

Rear Suspension -

Coil Spring Suspension

Item	Specification
Road spring color coding - 5 Seat Model:	BROWN/WHITE BROWN/GREEN BROWN/ORANGE BROWN
Road spring color coding - 7 Seat Model:	RED/WHITE RED/GREEN RED/ORANGE RED

Note: The first color indicates the fitted position of the spring on the vehicle i.e. rear. The secondary color identifies the thickness of the isolator which is fitted to a particular spring to ensure that the vehicle ride height is maintained within specified limits. Replacement springs will be supplied with the appropriate isolator fitted.

General Specifications

Item	Specification
Gap between underside of the toe link rubber boot and the integrated body frame bracket	10.0 mm (0.394 in)
Height between the center of the halfshaft end and the edge of the fender trim	485 mm (19.10 in)

Torque Specifications

Description	Nm	lb-ft
Toe link bolt	175	129
* Toe link inner ball joint retaining nut	133	98
* Stabilizer bar link nuts	115	85
Stabilizer bar clamp bolts	62	46
Body mount retaining bolts	133	83
Shock absorber to the lower suspension arm nut and bolt	300	221
Shock absorber to suspension turret nuts	70	52
Lower arm to wheel knuckle bolt	175	129
Lower arm bolts	275	203
*+ Halfshaft retaining nut	350	258
Upper arm to wheel knuckle nut	133	98
Upper arm front bolt	175	129
Upper arm rear bolt	275	203
Brake tube unions	18	13
Rear camber adjusting bolts	133	98
Wheel speed sensor	9	7
Brake disc dust shield bolts	9	7
Parking brake cable coupling	8	6
Road wheel nuts	140	103

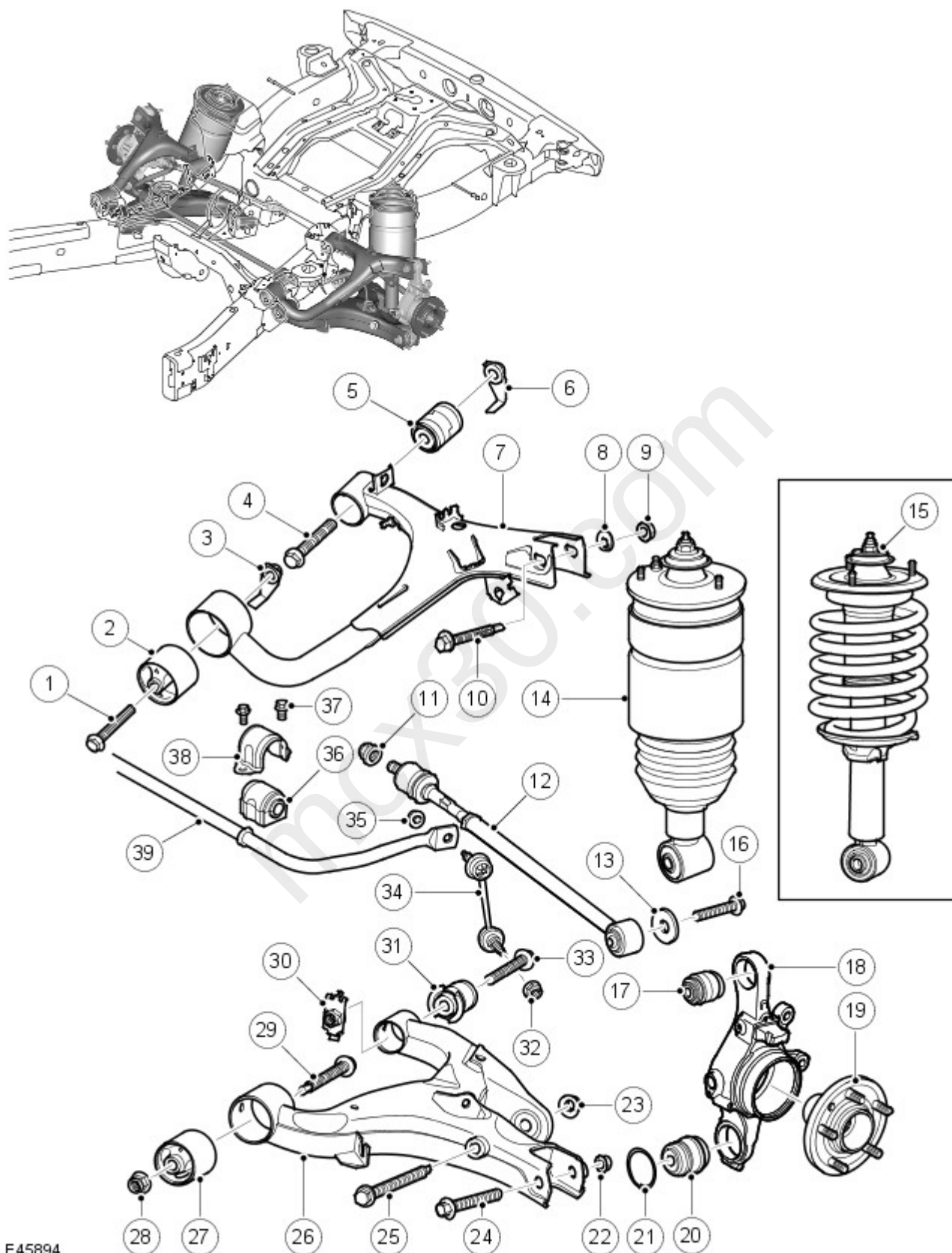
*** New nut must be installed**

+ Nut must be staked after tightening

Rear Suspension - Rear Suspension

Description and Operation

Rear Suspension Component Location



E45894

Item	Part Number	Description
1	-	Bolt (Upper control arm forward bush)
2	-	Bush - Forward (Upper control arm)
3	-	Caged nut (Upper control arm forward bush)
4	-	Bolt (Upper control arm rearward bush)

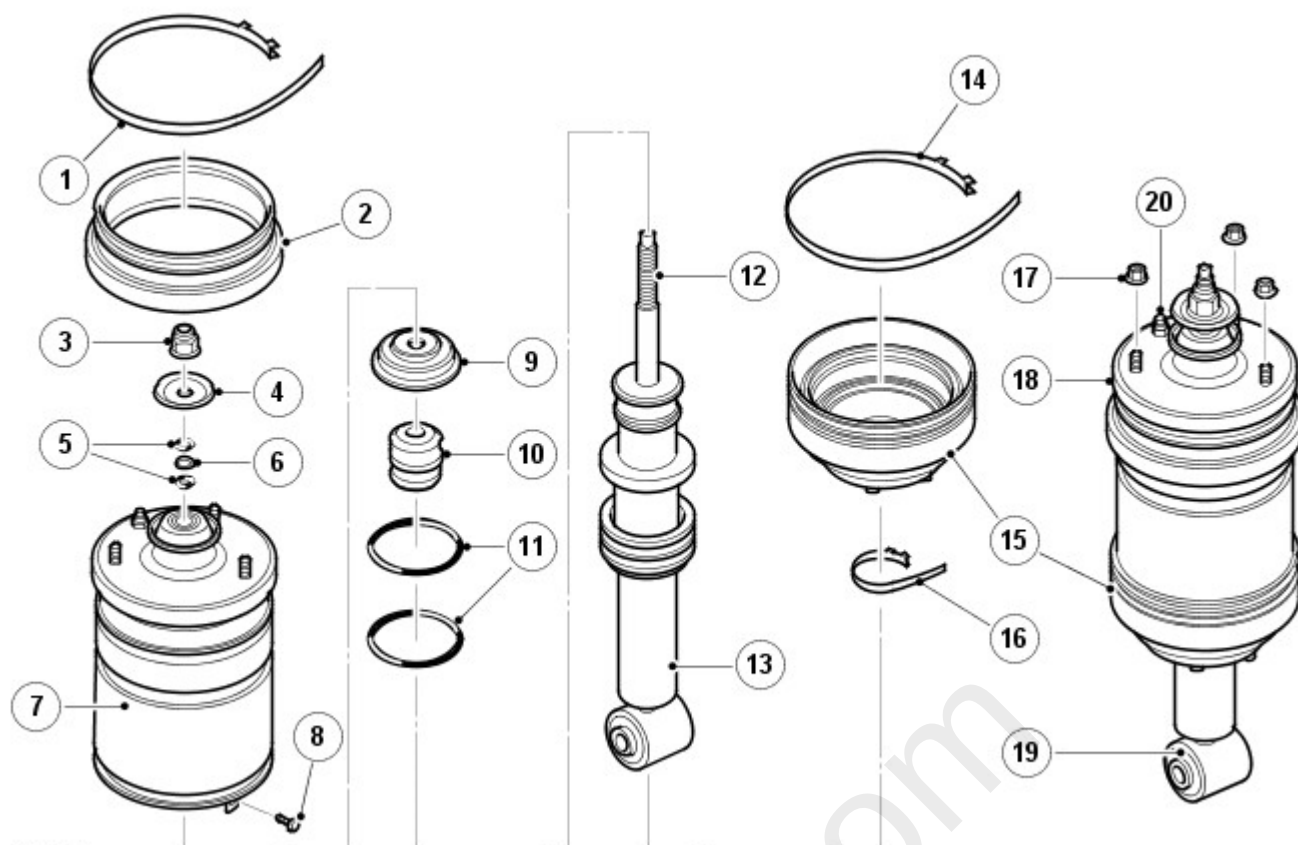
5	-	Bush - Rearward (Upper control arm)
6	-	Caged nut (Upper control arm rearward bush)
7	-	Upper control arm
8	-	Eccentric washer (Wheel knuckle upper ball joint)
9	-	Nut (Wheel knuckle upper ball joint)
10	-	Bolt (Wheel knuckle upper ball joint)
11	-	Special nut (Adjustable transverse toe link)
12	-	Adjustable transverse toe link
13	-	Washer (Adjustable transverse toe link)
14	-	Damper module assembly (Air)
15	-	Damper module assembly (Coil)
16	-	Bolt (Adjustable transverse toe link)
17	-	Ball joint (Wheel knuckle upper)
18	-	Wheel knuckle and bearing assembly
19	-	Wheel hub
20	-	Stake nut
21	-	Circlip
22	-	Wheel bearing
23	-	Ball joint (Wheel knuckle lower)
24	-	Circlip (Wheel knuckle lower ball joint)
25	-	Self-locking nut (Wheel knuckle lower ball joint)
26	-	Self-locking nut (Damper assembly lower attachment)
27	-	Bolt (Wheel knuckle lower ball joint)
28	-	Bolt (Damper assembly lower attachment)
29	-	Lower control arm
30	-	Bumpstop clip
31	-	Self-locking nut (Lower control arm forward bush)
32	-	Bush - Forward (Lower control arm)
33	-	Bolt (Lower control arm forward bush)
34	-	Nut and retainer (Lower control arm rearward bush)
35	-	Self-locking nut (Anti-roll bar link to lower control arm)
36	-	Bolt (Lower control arm rearward bush)
37	-	Bush - Rearward (Lower control arm)
38	-	Anti-roll bar link
39	-	Self-locking nut (Anti-roll bar link to anti-roll bar)
40	-	Anti-roll bar bush
41	-	Bolt (Anti-roll bar bracket)
42	-	Anti-roll bar
43	-	Anti-roll bar bracket
44	-	Bumpstop clip

GENERAL

The independent rear suspension offers a reduction in unsprung weight over the beam axle design fitted to previous Land Rover models. The rear suspension comprises an upper control arm, a lower control arm, a wheel knuckle and wheel hub, two spring damper modules and an anti-roll bar and links assembly. The damper modules use a similar design of damper which can be fitted with either a coil spring or an air spring.

The rear suspension control arms have been designed to give maximum ground clearance and also allow for the adjustment of the camber using a cam bolt and adjustment of toe and bump steer via an adjustable transverse link.

DAMPER MODULE - AIR SUSPENSION



E45895

Item	Part Number	Description
1	-	Strap*
2	-	Upper gaitor*
3	-	Self-locking nut*
4	-	Rebound washer*
5	-	O-ring - Damper rod*
6	-	Spacer - Damper rod*
7	-	Air spring*
8	-	Retaining pin - Air spring sleeve support*
9	-	Bump washer*
10	-	Spring aid*
11	-	O-ring - Air sleeve support (2 off)*
12	-	Damper rod
13	-	Damper assembly
14	-	Strap*
15	-	Lower gaitor*
16	-	Strap*
17	-	Self-locking nut (3 off)
18	-	Top mount assembly
19	-	Bush
20	-	Voss connector

• NOTE: * Shows service items

The damper module comprises an air spring assembly, top mount and a damper assembly. The damper and air spring are only serviceable as complete assemblies.

Damper

The damper assembly is a twin tube design with the conventional coil spring replaced by the air spring. The lower end of the damper is fitted with a bush and is attached to the lower control arm with a bolt and nut.

The damper functions by restricting the flow of hydraulic fluid through internal galleries within the damper. The damper rod moves axially within the damper, its movement limited by the flow of fluid through the galleries, providing damping of undulations in the terrain. The damper rod is sealed at its exit point from the damper body to maintain the fluid within the unit and to prevent the ingress of dirt and moisture. The seal also incorporates a wiper to keep the rod clean.

Air Spring

The air spring is similar in design to the air spring used on the front suspension.

The air spring comprises an aluminium restraining cylinder, top mount, spring aid, air sleeve and an inner support sleeve.

The air sleeve is made from a flexible rubber material which allows the sleeve to roll up and down the air spring piston as the vehicle changes height. The air sleeve is attached to the restraining cylinder and the support sleeve with crimp rings which provide an air tight seal. The support sleeve contains a seal carrier which has two O-rings sealing the support sleeve

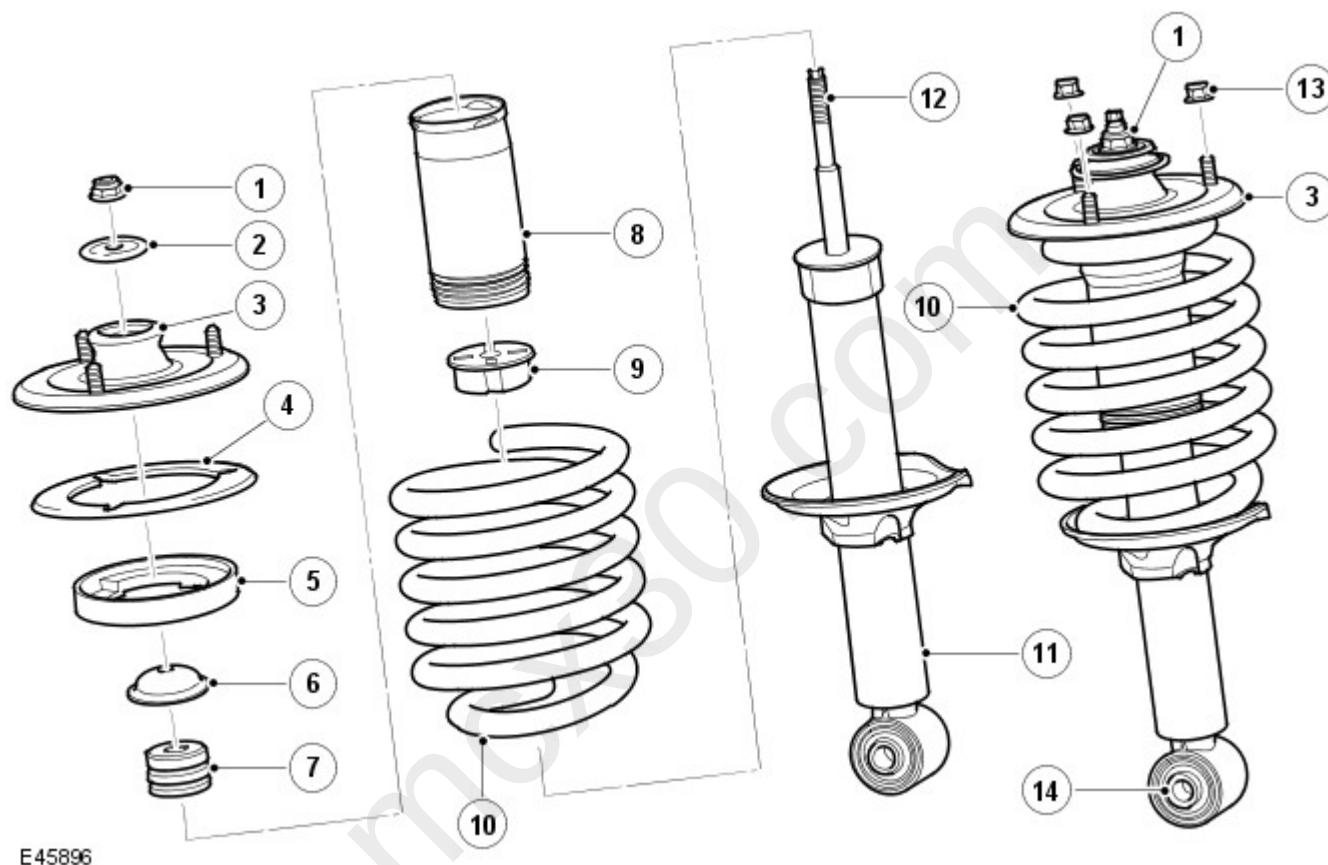
and two O-rings sealing to the damper body. The top of the air sleeve is crimped to the top mount which attaches to a mounting on the chassis with 3 integral studs and self-locking nuts.

A spring aid is fitted to the damper rod and prevents the top mount contacting the top of the damper during full suspension compression and assists the suspension tune. The lower end of the air spring is located over the damper body and seats on a fabricated seat on the damper body. The air sleeve is positively attached to the seat with a retaining pin. The damper rod is located through a central hole in the top mount. The rod is threaded at its outer end and accepts a self-locking nut which secures the air spring to the damper rod.

The top mount is an integral part of the air spring and is fitted with a bush and rebound washer which are located between the top mount plate and the damper rod. A self locking nut secures the damper rod to the top mount. The top mount attaches to a housing on the chassis with 3 integral studs and self-locking nuts. The top mount also incorporates a 6 mm Voss air fitting which allows for the attachment of the air harness.

The air spring is fitted with two gaitors. The upper gaitor is fitted between the top mount and the air spring restraining cylinder. The lower gaitor is secured to the lower end of the restraining cylinder and the damper body with metal straps. The gaitors prevent dirt and debris becoming trapped between the air sleeve and the restraining cylinder.

DAMPER MODULE - COIL SPRING SUSPENSION



Item	Part Number	Description
1	-	Self locking nut
2	-	Rebound washer
3	-	Top mount assembly
4	-	Spring spacer (selective)
5	-	Spring isolator
6	-	Bump washer
7	-	Spring aid
8	-	Dust tube
9	-	Bump cup
10	-	Coil spring
11	-	Damper
12	-	Damper rod
13	-	Self locking nut (3 off)
14	-	Bush

The coil spring damper module comprises a damper, a coil spring and a top mount.

Damper

The damper assembly is a similar design to the front suspension damper, with a twin tube design with an spring seat attached to the damper body. The lower end of the damper is fitted with a bush and is attached to the lower control arm with a bolt and self-locking nut. The damper functions by restricting the flow of hydraulic fluid through internal galleries within the damper.

The damper rod moves axially within the damper, its movement limited by the flow of fluid through the galleries, providing

damping of undulations in the terrain. The damper rod is sealed at its exit point from the damper body to maintain the fluid within the unit and to prevent the ingress of dirt and moisture. The seal also incorporates a wiper to keep the rod clean.

The damper rod is located through a central hole in the top mount. The rod is threaded at its outer end and a self-locking nut secures the top mount to the damper rod.

A spring aid is fitted to the damper rod and prevents the top mount contacting the top of the damper during full suspension compression and assists the suspension tune.

Spring and Top Mount

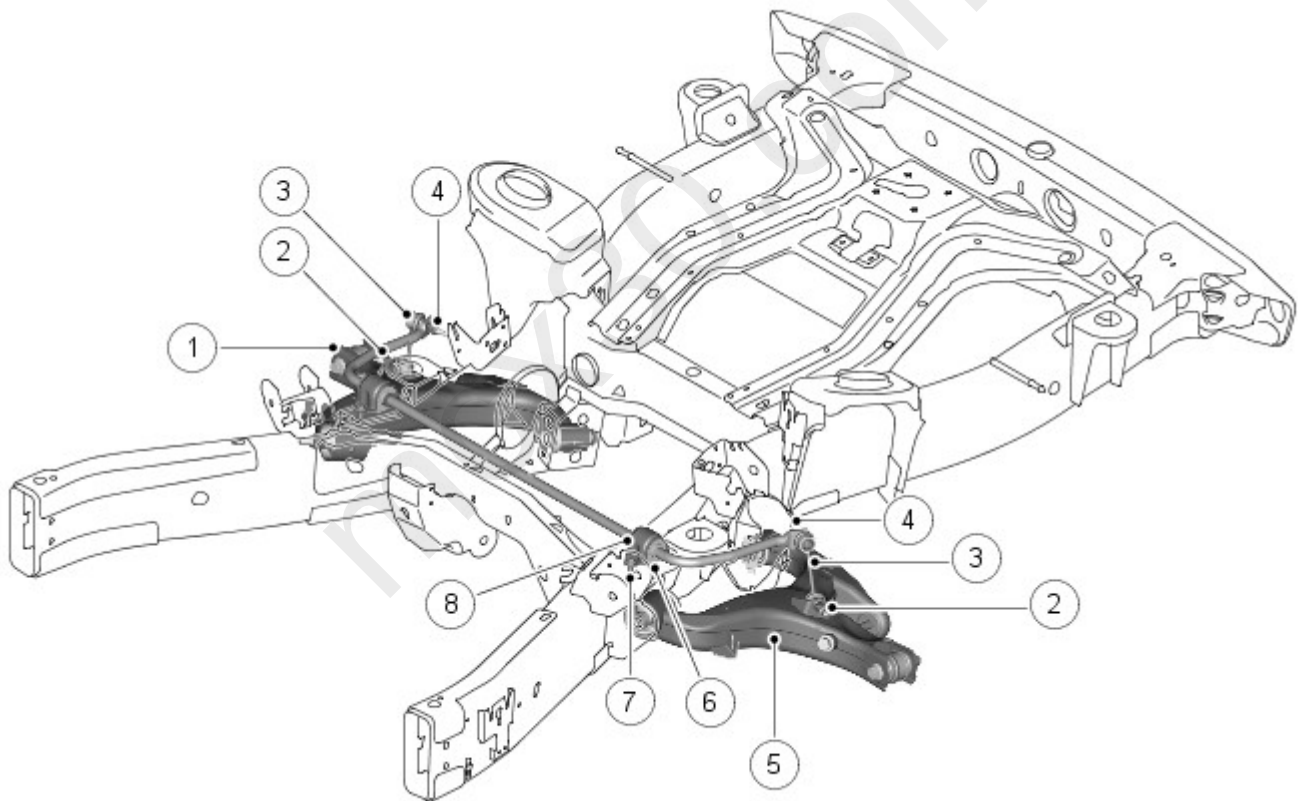
The coil spring fitted differs with vehicle specification. Each spring is color coded to identify its rating and fitment requirements.

The coil spring is located in a spring seat which is an integral part of the damper body. The design of the spring seat prevents the spring rotating. The opposite end of the coil spring is located in a spring isolator which is fitted in the top mount. The spring isolator is made from rubber and prevents any noise produced during spring and damper compression/extension from being transmitted to the vehicle body. Three types of spring isolator are available which allow for differences in vehicle specification.

The top mount is fitted with a bush and a rebound washer which are located between the top mount plate and the damper rod. The top mount is secured to the damper rod with a self-locking nut. The top mount attaches to a housing on the vehicle chassis with three integral studs and self-locking nuts.

The spring is fitted with spring spacers which are located between the spring isolator and the top mount. The spring spacers control the length of the spring to maintain the correct trim height. The spring spacers are colour coded and are supplied with a replacement spring.

ANTI-ROLL BAR



E45897

Item	Part Number	Description
1	-	RH lower control arm
2	-	Nut - link to lower control arm (2 off)
3	-	Link (2 off)
4	-	Nut - link to anti-roll bar (2 off)
5	-	LH lower control arm
6	-	Bush (2 off)
7	-	Bolt (4 off)
8	-	Bracket (2 off)

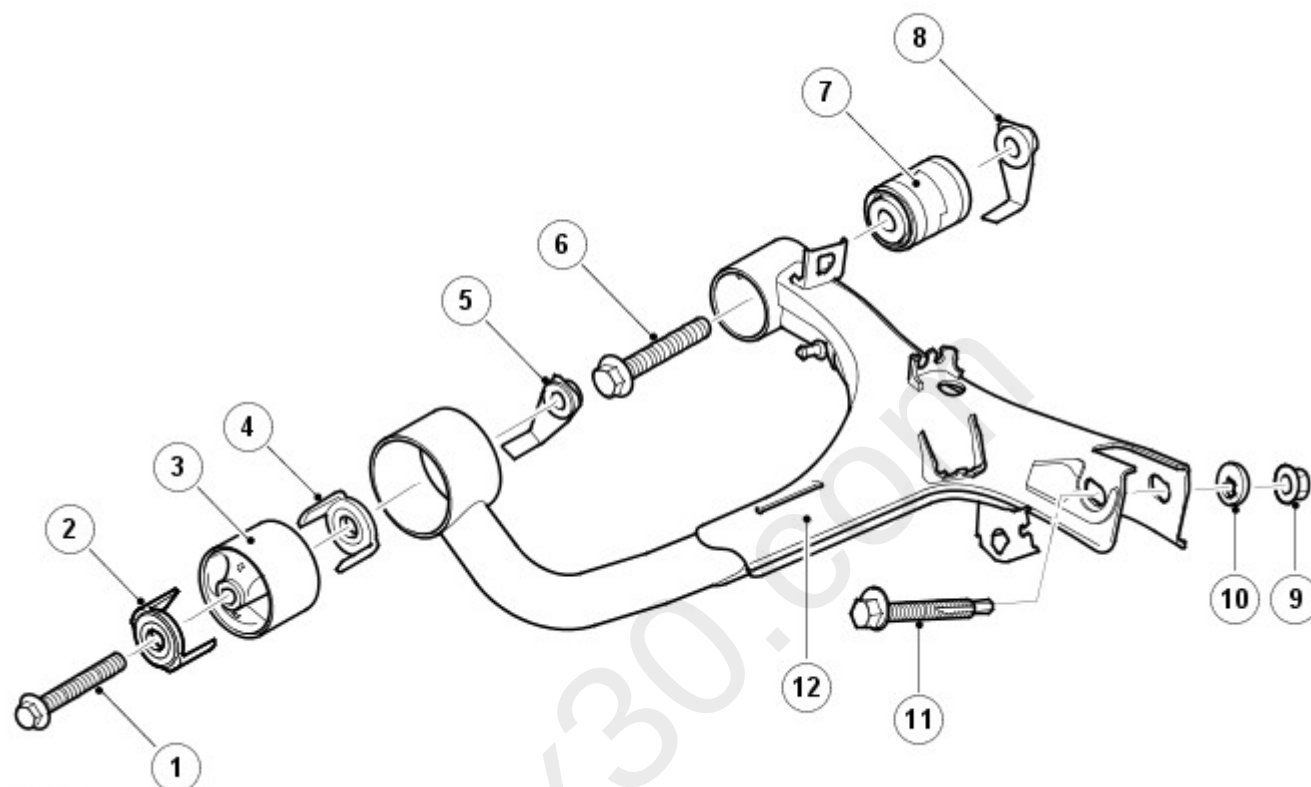
The anti-roll bar is fabricated from heat treated, solid, spring steel bar. The anti-roll bar operates, via a pair of links, from its attachment to the lower control arms.

The anti-roll bar is located on the upper face of a combined body mount and anti-roll bar bracket which is welded to each chassis side member. The anti-roll bar is attached to the brackets with two, Teflon lined bushes. The bushes are fitted with brackets, which are pressed onto the bushes and secured to the chassis brackets with bolts.

The anti-roll bar has crimped, 'anti-shuffle' collars pressed into position on the inside edges of the bushes. The collars prevent sideways movement of the anti-roll bar.

The ends of the anti-roll bar are attached to the lower control arms via links. This allows the anti-roll bar to move with the wheel travel providing maximum effectiveness. Each link has a ball joint at each end. The top ball joint is attached to the link at 90 degrees to the link axis and is located in a hole in the end of the anti-roll bar and secured with a self locking nut. The bottom ball joint is also attached to the link at 90 degrees to the axis of the link and is located a hole in a bracket on the lower control and arm and secured with a self-locking nut. The links are not handed and therefore can be fitted to either side of the anti-roll bar.

UPPER CONTROL ARM



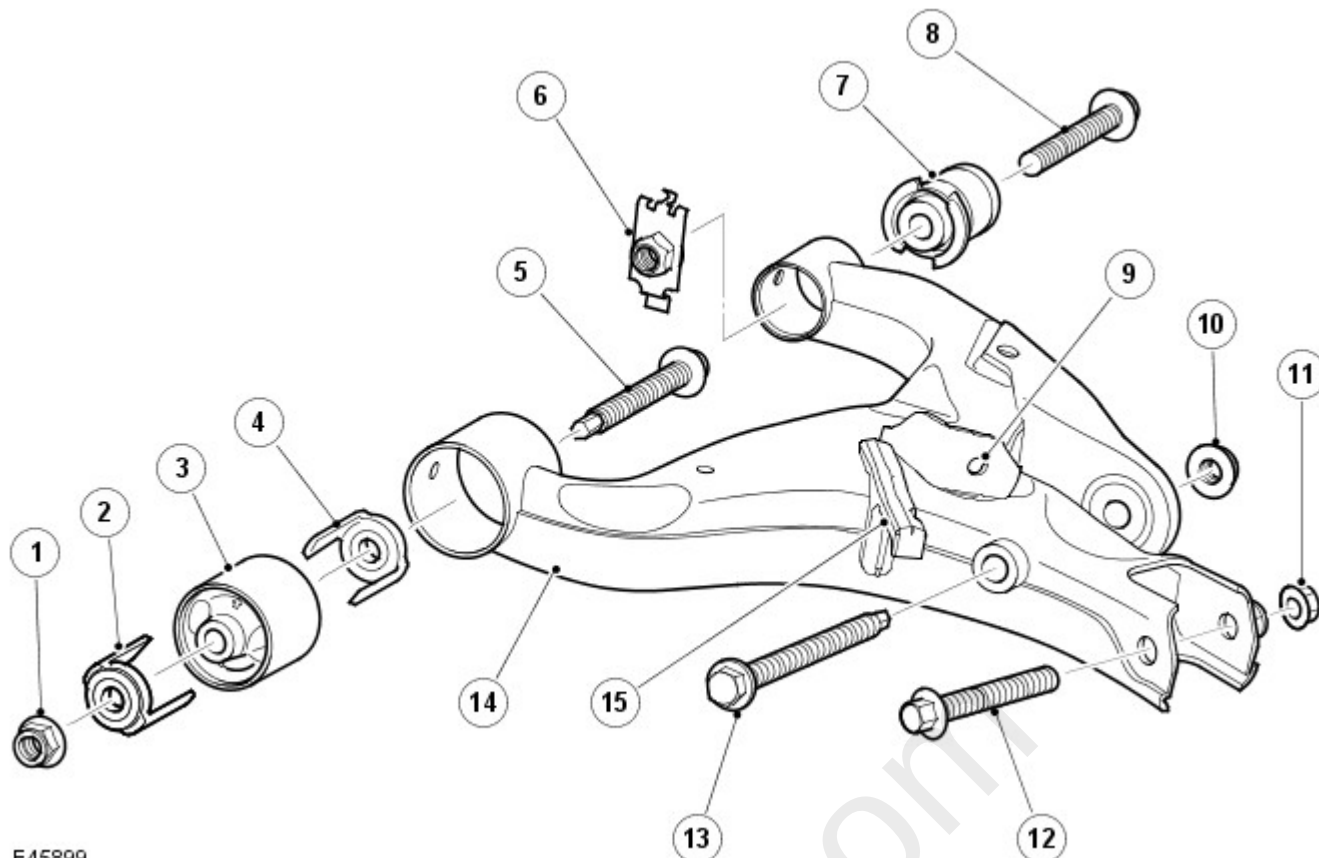
E45898

Item	Part Number	Description
1	-	Bolt
2	-	Bumpstop clip
3	-	Forward bush
4	-	Bumpstop clip
5	-	Caged nut
6	-	Bolt
7	-	Rearward bush
8	-	Caged nut
9	-	Self-locking nut - upper knuckle ball joint
10	-	Eccentric washer - upper knuckle ball joint
11	-	Cam bolt - upper knuckle ball joint
12	-	Upper control arm

The upper control arm locates in brackets on the upper surface of each chassis side member. The upper control arm assembly comprises the control arm and two bushes. The upper control arm is a pressed steel fabrication. Its outer end has two brackets with slotted holes which locate the upper ball joint of the knuckle. The ball joint is secured in the upper control arm with a cam bolt, eccentric washer and a self-locking nut. The cam bolt and the eccentric washer allow for the adjustment of the wheel camber.

Two fabricated tubular housings provide the location for the forward and rearward bushes. The bushes, which are pressed into the housings, locate between brackets on the chassis side members and are secured with bolts and caged nuts through metal inserts in the centre of the bushes.

LOWER CONTROL ARM



E45899

Item	Part Number	Description
1	-	Self-locking nut
2	-	Clip
3	-	Forward bush
4	-	Clip
5	-	Bolt
6	-	Nut and retainer
7	-	Rearward bush
8	-	Bolt
9	-	Anti-roll bar link bracket
10	-	Self-locking nut - damper lower attachment
11	-	Self-locking nut - knuckle upper ball joint attachment
12	-	Bolt - knuckle upper ball joint attachment
13	-	Bolt - damper lower attachment
14	-	Lower control arm
15	-	Jacking bracket (Vehicles with coil springs only)

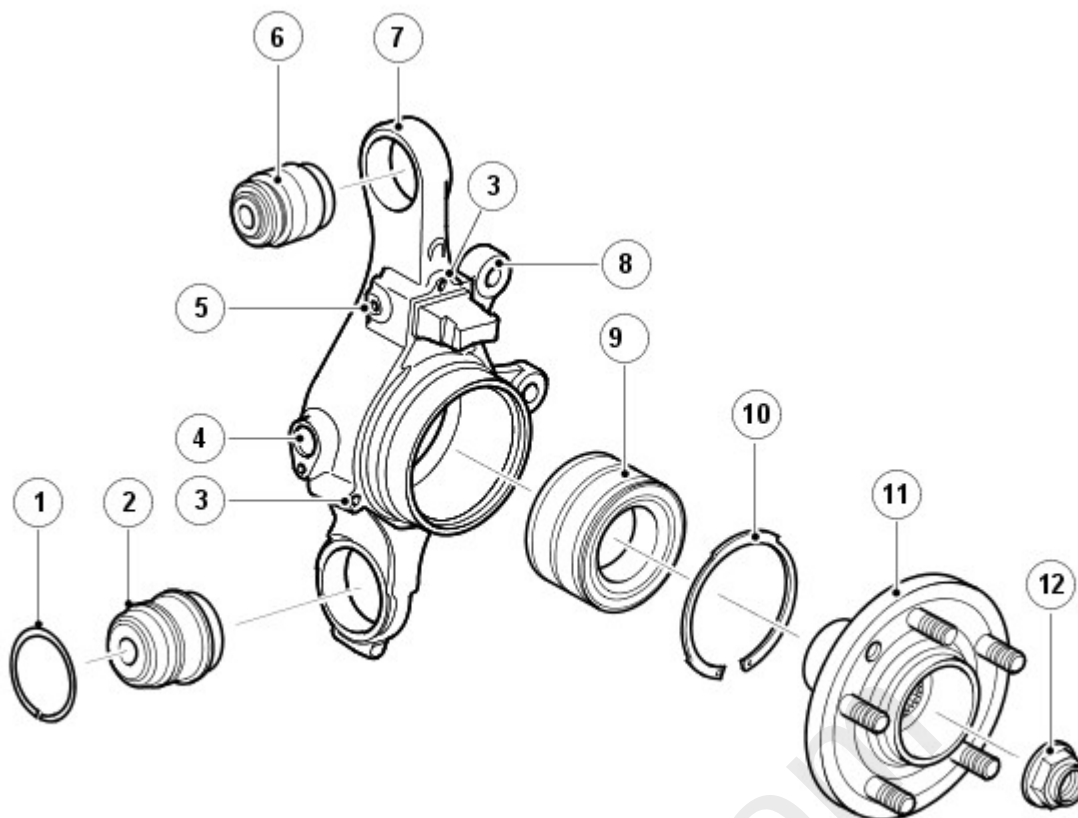
The lower control arm locates in brackets on the lower surface of each chassis side member. The lower control arm assembly comprises the control arm and two bushes. The lower control arm is a pressed steel fabrication. Its outer end has two brackets which locate the lower ball joint of the knuckle. The ball joint is secured with a bolt and self-locking nut. The lower control arm also provides for the attachment of the damper bush which is secured with a bolt and a self-locking nut.

A bracket, welded to the upper surface of the lower control arm, allows for the attachment of the anti-roll bar link, bottom ball joint which is secured with a self-locking nut.

Two fabricated tubular housings provide the location for the forward and rearward bushes. The bushes, which are pressed into the housings, locate between brackets on the chassis side members. The forward bush is secured to the chassis bracket with a bolt and self-locking nut. The rearward bush is secured to the chassis bracket with a bolt and a nut and retainer. The nut and retainer allows for easy installation or removal of the bolt by removing the requirement to hold the self-locking nut when installing or removing the bolt.

On vehicles fitted with coil springs only, a jacking bracket is located on the lower control arm.

WHEEL KNUCKLE, WHEEL HUB AND BEARING ASSEMBLY



E45900

Item	Part Number	Description
1	-	Circlip - lower ball joint
2	-	Ball joint - lower
3	-	Park brake assembly attachment holes
4	-	Wheel speed sensor location
5	-	Wheel speed sensor cable bracket attachment
6	-	Ball joint - upper
7	-	Knuckle
8	-	Brake caliper attachment holes
9	-	Wheel bearing
10	-	Circlip - wheel bearing retention
11	-	Nut - halfshaft
12	-	Wheel hub
13	-	Wheel studs

The wheel knuckle is a machined forging which is located between the upper and lower control arms. The knuckle is fitted with two ball joints which are pressed into the knuckle, with the lower ball joint being secured with a circlip. The ball joints are positioned between brackets on the upper and lower control arms and secured to the arms with a bolt and self-locking nut.

The wheel knuckle provides the location for the rear wheel taper roller bearing, which is pressed into a machined bore and retained with a circlip. The wheel bearing is a serviceable item. The knuckle has a machined bore which provides the location for the wheel speed sensor. Four threaded holes allow for the attachment of the park brake assembly. A cast boss on the knuckle provides positive location for the park brake assembly. Two bosses on the knuckle casting provide the attachment points for the rear brake caliper.

The wheel hub is a machined casting which is pressed into the wheel bearing in the knuckle. The hub has a splined centre bore which mates with corresponding splines on the halfshaft. Five M14 studs are pressed into the wheel hub and provide for the attachment of the road wheel with wheel nuts. Rotation of the halfshaft is passed, via the splines, to the wheel hub which rotates on the taper roller bearing.

Rear Suspension - Upper Arm Ball Joint

Removal and Installation

Special Tool(s)	
 204-525-1 E49576	Remover/installer rear upper arm ball joint 204-525/1
 204-525-2 E49575	Remover/installer rear upper arm ball joint 204-525/2
 204-525-1 E49574	Remover/installer rear upper arm ball joint 204-525/3

Removal

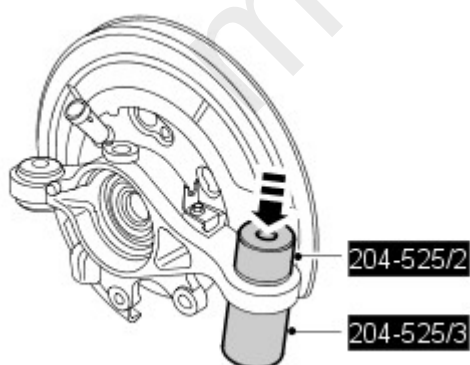
-  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

- Remove the wheel knuckle.
For additional information, refer to: [Wheel Knuckle](#) (204-02 Rear Suspension, Removal and Installation).

- Using the special tools, remove the ball joint.

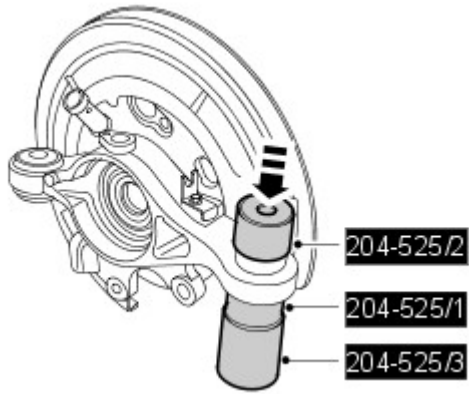
- Position machined face against the special tool.



E49577

Installation

- Clean the components.



E49578

2. CAUTIONS:



Make sure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.



If the push in force is less than 10 kN the wheel knuckle must be replaced.

Using the special tools, install the ball joint.

- Position machined face against the special tool.

3. Install the wheel knuckle.

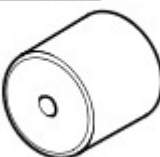
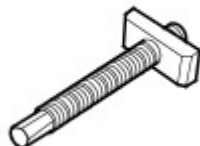
For additional information, refer to: [Wheel Knuckle](#) (204-02 Rear Suspension, Removal and Installation).

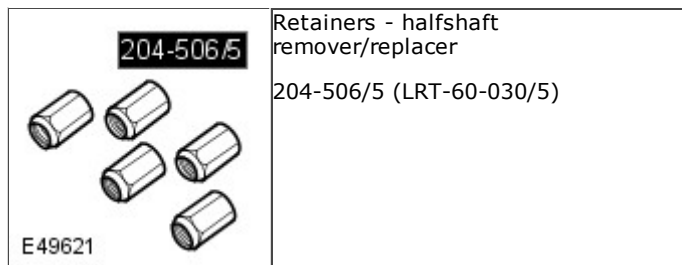
4. Install the wheel and tire.

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Rear Suspension - Lower Arm Ball Joint

Removal and Installation

Special Tool(s)	
204-516/1  E46795	Ball joint remover/installer 204-516/1 (LRT-64-026/1)
204-516/2  E50960	Ball joint remover/installer 204-516/2 (LRT-64-026/2)
204-516/3  E50961	Ball joint remover/installer 204-516/3 (LRT-64-026/3)
204-516/4  E50962	Ball joint remover/installer 204-516/4 (LRT-64-026/4)
204-506/1  E49618	Halfshaft remover/replacer 204-506/1 (LRT-60-030/1)
204-506/3  E49620	Halfshaft remover/replacer 204-506/3 (LRT-60-030/3)
204-506-01  E49622	Halfshaft installer adapter 204-506-01



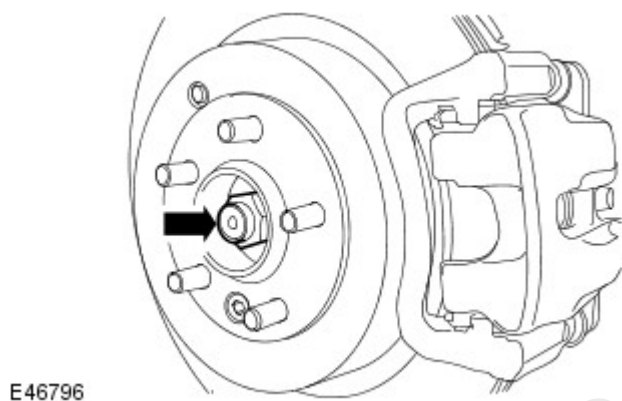
Removal

 **CAUTION:** The bolt securing the toe link to the wheel knuckle must not be used more than 5 times. Mark the bolt head with a suitable centre punch.

1.  **WARNING:** Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

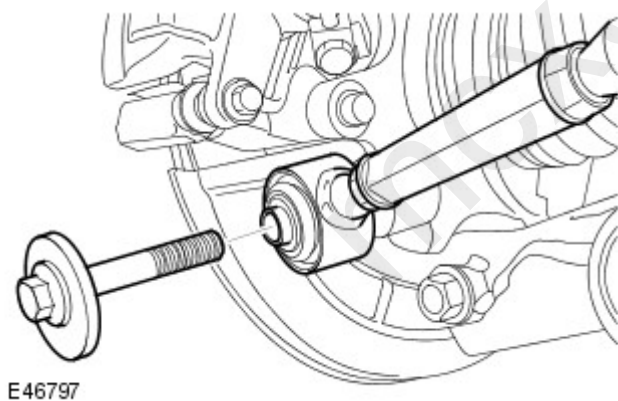
Raise and support the vehicle.

2. Remove the wheel and tire.
3. Loosen the halfshaft retaining nut.

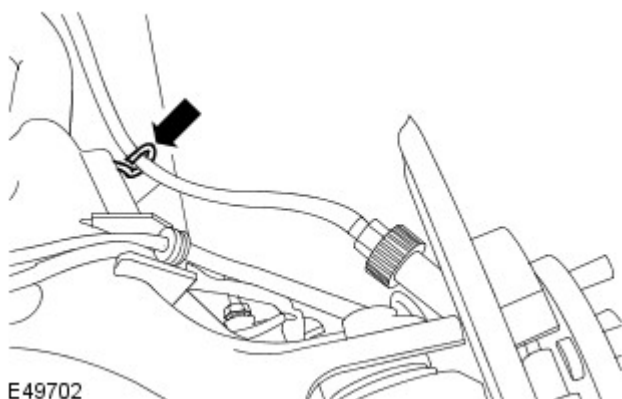


4. Disconnect the toe link.

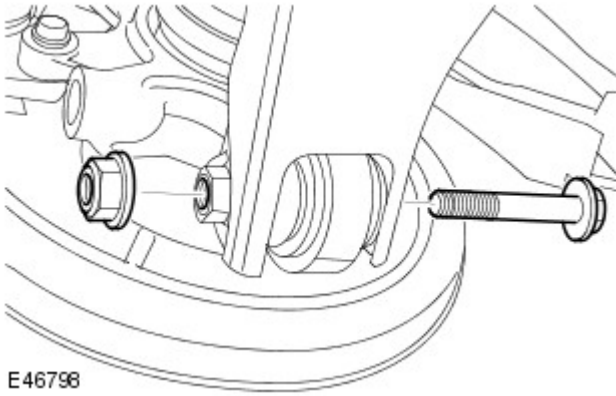
- Remove the bolt.



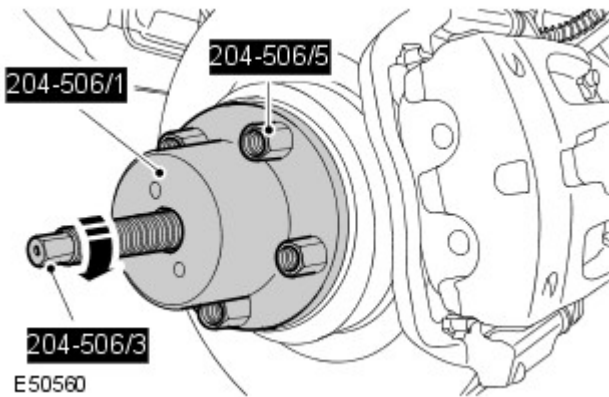
5. Release the parking brake cable from the lower arm.



6. Remove the halfshaft retaining nut.
7. Release the knuckle from the lower arm.
 - Remove the bolt.

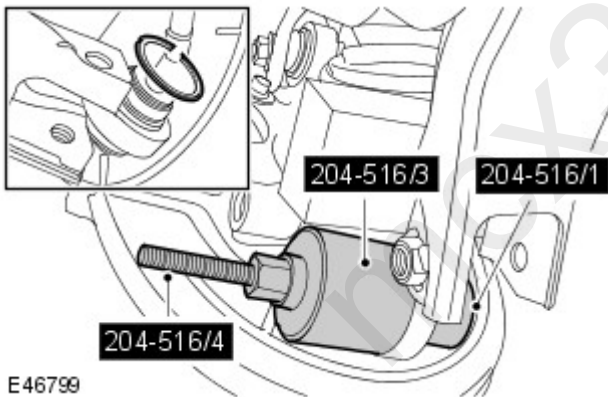


8. Using the special tools, release the halfshaft from the wheel hub.



9. Using the special tool, remove the lower arm ball joint.

- Support the wheel knuckle to give access to the lower ball joint.
- Remove and discard the snap ring.



Installation

1. CAUTIONS:



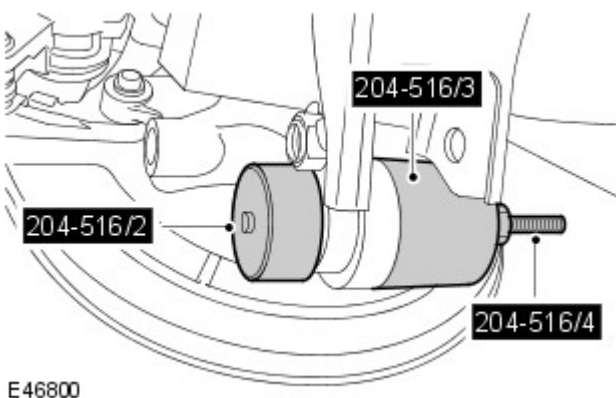
If the push in force is less than 17 kN the wheel knuckle must be replaced.

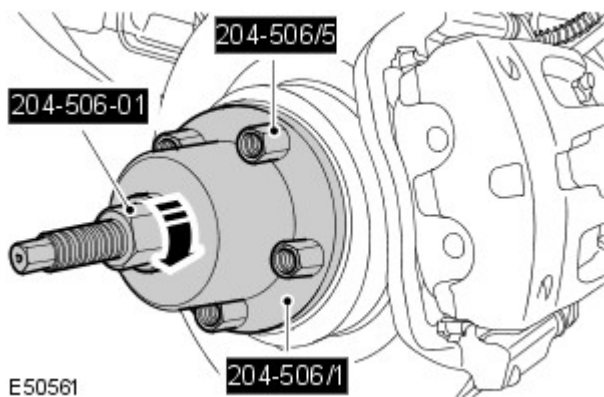


Make sure the ball joint is installed from the chamfered side of the wheel knuckle.

Using the special tool, install the lower arm ball joint.

- Install the snap ring.





2. Using the special tools, install the halfshaft in the wheel hub.

3.  **CAUTION:** Ensure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.

Connect the lower arm to the wheel knuckle.

- Tighten the bolt to 175 Nm (129 lb.ft).

4. Install a new halfshaft retaining nut and lightly tighten.

5. Secure the parking brake cable.

6.  **CAUTION:** Do not use a bolt that has been installed more than 5 times. Check the bolt head for centre punch marks. A bolt head with 4 centre punch marks indicates the bolt has been installed 5 times and must be replaced.

Connect the toe link.

- Tighten the bolt to 175 Nm (129 lb.ft).
- Mark the bolt head with a centre punch, to indicate the number of times it has been used.

7. Tighten the halfshaft retaining nut to 350 Nm (258 lb.ft).

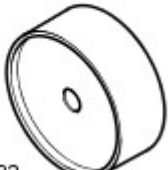
- Stake the nut to the halfshaft.

8. Install the wheel and tire.

9. Carry out the wheel alignment procedure.

Rear Suspension - Wheel Bearing and Wheel Hub

Removal and Installation

Special Tool(s)	
 204-509/10 E49584	Rear wheel bearing remover/installer 204-509/10(LRT-60-033/10)
 205-802/1 E49579	Rear wheel bearing remover/installer 205-802/1
 205-802/2 E49580	Rear wheel bearing remover/installer 205-802/2
 205-802/3 E49581	Rear wheel bearing remover/installer 205-802/3
 205-802/4 E49582	Rear wheel bearing remover/installer 205-802/4
 205-802/5 E49583	Rear wheel bearing remover/installer 205-802/5

Removal

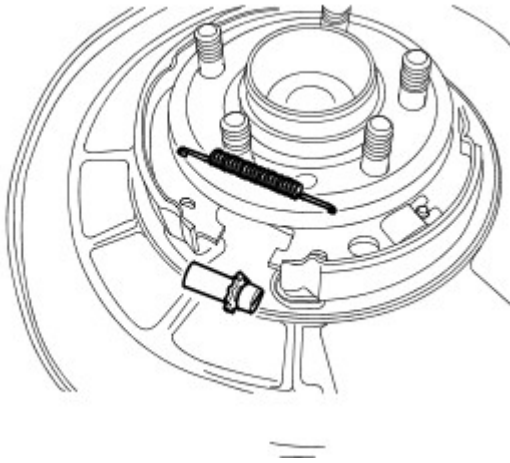
-  **WARNING:** Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Raise and support the vehicle.

- Remove the wheel knuckle.
For additional information, refer to: [Wheel Knuckle](#) (204-02 Rear Suspension, Removal and Installation).

3. Remove the adjuster and return spring.

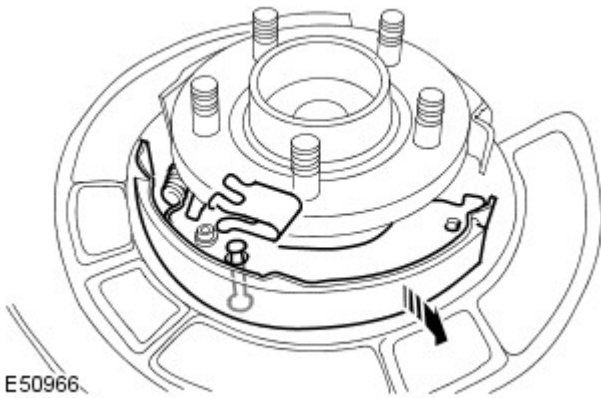
E50965



4. Remove the primary brake shoe.

- Remove the hold-down spring and retaining pin.
- Pivot the shoe to release it from the spreader plate and return spring.

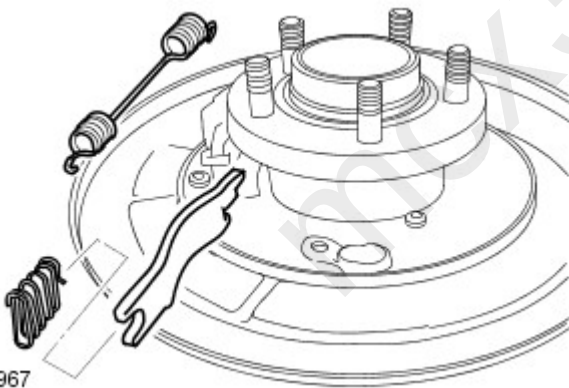
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5. Remove the spreader plate and spring.

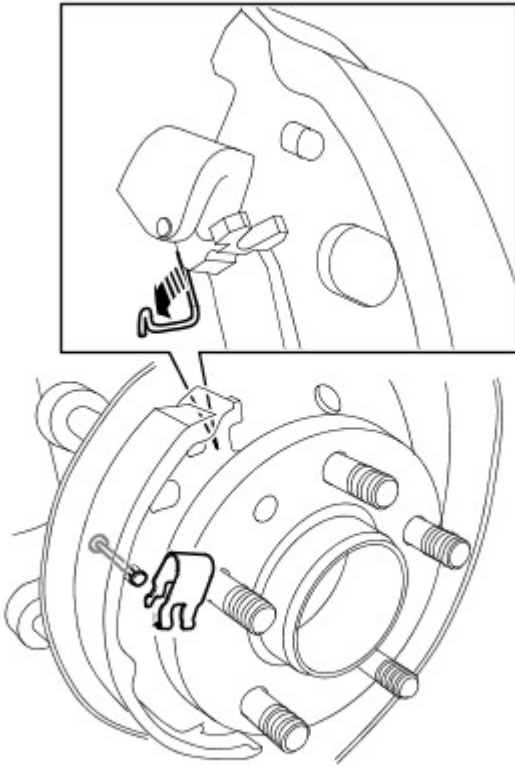
6. Remove the return spring.

E50967



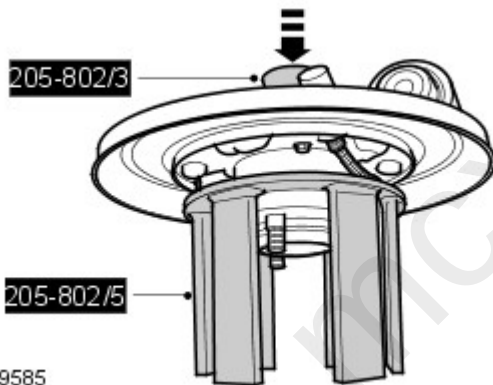
7. Remove the secondary brake shoe.

- Remove the hold-down spring and retaining pin.
- Disconnect the parking brake cable retaining spring from the brake shoe lever.



E50181

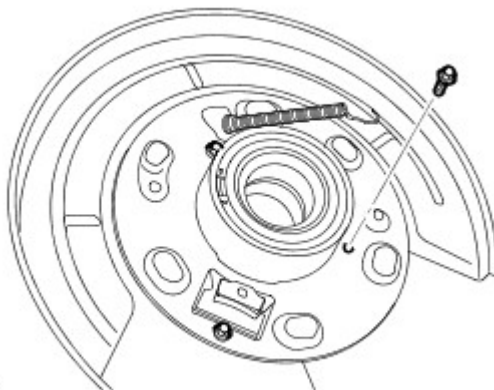
8. Using the special tools, remove the drive flange.



E49585

9. Remove the brake disc dust shield.

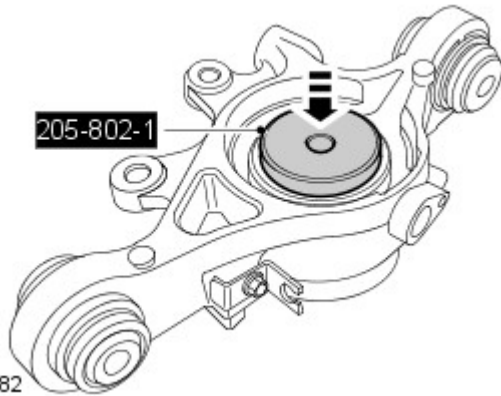
- Remove the 3 screws.



E49586

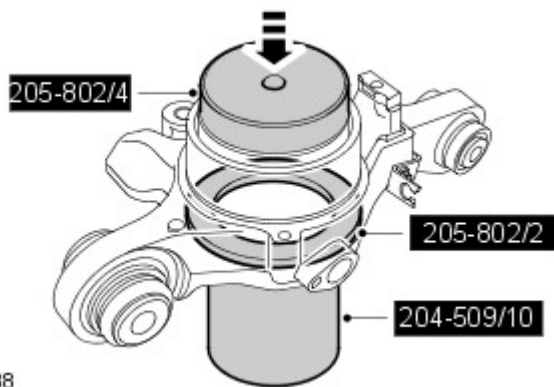
10. Using the special tools, remove the wheel bearing.

- Remove the circlip.



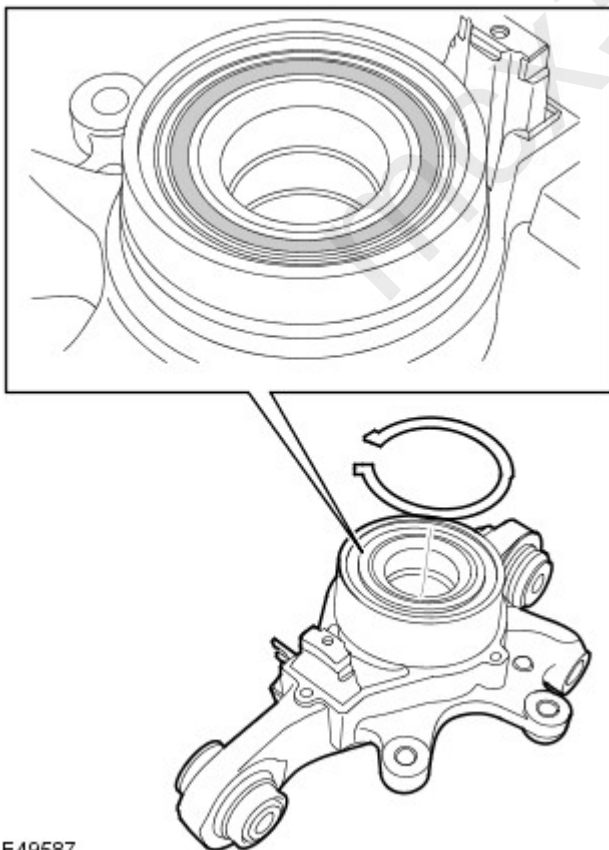
Installation

1. Clean the components.
2. Using the special tools, install the wheel bearing.



3.  **CAUTION:** Make sure that the bearing seal is not damaged when installing the circlip.

Install the circlip.



4. Install the brake disc dust shield.

- Tighten the bolts to 9 Nm (7 lb.ft).

5.  **WARNING:** Do not use compressed air to clean brake components. Dust from friction materials can be harmful if inhaled.

Clean the backing plate and apply grease to the brake shoe contacts.

6. Clean the adjuster and set it to its minimum extension.

7. Install the secondary brake shoe.

- Connect the parking brake cable retaining spring to the brake shoe lever, making sure the spring is not twisted.
- Install the hold-down spring and retaining pin.

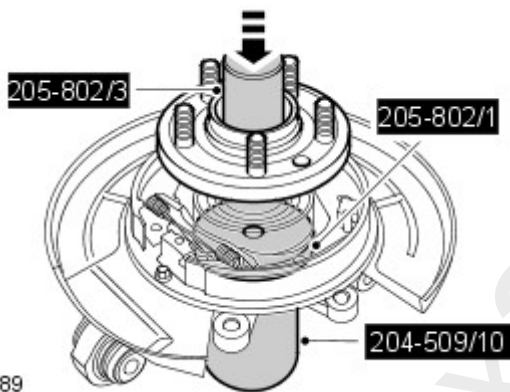
8. Install the primary brake shoe.

- Install the spreader plate and the spring.
- Install the return spring.
- Install the hold-down spring and retaining pin.

9. Install the return spring.

10. Install the brake shoe adjuster.

11. Using the special tools, install the drive flange.



12. Install the wheel knuckle.

For additional information, refer to: [Wheel Knuckle](#) (204-02 Rear Suspension, Removal and Installation).

Rear Suspension - Rear Stabilizer Bar

Removal and Installation

Removal



CAUTION: It is possible to install the stabilizer bar incorrectly. Note the position of the stabilizer bar before removal.



1. WARNING: Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Raise and support the vehicle.

2. Remove the wheel and tire.

3. Remove the rear bumper cover.

For additional information, refer to: [Rear Bumper Cover](#) (501-19 Bumpers, Removal and Installation).

4. Remove the spare wheel and tire.

5. Raise the vehicle.

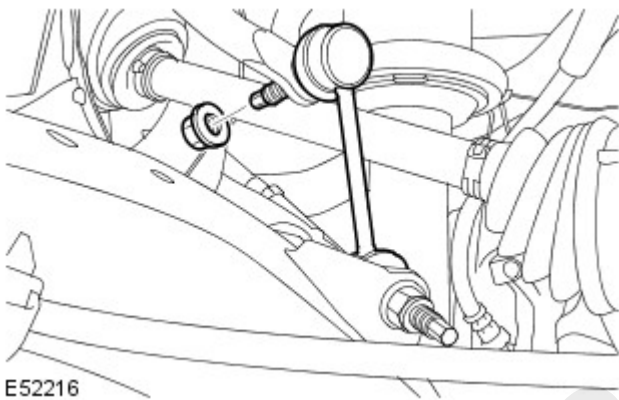
6. Remove the rear wheels and tires.



7. CAUTION: Use a wrench on the hexagon provided to prevent the ball joint rotating.

Release both stabilizer bar links.

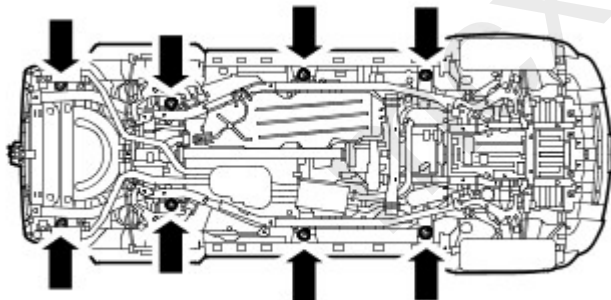
- Remove and discard the 2 nuts.



E52216

8. Remove the body mount retaining bolts.

- Remove the 8 bolts.



E52217

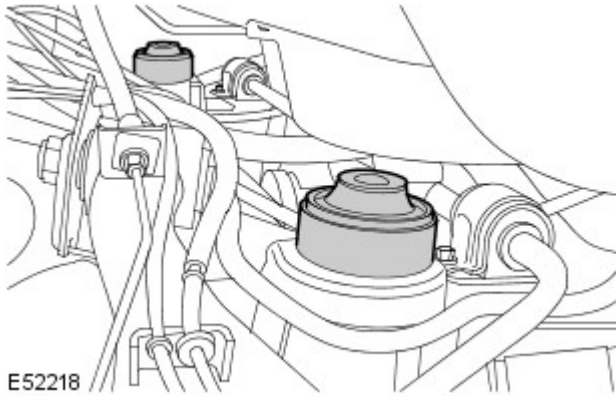


9. CAUTION: Only raise the body sufficiently to remove the body mount.

Carefully raise the body.

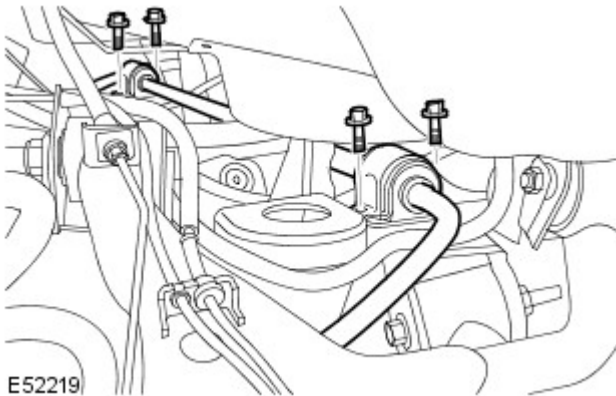
- Using suitable stands, raise the body to release the body mounts.

10. Remove the 2 rear body mounts.

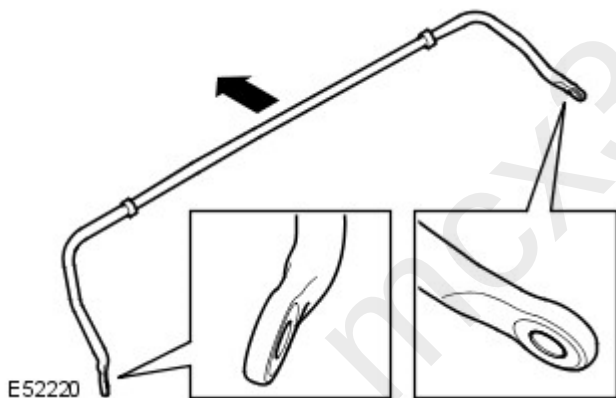


11. Remove the stabilizer bar bushing.

- Remove the stabilizer bar clamps.
- Remove the 4 bolts.



12.  **CAUTION:** Mark the position of the stabilizer bar.
Remove the stabilizer bar.



Installation

1.  **CAUTION:** Make sure the stabilizer bar is correctly installed.

Install the stabilizer bar.

2. Install the stabilizer bar bushing.

3. Install the stabilizer bar clamps.

- Tighten the 4 retaining bolts to 62 Nm (46 lb.ft).

4. Install the body mounts.

5. Lower the body.

- Remove the stands.

6. Install the body mount retaining bolts.

- Tighten the 8 retaining bolts to 133 Nm (98 lb.ft).

7. Attach both stabilizer bar links.

- Tighten the nuts to 115 Nm (85 lb.ft).

8. Install the wheels and tires.

- Tighten the wheel nuts to 140 Nm (103 lb.ft).

9. Lower the vehicle.

10. Install the spare wheel and tire.

11. Install the rear bumper cover.

For additional information, refer to: [Rear Bumper Cover](#)
(501-19 Bumpers, Removal and Installation).

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Rear Suspension - Wheel Knuckle

Removal and Installation

Special Tool(s)	
 204-506/1 E49618	Halfshaft remover/replacer 204-506/1(LRT-60-030/1)
 204-506/2 E49619	Halfshaft remover/replacer 204-506/2(LRT-60-030/2)
 204-506/3 E49620	Halfshaft remover/replacer 204-506/3(LRT-60-030/3)
 204-506/5 E49621	Retainers - halfshaft remover/replacer 204-506/5(LRT-60-030/5)
 204-506-01 E49622	Halfshaft installer adapter 204-506-01(LRT-60-030/4)

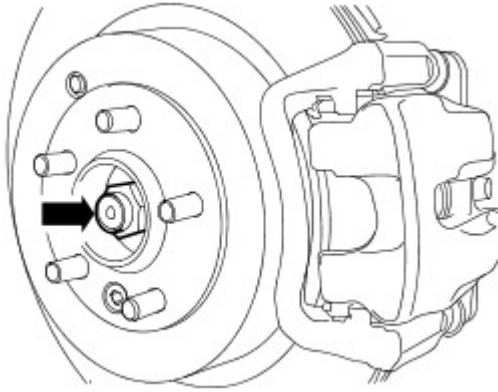
Removal

-  **WARNING:** Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Raise and support the vehicle.

- Remove the wheels and tires.

3. Loosen the halfshaft retaining nut.



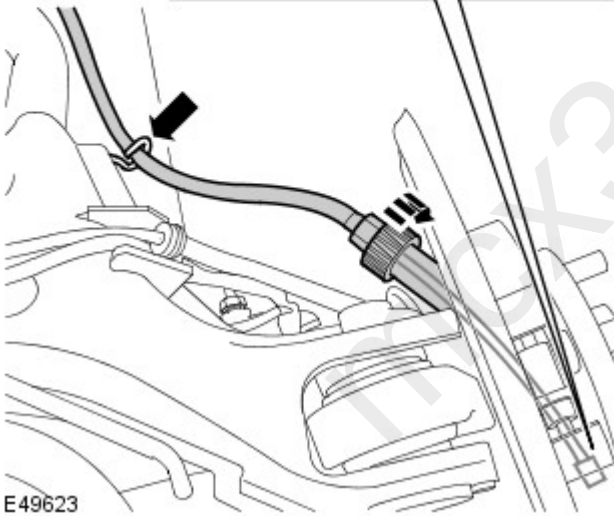
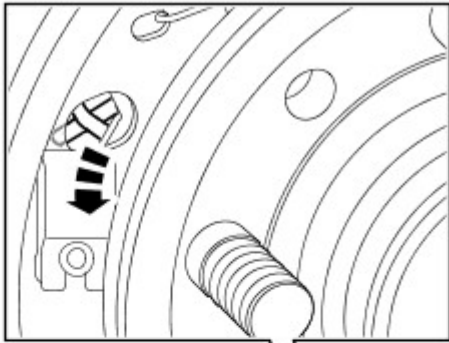
E46796

4. Remove the brake disc.

For additional information, refer to: [Brake Disc](#) (206-04 Rear Disc Brake, Removal and Installation).

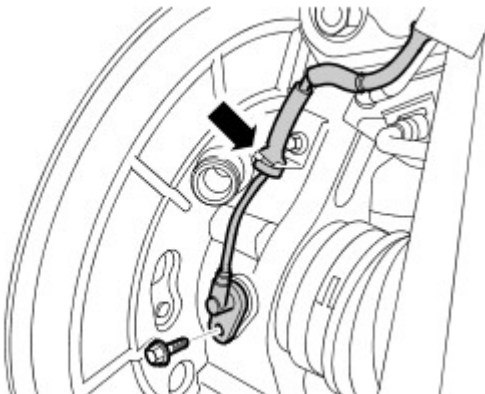
5. Release the parking brake cable.

- Disconnect the parking brake cable from the brake shoe lever.
- Disconnect the parking brake cable from the backplate.
- Release the cable from the lower arm.



E49623

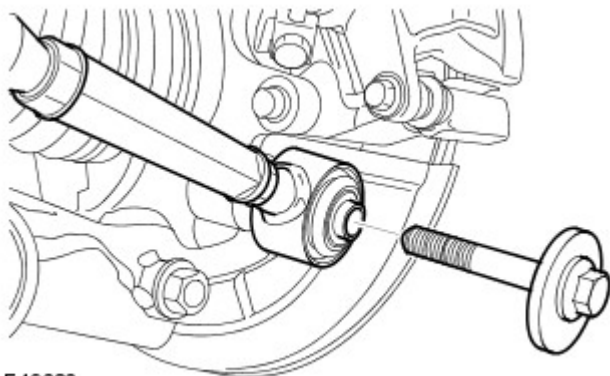
6. Release the wheel speed sensor from the wheel knuckle.



E49624

7. Disconnect the toe link.

- Remove and discard the bolt.



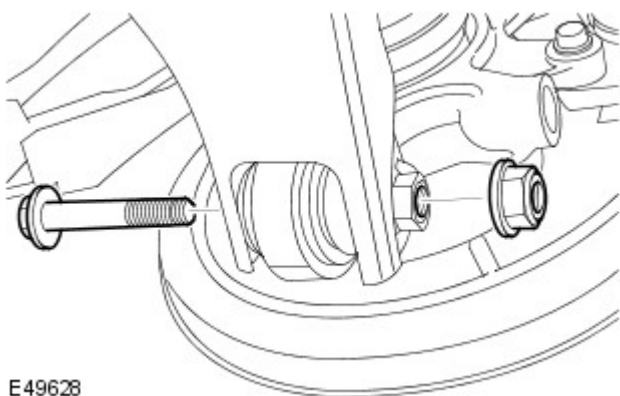
E49626

8. Remove the halfshaft retaining nut.

9.  **CAUTION:** Make sure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.

Release the knuckle from the lower arm.

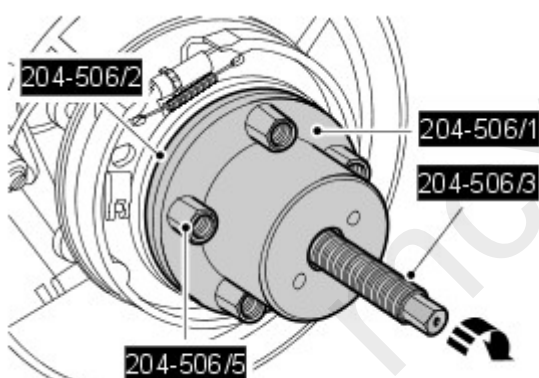
- Remove the bolt.



E49628

10.  **CAUTION:** Do not use a hammer to detach the halfshaft from the hub assembly, failure to follow this instruction may result in damage to the halfshaft.

Using the special tools, release the halfshaft from the wheel hub.

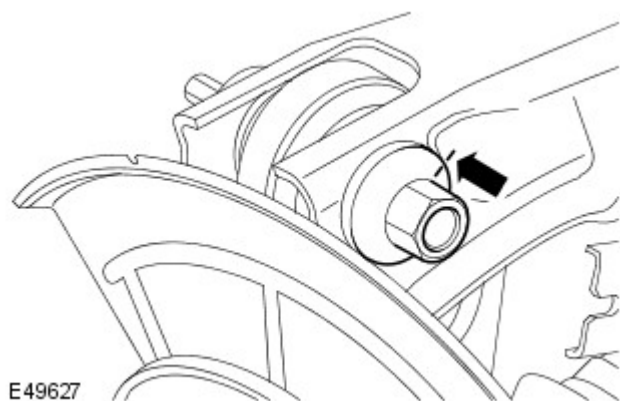


E49625

11.  **CAUTION:** Make sure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.

Disconnect the upper arm from the wheel knuckle.

- Mark the position of the bolt in relation to the upper arm.
- Remove the nut and bolt.
- Discard the nut.



E49627

12.  **CAUTION:** Make sure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.

Remove the wheel knuckle.

Installation

1. Clean the components.

2.  **CAUTION:** Make sure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.

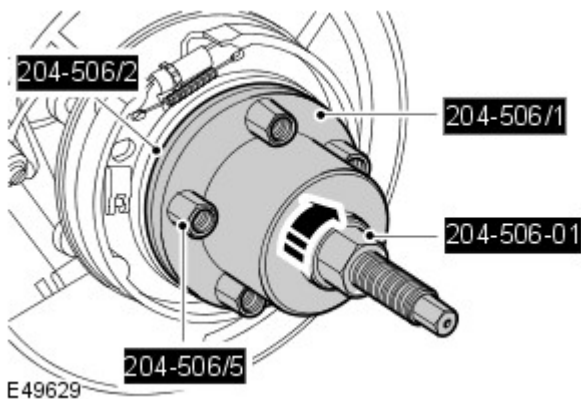
Install the wheel knuckle.

- Locate the halfshaft.

3. Connect the upper arm and wheel knuckle.

- Align the bolt to the marks made previously.
- Install a new nut and tighten to 133 Nm (98 lb.ft).

4. Using the special tools, install the halfshaft in the wheel hub.



5.  **CAUTION:** Install the halfshaft nut finger tight.

Install a new halfshaft retaining nut and lightly tighten.

6.  **CAUTION:** Make sure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.

Connect the lower arm to the wheel knuckle.

- Tighten the nut and bolt to 175 Nm (129 lb.ft).

7. Connect the toe link.

- Tighten the new bolt to 175 Nm (129 lb.ft).

8. Install the wheel speed sensor.

- Tighten the bolt to 9 Nm (7 lb.ft).

9. Locate the parking brake cable to the backplate.

- Connect the cable to the brake shoe lever.
- Tighten the coupling to 8 Nm (6 lb.ft).
- Secure the parking brake cable to the lower arm.

10. Install the brake disc.

For additional information, refer to: [Brake Disc](#) (206-04 Rear Disc Brake, Removal and Installation).

11.  **CAUTION:** Do not use air tools to install the nut. Failure to follow this instruction may result in damage to the component.

Tighten the halfshaft retaining nut to 350 Nm (258 lb.ft).

- Stake the nut to the halfshaft.

12. Install the wheels and tires.

- Tighten the wheel nuts to 140 Nm (103 lb.ft).

13. Carry out the wheel alignment procedure.

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Rear Suspension - Upper Arm Bushing

Removal and Installation

Special Tool(s)	
 204-528-1 E50585	Remover/installer - rear suspension upper arm front bushing 204-528/1
 204-528-2 E50586	Remover/installer - rear suspension upper arm front bushing 204-528/2
 204-528-3 E50587	Remover/installer - rear suspension upper arm front bushing 204-528/3
 204-527-1 E50580	Remover/installer rear suspension upper arm rear bushing 204-527/1
 204-527-2 E50581	Remover/installer rear suspension upper arm rear bushing 204-527/2
 204-527-3 E50582	Remover/installer rear suspension upper arm rear bushing 204-527/3

Removal

- NOTE: The bushings must be replaced in pairs, LH and RH sides.

-  **WARNING:** Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Raise and support the vehicle.

- Remove the wheels and tires.

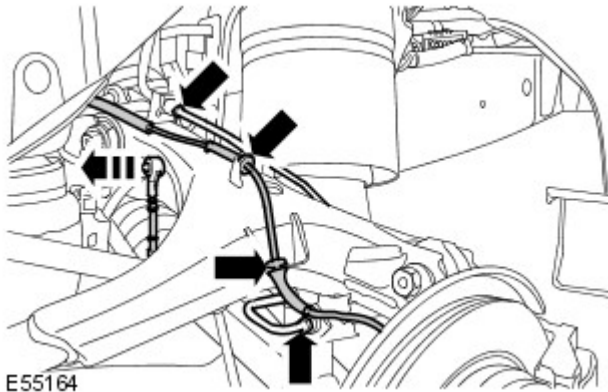
3.  **CAUTION:** Always plug any open connections to prevent contamination.

Remove the brake tube.

- Disconnect the 2 brake tube unions.
- Remove the brake hose clips and release the hoses.
- Release the brake tube from the clip.

4. Disconnect the height sensor link.

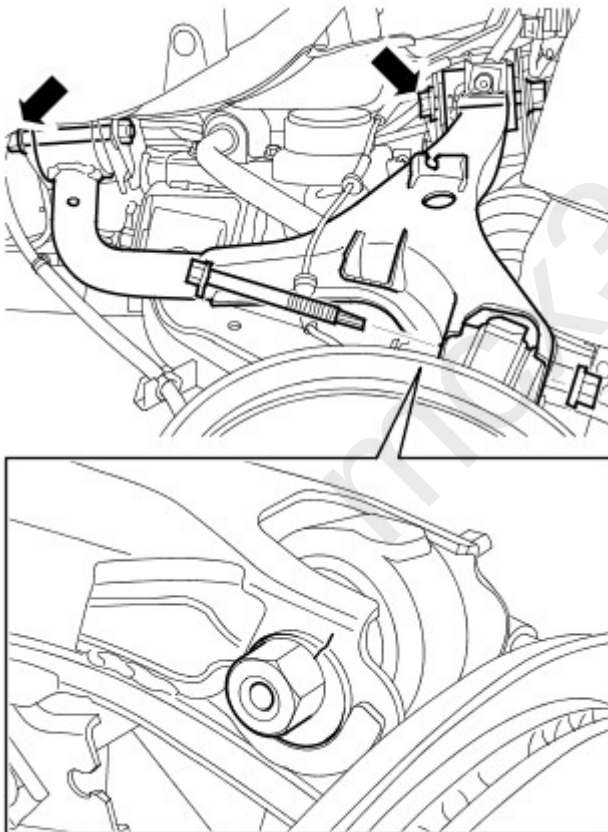
5. Release the wheel speed sensor lead.



E55164

6. Remove the LH upper arm.

- Loosen the upper arm bolts.
- Mark the position of the bolt in relation to the upper arm.
- Disconnect the upper arm from the wheel knuckle.
- Remove the upper arm bolts.



E55166

7. Remove the RH upper arm.

For additional information, refer to: [Upper Arm](#) (204-02 Rear Suspension, Removal and Installation).

8. Mark the position of the bushing in relation to the upper arm.
9. Using the special tools, remove and discard the rear upper arm front bushing.
10. Using the special tools, remove and discard the rear upper arm rear bushing.

Installation

1. CAUTIONS:



Make sure the bush is correctly aligned.



Make sure the correct special tool is used to install the bushings to the correct depth.

Using the special tools, install the rear upper arm front bushing.



2. CAUTION: Make sure the bush is correctly aligned.

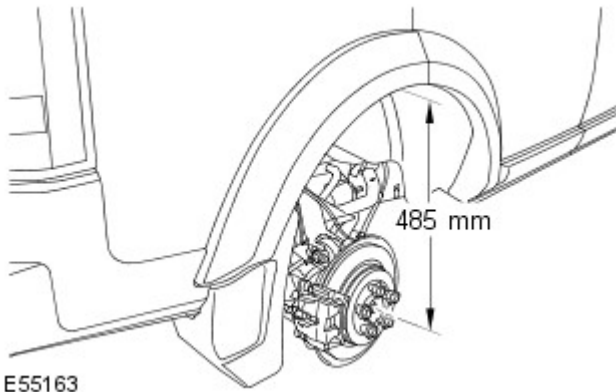
Using the special tools, install the rear upper arm rear bushing.

3. Install the LH upper arm.

- Fit the bolts but do not fully tighten at this stage.

4. Set the height between the center of the halfshaft end and the edge of the fender trim to 485 mm (19.10").

- Support with an axle stand.



5. CAUTION: Make sure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.

Connect the upper arm and wheel knuckle.

- Align the bolt to the marks made previously.
- Tighten the bolt to 133 Nm (98 lb.ft).

6. Tighten the upper arm front bolt to 175 Nm (129 lb.ft).

7. Tighten the upper arm rear bolt to 275 Nm (203 lb.ft).

8. Secure the wheel speed sensor lead.

9. Secure the brake pad wear indicator sensor lead.

10. Connect the height sensor link.

11. Install the brake tube.

- Tighten the brake tube unions to 18 Nm (13 lb.ft).

12. Install the RH upper arm.

For additional information, refer to: [Upper Arm](#) (204-02 Rear Suspension, Removal and Installation).

13. Install the wheels and tires.

- Tighten the wheel nuts to 140 Nm (103 lb.ft).

Rear Suspension - Rear Stabilizer Bar Link

Removal and Installation

Removal

1.  **WARNING:** Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Raise and support the vehicle.

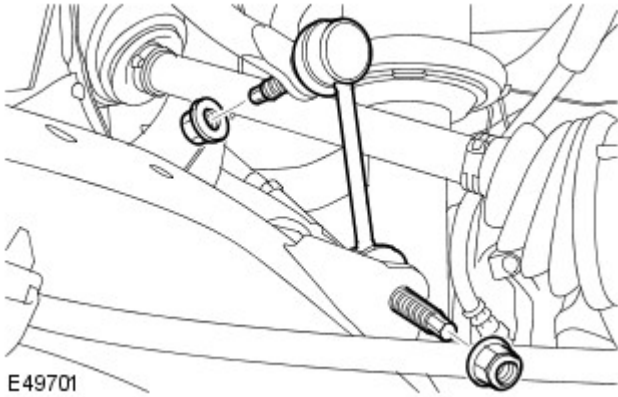
2. Remove the wheel and tire.



3. **CAUTION:** Use a wrench on the hexagon provided to prevent the ball joint rotating.

Remove the stabilizer bar link.

- Remove and discard the 2 nuts.



Installation

1. Install the stabilizer bar link.

- Tighten the nuts to 115 Nm (85 lb.ft).

2. Install the wheel and tire.

- Tighten the wheel nuts to 140 Nm (103 lb.ft).

Rear Suspension - Lower Arm

Removal and Installation

Removal

1.  **WARNING:** Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

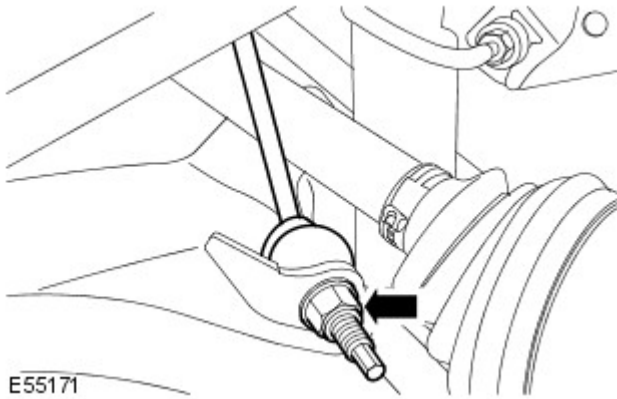
Raise and support the vehicle.

2. Remove the wheel and tire.

3.  **CAUTION:** Use a wrench on the hexagon provided to prevent the ball joint rotating.

Release the stabilizer bar link.

- Remove and discard the retaining nut.



E55171

4. Loosen the 2 lower arm bolts.
5. Disconnect the shock absorber and spring assembly from the lower arm.

- Remove the nut and bolt.

6. Release the parking brake cable.

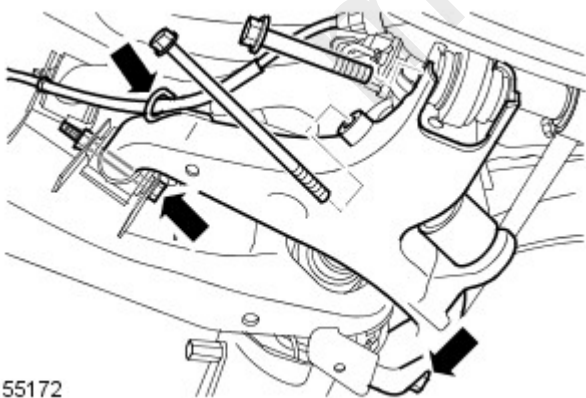
7. Remove the 2 lower arm bolts.

8.  **CAUTION:** Ensure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.

Release the knuckle from the lower arm.

- Remove the bolt.

9. Remove the lower arm.



E55172

Installation

1. Install the lower arm.

- Fit the bolts but do not fully tighten at this stage.

2.  **CAUTION:** Ensure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.

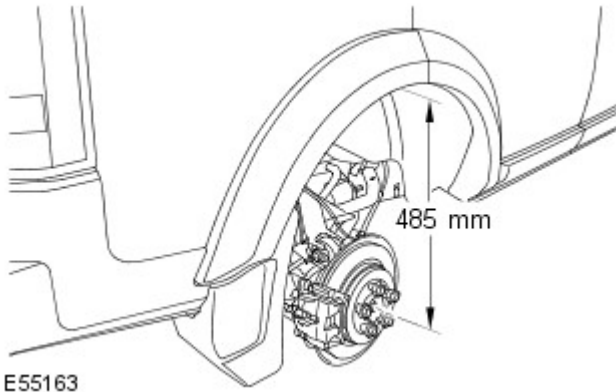
Connect the lower arm to the wheel knuckle.

- Tighten the bolt to 175 Nm (129 lb.ft).

3. Connect the shock absorber and spring assembly to the lower arm.

- Tighten the nut and bolt to 300 Nm (221 lb.ft).

4. Set the height between the center of the halfshaft end and the edge of the fender trim to 485 mm (19.10").



5. Tighten the lower arm bolts to 275 Nm (203 lb.ft).

6. Secure the parking brake cable.

7. Connect the stabilizer link.

- Install a new nut and tighten to 115 Nm (85 lb.ft).

8. Install the wheel and tire.

- Tighten the wheel nuts to 140 Nm (103 lb.ft).

9. Carry out the wheel alignment procedure.

Rear Suspension - Upper Arm

Removal and Installation

Removal

1.  **WARNING:** Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Raise and support the vehicle.

2. Remove the wheel and tire.

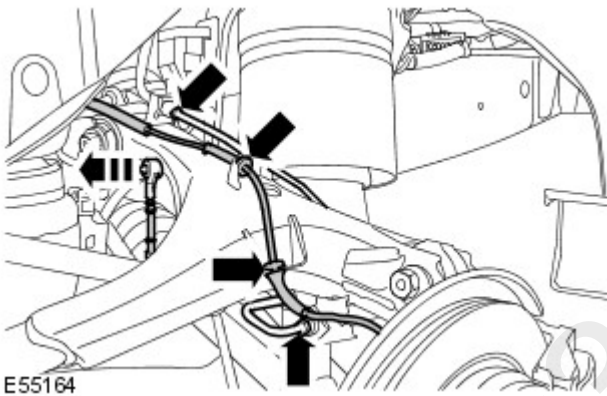
3.  **CAUTION:** Always plug any open connections to prevent contamination.

Remove the brake tube.

- Disconnect the 2 brake tube unions.
- Remove the brake hose clips and release the hoses.
- Release the brake tube from the clip.

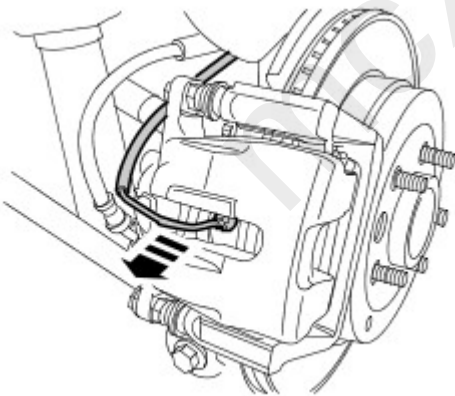
4. Disconnect the height sensor link.

5. Release the wheel speed sensor lead.

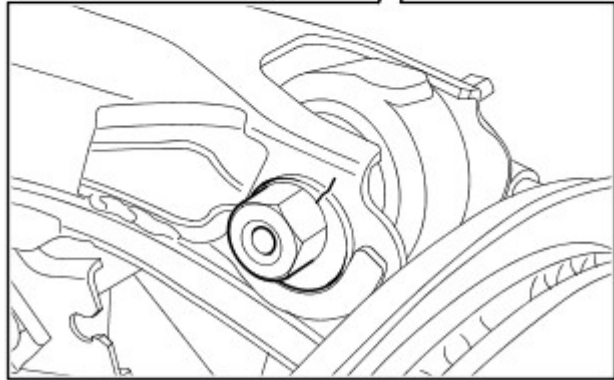
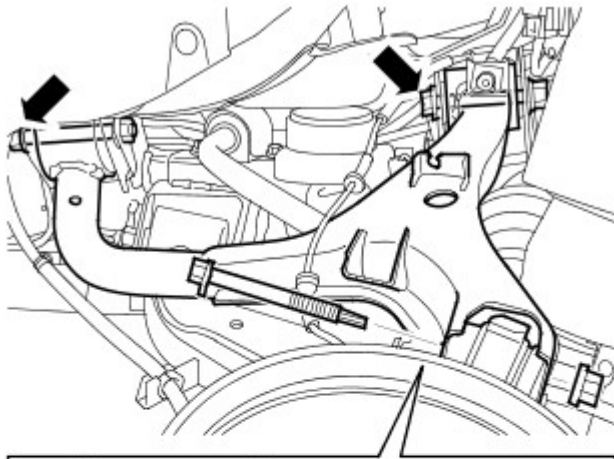


E55164

6. RH side only: Release the brake pad wear indicator sensor lead.



E55165



E55166

7. Remove the upper arm.

- Loosen the upper arm bolts.
- Mark the position of the bolt in relation to the upper arm.
- Remove the nut and bolt, then release the upper arm from the wheel knuckle.
- Remove the upper arm bolts.

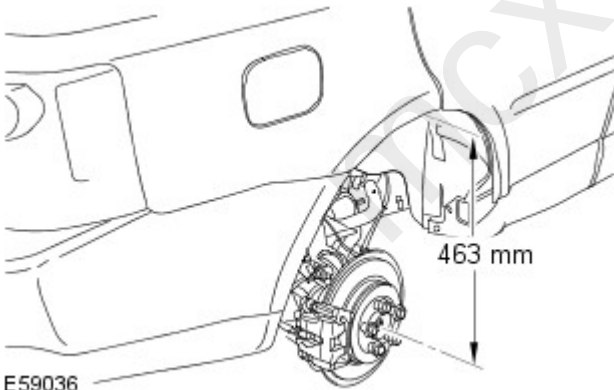
Installation

1. Install the upper arm.

- Fit the bolts but do not fully tighten at this stage.

2. Set the height, between the center of the halfshaft end and the edge of the fender trim, to 463 mm (18.23").

- Support with an axle stand.



E59036

3. CAUTION: Make sure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.

Connect the upper arm and wheel knuckle.

- Align the bolt to the marks made previously.
- Tighten the bolt to 133 Nm (98 lb.ft).

4. Tighten the upper arm front bolt to 175 Nm (129 lb.ft).

5. Tighten the upper arm rear bolt to 275 Nm (203 lb.ft).

6. Secure the wheel speed sensor lead.

7. Secure the brake pad wear indicator sensor lead.

8. Connect the height sensor link.

9. Install the brake tube.

- Tighten the brake tube unions to 18 Nm (13 lb.ft).

10. Bleed the brake system.

For additional information, refer to: [Component Bleeding](#) (206-00 Brake System - General Information, General Procedures).

11. Install the wheel and tire.

- Tighten the wheel nuts to 140 Nm (103 lb.ft).

12. Carry out the wheel alignment procedure.

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Rear Suspension - Toe Link

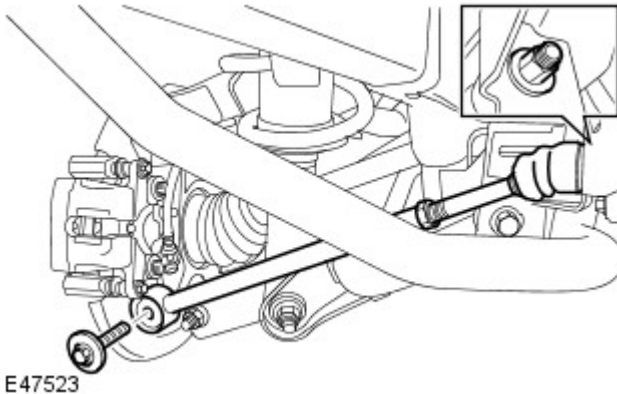
Removal and Installation

Removal

1.  **WARNING:** Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Raise and support the vehicle.

2. Remove the wheel and tire.
3. Disconnect the toe link.
 - Remove and discard the bolt.
4. Remove the toe link.
 - Remove and discard the nut.

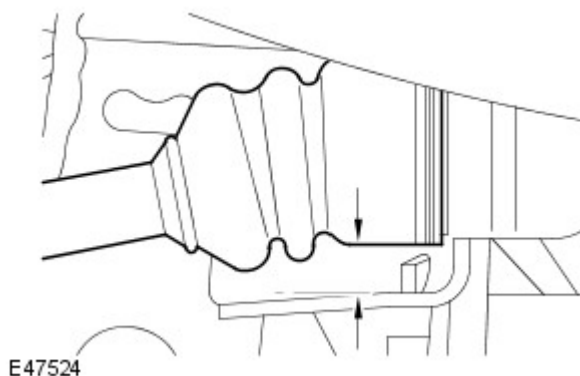


Installation

1.  **CAUTION:** Make sure the toe link anti-rotation tang is fully seated in the integrated body frame before tightening the toe link retaining nut. Failure to follow this instruction will result in damage to the toe link or integrated body frame.

Install the toe link.

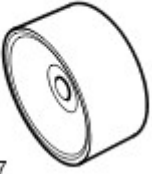
- Install a new nut and lightly tighten.
2. Connect the toe link.
 - Using a M14 X 2 tap, clean the threads of the knuckle fixing hole. Blow out debris with an air-line.
 - Tighten the new bolt to 175 Nm (129 lb.ft).
 3. Set the gap, between the underside of the toe link rubber boot and the integrated body frame bracket, to 10 mm (0.473 in).
 - Tighten the toe link inner ball joint retaining nut to 133 Nm (98 lb.ft)



4. Install the wheel and tire.
 - Tighten the wheel nuts to 140 Nm (103 lb.ft).
5. Carry out the wheel alignment procedure.

Rear Suspension - Lower Arm Bushing

Removal and Installation

Special Tool(s)	
 204-526/1 E55175	Receiver rear lower arm front bush 204-526/1
 204-526/2 E55176	Remover rear lower arm front bush 204-526/2
 204-526/3 E55177	Installer rear lower arm front bush 204-526/3
 204-532/1 E55178	Receiver rear lower arm rear bush 204-540/1
 204-540/2 E55179	Remover rear lower arm rear bush 204-540/2
 204-540/3 E55180	Installer rear lower arm rear bush 204-540/3

Removal

- NOTE: The bushings must be replaced in pairs, LH and RH sides.

 **WARNING:** Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Raise and support the vehicle.

2. Remove the wheels and tires.
3. Remove the LH lower arm.

For additional information, refer to: [Lower Arm](#) (204-02 Rear Suspension, Removal and Installation).

4. Remove the RH lower arm.

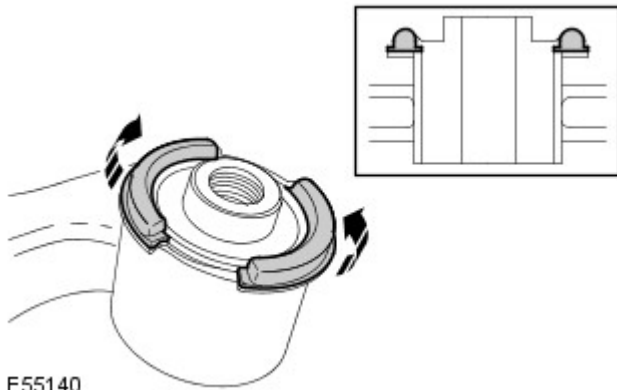
5. Note the position of the bushing in relation to the lower arm.

6.  **CAUTION:** The bush flanges need to be removed to allow bush removal.

• **NOTE:** Take note of the fitted position of the bush.

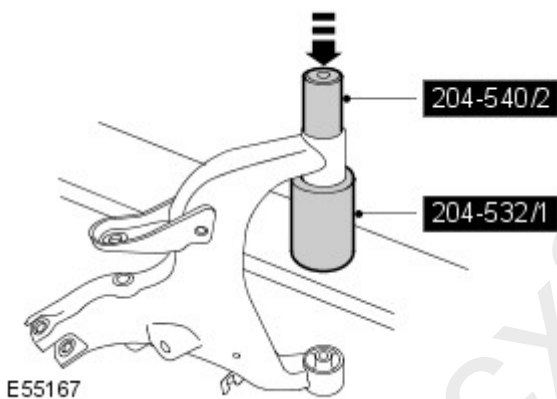
Using a suitable tool, bend over the bush flanges.

7. Using a hacksaw, remove the flange from the bushing, making sure the upper arm is not damaged.



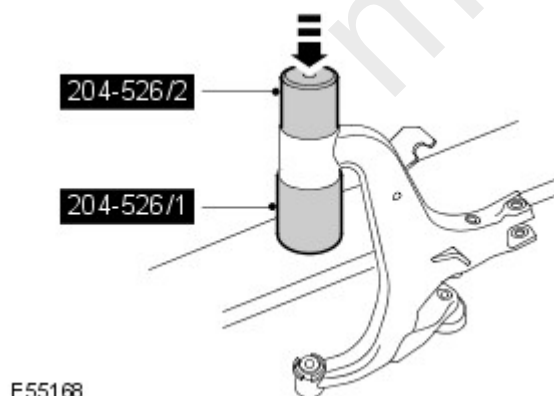
E55140

8. Using the special tools, remove and discard the lower arm rear bushings.



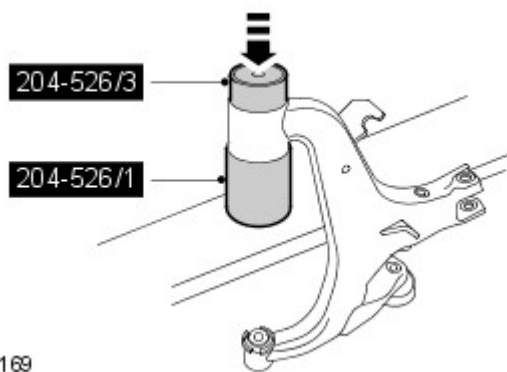
E55167

9. Using the special tools, remove and discard the lower arm front bushings.



E55168

Installation



E55169

1. CAUTIONS:

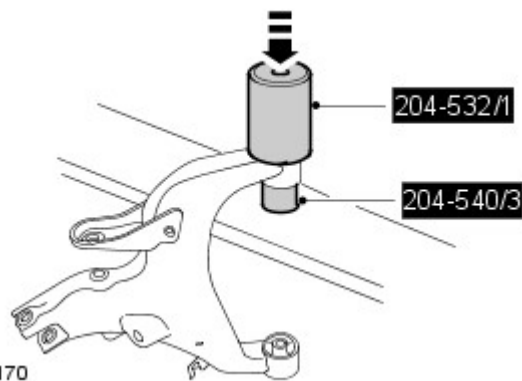


Make sure the bush is correctly aligned.



Make sure the correct special tool is used to install the bushings to the correct depth.

Using the special tools, install the lower arm front bushings



E55170



CAUTION: Make sure the bush is correctly aligned.

Using the special tools, install the lower arm rear bushings.

3. Install the LH lower arm.
For additional information, refer to: [Lower Arm](#) (204-02 Rear Suspension, Removal and Installation).
4. Install the RH lower arm.
5. Install the wheels and tires.
 - Tighten the wheel nuts to 140 Nm (103 lb.ft).
6. Carry out the wheel alignment procedure.

Rear Suspension - Shock Absorber and Spring AssemblyTDV6 2.7L Diesel

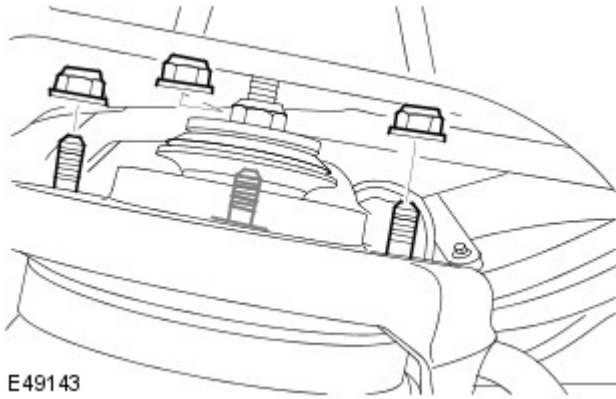
Removal and Installation

Removal

1.  **WARNING:** Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

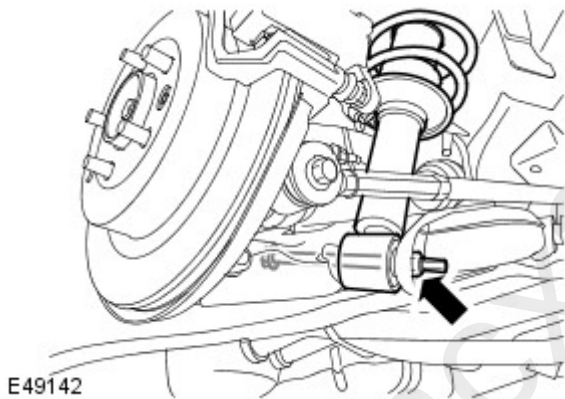
Raise and support the vehicle.

2. Remove the wheel and tire.
3. Loosen the 3 spring and shock absorber retaining nuts.

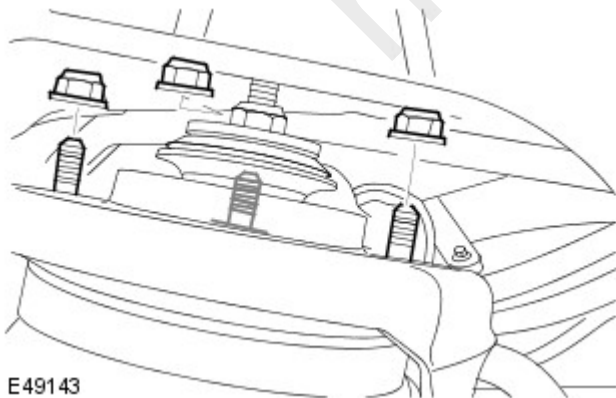


4. Disconnect the shock absorber and spring assembly from the lower arm.

- Using a jack and a suitable block of wood, support the base of the shock absorber.
- Remove the nut and bolt.



5. Remove the shock absorber and spring assembly retaining nuts.



6. Remove the shock absorber and spring assembly.

Installation

1. Install the shock absorber and spring assembly.
 - Make sure the spring and shock absorber assembly top mounting to body mating faces are clean.
 - Install the nuts but do not fully tighten at this stage.

2. Connect the shock absorber and spring assembly to the lower arm.

- Tighten the nut and bolt to 300 Nm (221 lb.ft).
- Tighten the three retaining nuts to 70 Nm (52 lb.ft).

3. Install the wheel and tire.

- Tighten the wheel nuts to 140 Nm (103 lb.ft).

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Rear Suspension - Shock Absorber and Spring Assembly TDV6 2.7L Diesel

Disassembly and Assembly

Disassembly

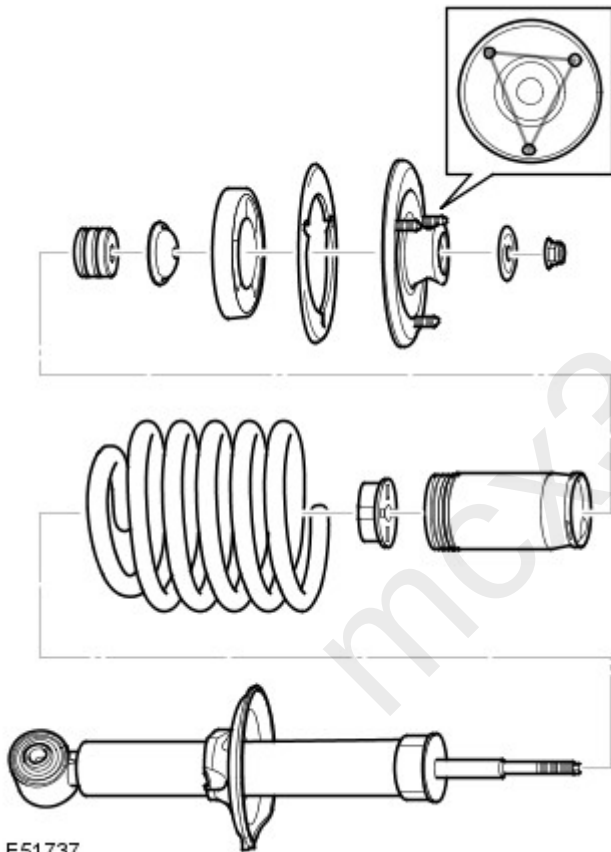


WARNING: Ensure the spring compressor Safe Working Load (SWL) meets or exceeds the spring rating quoted in the Specifications section.

1. Raise and support the vehicle.
2. Remove the wheel and tire.
3. Remove the shock absorber and spring assembly.
For additional information, refer to: [Shock Absorber and Spring Assembly - TDV6 2.7L Diesel](#) (204-02 Rear Suspension, Removal and Installation).
4. Install a suitable spring compressor in a vise.
5. Install the shock absorber and spring assembly in the spring compressor.
 - Compress the spring just sufficiently to relieve the spring tension.

6. Remove the shock absorber.

- Restrain the shock absorber spindle, remove and discard the nut.
- Remove the upper bush rebound plate and upper bush.
- Remove the upper mounting assembly.
- Remove the dust tube and rebound plate assembly.
- Remove the spring aid.



7. Remove the spring from the spring compressor.

Assembly



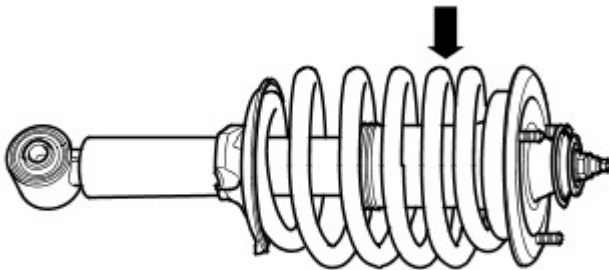
E51738

1. Clean and inspect the components for deterioration.

- Remove the rubber insulator.
- Remove the spacer.
- Remove the rebound plate from the dust tube.

2. Install the spring in the spring compressor.

- Make sure the spring is installed with the close coils positioned towards the top of the shock absorber.



E51740

3. Install the spring aid.

4. Install the dust tube.

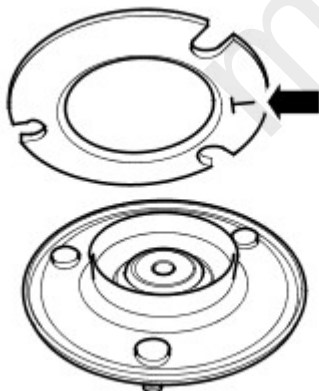
- Install the rebound plate into the dust tube.

5. Install the shock absorber.

- Make sure the spring is correctly located in the spring seat.

6. Install the upper mounting.

- Install the spacer and rubber insulator, making sure the spacer drops over the stud heads.
- Install the upper bush and upper bush rebound plate.
- Install a new nut and tighten to 98 Nm (72 lb.ft).



E51739

7. Install the shock absorber and spring assembly.

For additional information, refer to: [Shock Absorber and Spring Assembly - TDV6 2.7L Diesel](#) (204-02 Rear Suspension, Removal and Installation).

8. Install the wheel and tire.

- Tighten the wheel nuts to 140 Nm (103 lb.ft).