

904 X

Wheel Loader



JOHN DEERE





904 X-TIER WHEEL LOADER

MAKE A BIG PRODUCTION

When your daily grind includes hauling material over long distances or working in abrasive aggregate or roadbuilding conditions, you need a loader that can tackle it all while taking it easy on operators and your bottom line. Equipped with intuitive controls, a cab designed for ergonomic comfort and productivity, a purpose-built Electric Variable Transmission (EVT), leading-edge tech, and a wealth of customer-inspired features, the 904 X-Tier is ready to deliver premium levels of machine performance and fuel efficiency. Plus an elevated operator experience can help attract and retain your most precious resource.

Operate at an EVT advantage

Powered by our JD14 engine, the 904 X-Tier is equipped with an exclusive Electric Variable Transmission (EVT) designed and built by Deere. Replacing both the torque converter and traditional transmission of comparable models, the field-tested EVT delivers rapid response and power on demand as well as low-effort single-pedal operation. Two electric motors plus an inverter allow the system to efficiently manage torque, power to the ground, and ground speed similar to the E-Drive in our proven 944 X-Tier.

Count on comfort and convenience

Premium X-Tier cab features an ergonomic heated/ventilated seat, HVAC system with automatic temperature control, AM/FM radio with Bluetooth®, deluxe LED lights, and durable sealed-switch module.

It's easy to take control

Intuitive seat-mounted right-hand hydraulic controls feature two programmable multifunction buttons enabled with electrohydraulic (EH) capability. Operators can set the programmable buttons based on individual preference to help increase productivity across a range of jobsite applications.

High-strength-steel buckets

Durable 9.8- and 9.3-cubic-yard material-handling buckets with integrated spill guards, curved side cutters, and wear plates are designed to heap heavier loads of processed aggregates in fewer passes and maximize load retention. Our optional new 10.25-cubic-yard bucket provides an additional 1/2-cubic-yard capacity in every loadout compared to prior offerings.



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), Advanced Object Detection (AOD), and SmartDetect™ options 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 that feeds to the AVS display, optional **AOD** utilizes a radar system that provides audible alerts when objects are detected at the rear of the machine. AOD includes dynamic reversal projected path lines that help operators visualize the loader's anticipated course of travel while reversing.
- Optional **SmartDetect** senses objects entering the machine's projected travel path, emitting audible and visual alerts to the operator as well as distinct alerts to detected bystanders to help increase situational awareness. Available for installation as a field kit, SmartDetect requires AVS, AOD, and a G5 display.
- Building on SmartDetect capabilities, optional **SmartDetect™ Digital** is equipped with cameras that integrate with the AVS display to provide elevated operator and bystander alerts. Easily accessed through the user-friendly John Deere Operations Center web and mobile apps, the SmartDetect Digital 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.

FIND YOUR FIT



LEADING EDGE

Premium edge with innovative technology



EXCEPTIONAL PERFORMANCE

Advanced features and performance



RUGGED AND RELIABLE

Proven capabilities and value

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. SmartWeigh is available as a factory-installed or field-kit option and also for a 250-machine-hour trial at a lower cost.



AVS ON THE G5 DISPLAY



SMARTDETECT ON THE G5 DISPLAY

Relieve the pressure

Tire Pressure Monitoring System helps operators remain aware of recommended tire-inflation levels as they work.

Heavy-duty durability

Large, high-capacity, heavy-duty axles with standard axle cooling and filtration are designed to durably withstand demanding jobsite conditions.

Keep your cool

Stacked cooling package enables direct airflow, to minimize debris buildup. Simply open the rear door at ground level to service the fan when needed.

You're all set

Set and store up to 10 different configurations including flow, responsiveness, and other preferred modes through the monitor to optimize the attachments your operators use the most.

Master the maintenance routine

All daily service points including fuel are conveniently grouped on the left side of the machine for easy access. The engine oil dipstick is also within reach. Standard auto-lube system integrates with machine diagnostics to help save time and operating expenses.



**SAME-SIDE SERVICE ACCESS
SIMPLIFIES MAINTENANCE**



904 X-TIER WHEEL LOADER



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™ that proactively addresses machine issues before they arise. With your approval, your dealer or preferred service provider can also remotely monitor machine health, diagnose problems, and even update machine software without a trip to the jobsite.*

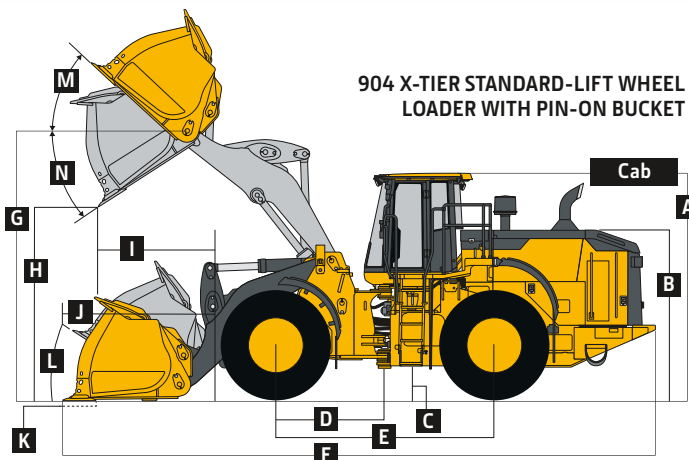
*Availability varies by region and product. Options not available in every country.



904 X-TIER WHEEL LOADER SPECIFICATIONS

Images and descriptions are for general information only. Some illustrations may depict product options or accessories NOT AVAILABLE in all regions or may require modifications to meet local regulations. Images of equipment models may be digitally or AI generated, are for illustration purposes only, and may not reflect actual products, features, options, or attachments. Equipment availability may be limited. 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 designs are subject to change without notice and, where applicable with the exception of bucket capacity, are in accordance with ISO standards. Unless otherwise noted, 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. For complete details, contact your John Deere dealer.

904 X-TIER STANDARD-LIFT			
Engine	904 X-TIER STANDARD-LIFT		
Manufacturer and Model	John Deere JD14	Fuel System	Electronic High-Pressure Common-Rail (HPCR)
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	Lubrication	Full-flow spin-on filter and integral cooler
Cylinders	6	Aspiration	Single turbocharged, charge air cooled
Valves per Cylinder	4	Air Cleaner	Dual-element dry type, restriction indicator in cab monitor for service; additional centrifugal engine pre-cleaner
Displacement	13.55 L (827 cu. in.)		
Net Peak Power (ISO 9249)	330 kW (442 hp) at 1,400 rpm		
Net Peak Torque (ISO 9249)	2339 Nm (1,725 lb.-ft.) at 1,300 rpm		
Net Torque Rise	53%		
Cooling			
Fan Drive	Hydraulically driven, proportionally controlled, fan aft of coolers; automatic reversing fan drive		
Electrical			
Electrical System	24 volt with 150-amp alternator		
Batteries (2 – 12 volt)	1,400 CCA (each)		
Transmission System			
Type	Electric Variable Transmission (EVT)		
Torque Converter	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	Auto (1st–4th or 2nd–4th); Quick-Shift button with 2 selectable modes: kick-down or kick-up/down		
Maximum Travel Speeds (with 875/65R29 L-3 tires)	EVT		
	<i>Forward</i>	<i>Reverse</i>	
Range 1	6.3 km/h (3.9 mph)	6.7 km/h (4.2 mph)	
Range 2	12.4 km/h (7.7 mph)	12.7 km/h (7.9 mph)	
Range 3	24.9 km/h (15.5 mph)	24.9 km/h (15.5 mph)	
Range 4	40.0 km/h (24.9 km/h)	N/A	
Range 5	N/A	N/A	
Axles/Brakes			
Final Drives	Heavy-duty mid-board planetary	Brakes (conform to ISO 3450)	
Differentials	Conventional front and rear axles	Service	Outboard, forced oil cooled, multi disc
Rear Axle Oscillation, Stop to Stop, With 875/65R29 L-3 Tires	16 deg. (8 deg. each direction)	Parking	Automatic spring applied, hydraulically released, sealed wet multi disc
Tires/Wheels (see facing page 7 for complete tire adjustments)			
	<i>Tread Width</i>	<i>Width Over Tires</i>	
Bridgestone 875/65R29, 1 Star L-3	2440 mm (96.1 in.)	3290 mm (129.5 in.)	
Serviceability			
Refill Capacities	Refill Capacities (continued)		
Fuel Tank (with ground-level fueling)	534 L (141 gal.)	Transmission Reservoir With Vertical Filter	53 L (56 qt.)
Diesel Exhaust Fluid (DEF)	26.3 L (6.9 gal.)	Axle Oil (front and rear, each)	68 L (72 qt.)
Cooling System	60.5 L (16 gal.)	Hydraulic Reservoir and Filter	196 L (207.1 qt.)
Engine Oil With Vertical Spin-On Filter	61 L (64.4 qt.)	Park Brake Oil (wet disc)	0.35 L (0.37 qt.)
Hydraulic System/Steering			
Loader Pumps	2 variable-displacement, load-sensing axial-piston pumps; closed-center system		
Maximum Rated Flow at 6895 kPa (1,000 psi) at 2,000 rpm	570 L/m (150.5 gpm)		
System Relief Pressure	27 600 kPa (4,000 psi)		
Steering Pump	1 variable-displacement, load-sensing axial-piston pump; closed-center system		
Maximum Rated Flow at 6895 kPa (1,000 psi) at 2,000 rpm	199.5 L/m (52.7 gpm)		
System Relief Pressure	24 900 kPa (3,611 psi)		
Loader Controls	2-function valve; single- or dual-lever controls; control lever lockout feature		
Steering (conforms to ISO 5010)			
Type	Power, fully hydraulic; single-lever control and adjustable wristrest with conventional steering wheel override		
Articulation Angle	80-deg. arc (40 deg. each direction)		
Turning Radius (measured to centerline of outside tire)	6.30 m (20 ft. 8 in.)		
Hydraulic Cycle Times	<i>Standard-Lift</i>		
Raise	5.9 sec.		
Dump	2.3 sec.		
Lower (float down)	3.6 sec.		
Total	11.8 sec.		
Dimensions and Specifications With Pin-On Bucket			



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Dimensions and Specifications With Pin-On Bucket (continued)

(see line art below left)

904 X-TIER STANDARD-LIFT

Dimensions With Bucket	7.5-m ³ (9.80 cu. yd.) enhanced performance with bolt-on edge and wear liners	7.8-m ³ (10.25 cu. yd.) enhanced performance with bolt-on edge and wear liners
A Height to Top of Cab	3.73 m (12 ft. 3 in.)	3.73 m (12 ft. 3 in.)
B Hood Height	2.74 m (9 ft. 0 in.)	2.74 m (9 ft. 0 in.)
C Ground Clearance	463 mm (18.2 in.)	463 mm (18.2 in.)
D Length From Centerline to Front Axle	1.85 m (6 ft. 1 in.)	1.85 m (6 ft. 1 in.)
E Wheelbase	3.70 m (12 ft. 2 in.)	3.70 m (12 ft. 2 in.)
F Overall Length, Bucket on Ground	10.10 m (33 ft. 2 in.)	10.20 m (33 ft. 6 in.)
G Height to Hinge Pin, Fully Raised	4.56 m (15 ft. 0 in.)	4.55 m (14 ft. 11 in.)
H Dump Clearance, 45 deg., Full Height	3.00 m (9 ft. 10 in.)	2.97 m (9 ft. 9 in.)
I Reach, 45-deg. Dump, Full Height	1.73 m (5 ft. 8 in.)	1.83 m (6 ft. 0 in.)
J Reach, 45-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	2.42 m (7 ft. 11 in.)	2.45 m (8 ft. 0 in.)
K Maximum Digging Depth	161 mm (6.3 in.)	174 mm (6.9 in.)
L Maximum Rollback at Ground Level	40.2 deg.	40.2 deg.
M Maximum Rollback, Boom Fully Raised	59.8 deg.	59.8 deg.
N Maximum Bucket Dump Angle, Fully Raised	46.1 deg.	46.1 deg.
Loader Clearance Circle, Bucket Carry Position	15.34 m (50 ft. 4 in.)	15.40 m (50 ft. 6 in.)
Specifications With Bucket		
Capacity, Heaped	7.5 m ³ (9.80 cu. yd.)	7.8 m ³ (10.25 cu. yd.)
Capacity, Heaped at 110% Fill Factor	8.25 m ³ (10.8 cu. yd.)	8.6 m ³ (11.3 cu. yd.)
Capacity, Struck	6.2 m ³ (8.1 cu. yd.)	6.7 m ³ (8.8 cu. yd.)
Bucket Weight With Bolt-On Cutting Edge	3803 kg (8,384 lb.)	3920 kg (8,642 lb.)
Bucket Width	3.66 m (12 ft. 0 in.)	3.66 m (12 ft. 0 in.)
Breakout Force	24 198 kg (53,347 lb.)	22 978 kg (50,658 lb.)
Tipping Load, Straight, No Tire Deflection	28 114 kg (61,981 lb.)	27 970 kg (61,663 lb.)
Tipping Load, Straight, With Tire Deflection	26 844 kg (59,181 lb.)	26 700 kg (58,863 lb.)
Tipping Load, 37-deg. Partial Turn	24 688 kg (54,428 lb.)	24 545 kg (54,112 lb.)
Tipping Load, 40-deg. Full Turn, No Tire Deflection	24 134 kg (53,206 lb.)	23 991 kg (52,891 lb.)
Tipping Load, 40-deg. Full Turn, With Tire Deflection	22 293 kg (49,148 lb.)	22 149 kg (48,830 lb.)
Rated Operating Load, 50% Full-Turn Tipping Load, With Tire Deflection (conforms to ISO 14397-1)*	11 147 kg (24,575 lb.)	11 075 kg (24,416 lb.)
Operating Weight	36 316 kg (80,063 lb.)	36 433 kg (80,321 lb.)

Loader operating information is based on machine with identified linkage and standard equipment, John Deere JD14 (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. / *Rated operating capacity based on Deere attachments only.

Adjustments to Operating Weights and Tipping Loads With Buckets

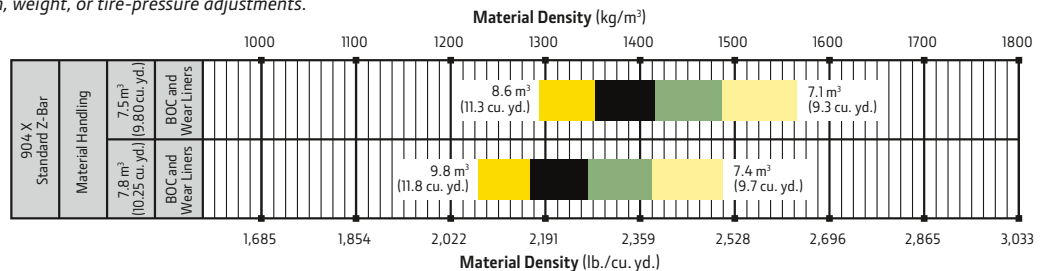
Adjustments to operating weights, tipping loads, and tires are based on Standard-Lift machine with pin-on 7.8-m³ (10.25 cu. yd.) material-handling bucket with bolt-on cutting edge, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 79-kg (175 lb.) operator*

Add (+) or deduct (-) kg (lb.) as indicated for loaders with 3-piece rims	Operating Weight	Tipping Load, Straight	Tipping Load, 37-deg. Partial Turn	Tipping Load, 40-deg. Full Turn	Tread Width	Width Over Tires	Vertical Height
Bridgestone 875/65R29, 1 Star L-3 [‡]	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 kg (0 lb.)	0 mm (0 in.)	0 mm (0 in.)	0 mm (0 in.)
Michelin 875/65R29, 1 Star L-3 [‡]	-280 kg (-617 lb.)	-204 kg (-450 lb.)	-184 kg (-406 lb.)	-180 kg (-397 lb.)	0 mm (0 in.)	+32 mm (+1.26 in.)	+4 mm (+0.2 in.)

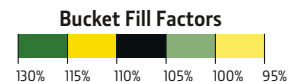
*May change based on vehicle configuration, weight, or tire-pressure adjustments.

[‡]Requires 8-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 in.) size	1442	2,430
Granite, broken	1538	2,592	Stone or gravel, 18.75-mm (0.75 in.) size	1602	2,700
Gypsum	2275	3,834			





MW904XAU (26-04)



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