



Build the

Beetle

1303 Cabriolet

Pack 5



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Build the



Beetle

1303 Cabriolet

STAGE

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Warning: Not suitable for children under the age of 14.

This product is not a toy and is not designed or intended for use in play.

Items may vary from those shown.



Stage 32: Driver's seat mounting

The parts provided will enable you to fit the driver's seat to the floorpan.

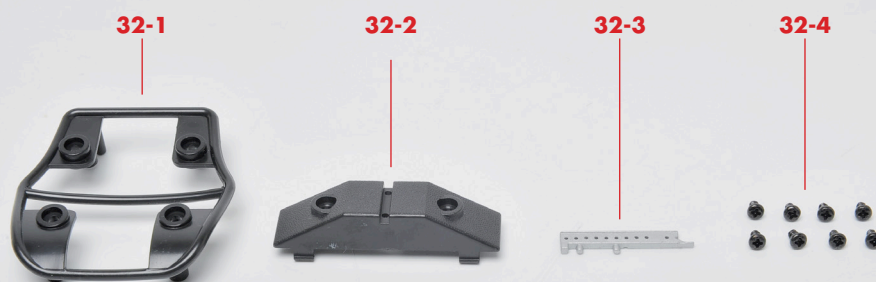
PARTS

32-1 Driver's seat frame

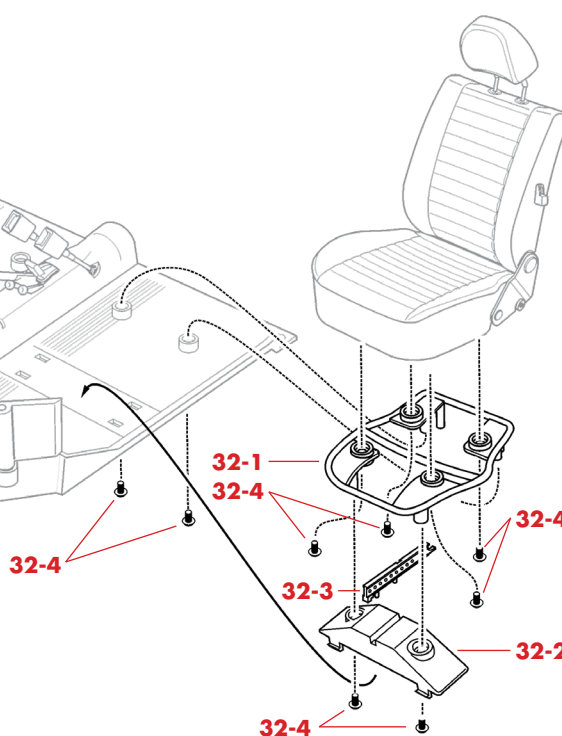
32-2 Forward seat support

32-3 Seat runner slider

32-4 SP12 screws



PARTS DIAGRAM



NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.



STEP 32-A

Take the driver's seat assembly and align it with the seat frame (32-1).



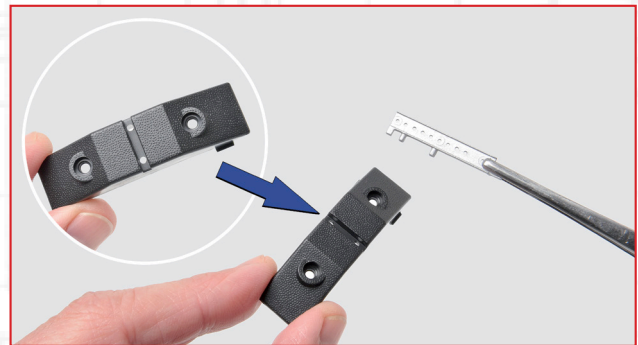
STEP 32-B

Press the seat frame firmly into place



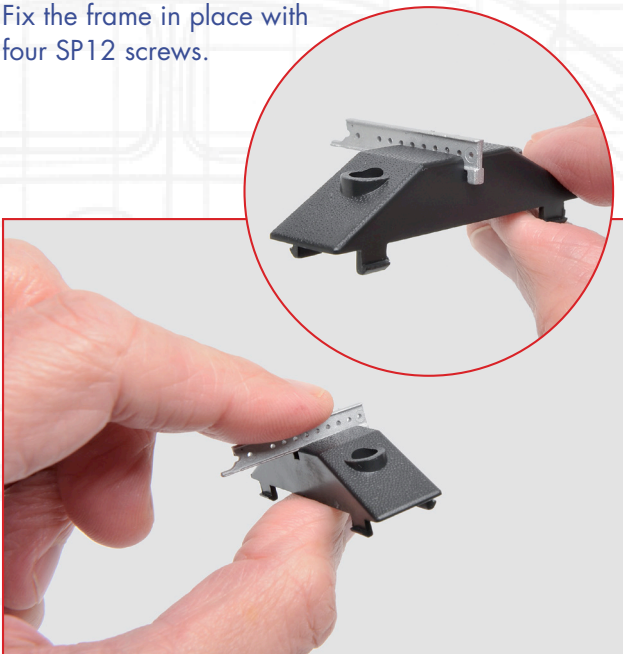
STEP 32-C

Fix the frame in place with four SP12 screws.



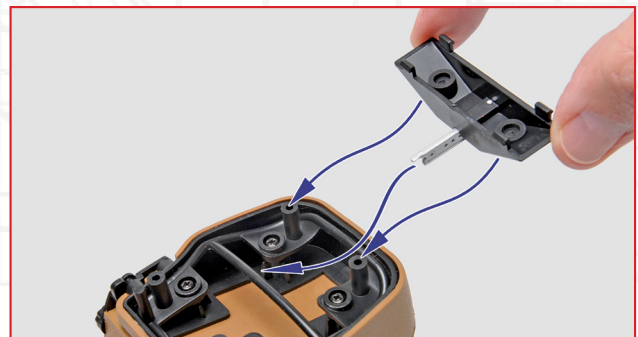
STEP 32-D

Fit the seat runner slider (32-3) into the grooves in the seat support (32-2), pressing the locating pins into the holes.



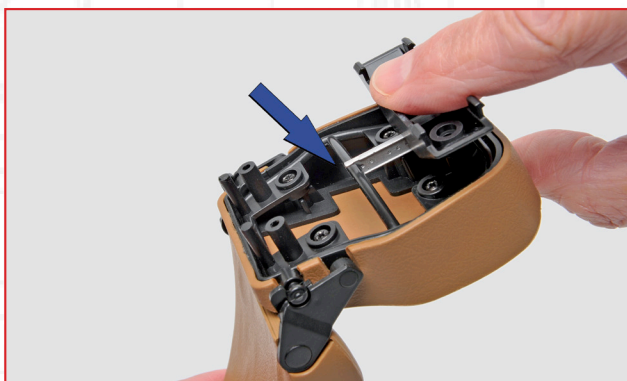
STEP 32-E

The assembly should look like this.



STEP 32-F

Fit the assembly onto the seat frame, so that the holes in the seat support fit over the two mounting posts at the front and the rear of the slider engages with the crossbar of the seat frame.



STEP 32-G

Press the assembly into place, making sure that the slider is hooked onto the crossbar as indicated.

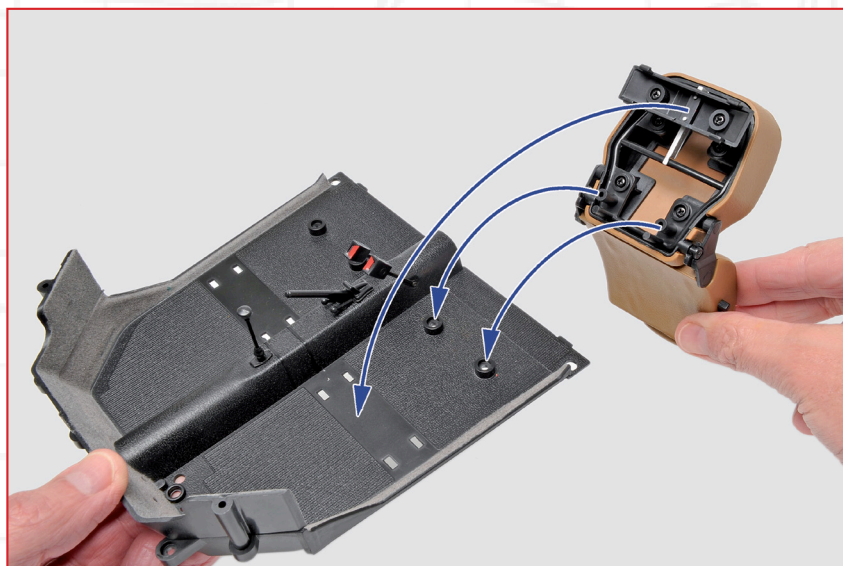


STEP 32-H

Fix the seat support to the frame with two SP12 screws.

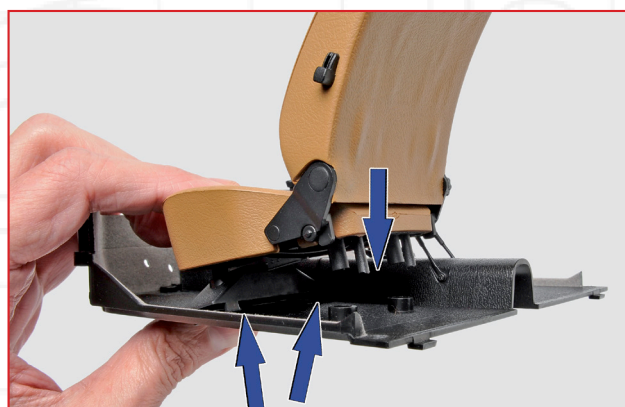
STEP 32-I

Fit the seat onto the floor of the passenger compartment so that the two posts at the back fit into the holes indicated and the seat support fits over the rectangular recess with the four slots near the corners.



STEP 32-J

Make sure the two tabs at the front of the seat support snap into the slots at the front...



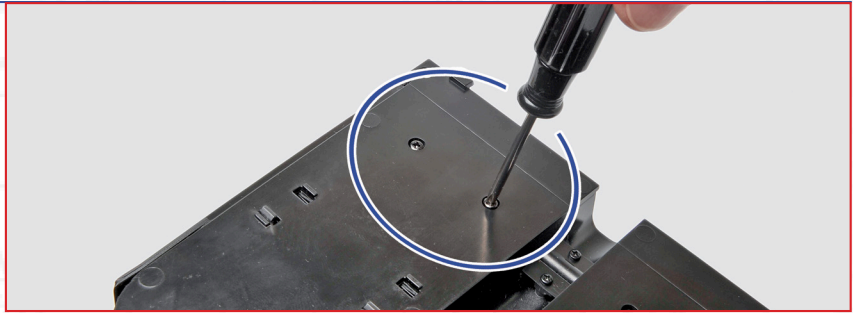
STEP 32-K

...and the two tabs at the back snap into the other pair of slots. This should allow the two posts at the back to fit down over the holes.

STEP 32-L

Turn the assembly over and secure the back of the seat with two SP12 screws.

After fitting the seat, the interior of the car should look like this.



STAGE COMPLETE





Stage 33: Gearbox

In this stage, you start to assemble the Beetle's transmission, before starting work on the engine. Throughout the assembly of the Beetle's power unit, remember that the terms 'left' and 'right' refer to the point of view of the driver seated at the wheel.

PARTS

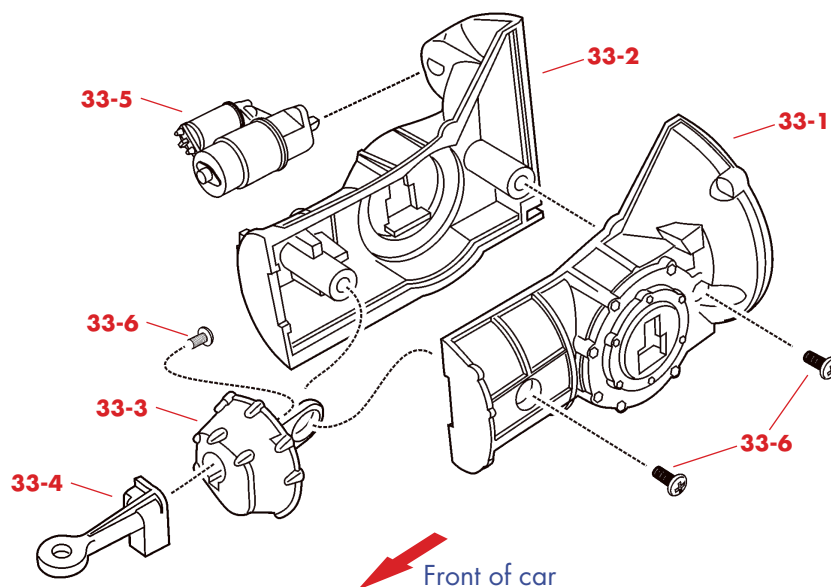
- 33-1** Gearbox casing left half
- 33-2** Gearbox casing right half
- 33-3** Gearbox end casing
- 33-4** Gearbox mounting
- 33-5** Starter motor
- 33-6** SD11 screws



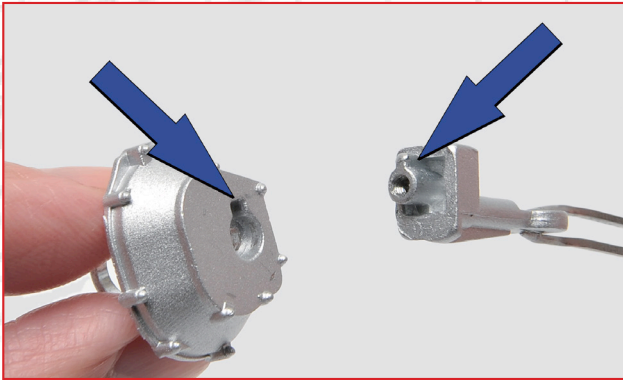
SPARE SCREWS

Remember that extra screws are sometimes provided for use in case of loss or damage, so save the one provided here.

PARTS DIAGRAM

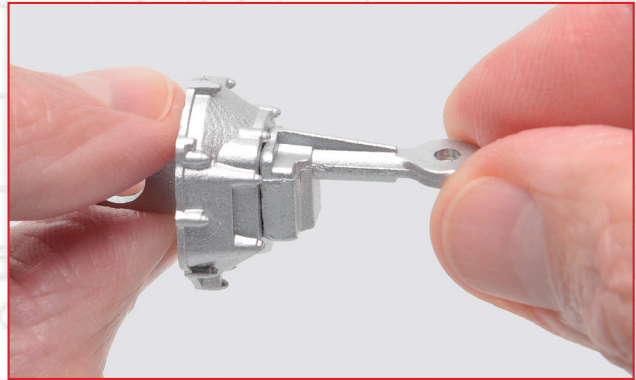


NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.



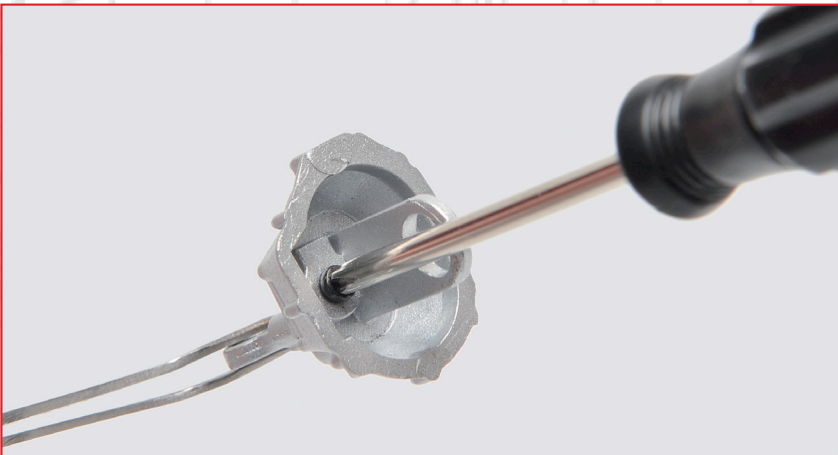
STEP 33-A

Fit the gearbox mounting (33-4) into the keyhole-shaped recess in the gearbox end casing (33-3). The shape of the fitting ensures they will only go together one way up.



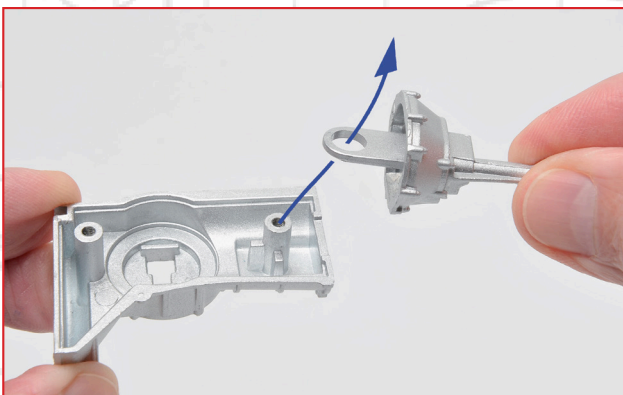
STEP 33-B

Press the parts together firmly



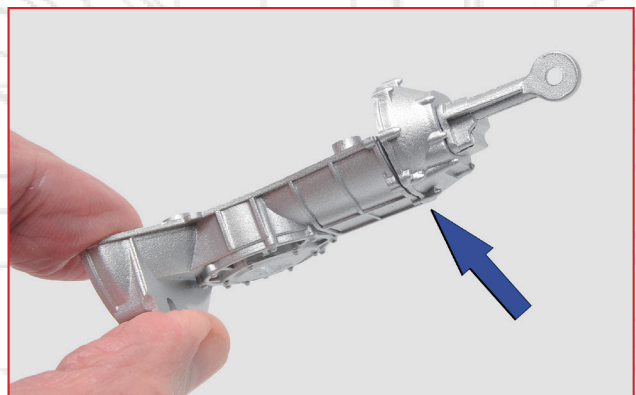
STEP 33-C

Screw the parts together with an SD11 screw on the inside of the gearbox end casing.



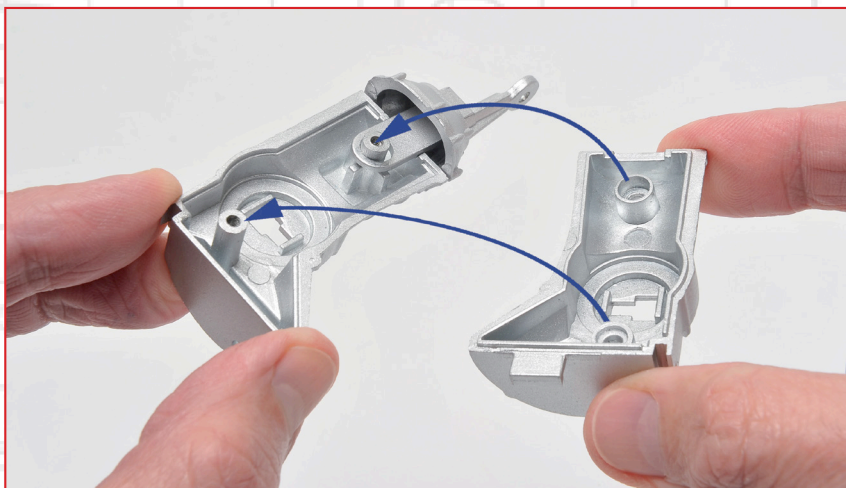
STEP 33-D

Fit the large hole in the tab projecting from the gearbox end casing over the post in the right-hand half of the gearbox casing (33-2).



STEP 33-E

The two parts should go together like this, with the end casing fitting flush.



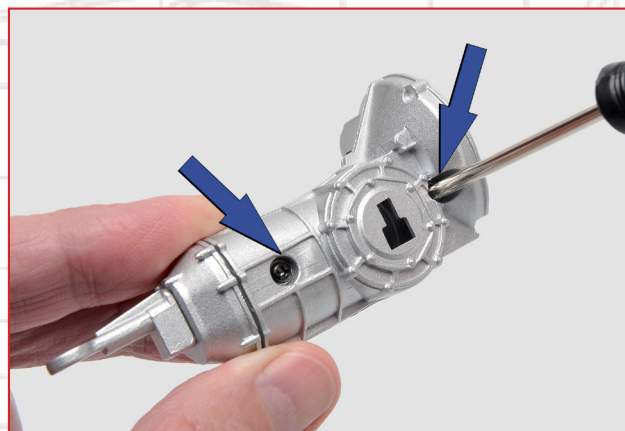
STEP 33-F

Fit the other side of the gearbox casing.



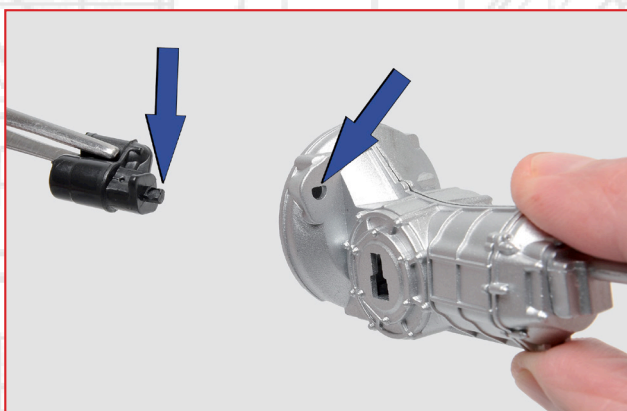
STEP 33-G

Press the two parts firmly together.



STEP 33-H

Use two SD11 screws to secure the parts together.



STEP 33-I

Fit the locating peg on the starter motor (33-5) into the indicated hole in the bell housing. The hole is D-shaped so the starter will only fit one way up.



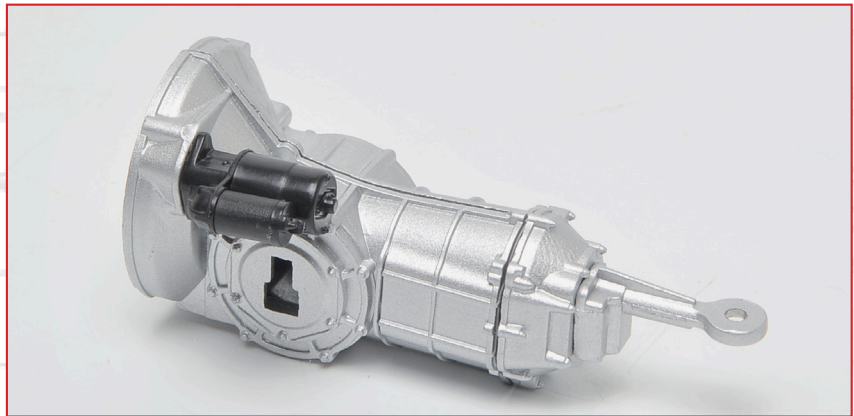
STEP 33-J

Press the starter motor firmly into place.

STEP 33-K

You may wish to apply a spot of super glue to secure the starter motor, but take care not to mark the surface of the parts. **Important:** follow the manufacturer's safety instructions when using super glue.

The finished gearbox should look like this.



STAGE COMPLETE



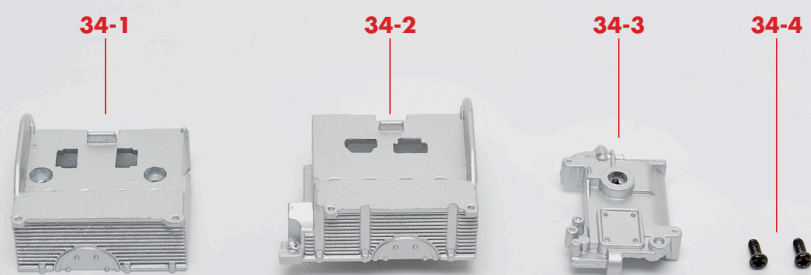


Stage 34: Crankcase

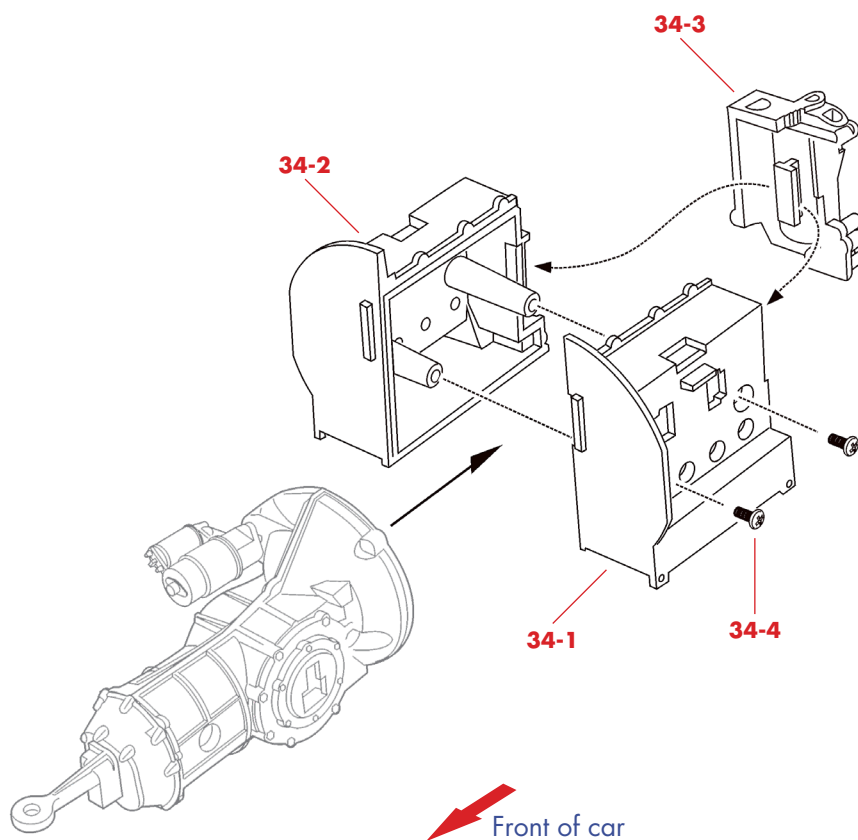
In this stage, you will assemble the crankcase, which fits onto the rear of the gearbox you put together in the previous stage.

PARTS

- 34-1** Crankcase left half
- 34-2** Crankcase right half
- 34-3** Crankcase rear cover
- 34-4** SD11 screws



PARTS DIAGRAM

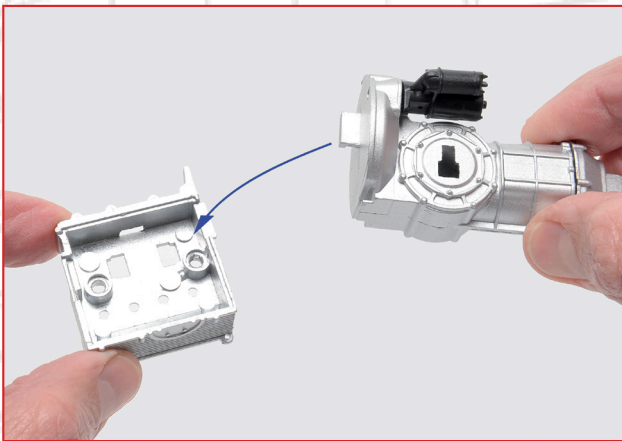


NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.



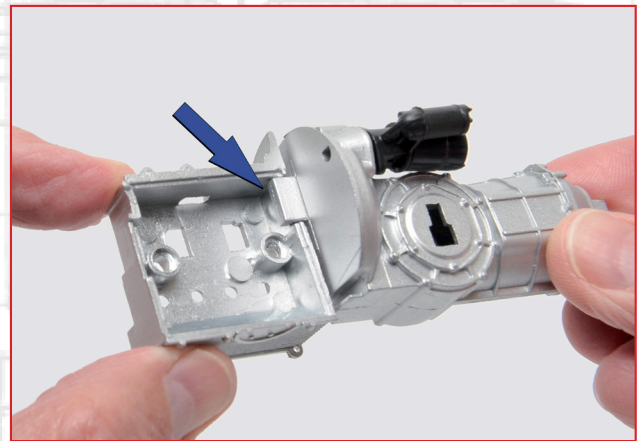
STEP 34-A

The two halves of the crankcase both have cutouts. The right half (34-2) has two cutouts and the left half (34-1) has only one. These match up with the tabs on the gearbox and the crankcase end cover (34-3).



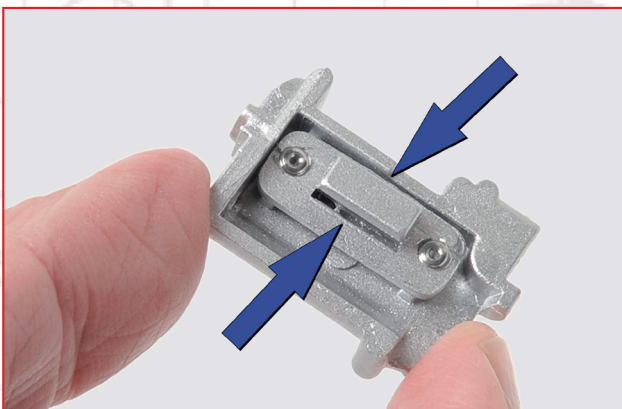
STEP 34-B

Fit the large tab on the gearbox assembly from Stage 33 into the cutout in the back of the right half of the crankcase.



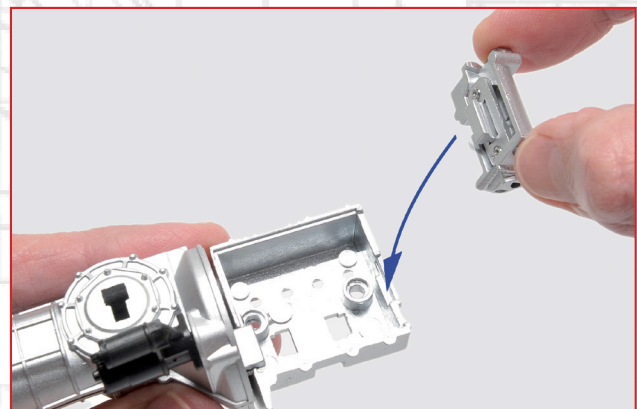
STEP 34-C

Check that the parts fit together flush, like this.



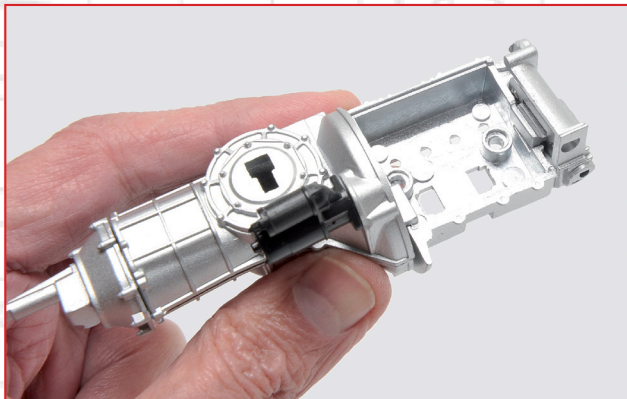
STEP 34-D

The tab on the crankcase end cover (34-3) is shaped like a 'T' in cross-section to lock it into place.



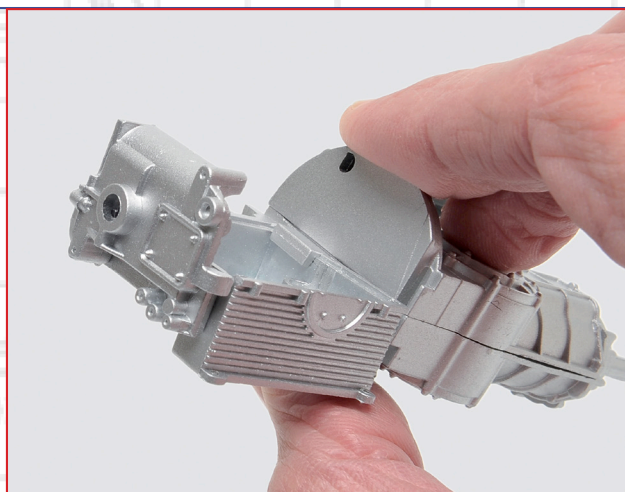
STEP 34-E

Holding the parts this way up, fit the tab from Step 34-D into the other cutout in the right half of the crankcase.



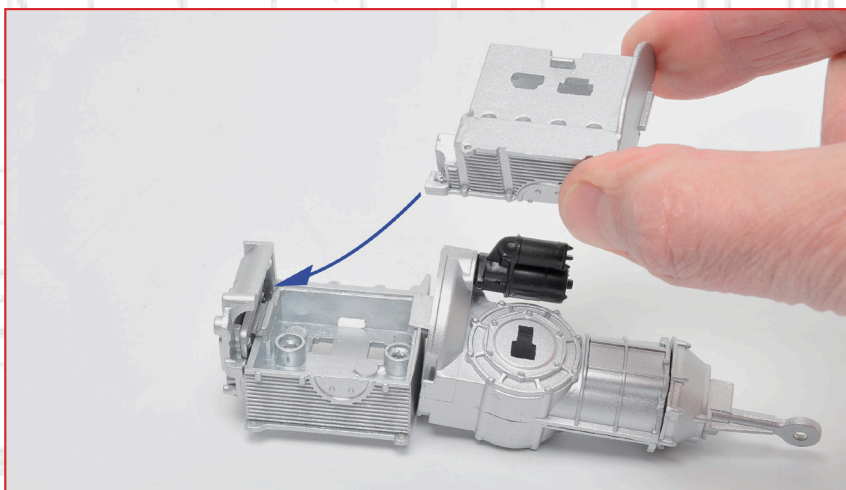
STEP 34-F

Check that the tab is fully seated in the right half of the crankcase.



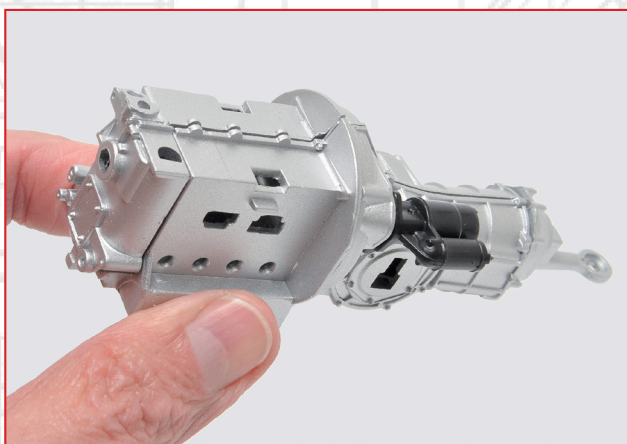
STEP 34-G

This is the assembly shown from the rear.



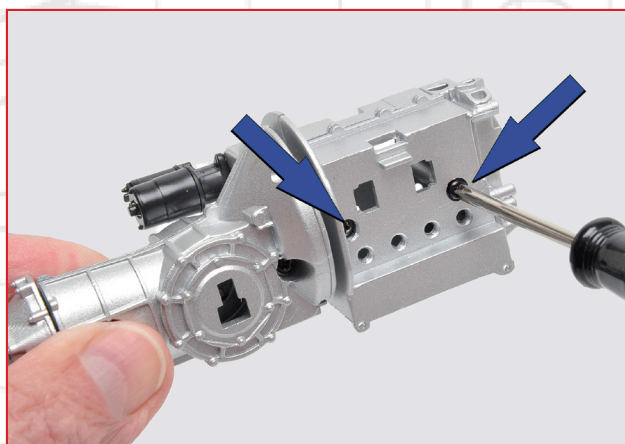
STEP 34-H

Fit the left half of the crankcase (34-1) over the assembly so that the cutout slots onto the other side of the T-shaped tab.



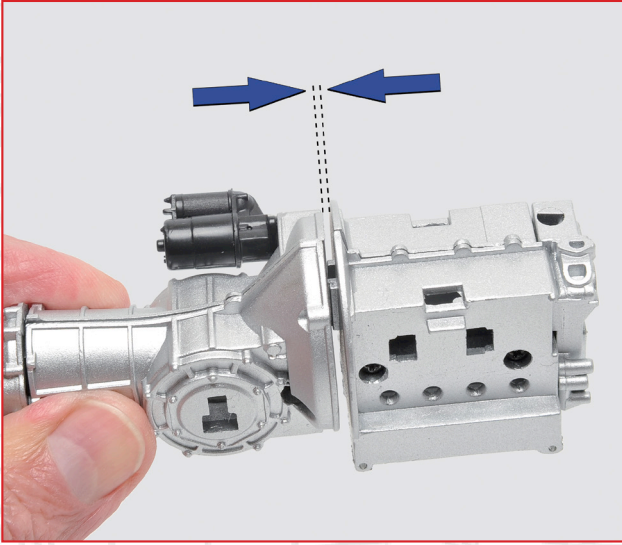
STEP 34-I

Check that the crankcase fits together flush, noting the point in Step 34-K.



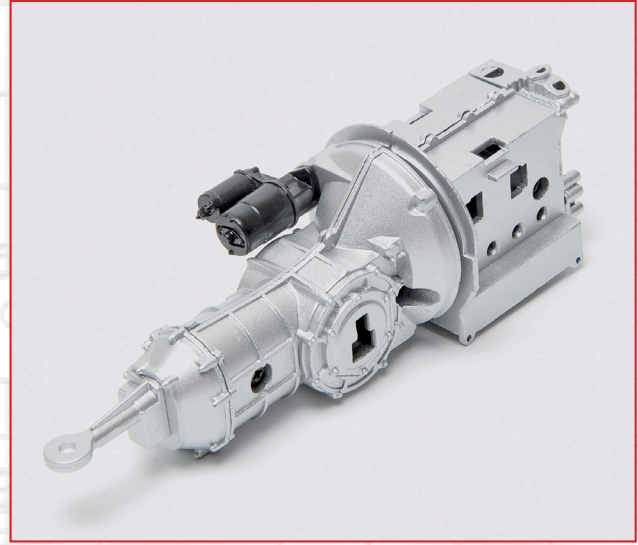
STEP 34-J

Fix the crankcase together with two SD11 screws.



STEP 34-K

There should be a small gap between the block and the gearbox to allow for fitting it to the motor support in Stage 36.



The finished crankcase and gearbox assembly should look like this.

STAGE COMPLETE





Stage 35: Cylinder barrels and heads

This stage sees you fitting the four cylinder barrels, which are finned as part of the air-cooling system. You also start building up the cylinder heads, which are made up from separate components and continue being assembled in the following stage.

PARTS

35-1 Right-hand cylinder head (inner section)

35-2 Left-hand cylinder head (inner section)

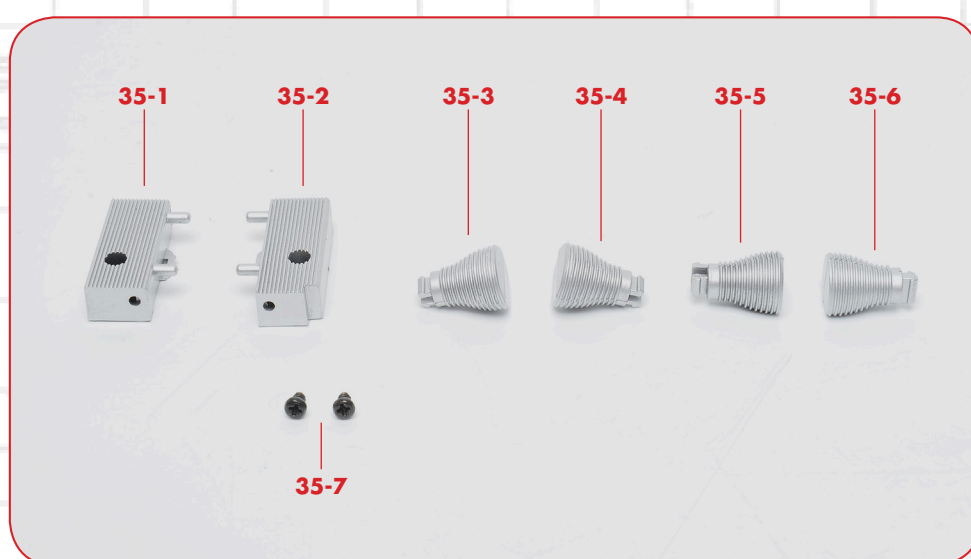
35-3 Cylinder 1

35-4 Cylinder 2

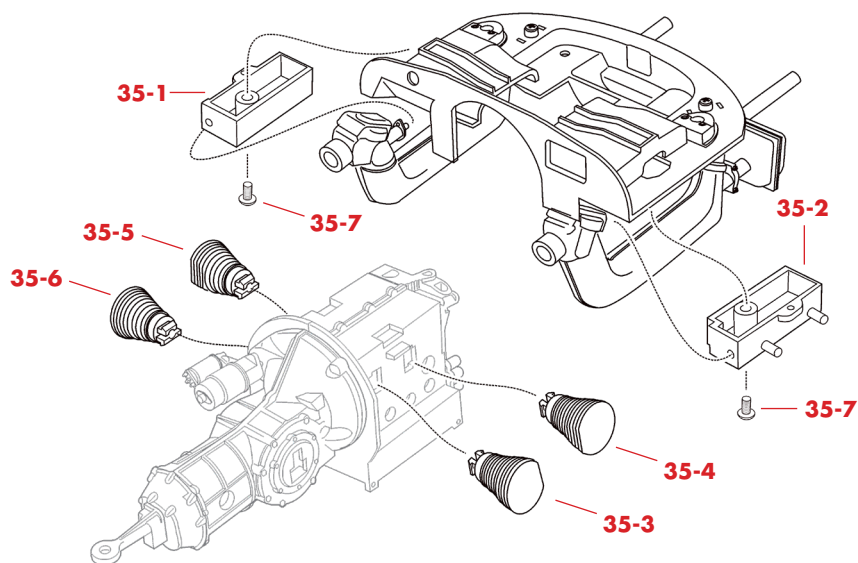
35-5 Cylinder 3

35-6 Cylinder 4

35-7 SP13 screws



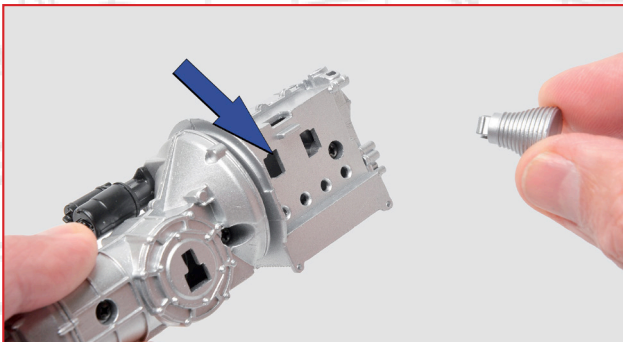
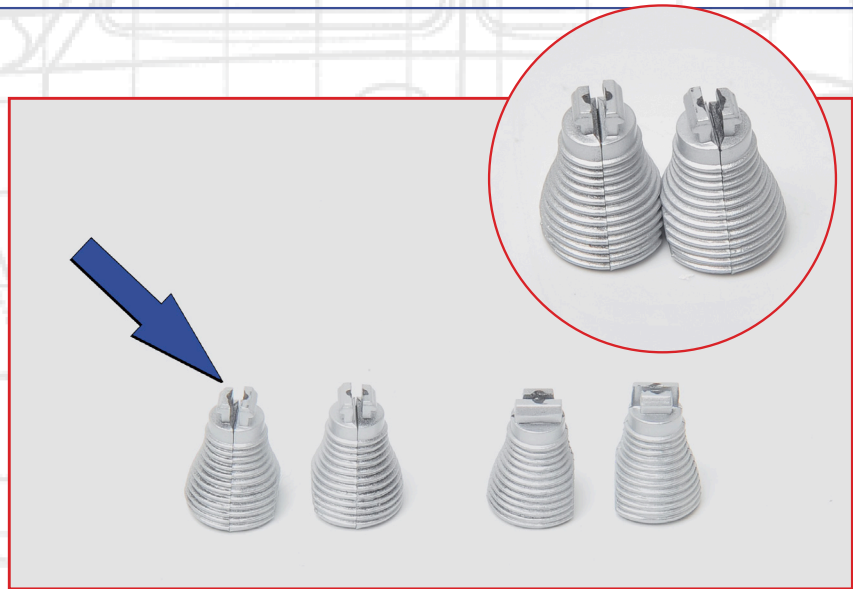
PARTS DIAGRAM



NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.

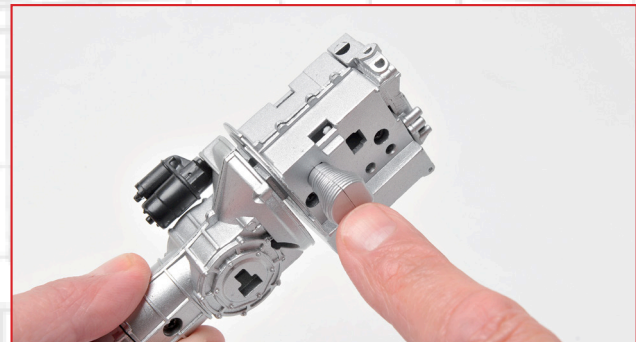
STEP 35-A

The cylinders are very similar in appearance, but each of them only fits in one position. The mounting lugs (indicated by the arrow in the illustration) are different shapes, matching a specific location on the crankcase. The cylinders also have a flat on one side, which allows them to be pressed together as shown inset.



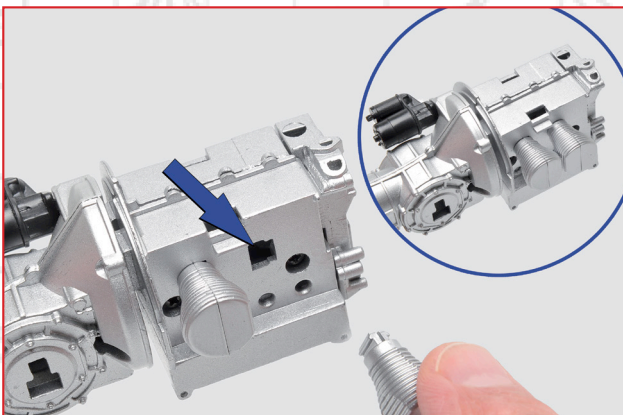
STEP 35-B

Fit cylinder 1 (35-3) into the arrowed hole in the crankcase.



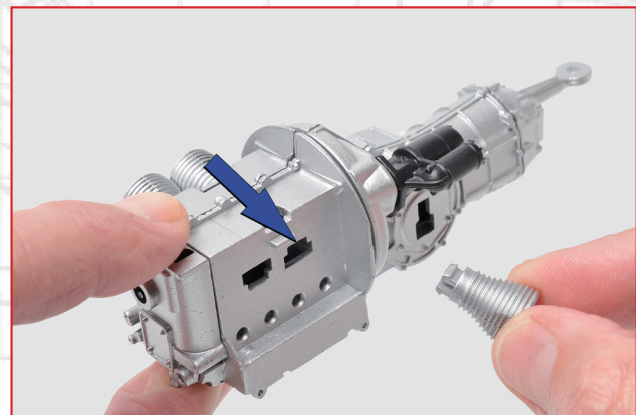
STEP 35-C

Press the cylinder all the way home.



STEP 35-D

Fit cylinder 2 (35-4) into the adjacent hole, noting how the flat sides go together.



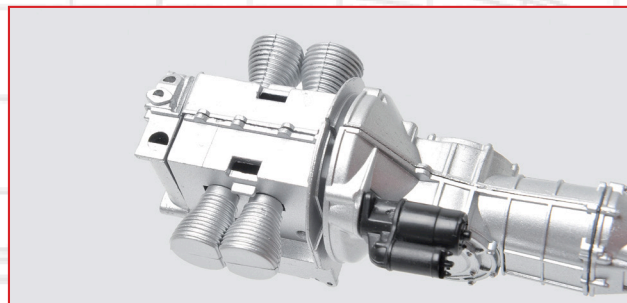
STEP 35-E

Fit cylinder 4 (35-6) into the indicated hole on the other side of the engine.



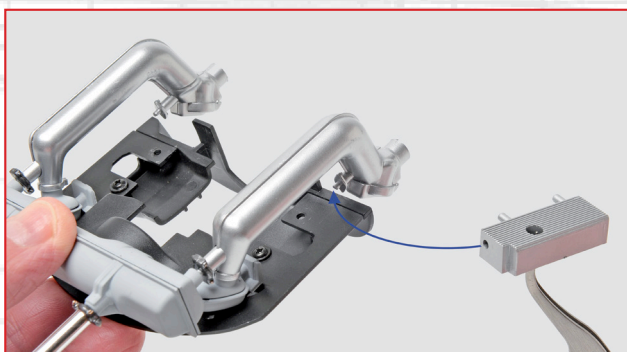
STEP 35-F

Press the cylinder into place, noting the position of the flat on its side.



STEP 35-G

Finally fit cylinder 3 (35-5) into the remaining hole. The engine should now look like this.



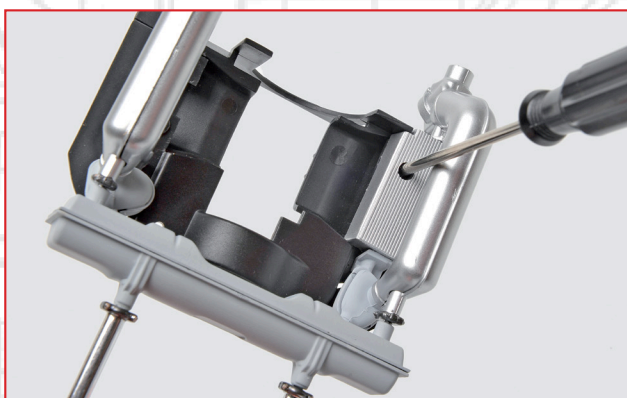
STEP 35-H

Take the engine mount and exhaust assembly from Stage 4. Take the left-hand cylinder head section (35-2) and identify the hole that fits over the indicated locating pin in the exhaust.



STEP 35-I

Press the hole onto the pin so that the cylinder head fits as shown.



STEP 35-J

Fix the parts together with an SP13 screw.



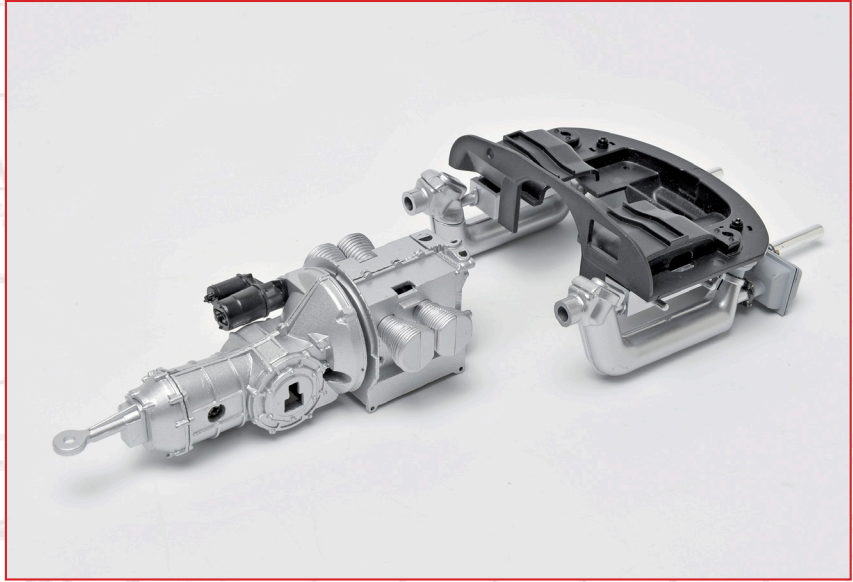
STEP 35-K

Fit the right-hand cylinder head section (35-1) so it mirrors the one on the left.



STEP 35-L

Secure the cylinder head section with another SP13 screw.



The engine and cylinder head assemblies should now look like this.

STAGE COMPLETE





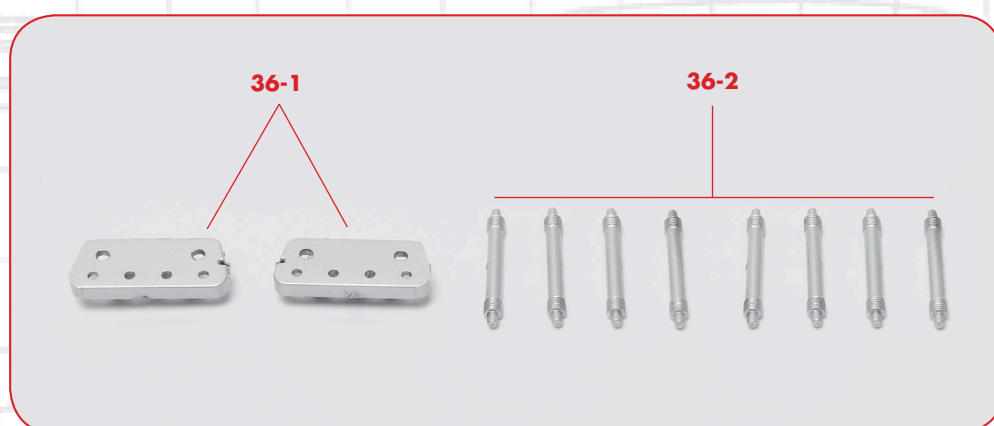
Stage 36: Cylinder heads and pushrod tubes

In this stage, continue assembling the cylinder heads and add the eight tubes enclosing the pushrods which operate the overhead valves.

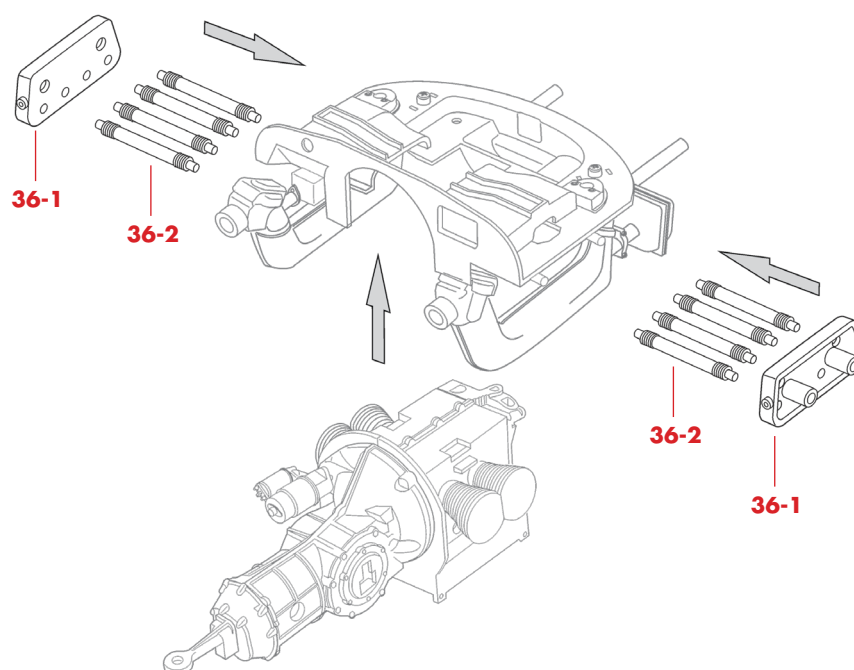
PARTS

36-1 Cylinder heads
(outer sections)

36-2 Pushrod tubes



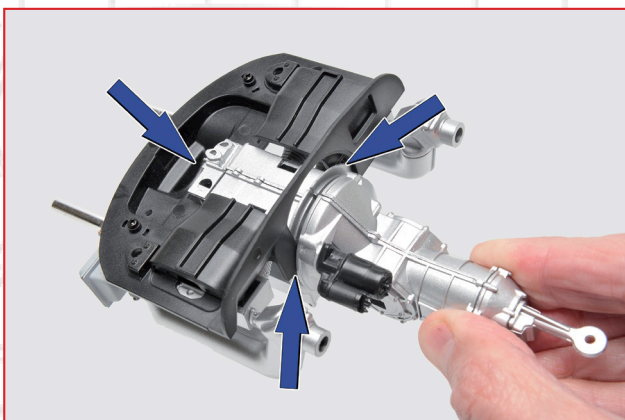
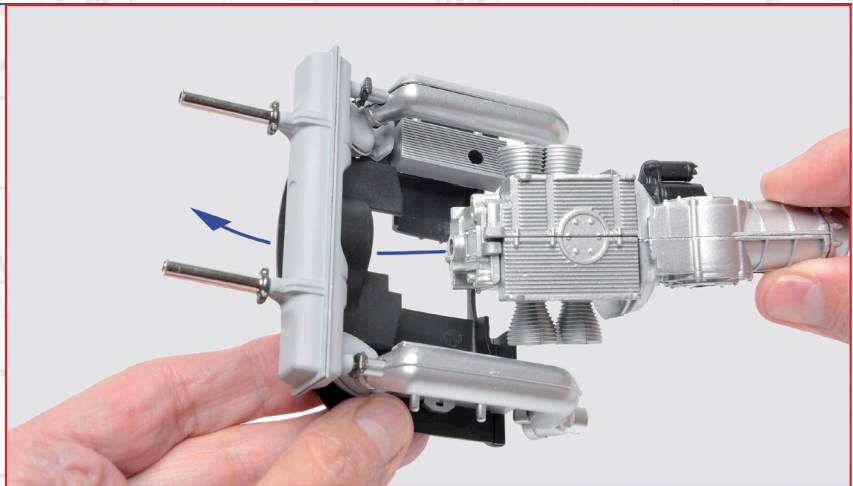
PARTS DIAGRAM



NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.

STEP 36-A

Take the two sub-assemblies from Stage 35 and fit the engine/gearbox to the motor support, tipping it so that the end of the crankcase fits into the support as shown by the arrow.

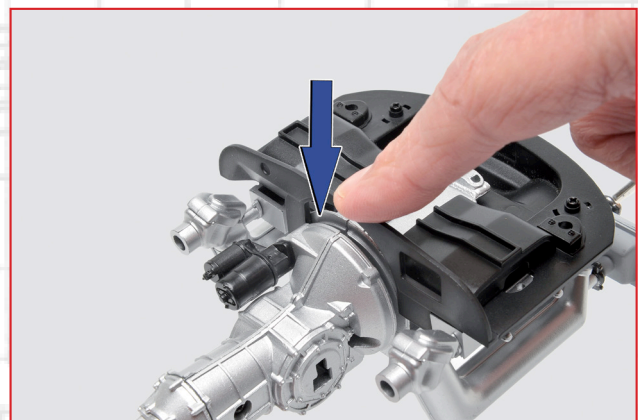


STEP 36-B

Check that the end of the crankcase is fitted all the way onto the support as shown by the single arrow, and make sure that the horse-shoe shaped cutout in the support bracket fits over the slot between the engine and gearbox (double arrow).

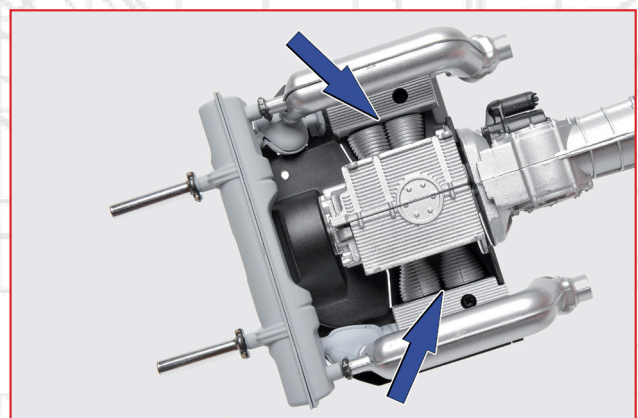
STEP 36-C

Press the support bracket all the way into the slot between the engine and gearbox.



STEP 36-D

Check that the engine and transmission is properly aligned on its mountings, as shown.



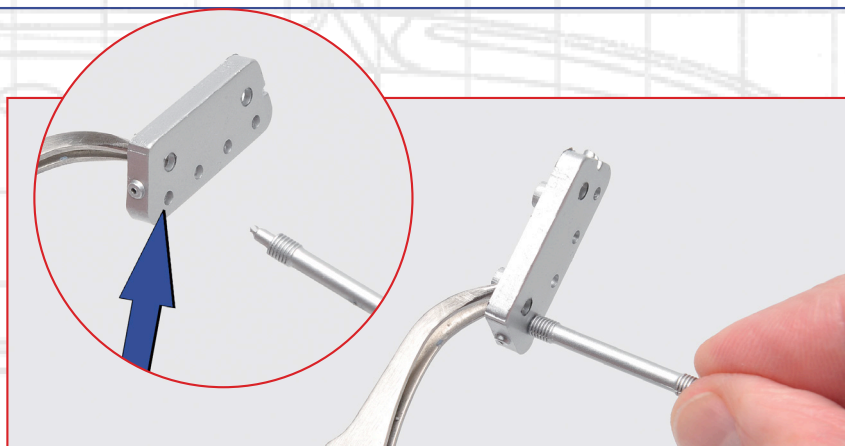
STEP 36-E

Check that the ends of all four cylinders are properly lined up with the cylinder heads.



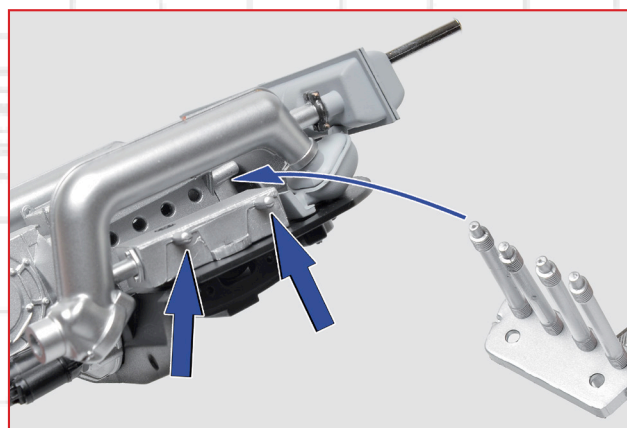
STEP 36-F

Fit the end of one of the pushrod tubes (36-2) into the end hole of one outer section of the cylinder head (36-1) as shown, making sure it goes all the way in.



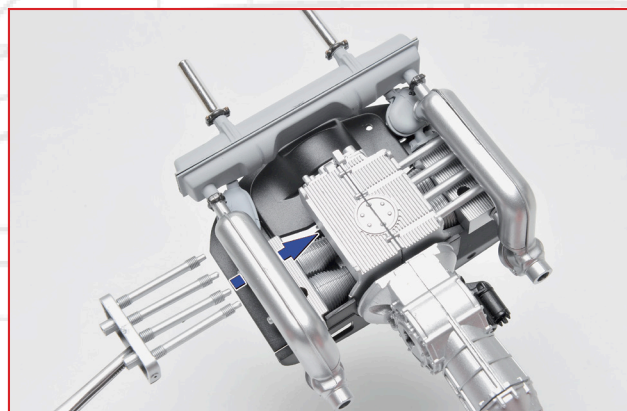
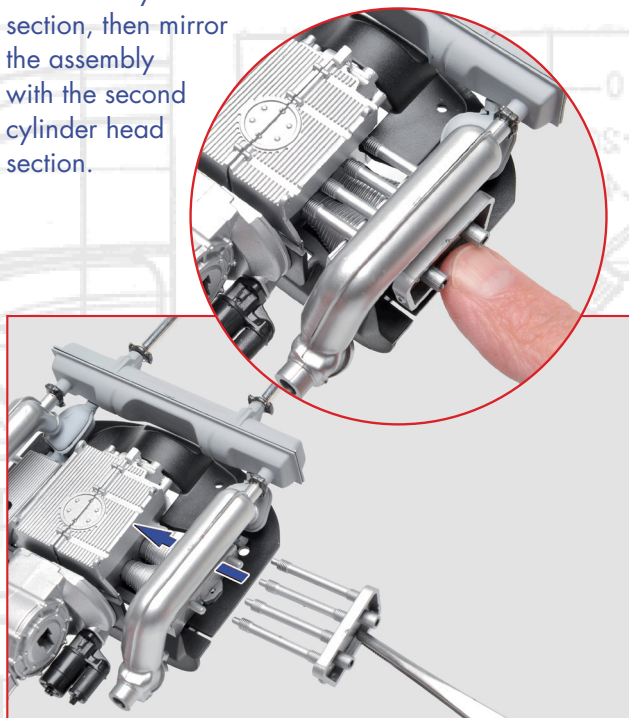
STEP 36-G

Repeat Step 36-F to fit three more pushrod tubes to the first cylinder head section, then mirror the assembly with the second cylinder head section.



STEP 36-H

Take one of the assemblies from Step 36-G and line up the other ends of the four tubes with the four ports in one side of the crankcase. You also need to fit the two pins indicated into the recesses in the outer section of the cylinder head.



STEP 36-I

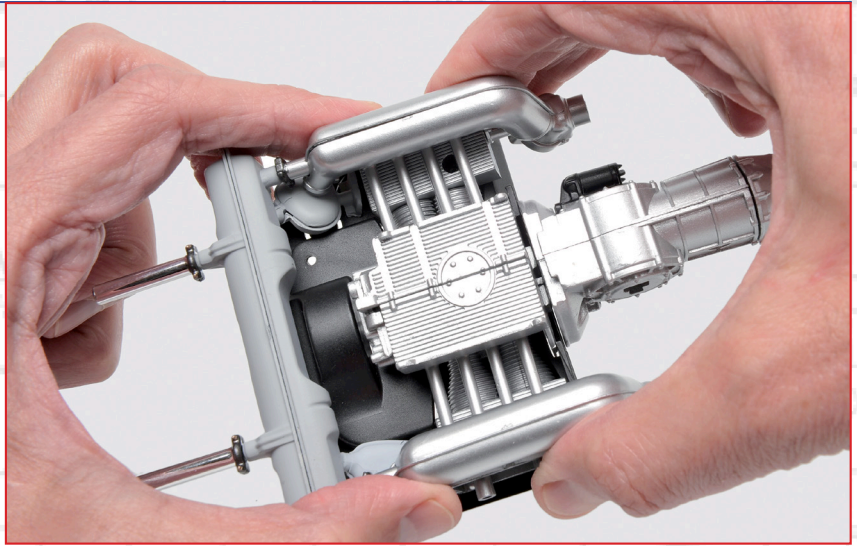
Press the assembly firmly into place.

STEP 36-J

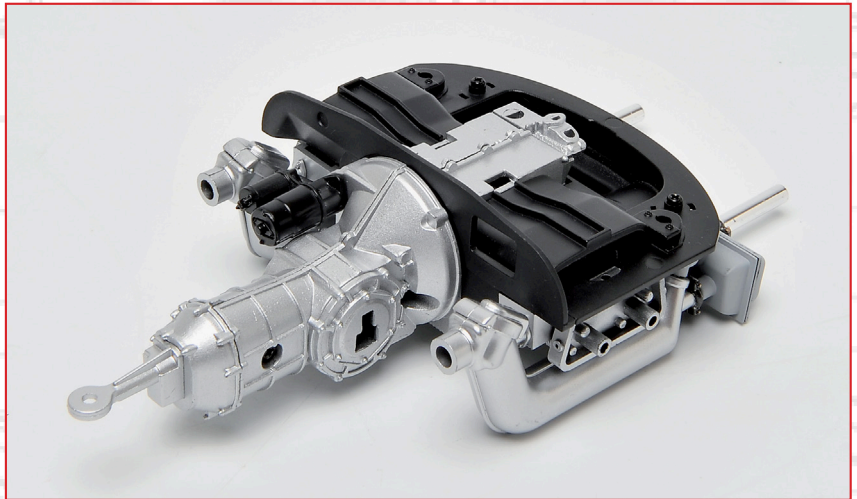
Mirror Steps 36-H and I on the other side of the engine.

STEP 36-K

Check that both sets of pushrod tubes and cylinder heads fit flush.



The engine/transmission assembly should now look like this.



STAGE COMPLETE



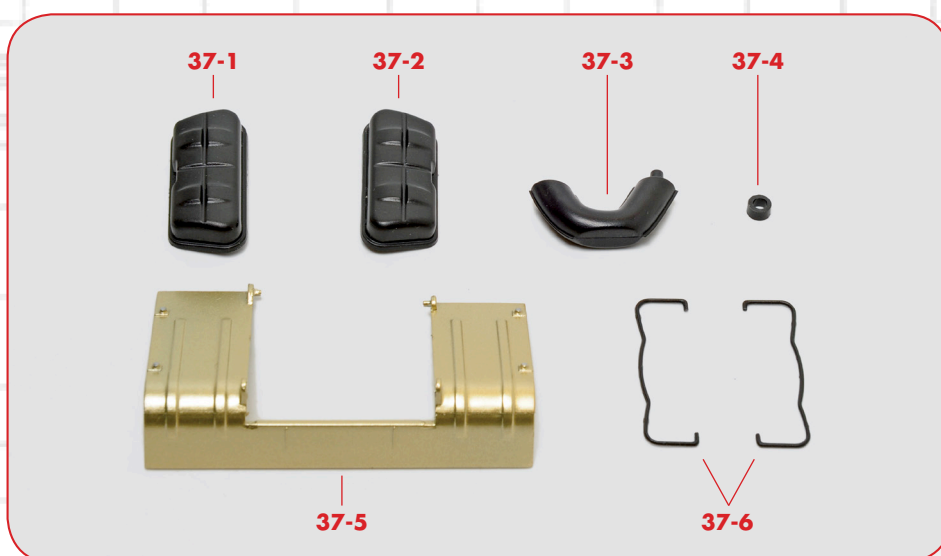


Stage 37: Rocker covers & cylinder protection plate

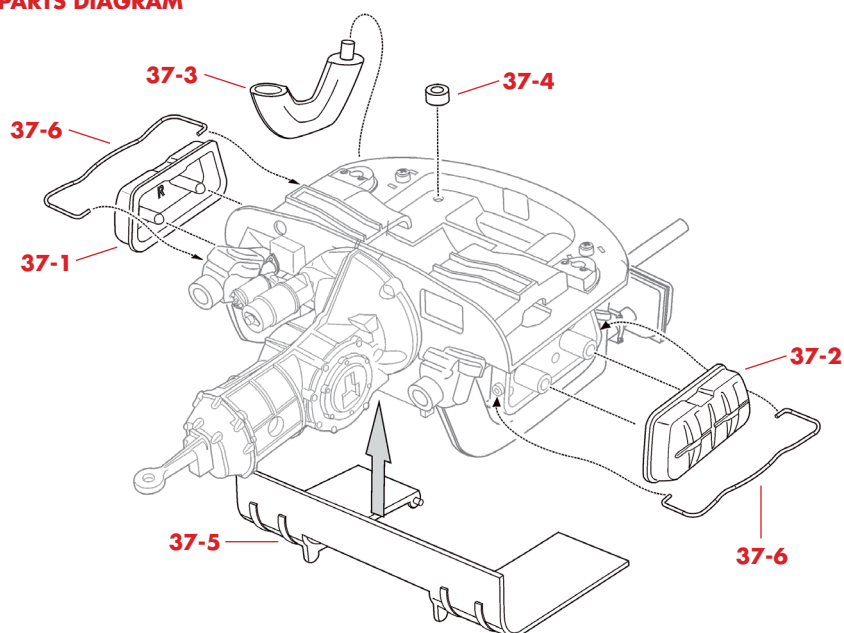
Complete the engine by adding the rocker covers to the tops of the cylinder heads.
You can also fit the plate that protects the underside of the cylinders from road dirt and physical knocks.

PARTS

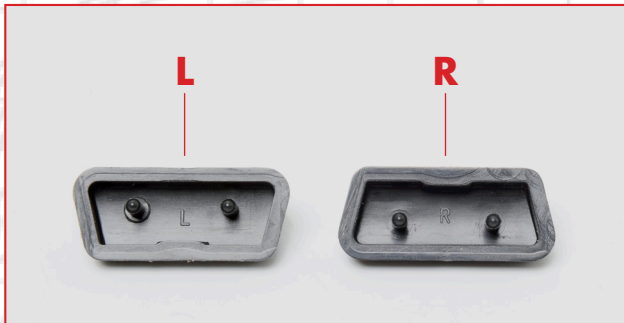
- 37-1** Right-hand rocker cover
- 37-2** Left-hand rocker cover
- 37-3** Air pipe
- 37-4** Air pipe fixing collar
- 37-5** Under-cylinder protection plate
- 37-6** Rocker cover clips



PARTS DIAGRAM

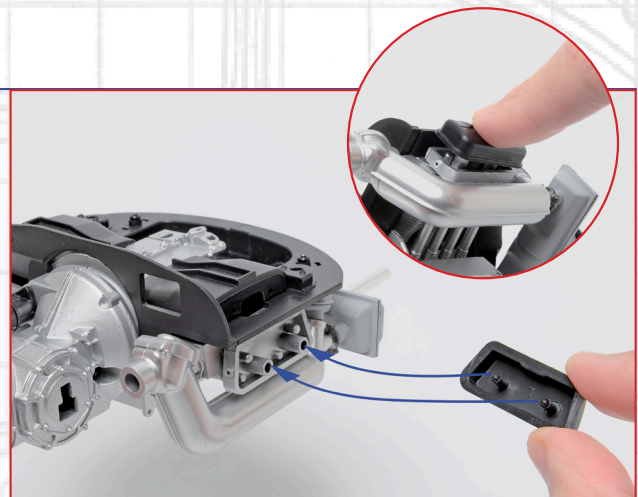


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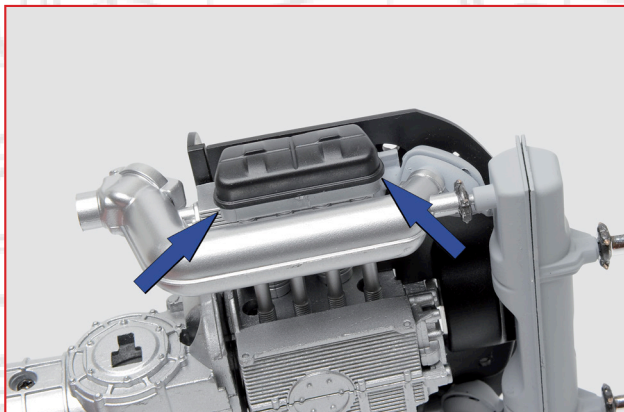
STEP 37-A

Moulded letters inside the rocker covers indicate which side they fit: L (*left*) and R (*right*).



STEP 37-B

Take the left rocker cover (37-2) and fit its projecting pins into the holes in the left cylinder head. Press it all the way on.



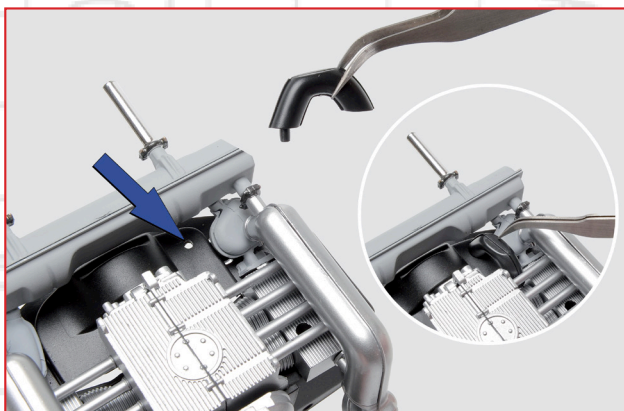
STEP 37-C

Check that the rocker cover is fitted flush



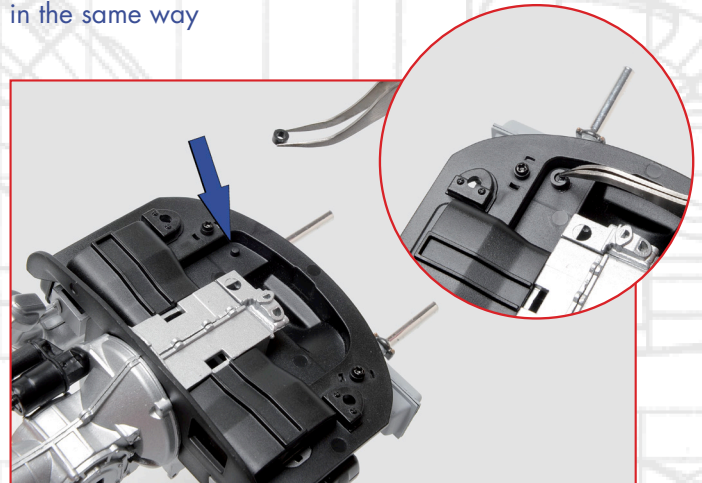
STEP 37-D

Fit the right rocker cover (37-1) in the same way



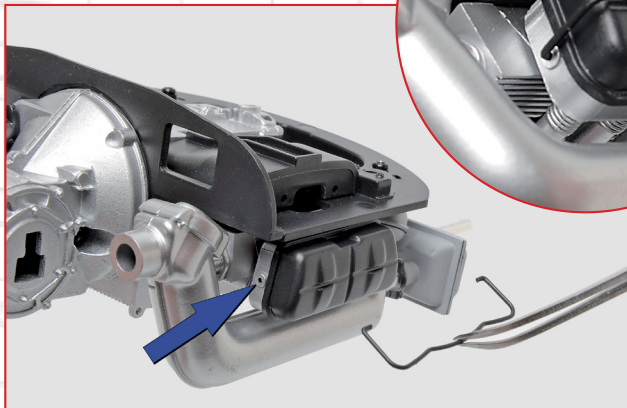
STEP 37-E

Take the air pipe (37-3) and fit the pin on one end into the hole in the motor support as indicated in the photo. Align it as shown and press it all the way in.



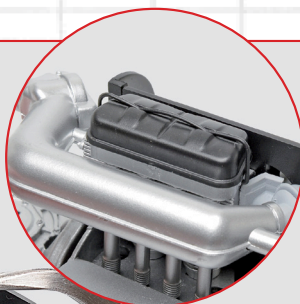
STEP 37-F

Turn the assembly over and press the retaining collar (37-4) onto the end of the pin to fix it in position.



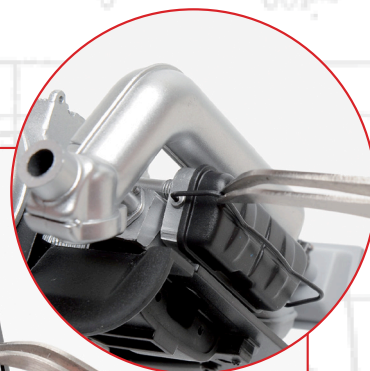
STEP 37-G

Take one of the rocker cover clips (37-6). These are fragile, so handle the clip with care. Fit one end into the arrowed hole in the end of the cylinder head and lay the clip in the groove on the top of the rocker cover.



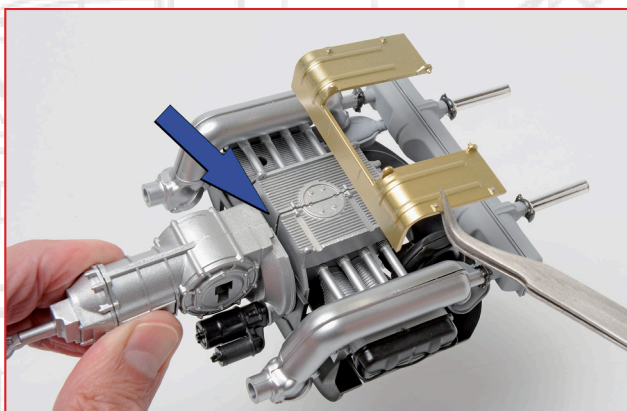
STEP 37-H

Carefully spring the other end of the clip into the hole in the other end of the cylinder head.



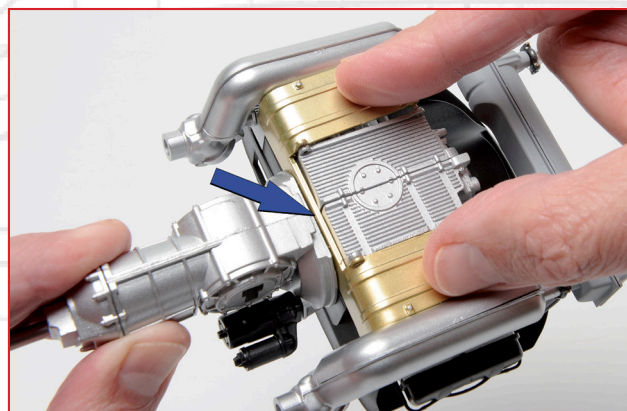
STEP 37-I

Fit the second clip in the same way.



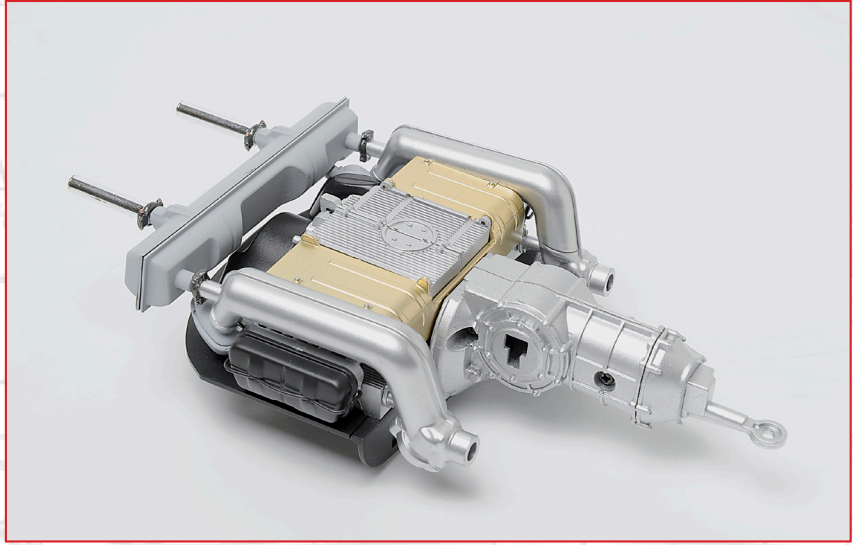
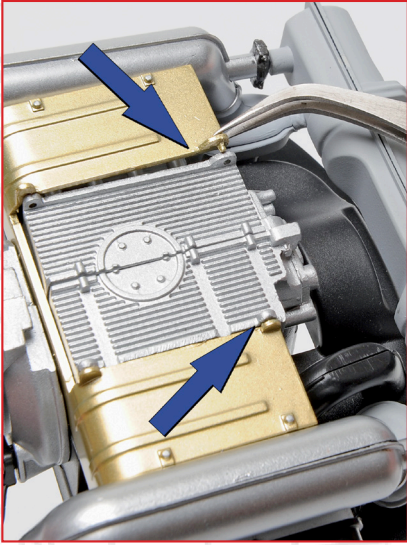
STEP 37-J

Take the under-cylinder protection plate (37-5) and position it under the engine, so that the transverse part of the plate fits into the slot between the engine and gearbox.



STEP 37-K

Press the part into place so it fits flush.



STEP 37-L

To retain the plate in position, press the small pins indicated into the holes on the four corners of the crankcase.

The main assembly of the engine/transmission is complete and should look like this from below.

STAGE COMPLETE





Stage 38: Rear drive shafts

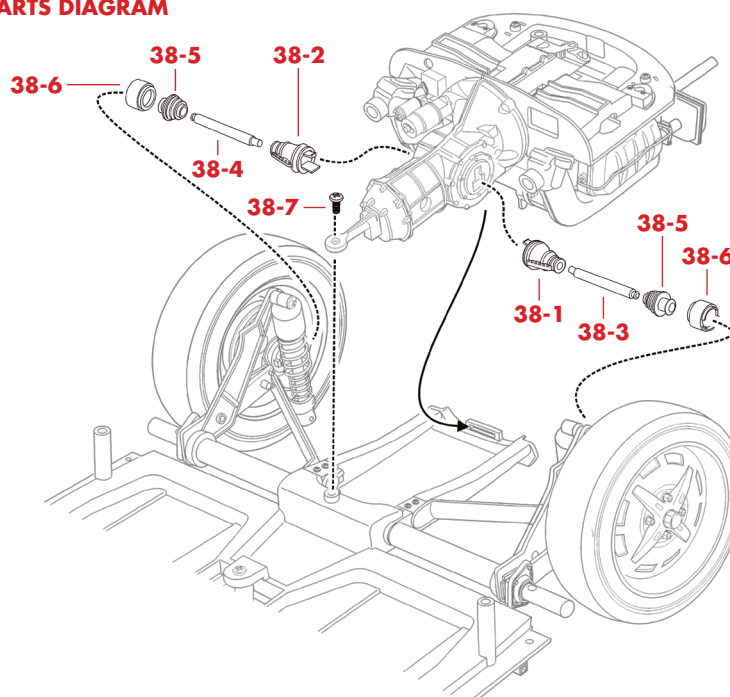
Now that the engine and transmission are complete, you can start to assemble the two rear drive shafts, which are equipped with universal (CV) joints at each end.

PARTS

- 38-1** Left CV joint (gearbox side)
- 38-2** Right CV joint (gearbox side)
- 38-3** Left drive shaft
- 38-4** Right drive shaft
- 38-5** CV joint boots (wheel side)
- 38-6** CV joints (wheel side)
- 38-7** SD04 screws



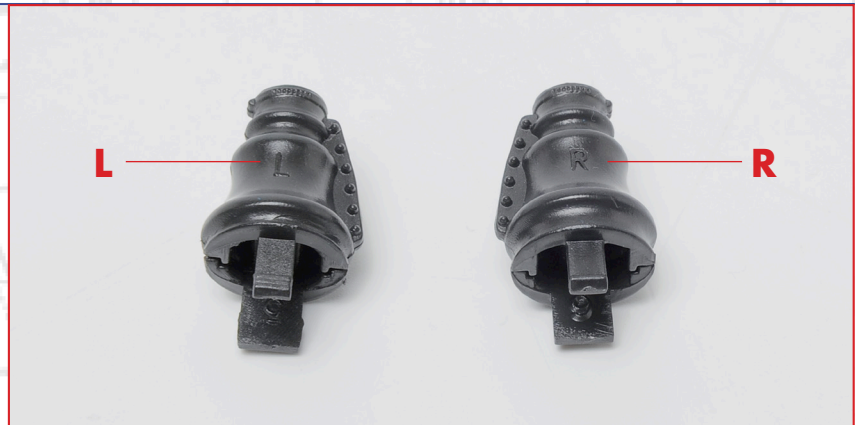
PARTS DIAGRAM



NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.

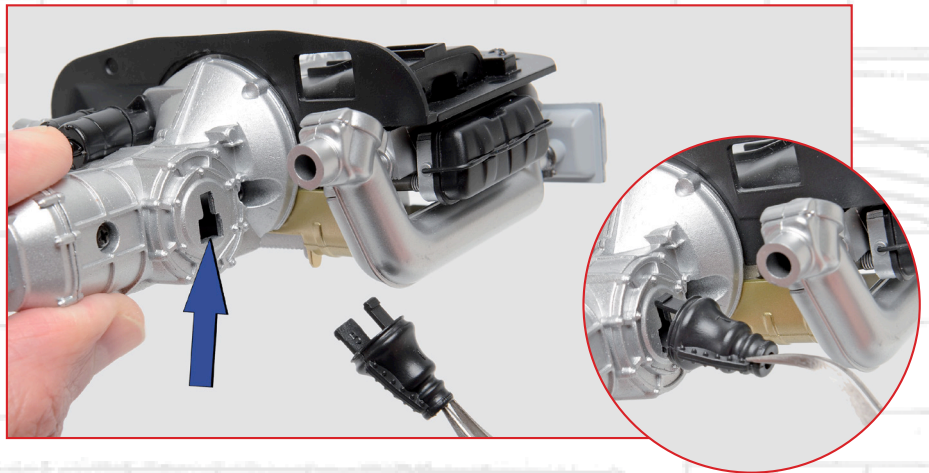
STEP 38-A

The two CV joints fitted to the gearbox side of the drive shafts, (38-1) and (38-2), have moulded letters to indicate which side they go: L (left) or R (right). Be careful not to mix them up.



STEP 38-B

Fit the left CV joint (38-1) to the left side of the gearbox as shown. It has two barbed tabs that lock into the hole in the gearbox, which is shaped like an upside-down T. The narrower tab goes at the top, the wider one at the bottom.



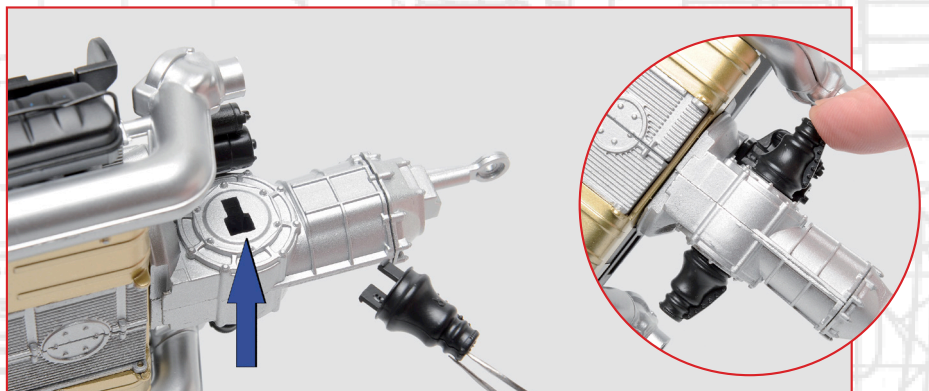
STEP 38-C

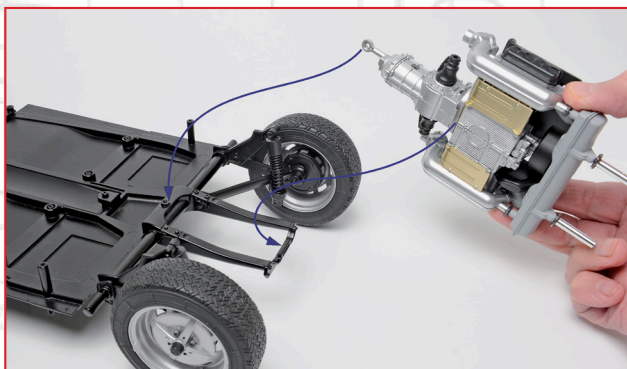
Press the CV joint all the way in to lock it in position.



STEP 38-D

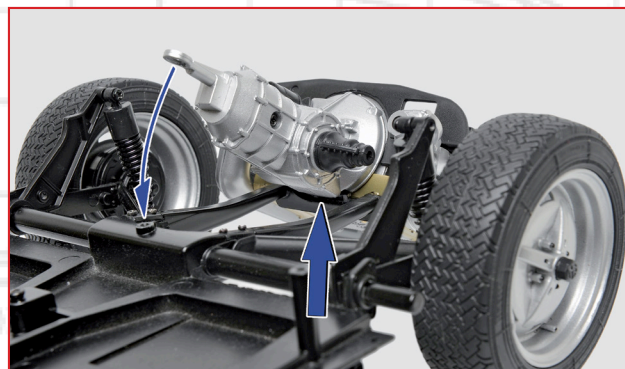
Fit the right CV joint (38-2) to the opposite (right) side of the gearbox in the same way.





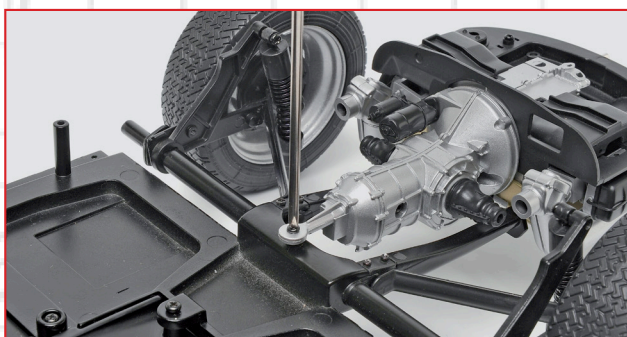
STEP 38-E

You can now mount the engine and transmission on the rear of the chassis. The assembly is supported by the gearbox mounting at the front and the cross-member at the rear (indicated by the arrows).



STEP 38-F

Fit the groove under the bell housing between the engine and gearbox over the cross-member and fit the hole in the gearbox mounting over the hole in the chassis.



STEP 38-G

Fix the gearbox mounting to the chassis with an SD04 screw.



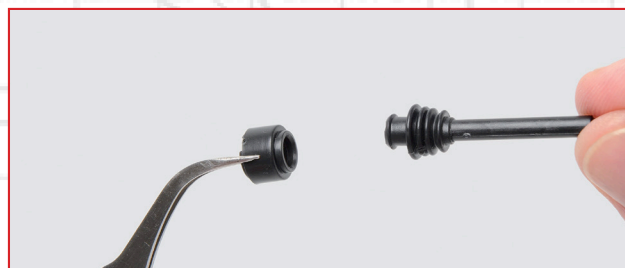
STEP 38-H

The two drive shafts are different lengths and it is important not to mix them up. The left drive shaft (38-3) is one millimetre longer than the right (38-4).



STEP 38-I

Start with the left drive shaft (38-3). Fit the mushroom-shaped end into one of the CV joint boots (38-5).

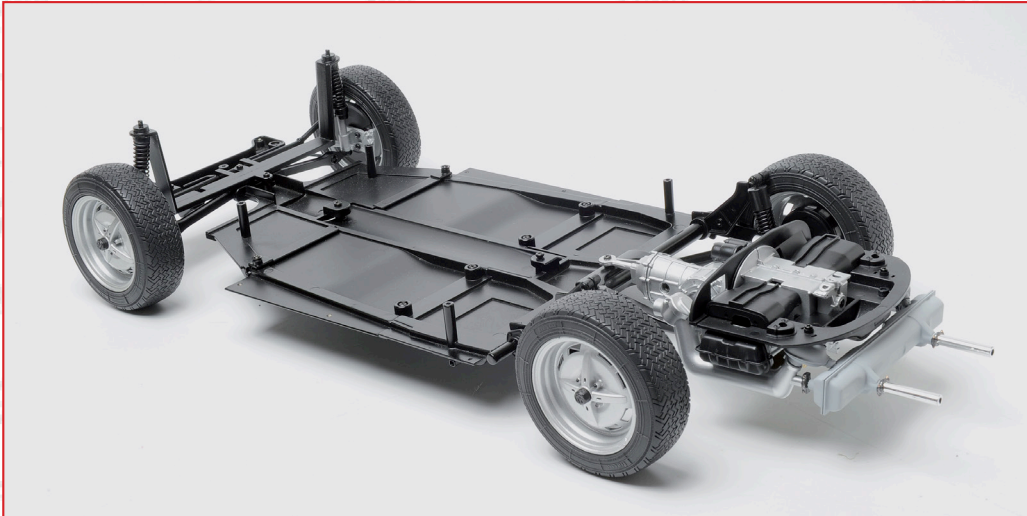


STEP 38-J

Fit the CV joint boot into one of the CV joints (38-6) as shown.

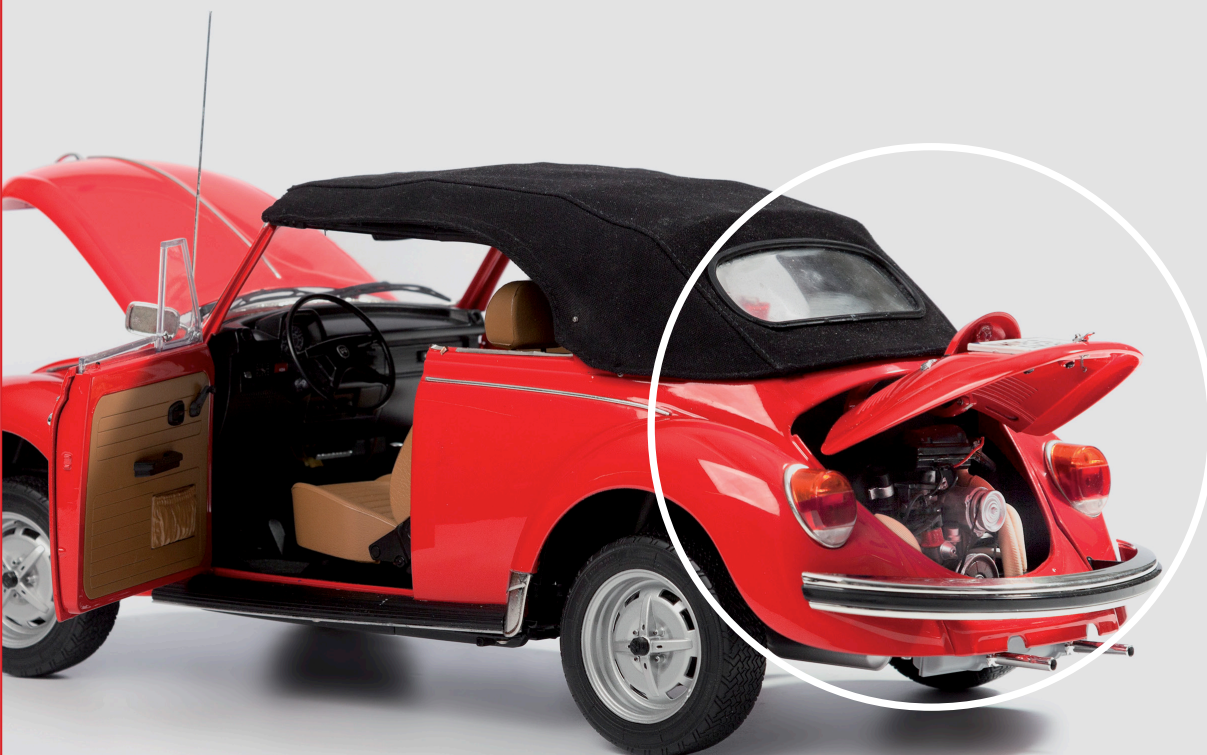
STEP 38-K

Repeat Steps 38-I and 38-J to fit the remaining CV joint and its boot onto the right drive shaft (38-4).



The main assembly showing the engine and transmission in place in the chassis.

STAGE COMPLETE





Stage 39: Cooling fan and shroud

With the engine and transmission fitted to the chassis, you can add the rear drive shafts and start to assemble the air-cooling system.

PARTS

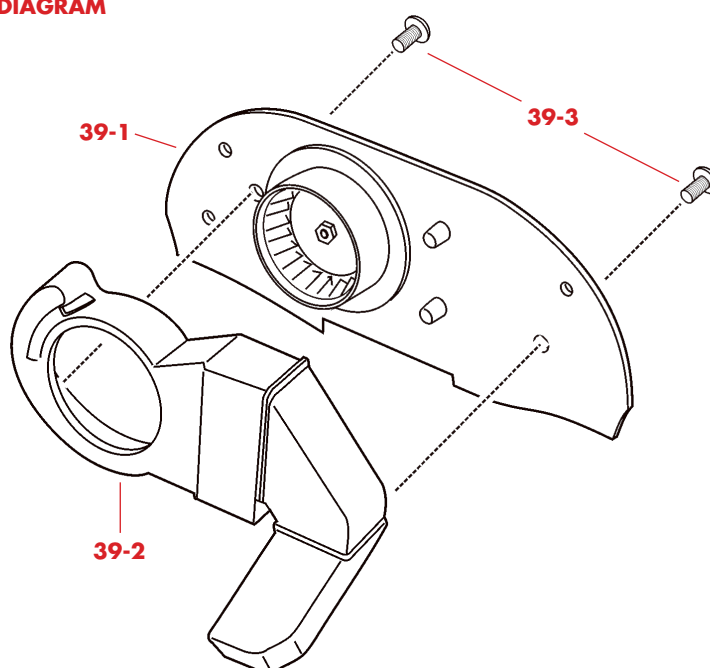
39-1 Fan shroud and fan

39-2 Front panel of fan shroud

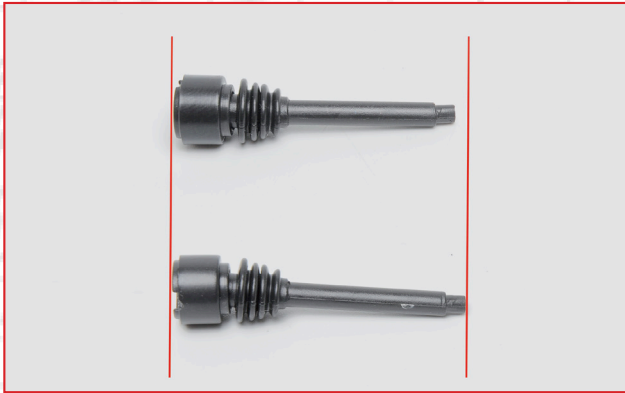
39-3 SP15 screws



PARTS DIAGRAM

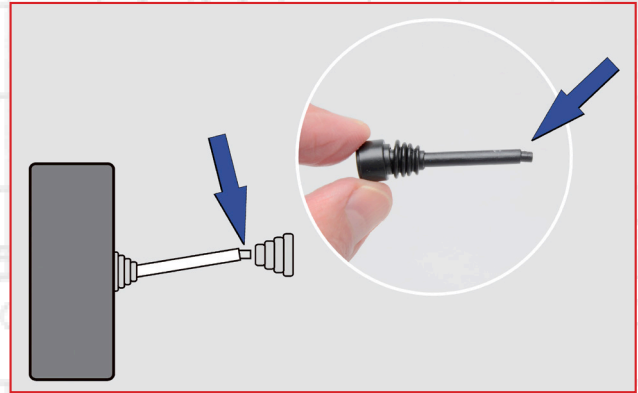


NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.



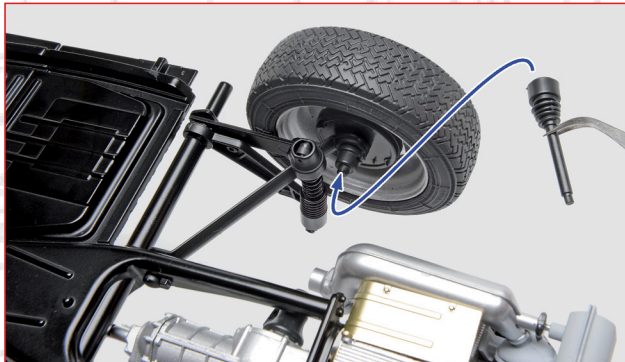
STEP 39-A

Take the two drive shaft assemblies from Stage 38. Remember that the left-hand drive shaft assembly is one millimetre longer than the right.



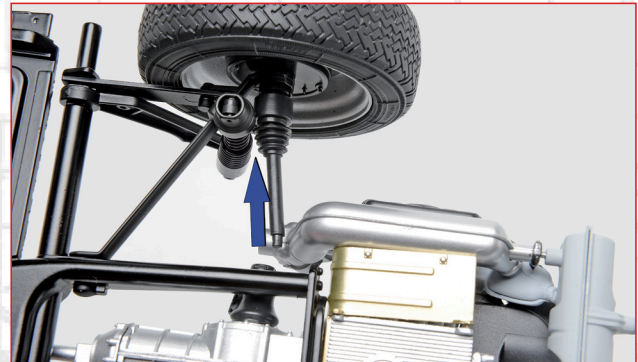
STEP 39-B

Look at the drive shafts carefully. The tip of the free end has a square section that fits into the CV joint mounted on the gearbox. This is at a slight angle to the drive shaft, and must be fitted into the CV joint as shown in the diagram.



STEP 39-C

With the chassis upside-down, take the longer left-hand drive shaft assembly and match up the CV joint with the stub axle on the left rear wheel.



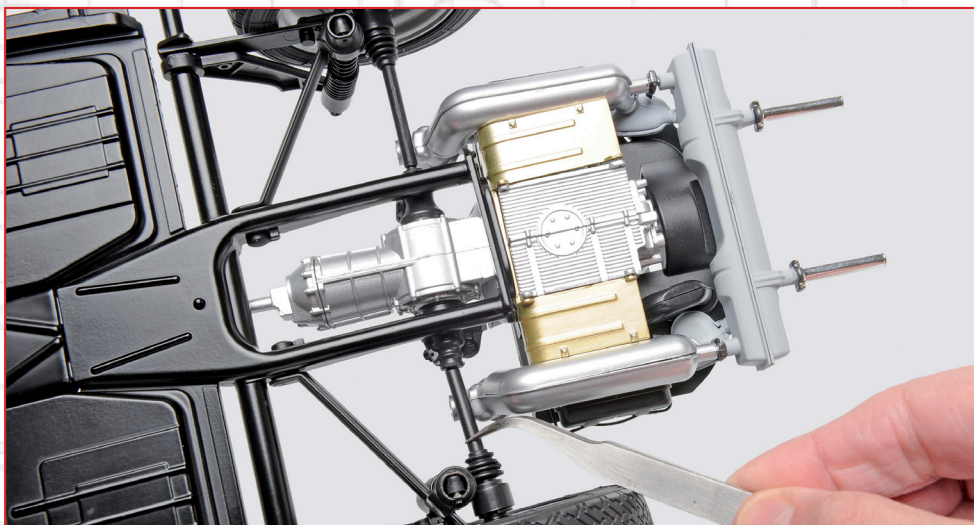
STEP 39-D

Push the CV joint onto the stub axle, keeping the drive shaft out of the way.

STEP 39-E

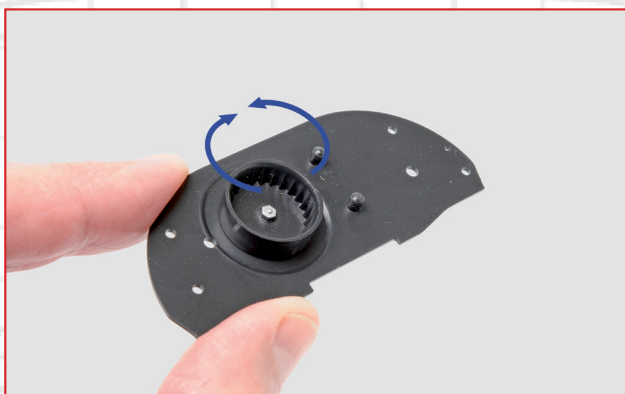
Turn the drive shaft so that the square end is angled as shown in Step 39-B. Then spring the wheel outwards slightly so you can fit the tip of the drive shaft into the gearbox CV joint.





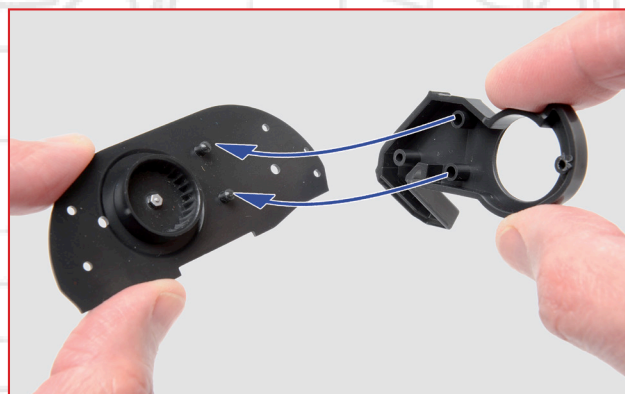
STEP 39-F

Fit the right-hand drive shaft to the other side of the gearbox in the same way.



STEP 39-G

Now start to assemble the engine's air-cooling system. The fan fitted to the shroud (39-1) spins in the same way as on the real car.



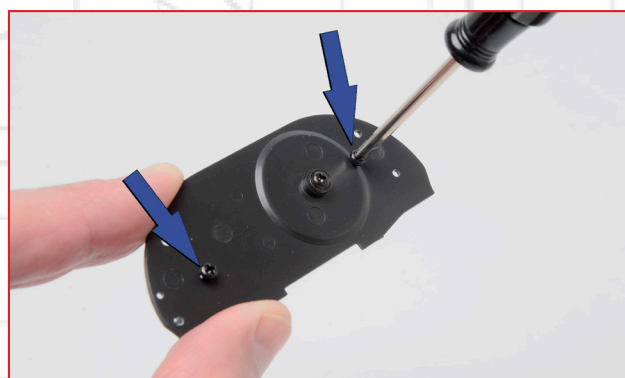
STEP 39-H

Fit the front panel of the shroud (39-2) by matching up the locating pins and mounting posts as shown by the arrows.



STEP 39-I

Press the parts firmly together.

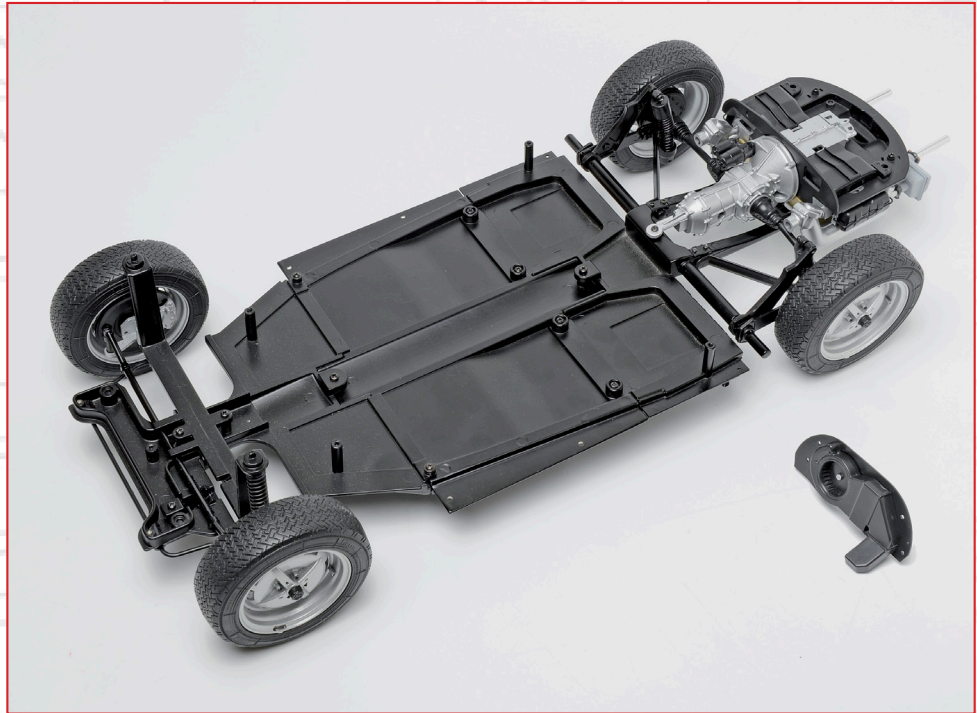


STEP 39-J

Join the parts with two SP15 screws in the holes indicated.

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That completes the assembly of the chassis and the transmission. You will continue the cooling system in the next stage.



STAGE COMPLETE



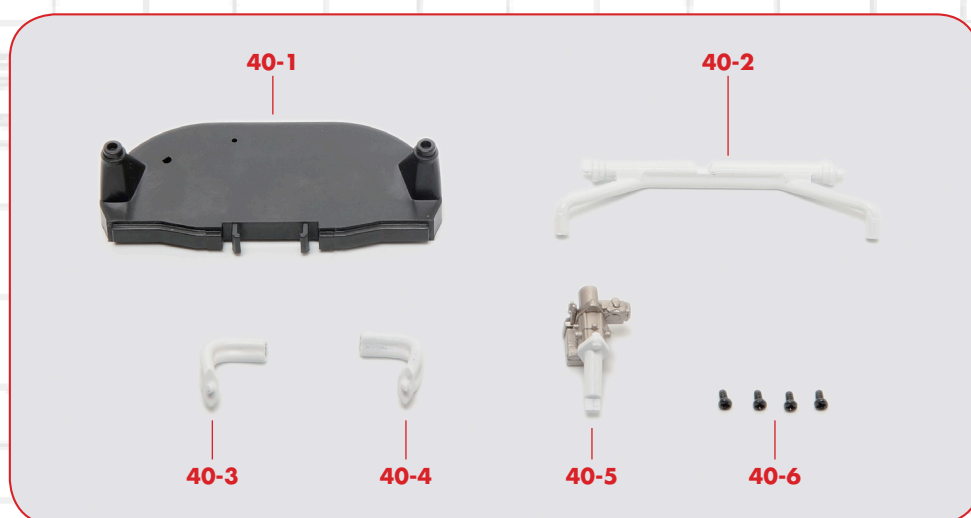


Stage 40: Carburettor and induction system

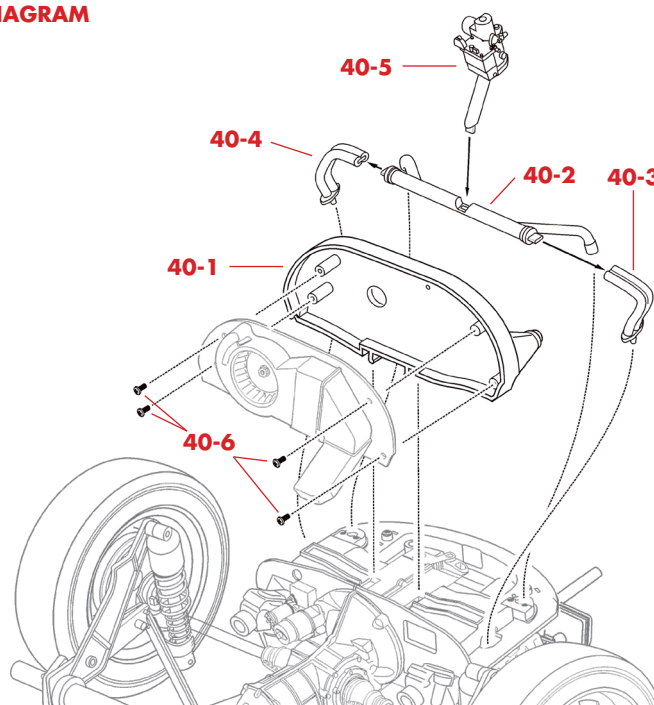
This stage completes the cooling system, which can then be fitted to the engine, after installing the carburettor and the inlet manifold.

PARTS

- 40-1** Fan shroud rear housing
- 40-2** Inlet manifold centre section
- 40-3** Left inlet manifold
- 40-4** Right inlet manifold
- 40-5** Carburettor
- 40-6** SP07 screws



PARTS DIAGRAM

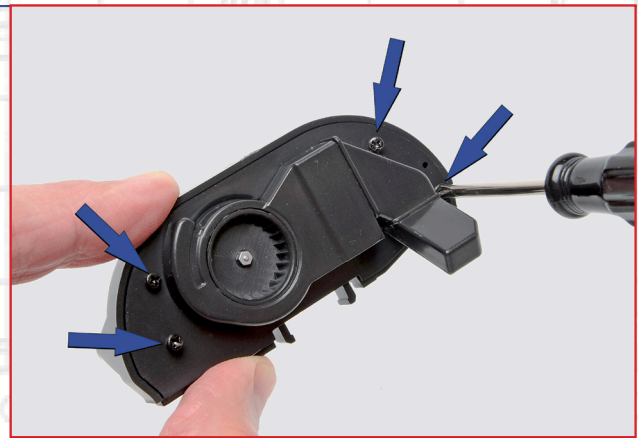


NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.



STEP 40-A

Take the fan assembly from the previous stage and fit it into the rear housing (40-1), pressing the parts together firmly.



STEP 40-B

Fix the fan assembly together with four SP07 screws.

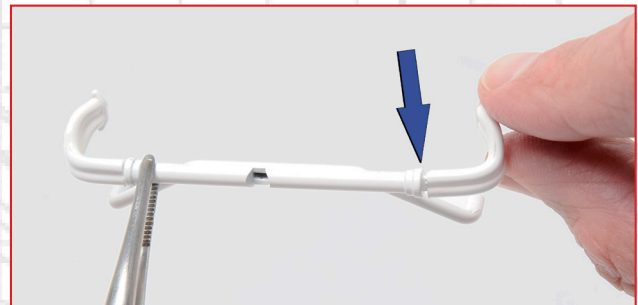
STEP 40-C

Start assembling the inlet manifold. Fit the hole in the left inlet manifold (40-3) onto the pin on the end of the centre section (40-2).



STEP 40-D

Make sure the parts are aligned as shown.



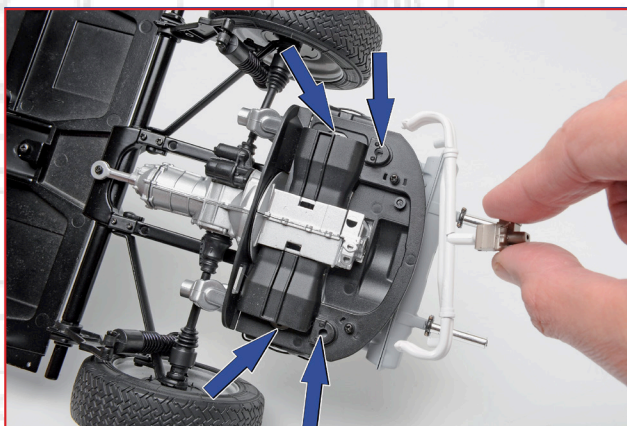
STEP 40-E

Fit the right inlet manifold (40-4) in a similar way.

STEP 40-F

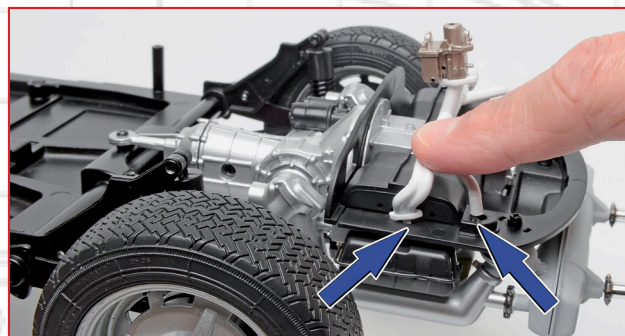
Fit the carburettor (40-5) into the central hole in the inlet manifold, making it is aligned as shown.





STEP 40-G

Align the assembly with the engine, matching up the ends of the inlet manifolds with the holes indicated.



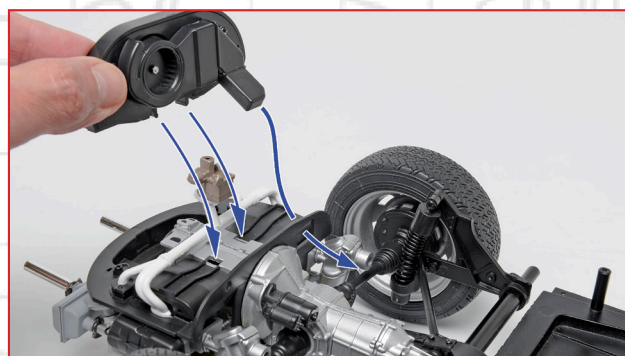
STEP 40-H

Press the left inlet manifold into the two matching holes.



STEP 40-I

Press the right inlet manifold into its matching holes.



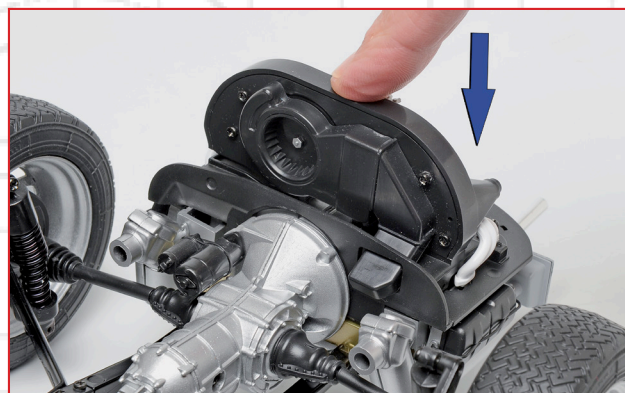
STEP 40-J

Fit the fan assembly in front of the carburettor so that the air intake passes through the rectangular hole indicated by the larger arrow, and the tabs on the bottom fit into the slots in the crankcase, indicated by the two smaller arrows.



STEP 40-K

The air intake and fan should fit like this.

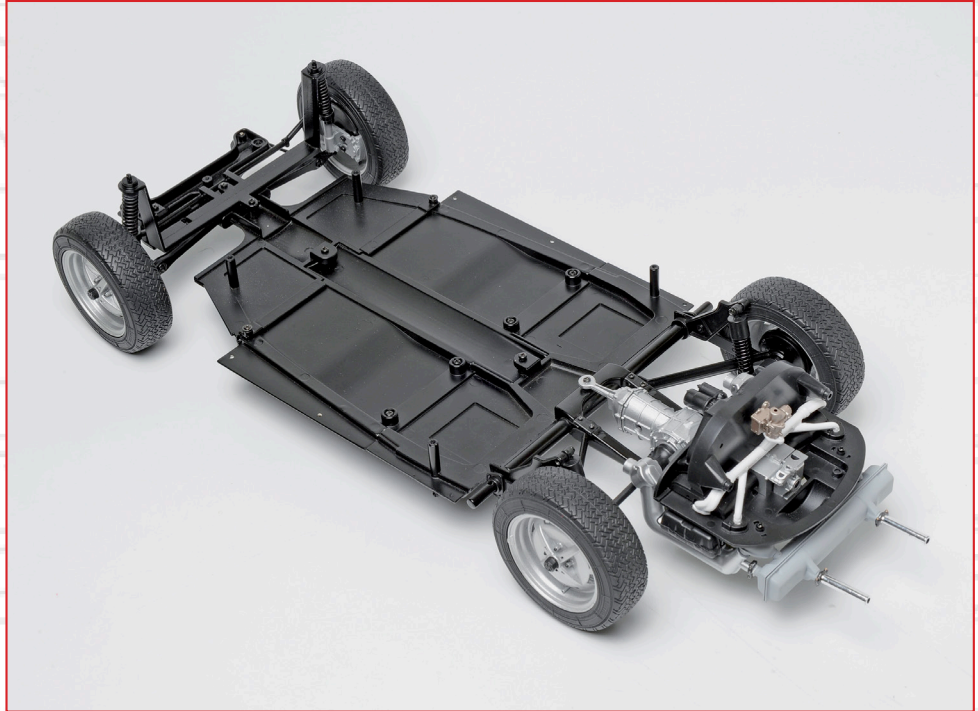


STEP 40-L

Press down on the fan assembly to lock the tabs into the slots in the crankcase.

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The chassis, power unit, and drive train should now look like this.



STAGE COMPLETE

