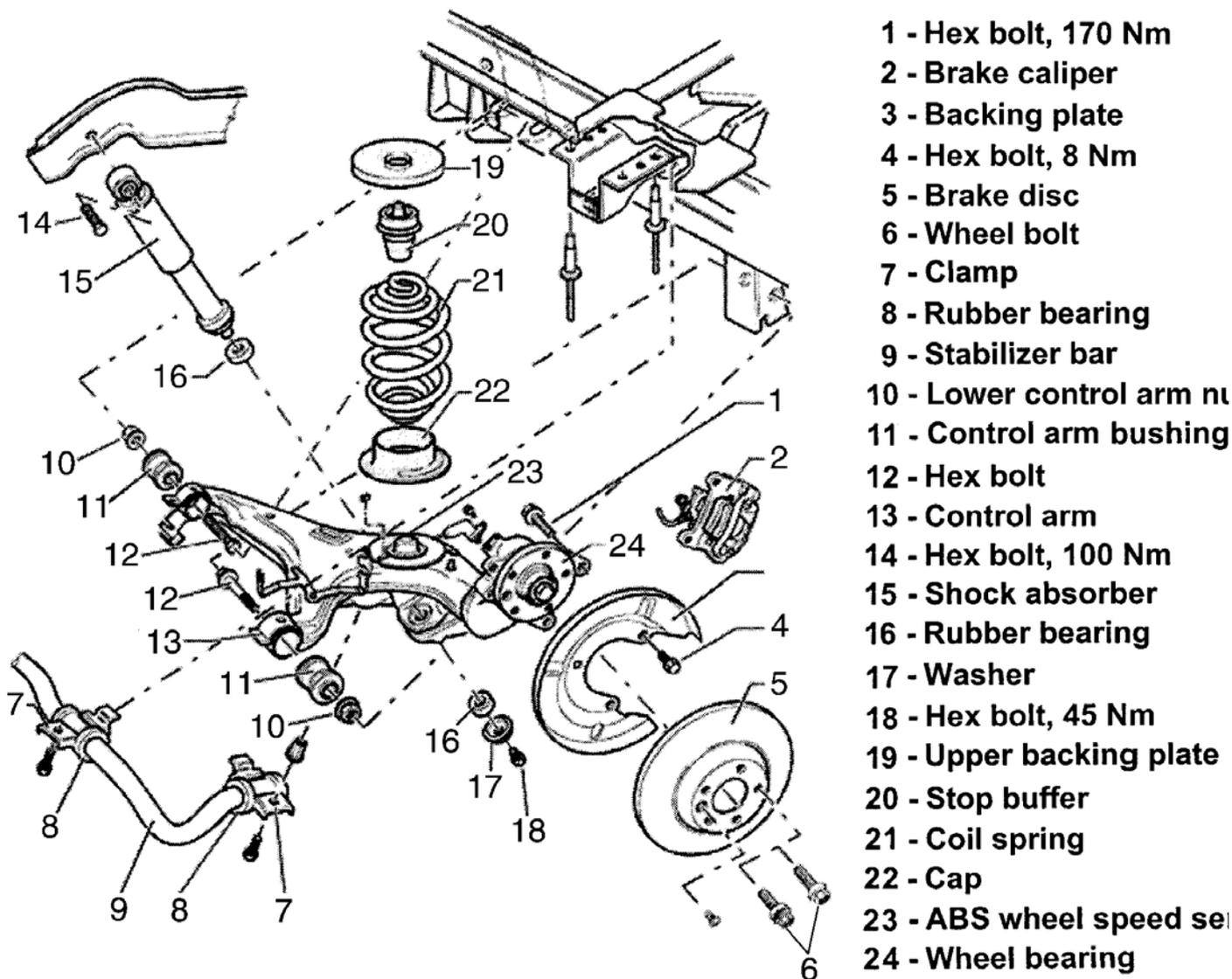


1999-2003 SUSPENSION

Rear - Eurovan

DESCRIPTION

EuroVan is equipped with independent rear suspension, major components included control arms, coil springs, shock absorbers, stabilizer bar, drive axle and wheel bearings. Brake discs rotate on a wheel hub assembly pressed into control arm. See **Fig. 1**.



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Fig. 1: Exploded View Of Rear Suspension Components

Courtesy of VOLKSWAGEN UNITED STATES, INC.

ADJUSTMENTS

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

NOTE: See **SPECIFICATIONS & PROCEDURES - EUROVAN** article in **WHEEL ALIGNMENT**.

WHEEL BEARING

NOTE: The wheel bearing and wheel hub are installed together in a housing. This wheel bearing/hub unit is maintenance and adjustment free. Adjusting and servicing is not possible.

REMOVAL & INSTALLATION

NOTE: Many procedures require use of special tools. To identify special tools called out in servicing, see **SPECIAL TOOLS**.

CONTROL ARM & BUSHINGS

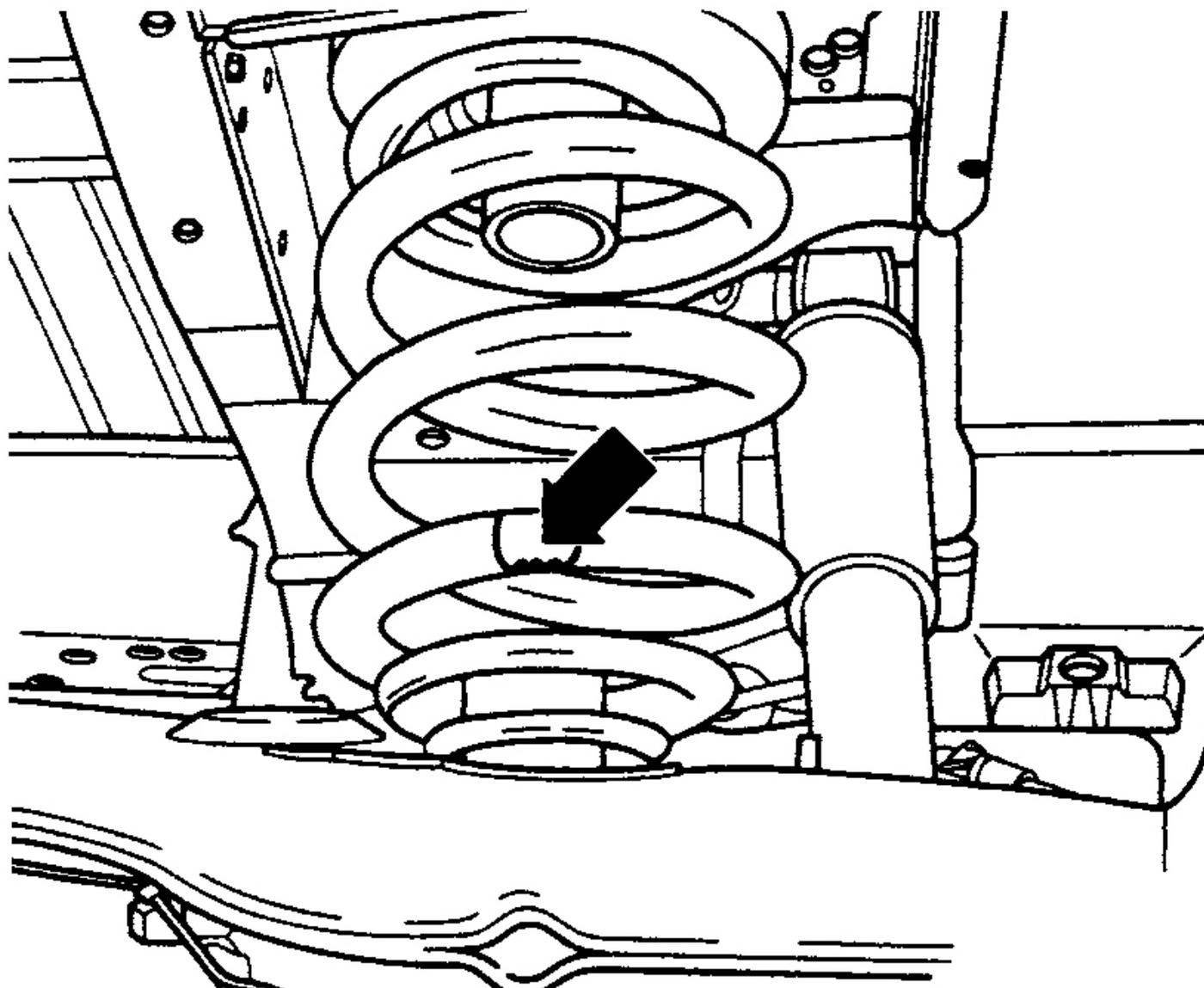
NOTE: Manufacturer does not give specific removal and installation procedures for control arm.

Removal & Installation

Use illustration to remove and install control arm. See **Fig. 1**. When installing coil spring, ensure color marking faces rear of vehicle. See **Fig. 2**. Install control arm bolts and tighten nuts hand tight. Final tighten with vehicle at normal curb height.

NOTE: If equipped, disconnect brake pressure regulator spring before removing control arm.

After control arm is removed or replaced, check wheel alignment. See **SPECIFICATIONS & PROCEDURES - EUROVAN** article in **WHEEL ALIGNMENT**.



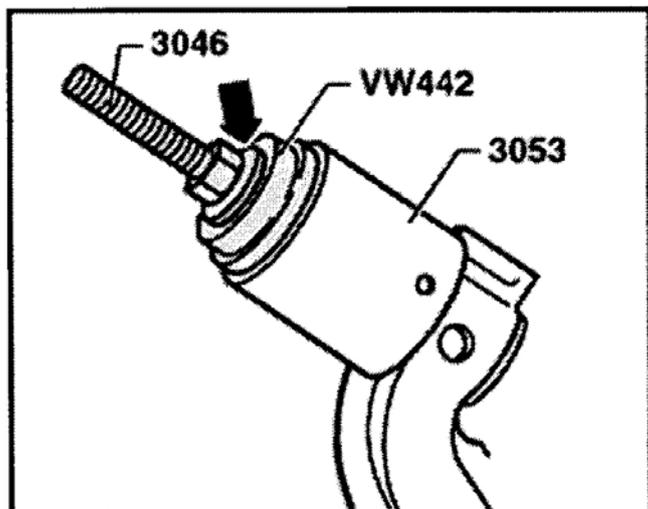
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Fig. 2: Locating Rear Coil Spring Color Coding (Toward Rear Of Vehicle)

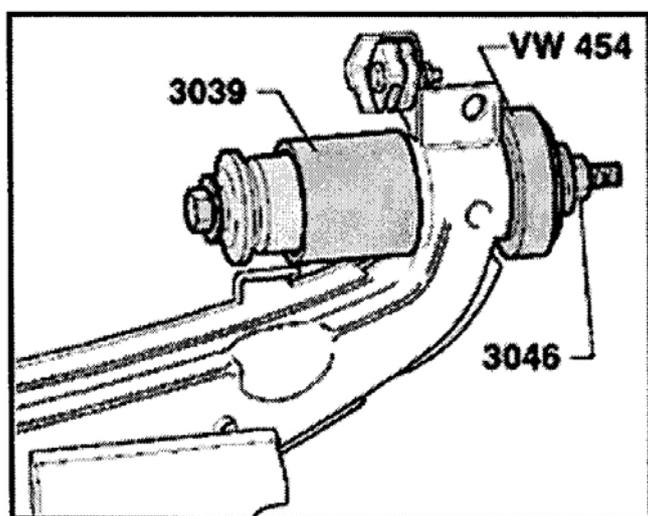
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Bushing

Clamp control arm into soft-jawed vise. Use illustration to aid in removal and installation of bushings. See **Fig. 3**.

**Pull bonded rubber bushings out from drive axle**

- Clamp drive axle into vice.
- Insert a disc between nut and bearing (arrow) and coat with oil.
- Pull out bonded rubber bushings.

**Pull bonded rubber bushing into control arm**

- Pull in bonded rubber bushings far enough until the steel bush contacts the tool and the collar of the bearing projects out even both sides.

Note:

Coat control arm bore, guide sleeve and bonded rubber bushing with lubricant e.g. lubricating soap before inserting.

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Fig. 3: Removing & Installing Control Arm Bushing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

COIL SPRING

NOTE: Coil spring application varies between group numbers. To identify coil spring application, see illustrations under **COIL SPRING APPLICATIONS**.

Removal & Installation

1. Raise vehicle so that rear wheels still contact the ground, but upper shock mount bolts are accessible.
2. Remove upper shock absorber mounting bolts. Raise and support vehicle. Remove wheels.
- 3.

CAUTION: Manufacturer recommends replacing axle shaft flange bolts, if loosened or removed.

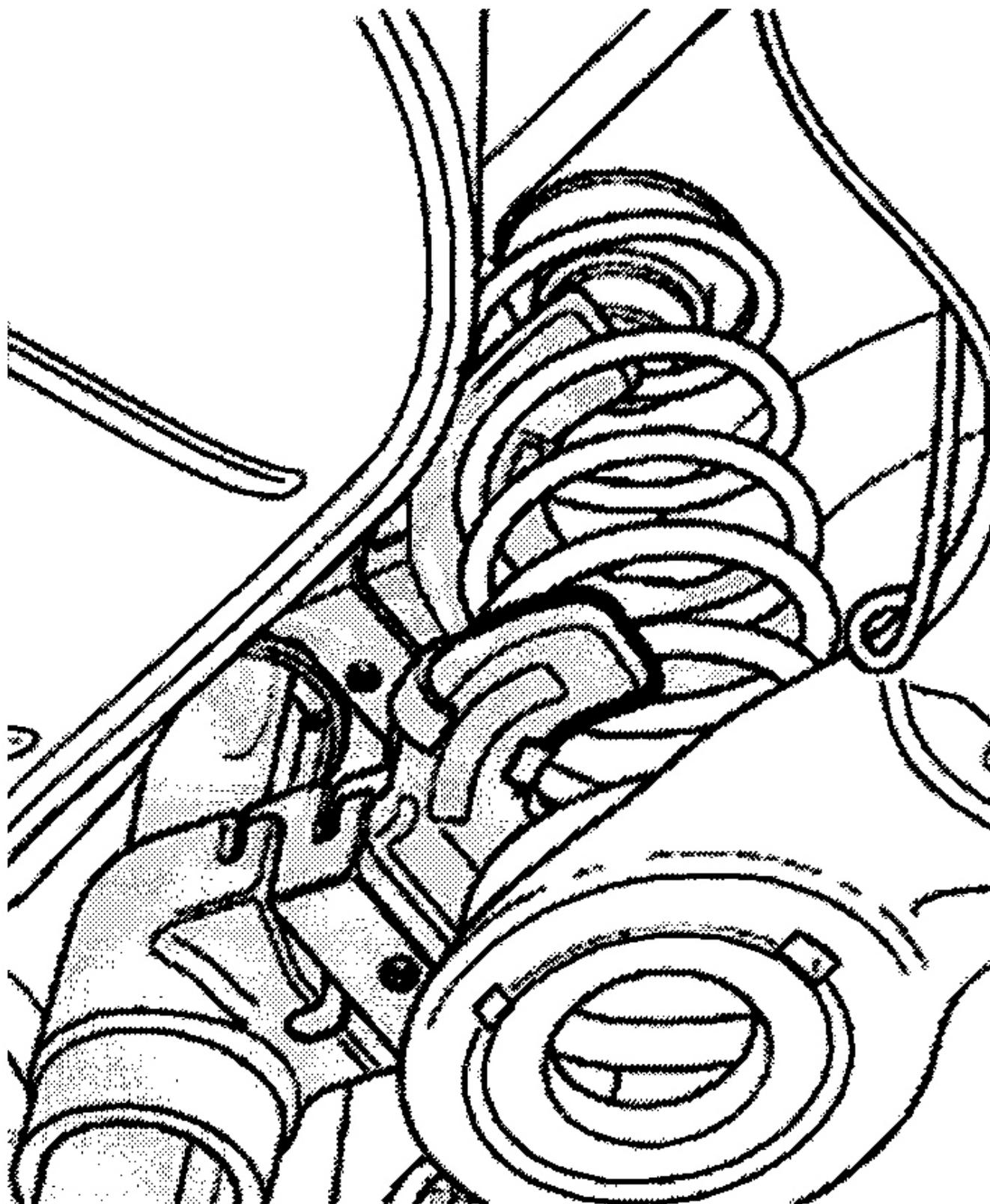
On AWD models, unbolt drive axle at final drive flange.

4. On all models, install spring compressor to coil spring. See **Fig. 4**. Compress spring until it can be removed from vehicle.

5. **CAUTION: Final tighten control arm-to-body bolts with weight of vehicle on ground (curb height).**

To install, reverse removal procedure. Ensure dampening buffer and cap are correct for vehicle and are not damaged. See **Fig. 5** or **Fig. 6** . Replace as necessary.

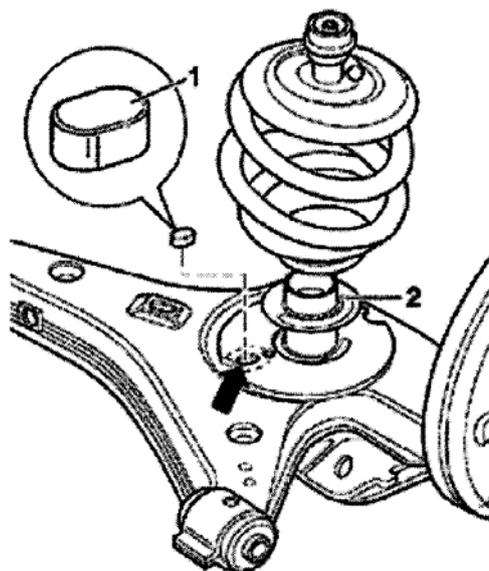
6. Install spring together with spring seat. End of spring must rest against stop on spring seat when installed. When installed color marking on coil spring should face rear of vehicle. See **Fig. 2** .



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Fig. 4: Compressing Coil Spring

Courtesy of VOLKSWAGEN UNITED STATES, INC.



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Fig. 5: Dampening Buffer (Up To VIN 70-WH083 638 Or 70-WX072 160)

Courtesy of VOLKSWAGEN UNITED STATES, INC.

Dampening buffer and cap (up to VIN 70-WH083 638 or 70-WX072 160)**Note:**

- ◆ Dampening buffer and cap prevent noises between control arm and coil spring.
- ◆ Dampening buffer is only installed in conjunction with coil springs which contain the index A, C, M or L behind the part number.
- ◆ The dampening buffer is installed in the following vehicle models: high room box-type van, Caravelle, Combi, Multivan

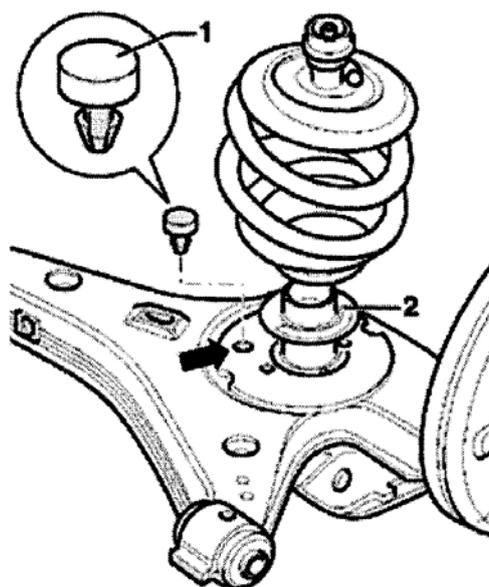
1 - Shock absorber buffer

Thoroughly clean mount (arrow) on control arm when installing dampening buffer.

Adhesion surface must be free of oil and grease!

Remove protective foil before adhering dampening buffer.

2 - Cap



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Fig. 6: Dampening Buffer (From VIN 70-WH083 639 Or 70-WX072 161)

Courtesy of VOLKSWAGEN UNITED STATES, INC.

Dampening buffer and cap (from VIN 70-WH083 639 or 70-WX072 161)**Note:**

- ◆ Dampening buffer and cap prevent noises between control arm and coil spring.
- ◆ Dampening buffer is only installed in conjunction with coil springs which contain the index A, C, M or L behind the part number.
- ◆ The dampening buffer is installed in the following vehicle models: high room box-type van, Caravelle, Combi, Multivan

1 - Shock absorber buffer

The dampening buffer is clipped into the mount (arrow).

2 - Cap

Retrofitting Coil Springs

Stronger coil springs can be retrofitted to vehicle. Benefit to retrofitting is that vehicle no longer sags as much with the same net load and cargo. Axle load noted in the vehicle papers does not increase due to retrofitting and may not be exceeded. Possible increase in load capacity on vehicles with 800 kg load capacity goes up to 1000 kg, vehicles with 1000 kg load capacity to goes to 1200 kg. In this case the changed axle load must be noted in the vehicle papers.

If necessary, the corresponding group number must be changed by hand on the vehicle data plate. Always observe application of pull-spring of brake pressure regulator to vehicle spring. If retrofitting to another brake pressure regulator spring, the brake pressure regulator must be adjusted afterward. See

ADJUSTMENTS in appropriate DISC article in BRAKES.

SHOCK ABSORBER

NOTE: On All Wheel Drive (AWD) vehicles, disconnect drive axle at final drive flange and support axle at horizontal position. Failure to do this may result in damage to CV joint.

Removal & Installation

1. Raise vehicle so that rear wheels still contact the ground, but upper shock mount bolts are accessible. Remove upper shock absorber mounting bolts.
2. Raise and support vehicle. Remove lower shock absorber mounting bolt. Remove shock absorber.
3. Install shock absorber, leave upper shock absorber mount bolt finger tight. Install wheels. Lower vehicle to ground. Tighten shock absorber mounting bolts to specification. See **TORQUE SPECIFICATIONS**.

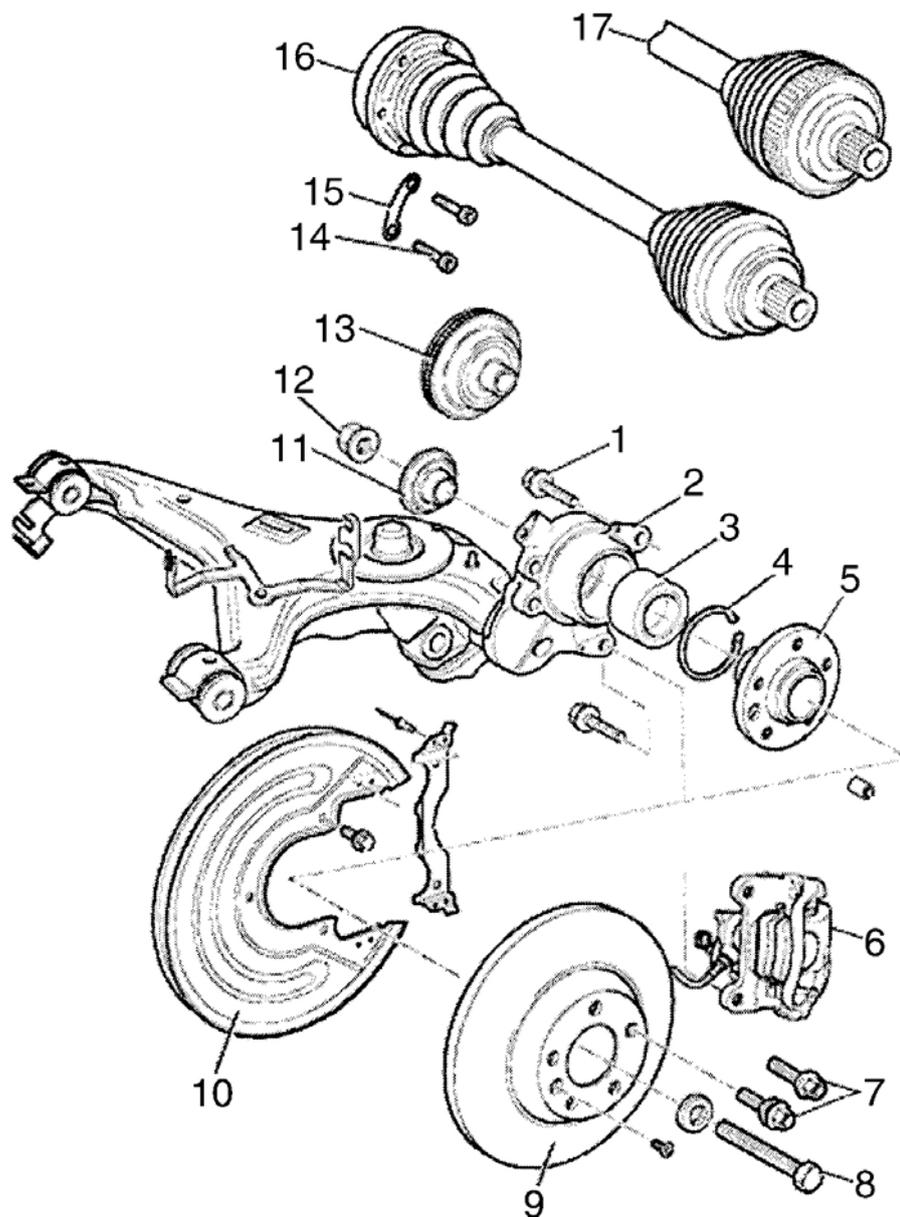
WHEEL BEARING

NOTE: Wheel bearing and hub can also be replaced with Hydraulic Removal & Installation Tool (VAG1459B). Procedure is as follows substituting hydraulic tool for Bearing and Hub Puller Kit (3253).

CAUTION: Manufacturer recommends replacing axle shaft flange bolts, if loosened or removed.

Removal & Installation

1. For vehicles equipped with Front Wheel Drive (FWD), go to next step. On AWD models, remove hubcap and loosen axle shaft bolt 90°. See **Fig. 7**. Raise and support vehicle. Remove wheel. Remove axle shaft bolt and remove drive axle from final drive flange. Go to step 3.
2. Raise and support vehicle. Remove wheel. While counter-holding lock nut, remove axle bolt and tension disc. See **Fig. 7**.
3. On all models, remove parking brake cable from brake caliper. Remove brake caliper. Using mechanics wire support brake caliper, DO NOT allow caliper to hang by it's own weight. Remove brake disc and backing plate.
4. Using Bearing and Hub Puller Kit (3253) or equivalent along with a 2-jawed puller, remove wheel hub and bearing as illustrated. See **Fig. 8** and **Fig. 9**. Also, see **SPECIAL TOOLS**.
5. Installation is reverse of removal procedure. Always use NEW wheel bearing as removal destroys old bearing. Ensure retaining clip is seated properly in groove. Tighten fasteners to specification. See **TORQUE SPECIFICATIONS**.

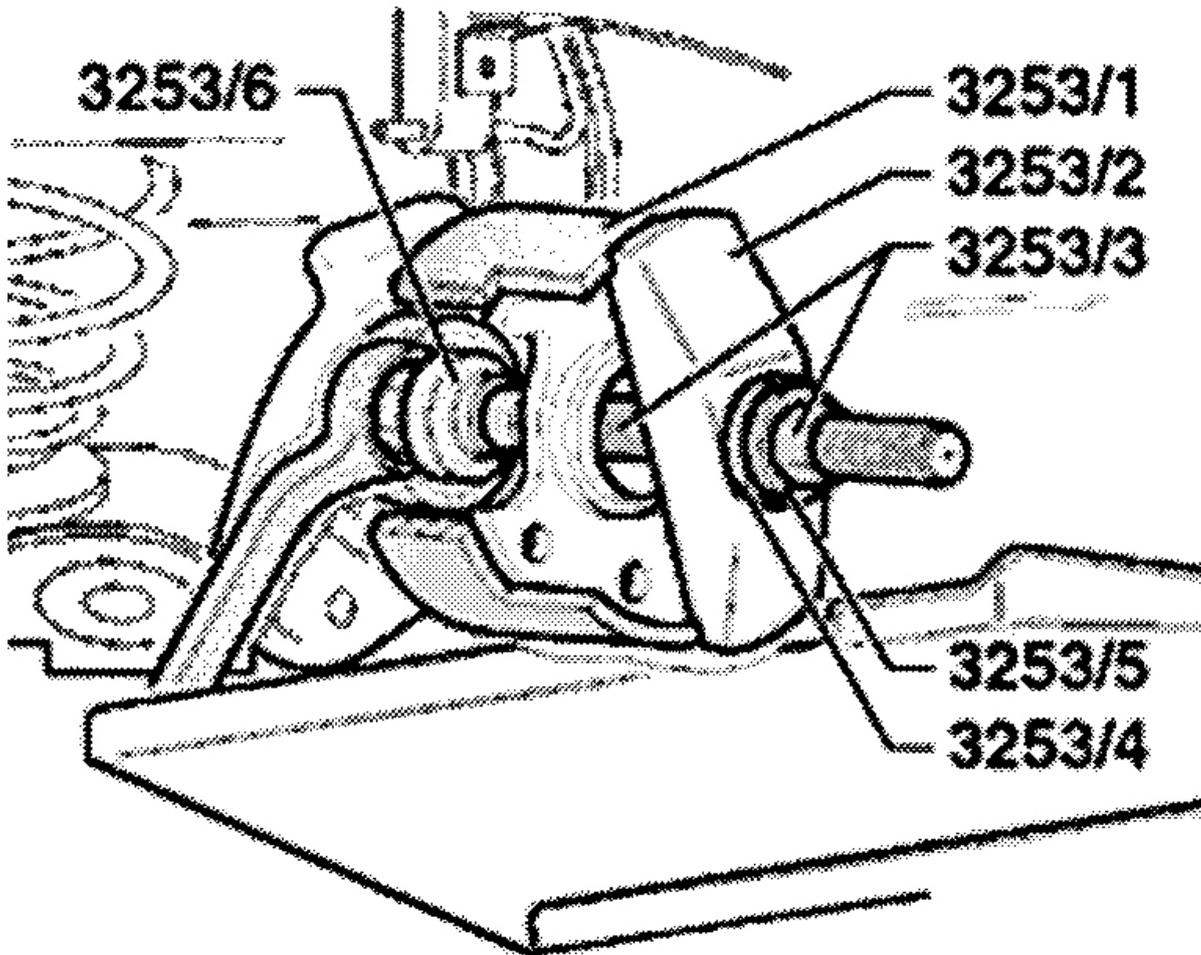


Rear wheel bearings (front and all wheel drive), servicing

- 1 - Hex bolt, 170 Nm
 - 2 - Control arm
 - 3 - Wheel bearing
 - ◆ Always replace, destroyed during re
 - 4 - Snap ring
 - ◆ Check for proper fit
 - 5 - Wheel hub
 - 6 - Brake caliper
 - 7 - Wheel bolt
 - 8 - Hex bolt
 - ◆ Always replace after disassembly
- Tightening torque for vehicles with all wheel drive:
- ◆ 150 Nm plus additional 90° ($\frac{1}{4}$ -turn)
 - ◆ For vehicles with all wheel drive, only loosen and tighten with vehicle standir on its wheels (risk of accident)
- 9 - Brake disc
 - 10 - Backing plate
 - ◆ To remove, drill out blind rivet pos. 17 and remove cover plate pos. 14
 - 11 - Tension disc
 - ◆ Only for vehicles with front wheel drive
 - 12 - Self-locking hex nut, 200 Nm
 - ◆ Always replace
 - ◆ Only for vehicles with front wheel drive
 - 13 - Tension disc with rotor
 - ◆ Only for vehicles with front wheel drive and ABS
 - 14 - Socket-head bolt, 40 Nm
 - 15 - Backing plate
 - 16 - Drive axle
 - 17 - Drive axle with ABS wheel speed sensor rotor
 - ◆ Only for vehicles with ABS
 - ◆ Also install as a replacement part on vehicles without ABS

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Fig. 7: Exploded View Of Wheel Bearing Assembly
 Courtesy of VOLKSWAGEN UNITED STATES, INC.



- Pull wheel hub out from control arm.
- Remove securing ring.

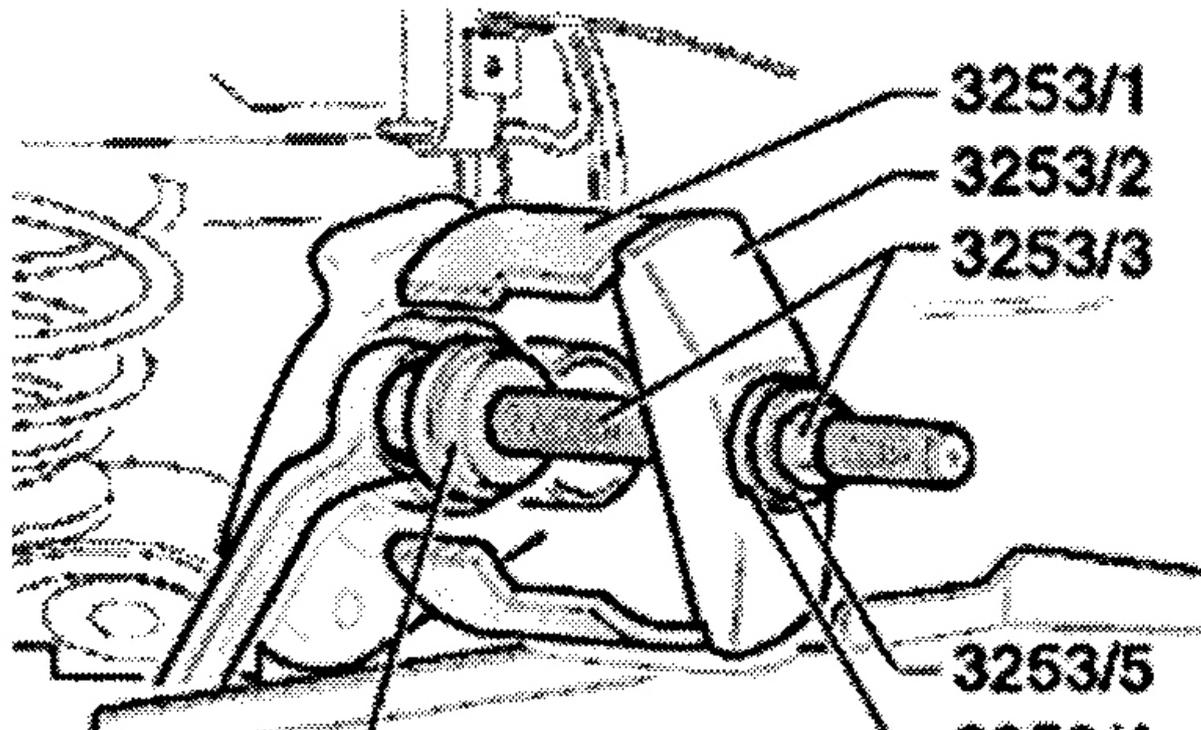
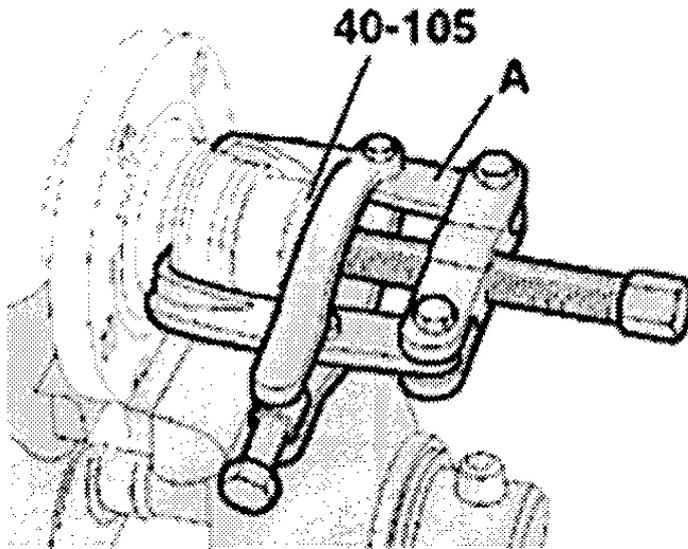
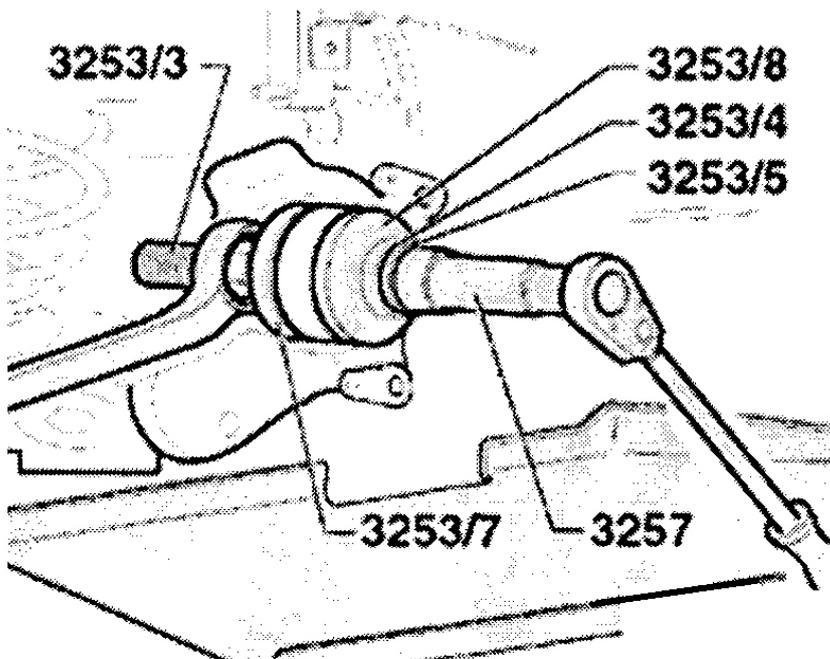


Fig. 8: Removing & Installing Wheel Hub & Bearing (1 Of 2)
Courtesy of VOLKSWAGEN UNITED STATES, INC.



- Remove bearing inner race from wheel hub.
Only use puller with tension bracket, e.g. -A-204/2 Kukko puller (standard).



- Pull wheel bearing into control arm up to stop.
- Install securing ring.

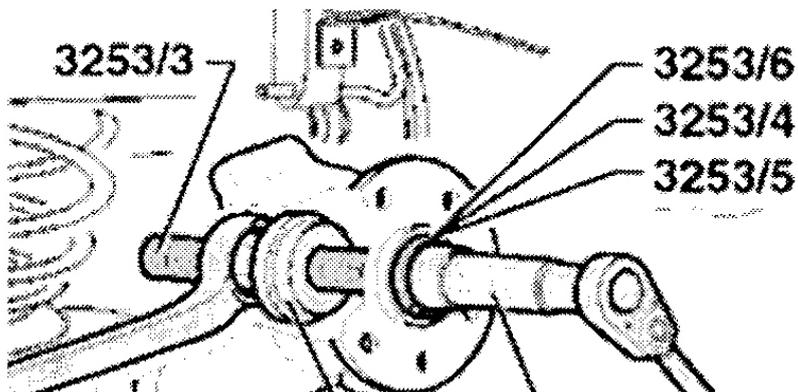


Fig. 9: Removing & Installing Wheel Hub & Bearing (2 Of 2)

Courtesy of VOLKSWAGEN UNITED STATES, INC.

COIL SPRING APPLICATIONS

Use following illustrations to identify coil springs and pull-spring of brake booster applications. See **Fig. 10** -**Fig. 23** .

Application for vehicles up to 04.00

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring	Color	Stop buffer	Group number	Part No. of brake booster pull- spring	Co
Box- type van,	Short wheel base, 800 kg	701 511 105 A/C ³⁾	white	x	1	701.612.561 B	wh
Cavity-	Short wheel base, 1000 kg	701 511 105 A/C ³⁾	white	x	1	701.612.561 B	wh
Box- type van	Short wheel base, 1200 kg	701 511 105 M ³⁾	pink	x	1	701 612 561 D	Bla
	Long wheel base, 1000 kg	701 511 105 A/C ³⁾	white	x	1	701.612.561 B	wh
	Long wheel base, 1200 kg	701 511 105 M ³⁾	pink	x	1	701 612 561 D	Bla
	Long wheel base, External supplier	701 511 105 K ⁴⁾	yellow	x	3	701.612.561 B	wh
	Short wheel base, lowered suspension	701 511 105 L ³⁾	gray	x	4	701.612.561 B	wh
	reinforced ar rear, 1000 kg independent of wheel base, reinforcement at front	701 511 105 M ³⁾	pink		1	701 612 561 D	Bla

1) When allocating vehicles with all wheel drive, 100 kg must be added to the actual r load (due to higher curb weight)

2) Load capacity values are rounded off values

Fig. 10: Coil Spring Applications (Up To 04/2000 - 1 Of 4)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

2003 Volkswagen EuroVan

SUSPENSION - REAR

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring	Color	Stop buffer	Group No.	Part No. of brake booster pull-spring	Col
Caravelle,	Short wheel base, 800 kg	701 511 105 P ⁴⁾	light blue	x	3	701 612 561	yell
Multivan,	Short wheel base, 1000 kg	701 511 105 P ⁴⁾	light blue	x	3	701 612 561	yell
Combi	Short wheel base, 1200 kg	701 511 105 M ³⁾	pink	x	1	701.612.561 B	wh
	Short wheel base, 800 kg 6 cyl.-gasoline engine 2.8 L	701 511 105 L ³⁾	gray	x	4	701.612.561 A	gre
	Short wheel base, 1000 kg 6 cyl.-gasoline engine 2.8 L	701 511 105 L ³⁾	gray	x	4	701.612.561 A	gre
	Long wheel base, 1000 kg	701 511 105 P ⁴⁾	light blue	x	1	701 612 561	yell
	Long wheel base, 1200 kg	701 511 105 M ³⁾	pink	x	1	701.612.561 B	whi
	Short wheel base, lowered suspension	701 511 105 L ³⁾	gray	x	4	701.612.561 A	gre
	Short wheel base, reinforced at rear	701 511 105 A/C ³⁾	white		3	701.612.561 A	gre

1) When allocating vehicles with all wheel drive, 100 kg must be added to the actual

Fig. 11: Coil Spring Applications (Up To 04/2000 - 2 Of 4)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

2003 Volkswagen EuroVan

SUSPENSION - REAR

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring	Color	Stop buffer	Group No.	Part No. of brake booster pull- spring	Col
Caravelle, Multivan, Combi	Long wheel base, reinforced at rear	701 511 105 A/C ³⁾	white ³		1	701.612.561 A	gre
	Short wheel base, Reinforced at front and rear	701 511 105 A/C ³⁾	white		1	701.612.561 A	gre
	Long wheel base, Reinforced at front and rear	701 511 105 A/C ³⁾	white		1	701.612.561 A	gre
Flatbed,	Short wheel base, 1000 kg	701 511 105	violet	x	2	701.612.561 C	bro
Double cabin,	Short wheel base, 1200 kg	701 511 105 B	red brown	x	2	701.612.561 C	bro
Chassis with	Short wheel base, 2000 kg	701 511 105 B	red brown	x	2	701.612.561 C	bro
Driver's cab,	Long wheel base, 1000 kg	701 511 105	violet	x	2	701.612.561 C	bro
Chassis with	Long wheel base, 1200 kg	701 511 105 B	red brown	x	2	701.612.561 C	bro
Double cabin	Long wheel base, 2000 kg	701 511 105 B	red brown	x	2	701.612.561 C	bro
	reinforced at rear, 1000 kg independent of	701 511 105 B	red brown		2	701.612.561 C	bro

2003 Volkswagen EuroVan

SUSPENSION - REAR

Fig. 12: Coil Spring Applications (Up To 04/2000 - 3 Of 4)
 Courtesy of VOLKSWAGEN UNITED STATES, INC.

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring	Color	Stop buffer	Group No.	Part No. of brake booster pull- spring	Co
Ambulance	Short wheel base, 1000 kg	701 511 105 F ³⁾	opal green	x	1	701 612 561	yell
	Long wheel base, 1000 kg	701 511 105 F ³⁾	opal green	x	1	701 612 561	yell
	Long wheel base, 1200 kg External supplier	701 511 105 B	red brown	x	1	701.612.561 C	bro
Camper	Short wheel base, 1000 kg	701 511 105 K ³⁾	yellow	x	3	701.612.561 A	gre
	Long wheel base, 1000 kg	701 511 105 K ³⁾	yellow	x	1	701.612.561 A	gre

1) When allocating vehicles with all wheel drive, 100 kg must be added to the actual n load (due to higher curb weight).

2) Load capacity values are rounded off values.

3) Vehicles with these springs are equipped with a cap between spring and control an

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Fig. 13: Coil Spring Applications (Up To 04/2000 - 4 Of 4)
 Courtesy of VOLKSWAGEN UNITED STATES, INC.

Application for vehicles from 05.00

Model	Equipment, with load capacity values ¹⁾ 2)	Part No. of Coil spring ³⁾	Color	Group No.	Part No. of brake booster pull- spring	Co
Box- type van,	Short wheel base, 800 kg	701 511 105 A/C	white	1	701.612.561 B	wh
Cavity-	Short wheel base, 1000 kg	701 511 105 A/C	white	1	701.612.561 B	wh
Box- type van	Long wheel base, 1000 kg	701 511 105 A/C	white	1	701.612.561 B	wh
	Short wheel base, 1200 kg	701 511 105 M	pink	1	701 612 561 D	Bla
	Long wheel base, 1200 kg	701 511 105 M	pink	1	701 612 561 D	Bla
	Long wheel base, vehicle -chassis manufacturer: Winnebago, 150 KW/6-cyl.- engine	701 511 105 K	yellow	8	701.612.561 B	wh
	Short wheel base, 1000 kg Reinforced at rear (1P2)	701 511 105 M	pink	1	701 612 561 D	Bla

1) When allocating vehicles with all wheel drive, 100 kg must be added to the actual n load (due to higher curb weight).

2) Load capacity values are rounded off values.

3) A backing plate and cap or a backing plate and buffer are installed between coil spi and control arm, depending on the model.

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Fig. 14: Coil Spring Applications (From 05/2000 - 1 Of 7)

Courtesy of VOLKSWAGEN UNITED STATES, INC.

2003 Volkswagen EuroVan

SUSPENSION - REAR

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring ³⁾	Color	Group No.	Part No. of brake booster pull- spring	Co
Box- type van, Cavity-	Long wheel base, 1000 kg Reinforced at rear (1P2)	701 511 105 M	pink	1	701 612 561 D	Bla
Box- type van	Short wheel base, 1000 kg Reinforced at front and rear (1P3)	701 511 105 M	pink	1	701 612 561 D	Bla
	Long wheel base, 1000 kg Reinforced at front and rear (1P3)	701 511 105 M	pink	1	701 612 561 D	Bla
	Short wheel base, Lowered suspension (1P4)	701 511 105 L	gray	4	701.612.561 B	wh
	Sport spring system (1P9), Sport shock absorbers (1BU)	701 511 105 L	gray	4	701.612.561 B	wh

¹⁾ When allocating vehicles with all wheel drive, 100 kg must be added to the actual n load (due to higher curb weight).

²⁾ Load capacity values are rounded off values.

³⁾ A backing plate and cap or a backing plate and buffer are installed between coil sp and control arm, depending on the model.

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Fig. 15: Coil Spring Applications (From 05/2000 - 2 Of 7)

Courtesy of VOLKSWAGEN UNITED STATES, INC.

2003 Volkswagen EuroVan

SUSPENSION - REAR

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring ³⁾	Color	Group No.	Part No. of brake booster pull- spring	Co
Caravelle,	Short wheel base, 800 kg	701 511 105 P	light blue	3	701 612 561	yell
Multivan,	Short wheel base, 1000 kg	701 511 105 P	light blue	3	701 612 561	yell
Combi	Short wheel base, 1200 kg	701 511 105 M	pink	1	701.612.561 B	wh
	Short wheel base, Lowered suspension (1P4)	701 511 105 L	gray	4	701.612.561 A	gre
	Long wheel base, 1000 kg	701 511 105 P	light blue	1	701 612 561	yell
	Long wheel base, 1200 kg	701 511 105 M	pink	1	701.612.561 B	whi
	Short wheel base, Reinforced at rear (1P2)	701 511 105 A/C	white	3	701.612.561 A	gre

1) When allocating vehicles with all wheel drive, 100 kg must be added to the actual r load (due to higher curb weight).

2) Load capacity values are rounded off values.

3) A backing plate and cap or a backing plate and buffer are installed between coil sp and control arm, depending on the model.

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Fig. 16: Coil Spring Applications (From 05/2000 - 3 Of 7)
 Courtesy of VOLKSWAGEN UNITED STATES, INC.

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring ³⁾	Color	Group No.	Part No. of brake booster pull- spring	Co
Caravelle,	Long wheel base,	701 511 105 A/C	white	1	701.612.561 A	gre
Multivan, Combi	Reinforced at rear (1P2)					
	Short wheel base, Reinforced at front and rear (1P3)	701 511 105 A/C	white	1	701.612.561 A	gre
	Long wheel base, Reinforced at front and rear (1P3)	701 511 105 A/C	white	1	701.612.561 A	gre
	Sport spring system (1P9) Sport shock absorbers (1BU)	701 511 105 L	gray	4	701.612.561 A	gre
	Sport spring system (1P9) Sport shock absorbers (1BU) ESP (1AT)	701 511 105 L	gray	4	701.612.561 A	gre

1) When allocating vehicles with all wheel drive, 100 kg must be added to the actual n load (due to higher curb weight).

2) Load capacity values are rounded off values.

3) A backing plate and cap or a backing plate and buffer are installed between coil spr and control arm, depending on the model.

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Fig. 17: Coil Spring Applications (From 05/2000 - 4 Of 7)

2003 Volkswagen EuroVan

SUSPENSION - REAR

Courtesy of VOLKSWAGEN UNITED STATES, INC.

Model	Equipment, with load capacity values¹⁾²⁾	Part No. of Coil spring³⁾	Color	Group No.	Part No. of brake booster pull- spring	Co
Flatbed,	Short wheel base, 1000 kg	701 511 105	violet	2	701.612.561 C	bro
Double cabin,	Short wheel base, 1200 kg	701 511 105 B	red brown	2	701.612.561 C	bro
	Short wheel base, 2000 kg	701 511 105 B	red brown	2	701.612.561 C	bro
	Long wheel base, 1000 kg	701 511 105	violet	2	701.612.561 C	bro
	Long wheel base, 1200 kg	701 511 105 B	red brown	2	701.612.561 C	bro
	Long wheel base, 2000 kg	701 511 105 B	red brown	2	701.612.561 C	bro
	Short wheel base, 1000 kg	701 511 105 B	red brown	2	701.612.561 C	bro
	Reinforced at rear (1P2)					
	Long wheel base, 1000 kg	701 511 105 B	red brown	2	701.612.561 C	bro
	Reinforced at rear (1P2)					

1) When allocating vehicles with all wheel drive, 100 kg must be added to the actual n load (due to higher curb weight).

2) Load capacity values are rounded off values.

3) A backing plate and cap or a backing plate and buffer are installed between coil spi and control arm, depending on the model.

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Fig. 18: Coil Spring Applications (From 05/2000 - 5 Of 7)

Courtesy of VOLKSWAGEN UNITED STATES, INC.

2003 Volkswagen EuroVan

SUSPENSION - REAR

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring ³⁾	Color	Group No.	Part No. of brake booster pull-spring	Col
Flatbed, Double cabin	Short wheel base, 1000 kg Reinforced at front and rear (1P3)	701 511 105 B	red brown	2	701.612.561 C	bro
	Long wheel base, 1000 kg Reinforced at front and rear (1P3)	701 511 105 B	red brown	2	701.612.561 C	bro
	Chassis with driver's cab	701 511 105 B	red brown	2	701.612.561 C	bro
	Chassis with driver's cab, 150 KW/6-cyl.- engine	701 511 105 B	red brown	7	701.612.561 C	bro
	Ambulance	Short wheel base, 1000 kg	701 511 105 F	opal green	1	701 612 561
	Long wheel base, 1000 kg	701 511 105 F	opal green	1	701 612 561	yell

1) When allocating vehicles with all wheel drive, 100 kg must be added to the actual r load (due to higher curb weight).

2) Load capacity values are rounded off values.

3) A backing plate and cap or a backing plate and buffer are installed between coil sp and control arm, depending on the model.

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Fig. 19: Coil Spring Applications (From 05/2000 - 6 Of 7)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

2003 Volkswagen EuroVan

SUSPENSION - REAR

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring ³⁾	Color	Group No.	Part No. of brake booster pull- spring	Co
Camper	Short wheel base, 1000 kg	701 511 105 K	yellow	3	701.612.561 A	gre
	Short wheel base, 1200 kg	701 511 105 K	yellow	3	701.612.561 A	gre
	Short wheel base, 1000 kg, 150 KW/6-cyl.- engine	701 511 105 K	yellow	8	701.612.561 A	gre
	Short wheel base, 1200 kg 150 KW/6-cyl.- engine	701 511 105 K	yellow	8	701.612.561 A	gre
	Short wheel base, 1000 kg, 111 kW/TDI- engine	701 511 105 K	yellow	8	701.612.561 A	gre
	Short wheel base, 1200 kg 111 kW/TDI- engine	701 511 105 K	yellow	8	701.612.561 A	gre
	Long wheel base, 1000 kg	701 511 105 K	yellow	1	701.612.561 A	gre
	Long wheel base, 1200 kg	701 511 105 K	yellow	1	701.612.561 A	gre
	Long wheel base, 1000 kg, 111 kW/TDI- engine	701 511 105 K	yellow	6	701.612.561 A	gre
	Long wheel base, 1200 kg, 111 kW/TDI-	701 511 105 K	yellow	6	701.612.561 A	gre

Fig. 20: Coil Spring Applications (From 05/2000 - 7 Of 7)

Courtesy of VOLKSWAGEN UNITED STATES, INC.

Application for vehicles from 05.00 (111 kW/TDI-engine)

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring ³⁾	Color	Group No.	Part No. of brake booster pull- spring	Co
Caravelle, Multivan	Short wheel base, 1000 kg	701 511 105 L	gray	5	701.612.561 A	gre
	Lowered suspension (1P4)					
	Short wheel base, 1000 kg	701 511 105 P	light blue	6	701 612 561	yell
	Short wheel base, 1200 kg	701 511 105 M	pink	6	701.612.561 B	wh
	Long wheel base, 1000 kg	701 511 105 P	light blue	6	701 612 561	yell
	Long wheel base, 1200 kg	701 511 105 M	pink	6	701.612.561 B	whi
Short wheel base, Reinforced at rear (1P2)	701 511 105 A/C	white	8	701.612.561 A	gre	

1) When allocating vehicles with all wheel drive, 100 kg must be added to the actual r load (due to higher curb weight).

2) Load capacity values are rounded off values.

3) A backing plate and cap or a backing plate and buffer are installed between coil sp and control arm, depending on the model.

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Fig. 21: Coil Spring Applications (From 05/2000 With Diesel Engine - 1 Of 2)

Courtesy of VOLKSWAGEN UNITED STATES, INC.

2003 Volkswagen EuroVan

SUSPENSION - REAR

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring ³⁾	Color	Group No.	Part No. of brake booster pull- spring	Co
Caravelle, Multivan	Long wheel base,	701 511 105 A/C	white	6	701.612.561 A	gre
	Reinforced at rear (1P2)					
	Short wheel base,	701 511 105 A/C	white	6	701.612.561 A	gre
	Reinforced at front and rear (1P3)					
	Long wheel base,	701 511 105 A/C	white	6	701.612.561 A	gre
	Reinforced at front and rear (1P3)					
	Sport spring system (1P9), Sport shock absorbers (1BU)	701 511 105 L	gray	5	701.612.561 A	gre
	ESP (1AT), Sport spring system (1P9), Sport shock absorbers (1BU)	701 511 105 L	gray	5	701.612.561 A	gre

1) When allocating vehicles with all wheel drive, 100 kg must be added to the actual n load (due to higher curb weight).

2) Load capacity values are rounded off values.

3) A backing plate and cap or a backing plate and buffer are installed between coil sp and control arm depending on the model

Fig. 22: Coil Spring Applications (From 05/2000 With Diesel Engine - 2 Of 2)

Courtesy of VOLKSWAGEN UNITED STATES, INC.

Application for vehicles from 05.00 (150 kW/6-cyl-engine)

Model	Equipment, with load capacity values ¹⁾²⁾	Part No. of Coil spring ³⁾	Color	Group No.	Part No. of brake booster pull- spring	Co
Caravelle, Multivan	Short wheel base, 1000 kg	701 511 105 L	gray	5	701.612.561 A	gre
	Lowered suspension (1P4)					
	Short wheel base, 1000 kg	701 511 105 P	light blue	6	701 612 561	yell
	Short wheel base, 1200 kg	701 511 105 M	pink	6	701.612.561 B	wh
	Long wheel base, 1000 kg	701 511 105 P	light blue	6	701 612 561	yell
	Long wheel base, 1200 kg	701 511 105 M	pink	6	701.612.561 B	wh
	Sport spring system (1P9), Sport shock absorbers (1BU)	701 511 105 L	gray	5	701.612.561 A	gre

1) When allocating vehicles with all wheel drive, 100 kg must be added to the actual r load (due to higher curb weight).

2) Load capacity values are rounded off values.

3) A backing plate and cap or a backing plate and buffer are installed between coil sp and control arm, depending on the model.

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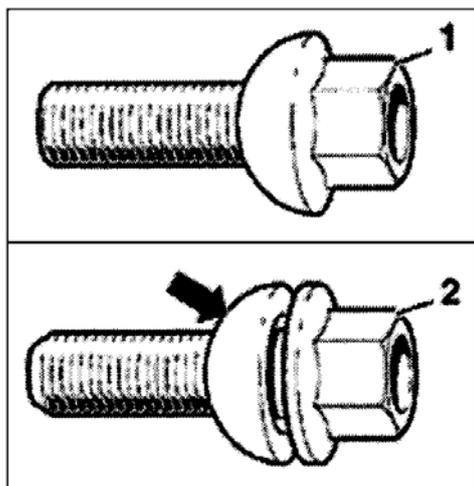
Fig. 23: Coil Spring Applications (From 05/2000 With 2.8L VR6 Engine)

Courtesy of VOLKSWAGEN UNITED STATES, INC.

WHEEL LUG BOLT APPLICATIONS

From 2001 and up models, a new version of lug bolts has been installed. The dimensions and tightening torques of the previous and changed lug bolts are the same. New version lug bolts are not permissible on

vehicles which were produced up to model year 2000. Wheel rims of vehicles which were produced up to model year 2000 are not permissible on vehicles 2001 and up. To identify wheel lugs, see **Fig. 24** .



1. Previous wheel bolt

For vehicles up to m.y. 2000.

Surface coated in black.

Part nr. 701 601 139 B

2. Wheel bolt for vehicles as of m.y. 2001

Collar (arrow) is not tightly connected to the hex h

Surface is layered in silver.

Part nr. 7M3 601 139 B

Tightening torque:

Wheel bolt to wheel hub for all vehicles: 125 ft.lbs (170 N.m)

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Fig. 24: Identifying Wheel Lug Bolts

Courtesy of VOLKSWAGEN UNITED STATES, INC.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Axle Shaft Outer Bolt (AWD Only) ⁽⁰⁾	⁽⁰⁾ 110 (150)
Axle Shaft-To-Final Drive Flange Bolts (AWD Only) ⁽⁰⁾	30 (40)
Brake Caliper-To-Wheel Bearing Housing Bolt	125 (170)
Control Arm Mounting Nut (Inner) ⁽⁰⁾	74 (100)
Control Arm Mounting Nut (Outer) ⁽⁰⁾	118 (160)
Hub Nut & Self-Locking Nut (FWD Only) ⁽⁰⁾	148 (200)
Shock Absorber Nut (Lower)	33 (45)
Shock Absorber Bolt (Upper)	74 (100)
Stabilizer Bar Mounting Bracket Bolts	22 (30)
Wheel Lug Bolt ⁽⁰⁾	125 (170)
INCH Lbs. (N.m)	
ABS Wheel Sensor Screw	89 (10)
Brake Backing Plate Bolt (Splash Shield)	89 (10)

⁽⁰⁾ Always replace with NEW fasteners.

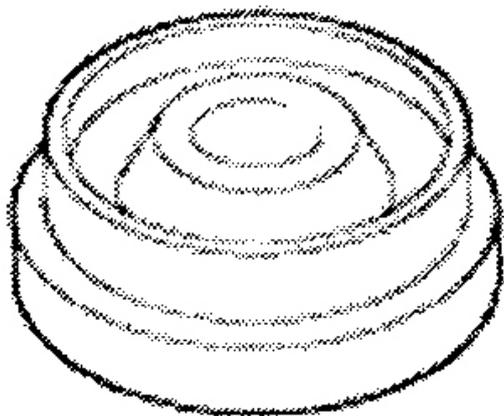
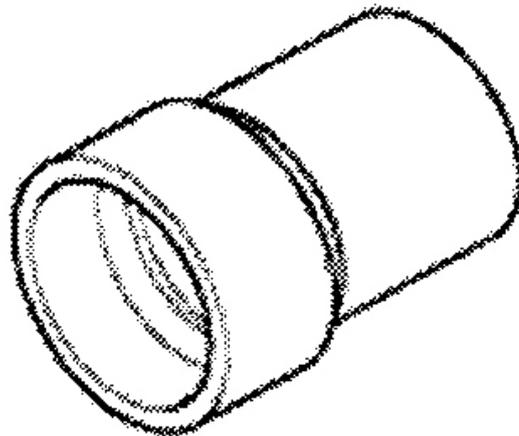
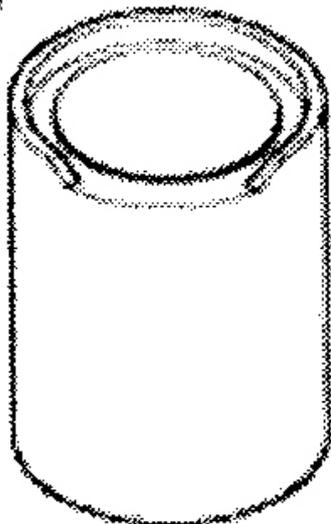
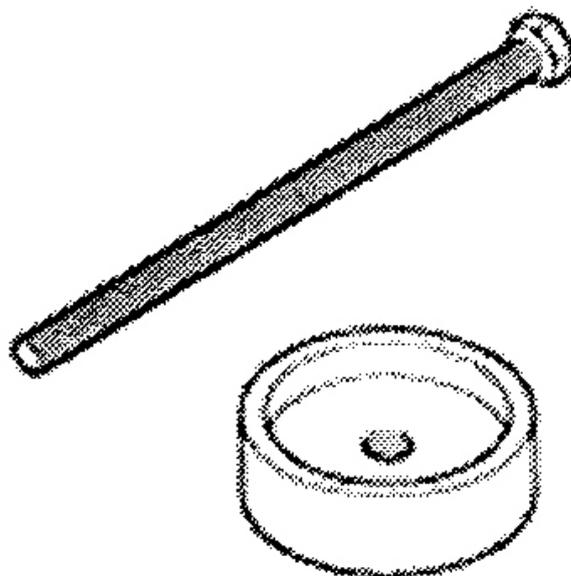
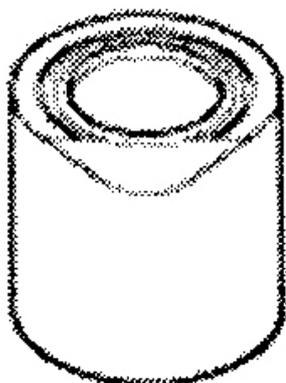
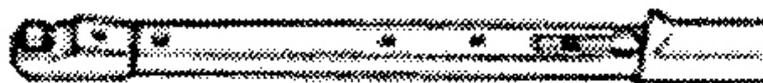
⁽⁰⁾ Tighten to specification plus an additional 90° turn.

⁽⁰⁾ Final tighten control arm bolts with weight of vehicle on ground (curb height).

⁽⁰⁾ Note lug bolt version change for vehicles produced for 2001 and later models. See **WHEEL LUG BOLT APPLICATIONS** .

SPECIAL TOOLS

Use illustrations to identify special tools. See **Fig. 25** and **Fig. 26**.

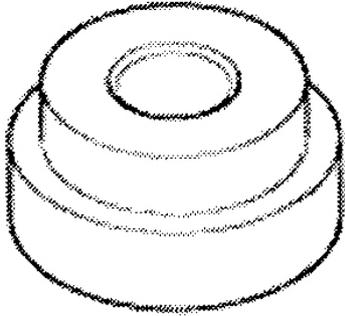
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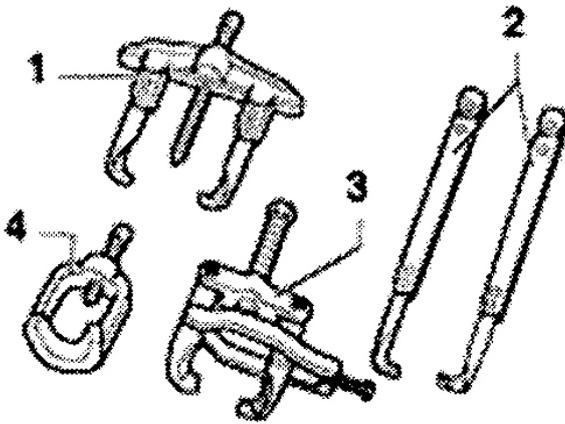
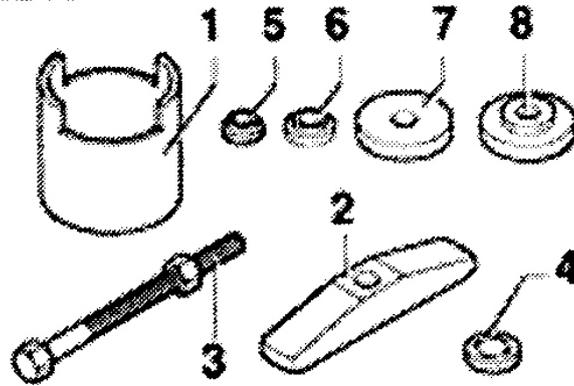
Fig. 25: Identifying Special Tools (1 Of 2)

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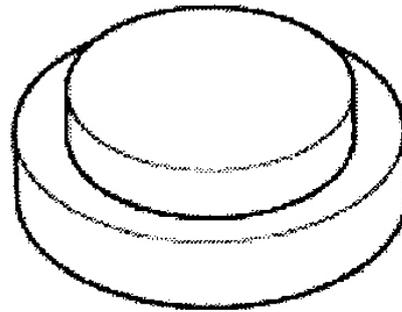
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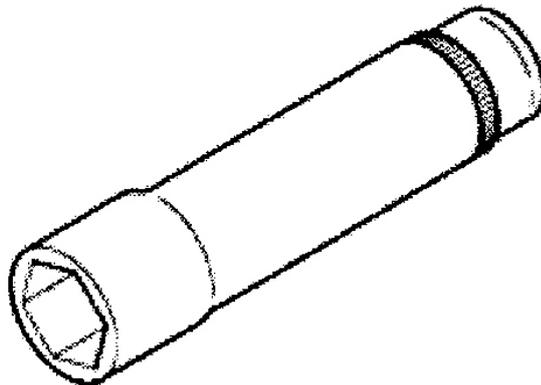
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Fig. 26: Identifying Special Tools (2 Of 2)

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