

460 P

Articulated Dump Truck



JOHN DEERE



460 P-TIER ARTICULATED DUMP TRUCK



BUILT FOR THE WORK YOU DO

To design our P-Tier Articulated Dump Trucks (ADTs), we spoke with the experts — equipment owners and operators just like you. Through Customer Advocate Groups, you told us exactly what you need in an ADT. We listened and responded with drive modes including fuel-efficient Eco. Quiet, pressurized cab with rear-camera display. Onboard diagnostics that help keep operators in the know and on the go. Ground-level serviceability. And intuitive options such as automatic temperature control (ATC) system, onboard payload weighing, and auto lube. The new 460 P-Tier ADT is purpose-built with the productivity of your operation in mind.

FEATURES



Driven to succeed

Three drive modes enhance machine response to match the application: **Normal** for typical operation; **Eco** that, when conditions allow, conserves fuel by smoothing throttle input, reducing maximum rpm, and optimizing transmission response for those conditions; and **Traction**, which applies added control to the auto-differential-lock system and powertrain to maximize traction over soft and slippery ground.

Body of work

Redesigned, wider dump body than previous models boosts material retention and lowers loading height and center of gravity, improving cycle times in quarry and aggregate applications. Bin rail with angled top lessens material spillage during travel. Reduced transport width of under 12 feet eases moving between jobsites.

Rugged and reliable

Robust machine sensors and simplified routing of electrical harnesses and hydraulic hoses improve reliability. Reduction of hose length and number of connections – 10-percent fewer than E-Series models – minimizes system complexity.

Fuel saver

Eco mode automatically adjusts engine power and transmission settings based on load while limiting horsepower, for fuel savings of up to seven percent over E-Series models and up to 12 percent compared to Normal mode.

ECO MODE



**REDUCES FUEL
USE BY UP TO 12%
COMPARED TO NORMAL MODE**

FEATURES

Cab comforts

Quiet, pressurized cab features an easy-to-read monitor and rear-camera display plus optional automatic temperature control (ATC) system that allows operators to simply select a desired temperature to get and stay comfortable. Standard high-back air-suspension seat adjusts multiple ways for all-day support. Or opt for the premium heated/ventilated seat with heavy-duty air-suspension and adjustable seat pan.

Strong for the long haul

High-alloy-steel dump body and chassis deliver exceptional strength and rigidity without adding excess weight. Heavy-duty, purpose-built axles are lubricated, filtered, and cooled, for longer life. Spring-applied, hydraulic-released park brake is extremely reliable.

See clearly now

Opt for the LED lighting package for extra illumination. LED drive lights deliver twice the lumen output of standard halogens and include additional worklights three times as bright as optional halogens. This option provides a total of 11 LED lights. Stairway lights are push-button operated from inside the cab and also at ground level.

Weighty matters

Calibrated at the factory, optional onboard weighing system displays payload weight on the in-cab monitor during loading, with real-time load and tonnage data transmitted via JDLink™. Access to accurate payload values removes the guesswork from daily production levels, increasing uptime and efficiency.

Take a load off

When enabled through the monitor, the operator can limit the percentage the rear chassis is off-level when unloading. If the limit is exceeded, the dump body will not raise and a message will appear on the monitor instructing the operator to reposition the ADT.

Hit the ground running

A Deere exclusive, all daily checks and periodic service are accessible from ground level, including refills of fuel and diesel exhaust fluid (DEF). Optional factory-installed auto lube is electrically powered and integrated with machine diagnostics to help simplify daily maintenance.

The safety factor

When the dump body is fully upright, the safety bar locks it to the main-frame and disengages the hydraulics, for secure servicing. Standard rear camera with choice of display enables operator visibility to obstacles in the path of the ADT while backing up. When activated, standard auto horn automatically sounds when the ADT is started, moves forward or in reverse, or changes direction, to comply with Mine Safety and Health Administration regulations.

Precision Construction

This suite of construction technology delivers **Productivity Solutions** to help you get more done, more efficiently. In-base JDLink connectivity provides machine location, utilization data, and alerts to help you maximize productivity and efficiency. To maximize uptime and lower costs, JDLink also enables **John Deere Connected Support™**. Dealers use Expert Alerts based on data from thousands of connected machines to proactively address conditions that may otherwise likely lead to downtime. Your dealer can also monitor machine health and leverage remote diagnostics and programming capability to further diagnose problems and even update machine software without a time-consuming trip to the jobsite.*

*Availability varies by region. Options not available in every country.



GET ONBOARD

WITH OWNER AND OPERATOR SETTINGS

When enabled through the monitor, these standard onboard features help optimize operator focus and productivity:

- **Rollover protection** alerts operators to unsafe dump angles and stops the dump cycle.
- **Downhill dump protection** automatically calculates ADT position so the dump body doesn't move over-center when emptying downhill.
- With **auto dump brake** enabled and driveline assist activated, the service brakes latch during unloading.
- With **hill hold**, the service brakes automatically apply when the ADT is stopped on an uphill slope and the operator's foot moves from brake pedal to throttle, preventing backward machine rolls.
- If dumping is stopped before the bin is fully empty, **frame protection** cushions bin travel back to the cradle, preventing aggressive frame seating.
- With **shuttle shifting**, the transmission may be shifted without the ADT coming to a stop, improving cycle times and eliminating operator abuse.
- **Descent control** helps regulate ADT speed when driving down a descent through automatic use of the transmission retarder.
- **Dump-body limits** can restrict maximum dump height when low overhead obstacles are encountered.
- **Transmission warmup** automatically begins at ADT startup, improving ride, shift quality, and daily productivity.
- Maximum **speed limit** can be set to match jobsite conditions or requirements, reducing operating complexity.

460 P-TIER ADT SPECIFICATIONS

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Engine		460 P-TIER	
Manufacturer and Model	John Deere PowerTech™ 6135	John Deere PowerTech 6135	
Non-Road Emission Standards	EPA Final Tier 4/EU Stage IV	EPA Tier 3/EU Stage IIIA	
Configuration	Inline 6 with variable-geometry turbocharger (VGT) and exhaust gas recirculation (EGR)		
Valves per Cylinder	4	4	
Displacement	13.5 L (823.8 cu. in.)	13.5 L (823.8 cu. in.)	
Net Peak Power (ISO 9249)	359 kW (481 hp) at 1,700 rpm	359 kW (481 hp) at 1,700 rpm	
Net Peak Torque (ISO 9249)	2477 Nm (1,827 lb.-ft.) at 1,200 rpm	2477 Nm (1,827 lb.-ft.) at 1,200 rpm	
Aspiration	Twin turbocharged and charge-air cooled	Twin turbocharged and charge-air cooled	
Fuel System	Mechanically actuated electronic unit injection, with 10- and 4-micron filtration and water separator		
Cold-Start Aid	Optional ether start, block heater, and diesel-fired coolant heater		
Cooling			
Engine Cooling	Coolant mixture air cooled with two single-pass radiators and a remote pressurized coolant tank; separate charge-air cooler used for air system		
Powertrain			
Transmission	8-speed forward, 4-speed reverse, countershaft/planetary type with integral retarder and torque-proportioning differential		
Retarder	Integral, gear dependent, hydrodynamic, oil-to-air cooled, variable, fully automatic		
Differential	Torque-proportioning, planetary-type, inter-axle differential lock (IDL) with PowerShift™ lockup clutch		
Output Torque Split	32% front / 68% rear		
Shift Controls	Fully automatic, electronically modulated PowerShift, load-speed adaptive with gear-skip and gear-hunting protection		
Operator Interface	Push-button F-N-R, selectable speed- and gear-range limits, selectable retarder aggressiveness, downhill-descent control, gear-hold, and drive modes		
Speeds	<i>Forward</i>	<i>Reverse</i>	
Gear 1	6 km/h (4 mph)	6 km/h (4 mph)	
Gear 2	8 km/h (5 mph)	8 km/h (5 mph)	
Gear 3	11 km/h (7 mph)	11 km/h (7 mph)	
Gear 4	16 km/h (10 mph)	16 km/h (10 mph)	
Gear 5	23 km/h (14 mph)	—	
Gear 6	32 km/h (20 mph)	—	
Gear 7	45 km/h (28 mph)	—	
Gear 8	55 km/h (34 mph)	—	
Axles			
Differential	Helical transfer gears, spiral bevel, hydraulically actuated PowerShift cross-axle differential lock (CDL)		
Final Drive	Extreme-duty outboard-mounted planetary; cooled and filtered oil		

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Powertrain (continued)		460 P-TIER
Brake System		
Service	Dual-circuit, hydraulically actuated, wet multi-disc, force cooled, inboard mounted	
Parking	Spring-applied hydraulically released, driveline-mounted, dry-disc with self-adjusting wear pad	
Auxiliary	Fully automatic; transmission mounted, gear dependent; hydrodynamic retarder with selectable levels	
Hydraulics		
Type	Closed-center, variable-displacement, load-sensing system	
Main Pump	Variable-displacement, axial piston	
Secondary Steering Pump	Ground-driven gear pump with hydraulic unloader valve	
Dump Cylinders	Dual-acting, single-stage with heat-treated, chrome-plated, and polished cylinder rods; hardened steel replaceable bushings and pivot pins	
Cycle Time		
Power Down	7 sec.	
Raise Time	12 sec.	
Electrical		
Voltage	24 volt	
Number of Batteries	2 x 12 volt	
Battery Capacity	1,400-CCA batteries	
Alternator	28 volt / 145 amp	
Steering System		
Type	2 hydrostatically actuated, double-acting hydraulic cylinders; ground-driven secondary steering pump	
Angle	45 deg. side to side	
Lock-to-Lock Turns	4.0	
Suspension		
Front	Semi-independent leading A-frame geometry with transverse link for lateral restraint and self-leveling oil-filled struts with remote nitrogen-charged accumulators	
Rear	Load-equalizing, pivoting walking beams with laminated suspension blocks, tri-link geometry, and transverse links for lateral restraint	
Dump Body		
Type	High-strength steel	
Capacity		
Struck	19.5 m ³ (25.5 cu. yd.)	
Heaped at 2:1 ISO 6483 Ratio	25.2 m ³ (32.9 cu. yd.)	
With Optional Tailgate	27.0 m ³ (35.4 cu. yd.)	
Maximum Dump Angle	70 deg.	
Heater	Body ducted to accept optional exhaust heating	
Tires/Wheels		
Size and Type	29.5R25 radial earthmovers standard / 875/65R29 optional	

460 P-TIER

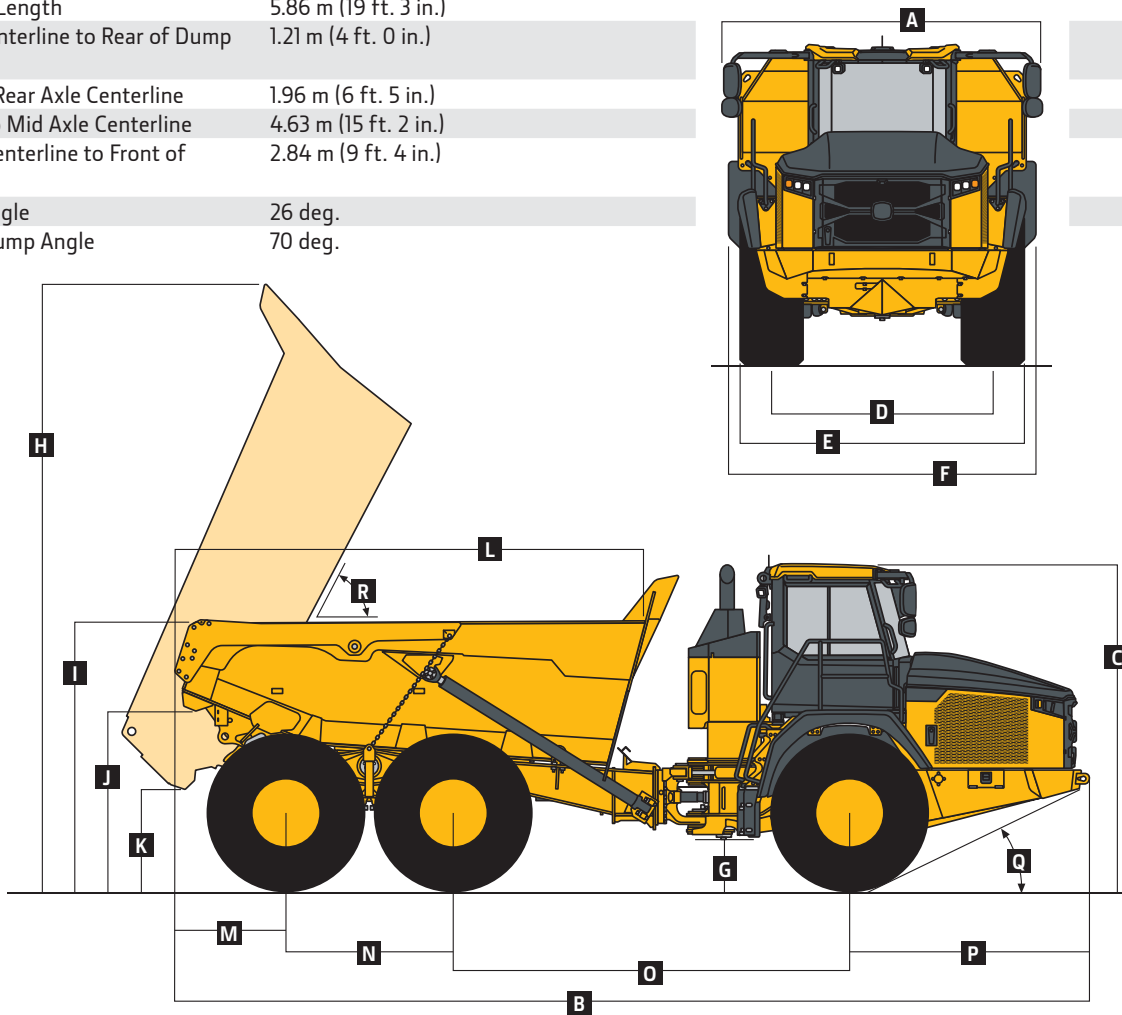
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Serviceability		460 P-TIER	
Ground-Level Service			
Fluids and Filters	Ground-level engine, transmission, and axle oil-level check and filter replacement; ground-level fueling and fuel-filter replacement		
Coolers	Swing-out coolers for easy cleaning standard; reversing fans optional		
Fluid Sampling	Fluid-sampling ports standard; quick-service ports optional		
Refill Capacities			
Fuel Tank	609 L (160.9 gal.)		
Diesel Exhaust Fluid (DEF) Tank	48 L (12.7 gal.)		
Engine Oil With Filter	43 L (11.4 gal.)		
Engine Coolant	90 L (23.8 gal.)		
Transmission Fluid	60 L (15.9 gal.)		
Hydraulic Reservoir	176 L (46.5 gal.)		
Axle Fluid With Filter			
Front	62 L (16.4 gal.)		
Mid	62 L (16.4 gal.)		
Rear	68 L (18.0 gal.)		
Operating Weights			
With Standard Equipment	<i>Empty</i>	<i>Loaded</i>	
Front	17 090 kg (37,677 lb.)	23 880 kg (52,646 lb.)	
Middle	7305 kg (16,105 lb.)	24 820 kg (54,719 lb.)	
Rear	7305 kg (16,105 lb.)	24 820 kg (54,719 lb.)	
Total	31 700 kg (69,886 lb.)	73 520 kg (162,084 lb.)	
Rated Payload	41 820 kg (92,197 lb.)		
Optional Components			
Dump-Body Liner (steel)	1389 kg (3,062 lb.)		
Tailgate	986 kg (2,174 lb.)		
875/65R29 Tires	1286 kg (2,835 lb.)		
Operating Dimensions			
Turning Circle Radius			
Inside	4.63 m (15 ft. 2 in.)		
Outside	8.90 m (29 ft. 2 in.)		

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Machine Dimensions		460 P-TIER	
A	Width With Mirrors in Operating Position	3.85 m (12 ft. 8 in.)	
B	Length	10.64 m (34 ft. 11 in.)	
C	Height	3.89 m (12 ft. 9 in.)	
	Tire Options	<i>29.5R25</i>	<i>875/65R29</i>
D	Tread Width	2.66 m (8 ft. 9 in.)	2.70 m (8 ft. 10 in.)
E	Width Over Tires	3.41 m (11 ft. 2 in.)	3.58 m (11 ft. 9 in.)
F	Width Over Fenders	3.44 m (11 ft. 3 in.)	3.65 m (12 ft. 0 in.)
G	Ground Clearance	0.54 m (21 in.)	0.54 m (21 in.)
H	Dump Body Height, Dump Position	7.20 m (23 ft. 7 in.)	
I	Dump Body Side Rail Height	3.34 m (10 ft. 11 in.)	
J	Dump Body Dump Lip Height, Transport Position	3.89 m (12 ft. 9 in.)	
K	Dump Body Ground Clearance, Dump Position	1.12 m (3 ft. 8 in.)	
L	Dump Body Length	5.86 m (19 ft. 3 in.)	
M	Rear Axle Centerline to Rear of Dump Body	1.21 m (4 ft. 0 in.)	
N	Mid Axle to Rear Axle Centerline	1.96 m (6 ft. 5 in.)	
O	Front Axle to Mid Axle Centerline	4.63 m (15 ft. 2 in.)	
P	Front Axle Centerline to Front of Machine	2.84 m (9 ft. 4 in.)	
Q	Approach Angle	26 deg.	
R	Maximum Dump Angle	70 deg.	



Shipping Dimensions	460 P-TIER
Overall Height (suspension lowered 75 mm [3 in.])	3.81 m (12 ft. 6 in.)
Overall Width	
Dump Body	3.46 m (11 ft. 4 in.)
Tailgate Installed	3.66 m (12 ft. 0 in.)

Additional equipment

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

460 P Engine

- Meets EPA Final Tier 4 (FT4)/EU Stage IV emissions
- John Deere PowerTech™ 6135 – 13.5L (824 cu. in.) inline 6
- Wet-sleeve cylinder liners
- Variable-geometry turbocharger (VGT)
- External cooled exhaust gas recirculation (EGR)
- Dual-element air cleaner
- Precleaner
- Fuel filters with water separator and automatic electronic priming
- Ground-level fueling and diesel exhaust fluid (DEF) fill
- In-line DEF filter
- ▲ Fast-fill fuel system
- Serpentine drive belt with automatic tensioner
- ▲ Ether start aid (recommended below –1 deg. C [30 deg. F])
- ▲ Block heater (recommended below –18 deg. C [0 deg. F])

460 P Engine (continued)

- ▲ Diesel-fired coolant heater (DFCH) (required below –25 deg. C [–13 deg. F])
 - Programmable auto-shutdown
 - Automatic turbo cool-down/shutdown timer
 - Flat-black exhaust stack
 - ▲ Chrome exhaust stack
 - ▲ Severe-duty fuel filter
 - ▲ Severe-duty fuel filter with heater
 - Electronic control with automatic engine protection
- #### Cooling
- Dual hydraulically driven, side-mounted fans
 - Side-mounted radiators (2), charge-air cooler, front and mid-axle coolers, transmission cooler, hydraulic cooler, air-conditioner condenser, and fuel cooler
 - Integral engine oil cooler
 - Remote pressurized coolant reservoir
 - John Deere Cool-Gard™ II long-life engine coolant

460 P Cooling (continued)

- Engine cooling rated –37 deg. C. (–34 deg. F)
 - ▲ Automatic reversing cooling fans
- #### Powertrain
- Transmission diagnostic ports
 - Transmission oil-temperature self-protection
 - Remote-mounted spin-on transmission oil filters
 - Remote-mounted replaceable-element axle-oil filters
 - Axle-oil temperature and lube-pressure sensing
 - Automatic engaging retarder with selectable aggressiveness
 - Normal, Traction, and Eco selectable drive modes
 - Automatic differential locks with manual override
- #### Electrical System
- 24-volt system voltage
 - 145-amp alternator
 - Solid-state electrical distribution system

Additional equipment *(cont.)*

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

460 P Electrical System *(continued)*

- Battery disconnect
- Batteries, 2 x 1,400 CCA
- LED rear turn signals/brake lights
- Lights, halogen drive, stair egress, and service lights
- ▲ Premium 11-light LED package (6 forward, 2 rear cab, 2 rear-facing rear frame, and 1 stair egress)
- Electric horn
- Reverse alarm
- ▲ Yellow beacon/strobe light
- ▲ Green seat-belt indicator beacon
- ▲ 24-volt to 12-volt 15- or 25-amp converter

Hydraulic System

- Closed-center, load-sensing system
- Axial-piston, variable-displacement main pump
- Single-stage, dual-acting, dump-body tip cylinders
- Electrohydraulic dump-body control

Steering System

- Ground-driven secondary steering pump

Operator Station

- ROPS/FOPS certification
- Keyless start with multiple security codes
- Tilt operator station for service access
- Programmable dump-body control settings
- Air conditioner
- Heater
- ▲ Automatic temperature control (ATC) system
- AM/FM/Weather-Band (WB) radio
- ▲ Premium radio with AM/FM/WB/USB/Bluetooth® streaming and hands free

460 P Operator Station *(continued)*

- Rear window guard
- Wiper/washer with intermittent control
- ▲ Rear windshield wiper
- Tilt and telescoping steering wheel
- Cloth seat with fore/aft isolation and heavy-duty suspension
- ▲ Premium leather/cloth, heated/ventilated seat with fore/aft isolation and heavy-duty suspension
- Orange 76-mm (3 in.) retractable operator seat belt
- Foldaway trainer seat with retractable seat belt
- ▲ Orange retractable 4-point harness
- 12-volt power outlets (2)
- Cup holder
- Rear camera display with designated monitor
- ▲ Electric adjustable and heated mirrors
- Deluxe 178-mm (7 in.) color LCD monitor: Speedometer / Fuel gauge / Transmission oil temperature gauge / Engine coolant temperature gauge / Gear indicator / Tachometer / Battery voltage / Hour meter / Odometer / Fuel consumption / Trip counter / Trip timer / Trip distance / Metric/Imperial units / Service codes/diagnostics / LED indicator lights and audible alarm / Programmable dump body rollover protection / Onboard weighing display / Multi-language capability / Tire-pressure-monitoring system warning
- Backlit sealed-switch module functions: Keyless start/stop / F-N-R / Hazard light button / Park brake / Descent control /

460 P Operator Station *(continued)*

- Gear-lock button / Gear up/down button / inter-axle differential lock (IDL) / Retarder adjustment / Automatic dump-body control settings / Drive modes / Retarder control
 - Dump-body lever control
- ## Dump Body
- Bin-lock pin
 - ▲ Dump-body liner (steel)
 - ▲ Tailgate
 - ▲ Dump-body heater
 - ▲ Less dump body and cylinders
- ## Other
- 29.5R25 radial earthmovers
 - ▲ 875/65R29 radial earthmovers
 - ▲ Fluid quick-service bank
 - Point-of-use grease
 - ▲ Banked manual grease
 - ▲ Auto-lube system with ground-level refill
 - Articulation lock
 - Fluid-sampling ports
 - Engine compartment light with timer
 - ▲ Onboard weighing system with external load lights
 - Tire-pressure-monitoring system with temperature compensation
 - Fire extinguisher
 - ▲ Wheel chocks
 - JDLink™ wireless communication system (available in specific countries; see your dealer for details)
 - ▲ JDLink dual-mode cellular/satellite wireless communication system (available in specific countries; see your dealer for details)

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Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with ISO standards. Except where otherwise noted, these specifications are based on a unit with standard equipment, ROPS cab, 29.5R25 radial earthmover tires, full fuel tank, and 79-kg (175 lb.) operator. Capacity and loaded weights are based on 1640-kg/m³ (2,759 lb./cu. yd.) material.




MT460PAU (22-12)

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