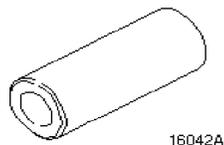


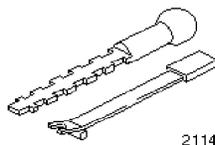
## Seal - Pinion Assembly - Renew (13 468 0)

### Special Tools



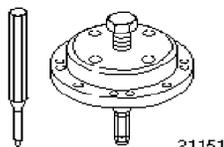
16042A

16-042A Adaptor



21143

21-143 Remover, oil seal



21151

21-151 Remover, oil seal

### Remove



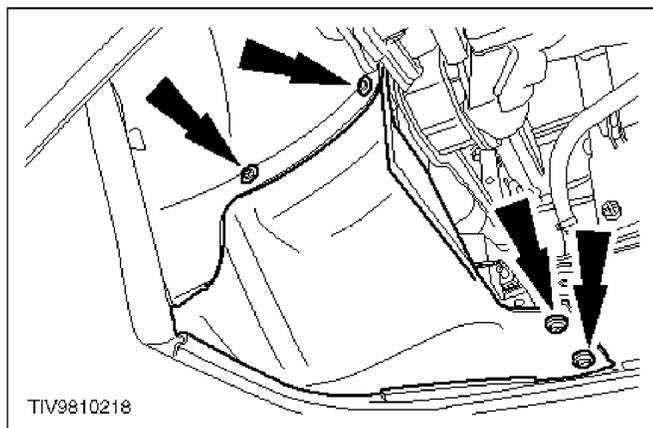
#### **CAUTION:**

**Disconnect the battery negative lead.**

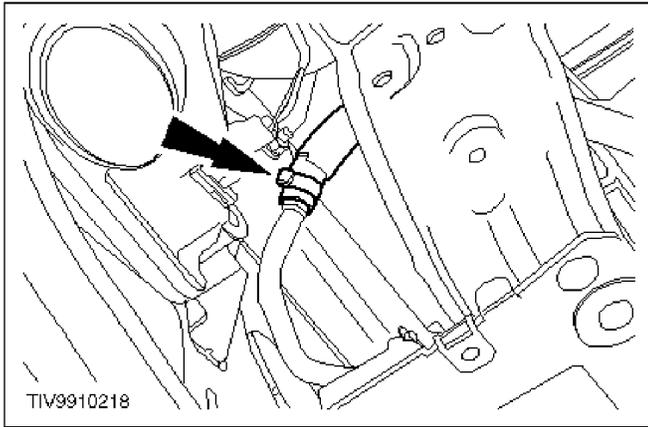
Note:

This procedure is only applicable to Wuelfrath steering gear.

1. Raise the vehicle.



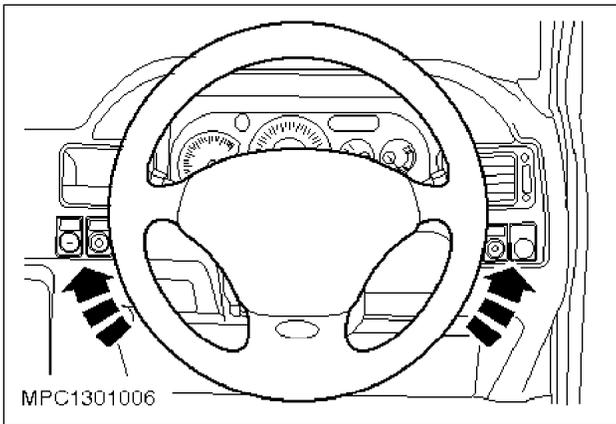
2. Remove the left-hand splash shield.



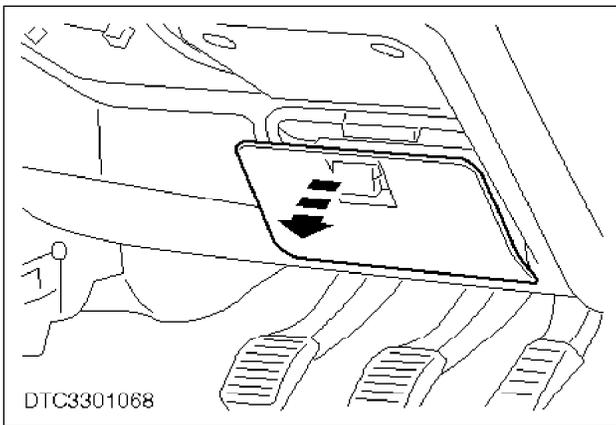
- 3. Disconnect the fluid cooler hose.

Allow the fluid to drain into a suitable container.

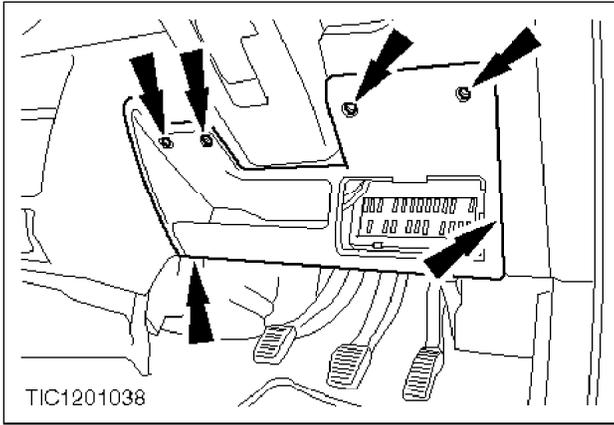
- 1 Lower the vehicle.



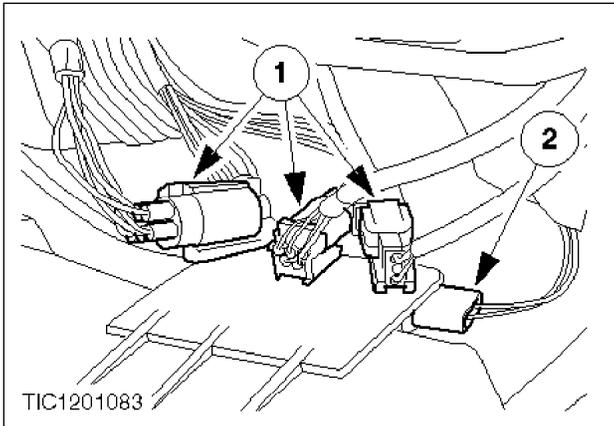
- 4. Centralise the steering wheel and lock in position.



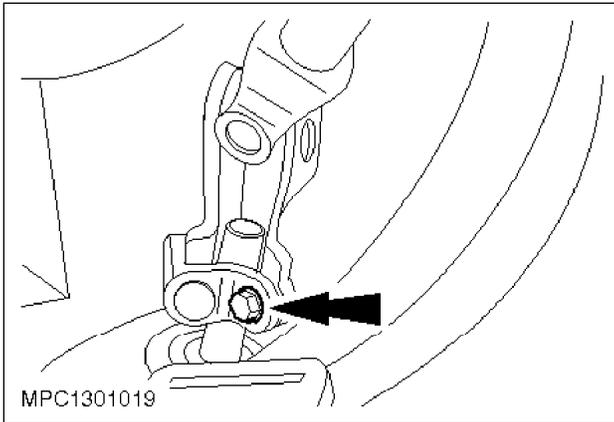
- 5. Remove the central electrical box cover.



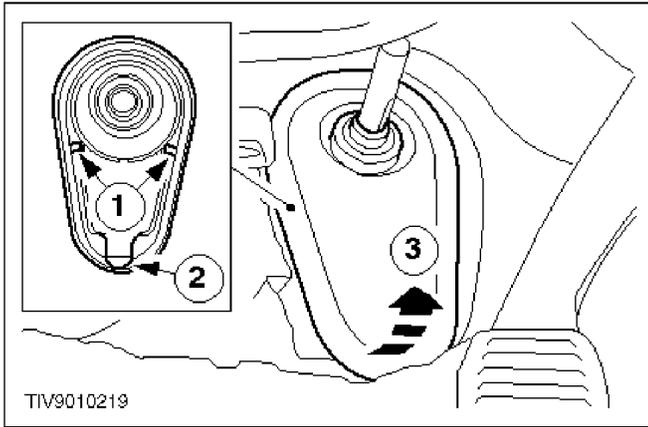
- 6. Detach the lower crash pad panel (six screws).



- 7. Remove the lower crash pad panel.
  - 1 Disconnect the three multiplugs.
  - 2 Disconnect the footwell lamp (if fitted).



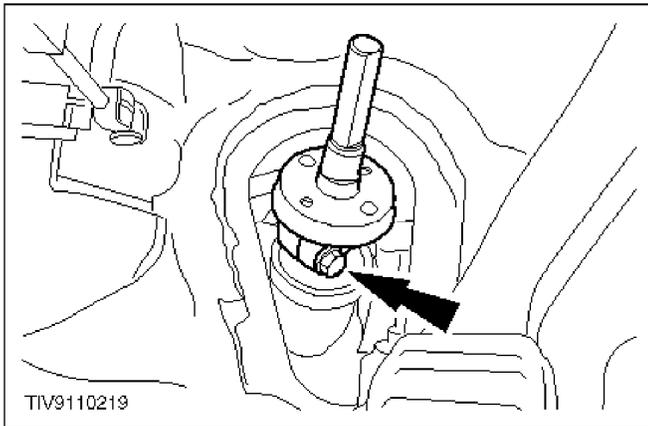
- 8. Remove the flexible coupling to pinion shaft pinch bolt.  
Rotate the clamp plate disengage.



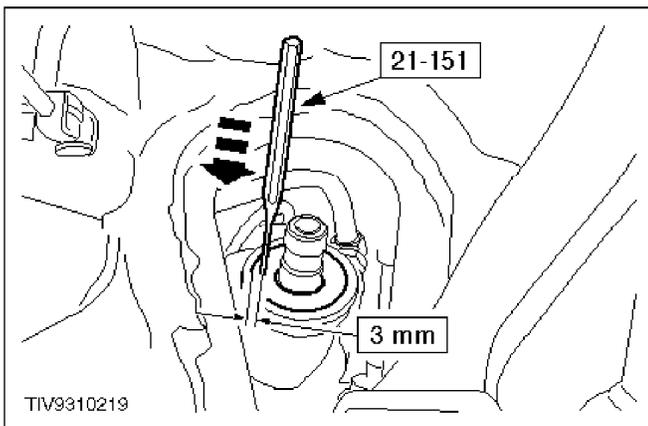
**⚠ CAUTION:**

**When removing the floor seal do not damage the sealing clips.**

- 9. Remove the floor seal from the bulkhead.
  - 1 Release the retaining clips
  - 2 Disconnect the lower retainer.
  - 3 Remove the floor seal.



- 10 Remove the flexible coupling.



**⚠ CAUTION:**

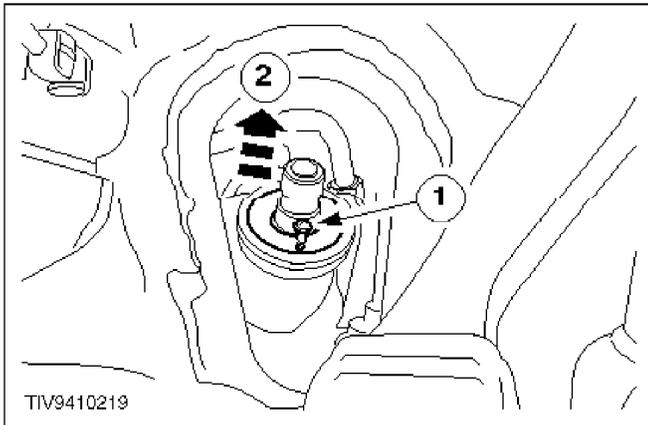
Ensure the pinion shaft or oil seal housing is not damaged.



**CAUTION:**

Ensure no particles of the seal enter the steering gear.

- 11. Drive a hole into the dust cap approximately 3 mm from the outer edge.



**CAUTION:**

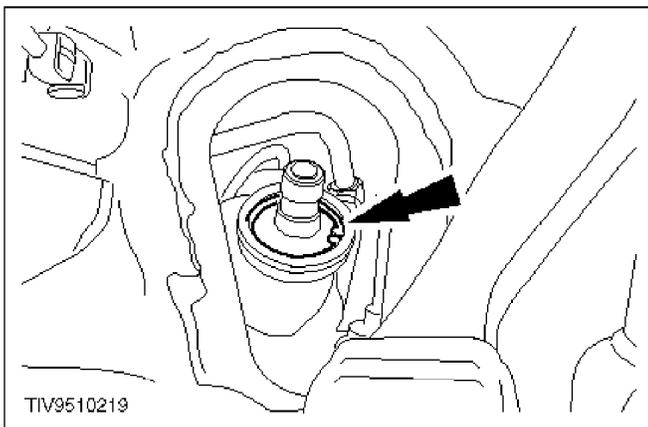
Ensure the self tapping screw is not inserted more than 2 mm.



**CAUTION:**

Ensure no particles of the seal enter the steering gear.

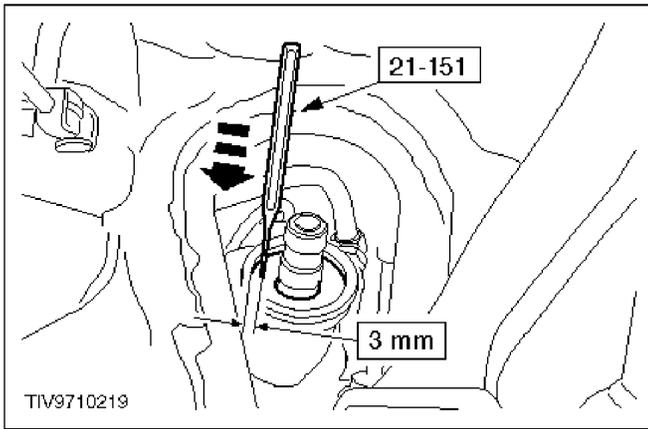
- 12. Remove the dust cap.
  - 1 Insert the self tapping screw.
  - 2 Ease the dust cap upwards.



Note:

Remove any grease with lint free paper.

- 13. Remove the circlip.



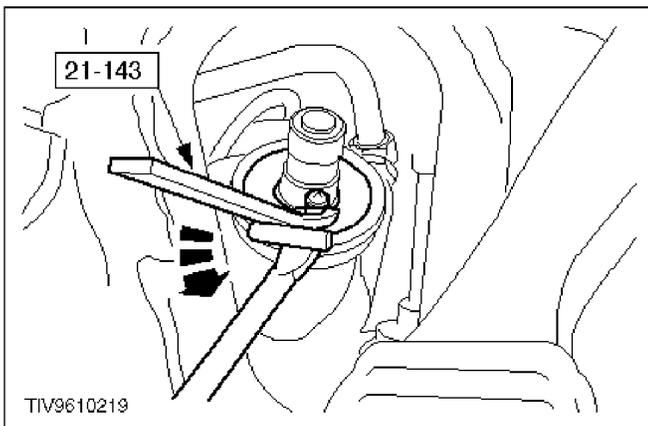
**⚠ CAUTION:**

Ensure the pinion bearing underneath the seal is not damaged by the punch.

**⚠ CAUTION:**

Ensure no particles of the seal enter the steering gear.

- ④ 14 Drive a hole into the oil seal steel cage approximately 3 mm from the outer edge.



**⚠ CAUTION:**

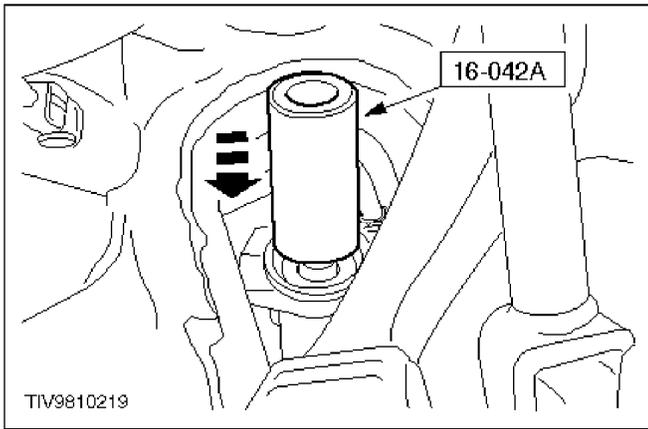
Ensure the pinion shaft or oil seal housing is not damaged.

**⚠ CAUTION:**

Ensure no particles of the seal or contamination is left inside the s

- ④ 15 Remove the oil seal.

Insert the self tapping screw into the seal no more than 3 mm and prise out the seal.



## Install



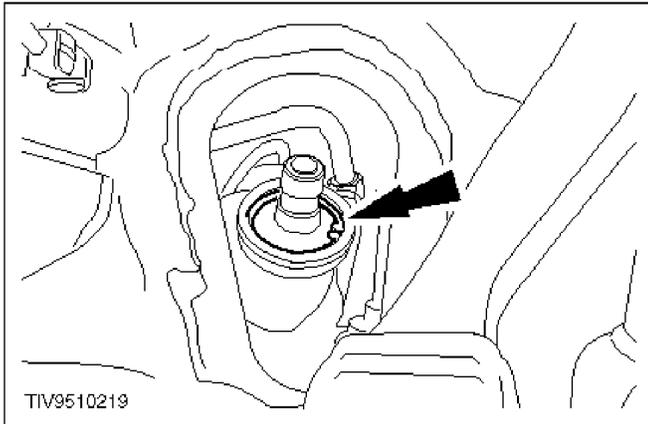
### CAUTION:

Ensure the oil seal is only installed to the minimum depth in the oil seal housing, which is the correct location of the circlip into the retaining groove.

#### Note:

Ensure the oil seal housing and pinion shaft are thoroughly cleaned with lint free paper. Examine the pinion shaft for signs of pitting, scoring, wear or corrosion.

- 16 Install a new seal

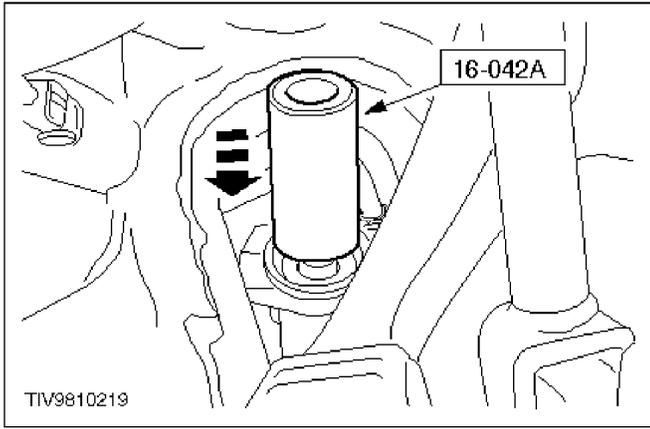


#### Note:

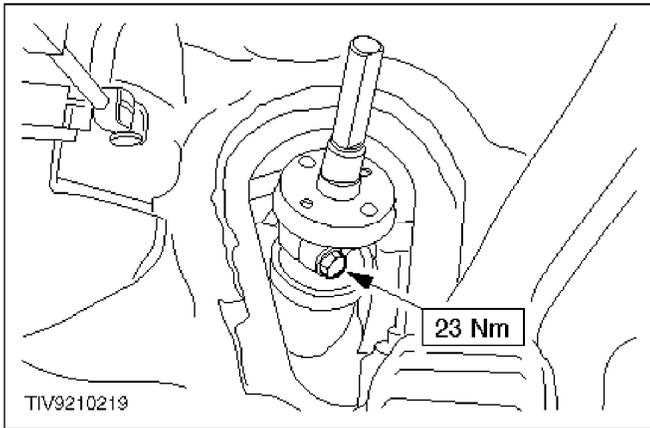
Ensure the circlip is correctly located.

- 17 Install the circlip

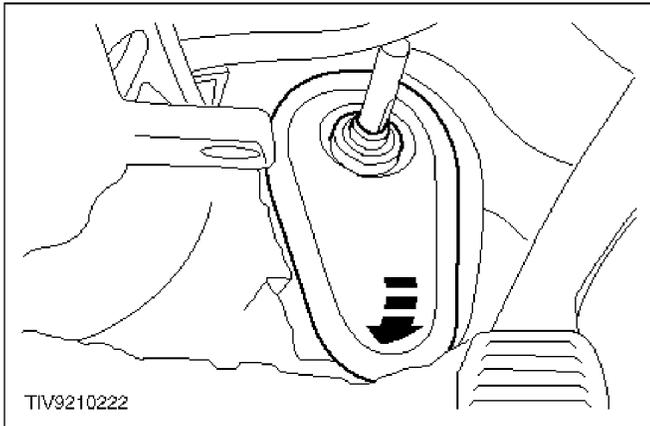
Coat the oil seal and circlip with grease.



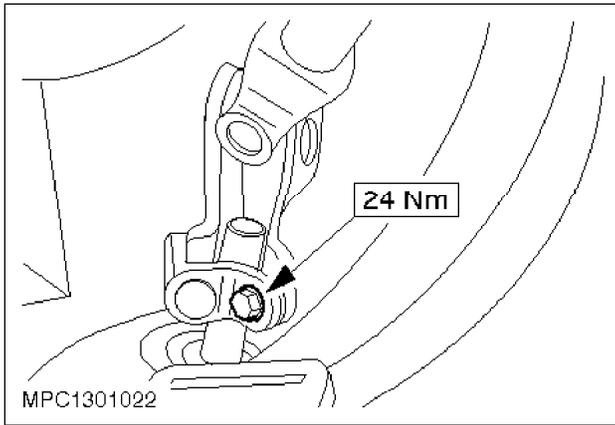
- 18 Install a new dust cap.



- 19 Install the flexible coupling with a new pinch bolt.



- 20 Install the floor seal.



- 21 Install the steering column shaft to the flexible coupling with a new pinch bolt.
  - 22 Install the remaining components in the reverse order.
  - 23 Bleed the power steering system (r«**Operation Number 13 4**» 1»
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