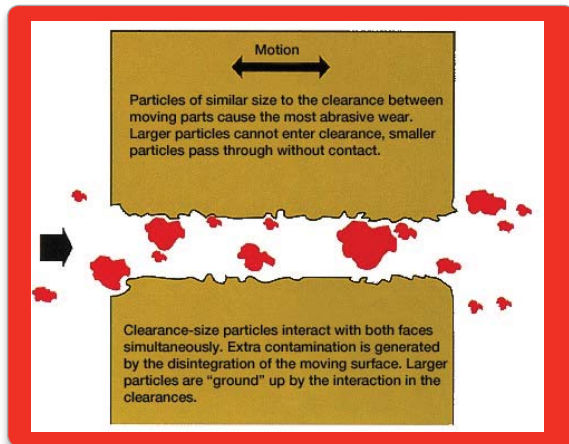


Fleetschool Fact Sheet

Contamination is responsible for wear related problems. System components such as pumps, motors and valves can fail or get damaged by particles that are equal or larger than the clearances of their moving parts.



Costs incurred through hydraulic system failure result from –

- loss of production (downtime)
- component replacement costs
- more frequent fluid replacement costs
- increased overall maintenance costs

Good filtration reduces downtime and all over operating costs.

Contamination Control is best achieved through **exclusion**.

Meaning keeping the dirt out in the first place, instead of relying on filtration. This is a maintenance issue. Housekeeping and cleanliness during maintenance can go a long way. Check, service and replace breathers. Clean filling equipment before filling or topping up oil. Prevent water from entering the system by replacing or fitting covers and guards. As seals, wipers and surfaces wear out, more dirt can get ingested by the system. Maintain and replace defective components. Keeping dirt out makes the life of filters easier and extends their service life.

Once contamination has been introduced into the system it must be removed by the filter system. For the filter system to achieve its goal, it must have the right filter type and media in the right location.

Always follow and adhere to the manufacturers recommendations as changes to the filter system can easily lead to other problems and damage to the system.

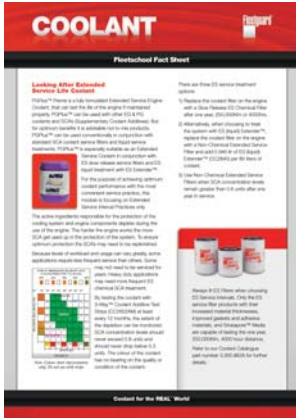
Pressure Filters are designed to handle full system pressure. They are fitted down stream from the pump and ensure protection of sensitive components.

Return Line Filters are low pressure filters and catch the dirt and wear debris from system's working components from the oil on the way back into the reservoir.

Suction Filters provide relatively coarse protection. They are located before the inlet port of the pump and pose a cavitation risk if too small or not well maintained.

Off Line Filtration, such as filter carts can be hooked up as additional filtration to help clean up the oil. They do not give direct component protection but can be very effective in removing specific and large amounts of contamination.

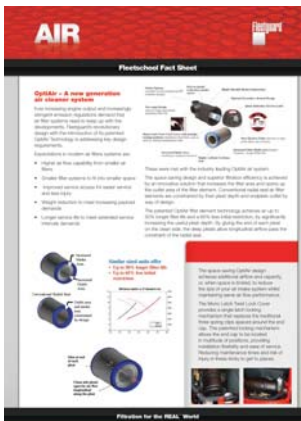




Part No. 3.301.029A



Part No. 3.301.033A



Part No. 3.301.023A



Part No. 3.301.024A

Other Fleetschool Fact Sheets can be found on the Cummins Filtration Website at:

http://www.cumminsfiltration.com/en/product_literature/en_lit_asia.shtml

Test Your Knowledge

- Why do components often fail or get damaged by contamination?
 - Particles can do damage in the clearances of moving parts. They can do damage and wear the components out.
 - Because a different brand of filters was fitted.
 - There is often not enough filtration fitted.
- Why is it better to keep dirt out in the first place?
 - Because it takes the additional dirt load off the filter system.
 - It helps reducing maintenance costs.
 - Good maintenance and housekeeping helps to extend the service life of the equipment.
 - All of the above.
- If my pump wears out regularly, should I choose a finer filter?
 - Yes, because it helps removing the dirt that damages the pump.
 - No, because pump wear is not a filter problem.
 - No. I should seek advice, as a finer filter could introduce new and different problems.

1) A 2) D 3) C
Answers

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