



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: 113730

Doc Description: Backhoe with enclosed cab and 4 in 1 loader bucket

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2015-09-15	2015-10-22 13:30:00	CRFQ 0310 DNR1600000013	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: STATE EQUIPMENT, INC.
 P.O. BOX 3939
 CHARLESTON, WV 25339
 304-776-4405

10/22/15 13:16:21
 WV Purchasing Division

FOR INFORMATION CONTACT THE BUYER

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

Signature

FEIN # 550658298

DATE 10/21/15

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

ADDITIONAL INFORMATION:

CRFQ

The West Virginia Purchasing Division of the Agency, The West Virginia Division of Natural Resources (WVNDR) Parks and recreation Section is soliciting bids from vendors to establish a One-Time Contract for the purchase of a four (4) wheel drive backhoe loader and pallet forks per the bid requirements, specifications, and terms and conditions as attached.

INVOICE TO		SHIP TO	
SUPERINTENDENT DIVISION OF NATURAL RESOURCES LOST RIVER STATE PARK 321 PARK DR		SUPERINTENDENT DIVISION OF NATURAL RESOURCES LOST RIVER STATE PARK 321 PARK DR	
MATHIAS	WV26812-8088	MATHIAS	WV 26812
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Backhoes	1.00000	EA	\$71,574.00	\$71,574.00

Comm Code	Manufacturer	Specification	Model #
22101509	CASE	BACKHOE	580N

Extended Description :

Backhoes

INVOICE TO		SHIP TO	
SUPERINTENDENT DIVISION OF NATURAL RESOURCES LOST RIVER STATE PARK 321 PARK DR		SUPERINTENDENT DIVISION OF NATURAL RESOURCES LOST RIVER STATE PARK 321 PARK DR	
MATHIAS	WV26812-8088	MATHIAS	WV 26812
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Pallet Forks	1.00000	EA	\$2,700.00	\$2,700.00

Comm Code	Manufacturer	Specification	Model #
22101509	CASE	PALLET FORK	87334961

Extended Description :

Pallet Forks

DNR160000013	Document Phase Draft	Document Description Backhoe with enclosed cab and 4 in 1 loader bucket	Page 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

Exhibit A - Pricing Page

Division of Natural Resources – Lost River State Park 4 x 4 Backhoe

Section	Description	Manufacturer and Model for "or equal" bids	Qty.	Unit Cost	Extended Cost
3.1.1	Four (4) Wheel Drive Backhoe with Enclosed Cab, Case 580N, or Equal	CASE 580N	1	\$71,574.00	\$71,574.00
3.1.2	Pallet Forks	CASE 87334961	1	\$2,700.00	\$2,700.00
TOTAL BID AMOUNT (Includes Shipping Costs)					\$74,274.00

*If bidding "or equal" brands, vendor should include manufacturer's literature documenting it meets the mandatory requirements stated in the specifications. This documentation will 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 CRFQ.

WV-10
Approved / Revised
08/01/15

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: STATE EQUIPMENT, INC.

Signed: 

Date: 10/21/15

Title: GENERAL MANAGER

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 exceed 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: STATE EQUIPMENT, INC.

Authorized Signature:  Date: 10/21/15

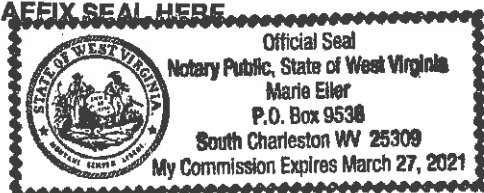
State of WEST VIRGINIA

County of KANAWHA, to-wit:

Taken, subscribed, and sworn to before me this 21st day of October, 2015.

My Commission expires March 27, 2021

AFFIX SEAL HERE



NOTARY PUBLIC 

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.

STATE EQUIPMENT, INC.

Company



Authorized Signature

10/21/15

Date

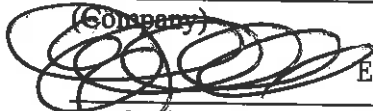
NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

CERTIFICATION AND SIGNATURE PAGE

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained 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.

STATE EQUIPMENT, INC.

~~(Company)~~



EDDIE ROWAN, JR. GENERAL MANAGER

(Authorized Signature) (Representative Name, Title)

(304)776-4405 (304)776-4409 10/21/15

(Phone Number) (Fax Number) (Date)

ENGINE

Model	FPT F5BFL413C
Emissions Certification	Tier 4 Final
Type	Diesel 4-stroke, turbocharged
Cylinders	4
Bore/Stroke	3.90 x 4.33 in (99 x 110 mm)
Displacement	207 in ³ (3.4 L)
Fuel injection	Direct, high pressure common rail – HPCR
Fuel	Diesel
Engine speeds*	RPM
Rated speed – full load	2200
Low idle	900 – 1000
High idle – no load	2330 – 2430
Horsepower @ 2200 RPM:	
Gross	90 hp (67 kW)
Net w/ viscous fan**	89 hp (66 kW)
Net	83 hp (62 kW)
Maximum torque @ 1400 RPM:	
Gross	306 lb-ft (415 N-m)
Net w/ viscous fan	305 lb-ft (413 N-m)
Net	299 lb-ft (405 N-m)
Torque rise at rated speed	43% +/- 5%
Radiator:	
Core type	Square wave
Core size area	486 in ² (3 145 cm ²)
Rows of tubes	5
39° fan:	
Style	7 blade suction
Diameter	19.65 in (499 mm)
Ratio	1.1:1
Pump operating angle ratings:	
Side to side	Rated 35°
Fore and aft	Rated 35°
Oil filtration	Replaceable, full flow spin on

NOTE: *Meets federal emission regulations.

**Viscous fan included w/ Cab
Convenience package.

DRIVETRAIN

Transmission – standard:		
4F-4R Power Shuttle Synchronmesh		
Transmission manual gear shift, fully synchronized		
Transmission – optional:		
Powershift S-Type, 4F-3R fully synchronized		
Specifications below apply to both Power Shuttle and Powershift S-Type transmission unless otherwise indicated.		
Gear ratios	Forward/Reverse	
1st	5.603/4.643	
2nd	3.481/2.884	
3rd	1.584/1.313	
4th	0.793/0.657*	
Travel speeds	Forward	Reverse
	mph (kph)	mph (kph)
1st	3.8 (6.1)	4.5 (7.3)
2nd	6.1 (9.8)	7.3 (11.7)
3rd	13.1 (21.1)	15.7 (25.3)
4th	24.6 (39.6)	29.4 (47.3)*

NOTE: Travel speeds at 2293 engine RPM specified:
w/ 19.5 L x 24.0 tires.
Speeds decrease w/ 17.5 L x 24.0 rear tires.
*4R not available on Powershift S-Type.

Torque converter ratio	3.2
Differential lock	On-the-go push-button activation
Front 4WD/Rear axle:	
Differential ratio	2.0/2.5
Planetary hub ratio	6.0/6.4
Total reduction ratio	12.0/16.0
Service brakes:	
Individually applied, power assisted, hydraulically actuated, maintenance-free, self-adjusting, outboard mounted, wet disc, 2 per side.	
Total disc area	384 in ² (0.25 m ²)
Parking brakes	Trans Mounted spring-applied hydraulic release – SAHR

ELECTRICAL

Voltage	12 Volts, negative ground
Alternator	160 amp
Battery	850 cold-cranking amps
Opt. batteries (2)	850 cold-cranking amps
Power plugs (2)	30 amps total

OPERATOR ENVIRONMENT

ROPS/FOPS certified protective canopy;
Anti-vandalism cover for dash – w/ canopy only;
Rear fenders extensions; Coat hook w/ garment
strap; Interior rearview mirror, convex
3.54 in (90 mm) wide x 10.83 in (275 mm) high;
Non-suspension seat – 180° swivel – Vinyl; 2
in (50 mm) retractable seat belt; Cup holder/
storage tray mounted on left-hand fender;
Right-hand storage compartment w/ lid.

Gauges:

Engine water temperature; Converter oil
temperature; Fuel level; Tachometer/
hourmeter; DEF level.

Warning lights:

Air cleaner restriction; Alternator; A/C high
pressure; Cold start; Engine oil pressure
low; Hydraulic oil filter bypass; Parking brake
engagement; Low fuel; Water in fuel;
Low DEF.

Audible alarms:

Coolant temperature; Engine oil pressure;
Parking brake engagement; Shuttle
engagement/seat position; Backup,
Converter temperature; Low DEF fluid.

Horn Dual switched front and rear

OPERATING WEIGHT

Configuration 1 – SAE Transport:

Standard dipper, 82 in (2.08 m) LL bucket;
2WD; 19.5 L – 24 rear tires, 24 in HD backhoe
bucket; flip over stabilizer pads; 1 door cab w/
heat and A/C; cloth mechanical suspension
seat; small front counter weight; S-type
powershift transmission; no operator; fully
fueled. 16,589 lb (7 525 kg)

Configuration 2 – SAE Transport:

No Operator; One door cab; 4WD; AC; Ehoe;
SPS Shift; Wobble Stick Mechanical BH
Controls; Front Counterweight 4 Speed Manual
Transmission; Boom Guard; Extendahoe®; 82”
GP Loader Bucket Galaxy 12-16.5 @ 49 psi
Front Tires; Solideal 19.5 L – 24 @ 29 psi Rear
Tires. 17,751 lb (8 052 kg)

Add-on weights:

Cab-over canopy	309 lb (140 kg)
Fabricated Stabilizer pads	141 lb (64 kg)
Counterweights	700 lb (318 kg)
Extendahoe®	285 lb (129 kg)
4WD w/ driveshaft guard	283 lb (128 kg)

HYDRAULICS

Pump:	Parker P330 Single Section Gear Pump
Main relief pressure:	Standard 3,350 +/- 50 psi (231 +/- 3.5 bar)

Filtration:
7-micron, return line, full flow, spin on element, condition indicator light for filter.

Oil cooler Heavy-duty

Loader flow @ rated engine RPM:
28.5 gpm @ 3,350 psi
(108 L/min @ 231 bar)

Loader control valve:
Two or three-spool open center monoblock valve. Two and three-spool valves have a single lever manual control for lift and tilt functions. Three-spool valve uses a proportional Electro-Hydraulic control for the auxiliary function. The lift lever has a positive hold "Float" position and a "return-to-dig" feature. System Main Relief valve is single stage w/ Manual Backhoe Controls, dual stage relief valve w/ Pilot Backhoe Controls.

Loader auxiliary hydraulics proportional thumb switch w/ detent on loader control handle.

Loader auxiliary hydraulics w/ full available flow:
0 - 28.5 gpm (0 - 108 L/min)

Backhoe flow @ rated engine RPM:
28.5 gpm @ 3,350 psi
(108 L/min @ 231 bar)

Manual backhoe control valve:
Six or seven-spool monoblock open center control valve. Features "Pro-Control" which includes custom designed spools for each individual function along w/ "swing cushioning" valve for zero-wag swing control. Basic control valve has an open center parallel circuit for all functions.

Pilot backhoe control valve:
Six, seven or eight-spool sectional closed center control valve. Features "Pro-Control" which includes custom designed spools for each individual function along w/ "swing cushioning" valve for zero-wag swing control. Basic control valve is closed center, w/ circuits in parallel w/ a post-compensated, flow sharing feature for simultaneous operation of all circuits.

Unidirectional auxiliary hydraulics:

Unidirectional hydraulic valve is equipped w/ an adjustable LS relief valve to control attachment pressure and a 6 position flow control selector for 6 detented, distinct flow settings.

Actuation:
Manual backhoe controls - cab floor pedal
Pilot controls - left-hand joystick

Bidirectional auxiliary hydraulics*:

Actuation:
Activate the bidirectional Switch located on the rear console
Manual shift - bidirectional linkage on far right of backhoe tower
Pilot controls - left-hand joystick.

NOTE: *Available w/ Combo Aux. Hyd. option.

SERVICE CAPACITIES

Fuel tank	35.0 gal (132.0 L)
DEF tank	3.6 gal (13.5 L)
Hydraulic system:	
Total	111 qt (105.0 L)
w/ Extendahoe®	117 qt (110.7 L)
Reservoir w/ filter	55 qt (52.4 L)
Reservoir w/o filter	53 qt (50.5 L)

Transmission - total system:	
2WD Standard	18 qt (17.0 L)
2WD Powershift	23 qt (21.7 L)
4WD Standard	21 qt (19.4 L)
4WD Powershift	22 qt (20.7 L)

Front axle:	
4WD Differential	8.1 qt (7.7 L)
4WD Planetaries - each	0.5 qt (0.5 L)

Rear axle:	
Differential and planetaries	14.4 qt (13.6 L)

Engine oil w/ filter	8.5 qt (8.0 L)
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Cooling system:	
w/ heater	19.0 qt (18.0 L)
w/o heater	18.3 qt (17.3 L)

Window washer reservoir	3.0 qt (2.8 L)
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OTHER SPECIFICATIONS

Front tires:	
2WD	11.0 L x 16.0, 10-ply rating
4WD	12.0 L x 16.5, 8-ply rating

Rear tires:	
2/4WD	19.5 L x 24.0, 10-ply rating
2/4WD	17.5 L x 24.0, 10-ply rating

Loader:
Bucket position indicator; Lifting lugs on standard bucket; Single lever control w/ self-leveling and return-to-dig; Hand operated clutch disconnects on loader and shift levers, single lever 4-function loader control: lift, dump, clutch cut-out, differential lock.

Loader bucket sizes:

Width	Weight	Struck	Heaped
Long Lip Bucket w/o bolt-on edge			
82 in (2.08 m)	683 lb (310 kg)	0.88 yd ³ (0.67 m ³)	1.03 yd ³ (0.79 m ³)
93 in (2.36 m)	1,188 lb* (539 kg)	1.10 yd ³ (0.84 m ³)	1.29 yd ³ (0.99 m ³)
4 IN 1° Bucket w/ bolt-on edge			
82 in (2.08 m)	1,572 lb* (713 kg)	0.85 yd ³ (0.65 m ³)	1.05 yd ³ (0.80 m ³)

NOTE: *Weight of 4 IN 1° bucket includes edges, cylinders and tube lines.

OTHER SPECIFICATIONS (cont.)

Turning radius*: Curb to Curb

2WD:	
Brakes on	10 ft 8 in (3.24 m)
Brakes off	12 ft 4 in (3.76 m)

4WD - engaged:	
Brakes on	11 ft 4 in (3.45 m)
Brakes off	13 ft 10 in (4.21 m)

4WD - disengaged:	
Brakes on	11 ft 0 in (3.36 m)
Brakes off	12 ft 3 in (3.72 m)

Backhoe:
Over center design, fabricated "S" boom;
Open-center hydraulics - Pro Control System.

Backhoe bucket sizes:

Width	Weight	Heaped
General Purpose Trenching Buckets		
18 in (457 mm)	232 lb (105 kg)	4.70 ft ³ (0.13 m ³)
24 in (610 mm)	272 lb (123 kg)	6.26 ft ³ (0.18 m ³)

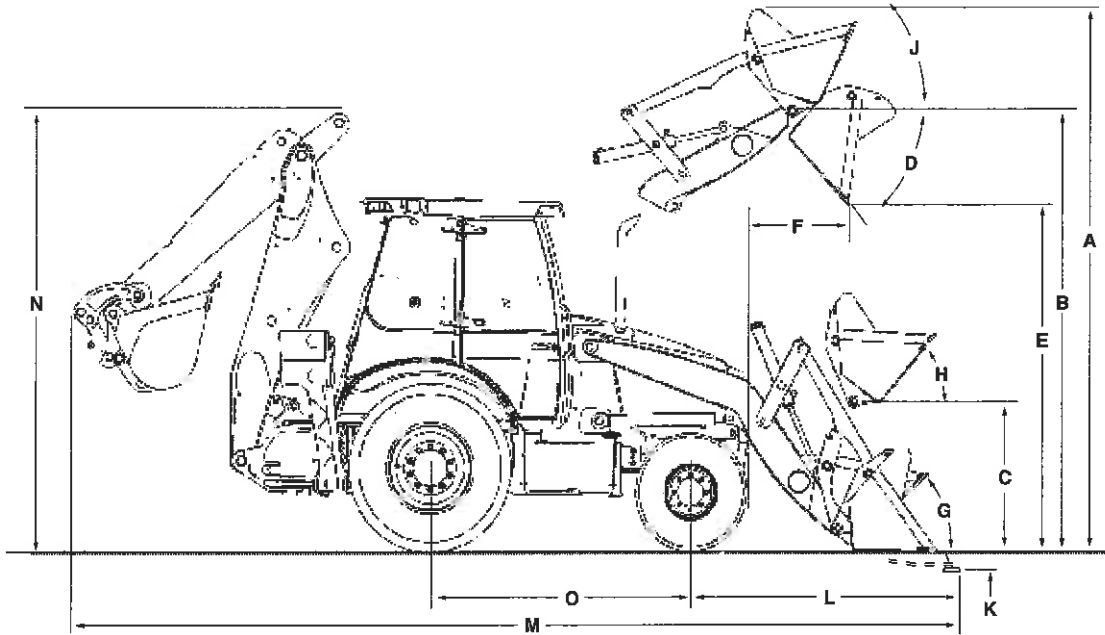
Universal Buckets

12 in (305 mm)	295 lb (137 kg)	3.40 ft ³ (0.10 m ³)
18 in (457 mm)	356 lb (162 kg)	5.30 ft ³ (0.15 m ³)
24 in (610 mm)	427 lb (194 kg)	7.70 ft ³ (0.22 m ³)
30 in (762 mm)	489 lb (222 kg)	10.20 ft ³ (0.29 m ³)
36 in (914 mm)	552 lb (251 kg)	12.70 ft ³ (0.36 m ³)

High Capacity Buckets

24 in (610 mm)	447 lb (203 kg)	8.50 ft ³ (0.24 m ³)
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NOTE: *Turning radius dimensions curb to curb w/ 17.5 L x 24.0 rear tires.



Line drawings are for illustrative purpose only and may not be exact representation of unit.

LOADER DIMENSIONS*

	Long Lip Bucket	4 IN 1° Bucket
A. Overall operating height – fully raised	13 ft 9 in (4.18 m)	13 ft 8 in (4.16 m)
Height to:		
B. Bucket hinge pin fully raised	11 ft 3 in (3.42 m)	11 ft 3 in (3.42 m)
C. Bucket hinge pin at SAE carry	13.6 in (345 mm)	13.6 in (345 mm)
D. Dump angle at full height	47°	47°
E. Dump clearance at full height, 45° dump:		
Bucket	8 ft 10 in (2.69 m)	8 ft 11 in (2.71 m)
Clam open	—	9 ft 8 in (2.96 m)
F. Dump reach at full height, 45° dump:		
Bucket	31.5 in (801 mm)	29.1 in (738 mm)
Clam open	—	15.3 in (388 mm)
Bucket rollback:		
G. @ Groundline	42°	42°
H. @ SAE carry	42°	42°
J. @ Full height	Adjustable	Adjustable
K. Digging depth below grade:		
Bucket flat	6.1 in (155 mm)	4.8 in (122 mm)
Clam open – dozing	—	4.1 in (103 mm)
L. Reach from front axle centerline – bucket on ground	6 ft 10 in (2.08 m)	6 ft 10 in (2.03 m)
Lift capacity to full height	6,803 lb (3 086 kg)	6,459 lb (2 930 kg)
Breakout force:		
Lift cylinders	9,506 lb (4 228 daN)	9,276 lb (4 126 daN)
Dump cylinders	10,622 lb (4 724 daN)	11,312 lb (5 032 daN)
Bucket cutting edge width	82.5 in (2.09 m)	82.0 in (2.08 m)
Maximum grading angle	114°	114°
Maximum clam opening	—	38.3 in (972 mm)
Moldboard height	—	36.8 in (934 mm)
Raising time to full height	4.6 sec	4.6 sec
Bucket dumping time	1.1 sec	1.1 sec
Lowering time:		
Power down	2.6 sec	2.6 sec
Return-to-dig	3.6 sec	3.6 sec
Clam:		
Open time	—	1.0 sec
Close time	—	1.0 sec

NOTE: *Loader dimensions taken with 4WD, 19.5 L x 24.0 rear tires.

DIMENSIONS

	2WD with 19.5 L x 24.0 tires	4WD with 19.5 L x 24.0 tires
M. Overall transport length:		
Long Lip bucket with Quick Coupler	23 ft 5 in (7.14 m)	23 ft 4 in (7.10 m)
4 IN 1° bucket with Quick Coupler	23 ft 3 in (7.07 m)	23 ft 1 in (7.04 m)
Long Lip bucket with Straight Links	23 ft 6 in (7.15 m)	23 ft 4 in (7.12 m)
4 IN 1° bucket with Straight Links	23 ft 3 in (7.09 m)	23 ft 2 in (7.06 m)
Overall transport width – rear tires	6 ft 10 in (2.07 m)	6 ft 10 in (2.07 m)
Height:		
To top of canopy	8 ft 9 in (2.66 m)	8 ft 9 in (2.66 m)
To top of cab	8 ft 11 in (2.72 m)	8 ft 11 in (2.72 m)
To top of exhaust stack	8 ft 7 in (2.62 m)	8 ft 7 in (2.61 m)
N. Transport	10 ft 10 in (3.30 m)	11 ft 1 in (3.37 m)
Ground clearance at backhoe frame	15.0 in (380 mm)	15.0 in (380 mm)
Angle of departure	15.3°	19.0°
Front wheel tread:		
11.0 L x 16.0	67.5 in (1.71 m)	67.5 in (1.71 m)
12.0 L x 16.5	67.7 in (1.72 m)	67.7 in (1.72 m)
Rear wheel tread:		
17.5 L x 24.0	63.1 in (1.60 m)	63.1 in (1.60 m)
19.5 L x 24.0	61.2 in (1.55 m)	61.2 in (1.55 m)
Width over tires:		
11.0 L x 16.0	79.3 in (2.01 m)	79.3 in (2.01 m)
12.0 L x 16.5	81.1 in (2.06 m)	81.1 in (2.06 m)
17.5 L x 24.0	81.7 in (2.07 m)	81.7 in (2.07 m)
19.5 L x 24.0	81.4 in (2.07 m)	81.4 in (2.07 m)
O. Wheelbase	84.0 in (2.13 m)	84.5 in (2.15 m)

CYLINDERS

	Bore Diameter	Rod Diameter	Stroke	Closed Length
Loader:				
Lift (2)	3.25 in (82.6 mm)	1.75 in (44.5 mm)	28.86 in (733.0 mm)	41.81 in (1 062.0 mm)
Dump (2)	3.00 in (76.2 mm)	1.50 in (38.1 mm)	20.33 in (516.5 mm)	30.31 in (769.9 mm)
4 IN 1° clam (2)	3.00 in (76.2 mm)	1.75 in (44.5 mm)	9.08 in (230.6 mm)	19.62 in (498.3 mm)
Backhoe:				
Boom	4.50 in (114.3 mm)	2.25 in (57.2 mm)	38.22 in (971.5 mm)	52.82 in (1 341.6 mm)
Dipperstick	4.25 in (108.0 mm)	2.25 in (57.2 mm)	25.14 in (628.5 mm)	39.65 in (1 007.0 mm)
Bucket	3.25 in (82.6 mm)	2.25 in (57.2 mm)	35.35 in (897.9 mm)	48.17 in (1 223.6 mm)
Extendahoe®	3.00 in (76.2 mm)	1.75 in (44.5 mm)	42.05 in (1 068.0 mm)	56.22 in (1 428.0 mm)
Swing (2)	3.75 in (95.3 mm)	2.00 in (50.8 mm)	11.50 in (292.0 mm)	24.44 in (620.8 mm)
Stabilizer (2)	4.25 in (108.0 mm)	2.25 in (57.2 mm)	21.37 in (542.9 mm)	33.87 in (860.2 mm)

AXLE RATINGS

	Front – 2WD	Rear	Front – 4WD
Maximum static	70,821 lb (32 124 kg)	90,145 lb (40 889 kg)	64,613 lb (29 308 kg)
Dynamic operating	44,261 lb (20 076 kg)	56,200 lb (25 492 kg)	39,328 lb (17 839 kg)
Static operating	17,704 lb (8 030 kg)	22,480 lb (10 197 kg)	15,732 lb (7 136 kg)
Oscillation – front axle	22° total – 11° side to side	—	22° total – 11° side to side

BACKHOE LIFT CAPACITIES

Boom Lift	Standard Backhoe	Extendahoe®	
	Lift Capacity lb (kg)	Retracted Lift Capacity lb (kg)	Extended Lift Capacity lb (kg)
+16 ft (4.87 m)	—	—	1,693 (768)
+14 ft (4.27 m)	2,472 (1 121)	2,271 (1 030)	1,979 (897)
+12 ft (3.66 m)	2,857 (1 296)	2,644 (1 199)	2,124 (964)
+10 ft (3.05 m)	2,966 (1 345)	2,748 (1 246)	2,172 (985)
+8 ft (2.44 m)	2,983 (1 353)	2,761 (1 252)	2,169 (984)
+6 ft (1.83 m)	2,963 (1 344)	2,739 (1 242)	2,173 (985)
+4 ft (1.22 m)	2,929 (1 329)	2,701 (1 225)	2,165 (982)
+2 ft (0.61 m)	2,892 (1 312)	2,662 (1 207)	2,153 (977)
Ground Level	2,858 (1 297)	2,625 (1 191)	2,153 (977)
-2 ft (0.61 m)	2,834 (1 285)	2,598 (1 178)	2,145 (973)
-4 ft (1.22 m)	2,827 (1 282)	2,588 (1 174)	2,143 (972)
-6 ft (1.83 m)	2,853 (1 294)	2,609 (1 183)	2,154 (977)
-8 ft (2.44 m)	2,949 (1 338)	2,698 (1 224)	2,189 (993)
-10 ft (3.05 m)	3,319 (1 506)	3,053 (1 385)	2,270 (1 030)
-12 ft (3.66 m)	—	—	2,429 (1 102)
-14 ft (4.27 m)	—	—	3,115 (1 413)
Dipper Lift:			
+14 ft (4.27 m)	—	—	3,154 (1 431)
+12 ft (3.66 m)	4,343 (1 970)	4,139 (1 877)	2,981 (1 352)
+10 ft (3.05 m)	4,027 (1 827)	3,826 (1 735)	2,823 (1 281)
+8 ft (2.44 m)	4,112 (1 865)	3,910 (1 774)	2,855 (1 295)
+6 ft (1.83 m)	4,563 (2 070)	4,357 (1 976)	3,010 (1 365)
+4 ft (1.22 m)	5,398 (2 449)	5,177 (2 348)	2,948 (1 337)
+2 ft (0.61 m)	—	—	3,486 (1 581)

BACKHOE OPERATIONAL DATA

	Standard Backhoe	Extendahoe®	
		Retracted	Extended
Digging depth:			
Maximum	14 ft 9 in (4.50 m)	14 ft 9 in (4.50 m)	18 ft 3 in (5.55 m)
2 ft (610 mm) flat bottom	14 ft 8 in (4.46 m)	14 ft 8 in (4.46 m)	18 ft 1 in (5.52 m)
8 ft (2.44 m) flat bottom	13 ft 8 in (4.16 m)	13 ft 8 in (4.16 m)	17 ft 4 in (5.29 m)
Overall reach from:			
Rear axle centerline	21 ft 11 in (6.68 m)	21 ft 11 in (6.68 m)	25 ft 4 in (7.72 m)
Swing pivot	18 ft 4 in (5.57 m)	18 ft 4 in (5.57 m)	21 ft 8 in (6.60 m)
Loading height	11 ft 9 in (3.59 m)	11 ft 9 in (3.59 m)	14 ft 1 in (4.30 m)
Loading reach – dipper retracted	6 ft 9 in (2.04 m)	6 ft 9 in (2.04 m)	9 ft 4 in (2.84 m)
Swing arc	180°	180°	180°
Bucket rotation:			
Straight links	175.6°	175.6°	175.6°
Mechanical coupler	198.0°	198.0°	198.0°
Stabilizer spread – centers:			
Flip pad	9 ft 5 in (2.87 m)	9 ft 5 in (2.87 m)	9 ft 3 in (2.81 m)
Cast Pad	9 ft 9 in (2.97 m)	9 ft 9 in (2.97 m)	9 ft 7 in (2.92 m)
Digging force:			
Bucket cylinder	11,517 lb (51 228 N)	11,517 lb (51 228 N)	11,517 lb (51 228 N)
Dipper cylinder	6,710 lb (29 484 N)	6,710 lb (29 484 N)	4,887 lb (21 738 N)
Leveling angle:			
Flip pad	12.8°	12.8°	12.8°
Cast pad	13.8°	13.8°	13.8°

STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

See page 1

ENGINE

FPT F58FL4I3C diesel

Cooled EGR

Diesel Oxidation Catalyst with SCR

Full flow engine oil filter

Air cleaner – replaceable dry type with radial seal

Aspirated air cleaner

Radiator with de-aeration bottle

Antifreeze to -34° F (-37° C)

Throttles, both rotary hand and foot

Self adjusting belt

DRIVETRAIN

Front axle, as selected:

2WD heavy-duty front axle with

11.0 L x 16.0 tires

4WD heavy-duty mechanically driven front

axle with 12.0 L x 16.5 tires

Rear axle:

2/4WD heavy-duty outboard planetary drive

with 17.5 L x 24.0 tires

4F-4R Power Shuttle Synchromesh transmission

Torque converter – 11.8 in (300 mm)

On-the-go electric 4WD control

Electric F/R shuttle control

Electric differential lock control, push-button activation on the loader control lever

Park brake, spring-applied, hydraulic release – SAHR

HYDRAULICS

Pump 28.5 gal/min @ 3,350 psi
(107.9 L/min @ 231 bar)

Heavy-duty hydraulic oil cooler

7-micron, spin on oil filter

LOADER

See page 2

BACKHOE

See page 2

OTHER

Forward tilt engine hood

Replaceable, molded front bumpers

Front/Rear tie downs

Reflective logos

Lights – cab and canopy:

2 front driving

2 rear tail/stop

2 front flashers/turn

2 rear flashers/turn

Lights – cab only:

Adjustable halogen work lights – 55 W:

2 front

2 side – left and right

4 rear

Lights – canopy only:

Adjustable halogen work lights – 55 W:

2 side – left and right

2 rear

TELEMATICS

CASE SiteWatch™ Telematics – includes hardware and a 3-yr Advanced data subscription

OPTIONAL EQUIPMENT

OPERATOR ENVIRONMENT

Speed Selectable Auto Ride Control – 4WD models

Standard Ride Control – 2WD models

Comfort Steering with momentary latching switch, two-speed steering pump and 3rd/4th gear cutout

ROPS/FOPS certified protective cab with rear wipers and floor mat

Cab Convenience Package containing pull-down sun visor, window washer – front and rear, left-hand storage tray, deluxe interior package, tilt steering column, Sound Reduction Package for cab models – levels reduced to 72 dB (A), right-hand threshold storage box, viscous fan

Air-conditioning for cab models

Mechanical suspension seat with flip-up armrests, 180° swivel, heated cloth or vinyl, adjustable seat and weight, backrest angle, lumbar and cushion angle

Air Ride suspension seat with flip-up armrests, 180° swivel, heated, electric height adjustment, adjustable backrest and lumbar support – cab units cloth, canopy units vinyl

Pull-down sun visor for canopy models

Radio, AM/FM Stereo/WB, MP3 auxiliary input – cab models

3 in (75 mm) seat belt for mechanical and air-suspension seat

ENGINE

Cold Weather Starting Aid with dual 12 Volt batteries and glow plugs

Block heater

DRIVETRAIN

Powershift S-Type transmission, 4F-3R fully synchronized, electronic transmission controller and kick down in loader control lever – 2WD or 4WD

Heavy-duty outboard planetary drive without 19.5 L x 24.0 tires

LOADER

Auxiliary hydraulics for loader-mounted equipment with thumb-operated proportional control

Hydraulic front quick coupler

Loader linkage without loader bucket

Tool portfolio of additional attachments

Buckets – see page 2

BACKHOE

Auxiliary backhoe unidirectional hydraulics

Auxiliary backhoe combo hydraulics: Hand lever operated for bidirectional manual controls

Button operated for pilot controls, includes unidirectional and bidirectional

Auxiliary hydraulics with flow from 0 to 28 gal/min (0 to 106 L/min)

Extendahoe®

Two-lever controls – backhoe or Extendahoe®

BACKHOE (continued)

Pilot operated control system:

Fingertip proportional Electro-Hydraulic stabilizer controls

Thumb-operated proportional Electro-Hydraulic Extendahoe® control

Thumb-operated horn button

Thumb-operated auxiliary hydraulic control

Infinitely adjustable towers

In-cab switchable “excavator to backhoe” control pattern change

Flip over stabilizer pads

Cemetery/Street pads

Case mechanical quick coupler

Universal coupler – CAT/Deere compatible

Buckets – see page 2

OTHER

Front:

11.0 L x 16.0 10-ply or 12.0 L x 16.5 8-ply

Rear:

17.5 L x 24.0 10-ply or 19.5 L x 24.0 10-ply

Special paint

Canopy lights – Additional 2 front and 2 rear halogen lights – 55 W

Tool box – bolt-on, step-mounted

Front counterweights:

700 lb and 1,100 lb (318 kg and 500 kg)

Rotating beacon

Master disconnect switch and remote jump-start terminals

Eco-Mode – Detent on backhoe hand throttle, push button switch on desk

CASE Customer
Assistance
1-866-54-CASE6

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

NOTE: All engines meet current EPA emissions requirements.

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

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