

## Construction Equipment

Used Construction Equipment Chula Vista - Most heavy-duty construction equipment includes vehicles build to complete specific construction tasks. 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. There is a variety of industrial equipment that is classified under the heavy equipment umbrella. 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. Numerous agricultural additions can be mounted behind or onto the tractor to make certain jobs easier. The tractor is a useful farming machine used to mechanize loading, heavy lifting and digging among other things. 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. Excavators rely on hydraulic motors, hydraulic fluid and hydraulic cylinders to facilitate all movements and functions. The linear actuation of the hydraulic cylinders offers a different operation mode compared to excavators operated with cables, steel ropes and winches to accomplish tasks. 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. 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. Manufactured backhoe loaders are specific for farm applications and are not suitable 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. Obviously, switching seats repeatedly to reposition the machine for digging applications slows productivity 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 great attachment for carrying tools is the tiltrotator. Quick coupler mounting systems are commonly found on numerous backhoes. This mechanism enables better efficiency and drastically increases the abilities of the machine. Backhoes often work alongside bulldozers and loaders. One of the most common types of industrial equipment is the backhoe loader. Backhoes are commonly being replaced by different front-end loaders and excavators. The advent of the mini-excavator has proven useful in a variety of industries. Jobs that would have relied on a backhoe can now combine a skid steer and a mini-excavator. A backhoe bucket can be reversed and utilized in a power shovel application. 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. 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 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. It is commonly done for land reclamation, coastal development and coastline protection. This process allows sediments to be suctioned up and relocated. On occasion, dredging can be done to recover things lost in the water. The construction industry may collect high-value sediments and minerals via dredging. 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 powerful heavy equipment with great tracks to provide superior mobility on rough 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 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 mounted in front of the articulation joint. The blade and the ripper are the main tools associated with this bulldozer. Grader A long bladed construction machine is the grader. A grading operation creates a flat surface. 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 maneuvers and dirt grading jobs rely on a mounted side blade. Certain grader models can use many attachments. Some graders have been specifically designed for use in 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. 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 large machines can designate inclined surfaces to establish slopes for drainage ditches or roads beside the highways. A joystick or steering wheel is used to control the front wheel angle of the grader. 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. 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.