

Construction Equipment

Used Construction Equipment Eugene - Most heavy-duty construction equipment includes vehicles build to complete specific construction tasks. Earthmoving operations are often accompanied by heavy trucks, engineering machines, heavy hydraulics and more. Some of the popular kinds of the five equipment systems include implement, control and information, powertrain, traction and structure. Numerous types of industrial machines fall under the classification of heavy equipment. Tractors Specifically designed tractors offer extreme tractive capabilities at slower speeds to facilitate hauling equipment including construction items, trailers and items for agriculture. One of the most popular farming machines is tractors that mechanize heavy lifting and loading tasks that need traction and power. 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. Depending on the particular model, the house is located on top of an undercarriage that has either tracks or wheels. The hydraulic excavators complete all functions and movement with the help of hydraulic fluid, hydraulic motors and hydraulic cylinders. 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 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. A swiveling seat design enables the operator to face either direction as needed, preventing operator fatigue. 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. Operators using the farm model will have to change seats from the tractor seat to the front of the backhoe controls. Constantly changing positions to move the machine into place for digging slows everything down. Thanks to the invention of hydraulically powered attachments including an auger, tiltrotator, a grapppler, breaker, etc., the backhoe can be outfitted to use in a variety of applications including construction, engineering and agricultural sectors. A popular attachment for transporting tools is the tiltrotator. Many backhoes provide different quick coupler mounting systems. 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. 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 mini-excavator has become popular for many applications. Jobs that would have relied on a backhoe can now combine a skid steer and a mini-excavator. 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. 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 take place in the ocean or in shallow waters. This process is used to keep ports and waterways open and navigable. It is used for coastal redevelopment, land reclamation and assists in protecting the coastline. This process allows sediments to be suctioned up and relocated. Sometimes, dredging is completed to recover materials. 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 A popular type of heavy equipment is the bulldozer. It relies on large tracks to manage mobility on rough surfaces and tricky 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. 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. There are 4WD models on the market of wheeled bulldozers that utilize a hydraulic, articulated system. The hydraulically actuated blade is mounted in front of the articulation joint. The ripper and the blade are the primary tools with this model. 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 cab located above the rear axles at one end of the machine, three axles with the third axle situated at the front end and the blade balanced in between. Most graders drive while their rear axles are in a tandem position. Some models feature front-wheel drive to provide better grading maneuverability. 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. A variety of attachments can be used on certain grader models. The underground mining industry can use some specially engineered graders. 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. 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. Grader steering can be completed via a steering wheel or a joystick to control the front wheels' angle. A smaller turning radius is possible by many models due to the frame articulation design 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.