

Mike and Des Brown are the owners of the only remaining 6 ton overtype Garrett Steam lorry. The lorry started its working life in Linlithgow Scotland but was then sold to the Devon council where it worked there for over 30 years before being shipped out to **Toronto Canada.** 

The brothers purchased the lorry in 2013 and shipped it back to Ladybank, Fife where they have spent the last 5 years refurbishing the lorry back to its original specifications.

## **1926 Garrett Steam 6 ton Lorry** ANGUS **3D**

- Summary: Scan original Garrett name plate and Lioness then create a 3D model of both so these can be used as a pattern for casting new replacements.
- **Challenge:** 
  - Scanning the originals to create a digital copy of them.
  - 3D print patterns to allow casting to take place. ٠

After many years refurbishing the Lorry, Mike Brown approached Angus 3D Solutions to see if they could produce a replacement Garrett name plate and lioness for the lorry as the originals were missing. Mike was able to borrow originals from other Garrett enthusiasts and these were shipped to Angus 3D Solutions for scanning. After the scanning was complete a digital model for each part was produced. In the years since this lorry was manufactured. Technology has developed significantly in manufacturing. However, it was established, even today the best method to produce the replacements was to cast them as they were in 1926. 3D printed patterns were produced of both parts. One of the benefits of using a 3D Printed patterns is the pattern can be produced to an increased scale to compensate any shrinkage from the casting process, thus producing size accurate replacements. Both the Lioness and Garrett name patterns were sent to a local foundry for casting, then hand finished and mounted to the lorry to finish off a loving project.

Mike & Des Brown - owners of the Garrett Lorry "Angus 3D Solutions have produced first class patterns for our application"



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3D scanning of Lioness



## Lioness Pattern





**3 Stages of Garrett Production**