

Construction Equipment

Used Construction Equipment Corona - Industrial equipment including heavy-duty vehicles designed for specific construction tasks make up the majority of construction equipment. Common earthmoving operations rely on engineering equipment, oversized trucks and heavy hydraulics among other things. Five main types of construction equipment systems include powertrain, implement, structure, control and information and traction. There is a variety of industrial equipment that is classified under the heavy equipment umbrella. 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 commonly used to describe farm equipment that offers traction and power to mechanize farming tasks. Many agricultural attachments can be added to the tractor to simplify tasks. 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. Excavators rely on hydraulic motors, hydraulic fluid and hydraulic cylinders to facilitate all movements and functions. The linear actuation of the hydraulic cylinders offers a different operation mode compared to excavators operated with cables, steel ropes and winches to accomplish tasks. 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. A swiveling seat design enables the operator to face either direction as needed, preventing operator fatigue. Backhoe loaders can be built by pairing a front-end loader with a rear backhoe or the machines can be purchased ready to go. 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. This constant movement to reposition the machine during digging often slows down the process. The hydraulically powered attachments include the grappler, tiltrotator, auger, breaker and other items. The backhoe can be used in a variety of industries including agricultural, engineering and construction. The tiltrotator attachment works well for carrying tools. Quick coupler mounting systems are commonly found on numerous backhoes. This mechanism enables better efficiency and drastically increases the abilities of the machine. It is common to find backhoes working beside 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 advent of the mini-excavator has proven useful in a variety of industries. A mini-excavator and a skid steer can work together to complete work that was formally reserved for a backhoe. 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. Freshly cut logs are dragged out of the forest and transported from where they were cut to a landing where they are loaded onto logging trucks and transported to the sawmill. Dredging Dredging refers to underwater excavation. Dredging can occur in shallow lakes or the deep ocean. This excavation method is used to keep waterways and ports navigable for ships and free of debris. It is commonly done for land reclamation, coastal development and coastline protection. Sediments can be sucked up and redistributed. On occasion, dredging can be done to recover things lost in the water. High-value sediments or minerals may be collected via dredging and utilized by the construction industry. 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. 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 bulldozers' transmission system is built to deliver powerful tractive force by enabling the machine to take advantage of its' unique tracks. Bulldozers are commonly utilized in mining, road building, forestry, developing infrastructure, construction, land clearing and projects that need earth-moving machinery that is extremely powerful and mobile. Wheeled bulldozer models with 4WD are available. They feature an articulated hydraulic system to complete difficult tasks. 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 A long bladed construction machine is the grader. A grading operation creates a flat surface. Numerous models feature a cab and engine found above the rear axles located at one end of the equipment with three axles. The third axle is found at the front portion of the machine and the blade balances nicely in between. Many graders ride with their rear axles in tandem. Some models offer front-wheel drive to provide more maneuverability for grading purposes. Extra attachments may be used on the rear of the machine such as a blade, ripper, compactor or scarifier. Snowplowing and dirt grading operations often use a side blade that can be mounted. Some grader models that can employ numerous attachments. Some graders have been specifically designed for use in underground mining. 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. Graders achieve accuracy while building gravel and dirt roads. 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. A joystick or steering wheel is used to control the front wheel angle of the grader. Many models can conduct a tinier turning radius due to the way the frame is articulated between the rear and front axles. This enables the operator to change the articulation angle to be more efficient moving material. Additional functions may be completed with hydraulics that are controlled directly by levers, joystick input or electronic switches that deliver power to electro-hydraulic servo valves.