

## Gradall Forklift Parts

All through the period when World War II caused a shortage of laborers, the famous Gradall excavator was established in the 1940s as the creation of two brothers Koop and Ray Ferwerda. Partners in a Cleveland, Ohio construction business called Ferwerda-Werba-Ferwerda, the brothers faced a huge dilemma when a lot of men left the workforce and signed up in the military, depleting available laborers for the delicate finishing work and grading on highway projects. The Ferwerda brothers chose to build a machine that will save their company by making the slope grading work more efficient, less manual and easier.

The initial excavator prototype consisted of a device with two industrial beams on a rotating platform fixed to a second-hand truck. There was a telescopic cylinder that was used to move the beams backward and forward. This allowed the fixed blade at the far end of the beams to push or pull the dirt. Before long enhancing the first design, the brothers made a triangular boom in order to add more strength. Additionally, they added a tilt cylinder that let the boom turn 45 degrees in either direction. A cylinder was positioned at the back of the boom, powering a long push rod to allow the equipment to be outfitted with either a blade or a bucket attachment.

Gradall launched in 1992, with the introduction of the new XL Series hydraulics, the most ground-breaking adjustment in their equipment since their invention. This new system of top-of-the-line hydraulics enabled the Gradall excavator to deliver comparable power and high productivity to the more conventional excavators. The XL Series ended the initial Gradall equipment power drawn from low pressure hydraulics and gear pumps. These traditional systems effectively 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 made 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 also developed with a load-sensing capability. Conventional excavators utilize an operator to be able to choose a working-mode; where the Gradall system can automatically adjust the hydraulic power for the work at hand. This makes the operator's whole task easier and even conserves fuel simultaneously.

As soon as the new XL Series hydraulics became available in the market, Gradall was thrust into the extremely competitive industrial machine market which are meant to tackle pavement removal, excavating, demolition and several 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 work in low overhead areas and to better position attachments.