

Construction Equipment

Used Construction Equipment South Carolina - Industrial equipment including heavy-duty vehicles designed for specific construction tasks make up the majority of construction equipment. Heavy hydraulics, engineered vehicles and large trucks often accompany earthmoving operations. 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. One of the most popular farming machines is tractors that mechanize heavy lifting and loading tasks that need traction and power. A variety of agricultural attachments may be mounted on or behind the tractor to make certain tasks more efficient. The tractor can provide power to the mechanized attachment to facilitate heavy lifting or digging etc. 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. 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 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. To help prevent operator fatigue, there is a swiveling seat to allow the operator to face whichever direction is needed. These machines can be purchased as is or may be constructed from a farm tractor pairing with a rear backhoe and a front-end loader. The backhoe loaders that have been manufactured that way are extremely strong; models specified for farm variation are not as suited for heavy work. 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. Thanks to the invention of hydraulically powered attachments including an auger, tiltrotator, a grappler, breaker, etc., the backhoe can be outfitted to use in a variety of applications including construction, engineering and agricultural sectors. The tiltrotator attachment works well for carrying tools. Many backhoes provide different quick coupler mounting systems. 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. Certain types of special equipment including excavators and front-end loaders are replacing backhoes. The mini-excavator has become popular for many applications. 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 design is helpful for extended-reach applications, working around pipes, loading and filling stockpiled materials, etc. 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 Excavating partially or completely underwater is a process called dredging. Dredging can be completed in shallow or deep waters. Dredging helps to keep waterways and ports easy to navigate and open. It is used for coastal redevelopment, land reclamation and assists in protecting the coastline. Sediments can be sucked up and redistributed. Dredging can be utilized to recover items at times. 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 heavy equipment that uses large tracks to deliver excellent mobility on difficult 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. 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 bulldozers have four wheels and are operated with a 4WD with an articulated, hydraulic system. In front of the articulation joint, the hydraulically actuated blade is mounted. The two primary tools on a bulldozer are the blade and the ripper. Grader A grader is a type of construction machine that features a long blade. It creates a flat surface during the grading operation. 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. The majority of graders drive with the rear axles in tandem; however, certain models add front wheel drive to offer better grading maneuverability. Optional rear attachments include the compactor, scarifier, ripper and blade. Snowplowing and dirt grading operations often use a side blade that can be mounted. A variety of attachments can be used on certain grader models. Other graders have been designed for specific industries including underground mining. Graders are employed by civil engineering to finish precision grades of a certain blade angle, pitch and height. Bulldozers and scrapers are used to accommodate difficult grading procedures. Dirt and gravel roads rely on graders to provide accuracy. They are also used to prepare the base for the construction of paved roads. Graders are essential for setting gravel or native soil foundation pads to make the grade before construction begins. 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 steering wheel or a joystick to control the front wheels' angle. Many models can conduct a tinier 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. Electro-hydraulic servo valves rely on electronic switches, joystick input or direct lever control to complete additional functions via hydraulics.