



## SUMMIT ATTACHMENTS

# Summit Attachments Reaches New Heights with V16 Technology

### CHALLENGE

Like so many other industries, forestry has experienced a boom in technical innovations leading to improved productivity, safety, and overall efficiency. Once a time consuming and dangerous process, “Steep Slope” harvesting, gathering timber along a steep mountainside, has been transformed using retrofitted construction equipment pieces specific to the unique needs of forestry.

Summit Attachments and Machinery is a company that utilizes existing platform frames and reworks the equipment adding their custom attachments for specific, rigorous applications within forestry. Since 2004, Summit has specialized in the identification and purchasing of existing machinery based on the expertise of an internal buyer who determines the equipment’s health, ability for retrofit, and its future longevity.

One of Summit’s most popular forestry retrofit packages is their Winch Assist, which is typically constructed with an “Anchor Machine” and a “Harvesting Machine” connected through a wire rope. Summit’s Winch System, which assists the “Harvesting Machine” in rugged locations and demanding conditions, such as high altitudes, steep inclinations, heavy duty cycles, and extreme weather conditions, has made the need for physical hand fellers on the ground almost obsolete. As a result, this once dangerous harvest work has been reduced and provided the forestry industry with a more efficient and safer alternative.

To continue to improve upon their Winch Assist Systems, which offers up to a 55,000-pound pull effort and is crucial to steep slope harvesting, Summit collaborated with Parker’s Hydraulic Pump and Power Systems (HPS) Division and a Parker distributor, Motion & Flow Control Products, Inc.

**Market**  
Forestry

**Customer**  
Summit Attachments  
and Machinery

**Application**  
Steep Slope Harvesting

**Solution**  
Series V16 Variable Motor

**Results**

- Higher Torque
- Improved Efficiency
- Fuel Savings
- Increased Machine Flexibility
- Less Maintenance



ENGINEERING YOUR SUCCESS.

## SOLUTION

Motion & Flow Control Products, Inc., informed their customer, Summit, about a new, improved product alternative to the Parker V14 hydraulic motor series, which was currently being utilized in their Winch Assist. The new product was the V16 Series, a new generation variable displacement, bent axis motor, which Parker HPS found to be a fit for Summit's forestry application in terms of displacement (220 and 270 cc), speed, and improved performance.

The V16's improved performance over the V14 includes the ability to:

- Stroke to zero displacement, providing better fuel savings.
- Control both speed and pull on the same Winch Assist, compared to the previous equipment with the V14, which could only be used for either speed or pull.

Other product features that benefit Summit's Winch Assist include the V16's nine piston design that provides a high start-up torque and a smooth operation, ideal for Summit's Steep Slope machinery.



## RESULTS

By transitioning to Parker's new V16 Series, Summit's two separate winch and motor packages, one high pull and the other high speed, were combined into just one winch system. This significant advancement provides Summit's customers with more system flexibility along with just maintaining one system versus two separate systems.

With the V16, Summit has experienced better efficiency through higher torque and greater speeds in ten of their operational Winch Assist Machines. As a result, this improved their customers' system performance and serviceability providing them with cost savings in their manufacturing process.

Finally due to the continued success of these ten operational machines with the V16, there are plans for other V16 implementations in Summit's Winch Assist product line.

**"The implementation of the V16 motors and new series of winches has allowed us to leap ahead of the competition in terms of performance and efficiency. The ability to have one winch that delivers high speed and high line pull is truly a game changer."**

**Chad Orth | Summit Attachment's Production Manager**

Displacement vs. Speed Rating. V16-270 & Competition

