





## Resource 1 – The 3-Point Linkage System and Harry Ferguson

Harry Ferguson was an engineer and inventor who was most famous for inventing the 3-point linkage system for tractors and ploughs. Harry Ferguson was brought up on a small farm in County Down. When he was growing up, farmers would have used horses to drag a plough behind them when preparing a field for sowing. It was slow and heavy work.

In the early 20th century, some farmers were beginning to use tractors to pull their ploughs. The ploughs were attached to the tractors by chains, and they were on wheels.

The farmer had very little control over the plough; it was difficult to control how deep the plough could go into the earth. This made operating the plough very slow. It was also dangerous because if the plough hit an obstacle, it could tip the tractor backwards and injure the farmer.

Harry Ferguson was interested in solving the problem. He believed that the tractor and the plough needed to be attached more securely so that they were all part of the one system.

For over 15 years he worked on developing a linking system, finally devising a system that used two lower connections and one upper connection. He also designed arms to connect the tractor and the plough. These arms could raise and lower the plough using hydraulics (using compressed liquids to create movement). This meant the farmer could adjust the depth of the plough while driving on the tractor.

Ferguson's invention meant that it was much quicker and much safer for farmers to plough their fields. It was adopted by all tractor manufacturers and is still in use today.