

**BID SUBMITTAL FORM**  
**Alabama County Joint Bid Program**  
**Heavy Equipment – BID ITEM HEAVY DUTY BACKHOE – OPTION C**

Company Name: Warrior Tractor & Equipment Company, Inc.

Address: 6801 McFarland Blvd W., 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 January 1, 2023 to December 31, 2023.

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: \$ 121,922.00

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

Freight Preparation and Delivery: \$ 6,000.00  
(Included in Standard Machine Bid Price)

Manufacturer's Suggested Retail Price for Standard Machine: \$ 169,418.00

Equipment Model #: John Deere 320P

Description: ~~Excavator~~ 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\*

(10%)

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

(10%)

Equipment Model #: John Deere 320P

Description: Backhoe

Signature of company representative submitting bid: David R. Schef

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 SPECIFICATIONS  
FOR  
HEAVY DUTY BACKHOE-OPTION C**

**GENERAL**

These specifications shall be construed as the minimum acceptable standards for a heavy-duty 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 heavy-duty loader/backhoes must be a new current production model and shall meet all EPA and other applicable standards at the time of manufacture.

The use of specific names or numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer but is intended solely for the purpose of indicating the type, size and quality of equipment considered best adapted to the uses of counties participating in this 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 price bid shall include all destination charges, delivery charges, title fees, rebates and all other applicable costs and refunds.

**MANUALS**

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

**REPLACEMENT PARTS AVAILABILITY**

Parts must be available for 5 years or 7,500 hours of use 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 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 X No \_\_\_  
Page# \_\_\_  
or  
Attachment X



**ENGINE**

Four-cylinder, four stroke cycle, minimum 276 cubic inch diesel engine, capable of developing a minimum of 112 NET flywheel horsepower with turbo charger.

Yes  No   
Page # 22

Must have an alternator with a minimum charging capacity of 120 amps.

Yes  No   
Page # 23

**TRANSMISSION**

Power shuttle/Power Shift transmission.

Yes  No   
Page # 22

Minimum of four (5) speeds forward and four (3) reverse speeds.

Yes  No   
Page # 22

Minimum travel speed: 24 mph.

Yes  No   
Page # 22

**CONTROLS AND HYDRAULICS**

Excavator style pilot-operated joystick controls with closed center, variable displacement load sensing hydraulic system.

Yes  No   
Page # 22

Adjustable steering column.

Yes  No   
Page # 39

Air suspension seat.

Yes  No   
Page # 39

**FRONTEND LOADER**

Loader Bucket -- 1.25 min. cu yd. heavy-duty

Yes  No   
Page # 25

Loader breakout force (lbs.) – 10,500 lbs.

Yes  No   
Page # 25

Loader lift capacity max. Height (lbs.) – 7,100 lbs.

Yes  No   
Page # 25

Loader pin height -- 11 ft. 4 in.

Yes  No   
Page # 25

Loader dump height -- 8 ft. 10 in.

Yes  No   
Page # 25

**BACKHOE – TWO LEVEL CONTROL SYSTEM (FIXED LENGTH DIPPER STICK)**

Backhoe Bucket -- 24 in. heavy duty bucket (5 teeth)

Yes X No      
Page # 24

Bucket breakout force (lbs.) – 15,500 lbs.

Yes X No      
Page # 24

Backhoe stick digging force (lbs.) --10,900 lbs.

Yes X No      
Page # 24

Boom Lift @ 12 ft. (lbs.) – 3,200 lbs.

Yes X No      
Page # 25

Backhoe maximum digging depth -- 15 ft. 10 in.      **\*\*15'1"\*\*\***

Yes X No      
Page # 24

Backhoe maximum dumping height 13 ft. 01in.

Yes X No      
Page # 24

**BRAKES**

Service brakes – hydraulic wet disk.

Yes X No      
Page # 22

Parking brake.

Yes X No      
Page # 22

All wheel braking shall be available.

Yes X No      
Page # 22

**FRONT AXLE**

Standard 2-wheel drive

Yes X No      
Page # ATTACHMENT

**TIRES AND OUTRIGGERS**

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

Yes X No      
Page # 38

Minimum 19.5L – 24/10 PR rear tires and wheels.

Yes X No      
Page # 23

Minimum 12.5/80 – 18/10 PR front tires and wheels.

Yes X No      
Page # 23

**FUEL TANK**

Minimum Capacity -- 34 Gallons

Yes X No      
Page # 23

**OPEN ROPS CANOPY**

Yes  No   
Page # ATTACHMENT

**WEIGHT (STANDARD OPERATING)**

The factory specified operating weight only without options. No additional weights may be added for the purpose of meeting these specifications. Minimum 17,500 lbs. SAE standard.

Yes  No   
Page # 23

**SAFETY DEVICES**

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

Yes  No   
Page # ATTACHMENT

Include a rotating or flashing safety beacon installed on top of the cab.

Yes  No   
Page # ATTACHMENT

# 320 P-tier Backhoe Loader

27-Dec-2022



Code	Description	QTY	List Price (USD)
17C0T	<p>320 P-tier Backhoe Loader</p> <p>320 P-tier Standard Equipment</p> <p><b>ENGINE:</b> John Deere PowerTech™ EWL 4.5L turbocharged 4-cylinder engine Serpentine belt with automatic belt tensioner Vertical spin-on engine oil filter Primary and secondary spin-on fuel filter with water separator Dual safety element dry-type air cleaner with evacuator valve Vertical curved exhaust stack</p> <p><b>COOLING SYSTEM:</b> Engine radiator Engine coolant -40 degrees F (-40C) Coolant recovery tank with low level indicator Cooling fan with fan guard Oil-to-water engine oil cooler Oil to air hydraulic oil cooler Oil to water transmission oil cooler Fold-out hinged cooling system High ambient temperature engine coolant</p> <p><b>POWERTRAIN:</b> Powershift transmission with torque converter Auto-shift feature (on/off) Vertical spin-on transmission filter Single electric transmission control lever (forward/neutral/reverse) with integrated gear selection &amp; horn Electronic transmission controller with on-board diagnostics Rigid mounted rear axle with 4-planet final drive Differential lock, foot switch activated, protection on/off Mechanical limited slip front wheel drive Hydrostatic power steering with emergency manual mode power-assisted hydraulic service brakes inboard, wet disc, self-adjusting and self-equalizing (conforms to ISO 3450) Power-assisted hydraulic service brakes inboard, wet disc, self-adjusting and self-equalizing (conforms to ISO 3450) Parking/emergency brake: independent of service brakes (conforms to ISO 3450) spring applied, hydraulically released, wet multi-disc</p> <p><b>HYDRAULICS:</b> 42 GPM (159 L/m) axial piston pump - closed center / PCLS hydraulics system Dedicated hydraulic reservoir 4 micron vertical spin-on filter "O" ring face seal connectors Circuit relief valve protection Economy mode Auto idle Lift mode provides up to 15% additional craning capacity</p> <p><b>BACKHOE:</b> 14 ft. 9 in. (4.50 m) digging depth (extendible dipperstick, retracted) Backhoe transport lock lever Swing locking pin stored in op. station ISO (Deere) 2 lever mechanical backhoe controls</p>	1	\$165,753.00



Reversible pad stabilizer feet with integrated lock  
 Stabilizer two-direction anti-drift valves  
 Less bucket with bucket pins  
 Backhoe boom includes mounting hole for optional boom protection plate.

**LOADER:**

Return-to-dig feature  
 Bucket level indicator  
 Hydraulic self-leveling (anti-spill)  
 Single lever control with electric clutch cut-off switch and momentary MFWD control  
 Less bucket with bucket pins  
 Loader boom service lock  
 High-visibility loader arms

**ELECTRICAL:**

12 volt system  
 145 amp alternator  
 (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  
 (2) rear stop and tail  
 (2) rear reflectors  
 Single battery with 175 minute reserve capacity and 950 CCA  
 Blade type multi-fused circuits  
 By-pass start safety cover on starter  
 Positive terminal battery cover

**OPERATOR STATION:**

Modular-design ROPS/FOPS (level 2) canopy with molded roof (meets ISO 3471 and ISO 3449): isolation mounted  
 Left and right side access  
 Slip resistant steps and ergonomically located handholds (conforms to SAE J185)  
 Seat, deluxe deep foam, vinyl cover, high back with adjustable:  
 Suspension for weight/height  
 Fore-aft  
 Lumbar adjustments  
 Flip-up arm rests  
 3 in. orange seat belt with retractor  
 Tilt steering  
 Engine coolant temperature gauge  
 Fuel gauge  
 Transmission oil temperature gauge  
 Electric monitor system with audible and visual warning:  
 - Air cleaner restriction  
 - Low alternator voltage  
 - Engine coolant temperature  
 - Engine oil pressure & temperature  
 - Hydraulic filter restriction  
 - Low brake pressure  
 - 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

Code	Description	QTY	List Price (USD)
	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		

17COT	320 P-tier Backhoe Loader	1	\$165,753.00
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DESTINATION AND LANGUAGE

Destination Codes	Basic Factory Options - Required
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North America

0202	United States	No Added Cost
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Labels	Basic Factory Options - Required
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0351	Translated Text Labels	No Added Cost
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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
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Code	Description	QTY	List Price (USD)
0259	English English language for operator's manual and electronic content. Includes operator's manual and 4G OM packet.		No Added Cost
0263	French 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.		No Added Cost
0287	Spanish 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.		No Added Cost
	<b>OPERATOR'S STATION</b>		
	Operator's Station		Basic Factory Options - Required
1002	Canopy (ROPS/FOPS) 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 (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		No Added Cost
1003	Cab 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 am 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).		\$13,905.00

Code	Description	QTY	List Price (USD)
10A1	<p>Custom Code - Quarter Cab (Window in Front)</p> <p>Isolation mounted modular design ROPS/FOPS level 2 (meets ISO 3449 &amp; 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</p>		\$1,542.00
	Operator's Station-Order As Desired		Field Installed Attachments - Optional
	<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>		
8096	Premium Mirror Option - Exterior Rear View Mirrors (2) and Front View Mirror (1)		\$177.00
8103	<p>Premium Canopy Option - Headliner and Tilt Steering</p> <p>With floor mat.</p>		\$1,138.00
8109	Sun Visor		\$100.00
8146	Left Side Console Storage with Cup Holders		\$85.00
8182	<p>Radio, Bosch Basic Package</p> <p>AM/FM/Weather Radio</p>		\$917.00
8183	<p>Radio, Bosch Premium Package</p> <p>AM/FM/Weather Radio, Bluetooth capable with microphone, 3.5mm auxiliary input, USB input, roof power port, roof storage compartment.</p>		\$1,424.00
8207	<p>Seat, Cloth Air-Suspension</p> <p>For enclosed Cab.</p>		\$528.00
8208	<p>Seat, Cloth Air-Suspension - Heated</p> <p>For enclosed Cab.</p>		\$1,044.00



Code	Description	QTY	List Price (USD)
8209	Seat, Vinyl Air-Suspension For open ROPS or enclosed Cab.		\$515.00
81C0	Custom Code - Less A/C		(\$947.00)
PRECISION TECHNOLOGY SOLUTIONS			
	Connectivity Hardware		Basic Factory Options - Required
183E	JDLink™ 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	JDLink™ Satellite 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
POWERTRAIN			
	Transmission		Basic Factory Options - Required
3009	Autoshift Transmission - Mechanical Front Wheel Drive (MFWD) with Limited Slip Differential 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	Custom Code - 2 Wheel Drive Transmission 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			
	Engine		Basic Factory Options - Required
4006	John Deere PowerTech™ EWL 4.5L (276 cu. in.) Engine Meets Final Tier 4 and Stage IV Emissions		No Added Cost

Code	Description	QTY	List Price (USD)
	<p>Net peak power of 113 Hp. For use only in areas where EPA final tier 4/EU stage IV is required.</p> <p>Turbocharged. Wet sleeve cylinder liners. 4 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. Electronically controlled, variable-speed cooling fan.</p>		
	Engine - Order As Desired		Field Installed Attachments - Optional
8213	Chrome Exhaust Extension		\$187.00
	Oil Sampling Ports - Order As Desired		Field Installed Attachments - Optional
8075	<p>Diagnostic Oil Sampling Ports</p> <p>Includes 4 ports: Engine oil Engine coolant Transmission oil Hydraulic oil</p>		\$217.00
	Engine		Field Installed Attachments - Optional
BYT11589	<p>Fluid Sampling Ports</p> <p>Not available on Stage II (Tier 2) engines. For use on Backhoes with a Serial Number 390995 and Higher.</p>		\$498.00
AT393180	Environmental Drain Kit		\$595.00
BYT11568	<p>Pre-Cleaner, Engine Air Intake</p> <p>Aspiration style pre-cleaner using engine exhaust to scavenge debris from air filter intake.</p>		\$1,127.00

WHEELS/TIRES/TRACKS

Code	Description	QTY	List Price (USD)
	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).		\$321.00
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).		\$1,458.00
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.		\$3,256.00
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.		\$2,358.00
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.		\$3,855.00
54D1	Custom Code - Goodyear 16.9-28 10PR R-4 TL IT525 Rear & 12.5/80-18 14PR I-3 Front Requires axle code 3009. Rear tire chains require wheel spacers (AT347522).		\$1,157.00
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).		\$1,309.00

For use with 2 Wheel Drive

Code	Description	QTY	List Price (USD)
5242	Galaxy 16.9-28 12PR Rear & 12.5/80-18 12PR Front Requires axle code 30A1. Rear tire chains require wheel spacers (AT347522).		\$399.00
5246	Galaxy 19.5L-24 12PR Rear & 12.5/80-18 12PR Front Requires axle code 30A1. Rear tire chains require wheel spacers (AT347522).		\$69.00
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).		\$464.00
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).		\$696.00
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).		\$1,336.00
54K1	Custom Code - Alliance 550 Radial 2WD - 550/70R24 Rear & 340/80R18 Front Requires code 30A1. Rear tire chains require wheel spacers (AT347522).		\$4,287.00

## ELECTRICAL

### Batteries

Basic Factory Options - Required

6152	Single Maintenance Free 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 Maintenance Free 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.		\$482.00



Code	Description	QTY	List Price (USD)
	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.		\$1,106.00
8226	Strobe Light with Magnetic Mount Light is shipped loose in the cab.		\$617.00
	Lighting		Field Installed Attachments - Optional
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.		\$409.00
AT445009	LED Flood Light Kit Includes 2 lights.		\$223.00
AT445010	LED Spot Light Kit Includes 2 lights.		\$223.00
AT313592	6 inch Amber Warning Light with LED Beacon and Magnetic Roof Mounting Kit		\$267.00
	MAINFRAME/STRUCTURES		
	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.		\$3,759.00
6752	Extendible Dipperstick		\$8,783.00

Extended stabilizer legs; stabilizer overall width, operating: 13 ft. 3 in. (4.03 m.)

6754	Heavy Lift - Extendible Dipperstick		\$12,542.00
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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.

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
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6572	Heavy-Duty Bumper - For Machines without a Front Counterweight		\$234.00
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6573	450 lb. (204 kg.) Front Counterweight		\$646.00
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6575	750 lb. (340 kg.) Front Counterweight		\$1,048.00
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Code	Description	QTY	List Price (USD)
6576	1000 lb. (454 kg.) Front Counterweight		\$1,443.00
6577	1250 lb. (567 kg.) Front Counterweight		\$1,846.00
	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.		\$485.00
8296	Standard Stabilizer Legs Requires option code 6752. Stabilizer overall width, operating: 11 ft. 7 in. (3.53 m.)		No Added Cost
	HYDRAULICS/CONTROLS		
	Backhoe Auxiliary Hydraulics		Basic Factory Options - Required
7000	No Auxiliary		No Added Cost
7001	Auxiliary Hydraulics with One Way Flow (Hammer) 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.		\$3,311.00
7002	Auxiliary Hydraulics with One & Two Way Flow (Hammer & Thumb/Swinger) 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.		\$5,185.00
	Backhoe Controls		Basic Factory Options - Required
7026	Mechanical Controls, Two Lever, ISO (Deere)		No Added Cost



Code	Description	QTY	List Price (USD)
7028	Pilot Controls, Two Lever, with Pattern Selection Proportional auxiliary control and extendable dipperstick control integrated into pilot control levers.		\$2,724.00
	Loader Controls		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. All selections come with Return to Dig feature.		
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		\$7,170.00
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.		\$3,431.00
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.		\$10,473.00
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.		\$8,873.00
	Hydraulics/Controls - 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.		



Code	Description	QTY	List Price (USD)
8125	Heavy-Duty Backhoe Bucket Cylinder Increases backhoe bucket breakout force by 27%.		\$287.00
8165	Auto Ride Control		\$2,452.00
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).		\$638.00
80A3	Custom Code - Accu-Swing		\$774.00

IMPLEMENTS/ATTACHMENTS

Backhoe Buckets

Basic Factory Options - Required

All buckets include lift holes.

7800	Less Backhoe Bucket with Bucket Pins		No Added Cost
7801	12 in. (305 mm.) Wide, 3.3 cu. ft. (0.09 cu. m.) Bucket Bucket includes TK teeth.		\$1,845.00
7804	18 in. (457 mm.) Wide, Heavy-Duty, 5.1 cu. ft. (0.14 cu. m.) Bucket Bucket includes TK Teeth.		\$2,104.00
7806	24 in. (610 mm.) Wide, Heavy-Duty, 7.5 cu. ft. (0.21 cu. m.) Bucket Bucket includes TK Teeth.		\$2,286.00
7808	24 in. (610 mm.) Wide, Severe-Duty, 7.5 cu. ft. (0.21 cu. m.) Bucket Bucket includes TK Teeth.		\$3,103.00
7809	24 in. (610 mm.) Wide, Heavy-Duty, 8.8 cu. ft. (0.25 cu. m.) Top Hook Coupler Bucket Bucket includes TK Teeth.		\$2,463.00
7810	24 in. (610 mm.) Wide, Heavy-Duty, 8.8 cu. ft. (0.25 cu. m.) Bucket Bucket includes TK Teeth.		\$2,507.00

Code	Description	QTY	List Price (USD)
7811	24 in. (610 mm.) Wide, Severe-Duty, 8.8 cu. ft. (0.25 cu. m.) Bucket Bucket includes TK Teeth.		\$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.		\$1,615.00
7703	Deere Standard 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 310SE, SG, SJ, SK, SL; 410E, G, J, K, L backhoe buckets. Not compatible with 310E, G, J, K, L series backhoe buckets.		\$1,615.00
7704	Deere Standard 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 310SE, SG, SJ, SK, SL; 410E, G, J, K, L backhoe buckets. Not compatible with 310E, G, J, K, L series backhoe buckets.		\$1,615.00
7705	Multi-Brand Quick Coupler - Less Thumb If ordering coupler with thumb, requires option code 7706 or 7707. For use with Deere C, D, SE, SG, SJ, SK, SL & 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.  Spacers are recommended for Cat and Case buckets, see bulletin 07BH08 for details.		\$1,805.00
7706	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 Deere C, D, SE, SG, SJ, SK, SL & 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.  Spacers are recommended for Cat and Case buckets, see bulletin 07BH08 for details.		\$1,805.00
7707	Multi-Brand Quick Coupler - 42 in. Thumb Ready		\$1,805.00

Code	Description	QTY	List Price (USD)
	<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>		
7708	<p>Top Hook Quick Coupler - Less Thumb</p> <p>If ordering with thumb, requires option code 7709.            For use with Deere top hook coupler bucket option code 7809 and CP or pre-XLS Wain Roy top hook bucket.</p>		\$1,492.00
7709	<p>Top Hook 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.            Only compatible with Deere top hook coupler bucket option code 7809 and CP or pre-XLS Wain Roy top hook bucket.</p>		\$1,492.00
7710	<p>New Series Multi-Brand Quick Coupler - Less Thumb</p> <p>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 &amp; SL HL series backhoe buckets except high-capacity buckets and 710 buckets.            Not compatible with Case N-series.</p>		\$1,856.00
7711	<p>New Series 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 Cat D,E, F, Case K-L-M, and Deere SE, SG, SJ, SK, SL &amp; SL HL series backhoe buckets except high-capacity buckets and 710 buckets.            Not compatible with Case N-series.</p>		\$1,856.00
7712	<p>New Series 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 Cat D,E, F, Case K-L-M, and Deere SE, SG, SJ, SK, SL &amp; SL HL series backhoe buckets except high-capacity buckets and 710 buckets.            Not compatible with Case N-series.</p>		\$1,856.00
7713	<p>Rear Hydraulic Coupler for Pin-on Buckets - Less Thumb</p> <p>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 &amp; 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.</p>		\$8,509.00
7714	<p>Rear Hydraulic Coupler for Pin-on Buckets - 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 on 310SL, 310SL HL, and 410L with a serial number of 303524 and higher. For use with Deere SE, SG, SJ, SK, SL &amp; 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.</p>		\$8,509.00
7715	<p>Rear Spring Type Quick Coupler - Less Thumb</p> <p>If ordering coupler with thumb, requires code 7716.            For use with Deere SE, SG, SJ, SK, SL &amp; SL HL series pin-on buckets and 410E, G, J, K, and L series pin-on buckets. Not for</p>		\$3,707.00



Code	Description	QTY	List Price (USD)
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use with top hook buckets. Reference bulletin 17BH09 for bucket compatibility information.

7716	Rear Spring Type Quick Coupler - 42 in. Thumb Ready		\$3,707.00
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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.

Loader Buckets

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.  
 Loader buckets include skid plates and lift hooks unless stated otherwise.

Pin-On Loader Buckets

Not compatible with 7038 and 7041 loader hydraulics.

7853	86 in. (2.18 m.) Wide, 1.12 cu. yd. (0.86 cu. m.) General Purpose Bucket		\$4,745.00
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Includes reversible bolt-on cutting edge and skid plates.

7870	86 in. (2.18 m.) Wide, 1.25 cu. yd. (0.96 cu. m.) Long-Lip Bucket		\$4,774.00
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Includes reversible bolt-on cutting edge and skid plates.

7859	92 in. (2.34 m.) Wide, 1.31 cu. yd. (1.0 cu. m.) Long-Lip Bucket		\$5,484.00
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Includes reversible bolt-on cutting edge and skid plates.

7861	1.31 cu. yd. (1.0 cu. m.) Multi-Purpose Bucket		\$12,770.00
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92 in. (2.34 m.) wide  
 Includes reversible bolt-on cutting edge for moldboard and back of clamshell, skid plates, and two lift holes.  
 Pre-drilled for eight teeth - order teeth from parts.

7862	92 in. (2.34 m.) Wide, 1.31 cu. yd. (1.0 cu. m.) Multi-Purpose Bucket with Bolt-On Teeth, Flip-over-Fork Ready		\$10,595.00
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Includes reversible cutting edge for moldboard and back of clamshell, mounting ears for flip-over forks, two lift holes and skid plates.  
 Requires field kit AT366494 for flip over forks.

Coupler Loaders Buckets

Requires codes 7038 or 7041 loader coupler

7860	92 in. (2.34 m.) Wide, 1.31 cu. yd. (1.0 cu. m.) Long-Lip Coupler Bucket		\$5,938.00
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Includes reversible bolt-on cutting edge and skid plates.



Code	Description	QTY	List Price (USD)
7863	92 in. (2.34 m.) Wide, 1.31 cu. yd. (1.0 cu. m.) Multi-Purpose Coupler Bucket Requires code 7041. Includes reversible bolt-on cutting edge for moldboard and back of clamshell, skid plates, and two lift holes. Pre-drilled for eight 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
	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.		\$11,133.00
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.		\$11,308.00
	MISCELLANEOUS		
	Miscellaneous - Order As Desired		Field Installed Attachments - Optional
8101	Finish Paint - Decals Not Installed		\$173.00
8039	Non-Export Rust Preventive Coating Coating protects exposed unpainted surfaces from road salt during shipment.		\$181.00
	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.		\$632.00

Code	Description	QTY	List Price (USD)
8115	MFWD Driveshaft Guard Recommended when operating over large rocks or stumps.		\$449.00
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.		\$583.00
	Guards		Field Installed Attachments - Optional
AT305073	Stabilizer Cylinder Guards (Set of Two)		\$314.00
AT434236	Rubber Bumper for Grille Frame		\$225.00
AT438402	KIT, FULL MFWD GUARD		\$309.00
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
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
BYT11926	Heavy-Duty Grille Screen Kit Compatible with L-Series Backhoe Loaders.		\$561.00
	Miscellaneous		Field Installed Attachments - Optional
BYT10330	Rear Wiring Harness for Hammer, Auto Greaser Harness that enables installation of an auto greaser (primarily for hammer use).		\$180.00
AT437905	Jump Start and Battery Disconnect Kit		\$260.00
AT451194	Pivotable Beacon Bracket		\$114.00

Code	Description	QTY	List Price (USD)
AT408903	Mounting kit for multi-purpose (ABC) Dry Chemical Fire Extinguisher Kit Does not Include Fire Extinguisher.		\$100.00
BYT10312	Stop Kit, Field Kit - Pilot Tower Stow		\$26.00
	<b>HYDRAULICS</b>		
	Hydraulics		Field Installed Attachments - Optional
BYT11688	Auxiliary Loader Control Valve with 3 Function Hydraulics - Single Lever For use on 310SL (0A71T), 310SL HL (0A81T) and 410L (0AB1T). 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.		\$4,031.00
BYT12205	Auxiliary Backhoe Hydraulic Selective Flow Plumbing Kit - Standard Dipperstick Installation instructions T453413. 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. For use with HL configuration only.		\$610.00
BYT11692	Auxiliary Plumbing for Selective Flow - Extendible Dipperstick 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.		\$687.00
BYT11992	Sixth Function Valve Kit (2 way flow for thumb swinger or grapple) 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)		\$3,048.00
BYT11691	Auxiliary Plumbing for Selective Flow - Standard Dipperstick		\$610.00



Code	Description	QTY	List Price (USD)
	<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>		
BYT11701	<p>Selective Flow Control Kit (1 way flow for use with hammer or compactor)</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>		\$1,759.00
AT431340	<p>Accu-Swing Kit for Backhoe</p> <p>Includes two circuit reliefs, fittings, clamps and hardware.            Installation instructions T210751.</p>		\$492.00
AT450466	<p>Auxiliary Backhoe Hydraulics for Auger, Extendible Dipperstick</p> <p>Includes fittings and hydraulic couplers for bucket cylinder.            Average installation, 1 hour.            Bucket cylinder hoses are disconnected; bucket function operates auger forward and reverse. No additional controls are required.            Dealer must supply 0.5 inch (12.7 mm) ID hoses from bucket cylinder hydraulic couplers to auger.</p>		\$384.00
AT448426	<p>Controlled Lowering Device for Backhoe Boom Cylinder</p> <p>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.</p>		\$2,734.00
AT431164	<p>Controlled Lowering Device for Backhoe Boom Cylinder</p> <p>Load holding valve in the event of hose failure. Meets ISO 8643. Also provides reduction in hydraulic function drift. Compatible for 320 P with HL option (code 6753 or 6754) and 410 P. Backwards compatible with L-series like model. Kit includes load control valve, hoses, fittings, clamps, connectors and o-rings.</p>		\$2,734.00
AT448425	<p>Controlled Lowering Device for Backhoe Dipper (Crowd) Cylinder</p> <p>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.</p>		\$3,096.00
AT431163	<p>Controlled Lowering Device for Backhoe Dipper (Crowd) Cylinder</p> <p>Load holding valve in the event of hose failure. Meets ISO 8643. Also provides reduction in hydraulic function drift.            Requires prior installation of AT431164. Compatible for 320 P with HL option (code 6753 or 6754) and 410 P, standard and extendable dipper. Backwards compatible with L-series like model. Kit includes load control valve, hoses, fittings, clamps, connectors and o-rings.</p>		\$2,282.00
AT448428	<p>Hand Held Hydraulics</p> <p>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.</p>		\$464.00



Code	Description	QTY	List Price (USD)
	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.		\$1,052.00
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.		\$7,841.00
BYT11010	Hydraulic Plumbing, Bulk Head to Deere Thumb Cylinder - Standard Dipperstick For use with serial numbers after 338468. Must be configured with 7002 or 7004 or BYT11006, BYT11693, BYT11014, BYT11015. Average installation, 2 hours. For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.) 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. For installation instructions, please reference DTAC Solution 115211.		\$88.00
BYT11011	Hydraulic Plumbing, Bulk Head to Deere Thumb Cylinder - Extendable Dipperstick For use with serial numbers after 338468. Must be configured with 7002 or 7004 or BYT11016, BYT11694, BYT11018, BYT11019. Average installation, 2 hours. For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.) 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. For installation instructions, please reference DTAC Solution 115211.		\$88.00
BYT11014	Auxiliary Backhoe Hydraulic Plumbing Kit, Two-Way Proportional Flow - Standard Dipperstick For use with serial numbers after 338456. Includes plumbing to bulkhead at the end of the dipperstick. Average installation, 2 hours. Includes two circuit reliefs, fittings, clamps, hoses and hardware. For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.) Requires unit to have unused 5th, 6th or 7th 2 way hydraulic functions. Controlled by thumb roller in pilot joystick. Quick connect couplers and jumper hoses from bulkhead to attachment not included. If installing hydraulic thumb, additional thumb plumbing kit is required (BYT11010). Please reference DTAC Solution 115211. For use with HL configuration only.		\$655.00
BYT11018	Auxiliary Backhoe Hydraulic Plumbing Kit, Two-Way Proportional Flow - Extendable Dipperstick For use with serial numbers after 338456. Includes plumbing to bulkhead at the end of the dipperstick. Average installation, 2 hours. Includes two circuit reliefs, fittings, clamps, hoses and hardware. For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.) Requires unit to have unused 5th, 6th or 7th 2 way hydraulic functions. 310SL HL and 410L controlled by thumb roller in pilot joystick. Quick connect couplers and jumper hoses from bulkhead to attachment not included. If installing hydraulic Deere thumb, additional thumb plumbing kit is required (BYT11011). Please reference DTAC Solution 115211.		\$655.00

Code	Description	QTY	List Price (USD)
For use with HL configuration only.			
BYT11079	1-Way (Select Flow) Auxiliary Hydraulics Bulkhead - Bucket Cylinder Mounted 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.		\$216.00
BYT11694	Auxiliary Backhoe Hydraulic Plumbing Kit, Two-Way Proportional Flow - Extendable Dipperstick For use with 310SL base machine 0A71T. For use on Backhoes with a Serial Number 390995 and Higher. Includes plumbing to bulkhead at the end of the dipperstick. Average installation, 2 hours. Includes two circuit reliefs, fittings, clamps, hoses and hardware. For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.) Quick connect couplers and jumper hoses from bulkhead to attachment not included. If installing hydraulic Deere thumb, additional thumb plumbing kit is required (BYT11011). Please reference DTAC Solution 115211.		\$655.00
BYT11693	Auxiliary Backhoe Hydraulic Plumbing Kit, Two-Way Proportional Flow - Standard Dipperstick For use with 310SL base machine 0A71T. For use on Backhoes with a Serial Number 390995 and Higher. Includes plumbing to bulkhead at the end of the dipperstick. Average installation, 2 hours. Includes two circuit reliefs, fittings, clamps, hoses and hardware. For Low Flow intermittent usage (Thumb, Auger, Rotation Circuit, etc.) Quick connect couplers and jumper hoses from bulkhead to attachment not included. If installing hydraulic Deere thumb, additional thumb plumbing kit is required (BYT11010). Please reference DTAC Solution 115211.		\$655.00
FRONT LOADER			
	Loader Buckets		Field Installed Attachments - Optional
BYT12306	LDR Pin-on Bucket 1.3 Cu. Yd. (1.0 Cu. M.) Heavy Duty 86 in. (2.18 m) wide Long Lip		\$4,083.00
AT308071	LDR Pin-on Bucket 1.12 Cu. Yd. (.86 Cu. M.) Heavy Duty 86 in. (2.18 m) wide Includes Reversible Bolt On Cutting Edge and Skid Plates.		\$4,058.00
AT308080	LDR Pin-On Bucket 1.32 Cu. Yd. (1.0 Cu. M.) Heavy Duty Long Lip Bucket 92 in. (2.34 m) wide. Includes reversible bolt-on cutting edge with skid plates. * Includes two lift holes.		\$4,689.00
AT308188	LDR Pin-on Bucket 1.2 Cu.Yd. (.90 Cu. M.) Narrow 82 in. (2.08 m) Heavy-Duty Long Lip Narrow and Skid Plates		\$3,681.00
AT308966	LDR Coupler Bucket 1.32 Cu. Yd. (1.0 cu. m) Heavy Duty 92 in. (2.34 m) Long Lip		\$5,079.00



Code	Description	QTY	List Price (USD)
	Includes Reversible Bolt On Cutting Edge and Skid Plates.		
AT308968	LDR Coupler Bucket 1.25 Cu. Yd. (.96 Cu. M.) Heavy Duty 86 in. (2.18 m) wide Long Lip Does not include Bolt-On Cutting Edges or Skid Plates.		\$4,291.00
AT308970	LDR Coupler Bucket 1.13 Cu. Yd. (.86 Cu. M.) Heavy Duty 86 in. (2.18 m) wide Long Lip Includes Reversible Bolt On Cutting Edge and Skid Plates.		\$4,557.00
BYT10708	LDR Coupler Multipurpose 1.3 cu. Yd. (1.0 cu. m), 92 in (2.34 m) wide bucket Includes Reversible Bolt On Cutting Edges and Skid Plates. Includes reversible cutting edge for moldboard and back of clamshell. Requires Code 7041, or Third Function Loader Hydraulics and Loader Coupler. Pre-drilled for eight teeth. Includes two built-in lift loops. Proper counterweighting is required. See Counterweight Selection Chart. Requires Backhoe configured with code 6020, Extendible Dipperstick. Cannot be used on a backhoe configured with counterweight codes 6573, 6575, 6576, or 6577.		\$9,861.00
BYT10707	LDR Coupler Multipurpose Bucket 1.25 Cu. Yd. (.96 cu. m) 86 in. (2.18 m) wide Includes Reversible Bolt On Cutting Edges and Skid Plates. Includes reversible cutting edge for moldboard and back of clamshell. Requires Aux. Loader Coupler Hydraulics. 86 in. (2.18 m) bucket width. Pre-drilled for seven teeth. Order teeth from parts. Includes two built-in lift loops. Requires Backhoe configured with code 6752, Extendible Dipperstick. Cannot be used on a backhoe configured with counterweight codes 6573, 6575, 6576, or 6577.		\$9,594.00
BYT10703	LDR Pin-on Multi-Purpose Bucket 1.32 Cu. Yd. (1.0 Cu. M.), 92 in. (2.34 m) wide Includes Reversible Bolt On Cutting Edges and Skid Plates. Includes reversible cutting edge for moldboard and back of clamshell. Requires Third Function Loader Hydraulics. 92 in. (2.3 m) bucket width Pre-drilled for eight teeth. Order teeth from parts. Includes two lift holes. Proper counterweight is required. See Counterweight Selection Chart.		\$9,153.00
BYT10700	LDR Pin-on Multipurpose Bucket 1.00 Cu. Yd. (.76 Cu. M.) 82 in. (2.08 m) Includes Reversible Bolt On Cutting Edge and Skid Plates. Includes reversible cutting edge for moldboard and back of clamshell. Requires Third Function Loader Control Valve Section, Controls and lines. Predrilled for seven teeth. Two built-in lift loops Proper counterweighting is required. See Counterweight Selection Chart.		\$7,800.00
BYT10701	LDR Pin-on Multipurpose Bucket 1.25 Cu. Yd. (.96 Cu. M.) 86 in. (2.18 m) Includes Reversible Bolt On Cutting Edge and Skid Plates. Includes reversible cutting edge for moldboard and back of clamshell.		\$9,091.00

Code	Description	QTY	List Price (USD)
	Requires Third Function Loader Control Valve Section, Controls and lines. Predrilled for seven teeth. Two built-in lift loops Proper counterweighting is required. See Counterweight Selection Chart.		
AT336927	Loader Coupler Attachment Adapter Hook Plates (2) Standard		\$2,128.00
AT308991	LDR Coupler Bucket 1.0 Cu. Yd. (.76 Cu. M.) Heavy Duty 86 in. (2.18 m) wide Includes Reversible Bolt On Cutting Edge with Skid Plates.		\$4,220.00
	Loader Controls		Field Installed Attachments - Optional
AT452094	Ride Control Plumbing Kit Harness, plumbing, and accumulator for ride control. Must order valve and mounting plate separately. Compatible with both manual and auto ride control.		\$708.00
AT449593	Auto Ride Control Valve Kit Includes valve and mounting plate. Also requires plumbing kit AT452094. Must order applicable Software Part Number in JDPoint for Field Kit to function properly.		\$653.00
BYT11542	Multi-Purpose Bucket Anti-Drift Valve Kit 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)		\$934.00
	BACKHOE		
	Backhoe Controls		Field Installed Attachments - Optional
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.		\$512.00
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
AT185629	Sixth Function Pedal for Lever Controls		\$387.00
AT301434	SAE Excavator Style Two Lever Controls		\$260.00



Code	Description	QTY	List Price (USD)
AT309739	Case Three Lever Controls with Foot Swing For units with code 7026.		\$2,081.00
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..		\$268.00
	Attachments & Accessories		Field Installed Attachments - Optional
AT308138	Forks, Pallet (2) 48 in.(1.22m) with 60 in. (1.52m) Coupler Fork Carriage		\$4,942.00
AT308139	Forks, Pallet (2) 60 in.(1.52m) with 60 in. (1.52m) Coupler Fork Carriage		\$5,628.00
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.		\$7,680.00
BYT10287	42 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.		\$7,775.00
AT366494	Multi-Purpose Flip-Over Forks		\$3,584.00
	Backhoe Quick Couplers		Field Installed Attachments - Optional
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.		\$6,927.00
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.		\$6,927.00

Code	Description	QTY	List Price (USD)
	Reference Bulletins 17BH09 and 16BH17 for bucket compatibility and SSM information.		
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.		\$3,354.00
BYT10078	Coupler, Rear Hydraulic Kit 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. For use with HL configuration only.		\$1,134.00
AT324292	Coupler, Top Hook Backhoe Bucket 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 counterweighing is required. See 310SJ or 410J Counterweight Selection Chart.		\$1,153.00
AT336315	Coupler, Multi-Brand Universal Backhoe Bucket For use with CAT B & C Series, Case K-L-M and DEERE SE,SG & 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 counterweighing 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.		\$1,524.00
AT336316	Coupler, Deere Backhoe Bucket 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 counterweighing is required. See Counterweight Selection Chart. Recommend Backhoe Boom Bolt-on Protection Plate.		\$1,530.00
AT343629	Coupler, Universal - Pin-grabber style (non-hydraulic) 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 counterweighing is required. See Counterweight Selection Chart. Recommend Backhoe Boom Bolt-on Protection Plate.		\$4,315.00
AT393558	Backhoe New Series Multi-Brand Quick Coupler 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.		\$1,574.00
	Backhoe Buckets		Field Installed Attachments - Optional

Code	Description	QTY	List Price (USD)
AT437338	BKH Pin-on Bucket 12 In. (305 mm) Heavy-Duty 3.3 Cu. Ft. (0.09 Cu. M.)		\$1,551.00
AT437340	18 in. Heavy Duty BKH Pin-on Bucket (457 mm); 5.1 Cu. Ft. (0.14 Cu. Mt.)		\$1,800.00
AT437344	24 in. Heavy Duty BKH Pin-on Bucket (610 mm); 8.8 Cu. Ft. (0.25 Cu. Mt.)		\$2,144.00
AT437361	BKH Top Hook Coupler Bucket 12 in. (305 mm) Heavy Duty 3.3 Cu. Ft. (.09 Cu. M.)		\$1,582.00
AT437700	BKH Pin-on Bucket 18 in (457 mm) Severe Duty 5.1 Cu. Ft. (0.14 Cu. M.)		\$2,136.00
AT437701	BKH Pin-on Bucket 24 in (610 mm) Severe Duty 7.5 Cu. Ft. (0.21 Cu. M.)		\$2,654.00
AT437702	BKH Pin-on Bucket 24 in (610 mm) Severe Duty 8.8 Cu. Ft. (0.25 Cu. M.)		\$2,740.00
AT437703	BKH Pin-on Bucket 30 In. (762 mm) Severe-Duty 10.0 Cu. Ft. (0.28 Cu. M.) Requires multi-brand quick coupler (AT336313 or option codes 7705, 7706, or 7707).		\$2,907.00
AT437362	BKH Top Hook Coupler Bucket 18 in. (457 mm) Heavy Duty 5.1 Cu. Ft. (0.14 Cu. M.)		\$1,889.00
AT437363	BKH Top Hook Coupler Bucket 24 in. (610 mm) Heavy Duty 7.5 Cu. Ft. (0.21 Cu. M.)		\$2,106.00
AT437616	36 in. Ditching BKH Pin-on Bucket (914mm); 12.5 Cu. Ft. (0.35 Cu. Mt.)		\$2,190.00
AT436333	BKH Pin-on Bucket 36 In. (914 mm) Heavy-Duty 12.5 Cu. Ft. (0.35 Cu. M.)		\$3,336.00
AT437345	30 in. Heavy Duty BKH Pin-on Bucket (762 mm); 10.0 Cu. Ft. (0.28 Cu. Mt.)		\$2,220.00



Code	Description	QTY	List Price (USD)
AT437343	BKH Pin-On Bucket 24 In. (610 mm) Heavy Duty 7.5 Cu. Ft. (0.21 Cu. M.)		\$1,955.00
AT437342	BKH Pin-On Bucket 24 In. (610 mm) Standard-Duty 7.5 Cu. Ft. (0.21 Cu. M.)		\$2,017.00
	Stabilizer Legs		Field Installed Attachments - Optional
AT376409	Standard Stabilizer Street Pads		\$234.00
AT376410	Heavy Duty Stabilizer Pads		\$467.00
	OPERATOR'S STATION AND CONTROLS		
	Operator's Station		Field Installed Attachments - Optional
AT186155	(2) External Rear View Mirrors		\$293.00
AT186288	Slow Moving Vehicle Emblem		\$115.00
AT186307	Sun Visor		\$96.00
AT187707	License Plate Bracket and Light		\$233.00
AT192032	Operator Manual Tether Cables for ROPS or Cab		\$28.00
BYT10670	Mechanical to Air Seat Conversion		\$986.00
	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.		

Code	Description	QTY	List Price (USD)
	Conversion kit can be used for open ROPS or cab configurations.		
BYT10718	Radio, Basic Package For use with serial number 329231 or greater. AM/FM/Weather Radio.		\$882.00
BYT11382	AM/FM/WB Stereo with Digital Clock for Cab		\$1,015.00
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
AT446496	License Plate Bracket Light not included.		\$59.00
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.		\$446.00
AT313589	Beacon/Strobe Ready Wiring Kit Kit for aftermarket Beacon or Strobe light Kit does not include Beacon		\$35.00
BYT12988	Premium Radio Kit		\$1,370.00

#### WEIGHTS AND BALLASTING

Counterweight

Field Installed Attachments - Optional

BYT10255	Counterweight, Front, 1,000 lbs (454 kg) Use with (4) T119912 AND (4) 19M9124.		\$1,457.00
BYT10256	Counterweight, Front, 1,250 lbs (567 kg) Use with (4) T119912 AND (4) 19M9124.		\$1,884.00
BYT10251	Counterweight, Front, 450 lbs (204 kg) Use with (4) T119912 AND (4) 19M9124.		\$652.00

Code	Description	QTY	List Price (USD)
BYT10254	Counterweight, Front, 750 lbs (340 kg) Use with (4) T119912 AND (4) 19M9124.		\$1,058.00
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
	<b>WHEELS AND TIRES</b>		
	Wheels and Tires		Field Installed Attachments - Optional
AT347522	Rear Wheel Spacers for Rear Tire Chains		\$989.00

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.

#### D. 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.



#### **E. 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, delimiting 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.

#### **F. 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.



**G. 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.

**H. 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).

**I. 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.

**J. 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.**

**K. 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.**

**L. 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.**



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.

<b>Employer Warrior Tractor &amp; Equipment Co., Inc.</b>	
<b>Stanley McCracken</b>	
Name (Please Type or Print)	Title
<b>Electronically Signed</b>	<b>03/01/2012</b>
Signature	Date
<b>Department of Homeland Security – Verification Division</b>	
<b>USCIS Verification Division</b>	
Name (Please Type or Print)	Title
<b>Electronically Signed</b>	<b>03/01/2012</b>
Signature	Date

<b>Information Required for the E-Verify Program</b>	
<b>Information relating to your Company:</b>	
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	Fax Number:	(205) 333 - 0101
Telephone Number:	(205) 339 - 0300		
E-mail Address:	wte024@warriortractor.com		

## Backhoe Loader - Gen A / 320 P HL option / FT4

Engine				
Manufacturer and Model	John Deere PowerTech™ EWL turbocharged			
Non-Road Emission Standards	EPA Final Tier 4 / EU Stage IV			
Cylinders	4			
Valves per Cylinder	2			
Displacement	276 cu. in.	4.5 L		
Bore and Stroke	4.19 x 5.00 in.	106.5 x 127 mm		
Rated Speed	2,200 rpm			
Gross Power at Rated Speed	111 hp	83 kW	@	2,200 rpm
Gross Peak Power	115 hp	86 kW	@	1,900 rpm
Gross Peak Torque	344 lb-ft	467 Nm	@	1,600 rpm
Net Power at Rated Speed (ISO9249)	109 hp	81 kW	@	2,200 rpm
Net Peak Power (ISO9249)	113 hp	84 kW	@	1,900 rpm
Net Peak Torque (ISO9249)	339 lb-ft	459 Nm	@	1,600 rpm
Net Torque Rise	30%			
Oil Specification	JD Torq-Gard or equivalent			
Lubrication	Pressure system with spin-on filter and cooler			
Fuel System	Level 34 Electronic Fuel System with Denso High Pressure Common Rail			
Air Cleaner	Dual stage dry type with safety element and evacuator valve			

Cooling	
Fan Type	Electrically controlled, variable rate, suction type cooling fan, Standard
Engine Coolant Rating	-40 °F -40 °C
Engine Radiator	10 fins per in.
Transmission Cooler	oil-to-water
Hydraulic Cooler	oil-to-air
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
Number of Gears Forward	5
Number of Gears Reverse	3
Shift Control	Electric forward-neutral-reverse control lever with neutral start interlock
Torque Converter	Single stage, dual phase w/ 2.63:1 stall ratio, 11 in. (280 mm)
Power-Shift, Standard Transmission	

Standard Engine	Travel Speeds	with Tire Size 19.5L-24 Rear Tires			
		Forward Maximum Speed		Reverse Maximum Speed	
Gear 1	3.3 mph	3.3 mph	5.3 km/h	4.2 mph	6.8 km/h
Gear 2	6.1 mph	6.1 mph	9.8 km/h	7.7 mph	12.4 km/h
Gear 3	12.6 mph	12.6 mph	20.2 km/h	12.4 mph	20.0 km/h
Gear 4	22.9 mph	22.9 mph	36.8 km/h	N/A	N/A
Gear 5	24.9 mph	24.9 mph	40.0 km/h	N/A	N/A

Axles	
Axle Oscillation Stop to Stop, Front Axle	22°
Axle Ratings, Front	
SAE J43	12,100 lb / 5,500 kg
Dynamic	19,800 lb / 9,000 kg
Static	58,400 lb / 26,500 kg
Ultimate	97,000 lb / 44,000 kg
Axle Ratings, Rear	
SAE J43	15,400 lb / 7,000 kg
Dynamic	22,000 lb / 10,000 kg
Static	58,400 lb / 26,500 kg
Ultimate	97,000 lb / 44,000 kg
Maximum Axle Torque	46,100 lb-ft / 62,500 Nm

Differentials	
Mechanical Front Wheel Drive Axle Differential	Automatic, Limited-Slip Traction Control
Rear Axle Differential	Foot actuated, hydraulically engaged 100% mechanical lock
Differential Lock Pressure	305 psi / 2,100 kPa

Steering	
Hydrostatic Power Steering and Emergency Steering (ISO 5010)	
Steering Pressure	3,625 psi / 24,993 kPa
Axle	Mechanical Front-Wheel Drive / Non-Powered Front
Maximum Steer Angle	52° / 55°
Curb-Turning Radius	
With Brakes	11 ft 7 in / 3.52 m / 11 ft 4 in / 3.45 m
Without Brakes	13 ft 2 in / 4.02 m / 12 ft 10 in / 3.90 m
Bucket Clearance Circle	
With Brakes	33 ft 0 in / 10.1 m / 32 ft 9 in / 10.0 m
Without Brakes	35 ft 6 in / 10.8 m / 35 ft 0 in / 10.7 m
Steering Wheel Turns (Lock to Lock)	2.6 to 3.6 / 3.1 to 4.3

Mechanical Front-Wheel Drive Axle	
Total Ratio	14.759:1
Rear Axle	
Total Ratio	19.911:1

Brakes: Conform to ISO 3450	
Service Brakes	Power assisted, hydraulic wet disc, mounted inboard, self adjusting & self equalizing
Friction Disc Area Per Side	141,900 mm²
Parking Brake	Spring applied, hydraulically released, wet, multi-disc, independent of service brakes with electric switch control

Hydraulics	
Pressure compensated load sensing (PCLS), axial piston pump	
Rated RPM	2,200
Pump Flow, Backhoe	43 gpm / 163 L/m
Pump Flow, Loader	43 gpm / 163 L/m
System Relief Pressure, Backhoe	3,625 psi / 24,993 kPa
System Relief Pressure, Backhoe (Lift Mode)	4,000 psi / 27,579 kPa
System Relief Pressure, Loader	3,625 psi / 24,993 kPa

Backhoe Controls:	2-lever mechanical standard; pilot control with pattern select with electrohydraulic (EH) auxiliary functions optional
Loader Controls:	Single-lever control with electric clutch cutoff switch and MFWD (momentary) standard; single-lever control with electric clutch cutoff switch, electrohydraulic (EH) proportional auxiliary roller, MFWD (momentary), and transmission quick-shift optional

Cylinders		
Heat treated, chrome-plated, polished rods, hardened steel (replaceable bushings) pivot pins		
	Bore	Stroke
Loader Boom (2)	3.15 in. / 80 mm	1.97 in. / 50 mm
Loader Bucket (1)	3.54 in. / 90 mm	1.97 in. / 50 mm

Backhoe Boom (1).....	4.92 in. 125 mm	2.48 in. 63 mm	34.92 in. 887 mm
Backhoe Crowd (1).....	4.72 in. 120 mm	2.48 in. 63 mm	23.27 in. 591.0 mm
Backhoe Bucket (1).....	3.94 in. 100	2.48 in. 63	31.89 in. 810
Backhoe Swing (2).....	3.54 in. 90 mm	1.97 in. 50 mm	10.94 in. 278 mm
Backhoe Extendable Dipperstick (1).....	3.15 in. 80 mm	1.77 in. 45 mm	41.81 in. 1062 mm
Backhoe Stabilizer, Extended (2).....	3.94 in. 100 mm	1.97 in. 50 mm	19.69 in. 500 mm
Non-Powered Axle (1).....	2.76 in. 70 mm	1.65 in. 42 mm	8.27 in. 210 mm
Mechanical-Front-Wheel Drive (1).....	2.56 in. 65 mm	1.57 in. 40 mm	8.27 in. 210 mm

**Electrical**

Voltage.....	12 volt
Number of Batteries.....	2
Battery Capacity.....	1900 CCA
Reserve Capacity.....	350 minutes
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 spot lights and 8 LED flood lights in lieu of the standard halogen light package

**Operator Station**

Fully enclosed cab, isolation mounted, ROPS/FOPS, left/right access, with molded roof; optional canopy

Type (ISO 3471):

Monitor	Indicator Light	Audible Warning	Gauge	Digital
Alternator, Low Voltage	X	X		
Service Code indicator	X			
Engine Air filter restriction	X	X		X
Engine Coolant Temperature	X	X	X	
Engine Oil Pressure	X	X		
Fuel Level	X	X	X	X
Hydraulic oil filter restriction		X		X
Park Brake on/off	X			
Seat belt reminder	X			X
STOP indicator	X	X		
MFWD Active	X			
Hydraulics Enabled*	X			
Hydraulic Temperature	X	X		X
Engine Preheat	X			X
Aftertreatment Temperature High	X			
Torque converter oil temp	X	X	X	X
Job Timer				X
Hourmeter				X
Engine RPM				X
System Voltage				X
DEF Level	X	X		X
Machine information and configuration				X

**Overall Vehicle**

Unitized One-Piece Construction Mainframe  
 Vehicle Tiedowns, Two Front and Two Rear  
 Rigid-Mounted Front Bumper and dent-resistant full coverage rear fenders  
 Toolbox  
 Tilt-Hood, Two Position

**Tires/Wheels**

	Front	Rear
Non-Powered Front Axle.....	12.5/80-18 F3 (12)	19.5L-24 R4 (12)
With Mechanical Front Wheel Drive.....	12.5/80-18 I3 (12) 12.5/80-18 R4 (10) 12.5/80-18 I3 (12) 12.5/80-18 R4 (10) 340/80R18 XMCL 340/80R18 550 340/80R18 580	19.5L-24 R4 (10) 19.5L-24 R4 (12) 21L-24 R4 (12) 21L-24 R4 (12) 500/70R24 XMCL 500/70R24 550 500/70R24 580

**Serviceability**

Fueling, Ground Level  
 Swing Lock Pin Stored In Operator Station  
 Remote Grease Zerk for Front Axle Pivot Pin  
 Independent Hydraulic Reservoir

**Diagnostics**

In-Cab Monitor Information

**Sight Gauges**

Hydraulic Reservoir

**Refill Capacities**

Cooling System (Cab).....	29.1 qt.	27.5 L
Cooling System (Canopy).....	27.2 qt.	25.7 L
Rear Axle.....	19.0 qt.	18.0 L
Engine Oil (Including Vertical Spin-On Filter)...	13.7 qt.	13.0 L
Torque Converter and Transmission.....	16.0 qt.	15.1 L
Fuel Tank (with ground-level fueling).....	34.0 gal.	128.7 L
DEF Tank.....	3.6 gal.	13.7 L
Hydraulic System.....	33.5 gal.	126.8 L
Hydraulic Reservoir.....	11.9 gal.	45.0 L
Mechanical-Front-Wheel-Drive Housing...		
Axle	6.9 qt.	6.5 L
Planetary (each)	1.0 qt.	0.9 L

**Operating Weights**

With Full Fuel Tank, 175-lb. (79 kg) Operator and Standard Equipment		
Standard with Bumper	16,571 lb.	7,516 kg
Typical with Cab, Extendible Dipperstick, and Counterweight 1,000 lb. (454 kg)	18,729 lb.	8,495 kg
<b>Optional Components (weight difference between base equipment and option)</b>		
Cab.....	580 lb.	263 kg
Mechanical Front Wheel Drive with Tires.....	242 lb.	110 kg
Extendible Dipperstick.....	578 lb.	271 kg
Front Loader Coupler.....	566 lb.	257 kg
Backhoe Bucket Coupler.....	141 lb.	64 kg

**Overall Dimensions**

A) Ground Clearance, Minimum.....	12 in.	310 mm
B) Overall Length, Transport.....	24 ft. 2 in.	7.37 m
C) Width Over Tires.....	7 ft. 8 in.	2.34 m
D) Height to Top of ROPS/Cab.....	9 ft. 3 in.	2.81 m
E) Length from Axle to Axle.....		



Non-Powered Front Axle.....	7 ft. 1 in.	2.16 m
Mechanical-Front-Wheel-Drive Axle.....	7 ft. 2 in.	2.19 m

**Backhoe Dimensions & Performance**

Bucket Range.....	12 - 24 in.	305 - 610 mm
Digging Force, Bucket Cylinder.....	15,723 lb.	69.9 kN
Digging Force, Bucket Cylinder (Lift Mode).....	17,349 lb.	77.2 kN
Digging Force, Crowd Cylinder.....	8,581 lb.	38.2 kN
Digging Force, Crowd Cylinder (Lift Mode).....	9,468 lb.	42.1 kN
Swing Arc.....	180°	
Operator Control.....	two levers	
Leveling Angle.....	14°	
Stabilizer Angle Rearward.....	18°	

**Optional Extendable Dipperstick**

	Standard Backhoe		(Retracted)		(Extended)	
F) Loading Height, Truck Loading Position.....	11 ft. 11 in.	3.63 m	11 ft. 10 in.	3.62 m	13 ft. 11 in.	4.24 m
G) Reach from Center of Swing Pivot.....	18 ft. 8 in.	5.68 m	18 ft. 5 in.	5.62 m	21 ft. 8 in.	6.61 m
H) Reach from Center of Rear Axle.....	22 ft. 1 in.	6.74 m	21 ft. 11 in.	6.68 m	25 ft. 2 in.	7.67 m
I) Digging Depth (SAE max.).....	15 ft. 1 in.	4.59 m	14 ft. 10 in.	4.53 m	18 ft. 2 in.	5.53 m
J) Digging Depth (SAE)						
2 ft. (610 mm) flat bottom.....	14 ft. 11 in.	4.55 m	14 ft. 9 in.	4.49 m	18 ft. 0 in.	5.50 m
8 ft. (2440 mm) flat bottom.....	13 ft. 11 in.	4.25 m	13 ft. 8 in.	4.18 m	17 ft. 4 in.	5.28 m
K) Stabilizer Width, Transport.....	7 ft. 2 in.	2.18 m	7 ft. 2 in.	2.18 m	7 ft. 2 in.	2.18 m
L) Stabilizer Spread, Operating.....	11 ft. 4 in.	3.45 m	11 ft. 4 in.	3.45 m	11 ft. 4 in.	3.45 m
M) Stabilizer Overall Width, Operating.....	13 ft. 3 in.	4.03 m	13 ft. 3 in.	4.03 m	13 ft. 3 in.	4.03 m
N) Bucket Rotation.....	190°		190°		190°	
O) Transport Height.....	11 ft. 8 in.	3.56 m	11 ft. 8 in.	3.56 m	11 ft. 8 in.	3.56 m

**Loader Dimensions & Performance - Standard Loader**

P) Bucket Dump Angle, Max	45°
Q) Rollback Angle at Ground Level	40°

	Heavy-duty	Heavy-duty long lip	Heavy-duty	Multipurpose
Bucket Capacity.....	1.12 yd <sup>3</sup> 0.86 m <sup>3</sup>	1.25 yd <sup>3</sup> 0.96 m <sup>3</sup>	1.31 yd <sup>3</sup> 1.00 m <sup>3</sup>	1.31 yd <sup>3</sup> 1.00 m <sup>3</sup>
Width.....	86 in. 2184 mm	86 in. 2184 mm	92 in. 2346 mm	92 in. 2346 mm
Weight.....	860 lb. 390 kg	892 lb. 405 kg	1148 lb. 521 kg	1902 lb. 863 kg
Breakout Force.....	11,116 lb. 49.4 kN	10,503 lb. 46.7 kN	10,598 lb. 47.1 kN	9,778 lb. 43.5 kN
Lift Capacity, Full Height.....	7,552 lb. 3,425 kg	6,980 lb. 3,166 kg	7,244 lb. 3,286 kg	6,175 lb. 2,801 kg
R) Height to Bucket Hinge Pin, Maximum.....	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. 3.46 m
S) Dump Clearance, Bucket at 45°.....	9 ft. 0 in. 2.75 m	8 ft. 8 in. 2.65 m	8 ft. 10 in. 2.69 m	8 ft. 9 in. 2.66 m
T) Reach at Full Height, Bucket at 45°.....	28.5 in. 724 mm	33.5 in. 850 mm	28.3 in. 720 mm	30.0 in. 762 mm
U) Digging Depth Below Ground, Bucket Level	4.0 in. 101 mm	3.2 in. 81 mm	5.7 in. 145 mm	5.6 in. 141 mm
V) Length From Front Axle Centerline to Bucket Cutting Edge.....	6 ft. 5 in. 1.97 m	6 ft. 11 in. 2.11 m	6 ft. 8 in. 2.04 m	6 ft. 10 in. 2.09 m

**Lift Capacity with Quick-Coupler Forks - Standard Loader**

<b>Hydraulic Capacity</b>	48° Tines		60° Tines	
A' Maximum Height.....	4,472 lb.	2,028 kg	4,180 lb.	1,896 kg
B' Maximum Reach.....	6,974 lb.	3,163 kg	6,575 lb.	2,982 kg
C' At Ground Line.....	8,812 lb.	3,997 kg	8,335 lb.	3,781 kg
D' Below Ground Line.....	8.5 in.	216 mm	8.5 in.	216 mm
Rated Capacity of Tines.....	8,598 lb.	3,900 kg	8,598 lb.	3,900 kg
Rated Load per SAE J1197				

**Lift Capacity**

Dipper Lift specs are with a boom angle of 65 degrees  
Lift Capacities are over-end values in lb. (kg) of the maximum lift force available.  
\* Indicates capacity is stability limited. Lift capacities are over end with stabilizers down and tires tangent to ground

**Dipper Lift - Brochure**

Standard Dipper	Height (ft)	Reach (ft)	Normal Lift	Lift Mode
	3.5	7.2	12402 lbs (5625 kg)	12402 lbs (5625 kg)
4.0	8.3	10356 lbs (4697 kg)	10356 lbs (4697 kg)	
6.0	10.4	7819 lbs (3547 kg)	7819 lbs (3547 kg)	
8.0	11.3	7098 lbs (3220 kg)	7098 lbs (3220 kg)	
10.0	11.5	6976 lbs (3164 kg)	6976 lbs (3164 kg)	
12.0	11.0	6823 lbs (3095 kg)	7336 lbs (3327 kg)	

**Boom Lift - Brochure**

Standard Dipper	Height (ft)	Reach (ft)	Normal Lift	Lift Mode
	-12.0	4.2	7210 lbs (3270 kg)	8176 lbs (3709 kg)
-10.0	9.1	4578 lbs (2077 kg)	5181 lbs (2350 kg)	
-8.0	11.6	4279 lbs (1941 kg)	4836 lbs (2194 kg)	
-6.0	13.2	4183 lbs (1897 kg)	4722 lbs (2142 kg)	
-4.0	14.3	4157 lbs (1886 kg)	4688 lbs (2126 kg)	
-2.0	15.1	4166 lbs (1889 kg)	4693 lbs (2129 kg)	
0.0	15.5	4192 lbs (1902 kg)	4719 lbs (2140 kg)	
2.0	15.6	4228 lbs (1918 kg)	4754 lbs (2156 kg)	
4.0	15.5	4262 lbs (1933 kg)	4789 lbs (2172 kg)	
6.0	15.0	4285 lbs (1944 kg)	4810 lbs (2182 kg)	
8.0	14.2	4278 lbs (1940 kg)	4798 lbs (2176 kg)	
10.0	13.1	4204 lbs (1907 kg)	4710 lbs (2136 kg)	
12.0	11.4	3971 lbs (1801 kg)	4445 lbs (2016 kg)	
14.0	8.8	3244 lbs (1472 kg)	3627 lbs (1645 kg)	

**Dipper Lift - Brochure**

Extendable Dipper - Retracted	Height (ft)	Reach (ft)	Normal Lift	Lift Mode
	4.0	7.7	11795 lbs (5350 kg)	11795 lbs (5350 kg)
6.0	10.1	7966 lbs (3613 kg)	7966 lbs (3613 kg)	
8.0	11.0	7064 lbs (3204 kg)	7064 lbs (3204 kg)	
10.0	11.2	6883 lbs (3122 kg)	6883 lbs (3122 kg)	
12.0	10.8	6671 lbs (3117 kg)	7235 lbs (3282 kg)	

**Boom Lift - Brochure**

Extendable Dipper - Retracted	Height (ft)	Reach (ft)	Normal Lift	Lift Mode
	-11.0	6.8	4535 lbs (2057 kg)	5213 lbs (2365 kg)
-10.0	8.8	4064 lbs (1843 kg)	4671 lbs (2119 kg)	
-8.0	11.3	3773 lbs (1711 kg)	4333 lbs (1965 kg)	
-6.0	13.0	3691 lbs (1674 kg)	4234 lbs (1920 kg)	
-4.0	14.1	3680 lbs (1669 kg)	4215 lbs (1912 kg)	
-2.0	14.9	3702 lbs (1679 kg)	4235 lbs (1921 kg)	
0.0	15.3	3743 lbs (1698 kg)	4275 lbs (1939 kg)	
2.0	15.4	3792 lbs (1720 kg)	4326 lbs (1962 kg)	
4.0	15.3	3843 lbs (1743 kg)	4378 lbs (1986 kg)	
6.0	14.8	3883 lbs (1761 kg)	4418 lbs (2004 kg)	
8.0	14.0	3896 lbs (1767 kg)	4428 lbs (2008 kg)	
10.0	12.8	3845 lbs (1744 kg)	4365 lbs (1980 kg)	
12.0	11.1	3636 lbs (1649 kg)	4125 lbs (1871 kg)	
14.0	8.4	2903 lbs (1317 kg)	3297 lbs (1496 kg)	

**Dipper Lift - Brochure**

Extendable Dipper - Extended	Height (ft)	Reach (ft)	Normal Lift	Lift Mode
	0.5	8.4	8999 lbs (4082 kg)	10003 lbs (4537 kg)
2.0	11.0	5972 lbs (2709 kg)	6653 lbs (3018 kg)	

**Boom Lift - Brochure**

Extendable Dipper - Extended	Height (ft)	Reach (ft)	Normal Lift	Lift Mode
	-15.0	4.7	6274 lbs (2846 kg)	7200 lbs (3266 kg)
-14.0	8.0	4130 lbs (1873 kg)	4748 lbs (2154 kg)	

4.0	13.0	5216 lbs (2366 kg)	5817 lbs (2638 kg)
6.0	14.0	4918 lbs (2231 kg)	5317 lbs (2412 kg)
8.0	14.6	4747 lbs (2153 kg)	5059 lbs (2295 kg)
10.0	14.7	4604 lbs (2088 kg)	5000 lbs (2268 kg)
12.0	14.4	4418 lbs (2004 kg)	4931 lbs (2236 kg)
14.0	13.7	4080 lbs (1851 kg)	4557 lbs (2067 kg)

-12.0	11.6	3430 lbs (1556 kg)	3944 lbs (1769 kg)
-10.0	13.9	3212 lbs (1457 kg)	3691 lbs (1674 kg)
-8.0	15.5	3113 lbs (1412 kg)	3575 lbs (1622 kg)
-6.0	16.7	3065 lbs (1390 kg)	3516 lbs (1595 kg)
-4.0	17.6	3042 lbs (1380 kg)	3487 lbs (1582 kg)
-2.0	18.2	3034 lbs (1376 kg)	3474 lbs (1576 kg)
0.0	18.6	3034 lbs (1376 kg)	3470 lbs (1574 kg)
2.0	18.7	3035 lbs (1377 kg)	3467 lbs (1573 kg)
4.0	18.5	3033 lbs (1376 kg)	3461 lbs (1570 kg)
6.0	18.2	3021 lbs (1370 kg)	3444 lbs (1562 kg)
8.0	17.5	2989 lbs (1356 kg)	3405 lbs (1545 kg)
10.0	16.6	2923 lbs (1326 kg)	3327 lbs (1509 kg)
12.0	15.4	2793 lbs (1267 kg)	3179 lbs (1442 kg)
14.0	13.7	2540 lbs (1152 kg)	2892 lbs (1312 kg)
16.0	11.3	1992 lbs (904 kg)	2273 lbs (1031 kg)

310SL HL 19.5L-24 In. 12 PR (R4) tubeless rear & 12.5/80 -18 12PR (R4) Front Tires. 1.3 yd3 loader bucket

# Backhoe Loader - Gen A / 320 P / FT4

Engine					
Manufacturer and Model	John Deere PowerTech™ EWL 4.5L turbocharged				
Non-Road Emission Standards	EPA Final Tier 4 / EU Stage IV				
Cylinders	4				
Valves per Cylinder	2				
Displacement	276 cu. in	4.5 L			
Bore and Stroke	4.19 x 5.00 in	106.5 x 127 mm			
Rated Speed	2,200 rpm				
Gross Power at Rated Speed	111 hp	83 kW	@	2,200 rpm	
Gross Peak Power	115 hp	86 kW	@	1,900 rpm	
Gross Peak Torque	344 lb-ft	467 Nm	@	1,600 rpm	
Net Power at Rated Speed (ISO9249)	109 hp	81 kW	@	2,200 rpm	
Net Peak Power (ISO9249)	113 hp	84 kW	@	1,900 rpm	
Net Peak Torque (ISO9249)	339 lb-ft	459 Nm	@	1,600 rpm	
Net Torque Rise	30%				
Oil Specification	JD Torq-Gard or equivalent				
Lubrication	Pressure system with spin-on filter and cooler				
Fuel System	Level 34 Electronic Fuel System with Denso High Pressure Common Rail				
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 °F	-40 °C			
Engine Radiator	10 fins per in.				
Transmission Cooler	oil-to water				
Hydraulic Cooler	oil-to air				
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				
Number of Gears Forward	5				
Number of Gears Reverse	3				
Shift Control	Electric forward-neutral-reverse control lever with neutral start interlock				
Torque Converter	Single stage, dual phase w/ 2.63:1 stall ratio, 11 in. (280 mm)				
Power-Shift, Standard Transmission					
Travel Speeds	<i>with Tire Size 19.5L-24 Rear Tires</i>				
Standard Engine	<i>Forward Maximum Speed</i>		<i>Reverse Maximum Speed</i>		
Gear 1	3.3 mph	5.3 km/h	4.2 mph	6.8 km/h	
Gear 2	6.1 mph	9.8 km/h	7.7 mph	12.4 km/h	
Gear 3	12.6 mph	20.2 km/h	12.4 mph	20.0 km/h	
Gear 4	22.9 mph	36.8 km/h	N/A		
Gear 5	24.9 mph	40.0 km/h	N/A		
Axles					
Axle Oscillation Stop to Stop, Front Axle	22°				
Axle Ratings, Front					
SAE J43	12,100 lb	5,500 kg			
Dynamic	19,800 lb	9,000 kg			
Static	58,400 lb	26,500 kg			
Ultimate	97,000 lb	44,000 kg			
Axle Ratings, Rear					
SAE J43	15,400 lb	7,000 kg			
Dynamic	22,000 lb	10,000 kg			
Static	58,400 lb	26,500 kg			
Ultimate	97,000 lb	44,000 kg			
Maximum Axle Torque	46,100 lb-ft	62,500 Nm			
Differentials					
Mechanical Front Wheel Drive Axle Differential	Automatic, Limited-Slip Traction Control				
Rear Axle Differential	Foot actuated, hydraulically engaged 100% mechanical lock				
Differential Lock Pressure	305 psi	2,100	kPa		
Steering					
Hydrostatic Power Steering and Emergency Steering (ISO 5010)					
Steering Pressure	3,625 psi	24,993 kPa			
Axle	<i>Mechanical Front-Wheel Drive</i>		<i>Non-Powered Front</i>		
Maximum Steer Angle	52°		55°		
Curb-Turning Radius					
With Brakes	11 ft 7 in	3.52 m	11 ft 4 in	3.45 m	
Without Brakes	13 ft 2 in	4.02 m	12 ft 10 in	3.90 m	
Bucket Clearance Circle					
With Brakes	33 ft 0 in	10.1 m	32 ft 9 in	10.0 m	
Without Brakes	35 ft 6 in	10.8 m	35 ft 0 in	10.7 m	
Steering Wheel Turns (Lock to Lock)	2.6 to 3.6		3.1 to 4.3		
Mechanical Front-Wheel Drive Axle	Heavy duty, outboard planetary final drives distribute shock loads over 3 gears				
Total Ratio	14.759:1				
Rear Axle	Heavy duty, outboard planetary final drives distribute shock loads over 4 gears				
Total Ratio	19.911:1				
Brakes: Conform to ISO 3450					
Service Brakes	Power assisted, hydraulic wet disc, mounted inboard, self adjusting & self equalizing				
Friction Disc Area Per Side	141,900 mm <sup>2</sup>				
Parking Brake	Spring applied, hydraulically released, wet, multi-disc, independent of service brakes with electric switch control				



**Hydraulics**

Pressure compensated load sensing (PCLS), axial piston pump		
Rated RPM.....	2,200	
Pump Flow, Backhoe.....	43 gpm	163 L/m
Pump Flow, Loader.....	43 gpm	163 L/m
System Relief Pressure, Backhoe.....	3,625 psi	24,993 kPa
System Relief Pressure, Backhoe (Lift Mode).....	4,000 psi	27,579 kPa
System Relief Pressure, Loader.....	3,625 psi	24,993 kPa
<b>Backhoe Controls:</b>	2-lever mechanical standard; pilot control with pattern select with electrohydraulic (EH) auxiliary functions optional	
<b>Loader Controls:</b>	Single-lever control with electric clutch cutoff switch and MFWD (momentary) standard; single-lever control with electric clutch cutoff switch, electrohydraulic (EH) proportional auxiliary roller, MFWD (momentary), and transmission quick-shift optional	

**Cylinders**

Heat treated, chrome-plated, polished rods, hardened steel (replaceable bushings) pivot pins			
	<b>Bore</b>	<b>Rod Diameter</b>	<b>Stroke</b>
<b>Loader Boom (2).....</b>	3.15 in. 80 mm	1.97 in. 50 mm	31.08 in. 789 mm
<b>Loader Bucket (1).....</b>	3.54 in. 90 mm	1.97 in. 50 mm	29.29 in. 744 mm
<b>Backhoe Boom (1).....</b>	4.72 in. 120 mm	2.20 in. 56 mm	31.26 in. 794 mm
<b>Backhoe Crowd (1).....</b>	4.53 in. 115 mm	2.48 in. 63 mm	23.72 in. 602.5 mm
<b>Backhoe Bucket (1).....</b>	3.54 in. 90 mm	2.20 in. 56 mm	31.89 in. 810 mm
<b>Backhoe Bucket, Heavy Duty Option (1).....</b>	3.94 in. 100	2.48 in. 63	31.89 in. 810
<b>Backhoe Swing (2).....</b>	3.54 in. 90 mm	1.97 in. 50 mm	10.94 in. 278 mm
<b>Backhoe Extendable Dipperstick (1).....</b>	2.76 in. 70 mm	1.57 in. 40 mm	41.81 in. 1062 mm
<b>Backhoe Stabilizer, Standard (2).....</b>	3.54 in. 90 mm	1.97 in. 50 mm	19.69 in. 500 mm
<b>Backhoe Stabilizer, Extended Optional (2).....</b>	3.94 in. 100 mm	1.97 in. 50 mm	19.69 in. 500 mm
<b>Non-Powered Axle (1).....</b>	2.76 in. 70 mm	1.65 in. 42 mm	8.27 in. 210 mm
<b>Mechanical-Front-Wheel Drive (1).....</b>	2.56 in. 65 mm	1.57 in. 40 mm	8.27 in. 210 mm

**Electrical**

Voltage.....	12 volt
Number of Batteries.....	2
Number of Batteries.....	1
Battery Capacity (2 Batteries).....	1900 CCA
Battery Capacity (1 Battery).....	950 CCA
Reserve Capacity (2 Batteries).....	350 minutes
Reserve Capacity (1 Battery).....	175 minutes
Alternator rating .....	145 Amp
<b>Lights</b>	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 spot lights and 8 LED flood lights in lieu of the 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

Monitor	Indicator Light	Audible Warning	Gauge	Digital
Alternator, Low Voltage	X	X		
Service Code indicator	X			
Engine Air filter restriction	X	X		X
Engine Coolant Temperature	X	X	X	
Engine Oil Pressure	X	X		
Fuel Level	X	X	X	X
Hydraulic oil filter restriction		X		X
Park Brake on/off	X			
Seat belt reminder	X			X
STOP indicator	X	X		
MFWD Active	X			
Hydraulics Enabled*	X			
Hydraulic Temperature				
Engine Preheat	X			X
Aftertreatment Temperature High	X			
Torque converter oil temp	X	X	X	X
Job Timer				X
Hourmeter				X
Engine RPM				X
System Voltage				X
Machine information and configuration				X
DEF Level	X	X		X

**Overall Vehicle**

Unitized One-Piece Construction Mainframe  
 Vehicle Tiedowns, Two Front and Two Rear  
 Rigid-Mounted Front Bumper and dent-resistant full coverage rear fenders  
 Toolbox  
 Tilt-Hood, Two Position

**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 Mechanical Front Wheel Drive.....	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**

- Fueling, Ground Level
- Swing Lock Pin Stored In Operator Station
- Remote Grease Zerk for Front Axle Pivot Pin
- Independent Hydraulic Reservoir

**Diagnostics**

- In-Cab Monitor Information

**Sight Gauges**

- Hydraulic Reservoir

**Refill Capacities**

Cooling System (Cab).....	29.1 qt.	27.5 L
Cooling System (Canopy).....	27.2 qt.	25.7 L
Rear Axle.....	19.0 qt.	18.0 L
Engine Oil (Including Vertical Spin-On Filter)...	13.7 qt.	13.0 L
Torque Converter and Transmission.....	16.0 qt.	15.1 L
Fuel Tank (with ground-level fueling).....	34.0 gal.	128.7 L
DEF Tank.....	3.6 gal.	13.7 L
Hydraulic System.....	33.5 gal.	126.8 L
Hydraulic Reservoir.....	11.9 gal.	45.0 L
Mechanical-Front-Wheel-Drive Housing...		
Axle.....	6.9 qt.	6.5 L
Planetary (each).....	1.0 qt.	0.9 L

**Operating Weights**

With Full Fuel Tank, 175-lb. (79 kg) Operator and Standard Equipment		
Standard with Bumper.....	15,872 lb.	7,199 kg
Typical with Cab, Extendible Dipperstick, Counterweight 750 lb. (340 kg)	17,692 lb.	8,025 kg

**Optional Components (weight difference between base equipment and option)**

Cab.....	580 lb.	263 kg
Mechanical Front Wheel Drive with Tires.....	485 lb.	220 kg
Extendible Dipperstick.....	490 lb.	222 kg
Front Loader Coupler.....	566 lb.	257 kg
Backhoe Bucket Coupler.....	138 lb.	63 kg

**Overall Dimensions**

A) Ground Clearance, Minimum.....	13 in.	330 mm
B) Overall Length, Transport.....	23 ft. 11 in.	7.28 m
C) Width Over Tires.....	7 ft. 3 in.	2.20 m
D) Height to Top of ROPS/Cab.....	9 ft. 2 in.	2.79 m
E) Length from Axle to Axle.....		
Non-Powered Front Axle.....	7 ft. 1 in.	2.16 m
Mechanical-Front-Wheel-Drive Axle.....	7 ft. 2 in.	2.19 m

**Backhoe Dimensions & Performance**

Bucket Range.....	12 - 30 in.	305 - 762	mm
Digging Force, Bucket Cylinder.....	12,356 lb.	55.0	kN
With heavy-duty cylinder option	15,254 lb.	67.8	kN
Digging Force, Bucket Cylinder (Lift Mode).....	13,634 lb.	60.6	kN
With heavy-duty cylinder option (Lift Mode)	16,832 lb.	74.9	kN
Digging Force, Crowd Cylinder.....	8,229 lb.	36.6	kN
Digging Force, Crowd Cylinder (Lift Mode).....	9,080 lb.	40.4	kN
Swing Arc.....	180°		
Operator Control.....	two levers		
Leveling Angle.....	14°		
Stabilizer Angle Rearward.....	18°		

**Optional Extendible Dipperstick**

	<b>Standard Backhoe</b>		<b>(Retracted)</b>		<b>(Extended)</b>	
F) Loading Height, Truck Loading Position.....	11 ft. 3 in.	3.42 m	11 ft. 7 in.	3.54 m	13 ft. 8 in.	4.16 m
G) Reach from Center of Swing Pivot.....	18 ft. 1 in.	5.52 m	18 ft. 5 in.	5.61 m	21 ft. 9 in.	6.62 m
H) Reach from Center of Rear Axle.....	21 ft. 7 in.	6.58 m	21 ft. 11 in.	6.68 m	25 ft. 2 in.	7.68 m
I) Digging Depth (SAE max.).....	14 ft. 3 in.	4.35 m	14 ft. 9 in.	4.50 m	18 ft. 2 in.	5.55 m
J) Digging Depth (SAE)						
2 ft. (610 mm) flat bottom.....	14 ft. 2 in.	4.32 m	14 ft. 7 in.	4.45 m	18 ft. 1 in.	5.51 m
8 ft. (2440 mm) flat bottom.....	13 ft. 1 in.	3.99 m	13 ft. 7 in.	4.13 m	17 ft. 3 in.	5.25 m
K) Stabilizer Width, Transport.....	7 ft. 2 in.	2.18 m	7 ft. 2 in.	2.18 m	7 ft. 2 in.	2.18 m
L) Stabilizer Spread, Operating (Std. Stabilizers)	10 ft. 2 in.	3.10 m	10 ft. 2 in.	3.10 m	10 ft. 2 in.	3.10 m
Stabilizer Spread, Operating (Ext. Stabilizers)...	11 ft. 4 in.	3.45 m	11 ft. 4 in.	3.45 m	11 ft. 4 in.	3.45 m
M) Stabilizer Overall Width, Operating (Std.).....	11 ft. 7 in.	3.53 m	11 ft. 7 in.	3.53 m	11 ft. 7 in.	3.53 m
Stabilizer Spread, Operating (Ext. Stabilizers)...	13 ft. 3 in.	4.03 m	13 ft. 3 in.	4.03 m	13 ft. 3 in.	4.03 m
N) Bucket Rotation.....	190°		190°		190°	
O) Transport Height.....	11 ft. 5 in.	3.48 m	11 ft. 5 in.	3.49 m	11 ft. 5 in.	3.49 m

**Loader Dimensions & Performance**

- P) Bucket Dump Angle, Max..... 45°
- Q) Rollback Angle at Ground Level..... 40°

	Heavy-duty	Heavy-duty long lip	Heavy-duty	Multipurpose
Bucket Capacity.....	1.12 yd <sup>3</sup> 0.86 m <sup>3</sup>	1.25 yd <sup>3</sup> 0.96 m <sup>3</sup>	1.31 yd <sup>3</sup> 1.00 m <sup>3</sup>	1.31 yd <sup>3</sup> 1.00 m <sup>3</sup>
Width.....	86 in.	86 in.	92 in.	92 in.



	2184 mm	2184 mm	2337 mm	2337 mm
Weight.....	860 lb. 390 kg	892 lb. 405 kg	1148 lb. 521 kg	1902 lb. 863 kg
Breakout Force.....	11,052 lb. 49.2 kN	10,442 lb. 46.4 kN	10,541 lb. 46.9 kN	9,722 lb. 43.2 kN
Lift Capacity, Full Height.....	7,698 lb. 3,492 kg	7,108 lb. 3,224 kg	7,390 lb. 3,352 kg	6,309 lb. 2,862 kg
R) Height to Bucket Hinge Pin, Maximum.....	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. 3.47 m
S) Dump Clearance, Bucket at 45°.....	9 ft. 1 in. 2.76 m	8 ft. 9 in. 2.66 m	8 ft. 10 in. 2.70 m	8 ft. 9 in. 2.67 m
T) Reach at Full Height, Bucket at 45°.....	26.7 in. 678 mm	31.7 in. 804 mm	26.6 in. 675 mm	28.2 in. 716 mm
U) Digging Depth Below Ground, Bucket Level	3.3 in. 83 mm	2.5 in. 64 mm	5.0 in. 128 mm	4.9 in. 124 mm
V) Length From Front Axle Centerline to Bucket Cutting Edge.....	6 ft. 5 in. 1.96 m	6 ft. 11 in. 2.10 m	6 ft. 8 in. 2.03 m	6 ft. 10 in. 2.08 m

Lift Capacity with Quick-Coupler Forks				
	48" Tines		60" Tines	
Hydraulic Capacity				
A' Maximum Height.....	4,558 lb.	2,067 kg	4,260 lb.	1,932 kg
B' Maximum Reach.....	7,017 lb.	3,183 kg	6,617 lb.	3,001 kg
C' At Ground Line.....	8,863 lb.	4,020 kg	8,306 lb.	3,768 kg
D' Below Ground Line.....	7.8 in.	198 mm	7.8 in.	198 mm
Rated Capacity of Tines.....	8,598 lb.	3,900 kg	8,598 lb.	3,900 kg
Rated Load per SAE J1197				

**Lift Capacity**

Dipper Lift specs are with a boom angle of 65 degrees  
Lift Capacities are over-end values in lb. (kg) of the maximum lift force available.  
\* Indicates capacity is stability limited. Lift capacities are over end with stabilizers down and tires tangent to ground

Standard Dipper

Dipper Lift - Brochure

Height (ft)	Reach (ft)	Normal Lift	Lift Mode
4.5	7.4	10543 lbs (4782 kg)	10710 lbs (4858 kg)
6.0	9.3	8097 lbs (3673 kg)	8097 lbs (3673 kg)
8.0	10.4	7135 lbs (3236 kg)	7135 lbs (3236 kg)
10.0	10.6	6985 lbs (3168 kg)	6985 lbs (3168 kg)
12.0	10.0	6698 lbs (3038 kg)	7415 lbs (3364 kg)

Boom Lift - Brochure

Height (ft)	Reach (ft)	Normal Lift
-11.0	5.8	3824 lbs (1735 kg)
-10.0	8.1	3547 lbs (1609 kg)
-8.0	10.8	3447 lbs (1563 kg)
-6.0	12.5	3463 lbs (1571 kg)
-4.0	13.7	3518 lbs (1596 kg)
-2.0	14.5	3594 lbs (1630 kg)
0.0	15.0	3685 lbs (1671 kg)
2.0	15.1	3786 lbs (1717 kg)
4.0	14.9	3897 lbs (1768 kg)
6.0	14.5	4013 lbs (1820 kg)
8.0	13.7	4128 lbs (1873 kg)
10.0	12.5	4228 lbs (1918 kg)
12.0	10.7	4269 lbs (1936 kg)
14.0	7.9	4054 lbs (1839 kg)

Extendable Dipper - Retracted

Dipper Lift - Brochure

Height (ft)	Reach (ft)	Normal Lift	Lift Mode
4.0	7.5	10151 lbs (4604 kg)	10151 lbs (4604 kg)
6.0	9.9	7166 lbs (3251 kg)	7166 lbs (3251 kg)
8.0	10.9	6423 lbs (2913 kg)	6423 lbs (2913 kg)
10.0	11.1	6302 lbs (2859 kg)	6302 lbs (2859 kg)
12.0	10.6	5775 lbs (2619 kg)	6420 lbs (2912 kg)

Boom Lift - Brochure

Height (ft)	Reach (ft)	Normal Lift
-11.0	6.7	3537 lbs (1604 kg)
-10.0	8.7	3276 lbs (1486 kg)
-8.0	11.3	3140 lbs (1424 kg)
-6.0	12.9	3128 lbs (1419 kg)
-4.0	14.1	3160 lbs (1433 kg)
-2.0	14.8	3214 lbs (1458 kg)
0.0	15.3	3283 lbs (1489 kg)
2.0	15.4	3360 lbs (1524 kg)
4.0	15.3	3443 lbs (1562 kg)
6.0	14.8	3526 lbs (1599 kg)
8.0	14.0	3599 lbs (1633 kg)
10.0	12.9	3643 lbs (1652 kg)
12.0	11.2	3604 lbs (1635 kg)
14.0	8.6	3281 lbs (1488 kg)

Extendable Dipper - Extended

Dipper Lift - Brochure

Height (ft)	Reach (ft)	Normal Lift	Lift Mode
0.5	8.2	7834 lbs (3554 kg)	8699 lbs (3946 kg)
2.0	10.9	5468 lbs (2480 kg)	6081 lbs (2758 kg)
4.0	12.8	4753 lbs (2156 kg)	5290 lbs (2399 kg)
6.0	13.9	4436 lbs (2012 kg)	4817 lbs (2185 kg)
8.0	14.4	4228 lbs (1918 kg)	4601 lbs (2087 kg)
10.0	14.6	4034 lbs (1830 kg)	4493 lbs (2038 kg)
12.0	14.3	3782 lbs (1715 kg)	4214 lbs (1912 kg)
14.0	13.5	3362 lbs (1525 kg)	3749 lbs (1701 kg)

Boom Lift - Brochure

Height (ft)	Reach (ft)	Normal Lift
-15.0	4.8	4377 lbs (1986 kg)
-14.0	8.1	3188 lbs (1446 kg)
-12.0	11.6	2780 lbs (1261 kg)
-10.0	13.9	2664 lbs (1208 kg)
-8.0	15.5	2623 lbs (1190 kg)
-6.0	16.8	2614 lbs (1186 kg)
-4.0	17.6	2622 lbs (1190 kg)
-2.0	18.2	2642 lbs (1198 kg)
0.0	18.6	2667 lbs (1210 kg)
2.0	18.7	2696 lbs (1223 kg)
4.0	18.6	2724 lbs (1236 kg)
6.0	18.2	2749 lbs (1247 kg)
8.0	17.6	2765 lbs (1254 kg)
10.0	16.7	2763 lbs (1253 kg)
12.0	15.5	2726 lbs (1236 kg)
14.0	13.8	2616 lbs (1187 kg)
16.0	11.5	2334 lbs (1059 kg)

310SL with 19.5L-24 In. 12 PR (R4) tubeless rear & 12.5-80/18 10PR (R4) Front Tires. 1.31 yd3 loader bucket