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TECH TIP

DX3 INJECTION QUANTITY TEST

GROUP: 22-FUEL SYSTEM
TECH TIP NO: TT-22-022
DATE: 11-22-2022

SUBJECT VEHICLES: 11MY-21MY Conventional Trucks equipped with a J08 engine or 13MY-20MY Cab Over Engine (COE) trucks equipped with a J05 engine.

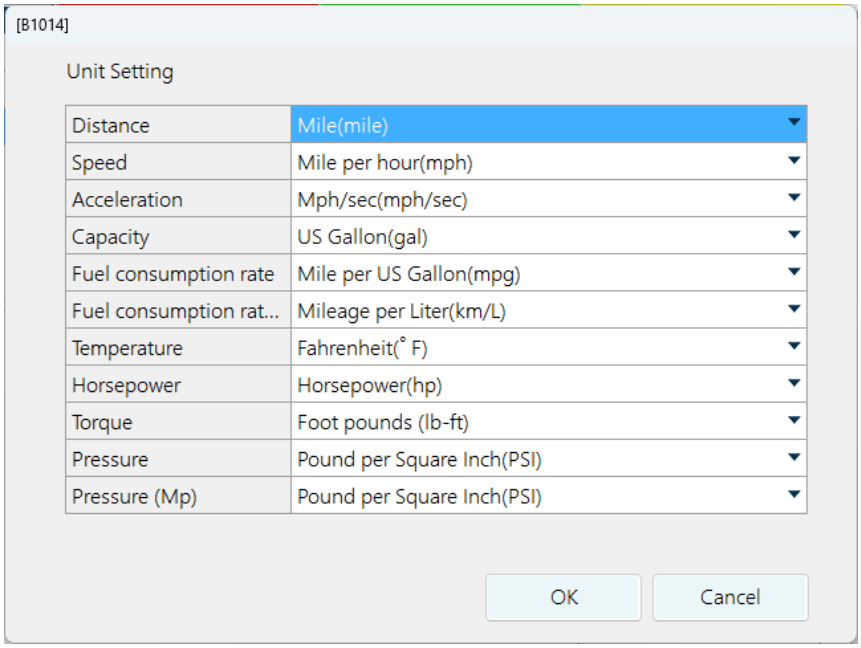
OVERVIEW:

The purpose of this procedure is to provide instructions in performing an injection quantity test on 2011 and newer Conventional or COE series trucks with DX3.

Note: This technical tip is provided as technical information and is not authorization for a warrantable repair.

REPAIR PROCEDURE:

Note: Be sure to change Unit Settings in DX3. Click ***Settings*** (gear in the upper right) > **Unit Setting** and then mirror the settings below, click ***OK***. Log out of DX3, then log back in to hold new settings for future DX3 connections and data monitoring.



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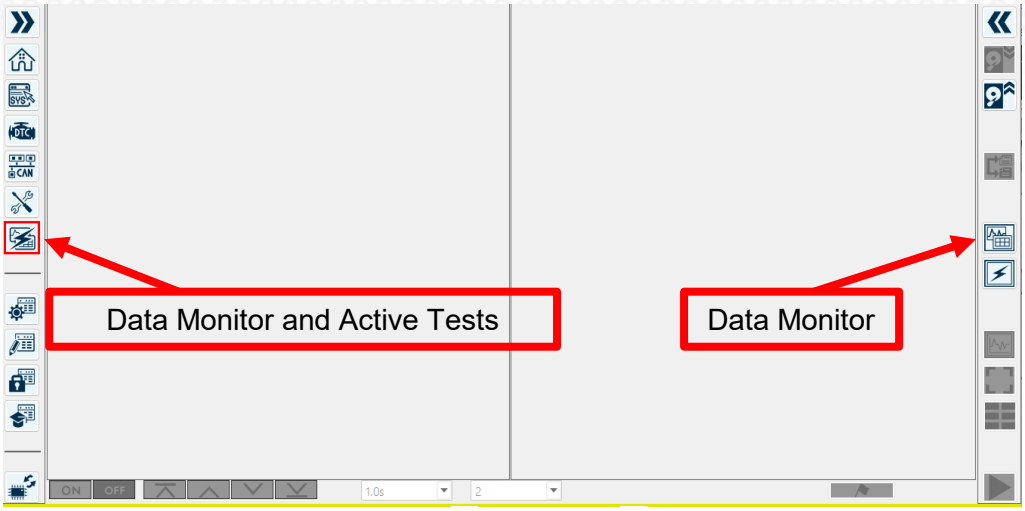
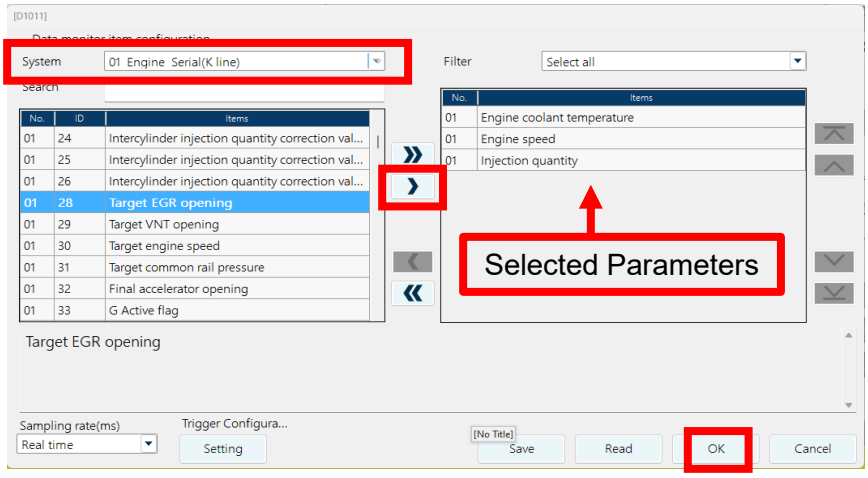
1. Bring the engine to full operating temperature of 175*F to 185*F (79-85 *C) by way of a short road test. **Failure to do so will affect injection quantity judgment.**

2. Connect DX3 and select ***"Data Monitor and Active Tests"*** then select ***"Data Monitor".***



3. In the Data Monitor Item Configuration menu, select ***Engine CAN*** for the System and then the following parameters; ***Engine Coolant Temperature***, ***Engine Speed*** *and* ***Injection Quantity Monitor***. Move each parameter to the box on the right using the ***arrow***, then click ***OK.***



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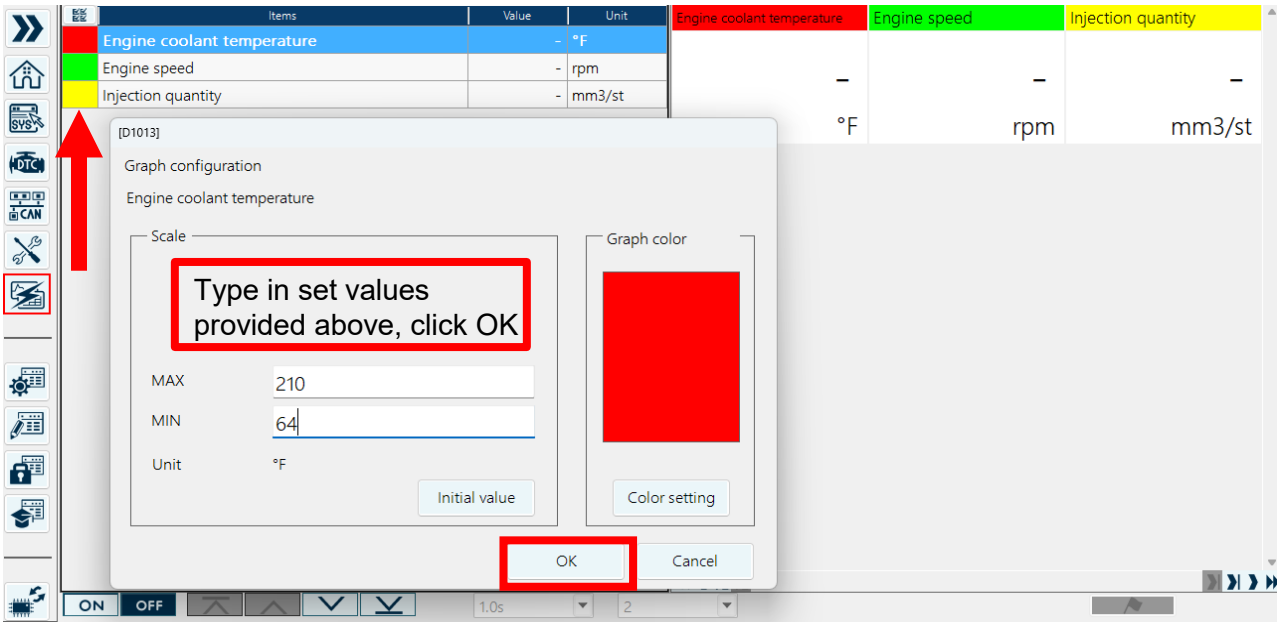
4. Adjust MIN/MAX Values. Click the colored box next to each parameter one at a time to set values as shown below, click ***OK*** to accept each value.

IMPORTANT – MIN/MAX Values must be adjusted prior to performing this recording.

Engine Coolant Temperature **Max 210F* / Min 64*F**

Engine Speed **Max 1512 rpm / Min 1488 rpms**

Injection Quantity **Max 20 / Min 0**



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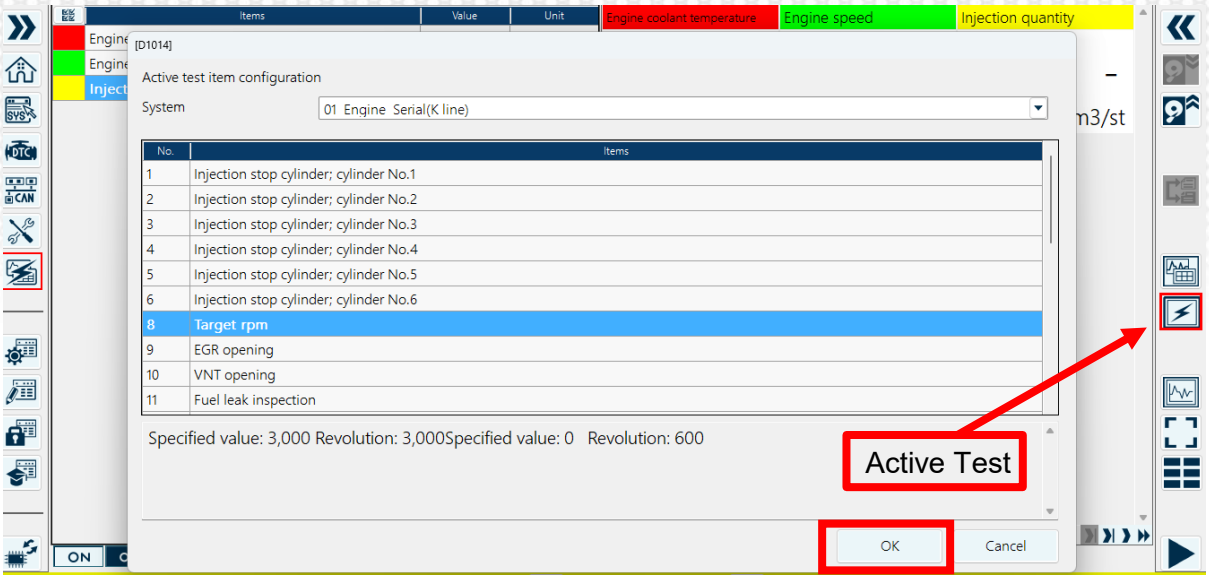
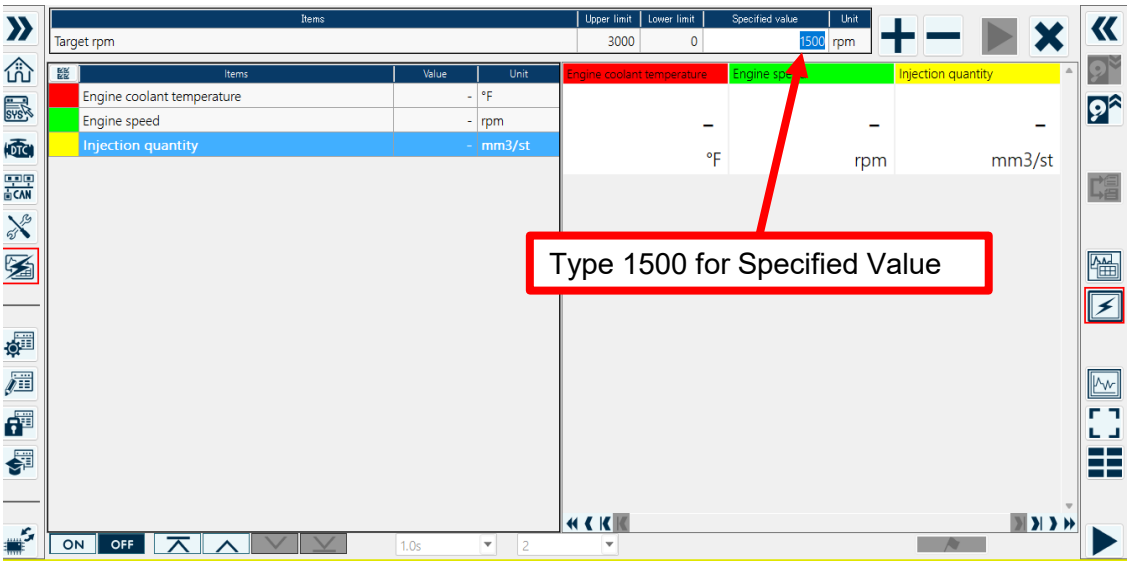
5. Once parameters are selected and set, click the ***Active Test*** icon and then select ***Target RPM***, Click ***OK.***



6. Set Target RPM to 1500 RPM. Click in the box and type ***1500.***



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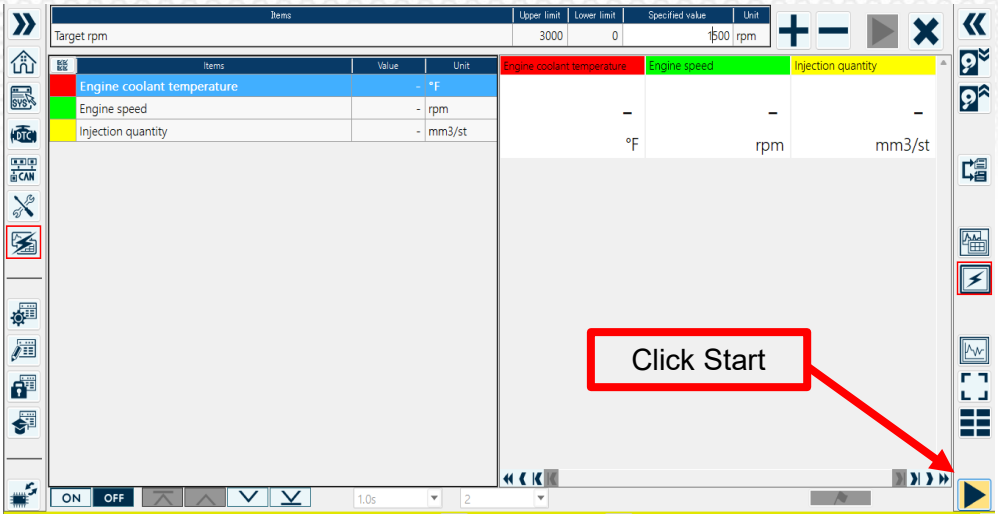
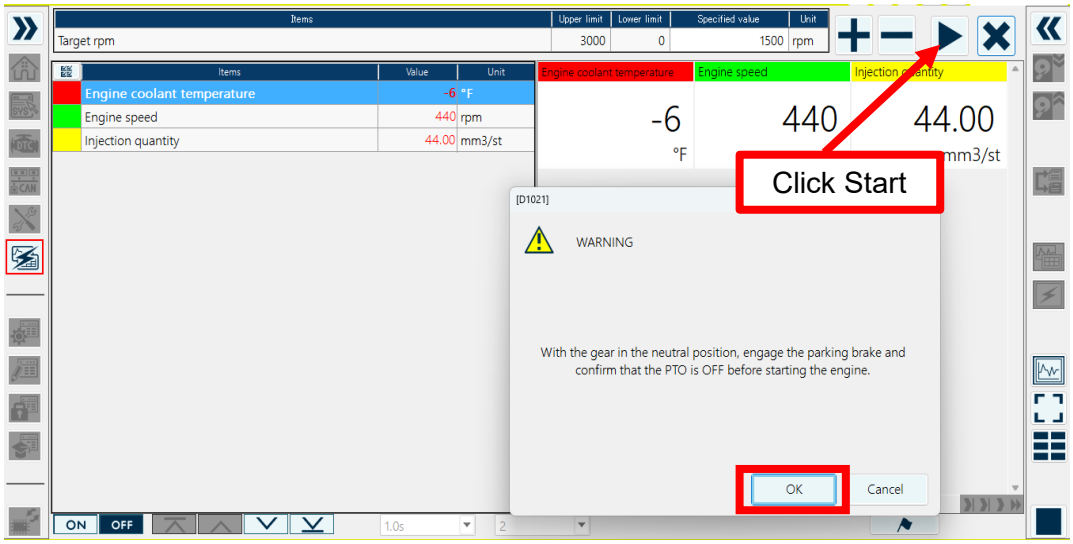
7. Again, make sure the engine is at Normal Operating Temperature. Start the engine, **turn off ALL Accessories** (A/C, Lights, Wipers, Exhaust brake, etc.) and start recording, click ***Start,*** **allow to idle for 1 minute** while recording.



8. After allowing to idle for one (1) minute, Click ***Start*** on ***Target RPM***, review and follow the Warning, then click ***OK.***



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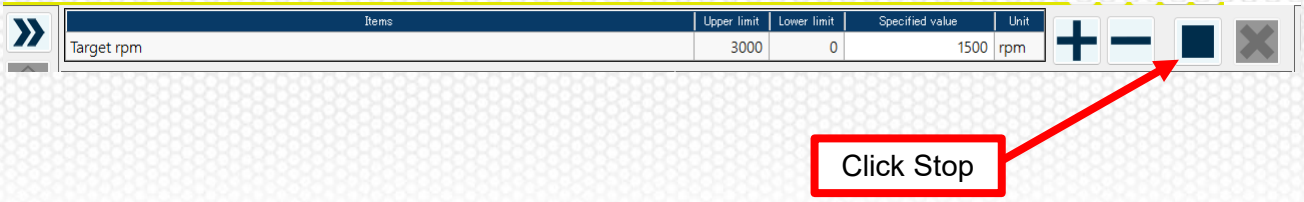
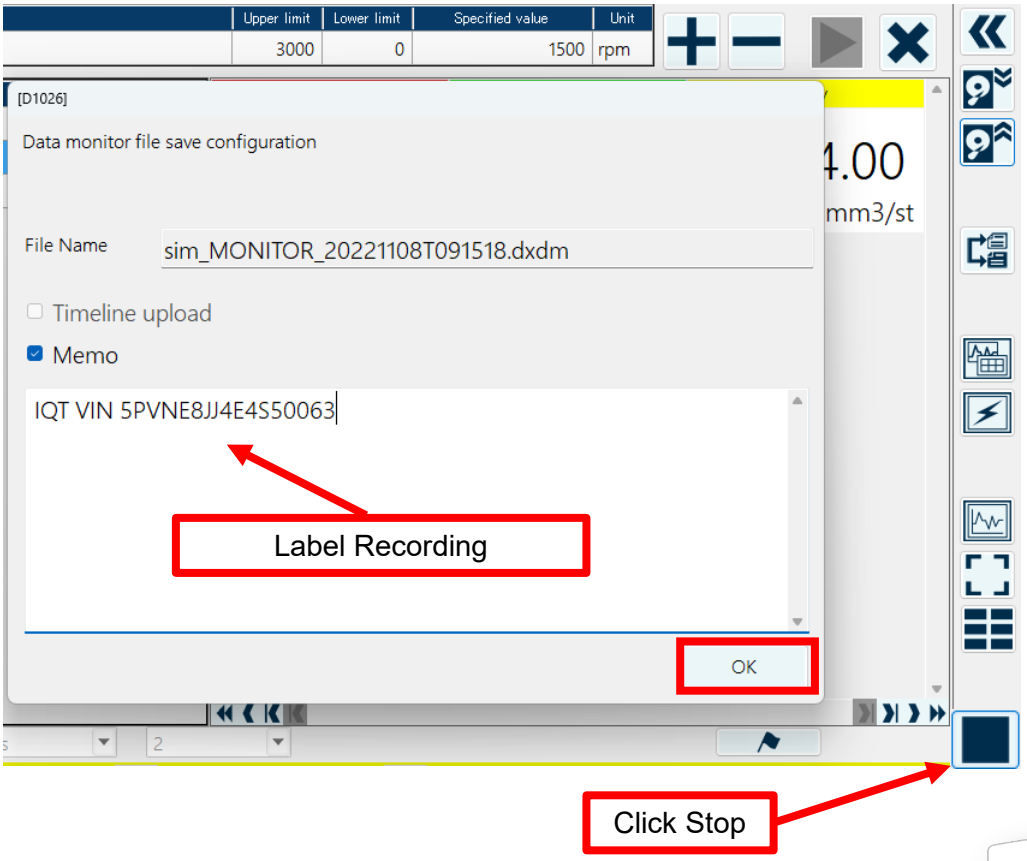
9. Record for nine (9) minutes at 1500 RPMs, then on ***Target RPM***, click ***Stop,*** allowing the truck to return to idle. **Continue recording for 1 minute at idle.**



10. Click the ***Stop*** in the lower right of DX3 to stop the recording. In the save box, ***label recording***, be sure to include the test name and VIN or TechAssist Case number, and click ***OK.***



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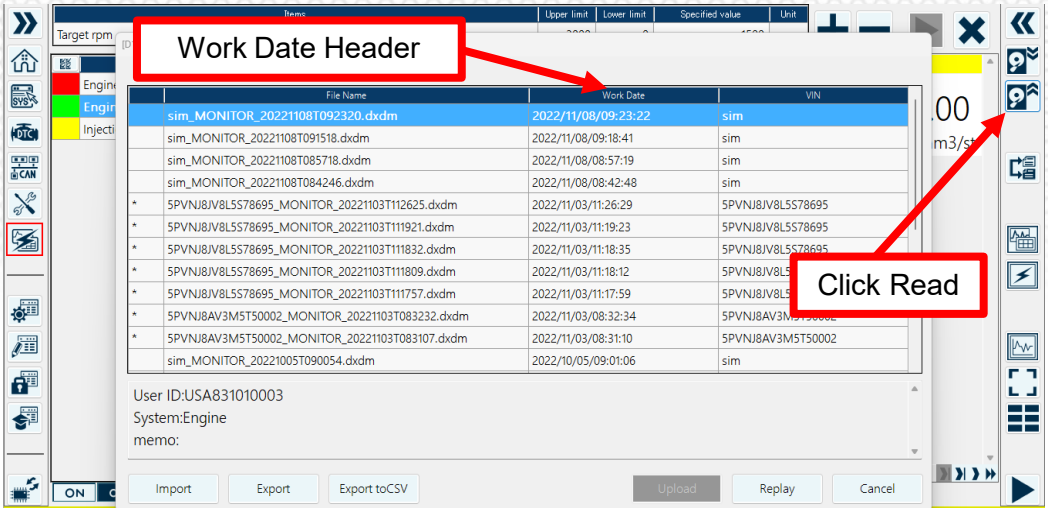
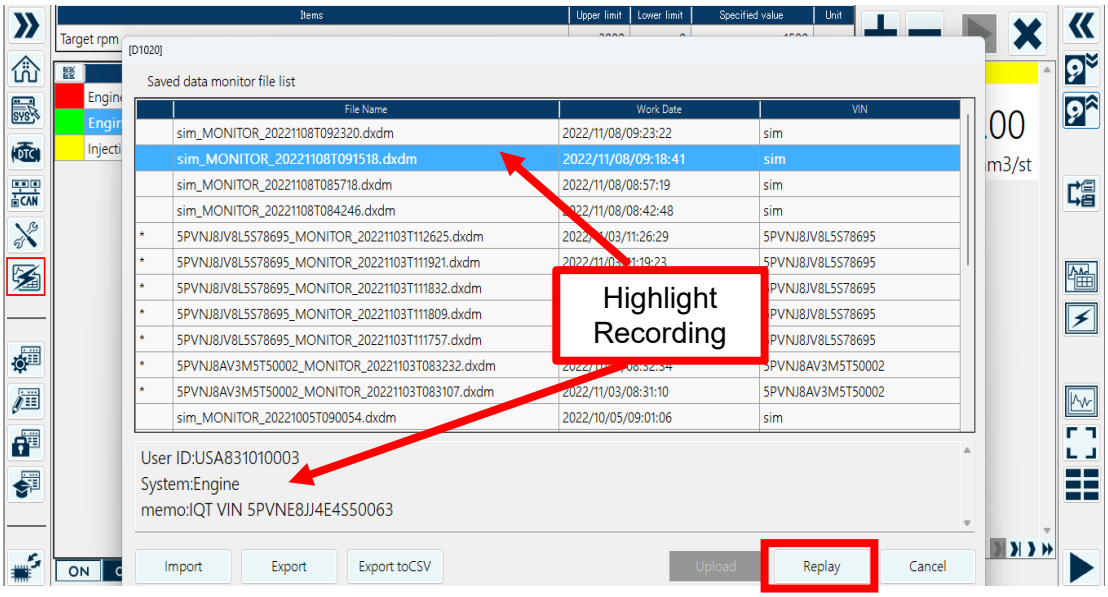
11. Click ***Read***, click on the **Work Date** header a couple times to sort recordings by work date.



12. Locate recording, highlight it, and click ***Replay.***



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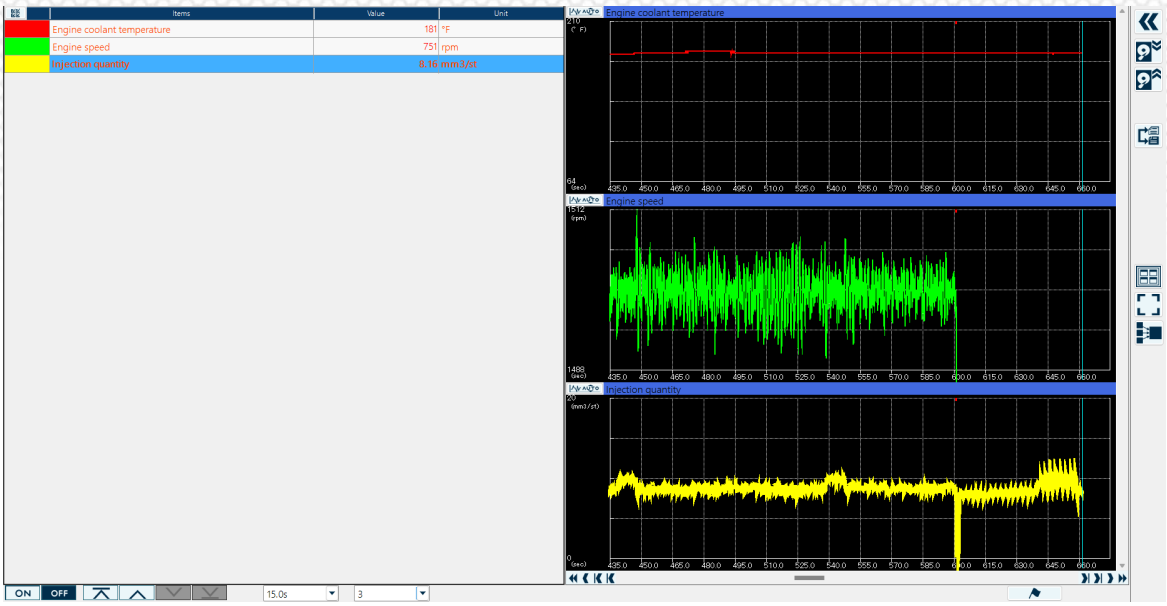
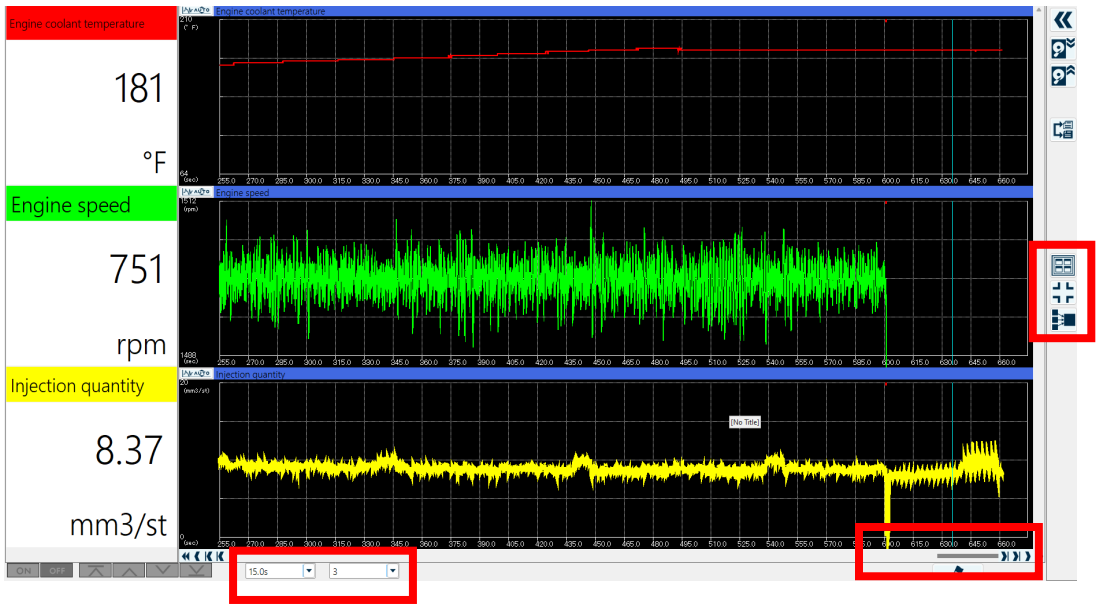
13. Select the number of parameters (3), the graph style, use the slide bar and time setting to read the recorded data.





Note: Please review our DX3 training course as needed for any graphing questions.

Note: If you are not able to determine judgment, please follow **TechTip #22-019 Sending DX3 Files to TechAssist.** Create a TechAssist case outlining the customers concern, diagnosis performed and related DTC's, then attach file(s) for review.

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