

Construction Equipment

Used Construction Equipment Downey - 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. 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 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. A variety of agricultural attachments may be mounted on or behind the tractor to make certain tasks more efficient. Tractors can mechanize attachments to enable digging, heavy lifting and loading, etc. Excavators Heavy construction equipment includes excavators that feature a bucket, stick, boom and cab situated on a rotating platform. The house sits on top of an undercarriage outfitted with wheels or tracks depending on the model. 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 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 are for sale as is or they can be created by combining a rear backhoe loader with a front-end loader. These machines are very durable and have been manufactured to be strong enough to complete farm work however, they are not suitable for heavy construction jobs. The farm model requires the operator to change seats from sitting in the tractor seat to sitting in front of the backhoe controls. Constantly changing positions to move the machine into place for digging slows everything down. Common hydraulically powered attachments include the auger, a grapppler, breaker and a tiltrotator to complete a variety of jobs in the engineering, agricultural and construction industries. A great attachment for carrying 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 commonly work beside loaders and bulldozers. One of the most common types of industrial equipment is the backhoe loader. Backhoes are commonly being replaced by different front-end loaders and excavators. The invention of the mini-excavator has drastically improved a variety of industrial jobs. Jobs that would have relied on a backhoe can now combine a skid steer and a mini-excavator. A backhoe bucket can be reversed and utilized in a power shovel application. 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. 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 occur in shallow lakes or the deep ocean. This process is used to keep ports and waterways open and navigable. It is commonly done for land reclamation, coastal development and coastline protection. Bottom sediments can be sucked up and relocated elsewhere. Dredging can be utilized to recover items at times. Minerals or high-value sediments can be collected from certain construction applications during 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 A popular type of heavy equipment is the bulldozer. It relies on large tracks to manage mobility on rough surfaces and tricky terrain. Their superior design prevents this heavy equipment from sinking on soft terrain or muddy areas as their weight is evenly distributed. Poor

terrain can be easily navigated with extra-wide swamp tracks. The transmission system delivers extensive tractive force and allows the machine to make the most of the 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 blade and the ripper are the main tools associated with this bulldozer. Grader A long bladed construction machine is the grader. 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. The majority of graders drive with the rear axles in tandem; however, certain models add front wheel drive to offer better grading maneuverability. There are optional attachments for the rear including the scarifier, compactor, ripper or blade. Snowplowing maneuvers and dirt grading jobs rely on a mounted side blade. Some grader models that can employ numerous attachments. The underground mining industry can use some specially engineered graders. Civil engineering relies on graders to complete a precise grade that is a specific pitch, height and blade angle. Scrapers and bulldozers complete rough grading processes. Graders achieve accuracy while building gravel and dirt roads. 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 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. Materials can be moved more efficiently thanks to this design allowing operators to change the articulation angle. Other functions are usually powered with hydraulics and can be directly controlled by joystick inputs, levers or electronic switches powering electro-hydraulic servo valves.