



Articulated Dump Truck

D350



Summary of Features

- 100 ton (220,000 lb) payload capacity. Heavy duty axle with large diameter for superior load capacity. Wide angle gear sets load evenly. Low load-line height provides superior water-tight.
- Articulated hydraulic steering. Independent brakes for front and rear. JCB's exceptional maneuverability and visibility. Wheel turning radius - 20' 1" (6.1m).
- Four forward drive control speed for full operating performance. 10th speed for road (17 mph (27 km/hr) reverse (17 mph (27 km/hr)).
- 100 wheel suspension system. Absorbs road ruts and working shocks. Strong axle and self leveling shock absorber axle ends.
- Four wheel drive. Heavy-duty. For primary drive only with an electronically-actuated drive selector for maximum traction and power split.
- 1000 ton (2200 lb) lift capacity. One in eight inclination with the auto loading, automatic, hydraulic and transfer to various positions.
- Standard 8000-8000 accelerated oil and automatic hydraulic suspension.
- 100 wheel brakes. Actuated through three separate systems to provide positive full braking.

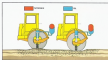




Energy-Efficient Components

The 980K incorporates a large number of Caterpillar components, already proven elsewhere in large systems of O&H trucks and other Caterpillar equipment. The power train is matched for optimum performance and long life. The Cat 3304 engine is a highly developed unit used also in CAT 980H and 980K models. The 980K incorporates more than 1000 parts, a planetary gear train and large diameter of shafts, crank pins, gear teeth, planetary carrier and planet-planet gears — all made for life.

The 980K heavy-duty axle ends are used in other Caterpillar models (980K, 980H and 980L) in similar power. Other Caterpillar components include Cat 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.



Oil-Nitrogen Inert Leveling Front Suspension System

Developed for use on mining trucks for smooth road and better shocks to avoid operator fatigue. As the truck moves up and down the roadway, oil is pumped into an accumulator where the shock is absorbed by a nitrogen spring. The operator feels leveling, leveling valve opens the nitrogen pressure, to maintain a constant loading height and optimal performance.

Super Flex Suspension System

The unique concept of the Super Flex suspension system allows an operator to determine the amount flexibility and support, maintaining the structure.

The system improves longitudinal and lateral stability and braking capacity and permits use of large diameter tires as well as reducing the vehicle height. This allows it to travel the rough road conditions, power line, fuel consumption and fuel savings.

The effect of the Superflex suspension when the drive engaging an operator is shown in the left diagram. All four tires flex within in contact with the ground maintaining equal load distribution, as well as flexion and traction. The body's center of gravity moves up only 1/2 of the height of the roadway.



Frame

The rear-end load carrier from frame incorporates massive semi-elliptical bearings at the rear axle, the frame mounting and rear axle and a full set of "leaf coils" to shock and absorb the loads imposed by the irregular terrain. The heavy-duty trailing axle also carries the driveline and rear frame intermediate shaft support large diameter bearings for the driving and receiving shafts that feature fully hardened bearings with fully hardened frames and shafts. The rear frame is welded, forged and stress tested and carries the full

large diameter costly adjustable coil bearings designed to cope with relative motion and wear-point abuse. The rear frame has stressed frame suspension to assure good stress distribution and load stability under any ground conditions. Shafts and final cyclic gears are treated to stress-relieved flame-hardening service.

Both sections are built from high strength 4130 and 4140 alloy steel. The minimum of heat-treated carrier changes and wear life in high stress areas ensure maximum longevity.



Overriding

Maneuverability

Steel axles carrying extra loads with a large radius turning circle ensure that steering is responsive across wide and tight corners. This low inertia, low compressibility, is essential since steering life can depend on conditions of ground surface and treatment (e.g., cracks and oil). Articulation allows close maneuvering steering angles to ensure that the wheel can be steered to full steering angle under — in forward and reverse.

Cab

The standard 3000/3000 cab provides the best environment for operator efficiency and maximum safety throughout the shift. Noise and vibration are drastically reduced by the cab mounting system with the job telescoping from the main track structure. "Shower pan" bucket, additional noise reduction provided by cast noise material and a large amount of heat insulation, completely seal both side and roof walls to eliminate light and ultraviolet of the operator's window in a fully sealed mounting providing important safety escape for occupant.

Engineering control panel and a

4-view adjustable air suspended seat give the flexibility to operators to change the most comfortable working position.

Custom visibility is provided by the large window area of the cab with slanted front screen and temperature controlled for additional safety. Weather-protected glass window glass and frame for hot temperatures under incision.

The rear seat package is constructed in a full range of seats to meet your exacting needs and working habits. Adjustable operators in chairs and seats allow the performance of all requirements.



Chassis Body

A heavy-duty steel chassis, the control and structure the body during loading, unloading, and dumping. Incomparable 3000/3000 (3000/3000) rear wheel steel.

Minimum weight body design ————— 20' — 22' 6" — 24' 6" — 26' 6" — 28' 6" — 30' 6" — 32' 6" — 34' 6" — 36' 6" — 38' 6" — 40' 6" — 42' 6" — 44' 6" — 46' 6" — 48' 6" — 50' 6" — 52' 6" — 54' 6" — 56' 6" — 58' 6" — 60' 6" — 62' 6" — 64' 6" — 66' 6" — 68' 6" — 70' 6" — 72' 6" — 74' 6" — 76' 6" — 78' 6" — 80' 6" — 82' 6" — 84' 6" — 86' 6" — 88' 6" — 90' 6" — 92' 6" — 94' 6" — 96' 6" — 98' 6" — 100' 6"

Wide weight body design. 30' dump angle and full load capacity. Maximum weight of body including the load for 3000/3000 (3000/3000) rear wheel steel. 30' dump angle and full load capacity. Maximum weight of body including the load for 3000/3000 (3000/3000) rear wheel steel.





Body Capacity

Dimensions include wheelbase/body offset.

	679A/67B	648E/71	648E/71
Standard Body 28 Tons (24 m ³)	35.0 (18.2)	35.0 (18.2)	31.0 (16.0)
Side Extensions 7' x 100mm	31.0 (16.0)	31.0 (16.0)	30.0 (15.0)
Side Extensions 7' x 150mm	30.0 (15.0)	30.0 (15.0)	29.0 (14.5)
Side Extensions 7' x 200mm	29.0 (14.5)	29.0 (14.5)	28.0 (14.0)



Operating Weights

	Front Axle	Rear Axle	Max Axle	Total
Empty (no load)	10,000 (22,000)	8,200 (18,100)	8,200 (18,100)	26,400 (58,200)
Rated load (no load)	8,000 (17,600)	13,000 (28,700)	13,000 (28,700)	34,000 (74,800)
Loaded (no load)	18,000 (39,600)	15,200 (33,500)	15,200 (33,500)	48,400 (106,600)



Tires and Wheels

Use 28.5 x 24.5 (11.5R22.5) on 18 stud rims, fully loaded, maximum 40 miles.

Large diameter tires improve traction, reduce rolling resistance and tire wear.

Standard tires may vary according to model.



Cab Instrumentation

Altimeter, Gauges for fuel pressure, engine oil pressure, water temperature, temperature of hot water, air pressure, fuel/water, battery temperature, oil cleaner indicator, forward warning lights, Dump body tilt warning light, Warning lights for engine oil pressure, engine water temperature, engine pressure oil temperature, low wheel drive engaged, warning horn for air brake pressure, low engine oil pressure, water temperature.

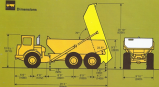


Service Fluid Capacities

	Oil Gallons	Liters
Fuel Tank	85.00	320.0
Cooling System	11.00	41.5
Chassis	7.25	27.5
Oil & Fuel Filter	7.00	26.5
Transmission	11.50	43.5
Hydraulic System	50.00	189.0



Dimensions



All dimensions in standard view in millimeters

