



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: 312401

Doc Description: ADDENDUM 2: CLASS 310 HYDRAULIC TRACK EXCAVATOR

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2017-04-27	2017-05-09 13:30:00	CRFQ 0803 DOT1700000076	3

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:

West Virginia Tractor Company
 P.O. Box 473
 Charleston, WV 25322
 304-346-5301

05/09/17 12:50:43
 West Virginia Purchasing Division

FOR INFORMATION CONTACT THE BUYER

Mark A Atkins
 (304) 558-2307
 mark.a.atkins@wv.gov

Signature X *George Inax* FEIN # 550621655 DATE 5-5-2017

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

ADDITIONAL INFORMATION:

ADDENDUM : Is issued for the following:

1. Correction of Error: Attachment of Pre-Bid sign in sheets inadvertently left off when publishing Addendum_1 and re-publish the Vendor questions with agency responses.

NO OTHER CHANGES

INVOICE TO	SHIP TO
DIVISION OF HIGHWAYS EQUIPMENT DIVISION RT 33 83 BRUSHY ROAD CROSSING, PO BOX 610 BUCKHANNON WV26201 US	DIVISION OF HIGHWAYS EQUIPMENT DIVISION 83 BRUSHY FORK RD CROSSING BUCKHANNON WV 26201 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Vendor shall use Exhibit_A Pricing Page for bid pricing.	0.00000	EA	\$149,941	\$2,249,115

Comm Code	Manufacturer	Specification	Model #
22101526	LBX Link Belt	Attached	145X4DZ

Extended Description :

OPEN END CONTRACT TO PROVIDE : CLASS 310 HYDRAULIC TRACK EXCAVATOR:

Note: Vendor shall use Exhibit_A Pricing Page(s) for bid pricing.

If vendor is submitting a bid online, Vendor should enter \$0.00 in the Oasis commodity line. Vendor shall enter pricing into the Exhibit_A Excel page and must attach with bid.
See section 18 of Instructions to Bidders.

SCHEDULE OF EVENTS

Line	Event	Event Date
1	Mandatory Pre-Bid Meeting:	2017-04-20
2	Technical Questions due by:	2017-04-24

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CRFO 0803 DOT1700000076

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 checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input checked="" 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 cause for rejection of this bid. I further understand that 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.

West Virginia Tractor Company

Company

Gauge Tracy

Authorized Signature

5-5-2017

Date

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

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Gary W. Grady
(Name, Title)
Gary W. Grady, President
(Printed Name and Title)
P.O. Box 473 Charleston, WV 25322
(Address)
304-346-5301 304-346-5305
(Phone Number) / (Fax Number)
wvtractor@msn.com
(email address)

CERTIFICATION AND SIGNATURE: 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.

West Virginia Tractor Company

(Company)
Gary W. Grady PRES
(Authorized Signature) (Representative Name, Title)

Gary W. Grady, President
(Printed Name and Title of Authorized Representative)

5-5-2017
(Date)

304-346-5301 304-346-5305
(Phone Number) (Fax Number)

CRFQ 0803 DOT1700000076
REQUEST FOR QUOTATION
CLASS 310 HYDRAULIC TRACK EXCAVATOR

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.

6.5 Condition of Unit(s) upon Delivery: All units must arrive at the prescribed delivery point having been completely pre-serviced 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.

6.6 Delivery Point: Delivery point of the completed representative unit will be the WVDOH, Equipment Division, 83 Brushy Fork Crossing, Buckhannon, WV 26201.

7. MISCELLANEOUS:

7.1 No Substitutions: Vendor shall supply only Contract Items submitted in response to RFQ unless a contract modification is approved in accordance with the provisions contained in this contract.

7.2 Reports: Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.

7.3 Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Gary W. Grady
Telephone Number: 304-346-5301
Fax Number: 304-346-5305
Email Address: wvtractor@msn.com

7.4 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 the "Equipment Preventative Maintenance Questionnaire", (Exhibit "B") must be with pilot unit upon delivery. Attn: Marcia Lee. There must be twelve (12) service/shop/maintenance manuals and fourteen (14) parts manuals; CD-ROM is preferred in lieu of parts manuals. Manuals shall be delivered upon completion of delivery of total units. Failure to do so will delay payment.

Exhibit A

Pricing Page

CRFQ 0803 DOT1700000076

Item Number	Estimated Quantity	Unit of Measure	Description	Unit Price	Total
1	15	Each	One complete unit: Hydraulic Track Excavator	\$ 149,941 -	\$ 2,249,115 -
				Grand Total	\$ -

Vendor shall list the year, make, and model of the unit being bid:

Year: 2017 or later as ordered

Make: LBX Link Belt

Model: 145X4DZ

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;
 Bidder is a resident vendor partnership, association, or corporation with at least eighty percent of ownership interest of bidder held by another entity that meets the applicable four year residency requirement; **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 that employs a minimum of one hundred state residents, or a nonresident vendor which has an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia and employs a minimum of one hundred state residents, and for purposes of producing or distributing the commodities or completing the project which is the subject of the bidder's bid and continuously over the entire term of the project, on average at least seventy-five percent of the bidder's employees or the bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years and the vendor's 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) rescind the contract or purchase order; 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.

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: West Virginia Tractor Company Signed: 
Date: 5-5-2017 Title: President

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: West Virginia Tractor Company

Authorized Signature: *Stanley W. Gray* Date: 5-5-2017

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 5 day of May, 2017.

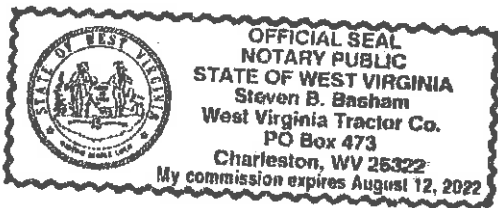
My Commission expires August 12, 2022.

AFFIX SEAL HERE

NOTARY PUBLIC

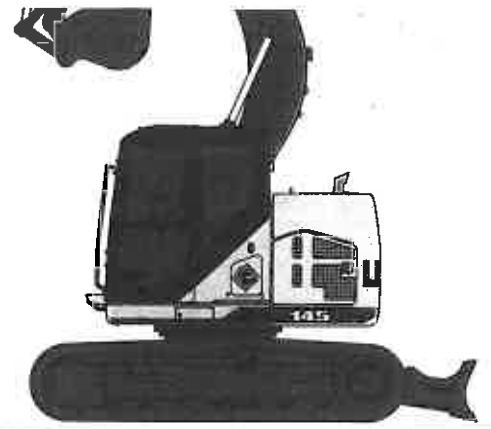
Steven B. Basham

Purchasing Affidavit (Revised 08/01/2015)



145X3

SAE Net Horsepower: 100 HP (75 kW)
 Operating Weight: 33,069 lbs. (15,000 kg)
 Digging Depth: 18 ft. 1 in. (5.51 m)



Engine

Isuzu AM-4JJ1X Tier 4A turbocharged diesel engine with electronic control (ECM) and high pressure common-rail fuel injection, 4-cylinder, Water-cooled, Cooled Exhaust Gas Recirculation (CEGR), Intercooler, Variable-Geometry Turbocharger (VGT), Diesel Particulate Diffuser (DPD) with Diesel Oxidation Catalyst (DOC) and Diesel Particulate Filter (DPF) for "passive regeneration" of exhaust emissions, Electronic fuel pump and priming, Fuel cooler, Auto-idle start, Auto warm-up, EPF engine protection, Dual-stage fuel filtration, In-cab fuel filter restriction indicator, Remote oil filter, Green plug oil drain, Double element air filter.

SAE Net Horsepower 100 hp (75 kW) @ 2,000 rpm
 Displacement 183 cu in (3.0 L)
 Maximum Torque ... 265 lbf-ft (359 Nm) @ 1600 rpm
 Starter 24V-4.0kW
 Alternator 50 amp
 Battery (2) 12-volt 72 amp hours

Cab and Controls

ROPS certified cab with climate control A/C and heat with defroster, Control panel with LED Hi-Definition color monitor, Rearview camera display, Fuel-efficiency gauge, DPF regeneration gauge, Low-effort joysticks pre-wired for auxiliary hydraulics, Control pattern changer, Safety glass windows, Sunroof with sunshade, Shockless cab suspension with four fluid mountings, KAB® reclining suspension seat, AM/FM sound system with MP3 auxiliary input jack, Digital clock, Dome light, Seat belt, Coat hook, Cup holder, Storage compartments, Floor mat, Footrests, Ashtray, 24-volt cigarette lighter, 12-volt outlet, Travel alarm, Handrails, Mirrors, Side-entry cab filter, Spare parts kit.

Four selectable working modes, Anti-theft password protection system, On-board self-diagnostic system with memory and service interval reminders, Auto-idling system, One-touch decelerator, Auto-idle engine shutdown, Auto-power boost, Neutral safety start, Gate-lock safety shutoff.

A/C Rating 20,080 BTU/h
 Heater Rating 21,030 BTU/h
 Sound Level - Cab Interior 70.0 dB(A)
 Sound Level - Exterior 100.0 dB(A)

Hydraulic System

Open-center system, Two variable-displacement axial-piston pumps and one gear pump for pilot controls, Main control valve with one 4-spool section and one 5-spool section with auxiliary spool: stackable, Auxiliary Control System, Oil cooler, Auto-power boost, Boom and arm holding valves, 6 micron return filter, Firewall.

Hydraulic Pumps

Pump Output 2 x 34.1 gpm (129 L/min)
 Pilot Pump Maximum Flow... 5.3 gpm (20 L/min)

Relief Valve Settings

Boom/Arm/Bucket 4,970 psi (34.3 MPa)
 in Power Boost 5,260 psi (36.3 MPa)
 Swing Circuit 4,060 psi (28.0 MPa)
 Travel Circuit 4,970 psi (34.3 MPa)

Hydraulic Cylinders

number of cylinders - bore x rod x stroke
 Boom 2 - 4.1" x 3.0" x 44.1"
 (105 mm x 75 mm x 1,120 mm)
 Arm 1 - 4.5" x 3.1" x 43.6"
 (115 mm x 80 mm x 1,108 mm)
 Bucket 3.7" x 2.6" x 34.7"
 (95 mm x 65 mm x 881 mm)
 Blade 2 - 4.5" x 2.8" x 9.8"
 (115 mm x 70 mm x 250 mm)

Swing

Planetary reduction powered by axial-piston motor, Internal ring gear with grease cavity for swing pinion, Swing bearing is single-row, shear type ball bearing, Mechanical disc swing brake, Auto-power swing.

Swing Speed 10.6 rpm
 Tail Swing 5' 1" (1.55 m)
 Swing Torque 27,400 lbf-ft (37.0 kNm)

Undercarriage

X Pattern carbody with LC long undercarriage or regular undercarriage with dozer blade, 6' 6" (1.99 m) track gauge, Sealed and strutted track chain with track guide, Sealed rollers and idlers, Two-speed independent hydrostatic travel with compact planetary final drive, Disc type brakes, Adjustable track tension, Carbody belly pan.

Carrier Rollers

LC no blade 2 per Side
 Regular undercarriage with blade 1 per Side

Track Rollers

LC no blade 7 per Side
 Regular undercarriage with blade 7 per Side
 Track Link Pitch 6.75" (172 mm)

Shoes

LC no blade 47 per Side
 Regular undercarriage with blade 43 per Side

Shoe Width

LC no blade 23.6" (600 mm)
 Regular undercarriage with blade 23.6" (600 mm)

Ground Pressure

LC no blade 800 mm shoe 5.22 psi (0.36 Bar)
 Reg. w/ blade 600 mm shoe 5.8 psi (0.40 Bar)

Travel System

Two-speed independent hydrostatic travel with compact axial-piston motors, Hydraulic motor powered output shaft coupled to a planetary reduction drive and track sprocket, All hydraulic components mounted within the width of side frame, Automatic downshift for high torque to overcome obstacles, Spring-applied hydraulic release parking brake built into each motor, Travel motors equipped with counterbalance valve to prevent over-speeding down an incline, Single-pedal straight line travel.

Travel Speeds 2.1 - 3.5 mph (3.4 - 5.6 km/h)
 Drawbar Pull 26,078 lbf (116 kN)
 Gradeability 70% (35°)

Attachment

Boom 15' 2" (4.63 m)

Available Arms

Digging Force

• 8' 2" (2.50 m) 13,940 lbf (62 kN)
 with Auto Power Boost 14,840 lbf (66 kN)
 • 9' 11" (3.01 m) 12,590 lbf (56 kN)
 with Auto Power Boost 13,490 lbf (60 kN)
 • 6' 11" (2.11 m) 15,740 lbf (70 kN)
 with Auto Power Boost 16,640 lbf (74 kN)
 Bucket Digging Force 20,230 lbf (90 kN)
 with Auto Power Boost 21,360 lbf (95 kN)

Lubricant and Coolant Capacity

Fuel Tank 52.8 Gallons (200.0 Liters)
 Hydraulic System 41.7 Gallons (158.0 Liters)
 Hydraulic Tank 19.8 Gallons (75.0 Liters)
 Final Drive (per side) 0.55 Gallons (2.1 Liters)
 Swing Drive 0.79 Gallons (3.0 Liters)
 Engine Oil 4.5 Gallons (17.0 Liters)
 Coolant System 4.0 Gallons (15.3 Liters)

Operating Weight

Working weight with LC, no blade, 23.6" (600 mm) shoes, 15' 2" (4.63 m) boom, 8' 2" (2.50 m) arm, 880 lb. (400 kg) bucket, 8,160 lbs (3 700 kg) counterweight 31,800 lbs. (14 400 kg)

Working weight with regular undercarriage, dozer blade, 23.6" (600 mm) shoes, 15' 2" (4.63 m) boom, 8' 2" (2.50 m) arm, 880 lb. (400 kg) bucket, 8,160 lbs (3 700 kg) counterweight 33,200 lbs. (15 000 kg)

PRELIMINARY SPECIFICATIONS

145x4

Engine

Isuzu AR-4JJ1X Final Tier 4 turbocharged diesel engine with electronic control (ECM) and high pressure common-rail fuel injection, 4-cylinder, water-cooled, cooled Exhaust Gas Recirculation (EGR), Intercooler, Variable-Geometry Turbocharger (VGT), Diesel Oxidation Catalyst (DOC) and Selective Catalytic Reduction (SCR) system with Dosing Control Module and heated DEF lines and tank. Electronic fuel pump and priming, Fuel cooler, Auto-idle start, Auto warm-up, EPF engine protection, dual-stage fuel filtration, remote oil filter, engine oil sample port, green plug oil drain, double element air filter.

Net Horsepower	102 hp (76.4 kW) @ 2,000 rpm
Displacement	183 cu in (3.0 L)
Maximum Torque	257 lbf-ft (349 Nm) @ 1,800 rpm
Starter	24V-4.0 kW
Alternator	50 amp
Battery	(2) 12-volt 72 amp hours

Cab and Controls

ROPS and FOPS Level 1 certified with automatic climate control A/C and heat with defroster, 7" LCD Hi-Definition color monitor with full time rear view camera display, fuel efficiency gauge, low-effort joysticks are pre-wired for auxiliary hydraulics, dual cab lights, pattern control valve, safety glass windows, sunroof with sunshade, shockless cab suspension with four fluid-filled cab mounts, SCM High-Back reclining suspension seat, sliding 4-position tilting control consoles, AM/FM sound system with MP3 auxiliary input jack, digital clock, dome light, seat belt, coat hook, cup holder, storage compartments, floor mat, footrests, ashtray, 24V cigarette lighter, 12V outlet, travel alarm, handrails, mirrors, side-entry cab filter.

Three selectable work modes, RemoteCARE Telematics GPS system, anti-theft password protection system, onboard self-diagnostic system with memory and service interval reminders, auto idling system, one-touch decelerator, auto-idle engine shutdown, auto-power boost, neutral safety start, gate-lock safety shutoff.

Hydraulic System

Open-center system, two variable-displacement electronically controlled axial-piston pumps and one gear pump for pilot controls, main control valve with one 4-spool section and one 5-spool section with auxiliary spool: stackable, Auxiliary Control System, oil cooler, Auto-Power boost, boom and arm holding valves, 6 micron return filter, firewall, hydraulic oil sample port.

Hydraulic Pumps

Pump Output	2 x 34.1 gpm (129 L/min)
Pilot Pump Maximum Flow	5.3 gpm (20 L/min)

Relief Valve Settings

Boom / Arm / Bucket	4,970 psi (34.3 MPa)
In Power Boost	5,260 psi (36.3 MPa)
Swing Circuit	4,050 psi (27.9 MPa)
Travel Circuit	4,970 psi (34.3 MPa)

Hydraulic Cylinders

	number of cylinders - bore x stroke
Boom	2 - 4.1" x 44.1" (105 mm x 1,120 mm)
Arm	1 - 4.5" x 43.6" (115 mm x 1,108 mm)
Bucket	3.7" x 34.7" (95 mm x 881 mm)

Swing

Planetary reduction powered by axial-piston motor, Internal ring gear with grease cavity for swing pinion, Swing bearing is single-row, shear type ball bearing, Mechanical disc swing brake, Free swing.

Swing Speed	12.5 rpm
Tail Swing	5' 3" (1.53 m)
Swing Torque	27,400 lbf-ft (37 kNm)



Undercarriage

X Pattern carbody with 12' 4" (3.76 m) long undercarriage, Sealed and strutted track chain with track guide, Sealed rollers and idlers, Two-speed independent hydrostatic travel with planetary final drive, Disc type brakes, Adjustable track tension, Carbody belly pan.

Carrier Rollers	2 per Side
Track Rollers	7 per Side
Track Link Pitch	6.77" (172 mm)
Shoes	46 per Side
Shoe Width	23.6" (600 mm)
Ground Pressure	5.22 psi (0.036 MPa)

Travel System

Two-speed independent hydrostatic travel with axial-piston motors, Hydraulic motor powered output shaft coupled to a planetary reduction drive and track sprocket, All hydraulic components mounted within the width of side frame, Automatic downshift for high torque to overcome obstacles, Spring-applied hydraulic release parking brake built into each motor, Travel motors equipped with counterbalance valve to prevent over-speeding down an incline, Single-pedal straight line travel.

Travel Speeds	2.1 - 3.5 mph (3.4 - 5.6 km/h)
Drawbar Pull	26,100 lbf (116 kN)
Gradeability	70% (35°)

Attachment

Boom	15' 2" (4.63 m)
Available Arms	Digging Force
• 8' 2" (2.50 m)	13,900 lbf (62 kN)
with Auto Power Boost	14,800 lbf (66 kN)
• 9' 11" (3.01 m)	12,600 lbf (56 kN)
with Auto Power Boost	13,500 lbf (60 kN)
• 6' 11" (2.11 m)	15,700 lbf (70 kN)
with Auto Power Boost	16,600 lbf (74 kN)
• Bucket Digging Force	20,200 lbf (90 kN)
with Auto Power Boost	21,400 lbf (95 kN)

Lubricant & Coolant Capacity

Fuel Tank	53 Gallons (200 Liters)
Hydraulic System	42 Gallons (158 Liters)
Hydraulic Tank	20 Gallons (75 Liters)
Final Drive (per side)	0.6 Gallons (2.1 Liters)
Swing Drive	0.6 Gallons (2.1 Liters)
Engine Oil	4.5 Gallons (17.0 Liters)
DEF Tank	11.9 Gallons (45 Liters)
Coolant System	4.4 Gallons (16.5 Liters)

Operating Weight

Working weight with 23.6" (600 mm) shoes, 15' 2" (4.63 m) boom, 8' 2" (2.50 m) arm, 882 lb. (400 kg) bucket, 7,860 lb. (3,570 kg) counterweight	32,100 lbs. (14,600 kg)
Working weight with 23.6" (600 mm) shoes, 15' 2" (4.63 m) boom, 8' 2" (2.50 m) arm, 882 lb. (400 kg) bucket, 7,860 lb. (3,570 kg) counterweight, dozer blade	33,600 lbs. (15,200 kg)