MEMORANDUM D4: "A Royal 'Haagseklok'", App. 3, Open-Research.

D4 Timepiece; cartouche signed ***'Salomon Coster Haghe met privilege'***.
Special features: none. Reference 1, 119. (Science Museum, London).
Excerpt from Dr.Ir. Reinier Plomp, (http://www.kunstpedia.com/articles/46/3/The-earliest-DUTCH-and-FRENCH-pendulum-clocks-1657-1662/Page3.html) published on 13 March 2008.

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KP NOTES:
Salomon Coster pendulum timepiece, c.1657 (Science Museum Inv. 1980-108, Berry van Lieshout archive nr. 981, Dr.Reinier Plomp "Spring-driven Dutch pendulum clocks 1657-1710", Nr 37, p.119, (Interbook International BV. Schiedam, 1979), being given D4 in Dr.Plomp's new chronology (Op.Cit.).

D4 was inspected at the Science Museum, London, on 23rd November 2009. The clock was presented on the bench and then stripped down to the basic movement - the plates were not separated, it is soon to be overhauled. Those present were, Richard Horton (Engineering Conservator), Francis Brodie (Horologist) and the author. Oosterwijck's clock was compared.

Although dealt with by Dr.Plomp, it was necessary to examine the wheel train for HF's "open-research matrix" *(Appendix Three*, to "*A Royal 'Haagseklok' by Severijn oosterwijck Haghe met privilege")* now accessible on the Dutch Horological Foundation website <antique-horology.org> (links Index: Articles, Keith Piggott site under construction). Counting the lower teeth proved problematical, the train appears to be: 72, 7/70, 5/64, 5/25 = 149.33 beats/min, for a notional pendulum 16.049 cm. This being the lowest wheel-count of all the standard size plates, fixed to the smallest dial of all Coster clocks, I was intrigued to look further into its irregular construction, the superior dialplate and case with a movement containing very crude frontplate components. Further inspection reveals several noteworthy features, not so far published (however some are

recorded by Berry van Lieshout, archive nr.981), which may all, or each, have some bearing on this *movement's* proper chronology in Coster's tiny surviving *oeuvre* of seven Hague clocks.

These noteable features are:

1. No evidence on either barrel cap of any site for a stop-wheel, there is anyway no space on the rear cap, due to deep centre-wheel overlap, (compare Coster 'D3').
2. No evidence on barrel arbor of a pinion leaf or hole for pin, to stop-wheel, (cf.D3).
3. Contrate- *kroonrad* (***5/64*** *typical*), part ringed and hand cut - ogee collet to front (cf. Coster D2), **probably** original to train.
4. Escape- *gangrad* (***5/25*** ***unique***), 3-spokes, fixed to pinion, teeth sharp; **uncertain**? Nb. lowest individual count of any Coster spring-clock, a pointer to chronology? (Huygens' 1658 "OP" weight clock, beating 1/2 Seconds' has an escape of 6/25).
5. Motion bridge is formed by an elongated 8-sided IRON plate fixed by single brass rivets onto two shaped BRASS pedestals, each screwed onto the frontplate.
6. All cocks and potences have red-copper steady pins I do not recall seeing before.
7. Suspension "cheeks" have untypical leaf-shaped cocks- I considered possibility of being reconstructions (very thin and Cycloid); given the doubt, probably reshaped.
8. Triangular verge cock with untypical semi-circular bowed arm to the verge pivot.
9. Rectangular sector cut-out in dial, to receive the long vertical cock to the reverse-minute wheel, due to the very short round dial feet of just 6 mm (0.5 mm shorter than Oosterwijck's Royal clock). An 8mm foot would have avoided extra dial work.
10. Backboard to the case is of OAK on a Deal frame. (nb. Bernard van Stryp Anvers timepiece has a framed OAK backboard and an OAK box frame. British Museum).
11. Backboard is not framed by its box, but it is full-span like Oosterwijck's Royal clock.
12. Ratchet wheel, click and brass spring are most crudely made, the click being held by a screw, the brass spring being held in place by its own integral fixing pins.
13. Pillarhead rivets in the frontplate are irregular and rough, with no attempt to finish.
14. Contrate is partially ringed and is hand cut, however it has untypical ogee-collet.
15. Barrel arbor extends beyond backplate, with untypical turned flourishes.
16. Barrel has a segment repair that includes 4 teeth, (probably the original barrel).
17. Centre arbor untypically highly tapered with integral iron 'collet' against frontplate.
18. Both upper and lower potence cocks are internally screwed into backplate, (cf.D3).
19. Pillars are thick square sections (7x7mm by 29.5mm spacing), yet have relatively thin studs at the back plate for fixing pins.
20. Dial hinges (formerly gilded) have domed hinge-pins.
21. Door is on its own hinges and is internally rebated for the dial hinge posts.
22. Hands are typical Coster but not highly finished (unlike Oosterwijck's), and there is no collet to the minute hand.
23. Chapter ring 123mm/18mm anulus is smallest of all Coster-type Hague clocks.
24. Chapter ring has an inner line without Quarters , the single minutes are not scored through, ie. my putative Second State, ("A Royal Haagseklok" - Chapter Ring).
25. Superior quality of the dialplate, its several components, and superior engraving of both chapter-ring and signature plate, (but not having a date, nor inferior scribing of the dated plates), may well be Coster's best pendulum dial work extant - a visual credit to himself, harking back to his superb pre-pendulum clocks, perhaps being suggestive of an earlier chronology - before the rush to meet the market demand.

My review already touched on the "unknown originator" of the combination of split-barrel with stop work, also the likelyhood that this innovative mechanism was not Coster's contribution but a device obtained through negotiation, possible being the '*secreet*' in the September 1657 Contract. Therefore, I am unsurprised to discover another of Coster's going-barrel timepieces, (also D3), apparently never fitted with stopwork. The evidence lends support to my hypothesis and might also infer pre-contract dates to at least two Coster timepieces having square pillars. It might also explain absence of stop-work on early Coster derivatives,*"Pendule Religieuses"*.

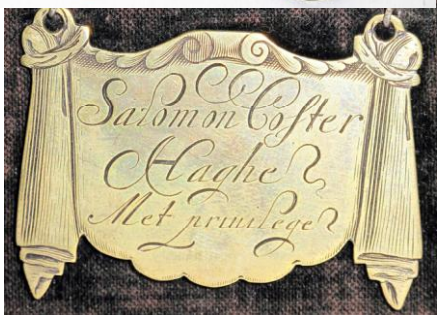
In my opinion there is sufficient evidence to justify re-consideration of this Coster's chronology

which Dr.Plomp has proposed as D4. I suggest it might even be considered as a contender to be D1, although I have yet to gain access to that timepiece at Museum Boerhaave, Leiden, and Van Lieshout believes Coster D3, too, merits advancement as the only "Coster-Coster".

Professional horologists may form a view on this new data, perhaps relating certain features or parts to Coster's pre-pendulum *oeuvre*, or even Fromanteel's contemporary pendulum *oeuvre*, which bear on modern presumption that all square-pillar Coster's were made in the Contract period. My concern at such single-feature dating is expressed in my perspectives, and justifies open-research to establish data for study of the evolutions and chronologies.

The following images of Salomon Coster's timepiece (putative chronology 'D4'), were taken with the consent of the Science Museum, but remain my personal copyright and may not be copied or published without consent by myself and the Science Museum. However, and for research purposes only, any image may be had in higher-resolutions by an application to my research address, **<ahasuerus@btinternet.com>.**

SALOMON COSTER 'D4' c.1657 **OOSTERWIJCK'S ROYAL CLOCK**



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