Construction Equipment

Used Construction Equipment Riverside - Construction equipment includes industrial machines designed to conduct certain building and demolition tasks. 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. 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. Depending on the particular model, the house is located on top of an undercarriage that has either tracks or wheels. 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. 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. 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. 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. 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. 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 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 power shovel can be created when the backhoe bucket is used in reverse. This design is helpful for extended-reach applications, working around pipes, loading and filling stockpiled materials, etc. Skidder A skidder is a kind of heavy equipment that is used in logging for hauling freshly cut trees from the forest in a forestry practice known 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 Excavating partially or completely underwater is a process called dredging. Dredging can occur in shallow lakes or the deep ocean. Dredging helps to keep waterways and ports easy to navigate and open. 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. Minerals or high-value sediments can be collected from certain construction applications during 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 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. The extra-wide tracks are called swamp tracks and these work well in difficult terrain. Transmission systems within bulldozers are designed to offer excellent tractive force by taking advantage of the 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. There are 4WD models on the market of wheeled bulldozers that utilize a hydraulic, articulated system. 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 grader is a type of construction machine that features 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 endo 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 and dirt grading operations often use a side blade that can be mounted. Some grader models that can employ numerous attachments. Other graders have been designed for specific industries including underground mining. Civil engineering relies on graders to complete a precise grade that is a specific pitch, height and blade angle. Bulldozers and scrapers are used to accommodate difficult grading procedures. Maintaining and constructing dirt and gravel roads requires work by graders to ensure accuracy. 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 impressive machines can create inclined surfaces in order to generate side slopes for roads or drainage ditches along sides of 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 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.