

Specifications



Engine 644J WH STANDARD BOOM / HIGH LIFT

Type	John Deere POWERTECH™ 6081H; meets EPA and CARB emission non-road regulations
Cylinders	6
Valves Per Cylinder	2
Displacement	496 cu. in. (8.1 L)
Net Rated Power	185 hp (138 kW) @ 2,200 rpm
Net Peak Power	225 hp (168 kW) @ 1,600 rpm
Net Peak Torque	765 lb.-ft. (1040 Nm) @ 1,300 rpm
Net Torque Rise	74%
Net Power Bulge	22%
Fuel System	high-pressure common rail
Lube System	full-flow spin-on filter and integral cooler
Aspiration	turbocharged, charge air cooled
Air Cleaner	dual element dry type, restriction indicator in cab monitor for service
Fan Drive	hydraulically driven, proportionally controlled, fan aft of coolers
Electrical System	24 volt with 80-amp alternator
Batteries (two 12 volt)	1,400 CCA; reserve capacity: 440 min. each

Transmission

Type	countershaft-type power shift	
Torque Converter	single stage, single phase	
Shift Control	electronically modulated, adaptive, load and speed dependent	
Operator Interface	steering-column-mounted, twist-grip shift lever; quick-shift button on hydraulic lever	
Shift Modes	auto/manual, auto to 1st or 2nd, kick down or kick up/down, three clutch cutoff settings adjustable on switch pad	
Travel Speeds*	<i>Forward</i>	<i>Reverse</i>
Gear 1	4.6 mph (7.4 km/h)	4.9 mph (7.9 km/h)
Gear 2	7.6 mph (12.2 km/h)	8.0 mph (12.8 km/h)
Gear 3	14.7 mph (23.6 km/h)	15.5 mph (24.9 km/h)

*Equipped with 23.5 X 25 solid rubber tires.

Axles/Brakes

Final Drives	heavy-duty inboard planetary
Differentials	hydraulic locking front, conventional rear — standard; dual locking front and rear — optional
Rear Axle Oscillation, Stop to Stop*	18 degrees
Brakes (conform to SAE J1473, ISO3450)	
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

*Equipped with 23.5 X 25 radial tires.

Hydraulic System/Steering

Pump (loader and steering)	variable-displacement, axial-piston pump; closed-center, pressure-compensating system
Maximum Flow @ 2,200 rpm	68 gpm (257 L/m) @ 1,000 psi (6895 kPa)
Pressure	loader and steering relief 3,600 psi (24 850 kPa)
Loader Controls	two-function valve; single- or dual-lever controls; control lever lockout feature; optional third- and fourth-function valve with auxiliary lever
Hydraulic Cycle Times	
Raise	6.2 sec.
Dump	1.4 sec.
Lower	3.0 sec. (float down)
Total	10.6 sec.
Steering (conforms to SAE J1511)	
Type	power, fully hydraulic
Pressure	3,600 psi (24 850 kPa) relief
Articulation Angle	80-degree arc (40 degrees each direction)
Turning Radius (measured to centerline of outside tire)	18 ft. 0 in. (5500 mm)

Maximum Lift Capacity

644J WH STANDARD BOOM

644J WH HIGH LIFT

	5.0-cu.-yd. (3.8 m ³) standard lip	6.0-cu.-yd. (4.6 m ³) standard lip	7.0-cu.-yd. (5.4 m ³) standard lip	5.0-cu.-yd. (3.8 m ³) standard lip	6.0-cu.-yd. (4.6 m ³) standard lip	7.0-cu.-yd. (5.4 m ³) standard lip
SAE Heaped Capacity	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)
Maximum Lift at Ground Level	35,496 lb. (16 098 kg)	34,094 lb. (15 462 kg)	29,344 lb. (13 308 kg)	30,802 lb. (13 969 kg)	29,677 lb. (13 459 kg)	28,592 lb. (12 967 kg)
Maximum Lift at Maximum Height	23,633 lb. (10 718 kg)	22,989 lb. (10 426 kg)	22,548 lb. (10 226 kg)	17,779 lb. (8063 kg)	17,219 lb. (7809 kg)	16,906 lb. (7667 kg)

Tires

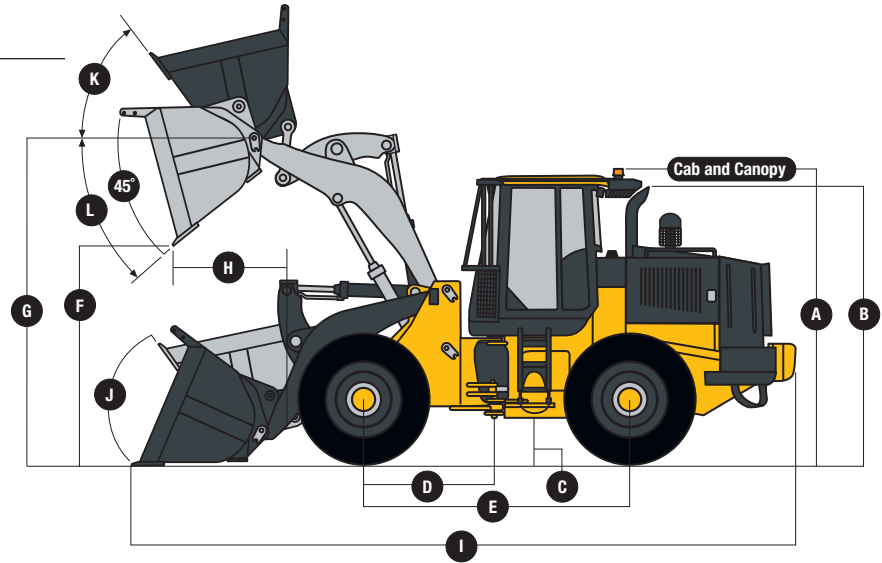
644J WH STANDARD BOOM / HIGH LIFT

Choice of	Tread Width	Width Over Tires	Change In Vertical Height
23.5 X 25 Solid Rubber Tires	85.4 in. (2170 mm)	113.1 in. (2874 mm)	0 in. (0 mm)

L-5 radial or bias ply tires available.
Both tire types require 9-degree axle stops.

Capacities (U.S.)

Fuel Tank (with ground-level fueling)	100 gal. (379 L)
Cooling System	32 qt. (31 L)
Engine Lubrication, Including Full-Flow Spin-On Filter	26 qt. (25 L)
Powershift Transmission, Including Vertical Cartridge Filter	27 qt. (26 L)
Differential (each axle)	
Front	30 qt. (29 L)
Rear	30 qt. (29 L)
Loader Hydraulic Reservoir and Filters	31 gal. (118 L)
Parking Brake	20 oz. (600 mL)



Dimensions with Pin-On

Type Waste Buckets

644J WH STANDARD BOOM

644J WH HIGH LIFT

	5.0-cu.-yd. (3.8 m ³) standard lip	6.0-cu.-yd. (4.6 m ³) standard lip	7.0-cu.-yd. (5.4 m ³) standard lip	5.0-cu.-yd. (3.8 m ³) standard lip	6.0-cu.-yd. (4.6 m ³) standard lip	7.0-cu.-yd. (5.4 m ³) standard lip
Bucket Lip Capacity (equipped with bolt-on cutting edges)	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)
Capacity, Heaped SAE	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)
Capacity, Struck SAE	4.0-cu.-yd. (3.1 m ³) standard lip	5.0-cu.-yd. (3.8 m ³) standard lip	5.7-cu.-yd. (4.4 m ³) standard lip	4.0-cu.-yd. (3.1 m ³) standard lip	5.0-cu.-yd. (3.8 m ³) standard lip	5.7-cu.-yd. (4.4 m ³) standard lip
A Height to Top of Cab	11 ft. 7 in. (3522 mm)	11 ft. 7 in. (3522 mm)	11 ft. 7 in. (3522 mm)	11 ft. 7 in. (3522 mm)	11 ft. 7 in. (3522 mm)	11 ft. 7 in. (3522 mm)
B Height to Top of Exhaust	11 ft. 4 in. (3457 mm)	11 ft. 4 in. (3457 mm)	11 ft. 4 in. (3457 mm)	11 ft. 4 in. (3457 mm)	11 ft. 4 in. (3457 mm)	11 ft. 4 in. (3457 mm)
C Ground Clearance	20.3 in. (516 mm)	20.3 in. (516 mm)	20.3 in. (516 mm)	20.3 in. (516 mm)	20.3 in. (516 mm)	20.3 in. (516 mm)
D Length from Centerline to Front Axle	63 in. (1600 mm)	63 in. (1600 mm)	63 in. (1600 mm)	63 in. (1600 mm)	63 in. (1600 mm)	63 in. (1600 mm)
E Wheelbase	126 in. (3200 mm)	126 in. (3200 mm)	126 in. (3200 mm)	126 in. (3200 mm)	126 in. (3200 mm)	126 in. (3200 mm)
F Dump Clearance, Full Height	9 ft. 8.3 in. (2954 mm)	9 ft. 1.9 in. (2791 mm)	8 ft. 9.8 in. (2688 mm)	11 ft. 3.9 in. (3452 mm)	10 ft. 10.1 in. (3305 mm)	10 ft. 6.4 in. (3211 mm)
G Height to Hinge Pin, Fully Raised	13 ft. 10 in. (4209 mm)	13 ft. 10 in. (4209 mm)	13 ft. 10 in. (4209 mm)	15 ft. 2 in. (4635 mm)	15 ft. 2 in. (4635 mm)	15 ft. 2 in. (4635 mm)
H Dump Reach, Full Height	36.5 in. (928 mm)	42.9 in. (1090 mm)	47.0 in. (1193 mm)	45.3 in. (1150 mm)	52.2 in. (1325 mm)	56.6 in. (1437 mm)
I Overall Length	25 ft. 11 in. (7901 mm)	26 ft. 8 in. (8131 mm)	27 ft. 2 in. (8277 mm)	27 ft. 6 in. (8389 mm)	28 ft. 3 in. (8618 mm)	28 ft. 9 in. (8764 mm)
J Maximum Rollback at Ground Level	37 degrees	37 degrees	37 degrees	37 degrees	37 degrees	37 degrees
K Maximum Rollback at Full Height	57 degrees	57 degrees	57 degrees	47 degrees	47 degrees	47 degrees
L Maximum Dump Angle, Full Height	45 degrees	45 degrees	45 degrees	40 degrees	40 degrees	40 degrees
Bucket Width	114.2 in. (2900 mm)	114.2 in. (2900 mm)	114.2 in. (2900 mm)	114.2 in. (2900 mm)	114.2 in. (2900 mm)	114.2 in. (2900 mm)
Breakout Force, SAE J732C	34,471 lb. (15 633 kg)	28,848 lb. (13 083 kg)	26,043 lb. (11 811 kg)	30,674 lb. (13 911 kg)	25,604 lb. (11 612 kg)	23,075 lb. (10 465 kg)
Tipping Load, Straight	41,430 lb. (18 789 kg)	40,352 lb. (18 300 kg)	38,956 lb. (17 667 kg)	32,914 lb. (14 927 kg)	31,875 lb. (14 456 kg)	30,724 lb. (13 934 kg)
Tipping Load, 40-Degree Full Turn, SAE	35,988 lb. (16 321 kg)	34,958 lb. (15 854 kg)	33,684 lb. (15 276 kg)	28,460 lb. (12 907 kg)	27,465 lb. (12 456 kg)	26,409 lb. (11 977 kg)
Reach, 45-Degree Dump, 7-ft. (2.13 m) Clearance	60.2 in. (1529 mm)	63.2 in. (1605 mm)	64.8 in. (1647 mm)	77.3 in. (1963 mm)	80.8 in. (2053 mm)	82.8 in. (2104 mm)
Loader Clearance Circle, Bucket In Carry Position	42 ft. 3 in. (12 884 mm)	42 ft. 9 in. (13 023 mm)	43 ft. 0 in. (13 115 mm)	43 ft. 7 in. (13 292 mm)	44 ft. 2 in. (13 450 mm)	44 ft. 6 in. (13 553 mm)
Operating Weight	48,944 lb. (22 197 kg)	49,595 lb. (22 492 kg)	50,025 lb. (22 687 kg)	49,434 lb. (22 419 kg)	50,084 lb. (22 714 kg)	50,514 lb. (22 909 kg)

Loader operating information is based on a machine with all standard equipment; waste handler complete protection package; 23.5 X 25 solid rubber tires; ROPS cab; differential lock front axle with standard rear axle; two-spool valve with two-lever control; heater and defroster; 175-lb. (79 kg) operator; and full fuel tank. This information is affected by tire size, ballast, and different attachments.

Specifications

Engine 724J WH STANDARD BOOM / HIGH LIFT

Type	John Deere POWERTECH™ 6081H; meets EPA and CARB emission non-road regulations
Cylinders	6
Valves Per Cylinder	2
Displacement	496 cu. in. (8.1 L)
Net Peak Power	250 hp (186 kW) @ 1,800 rpm
Net Rated Power	215 hp (160 kW) @ 2,200 rpm
Net Peak Torque	765 lb.-ft. (1040 Nm) @ 1,300 rpm
Net Torque Rise	49%
Net Power Bulge	16%
Fuel System	high-pressure common rail
Lube System	full-flow spin-on filter and integral cooler
Aspiration	turbocharged, charge air cooled
Air Cleaner	dual element dry type; restriction indicator in cab monitor for service
Fan Drive	hydraulically driven, proportionally controlled, fan aft of coolers
Electrical System	24 volt with 80-amp alternator
Batteries (two 12 volt)	1,400 CCA; reserve capacity: 440 min. each

Transmission

Type	countershaft-type power shift	
Torque Converter	single stage, single phase	
Shift Control	electronically modulated, adaptive, load and speed dependent	
Operator Interface	steering column-mounted twist-grip shift lever, quick-shift button on hydraulic lever	
Shift Modes	auto/manual, auto to 1st or 2nd, kick down or kick up/down, three clutch cutoff settings	
Travel Speeds*	<i>Forward</i>	<i>Reverse</i>
Gear 1	4.6 mph (7.4 km/h)	4.9 mph (7.9 km/h)
Gear 2	7.6 mph (12.2 km/h)	8.0 mph (12.8 km/h)
Gear 3	14.7 mph (23.6 km/h)	15.5 mph (24.9 km/h)

*Equipped with 23.5 X 25 solid rubber tires.

Axles/Brakes

Final Drives	heavy-duty inboard planetary
Differentials	hydraulic locking front, conventional rear — standard; dual locking front and rear — optional
Rear Axle Oscillation, Stop to Stop*	18 degrees
Brakes (conform to SAE J1473, ISO3450)	
Service Brakes	hydraulically actuated, inboard, carrier mounted, pressure oil cooled, self adjusting, multi disc
Parking Brake	automatically spring applied, hydraulically released, oil cooled, multi disc

*Equipped with 23.5 X 25 solid rubber tires.

Hydraulic System/Steering

Pump (loader and steering)	variable-displacement, axial piston pump; closed-center, pressure-compensating system
Maximum Flow @ 2,200 rpm	74 gpm (280 L/min.) @ 1,000 psi (6895 kPa)
Pressure	loader and steering relief 3,600 psi (24 850 kPa)
Loader Controls	two-function valve; single- and dual-lever controls; control lever lockout feature; optional third- and fourth-function valve with auxiliary lever
Steering (conforms to SAE J1511)	
Type	power, fully hydraulic
Pressure	3,600 psi (24 850 kPa) relief
Articulation Angle	80-degree arc (40 degrees each direction)
Hydraulic Cycle Times	
Raise	6.0 sec.
Dump	1.2 sec.
Lower	3.0 sec. (float down)
Total	10.2 sec.
Turning Radius (measured to centerline of outside tire)	18 ft. 0 in. (5500 mm)

Maximum Lift Capacity

724J WH STANDARD BOOM

724J WH HIGH LIFT

	5.0-cu.-yd. (3.8 m ³) standard lip	6.0-cu.-yd. (4.6 m ³) standard lip	7.0-cu.-yd. (5.4 m ³) standard lip	5.0-cu.-yd. (3.8 m ³) standard lip	6.0-cu.-yd. (4.6 m ³) standard lip	7.0-cu.-yd. (5.4 m ³) standard lip
SAE Heaped Capacity	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)
Maximum Lift at Ground Level	35,496 lb. (16 098 kg)	34,094 lb. (15 462 kg)	29,344 lb. (13 308 kg)	30,802 lb. (13 969 kg)	29,677 lb. (13 459 kg)	28,592 lb. (12 967 kg)
Maximum Lift at Maximum Height	23,633 lb. (10 718 kg)	22,989 lb. (10 426 kg)	22,548 lb. (10 226 kg)	17,779 lb. (8063 kg)	17,219 lb. (7809 kg)	16,906 lb. (7667 kg)

Tires

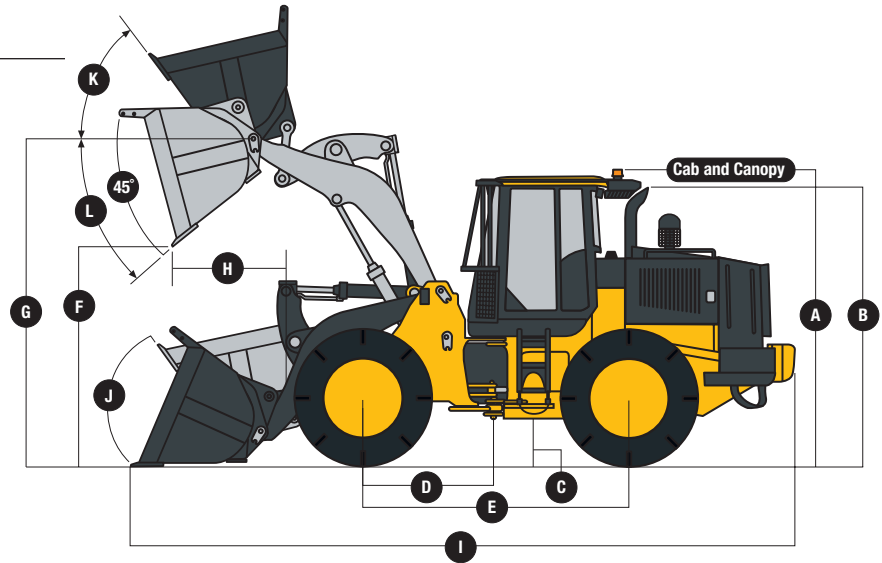
724J WH STANDARD BOOM / HIGH LIFT

Choice of	Tread Width	Width Over Tires	Change In Vertical Height
23.5 X 25 Solid Rubber Tires	85.4 in. (2170 mm)	113.1 in. (2874 mm)	0 in. (0 mm)

L-5 radial or bias ply tires available.
Both tire types require 9-degree axle stops.

Capacities (U.S.)

Fuel Tank (with ground-level fueling)	100 gal. (379 L)
Cooling System	32 qt. (31 L)
Engine Lubrication, Including Full-Flow Spin-On Filter	26 qt. (25 L)
Powershift Transmission, Including Vertical Cartridge Filter	27 qt. (26 L)
Differential (each axle)	
Front	30 qt. (29 L)
Rear	30 qt. (29 L)
Loader Hydraulic Reservoir and Filters	31 gal. (118 L)
Parking Brake	20 oz. (600 mL)



Dimensions with Pin-On

Type Waste Buckets

724J WH STANDARD BOOM

724J WH HIGH LIFT

	5.0-cu.-yd. (3.8 m ³) standard lip	6.0-cu.-yd. (4.6 m ³) standard lip	7.0-cu.-yd. (5.4 m ³) standard lip	5.0-cu.-yd. (3.8 m ³) standard lip	6.0-cu.-yd. (4.6 m ³) standard lip	7.0-cu.-yd. (5.4 m ³) standard lip
Bucket Lip Capacity (equipped with bolt-on cutting edges)	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)
Capacity, Heaped SAE	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)	5.0-cu.-yd. (3.8 m ³)	6.0-cu.-yd. (4.6 m ³)	7.0-cu.-yd. (5.4 m ³)
Capacity, Struck SAE	4.0-cu.-yd. (3.1 m ³) standard lip	5.0-cu.-yd. (3.8 m ³) standard lip	5.7-cu.-yd. (4.4 m ³) standard lip	4.0-cu.-yd. (3.1 m ³) standard lip	5.0-cu.-yd. (3.8 m ³) standard lip	5.7-cu.-yd. (4.4 m ³) standard lip
A Height to Top of Cab	11 ft. 7 in. (3522 mm)	11 ft. 7 in. (3522 mm)	11 ft. 7 in. (3522 mm)	11 ft. 7 in. (3522 mm)	11 ft. 7 in. (3522 mm)	11 ft. 7 in. (3522 mm)
B Height to Top of Exhaust	11 ft. 4 in. (3457 mm)	11 ft. 4 in. (3457 mm)	11 ft. 4 in. (3457 mm)	11 ft. 4 in. (3457 mm)	11 ft. 4 in. (3457 mm)	11 ft. 4 in. (3457 mm)
C Ground Clearance	20.3 in. (516 mm)	20.3 in. (516 mm)	20.3 in. (516 mm)	20.3 in. (516 mm)	20.3 in. (516 mm)	20.3 in. (516 mm)
D Length from Centerline to Front Axle	63 in. (1600 mm)	63 in. (1600 mm)	63 in. (1600 mm)	63 in. (1600 mm)	63 in. (1600 mm)	63 in. (1600 mm)
E Wheelbase	126 in. (3200 mm)	126 in. (3200 mm)	126 in. (3200 mm)	126 in. (3200 mm)	126 in. (3200 mm)	126 in. (3200 mm)
F Dump Clearance, Full Height	9 ft. 8.3 in. (2954 mm)	9 ft. 1.9 in. (2791 mm)	8 ft. 9.8 in. (2688 mm)	11 ft. 3.9 in. (3452 mm)	10 ft. 10.1 in. (3305 mm)	10 ft. 6.4 in. (3211 mm)
G Height to Hinge Pin, Fully Raised	13 ft. 10 in. (4209 mm)	13 ft. 10 in. (4209 mm)	13 ft. 10 in. (4209 mm)	15 ft. 2 in. (4635 mm)	15 ft. 2 in. (4635 mm)	15 ft. 2 in. (4635 mm)
H Dump Reach, Full Height	36.5 in. (928 mm)	42.9 in. (1090 mm)	47.0 in. (1193 mm)	45.3 in. (1150 mm)	52.2 in. (1325 mm)	56.6 in. (1437 mm)
I Overall Length	26 ft. 2 in. (7977 mm)	26 ft. 11 in. (8207 mm)	27 ft. 5 in. (8353 mm)	27 ft. 9 in. (8465 mm)	28 ft. 6 in. (8694 mm)	29 ft. 0 in. (8840 mm)
J Maximum Rollback at Ground Level	37 degrees	37 degrees	37 degrees	37 degrees	37 degrees	37 degrees
K Maximum Rollback at Full Height	57 degrees	57 degrees	57 degrees	47 degrees	47 degrees	47 degrees
L Maximum Dump Angle, Full Height	45 degrees	45 degrees	45 degrees	40 degrees	40 degrees	40 degrees
Bucket Width	114.2 in. (2900 mm)	114.2 in. (2900 mm)	114.2 in. (2900 mm)	114.2 in. (2900 mm)	114.2 in. (2900 mm)	114.2 in. (2900 mm)
Breakout Force, SAE J732C	34,471 lb. (15 633 kg)	28,848 lb. (13 083 kg)	26,043 lb. (11 811 kg)	30,674 lb. (13 911 kg)	25,604 lb. (11 612 kg)	23,075 lb. (10 465 kg)
Tipping Load, Straight	44,021 lb. (19 964 kg)	42,923 lb. (19 466 kg)	41,467 lb. (18 806 kg)	35,033 lb. (15 888 kg)	33,975 lb. (15 408 kg)	32,780 lb. (14 866 kg)
Tipping Load, 40-Degree Full Turn, SAE	38,160 lb. (17 306 kg)	37,112 lb. (16 831 kg)	35,789 lb. (16 231 kg)	30,239 lb. (13 714 kg)	29,227 lb. (13 255 kg)	28,131 lb. (12 758 kg)
Reach, 45-Degree Dump, 7-ft. (2.13 m) Clearance	60.2 in. (1529 mm)	63.2 in. (1605 mm)	64.8 in. (1647 mm)	77.3 in. (1963 mm)	80.8 in. (2053 mm)	82.8 in. (2104 mm)
Loader Clearance Circle, Bucket In Carry Position	42 ft. 3 in. (12 884 mm)	42 ft. 9 in. (13 023 mm)	43 ft. 0 in. (13 115 mm)	43 ft. 7 in. (13 292 mm)	44 ft. 2 in. (13 450 mm)	44 ft. 6 in. (13 553 mm)
Operating Weight	49,976 lb. (22 665 kg)	50,627 lb. (22 960 kg)	51,057 lb. (23 155 kg)	50,466 lb. (22 887 kg)	51,116 lb. (23 182 kg)	51,546 lb. (23 377 kg)

Loader operating information is based on a machine with all standard equipment; waste handler complete protection package; 23.5 X 25 solid rubber tires; ROPS cab; differential lock front axle with standard rear axle; two-spool valve with two-lever control; heater and defroster; 175-lb. (79 kg) operator; and full fuel tank. This information is affected by tire size, ballast, and different attachments.

Specifications

Engine **744J WH STANDARD BOOM / HIGH LIFT**

Type	John Deere POWERTECH™ 6125H; meets EPA and CARB emission non-road regulations
Cylinders	6
Valves Per Cylinder	4
Displacement	766 cu. in. (12.5 L)
Net Peak Power	288 SAE gross hp (215 kW) @ 1,800 rpm
Net Rated Power	265 SAE net hp (198 kW) @ 2,000 rpm
Net Peak Torque	970 lb.-ft. (1320 Nm) @ 1,100 rpm
Net Torque Rise	40%
Net Power Bulge	8%
Fuel System	mechanically actuated electronic unit injectors
Lube System	full-flow spin-on filter and integral cooler
Aspiration	turbocharged, charge air cooled
Air Cleaner	dual element dry type; restriction indicator in cab monitor for service
Fan Drive	belt driven, fan forward of coolers
Electrical System	24 volt with 80-amp alternator
Batteries (two 12 volt)	1,400 CCA; reserve capacity: 440 min. each

Transmission

Type	countershaft-type powershift	
Torque Converter	single-stage, dual-phase with freewheeling stator	
Shift Control	electronically modulated, adaptive, load and speed dependent	
Operator Interface	steering column-mounted twist-grip shift lever, quick-shift button on hydraulic lever	
Shift Modes	auto/manual, auto to 1st or 2nd, kick down or kick up/down, three clutch cutoff settings	
Travel Speeds*	<i>Forward</i>	<i>Reverse</i>
Gear 1	4.6 mph (7.4 km/h)	4.6 mph (7.4 km/h)
Gear 2	8.6 mph (13.9 km/h)	8.6 mph (13.9 km/h)
Gear 3	13.1 mph (21.2 km/h)	19.3 mph (31.0 km/h)

*Equipped with 31.5 X 25 solid rubber tires.

Axles/Brakes

Final Drives	heavy-duty inboard planetary
Differentials	hydraulic locking front, conventional rear – standard; dual locking front and rear – optional
Rear Axle Oscillation, Stop to Stop*	16 degrees
Brakes (conform to SAE J1473, ISO3450)	
Service Brakes	hydraulically actuated, inboard, sun gear mounted, oil cooled, self adjusting, single disc
Parking Brake	automatically spring applied, hydraulically released, oil cooled, multi disc

*Equipped with 31.5 X 25 solid rubber tires.

Hydraulic System/Steering

Pump (loader and steering)	two variable-displacement, load-sensing axial piston pumps; closed-center system
Maximum Flow @ 2,250 rpm	104 gpm (393 L/min.) @ 1,000 psi (6895 kPa)
Pressure	loader and steering relief 3,200 psi (22 000 kPa)
Loader Controls	two-function valve; single- or dual-lever fingertip controls; control lever lockout feature; optional third-function valve with auxiliary lever
Hydraulic Cycle Times	
Raise	6.5 sec.
Dump	1.5 sec.
Lower	3.0 sec. (float down)
Total	11.0 sec.
Steering (conforms to SAE J1511)	
Type	power, fully hydraulic
Pressure	3,200 psi (22 000 kPa) relief
Articulation Angle	80-degree arc (40 degrees each direction)
Turning Radius (measured to centerline of outside tire)	20 ft. 2 in. (6140 mm)

Maximum Lift Capacity

744J WH STANDARD BOOM

744J WH HIGH LIFT

	6.0-cu.-yd. (4.7 m ³) standard lip	7.0-cu.-yd. (5.3 m ³) standard lip	8.0-cu.-yd. (6.1 m ³) standard lip	6.0-cu.-yd. (4.7 m ³) standard lip	7.0-cu.-yd. (5.3 m ³) standard lip	8.0-cu.-yd. (6.1 m ³) standard lip
SAE Heaped Capacity	6.0-cu.-yd. (4.7 m ³)	7.0-cu.-yd. (5.3 m ³)	8.0-cu.-yd. (6.1 m ³)	6.0-cu.-yd. (4.7 m ³)	7.0-cu.-yd. (5.3 m ³)	8.0-cu.-yd. (6.1 m ³)
Maximum Lift at Ground Level	45,478 lb. (20 625 kg)	43,551 lb. (19 751 kg)	38,416 lb. (17 422 kg)	36,993 lb. (16 777 kg)	36,105 lb. (16 374 kg)	35,198 lb. (15 963 kg)
Maximum Lift at Maximum Height	23,358 lb. (10 593 kg)	22,958 lb. (10 412 kg)	22,753 lb. (10 319 kg)	20,800 lb. (9433 kg)	20,392 lb. (9248 kg)	20,174 lb. (9149 kg)

Tires

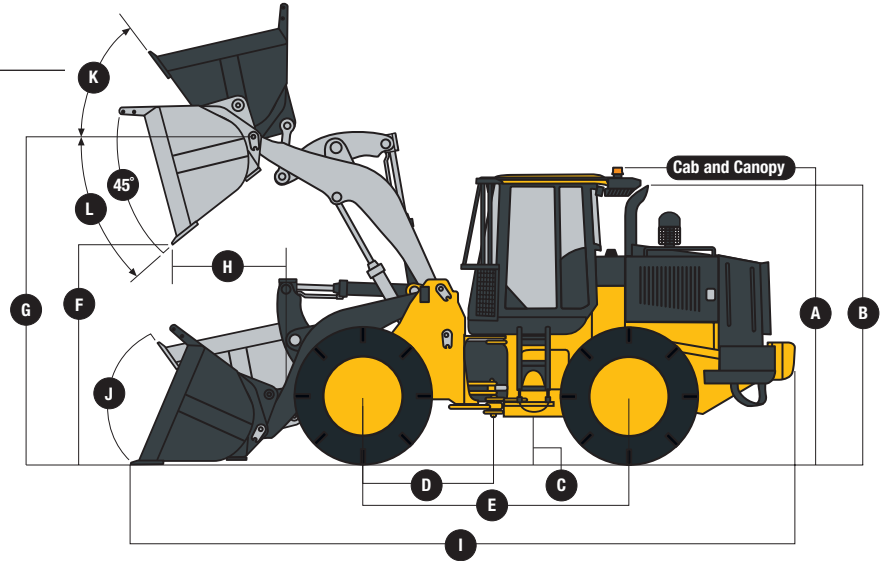
744J WH STANDARD BOOM / HIGH LIFT

Choice of	Tread Width	Width Over Tires	Change In Vertical Height
31.5-25 Solid Rubber Tires	94.5 in. (2400 mm)	126.0 in. (3200 mm)	0 in. (0 mm)
26.5-25 Solid Rubber Tires	89.5 in. (2275 mm)	116.0 in. (2950 mm)	- 0.6 in. (- 15 mm)
26.5R25 X-MINE L5 Michelin Radial Tires	86.6 in. (2200 mm)	116.2 in. (2952 mm)	- 1.0 in. (- 25 mm)

L-5 radial or bias ply tires available.
Both tire types require 8-degree axle stops.

Capacities (U.S.)

Fuel Tank (with ground-level fueling)	122 gal. (462 L)
Cooling System	40 qt. (38 L)
Engine Lubrication, Including Full-Flow Spin-On Filter	40 qt. (38 L)
Powershift Transmission, Including Vertical Cartridge Filter	30 qt. (28 L)
Differential (each axle)	
Front	52 qt. (49 L)
Rear	52 qt. (49 L)
Loader Hydraulic Reservoir and Filters	38 gal. (144 L)
Parking Brake	20 oz. (600 mL)



Dimensions with Pin-On

Type Waste Buckets

744J WH STANDARD BOOM

744J WH HIGH LIFT

	6.0-cu.-yd. (4.7 m ³) standard lip	7.0-cu.-yd. (5.3 m ³) standard lip	8.0-cu.-yd. (6.1 m ³) standard lip	6.0-cu.-yd. (4.7 m ³) standard lip	7.0-cu.-yd. (5.3 m ³) standard lip	8.0-cu.-yd. (6.1 m ³) standard lip
Bucket Lip Capacity (equipped with bolt-on cutting edges)	6.0-cu.-yd. (4.7 m ³)	7.0-cu.-yd. (5.3 m ³)	8.0-cu.-yd. (6.1 m ³)	6.0-cu.-yd. (4.7 m ³)	7.0-cu.-yd. (5.3 m ³)	8.0-cu.-yd. (6.1 m ³)
Capacity, Heaped SAE	6.0-cu.-yd. (4.7 m ³)	7.0-cu.-yd. (5.3 m ³)	8.0-cu.-yd. (6.1 m ³)	6.0-cu.-yd. (4.7 m ³)	7.0-cu.-yd. (5.3 m ³)	8.0-cu.-yd. (6.1 m ³)
Capacity, Struck SAE	5.3-cu.-yd. (4.0 m ³) standard lip	6.1-cu.-yd. (4.7 m ³) standard lip	7.1-cu.-yd. (5.4 m ³) standard lip	5.3-cu.-yd. (4.0 m ³) standard lip	6.1-cu.-yd. (4.7 m ³) standard lip	7.1-cu.-yd. (5.4 m ³) standard lip
A Height to Top of Cab	11 ft. 8 in. (3547 mm)	11 ft. 8 in. (3547 mm)	11 ft. 8 in. (3547 mm)	11 ft. 8 in. (3547 mm)	11 ft. 8 in. (3547 mm)	11 ft. 8 in. (3547 mm)
B Height to Top of Exhaust	11 ft. 7 in. (3537 mm)	11 ft. 7 in. (3537 mm)	11 ft. 7 in. (3537 mm)	11 ft. 7 in. (3537 mm)	11 ft. 7 in. (3537 mm)	11 ft. 7 in. (3537 mm)
C Ground Clearance	19.9 in. (506 mm)	19.9 in. (506 mm)	19.9 in. (506 mm)	19.9 in. (506 mm)	19.9 in. (506 mm)	19.9 in. (506 mm)
D Length from Centerline to Front Axle	67 in. (1700 mm)	67 in. (1700 mm)	67 in. (1700 mm)	67 in. (1700 mm)	67 in. (1700 mm)	67 in. (1700 mm)
E Wheelbase	134 in. (3400 mm)	134 in. (3400 mm)	134 in. (3400 mm)	134 in. (3400 mm)	134 in. (3400 mm)	134 in. (3400 mm)
F Dump Clearance, Full Height	9 ft. 9.6 in. (2988 mm)	9 ft. 5.9 in. (2894 mm)	9 ft. 1.3 in. (2776 mm)	11 ft. 10.4 in. (3618 mm)	11 ft. 7.0 in. (3530 mm)	11 ft. 3.4 in. (3440 mm)
G Height to Hinge Pin, Fully Raised	14 ft. 2 in. (4324 mm)	14 ft. 2 in. (4324 mm)	14 ft. 2 in. (4324 mm)	16 ft. 1 in. (4892 mm)	16 ft. 1 in. (4892 mm)	16 ft. 1 in. (4892 mm)
H Dump Reach, Full Height	47.2 in. (1199 mm)	50.9 in. (1293 mm)	54.8 in. (1391 mm)	55.9 in. (1421 mm)	59.8 in. (1520 mm)	62.7 in. (1594 mm)
I Overall Length	27 ft. 10 in. (8495 mm)	28 ft. 4 in. (8628 mm)	28 ft. 10 in. (8793 mm)	30 ft. 0 in. (9146 mm)	30 ft. 5 in. (9279 mm)	31 ft. 0 in. (9441 mm)
J Maximum Rollback at Ground Level	37 degrees	37 degrees	37 degrees	35 degrees	35 degrees	35 degrees
K Maximum Rollback at Full Height	53 degrees	53 degrees	53 degrees	51 degrees	51 degrees	51 degrees
L Maximum Dump Angle, Full Height	47 degrees	47 degrees	47 degrees	42 degrees	42 degrees	42 degrees
Bucket Width	128 in. (3251 mm)	128 in. (3251 mm)	128 in. (3251 mm)	128 in. (3251 mm)	128 in. (3251 mm)	128 in. (3251 mm)
Breakout Force, SAE J732C	39,756 lb. (18 030 kg)	36,305 lb. (16 465 kg)	32,691 lb. (14 826 kg)	35,368 lb. (16 040 kg)	32,281 lb. (14 640 kg)	29,024 lb. (13 163 kg)
Tipping Load, Straight	49,024 lb. (22 233 kg)	48,082 lb. (21 806 kg)	47,099 lb. (21 360 kg)	38,817 lb. (17 604 kg)	38,105 lb. (17 281 kg)	37,425 lb. (16 973 kg)
Tipping Load, 40-Degree Full Turn, SAE	42,235 lb. (19 154 kg)	41,364 lb. (18 759 kg)	40,464 lb. (18 351 kg)	33,203 lb. (15 058 kg)	32,528 lb. (14 752 kg)	31,898 lb. (14 466 kg)
Reach, 45-Degree Dump, 7-ft. (2.13 m) Clearance	70.7 in. (1797 mm)	72.7 in. (1846 mm)	74.0 in. (1880 mm)	93.0 in. (2363 mm)	95.2 in. (2419 mm)	97.0 in. (2465 mm)
Loader Clearance Circle, Bucket In Carry						
Position	45 ft. 9 in. (13 938 mm)	46 ft. 0 in. (14 018 mm)	46 ft. 3 in. (14 104 mm)	47 ft. 6 in. (14 470 mm)	47 ft. 9 in. (14 561 mm)	48 ft. 1 in. (14 658 mm)
Operating Weight	65,319 lb. (29 623 kg)	65,784 lb. (29 834 kg)	66,086 lb. (29 971 kg)	66,159 lb. (30 004 kg)	66,624 lb. (30 215 kg)	66,926 lb. (30 352 kg)

Loader operating information is based on a machine with all standard equipment; waste handler complete protection package; 31.5 X 25 solid rubber tires; ROPS cab; differential lock front axle with standard rear axle; two-spool valve with two-lever control; heater and defroster; 175-lb. (79 kg) operator; and full fuel tank. This information is affected by tire size, ballast, and different attachments.

644J / 724J / 744J WASTE HANDLERS

Key: ● Standard equipment ▲ Optional equipment

*See your John Deere dealer for further information and for 824J guarding.

644J	724J	744J	Engine
●	●	●	Meets EPA and CARB emission non-road regulations
●	●	●	Antifreeze, -34°F (-37°C)
●	●	●	Coolant recovery tank
●	●	●	Fan guard
●	●	●	Muffler, under hood with large exhaust stack
●	●	●	Environmentally friendly engine oil drain
●	●	●	Engine oil cooler
●	●	●	Quick-release fuel filter and water separator
▲	▲	▲	Ether start aid (for cold starts)
▲	▲	▲	Engine air heater (for cold starts)
▲	▲	▲	Engine coolant heater, 1,000 watts, 110 volts
●	●	●	Heavy-duty trash-resistant cooling package
▲	▲	▲	Chrome exhaust stack
●	●	●	Airscreen group: Low-profile perforated hood-mounted air-inlet screen / Engine side shield inlet screens, perforated/corrugated / Engine air-intake precleaner / Engine rubber baffle
▲	▲	▲	Swing-out fan with heavy-duty rear grille
▲	▲	▲	Reversing fan, hydraulic, auto control with manual override

Power Train

●	●	●	Torque converter, powershift transmission, computer-controlled electronic soft shift, automatic shift and quick-shift features included - 3F/3R
●	●	●	Front axle with hydraulic locking front and conventional rear differentials
●	●	●	Wide heavy-duty front and rear axles
▲	▲	▲	Front and rear axles with hydraulic locking differentials
▲	●	●	Spin-control system

Hydraulic System

●	●	●	In-cab adjustable automatic bucket positioner
●	●	●	In-cab adjustable automatic boom height kickout control
●	●	●	In-cab adjustable automatic boom return-to-carry control
●	●	●	Reservoir sight gauge
●	●	●	Spin-on hydraulic filters, vertical mounting
●	●	●	Hydraulic lever lockout
●	●	●	Two-function hydraulic valve with two-lever fingertip control and adjustable wristrest
▲	▲	▲	Two-function hydraulic valve with joystick control
▲	▲	▲	Three-function hydraulic valve with joystick control and auxiliary lever for third function
▲	▲	▲	Three-function hydraulic valve with two-lever fingertip control, adjustable wristrest, and auxiliary lever for third function
▲	▲	▲	Four-function hydraulic valve, with dual joystick control
▲	▲	▲	Hydraulic conversion kits, two- to three-function valves
▲	▲	▲	Hydraulic conversion kits, three- to four-function valves

644J	724J	744J	Hydraulic System (continued)
●	●	●	Hydraulic system oil cooler (for continuous running attachments and extreme temperatures)
▲	▲	▲	Ride control, automatic type

Electrical

●	●	●	Solid-state electrical power distribution system
●	●	●	Batteries, high capacity (2), 12 volt with 1,400 CCA, 440-min. rated reserve each
●	●	●	Alternator, high capacity, 80 amps and 24 volts
●	●	●	Alternator trash cover
●	●	●	Lights (conform to SAE J99): High-intensity halogen driving with guards / Turn signals and flashers / Stop and taillights
●	●	●	Work lights, high-intensity halogen, front (2) and rear (2)
●	●	●	LED heavy-duty taillights
●	●	●	Horn, with push button in center of steering wheel (conforms to SAE J994, J1446)
●	●	●	Reverse warning alarm, self-adjusting (conforms to SAE J994, J1446)
●	●	●	Audible and visual warnings: Amber caution / Red stop / Analog gauges: Engine coolant temperature, transmission oil temperature, fuel level, hydraulic oil temperature, engine oil pressure / Digital instruments: Engine rpm, odometer, transmission gear indicator, speedometer, hour meter / Operator warning lights: Check engine, engine oil pressure, engine air filter restriction, battery voltage, transmission filter restriction, brake pressure, hydraulic oil filter, fasten seat belt, transmission fault, hydraulic oil temperature
●	●	●	Indicator lights: Park brake / Ride control / Turn signals and warning flashers / Coupler pin disconnect / Engine preheater / Secondary steering / Work lights
●	●	●	Radio-ready cab: Fused 24-volt radio electrical lead, and fused lead for optional Deere 5-amp and 10-amp voltage converters
▲	▲	▲	24-volt AM/FM stereo radio with cassette
▲	▲	▲	24-volt AM/FM stereo radio with CD
▲	▲	▲	Strobe light wired to master electrical disconnect switch

Operator's Station

●	●	●	Cab (conforms to SAE J1040C APR88): ROPS/FOPS / Heater/defroster / Multi-plane isolation mounted for noise/vibration reduction / Front and rear windshield washers and intermittent wipers / Tinted safety glass
●	●	●	Air conditioning
●	●	●	Seat belt, 3 in. (76 mm), with retractor
●	●	●	Seat, deluxe cloth covered with deep foam, high back, air suspension, adjustable for weight-height, fore-aft position, backrest tilt, and armrest angle
●	●	●	Cup holder, personal cooler holder, and storage space
▲	▲	▲	Sun visor for cab

644J	724J	744J	Operator's Station (continued)
●	●	●	Rubber floor mat
●	●	●	Steering wheel, textured with spinner knob
●	●	●	Tilt steering column
●	●	●	Rearview mirrors, outside (2) and inside (1) (conform to SAE J985)

Waste Handler Package

●	●	●	Waste handler guards: Articulation guards / Axle seal guards / Boom cylinder and hydraulic lines guard / Bucket cylinder hydraulic lines, zerk, and sensor guard / Drive-shaft guard / Extreme-duty front loader frame cover with handles / Extreme-duty transmission side guards / Lower boom and bucket grease-fitting guards / Rear loader frame cover
●	●	●	Cab floor-mounted lockable master electrical disconnect switch
●	●	●	Extreme-duty cab entry steps
▲	▲	▲	Extreme-duty hydraulic bottom guards (fuel tank, loader frame, engine frame)
▲	▲	▲	Bottom guards, bolt-on, front frame and transmission
●	●	●	Full-frontal cab window guard (high-visibility version not designed to SAE J1084)
●	●	●	Rear-access platforms with step and handhold
▲	▲	▲	Rear roof-mounted air-conditioner condenser with manually activated reversible electric fans

Loader Linkage

●	●	●	Loader boom service locking bar (conforms to SAE J38)
●	●	●	Z-bar loader linkage
▲	▲	▲	High-lift boom

Buckets and Attachments

▲	▲	▲	Full line of Deere pin-on buckets with selection of bolt-on cutting edges, JAGZ™ cutting edges, and teeth-segmented bolt-on cutting edges*
▲	▲	▲	Hydraulic control system for quick-coupler locking pins, includes all controls in cab, lines, and valves
▲	▲	▲	Loadrite™ weighing system*

Tires

▲	▲	▲	23.5 X 25
▲	▲	▲	31.5 X 25
▲	▲	▲	26.5 X 25
▲	▲	▲	26.5 X 25 X-MINE L5 Michelin Radial
▲	▲	▲	L-5 radial or bias ply
▲	▲	▲	Less wheels and tires
▲	▲	▲	Multi-piece rims

Other

●	●	●	Articulation locking bar (conforms to SAE J276)
●	●	●	Vandal protection, includes lockable engine enclosure, rear grille, and fuel fill
●	●	●	Counterweight, built-in
●	●	●	Drawbar, with locking pin
▲	▲	▲	Lift and tie-down hooks
▲	▲	▲	Fire extinguisher
▲	▲	▲	License-plate bracket
▲	▲	▲	Secondary steering



JOHN DEERE

DKAJPLDRWH Litho in U.S.A. (06-03)

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 70 020, using No. 2-D fuel at 35 API gravity. No derating is required up to 10,000-ft. (3050 m) altitude. Gross power is without cooling fan.

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on a unit with all standard equipment, waste handler protection package, high-lift boom, ROPS cab, full fuel tank, and 175-lb. (79 kg) operator; 644J and 724J units with 23.5 X 25 solid rubber tires; and 744J unit with 31.5 X 25 solid rubber tires.

