

Castings of Prince August and others

Information on the market for moulds for both 40mm and 54mm with emphasis on the World's biggest mould manufacturer, *Prince August*, and the first 20 sets of 54mm moulds in the Napoleonic Wars range 80-01 – 80-20.

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By Claus Mogensen

Introduction

The ancient Chinese made moulds. The ancient cultures along the Indus, Euphrates and Tigris made moulds. The Vikings made moulds for casting hammers of Thor and Odin figures of gold and silver until the point where they adopted Christianity, when they turned to casting crosses instead. In actual fact, when the model soldier enthusiast finds himself working with his moulds, be it industrially manufactured or home made, and melts his lead alloy, he or she only constitutes the latest link of an exciting ancient craftsman culture, spanning back thousands of years.

The field of moulding has, obviously, been characterised by substantial developments. Stone, clay, gypsum and other materials have been replaced by rubber, allowing for undercuts and very fine details.

There is always a certain degree of excitement affiliated with pouring the liquid lead into the mould and opening it after the hardening, before taking out a hopefully complete figure, which subsequently has to be assembled, grinded, possibly converted, and painted before you finally add it to your collection. It is, however, not a huge disaster if the first attempt proves unsatisfactory. Then it is back in the ladle again until the result meets with your approval.

Prince August



Prince August launched its series of 54 mm Napoleonic moulds in 1995. Today, 8 years later, *Prince August* has marketed 20 sets of moulds, each containing 3 moulds, corresponding to a total of 60 moulds, all in identical size; 10.7 x 8.8 x 2.6cm. It could, accordingly, be interesting to look into the outcome of this effort. Model soldiers is the "salt of life" for a society like *Chakoten* (The Danish Society of Military

History) and a company which has survived for more than 40 years by developing and selling moulds for figures with emphasis on the 40mm scale must be subject to a certain amount of curious attention in a time when lead is considered one of the most severe dangers to the environment.

A number of the rather fundamentalist members of the Society could hardly dream of dealing with figures, which are not fully round, and furthermore feature in a scale as unauthorised as 40mm. But at the same time it is duly noted with some concern in the Society that the average age of the members is increasing year after year. Maybe new and younger members can be recruited to the Society if the gap to semi-round 40mm *Prince August* model soldiers, painted with glossy enamel lacquer, can be successfully bridged.

A brief description of the history of Prince August



Prince August was established in Sweden in 1958 by Jan Edman. He was the father of the present owner, Lars Edman, who has been with the company since 1968. Originally, the company focussed on manufacture and sale of model railway accessories, but parallel to this a modest production of moulds made of gypsum was commenced. In 1965 the black rubber moulds were introduced, which still constitute the foundation for the manufacture today.

Today *Prince August* markets itself as the World's biggest manufacturer of moulds for model soldiers. And this is almost certainly correct. Despite competition on this tiny niche market being scarce, one undoubtedly has to maintain a good perspective of the possibilities of the market and be able to keep manufacturing costs low. Table No 1 illustrates the company's various series of moulds for figures, which either have been produced or remain in production. Besides moulds *Prince August* also markets a number of ready-made figures in the Fantasy armies/future shock-series.

Table No. 1, Overview of Prince August's mould assortments and ready-made fantasy figures since the beginning in 1958

Ranges	Scale	Format	No.	Start year
Modern soldiers	40mm	Half round	1 - 10	1958
Historical figures	40mm	Half round	11 - 73	1960

Animals	40mm Fully round 101 - 109	1966
Cowboys and Indians	40mm Fully round 201 - 215	1967
Sports figures	40mm Fully round 301 - 303	1972
Figures from the Napoleonic wars	25mm Fully round 501 - 542	1979
Prehistoric figures	25mm Fully round 601 - 608	1980
Fantasy figures	25mm Fully round 651 - 687	1981
Prussians	54mm Fully round 401 - 413	1982
Chess pieces	700 -	1985
Classical toy soldiers	54mm Fully round 800 - 806	1985
Ready made Fantasy figures	25mm Fully round	1985
Karoliner	40mm Half round 901 - 957	1986
The Napoleonic wars	54mm Fully round 80-01 - 80-20	1995

Until 1978 the figures were modelled by the Swedish designer Holger Eriksson, who enjoyed world fame for his figures. He was replaced this year by the English designer Chris Tubb, who is still responsible for the modelling.



In the beginning it was a rather modest company, which until 1971 sold its products in Sweden only. From that year the moulds were marketed in Germany, and this triggered rapid development. Soon the marketing expanded to many countries, and sales increased. In 1976, production was shifted to Ireland in

order to benefit from Ireland's favourable tax rules adopted to attract new companies, which could boost employment. Today the whole company has moved to Ireland, and the mould assortment has been expanded with various accessories and a model paint assortments.

The factory is located in the Southern part of Ireland in a village named Kilnamartyra. The village is close to the bigger town of Macroom on the road between Cork and Killarney. The factory comprises a building of around 1,100 square metres. It is divided into two equal parts. In one part the manufacture takes place, and in the other the raw material is stocked. A little more than 20 persons are employed, and the factory is managed by Lars Edman, who owns the company. Apart from himself and the English designer, all employed are Irish. The factory is open for visitors. If you want to be on the mailing-list and automatically be informed of new products, or if you have questions to *Prince August* the e-mail address is: info@princeaugust.ie

Above information can be obtained on the homepage www.princeaugust.ie and in the booklets issued by the company in the time elapsed. Some of the issues concerning the 54mm Napoleonic range, which I cover in this article, was in more detailed form translated into English and forwarded to the company more than a year ago in order to receive their comments, but unfortunately it has not been possible initiate a dialogue and obtain more information from the company. The designer was apparently offended by the criticism and would not comment on it or explain his points. Subsequently however, adjustments have been noted especially concerning packing and leaflets.

Other mould manufacturers with special emphasis on the 40mm scale



The number of manufacturers on the market for moulds for model figures is modest in the region around Denmark. Apart from 30mm flat figures, which are not part of this article there are, excluding *Prince August*, only two other bigger manufacturers, both located in Germany. One is *Schildkröt Spielwaren GmbH*. in Mannheim which according to information received ceased manufacture of its so-called *Zinnbrigade* some years ago. The remaining stock, which has to be considerable, or perhaps the sale was modest, is still sold by the two German companies *Berliner Zinnfiguren & Preussisches Bücherkabinett* and *Zinn Blei Soldaten*. The other mould manufacturer is *Nürnberger Meisterzinn*. The moulds of both companies consist entirely of the 40mm scale.

The 40mm scale is the most widespread scale on the mould market

The three companies market a total of around 200 moulds in the 40mm scale, and a considerable number of the moulds contain more than one soldier. This figure also includes the moulds from the *Prince August* series with Cowboys and Indians as well as the around 50 moulds with historical figures from 1960 designed by Holger Eriksson, which are still available on the market. The total number of different infantries and cavalries on the market, accordingly, comes close to 300 soldiers. To this can be added a

huge number of equipment, such as guns, carriages, horses and accessories.

Detachable heads, weapons and other parts offer almost infinite possibilities for converting. If you further belong to the generation, having had access to buy "Brigadier-parts" (The brand name for a closed-down Danish manufacturer of model figures) in hobby shops in the form of bodies, heads, weapons and equipment, only your imagination sets the limitation. It is further worth mentioning that the range from the Danish manufacturer Hertz of model soldiers of Prussians and Danes from the 1864 war is still up for sale in a hobby shop in Copenhagen. More elegant horses in the 40mm scale have never seen the day of light. It is therefore rather baffling that soldiers in the 40mm scale enjoy such modest dissemination inside the Society.

Besides the already mentioned manufacturers the German mould manufacturer *Geb Brüder Schneider* from Leipzig, a manufacturer of moulds in the beginning of the 20th century, deserves to be mentioned due to occasional rumours that someone intends to take up the manufacture of these moulds again. The company marketed a huge range of moulds, of which the majority were made of aluminium and as a rule had wooden handles on the backside of each mould part. The figures included known military units from a number of countries with emphasis on Germany. The scale differed somewhat between 40mm and 60mm. The design quality of the figures also varied quite considerably. The moulds have become collectors' items and are, consequently, rather expensive. There is a big antique market for these moulds in Germany and the US.

Figures in the 40mm scale do not always fit well together



As it may have appeared, there are countless possibilities to cast different figures in 40mm, but they do not all fit well together. It is normally not the height, which poses a problem, but the thickness or roundness. Converting figures by e.g. changing heads presupposes the figures having a certain thickness of the material in order to allow for drilling a hole for the socket of the head. Of course you can cut the socket off the head and glue the head directly on in the place, where you removed the original head. But the gluing is more vulnerable without a socket. Besides a fully round head has a more dominant effect on a flat figure. Even inside the 40mm mould ranges of *Prince August* the scale does not fit well together. The Karoliner range from 1960 Nos. 11 - 59 and the new range from 1986 Nos. 901 - 957 fit well together, but they are somewhat flatter than I like it, and so flat that you cannot drill a 2½mm hole for a head socket without having the drill come through the side of the body. In turn, however, the last part of the range from 1960 Nos. 60 - 73 (The battle of Rossbach series) fits very well with the figures from the moulds of *Nürnbergger Meisterzinn*. Both ranges are considerably more fully round with necessary thickness, allowing for easy changes of heads and weapons.

Schildkröt Zinnbrigade

Schildkröt moulds are similar to the moulds of *Prince August* made of black rubber, but with a slightly advanced finish. It is obvious that the moulds are not just a secondary item with the object of delivering

the result of the designer. The person responsible for the manufacture of the moulds, has obviously had a metallurgical background, and deep knowledge of how molten lead reacts, when it is poured into the mould. You can learn a lot alone by observing the arrangements, which have been made in the form of advanced undercuts, small rooms for accumulation of lead and air outlets in the moulds in connection with e.g. horse reins, flags, horse legs and other notoriously difficult casts. The result is quite simply that you sustain less recasts. The assortment consists of two ranges, of which one includes 13 moulds from the Napoleonic Wars from 1804-15. The moulds contain French and Prussian infantries and British dragoons including horses. The other range includes around 18 moulds containing Prussians exclusively from the time around 1900. The range also includes infantry, artillery, cavalry and band, and as a rule there are two soldiers in each mould. If ever the moulds of *Schildkröt* were marketed in Denmark, it certainly is a long time ago.

Nürnbergger Meisterzinn

The moulds of *Nürnbergger Meisterzinn* are manufactured from an alloy of aluminium and also consist of two ranges. One includes 8 moulds with infantry and cavalry from the 30-years war (1618-1648), also featuring guns and carriages. The other range includes 29 moulds with infantry, cavalry, artillery and equipment from the time around 1750-1820. Twelve moulds of this 2nd range are of a special comprehensive type, which very systematically have been made to include a number of detachable heads with different sorts of headgear and equipment, facilitating conversion to many different regiments from a huge number of countries in Europe. The moulds of *Nürnbergger Meisterzinn* were marketed in Denmark from around 1978, but are relatively rare nowadays. Some of the moulds can cause a trifle irritation. It has improved the result of the casting that I have made some small air outlets at strategic places with a 1mm drill, and with a file expanded the lead intakes, but the recast percentage is still unsatisfactory. It is as if the lead tends to float less efficiently in the aluminium moulds compared to the rubber moulds, or solidifies before coming out in the cavities in the moulds. For some of the types where I cast a lot, I have simply chosen to manufacture new moulds myself in silicone rubber. Sometimes life is too short for too many recasts.

Home-manufactured moulds

I often need figures or equipment which is not available on the market. I will therefore briefly touch upon how you can manufacture your own moulds, and accordingly cast your own figures or accessories. Figures from home-manufactured moulds constitute a natural supplement to the marketed moulds. If you wish to convert a figure to another regiment or nationality, it can be done by replacing its head. You can manufacture moulds based on your own designed heads or copy heads from other figures. Likewise it is easy to change the positions of the arms and replace the equipment. The manufacture of moulds and the cast technique by manufacture of own figures are fully described in a number of articles. For example in articles by the President of the Society, Hans Chr. Wolter in *Chakoten* Nos. 1 and 2 respectively, in volume 50, 1995. The articles can be found at the homepage.

The making of the mould and The casting technique (*both in Danish*)

For manufacture of moulds I, like Wolter, use floating, cold vulcanising silicone rubber RS 365 KVG with relating activator RS 3952. This quality is "easy floating" with a good strength and high heat resistance. It does tend to be rather expensive, and in order to reduce the price I purchase it directly from the importer in Denmark. It is marketed in 1 kg plastic cans. By buying 5 kg you obtain a quantity discount, and at the point of my last purchase in 2001 the price was DKK 266.76 per kg, excluding VAT. The activator is supplied in small bottles with 40ml at DKK 19 a bottle, also excluding VAT. The floating rubber can last for many years. I have had cans for more than 10 years without any damage; however you may have to use some time to stir it thoroughly.

Don't be tempted to go easy on the use of rubber in connection with the manufacture of moulds even if

you find it expensive. Calculate the volume of the mould before the rubber is mixed with activator in a measuring can. Calculate with at least 1 cm in thickness at the thinnest area of the mould, e.g. the highest point of the subject. In case of bigger subjects, the thickness should be expanded to 1½ cm. It is better to mix a little too much than too little. A mould with thin walls becomes too heated too quickly and will not last for many castings. A mould with thick walls will last long and can endure many castings. One kg of floating rubber has a volume of approximately 600 cm³. I have calculated that the average volume of the last 20 moulds I have made is 186 cm³. This means that you can get 3 moulds on average from a 1 kg can. Rubber and activator including VAT costs DKK 357.20 per can, adding up to an average price per home-manufactured mould of around DKK 120 including VAT. This is actually a fairly reasonable price and only on a modestly higher level compared with the prices of the marketed moulds.

Alloys

Professional manufacturers of model soldiers use alloys of lead and pewter. Laboratory tests conducted on a number of various brands on the market indicate a mix of around 70% lead and 30% pewter. This alloy is often referred to as white metal. The pewter content tends to vary a little. At a metal dealer this alloy will cost between DKK 50-60 per kg. Pewter of 100% costs a lot more. Lead of 100% costs around DKK 5-7 per kg.

I normally use an alloy of 75% lead and 25% type lead from printers. I don't weigh it precisely from time to time, but fill it into the ladle relying on eye measurement from time to time. Most types of type lead (linotype and monotype) contain 16% antimony and 5-8% pewter, but there are different types, and the content can vary. Antimony is, like lead and pewter, an element. It provides stiffness to the figures and prevents arms and sables of bending. It is easy to judge whether there is too much antimony in the alloy, because if there is, the subject breaks before it bends. If you manufacture figures where you have to bend the arms, you should reduce the antimony content in the alloy. Figures manufactured of 100% lead should not be kept below 16-18 degrees as this may cause lead-oxide. Antimony in the lead prevents lead-oxide. The above alloy with a content of around 25% type-lead containing around 16% antimony should produce an alloy with a content of around 4% antimony, normally considered suitable for both stiffness and preventive of lead-oxide.

As both lead and antimony fumes are poisonous, casting should take place close to an open window and you should preferably wear some sort of breath mask. Antimony alone melts at 630°C, but such a high temperature is not necessary as lead melts at 327°C. Already at 246°C the alloy will start to melt. Pure 100% lead can be purchased from a plumber as sheet cuttings from roofing tasks. It is easy to handle and can be cut in suitable sizes for the ladle with a metal sheet scissor. The type-lead can be purchased from most iron and metal dealers. They frequently have a skip full of it from where you can choose suitably sized pieces from. It is often advisable to bring a small hand-shovel to dig around in the skip, and remember to bring a solid bag to carry the type-lead. Buy plenty of the lead, especially when it comes to type-lead, which seems to be an article approaching extinction. In a short number of years it probably won't exist any more. And when you really get going with the casting, you'll exhaust your supply quickly. You can, however, often get a reduction in the price when you buy bigger quantities.

Copying of marketed model figures and other equipment

As to home manufacture of moulds I would like to touch upon the issue of copying marketed products and the related matter of ethics. As seems to be the trend in many other areas, it is today also possible to copy marketed model figures. The cold vulcanizing silicone rubber produces very fine casts, frequently making it difficult to notice any difference between original and copy. I have copied several parts from marketed products for domestic use, particularly heads, weapons, cannons, wheels and horses. Often I have used them for further conversion in order to use them in new connections. But everything I have copied, has been for domestic use. I have never given, offered or sold copied parts from home manufactured moulds to others. That is where I have drawn the line. But whether this is the correct approach is probably something worth discussing in the Society. But I imagine that it would be acceptable to sell parts or

figures I had made from marketed moulds.

And a little more complex variety; as touched upon, the moulds from *Nürnbergger Meisterzinns* can cause a trifle annoyance. When after countless attempts I finally succeed in making a perfect figure, I subsequently produce a home-manufactured mould in silicone rubber, and when I need further copies of the figure I of course use my home-manufactured mould.

What is the cost of cast figures?

A 54mm *Prince August* assembled figure of foot with accessories on average weighs around 50g. At a lead price of DKK 7 per kg. it corresponds to a price of DKK 0.35 per figure. The cannon in mould set 80-08 weighs 140g, equalling a lead price DKK 0.98. Finally a mounted trooper including horse weighs on average 250g, equalling a lead price of DKK 1.75. Besides the pure lead prices come the costs for heat source, talcum to the moulds to support the casting and glue to assemble the figures together with depreciation of the moulds. The manufacturers say the rubber moulds can endure approx. 1000 castings if treated carefully. In other words, a mould costing DKK 100 costs DKK 0.10 per casting. If one loosely estimates that only every 3rd casting may be deemed acceptable, it means that a depreciation of the mould of DKK 0.30 should be added to the price of a figure. This means that including subsequent painting a finished figure of foot will cost a little more than DKK 1 in total manufacture costs excluding wage. Of course if you calculate your work time the cost will increase dramatically. But as it is a hobby, where the pleasures of creation, the relaxation and the entertainment pose the central issue it is not relevant to include wage.

Prince August 54mm moulds from the Napoleonic Wars



When *Prince August* introduced the range of moulds with the 54mm figures from the Napoleonic Wars in Denmark around 1996 it was evident that they represented a rather particular quality compared to what was already on the market for moulds. The figures look clean and carry new pressed clothes when compared with e.g. the range of Prussians from *Prince August* No. 401-13 from the mid 1700 century also in 54mm, which were introduced in 1982. One may be led to believe they come directly from the tailor or the laundry facility. Coats and trousers are very smooth and are almost wrinkle-free. The tails on the coats are completely without creases. It looks good on the soldiers when on parade, who should give a newly polished appearance when they enter the march column together with the Massed Band.

A closer view of the marketing strategy of the moulds, the planning and the accompanying information reveals that the marketing of the range quite often poses serious challenges to the capacity of the company. This small company occasionally sustains difficulties creating accordance between background

information on the packing and the enclosed leaflets, and at times the information fails to conform to the historical realities.

In some painting instructions the colours are referred to in numbers, which is a good idea, but if you attempt to find the colour references to the numbers in the instructions, you will find them lacking. And there is no reference to the *Prince August* homepage, where the matching colours can be found.

Air vents in the moulds

In connection with the casting you have to be aware of the fact that the moulds are normally manufactured without air vents by *Prince August*. There's nothing unusual in that, but pockets of air in the moulds may harm the casting as they get in the way, when the lead is poured down the intakes. The lead, consequently, cannot float unimpeded into all the cavities of the moulds. Based on my gradually acquired experience from the casting, I have introduced thin cuttings like furrows as air vents, which I have carefully carved with a sharp hobby knife in strategic places, allowing the air to exit. It is often equipment like arms, feathers in headgear or the base plate of the figure which are not fully cast. Cut a fine air vent from the top or side of the above subject and out to one of the sides. If the lead intake is in one side of the base plate an air pocket may occur in the other side. Cut a fine air vent from the other side of the base plate and out to one of the sides. It facilitates the casting immediately. Don't refrain from cutting. One air vent might not even be enough for a particularly irritating subject.

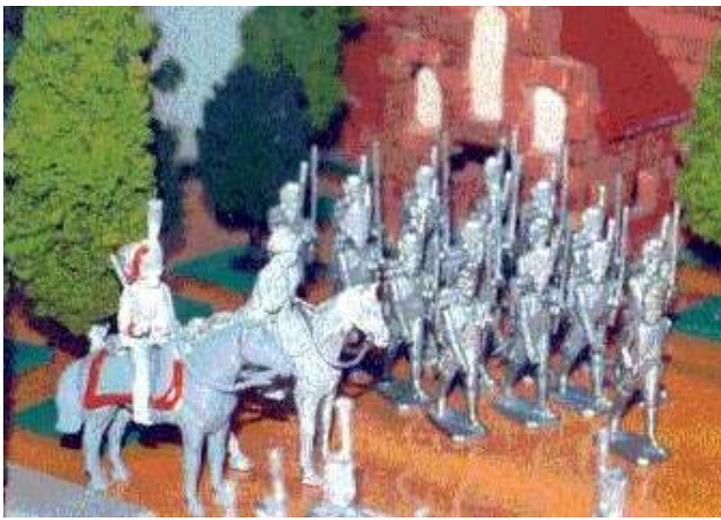
Brochure material

The marketing of the moulds did not originally contain any brochure material, informing on what was planned and what could be expected in the future. The first total perspective of the moulds came in the middle of 2000 and contained only what had been marketed until date. Table 2 offers an overview of the 20 mould sets broken down by period and nationality, while Table 3 offers a complete perspective of the contents in all 20 mould sets. In 1996 the moulds were priced at DKK 235 per set in Denmark corresponding to almost DKK 80 per mould. The prices have increased over time and the latest marketed set of moulds costs DKK 298 corresponding to DKK 100 for a mould of excellent quality, which may be termed as quite reasonable.

Flexible planning

Prince August has informed that the company is somewhere between 10-20 figures ahead in the planning, but it only seldom reveals anything about future plans. From a survey of Table 2, the 20 already marketed mould sets reveals a strong orientation towards the French market. *Prince August* confirms that France is the main market and this to such a degree that at one point the planned ranking of future mould sets was changed in order to introduce some French figures at a sales exhibition in a number of French towns (80-16 came before 80-15). Later the company informed that 80-18 would be the French "tête de colonne", part 4. This was, however, changed to Napoleon. And after 80-20 we are still awaiting the "tête de colonne", part 4. It is of course a strength for a small company to be flexible and quickly able to adapt to changes on the market.

Systematic filing



It has apparently never struck the mind of the world's biggest manufacturer of moulds, *Prince August*, that customers having purchased all 20 marketed sets of moulds at some stage would need some sort of system and perspective of all the around 208 different parts of a total of 267 parts, which can be cast from the moulds. If you don't already have an archive and stock system, I recommend that you create one with a number of main breakdowns to keep track of all the various parts. In my archive every part has its own file card with a picture and a description of the part. This does not only apply for the Napoleonic range, but for all ranges in my possession. The cards also contain information on what figure it belongs to and a picture of the main figure as well as how many parts I have in stock of the part in question. I refuse to believe that I am the only one who has found this necessary. Most collectors and manufacturers with a huge number of moulds and figures find themselves in need of an overview of the stock and what belongs together with regard to manufacture and converting possibilities.

Ideally, the manufacturer recognises this demand and ensures that every figure is accompanied by a so-called exploded picture or drawing with all parts drawn separately and where location is identified by an arrow. Such a drawing is ideal for cutting out the pictures and gluing them on the file cards. For small parts I photocopy them in magnified versions to fit the size of the cards. The German *Preiser Miniaturfiguren*, for instance, features elegant drawings inexpensively on the inside of the packing of the figures. *Prince August* accompanied the moulds up to mould set No. 80-06 with some printed overviews with very simple drawings. From mould set 80-07 a very attractive and colourful brochure was introduced, certainly signifying a step in the right direction. The printing costs may have been too high because from 80-13 the company returned to the colourless prints again, but with increasingly professional drawings. In mould set 80-17 the material resembles the idea of the exploded drawing, perhaps thanks to my suggestion.

Missing adversaries

What I particularly find lacking in the range of the Napoleonic Wars is adversaries to the many French soldiers. I can only imagine the collectors in France must feel the same way. Apart from the two mould sets with British soldiers (80-13 and 80-15) to cover the "The Peninsular Wars" the rest is French only. When the emphasis of the French soldiers is on the time of the battle of Austerlitz, the range ought to include at least one or two mould sets with Austrians and Russians, and a couple of sets with Prussians would also do nicely. Further, the two mould sets of French soldiers from the Egyptian Campaign (80-19 and 80-20) tend to stand out rather isolated. Here adversaries from the battle of the Pyramids would certainly do justice. Finally the modest British forces seem badly equipped compared to the overwhelming French forces. Mould sets with British artillery, troopers and Scotch soldiers would reduce this gap. In this field, information on the future marketing policy of *Prince August* tends to lack quite substantially.

Table No. 2, Breakdown of 54mm Prince August moulds by various equipment and arms,

nationality and period

Types	French		British		Total
	1798-1801	1804-05	1808-13	1808-13	
Cannon		1			1
Cavalry incl. horses		4			4
Musician incl. 2 tambour majors	2	8	1	2	13
Artillerists incl. 1 officer		6			6
Infantry officers	2	4	1	2	9
Infantry	2	10	1	2	15
Sappers		2			2
Eagle- and flag bearer		1			1
Total infantry and cavalry	6	35	3	6	50

Twenty mould sets comprising 60 moulds broken down by 46 different foot soldiers, 4 troopers including horses and 1 field cannon. From the 20 mould sets are cast 268 parts, of which around 60 are the same. The stated information of periods is taken from the *Prince August* material.

Who are the competitors of Prince August?

It is increasingly manufacturers of model soldiers rather than other mould manufacturers, who constitute the biggest competitors of *Prince August* on the model soldier market. The alternative to buying moulds and manufacturing your own soldiers is of course to buy them ready made. The English *Tradition of London* in London sells 54mm model soldiers of the so-called range "toy style model soldiers for collectors" of quite high quality, which can be purchased painted or unpainted. The company has a considerable and constantly expanding range of model soldiers from the Napoleonic Wars and may consequently constitute one of the biggest competitors of *Prince August*. The range is more comprehensive than *Prince August* and contains a huge number of British and French figures. The range is also more focussed than that of *Prince August* as it to a high degree consists of soldiers from the battle of Waterloo. Of course there are exceptions to the rule. As stated it is not moulds but ready-made model soldiers, you buy. The prices for unpainted soldiers range from around £5 for foot soldiers and £10 for

troopers, DKK 50 and DKK 100, respectively. But there is indeed a considerable difference between buying a foot soldier for DKK 50 per piece and producing one yourself in a purchased or home-manufactured mould at a price in the environs of DKK 1 per piece.

Heads and headgear

The figures in 16 of the mould sets are marketed with detachable heads, which is indeed a good idea, as it facilitates converting. It is therefore quite annoying when the two troopers in mould set 80-3 "Chasseur à Cheval" and 80-4 "Empress Dragoons" are designed with fixed heads. Conversely the Mameluk in mould set 80-10 is designed with detachable head. The Napoleon figure in mould set 80-18 also has a fixed head, and most of us can live with that, I guess. But again it is unfortunate that the figures from the French "Legion Nautique" in mould set 80-20 are designed with fixed heads, as they are what could be termed standard figures offering many possibilities for converting.

The headgear for the French "Chasseur à Cheval" in mould set 80-03 I find somewhat undersized. I have copied the head from a comparable figure with considerably bigger headgear from *Tradition of London* in a home-manufactured mould, and it fits perfectly. The head from 80-03 conversely fits on 40mm troopers excellently, e.g. the three French hussars in the *Prince August* range "Battle of Rossbach" in order to update them to the Napoleonic Wars.



As I am not quite satisfied with the bearskin for the French Imperial Guard, I have decided to convert it to the bearskin from *Tradition of London's* French Imperial Guard. It is big, round and bushy and corresponds perfectly to the paintings from this time. It also to a high degree increases the appearance of the figures. For collectors and manufacturers the head, for obvious reasons, is an important part of the figure. Instead I have made a mould with the bearskin from *Prince August* after filing a few millimetres from the top of the bearskin and the feather. This head I use for the manufacture of an Imperial Guard in 40mm figures from *Nürnberg Meisterzinn*.

In mould set 80-05 and 80-06, consisting of the French Imperial Guard, the designer has really performed a rather clever trick. Some of the detachable heads with bearskin have been equipped with a grenade on top instead of the usual cross like the rest of the moulds. People with some knowledge of uniforms know that the grenade on top was introduced in 1807. However the idea is not reflected at all in the brochure material or the painting instructions which refer to 1805 and 1804, respectively. This solution gives the collector the opportunity to expand the use of the soldiers to the time of the battle of Waterloo.

Table No. 3, Overview of the contents in 20 Prince August mould set with 54 mm model soldiers from the Napoleonic wars

Mould Contents set No.	Mould A	Mould B	Mould C	Number of Parts
80-01 French Imperial Guard on Parade, 1805. Painting instruction 1804	Infantry soldier, marching, 6 parts	Drummer, marching, 6 parts	Officer, marching, 5 parts	17
80-02 French Imperial Guard in Combat, 1805. Painting instruction 1804	Infantry soldier, standing firing, 5 parts	Infantry man, advancing, 6 parts	Officer, 5 parts	16
80-03 French Imperial Guard, Chasseur à Cheval, 1805 Painting instruction 1805	Trooper, 3 parts, fixed head	Right horse half-part , 3 parts	Left horse half-part, 3 parts	9
80-04 French Imperial Guard, Empress Dragoon 1805. Painting instruction 1805	Trooper, 3 parts, fixed head	Right horse half-part, 4 parts	Left horse half-part, 3 parts	10
80-05 French Imperial Guard attacking, 1805.	Infantry soldier using bayonet, 4 parts	Infantry man, kneeling firing, 5 parts	Infantry man, running, 4 parts	13
80-06 French Imperial Guard, Reloading and Sapper, Painting instruction 1804	Sapper, marching, 5 parts	Infantry man, loading cartridge, 5 parts	Infantry man ramming musket, 4 parts	14
80-07 French Imperial Guard, Massed Band, 1805	Drum-Major , marching, 5 parts	Serpent player, marching, 4 parts	Standard bearer, marching, 5 parts	14
80-08 French 8-PDR Gribeauval Cannon, 1805	Barrel and ammunition chest 5 parts	Field carriage, 2 parts	Wheel and axle, 3 parts	10
80-09 French foot Artillery of the Line, 1805	N.C.O. directing, 4 parts	Gunner with port fire, 5 parts	Gunner carrying round, 3 parts	12
80-10 French Imperial Guard, mounted Mameluk , 1805	Mameluk, 3 parts	Right horse half-part, 4 parts	Left horse half-part, 5 parts	12
80-11 French Imperial Guard, Massed band, 1805	Tambour maitre, marching, 6 parts	Cymbalist, marching, 5 parts	Sapper, marching, 7 parts	18
80-12 French foot Artillery of the Line, 1805	Artillery officer, 4 parts	Gunner with ramrod, 5 parts	Gunner with bucket, 5 parts	14
80-13 British 95 th Rifles, Peninsular Wars 1808	Officer, advancing, 5 parts	Infantry man, advancing, 4 parts	Horn player, advancing, 5 parts	14
80-14 French Line Infantry, Peninsular Wars, 1808	Officer, advancing, 3 parts	Infantry man advancing, 6 parts	Drummer, advancing, 4 parts	13
80-15 British 27 th Regiment of Foot, Peninsular Wars, 1808-1813	Officer, advancing, 5 parts	Infantry man, advancing, 5 parts	Drummer, advancing, 4 parts	14
80-16 French Foot Dragoons, 2. Regiment	Officer, advancing, 3 parts	Infantry man, advancing, 5 parts	Drummer, advancing, 5 parts	13

80-17	French Imperial Guard, Massed Band, 1805	Musician, 3 parts	Clarinet and bassoon, 6 parts	Trumpet and horn, 6 parts	15
80-18	Napoleon Bonaparte on horse back	Napoleon, 4 parts fixed head	Right horse half-part, 3 parts	Left horse half-part, 3 parts	10
80-19	French Infantry of the Line, 88th half brigade, Egyptian campaign, 1798-1801	Officer, advancing, 5 parts	Infantry man advancing, 5 parts	Drummer, advancing, 5 parts	16
80-20	French Legion Nautique, Egyptian campaign, 1799-1801	Officer advancing, 6 parts, fixed head	Infantry man, standing firing, 3 parts, fixed head	Drummer advancing, 4 parts, fixed head	13

Lacking accordance between packing and contents

In mould set 80-02c the left arm of the officer has been put in a position on the picture of the packing which deviates considerably from the real position of the arm in the mould. It is of course natural that the designer is thorough a process in order to find his final version of the figure. But it is unfortunate when the packing is printed and you subsequently decide to change the figure without also changing the packing.

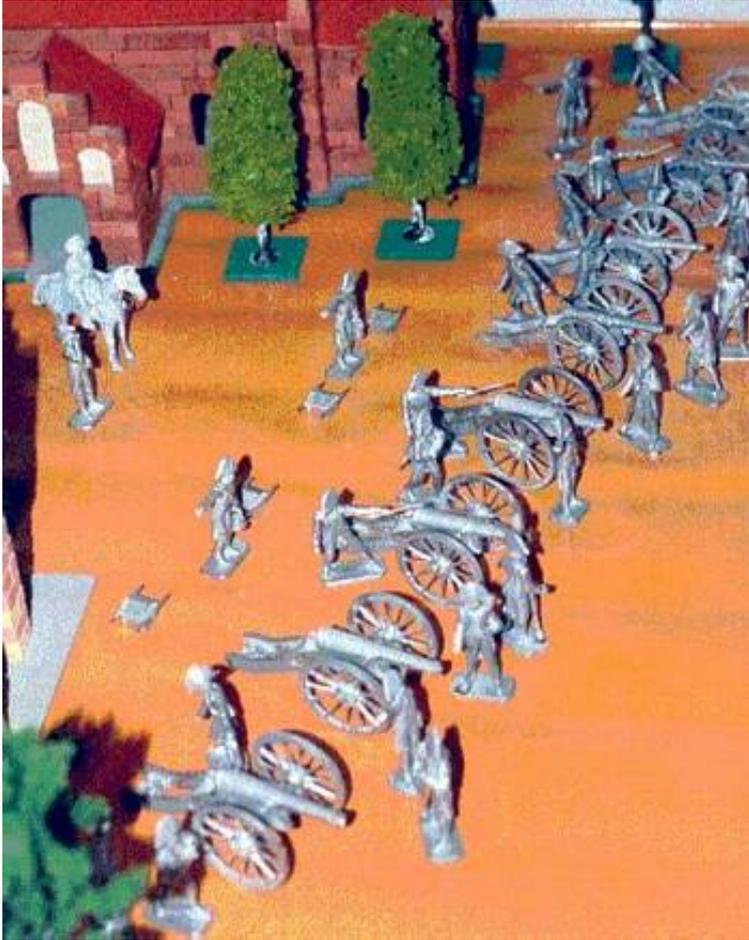
Identical figures and variation

The two officers in the two mould sets with British soldiers No. 80-13 and 80-15 are really nice figures, but apart from the uniform the two officers are almost identical. You can of course make changes to that. Drummers and trumpeters are a festive element in a group of figures, no doubt about that. But to equip the almost 6 consecutive mould sets (80-13 to 80-16 and 80-19 to 80-20) consisting of three figures from different regiments with a musician and an officer each in my opinion signifies too little variation. Many different figures expand the possibility for converting. As apparent from Table 2 there is a considerable majority of musicians and officers. You can of course adjust for this in the number of castings. The designer should, however, be commended for the considerably varied marching French Massed Band, the "tête de colonne" and all the instruments from mould set 80-17. And if you lack further instruments you can copy from the range of *Tradition of London*. One can discuss the need for two almost identical sappers more or less only deviating on the beard in mould set 80-6 and 80-11. I would imagine that many would also find that 3 advancing grenadiers in mould Nos. 80-2c, 80-5a and 80-5c are on the high side. I would find a fine figure like 80-2c enough. The same applies to 80-6b and 80-6c. One loading soldier should be enough. My comments to the modest variation, the majority of certain types as well as almost identical figures should be seen in the light that I have absolutely no idea (information) of what the future will bring, and the fact that I would really have preferred figures from the adversaries.

Mould set with Napoleon on horse back

Is mould 80-18 with Napoleon on horse back really a good idea? There is certainly nothing wrong with the figure, but most collectors will hardly need more than one Napoleon. *Tradition of London* also have a beautiful figure of Napoleon on foot as well as on horse back, as well as a beautiful figure of the Duke of Wellington on horse back. Some years ago *Prince August* opted for another solution, when a 40mm fully round figure of the Swedish king Charles the 12th was designed for the range of Karoliner. He was sold as a cast figure without an affiliated mould. Apart from above comment about Napoleon, the figure of Napoleon and the horse contains very fine detail, and the horse can be used for many other purposes. Horses constitute another area, where I should like to commend the designer. They are fully round and appear to have the right size as solid and heavy military horses, and actually tend to be more life-like than the horses from *Tradition of London*.

The 8-PDR. Gribeauval-cannon from 1805



The cannon in mould set 80-08 is really a very fine cannon, only the barrel appears somewhat undersized, compared to the barrels of the range of cannons of *Tradition of London* as well as the 8-PDR. Gribeauval-cannon no. 643 from *Historex*. The latter is directly comparable and actually almost double the size of that of *Prince August*. It is thought-provoking that two designers in the same 54mm scale can design sizes with so much variation. One can apparently not assume that measures are certified. I am inclined to lean towards *Historex*, and the explanation to this issue from *Prince August* may be based upon a wish to retain the standard mould measure for all the moulds. A bigger barrel could possibly have necessitated a thicker mould than the 2.6 cm allocated for the standard mould. Instead *Prince August* could have termed the manufactured mould a 4-PDR Gribeauval-cannon. I have home-manufactured a mould of an adapted barrel from *Historex* No. 831 British 9 pounder, which matches the field carriage best. Instead I use the *Prince August* barrel as an 8 or 12 pound Barrel for the 40mm scale figures. It fits very well with the field carriage in *Nürnberg Meisterzinn*. If I've read the assembly guideline correctly, I am supposed to glue the wheels to the axle, if I want to avoid the wheels falling off when the field carriage is moved. However, this doesn't really facilitate wheels running freely. By gluing you also ensure that the cannon stands in upright position and refrains from leaning to one side, caused by the hole in the wheel being too big for the axle.

I like my guns to be able to move without wheels falling off at random, and likewise prefer upright guns to leaning ones. To alleviate the gun problem I have made a mould containing a new axle of 2.5mm in diameter. I file off the bulge on the outer side of the wheel and fill the hole with "milliput", before drilling a 2.5mm hole in the middle, matching the axle. Almost at the end of the axle I drill a small hole vertically through the axle. Then I fit the wheel and lock it in place on the axle with a thin split pin. This is, in actual fact, how wheels were fitted in those days. Now the wheels can move without falling off, and the guns can stand without leaning.

Conclusion

In spite of the minor inaccuracies and modest blemishes, I am continuously of the opinion that the 54mm range of the Napoleonic Wars represents a quite unique quality on the mould market. One could possibly find more inaccuracies, if one went into details. This may constitute a huge potential for experts on uniform buttons and other uniform details and weaponry from the Napoleonic Wars. Many figures are very fine and together with the many parts offer countless possibilities for converting. For persons in all ages taking an interest in model figures, here is a most reasonably priced possibility to get started with a number of interesting aspects, which forms part of the building of a collection of figures from one of the most exciting eras in military history. I hope that my comments in this article offer you the possibility to be selective in connection with purchase of the already 20 marketed mould sets.

Claus Mogensen