



Hydraulic Oil Lasco Drop-Forging Hammer

CJC® Application Study



CUSTOMER

Kröger Stahlumformung GmbH located in Attendorn, Germany, is specialised in manufacturing drop-forging parts and supplies a wide range of industries for example the automotive sector.

THE SYSTEM

Hydraulic drop-forging hammer No. 619 with electronic control system from Lasco for the manufacturing of forging parts weighing from 0.1 up to 6 kg.

Oil volume: 1,000 Litres

Oil type: Hydraulic oil ISO VG 46, temp. 30 - 50 °C

THE PROBLEM

Because of the operating conditions the oil was contaminated with coarse dirt, especially metal wear. Additionally, the oil degradation process led to a generation of resin-like debris / varnish. Every 2 years, the oil was changed and simultaneously the tank was laboriously cleaned.

THE SOLUTION

A CJC® Oil Care System 27/27 with CJC® Fine Filter Insert B 27/27 (3 micron absolute) was installed.

Dirt holding capacity: up to 10 kg

Water absorption capacity: > 0.9 L

Filtration degree: 3 µm absolute

Filter material: 100 % renewable raw material

THE TEST

On February 23rd, before installation of the CJC® Oil Care System, the 1st oil sample was taken from the oil which had been changed 2 years ago. The 2nd oil sample was taken 2 weeks after installation of the CJC® Oil Care System and the 3rd oil sample after 2 months on May 5th (see photos right).

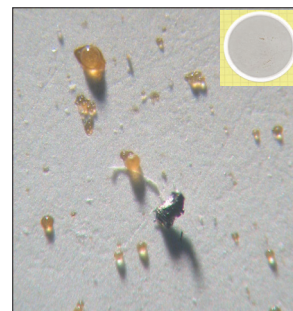
THE RESULT

The first oil sample was heavily contaminated with (metal) particles to such extent that sediment was generated (colour of the oil: dark brown). Due to the high amount of varnish it was not possible to make an analysis with the particle counter. Within only 2 weeks the particle content was already visibly lower. The 3rd oil sample could finally be analysed again according to ISO. ISO Code of 18/16/13 was established and the oil was visibly clearer and more transparent. Because of the convincing results a second drop-forging hammer was equipped with an identical CJC® Oil Care System.



Lasco drop-forging hammer with CJC® Oil Care System 27/27

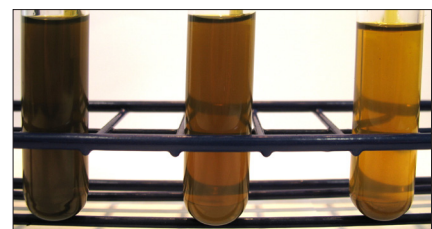
OIL SAMPLES



BEFORE filtration with CJC®
(scale 1:23)



AFTER filtration with CJC®
(scale 1:23)



Oil samples No. 1, 2 and 3 (from left to right)

THE RESULT

Particle content BEFORE:	Particle content AFTER:
not measurable	ISO 18/16/13

*) Further information on cleanliness classes are available on request.

COMMENTS

Dieter Lubowietzki, managing engineer and director at Kröger Stahlumformung:

"Using the CJC Fine Filter the oil quality has improved to such an extent that an annual oil change is obsolete and the valves are protected."