

# Save Fuel Costs: FM Log Loader Simulator

Integrating simulators into your overall training program will provide your organization with many benefits. One of the most notable is cost savings. Simulators can help your organization save in many ways, such as savings on fuel consumption. Organizations avoid burning fuel when simulators are used.

## Typical Work Application Descriptions

In order to calculate fuel use, typical Log Loader work applications must be taken into consideration. Caterpillar classifies Log Loader work applications into three categories.

*Low:* Truck loading and mill yard applications. Working more than 85% of the daily work schedule. Small to medium amount of travel on good terrain. Working on less than 10% grade slopes with smaller loads of short, medium or long logs. No full trees.

*Medium:* Processor application or Intermittent shovel logging combined with truck loading. Working more than 75% of the daily work schedule. Medium to large amount of travel. Working on 10% to 40% grade slopes with intermittent high loads with medium to long full trees or logs.

*High:* Continuous shovel logging in rough and steep terrain. Working more than 95% of the daily work schedule. Large amount of travel over rough terrain. Working on more than 40% grade slopes with constant high loads & full trees.

	Low		Medium		High	
Load Factor*	20%-30%		30%-60%		60%-80%	
Fuel Consumption	Gallons	Liters	Gallons	Liters	Gallons	Liters
	3.7-5.1	14.0-19.0	6.1-7.1	23.0-27.0	7.2-8.5	27.0-32.0

## 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:

	148 to 204 Gallons	460.0 to 920.0 Liters
	\$3.85**	\$1.02**
Total Savings	\$569.80 to \$785.40 (1 week)	\$571.20 to \$775.20 (1 week)
	\$6,837.60 to \$9,424.80 (12 weeks)	\$6,854.40 to \$9,302.40 (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](mailto:learn@catsimulators.com)

**CAT<sup>®</sup> SIMULATORS**



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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