



**JUST BY CHANGING
YOUR HYDRAULIC FLUID**

CASE STUDY: Screen-Renting BVBA / Belgium

Revving-up fuel efficiency in recycling: Belgian firm makes every litre count with DYNAVIS® hydraulic fluid technology

What does it take to successfully operate a recycling company in today's tough economic environment? Ask Dirk Buyse. He knows. He's been doing it for nearly 14 years. He'll likely tell you, "Stay alert for opportunities, keep a tight grip on costs and maintain flexibility." And nowadays, he might also advise that you change-out the hydraulic fluid in your excavation equipment to a fluid formulated to DYNAVIS® technology standards.

Dirk runs Gavere, Belgium-based Screen-Renting BVBA and this Buyse family business has discovered the big benefits of operating its 20-ton material-handling excavator with DYNAVIS®-formulated hydraulic fluid. In a meticulously recorded field test using its Hitachi ZX210W excavator that began on July 29, and ended on September 5, Screen-Renting BVBA realized fuel savings at an annualized rate of nearly 12,000 € – simply by changing its hydraulic fluid to one formulated with DYNAVIS® technology. Located just 20 kilometers south of Gent, Screen-Renting BVBA's

core competency is the fracturing and sieving (also referred to as screening or sifting) of demolition waste. Their customers have the option of ordering Screen-Renting transport of their wastefrom the demolition site for fracturing and sieving at Screen-Renting, or, following the trend towards the treatment of demolition waste at the point of origin, they may request Screen-Renting to come to the demolition site with mobile sieves and crushers. In this way, the newly-recycled material can be reused right away.



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Dusty workplace: where air filters reach their limits

The 10-employee Buyse team takes great pride in its ability to work quickly and always on-time. With speed and accuracy as their guiding principles, Dirk and his team have put together a fleet of equipment to meet their demanding requirements: three wheel loaders; one mobile excavator; two crawler excavators; and a Powerscreen crusher plus a rotation sieve.

Mobile and modern

At the heart of its operations is a sorting hall equipped with an integrated sorting system. The hall uniquely complements the work of the modern and mobile Hitachi excavator ZX210W, sporting a boom connected to a demolition and sort grab of the latest generation and equipped with a hydraulics system to match. Powering the Hitachi mobile excavator ZX210W is a 122 KW diesel engine, certified to EU emission standard Euro III.

When excavators gasp for air

Even with its many advanced features, the excavator's fan did not deliver enough cooling air, and the hydraulics system frequently overheated. Prior to the replacement of its conventional hydraulic fluid with DYNAVIS®-formulated fluid, the hydraulic oil became extremely hot – so hot that the automatic shutoff repeatedly had to stall the excavator's engine to prevent heat damage.

With the air in the sorting hall loaded with dust, the excavator's air filter clogged in no time, even with frequent cleaning. The clogged filter, in turn, caused cooling problems and resulted in unscheduled emergency breaks for cooling down, a particularly annoying time loss.

Efficiency non-stop

After flushing the mobile excavator's hydraulic system and refilling it with a DYNAVIS®-formulated hydraulic fluid, the operator recorded a remarkable change in fuel consumption: There was an 11% decrease. And not only had fuel consumption improved dramatically, there was a noticeable improvement in the hydraulic-actuated movements of the excavator. Controls were more responsive, even when the excavator had been operating for an extended period of time. Heat breaks were no longer necessary as the Hitachi was consistently operating below critical hydraulic oil temperature.

FACTS AND FIGURES

Construction machinery	Hitachi ZX210W
Capacity (hydr. fluid)	340 l
Capacity (fuel)	355 l
Used in	materials handling
Work shift	8 h/day
Hydraulic Fluid	DYNAVIS®-formulated Hydraulic Fluid
Start of work	July 29, 2013

Results on September 5, 2013	HLPD 46	DYNAVIS® Fluid ISO46
Average fuel consumption	19 l/h	17 l/h
Savings per hour	-	3.- €
Savings per day (≈ 8 h)	-	24.- €
Savings per week	-	120.- €

Savings per 1 year: 4,800.- € (40 average working weeks)

All calculations based on a diesel price of 1.50 €/l

Savings due to eliminated cool down breaks

	HLPD 46	DYNAVIS® Fluid ISO46
Average savings per day (≈ 1 h)	-	35.- €
Average savings per week	-	175.- €

Total savings per 1 year: 7,000.- € (40 average working weeks)



Thomas Buyse, excavator operator, and co-owner with his brother Dirk of Screen-Renting BVBA:

"Since using the hydraulic fluid formulated with DYNAVIS® technology, we save 2 liters of fuel per operating hour. Besides, the excavator starts better at cold temperatures and runs better at high temperatures. The oil with DYNAVIS® on its label is really excellent!"

Where to find hydraulic fluids formulated with DYNAVIS® technology? Visit dynavis.com