# Technical product information

| | |
|---|---|
| **Topic** | Creaking noise from the front suspension when manoeuvring |
| **Market area** | Bentley: worldwide (2WBE),Hongkong-Macau (5HK) |
| **Brand** | Bentley |
| **Transaction No.** | 2048616/4 |
| **Level** | EH |
| **Status** | Approval |
| **Release date** | |

**New customer code**

| Object of complaint | Complaint type | Position |
|---|---|---|
| running gear -> shock absorber/suspension control -> jounce | noise, vibration -> creak | front |

**New workshop code**

| Object of complaint | Complaint type | Position |
|---|---|---|
| running gear -> running gear, springs, shock absorbers -> axle member mount | noise, vibration -> noise | left |
| running gear -> running gear, springs, shock absorbers -> axle member mount | noise, vibration -> noise | right |

# Vehicle data

## Bentayga

**Sales types**

| Type | MY | Brand | Designation | Engine code | Gearbox code | Final drive code |
|---|---|---|---|---|---|---|
| 4V1* | 2017 | E | | * | * | * |
| 4V1* | 2018 | E | | * | * | * |
| 4V1* | 2019 | E | | * | * | * |

# Documents

| Document name |
|---|
| master.xml |
| lowersuspensionleverbushes.docx |

## Customer statement / workshop findings

Creaking noise from the front suspension when manoeuvring

## Technical background

Front suspension entering bump phase during braking can produce an audible creak from lower control arm hydraulic mount

## Production change

*

## Measure

Listen to the below video link and compare it to the customer complaint:

**https://vimeo.com/291048296**

The noise present in the video is caused by a defective 'Lower suspension lever - Rear - Hydraulic mounts. In order to reproduce the noise this bush must be twisted, therefore the noise can appear in the following circumstances

- When performing parking manoeuvers with the brake applied
- When steering from lock to lock with the vehicle in motion and the brake applied
- When the vehicle is moved with steering input over uneven surfaces (for e.g. a ramp or speed bump)

If the customer complaint occurs in any of the above circumstances and the noise can be clearly assigned to the above video link in this TPI, then replace the right hand front and left hand front rearmost lower suspension lever inner hydraulic mounts - Refer to Repair manual Rep.Gr.40 front suspension, lower suspension lever bushes – to remove and fit **NOTE: Should the remove and refit instructions not be visible within the repair manual please refer to the attached document and follow the instructions to replace the applicable bush.**

**The lubricant quoted within the procedure should be sourced locally or use a suitable alternative of the same specification**

Figure 1 shows the left hand front rearmost lower suspension lever (A) the hydraulic mount which must be changed is located at (B)

**Within the Repair manual procedure there are single use items which must be replaced and not reused. Ensure that new replacements are available prior to starting this procedure – Refer to Elsa pro and ETKA parts catalogue**

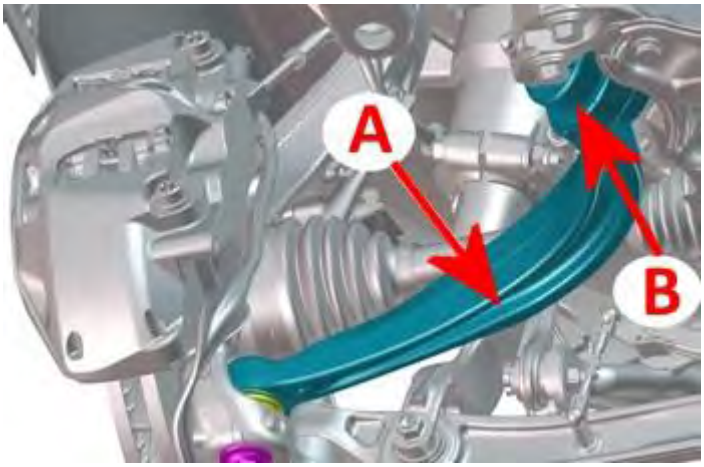



Figure 1

## Warranty accounting instructions

**Remove the right and left hand levers including the replacement of both hydraulic mounts**

| | |
|---|---|
| Warranty type | 110 or 910 |
| Labour Operation Code | 40 20 56 00 |
| Damage Service Number | 40 20 |
| Damage Code | 00 20 |
| Time | 180TU |

## Parts information

| Part number | Description | Quantity |
|---|---|---|
| Refer to ETKA parts catalogue | Hydraulic mounts | 2 |

# Lower suspension lever bushes - To replace

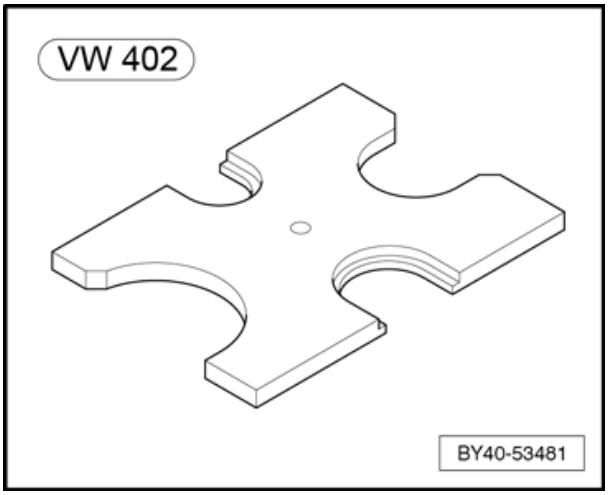
**General Information**

**Bush — Lower suspension lever rear — To remove and fit**

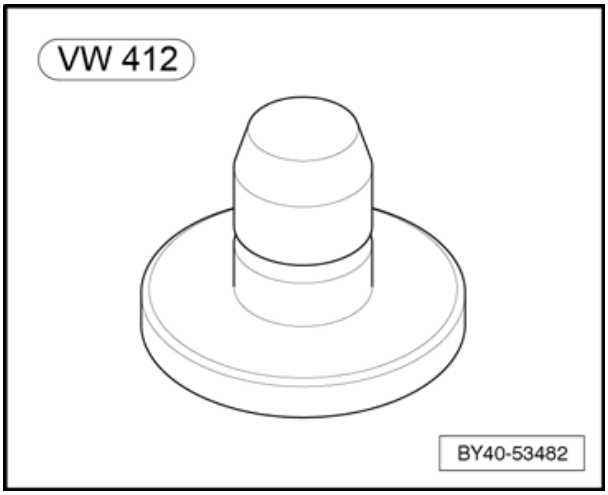
– Removing and installing bonded rubber bush for guide link

**Special tools and workshop equipment required**

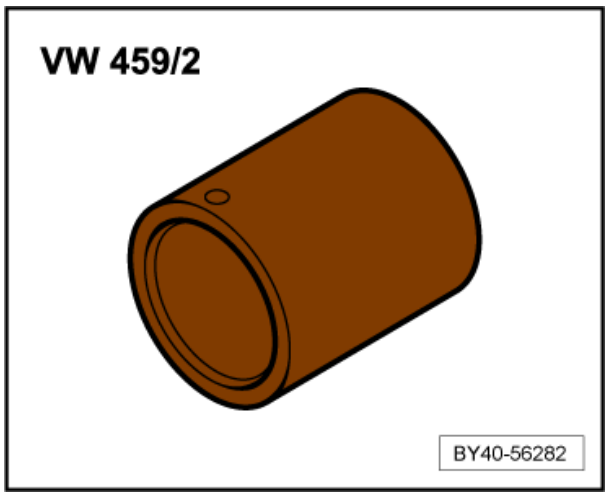
♦ Thrust plate — VW 402




♦ Press tool — VW 412




♦ Removal tool



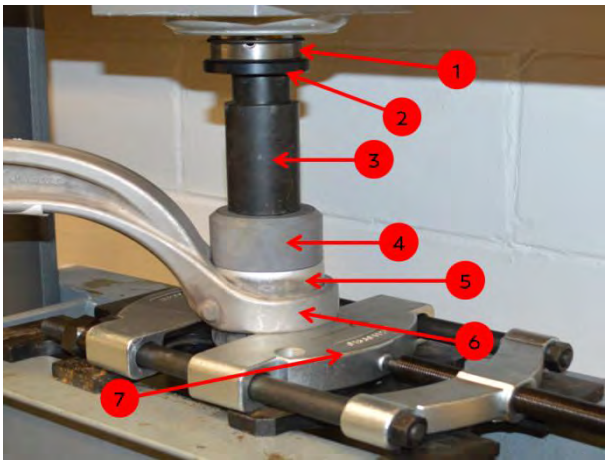
- Removal sleeve
- Workshop press VAS 6654
- Assembly lubricant -G 294 421 A1-


**Removal**

– Remove rear lower suspension lever. Refer to "Lower suspension lever — Rear — To remove and fit".→ Rep.-Gr.40

– Mark installation depth on bonded rubber bush using a waterproof felt-tip pen or similar.

– Set up special tools as shown in illustration




- -1- Workshop press -VAS 6654
- -2- Press tool guide
- -3- Suitable spacer
- -4- Press tool T40048/7
- -5- Bonded rubber bush
- -6- Suspension arm
- -7- Separating device VAS 251413

*Note*

*Hold the suspension arm when pressing the bonded rubber bush in or out.*

– Press bonded rubber bush out of guide link.

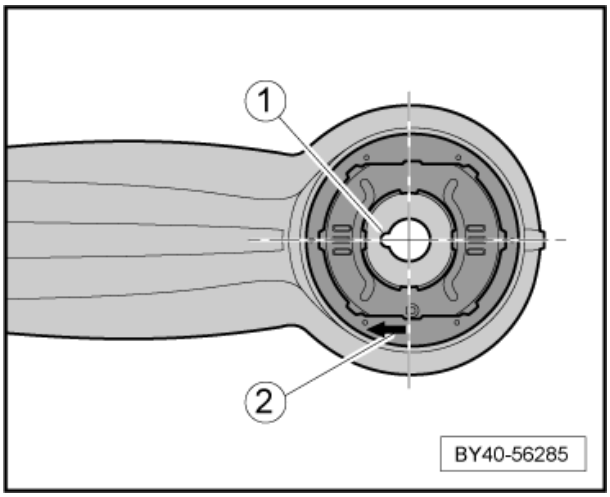
### Installation

Installation is the reverse of removal procedure, noting the following.

- Transfer marking for installation depth from old bonded rubber bush to new bush.
- Lightly lubricate new bush with assembly lubricant.

### Installation position of bonded rubber bush

- Notch -1- should be parallel with guide link and should point inwards towards guide link.
- Arrow -2- points inwards towards guide link.
- Fit bonded rubber bush into guide link using previous setup of special tools.
- Press bonded rubber bush into guide link, taking care to keep it straight.
- Use marking made before removal -arrow- as a guide.

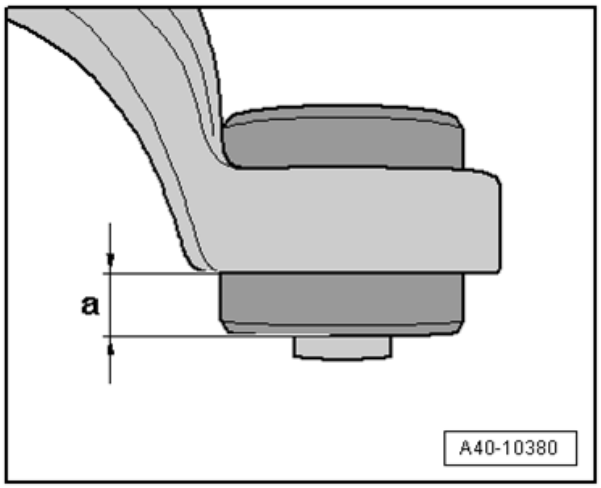



- Check installation depth -a- of bonded rubber bush in guide link.

Note

I Dimension -a- = 23 mm

- Press bonded rubber bush in further if specification is not met.
- Refit rear lower suspension lever.

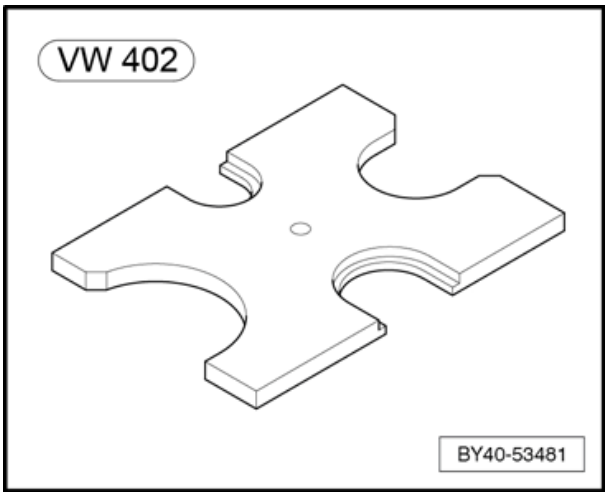


**Bush — Lower suspension lever front — To remove and fit**

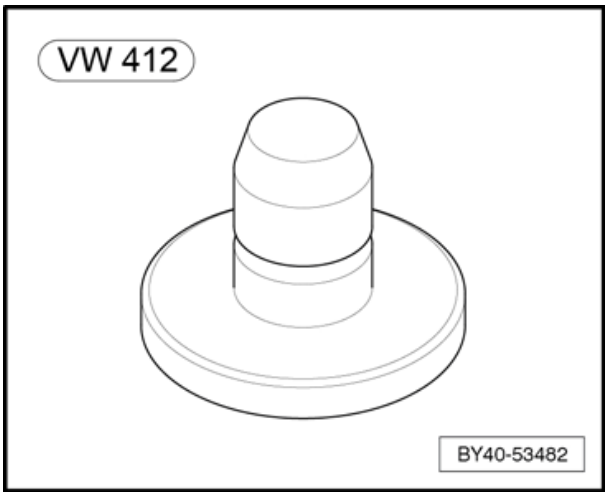
– Removing and installing bonded rubber bush for guide link

**Special tools and workshop equipment required**

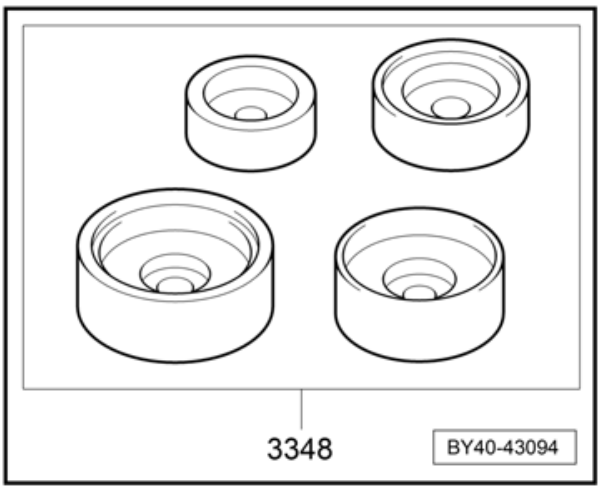
♦ Thrust plate — VW 402



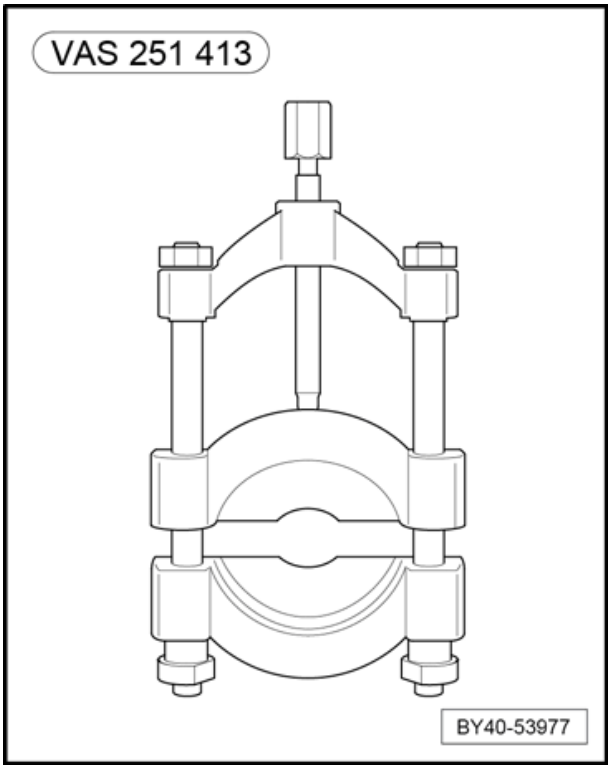

♦ Press tool — VW 412




♦ Press tool set 3348



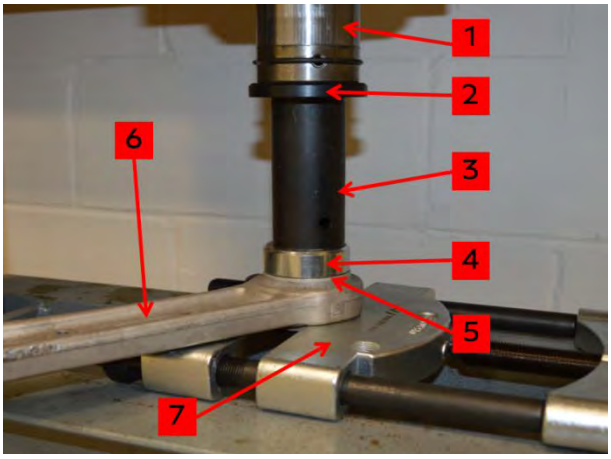
- Separating device VAS 251413
- Workshop press VAS 6654
- Assembly lubricant -G 294 421 A1-




**Removal**

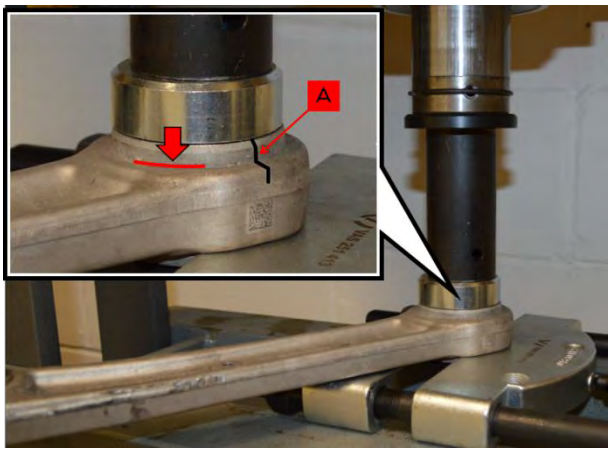
– Remove front lower suspension lever. Refer to "Lower suspension lever — Front — To remove and fit".→ Rep.-Gr.40

– Set up special tools as shown in illustration




- -1- Workshop press -VAS 6654
- -2- Press tool guide
- -3- Suitable spacer
- -4- Press tool 3348/3
- -5- Bonded rubber bush
- -6- Suspension arm
- -7- Separating device VAS 251413

– Mark installation depth -arrow- and rotation orientation -A- on bonded rubber bush using a waterproof felt-tip pen or similar.




*Note*

*Hold the suspension arm when pressing the bonded rubber bush in or out.*

– Press bonded rubber bush out of guide link.

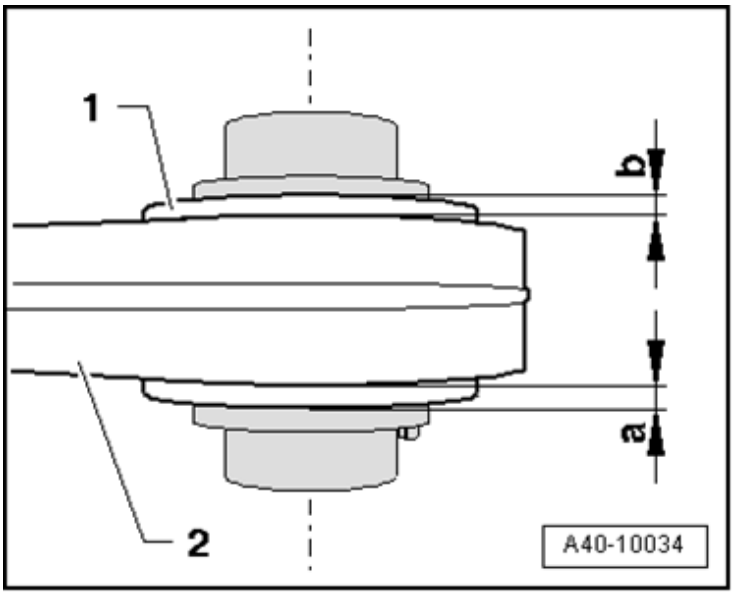
**Installation**

Installation is the reverse of removal procedure, noting the following.

- Transfer marking for installation depth from old bonded rubber bush to new bush.
- Lightly lubricate new bush with assembly lubricant.

**Installation position of bonded rubber bush**

- Align mark on bonded rubber bush with mark on suspension arm
- Fit bonded rubber bush into guide link using previous setup of special tools.
- Press bonded rubber bush into guide link, taking care to keep it straight.
- Use marking made before removal as a depth guide.
- Check installation depth -1- of bonded rubber bush in guide link -2-.




*Note*

*Specification: Dimension -a- is equal to dimension -b-*

- Press bonded rubber bush in further if dimensions are not equal