



JOHN DEERE

CONSTRUCTION EQUIPMENT DIVISION

DOZER



MODEL NO.

1050C



1050C

DOZER

SPECIFICATIONS



Engine	1050C
Type	Liebherr D 9406 Ti-E intercooled and turbocharged diesel
Engine power per ISO 9249	324 SAE net hp (242 kW) @ 1,800 rpm
Cylinders (wet sleeve)	V6
Displacement	793 cu. in. (13 L)
Fuel consumption, typical	7.7 to 13.2 gal./hr. (29 to 50 L/h)
Maximum net torque	1,129 lb.-ft. (1530 Nm) @ 1,200 rpm
Lubrication	pressure system with full-flow spin-on filter and integrated oil-to-water cooler
Air cleaner	dual stage dry type with safety element and aspirated precleaner, with dash-mounted restriction indicator
Electrical system	24 volt with 55-amp alternator
Cooling fan	blower-type, hydrostatically driven
Cold-starting aid	flame-glow intake air heater

Transmission

Dual-path, electronic-controlled, closed-loop hydrostatic drive; load-sensing feature automatically adjusts speed and power to match changing load conditions; each individual track is powered by a variable displacement pump and motor combination; single lever controls speed and direction; ground speed (forward and reverse) infinite to 6.8 mph (11 km/h); decelerator pedal permits speed reduction from 6.8 mph (11 km/h) to holding; three working ranges; maximum speed-range control buttons located in single-lever handle; maximum speed in range is selected by F-N-R lever position

Travel speeds (infinitely variable)

Forward and reverse speed ranges

1st speed range	0 to 2.5 mph (0 to 4.0 km/h)
2nd speed range	0 to 4.0 mph (0 to 6.5 km/h)
3rd speed range	0 to 6.8 mph (0 to 11.0 km/h)

Final Drives

Heavy-duty, combination spur gear with double-reduction planetary final drives mounted independent of track frame and dozer push frame for isolation from shock loads; the hydraulic drive motors are mounted to the mainframe; final drives are double sealed with electronic seal-integrity indicator

Steering

Fully modified, infinitely variable, single-lever steering allows for full power turns and countersteering; infinitely variable track speeds provide unlimited maneuverability and optimum control; hydrostatic steering eliminates steering clutches and brakes

Brakes

Hydrostatic (dynamic) braking stops the machine whenever the direction-control lever is moved to neutral or whenever the combined decelerator/brake pedal is fully depressed

Automatic Park Brake

Exclusive park brake feature engages wet, multiple-disc brakes whenever the engine stops, whenever the combined decelerator/brake pedal is fully depressed, whenever the park lock lever is placed in the start position, whenever the park brake button is pushed on the dash, or whenever the F-N-R control is in the neutral position for more than seven seconds; machine cannot be driven with brake applied, reducing wear out or need for adjustment

Hydraulic System

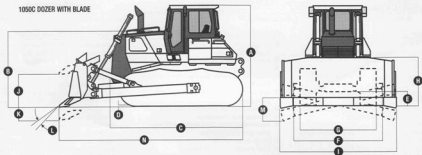
System type	load sensing
Pressure, system relief	2,900 psi (20 000 kPa)
Pump type	variable-displacement piston pump with load-sensing proportional pump flow control
Flow	89 gpm (336 L/min) @ 1,900 rpm
Filter, return oil	20 micron and 5 micron with magnetic particle attractors
Control	single joystick lever
Cylinders	heat-treated, chrome-plated, polished cylinder rods with hardened steel pivot pins, replaceable bushings, and bolted rod guides
Hydraulic/transmission cooling	oil-to-air heat exchanger with hydrostatically driven cooling fan

Capacities (U.S.)

Fuel tank with lockable cap (12-hr. typical usage)	161 gal. (610 L)
Cooling system with recovery tank	18 gal. (68 L)
Engine oil with spin-on filter	6.3 gal. (24 L)
Final drive (each)	5.5 gal. (21 L)
Hydraulic/hydrostatic reservoir with filter	55 gal. (210 L)
Splitter drive	6.3 qt. (6 L)

All power train and hydraulic systems allow for up to 45-degree maximum operation.

1050C DOZER WITH BLADE



Dimensions

1050C

A	Height over cab (including grousers)	143 in. (3640 mm)
B	Height over engine cover	107 in. (2725 mm)
C	Overall length (without blade)	192 in. (4865 mm)
D	Height of grousers	3.3 in. (84 mm)
E	Ground clearance	25 in. (625 mm)
F	Total width over blade-mounting trunnions	124 in. (3145 mm)
G	Overall width	
	With 22-in. (560 mm) extreme-duty single-bar grouser shoes	108 in. (2740 mm)
	With 24-in. (610 mm) extreme-duty single-bar grouser shoes	110 in. (2790 mm)
	With 28-in. (711 mm) extreme-duty single-bar grouser shoes	114 in. (2891 mm)

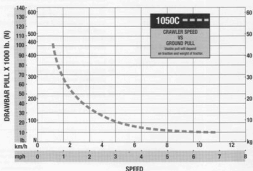
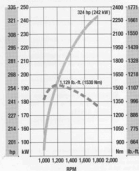
Blades

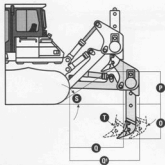
	Blade weight (including push beams, trunnion mounts, cupped end bits, and tilt cylinder)	13,400 lb. (6080 kg)
	Blade capacity	12.5 cu. yd. (9.54 m ³)
H	Height of blade	65 in. (1650 mm)
I	Width of blade	165 in. (4200 mm)
J	Lifting height	55 in. (1400 mm)
K	Blade digging depth	22 in. (570 mm)
L	Maximum blade pitch adjustment	10 degrees
M	Maximum tilt	39 in. (1000 mm)
N	Overall length	252 in. (6415 mm)

semi-U dozer blade with power tilt and mechanical pitch adjustment

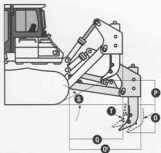
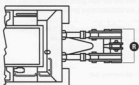
U blade with power tilt and mechanical pitch adjustment

	15,123 lb. (6880 kg)
	15.3 cu. yd. (11.7 m ³)
	65 in. (1650 mm)
	170 in. (4325 mm)
	55 in. (1400 mm)
	22 in. (570 mm)
	10 degrees
	40 in. (1025 mm)
	272 in. (6915 mm)

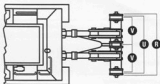




1050C DOZER WITH SINGLE-SHANK PARALLELOGRAM RIPPER



1050C DOZER WITH MULTI-SHANK (3) PARALLELOGRAM RIPPER



Parallelogram Ripper with Hydraulic Pitch Adjustment and ESCO Ripper Tips

1050C

single-shank*

multi-shank (3)

Weight	9,390 lb. (4260 kg)	11,800 lb. (5352 kg)
Q Maximum penetration	47 in. (1200 mm)	34 in. (855 mm)
P Maximum clearance under tip	45 in. (1150 mm)	36 in. (920 mm)
Q Overall length, raised position	74 in. (1880 mm)	74 in. (1880 mm)
Q [†] Overall length, lowered position	94 in. (2390 mm)	94 in. (2390 mm)
R Overall beam width	52 in. (1330 mm)	96 in. (2435 mm)
S Slope angle (full raise)	33 degrees	21 or 29 degrees
T Shank adjustment range	30 degrees	30 degrees
U Ripping width	90 in. (2280 mm)	90 in. (2280 mm)
V Distance between shanks	43 in. (1100 mm)	43 in. (1100 mm)

*With hydraulic pin puller.

Undercarriage**1050C**

Seven-roller track frame with front and rear track guides and sprocket guard, John Deere Dura-Trax™ features deep-heat-treated, sealed, and lubricated track links and through-hardened, sealed, and lubricated rollers for maximum wear resistance; extreme-duty shoes for severe applications

Sprocket	segmented
Chain	sealed and lubricated
Track shoes, each side	44
Ground contact area	
22-in. (560 mm) grouser width (extreme duty single bar)	5,510 sq. in. (35 550 cm ²)
24-in. (610 mm) grouser width (extreme duty single bar)	6,000 sq. in. (38 700 cm ²)
28-in. (711 mm) grouser width (extreme duty single bar)	6,990 sq. in. (45 100 cm ²)
Ground clearance, minimum with single-bar grouser (excluding grouser height)	25 in. (625 mm)
Length of track on ground	125 in. (3174 mm)
Track gauge, standard	86 in. (2180 mm)
Oscillation at front idler	13 in. (330 mm)
Track rollers, each side	7
Carrier rollers, each side	2
Track pitch	8.5 in. (215 mm)

Ground Pressures

	<i>semi-U dozer blade with power tilt and mechanical pitch adjustment</i>	<i>U blade with power tilt and mechanical pitch adjustment</i>
With standard equipment, full fuel tank, and 175-lb. (79 kg) operator		
With 22-in. (560 mm) extreme-duty single-bar grouser shoes	13.4 psi (93 kPa)	13.7 psi (95 kPa)
With 24-in. (610 mm) extreme-duty single-bar grouser shoes	12.4 psi (86 kPa)	12.7 psi (88 kPa)
With 28-in. (711 mm) extreme-duty single-bar grouser shoes	10.8 psi (74 kPa)	11.0 psi (76 kPa)

SAE Operating Weights

	<i>semi-U dozer blade with power tilt and mechanical pitch adjustment</i>	<i>U blade with power tilt and mechanical pitch adjustment</i>	<i>tractor shipping weight without blade or attachments</i>
With standard equipment, full fuel tank, and 175-lb. (79 kg) operator			
With 22-in. (560 mm) extreme-duty single-bar grouser shoes	73,985 lb. (33 560 kg)	75,705 lb. (34 340 kg)	60,580 lb. (27 480 kg)
With 24-in. (610 mm) extreme-duty single-bar grouser shoes	74,515 lb. (33 800 kg)	76,235 lb. (34 580 kg)	62,110 lb. (27 720 kg)
With 28-in. (711 mm) extreme-duty single-bar grouser shoes	75,525 lb. (34 260 kg)	77,245 lb. (35 040 kg)	62,120 lb. (28 180 kg)

Optional or Special Equipment

Add (+) or deduct (-) lb. (kg) as indicated to base weight for units with

Additional front lights (2)	29 lb. (13 kg)
Auxiliary hydraulics for rear attachment	326 lb. (148 kg)
Full-length rock guards	617 lb. (280 kg)
Heavy-duty cutting edges*	176 lb. (80 kg)
Pin puller for single-shank ripper	106 lb. (48 kg)
Power-pitch push arms with dual-tilt cylinders with hydraulics	650 lb. (295 kg)
Rear counterweight	9,261 lb. (4201 kg)
Rigid heavy-duty drawbar	1,480 lb. (662 kg)
Rippers	see ripper data, page 4
ROPS canopy	- 850 lb. (- 386 kg)

*Dealer installed.

Additional Equipment

Key: ● Standard equipment ▲ Optional or special equipment

* See your John Deere dealer for further information.

Engine

- 324-hp (242 kW) Liebherr D 9406 TI-E direct-injection, intercooled, turbocharged V6-cylinder diesel (meets EPA off-road emission certification)
- Blower-type cooling fan with hydrostatic drive
- Deep engine oil pan allows up to 45-degree operation
- Dual-element dry-type aspirated air cleaner with automatic dust ejector
- Electric fuel pump
- Enclosed secondary fan guard (conforms to SAE J1308)
- Engine coolant to -34°F (-32°C)
- Fuel system with prefilter, water separator, and microfilters
- Heavy-duty five-lb-per-in. radiator
- Hydraulic engine retarder
- Intake air heater cold-starting aid
- Under-hood muffler with vertical exhaust stack
- Oil-to-water engine oil cooler
- Spin-on full-flow oil filter, with anti-drain back valve
- Starter motor, 8.85 hp (6.6 kW)
- Turbocharger provides spark arresting
- ▲ Radiator sand screen

Powertrain

- Dual-path hydrostatic transmission: Dynamic braking / Electronically controlled with power management and AutoTrac / Infinites speed control / Initial F-N-R direction control / Single-lever steer with full power turn and counterrotation
- Automatic spring-applied, hydraulic released parking brake
- Hydraulic/transmission oil-to-air cooler, independent of radiator with hydrostatically driven cooling fan
- Park brake button: Neutralizes transmission and activates parking brake
- Three-speed transmission maximum speed control with dash-mounted indicator light
- Transmission system diagnostic test ports

Electrical

- 24-volt system
- Alternator, 55 amp
- Batteries (2), heavy-duty cold start, 1,000 CCA
- Positive battery terminal covers
- Electrically activated battery master disconnect
- Breaker protected circuits
- Working lights, cab mounted, front (4) and rear (2)
- ▲ Additional grille or cylinder-mounted front lights (2)
- ▲ Additional rear lights (2)

Hydraulic System

- 89-gpm (336 L/min.) load-sensing variable-displacement pump
- Blade quick-drop valve
- Circuit relief valve protection
- Hydraulic functions disabled with park lock lever
- Hydraulic/hydrostatic oil reservoir with sight glass
- Hydraulic system diagnostic test port
- "O"-ring seal connectors
- Replaceable filter, 205 micron with magnetic particle attractors
- Single-lever control
- Tank shutoff valves for service
- Two-function single-lever dozer-control valve
- ▲ Hydraulic controls for dual tilt and power pitch
- ▲ Hydraulic controls for rear attachments

Undercarriage

- 98-in. (2180 mm) gauge standard track frame
- Center track guides
- Front idler and sprocket chain guides
- Hydraulic track adjusters with dirt cover
- Oscillating track frames
- Integral track frame covers
- Isolation-mounted pivot shafts and equalizer bar
- Maintenance-free track components, sealed and lubricated rollers, idlers, and sprockets
- Sealed and lubricated track chain
- Segmented belt-on sprockets
- 22-in. (560 mm) extreme-duty single-bar grouser shoes
- ▲ 24-in. (610 mm) extreme-duty single-bar grouser shoes
- ▲ 28-in. (711 mm) extreme-duty single-bar grouser shoes
- ▲ Full-length belt-on rock guards

Operator's Station

- Modular cab with integrated ROPS/FPDS (conforms to SAE J1040, ISO 3471/3449):
Hydraulically tilted / Isolation mounted / Air conditioner/heater/defroster/pressurizer with filtered fresh air intake and three-speed blower / Ashtray / Dome light / Fabric seat cushions / Lockable doors (open and closed position) / Pull-down sunshade / Radio-installation provision / Rearview mirror / Sliding left-hand window / Tinted glass / Windshield wipers, front and rear, with washers
- ▲ Modular ROPS/FPDS canopy, isolation mounted, vinyl seat cushions (conforms to SAE J1040, ISO 3471/3449)
- Left and right access
- Built-in operator's manual storage compartment and operator's manual
- Rubber floor mat
- Deluxe mechanical suspension seat: Adjustable armrests, backrest, height/weight, and fore-aft / Seat cushion tilt

Operator's Station (continued)

- ▲ Deluxe air suspension power-adjustable seat (cab only): Adjustable armrests, backrest, height/weight, and fore-aft / Fabric seat cushions / Seat cushion tilt
- Seat belt, 2-in. (50 mm), retractable (conforms to SAE J306)
- ▲ Seat belt, 3-in. (76 mm), retractable with CRS (conforms to SAE J306)*
- 15-degree seat angle
- Electronic monitor system with audible and visual warnings: Engine air filter restriction / Final drive seal integrity / Hydraulic/hydrostatic filter restriction / Hydrostatic transmission pressure / Low alternator voltage / Park brake
- Gauges, electric, illuminated: Engine coolant temperature / Engine oil pressure / Fuel / Hourmeter
- Horn, electric
- Key start switch with electric fuel shutoff
- 24-volt power port
- Lever-controlled throttle
- Slip-resistant steps and ergonomically located handholds
- ▲ Radio AM/FM*

Attachments

- ▲ 165-in. (4191 mm) semi-U blade, 12.5-cu. yd. (9.5 m³), with standard cutting edges
- ▲ 170-in. (4318 mm) U-blade, 15.3-cu. yd. (11.7 m³), with standard cutting edges
- ▲ 188-in. (5030 mm) mechanical-angle blade, 8.2-cu. yd. (6.3 m³), with standard cutting edges*
- ▲ Heavy-duty cutting edges*
- ▲ Push beam for semi-U or U-blade with hydraulic tilt and manual pitch adjustment
- ▲ Push beam for semi-U or U-blade with two tilt cylinders for dual tilt and power pitch
- ▲ Push plates, blade liners, and end bits*
- ▲ Single-shank parallelogram ripper
- ▲ Multi-shank (3) parallelogram ripper
- ▲ Hydraulic pin puller for single-shank ripper
- ▲ Rear counterweight, 9,240 lb. (4200 kg), with drawbar (cannot be used with rippers)
- ▲ Rigid heavy-duty drawbar (cannot be used with rear counterweight or rippers)

Overall Volume

- 161-gal. (610 L) fuel tank with wide-mouth filler cap
- Hinged reinforced radiator guard
- Lifting lugs
- Lockable vandal protection: Battery compartment / Engine access doors / Fuel tank / Hydraulic and transmission access door / Instrument panel (canopy only) / Storage compartments (2)
- One-piece unitized mainframe
- Rear retrieval hitch
- Reinforced engine bottom guards
- Reverse warning alarm (conforms to SAE J994, J1446)
- Tool kit with brake-release towing kit



Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and 208 CFM79, using test 3.0-hp at 32-AN gravity. No derating is required up to 10,000-ft. (3050-m) altitude.

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 modular ROPS/cab with conditions: 165-in. (4191 mm) semi-U blade with standard cutting-edges, full fuel tank, 175-ft. (53 m) operator, and standard equipment.

