



Replica of the 'Pail receiver' constructed in the 1960s.

PoW radio # 6

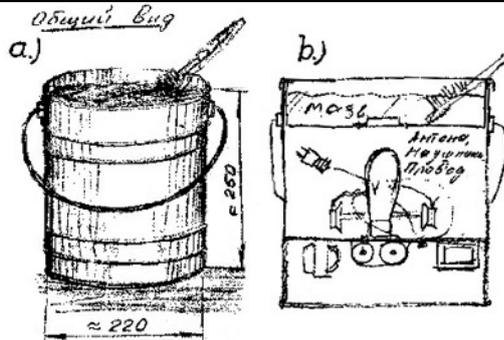
'Pail receiver'
Country of origin:
Germany

DATA SUMMARY

Design/build: Prisoners in concentration camp Buchenwald.
Year of Introduction: WW2.
Purpose: Receiving news broadcasts.
Receiver: TRF with variable reaction; AF amplifier.
Frequency coverage: Medium wave.
Valves: VCL11 and VY2.
Power Supply: 220V mains.
Size (cm): Diameter 20, height 25.

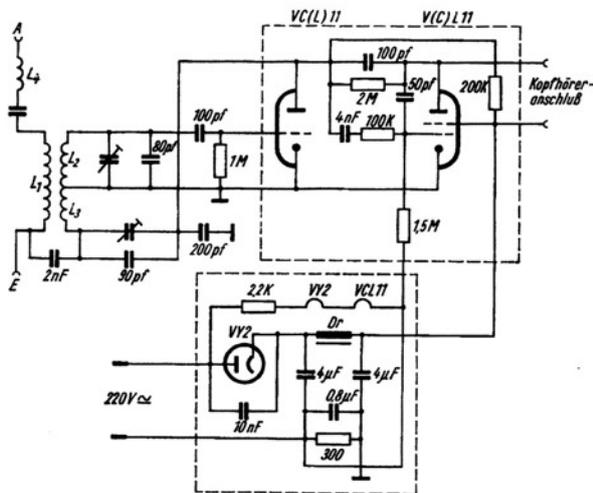
Remarks

Though the 'pail receiver' was not constructed by prisoners of war, but by unknown political and other prisoners in the Buchenwald concentration camp near Weimar during World War 2, it was considered equally interesting. Included in the PoW series of WfW Supplement chapters, it is followed by another secret receiver and transmitter built in Buchenwald. (Chapters 209 and 210). For the construction of this secret receiver, parts from a DKE 38 'Volksempfänger' (see next page) were employed, built on a breadboard which was hidden in the bottom of a small shoe polish pail with a false top inset. The circuit diagram was almost identical to that of the original DKE 38.

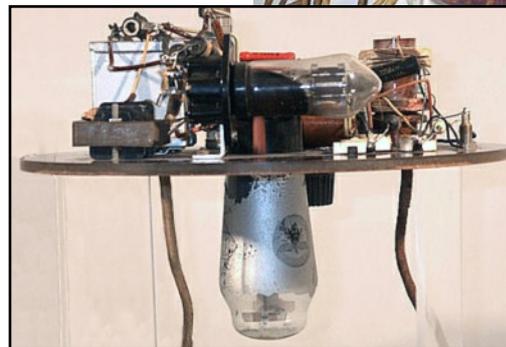


Sketch of the 'pail receiver' from reminiscences of the constructor, drawn in 1968 (above). It was the basis of a replica and a later article in 'Funkgeschichte'.

Bottom view of the 'pail receiver' showing a round Paxolin breadboard, VY2 rectifier valve, VCL11 base and various components originating from a DKE 38 'Volksempfänger' (right).



The circuit diagram of the 'pail receiver' was almost identical to that of the original DKE 38 'donor' radio.



Side view of the receiver showing the round Paxolin breadboard and the two valves (left).

References:

- Wolfgang Eckhardt, Jena, Germany. Geheimer Empfängerbau im KZ Buchenwald, GFGF Funkgeschichte, Nr. 161, (2005) ©.
- Illustrations and photographs taken by Wolfgang Eckhardt were published with friendly permission of the author.
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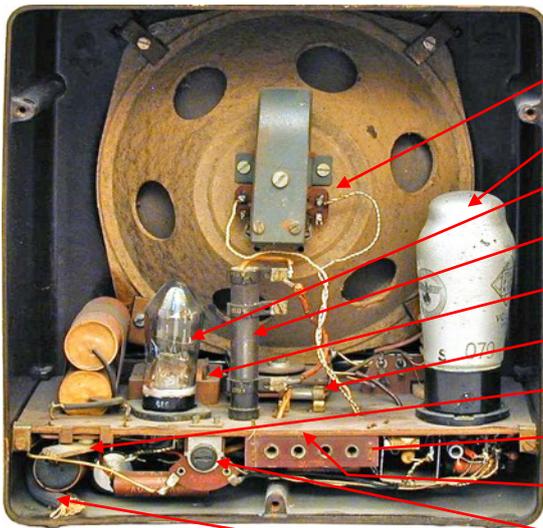
Deutschen Kleinempfänger DKE 1938



As many components of the DKE 38 were used in various prisoner of war and political prisoners secret radios, depicted in a number of WftW Supplement Chapters, this page will give details of the simplicity of its design and mechanical construction. Due to the large number of DKE 38s produced, non-functional radios were 'organised' by prisoners employed in concentration camp repair workshops.

The DKE 38 (Deutschen Kleinempfänger 1938, translated *German small radio 1938*) was a model in the range of 'Volksempfänger', radio receivers developed at the request of Propaganda Minister Joseph Goebbels in the early part of the 1930s. The purpose of the Volksempfänger-program was to make radio reception technology affordable to the general public, but basically intended for propaganda. The DKE 38 was built by more than two dozen German radio manufacturers, all using the same design. In the time period 1938-1944 2.4 million receivers of this type were produced. Minor changes in the design (e.g. substitution of the choke) were carried out during the production.

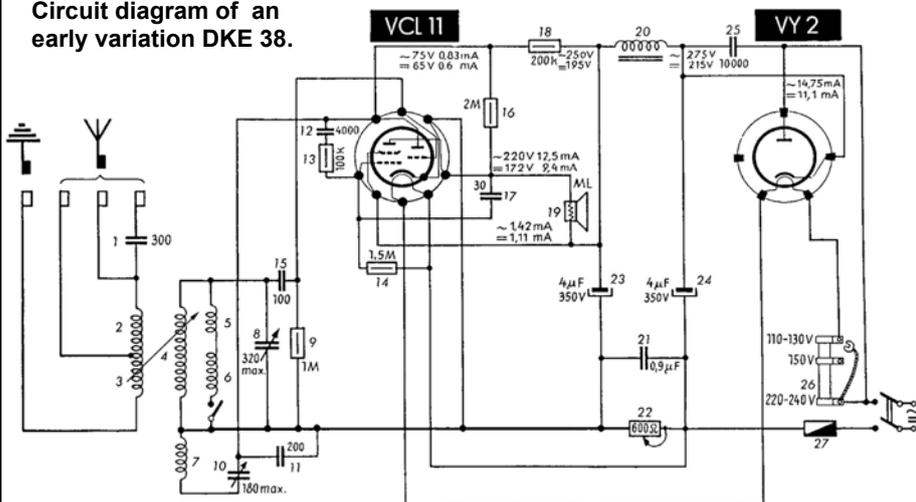
With its minimalist design only 25% of steel and copper was used compared to the earlier VE 33 Volksempfänger; after World War 2 it was still produced, having the Swastika and German eagle on the front omitted... The receiver had 3 controls: volume (left) which was basically a variable coupling of aerial coil; reaction control (right); tuning (centre) medium wave (white dial) and long wave (red dial). An internal switch automatically selected the frequency range. It operated on AC and DC mains with only 15W power consumption.



- Loudspeaker
- VCL 11 valve
- VY 11 rectifier
- Mains Voltage selector
- Choke
- Fuse
- On-off switch
- Aerial and earth sockets
- Paxolin chassis
- Anti-hum control
- Mains lead

Explanation of components and controls of the DKE 38 as seen from the back with the cardboard cover detached (left).

Circuit diagram of an early variation DKE 38.



Front page of DKE 38 user instructions leaflet.