Fitting and removal of wheel bearings. ***How do you do it ?***

We will issue a series of brochures on the fitting and removal of wheel bearings.

In this issue we start with the ***cartridge bearing with two ranges of rolling elements.***

Cartridge bearing with two ranges of balls

Cartridge bearing with two ranges of taper rollers

From 1957, SNR cartridge bearings fitted the front axle of CITROËN 2CV.
SNR has contributed to the technological evolution of this family of bearings by creating the product line name «TWINLINE».
This type is made as a pre-set, greased and sealed for life bearing. It normally fits on driven front wheels and is also able to fit driven rear wheels. In both cases, the fitting is made in the same way. Finally, the advantages (compactness, ease of fitting), make it one of the most widely used wheel bearings.

Main Applications

For correct details always refer to an SNR catalogue.

Make	Model	SNR kit reference
CITROËN	AX, Saxo, ZX, Xantia	R159.14 - R166.13 - R166.14
FIAT	Punto, Bravo/Brava	R158.36
FORD	Escort	R152.39
MERCEDES	190, C-Class (rear axle)	R151.07
OPEL	Corsa, Astra, Vectra	R153.14 - R153.15 - R153.25
PEUGEOT	106, 205, 306, 406	R159.14 - R166.13 - R166.14
RENAULT	Twingo, Clio, Mégane, Laguna	R155.32 - R155.44
VOLKSWAGEN	Golf	R154.14 - R154.23

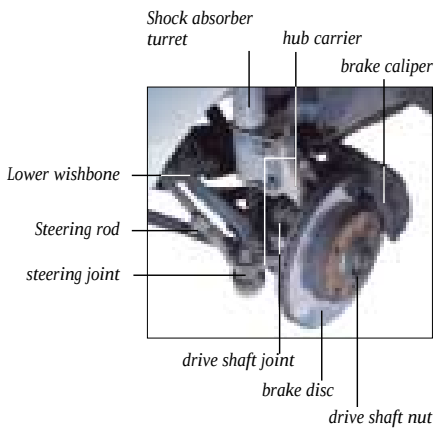
Cartridge bearing for driven front wheels

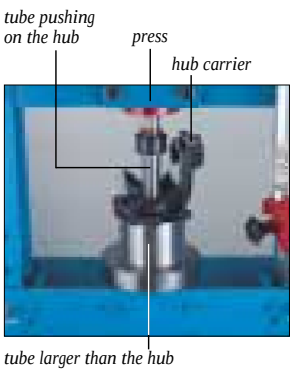
I. REMOVAL

1 Remove in the following order :
- the hub nut,
- the brake caliper,
- the brake disc,
- the hub carrier.

2 Position the hub carrier on a support such as a wedged tube. Using another tube of suitable diameter, push on the hub to extract it from the hub carrier.

3 The bearing separates into two parts. One of the inner rings remains on the hub, the other part of the bearing remains in the hub carrier bore.



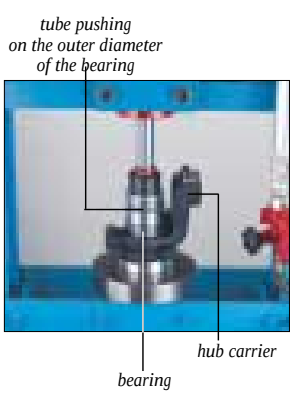


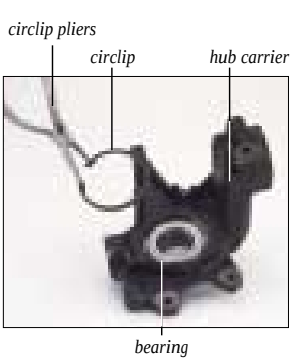
II. REPLACEMENT

8 Before fitting the new bearing make certain that the hub and hub carrier are in good condition, and the cleanliness of the hub carrier housing. The kit offered by SNR contains all of the parts needed for replacement.

9 Position the hub carrier with the back face upwards.
Place the bearing at the housing. Using a tube of suitable diameter with the press, push on the outer ring.

10 Replace the circlip, if one was fitted previously.





Cartridge bearing for driven front wheels

PRECAUTIONS TO TAKE WHEN FITTING BEARINGS

1. Always refer to the vehicle manufacturer's workshop manual.

2. Prepare the tools and materials to be used before starting and check their cleanliness and condition.

3. Check the kit reference.
Only remove the bearing from its packaging at the last moment.

4. Clean the parts assiociated with the wheel bearing. Check there are no faults, such as grooves, scratches or marks on the hub, hub carrier and stub axle. Replace any damaged parts.

5. Keep parts which are not in the kit (e.g. shields...).

6. **Never separate the bearing parts.**

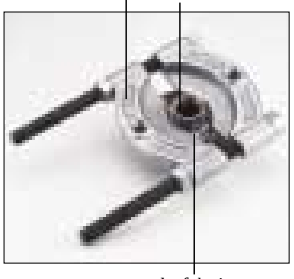
7. To ensure correct fitting, use a press with a capacity of up to 10 tonnes.

8. Always push on the ring which is being fitted to shaft or housing. The assembly loads must never been passed trough the rolling elements (balls or rollers). Never push on both rings at the same time.

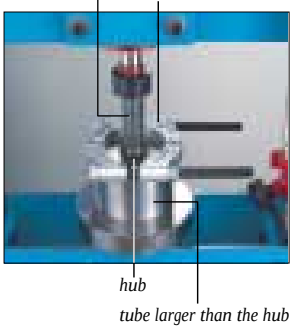
9. Always follow the vehicle makers recommended loads for fitting hub nuts.

IMPORTANT :
For all the operations detailed below,
follow the general recommendations listed on the last page.

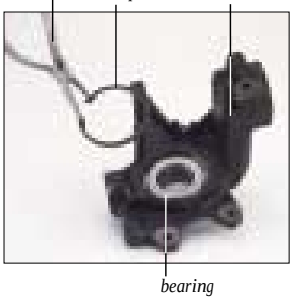
4 If the ball track remains on the hub, remove it, using an extractor with the jaws clamping on the track of the bearing inner race.



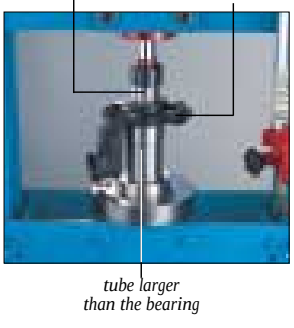
5 Place the extractor under the press, supported on a wedged tube.
Using another tube of suitable diameter, push on the hub to remove the inner ring.



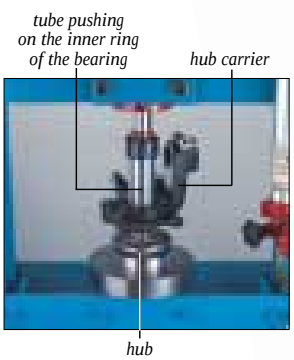
6 If a circlip is fitted, remove it from the groove using circlip pliers.



7 Replace the inner race and ball assembly into the outer race (which is still in the hub carrier). Put the hub carrier under the press, supported on a wedged tube. Using a suitable diameter tube, push on the inner race of the bearing, in order to remove the outer race.



11 Place the hub on the press bed. Put the hub carrier, with the new bearing fitted, onto the hub.
Using the correct size of tube, press on the inner ring of the bearing and push into its final position. Finally, press with a load of 4 tonnes.



12 Fit the complete assembly on the vehicle. Using a torque wrench, screw on a brand new drive shaft nut to the load recommended by the vehicle manufacturer.
In order to do this, hub rotation must be prevented, either by braking, or by re-fitting the road and let the car jack or hoist down to the ground without allowing rotation. Re-fit the brake disc and caliper.