

Construction Equipment

Used Construction Equipment Oregon - Most heavy-duty construction equipment includes vehicles built to complete specific construction tasks. 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 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. 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 includes excavators that feature a bucket, stick, boom and 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. Hydraulic cylinders, motors and hydraulic fluid all help the excavator complete its movement and job capacity. 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 A backhoe loader is similar to a tractor with a backhoe situated at one end and a front loader on the other. 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. 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. 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 popular attachment for transporting 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 commonly work beside loaders and bulldozers. Backhoe loaders are popular within the industrial equipment industry. Some types of specialized equipment such as front-end loaders and excavators are displacing backhoes. The mini-excavator has become popular for many applications. A mini-excavator and a skid steer can work together to complete work that was formally reserved for a backhoe. 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. 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 be completed in shallow or deep waters. Dredging helps to keep waterways and ports easy to navigate and open. Dredging is often done to improve the coastline, for coastal development purposes and land reclamation. Bottom sediments can be sucked up and relocated elsewhere. Dredging can be utilized to recover items at times. 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 heavy equipment that uses large tracks to deliver excellent mobility on difficult 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. Poor terrain can be easily navigated with extra-wide swamp tracks. The transmission system delivers extensive tractive force and allows the machine to make the most 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. There are 4WD models on the market of wheeled bulldozers that utilize a hydraulic, articulated system. In front of the articulation joint, the hydraulically actuated blade is mounted. 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. Graders make surfaces flat during grading. 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. The majority of graders drive with the rear axles in tandem; however, certain models add front wheel drive to offer better grading maneuverability. There are optional attachments for the rear including the scarifier, compactor, ripper or blade. Snowplowing maneuvers and dirt grading jobs rely on a mounted side blade. A variety of attachments can be used on certain grader models. Other graders have been designed for specific industries including underground mining. Graders are used in the civil engineering industry to finish grade with precision with the proper height, pitch and blade angle. Scrapers and bulldozers complete rough grading processes. Graders achieve accuracy while building gravel and dirt roads. They are also used to prepare the base for the construction of paved roads. These machines are used to set native soil foundation pads or gravel to complete the grade prior to large-scale construction commences. 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. Numerous models can complete a smaller turning radius thanks to frame articulation between the front and rear 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.