Fleetguard®

DCA4

MAINTENANCE REQUIREMENTS OF COOLING SYSTEMS SUPPLEMENTAL COOLING ADDITIVES (SCA'S) FOR WATER ONLY SYSTEMS (METRIC VERSION)

The following guidelines for use of Fleetguard DCA4 can only be applied to water only coolants as used in medium speed diesel engines. Engines of this type are not likely to have problems with cylinder liner cavitation (liner pitting). Water used for these cooling systems must meet minimum specifications before use.

- Total hardness less than 170 parts per million (PPM) or 170mg/l
- Chlorides less than 40 PPM
- Sulphates less than 100 PPM pH from 5.5 to 9.0
- Total dissolved solids less than 340 PPM

If such engines do experience cylinder liner cavitation, it is strongly recommended to use ethylene glycol mixed with the above quality water and precharged with DCA4.
In such conditions use our guidelines for cooling systems using Anti-Freeze.

Failure to maintain adequate levels of DCA4 will likely result in the formation of hard water scale and metals corrosion, as well as liner cavitation on engines that are prone to this problem. It cannot be over emphasized how important it is for you to always maintain the correct level of DCA4 in your engine coolants. It is easy to get the initial precharge correct when filling the system for the first time or after a drain and flush. Where customers always experience trouble is in refilling low coolant levels but forgetting to use the DCA4 precharged into the replenishment coolant.
To check correct levels of DCA4 in your coolants, use the CC2602M/ CC2602AM 3-Way Test Kit from Fleetguard.

PRECHARGE OF SCA'S, USING DCA4

When putting new coolant into an engine for the first time or after flushing old coolant, we recommend a precharge of 6% (0.6 unit/litre on the CC2602M 3-Way Test Kit) of the total coolant volume using DCA4. Remember to include the heat exchangers and all connecting lines, not just the engine coolant volume. It is best to precharge the coolant and thoroughly mix before installation into the cooling system.

On existing cooling systems, beginning the use of DCA4 is simple. Test the coolant level to determine the existing level of SCA' s by using the 3-Way test kit.
Be certain that there is enough space within the cooling system to add the volume of DCA4. Drain some coolant, if necessary, to make room.

When using the CC2602M/CC2602AM 3-Way Test Kit, determine what is needed in liquid DCA4 by the following method.
Example: testing reveals that the SCA level is 0.2 unit/Litre (2% of system volume).To obtain the desired minimum precharge of 6%, add 4% by volume of DCA4 liquid.

After any addition of SCA to the cooling system, retest the DCA4 level after operating the engine for one day.
This will give the chemical additive time to thoroughly disperse throughout the coolant volume. If it is not possible, retest after 50 operating hours.

SERVICE GUIDELINES

Check DCA4 concentration levels at every 500 operating hours using the Fleetguard CC2602M/CC2602AM 3-Way Test Kit. It is normal to expect to add 2% DCA4 Liquid at each 500 hour service interval. The service dosage volume is designed to replace the depleted SCA level caused by engine operation. When refilling low coolant levels, use water mixed with at least 6% DCA4 Liquid. Never add untreated coolant to the engine.

We suggest using a water filter to remove solids from the cooling system.
Use the Fleetguard WF2077 at each 500-hour service interval.
There are also Extended Service waterfilters available, WF2123, containing the Fleetguard synthetic media Stratapore. WF2123 has to be replaced at last every 4000 running hours or every year.

Water filters are strongly recommended to remove core sand, rust particles, and dirt. Core sand has been shown to be a problem that will linger for years after an engine is first put into service.
Poor maintenance practices often lead to additions of dirt and the quality of water often leads to rust information.

USE QUALITY WATER ONLY!

Note:
At the start of the use of waterfilters on a cooling system, cooling water filters may plug earlier depending on the amount of initial debris in the system.

3-Way™ Test Kit

Using the CC2602M/CC2602AM test kit makes testing of the cooling system a very simple task.
Laboratory analysis of coolants is not necessary for maintaining correct levels of DCA4 in the cooling system. Testing is recommended in the following parameters:

- At least twice a year or at each 500 hour service interval
- If there is substantial coolant replenishment of low coolant levels
- When you are not sure of the levels of DCA4 in your system

The Testkit Fleetguard offers you an easy tool to check the concentration of DCA4 in your cooling system.

Important:
Testkit instructions call for testing at each service interval after any test that determines you are above 1.1. units/Litre or 10 vol. %.
Do not resume service dose additions of DCA4 Liquid until testing shows less than 0.8 units/Litre (8 Vol.%).
Add DCA4 to the cooling system on a regular basis as part of the regular maintenance procedure. The teststrip containers ar marked with an expiration date and the plastic containers must be securely tightened to protect the moisture sensitive strips.
Discard the strips if there is any doubt about the teststrip quality.

For more information or questions about cooling treatment maintenance call:

Belgium	**+32 15 28 93 11**
U.K.	**+44 1455 542 222**
France	**+33 298 76 49 49**

DCA4 filters

Part number	DCA4 units
WF2077	0
WF2123 (filter ES)	0

DCA4 liquid

Part number	DCA4 units	litres
DCA60L	5	0.5
DCA65L	20	1.9
DCA70L	40	3.8
DCA75L	200	18.9
DCA80L	2200	208

Cummins Filtration