



Cat[®] 777E

Off-Highway Truck

Performance

- The 777E utilizes fuel saving features that reduce fuel burn and fuel costs.
 - **Economy Mode** modifies engine maps to take advantage of steady grades and level ground, reducing power and fuel burn.
 - **Speed Limiting** automatically selects the most fuel efficient gear and speed for the terrain instantaneously.
 - **Engine Idle Shutdown** identifies when the truck is in park and idles for more than a preset time, and initiates engine shutdown to conserve fuel.
- **Engine Over Speed Protection** – Electronically senses engine conditions and automatically up-shifts one gear to prevent over speeding. If over speeding occurs in the top gear, the lock-up clutch is disengaged, and the brakes are applied.
- **Biodiesel Compatibility** – All fuel line hoses are compatible for B20 biodiesel fuel.
- **Brakes** – The Cat[®] front dry caliper with rear oil-cooled multiple disc brakes deliver reliable performance and control in the most extreme haul-road conditions. Wet brakes on rear wheels and gear limiting during body up operations are both standard. If equipped with front oil cooled multiple disc brakes, four corner retarding with a 40/60 percent front/rear split provides superior control in slippery conditions and minimizes wheel lock-up.
- **Steering** – Cat integrated steering and suspension system is designed for precise steering, excellent maneuverability, minimal tire wear and superior ride control.
- **Secondary Steering** – Automatically engages if power source for the normal steering fails.
- **Durability** – Rear wheel spindles are solid steel for longer life, and the rear suspension cylinders have been inverted to minimize contamination. These rugged cylinders use large diameter bore and low pressure nitrogen/oil design for long life with minimal maintenance minimizes wheel lock-up.

Technology

- **Diagnostic Capability** – Critical power train data, including transmission shifting, engine speed and fuel consumption, provides service technicians with enhanced diagnostic capability to reduce downtime and operating costs.
- **Electronic Technician (ET)** – Cat ET service tool provides service technicians with easy access to stored diagnostic data through the Cat Data Link.
- **Automatic Retarder Control (ARC) (optional)** – ARC controls braking on grade electronically, maintaining consistent engine speed, lower fuel burn, and better control.
- **Traction Control System (TCS) (optional)** – The Traction Control System electronically monitors and controls rear wheel slippage for greater traction and enhanced truck performance in poor underfoot conditions. If slippage exceeds a set limit, the rear wet brakes engage to slow the spinning wheel. Torque is then automatically transferred to the wheel with better traction and optimum control.

Ease of Operations

- **Operator Comfort** – The all new operator station interior is ergonomically designed for total machine control in a comfortable, productive and safe environment. All controls, levers, switches and gauges are positioned to maximize productivity and minimize operator fatigue. Designed for excellent all-around visibility and clear sight lines to the haul road, the large viewing area offers exceptional visibility. The well positioned hand rails ensure three point contact for easy access and emergency egress for the operator.
- **Cab and Access** – The 777E cab interior, is completely redesigned to provide better visibility and comfort for the operator. Features include a new dash, advisor display and redesigned center console. Rollover and Falling Object Protection is an extension of the truck frame.
- **Operator Seat** – The Cat Comfort Seat uses full air suspension to smooth rough rides, and has a retractable four-point seat belt with a shoulder harness. A trainer seat with a lap belt to facilitate on-the-job training.



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Engine Specification Improvements

Engine Model	C32 ACERT™ (777E)		3508B (777D)	
Gross Power	758 kW	1,016 hp	746 kW	1,000 hp
Net Power	708 kW	950 hp	699 kW	938 hp
Emissions	Tier 2 Equivalent**		Tier 1 Equivalent*	
Net Torque	4757 N·m	3,509 lbf-ft	4713 N·m	3,476 lbf-ft
Fuel Saving	5%		—	
Engine Oil Change Interval	500 hours		250 hours	
Altitude Capability	3658 m	12,000 ft	2286 m	7,500 ft

- Power rating applies at 1,750 rpm when tested under the specified condition for the specified standard.
- Ratings based on SAE J1995 standard air conditions of 25° C (77° F) and 100 kPa (29.61 Hg) barometer. Power based on fuel having API gravity of 35 at 16° C (60° F) and an LHV of 42 780 kJ/kg (18,390 BTU/lb) when engine used at 30° C (86° F).
- No engine derating required up to 3048 m (10,000 ft) altitude.
 - *Meets U.S. EPA Tier 1 Equivalent emission standards.
 - **Meets U.S. EPA Tier 2 Equivalent emission standards.
- Certified for China Nonroad Stage III emission standards.

Comparison

	Cat 777E		Cat 777D	
Empty Machine Operating Weight	65 158 kg	143,649 lb	67 848 kg	149,579 lb
Target Gross Machine Weight	163 360 kg	360,147 lb	163 360 kg	360,147 lb
Maximum Target Payload	98 202 kg	216,498 lb	95 512 kg	210,568 lb
Fuel Consumption	70 L/hr	18.5 gal/hr	74 L/hr	19.5 gal/hr
Fuel Efficiency	1.6 mt/L	6.7 t/gal	1.39 mt/L	5.8 t/gal
Body Capacity*	60.1 m³	78.6 yd³	60.1 m³	78.6 yd³
Engine Oil Change Interval	500 hours		250 hours	
Brakes (Air Assisted/ Fully Hydraulic)	Air/Oil		Air/Oil	

*ISO 6483:1980.

Transmission

Forward 1	10.7 km/h	6.6 mph
Forward 2	14.6 km/h	9.1 mph
Forward 3	19.8 km/h	12.2 mph
Forward 4	26.7 km/h	16.6 mph
Forward 5	36.2 km/h	22.5 mph
Forward 6	48.6 km/h	30.2 mph
Forward 7	65.9 km/h	40.9 mph
Reverse 1	12.1 km/h	7.5 mph

- Maximum travel speeds with standard 27.00R49 (E4) tires.

Final Drives

Differential Ratio	2.74:1
Planetary Ratio	7.00:1
Total Reduction Ratio	19.16:1

Service Refill Capacities

Fuel Tank	1140 L	300 gal
Cooling System	212 L	56 gal
Crankcase	113.5 L	29.9 gal
Differentials	222 L	58.6 gal
Final Drives (each)	42 L	11 gal
Steering System (includes tank)	59 L	15.6 gal
Torque Converter/Brake/Hoist Hydraulic Tank	385 L	101.7 gal
Transmission System	122 L	32.2 gal

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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