Specifications

Engine — 724K Z-BAR / HIGH-LIFT

Manufacturer and Model	John Deere PowerTech™ Plus 6090H
Non-Road Emission Standards	certified to EPA Tier 3 emissions
Cylinders	6
Valves Per Cylinder	4
Displacement	548 cu. in. (9.0 L)
Net Peak Power @ 1,800 rpm	264 hp (197 kW)
Net Peak Torque @ 1,300 rpm	852 lb.-ft. (1159 Nm)
Net Torque Rise	36%
Fuel System (electronically controlled)	high-pressure common rail
Lubrication	full-flow spin-on filter and integral cooler
Aspiration	turbocharged, charge air cooled
Air Cleaner	dual-element dry type
Fan Drive	hydraulically driven, proportionally controlled, fan aft of coolers
Electrical System	24 volt with 80-amp alternator (100-amp alternator optional)
Batteries (two 12 volt)	1,400 CCA (each)

Transmission

Type	countershaft-type PowerShift™
Torque Converter	single stage, single phase
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 two selectable modes: kick-down or kick-up/down; and three adjustable clutch-cutoff settings

	Standard 4-Speed Transmission		*5-Speed Transmission with Lockup Torque Converter*	
Travel Speeds (with 23.5 R 25, 1 Star L3 tires)	*Forward Maximum*	*Reverse Maximum*	*Forward Maximum*	*Reverse Maximum*
Gear 1	4.5 mph (7.2 km/h)	4.7 mph (7.6 km/h)	4.7 mph (7.5 km/h)	4.9 mph (7.9 km/h)
Gear 2	7.4 mph (11.9 km/h)	7.8 mph (12.5 km/h)	8.3 mph (13.4 km/h)	8.1 mph (13.0 km/h)
Gear 3	14.4 mph (23.1 km/h)	15.1 mph (24.2 km/h)	14.0 mph (22.6 km/h)	17.9 mph (28.8 km/h)
Gear 4	22.1 mph (35.6 km/h)	N/A	17.0 mph (27.4 km/h)	N/A
Gear 5	N/A	N/A	24.9 mph (40.0 km/h)	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, 1 Star L3 tires)	26 deg.
Brakes (conform to ISO 3450)	
Service Brakes	hydraulically actuated, inboard, carrier mounted, pressure oil cooled, self adjusting, multi disc
Parking Brake	automatic spring applied, hydraulically released, oil cooled, multi disc

Tires

Choice of (with five-piece rims)*	*Tread Width*	*Width Over Tires*	*Change In Vertical Height*
23.5 R 25, 1 Star L-3	85.4 in. (2170 mm)	113.4 in. (2880 mm)	standard
23.5-25, 20 PR L-3	85.4 in. (2170 mm)	113.9 in. (2893 mm)	+ 0.5 in. (+ 13 mm)
28L-26, 14 PR LS2 Logger§†	89.4 in. (2272 mm)	117.6 in. (2987 mm)	+ 0.8 in. (+ 21 mm)
750/65 R 25, 1 Star L-3T§	86.8 in. (2204 mm)	118.8 in. (3018 mm)	+ 0.3 in. (+ 8 mm)

**Based on Z-bar machine configuration; may change based on vehicle configuration, weight, or tire-pressure adjustments.*

§Requires 9-deg. rear axle stops.

†Equipped with one-piece rims.

Refill Capacities (U.S.)

	724K Z-BAR / HIGH-LIFT
Fuel Tank (with ground-level fueling)	93 gal. (352 L)
Cooling System	36 qt. (34 L)
Engine Oil with Vertical Spin-On Filter	30 qt. (28 L)
Transmission Fluid with Vertical Filter	25 qt. (24 L)
Axle Oil (front and rear)	23 qt. (22 L)
Hydraulic Reservoir and Filters	29 gal. (110 L)
Park Brake Oil (wet disc)	20 oz. (0.6 L)

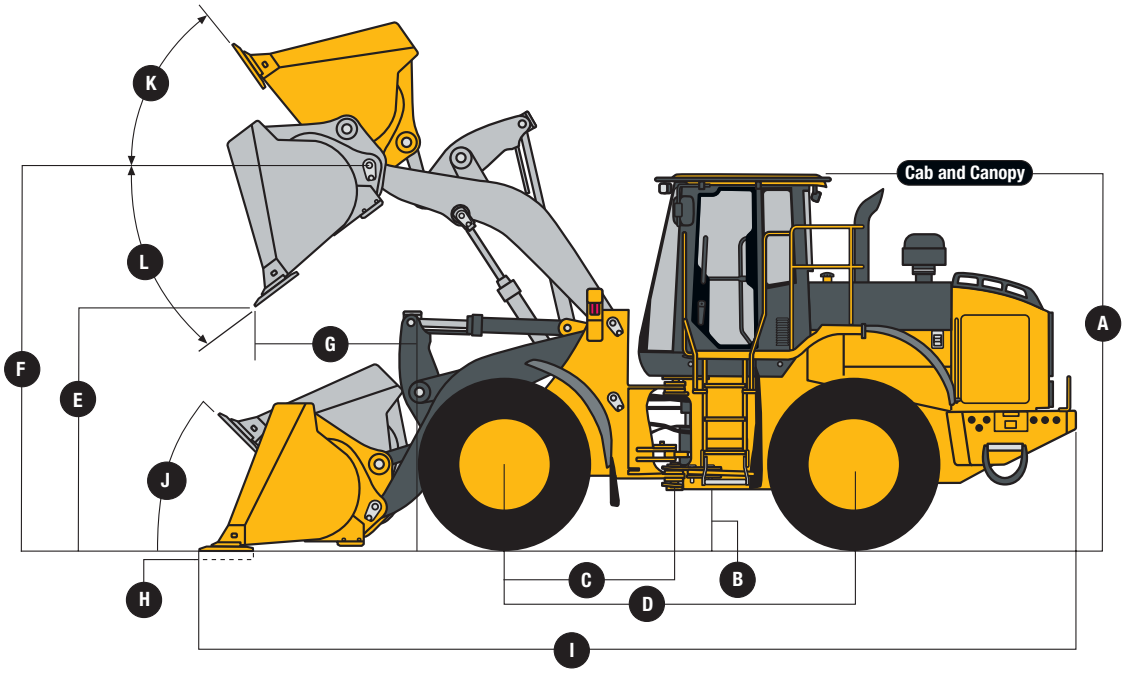
Hydraulic System/Steering

Pump (loader and steering)	variable-displacement, axial-piston pump; closed-center, pressure-compensating system
Maximum Rated Flow @ 1,000 psi (6895 kPa) and 2,250 rpm	82 gpm (310 L/m)
System Relief Pressure (loader and steering)	3,650 psi (25 166 kPa)
Loader Controls	two-function valve, joystick control or fingertip controls, hydraulic-function enable/disable, optional third- and fourth-function valve with auxiliary lever
Steering (conforms to ISO 5010)	
Type	power, fully hydraulic
Articulation Angle	80-deg. arc (40 deg. each direction)

Hydraulic Cycle Times	*Z-Bar*	*High-Lift*
Raise	5.4 sec.	5.6 sec.
Dump	1.2 sec.	1.4 sec.
Lower (float down)	3.0 sec.	3.0 sec.
Total	9.6 sec.	10.0 sec.
Turning Radius (measured to centerline of outside tire)	18 ft. 6 in. (5.64 m)	

Dimensions with Standard Configuration

		Z-Bar *4.75-cu.-yd. (3.6 m³) pin-on bucket*	*High-Lift* *4.25-cu.-yd. (3.2 m³) pin-on bucket*
A	Height to Top of Cab and Canopy	11 ft. 1 in. (3.38 m)	11 ft. 1 in. (3.38 m)
B	Ground Clearance	16.1 in. (0.41 m)	16.0 in. (0.40 m)
C	Length from Centerline to Front Axle	5 ft. 3 in. (1.60 m)	5 ft. 3 in. (1.60 m)
D	Wheelbase	10 ft. 8 in. (3.26 m)	10 ft. 8 in. (3.26 m)
E	Dump Clearance	▲ (see page 26)	▲ (see page 26)
F	Height to Hinge Pin, Fully Raised	13 ft. 4 in. (4.07 m)	14 ft. 8 in. (4.46 m)
G	Dump Reach	▲▲ (see page 26)	▲▲ (see page 26)
H	Maximum Digging Depth	6.6 in. (167 mm)	10.0 in. (253 mm)
I	Overall Length	▲▲▲ (see page 26)	▲▲▲ (see page 26)
J	Maximum Rollback at Ground Level	41 deg.	42 deg.
K	Maximum Rollback, Boom Fully Raised	55 deg.	47 deg.
L	Maximum Bucket Angle, Fully Raised	50 deg.	45 deg.



724K Z-BAR AND HIGH-LIFT LOADERS

724K Z-Bar with Pin-On-Type Bucket

Bucket Type/Size	*General-Purpose with Bolt-On Edge*	*General-Purpose with Bolt-On Edge*
Capacity, Heaped	4.75 cu. yd. (3.6 m^3)	4.25 cu. yd. (3.2 m^3)
Capacity, Struck	4.2 cu. yd. (3.2 m^3)	3.5 cu. yd. (3.0 m^3)
Bucket Weight	4,016 lb. (1822 kg)	3,827 lb. (1736 kg)
Bucket Width	10 ft. 0 in. (3.04 m)	10 ft. 0 in. (3.04 m)
Breakout Force	31,742 lb. (14 398 kg)	34,408 lb. (15 607 kg)
Tipping Load, Straight	36,352 lb. (16 489 kg)	36,612 lb. (16 607 kg)
Tipping Load, 40-Deg. Full Turn	31,314 lb. (14 204 kg)	31,566 lb. (14 318 kg)
Reach, 45-Deg. Dump, 7-ft. (2.13 m) Clearance	5 ft. 5 in. (1.65 m)	5 ft. 4 in. (1.61 m)
▲▲ Reach, 45-Deg. Dump, Full Height	3 ft. 9 in. (1.13 m)	3 ft. 6 in. (1.06 m)
▲ Dump Clearance, 45 Deg., Full Height	9 ft. 2 in. (2.79 m)	9 ft. 4 in. (2.86 m)
▲▲▲ Overall Length, Bucket on Ground	27 ft. 4 in. (8.34 m)	27 ft. 0 in. (8.24 m)
Loader Clearance Circle, Bucket Carry Position	43 ft. 2 in. (13.17 m)	43 ft. 2 in. (13.15 m)
Operating Weight	42,174 lb. (19 130 kg)	41,985 lb. (19 044 kg)

Loader operating information is based on machine with identified linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 175-lb. (79 kg) operator. This information is affected by changes in tires, ballast, and different attachments.

724K High-Lift with Pin-On-Type Bucket

Bucket Type/Size	*General-Purpose with Bolt-On Edge*	*General-Purpose with Bolt-On Edge*
Capacity, Heaped	4.25 cu. yd. (3.2 m^3)	4.75 cu. yd. (3.6 m^3)
Capacity, Struck	3.7 cu. yd. (2.8 m^3)	4.2 cu. yd. (3.2 m^3)
Bucket Weight	3,827 lb. (1736 kg)	4,017 lb. (1822 kg)
Bucket Width	10 ft. 0 in. (3.04 m)	10 ft. 0 in. (3.04 m)
Breakout Force	30,610 lb. (13 884 kg)	28,590 lb. (12 968 kg)
Tipping Load, Straight	29,488 lb. (13 376 kg)	29,041 lb. (13 173 kg)
Tipping Load, 40-Deg. Full Turn	25,299 lb. (11 476 kg)	24,885 lb. (11 287 kg)
Reach, 45-Deg. Dump, 7-ft. (2.13 m) Clearance	6 ft. 9 in. (2.06 m)	6 ft. 10 in. (2.09 m)
▲▲ Reach, 45-Deg. Dump, Full Height	3 ft. 10 in. (1.18 m)	4 ft. 1 in. (1.25 m)
▲ Dump Clearance, 45 Deg., Full Height	10 ft. 11 in. (3.33 m)	10 ft. 6 in. (3.21 m)
▲▲▲ Overall Length, Bucket on Ground	28 ft. 7 in. (8.71 m)	28 ft. 11 in. (8.81 m)
Loader Clearance Circle, Bucket Carry Position	44 ft. 9 in. (13.63 m)	45 ft. 0 in. (13.70 m)
Operating Weight	42,483 lb. (19 270 kg)	42,673 lb. (19 356 kg)

Loader operating information is based on machine with identified linkage and standard equipment, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 175-lb. (79 kg) operator. This information is affected by changes in tires, ballast, and different attachments.

Adjustments to Operating Weights and Tipping Loads with Buckets

Adjustments to operating weights and tipping loads are based on Z-bar machine and pin-on 4.75-cu.-yd. (3.6 m^3) general-purpose bucket with bolt-on cutting edge, ROPS cab, rear cast bumper/counterweight, transmission side-frame guards, bottom guards, standard tires, full fuel tank, and 175-lb. (79 kg) operator*

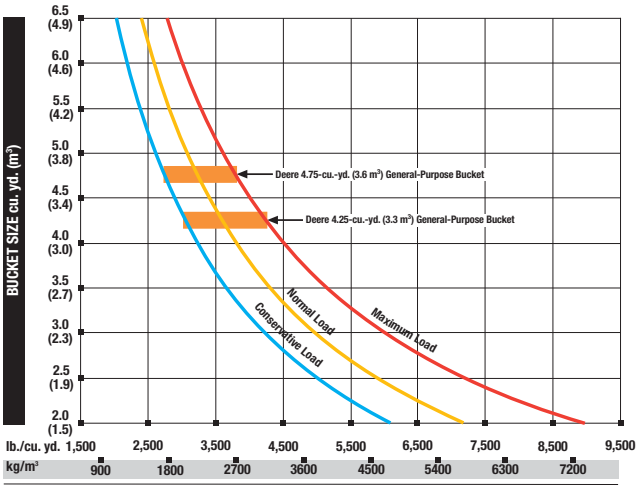
Add (+) or deduct (–) lb. (kg) as indicated for loaders with five-piece rims and	*Operating Weight*	*Tipping Load, Straight*	*Tipping Load, 40-Deg. Full Turn, SAE*
23.5 R 25, 1 Star L-3	0 lb. (0 kg)	0 lb. (0 kg)	0 lb. (0 kg)
23.5-25, 20 PR L-3	+ 19 lb. (+ 8 kg)	+ 13 lb. (+ 6 kg)	+ 11 lb. (+ 5 kg)
28L-26, 14 PR LS2 Logger§†	– 1,018 lb. (– 462 kg)	– 767 lb. (– 348 kg)	– 677 lb. (– 307 kg)
750/65 R 25, 1 Star L-3T§	+ 1,021 lb. (+ 463 kg)	+ 768 lb. (+ 348 kg)	+ 675 lb. (+ 306 kg)

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

§Requires 9-deg. rear axle stops.

†Equipped with one-piece rims.

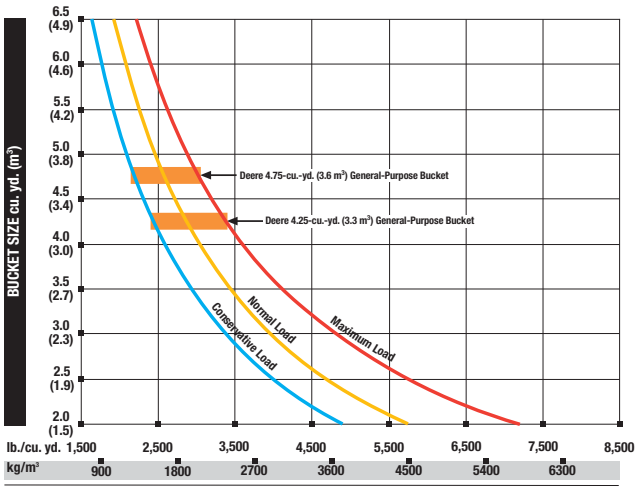
Bucket Selection Guides*



724K Z-BAR LOADER WITH PIN-ON BUCKET

MATERIAL (Loose weight)	lb./cu. yd.	kg/m³
Caliche	2,100	1250
Cinders	1,000	590
Clay and gravel, dry	2,400	1420
Clay and gravel, wet	2,600	1540
Clay, dry	2,500	1480
Clay, natural bed	2,800	1660
Clay, wet	2,800	1660
Coal, anthracite, broken	1,850	1100
Coal, bituminous, broken	1,400	830
Earth, dry, packed	2,550	1510
Earth, loam	2,100	1250
Earth, wet, excavated	2,700	1600
Granite, broken or large crushed	2,800	1660
Gravel, dry	2,550	1510
Gravel, dry 1/2" to 2" (13 to 50 mm)	2,850	1690
Gravel, pit run (graveled sand)	3,250	1930
Gravel, wet 1/2" to 2" (13 to 50 mm)	3,400	2020
Gypsum, crushed	2,700	1600
Limestone, broken or crushed	2,600	1540
Magnetite, iron ore	4,700	2790
Phosphate rock	2,160	1280
Pyrite, iron ore	4,350	2580
Sand and gravel, dry	2,900	1720
Sand and gravel, wet	3,400	2020
Sand, dry	2,400	1420
Sand, wet	3,100	1840
Sandstone, broken	2,550	1510
Shale	2,100	1250
Slag, broken	2,950	1750
Stone, crushed	2,700	1600
Topsoil	1,600	950

* This guide, representing bucket sizes not necessarily manufactured by Deere, will help you in selecting proper bucket size for material density, loader configuration, and operating conditions. Optimum bucket size is determined after adding or subtracting all tipping load changes due to optional equipment. The "conservative load" line on this guide is recommended when operating in conditions such as soft ground and unlevel surfaces. The "maximum load" condition on this guide is sometimes utilized when operating on firm ground and level surfaces.



724K HIGH-LIFT LOADER WITH PIN-ON BUCKET

MATERIAL (Loose weight)	lb./cu. yd.	kg/m³
Caliche	2,100	1250
Cinders	1,000	590
Clay and gravel, dry	2,400	1420
Clay and gravel, wet	2,600	1540
Clay, dry	2,500	1480
Clay, natural bed	2,800	1660
Clay, wet	2,800	1660
Coal, anthracite, broken	1,850	1100
Coal, bituminous, broken	1,400	830
Earth, dry, packed	2,550	1510
Earth, loam	2,100	1250
Earth, wet, excavated	2,700	1600
Granite, broken or large crushed	2,800	1660
Gravel, dry	2,550	1510
Gravel, dry 1/2" to 2" (13 to 50 mm)	2,850	1690
Gravel, pit run (graveled sand)	3,250	1930
Gravel, wet 1/2" to 2" (13 to 50 mm)	3,400	2020
Gypsum, crushed	2,700	1600
Limestone, broken or crushed	2,600	1540
Magnetite, iron ore	4,700	2790
Phosphate rock	2,160	1280
Pyrite, iron ore	4,350	2580
Sand and gravel, dry	2,900	1720
Sand and gravel, wet	3,400	2020
Sand, dry	2,400	1420
Sand, wet	3,100	1840
Sandstone, broken	2,550	1510
Shale	2,100	1250
Slag, broken	2,950	1750
Stone, crushed	2,700	1600
Topsoil	1,600	950

* This guide, representing bucket sizes not necessarily manufactured by Deere, will help you in selecting proper bucket size for material density, loader configuration, and operating conditions. Optimum bucket size is determined after adding or subtracting all tipping load changes due to optional equipment. The "conservative load" line on this guide is recommended when operating in conditions such as soft ground and unlevel surfaces. The "maximum load" condition on this guide is sometimes utilized when operating on firm ground and level surfaces.