

Guides - Replacing Rear Hub Bearings

DISCLAIMER: The information in these documents are a collection from experience (friends or myself), magazine articles, mailing lists and Internet web sites etc. So don't take these as 100% correct gospel, hence I don't take any responsibility for any of these guides.



Difficulty Rating: 2/5 - Easier than it looks, but can get messy.



Download printable [Adobe Acrobat file](#) (180K)

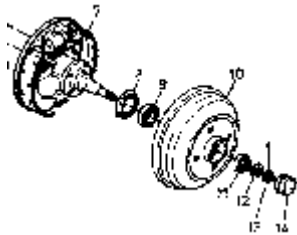
Created: 20 Jan 2001



Download zipped [web page version](#) (1MB)

Revision 1

Click on any of the pictures for a larger view.



Exploded view of the rear hub assembly.

This is a step-by-step guide on fitting rear hub bearings on a Nova GTE. The hub bearings fit inside the rear hub itself, and the guide should be same or very similar for an model of Vauxhall so long as it uses drums for it's rear braking (i.e. not discs). These are commonly replaced as they do eventually where out over time, and the bearings inside can no longer take the strain, and they become noisy. The noise they produce is an annoying whinging sound, which gets louder as the speed of the car increases. Fortunately, the rear hub bearings in drum brakes are the easiest to do, compared with the front bearings.

The replacing job will involve hammering out the old items with a hammer and drift, which can take some time as they are press fit items. Once that is done, the messy cleaning up process of the old grease inside is next. But once that's done, the job is relatively easy to do. This guide shows how to do one side of the car. The job is the same for both sides of the car.

This guide was compiled with the help of the Haynes "Service and Repair Manual", which can purchased from their web site at <http://www.haynes.co.uk>.

PARTS



Hub bearing kit	19mm socket (1/2" bit)	Pliers
Hammer	Large screw driver	White Sprit
Soft metal drift	Blocks of wood	Trolley jack
Axle stands	Old rags/cloth	Ratchet or bar (1/2" bit)

COST

Hub bearing kit	£15	<ul style="list-style-type: none"> The hub bearing kit is a unipart, obtainable from your local parts shop or Halfords.
1 litre of white sprit	70p	

General Notes:

Just before you start, make sure you note the following:

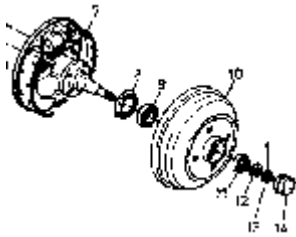
- If you don't have one, buy a Haynes manual for your car and have this is front of you. You'll need it on how to remove the rear hub assembly plus any torque settings etc.
- A exploded view of the rear hub assembly is provided, and the items listed will be referenced through out the guide for easier identification of parts.
- The new rear hub replacement kit should come complete with inner and outer races and bearings. A new split pin and a packet of lithium grease.
- When prising off the bearings and oil seals, sometimes it will not be in the rear hub, but still on the rear stub axle. Have a look on the stub axle to see if it's there. This is good sign that

the bearings do need replacing as they are too old, as they are "literally falling apart".

- When fitting the outer races in the hub, the larger internal diameter of the race has to face outward. Otherwise the bearings themselves do not fit in the races (because they are tapered). If it goes wrong, the outer races can easily be hammered out again.
- When fitting the hub back on, the bearing nut has to be tightened up enough so when the wheel is back on, it doesn't rock. Otherwise this is a MOT failure. Try rocking the wheel when your hands are at the 9 and 3 o'clock position. Then try again at 12 and 6 o'clock position. If it does rock, tighten the bearing nut a bit more (literally by tapping heavier on the spanner). If it's too tight, then it wears the bearings out quicker than it should. Be gentle when tightening up the bearing nut, it doesn't need a lot of force.

OK, got all the above? Then follow the steps below (remember to click on the pics for a bigger view):

Step 1



Look at the diagram above. Items 8, 9, 11 and 12 are the ones you'll be replacing. The old items you will no longer need as everything should be supplied in the kit.

Step 2



Remove the wheel trim or centre caps, loosen the bolts, jack up the rear and support on axle stands. Then completely remove the wheel. Take the hand brake off (very important).

Step 3



With a large flat blade screw driver, prise off the dust cap (item 14). Remove the split pin from the stub axle, leaving the bearing nut (item 13) exposed.

Step 4



Remove the bearing nut (item 13) and the thrust washer (item 12). The hub can be removed from the stub axle along with the outer bearing (item 11). Tap the hub with a hammer if it's difficult to remove.

Step 5



With the hub removed, all the parts to be replaced are contained within. With a screw driver, prise out the oil seal (item 8). It gets messy from here on.

Step 6



Again with the screw driver, extract the inner hub bearings (item 9). All the bearings are removed, all that's left are the bearing outer races.

Step 7



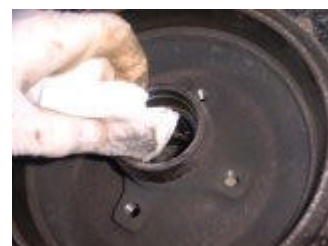
With the hub on blocks of wood, use a soft metal drift and hammer out the bearing race

Step 8



Removing the bearing races will take some time. With all the old

Step 9



Thoroughly clean the inside of the hub and remove as much of

(item 9 & 11) as shown. There are small access slots making the job easier. Do both sides of the hub.

items removed, now comes the time for replacement. The bearings come as two pieces, the bearings and an outer race.

the old grease as possible. This is a particularly messy job. Use white sprit or paraffin.

Step 10



Also clean the stub axle of any old grease. Again use white sprit or paraffin. Once done support the hub again on blocks of wood.

Step 11



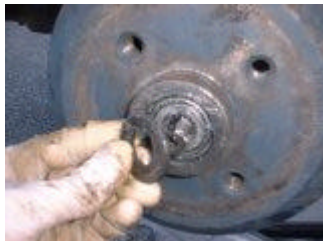
Fit the outer races in the hub by tapping the items in place (use a block of wood to avoid damage - not shown). Ensure the larger internal diameter of the race is facing outward. Fit as squarely as possible. Do both sides.

Step 12



With both the outer races in place, fit the inner bearings. At the same time, pack out the inside of the hub and bearings with new grease (lithium based) as supplied. Use 70% of the packet. Press fit the new oil seal on the back of the hub.

Step 13



Use the rest of the grease on the stub axle. With it all greased up, slide the hub assembly, along with the outer bearings (item 11) back onto the stub axle. Refit the thrust washer (item 12) and do up the hub bearing nut hand tight.

Step 14



Do not fit the split pin yet. Fit the wheel back on, position your hands at the 9 and 3 o'clock position. See if you can rock the wheel. If you can, do up the hub bearing nut (item 13) until you can't.

Step 15



Insert the new split pin and the ends. If the slots in the hub bearing nut do not line up, tighten the nut up slightly. Once the split pin is in place, fit the dust cap back on. Do up the wheel bolts and repeat the whole job on the other side of the car if necessary.