

Construction Equipment

Used Construction Equipment California - Most heavy-duty construction equipment includes vehicles built to complete specific construction tasks. Heavy hydraulics, engineered vehicles and large trucks often accompany earthmoving operations. Five main types of construction equipment systems include powertrain, implement, structure, control and information and traction. Many kinds of industrial machines are categorized under the heavy equipment category. Tractors Tractors are specially designed to deliver high tractive movements at slower speeds to accommodate hauling items such as trailers or construction equipment commonly for agricultural purposes. One of the most popular farming machines is tractors that mechanize heavy lifting and loading tasks that need traction and power. Many agricultural attachments can be added to the tractor to simplify tasks. The tractor can provide power to the mechanized attachment to facilitate heavy lifting or digging etc. Excavators Heavy construction equipment includes excavators that feature a bucket, stick, boom and cab situated on a rotating platform. Depending on the particular model, the house is located on top of an undercarriage that has either tracks or wheels. Excavators rely on hydraulic motors, hydraulic fluid and hydraulic cylinders to facilitate all movements and functions. The hydraulic cylinders provide linear actuation to provide a different operation mode in comparison to other excavator models that use winches, steel ropes and cables. Backhoe Loaders Similar to a tractor, a backhoe loader is essentially a machine that has a front loader on one end and a backhoe on the other end. There is a swiveling seat option to position the operator facing whichever direction is required at the time. Backhoe loaders are for sale as is or they can be created by combining a rear backhoe loader with a front-end loader. Manufactured backhoe loaders are specific for farm applications and are not suitable for heavy work. Operators using the farm model will have to change seats from the tractor seat to the front of the backhoe controls. Obviously, switching seats repeatedly to reposition the machine for digging applications slows productivity down. Thanks to the invention of hydraulically powered attachments including an auger, tiltrotator, a grapppler, breaker, etc., the backhoe can be outfitted to use in a variety of applications including construction, engineering and agricultural sectors. A popular attachment for transporting tools is the tiltrotator. Numerous backhoes offer quick coupler mounting systems. The quick coupler offers better attachment efficiency for switching different equipment out on the machine. Backhoes commonly work beside loaders and bulldozers. Backhoe loaders are popular within the industrial equipment industry. Backhoes are commonly being replaced by different front-end loaders and excavators. The advent of the mini-excavator has proven useful in a variety of industries. Previous job sites that would have employed a backhoe may now feature a mini excavator and skid steer used in conjunction. It is possible to reverse a backhoe bucket and use it as a power shovel. This flexible design is excellent for completing tasks around obstacles such as pipes, for increasing reach potential and for filling items or loading stockpiled materials. Skidder The skidder is a type of heavy equipment utilized in the forestry industry and logging for taking freshly cut trees out of the forest. The logs are dragged out and transported from the cutting location to a landing where they can be loaded onto logging trucks and taken to the sawmill. Dredging Dredging refers to underwater excavation. Dredging can be completed in shallow or deep waters. Dredging helps to keep waterways and ports easy to navigate and open. It is commonly done for land reclamation, coastal development and coastline protection. This process allows sediments to be suctioned up and relocated. On occasion, dredging can be done to recover things lost in the water. Minerals or high-value sediments can be collected from certain construction applications during dredging. Four specific components comprise the dredging process including loosening items, transporting the materials to the surface, transporting materials and disposing of them. Dredging materials can be transported by barge, removed as a liquid suspension through pipelines or locally disposed of. Bulldozers Bulldozers are heavy equipment that uses large tracks to deliver excellent mobility on difficult terrain. Their design features excellent ability to distribute the extensive weight over a large area to prevent the machine

from sinking into muddy or sandy environments. The extra-wide tracks are called swamp tracks and these work well in difficult terrain. The transmission system delivers extensive tractive force and allows the machine to make the most of the unique tracks. Bulldozers are often used in road building, infrastructure development, road building applications, mining, land clearing, construction and other projects that rely on earth-moving machinery. There are 4WD models on the market of wheeled bulldozers that utilize a hydraulic, articulated system. The hydraulically actuated blade is situated in front of the articulation joint. The two primary tools on a bulldozer are the blade and the ripper. Grader Graders are a kind of construction equipment that uses a long blade. Graders make surfaces flat during grading. Many models have an engine and a cab situated at one end of the machine above the rear axles. There are three axles and the third one is found at the front end of the machine. The blade is balanced in between. Many graders ride with their rear axles in tandem. Some models offer front-wheel drive to provide more maneuverability for grading purposes. Optional rear attachments include the compactor, scarifier, ripper and blade. Snowplowing maneuvers and dirt grading jobs rely on a mounted side blade. Some grader models that can employ numerous attachments. Some graders have been specifically designed for use in underground mining. Civil engineering relies on graders to complete a precise grade that is a specific pitch, height and blade angle. Bulldozers and scrapers are used to accommodate difficult grading procedures. Dirt and gravel roads rely on graders to provide accuracy. These machines prepare the base for paved roads and construction. Graders are employed to set gravel or native soil foundation pads to finish grade before large-scale building construction. These giant machines create inclined surfaces to facilitate side slopes needed for drainage and road building beside highways. A joystick or steering wheel is used to control the front wheel angle of the grader. A smaller turning radius is possible by many models due to the frame articulation design between the rear and front axles. This enables the operator to change the articulation angle to be more efficient moving material. Electro-hydraulic servo valves rely on electronic switches, joystick input or direct lever control to complete additional functions via hydraulics.