



MEMORANDUM

TO: Regional Supervisors/Field MVIs

FROM: Jeff Corey ITS-2 (MCS)

SUBJECT: Cummins DEF/QLS Software update

DATE: 10/21/2021

Cummins and IC Corp. have identified an issue with the DEF/QLS on certain Cummins engines. Due to a supply chain issue, parts are not readily available for proper repair. NYSDOT has been made aware of a software update that can be performed as a temporary repair until parts are available.

Pursuant to the EPA allowing this software update, NYSDOT will follow suit.

Once the update is completed by an authorized dealer, the DEF gauge will remain inoperative and the low fluid light will be illuminated. The MIL light will still function as designed and the vehicle will pass emission standards. If the DEF is allowed to run out, the engine will derate to 5 MPH. The dealer must install window decals as shown below to alert drivers to the inoperative DEF gauge. These cling decals cannot block any driver's visibility to mirrors or roadways. There will also be an informational decal placed over the inoperative DEF gauge.

The operator/driver will assume all responsibility to ensure the DEF level does not run out to cause an unsafe running condition.

Once replacement parts are available, the software must be returned to the original engine calibration in a timely fashion.

When the software update is identified during the inspection process the MVI shall cite 99.02 on the MC300 and indicate "Cummins software update has been performed and DEF gauge is inoperative. Operator is responsible to ensure DEF is checked whenever vehicle is fueled".

Jeff

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EPA Information:

Diesel Exhaust Fluid (DEF) Sensor Shortage Updates

October 14, 2021

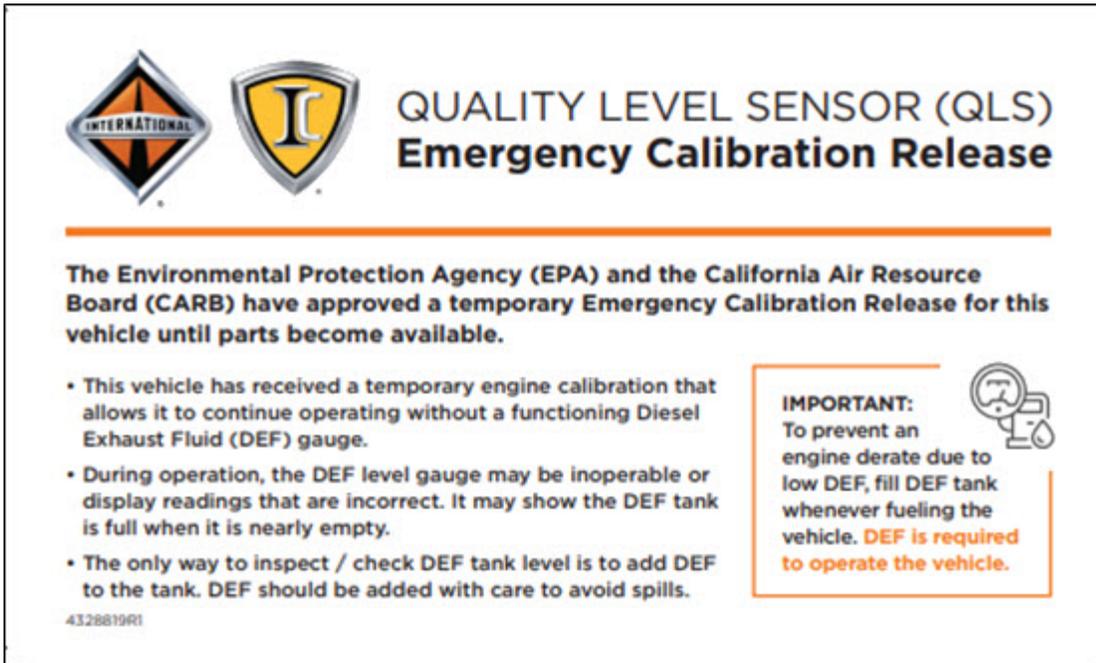
EPA is aware of how the global shortage of Diesel Emission Fluid (DEF) sensors is impacting vehicle owners, and we are working diligently with manufacturers to support them in providing solutions.

EPA has approved all the software solutions provided to us by the engine manufacturers, and manufacturers have already begun implementing many of them. Each manufacturer has numerous engine families, and each family typically requires a unique software solution. Manufacturers are determining the pace and sequence in which they complete software deployment for each of their engine families. Vehicle owners should contact their local dealership's service department for information about when a solution for their specific vehicle will be available.

Background

The global microchip shortage, exacerbated by the COVID pandemic supply chain disruptions, has resulted in a shortage of Diesel Emission Fluid (DEF) sensors. These sensors are required on heavy-duty diesel vehicles to ensure that the emissions controls needed to meet clean air standards are in place and working. Typically, if a DEF sensor fails, it is easy to simply install another one. The shortage of these sensors, however, has created a problem for many vehicle owners who cannot get a replacement.

IC Corp. window cling:



  **QUALITY LEVEL SENSOR (QLS)
Emergency Calibration Release**

The Environmental Protection Agency (EPA) and the California Air Resource Board (CARB) have approved a temporary Emergency Calibration Release for this vehicle until parts become available.

- This vehicle has received a temporary engine calibration that allows it to continue operating without a functioning Diesel Exhaust Fluid (DEF) gauge.
- During operation, the DEF level gauge may be inoperable or display readings that are incorrect. It may show the DEF tank is full when it is nearly empty.
- The only way to inspect / check DEF tank level is to add DEF to the tank. DEF should be added with care to avoid spills.

IMPORTANT: To prevent an engine derate due to low DEF, fill DEF tank whenever fueling the vehicle. **DEF is required to operate the vehicle.**

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DEF Gauge cover:

