



Overview

Region

Washington

Industry

Government

Customer Profile

The Whitman County Public Works department is responsible for 1,900 miles of roads and 360 bridges and large structures in rural southeastern Washington. They focus on the maintenance and repair of roadways, bridges, culverts as well as dealing with storm drainage and erosion control.

Business Situation

Whitman County Public Works needed durable and versatile attachments to increase the productivity of their excavators and backhoes used to maintain their county road system.

Solution

Whitman County Public Works purchased seven of Helac Corporation's PowerTilt swing attachments and one PowerGrip multi-purpose jaw bucket for their fleet and increased their productivity by 25-50% across a broad spectrum of applications.

Helac Attachments Application Success Story

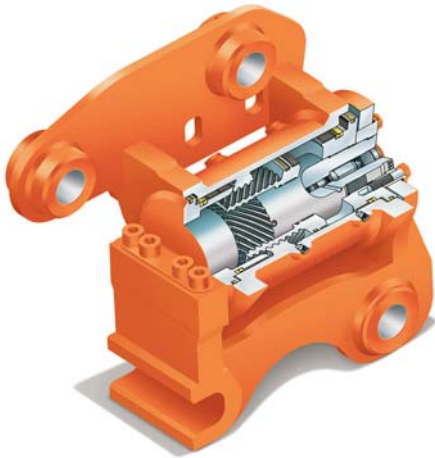
Whitman County Public Works Dramatically Increased Productivity After Adding PowerTilt[®] and PowerGrip[®] to Their Excavators and Backhoes

“With Helac’s PowerTilt Versatile Swing Attachment and PowerGrip Multi-Purpose Jaw Bucket we accomplish most tasks 25-50 percent faster!”

— Phil Meyer, Operations Manager, Whitman County Public Works

Phil Meyer, Operations Manager of the Whitman County Public Works department is tireless in his search for the right tools to help his 42-person team maintain over 1,900 miles of roads and 360 bridges and large structures in Southeastern Washington. Phil’s search lead him to Helac Corporation, the makers of PowerTilt Swing Attachment and PowerGrip Multi-Purpose Jaw Bucket. Helac’s construction equipment attachments were just what Meyer’s team needed to maintain the county road system by preventing, reducing or restoring the roadway infrastructure and for maintaining the stormwater runoff by providing proper drainage, preventing flooding and road damage. “We switched to PowerTilt from cylinder-style tilting buckets and couldn’t be





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— Dave Stine, Operator
Whitman County
Public Works

happier. Our tilting buckets didn’t offer the rotation we needed and weren’t durable enough. PowerTilt provided us with greater angles of rotation and since all moving parts are fully enclosed — PowerTilt has been virtually maintenance free,” states Dave Stine, Whitman County equipment operator.

Seven PowerTilts and a PowerGrip have been important assets for the Whitman County Public Works department.

“With PowerTilt and PowerGrip we accomplish most tasks 25-



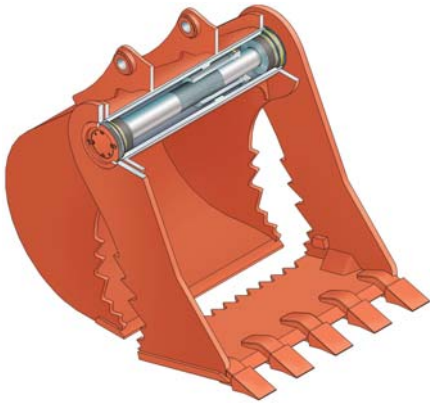
50 percent faster! We want the PowerTilt on all of our equipment!”, states Meyer. The Whitman County Public Works department thinks so highly of Helac’s attachments that they have recommended

PowerTilt and PowerGrip to other local agencies such as the Washington State Department of Transportation and the North Latah County Highway Department in Moscow, Idaho.

Wide Variety of Tasks with Helac Attachments

With a daunting workload and weather that can border on the extreme, productivity, durability and versatility are critical requirements of the equipment used at Whitman County. Typical projects for Helac attachments include ditching to maintain flow lines, culvert maintenance, placing rip-rap, brush removal, bridge demolition, gabion basket installation, sloping and more.

The Whitman County Public Works team explained that PowerTilt is extremely effective for shoulder maintenance tasks. Great care is required when ditching and sloping next to fragile habitats and consideration must be paid to the most effective water runoff target zones. The main objective is to provide shoulder stability by creating a smooth transition from roadway surface to shoulder. Utilizing PowerTilt, with 180° of smooth rotation, the equipment operator can work primarily from



“With Helac Attachments, you can accomplish most tasks with just an equipment operator and a truck driver resulting in much better utilization of our team.”

— Dave Stine, Equipment Operator
Whitman County Public Works

the road surface, diminishing the impact on sensitive roadside vegetation and habitats meanwhile producing the clean “V” shaped ditches the department requires.

When working on a culvert project, PowerTilt virtually eliminates the need for back-breaking manual labor. The PowerTilt is used



to angle the bucket to dig around both sides of the pipe. Once the soil is loosened around the pipe the equipment operator can hook the end of the pipe and lift it right out. Labor intensive, time-consuming digging by hand is eliminated.

“With Helac

Attachments, you can accomplish most tasks with just an equipment operator and a truck driver resulting in much better utilization of our team,” states Stine.

PowerGrip has proven very helpful in placing rip-rap around bridges as well as for removing the old wooden pilings. Stine indicates that “with PowerGrip you can sit up on the road, reach

down and just pluck the pilings out of the ground.” PowerGrip has also made life easier when it comes to removing brush and trees from the roadside and right-of-ways. “It’s great having a multi-purpose tool like PowerGrip so we don’t have to switch attachments when switching between tasks — PowerGrip cuts the time it takes to complete most jobs in half,” according to Stine.

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

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.

For more information about Whitman County Public Works go to: www.co.whitman.wa.us

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.

Engineered for Durability and Performance

Over a decade of research, innovation and engineering has gone into making Helac Attachments integral solutions for work site efficiency. PowerTilt's robust design has allowed Whitman



County Public Works to keep it on their machine 100 percent of the time, year-round. "PowerTilt has exceeded all of our expectations for performance and durability. We have over 5,000 hours on our oldest PowerTilt so far.

Absolutely nothing on the market matches it," states Chuck Campbell, Whitman County Public Works shop supervisor.

PowerTilt is available for equipment up to 75,000 lbs in eight sizes with standard rotation of up to 180 degrees. Each model is designed for a specific class of machinery and individually customized to fit the carrier. PowerGrip buckets are available for equipment up to 20 tons, in three sizes, with bucket width ranges from 24 inches to 48 inches in the trenching profiles and 48 inches or 60 inches in the ditching profiles.



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and corresponding international patents.
PowerGrip - US Patent #6370801 and #6612051 corresponding international patents pending.