

KENTUCKY PUBLIC RIVERPORT CONSTRUCTION AND MAINTENANCE (KPRCM) APPLICATION

INSTRUCTIONS: A guidance document is provided to assist in completing the application packet and may be accessed at <https://transportation.ky.gov/MultimodalFreight/Pages/KPRCM.aspx>
See the guidance document for required attachments and acceptable methods of submittal.

SECTION 1: APPLICANT INFORMATION

PUBLIC RIVERPORT NAME	TOTAL PROJECT COST	KPRCM FUND	
Paducah McCracken County Riverport Authority	\$375,000.00	\$375,000.00	
STREET ADDRESS	CITY	STATE	ZIP
2000 Wayne Sullivan Drive	Paducah	KY	42002
CONTACT NAME & TITLE	PHONE	EMAIL	
James H. Garrett, Executive Director	270.556.7734	jgarrett@paducahriverport.org	

SECTION 2: PROJECT DESCRIPTION

PROJECT TITLE	DURATION
Wheel Loader	6 months 0 weeks

FACILITIES AFFECTED BY THE PROPOSED PROJECT

☒ Owned by Riverport Authority ☐ Leased to:

DESCRIPTION OF THE PROPOSED PROJECT (Provide a brief project description and the proposed work to be completed. Text is limited to the space provided below.)

Purchase a new mid-size Wheel Loader to replace an aging 2011 Volvo L90G.

Select ONE: ☐ Applicant plans to use their own manpower, equipment, or materials on the project (Force Account).
☒ Applicant plans to competitively bid out all work related to the project.

TRAFFIC	CURRENT	AFTER PROJECT
Trucks per day	85	95
Train cars per week	0	0
Barges per week	8	8

SECTION 3: PERMITS AND APPROVALS

	YES	NO
Has the applicant consulted with state and federal agencies (US Army Corps of Engineers, US Coast Guard, US Fish & Wildlife Service, KY Division of Water, KY Heritage Council, etc.)?	N/A	☒
Has state and federal agency consultation determined permits are needed?	N/A	☒
Have all required permits (environmental, encroachment, etc.) been obtained?	N/A	☒

FOR KYTC USE ONLY

Date Received: _____	WTAB Approval ☐ Yes ☐ No	Notification of Award: _____ MOA #: _____ Notice to Proceed: _____
Application Complete: ☐ Yes ☐ No	Sec. Approval ☐ Yes ☐ No	
Eligible Applicant? ☐ Yes ☐ No	Award Amount _____	
Permits Needed? ☐ Yes ☐ No	Award Date: _____	

KENTUCKY PUBLIC RIVERPORT CONSTRUCTION AND MAINTENANCE (KPRCM) APPLICATION

SECTION 4: PROJECT EVALUATION

A. DESCRIPTION OF THE PROPOSED PROJECT'S CRITICALITY AND TRANSPORTATION IMPACT ON RIVERPORT OPERATIONS AND KENTUCKY'S MULTIMODAL FREIGHT NETWORK *(Text is limited to the space provided below.)*

PMCRA has historically kept three wheel loaders operational for loading trucks and moving bulk material within the bulk yard. One of the aging Volvo loaders was retired in 2025. The second Volvo loaders is a 2011 model and has reached the end of its useful life. The wheel loaders are essential to the loading of nearly 500,000 tons of bulk products annually. The lack of multiple wheel loaders decreases the cycle time of trucks delivering product to construction sites thus reducing the product volumes delivered to work sites throughout western Kentucky.

B. DESCRIPTION OF THE PROPOSED PROJECT'S ECONOMIC DEVELOPMENT IMPACT AND ABILITY TO SUPPORT ECONOMIC GROWTH, JOBS, INDUSTRY, AND PRIVATE INVESTMENT *(Text is limited to the space provided below.)*

Today the nearly 500,000 tons of bulk construction and manufacturing products support an estimated 600 jobs in Western Kentucky. These jobs depend on the availability and timely delivery of sand for concrete mixtures, limestone aggregates for foundations, petroleum coke for battery components, and Livlite for block manufacturing. The efficiency in which trucks are loaded directly impacts the daily volumes each individual truck can deliver to the customer. Operating multiple wheel loaders increases the daily volumes delivered to worksites.

C. DESCRIPTION OF THE PROPOSED PROJECT'S ABILITY TO IMPROVE SAFETY, PRESERVE INFRASTRUCTURE, AND IMPROVE RESILIENCY *(Text is limited to the space provided below.)*

The renewing of the mobile equipment brings an opportunity to incorporate newer technology into the operational safety features, including back up detection. Furthermore, newer generation bucket scaling systems allow for more accurate loading weights resulting in reduced dwell time while loading trucks. This enhanced loading accuracy reduces operating time thus reducing fuel consumption.

D. DESCRIPTION OF THE PROPOSED PROJECT'S READINESS & DELIVERABILITY AND LIKELIHOOD THE PROJECT CAN PROCEED EFFICIENTLY AND SUCCESSFULLY *(Text is limited to the space provided below.)*

PMCRA has held meetings with four major equipment manufacturers to review the latest options, sizes, and newest technology for wheel loaders. Furthermore, during 2026, each of the manufacturers provided demo models for testing. All four manufacturers, Catapillar, John Deere, Volvo, and Komatsu were operated by PMCRA qualified operators to evaluate the features of each machine. All four manufacturers have reasonable delivery schedules to fulfill the purchase of the a new machine.

E. DESCRIPTION OF THE PROPOSED PROJECT'S FINANCIAL LEVERAGE & PARTNERSHIP AND WHETHER THE PROJECT LEVERAGES OUTSIDE INVESTMENT OR PARTNERSHIPS *(Text is limited to the space provided below.)*

The cost of the equipment purchase would be fully funded utilizing KPRCM grant funds. No outside or additional financial partnerships are required.

F. DESCRIPTION OF THE PROPOSED PROJECT'S STRATEGIC IMPORTANCE TO KENTUCKY AND BROADER STATEWIDE TRANSPORTATION AND ECONOMIC SIGNIFICANCE *(Text is limited to the space provided below.)*

Western Kentucky has unprecedented growth with more than 100 billion in new construction scheduled for the next 3-4 year period. This new construction includes, AI Data Center, Gas-fired Electric Generating Plant, two Uranium Enrichment plants, Nickel Refining facility, and multiple support facilities. All of these new construction projects will require significant volumes of limestone aggregate products, concrete, and other bulk construction materials. The current estimated construction employment numbers could exceed 8,000 construction jobs.

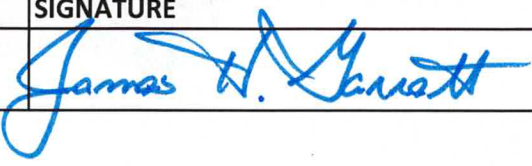
KENTUCKY PUBLIC RIVERPORT CONSTRUCTION AND MAINTENANCE (KPRCM) APPLICATION

SECTION 5: SUBMISSION CHECKLIST *(See guidance document for details.)*

- ☒ Kentucky Public Riverport Construction and Maintenance (KPRCM) Application (TC 59-113)
- ☒ Statement of Work
- ☒ Scope of Work
- ☒ Purchase quote or cost estimate for the project
- ☒ Project Schedule/Timeline
- ☒ Maps, aerial photos, drawings, and photographs, as needed
- ☒ Engineering plans, schematics, details, drawings of the proposed project, as needed
- ☒ **N/A** Copies of all correspondence or evidence of consultation that has occurred with state and federal agencies, if app
- ☒ Required Affidavit for Bidders, Offerors and Contractors from applicant

SECTION 6: CERTIFICATION

I have read the Kentucky Public Riverport Construction and Maintenance Project Guidance Document and understand and agree to abide by what is stated therein. I agree that incomplete applications, applications missing any of the above required supporting documents, or applications received after the deadline, will be deemed ineligible by Division staff without consideration for KPRCM funds and returned to applicant. I also hereby certify, subject to the provision of KRS 523.100 (unsworn falsification to authorities), that the above information is true and correct to the best of my knowledge.

PRINTED NAME & TITLE	SIGNATURE	DATE
James H. Garrett, Executive Director		September 27, 2026

Completed applications and all required attachments must be submitted electronically in PDF format. Paper copies will not be accepted. Emailed applications must be received by the Division by date indicated in call for projects. PDF copies shall be sent via email to the address indicated in the call for projects.

Point of Contact: James H. Garrett
Applicant: Paducah-McCracken County Riverport Authority
Applicant Address: 2000 Wayne Sullivan Drive
Paducah, KY 42003

Phone: Office (270) 442-9326 Ext 3610
Cell (270) 556-7734
Email: jgarrett@paducahriverport.org

Total Project Cost: \$ 375,000.00

Grant Funding Application

This grant funding will be utilized to purchase a new mid-sized wheel loader to replace an existing 2011 Volvo F90G that has reached the end of its useful life.

PMCRA needs a minimum of two mid-sized loaders to efficiently load bulk materials onto trucks serving concrete plants, construction sites, road projects, and new residential developments. With the 2011 Volvo at the end of its useful life, PMCRA is currently limited to one wheel loader.

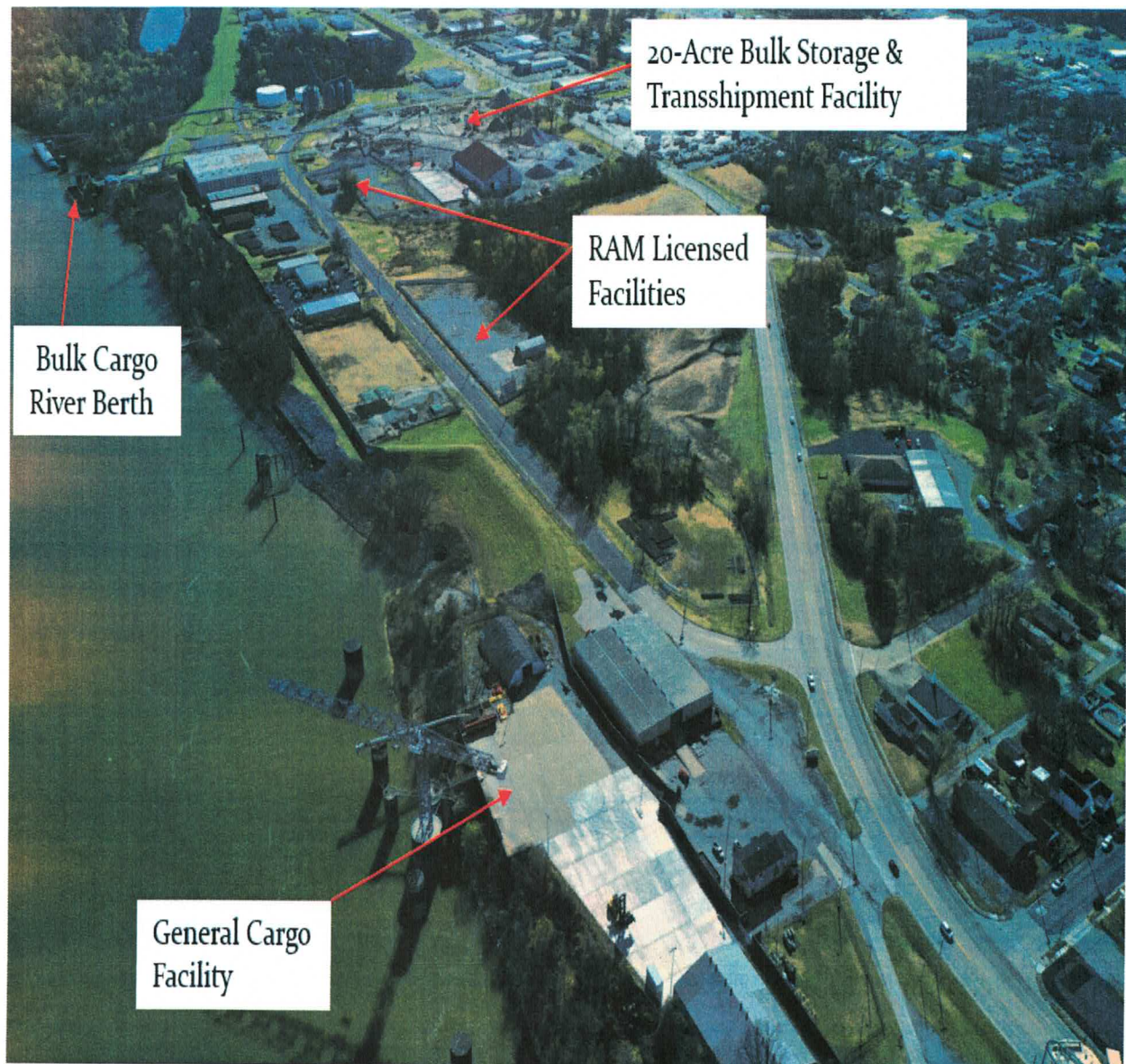
Qualifications and Eligibility

Paducah-McCracken County Riverport Authority (PMCRA) was founded in 1964 by the legislative bodies of McCracken County and the City of Paducah. The operating facility is located on the Tennessee River between river mile marker 1.3 and 2.0 on the left descending bank, near the confluence of the Ohio and Tennessee Rivers.

PMCRA is a major transshipper of bulk commodities serving 14 counties in Western Kentucky, with substantial shipments to Tennessee, Illinois, and Missouri. Commodities handled through the port support state and federal roadway projects, the Kentucky Lock and Dam expansion, commercial and residential construction, two manufacturing facilities employing more than 80 Kentuckians, and the agriculture industry in Kentucky and neighboring states. Business partners report that the port directly supports more than 600 jobs, in addition to those connected to the river industry and the four-state agriculture community.

The following picture provides an aerial view of the PMCRA facilities. These include a General Cargo Berth (GCB) and shoreside laydown cargo area. A separate Bulk Commodity Berth, (BCB) is used to discharge barges that are fed via conveyor to a 20-acre Bulk Commodity storage and transshipment yard. The Port also has over 100,000 square feet of warehousing, office buildings and additional outdoor storage areas. The two current areas associated with the Port's Radioactive Materials License (RAM) that are utilized for UF-6-cylinder storage and transshipments are also identified in the picture.

Paducah-McCracken County Riverport Authority – Aerial View



Statement of Work

The project will require the evaluation of all major U.S. equipment manufacturers or suppliers to determine the appropriate size of wheel loader to safely and efficiently operate on the PMCRA bulk yard facility.

Scope of Work

Develop required specifications and identify special equipment needs to support PMCRA's current and future truck-loading operations.

PMCRA will meet with representatives from four U.S. equipment manufacturers or suppliers, including Caterpillar, John Deere, Volvo, and Komatsu, to evaluate recommended machine and bucket sizes, operating capabilities, safety features, and weighing systems.

Earlier in 2026, each supplier provided a comparable demonstration machine for PMCRA operators to test. Operators evaluated each machine's features, functionality, comfort, and overall efficiency. These results will be used during the bid evaluation process.

Project Purchase Quote and Cost Estimate

During the demo period PMCRA requested several of the equipment suppliers provide an estimate of the wheel loader they would recommend for PMCRA's application. McCoy Construction and Forestry provided the attached quote for \$358,148.44. The range of quotes were as low as \$358,000 and as high as \$395,000.

The McCoy quote is included as an attachment herein.

Project Schedule and Timeline

In discussion with each equipment supplier the range of delivery is as short as one month and as long as six months. This is dependent on the manufacturer, machine size, and required special features and functions.

Photographs, Engineering Plans, or Consultation Correspondences

Included herein are photographs of the current 2011 Volvo F90G that has reached the end of its useful life.

Furthermore, attached is a technical brochure on one of the machines we have tested and would likely be the machine size that will meet our requirements.



Volvo 2011 F90G Wheel Loader

Consultations with Federal or State Agencies

Due to this project being an equipment purchase, no federal, state, county, or city permits are required.

Summary

On behalf of my colleagues at PMCRA, our business partners, and the citizens of the City of Paducah, McCracken County, and the adjacent Western Kentucky counties that we service, I would like to thank you for your consideration of this critical infrastructure

refurbishment project within our facility. Should you have any questions or require any additional clarification, please do not hesitate to contact me.

Respectfully submitted,

James H. Garrett
Executive Director
Paducah-McCracken County Riverport Authority

Attachment A

PMCRA Wheel Loader

Project Quote

Prepared For

PADUCAH MCCracken COUNTY
RIVERPO

2000 WAYNE SULLIVAN DRIVE

PADUCAH, KY 42002

(270) 443-6558

Prepared By

Curt Meier

McCoy Construction & Forestry

6115 US Highway 45 S

PADUCAH, KY 42001

270-559-8301

ChuckMeier@mccoycf.com

Quote Id 1631119

Creation Date 16-Feb-2026

Expiration Date 30-Oct-2026

Quote Summary

Equipment Summary

644 P Wheel Loader

Est. Delivery Date: 30-Oct-2026

Extended Warranty

644 P, Powertrain And
Hydraulics, 5000 Total Hours or
60 Total Months, 0 Deductible
Date Quoted : 16-Feb-2026

QTY In Group

1

Equipment Total	\$358,148.44
Quote Summary	
Total Selling Price	\$358,148.44
Sub-total	\$358,148.44
Balance Due	\$358,148.44

Salesperson : X _____

Accepted By : X _____

Selling Equipment

Quote # 1631119
Customer PADUCAH MCCRACKEN COUNTY RIVERPO

644 P Wheel Loader

QTY In Group : 1

Hours	---	Selling Price
Serial Number	---	\$358,148.44
Stock Number	---	
PUK Parent Serial #	---	

Equipment Summary

Code	Description	Qty	Adjusted Selling Price
6051DW	644 P Wheel Loader	1	\$392,634.00

Base / Options

Code	Description	Qty	Adjusted Selling Price
0202	United States	1	\$0.00
0259	English	1	\$0.00
0351	Translated Text Labels	1	\$0.00
0400	Standard Loader	1	\$0.00
0451	Standard Z-BAR	1	\$0.00
0615	Level 2 Trim (LED LIGHTS, PREM HEATED AND COOLED SEAT, RIDE CONTROL, AM/FM)	1	\$5,763.00
0658	Level 3 Perf (LOCKING FRONT DIFF, 5 SP POWERSHIFT TRANS)	1	\$4,451.00
0951	Rear Camera (Primary Display)	1	\$0.00
1101	Object Detection (RADAR W/ AUDIBLE ALERTS WHEN OBJECTS ARE DETECTED)	1	\$2,534.00
1602	Steering Wheel	1	\$0.00
1301	Left Side Steps	1	\$0.00
183E	JDLink™	1	\$0.00
2206	SmartWeigh	1	\$5,000.00
4069	John Deere 6.8L - FT4/SV	1	\$40,574.00
6522	Rear Counterweight & Rear Hitch w/ Pin	1	\$0.00
7054	Three Function Hydraulics (FOR ROLLOUT)	1	\$2,413.00
5128	No Brand Preference - 23.5R25 L3 1-Star Radial Tires	1	\$23,594.00



5552	Standard Front Fenders	1	\$0.00
7407	Field Bucket Ready: Pins Only	1	\$852.00
8295	Heated And Powered Exterior Mirrors	1	\$770.00
8501	Debris Package (AUTO REV FAN)	1	\$3,682.00
8502	Maintenance and Service Package (UNDER HOOD LIGHTS)	1	\$1,132.00
8508	Auxiliary Equipment Package (AMBER BEACON LIGHT, FIRE EXT BRACKET)	1	\$1,211.00
8017	23.5R25 L3 1-Star Radial Tires w/ 3 PC Rims - No Brand Preference	1	\$0.00
7026	JOYSTICK CONTROL (SINGLE LEVER FOR BOOM AND BUCKET W 3RD FUNCTION)	1	\$0.00

Total Base / Options	\$484,610.00
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Dealer Attachments

Code	Description	Qty	Adjusted Selling Price
	5 CY ROCKLAND HYD ROLLOUT BUCKET	1	\$0.00
	3 YEAR OR 3000 HOUR FULL PM ON JOBSITE	1	\$0.00
	McCOY ADVANTAGE APPLIES	1	\$0.00

Total Dealer Attachments	\$0.00
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Customer Discounts

Description	Discount Amount
Total Discounts	(\$126,461.56)

Value Added Services

Description	Qty	Agreed Price
Extended Warranty	1	

Total Value Added Services	\$0.00
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Selling Price Subtotal	\$358,148.44
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Total Selling Price	\$358,148.44
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Attachment B

PMCRA Wheel Loader

Equipment Specifications

ELEVATE YOUR EXPECTATIONS



AVS ON THE G5 DISPLAY



SMARTDETECT ON THE G5 DISPLAY

VISION AND DETECTION SYSTEM OFFERINGS

Active jobsites present many operational challenges, including multiple machines, crew members, and bystanders. The John Deere Advanced Vision System (AVS) and SmartDetect™ can help enhance operator awareness to confidently navigate busy work areas:

- Optional **AVS** includes two digital cameras mounted on the rearview-mirror platforms that integrate with the rearview (backup) camera for a single display on a dedicated in-cab monitor.
- Paired with a high-resolution camera and a dedicated display, optional **Advanced Rear Object-Detection System (ARODS)** utilizes a radar system that provides audible alerts when objects are detected at the rear of the machine. ARODS helps operators visualize the loader's reversal path based on its articulation.
- Available as an easily installed field kit, optional **SmartDetect** alerts operators of objects entering the machine's projected travel path, emitting sound and visual alerts inside the cab as well as an audible alarm to detected bystanders. SmartDetect requires AVS, ARODS, and a G5 display as well as software activation.
- Building on SmartDetect capabilities, optional **SmartDetect™ Digital** is equipped with advanced cameras that integrate with a dedicated G5 display to provide elevated operator and bystander alerts. Easily accessed through the user-friendly John Deere Operations Center™ mobile app, the system notifies supervisors of near-miss events with corresponding video. Weekly reports of digital usage and jobsite events within a heat-map summary are also available.

ABOVE AND BEYOND

MEET THE P-TIER WHEEL LOADERS



**SMARTWEIGH™
PAYLOAD-WEIGHING
SOLUTION IS DEERE
DESIGNED & SUPPORTED**

When your material-handling application needs a heavy-duty lift, add a P-Tier Wheel Loader to your lineup. Combining convenient front-end features with near-parallel lift, spacious operator stations including customizable ergonomic electrohydraulic (EH) controls, streamlined electrical and hydraulic routing, and innovative options, these versatile and productive mid-size models are designed to help you take your operation to the next level.

Take control

Operators can easily control up to six functions without letting go of the ergonomically designed joystick. Two industry-exclusive multifunction buttons can each be programmed to handle any of up to 10 functions selected through the monitor, including bucket vibrate and EH Precision mode.

On your side

All daily service points including fuel refill are conveniently grouped at ground level on the left side of the machine for easy access. Routing of electrical wire harnesses and hydraulic hoses has been streamlined.

Level up

AutoLevel enables near-perfect parallelism throughout the boom-raise-and-lower cycle, letting operators set their desired attachment angle to within $\pm$ two degrees.

At the forefront

Featuring bucket and linkage designs that improve load leveling, material retention, and visibility, P-Tier Loaders yield more productivity and performance than previous models. Enhanced-performance buckets with integrated spill guards, curved side cutters, and impressive rollback deliver elevated bucket-fill performance and material retention compared to earlier offerings.

Material matters

SmartWeigh option features dynamic weighing technology that allows operators to weigh without interrupting workflow and removes the need to lower and reraise the boom after tipoff. Shared through the onboard monitor, SmartWeigh is easy to calibrate and effortlessly integrates with the John Deere Operations Center so you can track and visualize payload data from almost anywhere. Available as a factory-installed or field-kit option, you can also try SmartWeigh at a low cost for 250 machine hours.

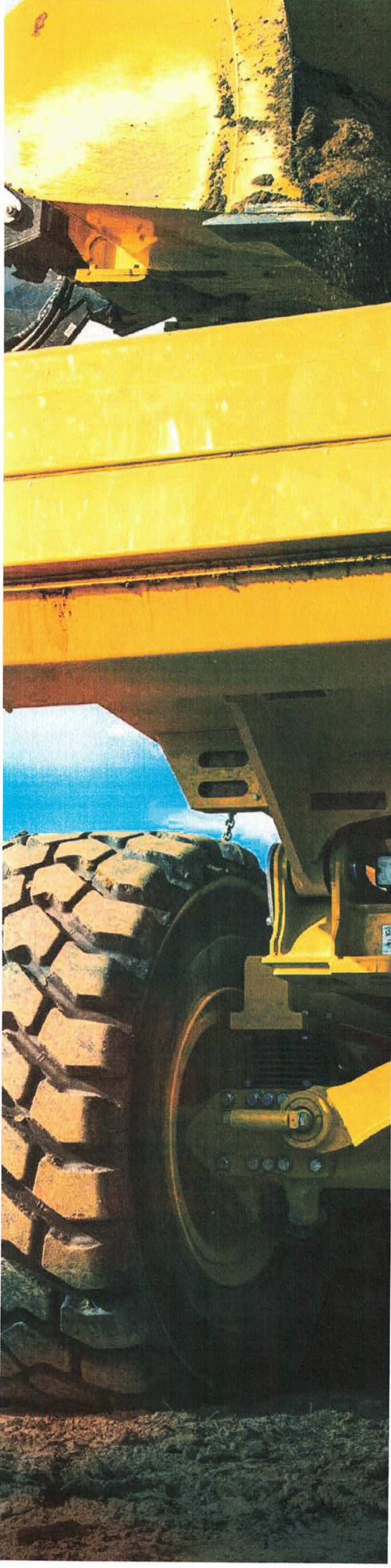


644 P

WHEEL LOADER



**2 INDUSTRY-EXCLUSIVE
MULTIFUNCTION BUTTONS**



GET AHEAD

MOVING FORWARD.

Designed to elevate your productivity, the 644 P-Tier Wheel Loader helps you put your best foot forward.



Have a seat

Spacious and comfortable cab features extra legroom, an improved HVAC system, additional storage, and a more adjustable seat than earlier models.



Near-parallel lift

Lift path on Z-Bar linkage is near parallel. Better load-leveling capability compared to K-Series models minimizes load rollback, reduces material spillage, and requires fewer manual adjustments. Cross-tube and boom geometry of the Z-Bar linkage has been streamlined to provide a better view to the front attachment.



Stick a fork on it

Available in 60- and 72-inch lengths, improved shaft-style forks enable better visibility to the fork tips compared to previous models.



Clear advantage

Improved visibility to the work tool helps reduce spillage as well as cycle and tool-changeover times. It also helps minimize machine damage when working on crowded jobsites or up against walls.



Connected machines

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

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

644 P-TIER WHEEL LOADER SPECIFICATIONS

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

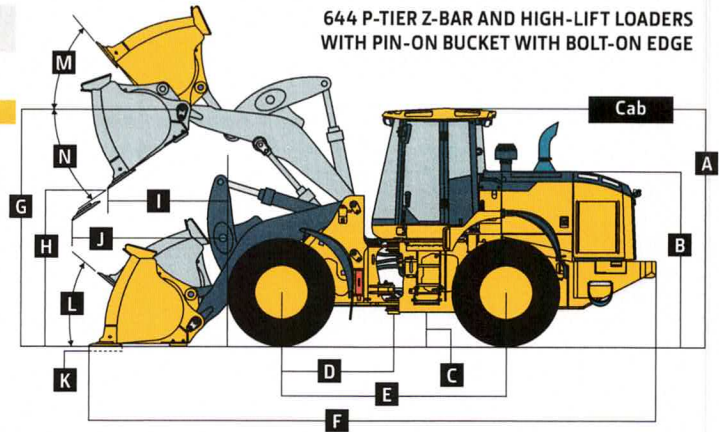
Engine		644 P-TIER Z-BAR / HIGH-LIFT		
Manufacturer and Model	John Deere PowerTech™ PSS 6068	Gross Peak Torque (ISO 9249)	1100 Nm (811 lb.-ft.) at 1,400 rpm	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	Net Torque Rise	58%	
Cylinders	6	Fuel System (electronically controlled)	High-pressure common rail	
Valves Per Cylinder	4	Lubrication	Full-flow spin-on filter and integral cooler	
Displacement	6.8 L (415 cu. in.)	Aspiration	Series turbocharged, charge air cooled	
Net Peak Power (ISO 9249)	186 kW (249 hp) at 1,800 rpm	Air Cleaner	Under-hood, dual-element dry type, restriction indicator in cab monitor for service	
Gross Peak Power (ISO 9249)	194 kW (260 hp) at 1,800 rpm			
Net Peak Torque (ISO 9249)	1061 Nm (783 lb.-ft.) at 1,400 rpm			
Cooling				
Fan Drive	Hydraulically driven, proportionally controlled, fan aft of coolers			
Electrical				
Electrical System	24 volt with 100-amp alternator (140-amp alternator optional)			
Batteries (2 – 12 volt)	950 CCA (each)			
Transmission System				
Type	Countershaft-type PowerShift™			
Torque Converter	Single stage, single phase			
Motor/Generator	N/A			
Inverter	N/A			
Shift Control	Electronically modulated, adaptive, load and speed dependent			
Operator Interface	Steering-column or joystick-mounted F-N-R and gear-select lever; Quick-Shift button on hydraulic lever			
Shift Modes	Manual/auto (1st-D or 2nd-D); Quick-Shift button with 2 selectable modes: kick-down or kick-up/down; and 4 clutch cutoff settings			
	Standard 5-Speed With Lockup Torque Converter		Optional 4-Speed	
Maximum Travel Speeds (with 23.5 R 25 tires)	Forward	Reverse	Forward	Reverse
Range 1	7.1 km/h (4.4 mph)	7.5 km/h (4.7 mph)	7.2 km/h (4.5 mph)	7.6 km/h (4.7 mph)
Range 2	12.1 km/h (7.5 mph)	12.8 km/h (8.0 mph)	11.9 km/h (7.4 mph)	12.5 km/h (7.8 mph)
Range 3	20.5 km/h (12.7 mph)	26.1 km/h (16.2 mph)	22.9 km/h (14.2 mph)	24.0 km/h (14.9 mph)
Range 4	24.7 km/h (15.3 mph)	N/A	35.2 km/h (21.9 mph)	N/A
Range 5	40.0 km/h (24.9 mph)	N/A	N/A	N/A
Axles/Brakes				
Final Drives	Heavy-duty inboard-mounted planetary			
Differentials	Hydraulic locking front with conventional rear – standard; dual locking front and rear – optional			
Rear Axle Oscillation, Stop to Stop (with 23.5 R 25 tires)	26 deg. (13 deg. each direction)			
Brakes (conform to ISO 3450)				
Service	Hydraulically actuated, inboard sun-shaft mounted, oil cooled, self adjusting, single disc			
Parking	Automatic spring applied, hydraulically released, driveline mounted, oil cooled, multi disc			
Tires/Wheels (see page 9 for complete tire adjustments)				
	Tread Width	Width Over Tires		
Michelin 23.5 R 25, 1 Star L-3	2170 mm (85.4 in.)	2875 mm (113.2 in.)		
Serviceability				
Refill Capacities		Refill Capacities (continued)		
Fuel Tank (with lockable cap)	350 L (92.6 gal.)	Transmission Reservoir With Vertical Filter	23 L (24.3 qt.)	
Diesel Exhaust Fluid (DEF)	18.5 L (19.5 qt.)	Axle Oil (front and rear, each)	22 L (23 qt.)	
Cooling System	44 L (47 qt.)	Hydraulic Reservoir and Filter	105.2 L (27.8 gal.)	
Inverter	N/A	Park Brake Oil (wet disc)	0.65 L (22 oz.)	
Engine Oil With Vertical Spin-On Filter	27 L (28.5 qt.)			
Hydraulic System/Steering				
Pump (loader and steering)	Variable-displacement, axial-piston pump; closed-center, pressure-compensating system			
Maximum Rated Flow at 6895 kPa (1,000 psi) and 2,250 rpm	310 L/m (82 gpm)			
System Relief Pressure (loader and steering)	25 166 kPa (3,650 psi)			
Loader Controls	2-function valve; joystick control or fingertip controls; hydraulic-function enable/disable; optional 3rd- and 4th-function valve with auxiliary lever			
Steering (conforms to ISO 5010)				
Type	Power, fully hydraulic			
Articulation Angle	80-deg. arc (40 deg. each direction)			
Turning Radius (measured to centerline of outside tire)	5.64 m (18 ft. 6 in.)			



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

Hydraulic System/Steering (continued)		644 P-TIER Z-BAR / HIGH-LIFT	
Hydraulic Cycle Times		Z-Bar	High-Lift
Raise		5.3 sec.	5.3 sec.
Dump		1.4 sec.	1.4 sec.
Lower (power down)		3.8 sec.	4.0 sec.
Total		10.5 sec.	10.7 sec.
Bucket Capacity Range			
Bucket Type			
Pin-On		3.2–3.6 m ³ (4.25–4.75 cu. yd.)	
Coupler		3.1–3.6 m ³ (4.0–4.75 cu. yd.)	

Dimensions and Specifications With Pin-On Bucket With Bolt-On Edge



644 P-TIER Z-BAR AND HIGH-LIFT LOADERS WITH PIN-ON BUCKET WITH BOLT-ON EDGE

	Z-Bar	Z-Bar	High-Lift
Dimensions With Bucket With Bolt-On Edge (illustration above right)	3.2-m ³ (4.25 cu. yd.)	3.4-m ³ (4.5 cu. yd.)	3.2-m ³ (4.25 cu. yd.)
	enhanced performance	enhanced performance	enhanced performance
A Height to Top of Cab	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
B Hood Height	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)
C Ground Clearance	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)
D Length From Centerline to Front Axle	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)
E Wheelbase	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)
F Overall Length, Bucket on Ground	8.33 m (27 ft. 4 in.)	8.38 m (27 ft. 6 in.)	8.72 m (28 ft. 7 in.)
G Height to Hinge Pin, Fully Raised	4.09 m (13 ft. 5 in.)	4.09 m (13 ft. 5 in.)	4.50 m (14 ft. 9 in.)
H Dump Clearance, 45 deg., Full Height	2.87 m (9 ft. 5 in.)	2.83 m (9 ft. 4 in.)	3.28 m (10 ft. 9 in.)
I Reach, 45-deg. Dump, Full Height	1.06 m (3 ft. 6 in.)	1.09 m (3 ft. 7 in.)	1.17 m (3 ft. 10 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.61 m (5 ft. 3 in.)	1.62 m (5 ft. 4 in.)	2.02 m (6 ft. 8 in.)
K Maximum Digging Depth	125 mm (5 in.)	129 mm (5 in.)	262 mm (10 in.)
L Maximum Rollback at Ground Level	45 deg.	45 deg.	45 deg.
M Maximum Rollback, Boom Fully Raised	59 deg.	59 deg.	60 deg.
N Maximum Bucket Dump Angle, Fully Raised	48 deg.	48 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position	13.0 m (42 ft. 8 in.)	13.0 m (42 ft. 9 in.)	13.3 m (43 ft. 9 in.)
Specifications With Bucket With Bolt-On Edge			
Capacity, Heaped	3.3 m ³ (4.25 cu. yd.)	3.4 m ³ (4.50 cu. yd.)	3.3 m ³ (4.26 cu. yd.)
Capacity, Struck	2.7 m ³ (3.47 cu. yd.)	2.8 m ³ (3.68 cu. yd.)	2.7 m ³ (3.48 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1844 kg (4,066 lb.)	1880 kg (4,145 lb.)	1695 kg (3,737 lb.)
Bucket Width	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)
Breakout Force	15 574 kg (34,334 lb.)	15 002 kg (33,074 lb.)	15 568 kg (34,321 lb.)
Tipping Load, Straight, No Tire Deflection	15 005 kg (33,079 lb.)	14 891 kg (32,829 lb.)	12 413 kg (27,367 lb.)
Tipping Load, Straight, With Tire Deflection	14 067 kg (31,012 lb.)	13 956 kg (30,768 lb.)	11 718 kg (25,834 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	12 987 kg (28,631 lb.)	12 882 kg (28,401 lb.)	10 677 kg (23,540 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	11 826 kg (26,072 lb.)	11 721 kg (25,840 lb.)	9795 kg (21,594 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*			
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	5913 kg (13,036 lb.)	5861 kg (12,920 lb.)	4898 kg (10,797 lb.)
Operating Weight	18 709 kg (41,246 lb.)	18 744 kg (41,324 lb.)	18 894 kg (41,653 lb.)

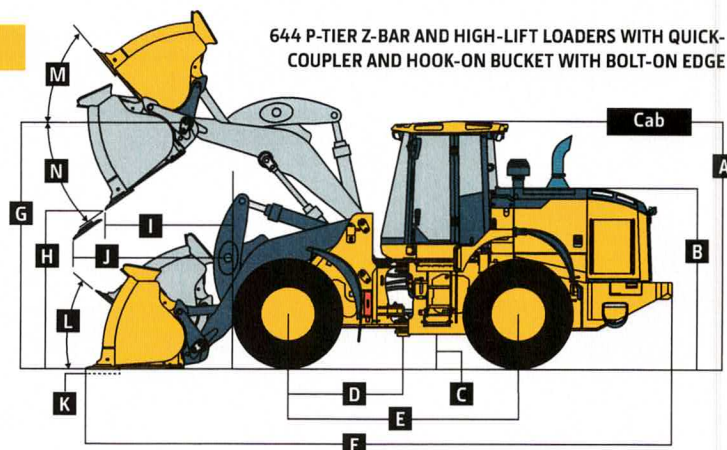
Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6068 (EPA Final Tier 4/EU Stage VI) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments, and assumes no tire deflection per the standard ISO 14397-1 section 5.

*Rated operating capacity based on Deere attachments only.

644 P-TIER

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

Dimensions and Specifications With Hi-Vis Coupler and Hook-On Bucket With Bolt-On Edge 644 P-TIER Z-BAR / HIGH-LIFT



	Z-Bar	Z-Bar	High-Lift	High-Lift
	3.1-m ³ (4.0 cu. yd.)	3.2-m ³ (4.25 cu. yd.)	3.1-m ³ (4.0 cu. yd.)	3.2-m ³ (4.25 cu. yd.)
	enhanced performance	enhanced performance	enhanced performance	enhanced performance
A Height to Top of Cab	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
B Hood Height	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)
C Ground Clearance	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)
D Length From Centerline to Front Axle	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)
E Wheelbase	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)
F Overall Length, Bucket on Ground	8.38 m (27 ft. 6 in.)	8.43 m (27 ft. 8 in.)	8.77 m (28 ft. 9 in.)	8.82 m (28 ft. 11 in.)
G Height to Hinge Pin, Fully Raised	4.09 m (13 ft. 5 in.)	4.09 m (13 ft. 5 in.)	4.50 m (14 ft. 9 in.)	4.50 m (14 ft. 9 in.)
H Dump Clearance, 45 deg., Full Height	2.84 m (9 ft. 4 in.)	2.81 m (9 ft. 2 in.)	3.25 m (10 ft. 8 in.)	3.22 m (10 ft. 7 in.)
I Reach, 45-deg. Dump, Full Height	1.10 m (3 ft. 7 in.)	1.13 m (3 ft. 8 in.)	1.21 m (4 ft. 0 in.)	1.24 m (4 ft. 1 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.63 m (5 ft. 4 in.)	1.64 m (5 ft. 5 in.)	2.05 m (6 ft. 9 in.)	2.06 m (6 ft. 9 in.)
K Maximum Digging Depth	125 mm (5 in.)	129 mm (5 in.)	262 mm (10 in.)	266 mm (10 in.)
L Maximum Rollback at Ground Level	45 deg.	45 deg.	45 deg.	45 deg.
M Maximum Rollback, Boom Fully Raised	59 deg.	59 deg.	60 deg.	60 deg.
N Maximum Bucket Dump Angle, Fully Raised	48 deg.	48 deg.	45 deg.	45 deg.
Loader Clearance Circle, Bucket Carry Position	13.0 m (42 ft. 9 in.)	13.0 m (42 ft. 9 in.)	13.5 m (44 ft. 3 in.)	13.5 m (44 ft. 4 in.)
Specifications With Bucket With Bolt-On Edge				
Capacity, Heaped	3.30 m ³ (4.25 cu. yd.)	3.40 m ³ (4.50 cu. yd.)	3.07 m ³ (4.02 cu. yd.)	3.26 m ³ (4.26 cu. yd.)
Capacity, Struck	2.70 m ³ (3.47 cu. yd.)	2.80 m ³ (3.68 cu. yd.)	2.51 m ³ (3.28 cu. yd.)	2.66 m ³ (3.48 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	1844 kg (4,066 lb.)	1880 kg (4,145 lb.)	1639 kg (3,613 lb.)	1695 kg (3,737 lb.)
Bucket Width	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)	3.04 m (10 ft. 0 in.)
Breakout Force	14 907 kg (32,865 lb.)	14 419 kg (31,789 lb.)	13 987 kg (30,385 lb.)	13 569 kg (29,914 lb.)
Tipping Load, Straight, No Tire Deflection	14 246 kg (31,407 lb.)	14 141 kg (31,174 lb.)	11 431 kg (25,202 lb.)	11 381 kg (25,091 lb.)
Tipping Load, Straight, With Tire Deflection	13 347 kg (29,425 lb.)	13 242 kg (29,194 lb.)	10 770 kg (23,744 lb.)	10 719 kg (23,631 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	12 279 kg (27,071 lb.)	12 181 kg (26,854 lb.)	9764 kg (21,526 lb.)	9718 kg (21,426 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	11 163 kg (24,610 lb.)	11 061 kg (24,385 lb.)	8919 kg (19,663 lb.)	8871 kg (19,557 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, No Tire Deflection (conforms to ISO 14397-1)*	6140 kg (13,536 lb.)	6090 kg (13,427 lb.)	4882 kg (10,763 lb.)	4859 kg (10,713 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	5582 kg (12,305 lb.)	5531 kg (12,193 lb.)	4460 kg (9,832 lb.)	4436 kg (9,779 lb.)
Operating Weight	19 134 kg (42,182 lb.)	19 190 kg (42,307 lb.)	19 449 kg (42,877 lb.)	19 465 kg (42,913 lb.)
Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments, and assumes no tire deflection per the standard ISO 14397-1 section 5.				
*Rated operating capacity based on Deere attachments only.				

Dimensions and Specifications With Hi-Vis Coupler and Construction Forks

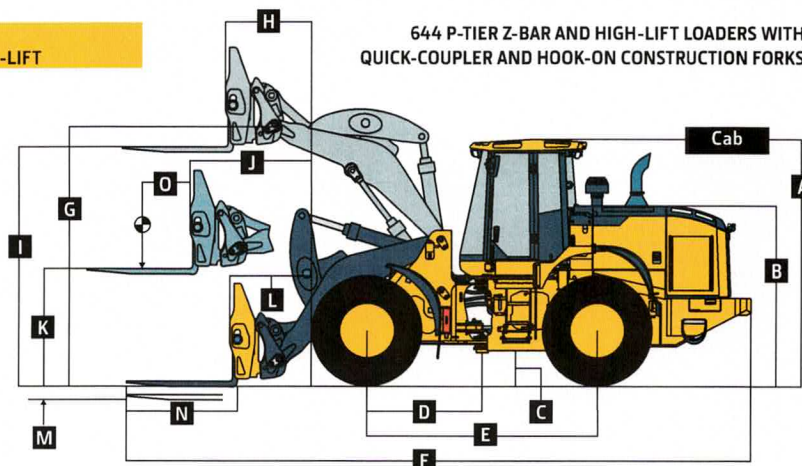
	Z-Bar	Z-Bar	High-Lift	High-Lift
	1.52-m (60 in.) tine length	1.83-m (72 in.) tine length	1.52-m (60 in.) tine length	1.83-m (72 in.) tine length
A Height to Top of Cab	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
B Hood Height	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)	2.51 m (8 ft. 3 in.)
C Ground Clearance	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)	386 mm (15.2 in.)
D Length From Centerline to Front Axle	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)	1.66 m (5 ft. 5 in.)
E Wheelbase	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)	3.31 m (10 ft. 10 in.)
F Overall Length, Forks on Ground	9.01 m (29 ft. 7 in.)	9.32 m (30 ft. 7 in.)	9.41 m (30 ft. 10 in.)	9.71 m (31 ft. 10 in.)
G Height to Hinge Pin, Fully Raised	4.09 m (13 ft. 5 in.)	4.09 m (13 ft. 5 in.)	4.50 m (14 ft. 9 in.)	4.50 m (14 ft. 9 in.)
H Reach, Fully Raised	820 mm (32 in.)	820 mm (32 in.)	930 mm (3 ft. 1 in.)	930 mm (3 ft. 1 in.)
I Fork Height, Fully Raised	3.78 m (12 ft. 5 in.)	3.78 m (12 ft. 5 in.)	4.19 m (13 ft. 9 in.)	4.19 m (13 ft. 9 in.)
J Maximum Reach, Fork Level	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)	2.05 m (6 ft. 9 in.)	2.05 m (6 ft. 9 in.)
K Fork Height, Maximum Reach	1.70 m (5 ft. 7 in.)	1.70 m (5 ft. 7 in.)	1.74 m (5 ft. 9 in.)	1.74 m (5 ft. 9 in.)
L Reach, Ground Level	1.16 m (3 ft. 10 in.)	1.16 m (3 ft. 10 in.)	1.56 m (5 ft. 1 in.)	1.56 m (5 ft. 1 in.)
M Depth Below Ground	90 mm (3 in.)	90 mm (3 in.)	220 mm (9 in.)	220 mm (9 in.)
N Tine Length	1.52 m (60 in.)	1.83 m (72 in.)	1.52 m (60 in.)	1.83 m (72 in.)
O Load Position, 50% Tine Length	760 mm (30 in.)	910 mm (36 in.)	760 mm (30 in.)	910 mm (36 in.)

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

Dimensions and Specifications With Hi-Vis Coupler and Construction Forks (continued)

644 P-TIER Z-BAR / HIGH-LIFT

644 P-TIER Z-BAR AND HIGH-LIFT LOADERS WITH QUICK-COUPLER AND HOOK-ON CONSTRUCTION FORKS



Specifications With Forks (illustration above right)

	Z-Bar	Z-Bar	High-Lift	High-Lift
Tipping Load, Straight, No Tire Deflection	9950 kg (21,935 lb.)	9436 kg (20,803 lb.)	8637 kg (19,042 lb.)	8220 kg (18,121 lb.)
Tipping Load, Straight, With Tire Deflection	9666 kg (21,310 lb.)	9171 kg (20,219 lb.)	8394 kg (18,506 lb.)	7989 kg (17,613 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	8610 kg (18,981 lb.)	8156 kg (17,981 lb.)	7429 kg (16,379 lb.)	7060 kg (15,565 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	8232 kg (18,148 lb.)	7803 kg (17,203 lb.)	7092 kg (15,635 lb.)	6744 kg (14,868 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1 and SAE J1197)*	4116 kg (9,074 lb.)	3902 kg (8,601 lb.)	3546 kg (7,818 lb.)	3372 kg (7,434 lb.)
Rated Operating Load, Rough Terrain, 60% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	4939 kg (10,889 lb.)	4682 kg (10,322 lb.)	4255 kg (9,381 lb.)	4046 kg (8,921 lb.)
Rated Operating Load, Firm and Level Ground, 80% Full-Turn Tipping Load, With Tire Deflection (conforms to EN474-3)*	6586 kg (14,519 lb.)	6242 kg (13,762 lb.)	5674 kg (12,508 lb.)	5395 kg (11,894 lb.)
Operating Weight	18 603 kg (41,011 lb.)	18 663 kg (41,144 lb.)	18 787 kg (41,419 lb.)	18 847 kg (41,552 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, PowerTech PSS 6068 (EPA Final Tier 4/EU Stage V) engine, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments, and assumes no tire deflection per the standard ISO 14397-1 section 5.

*Rated operating capacity based on Deere attachments only.

Adjustments to Operating Weights and Tipping Loads With Buckets

Adjustments to operating weights, tipping loads, and tires are based on Z-Bar machine with pin-on 3.2-m³ (4.25 cu. yd.) enhanced-performance bucket with bolt-on cutting edge, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator*

	Operating Weight	Tipping Load, Straight	Tipping Load, 40-deg. Full Turn	Tread Width	Width Over Tires	Vertical Height
Add (+) or deduct (-) kg (lb.) as indicated for loaders with 3-piece rims						
Standard Z-Bar With Torque Converter	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	N/A	N/A	N/A
Transmission						
Michelin 23.5 R 25, 1 Star L-3	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	0 mm (0 in.)	0 mm (0 in.)
Bridgestone 23.5 R 25, 1 Star L-3	+101 kg (+223 lb.)	+771 kg (+170 lb.)	+68 kg (+150 lb.)	-3 mm (-0.1 in.)	+15 mm (+0.6 in.)	+39 mm (+1.5 in.)
Titan 23.5-25, 20 PR L-3	-271 kg (-597 lb.)	-207 kg (-456 lb.)	-183 kg (-402 lb.)	-3 mm (-0.1 in.)	+33 mm (+1.3 in.)	+29 mm (+1.1 in.)
Titan 725/70-25 16-Ply L-4T (Logger Style) ¹	+359 kg (+792 lb.)	+285 kg (+629 lb.)	+252 kg (+555 lb.)	+34 mm (+1.4 in.)	+119 mm (+4.7 in.)	+78 mm (+3.1 in.)
Michelin 750/65 R 25, 1 Star L-3T ¹	+715 kg (+1,577 lb.)	+557 kg (+1,228 lb.)	+492 kg (+1,084 lb.)	+34 mm (+1.4 in.)	+140 mm (+5.5 in.)	+42 mm (+1.7 in.)

*May change based on vehicle configuration, weight, or tire-pressure adjustments.

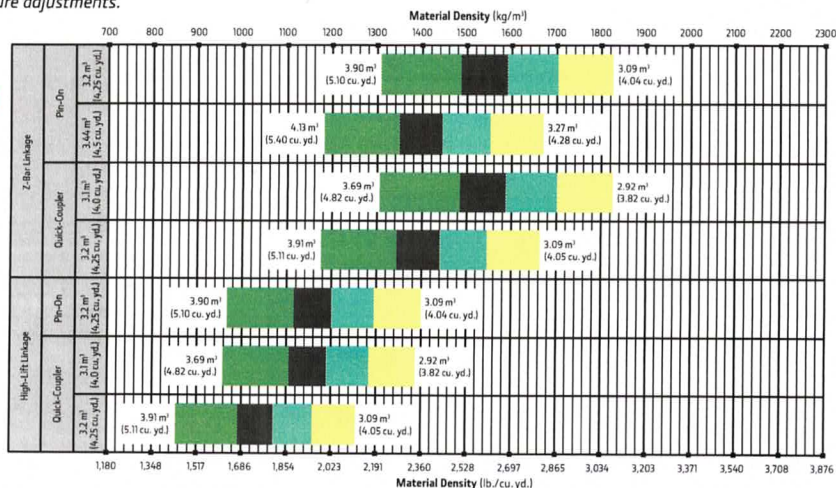
¹Equipped with 5-piece heavy-duty rims.

²CaCl₂ not recommended.

³Requires 9-deg. rear axle stops.

Bucket Selection Guides

LOOSE MATERIALS	kg/m ³	lb./cu. yd.	LOOSE MATERIALS	kg/m ³	lb./cu. yd.
Chips, pulpwood	288	486	Limestone, coarse, sized	1570	2,646
Cinders (coal, ashes, clinkers)	673	1,134	Limestone, mixed sizes	1682	2,835
Clay and gravel, dry	1602	2,700	Limestone, pulverized or crushed	1362	2,295
Clay, compact, solid	1746	2,943	Sand, damp	2083	3,510
Clay, dry in lump loose	1009	1,701	Sand, dry	1762	2,970
Clay, excavated in water	1282	2,160	Sand, voids, full of water	2083	3,510
Coal, anthracite, broken, loose	865	1,458	Sandstone, quarried	1314	2,214
Coal, bituminous, moderately wet	801	1,350	Shale, broken crushed	1362	2,295
Earth, common loam, dry	1218	2,052	Slag, furnace granulated	1955	3,294
Earth, mud, packed	1843	3,105	Stone or gravel, 37.5 to 87.5-mm (1.5 to 3.5") size	1442	2,430
Granite, broken	1538	2,592	Stone or gravel, 18.75-mm (0.75") size	1602	2,700
Gypsum	2275	3,834			



Additional equipment

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

644	Engine
●	Wet-sleeve cylinder liners
●	Programmable auto-idle and auto shutdown
●	Selected idle adjustment from 900–1,250 rpm
●	Starter excessive-cranking protection
●	Automatic engine cool-down timer
●	Automatic derating for exceeded system temperatures
●	Serpentine drive belt for automatic tensioner
●	Electrical fuel-priming pump
●	Dual-stage fuel filter and water separator
●	500-hour vertical spin-on oil filter
▲	Engine-compartment light
▲	Chrome exhaust stack
●	Automatic glow plugs for cold start
▲	Engine-block heater (recommended for cold starts below –23 deg. C [–10 deg. F])
▲	Centrifugal engine air pre-cleaner
▲	Throttle lock
Powertrain	
●	Clutch cutoff with 4 operator settings: Automatic, level ground, small slope, or steep slope
●	Programmable maximum high gear
●	Clutch calibration engaged from monitor
●	2,000-hour vertical spin-on transmission filter
●	Transmission fill tube and sight gauge
●	Transmission diagnostic ports
▲	4-speed transmission with non-lockup torque converter
●	5-speed transmission with lockup torque converter
●	Front locking differential
▲	Rear locking differential
●	Brake retractors and adjusters
▲	Automatic differential lock
●	Axle oil temperature sensing
▲	Wheel-spin control
Quad-Cool™ Cooling System	
●	Heavy-duty, trash-resistant radiator and high-ambient cooling package
●	2-side access to all coolers

644	Quad-Cool Cooling System (continued)
●	Isolated from engine compartment
●	Engine radiator
●	Engine oil cooler
●	Hydraulic oil cooler (oil to air)
●	Transmission oil cooler (oil to air)
●	Charge air cooler (air to air)
●	Fuel cooler
●	Coolant recovery tank
●	Antifreeze, –37 deg. C (–34 deg. F)
●	Cool-on-demand, hydraulically driven, swing-out fan
●	Enclosed fan safety guard
▲	Automatic reversing fan drive
●	Axle and service-brake coolers
Hydraulics	
●	Electrohydraulic (EH) controls with soft stops and adjustable settings
●	In-cab adjustable automatic return-to-dig bucket positioner
●	In-cab adjustable automatic boom-height kickout/return to carry
●	Reservoir with sight gauge and fill strainer
●	Hydraulic diagnostic ports
●	4,000-hour in-tank filter
●	2 function — joystick with F-N-R
▲	2 function — 2-lever fingertip controls and steering column F-N-R
▲	3 function — joystick with F-N-R and integrated 3rd-function roller
▲	3 function — 3-lever fingertip controls and steering column F-N-R
▲	4 function — joystick with F-N-R and integrated 3rd/4th-function rollers
●	Programmable multifunction buttons (2)
●	Adjustable and continuous hydraulic-flow settings
●	Programmable attachment settings
▲	Ride control, automatic with monitor-adjustable speed settings
▲	Hydraulic control system for quick-coupler locking pins
▲	Hydrau™ XR cold-temperature hydraulic fluid recommended below –25 deg. C (–13 deg. F)

644	Steering Systems
●	Conventional steering wheel with spinner knob
▲	Joystick steering (including conventional steering column) with gearshift, F-N-R, and horn
▲	Secondary steering
Electrical	
●	Solid-state electrical power-distribution system
●	Lockable master electrical-disconnect switch
●	Battery-terminal safety covers
●	By-pass start safety cover at starter
●	Remote jump-start access in battery box
●	Pre-wired for beacon/strobe light
●	Lights: Halogen driving lights with guards (2) / Front (4), rear cab (2), and rear grille (2) work lights / LED front turn signals and flashers / LED stop- and taillights
▲	Premium LED light package (all exterior lights are heavy-duty LED)
●	Programmable courtesy lights
●	Horn, electric
●	Reverse warning alarm
●	Multifunction/multi-language 178-mm (7 in.) LCD color monitor includes: Digital instruments — Analog display (hydraulic oil temperature, engine coolant temperature, transmission oil temperature, and engine oil pressure) / Digital display (engine rpm, transmission gear/direction indicator, hour meter, fuel level, diesel exhaust fluid (DEF) level, speedometer, odometer, and average fuel consumption)
▲	Multifunction/multi-language 127-mm (5 in.) LCD color monitor includes: Digital instruments — Analog display (hydraulic oil temperature, engine coolant temperature, transmission oil temperature, and engine oil pressure) / Digital display (engine rpm, transmission gear/direction indicator, hour meter, fuel level, DEF level, speedometer, odometer, and average fuel consumption)
●	Integrated cycle counter with 5 categories

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

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions per ISO 9249. No derating is required up to 3050-m (10,000 ft.) altitude. Specifications and design subject to change without notice. Specifications with the exception of bucket capacity are in accordance with all applicable ISO standards. Except where otherwise noted, these specifications are based on a unit with applicable linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator.

Additional equipment *(cont.)*

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

644	
P-TIER	Electrical <i>(continued)</i>
●	Indicator lights: Standard and selected options / Amber caution and red stop
●	Operator-warning messages
●	Built-in diagnostics: Diagnostic-code details / Sensor values / Calibrations / Individual circuit tester
▲	Electrical corrosion-prevention package
●	Standard AM/FM/Weather-Band (WB) radio with remote auxiliary port
▲	Premium AM/FM/WB radio with Bluetooth®, remote auxiliary port, and remote USB port (premium cab only)
●	24- to 12-volt, 8-amp converter and cab power ports (3)
▲	24- to 12-volt, 15- or 30-amp converter and cab power ports (3)
Operator's Station	
●	Standard cab with air conditioning/heater (ROPS/FOPS Level 1, isolation mounted)
▲	Premium cab with air conditioning/heater (ROPS/FOPS Level 1, isolation mounted)
▲	Automatic temperature control (premium cab only)
●	Rear window defrost vent
●	Keyless start with multiple security modes
●	Sealed-switch module with function indicators
●	Seat with backrest extension, deep foam, fabric cover, and adjustable air suspension
▲	Premium seat with high-wide back-and-headrest extension, heated and ventilated, leather/fabric cover, and adjustable heavy-duty air suspension
●	Hydraulic controls integrated to seat
●	High-visibility, bright-orange seat belt, 76 mm (3 in.), with retractors
▲	4-point seat-belt harness
▲	Seat-belt indicator beacon light
●	Cup holder and cup/Thermos® holder with retaining strap
●	Lunch-box/cooler holder with tie-down brackets
●	Coat hook

644	
P-TIER	Operator's Station <i>(continued)</i>
●	LED dome and reading light
●	Rubber floor mat
●	Dual-tilt steering column
●	Operator's manual storage compartment
●	Outside (2) and inside (1) rearview mirrors
▲	Heated outside mirrors with convex lens
▲	In-cab adjustable heated outside mirrors with convex lens (premium cab only)
●	Left-side operator-station access
●	Fall-arrest system anchor points tested to 2268 kg (5,000 lb.) on front of cab
●	Slip-resistant steps and ergonomic handholds
●	Pull-down front sun visor
●	Front and rear intermittent windshield wipers and washers
▲	Powered cab air pre-cleaner
▲	Beacon bracket only
▲	Beacon bracket with strobe beacon
●	Rearview camera
▲	Rearview camera with radar object-detection system
▲	Dedicated 178-mm (7 in.) rear camera display
▲	Advanced Rear Object-Detection System
▲	Advanced Vision System
●	Payload scale ready
▲	SmartWeigh™ ready + trial
▲	SmartWeigh
▲	SmartDetect™
▲	SmartDetect™ Digital
▲	Fire extinguisher
Loader Linkage	
●	Z-Bar loader linkage (parallel lift)
▲	High-Lift Z-Bar loader linkage (parallel lift)
Buckets and Attachments	
▲	Full line of Deere pin-on buckets, coupler buckets, and forks
▲	John Deere hydraulic coupler that accepts JRB-pattern attachments
▲	Hi-Vis hydraulic coupler that accepts Euro-pattern attachments (ISO)

644	
P-TIER	Overall Vehicle
●	JDLink™ wireless communication system (available in specific countries; see your dealer for details)
●	NeverGrease™ rear-axle oscillation
●	Front and rear tie-downs
●	Rear cast bumper/counterweight with rear hitch and locking pin
●	Articulation locking bar
●	Loader boom service locking bar
●	40-deg. steering articulation to each side with rubber-cushion stops on frame
●	Vandal protection with lockable engine enclosures, right counterweight storage, and filler access for radiator/fuel/DEF/hydraulic transmission
●	Left-side service steps and handholds
▲	Right-side service steps and handrails
▲	Left-side close-mounted steps
●	Storage compartment
●	Fuel-tank fill strainer
●	Heavy-duty fuel-tank guard
●	Ground-level fuel and DEF fill
●	Same-side ground-level daily servicing
●	23.5R25 tires on 3-piece rims
▲	23.5R25 tires on 5-piece rims
▲	Tire-pressure monitoring system
▲	Waste handler (Z-Bar and High-Lift)
●	Environmental drains and sample ports for engine, transmission, hydraulic oils, and engine coolant
▲	Quick fluid service (engine, transmission, hydraulic oils, and engine coolant)
▲	Fast-fuel system
●	Fenders, front narrow
▲	Fenders, front full width
▲	Fenders, front and rear full width
▲	Fenders, front and rear full width with mud flaps
▲	Less wheels and tires with axle stops
▲	Rims less tires
▲	Transmission side-frame and bottom guards
▲	Special guarding for waste applications
▲	Lift eyes
▲	License-plate bracket and light

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

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions per ISO 9249. No derating is required up to 3050-m (10,000 ft.) altitude. Specifications and design subject to change without notice. Specifications with the exception of bucket capacity are in accordance with all applicable ISO standards. Except where otherwise noted, these specifications are based on a unit with applicable linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator.



**Required Affidavit for Bidders, Offerors
and Contractors**
(KRS 45A.110 & 45A.115)

Affidavit Effective for One (1) Year from Date of Execution

Instructions: Pursuant to [KRS 45A.110](#) and [45A.115](#), a bidder, offeror, or contractor ("Contractor") is required to submit a Required Affidavit for Bidders, Offerors, and Contractors to be awarded a contract, or for the renewal of a contract. An authorized representative of the contracting party must complete the attestation below, have the attestation notarized, and return the completed affidavit to the Commonwealth.

Attestation

As a duly authorized representative for the Contractor, I swear and affirm under penalty of perjury, that that the Contractor has not knowingly violated campaign finance laws of the Commonwealth of Kentucky and that the award of a contract will not violate any provision of the campaign finance laws of the Commonwealth. For purposes of this attestation, "Knowingly" means that the bidder or offeror is aware or should have been aware of the existence of a violation. The bidder or offer understands that the Commonwealth retains the right to request an updated affidavit at any time.



Signature
Executive Director

Title

James H. Garrett

Printed Name

September 28th, 2026

Date

Bidder or Offeror Name: Paducah-McCracken County Riverport Authority
Address: 2000 Wayne Sullivan Drive
Paducah, KY 42003

Commonwealth of Kentucky Vendor Code (If known): _____

Subscribed and sworn to before me this 28 day of September, 2026.

State of: Kentucky Notary: Jessica L. McDowell

County of: McCracken My Commission Expires: July 22, 2027



