

Counterfeit Round Pound Coins (ii) Unusual Issues

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In the first part of this series of notes, the lead alloy counterfeit round pound coins were introduced⁽¹⁾. Here, some of the more unusual counterfeits will be described. Unless stated otherwise, all illustrations are from the SN collection.

1. Lead cored and resin coated pieces.

These might have been deceptive when new, but the resin is fragile and would quickly reveal the lead core, as can be seen in the illustrations below.



1983	9.863 g
Pb	96.75 ± 0.55 %
Si	2.17 ± 0.10 %
Cu	0.504 ± 0.035 %
Sn	0.199 ± 0.025 %
Zn	0.171 ± 0.020 %
P	0.147 ± 0.045 %

1983	9.863 g
Cu	65.55 ± 0.27 %
Zn	28.25 ± 0.16 %
Al	5.07 ± 0.33 %
Si	0.596 ± 0.047 %
Pb	0.282 ± 0.025 %
Traces Sn, Fe	

Fig. 1. Lead core with a metallic resin coating. DECUS edge. Probably 1983. 150%.

Whilst the date cannot be seen, the combination of the Queen's head, DECUS edge and Royal Arms reverse design, make this a likely 1983.



1989	10.247 g
Cu	64.56 ± 0.27 %
Zn	27.89 ± 0.16 %
Al	5.96 ± 0.33 %
Pb	0.813 ± 0.040 %
Si	0.568 ± 0.044 %
Traces Fe, Mo, Ag	

Fig. 2. Lead core with metallic resin coating. NEMO edge. 1989.

Several observations can be made from these results. The core is almost pure lead and the coatings on the two pieces are a very similar composition of copper, zinc and aluminium. Note that the measurements of the coating reveal virtually none of the lead underneath, a nice confirmation of the limited depth of penetration of the x-rays.

The lead core has no attempt at a design or raised rim and all of the design is in the resin. A quick check with a multimeter shows that, even with the metal content, the resin is not electrically conductive.

The table below lists the known metallic resin coated lead cored counterfeits in the SN and EN collections. Mules are counterfeits that have an incorrect reverse design and/or edge reading for the obverse date.

Date	Official Rev Design	SN Collection		EN Collection	
		Good	Mules	Good	Mules
1983	Royal Arms	1		1	1
1984	Thistle			1	
1985	Leek				
1986	Flax Plant				
1987	Oak Tree				
1988	Shield				
1989	Thistle	1			
1990	Leek				
1991	Flax Plant			1	
1992	Oak Tree				
1993	Royal Arms			1	

Table 1. Known counterfeit pound coins with a lead core and resin outer.

The mule in the EN collection has an Oak Tree reverse design but doesn't have a clear date. The design of the Queen's head and DECUS edge make it a likely 1983 date, though cannot have been made before 1987.

2. Two five pence pieces joined together and coated.

The pieces illustrated below might be considered spurious concoctions, however it takes some effort to remove the edge to reduce the diameter from 23.59 mm to 22.5 mm.



1980/1957

11.158 g

Cu $72.62 \pm 0.23 \%$

Ni $24.15 \pm 0.15 \%$

Al $2.42 \pm 0.24 \%$

And several trace elements

Fig. 3. Counterfeit made from a 1980 5 pence and a 1957 English shilling.

In this case the edge milling, and any possible misalignment, has been filed off and the resulting diameter is 23.4 mm. The whole piece has been covered with a thin gold coloured coating. The metal analysis reveals the expected cupro-nickel host coin and the aluminium might be a common factor in the coatings.



1980/1957 10.649 g
 Cu $74.27 \pm 0.22 \%$
 Ni $24.92 \pm 0.15 \%$
 And several trace elements,
 all $< 0.2 \%$, but no Al.

Fig. 4. Counterfeit made from a 1979 and 1980 5 pence.

In this case, the edge has been machined off to 22.9 mm and the low weight (5p/1s = 5.65 g), even with the added loop suggests that the reverses of the coins were machined down before joining. There are no traces of any coatings again suggesting that aluminium is a component of the yellow/gold coatings.

While these pieces would not fool a vending machine, they would be quite adequate for use in supermarket shopping trolleys.

3. Plated copper from false dies.

Whilst this piece die links with a series of “brass” counterfeits, it is introduced here because of the unusual composition and manufacture. The milled edge with no wavy lines reveals no casting sprue and the obverse die at least is CNC machined, with the beaded border replaced with small pellets in annulets.



2006 9.863 g
Cu $78.70 \pm 0.28 \%$
 Zn $16.97 \pm 0.11 \%$
 Al $4.09 \pm 0.31 \%$
 Traces of S, Fe, Sn $< 0.2\%$

2006 9.863 g
Cu $63.82 \pm 0.30 \%$
 Zn $20.89 \pm 0.14 \%$
 Al $14.79 \pm 0.38 \%$
 Traces of Fe, Ti, Si, S etc
 all $< 0.15\%$

Fig. 5. Plated copper/brass counterfeit from false dies.

The composition is a low zinc brass, when the zinc is around 15% it is known as red brass, which would explain the brown, almost bronze colour. Yellow brasses usually have 20% zinc or more.

Aluminium seems to be in the plating again. The word COPY behind the head is a bit of a clue, but when fully coated or manufactured in yellow brass this piece would be very deceptive. The use of the word COPY suggests the original dies might have been used for another more legitimate purpose e.g. plastic toy coins or for training. Later uses of this obverse die show that the word has been partially erased.

4. Hand cut dies.

These pieces are struck in brass using dies that are completely hand cut.



Fig. 6. Counterfeit round pounds struck in brass from hand cut dies^(2,3).

I have not had the opportunity to inspect the edge or determine the metal content of one of these counterfeits. The state of wear of the specimen from the EN collection suggests that these pieces did circulate. Other pieces exist with “wrong” portraits but they are not as good/bad as these.

5. Impossible dates.

The Royal Mint issued no pound coins for circulation in 1998 and 1999, though pound coins of these dates were included in the uncirculated and proof sets.



1998/Shield/DECUS
9.468 g
Cu $69.65 \pm 0.24 \%$
Zn $24.21 \pm 0.15 \%$
Ni $5.53 \pm 0.06 \%$
And several trace elements
all $< 0.22 \%$

1998/Dragon/DECUS
9.699 g
Cu $69.11 \pm 0.23 \%$
Zn $24.72 \pm 0.14 \%$
Ni $5.45 \pm 0.06 \%$
And several trace elements
all $< 0.20 \%$

1999/Dragon/PLEIDIOL
9.434 g
Cu $72.32 \pm 0.23 \%$
Zn $21.31 \pm 0.13 \%$
Ni $5.83 \pm 0.06 \%$
And several trace elements
all $< 0.12 \%$

Fig. 7. Counterfeit round pounds with dates not issued for circulation.

The only correct aspect of the 1998 counterfeits is the DECUS edge. They should have the Royal Arms on the reverse and this obverse has been taken from a 1998 Jersey pound coin. Note that the IRB initials have been removed from below the truncation.

The 1999 pound should have a Lion Rampant on the reverse and the NEMO edge. The obverse appears to have been taken from a genuine coin.

6. Overstruck on foreign coin.



Fig. 8. Die struck 1991 counterfeit pound on a Turkish host coin⁽³⁾.

To date this piece is unique but I suspect there may have been many made. It is overstruck on a Turkish 10 Bin Lira of 1997. The undertype (K&M 1027.1) is 23.5 mm diameter, weighs 9.75g and is made from a Copper-Nickel-Zinc alloy.

In the late 1990's the undertype was worth about 25 pence, so there was a reasonable profit margin for the counterfeiters.

Conclusions

This short note has described some of the more unusual counterfeits of the round pound coins that circulated between 1983 and 2017. The various types must have been produced in large enough numbers to cover the costs and the risks. The surviving pieces are typically at least very rare, the result of relatively easy detection, damage and disposal.

References and Acknowledgements

- (1) G. Oddie. Jan-2021, Counterfeit Round Pound Coins (i) Lead Alloy Issues, British Numismatic Society Research Blog, accessed 27 Jan 2021, <<https://britnumsoc.files.wordpress.com/2021/01/132-counterfeit-pounds-gary-oddie-001.pdf>>.
- (2) Chard Coins, Blackpool, website. <https://24carat.co.uk/frame.php?url=fakepoundcoins.html>.
- (3) From the EN collection.

Many thanks to EN for sharing details and photographs of pieces in his collection.

