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Aerodynamic Package for Day-cab Tractor

Inputs

(Enter data in grey cells only)

Steps

1	Cost per unit: purchase and installation cost per tractor	P	\$1,160
2	Fuel savings	F	15.6%
3	Tractor annual mileage	K	200000 Select the unit: <input checked="" type="radio"/> km <input type="radio"/> miles
4	Proportion of annual mileage of tractor that was driven at speed of 80 km/h or more (%)	p	80 ◀ ▶
5	Tractor annual applicable mileage	$S = K \times p$	160000 km
6	Fuel price (¢/L)	X	110 ◀ ▶ 1.1 \$/L
7	Current fuel consumption	Y	34 Select the unit: <input checked="" type="radio"/> L/100 km <input type="radio"/> mpg

Results

Annual fuel savings per tractor	$A = f \times S \times F \times Y$ where f is a conversion factor*	8486 litres
Annual GHG emission reduction per tractor	$G = A \times 2.7$	22912 kg
Annual savings per tractor	$B = A \times X$	\$9,335
Payback period per tractor	$C = P / B$	1.5 months or 0.12 years

Disclaimer

The purpose of these simplified models is to demonstrate the cost saving opportunities available for the fleet owners through best practices and fuel saving devices.

The model can be refined further based on the customer's requirements.

The user is responsible for verifying the accuracy of the results.

In no event shall Transport Canada be liable to any direct, consequential, incidental, special, punitive or other damages.

High constant speed track tests at Energotest™ showed fuel savings of up to 15.6% for a day-cab tractor equipped with aerodynamic package

Note: Not all aerodynamic package for day-cab tractors offer similar performances.

Reference

Tractor Aerodynamics Fact Sheet, Transport Canada 2011

* Conversion Factor: is calculated based on user's input for units of distance and fuel consumption. The below table is provided for information only.

Unit of S	Unit of Y	f	Conversion factor (f) formula
km	L/100km	1	km x L/100km
km	mpg	235.25	km x L/100km (=3.786 x 100/(1.61 x mpg))
miles	L/100km	1.61	km (=1.61 x miles) x L/100km
miles	mpg	378.60	km (=1.61 x miles) x L/100km (=3.786 x 100/(1.61 x mpg))