

New VCS (Volvo Coolant Specification) Coolant

Models: All diesel engines

Distribution: Parts Date: 05-2010 Binder: Parts Replaces:



Volvo Penta will introduce a new type of coolant week ending May 22, 2010. Volvo Penta Coolant VCS is designed to work optimally with the latest Volvo Penta engine programs.

Volvo Penta Coolant VCS (yellow) contains new inhibitors that are adapted to the materials used in modern engines. VCS (yellow) offers better protection against corrosion and the build-up of deposits; it counteracts cavitation and galvanic corrosion.

The introduction of VCS (yellow) will take place as verification tests of the new coolant are completed on each engine type concerned. The change-over to

VCS (yellow) will begin with the D13 marine engine with the switch from the 2010 to the 2011 model (D13 EVC-D), and then with the D16 marine week ending July 10 (1).

Background

The continued improvement of our engines with higher performance, more compact sizes and lighter materials raises the requirements for cooling, corrosion protection and therefore also the coolant. Volvo Penta Coolant VCS is yellow and may not be mixed with green coolant.

Kits for cleaning the cooling system:

Cleaning kit part # 21467920 for general use in the event of problems with deposits or oil. The kit is supplied with Installation instruction 47700911. It may only be used on engines filled with VCS (yellow). In cases where a change must be made from Volvo Penta Coolant (green) or equivalent to VCS (yellow), the cooling system must be cleaned using oxalic acid; refer to Service bulletin 26-0-29 for instructions. Kit part # 21538591 contains Installation instruction 47700409 and two yellow decals informing that Volvo Penta Coolant VCS (yellow) is in use.

Kit part # 21538593 is for industrial engines and contains Installation instruction 47700409 and a blank to replace the removed coolant filter.

New parts

21485012 Coolant 5 Liter YELLOW
21485013 Coolant 210 Liter YELLOW Barrel
21485014 Coolant, ready-mixed. 5 Liter YELLOW
21485015 Coolant, ready-mixed. 210 Liter YELLOW Barrel

Water quality

Only mix Volvo Penta coolant with tap water that fulfills Volvo quality standard VOLVO STD:1285,1. In the event of doubt regarding water quality, use Volvo Penta ready mixed coolant.

Freezing point

Freezing points (ASTM D1177) and pour points (ASTM D97) for VOLVO PENTA coolant and VOLVO PENTA VCS coolant.

Mixture proportions (freezing point) at:

40% coolant and 60% water gives -24 °C (-11 °F)

50% coolant and 50% water gives -37 °C (-34 °F)

IMPORTANT!

Industrial engines may not use coolant filters in combination with VCS (yellow); coolant filters will be omitted on new industrial engines filled with VCS (yellow).

Old model engines must continue to use Volvo Penta Coolant (green). In the event of problems with D13 engines already sold and in the field, it can be appropriate to replace the coolant. This may be done on the condition that the cooling system is cleaned before VCS (yellow) is filled. Refer to the following page for cleaning procedure.

The coolant change intervals for VCS (yellow) are extended to 4 years (Volvo Penta Coolant green coolant = 2 years). Industrial engines that use a combination of Volvo Penta Coolant (green) and a coolant filter with a current coolant change interval of 4 years, will continue with 4-year intervals with VCS (yellow). If concentrated VCS is chosen, the same mixing water quality requirements apply as did previously. Refer to the following page or the Operator's Manual.

Volvo Penta recommends the use of its coolant Ready Mixed, or a concentrated form of the type of coolant the engine was supplied with (or must be filled with on the first occasion; refer to the Operator's Manual for the engine concerned). The concentrate must be mixed with clean water (refer to spec.) according to Mixing proportions.

These coolants are the only coolants suitable for, and approved by, Volvo Penta.

NOTE! Volvo Penta Coolant VCS (yellow) should not be used on Volvo Penta engines that have hitherto used Volvo Penta Coolant (green) or other type of coolant(2). Volvo Penta Coolant (green) is manufactured using different technology and has inhibitors that may not be mixed chemically with VCS (yellow). Engines that have been in operation for a long while are difficult to rid completely of green coolant residues.

- (1) Because the D16 marine engine will remain otherwise unchanged, its exterior distinguishing feature will be a yellow decal.
- (2) Replacements should only be made in exceptional cases.
- (3) Volvo Penta does not supply oxalic acid.

See also Service bulletin: 18-4 2 3 and Product sheet on Partner Network.