



By Amber Reed  
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# Don't get de-tracked

## Three tips for tracking undercarriage wear

**B**ecause the undercarriage on your compact excavator works as a system, wear is unavoidable.

"All of an undercarriage's moving components—sprockets, idlers, chain and pads—are wear items," said Jesus Santos, product specialist, Terex Construction Americas. "Because these components are costly to replace and time-consuming to install, you should protect your investment by taking the time to inspect and maintain your compact excavator daily.

"Did you know that the undercarriage is the most costly part of your excavator? It can make up almost 20% of your machine's purchase price and nearly 50% of its maintenance cost. Such valuable components should never be neglected."

### 1 Check track tension and sag to avoid excessive wear

One way to avoid premature or excessive wear of your undercarriage is to make sure that your compact excavator's track chain is adjusted for correct tension. The components

of your compact excavator's undercarriage are designed to wear evenly. If some components wear more quickly than others, it can affect the productivity and wear of all the components.

"Loose tracks can de-track and can increase wear," Santos said. "So be sure to check the track chain for proper tensioning every 10 to 15 hours of use, or at least every day. Tracks that are too tight can cause excessive roller and idler wear and can tear the tracks."

Santos recommended the best way to inspect the tension of the track chain is to raise the machine up. In this raised position, the track should sag enough to leave about 10 to 15 mm of free space under the center track roller.

"For your excavator's correct track inspection and tensioning procedures," Santos said, "always refer to the operator's manual for the manufacturer's recommended guidelines."

### 2 Keep the undercarriage clean and covered

Jobsite debris, like mud, snow and rocks, packed around the undercarriage also leads

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to faster component wear. Compact excavator manufacturers, including Terex, recommend that the undercarriage be inspected, cleaned and greased daily.

"At the end of each work day, knock away any debris that's accumulated in the tracks," Santos said. "Then, while the machine is still warm, wash it down to get rid of any remaining materials that could cause corrosion or contamination."

The end-of-day wash-down process is a good time to remove embedded foreign objects from the tracks and to lubricate all moving parts.

"The daily wash-down is also an excellent time to look for any loose, worn, cracked, bent, broken or missing components," Santos said. "Replace these items immediately."

If your compact excavator is going to be parked for a period of time, particularly in the extreme heat, it is important to cover the tracks or to exercise the machine at least once a week. This prevents water and condensation from building up in the undercarriage and rotting the components.

### 3 Train every operator on the proper driving and digging techniques

Your excavator operators have more influence on the life and longevity of an undercarriage system than all of the manufacturer's best efforts. Santos said, "The operation and upkeep of your compact excavator directly impacts your repair time and downtime costs."

Santos recommends that each operator be taught the correct way to drive a compact excavator, understanding what he or she can do to keep it running in top form. For example, operating at higher speeds can cause more wear on the undercarriage, so drivers should apply the slowest possible operating speed for the job.

Also, Santos said, operators need to alternate their turning directions during the day—continuous turning to the same side can cause asymmetrical and accelerated wear. "And quick or sharp turns ought to be avoided entirely," he said, "especially when operating in rocky conditions."



Compact excavator manufacturers recommend inspecting, cleaning and greasing the undercarriage daily and daily inspection of the tension of the track chain.

Your operators should also learn to control track spinning when filling the bucket because unnecessary spinning also accelerates wear and causes cuts in the tracks. Operators also need to be cautious when driving over edges, curbs or other sharp angles to prevent breaks in the tracks.

"It is always best to use boards, beams or small ramps when driving on or off any angle," Santos said.

Finally, your operators must learn to plan the machine's movements with the terrain, not against it, to reduce wear.

"Working uphill adds stress to the rear of the machine, as working downhill shifts the stress to the front," Santos said. "Balance the wear of the undercarriage's components by alternating the work direction on the slope."

At the end of the day, usage conditions greatly influence the life and longevity of a compact excavator's undercarriage. Proper care of this valuable investment will go a long way in reducing your maintenance costs. **R&B**

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### Better breakout

The new Bobcat E45 compact excavator features true zero tail swing, making it ideal for working in areas close to walls, fences and buildings. The E45 is the latest in Bobcat's M Series of excavators in the 4- to 5-ton weight class. It is powered by a 41.8-hp, liquid-cooled diesel engine and has an operating weight of 10,077 lb. An overall width of 77.2 in. makes it easy to transport. Its bucket breakout force of 8,048 lb is about 2% greater than the model it replaces. The hydraulics have been redesigned with a load-sensing pump and cushioned work-group cylinders for smooth end of stroke.

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