

U-BOAT

Pack 12 Kits 45-48

BUILD THE ICONIC WORLD WAR II U-BOAT



Pack 12 Assembly Instructions

Kit 45: The next motor

Kit 46: Limit switches

Kit 47: Another motor

Kit 48: The hull

hachette

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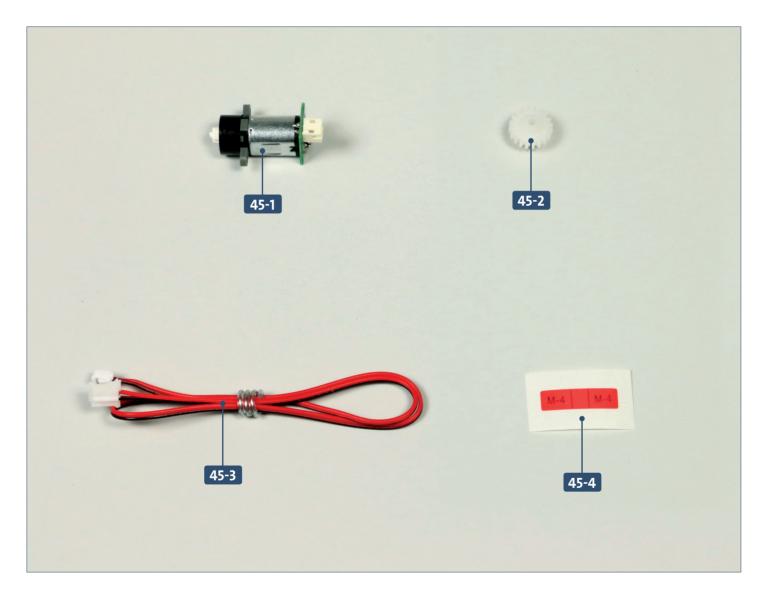
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WARNING: All parts belong to a kit. Collectors' item for adults. Not suitable for children under 14. Some parts may have sharp edges, please handle them with care.

Kit 45: The next motor

In this kit, the motor for raising and lowering the attack periscope is fitted with a cable and attached to the periscope rack.



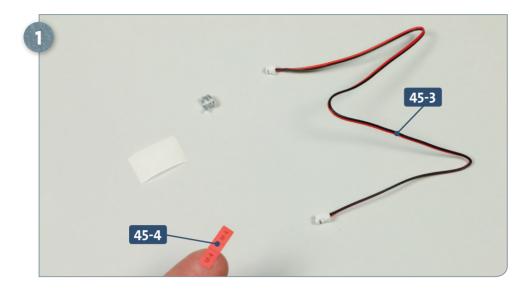
| Parts reference list | |
|----------------------|-------------|
| Part no. | Name |
| 45-1 | Motor |
| 45-2 | Cog |
| 45-3 | Cable |
| 45-4 | Cable label |



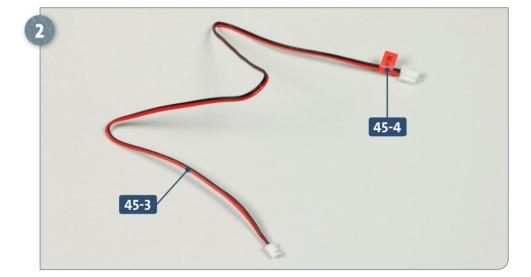
| Screws | | |
|--------|-----|------------|
| Ref | No. | Dimensions |
| BP | 2+1 | 1.7 x 6 mm |

Kit 45: The next motor

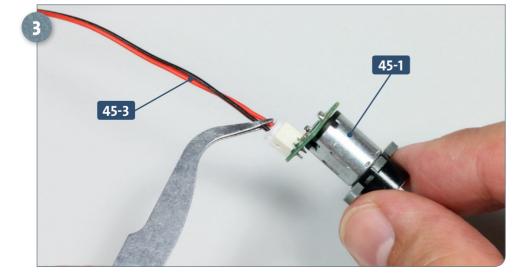
STAGE 1 ightarrow Attaching the motor



Remove the wrapper from the cable **45-3** and the backing film from the cable label **45-4**, as shown.

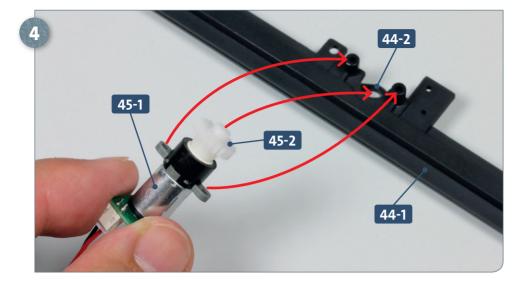


Attach the label **45-4** to the cable **45-3** approximately 8mm from the larger connector.



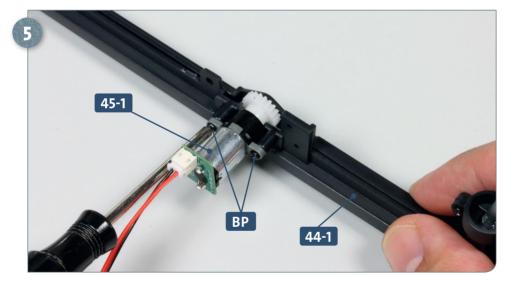
Insert the end of the cable **45-3** without the label into the port in the motor PCB **45-1**.

Kit 45: The next motor

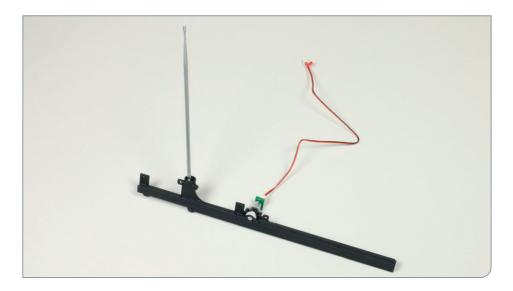


Fit the cog **45-2** onto the hub of the motor **45-1**. Take the attack periscope assembly **44-1/44-2** and fit the cog and motor into the mounting on the rack as indicated by the arrows.

Fix the motor **45-1** to the raised screw sockets on the rack **44-1** using two **BP** screws.

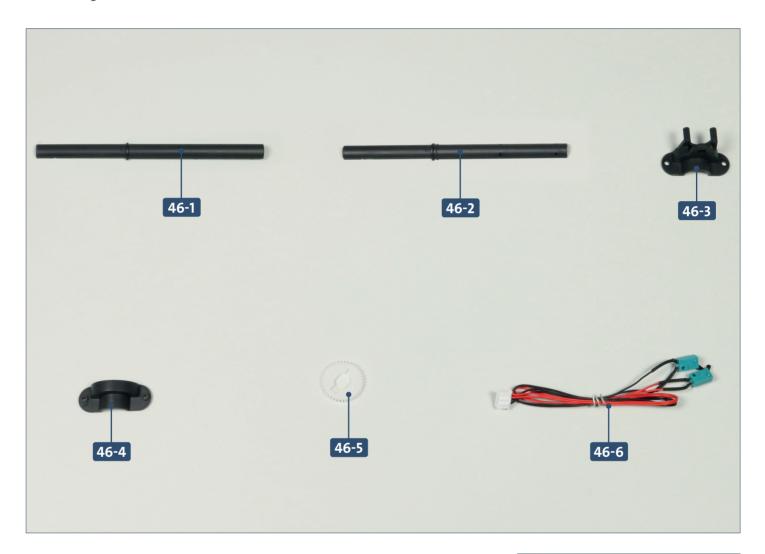


COMPLETED WORK

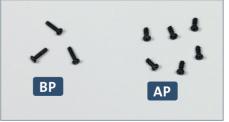


The motor has now been connected to the attack periscope assembly.

In this kit, limit switches are fitted to the central periscope. The periscope assembly is then installed and equipped with a cover, cog and bracket.

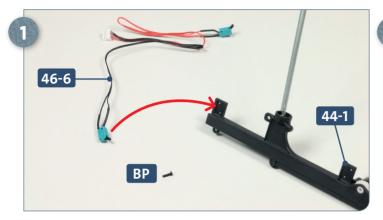


| Parts reference list | | |
|----------------------|---------------------|--|
| Part no. | Name | |
| 46-1 | Shaft cover | |
| 46-2 | Shaft cover | |
| 46-3 | Motor bracket cover | |
| 46-4 | Motor bracket cover | |
| 46-5 | Cog | |
| 46-6 | Limit switches | |

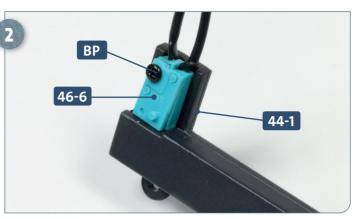


| Screws | | |
|--------|-----|------------|
| Ref | No. | Dimensions |
| BP | 2+1 | 1.7 x 6 mm |
| AP | 5+1 | 2 x 4 mm |

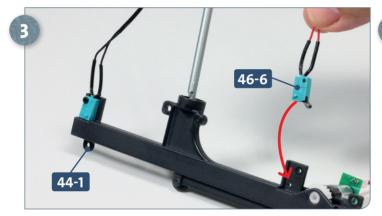
STAGE 1 \rightarrow Attaching the limit switches and assembling the shaft



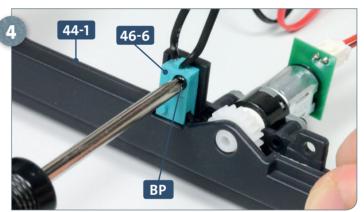
Place the periscope assembly, limit switch **46-6** and a **BP** screw ready on your work surface. The limit switch with the black cable fits at the aft end of the rack cover **44-1**, as shown by the arrow.



Attach the limit switch with the black cable **46-6** to the rack cover **44-1** with a **BP** screw.



Take the limit switch with the red cable **46-6** and fit it to the rack cover **44-1**, as shown by the red arrow above.



Use another **BP** screw to attach the red limit switch **46-6** to the rack cover **44-1**.



Place the two halves of the periscope cover **46-1** and **46-2** on your work surface. Apply some glue to the pegs of **46-1**.



Glue the two halves of the shaft cover together.

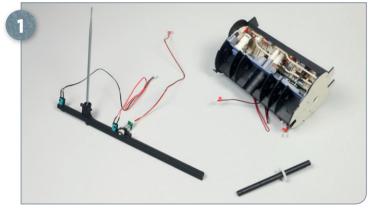


Now fit the cog **46-5** onto the end of the shaft cover assembly **46-1/46-2**, as shown in the inset photo and in the next step. Note the distance from the end of the shaft to the rib is shorter.

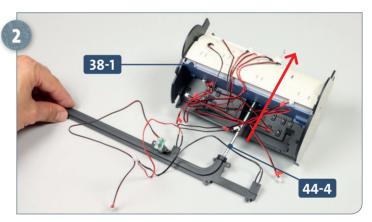


Slide the gear **46-5** down the shaft cover **46-1/46-2** until it sits against the bead. Pay close attention to the gear's alignment.

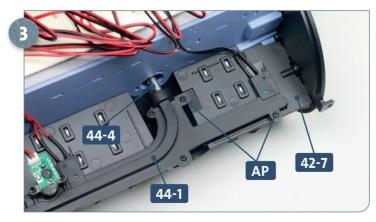
STAGE 2 ightarrow Installing the periscope assembly



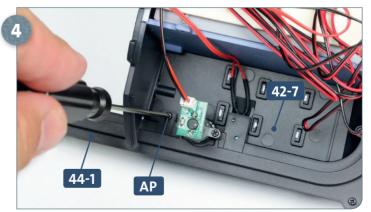
Now that the assemblies have been prepared, the periscope and its shaft cover are to be mounted on the central compartment assembly in the next steps.



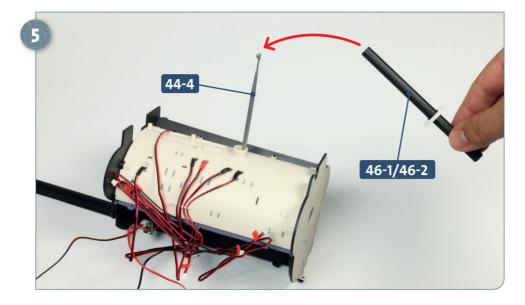
Turn the central command compartment assembly over and carefully feed the periscope **44-4** through from beneath, through the opening in the compartment deck **38-1** (see red arrow).



Feed the periscope **44-4** through until the rack **44-1** sits in the corresponding recesses in the ballast tank **42-7**. Making sure the wires are not caught behind, fix in place using two **AP** screws.

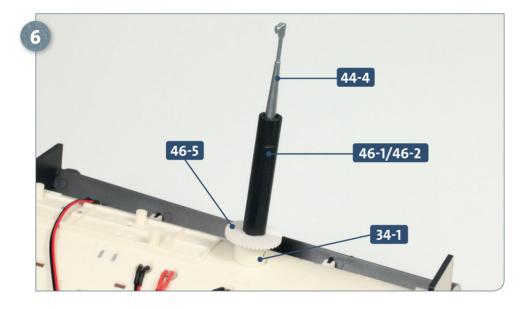


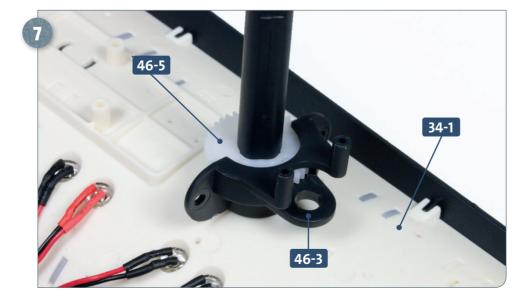
Attach the rack **44-1** to the front end of the ballast tank using another **AP** screw.



Take the shaft cover assembly **46-1/46-2**, oriented as pictured, and fit it onto the periscope **44-4**, as indicated by the arrow. If necessary, rotate the shaft cover so that if fully engages below.

This photo shows the shaft **46-1/46-2** correctly fitted around the periscope **44-4**. The cog **46-5** is located above the cylinder in the deckhead **34-1**.

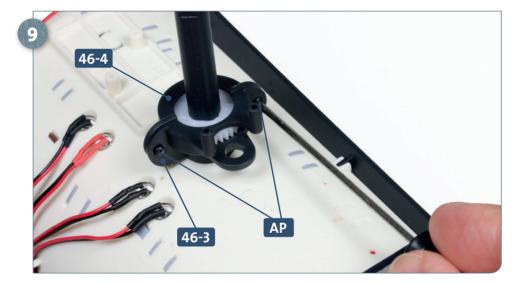




Place the rotary motor bracket cover **46-3** against the cog **46-5**. The peg inside the bracket **46-3** fits into the corresponding hole in the cylinder protruding from the deckhead **34-1** (not seen).

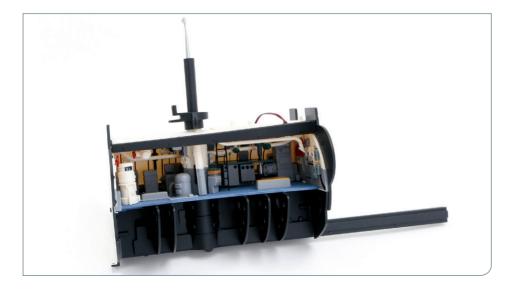


Take the motor bracket cover **46-4** and fit it against the other half **46-3**.



Fasten the two halves of the motor bracket cover **46-3** and **46-4** using two **AP** screws, as shown.

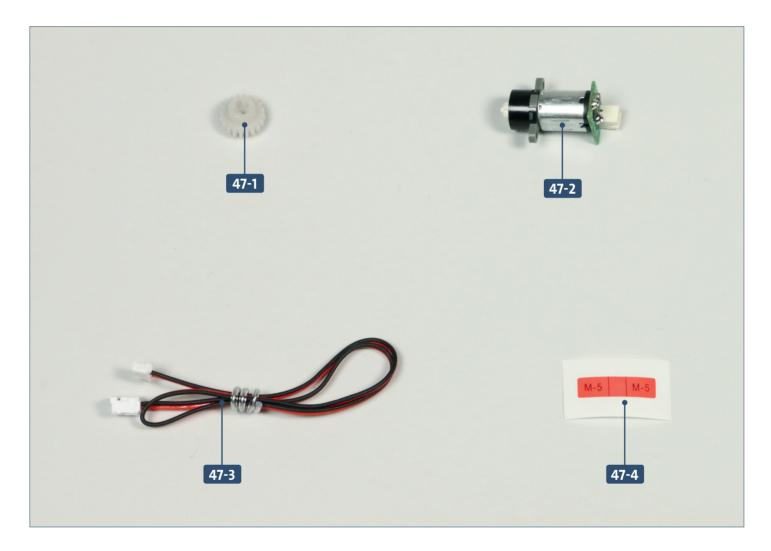
COMPLETED WORK



The periscope assembly, with limit switches in place, has been installed in the central command compartment.

Kit 47: Another motor

In this kit, the motor for rotating the attack periscope is fitted with a cable and then attached to the top of the periscope mount.



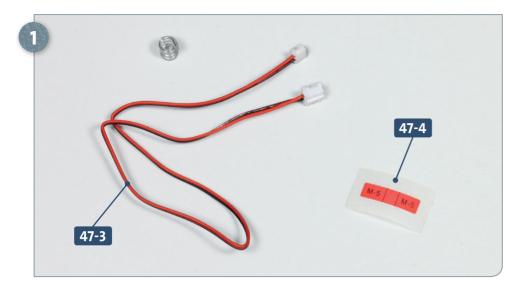
| Parts reference list | |
|----------------------|-------------|
| Part no. | Name |
| 47-1 | Cog |
| 47-2 | Motor |
| 47-3 | Cable |
| 47-4 | Cable label |



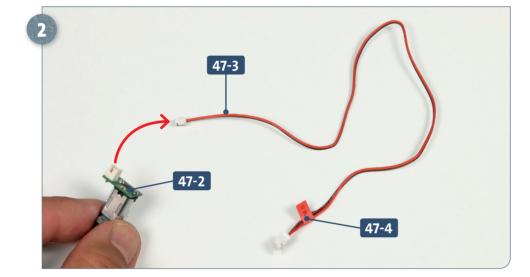
| Screws | | |
|--------|-----|------------|
| Ref | No. | Dimensions |
| BP | 2+1 | 1.7 x 6 mm |

Kit 47: Another motor

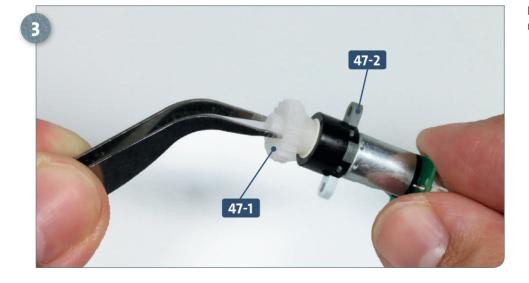
STAGE 1 \rightarrow Attaching the motor



Take the cable label **47-4** and cable **47-3** and remove the wrapping, as shown.

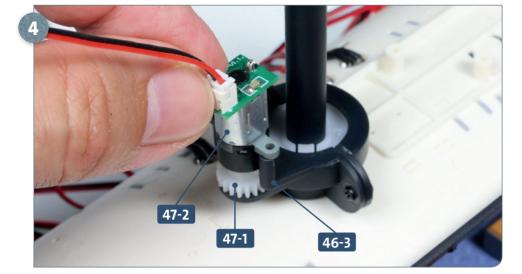


Peel the cable label **47-4** from its backing film and attach it approximately 8mm from the larger connector on cable **47-3**. Taking the motor **47-2**, connect the end of the cable without the label to the socket on the motor PCB, shown by the arrow.

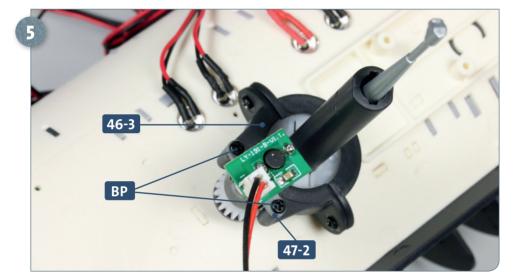


Next, fit the cog **47-1** onto the shaft of the motor **47-2**.

Kit 47: Another motor

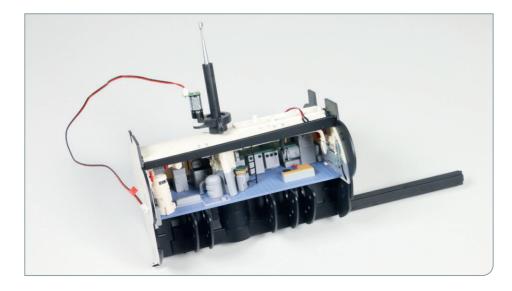


Place the cog **47-1** and motor **47-2** onto the mounts on the attack periscope bracket **46-3**.



Fix the motor **47-2** to the bracket **46-3** using two **BP** screws.

COMPLETED WORK



The motor for rotating the attack periscope has now been fitted to the central compartment assembly.

Kit 48: The hull

In this kit, the next section of the lower hull is attached to the structure using a connector, then the second and third compartments are inserted and fixed within the hull assembly.

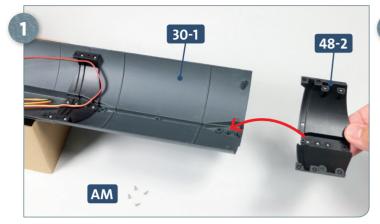




| Screws | | |
|--------|-----|------------|
| Ref | No. | Dimensions |
| AM | 8+1 | 2 x 4 mm |
| AP | 2+1 | 2 x 4 mm |

| Parts reference list | |
|----------------------|--------------------|
| Part no. | Name |
| 48-1 | Lower hull section |
| 48-2 | Connector |

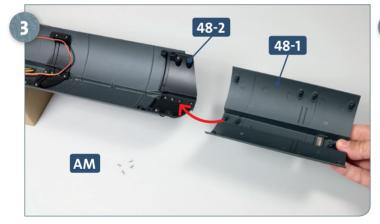
STAGE 1 ightarrow Attaching the hull section and adding the compartments



Orientate the connector **48-2** as pictured above and fit it against the aft end of the lower hull section **30-1**, as indicated by the arrow. Have ready four **AM** screws.



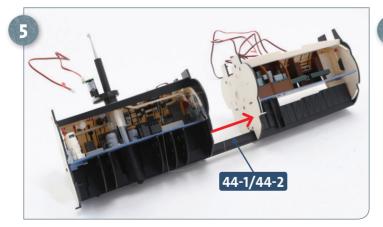
Fix the connector **48-2** to the lower hull section **30-1** using the four **AM** screws.



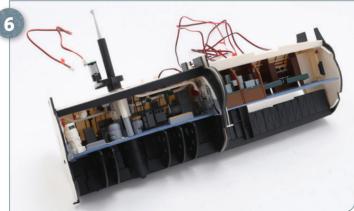
After noting the orientation, place the hull section **48-1**, as shown, against the aft end of the connector **48-2**. Have ready four more **AM** screws.



Fix the lower hull section **48-1** to the main hull structure using four **AM** screws in the holes in the connector **48-2**.

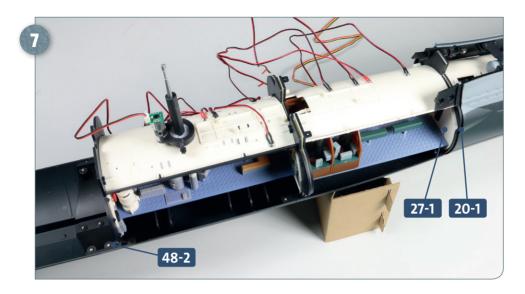


Have the second and third compartments ready. Insert the forward end of the periscope rack assembly **44-1/44-2** into the recess behind the battery cells in the second compartment.



This photo shows the second and third compartments adjacent to each other.

Kit 48: The hull

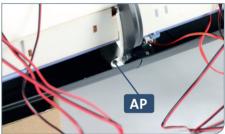


Insert the assembly consisting of compartments 2 and 3 into the hull structure: the forward bulkhead of the second compartment **27-1** should sit up against the bow compartment bulkhead **20-1**. The aft bulkhead **37-1** of the third compartment fits into a recess in the connector **48-2**.

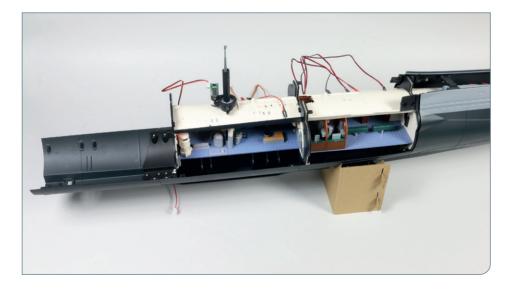
If the compartments do not fit, it could be that the bow compartment wasn't fitted far enough forward and needs adjusting accordingly. Take care with any adjustment and, if necessary, refer back to kit 20 when the bow compartment was fitted.

Fix the aft bulkhead of the second compartment **26-3** to the hull structure using an **AP** screw on both sides, inserted through the holes in the side tabs into the hull connector **29-1**.





COMPLETED WORK



The hull continues to grow, and the second and third interior compartments have now been inserted into the hull structure.