



Magnom® Filtering Industrial Gearbox

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Magnom® Magnetic Filtering – Industrial Gearbox

The Pickle Line (PKL) Exit Looper Gearbox contains approximately 414 litres of BP Energear GR-XP 320 cSt. oil.

Simple splash lubricated gearbox operates through an varying speed range.
(0 – 400 rpm)

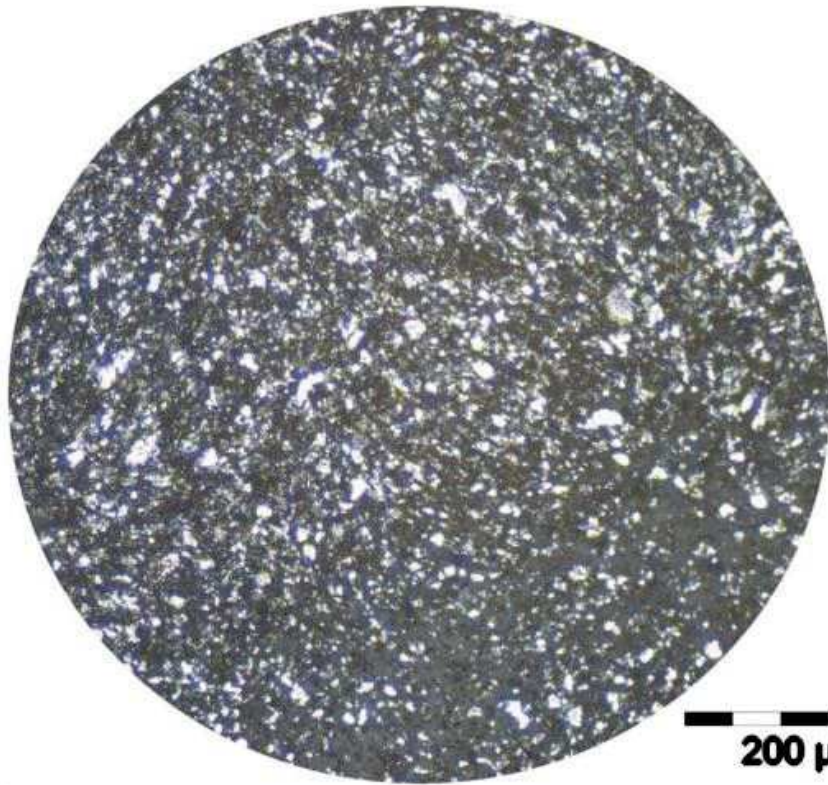
The gearbox spends long period of it's operating time in a holding position.
(zero speed – high load)

Lubrication is critical, Lubricant cleanliness is vital.



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Microscopic filter patch of gearbox oil 07-09-2011....GEARBOX INSPECTION REQUIRED
Cleanliness Count >26 >25 >22



200 μm



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Gearbox internal inspection..



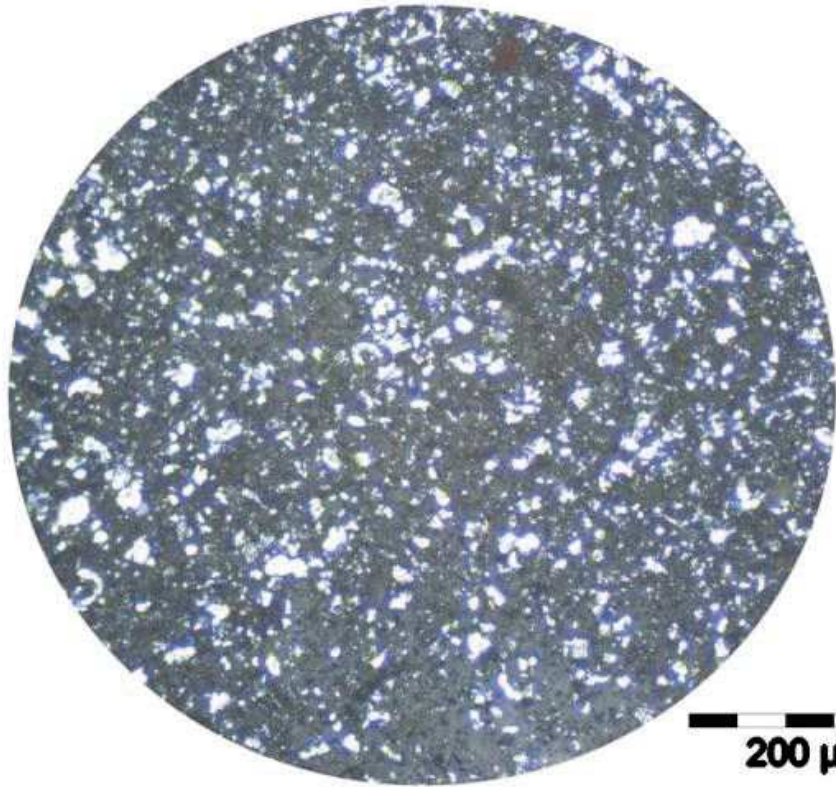
**HEAVY PITTING ON
INTERMEDIATE GEARSET
FOUND**



**OIL
DUMPED.....**

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Microscopic filter patch of gearbox oil 15-02-2012....AFTER OIL DUMP
Cleanliness Count >26 >25 >22



200 μm



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A filter cart was connected to the PKL Exit Looper Gearbox on the PKL down day, 04/07/2012, in readiness for cleaning as per the connection arrangement below.

Magnetic Filter (large capacity) installed.

The filter cart was also fitted with a 12 micron Pall SRT filter to remove non ferrous (silica / dirt etc.).

Pump is a diaphragm type that has flow adjustment and driven by pneumatics.



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Filter operation.

**OIL FROM GEARBOX
INTO FILTER CART.**

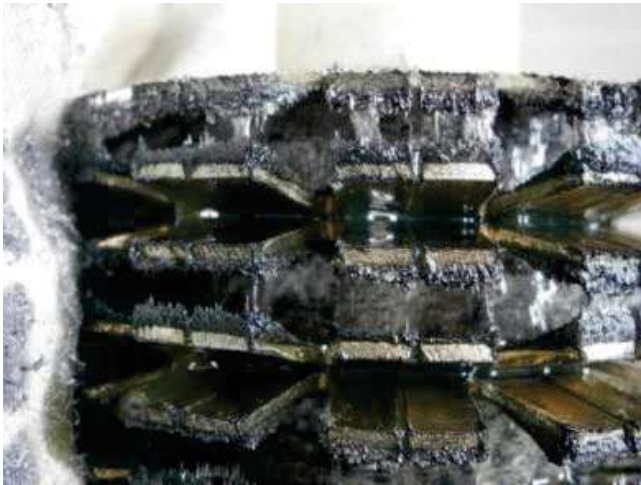


**OIL OUT OF FILTER
CART AND RETURNED
TO GEARBOX.**



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Filter CLEANING AFTER ONLY 8 HOURS OF OPERATION.....



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HIGH STRENGTH MAGNET ON FILTER CART SUCTION LINE....



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Magnetic Filter inspection

High level of ferrous particles collected.

FILTER UNIT LEFT ON GEARBOX FOR SEVERAL WEEKS.



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Microscopic filter patch of gearbox oilAFTER OIL FILTRATION

Cleanliness Count >23 / 21 / 18

TARGET 22 / 19 / 16



LEARNINGS :

Splash lubricated gearboxes will accumulate a lot of wear debris. This produces the wear chain that builds up and destroys gear teeth and bearings over time.

Break the wear chain with filtration and extend the life of your equipment.

