CAT machines gain the best in oil contaminant control

Filtration specialist Donaldson Australasia has provided the filtration technology in an alliance signalling a new era in quality for hydraulic, transmission and engine oils in Australia.

In association with William Adams Pty Ltd, Donaldson has configured a 'kidney loop' and delivery filtration process that eliminates damaging particulate – commonly found in new oils – to help safeguard Caterpillar (CAT) machinery in Victoria and Tasmania.

William Adams, the exclusive distributor of CAT equipment throughout Victoria and Tasmania, gains not only better oil for the equipment it trades, it also benefits from a cleaner working environment for service technicians and field personnel.

Donaldson Australasia attains a new ongoing user market for its Duramax filters – a product that has been specified by Caterpillar USA.

Donaldson Australasia says bulk oils for engines, hydraulics and transmission can be passed through several holding tanks (metal or plastic) with varying viscosities before reaching William Adams or one of its satellite service outlets. This potentially exposes it to residual sludges, dirt or any other unwanted matter which 'contaminates' what is expected to be clean oil.

Donaldson configured three types of solution in conjunction with Alemite Lubrequip's Vernon Goss and All Stainless Engineering's Ralph Schaede:

The first is the Bulk Tanks at the Clayton and Laverton sites with customised designs to suit the demands of the William Adams facilities.

Another, such as that at William Adams' smaller satellite branches throughout Victoria and Tasmania, is a depot system that handles medium quantities on delivery (1000 litre Pallecon).

The third is a smaller, portable version that can be transported on a utility to any site where moderate quantities of oil are used (205 litre drum).

Per hundred millilitres of oil, one can expect to find between two million and four million particles in sizes above 6 microns. The higher this contamination of oil, the higher the wear over a given period of time within the system it is lubricating, therefore there is a greater chance of lessening the life of the machinery in which it is used.

This solution adheres to the CAT recommended cleanliness levels standard for oil for gearboxes, hydraulic systems, and transmissions.

What machinery operators don't often realise is that a lot of hydraulic and industrial systems operate on oil film thickness margins as tight as one micron, which is the distance between rolling elements and race way in bearings, under load.

The kidney loop system takes the oil right through a filtration process at a fast rate to leave a cleaner product for these applications.

The joint venture will build all the liquid filter systems for William Adams CAT, therefore ongoing support will be at a premium. Equipment positively affected will include everything from the smallest backhoe to the largest earth moving equipment.

Better trade in value will be the ultimate gain for customers with CAT machines that have been maintained with Donaldson's contamination control.

Mr Paul Bradley, Coordinator R.P.I/C.C at William Adams Pty Ltd, says CAT is gearing all its distributors worldwide to achieve these levels as the tiny particles carried by new oils can easily be harmful to all sorts of machines and controls.

"Caterpillar's initiative seeks to make all its facilities operate on specific standards, thereby the CAT brand can offer an increased value for money by ensuring high quality components for life," said Mr Bradley. "Our direct gain at William Adams is that improved facilities and a clean-line approach will attract tradespeople back into our industry (diesel mechanics in particular).

"Another problem we are overcoming is that in Australia – unlike other parts of the world where CAT operates - we have a lot of vulcanite dust which is very hard. The CAT group worldwide is massive and has a changeover system for its products and components. If a Caterpillar product fails during warranty it is considered a rare event and causes a lot of paperwork."

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