

Construction Equipment

Used Construction Equipment Alberta - Most heavy-duty construction equipment includes vehicles build to complete specific construction tasks. Common earthmoving operations rely on engineering equipment, oversized trucks and heavy hydraulics among other things. Some of the popular kinds of the five equipment systems include implement, control and information, powertrain, traction and structure. Many kinds of industrial machines are categorized under the heavy equipment category. Tractors Specifically designed tractors offer extreme tractive capabilities at slower speeds to facilitate hauling equipment including construction items, trailers and items for agriculture. 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 is a useful farming machine used to mechanize loading, heavy lifting and digging among other things. Excavators Excavators are one of the most popular types of heavy construction equipment. They often feature a cab located on a rotating platform, a boom and a stick. Depending on the particular model, the house is located on top of an undercarriage that has either tracks or wheels. 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 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. 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. The farm model requires the operator to change seats from sitting in the tractor seat to sitting in 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. The tiltrotator attachment works well for carrying tools. Numerous backhoes offer quick coupler mounting systems. This enables easier attachment mounting and can dramatically increase the capabilities of the equipment on the machine. Backhoes commonly work beside loaders and bulldozers. Backhoe loaders are popular within the industrial equipment industry. Certain types of special equipment including excavators and front-end loaders are replacing backhoes. The advent of the mini-excavator has proven useful in a variety of industries. A mini-excavator and a skid steer can work together to complete work that was formally reserved for a backhoe. A power shovel can be created when the backhoe bucket is used in reverse. 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. 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. Bottom sediments can be sucked up and relocated elsewhere. Sometimes, dredging is completed to recover materials. High-value sediments or minerals may be collected via dredging and utilized by the construction industry. Four specific components comprise the dredging process including loosening items, transporting the materials to the surface, transporting materials and disposing of them. Extracts may be disposed of in a liquid suspension in pipelines, transported by barge or locally disposed of.

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 often used in road building, infrastructure development, road building applications, mining, land clearing, construction and other projects that rely on earth-moving machinery. Wheeled bulldozers have four wheels and are operated with a 4WD with an articulated, hydraulic system. 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. It creates a flat surface during the grading operation. 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. Many graders ride with their rear axles in tandem. Some models offer front-wheel drive to provide more maneuverability for grading purposes. 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. Some graders have been specifically designed for use in 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. Graders achieve accuracy while building gravel and dirt roads. These machines prepare the base for paved roads and construction. 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. A smaller turning radius is possible by many models due to the frame articulation design between the rear and front axles. Materials can be moved more efficiently thanks to this design allowing operators to change the articulation angle. 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.