

'Safety-critical' hydraulic systems on Komatsu 930E guarded by MAG-SHIELDS®

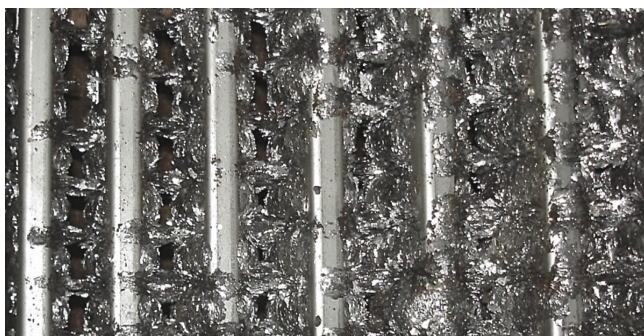
The Problem

Steering safety and truck availability were being compromised by hoist pump and wheel bearing failures releasing large amounts of contamination into the hydraulic system. Hydraulic circuits on this truck share a common reservoir including brakes, steering, wheel bearings and implements. A component failure in one circuit releases debris that plugs the main filters causing the OEM filter bypasses to open. Contamination is then circulated to all the other circuits and components. The steering control valve is particularly sensitive to contamination, which can lead to steering safety being compromised. Contaminated oil also causes extensive damage throughout the hydraulic and brake systems.

The Solution

Installation of Bay6 Solutions' Mag-Shield magnetic filters provides an extra margin of safety for the steering system and significantly reduces the costs and frequency of brake and hydraulic failures. Contamination returning to the hydraulic tank from any component is immediately captured and held by Mag-Shields preventing the spread to other circuits. Following repairs, residual contamination is captured and prevented from recirculating.

“ Our foreman reported on a 930E front wheel bearing failure, common on these trucks: since installing Mag-Shields in this fleet, repair costs are much lower, the down time far less and the trucks no longer return with follow-on failures. Have a look at the attached pictures. “



Post Failure MAG-SHIELD®



Clean MAG-SHIELD®

The Results

These results represent Mag-Shield performance over a period of 5 years, in a fleet of 930E trucks operating at an Alberta mine site. Mag-Shields were installed in the hydraulic systems of this 930 fleet. Following installation, some failures were prevented, all failures were mitigated and follow-on failures were eliminated. The result: less disruption for operations, planning and maintenance; improved availability and millions of dollars saved.

Return on investment was less than one year.

