

3 2 4 S A E N E T H O R S E P O W E R



**JOHN DEERE**

**C**

**DOZER**

**1050C WASTE HANDLER**



# Purpose built.

When Deere engineers set out to design the ultimate waste handler, they couldn't have picked a better platform. With its full-featured hydrostatic drivetrain, John Deere's 44-ton, 324-horsepower 1050C Dozer delivers automatic power management, infinite ground speeds, power turns, and all kinds of hydrostatically driven productivity advantages. But power and nimble performance are just the

beginning of the 1050C Waste Handler's story. To make it the best possible landfill dozer, Deere engineers went right to the source — solid waste managers — to think through the solutions a purpose-built waste handler can provide. To learn what we learned, turn the page.

The rugged and reliable 1050C is one powerful performer. Designed and built with extensive input from solid-waste professionals like you.

With its full-featured hydrostatic drivetrain, this agile 44-ton waste handler delivers production-boosting advantages you don't get with other crawlers in its class.

Numerous cooling system enhancements help beat the heat, for maximum uptime and productivity.



## 1050C

324 SAE net hp

27.7- or 32-cu.-yd. blade

80,295-lb. operating weight



Three-millimeter perforations in the hood and side shields act as a “first filter,” preventing entry of most airborne debris.

Variable-speed fans run at speeds appropriate for operating conditions to preserve power and precious fuel.

1. Five-fin-per-inch radiator core resists plugging. Inline core tubes make clean-out easier.
2. Hinged front grille allows easy access for maintenance and cleaning.
3. Corrugated screens and hydraulically driven fans take the heat away from the transmission oil and engine coolant. Reversing fans engage automatically every 30 minutes to blow away refuse and help prevent plugging. Fans can also be operated manually from the seat as needed.







# Increases your uptime while keeping its cool.

---

“If you can’t take the heat, stay out of the landfill.” We heard that loud and clear. So go ahead and put it through

its paces — this is one waste handler that’s got what it takes to keep its cool in a hostile world.

---



# Relentless.

You won't have operators standing by with the 1050C. We sweat the details to make this crawler's bulletproof design waste proof as well.

If something's susceptible to damage, we've sealed, moved, re-routed, or re-engineered it — all in the name of uptime.





Heavy-duty light package helps illuminate the way. Lights are guarded to minimize damage.

Cab waste barrier prevents refuse from accumulating in the powertrain.

Air-conditioner condenser is mounted behind the cab for extra protection at no extra cost.

Comprehensive hose guard system and internal routing keep hydraulic hoses out of danger.

Tightly sealed engine compartment reduces air velocity and prevents vacuuming of debris.

Turbocharger heat shield reduces fire risk.

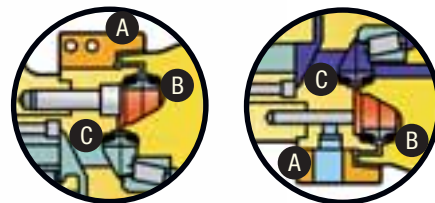
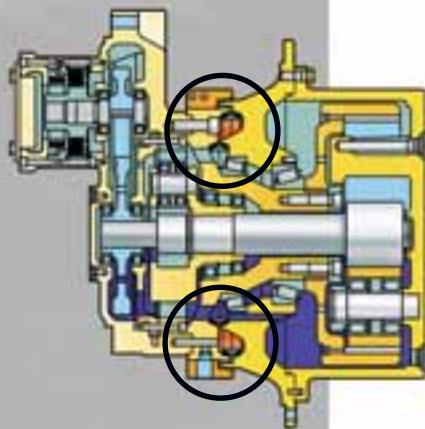
1. Available front and/or rear striker bars shed material from the tracks.
2. Fuel tank guard and heavy-duty hinged bottom guards minimize damage, especially from C&D materials. Heavy-duty reinforcement bars protect the engine side shields and radiator.



## Exclusive Final Drive Protection

You know how expensive final drive repairs can be. Only the 1050C Waste Handler provides this level of final drive protection to keep you up and running.

Three-step protection forms a stepped labyrinth to protect the final drives. Bolt-on seal guards provide the first layer of protection. If debris gets past this point, it encounters an oil-filled double seal that stands guard outside the final drive. Should debris penetrate the first oil-filled inner seal, the oil escapes, setting off a visual warning in the cab, alerting the operator to shut down the machine. The second seal maintains oil in the final drives. It's an early warning system that can help avoid unscheduled downtime and expense.



A. Final drive seal guard B. Outer seal C. Inner seal

All daily engine service checks are accomplished on the right side. A conveniently located periodic maintenance chart helps ensure that nothing is overlooked.

Deere Customer Personal Service (CPS) brings you access to online parts orders and a wealth of technical information. It's just another way your John Deere dealer can help keep your operating costs low.

1. Replaceable half-shell bearings within the dozer push beams provide longer component life.
2. Convenient test ports allow quick hydrostatic-drive diagnostics.
3. No need to disconnect cooling system or hydraulic hoses when you want to tilt the cab. A built-in jack provides quick and easy access to drivetrain components.
4. Turbocharged V-6 diesel delivers 324 hp at a slow 1,800 rpm for enhanced longevity and optimum fuel economy. Wet-type cylinder liners dissipate heat for reduced ring wear and oil breakdown.
5. Sight gauges provide quick daily checks of hydraulic/transmission and final-drive fluids. Monitor signals an alert should these levels drop.
6. The 1050C's DuraTrax™ traditional oval undercarriage has only one wear-causing forward-travel flex point. Compared to the three flex points found on elevated sprocket undercarriages, which do you think will last longer?
7. Bolt-on rod guides are easy to remove should cylinder repair ever become necessary.





# Big dozer, minimal maintenance.



Your maintenance crew won't have to crawl all over this crawler to maintain it. Like all Deere equipment, daily and periodic service points

are conveniently grouped, with many behind hinged side shields that open wide, simplifying fluid and filter checks for increased uptime.

# Major production.



This purpose-built waste handler has everything it needs for maximum uptime and minimum maintenance, plus numerous production-boosting advantages.

The 1050C's hydrostatic-drive system goes beyond the limits of other dozers, delivering infinite speed control, power management, and full power turns. With their conventional torque

converter transmission and clutch/brake or differential steering system, other dozers just can't match the 1050C's operating ease.

Hydrostatic drive isn't the only thing that enables the 1050C to exceed the others. Its traditional oval undercarriage design also incorporates several features that help it deliver long life and a smooth, productive ride.





Power management system takes the guess and work out of efficient operation. Just set the maximum desired ground speed and the crawler does the rest. As loads change, the drivetrain responds, automatically powering up or down to maintain peak engine rpm and efficiency.

Infinitely variable track control lets you speed up or slow power to each track — for smooth, full power turns of any radius. Unlike dozers with differential steering, tight turns are possible at any travel speed.

Maintenance-free oscillating track frames utilize a unique cushioned pivot shaft that absorbs shock loads for enhanced comfort.



1. Electronic monitor keeps a vigilant watch on vital machine functions.
2. Spacious and quiet walk-through air-conditioned cab is a standard feature that provides virtually unobstructed all-around visibility and all-day comfort.
3. Pilot-operated single lever gives intuitive, low-effort control of steering, forward/reverse travel, and ground speed. A handle-mounted switch selects the speed range. One-hundred percent of available power is always applied, regardless of the selected range, for top productivity all the time.
4. Load-sensing hydraulic system delivers low-effort metering to the pilot-operated blade control.



# Specifications

## Engine

### 1050C Waste Handler

---

Type	Liebherr D 9406 TI-E A3 intercooled and turbocharged diesel; meets EPA and CARB emission non-road regulations	
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, aspirated precleaner, and restriction indicator light	
Electrical system	24 volt with 80-amp alternator	
Cooling system	5-fin-per-in. radiator with auto-reversing thermostatically controlled hydrostatic blower fan	
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 switch located in single-lever handle; maximum speed in range is selected by F-N-R lever position

Travel speeds (infinitely variable)	Forward	Reverse
1st speed range	0 to 2.5 mph (0 to 4.0 km/h)	0 to 3.0 mph (0 to 4.8 km/h)
2nd speed range	0 to 4.0 mph (0 to 6.5 km/h)	0 to 4.8 mph (0 to 7.7 km/h)
3rd speed range	0 to 6.8 mph (0 to 11.0 km/h)	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 and final drive seal guards

## Steering

Fully modulated, infinitely variable, single-lever steering allows for full power turns and counterrotation; 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, whenever the F-N-R control is in the neutral position for more than seven seconds, or whenever machine motion is sensed with F-N-R in neutral position; machine cannot be driven with brake applied, reducing wear out or need for adjustment



**Hydraulic System****1050C Waste Handler**

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 fan . . . . .	remote oil-to-air heat exchanger with auto-reversing thermostatically controlled hydrostatic 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.

**Undercarriage**

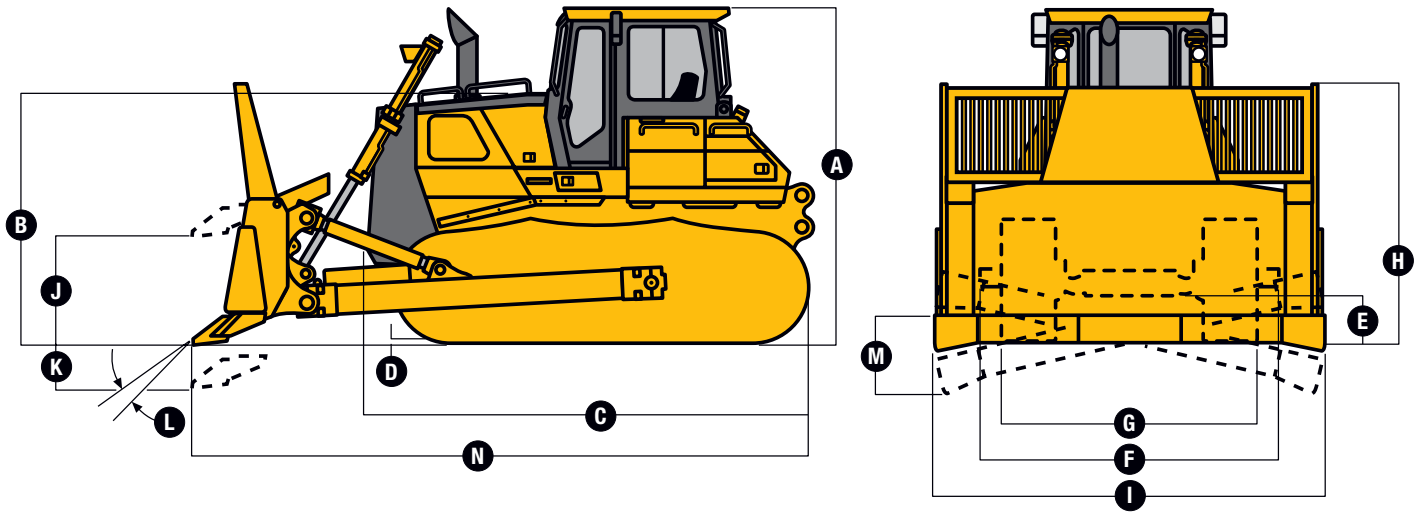
John Deere Dura-Trax™ deep heat-treated track links and through-hardened rollers for maximum wear resistance; front and rear track guides and sprocket guards; extreme-service single-bar grouser shoes with trapezoidal holes	
Sprocket . . . . .	segmented with recesses
Chain . . . . .	sealed and lubricated
Track shoes, each side . . . . .	44
Ground contact area	
24-in. (610 mm) shoes . . . . .	6,000 sq. in. (38 700 cm <sup>2</sup> )
26-in. (660 mm) shoes . . . . .	6,495 sq. in. (41 900 cm <sup>2</sup> )
28-in. (711 mm) shoes . . . . .	6,990 sq. in. (45 100 cm <sup>2</sup> )
Ground clearance, minimum . . . . .	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 Push Beams and Trash Rack</i>	<i>U Dozer Blade With Push Beam and Trash Rack</i>
With base waste package, 175-lb. (79 kg) operator, and full fuel tank		
24-in. (610 mm) shoes . . . . .	12.9 psi (89 kPa)	13.2 psi (91 kPa)
26-in. (660 mm) shoes . . . . .	12.0 psi (83 kPa)	12.3 psi (85 kPa)
28-in. (711 mm) shoes . . . . .	11.2 psi (77 kPa)	11.5 psi (79 kPa)

**SAE Operating Weights**

	<i>Semi-U Dozer Blade With Push Beams and Trash Rack</i>	<i>U Dozer Blade With Push Beams and Trash Rack</i>	<i>Tractor Shipping Weight Without Blade or Attachments</i>
With base waste package, 175-lb. (79 kg) operator, and full fuel tank			
24-in. (610 mm) shoes . . . . .	77,445 lb. (35 129 kg)	79,285 lb. (35 963 kg)	62,985 lb. (28 570 kg)
26-in. (660 mm) shoes . . . . .	77,951 lb. (35 358 kg)	79,791 lb. (36 193 kg)	63,491 lb. (28,799 kg)
28-in. (711 mm) shoes . . . . .	78,455 lb. (35 587 kg)	80,295 lb. (36 422 kg)	63,995 lb. (29,028 kg)



**Dimensions 1050C Waste Handler**

- 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. (4885 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** Width over shoes
  - 24 in. (610 mm) . . . . . 110 in. (2790 mm)
  - 26 in. (660 mm) . . . . . 112 in. (2845 mm)
  - 28 in. (711 mm) . . . . . 114 in. (2891 mm)

**Blades with Optional Trash Rack**

	<i>Semi-U Dozer Blade</i>	<i>U Dozer Blade</i>
Blade weight (including push beams, trunnion mounts, cupped end bits, tilt cylinder, and trash rack) . . . . .	14,460 lb. (6558 kg)	16,300 lb. (7395 kg)
Blade capacity . . . . .	27.7 cu. yd. (21.2 m <sup>3</sup> )	32.0 cu. yd. (24.5 m <sup>3</sup> )
<b>H</b> Height of blade . . . . .	97 in. (2450 mm)	94 in. (2387 mm)
<b>I</b> Width of blade . . . . .	165 in. (4200 mm)	170 in. (4325 mm)
<b>J</b> Lifting height . . . . .	55 in. (1400 mm)	55 in. (1400 mm)
<b>K</b> Blade digging depth . . . . .	22 in. (570 mm)	22 in. (570 mm)
<b>L</b> Maximum blade pitch adjustment . . . . .	10 degrees	10 degrees
<b>M</b> Maximum tilt . . . . .	39 in. (1000 mm)	40 in. (1025 mm)
<b>N</b> Overall length . . . . .	252 in. (6415 mm)	272 in. (6915 mm)



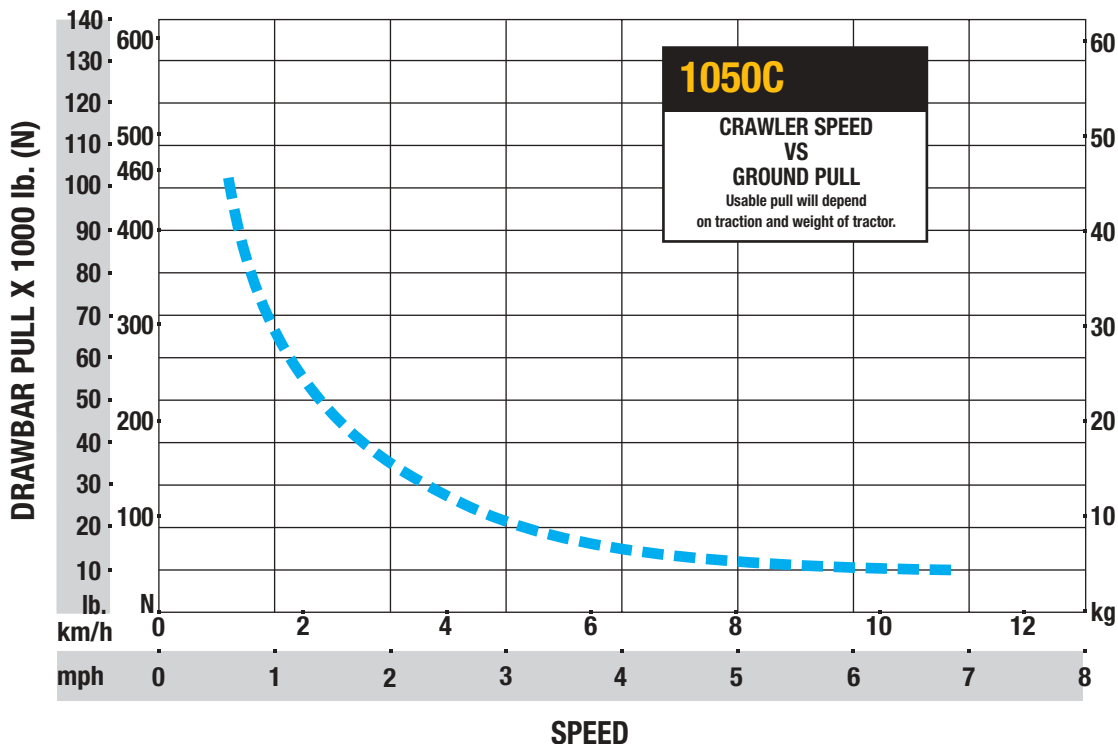
**Optional or Special Equipment**

**1050C Waste Handler**

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

26-in. (660 mm) extreme-service shoes . . . .	506 lb. (230 kg)
28-in. (711 mm) extreme-service shoes . . . .	1,010 lb. (458 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)
Power-pitch push arms with dual-tilt cylinders with hydraulics . . . . .	650 lb. (295 kg)
Rear counterweight with retrieval hitch* . . . .	6,613 lb. (3000 kg)
	9,261 lb. (4201 kg)
	8,000 lb. (3629 kg) with storage compartment
Rigid heavy-duty drawbar* . . . . .	1,460 lb. (662 kg)
Rippers* . . . . .	9,390 lb. (4259 kg) single shank
	11,800 lb. (5353 kg) multi-shank (3)
Pin puller for single-shank ripper . . . . .	106 lb. (48 kg)
Striker bars	
Front . . . . .	432 lb. (196 kg)
Rear	
For counterweight . . . . .	105 lb. (48 kg)
For ripper . . . . .	161 lb. (73 kg)
Push beam wear plates . . . . .	205 lb. (93 kg)
Wiggins fast-fuel system . . . . .	15 lb. (7 kg)
Radiator sand shield . . . . .	77 lb. (35 kg)
Air-suspension seat . . . . .	35 lb. (16 kg)

\*Cannot be used with other rear attachments.



## 1050C WASTE HANDLER

**Key:** ● Standard equipment ▲ Optional or special equipment \*See your John Deere dealer for further information.

### 1050C Engine

- 324-hp (242 kW) Liebherr D 9406 TI-E A3 direct-injection, intercooled, turbocharged V6-cylinder diesel; meets EPA and CARB emission non-road regulations
- Automatic reversing fans for engine and hydraulic cooling systems with timer and manual override
- 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 (-37°C)
- Fuel system with prefilter, water separator, and microfilters
- Heavy-duty five-fin-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
- ▲ Engine coolant heater, 1,000 watt, 120 volt
- ▲ Radiator sand screen

### Power Train

- Dual-path hydrostatic transmission: Dynamic braking / Electronically controlled with power management and AutoTrac / Infinite speed control / Inline 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
- Power port, 12 volt, 10 amp
- Power port, 24 volt, 5 amp
- Alternator, 80 amp
- Batteries (2), heavy-duty cold start, 1,000 CCA
- Positive battery terminal covers
- Electrically activated battery master disconnect

### 1050C Electrical (continued)

- Breaker protected circuits
- Working lights, cab mounted, front (4) and rear (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
- Replaceable filter, 20/5 micron with magnetic particle attractors
- 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

- 86-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
- ▲ 24-in. (610 mm) extreme-service single-bar grouser shoes with relief holes
- ▲ 26-in. (660 mm) extreme-service single-bar grouser shoes with relief holes
- ▲ 28-in. (711 mm) extreme-service single-bar grouser shoes with relief holes
- ▲ Full-length bolt-on rock guards

### Operator's Station

- Modular cab with integrated ROPS/FOPS (conforms to SAE J1040, ISO 3471/3449): Hydraulically tiltable rearward 40 degrees / Isolation mounted / Air conditioner/heater/defroster/pressurizer with filtered fresh air intake and three-speed blower / Ashtray / Dome light / Lockable left and right doors (open and closed position) / Radio-installation provision / Rearview mirror / Rubber floor mat / Sliding left-hand window / Tinted glass / Windshield wipers, front and rear, with washers
- Storage compartment with operator's manual
- 15-degree angle seat with tiltable fabric cushions, adjustable fore-aft, height/weight, backrest, and armrests

### 1050C Operator's Station (continued)

- Deluxe mechanical-suspension seat
- ▲ Deluxe power-adjustable air-suspension seat
- Seat belt, 2-in. (50 mm), retractable (conforms to SAE J386)
- ▲ Seat belt, 3-in. (76 mm), retractable with CRS (conforms to SAE J386)\*
- Electronic monitor system with 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
- Lever-controlled throttle with manual shutoff
- ▲ Radio AM/FM\*

### Landfill Package

- Final drive seal guards / Heavy-duty fender bottom guard / Heavy-duty reinforced sealed hinged bottom guards / Cab waste barrier / Sealed engine side doors / Engine door protection bars / Perforated engine firewall and rear frame access panel / Additional lights (4): Cylinder mounted (2) and rear cab (2) / Turbocharger heat shield / Recessed sprocket segments / Hydraulic oil temperature gauge / Open bottom fan guard for easy cleanout / Trunnion guard for tilt-cylinder hoses
- ▲ Striker bars: Front or rear / Semi-U or U blade with trash racks / Push arm wear plates / Rotary dual-stage engine air precleaner / Wiggins fast-fuel system / High-capacity cab air filtration / Rear counterweight with retrieval hitch / Rear counterweight with retrieval hitch and storage compartment

### Other Attachments

- ▲ Heavy-duty cutting edges\*
- ▲ Hydraulic pitch control with two tilt cylinders
- ▲ Push plates, blade liners, and end bits\*
- ▲ Single-shank parallelogram ripper
- ▲ Multi-shank (3) parallelogram ripper
- ▲ Hydraulic pin puller for single-shank ripper
- ▲ Rigid heavy-duty drawbar

### Overall Vehicle

- Hinged reinforced radiator guard
- Lifting lugs
- Lockable vandal protection
- Rear retrieval hitch
- Reverse warning alarm (conforms to SAE J994, J1446)
- Brake-release towing kit



JOHN DEERE

DKA1050CWH Litho in U.S.A. (06-01)

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 6270B, using No. 2-D fuel at 35 API 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 standard equipment, modular ROPS/FOPS cab with air conditioning, 165-in. (4191 mm) semi-U blade with standard cutting edges, landfill package, full fuel tank, and 175-lb. (79 kg) operator.

