

Redefining performance in extreme applications: discover how Invema recycling plant was able to increase tire life with Camso solid tire solutions



Invema is a recycling plant in San Pedro Sula, Honduras, recycling all manner of non-organic waste including plastic, scrap metal and accumulators. They invest heavily in modern technology in order to process and trade scrap in the most efficient way possible.

With its plant operating 24/7, Invema's fleet of forklifts, skid steer loaders, wheel excavators and wheel loaders run virtually around the clock in extreme-duty applications.

With downtime being such a costly business, their team is diligent about routine vehicle maintenance. Frequent unplanned and complex tire changes were a noticeable drain that offered clear opportunities for improvement.




Turning to a local dealer to address performance issues









Invema decided to reach out to Cemcol CAT, a local dealer of vehicle equipment, spare parts, rentals and technical services.

Cemcol CAT has 4 branches across Honduras and has been a Camso distributor since 2006. After sending over one of its engineers to examine Invema's needs, Cemcol CAT worked with support from Camso sales and technicians to find a solution. They recommended a selection of Camso solid tires, which would enable the recycling plant to minimize downtime thanks to the tires' quick installation, easy maintenance and reliable performance.

Invema made the switch to Camso solid tires in 2014 and has since become a 100% Camso operation: its entire fleet now runs exclusively on the manufacturer's material handling and construction solid tire solutions.



END CUSTOMER		Recycling plant in San Pedro Sula, Honduras
DISTRIBUTOR		Vehicle equipment, spare parts, rentals and technical services
SOLUTION		Camso Material Handling and Construction Tire Technologies

INVEMA EQUIPMENT	CAMSO TIRES	BENEFITS	PERFORMANCE
 <p>SKID STEER LOADERS</p> <p>Bob Cat S650 Caterpillar 246D</p>	<p>CAMSO SKS 793S</p> <p>SOLID</p> 	<p>For mixed and hard surface skid steer applications</p> <ul style="list-style-type: none"> • Slow wear • Extra deep tread • Improved comfort • Minimal maintenance (flat-free operations) 	<p>Average tire performance is 7 months for the SKS 793S vs 1.5 months in pneumatic tires and 2 months in foam-filled pneumatic tires previously used by Invema.</p>
 <p>WHEEL EXCAVATORS</p> <p>Colmar C350, C403 & C602</p>	<p>CAMSO WEX 583S</p> <p>SOLID</p> 	<p>Puncture proof solution for severe conditions</p> <ul style="list-style-type: none"> • The WEX 583S are mounted as complete assembly (tires and separator in dual arrangement) on the excavators. These solid tires offer a puncture proof solution that protects tires against scrap cuts for increased performance and life. 	<p>The overall tire life of the Camso WEX 583S in these harsh conditions is on average 3 years and 4 months.</p>
 <p>WHEEL LOADER</p> <p>Caterpillar CAT930</p>	<p>CAMSO LM L3</p> <p>BIAS</p> 	<p>Better operator comfort on uneven surfaces</p> <ul style="list-style-type: none"> • The LM L3's rubber compound and its tread design ensures slower wear, in addition to offer casing protection. 	<p>The wheel loader isn't the most active machine on the site and the LM L3 tires offer a great pneumatic solution (bias) for this machine with a good life cycle.</p>
 <p>FORKLIFTS</p> <p>Caterpillar DP25NT, DP40K, GP18ZNT & P5000 Hyster H50X & H80XM Clark C25L</p>	<p>SOLIDEAL RES 660 XTREME SERIES</p> <p>SOLID</p> 	<p>For non-stop usage and high-load environments</p> <ul style="list-style-type: none"> • The Solideal RES 660 Xtreme series offers the best operator comfort, which reduces ergonomic risks in this kind of operation (on irregular surface). Furthermore, the wide footprint of the tread design means the tire wears more slowly while wide blocks reduce cut risks. 	<p>The tires are delivering on performance: Invema only requires performing tire changes every 6 to 9 months.</p>

The benefits of Camso tires were seen almost immediately at Invema, most particularly in the area of tire performance and overall life.

“We do very few tires changes now. When we need service, I can call Cemcol and tell them: ‘I’m planning on doing a tire change on this day’ and they come and service our equipment in no time. It’s that simple. Before, we frequently had to do emergency tires changes on the spot due to damaged tires. This alone has tremendously improved our performance as we don’t have any surprises anymore.”

- Fausto Carrasco, Maintenance Manager at Invema

PREVENTING PREMATURE WEAR WITH ENGINEERS' RECOMMENDATIONS

Since Invema relies on Cemcol CAT for tire installation and servicing, the Cemcol team can also detect any unusual issues early on. When the team noticed that a tire solution was prematurely wearing on Invema's skid steer loaders it immediately raised a red flag. Premature wear on Camso tires is 95% a sign that the tire is being used in the wrong application. To assess this issue happening at Invema, Cemcol and Camso both sent over one of their engineers to look into it.

In the tire inspection follow-up report, Camso made a number of recommendations that would enable Invema to improve tire longevity on the skid steer loaders. These included increasing operator awareness of how vehicle speed during turns can lead to premature or conical wear, and the importance of preventative rotation for tires when wear is greater than 8 mm between the right and left tires. This would ensure tires wear equally and only need to be changed when both are practically at 0% of their useful life.

Invema says these minor adjustments have further improved tire longevity. Vehicle operators also mention better comfort, the key to working at a steady and productive pace during long shifts.

IMPROVED PERFORMANCE ACROSS THE ENTIRE VEHICLE FLEET

While the **RES 660 Xtreme series** they are using on forklifts don't last quite this long due to the arduous terrain they operate on, Invema says their longevity still vastly outperforms the previous solution they were using on their forklifts. Right now, they plan tire changes every 6 to 9 months, even if the tires have only reached



50% of wear. Camso technicians are currently working with Invema and Cemcol in the correct use of the tires: Invema could use the tires for at least an additional 3 months if they would refer to the safety line. This will help Invema save on operational costs.



Invema is also very satisfied with **Camso WEX 583S** on its wheel excavators, which run not on concrete, but on packed earth and iron. They say the tires offer very good performance despite this grueling work environment. The rubber separator is a big advantage for this solution, as it protects the dual tires on the excavators.

"When I think of Camso tires, the first thing that comes to mind is: quality, quality, quality. We are completely satisfied with Camso products and wouldn't change it for another. **I would recommend them to other companies in Honduras – 100%.**"

- Fausto Carrasco, Maintenance Manager at Invema

"Changing to the **Camso SKS 793S** tire solution has been a relief in terms of durability and performance for our skid steer loaders. Even our vehicle operator comfort has improved. We check our tires daily and do routine maintenance every 250 hours, and these tires still look as if they hadn't seen a day of work. The Cemcol technician can't believe the tires have been running 24/7 on the machine for an entire year and have already clocked 5,000 hours."

- Fausto Carrasco, Maintenance Manager