

Construction Equipment

Used Construction Equipment Glendale - 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. There are five equipment systems including traction, information and control, structure, implement and powertrain. Numerous types of industrial machines fall under the classification of heavy equipment. 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. Numerous agricultural additions can be mounted behind or onto the tractor to make certain jobs easier. Tractors can mechanize attachments to enable digging, heavy lifting and loading, etc. Excavators Heavy construction equipment such as excavators have a stick, a boom and a 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 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 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. 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. Obviously, switching seats repeatedly to reposition the machine for digging applications slows productivity down. 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. A great attachment for carrying tools is the tiltrotator. Many backhoes provide different quick coupler mounting systems. This mechanism enables better efficiency and drastically increases the abilities of the machine. Backhoes often work alongside bulldozers and loaders. In the industrial equipment industry, backhoe loaders are very popular. Some types of specialized equipment such as front-end loaders and excavators are displacing backhoes. The invention of the mini-excavator has drastically improved a variety of industrial jobs. Previous job sites that would have employed a backhoe may now feature a mini excavator and skid steer used in conjunction. A backhoe bucket can be reversed and utilized in a power shovel application. This can be useful for working around pipes and other obstacles, to increase overall reach capability, for loading from a stockpile or for filling material or picking up items next to buildings. 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. 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 Excavating partially or completely underwater is a process called dredging. Dredging can be completed in shallow or deep waters. This process is used to keep ports and waterways open and navigable. It is commonly done for land reclamation, coastal development and coastline protection. This process allows sediments to be suctioned up and relocated. Dredging can be utilized to recover items at times. The construction industry may collect high-value sediments and minerals via dredging. There are four parts to the dredging process including loosening items, bringing the material topside to the surface, transporting and disposing of the material. Dredging materials can be transported by barge, removed as a liquid suspension through pipelines or locally disposed of. 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. Swamp tracks, as the extra wide tracks are known, are useful in poor terrain. Transmission systems within bulldozers are designed to offer excellent tractive force by taking advantage 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. 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 blade and the ripper are the main tools associated with this bulldozer. Grader Graders are a kind of construction equipment that uses a long blade. A grading operation creates a flat surface. 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. Extra attachments may be used on the rear of the machine such as a blade, ripper, compactor or scarifier. Snowplowing maneuvers and dirt grading jobs rely on a mounted side blade. Certain grader models can use many attachments. The underground mining industry can use some specially engineered graders. Graders are employed by civil engineering to finish precision grades of a certain blade angle, pitch and height. Rough grading processes are completed with bulldozers or scrapers. Dirt and gravel roads rely on graders to provide accuracy. These machines prepare the base for paved roads and construction. These machines are used to set native soil foundation pads or gravel to complete the grade prior to large-scale construction commences. 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. Many models can conduct a tighter turning radius due to the way the frame is articulated between the rear and front axles. This design allows operators to change the angle of articulation to move material more efficiently. Other functions are usually powered with hydraulics and can be directly controlled by joystick inputs, levers or electronic switches powering electro-hydraulic servo valves.