5690

LASER®

Ball Joint Removal Adaptor Kit

Mercedes Benz Sprinter

Instructions

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Distributed by The Tool Connection Ltd

Kineton Road, Southam, Warwickshire CV47 0DR
T +44 (0) 1926 815000 **F** +44 (0) 1926 815888
info@toolconnection.co.uk **www.toolconnection.co.uk**

Ball Joint Removal Adaptor Kit

The Mercedes Benz Sprinter utilises a ball joint on the outside of the front wishbones to mount the suspension hub.

This ball joint is pressed in to the wishbone by means of a precision interference fit. Because this fit is very tight, it requires a significant force to remove and insert the ball joint. Additionally, if the ball joint is not removed with the force adaptor correctly aligned, it will jam in the wishbone and damage the wishbone.

This ball joint is very difficult to remove without a properly designed tool.

The use of excessive amounts of heat is not recommended as the ball joint has a sealed grease unit under the inner ball and it has been known to explode.

A further complication to the removal process is the variability of joints upper body size. Mercedes and after market joint upper body diameters vary from component manufacturer to component manufacture this variability effects which extraction adaptor can be used.

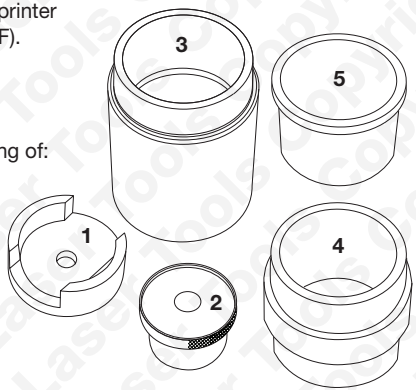
For these reasons a set of cups has been produced for use with the Laser Press Frame (5689) to remove the ball joint from its carrier whilst maintaining the force parallel to the centre line of the bush.

NB: This kit can be used with a workshop press if preferred.

Application: Mercedes Benz Sprinter wishbone ball joints (NSF & OSF).
Unit can be used either on or off of the vehicle

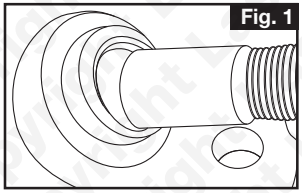
A 5 piece Adaptor set comprising of:

1 – Small Insertion Adaptor
2 – Small Extraction Adaptor
3 – Large Extraction Adaptor
4 – Large Insertion Adaptor
5 – Extraction Adaptor

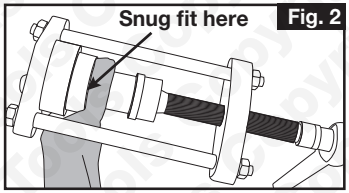


Instructions for use: Ball joint removal

1. Disassemble the front suspension to allow adequate access to the front ball joint to be replaced.
2. Ensure all loose rust and dirt is removed from around the old ball joint.
3. It is helpful at this point to remove the rubber dust boot from the old joint to improve access and reduce the chance of the joint jamming. **Fig. 1**



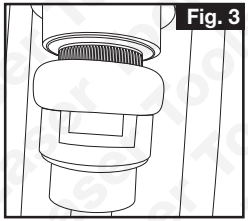
4. Select the appropriate extraction adaptor by placing adaptor 3 over the ball joint, it should be a snug fit on the lower ring of the joint. If the fit is too loose remove **No. 3** and fit adaptor **No. 5** on to adaptor **No. 3** and then refit the combination over the ball joint. The fit should be a snug sliding fit.
5. If using the Press Frame (5689) connect adaptor **No. 2** to the force screw.
6. Wind the force screw out and cover the thread with Molybdenum Disulphide grease (CV joint grease).
7. Assemble the kit as shown in **Fig. 2**



8. The initial torque required to get the ball joint to move will be quite high. If difficulty is experienced in getting the joint to move check the extraction adaptors are both sitting squarely and the ball joint is snug inside adaptor **No. 3.**
9. Continue winding the ball joint out.

Ball joint insertion:

1. Using adaptor **No. 1** in place of adaptor **No. 2** and adaptor **No. 4** in place of adaptor **No. 3** the new ball joint can be pressed back into the arm as shown in **Fig. 3**.



Note: adaptor **No. 4** *is double ended to suit both sizes of outer ball joint body that are available.*