## Gradall Forklift Parts

During the period when WWII caused a scarcity of laborers, the legendary Gradall excavator was born in the 1940s as the idea of two brothers Ray and Koop Ferwerda. The brothers faced the problems of a depleted workforce because of the war. As partners in their Cleveland, Ohio construction company called Ferwerda-Werba-Ferwerda they lacked the available laborers to do the delicate work of finishing and grading on their interstate projects. The Ferwerda brothers chose to build a machine that will save their business by making the slope grading work less manual, easier and more efficient. Their very first design model was a machine with two beams set on a rotating platform which was attached on top of a second-hand truck. A telescopic cylinder moved the beams back and forth which enabled the fixed blade at the end of the beams to pull or push dirt. Soon improving the very first design, the brothers built a triangular boom to be able to add more strength. Furthermore, they added a tilt cylinder that let the boom turn 45 degrees in both directions. A cylinder was positioned at the back of the boom, powering a long push rod to allow the machinery to be equipped with either a bucket or a blade attachment. Gradall introduced in 1992, with the introduction of the new XL Series hydraulics, the most innovative adjustment in their equipment since their invention. This new system of top-of-the-line hydraulics allowed the Gradall excavator to provide high productivity and comparable power to the more conventional excavators. The XL Series ended the first Gradall equipment power drawn from gear pumps and low pressure hydraulics. These conventional systems successfully handled grading and finishing work but had a difficult time competing for high productivity work. The new XL Series Gradall excavators proved a remarkable increase in their digging and lifting ability. These versions were made along with a piston pump, high-pressure hydraulics system that showed great improvements in boom and bucket breakout forces. The XL Series hydraulics system was also developed together with a load-sensing capability. Conventional excavators make use of an operator to pick a working-mode; where the Gradall system can automatically adjust the hydraulic power intended for the task at hand. This makes the operator's overall task easier and also saves fuel at the same time. When their XL Series hydraulics came onto the market, Gradall was essentially thrust into the highly competitive market of machinery designed to tackle demolition, pavement removal, excavating and other industrial work. Marketability was further improved with their telescoping boom because of its exclusive ability to work in low overhead areas and to better position attachments.