

1955 BRITISH GRAND PRIX WINNER

# MERCEDES-BENZ W 196 R



## Pack 01 – 04

### BUILD INSTRUCTIONS

STAGE 01: ADDING DETAILS  
TO THE NOSE

STAGE 02: ASSEMBLING THE  
AIR INTAKE AND THE DIALS

STAGE 03: BUILDING THE  
ENGINE BLOCK AND THE  
STEERING COLUMN

STAGE 04: BUILDING THE  
ENGINE BLOCK AND GEARBOX

STAGE 05: FITTING THE  
FUEL PUMP

STAGE 06: ADDING THE  
MAGNETOS

STAGE 07: CONSTRUCTING THE  
CYLINDER HEADS (1)

STAGE 08: CONSTRUCTING  
THE CYLINDER HEADS (2)

STAGE 09: FITTING THE  
VALVE COVERS (1)

STAGE 10: WIRING THE ENGINE

STAGE 11: FITTING THE  
VALVE COVERS (2)

STAGE 12: ASSEMBLING THE  
FRONT LEFT WHEEL RIM (1)  
(REGULAR)

STAGE 12B: ASSEMBLING THE  
FRONT LEFT WHEEL RIM (1)  
(EASY)

STAGE 13: ASSEMBLING THE  
FRONT LEFT WHEEL RIM (2)  
(REGULAR)

STAGE 13B: ASSEMBLING THE  
FRONT LEFT WHEEL RIM (2)  
(EASY)

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# Advice from the experts

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This set of step-by-step instructions will enable you to complete the build of your 1:8-scale Mercedes-Benz W 196 R. The only tool you will need is a screwdriver. Most of the steps involve simply screwing or fitting parts together, and the correct screws needed for each step are clearly labelled on the instructional images.

## Please note the following:

- The number designated by a # refers to the number given on the parts supplied in each pack.
- Where left and right elements of the same part are supplied, these are listed as (L) and (R).
- Close-up details of steps are framed in yellow.
- You will not be using every part you receive in your shipment in that build section. Keep any parts that are not used aside for use in a later sequence.
- You will receive extra screws with each shipment in case any screws are lost or broken.
- Screws with codes ending in the letter M drive into metal; those ending in the letter P drive into plastic.
- With M screws, first drive the screw in half-way. Then unscrew it to release the shavings created as the screw cuts its thread. Finally, drive the screw fully into the socket. M screws should be tightened so the head makes firm contact with the fixing surface.
- With P screws, do not over-tighten them as they can damage the socket.
- When working with the pre-finished exterior surfaces of the model, work on a soft cloth. This will protect against scratching the paintwork.
- When plugging wires in, ensure the power is switched off.
- Tweezers can be used to fit the PVC cables. In this case, grip carefully around 5mm from the end of the cable. If the end of the cable is too narrow to fit on to the pin, cautiously insert a cocktail stick, being wary not to split the cable.
- Some smaller plastic parts are attached to sprues. You can remove these by hand, or by careful use of a cutting implement such as a scalpel.
- When assembling the wheels of your model, you can choose between regular and easy assemblies. Follow our instructions carefully.

The images in this manual may differ slightly from those supplied in your pack. These images differ in appearance only and will not affect the process of the build.

**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.

# Advice from the experts

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When you see this symbol on one of the images in these instructions, we have provided a Top Tip to help you with your build. Check back on this page for the corresponding tip!

You can find more expert tips and advice for building the Mercedes W196R on our forum.

Go to <https://community.agoramodels.com/forum/198-mercedes-w196r/>

## Page 6 – H

Leave off parts **2K** and **2J** as they are replaced in a later stage.

## Page 22 – D, E, F & G

The spark plug wires **10C** will look tidier if you cut them to fit to form a nice curve. The correct length is about 1 cm long, but they do vary a little from plug to plug.

## Page 24

Note that the front wheels are thinner than the rear wheels.

## Page 25 – D

Test fit **12B** before starting to fit the spokes.

## Page 26 – H

Note that the cut-outs on **12A** and **12B** line up (left side of photo).

## Page 26 – L

Line up the tab on **12H** with the cut-out on **12B**.

## Page 28 – F

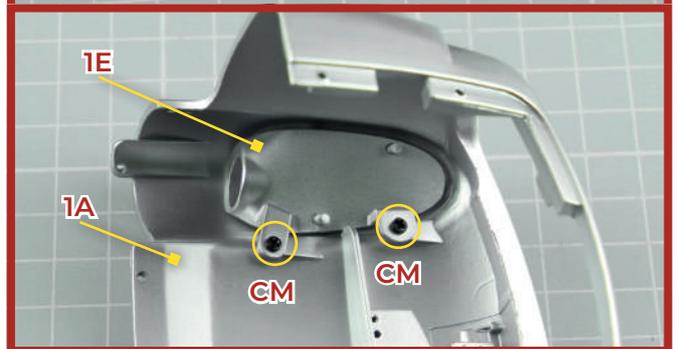
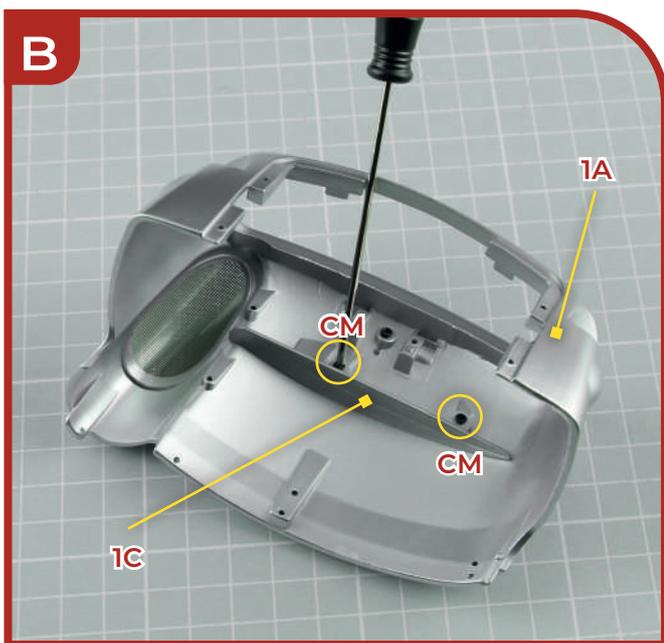
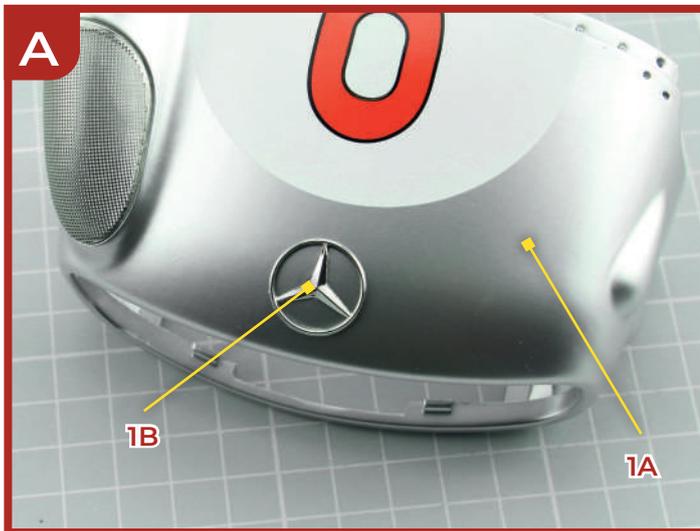
You will need to bend the spoke a little to get it into the holes.

## Page 29 – A

If the double-sided tape is not working for you, try using little balls of sticky tack (Blu Tack) which we found work very well.

# Stage 01: Adding Details to the Nose

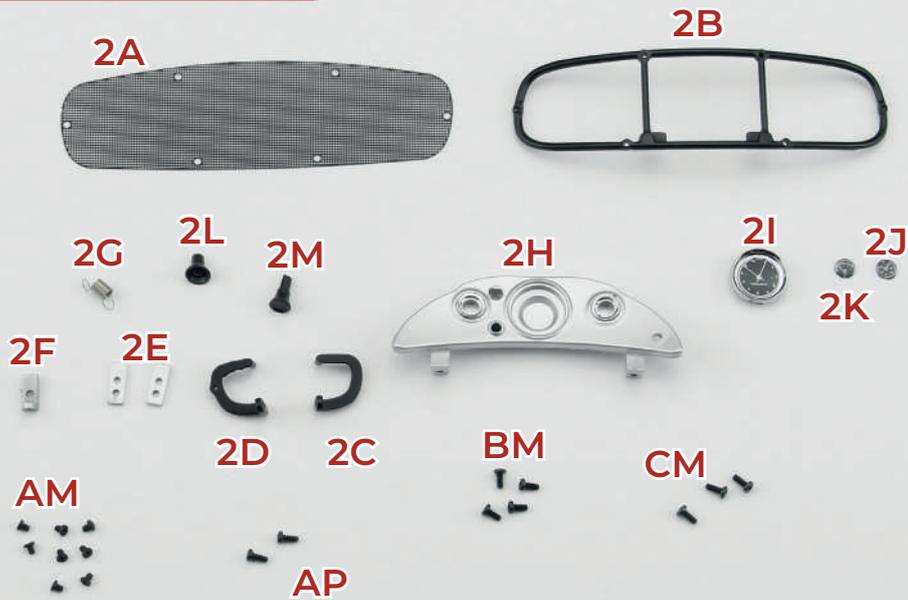
1#	PARTS LIST	
		<p>1A Nose</p> <p>1B Badge</p> <p>1C Radiator support</p> <p>1D Air intake frame</p> <p>1E Air intake</p> <p>1F Steering wheel</p> <p>1G Screwdriver</p> <p>AP 2 screws (1.7 x 4 mm)</p> <p>CM 5 screws (1.7 x 4 mm)</p>



## Stage 02: Assembling the Air Intake and the Dials

1-2#

### PARTS LIST

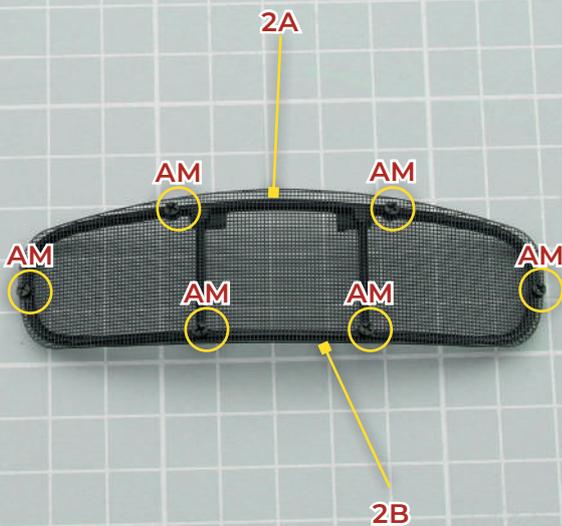


2A Air intake net  
 2B Air intake frame  
 2C Hinge (L)  
 2D Hinge (R)  
 2E Hinge supports (x2)  
 2F Bracket  
 2G Spring

2H Dashboard  
 2I Tachometer  
 2J Water temperature gauge  
 2K Oil pressure gauge  
 2L Low fuel indicator  
 2M Cold start injector

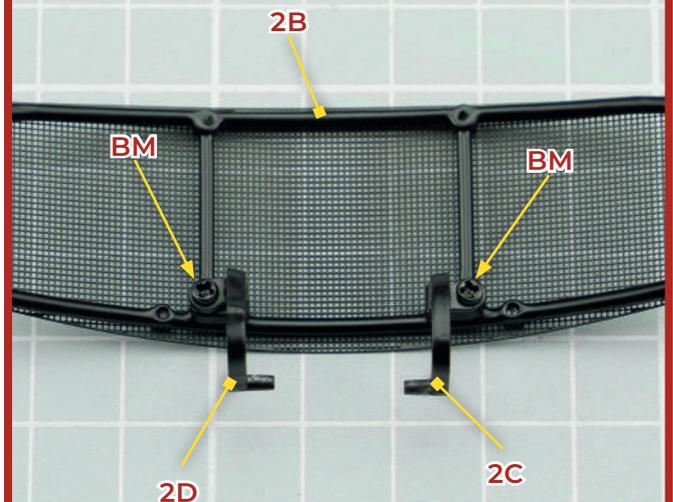
AP 2 screws (1.7 x 4 mm)  
 AM 8 screws (1.5 x 2 mm)  
 BM 4 screws (1.7 x 3 mm)  
 CM 3 screws (1.7 x 4 mm)

A

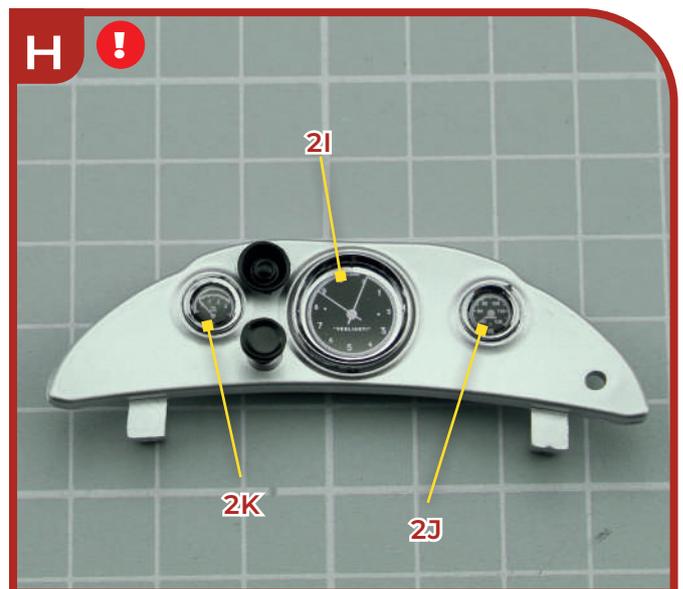
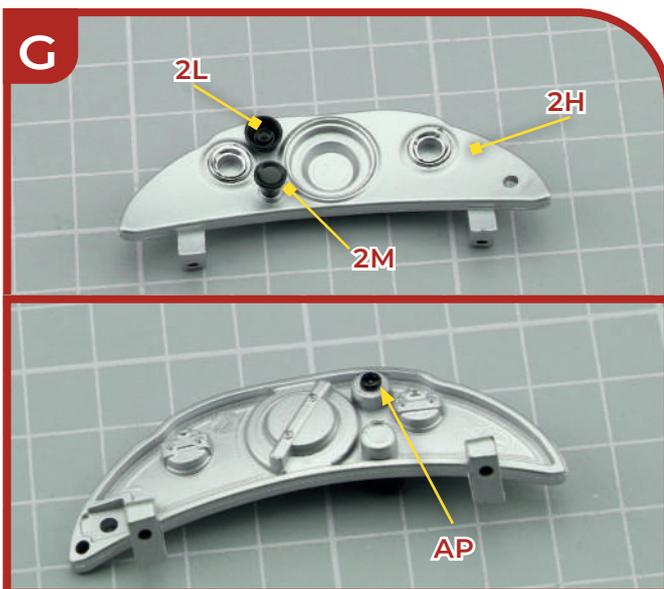
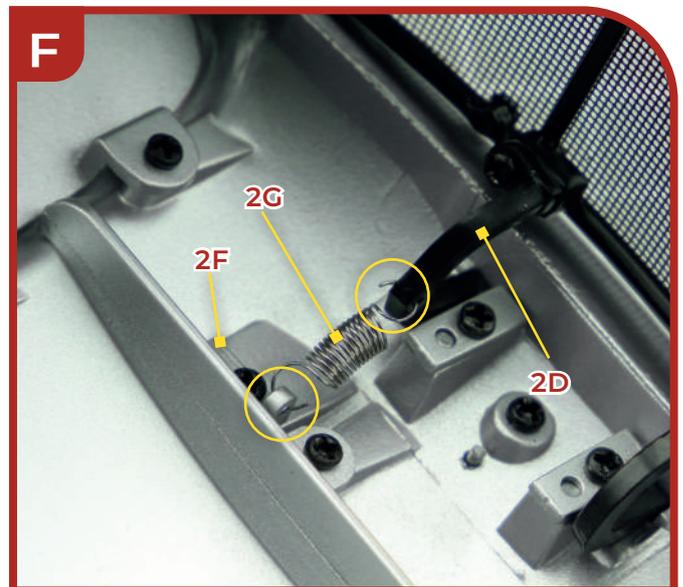
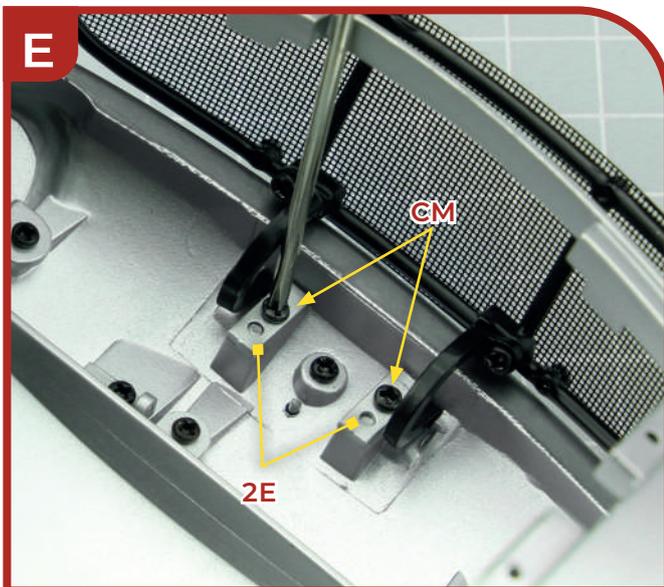
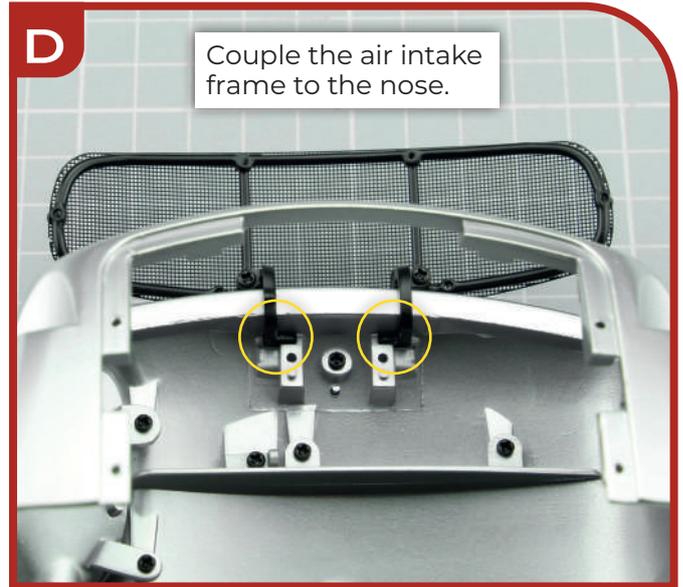
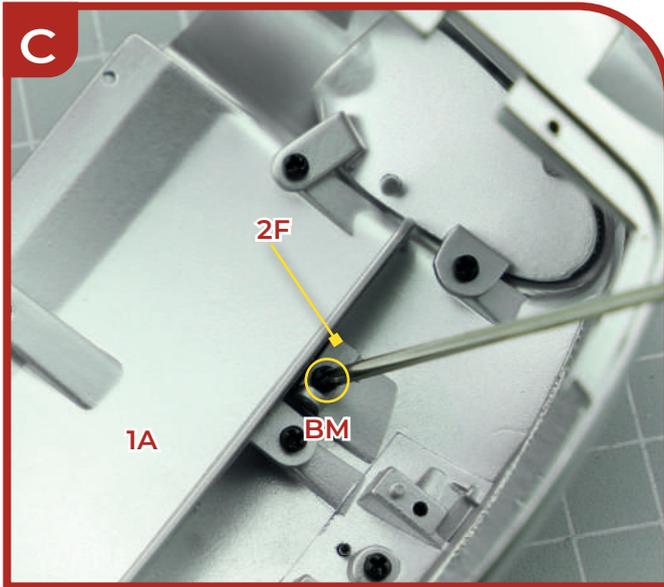


B

Turn the air intake frame over.

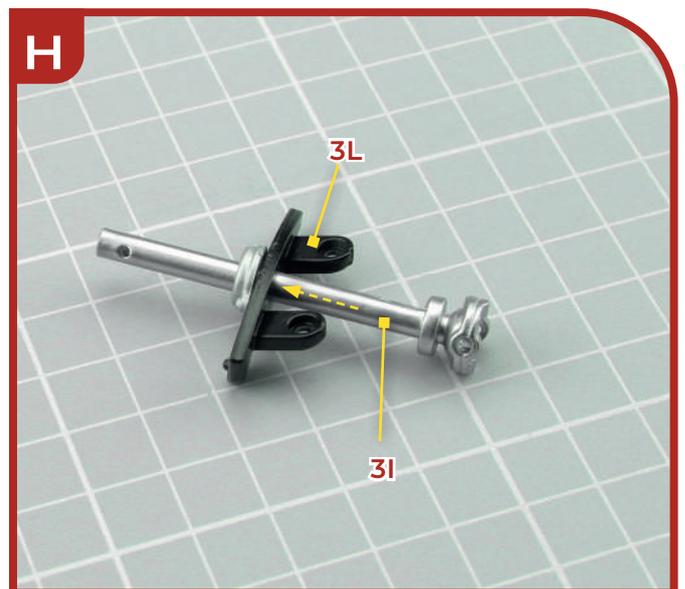
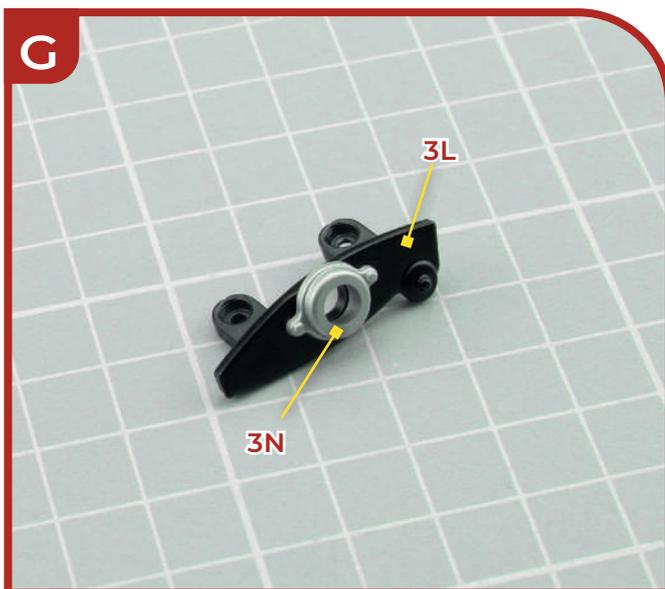
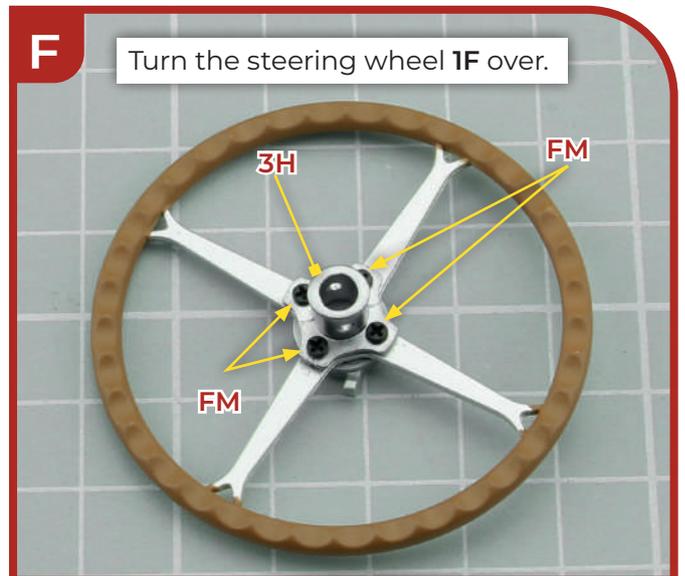
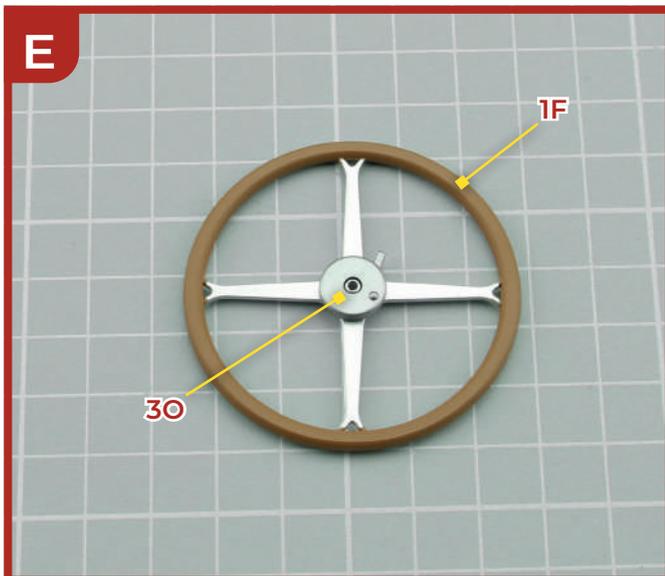
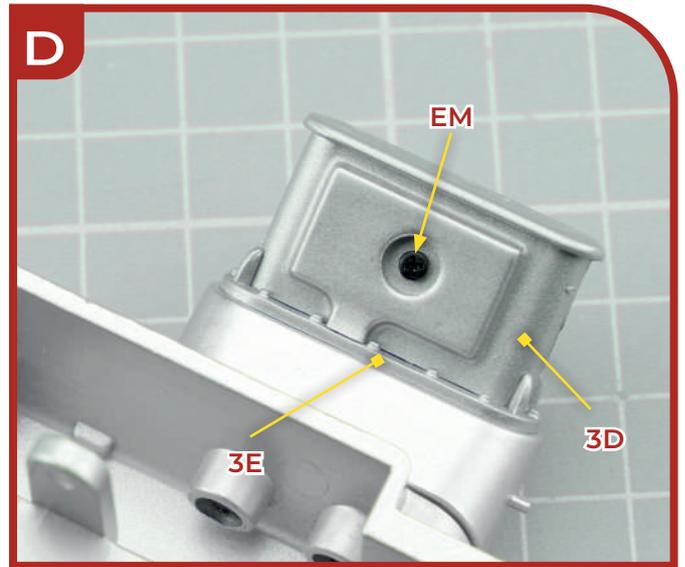
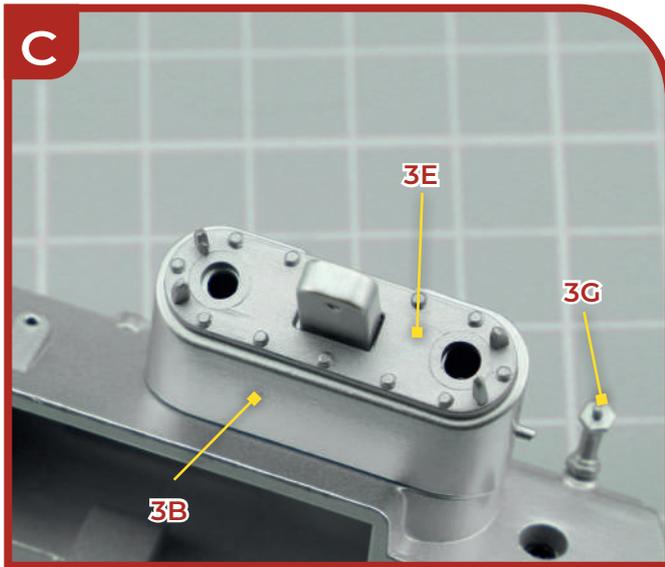


## Stage 02: Assembling the Air Intake and the Dials

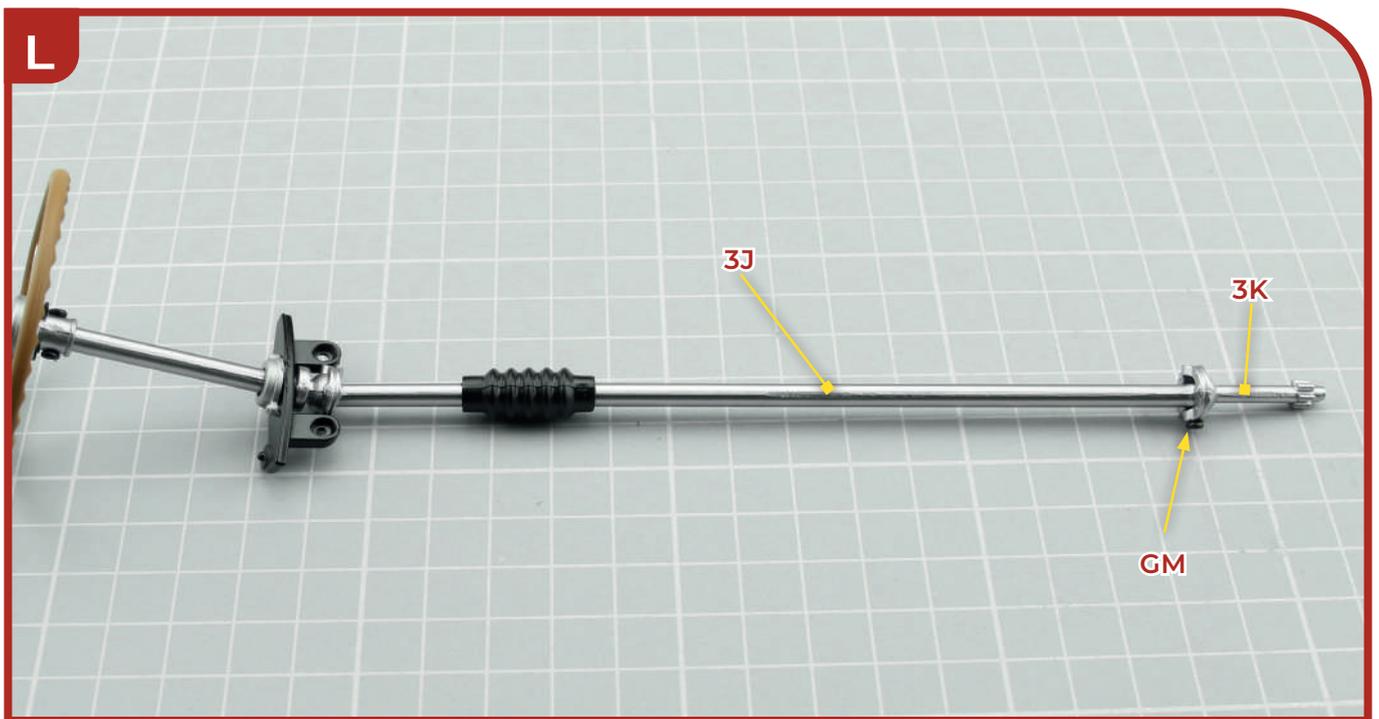
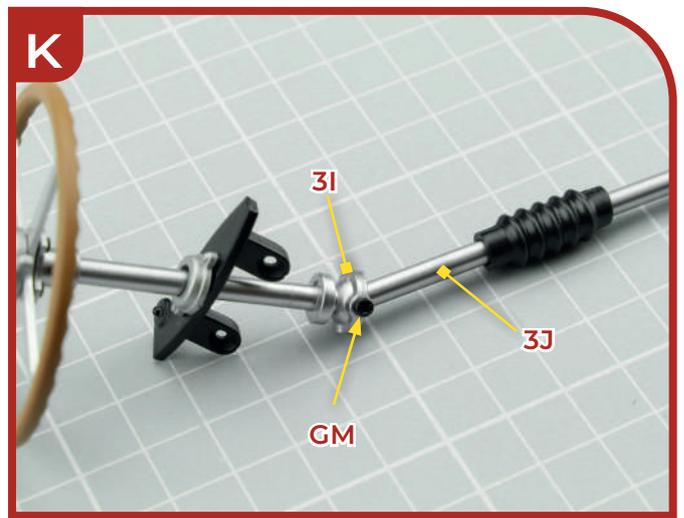
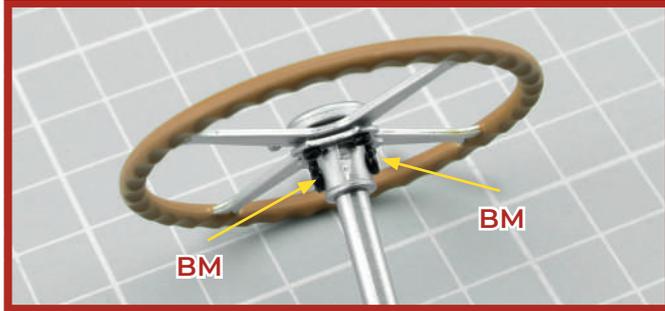
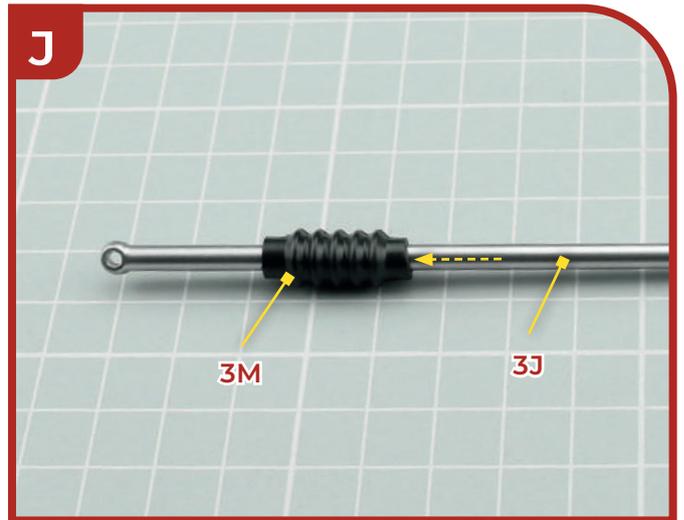
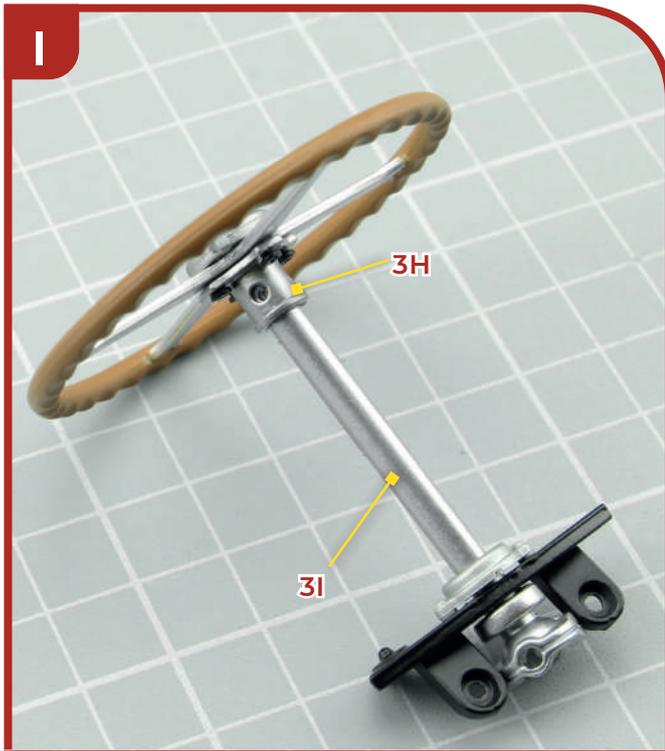




# Stage 03: Building the Engine Block and the Steering Column



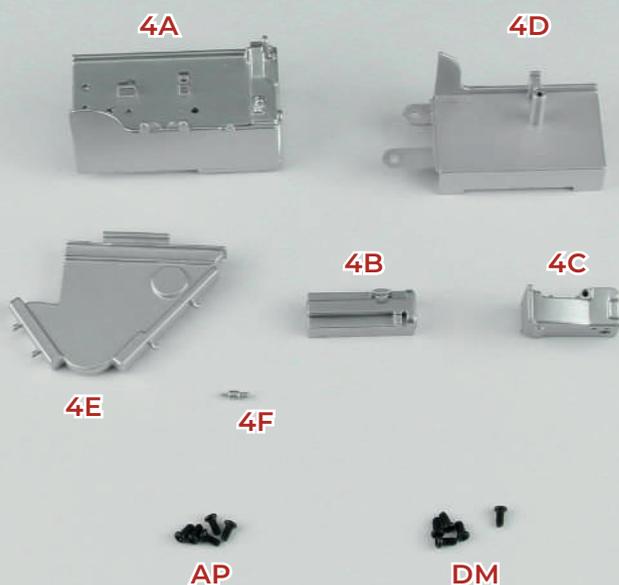
# Stage 03: Building the Engine Block and the Steering Column



## Stage 04: Building the Engine Block and Gearbox

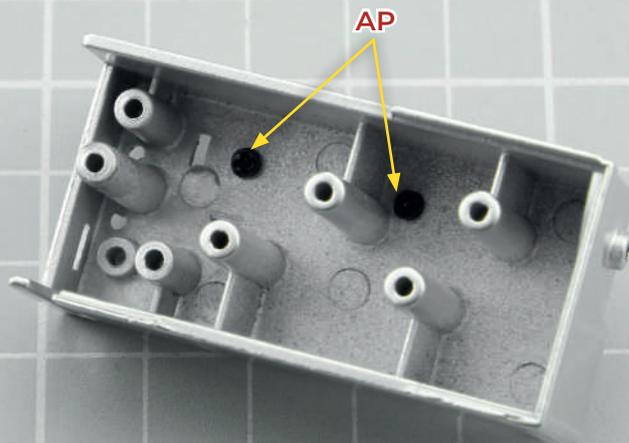
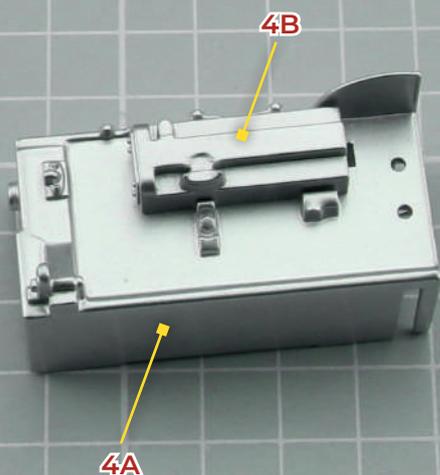
1-4#

### PARTS LIST

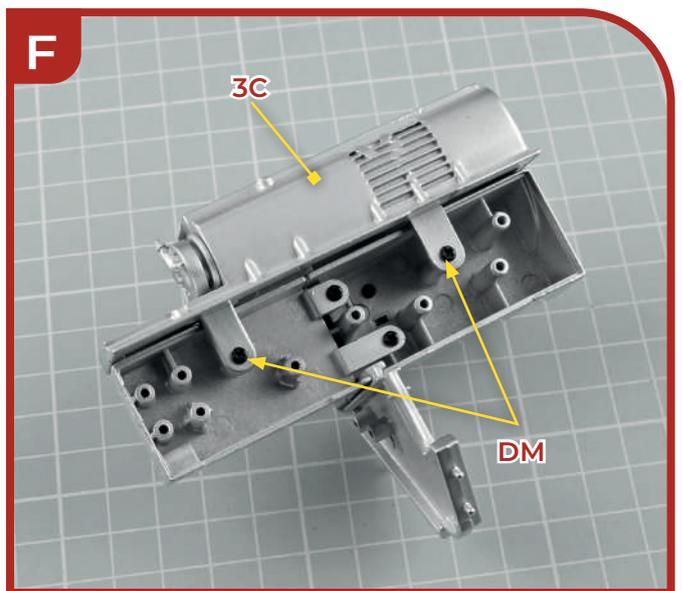
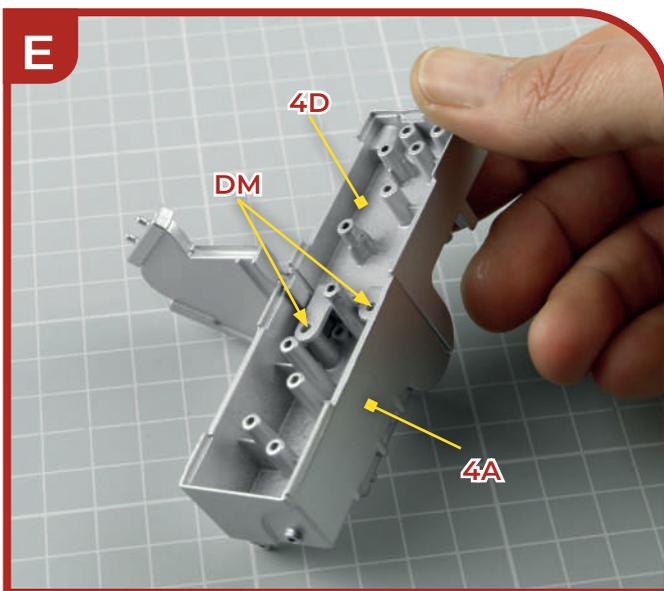
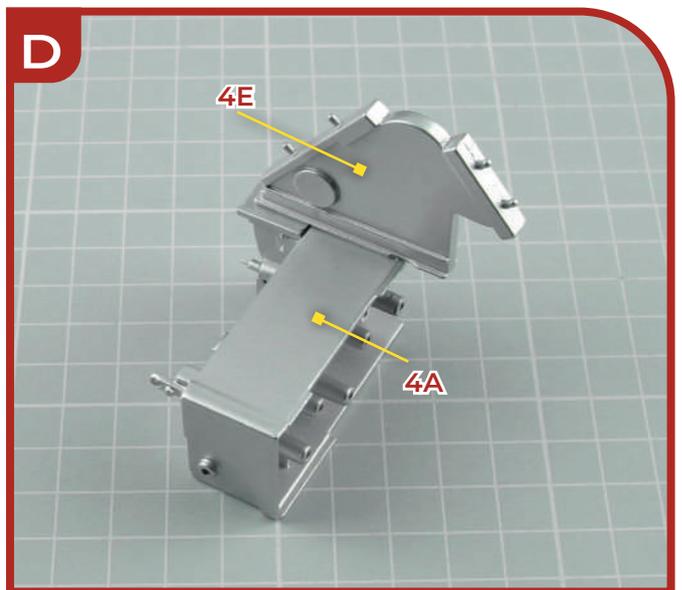
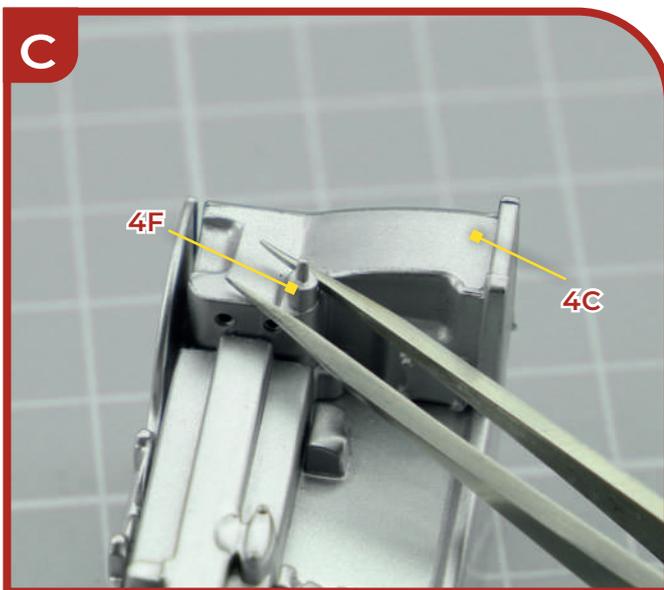
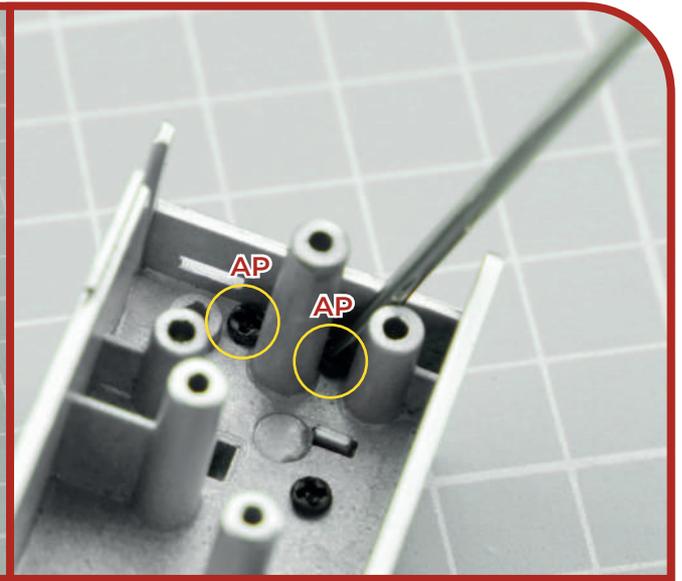
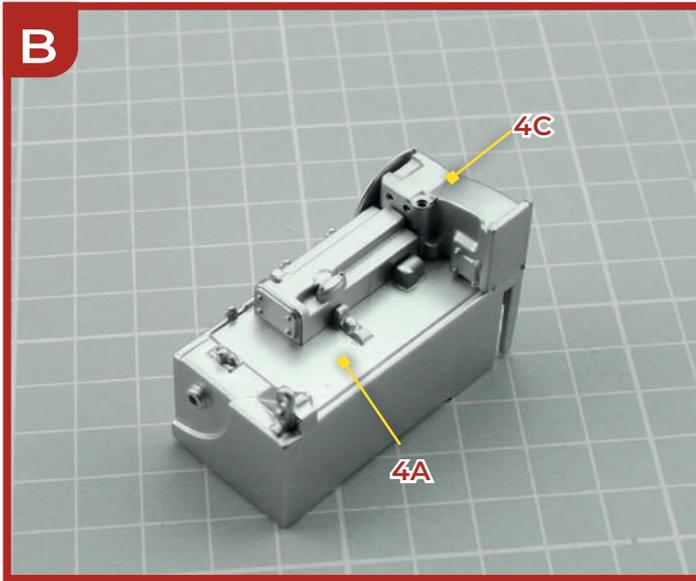


- 4A Engine upper block part A (L)
- 4B Engine upper block part B (L)
- 4C Central gearbox part A
- 4D Engine upper block part C (L)
- 4E Central gearbox part B (L)
- 4F Oil pressure valve
- AP 5 screws (1.7 x 4 mm)
- DM 5 screws (2 x 4 mm)

A



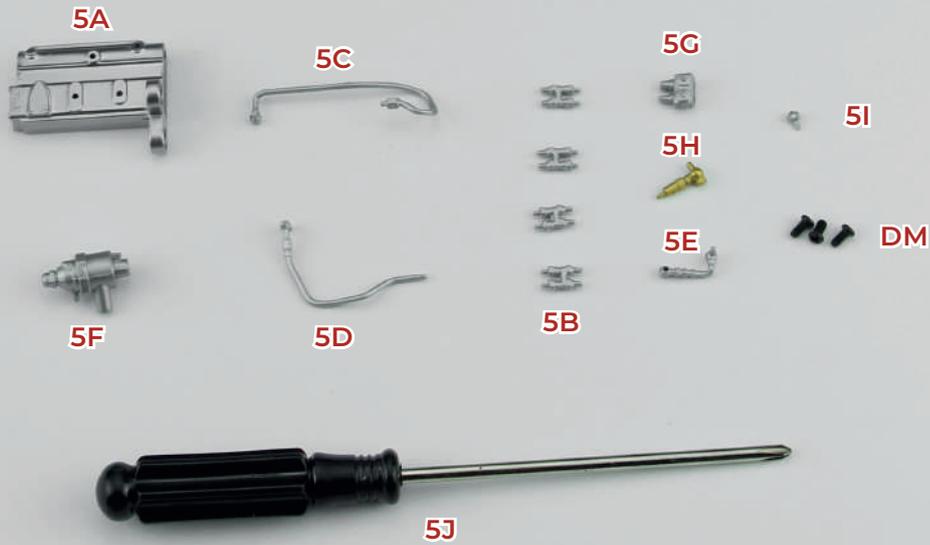
# Stage 04: Building the Engine Block and Gearbox



# Stage 05: Fitting the Fuel Pump

1-5#

## PARTS LIST



**5A** Fuel pump body

**5B** Joints 1 (x4)

**5C** Pipe 1

**5D** Pipe 2

**5E** Joint 2

**5F** Fuel pump part A

**5G** Fuel pump part B

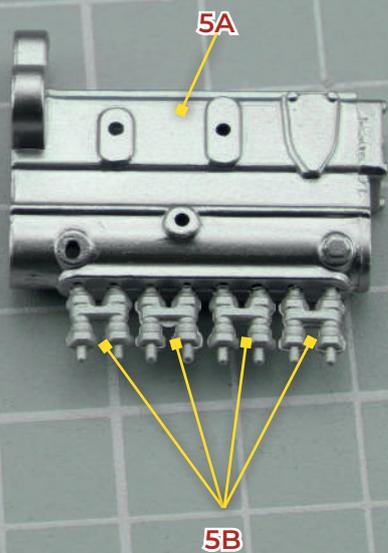
**5H** Joint 3

**5I** Joint 4

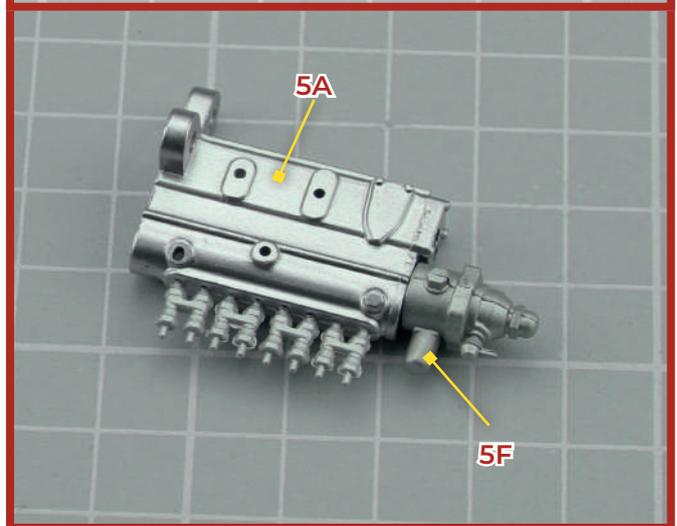
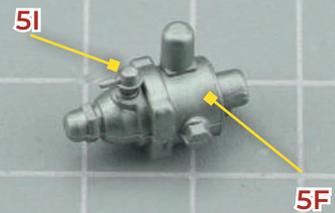
**5J** Screwdriver

**DM** 3 screws (2 x 4 mm)

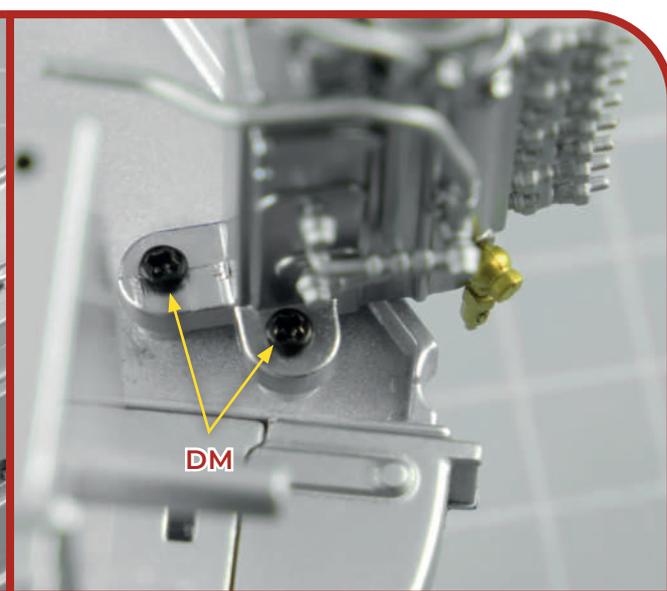
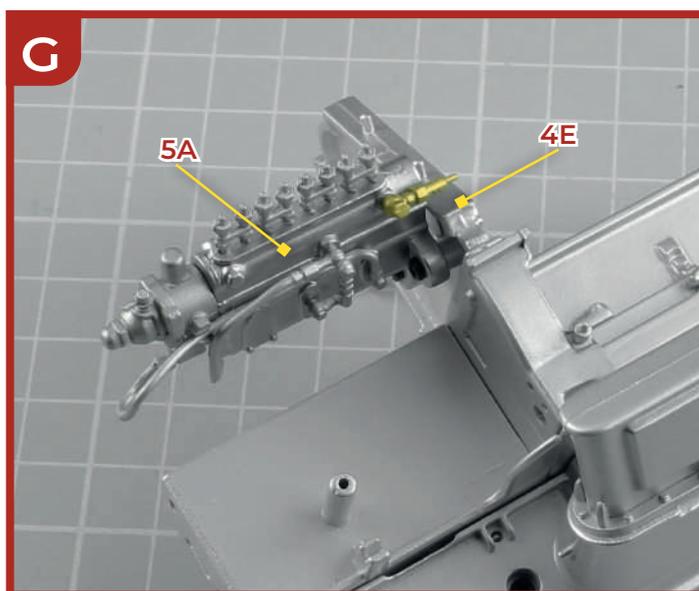
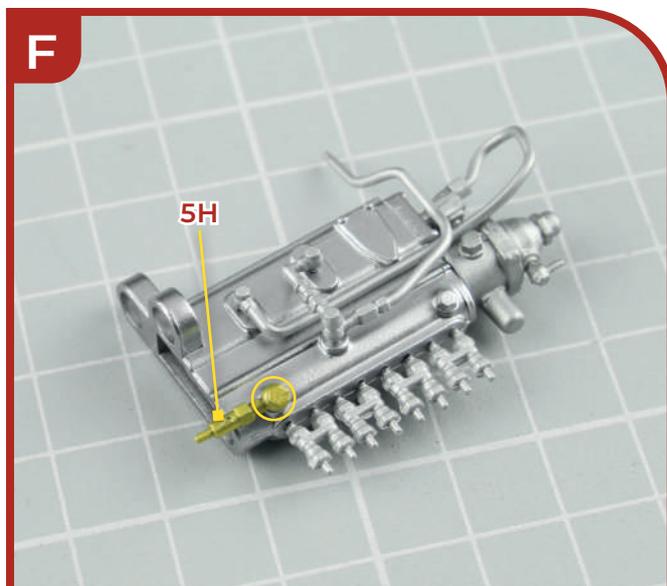
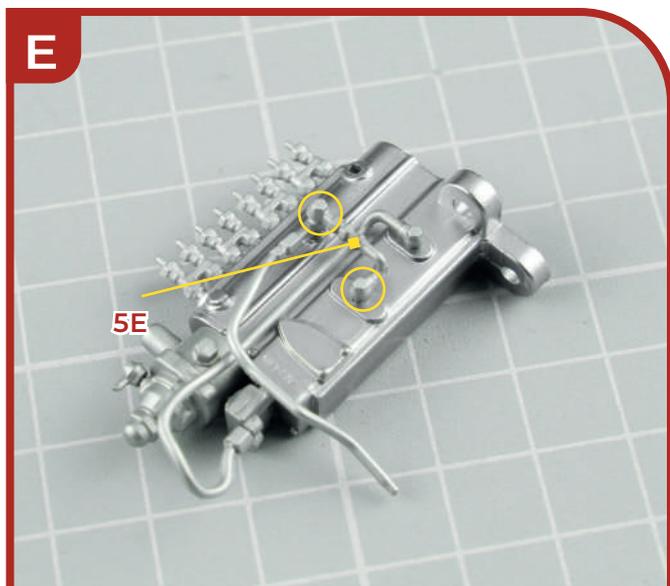
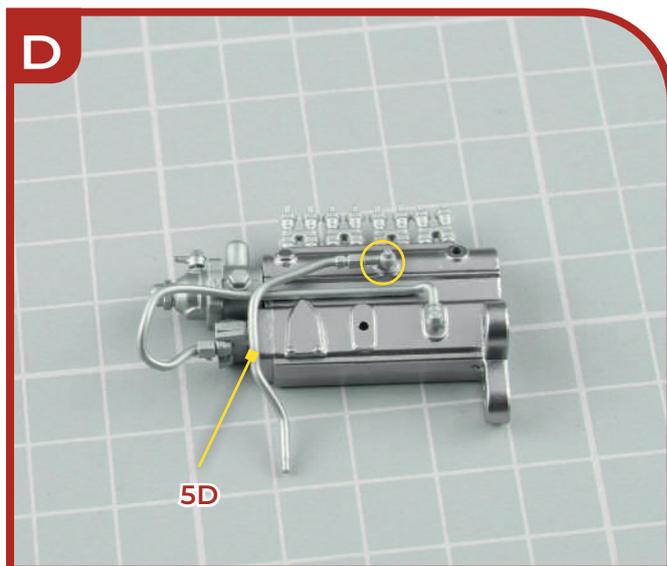
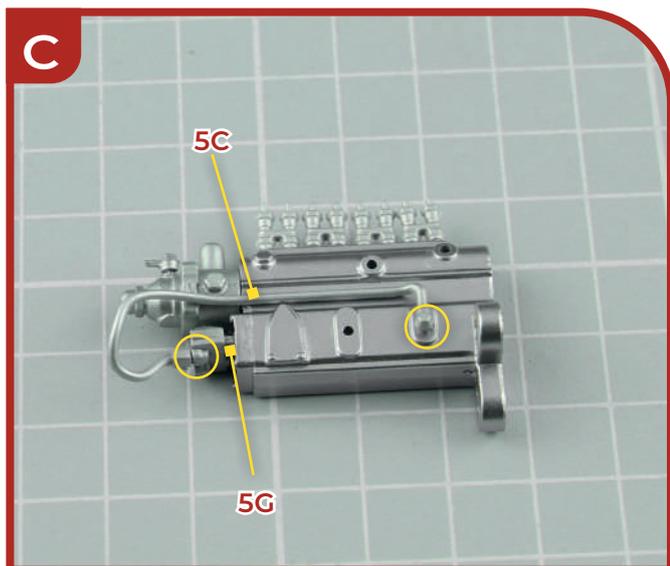
**A**



**B**



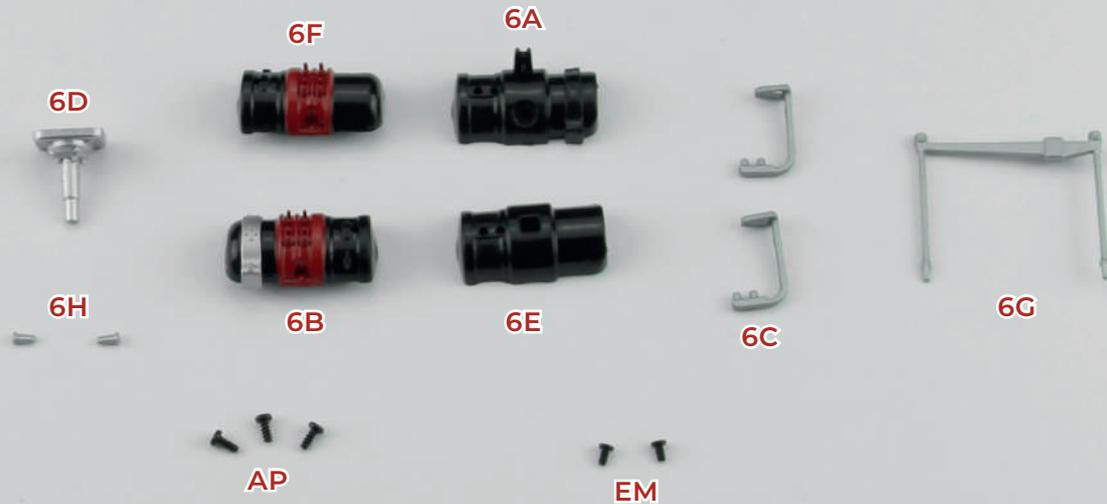
## Stage 05: Fitting the Fuel Pump



## Stage 06: Adding the Magnetos

1-6#

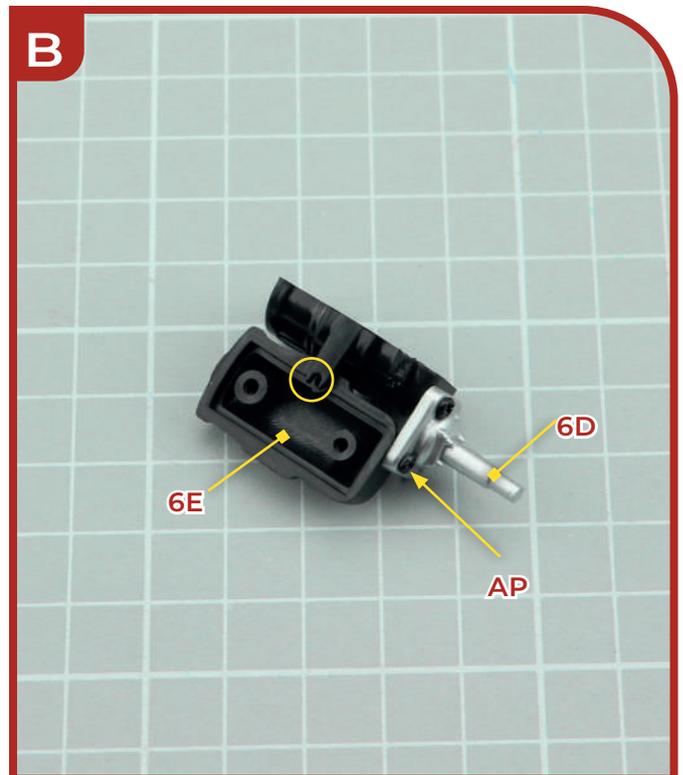
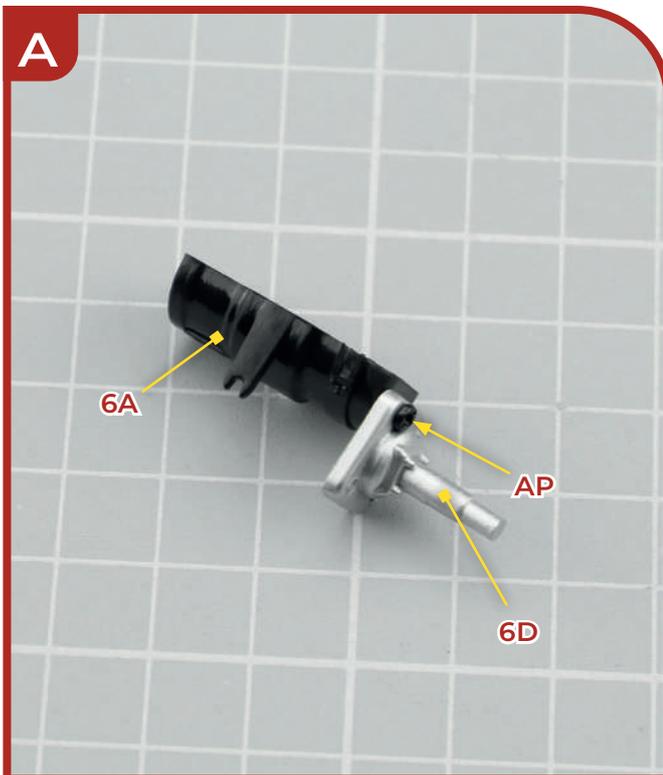
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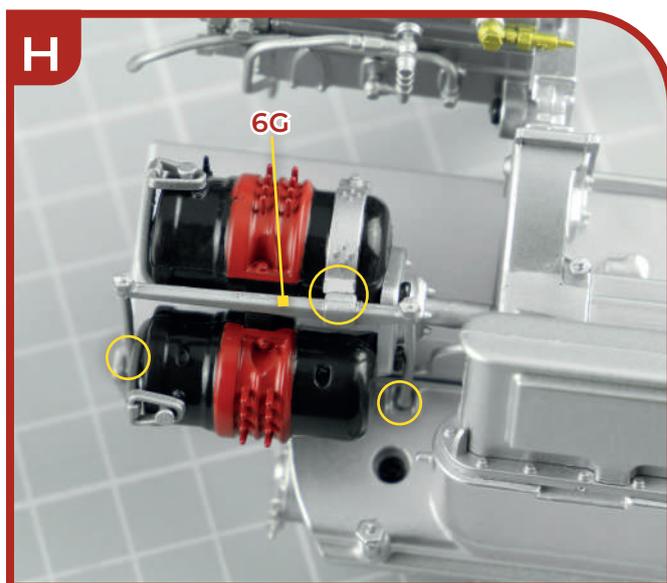
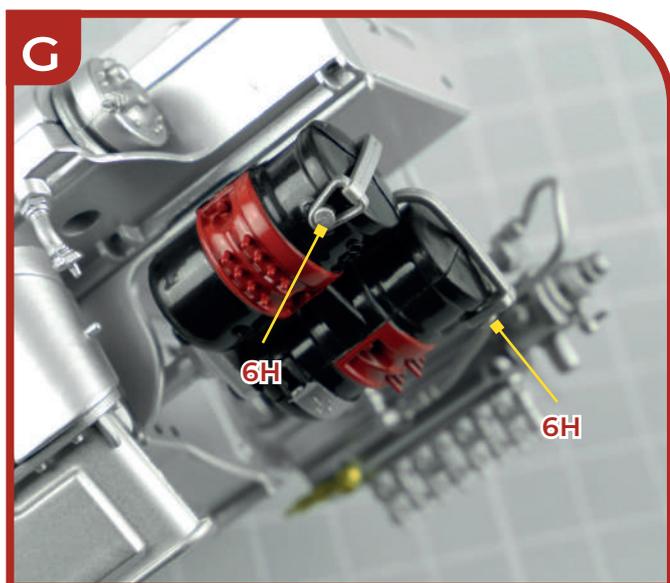
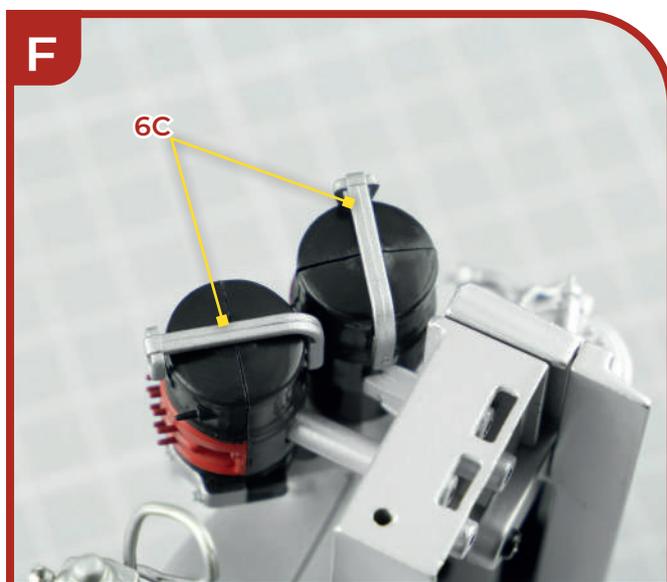
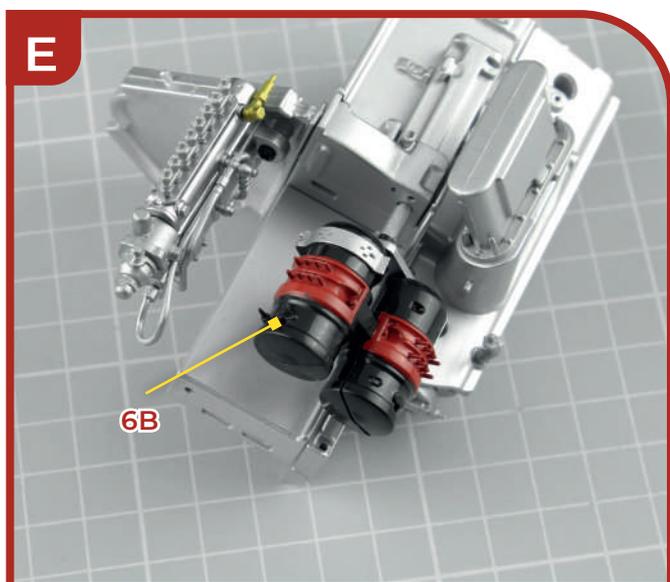
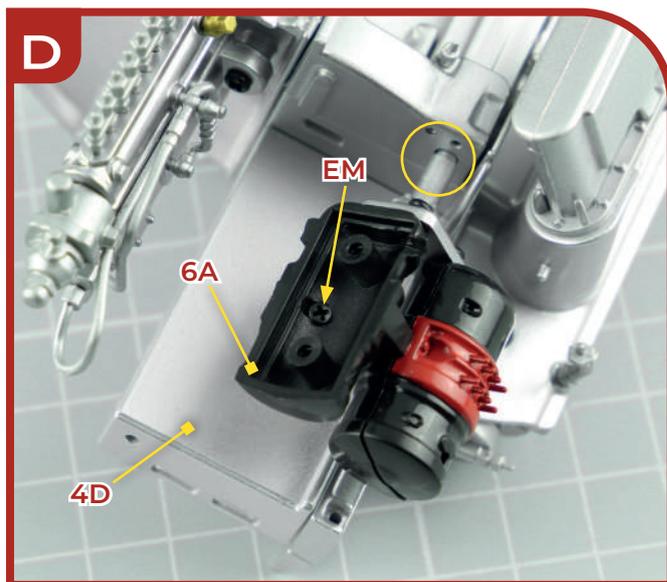
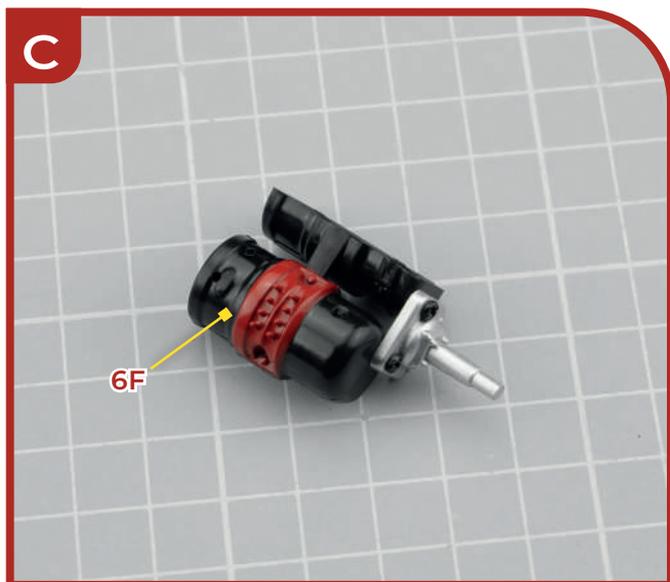
**6A** Magneto part A  
**6B** Magneto part B  
**6C** Brackets (x2)  
**6D** PTO shaft

**6E** Magneto part C  
**6F** Magneto part D  
**6G** Magnetos support  
**6H** Pins (x2)

**AP** 3 screws (1.7 x 4 mm)  
**EM** 2 screws (1.5 x 3 mm)



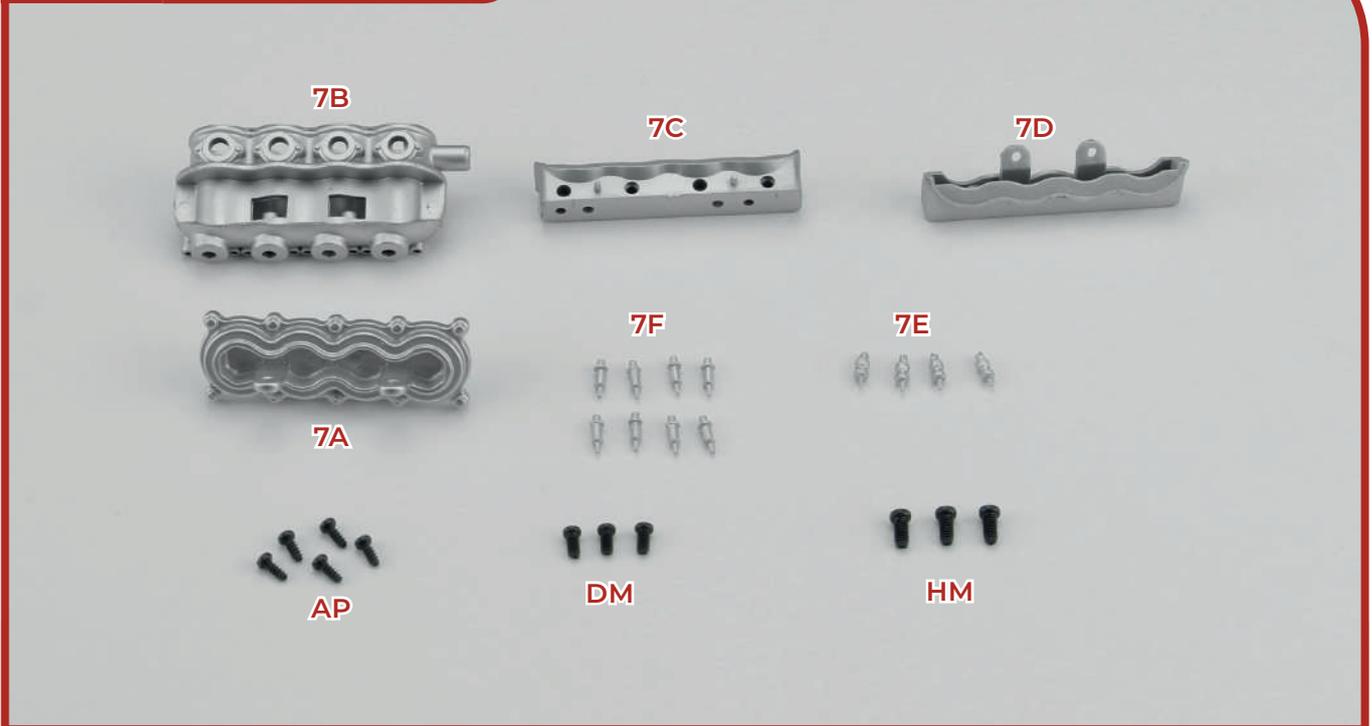
## Stage 06: Adding the Magnetos



# Stage 07: Constructing the Cylinder Heads (1)

1-7#

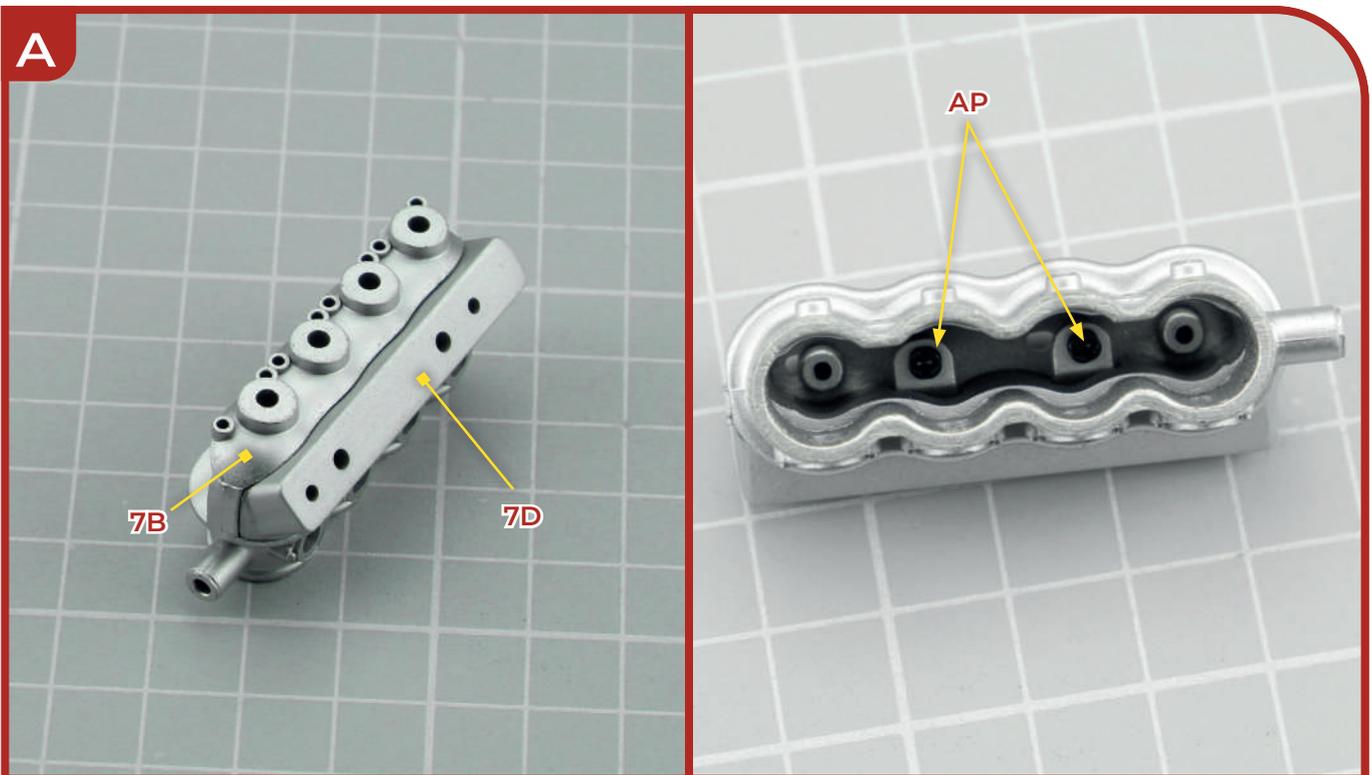
## PARTS LIST



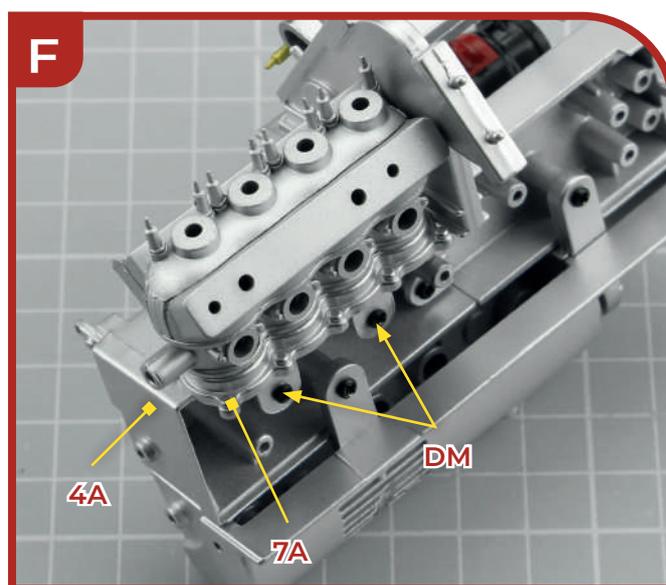
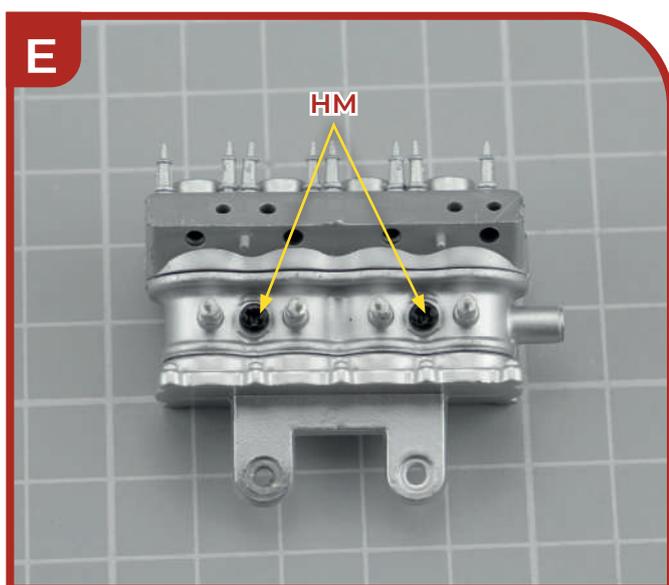
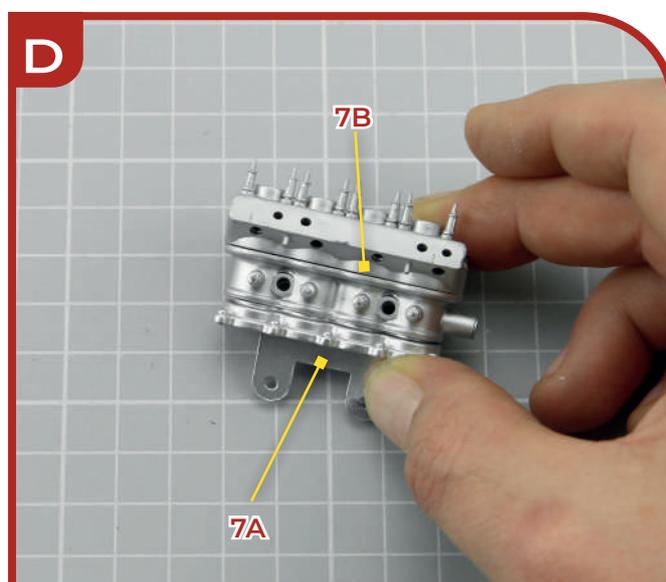
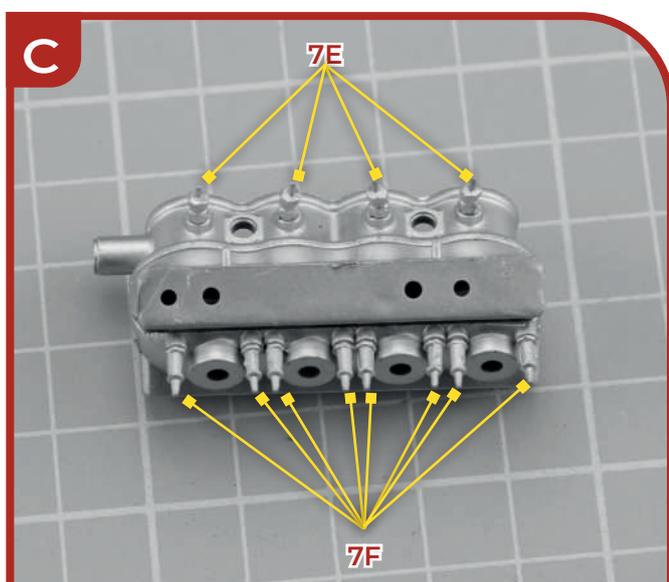
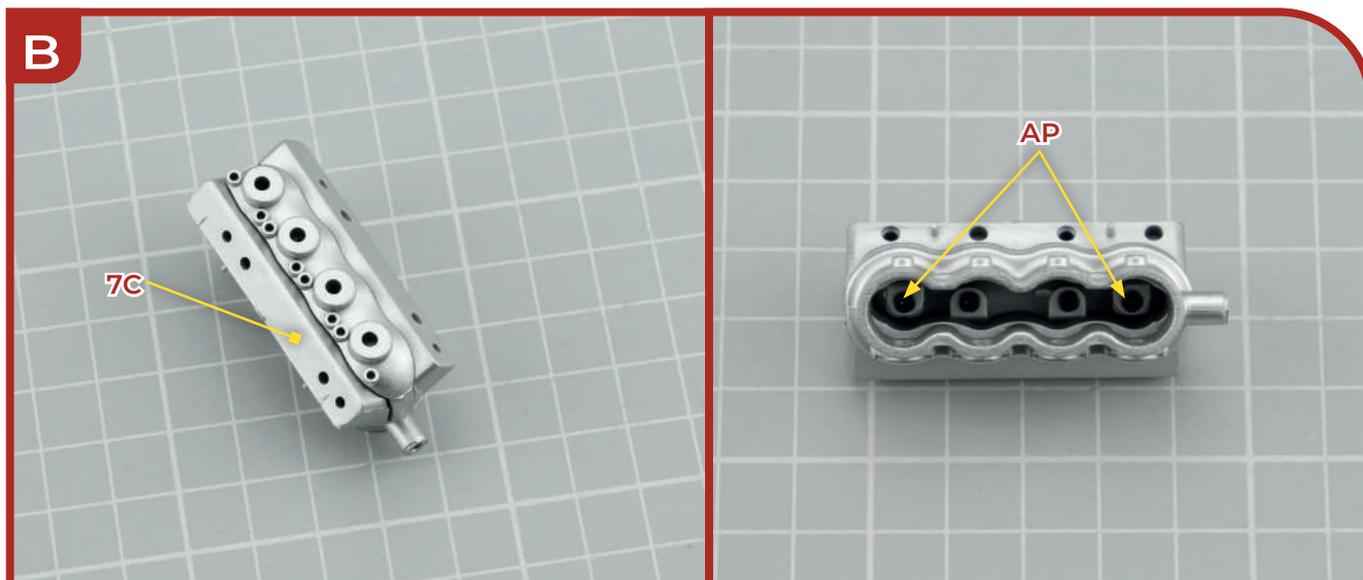
**7A** Cylinder head base  
**7B** Cylinder head  
**7C** Cover 1

**7D** Cover 2  
**7E** Fuel injectors (x4)  
**7F** Spark plugs (x8)

**AP** 5 screws (1.7 x 4 mm)  
**DM** 3 screws (2 x 4 mm)  
**HM** 3 screws (2.3 x 5 mm)



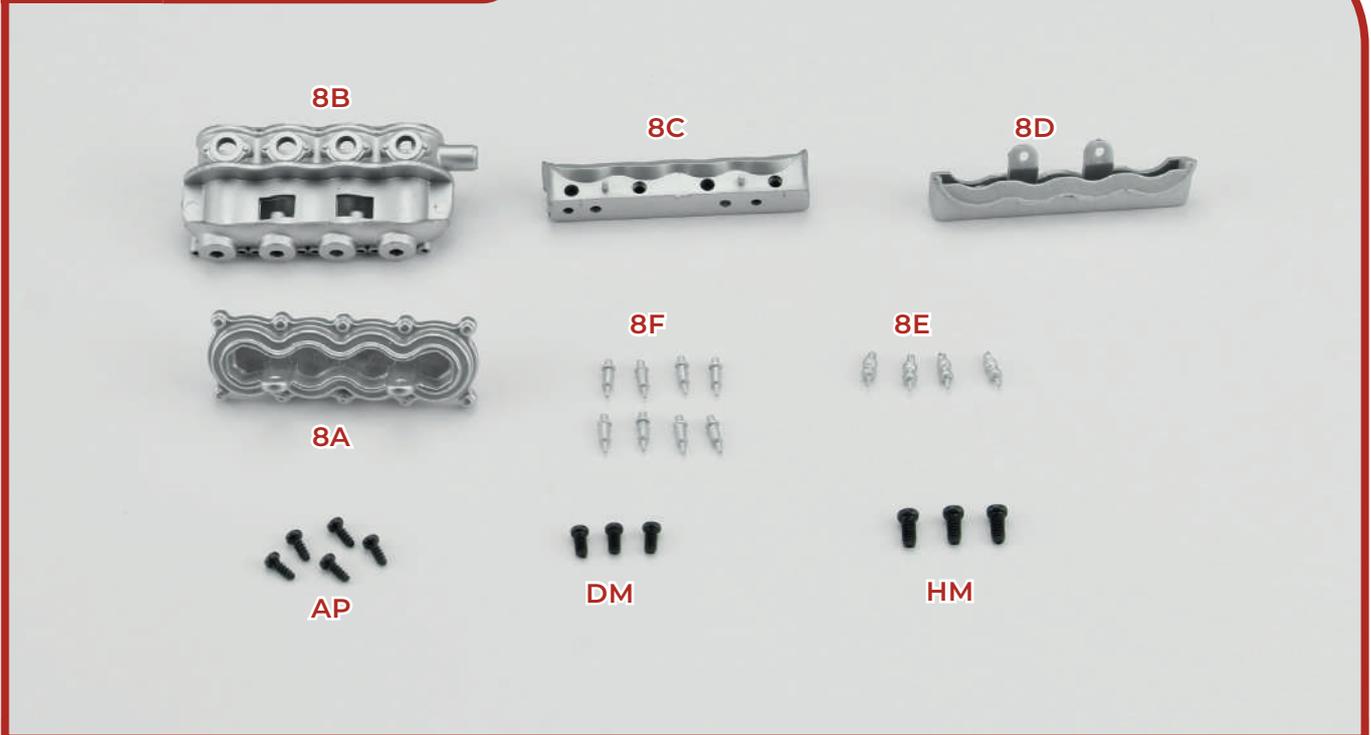
## Stage 07: Constructing the Cylinder Heads (1)



# Stage 08: Constructing the Cylinder Heads (2)

1-8#

## PARTS LIST



**8A** Cylinder head base

**8B** Cylinder head

**8C** Cover 1

**8D** Cover 2

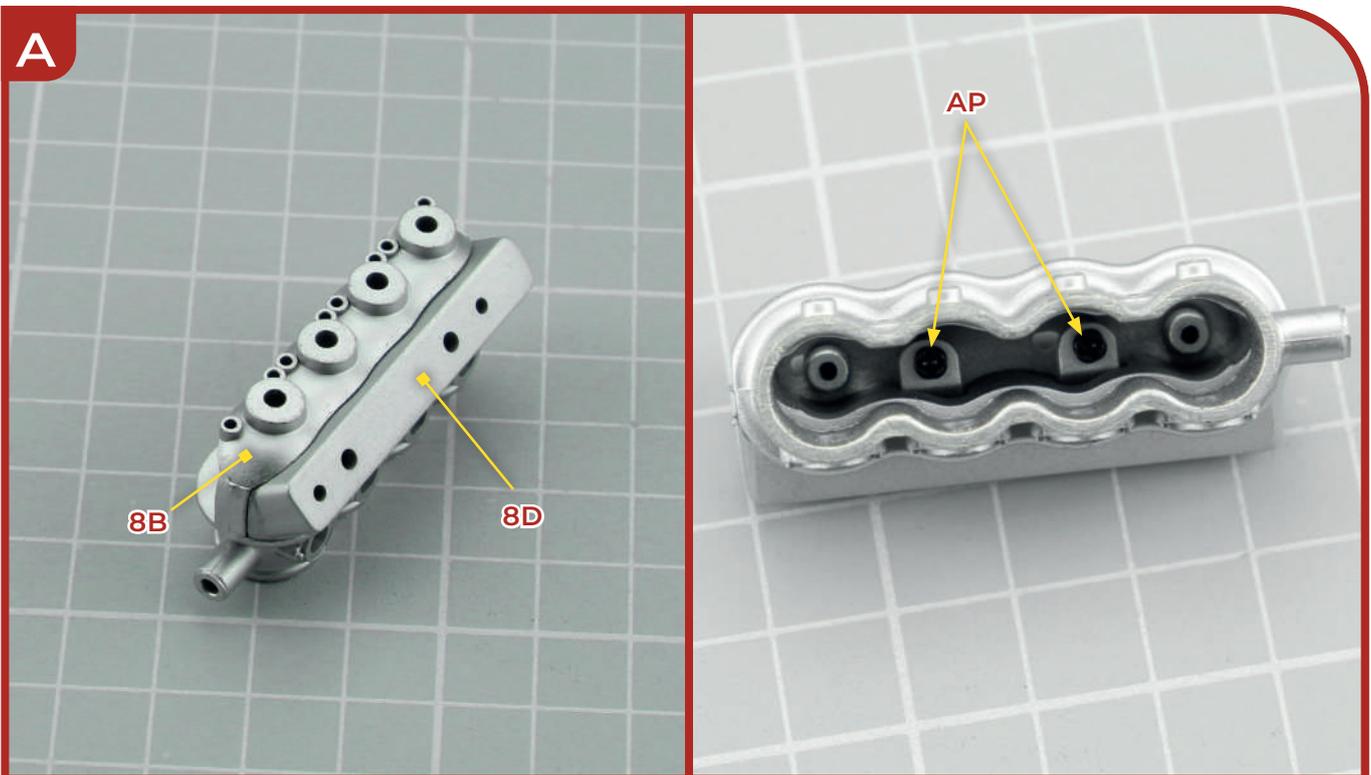
**8E** Fuel injectors (x4)

**8F** Spark plugs (x8)

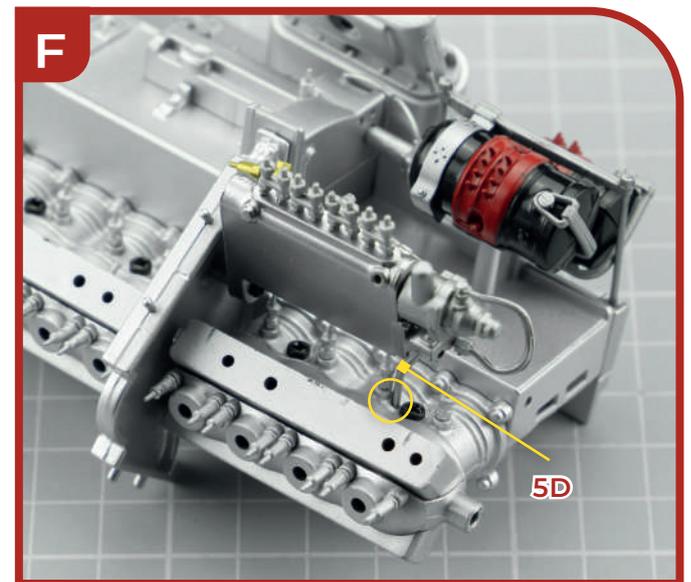
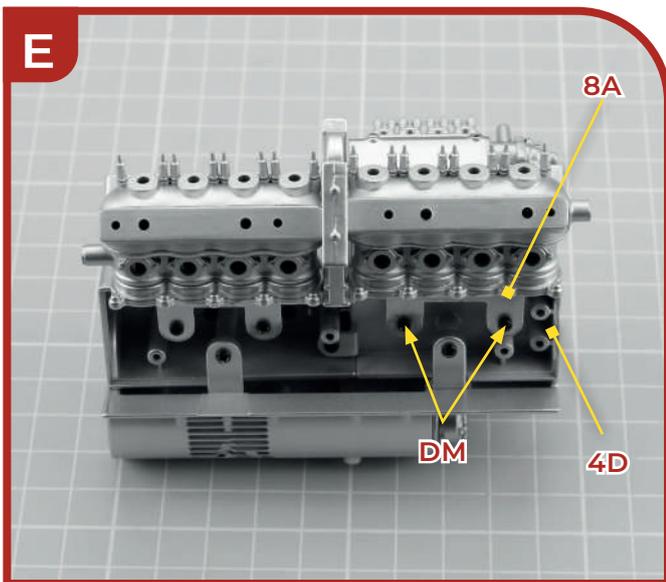
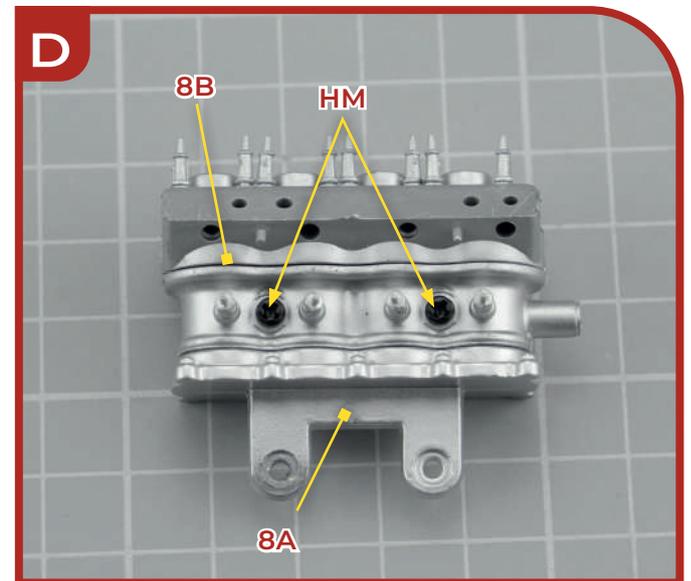
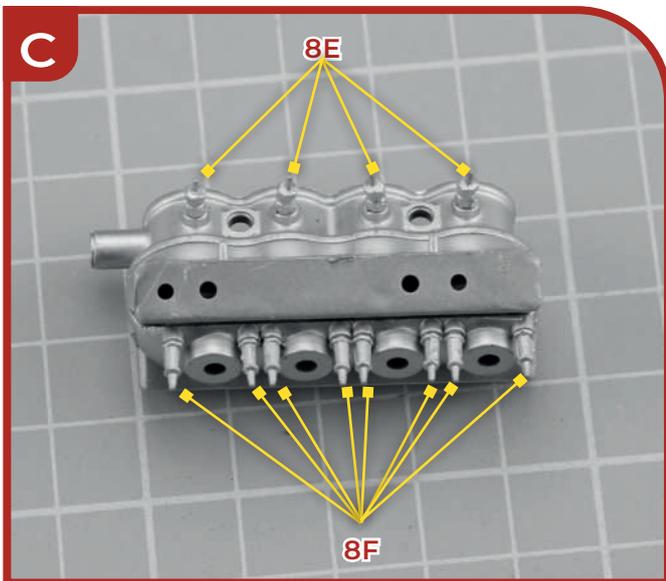
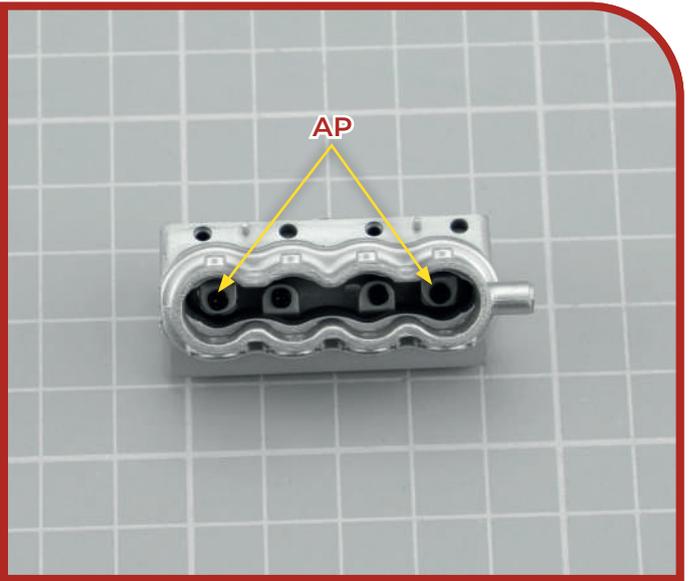
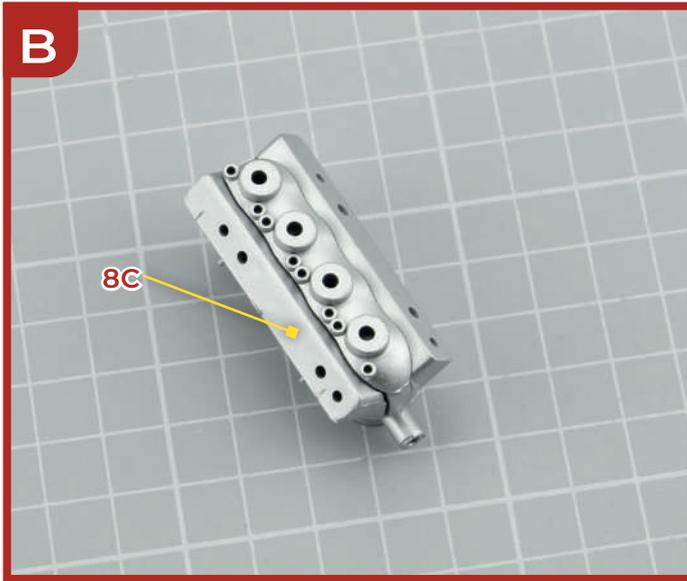
**AP** 5 screws (1.7 x 4 mm)

**DM** 3 screws (2 x 4 mm)

**HM** 3 screws (2.3 x 5 mm)



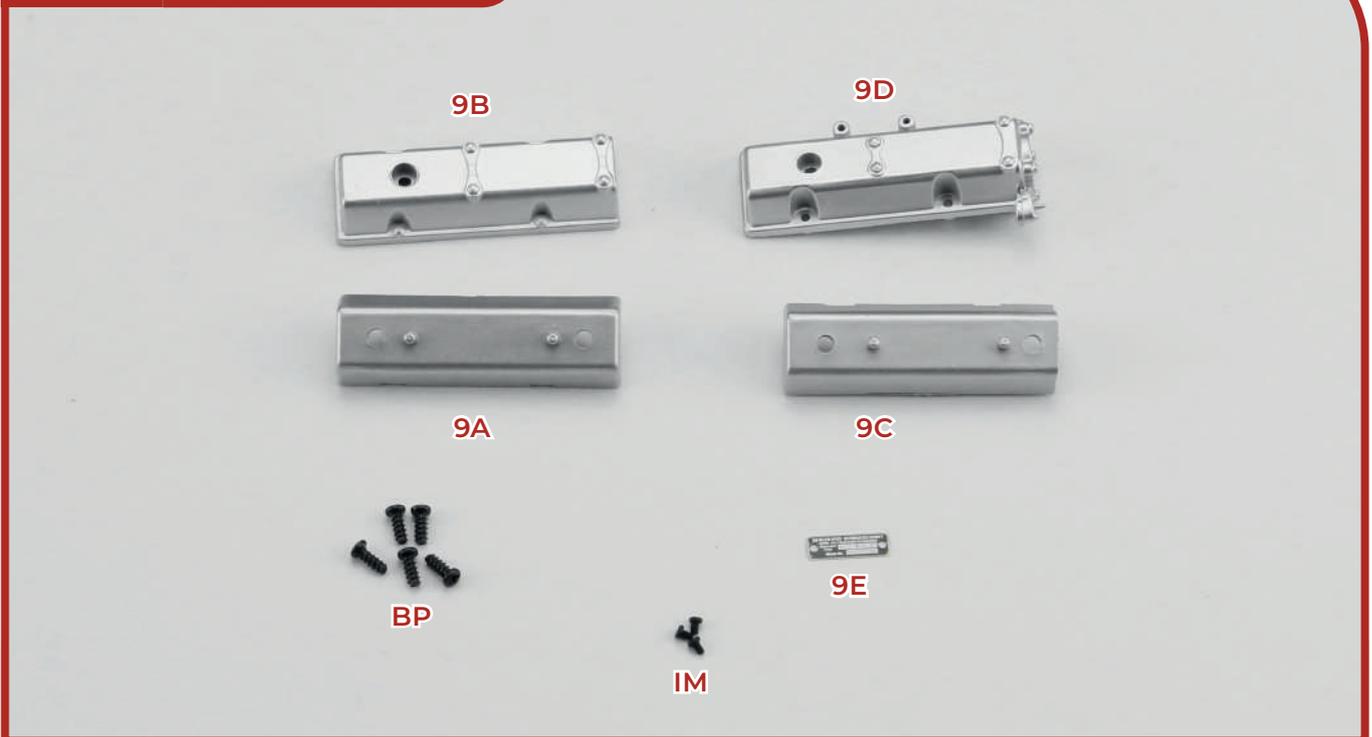
# Stage 08: Constructing the Cylinder Heads (2)



# Stage 09: Fitting the Valve Covers (1)

1-9#

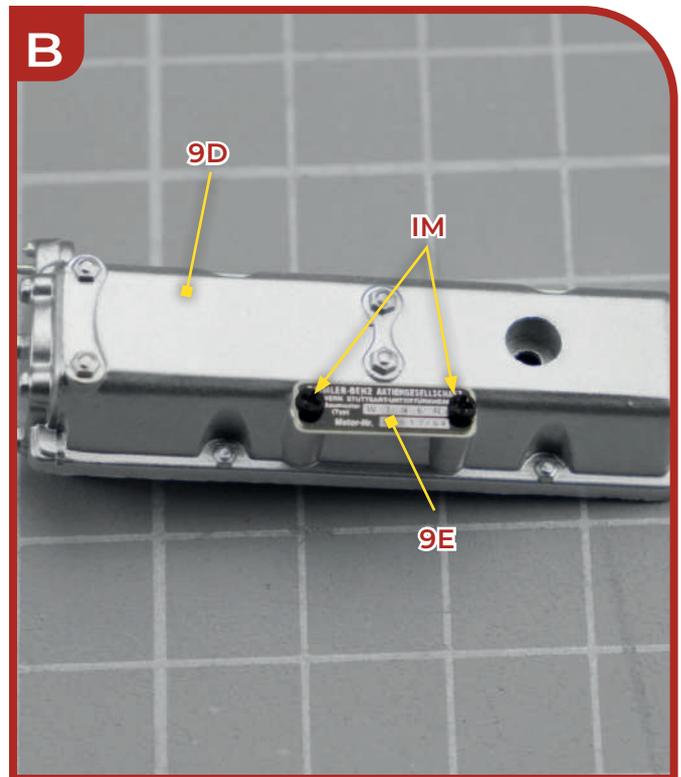
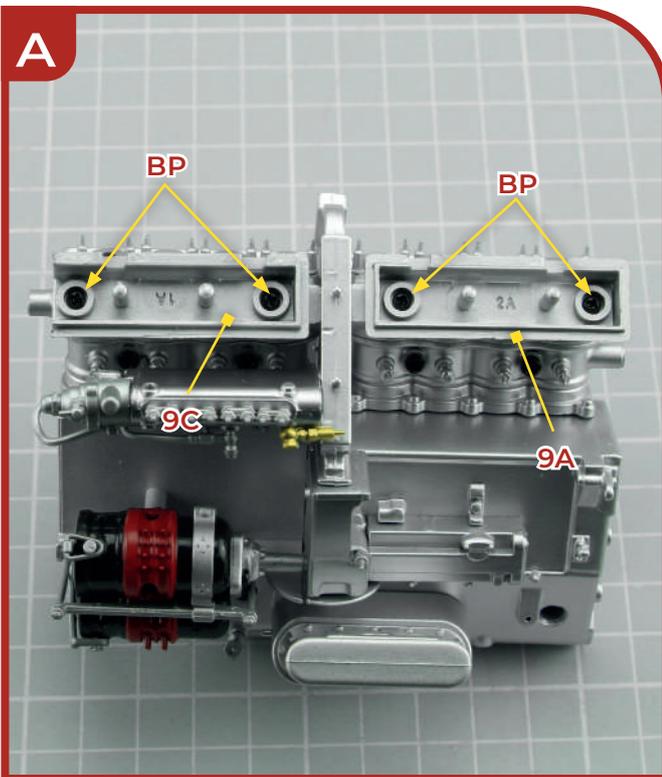
## PARTS LIST



**9A** Valve cover base 1  
**9B** Valve cover 1  
**9C** Valve cover base 2

**9D** Valve cover 2  
**9E** Plate

**BP** 5 screws (2 x 5 mm)  
**IM** 3 screws (1.2 x 2 mm)



# Stage 10: Wiring the Engine

1-10#

## PARTS LIST



10A



10B



10D



10C



AP



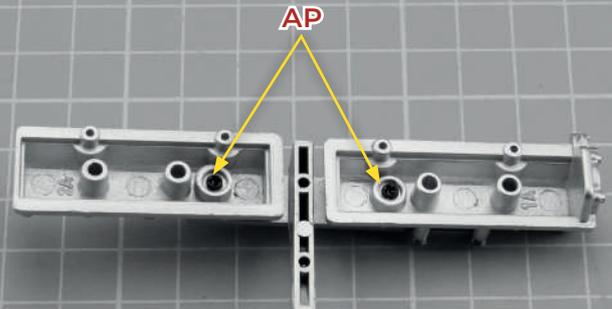
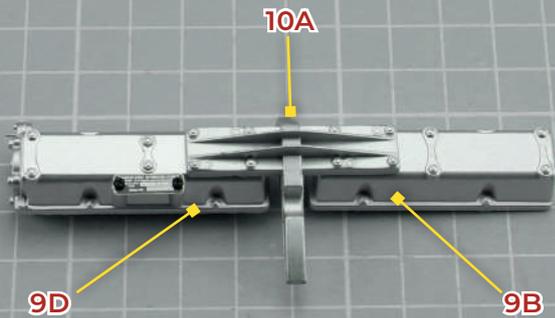
EM

**10A** Valve covers bracket 1  
**10B** Wires cover 1

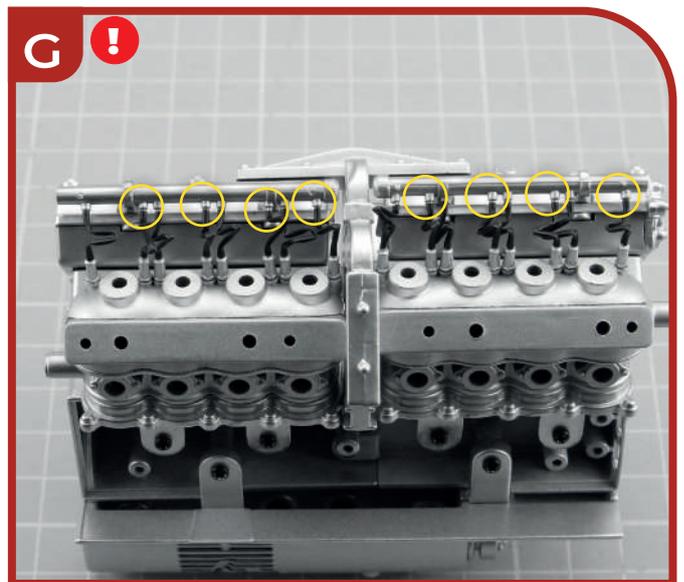
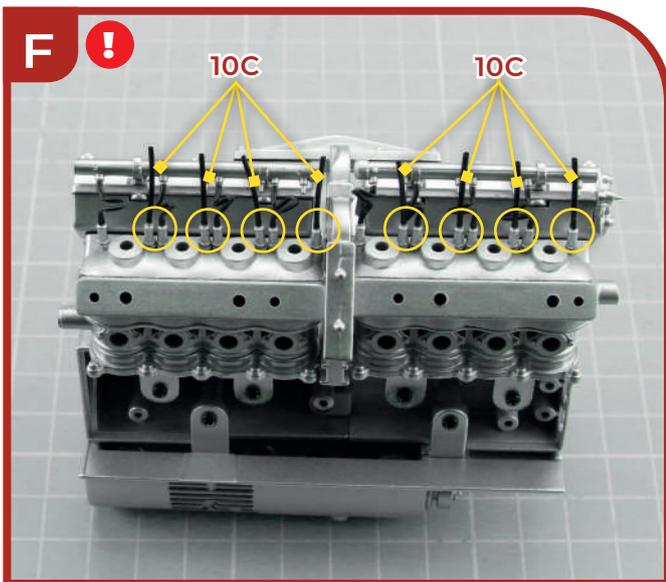
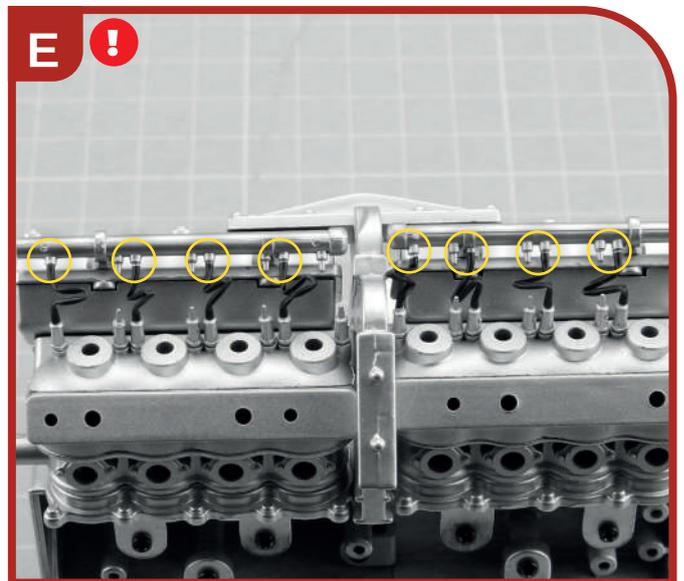
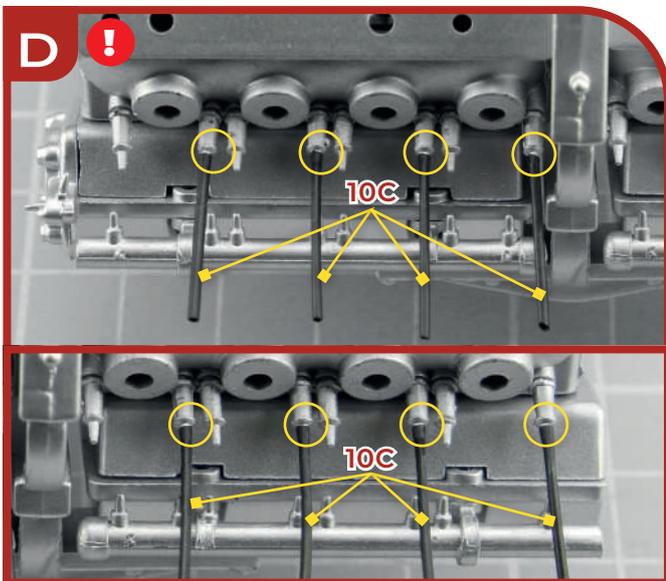
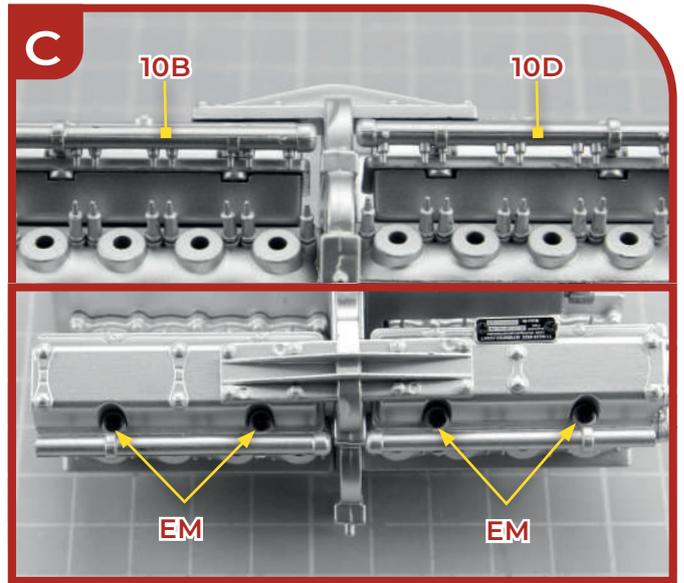
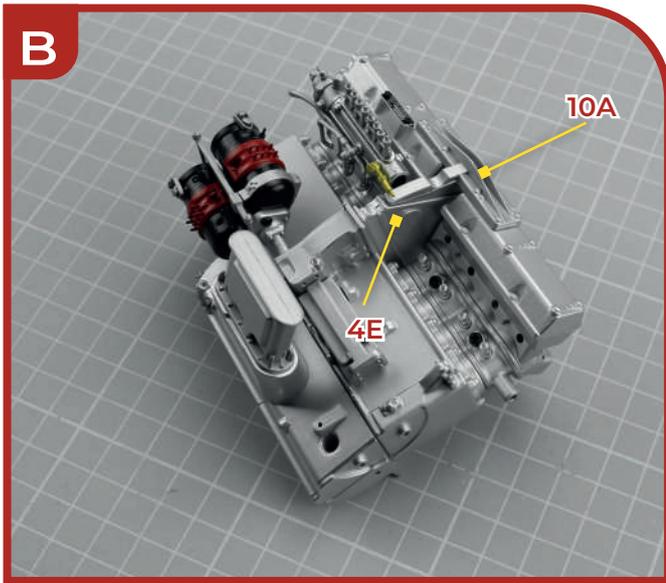
**10C** Wires (x16)  
**10D** Wires cover 2

**AP** 3 screws (1.7 x 4 mm)  
**EM** 5 screws (1.5 x 3 mm)

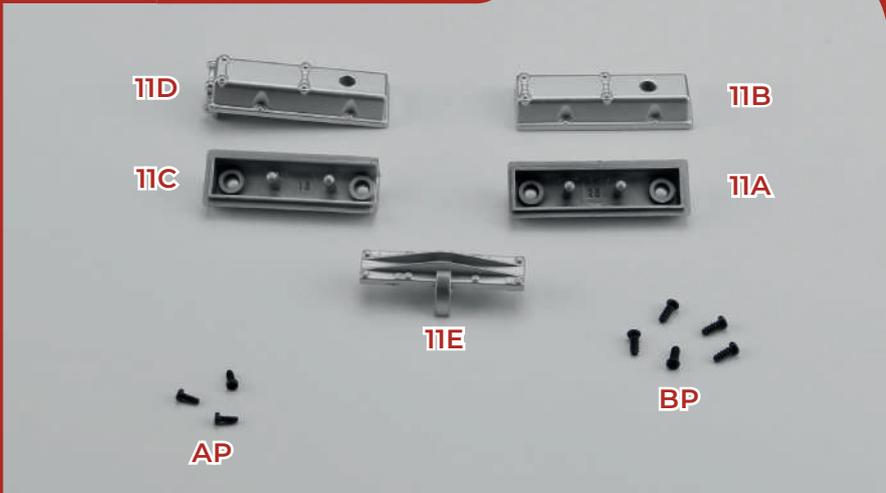
A

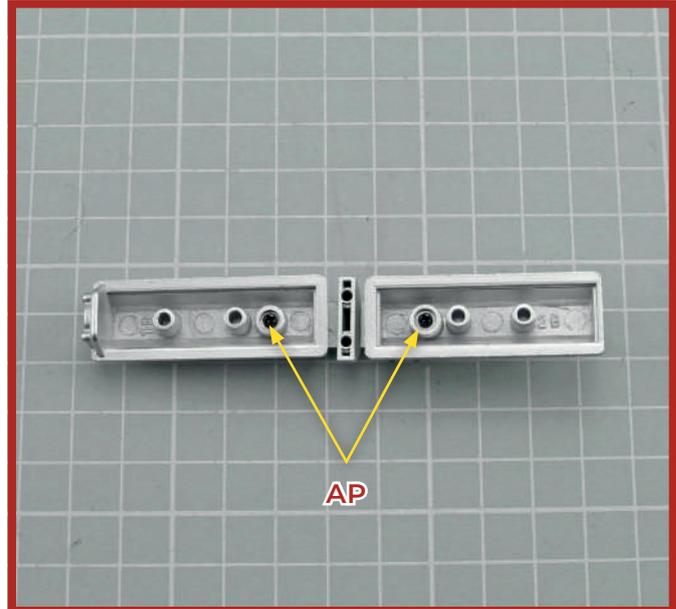
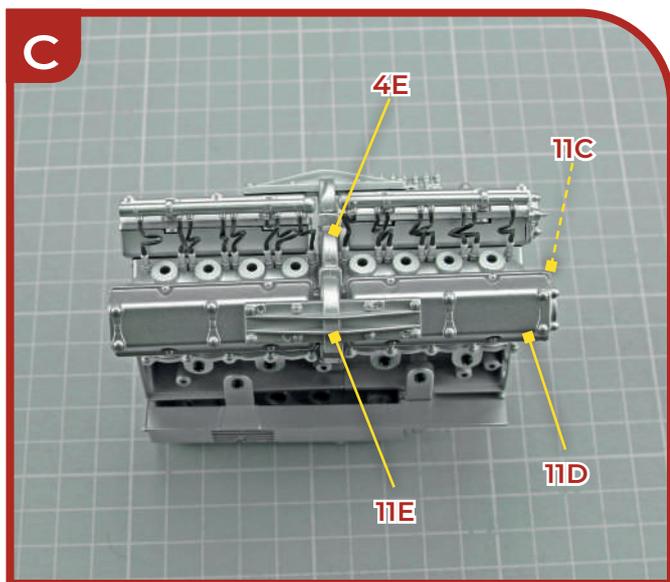
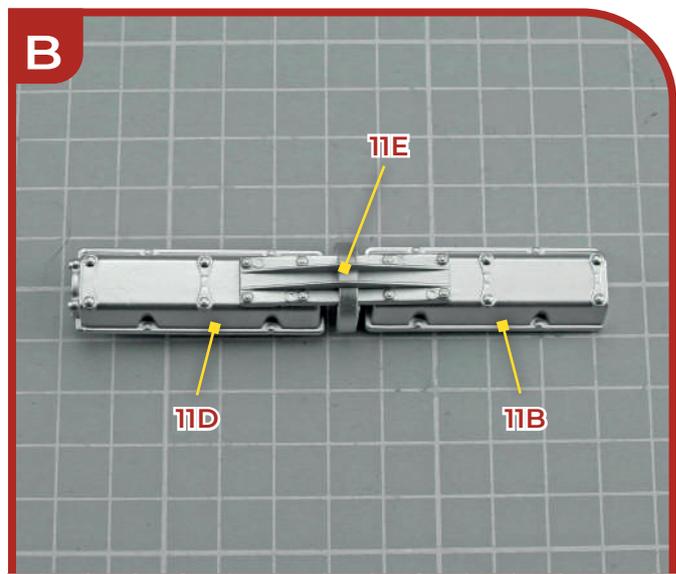
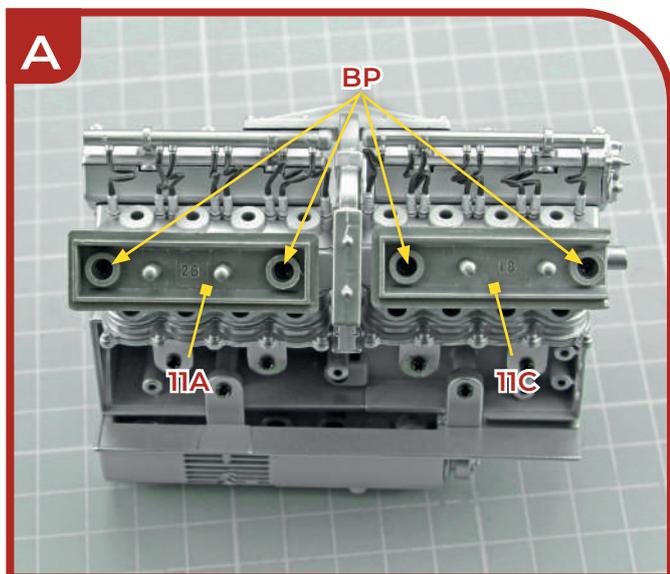


# Stage 10: Wiring the Engine



# Stage 11: Fitting the Valve Covers (2)

1-11#	PARTS LIST
	<p>11A Valve cover base 3</p> <p>11B Valve cover 3</p> <p>11C Valve cover base 4</p> <p>11D Valve cover 4</p> <p>11E Valve cover bracket 2</p> <p>AP 3 screws (1.7 x 4 mm)</p> <p>BP 5 screws (2 x 5 mm)</p>

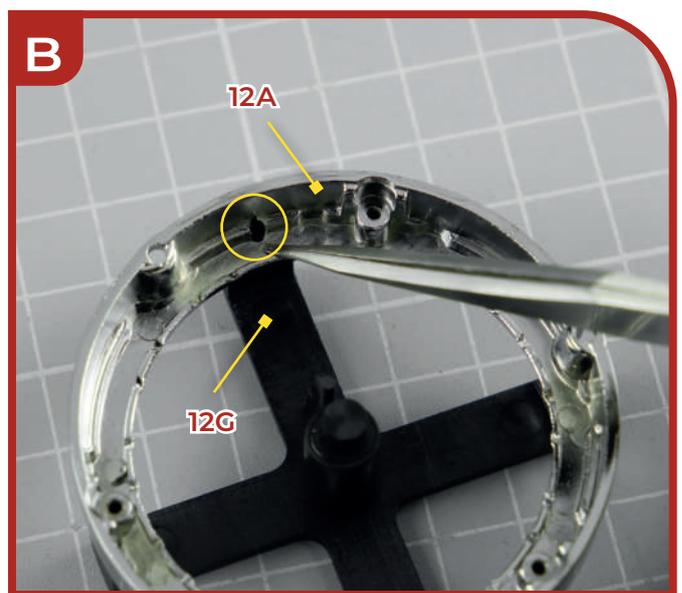
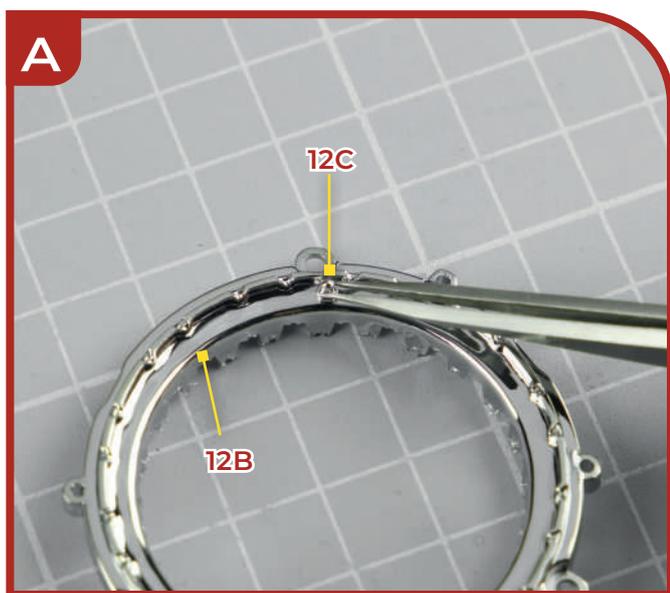


# Stage 12: Assembling the Front Left Wheel Rim (1) (Regular)

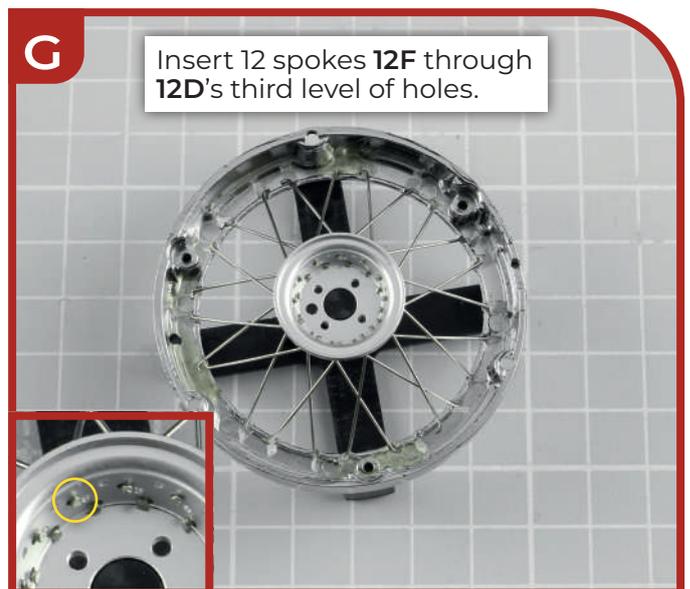
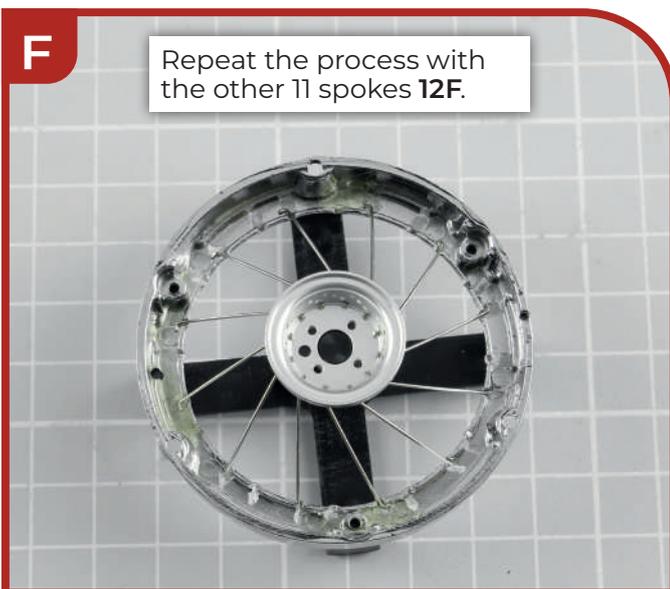
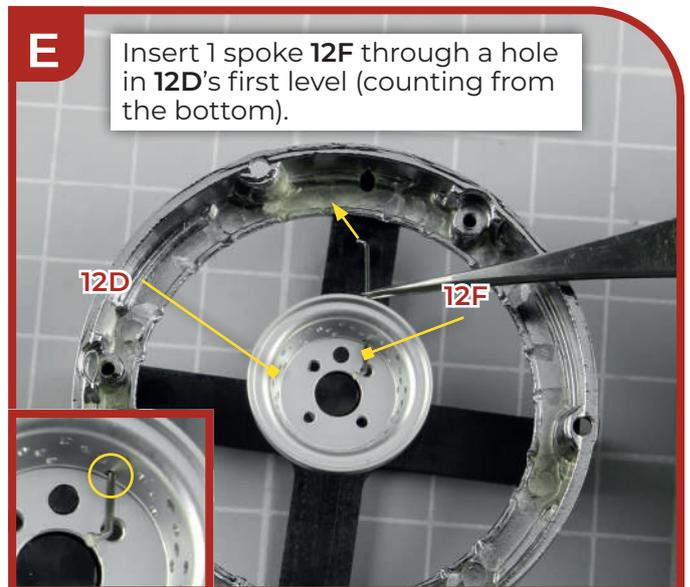
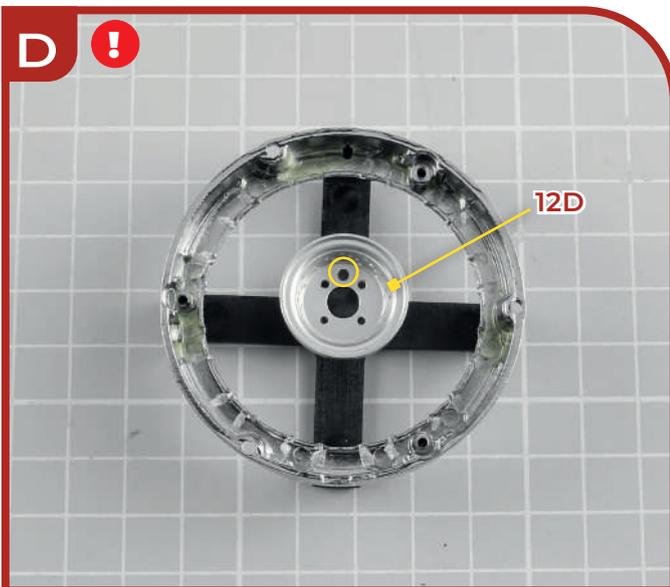
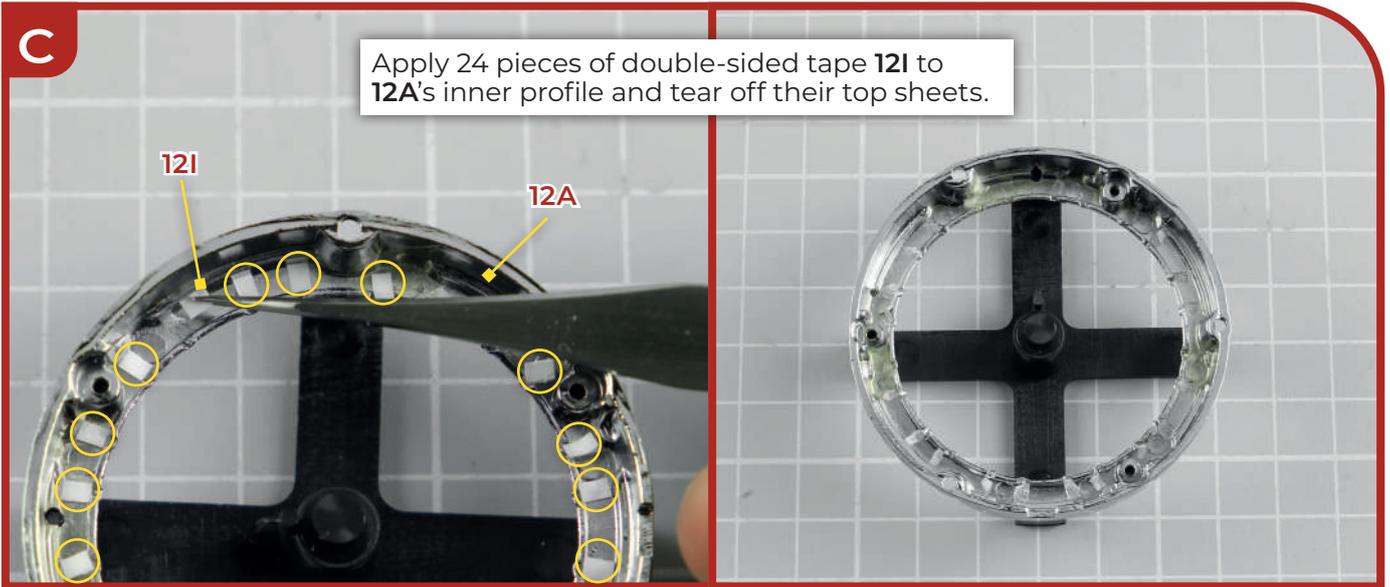
12#
PARTS LIST
!

## REGULAR ASSEMBLY

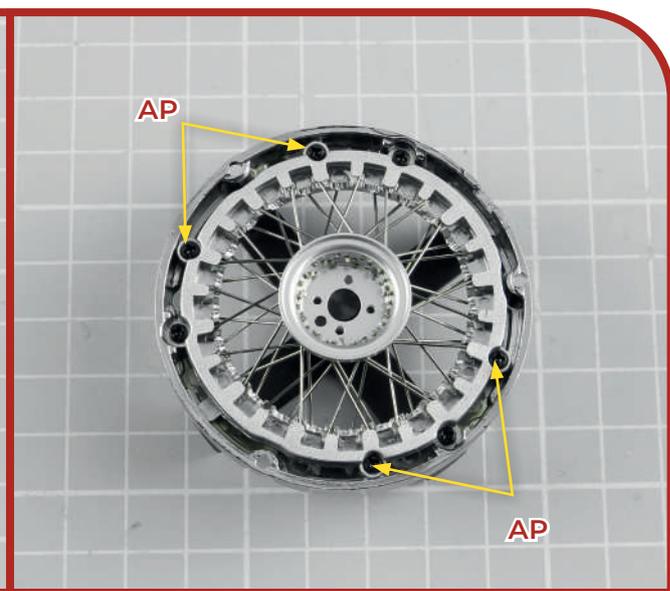
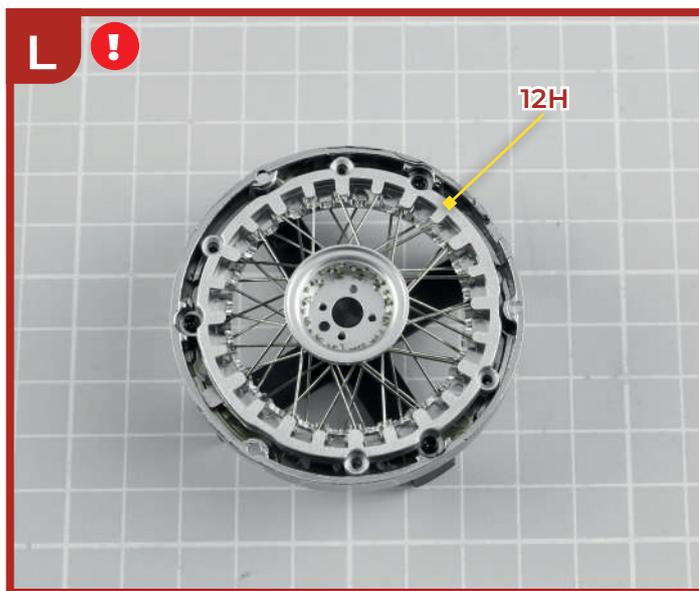
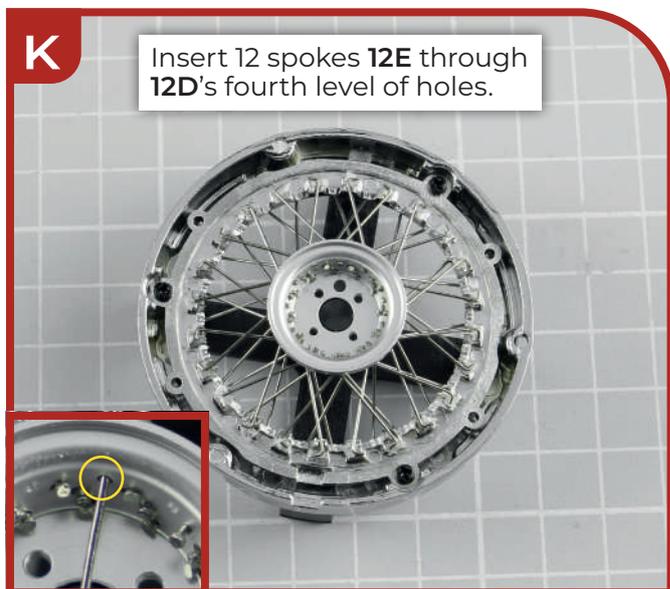
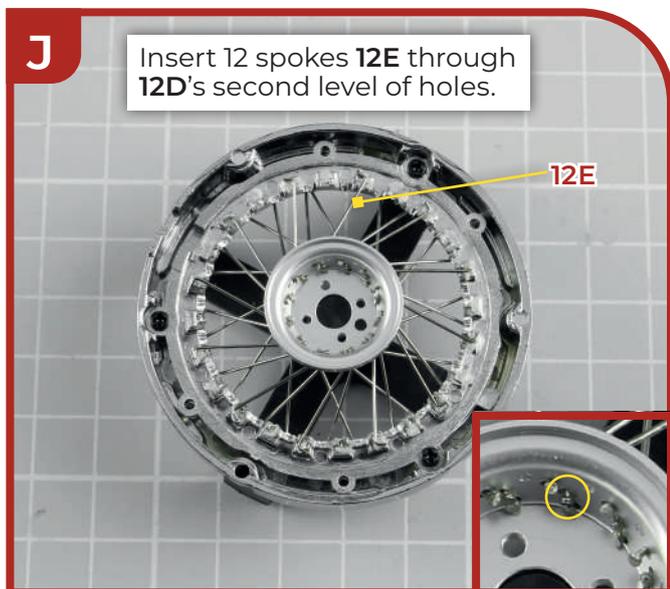
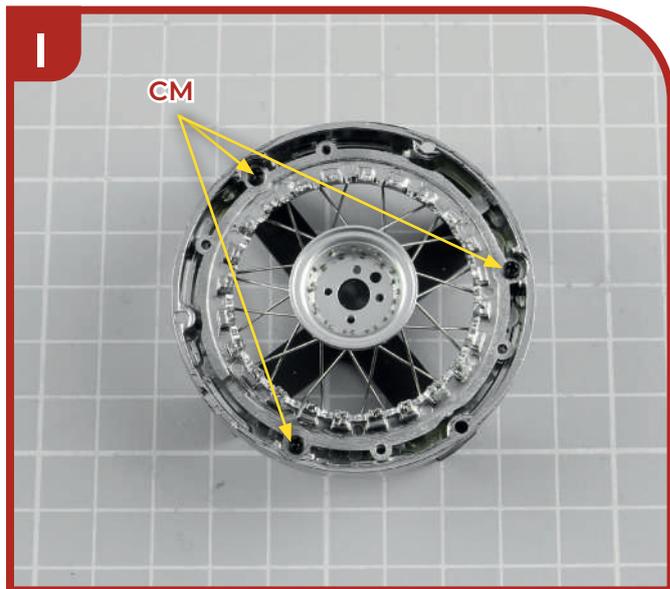
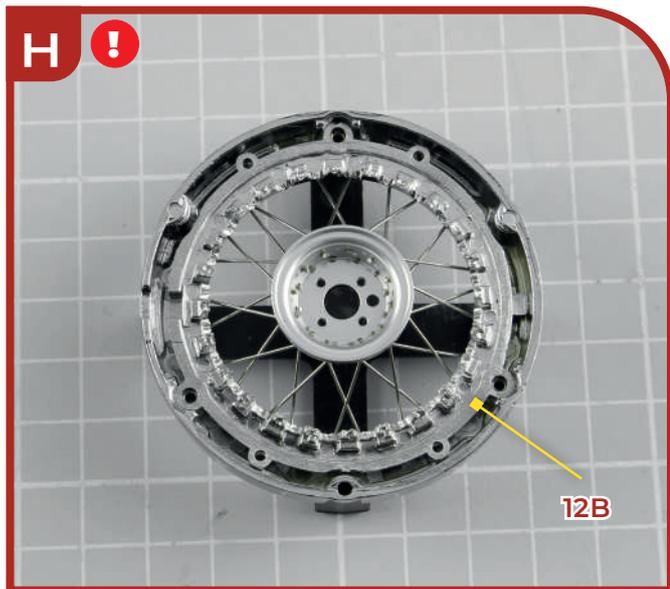
- |   |  |   |
|---|--|---|
| <p><b>12A</b> Outer rim</p> <p><b>12B</b> Central ring 1</p> <p><b>12C</b> Inflation valve</p> <p><b>12D</b> Hub 1</p> <p><b>12E</b> Spokes 1</p> | <p><b>12F</b> Spokes 2</p> <p><b>12G</b> Jig</p> <p><b>12H</b> Central ring 2</p> <p><b>12I</b> Double-sided tape</p> <p><b>12J</b> Tweezers</p> | <p><b>AP</b> 5 screws (1.7 x 4 mm)</p> <p><b>CM</b> 4 screws (1.7 x 4 mm)</p> |
|---|--|---|



# Stage 12: Assembling the Front Left Wheel Rim (1) (Regular)



# Stage 12: Assembling the Front Left Wheel Rim (1) (Regular)



# Stage 12B: Assembling the Front Left Wheel Rim (1) (Easy)

12B#

## PARTS LIST



## EASY ASSEMBLY

**12AA** Central ring 1

**12BB** Hub 1

**12CC** Hub 2

**12DD** Hub 3

**12EE** Hub 4

**12FF** Spoke 1

**12GG** Spoke 2

**12HH** Tweezers

**LP** 5 screws (1.5 x 3 mm)

**TP** 4 screws (1.5 x 5 mm)

**UP** 4 screws (1.7 x 4 mm)

**A**

12CC

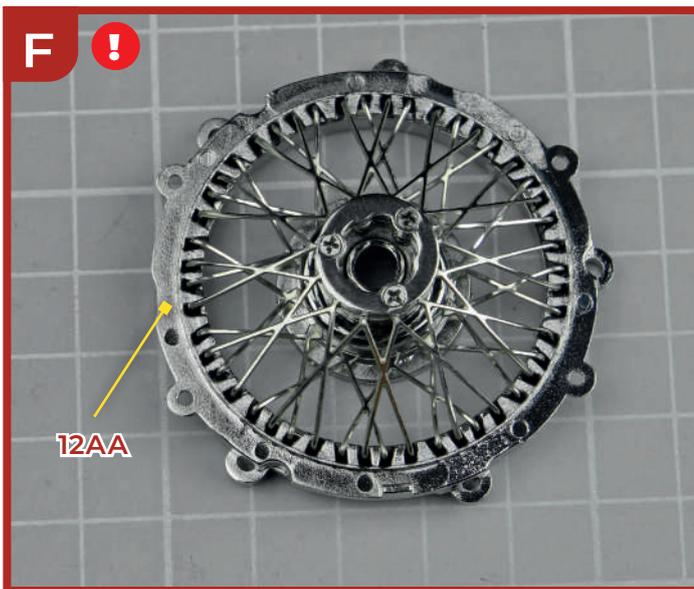
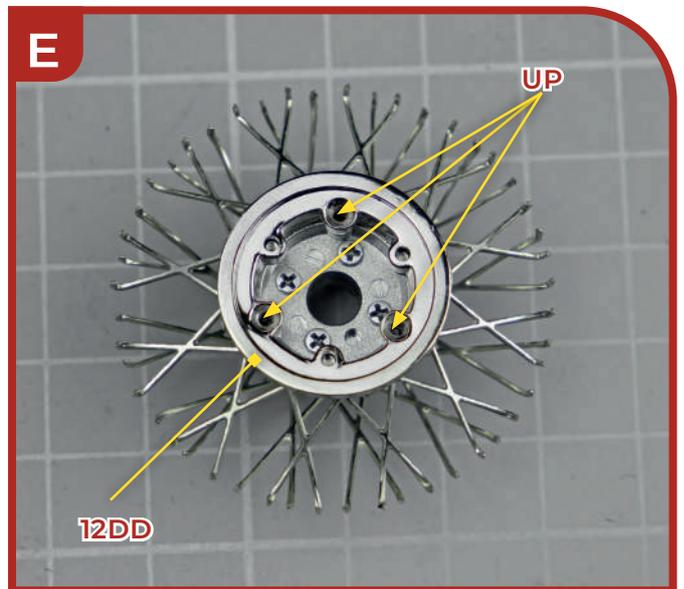
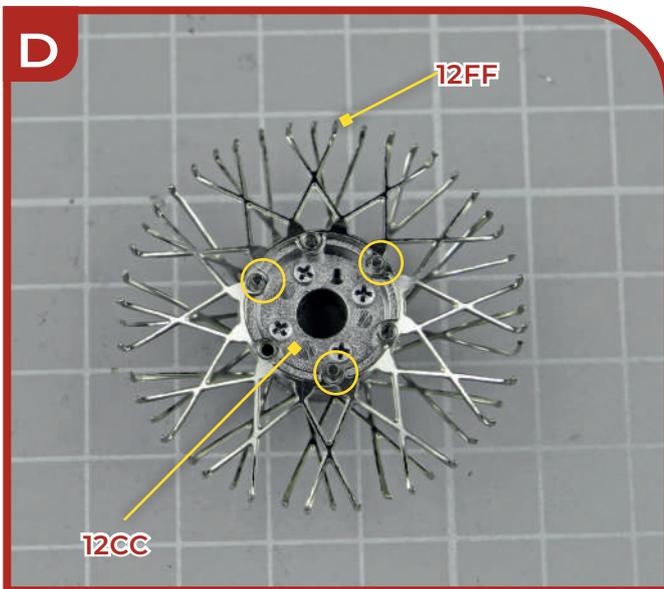
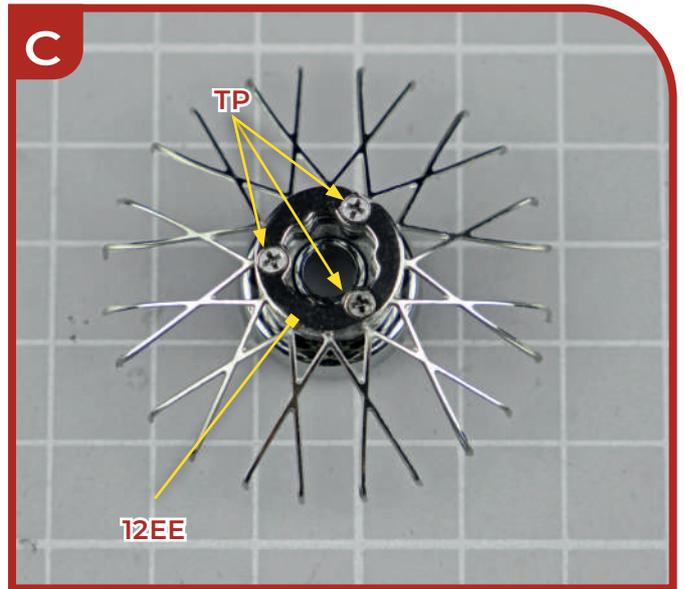
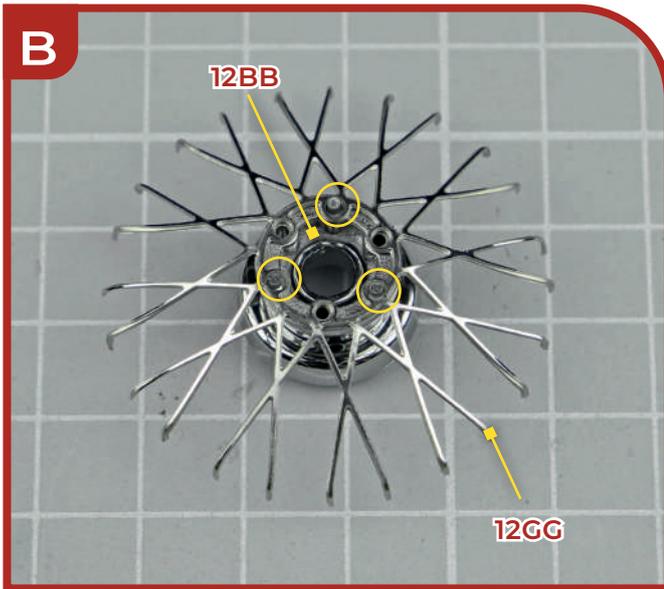
12BB

LP

LP

12CC

# Stage 12B: Assembling the Front Left Wheel Rim (1) (Easy)



# Stage 13: Assembling the Front Left Wheel Rim (2) (Regular)

1-13#

## PARTS LIST



13A Inner rim  
13B Central ring 3  
13C Hub 2  
13D Spokes 3  
13E Double-sided tape

CM 4 screws (1.7 x 4 mm)  
KM 5 screws (1.5 x 5 mm)

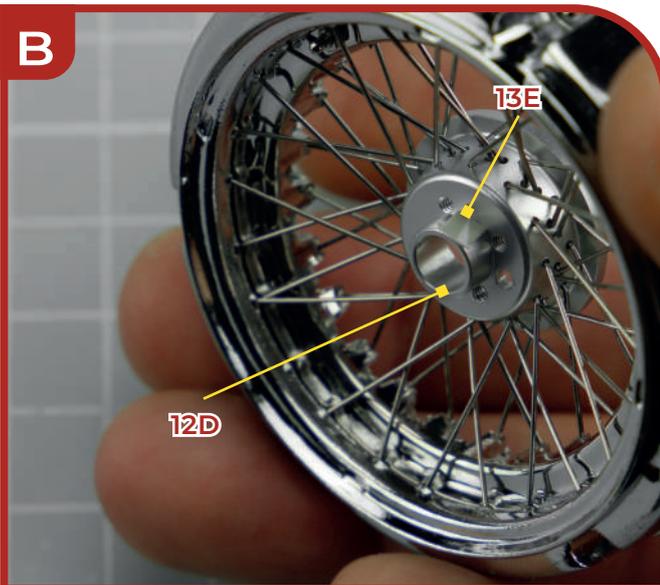
## REGULAR ASSEMBLY

A !

Apply 24 pieces of double-sided tape 13E to 12B's inner profile and tear off their top sheets.



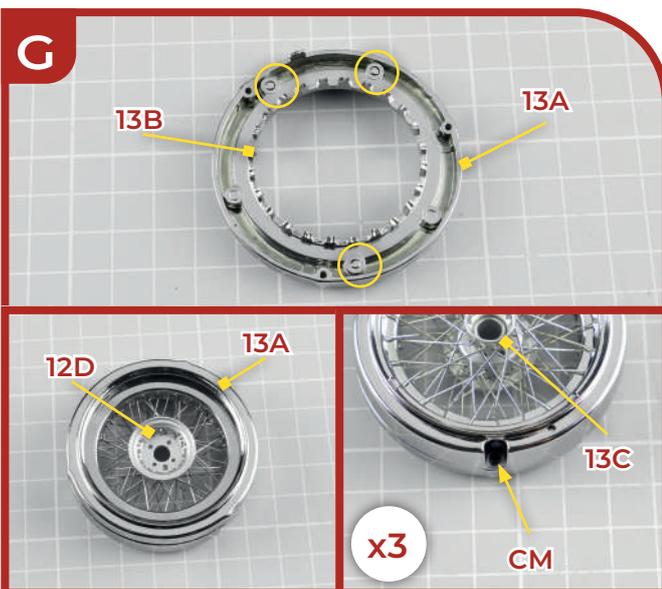
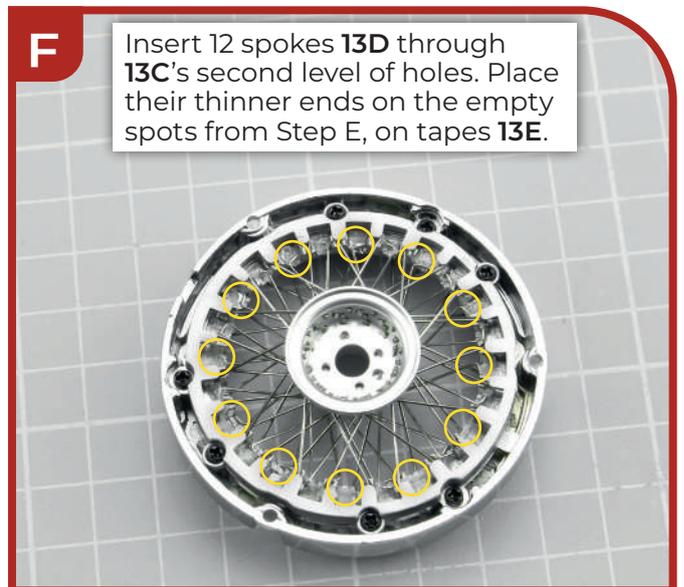
B



C

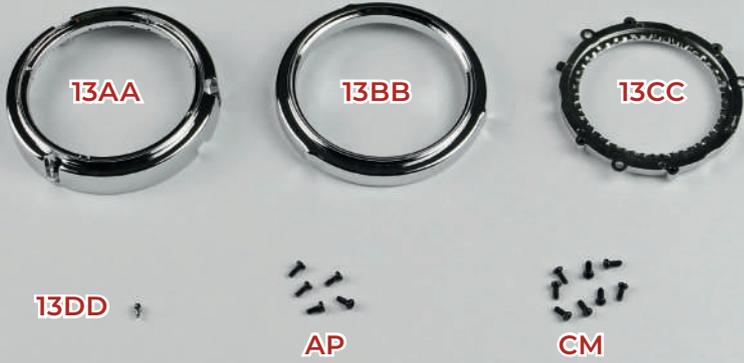


# Stage 13: Assembling the Front Left Wheel Rim (2) (Regular)



# Stage 13B: Assembling the Front Left Wheel Rim (2) (Easy)

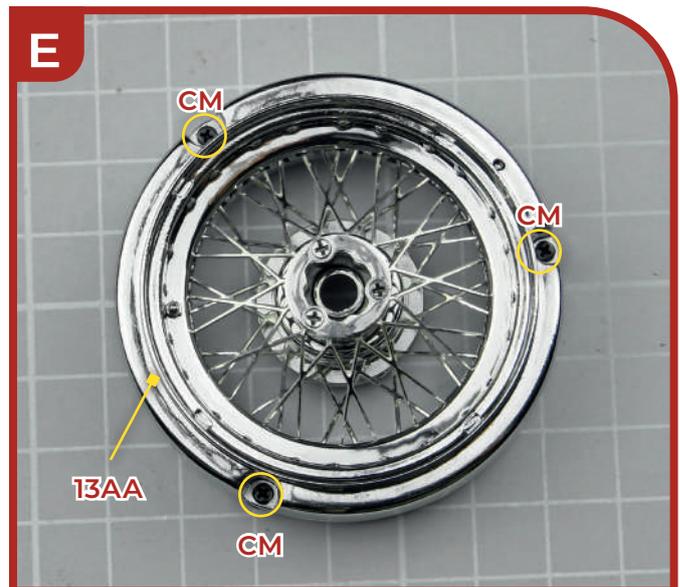
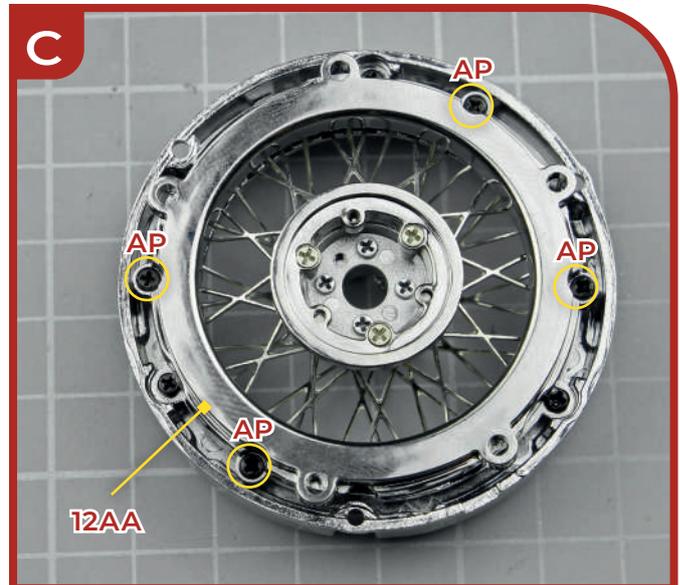
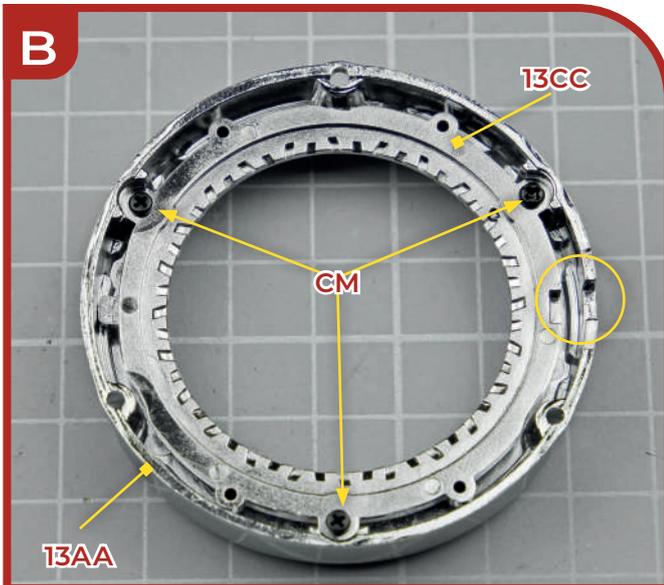
## 1-13B# PARTS LIST



13AA Outer rim  
13BB Inner rim  
13CC Central ring 2  
13DD Inflation valve

AP 5 screws (1.7 x 4 mm)  
CM 8 screws (1.7 x 4 mm)

## EASY ASSEMBLY



## Stages 78 and 84

Stages 78 and 84 are the two largest sections of the main body provided with Pack 1. Keep them safely protected until they are required at the end of the build.

