



## R166.13

### Removal/installation recommendations

**CITROËN:** Berlingo (M49, M59), BX, Xantia (I and II), Xsara (Picasso, FL), ZX  
**PEUGEOT:** 205, 206, 305 (II), 306 (I and II), 309 (I and II), 405, Restyling, 406, 406 FL, Partner (M49, M59), Ranch (M49,

**OE reference**  
3326-35, 3350-33  
95 619 160, 96 129 301

### IDENTIFICATION OF NTN-SNR WHEEL KIT R166.13

Traceability  
SNR GB 40574 S01



## COMMON PROBLEMS WITH KIT R166.13

### PROBLEMS WITH ROLLING NOISE AND VIBRATIONS

#### Probable causes

##### Damaged stub axle

Check the condition of the stub axle before installing the bearing.

Be careful not to damage the bearing seats while removing the stub axle or the hub.

##### Play in the bearing

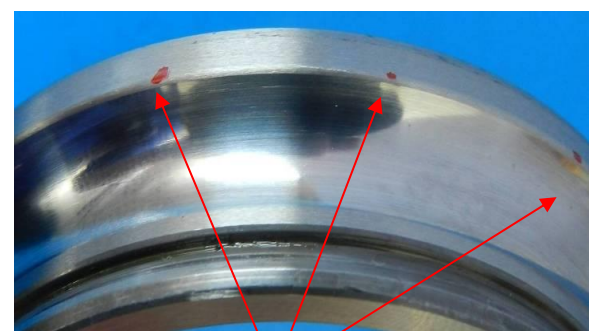
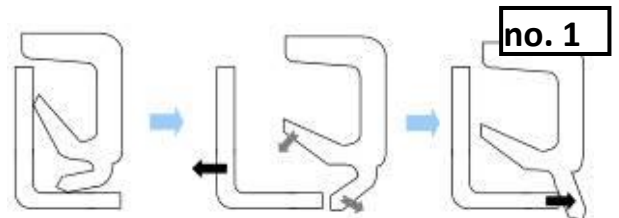
- Incorrect tightening of the bearing can cause the lips of the seal to be cut by the movement of the rings the gap. **(no.1)**
- The movement of the rings will cause fretting on the faces of the inner rings **(no.2)** and contact marks on the back of the seals.

##### Severe impact

When the assembly is subjected to a severe impact during installation, the force is transmitted by the balls, leaving dents (no.3) on the inner ring, these dents cause the bearing to quickly become noisy.



#### Worn kingpin and skewed installation



**Make sure that the bearing is pressed into the hub by pushing against the outer bearing ring and pressed onto the stub axle by pushing against the inner ring.**

## REPLACEMENT

### Tightening torques

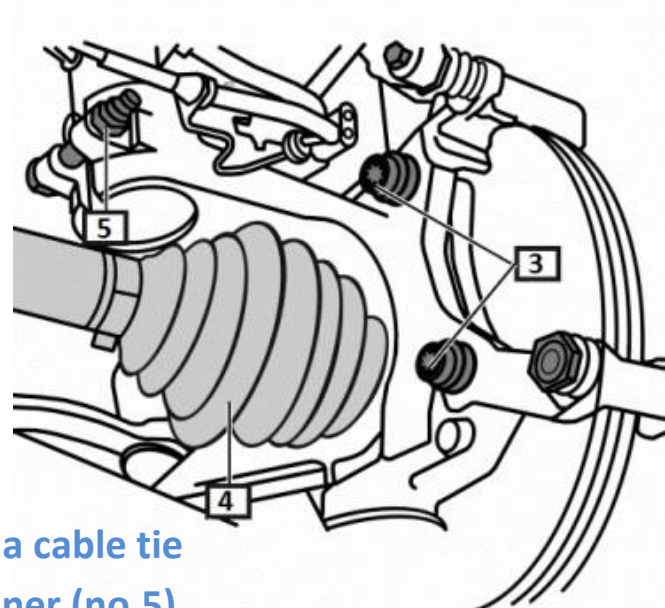
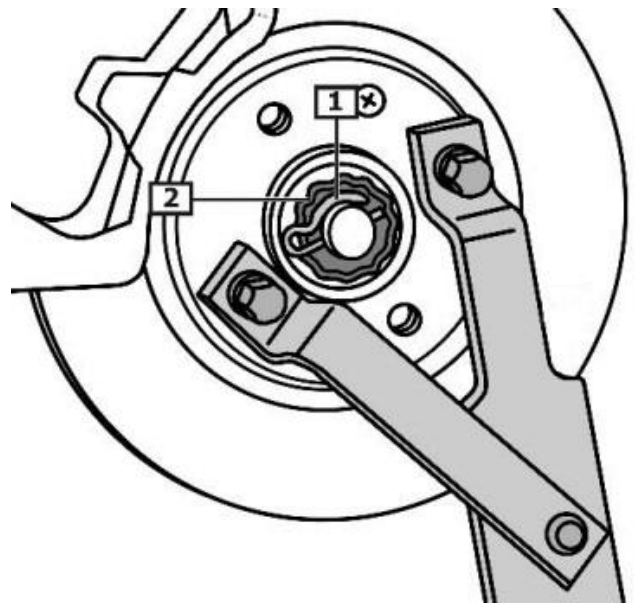
- Drive shaft nut: **325 Nm**
- Wheels: with steel rim **90 Nm**, with aluminium rim **100 Nm**  
SNR recommends using HAZET tools.



For the bearing to operate correctly, the correct tightening torques must be applied to the bearing.

### REMOVAL:

- 1) Remove the front wheels
- 2) Remove the split pin (no.1)
- 3) Unscrew the castellated nuts from the drive shaft (no.2)
- 4) Separate the steering ball joint
- 5) Separate the lower ball joint from the control arm
- 6) Detach the brake line from the brake calliper
- 7) Unscrew the brake bracket bolt and remove the brake calliper (no.3)
- 8) Remove the brake discs
- 10) Use pressure to extract the drive shaft (no.4)
- 11) Fasten the drive shaft to one side using a cable tie
- 12) Remove the lower shock absorber fastener (no.5)





13) Install the extractor: OE 0709, HAZET no. 4935-4

14) Move the kingpin out of the way slightly to extract the shock

absorber  
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15) Remove the kingpin

16) Remove the circlip from the wheel bearing

17) Place the kingpin in a vice and use a puller to extract the hub from the kingpin (no.6)

18) Extract the inner ring (no.8) from the hub

using extractor OE 4108-T (7), HAZET no. 4931-1/8



Do not use a grinder to remove the inner bearing ring from the bearing hub, irriverable damage can be caused to the hub .

19) Take the extracted inner ring and re-install it in to the bearing that remains inside the kingpin

21) Extract the bearing that remains inside the kingpin

by pushing against the inner ring

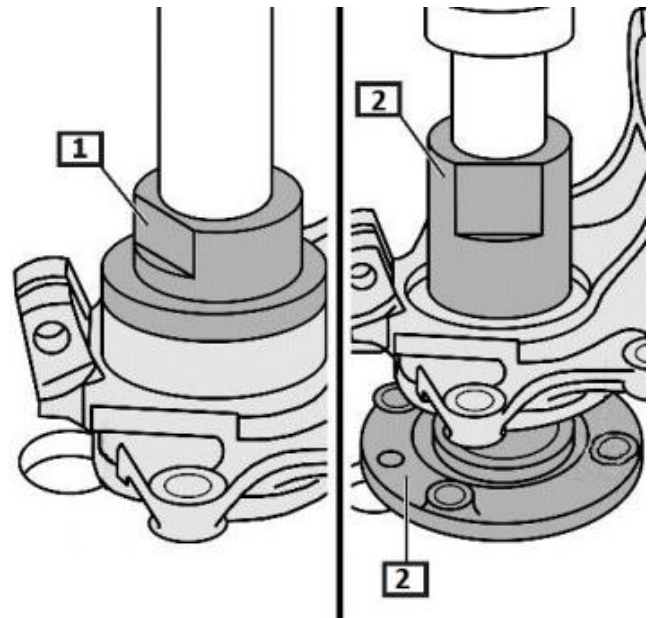


Make sure that the bearing is pressed into the hub by pushing against the outer bearing ring and pressed onto the stub axle by pushing against the inner ring.



## RE-INSTALLATION:

- 1) Use a press to press the wheel bearing into the kingpin (no.1) make sure the king pin is held stable and straight during installation (risk of skewed installation) pressure should only be applied against the outer ring only
- 2) Install the circlip
- 3) Use the press to press the hub onto the bearing (no.2) while pushing against the inner ring only
- 4) Press the kingpin onto the hub
- 5) Re-install the shock absorber onto the kingpin
- 6) Re-install the drive shaft, brake disc and calliper
- 7) Install the drive shaft nut: Tightening torque 325 Nm
- 8) Install the new split pin
- 9) Re-install the wheel



Tightening torques: with steel rim **90 Nm**, with aluminium rim **100 Nm**

### Recommendations

Make sure all the parts supplied in the kit are replaced, old nuts bolts and circlips cannot be reused.

Follow the vehicle manufacturer's installation procedures and apply the specified tightening torques.

Refer to the vehicle applications in our online catalogue: [eshop.ntn-snr.com](http://eshop.ntn-snr.com)



Scan this QR code to access our online catalogue.

FOLLOW THE RECOMMENDATIONS  
OF THE VEHICLE MANUFACTURER.