

344K

Engine		344K	
Manufacturer and Model		John Deere PowerTech™ 4045T with turbocharger	
Non-Road Emission Standard		EPA Interim Tier 4/EU Stage IIIB	
Cylinders		4	
Displacement		4.42 L (276 cu. in.)	
Net Rated Power at 2,400 rpm (ISO 9249)		72.3 kW (97 hp)	
Maximum Net Torque at 1,400 rpm (ISO 9249)		395.8 Nm (291 lb.-ft.)	
Lubrication		Pressure system with full-flow spin-on filter	
Cooling			
Fan		Sucker type, hydraulically driven, proportionally controlled	
Engine Coolant Rating		–37 deg. C (–34 deg. F)	
Powertrain			
Type		Hydrostatic (HST) with infinitely variable speed control over full range of operating speeds; 2 speed ranges; low-effort electric shift; joystick-mounted F-N-R; HST inching pedal, which allows infinitely reduced travel speeds while maintaining full engine rpm and hydraulic flow	
2 Travel Speeds in Forward and Reverse			
Gear 1		8 km/h (5.0 mph)	
Gear 2		30 km/h (18.6 mph)	
Axles		Rear center-pivot axle with 10-deg. rear axle oscillation and 10-deg. frame oscillation	
Rear Axle Oscillation Versus Front Axle		20 deg. total, stop to stop	
Differentials		Hydraulic 100% dif-lock front and conventional rear differential	
Steering		Hydraulic power steering (SAE J1511); 30-deg. articulation left and right with mechanical-actuated rear-wheel-steer emergency steering system	
Articulation Angle		60-deg. arc (30 deg. each direction)	
Final Drive		Heavy-duty planetary, mounted outboard	
Brakes (SAE J1473 and ISO 3450)			
Service Brakes		Hydraulically actuated, self-adjusting internal wet-disc brake and driveline drum brake	
Parking Brake		Automatically spring-applied, hydraulically released, internal wet disc	
Hydraulics			
Main Pump (loader and steering)		Constant-displacement gear pump	
Maximum Rated Flow at 6895 kPa (1,000 psi)		113.6 L/m (30 gpm)	
System Relief Pressure (loader and steering)		22 994 kPa (3,335 psi)	
Hydraulic Cycle Times			
Raise		5.3 sec.	
Dump		1.5 sec.	
Lower			
Float Down		4.0 sec.	
Power Down		4.0 sec.	
Total (with original pump)		10.8 sec.	
Turning Radius			
Measured to Outside Corner of Bucket		4.50 m (14 ft. 9 in.)	
Controls			
		Pilot-operated, pressure-compensating, 2-function valve with unloader; single-lever control and control-lever lockout feature; optional 3rd- and 4th-function valves	
Electrical			
Type		Electrical load center with blade-type multi-fused circuits	
Voltage		12 volt	
Battery Capacity		1,700 CCA	
Reserve Capacity		176 min.	
Alternator Rating		90 amp	
Lights		4 front standard / 2 rear optional	
Tires/Wheels			
Tires on Single-Piece Rims		<i>Tread Width</i>	<i>Width Over Tires</i>
17.5R25 SGL-D/L 2A Goodyear (optional)		1869 mm (73.6 in.)	2316 mm (91.2 in.)
17.5R25 XTLA L2 Michelin (optional)		1869 mm (73.6 in.)	2327 mm (91.6 in.)
17.5R25 XHA L3 Michelin (optional)		1869 mm (73.6 in.)	2316 mm (91.2 in.)
17.5R25 Bridgestone VUT L2 (optional)		1869 mm (73.6 in.)	2370 mm (93.3 in.)
			<i>Change In Vertical Height</i>
			0 mm (0 in.)
			– 20 mm (– 0.8 in.)
			– 15 mm (– 0.6 in.)
			0 mm (0 in.)
Serviceability			
Refill Capacities			
Cooling System (engine and radiator)		26.6 L (28.0 qt.)	
Differential and Planetary Axle			
Front		9.3 L (9.8 qt.)	
Rear		8.7 L (9.2 qt.)	
Engine Oil with Filter		13.0 L (13.7 qt.)	
Fuel Tank		160.3 L (42.3 gal.)	



Serviceability *(continued)* 344K

Refill Capacities *(continued)*

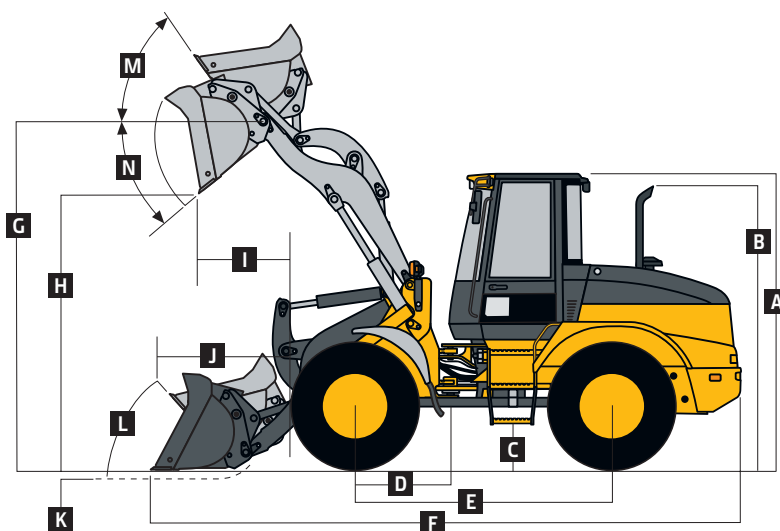
Hydraulic/Hydrostatic Reservoir with Filter	100.1 L (26.4 gal.)
Hydrostatic Motor Gearbox	2.9 L (3.0 qt.)
Front/Rear Axle Planetary Hubs (each)	0.8 L (27 oz.)

Operating Weights

With standard equipment; 17.5R25EM, GP-2B 6S L2 Goodyear tires; standard counterweight; cab; 79-kg (175 lb.) operator; and full fuel tank

With Quick-Coupler and 1.3-m ³ (1.75 cu. yd.) General-Purpose Bucket with Bolt-On Edge	8501 kg (18,741 lb.)
With Standard Z-Bar and Pin-On General-Purpose Bucket with Bolt-On Edge	8350 kg (18,408 lb.)
Loader with Quick-Coupler and Fork	8370 kg (18,452 lb.)
Optional Bucket, 1.3 m ³ (1.75 cu. yd.)	635 kg (1,400 lb.)

Machine Dimensions



Dimensions with Bucket

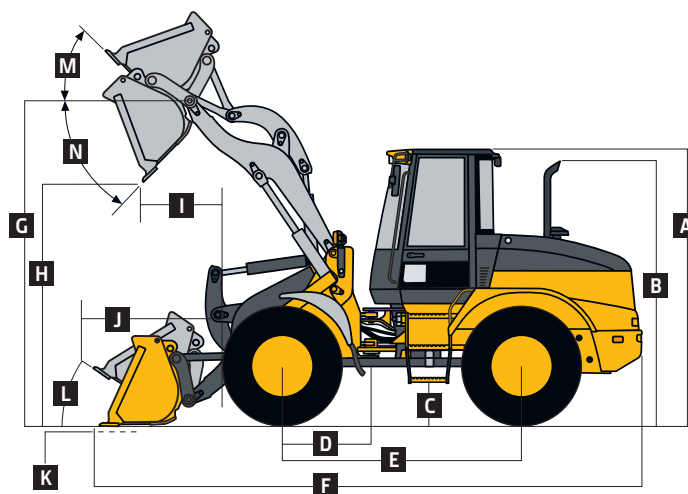
1.5-m³ (2.0 cu. yd.) general-purpose with bolt-on edge

A Height to Top of Cab	3.02 m (9 ft. 11 in.)
B Height to Top of Exhaust	2.90 m (9 ft. 6 in.)
C Ground Clearance	386 mm (15.2 in.)
D Length from Centerline to Front Axle	1.15 m (3 ft. 9 in.)
E Wheelbase	2.60 m (8 ft. 6 in.)
F Overall Length, Bucket on Ground	6.13 m (20 ft. 2 in.)
G Height to Hinge Pin, Fully Raised	3.66 m (12 ft. 0 in.)
H Dump Clearance, 42-deg. Full Height	2.85 m (9 ft. 4 in.)
I Reach, 42-deg. Dump, Full Height	0.83 m (32.6 in.)
J Reach, 42-deg. Dump, 2.13-m (7 ft.) Clearance	1.50 m (4 ft. 11 in.)
K Maximum Digging Depth	53 mm (2.1 in.)
L Maximum Rollback at Ground Level	45 deg.
M Maximum Rollback, Boom Fully Raised	63 deg.
N Maximum Bucket Dump Angle, Fully Raised	42 deg.
Loader Clearance Circle, Bucket Carry Position	4.51 m (14 ft. 10 in.)

Specifications with Bucket

Capacity, Heaped	1.5 m ³ (2.0 cu. yd.)
Capacity, Struck	1.2 m ³ (1.6 cu. yd.)
Bucket Weight with Bolt-On Cutting Edge	665 kg (1,466 lb.)
Bucket Width	2.40 m (7 ft. 11 in.)
Breakout Force	7852 kg (17,310 lb.)
Tipping Load, Straight	6200 kg (13,668 lb.)
Tipping Load, 30-deg. Full Turn	5680 kg (12,522 lb.)
Rated Operating Load, 50% of Full-Turn Tipping Load (conforms to ISO 14397-1)*	2840 kg (6,261 lb.)
Operating Weight	8510 kg (18,761 lb.)

*Rated operating capacity based on Deere attachments only.



Dimensions with Bucket

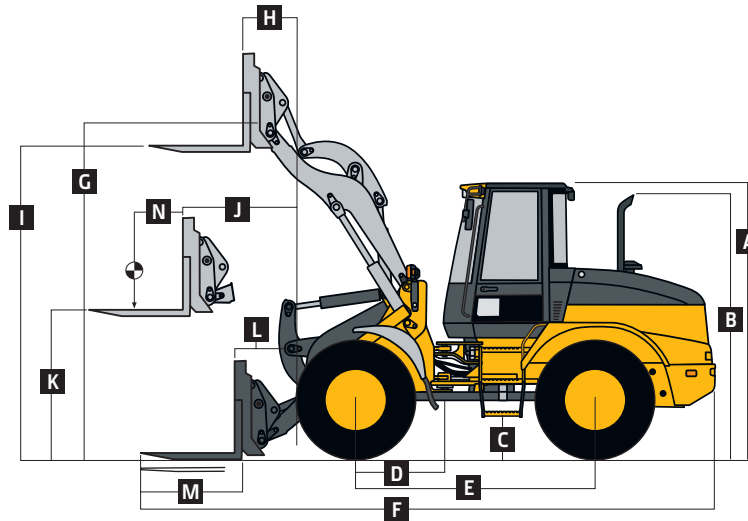
1.5-m³ (2.0 cu. yd.) general-purpose with bolt-on edge

A	Height to Top of Cab	3.02 m (9 ft. 11 in.)
B	Height to Top of Exhaust	2.90 m (9 ft. 6 in.)
C	Ground Clearance	386 mm (15.2 in.)
D	Length from Centerline to Front Axle	1.15 m (3 ft. 9 in.)
E	Wheelbase	2.60 m (8 ft. 6 in.)
F	Overall Length, Bucket on Ground	6.39 m (21 ft. 0 in.)
G	Height to Hinge Pin, Fully Raised	3.66 m (12 ft. 0 in.)
H	Dump Clearance, 42 deg., Full Height	2.77 m (9 ft. 1 in.)
I	Reach, 42-deg. Dump, Full Height	0.91 m (3 ft. 0 in.)
J	Reach, 42-deg. Dump, 2.13-m (7 ft. 0 in.) Clearance	1.60 m (5 ft. 3 in.)
K	Maximum Digging Depth	51 mm (2.0 in.)
L	Maximum Rollback at Ground Level	45 deg.
M	Maximum Rollback, Boom Fully Raised	63 deg.
N	Maximum Bucket Dump Angle, Fully Raised	42 deg.
	Loader Clearance Circle, Bucket Carry Position	9.07 m (29 ft. 9 in.)

Specifications with Bucket

	Capacity, Heaped	1.5 m ³ (2.0 cu. yd.)
	Capacity, Struck	1.2 m ³ (1.6 cu. yd.)
	Bucket Weight with Bolt-On Cutting Edge	665 kg (1,466 lb.)
	Bucket Width	2.40 m (7 ft. 11 in.)
	Breakout Force	7342 kg (16,186 lb.)
	Tipping Load, Straight	5745 kg (12,665 lb.)
	Tipping Load, 30-deg. Full Turn	5260 kg (11,596 lb.)
	Rated Operating Load, 50% Full-Turn Tipping Load (conforms to ISO 14397-1)*	2630 kg (5,798 lb.)
	Operating Weight	8510 kg (18,761 lb.)

*Rated operating capacity based on Deere attachments only.



Dimensions with Forks 1.20-m (47.2 in.) tine length

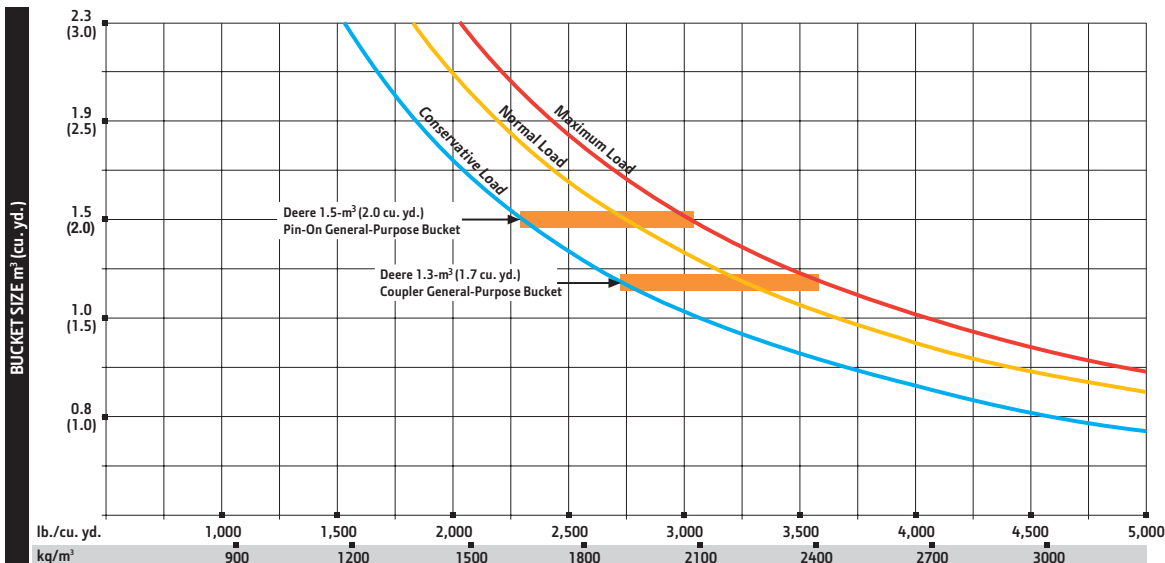
A	Height to Top of Cab	3.02 m (9 ft. 11 in.)
B	Height to Top of Exhaust	2.90 m (9 ft. 6 in.)
C	Ground Clearance	386 mm (15.2 in.)
D	Length from Centerline to Front Axle	1.15 m (3 ft. 9 in.)
E	Wheelbase	2.60 m (8 ft. 6 in.)
F	Overall Length, Forks on Ground	6.77 m (22 ft. 3 in.)
G	Height to Hinge Pin, Fully Raised	3.66 m (12 ft. 0 in.)
H	Reach, Fully Raised	0.68 m (26.7 in.)
I	Fork Height, Fully Raised	3.50 m (11 ft. 6 in.)
J	Maximum Reach, Fork Level	1.50 m (4 ft. 11 in.)
K	Fork Height, Maximum Reach	1.71 m (5 ft. 8 in.)
L	Reach, Ground Level	0.81 m (32 in.)
M	Tine Length	1.20 m (47.2 in.)
N	Load Position, 50% Tine Length	500 mm (19.7 in.)

Specifications with Forks

Tipping Load, Straight	4400 kg (9,700 lb.)
Tipping Load, 30-deg. Turn	4030 kg (8,884 lb.)
Rated Operating Load, Rough Terrain, 60% Full-Turn	2418 kg (5,330 lb.)
Tipping Load (conforms to EN474-3)*	
Rated Operating Load, Firm and Level Ground, 80% Full-Turn	3224 kg (7,107 lb.)
Turn Tipping Load (conforms to EN474-3)*	
Operating Weight	8370 kg (18,453 lb.)

*Rated operating capacity based on Deere attachments only.

Bucket Selection Guide*



LOOSE MATERIALS	kg/m³	lb./cu. yd.
Chips, pulpwood	288	486
Cinders (coal, ashes, clinkers)	673	1,134
Clay and gravel, dry	1602	2,700
Clay, compact, solid	1746	2,943
Clay, dry in lump loose	1009	1,701
Clay, excavated in water	1282	2,160
Coal, anthracite, broken, loose	865	1,458
Coal, bituminous, moderately wet	801	1,350
Earth, common loam, dry	1218	2,052
Earth, mud, packed	1843	3,105
Granite, broken	1538	2,592
Gypsum	2275	3,834
Limestone, coarse, sized	1570	2,646
Limestone, mixed sizes	1682	2,835
Limestone, pulverized or crushed	1362	2,295
Sand, damp	2083	3,510
Sand, dry	1762	2,970
Sand, voids, full of water	2083	3,510
Sandstone, quarried	1314	2,214
Shale, broken crushed	1362	2,295
Slag, furnace granulated	1955	3,294
Stone or gravel, 37.5 to 87.5-mm (1.5 to 3.5") size	1442	2,430
Stone or gravel, 18.75-mm (3/4") size	1602	2,700

* 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 uneven surfaces. The "maximum load" condition on this guide is sometimes utilized when operating on firm ground and level surfaces.