

# 10 Great Ideas for Smarter Service

*They run the gamut from simple to strategic, but each of these innovations has proven it saves more than it costs*

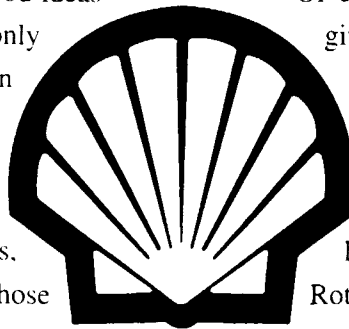
by LARRY STEWART, Senior Editor

Good ideas take time and effort and money to implement whether you invent them yourself or buy them. Cost efficiency is what makes these good ideas great. These innovations have not only solved problems, but their users can measure the results in dollars and cents.

*Construction Equipment* spoke with several equipment managers about their best cost-saving innovations, and how much they were worth. Those

ideas are presented here along with the convincing cost savings so you can decide if they're worth using.

Of course, people aren't always anxious to give away their best ideas, so *Construction Equipment* enlisted Shell Oil Co. to help compensate the readers who shared their experience with us. Those who participated in the stories published here were awarded \$100, a case of Rotella T lubricant, and a Shell sports cap.



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## 10 Deep-Freezing Triples Tooth Life

Frustrated with changing bucket teeth every three days, Freesen invested in cryogenic tempering for the ground-engaging tools used on an excavator loading shot rock on a highway job in Camdenton, Mo. Tim Thomas, equipment manager for the Bluffs, Ill.,-based contractor found that while taking bucket teeth down to -300 degrees Fahrenheit doubles the cost, it toughens the metal enough to triple tooth life while working the Ozark dolomite.

The cryogenic service is available from a company called 300 Below in Decatur, Ill. The company makes its living freezing metal for cutting tools, ground-engaging tools, engine parts, and a variety of other metal products whose performance can be improved

with more-stable metallurgy.

Slowly deep-freezing metal apparently increases the uniformity of its crystalline structure, and smoothes the microscopic irregularities in its surface. The treated metal is not only tougher, it holds a sharp edge longer.

Freesen sends about 2,000 pounds of tools to 300 Below every year at a



cost of about \$2.54 per pound. They temper mostly bucket teeth, concrete-saw teeth, and some asphalt-paver parts.

"It has doubled the life of our wheel-saw teeth," says Thomas. "When we get into patching roads with continuous steel reinforcing, the teeth last twice as long, and we haven't broken a treated tooth yet."

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*This set of teeth has been loading rock three weeks near Jefferson City, Mo. Rich Mander, project superintendent on the job, estimates they have about another week of life left.*

*Untreated teeth would last a week to 10 days on the job so the cost of cryogenic tempering, about the same as the price of the teeth, is justified.*