



**CLEAN OIL**  
**BRIGHT IDEAS**

# Lubrication Oil

## Clutch Brake, HITACHI Excenter Press

### CJC™ Application Study

**Application Study**  
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#### CUSTOMER

Nissan Motor Manufacturers Ibérica, S. A., Barcelona, Spain.  
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Press Shop Maintenance Manager.

#### THE SYSTEM

The clutch brake lube oil system on a HITACHI Excenter Press. Fitted with 25  $\mu$ m pressure filter.

**System Volume:** 200 litre - ISO VG 220 oil.

#### THE PROBLEM

The clutch brake system is continuously exposed to overheating from the braking process as well as high ingress of abrasive particles from the wearing brake pads. This leads to resin formation in the oil, and short lifetime. Even the "new" oil is heavily contaminated.

#### THE SOLUTION

The installation of an off-line Fine Filtration System. The **CJC™ Fine Filter HDU 15/25 PV-P** with a 45 ltr/h flow was installed. The filter is fitted with the **Filter Insert BG 15/25** cellulose insert filtering to 3  $\mu$ m absolute. The insert also removes resin and condensation water by absorption.

#### THE TEST

The filter was installed after a major overhaul during which new oil was installed. The first oil sample was taken directly from the oil drum, the second from the lowest point of the oil system after one month's operation.

#### THE RESULT

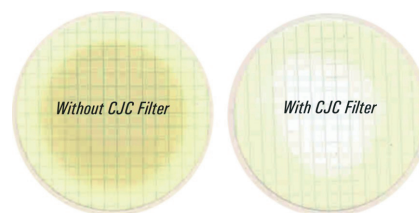
The filtered oil is 40 times cleaner than the new oil. Theoretically this is equivalent to the mechanical component lifetime being extended more than 4 times. After this test it has been decided to install CJC™ filters on all 18 presses in the Barcelona plant. Successful tests such as this have also been conducted on the hydraulic systems.



*HITACHI Excenter Press*

#### THE RESULT

	New oil	After one month
Particles > 2 $\mu$ m	1,339,104	33,199
Particles > 5 $\mu$ m	126,512	15,667
Particles > 15 $\mu$ m	38,149	427
ISO Code	21/17/16	16/15/9
Water Content, ppm	167	60
Membrane colour	Yellow	White



#### PARTICLE REMOVAL

