## **Attachments for Gradall Forklifts**

Attachments for Gradall Forklifts - The Gradall excavator was the brainchild of two brothers Koop and ray Ferwerda. The excavator was created In the 1940's all through WWII, when there was a shortage of workers. The brothers faced the problems of a depleted workforce due to the war. As partners in their Cleveland, Richmond construction company called Ferwerda-Werba-Ferwerda they lacked the existing laborers to be able to do the delicate job of grading and finishing on their highway projects. The Ferwerda brothers opted to make a machine that will save their company by making the slope grading task less manual, easier and more efficient.

The first excavator prototype consisted of a machine with two industrial beams on a rotating platform fixed to a used truck. There was a telescopic cylinder that was used to move the beams back and forth. This allowed the fixed blade at the far end of the beams to pull or push the dirt. Soon improving the first design, the brothers made a triangular boom to add more strength. What's more, they added a tilt cylinder that let the boom turn 45 degrees in either direction. A cylinder was placed at the rear of the boom, powering a long push rod to enable the machinery to be equipped with either a blade or a bucket attachment.

The year 1992 marked a significant year for Gradall with their introduction of XL Series hydraulics, the most amazing change in the company's excavators ever since their invention. These top-of-the-line hydraulics systems allowed Gradall excavators to deliver high productivity and comparable power on a realistic level to conventional excavators. The XL Series put an end to the initial Gradall equipment power drawn from gear pumps and low pressure hydraulics. These conventional systems efficiently handled finishing work and grading but had a hard time competing for high productivity jobs.

Gradall's new XL Series excavators showed more ability to dig and lift materials. With this series, the models were produced along with a piston pump, high-pressure system of hydraulics which showed noticeable improvement in boom and bucket breakout forces. The XL Series hydraulics system was even developed along with a load-sensing capability. Traditional excavators use an operator to choose a working-mode; where the Gradall system could automatically adjust the hydraulic power intended for the task at hand. This makes the operator's general work easier and even saves fuel simultaneously.

Once the new XL Series hydraulics became available in the market, Gradall was thrust into the extremely competitive industrial machinery market which are designed to deal with excavating, demolition, pavement removal as well as various industrial jobs. The introduction of the new telescoping boom helped to further improve the excavator's marketability. The telescoping boom gives the excavator the ability to better position attachments and to work in low overhead areas.