

## Gradall Forklift Parts

Throughout the time when World War II caused a scarcity of laborers, the legendary Gradall excavator was founded in the 1940s as the idea of two brothers Ray and Koop Ferwerda. Partners in a Cleveland, Ohio construction business known as Ferwerda-Werba-Ferwerda, the brothers faced a huge predicament when numerous men left the labor force and joined the military, depleting available workers for the delicate grading and finishing work on highway projects. The Ferwerda brothers chose to make an equipment that will save their business by making the slope grading task less manual, easier and more efficient.

Their very first design model was a machine with two beams set on a rotating platform which was affixed on top of a used truck. A telescopic cylinder moved the beams forward and backward which allowed the fixed blade at the end of the beams to pull or push dirt. Soon improving the first design, the brothers built a triangular boom to add more strength. What's more, they added a tilt cylinder that let the boom rotate 45 degrees in either direction. A cylinder was placed at the back of the boom, powering a long push rod to enable the machinery to be equipped with either a bucket or a blade attachment.

The year 1992 marked a crucial year for Gradall with their launch of XL Series hydraulics, the most amazing change in the company's excavators ever since their creation. These top-of-the-line hydraulics systems enabled Gradall excavators to provide high productivity and comparable power on a realistic level to traditional excavators. The XL Series ended the original Gradall equipment power drawn from gear pumps and low pressure hydraulics. These traditional systems effectively handled finishing work and grading but had a hard time competing for high productivity jobs.

The new XL Series Gradall excavators proved a significant increase in their lifting and digging ability. These versions were made along with a piston pump, high-pressure hydraulics system that showed immense improvements in boom and bucket breakout forces. The XL Series hydraulics system was even developed along with a load-sensing capability. Traditional excavators utilize an operator to be able to choose a working-mode; where the Gradall system can automatically adjust the hydraulic power meant for the work at hand. This makes the operator's overall work easier and likewise saves fuel at the same time.

As soon as the new XL Series hydraulics reached the market, Gradall was thrust into the very competitive industrial machine market that are meant to deal with demolition, pavement removal, excavating and various industrial tasks. The introduction of the new telescoping boom helped to further enhance the excavator's marketability. The telescoping boom gives the excavator the ability to better position attachments and to work in low overhead areas.