



HOW MANY MASCOTS WERE MADE?

This question is easily answered for R-Rs made after WWII: as many as the cars made, minus those customers who didn't want one (very few, one suspects). For pre-WWII cars, the question is much more interesting, and is difficult to answer exactly. I have reviewed a selection of the sales chassis cards, and offer the following:

First, the Silver Ghosts. The mascot was probably available soon after the date of 6 February, 1911, so purchasers of cars later than chassis 1770 or thereabouts could have ordered one. The actual number ordered, for the cars from 1770 to 2809 (which was also 41MA, as both a four digit chassis number and a two digit, two letter chassis number were recorded for the CA, NA and MA series) was, according to the Conduit Street sales cards, 46. This is not a big uptake for about 1,000 cars, and is less than 5% of sales. But if you look at the cars pictured in *The Edwardian Silver Ghost*, and count the mascots, you will find that at the time the photographs were taken, an additional 51 owners, (or perhaps coachbuilders, for their records and advertising purposes), had fitted Sykes mascots. So about one Silver Ghost in ten had a mascot in the years 1911 to 1914, half of them retrofitted.

From the AB series in 1914 to the X series in 1919, 74 mascots were ordered. This too is about one owner in ten. But then things changed. For the approximately 640 cars from the PP Series (1919) to the AE Series (1920), 161 mascots were ordered with the chassis, so by then about one in four purchasers chose to have a mascot and the Spirit of Ecstasy was becoming a desirable enhancement to the car. I did not do a complete analysis for later Ghosts, there were simply too many, but a sampling of them, combined with the earlier figures, suggests an overall take-up level of Silver Ghost mascot purchasers of 20–25%.

By the time the New Phantom (Phantom I) was offered for sale, mascots were quite popular. For the OR series (1929), for example, there were about 90 sold and about one in



The Spirit of Ecstasy

— Part Three —

by

Barrie R D Gillings (NSW)

two purchasers ordered a mascot with the car. A similar proportion (35–50%) of Phantom II purchasers requested mascots for the PY and SK series but, again, I did not do a complete Phantom II survey. For the Phantom III, I stopped looking after checking 3CP8 to 3CP50, as every purchaser ordered a mascot.

One in four purchasers of the newly introduced 1922–23 20hp ordered a mascot, according to the sales records, but by the GAK series of 1924 the number was one in two. I made an assumption that this mascot acceptance level would continue, and skipped to the 1929 GXO series. I was reassured. This series also had a one in two mascot acceptance level.

This level was maintained for the 20/25hp, with one in two purchasers ordering a mascot for the 1933 GHA series. But with the introduction of the 25/30hp, acceptance made a quantum leap. For the 1936–37 GHL series,

only two of the 40 purchasers did NOT order a mascot. (The last chassis in the series is actually GHL41, but it must be remembered that there was no GHL13.) Wraith purchasers were even more enthusiastic. All WLB and all but two WHC series chassis were ordered with mascots.

From the foregoing I have estimated that about 40% of purchasers of the approximately 20,000 cars sold between 1911 and 1939 ordered a mascot. Jo Phillips said that production when she started her mascot activities was about seven per week, which conforms, approximately, to the above 40% mascot uptake figure. The corollary is that more than HALF of the chassis ordered did not, originally, have a Sykes mascot adorning their radiators. Of course, some purchasers may have ordered a mascot later in the car's ownership and the many owners who kept their original mascots may have fitted them to their new purchase, but these are probably not enough to result in the situation today where almost every pre-WWII R-R one sees at rallies wears a mascot. But the Sykes group ceased mascot manufacture in 1939. So, even assuming that a percentage of pre-war cars were scrapped, where did the additional 5,000–10,000 mascots come from? I believe that the answer must lie in the widespread replication of mascots over the 67 years that have elapsed since 1939.

We must conclude that we now see a lot of mascots that were not made by the Sykes group. But this should not evoke shock and horror. It must be remembered that Sykes made his mascots by preparing a jelly mould from his master mascots, then making wax patterns, and investing, casting, and finishing them. If an owner has a nice mascot, makes a jelly mould of it, and does what Sykes did, he too will have a replica of a mascot but it will be a replica of a Sykes replica. If done properly, and finished and polished with the same skill and care of the Sykes group, it will probably be indistinguishable from an original Sykes, but just a little bit smaller and cast in a modern alloy, rather than one of the alloys used by Sykes.

HOW MUCH DID A MASCOT COST?

If you have a post-WWII R-R, the answer is nothing, or, more correctly, it was included in the cost of the car. For pre-WWII cars, we know that it was an optional extra and you had to pay extra if you wanted one. But how much more? I have studied representative samples of the Conduit Street chassis cards to find out and the answers are surprising. In the early days, for Silver Ghosts from 1911 to 1912, the cost was £2.2.0 and later £3.3.0, i.e. two or three guineas. The guinea was one pound, one shilling, £1.1s.0d, and was then the monetary unit used for medical and legal fees, objets d'art, horses, furs and, naturally, Rolls-Royce mascots. The guinea had a certain snob value. To give the reader an idea of the relative cost of mascots, the publication *The British Economy 1906–1970* records the average salaried male's weekly earnings as £1.8.0 in 1911, £3.0.0 in 1924, and £3.10.8 in 1938.

In my first searching I looked for the always hand-written and often difficult-to-read entry saying 'R-R mascot', 'R-R mascot to be fitted' or something similar. But then I found it easier to look in the 'costs' column. My problem was that R-R charged the same price, two or perhaps three guineas, for 34 other items fitted to the chassis, such as pillar lamp brackets, steel toolbox on steps, ventilators to dashboard, polished walnut shelves, speaking tube (a very popular item) and so on. Two or three guineas seemed to be a standard charge. But frequently the cost was £3.8.0 or even £3.8.6, and occasionally, £2.2.0, plus 5/6 for "fitting ditto". But for 55AB the charge was £3.5.0 and for 26PB, £2.8.0. By 1914, £2.8.0 had become the standard charge. An exception was 8AD, where the charge was £2.13.0 for "nickel R-R mascot to radiator cap (including fitting)". Keen mascot students will note that this suggests that the customer chose nickel-plating rather than the then standard silver-plating. Post-WWI, nickel-plating became standard until chromium-plating became the norm after 1930.

The £2.8.0 continued until 4X, when the price was £2.17.0 but increased to £3.15.6 for the next few X chassis numbers. However, the mascot



The mascot on the left is Nickel-plated and on a nickel-plated cap. The mascot on the right is a German silver or nickel-silver mascot, unplated, on a similar ally cap. The colour difference is slight but detectable.

for 2PP, a later car, was only £2.17.0. What caused this lack of fiduciary consistency? Perhaps some of the charges were 'mates rates'. All this price variation nonsense disappeared with 21LW, when the charge stabilized at £3.8.6, being £3.3.0 for the mascot and 5/6 for fitting. But there were exceptions. 111FW's mascot was £3.17.0, altered to £4.6.0, probably because silver-plating was ordered. 73BW's mascot was £3.15.6 and 143BW's £4.1.6. By the PG series in 1922, the price had risen to £4.0.0 and stayed there for Silver Ghost mascots.

The cost of a mascot for a Phantom I stayed at £4.0.0, except for two cars where it was £4.4.0. For 83OR the charge was £4.10.0, but the extra 10/- was for silver-plating. The mascot price was reduced to £3.17.6 for the Phantom II and reduced even more, to £3.0.0, for the Phantom III. One wonders whether Phantom III owners appreciated, or even noticed, the price reduction.

The Company decided on £3.10.0 for 20hp mascots until the GH series, when it jumped to £3.17.6. But then, to confuse the researcher even more, the price dropped back to £3.0.0 for the GH and later series, and the Wraith. But, dear reader, do not think that this price variation research is only of passing interest. Silver Ghosts 2414, 2459 and 12BD were brass cars, and brass mascots were ordered. For 2607, also a brass car, a bronze mascot was ordered. 2674 and 8AD mascots were ordered in "nickel," which I assume

means nickel plate, instead of the usual silver plate. Silver Ghosts 10–16X orders specified "R-R mascot to special cap." Silver Ghost 37LW was after the brass car era, but the order stated "R-R mascot to be fitted, supplied by us. Order to Mr. Sykes for brass mascot." If you are the owner of any of the above cars, you can give an over-punctilious concours judge a really hard time. And you can state with authority that Sykes made brass mascots when he was asked to.

By the 1920 CW series, the category "mascot to be fitted, supplied by us" became commonplace. The source was "W," an abbreviation for "Works," in other words Derby, and there were many entries describing mascots "ex our (or 'our own') stock." It is apparent that Rolls-Royce maintained stocks of mascots and fitted them to the cars as the mascots were ordered. Every so often, a mascot was not fitted to a car but sent to the owner, who, I suppose, took it to the coachbuilder for later fitting. Although mascots after WWI were probably no longer silver-plated, occasionally a customer ordered one, as noted above.

I am confident that the standard Phantom II mascot was slightly smaller than the P I, but by 1934 the owner had the option of a kneeling, rather than upright mascot. This was said to be introduced because, by then, the owner-driver was becoming increasingly common and some did not like a tall mascot obscuring their view of the road.



The Spirit of Ecstasy



The Conduit St. sales cards specify "untarnishable" mascots in an increasing number of orders, which probably means chromium-plated. Mascots after 1930 were chromium-plated, as this matched the by then Staybrite stainless steel radiators and, later, radiator shells. By the PY series, a steadily increasing number of Phantom II owners were specifying "20/25 mascot," "20/25hp size" or "kneeling lady type." By the TA series, "upright type" was a common descriptor. We can conclude that the Phantom II mascots ordered with the chassis could have been a "large upright," "smaller upright" or "kneeling" lady without straying from authenticity. The Phantom III owner almost always requested a mascot but few of the kneeling type were ordered. The Wraith owner likewise almost always ordered a mascot but only about one owner in four requested "kneeling type," "kneeling lady" or "kneeling lady type." The word "lady" was used interchangeably with "mascot." The above findings may help owners decide what particular type of mascot they should fit to their car, or perhaps help them to argue their case in support of the suitability of the mascot their car wears.

WHAT ALLOYS WERE USED BY SYKES?

Researching this question poses problems. Few owners of original mascots and caps are willing to allow samples to be taken for analysis. And as we have seen, certifying a mascot as an original Sykes presents many difficulties. So readers should regard the following with healthy scepticism. The analyses are from a reputable foundry and should be accurate but I cannot give an absolute guarantee as to the originality of two of the mascots.

Most readers will know that up to 1930, radiator shells and many fittings on R-Rs are made of German silver. This is an alloy first developed in China, called by them 'Paktong', and contains copper, nickel and zinc in a very wide range of proportions. A general term is 'nickel silver' and readers will know of electroplated nickel silver (EPNS) used to make forks and spoons. A typical industrial formulation is Alloy 752, which is 65% copper, 18% nickel and 17% zinc. Because these alloys do not contain any silver, a more appropriate metallurgical term is nickel bronze but R-R owners are traditionalists and I will stay with German silver.

I have analysed three mascots I believe to be of Sykes manufacture, two radiator caps I am certain are original equipment supplied by R-R, and a sample from the radiator tank of my own 1910 Silver Ghost, 1492, also original.

The analyses (which may not total 100 because of rounding) are, presented in the table below. These proportions bear closer examination. The radiator tank is one of the several standard German silver compositions, as used on pre-1930 Rolls-Royces. The two radiator caps are a standard 80/20 cupro-nickel, which machines well, is tough, has a silver appearance, and takes a good polish. The R-R spare parts catalogues show that some radiator caps were cast German silver or brass, machined after casting. Brass or bronze caps, machined from the solid, are also seen. Some of these may be of later or non-RR manufacture. The brass and bronze caps are usually nickel- or chromium-plated.

The three mascots I had tested have considerably less nickel than the common German silver formulae and also contain some tin, lead, and

a bit of iron. The three formulae are, however, comparable, and their lower nickel content gives these mascots a slight yellow tinge. But they match the German silver radiator if both are well polished. Traces of silver-plating in the crevices is often detectable in mascots where the plating has been polished away.

The book *Brassfounders' Alloys* has this to say about German silver: "While the alloy is essentially a mixture of copper, zinc, and nickel, other metals may be added within certain limits with good results; from 2–3% iron gives increased hardness and whiteness, the same proportions of lead or manganese are helpful in producing sound castings while a like quantity of tin adds to the brilliance of polish obtainable." It is possible, indeed probable, that Sykes' foundryman (Angeloni at first, then later LeMonier) obtained his casting alloy from a metal supplier who followed this standard text when making up the ingots. That would explain the presence of tin, lead, and iron in these mascot castings.

Since WWII, the usual casting alloys used for sculptures are bronzes, of which there are many formulations. Today the most common are phosphor bronzes or silicon bronzes. These have lower pouring temperatures than nickel-containing alloys and are easier to handle in the foundry. So if you have doubts about the authenticity of your mascot and think it may be a modern reproduction and not made between 1911 and 1929, grind off a small sample from the underside of the base and have it analysed.

The above formulae are quite different from those quoted by Jo Phillips in her RREC lecture. She said the ideal formula was 85% copper, 7.5% zinc, and 7.5% tin, with no nickel content at all. By 1930, when chromium plating became commonplace, she said they changed the formula to 90% copper and 10% zinc, as the tin in the earlier alloy caused the chromium-plating to blister. Other researchers may be able to verify the use of these alloys in mascots. This 90/10 alloy is also known as commercial bronze or red brass. You will have to trust her

	Copper	Tin	Lead	Zinc	Nickel	Iron
Mascot 1	62	5.4	1.3	20.5	10.5	0.6
Mascot 2	60	6.7	1.4	18.7	12.2	0.3
Mascot 3	64	1.5	1.1	19.8	12.5	0.3
Cap 1	79.6	-	-	-	19.6	0.1
Cap 2	79.2	-	0.2	0.1	18.5	0.1
SG Radiator	62.4	-	0.3	23.2	14.3	-

word on these formulations. I have no analyses to support them.

The renowned authority on R-R matters, C. W. Morton, said: "The original mascot was made in bronze and was 7 inches in height. Later, silver-plated bronze was used, followed by solid nickel-silver then chromium-plated nickel silver . . . the present version (is) in stainless steel . . ."

The reader should note that the word "bronze," when used by an engineer like Morton, is applied to a wide range of copper alloy formulations, generally, but not necessarily containing tin.

Both Jo Phillips and Morton agree that mascots up to 1919 were silver-plated. If you look at a nice Sykes specimen, you can usually see traces of the silver-plating in the mascot folds, nooks, and crannies. Phillips and Morton also agree that from 1919 to 1929 the mascots were nickel-plated. Where the nickel has been polished away you can usually see the underlying yellowish tinge of the copper/zinc/nickel/tin alloy or whatever alloy it was that Sykes used.

It should be noted that although many mascots for sale are said to be 'nickel', or sometimes 'solid nickel', the seller must mean that the mascot is nickel-plated. A mascot made of solid nickel would be a rarity indeed, as nickel has a melting point of 1450° C and a casting temperature higher still. It is also difficult to cast, even using modern induction melting and casting techniques and would require a special high-temperature investment. Few foundries, even today, would attempt it and it is extremely unlikely that Sykes did. But, "never say never, and never say always". I once met an owner who assured me his mascot was solid nickel. I explained the above but he demolished my argument by explaining that his brother worked in a high-tech metallurgical facility and had made a solid nickel mascot for him.

HOW TO IDENTIFY A NON-SYKES REPRODUCTION

This is an excellent way to start spirited discussions, lose friends and, perhaps, provoke legal action. There are a number of vendors who offer mascots for sale, some with provenance that may be questionable. If you have paid a large sum for a



Left: an original Sykes mascot, somewhat pitted, but showing the appearance of inscriptions made in the wax pattern by a sharp point. Right: A reproduction mascot showing the appearance of lettering, after re-engraving with a fine dental bur. The writing is noticeably wider.

mascot which looks authentic but which someone later identifies as "not a genuine Sykes", the best action might be to ignore the comment and enjoy the beauty of the item.

First, let us consider the Sykes mascots. There are some reliable indicators. The Sykes group supplied mascots without mounting bolts, according to Jo Phillips. Rolls-Royce must then have fitted bolts and put them into stock. I believe that all these mascots had mounting bolts of brass, bronze, or copper, with 5/16" or 3/8" BSF threads. The nuts and washers were brass, bronze, or copper and if a spring washer was used, it was untamishable. These were all made and fitted to R-R standards. Thus the bolt was always in the middle of the base, never off-center, and the base was dead flat. So, if a mascot had a bolt which is not centered, is of steel, is not perpendicular to the base, or has a Whitworth thread, it is probably not a Sykes mascot.

The very first mascots, the largest of all, have a hollow base, which was fitted to a radiator cap with a flat top, or perhaps over a small hexagon only 3/16" high instead of the usual 3/8". All other mascots fit against a flat octagon- or hexagon-shaped raised section of the cap. A good quality mascot should have fine detail, including eyes, fingers, toes and hair, plus, for many types, an Alice band across the top of the head. The neckline should run as a V shape from the shoulders to between the breasts, with the left side a little lower than the right. However, your mascot could be a Sykes even if some or all of these details are reduced or absent as a result of excessive polishing.

The inscriptions are a good indicator of originality and are detailed in descriptions of the various mascots, below. They were engraved into the original wax pattern with a fine-pointed scriber. They are thus quite fine and easily lost by polishing. As they were done by hand, and almost certainly by several operators, the lettering and numbering can vary a little in style, and is not as even as mechanical printing. The signature "Charles Sykes" on some mascots or "C Sykes" on others is characteristic. The "C" sweeps around the "h" and all the "e" and "s" letters are in the Greek style. On some mascots on the small-horsepower cars, the signature is not in the usual Sykes form but in standard upper and lower case lettering. I think it probable that Sykes was by this time so busy that he did not, as is usually claimed, continue to sign every wax pattern personally, and these signatures are the work of another. But they appear to be, in all other respects, Sykes mascots. The full signature "Charles Sykes" was shortened to "C Sykes" for mascots after about 1930, but exceptions are seen.

Now, when someone makes a wax replica of a Sykes mascot, the scribed writing described above is usually detectable in the wax and can be touched up or deepened on the wax pattern to mimic the original scribing, but this is seldom done. The inscriptions can be re-defined on the completed casting with a very small dental drill, but the cut is wider than scribed lettering and careful examination will show this. Lettering redefined after replating is quite obvious because the underlying metal is exposed and is a different colour.



The Spirit of Ecstasy



Because of the care with which the Sykes team prepared their waxes and finished their castings, their mascots have virtually no fins, bubbles, rough surfaces or mould-parting lines. If any of these are present, the mascot is probably a reproduction.

Testing the alloy requires special equipment. But you can reach some conclusions using a strong magnet. Small but very strong 'rare earth alloy' magnets are now available. If you attach one to a strip of steel and suspend it on a string, you can test for the presence of chromium- or nickel-plating. This magnet is not attracted to any of the bronzes, brasses, cupro-nickel, German silver alloys, or silver-plating, but is lightly attracted to nickel- or chromium-plating. Thus a silver-plated early Silver Ghost mascot will not attract, nor will a later German silver mascot that has lost all its nickel-plating. Likewise, a silver-plated, cupro-nickel, or German silver radiator cap will not attract but an identical-looking nickel-plated cap will. The

last are common, and may be of later manufacture. The first three are rarer and probably original.

There is a reproduction of a pre-WWII Sykes mascot which was made by R-R and should perhaps be regarded as an authorized reproduction. I was told a decade ago by an R-R representative at Crewe that the company had earlier commissioned the manufacture of some pre-WWII Sykes-pattern mascots, in response to many requests from owners of pre-WWII cars, whose mascots had been lost or stolen. I have examined one of these, purchased from R-R by a colleague, and advise that it is an excellent copy of a middle-size 20/25hp mascot. It is chromium-plated but has no date, signature or under-wing inscriptions. The R-R employee also told me that the contractor abused the permit and manufactured several unauthorized copies in Sterling silver and was required to cease and desist. I can confirm this because another colleague told me he bought one.

There is a fine-quality mascot I have seen a number of times about which I have no information. It is similar to the late Silver Ghost/Phantom I size but the toes are smaller and the hair and Alice band are very clearly defined. But its major identifying feature is the base, which closely resembles that of the Early Silver Ghost mascot, including the vertical, cylindrical surface, but without any lettering on the cylinder, the base or under the wings. The wings are different from all other mascot wings in that they are somewhat flattened and slope at 45°, instead of curving over at the rear. The absence of any inscriptions more or less proves that it is not a Sykes production, but many folk would not know this, nor perhaps care.

There is certainly an abundance of other non-Sykes mascots. I have seen mascots made of lead, pewter, type metal, brass, zinc, and electro-plated plastic. Two examples warrant describing. Some years ago, a colleague purchased an upright and a kneeling mascot from a car club. He said they were for sale quite openly, but, apparently, not any more. One is a good-quality die casting with good detail of face, hair and toes, has a rounded base and is chromium-plated. When struck with a fingernail, it makes a dull sound. It has no inscriptions anywhere and has the other clue of a 3/8" Whitworth-threaded bolt. If you look carefully you can see the parting marks for the die used. I too have an example of this mascot, which I purchased in, of all places, an electrical goods store in Kuala Lumpur in 1980 for \$5. My mascot is not as good, because the parting lines of the mould are more obvious and indicate that the mould was in six parts, to accommodate the undercuts.

I have compared both these die-cast mascots with an almost identical nickel-plated bronze-alloy mascot which has much better detail. But it does have "R-R Ltd" (but no date) and a "C Sykes" signature on the base and the usual inscriptions under the wings. It is the only Sykes-type mascot I have encountered

Radiator Caps and Mascots

	Cap for Filler	S430	Knead
Silver Ghost (1400-1600)	Cap for radiator filler (to be used when Rolls-Royce mascot is fitted)	E18326	Cellerman
	Mascot (only supplied when specially ordered)	E18328a	Cellulose
New Phantom (P1)	Cap for radiator filler (mascot)	E18326	Cellerman
	Mascot (only supplied when specially ordered)	E18328a	Cellulose
Phantom II (Series J2, K2, L2, M2)	Cap, Radiator Filler (not required when mascot is fitted)	E80424	Lidgus
	Cap, Radiator Filler (only required when mascot is fitted)	E80425	Lidhap
	Mascot (not illustrated)	E77955a	Lidibe
20hp 1924	Cap, Filler (to be used when R-R mascot is fitted, nickel silver)	E18326	Cellerman
	Cap, Filler (to be used when R-R mascot is fitted, brass)	E23038	Ruggins
	Cap Radiator Filler (nickel silver)	S430	Knead
	Cap Radiator Filler (brass)	E23037	Ruislip
	Mascot	E52356a	Meole

that lacks a date. In addition, it has mechanical, rather than artistic detail. I have concluded that it is a worked-over fabrication of a genuine Phantom I-type Sykes mascot that has been manufactured and sold as a reproduction Sykes mascot. But the copier has erred in omitting the date from the inscriptions. Perhaps the copier was unaware that 6. 2.11" is the only date on Sykes upright mascots and not the date of actual manufacture, and omitted a date rather than inscribe an anachronistic one. I have concluded that this mascot was probably also the basis for the die-cast mascots described above.

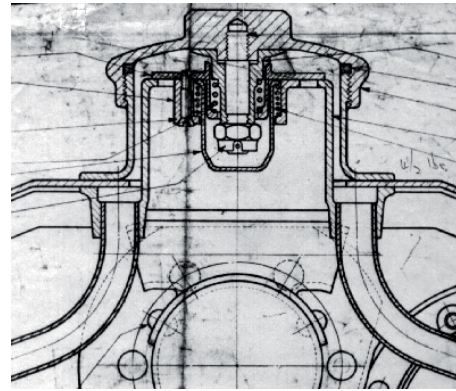
The car club mentioned above also offered for sale a copy of a kneeling mascot. It is an exact copy of the Silver Dawn/Silver Wraith kneeling mascot, and, like them, has no date or signature, but does have the "REG US PAT OFF" and "TRADE MARK REG" stampings under the right and left wings. It is a lost-wax casting in brass and is chromium-plated, but has some loss of face and toe details. The casting process has also blurred the under-wing inscriptions, which lack the crisp detail of the stamped, genuine mascots. As suggested earlier, it is possible to identify this mascot as a reproduction by its casting shrinkage. It is visibly smaller than an original R-R manufactured kneeling mascot, with a nose-to-toes measurement of 104 mm, compared to 109 mm for an original R-R casting. This is the typical 5% shrinkage one sees with most jelly-mould, lost wax, investment cast replicas.

RADIATOR CAPS

Every car and every mascot has to have a radiator cap, and one was always supplied with every chassis. I have consulted the Catalogue of Parts for Silver Ghosts 1400–1600 and series J to P, New Phantom (P I) series V, W and X, Phantom II series J2, K2, L2 and M2, and 20hp, 1924, to record the part names, numbers, and code names for these radiator caps. They are shown in the table.

This table shows that the mascots for the late Silver Ghost and Phantom I series named above had the same part number, and were probably the same. It also shows that when you

This is a general arrangement drawing of a so-called "steam valve". If you can read such things, you will see that the radiator cap has a spring-loaded inner disc that abuts the top of the radiator filler. Water passing this disc overflows and passes through the two curved overflow pipes. The radiator cap actually screws onto a 'dummy' filler attached to the exterior radiator shell, which is also a 'dummy'.



ordered a mascot for the Phantom II, you were not also supplied with a standard (non-mascot) radiator cap, and for the 20hp you could have a nickel-silver or a brass cap, whether you ordered a mascot or not. I believe that the brass cap could have been nickel-plated. The chart also shows that the Phantom II (Lidibe) and 20hp (Meole) mascots were different from the Silver Ghost and New Phantom (Cellulose) mascots, and that mascots were supplied only when specially ordered.

The standard radiator cap, also called a 'town' or 'parking' cap has a small hexagon-shaped top, approximately 7/8" across the flats and 5/16" high. My Silver Ghost 1492 cupro-nickel cap, which I believe to be original, is actually a little wider, 0.92" or 23 mm. It is a cast cap, and the hexagon had to be milled, so it is possible that the machinist simply milled the hexagon flats until the casting irregularities had been eliminated. This probably also explains why the height of the hexagon also varies a little from cap to cap.

The flat top of the mascot cap is wider and shorter than that of the parking cap, and is usually hexagon-shaped, but some after 1930 were octagon-shaped. The examples I have measured are in the range 1.465–1.485" across the flats (hexagon or octagon) and from 0.165–0.265" high. It is probable that radiator caps are in the same category as mascots, and copies abound, but you can be sure that the cap's threaded section always fits the 2" diameter filler for Silver Ghost, Phantom I and 20hp; 2.25" for Phantom II and 20/25hp; 2.5" for 25/30 and

Wraith; and 2.75" for Phantom III. All diameter fillers have 16 threads to the inch.

The caps seal the radiator top with a cork, or nowadays, a rubber or nitrile gasket, except for the late 20/25hp and Phantom II, and the 25/30hp cars, which have the 'anti-splash' radiator cap. This unusual device is a multi-part (11 components) device containing nuts and washers, two springs and a cover, plus a disc that abuts the top of the radiator filler to prevent water splash, and is sometimes called the 'steam valve'. It does not actually seal the radiator. If your cap does not have one of these, you can substitute the working parts of a modern radiator cap after a little modification. The threads of a steam valve radiator cap actually engage a dummy filler external to the actual radiator filler, as shown in the general arrangement drawing.

Wraith and Phantom III radiators have plastic filler caps, located under the bonnet. Their exterior parking or mascot caps screw into place on the false top tank that covers the actual radiator, do not seal anything, and are not exposed to water. The Silver Dawn has the same arrangement, and its mounting bolt is steel, so my comment about mascots with steel mounting bolts indicating non-originality does not apply to the Silver Dawn, and probably does not apply to the Wraith and Phantom III mascots.

For further details about references, sources and background information please contact the Author or the Editor.