



# MAINTENANCE INFORMATION

MI18-02A

DATE : April 2018 SECTION : 24 LUBRICATION
SUBJECT : ENGINE OIL & FILTER CHANGE INTERVALS VOLVO D13 ENGINE, FROM US10

Revision: A Updated for OBD20 engines

November 20 2020

### APPLICATION

Model	VIN	
H3-41, H3-45 coaches Model Year : 2011 up		From 2PCH33496 <b>B</b> C71 <u>1721</u>
X3-45 coaches X3-45 VIP commercial use XLII-45 Entertainer Model Year : 2011 up		From 2PCG33491 <u><b>B</b></u> C73 <u>5002</u>

## VDS-5 OIL

The Volvo VDS-5 oil quality has been developed for D13N OBD20 engines and designed for modern high-output, low-emission engines with Exhaust Gas Recirculation (EGR), Selective Catalytic Reduction (SCR) and an after-treatment system Diesel Particulate Filter (DPF), giving better protection against oxidization, high temperature viscosity reduction, sludge build up and providing excellent low temperature circulation properties.

SAE 5W-30 is specifically developed to improve fuel economy, provide excellent wear protection and ensure optimal engine life. The new Volvo VDS-5 SAE 5W-30 specification will deliver 0.5% fuel economy improvements.

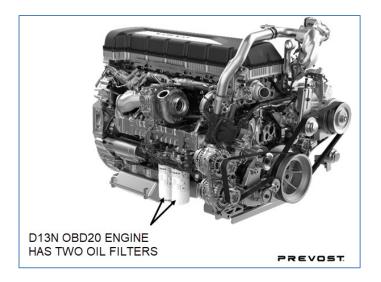
VDS-5 oil is only allowed for use in the most recent D13N OBD20 engines and is not backwards compatible with any other engine. VDS-5 has a lower viscosity, which results in lower oil pressure. If VDS-5 is used in older engines, the oil pressure may become too low under some driving conditions.

VDS-5 is not an exclusive requirement; all engines, including the D13N OBD20 can use VDS-4.5.

VDS-5 oil exceeds API service category FA-4.

#### Identification

How can you visually see the difference between the old engines and the new D13N OBD20 engine? Look at the oil filters. The D13N OBD20 has two oil filters – whereas previous versions had three.



## VDS-4.5 OIL

The Volvo VDS-4.5 oil quality has been developed for US2017/GHG17 engines. It has improved oxidation and thermal stability compared to VDS-4 (API CJ-4).

Compared to older American Petroleum Institute (API) CJ-4 engine oils, Volvo VDS-4.5 delivers:

- better wear protection
- higher oxidation resistance
- better high-temperature viscosity control.

These oils exceed API service category CK-4 and are fully backwards compatible and can be used for all previous engine generations.

Due to the improved performance of Volvo VDS-4.5 specification motor oils, engine oil drains have been extended for US10 generation engines and newer generations in comparison with VDS-4 specification motor oil drains.

## OIL VISCOSITY

In summary, all past and present engines can use 15W-40 or 10W-30 engine oil.

5W-30 oil can only be used on the 2-oil filter D13N OBD20. 5W-30 cannot ever go into a 3-oil filter engine.

Oil Type Compatibility							
D13F - US07	D13H - US10	D13J - US14	D13M - US17	D13N - OBD20			
15W-40 – CJ-4 (VDS-4)							
10W-30 – CJ-4 (VD	S-4)						
15W-40 – CK-4 (VDS-4.5)							
10W-30 – CK-4 (VD	S-4.5)						
5W-30 VDS-5							
Prevost Technical Institute"							

<b>OPERATING CONDITION</b> Use the information that follows to determine the operating condition and usage applicable to your vehicle					
	<b>Heavy</b> en 5 and 6 mpg 39 and 50 L/100 km	<b>Normal</b> Greater than 6 mpg Less than 39 L/100 km			
– US10 е - H3 - H3	d filter change intervals <sup>1</sup> – engines and newer & X3 series coaches - XLII Entertainer & VIP commercial use & VIP commercial use	Lubricants			
Regular drains	Heavy operating condition, change every 35 000mi / 60 000km / 1 000 hours Normal operating condition, change every 45 000mi / 75 000km / 1 300 hours	Filled with VDS-4 specification oils approved by Volvo			
Extended drains I	Heavy operating condition, change every 40 000mi / 65 000km / 1 200 hours Normal operating condition, change every 55 000mi / 90 000km / 1 600 hours	Filled with VDS-4.5 or VDS-5 specification oils approved by Volvo			
Extended drains II	Heavy operating condition, change every 45 000mi / 70 000km / 1 300 hours Normal operating condition, change every 60 000mi / 95 000km / 1 700 hours	Filled with "VOLVO PREMIUM MOTOR OIL VDS-4.5" or "VOLVO PREMIUM MOTOR OIL VDS-5"			

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<sup>&</sup>lt;sup>1</sup> Not applicable to X3-45 Commuter & Private Use motorhomes