

## Applications

Make	Model	Year
Vauxhall	Movano	1998 - 2010
Renault	Master	1998 - 2010
Nissan	Cab Star	1998 - 2010

# LASER<sup>®</sup>

6673

## Ball Joint Extractor/Installer Vauxhall/Renault/Nissan Van

 **MADE IN SHEFFIELD**



- For the removal and installation of the upper and lower ball joints on the Vauxhall Movano, Renault Master and Nissan Cabstar vans from 1998-2010.
- Designed to work with OEM ball joints: 93 194 857 (lower) and 9 160 554 (upper).
- For use on the vehicle with the minimum of dismantling required.

6673\_Instructions\_v4

### Guarantee

This item contains consumable elements and are NOT covered by the Tool Connection Guarantee. For spares contact our service department direct on: +44 (0) 1926 818186.



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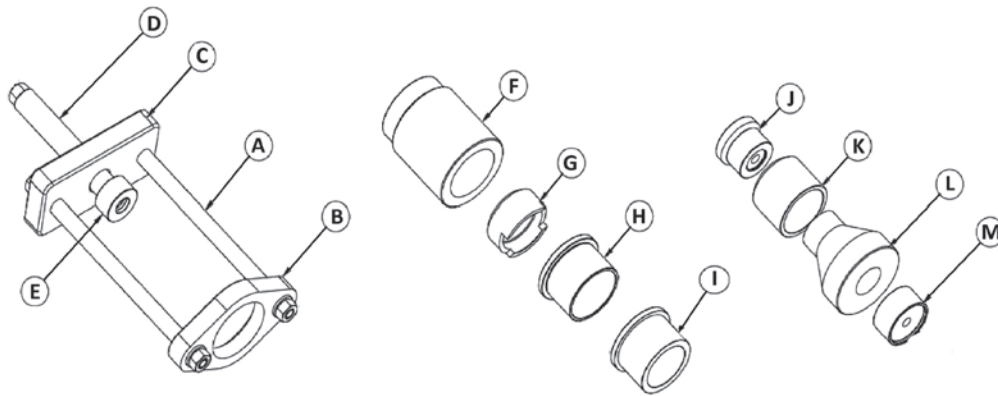
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## 6673 - Ball Joint Extractor/Installer Kit

- The 6673 consists of 11 main components made up of a press frame, force screw and various engineered cups and adaptors.
- The Tool Connection Ltd recommends the use of Manufacturer data or Autodata where relevant.
- The use of these engine timing tools is the user's responsibility and Tool Connection cannot be held liable for any damage caused what so ever.

## Components



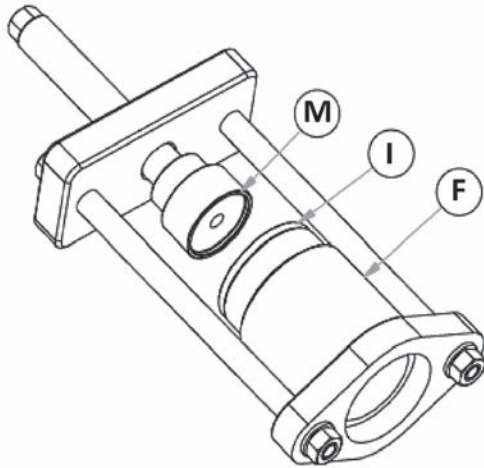
Item	Part Number	Description
A		Support Bar x 2
B		Bottom Plate
C	4361	Top Plate
D	4360	Force Screw
E	4362	Force Screw Bearing Assembly
F		Extraction Adaptor
G		Top Ball Joint "Odd Leg" Insertion Cup
H		Top Ball Joint Extraction Adaptor
I		Top Ball Joint Insertion Adaptor
J		Upper Extraction Boss Assembly
K		Bottom Ball Joint Extraction Receiver
L		Bottom Ball Joint Extraction Adaptor
M		Lower Insertion Boss Assembly

**N.B:** Always ensure the force screw and nut assembly are well lubricated with molybdenum disulphide grease. Threaded force screws, their associated nuts and bearings can be easily damaged by lack of lubricant or ingress of dirt. For this reason the force screw and nut assemblies are considered consumable.

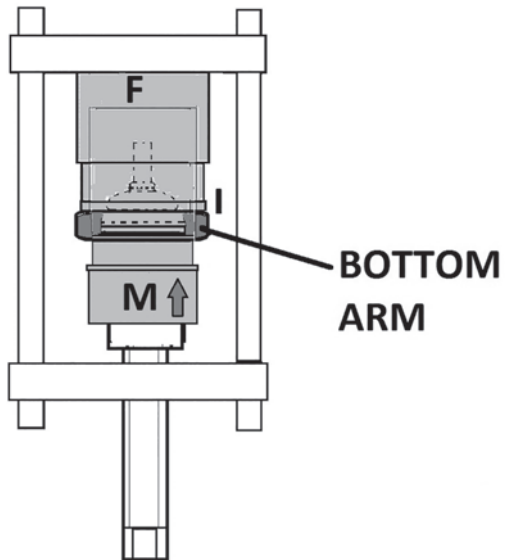
- Consumable spares available:  
 Force Screw - Part No. 4360  
 Top Plate - Part No. 4361  
 Bearing Assembly - Part No. 4362

## Insertion of bottom ball joint

- Select components as shown.



- For insertion of the bottom ball joint the press frame must be assembled as shown.



## Instructions

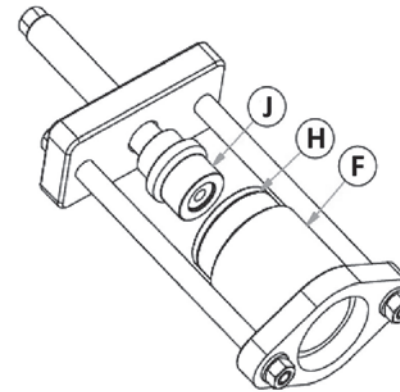
### Preparation:

**IMPORTANT: ENSURE THE FORCE SCREW IS WELL LUBRICATED WITH MOLYBDENUM DISULPHIDE GREASE.**

1. It is advised that any mounting bolts should be sprayed with penetrating oil prior to dismantling.
2. Mount the vehicle on a ramp, wheels free.
3. Remove the front wheel hubs as per manufacturer's instructions to gain access to the top and bottom ball joints.

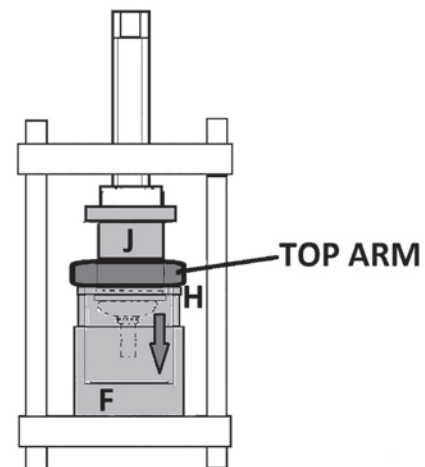
### Extraction of top ball joint

- Select components as shown



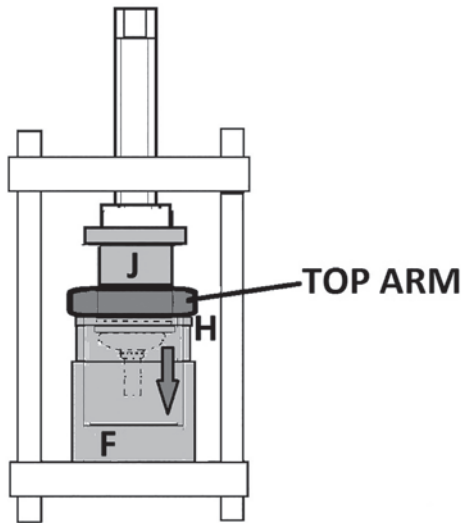
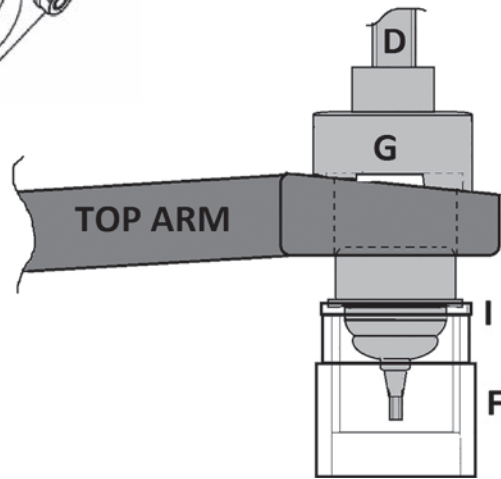
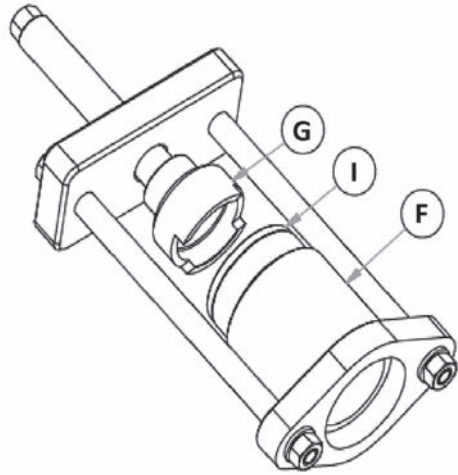
- Assemble on the top arm as shown with the force screw pushing down.
- Using a socket and ratchet only wind the ball joint out.

**ENSURE THE FORCE SCREW IS WELL LUBRICATED WITH CLEAN MOLYBDENUM DISULPHIDE GREASE.**



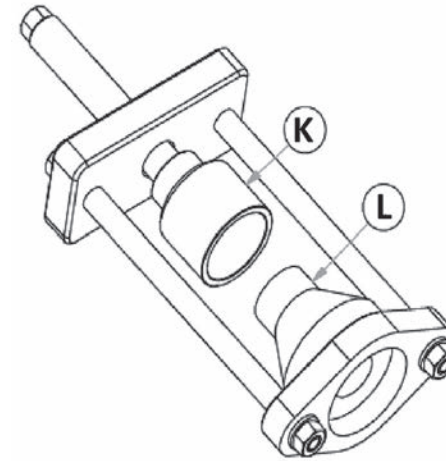
### Insertion of top ball joint:

- Select components as shown.
- The top face of the top arm is not perpendicular to the centre line of the ball joint and as such component G has been machined at a corresponding angle to ensure the press frame aligns correctly to insert the new ball joint. It is important to ensure the press frame assembly is set-up to push the ball joint in straight.
- Position G as shown to ensure the ball joint is pushed in straight.



### Extraction of bottom ball joint

- Select components as shown.



- Remove the lower ball joint rubber boot.
- Assemble on the bottom arm as shown with the force screw pushing up.
- Using a socket and ratchet only wind the ball joint out. The ball joint will come out downwards.

**ENSURE THE FORCE SCREW IS WELL LUBRICATED WITH CLEAN MOLYBDENUM DISULPHIDE GREASE.**

