

Construction Equipment

Used Construction Equipment Ventura - Construction equipment includes industrial machines designed to conduct certain building and demolition tasks. Earthmoving operations are often accompanied by heavy trucks, engineering machines, heavy hydraulics and more. There are five equipment systems including traction, information and control, structure, implement and powertrain. Many kinds of industrial machines are categorized under the heavy equipment category. Tractors Tractors are meticulously designed to provide high tractive responses at slow speeds to facilitate hauling equipment, trailers or items required for construction or agricultural applications. Tractors are often utilized as farm equipment to mechanize farming tasks that require power and traction. Numerous agricultural additions can be mounted behind or onto the tractor to make certain jobs easier. The tractor is a useful farming machine used to mechanize loading, heavy lifting and digging among other things. Excavators Heavy construction equipment such as excavators have a stick, a boom and a cab situated on a rotating platform. Excavators may feature wheels or tracks depending on their application. The house is typically found on top of the undercarriage that houses the travel system. Hydraulic cylinders, motors and hydraulic fluid all help the excavator complete its movement and job capacity. A different operation mode is achieved with excavators that rely on the linear actuation of the hydraulic cylinders as opposed to models that use cables, steel ropes and winches. Backhoe Loaders Backhoe loaders resemble a tractor and these machines feature a backhoe found at one end of the equipment and a front loader found at the opposite end. There is a swiveling seat option to position the operator facing whichever direction is required at the time. Backhoe loaders can be built by pairing a front-end loader with a rear backhoe or the machines can be purchased ready to go. Manufactured backhoe loaders are specific for farm applications and are not suitable for heavy work. However, the farm unit requires the operator to change seats from sitting in front of the backhoe controls to then sitting in the tractor seat and vice versa. This constant movement to reposition the machine during digging often slows down the process. Common hydraulically powered attachments include the auger, a grappler, breaker and a tiltrotator to complete a variety of jobs in the engineering, agricultural and construction industries. A popular attachment for transporting tools is the tiltrotator. Quick coupler mounting systems are commonly found on numerous backhoes. The quick coupler offers better attachment efficiency for switching different equipment out on the machine. Backhoes often work alongside bulldozers and loaders. Backhoe loaders are popular within the industrial equipment industry. Backhoes are commonly being replaced by different front-end loaders and excavators. The mini-excavator has become popular for many applications. Jobs that would have relied on a backhoe can now combine a skid steer and a mini-excavator. 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 A type of forestry equipment for transporting freshly cut trees is the skidder. This hauling practice is referred to as skidding. Newly cut logs are dragged out of the forest and taken from the cutting area to a landing where they can be safely loaded and taken to the sawmill on logging trucks. Dredging Dredging refers to underwater excavation. Dredging can occur in shallow lakes or the deep ocean. This process is used to keep ports and waterways open and navigable. It is used for coastal redevelopment, land reclamation and assists in protecting the coastline. Bottom sediments can be sucked up and relocated elsewhere. Sometimes, dredging is completed to recover materials. The construction industry may collect high-value sediments and minerals via dredging. Dredging is considered to be a four-step process: loosening material, carrying material to the surface, transportation and disposal. Extracted items may be locally disposed of, removed in pipelines via a liquid suspension or moved by barge. Bulldozers Bulldozers are powerful heavy equipment with great tracks to provide superior mobility on rough terrain. Excellent design features evenly distribute the weight over a wide area to prevent this heavy machine from sinking in sandy or muddy locations. The

extra-wide tracks are called swamp tracks and these work well in difficult terrain. The bulldozers' transmission system is built to deliver powerful tractive force by enabling the machine to take advantage of its' unique tracks. Mobile and powerful, bulldozers are commonly used in developing infrastructure, road building, construction, mining, land clearing and other projects that require earth-moving equipment. Wheeled bulldozers have four wheels and are operated with a 4WD with an articulated, hydraulic system. The hydraulically actuated blade is situated in front of the articulation joint. The ripper and the blade are the primary tools with this model. Grader A long bladed construction machine is the grader. A grading operation creates a flat surface. Many models have an engine and cab located above the rear axles at one end of the machine, three axles with the third axle situated at the front end and the blade 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. There are optional attachments for the rear including the scarifier, compactor, ripper or blade. Dirt grading and snowplowing jobs commonly use a mounted side blade. A variety of attachments can be used on certain grader models. The underground mining industry can use some specially engineered graders. Graders are used in the civil engineering industry to finish grade with precision with the proper height, pitch and blade angle. Rough grading processes are completed with bulldozers or scrapers. Dirt and gravel roads rely on graders to provide accuracy. Graders are used to achieving the proper base for construction and road paving. These machines are used to set native soil foundation pads or gravel to complete the grade prior to large-scale construction commences. These large machines can designate inclined surfaces to establish slopes for drainage ditches or roads beside the highways. Grader steering can be completed via a joystick or steering wheel to control the angle of the front wheels. A smaller turning radius is possible by many models due to the frame articulation design between the rear and front axles. This design allows operators to change the angle of articulation to move material more efficiently. Electro-hydraulic servo valves rely on electronic switches, joystick input or direct lever control to complete additional functions via hydraulics.