

**BID SUBMITTAL FORM**  
**Alabama County Joint Bidding Program**  
**Heavy Equipment – BID ITEM: MEDIUM DUTY BACKHOE**

Company Name: Warrior Tractor & Equipment Company, Inc.

Address: 6801 McFarland Blvd

Northport, AL 35476

Bid Submitted by: David Schafer  
(Name of company representative)

Title: Sales Manager E-mail address: dschafer@warriortractor.com

Phone: 205-339-0300 Fax: 205-333-0101

By submitting this bid, we agree:

Initials

The equipment model number identified below meets the bid specs for this bid item.

DS

That the bid price will be honored for all counties for the period from Jan. 1, 2024 to Dec. 31, 2024.

DS

The equipment will be delivered at the bid price to all counties participating in the joint bid program.

DS

The company acknowledges the freight preparation and delivery price is to be included in the total bid price for the standard machine.

DS

The company representative listed above will be the contact person for purchasing this bid item under the joint bid program.

DS

The bid is accompanied by a current catalog or model specification document for the model number identified below.

DS

The bid is accompanied by a copy of the manufacturer's standard warranty as required in the bid specifications.

DS

The bid includes the e-verify documentation required by Alabama law.

DS

If awarded the bid, a performance bond will be provided upon request.

DS

The bid documents include the **Manufacturer's Suggested Retail Price Sheet (MSRP) for the Standard Machine.**

DS

Total Bid Price for Standard Machine: \$ 116,599.00  
(Total Bid Price for Standard Machine Includes Freight Preparation, Delivery and Standard Warranty Costs) \*

Freight Preparation and Delivery: \$ 5,598.00  
(Included in Standard Machine Bid Price)

Manufacturer's Suggested Retail Price for Standard Machine: \$ 185,253.00

Equipment Model #: JD 320 P

Description: BACKHOE

Signature of company representative submitting bid: 

Title: Sales Manager

\* **NOTE:** Award will be made based on the total cost of the **Standard Machine**. The total cost of the standard machine is to include the freight preparation, delivery and standard warranty cost. Freight preparation, delivery will be excluded from the total bid price of the standard machine in determining the percentage discount for any available options.

## BID SUBMITTAL FORM: OPTION COST SHEET

By submitting this bid, we agree:

To offer any available options at the percent difference between the Manufacturer's Suggested Retail Price Sheet and the actual bid price on the Standard Machine\*

1078

The bid documents include the **Manufacturer's Suggested Retail Price Sheet (MSRP)** for the Standard Machine

1078

Equipment Model #: JD 320 P

Description: BACKHOE

Signature of company representative submitting bid:

David R. S. S.

Title: Sales Manager

**\*Note:** The percent difference between the **Manufacturer's Suggested Retail Price Sheet (MSRP)** for the standard machine as specified by these **Bid Specifications** and the actual price bid by the vendor will be calculated to determine the percentage discount to be applied to any available options. The bid price of the freight preparation, delivery cost shall be excluded in determining the percentage discount to be applied to available options. Any individual county may choose to add any available option to the standard machine at the percentage discount at the time of purchase.

# **BID SPECIFICATION FOR MEDIUM DUTY BACKHOE**

## **GENERAL**

These specifications shall be construed as the minimum acceptable standards for a medium duty loader/backhoe. Should the manufacturer's current published data or specifications exceed these standards, the manufacturer's standards shall be considered minimum and shall be furnished. All integral parts not specifically mentioned in the scope of these specifications that are necessary to provide a complete working unit shall be furnished. Additionally, the machine offered for bid shall include all standard manufacturer's equipment. The medium duty loader/backhoe must be new current production model and shall meet all EPA and other applicable standards at the time of manufacture.

The use of specific names and numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer but is solely for the purpose of indicating the type, size, and quality of equipment considered best adapted to the uses of counties participating in the joint bid.

## **BID SUBMITTAL FORM**

Each bidder must submit his or her bid on the Bid Submittal Form included in the invitation to bid package. All written warranties to be submitted shall be attached to the Bid Submittal Form.

## **BID PRICE**

The bid price shall include all destination charges, delivery charges, title fees, rebates, and all other applicable costs and refunds.

## **MANUALS**

Each unit will be provided with one (1) copy of the operator's manual(s) and one (1) copy of the current parts manual(s). Units will not be accepted for delivery until the manuals as outlined above are received by the purchaser.

## **REPLACEMENT PARTS AVAILABILITY**

Parts must be available for 5 years or 7,500 hours for the piece of equipment bid. If replacement parts are not delivered within three (3) working days of an order being placed, the bidder will deliver an equivalent machine for the county to use at no cost to the county until such time as the parts are delivered to the county so that it can affect repairs to its machine.

## **WARRANTY**

Bidders shall submit a copy of the manufacturer's standard warranty. Warranty shall include service response time of maximum of 36 hours within notification by county.

Yes ☒ No ☐  
Page#   
or  
Attachment ☒



**ENGINE**

Four Cylinder, four stroke cycle, minimum 268 cubic inch diesel engine, capable of developing a minimum of 93 NET flywheel horsepower with turbo charger.

Yes X No     

Page # 6

**Engine must be designed and built by the machine manufacturer.**

Yes X No     

Page # 6

**STARTING SYSTEM**

Shall be equipped with a 12-volt electrical system, heavy duty starting motor.

Yes X No     

Page # 7

**TRANSMISSION**

Power shuttle transmission.

Yes X No     

Page # 6

Minimum of 4 speeds forward and 3 reverse speeds.

Yes X No     

Page # 6

Minimum Travel Speed: 25 mph   \*\*24.9 MPH\*\*

Yes      No X

Page # 6

**CONTROLS AND HYDRAULICS**

Full hydraulic two (2) lever controls with load sensing hydraulic system.

Yes X No     

Page # 6

Min. backhoe hydraulic flow 42 gpm with Axial-Piston pump.

Yes X No     

Page # 6

**FRONT END LOADER**

Loader Bucket -- 1.20 min. cubic yard heavy duty

Yes X No     

Page # 9

Loader Breakout Force (lbs.) -- 11,100 lbs.   \*\*11,052 LBS \*\*

Yes      No X

Page # 9

Loader Lift Capacity Max. Height -- 7,200 lbs.   \*\*7,108 LBS \*\*

Yes      No X

Page # 9

**BACKHOE -- TWO LEVER CONTROL SYSTEM (FIXED LENGTH DIPPER STICK)**

Backhoe Bucket -- 24"- General Purpose

Yes X No     

Page # 9 & ATTACH

Bucket Breakout Force (lbs.) -- 14,400 lbs.   \*\*13,634. LBS\*\*

Yes      No X

Page # 8

Backhoe Stick Digging Force (lbs.) -- 9,500 lbs.   \*\*9,080 LBS\*\*

Yes      No X

Page # 8

Backhoe Maximum Digging Depth -- 14 ft. 2 in.

Yes ☒ No ☐  
Page # 8

Boom Lift @ 12 ft. (lbs.) – 2,800 lbs.

Yes ☒ No ☐  
Page # 10

### **BRAKES**

Service Brakes – Hydraulic Wet Disk

Yes ☒ No ☐  
Page # 6

Parking Brake

Yes ☒ No ☐  
Page # 6

### **FRONT AXLE**

Standard 2-wheel drive

Yes ☒ No ☐  
Page # 11

### **TIRES AND OUTRIGGERS**

Reversible type for use on both paved and non-paved surfaces.

Yes ☒ No ☐  
Page # 11

Minimum 19.5L-24/10 PR Rear Tires and Wheels.

Yes ☒ No ☐  
Page # 7

Minimum 12.5/80-18/10PR Front Tires and Wheels.

Yes ☒ No ☐  
Page # 7

### **FUEL TANK**

Minimum Capacity -- 34 Gallons

Yes ☒ No ☐  
Page # 7

### **OPEN ROPS CANOPY**

Yes ☒ No ☐  
Page # 11

### **OIL ANALYSIS**

To be included at no cost of the duration of the warranty period selected at intervals recommended by the manufacturer's warranty and maintenance schedule.

Yes ☒ No ☐  
Page # ATTACH

### **WEIGHT (STANDARD OPERATING)**

The factory specified operating weight only. No additional weights may be added for the purpose of meeting these specifications. Minimum 16,000 pounds SAE standard with 2-wheel drive and ROPS canopy.

Yes ☒ No ☐  
Page # 7

### **SAFETY DEVICES**

Include a fire extinguisher that meets current minimum OSHA requirements complete with Mounting hardware installed on the machine.

Yes ☒ No ☐  
Page # 11 & ATTACH

# 320 P-tier Backhoe Loader

27-Dec-2023



Code	Description	QTY	List Price (USD)
17C0T	<p>320 P-tier Backhoe Loader</p> <p>320 P-tier Standard Equipment</p> <p>ENGINE:</p> <p>John Deere PowerTech™ EWL 4.5L turbocharged 4-cylinder engine</p> <p>Serpentine belt with automatic belt tensioner</p> <p>Vertical spin-on engine oil filter</p> <p>Primary and secondary spin-on fuel filter with water separator</p> <p>Dual safety element dry-type air cleaner with evacuator valve</p> <p>Vertical curved exhaust stack</p> <p>COOLING SYSTEM:</p> <p>Engine radiator</p> <p>Engine coolant -40 degrees F (-40C)</p> <p>Coolant recovery tank with low level indicator</p> <p>Cooling fan with fan guard</p> <p>Oil-to-water engine oil cooler</p> <p>Oil to air hydraulic oil cooler</p> <p>Oil to water transmission oil cooler</p> <p>Fold-out hinged cooling system</p> <p>High ambient temperature engine coolant</p> <p>POWERTRAIN:</p> <p>Powershift transmission with torque converter</p> <p>Auto-shift feature (on/off)</p> <p>Vertical spin-on transmission filter</p> <p>Single electric transmission control lever (forward/neutral/reverse) with integrated gear selection &amp; horn</p> <p>Electronic transmission controller with on-board diagnostics</p> <p>Rigid mounted rear axle with 4-planet final drive</p> <p>Differential lock, foot switch activated, protection on/off</p> <p>Mechanical limited slip front wheel drive</p> <p>Hydrostatic power steering with emergency manual mode power-assisted hydraulic service brakes inboard, wet disc, self-adjusting and self-equalizing (conforms to ISO 3450)</p> <p>Power-assisted hydraulic service brakes inboard, wet disc, self-adjusting and self-equalizing (conforms to ISO 3450)</p> <p>Parking/emergency brake: independent of service brakes (conforms to ISO 3450) spring applied, hydraulically released, wet multi-disc</p> <p>HYDRAULICS:</p> <p>42 GPM (159 L/m) axial piston pump - closed center / PCLS hydraulics system</p> <p>Dedicated hydraulic reservoir</p> <p>4 micron vertical spin-on filter</p> <p>"O" ring face seal connectors</p> <p>Circuit relief valve protection</p> <p>Economy mode</p> <p>Auto idle</p> <p>Lift mode provides up to 15% additional craning capacity</p> <p>BACKHOE:</p> <p>14 ft. 9 in. (4.50 m) digging depth (extendible dipperstick, retracted)</p> <p>Backhoe transport lock lever</p>	1	\$169,068.00



Code	Description	QTY	List Price (USD)
	<p>Swing locking pin stored in op. station</p> <p>ISO (Deere) 2 lever mechanical backhoe controls</p> <p>Reversible pad stabilizer feet with integrated lock</p> <p>Stabilizer two-direction anti-drift valves</p> <p>Less bucket with bucket pins</p> <p>Backhoe boom includes mounting hole for optional boom protection plate.</p> <p>LOADER:</p> <p>Return-to-dig feature</p> <p>Bucket level indicator</p> <p>Hydraulic self-leveling (anti-spill)</p> <p>Single lever control with electric clutch cut-off switch and momentary MFWD control</p> <p>Less bucket with bucket pins</p> <p>Loader boom service lock</p> <p>High-visibility loader arms</p> <p>ELECTRICAL:</p> <p>12 volt system</p> <p>145 amp alternator</p> <p>(4) front drive/work, (4) rear work and (2) side docking halogen lights (32,500 candlepower each) (2) front and (2) rear turn signal/flashing</p> <p>(2) rear stop and tail</p> <p>(2) rear reflectors</p> <p>Single battery with 175 minute reserve capacity and 950 CCA</p> <p>Blade type multi-fused circuits</p> <p>By-pass start safety cover on starter</p> <p>Positive terminal battery cover</p> <p>OPERATOR STATION:</p> <p>Modular-design ROPS/FOPS (level 2) canopy with molded roof (meets ISO 3471 and ISO 3449): isolation mounted</p> <p>Left and right side access</p> <p>Slip resistant steps and ergonomically located handholds (conforms to SAE J185)</p> <p>Seat, deluxe deep foam, vinyl cover, high back with adjustable:</p> <p>Suspension for weight/height</p> <p>Fore-aft</p> <p>Lumbar adjustments</p> <p>Flip-up arm rests</p> <p>3 in. orange seat belt with retractor</p> <p>Tilt steering</p> <p>Engine coolant temperature gauge</p> <p>Fuel gauge</p> <p>Transmission oil temperature gauge</p> <p>Electric monitor system with audible and visual warning:</p> <ul style="list-style-type: none"> <li>- Air cleaner restriction</li> <li>- Low alternator voltage</li> <li>- Engine coolant temperature</li> <li>- Engine oil pressure &amp; temperature</li> <li>- Hydraulic filter restriction</li> <li>- Low brake pressure</li> </ul>		

Code	Description	QTY	List Price (USD)
	- Seat belt indicator - Transmission oil temperature - Fuel level - Hourmeter / tachometer / voltmeter Machine diagnostics Keyless start Sealed switch module Machine security Horn (1-FNR, 1- side console) Interior rearview mirror Rotary hand throttle Suspended foot throttle 12 volt outlets (1) Operator's manual storage compartment Integrated cup holder with form fitting rubber insert Lockable right-side storage Coat hook  OVERALL VEHICLE: (2) front and (2) rear built-in tie downs One piece unitized construction mainframe Extended grille frame Dent resistant rear fenders Vandal protection locking for: Engine hood Monitor Tool box Fuel tank Hydraulic reservoir 34 gal. (128.7 L) fuel tank Reverse warning alarm 19.5L - 24 in. 12 PR (R4) tubeless rear and 12.5/80 - 18 in. 12 PR traction front sure grip lug tires Ground level fueling Remote grease bank for front axle Tilt hood with (2) service positions JDLink Ultimate in approved countries		
17C0T	320 P-tier Backhoe Loader	1	\$169,068.00

Destination Codes	Basic Factory Options - Required
-------------------	----------------------------------

North America

Code	Description	QTY	List Price (USD)
0202	United States		No Added Cost
	Labels		Basic Factory Options - Required
0351	Translated Text Labels		No Added Cost
	Vehicle labels translated to selected language with English labels. Includes labels for operator station, engine and backhoe controls options.		
	Operator's Manual and Language		Basic Factory Options - Required
0259	English		No Added Cost
	English language for operator's manual and electronic content. Includes operator's manual and 4G OM packet.		
0263	French		No Added Cost
	French language for operator's manual and electronic content. Includes French machine label kit, 4G OM packet, and operator's manuals in French and English.		
0287	Spanish		No Added Cost
	Spanish language for operator's manual and electronic content. Includes Spanish machine label kit, 4G OM packet, and operator's manuals in Spanish and English.		
	Operator's Station		Basic Factory Options - Required
1002	Canopy (ROPS/FOPS)		No Added Cost
	Isolation mounted modular design ROPS/FOPS level 2 (meets ISO 3449 & ISO 3471) molded roof. Molded floor mat is optional. Keyless start. Deluxe mechanical suspension deluxe, vinyl, swivel seat with lumbar adjustment and arm rests, fully adjustable. 3 inch retractable seat belt. (2) front driving/working halogen lights - 32,500 candlepower each		

Code	Description	QTY	List Price (USD)
	(2) rear working halogen lights - 32,500 candlepower each (6) additional work roof lights adds 2 front, 2 rear and 1 on each side of roof (4) turn signal/flashing/rear stop/tail lights - 2 front and rear (2) rear reflectors		
1003	<b>Cab</b>  Isolation mounted modular design ROPS/FOPS level 2 (meets ISO 3449 & ISO 3471) molded roof. Tinted safety glass. Deluxe interior trim. Headliner. Molded floor mat. Less radio (cab includes power connector for radio and threaded bosses for mounting brackets - see radio kit installation instructions). Air conditioning 26,000 BTU. CFC free R134a refrigerant. Heater/defrosters/pressurizer, 40,000 BTU, 10 speed. Deluxe mechanical suspension, cloth, swivel seat with lumbar adjustment and arm rests, fully adjustable. Keyless start. 3 inch orange seat belt with retractor. Tilt steering wheel. Interior rearview mirror. Front 2-speed wiper with windshield washer and rear 1-speed wiper. (2) front driving/working halogen lights - 32,500 candlepower each (2) rear working halogen lights - 32,500 candlepower each (6) additional work roof lights adds 2 front, 2 rear and 1 on each side of roof (4) turn signal/flashing/rear stop/tail lights - 2 front and rear (2) rear reflector  See 'Order as Desired' codes for additional cab options not included in standard cab (i.e. air suspension seat, radio, sun visor).		\$14,253.00
10A1	<b>Custom Code - Quarter Cab (Window in Front)</b>  Isolation mounted modular design ROPS/FOPS level 2 (meets ISO 3449 & ISO 3471) molded roof. Deluxe mechanical suspension, vinyl, swivel seat with lumbar adjustment and arm rests, fully adjustable. Keyless start. 3 inch orange seat belt with retractor. Molded floor mat optional. Front wiper with windshield washer (2) front driving/working halogen lights - 35,200 candlepower each (2) rear working halogen lights - 35,200 candlepower each (6) additional work roof lights adds 2 front, 2 rear and 1 on each side of roof (4) turn signal/flashing/rear stop/tail lights - 2 front and rear (2) rear reflectors		\$1,580.00
Connectivity Hardware		Basic Factory Options - Required	



Code	Description	QTY	List Price (USD)
183E	<b>JDLink™</b> Includes integrated cab wiring harness, antenna, and JDLink™ Modem's (MTG).  JDLink™ connectivity is enabled separately through the JDLink™ website. Connectivity service is subject to country availability.		No Added Cost
183Q	<b>JDLink™ Satellite</b> Includes integrated cab wiring harness, antenna, JDLink™ Modem's (Cellular MTG & Satellite MTG).  JDLink™ connectivity is enabled separately through the JDLink™ website. Connectivity service is subject to country availability.		\$3,462.00
Transmission		Basic Factory Options - Required	
3009	<b>Autoshift Transmission - Mechanical Front Wheel Drive (MFWD) with Limited Slip Differential</b> 5F/3R autoshift transmission. Autoshift can be turned on/off in the SSM. When autoshift is off, the transmission will operate as a powershift.		No Added Cost
30A1	<b>Custom Code - 2 Wheel Drive Transmission</b> With autoshift 5F/3R transmission. Autoshift can be turned on/off in the SSM. When autoshift is off, the transmission will operate as a powershift.		(\$2,863.00)
Engine		Basic Factory Options - Required	
4006	<b>John Deere 4.5L - FT4/Stage IV</b> Net peak power of 113 Hp. For use only in areas where EPA final tier 4/EU stage IV is required.  Turbocharged. Wet sleeve cylinder liners. 2 valves / cylinder. Electronically controlled HPCR fuel delivery system, B20 biodiesel compatible . Serpentine belt with automatic belt tensioner. Enclosed safety fan guard. Vertical spin-on engine oil filter. Spin-on fuel filter with water separator. Dual safety element dry-type air cleaner with evacuator valve. Underhood catalysts with vertical curved exhaust stack. Passive flow-through exhaust aftertreatment system with grid heater.		No Added Cost

Code	Description	QTY	List Price (USD)
	Electronically controlled, variable-speed cooling fan.		
	Wheels and Tires	Basic Factory Options - Required	
	Orders with custom codes are exempt from order response targets. Not all custom codes may be published. If there are specific configurations needs that you don't see available, please contact the Dealer Marketing Assistance Center (DMAC) through the Case and Contact Management System (CCMS), per Bulletin 22-118. DMAC can also provide assistance in referring Dealers to aftermarket options for customized attachments and field kit installations.		
	For use with Mechanical Front Wheel Drive		
5241	Galaxy 16.9-28 12PR Rear & 12.5/80 10PR Front Requires axle code 3009. Rear tire chains require wheel spacers (AT347522).		\$329.00
5245	Galaxy 19.5L-24 12PR Rear & 12.5/80-18 10PR Front Requires axle code 3009. Rear tire chains require wheel spacers (AT347522).		No Added Cost
5250	Galaxy 21L-24 12PR Rear & 12.5/80-18 10PR Front Requires axle code 3009. Rear tire chains require wheel spacers (AT347522).		\$1,495.00
5255	Galaxy 550 Radial - 500/70R24 Rear & 340/80R18 Front Requires axle code 3009. Rear tire chains require wheel spacers (AT347522). Tire designed for hard surface roading and snow.		\$3,337.00
5256	Galaxy 580 Radial - 500/70R24 Rear & 340/80R18 Front Requires axle code 3009. Rear tire chains require wheel spacers (AT347522). Tire designed for hard surface roading and snow.		\$2,417.00
5311	Michelin Radial - 500/70R24 XMCL Rear & 340/80R18 XMCL Front 85 in. (2.16 m) overall width. Requires axle code 3009. Rear tire chains require wheel spacers (AT347522). Tire designed for hard surface roading and snow.		\$3,951.00
54D1	Custom Code - Goodyear 16.9-28 10PR R-4 TL IT525 Rear & 12.5/80-18 14PR I-3 Front		\$1,186.00

Code	Description	QTY	List Price (USD)
	Requires axle code 3009. Rear tire chains require wheel spacers (AT347522).		
54J5	Custom Code - Galaxy 21-24 12PR Rear on HD Rim & 12.5/80-18 10PR Front Requires axle code 3009. Rear tire chains require wheel spacers (AT347522).		\$1,342.00
	For use with 2 Wheel Drive		
5242	Galaxy 16.9-28 12PR Rear & 12.5/80-18 12PR Front Requires axle code 30A1. Rear tire chains require wheel spacers (AT347522).		\$409.00
5246	Galaxy 19.5L-24 12PR Rear & 12.5/80-18 12PR Front Requires axle code 30A1. Rear tire chains require wheel spacers (AT347522).		\$71.00
5244	Galaxy 19.5L-24 12PR Rear & 14.5/75-16.1 16PR Front Requires axle code 30A1. Rear tire chains require wheel spacers (AT347522).		\$476.00
5251	Galaxy 21L-24 12PR Rear & 12.5/80-18 12PR Front Requires axle code 30A1. Rear tire chains require wheel spacers (AT347522).		No Added Cost
54D2	Custom Code - Goodyear 16.9-28 10PR R-4 TL IT525 Rear & 12.5/80-18 14PR I-3 Front Sure Grip Lug front tires. This tire is for 2WD only. Rear tire chains require wheel spacers (AT347522).		\$714.00
54D4	Custom Code - Goodyear 19.5L-24 10PR Softrac II R-3 Turf Rear & Galaxy 12.5/80-18 12PR Front Requires code 30A1. Rear tire chains require wheel spacers (AT347522).		\$1,369.00
54K1	Custom Code - Alliance 550 Radial 2WD - 500/70R24 Rear & 340/80R18 Front Requires code 30A1. Rear tire chains require wheel spacers (AT347522).		\$4,394.00
	Batteries	Basic Factory Options - Required	

Code	Description	QTY	List Price (USD)
6152	Single Battery with Disconnect and Jump Post 175 minute reserve capacity (950 CCA) Recommended for use in ambient temperatures above 32 degrees F (0 degrees C).		No Added Cost
6154	Dual Batteries with Disconnect, Jump Post, and Engine Block Heater 350 minute reserve capacity (1900 CCA). Recommended for use in ambient temperatures below 32 degrees F (0 degrees C). Includes engine block heater.		\$494.00
	Backhoe Dipperstick		Basic Factory Options - Required
6751	Standard Dipperstick Standard stabilizer legs; stabilizer overall width, operating: 11 ft. 7 in. (3.53 m.)		No Added Cost
6753	Heavy Lift - Standard Dipperstick The heavy lift option includes larger rear structures and hydraulic cylinders that provides up to 25% increase in lifting capacities and break out forces. Includes heavy duty bucket cylinder (code 8125 not orderable). Requires code 7028.		\$3,853.00
6752	Extendible Dipperstick Extended stabilizer legs; stabilizer overall width, operating: 13 ft. 3 in. (4.03 m.)		\$9,003.00
6754	Heavy Lift - Extendible Dipperstick The heavy lift option includes larger rear structures and hydraulic cylinders that provides up to 25% increase in lifting capacities and break out forces. Includes heavy duty bucket cylinder (code 8125 not orderable). Requires code 7028.		\$12,856.00
	Counterweight		Basic Factory Options - Required
	320 P COUNTERWEIGHT SELECTION CHART Select the Proper Counterweight for the Machine and Optional Equipment Add/subtract the options front axle percent. Then add the counterweight that gives the desired weight distribution between 27-32% (Target = 30%) to select counterweight.		



"To this percent weight, add/subtract the following option percents, according to configuration as ordered."

- Base..... +30.0%
- HL Option..... -1.1%
- Extendable..... -4.7%
- Backhoe Coupler..... -1.5%
- Backhoe Attachment over 600 bs.... -2.0%
- Multi-Purpose Loader Bucket..... +5.9%
- Loader Coupler..... +4.4%
- Non-Powered Front Axle ..... -1.3%
- Cab ..... -0.5%

"Choose counterweight which results in the target front axle weight percent"

- Counterweight Options
- Bumper ..... 0.0%
  - 450 lb. Counterweight ..... +2.5%
  - 750 lb. Counterweight ..... +4.0%
  - 1,000 lb. Counterweight ..... +5.1%
  - 1,250 lb. Counterweight ..... +6.3%

\*\*\* Base calculated using an Standard dipper, Canopy, Mechanical Front Wheel Drive, Standard Loader bucket, and a Standard Backhoe bucket.

6571	Front Cover - For Machines without a Front Counterweight	No Added Cost
6572	Heavy-Duty Bumper - For Machines without a Front Counterweight	\$240.00
6573	450 lb. (204 kg.) Front Counterweight	\$678.00
6575	750 lb. (340 kg.) Front Counterweight	\$1,100.00
6576	1000 lb. (454 kg.) Front Counterweight	\$1,515.00
6577	1250 lb. (567 kg.) Front Counterweight	\$1,938.00

Code	Description	QTY	List Price (USD)
------	-------------	-----	------------------

#### Backhoe Auxiliary Hydraulics

Basic Factory Options - Required

7000	No Auxiliary	No Added Cost
------	--------------	---------------

7001	Auxiliary Hydraulics with One Way Flow (Hammer)	\$3,393.00
------	---	------------

Auxiliary plumbing to bulkhead (mid-point of dipperstick). Includes hydraulic quick disconnect fittings KV11305 and AT312681 rated for full auxiliary circuit flow capacity. Quick disconnects require connection without pressure and are identical to the couplings provided with the front loader 3rd function hydraulic option.

7002	Auxiliary Hydraulics with One & Two Way Flow (Hammer & Thumb/Swinger)	\$5,315.00
------	---	------------

Includes factory installed plumbing to bulkhead (mid-point of dipperstick) for one and two way flow valves (selective flow and proportional). Includes hydraulic quick disconnect fittings KV11305 and AT312681 for one-way flow circuit rated for full auxiliary circuit flow capacity. Quick disconnects require connection without pressure and are identical to the couplings provided with the front loader 3rd function hydraulic option.

#### Backhoe Controls

Basic Factory Options - Required

7026	Mechanical Controls, Two Lever, ISO (Deere)	No Added Cost
------	---	---------------

7028	Pilot Controls, Two Lever, with Pattern Selection	\$2,997.00
------	---	------------

Proportional auxiliary control and extendable dipperstick control integrated into pilot control levers.

#### Loader Controls

Basic Factory Options - Required

All selections come with Return to Dig feature.

Orders with custom codes are exempt from order response targets. Not all custom codes may be published. If there are specific configurations needs that you don't see available, please contact the Dealer Marketing Assistance Center (DMAC) through the Case and Contact Management System (CCMS), per Bulletin 22-118. DMAC can also provide assistance in referring Dealers to aftermarket options for customized attachments and field kit installations.

Code	Description	QTY	List Price (USD)
7037	Two-Function Loader Hydraulics, Single Lever  Single lever loader control with electric clutch disconnect and momentary MFWD.		No Added Cost
7038	Loader Coupler, Two-Function Hydraulics, Single Lever  Includes auto ride control, option 8165. Single lever loader control with electric clutch disconnect and momentary MFWD. Will accept G, J, K and L-Series loader coupler buckets		\$7,350.00
7040	Three-Function Loader Hydraulics, Single Lever  Single lever loader control with electric clutch disconnect, momentary MFWD, transmission quick-shift, and electro-hydraulic auxiliary control. For multi-purpose bucket and front attachments. Includes valve with circuit relief and .5 in. (12.7 mm) hoses and steel lines to loader cross tube.		\$3,517.00
7041	Loader Coupler, Three-Function Hydraulics, Single Lever  Includes auto ride control, option 8165. Single lever loader control with electric clutch disconnect, momentary MFWD, transmission quick-shift, and electro-hydraulic auxiliary control. For multi-purpose coupler bucket and front attachments. Includes valve with circuit relief and .5 in. (12.7 mm) hoses and steel lines to loader cross tube. Will accept G, J, K, and L-series loader coupler buckets.		\$10,735.00
704A	Custom Code - Loader Coupler Configuration, 3-Function Hydraulics, Single Lever (Less Coupler)  Includes auto ride control, option 8165. Single lever loader control with electric clutch disconnect, momentary MFWD, transmission quick-shift, and electro-hydraulic auxiliary control. Does not include the coupler. For multi-purpose coupler bucket and front attachments. Includes valve with circuit relief and .5 in. (12.7 mm.) hoses and steel lines are capped at the cross tube. Will accept G, J, K, and L-series loader coupler buckets.		\$9,094.00
	Backhoe Buckets	Basic Factory Options - Required	
	All buckets include lift holes.		
7800	Less Backhoe Bucket with Bucket Pins		No Added Cost
7801	12 in. (309 mm.) Heavy-Duty Bucket, 3.1 cu. ft. (0.09 cu. m.)		\$1,845.00

Code	Description	QTY	List Price (USD)
	Pin-on bucket includes 3 teeth, TK-system Fanggs		
7804	18 in. (457 mm.) Heavy-Duty Bucket, 4.9 cu. ft. (0.14 cu. m.) Pin-on bucket includes 4 teeth, TK-system Fanggs		\$2,104.00
7806	24 in. (611 mm.) Heavy-Duty Bucket, 6.9 cu. ft. (0.20 cu. m.) Pin-on bucket includes 5 teeth, TK-system Fanggs		\$2,286.00
7808	24 in. (611 mm.) Severe-Duty Bucket, 6.9 cu. ft. (0.20 cu. m.) Pin-on bucket includes 5 teeth, TK-system Fanggs		\$3,103.00
7809	24 in. (610 mm.) Top Hook Heavy-Duty Bucket, 7.4 cu. ft. (0.21 cu. m.) Top hook coupler bucket includes 5 teeth, TK-system Fanggs		\$2,463.00
7810	24 in. (611 mm.) Heavy-Duty Bucket, 8.1 cu. ft. (0.23 cu. m.) Pin-on bucket includes 5 teeth, TK-system Fanggs		\$2,507.00
7811	24 in. (611 mm.) Severe-Duty Bucket, 8.1 cu. ft. (0.23 cu. m.) Pin-on bucket includes 5 teeth, TK-system Fanggs		\$3,203.00
Backhoe Quick Couplers		Basic Factory Options - Required	
7700	Less Coupler - Less Thumb If ordering with thumb, must order option code 7701.		No Added Cost
7701	Less Coupler - Thumb Ready Includes factory installed thumb cylinder mounting ears installed onto dipper. If factory installed thumb option required, order code 8025 - 37 inch tine.		No Added Cost
7702	Deere Standard Quick Coupler - Less Thumb If ordering thumb, must order option 7703 or 7704. For use with 310SE, SG, SJ, SK, SL; 410E, G, J, K, L backhoe buckets. Not compatible with 310E, G, J, K, L series backhoe buckets.		\$1,776.00

Code	Description	QTY	List Price (USD)
7703	<p>Deere Standard Quick Coupler - 37 in. Thumb Ready</p> <p>Includes factory installed thumb cylinder mounting ears installed onto dipper. If factory installed thumb option required, order code 8025 - 37 inch tine. For use with 310SE, SG, SJ, SK, SL; 410E, G,J, K, L backhoe buckets. Not compatible with 310E, G, J, K, L series backhoe buckets.</p>		\$1,776.00
7704	<p>Deere Standard Quick Coupler - 42 in. Thumb Ready</p> <p>Includes factory installed thumb cylinder mounting ears installed onto dipper. If factory installed thumb option required, order code 8027 - 42 inch tine. For use with 310SE, SG, SJ, SK, SL; 410E, G,J, K, L backhoe buckets. Not compatible with 310E, G, J, K, L series backhoe buckets.</p>		\$1,776.00
7705	<p>Multi-Brand Quick Coupler - Less Thumb</p> <p>If ordering coupler with thumb, requires option code 7706 or 7707. For use with Deere C, D, SE, SG, SJ, SK, SL &amp; SL HL series buckets and with Case K, L, M and Cat C series buckets. Not for use with 710 buckets. Not compatible with Case N-series.</p> <p>Spacers are recommended for Cat and Case buckets, see bulletin 07BH08 for details.</p>		\$1,985.00
7706	<p>Multi-Brand Quick Coupler - 37 in. Thumb Ready</p> <p>Includes factory installed thumb cylinder mounting ears installed onto dipper. If factory installed thumb option required, order code 8025 - 37 inch tine. For use with Deere C, D, SE, SG, SJ, SK, SL &amp; SL HL series buckets and with Case K, L, M and Cat C series buckets. Not for use with 710 buckets. Not compatible with Case N-series.</p> <p>Spacers are recommended for Cat and Case buckets, see bulletin 07BH08 for details.</p>		\$1,985.00
7707	<p>Multi-Brand Quick Coupler - 42 in. Thumb Ready</p> <p>Includes factory installed thumb cylinder mounting ears installed onto dipper. If factory installed thumb option required, order code 8027 - 42 inch tine. For use with Deere C, D, SE, SG, SJ, SK, SL &amp; SL HL series buckets and with Case K, L, M and Cat C series buckets. Not for use with 710 buckets. Not compatible with Case N-series.</p> <p>Spacers are recommended for Cat and Case buckets, see bulletin 07BH08 for details.</p>		\$1,985.00
7708	<p>Top Hook Quick Coupler - Less Thumb</p> <p>If ordering with thumb, requires option code 7709.</p>		\$1,492.00

Code	Description	QTY	List Price (USD)
	For use with Deere top hook coupler bucket option code 7809 and CP or pre-XLS Wain Roy top hook bucket.		
7709	Top Hook Quick Coupler - 42 in. Thumb Ready  Includes factory installed thumb cylinder mounting ears installed onto dipper. If factory installed thumb option required, order code 8027 - 42 inch tine. Only compatible with Deere top hook coupler bucket option code 7809 and CP or pre-XLS Wain Roy top hook bucket.		\$1,492.00
7710	New Series Multi-Brand Quick Coupler - Less Thumb  If ordering with thumb, requires option code 7711 or 7712. For use with Cat D,E, F, Case K-L-M, and Deere SE, SG, SJ, SK, SL & SL HL series backhoe buckets except high-capacity buckets and 710 buckets. Not compatible with Case N-series.		\$2,042.00
7711	New Series Multi-Brand Quick Coupler - 37 in. Thumb Ready  Includes factory installed thumb cylinder mounting ears installed onto dipper. If factory installed thumb option required, order code 8025 - 37 inch tine. For use with Cat D,E, F, Case K-L-M, and Deere SE, SG, SJ, SK, SL & SL HL series backhoe buckets except high-capacity buckets and 710 buckets. Not compatible with Case N-series.		\$2,042.00
7712	New Series Multi-Brand Quick Coupler - 42 in. Thumb Ready  Includes factory installed thumb cylinder mounting ears installed onto dipper. If factory installed thumb option required, order code 8027 - 42 inch tine. For use with Cat D,E, F, Case K-L-M, and Deere SE, SG, SJ, SK, SL & SL HL series backhoe buckets except high-capacity buckets and 710 buckets. Not compatible with Case N-series.		\$2,042.00
7713	Rear Hydraulic Coupler for Pin-on Buckets - Less Thumb  If ordering coupler with thumb, requires code 7714. For use on 310SL, 310SL HL, and 410L with a serial number of 303524 and higher. For use with Deere SE, SG, SJ, SK, SL & SL HL series pin-on buckets and 410E, G, J, K, and L series pin-on buckets. Not for use with top hook buckets. Reference bulletins 17BH09 and 16BH17 for bucket compatibility and SSM information.		\$9,360.00
7714	Rear Hydraulic Coupler for Pin-on Buckets - 42 in. Thumb Ready  Includes factory installed thumb cylinder mounting ears installed onto dipper. If factory installed thumb option required, order code 8027 - 42 inch tine. For use on 310SL, 310SL HL, and 410L with a serial number of 303524 and higher. For use with Deere SE, SG, SJ, SK, SL & SL HL series pin-on buckets and 410E, G, J, K, and L series pin-on buckets. Not for use with top hook buckets. Reference bulletins 17BH09 and 16BH17 for bucket compatibility and SSM information.		\$9,360.00

Code	Description	QTY	List Price (USD)
7715	<b>Rear Spring Type Quick Coupler - Less Thumb</b> If ordering coupler with thumb, requires code 7716. For use with Deere SE, SG, SJ, SK, SL & SL HL series pin-on buckets and 410E, G, J, K, and L series pin-on buckets. Not for use with top hook buckets. Reference bulletin 17BH09 for bucket compatibility information.		\$4,077.00
7716	<b>Rear Spring Type Quick Coupler - 42 in. Thumb Ready</b> Includes factory installed thumb cylinder mounting ears installed onto dipper. If factory installed thumb option required, order code 8027 - 42 inch tine. For use with Deere SE, SG, SJ, SK, SL & SL HL series pin-on buckets and 410E, G, J, K, and L series pin-on buckets. Not for use with top hook buckets. Reference bulletin 17BH09 for bucket compatibility information.		\$4,077.00
<b>Loader Buckets</b> Loader buckets include skid plates and lift hooks unless stated otherwise. Orders with custom codes are exempt from order response targets. Not all custom codes may be published. If there are specific configurations needs that you don't see available, please contact the Dealer Marketing Assistance Center (DMAC) through the Case and Contact Management System (CCMS), per Bulletin 22-118. DMAC can also provide assistance in referring Dealers to aftermarket options for customized attachments and field kit installations.  Pin-On Loader Buckets  Not compatible with 7038 and 7041 loader hydraulics.		<b>Basic Factory Options - Required</b>	
7853	<b>86 in. (2.18 m.) General Purpose Bucket, 1.13 cu. yd. (0.86 cu. m.)</b> Pin-on bucket includes reversible bolt-on cutting edge and skid plates		\$4,745.00
7870	<b>86 in. (2.18 m.) General Purpose Bucket, 1.31 cu. yd. (1.00 cu. m.)</b> Pin-on bucket includes reversible bolt-on cutting edge and skid plates		\$4,774.00
7859	<b>92 in. (2.35 m.) General Purpose Bucket, 1.39 cu. yd. (1.06 cu. m.)</b> Pin-on bucket includes reversible bolt-on cutting edge and skid plates		\$5,484.00
7861	<b>Multi-Purpose Bucket</b> 92 in (2.35 m), 1.31 Cu. Yd. (1.00 Cu. M.) Pin-on bucket includes reversible bolt-on cutting edges and skid plates. Requires third function hydraulics. Pre-drilled for 8 teeth		\$12,770.00
7862	<b>92 in. (2.35 m.) Multi-Purpose Bucket, 1.23 cu. yd. (0.94 cu. m.) Capacity, Flip-over Fork Ready</b>		\$10,595.00

Code	Description	QTY	List Price (USD)
	Pin-on bucket includes welded-in front cutting edge, skid plates, and 8 bolt-on teeth. Requires third function hydraulics. Requires field kit AT366494 for flip over forks.		
785F	Custom Code - 92 in. (2.35 m.) Multi-Purpose Bucket, 1.31 cu. yd. (1.0 cu. m.) Capacity, Flip-over Fork Ready Pin-on bucket includes reversible bolt-on cutting edges and skid plates. Requires third function hydraulics. Requires field kit AT366494 for flip over forks. Pre-drilled for 8 teeth		\$9,941.00
	Coupler Loaders Buckets  Requires codes 7038 or 7041 loader coupler		
7860	92 in. (2.35 m.) General Purpose Coupler Bucket, 1.39 cu. yd. (1.06 cu. m.)  Coupler bucket includes reversible bolt-on cutting edge and skid plates. Requires loader coupler.		\$5,938.00
7863	92 in. (2.35 m.) Multi-Purpose Coupler Bucket, 1.31 cu. yd. (1.00 cu. m.)  Requires code 7041. Coupler bucket includes reversible bolt-on cutting edges and skid plates. Requires third function hydraulics. Pre-drilled for 8 teeth - order teeth from parts.		\$11,530.00
7850	Less Loader Bucket with Pins for Buckets or Front Attachments  Old style pins will be necessary with older buckets and attachments.		No Added Cost
7851	Less Coupler Bucket		No Added Cost
Optional			
Operator's Station-Order As Desired		Field Installed Attachments - Optional	
Orders with custom codes are exempt from order response targets. Not all custom codes may be published. If there are specific configurations needs that you don't see available, please contact the Dealer Marketing Assistance Center (DMAC) through the Case and Contact Management System (CCMS), per Bulletin 22-118. DMAC can also provide assistance in referring Dealers to aftermarket options for customized attachments and field kit installations.			
8096	Premium Mirror Option - Exterior Rear View Mirrors (2) and Front View Mirror (1)		\$199.00



Code	Description	QTY	List Price (USD)
8103	Premium Canopy Option - Headliner and Tilt Steering With floor mat.		\$1,167.00
8109	Sun Visor		\$102.00
8146	Left Side Console Storage with Cup Holders		\$87.00
8182	Radio, Bosch Basic Package AM/FM/Weather Radio		\$940.00
8183	Radio, Bosch Premium Package AM/FM/Weather Radio, Bluetooth capable with microphone, 3.5mm auxiliary input, USB input, roof power port, roof storage compartment.		\$1,459.00
8207	Seat, Cloth Air-Suspension For enclosed Cab.		\$541.00
8208	Seat, Cloth Air-Suspension - Heated For enclosed Cab.		\$1,070.00
8209	Seat, Vinyl Air-Suspension For open ROPS or enclosed Cab.		\$527.00
81C0	Custom Code - Less A/C		(\$971.00)
Engine - Order As Desired		Field Installed Attachments - Optional	
8213	Chrome Exhaust Extension		\$290.00

Code	Description	QTY	List Price (USD)
	Oil Sampling Ports - Order As Desired	Field Installed Attachments - Optional	
8075	Diagnostic Oil Sampling Ports Includes 4 ports: Engine oil Engine coolant Transmission oil Hydraulic oil		\$450.00
	Lighting - Order as Desired	Field Installed Attachments - Optional	
8142	LED Light Package Includes factory installed 2 LED spot lights and 8 LED flood lights in lieu of the standard halogen light package.		\$1,133.00
8226	Strobe Light with Magnetic Mount Light is shipped loose in the cab.		\$633.00
	Stabilizers - Order As Desired	Field Installed Attachments - Optional	
8131	Heavy-Duty Stabilizer Pads Laminated and reinforced rubber, compressed on edge within the steel shoe for improved durability and wear performance.		\$497.00
8296	Standard Stabilizer Legs Requires option code 6752. Stabilizer overall width, operating: 11 ft. 7 in. (3.53 m.)		No Added Cost
8313	Stabilizer Guard Protects the cylinder rod from damage due to rocks and other spoil pile debris during backhoe trenching operations. Note that when stabilizer guards are installed, the overall machine width may increase, depending on the model, length of stabilizer, and/or position of stabilizer pads.		\$551.00
	Hydraulics/Controls - Order as desired	Field Installed Attachments - Optional	

Code	Description	QTY	List Price (USD)
<p>Orders with custom codes are exempt from order response targets. Not all custom codes may be published. If there are specific configurations needs that you don't see available, please contact the Dealer Marketing Assistance Center (DMAC) through the Case and Contact Management System (CCMS), per Bulletin 22-118. DMAC can also provide assistance in referring Dealers to aftermarket options for customized attachments and field kit installations.</p>			
8125	Heavy-Duty Backhoe Bucket Cylinder Increases backhoe bucket breakout force by 27%.		\$294.00
8165	Auto Ride Control		\$2,513.00
8135	Hydrau XR - Synthetic Hydraulic Fluid Intended for colder climates with extreme cold ambient temperatures down to -40C (-40F). Provides all-season capability in ambient temperatures ranging from -40C to 40C (-40F to 104F).		\$654.00
80A3	Custom Code - Accu-Swing		\$793.00
Implements/Attachments - Order As Desired		Field Installed Attachments - Optional	
8025	Thumb - 37 in. 4 Tine Reference bulletin 17BH08 for compatibility with couplers and buckets, and to determine necessary thumb length. Requires two-way auxiliary hydraulics, code 7002 or 7004. It does include plumbing for two-way auxiliary valve.		\$7,043.00
8027	Thumb - 42 in. 4 Tine Reference bulletin 17BH08 for compatibility with couplers and buckets, and to determine necessary thumb length. Requires two-way auxiliary hydraulics, code 7002 or 7004. It does include plumbing for two-way auxiliary valve.		\$7,043.00
Miscellaneous - Order As Desired		Field Installed Attachments - Optional	
8101	Finish Paint - Decals Not Installed		\$178.00

Code	Description	QTY	List Price (USD)
8039	Non-Export Rust Preventive Coating Coating protects exposed unpainted surfaces from road salt during shipment.		\$185.00
Guarding and HD Options - Order as Desired		Field Installed Attachments - Optional	
8062	Backhoe Boom Protection Plate Mounted and torqued to the underside of the backhoe boom with kremnuts. Provides protection from unintended contact by large/heavy materials or attachments.		\$648.00
8115	MFWD Driveshaft Guard Recommended when operating over large rocks or stumps.		\$519.00
8126	Heavy-Duty Grille Frame Recommended for high use in truck loading applications. Includes vertical and horizontal steel reinforcement to the inside of the perforated screen for greater durability.		\$597.00
Attachments			
Engine		Field Installed Attachments - Optional	
AT393180	Environmental Drain Kit		\$595.00
BYT11589	Fluid Sampling Ports Not available on Stage II (Tier 2) engines. For use on Backhoes with a Serial Number 390995 and Higher.		\$498.00
BYT11568	Pre-Cleaner, Engine Air Intake Aspiration style pre-cleaner using engine exhaust to scavenge debris from air filter intake.		\$1,183.00
Lighting		Field Installed Attachments - Optional	

Code	Description	QTY	List Price (USD)
AT313592	6 inch Amber Warning Light with LED Beacon and Magnetic Roof Mounting Kit		\$267.00
AT445009	LED Flood Light Kit Includes 2 lights.		\$223.00
AT445010	LED Spot Light Kit Includes 2 lights.		\$223.00
BYT11137	Boom Light Kit  For use on 310SL (0A71T), 310SL HL (0A81T) and 410L (0AB1T). For improved trench visibility. Provides two LED flood light for mounting on the boom. Includes rocker switch, mounting hardware and wiring harness.		\$458.00
Guards		Field Installed Attachments - Optional	
AT305073	Stabilizer Cylinder Guards (Set of Two)		\$385.00
AT434236	Rubber Bumper for Grille Frame		\$248.00
AT438402	KIT, FULL MFWD GUARD		\$423.00
BYT11926	Heavy-Duty Grille Screen Kit Compatible with L-Series Backhoe Loaders.		\$765.00
AT371257	MFWD Wheel Fender Kit for 18 in. tires only Requires MFWD and 12.5/80-18 or 340/80R-18 front tires.		\$723.00

Code	Description	QTY	List Price (USD)
AT333753	Backhoe Boom Protection Plate  Bolt on or weld to underside of backhoe boom. Recommended for rental, lease, thumbs/clamps, swingers, jaw buckets, and non-Deere attachments on couplers.		\$608.00
	Miscellaneous	Field Installed Attachments - Optional	
AT437905	Jump Start and Battery Disconnect Kit		\$260.00
AT451194	Pivotable Beacon Bracket		\$120.00
BYT10312	Stop Kit, Field Kit - Pilot Tower Stow		\$26.00
AT408903	Mounting kit for multi-purpose (ABC) Dry Chemical Fire Extinguisher  Kit Does not Include Fire Extinguisher.		\$131.00
BYT10330	Rear Wiring Harness for Hammer, Auto Greaser  Harness that enables installation of an auto greaser (primarily for hammer use).		\$213.00
	G.R.Mfg.	Field Installed Attachments - Optional	
	G.R. Manufacturing, Inc. * Kits listed below must be ordered through John Deere. * F.O.B. Trussville, Alabama * All kits include installation instructions * All warranty, repair parts, technical support and assistance, and sales support and assistance will be the responsibility of G.R. Manufacturing, Inc., and will be handled directly between the Dealer and G.R. Manufacturing, Inc.  G.R. Manufacturing, Inc. 4800 Commerce Drive Trussville, Alabama 35173 Phone: (800)841-8001 Fax: (205)655-8005		

Code	Description	QTY	List Price (USD)
AT441379	Guard, Transmission Bottom  Kit is not compatible with the factory MWFD guard (option code 8115) or the MFWD field kit (BYT11208).		\$2,273.00
	Operator's Station	Field Installed Attachments - Optional	
AT369839	Spinner Knob  A spinner knob for the backhoe steering wheel provides a finished, integrated look that enhances the operators ease of use in tight areas or repetitive loader tasks.  Must be ordered through Parts.		\$44.71
BYT12979	Universal XM-Tuner Installation Kit		\$416.00
AT187707	License Plate Bracket and Light		\$233.00
AT186155	(2) External Rear View Mirrors		\$293.00
AT186288	Slow Moving Vehicle Emblem		\$115.00
AT186307	Sun Visor		\$96.00
AT192032	Operator Manual Tether Cables for ROPS or Cab		\$29.00
BYT12988	Premium Radio Kit		\$1,370.00

Code	Description	QTY	List Price (USD)
AT446496	License Plate Bracket Light not included.		\$59.00
BYT11382	AM/FM/WB Stereo with Digital Clock for Cab		\$1,015.00
BYT10718	Radio, Basic Package For use with serial number 329231 or greater. AM/FM/Weather Radio.		\$882.00
AT313589	Beacon/Strobe Ready Wiring Kit Kit for aftermarket Beacon or Strobe light Kit does not include Beacon		\$35.00
AT451676	Radio Auxiliary kit Requires code 8182 or BYT10718 basic radio package. 3.5mm auxiliary input jack, harness for aux input to radio, roof power port, roof storage compartment. This kit is designed to add 3.5mm input to radios, and power to charge devices. Note that this kit does NOT include XM, USB input, or Bluetooth microphone.		\$291.00
BYT10250	Canopy (ROPS/FOPS) to Quarter Cab Conversion Kit Includes all parts needed to add quarter cab to canopy machine, including windshield wiper and windshield washer, but not including the glass.Refer to installation instructions for a list of glass pieces to order from service parts.		\$527.00
BYT10670	Mechanical to Air Seat Conversion For use on machines prior to Serial Number: 329231. Includes complete air suspension assembly, wiring, and controls, to convert mechanical seat suspension to air suspension. Conversion kit can be used for open ROPS or cab configurations.		\$986.00
Backhoe Controls		Field Installed Attachments - Optional	
AT185629	Sixth Function Pedal for Lever Controls		\$387.00



Code	Description	QTY	List Price (USD)
AT301434	SAE Excavator Style Two Lever Controls		\$260.00
AT309739	Case Three Lever Controls with Foot Swing For units with code 7026.		\$2,616.00
AT309740	Case Three Lever Controls 5th Function Lever Kit Adds lever to Case 3 lever backhoe controls to operate auxiliary valve on Standard Dipperstick or operates Extendable Dipperstick..		\$295.00
AT185624	ISO (Deere) Two Lever Mechanical Controls Requires Right Pedal Kit, if equipped with Case controls and five function control valve. For units with code 7026.		\$615.00
AT185628	Ford Four Lever Controls for Standard and Extendible Dipperstick Ford Four Lever Controls for Standard and Extendible Dipperstick. For units with code 7026.		\$3,088.00
Attachments & Accessories		Field Installed Attachments - Optional	
AT308138	Forks, Pallet (2) 48 in.(1.22m) with 60 in. (1.52m) Coupler Fork Carriage		\$5,189.00
AT308139	Forks, Pallet (2) 60 in.(1.52m) with 60 in. (1.52m) Coupler Fork Carriage		\$5,628.00
AT366494	Multi-Purpose Flip-Over Forks		\$4,883.00
BYT10285	37 Inch Hydraulic Backhoe Thumb - 4 Tine Reference Bulletin 17BH08 for compatibility with couplers and buckets, and to determine necessary thumb length. Requires Two-way Auxiliary Hydraulics, code 7002, 7004, or field installed 2-way auxiliary hydraulic kit.		\$6,529.00
BYT10287	42 Inch Hydraulic Backhoe Thumb - 4 Tine Reference Bulletin 17BH08 for compatibility with couplers and buckets, and to		\$6,529.00

Code	Description	QTY	List Price (USD)
	determine necessary thumb length. Requires Two-way Auxiliary Hydraulics, code 7002, 7004, or field installed 2-way auxiliary hydraulic kit.		
	Stabilizer Legs	Field Installed Attachments - Optional	
AT376409	Standard Stabilizer Street Pads		\$234.00
AT376410	Heavy Duty Stabilizer Pads		\$467.00
	Backhoe Buckets	Field Installed Attachments - Optional	
AT436333	36 in (919 mm) Heavy Duty Bucket, 10.9 cu. ft. (0.31 cu. m.) Pin-on bucket includes 6 teeth, TK-system Fanggs		\$3,336.00
AT437344	24 in. (611 mm) Heavy Duty Bucket, 8.1 c. ft. (0.23 c. m.) Pin-on bucket includes 5 teeth, TK-system Fanggs		\$2,251.00
AT437361	12 in (304 mm) Top Hook Heavy Duty Bucket, 3.0 cu. ft. (0.09 cu. m.) Top hook coupler bucket includes 3 teeth, TK-system Fanggs		\$1,744.00
AT437700	18 in (457 mm) Severe Duty Bucket, 4.9 cu. ft. (0.14 cu. m.) Pin-on bucket includes 4 teeth, TK-system Fanggs		\$2,136.00
AT437701	24 in (611 mm) Severe Duty Bucket, 6.9 cu. ft. (0.20 cu. m.) Pin-on bucket includes 5 teeth, TK-system Fanggs		\$2,654.00
AT437702	24 in (611 mm) Severe Duty Bucket, 8.1 cu. ft. (0.23 cu. m.) Pin-on bucket includes 5 teeth, TK-system Fanggs		\$2,740.00
AT437703	30 in (765 mm) Severe Duty Bucket, 8.9 cu. ft. (0.25 cu. m.)		\$2,907.00

Code	Description	QTY	List Price (USD)
	Pin-on bucket includes 5 teeth, TK-system Fanggs		
AT437363	24 in (610 mm) Top Hook Heavy Duty Bucket, 7.4 cu. ft. (0.21 cu. m.) Top hook coupler bucket includes 5 teeth, TK-system Fanggs		\$2,432.00
AT437362	18 in (460 mm) Top Hook Heavy Duty Bucket, 5.3 cu. ft. (0.15 cu. m.) Top hook coupler bucket includes 4 teeth, TK-system Fanggs		\$2,082.00
AT437616	36 in. (919 mm) Ditching Bucket, Standard Duty, 10.9 c. ft. (0.31 c. m.) Pin-on bucket includes weld-on cutting edge		\$2,190.00
AT437345	30 in. (765 mm) Heavy Duty Bucket, 8.9 c. ft. (0.25 c. m.) Pin-on bucket includes 5 teeth, TK-system Fanggs		\$2,331.00
AT437343	24 in (611 mm) Heavy Duty Bucket, 6.9 cu. ft. (0.20 cu. m.) Pin-on bucket includes 5 teeth, TK-system Fanggs		\$2,151.00
AT437342	24 in (611 mm) Standard Duty Bucket, 6.9 cu. ft. (0.20 cu. m.) Pin-on bucket includes 4 teeth, TK-system Fanggs		\$2,017.00
AT437338	12 in (309 mm) Heavy Duty Bucket, 3.1 cu. ft. (0.09 cu. m.) Pin-on bucket includes 3 teeth, TK-system Fanggs		\$1,551.00
AT437340	18 in. (457 mm) Heavy Duty Bucket, 4.9 c. ft. (0.14 c. m.) Pin-on bucket includes 4 teeth, TK-system Fanggs		\$1,800.00
Backhoe Quick Couplers		Field Installed Attachments - Optional	
BYT10333	Coupler, Rear Spring Type Quick Coupler For use with DEERE SE, SG, SJ, SK, SL & SL HL Series pin-on buckets and 410E, G, J, K, and L Series pin-on buckets. Not for use with Top Hook Buckets. Reference Bulletin 17BH09 for bucket compatibility information.		\$4,954.00

Code	Description	QTY	List Price (USD)
AT336315	<p>Coupler, Multi-Brand Universal Backhoe Bucket</p> <p>For use with CAT B &amp; C Series, Case K-L-M and DEERE SE,SG &amp; SJ Series backhoe buckets except High Capacity Buckets and 710 Buckets. Recommend AT179130 high-strength pin for 300D-510D and 210C-610C 18-36 Inch Buckets Proper counterweighting is required. See Counterweight Selection Chart. Recommend Backhoe Boom Bolt-on Protection Plate. Spacers are recommended for CAT and Case buckets, refer to dealer bulletin 07BH08.</p>		\$2,180.00
AT336316	<p>Coupler, Deere Backhoe Bucket</p> <p>Fits 310SE, 310SG, 310SJ, 310SK, 310SL, 410E, 410G, 410J,410TJ, 410K, 410L backhoes. For use with 310SE, 310SG, 310SJ, 410E, 410G,410J, 410TJ, 410K, 410L backhoe buckets Proper counterweighting is required. See Counterweight Selection Chart. Recommend Backhoe Boom Bolt-on Protection Plate.</p>		\$1,800.00
AT343629	<p>Coupler, Universal - Pin-grabber style (non-hydraulic)</p> <p>Fits John Deere 310SE, 310SG, 310SJ, 310TJ, 410E, 410G, 410J, 410TJ backhoes For use with DEERE C-D-E-G-J Series buckets and with Case K-L-M and CAT C-D-E Series Buckets. Not for High Capacity Buckets and 710 Buckets. Proper counterweighting is required. See Counterweight Selection Chart. Recommend Backhoe Boom Bolt-on Protection Plate.</p>		\$7,154.00
AT393558	<p>Backhoe New Series Multi-Brand Quick Coupler</p> <p>For use with DEERE C-D-SE-SG-SJ-SK-SL Series buckets and with Case K-L-M and Cat D and E Series Buckets Buckets, High Capacity Buckets and 710J Buckets. Spacers are recommended for CAT and Case buckets, refer to dealer bulletin 07BH08.</p>		\$2,148.00
AT324292	<p>Coupler, Top Hook Backhoe Bucket</p> <p>Fits on 410G, 410J, 410TJ, 310SG, 310SJ, 310TJ Backhoes. For use with Top Hook backhoe bucket from Deere, CP, and Pre-XLS Wain Roy Recommend Backhoe Boom Bolt-on Protection Plate. Proper counterweighting is required. See 310SJ or 410J Counterweight Selection Chart.</p>		\$1,270.00
BYT10078	<p>Coupler, Rear Hydraulic Kit</p> <p>Includes valve and plumbing only, for standard and extendable dipperstick. Hydraulic coupler for pin-on buckets not included. Used in the installation process of Rear Hydraulic Coupler BYT10288 or BYT10289. For use with Serial Number 304845 and above.</p>		\$2,100.00

Code	Description	QTY	List Price (USD)
	For use with HL configuration only.		
BYT10289	Coupler, Rear Hydraulic for Pin-on Buckets, Extendable Dipperstick  For use on 310SL with a Serial Number of 303524 and Higher. Requires Valve Plumbing Kit BYT10077. Bucket Compatibility: For use with DEERE SE, SG, SJ, SK, SL & SL HL Series pin-on buckets and 410E, G, J, K, and L Series pin-on buckets. Not for use with Top Hook Buckets. Reference Bulletins 17BH09 and 16BH17 for bucket compatibility and SSM information.		\$9,092.00
BYT10288	Coupler, Rear Hydraulic for Pin-On Buckets, Standard Dipperstick  For use on 310SL with a Serial Number of 303524 and Higher. Requires Valve Plumbing Kit BYT10077. Bucket Compatibility: For use with DEERE SE, SG, SJ, SK, SL & SL HL Series pin-on buckets and 410E, G, J, K, and L Series pin-on buckets. Not for use with Top Hook Buckets. Reference Bulletins 17BH09 and 16BH17 for bucket compatibility and SSM information.		\$9,092.00
Loader Buckets		Field Installed Attachments - Optional	
AT336927	Loader Coupler Attachment Adapter Hook Plates (2) Standard		\$2,128.00
BYT12306	86 in (2.18 m) General Purpose Bucket, 1.31 cu. yd. (1.00 cu. m.)  Pin-on bucket includes reversible bolt-on cutting edge and skid plates		\$4,083.00
BYT10705	92 in (2.35 m) Multi-Purpose Bucket, 1.23 cu. yd. (0.94 cu. m.) Capacity, Flip-over Fork Ready  Pin-on bucket includes welded-in front cutting edge, skid plates, and 8 bolt-on teeth. Requires third function hydraulics. Requires field kit AT366494 for flip over forks.		\$9,704.00
BYT10708	92 in (2.35 m) Multi-Purpose Coupler Bucket, 1.31 cu. yd. (1.00 cu. m.)  Coupler bucket includes reversible bolt-on cutting edges and skid plates. Requires third function hydraulics. Pre-drilled for 8 teeth. Proper counterweighting is required. See Counterweight Selection Chart. Cannot be used on a backhoe configured with counterweight codes 6573, 6575, 6576, or 6577.		\$9,861.00
BYT10707	86 in (2.18 m) Multi-Purpose Coupler Bucket, 1.22 cu. yd. (0.93 cu. m.)  Coupler bucket includes reversible bolt-on cutting edges and skid plates.		\$9,594.00

Code	Description	QTY	List Price (USD)
	Requires third function hydraulics. Pre-drilled for 7 teeth. Requires Backhoe configured with code 6752, Extendible Dipperstick. Cannot be used on a backhoe configured with counterweight codes 6573, 6575, 6576, or 6577.		
BYT10703	92 in (2.35 m) Multi-Purpose Bucket, 1.31 cu. yd. (1.00 cu. m.)  Pin-on bucket includes reversible bolt-on cutting edges and skid plates. Requires third function hydraulics. Pre-drilled for 8 teeth		\$9,153.00
BYT10700	82 in (2.08 m) Multi-Purpose Bucket, 1.15 cu. yd. (0.88 cu. m.)  Pin-on bucket includes reversible bolt-on cutting edges and skid plates. Requires third function hydraulics. Pre-drilled for 7 teeth		\$8,395.00
BYT10701	86 in (2.18 m) Multi-Purpose Bucket, 1.22 cu. yd. (0.93 cu. m.)  Pin-on bucket includes reversible bolt-on cutting edges and skid plates. Requires third function hydraulics. Pre-drilled for 7 teeth		\$9,091.00
AT308970	86 in (2.18 m) General Purpose Coupler Bucket, 1.13 cu. yd. (0.86 cu. m.)  Coupler bucket includes reversible bolt-on cutting edge and skid plates. Requires loader coupler.		\$4,557.00
AT308991	86 in (2.18 m) General Purpose Coupler Bucket, 1.13 cu. yd. (0.86 cu. m.)  Coupler bucket includes reversible bolt-on cutting edge. Requires loader coupler.		\$4,220.00
AT308071	86 in (2.18 m) General Purpose Bucket, 1.13 cu. yd. (0.86 cu. m.)  Pin-on bucket includes reversible bolt-on cutting edge and skid plates		\$4,058.00
AT308080	92 in (2.35 m) General Purpose Bucket, 1.39 cu. yd. (1.06 cu. m.)  Pin-on bucket includes reversible bolt-on cutting edge and skid plates		\$4,689.00
AT308188	82 in (2.08 m) General Purpose Bucket, 1.20 cu. yd. (0.92 cu. m.)  Pin-on bucket includes bolt-on cutting edge		\$3,681.00
AT308966	92 in (2.35 m) General Purpose Coupler Bucket, 1.39 cu. yd. (1.06 cu. m.)  Coupler bucket includes reversible bolt-on cutting edge and skid plates. Requires loader coupler.		\$5,079.00
AT308968	86 in (2.18 m) General Purpose Coupler Bucket, 1.26 cu. yd. (0.96 cu. m.)		\$4,291.00

Code	Description	QTY	List Price (USD)
	Coupler bucket includes reversible bolt-on cutting edge. Requires loader coupler.		
	Loader Controls	Field Installed Attachments - Optional	
AT449593	Auto Ride Control Valve Kit		\$739.00
	Includes valve and mounting plate. Also requires plumbing kit AT452094. Must order applicable Software Part Number in JDPoint for Field Kit to function properly.		
BYT11542	Multi-Purpose Bucket Anti-Drift Valve Kit		\$1,050.00
	Prevents clam shell from drifting open during load, carry and three-point stance operations. Kit includes valve, hoses and mounting hardware. Compatible with all Backhoe and Tractor Loader multi-purpose buckets (installation instructions will also detail mounting procedure for buckets produced prior to September 2018)		
AT452094	Ride Control Plumbing Kit		\$780.00
	Harness, plumbing, and accumulator for ride control. Must order valve and mounting plate separately. Compatible with both manual and auto ride control.		
	Wheels and Tires	Field Installed Attachments - Optional	
AT347522	Rear Wheel Spacers for Rear Tire Chains		\$1,133.00
	Hydraulics	Field Installed Attachments - Optional	
AT431340	Accu-Swing Kit for Backhoe		\$517.00
	Includes two circuit reliefs, fittings, clamps and hardware. Installation instructions T210751.		
AT450466	Auxiliary Backhoe Hydraulics for Auger, Extendible Dipperstick		\$384.00
	Includes fittings and hydraulic couplers for bucket cylinder.		

Code	Description	QTY	List Price (USD)
	<p>Average installation, 1 hour.</p> <p>Bucket cylinder hoses are disconnected; bucket function operates auger forward and reverse. No additional controls are required.</p> <p>Dealer must supply 0.5 inch (12.7 mm) ID hoses from bucket cylinder hydraulic couplers to auger.</p>		
BYT11079	<p>1-Way (Select Flow) Auxiliary Hydraulics Bulkhead - Bucket Cylinder Mounted</p> <p>This field kit provides an alternative connection point for 1-way (select) flow hydraulics. The bulkhead will accept existing factory sourced plumbing, normally attached to dipper side sheets. Kit consists of two clamps and bulkhead bracket.</p>		\$216.00
BYT11694	<p>Auxiliary Backhoe Hydraulic Plumbing Kit, Two-Way Proportional Flow - Extendable Dipperstick</p> <p>For use with 310SL base machine 0A71T.</p> <p>For use on Backhoes with a Serial Number 390995 and Higher.</p> <p>Includes plumbing to bulkhead at the end of the dipperstick.</p> <p>Average installation, 2 hours.</p> <p>Includes two circuit reliefs, fittings, clamps, hoses and hardware.</p> <p>For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.)</p> <p>Quick connect couplers and jumper hoses from bulkhead to attachment not included.</p> <p>If installing hydraulic Deere thumb, additional thumb plumbing kit is required (BYT11011).</p> <p>Please reference DTAC Solution 115211.</p>		\$845.00
BYT11693	<p>Auxiliary Backhoe Hydraulic Plumbing Kit, Two-Way Proportional Flow - Standard Dipperstick</p> <p>For use with 310SL base machine 0A71T.</p> <p>For use on Backhoes with a Serial Number 390995 and Higher.</p> <p>Includes plumbing to bulkhead at the end of the dipperstick.</p> <p>Average installation, 2 hours.</p> <p>Includes two circuit reliefs, fittings, clamps, hoses and hardware.</p> <p>For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.)</p> <p>Quick connect couplers and jumper hoses from bulkhead to attachment not included.</p> <p>If installing hydraulic Deere thumb, additional thumb plumbing kit is required (BYT11010). Please reference DTAC Solution 115211.</p>		\$810.00
BYT11688	<p>Auxiliary Loader Control Valve with 3 Function Hydraulics - Single Lever</p> <p>For use on 310SL (0A71T), 310SL HL (0A81T) and 410L (0AB1T).</p> <p>For use on Backhoes with a Serial Number 390995 and Higher.</p> <p>Must order applicable Software Part Number in JDPoint for Field Kit to function properly.</p>		\$4,031.00
BYT12205	<p>Auxiliary Backhoe Hydraulic Selective Flow Plumbing Kit - Standard Dipperstick</p> <p>Installation instructions T453413.</p> <p>Average installation, 2 hours.</p> <p>Requires Standard Dipperstick.</p> <p>Requires Five Function Plus Selective Flow OR Selective Flow.</p> <p>Includes boom and dipperstick hydraulic lines, and hardware for attaching</p>		\$610.00



Code	Description	QTY	List Price (USD)
	<p>hoses and lines from the selective flow valve section to end of Dipperstick.  Required for hammers, compactors, high or low flow motor attachments mounted on end of dipperstick.  For use with HL configuration only.</p>		
BYT11692	<p><b>Auxiliary Plumbing for Selective Flow - Extendible Dipperstick</b></p> <p>For use on Backhoes with a Serial Number 390995 and Higher.  Installation instructions T208488.  Average installation, 2 hours.  Requires Extendible Dipperstick.  Requires Five Function Plus Selective Flow OR Selective Flow.  Includes boom and dipperstick hydraulic lines, and hardware for attaching hoses and lines from the selective flow valve section to end of Dipperstick.  Required for hammers, compactors, high or low flow motor attachments mounted on end of dipperstick.</p>		\$687.00
BYT11701	<p><b>Selective Flow Control Kit (1 way flow for use with hammer or compactor)</b></p> <p>For use on Backhoes with a Serial Number 390995 and Higher.  Selective flow control to the backhoe valve for switch control of auxiliary hydraulics.  Does not include plumbing kit.</p>		\$1,847.00
BYT11691	<p><b>Auxiliary Plumbing for Selective Flow - Standard Dipperstick</b></p> <p>For use on Backhoes with a Serial Number 390995 and Higher.  Installation instructions T438253.  Average installation, 2 hours.  Requires Standard Dipperstick.  Requires Five Function Plus Selective Flow OR Selective Flow.  Includes boom and dipperstick hydraulic lines, and hardware for attaching hoses and lines from the selective flow valve section to end of Dipperstick.  Required for hammers, compactors, high or low flow motor attachments mounted on end of dipperstick.</p>		\$610.00
BYT11992	<p><b>Sixth Function Valve Kit (2 way flow for thumb swinger or grapple)</b></p> <p>For use on Backhoes with a Serial Number 390995 and Higher.  Must order applicable Software Part Number in JDPoint for Field Kit to function properly.  Valve section and two hoses.  For use with Pilot Controls.  If the machine is not equipped with single lever loader control (SLLC) and loader auxiliary, also order:  AT472332 Auxiliary Valve Controller (AVC)  AT432173 Wiring Harness  14M7303 Nut (Qty 4)  19M7775 Cap Screw M6 X 16 (Qty 4)</p>		\$3,048.00
BYT11010	<p><b>Hydraulic Plumbing, Bulk Head to Deere Thumb Cylinder - Standard Dipperstick</b></p> <p>For use with serial numbers after 338468.</p>		\$123.00

Code	Description	QTY	List Price (USD)
	<p>Must be configured with 7002 or 7004 or BYT11006, BYT11693, BYT11014, BYT11015.</p> <p>Average installation, 2 hours.</p> <p>For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.)</p> <p>Requires unit to have unused 5th, 6th or 7th 2 way hydraulic functions. 310 G and 310 P controlled by foot pedal. 320 P and 410 P controlled by thumb roller in pilot joystick.</p> <p>For installation instructions, please reference DTAC Solution 115211.</p>		
BYT11014	<p>Auxiliary Backhoe Hydraulic Plumbing Kit, Two-Way Proportional Flow - Standard Dipperstick</p> <p>For use with serial numbers after 338456.</p> <p>Includes plumbing to bulkhead at the end of the dipperstick.</p> <p>Average installation, 2 hours.</p> <p>Includes two circuit reliefs, fittings, clamps, hoses and hardware.</p> <p>For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.)</p> <p>Requires unit to have unused 5th, 6th or 7th 2 way hydraulic functions.</p> <p>Controlled by thumb roller in pilot joystick.</p> <p>Quick connect couplers and jumper hoses from bulkhead to attachment not included.</p> <p>If installing hydraulic thumb, additional thumb plumbing kit is required (BYT11010). Please reference DTAC Solution 115211.</p> <p>For use with HL configuration only.</p>		\$688.00
BYT11011	<p>Hydraulic Plumbing, Bulk Head to Deere Thumb Cylinder - Extendable Dipperstick</p> <p>For use with serial numbers after 338468.</p> <p>Must be configured with 7002 or 7004 or BYT11016, BYT11694, BYT11018, BYT11019.</p> <p>Average installation, 2 hours.</p> <p>For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.)</p> <p>Requires unit to have unused 5th, 6th or 7th 2 way hydraulic functions. 310G and 310 P controlled by foot pedal. 320 P and 410 P controlled by thumb roller in pilot joystick.</p> <p>For installation instructions, please reference DTAC Solution 115211.</p>		\$113.00
BYT11018	<p>Auxiliary Backhoe Hydraulic Plumbing Kit, Two-Way Proportional Flow - Extendable Dipperstick</p> <p>For use with serial numbers after 338456.</p> <p>Includes plumbing to bulkhead at the end of the dipperstick.</p> <p>Average installation, 2 hours.</p> <p>Includes two circuit reliefs, fittings, clamps, hoses and hardware.</p> <p>For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.)</p> <p>Requires unit to have unused 5th, 6th or 7th 2 way hydraulic functions. 310SL HL and 410L controlled by thumb roller in pilot joystick.</p> <p>Quick connect couplers and jumper hoses from bulkhead to attachment not included.</p> <p>If installing hydraulic Deere thumb, additional thumb plumbing kit is required (BYT11011). Please reference DTAC Solution 115211.</p> <p>For use with HL configuration only.</p>		\$688.00
AT448428	Hand Held Hydraulics		\$464.00

Code	Description	QTY	List Price (USD)
	Plumbing routed from the backhoe valve to above the battery box for hook up of hand held attachments. Average installation, 4 hours. Includes two circuit reliefs, fittings, clamps and hardware. Requires Selective Flow Valve. Installed in Battery Box.		
AT455624	Sixth Function Manual Valve Kit (2 way flow for thumb swinger or grapple)  Valve section and two hoses. Pedal and linkage ordered separately. For use with Manual Controls 7026.		\$1,233.00
AT456673	Auxiliary Plumbing for Selective Flow - Extendible Dipperstick  For use with HL configuration only.		\$687.00
BYT10279	Loader Coupler, Hydraulic  For use on Backhoes with a Serial Number 390995 and Higher. L-Series backhoes must order applicable Software Part Number in JDPoint for Field Kit to function properly.		\$8,645.00
AT448426	Controlled Lowering Device for Backhoe Boom Cylinder  Load holding valve in the event of hose failure. Meets ISO 8643. Also provides reduction in hydraulic function drift. For use with standard lift (code 6751 or 6752) configuration only. Backwards compatible with L-series like model. Kit includes load control valve, hoses, fittings, clamps, connectors and o-rings.		\$3,316.00
AT448425	Controlled Lowering Device for Backhoe Dipper (Crowd) Cylinder  Requires prior installation of AT448426 Controlled Lowering Device for Backhoe Boom Cylinder Kit. Load holding valve in the event of hose failure. Meets ISO 8643. Also provides reduction in hydraulic function drift. Requires prior installation of AT448426. For use with standard lift (code 6751 or 6752) configuration only, standard and extendable dipper. Backwards compatible with L-series like model. Kit includes load control valve, hoses, fittings, clamps, connectors and o-rings.		\$3,096.00
Counterweight		Field Installed Attachments - Optional	
AT409592	Counterweight, Front, 250 lbs (113 kg)  If adding to the 450 lb. (204 KG) counterweight, order (4) T151797, (2) 19M9088, AND (2) 14M7291. For 750 lb. (340 KG), 1000 lb. (454 KG) and 1250 lb. (567 KG) counterweights, order (2) T151797 and (2) 19M8976		\$571.00

Code	Description	QTY	List Price (USD)
BYT10251	Counterweight, Front, 450 lbs (204 kg) Use with (4) T119912 AND (4) 19M9124.		\$821.00
BYT10255	Counterweight, Front, 1,000 lbs (454 kg) Use with (4) T119912 AND (4) 19M9124.		\$1,683.00
BYT10256	Counterweight, Front, 1,250 lbs (567 kg) Use with (4) T119912 AND (4) 19M9124.		\$2,176.00
BYT10254	Counterweight, Front, 750 lbs (340 kg) Use with (4) T119912 AND (4) 19M9124.		\$1,334.00

Manufacturer's Suggested List Price shown. Retail prices may vary by dealer. Unless stated otherwise, taxes, freight, setup, delivery and other dealer specific charges not included in the pricing. Options/items noted with anything other than price will have additional costs. Pricing, availability, and specifications subject to change without notice. Special program pricing may be available on certain models. See dealer for details. Prices shown are in U.S. dollars and valid only in the U.S.



## STANDARD WARRANTY FOR NEW JOHN DEERE CONSTRUCTION, COMPACT CONSTRUCTION (CCE) FORESTRY, AND UTILITY PRODUCTS – US & CANADA

- **Construction & Forestry Products:** 12 months/unlimited hours (whichever occurs first) Full Machine Standard Warranty
- **Compact Construction Equipment (CCE) Products:** 24 months or 2000 hours (whichever occurs first) Full Machine Standard Warranty
- **C&E Series Pull-Type Scrapers:** 6 months Full Machine Standard Warranty
- **DC & DE Pull-Type Scrapers:** 12 months Full Machine Standard Warranty
- **Scraper Tractors:** 24 Months or 2000 Hours (whichever occurs first) Full Machine Standard Warranty
- **Forestry Attachments:** 12 Months or 2000 Hours (whichever occurs first) Full Machine Standard Warranty

The "Standard Warranty" is part of the warranty protection package available from John Deere Construction & Forestry Company (John Deere Limited in Canada) ("John Deere") to purchasers of new John Deere products ("product"):

**STANDARD Warranty** is John Deere's standard new product warranty, described in this document, provided at no additional charge to the purchaser.

**EXTENDED Warranty** is a separate repair contract made available by John Deere for purchasers who wish to complement their Standard Warranty coverage. Complete Extended Warranty details, including coverage options and limitations, are set forth in the Application for Extended Warranty, which is available from authorized John Deere dealers.

**STRUCTURAL Warranty** applies to certain structural components as listed below and as described in this document.

**FACTORY-INSTALLED UNDERCARRIAGE Warranty** applies to certain undercarriage components as listed below and as described in this document.

### A. STANDARD WARRANTY - GENERAL PROVISIONS

John Deere will repair or replace, at its option, any parts (except those specified below) of a new John Deere product that, as delivered to the original retail purchaser(s), are defective in material or workmanship. Performance of this warranty will be free of charge for parts and labor, except as otherwise stated below. Standard Warranty applies only to purchases from John Deere and authorized John Deere dealers and, except as otherwise provided in the next sentence and section L below, is extended only to the original retail purchaser of the product. Remaining Standard Warranty applicable to a used John Deere product is transferred to a subsequent purchaser of the product only if the subsequent purchaser requests a transfer from an authorized John Deere dealer before the product's Standard Warranty expires. Coverage begins on the date of delivery of the product to the original retail purchaser. For purposes of this warranty, a product that has been rented, used for demonstration purposes for 150 or more hours, or otherwise used prior to its original retail purchase has been "used" for the total duration of such use. Warranty statements required by law covering engine emissions-related parts and components are found on a separate written warranty certificate provided to the purchaser at the time of the original retail purchase.

### B. WHAT IS COVERED BY STANDARD WARRANTY

All parts of a new John Deere product (except those noted in Sections D and E below) are covered during the Standard Warranty period set out above.

### C. EXCLUSIVE REMEDY

The repair or replacement of covered parts or components that are defective, as provided in Sections A, B, D.2 and D.3 herein, shall be the purchaser's exclusive remedy for any defect in the product. However, if after repeated attempts such repair or replacement fails to correct the performance problem caused by the defect, the purchaser's sole remedy shall be a refund of the amount paid for the product (in exchange for a return of the product), excluding any transportation charges, license fees, taxes and insurance premiums, and less a reasonable allowance for use of the product prior to its return. In no event will the dealer, John Deere or any company affiliated with John Deere be liable for any incidental or consequential damages, including but not limited to loss of profits, rental of substitute equipment or other commercial loss. Correction of defects in the manner provided above shall constitute fulfillment of



all liabilities of the Dealer, John Deere, or any company affiliated with John Deere to the purchaser or any other person, whether based upon contract, tort, strict liability, or otherwise. This limitation does not apply to claims for personal injury.

#### A. ITEMS COVERED SEPARATELY -

1. Standard Warranty does not apply to batteries, radios, tires, cameras, or to Cummins, MTU or Detroit Diesel Engines installed in John Deere products, which are covered by separate written warranties.
2. Factory-Installed Undercarriage Warranty covers all non-rubberized factory-installed undercarriage wear components for 3 years or 4,000 hours from the date of delivery to the original retail purchaser, whichever occurs first (unless terminated earlier under Section F, below). For purposes of this warranty, a product that has been rented, used for demonstration purposes for 150 or more hours, or otherwise used prior to its original retail purchase has been "used" for the total duration of such use. In addition to the items listed in section E below, Factory-Installed Undercarriage Warranty does not cover: failures due to wear, machine application, maintenance practices, or improper machine configuration; removal and installation labor; transportation or hauling costs; unapproved parts; non-wear items; and rubberized undercarriage components such as rubber tracks. Warranty claims will be pro-rated based upon wear of the failed component and whether track shoe width is approved by John Deere. Factory-Installed Undercarriage Warranty does not apply to Scraper Tractors.
3. StructurALL Warranty for new John Deere Products (except Compact Excavators & Loaders, Skid-Steer Loaders, Compact Track Loaders, Scraper Tractors, Pull-Type Scrapers, and Forestry Attachments, which are not eligible for StructurALL Warranty) begins at the date of delivery to the original retail purchaser and ends (unless terminated earlier under Section F, below) after three (3) years, or 10,000 hours (whichever occurs first). For purposes of this warranty, a product that has been rented, used for demonstration purposes for 150 or more hours, or otherwise used prior to its original retail purchase has been "used" for the total duration of such use. **StructurALL Warranty applies only to the following structural components listed below as installed on the product at the time of original manufacture.** If a particular component is not listed below it is not covered by StructurALL Warranty.

Arm; Articulation Joint (incl. pins & bushings); Bin Frame; Boom; Carbody; C-Frame\*; Circle Frame; Coupler (John Deere built ONLY); Dipperstick; Draft Frame; Engine Frame; Equipment Frame; Grapple Arch and Grapple Boom; Loader Arm; Loader Frame; Mainframe; Moldboard Lift Arm; Pushbeam, NeverGrease™ Pin Joints [Includes steering pin and bushing joints (standard equipment), roller elements (roller bearings) in bucket to boom joints and sliding elements (bushing) for boom and linkage joints (optional equipment)]; Rollover Protection Structure (ROPS); Side Frame; Swing Frame; Track Frame; Undercarriage Frame; X-Frame; Z-bar loader linkage (including bell crank and bucket driver link); Specialty booms and arms marketed as "heavy duty" by John Deere.

*Items Covered by StructurALL for Cut-to-Length Forestry Machines:* Front frame (welded assembly); Rear frame (welded assembly); Crane king post with basement; Middle joint frame; Cabin swing frame; Main Boom

StructurALL Warranty does not apply to:

1. Any product used primarily in extreme duty or severe duty applications such as but not limited to: demolition and wrecking, chemical plant (including fertilizer plants), salt mines, steel mill, land fill and transfer stations, scrap handling, scarifying and other applications that are similarly destructive or similarly heavy duty except specialty booms and arms as stated in Section D.3 above.
2. C-Frames on Crawlers equipped with root rakes or used in forestry applications unless equipped with an "extreme duty" reinforcement package.
3. Cut-to-Length Forestry Heads and Slash Bundler Units.
4. Crawlers equipped with optional side booms.
5. Cut-to-Length Forestry, Excavator, and Log Loader swing bearings.
6. Motor Graders equipped with front- or rear-mounted snow wings.



## A. ITEMS NOT COVERED -

John Deere is NOT responsible for the following:

1. Freight.
2. Adjustments to compensate for wear, for periodic maintenance or adjustments that result from normal wear and tear.
3. Damage caused by unapproved adjustments (electronic or mechanical) to machine or machine components outside of published specifications including but not limited to engine, hydraulic components and relief valves.
4. Program updates, calibrations, and pressure adjustments.
5. Additional Labor Time - Above Dealer Labor Rate.
6. Additional Cleaning - Above Dealer Labor Rate.
7. Rental Fees.
8. Depreciation or damage caused by normal wear or application, lack of reasonable and proper maintenance, failure to follow operating instructions, misuse, lack of proper protection during storage, vandalism, negligence, collision, expenses to seek reinstatement of warranty following theft or loss of Product, or other accidents.
9. Premiums charged for Overtime Labor.
10. Transportation to and from the dealership.
11. Travel time, mileage, or service calls by the dealer.
12. Non-John Deere components or modifications, Rotobec grapples, and attachments installed aftermarket.
13. Shop supplies and maintenance items such as, but not limited to: filters, fuels, oil, hydraulic fluid, lubricants, coolants, conditioners, shop towels, cleaners and degreasers.
14. Torn, cut, or worn hoses.
15. Wear items, such as, but not limited to: body liner, belts, blades, bulbs, lubricated joints (including pins and bushings), dry brakes, brake linings, dry clutch linings, saw blades, chains, skidder grapple shocks, color marking nozzles, and articulation bumpers.
16. Items such as cutting-edge parts, delimbing knives, bucket teeth and rubber track are not warranted for depreciation or damage caused by normal wear, lack of proper maintenance, misuse, failure to follow operating instructions, the elements or accident.
17. Any defect in a non-covered component, or damage to or failure of a covered component caused by a defect in a non-covered component.
18. Secondary damage which occurs from continued operation of a product after recognition of the occurrence of a failure.
19. Parts supplied by or repairs, maintenance or modifications performed by someone other than an authorized John Deere dealer, including any damage caused by such use of parts, repairs, maintenance, or modifications not performed by an authorized John Deere dealer.
20. The use of "track type" tire chains on Feller Bunchers and Skidders is an unapproved modification. Warranty will be void on these machines using "track type" tire chains.
21. Topping off fluids when fluid levels fall in the range between low and full
22. Parts/Kits not ordered on machine and installed aftermarket. These parts will be covered by any applicable parts warranty.
23. Attachments installed aftermarket – i.e., Winch not installed at factory.
24. Custom options installed outside the factory – i.e., G.R. Manufacturing option packages.
25. Used Products (except as otherwise provided in section L below).
26. Lost or stolen Products.

## B. TERMINATION OF WARRANTY-

John Deere is relieved of its obligations under Standard Warranty, StructurALL Warranty, Factory-Installed Undercarriage Warranty and/or Extended Warranty if:

1. The product is modified or altered in ways not approved by John Deere; or
2. Any unapproved or improperly sized attachment is installed on the product. Approval and attachment size shall be at John Deere's sole discretion. (Consult dealer prior to installing attachments or product modification).
3. The product is moved outside the US and/or Canada.



#### A. PARTS REPLACED UNDER WARRANTY -

Only new or remanufactured parts or components furnished or approved by John Deere, will be used if John Deere elects to repair the product. If any such part or component is defective in material or workmanship when installed in the product, John Deere will repair or replace, as it elects, such defective part or component, provided the defect is reported to an authorized John Deere dealer within 90 days of installation or before expiration of the applicable Standard Warranty, Factory-Installed Undercarriage Warranty and/or StructurALL Warranty whichever is later.

#### B. TELEMATICS

*NOTICE: Products may be equipped with telematics hardware and software ("Telematics") that transmit data to John Deere/ Dealer. Purchaser may deactivate Telematics at [www.jdlink.com](http://www.jdlink.com).*

Notwithstanding Purchaser's right, title or interest in the Products, Purchaser agrees that John Deere and Dealer (their affiliates, successors and assigns), without further notice to Purchaser have the right to:

1. Access, use, collect and disclose any data generated by, collected by, or stored in, Products or any hardware or devices interfacing with Products ("Machine Data");
2. Access Machine Data directly through data reporting devices integrated within, or attached to, Products, including Telematics ("Data Reporting Systems"); and
3. Update the Data Reporting Systems software from time to time. Machine Data will only be used in accordance with John Deere's Machine Data Policy, located at [www.JohnDeere.com/MachineDataPolicy](http://www.JohnDeere.com/MachineDataPolicy).

#### C. OBTAINING WARRANTY SERVICE -

To obtain warranty service, the purchaser must request warranty service from a John Deere dealer authorized to sell the product to be serviced. When making such a request, the purchaser must present evidence of the product's delivery date, make the product available at the dealer's place of business, and inform the dealer in what way the purchaser believes the product to be defective. Standard Warranty, Factory-Installed Undercarriage Warranty and/or StructurALL Warranty repairs may be made in the field if the purchaser and servicing dealer so desire. However, John Deere will not be responsible for any charges (such as dealer travel time, mileage or extra labor) that would not have been incurred had the product been repaired at the dealer's place of business.

#### D. NO IMPLIED WARRANTY, CONDITIONS OR OTHER REPRESENTATION -

Where permitted by law, neither John Deere nor any company affiliated with it makes any warranties, representations, conditions or promises, express or implied, as to the quality, performance, or freedom from defect of its products, other than those set forth in this document and **NO IMPLIED WARRANTY OF MERCHANTABILITY, CONDITIONS OR FITNESS IS MADE.**

#### E. NO DEALER WARRANTY -

The selling dealer makes no warranty of its own on any item covered by this warranty and makes no warranty on other items unless the dealer delivers to the purchaser a separate written warranty certificate specifically warranting the item. **The dealer has no authority to make any representation or promise on behalf of John Deere, or to modify the terms or limitations of this warranty in any way.**

#### F. USED JOHN DEERE PRODUCTS ONLY -

John Deere will transfer remaining Standard Warranty, Factory-Installed Undercarriage Warranty and/or StructurALL Warranty to the purchaser of a used John Deere construction and/or forestry product that has been used for less than the full warranty period provided at the product's original retail purchase. This transfer is not effective until change of ownership is registered by a John Deere dealer. **ALL THE TERMS, INCLUDING LIMITATIONS AND EXCLUSIONS, OF THE JOHN DEERE STANDARD WARRANTY, FACTORY-INSTALLED UNDERCARRIAGE WARRANTY, AND/OR STRUCTURALL WARRANTY ORIGINALLY PROVIDED FOR THE PRODUCT REMAIN IN EFFECT AND APPLICABLE.**



# 320 P

## Backhoe Loader



JOHN DEERE







# *READY TO RUN IN THE REAL WORLD*

When owners and operators just like you — the people who know what customers need for their operations to succeed — weighed in on our latest backhoe loaders, we heeded the real-world feedback. You asked for one machine that capably completes the work of two. A powerful overachiever with outstanding loader performance, backhoe capability, and multifunction versatility. And packed with productivity-elevating options including Heavy Lift (HL) to match the application. Meet the 320 P-Tier Backhoe Loader, a standout multitasker ready to run — and get more done — in any corner of the working world.



### Powerful engine technology

Rugged EPA Final Tier 4 (FT4)/EU Stage IV John Deere PowerTech EWL engine boosts power, torque, and reliability compared to previous models. Simple two-valve cylinder-head, wet-sleeve design with replaceable cylinder liners provides uniform cooling and aids in reducing oil breakdown and ring wear. Filters have been redesigned and relocated for easier servicing over earlier models.

### Elevated experience

Pressure-compensated, load-sensing (PCLS) hydraulics provide excellent multi-functioning, smooth machine control, and up to 15-percent greater craning capacity with Lift Mode, collectively providing a distinctive operator experience and unmatched machine performance. Trenching operation can be conducted at a lower engine rpm, reducing fuel consumption and jobsite noise.

### Forward thinking

When enabled on the sealed-switch module, AutoShift automatically shifts the PowerShift™ transmission to the appropriate gear. Simply set the control lever to the highest gear desired, and the transmission will optimally shift based on engine rpm and ground speed. Included in the base machine configuration, AutoShift enhances operator ease of use during extended transport or load-and-carry applications.

### Always on the move

Limited-slip mechanical-front-wheel drive (MFWD) delivers sure-footed traction in any ground condition. Engage momentary MFWD "on the fly" with a touch of a button on the loader control.

### Do some heavy lifting

New Heavy Lift (HL) option includes larger rear structures and hydraulic cylinders that increase lifting capacities and breakout forces up to 25 percent.



**POWERTECH™ EWL ENGINE**  
FEATURES RELOCATED FILTERS  
FOR EASY SERVICE ACCESS



### Control the ride and the load

Auto ride control eliminates the need to manually turn the feature on and off during load-and-carry applications, enhancing the operator's ease of use. When activated, front loader cylinders function as a shock absorber, smoothing the ride over rough terrain and reducing material spillage. On/Off functionality is controlled by ground speed and can be adjusted by the operator in the cab's display monitor.

### Save fuel with economy mode

Standard economy mode can be configured separately between loader and backhoe functions. Activate economy mode for backhoe functions while retaining full power for loader functions. This helps maximize fuel usage in lighter-work applications with minimal effect on machine performance.

### It all looks good from here

Spacious operator station is loaded with creature comforts including an efficient HVAC system, choice of adjustable mechanical or air-suspension seat, and optional premium radio with Bluetooth® and auxiliary input. Sightlines to the loader bucket corners over the sloped hood are clear.

### Take it easy

Enhanced "palm-on-top" loader-control grip is intuitive and easy to use. Redesigned loader-lever linkage reduces resistance and improves its throw and feel, decreasing lever travel by up to 15 percent.

### Hit the ground running

Same-side ground-level service points speed daily checks and fills. Other commonsense features such as quick-change filters, extended service intervals, simple-to-read sight gauges, and easy-access grease zerks help increase uptime.





## 320 P-TIER BACKHOE LOADER



**AUTO RIDE CONTROL**  
IMPROVES THE RIDE &  
MATERIAL RETENTION



### Precision Construction

From grade management and obstacle detection to product automation features and jobsite intelligence, this suite of construction technology delivers productivity solutions to help you get more done, more efficiently.

John Deere construction equipment comes with in-base connectivity — free from subscriptions or annual renewals. Analyze critical machine data, track utilization, review diagnostic alerts, and more from **the John Deere Operations Center™**. The Operations Center also enables **John Deere Connected Support™**, which uses data from thousands of connected machines to proactively address issues before they arise. Your dealer can also remotely monitor machine health, diagnose problems, and even update machine software without a trip to the jobsite.\*

\*Availability varies by region and product. Options not available in every country.

## 320 P-TIER BACKHOE LOADER SPECIFICATIONS

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Engine	320 P-TIER	
Manufacturer and Model	John Deere PowerTech™ EWL 4.5L turbocharged	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV	
Displacement	4.5 L (276 cu. in.)	
Gross Peak Power	86 kW (115 hp) at 1,900 rpm	
Net Peak Power (ISO 9249)	84 kW (113 hp) at 1,900 rpm	
Net Peak Torque (ISO 9249)	459 Nm (339 lb.-ft.) at 1,600 rpm	
Net Torque Rise	30%	
Lubrication	Pressure system with spin-on filter and cooler	
Air Cleaner	Dual-stage dry type with safety element and evacuator valve	
Cooling		
Fan Type	Electronically controlled, variable-rate, suction-type cooling fan standard	
Engine Coolant Rating	−40 deg. C (−40 deg. F)	
Engine Oil Cooler	Oil to water	
Powertrain		
Transmission	5-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever; AutoShift transmission standard	
Torque Converter	Single stage, dual phase with 2.63:1 stall ratio, 280 mm (11 in.)	
PowerShift Standard Transmission		
Maximum Travel Speeds With Standard Engine,		
With 19.5L-24 Rear Tires	Forward	Reverse
Gear 1	5.4 km/h (3.4 mph)	6.8 km/h (4.2 mph)
Gear 2	10.0 km/h (6.2 mph)	12.6 km/h (7.8 mph)
Gear 3	20.5 km/h (12.7 mph)	20.2 km/h (12.6 mph)
Gear 4	37.3 km/h (23.2 mph)	—
Gear 5	40.0 km/h (24.9 mph)	—
Axles		
Axle Oscillation, Stop to Stop, Front Axle	22 deg.	
Axle Ratings	Front	Rear
SAE J43	5500 kg (12,100 lb.)	7000 kg (15,400 lb.)
Dynamic	9000 kg (19,800 lb.)	10 000 kg (22,000 lb.)
Static	26 500 kg (58,400 lb.)	26 500 kg (58,400 lb.)
Ultimate	43 500 kg (95,900 lb.)	43 500 kg (95,900 lb.)
Differentials		
Mechanical-Front-Wheel-Drive (MFWD) Axle	Automatic, limited-slip traction control	
Rear Axle	Foot actuated, hydraulically engaged 100% mechanical lock	
Steering (ISO 5010)	Hydrostatic power steering and emergency steering	
Axle	MFWD	Non-Powered Front
Curb-Turning Radius		
With Brakes	3.52 m (11 ft. 7 in.)	3.45 m (11 ft. 4 in.)
Without Brakes	4.02 m (13 ft. 2 in.)	3.90 m (12 ft. 10 in.)
Bucket-Clearance Circle		
With Brakes	10.10 m (33 ft. 0 in.)	10.00 m (32 ft. 9 in.)
Without Brakes	10.80 m (35 ft. 6 in.)	10.70 m (35 ft. 0 in.)
Steering Wheel Turns (lock to lock)	2.6 to 3.6	3.1 to 4.3
MFWD Axle	Heavy duty, outboard planetary final drives distribute shock loads over 3 gears	
Rear Axle	Heavy duty, outboard planetary final drives distribute shock loads over 4 gears	
Brakes (ISO 3450)		
Service	Power assisted, hydraulic wet disc, mounted inboard, self-adjusting and self-equalizing	
Parking	Spring applied, hydraulically released, wet, multi-disc, independent of service brakes with electric switch control	
Hydraulics		
Main Pump	Pressure compensated load sensing (PCLS), axial-piston pump	
Pump Flow at 2,200 rpm, Backhoe and Loader	163 L/m (43 gpm)	
System Relief Pressure		
Backhoe	24 993 kPa (3,625 psi)	
Lift Mode	27 579 kPa (4,000 psi)	
Loader	24 993 kPa (3,625 psi)	
Controls		
Backhoe	2-lever mechanical standard; pilot controls with pattern select with electrohydraulic (EH) auxiliary functions optional	
Loader	Single-lever control with electric clutch cutoff switch and MFWD (momentary) standard; single-lever control with electric clutch cutoff switch, EH proportional auxiliary roller, MFWD (momentary), and transmission quick-shift optional	

## 320 P-TIER BACKHOE LOADER SPECIFICATIONS

# 320

# P

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

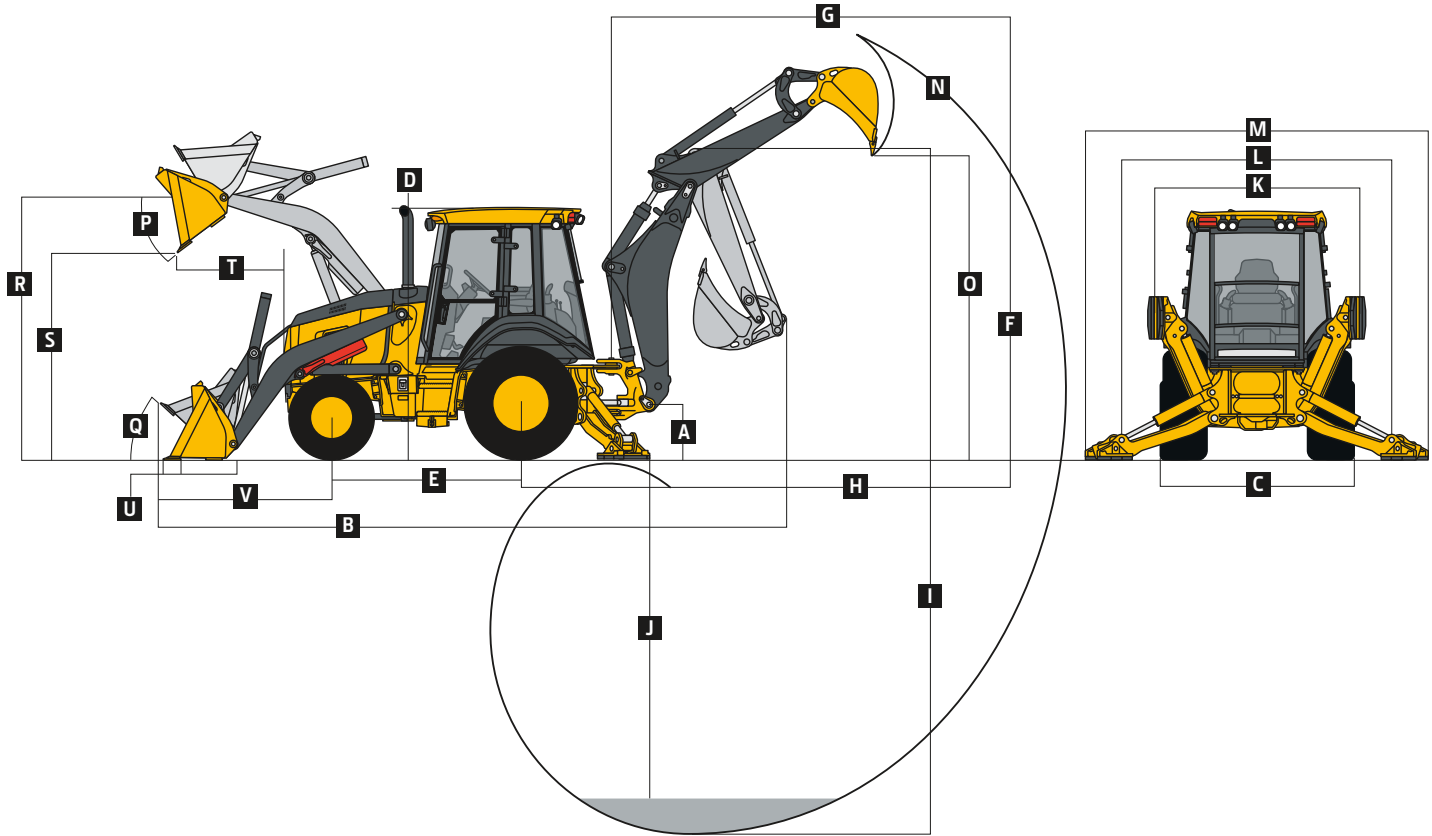
Cylinders		320 P-TIER	
Heat-treated, chrome-plated, polished rods; hardened steel (replaceable bushings) pivot pins			
	Bore	Rod Diameter	Stroke
Loader Boom (2)	80 mm (3.15 in.)	50 mm (1.97 in.)	789 mm (31.08 in.)
Loader Bucket (1)	90 mm (3.54 in.)	50 mm (1.97 in.)	744 mm (29.29 in.)
Backhoe Boom (1)	120 mm (4.72 in.)	56 mm (2.20 in.)	794 mm (31.26 in.)
Heavy-Lift (HL) Option	125 mm (4.92 in.)	63 mm (2.48 in.)	887 mm (34.92 in.)
Backhoe Crowd (1)	115 mm (4.53 in.)	63 mm (2.48 in.)	602.5 mm (23.72 in.)
HL Option	120 mm (4.72 in.)	63 mm (2.48 in.)	591 mm (23.27 in.)
Backhoe Bucket (1)	90 mm (3.54 in.)	56 mm (2.20 in.)	810 mm (31.89 in.)
Heavy-Duty Option	100 mm (3.94 in.)	63 mm (2.48 in.)	810 mm (31.89 in.)
HL Option	100 mm (3.94 in.)	63 mm (2.48 in.)	810 mm (31.89 in.)
Backhoe Swing (2)	90 mm (3.54 in.)	50 mm (1.97 in.)	278 mm (10.94 in.)
Backhoe Extendable Dipperstick (1)	70 mm (2.76 in.)	40 mm (1.57 in.)	1062 mm (41.81 in.)
HL Option	80 mm (3.15 in.)	45 mm (1.77 in.)	1062 mm (41.81 in.)
Backhoe Stabilizer (2)			
Standard	90 mm (3.54 in.)	50 mm (1.97 in.)	500 mm (19.69 in.)
Extended Optional	100 mm (3.94 in.)	50 mm (1.97 in.)	500 mm (19.69 in.)
HL Option Extended	100 mm (3.94 in.)	50 mm (1.97 in.)	500 mm (19.69 in.)
Non-Powered Axle (1)	70 mm (2.76 in.)	42 mm (1.65 in.)	210 mm (8.27 in.)
MFWD (1)	65 mm (2.56 in.)	40 mm (1.57 in.)	210 mm (8.27 in.)
Electrical			
Voltage	12 volt		
Alternator Rating	145 amp		
Lights	10 halogen: 4 front, 4 rear, and 2 side docking (32,500 candlepower each); turn signals and flashers: 2 front and 2 rear; stop- and taillights; and 2 rear reflectors; factory-installed option for 2 LED spotlights and 8 LED floodlights in lieu of standard halogen light package		
Operator Station			
Type (ISO 3471)	Fully enclosed cab, isolation mounted, ROPS/FOPS, left/right access, with molded roof; optional quarter cab (front glass only) and canopy		
Tires/Wheels			
	Front	Rear	
Non-Powered Front Axle	12.5/80-18 F3 (12)	19.5L-24 R4 (12)	
	14.5/75-16.1 F3 (16)	19.5L-24 R4 (12)	
With MFWD	12.5/80-18 I3 (12)	19.5L-24 R4 (10)	
	12.5/80-18 R4 (10)	19.5L-24 R4 (12)	
	12.5/80-18 I3 (12)	21L-24 R4 (12)	
	12.5/80-18 R4 (10)	21L-24 R4 (12)	
	340/80R18 XMCL	500/70R24 XMCL	
	340/80R18 550	500/70R24 550	
	340/80R18 580	500/70R24 580	
Serviceability			
Refill Capacities		Refill Capacities (continued)	
Cooling System		Diesel Exhaust Fluid (DEF) Tank	13.7 L (3.6 gal.)
Cab	27.5 L (29.1 qt.)	Hydraulic System	126.8 L (33.5 gal.)
Canopy	25.7 L (27.2 qt.)	Hydraulic Reservoir	45.0 L (11.9 gal.)
Rear Axle	18.0 L (19.0 qt.)	MFWD Axle	
Engine Oil (including vertical spin-on filter)	13.0 L (13.7 qt.)	Differential Housing	6.5 L (6.9 qt.)
Torque Converter and Transmission	15.1 L (16.0 qt.)	Planetary (each)	0.9 L (1.0 qt.)
Fuel Tank (with ground-level fueling)	128.7 L (34.0 gal.)		
Operating Weights		320 P-TIER HEAVY-LIFT (HL) OPTION	
With Full Fuel Tank, 75-kg (165 lb.) Operator, Standard Equipment, Canopy, and Bumper	7146 kg (15,754 lb.)	7375 kg (16,571 lb.)	
Typical With Cab and Extendable Dipperstick			
340-kg (750 lb.) Counterweight	7908 kg (17,434 lb.)	—	
454-kg (1,000 lb.) Counterweight	—	8320 kg (18,342 lb.)	
Optional Components (weight difference between base equipment and option)			
Cab	284 kg (626 lb.)	284 kg (626 lb.)	
MFWD With Tires	137 kg (302 lb.)	137 kg (302 lb.)	
Extendable Dipperstick	138 kg (304 lb.)	207 kg (456 lb.)	
Front Loader Coupler	145 kg (320 lb.)	145 kg (320 lb.)	
Backhoe Bucket Coupler	120 kg (265 lb.)	120 kg (265 lb.)	



# 320 P-TIER

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Overall Dimensions	320 P-TIER	320 P-TIER HEAVY-LIFT (HL) OPTION
A Ground Clearance, Minimum	330 mm (13 in.)	310 mm (12 in.)
B Overall Length, Transport	7.28 m (23 ft. 11 in.)	7.37 m (24 ft. 2 in.)
C Width Over Tires	2.20 m (7 ft. 3 in.)	2.34 m (7 ft. 8 in.)
D Height to Top of ROPS/Cab	2.79 m (9 ft. 2 in.)	2.81 m (9 ft. 3 in.)
E Length From Axle to Axle		
Non-Powered Front Axle	2.16 m (7 ft. 1 in.)	2.16 m (7 ft. 1 in.)
MFWD Axle	2.19 m (7 ft. 2 in.)	2.19 m (7 ft. 2 in.)



Backhoe Dimensions and Performance		320 P-TIER			320 P-TIER HL OPTION		
Backhoe specifications are with 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) bucket; dipper lift specs are with a boom angle of 65 deg.							
Bucket Range		305–610 mm (12–24 in.)			305–610 mm (12–24 in.)		
Digging Force							
Bucket Cylinder		55.0 kN (12,356 lb.)			69.9 kN (15,723 lb.)		
Lift Mode		60.6 kN (13,634 lb.)			77.2 kN (17,349 lb.)		
With Heavy-Duty Cylinder Option		67.9 kN (15,254 lb.)			—		
Lift Mode		74.9 kN (16,832 lb.)			—		
Crowd Cylinder		36.6 kN (8,229 lb.)			38.2 kN (8,581 lb.)		
Lift Mode		40.4 kN (9,080 lb.)			42.1 kN (9,468 lb.)		
Swing Arc		180 deg.			180 deg.		
Operator Control		2 levers			2 levers		
		With Optional Extendable Dipperstick			With Optional Extendable Dipperstick		
		With Standard			With Standard		
		Backhoe	Retracted	Extended	Backhoe	Retracted	Extended
F	Loading Height, Truck Loading Position	3.42 m (11 ft. 3 in.)	3.54 m (11 ft. 7 in.)	4.16 m (13 ft. 8 in.)	3.63 m (11 ft. 11 in.)	3.62 m (11 ft. 10 in.)	4.24 m (13 ft. 11 in.)
G	Reach From Center of Swing Pivot	5.52 m (18 ft. 1 in.)	5.61 m (18 ft. 5 in.)	6.62 m (21 ft. 9 in.)	5.68 m (18 ft. 8 in.)	5.62 m (18 ft. 5 in.)	6.61 m (21 ft. 8 in.)
H	Reach From Center of Rear Axle	6.58 m (21 ft. 7 in.)	6.68 m (21 ft. 11 in.)	7.68 m (25 ft. 2 in.)	6.74 m (22 ft. 1 in.)	6.68 m (21 ft. 11 in.)	7.67 m (25 ft. 2 in.)
I	Digging Depth (SAE maximum)	4.35 m (14 ft. 3 in.)	4.50 m (14 ft. 9 in.)	5.55 m (18 ft. 2 in.)	4.59 m (15 ft. 1 in.)	4.53 m (14 ft. 10 in.)	5.53 m (18 ft. 2 in.)
J	Digging Depth (SAE)						
	610-mm (2 ft.) Flat Bottom	4.32 m (14 ft. 2 in.)	4.45 m (14 ft. 7 in.)	5.51 m (18 ft. 1 in.)	4.55 m (14 ft. 11 in.)	4.49 m (14 ft. 9 in.)	5.50 m (18 ft. 0 in.)
	2440-mm (8 ft.) Flat Bottom	3.99 m (13 ft. 1 in.)	4.13 m (13 ft. 7 in.)	5.25 m (17 ft. 3 in.)	4.25 m (13 ft. 11 in.)	4.18 m (13 ft. 8 in.)	5.28 m (17 ft. 4 in.)
K	Stabilizer Width, Transport	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)
L	Stabilizer Spread, Operating						
	Standard Stabilizers	3.10 m (10 ft. 2 in.)	3.10 m (10 ft. 2 in.)	3.10 m (10 ft. 2 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
	Extended Stabilizers	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	—	—	—
M	Stabilizer Overall Width, Operating						
	Standard Stabilizers	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)
	Extended Stabilizers	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)	—	—	—



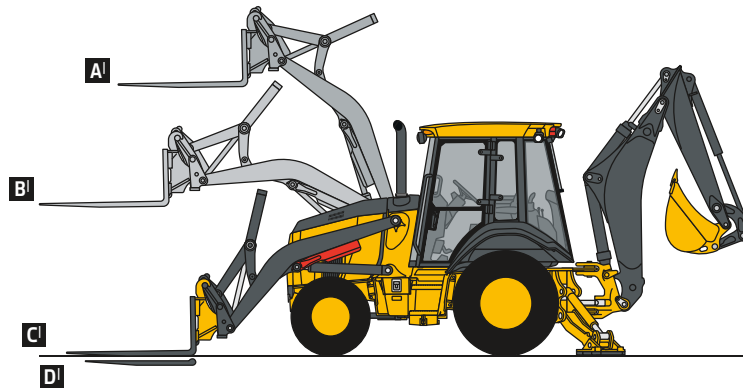
While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

## 320 P-TIER

### Backhoe Dimensions and Performance (continued) 320 P-TIER

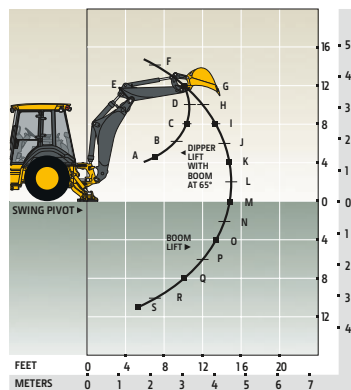
### 320 P-TIER HEAVY-LIFT (HL) OPTION

	With Optional Extendable Dipperstick				With Optional Extendable Dipperstick			
	With Standard Backhoe	Retracted	Extended		With Standard Backhoe	Retracted	Extended	
<b>N</b> Bucket Rotation	190 deg.	190 deg.	190 deg.		190 deg.	190 deg.	190 deg.	
<b>O</b> Transport Height	3.48 m (11 ft. 5 in.)	3.49 m (11 ft. 5 in.)	3.49 m (11 ft. 5 in.)		3.56 m (11 ft. 8 in.)	3.56 m (11 ft. 8 in.)	3.56 m (11 ft. 8 in.)	
<b>Loader Dimensions and Performance [see line art on page 8]</b>								
<b>P</b> Bucket Dump Angle, Maximum	45 deg.				45 deg.			
<b>Q</b> Rollback Angle at Ground Level	40 deg.				40 deg.			
Bucket Capacity	Heavy-duty	Heavy-duty long lip	Heavy-duty	Multipurpose	Heavy-duty	Heavy-duty long lip	Heavy-duty	Multipurpose
	0.86 m <sup>3</sup> (1.12 cu. yd.)	0.96 m <sup>3</sup> (1.25 cu. yd.)	1.00 m <sup>3</sup> (1.31 cu. yd.)	1.00 m <sup>3</sup> (1.31 cu. yd.)	0.86 m <sup>3</sup> (1.12 cu. yd.)	0.96 m <sup>3</sup> (1.25 cu. yd.)	1.00 m <sup>3</sup> (1.31 cu. yd.)	1.00 m <sup>3</sup> (1.31 cu. yd.)
Width	2184 mm (86 in.)	2184 mm (86 in.)	2337 mm (92 in.)	2337 mm (92 in.)	2184 mm (86 in.)	2184 mm (86 in.)	2337 mm (92 in.)	2337 mm (92 in.)
Weight	390 kg (860 lb.)	405 kg (892 lb.)	521 kg (1,148 lb.)	863 kg (1,902 lb.)	390 kg (860 lb.)	405 kg (892 lb.)	521 kg (1,148 lb.)	863 kg (1,902 lb.)
Breakout Force	49.2 kN (11,052 lb.)	46.4 kN (10,442 lb.)	46.9 kN (10,541 lb.)	43.2 kN (9,722 lb.)	49.4 kN (11,116 lb.)	46.7 kN (10,503 lb.)	47.1 kN (10,598 lb.)	43.5 kN (9,778 lb.)
Lift Capacity, Full Height	3492 kg (7,698 lb.)	3224 kg (7,108 lb.)	3352 kg (7,390 lb.)	2862 kg (6,309 lb.)	3425 kg (7,552 lb.)	3166 kg (6,980 lb.)	3286 kg (7,244 lb.)	2801 kg (6,175 lb.)
<b>R</b> Height to Bucket Hinge Pin, Maximum	3.47 m (11 ft. 5 in.)	3.47 m (11 ft. 5 in.)	3.47 m (11 ft. 5 in.)	3.47 m (11 ft. 5 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)
<b>S</b> Dump Clearance, Bucket at 45 deg.	2.76 m (9 ft. 1 in.)	2.66 m (8 ft. 9 in.)	2.70 m (8 ft. 10 in.)	2.67 m (8 ft. 9 in.)	2.75 m (9 ft. 0 in.)	2.65 m (8 ft. 8 in.)	2.69 m (8 ft. 10 in.)	2.66 m (8 ft. 9 in.)
<b>T</b> Reach at Full Height, Bucket at 45 deg.	678 mm (26.7 in.)	804 mm (31.7 in.)	675 mm (26.6 in.)	716 mm (28.2 in.)	724 mm (28.5 in.)	850 mm (33.5 in.)	720 mm (28.4 in.)	762 mm (30.0 in.)
<b>U</b> Digging Depth Below Ground, Bucket Level	83 mm (3.3 in.)	64 mm (2.5 in.)	128 mm (5.0 in.)	124 mm (4.9 in.)	101 mm (4.0 in.)	81 mm (3.2 in.)	145 mm (5.7 in.)	141 mm (5.6 in.)
<b>V</b> Length From Front Axle Centerline to Bucket Cutting Edge	1.96 m (6 ft. 5 in.)	2.10 m (6 ft. 11 in.)	2.03 m (6 ft. 8 in.)	2.08 m (6 ft. 10 in.)	1.97 m (6 ft. 6 in.)	2.11 m (6 ft. 11 in.)	2.04 m (6 ft. 8 in.)	2.09 m (6 ft. 10 in.)
<b>Lift Capacity With Quick-Coupler Forks [see line art below]</b>								
<b>Hydraulic Capacity</b>								
<b>A</b> Maximum Height	1219-mm (48 in.) Tines	1524-mm (60 in.) Tines	1524-mm (60 in.) Tines	1524-mm (60 in.) Tines	1219-mm (48 in.) Tines	1524-mm (60 in.) Tines	1524-mm (60 in.) Tines	1524-mm (60 in.) Tines
<b>B</b> Maximum Reach	2067 kg (4,558 lb.)	1932 kg (4,260 lb.)	3001 kg (6,617 lb.)	3001 kg (6,617 lb.)	2028 kg (4,472 lb.)	1896 kg (4,180 lb.)	2982 kg (6,575 lb.)	2982 kg (6,575 lb.)
<b>C</b> At Ground Line	3183 kg (7,017 lb.)	3001 kg (6,617 lb.)	3163 kg (6,974 lb.)	3163 kg (6,974 lb.)	3163 kg (6,974 lb.)	2982 kg (6,575 lb.)	3781 kg (8,335 lb.)	3781 kg (8,335 lb.)
<b>D</b> Below Ground Line	4020 kg (8,863 lb.)	3768 kg (8,306 lb.)	3997 kg (8,812 lb.)	3997 kg (8,812 lb.)	3997 kg (8,812 lb.)	3781 kg (8,335 lb.)	3781 kg (8,335 lb.)	3781 kg (8,335 lb.)
	198 mm (7.8 in.)	198 mm (7.8 in.)	216 mm (8.5 in.)	216 mm (8.5 in.)	216 mm (8.5 in.)	216 mm (8.5 in.)	216 mm (8.5 in.)	216 mm (8.5 in.)

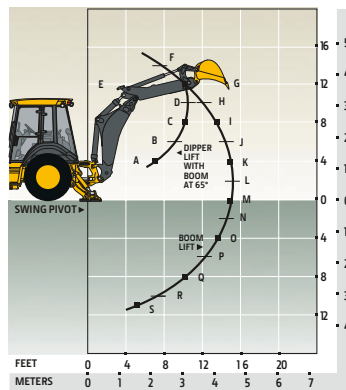


### Lift Capacities [see charts on page 10]

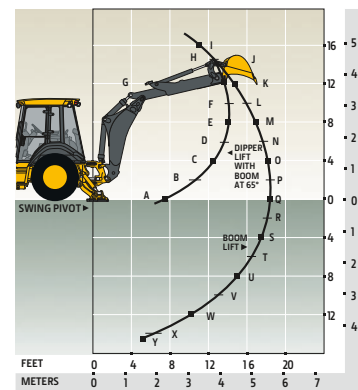
### 320 P-TIER



With Standard Dipperstick



With Extendable Dipperstick, Retracted



With Extendable Dipperstick, Extended

# 320 P-TIER

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

## Lift Capacities (continued) [see line art on page 9]

## 320 P-TIER

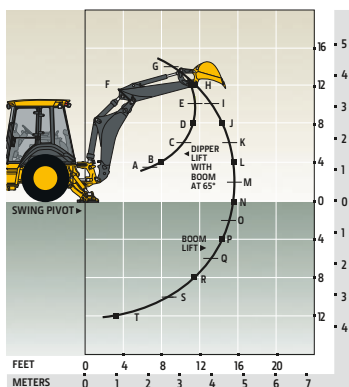
Lift capacities are over-end values in kg (lb.). Figures listed are 100% of the maximum lift force available.

With Standard Dipperstick		With 1.06-m (3 ft. 6 in.) Extendable Dipperstick, Retracted		With 1.06-m (3 ft. 6 in.) Extendable Dipperstick, Extended	
Standard Lift	Lift Mode	Standard Lift	Lift Mode	Standard Lift	Lift Mode
A	4782 kg (10,543 lb.)	4858 kg (10,710 lb.)	4604 kg (10,151 lb.)	4604 kg (10,151 lb.)	3554 kg (7,834 lb.)
B	3673 kg (8,097 lb.)	3673 kg (8,097 lb.)	3251 kg (7,166 lb.)	3251 kg (7,166 lb.)	2480 kg (5,468 lb.)
C	3236 kg (7,135 lb.)	3236 kg (7,135 lb.)	2913 kg (6,423 lb.)	2913 kg (6,423 lb.)	2156 kg (4,753 lb.)
D	3168 kg (6,985 lb.)	3168 kg (6,985 lb.)	2859 kg (6,302 lb.)	2859 kg (6,302 lb.)	2012 kg (4,436 lb.)
E	3038 kg (6,698 lb.)	3364 kg (7,415 lb.)	2619 kg (5,775 lb.)	2912 kg (6,420 lb.)	1918 kg (4,228 lb.)
F	1839 kg (4,054 lb.)	2051 kg (4,522 lb.)	1488 kg (3,281 lb.)	1678 kg (3,699 lb.)	1830 kg (4,034 lb.)
G	1936 kg (4,269 lb.)	2165 kg (4,773 lb.)	1635 kg (3,604 lb.)	1846 kg (4,070 lb.)	1715 kg (3,782 lb.)
H	1918 kg (4,228 lb.)	2147 kg (4,734 lb.)	1652 kg (3,643 lb.)	1869 kg (4,120 lb.)	1525 kg (3,362 lb.)
I	1873 kg (4,128 lb.)	2099 kg (4,628 lb.)	1633 kg (3,599 lb.)	1850 kg (4,078 lb.)	1059 kg (2,334 lb.)
J	1820 kg (4,013 lb.)	2043 kg (4,504 lb.)	1599 kg (3,526 lb.)	1815 kg (4,001 lb.)	1187 kg (2,616 lb.)
K	1768 kg (3,897 lb.)	1986 kg (4,379 lb.)	1562 kg (3,443 lb.)	1775 kg (3,913 lb.)	1236 kg (2,726 lb.)
L	1717 kg (3,786 lb.)	1932 kg (4,259 lb.)	1524 kg (3,360 lb.)	1735 kg (3,825 lb.)	1253 kg (2,763 lb.)
M	1671 kg (3,685 lb.)	1882 kg (4,150 lb.)	1489 kg (3,283 lb.)	1698 kg (3,743 lb.)	1254 kg (2,765 lb.)
N	1630 kg (3,594 lb.)	1838 kg (4,053 lb.)	1458 kg (3,214 lb.)	1665 kg (3,671 lb.)	1247 kg (2,749 lb.)
O	1596 kg (3,518 lb.)	1802 kg (3,972 lb.)	1443 kg (3,160 lb.)	1640 kg (3,615 lb.)	1236 kg (2,724 lb.)
P	1571 kg (3,463 lb.)	1776 kg (3,916 lb.)	1419 kg (3,128 lb.)	1626 kg (3,585 lb.)	1223 kg (2,696 lb.)
Q	1563 kg (3,447 lb.)	1771 kg (3,904 lb.)	1424 kg (3,140 lb.)	1635 kg (3,605 lb.)	1210 kg (2,667 lb.)
R	1609 kg (3,547 lb.)	1827 kg (4,027 lb.)	1486 kg (3,276 lb.)	1710 kg (3,769 lb.)	1198 kg (2,642 lb.)
S	1735 kg (3,824 lb.)	1975 kg (4,353 lb.)	1604 kg (3,537 lb.)	1849 kg (4,076 lb.)	1190 kg (2,622 lb.)
T	—	—	—	—	1186 kg (2,614 lb.)
U	—	—	—	—	1190 kg (2,623 lb.)
V	—	—	—	—	1208 kg (2,664 lb.)
W	—	—	—	—	1261 kg (2,780 lb.)
X	—	—	—	—	1446 kg (3,188 lb.)
Y	—	—	—	—	1986 kg (4,377 lb.)

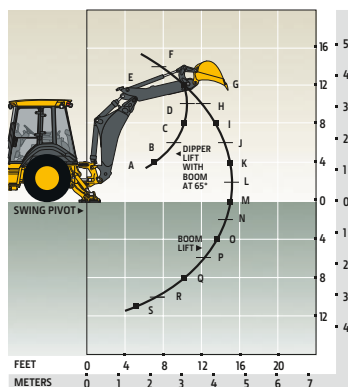
Lift capacities are over end with stabilizers down and tires tangent to ground.

## Lift Capacities (continued) [see line art and charts below]

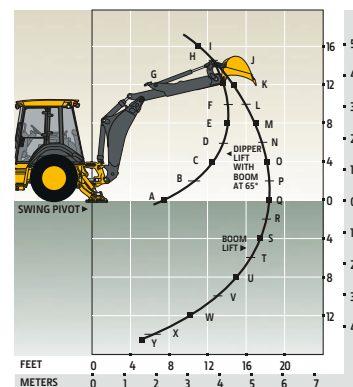
## 320 P-TIER HEAVY-LIFT (HL) OPTION



With Standard Dipperstick



With Extendable Dipperstick, Retracted



With Extendable Dipperstick, Extended

Lift capacities are over-end values in kg (lb.). Figures listed are 100% of the maximum lift force available.

With Standard Dipperstick		With 1.06-m (3 ft. 6 in.) Extendable Dipperstick, Retracted		With 1.06-m (3 ft. 6 in.) Extendable Dipperstick, Extended	
Standard Lift	Lift Mode	Standard Lift	Lift Mode	Standard Lift	Lift Mode
A	5625 kg (12,402 lb.)	5625 kg (12,402 lb.)	5350 kg (11,795 lb.)	4082 kg (8,999 lb.)	4537 kg (10,003 lb.)
B	4697 kg (10,356 lb.)	4697 kg (10,356 lb.)	3613 kg (7,966 lb.)	2709 kg (5,972 lb.)	3018 kg (6,653 lb.)
C	3547 kg (7,819 lb.)	3547 kg (7,819 lb.)	3204 kg (7,064 lb.)	2366 kg (5,216 lb.)	2638 kg (5,817 lb.)
D	3220 kg (7,098 lb.)	3220 kg (7,098 lb.)	3122 kg (6,883 lb.)	2231 kg (4,918 lb.)	2412 kg (5,317 lb.)
E	3164 kg (6,976 lb.)	3164 kg (6,976 lb.)	3117 kg (6,871 lb.)	2153 kg (4,747 lb.)	2295 kg (5,059 lb.)
F	3095 kg (6,823 lb.)	3327 kg (7,336 lb.)	1317 kg (2,903 lb.)	1496 kg (3,297 lb.)	2088 kg (4,604 lb.)
G	1472 kg (3,244 lb.)	1645 kg (3,627 lb.)	1649 kg (3,636 lb.)	1871 kg (4,125 lb.)	2004 kg (4,418 lb.)
H	1801 kg (3,971 lb.)	2016 kg (4,445 lb.)	1744 kg (3,845 lb.)	1980 kg (4,365 lb.)	1851 kg (4,080 lb.)
I	1907 kg (4,204 lb.)	2136 kg (4,710 lb.)	1767 kg (3,896 lb.)	2008 kg (4,428 lb.)	904 kg (1,992 lb.)
J	1940 kg (4,278 lb.)	2176 kg (4,798 lb.)	1761 kg (3,883 lb.)	2004 kg (4,418 lb.)	1152 kg (2,540 lb.)
K	1944 kg (4,285 lb.)	2182 kg (4,810 lb.)	1743 kg (3,843 lb.)	1986 kg (4,378 lb.)	1267 kg (2,793 lb.)
L	1933 kg (4,262 lb.)	2172 kg (4,789 lb.)	1720 kg (3,792 lb.)	1962 kg (4,326 lb.)	1326 kg (2,923 lb.)
M	1918 kg (4,228 lb.)	2166 kg (4,774 lb.)	1698 kg (3,743 lb.)	1939 kg (4,275 lb.)	1356 kg (2,989 lb.)
N	1902 kg (4,192 lb.)	2140 kg (4,719 lb.)	1679 kg (3,702 lb.)	1921 kg (4,235 lb.)	1370 kg (3,021 lb.)
O	1889 kg (4,166 lb.)	2129 kg (4,693 lb.)	1669 kg (3,680 lb.)	1912 kg (4,215 lb.)	1376 kg (3,033 lb.)
P	1886 kg (4,157 lb.)	2126 kg (4,688 lb.)	1674 kg (3,691 lb.)	1920 kg (4,234 lb.)	1377 kg (3,035 lb.)
Q	1897 kg (4,183 lb.)	2142 kg (4,722 lb.)	1711 kg (3,773 lb.)	1965 kg (4,333 lb.)	1376 kg (3,034 lb.)
R	1941 kg (4,279 lb.)	2194 kg (4,836 lb.)	2057 kg (4,535 lb.)	2119 kg (4,671 lb.)	1376 kg (3,034 lb.)
S	2077 kg (4,578 lb.)	2350 kg (5,181 lb.)	2057 kg (4,535 lb.)	2365 kg (5,213 lb.)	1380 kg (3,042 lb.)
T	3270 kg (7,210 lb.)	3709 kg (8,176 lb.)	—	—	1390 kg (3,065 lb.)
U	—	—	—	—	1412 kg (3,113 lb.)
V	—	—	—	—	1457 kg (3,212 lb.)
W	—	—	—	—	1556 kg (3,430 lb.)
X	—	—	—	—	1873 kg (4,130 lb.)
Y	—	—	—	—	2846 kg (6,274 lb.)

Lift capacities are over end with stabilizers down and tires tangent to ground.

# Additional equipment

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

## 320 P Engine

- Coolant recovery tank with low-level indicator
- Foldout, hinged cooling system
- Serpentine belt with automatic belt tensioner
- Electronically controlled, variable-rate suction-type cooling fan
- Self-cleaning exhaust aftertreatment system
- ▲ Chrome exhaust extension
- Grid heat
- ▲ 1,000-watt electric engine coolant heater
- Electronic fuel lift pump

## Powertrain

- PowerShift™ transmission: Torque converter with twist-grip TCL and neutral safety switch interlock (1st through 5th gears)
- 5th-gear overdrive
- AutoShift transmission
- Transmission oil cooler
- ▲ Transmission remote oil-sampling port
- Differential lock, electric foot actuated, protection on/off (software enabled)
- Auto shutdown
- Planetary final drives
- Power-assisted hydraulic service brakes (conform to ISO 3450): Inboard, wet multi-disc, self-adjusting and self-equalizing
- Parking/emergency brake with electric switch control (conforms to ISO 3450): Spring applied, hydraulically released wet multi-disc / Independent of service brakes
- Hydrostatic power steering with emergency manual mode
- ▲ Non-powered front axle
- Mechanical-front-wheel drive (MFWD) with traction-control limited-slip differential: Electric on/off control / Sealed axle
- Automatic MFWD braking
- ▲ MFWD driveshaft guard

## Backhoe

- Lift mode
- Precision mode
- Standard dipperstick digging depth
- 4.35 m (14 ft. 3 in.) [4.59 m (15 ft. 1 in.) for Heavy-Lift (HL) configuration]
- Extendable dipperstick extension
- ▲ 1.06 m (3 ft. 6 in.)
- ▲ Heavy-duty (HD) backhoe bucket cylinder (standard for HL configuration)
- ISO (Deere) 2-lever mechanical backhoe controls (not available for HL configuration)
- ▲ 2-lever pilot controls with pattern-selection feature (standard for HL configuration)
- Backhoe transport lock lever
- Swing lock pin stored in operator's station
- Stabilizers with 2-direction anti-drift valves
- ▲ Extended (long) stabilizers with reversible pads (standard for HL configuration)
- ▲ Severe-duty backhoe bucket with lift loops
- ▲ Backhoe couplers for John Deere, Case, and Cat buckets

## 320 P Backhoe (continued)

- ▲ Auxiliary backhoe valve with 1-way flow for hammers and compactors with plumbing
- ▲ Auxiliary backhoe valve with 1- and 2-way flow for swingers, thumbs, augers, etc. with plumbing
- ▲ Hydraulic thumb
- ▲ Rear hydraulic coupler
- ▲ Spring-type coupler

## Loader<sup>†</sup>

- Loader bucket anti-spill (rollback)
- Return-to-dig feature
- Single-lever control with electric clutch disconnect
- Bucket-level indicator
- Loader boom service lock
- Loader valve with integrated anti-drift checks for hydraulic cylinders controlling loader boom up and bucket dump

- ▲ Auxiliary loader hydraulics with single control lever with EH auxiliary control (MFWD and clutch disconnect)

- ▲ Hydraulic coupler for buckets, forks, etc.

- ▲ Auto ride control

## Hydraulic System

- 163-L/m (43 gpm) axial-piston pump, pressure-compensated load-sensing (PCLS) system
- Auto-idle
- Economy mode
- Dedicated hydraulic reservoir

## Electrical System

- 12-volt system
- 145-amp alternator
- Single battery with 175-min. reserve capacity and 950 CCA
- ▲ Dual batteries with 350-min. reserve capacity and 1,900 CCA
- ▲ Remote jump posts and battery disconnect

## Lights

- Halogen lights (10), 32,500 candlepower each (4 front driving/working, 4 rear working, and 2 side docking)
- Turn signal/flashing (2 front and 2 rear)
- Rear stop and tail (2)
- ▲ LED light package
- ▲ Boom-light field kit (2 LED floods)

## Operator's Station

- Modular-design ROPS/FOPS (Level 2) canopy with molded roof (meets ISO 3449 and ISO 3471/SAE J1040): Isolation mounted
- Molded floor mats (with pilot controls only)
- 12-volt outlet
- Lockable right-side storage
- ▲ Lockable left-hand storage with cup holders
- ▲ Interior front-view mirror
- ▲ Outside rearview mirrors
- Rotary-dial hand throttle
- Suspended foot throttle
- Mechanical-suspension seat, cloth cover
- ▲ Air-suspension heated seat (with cab only)
- ▲ Air-suspension vinyl seat

## 320 P Operator's Station (continued)

- Tilt steering, infinitely adjustable (with cab only)
- ▲ Tilt steering, infinitely adjustable (with canopy and quarter cab)
- Keyless start
- Machine security (enabled through monitor)
- Digital display of engine hours, engine rpm, and system voltage
- Sealed-switch module (SSM)
- Multi-function lever: Turn signals / Windshield wipers / Some light functionality
- Monitor system with audible and visual warnings: Engine air restriction / Low alternator voltage / Engine oil pressure / Hydraulic filter restriction / Parking brake on/off / Aftertreatment temperature / Transmission fluid temperature / Fuel / Hour meter / Machine diagnostic information via 4-push-button/LCD operator interface
- **Canopy:** Mechanical-suspension deluxe vinyl swivel seat with lumbar adjustment and armrests (fully adjustable)
- ▲ **Quarter Cab:** Mechanical-suspension deluxe vinyl swivel seat with lumbar adjustment and armrests (fully adjustable), front windshield, and windshield wiper (1 front)

- ▲ **Cab With Dual Doors and A/C:** Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment / Headliner, dome light, left and right cab doors, tinted safety glass, windshield wipers (1 rear and 1 front), front windshield washer, fresh-air intake, and heater/defroster/pressurizer (11.7-kW [40,000 Btu/h] heater) / A/C (7.6-kW [26,000 Btu/h] output and CFC-free R134a refrigerant)

- ▲ AM/FM/weather-band (WB) radio (with cab only)
- ▲ Premium radio package (with cab only; includes additional 12-volt and USB outlets)

## Overall Vehicle

- 1-piece unitized construction mainframe
- Vehicle tie-downs (2 front and 2 rear)
- Remote grease bank for front axle
- Front bumper cover
- ▲ HD front bumper
- ▲ Front counterweight – 204 kg (450 lb.), 340 kg (750 lb.), 454 kg (1,000 lb.), or 567 kg (1,250 lb.)
- ▲ Rubber grille bumpers
- Fuel tank, 128.7 L (34 gal.), ground-level fueling
- 2-position easy-tilt hood
- Extended grille frame
- Toolbox with padlock hasp
- Vandal protection for locking monitor, engine hood, toolbox, hydraulic reservoir, and fuel tank
- Reverse warning alarm
- Dent-resistant full-coverage rear fenders
- ▲ Backhoe boom-protection plate
- JDLink™ wireless communication system (available in specific countries; see your dealer for details)
- ▲ HD front grille screen
- ▲ HD stabilizer pads

<sup>†</sup>See dealer for range of HD, multipurpose, and coupler buckets and forks.

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249.

Specifications and design are subject to change without notice. Wherever applicable, specifications are in accordance with ISO standards. Except where otherwise noted, these specifications are based on a 320 P-Tier unit with 19.5L-24-in. 12PR (R4) tubeless rear and 12.5-80/18 10PR (R4) front tires, and 1.00-m<sup>3</sup> (1.31 cu. yd.) loader bucket; and a 320 P-Tier Heavy-Lift configuration with lift mode, 19.5L-24-in. 12 PR (R4) tubeless rear and 12.5/80-18 12PR (R4) front tires, and 1.00-m<sup>3</sup> (1.31 cu. yd.) loader bucket.





**JOHN DEERE**





Company ID Number: 513478

## THE E-VERIFY PROGRAM FOR EMPLOYMENT VERIFICATION MEMORANDUM OF UNDERSTANDING

### ARTICLE I

#### PURPOSE AND AUTHORITY

This Memorandum of Understanding (MOU) sets forth the points of agreement between the Department of Homeland Security (DHS) and Warrior Tractor & Equipment Co., Inc. (Employer) regarding the Employer's participation in the Employment Eligibility Verification Program (E-Verify). This MOU explains certain features of the E-Verify program and enumerates specific responsibilities of DHS, the Social Security Administration (SSA), and the Employer. E-Verify is a program that electronically confirms an employee's eligibility to work in the United States after completion of the Employment Eligibility Verification Form (Form I-9). For covered government contractors, E-Verify is used to verify the employment eligibility of all newly hired employees and all existing employees assigned to Federal contracts or to verify the entire workforce if the contractor so chooses.

Authority for the E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note). Authority for use of the E-Verify program by Federal contractors and subcontractors covered by the terms of Subpart 22.18, "Employment Eligibility Verification", of the Federal Acquisition Regulation (FAR) (hereinafter referred to in this MOU as a "Federal contractor with the FAR E-Verify clause") to verify the employment eligibility of certain employees working on Federal contracts is also found in Subpart 22.18 and in Executive Order 12989, as amended.

### ARTICLE II

#### FUNCTIONS TO BE PERFORMED

##### A. RESPONSIBILITIES OF SSA

1. SSA agrees to provide the Employer with available information that allows the Employer to confirm the accuracy of Social Security Numbers provided by all employees verified under this MOU and the employment authorization of U.S. citizens.
2. SSA agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. SSA agrees to provide the Employer with names, titles, addresses, and telephone numbers of SSA representatives to be contacted during the E-Verify process.
3. SSA agrees to safeguard the information provided by the Employer through the E-Verify program procedures, and to limit access to such information, as is appropriate by law, to individuals responsible for the verification of Social Security Numbers and for evaluation of the E-Verify program or such other persons or entities who may be authorized by SSA as governed



Company ID Number: 513478

To be accepted as a participant in E-Verify, you should only sign the Employer's Section of the signature page. If you have any questions, contact E-Verify at 888-464-4218.

**Employer Warrior Tractor & Equipment Co., Inc.**

**Stanley McCracken**

Name (Please Type or Print)

Title

**Electronically Signed**

**03/01/2012**

Signature

Date

**Department of Homeland Security – Verification Division**

**USCIS Verification Division**

Name (Please Type or Print)

Title

**Electronically Signed**

**03/01/2012**

Signature

Date

**Information Required for the E-Verify Program**

**Information relating to your Company:**

Company Name:	Warrior Tractor & Equipment Co., Inc.
Company Facility Address:	6801 McFarland Blvd
	Northport, AL 35476
Company Alternate Address:	P O Box 412
	Northport, AL 35476
County or Parish:	TUSCALOOSA
Employer Identification Number:	630588737





**Company ID Number: 513478**

North American Industry Classification Systems Code:	423
Administrator:	Warrior Tractor and Equipment Co., Inc.
Number of Employees:	100 to 499
Number of Sites Verified for:	1
<b>Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State:</b>	
<ul style="list-style-type: none"><li>• ALABAMA 1 site(s)</li></ul>	

**Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:**

Name:	Stanley N McCracken		
Telephone Number:	(205) 339 - 0300	Fax Number:	(205) 333 - 0101
E-mail Address:	wte024@warriortractor.com		