

Askania, Side Cushions & Updated Type VII Vent Patterns

Dougie Martindale Accurate Model Parts



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Part I - Introduction

The purpose of this article is to provide Accurate Model Parts (AMP) customers with details regarding the Askania compass fairing and side cushions. As we shall see, the Askania fairing replaced the standard magnetic compass fairing, with the Askania featuring on the vast majority of VIICs, VIIC/41s and IXCs by the end of the war. The problem for modellers is that ALL Revell U-boat kits have the standard magnetic compass fairing. This means that Revell's kits are suitable without modification for only a very few boats at the end of hostilities. The visual difference between the old and new fairing is significant and is not something that should be omitted from consideration by modellers wishing accurate models.

Another issue which is specific only to Revell's VIIC/41 kits regards the leather side cushions on either side of the hull casing. This article will identify why resin replacement items are required. The blanking plate behind three vents on the starboard side of late war boats is also discussed, as is the updated vent patterns and life raft containers.

Further reading

Readers are invited to refer to the AMP article *Late War Type VIIC & VIIC/41 Configurations* as this provides a guide to the difference between the slotted and planked deck, the early magnetic compass fairing and Askania type, individual boat details and late war configurations. This article can be found on pages 129 - 157 of the downloadable AMP file *The Wolf Pack II*. The Askania section (Part II) herein is an updated version of the information within the Wolf Pack II file with details of more VIIC/41s and new details of IXCs.

Code	Scale	Details	Suitable Revell kits
72-05	72	Photo etched deck (with and RV05045 VIIC/41	
9		without snorkel), Askania in resin,	RV05163 VIIC/41 Platinum Edition
5		side cushions in resin, rivet	
		replacement set	

Ackowledgements

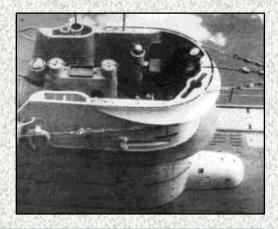
My thanks to Remko Scharroo for allowing me to view images of U 1277.

Part II - Askania Compass Fairing

The standard magnetic compass fairing was positioned at the foot of the front of the tower on all early and mid-war VIICs and IXCs. It also featured on some late-war boats and it is this type which features on the Revell kits.

Towards the end of the war, a very different type known as the Askania fairing replaced the standard fairing. The Askania fairing was a stand-alone unit directly ahead and separate from the tower. The name Askania derives from the company of the same name which manufactured the device. Founded in 1871, the company produced precision instruments for the aeronautical and naval industries, including depth gauges for U-boats and instruments for aircraft cockpits. The company is presently extant, currently producing a range of quality watches. On the museum page on their website there appears to be a magnetic compass repeater not dissimilar to the type mounted at the front of the attack periscope housing on U-boats. Regarding their involvement with the compass fairing, it is possible that other companies contributed to the manufacture of the fairings but for simplicity we shall continue to refer to the compass and the fairing as the Askania type.

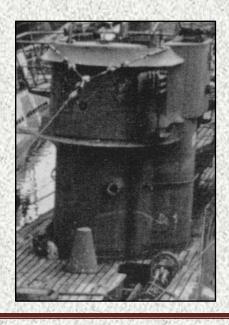




Above left (1): The standard magnetic compass fairing on the Type VIIC U 552. As the photo illustrates, the fairing abutted the front of the tower.

Above right (2): The standard magnetic compass fairing on the Type IXC U 163. It was different in shape, being lower and wider than evidenced on VIICs.

Right (3): The Askania magnetic compass fairing on U 1109. This new style of fairing was in the same position ahead of the tower but was a completely different shape and was a standalone feature. This type of fairing was also introduced to Type IXs around the same time period.



Implementation of Askania on VIICs and VIIC/41s

According to *U-Boot Im Focus* Edition 2, the new Askania magnetic compass was ordered on the 15th October 1942. The order may indeed have been placed on that date but period photos show that implementation took place at a much later date. The information below has been attained solely through assessment of period photographs.

The following VIICs and VIIC/41s retained the standard fairing at the following time periods

- U 993, U 994 and U 995 in July 1943
- U 223, U 235, U 667, U 703 and U 707 in October 1943
- U 290 in February 1944
- U 275, U 673 and U 953 in April 1944
- U 278, U 711, U 997 and U 1105 in July 1944
- U 1060 in October 1944
- U 968 in December 1944
- U 953 in February 1945

The earliest instance of the Askania fairing in period photos is on U 235 in October 1943. U 235 was used as a test boat and it is quite likely that this was the first VIIC to be fitted with the Askania fairing. It should be noted that the Type IX U 534 also had the Askania fairing in 1943 and it is assumed that this boat was used to test the feature on a Type IX.

The Askania fairing can be seen on the following VIICs and VIIC/41s at the following dates -

- **AAAAAAAAA** U 1197 at end of 1943
- U 1172 in March 1944
- U 778 in spring 1944
- U 1277 in May 1944
- U 393 in June 1944
- U 362 in July 1944
- U 481 and U 957 in summer 1944
- U 483 prior to August 1944
- U 929 in autumn 1944
- U 1165 in November 1944
- U 930 in December 1944

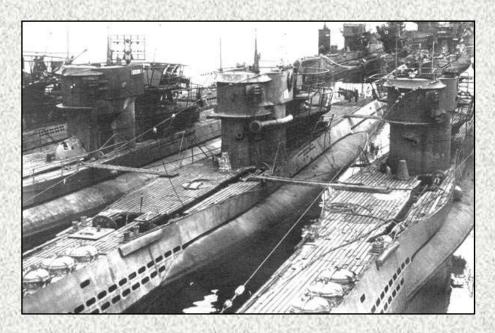
The above information suggests that the Askania fairing was tested in the autumn of 1943 but actual implementation began around the spring of 1944. It would, however, take some time to retrofit the Type IXs and change over to the Askania on the VIICs and VIIC/41s. This conversion process was not completed by the cessation of hostilities.

End of war (standard) - The following VIIC and VIIC/41s still had the standard housing at the end of hostilities in May 1945 - U 278, U 281, U 471, U 766, U 977, U 978 and U 995.

End of war (Askania) - The following VIIC and VIIC/41s had the Askania housing at the end of hostilities in May 1945 - U 249, U 250, U 299, U 320, U 328, U 362, U 369, U 393, U 483, U 719, U 749, U 776, U 778, U 825, U 826, U 929, U 930, U 957, U 1007, U 1009, U 1022, U 1023, U 1052, U 1058, U 1101, U 1105, U 1109, U 1165, U 1171, U 1172, U 1192, U 1197, U 1198, U 1202, U 1304 and U 1305.

Of the 43 VIICs and VIIC/41s which have been observed in photos, only seven (16%) retained the standard magnetic compass housing by the end of hostilities. This suggests that the majority had been converted to the Askania type by the end of the war. It also means that the Revell VIIC/41 kits are only suitable without conversion for 16% of VIICs and VIIC/41s at the end of the war. This makes an Askania resin part by Accurate Model Parts necessary for the majority of boats.

Change to Askania - The change from standard to Askania appears to have taken on VIICs and VIIC/41s on newly-built boats launched in the period around the spring and summer of 1943. As with other U-boat features, the changeover was not instantaneous there was a crossover period. For example, U 995 was launched in July 1943 with the old fairing whereas U 393 was launched in May 1943 with the Askania. This is to be expected given the VIICs and VIIC/41s being built in various shipyards. What is significant is that most of the boats which still had the standard fairing at the end of the war were launched earlier than those with the Askania. Furthermore, it would appear that the Askania was not generally retrofitted on VIICs and VIIC/41s which already had the standard fairing. This differs from the practice on IXCs where retrofitting did occur.



Above (4): Three boats in Lisahally in Northern Ireland at the end of June 1945. U 278, on the left, has the standard magnetic compass fairing, whereas U 1058 (in the centre) and U 1109 (on the right) both have the newer Askania type. Other differences can be seen between the three boats. For example, only U 1058 has the *schnorchel* pipe on the port side of the tower.

Implementation of Askania on IXCs

End of war (standard) - The following IXCs had the Askania housing at the end of hostilities in May 1945 - U 190 and U 532.

End of war (Askania) - The following IXCs still had the standard housing at the end of hostilities in May 1945 - U 516, U 539, U 534, U 544, U 805, U 843, U 858, U 870, U 889, U 1228, U 1231, U 1233, U 1234, U 1235, U 1237 and U 1238.

Of the 18 IXCs which have been observed in photos, only two (11%) retained the standard magnetic compass housing by the end of hostilities.

Adding the Askania on your model

When modellers convert the standard magnetic compass faring on their Revell kits to Askania they will first cut off the fairing at the front of the tower and fill in the gap in the tower which results from this change. This is not a difficult procedure at all. What is of concern is the area on the deck which is newly exposed due to the removal of the old magnetic compass fairing. This subject differs greatly between the VIICs and IXCs and as such are addressed separately.

<u>VIIC and VIIC/41s</u> - As discussed previously, the VIICs and VIIC/41s with the Askania fairing had this feature from the beginning. It also appears that those VIICs and VIIC/41s which had the standard fairing were not changed to the Askania type. There may have been exceptions but this means that on the VIICs and VIIC/41s there was no need for a metal base plate in the area directly behind and under the Askania fairing.

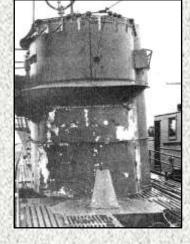
There exists the problem for the VIIC and VIIC/41 modeller of the gap on the deck that is exposed when they cut off the standard fairing on the Revell kit. This will not be an issue for modellers who use AMP set 72-05 as when fitting this replacement planked deck there is no gap when the Askania is fitted.

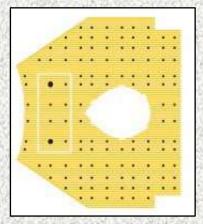


Left (5): The resin Askania fairing by AMP. No base plate is required on VIICs and VIIC/41s.

<u>IXCs</u> - The situation was different on the Type IXCs where the standard magnetic compass fairing WAS removed from almost all boats and replaced with the Askania fairing. There was a gap on the real IXC decks and this was addressed with the addition of a metal base plate. This metal plate had

grooves running parallel with the length of the boat. These grooves are not easy to scratchbuild by the modeller and is the sort of feature that photo-etch brass can do very well. Our proposed set 72-06 included a resin Askania but also a photo-etch base plate designed for the Revell IXC U 190 kit. However, this set was cancelled before being offered to modellers.





Above right (6): The base plate can clearly be seen underneath the Askania on U 889.

Left (7): The AMP base plate for what would have become 72-06.

Part III - Side Cushions

The other issue to be addressed in this article is the clearly inaccurate rectangles adorning either side of Revell's late war VIIC/41 kits. In no way are they sufficient to depict the leather side cushions on the real boats. The Revell rectangles are far too short, are in the wrong places and do not have the curved shape like the real side cushions. This requires the AMP replacements in resin.



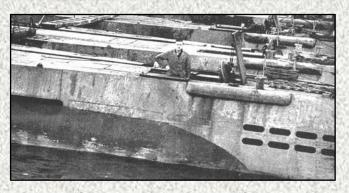
Purpose

The purpose of the leather side cushions was to avoid the mooring ropes chafing against the hull casing. *U-Boot Im Focus Edition 9* states that it is often thought that this feature was made from wood but was actually in leather. A photo on page 48 of this edition shows one such cushion in close up detail and this does indeed look like leather rather than wood. These side cushions were not present on boats with the slotted deck and only present on VIICs and VIIC/41s with the planked deck.

Our immediate question is why this feature was necessary. Why were they necessary on boats with the planked deck and not the slotted deck? The key to the answer is the position of the bollards on either side of the deck. On the planked deck the position of the

Above (9): The side cushions on Revell's VIIC/41 kits are far too flat and do not jut our far enough. They are also the incorrect size and not necessarily in the wrong position on both sides of the hull.

Below (10): Comparison with the shape of the side cushion on U 776 makes the inadequate shape of the Revell feature evident.



bollards was noticeably farther back on the deck than was previously the case on the slotted deck. When the bollards were moved back, there must have been a concern that the ropes tied to the bollards would be more likely to chafe against the rounded area of the hull casing above the saddle tanks.

Implementation

Implementation dates - The side cushions were not implemented straight away. In March 1943 U 344 did not have the side cushions despite the presence of the planked deck. Similarly, in May 1943 both U 315 and U 364 were absent of this feature. It would appear that the side cushions were fitted to all boats beginning around the spring and summer of 1943, with all VIICs and VIIC/41s with the planked deck getting this feature.

<u>U 236 and U 237</u> - U 236 and U 237 both had metal plates in May 1943 but not the side cushions as yet. Presumably the side cushions were added soon afterwards to both boats.

<u>U 995</u> - U 995 was launched with a Turm II, planked deck and side cushions in July 1943. The future museum boat did not have the side cushions towards the end of the war but the reason for this is unclear.

Positions

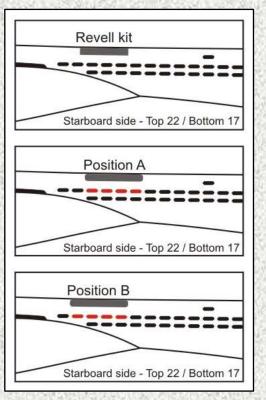
The rectangles on the Revell kits are not the correct length and should be removed entirely from your model. The images in this section show the position where AMP's resin replacements should be added. The position of the side cushion on the starboard side were as follows -

A - U 250, U 275, U 276, U 362, U 427, U 776, U 821, U 901, U 930, U 977, U 992, U 993, U 994, U 995 (not always), U 1009, U 1023, U 1171, U 1197 and U 1202
B - U 391, U 392 and U 1165

The position of the side cushion on the port side were as follows -

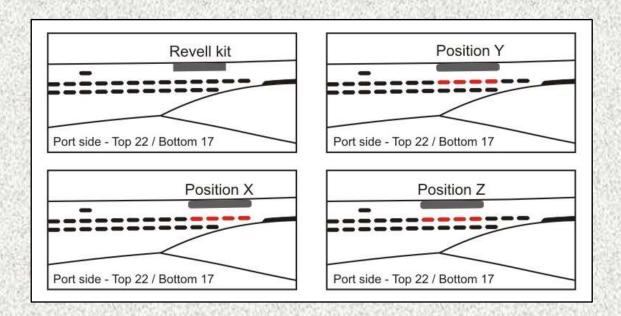
- X U 393
- Y U 651, U 673, U 719, U 749, U 754, U 826, U 995 (not always present), U 1007, U 1192 and U 1197
- Z U 249, U 825, U 994, U 1058, U 1109, U 1165, U 1064 and U 1305

It can be seen that the majority of boats had the side cushion on position A on the starboard side and position Y or Z on the port side. U 1197 had positions A and Y which were in the same position relative to the bow. However, U 994 has positions A and Z which were not in the same position relative to the bow.



Above right (11): A guide to the position on the starboard side of the Revell VIIC/41 kit. The four free-flooding vents directly below the side cushion are marked in red.

Below (12): A guide to the position on the port side of the Revell VIIC/41 kit. These images all use the Revell kit pattern. Remember to amend the free-flooding vents to the pattern your boat had rather than the erroneous Revell kit pattern given in these drawings. The real patterns are given later in this article.





Left (13): The resin side cushions included within Accurate Model Parts set 72-05.

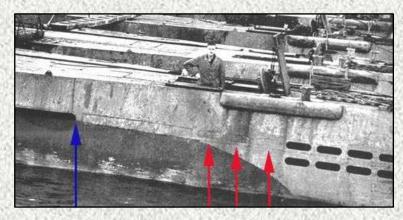
Part IV - Three Vent Blanking Plate

Readers may have noticed that the photo of U 776 shows only a few free-flooding vents underneath the side cushion. Closer inspection of the photo shows that three vents (pointed to by the three red arrows below) had a metal blanking plate directly behind the hull casing. This is very difficult to scratchbuild so a three vent blanking plate was added as a photo-etched part in AMP set 72-05. Note that this section deals only with vents on the starboard side as the blanking plate was only present on the starboard side of some VIICs and VIIC/41s.

The drawings on the next page shows the position of the three vent blanking plate compared to the Revell vents. For details of the main vent patterns please refer to the tables and drawings later in this article. The main pattern in which the three vent blanking plate featured consisted of 18 vents plus the three vent blanking plate on the top row and 14 vents on the bottom row. The boats

confirmed with this arrangement are U 276, U 313, U 344, U 391, U 412, U 431, U 441 (prior to Flak), U 471, U 592, U 593, U 596, U 616, U 756, U 762, U 977, U 993, U 1009, U 1023, U 1165 and U 1171. As detailed later in this article, there were slight variations, for example U 776 and U 69 having the blanking plate but 15 vents on the bottom row.

Another very common vent arrangement on the starboard side of VIICs and VIIC/41s was 21 vents on the top row and 14 vents on the bottom row. This is the same as above but with no blanking plate. Boats with this arrangement include U 70, U 96, U 98, U 250, U 315, U 351, U 362, U 364, U 377, U 402, U 404, U 415, U 427, U 617, U 704, U 739, U 744, U 752, U 994, U 995, U 1197 and U 1202.

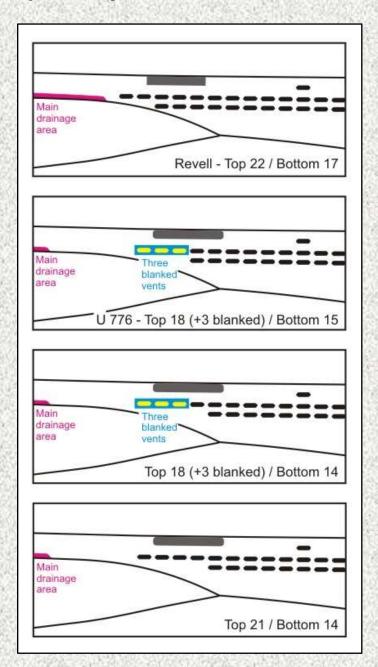


Above (14): The three red arrows point to three vents which have a blanking plate behind them on U 776. This is addressed through a photo-etch part in AMP set 72-05. We can also see how the central drainage area begins very far back on the starboard side at the position marked with the blue arrow. A long horizontal blanking plate is present to the left of the three vents on U 776 but this was not in place on U 1023 and, it is assumed, other boats.

If we compare the above lists we can see that those with the blanking plate were built in various different shipyards launched in different years. The blanking plate was not exclusive to any shipyard or time period, as is sometimes the case with other U-boat features. If we look at the list of boats above without the blanking plate these were also built in different yards at various times.

What is surprising is that U 993 has the blanking plate but U 994 did not. Both VIICs were from the same batch, with U 993 being laid down two days after U 994 (despite having an earlier number). The VIIC/41 U 995 - which was laid down in the same shipyard just over a week later had the blanking plate. It appears therefore that there were differences between boats belonging to the same batch in the same shipyard. Modellers must be careful when selecting whether to use a

blanking plate or not and cannot necessarily rely upon photos of sister boats from the same batch as a guide to this particular feature.



Left (15): The drawing compares the starboard side of the Revell kit with real VIIC and VIIC/41 vent combinations. U 776 was unusual in having 15 vents on the bottom row rather than the more usual 14 vents. The vent arrangements of more VIIC and VIIC/41 boats can be found in the succeeding pages.

Central drainage area

Given coverage of this area of the casing on VIIC and VIIC/41s, it is prudent to mention the issue over the central drainage area on the Revell kits. On the $1/72^{nd}$ scale kits the following amendments should be made -

- > 11mm should be drilled out at the front of the central drawing area on the port side
- > 15mm should be filled in at the front of the central drawing area on the starboard side

The 1/144th scale kits are essentially half scaled versions of their big brothers and have the same issues so half the amount should be used on those kits. For more details of the central drainage area please refer to Part III of the article "Type VIIC Free-Flooding Vent Patterns". This can be found on pages 64, 65 and 66 of the downloadable file "The Wolf Pack".

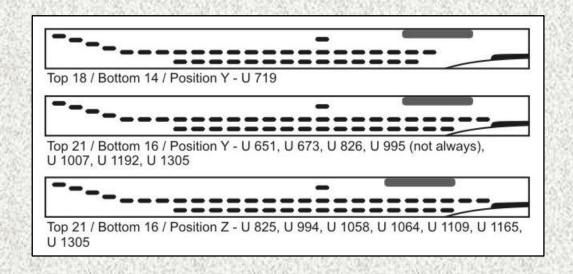
Part V - Updated Type VII Main Free-Flooding Vent Patterns

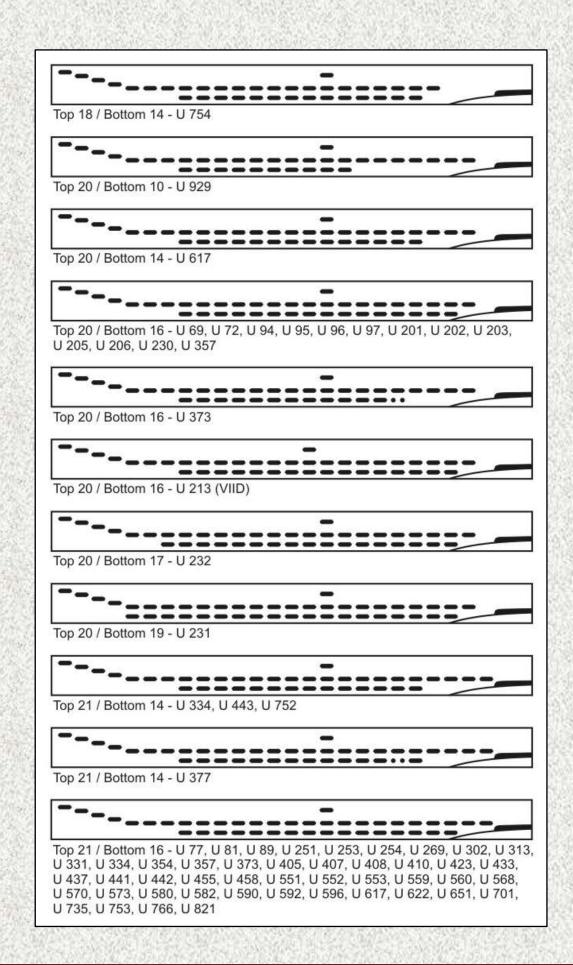
The tables below are a partial listing of the main patterns of VIICs and VIIC/41s. These are newly updated versions of the list found within the "Type VIIC Free-Flooding Vent Patterns" article and were specifically written to help AMP customers. This information has been derived from assessment of period photos. T designates the number of vents on the top row and B designates the number on the bottom row. An asterisk denotes an unusual feature which is described in the second column.

The tables can be confusing so the information has also been replicated within profile drawings, with Type VIIBs and VIIDs included as well as VIICs and VIIC/41s.

Type VIICs, VIIC/41s and VIIDs

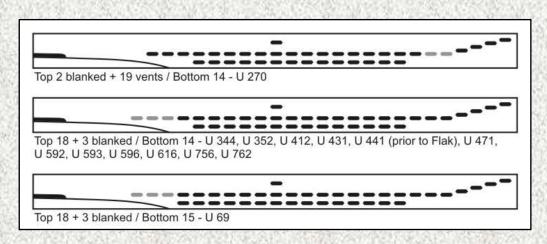
Forward vents, port side for VIICs, VIIC/41s and VIIDs		
Pattern Boats		
T18/B14	U 719, U 754	
T20/B10	U 929	
T20/B14	U 617	
T20/B16	U 69, U 72, U 94, U 95, U 96, U 97, U 201, U 202, U 203, U 205, U 206,	
	U 230, U 357	
T20/B16*	U 373 (vent 13 on the bottom row had two circles)	
T20/B16*	U 213 (VIID) (single vent on top is ahead by one)	
T20/B17*	U 232 (lower row starts directly under third vent not fourth vent)	
T20/B19*	U 231 (lower row starts directly under top row)	
T21/B14	U 334, U 443, U 752	
T21/B14*	U 377 (vent 13 on the bottom row had two circles)	
T21/B16	U 77, U 81, U 89, U 251, U 253, U 254, U 269, U 302, U 313, U 331, U 334,	
	U 354, U 357, U 373, U 375, U 405, U 407, U 408, U 410, U 423, U 433,	
	U 437, U 441, U 442, U 455, U 458, U 551, U 552, U 553, U 559, U 560,	
	U 568, U 570, U 573, U 580, U 582, U 590, U 592, U 593, U 596, U 617,	
	U 622, U 651, U 673, U 701, U 735, U 753, U 766, U 821, U 825, U 826,	
	U 994, U 995, U 1007, U 1058, U 1064, U 1109, U 1165, U 1192, U 1197,	
	U 1305	
T21/B16*	U 393 (vent 13 on the bottom row had two circles)	

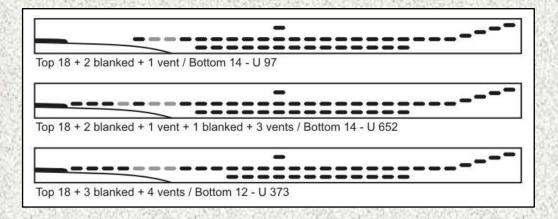


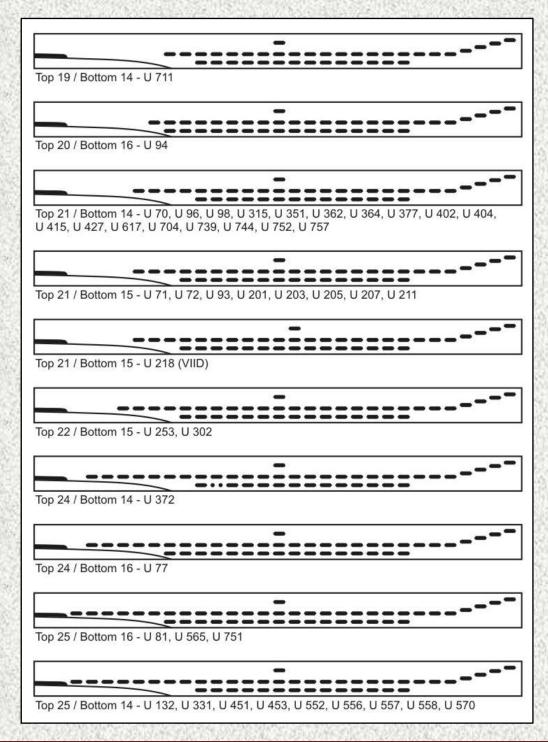


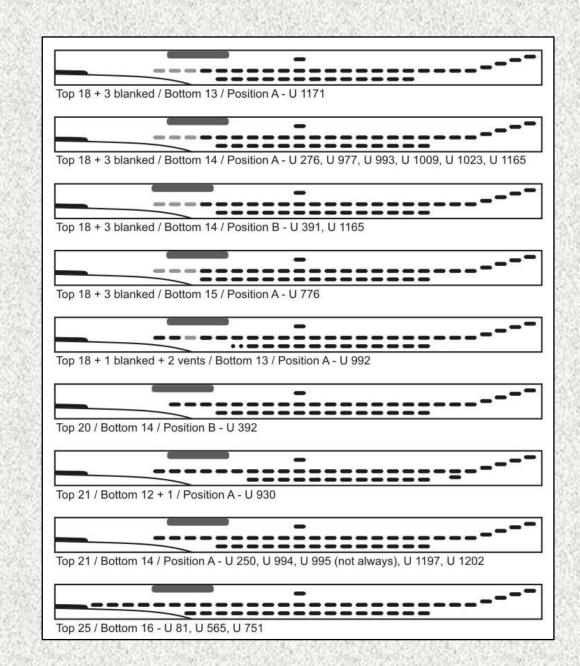
Accurate Model Parts

Forward vents, starboard side for VIICs, VIIC/41s and VIIDs			
Pattern	Boats		
T18 + 3 blanked /B13*	U 1171 (vent missing on bottom row beneath the 4 th vent)		
T18 + 3 blanked /B14	U 276, U 344, U 352, U 391, U 412, U 431, U 441 (prior to Flak), U 471, U 592, U 593, U 596, U 616, U 756, U 762, U 977, U 993, U 1009, U 1023, U 1165		
T18 + 3 blanked /B15	U 69, U 776		
T18 + 2 blanked + 1 vent/B14	U 97		
T18 + 2 blanked + 1 vent + 1 blanked + 3 vents / B14	U 652		
2 blanked + T19 /B14*	U 270 (the first two vents on the top row are blanked)		
T18 + 3 blanked + 4 vents/B12	U 373		
T18 + 1 blanked + 2 vents/B13*	U 992 (vent 13 on the bottom row had two circles)		
T19/B14	U 711		
T20/B14	U 392		
T20/B16	U 94		
T21/B12+1*	U 930 (extra vent above bottom row, in line with the 2 nd vent on the top row)		
T21/B14	U 70, U 96, U 98, U 250, U 315, U 351, U 362, U 364, U 377, U 402, U 404, U 415, U 427, U 617, U 704, U 739, U 744, U 752, U 757, U 994, U 995, U 1197, U 1202		
T21/B15	U 71, U 72, U 93, U 201, U 203, U 205, U 207, U 211		
T21/B15*	U 218 (VIID) (single vent on top is ahead by one)		
T22/B15	U 253, U 302		
T24/B14*	U 372 (vent 13 on the bottom row had two circles)		
T24/B16	U 77		
T25/B14	U 132, U 331, U 451, U 453, U 552, U 556, U 557, U 558, U 570		
T25/B16	U 81, U 565, U 751		





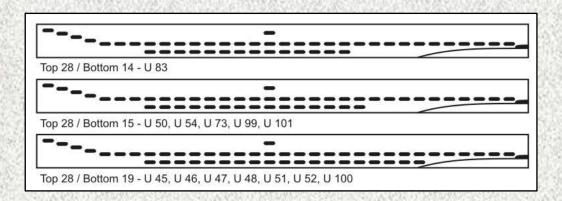


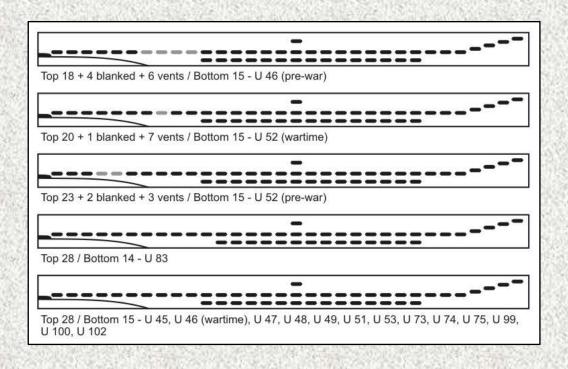


Type VIIBs

Forward vents, port side for VIIBs			
Pattern	Boats		
T28/B14	U 83		
T28/B15	U 50, U 54, U 73, U 99, U 101		
T28/B19	U 45, U 46, U 47, U 48. U 51, U 52, U 100		

Forward vents, starboard side for VIIBs				
Pattern	Boats			
T18 + 4 blanked $+ 6$ vents	U 46 (pre-war only)			
T20 + 1 blanked + 7 vents / B15	U 52 (wartime)			
T23 + 2 blanked + 3 vents / B15	U 52 (pre-war)			
T28/B14	U 83			
T28/B15	U 45, U 46 (wartime), U 47, U 48. U 49, U 51, U 53,			
	U 73, U 74, U 75, U 99, U 100, U 102			

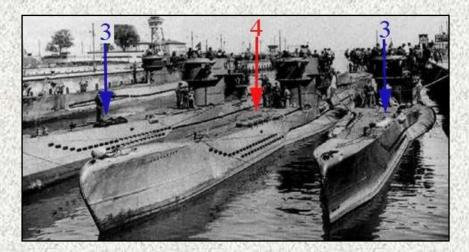


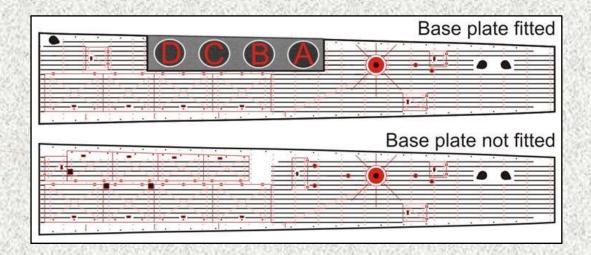


Part VI - Life Raft Containers

Late in the war, life raft containers were added to the port side of the forward deck of some Type VIIC and VIIC/41 U-boats. It has been assumed by many enthusiasts that all boats had all four containers by the end of the war. This is in fact erroneous, as this final part of the article will explore. It is found that plenty of boats did not have any containers by the cessation of hostilities, while others had one or two or three or four on the forward deck.

Right (16): Three boats in Wilhelmshaven in May 1945. The boat in the middle has four life raft containers while the other two boats both have three containers.





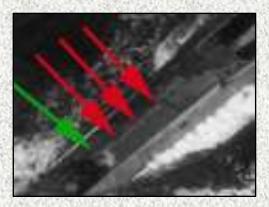
Above (17): The top drawing shows the position where the life raft container base plate was added. The letters A to D have been assigned to the containers, with A being at the front and D to the rear. A comparison can be made with the planked deck without a base plate fitted.

The questions modellers may ask is which boats had the life raft containers, how many were fitted to each boat and the time period when this feature was added. Firstly, we can say that the containers appear not to have been fitted before the *schnorchel*. Therefore if a U-boat model does not have a *schnorchel* then it should not have any containers fitted. The dates when the containers were added to *schnorchel*-equipped boats is unclear, as is the reasoning behind why the number of containers varied greatly between individual boats. There does not seem to be an obvious reason for the variation in this feature and may be due to how many were available to the shipyard at the time they were fitted.

The following schnorchel-equipped boats had these combinations of life raft containers -

- None U 275, U 825, U 995 (wartime), U 1165, U 1197
- > One container with position unknown U 250, U 821
- A only U 249, U 481
- Two containers with position unknown U 1009
- C and D U 764, U 977
- A, B and C U 1023
- A, B, C and D U 278, U 290, U 930, U 1058, U 1105, U 1109, U 1277, U 1305

Clearly there was great variety, with five having no containers, eight having between one and three, and eight having all four.



Above (18): U 249 from above, with the green arrow indicating one container in position A. The three red arrows show no containers in positions B, C and D. We can see the metal base plate in position on U 249 at a slightly lower level than the wooden deck.

Base plate

As can be seen with the photo of U 249, which was outfitted with only one container, this particular boat had the metal base plate along the entirety of the section where the other three containers would have been if they had been fitted. U 1023 also had the full base plate fitted but had three containers fitted in positions A, B and C.

Unfortunately, as with many U-boat features, there was at least one variation. U 250 did not have the metal base plate fitted at all; the single container on the forward deck of U 250 was in place directly over the wooden deck.

Norwegian boats

The museum boat U 995 is a popular choice with modellers. A wartime photograph of this future Laboe exhibit with the *schnorchel* shows the boat without any containers. Later, when the boat was operating as S309 in the post-war Norwegian Navy, two containers were present on the forward deck.

S307 was fitted with three containers in positions A, B and C. Given that S307 had been U 926, it could be that U 926 had three containers in these positions when in Kriegsmarine service. Similarly, we might say the same for S308 (ex-U 1202), which had all four containers.

Part VII - References & Sources

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