

# BISMARCK

## THE LEGENDARY BATTLESHIP



### Pack 11 | Build Instructions

Your 1:200 scale model of the legendary battleship Bismarck is packed with intricate details which precisely replicate every aspect of this state-of-the-art warship. Each piece has been created using premium quality materials to bring maximum enjoyment during your complete build.

In your eleventh model pack, you will assemble:

**STAGE 117: ROTATION MOTOR FOR THE  
THIRD 38CM GUN TURRET**

**STAGE 118: FITTING THE STERN**

**STAGE 119: THE AFT CIRCUIT BOARD**

**STAGE 120: THE TWO OUTER PROPELLERS**

**STAGE 121: THE CENTRAL PROPELLER**

**STAGE 122: THE GEARBOX FOR THE  
PROPELLERS**

**STAGE 123: THE TWIN RUDDERS**

**STAGE 124: THE AFT ANCHOR AND MOTOR**

**STAGE 125: MAINMAST AND FOUR AA GUNS**

**STAGE 126: THE EIGHTH UPPER DECK SECTION**

**STAGE 127: LAST SECTION OF THE UPPER DECK**

**STAGE 128: THE FOURTH 38CM GUN TURRET**

## Advice from the experts

Spare screws are included with each part. Occasionally, you may be instructed to keep spare or unused screws for a later stage.

Keep these spares in a safe place and label them correctly.

Please make sure you don't mix up the screws. They look quite similar, but the threads do vary slightly. Using the wrong screws may damage the parts.

When securing parts together using multiple screws, fit each screw loosely to ensure all the parts are correctly aligned before gently tightening them firmly, but not overtight, in the order in which you placed them.

Your screwdriver can be magnetised by stroking it with a magnet (fridge magnet, etc.) enabling it to hold the screws and make assembly easier.

If a screw is tight going into a metal part, do not force it as you may shear the head off. Remove it and put a tiny smear of Vaseline, soap or light oil on the thread. That will lubricate it and make it easier to drive home.

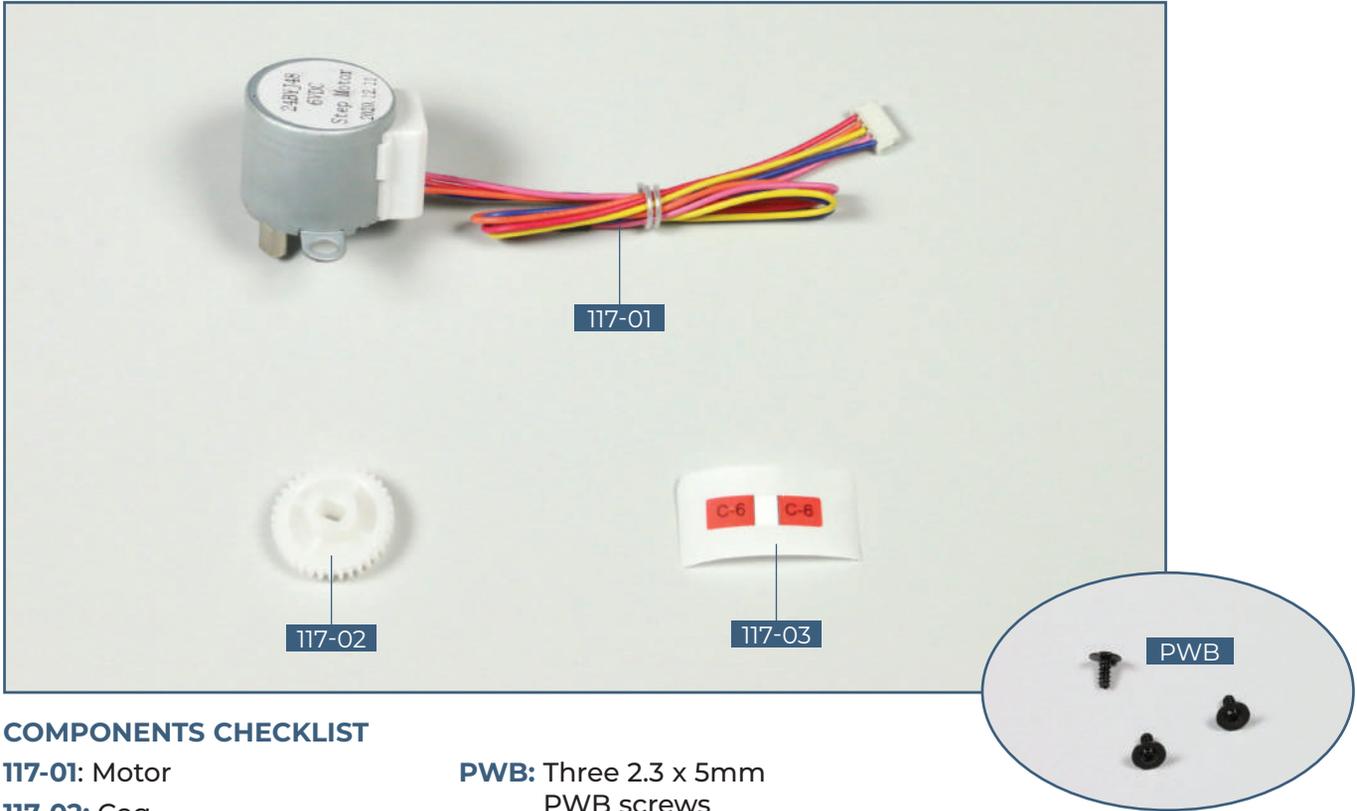
During the course of this build, you will receive many pieces that you will assemble immediately – following the instructions in the corresponding stage – and other pieces that you should store safely to one side, for use in future assembly stages.



Not suitable for children under the age of 14. This product is not a toy and is not designed for use in play. Keep the parts out of the reach of small children. Some parts may have sharp edges. Please handle them with care.

## STAGE 117

# ROTATION MOTOR FOR THE THIRD 38CM GUN TURRET



### COMPONENTS CHECKLIST

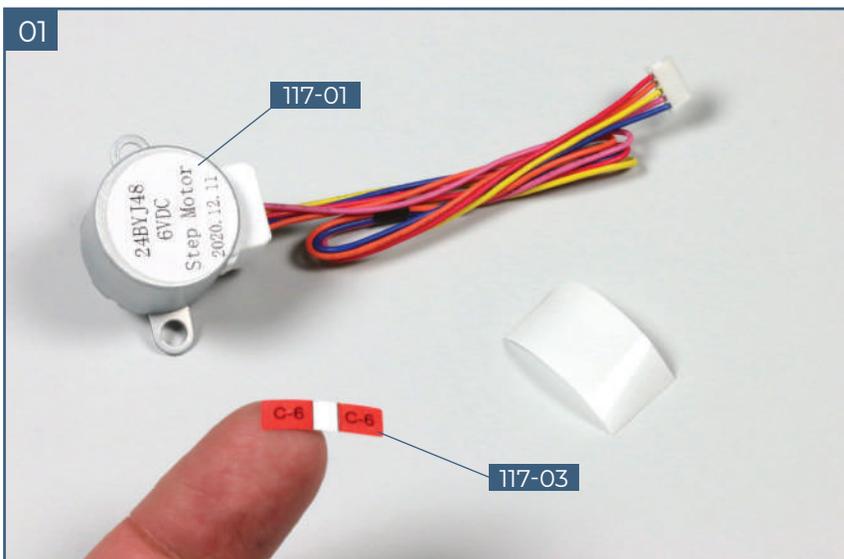
**117-01:** Motor

**117-02:** Cog

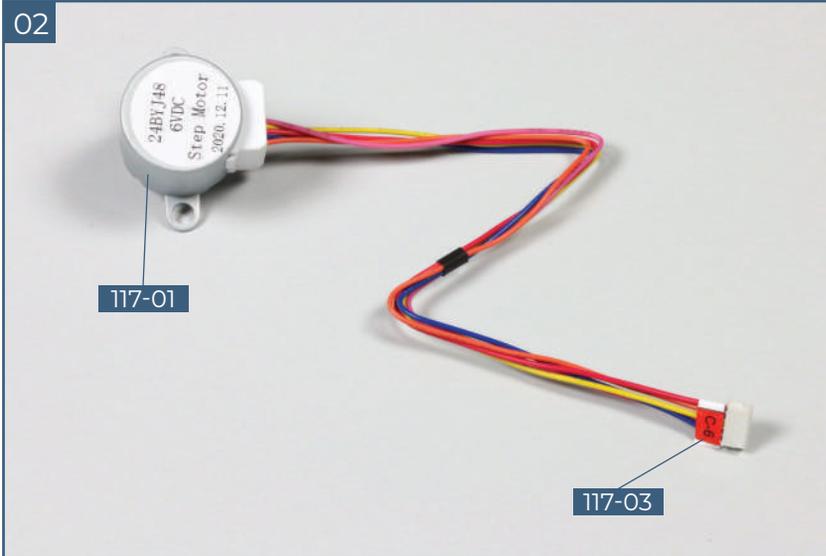
**117-03:** Cable label

**PWB:** Three 2.3 x 5mm  
PWB screws

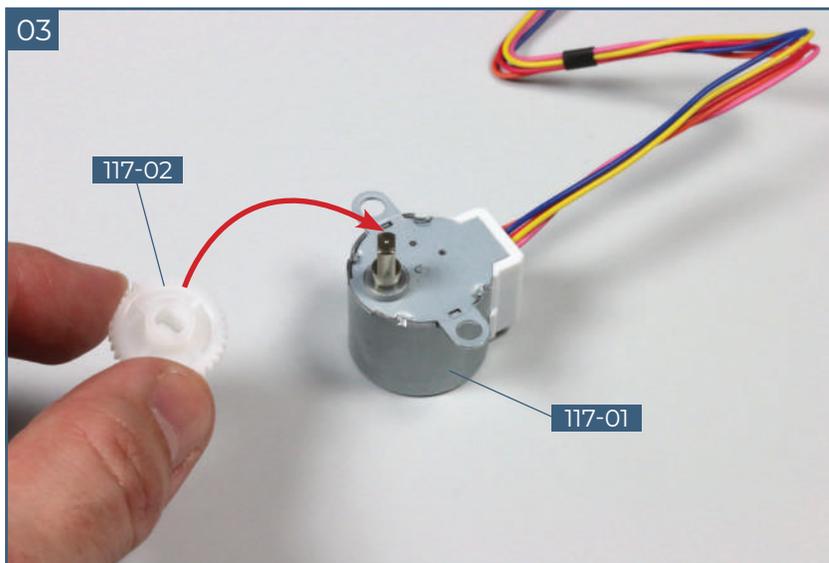
## 01. FITTING THE MOTOR



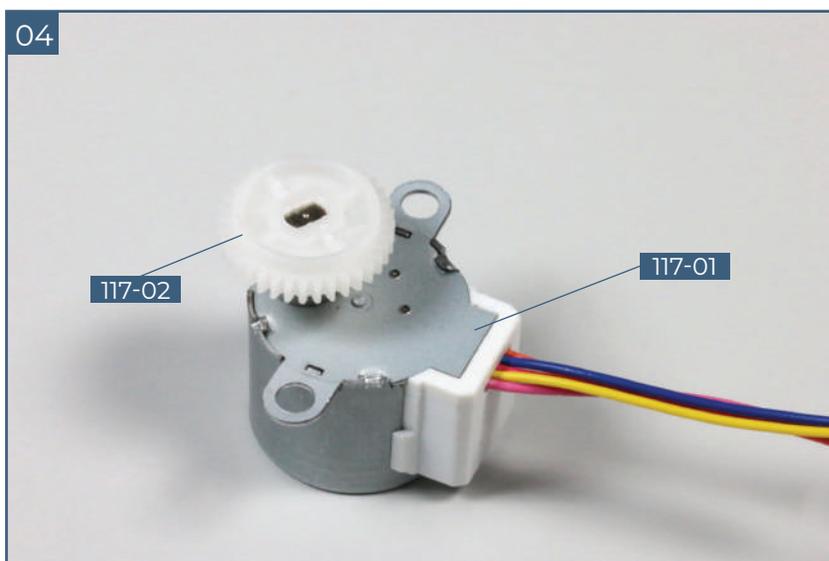
Place the motor **117-01** on your worktop. Remove the cable label **117-03** from its backing.



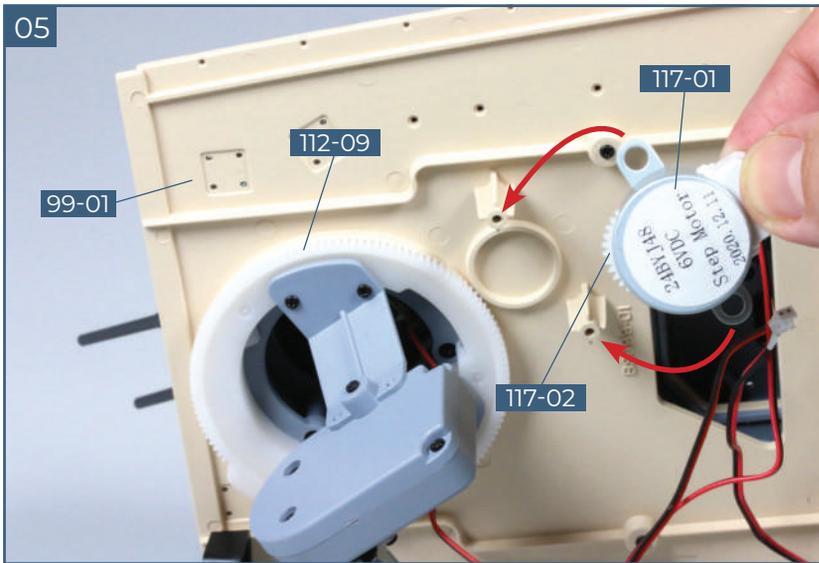
Wrap the cable label **117-03** around the end of the cable near the connector, as shown.



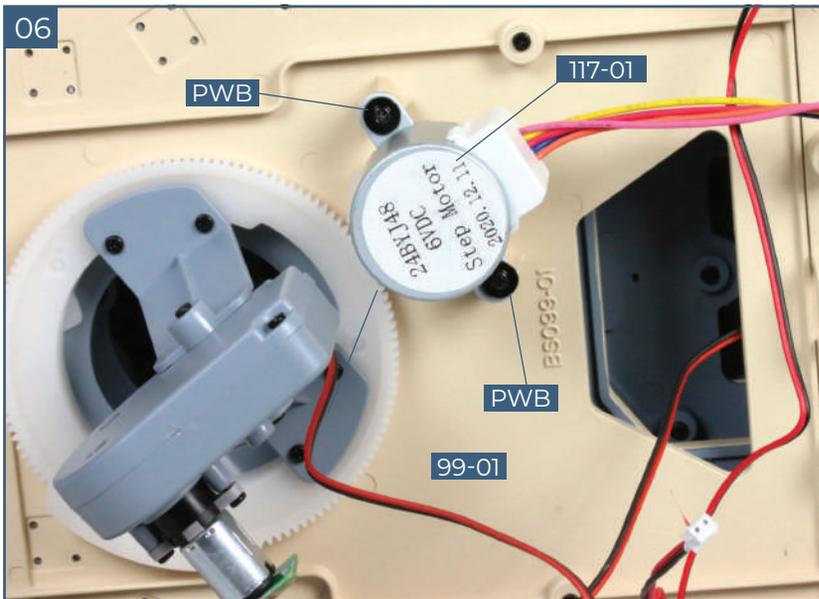
Take the cog **117-02** and fit it on to the shaft of the motor **117-01**, as indicated.



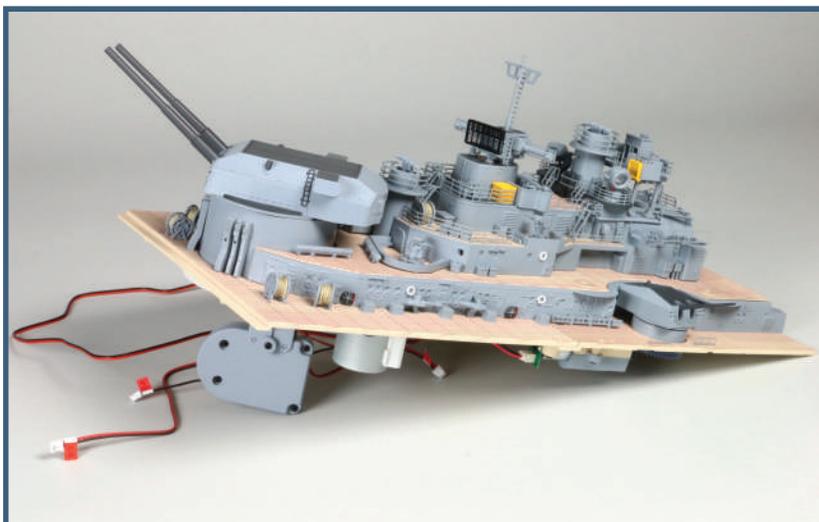
When the cog **117-02** is fitted onto the shaft of the motor **117-01**, push it down as far as possible.



Take the aft superstructure. Carefully turn it on its side and fit it on to a bracket, as described in stage 84; particular care needs to be taken not to damage the protruding gun barrels. Take the motor **117-01** and position it so that the two screw holes are aligned with the raised screw sockets on the underside of deck section **99-01**, as indicated. When the motor is correctly positioned, the teeth on cog **117-02** interlock with the teeth of cog **112-09**.



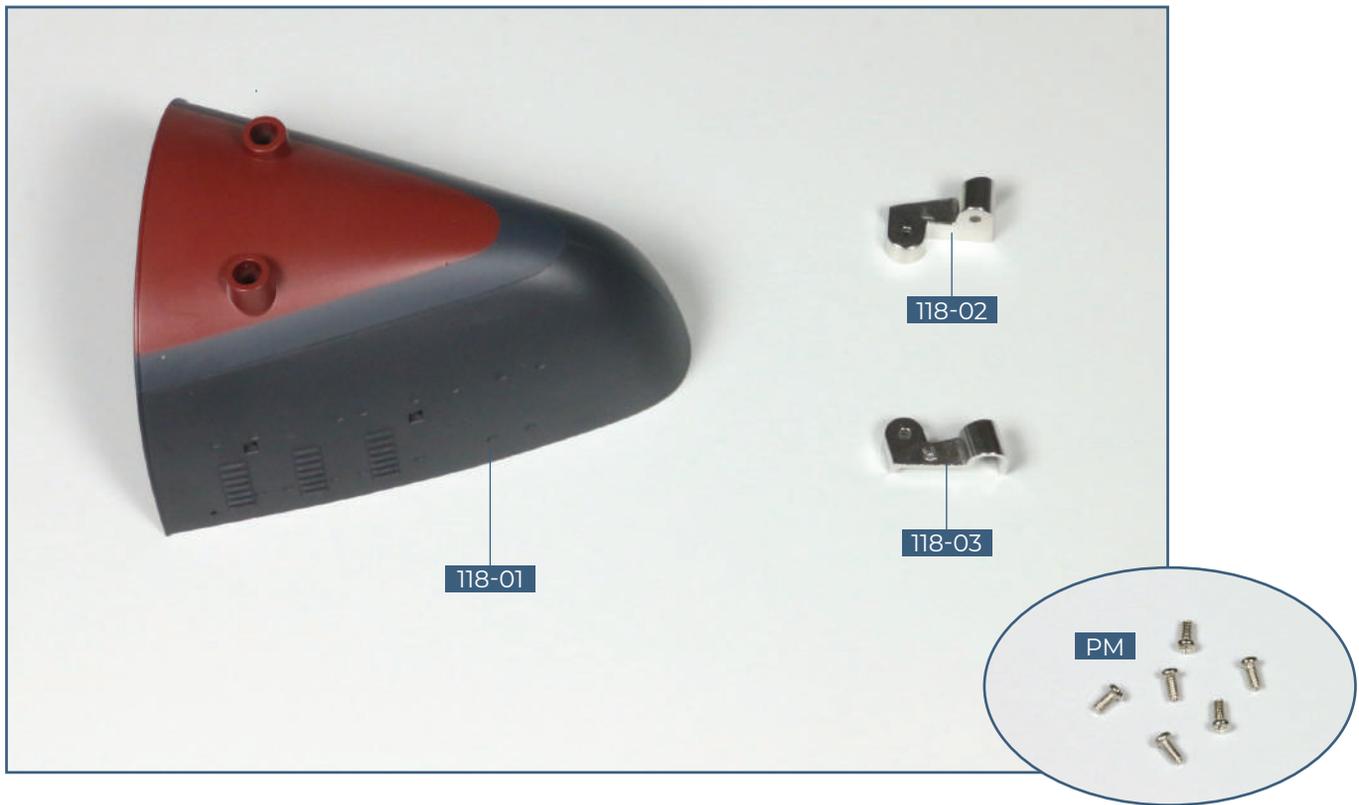
Fix the motor **117-01** in place using two **PWB** screws.



### Completed work

The motor for rotating the third 38cm gun turret has been fitted to the underside of the deck of the aft superstructure.

## STAGE 118 FITTING THE STERN



### COMPONENTS CHECKLIST

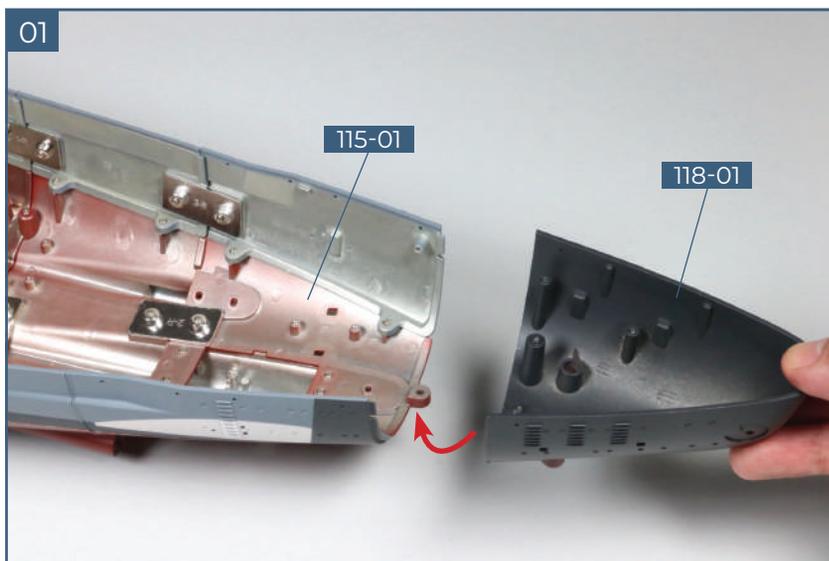
**118-01:** Stern

**118-02:** Port connector (L)

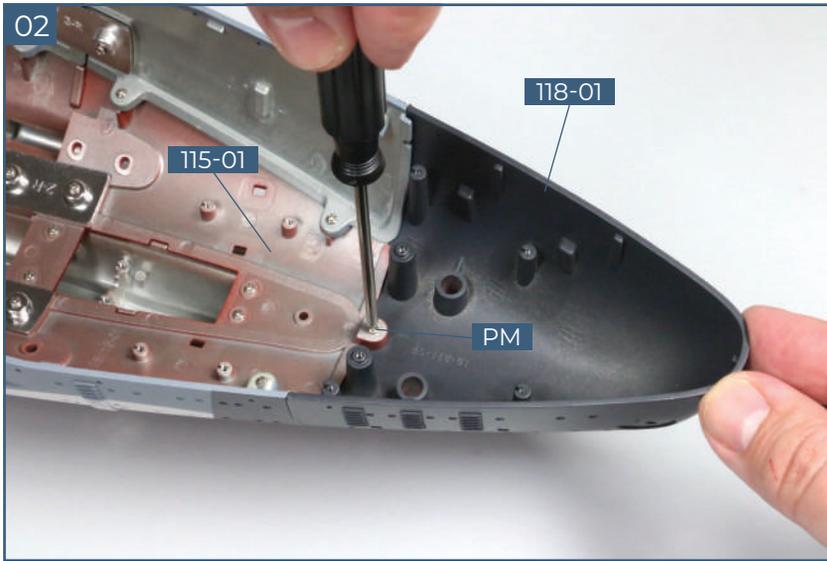
**118-03:** Starboard connector (R)

**PM:** Six 2 x 4mm PM screws

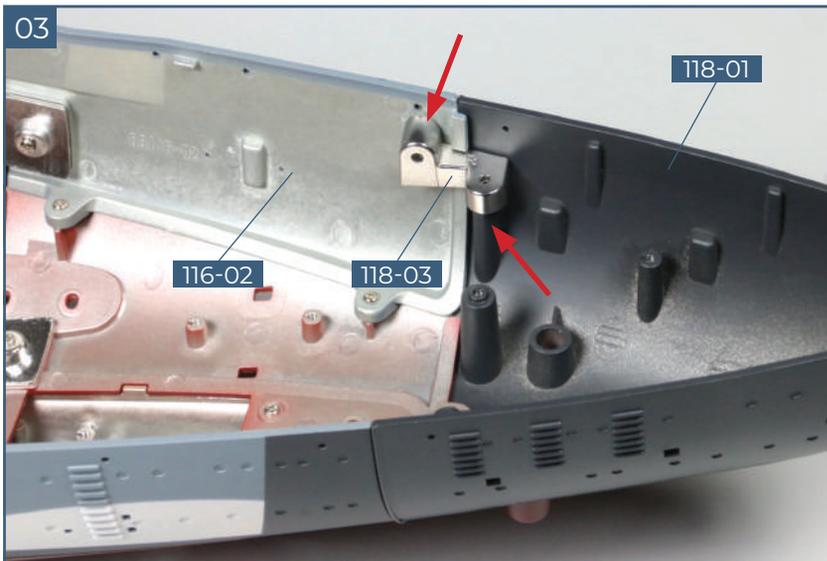
## 01. COMPLETING THE HULL



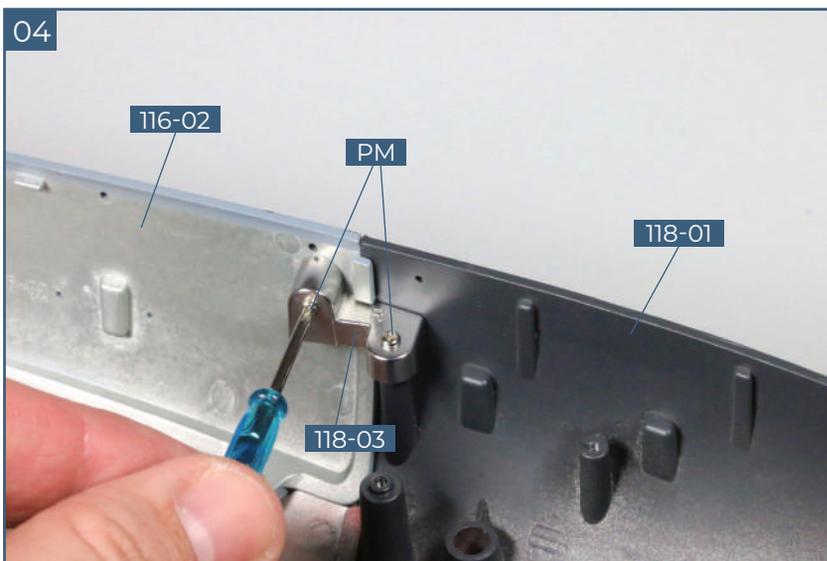
Place the model on your worktop so that you can access the stern end of the hull. Take the stern **118-01** and fit it against the keel section **115-01**: the central screw hole on the edge of the stern fits beneath the screw hole on the keel section, as indicated.



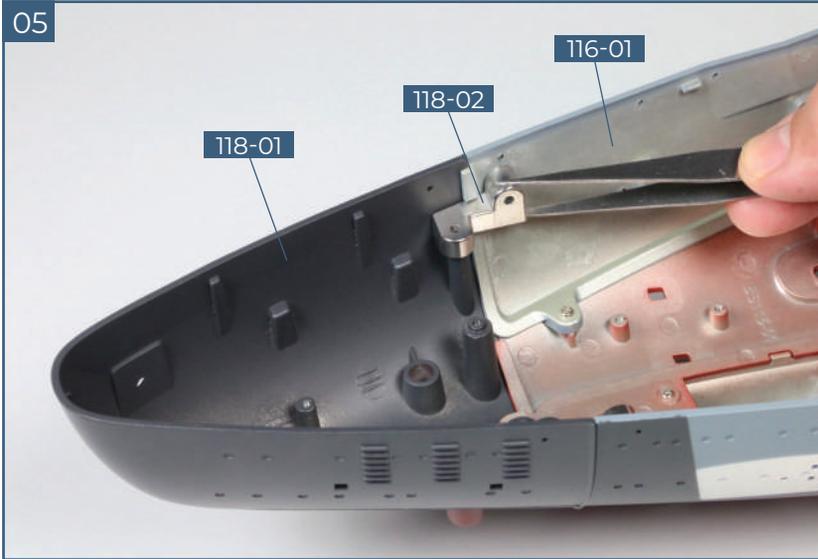
Fix the stern **118-01** to the keel section **115-01** using a PM screw.



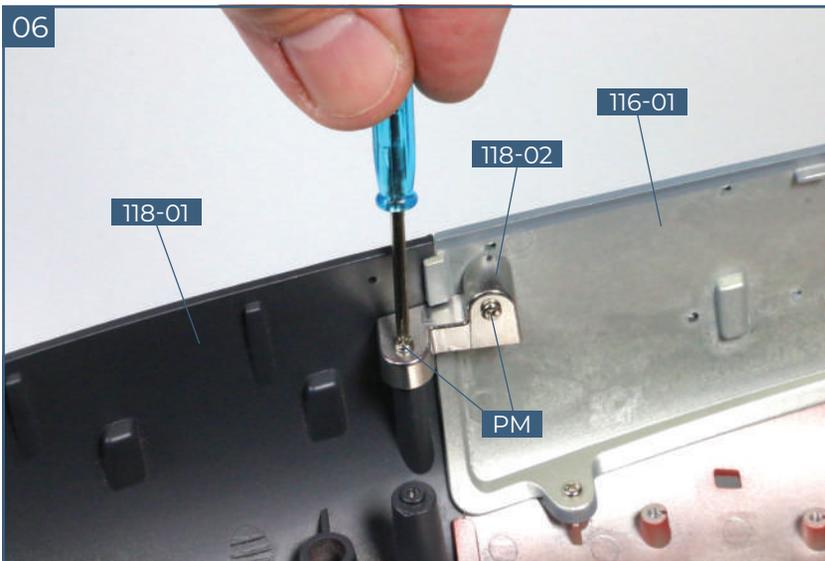
Identify the raised screw sockets where the starboard connector **118-03** (labelled R) fits: there is a vertical screw socket on the stern section **118-01** and a horizontal screw socket on the hull section **116-02** (arrows). Fit the connector in place as shown.



Fix the starboard connector **118-03** to the stern **118-01** and the hull section **116-02** using two **PM** screws.



Moving to the other side of the hull, identify the fixing points for the port connector **118-02** (labelled L). Align the screw holes on the connector with the sockets on the stern **118-01** and the hull section **116-01**.



Fix the port connector **118-02** to the stern **118-01** and the hull section **116-01** using two **PM** screws.

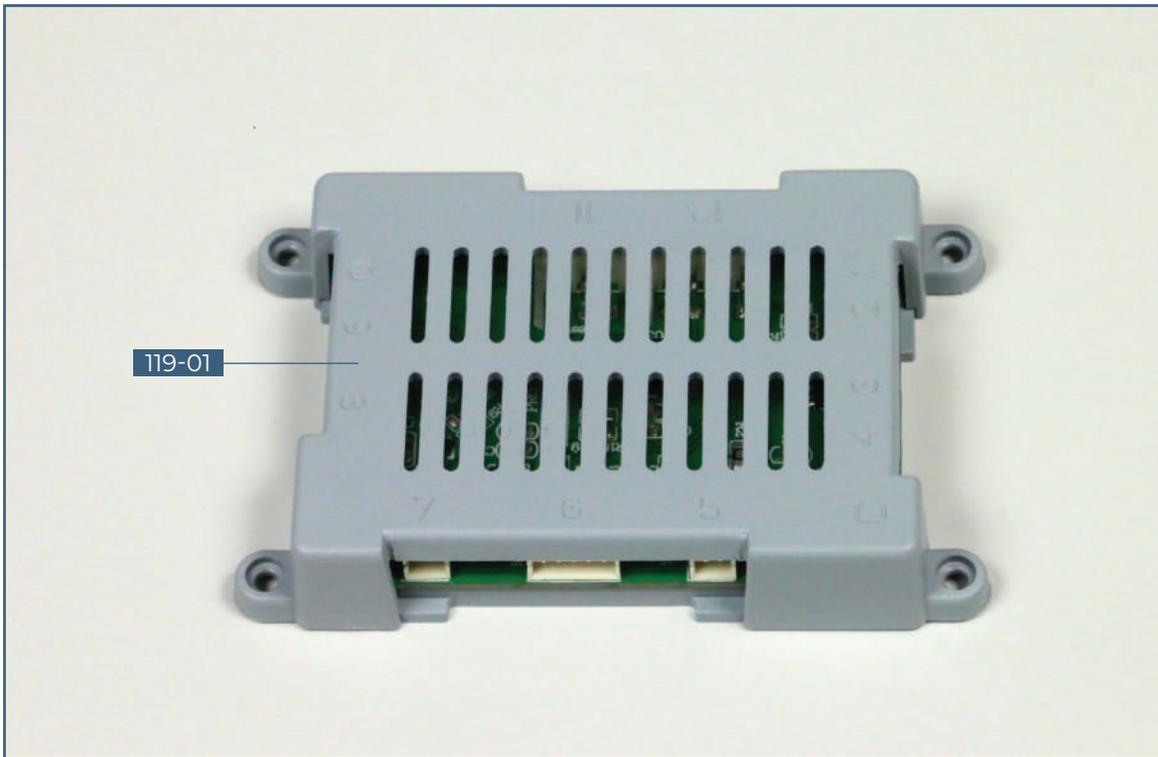


### Completed work

The final section of the metal hull assembly has been fixed in place at the stern of the model.

## STAGE 119

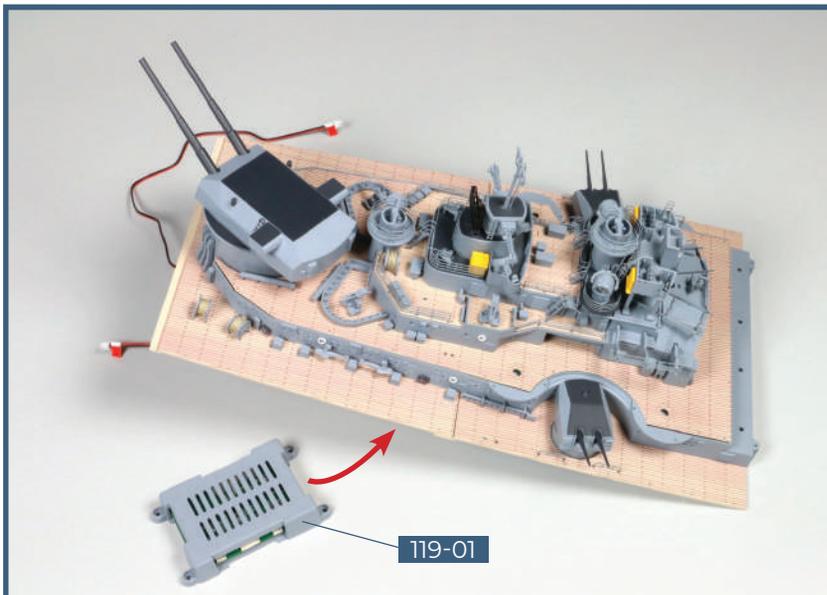
# THE AFT CIRCUIT BOARD



### COMPONENTS CHECKLIST

**119-01:** Circuit board

## 01. TAKE A BREAK!

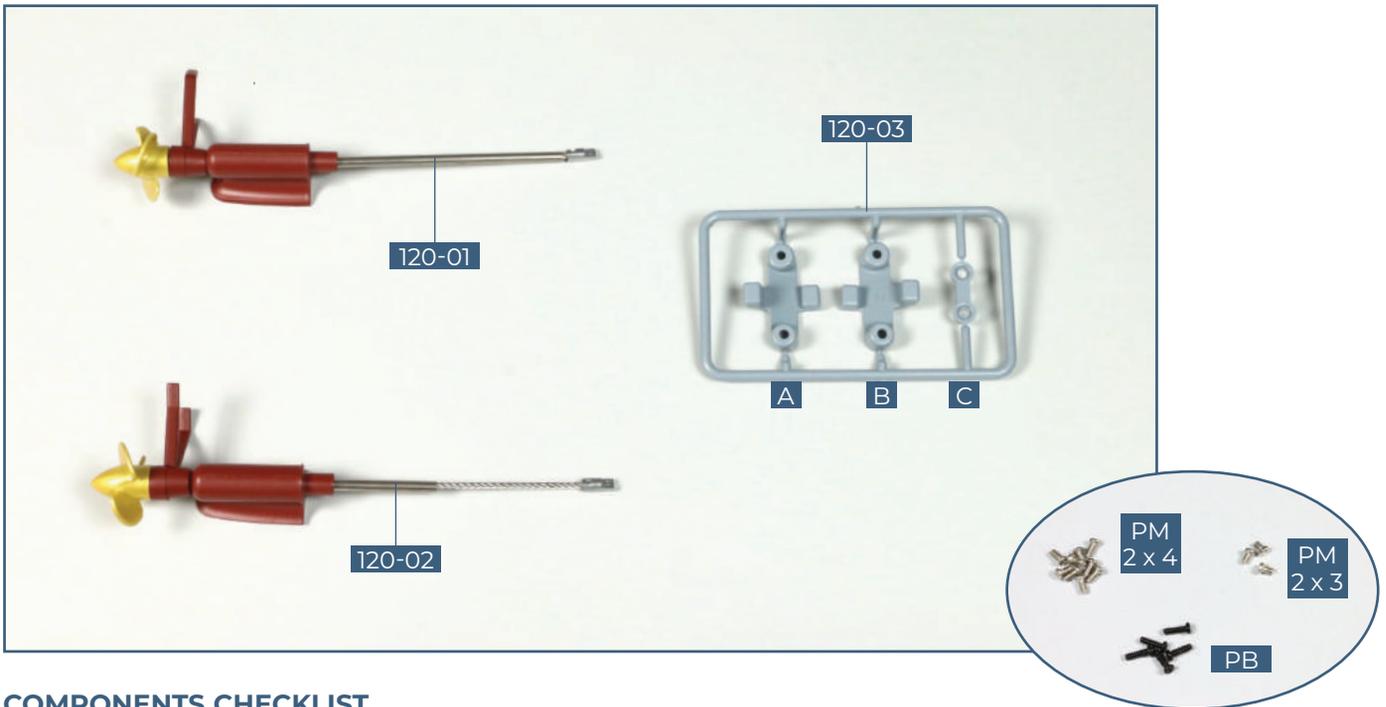


### Completed work

There is no assembly work in this stage. The circuit board **119-01** will be fitted beneath the aft superstructure in the next stage.

# STAGE 120

## THE TWO OUTER PROPELLERS



### COMPONENTS CHECKLIST

**120-01:** Port propeller with bracket, shaft, support and sleeve

**120-02:** Starboard propeller with bracket, shaft, support and sleeve

**120-03:** Two brackets and a shaft grip

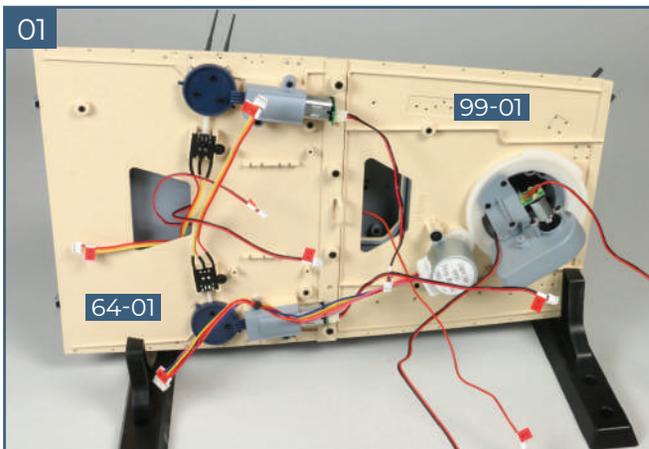
**PM:** Nine 2 x 4mm PM screws

**PM:** Three 2 x 3mm PM screws

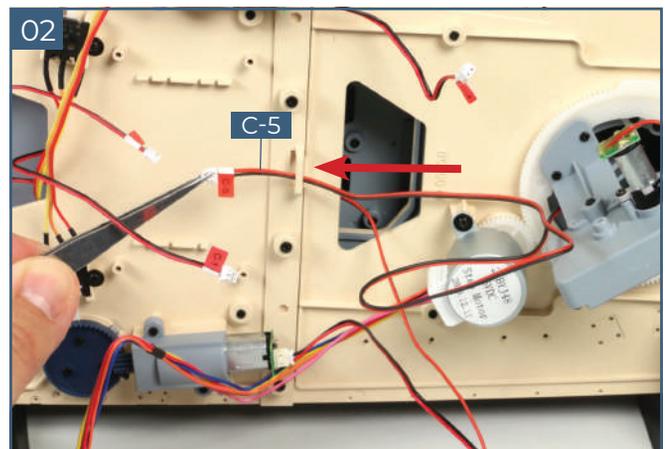
**PB:** Five 2 x 6mm PB screws

**NOTE:** In this stage we only use the 2 x 6mm PB screws. The other parts will be fitted in the next stage.

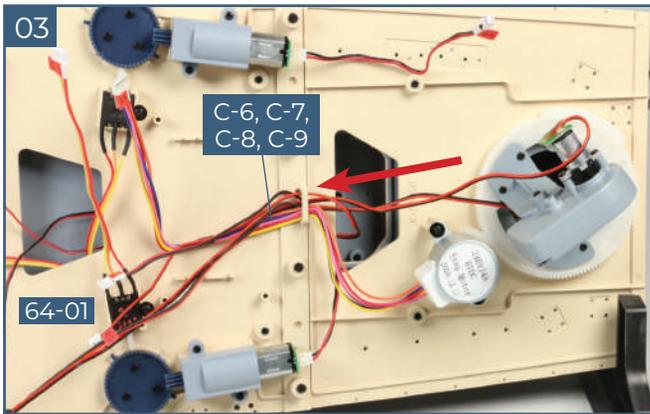
## 01. ARRANGE AND CONNECT THE CABLES



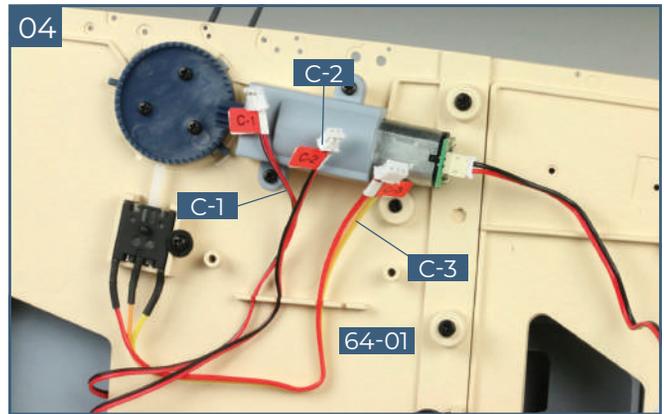
Carefully place the aft superstructure section (sections **64-01** and **99-01**) in support brackets so that you can access the underside of the upper deck. Take care not to damage any of the parts already in place.



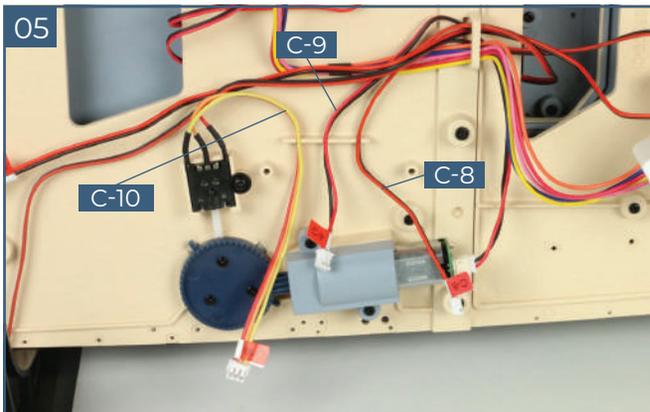
Run the cable labelled **C-5** from the 38cm turret motor through the bracket in the centre of the upper deck structure, as indicated by the arrow.



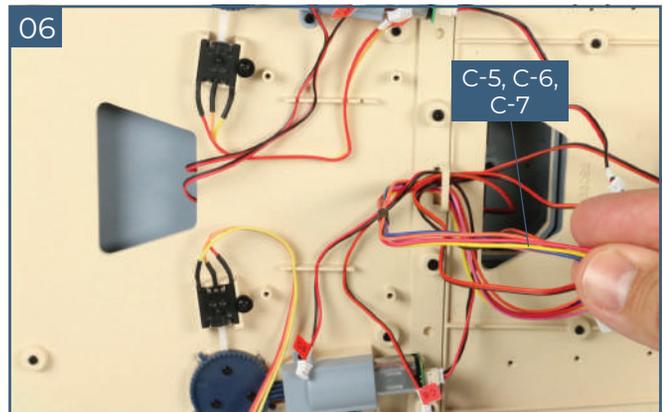
Run the cables labelled **C-6**, **C-7**, **C-8** and **C-9** through the same bracket on the upper deck section **64-01**, in the same direction as **C-5**, as shown.



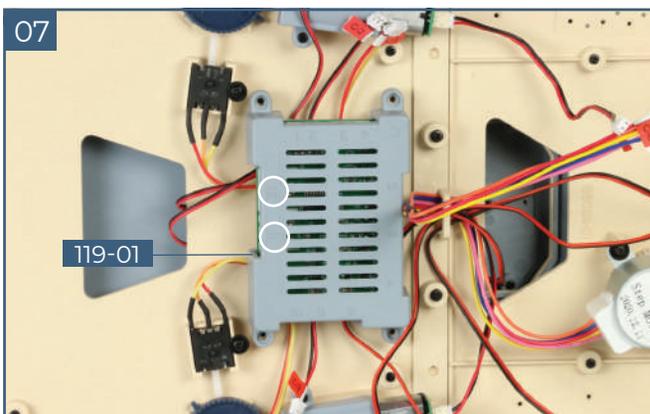
Press the cables labelled **C-1**, **C-2** and **C-3** into the slots in the rib on the underside of deck section **64-01**, as shown. The slot on the right in this photo remains empty.



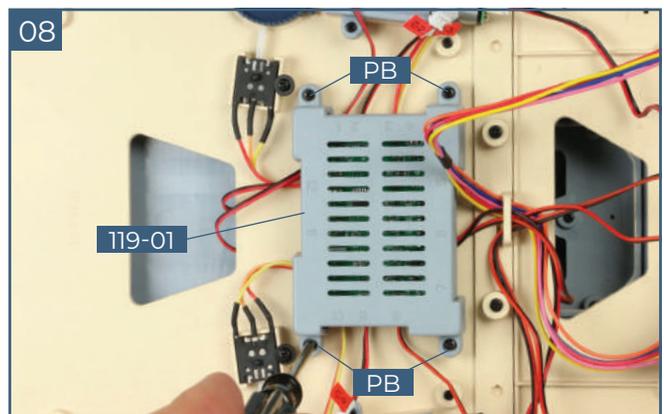
Press the cables labelled **C-8**, **C-9** and **C-10** into the three slots in the bar on the other side of the deck, as shown.



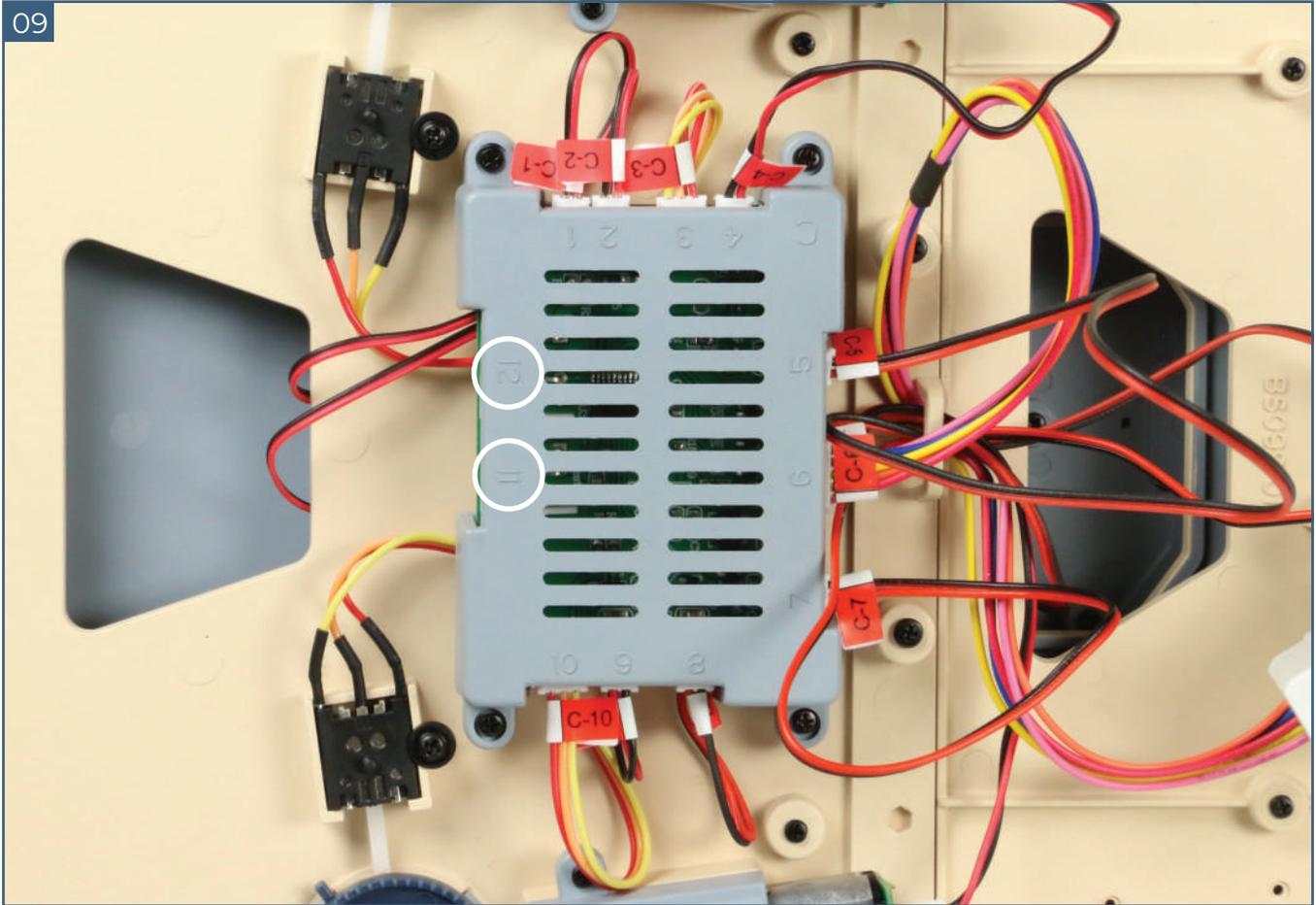
Gather together the cables marked **C-5**, **C-6** and **C-7** and run them towards the rear of the deck (to the right in this photo) so that the connectors are clear of where the circuit board **119-01** will be attached (see next two steps).



Take the circuit board **119-01** and position it on the upper deck in the orientation shown. Ports 11 and 12 are on the left in this photo (circled in white).

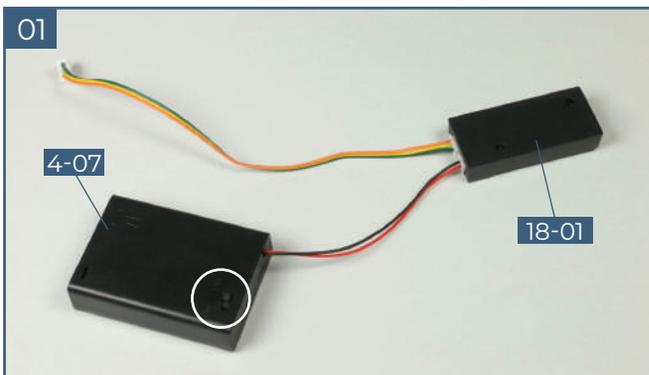


Fix the circuit board **119-01** in place using four 2 x 6mm **PB** screws.

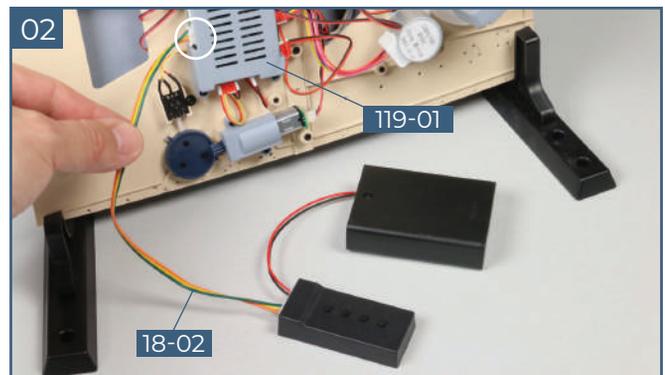


Fit the connectors on the 10 cables to the corresponding ports on the circuit board: The cable labelled **C-1** goes into port 1 on the circuit board; cable **C-2** goes into port 2, and so on. Continue up to the cable labelled **C-10**, which goes into port 10. The two ports 11 and 12 (circled) remain unused for the time being.

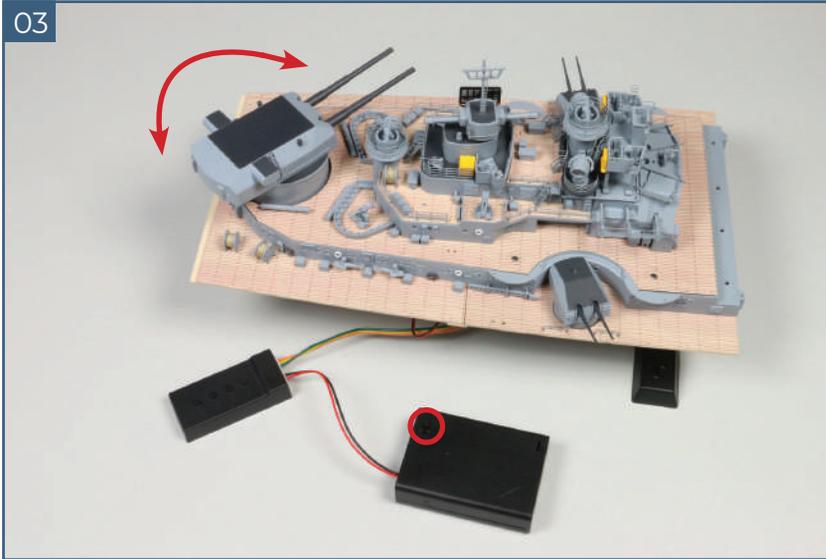
## 02. TESTING THE AFT SUPERSTRUCTURE ELECTRONICS



Take the tester box **18-01** and the battery box **4-07**. Check that the switch on the battery box (circled) is off.

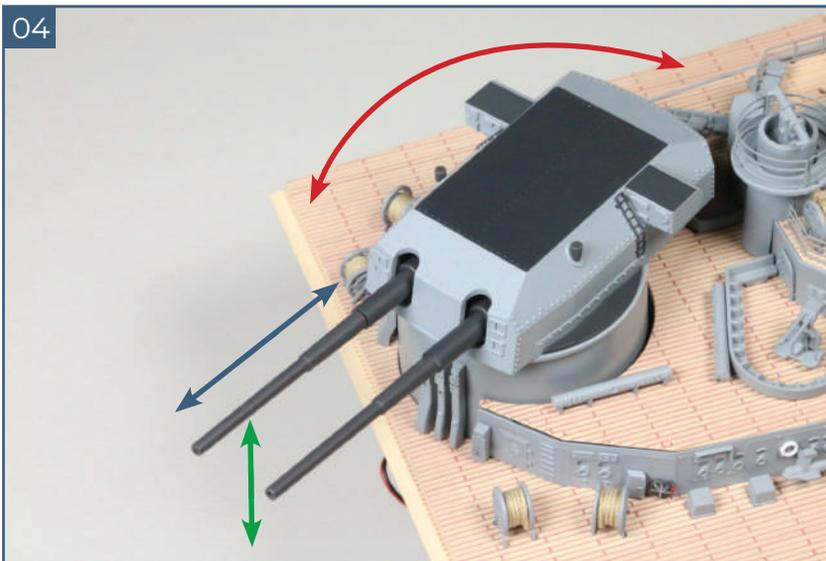


Connect the tester cable **18-02** to port 11 (circled) on the circuit board **119-01**.

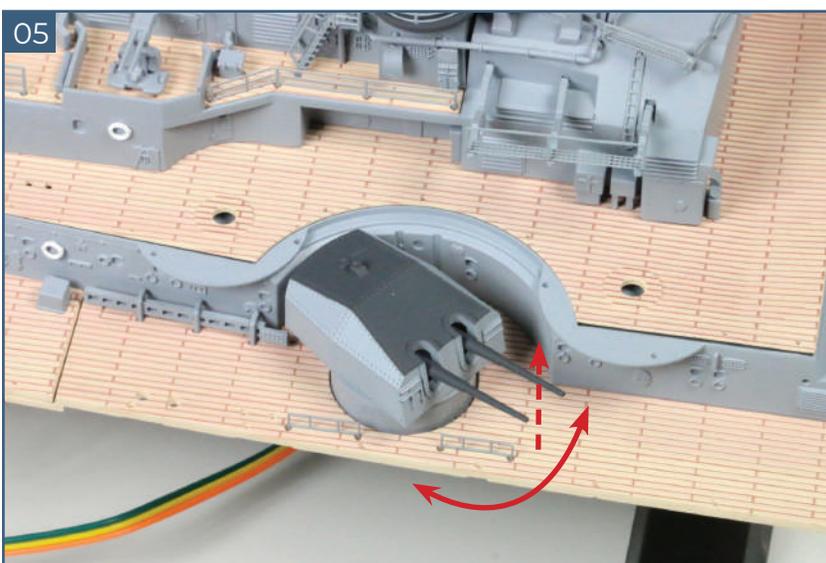


Position the aft superstructures on suitable supports so that the swivel gear can rotate freely. (You can place it on the hull, if preferred.) Turn the switch on the battery box to "On" (circled): the initialization process will start. During initialization, the turret turns fully to port, remains there for a few seconds and then returns to the starting position.

**Note:** you cannot operate all the functions during initialization.



When initialization is complete, press the S1 button on the tester box **18-01** (inset below). This starts the turret test. All three turret functions are carried out simultaneously: rotating (red arrow), elevating (green arrow) and firing (blue arrow). To end the test, press the S1 button again.

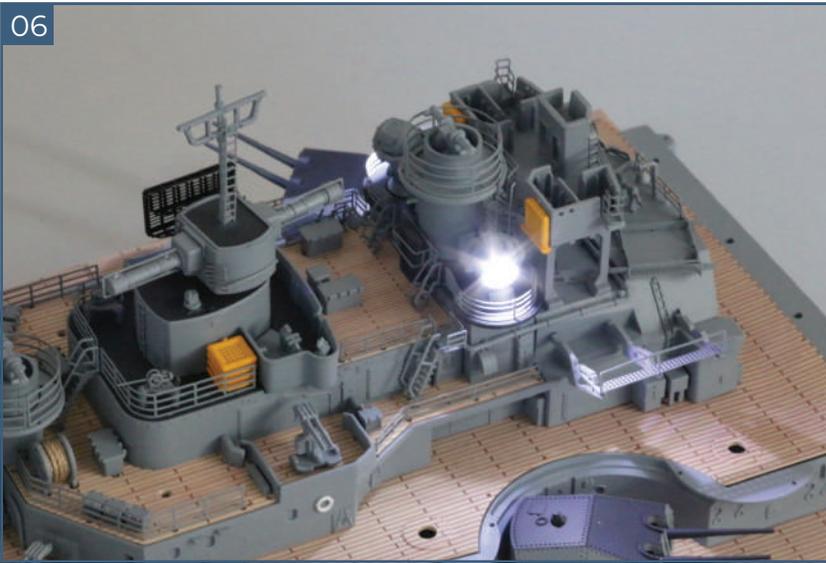


To test the two 15cm guns, press button S2 on the tester box **18-01** (inset below). The two turrets swivel. Press the button again to end the test. When fully rotated, the guns may pause for a few seconds before re-starting.

**NOTE:** Choose a suitable elevation for the gun barrels before starting the test (red dotted arrow).



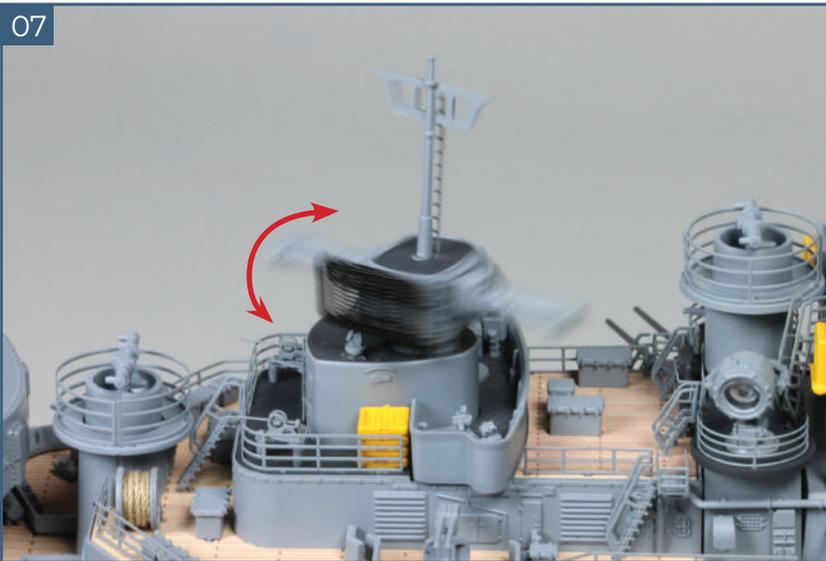
06



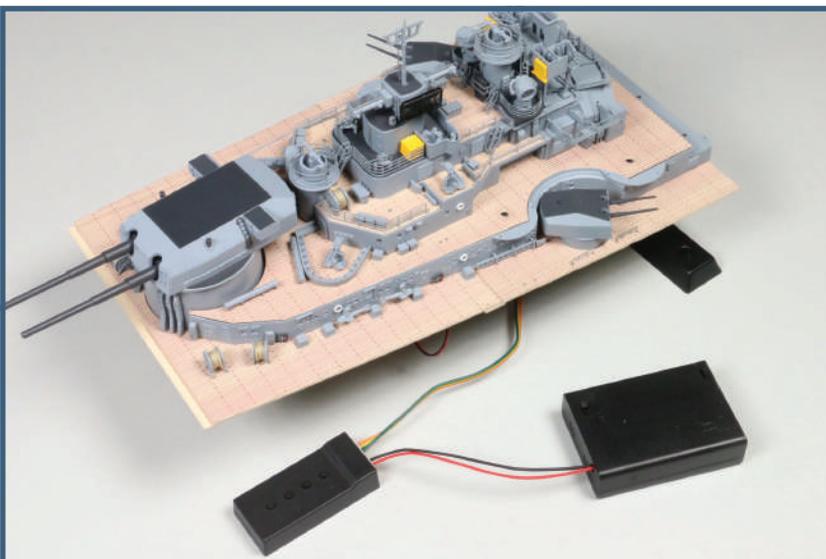
Pressing button S3 on the tester box **18-01** (inset below) turns on the LEDs of the two searchlights on the aft superstructure. End the test by pressing button S3 again.



07



Button S4 on the tester box **18-01** (inset below) rotates the range finder on the aft control station. End the test by pressing the S4 button again.

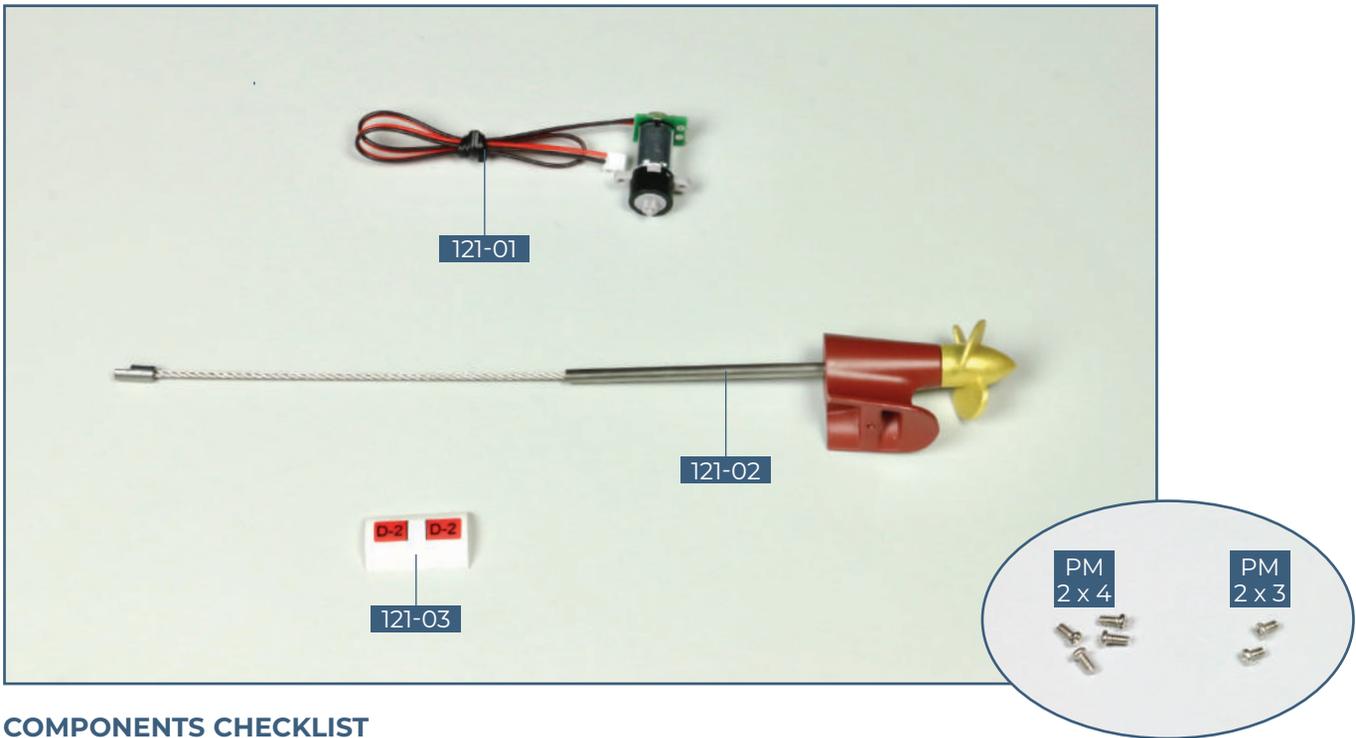


### Completed work

The aft superstructure electronics have been connected and tested. After completing the tests, turn off the battery box and carefully remove the tester cable from port 11 of the aft circuit board.

# STAGE 121

## THE CENTRAL PROPELLER



### COMPONENTS CHECKLIST

**121-01:** Motor for the propellers

**PM:** Four 2 x 4mm PM screws

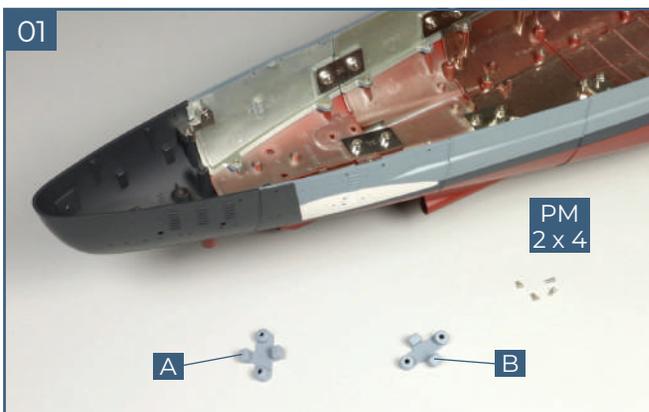
**NOTE:** You will also need all the parts supplied with stage 120. The 2 x 3mm PM screws are not used in this stage, so store them safely for later.

**121-02:** Central propeller with shaft, support and sleeve

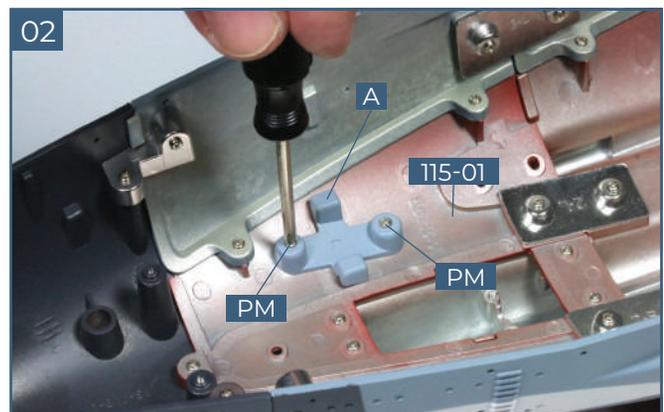
**PM:** Two 2 x 3mm PM screws

**121-03:** Cable label (D-2)

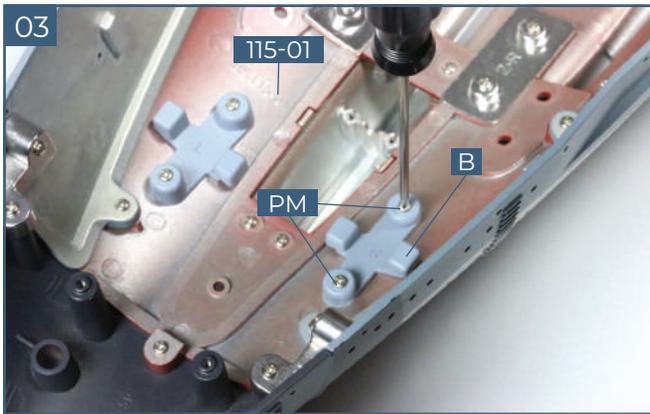
## 01. FITTING THE TWO OUTER PROPELLERS



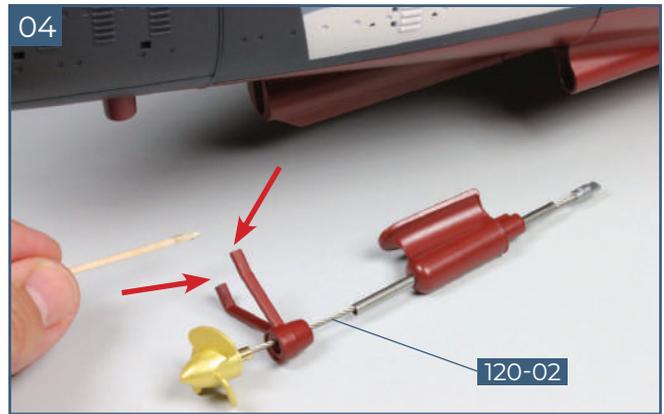
Place your model on your work surface so that you can access the stern of the hull. Take the brackets **A** and **B** (marked L and R) from the frame **120-03**. You will also need four 2 x 4mm **PM** screws.



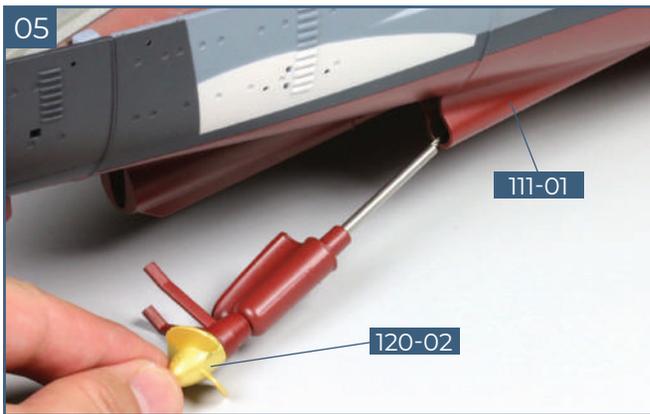
Fit the bracket marked L on the two pegs located on the port side of the keel section **115-01**. Fix in place with two 2 x 4mm **PM** screws, as shown.



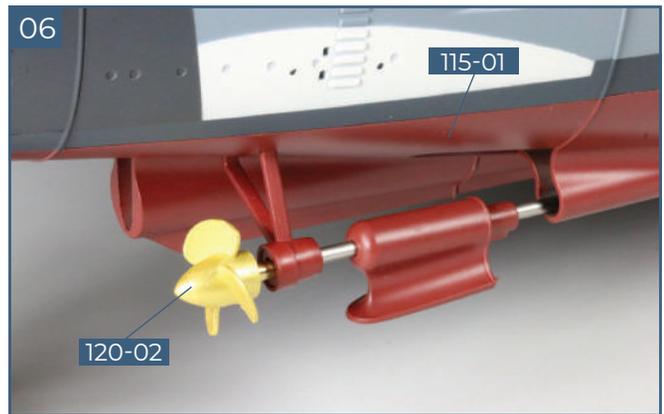
Similarly, fit the bracket marked R on the pegs on the starboard side of the keel section **115-01**. Fix in place with two 2 x 4mm **PM** screws.



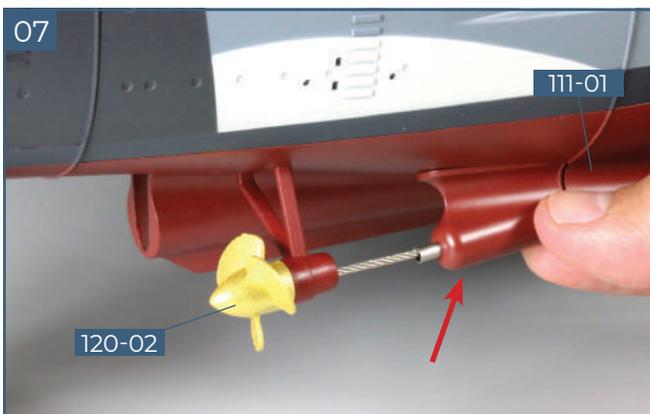
Take the starboard propeller **120-02** and check how it fits on the starboard side of the hull (see also next step). Apply a little superglue on the flat ends of the brackets (arrows).



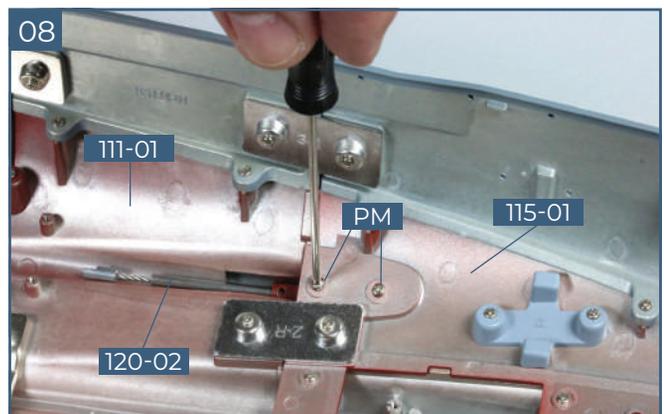
Thread the end of the shaft of the propeller through the opening in keel section **111-01**, as shown.



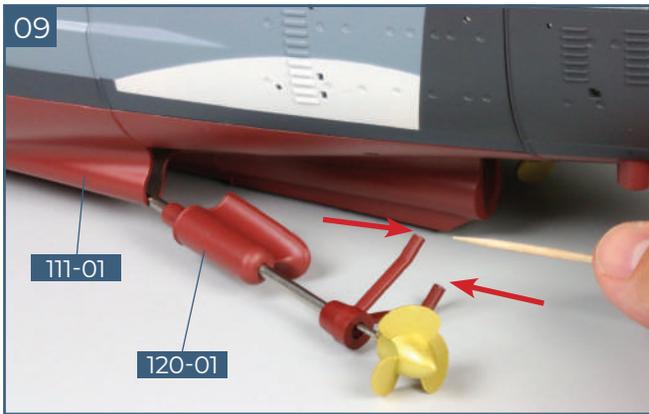
Position the propeller **120-02** so that the two ends of the shaft bracket can be glued into the holes in keel section **115-01**.



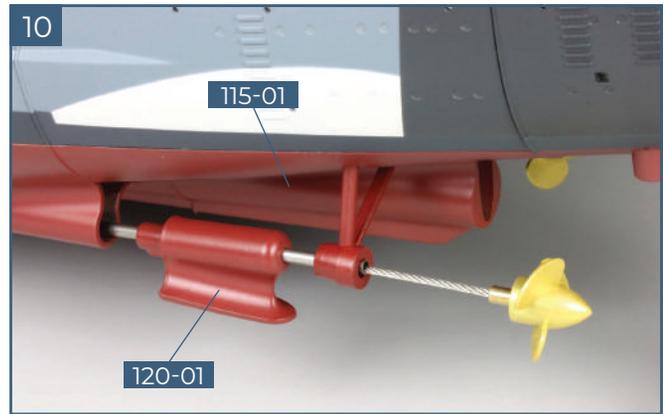
Turn the support on the propeller **120-02** (arrow) so that the flat side is against the hull and slide it forwards, against the opening in keel section **111-01**.



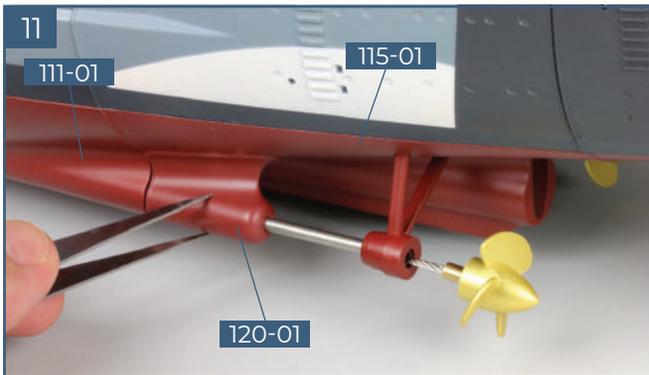
Working from inside the hull, fix the support for the propeller **120-02** in place with two 2 x 4mm **PM** screws



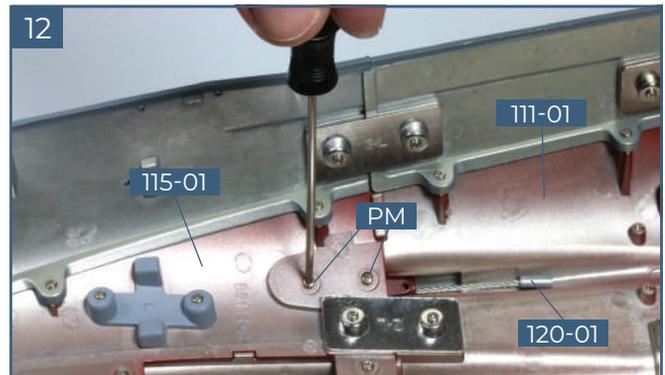
Turning to the port side of the hull, insert the shaft of propeller **120-01** into the opening on the port side of keel section **111-01**. Apply some glue to the two ends of the shaft bracket (arrows).



Push the propeller assembly **120-01** in place so that the two ends of the shaft bracket can be glued into the holes in keel section **115-01**.

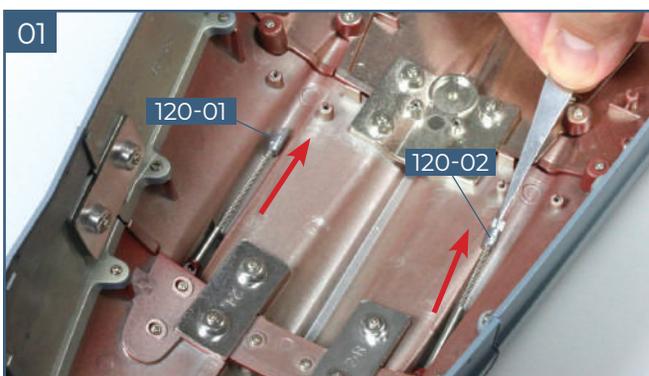


Turn the support on the propeller **120-01** so that the flat side is against the hull and slide it forwards, against the opening in keel section **111-01**.

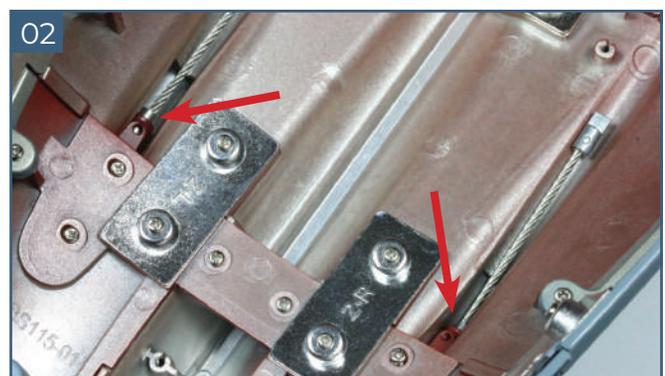


Working from inside the hull, fix the support of the propeller **120-01** in place with two 2 x 4mm **PM** screws, as shown.

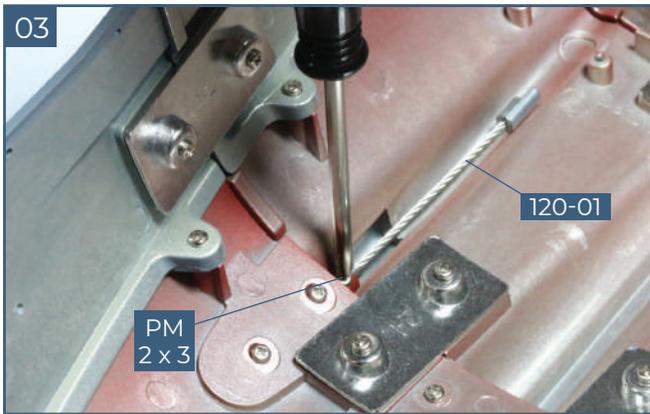
## 02. FIXING THE ENDS OF THE SHAFTS IN PLACE



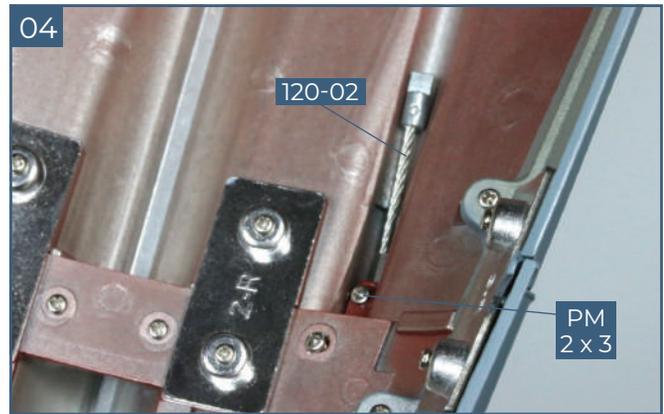
Pull the ends of the propeller shafts **120-01** and **120-02** forwards as far as possible along the channels in the keel section (arrows).



At the same time, the fine metal sleeves on the shafts (indicated by the arrows) should be pushed aft as far as possible.

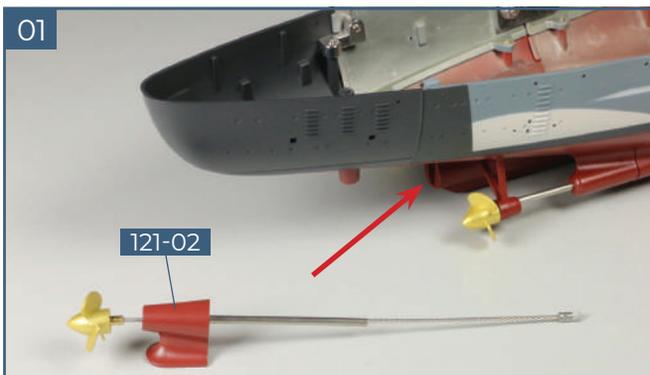


Fix the fine metal sleeve on the port propeller **120-01** in position by screwing a 2 x 3mm **PM** screw into the hole in the shaft sleeve, as shown.

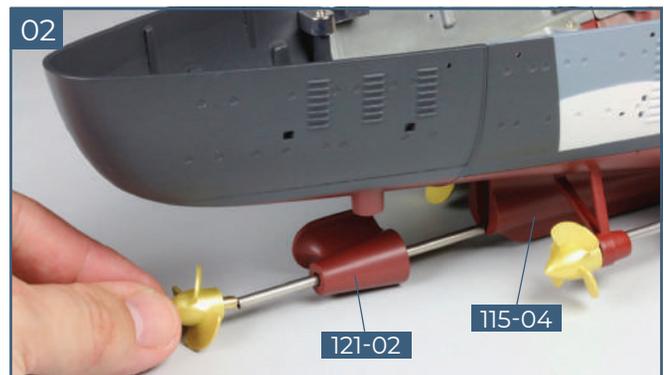


Similarly fit the metal sleeve on the starboard propeller **120-02** in position with a 2 x 3mm **PM** screw.

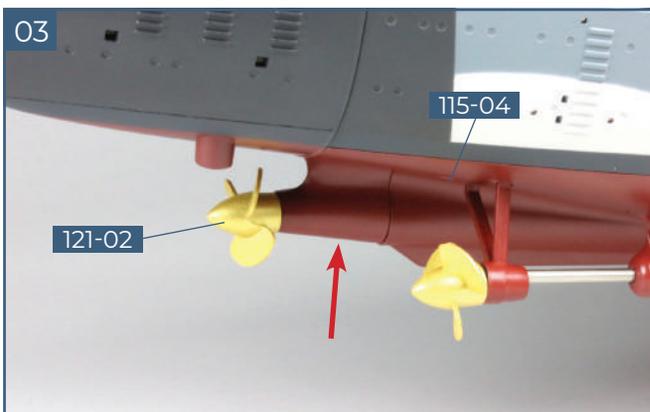
### 03. FITTING THE CENTRAL PROPELLER



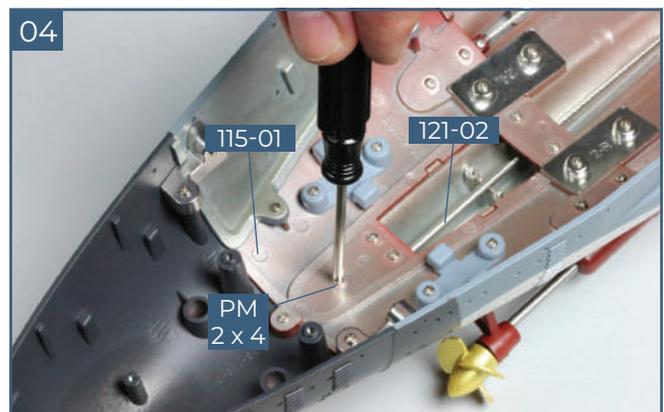
Take the central propeller **121-02** and identify the hole at the aft of the hull where it fits (arrow).



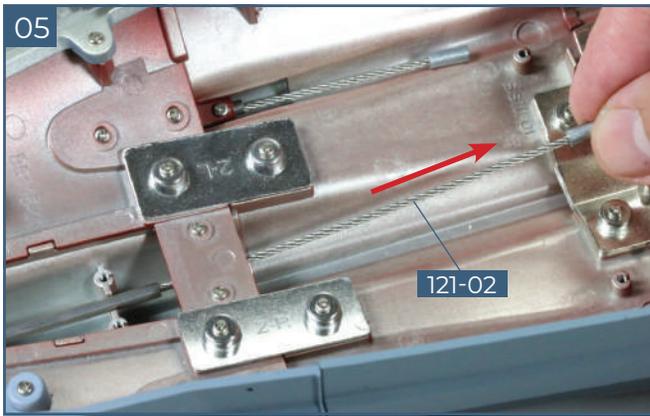
Insert the end of the propeller shaft **121-02** into the opening in the propeller housing **115-04**, as shown.



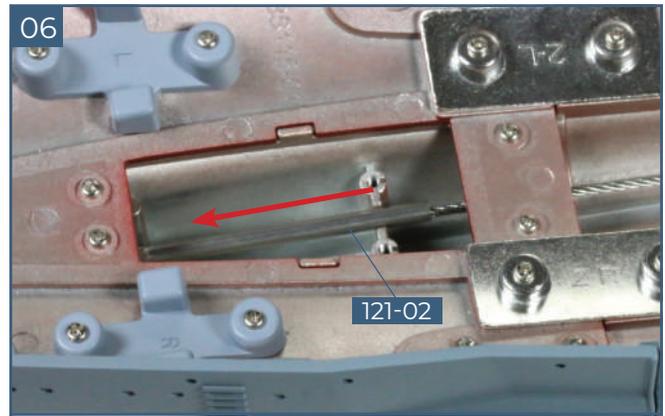
Fit the support for the propeller **121-02** (indicated by the arrow) against the opening in part **115-04**.



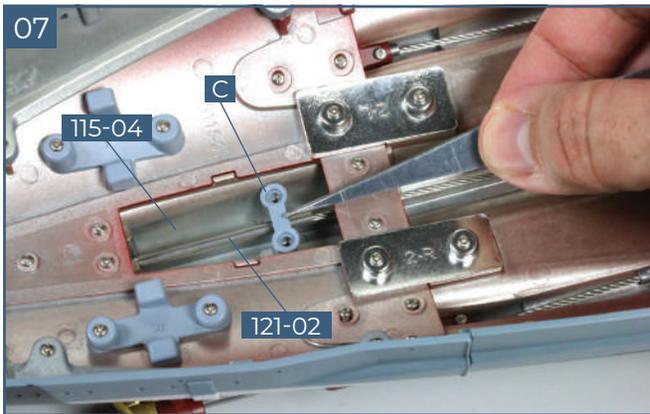
From inside the hull, fix the support for the propeller **121-02** to the keel section **115-01** using a 2 x 4mm **PM** screw, as shown.



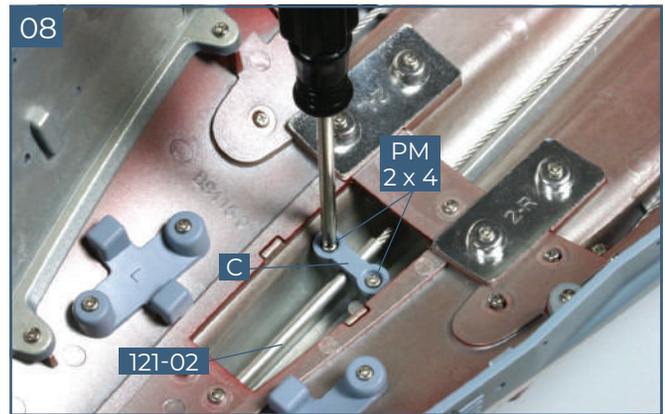
Pull the end of shaft **121-02** forwards as far as it will go (on the right in the photo) so that the middle propeller is against the support.



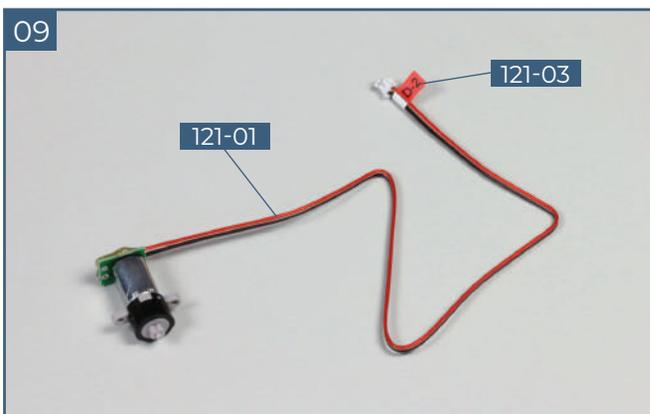
At the same time, slide the fine metal sleeve on the propeller **121-02** as far as possible aft (to the left in the photo).



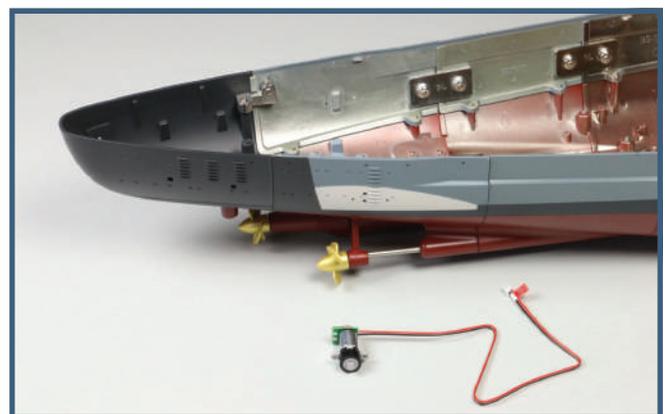
Take the propeller grip **C** from frame **120-03** (supplied with the previous stage) and fit it on to the two small pegs in the propeller housing **115-04**, over the metal tube of the propeller **121-02**, as shown.



Fix the sleeve of the central propeller **121-02** in position using two 2 x 4mm **PM** screws.



Attach the cable label **121-03** (D2) to the cable of the motor for the propellers **121-01** near the connector, as shown.

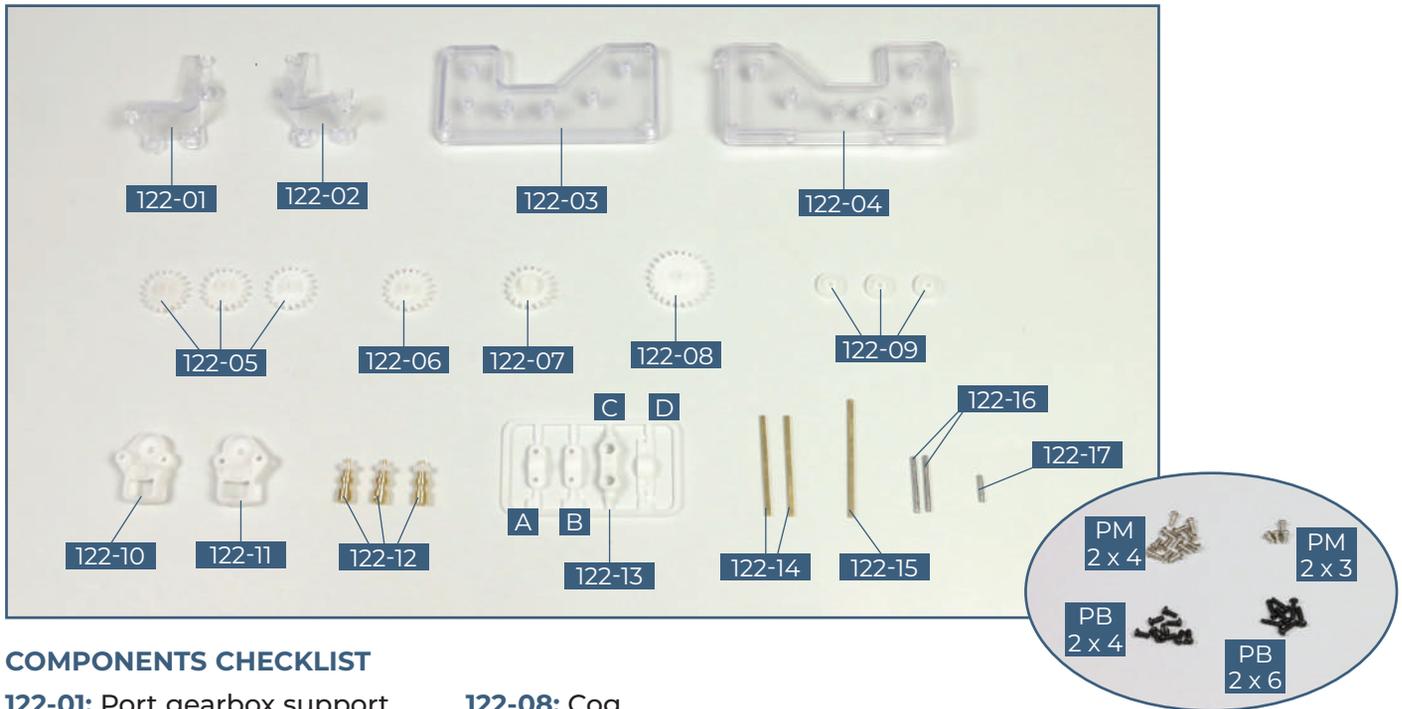


### Completed work

The three propellers have been fitted to the hull. The propeller motor will be fitted in the next stage.

## STAGE 122

# THE GEARBOX FOR THE PROPELLERS



### COMPONENTS CHECKLIST

**122-01:** Port gearbox support

**122-02:** Starboard gearbox support

**122-03:** Upper part of the gearbox

**122-04:** Lower part of the gearbox

**122-05:** Three cogs

**122-06:** Cog

**122-07:** Cog

**122-08:** Cog

**122-09:** Three small cogs

**122-10:** Port cog and pin housing

**122-11:** Starboard cog and pin housing

**122-12:** Three pivot pins

**122-13:** Three grips and a bracket

**122-14:** Two cog shafts

**122-15:** Cog shaft

**122-16:** Two cog shafts

**122-17:** Cog shaft

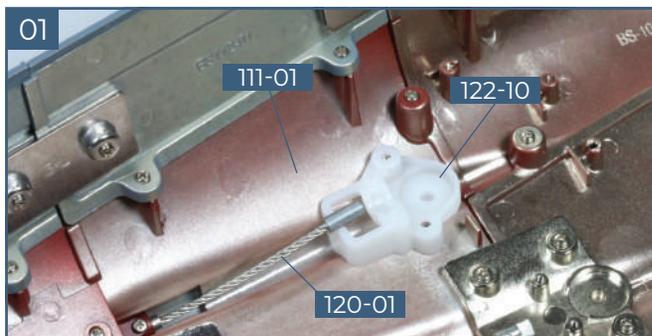
Thirteen 2 x 4mm **PM** screws

Four 2 x 3mm **PM** screws

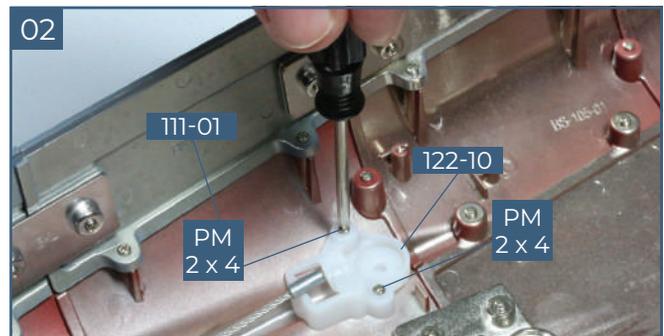
Nine 2 x 4mm **PB** screws

Seven 2 x 6mm **PB** screws

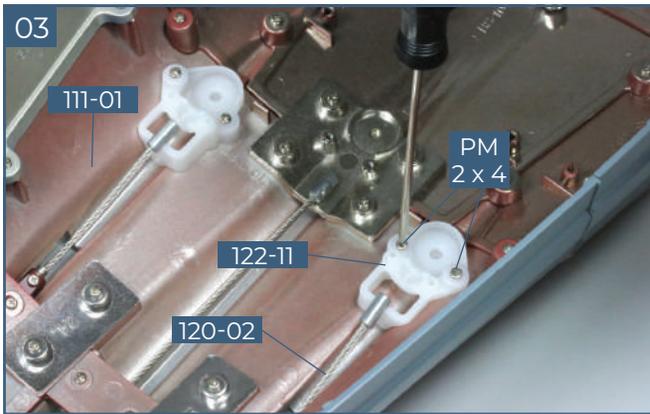
## 01. PREPARATORY WORK



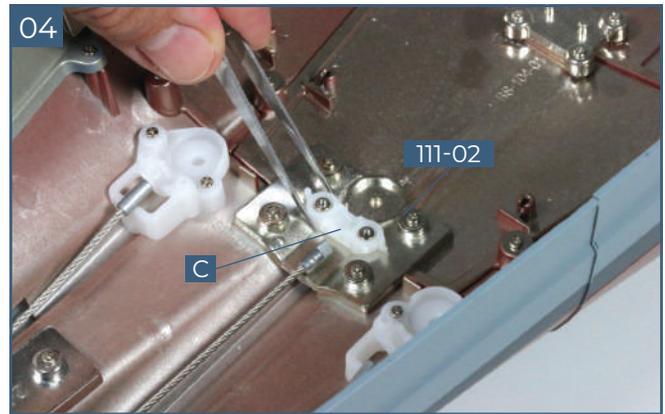
Place the port cog housing **122-10** (labelled L) in front of the port propeller shaft **120-01**, fitting it onto the two raised screw sockets on the keel **111-01**, as shown.



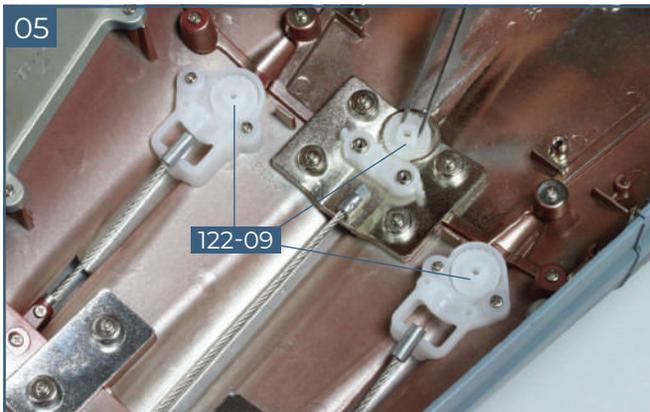
Fix the port cog housing **122-10** to the keel section **111-01** using two 2 x 4mm **PM** screws.



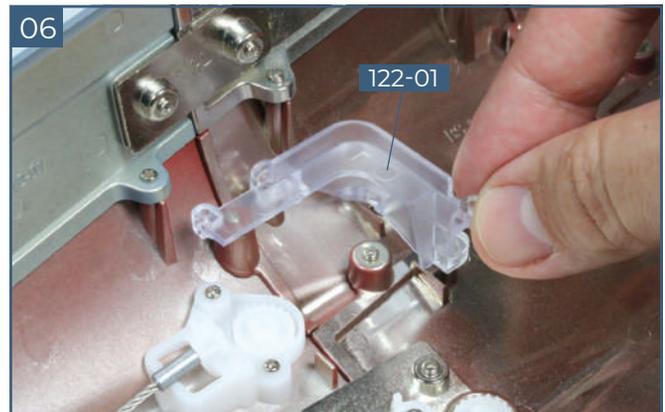
Position the starboard cog housing **122-11** in front of the starboard shaft **120-02** and fix it to the keel section **111-01** with two 2 x 4mm **PM** screws.



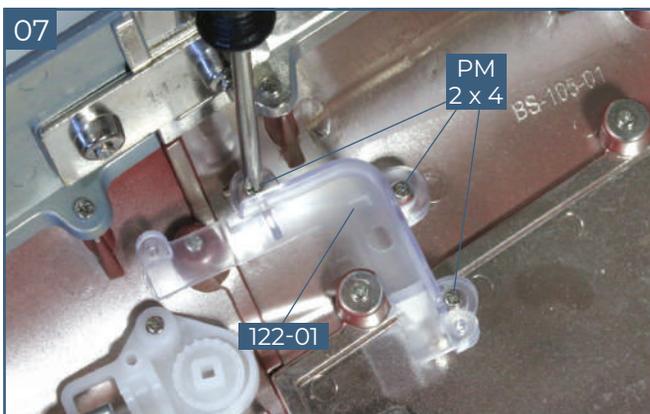
Remove the bracket **C** from the frame **122-13** and fit it onto the two raised screw sockets of connector **111-02**.



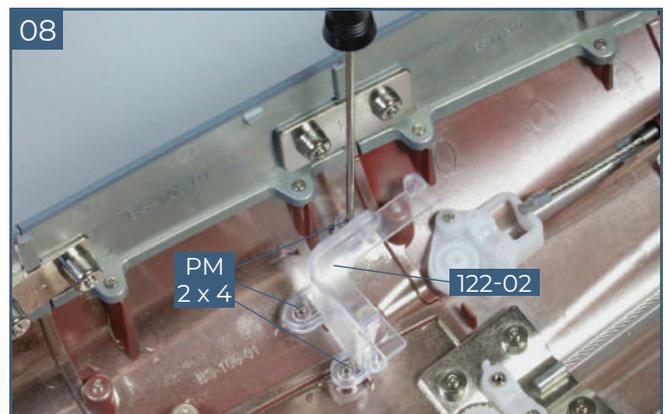
Fit the three cogs **122-09** into the circular recesses in the two cog housings **122-10** and **122-11**, and into the recess in the connector **111-02**, as shown.



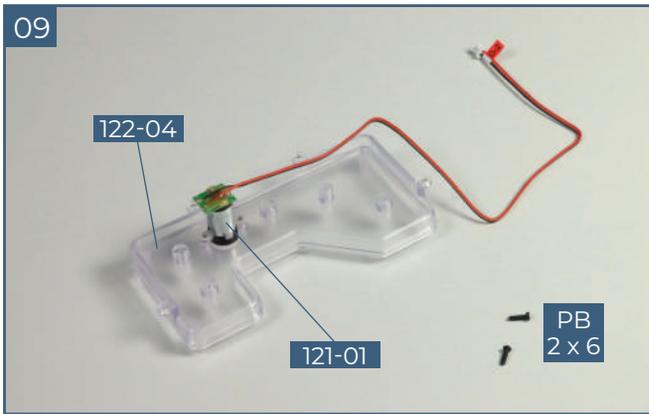
Take the port gearbox support **122-01** (labelled L) and position it in the hull on the port side: three screw holes in the lower tabs align with raised screw sockets in the hull.



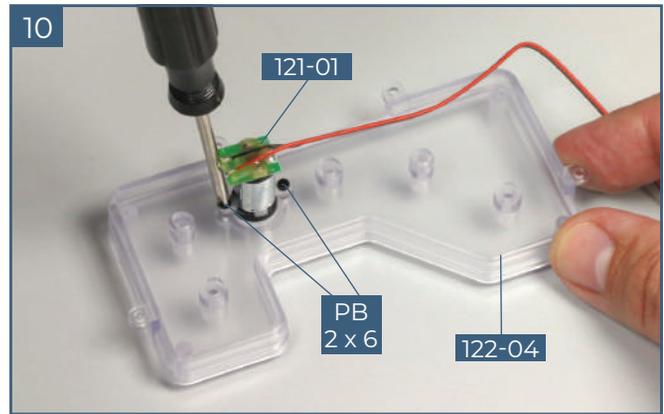
Fix the port gearbox support **122-01** in place in the hull using three 2 x 4mm **PM** screws.



Similarly, fix the starboard gearbox support **122-02** in place in the starboard side of the hull using three 2 x 4mm **PM** screws. (In this photograph, the hull is viewed from the other side.)

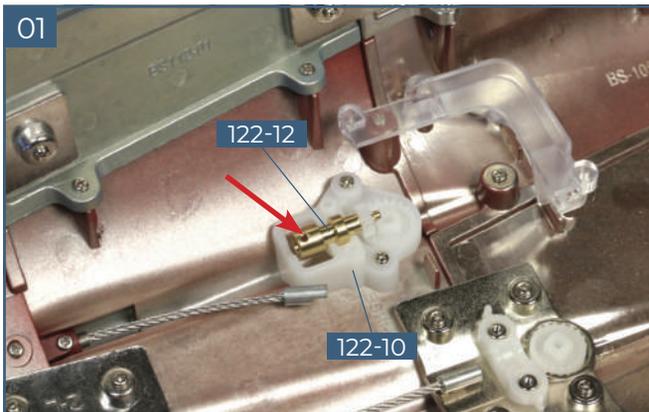


Take the lower part of the gearbox **122-04** and two 2 x 6mm **PB** screws. Fit the motor **121-01** in the recess of the lower part of the gearbox as shown.

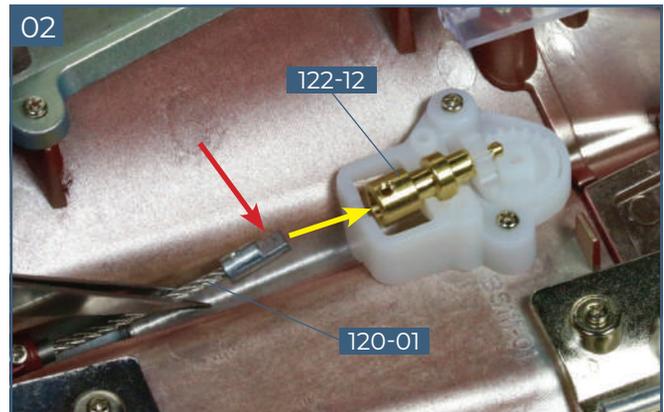


Fix the motor **121-01** in place in the lower part of the gearbox **122-04** using the two 2 x 6mm **PB** screws, as shown.

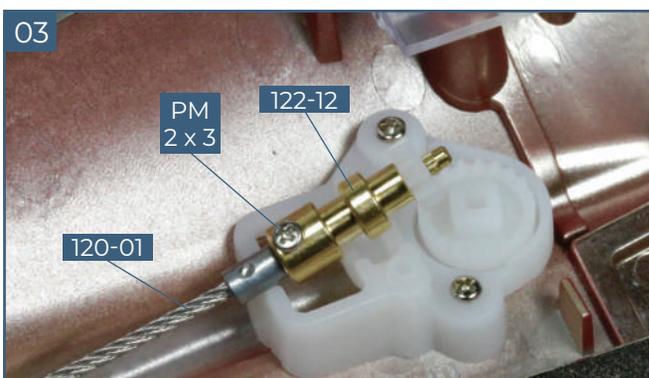
## 02. FITTING THE COG SHAFTS



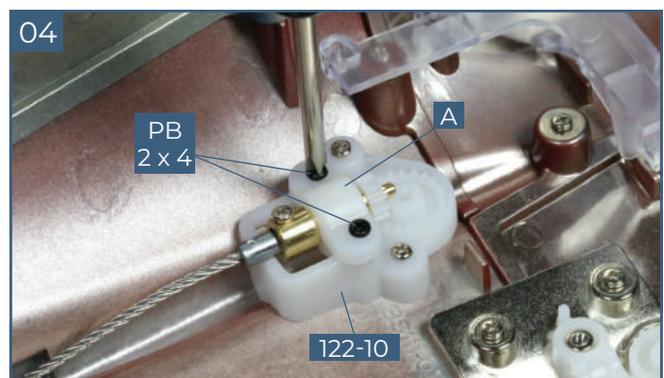
Fit the first pivot pin **122-12** into the port cog housing **122-10**. Make sure that the hole in the pin faces upwards (arrow).



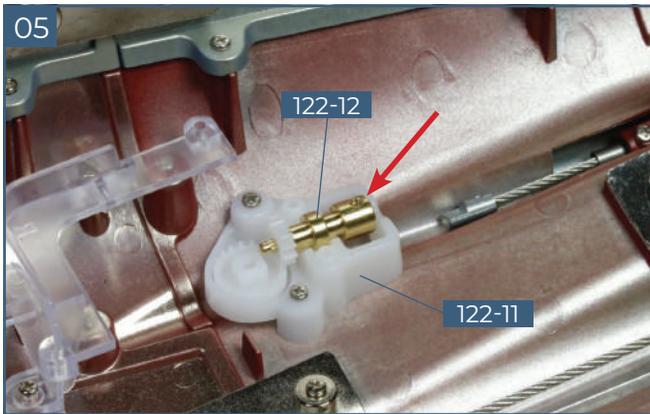
Grip the end of shaft **120-01** with the flattened side of the end facing upwards (red arrow). Fit it into the open end of the pivot pin **122-12** (yellow arrow).



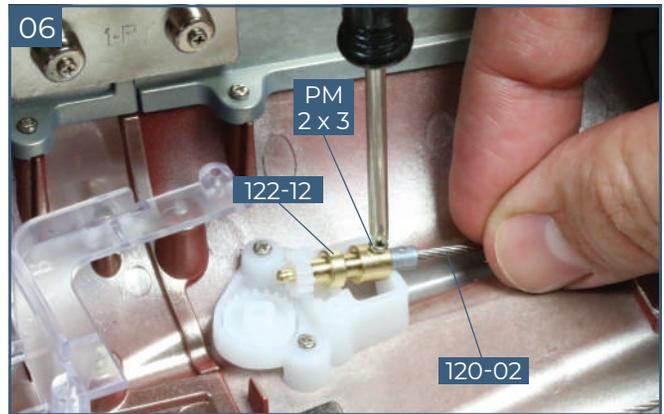
When the end of the shaft **120-01** is fitted into part **122-12**, fix it in place with a 2 x 3mm **PM** screw.



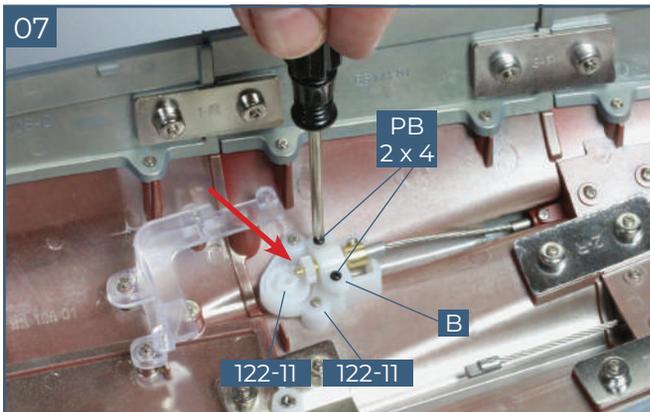
Take one of the grips, **A**, from frame **122-13** and position it on the cog housing, over the pivot pin **122-12**. Fix in place with two 2 x 4mm **PB** screws.



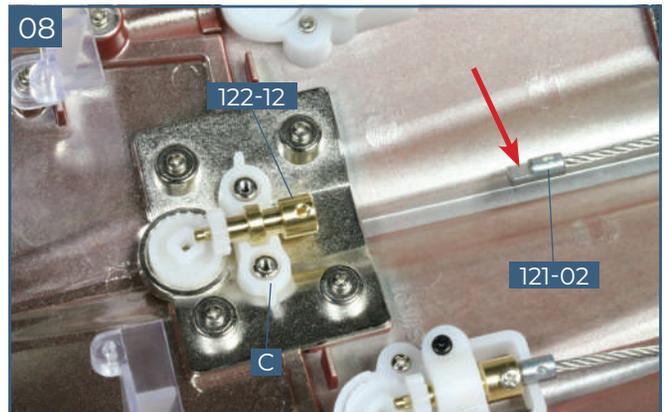
Similarly on the starboard side, fit the pivot pin **122-12** into the cog housing **122-11**. Make sure that the hole in part **122-12** faces upwards (arrow). (The hull is viewed from the other side to the previous step.)



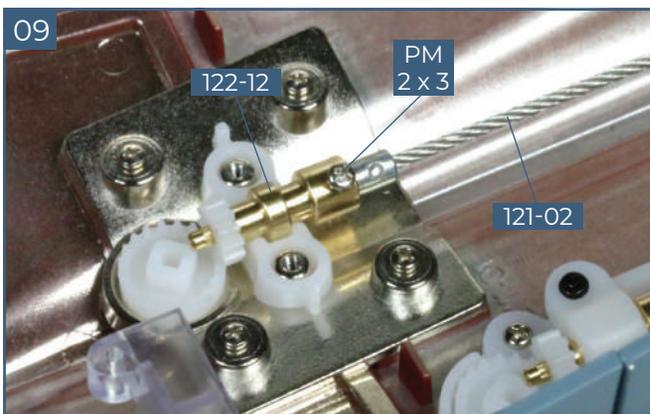
Fit the end of the propeller shaft **120-02** into part **122-12**, with the flat side facing upwards. Fix in place with a 2 x 3mm **PM** screw.



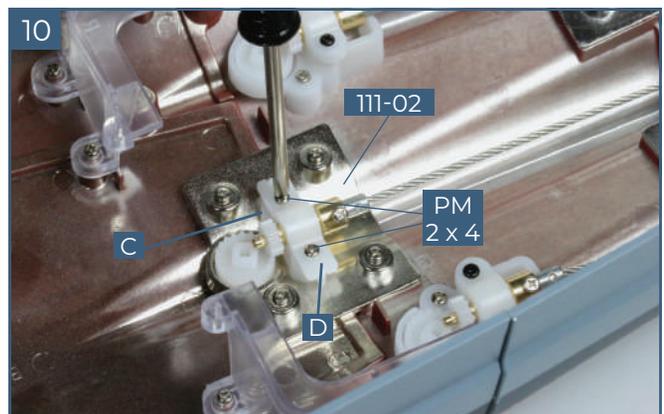
Take the shaft grip **B** from frame **122-13** and fit it onto cog housing **122-11**. Fix it in place with two 2 x 4mm **PB** screws. The cog **122-09** and the cog from **122-12** mesh with each other (arrow).



Fit the third pivot pin **122-12** on the third cog housing, again with the hole facing upwards. Grip the end of the central shaft **121-02** so that the flat side faces upwards (arrow).

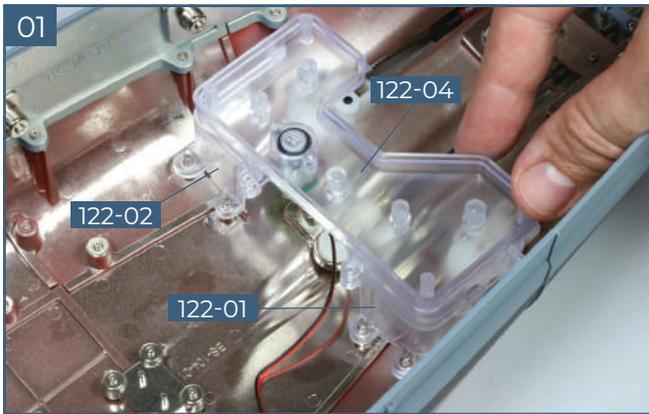


Fit the end of the propeller shaft **121-02** into the opening in part **122-12**. Fix in place with a 2 x 3mm **PM** screw.

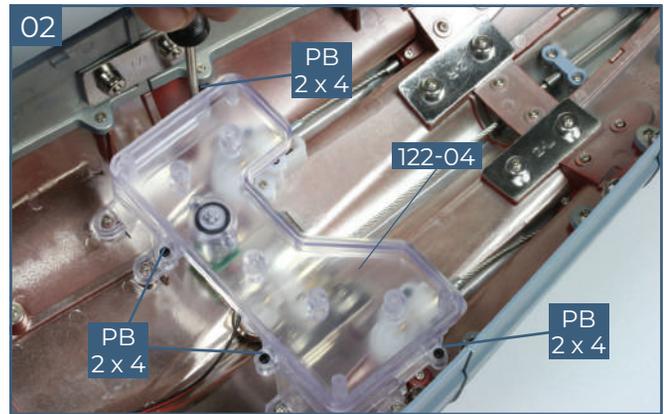


Fit the grip **D** from frame **122-13** over the pivot pin. Fix it to the connector **111-02** with two 2 x 4mm **PM** screws. After fitting, check that the propellers can rotate freely.

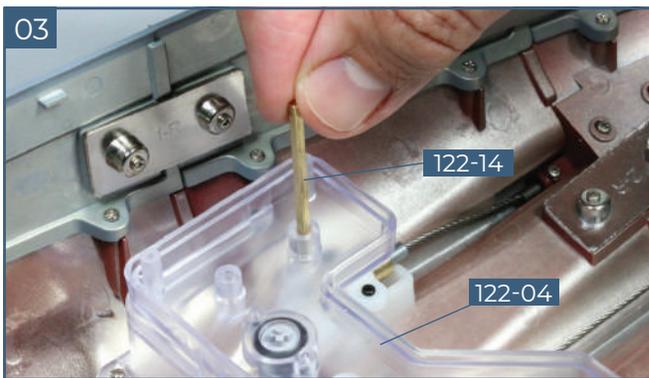
### 03. ASSEMBLING THE GEARBOX



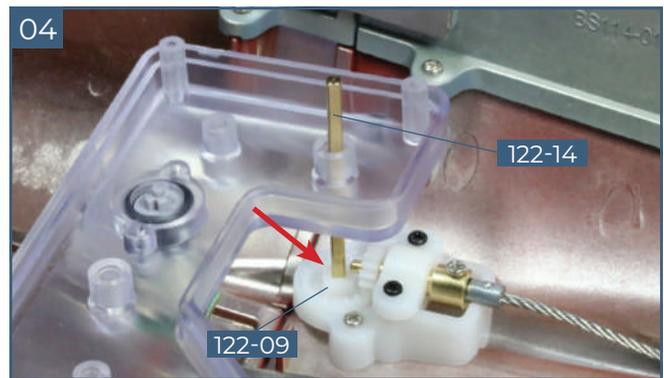
Fit the lower part of the gearbox **122-04** on the two supports **122-01** and **122-02**, as shown.



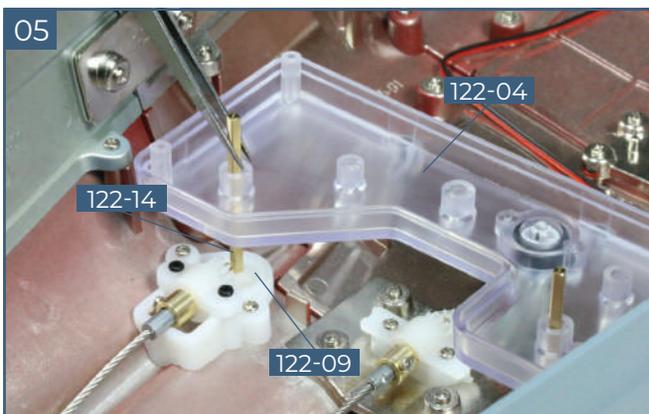
Fix the lower part of the gearbox **122-04** to the two supports using four 2 x 4mm **PB** screws, as shown.



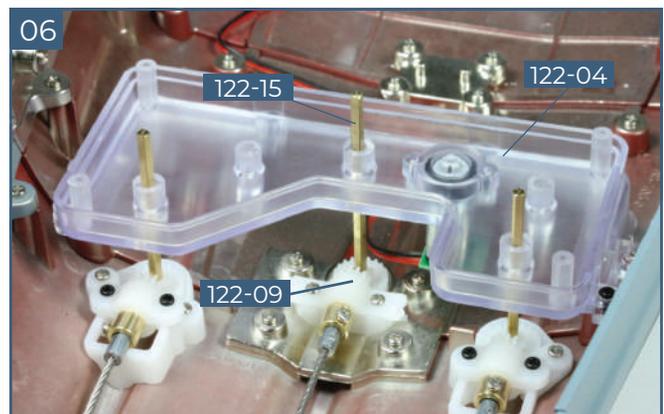
Take one of the cog shafts **122-14** and fit it into the aft starboard hole in the lower part of the gearbox **122-04**.



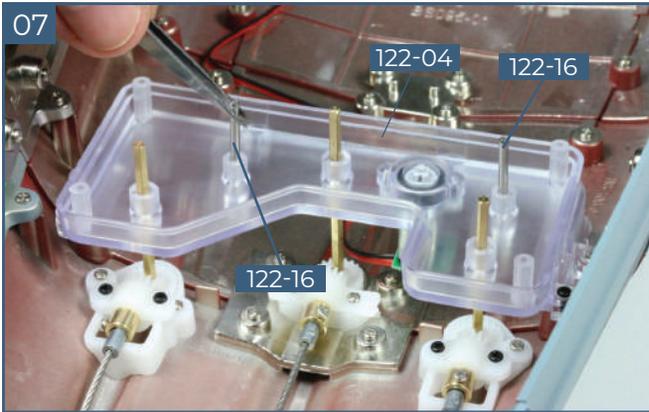
Press the shaft **122-14** through so that the lower end fits into the central hole on cog **122-09** (arrow).



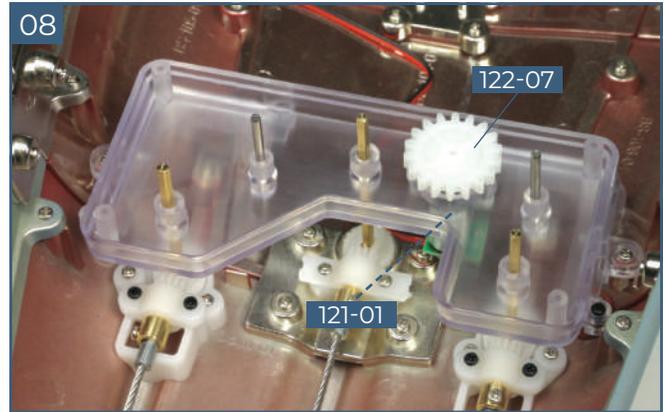
Similarly, fit the second cog shaft **122-14** into the hole furthest to the port in the lower part of the gearbox **122-04**. Push it down so the end fits into the hole in cog **122-09**.



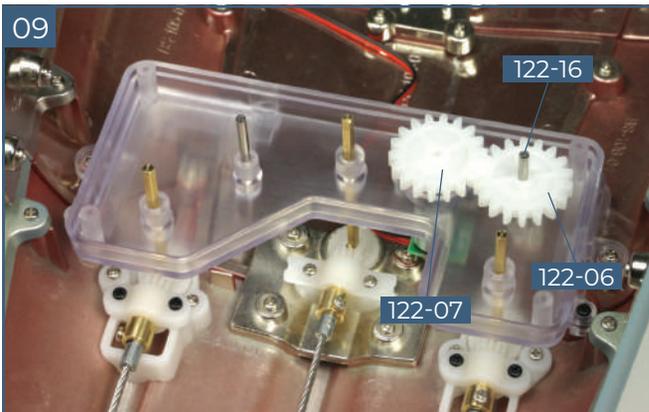
Fit the cog shaft **122-15** into the hole at the centre of the lower part of the gear box **122-04** and into the hole in cog **122-09**.



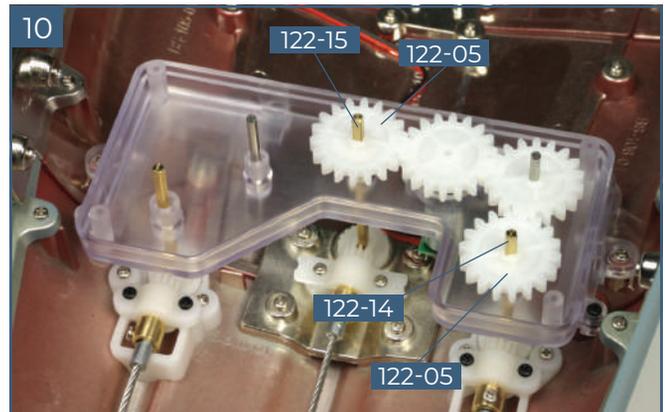
Fit the two cog shafts **122-16** into the remaining two holes in the lower gearbox unit **122-04**, as shown.



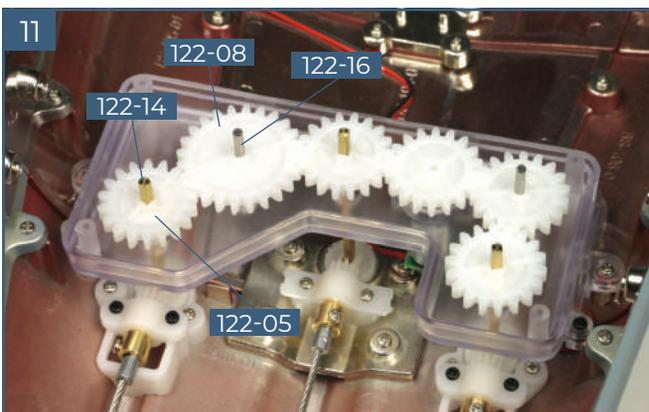
Take the cog **122-07** and fit the cross at the centre on to the shaft of the motor **121-01**, which is attached to the lower part of the gearbox.



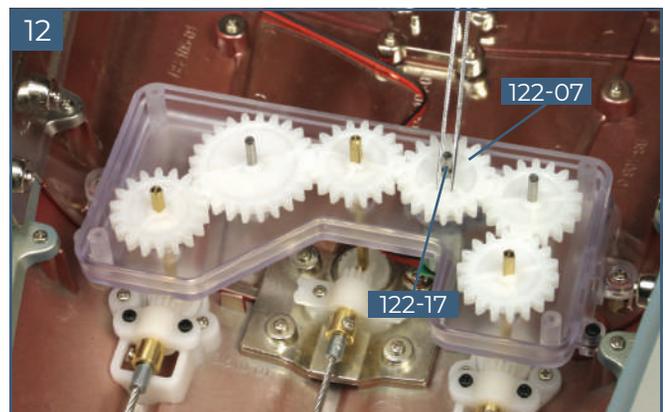
Fit the cog **122-06** (round centre) on cog shaft **122-16** on the starboard side so that its teeth interconnect with the teeth of cog **122-07**, as shown.



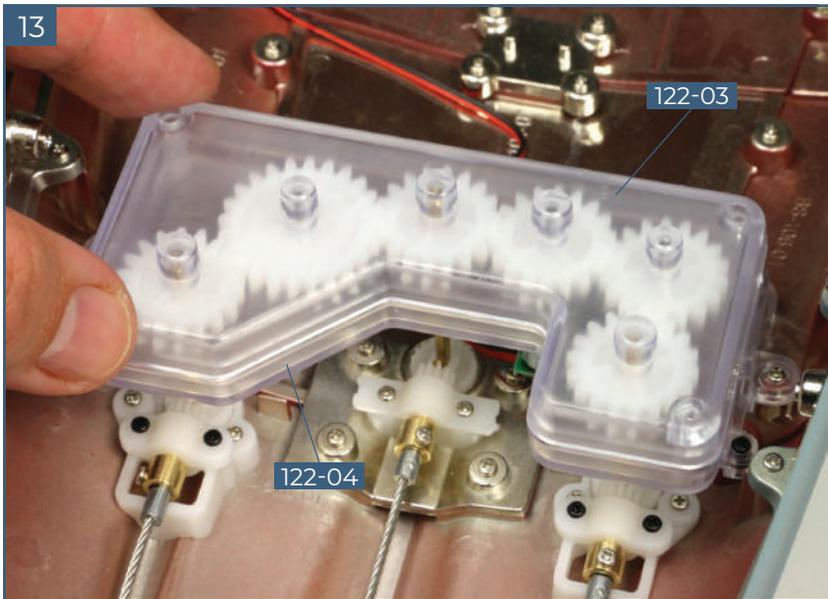
Fit one of the cogs **122-05** on the right-hand cog shaft **122-14** and one on the central cog shaft **122-15**, as shown.



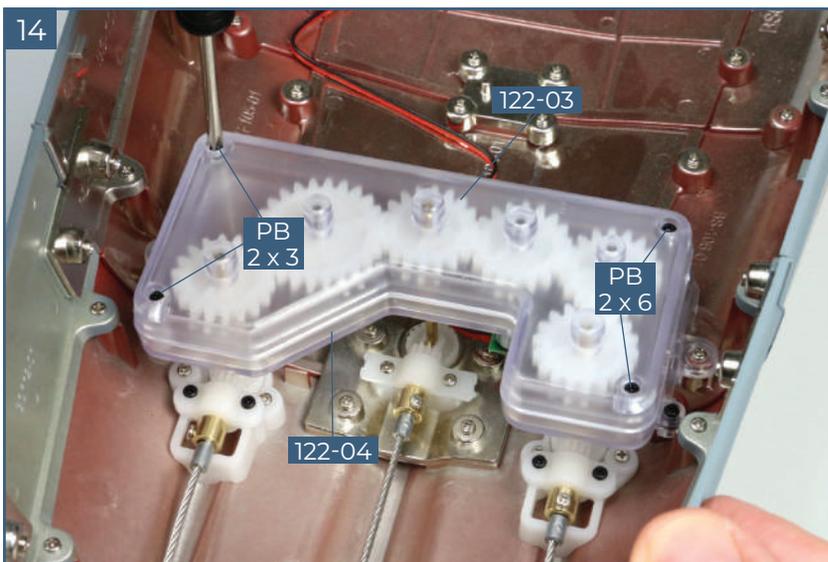
Fit cog **122-08** on the left-hand cog shaft **122-16**. Finally, the third cog **122-05** is fitted on the left-hand cog shaft **122-14**.



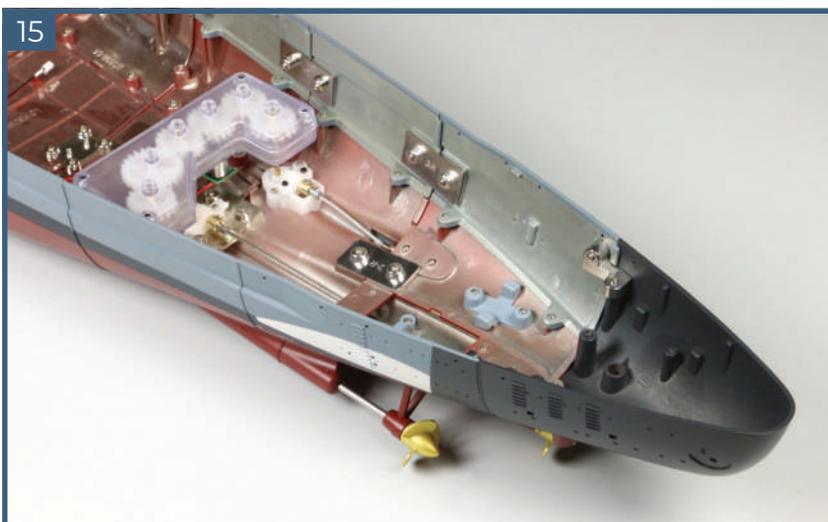
Fit the short cog shaft **122-17** into the central hole of cog **122-07** (fitted on the motor).



Fit the upper part of the gearbox **122-03** on top of the lower part of the gearbox **122-04** so that the recesses inside **122-03** fit on to the ends of the six cog shafts, as shown.



Fasten the upper part of the gearbox **122-03** to the lower part of the gearbox **122-04** with four 2 x 6mm **PB** screws, as shown.

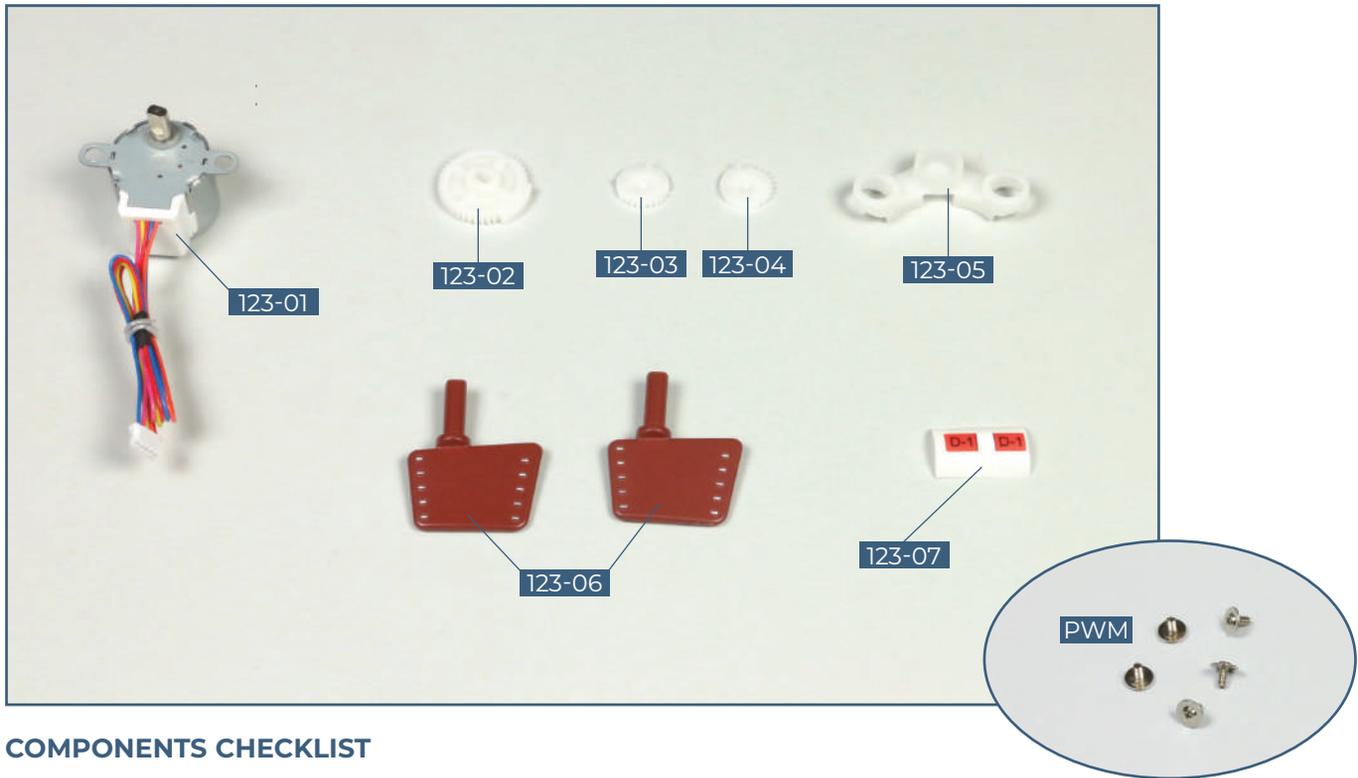


### **Completed work**

The three propeller shafts have been fitted to pivot pins and connected to the gearbox. Cogs and shafts connect the propeller motor to the propeller shafts.

# STAGE 123

## THE TWIN RUDDERS



### COMPONENTS CHECKLIST

123-01: Motor for the rudders  
 123-02: Large cog  
 123-03: Port cog (L)  
 123-04: Starboard cog (R)

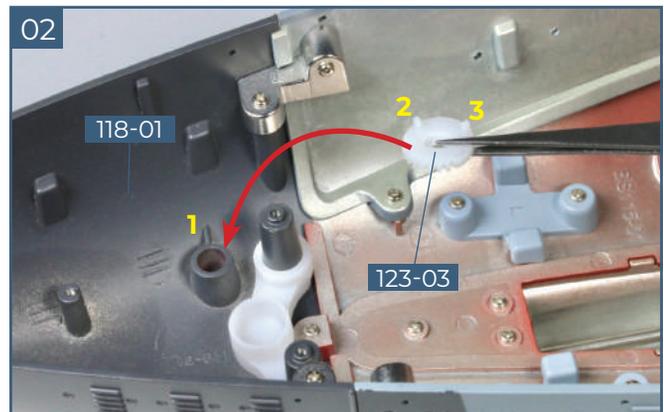
123-05: Cog support  
 123-06: Two rudders  
 123-07: Cable label (D1)

PWM: Five 2 x 4mm PWM screws

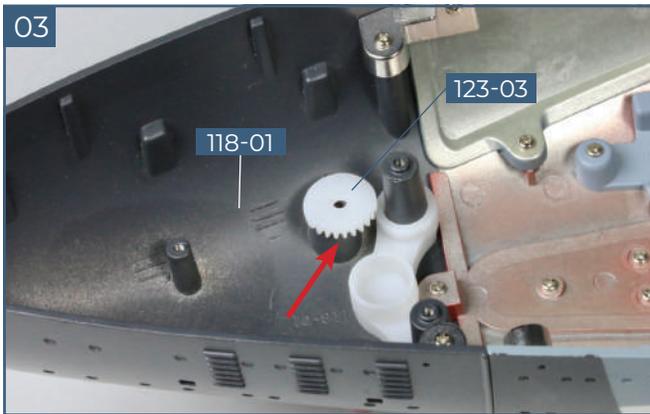
## 01. ASSEMBLING THE RUDDERS AND COGS



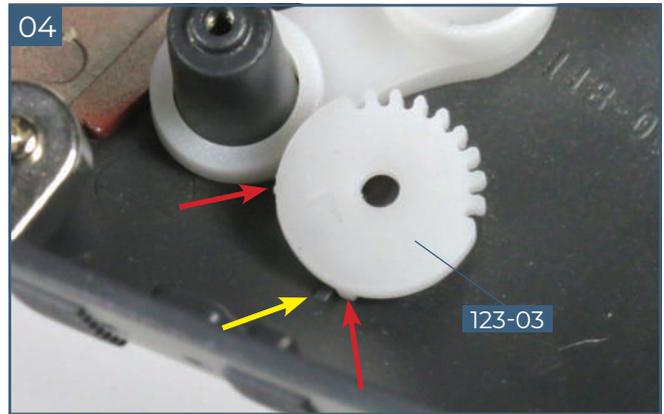
Position the cog support **123-05** on the hull assembly so that it sits on the raised screw sockets in the stern section **118-01**.



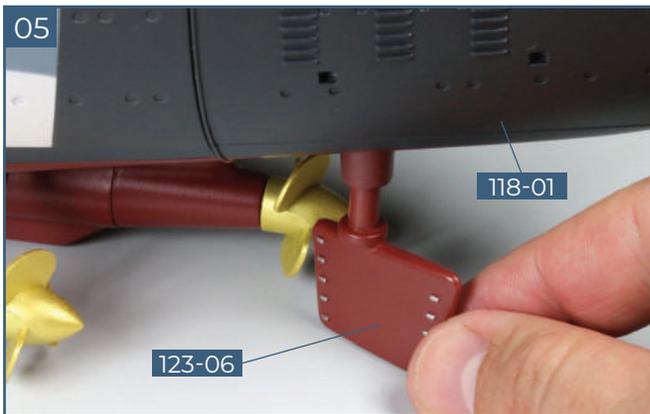
Fit the port cog **123-03** (marked L) on the raised socket on the port side of the stern **118-01**, as indicated. Note the position of the three ribs: rib **1** (on the inside of the hull) sits between the ribs **2** and **3** on the cog.



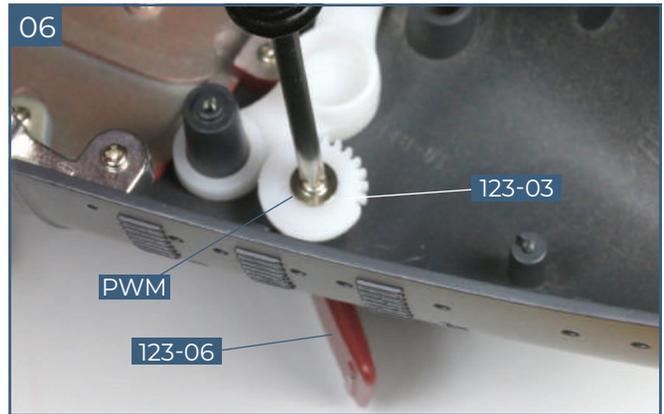
This shows cog **123-03** correctly positioned in the port side of the stern **118-01**: note that the teeth point towards the centre of the hull, as indicated.



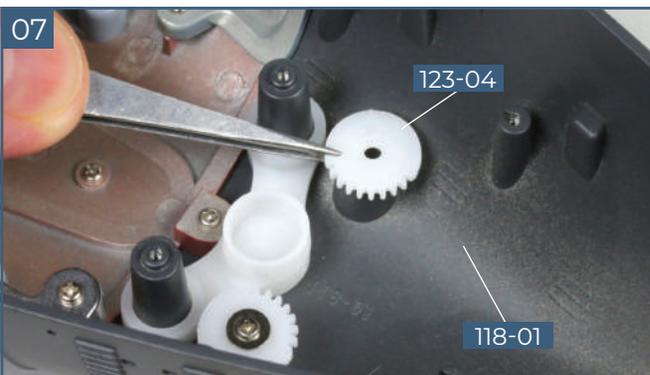
This detail shows the port cog **123-03** viewed from the port side. Turn the cog so that the ribs on the cog (red arrows) are positioned as shown, with one against the rib on the inside of the hull (yellow arrow).



Insert the shaft of the first rudder **123-06** up into the hole on the port side of stern section **118-01**, as shown.



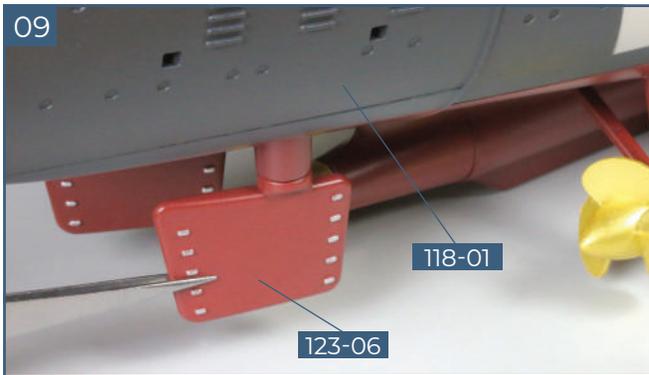
The shaped end of the shaft of the rudder fits into a corresponding recess in the cog. Fix the rudder **123-06** in place using a **PWM** screw, inserted through the cog and the raised socket and into the rudder shaft.



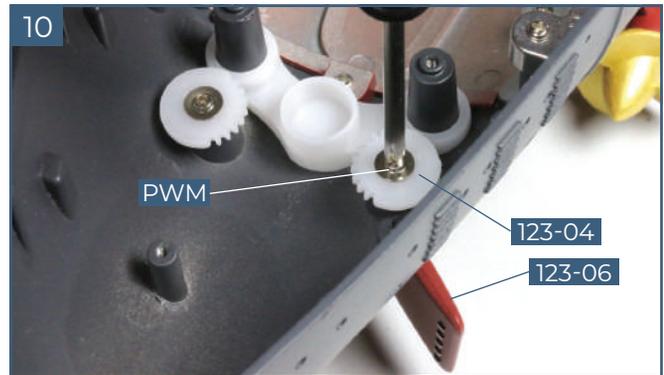
Fit the starboard cog **123-04** (marked R) on the raised socket on the starboard side of the stern section **118-01**. Make sure the ribs are aligned correctly, so that the rib on the inside of the hull is between the ribs on the cog.



Ensure that the ribs of cog **123-04** are in the correct position and the teeth are facing towards the centre of the hull. Note that with the cogs **123-04** and **123-03** in the correct positions, the rudders are parallel.

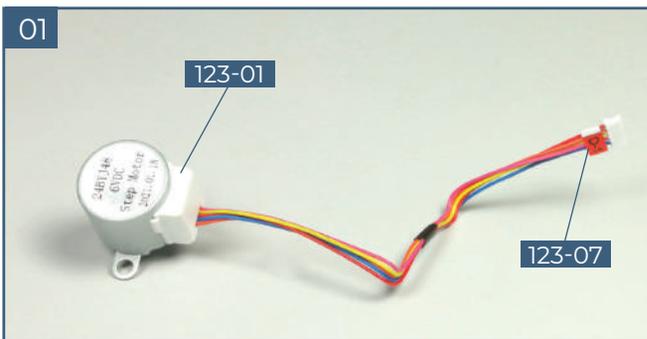


Fit the shaft of the second rudder **123-06** up into the hole in the stern section **118-01** on the starboard side.

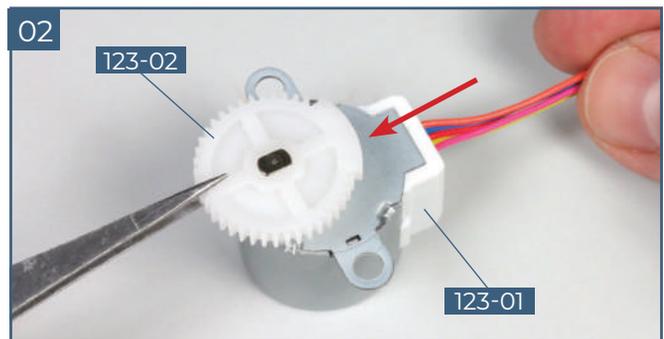


Fix the rudder **123-06** in place using a **PWM** screw, inserted through the cog and the raised screw socket and into the rudder shaft.

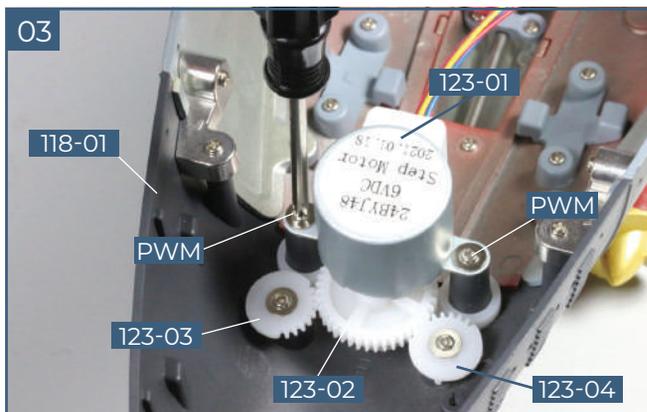
## 02. FITTING THE MOTOR FOR THE RUDDER



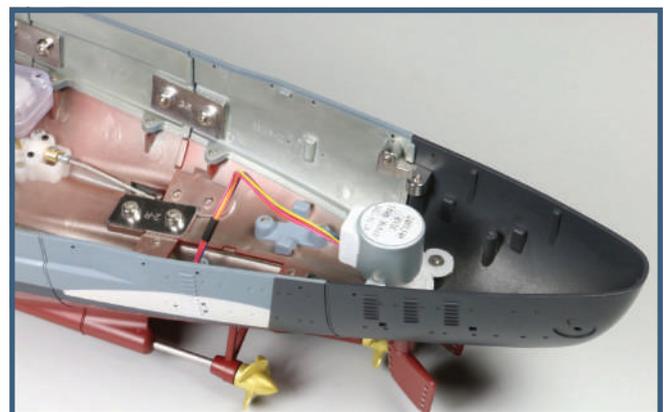
Wrap the cable label **123-07** (D1) round the end of the cable from motor **123-01** near to the connector, as shown.



Fit the large cog **123-02** on the shaft of the motor **123-01**. Make sure the side without any teeth is positioned as shown (arrow).



Ensure that the cogs **123-03** and **123-04** are positioned as shown, with the rudders parallel. Identify the fixing point for the motor **123-01** at the rear of part **118-01**. Fix the motor in place with two **PWM** screws so that the teeth of cog **123-02** interlock with the cogs **123-03** and **123-04**.

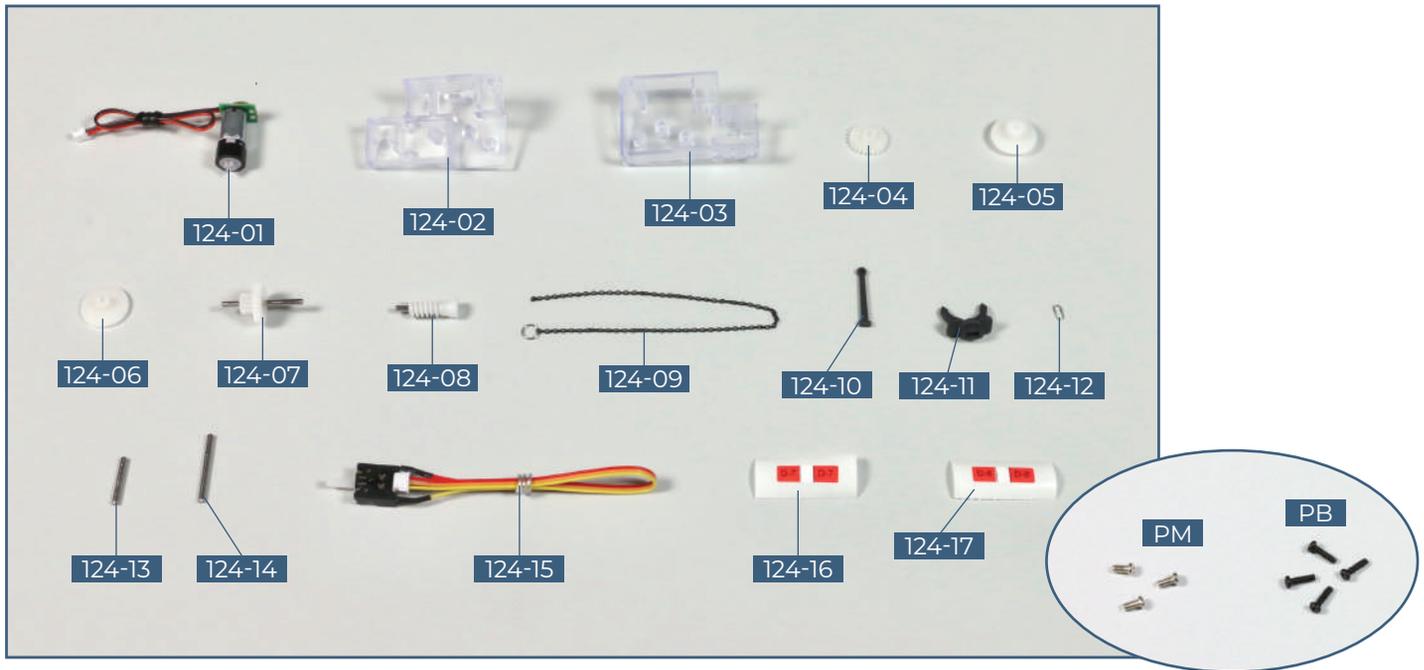


### Completed work

The two rudders and the motor have been fitted to the stern of the model. You may find that the fit of the motor is a bit wobbly. This will be fixed in a later stage.

## STAGE 124

# THE AFT ANCHOR AND MOTOR



### COMPONENTS CHECKLIST

**124-01:** Anchor motor

**124-02:** Gear housing (left side)

**124-03:** Gear housing (right side)

**124-04:** Cog with brake tab

**124-05:** Cog with cable reel

**124-06:** Cable reel

**124-07:** Cog on shaft

**124-08:** Worm gear on shaft

**124-09:** Anchor chain

**124-10:** Anchor shank

**124-11:** Anchor head

**124-12:** Anchor ring

**124-13:** Shaft (shorter)

**124-14:** Shaft (longer)

**124-15:** Switch and cable

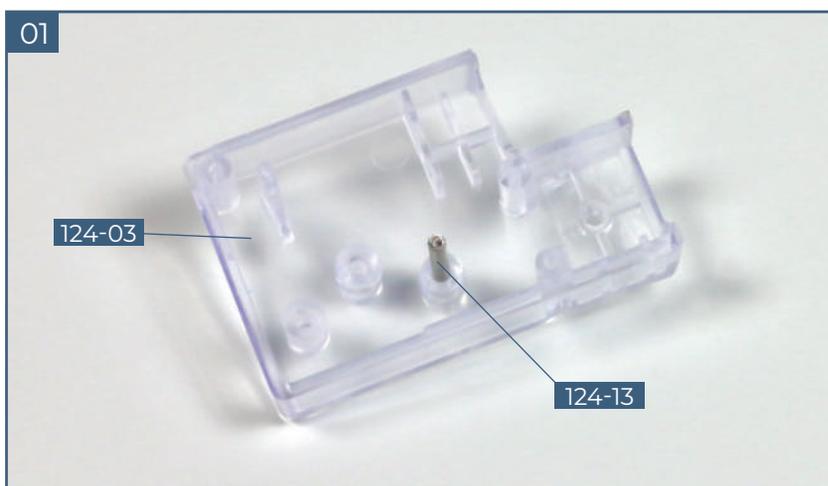
**124-16:** Cable label (D-7)

**124-17:** Cable label (D-8)

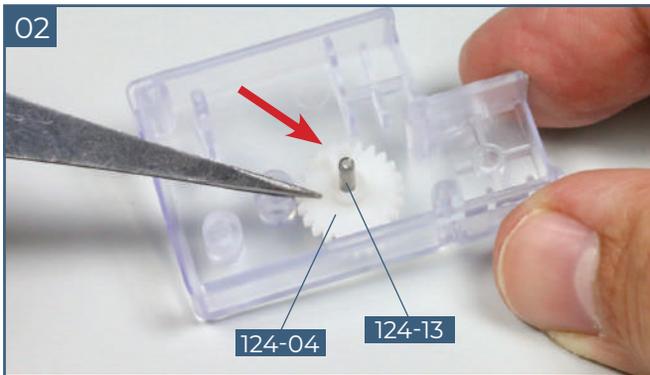
**PM:** Three 2 x 4mm PM screws

**PB:** Four 1.7 x 6mm PB screws

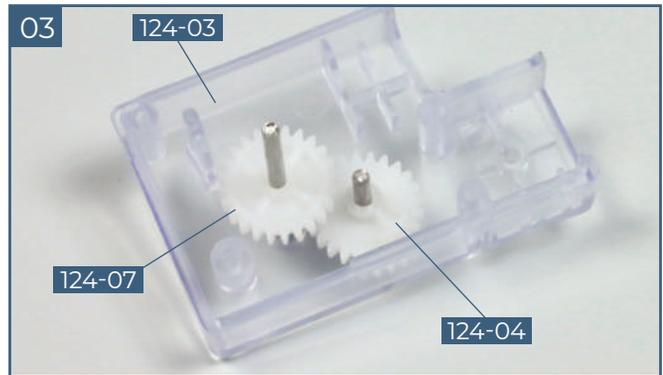
## 01. ASSEMBLING THE GEARBOX FOR THE AFT ANCHOR



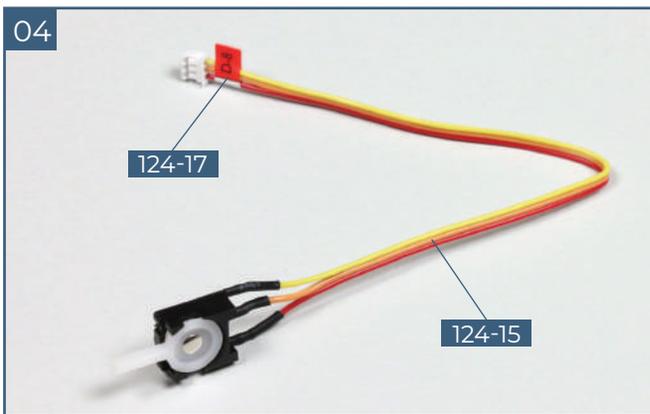
Place the right-hand side of the gear housing **124-03** on your worktop. Insert the shorter shaft **124-13** into the socket in the housing, as shown.



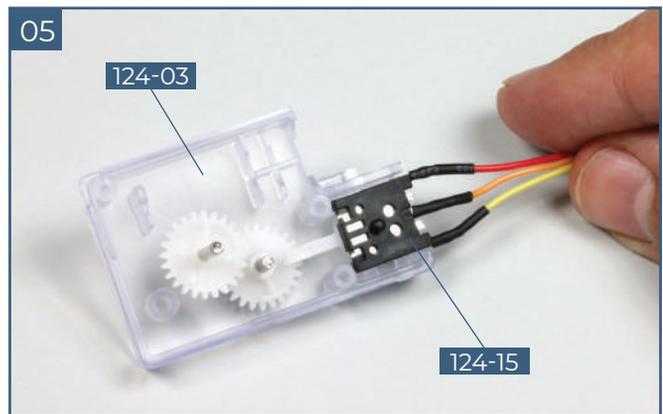
Take the cog with the brake tab **124-04** and fit it on the shaft **124-13**. Ensure that the tab is aligned with the shaft as shown (arrow).



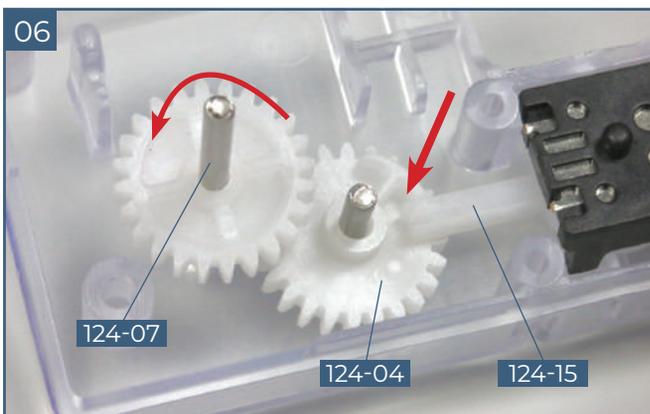
Fit the shaft of the cog **124-07** in the next socket in the gear housing **124-03**. The inner row of teeth on the underside of cog **124-07** mesh with the teeth of cog **124-04**.



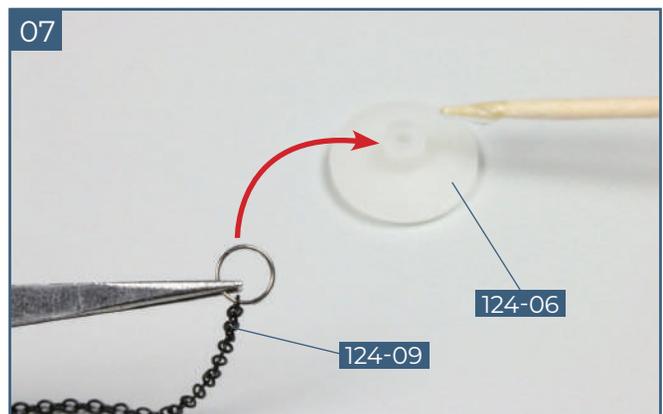
Take the switch **124-15** and attach the cable label **124-17** (D-8) to the cable, near the connector, as shown.



Fit the switch **124-15** into the gear housing **124-03**. Note the alignment of the switch: the tab reaches towards the middle of the first cog.



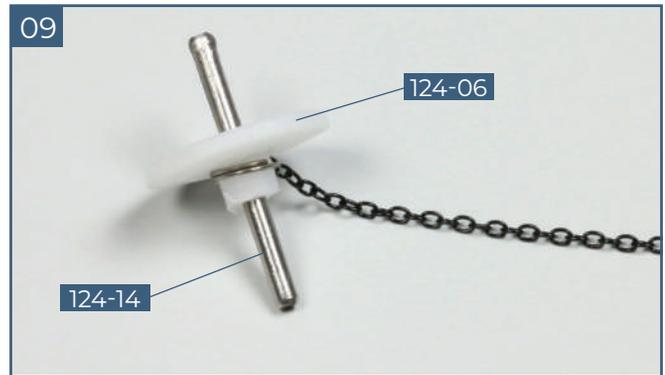
Turn the shaft **124-07** until the tab on cog **124-04** comes up against the tab of the switch **124-15**, indicated by the straight arrow.



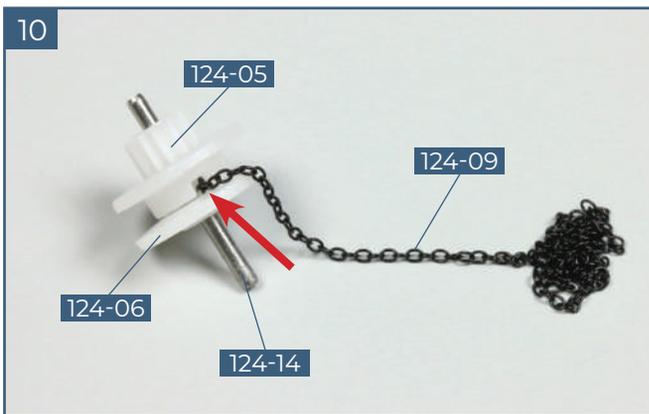
Put the cable reel **124-06** on your worktop and check how the ring on the end of the anchor chain **124-09** fits over the hub. Apply a little glue to the hub to hold the ring in place.



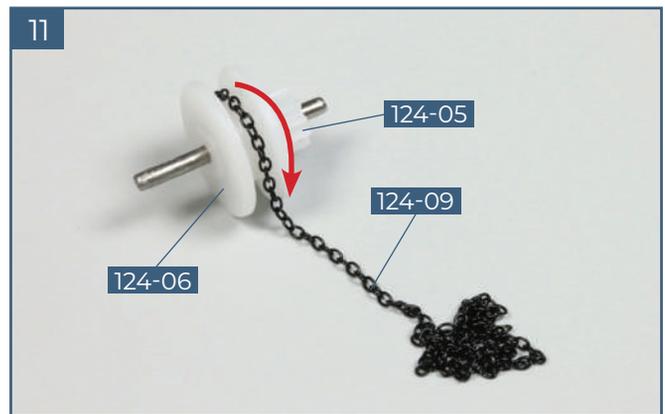
This shows the ring of the anchor chain **124-09** in place on the hub of the cable reel **124-06**.  
**NOTE:** Check the assembly of the next four steps before applying any glue to the shaft (step 9).



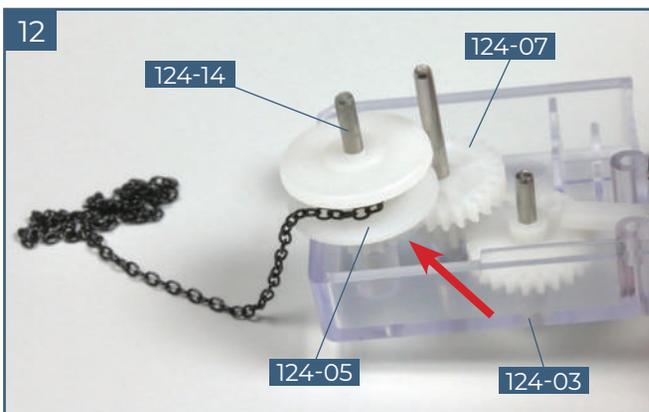
Take the longer shaft **124-14** and fit it into the hub of the cable reel **124-06**. When you have checked the fit (see steps 10, 11 and 12) apply a little glue to the middle of the shaft to hold the cable reel hub in place.



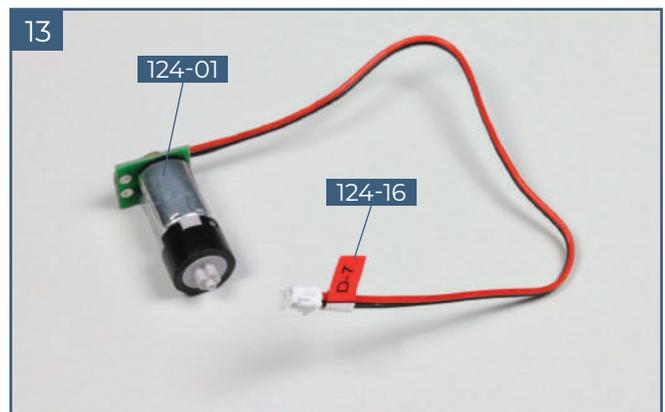
Place the cog with the cable reel **124-05** on the shaft **124-14** so that the anchor chain **124-09** goes through the notch (arrow). The flat side of part **124-05** butts up against the hub of part **124-06**. The anchor chain can then wind around the hub.



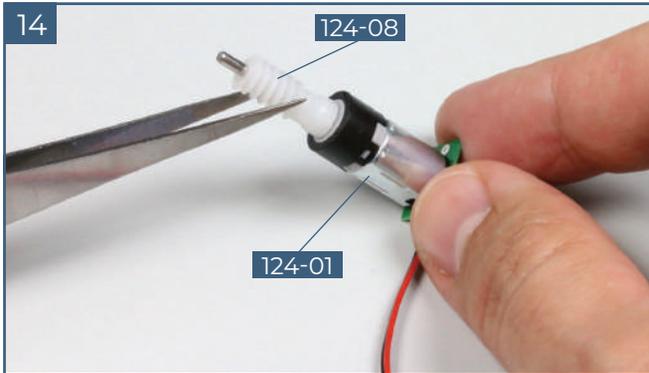
Wind the anchor chain **124-09** clockwise half a turn around the cable reel **124-05/124-06**, as shown. Note the orientation of the reel as you wind it.



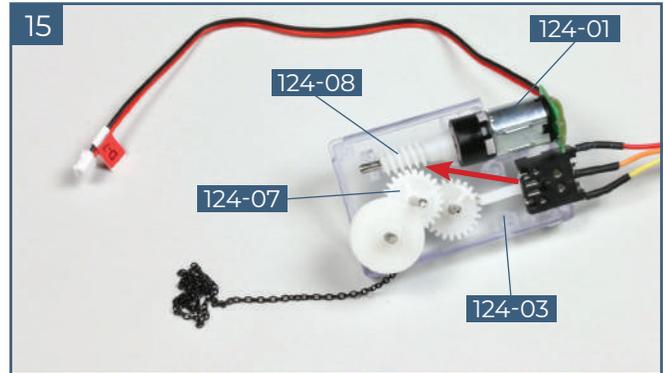
Fit the shaft **124-14** into the socket in the gear housing **124-03**. The cog of the reel **124-05** engages with the large cog **124-07**.



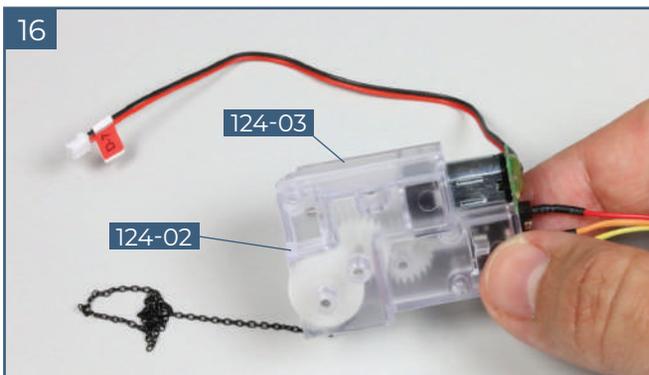
Take the anchor motor **124-01** and attach the cable label **124-16** (D-7) to the cable near the connector, as shown.



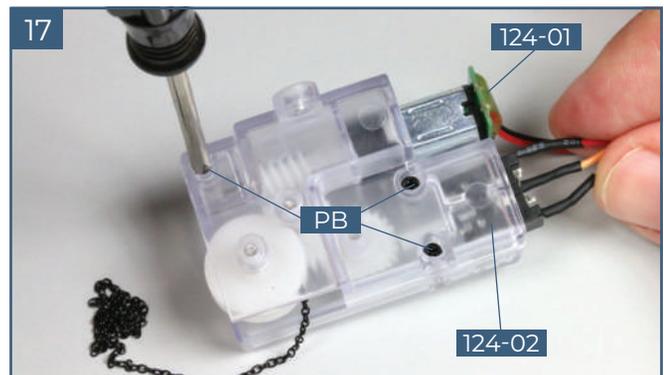
Take the worm gear **124-08** and fit the open end on to the shaft of the anchor motor **124-01**, as shown.



Fit the motor and lengthways cog assembly **124-01/124-08** into the gear housing **124-03**. The thread of the lengthways shaft (arrow) must engage with the large cog **124-07**.

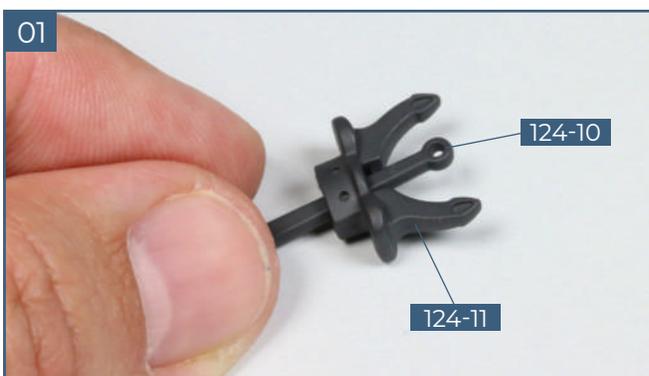


Take the left side of the gear housing **124-02** and fit it against the right side **124-03**. The free ends of the shafts fit into the sockets in part **124-02**. See the next step for the correct orientation of the motor **124-01**.



Fix the two halves of the gear housing together using three **PB** screws: they fit into screw holes in part **124-02** and screw into sockets in part **124-03**.

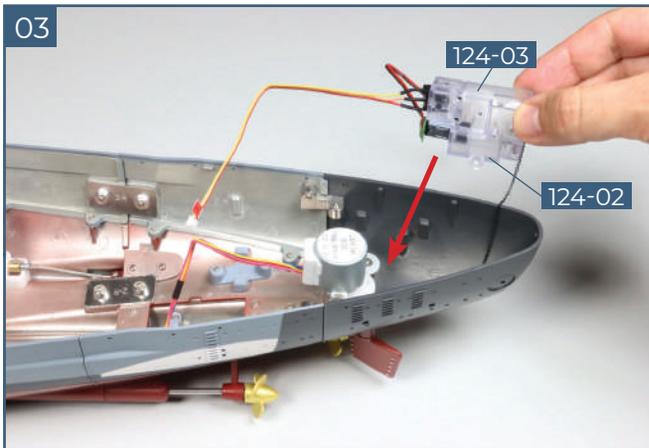
## 02. INSTALLING THE GEARBOX AND FITTING THE ANCHOR



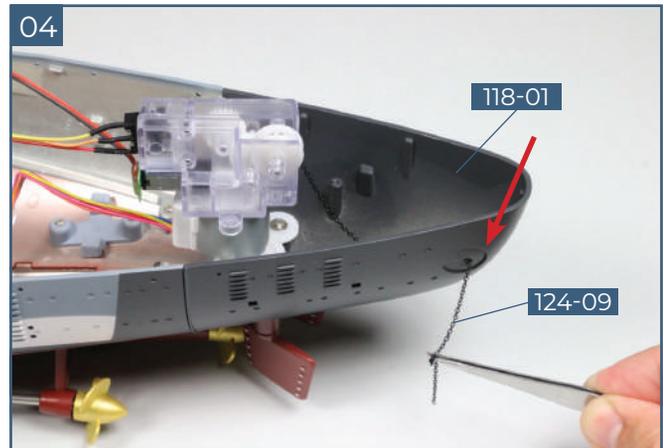
Fit the anchor shank **124-10** into the hole in the anchor head **124-11**. The shank is inserted from below, pushing the eyelet on the end of the shank through the hole first.



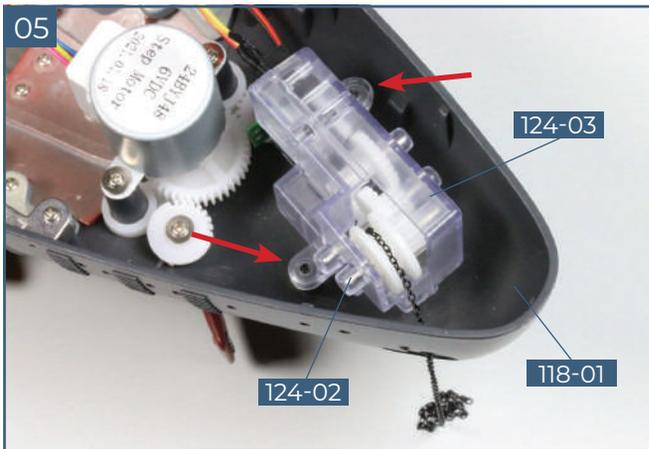
Attach the anchor ring **124-12** to the eyelet located at the top of the anchor shaft **124-10**, as shown.



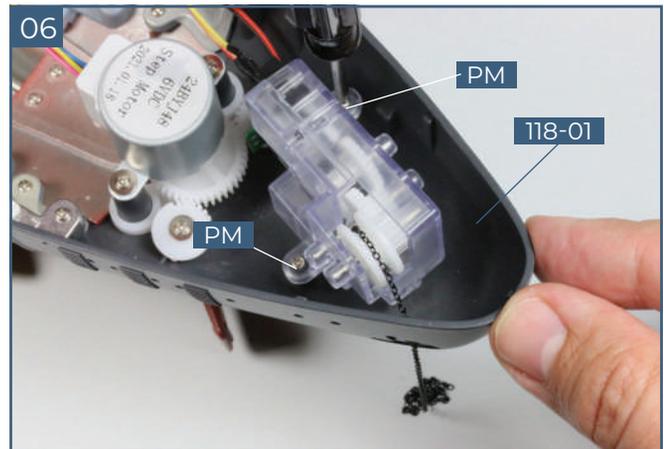
Place the hull assembly on your worktop, so that you can access the stern end. The gearbox **124-02/124-03** fits near the aft of the hull.



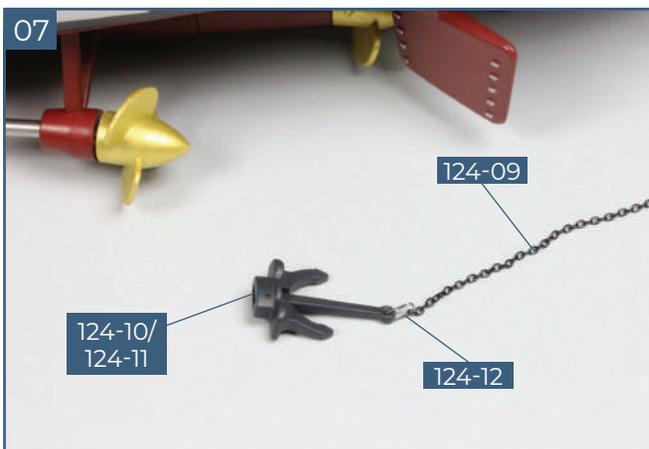
Before positioning the gearbox, run the anchor chain **124-09** through the hole in part **118-01**, on the port side at the stern, as shown.



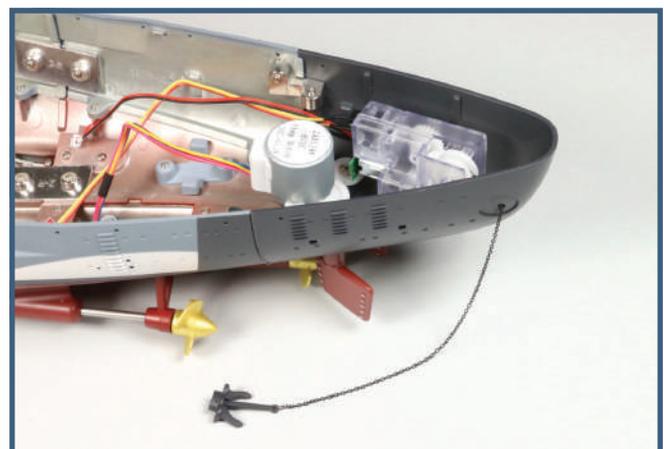
Position the gearbox housing **124-02/124-03** so that tabs with screw holes fit onto raised screw sockets in the hull section **118-01** (arrows).



Use two **PM** screws to fix the gearbox housing in place on part **118-01**, as shown.



Take the anchor assembly **124-10/124-11** and fit the ring **124-12** into the last link of the anchor cable **124-09**, as shown.

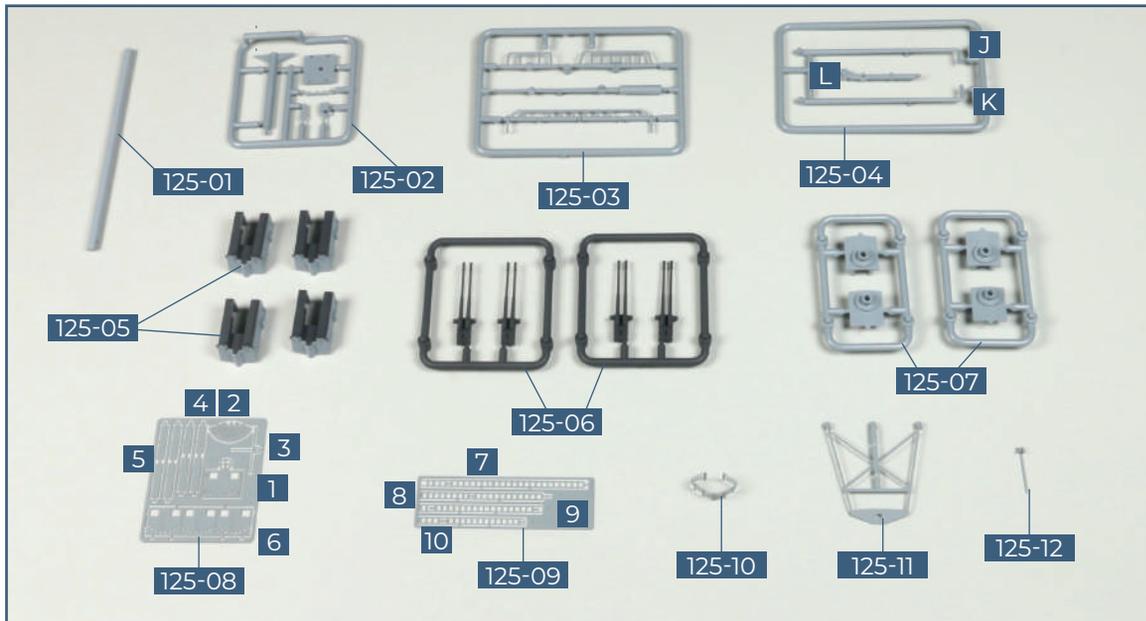


**Completed work**

The motor and gears for the aft anchor have been assembled and fitted inside the hull.

## STAGE 125

# MAINMAST AND FOUR AA GUNS



### COMPONENTS CHECKLIST

**125-01:** Mainmast (lower section)

**125-02:** Middle section of the mainmast (E to I)

**125-03:** Upper section of the mainmast (A to D)

**125-04:** Two vents and an antenna (J to L)

**125-05:** Four heavy AA gun mounts

**125-06:** Four twin barrels of the AA guns

**125-07:** Four bases for the AA guns

**125-08:** Metal parts (1 to 6)

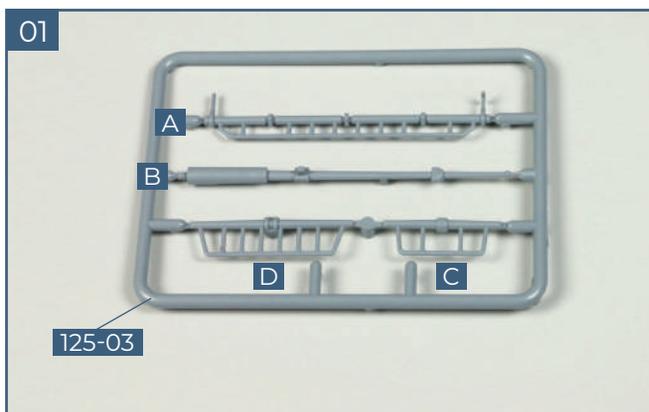
**125-09:** Four ladders (7 to 10)

**125-10:** Railing

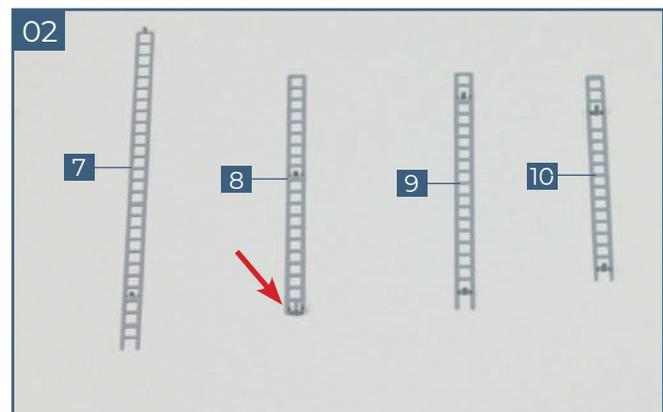
**125-11:** Spar support

**125-12:** Antenna

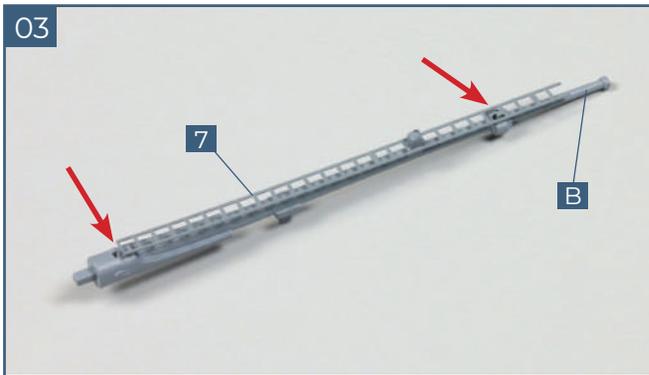
## 01. THE UPPER SECTION OF THE MAINMAST



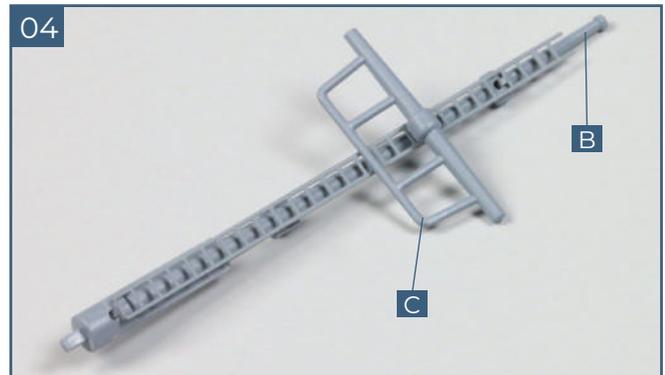
The frame **125-03** in close-up shows three spars, **A**, **C** and **D** and the upper mast section **B**. Carefully remove all four parts from the frame.



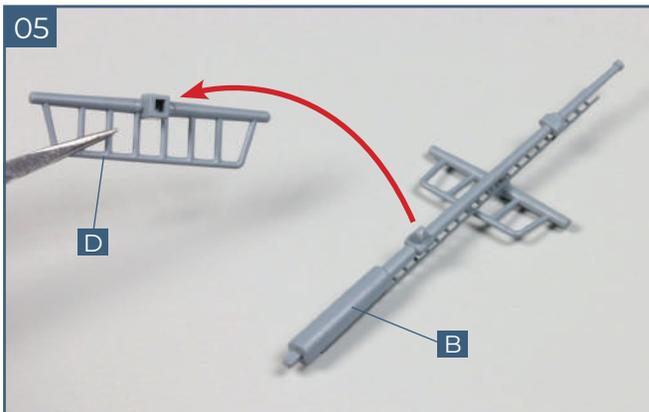
Remove the four ladders **7** – **10** from the frame **125-09**. Bend the tabs up at right angles. The lower tab on part **8** is bent twice at right angles (forwards and upwards) to form a U shape (arrow).



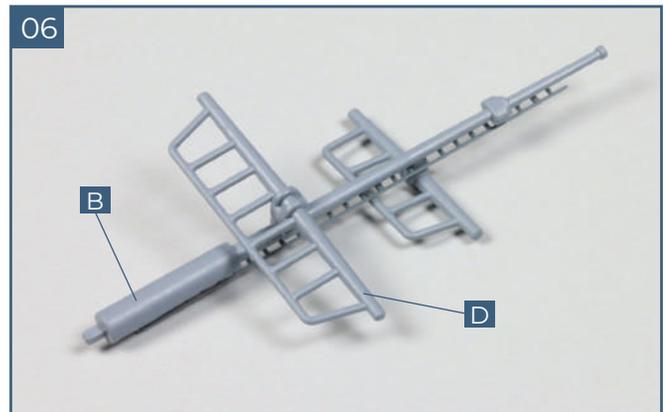
Place the upper mast section **B** on your worktop. Check how the tabs on ladder **7** fit into the recesses in part **B** (arrows). Apply a little superglue to fix in place.



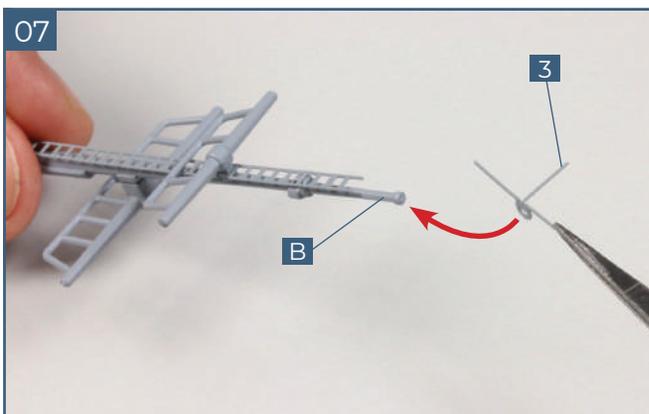
The short spar **C** fits across the mast: check the fit, then apply a little superglue to fix the spar in place.



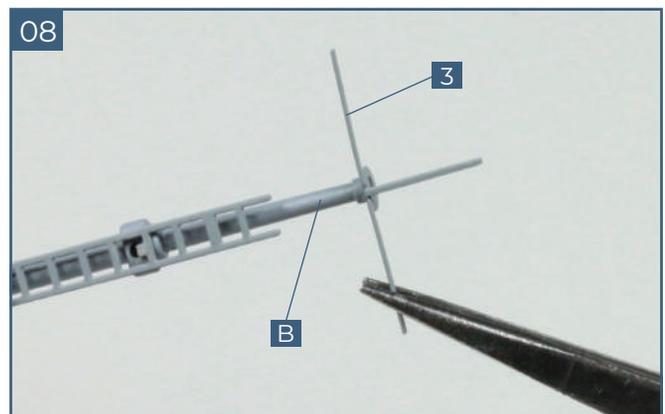
Turn the mainmast section **B** over and check the fit of spar **D**. A peg on the mast fits into the socket in the spar.



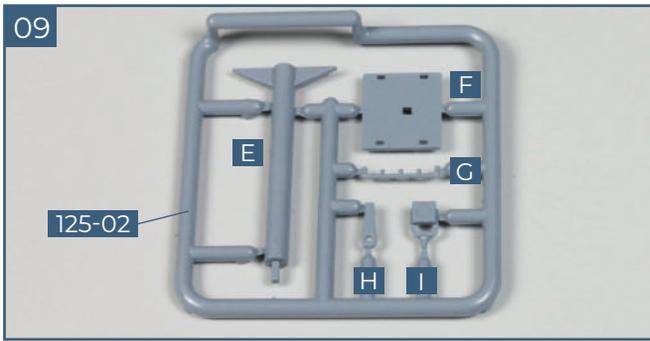
When you are happy with the fit apply a little superglue to the peg and fix in place, ensuring that both spars are parallel.



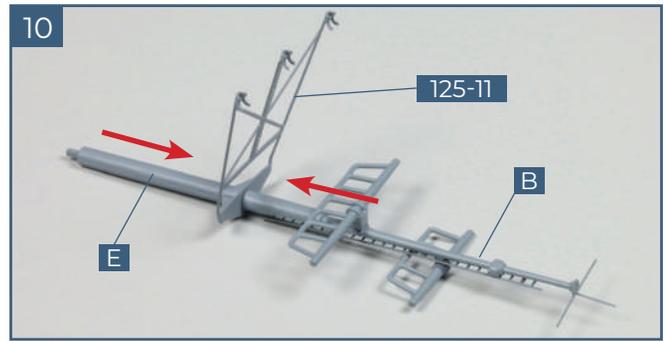
Take the tip of the mast, part **3** from the metal frame **125-08**. Very carefully, bend the central prong upwards, at right angles to the two arms. Check the fit on the upper end of mainmast section **B**.



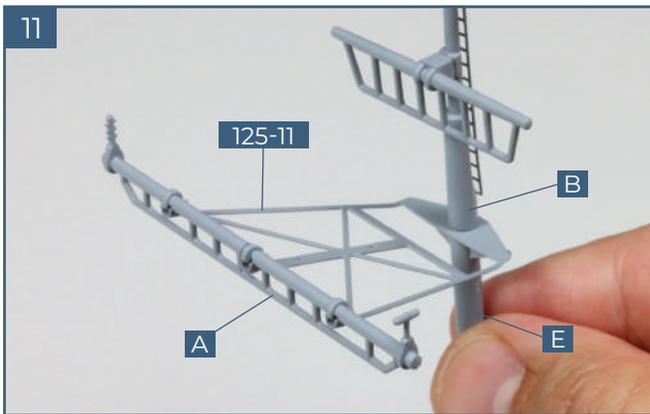
When you are happy with the fit, glue the mast tip **3** in place, as shown.



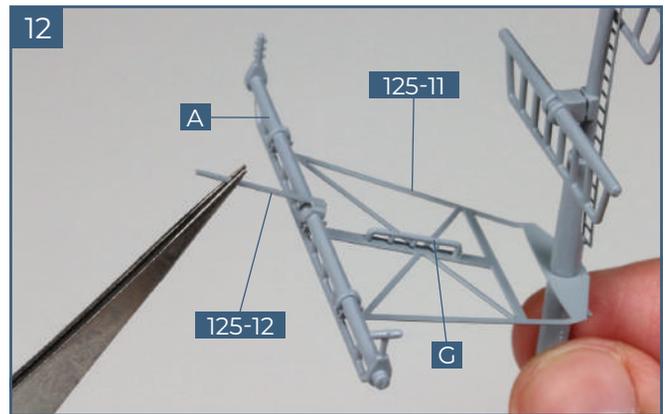
In close-up, frame **125-02** includes the middle mast section **E**, a platform **F**, a rail **G**, the signal lamp support **H** and the signal lamp **I**.



Take the mast section **E** from frame **125-02**. Fit mast sections **B** and **E** together with the spar support **125-11** between them. Holes in parts **B** and **E** are facing downwards. Glue part **E** in place on part **B**.

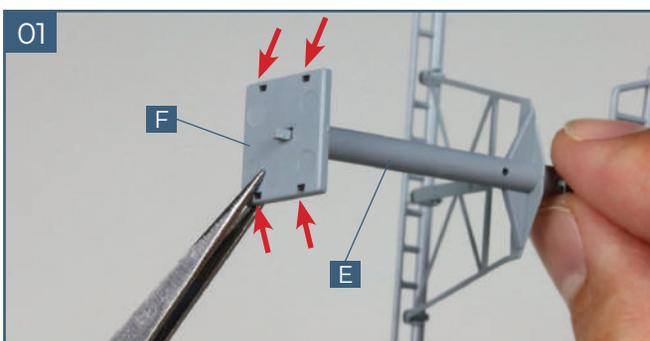


The spar support **125-11** slopes upwards at an angle to the mast. The spar **A** from frame **125-03** is fitted to the brackets on the front of part **125-11**. Glue the spar in place, as shown.

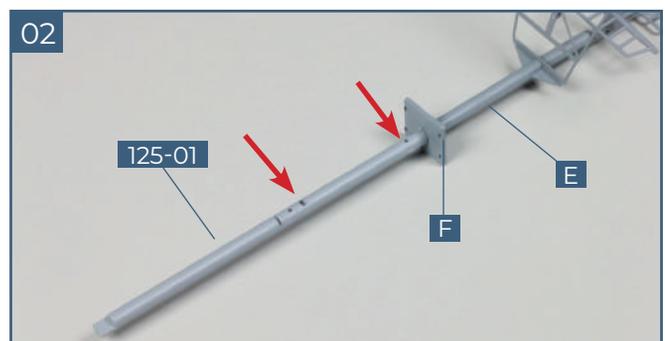


Glue the rail **G** from frame **125-02** to the central strut of part **125-11**, on the upper side, as shown. The antenna **125-12** is glued in place on the leading edge of the spar **A**, as shown.

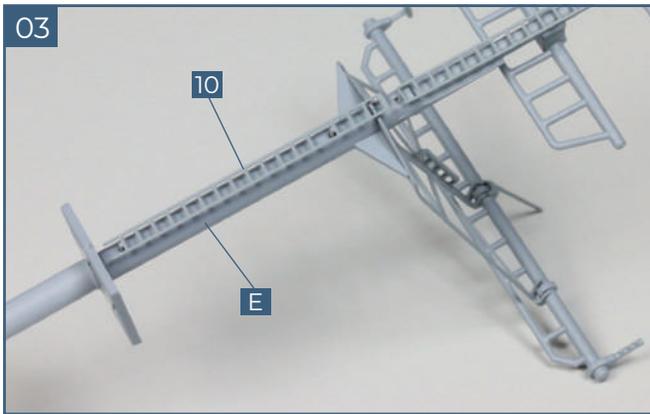
## 02. THE LOWER SECTION OF THE MAINMAST



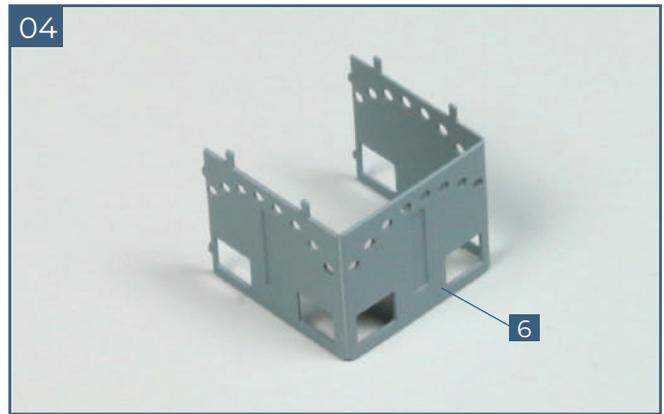
Platform **F** fits on the lower end of the mast section **E**. Make sure you fit the platform the right way round – the sides have holes close to the edges (arrows). The wider side of the platform (on the left in this photo) is beneath the spar support **125-11**. Glue the platform in place.



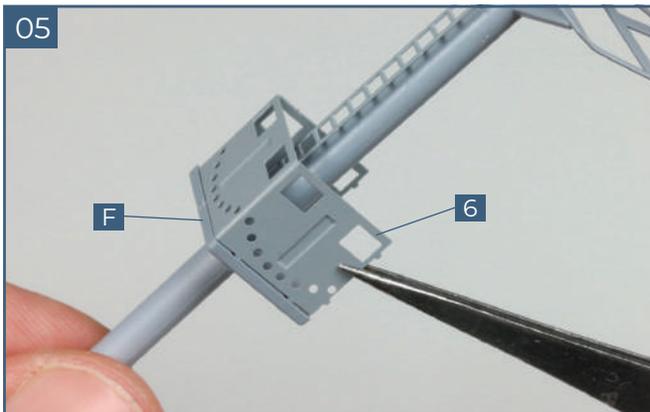
The peg on the lower end of mast section **E**, which pokes through the hole in the platform **F**, fits into the top of the mainmast section **125-01**. Check that they are correctly orientated, noting the position of the holes (arrows). Glue the parts together, as shown.



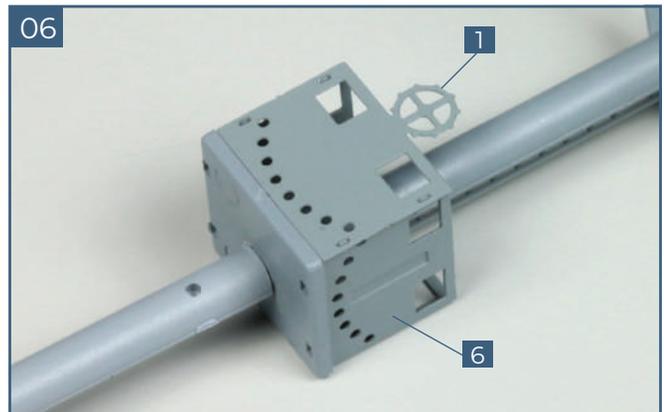
Take the ladder **10** and check how it fits on the front of mast section **E**. Apply a little superglue to the tabs on the ladder to fix it in place.



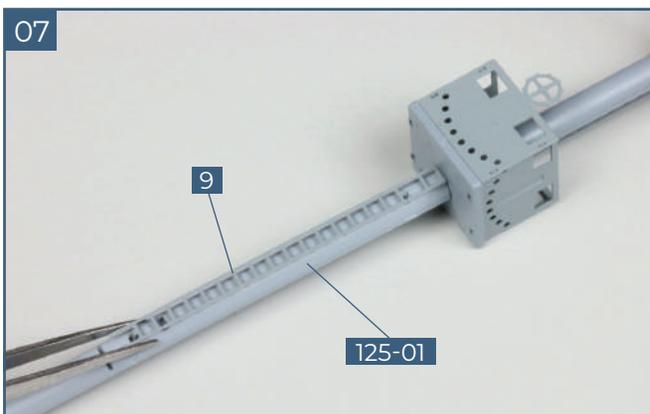
Take part **6** from frame **125-08**. This is a safety barrier for the rudder indicator. Bend the barrier twice at right angles, as shown (photographed upside down).



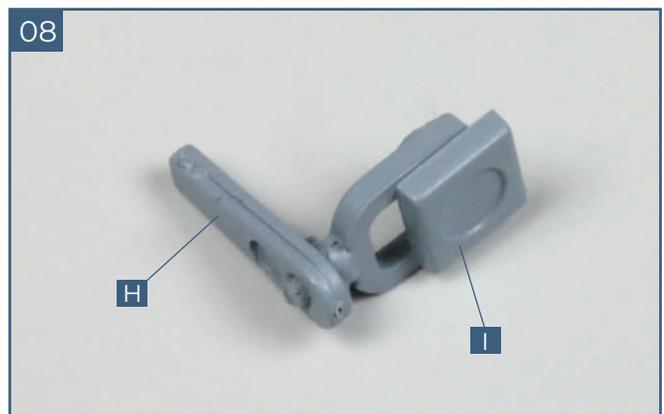
The tabs on the lower edge of part **6** fit into the holes in the platform **F**. Check the fit, with the open side of the barrier facing away from the ladder. Glue in place.



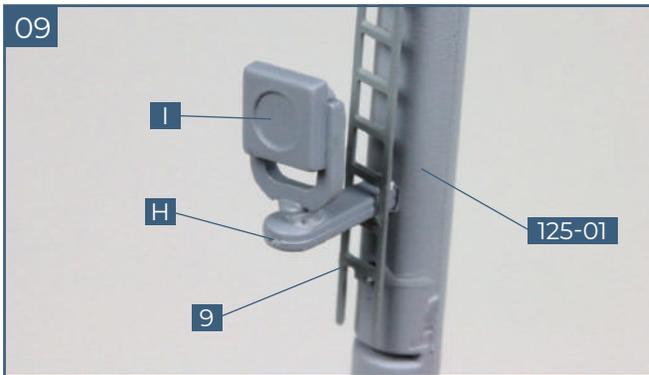
On the open side of the barrier, two tabs in part **6** fit into holes in part **1** from frame **125-08** (the barrier and speed indicator). Glue part **1** in place, as shown.



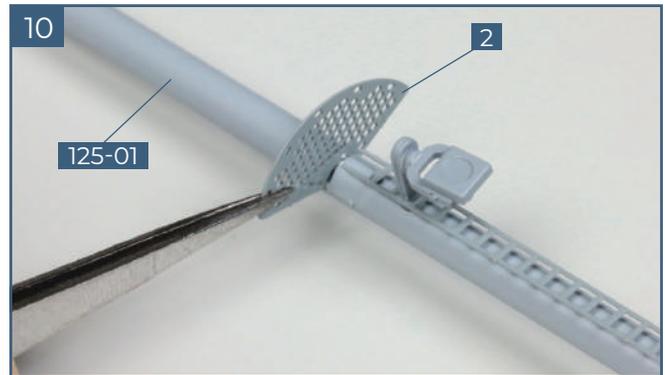
The ladder **9** from frame **125-09** fits on the lower section of the mainmast **125-01**. Glue the two tabs to the mast.



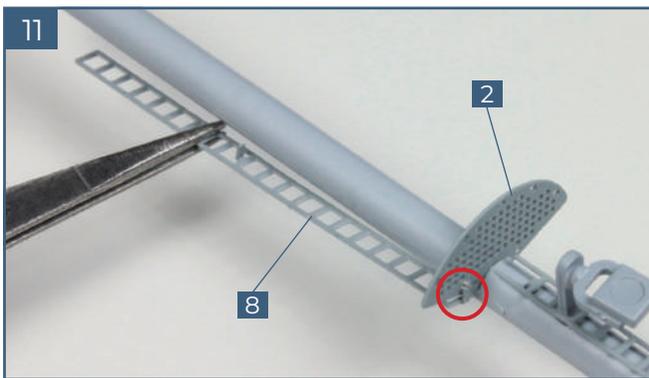
Take the signal lamp support **H** and the signal lamp **I** from the frame **125-02**. Check how the parts fit together, as shown, and glue the signal lamp in place.



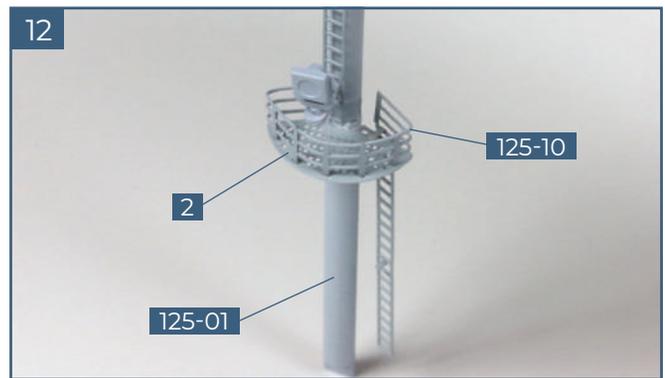
The end of signal lamp support **I** fits into a recess behind the ladder **9** on the lower mainmast **125-01**, as shown. Glue in place.



The platform **2** from frame **125-08** fits in the slot in the mast **125-01** below the ladder **9**. Glue in place, as shown.

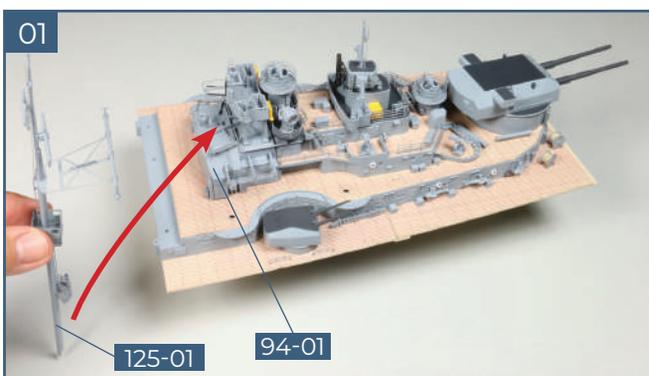


The ladder **8** fits below the platform **2**. The tab with two right-angled bends fits into a slot in the platform (circled). Glue in place.

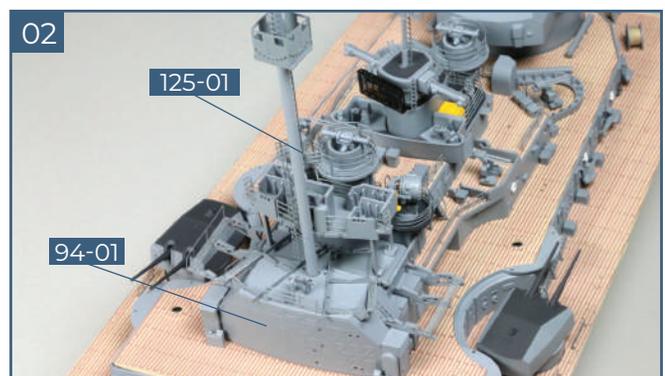


Hold the lower mast **125-01** upright on your worktop. Take the railing **125-10** and glue it in place around the edge of platform **2**.

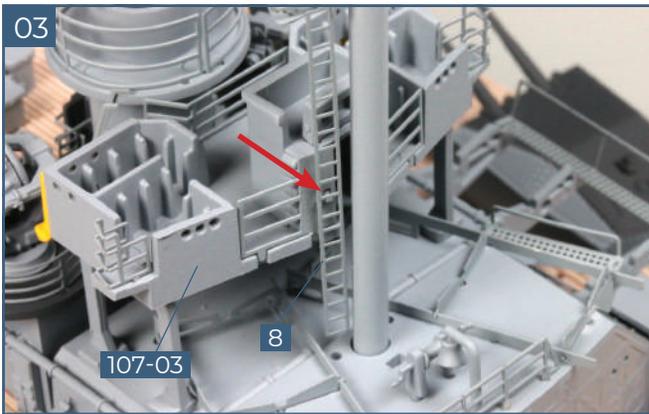
### 03. FITTING THE MAINMAST



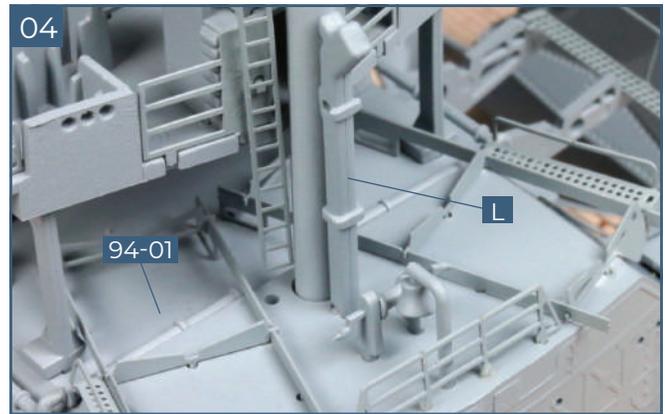
Place the aft superstructure on your worktop. Identify the hole on the central hangar **94-01** where the mainmast **125-01** fits.



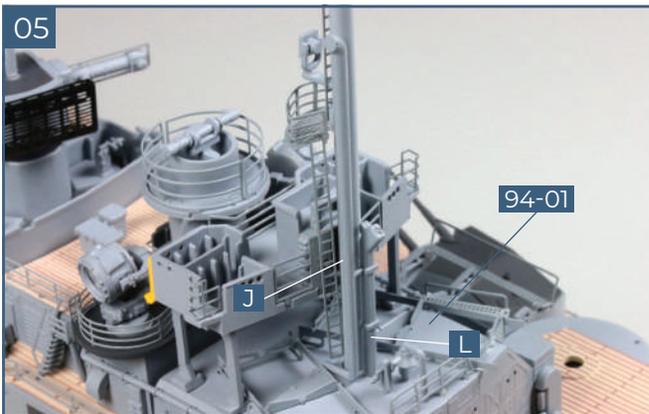
Check the fit and then glue the mainmast **125-01** to the central hangar **94-01**, as shown. Note the position of the ladders.



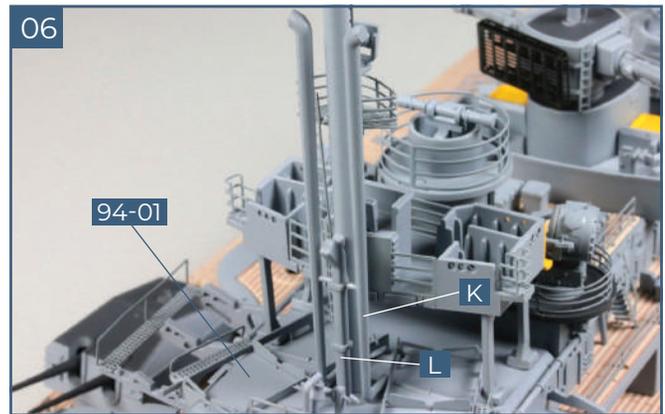
The free tab near the base of ladder **8** is glued into the hole in the railing on the front of the aft signal stand **107-03** (see arrow).



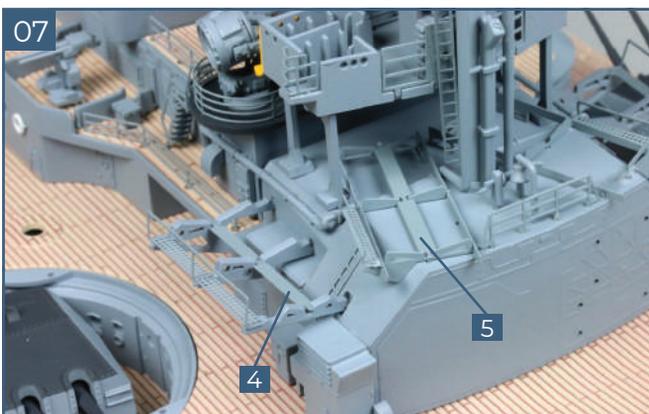
Remove the antenna shaft **L** from the frame **125-04** and glue it in place against the mast on the central hanger **94-01**, as shown.



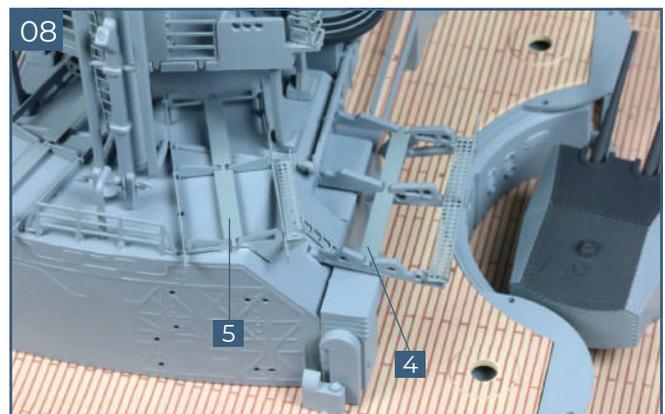
Take the vent pipe **J** from the frame **125-04**: two pegs on part **J** fit into holes in the central hanger **94-01** and the antenna shaft **L**. Glue in place.



The vent pipe **K** from frame **125-04** is glued to the other side of the main mast in the holes on the central hanger **94-01** and on the antenna shaft **L**.

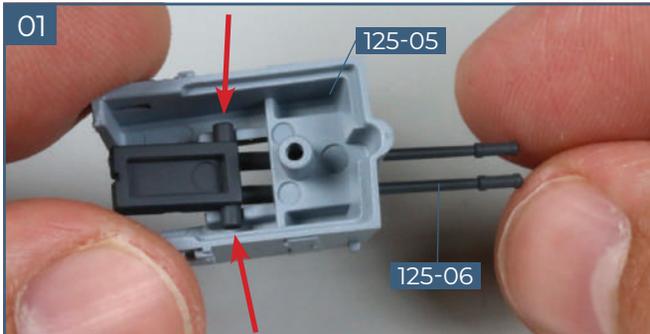


Take strut **4** and a strut **5** from frame **125-08**: they fit on the boat supports on the starboard side of the central hanger. Make sure you have them in the correct position, then glue in place.

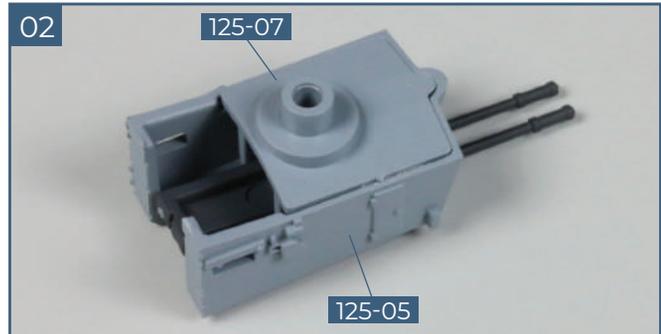


The other two struts **4** and **5** from frame **125-08** fit on the boat supports on the port side of the central hanger. When they are correctly aligned, glue them in place.

## 04. THE FOUR TWIN AA GUNS



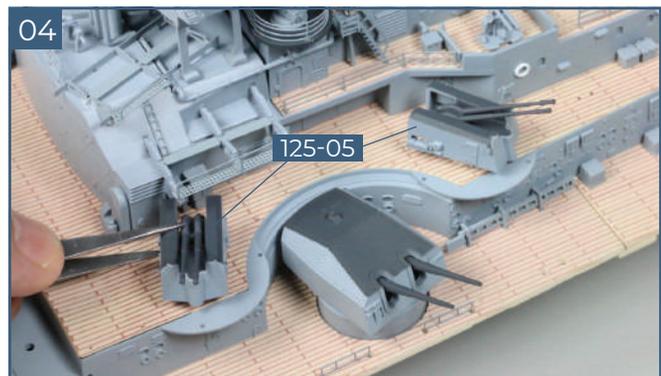
Take a double barrel **125-06** and fit it into one of the mounts **125-05** from below. The side pins on the barrels fit in the semicircular recesses on the mount (arrows).



Separate a base plate **125-07** from one of the two frames. Apply a little superglue to the recess around the lower edge of the gun mount **125-05** and fix the base to the mount, as shown.



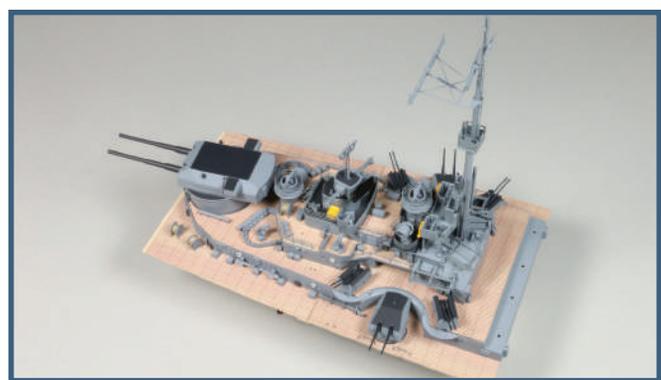
Repeat steps one and two with the three other parts **125-05**, **125-06** and **125-07** to make a total of four identical anti-aircraft guns, as shown.



Two of the four anti-aircraft gun mounts **125-05** fit on the port side of the aft superstructure. Pegs on the underside of the base plates fit into holes in the superstructure deck. Press them in place but do not use any glue.



The other two anti-aircraft guns **125-05** fit on the starboard side of the aft superstructure. Do not use any glue – the guns need to rotate.

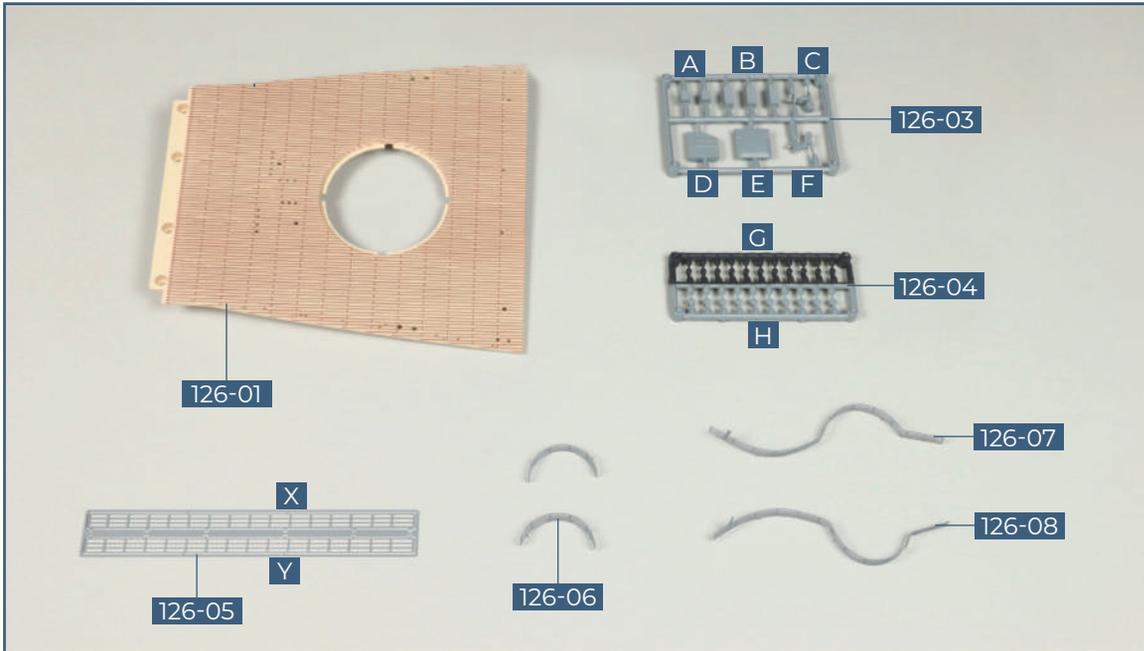


### Completed work

The mainmast and four heavy anti-aircraft guns have been fitted to the aft superstructure.

## STAGE 126

# THE EIGHTH UPPER DECK SECTION



### COMPONENTS CHECKLIST

**126-01:** Eighth upper deck section

**126-03:** Skylights and two loading practice machines

**126-04:** Eleven smoke generation containers and ten depth charges

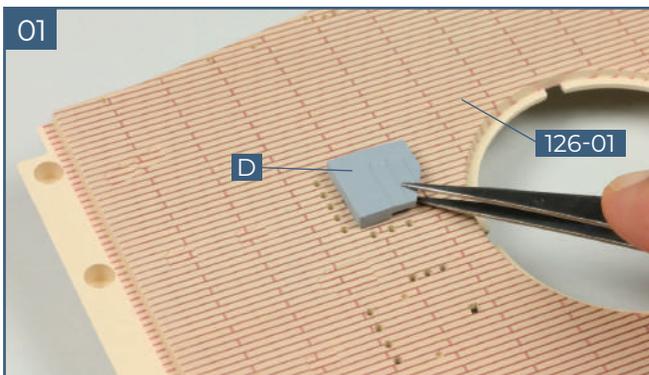
**126-05:** Two railings

**126-06:** Two railings

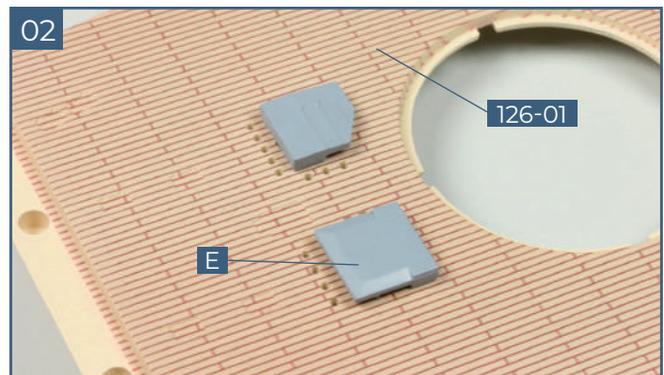
**126-07:** Railing (port)

**126-08:** Railing (starboard)

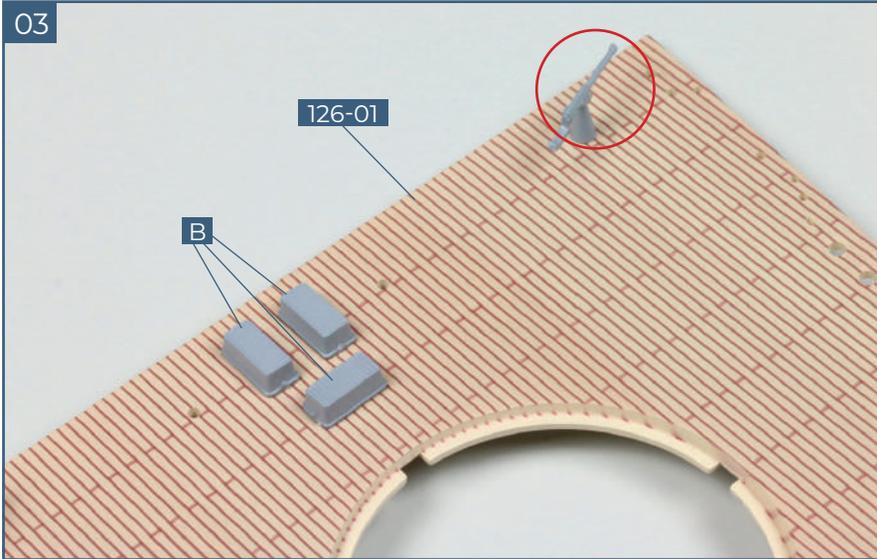
## 01. DETAILS FOR THE UPPER DECK



Take the skylight **D** from frame **126-03** and check how it fits in the slight recess in the upper deck section **126-01**. Glue in place.

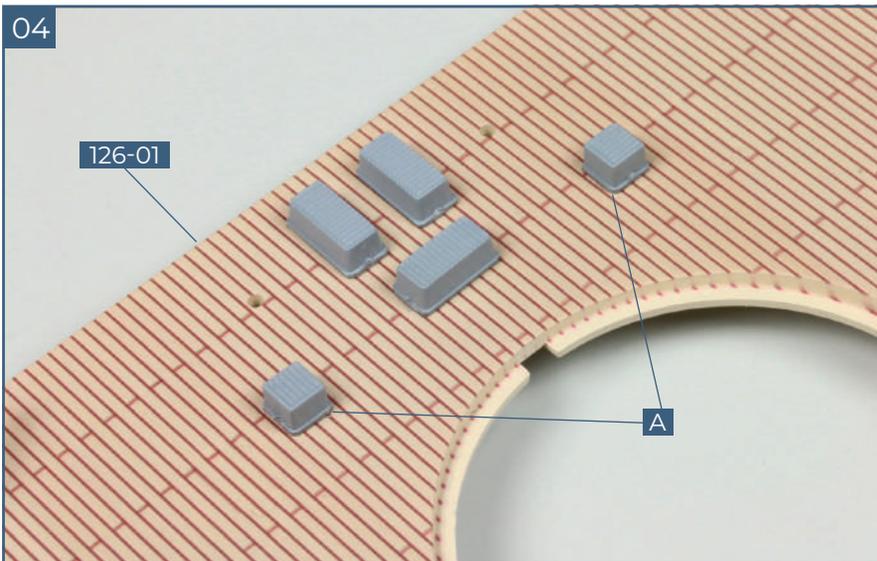


The skylight **E** from frame **126-03** fits in the adjacent recess of the upper deck section **126-01**. Glue in place, as shown.

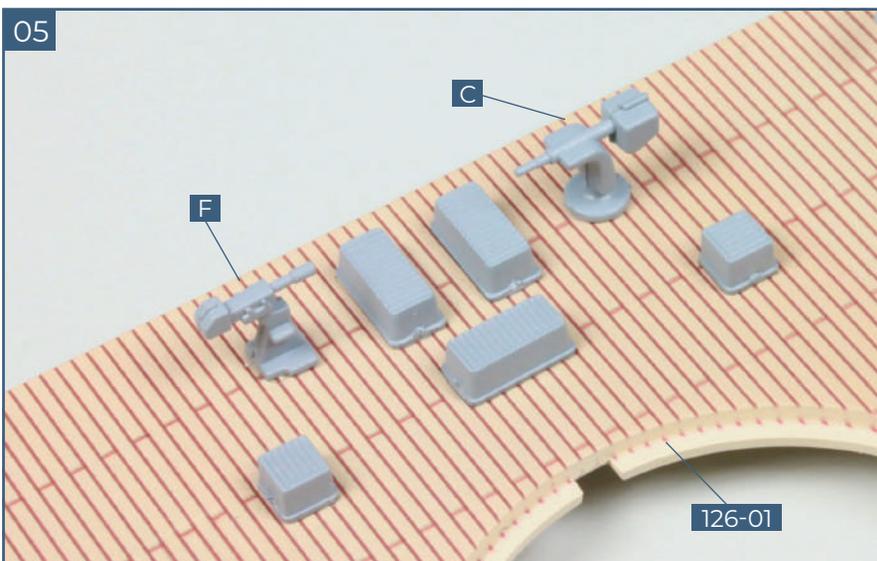


Take the three identical skylights **B** from frame **126-03** and check how they fit at the front end of the upper deck section **126-01**. Use a little superglue to fix them in place.

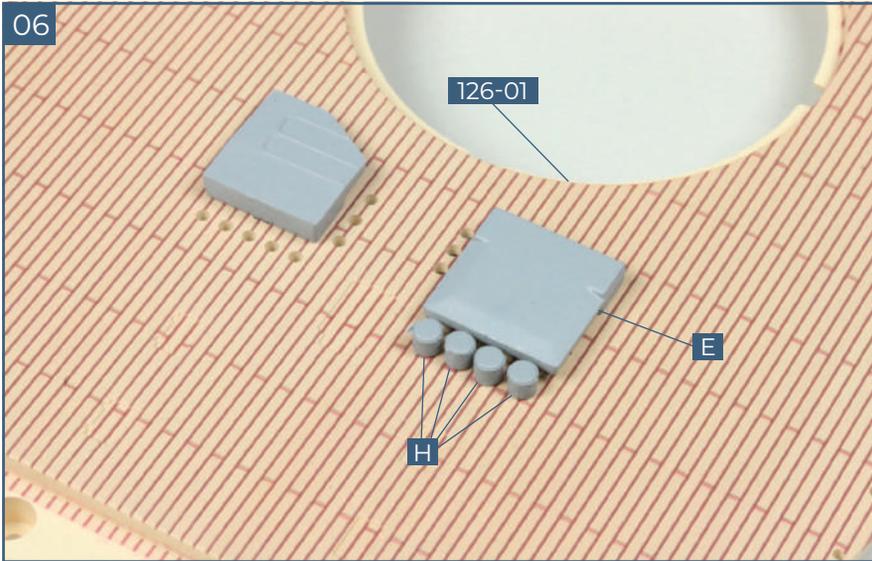
**NOTE:** The AA gun, circled in red, will be supplied with a later stage.



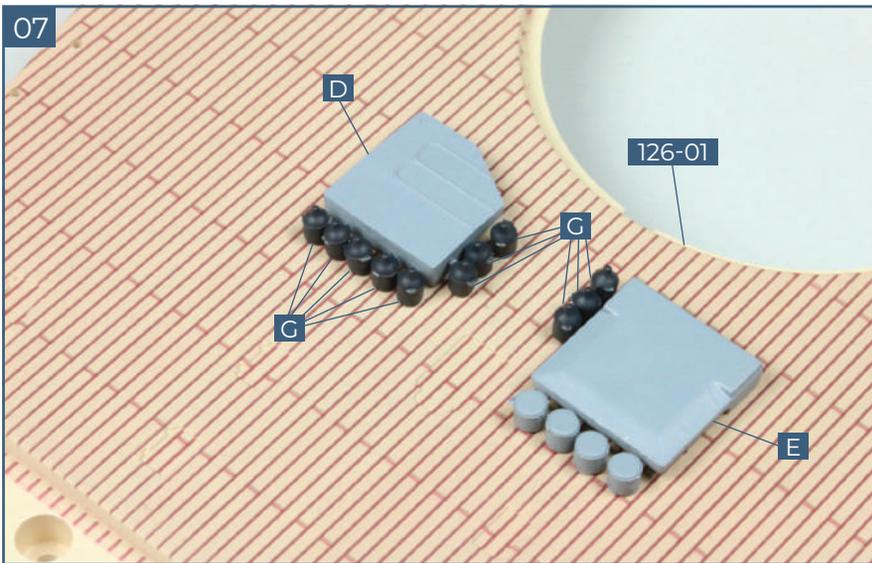
Two skylights **A** from frame **126-03** are positioned on the upper deck section **126-01**, close to the skylights **B**. Glue in place, as shown.



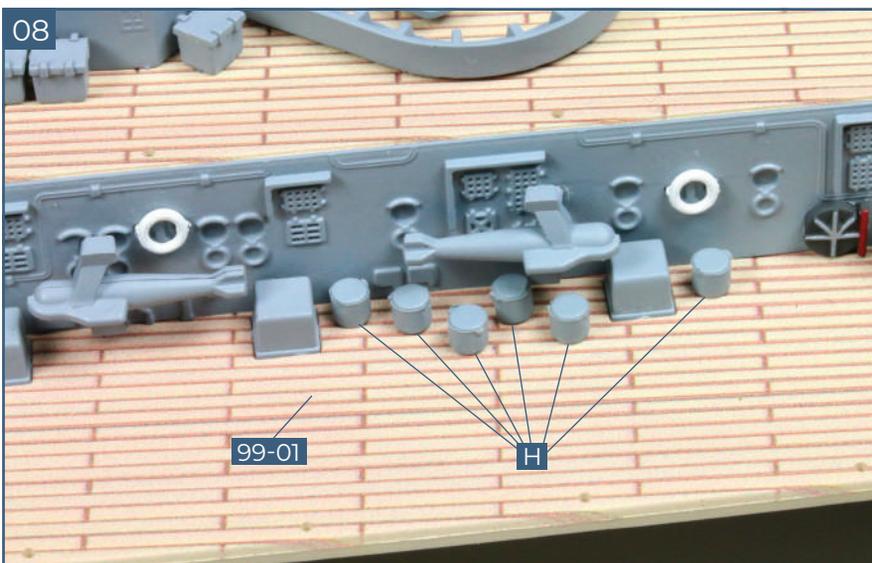
The two loading practice machines **C** and **F** from frame **126-03** are glued in place in the last two recesses near the front edge of the upper deck section **126-01**, as shown.



Take four depth charges **H** from frame **126-04** and glue them in place with the pegs fitting into the holes next to skylight **E** on deck section **126-01**.

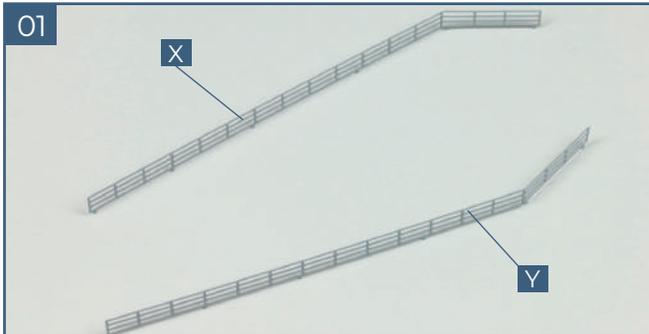


Separate all eleven smoke containers **G** from frame **126-04** and glue them in place next to skylights **D** and **E** on upper deck section **126-01**, as shown.

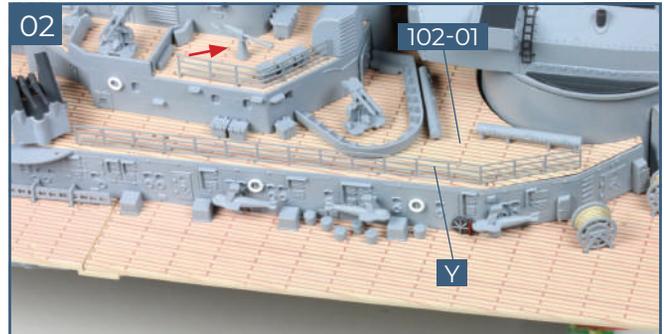


The remaining six depth charges **H** from frame **126-04** are glued to the port side of the aft superstructure on upper deck section **99-01**, as shown.

### 03. FITTING THE SIX RAILINGS

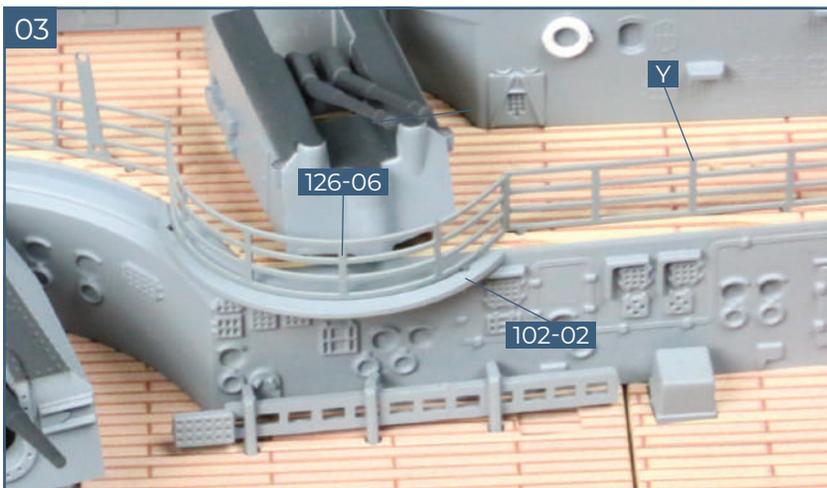


Bend each of the two railings **126-05** along the fold line, in opposite directions. In order to judge the exact angle of the bend, see steps 02 and 05. This creates railings **X** and **Y**.

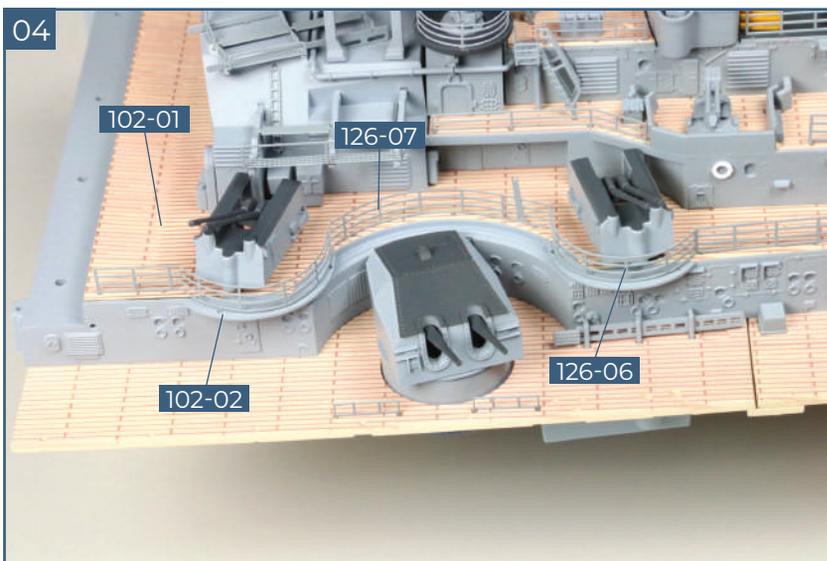


Railing **Y** is glued to deck covering **102-01** on the port side of the aft superstructure, as shown.

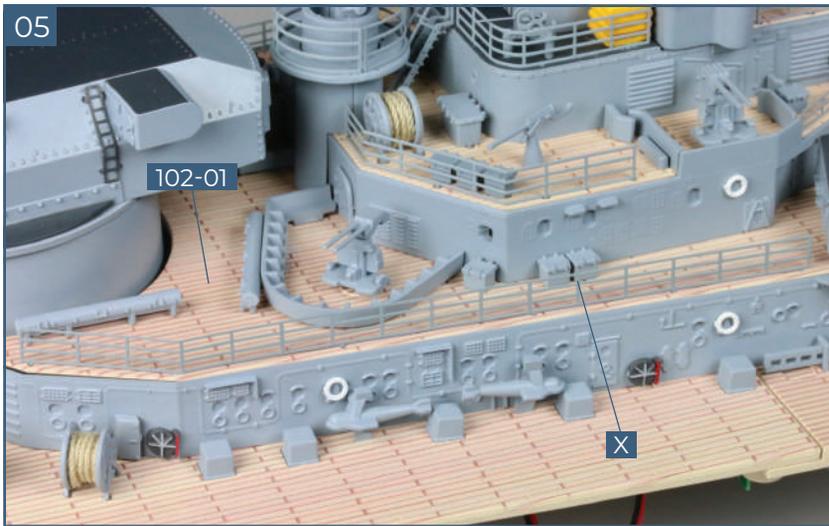
**NOTE:** In this photo, there is an AA gun fitted on the upper deck of the superstructure (arrow). This gun will be supplied and fitted in pack 12.



Take one of the two semicircular railings **126-06**: this forms a continuation to railing **Y**. The two pegs on the lower edge of the railing are glued into holes in the aft superstructure deck **102-02**.

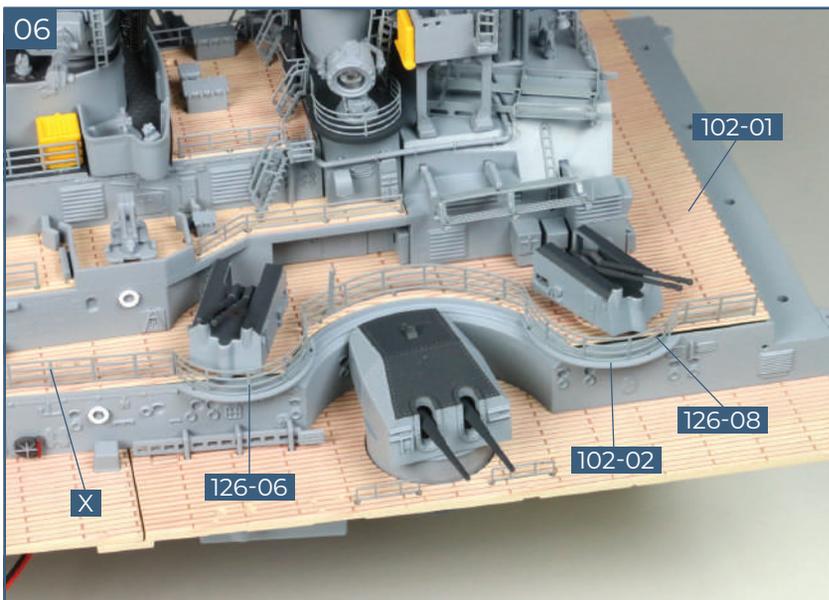


The railing **126-07** forms a continuation to railing **126-06**: pegs on the lower edge are glued into holes in the deck covering **102-01** and the superstructure deck **102-02**, as shown.



Move to the starboard side of the aft superstructure. Glue the railing **X** in place on the deck covering **102-01**, as shown in the photo.

**NOTE:** The AA gun fitted on the upper deck of the superstructure will be fitted in pack 12.



Railings **126-06** and **126-07** continue the line of railing **X**. Glue them in place in the holes in the deck covering **102-01** and the superstructure deck **102-02**.

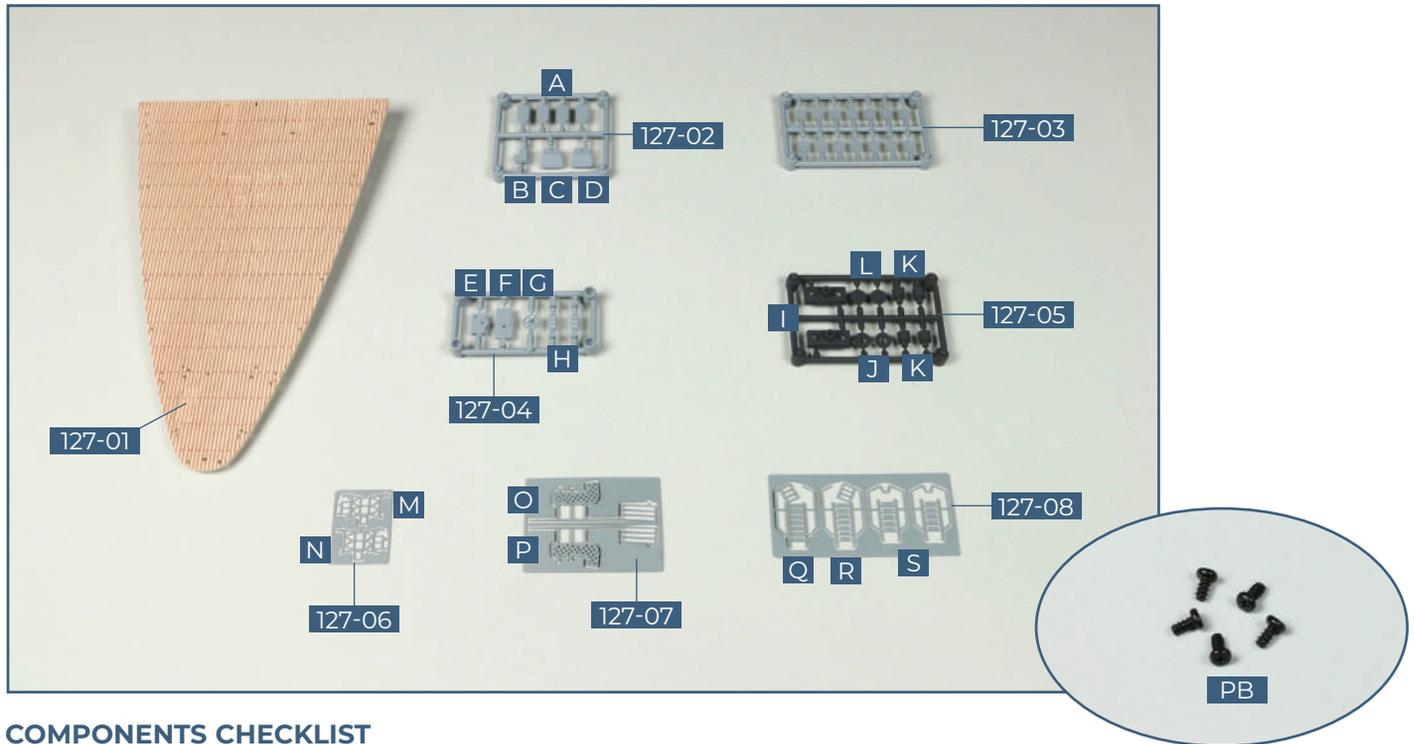


### Completed work

Various details have been fitted to the upper deck section. Railings have been fitted around the superstructure.

## STAGE 127

# LAST SECTION OF THE UPPER DECK



### COMPONENTS CHECKLIST

**127-01:** Aft upper deck section

**127-02:** Details for the aft deck (A to D)

**127-03:** Skylights

**127-04:** Anchor chain opening, chain holder and depth charges (E to H)

**127-05:** Two electric capstans (I to L)

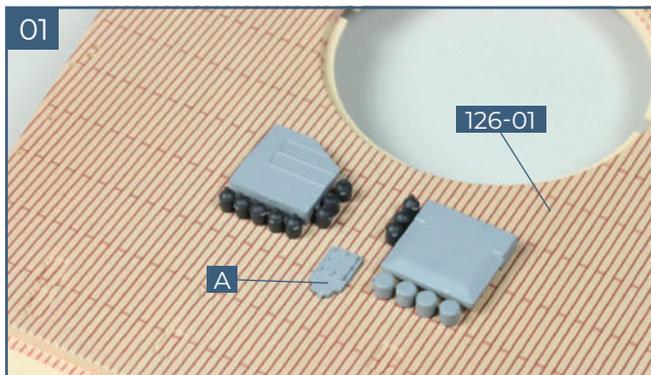
**127-06:** Two depth charge racks (M, N)

**127-07:** Two platforms with railing (O, P)

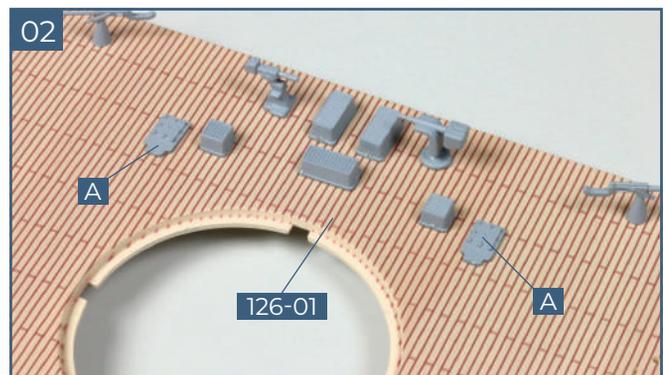
**127-08:** Four ladders (Q to S)

**PB:** Five 2.3 x 4mm PB screws

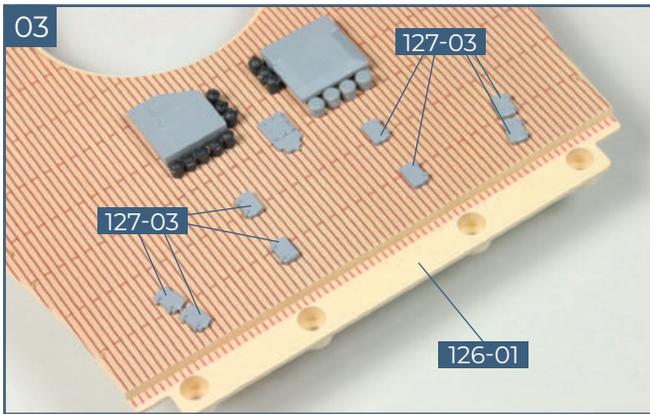
## 01. DETAILS FOR THE TWO AFT UPPER DECK SECTIONS



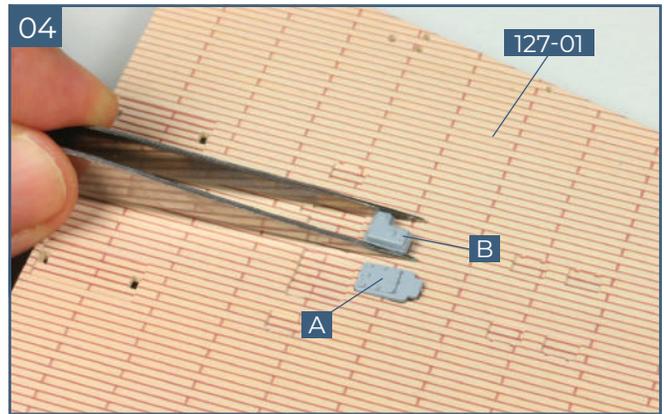
Place the eighth upper deck section **126-01** on your worktop. Separate one of the skylights **A** from the frame **127-02** and glue it in place between the two larger skylights fitted in the previous stage.



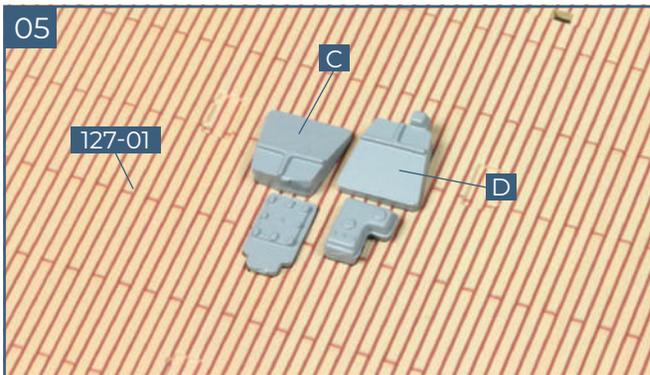
Take two more skylights **A** from frame **127-02** and glue them in place at the forward end of the upper deck section **126-01**, as shown.



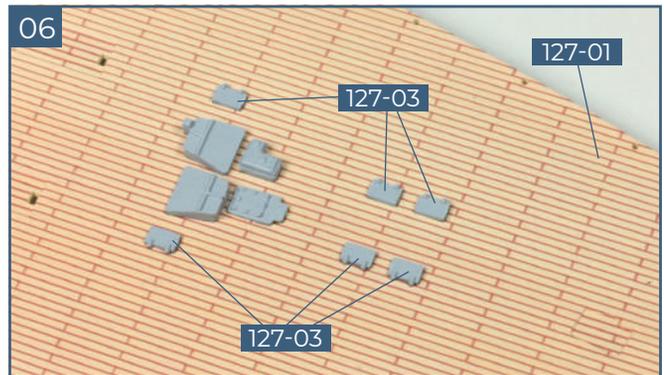
Continuing with the eighth upper deck section **126-01**, glue eight small skylights from frame **127-03** in place near the rear edge of the deck section, as shown.



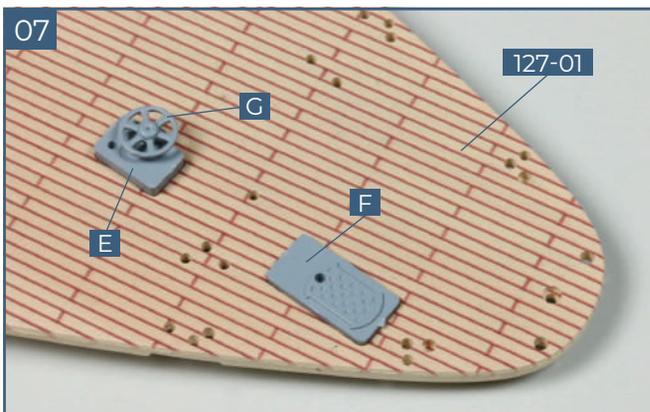
Take the aft upper deck section **127-01**, supplied with this stage. Glue the last skylight **A** and skylight **B** from frame **127-02** in place in recesses, as shown.



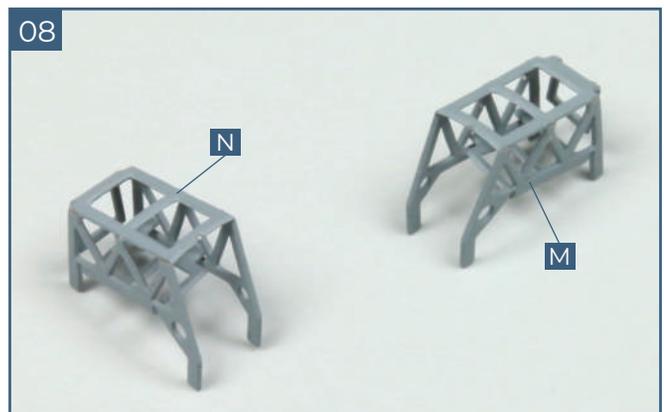
Glue the two larger parts **C** and **D** from frame **127-02** into recesses on the upper deck section **127-01**, next to the parts fitted in step 4.



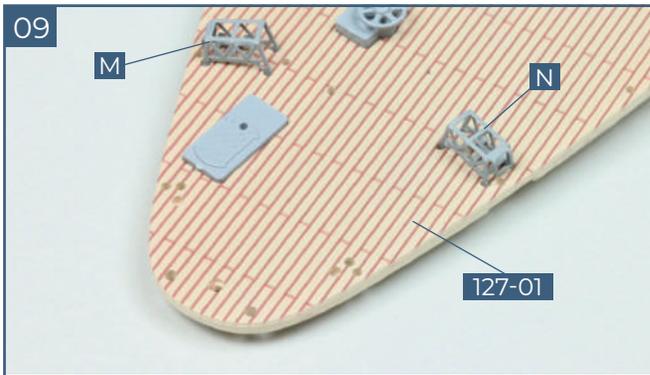
Glue the six remaining skylights from frame **127-03** in place on the aft upper deck section **127-01**, as shown.



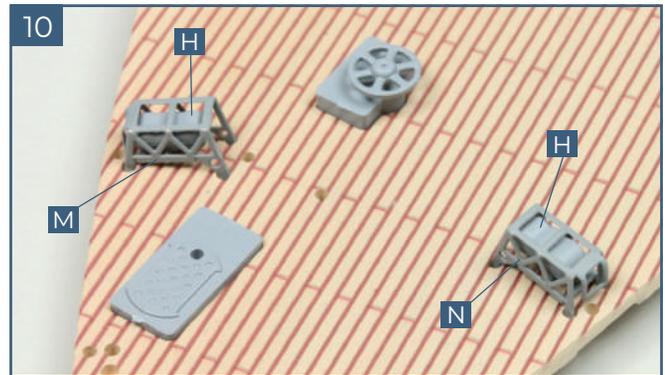
Take the anchor chain opening **F** from frame **127-04** and glue it in place at the aft end of upper deck section **127-01**. Glue the anchor chain holder **E** in line with it and the handwheel **G** on top of part **E**, as shown.



Take the two parts **M** and **N** from the frame **127-06** and bend them along the three fold lines to make two depth charge racks. They are mirror images of each other, as shown above.

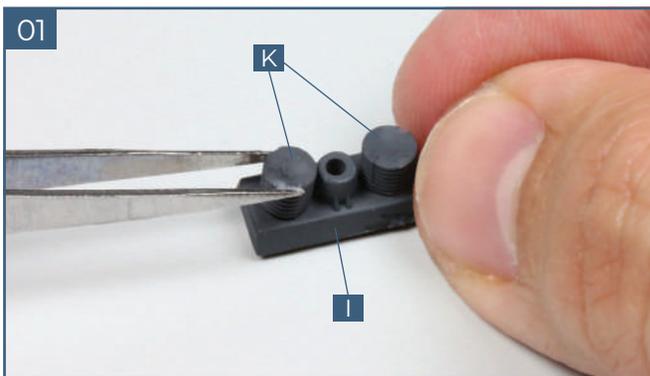


Glue the two depth charge racks **M** and **N** in place on the upper deck section **127-01**, as shown.

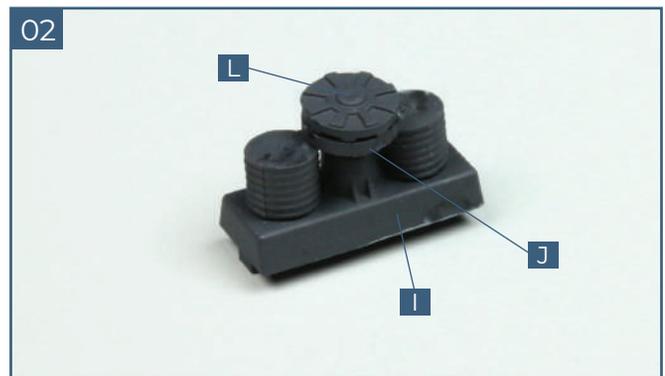


Glue the depth charges **H** from frame **127-04** inside each of the depth charge racks.

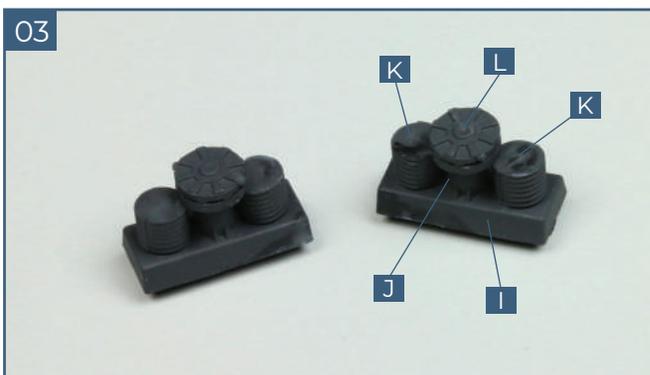
## 02. ASSEMBLING THE AFT CAPSTANS



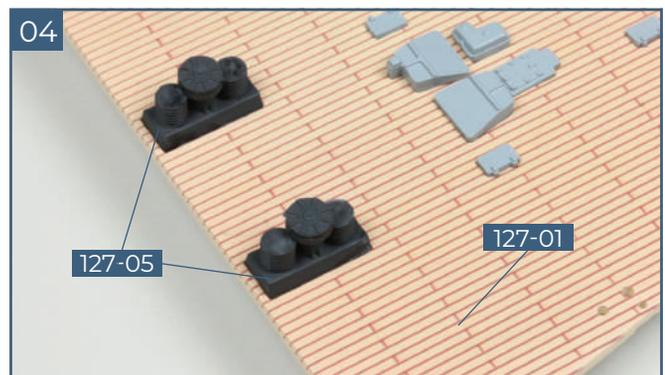
The parts from frame **127-05**, are used to make two capstans. Take a base plate **I** and glue two rope drums **K** in the recesses on either side of the central socket.



The pin on the underside of capstan head **L** passes through the lower part **J** and is glued into the corresponding hole in the centre of the base plate **I**.

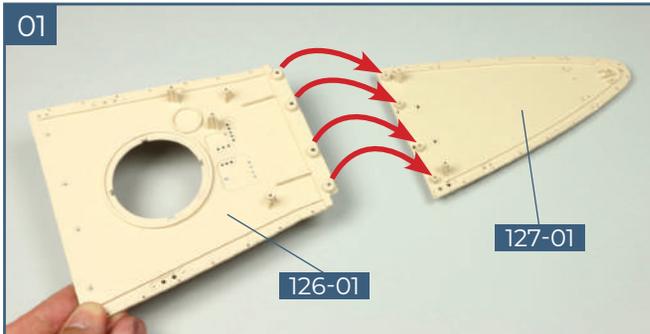


Build a second, identical, capstan using a base plate **I**, two rope drums **K**, and two parts of the capstan head **J** and **L**, as shown.

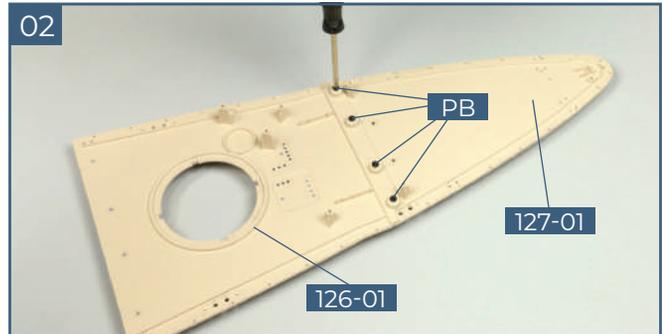


Glue the two electric capstans made with parts from frame **127-05** in place at the forward edge of the aft upper deck section **127-01**, as shown.

### 03. ASSEMBLING THE AFT DECK SECTIONS

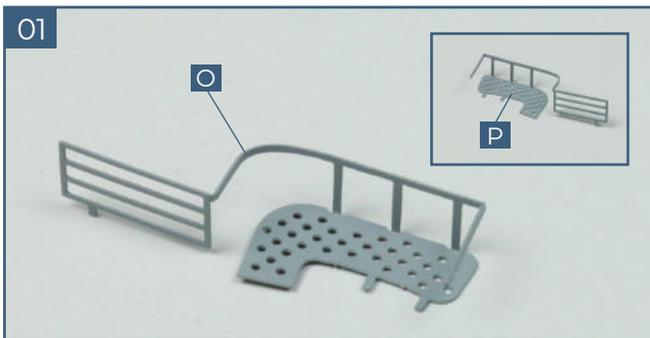


Carefully turn the upper deck sections, **126-01** and **127-01**, upside down, taking care not to dislodge any details. Align the screw holes, as indicated.

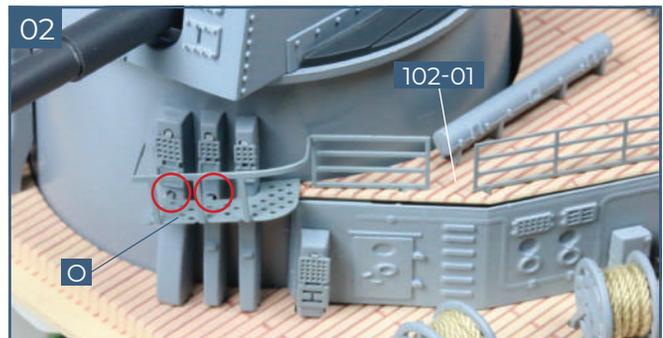


Use four **PB** screws to fix the two deck sections together, as shown.

### 04. PLATFORMS AND LADDERS FOR THE AFT SUPERSTRUCTURE



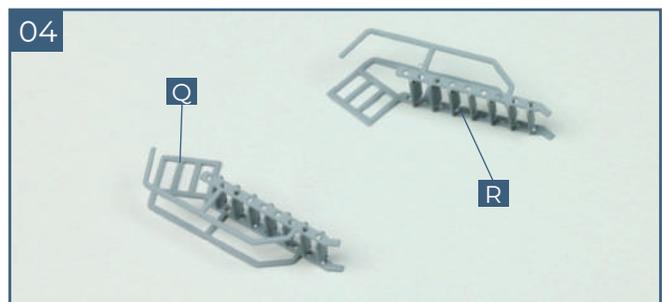
Take the two platforms with railings from the frame **127-07**. Bend the parts to create two walkways that are mirror images of each other (**O** and **P**).



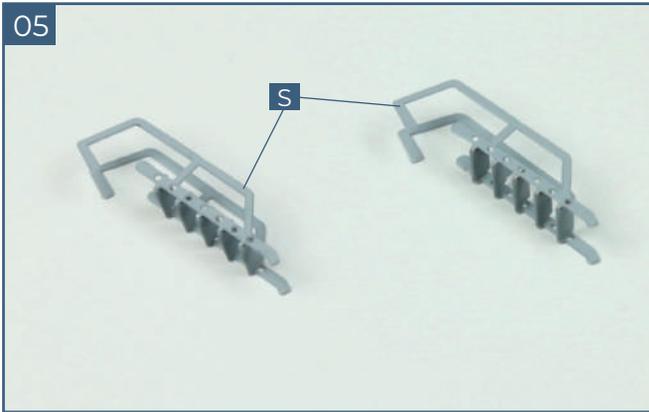
Check the fit of walkway **O** on the starboard side of the aft superstructure. Tabs on the side of the platform fit into holes in the vents on the gun turret (circled), and a peg on the bottom of the railing fits into a hole in deck covering **102-01**. Glue in place.



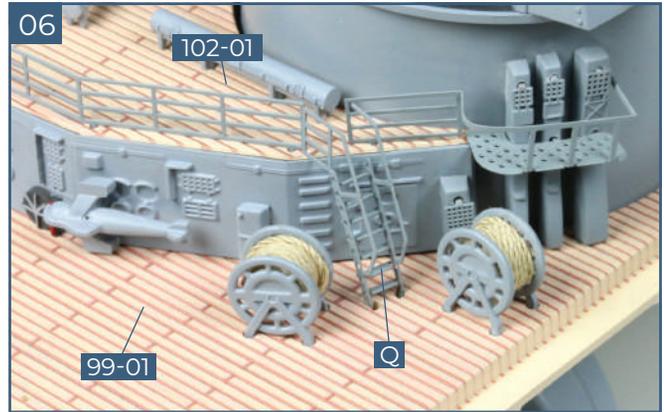
The second walkway, **P**, is glued to the two vents and the deck covering **102-01** on the other side of the gun turret, in a similar way.



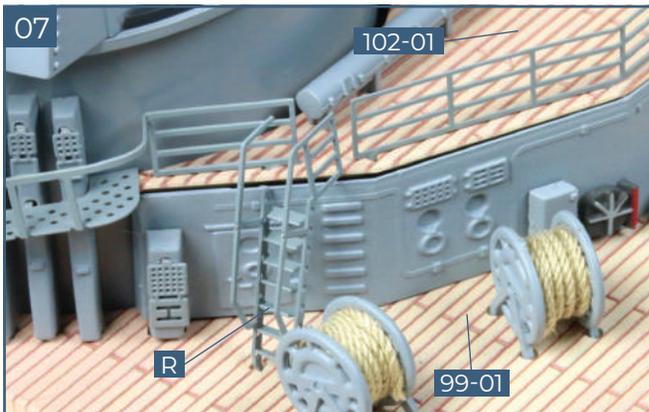
Take the ladders **Q** and **R** from frame **127-08**. Bend the handrails upwards and twist the steps to create two ladders that are mirror images of each other, as shown.



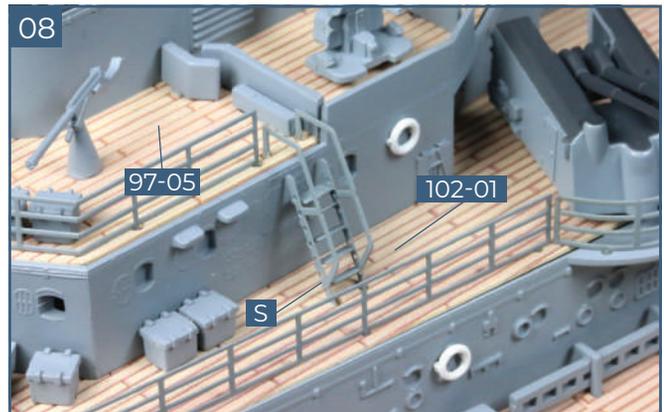
Remove the two identical ladders **S** from frame **127-08**. Bend the handrails and steps to create two ladders, as shown.



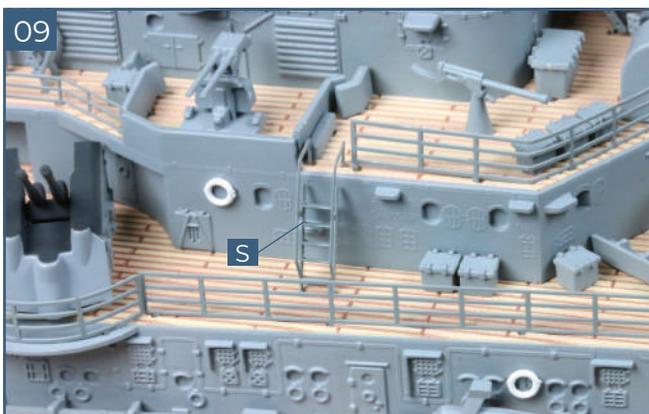
Check how ladder **Q** fits on the port side of the aft superstructure. It runs from the upper deck **99-01** to the decking of the superstructure deck **102-01**. Glue in place, as shown.



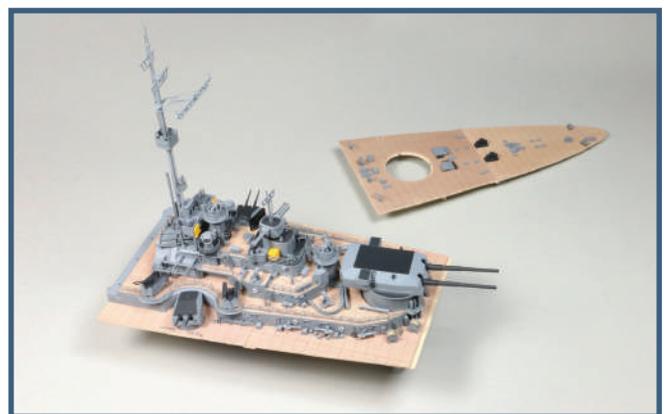
Ladder **R** fits in the same place on the starboard side of the aft superstructure, running from the upper deck **99-01** to the decking of the superstructure deck **102-01**. Glue in place.



The first ladder **S** fits on the starboard side of the aft superstructure, running from the decking of the superstructure deck **102-01** to the deck part **97-05**, as shown.



The second ladder **S** fits in the same place on the port side of the aft superstructure. Glue in place, as shown.

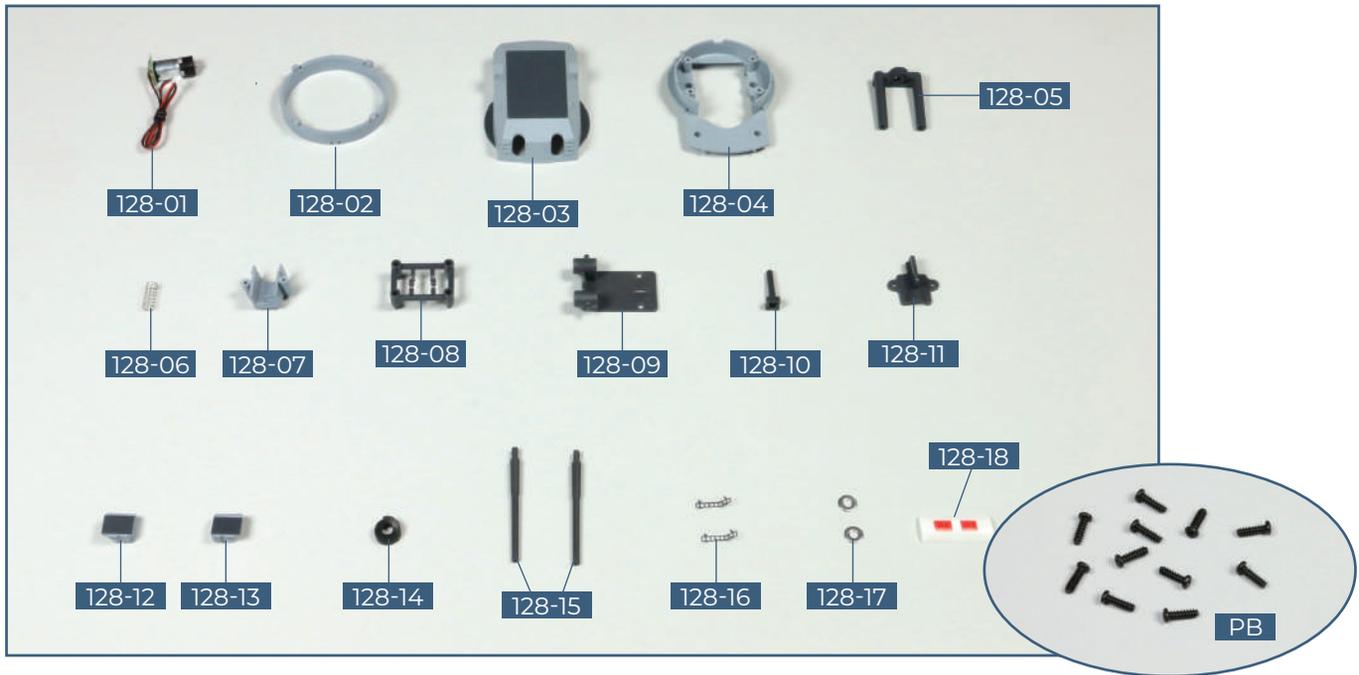


### Completed work

Details have been added to the two aft deck sections, and they have been fixed together. Four ladders have been fitted to the aft superstructure.

## STAGE 128

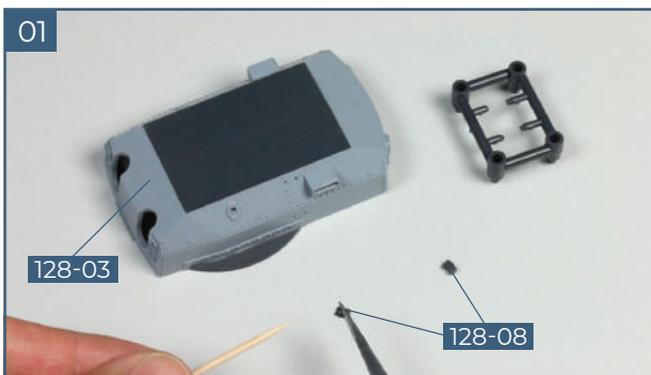
# THE FOURTH 38CM GUN TURRET



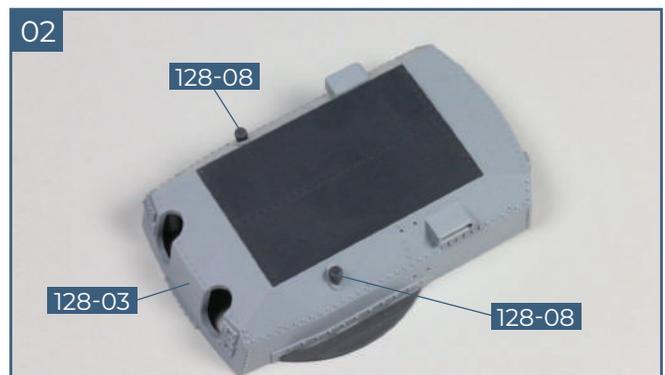
### COMPONENTS CHECKLIST

- |                                            |                                                   |                                                |
|--------------------------------------------|---------------------------------------------------|------------------------------------------------|
| <b>128-01:</b> Motor                       | <b>128-08:</b> Two periscopes                     | <b>128-13:</b> Right side rangefinder arm hood |
| <b>128-02:</b> Barbette                    | <b>128-09:</b> Twin barrel cradle with base plate | <b>128-14:</b> Ring                            |
| <b>128-03:</b> Gun turret housing          | <b>128-10:</b> Clutch shaft                       | <b>128-15:</b> Two gun barrels                 |
| <b>128-04:</b> Base of the turret          | <b>128-11:</b> Motor mounting (lower part)        | <b>128-16:</b> Two ladders                     |
| <b>128-05:</b> Connector for barrels       | <b>128-12:</b> Left side rangefinder arm hood     | <b>128-17:</b> Two washers                     |
| <b>128-06:</b> Tension spring              |                                                   | <b>128-18:</b> Cable label                     |
| <b>128-07:</b> Motor mounting (upper part) |                                                   | <b>PB</b> Eleven 2 x 6 mm PB screws            |

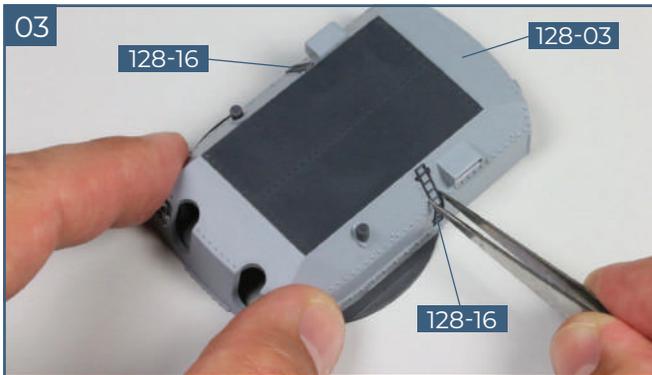
## 01. DETAILS FOR THE GUN TURRET



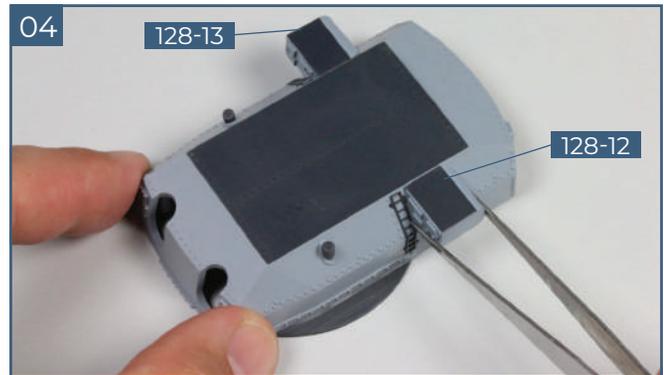
Place the gun turret housing **128-03** on your worktop. Remove the two periscopes **128-08** from the frame and check the fit in the two holes on either side of the turret housing. Have some superglue ready.



When you have checked the fit of the periscopes in the holes on the sides of the gun turret housing, apply a little superglue to the periscopes and fix in place.

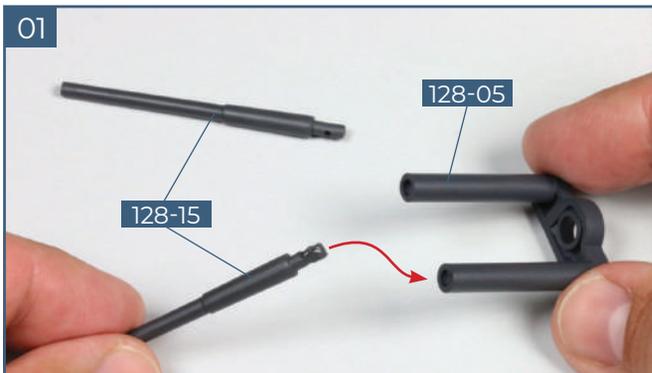


Take the two ladders **128-16** and check how they fit on each side of the gun housing **128-03**. Glue in place, as shown.



Glue the right range finder hood **128-13** and the left range finder hood **128-12** to the raised projections behind the two ladders.

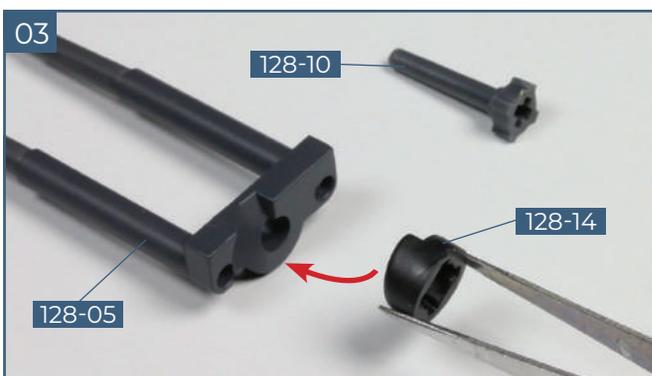
## 02. ASSEMBLING THE GUN BARRELS AND MOTOR



Place the connector **128-05** and the two gun barrels **128-15** on your worktop. Apply a little superglue to the end of one of the barrels and fix it in place in the connector, as indicated.



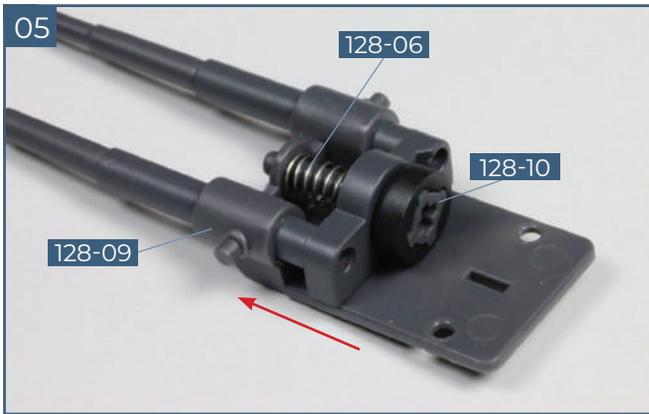
Glue the second gun barrel **128-15** in place in the other socket on the connector **128-05**.



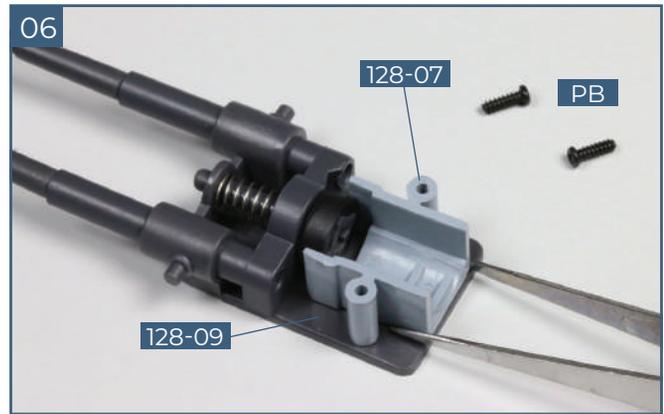
Fit the ring **128-14** against the back of the connector **128-05**, so that the shaped edges match. Have the clutch shaft **128-10** ready.



Insert the end of the clutch shaft **128-10** into the ring **128-14** and push it through so that the wide end of part **128-10** is flush with the edge of the ring **128-14**.



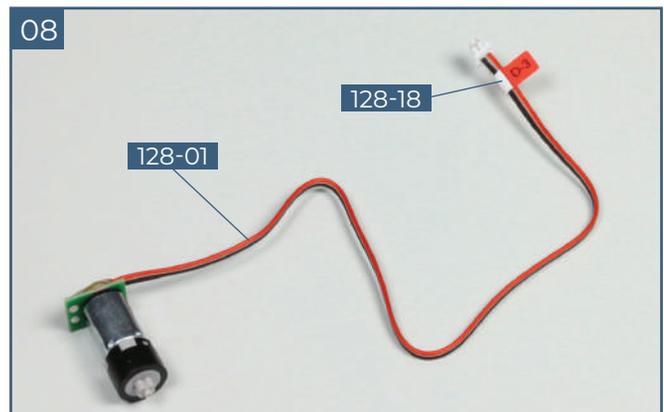
Fit the tension spring **128-06** on to the clutch shaft **128-10**. Turn the assembly over and fit the gun barrels into the cradle **128-09** in the direction indicated. The clutch shaft **128-10** fits into the central hole in the cradle. Push the barrel connector backwards and forwards a few times to ensure that it moves freely.



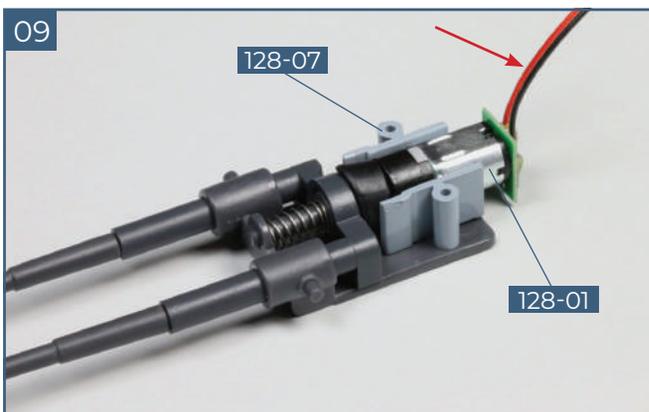
Place the upper part of the motor mounting **128-07** on the base plate of the barrel cradle **128-09**, as shown. You will need two **PB** screws.



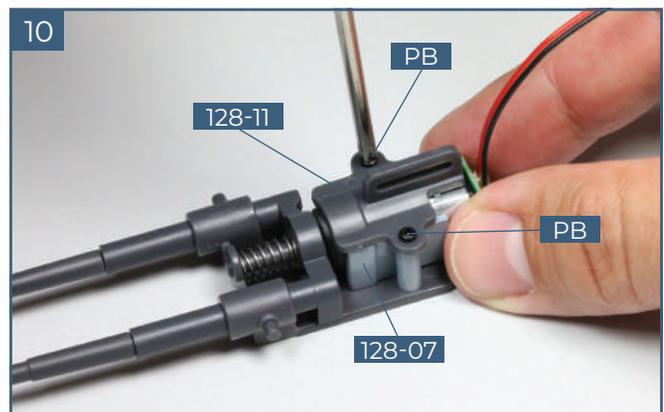
Turn the assembly over and fix the upper part of the motor mounting **128-07** to the base plate **128-09** using the two **PB** screws.



Take the motor **128-01** and the cable label **128-18**. Remove the label from its backing and wrap it around the end of the cable, as shown.



Fit the motor **128-01** into the motor mounting **128-07**. Make sure that the cables on the circuit board of the motor **128-01** are in the direction shown (arrow).

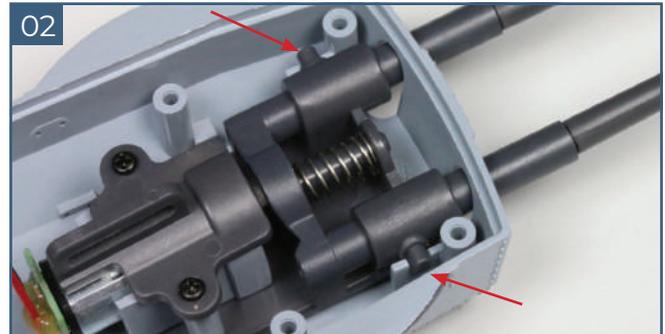


Fit the lower part of the motor mounting **128-11** on the upper part **128-07**. Fix the parts together using two **PB** screws.

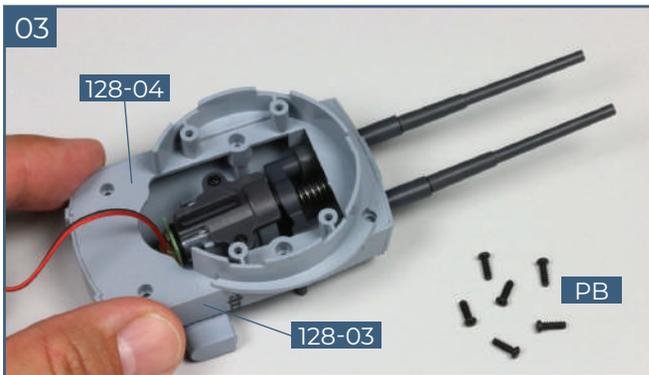
### 03. FITTING THE GUN BARRELS INTO THE TURRET HOUSING



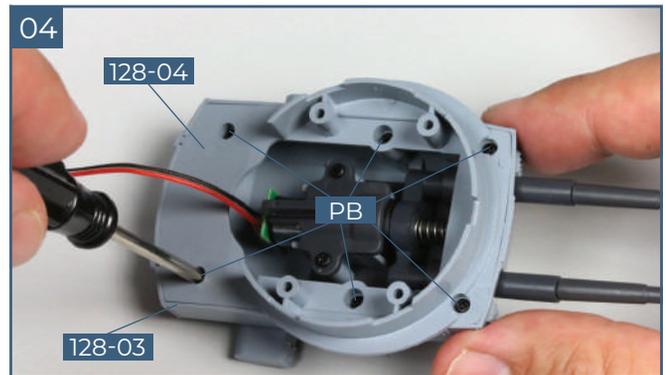
Place the turret housing **128-03** upside down on your worktop. Fit the two gun barrels **128-15** through the holes in the front of the housing, as shown.



Pegs on the sides of the cradle fit into raised brackets inside the gun housing (arrows) to hold the assembly in the correct position.

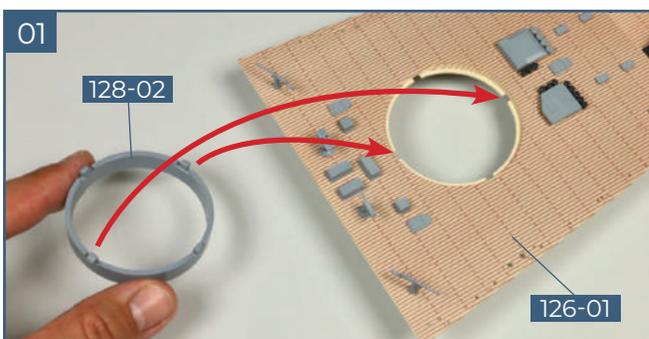


Fit the base of the turret **128-04** on the underside of the gun housing **128-03**, with the wire running through the base **128-04**. You will need six **PB** screws.

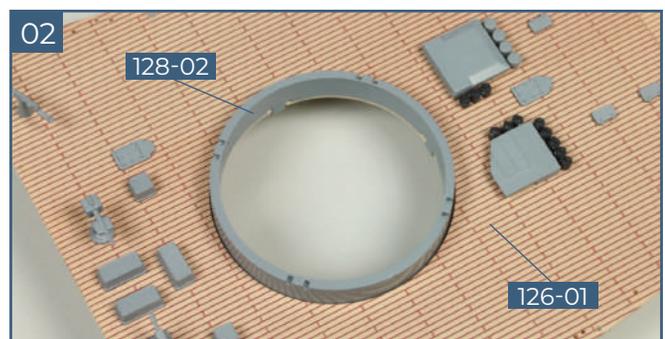


Fix the base **128-04** in place on the underside of the gun housing **128-03** using six **PB** screws, as shown.

### 04. FITTING THE BARBETTE



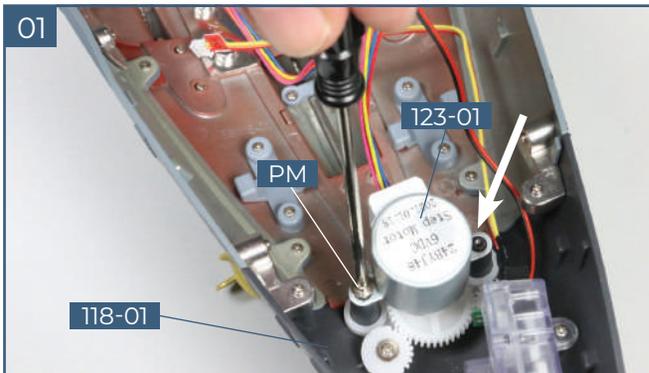
Take the aft upper deck section **126-01/127-01** and fit the small tabs on the barbette **128-02** into the recesses around the opening on the upper deck.



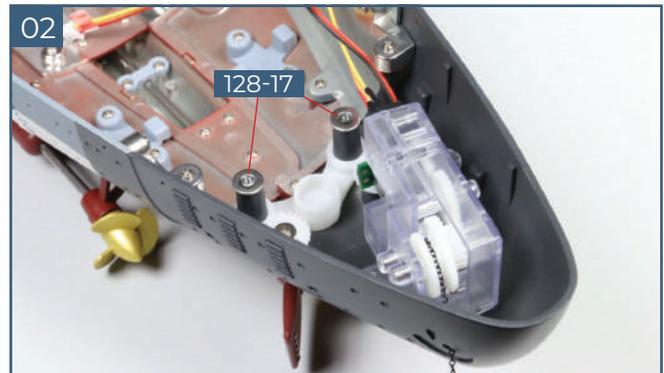
This shows the barbette **128-02** positioned on the upper deck section **126-01**.

**NOTE:** The two AA guns shown in steps 1 and 2 will be fitted in a future stage.

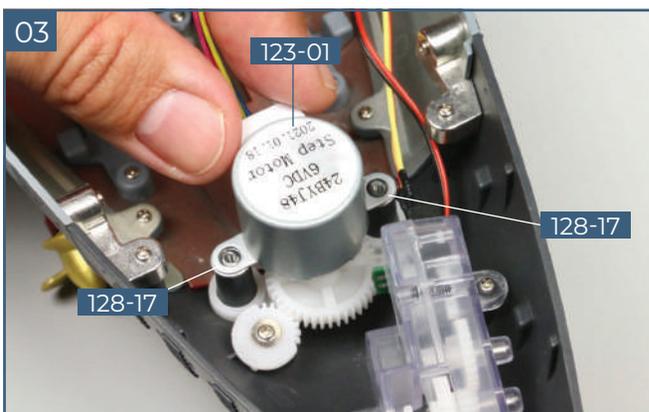
## 05. TWO WASHERS FOR THE RUDDER MOTOR



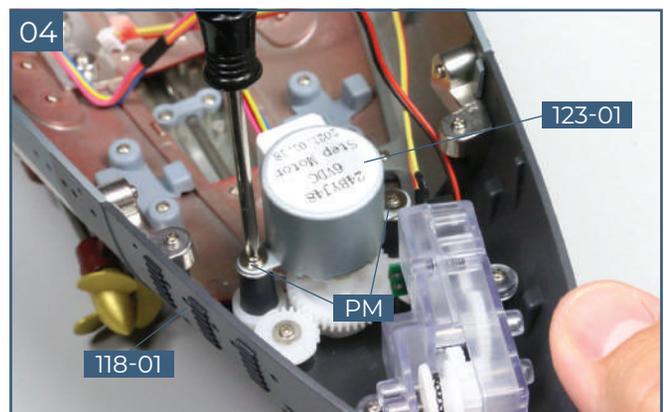
Remove the two **PM** screws holding the motor **123-01** in place at the rear of the hull assembly. The arrow indicates where the second screw has been removed.



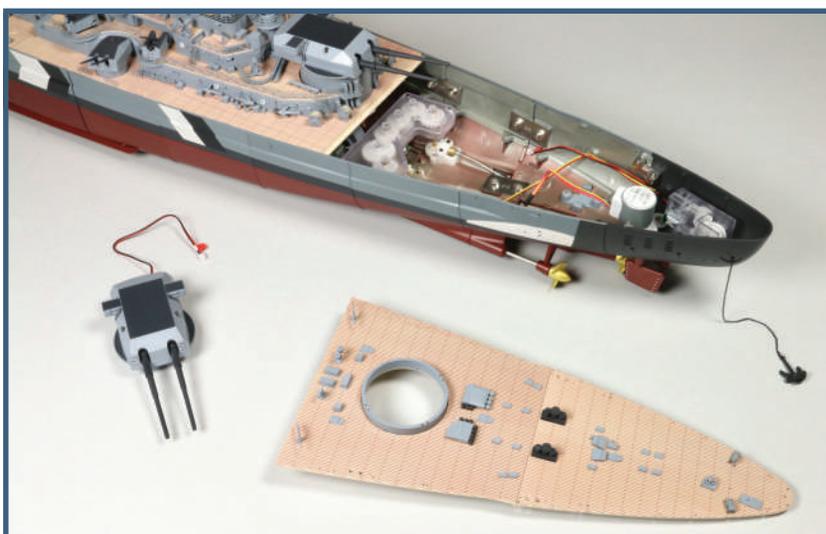
Fit a washer **128-17** on top of each of the raised screw holes where the motor was fitted.



Fit the motor **123-01** back in place so that the two side tabs rest on washers **128-17**, as shown. Ensure the rudders are in the correct position as shown in stage 123.



Fix the motor **123-01** back in place using the two **PM** screws.



### Completed work

The fourth 38cm gun turret has been assembled, with the barbettes fitted into the upper deck. Two washers have been inserted to give the rudder motor a better fit.