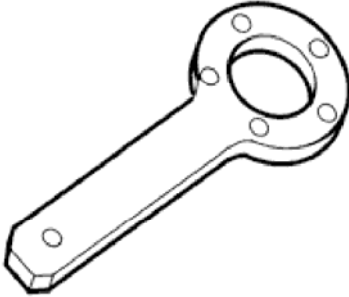


2003 XJ RANGE - Rear Suspension - 204-02

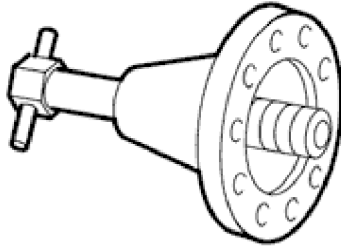
Wheel Bearing 64.15.14

Special Service tools



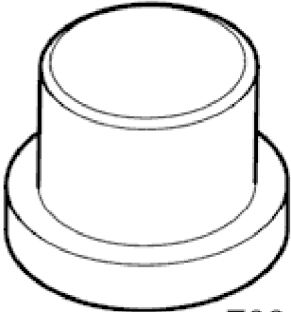
E36458

Hub Holding Tool
204-195 (JD227)



E36452

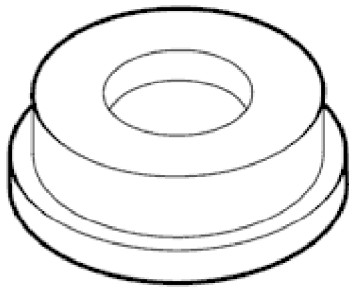
Hub Puller
204-011 (JD 1D)



E36453

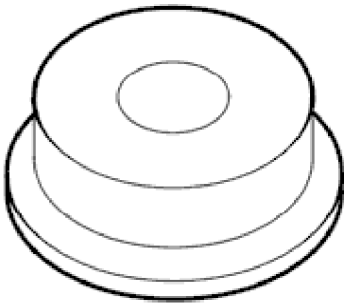
Rear-Hub Remover
204-113 (JD 132)

2003 XJ RANGE - Rear Suspension - 204-02



E36455

Bearing Cup Replacer Adaptor
204-118 (JD 550-4/1)



E36456

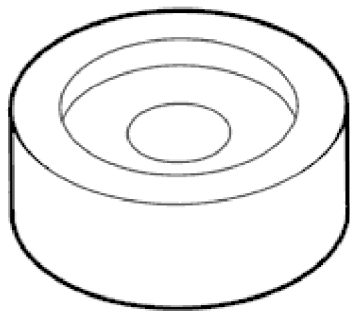
Bearing Cup Replacer Adaptor
204-118 (JD 550-4/2)



E36457

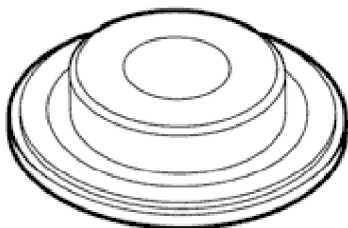
Driver Handle
100-013 (18G-134)

2003 XJ RANGE - Rear Suspension - 204-02



E36451


Rear-hub spacer replacer
204-003 (JD 15)



E36454

Oil Seal Remover/Replacer
205-234 (JD 550-1)

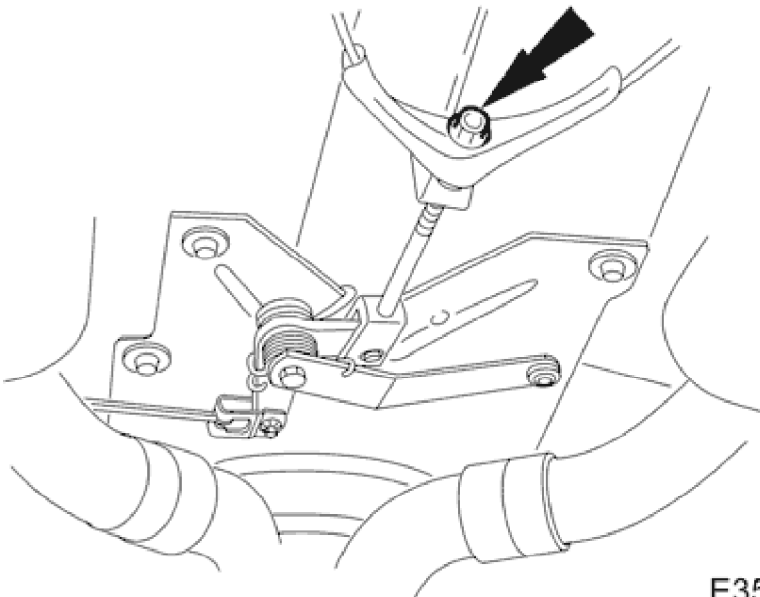
Removal

1.  **CAUTION:**
Replacement of nuts and bolts: Various thread-locking devices are used on nuts and bolts throughout the vehicle. These devices restrict the number of times a nut or bolt can be used. See section <<100-00>> for information.

Release handbrake.

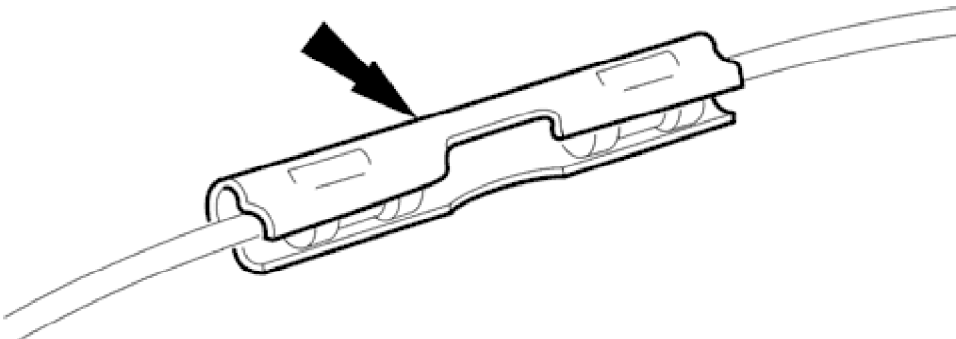
2. Raise the vehicle on a four-post lift.

2003 XJ RANGE - Rear Suspension - 204-02



E35206

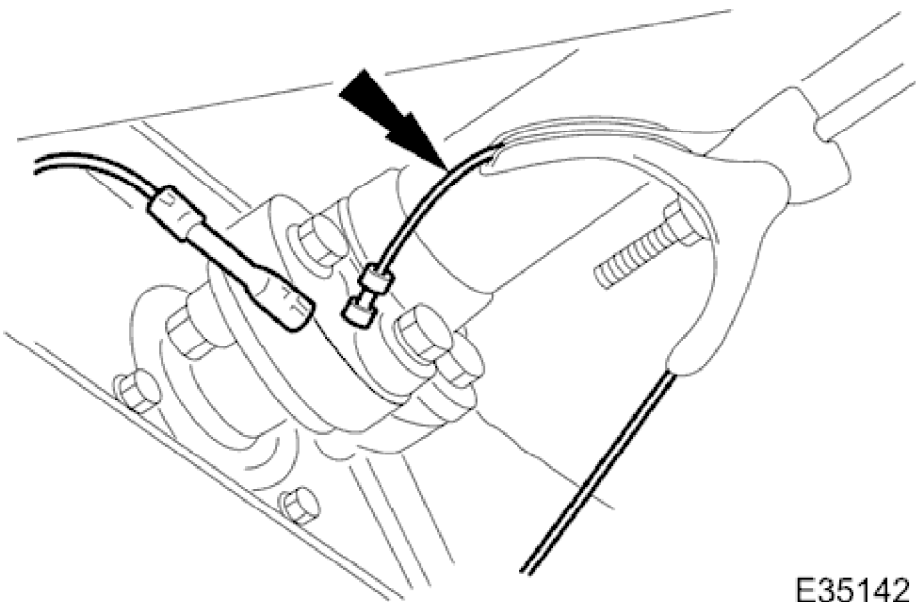
3. Fully slacken but do not remove parking brake cable adjuster nut.



E34975

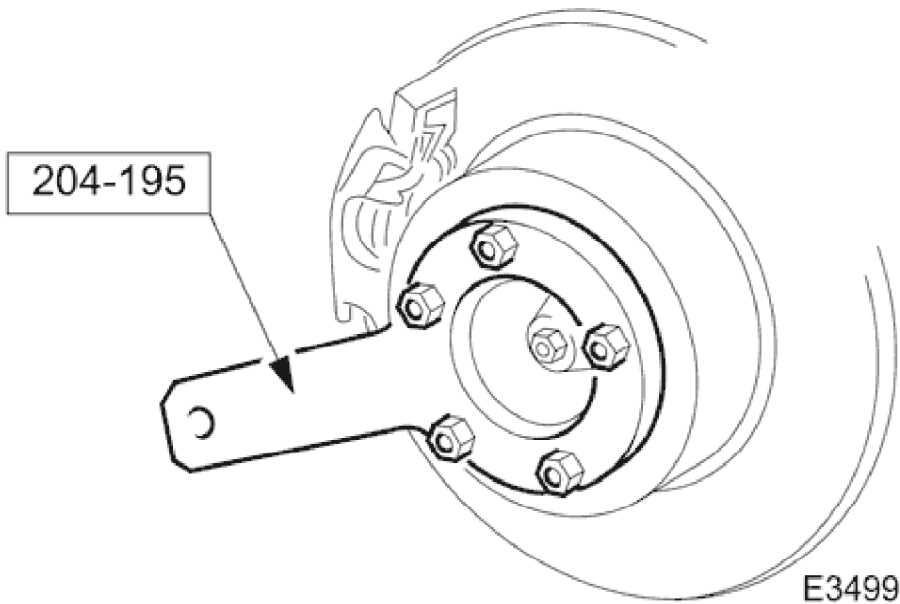
4. Release appropriate side parking brake cable from connecting clip.

2003 XJ RANGE - Rear Suspension - 204-02



E35142

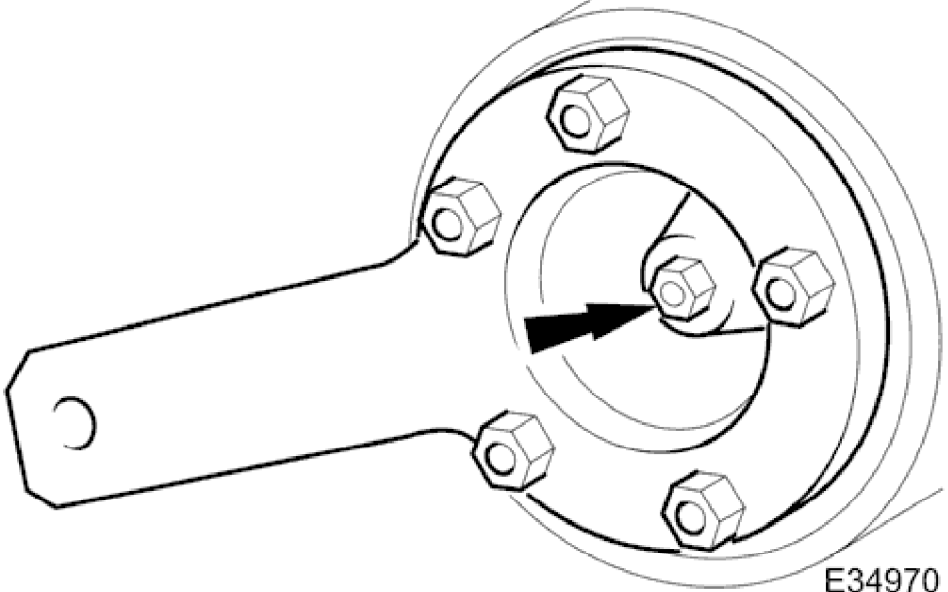
- 5. Withdraw parking brake cable through equalizer (LH side cable only).
- 6. Lower four-post lift.
- 7. Raise rear of vehicle to working height and support on stands. Refer to section <<100-02>>.
- 8. Remove rear wheel. Refer to section <<204-04>>.



E34991

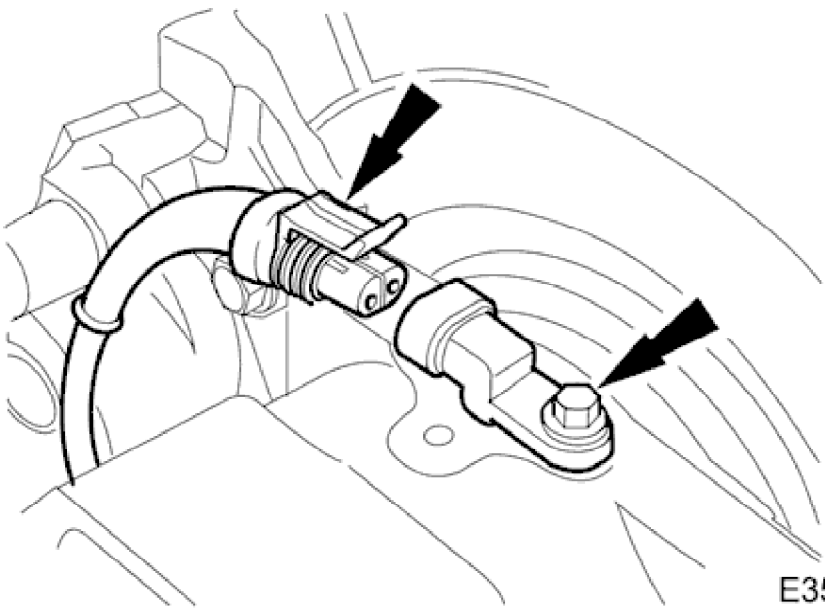
- 9. Position special tool 204-195 on hub studs and install securing nuts.

2003 XJ RANGE - Rear Suspension - 204-02



E34970

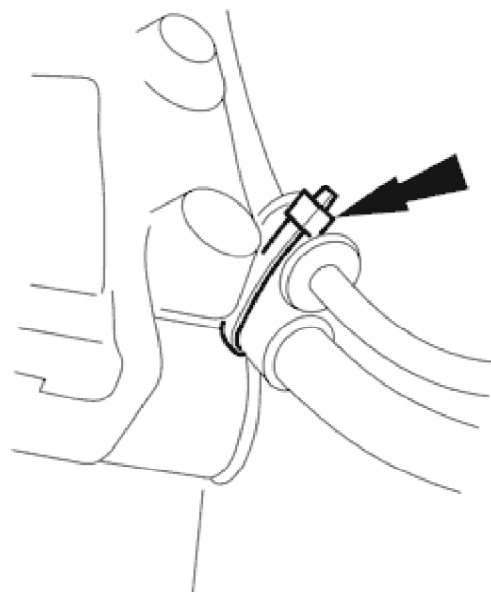
- 10. Slacken but do not remove hub to axle shaft securing nut.
- 11. Remove securing nuts and withdraw special tool (204-195) from hub.
- 12. Remove rear brake disc. Refer to 70.10.13.
- 13. Remove parking brake shoes. Refer to <<70.40.05>>.



E35216

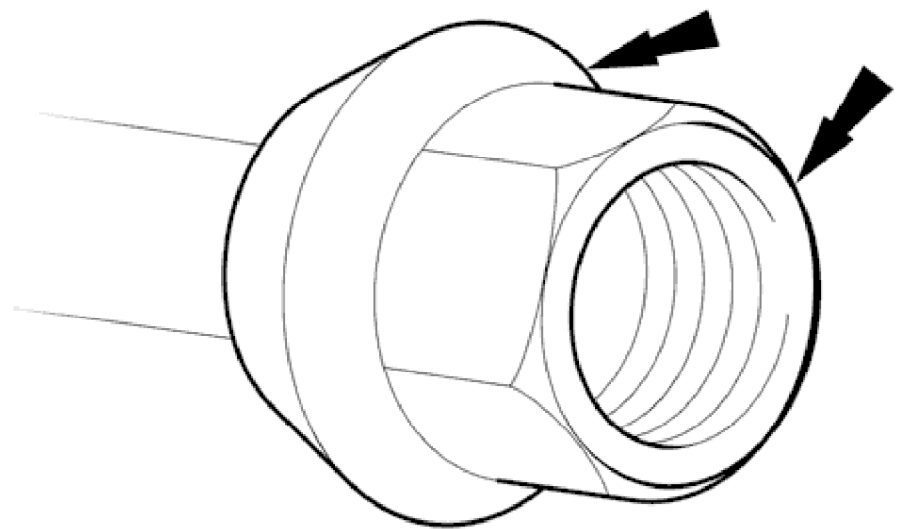
- 14. Remove wheel speed sensor.
 - Disconnect wheel speed sensor harness from sensor
 - Remove wheel speed sensor securing bolt and withdraw sensor from hub carrier.

2003 XJ RANGE - Rear Suspension - 204-02



E35235

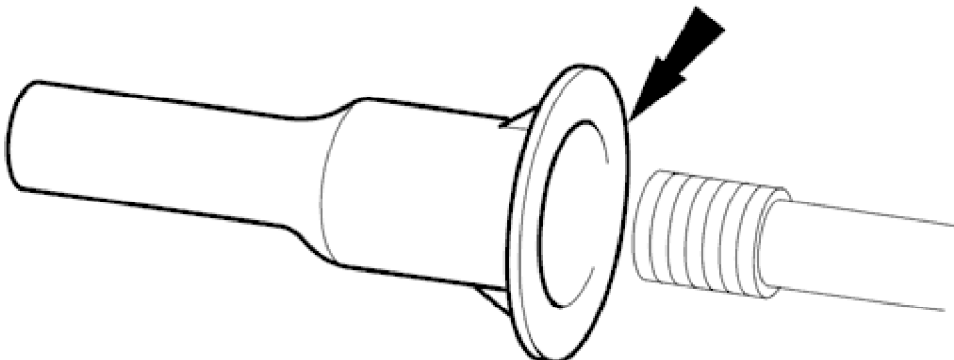
15. Sever and discard wheel speed sensor harness tie strap and position harness for access.



E34972

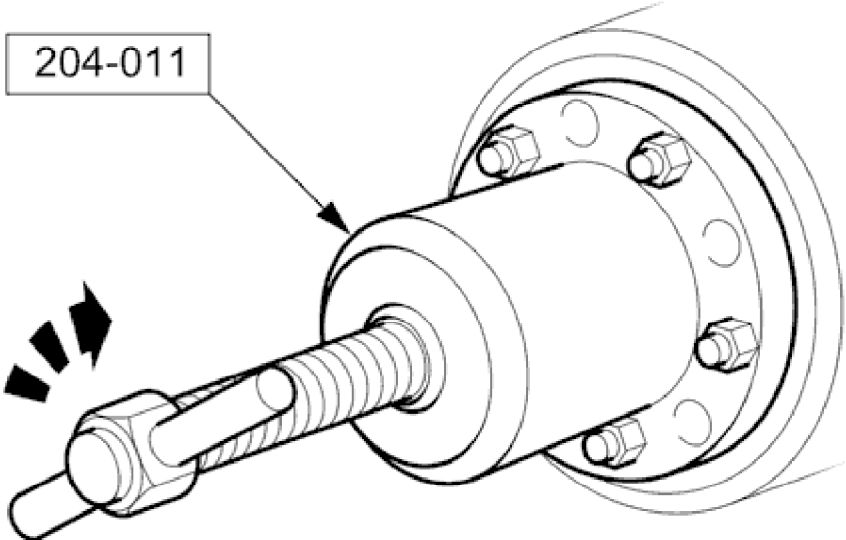
16. Remove hub nut and collar.
- Remove nut.
 - Remove locating collar.

2003 XJ RANGE - Rear Suspension - 204-02



E34973

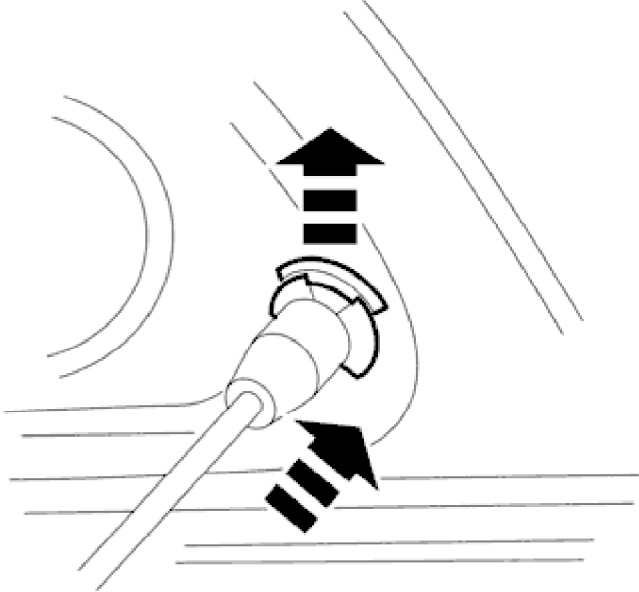
17. Install a thread protector on axle shaft.



E34983

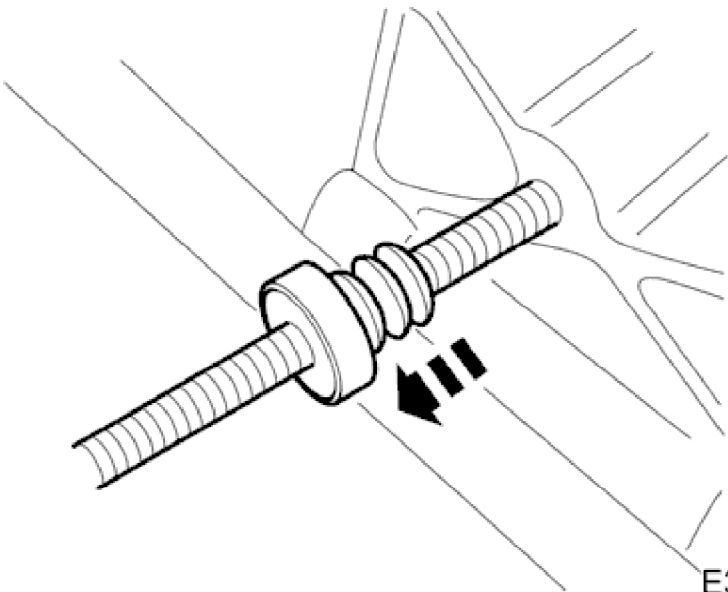
18. Release hub from axle shaft.
- Position hub puller 204-011 on hub studs.
 - Install securing nuts.
 - Progressively tighten puller center bolt to release hub from axle shaft splines.
19. Remove hub puller and thread protector.
- Remove securing nuts and release puller from hub.
 - Remove thread protector from axle shaft.

2003 XJ RANGE - Rear Suspension - 204-02



E34999

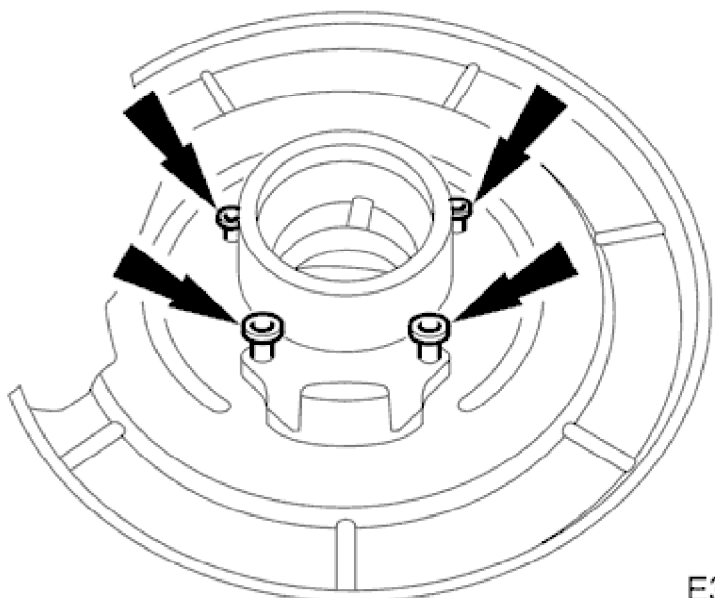
20. Release parking brake cable from suspension mounting bracket.
- Remove cable retaining clip.
 - Draw cable through suspension mounting bracket aperture.



E35000

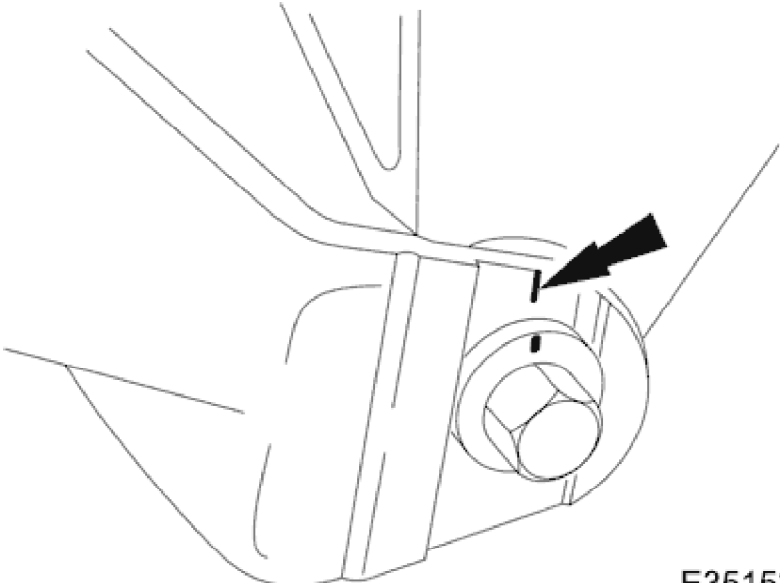
21. Remove parking brake cable to hub carrier grommet.

2003 XJ RANGE - Rear Suspension - 204-02



E35001

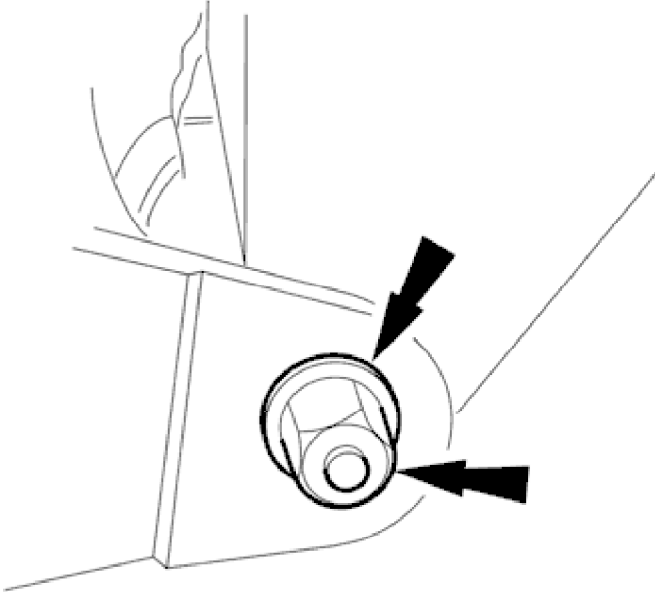
22. Remove back plate.
- Remove two bolts and two screws securing back plate to hub carrier.
 - Withdraw back plate complete with parking brake cable.



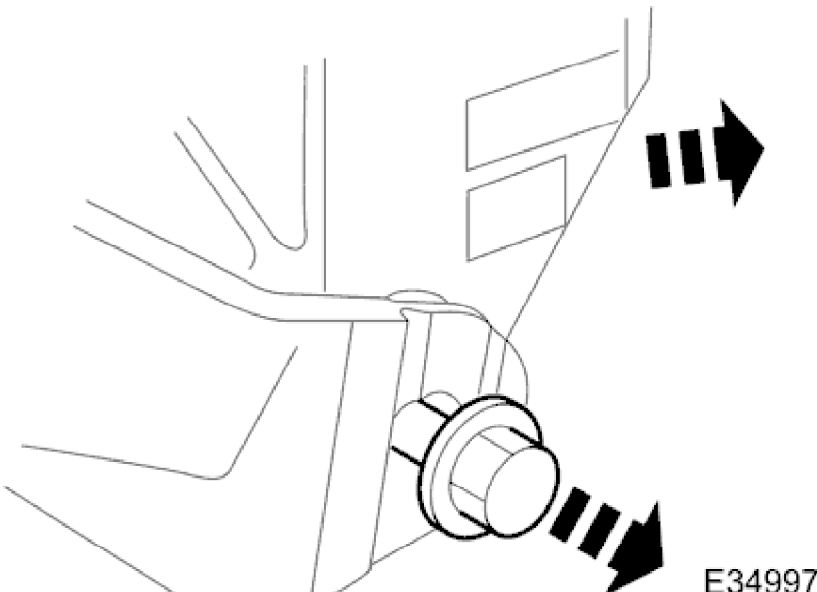
E35153

23. Mark wishbone at pivot pin eccentric flange marker to aid installation.

2003 XJ RANGE - Rear Suspension - 204-02

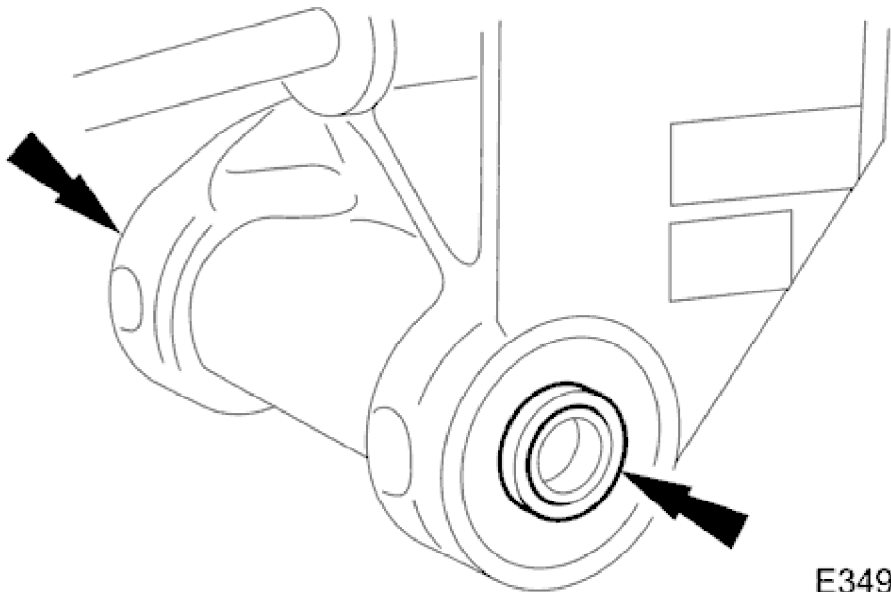


24. Remove nut and washer from pivot pin.




25. Remove hub and carrier from wishbone and axle shaft.
• Withdraw pivot pin and remove hub and carrier assembly.

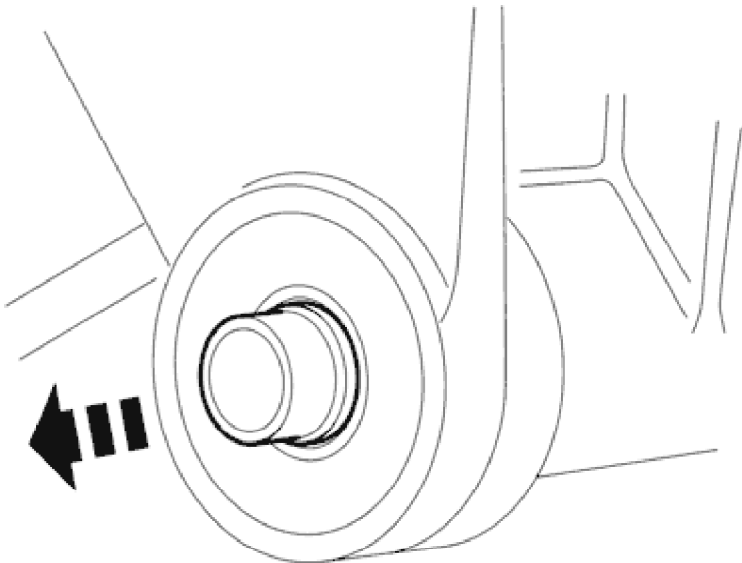
2003 XJ RANGE - Rear Suspension - 204-02



E34978

26.  **CAUTION:**
Note position of shims during removal. They must be returned to their original positions during installation.

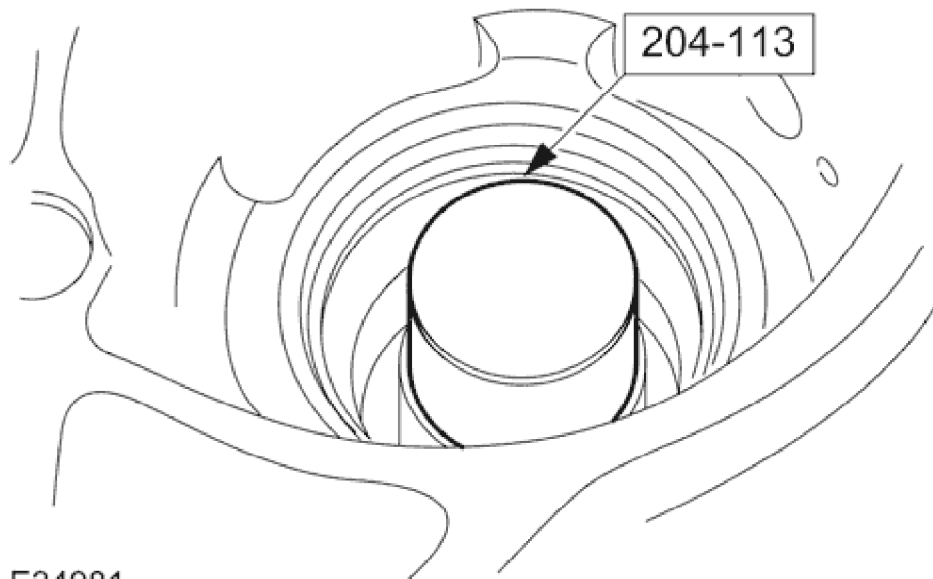
Noting positions, remove shim from each end of pivot pin sleeve.



E34996

27. Withdraw pivot pin sleeve from hub carrier.

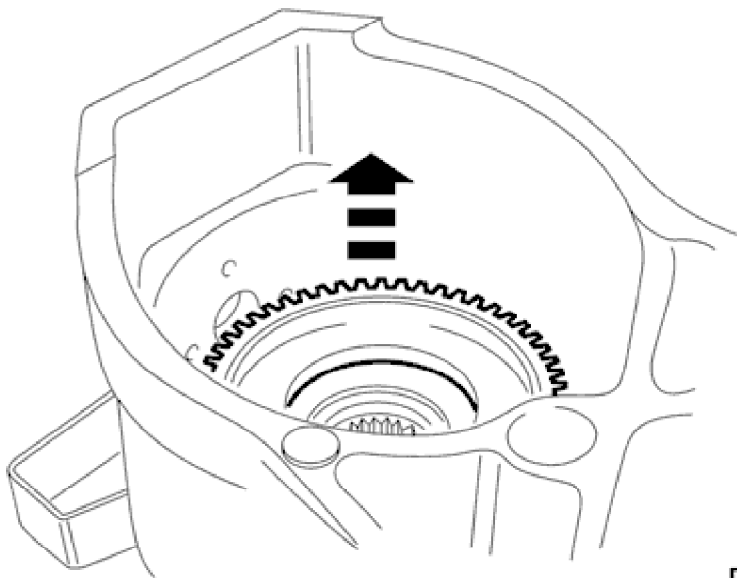
2003 XJ RANGE - Rear Suspension - 204-02



E34981

28. Using a hydraulic press, remove hub from carrier.
- Place large section of special tool 204-113 on press bed, with recess in tool uppermost.
 - Position hub carrier on tool, ensuring handbrake cable housing locates in tool recess.
 - Position small section of special tool on hub. 204-113.
 - Align tool to press-ram, and operate press to remove hub from hub carrier.

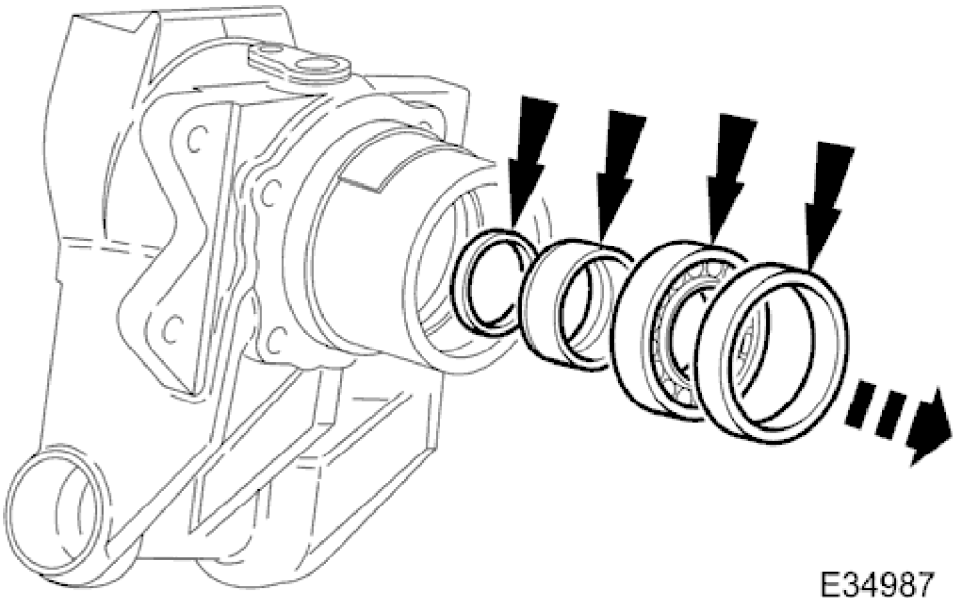
29. Place hub carrier on a work bench.



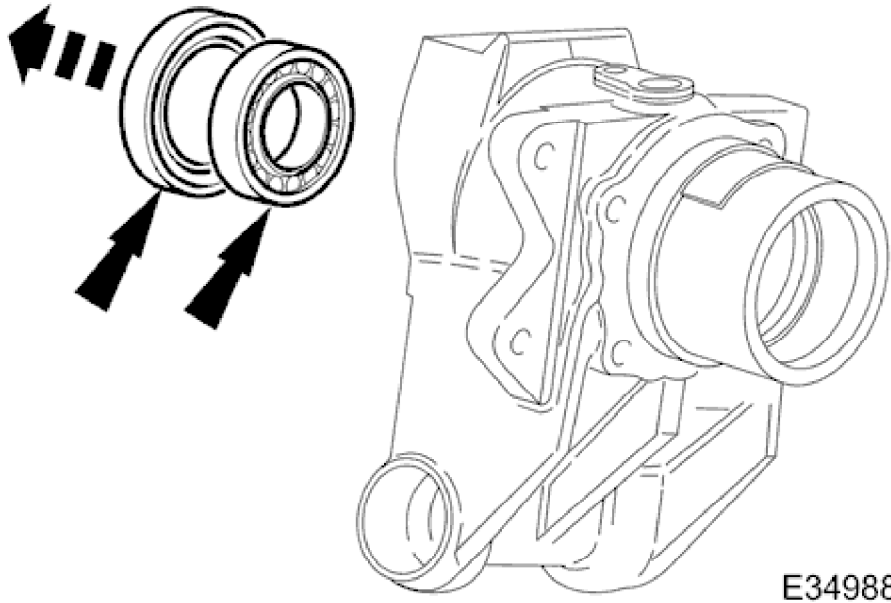
E34979

30. Withdraw ABS rotor from hub carrier.

2003 XJ RANGE - Rear Suspension - 204-02

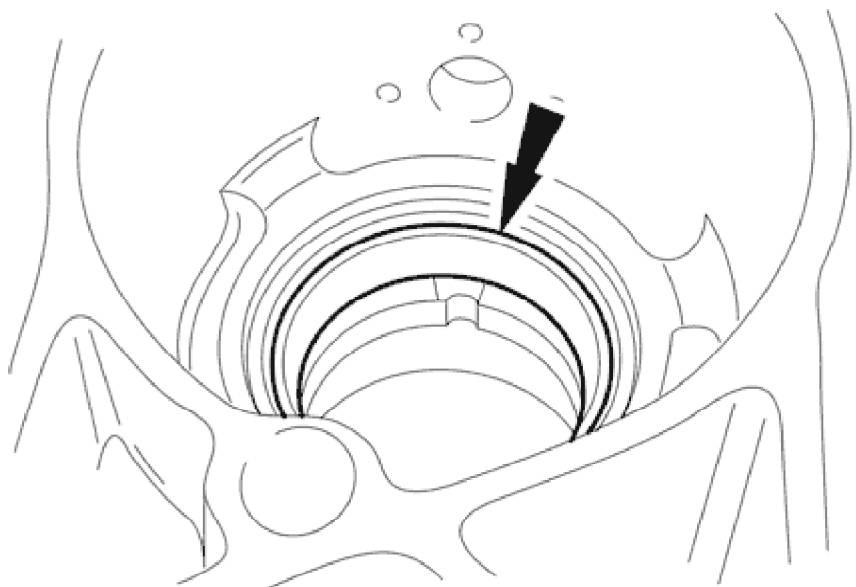


31. Remove outer seal and bearing assembly from hub carrier.
- Using a drift, remove and discard outer seal.
 - Remove and discard outer bearing.
 - Remove bearing spacer.
 - Remove bearing shim.



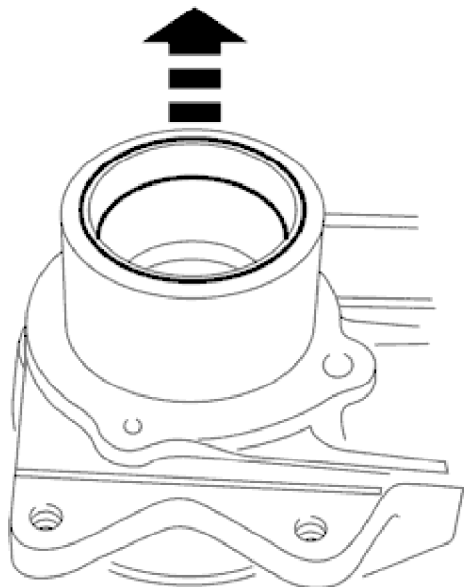
32. Remove inner seal and bearing from hub carrier.
- Using a drift, remove and discard inner seal.
 - Remove and discard inner bearing.

2003 XJ RANGE - Rear Suspension - 204-02



E34982

- 33. Remove inner bearing cup from hub carrier.
 - Position hub carrier on a block of wood.
 - Using a drift, remove and discard inner bearing cup.



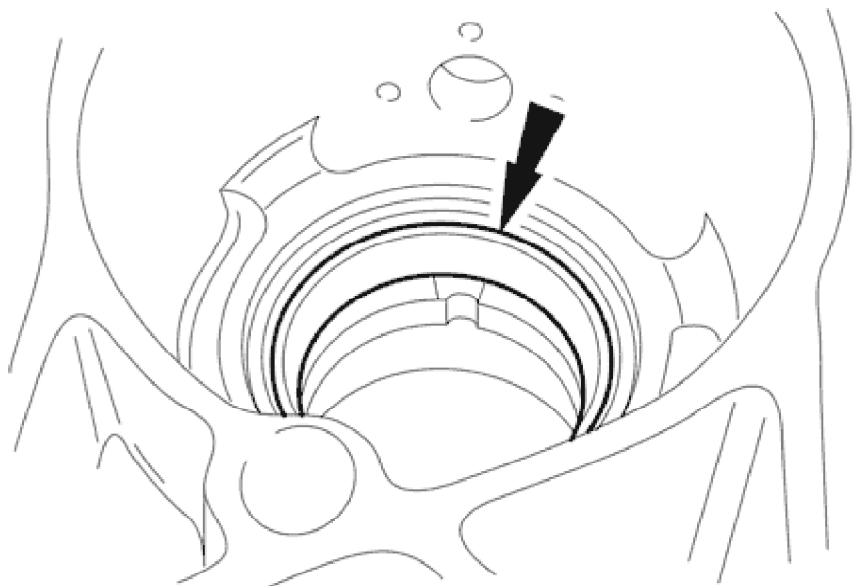
E34995

- 34. Remove outer bearing cup from hub carrier.
 - Position hub carrier on a block of wood.
 - Using a drift, remove and discard outer bearing cup.

35. Clean hub and hub carrier.

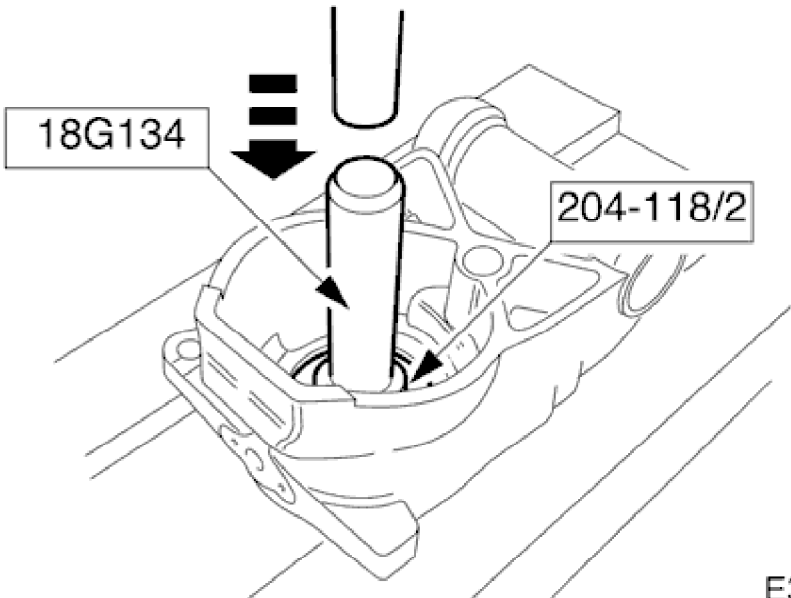
Installation

2003 XJ RANGE - Rear Suspension - 204-02



E34982

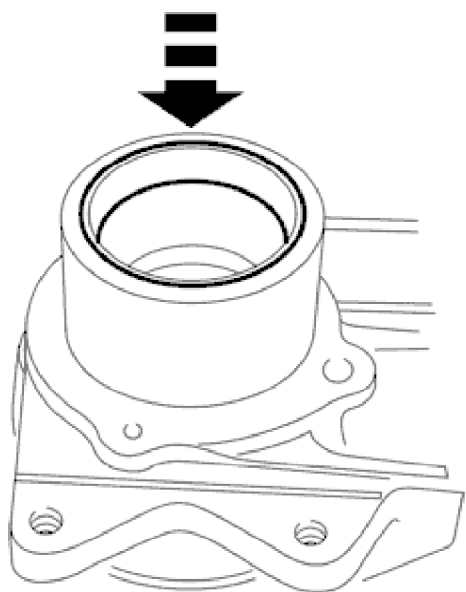
1. Place hub carrier on press bed and insert inner bearing cup.



E35145

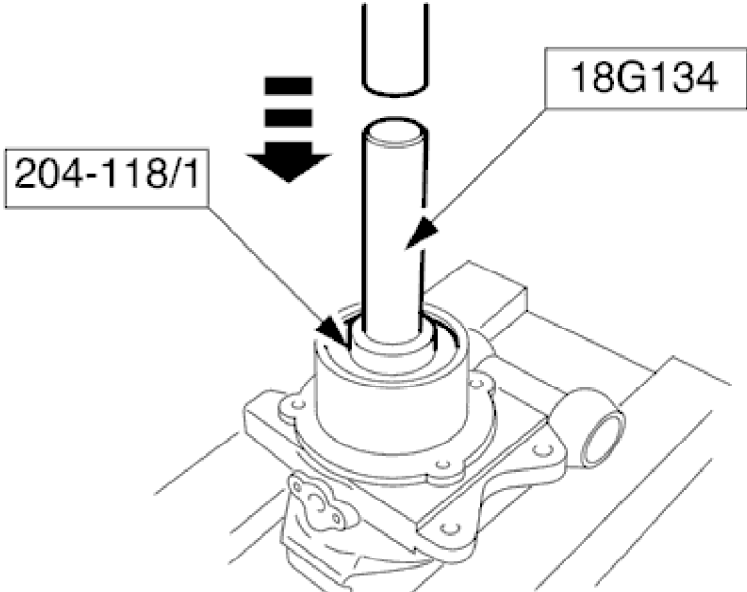
2. Using a hydraulic press, install new inner bearing cup in hub carrier.
- Install special handle 18G134 to tool 204-118/2.
 - Align special tool 204-118/2 to bearing cup.
 - Align assembly to ram, and operate press to fully seat bearing cup.

2003 XJ RANGE - Rear Suspension - 204-02



E35148

3. Place hub carrier on press-bed and insert outer bearing cup.

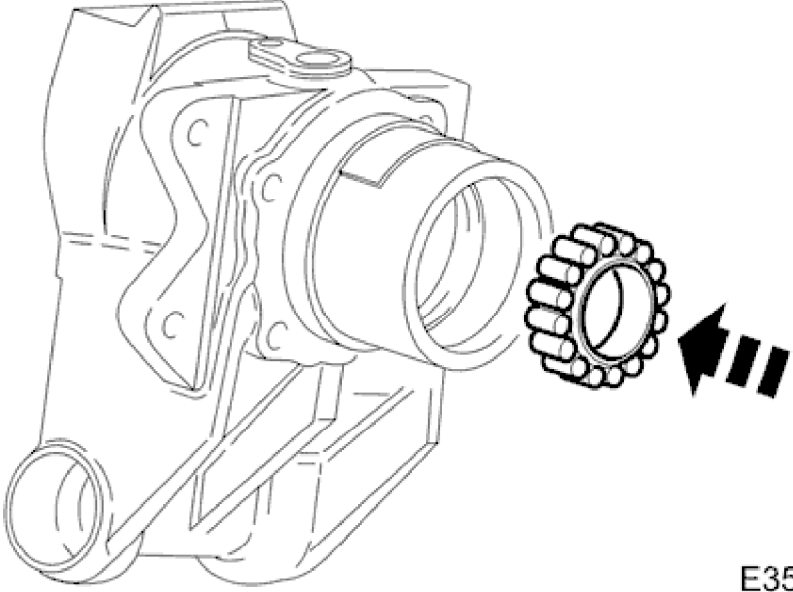


E35146

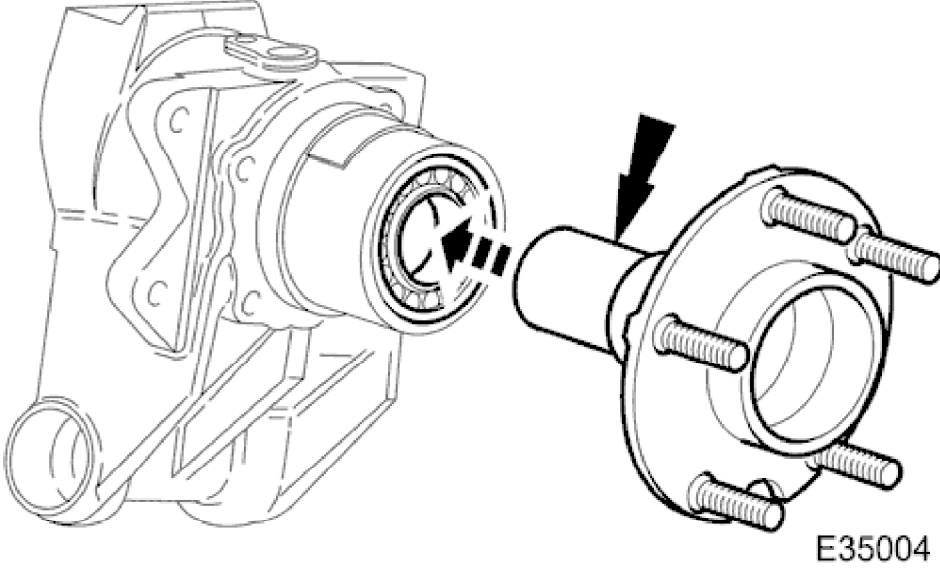
- 4. Using a hydraulic press, install outer bearing cup in hub carrier.
 - 1. Install special handle 18G134 to tool 204-118/1
 - 2. Align special tool 204-118/1 to bearing cup.
 - Align assembly to ram, and operate press to fully seat bearing cup.

- 5. Place hub carrier on a work bench.

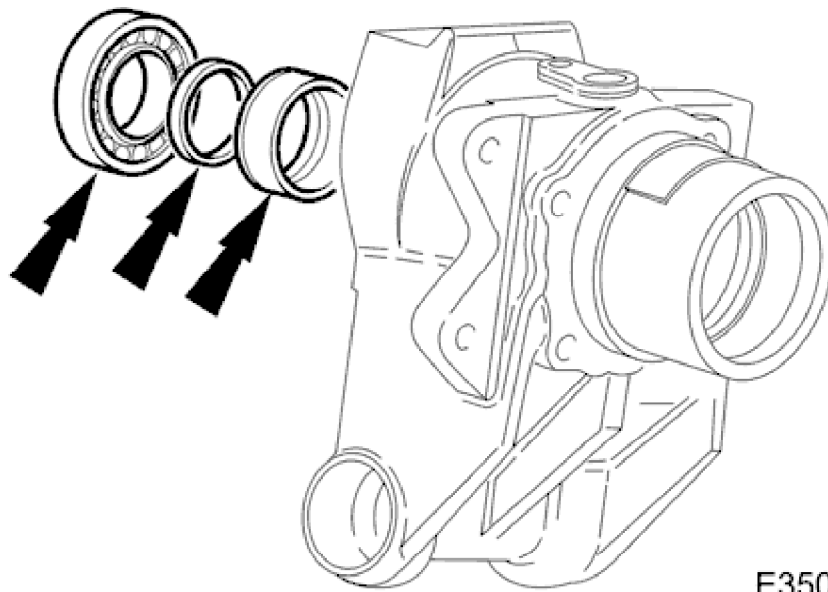
2003 XJ RANGE - Rear Suspension - 204-02



6. Install outer bearing in hub carrier.

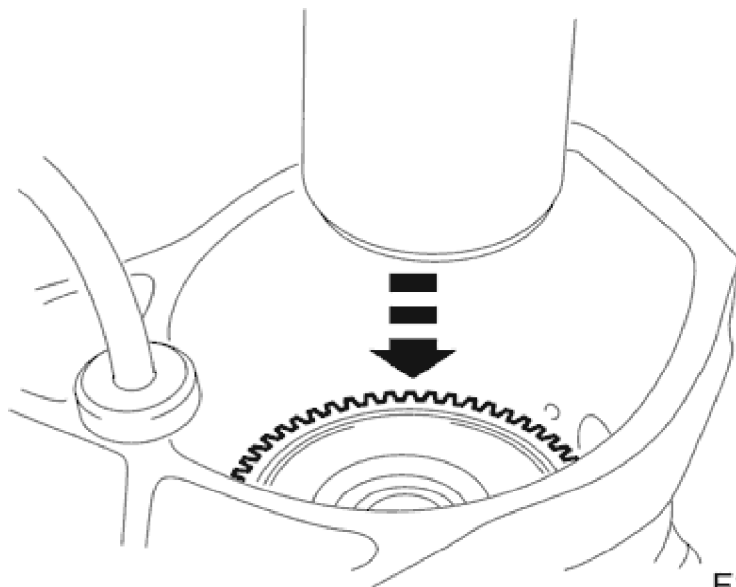


7. Install hub in outer bearing and carrier.




E35014

8. Install inner bearing in hub carrier.
1. Install bearing spacer to hub.
 2. Install a 3.47 mm (maximum thickness) shim on hub.
 3. Install inner bearing in hub carrier.



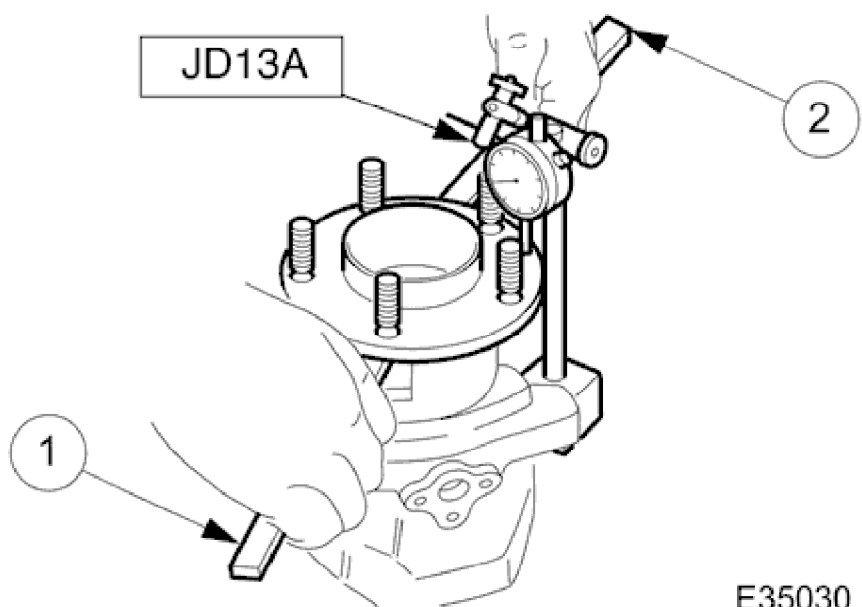
E34984

9.  **CAUTION:**
Do not allow press load to be directed on to hub studs.


Using a hydraulic press, install ABS-sensor rotor to hub.

- Place block of wood on press-bed.
 1. Position hub carrier on block of wood.
 2. Position ABS-rotor sensor to hub.
- Align assembly to press-ram, and operate press to install ABS-sensor rotor to hub.

2003 XJ RANGE - Rear Suspension - 204-02

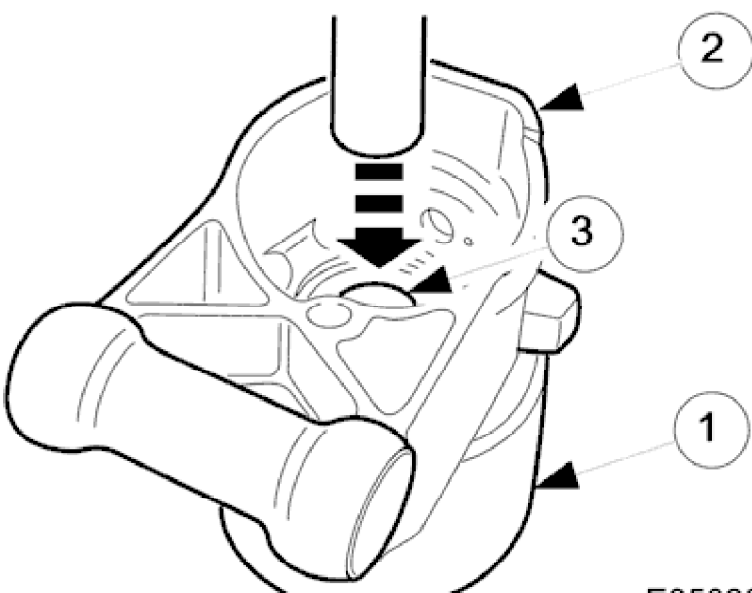


E35030

10.  **CAUTION:**
Do not use excessive force when levering hub.

Measure hub end-float.

- Secure hub carrier in vice.
- Install special tool JD15 to hub.
 1. Install dial gauge JD 13A on hub carrier.
 2. Using two levers, measure and record hub end-float.
- Remove special tools from hub carrier.

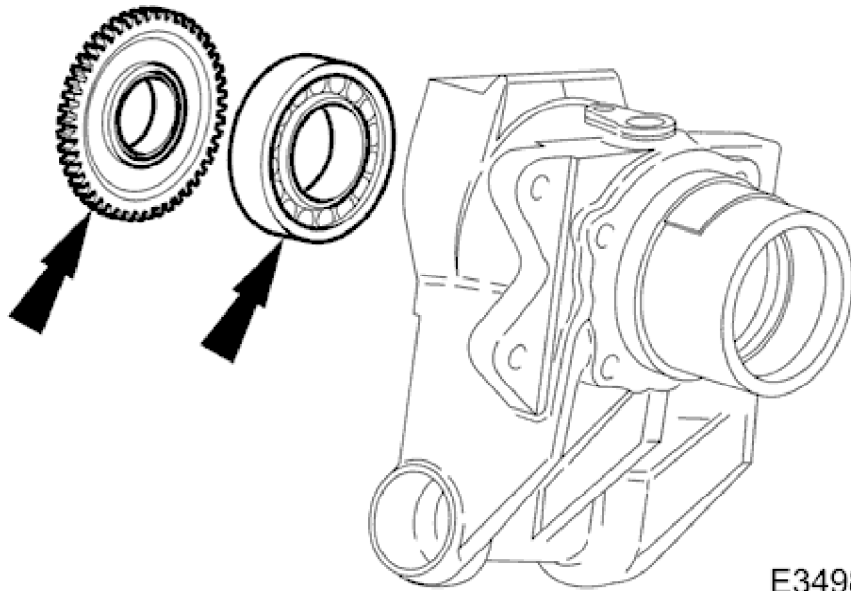


E35028

11. Using hydraulic press, remove hub and outer bearing assembly from carrier.
1. Position large section of special tool JD132 on press bed, with recess in tool upper most.

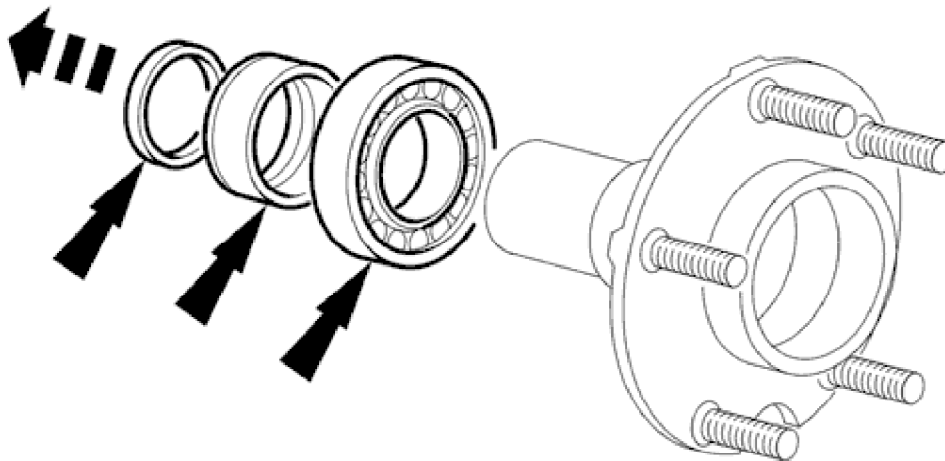
2003 XJ RANGE - Rear Suspension - 204-02

2. Position hub carrier on tool, ensuring parking brake cable housing locates in tool recess.
 3. Position small section of special tool JD132 on hub.
- Align assembly to press-ram, and operate press to remove hub from hub carrier.



E34989

12. Remove ABS rotor and inner bearing from hub carrier.
- Remove ABS rotor.
 - Remove inner bearing.

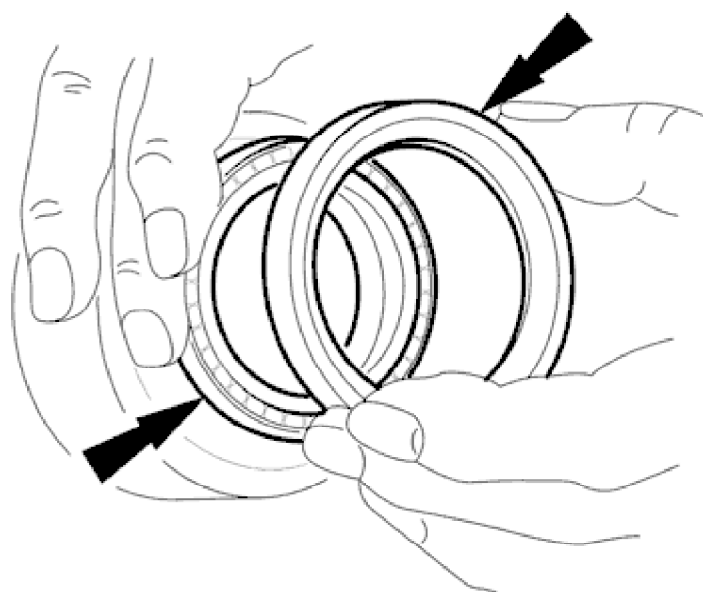


E34990

13. Remove outer bearing assembly from hub.
- Remove bearing shim.
 - Remove bearing spacer.
 - Remove outer bearing.

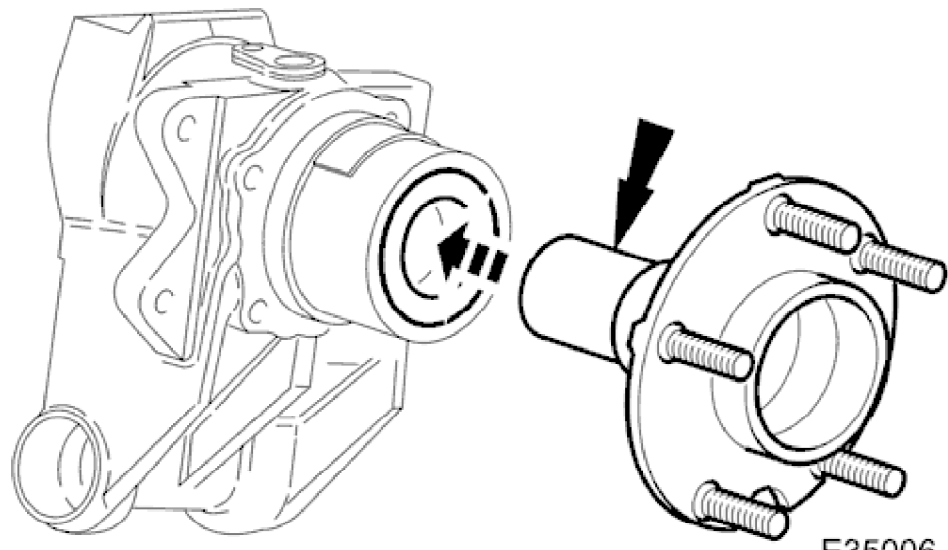
14. Pack new inner and outer bearings with Shell Retinax 'A' grease.

2003 XJ RANGE - Rear Suspension - 204-02



E34980

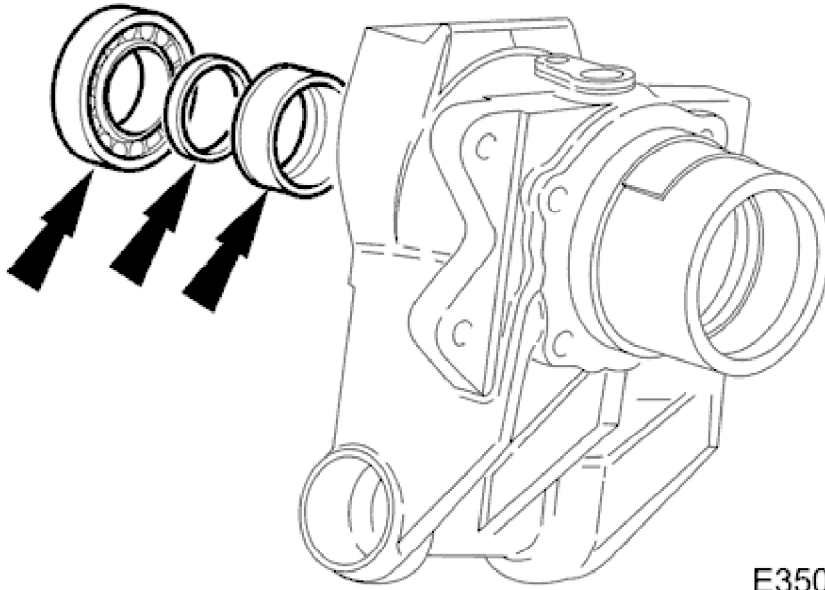
15. Install outer bearing and using special tool 205-234, fully seat seal in hub carrier.



E35006

16. Using a press, install hub in carrier/bearing assembly.

2003 XJ RANGE - Rear Suspension - 204-02



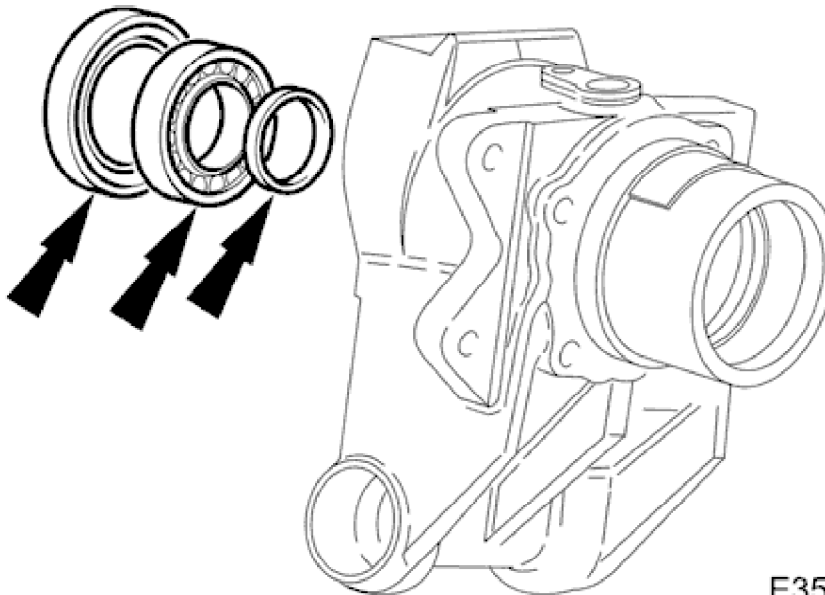
E35014

17. Install inner bearing assembly.

1. Install bearing spacer.
2. Install bearing shim.
3. Install inner bearing.

18. Determine hub end float.

- Measure and record end-float as a datum.
- Calculating from datum, select a shim that will achieve a 0.076 mm end-float.



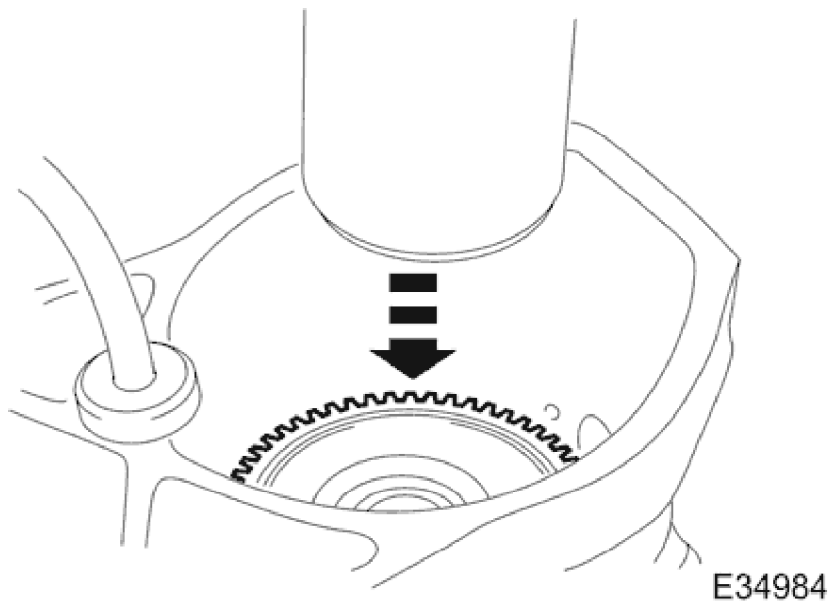
E35015


19. Install new bearing shim.

1. Install selected shim.
2. Install inner bearing.
3. Using special tool 205-234, install inner bearing seal.

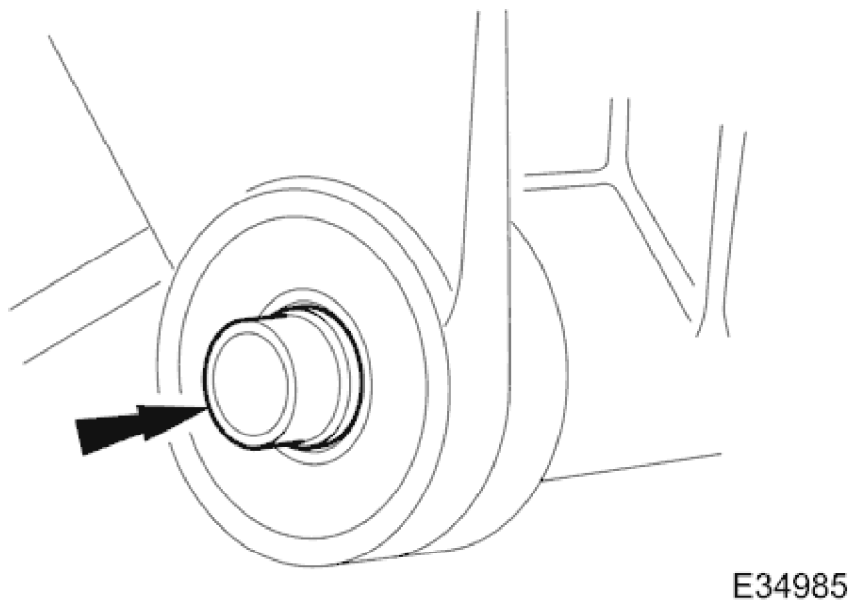
2003 XJ RANGE - Rear Suspension - 204-02

20. Place block of wood on hydraulic press-bed and position hub carrier on block.



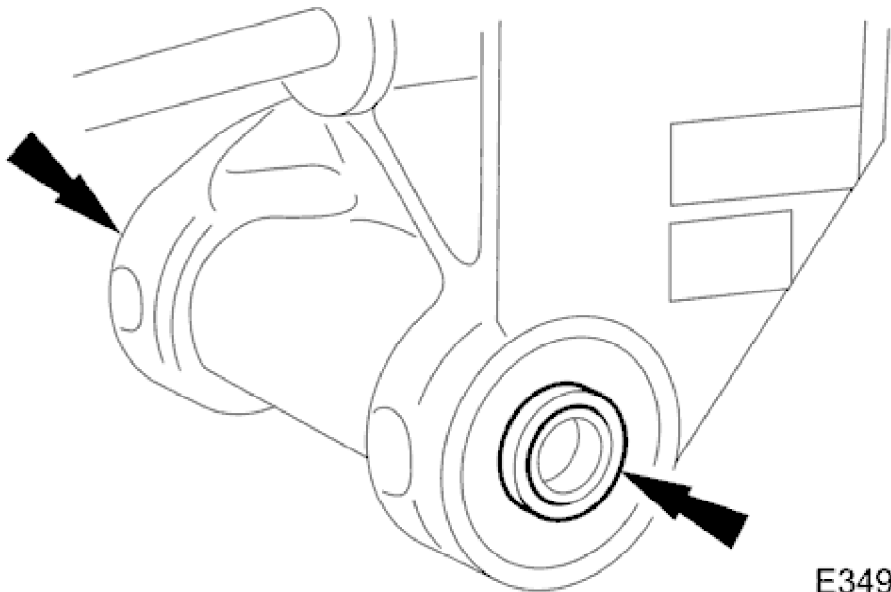
21.  **CAUTION:**
Do not allow press load to be directed on to hub studs.

Align ABS rotor to hub and operate press to fully seat rotor on hub.



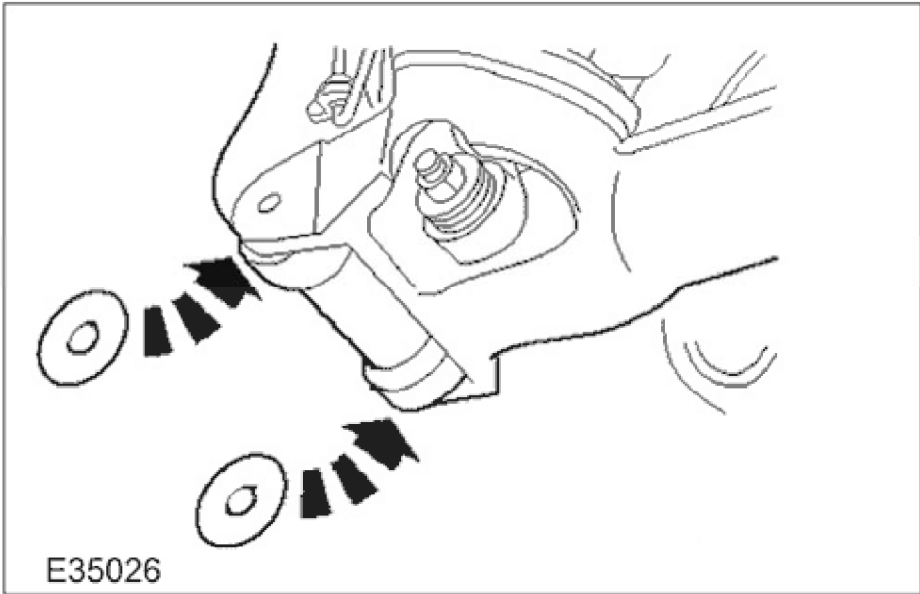
22. Install pivot pin sleeve in carrier bearings.

2003 XJ RANGE - Rear Suspension - 204-02



E34978

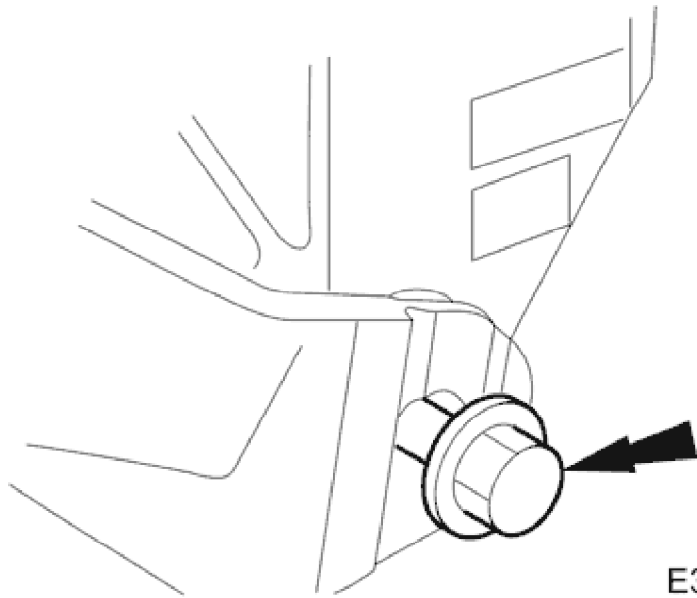
23. Install shims on pivot pin sleeve in positions noted during removal.



E35026

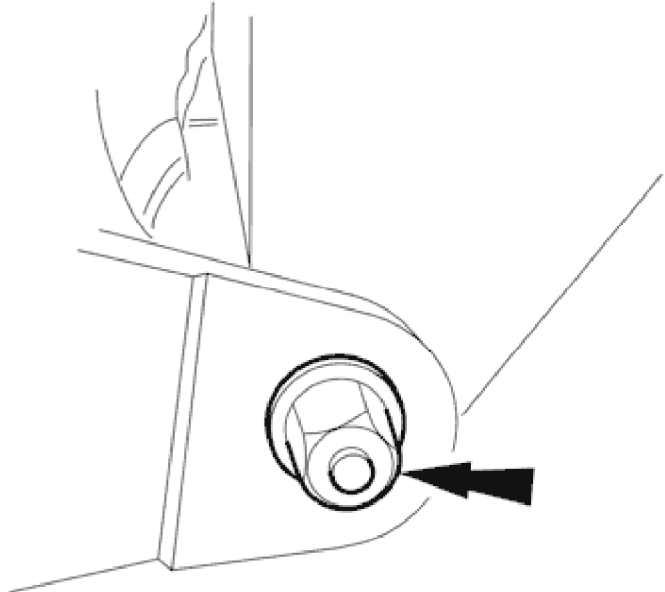
24. Position hub carrier assembly on wishbone.
1. Ensuring shims remain positioned on sleeve, position hub carrier assembly on wishbone.

2003 XJ RANGE - Rear Suspension - 204-02



E34977

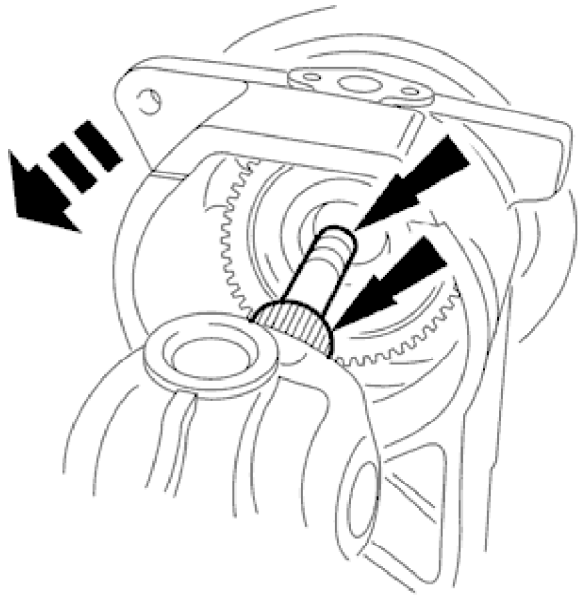
25. Install hub assembly to wishbone and axle assembly.
- Position hub and carrier to wishbone and axle shaft.
 - Install pivot pin ensuring that eccentric flange correctly seats in wishbone groove.



E34976

26. Install washer and nut on pivot pin, but **DO NOT** tighten nut.

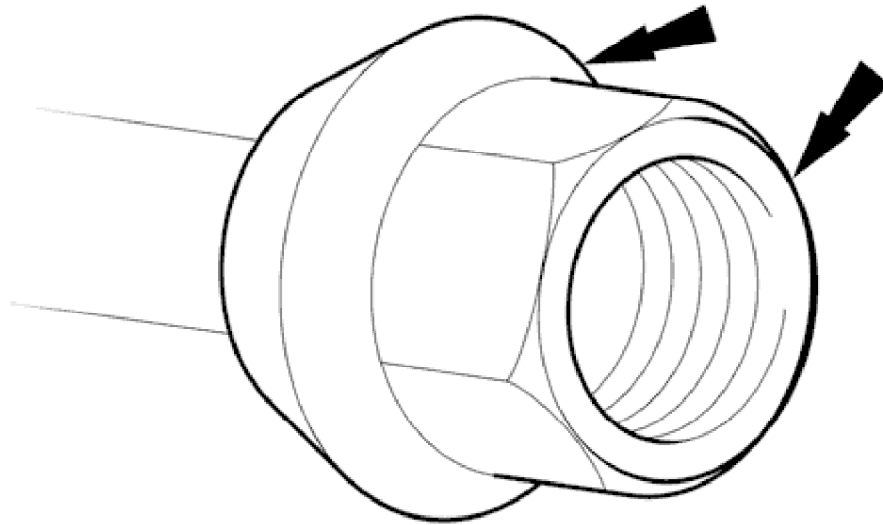
2003 XJ RANGE - Rear Suspension - 204-02



E34986

27. Install hub on axle shaft .

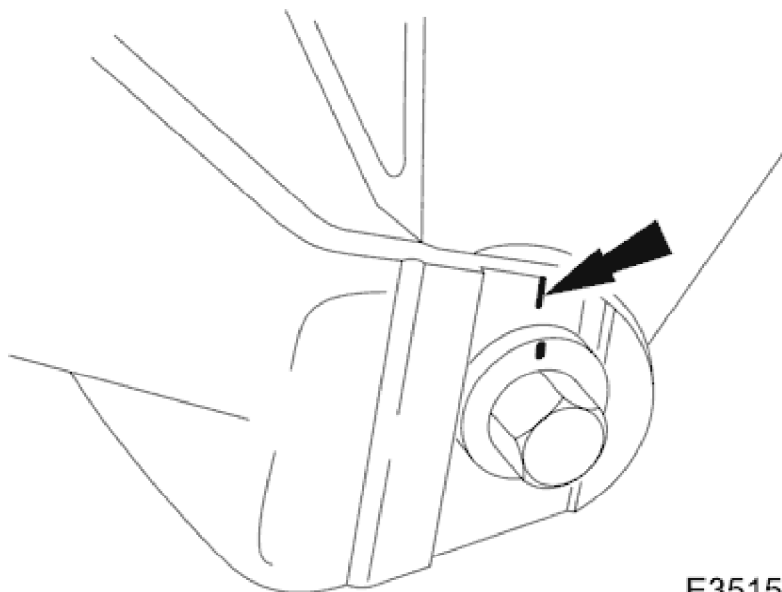
- Route parking brake cable through hub carrier aperture and install grommet.
- Apply Loctite 270 to axle shaft splines and thread, and fully seat hub on shaft.



E34972

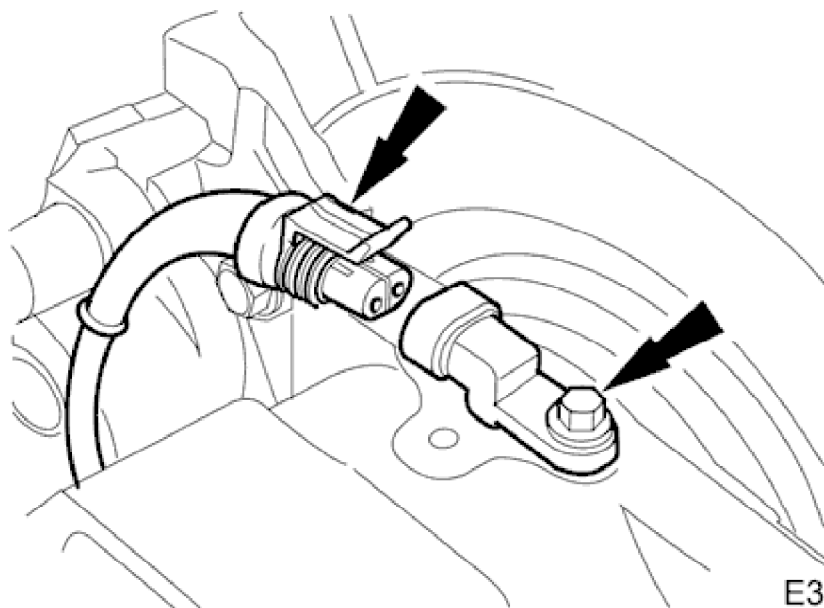
28. Install locating collar and hub nut on axle shaft, but **DO NOT** tighten hub nut.

2003 XJ RANGE - Rear Suspension - 204-02



E35153

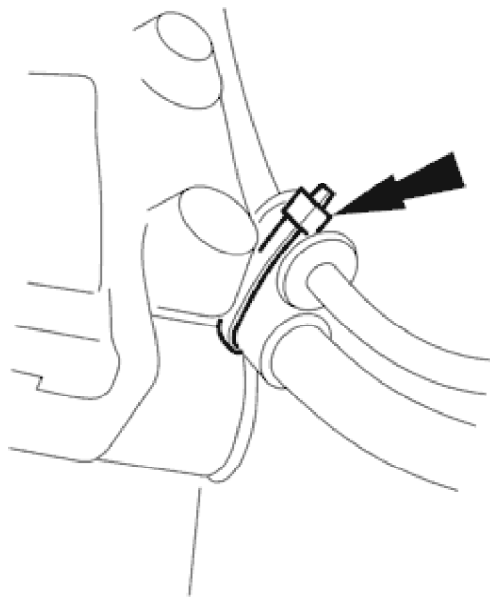
29. Tighten pivot pin nut.
- Align marker on pivot pin flange with mark made on wishbone.
 - Ensuring pin position is not disturbed, tighten nut to 88-118Nm.



E35216

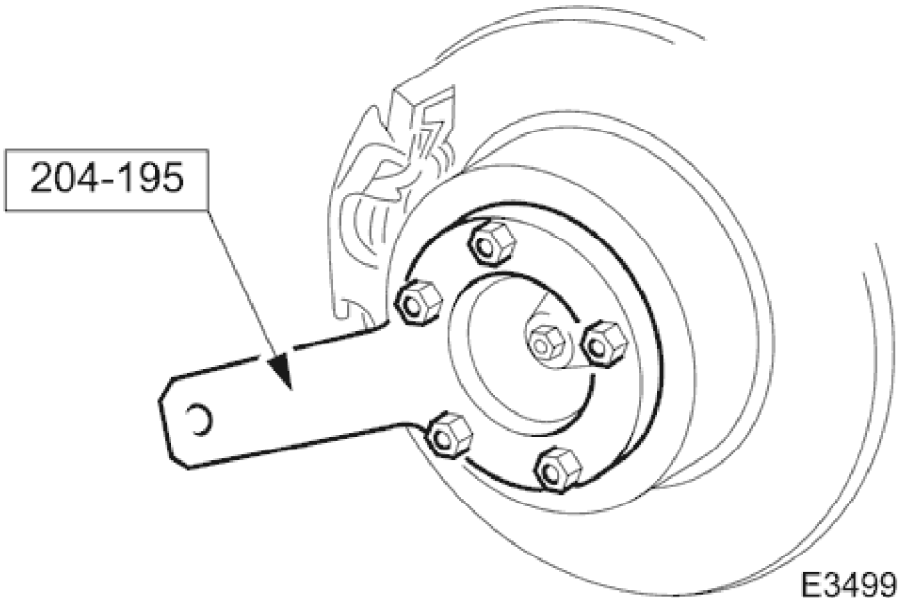
30. Install wheel speed sensor on hub carrier.
- Position sensor on hub carrier and install and tighten bolt to 7-10Nm.
 - Connect wheel speed sensor harness to sensor.

2003 XJ RANGE - Rear Suspension - 204-02



E35235

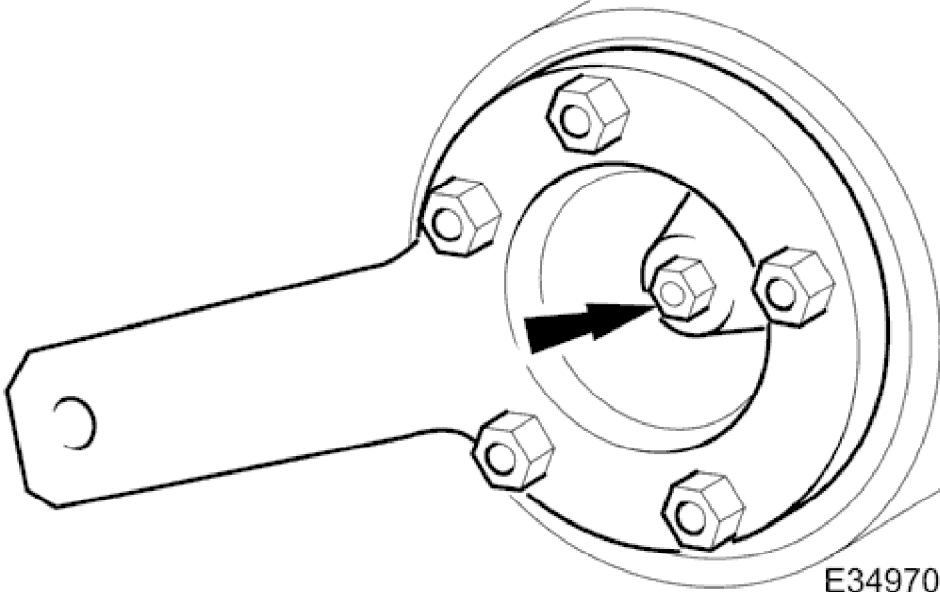
- 31. Using new tie strap, secure wheel speed sensor harness to hub carrier.
- 32. Install handbrake shoes. Refer to operation <<70.40.05>>.
- 33. Install brake disc. Refer to operation 70.10.13.



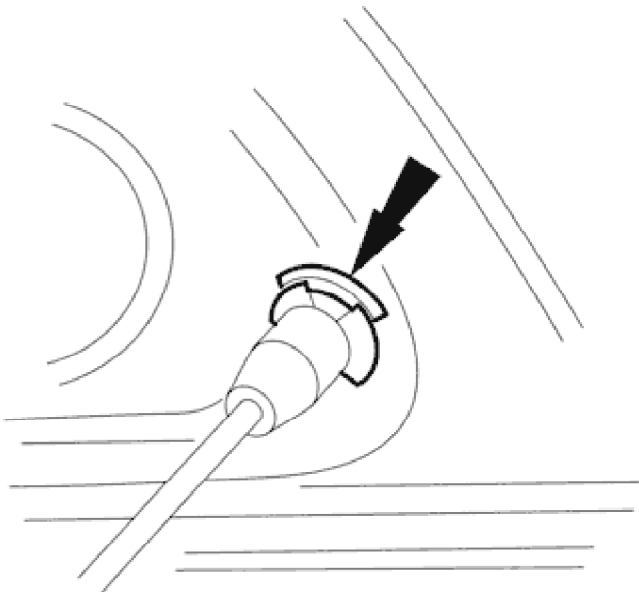
E34991

- 34. Position special tool 204-195 on hub studs and install securing nuts.

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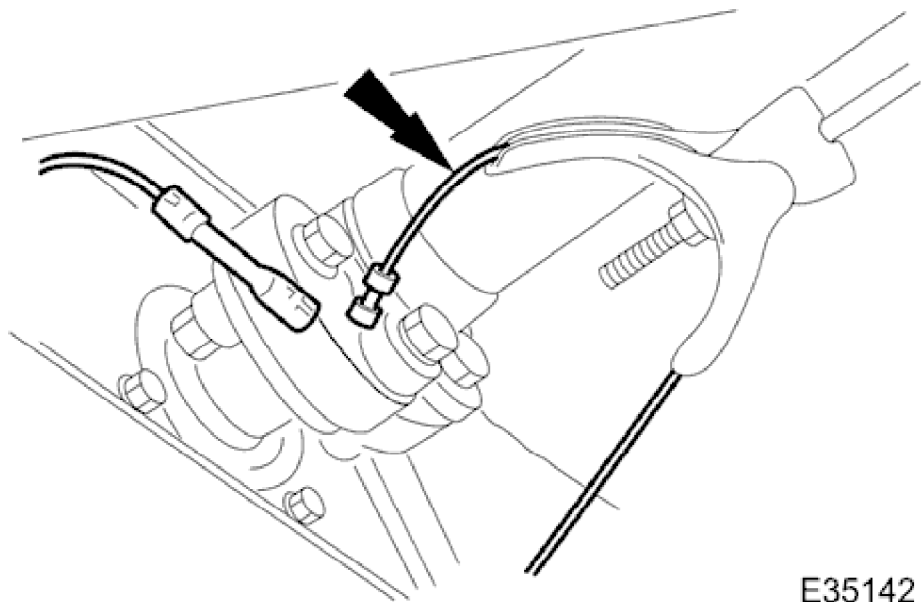


- 35. Tighten hub nut to 304-336Nm.
- 36. Remove securing nuts and withdraw special tool 204-195 from hub.
- 37. Install rear wheel. Refer to Section <<204-04>>.
- 38. Remove stands and lower vehicle onto wheels. Refer to section <<100-02>>.
- 39. Raise vehicle on four-post lift.



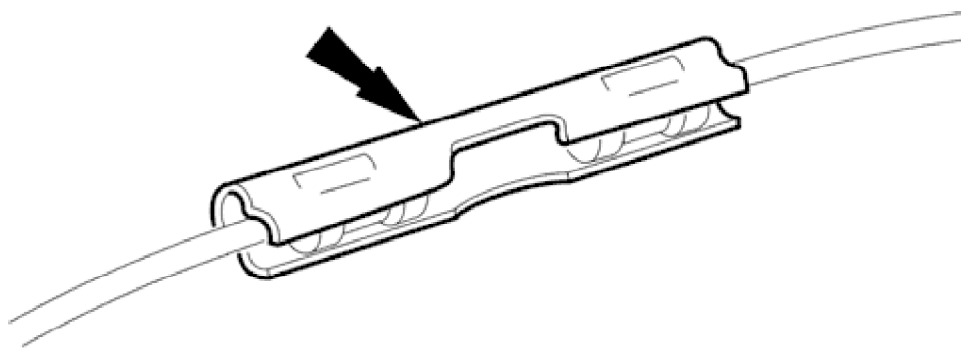
- 40. Route parking brake cable through suspension mounting bracket and secure with clip.

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E35142

41. Route parking brake LH cable through equalizer.



E34975

42. Install LH cable in connecting clip.

43. Adjust parking brake cable. Refer to <<70.35.10>>.

44. Lower four-post lift

45. Apply parking brake.

46. Carry out rear wheel alignment check and adjust as necessary. Refer to data in Specification section.