



Beyond the Bucket: The Amazing, Versatile and Incomparable Backhoe

Dig with one end – load and carry with the other. It's that basic functionality that drives the initial purchase of a backhoe loader. For the owner/operator starting a business, it's the perfect combination in a single machine. But that machine can grow with a contractor's business and add greater functionality as needed – often forgoing the need to add extra pieces of equipment (and the associated owning and operating costs). Read on for a few thoughts on options to consider when specifying a new backhoe loader for added functionality, and then stick around for a few examples of backhoe flexibility beyond digging and loading.



Options for Added Versatility

Backhoes are an excellent platform for many applications because the machines are extremely stable. They can often handle heavier and more complex attachments than compact and small-sized excavators due to that stability. And, as a wheeled machine, they have significantly less impact on surfaces than tracked machines when turning. A few things to consider with each backhoe loader purchase that can help expand capabilities in the future:

PowerLift

PowerLift increases the lifting capacity of the backhoe with the push of a button. This feature also decreases the RPMs of the engine to ensure smooth lifting and quieter operation. Contractors find that backhoes provide an excellent tool for lifting and craning, especially in utility and roadside construction applications. This feature can give a backhoe lifting capabilities comparable to a 7-ton excavator. Backhoes that eliminate boom rebound (CASE offers ProControl, for instance, as standard equipment) further assist in precisely lifting and placing heavy loads.

Extendahoe

The extendahoe is a popular option because it gives the operator greater digging depth and reach. The only performance factor that changes with the extendahoe arm design is that lifting capacities are slightly less than those on a standard arm. This is an important specification – lifting capacity – always know the machine's rating for its configuration prior to executing a lift.

Auxiliary Hydraulics

There are three considerations as it relates to auxiliary hydraulics in most backhoes (configurations may vary by manufacturer): unidirectional hydraulics to the backhoe, bidirectional hydraulics to the backhoe, and auxiliary hydraulics for attachments mounted to the loader end of the machine. As it relates to the backhoe end of the machine, bidirectional hydraulics provide the most flexibility to run all attachments because hydraulic power flows two ways, ideal for use with attachments such as thumbs, augers and swivel buckets. Unidirectional auxiliary hydraulics are fine if a contractor only plans on running attachments with one-way hydraulic flow requirements, such as breakers and compactors. If possible, find a machine that has combo hydraulics which includes both unidirectional and bidirectional hydraulics for the most versatility and the least chance to damage unidirectional attachments.



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Auxiliary hydraulics to the loader end of the machine expand the machine's capabilities to run attachments such as brooms, grapples and the iconic 4-in-1 bucket.

Auxiliary hydraulics, arguably more than any other option, help transform a backhoe into an all-purpose machine. A contractor may simply order the standard machine as a matter of simplicity or cost savings, but simply adding hydraulics to one or both ends of the machine can save significant money in equipment rental or purchasing down the road. It also saves contractors money because they may not have to bring multiple machines and/or multiple operators out to a job site to perform tasks that can all be performed with a properly outfitted backhoe.

Couplers

Whether cab-activated hydraulic or manual, quick couplers on both ends of the machine will give contractors the ability to run a wider variety of attachments, and simplify the process of switching between attachments. CASE has actually integrated the hydraulic quick coupler into the construction of the backhoe arm so that it does not affect breakout force of the machine, rotation or any other operating capacities (compared to aftermarket options).

Counterweights

As it relates to equipment, weight = increased operating capacities. In the world of the backhoe, a little extra counterweight provides added stability that can prove important in utility and roadside construction applications. It also helps smooth out the roading process when equipping the machine with a heavier rear option such as an extendahoe.

Lighting Packages

Backhoes can make money at night just as well as they can during the day – proper lighting allows you to do that. Look for a backhoe that offers adjustable side lighting to improve visibility and jobsite awareness during nighttime operations.

4-Wheel Drive/Ride Control

These features don't break ground on any new functionality for a backhoe, but they do significantly improve operation in off-road and rough terrain jobsites.

4-wheel drive helps provide stronger, more stable movement because all four wheels are engaged, and ride control helps provide cushion to the loader arm when carrying a load – providing a smooth ride and helping prevent spillage of material in the bucket.

Grading

Backhoes aren't the first machine that comes to mind for grading, but these machines actually offer an excellent platform for grading. Look for a bucket with wear strips that are the same level as the bottom of the cutting edge. This is so that, when the bucket sits flat, there is contact throughout the whole range of the bucket rather than just the cutting edge. Backhoe loaders are actually easier to use for grading than some other machines because they are more stable and they have axle isolation keeping the bucket in contact with the ground more than a skid steer or a CTL without having to put as much pressure down – which provides a nice finish.

Compaction



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Many utility contractors rely on trench rollers or walk-behind vibratory plate compactors for compacting in trenches. By adding a hydraulic compactor to a backhoe, a contractor can perform that task from a safe distance, rather than placing a worker in a trench with a compactor. It also negates the need to purchase a separate piece of equipment.

Pipe Lifting and Placement

Attachments made by companies such as Vacuworx make lifting, handling and placing of pipe more efficient than conventional methods. It requires fewer ground personnel, eliminates the hassle associated with other methods of rigging (chains, straps, slings) and provides 360-degree rotation for precise placement – all without damaging materials or coatings.

Get Tilted

There are third-party couplers made by companies such as Helac that allow for buckets and other attachments to tilt up to 180 degrees while maintaining full functionality. This is particularly handy if digging on roadsides or in other tight environments. It also makes attachments such as augers and breakers that much more versatile.

Jobsite Clean up

Backhoes have excellent hydraulic flow going to the front of the machine. This makes it ideal for using any number of attachments designed for site cleanup, including grapples and brooms.

Snow Removal

Whether with a broom, a snow blade or a snow push, backhoes prove extremely versatile in this application, helping stockpile, clean and then load out large piles of snow.

Get More

When purchasing a machine, it's easy to take the short view and focus solely on purchase price. But, in an industry where competition for jobs is fierce, it's often the company that can run leaner and meaner that gets the work. Backhoe loaders are arguably more lean and mean than any other piece of equipment in the industry, giving contractors more options and versatility to expand their offering of services without having to buy additional equipment. Setting up a machine to accommodate that extra capability at the time of purchase will only allow for greater success.

(Source: Case Construction)





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