

NAVIGATING PC-11

WHAT API **CK-4** AND **FA-4** MEANS FOR YOU

WHY WILL PC-11 HAVE TWO SPECIFICATIONS?

Beginning Dec. 1, 2016, the new API Diesel Engine Oil standards (previously known as PC-11) will go into effect for use in high-speed four-stroke cycle diesel engines. The new standards are designed to meet 2017 model year on-highway and Tier 4 non-road exhaust emission standards as well as for previous model year diesel engines.

API CK-4

PC-11A Oils



Preserves historical HD viscosity limits and is backwards compatible for CJ-4, CI-4, CI-4 Plus, and CH-4.

API FA-4

PC-11B Oils



Provides fuel efficiency benefits while maintaining durability and helps OEMs meet new emissions regulations and increased fuel economy.



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WHAT IS THE DIFFERENCE BETWEEN CK-4 AND FA-4?

FA-4 oils have a lower High-Temperature High Shear (HTHS) viscosity compared to CK-4 oils. Oils with lower HTHS can improve fuel economy.

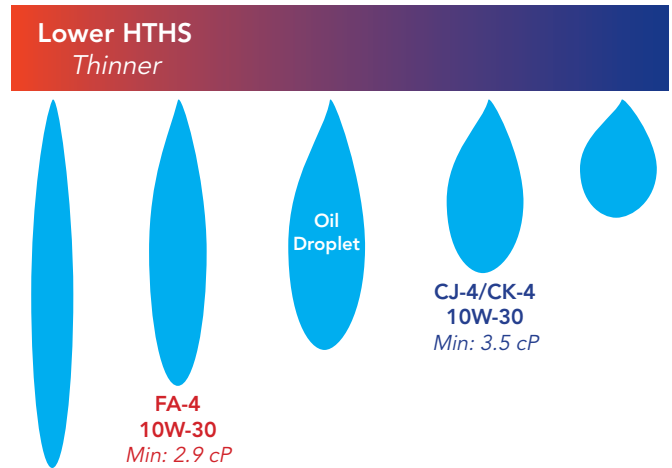
So What *is* HTHS?

HTHS simulates viscosity of the engine oil passing through bearings in an operating engine. Oils must withstand the shearing and tearing effects of an operating engine to prevent wear and improve fuel economy.

Did You Know?

HTHS is the one of the main factors that determine if an oil will be classified as API CK-4 or API FA-4.

High-Temperature High Shear Viscosity



HOW WILL CUSTOMERS KNOW WHICH OIL TO USE?

The best advice you can give to your customer is “consult the engine manufacturer to determine which oil should be used.”

The chart to the right provides a past and future view of North American engine manufacturer oil recommendations.

OEM	2012 FF	2013 FF	2017 FF Projected	2022 FF Projected
Cummins	API CJ-4 CES 20081 SAE 15W-40	API CJ-4 CES 20081 SAE 10W-30	API CK-4 CES 20086 SAE 10W-30	FA-4 10W/5W-30
Detroit Diesel	API CJ-4 93K218 15W-40	API CJ-4 93K218 10W-30	API FA-4 93K223 10W-30	FA-4 5W-30
PACCAR	API CJ-4 15W-40	API CJ-4 10W-30	API CK-4 10W-30	FA-4 5W-30
Navistar	API CJ-4 10W-30	API CJ-4 10W-30	API CK-4 10W-30; FA-4 10W-30 optional	FA-4 5W-30
Volvo	API CJ-4 VDS 4 10W-30	API CJ-4 VDS 4 10W-30	API CK-4 VDS 4.5 10W-30	FA-4 VDS 5 5W-30
Mack	API CJ-4 EO-O SAE 10W-30	API EO-O SAE 10W-30	API CK-4 EO-S SAE 10W-30	FA-4 EO-x 5W-30