



# Fuel Use Avoidance

## D11T Track Type Tractor 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 Track Type Tractor work applications must be taken into consideration. Caterpillar classifies track type tractor work applications into three categories.

**Low:** Pulling scrapers, most agricultural drawbar, stockpile, and coal pile applications. No impact. Intermittent full throttle operation.

**Medium:** Production dozing in clays, sands, and gravels. Push loading scrapers, borrow pit ripping, and most land clearing applications. Medium impact conditions. Production landfill work.

**High:** Heavy rock ripping. Push loading and dozing in hard rock. Working on rock surfaces. Continuous high impact conditions.

|                  | Low       |           | Medium    |            | High      |             |
|------------------|-----------|-----------|-----------|------------|-----------|-------------|
| Load Factor*     | 35%-50%   |           | 50%-65%   |            | 65%-80%   |             |
| Fuel Consumption | Gallons   | Liters    | Gallons   | Liters     | Gallons   | Liters      |
|                  | 15.6-22.3 | 59.0-84.4 | 22.3-29.0 | 84.4-109.8 | 29.0-35.7 | 109.8-135.1 |

### 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:

|               | 624 to 892 Gallons<br>\$3.85**   | 2360 to 3376 Liters<br>\$1.02**  |
|---------------|--|--|
| Total Savings | \$2,402.40 to \$3,434.20 (1 week)<br>\$28,828.80 to \$41,210.40 (12 weeks) | \$2,407.20 to \$3,443.52 (1 week)<br>\$28,886.40 to \$41,322.24 (12 weeks) |

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

### How Can You Benefit?

Find out the benefits of heavy equipment training simulators. Call an Account Manager at 1.309.266.2640 or sales@catsimulators.com.

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

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

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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