

# LASER<sup>®</sup>

Part No. 6293

## Knuckle Ball Joint Tool

- Land Rover/Range Rover

### Instructions

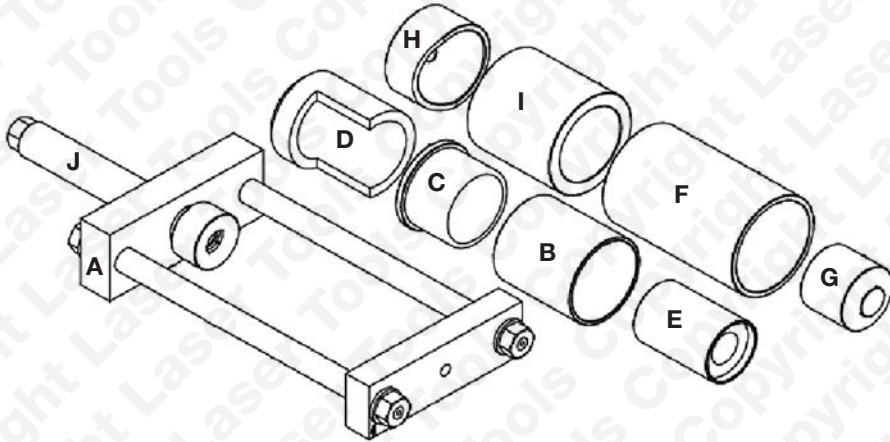


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## Introduction

Designed to allow the top and bottom steering ball joints fitted to the Land Rover and Range Rover models listed below to be replaced with the axle casing attached to the vehicle.

## Components



| Ref. | Description                                       |
|------|---|
| A    | Support Frame - (Top Plate Part No. 3043)         |
| B    | Ball Joint Upper Receiver Cup                     |
| C    | Ball Joint Upper Insert Top Hat - Use with Item B |
| D    | Ball Joint Upper Support Cup                      |
| E    | Ball Joint Upper Remover Cup                      |
| F    | Ball Joint Lower Support Cup                      |
| G    | Ball Joint Lower Thrust Cup                       |
| H    | Ball Joint Lower Receiver Cup                     |
| I    | Ball Joint Lower Inserter Cup                     |
| J    | M24 Force Screw and Washer - (Part No. 1682)      |

## Applications

- Equivalent to OEM tools: 205-718, 205-732, 205-733, 205-719.

| Marque      | Model       | Year      |
|-------------|-------------|-----------|
| Land Rover  | Discovery 2 | 1998-2004 |
| Range Rover | P38         | 1995-2002 |

Always refer to the website for most up to date applications: [www.lasertools.co.uk/product/6293](http://www.lasertools.co.uk/product/6293)

## Instructions

### Preparation

- Jack up and support the front of the vehicles so the front axle hangs free.
- Remove the front wheels
- Remove the front brake calipers and support away from the working area. Taking care not to stretch or damage the brake hoses.
- From the hubs remove the front brake disc, steering track rod end, steering drag link, brake back plate and front hub bearing bolts.
- Now remove the front hub bearing complete with drive flange and drive shaft from the axle.
- Undo both the top and bottom ball joint nut and separate the hub from the front axle. **See Fig:1**



Fig:1

## Instructions

### Lower Ball Joint Removal

**NOTE :** Always ensure the thread of the force screw is free from dirt and well lubricated with Molybdenum Disulphide grease. Failure to lubricate the force screw will result in damage to the force screw and frame and void the product warranty.

#### Do not use impact guns on the force screw

- Always remove both joints before refitting.
- Clean the work area with a suitable wire brush to help the tooling seat correctly.
- Starting with the bottom joint remove the joint boot and clip then assemble the tool as shown in **Fig:2** and **Fig:3**.
- Grease all thread and extract the joint.

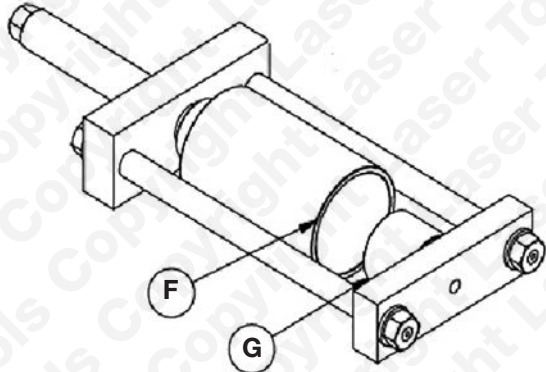


Fig:2



Fig:3

## Instructions

### Top Joint Removal

- Remove the top joint rubber boot and clip
- Assemble the tool as shown in **Fig:4** and **Fig:5**, lubricate the force screw and extract the joint.

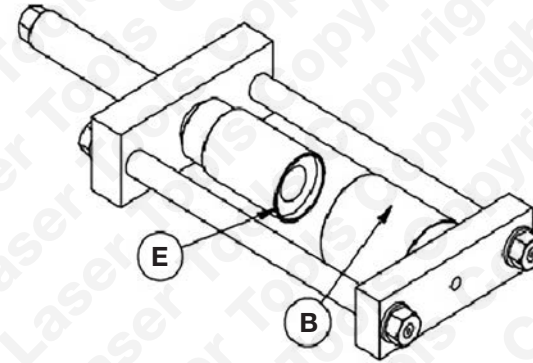


Fig:4



Fig:5

- When both ball joints are removed clean the work area with a wire brush in preparations for the insertion process.

## Instructions

### Top Joint Insertion

- Starting with the top joint assemble the tool as shown in **Fig:6** and **Fig:7**

**NOTE :** Ensure component C is in place as shown.

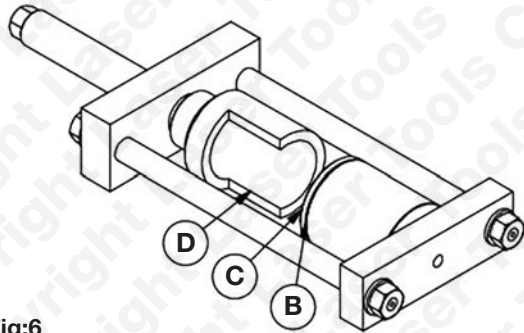


Fig:6

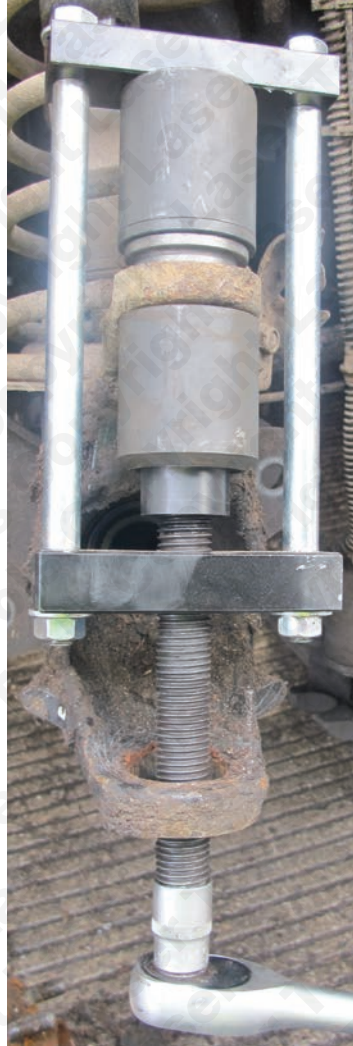


Fig:7

- Lubricate the force screw and insert the new joint.

## Instructions

### Lower Ball Joint Insertion

- Assemble the Tool as shown in **Fig:8** and **Fig:9**.

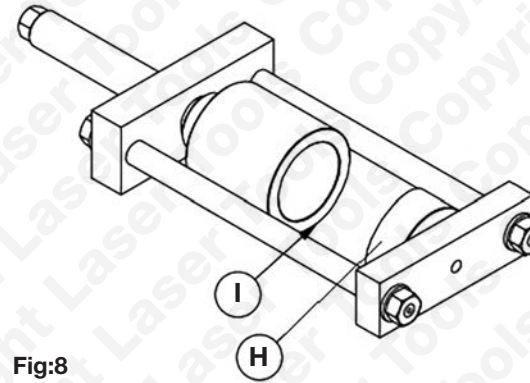


Fig:8



Fig:9

- Lubricate the force screw and Insert the lower joint.

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**Safety First. Be Protected.**



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**Guarantee**



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