

**STEVE MCQUEEN'S ICONIC**  
**PORSCHE**  
**917KH**



# Pack 02

## BUILD INSTRUCTIONS

**STAGE 06: LEFT-SIDE OF GEARBOX AND TRANSMISSION JOINT**

**STAGE 07: RIGHT-SIDE OF ENGINE BLOCK**

**STAGE 08: PREPARING THE OIL PUMP, WATER PUMP AND CYLINDERS**

**STAGE 09: ATTACHING THE RIGHT CYLINDER HEAD**

**STAGE 10: ASSEMBLE AND FIT THE CRANKCASE TOP**

**STAGE 11: LEFT-SIDE OF ENGINE BLOCK**

**STAGE 12: BUILDING THE FUEL PUMP**

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**AGORA**  
MODELS

## 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.

The screwdriver can be magnetized 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.

Left and Right! When building your Porsche 917KH, the left or right hand side refers to each side as you are sitting in the car.

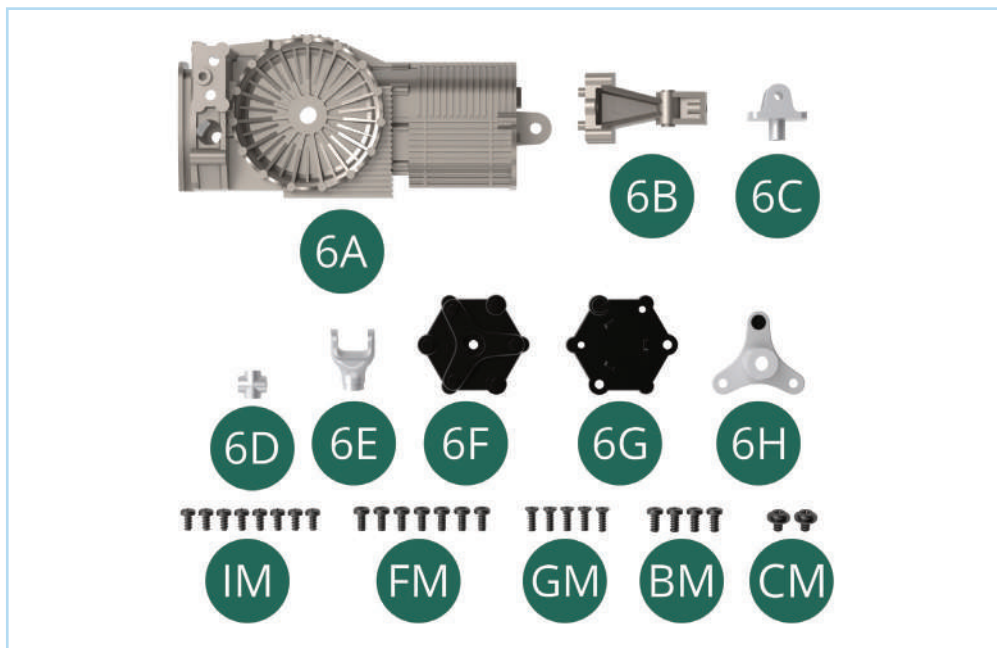


**WARNING:** Some parts are assembled using magnets. These magnets can cause serious injury if they are swallowed. Keep away from children. If you suspect a magnet has been swallowed, seek medical help straight away.

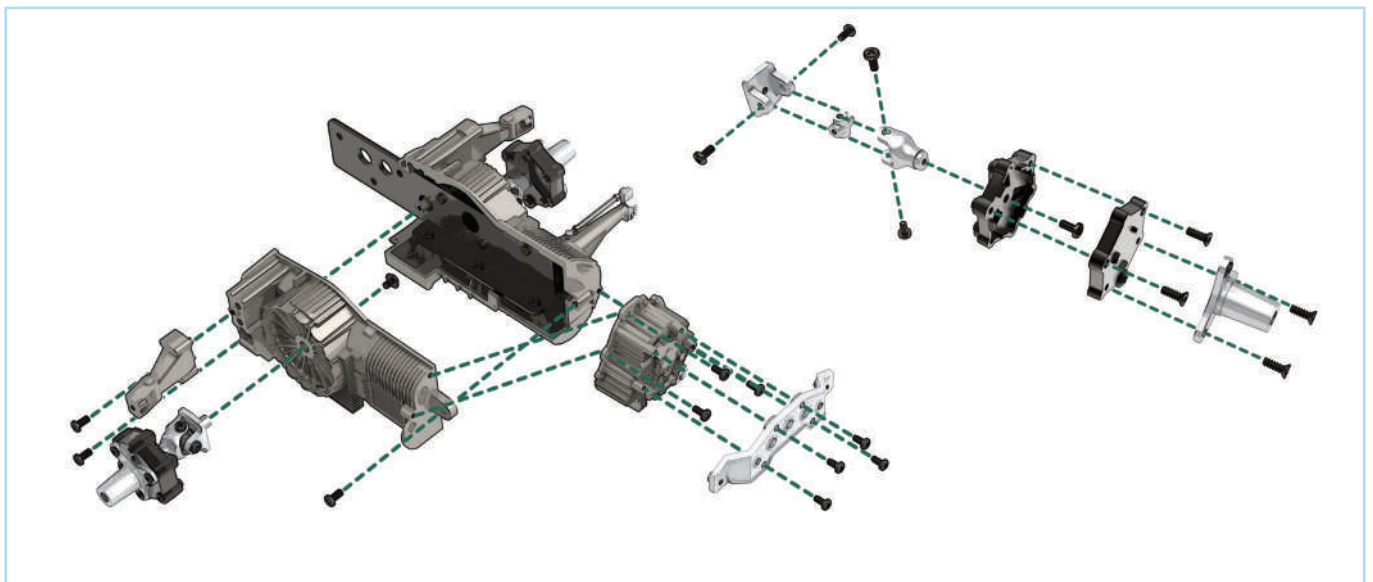
# STAGE 06: LEFT-SIDE OF GEARBOX AND TRANSMISSION JOINT

- 6A** Left gearbox housing
- 6B** Left-side mounting bracket
- 6C** Transmission seal
- 6D** Crosspiece
- 6E** Transmission flexible joint
- 6F** Flex disc (inner)
- 6G** Flex disc (outer)

- 6H** Cardan socket
- IM** Screw 1.7 x 3.5mm (x8)
- FM** Screw 1.7 x 4mm (x7)
- GM** Screw 1.7 x 5mm (x5)
- BM** Screw 2.0 x 4mm (x4)
- CM** Screw 2.0 x 3 x 5mm (x2)



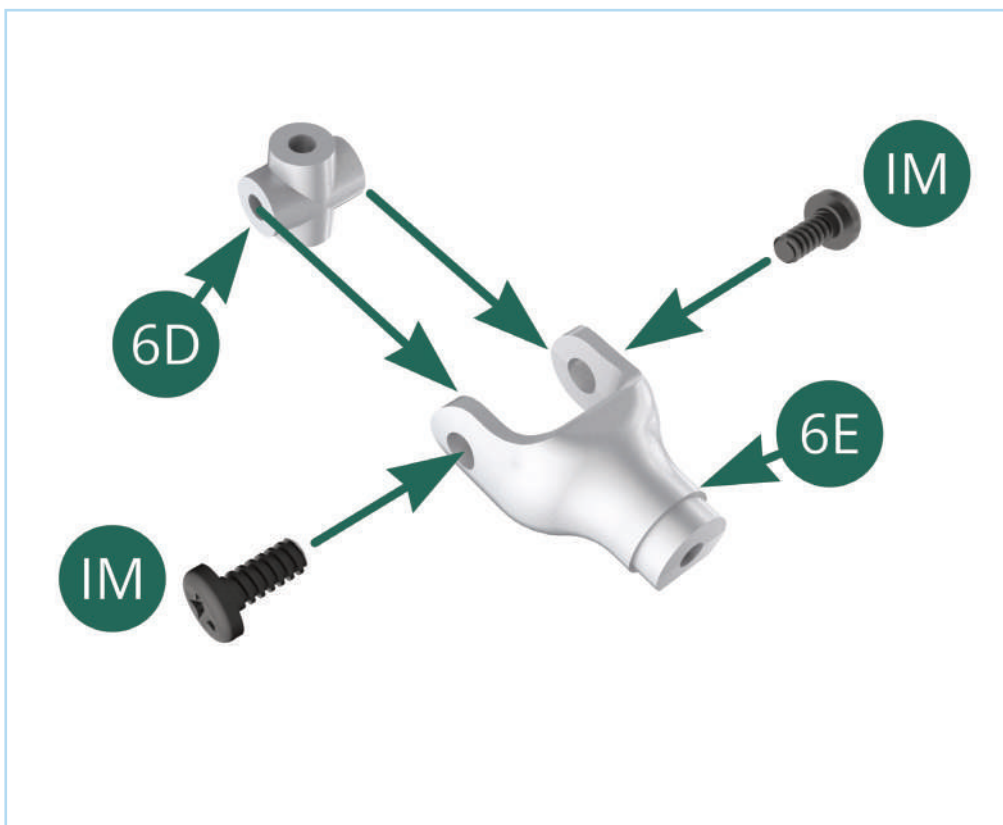
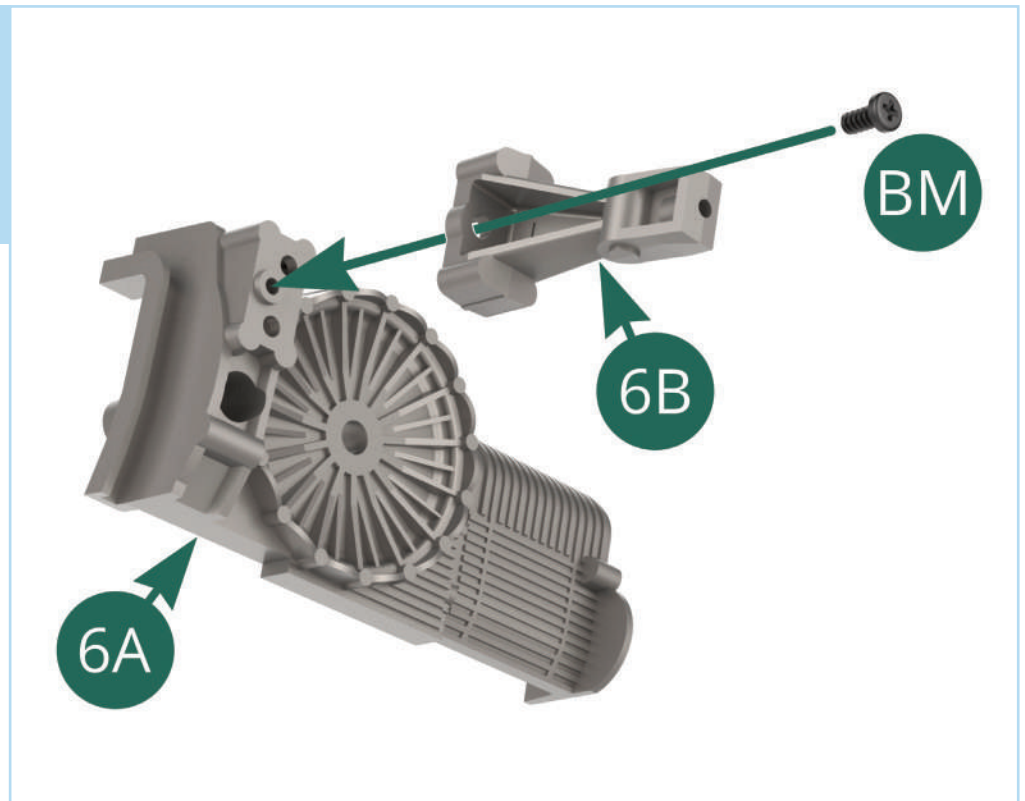
## ASSEMBLY DIAGRAM



# STAGE 06: LEFT-SIDE OF GEARBOX AND TRANSMISSION JOINT

## STEP 1

Position the **left mounting bracket (6B)** on the **left gearbox housing (6A)** and secure it in place with a **BM** screw.



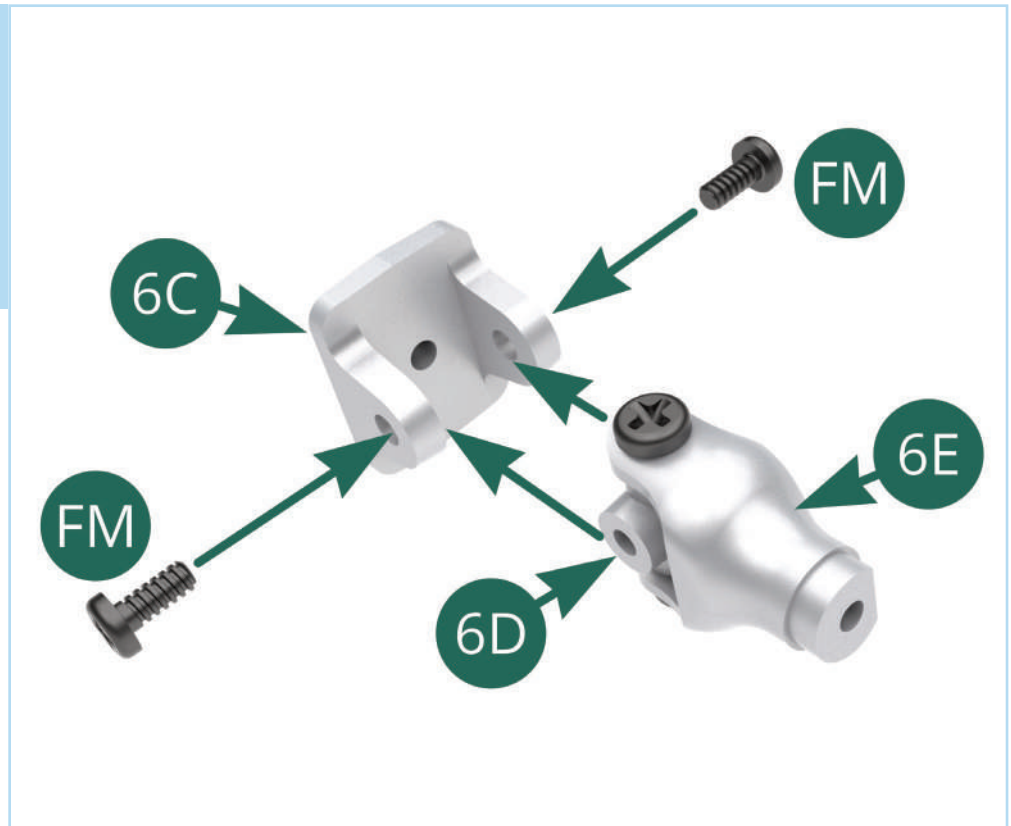
Take the **crosspiece (6D)** and fit it into the **transmission flexible joint (6E)** as shown. Secure the parts with two **IM** screws.

**Tip:** You may find it easier to partially tighten the screws at this step, then fully tighten after completing Step 2.

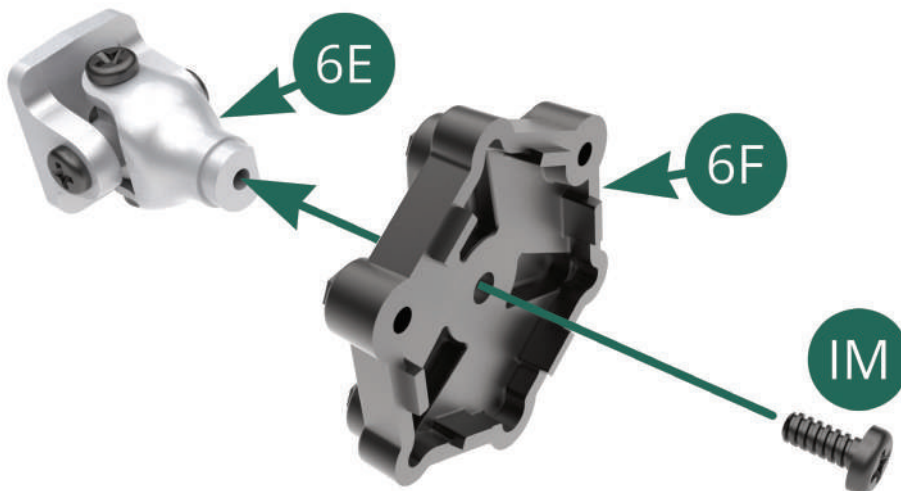
# STAGE 06: LEFT-SIDE OF GEARBOX AND TRANSMISSION JOINT

## STEP 2

Fit the **transmission seal (6C)** onto the **crosspiece (6D)** and secure it with two **FM** screws. Don't over tighten the **FM** screws as the joint should be free to move.



Fit the **inner flex disc (6F)** onto the **transmission flexible joint (6E)** as shown and secure it in place with an **IM** screw.



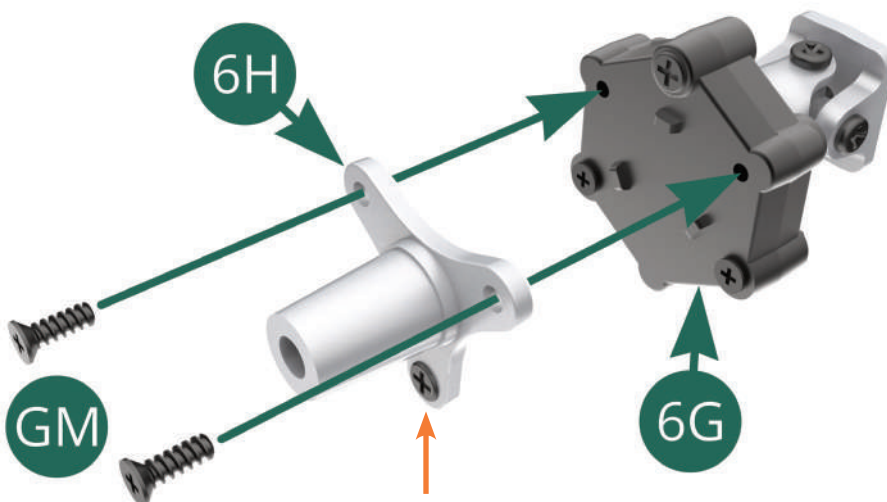
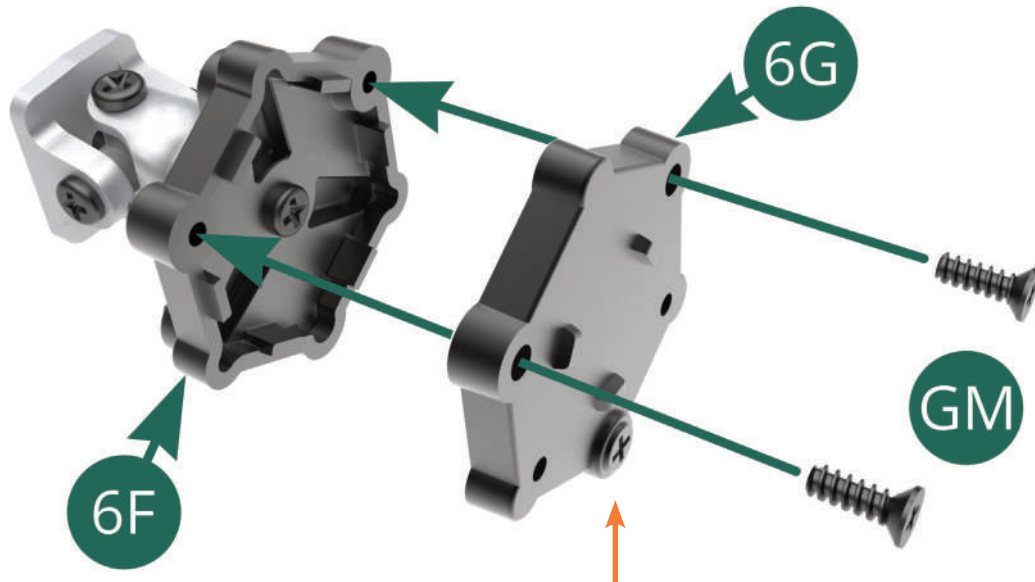
You can lubricate the thread of the screw with a drop of oil if it is difficult to screw in.



# STAGE 06: LEFT-SIDE OF GEARBOX AND TRANSMISSION JOINT

## STEP 3

Fit the **outer flex disc (6G)** onto the **inner flex disc (6F)** and secure it in place with two **GM** screws. Note the false 'screw' (orange arrow) on the outer disc.



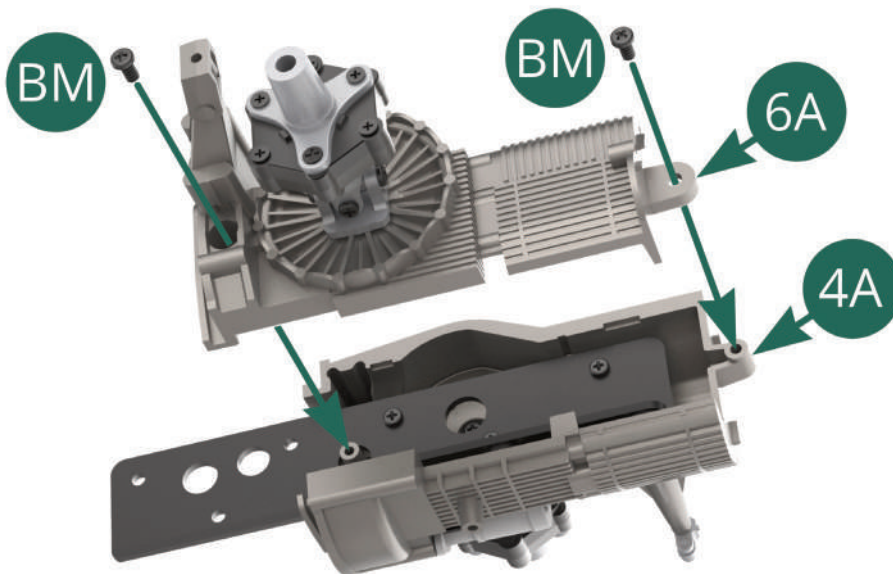
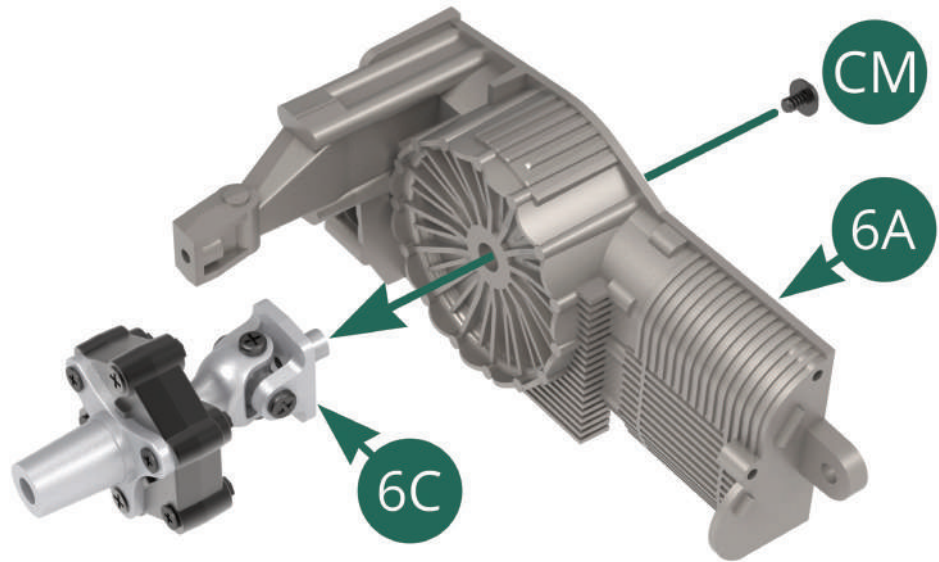
Take the **cardan socket (6H)** and align it with the **outer flex disc (6G)** as shown. Note the false 'screw' (orange arrow) on the socket is opposite the previous false 'screw'.

Hold the socket in place and secure it with two **GM** screws.

# STAGE 06: LEFT-SIDE OF GEARBOX AND TRANSMISSION JOINT

## STEP 4

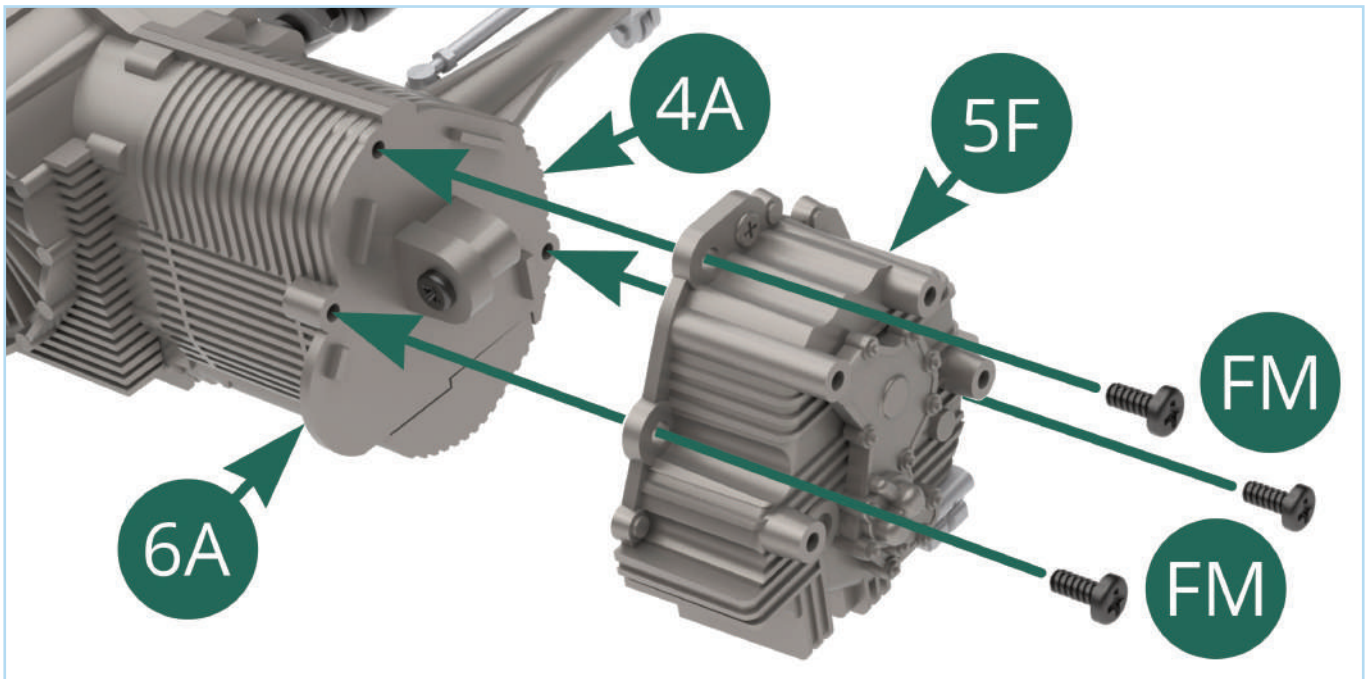
Push the **transmission joint (6C)** through the hole in the **left gearbox housing (6A)**. Fix in place using a **CM** screw as shown.



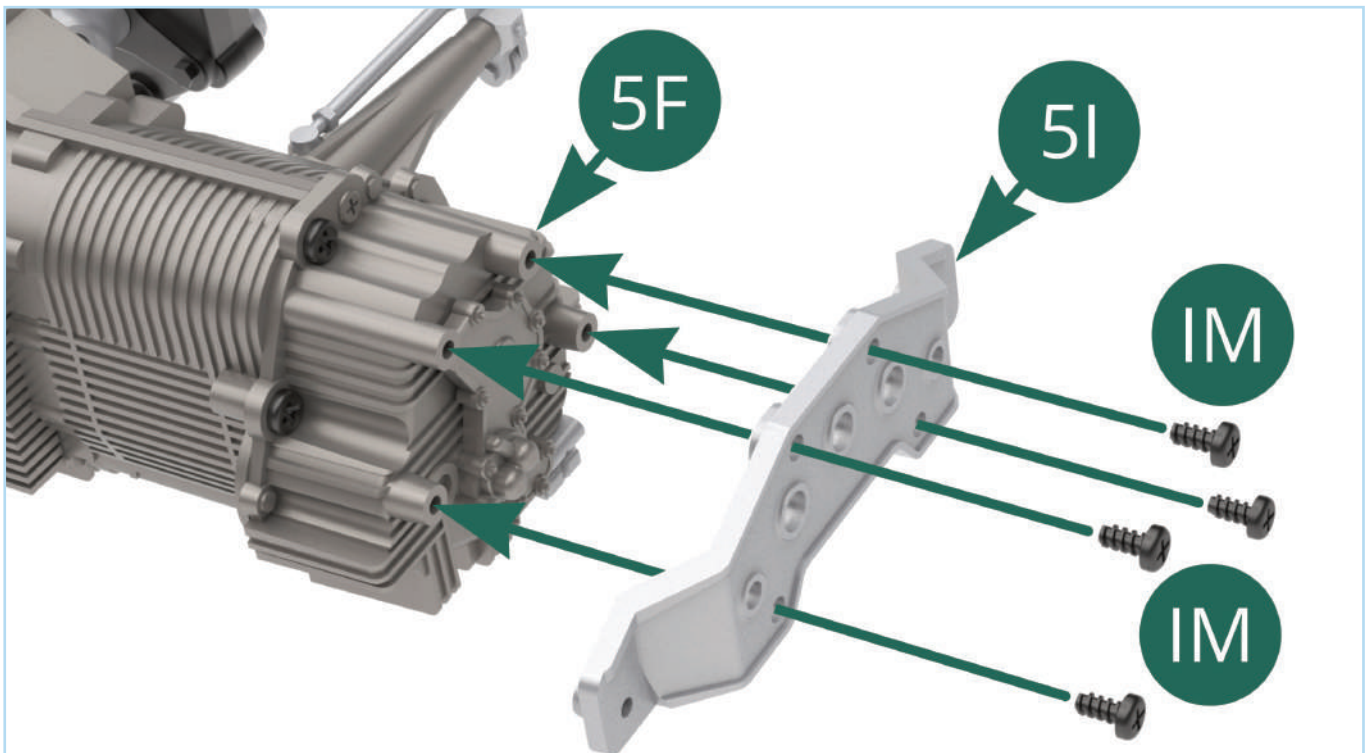
Position the **left gearbox cover (6A)** onto the **right gearbox cover (4A)** from Stage 4 and connect the two parts together using two of the **BM** screws.

# STAGE 06: LEFT-SIDE OF GEARBOX AND TRANSMISSION JOINT

## STEP 5



Take the **gearbox rear cover (5F)** from Stage 5 and place it onto the end of the gearbox cover assembly (**4A** and **6A**) as shown. Secure the rear cover using three **FM** screws.



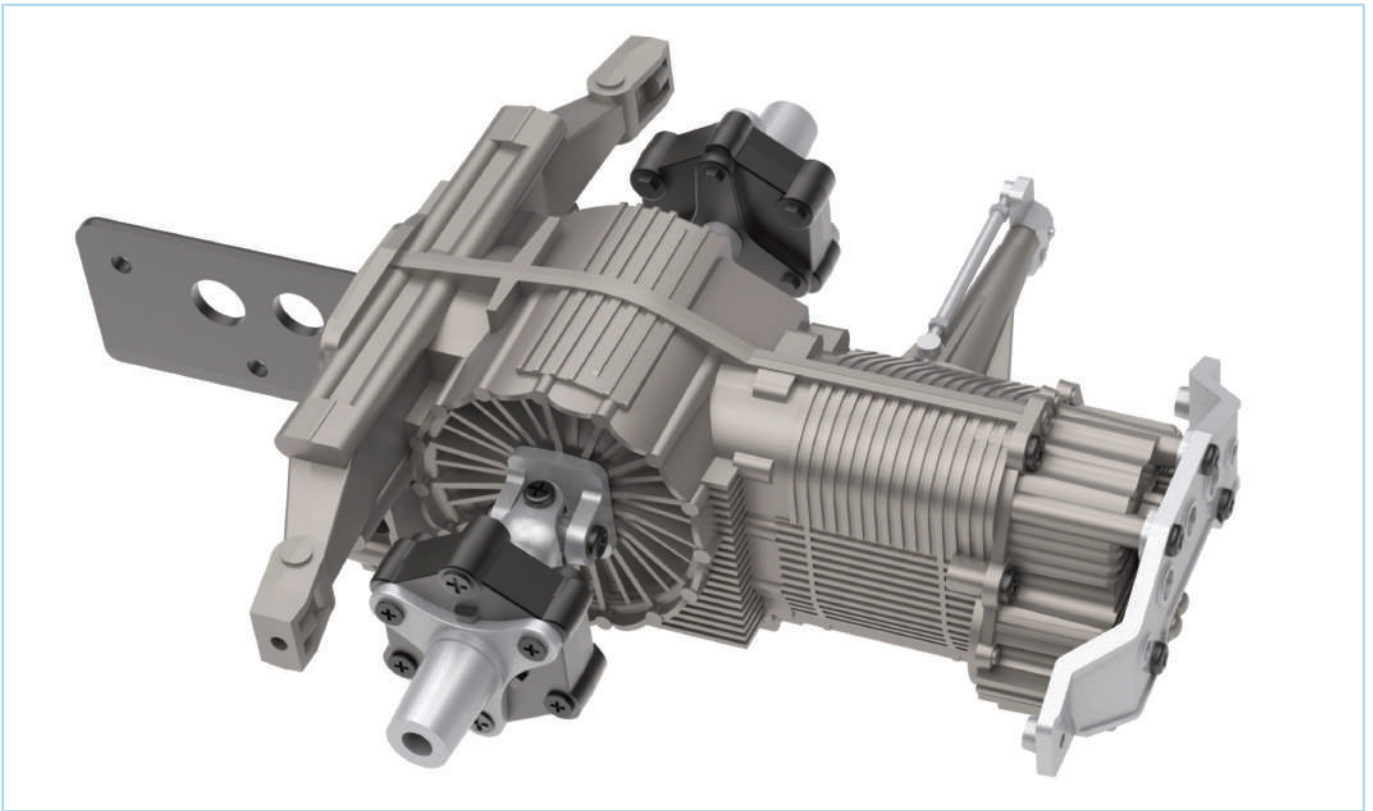
Next take the **exhaust pipe bracket (5I)** supplied in Stage 5 and fit it onto the **gearbox rear cover (5F)** as shown, then attach it using four **IM** screws.



# STAGE 06: LEFT-SIDE OF GEARBOX AND TRANSMISSION JOINT

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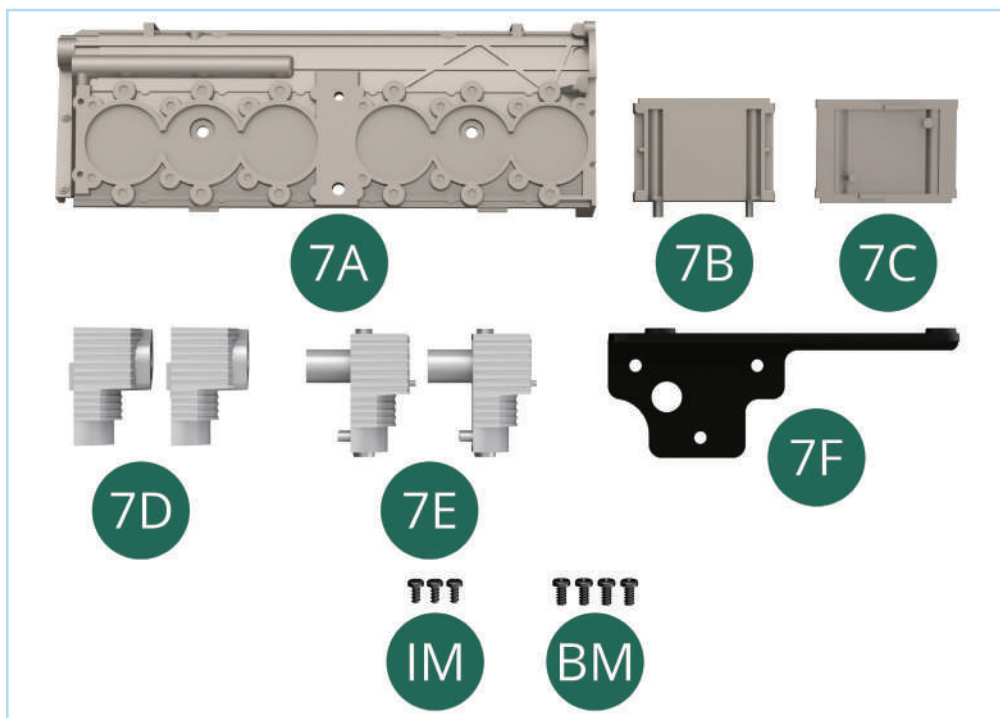
STAGE COMPLETE



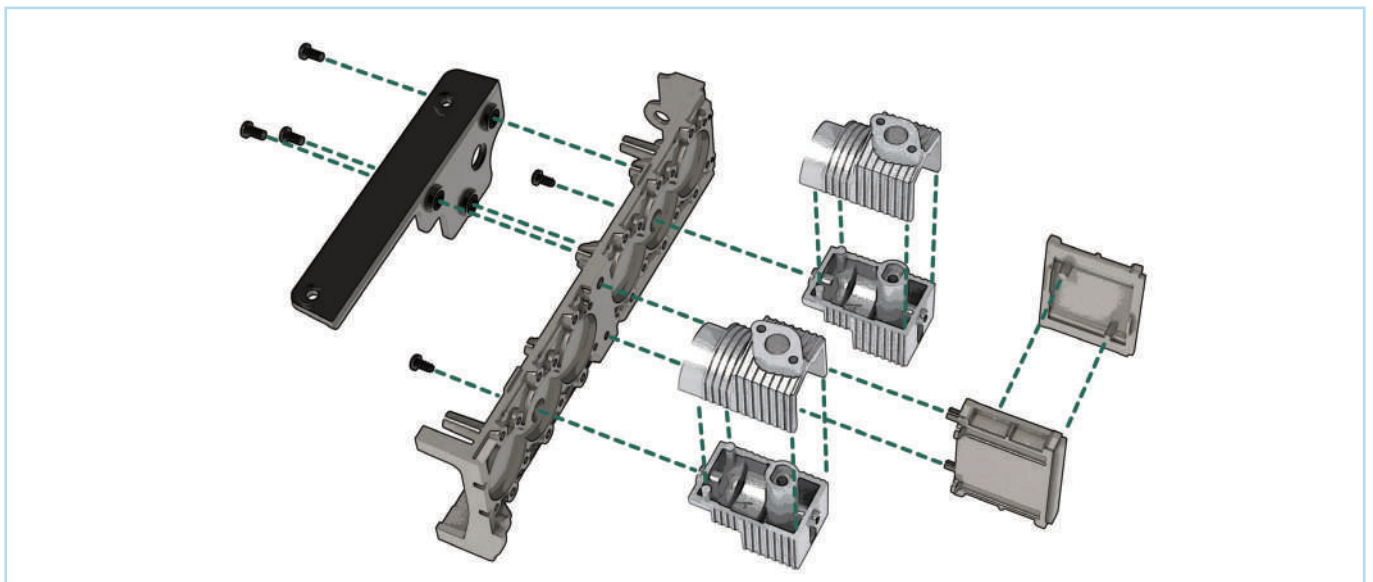
# STAGE 07: RIGHT-SIDE OF ENGINE BLOCK

- 7A** Right engine block
- 7B** Camshaft gear housing
- 7C** Camshaft gear cover
- 7D** Cylinder top (x2)

- 7E** Cylinder bottom (x2)
- 7F** Linking bracket
- IM** Screw 1.7 x 3.5mm (x3)
- BM** Screw 2.0 x 4mm (x4)



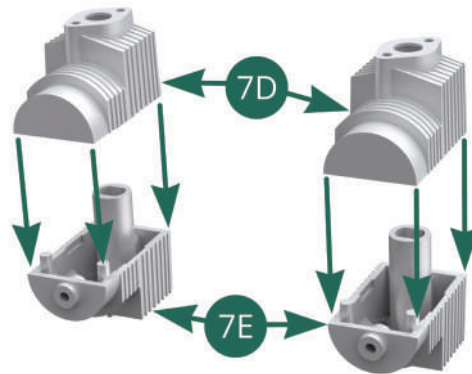
## ASSEMBLY DIAGRAM



# STAGE 07: RIGHT-SIDE OF ENGINE BLOCK

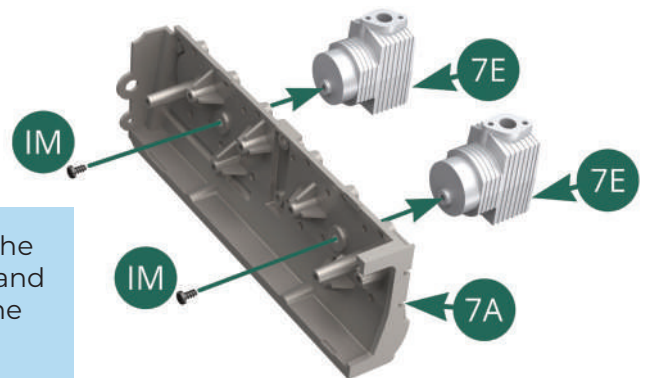
## STEP 1

Fit the **cylinder tops (7D)** onto the **cylinder bottoms (7E)** to create two cylinders.



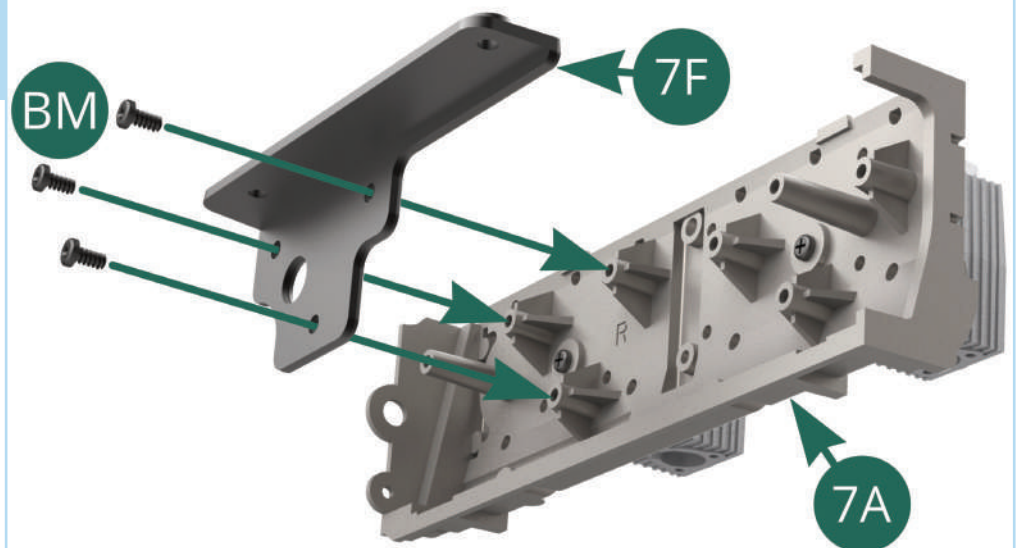
You may wish to super glue the cylinder parts to avoid splitting when securing them to the engine block.

Align the cylinders with the **right engine block (7A)** and secure them to the engine block by driving through two of the **IM** screws.



## STEP 2

Fit the **linking bracket (7F)** onto the interior of the **right engine block (7A)** and fix in place with three **BM** screws as shown.

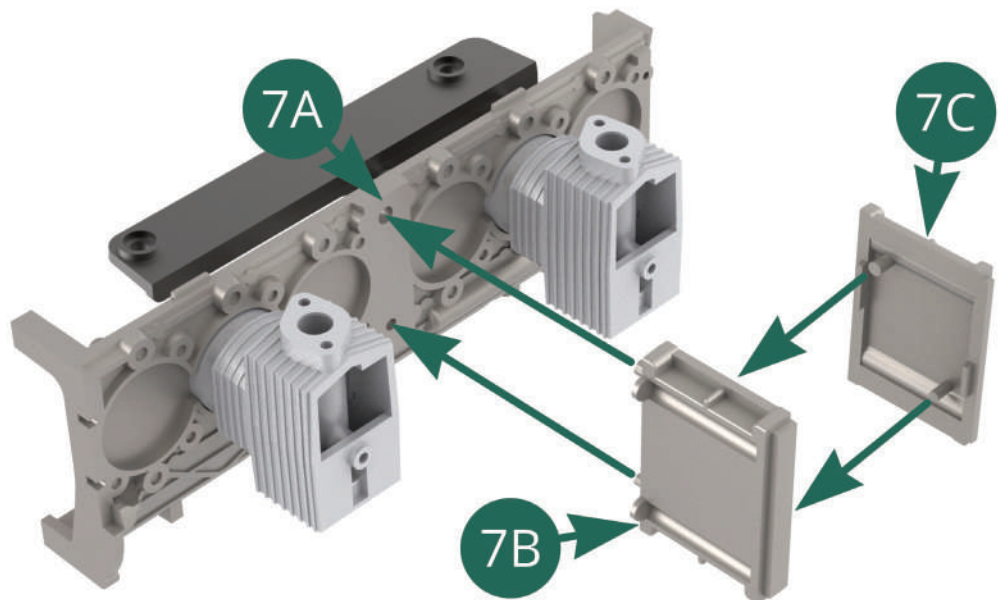


# STAGE 07: RIGHT-SIDE OF ENGINE BLOCK

## STEP 3

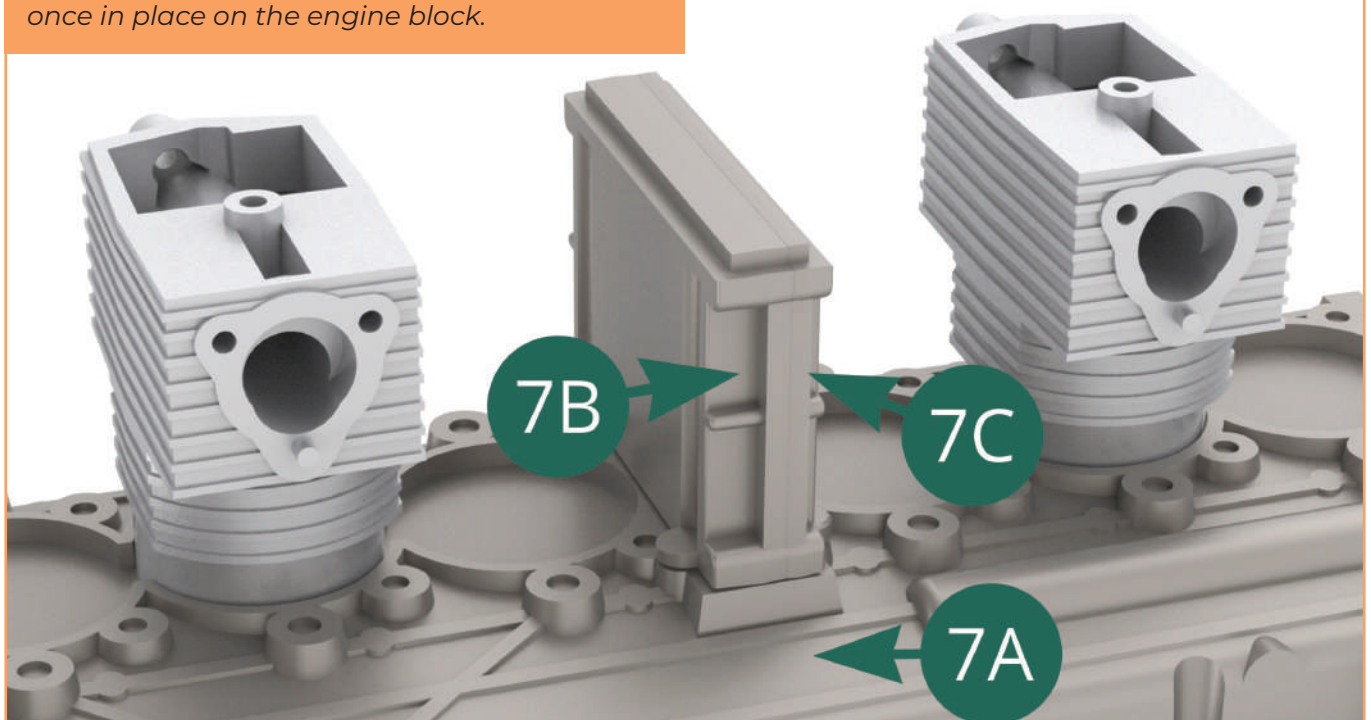
Press together the **camshaft gear housing (7B)** and **camshaft gear cover (7C)**, then fit it into the **right engine block (7A)** using the two pins on the housing as shown.

Note that one of the pins is larger than the other when fitting these parts together. You can use a little glue to stop them springing apart when fitting in place.



You may need to file excess paint off the camshaft gear box so that it fits flush with the engine block.

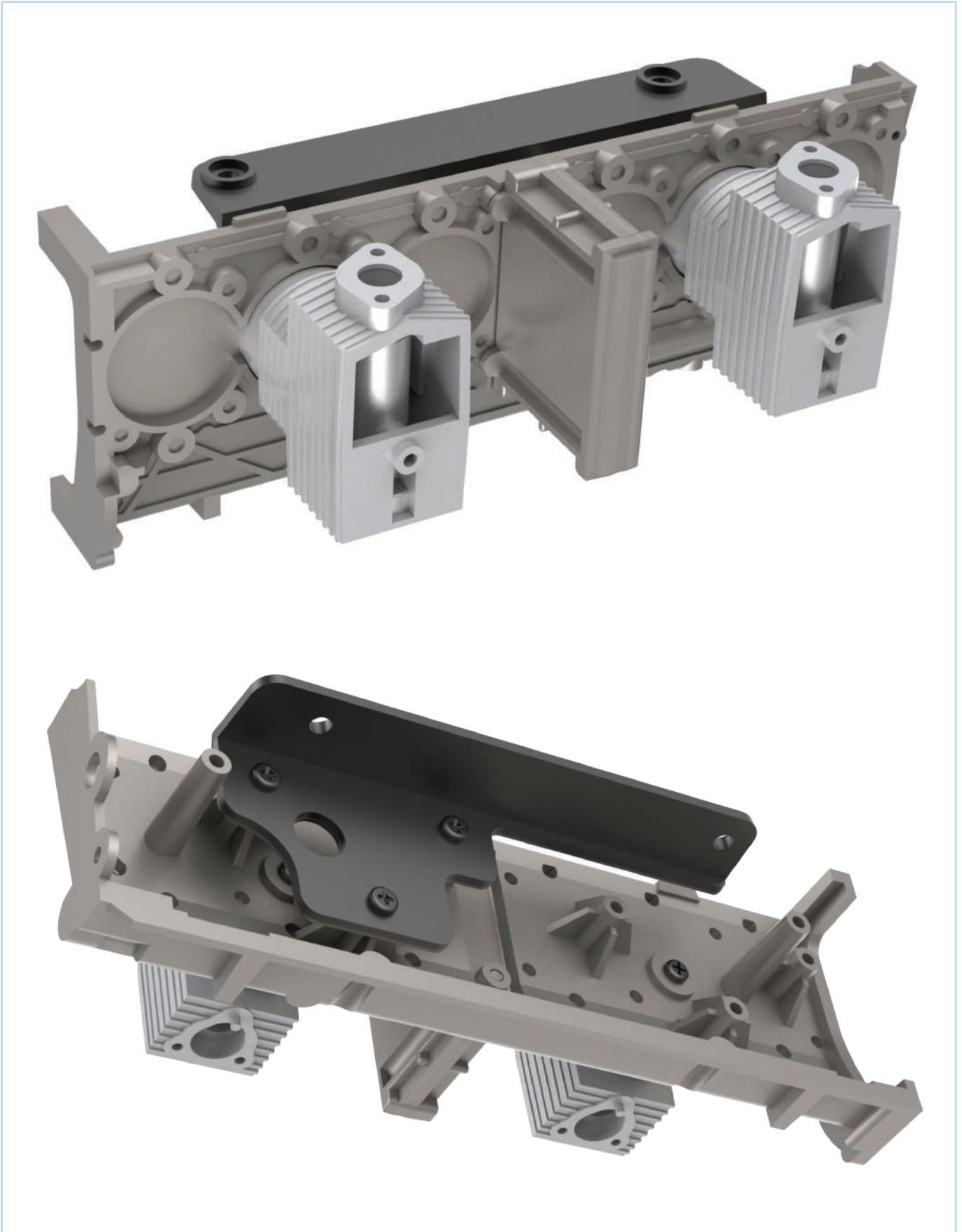
The camshaft gear box should look like this once in place on the engine block.





# STAGE 07: RIGHT-SIDE OF ENGINE BLOCK

STAGE COMPLETE



# STAGE 08: PREPARING THE OIL PUMP, WATER PUMP AND CYLINDERS

**8A** Water pump housing

**8B** Oil pump

**8C** Oil hose (x2)

**8D** Oil filter bracket

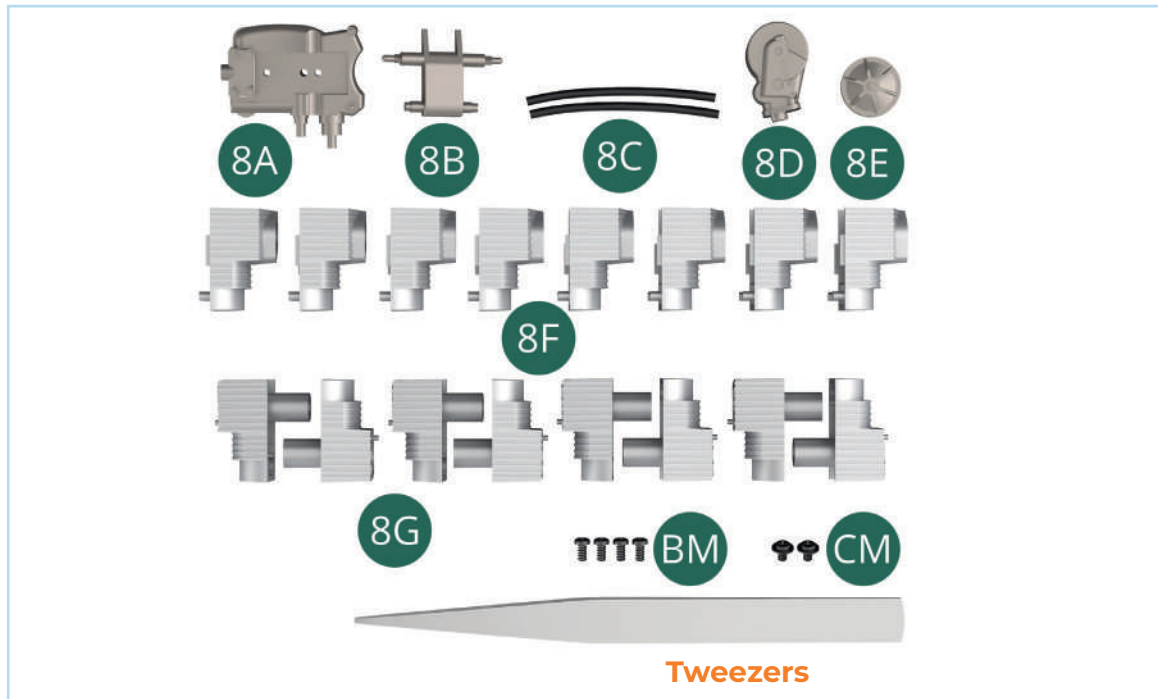
**8E** Oil filter cover

**8F** Cylinder top (x8)

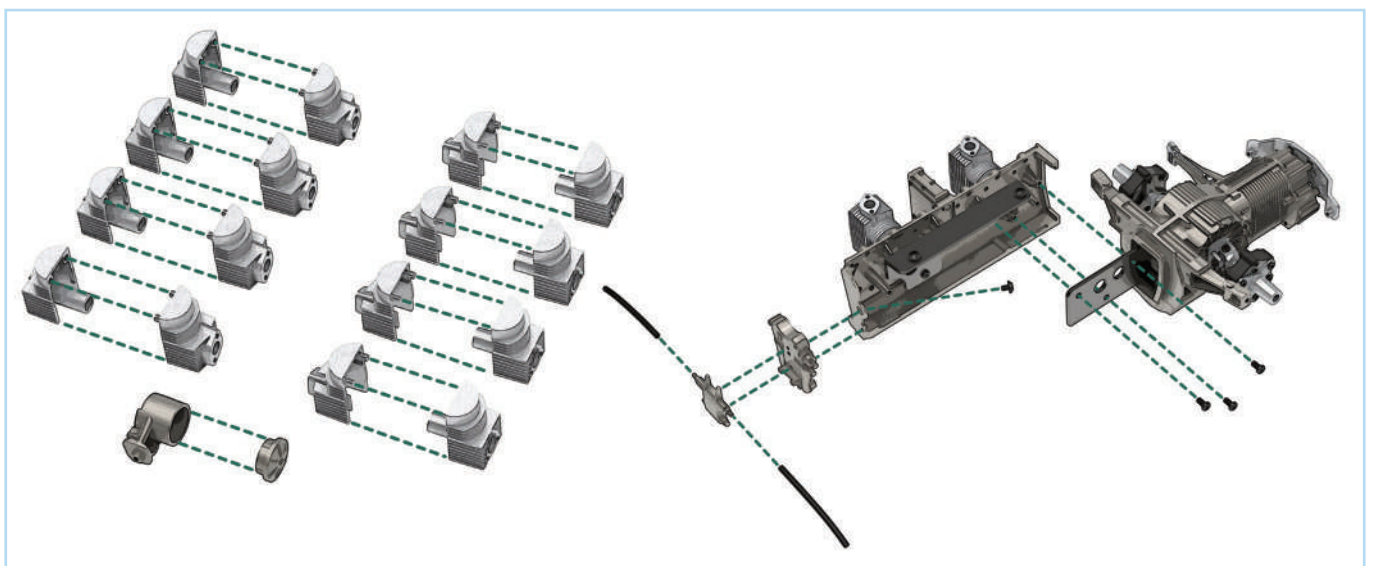
**8G** Cylinder bottom (x8)

**BM** Screw 2.0 x 4mm (x4)

**CM** Screw 2.0 x 3 x 5mm (x2)



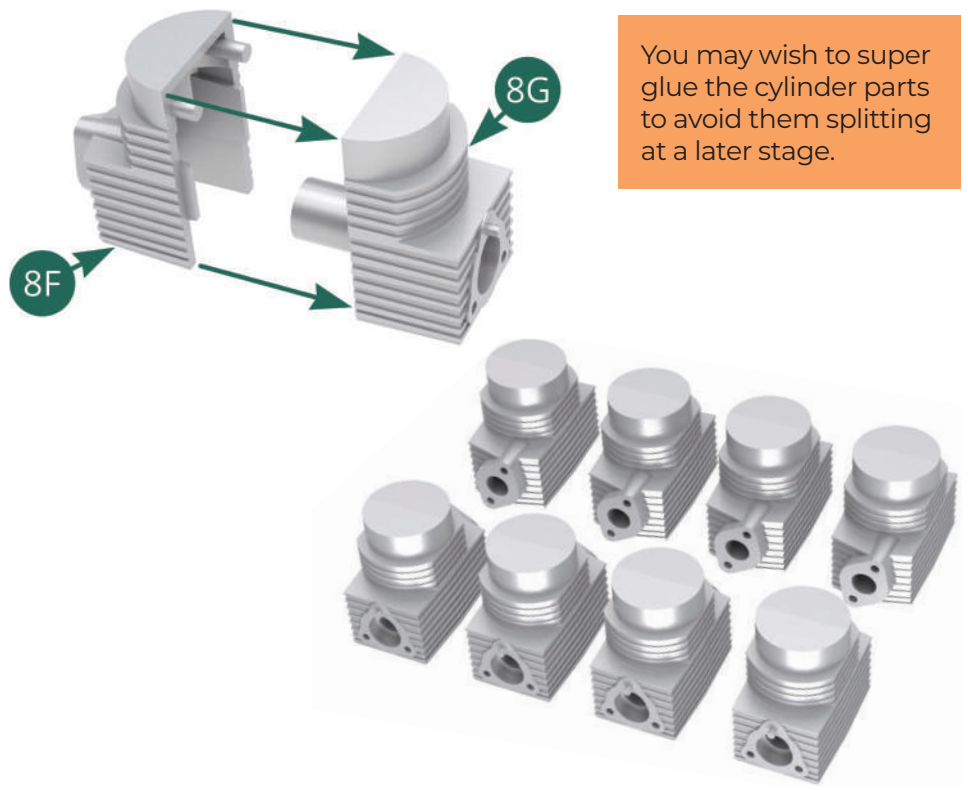
## ASSEMBLY DIAGRAM



# STAGE 08: PREPARING THE OIL PUMP, WATER PUMP AND CYLINDERS

## STEP 1

Press the pins of the **cylinder tops (8F)** into the corresponding holes in the **cylinder bottoms (8G)** to create eight cylinders.

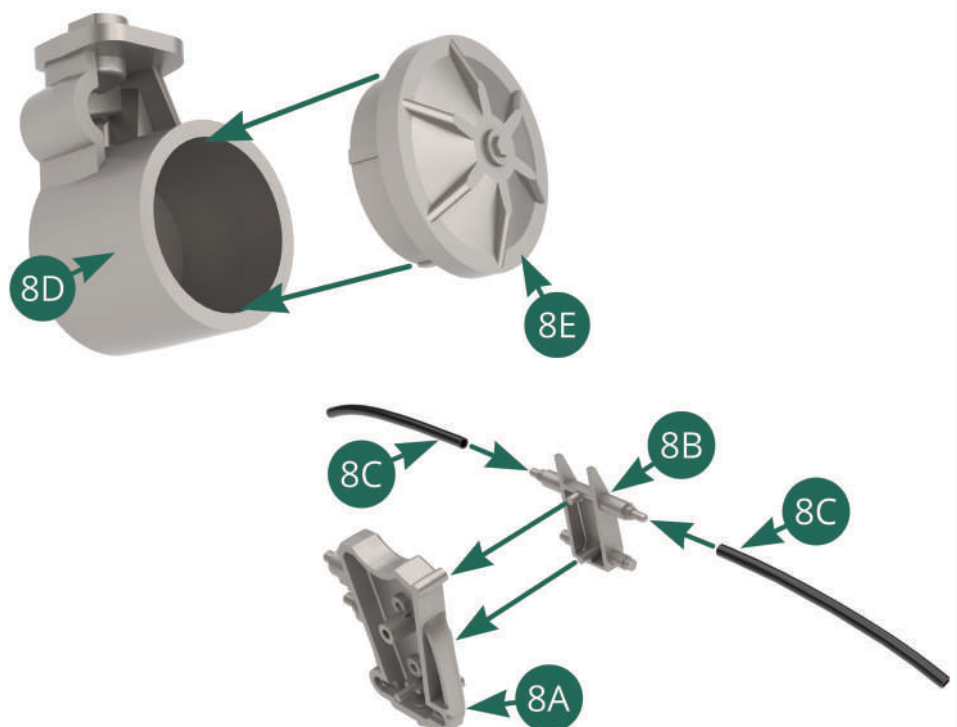


## STEP 2

Push the **oil filter cover (8E)** into the **oil filter bracket (8D)**.

Take the two **oil hoses (8C)** and connect them to the lugs on the **oil pump (8B)**, then press the oil pump into the **water pump housing (8A)**.

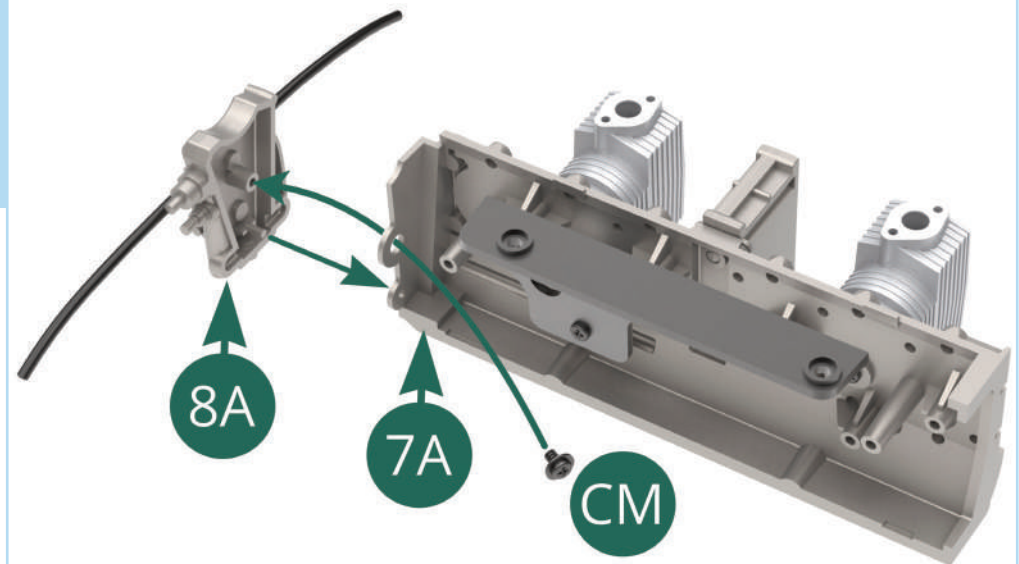
Tip: if the hoses are bent, try dipping them in hot water and bending them back to into shape.



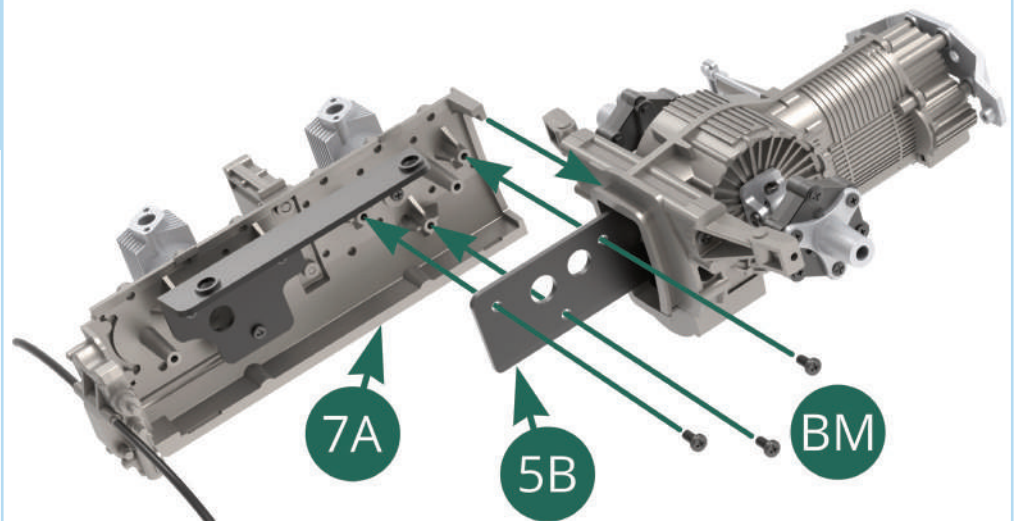
# STAGE 08: PREPARING THE OIL PUMP, WATER PUMP AND CYLINDERS

## STEP 3

Position the **water pump housing (8A)** on the end of the **right engine block (7A)**. Press the housing firmly while securing it in place with a **CM** screw as shown.



Press the **right engine block (7A)** firmly into the **internal support (5B)** of the gearbox assembly and attach with three **BM** screws.

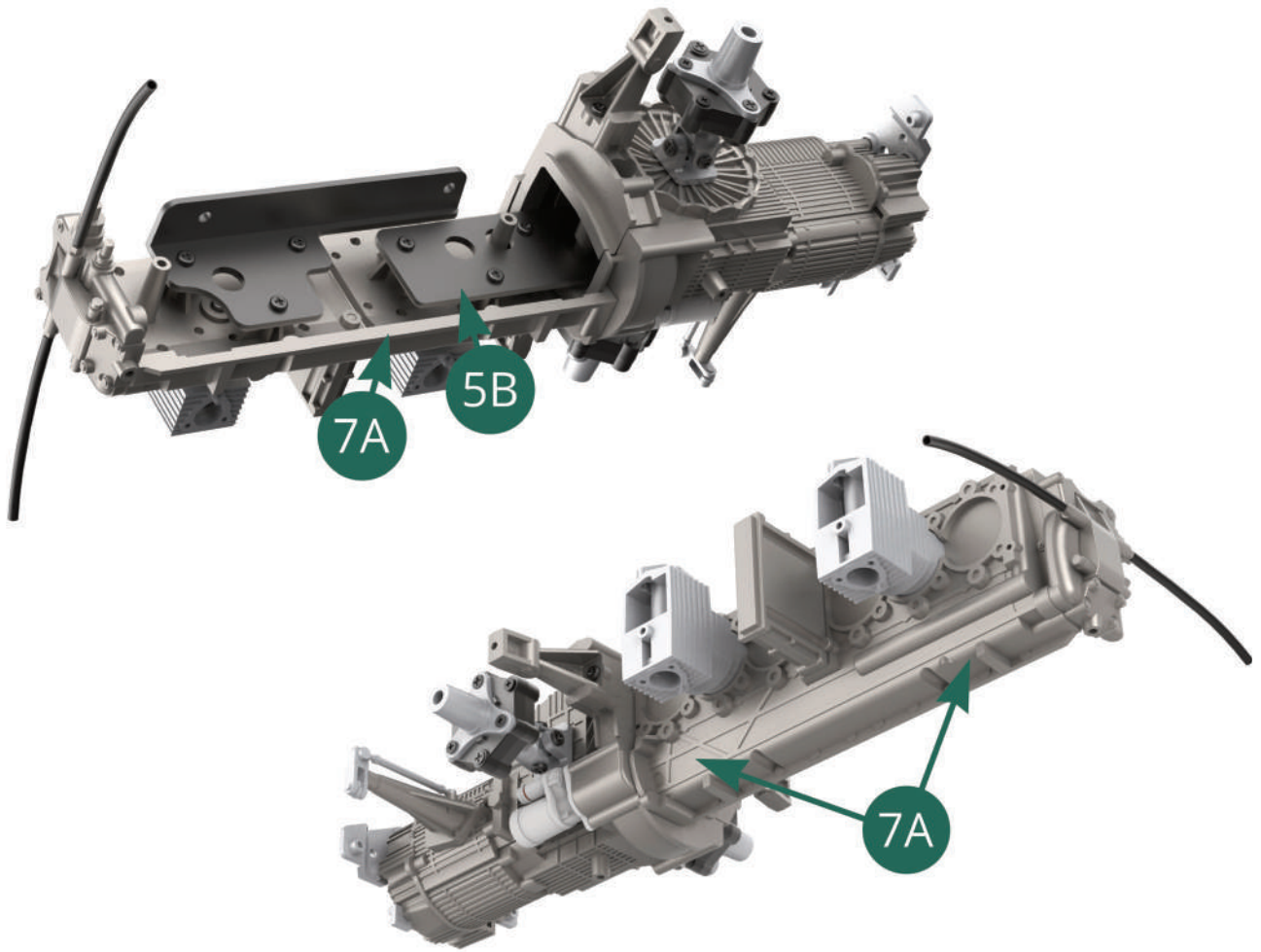


Make sure the two parts are pressed together tightly so that the connection is flush.

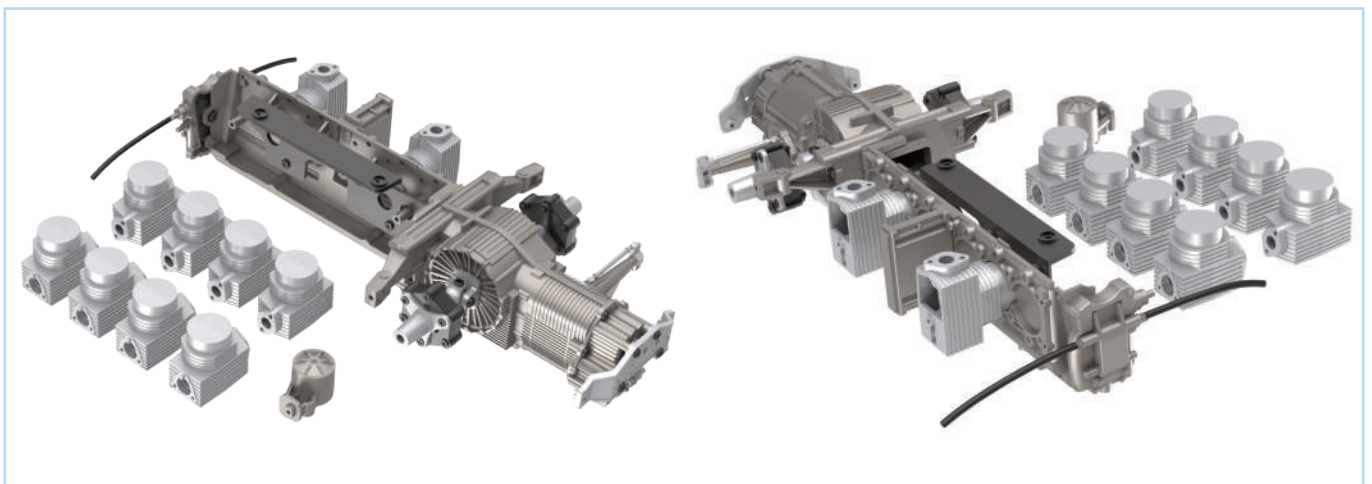


# STAGE 08: PREPARING THE OIL PUMP, WATER PUMP AND CYLINDERS

The right engine block mounted on the gearbox assembly.



**STAGE COMPLETE**



# STAGE 09: ATTACHING THE RIGHT CYLINDER HEAD

**9A** Right cylinder head

**9B** Spark plugs (x12 + 6 spares)

**9C** Intake cam cover

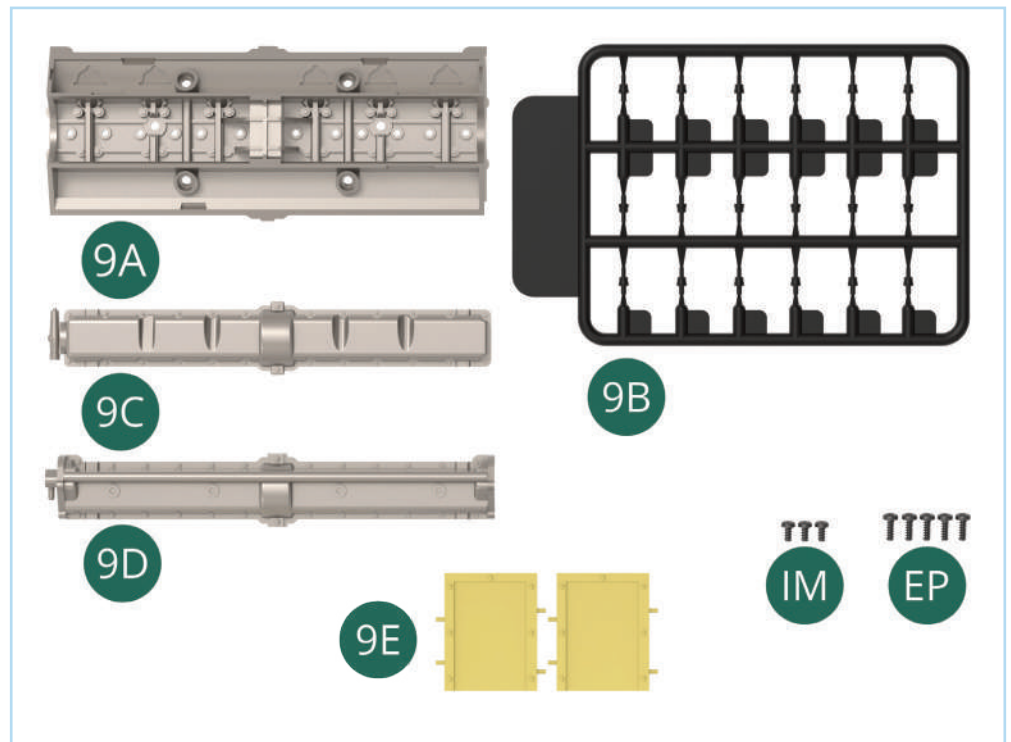
**9D** Exhaust cam cover

**9E** End shield (x 2)

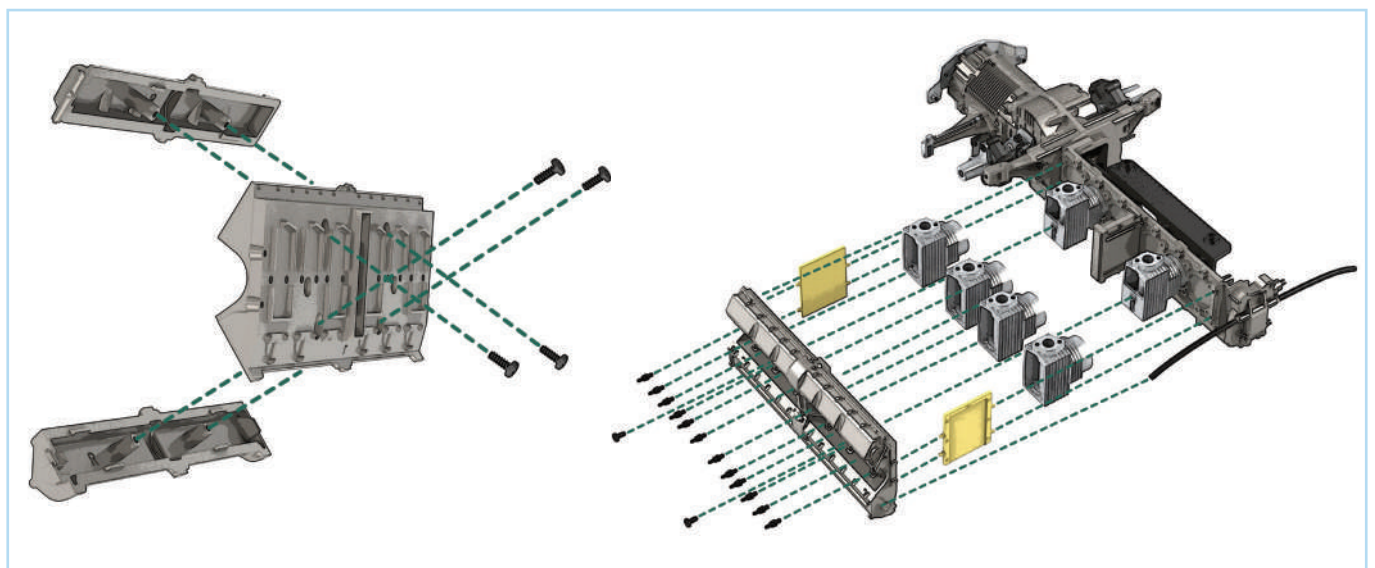
**IM** Screw 1.7 x 3.5mm (x3)

**EP** Screw 1.7 x 5mm (x5)

To differentiate the **intake cam cover (9C)** from the **exhaust cam cover (9D)**, note the appearance of the faces for each part.



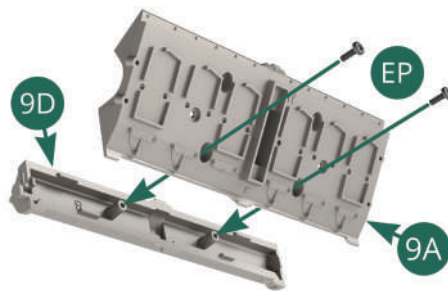
## ASSEMBLY DIAGRAM



# STAGE 09: ATTACHING THE RIGHT CYLINDER HEAD

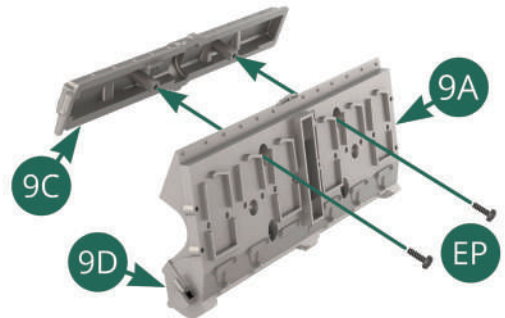
## STEP 1

Align the **right cylinder head (9A)** with the **exhaust cam cover (9D)** and fix the parts together with two **EP** screws.

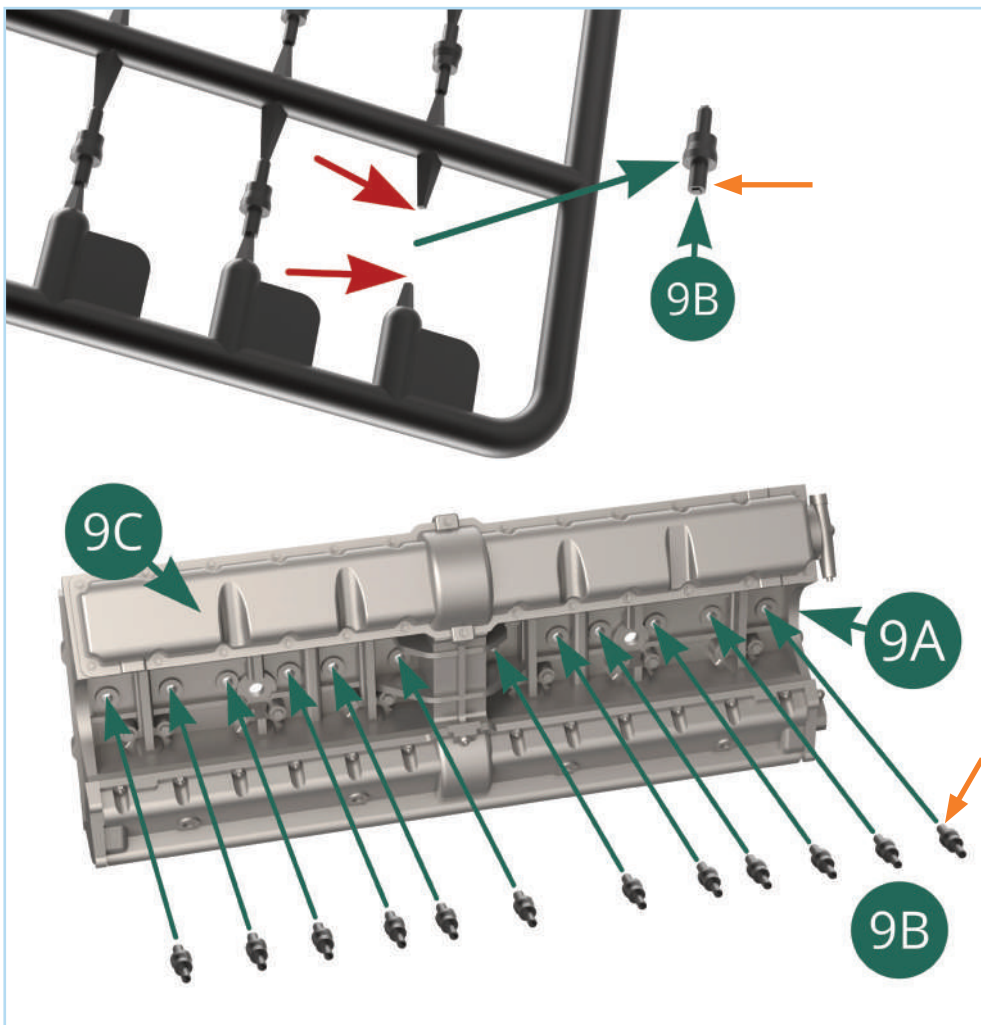


The two cam covers have different tabs to ensure they are fitted the right way round.

Push the **intake cam cover (9C)** onto the other side of the **right cylinder head (9A)** and secure with two **EP** screws.



## STEP 2



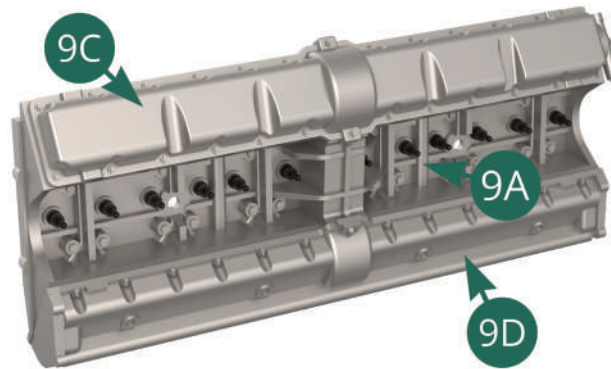
Remove twelve **spark plugs (9B)** from their frame at the points indicated with red arrows. Push them into the **right cylinder head (9A)** using the wider lug (orange arrows) as shown.

We recommend using a pair of sprue cutters for removing and a pair of tweezers for fitting these small parts. If any of the plugs are loose, use a small amount of super glue to hold it in place.



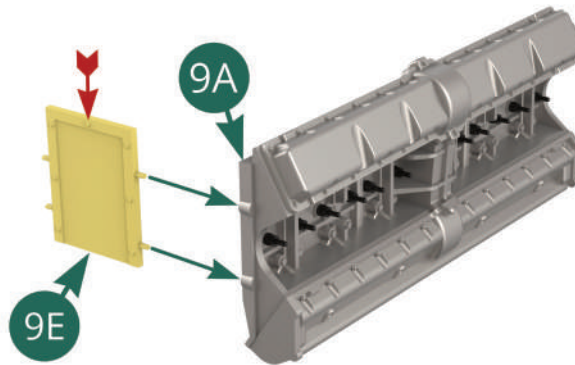
# STAGE 09: ATTACHING THE RIGHT CYLINDER HEAD

The cam covers and spark plugs should look like this once fitted.



## STEP 3

Push one of the **end shields (9E)** into the end of the **cylinder head (9A)** with the rivets facing outwards (red arrow).

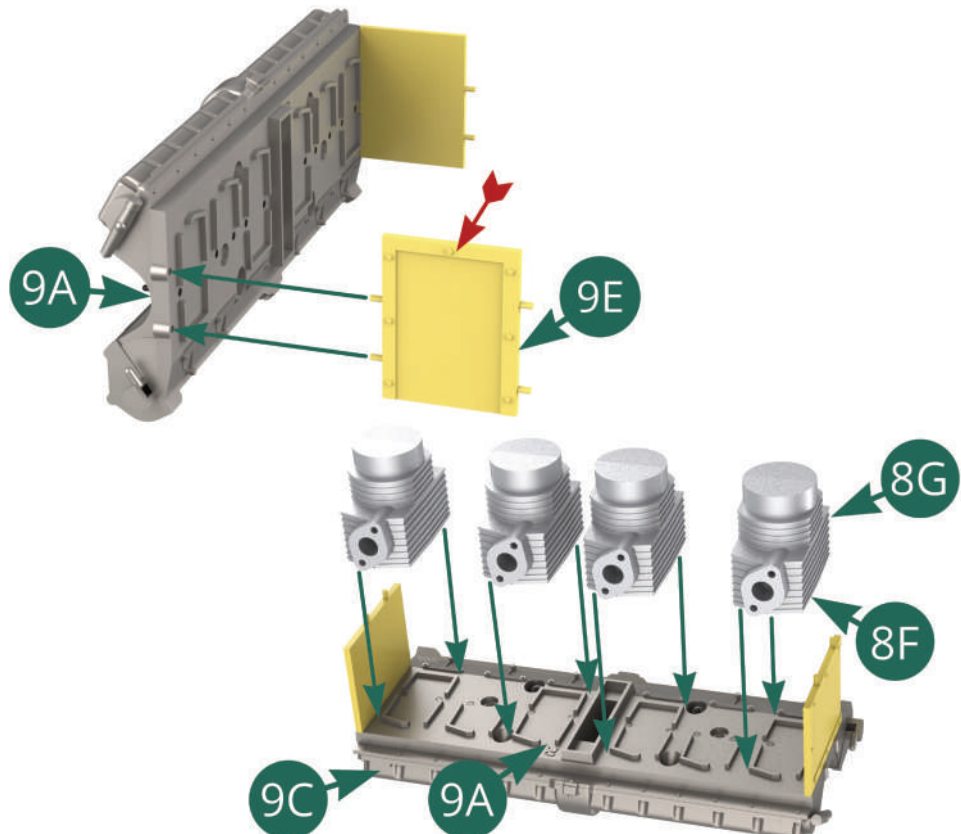


## STEP 4

Push the remaining **end shield (9E)** into the opposite end of the **cylinder head (9A)**, with the rivets facing as shown (red arrow).

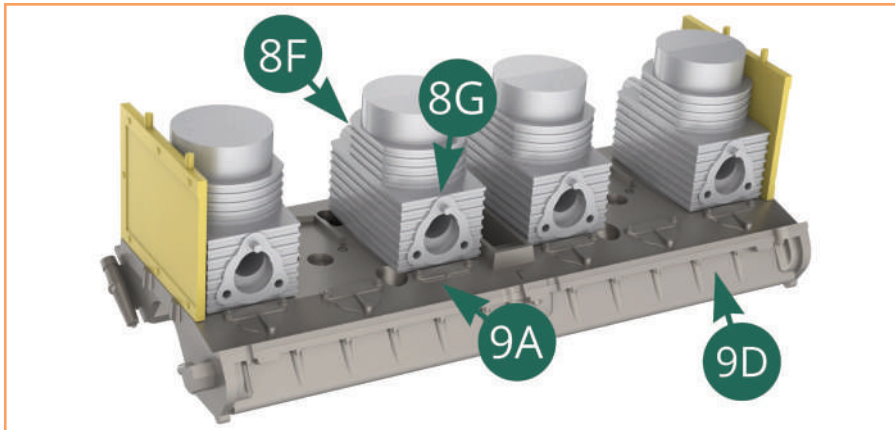
Next fit four of the cylinders assembled in the previous stage (**8F** and **8G**) onto the raised guides located on the **cylinder head (9A)**.

You can glue the end shields and cylinders in place if needed.





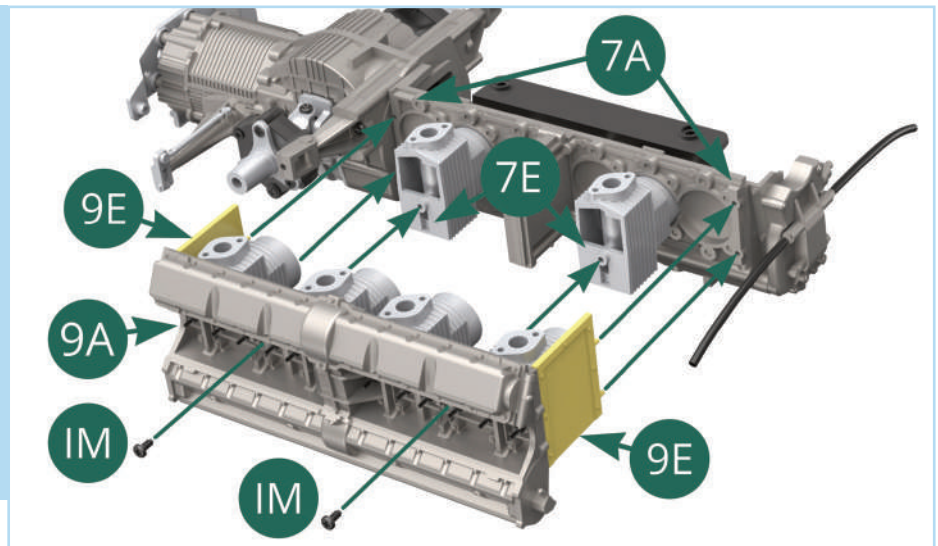
# STAGE 09: ATTACHING THE RIGHT CYLINDER HEAD



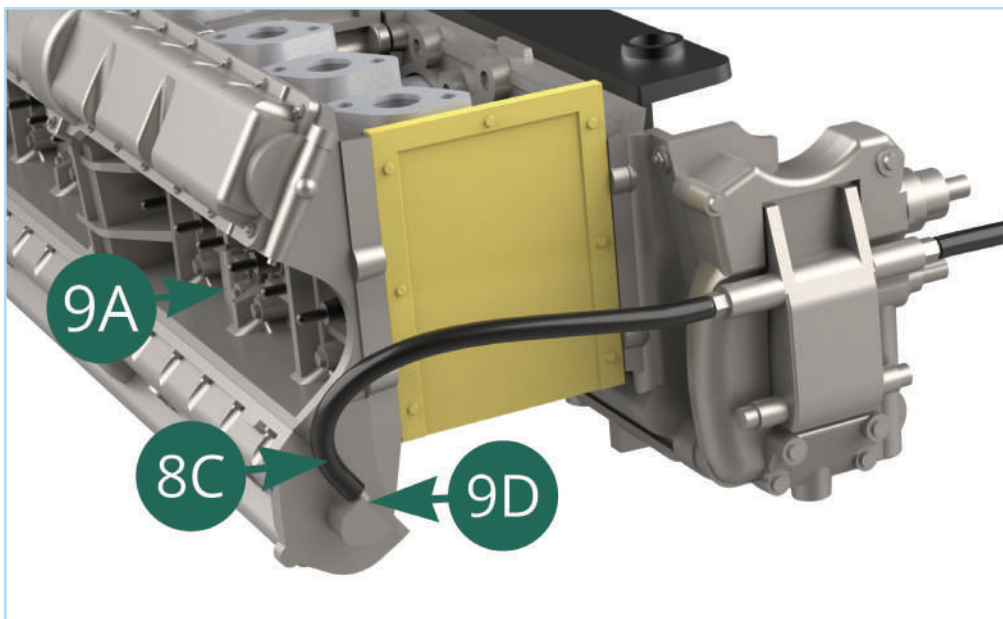
The cylinders and end shields should look like this once they have been fitted.

## STEP 5

Align the cylinder head assembly with the **right engine block (7A)** as shown. Carefully fit in place, ensuring that the lugs from the two **end shields (9E)** fit into the corresponding holes and that the screw holes from the cylinder head assembly align with the screw holes in the **lower cylinders (7E)**. Attach the two assemblies together with two **IM** screws.



## STEP 6

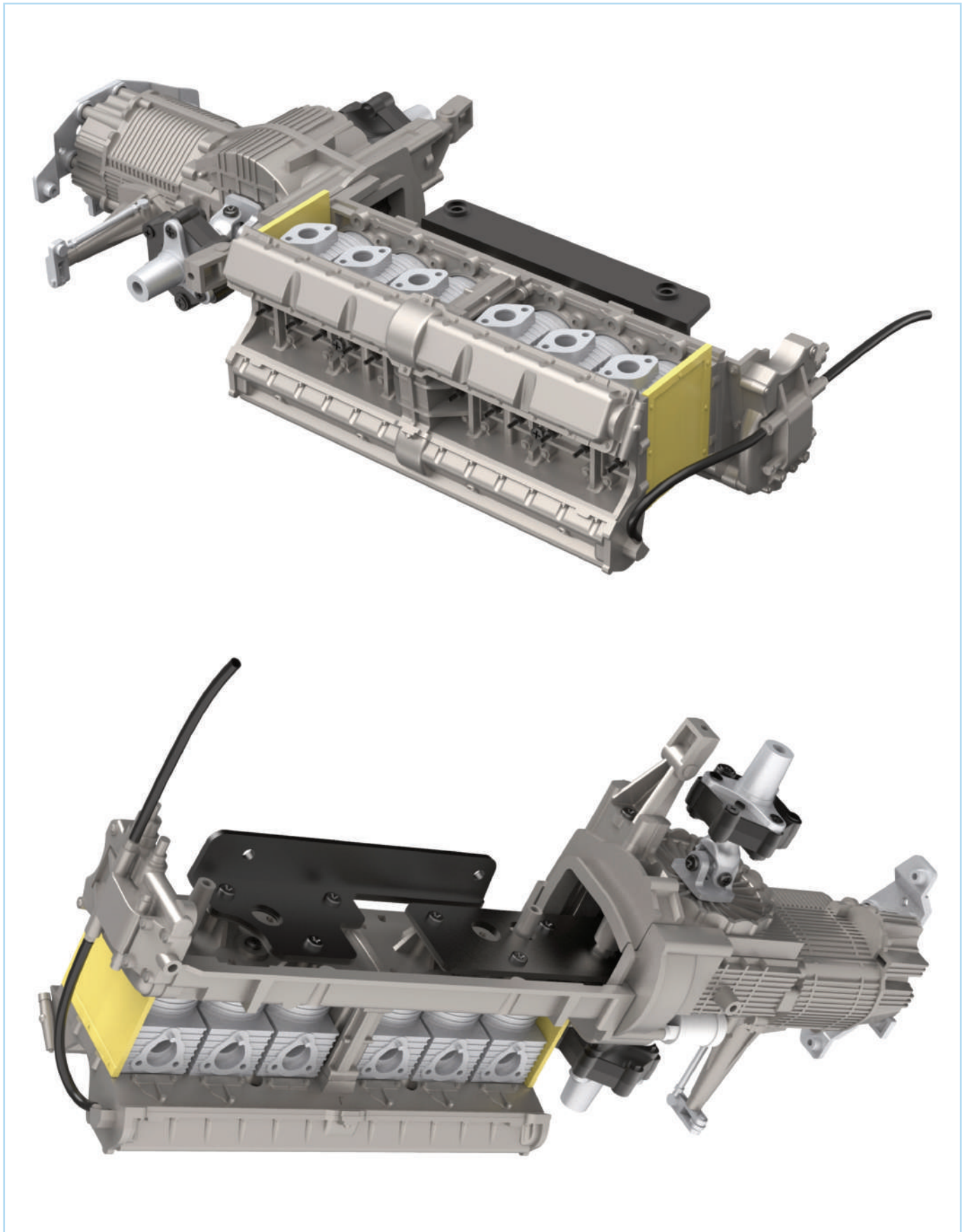


Connect the loose end of the **oil hose (8C)** on the engine block onto the lug at the end of the **exhaust cam cover (9D)** as shown.

If necessary, you can glue the hose in place with a small amount of super glue.

# STAGE 09: ATTACHING THE RIGHT CYLINDER HEAD

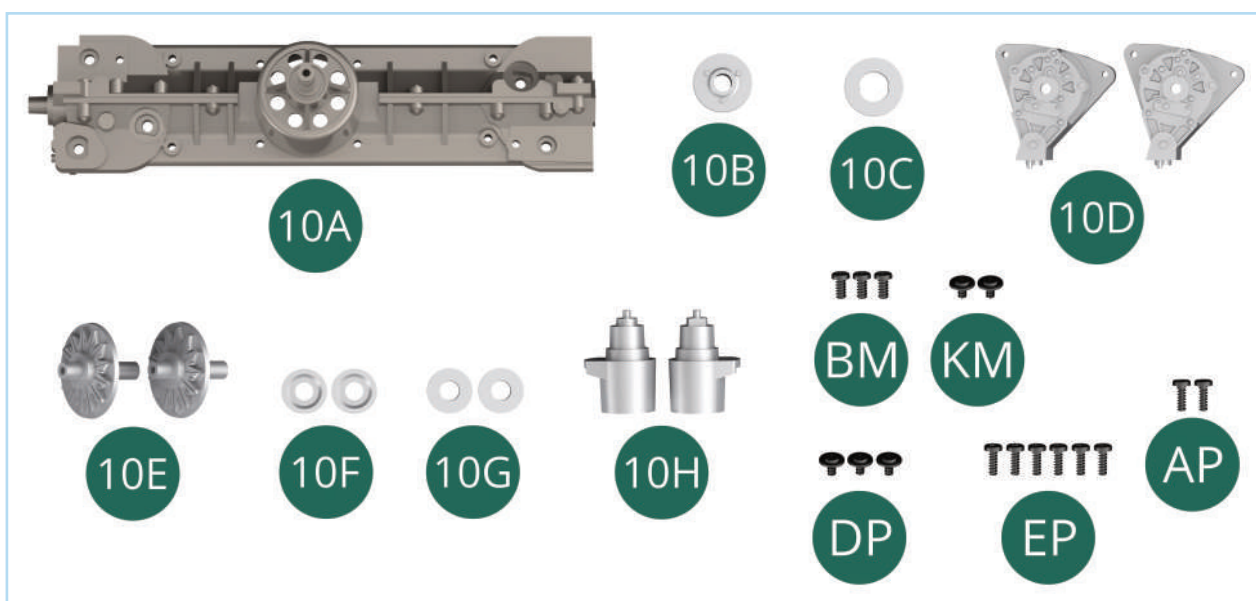
STAGE COMPLETE



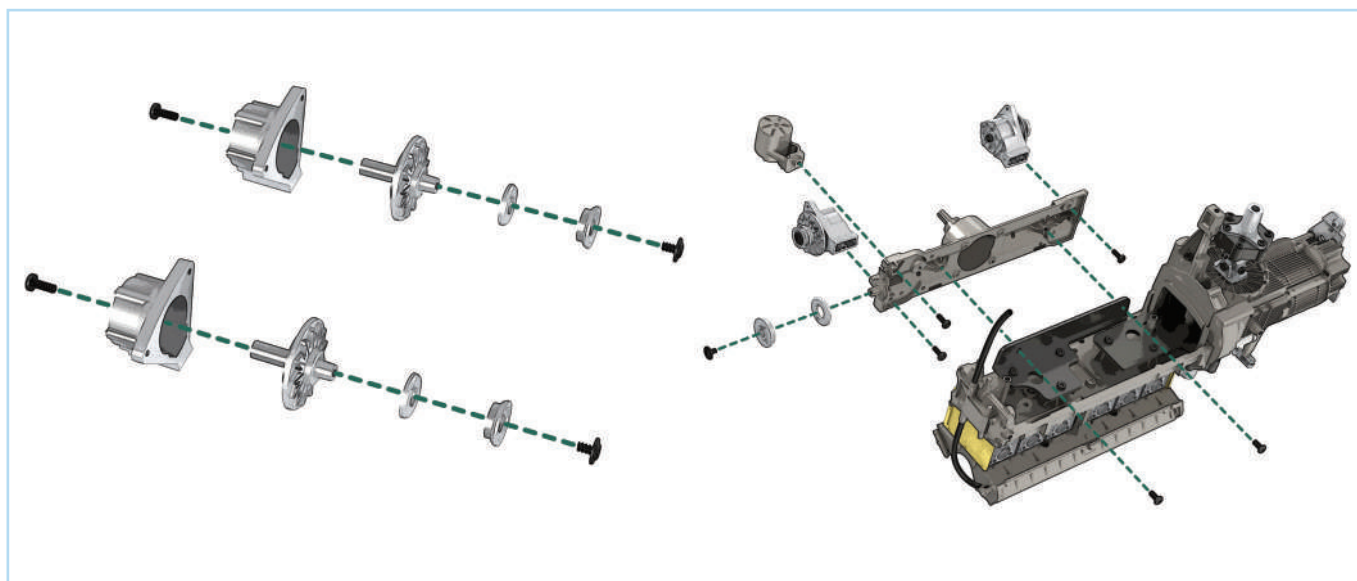
# STAGE 10: ASSEMBLE AND FIT THE CRANKCASE TOP

- 10A** Crankcase top
- 10B** Large pulley front
- 10C** Large pulley back
- 10D** Alternator (x2)
- 10E** Front cover and shaft (x2)
- 10F** Small pulley front (x2)
- 10G** Small pulley back (x2)

- 10H** Distributor base (x2)
- BM** Screw 2.0 x 4mm (x3)
- KM** Screw 1.7 x 3 x 5mm (x2)
- DP** Screw 1.7 x 3 x 5mm (x3)
- EP** Screw 1.7 x 5mm (x6)
- AP** Screw 1.7 x 4mm (x2)



## ASSEMBLY DIAGRAM



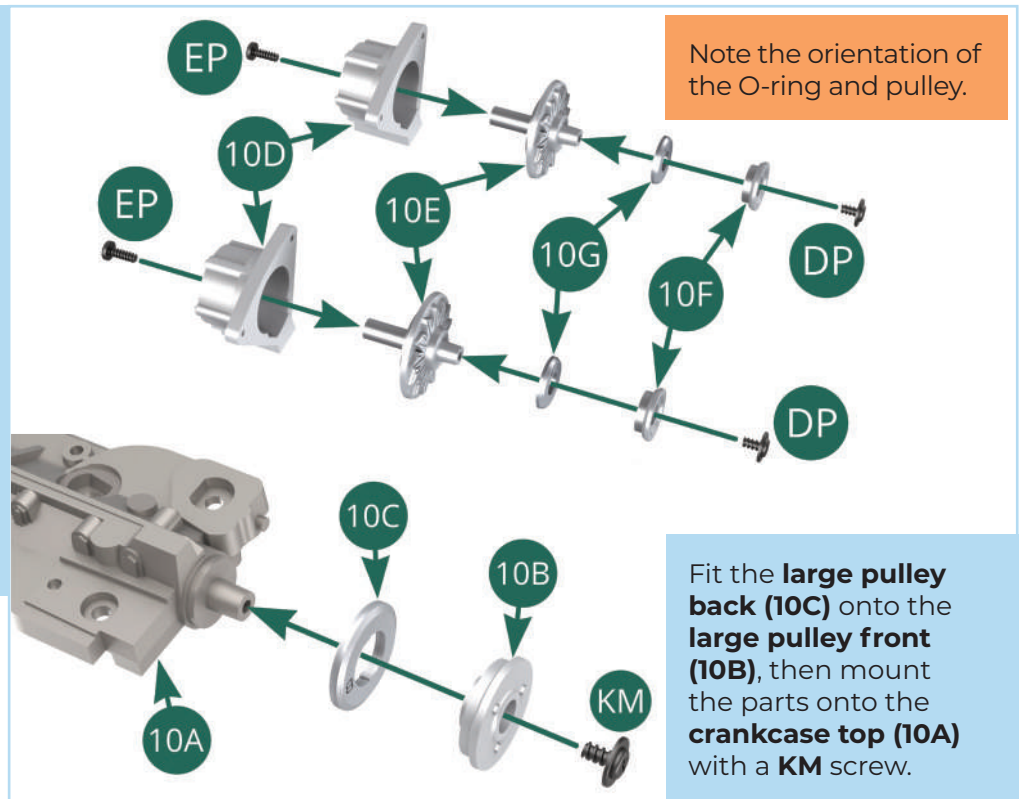


# STAGE 10: ASSEMBLE AND FIT THE CRANKCASE TOP

## STEP 1

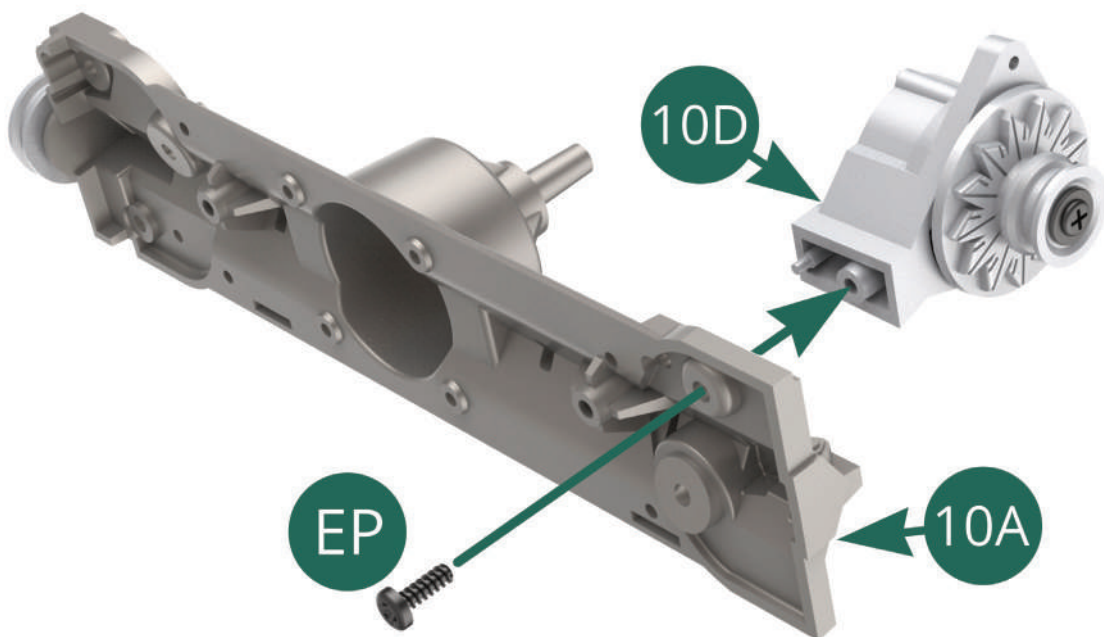
Place a **small pulley back (10G)** over the short shaft of a **front cover and shaft (10E)**, followed by a **small pulley front (10F)**. Fix the parts together with a **DP** screw, then fit the assembly into the **alternator (10D)** and secure in place by driving an **EP** screw through the alternator.

Repeat this process to build a second alternator assembly.



## STEP 2

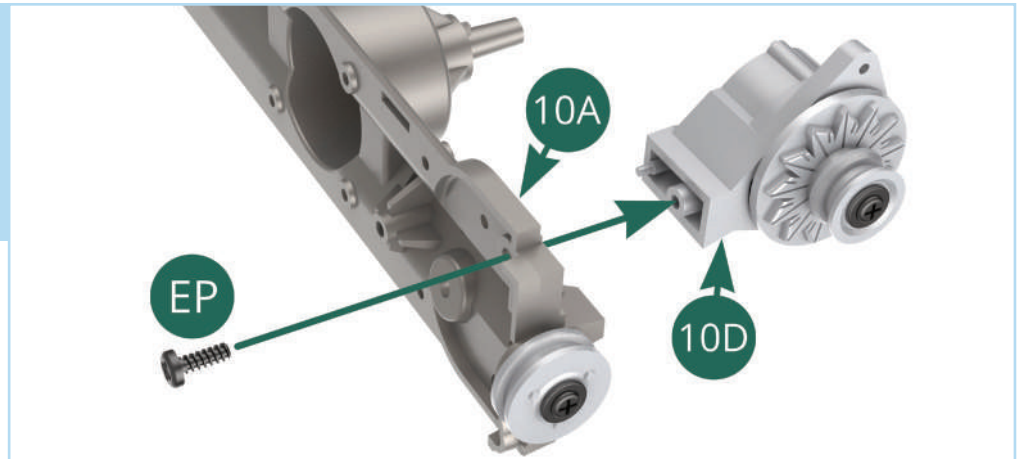
Align one of the alternators with the end of the **crankcase top (10A)** as shown. Using the pin and screw hole on the alternator as a guide, fit and secure it to the crankcase with an **EP** screw.





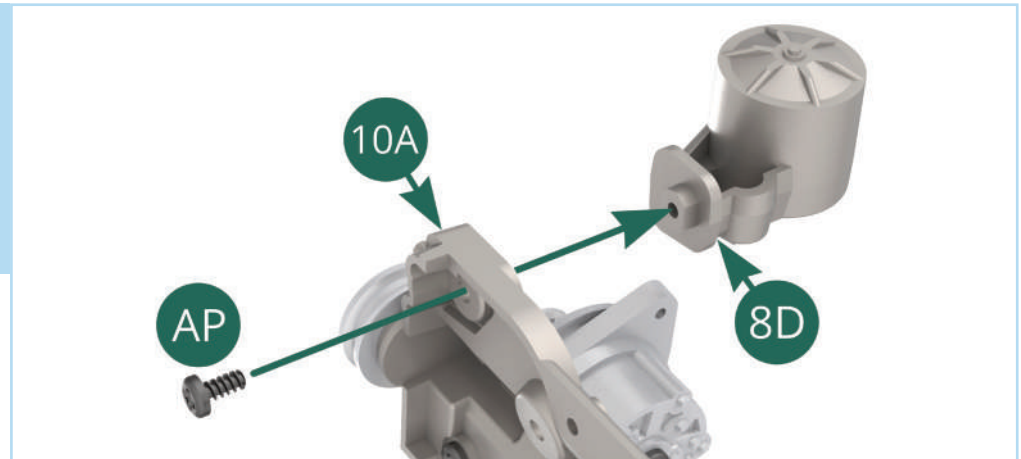
# STAGE 10: ASSEMBLE AND FIT THE CRANKCASE TOP

The second alternator fits at the other end of the crankcase top in the same way. Drive an **EP** screw through to attach it.

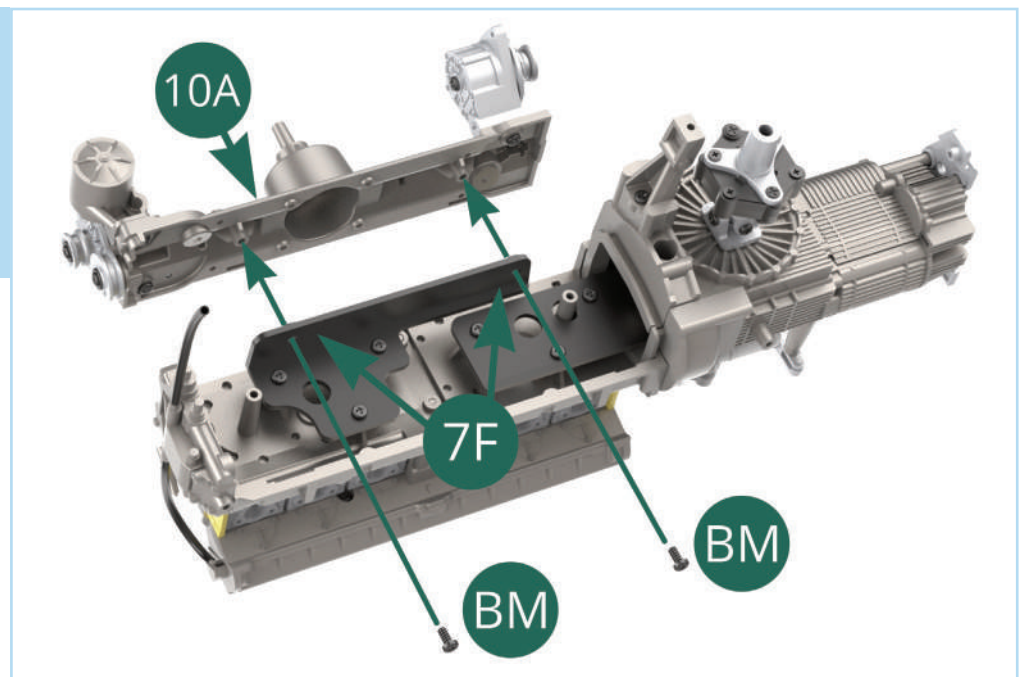


## STEP 3

Using the D-shaped plug as a guide, add the **oil filter (8D)** from Stage 8 onto the crankcase above the pulley. Secure in place with an **AP** screw.

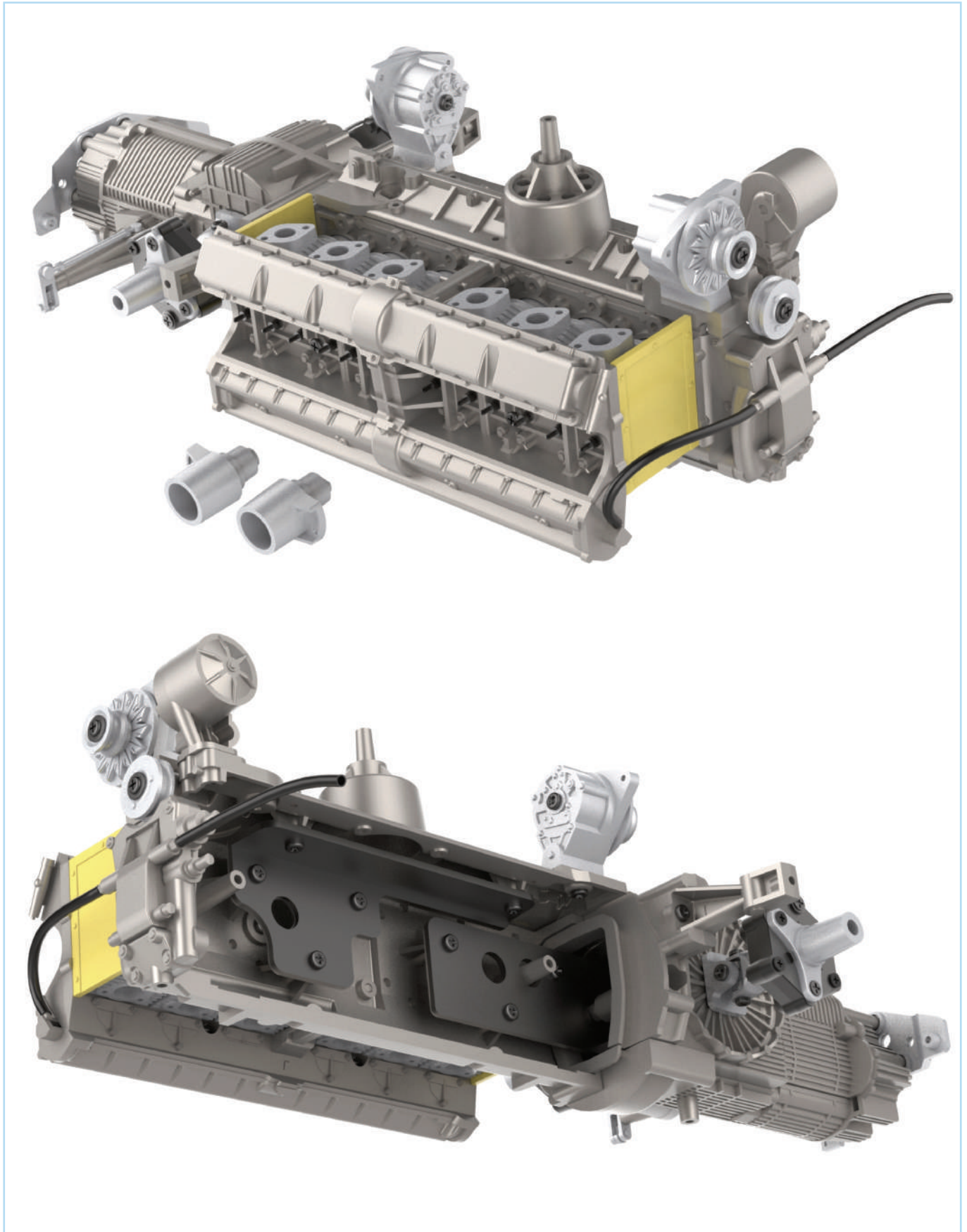


Position the crankcase top onto the **linking bracket (7F)** of the engine block assembly then drive two **BM** screws through as shown.



# STAGE 10: ASSEMBLE AND FIT THE CRANKCASE TOP

STAGE COMPLETE



# STAGE 11: LEFT-SIDE OF ENGINE BLOCK

**11A** Left engine block

**11B** Camshaft gear housing

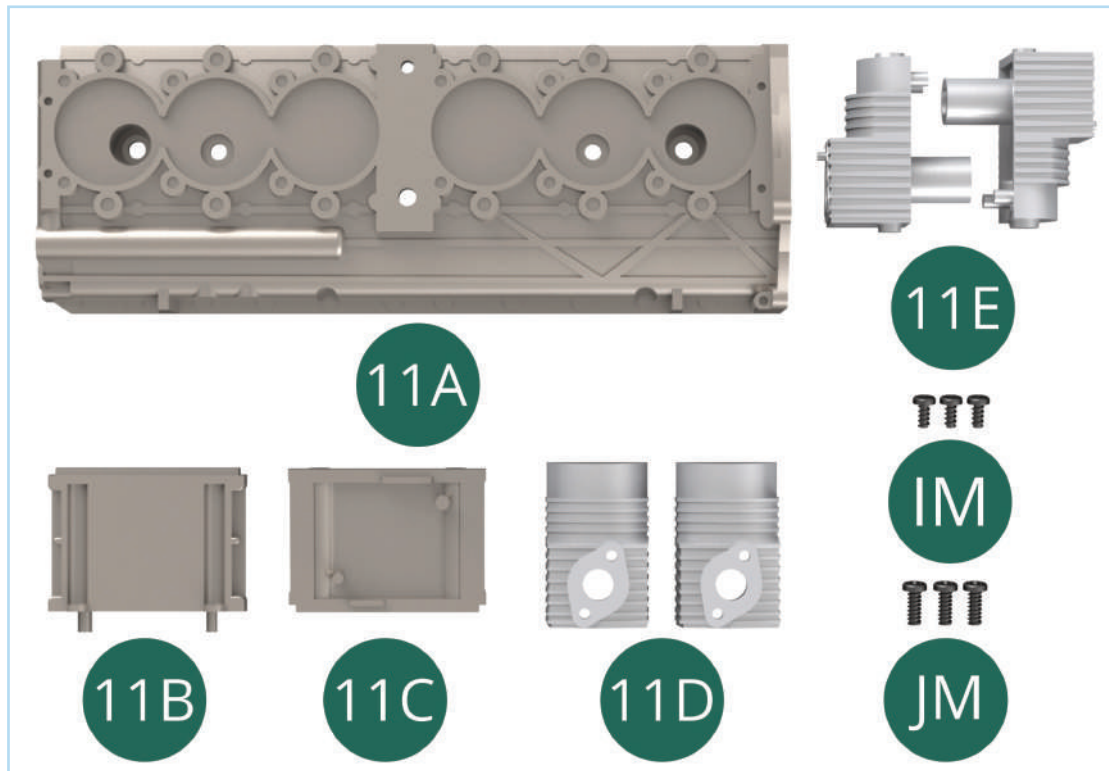
**11C** Camshaft gear cover

**11D** Cylinder top (x2)

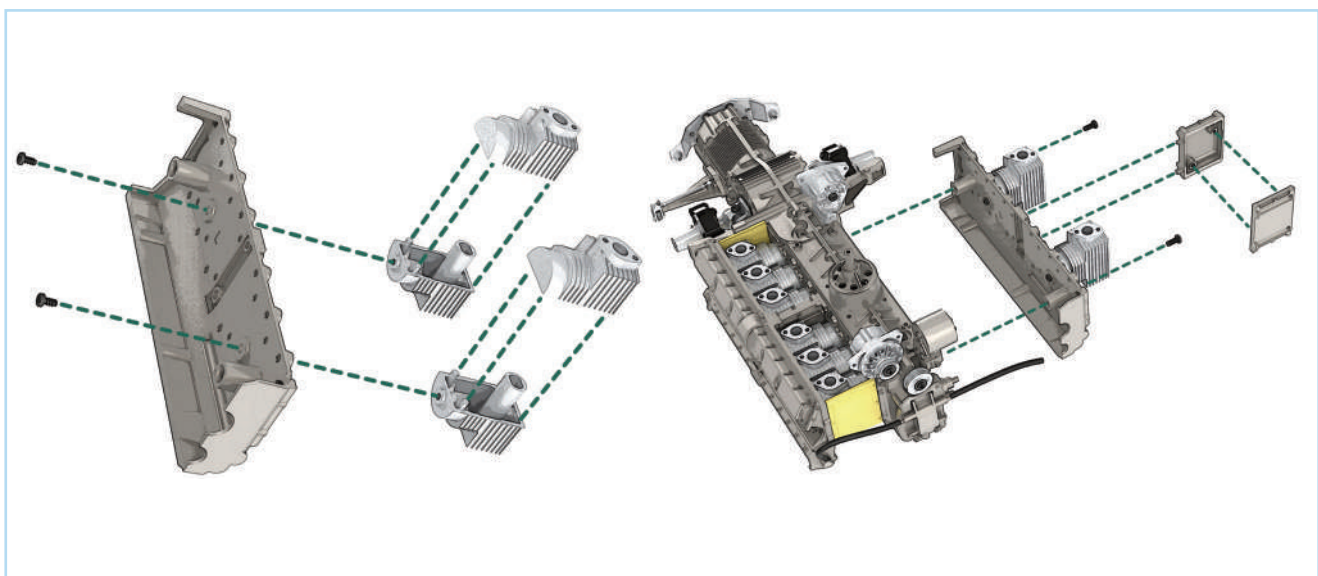
**11E** Cylinder bottom (x2)

**IM** Screw 1.7 x 3.5mm (x3)

**JM** Screw 2.0 x 5mm (x3)



## ASSEMBLY DIAGRAM

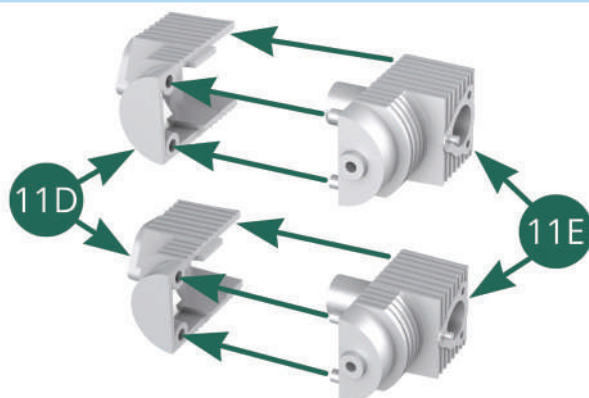




# STAGE 11: LEFT-SIDE OF ENGINE BLOCK

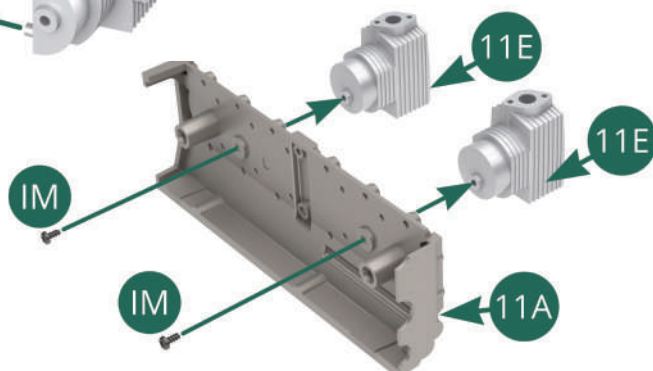
## STEP 1

Press the pins of the **cylinder bottoms (11E)** into the corresponding holes in the **cylinder tops (11D)** to create two cylinders.



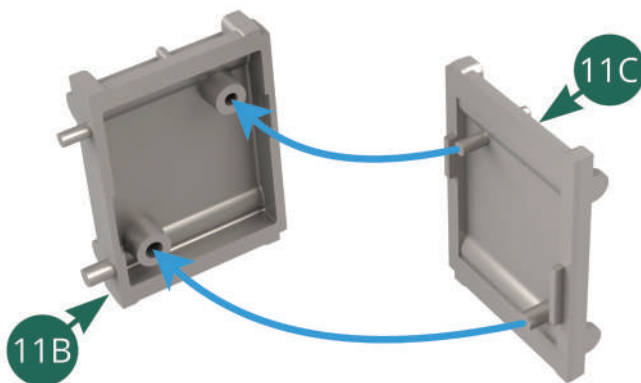
You may wish to super glue the cylinder parts to avoid splitting when fixing them in place.

Align the two cylinders with the **left engine block (11A)** and fix them in place by driving two **IM** screws through the engine block.

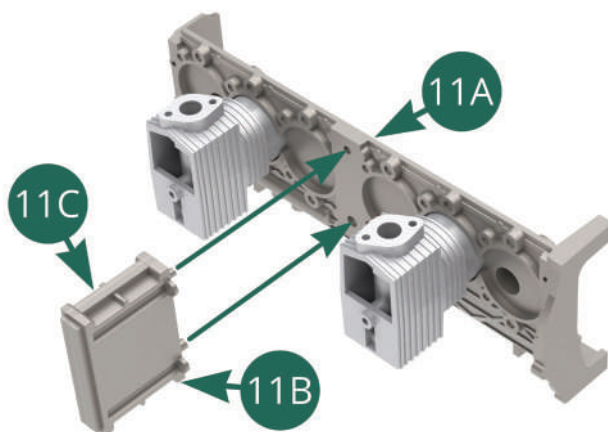


## STEP 2

Fit the **camshaft gear cover (11C)** onto the **camshaft gear housing (11B)** by pressing the small and large pins into the corresponding holes (blue arrows). Then push the assembled camshaft gear box into the engine block, so that the small and large pins fit into the corresponding holes as shown.



You may need to file excess paint off the camshaft gear box so that it fits flush with the engine block.

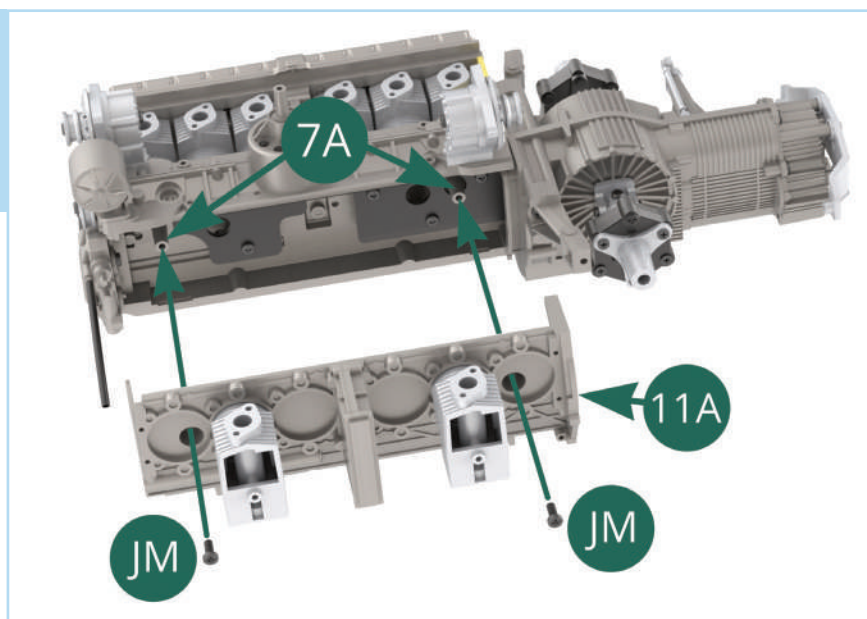




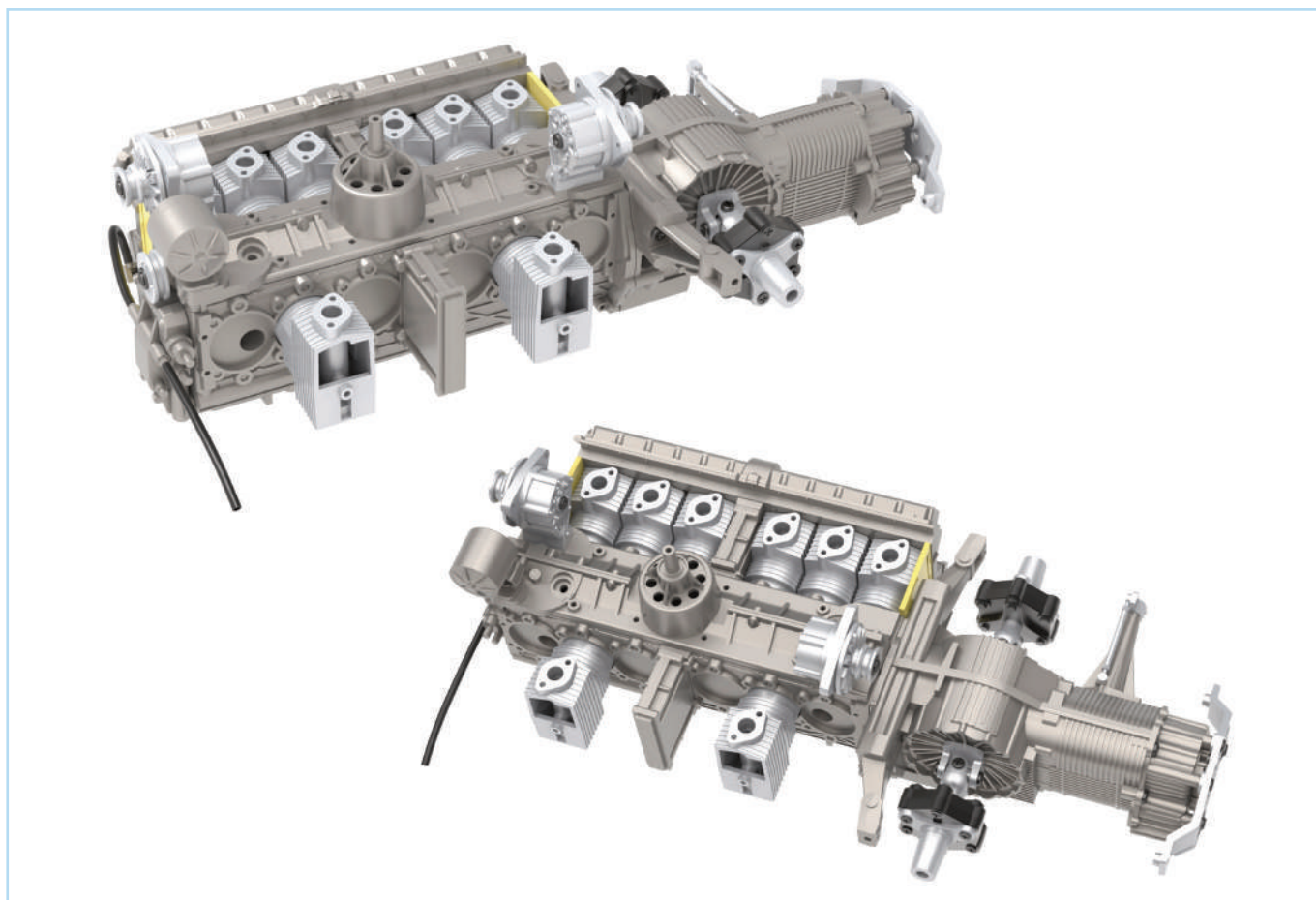
# STAGE 11: LEFT-SIDE OF ENGINE BLOCK

## STEP 3

Align the left engine block assembly with the **right engine block (7A)** as shown. Firmly push into position then attach with two **JM** screws.



## STAGE COMPLETE



# STAGE 12: BUILDING THE FUEL PUMP

**12A** Intake cam cover

**12B** Main gear

**12C** Fuel pump

**12D** Side cover (x2)

**12E** Fuel pump housing

**12F** Secondary gear

**12G** Fuel pump base

**12H** Panel

**12I** Fuel pump outer body

**12J** Connector

**12K** Toothed belt

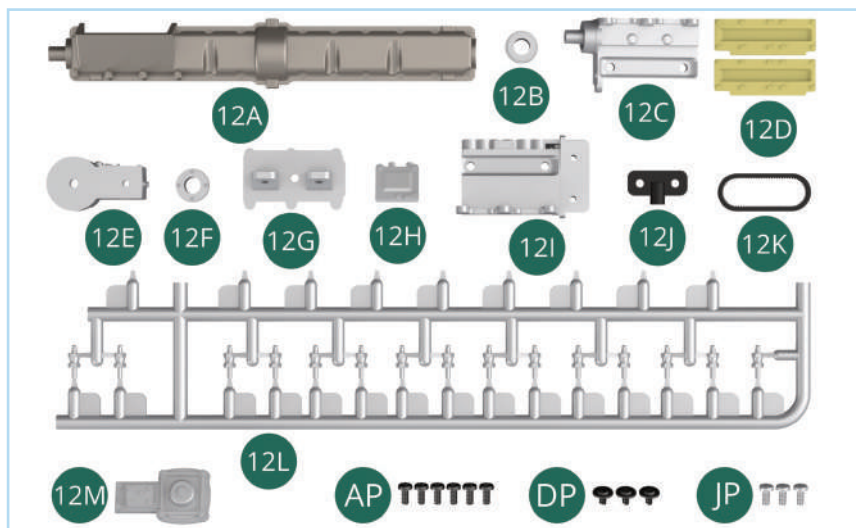
**12L** Injector nozzle (x15)

**12M** Housing cover

**AP** Screw 1.7 x 4mm (x6)

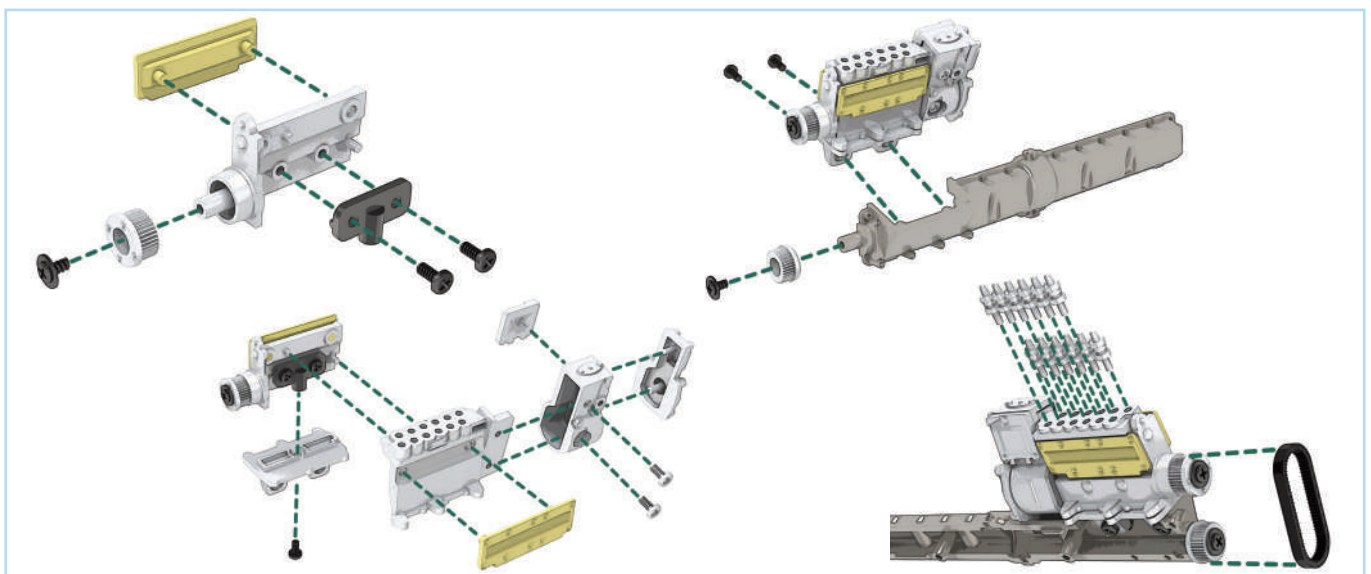
**DP** Screw 1.7 x 3 x 5mm (x3)

**JP** Screw 1.7 x 4mm (x3, silvered)



To distinguish the **main gear (12B)** from the **secondary gear (12F)**, note the four rivets on the secondary gear, and that it is larger than the main gear.

## ASSEMBLY DIAGRAM



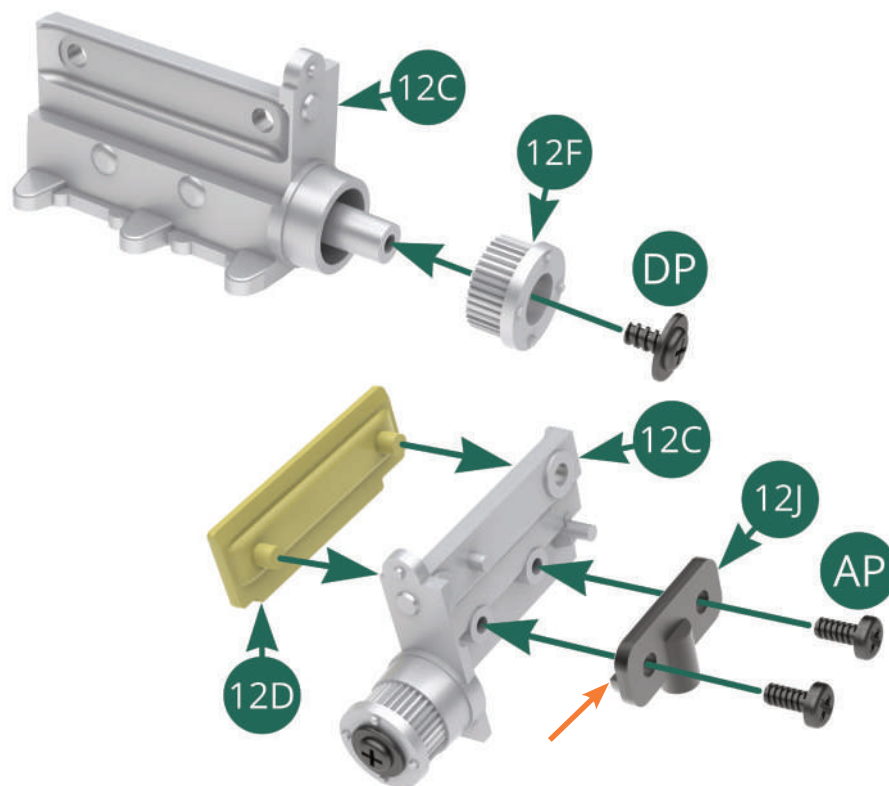
# STAGE 12: BUILDING THE FUEL PUMP

## STEP 1

Fit the **secondary gear (12F)** onto the shaft of the **fuel pump (12C)** in the orientation shown and secure in place with a **DP** screw.

Align the **connector (12J)** with the **fuel pump (12C)**, placing the two semi-circular notches (orange arrow) over the screw holes on the fuel pump and secure it using two **AP** screws.

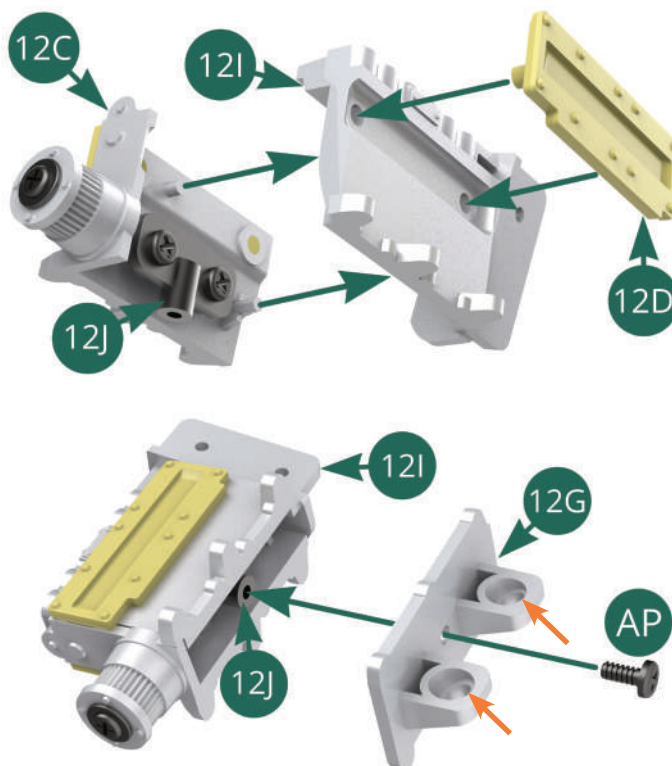
Take one of the **side covers (12D)** and fit it onto the side of the fuel pump by pressing firmly into place.



## STEP 2

Fit the fuel pump into the **fuel pump outer body (12I)**, then press the remaining **side cover (12D)** into the outer body.

Align the **fuel pump base (12G)** as shown and push into position. Secure the base with an **AP** screw.



You may need to remove excess paint from the outer body to ensure a flush fit.

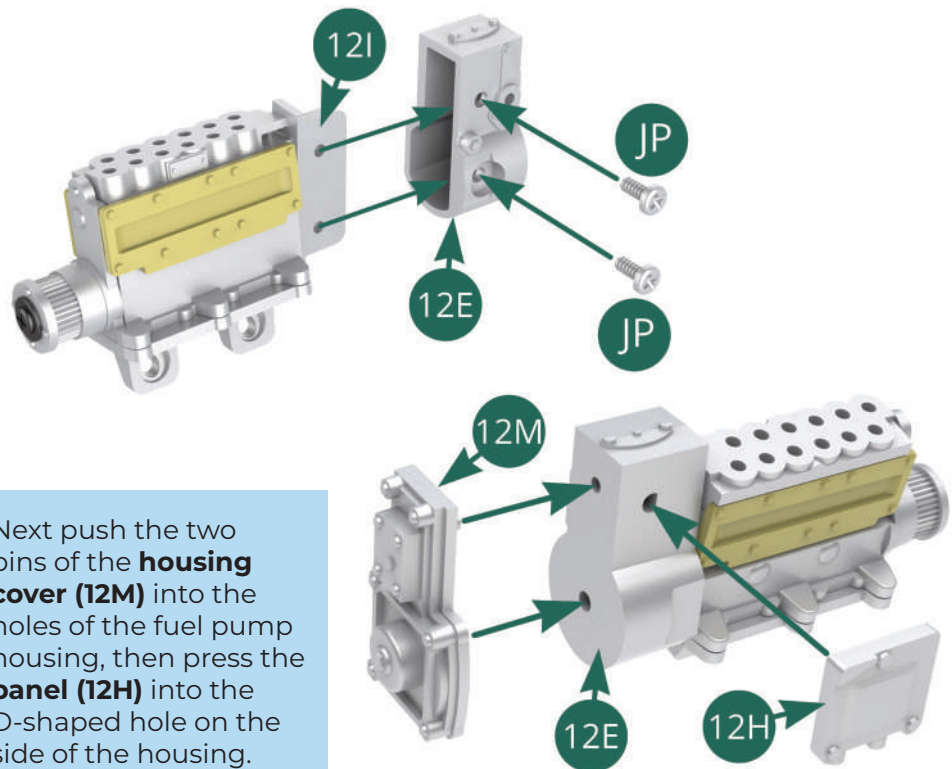
Note the wide holes (orange arrows) when aligning the fuel pump base.



# STAGE 12: BUILDING THE FUEL PUMP

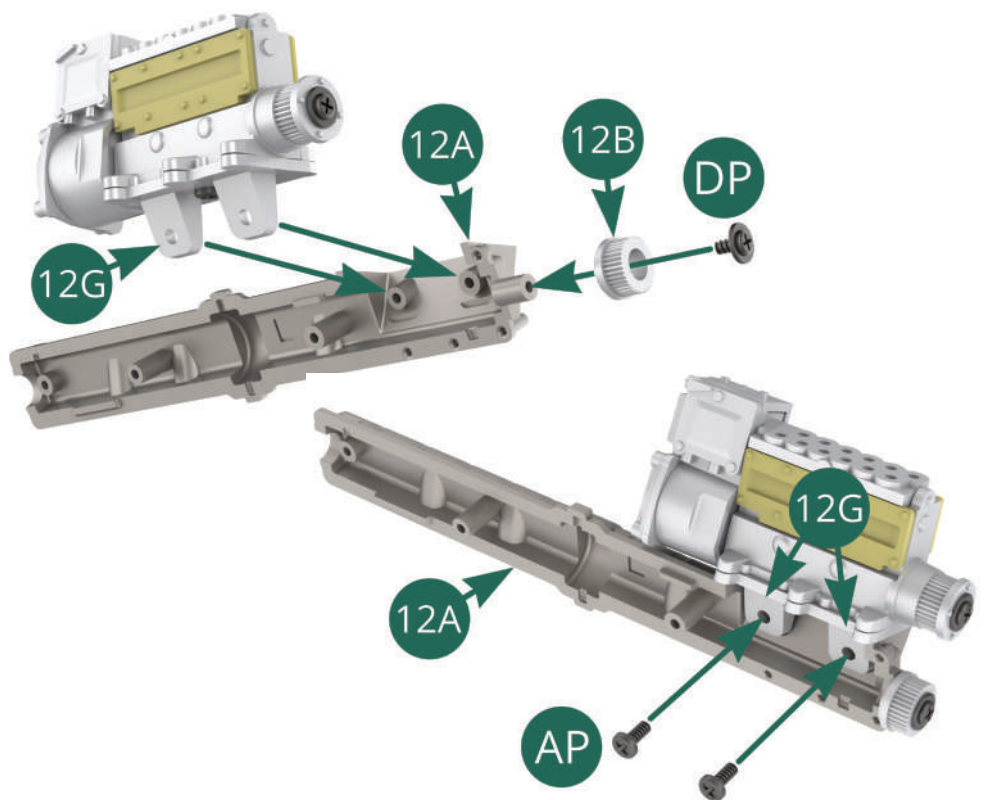
## STEP 3

Fit the assembly into the **fuel pump housing (12E)** and secure the parts together using two of the silvered **JP** screws.



## STEP 4

Fit the **main gear (12B)** onto the shaft of the **intake cam cover (12A)** and attach it with a **DP** screw. Take the fuel pump assembly and fit the holes of the **fuel pump base (12G)** over the corresponding screw holes of the cam cover. Holding it in place, secure the fuel pump to the cover using two **AP** screws.

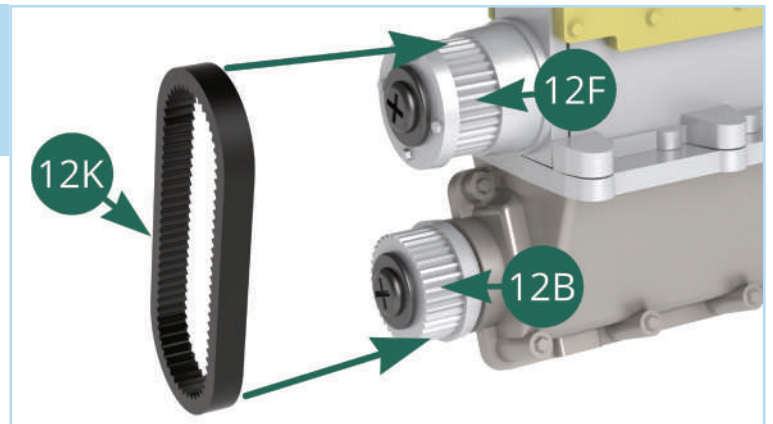




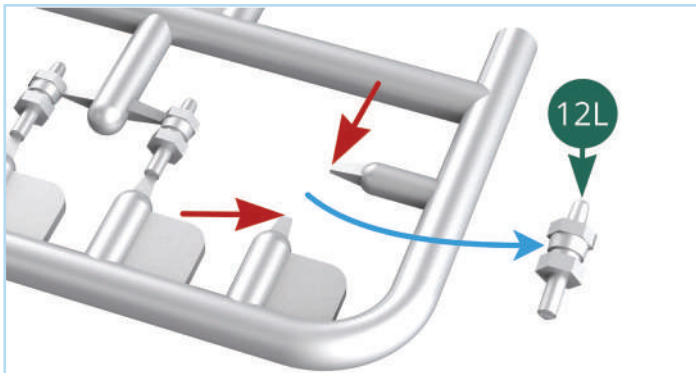
# STAGE 12: BUILDING THE FUEL PUMP

## STEP 5

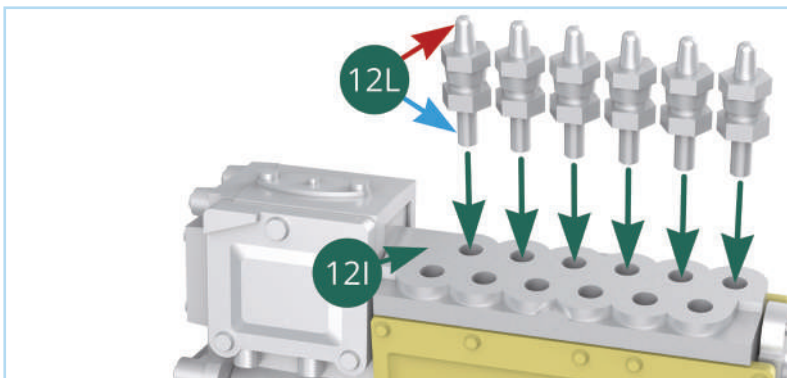
Take the **toothed belt (12K)** and place it around the main and secondary gear (**12B** and **12F**) of the fuel pump as shown.



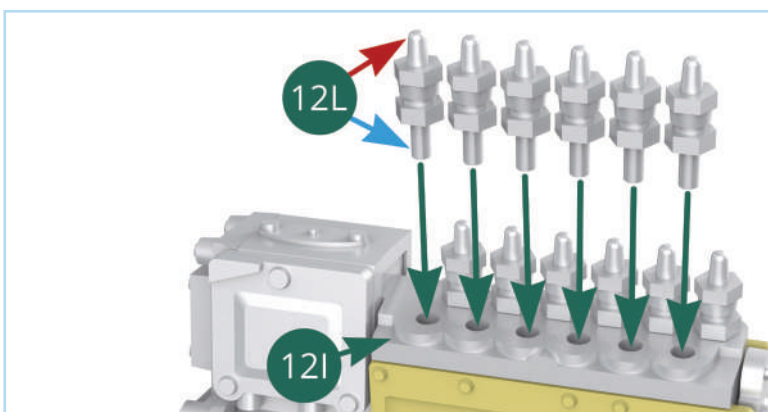
## STEP 6



Using sprue cutters, carefully detach twelve **injector nozzles (12L)** from their sprue at the points indicated by the red arrows.



Push six of the injector nozzles into the **fuel pump outer body (12I)**. Note the rounded end (red arrow) points up and the flat end (blue arrow) fits into the hole when fitting an injector in place.



Push the other six injector nozzles into the remaining holes on the fuel pump.

# STAGE 12: BUILDING THE FUEL PUMP

STAGE COMPLETE

