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# FRONT SUSPENSION

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E33AA--

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## SPECIFICATIONS

## GENERAL SPECIFICATIONS

## COLT

Items	2WD		
	1300	1600	
		M/T	A/T
Suspension system	McPherson strut with coil spring and compression rod type	McPherson strut with coil spring and compression rod type	McPherson strut with coil spring and compression rod type
Coil spring Wire dia. × O.D. × free length mm (in.)	12.0 × 145.0 × 317.3 (0.47 × 5.71 × 12.49) 12.3 × 145.3 × 317.5* <sup>1</sup> (0.48 × 5.72 × 12.50)	12.2 × 145.2 × 315.4 (0.48 × 5.72 × 12.42) 12.5 × 148.5 × 324.0* <sup>1</sup> (0.49 × 5.85 × 12.76) 12.6 × 145.6 × 342.0* <sup>2</sup> (0.50 × 5.73 × 13.46)	12.3 × 145.3 × 317.5 (0.48 × 5.72 × 12.50) 12.9 × 145.9 × 334.5* <sup>1</sup> (0.51 × 5.74 × 13.17) 12.6 × 145.6 × 349.0* <sup>2</sup> (0.50 × 5.73 × 13.74)
Identification colour	Pink+Green Orange+Brown* <sup>1</sup>	Orange+Purple Orange+Gray* <sup>1</sup> Pink+Gray* <sup>2</sup>	Orange+Brown Orange+Light blue* <sup>1</sup> Pink+Light blue* <sup>2</sup>
Spring constant N/mm (kg/mm, lbs./in.)	22.0 (2.2, 123) 24.3 (2.43, 136)* <sup>1</sup>	23.5 (2.35, 132) 24.3 (2.43, 136)* <sup>1</sup> 21.4 (2.14, 120)* <sup>2</sup>	24.3 (2.43, 136) 23.5 (2.35, 132)* <sup>1</sup> 21.4 (2.14, 120)* <sup>2</sup>
Shock absorber Type	<Vehicles built up to June, 1993> Hydraulic, cylindrical double acting type (Gas-filled type) <Vehicles built from July, 1993> Hydraulic, cylindrical double acting type	<Vehicles built up to June, 1993> Hydraulic, cylindrical double acting type (Gas-filled type)* <sup>3</sup> <Vehicles built from July, 1993> Hydraulic, cylindrical double acting type	<Vehicles built up to June, 1993> Hydraulic, cylindrical double acting type (Gas-filled type)* <sup>3</sup> <Vehicles built from July, 1993> Hydraulic, cylindrical double acting type
Stroke mm (in.)	161 (6.3)	161 (6.3)	161 (6.3)
Damping force [at 0.3 m/sec. (0.9 ft./sec.)]			
Expansion N (kg, lbs.)	950 (95, 209)	950 (95, 209)	950 (95, 209)
Contraction N (kg, lbs.)	400 (40,88)	400 (40,88)	400 (40,88)

## NOTE

- \*<sup>1</sup>: High ground – clearance suspension  
\*<sup>2</sup>: ABS + high ground – clearance suspension  
\*<sup>3</sup>: Not gas-filled type shock absorber for vehicles with only ABS

Items	2WD	4WD
	1800	1600
Suspension system	Mcpherson strut with coil spring and compression rod type	Mcpherson strut with coil spring and compression rod type
Coil spring Wire dia × O.D. × free length mm (in.)	13.3 × 169.3 × 331.5 (0.52 × 6.67 × 13.05) 13.6 × 169.6 × 333.0* <sup>1</sup> (0.54 × 6.68 × 13.11) 13.7 × 171.3 × 339.5* <sup>2</sup> (0.54 × 6.74 × 13.37)	12.5 × 148.5 × 324.0 (0.49 × 5.85 × 12.76) 12.9 × 145.9 × 340.9* <sup>1</sup> (0.51 × 5.74 × 13.42) 12.6 × 145.6 × 356.0* <sup>2</sup> (0.50 × 5.73 × 14.02)
Identification colour	Light blue+Blue Green+Brown* <sup>1</sup> White × 2* <sup>2</sup>	Orange+Gray Orange+Yellow green* <sup>1</sup> Pink+Yellow green* <sup>2</sup>
Spring constant N/mm (kg/mm, lbs./in.)	22.0 (2.20, 123) 24.0 (2.40, 134)* <sup>1</sup> , * <sup>2</sup>	24.3 (2.43, 136) 23.5 (2.35, 132)* <sup>1</sup> 21.4 (2.14, 120)* <sup>2</sup>
Shock absorber Type	<Vehicles built up to June, 1993> Hydraulic, cylindrical double acting type (F.T.C. type* <sup>3</sup> ) <Vehicles built from July, 1993> Hydraulic, cylindrical double acting type (with ultra-low speed valve)	<Vehicles built up to June, 1993> Hydraulic, cylindrical double acting type (Gas-filled type) <Vehicles built from July, 1993> Hydraulic, cylindrical double acting type
Stroke mm (in.)	168 (6.6)	161 (6.3)
Damping force [at 0.3 m/sec. (0.9 ft./sec.)]		
Expansion N (kg, lbs.)	650–1,300 (65–130, 143–287)	950 (95, 209)
Contraction N (kg, lbs.)	230–450 (23–45, 51–99)	400 (40, 88)

NOTE

- \*1: High ground – clearance suspension
- \*2: ABS + high ground – clearance suspension
- \*3: F.T.C. Frequency Travel Control

## LANCER–Sedan

Items	2WD			
	1300	1600		
		SNDEQL6, SRJEQL6/R6	SRDEQL6	SNJEQL6/R6
Suspension system	McPherson strut with coil spring and compression rod type	McPherson strut with coil spring and compression rod type	McPherson strut with coil spring and compression rod type	McPherson strut with coil spring and compression rod type
Coil spring Wire dia. x O.D. x Free length mm (in.)	12.0 x 145.0 x 317.3 (0.47 x 5.71 x 12.49) 12.3 x 145.3 x 317.5* (0.48 x 5.72 x 12.50)	12.3 x 145.3 x 317.5 (0.48 x 5.72 x 12.50) 12.9 x 145.9 x 334.5* (0.51 x 5.74 x 13.17)	12.5 x 148.5 x 324.0 (0.49 x 5.85 x 12.76) 12.9 x 145.9 x 340.9* (0.51 x 5.74 x 13.42)	12.2 x 145.2 x 315.4 (0.48 x 5.72 x 12.42) 12.5 x 148.5 x 324.0* (0.49 x 5.85 x 12.76)
Spring constant N/mm (kg/mm, lbs./in.)	22.0 (2.2, 123) 24.3 (2.43, 136)*	24.3 (2.43, 136) 23.5 (2.35, 132)*	24.3 (2.43, 136) 23.5 (2.35, 132)*	23.5 (2.35, 132) 24.3 (2.43, 136)*
Identification colour	Pink+Green Orange+Brown*	Orange+Brown Orange+Light blue*	Orange+Gray Orange+Yellow green*	Orange+Purple Orange+Gray*
Shock absorber Type	<Vehicles built up to June, 1993> Hydraulic, cylindrical double acting type (Gas-filled type) <Vehicles built from July, 1993> Hydraulic, cylindrical double acting type	Hydraulic, cylindrical double acting type (Gas-filled type)	Hydraulic, cylindrical double acting type (Gas-filled type)	Hydraulic, cylindrical double acting type (Gas-filled type)
Stroke mm (in.)	161 (6.3)	161 (6.3)	161 (6.3)	161 (6.3)
Damping force [at 0.3 m/sec. (0.9 ft./sec.)]				
Expansion N (kg, lbs.)	950 (95, 209)	950 (95, 209)	950 (95, 209)	950 (95, 209)
Contraction N (kg, lbs.)	400 (40, 88)	400 (40, 88)	400 (40, 88)	400 (40, 88)

## NOTE

\*: Indicates high ground – clearance suspension.

# FRONT SUSPENSION – Specifications

**33A-3-2**

Items	2WD			4WD
	1800	2000D		
		SNMQL6, SNML6	Except SNMQL6, SNML6	
Suspension system	McPherson strut with coil spring and compression rod type	McPherson strut with coil spring and compression rod type	McPherson strut with coil spring and compression rod type	McPherson strut with coil spring and compression rod type
Coil spring Wire dia. × O.D. × Free length mm (in.)	13.3 × 169.3 × 331.5 (0.52 × 6.67 × 13.05) 13.6 × 169.6 × 333.0* <sup>1</sup> (0.54 × 6.68 × 13.11)	12.6 × 145.6 × 342.0 (0.50 × 5.73 × 13.46) 12.9 × 145.9 × 334.5* <sup>1</sup> (0.47 × 5.74 × 13.17)	12.6 × 145.6 × 342.0 (0.50 × 5.73 × 13.46) 12.9 × 145.9 × 340.9* <sup>1</sup> (0.47 × 5.74 × 13.42)	12.5 × 148.5 × 324.0* <sup>1</sup> (0.49 × 5.785 × 12.76)
Spring constant N/mm (kg/mm, lbs./in.)	22.0 (2.2, 123) 24.0 (2.40, 134)* <sup>1</sup>	21.4 (2.14, 120) 23.5 (2.35, 132)* <sup>1</sup>	21.4 (2.14, 120) 23.5 (2.35, 132)* <sup>1</sup>	24.3 (2.43, 136)
Identification colour	Light blue+Blue Green+Brown* <sup>1</sup>	Pink+Gray Orange+Light blue* <sup>1</sup>	Pink+Gray Orange+Yellow green* <sup>1</sup>	Orange+Gray
Shock absorber Type	<Vehicles built up to June, 1993> Hydraulic, cylindrical double acting type (F.T.C. type* <sup>2</sup> ) <Vehicles built from July, 1993> Hydraulic, cylindrical double acting type (with ultra-low speed valve)	<Vehicles built up to June, 1993> Hydraulic, cylindrical double acting type (Gas-filled type) <Vehicles built from July, 1993> Hydraulic, cylindrical double acting type	<Vehicles built up to June, 1993> Hydraulic, cylindrical double acting type (Gas-filled type) <Vehicles built from July, 1993> Hydraulic, cylindrical double acting type	Hydraulic, cylindrical double acting type (Gas-filled type)
Stroke mm (in.)	168 (6.6)	161 (6.3)	161 (6.3)	161 (6.3)
Damping force [at 0.3 m/sec. (0.9 ft./sec.)]				
Expansion N (kg, lbs.)	650–1,300 (65–130, 143–287)	950 (95, 209)	950 (95, 209)	950 (95, 209)
Contraction N (kg, lbs.)	230–450 (23–45, 51–99)	400 (40, 88)	400 (40, 88)	400 (40, 88)

**NOTE**

\*<sup>1</sup>: Indicates high ground – clearance suspension.

\*<sup>2</sup>: F.T.C. Frequency Travel Control

## LANCER–Wagon

Items	Petrol-powered vehicles			
	2WD		4WD	
	M/T	A/T	L.H. drive vehicles	R.H. drive vehicles
Suspension system	McPherson strut with coil spring and compression rod type	McPherson strut with coil spring and compression rod type	McPherson strut with coil spring and compression rod type	McPherson strut with coil spring and compression rod type
Coil spring				
Wire dia. × O.D. × Free length mm (in.)	12.2 × 145.2 × 347.3 (0.48 × 5.72 × 13.67)	12.2 × 145.2 × 355.3 (0.48 × 5.72 × 13.99)	12.2 × 145.2 × 355.3 (0.48 × 5.72 × 13.99)	12.2 × 145.2 × 363.2 (0.48 × 5.72 × 14.29)
	12.2 × 145.2 × 355.3*1*2 (0.48 × 5.72 × 13.99)	12.2 × 145.2 × 363.2*1*2 (0.48 × 5.72 × 14.29)	12.2 × 145.2 × 363.2*1*2 (0.48 × 5.72 × 14.29)	12.2 × 145.2 × 371.2*1*2 (0.48 × 5.72 × 14.61)
	12.2 × 145.2 × 363.2*3 (0.48 × 5.72 × 14.29)	12.2 × 145.2 × 371.2*3 (0.48 × 5.72 × 14.61)		
Spring constant N/mm (kg/mm, lbs./in.)	18.8 (1.88, 105)	18.8 (1.88, 105)	18.8 (1.88, 105)	18.8 (1.88, 105)
Identification colour	Blue+Purple Blue+Brown*1*2 Blue+Gray*3	Blue+Brown Blue+Gray*1*2 Blue+Light blue*3	Blue+Brown Blue+Gray*1*2	Blue+Gray Blue+Light blue*1*2
Shock absorber				
Type	Hydraulic, cylindrical double acting type Hydraulic, cylindrical double acting type (Gas-filled type)*3	Hydraulic, cylindrical double acting type Hydraulic, cylindrical double acting type (Gas-filled type)*3	Hydraulic, cylindrical double acting type	Hydraulic, cylindrical double acting type
Stroke mm (in.)	161 (6.3)	161 (6.3)	159 (6.2) 161 (6.3)*2	159 (6.2) 161 (6.3)*2
Damping force [at 0.3 m/sec. (0.9 ft./sec.)]				
Expansion N (kg, lbs.)	950 (95, 209)	950 (95, 209)	950 (95, 209)	950 (95, 209)
Contraction N (kg, lbs.)	400 (40, 88)	400 (40, 88)	300 (30, 66) 400 (40, 88)*2	300 (30, 66) 400 (40, 88)*2

## NOTES

\*1: indicates vehicles with height rectification spring as a unit option.

\*2: indicates vehicles with height rectification spring and ABS combined as an option.

\*3: indicates vehicles with high ground-clearance suspension.

# FRONT SUSPENSION – Specifications

**33A-3-4**

Items	Diesel-powered vehicles	
Suspension system	Mcperson strut with coil spring and compression rod type	
Coil spring		
Wire dia × O.D. × Free length	mm (in.)	12.2 × 145.2 × 363.2 (0.48 × 5.72 × 14.29) 12.2 × 145.2 × 371.2* <sup>1</sup> (0.48 × 5.72 × 14.61) 12.3 × 145.3 × 373.0* <sup>2</sup> (0.48 × 5.72 × 14.69)
Spring constant	N/mm (kg/mm, lbs./in.)	18.8 (1.88, 105) 19.5 (1.95, 109)* <sup>2</sup>
Identification colour		Blue+Gray Blue+Light blue* <sup>1</sup> Blue+Yellow green* <sup>2</sup>
Shock absorber		
Type	Hydraulic, cylindrical double acting type Hydraulic, cylindrical double acting type* <sup>2</sup> (Gas-filled type)	
Stroke	mm (in.)	161 (6.3)
Damping force at 0.3 m/sec. (0.9 ft./sec.)		
Expansion	N (kg, lbs.)	950 (95, 209)
Contraction	N (kg, lbs.)	400 (40, 88)

**NOTES**

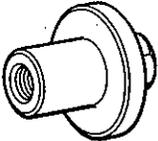
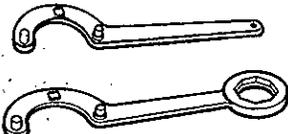
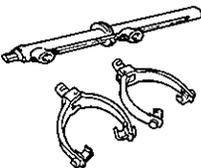
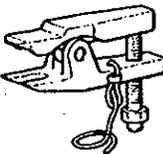
- \*1: Indicates height rectification spring.
- \*2: Indicates high ground-clearance suspension.

## SERVICE SPECIFICATIONS

Items	Specifications
Standard value	
Toe-in	
At the centre of tyre tread	mm (in.) 0±3 (0±0.12)
At the rim of disc wheel	mm (in.) 0±1.5 (0±0.06)
Toe angle (per wheel)	0°±9'
Toe-out angle on turns	21.8°
(inner wheel when outer wheel at 20°)	
Steering angle	
Inner wheel	
COLT, LANCER–Sedan, LANCER–Wagon (2WD)	37°18'±1°30'
LANCER–Wagon (4WD)	38°24'±1°30'
Outer wheel	
COLT, LANCER–Sedan, LANCER–Wagon (2WD)	31°00'
LANCER–Wagon (4WD)	32°00'
Camber	0°00'±30'
Caster	
COLT, LANCER–Sedan	
2WD	2°15'
4WD	2°12'
LANCER–Wagon	
2WD	1°40'
4WD	1°50'
Kingpin inclination	
COLT, LANCER–Sedan	
2WD	12°49'
4WD	12°41'
LANCER–Wagon	
2WD	12°50'
4WD	13°10'
Lower arm ball joint rotation starting torque	1.0–6.5 (10–65, 9–56)
Nm (kgcm, in.lbs.)	
Lower arm joint continuous rotating torque	1.0–2.5 (10–25, 9–22)
Nm (kgcm, in.lbs.)	
Protruding length of stabilizer bar mounting bolt	22 (0.87)
mm (in.)	

**SPECIAL TOOLS**

E33DA--

Tool	Number	Name	Use
	MB991004	Wheel alignment gauge attachment	Measurement of the wheel alignment
	MB990278 or MB990775	Special spanner	Disassembly/assembly of the strut assembly
	MB991237 MB991238	Spring compressor body Arm set	Compression of the front coil spring
	MB991113	Steering linkage puller	Removal of the lower arm ball joint
	MB990326	Preload socket	Measurement of the lower arm ball joint rotation starting torque and continuous rotating torque
	MB990968	Torque wrench	
	MB990800	Ball joint remover and installer	Installation of the dust cover

## SERVICE ADJUSTMENT PROCEDURES

E33FAAY

### FRONT WHEEL ALIGNMENT INSPECTION AND ADJUSTMENT

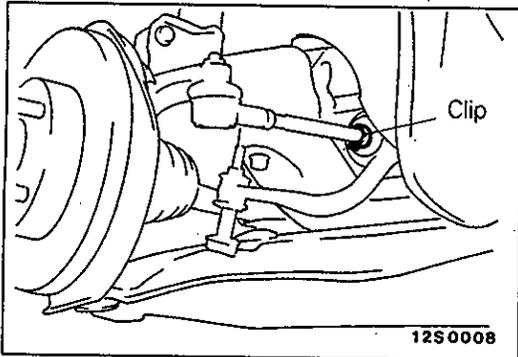
Measure the wheel alignment with the vehicle parked on a level surface.

The front suspension, steering system, and wheels should be serviced to normal condition prior to measurement of wheel alignment.

#### TOE-IN

##### Standard value:

<b>At the centre of tyre tread</b>	<b>0 ± 3 mm (0 ± 0.12 in.)</b>
<b>At the rim of disc wheel</b>	<b>0 ± 1.5 mm (0 ± 0.06 in.)</b>
<b>Toe angle (per wheel)</b>	<b>0° ± 9'</b>



#### NOTE

1. If the toe-in is not within the standard value, adjust the toe-in by undoing the clips and turning the left and right tie rod turnbuckles by the same amount (in opposite directions).
2. The toe will move out as the left turnbuckle is turned toward the front of the vehicle and the right turnbuckle is turned toward the rear of the vehicle.

For each half turn of the left and right tie rods, the toe-in will be adjusted by approx. 6 mm (0.24 in.).

#### Caution

**The difference between the left and right tie rods shall not exceed 5 mm (0.21 in.).**

#### TOE-OUT ANGLE ON TURNS

To check the steering linkage, especially after the vehicle has been involved in an accident or if an accident is presumed, it is advisable to check the toe-out angle on turns in addition to the wheel alignment.

Conduct this test on the left turn as well as on the right turn.

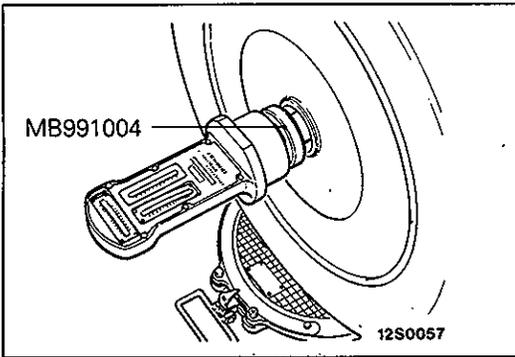
##### Standard value:

**21.8° (inner wheel when outer wheel at 20°)**

#### STEERING ANGLE

##### Standard value:

	Inner wheel	Outer wheel
COLT, LANCER–Sedan, LANCER–Wagon (2WD)	37°18' ± 1°30'	31°00'
LANCER–Wagon (4WD)	38°24' ± 1°30'	32°00'



**CAMBER, CASTER AND KINGPIN INCLINATION**

Standard value:

	COLT LANCER–Sedan		LANCER–Wagon	
	2WD	4WD	2WD	4WD
Camber	0°00' ± 30'	0°00' ± 30'	0°00' ± 30'	0°00' ± 30'
Caster	2°15'	2°12'	1°40'	1°50'
Kingpin inclination	12°49'	12°41'	12°50'	13°10'

**NOTE**

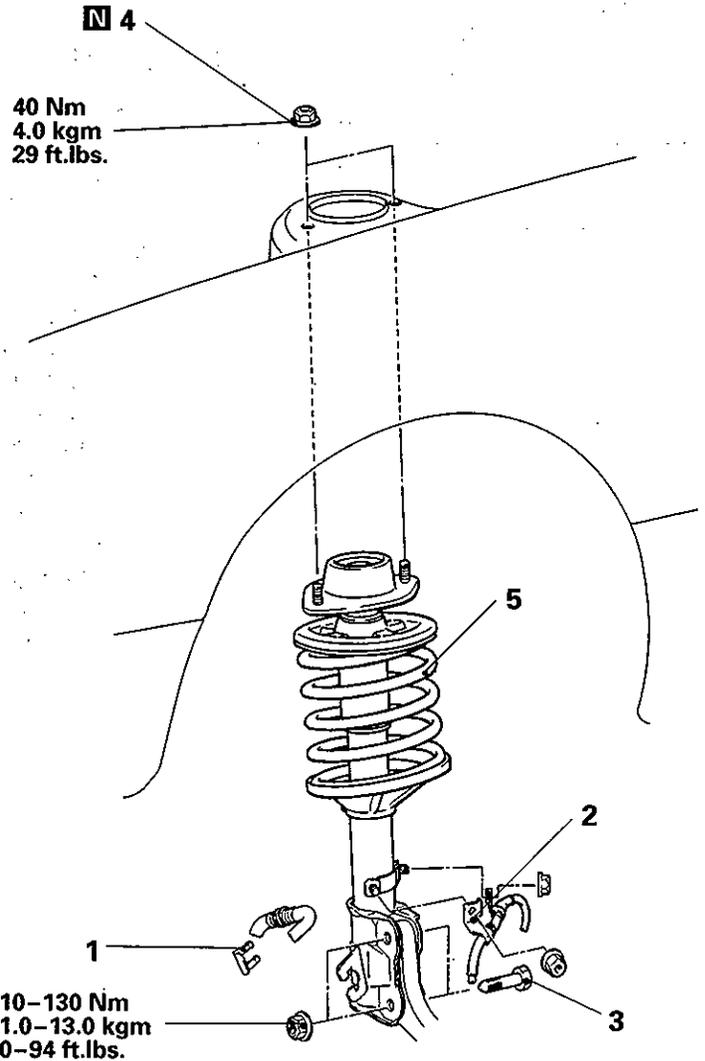
1. Camber and caster are preset at the factory and cannot be adjusted.
2. If camber is not within the standard value, check and replace bent or damaged parts.
3. For vehicles with aluminium type wheels, attach the camber/caster/kingpin gauge to the drive shaft by using the special tool. Tighten the special tool to the same torque [200–260 Nm (20–26 kgm, 145–188 ft.lbs.)] as the drive shaft nut.

**Caution**

**Never subject the wheel bearings to the vehicle load when the drive shaft nuts are loosened.**

**STRUT ASSEMBLY****REMOVAL AND INSTALLATION****Post-installation Operation**

- Front Wheel Alignment Adjustment  
(Refer to P. 33-6.)

**Removal steps**

1. Brake hose clamp
2. Front speed sensor bracket  
<Vehicles with ABS>
3. Bolts
4. Flange nut
5. Strut assembly



12S0014

**SERVICE POINTS OF REMOVAL**

E33LBAL

**3. REMOVAL OF BOLTS**

- (1) Suspend the lower arm from the vehicle with wire.
- (2) Remove the strut and knuckle connection.

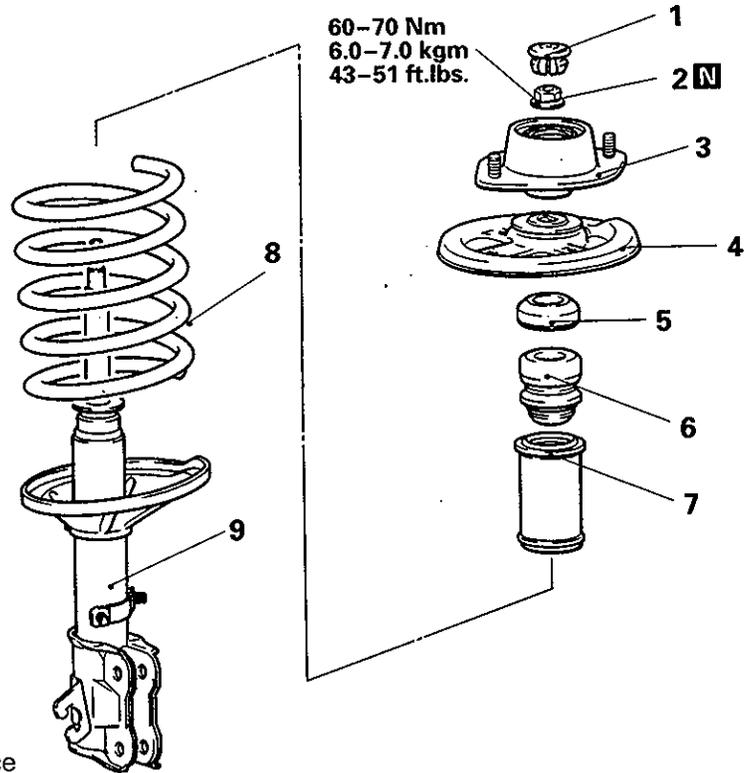
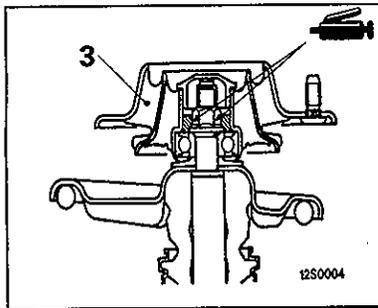
**INSPECTION**

E33LCAC

- Check for oil leaks from the strut assembly.
- Check the strut assembly shock absorber for damage or deformation.

DISASSEMBLY AND REASSEMBLY

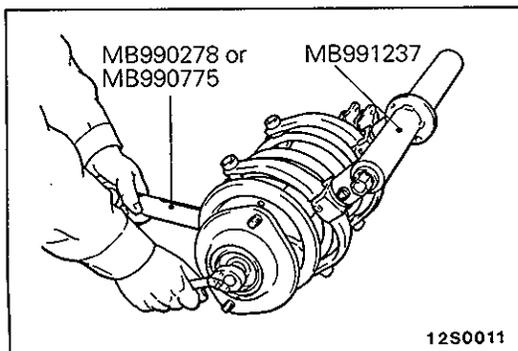
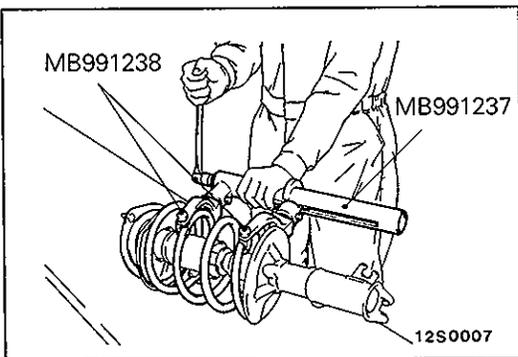
E33LE--



**Disassembly steps**

- ◄ ◄ 1. Dust cover
- ◄ ◄ 2. Self-locking nut
- ◄ ◄ 3. Strut insulator
- ◄ ◄ 4. Spring seat, upper
- ◄ ◄ 5. Spacer
- ◄ ◄ <Vehicles with high - ground clearance suspension>
- ◄ ◄ 6. Bump rubber
- ◄ ◄ 7. Dust cover
- ◄ ◄ 8. Coil spring
- ◄ ◄ 9. Strut assembly

12S0090



**SERVICE POINTS OF DISASSEMBLY**

E33LFAO

**2. REMOVAL OF SELF-LOCKING NUT**

- (1) Using the special tools, compress the coil spring.

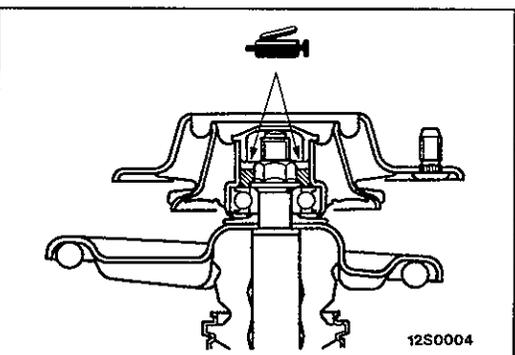
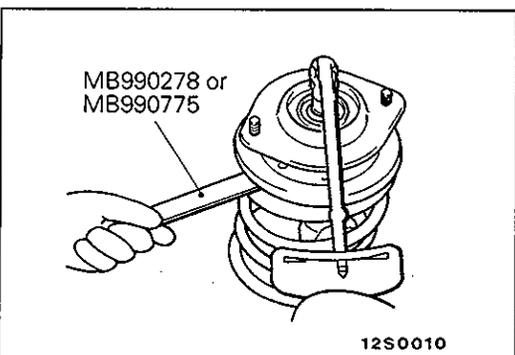
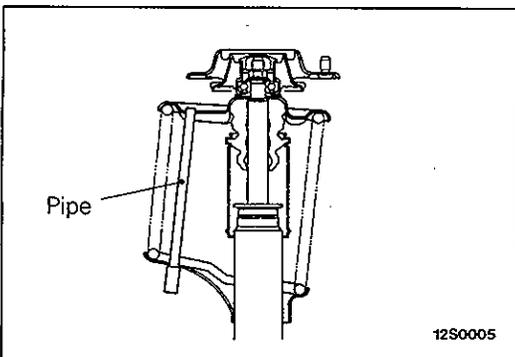
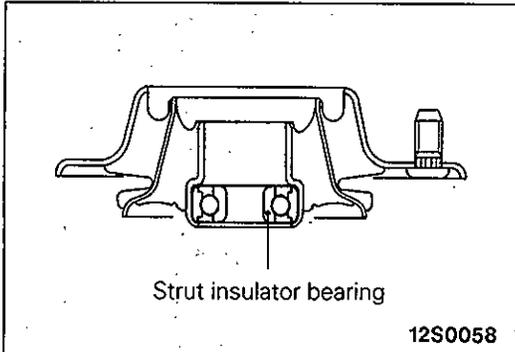
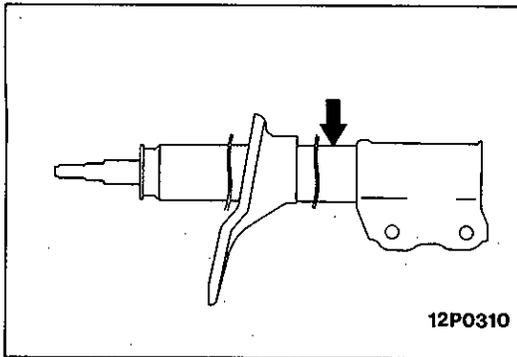
**Caution**

- (1) Install the special tools evenly, and so that maximum length will be attained within the installation range.
- (2) Do not use an air tool to tighten the bolt of the special tool.

- (2) Holding the spring upper seat with the special tool, remove the self-locking nut.

**Caution**

**Do not use an air tool.**



## 9. REMOVAL OF STRUT ASSEMBLY

To discard the low pressure gas-filled strut assembly, place the assembly horizontally with its piston rod extended. Then drill a hole approx. 3 mm (0.1 in.) in diameter at the location shown in the illustration and discharge the gas.

### Caution

The gas itself is harmless but it may issue out of the hole together with chips generated by the drill. Therefore, be sure to wear goggles.

## INSPECTION

E33LGAG

- Check the strut insulator bearing for wear or rust.
- Check the rubber parts for damage or deterioration.
- Check the spring for deformation, deterioration or damage.
- Check the shock absorber for deformation.

## SERVICE POINTS OF REASSEMBLY

E33LHAP

### 2. INSTALLATION OF SELF-LOCKING NUT

- (1) With the coil spring held compressed by the special tools (MB991237 and MB991238), provisionally tighten the self-locking nut.

### Caution

Do not use an air tool to tighten the bolt of the special tool.

- (2) Line up the holes in the strut assembly spring lower seat with the hole in the spring upper seat.

### NOTE

The job is easily accomplished with a pipe.

- (3) Correctly align both ends of the coil spring with the grooves in the spring seat, and then loosen the special tools (MB991237 and MB991238).
- (4) Using the special tool, tighten the strut insulator to the specified torque.

### Caution

Do not use an air tool.

- (5) Apply multipurpose grease to the bearing part of the strut insulator.

### Caution

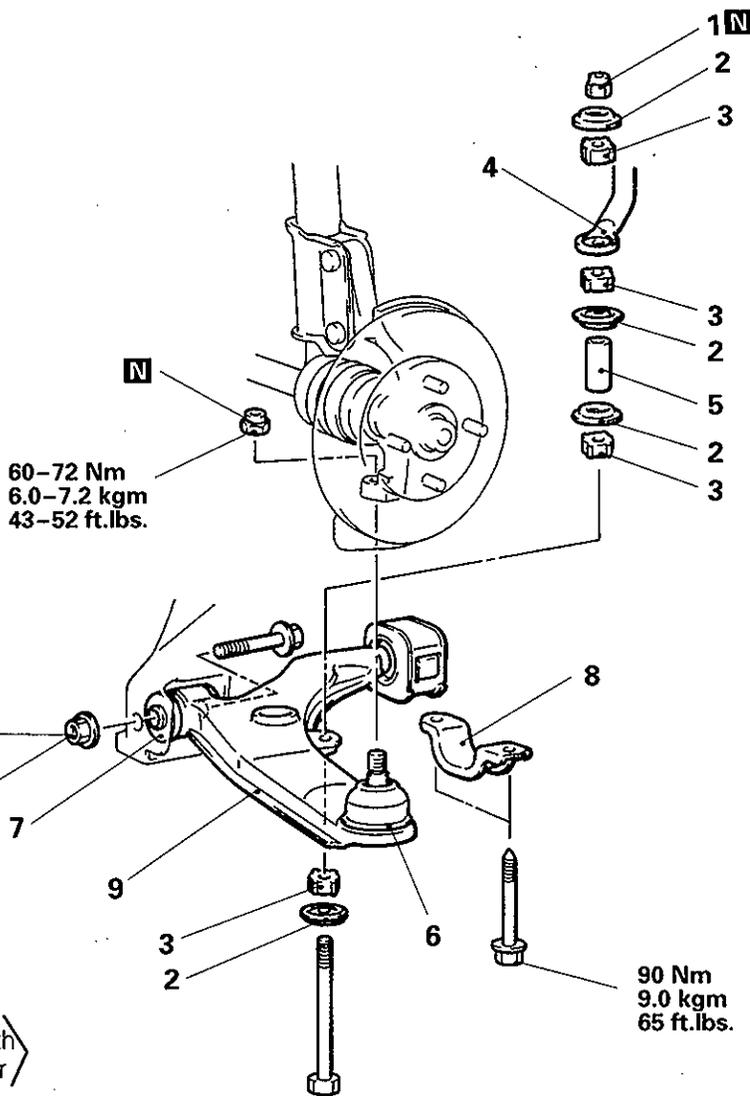
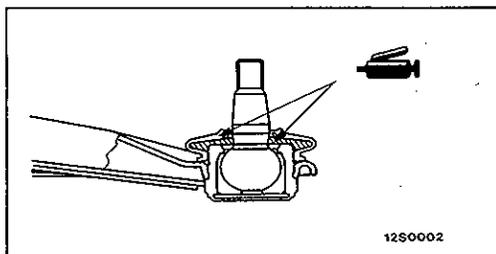
When applying the grease, take care that grease does not adhere to the insulator's rubber part.

# LOWER ARM

## REMOVAL AND INSTALLATION

### Post-installation Operation

- Front Wheel Alignment Adjustment (Refer to P. 33A-6.)

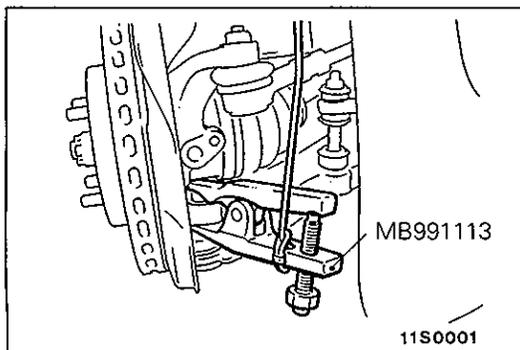


### Removal steps

- ◆◆ 1. Self-locking nut
  - 2. Joint cup
  - 3. Stabilizer rubber
  - 4. Stabilizer bar
  - 5. Collar
  - ◆◆ 6. Lower arm ball joint connection
  - 7. Lower arm front bushing connection
  - 8. Support bracket
  - 9. Lower arm
- } (Vehicles with stabilizer bar)

### NOTE

\*: Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle in the unladen condition.



## SERVICE POINTS OF REMOVAL

### 6. DISCONNECTION OF LOWER ARM BALL JOINT

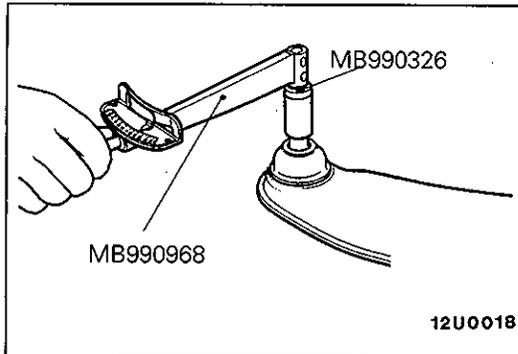
#### Caution

1. Be sure to tie the cord of the special tool to the nearby part.
2. Loosen the nut but do not remove it.

**INSPECTION**

E330CAK

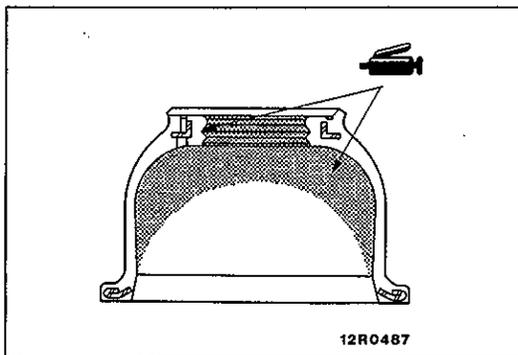
- Check the bushing for wear and deterioration.
- Check the lower arm for bend or breakage.
- Check the clamp for deterioration or damage.
- Check the ball joint dust cover for cracks.
- Check all bolts for condition and straightness.

**CHECKING OF BALL JOINT FOR ROTATION STARTING TORQUE AND CONTINUOUS ROTATING TORQUE**

- (1) After shaking the ball joint stud several times, install the nut to the stud and use the special tool to measure the rotation starting torque and the continuous rotating torque of the ball joint.

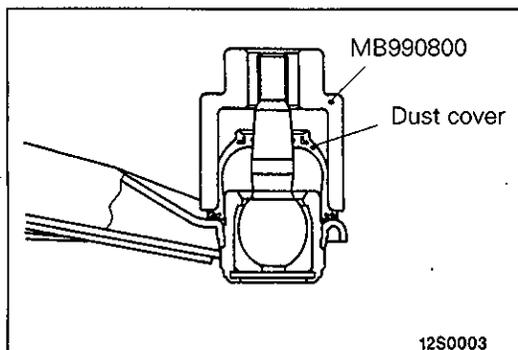
**Standard value:****Rotation starting torque****1.0–6.5 Nm (10–65 kgcm, 9–56 in.lbs.)****Continuous rotating torque****1.0–2.5 Nm (10–25 kgcm, 9–22 in.lbs.)**

- (2) If the measured values exceed the standard values, replace the tie-rod end.
- (3) If the measured values are lower than the standard values, check that the ball joint does not feel stiff. If it doesn't feel stiff, it is possible to use the ball joint.

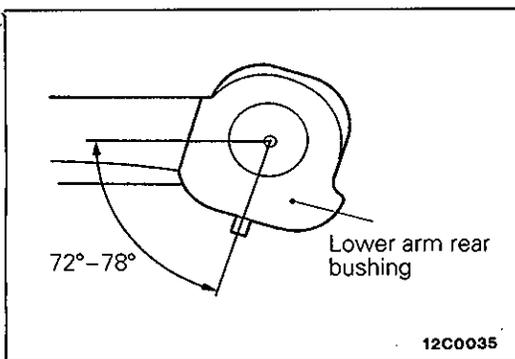
**BALL JOINT DUST COVER REPLACEMENT**

E330DAD

- (1) Remove the dust cover.
- (2) Apply multipurpose grease to the lip and inside of the dust cover.

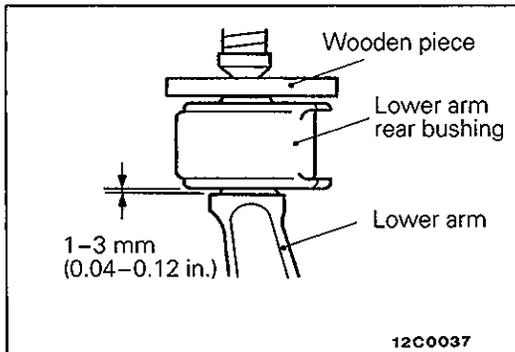


- (3) Drive in the dust cover with special tool until it is fully seated.

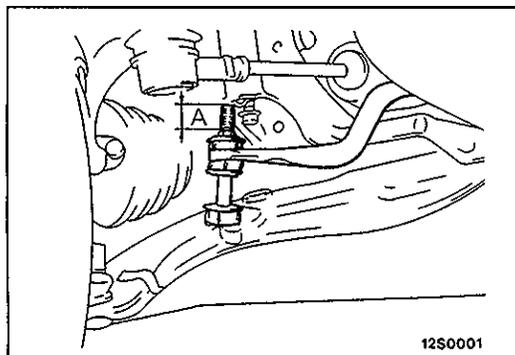
**LOWER ARM REAR BUSHING REPLACEMENT**

E330FAE

- (1) Apply soapy water between the shaft and old bushing, and pry up bushing using a screwdriver.
- (2) Apply soapy water to the shaft and new bushing and install new bushing into the shaft at the angle shown in the illustration.



- (3) Press in the bushing as illustrated.

**SERVICE POINTS OF INSTALLATION**

E330EAM

**1. INSTALLATION OF SELF-LOCKING NUT**

Tighten the self-locking nut so that the amount of protrusion of the end of the stabilizer bar mounting bolt is at the standard value.

**Standard value (A): 22 mm (0.87 in.)**

## STABILIZER BAR

## REMOVAL AND INSTALLATION

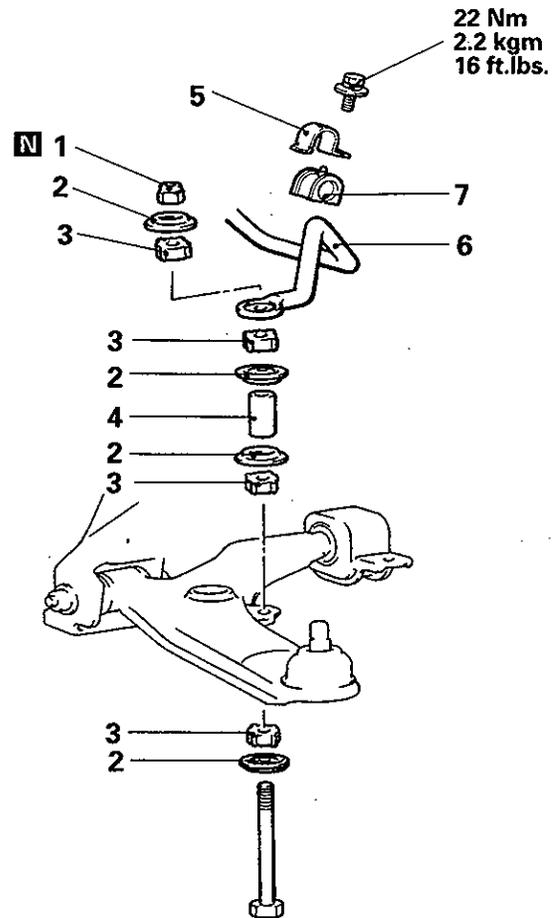
E33RA--

**Pre-removal and Post-installation Operation**

- Removal and Installation of No. 2 Crossmember Installation Bolt (Refer to GROUP 32 – No. 2 Crossmember.)

**Removal steps**

1. Self-locking nut
2. Joint cup
3. Stabilizer rubber
4. Collar
5. Fixture
6. Stabilizer bar
7. Stabilizer bushing



12S0012

**INSPECTION**

E33RCAH

- Check the bushing for wear and deterioration.
- Check the stabilizer bar for deterioration or damage.

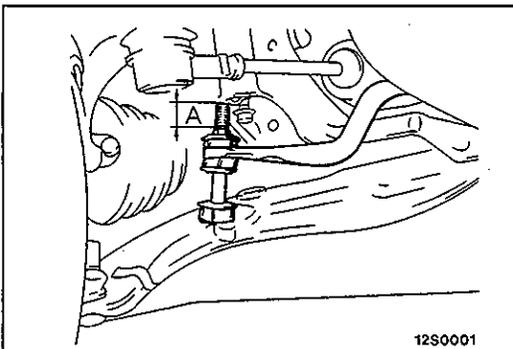
**SERVICE POINTS OF INSTALLATION**

E33RDAK

**1. INSTALLATION OF SELF-LOCKING NUT**

- Tighten the self-locking nut so that the amount of protrusion of the end of the stabilizer bar mounting bolt is at the standard value.

**Standard value (A): 22 mm (0.87 in.)**



12S0001