



Nissan Figaro Rear Trailing Arm Polyurethane Bush Replacement Fitting Guide

Before starting read this guide thoroughly and ensure you have the correct tools and parts and have properly assessed the job.

This guide is written specifically for The Figaro Shop Poly Bush or Training Arm kits, extra tools or parts maybe required if original parts have been modified, you should also check the condition of all items to satisfy yourself they are serviceable. For any questions contact The Figaro Shop on 01235 812511.

Please note this information is provided in good faith based on various information sources believed to be accurate. As with anything you should only carry out work with the correct tools and skills. We are therefore not responsible for anything occurring from this information\advice, you are doing so at your own risk!

Tools Needed

- Trolley \ car jack
- Two sets of axle \ support stands
- Wheel chocks
- Metric socket set: 12 (for M12 threaded rod), 14, 17, 19, 21mm
- Metric spanners: 12 (for M12 threaded rod), 14, 17, 19mm
- Breaker Bar (optional)
- Torque wrench
- Large flat bladed screwdriver or metal chisel (needed to remove bushes if reusing arms)
- Medium Flat bladed screwdriver (optional to tighten hose clip)
- Junior metal hack saw (if old bolts are seized)
- Hammer
- Goggles
- Torch \ Inspection lamp
- Mole grips (optional)
- Pry bar \ Metal Chisel (if old bolts are seized)
- Wire brush (recommended)
- Half round metal file or Metal sandpaper (to clean up inside arms)
- Angle Grinder with flap disks and/or drill with wire wheel (if cleaning up existing arms)

Parts Needed

- New Rear Trailing Arm Poly Polyurethane Bush Kit or
- New Poly Bushed Rear Trailing Arm Set
- Bolt Nissan P\N: 54132-01B00 (may be required if old bolt is damaged or has to be cut off)
- Nut Nissan P\N: 08911-6421A (may be required if damaged)
- WD40\Penetrating Fluid (recommended)
- Hammerite Direct to Metal Spray Paint Black Smooth 400ml (if re painting existing arms)
- Metal Jubilee hose clip 45mm (recommended if fitting new bushes – see notes)
- M12 Treaded Rod 150mm long (recommended if fitting new bushes – see notes)
- 2x M12 nuts for above (recommended if fitting new bushes – see notes)
- 2x M12 ~50mm heavy duty thick washers (recommended if fitting new bushes – see notes)
- Masking Tape (recommended if fitting new bushes – see notes)
- General Purpose Grease (optional for unthreaded section of bolts)

Reference Materials

- Figaro JPN TSM (Technical Service Manuals) - <http://figarownersclubforum.com/thread/5583/>
- Jacking Points - <http://figarownersclubforum.com/post/16823/thread>
- Figaro Owners Club - <http://www.figarownersclub.com/>

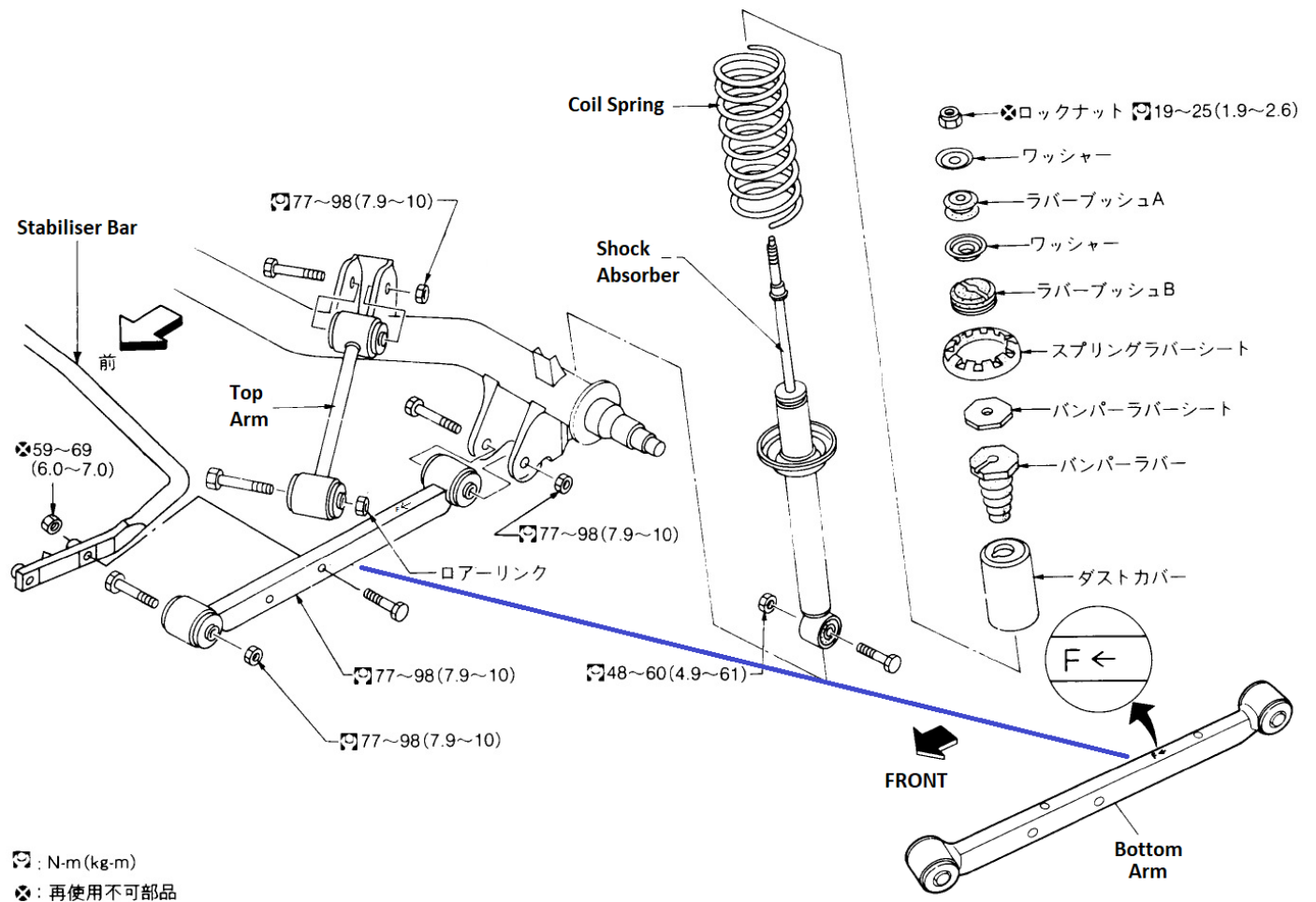
Fig 1. – New Figaro Shop Poly Bush Kit.



Fig 2. – New Figaro Shop Rear Trailing Arm Kit.



Fig 3. – Nissan Figaro TSM – Rear Suspension Exploded Diagram with Torque Settings



Removal Procedure

- 1) Park the car on a flat hard surface apply the hand brake and ensure the gearbox is in Park.
- 2) Chock the front wheels to ensure there will be no movement.
- 3) Remove white polos and chrome centres from both rear wheels by using both hands and sliding both fingers behind and pulling away from the wheel.



- 4) Using a 21mm socket slightly loosen all 4 rear wheel nuts on each side.
- 5) Jack up the rear of the car to allow the rear wheels to be off the ground and enough space for access and fully support the rear of the car on axle support stands and check it's fully stable with no movement; ensure the stand feet are positioned correctly so that they won't move or topple over. Care should be taken at all times whilst working under the car.
- 6) Support the rear axle using another set of stands.



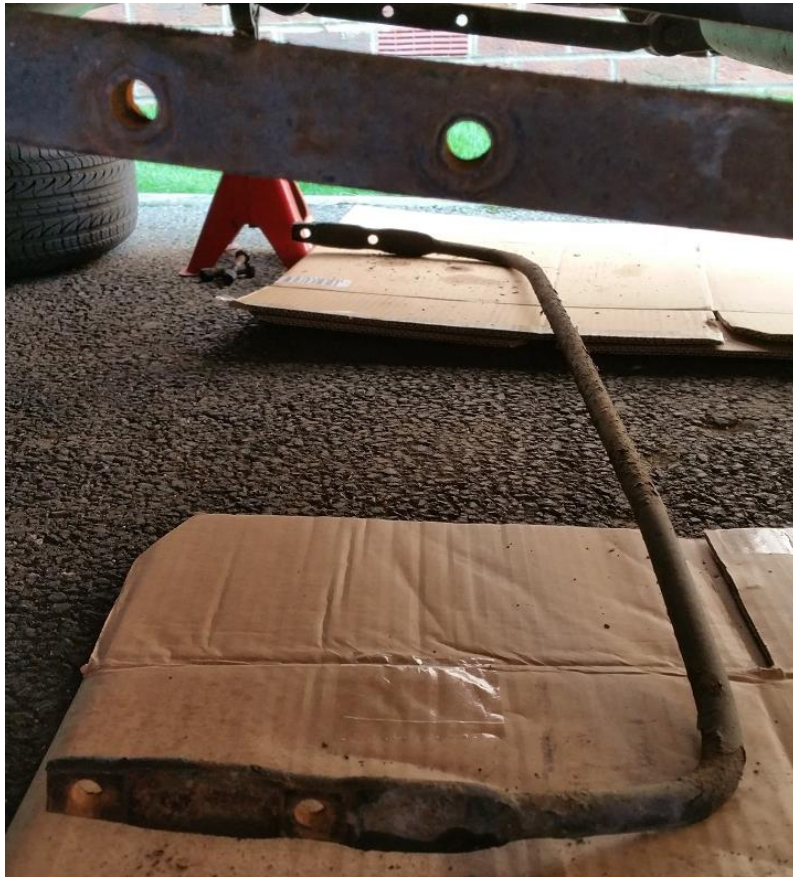
- 7) Using a 21mm socket fully remove all 4 rear wheel nuts on each side.
- 8) Remove both rear wheels and place them under the rear sill sides of the car, this will both keep them out the way of the work area and may also act as a support if the car should drop.
- 9) Using a wire brush clean up the ends of the bolts and nuts to remove any dirt or under sealant.



- 10) Using WD40 or penetrating fluid fully soak all the nuts to be removed, if possible do this well beforehand and leave to allow extra time to work.
- 11) Inspect the areas to check for any damage or any replacement parts that are needed.
- 12) Using a 17mm spanner/socket on the bolt head and a 14mm spanner/socket on the nut loosen remove the two nuts holding the stabiliser bar to the lower arm.



- 13) Repeat on the other side and then withdraw the bolts completely both sides and lower and remove the stabiliser bar from the car.



- 14) Next using a 19mm spanner and 19mm spanner\socket hold the bolt and loosen the nut holding the front section of the lower arm to the body. These are normally very exposed to the elements and can be very tight and rusty. Extra force may be required by using a breaker bar or using an extra spanner on the end.



- 15) Wind the nut to the end of the bolt till the thread is just no longer flush with the nut end and so is protected. Using a hammer hit the nut square on ensuring that the thread, bracket or any body work is not damaged.

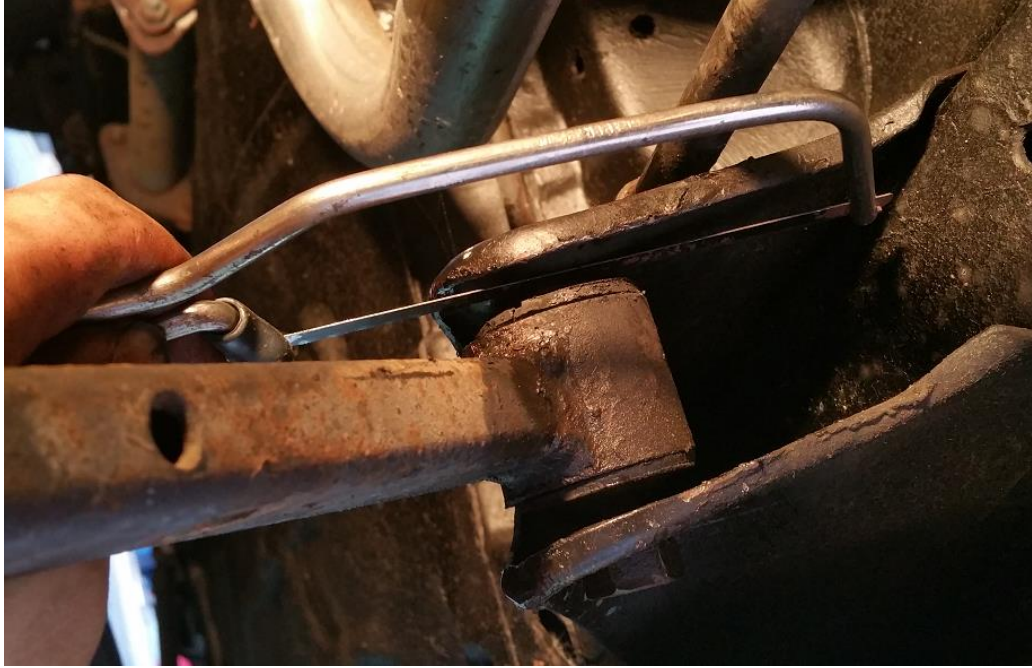


- 16) These bolts may be seized to the inner metal sleeve of the bushes, or the metal sleeve or bush spins when trying to undo and remove the bolt. In these cases using a metal chisel or pry bar to wedge it can help prevent it from spinning.



- 17) It may be found that despite attempts with a lot of force, the bolts will not move, in these cases there may be no option but to cut through the bolt head end to allow it to be removed, this should be a last resort as at the time of writing the bolts cost over £10 each.

- 18) Due to the vicinity of the fuel tank system it is not recommended to using an angle grinder, however with care, a junior hack saw with a good metal blade should achieve cutting through it. Ensure that neither the bracket nor arm are cut or damaged in this process.



- 19) Below shows the metal sleeve seized to a bolt that has had the head cut off to allow removal of the arm.



- 20) Follow the same process for the other end of the lower arm and withdraw the arm from the car. Loosely refit the nut and bolt back on to the fitting bracket they came from the same way they came out, this will aid correct refitting.
- 21) If replacing with new complete arms then it is advisable to refit the new one now, referring to the refitting process, otherwise if they all need removing at once, follow the same removal process for the top arm and then repeat on the other side. Ensure that the rear axle is supported properly at both ends at all times and doesn't move as it is very heavy and will now only be attached to the car by the shock absorber which is not designed to take the weight.



- 22) If reusing the arms rather than replacing with new ones, then carry out the following steps, otherwise skip to the refitting process.
- 23) Remove the old bushes from the arms, badly worn ones will easily knock out using a hammer, others knock out the middle metal insert and use a big screw driver or metal chisel and tap out.



- 24) As you can see below the old bushes are badly cracked, misshapen and loose fitting which allowed a lot of movement. The two front bolts were also seized to their sleeves and had to be cut.



25) Whist the arms are removed it's a good time to clean them up using a wire brush remove any rust and dirt and respray them.



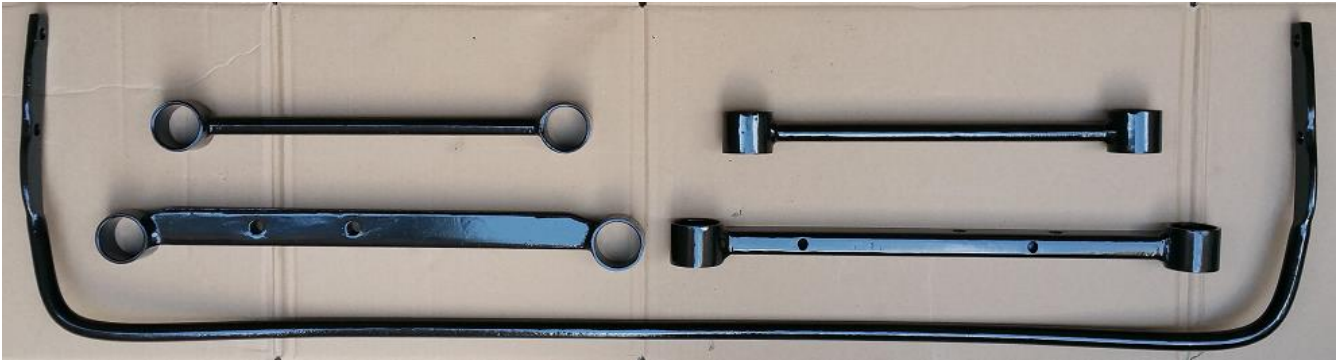
26) For a really good finish a flap disc and using a drill with a wire wheel extension.



27) Using metal sand paper and/or a metal half round file clean up the bush mounts in the arms to ensure the surface is clean and smooth as this will reduce the life of the bush.



28) Using Hammerite black direct to metal paint, spray the arms and stabiliser bar following the instructions on the can, using several light coats. Allow to fully dry before continuing.



29) It's very important to note that there are two sizes of bushes, the top arms and one end of the lower arm use the slightly smaller ones. One end of the lower arm is slightly bigger bush fitting than the other end and both the top arms. Ensure you offer up the arms and double check which end is larger and also compare the new bushes and separate out the two sizes and layout the parts ready to fit.



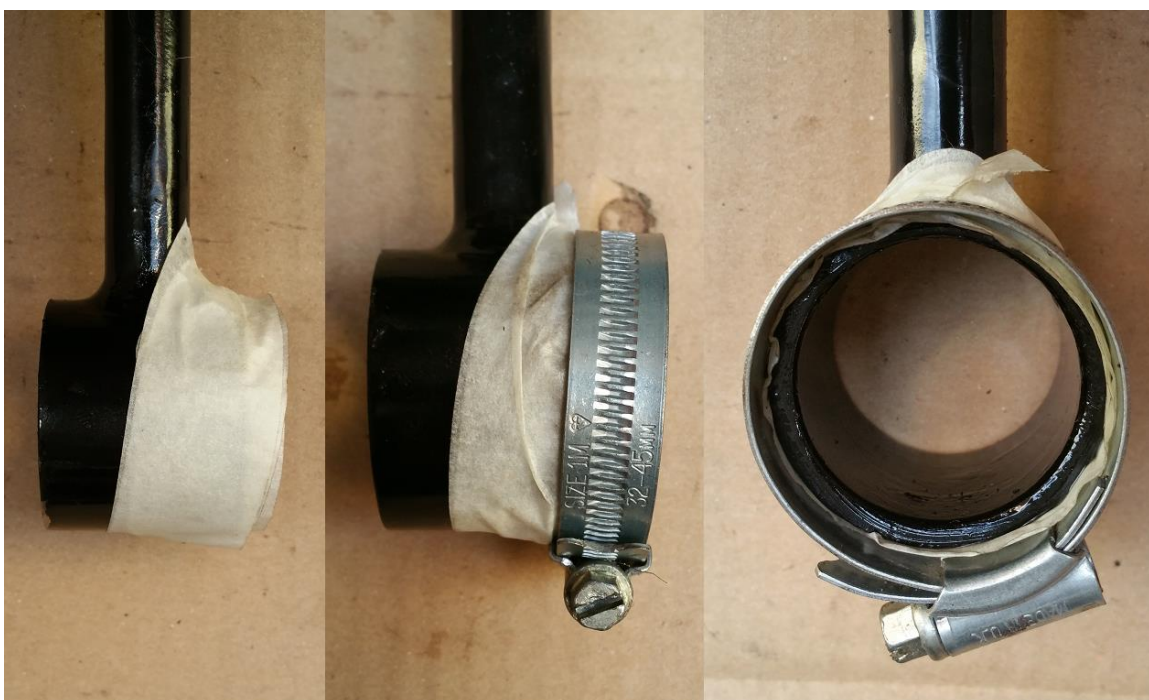
30) The kit is supplied with special grease, use sparingly as most will be forced out during fitting. Apply to the inner arm mounting hole and on the inside and side of the bush that will be inserted first.



31) Fitting bushes can be done easily using a press or big vice, however as access to these is not normally available to the DIY mechanic, therefore simplest way is to use two spanners, some threaded bar with large washers and nuts. Do not be tempted to cut or modify the bushes as this will weaken them and cause early failure.



32) To make fitting easier and to stop the bush from slipping out or from going in at an angle, a hose clip can be used. To do this wrap some masking tape around the edge are the arm to protect the new paint and attach a circlip over the end and tighten. This is more difficult on the bottom arm ends as there is less of an edge to attach to, by fitting the hose clip at more of an angle to allow the free edge to sit further over helps it grip on.



33) Assemble onto the bar, and re check to ensure the correct size bush is being used.



34) Using the 12mm spanners/socket tighten up the nuts, you will need to hold the bar and arm in position as initially the bush will try and slip and not want to go in straight. Once the edge of the bush is inserted then the bush should just easily push in by hand.



35) Once fully in place remove the end nut and withdraw the bar, undo the hose clip and tape, wipe the excess grease from the arm.



36) Apply the grease to the inside edge of the bush, the edge of the metal insert and then press the insert into the bush until it is flush both sides.



37) Follow the same procedure for the other end and other arms ensuring at all times the correct size bush is used.



Refitting Procedure

- 38) Clean up all the bolts to remove any rust or dirt, replace any nut or bolt that is no longer serviceable.
- 39) By smearing a small amount of grease on the non-threaded bolt section can assist refitting and make any future removal easier.



- 40) Layout the lower arms and stabiliser on the ground. Note the stabiliser bar needs to be the correctly oriented with the middle section raised. Also the lower arms only go round one way; there is an F and an arrow on the top of the bar indicating the forward facing direction, for more details refer to the diagram in Figure 3.
- 41) Attach the stabiliser bar to both arms and loosely fit the four pairs of nuts and bolts the correct way round using a 14mm and 17mm spanner/socket.
- 42) Raise and refit the front end of the lower arms into the brackets and insert the bolts the same way as they came out, fully hand tighten the nuts on the end using a 19mm spanner and socket.



- 43) Raise the rear part of the lower arms and offer up to the rear axle bracket, the axle may need to be repositioned, insert the bolts the correct way round and fully hand tighten the nuts using a 19mm spanner and socket.
- 44) Fit the top arms into the body brackets using the bolts the correct way round and fully hand tighten the nuts using a 19mm spanner and socket, again the axle may need to be moved carefully to allow fitting the other end into the axle bracket.



- 45) Once all arms are fitted using a 19mm spanner holding the bolt and a 19mm socket on the nut end fully tighten both ends of the bottom and top arm end bolts, on both sides to the correct torque (Nissan TSM Details as 57-72 ft-lbf \ 77-98 N-m).
- 46) Check the stabiliser bar is positioned correctly and evenly in the middle of the bottom arm bolts on both sides and using a 17mm spanner to hold the bolt end and using a 14mm socket on the nut tighten both nuts on both sides to the correct torque (Nissan TSM Details as 43.5-50.8 ft-lbf \ 59-69 N-m).
- 47) Recheck everything is fitted correctly and securely to the correct torque.



- 48) Refit the wheels and hand tighten the nuts using a 21mm socket.
- 49) Lower the car and tighten the wheel nuts using a 21mm socket to the correct torque (Nissan TSM Details as 72-85 ft-lbf \ 98-115 N-m).
- 50) Refit the white polo and chrome centres.
- 51) Remove the wheel chocks and clear the work area of all tools and parts.
- 52) Release and apply the hand brake and foot brake.
- 53) Take a test drive and listen for any noises. Any concerns stop immediately and check.
- 54) The handling should feel much better when cornering and on roundabouts.
- 55) It is recommended wheel nut torque be rechecked after a period of use and the car regularly checked for any issues.

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