

Save Fuel Costs: Off-Highway Truck Simulator

Simulators used as part of an overall heavy equipment training program makes sense on many levels—especially for cost savings during these tough economic times. Organizations that use simulators can avoid burning fuel and enjoy cost savings to impact their bottom line.

Typical Work Application Descriptions

In order to calculate fuel use, typical medium off-highway truck work applications must be taken into consideration. Caterpillar classifies the medium off-highway truck work applications into three categories.

Low. Continuous operation at an average gross weight less than recommended. Excellent haul road conditions. No overloading; low load factor.

Medium. Continuous operation at an average gross weight approaching the recommended gross weight. Minimal overloading; good haul road conditions; moderate load factor.

High. Continuous operation at or above the maximum recommended gross weight. Overloading; poor haul road conditions; high load factor.

	Low		Medium		High	
Load Factor*	20%-30%		30%-40%		40%-50%	
Fuel Consumption	Gallons	Liters	Gallons	Liters	Gallons	Liters
	10.2 - 15.3	38.7 - 58.0	15.3 - 20.4	58.0 - 77.4	20.4 - 25.5	77.4 - 96.7

Fuel Avoidance Savings

(Formula: Hourly consumption x Local Unit Prices of Fuel = Hourly Fuel Cost)

If you use simulator training one week a month (40 hours), you will avoid using fuel as follows:

	408 to 612 Gallons \$3.85**	1548 to 2320 Liters \$1.02**
Total Savings	\$1,570.80 to \$2,356.20 (1 week) \$18,849.60 to \$28,274.40 (12 weeks)	\$1,578.96 to \$2,366.40 (1 week) \$18,947.52 to \$28,396.80 (12 weeks)

Note: All estimates based on a low engine load factor.

*Average engine load factor based on application description for each range.

**Cost of fuel will fluctuate with market and by country.

How Can You Benefit? learn@catsimulators.com

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When using this information, keep in mind the many variables which can affect fuel consumption. Two operators of different temperament or attitude operating identical machines side by side in the same material can have as much as 10%-12% difference in their consumption rates. However, the ranges shown should be applicable across a wide spectrum of conditions. Your Cat® Dealer representative can help select the most reasonable estimate for your specific situation. Keep in mind also that a fuel consumption study measured over a short period of operation may give higher fuel consumption than shown here. This information was figured for “normal” inefficiencies in the working cycle and will more closely relate to “normal” day to day operation.



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