

Additional U-Boat Articles

Dougie Martindale Accurate Model Parts

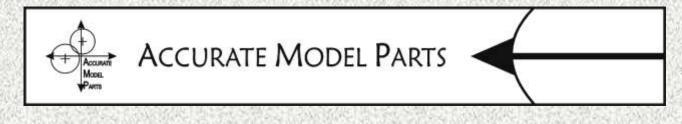


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Part I - Introduction

B efore the release of Revell's 1/72nd Type VIIC U-boat in late 2003, the modelling community was poorly served with respect to accurate U-boat models. There were no affordable plastic kits of reasonable scale that accurately depicted a Kriegsmarine U-boat. Although a plethora of kits and accessories were available for aviation, armour and other naval subjects, the U-boat was sorely neglected. Given the aesthetics, history and importance of the Type VII - and to a lesser extent the Type IX and Type II - the release of a quality kit was long overdue.

Compared to the final month of 1999, the quality and number of kits presently at our disposal has greatly increased. This mini-article reflects upon the expansion in our choice of U-boat kits, and our resultant improvement in knowledge, during the past decade. In the latter stages of this article, a list of the most popular/useful kits and accessories is presented in tabular format.

The bad old days

The kits that were available in December 1999 were not of the quality we expect today. We could choose Nichimo's 1/200th scale Type IXB and IXC, or Academy's 1/150th scale IX. All three are designed to be motorised, and are arguably not worthy of the talents of serious modellers. On the Type VII front we did have a pair of 1/125th scale VIIB U-boats from the Revell stable: a U 47 version with early VIIB tower and interior; and a U 99 version with late VIIB tower. Both kits appear toy-like in comparison to the current crop of Revell U-boats. Revell also offered a 1/144th scale Type XXI. But the kit is notoriously inaccurate, incorporating details from the *Wilhelm Bauer* (a post-war modified Type XXI). A cutaway version of this XXI kit, with interior, was also available.

One popular radio-controlled model could be found in the shape of Robbe's 1/40th scale Type VIIB. This semi-scale kit is an ideal starter kit for radio-controlled submarine modellers, and fulfils this remit successfully. It bears a passing resemblance to its intended subject - the VIIB U 47 - but is inaccurate in almost every respect to the real boat. This effectively precludes the building of an accurate replica.

A very decent kit was available to us ten years ago. This came in the form of Accurate Armour's 1/35th scale resin waterline Type VIIC. The under-rated kit allows the modeller to depict a VIIC at sea or moored in port. There are three heavy slabs of resin for the hull sections, and a very decent resin tower. The 88mm deck gun and 20mm Flak gun are both of a high standard, as are the many white metal and resin details. Due to sheer volume of resin in the kit and the multitude of parts, the price of the kit far surpasses the budget of many modellers. And, of course, it is not a full hull model but a waterline version.

Last, but certainly not least, we have the infamous Amati U 47. This 1/72nd scale mixed media kit is remembered with mixed emotions by every modeller who has attempted to build one. The one piece hull is resin, while wooden frames are added under the brass deck. The main group of free

flooding holes comes via four long pieces of brass; these ensure that the holes are depicted very neatly. The same could not be said for the rest of the free-flooding holes, which all have to be drilled by the modeller. As some modellers found to their cost, the Amati kit is a very different prospect to an out-of-box moulded plastic build. A good deal of time, patience and effort is required to complete the model. Although challenging, the building of the Amati kit is also very rewarding. In particular the one piece resin hull is an absolute pleasure to work with.

Yet there is one factor which tarnishes the Amati build. The finished article can be a stunning attraction on a mantelpiece, but it is not an accurate depiction of the real U 47. Over one hundred differences between the model and the real boat can be determined. A massive amount of research, a fair slice of scratchbuilding, and a high degree of skill and experience on the part of the modeller are necessary to render even a semi-accurate appearance. The multiple inaccuracies can be a source of endless annoyance for a modeller who has already expended the time, effort and cost in building this model.

When the release of Revell's U-boat kit was announced in 2003, many enthusiasts were thrilled. A 1/72nd scale Type VIIC...in injection moulded plastic! It may be hard to appreciate now, when we have this kit and a wealth of aftermarket goodies in our glue-covered hands. But at the turn of the century we only had the aforementioned Amati 1/72nd "U 47", two poor renditions of the VIIB in 1/125th scale, a poor version of the XXI, and a semi-scale U 47 in 1/40th scale from Robbe. We did not, therefore, have *any* accurate affordable plastic U-boat model kit that was big enough for super-detailing purposes.

The Revell Type VIIC kit had, at long last, provided us with an affordable and reasonably accurate VII model.

From dearth to wealth

As a new decade begins, we have a range of quality U-boat kits to choose from. Revell followed up on the success of their original kit by producing a late war VIIC/41 version. Within the coming year, a VIIC, VIIC/41 and VIID will all be available in 1/144th scale. These 1/144th scale Revell kits are scaled down versions of their original VIIC, with identical design attributes.

Perhaps in recognition of the interest stimulated by the Revell kits, other model companies have also turned their attentions to the subject. One highlight is Special Navy's excellent 1/72nd scale Type IIA. The plastic/resin/white metal kit can be built into a very accurate model with the assistance of a certain aftermarket set. Special Navy will also release a 1/72nd scale *Vesikko* (the prototype for the Type II class) in due course. Rumours of Type IIB version may or may not prove to be fallacious. CMK Maritime Line is reported to be releasing a 1/72nd scale waterline VIIC in resin, which should prove very interesting indeed. This company also offer a whole range of products to allow a dry-dock diorama scene to be built. Dream Arts produce several towers (a VIIB, two VIICs, a Mittelmeerturm and a Turm IV), all of which can be fitted to Accurate Armour's 1/35th scale waterline VIIC. The high quality of the Accurate Armour and Dream Arts products is well recommended.

For modellers with sufficient financial resources, and indeed shelf space, there are three high quality radio controlled boats available in large scales. The 1/32nd OTW VIIC is the most modestly priced option. Having had the opportunity to study this kit, I can attest that it would build up to a very fine model indeed. I have not had the pleasure of studying the 1/32nd scale Andrea Miniatures VIIC or the 1/34th scale Engel VIIC. But the photos of these very expensive kits do show that one can produce very fine replicas from these kits. Naturally their high price excludes them from the shopping list of all but the most affluent of modellers.

In smaller scales, we have many new kits coming to the market. AFV Club and Flagman are both in the process of bringing a range of $1/350^{\text{th}}$ scale U-boat kits to the market. These kits appear to be at least as good as the $1/400^{\text{th}}$ scale Mirage Hobby range of kits. Revell have also brought a $1/350^{\text{th}}$ VIIC, which is another scaled down version of their larger boats.

We are waiting!

While the demand for VIICs and IIAs has been mainly satisfied, a few variants and types are not yet available. Given the success of VIIBs such as U 47, U 48, U 99 and U 100, and the popularity of their commanders, a VIIB conversion set for the Revell kits would be warmly received. Given the camouflage schemes employed on the Mediterranean boats, a 1/72nd scale VIIC *Mittelmeerturm* (Mediterranean tower) would also prove to be very popular.

No company, as yet, has offered us an original VII (also known as the VIIA). Finished in Spanish Civil War colours, an original Type VII would be a welcome addition to our current choices.

The most obvious omission from the list of available kits is, of course, a 1/72nd Type IX. The demand for a quality injection moulded Type IX kit is certainly there. The U 505, having been largely unmodified since her capture in 1944, is an ideal prototype upon which to base an accurate Type IX model. The boat is currently lying in Chicago awaiting the arrival of a representative from a certain injection-moulded model company.

Come on Revell, we are waiting!

Notes for tables

The tables do not form a fully comprehensive list of all U-boat models available past and present. Rather they list the most popular and useful kits/accessories as of December 2009.

The prices in the tables are provided to give a rough indication of value. Most of the prices are current for December 2009 but modellers may be able to buy kits for a more reasonable price.

> Prices are in US Dollars (\$), UK Pounds (£) or Euros (€); the figures do not include shipping.

> Unless otherwise stated, Euro and \pounds costs include European tax.

Some kits/accessories are out of production but have been included if they are of sufficient interest.

Some kits/accessories have yet to be released.

Some modellers choose to build their U-boat as part of a diorama, so accessories pertaining to a dry-dock or dockside diorama are included in the tables.

> Injected moulded plastic kits are presumed to have decals included as standard.

> The codes attributed to the kits and accessories may vary between sellers.

Since I have not had the opportunity to examine each kit, it was necessary to rely upon the information listed in various websites. As a consequence, the details (particularly the materials of construction) cannot be guaranteed. If Engel or Andrea Miniatures would care to send me their lovely kits, I would be very happy to guarantee their materials of construction.

	Materials of construction
Code	Material
В	Brass
D	Decals
F	Flags (paper)
FF	Fabric flags
GRP	Glass reinforced plastic
	(fibreglass)
Μ	Metal
Р	Injected moulded plastic / plastic
PE	Photo-etched brass
R	Resin
SR	Ready-made soldered railings
SS	Stainless steel
V	Vacuform
W	Wood
WM	White Metal

Above: The codes above have been used in the tables to follow.

Part II - 1/32nd to 1/60th scale

Manufacturer	Code	Subject	Scale	Materials	Price
		Full hull kits			
32nd Parallel	01-000	VII	32	GRP	\$525.00, out of production
Andrea Miniatures	LP-02	VIIC	32	GRP,R,PE,WM,D,F	€1784.48+VA7
Andrea Miniatures	LP-02	VIIC - painted	32	GRP,R,PE,WM,D,F	€7882.50+VA
Engel	1591-FC16	VIIC + diving system + controller	34	GRP,R,PE,WM,SR, B.SS	€2999.00
Engel	1591-TMX	VIIC + diving system	34	GRP,R,PE,WM,SR, B.SS	€2095.00
Engel	1591-DIS	VIIC display	34	GRP,R,PE,WM,SR, B.SS	€1346.00
Italeri	5609	Biber	35	Р	Future
Krick	20310	VIIB semi-scale	60	GRP	€179.00
Krick	_	IA U 25 semi-scale	_	GRP	-
OTW Designs	Type 7	VIIC (tower in PE)	32	GRP,R,PE,WM	£750.00
Precision Pattern	-	XXI	48	GRP,R,PE,M	\$499.00
Robbe	1-1114	VIIB U 47 semi-scale	40	GRP	€375.00
Robbe	1-1214	XXI U 2540 semi-scale	40	GRP	€599.00
Verlinden	810	Biber	35	R,B	\$59.95
Verlinden	816	Neger	35	R,B	\$32.95
Verlinden	947	Seehund	35	R,B	\$94.95
Verlinden	1015	Hecht	35	R,B	\$89.95
Vermuen	1015	Waterline kits		K,D	ф0 7.7 Ј
A aquinata A mina aun	C 01	VIIC waterline	35	D DE WM	6227 00
Accurate Armour	S01			R,PE,WM	£327.88
Accurate Armour	S02	XXIII waterline	35	R,PE,WM,D	£161.49
	004	Towers			000.00
Accurate Armour	S04	VIIC conning tower	35	R,PE,WM	£88.08
OTW Designs	Type 7	VIIC tower in GRP	32	GRP	£60.00
Dream Arts	-	VIIB tower	35/40	R,PE,M	-
Dream Arts	1001	VIIC U 552 tower	35/40	R,PE,M	€81.00
Dream Arts	1002	VIIC U 201 tower	35/40	R,PE,M	€81.00
Dream Arts	1003	VIIC Mittelmeerturm	35/40	R,PE,M	€86.00
Dream Arts	1004	VIIC Turm IV tower	35/40	R,PE,M	€91.30
	1	Accessories			r
Accurate Armour	S05	VIIC 88mm deck gun	35	R,PE,WM	£24.47
Accurate Armour	S06	VIIC 20mm gun	35	R,PE	£9.79
Accurate Armour	S07	VIIC decals & flags	35	D,F	£11.74
Accurate Armour	S 08	XXIII decals & flags	35	D,F	£4.65
Accurate Model Parts	DK-UBPEN- 035	Kriegsmarine U-boat pennant set	35	FF	On request
Accurate Model Parts	SAW-35	Sawfish decals	35	D	TBA
Accurate Model Parts	G-35N	VII snorting bull normal	32-40	D	\$7.95
Accurate Model Parts	H-35L	VII snorting bull large	32-40	D	\$7.95
Accurate Model Parts	DK-KMNE- 80X135-032	Kriegsmarine flag 80X135cm	32	FF	\$6.95
Accurate Model Parts	DK-KMIC- 80X135-032	Kriegsmarine Iron Cross Substitute 80X135cm	32	FF	\$6.95
Accurate Model Parts	DK-KMNE- 100X170-032	Kriegsmarine flag 100X170cm	32	FF	\$7.95
Accurate Model Parts	DK-KMIC- 100X170-032	Kriegsmarine Iron	32	FF	\$7.95
Accurate Model Parts	DK-RMNE-	Reichsmarine flag	32	FF	\$6.95

	001/107 005	U-Boat Model Kits & A	ccessories		
A a surget a Ma dal Danta	80X135-032	80X135cm	25	DD	¢C 05
Accurate Model Parts	DK-KMNE- 80X135-035	Kriegsmarine flag 80X135cm	35	FF	\$6.95
Accurate Model Parts	DK-KMIC-	Kriegsmarine Iron	35	FF	\$6.95
	80X135-035	Cross Substitute			
		80X135cm	25		¢7.05
Accurate Model Parts	DK-KMNE- 100X170-035	Kriegsmarine flag 100X170cm	35	FF	\$7.95
Accurate Model Parts	DK-KMIC-	Kriegsmarine Iron	35	FF	\$7.95
Accurate Woder I arts	100X170-035	Cross Substitute	55	11	φ1.95
	100/11/0 055	100X170cm			
Accurate Model Parts	DK-RMNE-	Reichsmarine flag	35	FF	\$6.95
	80X135-035	80X135cm			
Accurate Model Parts	DK-KMNE-	Kriegsmarine flag	48	FF	\$6.95
	80X135-048	80X135cm			
Accurate Model Parts	DK-KMIC-	Kriegsmarine Iron	48	FF	\$6.95
	80X135-048	Cross Substitute			
Accurate Model Parts	DK-KMNE-	80X135cm Kriegsmarine flag	48	FF	\$6.95
Accurate Model Parts	100X170-048	100X170cm	40	ГГ	<i>ф</i> 0.9 <i>3</i>
Accurate Model Parts	DK-KMIC-	Kriegsmarine Iron	48	FF	\$6.95
riceditate Wioder Faits	100X170-048	Cross Substitute	10		φ0.95
		100X170cm			
Accurate Model Parts	DK-RMNE-	Reichsmarine flag	48	FF	\$6.95
	80X135-048	80X135cm			
Andrea Miniatures	LP-10	VIIC section	32	R,M	€1056.00+VA
Andrea Miniatures	LP-10	VIIC section - painted	32	R,M	€3240.00+VA
Andrea Miniatures	S5-S09	VIIC mid-deck &	32	R,PE,WM,D,F	€309.99+VAT
	95,900	tower			01001 41 1374
Andrea Miniatures	S5-S09	VIIC mid-deck &	32	R,PE,WM,D,F	€1921.41+VA
Andrea Miniatures	S5-S10	tower - painted VIIC deck gun & crew	32	R,WM	€111.12+VA7
Andrea Miniatures	\$5-\$10 \$5-\$10	VIIC deck gun & crew	32	R,WM	€346.29+VAT
i marca miniatares	55 510	crew - painted	52	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0510.25 * 111
Dream Arts	1110	VIIC deck - for Robbe	40	P,R	€81.00
Dream Arts	1111	VIIC vent slots	40	Р	€35.90
		- for Robbe			
Dream Arts	1112	VIIC mid-war deck	40	Р	€81.00
		- for Robbe			
Dream Arts	1113	VIIC late-war deck	40	Р	€81.00
Dura auto	1114	- for Robbe	40	Р	C25.00
Dream Arts	1114	VIIC late-war vent slots - for Robbe	40	P	€35.90
Dream Arts	1115	VIIC mid-deck section	40	R,WM	€79.00
DicamAits	1115	- for Robbe	+0	IX, VV IVI	079.00
Dream Arts	1303	VIIB decals	40	D	€8.50
Dream Arts	1304	VIIC decals	40	D	€9.50
Dream Arts	1305	VII Mittelmeer decals	40	D	€6.50
Dream Arts	1306	VIIC/41 decals	40	D	€9.00
Dream Arts	1401	20mm barrel	40	М	€5.65
Dream Arts	1402	20mm 38 barrel for XXI	35	М	€7.17
Modelbrass	_	XXI deck - for Robbe	40	PE	_
Modelbrass	-	VIIB deck - for Robbe	40	PE	-
Modelbrass	-	VIIC conversion (deck	40	PE	-
		& tower) - for Robbe			
OTW Designs	-	Conning tower kit	32	GRP,R,PE,WM	£165.00
OTW Designs	-	Turm IV kit	32	GRP,R,PE,WM	-
Robbe via Dream Arts	1102	Torpedoes	40	Р	€14.10
Robbe via Dream Arts	1405	37mm Flak gun	40	P,B	€13.85

Robbe via Dream Arts	1406	88mm deck gun	40	Р	€11.80
Robbe via Dream Arts	1407	20mm Flak gun	40	Р	€8.70
Robbe via Dream Arts	1408	20mm Flak gun	40	P,B	€9.20
Robbe via Dream Arts	1409	20mm Zwilling Flak gun	40	P,B	€14.85
		Figures			
Accurate Armour	F34	Commander	35	R	£8.31
Accurate Armour	F35	Deck officer	35	R	£8.31
Accurate Armour	F36	Officer mixed dress	35	R	£8.31
Andrea Miniatures	S5-B14	Commander bust	10	R,WM	€42.11+VAT
Andrea Miniatures	S5-B14	Commander bust - painted	10	R,WM	€222.48+VA
Andrea Miniatures	S5-A28	Commander	32	WM	€17.35+VAT
Andrea Miniatures	S5-A29	Deck officer	32	WM	€17.35+VAT
Andrea Miniatures	S5-A30	Engine crewman	32	WM	€17.35+VAT
Andrea Miniatures	S5-A31	Seaman 1	32	WM	€17.35+VAT
Andrea Miniatures	S5-A32	Seaman 2	32	WM	€17.35+VAT
Frontier Models	S9B14	Silent Hunter Commander bust	10	R,WM	£42.95
Frontier Models	TR06	Günther Prien	16	R,WM	£51.95
Frontier Models	BU1	Erich Topp &	180	R,WM	£26.95
		periscope	mm		
		Diorama			
Accurate Armour	D12	Quayside deck/stair	35	R,WM	£107.65
Accurate Armour	D13	Quayside end	35	R,WM	£132.12
Accurate Armour	D14	Quayside complete	35	R,WM	£327.88
Accurate Armour	D15	Quayside mooring set	35	R,WM	£14.69
Accurate Armour	S 03	Torpedo set	35	R	£24.41
Andrea Miniatures	S5-A38	Electric welding set	32	R,WM	€11.64+VAT
Andrea Miniatures	S5-A39	Mine	32	R	€16.10+VAT
Andrea Miniatures	S5-A40	VIIC anchor	32	WM	€6.51+VAT

Part III - 1/72nd scale

Manufacturer	Code	Subject	Scale	Materials	Price
		Full hull kits			
Alanger	040005	XXIII	72	Р	€38.50
Amati	1602	VIIB U 47	72	R,W,PE	£288.90
Combat Models	72-101	VIIC	72	V	\$47.95
Combat Models	72-107	IXC	72	V	\$47.95
Combat Models	72-108	IXD2	72	V	\$47.95
ICM	ICMS006	XXVIIB Seehund	72	Р	£12.99
Revell	RV5015	VIIC	72	Р	£49.99
Revell	RV5045	VIIC/41	72	Р	£59.99
Special Navy	72001	IIA	72	P,R,PE,WM,D	£57.50
Special Navy	72002	XXIII	72	P,R,PE,WM,D	£48.60
		Waterline kits			
CMK Maritime Line	ML80418	VIIC	72	R	£125.70 -
					future release
		Towers			
	(Both towe	ers are for the 1/72nd Revel	1 RV5015	VIIC kit)	
HP-Models	Con-72-G-	VIIC tower, tower	72	R,M	Out of
	001	details, periscopes			production
Warhammer	WH001	Top half of VIIC	72	R,M,PE	Out of
		tower, periscope, tower details			production

Accurate Model Parts	72-01	se, all accessories are for the IIA deck & accessories	72	R,PE,D,F	\$59.95
A a arreate Ma del Derte	SAW-72	- for Special Navy IIA	72	D	
Accurate Model Parts Accurate Model Parts	A-72W	Sawfish decals VII waterline	72	D D	TBA \$6.95
Accurate Model Parts	A-72 W C-72N	VII waterline VII snorting bull	72	D D	\$6.95
Accurate Model Faits	C-72N	normal	12	D	φ0.93
Accurate Model Parts	D-72L	VII snorting bull large	72	D	\$6.95
Accurate Model Parts	DK-KMNE-	Kriegsmarine flag	72	FF	\$5.95
	80X135-072	80X135cm			
Accurate Model Parts	DK-KMIC-	Kriegsmarine Iron	72	FF	\$5.95
	80X135-072	Cross Substitute			
		80X135cm			
Accurate Model Parts	DK-KMNE-	Kriegsmarine flag	72	FF	\$5.95
	100X170-072	100X170cm	70		\$5.05
Accurate Model Parts	DK-KMIC- 100X170-072	Kriegsmarine Iron Cross Substitute	72	FF	\$5.95
	100A1/0-072	100X170cm			
Accurate Model Parts	DK-RMNE-	Reichsmarine flag	72	FF	\$5.95
leedrate wioder r arts	80X135-072	80X135cm	12	11	φ5.75
Accurate Model Parts	DK-UBPEN-	Kriegsmarine U-boat	72	FF	\$14.95
	072	Pennant set			
Accurate Model Parts	NAME-72-	VIIC brass nameplate	72	В	\$8.95
	VIIC				
Accurate Model Parts	NAME-72-	IIA brass nameplate	72	В	\$8.95
	IIA				*** • *
Archer Fine Transfers	AR88023	VIIC rivets	72	D	\$59.95
Bigpond	-	Dry-dock	72	R	AUS\$355.00 Out of
					production
СМК	CMK7201	Interior command	72	R	£47.50
C	01111/201	section			
СМК	CMK7202	Interior torpedo section	72	R	£47.50
СМК	CMK7203	Interior engine section	72	R	£47.50
СМК	CMK7204	Exterior set	72	R	£27.99
СМК	CMK7205	Interior officer's	72	R	£43.20
		ward room & galley			
СМК	CMK7206	Loading supplies at sea	72	R	£15.86
СМК	CMK7207	Torpedo loading winch	72	R	£23.80
СМК	CMR2209	at sea	72	R	£23.80
CMK	CMK7208	Rear torpedo loading hatch	12	K	£25.80
СМК	CMK7209	Deck winch for	72	R	£23.80
CIVIIX	CI/II(/20)	torpedo loading	12	R	223.00
СМК	CMK72128	Dockside provision set	72	R	£7.99
CMK Maritime Line	ML80306	5 torpedoes	72	R	€22.50
Combat Models	72-101	Combat VIIC update	72	V	\$25.00
Combat Models	72-107	Combat IXC update	72	V	\$25.00
Combat Models	72-108	Combat IXD2 update	72	V	\$25.00
Dream Arts	1101	Rivet set for Revell	72	Р	€99.00
		VIIC			
Eduard	ED53008	Update set for VIIC	72	PE	£23.75
Eduard	ED53015	Set for Revell VIIC/41	72	PE	£25.70
Eduard	ED53022	Set for Special Navy XXIII	72	PE	£12.80
G-Factor	GFA17201	2 VIIC propellers	72	В	£13.50
Griffon Models	GFA17201 GMA-N005	Turm IV armament	72	B,PE,P	\$30.00
	GMA-N005 GMA-N006	G7a/G7e torpedo	72	M,PE	φ50.00
Griffon Models					

Houshings		VIIC our bornels	70	М	production Out of
Houshinya	-	VIIC gun barrels	72	Μ	production
Kora	W7209	G7e torpedo	72	R,PE	-
Modelbrass	WM7201	VIIC deck & details	72	PE	\$40.00
Nautilus	72-001	Turm II conversion	72	W,R,PE	Out of
radinus	72 001	(actually Turm IV)	12	W,IX,I L	production
Nautilus	72-002	37mm + 20mm Flak38	72	W,R,PE	\$25.00
Nautilus	72-002	20mm Vierling	72	R,PE	\$20.00
Nautilus	72-003	Turm VI conversion	72	W,R,PE	\$20.00
Nautilus	72-004	Turm II conversion	72	R	Out of
		(resin only)			production
Nautilus	72-102	Turm II conversion (PE brass only)	72	PE	\$20.00
Nautilus	72-501	VIIC early deck	72	W	\$38.00
Nautilus	72-502	VIIC Turm II deck	72	W	\$40.00
Nautilus	72-503	VIIC/41 planked deck with snorchel	72	W	\$40.00
Nautilus	72-504	VIIC/41 planked deck without snorchel	72	W	\$40.00
Nautilus	72-505	VIIC/41 planked deck fixed snorchel	72	W	\$40.00
Nautilus	72-506	VIID deck	72	W	\$40.00
Nautilus	72-507	IIA deck - for Special Navy	72	W	\$20.00
Raboesch	146-05	Propeller left	72	В	
Raboesch	146-06	Propeller right	72	B	
Schatton Modellbau	SMB7201	20mm Flak 38 barrel	72	B	\$7.95
Schatton Modellbau	SMB7201 SMB7238	20mm Flak 38 &	72	B	\$7.95
Schatton Modelibau	SIVIB/238	antenna	12	В	-
Schatton Modellbau	SMB7239	G7a torpedo	72	B,PE	-
Schatton Modellbau	SMB7241	2 persicopes	72	В	-
Schatton Modellbau	SMB72150	2 persicopes for Special Navy IIA	72	В	-
Schatton Modellbau	SMB72151	G7e-T2 late-war torpedo	72	B,PE	\$19.00
Special Navy	SN72005	VIID conversion	72	P,R,PE,D	£18.50
U-Brass /	UB001 /	Flood, vent & drain	72	PE	£16.13+VA7
White Ensign Models	WEM7232	holes	. –		
ULAD	ULAD7201	VIIC decals 1	72	D	£5.86
ULAD	ULAD7202	VIIC decals 2	72	D	£5.86
ULAD	ULAD7203	VIIC decals 3	72	D	£5.86
White Ensign Models	WEM7203	Update set	72	PE	£16.98+VAT
White Ensign Models	WEM7203	Torpedo loading set	72	R,PE	£13.57+VAT
White Ensign Models	WEM7212	Torpedoes	72	R,PE	£3.79+VAT
White Ensign Models	WEM7212 WEM7213	37mm	72	R,PE	£6.64+VAT
White Ensign Models	WEM7215	20mm Zwilling	72	R,PE	£4.55+VAT
White Ensign Models	WEM7231	Update set for VIIC/41	72	PE	Future release
Yankee Modelworks	YKM7201	Upper pressure hull	72	R	£36.55+VA7
Yankee Modelworks	YKM7202	VIIC update	72	WE	\$21.95
		Figures			
СМК	CMK72116	3 on guard in tower	72	R	£7.99
СМК	CMK72117	3 loading supplies	72	R	£7.99
СМК	CMK72118	3 at rest part 1	72	R	£7.99
СМК	CMK72127	3 at rest part 2	72	R	£7.99
СМК	CMK72131	3 gun crew in action	72	R	£7.99
СМК	CMK72132	3 loading torpedo	72	R	£9.99
СМК	CMK72133	3 crewmen in tower	72	R	£7.99

CMK	CMK72184	on lookout at sea 3 gun crew	72	R	£7.99
CMK	CMK72185	3 gun crew	72	R	£7.99
Frontier Models	\$12\$1	5 U-boat crew	72	WM	£19.00
Frontier Models	\$12\$3	7 U-boat crew 1	72	WM	£19.00
Frontier Models	\$1255 \$12\$4	9 U-boat crew 2	72	WM	£19.00
Frontier Models	\$12S1 \$12S6	8 U-boat crew 4	72	WM	£22.50
Frontier Models	S12S0	7 U-boat crew 5	72	WM	£22.50
Hecker & Goros	KSHG200	3 Commander,	72	WM	\$15.00
neeker & Goros	RbH0200	IWO, lookout	12	** 111	φ15.00
Hecker & Goros	KSHG201	3 IIWO, lookout, machinist	72	WM	\$15.00
Hecker & Goros	KSHG202	4 lookout, signal, sailor, boatswain	72	WM	\$18.00
Hecker & Goros	KSHG203	4 gun crew	72	WM	\$18.00
Hecker & Goros	KSHG212	4 at sea	72	WM	\$18.00
Hecker & Goros	KSHG218	3 XXIII crew 1945	72	WM	\$18.00
Hecker & Goros	KSHG222	4 North Atlantic dress 1	72	WM	\$18.00
Hecker & Goros	KSHG224	4 North Atlantic dress 2	72	WM	\$18.00
Hecker & Goros	KSHG235	3 Type IIA figures	72	WM	\$18.00
Revell	RV2525	51 Kriegsmarine figures	72	Р	£5.21+VAT
Warriors	WA72006	4 tower	72	WM	\$14.00
Warriors	WA72007	4 88mm gun crew	72	WM	\$14.00
Warriors	WA72008	4 20mm gun crew	72	WM	\$14.00
CMK Maritime Line	ML80134 ML80136	Steam crane Guardhouse	72	R	£23.49+VA7
CMK Maritime Line	ML80136	Guardhouse	72	R	£13.40+VA7
CMK Maritime Line	ML80228	Warehouse	72	R	£23.49+VA7
CMK Maritime Line	ML80283	2 rowing boats	72	R	£6.80+VAT
	ML80286	2 tonne harbour crane	72	R,PE	
				/	
CMK Maritime Line	ML80290	Motor launch	72	R	£17.45+VA7
CMK Maritime Line CMK Maritime Line	ML80290 ML80292	Kriegsmarine divers	72 72	R R	£17.45+VA7 £8.72+VAT
CMK Maritime Line CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293	Kriegsmarine divers 5 U-boat figures	72 72 72 72	R R R	£17.45+VA7 £8.72+VAT £8.72+VAT
CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294	Kriegsmarine divers 5 U-boat figures 5 sentries + dog	72 72 72 72 72	R R R R	£17.45+VA7 £8.72+VAT £8.72+VAT £8.72+VAT
CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294 ML80295	Kriegsmarine divers 5 U-boat figures 5 sentries + dog 5 naval hospital staff	72 72 72 72 72 72 72	R R R R R R	£17.45+VA7 £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT
CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294 ML80295 ML80296	Kriegsmarine divers 5 U-boat figures 5 sentries + dog 5 naval hospital staff 5 dockyard workers	72 72 72 72 72 72 72 72 72 72 72 72 72 72	R R R R R R R	£17.45+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT
CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294 ML80295 ML80296 ML80297	Kriegsmarine divers 5 U-boat figures 5 sentries + dog 5 naval hospital staff 5 dockyard workers 5 dockyard workers on bicycles	72 72 72 72 72 72 72 72 72 72 72 72 72 72 72 72 72	R R R R R R R R	£17.45+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT
CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294 ML80295 ML80296 ML80297 ML80299	Kriegsmarine divers 5 U-boat figures 5 sentries + dog 5 naval hospital staff 5 dockyard workers 5 dockyard workers on bicycles Dry-dock walls	72 72 72 72 72 72 72 72 72 72 72 72 72 72 72 72 72 72	R R R R R R R R R	£17.45+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT
CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294 ML80295 ML80296 ML80297 ML80299 ML80300	Kriegsmarine divers 5 U-boat figures 5 sentries + dog 5 naval hospital staff 5 dockyard workers 5 dockyard workers on bicycles Dry-dock walls Stairs & corners	72 72	R R R R R R R R R R R	£17.45+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT
CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294 ML80295 ML80296 ML80297 ML80299	Kriegsmarine divers 5 U-boat figures 5 sentries + dog 5 naval hospital staff 5 dockyard workers 5 dockyard workers on bicycles Dry-dock walls Stairs & corners Cobbled road sections	72 72	R R R R R R R R R R R R	£17.45+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT
CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294 ML80295 ML80296 ML80297 ML80300 ML80300 ML80302 ML80303	Kriegsmarine divers 5 U-boat figures 5 sentries + dog 5 naval hospital staff 5 dockyard workers 5 dockyard workers on bicycles Dry-dock walls Stairs & corners Cobbled road sections Cobbled road with tramlines	72 72	R R R R R R R R R R R R	£17.45+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £15.40+VAT £15.40+VAT
CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294 ML80295 ML80296 ML80297 ML80299 ML80300 ML80302 ML80303 ML80304	Kriegsmarine divers 5 U-boat figures 5 sentries + dog 5 naval hospital staff 5 dockyard workers 5 dockyard workers on bicycles Dry-dock walls Stairs & corners Cobbled road sections Cobbled road with tramlines Dry-dock base sections	72 72	R R R R R R R R R R R R R R R	£17.45+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £15.40+VAT £15.40+VAT £10.04+VAT
CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294 ML80295 ML80296 ML80297 ML80300 ML80300 ML80302 ML80303	Kriegsmarine divers 5 U-boat figures 5 sentries + dog 5 naval hospital staff 5 dockyard workers 5 dockyard workers on bicycles Dry-dock walls Stairs & corners Cobbled road sections Cobbled road with tramlines	72 72	R R R R R R R R R R R R	£17.45+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £15.40+VAT £15.40+VAT
CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294 ML80295 ML80296 ML80297 ML80299 ML80300 ML80302 ML80303 ML80304	Kriegsmarine divers 5 U-boat figures 5 sentries + dog 5 naval hospital staff 5 dockyard workers 5 dockyard workers on bicycles Dry-dock walls Stairs & corners Cobbled road sections Cobbled road with tramlines Dry-dock base sections	72 72	R R R R R R R R R R R R R R R	£17.45+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £8.72+VAT £15.40+VAT £15.40+VAT £10.04+VAT \$15.00
CMK Maritime Line CMK Maritime Line	ML80290 ML80292 ML80293 ML80294 ML80295 ML80296 ML80297 ML80299 ML80300 ML80300 ML80303 ML80304 ML80307	Kriegsmarine divers 5 U-boat figures 5 sentries + dog 5 naval hospital staff 5 dockyard workers 5 dockyard workers on bicycles Dry-dock walls Stairs & corners Cobbled road sections Cobbled road with tramlines Dry-dock base sections Sea mines 5 German service	72 72	R R R R R R R R R R R R R R R R R	£15.40+VAT £15.40+VAT £10.04+VAT

Part IV - 1/96th to 1/150th scale

Manufacturer	Code	Subject	Scale	Materials	Price
		Full hull kits			
Academy	AC1442	IXB	150	Р	£19.99
Doyusha	DH30011	VIIC U 581	150	Р	£27.36
ICM	ICMS004	XXIII	144	Р	£7.65+VAT
Fine Arts	VIIC	VIIC/41	96	Pre-built and painted	\$3495.00
Fine Arts	VIIC	VIIC/41 with camo	96	Pre-built and painted	\$4495.00
Mini Hobby Models	81201	XXI U 2518	144	Р	-
Mini Hobby Models	81202	XXI Wilhelm Bauer	144	Р	-
Revell	RV5004	XXI U 2540	144	Р	\$21.99
Revell	RV5009	VIID	144	Р	£14.99
Revell	RV5038	VIIC	144	Р	£14.99
Revell	RV5054	VIIB U 99	125	Р	£14.77+VAT
Revell	RV5060	VIIB U 47 with interior	125	Р	£14.77+VAT
Revell	RV5078	XXI with interior	144	Р	-
Revell	RV5100	VIIC/41	144	Р	£14.99
Targa	71073	VIIC in 8 sections	144	M, pre-built & painted	\$89.95
Trumpeter	TP05907	XXIII prototype	144	P	£12.98
Trumpeter	TP05908	XXIII	144	Р	£10.98
		Towers			
Nautilus	-	Resin tower for	125	R,PE	Out of
		Revell 1/125th U 99		,	production
(Unless ma) Accurate Model Parts	arked as otherwis SAW-144	Accessories se, all accessories are for th Sawfish decals	ue 1/144th 1 144	Revell RV5038 VIIC	c kit) TBA
Accurate Model Parts	B-144W	VII waterline	144	D	\$6.95
Accurate Model Parts	E-144W E-144N	VII snorting bull normal	144	D	\$5.95
Accurate Model Parts	F-144L	VII snorting bull large	144	D	\$5.95
Accurate Model Parts	DK-KMNE-	Kriegsmarine flag	96	FF	\$5.95
	80X135-096	80X135cm	20		
Accurate Model Parts	DK-KMIC- 80X135-096	Kriegsmarine Iron Cross Substitute 80X135cm	96	FF	\$5.95
Accurate Model Parts	DK-KMNE- 100X170- 096	Kriegsmarine flag 100X170cm	96	FF	\$5.95
Accurate Model Parts	DK-KMIC- 100X170- 096	Kriegsmarine Iron Cross Substitute 100X170cm	96	FF	\$5.95
Accurate Model Parts	DK-RMNE- 80X135-096	Reichsmarine flag 80X135cm	96	FF	\$5.95
Accurate Model Parts	DK-KMNE- 100X170- 125	Kriegsmarine flag 100X170cm	125	FF	\$5.95
	DK-KMIC-	Kriegsmarine Iron Cross Substitute	125	FF	\$5.95
Accurate Model Parts	100X170- 125	100X170cm			
Accurate Model Parts Eduard			144	PE	£12.80
	125	100X170cm	144 144	PE PE,M,D	£12.80
Eduard	125 EDU17022	100X170cm Update set			£12.80 -
Eduard Griffon Models	125 EDU17022 N144001	100X170cm Update set Update set	144	PE,M,D	£12.80 - -
Griffon Models Griffon Models	125 EDU17022 N144001 N144002	100X170cm Update set Update set For 144 th VIID	144 144	PE,M,D PE,M,D	£12.80 - - - £12.35

Part V - 1/200th to 1/700th scale

Manufacturer	Code	Subject	Scale	Materials	Price
		Full hull kits			
AFV Club	SE73501	XXI	350	Р	£13.65
AFV Club	SE73502	VIIB	350	P,PE	£12.98
AFV Club	SE73503	VIIC	350	P,PE	£14.98
AFV Club	SE73505	VIID	350	P,PE	Future
Artitec	55-107	VIIC	350	P or R	\$21.95
Blue Water Navy	35027	IIB	350	R	-
Blue Water Navy	35028	VIIC	350	R	-
Blue Water Navy	35032	XXI	350	R	-
Commander Series	CSM8-002	IXC	350	R	\$27.12
Dragon	1008	XXI	350	Р	-
Flagman	FL235003	VIIC/41	350	Р	£7.82
Flagman	FL235005	IXA/B	350	Р	Future
Flagman	FL235006	VIIC	350	Р	-
Flagman	FL235009	VIIB	350	Р	Future
Flagman	FL235010	IXC	350	Р	Future
Flagman	FL235014	IXC/40 early	350	Р	Future
Flagman	FL235022	VIIC Flak	350	Р	£7.99
Flagman	FL235030	IXD2 early	350	Р	Future
Gulfstream	-	VIIC late war	350	P or R	-
Hobby Boss	HB87006	IXB	700	Р	£3.99
Hobby Boss	HB87007	IXC	700	Р	£3.99
Hobby Boss	HB87008	VIIB	700	Р	£3.99
Hobby Boss	HB87009	VIIC	700	Р	£3.99
Mirage Hobby	MIR40023	IIA U 2	400	Р	£4.88
Mirage Hobby	MIR40024	IIB U 23	400	Р	£4.88
Mirage Hobby	MIR40025	IIC U 60	400	Р	£4.88
Mirage Hobby	MIR40026	IID U 149	400	Р	£4.88
Mirage Hobby	MIR40041	IXC U 176	400	Р	£8.35
Mirage Hobby	MIR40042	IXB U 511	400	Р	£7.43
Mirage Hobby	MIR40044	IXC/40 U 803	400	P	£8.35
Mirage Hobby	MIR40045	IXA U 40	400	P	£8.40
Mirage Hobby	MIR40049	VIIC U 571	400	P	£8.40
Mirage Hobby	MIR40410	VIIB U 84	400	P	£7.43
Mirage Hobby	MIR40411	VIIC U 570	400	P	£8.35
Mirage Hobby	MIR40412	VIIC Turm II U 673	400	P P	£7.43
Mirage Hobby	MIR40413	VIIC Turm IV U 826	400	P P	£7.43 £8.40
Mirage Hobby Mirage Hobby	MIR40414 MIR40415	VIIC/41 U 295 + Biber VIIC/41 U 1064	400 400	P P	£8.15
Mirage Hobby	WIIK40413	IXD2 Turm II U 875	400	P P	
Nichimo	2009	IXB U 107	200	P P	- \$15.00
Nichimo	2009	IXC U 505	200	P	\$15.00
Planet Models / CMK	PLANS 001			R	
Planet Models / CMK	PLANS 001 PLANS 002	IA XXI	200 200	R	£46.40 £46.40
Planet Models / CMK	PLANS 002 PLANS 003	IIA	200	R	£40.40 £29.99
Planet Models / CMK	PLANS 003 PLANS 004	IIA	200	R	£29.99 £29.99
Planet Models / CMK	PLANS 004 PLANS 005	IIC	200	R	£29.99
Planet Models / CMK	PLANS 005 PLANS 006	IID	200	R	£29.99 £29.99
Planet Models / CMK	PLANS 000 PLANS 007	Molch	200	R	£29.99 £10.80
Planet Models / CMK	PLANS 007 PLANS 008	Hecht	200	R	£10.80
Planet Models / CMK	PLANS 008 PLANS 009	Biber	200	R	£10.80
Planet Models / CMK	PLANS 009 PLANS 010	Seehund	200	R	£10.80
Planet Models / CMK	PLANS 010 PLANS 011	XXIII	200	R	£10.80 £29.99
Revell	3102	IXC U 505	200	P R	\$20.00
Revell	RV5093	VIIC	350	P P	£6.99

Yankee Modelworks	YKM-35027	VIIC late war	350	R,PE,WM	\$60.00
ankee Modelworks	YKM-35028	IXC late war	350	R,PE,WM	\$60.00
Yankee Modelworks	YKM-35032	XXI	350	R,PE	\$30.00
ττ	44100	Waterline kits	700	D	¢9,00
Hasegawa	44126	VIIC + IXC	700	P	\$8.99
HP Models	WW II-WL	I & II	700	R	€16.00
	-G-02	XXXI 1045	700	D	010.00
HP Models	WW II-WL	XXI 1945	700	R	€10.00
	-G-051				016.00
HP Models	WW II-WL	XXIII set of 4	700	R	€16.00
	-G-052				
HP Models	WW II-WL	XXIII set of 4 -	700	R	€16.00
	-G-052A	series 1			
HP Models	WW II-WL	VIIB U 47	700	R	€10.00
	-G-113				
HP Models	WW II-WL	VIIB U 47	700	R	€11.00
	-G-113				
HP Models	WW II-WL	VIIB U 83	700	R	€11.00
	-G-114				
HP Models	WW II-WL	VIIC U 201	700	R	€11.00
	-G-115				
HP Models	WW II-WL	VIIC/41 U 1105	700	R	€11.00
	-G-116				
HP Models	WW II-WL	VIIC U 441 U-Flak	700	R	€11.00
	-G-117				
HP Models	WW II-WL	VIID U 218	700	R	€11.00
	-G-118				
HP Models	WW II-WL	VIIF U 1060	700	R	€11.00
	-G-119				
HP Models	WW II-WL	IXA U 40	700	R	€11.00
	-G-120				
HP Models	WW II-WL	IXA U 37	700	R	€11.00
	-G-121				
HP Models	WW II-WL	IXB U 106	700	R	€11.00
	-G-122			_	
HP Models	WW II-WL	IXB U 103	700	R	€11.00
	-G-123				
HP Models	WW II-WL	IXC U 66	700	R	€11.00
	-G-124				011.00
HP Models	WW II-WL	IXC U 507	700	R	€11.00
	-G-125	THE H FOO	700	D	011.00
HP Models	WW II-WL	IXC U 532	700	R	€11.00
	-G-126		700	D	011.00
HP Models	WW II-WL	IXC/40 U 869	700	R	€11.00
	-G-127		700	D	011.00
HP Models	WW II-WL	IXD U 180	700	R	€11.00
	-G-128		700	D	011.00
HP Models	WW II-WL	IXD U 195	700	R	€11.00
	-G-129		700	D	011.00
HP Models	WW II-WL	IXD2 U 862	700	R	€11.00
	-G-130	VD U 110	700	D	011.00
HP Models	WW II-WL	XB U 118	700	R	€11.00
	-G-171	VD 11 110	700	D	011.00
HP Models	WW II-WL	XB U 119	700	R	€11.00
	-G-172	VD U 010	700	D	011.00
HP Models	WW II-WL	XB U 219	700	R	€11.00
	-G-173	VD U 000	700	D	011.00
HP Models	WW II-WL	XB U 233	700	R	€11.00
	-G-174				<u></u>
HP Models	WW II-WL	XB U 234	700	R	€11.00

U-Boat Model Kits & Accessories

	-G-175				
HP Models	WW II-WL	XIV U 459	700	R	€11.00
	-G-176				
HP Models	WW II-WL	XIV U 461	700	R	€11.00
	-G-177				
HP Models	WW II-WL	XIV U 462	700	R	€11.00
	-G-178				
HP Models	WW II-WL	XIV U 490	700	R	€11.00
	-G-179				
		Accessories		44	
		therwise, all accessories a		/400 th Mirage kits)	
Accurate Model Parts	SAW-350	Sawfish decals for	350	D	TBA
		350 th scale VIIC			
Mirage Hobby	24001	IIA U 3 update	400	R,PE	-
Mirage Hobby	24002	IIB U 14 update	400	R,PE	-
Mirage Hobby	24003	IIC U 57 update	400	R,PE	-
Mirage Hobby	24001	IID U 141 update	400	R,PE	-
Mirage Hobby	44001	VIIB U 83 update	400	R,PE	-
Mirage Hobby	44002	VIIC U 556 update	400	R,PE	-
Mirage Hobby	44003	IXA U 37 update	400	R,PE	-
Mirage Hobby	44004	IXC U 154 update	400	R,PE	-
Tom's Modelworks	4019	For 5 VIIs	400	PE	\$16.00
Voyager	VN35001	For AFV VIIB	350	R,PE	£6.77+VAT
VOyugoi					

Part VI - Manufacturer & Supplier Websites

White Ensign Models

White Ensign Models Kriegsmarine paints		
Code	Paint	Price per tin
KM01	Hellgrau 50	£1.32+VAT
KM02	Dunkelgrau 51	£1.32+VAT
KM05	Schiffsbodenfarbe III Grau	£1.32+VAT
KM06	Dunkelgrau 2	£1.32+VAT
KM11	Schlickgrau 58	£1.32+VAT
KM12	Blaugrau 58.1	£1.32+VAT

ULAD decals

ULAD decals		
Code	U-numbers	
ULD72001	U 79, U 82, U 95, U 96, U 132, U 136, U 201, U 202, U 204, U 212, U 235,	
	U 302, U 558 & U 564	
ULD72002	U 71, U 72, U 81, U 92, U 97, U 134, U 205, U 209, U 221, U 223, U 231, U 238,	
	U 255, U 404, U 458, U 564, U 593 & U 601	
ULD72003	U 94, U 332, U 333, U 334, U 407, U 453, U 556, U 565, U 571, U 592, U 596,	
	U 617, U 751, U 755 & U 757	

Manufacturers

Manufacturers		
Name	Website	
Accurate Model Parts	http://amp.rokket.biz	
Amati	http://www.amatimodel.com	
Andrea Miniatures	http://www.andrea-miniatures.com	
Archer Fine Transfers	http://www.archertransfers.com	
Combat Models	http://combatmodels.us	
MK / CMK Maritime Line	http://www.cmkkits.com/en/page/about-us	
Dream Arts	http://www.dream-arts.de	
Eduard	http://www.eduard.cz	
Engel	http://www.engel-modellbau.de	
Fine Arts	http://www.fineartmodels.com	
Flagman Models	http://www.flagman-models.com	
Frontier Models	http://www.frontiermodels.co.uk	
G-Factor Models	http://www.gfactormodels.com	
Griffon Models	http://www.griffonmodel.com	
Hecker & Goros	http://www.hecker-goros.de	
HP Models	http://www.hp-models.com	
ICM	http://www.icm.com.ua/en	
Kora	http://www.lfmodels.cz	
Krick	http://www.krick-modell.de	
Mirage Hobby	http://www.mirage-hobby.com.pl	
Modelbrass	http://www.modelbrass.com	
Nautilus	http://nautilusmodels.com	
OTW Designs	http://www.otwdesigns.com	
Raboesch	http://www.raboesch.com	
Robbe	http://www.cms.robbe.de	
Schatton Modellbau	http://modellbau-schatton.privat.t-online.de	
Special Navy	http://www.cmkkits.com/en/page/about-us	
Tom's Modelworks	http://www.tomsmodelworks.com	
U-Brass	Now Accurate Model Parts	
Verlinden	http://www.verlindenonline.com	
Voyager	http://www.voyagermodel.com	
White Ensign Models	http://www.whiteensignmodels.com	
Yankee Modelworks	http://www.yankeemodelworks.com	

Suppliers

Suppliers		
Name	Website	
Euromodels	http://www.euromodels.co.uk	
Hannants	http://www.hannants.co.uk	
Models by Mickster	http://www.modelsbymickster.com	
White Ensign Models	http://www.whiteensignmodels.com	

Revell Type VIIC Checklist

Revell Type VIIC Checklist

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	Part III	Deck
	Part IV	Inside Tower
¢	Part V	Outside Tower

Part I - Introduction

The following checklist was written for Revell's 1/72nd Type VIIC U-boat (RV5015) model kit and details the main areas that should be altered by modellers of this kit. Readers should refer to the accompanying articles in the Wolf Pack collection for assistance on individual points. The points are also relevant to Revell's 1/144th scale Type VIIC (RV5038) kit which is essentially a half sized version of RV5015. Some of the details for the hull are also relevant for Revell's 1/72nd Type VIIC/41 (RV5045) kit.

Note: In Part II and Part III the items are lised from bow to stern.

Part II - Hull

- Add S-Gerät bow piece if necessary.
- AAAAAAAAAAAA Add small triangular piece (if desired) to stem.
- Correct 2/3 holes next to stem.
- Correct torpedo door length and surrounding vents.
- Correct 12 circular vents above torpedo doors.
- Move anchor recess forward.
- Add rim around sections of anchor recess.
- Re-do doublers up to rear end of torpedo doors.
- Remove doublers under anchor recess (starboard side only).
- Move forward UT plates slightly farther aft.
- For some boats, add GHG plates in different locations.
- Add tensioner wire from forward dive planes to pressure hull.
- Add plate on top of forward dive planes.

> Correct group of vents behind forward dive planes. The Modelbrass set includes brass pieces that are the correct pattern but are slightly too "high" in height.

Add two doublers that run from the lower hull casing to the group of vents behind forward dive planes. Small doublers should also run through between the group of vents (this is troublesome due to the inaccurate height of the Modelbrass piece).

- Add new dive tank inlet doors (above keel bar).
- > Move the two "bumps" higher and farther aft.
- > Correct the pattern of forward main group of vents as necessary.
- > Drill out all vent holes in hull.

> The seam between pressure hull and hull casing is the correct width. However, a seam should be added beneath the forward end of the saddle tanks; a similar seam should be added beneath the aft end of the saddle tanks.

If desired, alter front of saddle tanks to snub nose. >

> Correct the length of central drainage area (shorten on starboard, extend on port side).

Revell Type VIIC Checklist

- Correct curved line of holes (if not fitting breakwaters).
- Add ribs within central drainage area.
- Add two supports per side within central drainage area.
- Sand down the weld seams on the pressure hull to a more prototypical size.
- Add manhole inspection covers on top of saddle tank (five per side).
- Correct medium sized vents above saddle tanks if necessary.
- Drill three elongated vents at the rear of the saddle tanks.
- Correct the pattern of rear main group of vents, including exhaust outlet.
- Correct vent holes around rear dive planes using Modelbrass piece.
- Add sacrificial anodes on propeller shaft bracket (two per bracket).
- Add plate around the area where the propeller shaft bracket meets hull.
- Add horizontal bar on rudder support.
- Replace lost rivets as necessary.
- Add waterline draught marking decals.

Part II - Deck

> Improve bull nose at front of deck (where tow rope passes through); the bow nose should be farther forward than on the kit.

If net cutter is depicted, move slightly forward.

> If net cutter is not depicted, but had previously been present on the chosen boat, add the five supports that were in place when net cutter had been in place.

- Add replacement deck; if necessary drill out circular holes along edge of deck.
- > Add metal sections at bow and stern, with bumps depicting the anti-slip surface.
- > Add metal tower hatches with hinges.
- > Improve hinges on wooden deck hatches.
- > Add small lip along edge of deck if possible.

Add very small lip along edge of breakwaters; also add very small holes which ran along the breakwaters just inboard of this lip.

- Add wooden strips near edges of deck.
- AA Improve top plate at top of bollards; add rectangular plate at the foot of bollards.
- AAA Improve capstan, adding prongs out of top.
- Add anti-slip strips around capstan.
- Improve KDB.
- Improve brackets that held the deck poles in place.

> Replace deck railings with brass rod that is thinner than plastic supplied. Modify railing bar arrangement as necessary.

- Add wires (and turnbuckles) between forward deck railings and aft deck railings.
- Add semi-circular air identification plate if desired.
- AAAAAA 88mm gun can be detailed, with tompion, lanyard and other items.
- Add anti-slip strips around 88mm.
- Add small fairleads as necessary.
- On jumping wires add the following -
 - Tensioners at either end of insulator block sections.
 - Add turnbuckles. 4
 - Improve insulators if possible.
 - Add the splitter on the forward jumping wires.

Revell Type VIIC Checklist

Part III - Inside Tower

Completely rebuild "dashboard" area, with engine repeater dial on left.

> On the top shelf, add a magnetic compass repeater on the left and a voicetube on the right.

Around the top of the inside of the tower bulwark, add five vertical strengthening strips. A piece should also be added in the centre; two thin wires separate out from this piece and extend to the forward jumping wires.

For a very early VIIC add the mobile voicepipe apparatus.

Add step just above the tower floor on the starboard side (behind "dashboard").

Add coping around inside edge of bulwark.

> Drill holes around edges of the bulwark; add very thin semi-circular brass bars that were in place around these holes (crewmen would attach their safety harnesses here).

> Do not fit part 77, which has a shelf that extends around the inside of the bulwark. Instead, add individual steps on either side of the inside bulwark.

Add square shaped retractable seats on bulwark (on some boats there were two on the port bulwark and one on the starboard bulwark; on some boats there was an additional one just forward of the D/F loop housing).

Add circular marker (circle with a cross within) if desired to port bulwark.

Add correct mesh grill, with hole for commander's flagstaff.

> Improve base of mast antenna housing antenna if necessary.

Add commander's flagstaff and commissioning pennant.

• On some boats there was a metal holder at the foot of the port air trunk.

Replace sky periscope base and sky periscope; add lid to the top of the sky periscope base if desired.

Replace UZO; add a lip all the way around the UZO near to the base; add vertical stanchions.

> If desired, add binoculars and binocular support to top of UZO.

> Improve tower hatch; if open add ladder down to control section.

> Replace attack periscope base, which is too short in height on the Revell kit. Add the following to the base -

Drill holes of various sizes.

- T-shaped bar if necessary (this was situated inside the large hole near the base on boats such as U 552).

- Brass rod for the bar around base.
- Brass rod for the rungs on the side.
- Brass rod for the grip around top.
- Wooden strips if necessary.
- Two small steps that were in place on the front end.
- Magnetic compass repeater and support.
- Wire from the foot of the magnetic compass repeater to the attack periscope base.
- Lid if necessary.
 - Latch which held the tower hatch in vertical position.
- Add accurate attack periscope if desired. The anti-vibration wires should be added.
- Add machine guns to top of bulwark if necessary.

As desired, add vertical wooden strips to the inside of the bulwark, both periscope bases and UZO; there should be hole near the top and bottom of each strip.

Part IV - Outside Tower

- Add new thinner spray deflector with slight curve along bottom edge.
- AA Add marker to fairing at front of the tower.
- Improve forward radio aerial inlet.
- AA Add very thin wire from forward radio aerial inlet to jumping wire above.
- > Reposition and redo forward radio aerial inlet (U 93 to U 98 only).

Drill foghorn hole and hole below (both are located near the front of the tower, just below the spray deflector).

- Improve brackets that held the jumping wires to the top of the tower.
- AAA Improve side tower lights.
- Add markers on tower sides.
- Correct vent holes on tower sides using U-Brass piece.
- Correct slat grill and add lip below.
- AAAAA Add L-shaped connectors (conduits for rear radio aerial) at rear of tower.
- Add thin wires from top of L-shaped bars to the rear jumping wires.
- Add wires from tower railings to rear jumping wires.
- Add extra wires on port rear jumping wire (U 93 to U 98 only).
- > Improve rear tower light.

> Replace plastic side tower railings with thinner brass; the horizontal rung should be bent to the correct shape; add plates behind where the railings entered tower.

If fitting mast antenna housing, care should be taken with location of tower railings around > mast antenna housing.

There were two semi-circular horizontal plates (with a rectangular plate behind) on the side > of the mast antenna housing; the port jumping wire passed through these plates.

- If fitting the lifebelts, add the thin wires behind lifebelt.
- > If not fitting the lifebelts, add the top bracket and two cup shaped holders below.
- Extra vertical tower railings may be required in the area where crewmen climbed up tower.
- > Add two L-shaped railing bars (on rear edge of tower bulwark) on each side.

Replace main tower railings, taking care to add correct size of brass rod; one vertical > stanchion and the top horizontal bar should be a thicker diameter than the rest.

The six wooden tower seats should be added on top of the middle horizontal bar. Note that > the Germaniawerft boats had two longer wooden seats rather than six individual seats.

Add piece to the top of the top horizontal bar; this piece had two holes and was located next to the join between the railings and bulwark.

Add lip around edge of "wintergarten" floor.

The 1/72nd Wolf Pack

Contents

\$	Part I	Introduction
\$	Part II	Type IIA U 2
	Part III	Type VIIC U 201
\$	Part IV	Type IXC U 505

Part I - Introduction

The original Wolf Pack collection included a build article by Wink Grisé, my Accurate Model Parts (AMP) colleague, showcasing his super-detailing project of his chosen boat, U 557. There is no point in including another full Revell VIIC build article as this would be merely replicating what was covered in Wink's fine article. Furthermore, readers may learn more from other modellers' build articles which are of a higher standard to my own.

The three models built by the author are included here due to their direct relevance to three of the articles contained in this second volume. The Special Navy Type IIA links nicely with the Type II modifications article; my U 201 build links with the first article; and my U 505 build ties in neatly with the extended article herein. Additionally, the article is intended to signpost to the various AMP products used in the three builds.



Above (1): A 1/72nd scale Wolf Pack of the three main U-boat types: the large ocean-going Type IXC, medium ocean-going Type VIIC and small coastal Type IIA.

Part II - Type IIA U 2

The first of AMP's two main sets is 72-01, which corrects and improves Special Navy's 1/72nd Type IIA model kit.

Choosing boat and time frame

Choosing a boat and selecting a time frame is always a fun decision to make. I very nearly chose to go with the highly unusual and previously unknown camouflage scheme in *U-Boot Im Focus 13*. However, with both U 201 and U 505 both being weathered, I chose to depict the model in pristine condition. The pre-war white tower scheme is, to my mind, extremely pleasant to look at so I chose U 2 with this scheme. Unfortunately I was unable to choose a specific date as I have been unable to determine the exact time frame when the white tower scheme was employed. My best guess is that this scheme was used around 1936 or so. What is relevant about this time frame is that the wooden seats on the deck railings were not present at this early time period.

AMP set 72-01

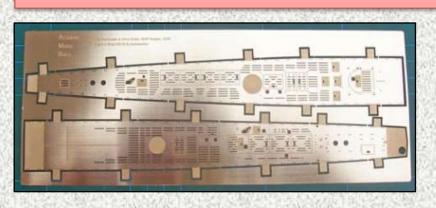


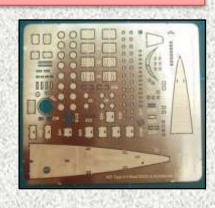
Above left (2): The first of the four brass frets included in Accurate Model Parts multi-media set 72-01. These include multiple pieces to replace the free-flooding vents on the hull.

Above right (): The second fret includes rectangles to depict the doors in the ventral area near the keel, the deck seats that were introduced during the pre-war period, and a nameplate.

Below left (4): The third fret includes the deck split into two main sections. This depicts the long wooden section of the real deck. The pattern on this deck was designed exclusively using period photos (and took much longer than building the kit!).

Below right (5): The final fret is thinner and includes parts requiring finer detail. The two main parts have antislip bumps on the surface for the metal areas at the bow and stern of the boat. Other details included the metal hatches on the deck, individual pre-war nameplates in place near the bow and circular listening plates near the foreplanes.







Left (6): The main brass deck section test-fitted on the Special Navy kit.



Left (7): One of the resin parts allows the join between the four hull parts to be bridged.

Below (8): When researching the Type IIA deck, it was found that the metal section at the stern was not wide enough compared to plans and period photos. The stern deck section corrects this deficiency. To make the replacement brass deck fit nicely, we include a resin insert which widens the stern appropriately.



Right (9): The decal sheet included in AMP 72-01 includes white pre-war tower numbers for U 2, U 4 and U 5 as well as waterline draught numbers.

Below (10): The flag set which is included as standard in 72-01 is DK-RMTC-80X135-072. This is the version with the Iron Cross which was used on the very early Type IIAs.



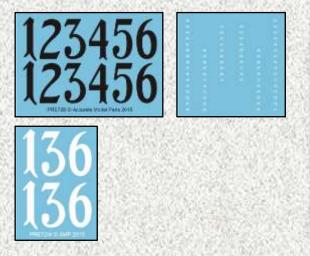


Finished model



Above (12): Here can be seen the completed model on a wooden stand with the nameplate included in 72-01. The three colours (lower hull dark grey; upper hull *Dunkelgrau 51*; white tower) make for a striking colour scheme. Photos of the real boats in this aesthetic scheme tend to show clean boats free of rust and dirt. Therefore the decision was taken to depict U 2 in pristine condition with no weathering at all. Note the black tower number from AMP decal set PRE72B.

Other decals



Far left (13): The other decal sets in the AMP decal range allow any pre-war Type IIA to be modelled. Here can be seen PRE72B, which allows the black tower numbers for U 1 to U 6. These were in place on the white tower scheme (although a few boats had dark grey numbers).

Left below (14): PRE72W allows the other three boats (U 1, U 3 and U 6) not included in the 72-01 set.

Near left (15): If modellers do not want to purchase 72-01 they can still add waterline draught numbers to their model via our decal set L-72W.

Part III - Type VIIC U 201

The next model in my Wolf Pack is a Type VIIC built from Revell's RV5015 kit. Given the vast number of VIICs built, my first task was to choose which boat to model and, crucially, the time frame. This is especially important with VIICs due to the multiple modifications and differences between individual boats. Although there are so many boats to choose from, one can only really depict a boat accurately if we have sufficient research material at our disposal. There may be literally hundreds of VIICs but we tend only to have multiple period photos of a few boats. The boats I did have enough photos of included U 93, U 94, U 96, U 201 and U 552, all of which have interesting emblems and patrol history. For each of these boats I had a good idea how the specific features, insignia and paint colours varied over time. Of these boats, it was the very pleasant camouflage scheme and the interesting snowman emblem which made me choose U 201.

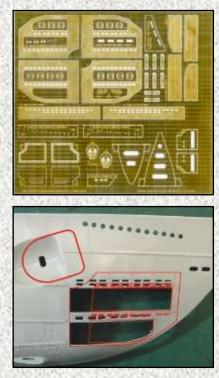
U-Brass

The U-Brass project, which produced a thick photo-etched fret to allow all the free-flooding holes in the Revell hull to be corrected, was covered in Wink's article and needs no explanation here. After correcting the main vents to U 201's pattern, my next step was to apply all the U-Brass pieces to the Revell hull, including the large cheek pieces correcting the overlong torpedo doors.

The other major modification in the hull was to move the anchor recess forward. Another change which is often forgotten is to alter the main drainage area (shortened starboard; length port). There are too many modifications made to the hull to mention in this brief article so readers who are interested should refer to the short article *"Revell Type VIIC Checklist"* in the original Wolf Pack collection.

Above right (16): The thick brass fret belonging to the U-Brass set. This is still available by White Ensign Models.

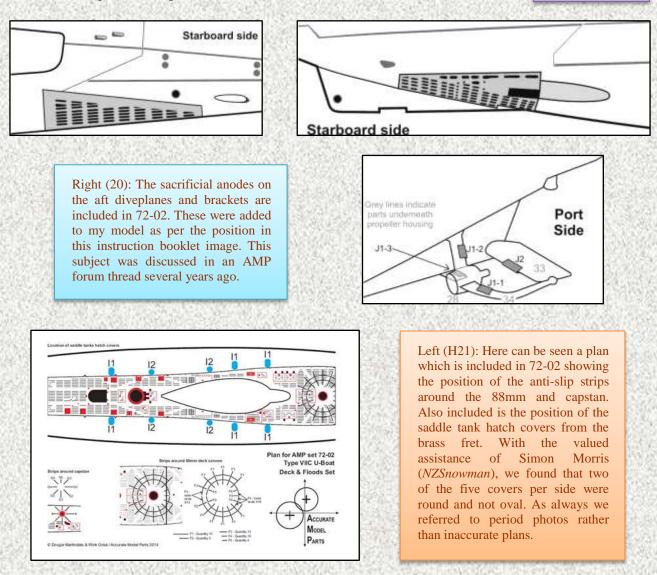
Right (17): Wink's guide to the movement of the anchor recess and the fitting of the starboard cheek piece. Note how oversized the 12 round holes are near the top of the hull.



AMP 72-02 hull

The final two alterations in regard to the free-flooding vents are the areas near the fore and aft diveplanes. The brass pieces on the market by other aftermarket companies all have some deficiencies, either by not correcting Revell's hole sizes and distances or not replicating the pattern fully. In the case of the front piece, some of the holes on the real boats were not perfectly oval put rather elongated holes with odd patterns. On AMP set 72-02 we went with what could be seen in the period photos rather than a neat pattern that would be pleasing to the eye. Fitting the four pieces (two per side) was not overly difficult, though the rear piece was trickier due to the curve in the hull.

Below (18 & 19): The 72-02 instruction guide for the fitting of the brass pieces near the fore and rear diveplanes.



AMP 72-02 deck

The next step was to fit the AMP 72-02 deck, which is produced in five sections. This consists of three main brass parts for the wooden area plus two parts for the metal deck areas at the bow and stern. To support the brass deck I added several supports which lie directly underneath the deck. Rather than Zap-A-Cap CA glue I used two-part expoy glue for additional strength, thus providing a secure join between the deck and hull.

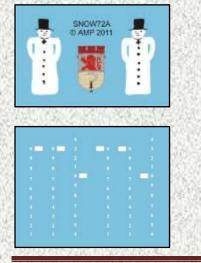
Right (22): The brass fret in 72-02. Other than the five deck sections, the four vent replacement parts near the fore and aft diveplanes can be seen at the top right. The sacrificial anodes and saddle tank covers are positioned in the gap in the tower area. Other parts include the semi-circular air identification late, full-length tower seats for *Germaniawerft* boats and various deck details.



Painting, decals and flag

Once the tower and 88mm deck gun was added to the photo-etched deck, I painted the model in the aesthetic wavy camouflage which is so distinctive of U 201. I used enamel paints from White Ensign Models' Colourcoats range, thus requiring no mixing to the correct shade. After looking at the period photos many times I opted for *Dunkelgrau 52* (RAL7024) for the dark grey and *Dunkelgrau 51* (RAL7000) for the lighter grey. The obvious colour for the lighter grey might be *Hellgrau 50* (RAL7001) but many years of examining period photos has left me with the firm conclusion that the medium grey *Dunkelgrau 51* was more common than *Hellgrau 50*. Now that the model is completed I am very happy with the choice of *Dunkelgrau 51* (which, despite the name, is nowhere near a dark grey at all) for the lighter grey.

The date chosen for my model is the early morning of the 8th August 1942, prior to U 201 sailing into Brest at the end of patrol 7. When the boat arrived in port shrubbery and victory pennants were present on the tower and a HMS T.133 lifebuoy hung from the forward jumping wire (as per photo A10 on page 15). I chose not to add these features to keep the model clean of embellishments but did add an AMP flag to the tower railings.



Above left (23): The decal set SNOW72A was used to depict my U 201 model towards the end of patrol 7. Note that both snowmen were not exact mirror images of each other; the differences were incorporated in each design.

Below left (24): The decal A-72W was used for the waterline draught numbers applied as standard to all U-boats.

Additional U-Boat Articles

Right (25): The AMP flag DK-KMNE-80X135-072 was used and can be seen flying from the rear of the tower railings. The waterline numbers are draught there (honest!) on the port saddle tank but are mostly obscured by plantlife. Note how the plantlife has been depicted as having built up to the normal waterline level. This tended to occur because Uboats of that vintage were essentially submersibles, spending over 90% on the surface but having the capacity to dive when necessary.



Weathering

<u>Rust</u> - Now that the basic paint colours were in place the fun could start. Weathering a U-boat model has the potential to make or break a build so it is prudent to spend a fair percentage of the build time on the weathering process. The most common mistake (which obviously I have made previously) is to get carried away with adding rust. When I applied rust to my U 201 model, I added the dark reddish brown in *very* small patches which are mostly only visible close up. Then I added what I think of as the rust residue effect below the main rust patch. The residue is the lighter orange brown colour which appears below the actual rust patch due to the action of water. To research the rust colours and residue effect I spent a profitable afternoon walking around the neighbourhood photographing rusty metal signs and gates. Naturally the motorists who passed were rather puzzled at my fascination with rusty objects. I always find applying rust and rust residue enjoyable but have to repeatedly remind myself of the scale of the model: the little patch of rust added to a 1/72nd scale model should be no more than 1/72nd of the size of the real rust patch on the subject.

<u>General weathering</u> - There is more to weathering a ship model than merely adding rust. Looking at real ships shows various effects on the hulls including paint peeling, staining, fading and good old fashioned dirt. U 201 was not excessively weathered or rusty on the 8th August 1942 but by the same token was far from fresh. There was very little paint peeling in evidence but I did add various colours to dirty up the upper hull and tower. The area around the diesel exhaust outlet was made particularly dirty due to the exhaust staining which built up quickly on the real boats.



Left (26): The patchy appearance of the upper hull can be seen in this photograph. A few small rust patches can be seen but they were deliberately kept to modest proportions.

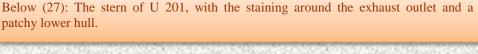
Additional U-Boat Articles

<u>Deck weathering</u> - The weathered deck does not show up well on photographs. The process I tend to follow for the wooden area of a U-boat deck is to mix a tin of dark brown paint and use this to paint the entire deck. I will then mix a lighter version of this tin and also a darker version and apply both at various places to achieve a worn appearance. Sometimes I use a wash and other times I use dry-brushing. I also dry-brush some white in small areas to replicate salt staining. This process, though time consuming, is not particularly difficult. Furthermore, given that a patchy appearance is desirable, mistakes can be easy to amend. U-boat decks are not entirely wood, there being various metal details and hatches as well as the metal sections at the bow and stern. For the metal areas I start by painting them black. In some areas I add a little rust, taking care as always not to overdo it. Naturally adding a black wash to a black surface is unproductive. To weather the black horizontal surfaces of a metal deck I tend to dry-brush with white, taking care not to add too much of the white.

<u>Lower hull</u> - The more challenging aspect of weathering a U-boat model (indeed any ship model) is the lower hull. The difficulty is that our understanding of exactly what a U-boat hull looked like after six weeks on patrol is generally poor. When in a harbour I am always on the lookout for any vessel which has been taken out of the water so I can photograph the barnacles and plantlife on the hull. But I have not, for reasons which are self evident, been able to take photos of a U-boat which has just come out of the water. There are some photos showing U-boats in dry-dock and these are extremely useful. Yet the black and white imagery still leaves some doubt as to the colours and texture of a weathered hull. What is beyond doubt is the unsatisfactory nature of leaving the lower hull mostly unweathered while going to town with rusting the upper hull.

The lower hull of my U 201 is not quite a kaleidoscope of colours but does feature a variety of colours including different greens, greys and even white. The green I used for the plantlife adhering to the hull was not just one green colour but three or four green colours applied overall. I also drybrushed some white to simulate barnacles but kept this to a moderate level. I did add rust to the hull in very limited patches but did not add a rust residue effect (the residue effect cannot take place as there is no rainwater to brush the rust particles down the hull). Towards the normal waterline level I added more green for the plantlife which tends to build up in this area. At the top I added tiny little areas of white as this is often found on boats in port. This leaves a distinct division on the saddle

tanks above and below the normal waterline level, as evidenced often modern on submarines. We should recall that VIICs were submersibles which spent over 90% on the surface. Therefore they would mainly weather like a surface ship, with distinct differences in weathering above and below the waterline.







Part IV - Type IXC U 505

The last of the three models is U 505. As always I found it essential to narrow down the boat to an exact a time period as possible. In this case my model depicts the Type IXC in the time period after her capture on the 4th June 1944 with the red text "CAN DO JUNIOR" on the front face of the tower. This text was not present during the historic capture and was applied after American personnel belonging to the USS Guadalcanal boarded the vessel. My model therefore portays U 505 after this text was added. Enthusiasts may recall that the port bow plane of U 505 was ripped off during the second of two collisions with the USS Pillsbury but my model depicts the boat before this incident took place.

<u>Damage</u> - As there is no AMP set for this kit I decided to build the model straight out of the box with no real improvements. The only exception was to apply the damage sustained by the boat during the capture (as covered in Part VI of the U 505 article). The damage applied to my model included the severing of the front section of the wind deflector, the addition of cannon damage to the tower and the broken jumping wire on the starboard side (just ahead of the tower). Both deck railings were significantly altered, with the frontal area on the starboard side being completely severed. On the port side the frontal area was buckled outboard and the rear area bent inboard. It

was rather fun to add all of this damage to the model, giving it more character than a pristine model.

Right (29): The broken jumping wires and broken and bent deck tralings can be partly seen in this image.



<u>Painting</u> - The paint colours applied to the model were *Blaugrau 58/1* for the upper hull and *Schiffsbodenfarbe III Grau* for the lower hull (both from the Colourcoats range). I mixed up the dark blue grey *Blauschwarz 58/2* from the Snyder & Short Kriegsmarine paint cards due to this shade not being available in the Colourcoats range.

<u>Weathering</u> - The weathering was completed in much the same fashion as that described in the previous section on U 201. One difference is that more rust had to be applied to the upper hull. I also applied a dark scumline around the waterline as I thought that this was visible in some period photos. In retrospect I think this should be toned down and has been overdone. One of the better aspects of the model is perhaps the very small white areas applied to the upper hull to replicate

those seen in the period photos. Presumably this is salt staining rather than paint peeling or some other effect. Another difference between my U 505 model and U 201 model is that the wooden deck on the IXC is more weathered. Certain areas were lightened to indicate wear, with the range of tones being greater than on the U 201 model.

Below (30): The rust, blackish scumline and various lower hull tones can be seen here. Also visible are the small white salt stain areas on the upper hull. What is surprising here is that the *Blaugrau 58/1* upper hull does not look so different from the lower hull *Schiffsbodenfarbe III Grau* or the brown wooden deck. The waterline draught marks are visible ahead of the anchor recess, though heavily weathered and partially obscured.



<u>Tower weathering</u> - The most important weathering aspect is undoubtedly the paint peeling on the tower. As covered in Part X of the U 505 article, the towers of U 505, U 805, U 858, U 870 and U 889 all exhibited paint peeling which was markedly in excess of their upper hulls. Quite simply, any model which tries to capture (sorry, bad pun!) U 505 on the 4th June 1944 absolutely <u>has</u> to feature significant paint peeling. If the modeller does not want to try to emulate the peeling then they should depict the boat at the start of the patrol before any paint deterioration took place. The decision to try to reconstruct the significant paint peeling on U 505 should not be taken lightly as it becomes the centrepoint of the whole model and changes the overall visual effect remarkably.

Once I had decided to try to change the uniform *Blauschwarz 58/2* into a hotch-potch of mixed colours, the first step was to try to work out the exact colour of the bare metal where the paint had peeled away. The colour photo of U 858 with an American flag in 1945 shows the metal as white rather than silver. This could conceivably be because of the effects of salt on the bare metal. However, close inspection of the period photo shows bright sunlight shining directly on the affected area, arguably making the metal appear whiter than the true colour. My choice was to go for a white-silver colour for the exposed area. Quite obviously this was going to contrast greatly with the dark blue *Blauschwarz 58/2* paint which remained.

Once I had mixed a white-silver paint, I began by applying it with an old paintbrush with frayed brushes. I referred constantly to the period photos of U 505, paying particular attention to the amount of peeling in each area. For example, more peeling was evident low down near the front of the tower, where the surfaces were more exposed to wave action. Some areas were painted directly

with the old brush while in other areas more subtle effects were added by drybrushing. In some areas I added too much white-silver and this was rectified by applying more *Blauschwarz* 58/2 paint. Several hours were required to get the tower in the condition I wanted. Overall I am reasonably happy with the result, though it obviously will not be winning any IPMS completion awards.

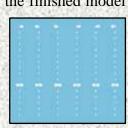
Below (31): The small white areas on the upper hull are the salt stains seen on the real boat. Yet there is nothing small about the white-silver patches on the tower. If trying to emulate the paint peeling effect there is no option but to dive in and apply a significant amount of peeling. It may be noted that the ammunition containers, guns and railings have no peeling whatsoever as a different type of metal was used here. This is deliberate as only the tower sides of IXs were affected by the paint peeling problem.



<u>Decals</u> - The glaring error in the Revell kit decals is the red shell emblem, which is corrected via AMP's green shell decal set T9-SHELL-72. This was added to the model and then protected with a few coats of Future. Once fully dry I applied a matt varnish over both decals. Then I added the silver-white paint over areas of both shell emblems to simulate the peeling effect on the real boat.

Similarly, when the AMP waterline draught number sets were applied to the hull, sealed with Future and coated in matt varnish, they too were weathered. On the real U 505 the white numbers were added over steel numbers welded to the hull. The numbers were painted white but the white paint tended to fade, peel away by wave action, or be obscured by plantlife or the scumline. These effects were taken into consideration when weathering the decals whereby I painted over some of the numbers to achieve the desired results. The waterline decals can be seen on the finished model but certainly do not stand out in the way that brand new freshly-painted numbers do on pristine model hulls.

<u>Flags</u> - The final task to complete was to add the two AMP flags on a pole secured to the top of the raised rear periscope. As per the period photos, I added a larger American flag above the German Kriegsmarine flag.



This neatly signifies the new ownership and the German U-bootwaffe being dominated by the stronger US forces.



Above (32): Only four waterline draught number sets are included in Revell's kit so AMP produced K-72W with all six sets.

Left (33): The decal set T9-SHELL-72 from the AMP decal range.



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Above (34): The finished U 505 model.

Below (35): The three major Kriegsmarine U-boat types in 1/72nd scale. Although the VIIC in the middle looks longer, it is actually the IXC which is the longer and wider of the two types. Note the U 505 model with the two AMP flags in place on the pole above the raised rear periscope.



Contents

Part I	Introduction
\$ Part II	U-Boat Batches
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\$ Part V	References

Part I - Introduction

This short article provides a number of tables showing the various batches of Kriegsmarine Uboats. The specifications in Part III allow readers to compare the values between the main types. There tends to be discrepancies between sources regarding whether some boats were laid down or not. Readers should not rely upon this article as being definitively accurate and are directed to the sources given in the reference list if they seek conclusive information. This article is designed merely to be a quick reference guide so modellers can gauge the extent of the range of batches and to gain a quick understanding of the speeds and displacements relative to each other.

The tables in Part II show the boats that were commissioned into the Kriegsmarine. After the tables are supplementary information showing boats which had the keels laid down and were launched but not commissioned, and also boats which had keels laid down but were not launched and not commissioned. One reason which complicates this is that some boats were destroyed by air attack, damaged and not completed, or incomplete at the end of hostilities. In other cases certain types were cancelled after being laid down. Very brief details of the projected designations, midget submarines and boats which originally served in foreign navies are also included.

Part II - U-Boat Batches

Type I

Vessel type: Large ocean-going boat

6	Type I batch (2)			
Ş	Variant Shipyard U-numbers			
-	IA (2) A G Weser, Bremen (2) 25-26			

Type II

Vessel type: Small coastal boat

Type II batches (50)		
Sub-variant	Shipyard	U-numbers
IIA (6)	Deutsche Werke, Kiel (6)	1-6
	Germaniawerft, Kiel (14)	7-12, 17-24
IIB (20)	Deutsche Werke, Kiel (4)	13-16
	Flenderwerft, Lübeck (2)	120-121
IIC (8)	Deutsche Werke, Kiel (8)	56-59, 60-63
IID (16)	Deutsche Werke, Kiel (16)	137-152

Type VII

Vessel types:

- VIIA, VIIB, VIIC and VIIC/41 medium-size Atlantic boat
- VIIA, VIIB, VIIC a
 VIID minelayer
- VIIF torpedo transport

Type VIIA batches (10)	
Shipyard	U-numbers
A G Weser, Bremen (6)	27-32
Germaniawerft, Kiel (4)	33-36

Type VIIB batches (24)	
Shipyard	U-numbers
Germaniawerft, Kiel (15)	45-51, 52-53, 54-55, 99-102
Flender-Werft, Lübeck (5)	83-87
Vegesacker Werft, Vegesack (4)	73-76

Type VIIC batches (574)		
Shipyard	U-numbers	
Danziger Werft, Danzig (32)	401-404, 405-408, 409-412, 413-416, 417-420, 421-424,	
	425-428, 429-430, 1161-1162	
	(NB. 429-430 & 1161-1162 were in the same batch)	
F Schichau, Danzig (62)	431-434, 435-438, 439-442, 443-444, 445-448, 449-450	
	& 731-734, 735-740, 741-746, 747-750, 825- 826,	
	1191-1198, 1199-1204, 1205-1210	
	(NB. 449-450 & 731-734 were in the same batch)	
Nordsee-Werke, Emden (26)	331-334, 335-336, 337-338, 339-340, 341-344, 345-348	
	349-350, 1101-1102, 1103-1106	
	(NB. 349-350 & 1101-1102 were in the same batch)	
Flensburger SchiffbauGesellschaft,	351-354, 355-358, 359-360, 361-362, 363-366, 367-370	
Flensburg (20)	551-558, 559-562, 563-574, 575-586, 587-598, 599-610	
Blohm & Voss, Hamburg (144)	611-634, 635-646, 647-650, 951-958, 959-982, 983-994	
	(NB. 647-650 & 951-958 were in the same batch)	
H C Stülcken Sohn, Hamburg (24)	701-706, 707-708, 709-710, 711-714, 715-718, 719-722	
II C Stutcken Sonn, Hamburg (24)	905 & 907	
<i>Howaltswerke</i> , Hamburg (33)	651-662, 663-668, 669-674, 675-680, 681-683	
Howanswerke, Humburg (55)	(684-686 not finished)	
Deutsche Werke, Kiel (30)	451-454, 455-458, 465-468, 469-474, 475-480, 481-486	
Germaniawerft, Kiel (58)	69-70, 71-72, 93-98, 201-204, 205-212, 221-226, 227-232	
()	235-240, 241-246, 247-250, 1051-1058	
	(NB. 69-70 & 93-98 were in the same batch)	
Howaltswerken, Kiel (32)	371-374, 375-382, 383-386, 387-390, 391-394, 395-398	
	399-400, 1131-1132	
	(NB. 399-400 & 1131-1132 were in the same batch)	
Flender-Werft, Lübeck (23)	88-92, 301-302, 303-304, 305-308, 309-312, 313-316,	
	903-904	
Neptun-Werft, Rostock (8)	921-924, 925-928	
Stettiner Orderwerke, Stettin (2)	821-822	

Additional U-Boat Articles

U-Boat Batches & Specifications

Stettiner Vulcan Werke, Stettin (1)	901 (902 suffered bomb damage and cancelled - not
	commissioned)
Vegesacker Werft (Bremen	77-82, 132-136, 251-255, 256-261, 262-267, 268-273,
Vulcan), Vegesack (52)	274-279, 280-291
Kaiserliche Marinewerft,	751-762, 763-768, 771-776, 777-779
Wilhelmshaven (27)	

Type VIIC/41 batches (88)		
Shipyard	U-numbers	
Danziger Werft, Danzig (10)	1163-1166, 1167-1170, 1171-1172	
F Schichau, Danzig (2)	827-828	
Nordsee-Werke, Emden (4)	1107-1110	
Flensburger Schiffbau	1301-1304, 1305-1308	
Gesellschaft, Flensburg (8)		
Blohm & Voss, Hamburg (29)	995-1006, 1007-1010 & 1013-1018, 1019-1025	
Germaniawerft, Kiel (3)	1063-1065	
Flender-Werft, Lübeck (12)	317-322, 323-328	
Neptun-Werft, Rostock (2)	929-930	
Vegesacker Werft (Bremen	292-297, 298-300, 1271-1273, 1274-1279	
Vulcan), Vegesack (18)	(NB. 298-300 & 1271-1273 were in the same batch)	

	Type VIID batches (6)		
State 1	Shipyard	U-numbers	
2	Germaniawerft, Kiel (6)	213-218	
8			3

ŝ	Type VIIF batches (4)	
Ş	Shipyard U-numbers	
3	Germaniawerft, Kiel (4) 1059-1062	

Keels laid down, launched, not commissioned -VIICs902, 906 (2 boats)VIIC/41s1026-1030, 1173-1176 (9 boats)

Keels laid down, not launched, not commissioned -

 VIICs
 684-686, 780-781, 823-824 (7 boats)

 VIIC/41s
 329-330, 687-689, 723-724, 931-932, 1011-1012, 1031-1032, 1133-1136, 1177-1179, 1280-1282 (17 boats)

Type IX variants

Vessel type: Large ocean-going boat

Type IXD variants:

▶ IXD1 - initially high speed; engines removed when found to be unsatisfactory; modified to become transport boat

- ▶ IXD2 long range ocean-going boat
- ➢ IXD2/42 long range ocean-going boat

U-Boat Batches	& Specifications
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Type IX batches (194)			
Sub-	Shipyard	U-numbers	
variant			
IXA (8)	Deutsche Werft, Hamburg (8)	37-44	
IXB (14)	A G Weser, Bremen (14)	64-65, 103-110, 111, 122-124	
	A G Weser, Bremen (24)	66-68, 125-131, 153-158, 159-160, 171-176	
IXC (54)	Deutsche Werft, Hamburg (24)	501-506, 507-518, 519-524	
	Seebeckwerft, Bremerhaven (6)	161-166	
	A G Weser, Bremen (36)	183-188, 189-194, 841-846, 853-858, 865-870,	
IXC/40		877-881, 889	
(87)	Deutsche Werft, Hamburg (41)	525-532, 533-538, 539-550, 1221-1226,	
(07)		1227-1235	
	Seebeckwerft, Bremerhaven (10)	167-170, 801-806	
IXD1 (2)	A G Weser, Bremen (2)	180, 195	
IXD2 (28) <i>A G Weser</i> , Bremen (28)		177-179, 181-182, 196-200, 847-852, 859-864,	
		871-876	
IXD2/42 (1)	A G Weser, Bremen (1)	883	

Keels laid down, launched, not commissioned -IXC/40 882, 890-891, 1236-1238 (6 boats) IXD2/42 884 (1 boat)

Keels laid down, not launched, not commissioned - IXC/40 892, 1239-1241 (4 boats)

Type XB

Vessel type: Large minelayer

3		Type XB batches (8))	k
15	Variant	Shipyard	U-numbers	£
Į,	XB (8)	Germaniawerft, Kiel (8)	116-118, 119, 219-220, 233-234	4

Type XIV

Vessel type: Supply boat (Milch cow)

Ì		Type XIV batches (10)	
ģ	Variant	Shipyard	U-numbers
1	XIV (10)	Deutsche Werke, Kiel (10)	459-462, 463-464, 487-490

Keels laid down, not launched, not commissioned -XIV 491-497 (7 boats)

Walter boats

Vessel type: Experimental research boat

U-B	oat Batches & Specifications				
Walter boats (8)					
Variant	Shipyard	U-numbers			
V 80 (1)	Germaniawerft, Kiel (1)	V 80			
Wa 201 (prototypes for XVIIA) (2)	Blohm & Voss, Hamburg (2)	792-793			
Wa 202 (prototypes for XVIIA) (2)	Germaniawerft, Kiel (2)	794-795			
XXIIB (3)	Blohm & Voss, Hamburg (3)	1405-1407			

Keels laid down, not launched, not commissioned -

XVIIB	1408-1410 (3 boats)
XVIIK	798 (1 boat)
XVIII	796 (1 boat)

Type XX

Vessel type: Large tansport boat

Keels laid down, not launched, not commissioned -XX 1701-1703 (3 boats)

Type XXI

Vessel type: Large ocean-going Elektroboat

100		Type XXI batches (118)			
ŝ	Variant	Shipyard	U-numbers		
ŝ		Blohm & Voss, Hamburg (47)	2501-2531+2533-2546+2548+2551-2552		
Č,	XXI (118)	A G Weser, Bremen (41)	3001-3015, 3016-3035+3037-3041, 3044		
-		F Schichau, Danzig (30)	3501-3503, 3504-3530		

Keels laid down, launched, not commissioned -XXI 2532, 2547, 3036, 3045-3047, 3050-3051, 3531-3534 (12 boats)

Keels laid down, not launched, not commissioned -XXI 2549-2550, 2553-2564, 3535-3542 (22 boats)

Type XXIII

Vessel type: Small coastal Elektroboat

2	Type XXIII batches (62)				
200	Variant	Shipyard	U-numbers		
3	XXIII (61)	Deutsche Werft, Hamburg (49)	2321-2331+2334-2370*, 2371		
i K	$\mathbf{A}\mathbf{A}\mathbf{I}\mathbf{I}\mathbf{I}$ (01)	Germaniawerft, Kiel (13)	2332-2333, 4701-4707+4709-4712		
8	*U 2370 possit	oly not commissioned			

Keels laid down, launched, not commissioned -XXIII 4708, 4713-4714 (3 boats)

Keels laid down, not launched, not commissioned -XXIII 4715-4718 (3 boats)

	Foreign U-boats in Kriegsmar	ine service (14)
Designation	Country of origin	Previous name
U A	Turkey	Batiray
U B	Great Britain	HMS Seal
UC-1	Norway	B-5
UC-2	Norway	B-6
UD-1	Netherlands	08
UD-2	Netherlands	O 12
UD-3	Netherlands	O 25
UD-4	Netherlands	O 26
UD-5	Netherlands	O 27
UF-1	France	Africaine
UF-2	France	Favorite
UF-3	France	Astrée
UIT-22	Italy	Alpino Bagnolini
UIT-23	Italy	Reginaldo Giuliani
UIT-24	Italy	Comandante Cappellini
UIT-25	Italy	Luigi Torelli

Foreign boats

 \underline{UA} - The Ay class of three submarines were ordered by the Turkish Navy as a modification of the Type IX U-boat to their requirements. The first two boats were built by *Germaniawerft* in Kiel and delivered to the Turkish Navy in 1938. The third boat was a minelayer of 1,375 tons which was originally intended to become the *Batiray* in the Turkish Navy. Due to the war breaking out just before the boat was completed, it was requisitioned into the Kriegsmarine and given the foreign designation U A. Although designed to be a minelayer in Turkish service, the boat was used as an ocean going U-boat and served seven patrols in the early years.

Midget U-boats

	Midge	t U-boats	
Name	Туре	Number built	Number commissioned
Seehund (XVIII B 5)	Midget submarine	285	138
Biber	Midget submarine	324	-
Hecht (XXVII)	Midget submarine	-	53
Molch	Midget submarine	393	-
Delphin	Midget submarine	3	-
Seeteufel	Midget submarine	1	-
Schwertwal	Midget submarine	1	-
Neger	Manned torpedo	~200	-
Marder	Manned torpedo	~500	-
Hai	Manned torpedo	1	-
Source: https://uboat.ne	t/types/midget.htm		

Summary

	U-boats bu	ilt for the Kriegsmarine	
Variant	Laid down,	Laid down and	Laid down only
	launched and	launched	(not launched and not
	commissioned	(not commissioned)	commissioned)
IA	2	-	-
IIA	6	-	-
IIB	20	-	-
IIC	8	-	-
IID	16	-	-
VIIA	10	-	-
VIIB	24	-	-
VIIC	574	2	7
VIIC/41	88	9	17
VIID	6	-	-
VIIF	4	-	-
IXA	8	-	-
IXB	14	-	-
IXC	54	-	-
IXC/40	87	6	4
IXD1	2	-	-
IXD2	28	-	-
IXD2/42	1	1	-
V80	1	-	-
Wa 201 (XVIIA)	2	-	-
Wa 202 (XVIIA)	2	-	-
XVIIB	3	-	3
XVIIK	-	-	1
XVIII	-	-	1
XX	-	-	3
XXI	118	12	22
XXIII	61	3	3
U A	1	-	-
Totals	1,140	33	61

Part III- U-Boat Specifications

Type II

	Type II	specification	IS		
Measurement	Measured in	IIA	IIB	IIC	IID
Displacement (surface)	Tons	254	279	291	314
Displacement (submerged)	Tons	303	328	341	364
Length (total)	Metres	40.90	42.70	43.90	43.97
Beam	Metres	4.08	4.08	4.08	4.92
Speed (surface)	Knots	13.0	13.0	12.0	12.7
Speed (submerged)	Knots	6.9	7.0	7.0	7.4
Range (surface)	Nm / Knots	1,050 / 12	1,800 / 12	1,900 / 12	3,200 / 12
Range (submerged)	Nm / Knots	35 / 4	43 / 4	42 / 4	56 / 4

Type VII

	Type VI	I specificatio	ns		
Measurement	Measured in	VIIA	VIIB	VIIC	VIIC/41
Displacement (surface)	Tons	626	753	761	759
Displacement (submerged)	Tons	745	857	865	860
Length (total)	Metres	64.50	66.50	67.10	67.2
Beam	Metres	5.80	6.20	6.20	6.20
Speed (surface)	Knots	16.0	17.2	17.2	17.0
Speed (submerged)	Knots	8.0	8.0	7.6	7.6
Range (surface)	Nm / Knots	4,300 / 12	6,500 / 12	6,500 / 12	6,500 / 12
Range (submerged)	Nm / Knots	90 / 4	90 / 4	80 / 4	80 / 4

Type VII specifications continued				
Measurement	Measured in	VIID	VIIF	
Displacement (surface)	Tons	965	1,084	
Displacement (submerged)	Tons	1,099	1,181	
Length (total)	Metres	76.90	77.60	
Beam	Metres	6.40	7.30	
Speed (surface)	Knots	16.0	16.9	
Speed (submerged)	Knots	7.3	7.9	
Range (surface)	Nm / Knots	8,100 / 12	9,500 / 12	
Range (submerged)	Nm / Knots	69 / 4	75 / 4	

Type IX

Type IX specifications						
Measurement	Measured in	IXA	IXB	IXC	IXC/40	
Displacement (surface)	Tons	1,032	1,051	1,120	1,144	
Displacement (submerged)	Tons	1,153	1,178	1,232	1,257	
Length (total)	Metres	76.5	76.5	76.8	76.8	
Beam	Metres	6.5	6.8	6.8	6.9	
Speed (surface)	Knots	18.2	18.2	18.3	18.3	
Speed (submerged)	Knots	7.7	7.3	7.3	7.3	
Range (surface)	Nm / Knots	8,100 / 12	8,700 / 12	11,000 / 12	11,400 / 12	
Range (submerged)	Nm / Knots	65 / 4	64 / 4	63 / 4	63 / 4	

	U-Boat Batc	hes & Specifica	tions			
Type IX specifications continued						
Measurement	Measured in	IXD1	IXD1	IXD2/42		
			cargo			
Displacement (surface)	Tons	1,610	1,610	1,616	1,616	
Displacement (submerged)	Tons	1,799	1,799	1,804	1,804	
Length (total)	Metres	87.6	87.6	87.6	87.6	
Beam	Metres	7.5	7.5	7.5	7.5	
Speed (surface)	Knots	20.8	15.8	19.2	19.2	
Speed (submerged)	Knots	6.9	6.9	6.9	6.9	
Range (surface)	Nm / Knots	-	9,900 / 12	23,700 / 12	23,700 / 12	
Range (submerged)	Nm / Knots	57 / 4	115 / 4	57 / 4	57 / 4	

Other types

	Othe	er types spe	cifications			
Measurement	Measured	IA	XB	XIV	XXI	XXIII
	in —					
Displacement (surface)	Tons	862	1,783	1,168	1,612	234
Displacement (submerged)	Tons	983	2,177	1,932	1,819	275
Length (total)	Metres	72.39	89.8	67.1	76.7	34.7
Beam	Metres	6.21	9.20	9.35	6.60	3.00
Speed (surface)	Knots	17.75	16.40	14.90	15.65	9.70
Speed (submerged)	Knots	8.3	7.0	6.2	17.2	12.5
Range (surface)	Nm / Knots	6,700 / 12	14,450 / 12	12,350 / 10	11,150 / 12	4,450 / 12
Range (submerged)	Nm / Knots	78 / 4	188 / 2	55 / 4	285 / 6	285 / 6

Walter boats

Walter boats specifications						
Measurement	Measured in	V80	XVIIA	XVIIB		
Displacement (surface)	Tons	73	277	312		
Displacement (submerged)	Tons	76	309	337		
Length (total)	Metres	22.05	39.05	41.45		
Beam	Metres	2.10	4.50	4.50		
Speed (surface)	Knots	-	9.0	8.8		
Speed (submerged)	Knots	26.5	24.78	25.0		
Range (surface)	Nm / Knots	50 / 28	2,910 / 8.5	3,000 / 8		
Range (submerged)	Nm / Knots	-	50 / 2	76/2		

Part IV - Projected Designs

 $T_{\underline{\text{ype III}}}$ - Specialised minelayer based on the Type IA.

<u>Type IIIA</u> - Initially designated as Type VII but redesignated as Type IIIA or Type III (modified). Similar to Type IA and was to house mines.

Type IV - Supply and workshop U-boat.

<u>Type V</u> - Walter project.

<u>Type VI</u> - Convert of Type IA with alternate steam plant.

<u>Type VIIC/42</u> - Thicker pressure hull than VIIC/41 with extra two torpedoes.

Type VIIC/43 - As VIIC/42 with six bow torpedo tubes and two setern tubes.

Type VIIE - Test boat for new two-stroke engine.

Type VIII - Proposed 600 ton design.

<u>Type X and XA</u> - Two large minelayer designs, with XA having greater beam and displacement than Type X. Proceeded with XB which had wet-stored mines and smaller displacement.

<u>Type XI, XIA and XIB</u> - Huge artillery U-cruiser with a twin 150mm turret on the forward deck and another on the aft deck. Range would be 20,000 to 25,000 nautical miles. Similar in shape to the IX and was to carry Arado Ar 231 seaplane.

Type XII - Large fleet boat development of the Type IX.

Type XIII - Small coastal boat.

<u>Type XV</u> - Huge resupply and transport boat of 5,000 tons.

Type XVI - Large resupply and transport boat of 3,000 tons.

<u>Type XVIIK</u> - Test for closed-cycle propulsion system; U 798 was laid down but not completed.

Type XVIII - Walter boat with appearance later used on XXIs and XXIIIs; U 796 was laid down but not completed.

Type XIX - Large unarmed transport U-boat based on Type XB.

<u>Type XX</u> - Large unarmed transport U-boat based on Type XB of 3,425 tons. Three boats were laid down (U 1701, U 1702 and U 1703) but not completed.

Type XXI variants -

- XXIC Additional 12 torpedo tubes.
- XXID Tanker.
- XXIE Unarmed transport.
- XXIT Unarmed transport.
- XXIV Tanker.

<u>Type XXII</u> - Small coastal Walter boat from which the XXIII was based.

Type XXIV - Larger development of the XVIII.

<u>Type XXV</u> - Very small coastal boat powered by batteries only.

<u>Type XXVI</u> - Walter boat derived from the Type XVIIA.

Type XXVIII - Small coastal Walter boats similar to Type XXIII.

Type XXIX - Intended replacement for Type VII.

Type XXX - Similar to XXI with one diesel.

Type XXXI - Similar to XXX but shorter.

Type XXXII - Two man boat similar to Type XXVIIB Seehund.

Type XXXIII - Small closed cycle coastal boat.

Type XXXIV - Three man closed cycle coastal boat.

Type XXXV - Longer version of the ocean going Type XXIX-B2.

Type XXXVI - Longer version of the XXVI.

U-Boats: The Illustrated History Of The Raiders Of The Deep by David Miller is an excellent sources for a brief outline of the projected designs. For readers seeking more detail on the subject, The U-Boat: The Evolution and Technical History of German Submarines by Eberhard Rössler is the definitive source and highly recommended.

Part V - References

Miller, David. U-Boats: The Illustrated History Of The Raiders Of The Deep. Pegasus Publishing Ltd., 2000. Rössler, Eberhard. Die Deutschen U-Boote Und Ihre Werften. Bernard & Graefe Verlag, 1990. Rössler, Eberhard. The U-Boat: The Evolution and Technical History of German Submarines. Cassel & Co., 1981. Sharpe, Peter. U-Boat Fact File: Detailed Service Histories of the Submarines Operated by the Kriegsmarine 1935-1945. Midland Publishing Limited, 1998. <u>https://uboat.net/types/</u> <u>https://uboat.net/types/midget.htm</u> <u>https://uboat.net/types/projects.htm</u>

U-Boat Model Kits

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Part I - Introduction

The original Wolf Pack collection included a list of the Kriegsmarine U-boat kits and accessories that were available at the time of writing in 2009. This short listing has been written to complete the Wolf Pack III in the same way that the original kits and accessories list brought the first Wolf Pack collection to a close. In this present article the kits are the principal focus, with the only accessories being the AMP products currently available (regrettably we cannot presently offer our products to customers in the UK or the EU). It is recommended that readers refer to Jon Kelly's article *U-Boat & S-Boat Models & Accessories* which is available as a downloadable pdf from the AMP website. A number of the kits listed below are out of production and enthusiasts may have to resort to Ebay to find certain kits.

Over time more and more U-boat kits have become available. Most notabe are Revell's three 1/72nd scale Type IX kits which are major additions to the range of products now availabkle to us. Trumpeter has produced many ship kits in recent years including a range of battleships and aircraft carriers in 1/200th scale. Though expensive, their 1/48th scale plastic VIIC with interior is a welcome addition. It is hoped that Revell and Trumpeter will add more large injection-moulded U-boat kits in the future. A 1/72nd scale VIIA would be very nice, as would a 1/72nd scale early VIIB U-boat. Come on Revell, we are waiting!

Part II - Model Kits

1/9th to 1/60th scales

	1/9 th to 1/60 th scale	U-Doat model Kits	
Manufacturer	Kit code	Details	Scale
OTW Designs	-	Hecht	9
OTW Designs	-	Molch	9
OTW Designs	-	Seehund	9
OTW Designs	-	XXIII	25
32nd Parallel	01-000	VII	32
32nd Parallel	06-000	XXIII	32
Andrea Miniatures	LP-02	VIIC	32
OTW Designs	-	IIB	32
OTW Designs	-	VIIC	32
Engel	1591	VIIC	34
Engel	1592	IXD2	34
Accurate Armour	S001	VIIC waterline	35
Accurate Armour	S002	XXIII waterline	35
Bronco	CB35104	XXIII	35
Italeri	5609	Biber	35
Verlinden	810	Biber	35

U-Boat Model Kits

Verlinden	816	Neger	35
Verlinden	947	Seehund	35
Verlinden	1015	Hecht	35
Robbe	1-1114	VIIB U 47 semi-scale	40
Robbe	1-1214	XXI U 2540 semi-scale	40
Arkmodel	C7602K	VIIC	48
Hatchette	-	VIIC U 96	48
Precision Pattern	-	XXI	48
Trumpeter	06801	VIIC with interior	48
Krick	20310	VIIB semi-scale	60
Krick	-	IA U 25 semi-scale	-

1/72nd scale

	1/72 nd scale U	J-boat model kits	
Manufacturer	Kit code	Details	Scale
Alanger	040005	XXIII	72
Amati	1602	VIIB U 47	72
Combat Models	72-101	VIIC	72
Combat Models	72-103	XXI	72
Combat Models	72-107	IXC	72
Combat Models	72-108	IXD2	72
Czech Master Kits	ML80418	VIIC (waterline resin)	72
ICM	ICMS006	XXVIIB Seehund early	72
ICM	ICMS007	XXVIIB Seehund late	72
Pavla	72070	Molch	72
Revell	RV5015	VIIC	72
Revell	RV5045	VIIC/41	72
Revell	RV5114	IXC U 505	72
Revell	RV5125	Seehund	72
Revell	RV5133	IXC/40 U 190	72
Revell	RV5163	VIIC/41 Platinum Edition	72
Revell	RV5166	IXC early U 67 / U 154	72
Special Navy	72001	IIA	72
Special Navy	72002	XXIII	72
Special Navy	72004	Vesikko	72
Special Navy	72006	Biber	72

1/96th to 1/144th scales

	1/96 th to 1/144 th	scale U-boat model kits	
Manufacturer	Kit code	Details	Scale
Fine Arts	VIIC	VIIC/41	96
Fine Arts	VIIC	VIIC/41 with camouflage	96
Revell	RV5054	VIIB U 99	125
Revell	RV5060	VIIB U 47 with interior	125
ICM	ICMS004	XXIII	144
ICM	ICMS009	IIB	144
ICM	ICMS010	IIB 1943	144
Mikro-Mir	MM144-006	XVIIB	144

Additional U-Boat Articles

U-Boat Model Kits

Mini Hobby Models	81201	XXI U 2518	144
Mini Hobby Models	81202	XXI Wilhelm Bauer	144
Modelist	114469	IIB	144
Revell	RV5004	XXI U 2540	144
Revell	RV5009	VIID	144
Revell	RV5038	VIIC	144
Revell	RV5072	XXI Wilhelm Bauer	144
Revell	RV5078	XXI with interior	144
Revell	RV5100	VIIC/41	144
Revell	RV5155	IIB 1943	144
Revell	RV5167	IXC/40 U 190	144
Revell	RV5675	VIIC Collectors Edition	144
Targa	71073	VIIC in 8 sections	144
Trumpeter	TP05907	XXIII prototype	144
Trumpeter	TP05908	XXIII	144
Trumpeter	TP05912	VIIC	144

1/150th to 1/216th scales

		scale U-boat model kits	
Manufacturer	Kit code	Details	Scale
Academy	AC1442	VIIC	150
Doyusha	DH30011	VIIC U 581	150
Modelcraft	150-001	VIIC U 581	150
Airmodel	AM-5000	XXI	200
Airmodel	AM-5001	XXIII	200
Airmodel	AM-5003	IA	200
Fada Xieda	-	IXB	200
Mini Hobby	80914	IXB	200
Mini Hobby	80915	IXC U 511	200
Nichimo	2009	IXB U 107	200
Nichimo	2010	IXC U 505	200
Planet Models / CMK	PLANS 001	IA	200
Planet Models / CMK	PLANS 002	XXI	200
Planet Models / CMK	PLANS 003	IIA	200
Planet Models / CMK	PLANS 004	IIB	200
Planet Models / CMK	PLANS 005	IIC	200
Planet Models / CMK	PLANS 006	IID	200
Planet Models / CMK	PLANS 007	Molch	200
Planet Models / CMK	PLANS 008	Hecht	200
Planet Models / CMK	PLANS 009	Biber	200
Planet Models / CMK	PLANS 010	Seehund	200
Planet Models / CMK	PLANS 011	XXIII	200
Revell	3102	IXC U 505	200
Aurora	716	IXC U 505	209
Monogram	3102	IXC U 505	209
Mitsuwa	403	VIIB U 99	216
Mitsuwa	404	IXC U 132	216

1/350th scale

Manufacturer	Kit code	Details	Scale
AFV Club	SE73501	XXI	350
AFV Club	SE73502	VIIB	350
AFV Club	SE73503	VIIC	350
AFV Club	SE73504	VIIC/41	350
AFV Club	SE73505	VIID	350
Artitec	55-107	VIIC	350
Blue Water Navy	35027	IIB	350
Blue Water Navy	35028	VIIC	350
Blue Water Navy	35032	XXI	350
Bronco	NB5009	IXB	350
Commander Series	CSM8-001	VIIC	350
Commander Series	CSM8-002	IXC	350
Dragon	1008	XXI	350
Flagman	FL235003	VIIC/41	350
Flagman	FL235005	IXA/B	350
Flagman	FL235006	VIIC	350
Flagman	FL235009	VIIB	350
Flagman	FL235010	IXC	350
Flagman	FL235014	IXC/40 early	350
Flagman	FL235022	VIIC Flak	350
Flagman	FL235030	IXD2 early	350
Gulfstream	9302	VIIC late war	350
Hobby Boss	HB83503	VIIA	350
Hobby Boss	HB83504	VIIB	350
Hobby Boss	HB83505	IXC	350
Hobby Boss	HB83506	XXI	350
Hobby Boss	HB83507	IXB	350
Hobby Boss	HB83508	IXC	350
Jasmine Models	205001	VIIC seethrough	350
Mikro-Mir	MM350-18	XVIIB	350
Mirage Hobby	MIR350501	IXC U 176	350
Pit Road	CS-015	VIIC	350
Revell	RV5093	VIIC	350
ankee Modelworks	YKM-35027	VIIC late war	350
ankee Modelworks	YKM-35028	IXC late war	350
ankee Modelworks	YKM-35032	XXI	350

1/400th scale

1/400 th scale U-boat model kits				
Manufacturer	Kit code	Details	Scale	
Airfix	A55113	VIIC	400	
Heller	HELL81072	VIIC/41	400	
Mirage Hobby	MIR40023	IIA U 2	400	
Mirage Hobby	MIR40024	IIB U 23	400	
Mirage Hobby	MIR40025	IIC U 60	400	
Mirage Hobby	MIR40026	IID U 149	400	
Mirage Hobby	MIR40041	IXC U 176	400	
Mirage Hobby	MIR40042	IXB U 511	400	
Mirage Hobby	MIR40043	IXD2 U 875 + Fa 330	400	
Mirage Hobby	MIR40044	IXC/40 U 803	400	
Mirage Hobby	MIR40045	IXA U 40	400	
Mirage Hobby	MIR40046	IXD1 I-501 (ex-U 195)	400	
Mirage Hobby	MIR40049	VIIC U 571	400	
Mirage Hobby	MIR40410	VIIB U 84	400	
Mirage Hobby	MIR40411	VIIC U 570	400	
Mirage Hobby	MIR40412	VIIC Turm II U 673	400	
Mirage Hobby	MIR40413	VIIC Turm IV U 826	400	
Mirage Hobby	MIR40414	VIIC/41 U 295 + Biber	400	
Mirage Hobby	MIR40415	VIIC/41 U 1064	400	
Mirage Hobby	-	IXD2 Turm II U 875	400	
Mister Craft		VIIC U 617	400	

1/700th scale

1/700 th scale U-boat model kits				
Manufacturer	Kit code	Details	Scale	
Doyusha	301067	IXB	700	
Doyusha	301074	IXC	700	
Flyhawk	FH1100	VIIB U 47	700	
Flyhawk	FH1101	VIIB U 48 with dock	700	
Flyhawk	FH1102	VIIB U 99 (2 kits)	700	
Hasegawa	30034	VIIC + IXC (4 kits)	700	
Hasegawa	30037	VIIC + IXC (4 kits)	700	
Hasegawa	30040	VIIC + IXC (4 kits)	700	
Hasegawa	44901	VIIC + IXC (2 kits)	700	
Hobby Boss	HB87006	IXB	700	
Hobby Boss	HB87007	IXC	700	
Hobby Boss	HB87008	VIIB	700	
Hobby Boss	HB87009	VIIC	700	

Part III - AMP Sets

	Sets by Accurate Model Parts							
AMP			Suitable for the following kits	Number				
code				of parts				
72-01	72	IIA set	Special Navy IIA (SN72002)	328				
72-02	72	Early war VIIC set	Revell VIIC (RV5015)	168				
72-03	72	Germaniawerft tower floor	Revell VIIC (RV5015)	1				
72-04	72	Mittelmeerturm tower floor	Revell VIIC (RV5015)	1				
72-05	72	Late war VIIC and VIIC/41 set	Revell VIIC/41 kits	115				
			(RV5045 and RV5163)					
32-01	32	Mittelmeerturm tower floor	OTW, Andrea, Engel,	1				
			Accurate Armour					

Part IV - AMP Decals

	1		del Parts - Waterline Draught	
AMP code	Scale	U-boat type	Suitable for the following kits	Image
A-72W	72	VIIB, VIIC, VIID	Revell VIIC (RV5015), Revell VIIC/41 (RV5045)	
B-144W	144	VIIB, VIIC, VIID	Revell VIIC (RV5038), Revell VIIC/41 (RV5100), Revell VIID (RV5009), Trumpeter (TP05912)	
I-32W	32	VIIB, VIIC, VIID	OTW VIIC, Andrea VIIC, Engel VIIC, Accurate Armour VIIC (35 th scale)	
J-144W	144	Π	Revell IIB (RV5115), ICM IIB 1939 (ICMS009), ICM IIB 1943 (ICMS010)	
K-72W	72	IX	Revell IXC U 505 (RV5114) Revell IXC/40 U 190 (RV5133), Revell IXC (RV5136)	
L-72W	72	Π	Special Navy IIA (SN72002)	
O-48W	48	VIIB, VIIC, VIID	Arkmodel VIIC (C7602K), Trumpeter VIIC (TRU6801)	

	1	· · · · · · · · · · · · · · · · · · ·	rate Model Parts - Snorting Bull	
AMP code	Scale	Size	Suitable for the following kits	Image
C-72N	72	Normal	Revell VIIC (RV5015), VIIC/41 (RV5045), VIIB	the the
D-72L	72	Large	Revell VIIC (RV5015), VIIC/41 (RV5045), VIIB	the set
E-144N	144	Normal	Revell VIIC (RV5038), VIID (RV5009), Trumpeter VIIC (TP05912)	the the
F-144L	144	Large	Revell VIIC (RV5038), VIID (RV5009), Trumpeter VIIC (TP05912)	the the
G-35N	35	Normal	Accurate Armour (35^{th}) , Dream Arts (35^{th}) , Andrea (32^{nd}) , OTW (32^{nd}) , Robbe (40^{th})	AR AN
H-35L	35	Large	Accurate Armour (35^{th}) , Dream Arts (35^{th}) , Andrea (32^{nd}) , OTW (32^{nd}) , Robbe (40^{th})	The offe
M-48N	48	Normal	Arkmodel VIIC (C7602K), Trumpeter VIIC (TRU6801)	AN THE
N-48L	48	Large	Arkmodel VIIC (C7602K), Trumpeter VIIC (TRU6801)	tor the

AMP code	Scale	Version	Suitable for the following kits	Image
SAW35- BLACK *	35	Das Boot film version	Accurate Armour (35^{th}) , Dream Arts (35^{th}) , Andrea (32^{nd}) , OTW (32^{nd}) , Robbe (40^{th})	the state
SAW35- GREEN *	35	The real U 96	Accurate Armour (35^{th}) , Dream Arts (35^{th}) , Andrea (32^{nd}) , OTW (32^{nd}) , Robbe (40^{th})	the post
SAW35- BLUE *	35	9 th U-Flottille version	Accurate Armour (35^{th}) , Dream Arts (35^{th}) , Andrea (32^{nd}) , OTW (32^{nd}) , Robbe (40^{th})	
SAW48- BLACK	48	Das Boot film version	Arkmodel VIIC (C7602K), Trumpeter VIIC (TRU6801)	A M
SAW48- GREEN	48	The real U 96	Arkmodel VIIC (C7602K), Trumpeter VIIC (TRU6801)	
SAW48- BLUE	48	9 th U-Flottille version	Arkmodel VIIC (C7602K), Trumpeter VIIC (TRU6801)	*
SAW72	72	Das Boot film version, U 96 & 9 th U- Flottille	Revell VIIC (RV5015)	秋 秋 秋
SAW144	144	Das Boot film version, U 96 & 9 th U- Flottille	Revell VIIC (RV5038), Trumpeter VIIC (TP05912)	秋 秋 秋 秋
SAW350	350	Das Boot film version, U 96 & 9 th U- Flottille	Any 350 th scale VIIC (Revell, AFV, Flagman, Hobby Boss) or 400 th scale VIIC (Mirage)	秋 秋 秋

Γ	Decals by A	Accurate Model	Parts - U 201's Snowman & R	emscheid
AMP code	Scale	Version	Suitable for the following kits	Image
SNOW35A	35	Remscheid late + Snowman version 2	Accurate Armour (35^{th}) , Dream Arts (35^{th}) , Andrea (32^{nd}) , OTW (32^{nd}) , Robbe (40^{th})	
SNOW35B	35	Remscheid late + Snowman version 1	Accurate Armour (35^{th}) , Dream Arts (35^{th}) , Andrea (32^{nd}) , OTW (32^{nd}) , Robbe (40^{th})	1
SNOW35C	35	Remscheid early	Accurate Armour (35^{th}) , Dream Arts (35^{th}) , Andrea (32^{nd}) , OTW (32^{nd}) , Robbe (40^{th})	SNOW35C G AMP 2011
SNOW48A	48	Remscheid late + Snowman version 2	Arkmodel VIIC (C7602K), Trumpeter VIIC (TRU6801)	SNOW48A © AMP 2016
SNOW48B	48	Remscheid late + Snowman version 1	Arkmodel VIIC (C7602K), Trumpeter VIIC (TRU6801)	SNOW48B CAMP 2016
SNOW48C	48	Remscheid early	Arkmodel VIIC (C7602K), Trumpeter VIIC (TRU6801)	D AMP 2016
SNOW72A	72	Remscheid late + Snowman version 2	Revell VIIC (RV5015)	SHOWYAN CAMPEREN
SNOW72B	72	Remscheid late + Snowman version 1	Revell VIIC (RV5015)	<u>1</u>
SNOW72C	72	Remscheid early	Revell VIIC (RV5015)	SNOW72C B AMP 2011
SNOW144	144	Remscheid early & late + Snowman versions 1 & 2	Revell VIIC (RV5038), Trumpeter VIIC (TP05912)	

	Dec	als by Accurate	Model Parts - Pre-war Numbe	ers
AMP code	Scale	Version	Suitable for the following kits	Image
PRE72B	72	Set of black pre-war numbers for U 1 to U 6, port and starboard	Special Navy Type IIA	123456 123456
PRE72W	72	Set of white pre-war numbers for U 1, U 3 and U 6, port and starboard	Special Navy Type IIA	136 136
ICMTII	144	Full set of pre-war numbers, port and starboard	Revell IIB (RV5115), ICM IIB 1939 (ICMS009)	12345678 12345678 90129012
34420000		4137452100000		構成調査部での応信
		-	e Model Parts - Type IX Insigni	
AMP code	Scale	Version	Suitable for the following kits	Image
T9-SHELL- 72	72	U 505 Shell for final patrol (for capture)	Revell IXC (RV5114)	
T9-SHELL- EARLY-72	72	U 505 Shell penultimate patrol	Revell IXC (RV5114)	
T9-AXE-72	72	U 505 Axe (includes one set of Olympic rings)	Revell IXC (RV5114)	1 1 1 1 1 1 1 1 1 1
T9-RINGS- 72 *	72	Olympic rings	Revell IXC (RV5114), Revell VIIC (RV5015)	<u>000</u>
T9-10UF-72	72	10 th U- Flottille emblem	Revell IXC U 505 (RV5114) Revell IXC/40 U 190 (RV5133), Revell IXC	+ +

		τ	J-Boat Model Kits	
	Deca	als by Accurate	Model Parts - Type VIIC Insign	ia
AMP code	Scale	Version	Suitable for the following kits	Image
T7-U564-35	35	1941 (long tail) + 1942 (short tail)	Accurate Armour (35^{th}) , Dream Arts (35^{th}) , Andrea (32^{nd}) , OTW (32^{nd}) , Robbe (40^{th})	1941 1942
T7-U564-48	48	1941 (long tail) + 1942 (short tail)	Arkmodel VIIC (C7602K), Trumpeter VIIC (TRU6801)	1941 1942
T7-U564-72	72	1941 (long tail) + 1942 (short tail)	Revell VIIC (RV5015)	1941 1942