20 heller 1916 die catalogue, part D

1st edition 23-8-2011
2nd edition 23-8-2012
3rd edition 17-3-2017 1st revision 30-5-2019

Part D shows die-combinations in alphabetical order of the DA-side, thus making it easier to search once you determined the subcategory of the DA-side.

Subcategories are bookmarked.

Pictures are better seen if you enlarge the percentage in the toolbar of Acrobat Reader

From 2019 only combinations with a DA-side are shown in part D as there is little advantage in listing DB-sides in alphabetical order

Legend

C	tested copper coins known.
x of z	x copper coins found among a total of z coins of a die combination in my own original lot
>lb	strike-out direction top left
>lo	strike-out direction bottom left
>ro	strike-out direction bottom right
>--	no strike-out direction
cc	circle lines
vs	filing lines
hs	haircrack
br	piece broken off
ds	double struck die
zs	self-strike
HBA	die was used in combination with more then one die
HBA	die used in only one combination, no earlier or later combinations possible
HBA	die replaced, no later combinations possible

690



HA(C)1a-DA1a >--

689 # 89497 689b # 76801 689c # 96932 689e # 112255 690 # 62377 691k? # 62386 692 # 119593 c690c # 73152 c690d # 76798 c690e # 76799 c690f # 76802 2014 # 149125 2015 # 162535 2016 # 176499 2016x # 176264 2017a # 199097 2017b # 199096 2018 # 215989

HA(C)1a.cc.vs Die +/- 27,6 mm LL complete, inner leaf left of top of 2 fully attached to twig. Low relief but all details clear and very fine. **Edges of hole in R round**. Right side of top end of feet of both L straight. Circle lines in 20 and Heller. Filing-lines to left of H and leaf below, near R and crossing of twigs.	DA1a.cc Die +/- 27,0 mm Lower left ornament complete, lower line in top of right side of crown complete Low relief but lots of details. Cross and left lower ornament touch rim. T and right lower ornament don't, although on later specimens this changes. Circle lines in crown and between crown and right ribbon.

HA(C)1a must have been the first struck die in the HA series, since all other HA dies show square edges at the left side of the hole in R.
Copper/bronze HA(C)1a-DA1a are not to be expected

Krause's picture obverse C shows a HA(C)1a

350



HA2a-DA1b >lb

348ma # 112428 348mb # 112429 349 # 76788 350 # 63246 351 # 76789 351DS # 153481 352 # 85599 20PM 350 # 112644 20M1var 350M 158572 2014 # 149129 2015 # 162539 2016 # 176503 2016x # 176267 2017 # 199099 2018 # 216000

HA2a Die diameter +/- 27,4 mm Outer leaf above H and lower end of twigs touch rim. Long leaf above R, top affected and visible at a lower level.	DA1b. Complete lower ornaments, left one doesn't touch rim. Lower line in top of right side of crown complete



HA2a.br
Piece broken off die bottom right (?).

715



HA(C)1d-DA2a >--

DA2a was afterwards used in combination with HA2b
714k # 88178 715 # 63305 715b # 158883 2014 # 149128 2015 # 162538 2016x # 176266 2017 # 199095

HA(C)1d.cc.vs (half-) complete LL, upper part visible at a lower level. Inner leaf left of top of 2 at the brink of breaking off. Leaf-stalk is torn. Long leaf above R, top affected and visible at a lower level. Plenty off circle lines, vertical filing lines at bottom between twigs.	DA2a.cc Cross and lower line in top of right side of crown complete. Lower ornaments incomplete. Plenty of circle lines, with a hole in the middle

HA(C)1d is extremely rare in comparison with the other three HA(C)1 dies
September 2010 I had seen only two specimens, in comparison to 39 HA(C)1a, 12 HA(C)1b and 34 HA(C)1c (the last spread over 5 HA(C)1c-DB3u, 14 HA(C)1c-DA6d and 15 HA(C)1c-DB3v)



720



HA2b-DA2a >lb

DA2a was used before in combination with HA(C)1d. HA2b was used afterwards with DB3u
719 # 77849 720 # 62093 721 # 76791 c720 # 62094 720M1 HA2b-DA2aM # 175227 2014 # 149130 2015 # 162540 2016 # 176504 2016x # 176302 2017 # 199100 2018 # 216001

HA2b.hs Double struck die, right side and below heller. Die diameter larger than 27,5 mm. Lots of filing lines top right and bottom. Haircrack between rim and leaf right.	DA2a See715 HA(C)1d-DA2a Die diameter +/- 27,5 mm ? Some circle lines still clear.



Shadow lines because of double striking of die

700 (ex HA(C)1b-DA3b)



HA(C)1b-DA3a (ex HB(C)1b-DA3b) >--

DA3a was afterwards used in combination with HB3c
698 # 62484 698b # 112257 699 # 62336 700 # 62335 701 # 70365 702 # 175970 c699 # 86363 c700 # 76800
2014 # 149126 2015 # 162536 2016 # 176500 2016x # 176265 2017 # 199098 2018 # 215990

HA(C)1b Die +/- 28,0 mm? LL complete, inner leaf left of top of 2 fully attached to twig. Edges of left side of hole in R square. Top of foot of left L looks like rugby ball. First inner leaf above R short, which is very strange as many coins with incomplete LL still have this leaf semi-complete.	DA3a (ex DA3b) Die larger than 27,5 mm. Full cross on crown doesn't touch rim, lower line in top of right side of crown incomplete Right lower ornament misses small part of top, left one part of bottom
	HA(C)1b.br.zs Very soon, in 2stages, a piece gets broken of at top of H-die, coin seems to wear toupee. Later self-strike of 6 occurs atop of H and additional cracks appear at the bottom.

705 (ex 730)





HB3c-DA3a >--

DA3a was before used in combination with HA(C)1b
704 # 121136 704-704DS # 62569 705 # 62568 706 # 76849 20M2 705M # 158973 2014 # 149263 2015a # 162616 2015b # 162617 2016 # 176719 2016x # 176340 2017 # 199196 2018 # 216125

HB3c.hs	DA3a
Haircrack from 3rd outer leaf above R to rim. Haircrack at same place as filing line on HB3a, see 285 # 76944 Filing lines left December 2012 only one known without self-strike, 4 September 2016	Space between cross and rim. Right 1 unaffected, complete right lower ornament.





HB3c.hs.zs, self-strike of 6, upper ornament and A.

375



HA2d-DA4c >lb

HA2d was used before in combination with DB3w, DA4c was used afterwards in combination with HA3a. Shown is HA2d.zs-DA4c

374 # 63200 374p # 83922 375 # 63158 375c # 76784 375DS # 112646 2014 # 149131 2015 # 162541 2016 #176567 2016x # 176268 2017 # 199101 2018 # 216003

HA2d.zs See also 370 HA2d-DB3w Last remnants of top of foot of left L visible on some coins. Self-strike of 19 above LE.	DA4c Die diameter +/- 27,8 mm. Plenty of filing lines. Cross and left lower ornament free from rim. Left sidebar of cross higher than right one. Lower line in top of right side of crown partly at a lower level. “Slope” forms above left part of crown. Upright of T is wider at bottom, making it look like a table on one foot.

In "Fragen zur Tabora 20 Heller Notmünzen Deutsch-Ostafrakas (1)", http://charm.ru/misc/Tabora.htm , HA2d-DA4c was designated HA3a-DA(3c or 4c) and now HA3a-DA4c was HA(2c or 3w)-DA4a

380



HA3a-DA4c >lb

DA4c was used before in combination with HA2d. HA3a afterwards in combination with DA6c
379 # 88120 380 # 83923 380b # 112647 381 # 88121 381e 158884 2014 # 149133 2015 # 162544 2016 # 176568 2016x # 176269 2017 # 199103 2018 # 216008

HA3a.cc Die diameter +/-27,7mm Double struck die, shadow lines in and below HELLER. Incomplete left L, no remnants of its tip. Long leaf above R, top affected and visible at a lower level. Plenty of circle lines.	DA4c See also 375 HA2d-DA4c. Die diameter +/-27,8 Filing lines below left ribbon still visible. “Slope” above left part of crown. Self-strike of 19 would not show above heller.

This combination is depicted as Deutsch-Ostafrika nr 16 in Michel ‘Münzen-Katalog Deutschland 2002’.



Lower part of lower line in top of crown right becomes invisible. Self strike right of R and above ribbon.

750



HA3b-DA5a >--

749 # 62300 750 # 62084 750b # 85211 750c 69032 # 750MS # 86361 751 # 63205 751DS # 118979 c750 # 76780 2014 # 149136 2015a # 162545 2015b # 162569 2015c # 162568 2016 # 176569 2016x # 176270 2017 # 199104 2018 # 216010

HA3b Die larger then 27,7 mm. Long leaf above R, top affected and visible at a lower level.	DA5a.zs Double struck die, see double lines DOA. Die diameter +/- 28mm ? On some coins lower part of line in top of crown right is not visible. Large haircrack over left ribbon.



Self-strike both sides

425



HA3e-DA5b >lb

HA3e was used before in combination with DA7a, DA5b afterwards with HA3k
Dies shifted during striking, coin above = position 1, heller lower than 1916
423c # 72514 424 # 62979 425 LHH # 62934 425a # 73943 425b # 73946 425c # 112651 426 # 70455 426b 62936 c425 # 199726 2014 # 149139 2015a # 162548 2015b # 162549 2016 # 176572 2017 # 199110 2018 # 216014

HA3e Double struck die, double lines in Heller. See also 420 HA3e-DA7a. 2 splash lines besides 2nd outer leaf above R confirm connection with HA3e-DA7a. HA3m show quite similar splash lines. Raking of stem of 2	DA5b.vs Die diameter ? Right lower ornament a combination of gun-turret and complete form. Filing line between crown and 9
	
Some coins show left filing line, some haircrack right. Rarely both are seen on one coin.	Raking of top of heller

429



HA3k-DA5b >lb

DA5b was used before in combination with HA3e
429 # 102420 429k # 191045 430 # 105694 2014 # 149147 2015 # 162557 2016 # 176580 2018 # 216022

HA3k.cc.zs Circle lines in 20 and below LL. Bottom of HE much like some HA3e Double line right side of leaf below R, shadow line below R. Long leaf above R Self-strike of ornament right of R.	DA5b.hs Haircrack at left ribbon. Lines between bottom of crown and 91. Die damage, line through crown to top of right 1.



Die crack bottom right.

820









HA(C)1c-DA6a >--

coin alignment

coin alignment: 817 # 134728
medal alignment see below

HA(C)1c was used before in combination with DB3u and afterwards with DB3v.
DA6a was used before in combination with HA3h, HB4d and HB3d

Coin alignment is extremely rare among 20 hellers. Mistake must have been noticed rather quickly and one of the dies must have been realigned to bring dies in usual medal alignment position.

820+



medal alignment

Shown is HA(C)1c.zs1c-DA6a

Medal alignment: 818 # 70665 819 # 73947 819b # 62480 819f # 134781 820 # 62293 820 LHH # 158881 820 TB # 158882 821 # 76046 c820 # 76797 2014 # 149127 2015 # 162537 2016 # 176501 2017 # 199093 2018 # 215991

HA(C)1c.zs1a,b&c Self-strike of 19 of DA6d in 3 different positions. One of the dies shifted along vertical axis. Last remnants of filing lines between leaves of twig right. Line below R.	DA6a Left part of foot of right 1 missing. Bottom right always weak in medal alignment. Crown never better than this. In older versions of this catalogue this combination was named HA(C)1c-DA6d



760



HA3h-DA6a >-- (lo)

DA6a was afterwards first used in combination with HB4d and then later with HB3d and HA(C)1c

760 # 73928 760c # 72553 760g 179938 2015 # 162554 2016 # 176576 2017 # 199112 2018 # 216019

HA3h.cc.vs Short leaf above R. Lots of filing and circle lines. Short life span.	DA6a.cc.vs.hs Cross almost touches rim. Ornaments and T have plenty space. Haircrack between ribbon and middle ornament right. Lots of filing and circle lines.

.



Haircrack H-side

770



HB3d-DA6a >--

DA6a was used before in combination with HA3h and HB4d and afterwards in combination with HA(C)1c

769 # 77884 769d # 103608 769k # 79820 770 # 62302 770c # 62301 770DS # 112262 770f # 76836 2014 # 149264 2015 # 162618 2016 # 176720 2016x # 176339 2017 # 199197 2018 # 216126

HB3d.vs.hs An explosion of filing lines. Haircrack from first outer leaf above R over twigs/ribbons	DA6a.cc.vs.hs See 760 HA3h-DA6a Some filing and circle lines still visible on early HB3d-DA6a coins.





765



HB4d-DA6a

DA6a was used before in combination with HA3h and afterwards in combination with HB3d and HA(C)1c

765 # 70550 767 # 83810 767a # 143108 767DS # 72552 2014 # 149268 2015 # 162621 2016 # 176723 2016x # 176341 2017 # 199200 2018 # 216129

HB4d.vs Double struck die, see shadow lines left of outer leaves left. Deep filing line above right E. HB4 see outer leafs left.	DA6a See 760 HA3h-DA6a. Filing lines and haircrack still visible.



Die damaged bottom right.

390



HA3c-DA6b >Ib

Easy to confuse with HA3d-DA6c and HA3m-DA6e
389c # 97818 390 # 63117 390c # 77848 390DS # 126620 390e # 70165 390g # 110721 390gLL # 167454 391 # 112309 2014 # 149137 2015 # 162546 2016 # 176570 2016x # 176271 2017 # 199108 2018 # 216013

HA3c.cc Die diameter +/- 27,4 mm Plenty of circle lines, no hole in centre. Shorter leaf above R. Top leaf sharp and near rim.	DA6b.cc.vs Die diameter ? Part of bottom of right 1 missing, last remnant still visible. Right lower ornament complete. Plenty of circle lines, filing lines around



die position reconstructed

Radically changed die position, almost identical to that of HA3d-DA6c
Strike-out direction >Ib: raking of 2, H and first outer leaf above H, splash at leaves and top of crown.

385 (ex 400)



Self-strike next to R disappears, a similar looking damage appears above the left square ornament.



HA3a-DA6c (ex 400 HA3d-DA6c) >Ib

HA3a was used before in combination with DA4c
Easy to confuse with HA3c-DA6b and HA3m-DA6e, Direction of die-axis would makes things easy if later HA3c-DA6b would not have nearly same direction.
384 # 79763 385 # 63113 386 # 70453 386d # 112271 386f # 215523 2014 # 149138 2015 # 162547 2016 # 176571 2017 # 199109 2018 # 216009

HA3a	DA6c
Long leaf above R, top affected and visible at a lower level. Leaves at right somewhat further from rim than with HA3c. Splash at leaf bottom right. Harking of H and ER somewhat different from that on HA3m-DA3e. Harking at top of middle triangle of E most helpful.	Die larger than 27,8 mm.

410



HA3m-DA6e >lb

Easy to confuse with HA3c-DA6b, which has at first same die position and with HA3d-DA6c, but direction of die-axis and shorter leaf above R makes things easy there. Even if coins above and below belong to same die combination could be questioned.

410 TB # 63118 410 LHH # 158887 410 PB # 158888 410g # 76777 411 # 112590 411a # 76778 411DS # 113946 20M1-410M # 70451 2014 # 149148 2015 # 162558 2016 # 176581 2017 # 199116 2018 # 216023

HA3m Short leaf above R	DA6e.cc Strike out lines at cross Left side of left lower ornament fades.



Typical raking of H and R. Two lines at second outer leaf above R, quite similar to those found on HA3e.

420



HA3e-DA7a >lb

HA3e was afterwards used in combination with DA5b
419 # 62978 420 # 62930 420DS # 112652 420g # 83083 421 # 76743 2014 # 180961 2015 # 162550 2016 # 176573 2016x # 176272 2017 # 199105 2018 # 216016

HA3e.cc Die diameter +/-27,5 mm Double struck die, see pictures below. Short leaf above R. Circle lines at bottom.	DA7a.vs.bu Die diameter ? Filing lines in 91 and left of crown. Bulb near lower left ornament.







Self-strike direction top left.
Splash lines confirm connection with HA3e-DA5b
Similar splash lines HA3m

850





HA4a-HA8a >--

850 # 61412 850 L# 158920 850 L LHH # 158919 850a # 73948 850BR # 112437 850c # 70469 850d # 102993 850h # 73145 851 # 70502 851h # 113947 20M1-851 # 72755 2014 # http://www.zeno.ru/showphoto.php?photo=149150 2015 # 162560 2016 # 176582 2016x # 176278 2017 # 199118 2018 # 216027

HA4a.cc	HA8a.cc
Die diameter ? Top right of right E affected. Circle and filing lines. Bulb at bottom not seen on earliest coin. Circle line seen between legs of R very similar to one in same place on HA4c.	Die diameter +/-27,6 Left 1 complete, right 1 misses part. Gun-turret right lower ornament. Plenty of circle and filing lines. Later coins self-strike of leaves above crown in different positions.



Die position shifting, actual coin position 1

850 +





Self-strike in position 1 disappears and new self-strikes in different positions occur.





Dies fade. Flaw at bottom of H-die gets stronger, self-strike of upper ornament at top of H.
On D-side self-strike of H between 6 and upper ornament

780



HB5y-DA8b >--

780 # 62035 780 Z # 159117 780b # 76832 780fd # 180421 780r # 112272 781 # 73949 c780b # 216268 c781 # 76833 c781d # 62528 2014 # 149269 2015a # 162622 2015b # 162623 2016a # 176724 2016b # 176725 2016x # 176407 2017a # 199202 2017b # 199201 2018a # 216130 2018b # 216131

HB5y.cc	DA8b.cc
Die diameter +/- 27,2 mm. Plenty of circle lines with hole in middle. Fat upper outer leaf left often looks like DB4.	Die diameter +/- 27,6 mm. Space between cross and rim. Right 1 unaffected, left one misses part, gun turret right lower ornament. Plenty of circle lines with hole in middle.



Dies deform while circle lines still visible.

450



HA3f-DA8c >lo

HA3f was before used in combination with DA8d, DA8c was used afterwards with HA3n
449 # 62749 449k # 84622 450 LHH # 62808 450DS # 160481 451 # 62809 2014 # 149140 2015 # 162551 2016 # 176574 2016x #176273 2017 # 199106 2018 # 216015

HA3f See 445 HA3f-DA8d. Hole disappears	DA8c.cc Die diameter ? Left lower ornament and T touch rim. Plenty of circle lines, some filing lines. Possibly self-strike of leaf below O and between legs of A





Strike-out direction bottom left

453



HA3n-DA8c >lo

DA8c was before used in combination HA3f
453 # 77900 453 PB # 158924 2014 # 149149 2015 # 162559 2016x # 176277 2017 # 199117 2018 # 216024

HA3n Die diameter +/- 27,5 mm Plenty of circle lines, no central hole Rolling coin surface Very simular to HA3f	DA8c See 450 HA3f-DB8c Bulb below A



Under different light more circle lines show.

Very simular to HA3g and HA3i, but linking coins not yet found

445



HA3f-DA8d >lo

HA3f was afterwards used in combination with DA8c.
446 # 87981 2014 # 149141

HA3f.cc Die diameter +/-27,8 mm Ample space between leaves and rim. Short leaf above R. Plenty of circle lines with hole in the middle. Some filing lines.	DA8d.cc.vs Die diameter ? Left lower ornament and T touch rim. Plenty of circle lines, some filing lines. Right side looks like die has corroded heavily, possibly impression of positive die? Possibly haircracks below right ribbon over ornaments.





After the rains.

435



HA3j-DA8e (ex HA3j-DA9e) >lb

As bottom of HELLER is not straight, line along bottom of E and bottom of right leg of R.
Dies get heavely deformed with rolling coin surfaces.
435 # 62835 436 # 73932 435M1 HA3j-DA9eM # 175226 436b # 180914 2014 # 149146 2015 # 162556 2016 # 176578 2016x # 176276 2017 # 199114 2018 # 216021

HA3j.cc.vs Small die for a HA, maybe well below 27 mm. Outer leaves and lower end of twigs near rim. Irregular circle lines over a fair part of the coin. Filing lines near rim to right of R. HELLER deformed, LL bigger than H.	DA8e.cc.vs.hs (ex DA9e) Die diameter ? Some circle and filing lines. 2 heavy cracks top right.



Lower part of H-die got somehow dubble struck. How ? Hairline below H between rim and leaf.

800



HA3i -DA8f (ex HA3i-DA9f) >lo

798# 70399 798m # 112436 798p # 112671 799 # 70059 800 # 61439 800 LHH # 158885 800c # 84896 800e # 102992 801DS # 118972 2014 # 149145 2015 # 162555 2016 # 176577 2016x # 176275 2017 # 199113 2018 # 216020

Low weight coins, known weights 7.75, 7.8, 8.0, 8.3, 8.7 9.2 and 10,7 grams.

HA3i Die diameter ? Top outer leaf left near rim.	DA8f.cc.vs This must be a small die, hardly big enough to accommodate the design. Plenty of circle lines, filing lines / haircracks at ornaments and top left.



800+



Self-strike of leaves left side of crown

460



HA3g-DA9b >lo

460 # 62735 460b # 216267 460k # 76719 460DS # 112270 461 # 62741 461b # 70364 461c # 62738 20fM-461 # 72753 2014 # 149143 2015 # 162553 2016 # 176575 2016x 176274 2017 # 199111 2018 # 216018

HA3g.cc Die diameter +/-27,5 mm Double line bottom of 2 and R, so probably double struck die. Short leaf above R. Circle lines bottom left.	DA9b.cc Die diameter ? Right side of bottom of left 1 cracked, Later this part seems to disappear, see also below. Circle lines above right side of crown and left of D, small hole in middle. Haircrack below right upper ornament.



Strike-out direction bottom left, see top of left 1 and outer top leaf left.
DA9b.br, Small pieces broken off die at left lower ornament and bellow T, left foot of A mutilated.
On later coins right side of foot of left 1 disappears, which makes the coins looklike DA11. Bottom of left 1 disguising as DA10 found only on one coin.

840





HB5z-DA9c >-- C

839 # 69129 840 # 61335 841 # 61336 841b # 69130 841bc # 150081 841bp # 158970 841c # 112797 841cd # 151066 841ce # 168711 841d # 69131 841da # 176031 c841 # 76831 c841d # 76830 2014 # 162994 2015a # 162624 2015b # 162625 2016 # 176726 2016x # 176408 2017a # 199204 2017b # 199203 2018a # 216132 2018b # 216133

HB5z.cc Die diameter +/- 27,2 mm. Chicken legs at bottom. Last circle lines in 20.	DA9c.vs.hs.zs Die diameter ?. Right side of bottom of right 1 lower, left one misses part, gun turret right lower ornament. Plenty of filing lines. Self-strike of twig in O. Haircracks right from crown over ribbon to middle ornament and more right from this to lower.





All (known to me) positive tested copper HB-DA are HB5z-DA9c, struck with old dies.
Nearly all copper HB-DA, offered as such in auctions, are HB5z-DA9c, struck with old dies.
Whoever has an attested copper HB-DA that is not HB5z-DA9c, please inform me.
Vast majority of copper HB5z-DA9c contain 0,3% tin.

620



HA4b-DA10a >lo C

618k #191056 619 # 62406 619a # 150078 619d # 141776 620 # 62395 621an # 112962 620BRDS # 112435 620c # 69058 620DS # 86340 620EC # 191061 620ECa # 224360 620f # 76517 620g # 76550 620k # 76575 620p # 77888 620q # 150077 620r # 160081 620ra # 191070 620rb # 223427 620s # 79765 621 # 62403 c620b # 191805 c620c # 76516 c620d # 84630 c620d # 84631 c620f # 76551 20M1-621 # 89866 20M2-620 # 72751 20PM-620 # 72756 20P M 620P-M 158573 2014a # 149151 2014b # 149152 2015a # 162561 2015b # 162562 2015c # 162570 2015d # 162571 2016a # 176589 2016b #176590 2016x # 176280 2017a # 199121 2017b # 199120 2018a # 216028 2018b #216029

HA4b Top right of right E affected. Looks like a sharp thorn.	HA10a.cc **Right side of bottom of left 1 points downwards**, right 1 misses part. Gun-turret right lower ornament. Circle lines.



Bottom of 2 blows up like an overstuffed sausage, while D-die fades.

All (known to me) positive tested copper HA-DA are HA4b-DB10a, no brass HA4b-DA10a are attested.
Nearly all copper HA-DA, offered as such in auctions, are HA4b-D10a
Whoever has an attested copper HA-DA that is not HA4b-DA10a, please inform me.

470



HA4c-DA11a >lo

469 # 69164 469c # 112687 469e # 112688 470 # 62717 471 # 63517 472 # 62718 472c # 112689 472e # 158320 c471c # 76619 2014 # 149155 2015a # 162563 2015b # 162564 2016 # 176591 2016x # 176281 2017 # 199119 2018 # 216030

HA4c.cc Die diameter +/- 27 mm is small for a HA-die. Piece missing from top right of right E. Plenty of circle lines still visible as raking starts bottom left.	DA11a.cc.br Die diameter ? Pieces missing of bottoms of both 1 Plenty of circle lines still visible as splash starts bottom right. A small piece broken off die below T, left lower ornament touches rim. Self-strike of leaves above crown.



480



HB4c-DA11b >lo

HB4c was used afterwards in combination with DA11c and with DB3b.
Some shifting in die position, position shown here is not actual coin's, which is somewhat lower.
480 # 62730 480b # 112264 480c # 83882 480DS # 113986 2014 # 149265 2015 # 162619 2016x # 176342 2017 # 199198 2018 # 216127

HB4c.cc Die diameter 27,7 mm Lots of circle lines.	HA11b.cc Die diameter ? Plenty of circle lines, no filing lines bottom right.



485



HB4c-DA11c >lo

HB4c was used before in combination with DA11b and afterwards with DB3b.
485 # 76283 485c # 96933 20M1-485M 112999 2015 # 162620 2016 # 176722 2016x # 176343

HB4c.cc Die diameter +/-26,8-27 See HB4c-DA11b	HA11c.cc.vs Die diameter ? Plenty of circle lines, filing lines bottom right.

