



## INSTRUCTIONS FOR: BMW REAR BALL JOINT TOOL

MODEL NO: **VS4498**

Thank you for purchasing a Sealey product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.



**IMPORTANT:** PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS AND CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. PLEASE KEEP INSTRUCTIONS SAFE FOR FUTURE USE.

### 1. SAFETY INSTRUCTIONS

- WARNING!** Ensure Health and Safety, local authority and general workshop practice regulations are adhered to when using tools.
- X **DO NOT** use the kit if any parts are missing or damaged.
- X **DO NOT** use the rear ball joint tool for any purpose other than that for which it is designed.
- ✓ Maintain the tool components in good and clean condition for best and safest performance.
- ✓ Ensure that a vehicle which has been jacked up is adequately supported with axle stands.
- ✓ Wear approved eye protection. A full range of personal safety equipment is available from your Sealey dealer.
- ✓ Wear suitable clothing to avoid snagging. Do not wear jewellery and tie back long hair.
- ✓ Keep children and other unauthorised persons away from the working area.
- ✓ Ensure there is adequate lighting prior to using the ball joint tool.

**IMPORTANT:** These instructions are provided as a guide only. Always refer to the vehicle manufacturer's service instructions, or a proprietary manual, to establish the current procedure and data.

### 2. INTRODUCTION & APPLICATIONS

#### 2.1 Introduction

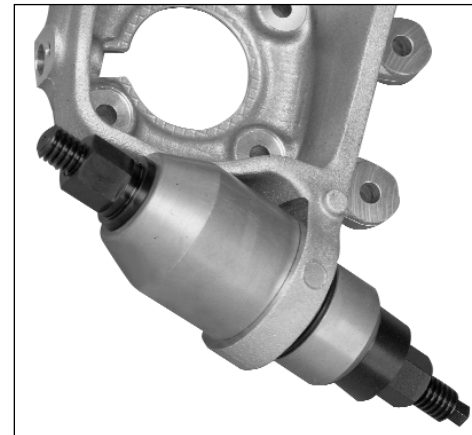
Kit VS4498 is designed to remove and install press-fit rear suspension ball joints, in-situ, ON CAR on 5 and 7 series BMW, as detailed in Applications. These joints are sometimes referred to as "bushes" but are true ball joints.

#### 2.2 Applications

**BMW**

**E39 - 5 Series**

**E38 - 7 Series**



**NOTE:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

**IMPORTANT:** No liability is accepted for incorrect use of this product.

**WARRANTY:** Guarantee is 12 months from purchase date, proof of which will be required for any claim.

**INFORMATION:** For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.



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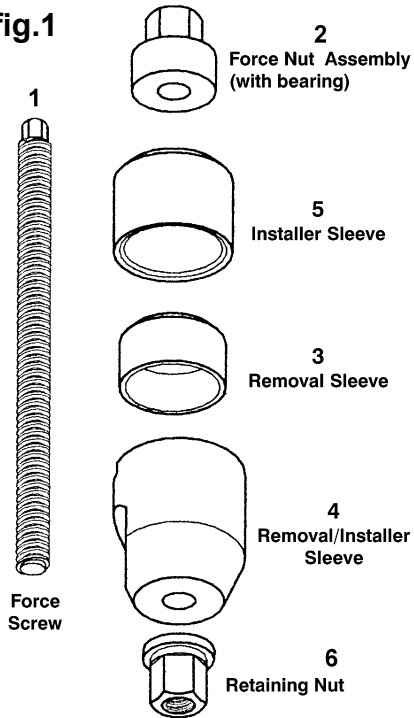
[sales@sealey.co.uk](mailto:sales@sealey.co.uk)

### 3. CONTENTS/PARTS LIST

VS4498 Rear Suspension Ball Joint tool comprises:

Item	Description	Part No.
1	Force Screw	VS4498.01
2	Force Nut Assembly	VS4498.02
3	Removal Sleeve	VS4498.03
4	Removal/Installer Sleeve	VS4498.04
5	Installer Sleeve	VS4498.05
6	Retaining Nut	VS4498.06

fig.1



### 4. INSTRUCTIONS

#### 4.1

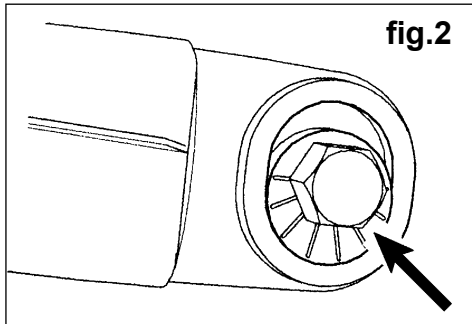
The removal and installing sleeves in the kit are marked/identified with the numbers 3, 4 and 5. By selecting and assembling the relevant parts in the specific order detailed in these instructions, the old ball joint can be removed and a new one installed.

**NOTE:** It will save time and make assembly of the correct configuration easier, if the operator reads, and becomes familiar with, the assembly sequences beforehand.

#### 4.2

Position the vehicle on a suitable lift and at an appropriate working height and remove road wheel. **NOTE:** It is recommended that the swinging arm assembly is completely removed to provide ease of access to the ball joint.

**IMPORTANT:** Prior to removal of the bolts retaining the swinging arm, mark with paint the position of the eccentric washer, in order to ensure you can re-assemble the suspension in the correct position, (Fig.2).



The eccentric washer/bolt, used to adjust toe, is situated on the top joint of the swinging arm on 5 Series and the bottom joint on 7 Series.

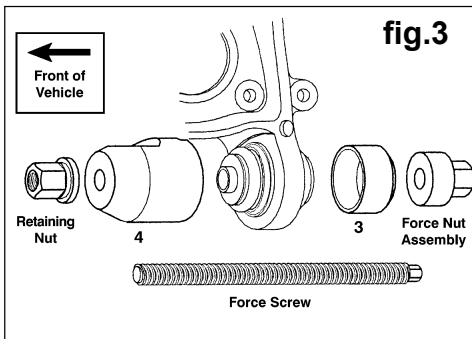
In removing the swinging arm, the bolt passing through the ball joint will be removed.

**ALWAYS KEEP FORCE SCREW WELL LUBRICATED**

**DO NOT USE AIR TOOLS**

#### 4.3 Removing the old ball joint

Remove snap retaining ring from the ball joint. **NOTE:** The old ball joint is extracted out of its housing on the wheel carrier, in a direction towards the front of the vehicle.



Removal assembly sequence

Place Removal Sleeve 3 onto the ball joint, on the side of the housing which faces the rear of the vehicle, and Removal/Installer Sleeve 4 on the opposite side - refer to Fig.3.

**NOTE:** The cut-out sections on Removal/Installation Sleeve 4 provide clearance from the wheel carrier to allow correct alignment.

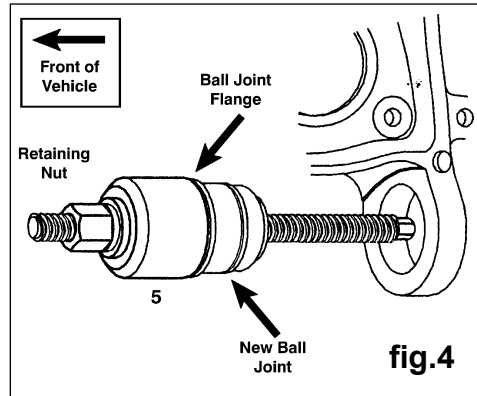
Pass the Force Screw through the Sleeves and ball joint - refer to Fig.3

**IMPORTANT:** Ensure the small hexagon end of the Force Screw is pointing towards the rear of the vehicle.

Screw the Retaining Nut onto the Force Screw, and the Force Nut Assembly (with bearing) onto the other end of the Force Screw - refer to Fig.3. Tighten the Nuts by hand to take up any adjustment and to 'clamp' the assembly onto the ball joint/housing, ensuring it is squarely aligned. The Force Screw can be prevented from turning by holding the small hexagon end with a spanner. Using a spanner, turn the Force Nut Assembly to extract the old ball joint, whilst simultaneously holding the Retaining Nut with another spanner.

#### 4.4 Preparing to install a new ball joint.

Prior to installing the new ball joint, clean the bore of the ball joint housing.



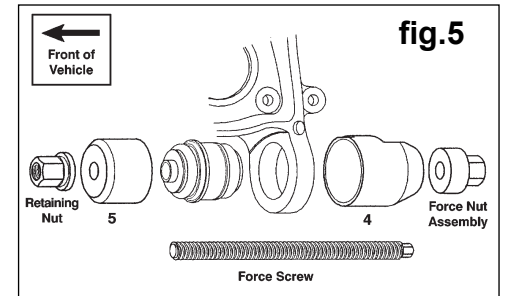
Sub-assembly of Installer Sleeve, Ball Joint, Retaining Nut and Force Screw

Push the new ball joint into Installer Sleeve 5 so that the rubber section enters into the Installer Sleeve and the flange of the ball joint rests against the outer diameter face of the Installer Sleeve - refer to Fig.4.

Sub-assemble the Retaining Nut onto the end of the Force Screw and pass the other end of the Force Screw through Installer Sleeve 5 and the ball joint.

Position this assembly, in place, at the entrance to the bore of the ball joint housing, passing the Force Screw through the bore of the housing - refer to Fig.4.

#### 4.5 Installing a new ball joint



Installation assembly sequence

Slide Removal/Installer Sleeve 4 over the end of the Force Screw and screw the Force Nut Assembly onto the Force Screw - refer to Fig.5. **NOTE:** The ball joint will be 'pressed' into place in a direction towards the rear of the vehicle.

Tighten the Nuts by hand to take up any adjustment, ensuring that the complete assembly is squarely aligned to the housing and that the ball joint will enter its housing correctly.

The Force Screw can be prevented from turning by holding the small hexagon end with a spanner.

**IMPORTANT:** Check that the flange on the ball joint is on the side of the housing facing towards the front of the vehicle.

Using a spanner, turn the Force Nut Assembly to install the new ball joint, whilst simultaneously holding the Retaining Nut with another spanner.

Continue to install the ball joint until the flange of the ball joint rests against the face of the housing.

Install snap retaining ring and re-assemble suspension with particular attention to position of eccentric washer/bolts.