



West Virginia Purchasing Division

2019 Washington Street, East
Charleston, WV 25305
Telephone: 304-558-2306
General Fax: 304-558-6026
Bid Fax: 304-558-3970

The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header

List View

General Information | Contact | Default Values | Discount | Document Information

Procurement Folder: 145503

SO Doc Code: CRFQ

Procurement Type: Central Purchase Order

SO Dept: 0310

Vendor ID: 000000202582

SO Doc ID: DNR1600000021

Legal Name: MIDDLETOWN TRACTOR SALES

Published Date: 12/30/15

Alias/DBA:

Close Date: 1/12/16

Total Bid: \$84,509.78

Close Time: 13:30

Response Date: 01/11/2016

Status: Closed

Response Time: 11:42

Solicitation Description: Addendum; Parks - Greenbrier River Trail - Utility Tractor

Total of Header Attachments: 0

Total of All Attachments: 0



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**State of West Virginia
 Solicitation Response**

Proc Folder : 145503

Solicitation Description : Addendum; Parks - Greenbrier River Trail - Utility Tractor

Proc Type : Central Purchase Order

Date issued	Solicitation Closes	Solicitation No	Version
	2016-01-12 13:30:00	SR 0310 ESR01111600000002889	1

VENDOR

000000202582

MIDDLETOWN TRACTOR SALES

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet
 (304) 558-2596
 guy.l.nisbet@wv.gov

Signature X FEIN # DATE

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Agricultural tractors	1.00000	EA	\$84,509.780000	\$84,509.78

Comm Code	Manufacturer	Specification	Model #
25101901			

Extended Description : Utility tractor and flail mower per requirements in Section 3.1.



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 13 - Equipment

Proc Folder: 145503

Doc Description: Parks - Greenbrier River Trail - Utility Tractor

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2015-12-15	2016-01-12 13:30:00	CRFQ 0310 DNR1600000021	1

BID RECEIVING LOCATION

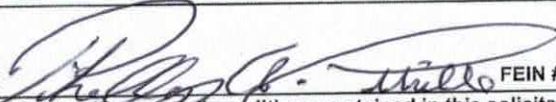
BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:
 Middletown Tractor Sales
 2050 Boyers Drive
 Fairmont, WV 26554
 304-366-4690 (Ext. 242)

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet
 (304) 558-2596
 guy.l.nisbet@wv.gov

Signature X  FEIN # 55-054-7175 DATE 11 January 2016

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Request for Quotation

The West Virginia Purchasing Division is soliciting bids on behalf of the agency, The West Virginia Division on Natural Resources (WVDR) for the Green River Trail to establish a contract for the "one-time" purchase of a diesel four (4) wheel drive utility tractor with mid-mount flail mower per the attached terms and conditions, specifications and bid requirements as attached.

INVOICE TO		SHIP TO	
SUPERINTENDENT DIVISION OF NATURAL RESOURCES GREENBRIER RIVER TRAIL 426 GUM COVE RD		SUPERINTENDENT DIVISION OF NATURAL RESOURCES WATOGA STATE PARK 4800 WATOGA PARK RD	
BUCKEYE	WV24924-9118	MARLINTON	WV 24954-9550
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Agricultural tractors	1.00000	EA	\$84,509.78	\$84,509.78

Comm Code	Manufacturer	Specification	Model #
25101901	John Deere	Attached	5085E
	Alamo Industrial	Attached	VF-74
Extended Description : Alamo Industrial		Attached	SHD88205

Utility tractor and flail mower per requirements in Section 3.1.

DNR160000021	Document Phase Draft	Document Description Parks - Greenbrier River Trail - Utility Tractor	Page 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

Exhibit A - Pricing Page

West Virginia Division of Natural Resources – Greenbrier River Trail
Diesel Utility Tractor

Item No.	Description	Manufacturer and Model	Unit of Measure	Unit Price	Qty	Extended Price
3.1.1	Diesel Utility Tractor with Mid-Mount Flail mower per specifications.	John Deere 5085E	ea.	\$46,617.78	1	\$46,617.78
		Alamo Industrial VF-74 RH Side Flail Mower		33,083.86	1	33,083.86
		Alamo Industrial SHD88205 Offset Rear Flail	Each	4,808.14	1	4,808.18
TOTAL BID AMOUNT:						\$84,509.78

Vendor should include manufacturer's literature documenting it meets the mandatory requirements stated in the specifications with Vendor's submitted bid response. This information may be required before award of contract Vendors should note the areas of the provided manufacturer's literature that adheres to the mandatory requirements outlined in the RFQ.

000027

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 Vendor Preference, if applicable.

1. Application is made for 2.5% 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% 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% 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% 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% 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% 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.

7. Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.

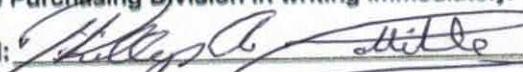
- Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

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: Middletown tractor Sales

Signed: 

Date: 11 January 2016

Title: Sales Consultant

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, 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: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. 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.

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.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"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.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Middletown Tractor Sales

Authorized Signature: *[Signature]* Date: 11 January 2016

State of West Virginia

County of Marion, to-wit:

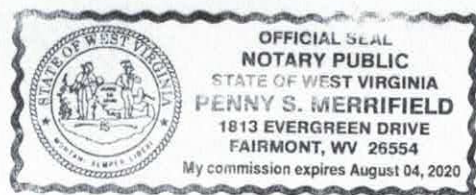
Taken, subscribed, and sworn to before me this 11th day of January, 2016.

My Commission expires Aug. 4, 2020

AFFIX SEAL HERE

NOTARY PUBLIC *Penny S. Merrifield*

Purchasing Affidavit (Revised 08/01/2015)



ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.


Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

- | | |
|---|--|
| <input type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further 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.

Middletown Tractor Sales
Company


Authorized Signature

11 January 2016
Date

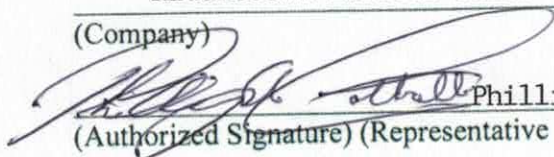
NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

CERTIFICATION AND SIGNATURE PAGE

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Middletown Tractor Sales

(Company)



Phillip A. Cottrille Sales Consulatatant
 (Authorized Signature) (Representative Name, Title)

304-366-4690 (304-366-4698) 11 January 2016

(Phone Number) (Fax Number) (Date)

ALAMO INDUSTRIAL
Specifications
Super Heavy-Duty Flail 74"

Vendors Spec

MOWER HOUSING:

UNITIZED CUTTER HOUSING: The top of the cutter housing shall be 10-gauge steel and the end-plates shall be 5/16" thick steel. The end plates shall have bearing guards. The unit shall also have replaceable skid shoes.

CUTTER SHAFT: The cutter shaft shall be balanced, 4-1/2" in diameter, and have a 5/16" thick wall with 4-rows of knives. The knife tip speed shall be 8900 FPM. Mounting provides anti-jamming seal. (Rubber shock mount not acceptable.)

CUTTER SHAFT BEARINGS: The 1-15/16" cutter shaft bearings shall be greaseable, sealed, self-aligning and rated at 3300 lbs. The bearings shall be attached to the housing with 6, grade 5, 3/8" bolts. Bearing flange may be used as bearing puller. Pillow block bearings are not acceptable.

REAR ROLLER: The rear roller shall be 6" in diameter with a _" wall. It shall be a full-length tube and rated at 6000 lbs. The cutting height shall be adjustable from 0" to 6" in _" increments. It shall have hex-shaped shaft ends.

ROLLER BEARINGS: The roller bearings shall be hex shaped, 1-1/3" across corners, self-aligning with cast steel cap outboard and neoprene seal inboard. External bearings are not acceptable.

ROLLER ADJUSTMENT BRACKET: A labyrinth seal, formed by recessed tubing, shall protect the bearing from foreign material. The formed roller brackets shall be _" x 6" and attached using 4, _" grade 5 carriage bolts. Optional roller scraper brackets available.

DRIVE TRAIN: The PTO shall be 540 Cat. 4 (35) with spring loaded slip clutch. The gearbox shall be rated at 60-HP continuous and 90-HP intermittent. The driveshaft to the outboard drive shall be totally enclosed. The belt drive shall be a single "C" section, reverse bend V-belt. 16" Wrap per pulley. The unit shall have an automatic spring tensioned idler assembly.

KNIVES: The unit shall have 36 pair of coarse cut knives that are reversible and self-cleaning. They shall be 1-3/4" x 3-5/16", .1046 thick and weigh 3 ozs. each. They shall be mounted to the cutter shaft on heat-treated clevis rings. Optional 4-oz. knives available.

WEIGHT: The Super Heavy-Duty 74" Flail shall weigh 930 lbs.

WARRANTY: One-year parts and labor. Non-Governmental users subject to modified policy.

OPTIONAL EQUIPMENT:

LIFT CHAINS: Allows flexibility to the tractor hitch, provides a greater vertical and angular range which the mower can freely move through.

GAUGE WHEEL: 180 Degree movement with pneumatic or solid laminated tires.
360 Degree movement with pneumatic or solid laminated tires.
Laminated rear rubber roller cover.

FINE CUT KNIVES: Dimensions shall be 1-1/4" x 5" and mounted to the cutter shaft by hardened pins. Number of knives: 92 pair.

The Super Heavy-Duty 74" Flail Mower may be ordered OFFSET:

1. 8" Offset Right
2. 14" Offset Right

ALAMO INDUSTRIAL
Specifications
Super Heavy-Duty Flail 88"

Vendors Spec

MOWER HOUSING:

UNITIZED CUTTER HOUSING: The top of the cutter housing shall be 10-gauge steel and the end-plates shall be 5/16" thick steel. The end plates shall have bearing guards. The unit shall also have replaceable skid shoes.

CUTTER SHAFT: The cutter shaft shall be balanced, 4-1/2" in diameter, and have a 3/8" thick wall with 4-rows of knives. The knife tip speed shall be 8900 FPM. Mounting provides anti-jamming seal. (Rubber shock mount not acceptable.)

CUTTER SHAFT BEARINGS: The 1-15/16" cutter shaft bearings shall be greaseable, sealed, self-aligning and rated at 3300 lbs. The bearings shall be attached to the housing with 6, grade 5, 3/8" bolts. Bearing flange may be used as bearing puller. Pillow block bearings are not acceptable.

REAR ROLLER: The rear roller shall be 6" in diameter with a _" wall. It shall be a full-length tube and rated at 6000 lbs. The cutting height shall be adjustable from 0" to 6" in _" increments. It shall have hex-shaped shaft ends.

ROLLER BEARINGS: The roller bearings shall be hex shaped, 1-1/3" across corners, self-aligning with cast steel cap outboard and neoprene seal inboard. External bearings are not acceptable.

ROLLER ADJUSTMENT BRACKET: A labyrinth seal, formed by recessed tubing, shall protect the bearing from foreign material. The formed roller brackets shall be _" x 6" and attached using 4, _" grade 5 carriage bolts. Optional roller scraper brackets available.

DRIVE TRAIN: The PTO shall be 540 Cat. 4 (35) with spring loaded slip clutch. The gearbox shall be rated at 60-HP continuous and 90-HP intermittent. The driveshaft to the outboard drive shall be totally enclosed. The belt drive shall be a single "C" section, reverse bend V-belt. 16" Wrap per pulley. The unit shall have an automatic spring tensioned idler assembly.

KNIVES: The unit shall have 44 pair of coarse cut knives that are reversible and self-cleaning. They shall be 1-3/4" x 3-5/16", .1046 thick and weigh 3 ozs. each. They shall be mounted to the cutter shaft on heat-treated clevis rings. Optional 4-oz. knives available.

WEIGHT: The Super Heavy-Duty 88" Flail shall weigh 1035 lbs.

WARRANTY: One-year parts and labor. Non-Governmental users subject to modified policy.

OPTIONAL EQUIPMENT:

LIFT CHAINS: Allows flexibility to the tractor hitch, provides a greater vertical and angular range which the mower can freely move through.

GAUGE WHEEL: 180 Degree movement with pneumatic or solid laminated tires.
360 Degree movement with pneumatic or solid laminated tires.
Laminated rear rubber roller cover.

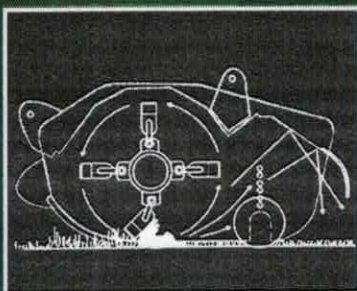
FINE CUT KNIVES: Dimensions shall be 1-1/4" x 5" and mounted to the cutter shaft by hardened pins. Number of knives: 108 pair.

The Super Heavy-Duty 88" Flail Mower may be ordered OFFSET:

1. 6-1/2" Offset right
2. 8-1/2" Offset right
3. 14-1/2" Offset right
4. 20-1/2" Offset right
5. 26-1/2" Offset right

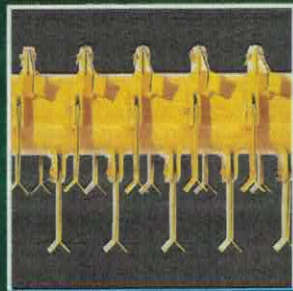
Super Heavy Duty Flail

These heavy-duty flail mowers have gear boxes that are equipped with hardened, forged steel, cut gears and shafts. The gear boxes are mounted on tapered roller bearings promoting a long, trouble-free life. The extension shaft housing is solidly fixed to the gear box and fully enclosed and safely transmits power to the drive pulley. Kevlar reinforced V-belt with special lower cord is used for maximum life. An automatic idler pulley eliminates belt tension concerns. The belts and pulley assemblies are fully enclosed. Fender bars, mounted at each end of the mower, protect the mower structure and drive system components. Heavy-duty tubular torque sections are located on the front and rear of the mowers. Rigid three-point hitch frame and gearbox mounting pads are attached to the torque sections, front and rear, isolating the deck from stress during mowing and while transporting the unit.



Forward Rotation Mowing

Shaft rotation is forward. The knives cut down and back, picking up bent over grass, pulling in tall grass and weeds, cutting and shredding the material and discharging it to the rear in an evenly distributed curtain of mulched clippings.



Cutting Knives

An array of cutting knives is offered enabling you to virtually choose the finished appearance of cut and tailor the mower to your specific cutting needs. Free-swinging, self-cleaning, reversible. Choose from:

- Coarse Cut - Standard, mounted on heat-treated clevis rings
- Extreme Service - Optional
- Fine Cut (shown in photo) - Optional

Cutter Housing

10-Gauge Top and 5/16" end-plates with bearing guards

Cutter Shaft

Dynamically balanced promoting longer life span of the mower. (See photo of cutting knives for better view.)

Mounting

Convenient 3-pt. hitch mounting allows for easy connection to the tractor. The 62" is offered in center mount only while the 74", 88", & 96" is offered in both center and offset mounts.

Cutter Shaft Bearing

1-15/16" Bore greasable, sealed, self-aligning

Options

- Special Mower Paint
- Lift Chains

Rear Roller

6" diameter, 1/4" wall, full-length tube rated at 6,000 lbs.

Cutting Height

Fully adjustable from 1/2" - 6" in 1/2" increments

Skid Shoes

Full length, replaceable skid shoes help prevent mower damage from ground contact.

This information is intended to be of a general nature only; specifications are subject to change without notice as we continue to improve our products.

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MEMBER OF THE ALAMO GROUP
ALWAYS ON THE CUTTING EDGE

Additional Specifications

Cutting Widths	62"	74"	88"	96"
Knife Pairs - Coarse Cut	36	36	44	48
Knife Pairs - Fine Cut	76	92	108	118
Approximate Weight	815 lbs.	930 lbs.	1035 lbs.	1170 lbs.
Minimum Tractor HP	20 HP	35 HP	40 HP	50 HP
Recommended HP	36 HP	43 HP	51 HP	56 HP
Cutter Shaft	4-1/2" dia. 5/16" wall	4-1/2" dia. 5/16" wall	4-1/2" dia. 3/8" wall	4-1/2" dia. 3/8" wall

Size of Material Cut: Up to 1" diameter grass and weeds

Warranty: One year limited parts and labor. Non-governmental users are subject to modified policy. Only genuine Alamo Industrial parts should be used for warranty replacement.

ALAMO INDUSTRIAL
BUILT SHARPER

1502 East Walnut St. • Seguin, Texas 78155

1-800-882-5762

www.alamo-industrial.com

WE'VE GOT IT COVERED

Put concerns to rest and tractors in gear. The Super Heavy Duty Flail is made from the proven, time-tested design of the Mott® Flail, offering you a manicured look and substantial safety. It's the ideal machine not only for roadside use, but for parks, playgrounds, school grounds, and even golf courses! If you're looking for Heavy Duty results, look for the Super Heavy Duty Flail!



ALAMO
INDUSTRIAL

Super Heavy Duty Flail

BUILT SHARPER™

ALAMO INDUSTRIAL♦
Specifications
Versa♦ 74" Flail Mower

The purpose of this specification is to describe a side-mounted, hydraulically powered, 74" flail mower. The bid unit shall be the manufacturer's current production that meets or exceeds the following minimum specifications. Only a standard production machine can be bid on these specifications and a supplier will not be allowed to modify his standard production unit in order to meet these specifications.

FRAME:

The unit shall be mid-mounted between the front and rear wheels of the tractor. The mainframe shall be welded steel plate braced to the front bolster and rear axle. The frame shall be capable of interchanging with a boom, side-mount mower, and side-mount ditcher.

HYDRAULIC RESERVOIR:

The Versa Flail shall use a 60-gallon hydraulic oil reservoir tank.

FILTER:

The suction line filter shall be 100-mesh.

The main in-tank filter shall be 10-micron, 75 GPM full-flow with restriction gauge.

MOWER LIFT ASSEMBLY:

The lift cylinder shall be single acting, 3-1/2" x 9" x 1-1/2".

The tilt cylinder shall be single acting, 3-1/2" x 6-3/16" x 1-1/2".

The mower shall be capable of mowing from 90-degrees up to 90-degrees down. (Specifically excluding a cable and pulley combination lift assembly.)

The mower shall be capable of raising 17" vertically to 6" below grade.

HYDRAULICS:

The unit shall use a tandem, open-loop pump with steel gears rated at 65 GPM at 2,400 RPM. (Note: The equipment operates at 51-GPM at 1900-RPM.)

The hydraulic motor shall be gear-type and rated at 76 hp at 3000 PSI.

The valve (to mower head) shall be two position (electric solenoid controlled with direct acting relief valve) with 1-1/4" porting, 2500 PSI.

The driveshaft assembly shall be rated at a minimum of 184 ft. lbs. torque (rear PTO pump drives available).

The suction line shall be 1-1/2" in diameter.

The motor circuit hoses shall be 1-1/4" in diameter.

The valve, for raising and lowering the mower) shall be 2-spool, open center, tapered, positive metering with adjustable main relief valve.

MOWER:

The cutting width shall be 74".

The deck shall be constructed of 10-gauge steel.

The side plates shall be 1/2" thick inboard and 5/16" thick outboard.

The skid shoes shall be full-length and replaceable.

CUTTERSHAFT:

The cuttershaft shall be a 4-1/2" balanced tube, with 5/16" thick wall with 4-rows of knives.

The knife tip speed shall be 8300 FPM.

The mounting shall provide anti-jamming seal. (Rubber shock mount will not be acceptable.)

The 74" flail mower shall have 36-pair of 3-oz. coarse cut knives. Fine cut and extreme cut knives shall be available as an option.

CUTTERSHAFT BEARINGS:

The cuttershaft bearings shall be greaseable, sealed, self-aligning 1-15/16", rated at 3300 lbs. The bearings shall be attached to the housing with 6, grade 5, 3/8" bolts. The bearing flange may be used as a bearing puller. Pillow block bearings shall not be acceptable.

REAR ROLLER:

The rear roller shall be a full-length tube, 6" in diameter with a 1/4" wall, rated at 6000 lbs. The cutting height shall be adjustable from 0" to 6".

ROLLER BEARINGS:

The roller bearings shall be hex shaped, 1-1/3" across the corners, self-aligning with cast steel cap outboard and neoprene seal inboard. (External bearings not acceptable.)

ROLLER ADJUSTMENT BRACKET:

A labyrinth seal formed by recessed tubing protecting the bearing from foreign material shall be used.

The 1/2" x 6" formed roller brackets shall be attached by 4, 1/2" grade 5 carriage bolts.

TRASH DEFLECTOR:

Front and rear deflectors shall be used.

KNIVES:

Coarse cut knives; reversible and self-cleaning shall be used.

Knife dimensions shall be 1-3/4" x 3-5/16" x .1046" thick, weighing 3-ozs. each.

The 74" flail mower shall have 36-pair, mounted back-to-back.

Knife construction shall be 1-3/4" x 3-13/16" mounted on forged heat-treated rings.

Shaft: 48"
 Shaft: 4-1/2" dia steel tube, 3/8" wall,
 greasable bearings
 Knives: 16 ea., 2 lb., 360 swing
 reversible
 Motor Rating: Gear Type 76 HP @ 3000 PSI
 @ 2400 RPM
 Thickness: 10-gauge
 Plates: 3/8"
 Frame: 4" square cross-tube
 Shoes: Full-length, replaceable
 Roller: 5-1/2" dia. tube, adj. 3/4" to 6"
 Debris Deflector: Full-width rubber-covered fabric, rear
 Removable full-width steel, front

HEAVY DUTY GRASS FLAIL

Width of Cut: 60"
 Shaft: 4-1/2" balanced tube,
 greasable bearings
 Knives: 36 pair of 3oz. knives are standard
 Motor Rating: Gear Type 76 HP @ 3000 PSI
 @ 2400 RPM

Thickness: 10-gauge
 Plates: 1/4"
 Frame: 2-7/8" tube, full width front & rear
 Shoes: Full-length, replaceable
 Roller: 6" tube, greasable bearings
 Debris Deflector: Full-width rubber-covered fabric, rear

BUZZBAR TREE LIMB CUTTER

Cutting Width: 48", 69", or 90"
 Knives: 2, 3, or 4 blades, each 26"
 in diameter and 3/16" thick
 Hydraulic Motor: 38 HP
 Channel: Formed of 3/16" sheet steel
 Plates: 3/8"
 Roller: Tapered with factory set pre-load
 Shield: 10-gage steel formed for stiffness

- Cuts up to 4" tree limbs
- Width of Cut: 6' or 7'
- Blade Bar: 5/8" thick
- Direct coupled hydraulic operating cylinder (excludes pitman)

BOOM-AXE

- Width of Cut: 60" st., 50" opt.
- Blade Bar: 60" - 3 leaf 5" x 7/8"
50" - 3/4" x 29" disc.
(up to 6 blades)
- Blades: 60" - 5" x 14" x 5/8" replaceable
- Hyd. Motor Rating: Gear Type 101 HP @ 2750 PSI
@ 2400 RPM
- Deck Thickness: 10-gauge
- Side Skirts: 3/8"
- Frame: Cross-braced, 3/8" bar
- Skid Shoes: Replaceable, full-length
- Debris Deflector: Front, spring-loaded, retractable
shield. Rear, 3-ply rubber belting,

OPTION

- 50" cutting head, two-leaf blade bar with two blades

ROTARY GRASS MOWER

- Width of Cut: 60"
- Blade Bar: Single leaf, 5" x 7/8"
- Blade: 14" x 3" x 1/2", free-swinging
- Hyd. Motor Rating: Gear type, 74 HP @ 2500 PSI
- Deck Thickness: 14-gauge
- Side Skirts: 1/4" thick
- Frame: 3/8" bar, cross-braced
- Skid Shoes: Full-length, replaceable
- Debris Deflector: 3-ply rubber belting, front & rear

Sometimes the job calls for a rotary mower. Other times a flail mower or brush cutter will do the trick. The challenge is being able to switch mowing heads on the fly. All the more reason to consider the VERSA Series. Within minutes you can remove and replace the cutting head to fit the task at hand. From overgrown brush to unruly tree limbs, the VERSA Series allows you to tackle multiple applications using one tractor. All of which give you unmatched versatility and savings.

VERSA



...tools. The also mount cutting
owers. The boom-mounted
nd brush cutters. A hydraulic,
e power for the VERSA®
essure relief in both
des power to
ump is rated
A® Series has
connect to

Mower System

cutter mounts to any A
The smooth cut will ma
proud of a job well done



Rotaries, Flails and Attachments for cutting grass brush and tree limbs.

Heavy-Duty Grass Flail

You will appreciate the smooth cut of this heavy-duty grass flail. Boom-mounted, it is easy to reach over fences, around ponds and creek banks, allowing you to cut in areas inaccessible to your tractor. Available in 60" model, it is built for years of trouble-free service.



Cut in those hard-to-reach places with your choice of 17', 20' and 23' booms.

FLAIL-AXE® 48

The FLAIL-AXE® is a boom-mounted, hydraulically powered, heavy-duty flail mower that will cut a 44" swath through vegetation up to 4" in diameter.

The 16-blades, each weighing 2-lbs., make this one of the most effective mowers on the market today.



BOOM-AXE® Rotary Brush C

The BOOM-AXE® is a heavy-duty, boom-mounted rotary brush cutter that is capable of cutting up to 5" diameter trees and brush. By being boom-mounted, you can reach up into the trees to cut limbs, or over fences to cut brush. The hinged front shield may be opened for easy access to tree limbs. Available in 50" and 60" widths.



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	John Deere 5085E	John Deere 5085M (2016)
Official Test		
Nebraska Test number	Not available at this time	Factory observed
Engine		
Manufacturer	John Deere PowerTech 4045	John Deere PowerTech PWL
Engine family	EJDXL04.5211	FJDXL04.5211
Aspiration	Turbocharged	Turbocharged / Air-to-Air Aftercooled
Cylinders/Displacement, cu. in. (L)	4 / 276 cu in. 4 / 4.5 L	4.5 L 4/276 cu in.
Cylinder Liners	Wet sleeved	Wet Sleeved
Fuel tank capacity, US Gal. (L) (Open; Cab)	---	---
Standard	Open: 25 ; Cab: 30 U.S. gal. Open: 94.6 ; Cab: 113.6 L	114; 140 L 30; 37 gal.
Optional	---	144; 174 L 38; 46 gal.
Underhood muffler	Yes	Yes
Performance		
Advertised PTO hp (kW) @ Rated rpm	70 @ 2400 per SAE hp 52.2 @ 2400 per SAE kW	52 @ 2100 per SAE kW 70 @ 2100 per SAE PTO hp
Official PTO hp (kW) @ Rated rpm	---	---
@ Standard PTO @ Eng rpm	---	---
Maximum @ Eng rpm	---	---
Advertised Engine hp (kW) @ Rated speed	85 @ 2400 per ISO 97/68/EC hp 62.5 @ 2400 per ISO 97/68/EC kW	63.3 @ 2100 per ISO 97/68/EC kW 85 @ 2100 per ISO 97/68/EC engine hp
Max Unballast Drwbr hp (kW) @ Eng rpm	---	---
Maximum Torque (PTO) @ rpm, lb-ft (Nm)	---	355 @ 1600
Max Torque Rise (80% rtd spd) @ Eng rpm	18% @ 1900 RPM (80% rated speed) 27.8% @ 1600 RPM (peak torque)	---

Maximum Torque Rise % (PTO) @ Eng rpm	---	30 @ 1600
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Fuel Use, U.S. gal./hr & hp hr/gal. at:

PTO @ Rated Eng rpm	---	---
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Standard PTO Speed @ Eng speed	---	---
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Maximum PTO Power @ Eng rpm	---	---
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Maximum Engine Power @ Eng rpm	---	---
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Max Unballasted Drawbar Power @ Eng rpm	---	---
---	-----	-----

75% Load, Full Engine rpm (Unballasted)	---	---
---	-----	-----

75% Load @ Reduced rpm (Unballasted)	---	---
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Transmission

Std. Transmission; Forward/Reverse	12F/12R PowrReverser	16F/16R PowrReverser
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Opt. Transmission; Forward/Reverse	---	12F/4R SyncShuttle Plus, 32F/16R PowrReverser Plus
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Reverser	Yes	Left Hand, Mechanical
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On-the-Go Shifting (Yes/No/Partial)	Partial	Partial
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Clutch; Wet/Dry	Wet	Wet
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Creeper	Not available	16F/16R PowrReverser
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Power Take-Off (PTO)

Standard	540/540E	Independent 540/540 Economy
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Optional	---	540/540E/1000
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PTO Speeds @ Engine rpm	540E @ 1716	540 @ 2100; 540E @ 1645 rpm
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PTO Actuation	Electrohydraulic	Electrohydraulic
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Hydraulics

Type	Open center	Open Center
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Pump Rated Output, GPM (L/min.)	---	---
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Standard	22.5 gpm 85.1 L/min	24.7 gpm 94 L/min
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Optional	---	---
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Rated Flow @ One SCV, GPM (L/min.)	15.9 gpm 60.1 L/min	18.4 gpm 70 L/min
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Max Output @ SCV Couplers, GPM (L/min.)	---	---
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Maximum Operating Pressure, psi (kPa)	---	2900 psi 20000 kPa
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Maximum Hydraulic Power, hp (kW)	---	31.1 hp 23.2 kW
Hitch Draft Control Load Sense Type	Mechanical	Electrohydraulic
Remote Control Valves Available	Rear - Less, Dual Standard, or Triple Deluxe; Mid - Less, Dual Standard, or Triple Standard (field installed)	0 (opt. 3)
Hitch Category (SAE Designation)	Category 2	2; convertible to 1
Hitch Lift Cap. lb (kg) @24 in. Bhnd Lift Pt.	---	---
OECD	---	---
Standard	3213 lb 1457 kg	2100 kg 4600 lb
Optional	---	2550 kg 5600 lb
Hitch Lift Cap. lb (kg) @24 in. Bhnd Lift Pt. (SAE)	---	---
Standard	---	---
Optional	---	---
Hitch Lift Cap. lb (kg) @24 in. Bhnd Lift Pt. (ASAE)	---	---
Standard	---	---
Optional	---	---
Sensing type	Top link	Lower Link
Joystick SCV control	Optional	Optional
Final Drive		
Type	Inboard planetary	Inboard Planetary
Differential controls	Mechanical (pedal)	Electrohydraulic
Availability	---	---
Front	No	No
Front & Rear	No	No
Engage On-the-Go Rear Differential Lock	Yes	Yes
Axle Type	Flanged	Flanged
Brakes, Type and Control	Hydraulic wet disc	Hydraulic Wet Disc
Operator Station		
Rollover Protective Structure, OOS	---	---
Rigid - Foldable - Telescopic	Foldable, 2-post	Foldable, 2-Post
Platform - Flat/Straddle	Straddle	Flat

Gearshift Location - Console/Floor	Floor	Floor
Cab	---	---
Doors	1; left-hand door standard, right-hand door optional	2
Platform - Flat/Straddle	Flat	Flat
dB(A) Rating	77 dBA	80
Seat Suspension System	Mechanical	Mechanical (opt. Air Ride opt. Low Frequency heated Air Ride)
2WD Dimensions		
Wheelbase, in. (mm)	---	2350 mm 92.5 in.
Front Tread Range, in. (mm)	---	1463 - 2098 mm 57.6 - 82.6 in.
Rear Tread Range, in. (mm)	---	1348 - 2054 mm 53.1 - 80.9 in.
Minimum Rear Tread Setting, in. (mm)	---	1348 mm 53.1 in.
Front Axle Clearance, in. (mm)	---	477.5 mm 18.8 in.
Turning Radius w/Brakes, ft (m)	---	3.51 m 11.2 ft
Turning Radius w/o Brakes, ft (m)	---	3.90 m 12.8 ft
Unballasted Operating Weight, lb (kg)	---	---
Approx. Ship Wgt, lb (kg) Open; Cab	---	3310; 3720 kg 7300; 8200 lb
MFWD Dimensions		
Wheelbase, in. (mm)	90.6 in. 2300 mm	2350 mm 92.5 in.
Front Tread Range, in. (mm)	52.8 - 75.0 in. 1340 - 1904 mm	1340 - 1904 mm 52.8 - 75.0 in.
Front Axle Clearance, in. (mm)	15.2 in. 386 mm	401.3 mm 15.8 in.
Turning Radius w/Brakes, ft (m)	11.6 ft 3.54 m	3.9 m 12.8 ft
Turning Radius w/o Brakes, ft (m)	14.3 ft 4.36 m	4.4 m 14.4 ft
Limited Slip Differential	Yes	Yes
Unballasted Operating Weight, lb (kg)	7,055; 7,937 lb 3200; 3600 kg	---
Approx. Ship Wgt, lb (kg) Open; Cab		

7,055; 7,937 lb
3200; 3600 kg3540; 3950 kg
7800; 8700 lb**4WD Dimensions**

Wheelbase, in. (mm) ---

Wheel Tread, Min. to Max. in. (mm) ---

Turning Radius w/o Brakes, ft (m) ---

Nebraska Test Unballasted w/Duals, lb (kg) ---

Unballasted Weight, lb (kg) ---

Standard Tires

2WD ---

Front ---

7.5-16 8PR F2

Rear ---

16.9-30 6PR R1

MFWD ---

Front

11.2-24 ; R1

11.2-24 8PR R1

Rear

16.9-30 ; R1

16.9-30 6PR R1

4WD ---

Track widths ---

Miscellaneous

Country of Manufacture

Augusta, GA (USA)

Augusta, GA

Ballasting Restrictions, lb (kg)

11,725 lb
5,325 kg

*Notes

Updated 4/8/2013

Updated 8/31/2014

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