

# **DIFFLOCK**



## **Difflock Guide to:**

### **Using the Difflock Diesel Timing Kit**

### **suitable for the following Land Rover engines:**

**2.5 N/A**

**2.5 TD**

**200 TDi**

**300 TDi**

#### **DISCLAIMER**

Repairing and servicing vehicles should never be attempted unless you have appropriate professional training and are suitably qualified. If you are in any doubt about the work you intend to undertake you should consult an appropriate professional vehicle mechanic. Additionally you should always read and follow any relevant manufacturer's manuals and safety instructions in full **BEFORE** attempting any work on a vehicle. To the extent permitted by English law, Difflock Ltd accepts no liability for any loss, damage or injury arising as a consequence of any of the advice provided.

**Special Note – These instructions MUST be read in conjunction with an appropriate workshop manual.**

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## **Items Required**

# DIFFLOCK



## PARTS LIST

1 x Puller Body

The holes marked A are joined by a small triangle. The holes marked B are joined by a larger triangle.



1 x Puller Screw



4 x Bolts



3 x Special Bolts



1 x 28mm Anvil



1 x 16mm Anvil



1 x TDI Injection Pump Timing Pin



1 x Timing Pin (small)



1 x Timing Pin (medium)



1 x Timing Pin (large)



*(not shown to scale)*

## Items Required



**Difflock Diesel Timing Kit**  
[Difflock Code DF273](#)

## OPTIONAL ITEMS



**Difflock Crank Anti Rotation Tool**  
[Difflock Code DF475](#)



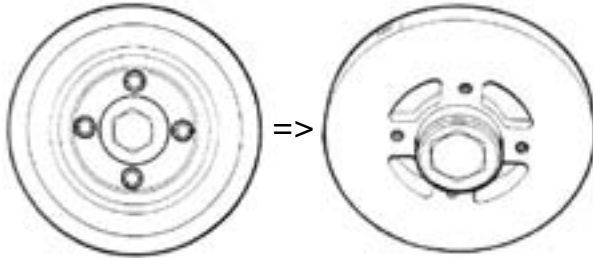
**Finite Synthetic Nitrile Gloves**  
[Difflock Code DF40](#)



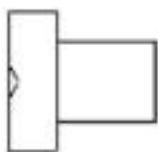
## Removal of 200 TDI and 300TDI Crankshaft Pulley Damper Assembly

### Instructions

1. Remove crankshaft pulley retaining bolt (30mm socket required for 200TDI, 27mm socket required for 300TDI).
2. For 200TDI engines remove the four M8 bolts that hold the outer pulley assembly to the central Crankshaft damper and remove the pulley assembly. (Note 300TDI engines have a one-piece damper with the 4 tapped holes already exposed).



3. Insert 4 Bolts through 'D' holes in Puller Body.
4. **Important** – Lubricate Puller Screw generously with EP90 Gear oil (this contains extreme pressure, anti-wear additives to prolong the life of the tool) and screw into Puller Body.
5. Insert 28mm Anvil into end of Crankshaft.
6. Screw 4 bolts into 4 holes in the face of the Crankshaft Pulley Damper.
7. Tighten Puller Screw against the 28mm Anvil to pull Crankshaft Pulley Damper off the end of the Crankshaft.



Insert Anvil into  
Open End of  
Crankshaft

**WARNING: THIS TOOL WILL APPLY LARGES FORCES  
- WEAR SUITABLE EYE PROTECTION AND GLOVES AT  
ALL TIMES WHEN USING THIS PULLER**

### Items Required

- 1 x Puller Body
- 1 x Puller Screw
- 1 x 28mm Anvil
- 4 x Bolts
- EP90 Gear Oil



## Locking the Injection Pump and Crankshaft at correct timing positions 200TDI & 300TDI & 300TDI with EDC

### Instructions

1. For 200TDI and 300TDI engines with manual 5 speed gearboxes, remove the Bellhousing drainplug (if fitted) at the bottom of the bellhousing and screw the Small Timing Pin into the hole. Rotate the crankshaft gently until the Small Timing Pin can be pushed up into the Flywheel. This will occur when the Flywheel is at TDC.
2. For 300TDI engines with manual gearboxes and EDC, then follow Step 1 but use the Large Timing Pin.
3. For all TDI engines with Automatic gearboxes, follow Step 1 but remove the blanking plate in the engine backplate (to rear of sump) and insert the Small Timing Pin into the larger of the two bolt holes.
4. Check that the timing mark on the Camshaft Pulley is now also aligned with the mark on the rear timing cover.
5. With front timing Cover removed and BEFORE removing timing belt, very carefully rock the Injection Pump Pulley until Injection Pump Timing Pin can be inserted through the 'U' shaped hole in the Pulley.
6. The 'U' shaped hole can be found between two of the three 10mm bolts that hold the pulley to the pump.
7. The Timing Pin will slide fully home when the 'U' shaped hole is approximately at the 11 o'clock position.

### Items Required

- 1 x TDI Injection Pump Timing Pin
- 1 x Timing Pin (small)
- 1 x Timing Pin (large)



## Locking the Crankshaft at correct timing position – Later 12J 2.5 NA & all 19J 2.5TD Engines

### Instructions

1. Remove blanking plug from upper right hand side of flywheel housing.
2. Screw the Medium Timing Pin into the hole and rotate crankshaft until the Timing Pin can be pushed home into the Flywheel. This will occur when the engine is at No 1 Cylinder Exhaust Peak.

### Items Required

1 x Timing Pin  
(medium)



## Removal of 200 TDI Crankshaft Timing Belt Gear

### Instructions

1. Insert 3 Special Bolts through 'A' holes in Puller Body.



2. **Important** - Lubricate Puller Screw generously with EP90 Gear oil (this contains extreme pressure, anti-wear additives to prolong the life of the tool) and screw into Puller Body.
3. Insert 28mm Anvil into end of Crankshaft
4. Screw 3 Special bolts into 3 holes in the face of the Crankshaft Timing Belt Gear
5. Tighten Puller Screw against the 28mm Anvil to pull Crankshaft Timing Belt Gear off the end of the Crankshaft

**WARNING: THIS TOOL WILL APPLY LARGES FORCES  
- WEAR SUITABLE EYE PROTECTION AND GLOVES AT**

### Items Required

- 1 x Puller Body
- 1 x Puller Screw
- 1 x 28mm Anvil
- 3 x Special Bolts
- EP90 Gear Oil



## Removal of 300 TDI Crankshaft Timing Belt Gear

### Instructions

1. Insert 3 Special Bolts through 'B' holes in Puller Body.



2. **Important** - Lubricate Puller Screw generously with EP90 Gear oil (this contains extreme pressure, anti-wear additives to prolong the life of the tool) and screw into Puller Body.
3. Insert 28mm Anvil into end of Crankshaft
4. Screw 3 Special bolts into 3 holes in the face of the Crankshaft Timing Belt Gear
5. Tighten Puller Screw against the 28mm Anvil to pull Crankshaft Timing Belt Gear off the end of the Crankshaft

**WARNING: THIS TOOL WILL APPLY LARGES FORCES  
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ALL TIMES WHEN USING THIS PULLER**

### Items Required

- 1 x Puller Body
- 1 x Puller Screw
- 1 x 28mm Anvil
- 3 x Special Bolts
- EP90 Gear Oil



## Removal of 200 TDI Camshaft Timing Belt Gear

### Instructions

1. Insert 2 Bolts through 'C' holes in Puller Body.



2. **Important** - Lubricate Puller Screw generously with EP90 Gear oil (this contains extreme pressure, anti-wear additives to prolong the life of the tool) and screw into Puller Body.
3. Remove central Camshaft Gear Retaining Bolt.
4. Insert 16mm Anvil into end of Camshaft
5. Screw 2 bolts into 2 holes in the face of the Crankshaft Timing Belt Gear
6. Tighten Puller Screw against the 16mm Anvil to pull Camshaft Timing Belt Gear off the end of the Camshaft

**WARNING: THIS TOOL WILL APPLY LARGES FORCES  
- WEAR SUITABLE EYE PROTECTION AND GLOVES AT  
ALL TIMES WHEN USING THIS PULLER**

### Items Required

- 1 x Puller Body
- 1 x Puller Screw
- 1 x 16mm Anvil
- 2 x Bolts
- EP90 Gear Oil