

## Gradall Forklift Part

Gradall Forklift Part - Throughout the period when World War II created a shortage of workers, the famous Gradall excavator was founded in the 1940s as the creation of two brothers Ray and Koop Ferwerda. Partners in a Cleveland, Odessa construction business referred to as Ferwerda-Werba-Ferwerda, the brothers faced a huge predicament when numerous men left the labor force and signed up in the military, depleting existing workers for the delicate finishing work and grading on highway projects. The Ferwerda brothers chose to make an equipment which would save their business by making the slope grading work more efficient, less manual and easier.

The first excavator prototype consisted of a machine with two industrial beams on a rotating platform fixed to a second-hand truck. There was a telescopic cylinder that was utilized to move the beams back and forth. This enabled the fixed blade at the far end of the beams to push or pull the dirt. Shortly enhancing the initial design, the brothers made a triangular boom to be able to add more strength. Moreover, they added a tilt cylinder which let the boom turn 45 degrees in either direction. A cylinder was placed at the back of the boom, powering a long push rod to enable the machine to be outfitted with either a blade or a bucket attachment.

1992 marked a momentous year for Gradall with their introduction of XL Series hydraulics, the most dramatic change in the company's excavators ever since their invention. These top-of-the-line hydraulics systems allowed Gradall excavators to provide comparable power and high productivity on a realistic level to conventional excavators. The XL Series put an end to the first Gradall equipment power drawn from gear pumps and low pressure hydraulics. These traditional systems effectively handled finishing work and grading but had a difficult 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 together with a piston pump, high-pressure system of hydraulics which showed distinct improvement in boom and bucket breakout forces. The XL Series hydraulics system was also developed with a load-sensing capability. Conventional excavators make use of an operator to be able to choose a working-mode; where the Gradall system can automatically adjust the hydraulic power for the task at hand. This makes the operator's overall work easier and also saves fuel simultaneously.

Once their XL Series hydraulics became available, Gradall was essentially thrust into the highly competitive market of equipment designed to deal with demolition, pavement removal, excavating and different industrial tasks. Marketability was further improved with their telescoping boom due to its exclusive ability to better position attachments and to work in low overhead areas.