



# Pack 07

### BUILD INSTRUCTIONS

STAGE 49: INSTALLING THE SILENCER

STAGE 50: LEFT FRONT WHEEL

STAGE 51: LEFT FRONT WHEEL

STAGE 52: LEFT FRONT WHEEL

STAGE 53: LEFT FRONT WHEEL

STAGE 54: RIGHT REAR WHEEL

STAGE 55: RIGHT REAR WHEEL

STAGE 56: RIGHT REAR WHEEL



### **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 Jaguar, 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 49: Installing the silencer**

In this stage you'll assemble and attach the silencer that forms the middle part of the exhaust system.



#### **STAGE 49 PARTS LIST**

Name
Silencer upper half
Silencer lower half
Screws type AG06 x7



# Stage 49: Installing the silencer

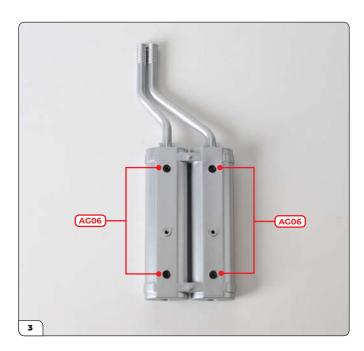
#### STEP 1



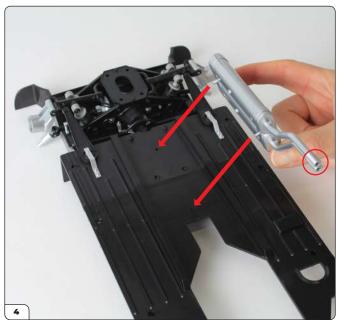




Place the upper half onto the lower half of the silencer, so that the long posts fit through the holes (circled).

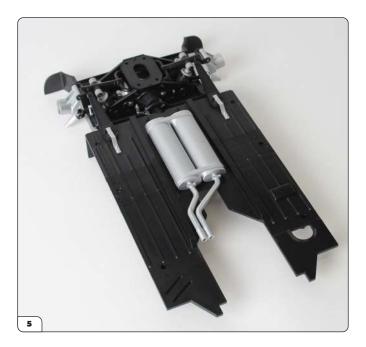


Secure the two halves of the silencer together using  $4\,\mathrm{x}$  AG06 screws.

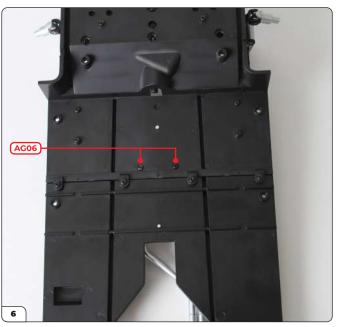


Take the floor panel assembly from Stage 48. Locate the two holes on the floor panel assembly and align the two pegs on the silencer assembly with them (arrows). Note the direction the exhaust pipes (circled) are facing on the silencer assembly.

# Stage 49: Installing the silencer







Flip over the floor panel assembly and secure the silencer assembly in place using 2 x AG06 screws as shown.



There is no assembly in this stage, unpack the wheel components and move straight to Stage 51.



#### **STAGE 50 PARTS LIST**

Name

Inner spokes x24

Wheel rim (outer)



The process for assembling this wheel is exactly the same as for your first and second wheel. Don't forget, the trick is to adjust the tension on the spokes by gently pressing and twisting the wheel centre. Also check you have the spokes hooked around the wide tooth on the spoke retainer when instructed.



#### **STAGE 51 PARTS LIST**

Name
Spoke retainer ring
Wheel centre
Inner spokes x24
Screws type AG02 x5



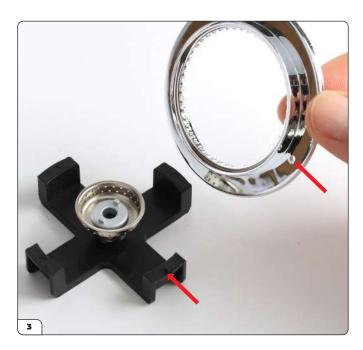
#### STEP 1



Take the wheel centre and note that there is a small notch that aligns with a corresponding tab on the jig (arrows). The jig is used here to assist with building the wheel and will be removed towards the end of the wheel-build.



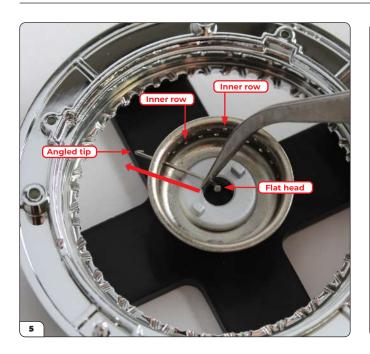
Fit the wheel centre onto the jig.



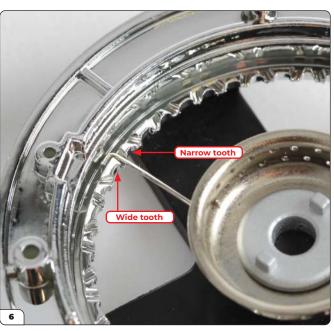
Take the wheel rim from Stage 50 and align the hole on the outer edge with the pin on the jig (arrows).



Fit the wheel rim onto the jig, pressing firmly to lock the rim into position.  $\;$ 



Before you begin, note that the inner edge of the spoke retainer ring has a series of 'teeth', alternating in size (see picture 6). Each spoke has a right-angled tip, and a flat head on the opposite end. Use your tweezers to thread the spokes and hook them into place. Start by threading a spoke, leading with the tip, through a hole in the innermost row of holes in the wheel centre. (Note: The spokes in Stages 50 & 51 are the same.)



Pull the spoke through the hole and hook the tip around the nearest 'wide' tooth that gives the spoke a comfortable fit.

NOTE: The key to fitting the spokes correctly is to adjust the tension on each spoke as you fit it by gently pushing and/or twisting the wheel centre with your thumb.



Then take another spoke and thread it through the next hole in the innermost row of the wheel centre. Pull the spoke through the hole and hook the tip around the next 'wide' tooth.



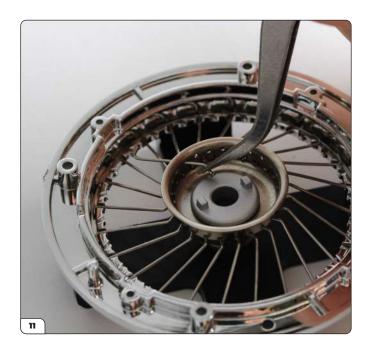
Fit the third spoke in the same way, and continue all the way around the wheel until you have filled all the holes on the inner row of the wheel centre. Check that they are hooked around the **wide teeth**. If they are not hooked around wide teeth, the spokes will not fit and the wheel parts will not fit together at the end of the build.



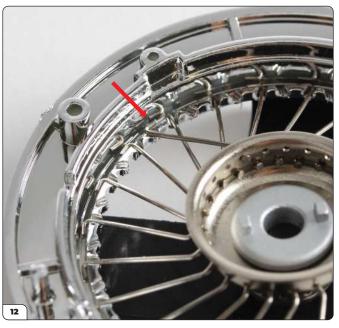
This is how your wheel should look after fitting the first row of spokes.



Check that all the spokes have been fitted to the innermost row of the wheel centre. Next, you will fit spokes to the uppermost row.



Start in the same way, threading the tip of a spoke through a hole in the uppermost row.



The spoke tips will now face in the opposite direction to those fitted on the bottom row. Make sure that they are hooked around a 'wide' tooth otherwise they cannot be secured in place in a later step.



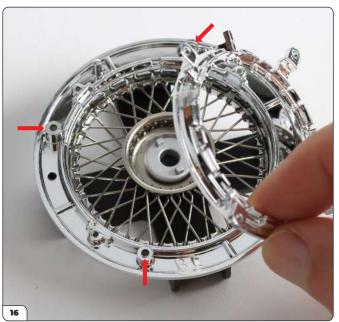
Repeat steps 11 & 12 to fit the second spoke in a hole adjacent to the first spoke on the upper row.



Continue to fit all the spokes in the same way, all the way round the upper row, ensuring that they hook around a wide tooth.



The second row of spokes has been fitted.



Prepare 4 x AG02 screws and have your screwdriver ready. Carefully align the spoke retainer ring over the wheel. The projecting screw holes on the ring (arrows) will fit onto the raised screw holes as indicated. Lower the ring into position.

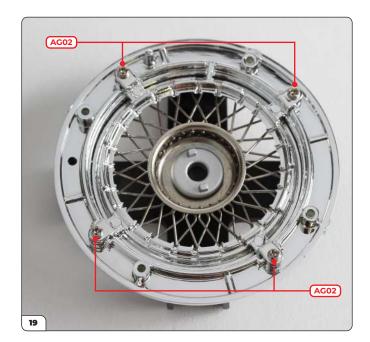
Note: the projecting pin on the spoke retina locates in the notching the wheel rim.



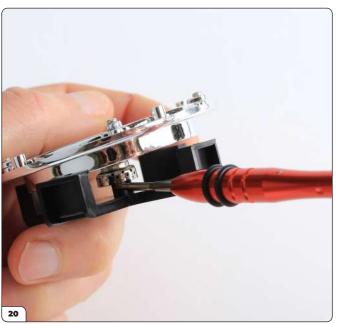
Hold the retainer in position so that the spokes are secured as you fit an AG02 screw.



Keep holding everything together as you fit the remaining 3  $\times$  AG02 screws.



All four screws have been fitted and the spokes are now held securely in place.  $\,$ 



Gently prise the wheel off the jig. Do not pull the wheel – try to carefully release it using a screwdriver or similar tool that will act as a lever.

Keep the jig as you'll need it to assemble the remaining wheels.  $% \label{eq:control} % A = \{ (x,y) \in \mathbb{R}^{n} \mid (x,y) \in \mathbb{R}^{n} : (x,y) \in \mathbb{R}$ 



In this stage you'll continue to lace the spokes to create a beautiful work of art.

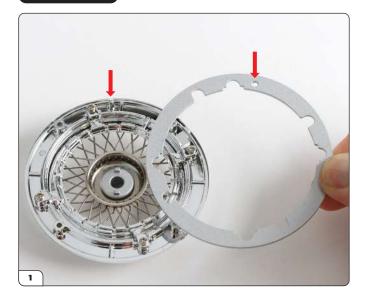


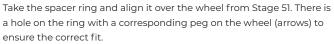
#### **STAGE 52 PARTS LIST**

Name
Wheel rim (inner)
Spacer ring
Spokes type B x12
Screws type AG03 x5
Spokes type A x12



#### STEP 1



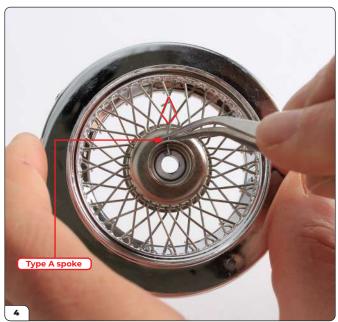




Lower the ring onto the wheel and press firmly until it clicks into place.



Turn the wheel over so that the smaller side of the wheel centre is facing you. Note that there are two rows for threading the spokes – an inner row and an outer row. You're going to start on the inner row.



Using tweezers, thread a type A spoke through a hole on the inner row. Direct the tip of the spoke through the diamond-shaped opening slightly clockwise (coloured red above) so that the tip pokes through to the opposite side.



Turn the wheel over and check that the tip will hook onto a wide tooth on the opposite side. If it doesn't fit a wide tooth, start again, threading the spoke through the next diamond-shaped hole along.



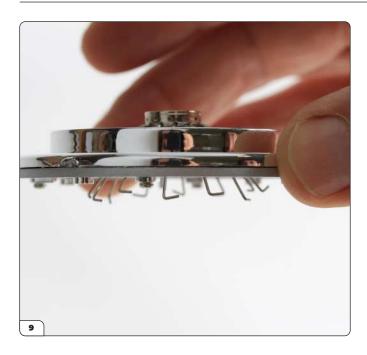
Once you are happy that the first spoke is fitted correctly, thread the next spoke through an adjacent hole in the lower row, but this time, poke it through the diamond-shaped hole that is two-along.



Continue to thread the type A spokes all the way around the inner row, pushing the tip through alternate diamond-shaped openings as indicated.



All 12 x type A spokes have been fitted to the inner row.



The 12 spokes should poke out on the opposite side of the wheel like this. Leave them all loose for now.



Fit the type B spokes to the outer row of the wheel centre, just above the type A spokes.

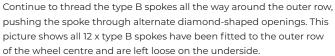


When you fit the first type B spoke, thread it through an empty diamond-shaped opening (see step 12) and check that it will hook around a wide tooth on the opposite side as shown here.



When you thread the type B spoke through to the opposite side, it should cross a type A spoke and fit through an empty diamond-shaped opening. It should lead slightly anti-clockwise. Check that it will hook a wide tooth, but do not hook it just yet, leave the spokes loose.







Use a piece of cotton wool or kitchen paper to hold the pin ends of the spokes in place in the inner and outer rows of the wheel centre.



Keep holding the cotton wool firmly as you turn the wheel over.



Keep holding the wheel centre firmly, as you gently hook the ends of spokes A and B around the teeth. Use your thumb in a stroking motion, or tweezers here. The fit of the spokes can be lightly adjusted by gently pressing and/or twisting the wheel centre with your thumb.



Spokes A and B are correctly hooked in place around the teeth.



Take the inner wheel rim and align the four screw holes, and the pin with its corresponding hole (arrows). Prepare  $4\times AG03$  screws and a screwdriver.



Press the inner wheel rim into place. Check that the gap between the spoke retainer ring and the inner rim has closed up. If not, remove the inner rim and recheck the position of the spokes, Step 17.



Fix the inner wheel rim in place with 4 x AG03 screws.



In this stage you'll fix the left front wheel to the subframe.



#### **STAGE 53 PARTS LIST**

Name
Tyre
Washer
Screws type AM07 x2



#### STEP 1



Take the completed wheel from Stage 52. Prepare a hot water bath by filling a small bowl with boiling water. Soak the tyre in the water for 2 minutes.

Note: The tyre shown in pictures 1-4 is the spare tyre from Stage 25, and differs slightly in the tread pattern from the tyre supplied in this Stage. The method for fitting the tyre is the same.



Carefully remove the tyre from the water bath using tongs or tweezers - the tyre will be very hot! Shake off any excess water and dab on kitchen paper or a towel.



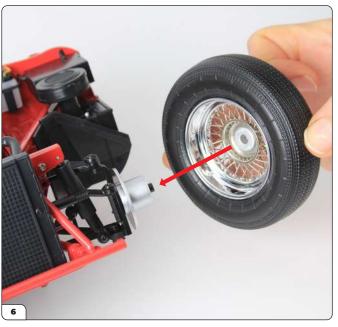
Working quickly while the tyre is pliable, push the wheel into the tyre and twist to fit the outer wheel rim under the inner rim of the tyre.



Keep pushing and pulling, working around the tyre, until the side walls fit comfortably over the wheel rim on both sides.



The tyre has now been fully fitted to the wheel and is now ready to fix to the front subframe assembly from Stage 37.



Holding the wheel as shown, align the two lugs on the wheel centre with the two notches in the left front axle. Position the wheel in place, ensuring the lugs fit into the notches.



Take the washer and place it into the end of the stub axle, as shown in picture  $8. \,$ 





Secure the washer and left wheel in place using a type AM07 screw.



There is no assembly in this stage, unpack the wheel components and move straight to Stage 55.



#### STAGE 54 PARTS LIST

Name

Inner spokes x24

Wheel rim (outer)



In this stage you'll begin assembling the rear right wheel. The process is exactly the same as for the previous wheels.



#### **STAGE 55 PARTS LIST**

Name
Spoke retainer ring
Wheel centre
Inner spokes x24
Screws type AG02 x5



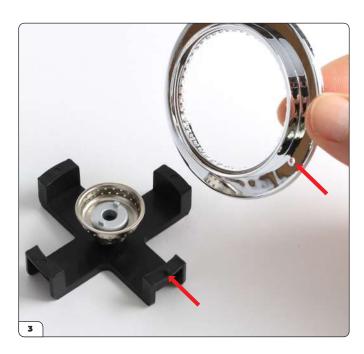
#### STEP 1



Take the wheel centre and note that there is a small notch that aligns with a corresponding tab on the jig (arrows). The jig is used here to assist with building the wheel and will be removed towards the end of the wheel-build.



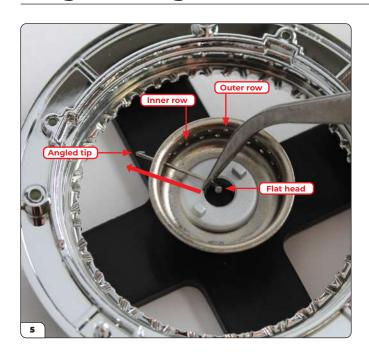
Fit the wheel centre onto the jig.



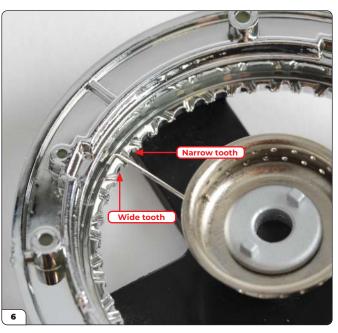
Take the wheel rim from Stage 54 and align the hole on the outer edge with the pin on the jig (arrows).



Fit the wheel rim onto the jig, pressing firmly to lock the rim into position.



Before you begin, note that the inner edge of the spoke retainer ring has a series of 'teeth', alternating in size (see picture 6). Each spoke has a right-angled tip, and a flat head on the opposite end. Use your tweezers to thread the spokes and hook them into place. Start by threading a spoke, leading with the tip, through a hole in the innermost row of holes in the wheel centre. (Note: The spokes in Stages 54 & 55 are the same.)



Pull the spoke through the hole and hook the tip around the nearest 'wide' tooth that gives the spoke a comfortable fit.

NOTE: The key to fitting the spokes correctly is to adjust the tension on each spoke as you fit it by gently pushing and/or twisting the wheel centre with your thumb.



Then take another spoke and thread it through the next hole in the innermost row of the wheel centre. Pull the spoke through the hole and hook the tip around the next 'wide' tooth.



Fit the third spoke in the same way, and continue all the way around the wheel until you have filled all the holes on the inner row of the wheel centre. Check that they are hooked around the **wide teeth**. If they are not hooked around wide teeth, the spokes will not fit and the wheel parts will not fit together at the end of the build.



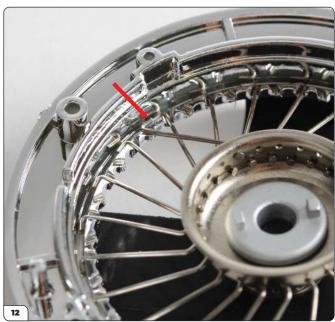
This is how your wheel should look after fitting the first row of spokes.



Check that all the spokes have been fitted to the innermost row of the wheel centre. Next, you will fit spokes to the uppermost row.



Start in the same way, threading the tip of a spoke through a hole in the uppermost row.



The spoke tips will now face in the opposite direction to those fitted on the bottom row. Make sure that they are hooked around a 'wide' tooth otherwise they cannot be secured in place in a later step.



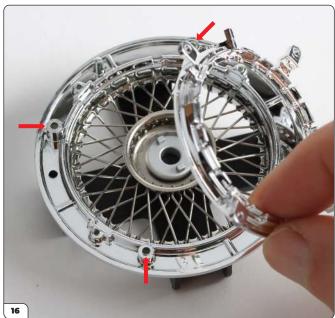
Repeat steps 11 & 12 to fit the second spoke in a hole adjacent to the first spoke on the upper row.



Continue to fit all the spokes in the same way, all the way round the upper row, ensuring that they hook around a wide tooth.



The second row of spokes has been fitted.

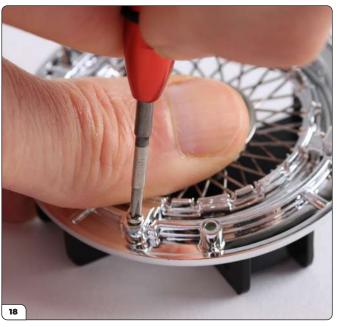


Prepare 4 x AG02 screws and have your screwdriver ready. Carefully align the spoke retainer ring over the wheel. The projecting screw holes on the ring will fit onto the raised screw holes as indicated. Lower the ring into position.

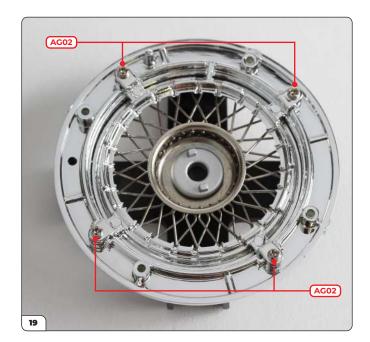
Note: the projecting pin on the spoke retina locates in the notching the wheel rim.



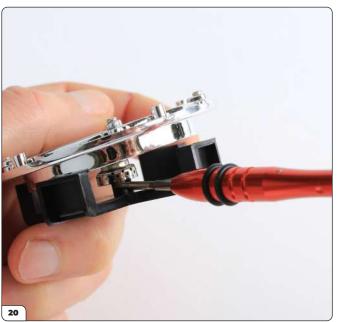
Hold the retainer in position so that the spokes are secured as you fit an AG02 screw.



Keep holding everything together as you fit the remaining 3  $\times$  AG02 screws.



All four screws have been fitted and the spokes are now held securely in place.  $\,$ 



Gently prise the wheel off the jig. Do not pull the wheel – try to carefully release it using a screwdriver or similar tool that will act as a lever.

Keep the jig as you will need it to assemble the remaining wheels.



Continue to lace the spokes exactly as before. The tyre will be supplied in Stage 57 in your next Pack.

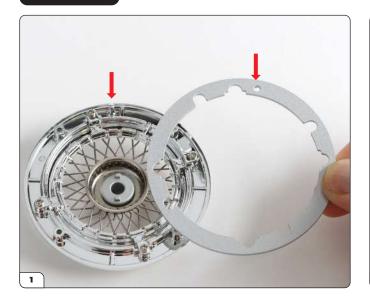


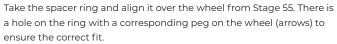
#### **STAGE 56 PARTS LIST**

Name
Spacer ring
Wheel rim (inner)
Spokes type A x12
Screws type AG03 x5
Spokes type B x12



#### STEP 1







Lower the ring onto the wheel and press firmly until it clicks into place.



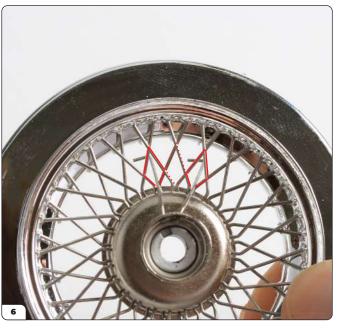
Turn the wheel over so that the smaller side of the wheel centre is facing you. Note that there are two rows for threading the spokes – an inner row and an outer row. You're going to start on the inner row.



Using tweezers, thread a type A spoke through a hole on the **inner row**. Direct the tip of the spoke through the diamond-shaped opening slightly clockwise (coloured red above) so that the tip pokes through to the opposite side.



Turn the wheel over and check that the tip will hook onto a wide tooth on the opposite side. If it doesn't fit a wide tooth, start again, threading the spoke through the next diamond-shaped hole along.



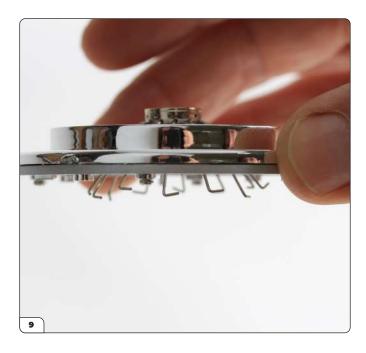
Once you are happy that the first spoke is fitted correctly, thread the next spoke through an adjacent hole in the lower row, but this time, poke it through the diamond-shaped hole that is two-along.



Continue to thread the type A spokes all the way around the inner row, pushing the tip through alternate diamond-shaped openings as indicated.



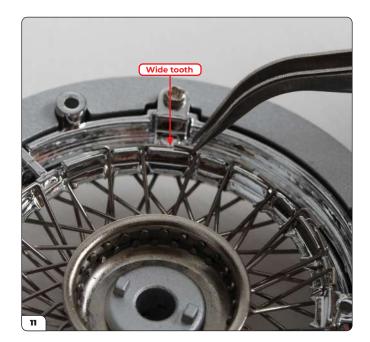
All 12 x type A spokes have been fitted to the inner row.



The 12 spokes should poke out on the opposite side of the wheel like this. Leave them all loose for now.



Fit the type B spokes to the outer row of the wheel centre, just above the type A spokes.

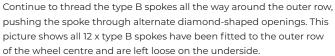


When you fit the first type B spoke, thread it through an empty diamond-shaped opening (see step 12) and check that it will hook around a wide tooth on the opposite side as shown here.



When you thread the type B spoke through to the opposite side, it should cross a type A spoke and fit through an empty diamond-shaped opening. It should lead slightly anti-clockwise. Check that it will hook a wide tooth, but do not hook it just yet, leave the spokes loose.







Use a piece of cotton wool or kitchen paper to hold the pin ends of the spokes in place in the inner and outer rows of the wheel centre.



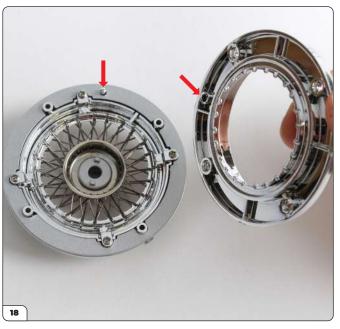
Keep holding the cotton wool firmly as you turn the wheel over.



Keep holding the wheel centre firmly, as you gently hook the ends of spokes A and B around the teeth. Use your thumb in a stroking motion, or tweezers here. The fit of the spokes can be lightly adjusted by gently pressing and/or twisting the wheel centre with your thumb.



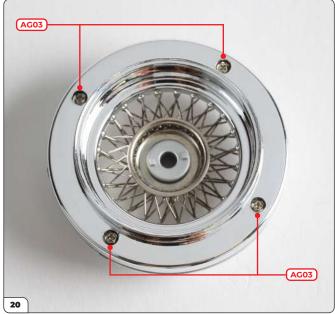
Spokes A and B are correctly hooked in place around the teeth.



Take the inner wheel rim and align the four screw holes, and the pin with its corresponding hole (arrows). Prepare  $4\times AG03$  screws and a screwdriver.



Press the inner wheel rim into place. Check that the gap between the spoke retainer ring and the inner rim has closed up. If not, remove the inner rim and recheck the position of the spokes, Step 17.



Fix the inner wheel rim in place with 4 x AG03 screws.

