



## Overview

### Region

Washington

### Industry

Heavy Construction

### Customer Profile

Thomas Construction Company is a full-service, heavy construction firm with more than 20 years of experience. They are capable of providing a complete range of heavy construction services associated with grading, site development and utility installations for a variety of clientele.

### Business Situation

Thomas Construction Company needed a versatile swing attachment to replace their cylinder-style tilting bucket which suffered from inadequate range and rotation. The limitations of the tilting bucket resulted in frequent repositioning of their excavator — which in turn diminished their productivity on the job site.

### Solution

Thomas Construction Company installed Helac Corporation's PowerTilt Swing Attachment on their CAT 330CL excavator and doubled their productivity due to the efficiencies offered by the attachment's operation technology. They were able to extend their machine's range to a total of 134 degree side-to-side swing rotation.

## PowerTilt® Application Success Story

### Thomas Construction Company Doubled Their Productivity After Replacing Their Cylinder-Style Tilt Bucket with Helac PowerTilt

“With PowerTilt, I accomplished twice as much work on the job-site. PowerTilt allowed me to simply tilt our bucket instead of repositioning the entire machine.”

— Kelly Kazara, Equipment Operator, Thomas Construction Company

The construction boom in Western Washington spawned many new entrants to the construction business. The leaders of the pack availed themselves of the right tools needed to provide quality workmanship on time, every time. Thomas Construction Company, located in Maple Valley, WA, fully understood the importance of having the right tools for the job. That's why they switched from a cylinder-style tilting bucket to a PowerTilt Versatile Swing Attachment manufactured by Helac Corporation. PowerTilt allowed Thomas Construction Company to double their productivity on a host of heavy construction projects that required 1:1, 2:1 and 3:1 slopes for retention ponds and roads.





“Without the PowerTilt it is difficult to build a consistent, smooth slope. The PowerTilt allowed me to make the small subtle adjustments that saved me a tremendous amount of time on the job site.”



— Kelly Kazaro, Operator  
Thomas Construction

PowerTilt has been an important tool for Operations Manager, Dennis Gilkinson’s team at Thomas Construction Company. His CAT 330 Equipment Operator, Kelly Kazaro, reported that, “With



the PowerTilt, I accomplished twice as much work on the job site. PowerTilt allowed me to simply tilt our bucket instead of repositioning the entire machine.” PowerTilt was in the shop for maintenance recently and the difference

without PowerTilt was staggering. “When the PowerTilt was in the shop for service, I was forced to use a standard bucket and the job took me twice as long to complete,” said Kazaro. PowerTilt, in the hands of a skilled operator, yields incredible time-savings.

### **PowerTilt Outperforms Conventional Tilting Buckets**

Increasing the speed at which projects were completed was only half the battle for Thomas Construction Company. Using their cylinder-style tilting bucket while working on rough uneven roads proved difficult and required significant care, time and attention to detail to achieve the quality finished product that they are known for. A cylinder-style tilting bucket forced the equipment operator to put extra dirt on the uneven road under the tracks of his excavator to level the machine in order to build a smooth, consistent 1:1, 2:1 or 3:1 slope that the customer demanded. A switch to PowerTilt allowed them to deliver consistent quality without all the hassle and time inefficiency of a tilting bucket.

“Our cylinder-style tilting bucket did not have the adequate range nor rotation necessary to do our slope work efficiently. We found that we had to reposition our excavator far too frequently, resulting in wasted time spent moving the machine instead of doing productive work,” according to Gilkinson. PowerTilt turned out to be the perfect solution to bridge this productivity gap.

“PowerTilt enabled us to simply tilt our attachment instead of frequently repositioning our CAT 330 excavator. I accomplished twice as much with PowerTilt.”

— Kelly Kazaro, Operator  
Thomas Construction

“The greater rotation of 134 degrees side-to-side swing rotation provided by PowerTilt addressed our myriad problems with the



tilting bucket. With PowerTilt we needed to reposition our machine far less frequently and as a result our productivity dramatically increased,” stated Gilkison.

“Without our PowerTilt, it was difficult to build a consistent, smooth,

finished slope. PowerTilt allowed me to make the small subtle adjustments that saved a tremendous amount of time and improved the quality of our finished product on the job site,” claimed Kazaro.

### Inside Helac’s Rotary Actuator Technology

PowerTilt uses Helac Corporation’s innovative sliding-spline operating technology to convert linear piston motion into powerful shaft rotation. Each actuator is composed of a housing and

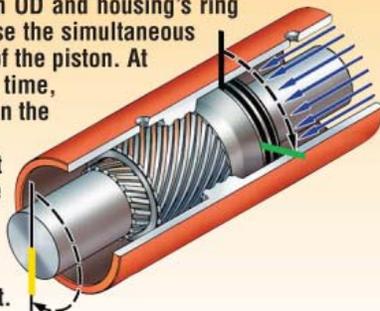
two moving parts — the central shaft and piston. As hydraulic pressure is applied, the piston is displaced axially, while the helical gearing on the piston OD and housing’s ring gear cause the simultaneous rotation of the piston. PowerTilt’s end caps, seals and bearings all work in tandem to keep debris and other contaminants out of the inner workings of the actuator, prolonging product life and reducing required maintenance.

### Engineered for Year-Round Use

Over a decade of research, innovation and engineering has gone into making PowerTilt an integral solution for work site efficiency.

### Operation Technology

The PowerTilt is a simple mechanism composed of a housing and two moving parts: a central through shaft and a doughnut-shaped piston. As hydraulic pressure is applied, the piston is displaced axially, while the helical gearing on the piston OD and housing’s ring gear cause the simultaneous rotation of the piston. At the same time, gearing on the piston ID and shaft cause the shaft to rotate and tilt the bucket.



## For More Information

For more information about Helac Corporation's construction equipment attachments, call 800.797.8458. To access information using the World Wide Web, go to: [www.helac.com](http://www.helac.com).

PowerTilt is specifically engineered to work with a variety of attachments to enhance machine versatility and productivity.



PowerTilt's inherent flexibility allowed Thomas Construction Company to keep PowerTilt on their machine 100 percent of the time, year-round. "PowerTilt saved us significant time in pond construction and road building. We

only took it off the machine for service," states Gilkison.

PowerTilt is available for equipment up to 75,000 lbs in eight sizes with standard rotation of up to 180 degrees. Each model is engineered for a specific class of machinery and individually customized to fit your machine.



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