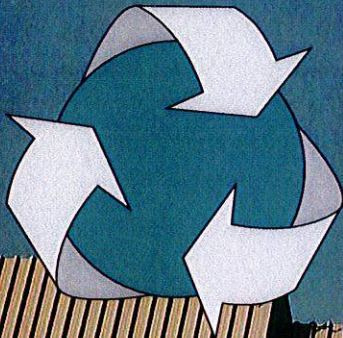




COLLECTION AND TRANSPORT • LUBRICANTS



The important role played by lubricants and filtration is often forgotten in waste and recycling operations. Until something goes wrong, that is. But, as Malcolm Bates reports, a new range of 'high tech' products designed to significantly reduce unplanned downtime - and cut emissions - has recently been launched by specialist Swiss-based supplier, Panolin AG.



Oiling the Wheels of the Global Waste Industry

The scale of Eberhards' facilities is impressive. This MAN hooklift truck unloads another twenty tonnes of demolition waste for recycling.

Say 'oil company' and what comes into your mind? It's a pretty safe bet that your answer will probably include the words, 'large', 'powerful', 'global' and 'damage to the environment'. And if you've been reading about oil company profits in the financial section of your newspaper recently, you might feel inclined to add 'unpopular' to your list as well!

So it might come as a surprise - a pleasant surprise - to discover that not all oil companies fit that image. I'm visiting the modest corporate HQ of Panolin Oil, in an attractive rural village near Zurich. And I'm still having trouble re-aligning my perceptions about what an oil company could be. It seems not all oil companies put regard for the end-user and our natural environment some way down the corporate mission statement after 'profit' and 'brand domination'. Because at Panolin, it's immediately obvious the priorities are different.

If the whole nature of the oil industry is about 'size', rewarding big shareholders and a grab of natural resources at the expense of the consumer, Panolin is more about private family ownership and personal contact. Founded in 1934, Panolin is still free from the demands of institutional shareholders and is more into 'niche marketing' and being focussed on producing high quality lubricants for use in the most demanding applications, than it is into 'volume'. Significantly however, the recently-launched



This big CAT wheeled loader is dwarfed by the covered bunds used for storing different grades of recyclable rock. Eberhard only operates leading brands of equipment such as CAT and Volvo

LUBRICANTS • COLLECTION AND TRANSPORT



'Green Machine Concept' looks like bringing the company and the wider waste and recycling industry much closer together. Which is why I'm here.

Headline news

What is the Green Machine Concept? In short, a complete range of newly-formulated, biodegradable lubricants suitable for all the equipment used in our industry. But recognising that the true advantages of biodegradability (to OECD 301B) only



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Not only are trucks and wheeled loaders operated within waste transfer and recycling site applications, the company also operates - and constructs - landfill sites, where the conditions can be really challenging. Here a 100 tonne CAT excavator is loading rock spoil onto a fleet of ADTs to enlarge a landfill site

become advantageous after an accidental spill, or failure takes place - making use hard to justify in cost/benefit terms - the scientists at Panolin also formulated Green Machine products to significantly reduce CO₂ levels as well. And that has financial and environmental benefits from day one - and every day from there on. My point is? We could be talking about a carbon reduction of 50% here. I'll say that again: 50%! Across an entire city council (commune) fleet? That could be a saving of thousands of tonnes of CO₂ per annum. This really should be headline news.

So, there's more to the Green Machine Concept than a few cans of lube, then? There certainly is. Using computer modelling, the whole life operational costs of say, a refuse collection vehicle (RCV) - or it could equally be a wheeled loader, or a precinct sweeper - are taken into account. Then, the optimum combination of lubricants to reduce consumption, while enhancing reliability is planned. Regular oil sampling and analysis is at the heart of this programme. It covers hydraulic oil, engine and transmission oil and grease. The end result is designed to reduce fuel consumption, reduce emissions and extend oil changes and service periods - in some cases by a factor of six. In recent 'real life' case studies I've witnessed, an operator of a Liebherr machine reported a four-fold extension to oil change intervals - from 500 hours up to over 2000 hours. As the same machine had already reached over 26,000 operating hours, clearly, any feared reduction in service life is unfounded!

So how's it done? The central theme of the entire Green Machine Concept marketing philosophy is a holistic view aimed at helping the end user save money and increase the reliability of vehicles, equipment and machinery working in the toughest operating environments, while helping to protect the natural environment. If there is any 'bad news', it's that initially, Panolin products will cost more to purchase than the products sold by the other major brands. But the key word here is 'initially'. And in answer to your question, "Why should I be spending more than I do already?" in addition to extended service intervals, the key words to take into consideration are 'biodegradability', 'low toxicity' and increasingly important - 'CO₂ reduction'.

A powerful argument

"There is a very powerful public relations argument that vehicles and equipment that are employed by either the city council (commune), or a commercial waste contractor to help keep our environment clean, should, in themselves, be as environmentally-friendly as possible," suggests Panolin executive director Patrick Laemmle. He's absolutely right. That such a philosophy should go beyond 'the easy stuff' - like reduced exhaust and noise emissions - to embrace toxic 'consumables', that can help reduce heat build-up and vibration issues, not to mention a reduction in

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the disposal of oils and other lubricants, is also part of Laemmle's message.

Insurance against downtime

You may still be having trouble getting a handle on the concept: purchasing highly specialised 'consumables' that cost considerably more than cheaper, readily available options, which somehow by magic end up saving you money. Well, you're not alone - I'm still finding it difficult. But hang on.

Think about it - whatever part of the waste and recycling industry you operate in, the chances are, you don't operate the cheapest available truck chassis, materials handler, or wheeled loader. At the very least, you'll have specified uprated drivetrains and suspension, customised loader buckets to help reduce wear, larger air filters to combat the dust and improve engine life, right? Think of Panolin products in the same way - 'customised', 'extra-duty' and an additional insurance policy against downtime.

False economy?

If this story sounds too good to be true, I've sat through Laemmle's presentation again and still can't find any downside - aside from the bit about higher initial purchase costs, that is. It makes complete sense to buy 'quality'. Next we meet Thomas Angehrn, the operations manager of Eberhard - one



After extensive trials and cost analysis, leading Swiss recycling company Eberhard is now committed to the Panolin 'Green Machine Programme'

of the leading waste management and recycling operators in Switzerland. "I thought it would be more useful for you to hear about the advantages in using high quality biodegradable lubricants from one of our customers, than from the guy who has the job of selling them," Laemmle smiles.

Within an hour, we're at a busy - but amazingly tidy - waste recycling facility close to Zurich airport. Like Panolin, Eberhard is a private family-owned company. A constant convoy of distinctive turquoise blue and yellow Eberhard skip trucks,

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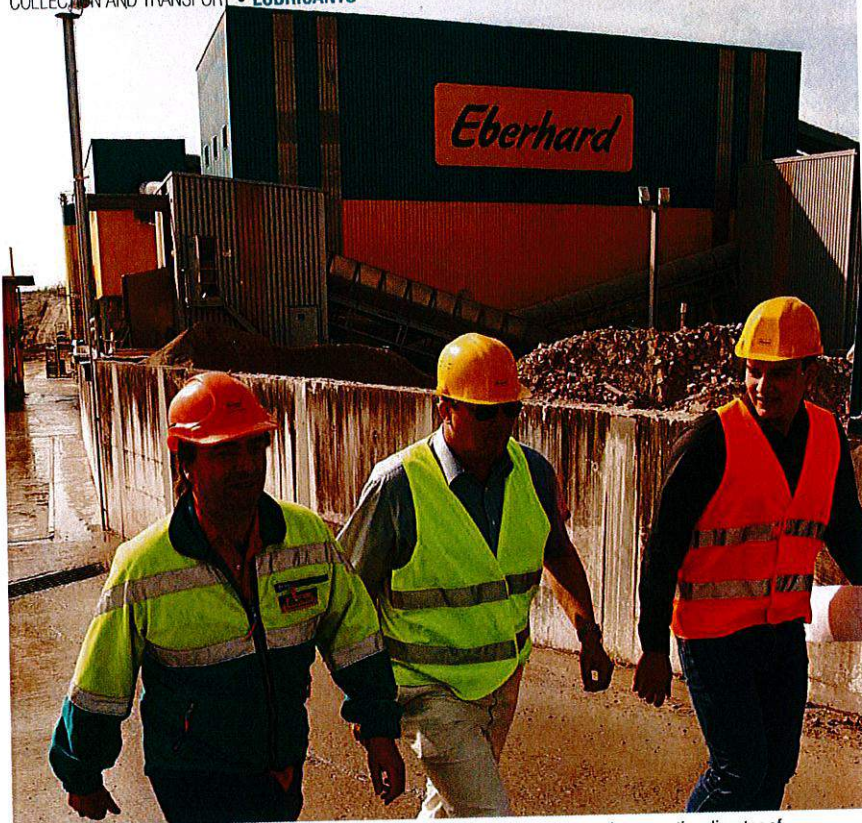
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Left to right - Thomas Angehrn, operations manager at Eberhard, Patrick Laemmler, executive director of Panolin and Tim Laemmler, who now heads Panolin America Inc.

hooklifts and tippers are bringing in predominantly building and demolition waste materials for recycling. Down on the busy tipping floor, I start to understand why the Panolin 'Triangle of Quality' makes sense. Using the latest technology to map the performance of oils and other lubricants, it's possible to both increase the life of the trucks, equipment and machinery using them, while reducing daily consumption and workshop maintenance time. And the third element in the Triangle?

"That's really the bonus to us," explains Angehrn: "That we can also reduce the consumption of lubricants - and fuel - while at the same time, reducing the environmental risks as a result of biodegradability, more than offsets any additional initial cost."

There's a key point here. To build a corporate reputation for 'caring' in a country like Switzerland - where environmental standards are so high already - takes some doing. "We are under constant pressure to work harder and cut costs, just like anyone

else in this business," he explains, "but since signing up to the Green Machine Programme, we have reduced machine downtime and increased machine service life - as well as reducing our carbon footprint. Changing back to cheaper lubricants would be a false economy."

Looking for more global partners

Corporately, Panolin might be small in oil industry terms - no, make that 'very small'. But the company already has an increasingly global reach. At present, the wider European and Middle Eastern markets are looked after from the HQ in Switzerland - although there are already well-established outlets in Scandinavia and France. Also, a wholly-owned subsidiary, Panolin America Inc (based at Ventura, California) looks after customers in the Americas. Establishing further distributor partners in the increasingly environmentally-conscious Pacific Rim markets is the next priority, according to Laemmler, following the recent

opening of a new facility in Singapore.

So there you have it. High quality lubricants ideally suited for tough applications in the waste and recycling sectors. Products that are kinder to the environment. Products that although initially more expensive should return significant savings in whole life costs. Products that can dramatically reduce your CO₂ output. And products that thanks to biodegradability, are designed to reduce the risk of environmental damage should a spillage or accident occur. Not bad going for a company you'd never of before, eh?

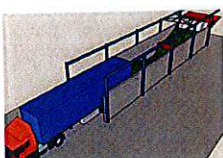
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