

DOITS BRAND NEUTRAL IDLING MEASURE

DOITS working group has defined a brand neutral specification on how to generate and compile an idling measure from heavy-duty trucks to Fleet Management Solutions (FMS) using ACEA standardised FMS/rFMS data.

Background

Idling is perceived to be one of the most important driving cycles where truck drivers can influence their fuel consumption.

An idling measure is delivered by most FMS to the user in the transport company. This to enable analysis of the driver behaviour to initiate proper actions to reduce the fuel consumption as well as decrease the company's negative impact on the environment.

Many transport companies have mixed fleets and have invested in FMS that deliver the idling measure from their variety of truck brands. The measures can be delivered through individual truck brand's own FMS or after market FMS suppliers.

Ideally for the transport company is to get an overview of their total fleet presented in one user interface only but what data to use and how to set specific variables to aggregate the final idling measure is not standardised or even harmonized.

Confusion arise if and how to use the values.

This holds back the transport companies ability to reduce it's fuel consumption that also has direct negative direct implications on their efficiency and profitability.

In a broader perspective this holds back the overall possibilities to reduce the negative environmental impact from road transports in Europe due to a non-existing harmonisation.

DOITS working group that consists of representatives from both truck manufacturers and after market FMS suppliers decided to together work towards reducing the confusion and define a brand neutral measure for idling that can be delivered via the FMS as well as the rFMS standard interfaces.

FMS and rFMS interfaces are standardised by the European Vehicle Manufacturers (ACEA) Standardisation forum TF HDEI working group.

This neutral idling measure defines a specification so suppliers, truck manufacturers as well as after market solutions providers of FMS, can offer this to their customers as a cross brand neutral idling measure.

It is important to see this as a baseline for the idling measure, as the truck manufacturers and after market FMS suppliers add their own knowhow and functionality on top of the neutral idling measure to support the transport company to reach their objectives.

Solution

Some prerequisites:

- Definition of BAD idling is a discussion for the FMS supplier and the transport company as it differs based on company culture and the trucks duties and specifications.
- PTO (Power Take Off) active/ non-active signal is not always indicated when rebuilders have added their functionality.
- The fuel consumption values truck manufacturers give are accepted as given.
- Need to be a measure:
 - o Where parameters are delivered today from the truck, or relatively easy can be.
 - o That is possible to compare preferably digital (On/off, 0/1 etc)
 - o Otherwise possible to harmonize
- The harmonised idling measure shall be possible to deliver via rFMS

Proposal for Total counters (time in seconds, fuel in liters)

- a. Total idling (Engine ON, Speed = 0)
- b. Total idling excluding PTO (Engine ON, Speed = 0, PTO = Inactive)
- c. Total Engine ON
- d. Fuel Consumption = litres
- e. Time = 0 sec
- f. Capture 1 report per hour (frequency can be increased)

Sources to deliver the values:

Speed = Wheel based speed from CAN

Engine ON = RPM < X

PTO = PTO ON

Standardisation by ACEA

rFMS VERSION 2,0 standard published 21.09.2016

- Wheel based speed - Km/h
- ENGINE-ON
- ENGINE-OFF
- PTO_ENABLED
- PTO_DISABLED