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Return Filter RFT-150

INITIAL SITUATION

The previous filter system was very outdated with magnetic rings and a tie-rod holding the element with oil flow direction from centre to the outside, which limited its flow handling capacity and led to a high starting pressure drop. For servicing the whole filter needed to be dismantled in order to change the element when clogged.

For the new generation of Backhoe-Loaders the OEM wanted to modernise the filter system with a new design having the flow direction from outside to centre. The flow requirement was specified as 150 l/min and the dirt holding capacity should be sufficiently high to allow a filter service interval of at least 500 operating hours. In addition, an axial piston pump should be used in the future to increase machine performance and machine availability while reducing service costs.

SOLUTION

ARGO-HYTOS has developed a robust tank-mounted return filter tailored to the requirements of the new generation of backhoe loaders. The aluminum filter head features a sturdy cover and a 4-hole mounting pattern that ensures a leak-free tank interface. A glass fiber element with a filter fineness of 5 $\mu\text{m(c)}$ is used for the first approximately 100 hours of operation. Then the final 10 $\mu\text{m(c)}$ filter element is installed. In this way, any initial dirt that may have accumulated in the machine before initial start is filtered out directly, thus preventing initial damage.

For maintenance, the filter bowl including the filter element is simply pulled out of the head without having to separate the filter from the rest of the system. This prevents dirt deposited in the housing from getting flushed back into the tank.

- Nominal flow rate up to 180 l/min
- Copy-protected premium filter elements
- Re-usable bypass valve
- Robust filter design with sturdy aluminium lid and removable bowl

CUSTOMER BENEFITS

- *Increased efficiency:*
Filter maintenance rarely needed thanks to the high dirt holding capacity
- *Reduced operating costs:*
Lowest pressure losses and highest filtration efficiency lead to longer machine availability
- *Sustainability:*
The 100% leak-free tank interface, the reusable bypass valve and the low energy consumption save resources



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Curious?

Do you have a similar challenge for us?
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