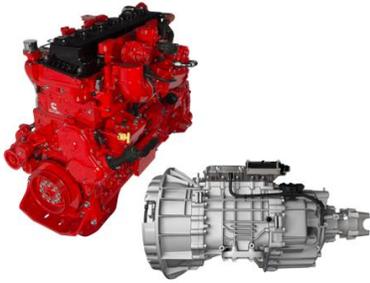


## February Edition of Natural Gas Engine Tech Talk



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### **Topic of the Month:**

#### **Now Pairing ISX12N with 12 speed Endurant AMT Transmission**

Specifically designed to pair with the ISX12N renewable natural gas engine, the 12-speed automated manual transmission became **available on February 15, 2021**. With 400 hp / 1,450 lb-ft torque and near-zero emissions, the ISX12N + Endurant HD N integrated powertrain is well suited for heavy-duty regional and long-haul class 8 operations seeking improved performance while delivering the lowest-in-class emissions.

### **New Renewable Natural Gas Engine Resource Webpage**

Cummins has released a new Renewable Natural Gas Engine webpage featuring engine specifications, emission calculator, customer testimonial videos, engine and fuel technical documents, maintenance guidelines by engine. **Click [here](#) to access the website.**

### **Natural Gas Engine Oil, the difference between SAE 15W-40 and SAE 10W-30**

Cummins and Valvoline evaluate Valvoline Premium Blue One Solution Gen2 10W-30 and 15W-40 natural gas engine oil.

**SAE 15W-40:** will give you a thicker protective film of oil that can be beneficial when dealing with exceptionally heavy loading or severe duty cycles. The thicker oil may give slightly more oil pressure late in engine life, when the bearings may be worn and allowing oil to more freely pass between bearing and shaft.

**SAE 10W-30:** Lower viscosity, by definition, provides less resistance to flow and more fluidic efficiency. Depending upon the duty cycle, **fuel efficiency gains can be in the 1-5% range**. During cold cranking, 10W will flow better than 15W; "W" stands for winter and the 2 grades are tested at 5°C (9°F) apart from each other.

**Consolidation** PBOS Gen2 allows consolidation of engine oil for diesel, CNG, and many gasoline engines. The viscosity grade you choose may allow you to consolidate more products. SAE 10W-30 is more likely to work with your gasoline engines in your fleets; where SAE 15W-40 is going to be recommended for those older diesel engines (typically prior to 2010 or 2013).

*\*Not all CES20092 engine oils are approved for diesel and gasoline engines.*

More detailed information contact: Michael Wedding directly at [mrwedding@valvoline.com](mailto:mrwedding@valvoline.com)

## **New Valve Cover mounted Crankcase Breather system on 2021 L9N**

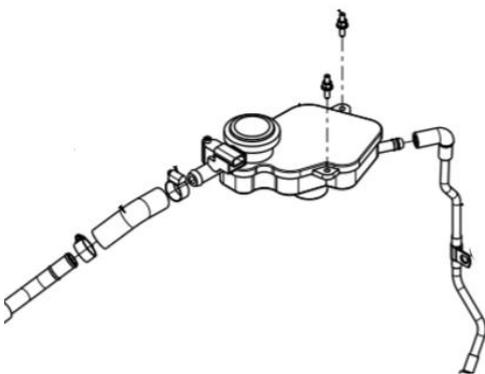
For 2021, Cummins Westport has released a new Crankcase Breather system for the L9N product. This new system will eliminate the remote-mounted breather option and replace it with an on-engine breather. The new breather is mounted at the top rear of the valve cover. All the drain lines are now mounted directly on the engine, eliminating the possibility of the return lines having low spots impacting oil drain back or crankcase gas flow.

## **Important Reminder: Proper Way to Check Natural Gas Engine Oil Level:**

### **Daily Oil Level Check and Top off recommended best practices.**

The Cummins Operation and Maintenance manuals recommend checking the engine oil level daily. To accurately check the level, here are a couple of tips.

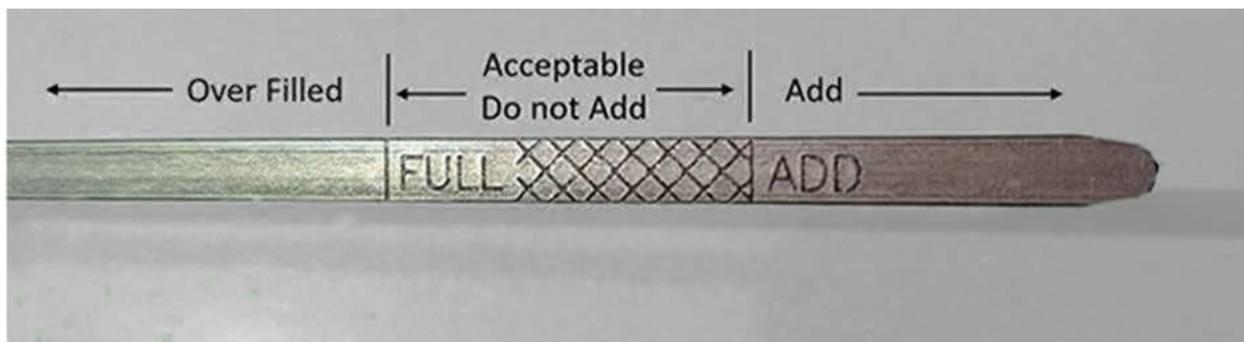
- Be sure the vehicle is parked on level ground.
- Allow 15+ minutes for the oil to drain back to the oil pan before checking the level. In testing, we have seen it take 20-30 minutes for the oil level to stabilize in the pan. The oil level measurement can be off by up to 1 gallon if adequate time is not given.



- The dipstick needs to be fully inserted and locked before reading to accurately gauge the oil level.
- Only add oil if the level is below the ADD line.
- Overfilling can cause oil consumption.
- As long as the oil level is between the FULL and ADD marks, oil should not be added.
- Oil Capacity between FULL and ADD are as follows:
  - ISX12G/N 2 Gallons
  - ISLG/L9N 1 Gallon
  - B6.7N 2 quarts

**Drivers should not be adding quarts at a time when it comes to the 12 or 9 liter engines.**

During daily oil level checks, use the following photo as a guide.



## **Technical Resources:**

**Maintenance and Operation Quick Reference Guides:**

[B6.7N](#)

[L9N](#)

[ISX12N](#)

**Jason Bauer's Maintenance Tip Videos – Click Links Below**

[Maintenance Intervals](#)

[Natural Gas Engine Oil](#)

[Ignition Coil Maintenance](#)

[Fuel Filter Maintenance](#)

[Spark Plug Maintenance](#)

[Tips for Success](#)

**Minimum methane number requirement for Cummins Natural Gas Engines:**

C Gas Plus, B Gas Plus, and L Gas Plus	65
ISL G, ISX12 G, ISB6.7 G, and all 2018 engines	75

[GHG Emissions Calculator](#)

[Fuel Quality Calculator](#)

**Recommended Maximum GVW for Best Performance & Efficiency:**

B6.7N	33,000lbs
L9N	66,000lbs
ISX12N	80,000lbs

## **CES 20092 Oil Provider Recommendations**

For the latest list of recommended oil providers click [here](#).