

City of Grand Island

Tuesday, April 26, 2016 Council Session

Item G-11

#2016-97 - Approving Purchase of a New Backhoe Loader for the Streets Division of the Public Works Department

Staff Contact: John Collins, P.E. - Public Works Director

Council Agenda Memo

From: Shannon Callahan, Street Superintendent

Meeting: April 26, 2016

Subject: Approving Purchase of a New Backhoe Loader for the

Streets Division of the Public Works Department

Presenter(s): John Collins PE, Public Works Director

Background

The Streets Division of the Public Works Department has one backhoe loader that is primarily used for concrete removal, dirt work, and excavation. The current backhoe, Unit 248, is a 2005 Terex 760 and has approximately 3,500 hours. The typical life of a backhoe loader is 5,000 hours therefore Unit 248 is at 70% of its useful life and the repair cost to purchase price ratio of 1.11.

The unit is showing signs of aging with a number of minor breakdowns. It is critical to have this unit running and available when needed due to the high priority functions it serves.

Current Unit 248 will be offered to all other divisions for purchase, if there is no interest then it will be sold at an on-line auction site. The use of the on-line surplus site has been very successful for the Streets Division over the last two years with the ability to reach bidders on a national level.

Discussion

The City of Grand Island City Council approved the use of the National Joint Powers Alliance Buying Group (NJPA) with Resolution 2014-326.

To meet competitive bidding requirements, the Streets Division obtained pricing from the NJPA Contract No. 032515-JDC awarded to John Deere Construction Retail Sales and their designated vendor locations including Murphy Tractor & Equipment Co. of Grand Island, NE.

Public Works staff is recommending the purchase of a 2015 John Deere 310SL HL (see attachments) from Murphy Tractor & Equipment Co. of Grand Island, NE in the amount of \$110,434.00.

The purchase of a New Backhoe Loader was approved in the 2015-20165 FY budget. The last few weeks Unit 248 has had enough minor breakdowns that a rental unit was investigated to avoid spending money on repairs for a unit that is scheduled to be replaced and avoid extended down time. A backhoe loader from Murphy Tractor & Equipment Co. is currently being rented and if the recommended purchase is made the rental cost will be applied, in arrears, toward the cost of the new machine.

Alternatives

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

- 1. Move to approve
- 2. Refer the issue to a Committee
- 3. Postpone the issue to future date
- 4. Take no action on the issue

Recommendation

City Administration recommends that the Council approve the purchase of a New Backhoe Loader from Murphy Tractor & Equipment Co. of Grand Island, NE in the amount of \$110,434.00.

Sample Motion

Move to approve the purchase of a New Backhoe Loader from Murphy Tractor & Equipment Co. of Grand Island, NE in the amount of \$110,434.00.

BACKHOES







TO BUILD A BETTER BACKHOE,

WE WENT TO YOU, OUR CUSTOMER.

Through our Customer Advocate Group (CAG), we collected invaluable input from owners and operators — the ones who know best what customers really need.

You spoke. And we listened and responded by expanding the breadth of our product line with the introduction of a new heavy-lift model and a side-shift model. We're also continuing our popular and competitively priced 310L EP. And as always, we're launching a host of new features to help you boost productivity and maximize uptime, while lowering daily operating costs. When it comes to delivering what you want, nobody responds like John Deere.



SIDE-SHIFT FOR TIGHT SPACES WITH THE 315SL.

Standard-equipped side-shift backhoes can be offset up to 21 in. right or left of center, making them ideal for work in crowded urban areas and around obstacles.

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GET MORE DONE WITH ONE

MULTIFUNCTION VERSATILITY, UNRIVALED CAPABILITY.

Why run two machines when one will do? Whether you're loading trucks, busting up blacktop, placing pipe, digging trenches, or moving materials, an L-Series Backhoe is more than up to the task. Building upon our highly productive K-Series Backhoes, the L-Series features additional backhoe lift capability and pressure-compensated load-sensing (PCLS) hydraulics (on the 310SL HL and 410L), for superb multifunction performance. The result: our most versatile backhoes ever.

True four-wheel drive on command

Standard limited-slip mechanical-front-wheel drive (optional on the 310L EP and 310L) delivers superior traction in any ground condition. Engage momentary mechanical-front-wheel drive "on the fly" with the touch of a button on the new loader control.

Powertrain performance

Responsive and productive fivespeed transmission on the 310SL, 310SL HL, 315SL, and 410L provides transport speeds up to 25 mph. Add the AutoShift option and increase versatility in any application.

Powerful FT4 engines

Rugged FT4/Stage IV PowerTech™ Plus diesel engines* meet rigid emission regulations, enabling you to work, wherever there's work — even in nonattainment areas. Our field-proven technology is simple, fluid efficient, fully integrated, and fully supported. It employs cooled exhaust gas recirculation, easy-tomaintain high-uptime exhaust filters (310SL HL and 410L only), and selective catalytic reduction.

Control the ride and the load

With ride control activated, front loader hydraulic cylinders act as a shock absorber, smoothing travel over rough terrain, helping full loads reach their destination, and reducing operator fatigue.

Better craning capability

The 310SL HL and 410L have up to 25-percent more backhoe lift under normal conditions.

Multifunction hydraulics

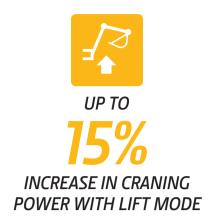
PCLS hydraulics on the new heavy-lift 310SL HL and the 410L ensure superior multifunction capability at all speeds.



THE NEW 310SL HL

HEAVY-LIFT BACKHOE

Managing an expanding workload and multiple tasks doesn't have to mean moving up to a larger backhoe. Boasting significantly more craning capability along with pressure-compensated load-sensing (PCLS) hydraulics, our new 310SL HL is surprisingly adept — and may be the perfect addition to your equipment lineup.







WHAT THE EXPERTS ARE SAYING:

Thanks to Deere asking for my input, I get a better machine, and these improvements make all the

— Todd Heiderscheidt, Backhoe CAG Member

More lift capacity at the push of a button Along with the 410L, the 310SL HL

can deliver up to 25-percent more backhoe-lift capacity than their comparable K-Series models. New lift mode provides an additional boost of 10 to 15 percent. Simply pushing a button on the sealed-switch module (SSM) sets engine rpm at 1,400 and maximizes hydraulic pressure for increased craning capability.

PCLS hydraulics for superb multifunction operation

The 310SL HL delivers all the advantages of PCLS hydraulics in the 14-15-ft. digging-depth category, enabling operator efficiency and productivity through improved multifunction control.

Unobstructed view to the front loader bucket

Clear sightlines to the loader bucket corners have been maintained over the sloped hood, even with the addition of the aftertreatment components needed to meet FT4 compliance.

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difference in my day's productivity.







New easy-to-use loader-control grip

New "palm-on-top" loader-control grip is even more comfortable and easy to use. Control of clutch disconnect, transmission quick-shift, auxiliary proportional roller, and momentary mechanical-front-wheel drive is at your fingertips.

Easy, fingertip control of backhoe functions

Fingertip electrohydraulic (EH) control of redesigned pilot levers provides even easier operation of backhoe functions, including selective flow and the horn.

Extend your workday

LED lighting kit includes choice of LED spot- or floodlights. For enhanced visibility when your workday goes long.

More legroom and space to rotate

Redesigned pilot towers provide more legroom and additional space for transitioning between loader and backhoe operation.

Fatigue-beating comfort

L-Series Backhoes are loaded with creature comforts, including efficient HVAC system, adjustable mechanical or air-suspension seat, and optional premium radio with Bluetooth®, auxiliary input, and XM Satellite Radio™ capability.

Steering column controls

Exterior lights, wipers, and turn signals are now more conveniently located on the multifunction lever on the steering column — just like the family SUV — helping operators keep their eyes on the job at hand.



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UNSURPASSED RELIABILITY

WON'T BACK DOWN. OR LET YOU DOWN.

Built with state-of-the-art tools and technology by a qualityconscious workforce at our world-class facility in Dubuque, Iowa, U.S.A., L-Series Backhoes deliver unmatched reliability and uptime. When you know how they're built, you'll run a Deere.









Onboard diagnostics center

The most advanced onboarddiagnostics technology in the industry is standard on all L-Series Backhoes. The exclusive John Deere WorkSight[™] suite of telematic solutions includes JDLink™ Ultimate with real-time machine monitoring and remote diagnostics to help increase uptime while lowering operating costs.

Quick, clean filter changes

Vertical spin-on engine, transmission, and hydraulic filters and quickrelease fuel filters allow fast, clean changes. Standard heavy-duty transmission oil filter increases reliability.

More durable multipurpose bucket

Our rugged multipurpose bucket has been reinforced with thicker plates and stronger cylinder mountings for longer life.

Bias and radial tire options

Choose from a variety of factoryinstalled tire options, for the traction, exceptional performance, and long service life your specific application requires.

Diff-lock protection

Enabled through the monitor, differential-lock protection prevents engagement at high travel speeds and the resulting wear and tear on axle components.

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Maintenance-free batteries

Standard maintenance-free batteries reduce periodic servicing, improve cold-starting reliability, and lengthen battery life.

Superior hydraulic oil

L-Series Backhoes come factoryfilled with Hydrau™ premium all-season, anti-wear hydraulic oil specifically designed for construction equipment. Or for cold weather, opt for Hydrau™ XR, which offers allseason protection from -40 to 40 deg. C (-40 to 104 deg. F).

Protect your investment

Machine-security system with touchpad passcode helps prevent unauthorized operation.

EASY MAINTENANCE

KEEP THE PEACE. AND YOUR PEACE OF MIND.

Save fuel with economy mode

Standard economy mode can be configured separately between loader and backhoe functions. For example, activate economy mode for backhoe functions while retaining full power for loader functions — a Deere exclusive. This helps maximize fuel usage in lighter-work applications with minimal effect on machine performance.

Improved diagnostics

State-of-the-art multi-language monitor clearly displays machine diagnostics. Operators can program a multitude of time-specific functions such as auto shutdown and auto-idle quickly and easily.



Minimize downtime and expense

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

Coolers allow easy cleanout

Hinged, stacked-assembly coolers tilt away from the radiator for convenient core cleanout.

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Save fuel and reduce noise

Auto-idle decreases engine speed when hydraulics aren't in use, to help maintain quiet working conditions and conserve precious fuel. Auto shutdown turns off the engine after an operator-selected period of inactivity, further keeping noise and fuel consumption down.

Quiet, fuel-efficient fan

Variable-speed electronically controlled fan automatically speeds up or slows down, operating only as needed to keep things cool. Helps conserve power and fuel, while reducing noise. A viscous variablespeed fan option is available for the 310L EP.

Proven engine technology

310L EP IT4/Stage IIIB emissioncertified PowerTech engine requires no aftertreatment. 310SL HL and 410L FT4/Stage IV emission-certified PowerTech Plus engines feature a diesel oxidation catalyst (DOC), a diesel particulate filter (DPF), and a selective catalytic reduction (SCR) system. 310L, 310SL, and 315SL FT4/Stage IV emissioncertified PowerTech Plus diesels include an SCR system.



Get valuable insight with

JOHN DEERE WORKSIGHT

John Deere WorkSight is an exclusive suite of telematic solutions that increases uptime while lowering operating costs. At its heart, JDLink Ultimate machine monitoring provides real-time utilization data and alerts to help you maximize productivity and efficiency while minimizing downtime. Remote diagnostics enable your dealer to read codes, record performance data, and even update software without a trip to the jobsite.

Keep downtime down with

ULTIMATE UPTIME

Ultimate Uptime, featuring John Deere WorkSight, is a customizable support solution available exclusively from your Deere dealer. This flexible offering maximizes equipment availability with standard John Deere WorkSight capabilities that can help prevent future downtime and speed repairs when needed. In addition to the base John Deere WorkSight features, our dealers work with you to build an uptime package that meets the specific needs of your machine, fleet, project, and business, including customized maintenance and repair agreements, onsite parts availability, extended warranties, fluid sampling, response-time guarantees, and more.

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SLOSL HL SPECIFICATIONS

Engine	310SL HL							
Manufacturer and Model	John Deere PowerTech™ Plus 4	045HT083 turbocharged						
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV							
Displacement	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)						
Net Peak Power (ISO 9249)	82 kW (110 hp) at 2,244 rpm							
Net Peak Torque (ISO 9249)	427 Nm (315 lbft.) at 1,400 rp	om						
Net Torque Rise	21%							
Lubrication	Pressure system with spin-on f	ilter and cooler						
Air Cleaner	Dual-stage dry type with safety	element and evacuator valve						
Cooling	<u> </u>							
Fan Type	Electronically controlled, varial	ole rate, suction type						
Engine Coolant Rating	–40 deg. C (–40 deg. F)	,						
Engine Oil Cooler	Oil to water							
Powertrain								
Transmission	5-speed, helical-cut gears, full cutoff on loader lever; AutoShi		raulic reverser standard; electric clutch					
Torque Converter		.63:1 stall ratio, 280 mm (11 in.)						
Maximum Travel Speeds with Standard Engine,	Single stage, dual phase With 2							
Measured with 21L-24 Rear Tires	Forward							
Gear 1	Forward Reverse 5.7 km/h (3.5 mph) 7.2 km/h (4.5 mph)							
Gear 2	10.5 km/h (6.5 mph) 13.3 km/h (8.3 mph)							
Gear 3								
Gear 4	21.4 km/h (13.3 mph) 21.2 km/h (13.2 mph) 36.0 km/h (22.4 mph)							
Gear 5	36.0 km/h (22.4 mph) — 40.0 km/h (24.9 mph) —							
Axles	40.0 km/h (24.9 mph) —							
	22.1							
Axle Oscillation, Stop to Stop, Front Axle	22 deg.	Market State Front Miles I D.						
Axle Ratings	N D /5 :	Mechanical-Front-Wheel Driv						
CAE 1/ 3	Non-Powered Front	(MFWD)	Rear					
SAE J43	5500 kg (12,125 lb.)	5500 kg (12,125 lb.)	7500 kg (16,535 lb.)					
Dynamic	8500 kg (18,739 lb.)	8500 kg (18,739 lb.)	10 000 kg (22,046 lb.)					
Static	22 500 kg (49,604 lb.)	23 500 kg (51,809 lb.)	26 000 kg (57,320 lb.)					
Ultimate	35 000 kg (77,162 lb.)	37 000 kg (81,571 lb.)	39 500 kg (87,083 lb.)					
Differentials								
MFWD Axle	Automatic, limited-slip traction							
Rear Axle	Foot actuated, hydraulically en							
Steering (ISO 5010)	Hydrostatic power steering and							
Axle	Non-Powered Front	MFWD						
Curb-Turning Radius								
With Brakes	3.61 m (11 ft. 10 in.)	3.67 m (12 ft. 0 in.)						
Without Brakes	4.24 m (13 ft. 11 in.)	4.35 m (14 ft. 3 in.)						
Bucket-Clearance Circle								
With Brakes	10.53 m (34 ft. 7 in.)	10.61 m (34 ft. 10 in.)						
Without Brakes	11.42 m (37 ft. 6 in.)	11.59 m (38 ft. 0 in.)						
Steering Wheel Turns (lock to lock)	3.1 to 4.3	2.6 to 3.6						
MFWD Axle	Heavy duty, outboard planetary	y final drives distribute shock loads o	over 3 gears					
Rear Axle		y final drives distribute shock loads o	-					
Brakes (ISO 3450)								
Service	Power assisted, hydraulic wet o	lisc, mounted inboard, self-adjustin	g and self-equalizing					
Parking			of service brakes with electric switch control					
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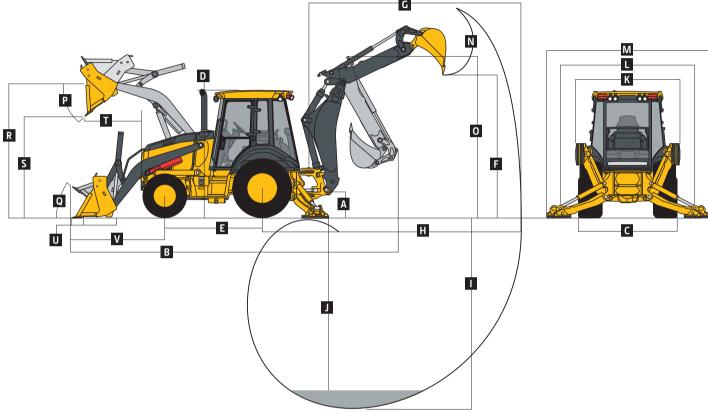




Hydraulics	310SL HL	
Main Pump	Pressure compensated load se	ensing (PCLS), axial-piston pump
Pump Flow at 2,200 rpm, Backhoe and Loader	159 L/m (42 gpm)	
System Relief Pressure, Backhoe and Loader	24 993 kPa (3,625 psi)	
Backhoe (lift mode)	27 579 kPa (4,000 psi)	
Controls		
Backhoe	Pilot controls with pattern se	ect standard; electrohydraulic (EH) auxiliary functions optional
Loader	Single-lever control with elect	ric clutch cutoff switch and MFWD (momentary) standard; single-lever control
	with electric clutch cutoff swi	tch, EH proportional auxiliary roller, and transmission quick-shift optional
Electrical		
Voltage	12 volt	
Alternator Rating	150 amp with cab / 120 amp	.,
Lights		nd 2 side docking (32,500 candlepower each); turn signals and flashers: 2 front
	and 2 rear; stop and taillights;	and 2 rear reflectors; LED light field kits available with both flood- and spotlights
Operator Station		
Type (SAE J1040)		OPS/FOPS, left/right access, with molded roof; optional quarter cab (front glass
	only) and fully enclosed cab	
Tires/Wheels		
	Front	Rear
Non-Powered Front Axle	12.5/80-18 F3 (12)	19.5L-24 R4 (12)
With MFWD	12.5/80-18 3 (12)	19.5L-24 R4 (10)
	12.5/80-18 R4 (10)	19.5L-24 R4 (12)
	12.5/80-18 3 (12)	21L-24 R4 (12)
	12.5/80-18 R4 (10)	21L-24 R4 (12)
	340/80R18 XMCL	500/70R24 XMCL
C 1 100	340/80R18 580	500/70R24 580
Serviceability P. C.		
Refill Capacities	251 (27 .)	
Cooling System	35 L (37 qt.)	
Rear Axle	18 L (19 qt.)	
Engine Oil (including vertical spin-on filter)	13 L (13.7 qt.)	
Torque Converter and Transmission	15.1 L (16 qt.)	
Fuel Tank (with ground-level fueling)	140.1 L (37 gal.)	
Diesel Exhaust Fluid (DEF) Tank	16.3 L (4.3 gal.) 126.8 L (33.5 gal.)	
Hydraulic System	` ' ' '	
Hydraulic Reservoir MFWD Housing	45 L (11.9 gal.)	
Axle	6 F.L (6 O at)	
	6.5 L (6.9 qt.)	
Planetary (each) Hydrau™ XR Hydraulic Oil	0.9 L (1 qt.) Optional	
Operating Weights	Оргіонаі	
With Full Fuel Tank, 79-kg (175 lb.) Operator, Standard	8269 kg (18,231 lb.)	
Equipment, and 567-kg (1,250 lb.) Counterweight	0203 kg (10,231 lb.)	
Typical with Cab and 567-kg (1,250 lb.) Counterweight	8533 kg (18,811 lb.)	
Optional Components (weight difference between	0333 Ng (10,011 lb.)	
base equipment and option)		
Cab	263 kg (580 lb.)	
MFWD with Tires	110 kg (242 lb.)	
Front Loader Coupler	257 kg (566 lb.)	

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Overall Dimensions	310SL HL	
A Ground Clearance, Minimum	310 mm (12 in.)	
B Overall Length, Transport	7.37 m (24 ft. 2 in.)	
C Width Over Tires	2.18 m (7 ft. 2 in.)	
D Height to Top of ROPS/Cab	2.81 m (9 ft. 3 in.)	
E Length from Axle to Axle		
Non-Powered Front Axle	2.16 m (7 ft. 1 in.)	
MFWD Axle	2.19 m (7 ft. 2 in.)	



Backhoe Dimensions and Performance			
Backhoe specifications are with 610-mm x 0.21		er lift specs are with a boom angle of 65	deg.
Bucket Range	305–610 mm (12–24 in.)		
Digging Force			
Bucket Cylinder	70.9 kN (15,947 lb.)		
Lift Mode	78.3 kN (17,596 lb.)		
Crowd Cylinder	38.9 kN (8,750 lb.)		
Lift Mode	42.9 kN (9,655 lb.)		
Swing Arc	180 deg.		
Operator Control	2 levers		
	With Extendable Dipperstick	With Extendable Dipperstick	
	Retracted	Extended	
F Loading Height, Truck Loading Position	3.63 m (11 ft. 11 in.)	4.25 m (13 ft. 11 in.)	
G Reach from Center of Swing Pivot	5.62 m (18 ft. 5 in.)	6.60 m (21 ft. 8 in.)	
H Reach from Center of Rear Axle	6.68 m (21 ft. 11 in.)	7.67 m (25 ft. 2 in.)	
I Digging Depth (SAE maximum)	4.51 m (14 ft. 10 in.)	5.52 m (18 ft. 1 in.)	
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.47 m (14 ft. 8 in.)	5.49 m (18 ft. 0 in.)	
2440-mm (8 ft.) Flat Bottom	4.16 m (13 ft. 8 in.)	5.26 m (17 ft. 3 in.)	
K Stabilizer Width, Transport	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)	
L Stabilizer Spread, Operating			
Standard Stabilizers	3.10 m (10 ft. 2 in.)	3.10 m (10 ft. 2 in.)	
Long Stabilizers	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	
M Stabilizer Overall Width, Operating			
Standard Stabilizers	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)	
Long Stabilizers	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)	
N Bucket Rotation	190 deg.	190 deg.	
0 Transport Height	3.57 m (11 ft. 9 in.)	3.57 m (11 ft. 9 in.)	ATTACHMENT 1

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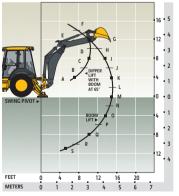
Loader Dimensions and Performance	310SL HL			
P Bucket Dump Angle, Maximum	45 deg.			
Q Rollback Angle at Ground Level	40 deg.			
	Heavy-duty	Heavy-duty long lip	Heavy-duty	Multipurpose
Bucket Capacity	0.86 m³ (1.12 cu. yd.)	0.96 m³ (1.25 cu. yd.)	1.00 m³ (1.31 cu. yd.)	1.00 m³ (1.31 cu. yd.)
Width	2184 mm (86 in.)	2184 mm (86 in.)	2346 mm (92 in.)	2346 mm (92 in.)
Weight	390 kg (860 lb.)	405 kg (892 lb.)	521 kg (1,148 lb.)	863 kg (1,902 lb.)
Breakout Force	49.4 kN (11,106 lb.)	46.7 kN (10,497 lb.)	47.1 kN (10,587 lb.)	43.4 kN (9,767 lb.)
Lift Capacity, Full Height	3397 kg (7,489 lb.)	3141 kg (6,924 lb.)	3257 kg (7,181 lb.)	2774 kg (6,116 lb.)
R Height to Bucket Hinge Pin, Maximum	3.43 m (11 ft. 3 in.)			
S Dump Clearance, Bucket at 45 deg.	2.73 m (8 ft. 11 in.)	2.63 m (8 ft. 8 in.)	2.67 m (8 ft. 9 in.)	2.63 m (8 ft. 8 in.)
T Reach at Full Height, Bucket at 45 deg.	744 mm (29.3 in.)	870 mm (34.2 in.)	740 mm (29.1 in.)	782 mm (30.8 in.)
U Digging Depth Below Ground, Bucket Level	124 mm (4.9 in.)	105 mm (4.1 in.)	168 mm (6.6 in.)	164 mm (6.5 in.)
V Length from Front Axle Centerline to Bucket	1.98 m (6 ft. 6 in.)	2.13 m (7 ft. 0 in.)	2.05 m (6 ft. 9 in.)	2.10 m (6 ft. 11 in.)
Cutting Edge				
Lift Capacity with Quick-Coupler Forks				
Hydraulic Capacity	1219-mm (48 in.) Tines	1524-mm (60 in.) Tines		
A Maximum Height	2059 kg (4,539 lb.)	2008 kg (4,426 lb.)		
BI Maximum Reach	3542 kg (7,809 lb.)	3484 kg (7,681 lb.)		
C ¹ At Ground Line	4079 kg (8,992 lb.)	4027 kg (8,879 lb.)		
D1 Below Ground Line	211 mm (8.3 in.)	211 mm (8.3 in.)		

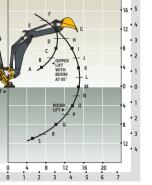


Lift Capacity with Bucket

Lift capacities are over-end values in kg (lb.) according to SAE J31. Figures listed are 87% of the maximum lift force available. Calculated with 610-mm x 0.21-m³

(24	in. x 7.5 cu. ft.) bu	cket. Bucket impa		icity.
	With 1.06-m (3 ft.	. 6 in.)	With 1.06-m (3 ft	. 6 in.)
	Extendable Dipper	rstick, Retracted	Extendable Dippe	rstick, Extended
	Standard Lift	Lift Mode	Standard Lift	Lift Mode
Α	4588 kg (10,116 lb.)	4591 kg (10,122 lb.)	3404 kg (7,504 lb.)	3811 kg (8,401 lb.)
В	3012 kg (6,640 lb.)	3012 kg (6,640 lb.)	2165 kg (4,772 lb.)	2435 kg (5,367 lb.)
C	2652 kg (5,846 lb.)	2652 kg (5,846 lb.)	1873 kg (4,130 lb.)	2111 kg (4,653 lb.)
D	2583 kg (5,694 lb.)	2583 kg (5,694 lb.)	1761 kg (3,883 lb.)	1955 kg (4,309 lb.)
Ε	2553 kg (5,629 lb.)	2727 kg (6,011 lb.)	1698 kg (3,744 lb.)	1853 kg (4,086 lb.)
F	1131 kg (2,494 lb.)	1303 kg (2,872 lb.)	1647 kg (3,630 lb.)	1832 kg (4,039 lb.)
G	1338 kg (2,951 lb.)	1539 kg (3,392 lb.)	1578 kg (3,480 lb.)	1781 kg (3,926 lb.)
Н	1388 kg (3,061 lb.)	1598 kg (3,522 lb.)	1452 kg (3,202 lb.)	1641 kg (3,617 lb.)
-1	1390 kg (3,064 lb.)	1602 kg (3,532 lb.)	725 kg (1,599 lb.)	847 kg (1,867 lb.)
J	1372 kg (3,025 lb.)	1584 kg (3,493 lb.)	899 kg (1,982 lb.)	1044 kg (2,302 lb.)
K	1346 kg (2,968 lb.)	1558 kg (3,435 lb.)	977 kg (2,154 lb.)	1133 kg (2,499 lb.)
L	1318 kg (2,907 lb.)	1529 kg (3,371 lb.)	1014 kg (2,235 lb.)	1176 kg (2,594 lb.)
M	1292 kg (2,848 lb.)	1501 kg (3,310 lb.)	1030 kg (2,270 lb.)	1196 kg (2,637 lb.)
N	1269 kg (2,798 lb.)	1478 kg (3,259 lb.)	1034 kg (2,280 lb.)	1203 kg (2,651 lb.)
0	1254 kg (2,764 lb.)	1463 kg (3,226 lb.)	1032 kg (2,276 lb.)	1202 kg (2,651 lb.)
Р	1251 kg (2,757 lb.)	1463 kg (3,255 lb.)	1028 kg (2,266 lb.)	1199 kg (2,642 lb.)
Q	1273 kg (2,807 lb.)	1492 kg (3,288 lb.)	1022 kg (2,253 lb.)	1194 kg (2,632 lb.)
R	1376 kg (3,034 lb.)	1614 kg (3,557 lb.)	1018 kg (2,243 lb.)	1191 kg (2,625 lb.)
S	1570 kg (3,460 lb.)	1839 kg (4,053 lb.)	1016 kg (2,240 lb.)	1191 kg (2,625 lb.)
Т	_	_	1020 kg (2,249 lb.)	1197 kg (2,639 lb.)
U	_	_	1034 kg (2,279 lb.)	1214 kg (2,677 lb.)
٧	_	_	1066 kg (2,351 lb.)	1254 kg (2,764 lb.)
W	_	_	1145 kg (2,524 lb.)	1346 kg (2,968 lb.)
Χ	_	_	1428 kg (3,149 lb.)	1675 kg (3,693 lb.)
Υ	_	_	3058 kg (6,741 lb.)	3552 kg (7,831 lb.)





With Extendable Dipperstick, Retracted

With Extendable Dipperstick, Extended

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Additional equipment

Key: ● Standard ▲ Optional or special See your John Deere dealer for further information.

310L			310SL			
EP	310L	310SL	HL	315SL	410L	Engine
•	•	•	•	•	•	Coolant recovery tank with low-level indicator
	•	•	•		•	Foldout, hinged cooling system
•	•	•	•	•	•	Serpentine belt with automatic belt tensioner
•						Suction-type cooling fan
A						Viscous variable-rate cooling fan
	•	•	•	•	•	Electronically controlled, variable-rate suction- type cooling fan
		•	•	•	•	Self-cleaning exhaust aftertreatment system
						Chrome exhaust extension
				•		Grid heat
			•		•	Glow plugs
						Ether starting aid
		A		A		1,000-watt electric engine coolant heater
•	•	•	•	•	•	Electronic fuel lift pump
						Powertrain
•	•					PowerShift™ transmission: Torque converter with twist-grip Transmission Control Lever (TCL) and neutral safety switch interlock (1st through 4th gears)
		•	•	•	•	PowerShift transmission: Torque converter with twist-grip TCL and neutral safety switch interlock (1 st through 5th gears)
		•	•	•	•	5th-gear overdrive
					A	AutoShift transmission
•	•	•	•	•	•	Transmission oil cooler
		A	•	A		Transmission remote oil-sampling port
•	•	•	•		•	Differential lock, electric foot actuated, protection on/off
				•		Differential lock, electric foot actuated
		•	•	•	•	Auto shutdown
•			•	•	•	Planetary final drives
•	•	•	•	•	•	Power-assisted hydraulic service brakes (conform to ISO 3450): Inboard, wet multi-disc, self-adjusting and self-equalizing
•	•	•	•	•	•	Parking/emergency brake with electric switch control (conforms to ISO 3450): Spring applied, hydraulically released wet multi-disc / Independent of service brakes
•	•	•	•	•	•	Hydrostatic power steering with emergency manual mode
				A		Non-powered front axle
•	•					MFWD with open differential: Electric on/off control / Sealed axle
A	A	•	•	•	•	MFWD with traction-control limited-slip differential: Electric on/off control / Sealed axle
•	•	•	•	•	•	Automatic MFWD braking (4th and 5th gear overdrive only)
	A	A			A	MFWD driveshaft guard

310L			310SL			
EP	3101	310SL	HL	315SL	4101	Backhoe
EF	JIUL	3103L	IIL	3133L	TIUL	Lift mode
						Standard dipperstick, 4.27-m (14 ft. 0 in.)
						digging depth
		•				Standard dipperstick, 4.34-m (14 ft. 3 in.)
						digging depth
				•		Standard dipperstick, 4.17-m (13 ft. 8 in.) digging depth
					•	Standard dipperstick, 4.83-m (15 ft. 10 in.)
						digging depth
A	A	A	•	A		Extendable dipperstick, 1.06-m (3 ft. 6 in.) extension
					A	Extendable dipperstick, 1.21-m (4 ft. 0 in.) extension
		A	•			Heavy-duty backhoe bucket cylinder
•	•	•		•	•	ISO (Deere) 2-lever mechanical backhoe controls
		A	•	A	A	2-lever pilot controls with pattern-selection
						feature
			•	•		Backhoe transport lock lever
•		•	•	•	•	Swing lock pin stored in operator's station
•	•	•	•	•	•	Stabilizers with 2-direction anti-drift valves
		A	•			Extended (long) stabilizers with reversible pads
		A	A	A	A	Severe-duty backhoe bucket with lift loops
A	A	A			A	Backhoe couplers for John Deere, Case, and
						Cat buckets
•	•	•	•	•	A	Auxiliary backhoe valve for swingers, thumbs, etc. with auxiliary plumbing
•	•	•		•	•	Auxiliary backhoe valve for hammers and com-
		_				pactors with auxiliary plumbing
A	A	A	A		A	Hydraulic thumb
						Loader [†]
•		•	•	•	•	Loader bucket anti-spill (rollback)
•	•	•	•	•	•	Return-to-dig feature
•	•	•	•	•	•	Single-lever control with electric clutch disconnect
•		•	•	•	•	Bucket-level indicator
•	•	•	•	•	•	Loader boom service lock
				A		Auxiliary loader hydraulics with 2-lever control
		A			A	Auxiliary loader hydraulics with single control lever with EH auxiliary control (MFWD and clutch disconnect)
			•			Auxiliary loader hydraulics with thumb-switch control
A	A	A	A	A	A	Hydraulic coupler for buckets, forks, etc.
	<u> </u>	<u> </u>	_	<u> </u>		Ride control
_		_	_	_	_	

†See dealer for range of heavy-duty, multipurpose, and coupler buckets and forks.

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. No derating is required up to 1500-m (5,000 ft.) altitude for the 310L and up to 3050-m (10,000 ft.) for the 310L with optional altitude-compensating turbocharger, the 310SL, the 310SL HL, the 315SL, and the 410L Specifications and design are subject to change without notice. Wherever applicable, specifications are in accordance with ISO standards. Except where otherwise noted, these specifications are based on 310L EP and 310L units with 19.5L-24-in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires, 0.86-m² (1.12 cu, yd.) loader buckets, and 610-mm x 0.18-m³ (24 in. x 6.5 cu. ft.) backhoe bucket; a 310SL unit with 19.5L-24-in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR front tires, 1.00-m² (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket.

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Additional equipment (continued)

Key: ● Standard ▲ Optional or special See your John Deere dealer for further information.

310L			310SL			
EP	3101	310SL		315SL	4101	Hydraulic System
•	JIUL	J 103L	116	J.JJL	TIOL	119-L/m (31.5 gpm) tandem-gear pump with
						unloader, open-center system
						106-L/m (28 gpm) single-gear pump, open-
						center system
		•		•		136-L/m (36 gpm) tandem-gear pump, open-
			_		_	center system
			•		•	159-L/m (42 gpm) axial-piston pump, PCLS
					•	system Auto-idle
	•					Economy mode
						Dedicated hydraulic reservoir
						Electrical System
•	•	•	•	•	•	12-volt system
						90-amp alternator (canopy and quarter cab)
						120-amp alternator (cab)
	•	•	•		•	120-amp alternator (canopy and quarter cab)
	•	•	•	•	•	150-amp alternator (cab)
•	•	•		•	•	Single battery with 190-min. reserve capacity
						and 925 CCA
					\blacktriangle	Dual batteries with 380-min. reserve capacity
						and 1,850 CCA
A	A	A	A	A	A	Remote jump posts and battery disconnect
						Lights
•		•	•	•	•	Halogen lights (10), 32,500 candlepower each (4 front driving/working, 4 rear working, and
						2 side docking)
•	•	•	•	•	•	Turn signal/flashing (2 front and 2 rear)
•	•	•	•	•	•	Rear stop and tail (2)
	A	A	A	A	A	LED lights, field installed
						Operator's Station
		•	•	•	•	Modular-design ROPS/FOPS (Level 2) canopy
						with molded roof (meets ISO 3449 and ISO
						3471/SAE J1040): Isolation mounted
	•	•	•	•	•	Molded floor mats (with pilot controls only)
•	•	•	•	•	•	12-volt outlet
_	_				•	Lockable right-side storage
A	A	A	A		A	Lockable left-hand storage with cup holders Interior front-view mirror
A	A	A	A	A	A	Outside rearview mirror
•	•	•	•	•	•	Rotary-dial hand throttle
						Suspended foot throttle
		Ā	Ā	Ā		Air-suspension seat (with cab only)
•						Key start switch with electric fuel shutoff
•		•	•		•	Tilt steering, infinitely adjustable (with cab only)
Ā	_	A	A	•	Ā	Tilt steering, infinitely adjustable (with canopy
					_	and guarter cab)
			•		•	Keyless start
A	A	•	•	•	•	Machine security (enabled through monitor)
•	•	•	•	•		Digital display of engine hours, engine rpm,
						and system voltage
						Sealed-switch module

Multi-function lever: Turn signals / Windshield wipers / Some light functionality Monitor system with audible and visual warnings: Engine air restriction / Low alternator voltage / Engine oil pressure / Hydraulic filter restriction / Parking brake on/off / Aftertreatment temperature / Transmission fluid temper ature / Fuel / Hour meter / Machine diagnostic information via 4-push-button/LCD operator interface Canopy: Mechanical-suspension deluxe vinyl swivel seat with lumbar adjustment and armrests (fully adjustable) Quarter Cab: Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment and armrests (fully adjustable), front windshield, and windshield wiper (I front) Cab with Dual Doors and A/C: Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment and armrests (fully adjustable), front windshield wiper (I front) Cab with Dual Doors and A/C: Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment / Headliner, dome light, left and right cab doors, tinted safety glass, windshield wipers (I rear and I front), front windshield washer, fresh-air intake, and heater / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button shield washer, fresh-air intake, and heater / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / defroster/pressurizer (I 1 - N-kW [40,000 Btw/h] button heater / defroster/pressurizer (I 1 -	310L			310SL			
Multi-function lever: Turn signals / Windshield wipers / Some light functionality Monitor system with audible and visual warnings: Engine air restriction / Low alternator voltage / Engine oil pressure / Hydraulic filter restriction / Parking brake on/off / Aftertatement temperature / Transmission fluid temper ature / Fuel / Hour meter / Machine diagnostic information via 4-push-button/LCD operator interface Canopy: Mechanical-suspension deluxe vinyl swivel seat with lumbar adjustment and armrests (fully adjustable) Quarter Cab: Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment and armrests (fully adjustable), front windshield, and windshield wiper (1 front) A A Cab with Dual Doors and A/C: Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment and armrests (fully adjustable), front windshield, and windshield wiper (1 front). A A Cab with Dual Doors and A/C: Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment / Headliner, dome light, left and right tack doors, tinted safety glass, windshield wipers (1 rear and 1 front), front windshield wipers (1 rear and 1 front), front windshield washer, fresh-air intake, and heater/ defroster/pressurizer (11.7-kW (40,000 Btu/h) bately / A/C (7.6-kW [26,000 Btu/h) output and CFC-free R134a refrigerant A AM/FM/weather-band radio (with cab only) Premium radio package with XM Satellite Radio" (with cab only; includes additional 12-volt and USB outlets) Overall Vehicle 1piece unitized construction mainframe Vehicle tie-downs (2 front and 2 rear) Remote grease bank for front axle Front cover A A Perovicular (1.2-Q4 kg (450 lb.), 340 kg (750 lb.), 454 kg (1,000 lb.), or 567 kg (1,250 lb.), 464 kg (750 lb.), 475 kg (1,000 lb.), or 567 kg (1,250 lb.), 475 kg (1,000 lb.), or 567 kg (1,250 lb.), 475 kg (1,000 lb.), or 567 kg (1,250 lb.), 475 kg (1,000 lb.), or 567 kg (1,250 lb.), 475 kg (1,000 lb.), or 567 kg (1,250 lb.), 475 kg (1,000 lb.), or 567 kg (1,250 lb.), 475 kg (1,000 lb.), or 567 kg (1,250 lb.), 475 kg (1,25		310L			315SL	410L	Operator's Station (continued)
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swivel seat with lumbar adjustment and arm-rests (fully adjustable) Quarter Cab: Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment and armrests (fully adjustable), front windshield, and windshield wiper (1 front) A A A Cab with Dual Doors and A/C: Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment / Headliner, dome light, left and right cab doors, tinted safety glass, windshield wipers (1 rear and 1 front), front windshield washer, fresh-air intake, and heater/defroster/pressurizer (1 1.7-kW [40,000 Btu/h] output and CFC-free R134a refrigerant A A A AM/FM/weather-band radio (with cab only) Premium radio package with XM Satellite Radio" (with cab only; includes additional 12-volt and USB outlets) Overall Vehicle 1-piece unitized construction mainframe Vehicle tie-downs (2 front and 2 rear) Remote grease bank for front axle Front cover Heavy-duty front bumper Front cover Heavy-duty front bumper Front counterweight – 204 kg (450 lb.), 340 kg (750 lb.), 454 kg (1,000 lb.), or 567 kg (1,250 lb. A A Rubber grille bumpers Fuel tank, 140.1 L (37 gal.), ground-level fueling 2-position easy-tilt hood Extended grille frame Removable toolbox with padlock hasp Vandal protection for locking monitor, engine hood, toolbox, hydraulic reservoir, and fuel tank Vandal protection for locking engine hood, toolbox, hydraulic reservoir, and fuel tank Vandal protection for locking engine hood, toolbox, hydraulic reservoir, and fuel tank Reverse warning alarm Dent-resistant full-coverage rear fenders Backhoe boom-protection plate JDLink™ Ultimate wireless communication system (available in specific countries; see	•	•	•	•	•	•	ings: Engine air restriction / Low alternator voltage / Engine oil pressure / Hydraulic filter restriction / Parking brake on/off / Aftertreatment temperature / Transmission fluid temperature / Fuel / Hour meter / Machine diagnostic information via 4-push-button/LCD operator
fabric swivel seat with lumbar adjustment and armrests [fully adjustable], front windshield, and windshield wiper (1 front) ▲ ▲ ▲ ▲ ▲ ▲ ▲ Cab with Dual Doors and A/C: Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment / Headliner, dome light, left and right cab doors, tinted safety glass, windshield wipers (1 rear and 1 front), front windshield washer, fresh-air intake, and heater/defroster/pressurizer (11.7-kW [40,000 Btu/hheater] / A/C (7.6-kW [26,000 Btu/h] output and CFC-free R134a refrigerant ▲ ▲ ▲ AM/FM/weather-band radio (with cab only) Premium radio package with XM Satellite Radio™ (with cab only; includes additional 12-volt and USB outlets) Overall Vehicle ■ ● 1-piece unitized construction mainframe Vehicle tie-downs (2 front and 2 rear) Remote grease bank for front axle Front cover A ▲ A Front counterweight – 204 kg (450 lb.), 340 kg (750 lb.), 454 kg (1,000 lb.), or 567 kg (1,250 lb.) Rubber grille bumpers Fuel tank, 140.1 L (37 gal.), ground-level fueling 2-position easy-tilt hood Extended grille frame Removable toolbox with padlock hasp Vandal protection for locking monitor, engine hood, toolbox, hydraulic reservoir, and fuel tank Vandal protection for locking engine hood, toolbox, hydraulic reservoir, and fuel tank Reverse warning alarm Dent-resistant full-coverage rear fenders Backhoe boom-protection plate JDLink™ Ultimate wireless communication system (available in specific countries; see	•	•	•	•	•	•	swivel seat with lumbar adjustment and arm-
suspension deluxe fabric swivel seat with lumbar adjustment / Headliner, dome light, left and right cab doors, tinted safety glass, wind-shield wipers (1 rear and 1 front), front wind-shield wipers (1 rear and 1 front), front wind-shield washer, fresh-air intake, and heater/defroster/pressurizer (11.7-kW [40,000 Btu/h heater) / A/C (7.6-kW [26,000 Btu/h] output and CFC-free R134a refrigerant A AM/FM/weather-band radio (with cab only) Premium radio package with XM Satellite Radio™ (with cab only; includes additional 12-volt and USB outlets) Overall Vehicle 1-piece unitized construction mainframe Vehicle tie-downs (2 front and 2 rear) Remote grease bank for front axle Front cover Heavy-duty front bumper Heavy-duty front bumper Front counterweight – 204 kg (450 lb.), 340 kg (750 lb.), 454 kg (1,000 lb.), or 567 kg (1,250 lb.) Rubber grille bumpers Fuel tank, 140.1 L (37 gal.), ground-level fueling 2-position easy-tilt hood Extended grille frame Removable toolbox with padlock hasp Vandal protection for locking monitor, engine hood, toolbox, hydraulic reservoir, and fuel tank Vandal protection for locking engine hood, toolbox, hydraulic reservoir, and fuel tank Reverse warning alarm Dent-resistant full-coverage rear fenders Backhoe boom-protection plate JDLink™ Ultimate wireless communication system (available in specific countries; see	A	A	A				fabric swivel seat with lumbar adjustment and armrests (fully adjustable), front windshield,
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Radio™ (with cab only; includes additional 12-volt and USB outlets) Overall Vehicle 1-piece unitized construction mainframe Vehicle tie-downs (2 front and 2 rear) Remote grease bank for front axle Front cover A A A Front counterweight − 204 kg (450 lb.), 340 kg (750 lb.), 454 kg (1,000 lb.), or 567 kg (1,250 lb.) A A A Rubber grille bumpers Fuel tank, 140.1 L (37 gal.), ground-level fueling 2-position easy-tilt hood Extended grille frame Removable toolbox with padlock hasp Vandal protection for locking monitor, engine hood, toolbox, hydraulic reservoir, and fuel tank Vandal protection for locking engine hood, toolbox, hydraulic reservoir, and fuel tank Reverse warning alarm Dent-resistant full-coverage rear fenders Backhoe boom-protection plate JDLink™ Ultimate wireless communication system (available in specific countries; see			A	A			AM/FM/weather-band radio (with cab only)
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Vehicle tie-downs (2 front and 2 rear) Remote grease bank for front axle Front cover Heavy-duty front bumper Front counterweight − 204 kg (450 lb.), 340 kg (750 lb.), 454 kg (1,000 lb.), or 567 kg (1,250 lb.) Rubber grille bumpers Fuel tank, 140.1 L (37 gal.), ground-level fueling 2-position easy-tilt hood Extended grille frame Removable toolbox with padlock hasp Vandal protection for locking monitor, engine hood, toolbox, hydraulic reservoir, and fuel tanl Vandal protection for locking engine hood, toolbox, hydraulic reservoir, and fuel tank Reverse warning alarm Dent-resistant full-coverage rear fenders Backhoe boom-protection plate JDLink™ Ultimate wireless communication system (available in specific countries; see							
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 Dent-resistant full-coverage rear fenders Backhoe boom-protection plate JDLink™ Ultimate wireless communication system (available in specific countries; see 				•			toolbox, hydraulic reservoir, and fuel tank
 ▲ A Backhoe boom-protection plate ■ JDLink™ Ultimate wireless communication system (available in specific countries; see 		•	•		•		-
 JDLink™ Ultimate wireless communication system (available in specific countries; see 	•	•	•	•	•		-
system (available in specific countries; see		A	A				
your dealer for details)	•	•	•	•	•	•	system (available in specific countries; see

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. No derating is required up to 1500-m (5,000 ft.) altitude for the 310L and up to 3050-m (10,000 ft.) for the 310L with optional altitude-compensating turbocharger, the 310SL, the 310SL HL, the 315SL, and the 410L. Specifications and design are subject to change without notice. Wherever applicable, specifications are in accordance with ISO standards. Except where otherwise noted, these specifications are based on 310L EP and 310L units with 19.5L-24-in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires, 0.86-m³ (1.12 cu. yd.) loader buckets, and 610-mm x 0.18-m³ (24 in. x 6.5 cu. ft.) backhoe buckets; a 310SL unit with 19.5L-24-in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires, 1.00-m³ (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket, and a 410L unit with boost mode, 21L-24-in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR front tires, 1.00-m³ (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket, and a 410L unit with boost mode, 21L-24-in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR front tires, 1.15-m³ (1.5 cu. yd.) loader bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket.

ATTACHMENT 1 Page 15 of 15



5087 N.E. 46th Avenue **Des Moines, IA 50317** 515-263-0055

10893 112 Road **Dodge City, KS 67801** 620-227-3139

1303 3rd Ave. Northwest Fort Dodge, IA 50501 515-576-3184

P.O. Box 460 **Gering, NE 69341** 308-436-2177

3204 S. Engleman Road **Grand Island, NE 68803** 308-381-0741

P.O. Box 1206 **Great Bend, KS 67530** 620-792-2748

1601 N. Corrington **Kansas City, MO 64120** 816-483-5000

6310 N. 56th Street Lincoln, NE 68504 402-467-1300

P.O. Box 1013 North Platte, NE 69103 308-534-7020

9751 S. 148th Omaha, NE 68138 402-894-1899

P.O. Box 5349 Sioux City, IA 51102 712-252-2753

1401 State Hwy MM **Springfield, MO 65802** 417-863-1000

1621 N.W. Gage Blvd. **Topeka, KS 66618** 785-233-0556

P.O. Box 387 **Ulysses, KS 67880** 620-356-1071

P.O. Box 2520 Waterloo, IA 50704 319-235-7085

P.O. Box 17366 Wichita, KS 67217 316-942-1457

Corporate Office

P.O. Box 17366 Wichita, KS 67217 316-945-101 April 8, 2016

Shannon Callahan ' Street Superintendent City of Grand Island Street Department 111 West North Front Street Grand Island, NE 68801

Shannon:

Attached is an Excel worksheet I built to reconcile the list prices from Deere and the 43% discount available through the NJPA.

The original List Price for this machine from the 2015 Price List was \$175,201.00 from which I deducted \$850.00 for the Basic Radio Package, resulting in the total list price of \$174,351.00.

Listing all the additional items and charges associated with delivery and preparation of the tractor; the final NJPA price is \$113,454.07 and the quoted price to the City of Grand island Street Department is \$110,434.00. This is \$3020.07 less than the calculated NJPA price.

The only component this tractor has that we did not include in the initial quote is the auxiliary hydraulics on the backhoe. List on those is \$5196.00, with the discount your cost is \$2927.52. Even with the additional component I am still lower than the calculated NJPA price and in the long run I believe you will be glad you have the additional hydraulic capability.

Please review the provided information and feel free to call me with any questions you may have.

Respectfully,

William J. R. (Bill) Boyer Territory Sales Manager

William JA Doger



ATTACHMENT 2 Page 2 of 3

\$ 110,424.00

\$ 110,424.00

Quote Summary Prepared For: Prepared By: GRAND ISLAND PUBLIC WORK BILL BOYER NE Murphy Tractor & Eq. Co. Inc 3204 S Engleman Rd Grand Island, NE 688036621 Phone: 308-381-0741 Mobile: 308-258-2101 bboyer@murphytractor.com Quote Id: 13083926 Created On: 05 April 2016 Last Modified On: 07 April 2016 **Expiration Date:** 29 April 2016 **Equipment Summary** Qty Extended 2015 JOHN DEERE 310HL 1 BACKHOE LOADER -1T0310HLJFF281070 John Deere Extended Warranty-5 yr. 1 3000 hour comprehensove, no deductible, Service mileage included. **Equipment Total** \$ 110,424.00 **Quote Summary Equipment Total** \$ 110,424.00 SubTotal \$ 110,424.00

Total

Balance Due

Salesperson	:	X	

Accepted By : X _____



Selling Equipment

Quote ld: 13083926

2015 10	NAN DEEDE 310HI BACKHOF	LOADED ATOMANIA IEEOMANA
2015 JC	OHN DEERE STUHL BACKHOE	LOADER - 1T0310HLJFF281070
Hours:	27	
Stock Number:	134623	
	Description	
	Description	Qty
	FT4,4WD,FS21L,EXTDIP,PILOT,LDR CPLR,	1
	Standard Options	Portinit
	ENGINE FT4	1
	JD LINK ULT 850 5YR.	1
	CAB STANDARD	1
	DECAL & PACKET ENGLISH	1
	AXLE MFWD 4WD LIMITED SLIP	1
	TIRE FS21L-24,FS12.5/80-18	1
	CONTROL PILOT	1
	COUPLER QUICK UNIVERSAL	1
	DIPPER EXTENDABLE	1
	HYD,AUX W/2WAY FLOW, THUMB	1
	LDR CPLR 1LEVER NO AUX W/RC	1
	LDR BKT 1.3CY LG LIP BKT 92"	1
	COUNTERWEIGHT 1250LB.	1
	BATTERY DUAL W/JUMP POST	1
	CHROME EXHAUST	1
	HEATER ENGINE COOLANT 110V	1
	CONSOLE W/CUP HOLDER - LEFT	1
	GUARD FULL MFWD	1
	FLUID SAMPLING	1
	RADIO BASIC PACKAGE	1
	SUN VISOR	1
	SEAT CLOTH AIR SUSPENSION	1
	Dealer Attach	ments
	Premium Radio	1
	Rubber Bumper	1
	Stabilizer Guards	1
	Auto shift Upgrade	1
	12" HD Bucket	1
	Exterior Mirrors	1
	Service Agree	ments
	John Deere Extended Warranty - 5 yr. 3000 hour comprehensove, no deductible, Service mileage included.	

Confidential

NJPA Discoun			
March 18, 2015			
John Deere Model	Discount % off List	List Price for Base Model, as defined in the Price Pages	Proposed Contract Price
Backhoes			
310L EP	43	\$109,205.00	\$62,246.85
310L	43	\$110,843.00	\$63,180.51
310SL	43	\$112,506.00	\$64,128.42
310SL HL	43	\$114,193.00	\$65,090.01
315SL	36	\$113,631.00	\$72,723.84
410L	40	\$125,375.00	\$75,225.00
710K	36	\$189,985.00	\$121,590.40

Contract Award RFP 032515

FORM D

Formal Offering of Proposal

AND PA

(To be completed Only by Proposer)

HEAVY CONSTRUCTION EQUIPMENT WITH RELATED ACCESSORIES, ATTACHMENTS, AND SUPPLIES In compliance with the Request for Proposal (RFP) for HEAVY CONSTRUCTION EQUIPMENT WITH RELATED ACCESSORIES, ATTACHMENTS, AND SUPPLIES the undersigned warrants that I/we have examined this RFP and, being familiar with all of the instructions, terms and conditions, general specifications, expectations, technical specifications, service expectations and any special terms, do hereby propose, fully commit and agree to furnish the defined equipment/products and related services in full compliance with all terms, conditions of this RFP, any applicable amendments of this RFP, and all Proposer's Response documentation. Proposer further understands they accept the full responsibility as the sole source of responsibility of the proposed response herein and that the performance of any subcontractors employed by the Proposer in fulfillment of this proposal is the sole responsibility of the Proposer.

Company Name: John Deere Construction Retail Sales Date: March 18, 2015

Company Address: 1515 Fifth Avenue

City: Moline State: IL Zip: 61265

Contact Person: Mark R. Deakyne Title: Contract Manager

Authorized Signature (ink only): Mark R. How

Mark R. Deakyne (Name printed or typed)



Contract Acceptance and Award

(To be completed only by NJPA)

NJPA 032515 HEAVY CONSTRUCTION EQUIPMENT WITH RELATED ACCESSORIES, ATTACHMENTS, AND SUPPLIES

John Deere Construction Retail Sales Proposer's full legal name						
Your proposal is hereby accepted and awarded. As an awarded Proposer, you are now bound to provide the defined product/equipment and services contained in your proposal offering according to all terms, conditions, and pricing set forth in this RFP, any amendments to this RFP, your Response, and any exceptions accepted or rejected by NJPA on Form C.						
The effective start date of the Contract will be						
National Joint Powers Alliance® (NJPA)						
NJPA Authorized signature NJPA Executive Director (Name printed or typed)						
Awarded this Awarded this day of May ,20 15 NJPA Contract Number 032515-JDC						
NJPA Authorized signature: Scott Verone (Name printed or typed)						
Executed this American day of My , 20 15 NJPA Contract Number 032515-JDC						
Proposer hereby accepts contract award including all accepted exceptions and NJPA clarifications identified on FORM C.						
Vendor Name John Deere Construction Retail Sales a division of John Deere Shared Services, Inc.						
Vendor Authorized signature: Mark R. Deakyne						
Title: Contract Manager (Name printed or typed)						
Executed this Twenty-First day of May , 20 15 NJPA Contract Number 032515-JDC						

RESOLUTION 2016-97

WHEREAS, the National Joint Powers Alliance Buying Group was utilized to secure competitive bids for a New Backhoe Loader by the Streets Division of the Public Works Department; and

WHEREAS, the National Joint Powers Alliance Buying Group Contract No. 032515-JDCALT was awarded John Deere Construction Retail Sales and subsequent vendor locations including Murphy Tractor & Equipment Co. of Grand Island, Nebraska; and

WHEREAS, the Public Works Department has recommended the purchase of the New Backhoe Loader from Murphy Tractor & Equipment Co. of Grand Island, Nebraska for a purchase price of \$110,434.00.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that a purchase order and subsequent payment is authorized for the New Backhoe Loader from Murphy Tractor & Equipment Co. of Grand Island, Nebraska is hereby approved.

- - -

Adopted by the	City Council	of the City of	f Grand Island	Nehraska /	Anril 26	2016
Adobted by the	City Council		u Citanu Istanu.	INCDIASKA. 1	~ DHH 4 O.	20 I O

	Jeremy L. Jensen, Mayor	
A		
Attest:		
RaNae Edwards, City Clerk		