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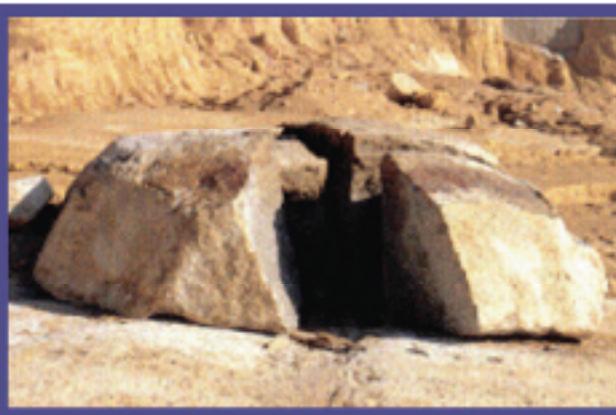


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It's a new year, and with it come high hopes and expectations for things to come.

2014

The economy seems to have begun a slow march toward recovery. New housing starts have hit a 6-year high, and construction companies worldwide are exhibiting a newfound confidence, if recent spending trends are any indication. Technological innovations and breakthroughs are driving progress forward and speeds that are fascinating to watch.

ConExpo is slated to showcase a lot of large, old names in the industry bringing renewed ingenuity to equipment that, for a long time, seemed to change little beyond the cosmetic. And it's introducing a few newer, smaller companies doing revolutionary things that, if successful, could usher in big changes in the industry.

My hope for the new year is that we all continue to build strategically and carefully on the successes of last year, while remaining open to people and ideas that could catapult us to a whole new level. 2014 promises to be a year of optimism and steady growth... but I suspect it may also usher in some pretty audacious milestones and achievements as well. Hopefully you, our readers, will be on the receiving end of the latter.

For our part, we will continue to expand our chorus of new voices in an effort to continuously improve this book. We will also branch out not only on the type of content we provide, but in the way we deliver it. This issue marks the completion of our transition to a 99.9% digital publication.

While we understand that some people prefer a physical copy in their hands—and we will still provide that for those who request it—the move to digital will allow us to bring richer, more varied and more interactive content, while at the same time making this more of a two-way conversation with you, our readers.

Like I said, it's a new year, and with it comes high hopes and expectations for things to come. For me that means a challenge to make each issue of The Utility Source is better than the one before. And I'm grateful to have you along for the ride.

Danny Thompson, EDITOR

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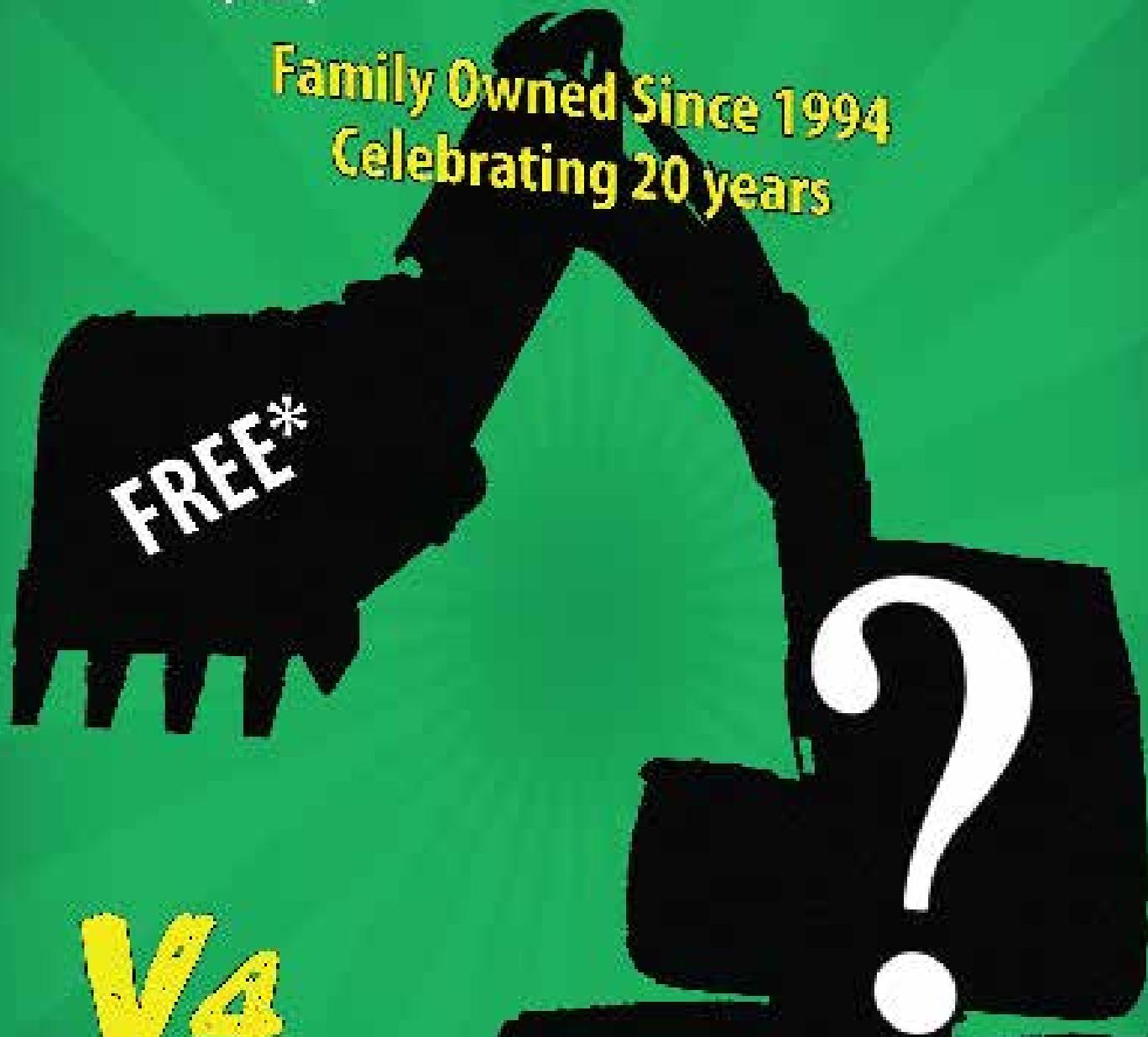
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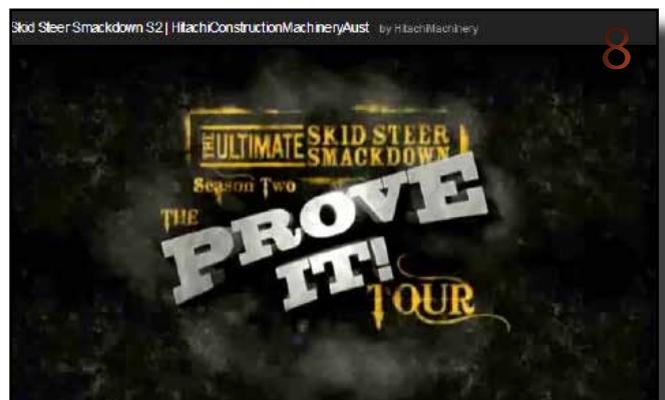
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Best of the WEB

Just some of the things we came across while surfing the web.



1. SmartBrief: Housing Starts Hit 6-year High
<http://bit.ly/1eZNRww>
2. FacilitiesNet: 5 Considerations For Planning Use of Metal Buildings
<http://bit.ly/1eZNDM4>
3. JDSupra Business Advisor: COURT: Gen. Contractor Can Be Held Liable In Discrimination Suit Brought By Sub-Con's Employees.
<http://bit.ly/1eZO8Wv>
4. Slideshow: Modular Construction of MIT's New Childcare Center
<http://bit.ly/1eZP0dD>
5. Surprising, Innovative Use of Power Tools: Music.
<http://bit.ly/1eZMcgA>
6. Top 10 Construction Projects of the 20th Century
<http://bit.ly/1eZLoIn>
7. SanFran-Oakland Bay Bridge Construction Time-Lapse
<http://bit.ly/1eZKJae>
8. Skid Steer Smackdown!
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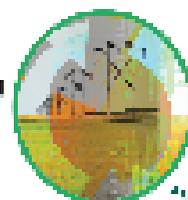
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6 Tips

To Purchasing Your Next SkidSteer Loader

By Will Burke

When you are in the market to purchase a skidsteer loader, you will find that your options are infinite. There are many manufacturers that build skidsteer loader, so you may ask yourself “Where do I begin” . Well here are some of the things to think about when purchasing a skidsteer.

You first will need to decide whether your needs would be filled by a used unit or if you are at a point that a new unit would be best suitable for your needs, secondly you will need to determine the proper size machine for your application, depending on the type work you do, the largest or highest horsepower machine isn't always the most efficient machine.

You will also need to decide if you were going to set a budget to spend or if you are going to be financing this unit. If you intend to purchase a unit outright, you will need to set your budget realistically. Some of the aggravation may stem from not being able to find a machine in the size range that also fit in the price range you are looking to spend. When shopping for a used unit, you must really pay attention to the unit, sometimes folks will let the glitter blind them, a machine with the best aesthetic value may not always be the best mechanical value. You need to look past shiny paint and new tires, you should do a complete evaluation on the machine, key points to check are as listed below.

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1. Check for wear on key hinge point of the machine. Check for abnormal play in pinned joints on the boom lift arm. Check the bucket hinge pins and all bucket and lift cylinder pinned joints, always be sure to check both ends of the hydraulic cylinder ends.
2. Check for cracks or broken welds on structural components of the machine. You will want to inspect the boom lift arm, axle tubes and housings, check around hydraulic cylinder pinned joints. Also pay attention to the bucket. If you see multiple post manufacture welds, this may be an indicator that the machine has been used in an abusive manner, such as ramming machine into large masses.
3. Check for excessive oil or fuel leaks. Look over engine compartment, if accessible check under the cab of the unit as well. Don't count on finding a used machine that is perfectly dry, but you don't want oil standing in the belly of the unit either. Also keep in mind that just because the a unit has an oil leak doesn't mean the unit has problems, it can be as simple as a lose hose fitting, or a failed
4. Check the steering and drivability of the machine. This could be one of the more important parts of the inspection, due to the nature of the problem these can be a more expensive fix and worse, it could be a safety issue as well. Drive the unit fully engaged forward, check that the machine tracks straight. You will also want to be sure that there isn't a lot of slop in the chain case by driving the machine from reverse to forward and vice verse. When machine is in the neutral position be sure that the unit isn't creeping (still moving), this can be very dangerous as it could run into something or if you are work with laborers it could cause injury.
5. Check for engine wear. Keep in mind most Skidsteer loaders are powered by diesel engines, much different than conventional gasoline engine. Diesel engines are much louder than gasoline engines, they have a noticeable clatter at lower rpm's. Diesels may also smoke a little grayish-black smoke when first started or while warming up, this is normal especially in a used unit. Check for power loss under a light load, you may do this simply by driving the machine up a slight incline, the rpm's will drop some but they shouldn't drop more than 50 % of full throttle rpm's just from driving alone. Keep in mind that diesel engines make the most power at lower rpm's under a load, just because the engine is losing rpm's dose not necessarily mean your losing power
6. Lastly, check the overall condition of the machine. This step of the evaluation is important in the sense that you will want a machine that looks professional and you will base a portion of your decision off your findings from this step. If you do buy a machine in which the paint and decals show excessive wear, it may be a good idea to touch up heavily scratched areas with paint and replace decals. This is usually inexpensive and will give your machine a better aesthetic value, especially important if you are a contractor, You want customers to feel confident in the equipment your using to complete their projects

Will Burke has been selling construction equipment for over 9 years and has specialized in compact equipment. For more info on skidsteers or to speak with Will, please visit [<http://www.buyhaydenequip.com>]



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The Skid Steer Loader Overview

By Robert Leib



A skid steer loader is a versatile machine, and a must have for anyone in landscaping, large-scale construction, farming, or logging. It has a rigid frame and lift arms you can attach various tools and skid steer loader attachments to. Loaders may be track-equipped or four-wheel drive.

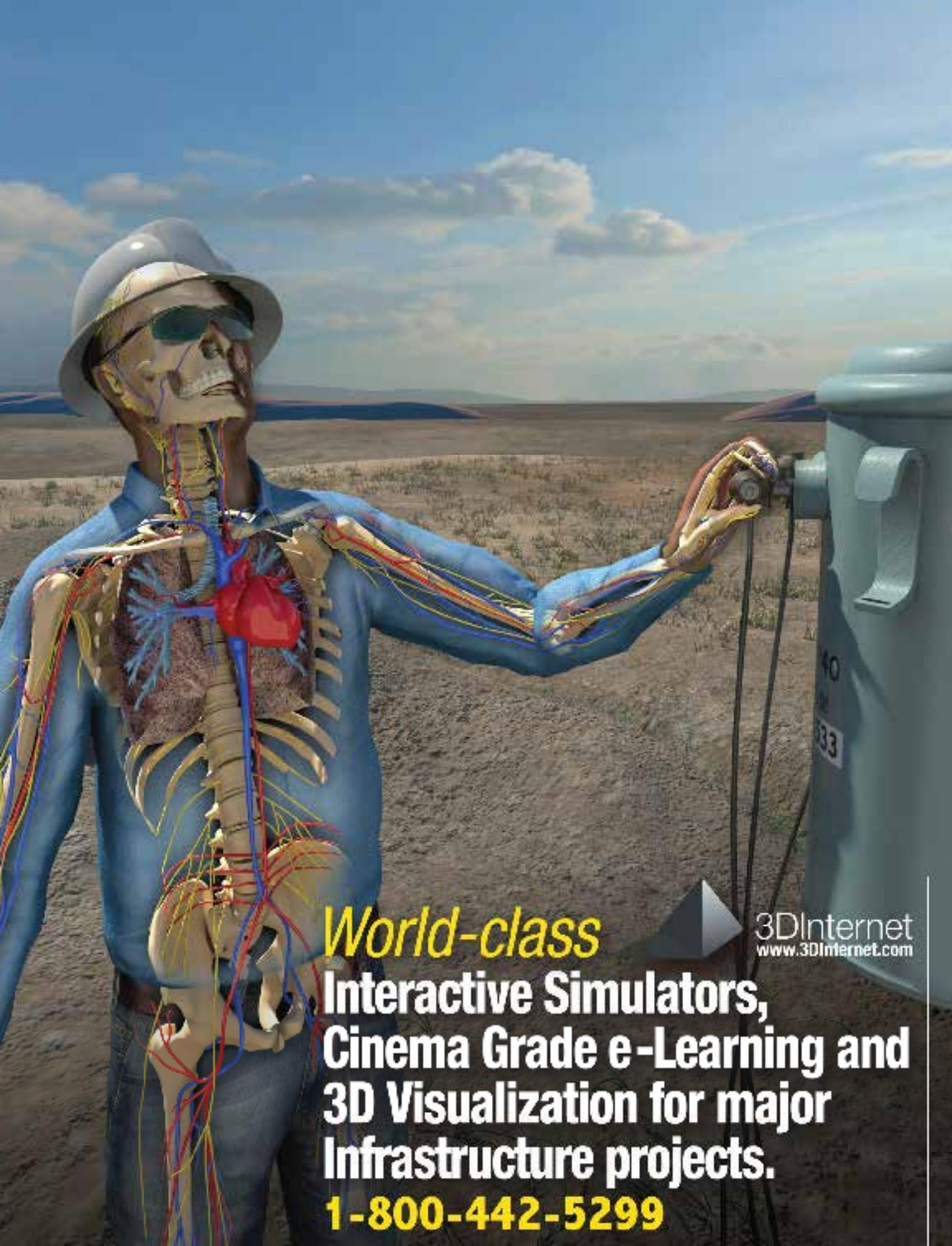
The drive system of the loader has no transmission. Instead, it uses pumps and hydraulic motors to power the wheels or tracks. Wheels can drive independently of each other, which makes them very maneuverable.

The skid steer loader gets its name from the way its stationary wheels skid with the moving wheels. Since the left-side drive wheels or track run independently of the right-side, these loaders can turn with zero-radius. This makes them compact and useful in tight situations. They are also light enough to be towed behind a pickup truck.

Unlike a front loader, which has arms and pivot points on the front of the machine, the arms on this machine run alongside the driver, and the pivot points sit behind the operator. These loaders have fully-enclosed cabs and other features which protect the operator.

There are a variety of specialized skid steer loader attachments, which can replace the conventional loader bucket. These include backhoes, hydraulic breakers, pallet forks, angle brooms, sweepers, augers, mowers, snow blowers, stump grinders, tree spades, trenchers, dumping hoppers, rippers, tillers, rollers, snow blades, wheel saws, cement mixers, and wood chipper machines. Many of these are powered by the hydraulic system.

While new loaders may cost anything from \$25,000 to \$40,000, good used loaders are available for prices ranging from \$10,000 to \$15,000.



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Skid steer loaders are amazing tools and make a great addition to any landscaping or construction company, farm, or logging operation. They require minimal operator training. Their light weight and small size allows them to be towed by pickups, and the loader's zero radius turning makes them useful in tight situations. The variety of attachments makes this implement valuable.

Skid Loader Tracks come in three different styles for use on a Bobcat skid steer. The different tracks are used with tired, or wheeled, machines as opposed to the compact track loaders which have no wheels. The track is placed over the wheel to give the skid steer loader better traction and maneuvering capabilities. Which one you choose to use is dependent on the kind of terrain you are working and riding on.

Rubber Skid Loader Tracks

If you were going to do work on a yard or driveway but you didn't want to tear either of them up and ruin them with skid marks, you would use the rubber tracks. The rubber tracks are mainly used for landscaping. These are the least aggressive tracks, but they give a good amount of traction on wet terrain. The skid loader tracks are made of rubber or urethane so they won't damage newly-laid sod, won't scratch up brick pathways, and won't scuff up the driveway. Landscapers love these tracks because they are not aggressive, but still provide good traction. These rubber skid loader tracks are able to turn the machine without causing any damage. Turning a skid steer loader can generate a lot of wear and tear on a lawn or driveway, so the rubber tracks are best used in smaller areas where the landscaping can't be damaged.

Moderately Aggressive Tracks

Then there are the steel skid loader tracks. There are two different sets of steel skid loader tracks. First is the moderately aggressive track with high flotation, and less aggressive cleats. These steel tracks enable you to go across somebody's yard without tearing it up too much.

Now, if you turn or try to spin it will tear up the yard but if you just drive across the lawn it won't cause any damage. However, if you are in really steep conditions like a ravine or really muddy conditions you won't have as much traction to get in and out of that area. These tracks are used in areas where there is more

acreage, where maneuvering isn't as challenging because there is more space to work in.

Very Aggressive Tracks

Beyond the moderately aggressive track is the 2 bar style track which is very aggressive. These skid loader tracks will chew up a yard instantly and will absolutely destroy a driveway. However, you can go up and down steep, muddy areas and you won't get stuck. These tracks are perfect for working on hills during all kinds of weather conditions. If you want to clear brush away to create a snowmobile path, these skid loader tracks are the ones that can help get the job done.

The machine can easily maneuver up and down the hills of the path and you don't have to worry about getting stuck. These skid loader tracks can rip up anything that might be in the way. When you need to clear brush or logs from land these tracks can handle everything the earth dishes out. You won't get stuck using these tracks.

Regardless of the kind of work you have to do, be it delivering edging stone or removing a stump so you can landscape, there is a skid loader track for your job. If you don't know what kind of track you need we can help you figure that out. Our professional staff know exactly what kind of track to use in any kind of conditions and terrain. You have more important things to worry about, Let us help you determine the kind of skid loader tracks that will work for your job.

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Keep Safe Around Backhoes & Excavators

By Robert Francavilla



If you or someone you loves work around excavators and backhoes you know that it is a risky business: construction workers get killed or injured by these machines. The three major causes of injury are being, knocked over by the machine, being struck by the boom or some other part of the machinery, and being struck by an unexpected quick-release of the bucket from the excavator stick. Workers are also at risk from equipment roll-overs and falls into trenches after a sudden cave-in.

Most of the backhoe and excavator injuries and deaths in the US construction industry could have been prevented by thorough

training of equipment operators and workers working with them, the use of personal safety equipment, and responsible installation and regular maintenance of machinery. NIOSH, the National Institute of Occupational Health and Safety presents a list of job-site safety practices that can prevent needless injuries and deaths.

Here are some of their recommendations:

- Know your site. Before the machinery arrives on site, contact local utilities for exact location of overhead and



underground utilities. Keep machinery away from overhead power lines. If you have to work near power lines, know the OSHA specs for safe clearances.

- Know the site grades and the grades on which each machine can operate safely. Never use machinery on a grade that exceeds the manufacturers' specifications; you're asking for a rollover.
- Stay away from trenches. Know the locations of trenches and other excavations on your site, and keep machinery away from them.
- Train your operators. All equipment operators should be fully trained to inspect and operate their equipment. New job sites and new tasks may require additional training.

- Maintenance. All equipment should be installed according to the manufacturer's recommendations, and maintained and serviced in compliance with the prescribed maintenance schedules. A properly maintained machine is far less likely to malfunction.
- Check quick-disconnect systems frequently. Operators should be trained to check the apparatus for quickly attaching and disconnecting a bucket from the excavator stick frequently, particularly after an attachment has been added or removed. Failure to spot a malfunction can cost a worker's life.
- Label all controls. All machine controls should be clearly labeled in large, easy to read print.
- Know the load limits and stay within them. Operators should not agree to lift loads that exceed the machines safe limits.
- Worker awareness. Every worker on the job-site should be trained and alert to machinery's swing areas, the area covered by the excavator or backhoe as the arm or the machine swings around. Workers should also know the operators' visual range, where he can see and where his blind spots are. Before the machinery starts up, the swing area must be marked, whether with rope or flag or hazard tape, so that workers stay out of range.
- Extra caution when hoisting. Workers should be educated to stay out of the swing area when a machine is hoisting, and to never stand under a load, or under the boom, the arm, or the bucket
- Lower the bucket and turn off the machine before stepping away. Operators should never leave a machine running.

These safety procedures are simple, low-tech, and common sense. Following them every day on every job site can make the difference between a safe site and worker fatality.

If you or a loved one has been injured or killed on a job-site, and you believe that unsafe practices with a backhoe or excavator contributed to the injury, you may have a claim against the employer, under the doctrine of workplace negligence. It is in your best interest to consult an experienced construction site lawyer as soon as possible. California has statutes of limitations, laws which limit the time period within which you may assert certain claims or file certain lawsuits. If you do not file your claim within the statutory time limit, your right to compensation can be forever lost.

Robert Francavilla is a San Diego construction injury attorney who has represented construction injury and death claims for workers and their families throughout Southern California.

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Use The Winter Months To Run Routine Maintenance On Your Mini Excavator

By John S Lewis

It is starting to feel a bit chilly now, which means only one thing - winter's coming! The use of your excavator machine may be drying up and there are lots of things that you can do to ensure that everything stays in working order whilst your excavator is not in use. Battling against the cold is a tough challenge but these very easy steps will guide you along.

First of all check your filters:

- Checking your filters - making sure the filters are in good condition is critical to maximising the performance of your digger.
- You should think about carrying out some inexpensive preventative measures like replacing filters. This will prevent any damage and costs that may occur at a later date.
- Make sure that you remember to check Oil Filters, Fuel Filters, Hydraulic Filters as well as the Air Filters. Be aware that as it gets colder, there is an increased chance of condensation forming in the fuel tank, and water getting into the fuel, so changing the fuel filters regularly is essential. Additionally, air filters can get clogged up easily when the air is damper too, so ensure these are in good condition, so that the engine can run smoothly.

Also check the Excavator Pins and Bushes

When the weather is not so good, and the amount of work you can get done is limited, thus making it an ideal time to check other wearing parts such as pins and bushes.

- It is critical to replace wearing parts before they get fully worn out, and the wear starts to affect the structure of the excavator.
- You should aim to replace these parts with hardened steel pins and bushes, to ensure you get maximum life out of the part.

Finally, look at your Rubber Tracks and Undercarriage Parts

When the ground is soft and muddy, it can hide problems on the rubber tracks and undercarriage parts so make sure that this is checked prior to use

- Ensure that you check the Rubber Tracks for splits and damage regularly to ensure you don't get caught out with a breakdown
- Check the Sprockets, Bottom Rollers, Top Rollers and Idlers frequently for wear as well, as these parts ensure the smooth tracking of the machine

Keeping excavators in top condition helps to maximise their productivity throughout the year. If you follow this guide and conduct the necessary preventive measures, it may save you the damaging cost if something were to go wrong with your excavator machine.



Construction Safety -

Trench Shoring For Your Excavation Project

By Steve Wellman

Any excavation site or construction site that is going to involve any heavy digging will need trench protection equipment. Trench shoring is the process of bracing the walls of a trench in order to prevent it from collapsing. This protective equipment is essential to protect the health of utility workers and contractors while performing their duties within trenches. Trench shields or trench boxes are often made of steel or aluminum, and have beams that brace and separate the walls that ensure there isn't a cave in.

You should seek out professional expertise when choosing a solution for your specific construction project. Another common solution is using hydraulic shoring, which utilize hydraulic pistons that extend out against both walls of the trenches. The reason that a lot of construction workers like to use the hydraulic shoring solutions is that they tend to be faster and easier to work with.

There are a variety of reasons that trench shields and trench protection equipment is used. Here is an example of a few: underground jobs, installing valves and other underground equipment, telephone lines and other cables, laying pipes and drainage materials or digging down to buildings foundations.

Trenches can vary in depth, width and length depending on the application. Another factor of the equipment you want to choose is how long the trench stand-up time will be. This is the amount of time the trench will stay actively open from the time it was dug to the time it is filled.

Trench shields can be ordered in a variety of sizes and designs. Sometimes contractors benefit from using a narrower trench shields if they don't need as much room then they don't need to excavate as large of an area. If you are only doing some moderate plumbing you may also not need to go as deep in the soil, which is another reason why a smaller shield can be used.

This often times means more profit for the contractor who is doing the excavating by reducing cost, making excavation times faster and reducing minimum amount of machines cycles. Sometimes though in big excavation projects larger more permanent trench shields and boxes are needed. When this is the case you are going to be looking for a more heavy duty piece of equipment.

Griswold Machine & Engineering (GME) delivers world class trench shoring equipment. They do this by creating customer solutions, and have the advantage of using their manufacturing facilities and the most extensive in house senior engineering staff to develop new products and innovate for the trench shoring industry.



Power Tools and Brushless Motors -

What's the Real Difference Between Brush and Brushless DC Motors?

By Mallory Kramer

Do brushless motors really perform better, and are they really worth all the hype. At this stage in the game, the answers to these questions are surprisingly positive. Excluding the higher price tag for power tools with brushless motors, the pros and cons list is decidedly imbalanced in favor of this brushless innovation. In other words, our expectations of these tools are high and our forecast for their future performance and popularity is definitely optimistic.

Construction: How is the Brushless Motor Different?

Brush Motors

As you know, a standard DC brush motor operates with a fairly simple construction. Consisting basically of an armature, the commutator, carbon brushes and a field, the brushed motor in your power tool relies entirely on carbon brushes to transfer electricity from the power source to the motor.

In a nutshell, the armature is a series of electromagnets on a free-spinning shaft, the commutator is connected to the armature by that shaft and acts as a switch to the electromagnet; the brushes are conductive carbon blocks and the field is a ring composed of a series of magnets (a magnetic field). - The brushes press against the commutator from opposite poles of the power source transferring electricity into the commutator (in both positive and negative charges). These charges change the polarity of the electromagnet. The constant switch between poles in the electromagnet alternately pushes and pulls against the conventional magnets in the field to create rotation, and thus, a spinning armature and a functioning motor. The spinning of the motor, though, naturally creates friction against the carbon brushes. This both depletes the brushes promising you'll eventually need to replace them, and also wastes energy within the motor.

Brushless Motors

Brushless motors, on another hand, use a circuit board instead of the carbon brushes and commutator. Conventional magnets surround the shaft and a ring of electromagnets surrounds that magnetic field. The electromagnets are stationary allowing the shaft and magnetic field to spin freely within the electromagnet ring, and because these electromagnets don't spin, electricity can be delivered to them directly. In lieu of the brushes and commutator, the control circuitry now alternates the polarity of the electromagnets.

In other words, a brushless motor doesn't need brushes because it's magnets are positioned differently and because electricity is delivered to the electromagnets directly. Barring unforeseen issues with the circuit board, the brushless motor is super clean and super efficient.

Performance: How Do Brushed and Brushless Motors Measure Up?

Output

As aforementioned, the nature of a brush motor creates friction and drag within the motor. This wastes precious, precious energy. A brushless motor, though, does not necessitate friction and therefore delivers power more efficiently and without waste. In fact, some manufacturers claim that power tools with a brushless motor enjoy 50% longer run-time in between battery charges. Similarly, higher speeds mean higher friction in your motor - this means less overall output and, particularly, less torque. Accordingly, a friction-free brushless motor will deliver greater torque than a standard brushed motor, and because they can also be more compact, brushless technology offers greater power (and higher speeds) from a smaller power tool.

Maintenance

Although a properly used power tool with a brushed motor will give you many, many hours of work before the brushes need replacing, the fact is, every time you run a brushed motor, the brushes wear down. They wear down consistently and will eventually require replacement. Additionally, worn brushes can force the motor's other components to work harder during use; this creates more heat and more wear. - Still, brushed motors are tough and reliable and the pair of brushes in a standard, brush-motored cordless tool may last years before replacement is necessary.

Conversely, and by virtue of being brushless and featuring slightly different components, a brushless tool motor will likely require less overall maintenance. Brushless motor's also tend to run cooler and produce less noise during operation. On another hand, though, while replacing brushes is a simple and inexpensive repair, if your brushless motor requires maintenance, it will likely be a more complex fix and will be more expensive.

Cost

Brush motors are reasonably inexpensive. Brushless motors are more expensive. Period. Even basic power tools with brushless motors are priced like specialty tools.

At this stage in the game, brushless motors are expensive to produce and because the demand for these tools isn't yet comparable to that of brush motor power tools, their production price remains high. As these tools become more mainstream, though (especially with professional tool users and aficionados), the street price of these high-end power tools is likely to decrease. If manufacturers need to produce more of these tools, the price to fabricate them will lower and the final price to consumers should follow suit.

Bottom Line: Are Power Tools With Brushless Motors Really Worth All the Hype?

Are these more complex, more expensive motors really all they're cracked up to be? The short answer is: probably; but it mostly depends on how you use your power tools. If you use a tool only a few times each year or if you are a strictly light-duty user, you probably don't need to upgrade to brushless technology. If you use your tools often or vigorously, though, I think

you'll genuinely appreciate the difference.

Ultimately, the hype is appropriate and brushless motor technology is a really exciting step in the evolution of power tools. Whether you choose to lay down a few extra dollars for this new breed of tool is between you and your work-load, but, in either case, I hope you'll share with me some pride in our power tool community that continues to grow and improve and enhance our ability to do what we do.

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Overhead Drilling in to Concrete

By Forrest Dockery

All concrete anchors require holes. So if you want to attach a hanger or secure something to a concrete ceiling overhead, drilling into concrete is a fact of life. Traditional methods include climbing a ladder with a hammer drill, setting up scaffolding or renting a scissor lift. Fatigue and muscle strain from repeatedly drilling overhead can lead to injury to the neck, back and shoulders. Safety should always be a major concern when an operator is performing a strenuous and labor intensive job for long periods of time.

Several patents have been filed dating back to 1984 for machines like “overhead drill jig” and “Jig assembly for drilling vertically upward”. There was even a University of California study funded through national labor and safety grants. As a result, there are several machines being marketed. These machines are designed to drill holes from ¼” to ¾” in diameter for commercial building trades (fire sprinklers, HVAC, electrical, plumbing, suspended ceilings and data communications).

The most expensive of these tools comes with a special drill cradle, a mobile base, a winch system to push the drill against the ceiling and a vacuum system to reduce dust. There is one model that drills two holes at once, a set distance apart. These tools are bulky and require preparation and planning to set up. However, they definitely make the job less onerous. These tools retail from around \$2,000 to \$3,500.

A less expensive alternative places the hammer drill at the end of a telescoping pole, which is then lifted to the ceiling by hand or with a foot pedal. These tools were designed to fasten suspended ceiling wires to concrete ceilings in Canada on jobs where powder actuated tools are restricted. They have proven to be versatile and commercial grade, able to withstand the punishment of high volume jobs.

The most economical of the telescoping poles uses a ceiling probe to switch the hammer drill on and off. As the probe is depressed against the ceiling, it pushes the trigger of the hammer drill, thereby activating the trigger. This mechanism eliminates the need for a remote switch and allows the operator to hold the tool securely with both hands.

Beware of tools that do not place the hammer drill directly against the ceiling. Hammer drills are engineered to impact and rotate a carbide bit at a speed that drills a hole efficiently in hard concrete. When you put a long extension between the hammer drill and the ceiling, you lose efficiency and will eventually destroy the extension tool.

Extension Poles for Hilti, Ramset and Powers Powder Actuated Tools

There are several manufacturers of powder actuated tools used in the suspended ceiling industry: Hilti, Ramset, Powers, Simpson and Bluepoint. The Hilti DX 350 powder actuated tool (PAT) and its cousin the DX35 has been the standard of the industry for many years. Most of the other manufacturers began making similar tools (knock offs) when Hilti’s patent expired. The extension poles offered by these manufacturers can be more expensive than the powder actuated tool itself. Luckily there are other companies making extension poles. The Long Shooter brand of pole tools for instance has a proven track record of high quality and is available at a low cost.

Typically an extension pole consists of a fiberglass pole with a means to secure the PAT tool on one end and a trigger pull on the other. The installer has to be protected from shock in case an electrical conduit is pierced by the PAT nail. Therefore, PAT extension poles are usually made of fiberglass and have a dielectric coupling to withstand up to 10,000 volts.

Ceiling wires pre-wrapped to an angle clip and a concrete pin are available at some of the larger distributors. Pre-wrapped ceiling wire assemblies coupled with an extension pole allow a single worker to install 700 or more ceiling wires in an average day. Most contractors customize their pole tool by attaching a short section of electrical conduit or PVC pipe to the side of the pole. This is used to hold a number of ceiling wire assemblies to cut down on trips back and forth to re-stock.

Ramset’s Viper tool was developed specifically for the suspended ceiling industry in the US. Early versions of Ramset’s Viper tool did not require a trigger-pull mechanism. Instead, the tool was pressed against the ceiling and the impact or “BUMP” activated the tool. This “BUMP” feature allowed the tool to be placed on a simple and inexpensive telescoping pole. The latest version of the Viper, the Viper4, requires a trigger pull mechanism and a special extension tool. The Viper 4 is not a “BUMP” tool.

Powers Fasteners makes a “BUMP” tool similar to the older versions of the Viper. Powers calls their tool the Sniper. Most fans of the “BUMP” tool are switching to the Sniper.

In summary, extension poles for powder actuated tools increase efficiency, improve safety and greatly reduce cost. There are videos on-line that demonstrate how PAT tools are mounted to extension poles, as well as how they’re used.

Forrest Dockery has been an innovator in the suspended ceiling industry since 1988. He is associated with Docs Marketing. Please visit <http://www.youtube.com/docsmarketing> for instructional videos and visit <http://www.docsmarketing.com> for more information on the Overhead Drill Machine (ODM).

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A Hardhat Made From Sugar



Unlike conventional hard hats manufactured from high-density polyethylene (HDPE) sourced from nonrenewable petrochemicals, the V-Gard GREEN hard hat from MSA is manufactured using “green” HDPE sourced entirely from sugarcane ethanol. Developed by MSA in Brazil, the V-Gard GREEN hard hat will be introduced to North American customers at the 2013 National Safety Council Congress & Expo, scheduled for September 28 through October 4 in Chicago.

“By developing a hard hat sourced from sugar, we are effectively reducing the overall carbon footprint associated with the life-cycle of this product,” said Eric Beck, MSA’s Global Director of Strategic Marketing. Mr. Beck explained that through the natural process of photosynthesis, sugarcane cultivation captures CO₂ from the atmosphere, thereby reducing greenhouse gas emissions. In fact, according to a 2007 eco-efficiency study conducted by Fundacao Espaco Eco, for every ton of green HDPE produced, approximately 2.5 tons of carbon dioxide are captured from the atmosphere and environment.

Just like MSA’s market-leading, traditional V-Gard hard hats, the V-Gard GREEN protective hard hat meets the company’s rigorous performance standards as well as those defined by ANSI Z89.1 and CSA Z94.1. “The sustainable benefits of using ‘green’ HDPE in a hard hat are what initially captured our interest,” Mr. Beck said. “But at the end of the day, the hard hat has to provide the same high level of head protection that our V-Gard brand is known for around the world. That’s what makes this product option so attractive.”

Green high-density polyethylene is also 100 percent recyclable in the same stream as conventional HDPE, making it suitable for reuse in non-safety products and further enhancing the sustainability benefits of the new hard hat. Like traditional V-Gard hard hats, the new V-Gard GREEN hard hat will be marked with a recycling label to further remind and educate users to recycle their helmet at the end of its use cycle.

In recognition of MSA’s leadership and innovation in head protection, Frost & Sullivan, a global research organization of 1,800 analysts and consultants who monitor more than 300 industries and 250,000 companies worldwide, recently selected the V-Gard GREEN for its 2013 New Product Innovation Leadership Award.

The MSA V-Gard GREEN hard hat is being launched in the midst of steady growth in the green building industry. According to an industry report released earlier this year in collaboration with the U.S. Green Building Council and the World Green Building Council, 28 percent of architects, engineers, contractors, building owners and building consultants around the world report an increased focus on sustainable design and construction. The report found that

firms are shifting their business toward green building, with 51 percent of respondents expecting more than 60 percent of their work to be green by 2015.

“With the rise in green building and construction projects in general, this is an opportune time to introduce an alternative, sustainable safety hard hat that also helps to reduce carbon emissions and demand for fossil fuels in product manufacturing,” says Mr. Beck. “With millions of hard hats manufactured and sold annually in the United States, Canada and Mexico, the

V-Gard GREEN hard hat provides those in the construction industry as well as those working in the utility, energy and industrial fields a more sustainable choice that protects both people and planet.”

The technology to produce this new helmet was deployed at MSA’s Brazil operations, in conjunction with Braskem, the world’s largest producer of green thermoplastic resins. Offering increasingly sustainable products is a pillar of Braskem’s global business vision, which includes intensifying its research into renewable chemicals.

MSA will manufacture its V-Gard GREEN hard hat at the company’s Murrysville, Pa., manufacturing facility located near Pittsburgh. The hard hat will be made available to customers in late September 2013.



| Company | Pg. | Website |
|------------------------------|--------|--|
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Towmaster's Hydraulic Tail trailer has quality features built to stringent Towmaster specs. It features a T1 steel I-beam outer frame design with the axles attached to a sub-frame and junior I-Beam inner members to tie it all together. This trailer includes hydraulic operated two-piece tail with a low load angle for hauling low-ground clearance type equipment. An optional hydraulic deck ramp allows equipment to be loaded onto the 8-foot top deck. A hydraulic winch can be installed to pull equipment onto the deck.

The hydraulic operated fore-under tail design features a diamond plate metal approach with wood ramps to aid in traction. Stake pockets and tie-downing parking stands are standard equipment.

Two-way side controls make it easy to operate the functions. All lights on the trailer are long-lasting LEDs and the trailer is finished with two-component corrosion-resistant polyurethane primer and top coat.

More information can be found at www.towmaster.com or call Towmaster at 800-462-4517.

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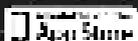
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