



# Equipment Appraisers Association of North America

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## EAANA Newsletter

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Subject: Tier Engine Emissions

As you no doubt have experienced reading any article on Tier Engines or regulations acronyms are used to describe method of achieving Tier levels. (Example: DPF=Diesel Particulate Filter)

To decipher the meaning of most acronyms referred to in articles or discussion regarding engine emissions, the following many help shed some light on current and future "Emissions Speak" language used in any engine related industry EAANA members serve.

ACERT	Caterpillar acronym for their method of controlling fuel and air management
ADBLUE	Liquid Urea
CAN	Control Area Network (see SAE J1939)
CANbus	Software bundle that transmits, receives and logs CAN messages that along with a log tracer that displays and graphs the contents of saved files (into laptop)
CCM	Catalyzed Converter/Muffler
CDL	Cat Data Link
CEM	Cat Clean Emission Modules packages for new or existing engines
CER	Caterpillar Emissions Repower engine program
CO	Carbon Monoxide
CO2	Carbon Dioxide
CR	Common Rail, High pressure line feeding individual injectors operated by the CPU
DEF	Diesel exhaust fluid (UREA) currently in use in Europe under name Ad Blue
DOC	Diesel Oxidation Catalyst
DPF	Diesel Particulate Filter
DTC	Diagnostic Trouble Codes
EDBI	Ethanol Boosted Direct Injection
EBS	Exhaust Back Pressure Sensors
ECU	Electronic Control Unit
EGR	Exhaust Gas Recirculation
HAPs	Aldehydes, includes formaldehyde and acrolein
HC	Hydrocarbons
HPCR	Cummins acronym for High Pressure Common Rail
NMHC	Non Methane Hydrocarbons
NOx	Nitrogen Oxide, Nitric Oxide (NO) and Nitrogen Dioxide (NO2)
PEMS	Portable Emissions Measurement System
PLC	Programmable Logic Controller
SAE J1939	Standards family is the preferred Controller Area Network (CAN) for equipment used in industries ranging from on and off high way, used for communication and diagnostics among vehicle/engine components
SAE	Society of Automotive Engineers
SCR	Selective Catalytic Reduction (Urea injection into exhaust system) (to achieve tier ratings)
SIP	States Implementation Plans
VGT	Variable Geometry Turbochargers
XPI	Cummins high pressure fuel system