

## GEC - E880 / NT75 Prototype 2, about 1937



The prototype No. 2 looks quite similar to the prototype No. 1. Small differences can be observed in the filament supports, shorter and visibly capable to resist vibrations. The magnetron is of the split-anode four-segment type. Four top pins individually support each segment. On a label we read that the emission is rated low and a comment on 'no B. E.', which could mean the absence of 'back bombardment' that Megaw was investigating. The note on low emission leads us to believe that this prototype was built in 1936 or early 1937, before the final release of the GEC E880 magnetron in 1937.

Both Type 1 and Type 2 can be considered as quasi-final laboratory prototypes of the E880, approved by the Admiralty as NT75. They show the same electrode shapes, the same base and arrangement of top pins and even the same routing of internal connections of the production type. Maybe they were used by Megaw to evaluate and define the more suitable filamentary cathodes for this tube. Or it is probable that these samples were used by Megaw simply to define the exact operating parameters of the filament, taking into account that, due to the phenomenon well known to him of back-bombardment, the voltage had to be decreased after the build-up of the oscillations.

