph (0.6 km/h) using creeper and as low as .12 mph (0.2 km/h) with supercreeper.

Large disc brakes, with constant pressure lubrication, provide the fade-free braking power to stop any load.

1 Simple, efficient shifting

Using a special T-handle control lever, mounted on the right-hand console, the operator can manually change the powershift ranges, as well as speeds without using the clutch pedal.

For powershift ratio changes, simply "pulse" the handle forward or back to make sequential shifts through four ranges as conditions change. To shift to a new range, simply press and hold the range button on the control handle while moving the lever forward or backward. When changing ranges, speed matching automatically selects the corresponding Dyna-4 ratio to match your forward speed.

The simple, straightforward procedure lets you quickly find the perfect balance of engine speed and travel speed for any type of job.

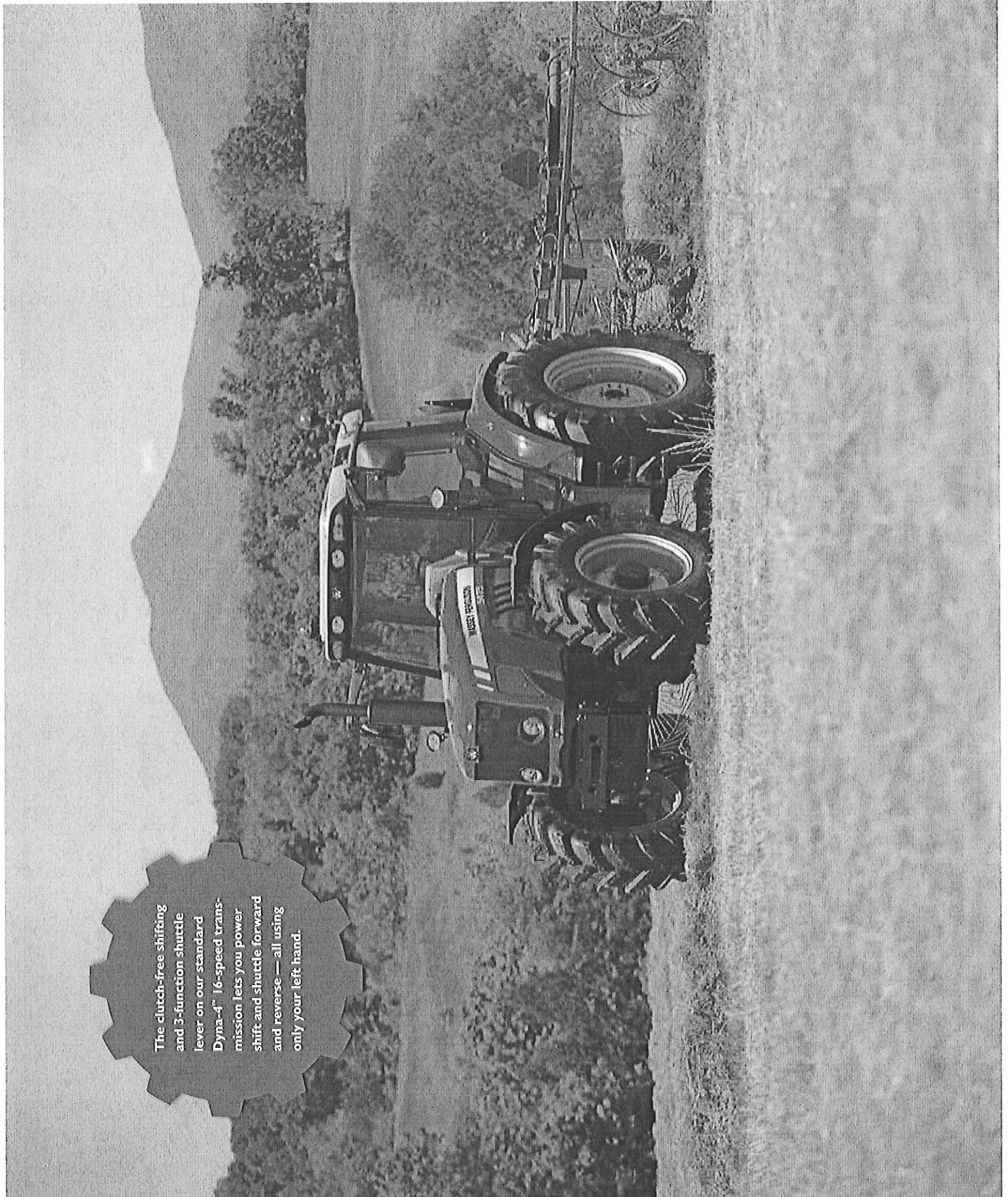
2 Left-hand power control

The left-hand Power Control lever on the steering column provides convenient, operator-controlled forward/reverse shuttling, powershift changes and fingertip declutching, leaving the operator's right hand free to operate other controls, such as a loader joystick.

3 Variable shuttle engagement

A convenient rotary dial on the console allows you to adjust the engagement rate of forward or reverse shuttle engagement to match your needs and preferences. For heavy loader work, more aggressive settings offer maximum productivity, while less aggressive settings provide smooth, direction changes when shuttling.





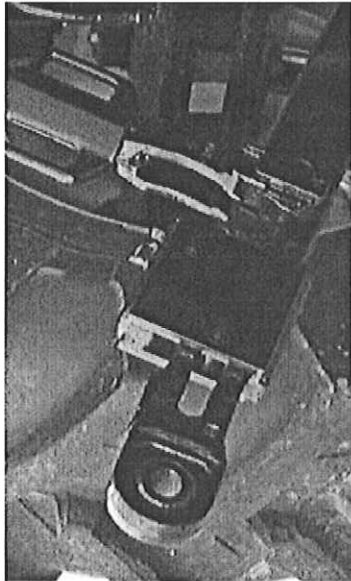
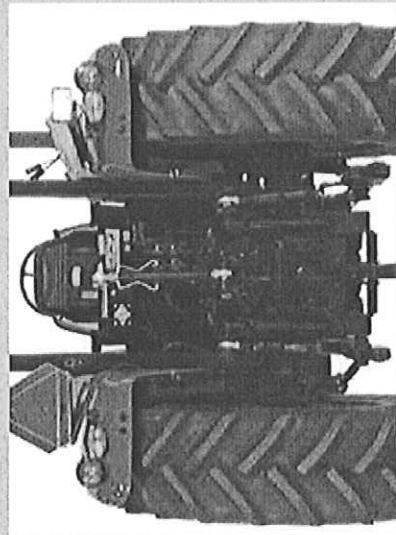
The clutch-free shifting and 3-function shuttle lever on our standard Dyna-4™ 16-speed transmission lets you power shift and shuttle forward and reverse — all using only your left hand.

The brand that's synonymous with 3-point hitch performance.

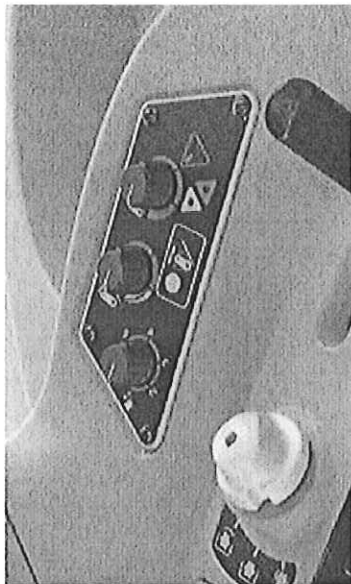
When Harry Ferguson invented the revolutionary "Ferguson System" in the early 1930s, it involved much more than a 3-point hitch linkage. It also included an internal proprietary hydraulic pump and an innovative draft control mechanism. Soon, any company that tried to sell a small tractor without such a system was left in the dust.

Today, Massey Ferguson tractors are still leaving competitors in the dust with exceptional lift capacity, easy control and Electronic Lift Control (ELC), which gives you a choice of draft-sensing mode for quick response to changing field conditions, or position control mode for maintaining a steady height or depth.

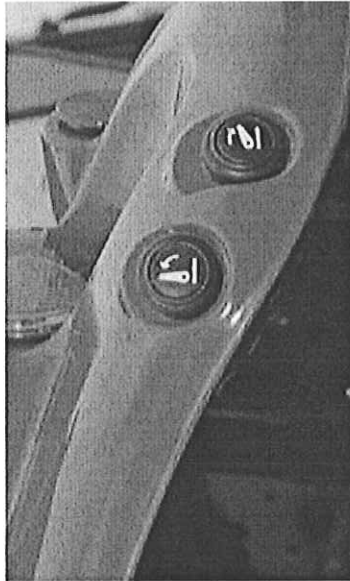
Whether you're cultivating, mowing or grading, ELC is easy to adjust for quick customization, with rotary draft controls to the rear of the right console and a position control "mouse" at your fingertips.



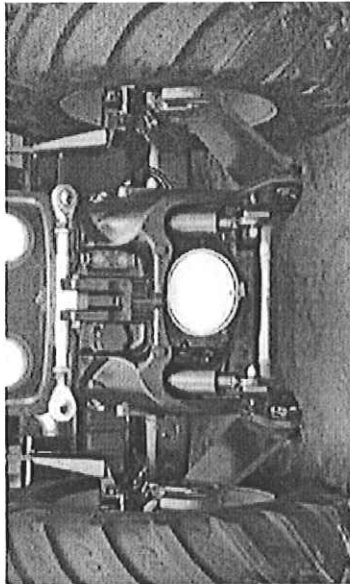
Telescopic lower link ends are standard, making it faster and easier to hook up large implements.



3-Position PTO Switch allows the operator to turn off the PTO without engaging the brake and allows the implement to coast to a stop.

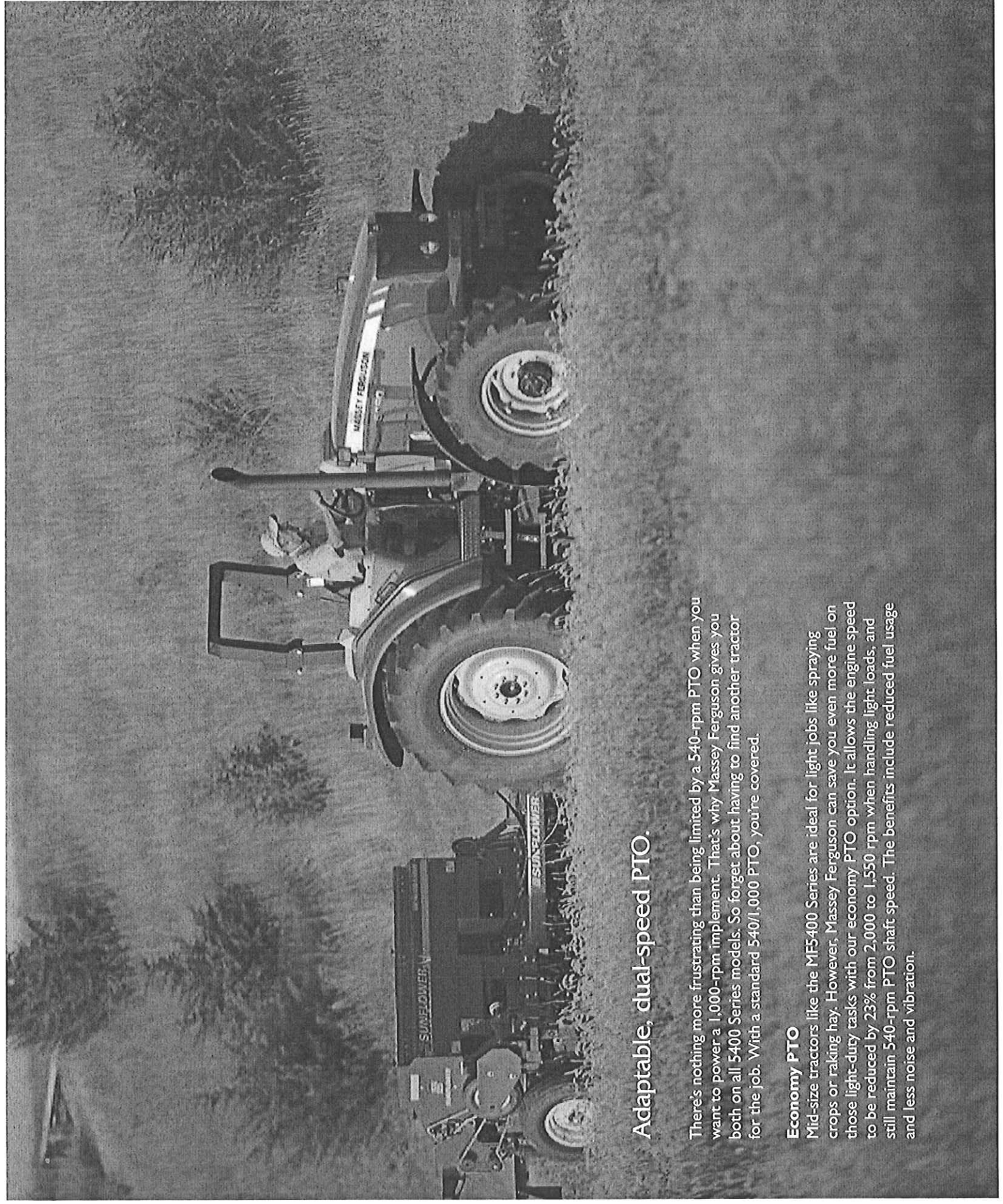


Fender-mounted lift/lower buttons make implement attachment even faster and easier.



Optional front 3-point hitch allows even greater versatility, and is available on all 5400 Series models. In addition, the 5465 and 5475 are available with an integrated 3-point hitch system that has the added option of a 540-rpm PTO and two hydraulic remotes.

Thanks to exceptional power for their size, 5400 Series tractors boast up to 7,817 lbs. (3,546 kg) lift capacity on the rear 3-point hitch.



Adaptable, dual-speed PTO.

There's nothing more frustrating than being limited by a 540-rpm PTO when you want to power a 1,000-rpm implement. That's why Massey Ferguson gives you both on all 5400 Series models. So forget about having to find another tractor for the job. With a standard 540/1,000 PTO, you're covered.

Economy PTO

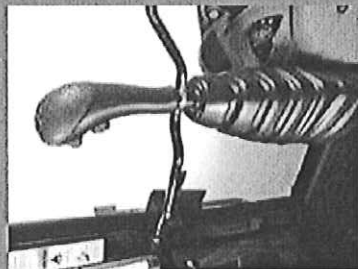
Mid-size tractors like the MF5400 Series are ideal for light jobs like spraying crops or raking hay. However, Massey Ferguson can save you even more fuel on those light-duty tasks with our economy PTO option. It allows the engine speed to be reduced by 23% from 2,000 to 1,550 rpm when handling light loads, and still maintain 540-rpm PTO shaft speed. The benefits include reduced fuel usage and less noise and vibration.

Get a load of this

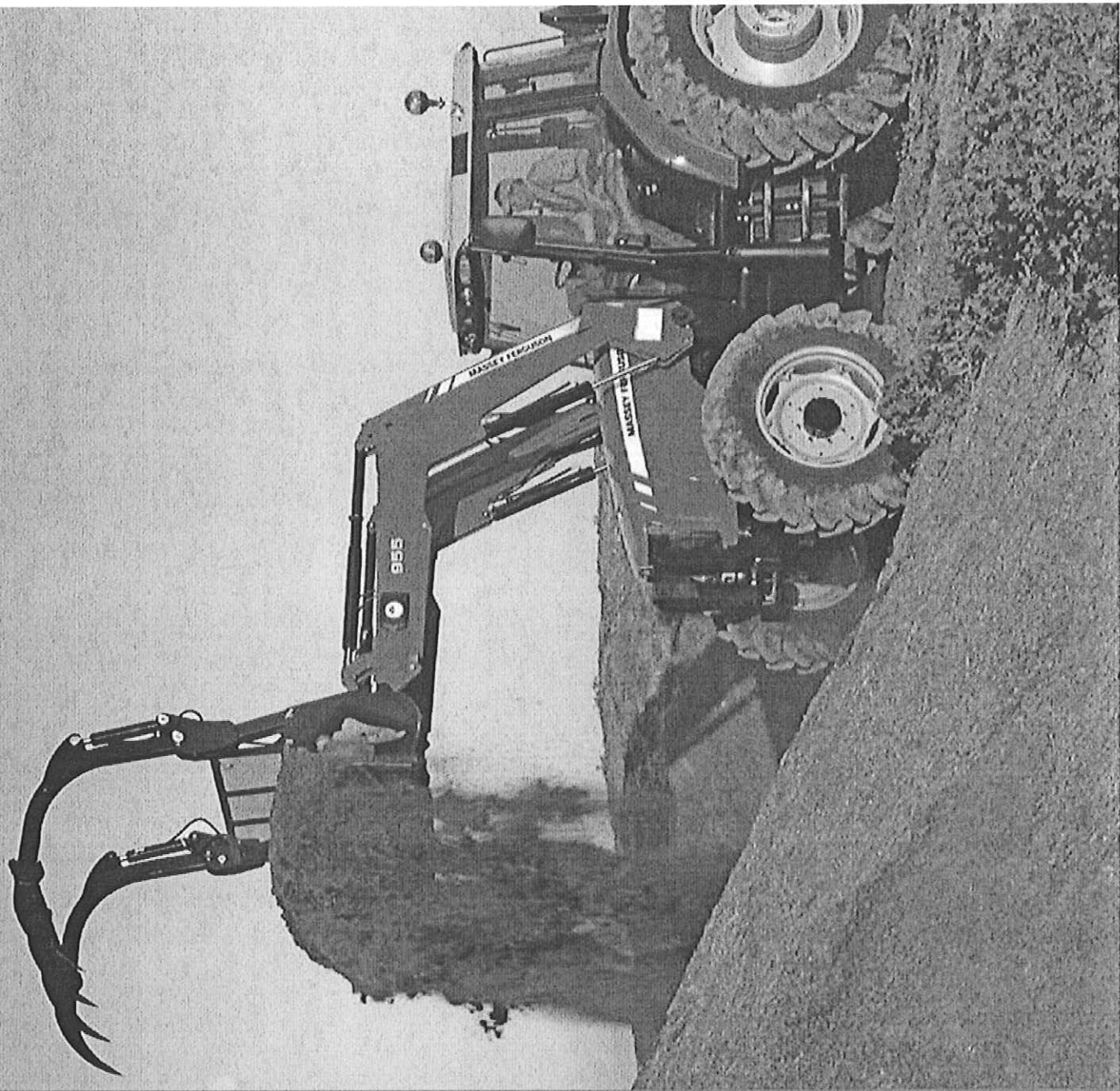
Harry Ferguson's innovative genius wasn't just limited to a 3-point hitch system. He was also the first to incorporate hydraulic power into a tractor. It's the kind of intellect you'll find in the MF5400 Series, with its choice of quick, heavy-lifting hydraulic power systems and wide selection of front-end loaders that give new meaning to "versatility."

Like a hand in a glove

Designed specifically for Massey Ferguson tractors, the MF900 and DL200 Series loader line-up consists of eight models that fit the various 5400 Series tractors. Thanks to an integral fit, they ensure the performance, reliability and operator comfort that is demanded for a material-handling unit.



A special multi-function joystick, integrated into the armrest console as a factory- or field-installed option, allows the operator to control two functions simultaneously (e.g. lift and crowd or lower and dump, etc.) without moving the lever through neutral. A "float position" also allows the operator to release pressure on the lift arms, enabling the attachment to follow the ground surface.



Two mid-range loader options.

You don't have to spend a fortune to equip a 5400 Series tractor with a quality loader. The DL270 and DL280, as well as the 900 Series loaders, offer a number of key features and benefits.

DL270 and DL280 Loaders

The DL270 (for 2-WD models only) and DL280 offer a number of key features and benefits like a pedestal-mount Quick Disconnect with park stands for easy removal and installation, easy access to all service points on the tractor and loader and a maximum lift capacity of 4,869 lbs. (2,209 kg) at the pivot pins.

MF900 Series Loaders

Consider just a few of the features that make an MF900 Series loader a top choice for your tractor.

- The main loader arms are constructed of two U-shaped, high-strength alloy steel channels fitted together and welded on the inside for a 70-mm-wide profile with a clean, strong appearance.
- Grease fittings are covered with rubber caps to prevent grease from getting on the hood or windows, especially when pressure washing the machine.
- Every pivot point is equipped with replaceable bushings for improved serviceability during the life of the loader.
- Ozone-resistant hydraulic hoses — instead of tubing — are routed inside the "double-C section" loader beams for an uncluttered view and better protection.
- A centrally located valve unit — protected by the cross tube and hidden under a cover — connects all functions at one point for easier service and synchronized flow between the left and right sides, regardless of the load, oil temperature or hydraulic pressure.

Massey Ferguson offers you a choice of more than 12 loader implements that attach without the use of tools.

More hydraulic power to you.

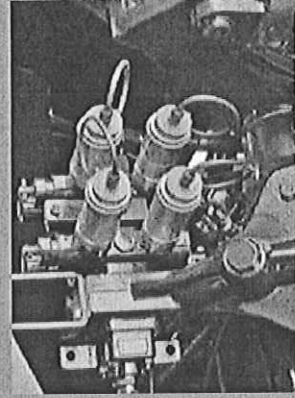
Smooth loader work requires ample hydraulic power: and the MF5400 Series has power to spare for most applications. Yet, Massey Ferguson goes one further by allowing you to select from one of three systems to match expected demand.

Choose the 15-gpm (57 L/min.) open center system, or upgrade to the 26-gpm (98 L/min.) system that combines the flow from two separate pumps. Lock the 3-pt. hitch in place and deliver all 26 gpm to remotes. For bigger jobs and heavier lifting with tractors over 85 horsepower equipped with a cab, select a closed center load-sensing (CCLS) hydraulic system that delivers 29 gpm (110 L/min.) on demand.

Available Loader Models

Tractor Model	Mechanical Self-Leveling				Non-Self-Leveling			
	MF945	MF955	MF965	MF940	MF950	MF960	DL270*	DL280
MF5425	✓			✓			✓	✓
MF5445	✓			✓			✓	✓
MF5455	✓			✓			✓	✓
MF5460	✓			✓			✓	✓
MF5465		✓			✓			
MF5470		✓			✓			
MF5475		✓			✓		✓	✓
MF5480		✓			✓		✓	✓

* The Model DL270 is designed for 2-wheel-drive models only.



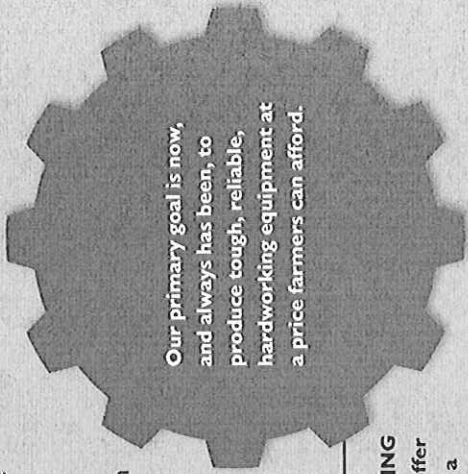
Two double-acting remote valves are standard on all models with the option of up to four single/double-acting spool valves with flow divider, kickout and zero leak facility.

Invest wisely.

Massey Ferguson has built a worldwide following by building tractors that last. We go the extra mile right from the start, so our tractors go the extra mile for years to come.

For instance, we've overbuilt our Massey Ferguson 5400 Series tractors on purpose. Our new 5475 and 5480 models now expand our range to 115 PTO horsepower. But the entire line is designed to outwork other mid-range tractors, with more muscle and one of the highest lift capacities in their class. On some models, the power train even handles up to twice the horsepower the engine provides. Big claims. Big news. Big opportunity.

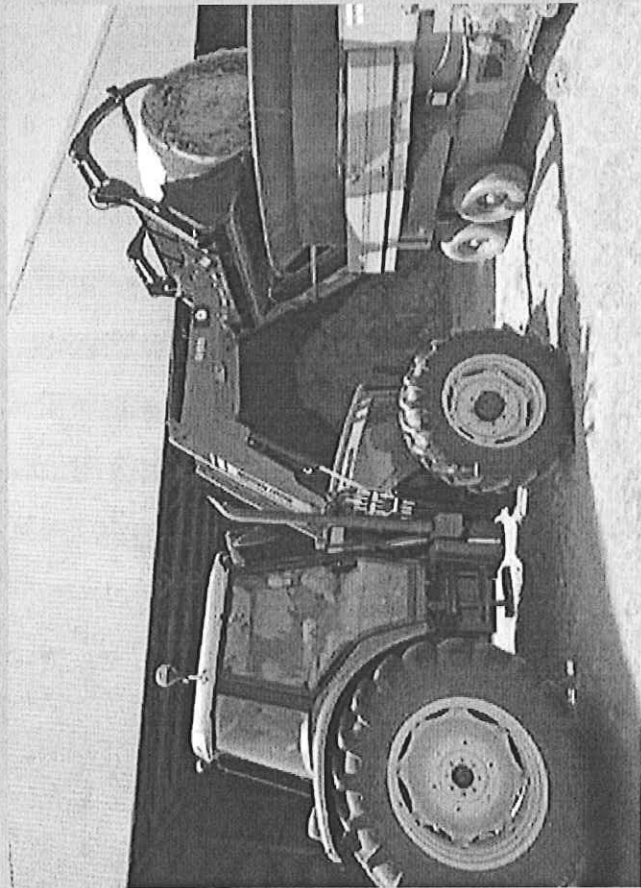
Best of all, if you ever decide to trade in your 5400 Series tractor, the resale values of Massey Ferguson tractors are among the highest in the industry. That's because they come with a built-in reputation for durability. And they come from a brand that has served farmers for more than 160 years.

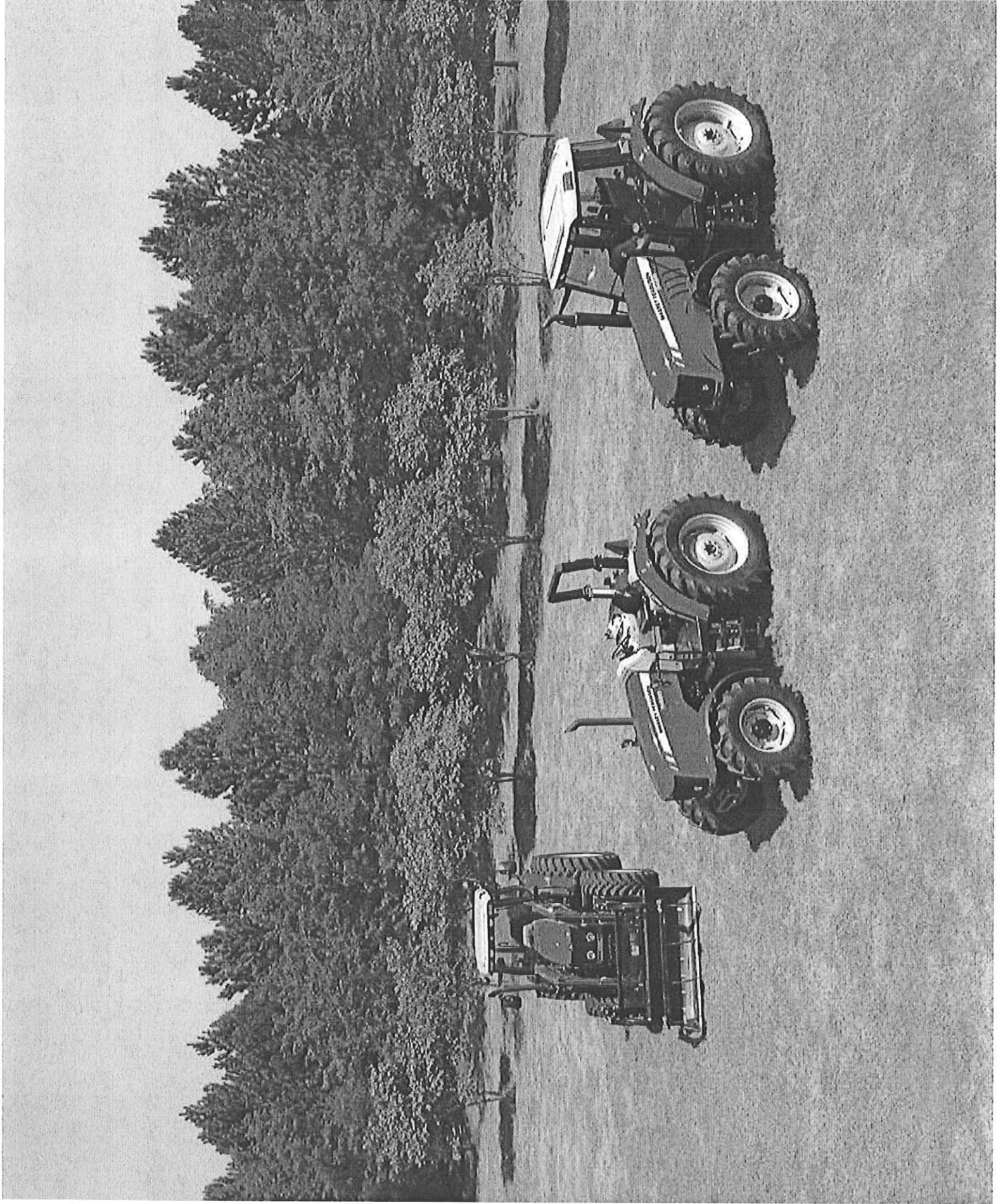


Our primary goal is now, and always has been, to produce tough, reliable, hardworking equipment at a price farmers can afford.

LOW-RATE, FLEXIBLE FINANCING

Your dealer and AGCO Finance offer attractive financing to make sure a new 5400 Series tractor will fit your operating budget. Extremely competitive rates and terms make it easy to buy, lease or rent.



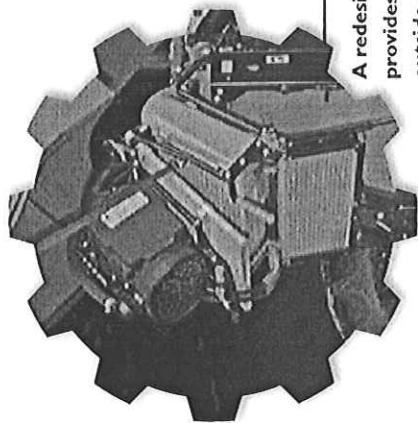


Less service means less cost.

You already know the value of product reliability when buying a tractor. However, fast, simple maintenance, which gets you in the field quicker, can be equally important. Fortunately, the MF5400 Series has you covered on both counts. The replacement interval on transmission oil and filters, for example, has been increased to every 1,200 hours, while the engine oil change interval is now 400 hours — so you spend more time working and less time servicing the machine.

Thanks to the new one-piece hood, it's a lot easier to get to the engine and cooling system, too. Simply lift the hood from the front and remove the side panels for access to all engine components, including engine air filter, belts, alternator, air conditioning compressor, radiator fill and windshield washer fluid.

Chances are, it'll take you longer to pack your lunch than it will to get the tractor ready to go.



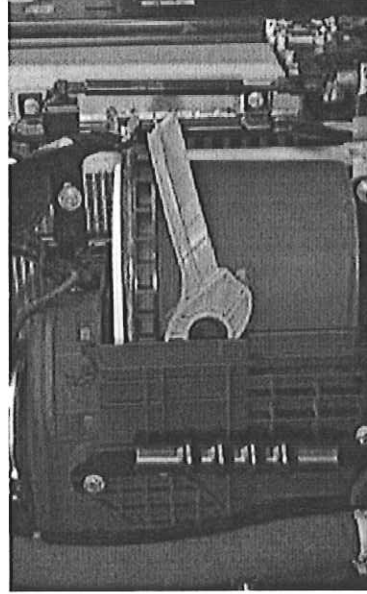
A redesigned cooling package on the six-cylinder Model 5465 and Model 5475 provides greater surface area for better cooling capacity, better sealing from outside dust and easier maintenance. Cooler units and heat exchangers conveniently tilt up and away from each other for complete access and easy cleaning.



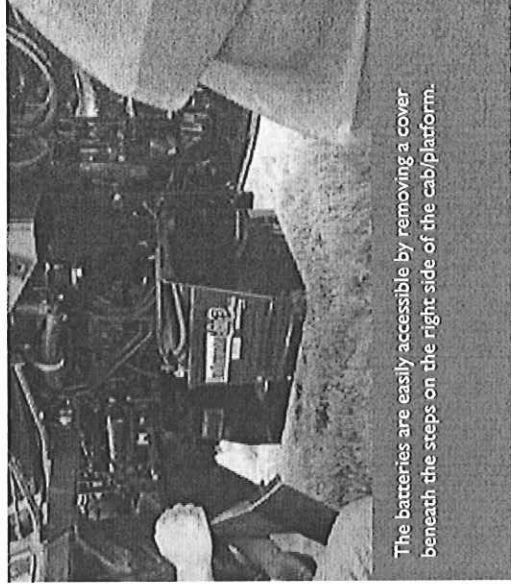
The ground-level fuel tank includes an oversized fuel inlet for easy access and reduced splash back. An optional 13-gallon (45 L) or 17-gallon (65 L) (depending on model) auxiliary fuel tank makes fuel stops even less frequent.



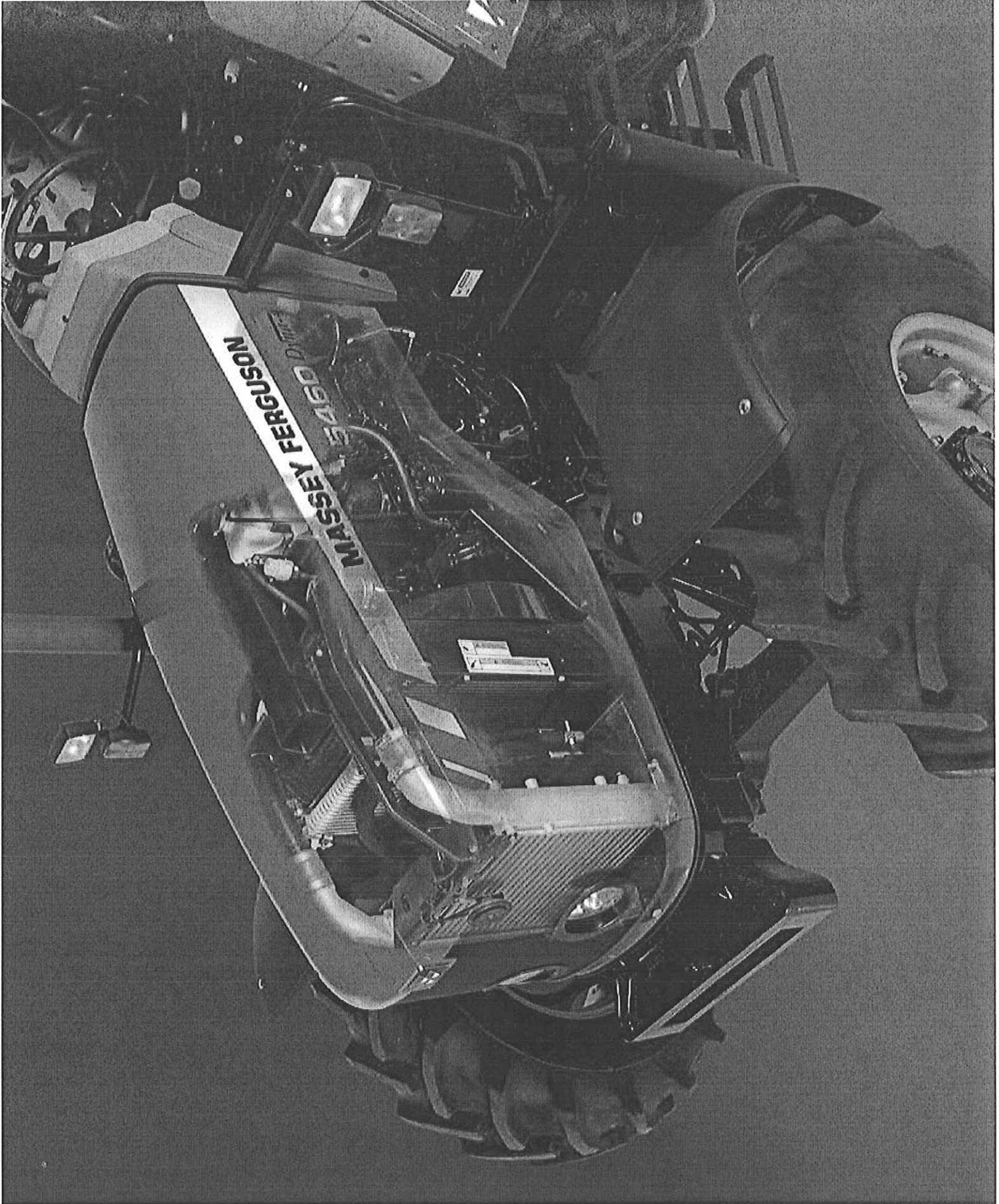
An externally accessible cab air filter is easy to change and helps keep the cab interior free from dust.



The 5465 and 5475 feature a new cassette-type engine air cleaner, positioned at the front of the tractor, that makes service even less time-consuming.



The batteries are easily accessible by removing a cover beneath the steps on the right side of the cab/platform.



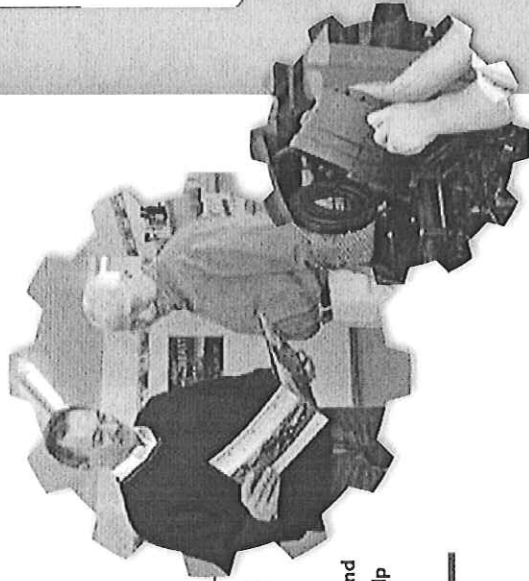
A great deal includes a great dealer.

If you're like most farmers, when you find your favorite tractor it becomes almost like part of your family. And when you buy a Massey Ferguson tractor you instantly become part of ours. Our network of dealers understand what owning a tractor really means. They'll advise and support you through the selection process, the buying process, through operation, maintenance and beyond. Because our dealers share your passion for farming, and they're happy to share their knowledge to keep you working happy. After all, you're family. And there's nothing we wouldn't do for family.

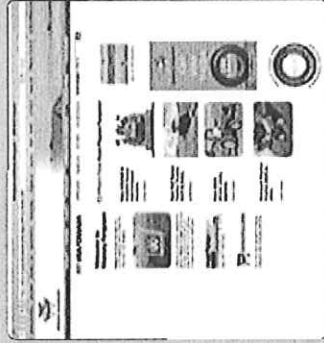
Our 2-year/2000-hour warranty

Even our warranty is high performance, covering 2 years/2,000 hours on the engine and powertrain. It's one of the best in the business, backed by dealers who understand how to help you make the most of it.

QUALITY PARTS – Massey Ferguson parts are manufactured to meet the same high standards of dependability as every 5400 Series tractor and implement. Continued and consistent use of these quality parts will help keep your tractor running like new.



Questions? Go to www.masseyferguson.com. Our Web site opens the door to all sorts of technical information, corporate support and product specifications. You'll have access to shop massey.com, a one-stop source for Massey Ferguson logo products and gifts. If you can't find what you're looking for, click on "contact us" and we'll provide you with access to folks who can get you all the answers.



Join the clubs. Ferguson Enthusiasts of North America has grown from just 59 members in 2001 to almost 600 members today. They publish a newsletter five times a year and hold annual get-togethers at well-known tractor shows. Join today, visit www.fergusonenthusiasts.com.

The Ferguson Club is an international, independent member's club established in 1986 to promote and disseminate information and interest in the work of the late Harry Ferguson, Ferguson products and in particular, the "Ferguson System." www.fergusonclub.com

The Friends of Ferguson Heritage Ltd. exists to encourage and assist enthusiasts in their interest in the engineering achievements of the late Harry Ferguson. www.fofh.co.uk



The Massey Ferguson Farm Life magazine is our exclusive publication that offers insights into all the joys — and challenges — of rural life.

See you at the farm shows!

National Farm Machinery Show

Location: Louisville, KY
Web site: www.farmmachineryshow.org

World Ag Expo

Location: Tulare, CA
Web site: www.worldagexpo.com

Farm Progress Show

Location: Decatur, IL, and Boone, IA
Web site: www.farmprogressshow.com

Husker Harvest Days

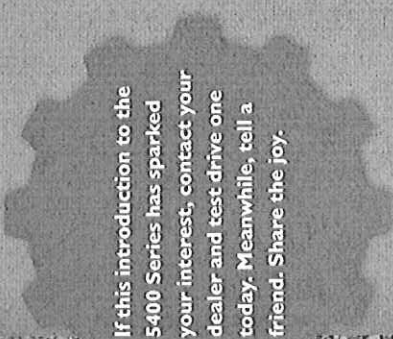
Location: Grand Island, NE
Web site: www.huskerharvestdays.com

Sunbelt Ag Expo

Location: Moultrie, GA
Web site: www.sunbeltexpo.com

Green Industry and Equipment Expo

Location: Louisville, KY
Web site: www.gie-expo.com

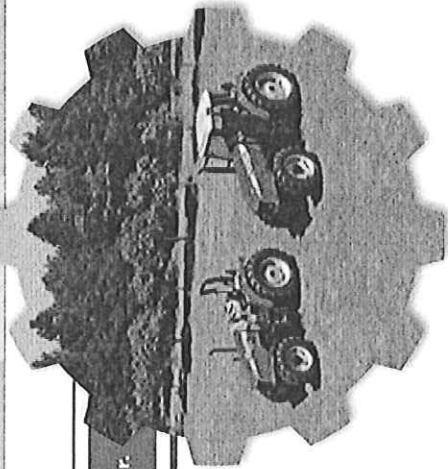


If this introduction to the 5400 Series has sparked your interest, contact your dealer and test drive one today. Meanwhile, tell a friend. Share the joy.

5400 Series specifications

Model	5425	5445	5455	5460	5465	5470	5475	5480
PTO HP @ 2,200 erpm (kW)	65 (49)	75 (56)	85 (63)	95 (71)	100 (75)	105 (78)	110 (82)	115 (86)
Engine manufacturer	Perkins	Perkins	Perkins	Perkins	Perkins	SisuDiesel	Perkins	SisuDiesel
Engine model	1104	1104	1104	1104	1106	44CTA	1106	49CTA
Aspiration / charge cooling	Turbo / Air to Air	Turbo / Air to Air	Turbo / Air to Air	Turbo / Air to Air	Turbo / Air to Air	Turbo / Air to Air	Turbo / Air to Air	Turbo / Air to Air
Cylinders	4 / Direct / Diesel	4 / Commonrail / Diesel	4 / Commonrail / Diesel	4 / Commonrail / Diesel	6 / Commonrail / Diesel	4 / Commonrail / Diesel	6 / Commonrail / Diesel	4 / Commonrail / Diesel
Total displacement: CID (L)	269 (4.4)	269 (4.4)	269 (4.4)	269 (4.4)	402 (6.6)	269 (4.4)	402 (6.6)	299 (4.9)
Fuel: Gal (L)	38 (145)	38 (145)	38 (145)	38 (145)	38 (145)	38 (145)	38 (145)	38 (145)
Optional tank: Gal (L)	12 (45)	12 (45)	12 (45)	12 (45)	17 (65)	17 (65)	17 (65)	17 (65)
Transmission								
16 x 16 Dyna-4, 4 ranges, multifunction Power Shuttle	Std. / opt. creeper	Std. / opt. creeper	Std. / opt. creeper	Std. / opt. creeper	Std. / opt. creeper	Std. / opt. creeper	Std. / opt. creeper	Std. / opt. creeper
3-Point Hitch								
ASAE category	II	II	II	II	II	II	II	II
Lift capacity @ 24" (610 mm) lbs. (kg) std. / opt.	7,817 (3,546) / 9,189 (4,168)	7,817 (3,546) / 9,189 (4,168)	7,817 (3,546) / 9,189 (4,168)	7,817 (3,546) / 9,189 (4,168)	9,189 (4,168) std.	9,189 (4,168) std.	9,189 (4,168) std.	9,189 (4,168) std.
Type of draft sensing	Lower link	Lower link	Lower link	Lower link	Lower link	Lower link	Lower link	Lower link
4wd Front Axle								
Engagement	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic
Tread width min / max: in. (mm)	56.6 (1,437) / 75.6 (1,919)	56.6 (1,437) / 75.6 (1,919)	56.6 (1,437) / 75.6 (1,919)	61.7 (1,568) / 80.7 (2,051)	61.7 (1,568) / 80.7 (2,051)	61.7 (1,568) / 80.7 (2,051)	61.7 (1,568) / 80.7 (2,051)	61.7 (1,568) / 80.7 (2,051)
Rear Axle								
Differential lock	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic	Electro-hydraulic
Dimensions								
Length: in. (mm)	165.7 (4,210)	165.7 (4,210)	167.7 (4,260)	169.3 (4,300)	189.7 (4,818)	172 (4,368)	189.7 (4,818)	172 (4,368)
Height over cab: in. (mm)	108.3 (2,752)	108.3 (2,752)	108.3 (2,752)	109.1 (2,770)	110.2 (2,800)	110.2 (2,800)	110.2 (2,800)	110.2 (2,800)
Width min/max: in. (mm)	79.3 (2,014) / 100.4 (2,550)	79.3 (2,014) / 100.4 (2,550)	79.3 (2,014) / 100.4 (2,550)	79.3 (2,014) / 100.4 (2,550)	79.3 (2,014) / 100.4 (2,550)	79.3 (2,014) / 100.4 (2,550)	79.3 (2,014) / 100.4 (2,550)	79.3 (2,014) / 100.4 (2,550)
Wheelbase: in. (mm)	100.5 (2,552)	100.5 (2,552)	100.5 (2,552)	100.5 (2,552)	112.3 (2,827)	105.3 (2,674)	112.3 (2,827)	105.3 (2,674)
Hi-Vis sheet metal wheelbase: in. (mm)	97.0 (2,464)	97.0 (2,464)	97.0 (2,464)	-	-	-	-	-
Weight: 2wd / 4wd cab: lbs. (kgs)	9,198 (4,172) / 9,848 (4,467)	9,198 (4,172) / 9,848 (4,467)	9,198 (4,172) / 9,848 (4,467)	9,402 (4,265) / 10,112 (4,587)	11,195 (5,078) / 11,905 (5,400)	9,453 (4,288) / 10,163 (4,620)	11,195 (5,078) / 11,905 (5,400)	9,453 (4,288) / 10,163 (4,620)

Model	5425	5445	5455	5460	5465	5470	5475	5480
<i>Power Take-Off (PTO)</i>								
Type	Independent	Independent	Independent	Independent	Independent	Independent	Independent	Independent
PTO speed	540 / 1,000 or opt. economy	540 / 1,000 or opt. economy	540 / 1,000 or opt. economy	540 / 1,000 or opt. economy	540 / 1,000 or opt. economy	540 / 1,000 or opt. economy	540 / 1,000 or opt. economy	540 / 1,000 or opt. economy
<i>Auxiliary Hydraulics</i>								
Type: (2 valves std. / 4 opt. on all systems)	Open center	Open center	Open center	Open center	Open center	Open center	Open center	Open center
Maximum hyd. flow @ remotes, gpm (lpm) std. / opt.	15 (57) / 26 (100)	15 (57) / 26 (100)	15 (57) / 26 (100)	15 (57) / 26 (100)	15 (57) / 26 (100)	15 (57) / 26 (100)	15 (57) / 26 (100)	15 (57) / 26 (100)
Type: (cab models only)	Closed center	Closed center	Closed center	Closed center	Closed center	Closed center	Closed center	Closed center
Maximum hyd. flow @ remotes, gpm (lpm) std. / opt.	29 GPM (110)	29 GPM (110)	29 GPM (110)	29 GPM (110)	29 GPM (110)	29 GPM (110)	29 GPM (110)	29 GPM (110)
<i>Power Steering / Wet Brakes</i>								
Steering column	Tilt / telescopic	Tilt / telescopic	Tilt / telescopic	Tilt / telescopic	Tilt / telescopic	Tilt/telescopic	Tilt / telescopic	Tilt / telescopic
<i>Operator's Area</i>								
Type of operator area (cab or open platform)	Both	Both	Both	Both	Both	Cab only	Cab only	Cab only
Cab sound level dB(A)	75	75	75	75	75	75	75	75
Cab glass area: ft ² (m ²)	61 (5.7)	61 (5.7)	61 (5.7)	61 (5.7)	61 (5.7)	61 (5.7)	61 (5.7)	61 (5.7)



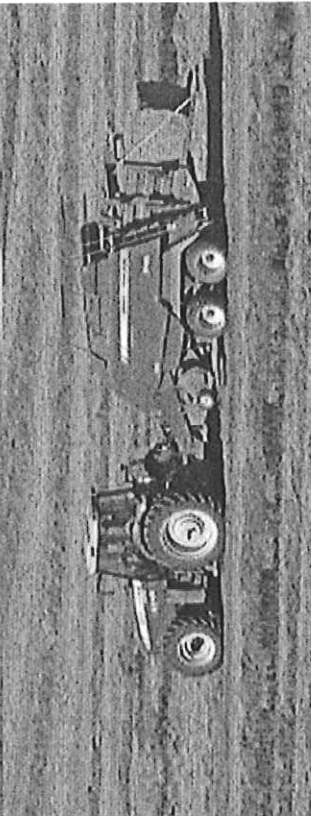
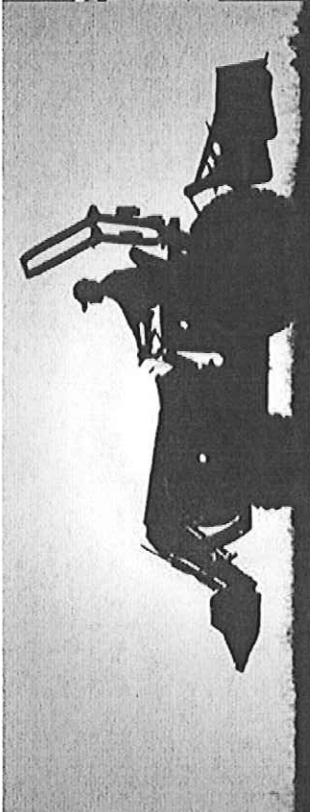
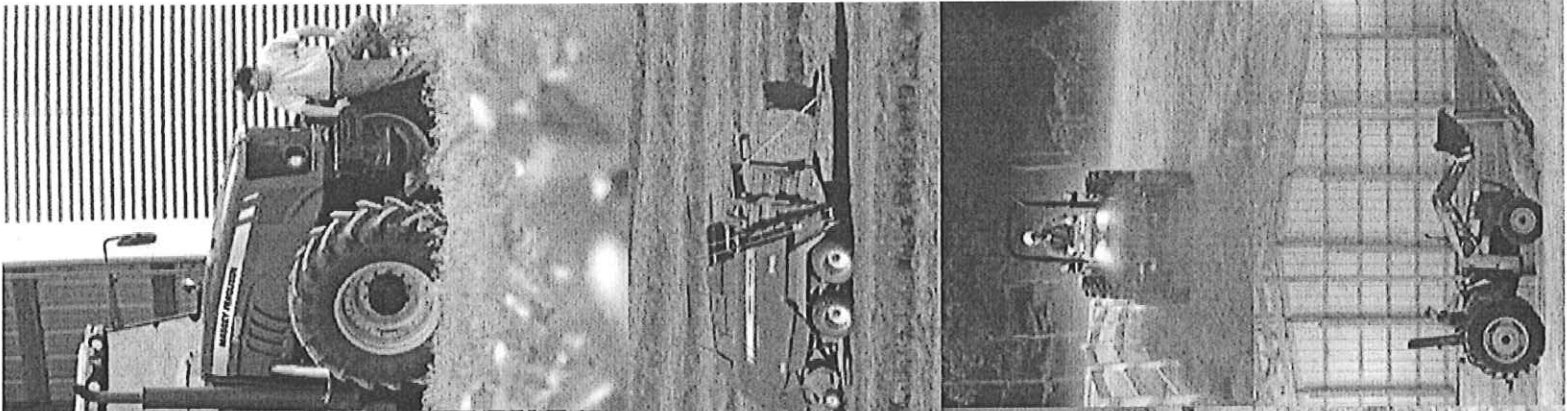
Inside and out, every 5400 Series model is designed to do one simple thing — make your life easier.

Tractor of the century. And a half.



Massey Ferguson. You could say we're the top two names in the business. After all, Daniel Massey practically invented the tractor business, and it seems like Harry Ferguson invented just about everything else. Our 5400 Series tractors are just another benchmark in a record of dependability and value that stretches back six generations. Considering our extensive warranty, our excellent financing and dedicated dealer support, you couldn't make a wiser investment.

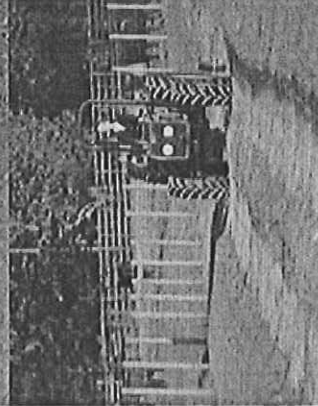
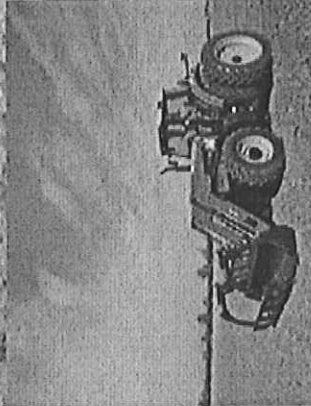
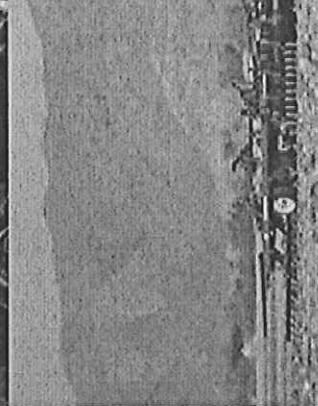
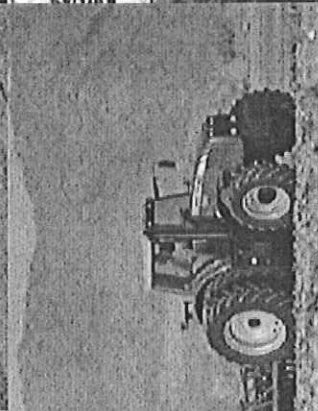
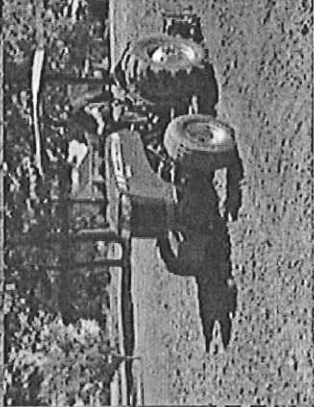
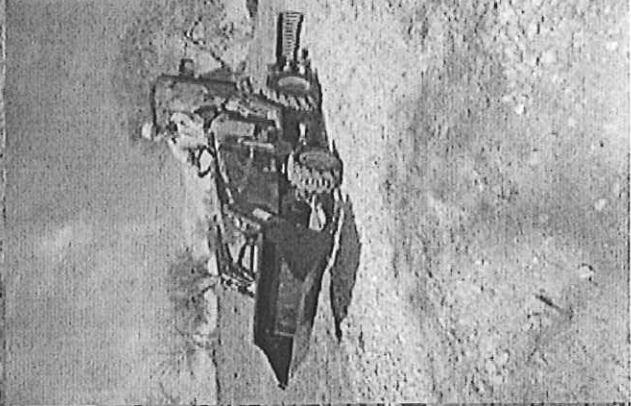
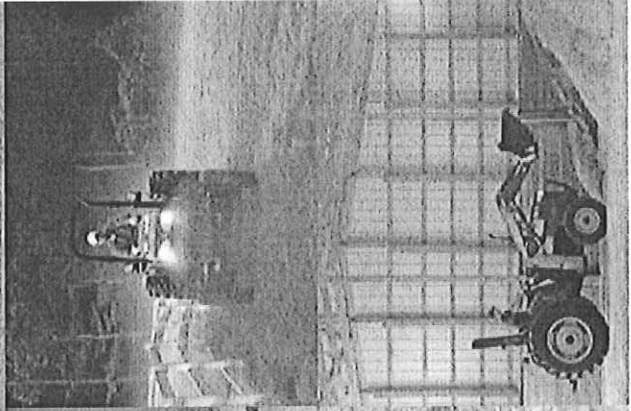


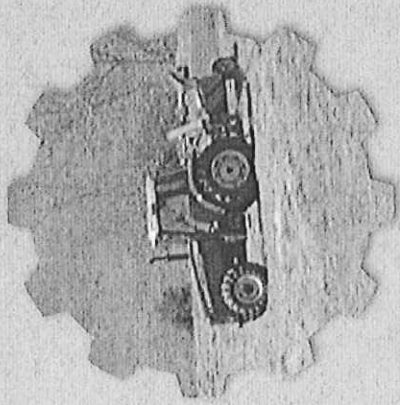


Welcome to the family.



MASSEY FERGUSON®





MF5400 Series
www.masseyferguson.com



© 2008 AGCO Corporation. All rights reserved. This document and all of its contents are owned exclusively by AGCO Corporation and are protected by copyright law. No portion of this document may be used, reproduced, extended, translated into another language, stored or transmitted by any means, electronic, mechanical, photocopying, scanning, recording or otherwise, without the prior written permission of AGCO Corporation.

EXHIBIT 10

REQUISITION NO.: 7012FC02

ADDENDUM ACKNOWLEDGEMENT

I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED
ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY
PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

ADDENDUM NO.'S:

NO. 1 ...XX

NO. 2 ...XX

NO. 3 ...XX

NO. 4 ...XX

NO. 5

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE
ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS. 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.



SIGNATURE

Nettles Equipment Inc.

COMPANY

11-7-11

DATE

REV. 11/96

9 Model 5460

Engine	
Brand	Perkins
Type	1104D 44TA
Maximum power (ISO TR14396) at 2000 rpm	126 hp
Maximum torque (ISO TR14396)	524 Nm (386 lbf ft)
Maximum PTO power (OECD) at PTO 1000 rpm	111 hp
Idle speed	800 rpm
Maximum speed	2350 rpm
Engine weight	303 kg (668 lb)
Number of cylinders	4
Engine cubic capacity	4,4 l (1.2 gal (US))
Piston travel	127 mm (5.0 in)
Piston diameter	105 mm (4.1 in)
Compression ratio	-
Compression pressure	-
Injection pump brand	Delphi
Injection pump type	DP 310
Firing order	1-3-4-2
Fuel prefilter filtration capacity	20 µ
Main fuel filter filtration capacity	10 µ
Recommended oil:	CI-4 (ACEA and API)
Lubrication system	Gear pump at the bottom of the timing
Oil cooling system	Cooler incorporated into the engine
Oil pressure at minimum speed	1 bar (15 psi)
Oil pressure at maximum speed	2,5 bar (36 psi) at 5 bar (73 psi) depending on the temperature
Relief valve adjustment pressure	5 bar (73 psi) (spring pressure)
Air suction type	Turbocharged
Air preheating type	Glow plugs
Number of valves	8
Inlet valve clearance value	0.20 mm (0.8 in)
Exhaust valve clearance value	0.45 mm (1.8 in)
Engine cooling system	Water cooling
Fan type	Vistronic fan
Thermostat begins to open at	83 °C (181 °F)
Liquid temperature from - to	-35 °C (-31 °F) to 108 °C (226 °F)
Block preheater	110 or 220 volts
Fuel preheater	Accessory kit available

Rear axle transmission	
Gearbox type	GBA25
Transmission type	Dyna-4
Number of gears	16 gears
Maximum speed	40 km/h (25 mile/h) or 50 km/h (31 mile/h)

Rear axle transmission	
Number of creeper gears	4:1 or 14:1
Rear axle type	GPA20
Number of pinion/ring gear teeth	8/43
Rear axle ratio	25.339
Final drive type	Epicyclic
Final drive reduction ratio	4.714
Main brake type	Oil-immersed discs
Parking brake type	Disc brake, cable-controlled
Trailer brake type	– For tractors with North American specifications – Hydraulics
Trailer brake type	-- For tractors with European specifications – Hydraulic or pneumatic
Hydraulic trailer braking pressure	0 to 150 bar (2176 psi)
Maximum operating tilt - pitch (front/rear)	25°
Maximum operating tilt - roll (right/left)	25°
Maximum operating tilt - combined	17°
Transmission preheater	110 volts/150 watt

Front axle	
Front axle brand	DANA
Axle type	Fixed or suspended
Supplier reference - fixed front axle	730/520
Supplier reference - suspended front axle	730/609
Rotational direction	Clockwise
Recommended oil type (beam and final drive)	SAE 85 W 90 (API GL5)
Total ratio for front axle	18.975
Oscillation angle	-
Type of oscillation stop	Mechanical
Steering ram diameter	32 mm (1.3 in) x 68 mm (2.7 in)
Steering ram stroke	2 x 129 mm (4.7 in)
Factor K	1.346

Electrohydraulic	
System type	Open Centre or Closed Centre
Flow rate	56 l/min (14.8 gal/min (US)) or 98 l/min (25.9 gal/min (US))
High-pressure pump type	Gear pump(s) / Piston pump
Maximum pump pressure	200 bar (2901 psi)
Maximum quantity of oil to add for heavy implements	-
Maximum exportable oil quantity (without adding oil)	40 l (10.6 gal (US))
Maximum exportable oil quantity (adding oil)	-
Number of spool valves (maximum)	4
Spool valve control type	Cable
Recommended oil:	According to MF CMS M1145 specification

Steering	
Steering type	Hydrostatic
Type of control	Steering wheel
Orbitrol displacement	125 cm ³ (7.63 in ³)
Steering ram diameter	32 mm (1.3 in) x 68 mm (2.7 in)
Steering ram stroke	2 x 129 mm (5.1 in)
Working pressure	175 bar (2538 psi) ± 5 bar (73 psi)
Pressure relief valve adjustment pressure	175 bar (2538 psi) ± 5 bar (73 psi)
Shock valve adjustment pressure	240 bar (3481 psi)
Oil recommended for steering	According to MF CMS M1145 specification

Linkage	
Rear lift ram diameter	66 mm (2.6 in) or 75 mm (3.0 in)
Maximum lifting capacity at ball joints (rear)	4724 kg (10415 lb) or 5903 kg (13014 lb)
Operating pressure (rear)	180 bar (2611 psi)
3-point linkage category (rear)	2 or 3

Rear power take-off (PTO)	
Number of selections possible for rear PTO	540/540ECO/1000
Rotational direction	Clockwise
Clutch type	Hydraulics
Control pressure	20 bar (290 psi)
Splined shaft type	6 and 21 in 1 ³ / ₈ and 20 in 1 ³ / ₄

Front power take-off	
Number of selections possible for front PTO	1000 rpm
Rotational direction	2 directions of rotation
Clutch type	Hydraulics
Splined shaft type	6 and 21 in 1 ³ / ₈

Electric	
Battery brand	TAB
Battery specifications	12 V - 105 A/H
Starter type	12 V noseless
Alternator type	14 V/80 A or 14 V/120 A

Electronics	
Function of each controller	
AUTO 5	Transmission
AUTO 5	Linkage

Cab and fittings	
Type of cab suspension available	Fixed Suspended
Type of rear-view mirror control available	Manual
Type of air conditioning control available	Manual
Type and brand of air conditioning compressor	SANDEN with axial pistons
Compressor displacement	154,9 cm ³ (9.45 in ³)/rev.
Refrigerant	R134a
Cab noise level	79 DBA
Roof type	Standard or with window

AGCO
LIMITED WARRANTY TERMS AND CONDITIONS
UNITED STATES, CANADA, AND MEXICO
EFFECTIVE FOR EQUIPMENT RETAILED AND DELIVERED AFTER JANUARY 1, 2011

WHAT IS WARRANTED

AGCO Corporation warrants its new equipment to be free of defects in material and workmanship at time of delivery to the first retail purchaser, renter, or lessee. These terms apply to all brands of new equipment originally marketed in the United States and Canada and to Challenger® branded equipment only originally marketed in Mexico.

STANDARD FACTORY EQUIPMENT WARRANTY – AGRICULTURAL APPLICATIONS			NOTES
APPLICATION	ALL EQUIPMENT, EXCEPT FOR NEW LEADER	TWELVE (12) MONTHS	-
	MAJOR DRIVETRAIN COMPONENTS ¹	ADDITIONAL TWELVE (12) MONTHS OR TOTAL MACHINE USAGE OF TWO THOUSAND (2000) HOURS, WHICHEVER COMES FIRST	1
	NEW LEADER SPINNER SPREADER	TWENTY-FOUR (24) MONTHS	-
	#3 PINTLE CHAIN CONVEYOR	THIRTY-SIX (36) MONTHS	-
TRACTORS	ALL AGRICULTURAL ² TRACK TRACTORS ³ , SCRAPER, AND ARTICULATED TRACTORS, EXCEPT FENDT® AND VALTRA® 1500, 1600, MT200B, AND STA SERIES POWERTRAIN ⁴ , EXCEPT ST22A	TWENTY-FOUR (24) MONTHS OR TWO THOUSAND (2000) HOURS WHICHEVER COMES FIRST	2-3
	ALL FENDT® TRACTORS	ADDITIONAL TWELVE (12) MONTHS OR TOTAL MACHINE USAGE OF TWO THOUSAND (2000) HOURS, WHICHEVER COMES FIRST	4
	ALL VALTRA® TRACTORS	THIRTY-SIX (36) MONTHS OR THREE THOUSAND (3000) HOURS WHICHEVER COMES FIRST	-
	VALTRA® POWERTRAIN	TWELVE (12) MONTHS OR TWO THOUSAND (2000) HOURS WHICHEVER COMES FIRST	-
		ADDITIONAL TWELVE (12) MONTHS OR TOTAL MACHINE USAGE OF TWO THOUSAND (2000) HOURS, WHICHEVER COMES FIRST	-
IMPLEMENTS	ALL LOADERS, IMPLEMENTS ⁵ , ATTACHMENTS, 3 POINT MOUNTED ROTARY CUTTERS ⁶ , AND FINISHING MOWERS ⁷ , EXCEPT WRANGLER LOADERS AND SUNFLOWER IMPLEMENTS	TWELVE (12) MONTHS	5-7
	WRANGLER LOADERS	TWENTY-FOUR (24) MONTHS OR FIFTEEN HUNDRED (1500) HOURS, WHICHEVER COMES FIRST	-
	ALL SUNFLOWER IMPLEMENTS	TWELVE (12) MONTHS PARTS AND LABOR INCLUDING HIGH WEAR ITEMS ⁸	8
	SUNFLOWER AIR DRILLS	ADDITIONAL TWELVE (12) MONTHS PARTS ONLY	-
	SUNFLOWER TILLAGE	ADDITIONAL TWENTY-FOUR (24) MONTHS PARTS ONLY	-
	PLANTERS ⁹ , SPREADERS ¹⁰ , AND TENDERS	TWELVE (12) MONTHS	9-10
HAY EQUIPMENT	ALL HAY EQUIPMENT, AUGER, ROTARY, AND DRAPER HEADERS	TWELVE (12) MONTHS	-
HARVEST	COMBINES, CORNHEAD, DRAPER, FLEX, PICKUP, RIGID, AND STRIPPER HEADERS	TWENTY-FOUR (24) MONTHS	-
PRECISION FARMING	AGCOMMAND, SYSTEM 110, SYSTEM 150, AND AGI-3 RECEIVER	TWENTY-FOUR (24) MONTHS	-
ENGINE WARRANTY	ALL ENGINES ¹¹ EXCEPT, CATERPILLAR, CUMMINS, AND DEUTZ ENGINES	TWENTY-FOUR (24) MONTHS OR TWO THOUSAND (2000) HOURS WHICHEVER COMES FIRST	11
	CATERPILLAR, CUMMINS, AND DEUTZ ENGINES	COVERAGE PROVIDED BY MANUFACTURER	-
	FUEL INJECTION EQUIPMENT, STARTERS, AND TURBO CHARGER	COVERAGE PROVIDED BY MANUFACTURER EXCEPT WHEN AGCO WARRANTY EXCEEDS MANUFACTURER WARRANTY	-
SERVICE PARTS	NEW OR REMAN GENUINE AGCO PARTS ¹²	TWELVE (12) MONTHS OR REMAINDER OF MACHINE WARRANTY, WHICHEVER IS LONGER	12

FOOTNOTES

1	Application equipment, major drive train components, is warranted for two (2) years or two-thousand (2000) hours, whichever comes first. This warranty shall include transmission, drive axle, wheel motor, hydrostatic pump, differential, chain cases, cooling system for 7000 series Spra-Coupe only, and front wheel assist hydraulic pump. Allison transmissions are warranted by the manufacturer.
2	All tractors being used in a non-agricultural application receive twelve (12) months or one thousand (1000) hours, whichever comes first.
3	MT700 and MT800 series track tractors carry a rubber track warranty for a period of twenty-four (24) months for non-agricultural applications and forty-eight (48) months for agricultural application. This is a pro-rated warranty that covers defects in material and workmanship with allowance calculated as to the percent of grouser wear height at failure.
4	In addition to standard warranty, the company will repair or replace, at its option, without charge for parts or labor, during normal working hours, any defective engine, transmission, drive axle casting, and/or components enclosed within these castings for an additional (12) month period provided the tractor has not been used for more than 2000 hours, whichever comes first.
5	Warranty periods for 3 point mounted rotary cutters and finishing mowers sold for commercial use are limited to ninety (90) day from delivery date to the first retail purchaser, renter, or lessee, replacement cost only. Commercially used items do not qualify.
6	Gearbox warranty on rotary cutters extends for five (5) years pro-rated parts only.
7	Flex wing finishing mowers are warranted for thirty-six (36) months.
8	High wear items include disc blades, hydraulic hoses, light kits, scrapers, points, sweeps, spring shank assemblies, standards and supports, coultter mounts, coultter hub assemblies, shank assemblies, auto-reset shank assemblies, S-Time shank assemblies, reels, NH3 knives, and wheel spokes.
9	For planters- structural components (backbones, rock shafts, and main frames) carry an additional twelve (12) months from original purchase.
10	For 3700 Series spreaders- the galvanized sides shall not rust through for a period of ten (10) years from original purchase when such spreaders are subjected to normal operations. The FRP floor and end gate material of said spreaders are warranted to not rot through for a period of ten (10) years from original purchase. The gear box, conveyor chains, and conveyor bars shall remain useable for a period of two (2) years from original purchase.
11	Base engine arrangement components are only warranted if installed by AGCO and not the manufacturer.
12	Within 6 months from the date of initial sale of over-the-counter service parts, AGCO will pay reasonable, related replacement labor expenses only if both the original defective part and the replacement part are installed by an authorized AGCO dealer. Certain service parts that are supplied to AGCO by third party vendors may carry different warranty terms and conditions that are administered directly by the vendor. For details, see your dealer and the AGCO Limited Service Parts Warranty Terms and Conditions statement.

NOTE: Implements or attachments sold as a package may carry a different warranty than the primary unit.

CHALLENGER®•FENDT®•MASSEY FERGUSON®•VALTRA®

AGCO LIMITED WARRANTY TERMS AND CONDITION CONTINUED

EMISSIONS WARRANTY

Designated units have emissions warranty on specific components; refer to your Operators Manual for details.

EQUIPMENT RENTAL / DEMONSTRATOR

Equipment used as rentals or demonstrators will receive a reduced warranty term based on accumulated hours at the time of retail.

EXCEPTIONS FROM THIS WARRANTY

- **Audio Components**- The audio systems originally installed on your new equipment are warranted by their respective manufacturers and not by AGCO.
- **Alternators**- Alternators must be repaired by an authorized repair station, if repair can be obtained locally. When repair service cannot be obtained locally, components obtained from the AGCO Parts Division must be installed and warranty submitted to AGCO Warranty Department for reimbursement.
- **Freight Charges** – This warranty does not cover freight charges.
- **Improvements, Changes, or Discontinuance**- AGCO reserves the right to make changes and improvements in design or changes in specifications at any time to any product without incurring any obligations to owners of products previously sold.
- **Battery Warranty** - Notwithstanding any other provision hereof, equipment batteries are warranted for full replacement for the first three (3) months or as required by State and/or Provincial law, and on a fully pro-rated replacement cost basis from date of delivery but not to exceed twenty-four (24) months total.
- **Repairs and Maintenance Not Covered Under Warranty**-This warranty does not cover conditions resulting from misuse, natural calamities, use of non-AGCO parts, negligence, alteration, accident, use of unapproved attachments, usage which is contrary to the intended purposes, or conditions caused by failure to perform required maintenance. Replacement of Wear or Maintenance items (unless defective) such as but not limited to, filters, wiper blades, fuses, brake linings, clutch friction disc, coolants, hoses, belts, lubricants, refrigerant, light bulbs, window glass, injections nozzles, wheel alignment, brake and clutch adjustment, tightening of nuts, belts, bolts, and fittings, service tune-up, headlight alignment, computer parameter adjustments and general adjustments which may from time to time be required are not covered.
- **Rubber Tire Warranty** - Rubber tires are warranted directly by the respective manufacturer only and not by AGCO.
- **Rubber Track Warranty**- The warranty period is twenty-four (24) months for All Track Tractors, or forty-eight (48) months for exclusively used Agricultural Application Tractors starting from the date of delivery to the first user. This pro-rated track warranty covers defects in material and/or workmanship with allowance calculated as to the percent of grouser wear height at failure. Beyond the AGCO Base Warranty Period (24 months or 2000 hours, whichever comes first), labor and related charges to replace a track covered by this pro-rated warranty will remain the customer's responsibility.
- **Satellite Outages** – Interruptions in satellite interfaces and satellite communications are outside the control of this product and are not covered by this warranty. The company is not responsible for issues or degradation of system performance resulting from such interruptions in satellite interfaces and satellite communications where the issues are not related to defects in this product.

OWNER'S OBLIGATION

It is the responsibility of the Owner to transport the equipment or parts to the service shop of an authorized AGCO Dealer or alternatively to reimburse the Dealer for any travel or transportation expense involved in fulfilling this warranty. This Warranty does NOT cover rental of replacement equipment during the repair period, damage to products which have been declared a total loss and subsequently salvaged, overtime labor charges, freight charges for replacement parts, or special handling requirements (such as, but not limited to, the use of cranes).

EXCLUSIVE EFFECT OF WARRANTY AND LIMITATION OF LIABILITY

THIS WARRANTY IS IN LIEU OF ALL WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PURPOSE OR OTHER REPRESENTATIONS, WARRANTIES OR CONDITIONS, EXPRESSED OR IMPLIED. The remedies of the Owner set forth herein are exclusive. The Company neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale of covered machines. Correction of defects, in the manner and for applicable period of time provided above, shall constitute fulfillment of all responsibilities of AGCO to the Owner, and AGCO shall not be liable for negligence under contract or in any manner with respect to such machines. IN NO EVENT SHALL THE OWNER BE ENTITLED TO RECOVER FOR INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES SUCH AS BUT NOT LIMITED TO, LOSS OF CROPS, LOSS OF PROFITS OR REVENUE, OTHER COMMERCIAL LOSSES, INCONVENIENCE OR COST OF RENTAL OR REPLACEMENT EQUIPMENT.

Some States or Provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusions in this warranty may not apply.

"AGCO" AS REFERRED TO HEREIN WITH RESPECT TO SALES IN:

CANADA:
AGCO Canada, LTD.
Box 4706, 515 Dewdney Avenue
Regina, Saskatchewan S4P 3Y3

UNITED STATES:
AGCO Corporation
4205 River Green Parkway
Duluth, Georgia 30096-2568

New Equipment Warranty Equipment is eligible for warranty service only if it qualifies under the provisions of the New Equipment Warranty. The selling dealer will deliver the Warranty to the original retail purchaser at the time of sale, and the dealer will register the sale and Warranty with AGCO.

Subsequent Owners This Warranty covers the first retail purchaser and all subsequent owners of the equipment during the specified warranty period. Should the AGCO Dealer sell this equipment to a subsequent owner, the Dealer must deliver the warranty document to the subsequent owner so the subsequent owner can register ownership with AGCO and obtain the remaining warranty benefits, if available, with no permission in the Warranty Period. Subsequent Owner Procedure will apply. It is the responsibility of the subsequent owner to transport the equipment to the service shop of an authorized AGCO Dealer or alternatively to reimburse the Dealer for any travel or transportation expense involved in fulfilling this warranty. This Warranty does NOT cover charges for rental or replacement equipment during the repair period, products which have been declared a total loss and subsequently salvaged, overtime labor charges, freight charges for replacement parts, or units sold at auction.

Warranty Service To be covered by Warranty, service must be performed by an authorized AGCO Dealer. It is recommended that you obtain warranty service from the Dealer who sold you the equipment because of that Dealer's continued interest in you as a valued customer. In the event this is not possible, warranty service may be performed by any other authorized AGCO Dealer in the United States, Canada, or Mexico. It is the responsibility of the Owner to transport the equipment to the service shop of an authorized AGCO Dealer or alternatively to reimburse the Dealer for any travel or transportation expense involved in fulfilling this warranty.

Maintenance Service The Owner's Manual furnished to you with the equipment at the time of delivery contains important maintenance and service information. You must read the manual carefully and follow all the maintenance and service recommendations. Doing so will result in greater satisfaction with your equipment and help avoid service and warranty problems. Please remember that failures due to improper maintenance of your equipment are not covered by warranty.

Maintenance Inspections To insure the continued best performance from your agricultural equipment, we recommend that you arrange to make your equipment available to your AGCO Dealer for a maintenance inspection 30 days prior to warranty expiration.

Extended Service Coverage is available for purchase. See your Dealer for details.