

Suspension System

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GENERAL

SPECIFICATIONS E4090A1BC

Front suspension system	Macpherson strut type	
Shock absorber		
Type	Oil type	
Stroke mm (in)	143 (5.63)	
Damping force at 0.3 m/s		
Expansion N(kg)	680 ± 110 (68 ± 11)	
Compression N(kg)	220 ± 60 (22 ± 6)	
I.D color	Red (CBS), Yellow (ABS)	
Coil spring free height and identification color		
Model	Free height mm (in.)	I.D color
Europe 1.1L M/T 1.1L A/T, 1.3/1.5L M/T, 1.5/1.6L DOHC M/T (Standard) 1.5/1.6L DOHC M/T (All except standard), 1.5/1.6L DOHC A/T	338.6 (13.3)	White - White
	347.7 (13.7)	White - Yellow
	356.8 (14.1)	White - Blue
General/Middle East 1.1L A/T, 1.1L A/T (Standard) 1.1L A/T (All except standard), 1.3/1.5L M/T, 1.3/1.5L A/T (Standard), 1.5/1.6L DOHC M/T 1.3/1.5L A/T (All except standard), 1.5/1.6L DOHC (All except 1.5/1.6L DOHC M/T)	338.6 (13.3)	White - White
	347.7 (13.7)	White - Yellow
	356.8 (14.1)	White - Blue
Australia 1.3/1.5L M/T, 1.5/1.6L DOHC M/T (Standard) 1.3/1.5L A/T, 1.5/1.6L DOHC (All except standard), 1.5/1.6L DOHC A/T	347.7 (13.7)	White - Yellow
	356.8 (14.1)	White - Blue
* M/T : With manual T/A	* CBS : With conventional brake system	
* A/T : With automatic T/A	* ABS : With Anti-lock Brake System	

Rear suspension system		Dual link	
Shock absorber			
Type		Gas type	
Stroke mm (in)		241 (9.49)	
Damping force at 0.3 m/s			
Expansion	N(kg)	440 ± 80 (44 ± 8)	
Compression	N(kg)	160 ± 50 (16 ± 5)	
I.D color		Red	
Coil spring free height and identification color		1.1L	1.3/1.5/1.6L (ALL)
Free height	mm(in.)	317.2 (12.49)	327.8 (12.91)
I.D color		White-White	White-Yellow

EHPD010B

SERVICE STANDARD

Standard value			
Toe-in mm (in.)	Front	-2 ~ +2 (-0.08 ~ ±0.08) (Max. difference between LH and RH : 1.5 mm)	
	Rear	2 ± 2 (0.08 ± 0.08) (Max. difference between LH and RH : 2 mm)	
Camber	Front	0° ± 30' (Max. difference between LH and RH : 0°30')	
	Rear	-1° ± 30' (Max. difference between LH and RH : 45')	
Caster		[Power steering]	[Manual steering]
	General area	2°24' ± 30'	1°54' ± 30'
	Europe/Australia	2°18' ± 30'	1°40' ± 30'
(Max. difference between LH and RH : 0°30')			
King pin angle	Front	13° ± 30'	
King pin offset	mm (in.)	Front	2.6 (0.1024)
Side slip	mm (in.)	Front	±3 (±0.118) (Forward 1m)
Wheel and tire			
Wheel type		[Steel wheel]	[Aluminum wheel]
Wheel size		4.5J x 13, 5.0J x 14	5.5J x 14, 5.5J x 15
Tire size		155/80 R13, 175/65 R14, 185/55 R15	
Tire inflation pressure	kg-cm ² (PSI)	2.1 ^{+0.07} (30 %)	
Temporary spare tire			
Wheel size		4.0T x 14	
Tire size		T105/70 D14	
Tire inflation pressure	kg-cm ² (PSI)	4.2 (60)	

EHPD020A

TIGHTENING TORQUE

Items	Nm	kgf-cm	lb-ft
Wheel nut	90~110	900~1100	67~82
Drive shaft nut	200~260	2000~2600	148~192
Strut upper installation nut	20~30	200~300	15~22
Strut assembly to knuckle	110~130	1100~1300	81~96
Strut mounting self-locking nut	60~70	600~700	43~51
Lower arm ball joint to knuckle	60~72	600~720	43~52
Lower arm bushing (A) mounting bolt	95~120	950~1200	70~88
Lower arm bushing (G) mounting bolt	130~150	1300~1500	96~111
Crossmember mounting bolt/nut	140~160	1400~1600	104~118
Stabilizer bar bracket mounting bolt	17~26	170~260	13~19
Stabilizer linke nut	34~45	350~450	26~33
Tie rod end ball joint to knuckle	16~34	160~340	12~25
Tie rod end lock nut	50~55	500~550	37~41
Rear shock absorber upper mounting nut	20~30	200~300	15~22
Rear shock absorber lower mounting nut	100~120	1000~1200	74~88
Rear torsion axle beam to torsion axle arm bracket	100~120	1000~1200	74~88
Rear torsion axle arm bracket to body	100~120	1000~1200	74~88



 **CAUTION**

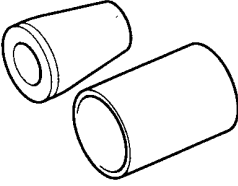
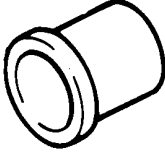
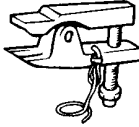
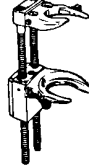

Replace the self-locking nuts with new ones after removal.

LUBRICANTS E49D26DA3

	Recommended lubricant	Quantity
In ball joint of lower arm	Variant R-2 grease or poly lub gly 801 K	As required
In insulator bearing strut	SAE J310a, Chassis grease (NLGI No.0 or equivalent)	As required

SPECIAL TOOLS E49F6C7AC

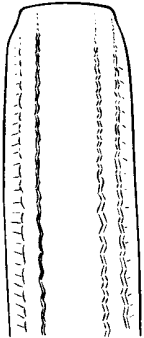
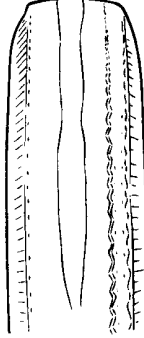
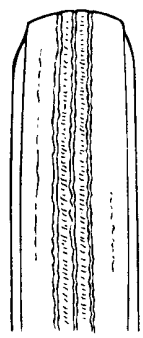
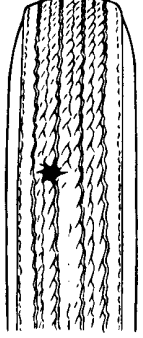
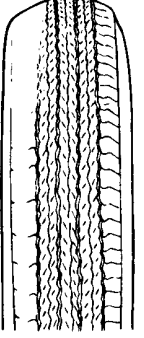
Tool (Number and Name)	Use	Illustration
09532-11600 Preload socket	 EHDA140C	Measurement of the lower arm ball joint and stabilizer link starting torque
09545-11000 Ball joint remover and installer	 E4511000	Installation of the lower arm ball joint

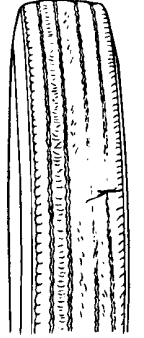
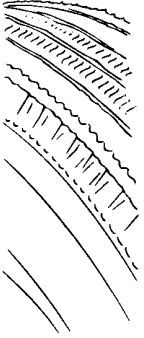
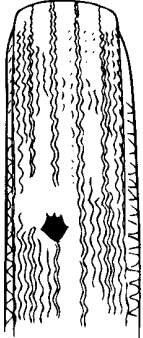
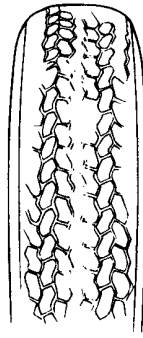
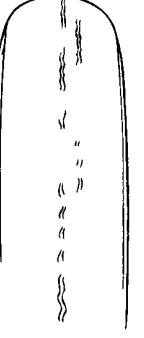
Tool (Number and Name)	Use	Illustration
09545-1C000 A/B Lower arm ball joint snap ring installer	 <p style="text-align: right;">E451C000</p>	Installation of the lower arm ball joint snap ring
09545-21100 Ball joint dust cover installer	 <p style="text-align: right;">EHDA140E</p>	Installation of the lower arm ball joint dust cover
09568-34000 Ball joint puller	 <p style="text-align: right;">EHDA140I</p>	<ul style="list-style-type: none"> • Separation of the lower arm ball joint • Separation of the tie rod ball joint from knuckle
J38402 Strut spring compressor	 <p style="text-align: right;">EHDA140K</p>	Compression of the front and rear coil spring (Use with A-42 or A-20)
A-20 Strut compressor adapter	 <p style="text-align: right;">EHDA140J</p>	Compression of the rear coil spring (Use with J38402)

TROUBLESHOOTING

E435F9E96

Symptom	Possible cause	Remedy
Hard steering	Improper front wheel alignment Excessive turning resistance of lower arm ball joint Low tire pressure No power assist	Correct Replace Adjust Repair and replace
Poor return of steering wheel to center	Improper front wheel alignment	Correct
Poor rough ride	Improper front wheel alignment Malfunctioning shock absorber Broken or worn stabilizer Broken or worn coil spring Worn lower arm bushing	Correct Repair or replace Replace Replace Replace the lower arm assembly
Abnormal tire wear	Improper front wheel alignment Improper tire pressure Malfunctioning shock absorber	Correct Adjust Replace
Wandering	Improper front wheel alignment Poor turning resistance of lower arm ball joint Loose or worn lower arm bushing	Correct Repair Retighten or replace
Vehicle pulls to one side	Improper front wheel alignment Excessive turning resistance of lower arm ball joint Broken or worn coil spring Bent lower arm	Correct Replace Replace Repair
Steering wheel shimmy	Improper front wheel alignment Poor turning resistance of lower arm ball joint Broken or worn stabilizer Worn lower arm bushing Malfunctioning shock absorber Broken or worn coil spring	Correct Replace Replace Replace Replace Replace
Bottoming	Broken or worn coil spring Malfunctioning shock absorber	Replace Replace

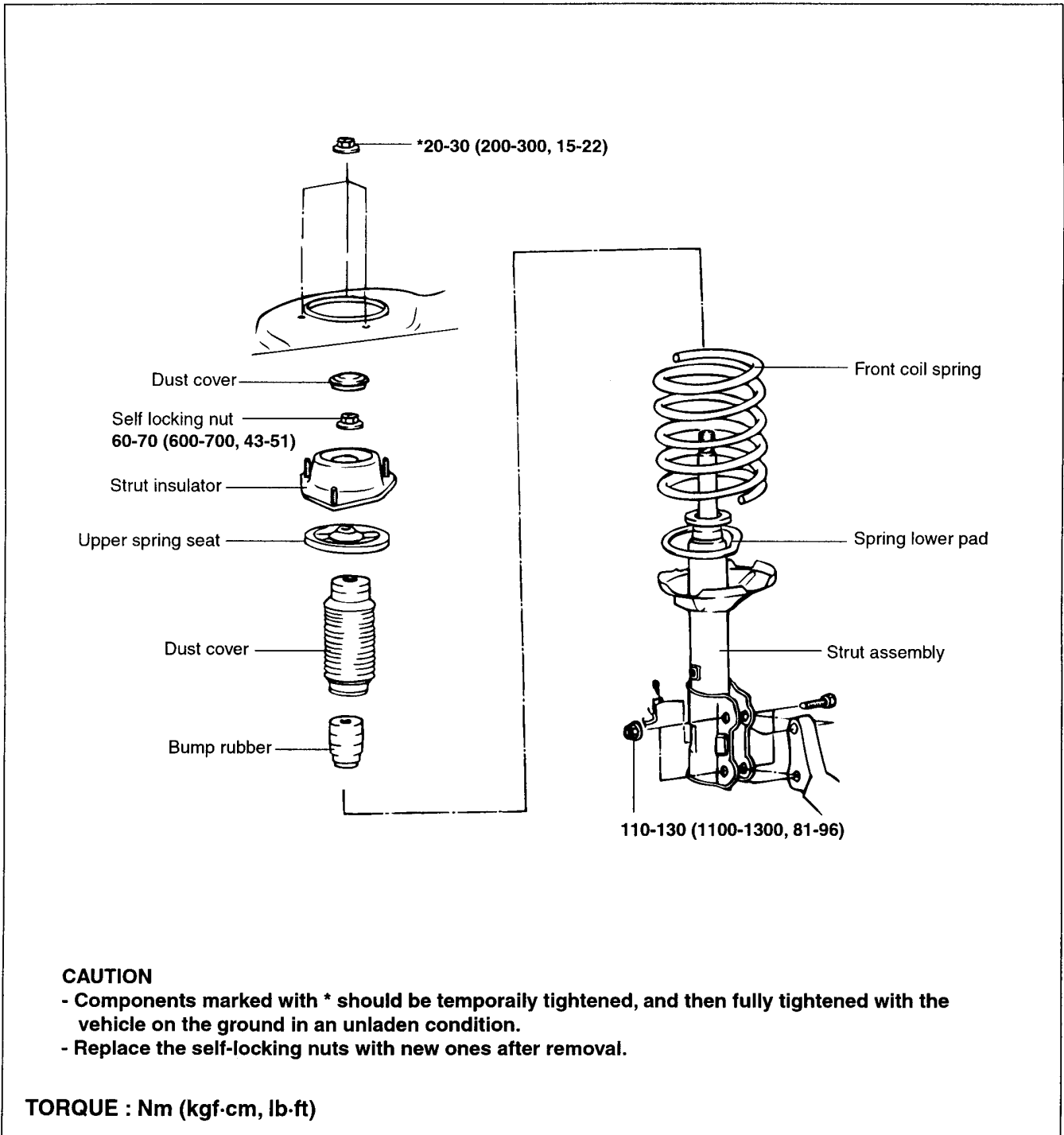
WHEEL AND TYPE DIAGNOSIS				
CENTER OF TREAD		BOTH SIDES OF TREAD WORN	CHUNKING OF TIRE	ONE SIDE OF TIRE WORN
				
Over-Inflation	Center-tread down to fabric due to excessive over-inflation	Under-Inflation Bulge at the shoulder Rapid wear	When a patch of tread has loosened, torn off the tire by centrifugal force at high speed	Incorrect camber angle

WHEEL AND TYPE DIAGNOSIS				
FLAT SPOT	FEATHERING	BAD PLUGGING	UNEVEN TIRE WEAR	TOTALLY UNSAFE TIRE
				
Caused by heavy braking which makes the wheels lock and scrubs tires along the road surface	Excessive toe-in toe-out	Using more than one plug distorts the tread, resulting in carcass failure	Bad wheel balance, fault in suspension, steering gear or bearing	Tread worn below the limit

FRONT SUSPENSION SYSTEM

STRUT ASSEMBLY

COMPONENTS E434ED90

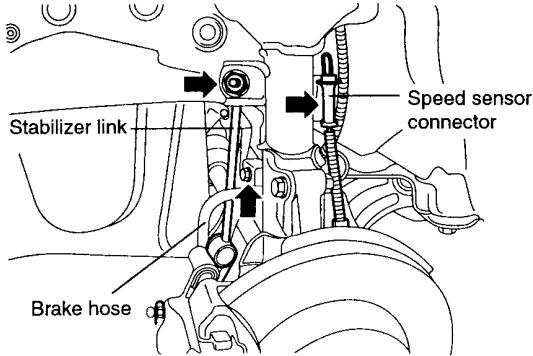


REMOVAL E441C1EF4

1. Remove the front wheel and tire.
2. Detach the brake hose bracket and the speed cable from the strut assembly.

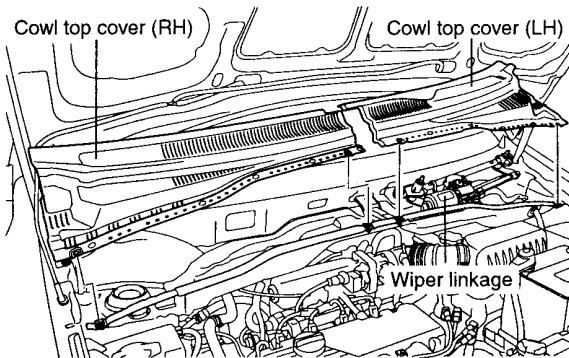
NOTE

Do not apply excessive force to the components.



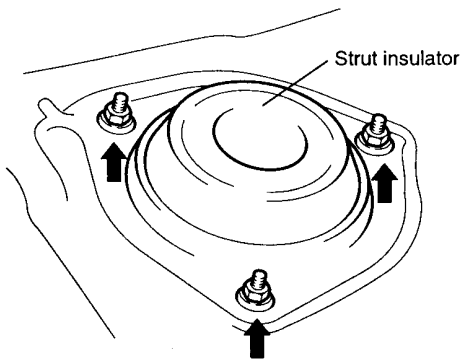
ETBSS02A

3. Remove the wiper assembly and the cowl top cover.



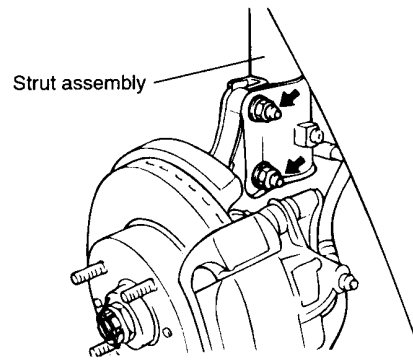
EHPD365B

4. Remove the strut upper mounting bolts(3).



ETBSS03A

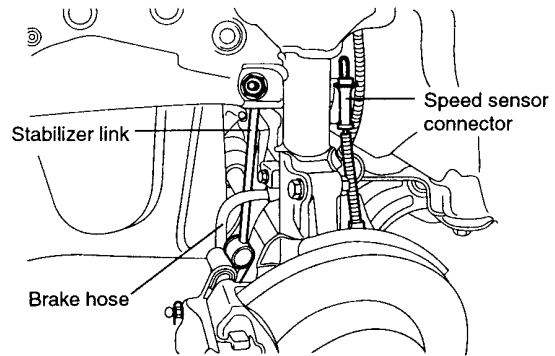
5. Remove the strut assembly.



EHDA201C

INSTALLATION E4813A711

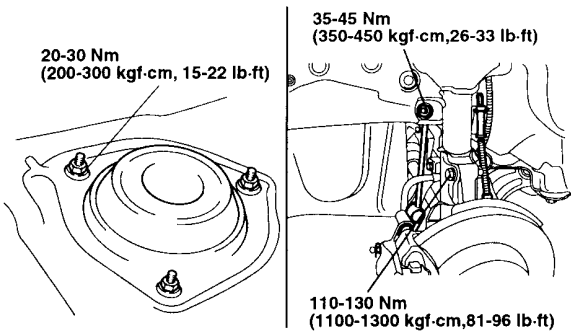
1. When installing the front strut, be sure to clear the connecting surface.
2. Install the brake hose, front wheel speed sensor cable and stabilizer link on the front strut assembly.



EHPD090B

3. Tighten the components below to the specified torque as follows.

Items	Torque Nm (kgf-cm, lb-ft)
Front strut upper mounting nut	20~30 (200~300, 15~22)
Front strut to knuckle	110~130 (1100~1300, 81~96)
Stabilizer link mounting	35~45 (350~450, 26~33)



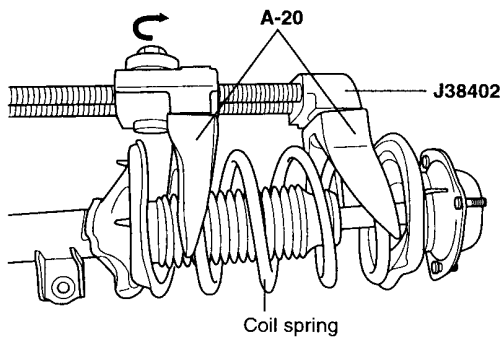
EHPD090A

DISASSEMBLY E4EB3EA17

1. Remove the dust cover with a flat-tip screw driver.
2. Using the Special Tools (J38402, A-20), compress the coil spring until there is only a little tension on the strut.

NOTE

Do not use an impact gun.



ETBSS04A

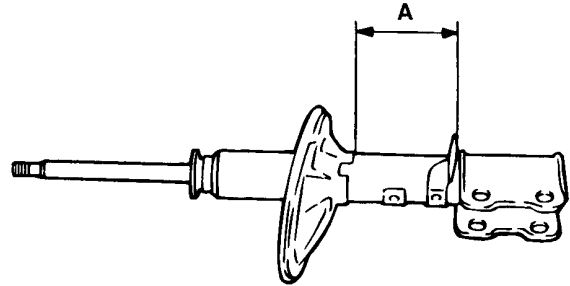
3. Remove the nut at the top end of the shock absorber.
4. Remove the insulator, spring seat, coil spring, dust cover from the strut assembly.

DISPOSAL

1. Fully extend the shock absorber rod.
2. Drill a hole on the A section to remove gas from the cylinder.

CAUTION

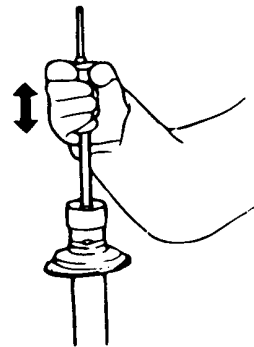
The gas coming out is harmless, but be careful of chips that may fly when drilling.



EHHA003A

INSPECTION E4FA85A3C

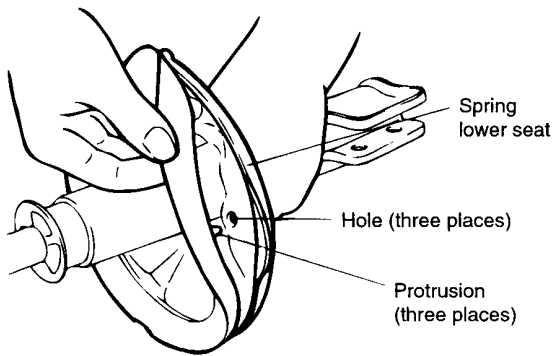
1. Check the strut insulator bearing for wear or damage.
2. Check rubber parts for damage or deterioration.
3. Check the coil spring for sagging and weakness.
4. Check the shock absorber for abnormal resistance or unusual sound.



EHDA203A

REASSEMBLY E4E25413A

1. Install lower spring pad so that the protrusions fit in the holes of the spring lower seat.



EHDA204A

2. Install the dust cover on the shock absorber.
3. Using the Special Tools (J38402, A-20), compress the coil spring. After the spring is fully compressed, install it on the shock absorber.

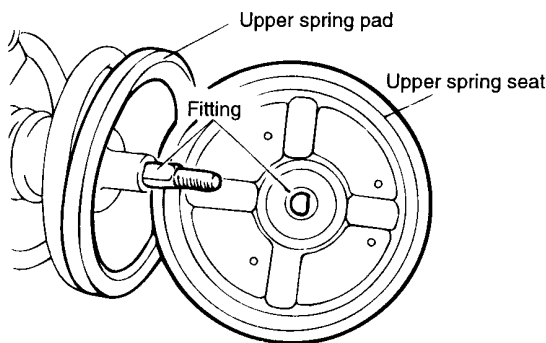
NOTE

Install the coil spring with the identification mark directed toward the knuckle.

4. After fully extending the piston rod, install the spring upper seat and insulator assembly.

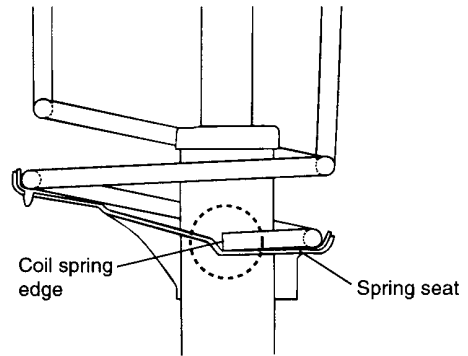
NOTE

Align the D-shaped hole in the spring seat upper assembly with the protrusion on the piston rod.



EHDA204B

5. After seating the upper and lower ends of the coil spring in the upper and lower spring seat grooves correctly, tighten the new self-locking nut temporarily.



ESMSS44A

6. Remove the Special Tools (J38402, A-20).
7. Tighten the self-locking nut to the specified torque.

Tightening torque

60~70 Nm (600~700 kgf-cm, 43~51 lb-ft)

8. Apply grease to the strut upper bearing and install the insulator cap.

CAUTION

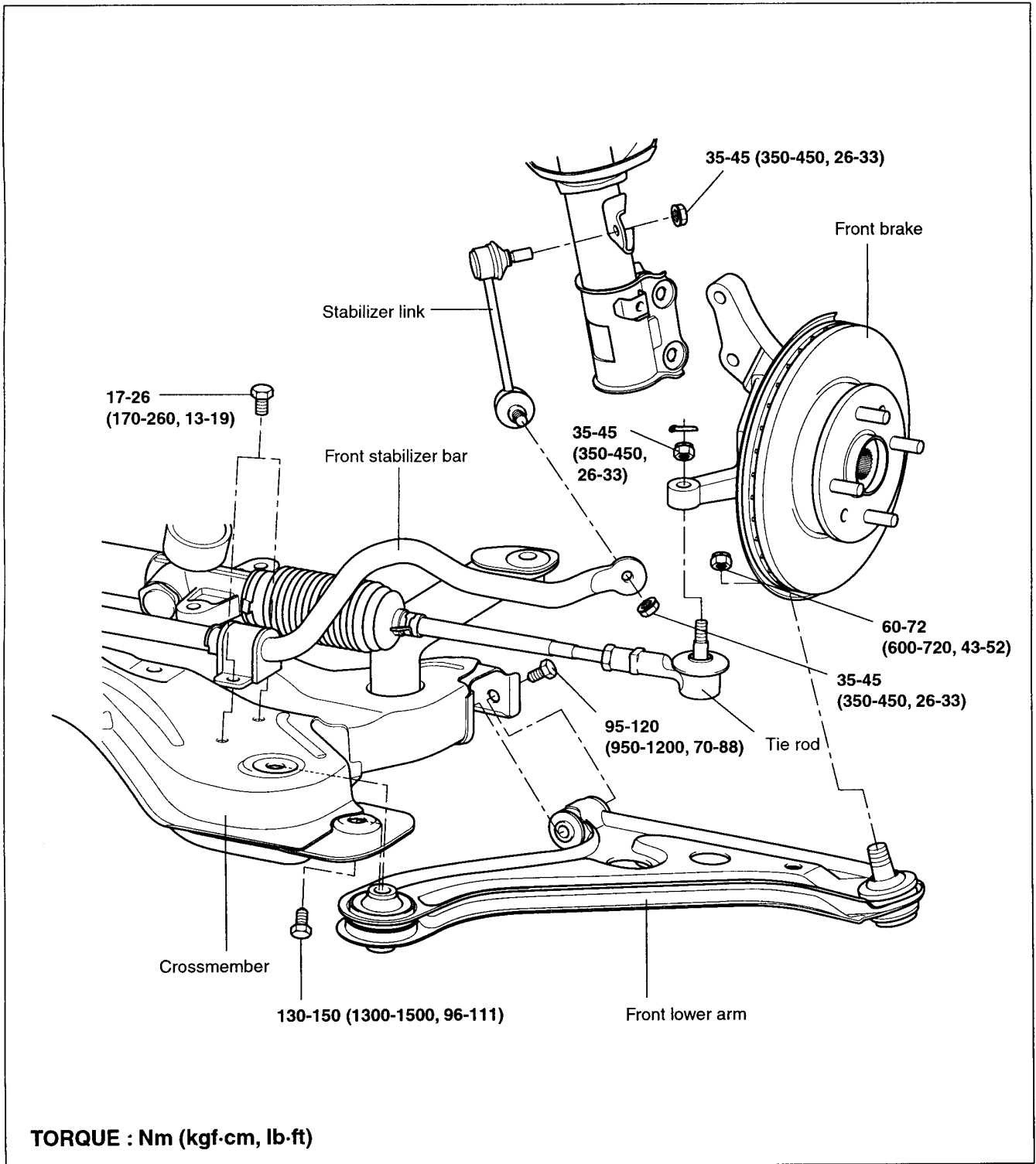
When applying the grease, be careful so that it isn't smeared on the insulator rubber.

Recommended grease

Chassis grease NLGI No. 0 or equivalent

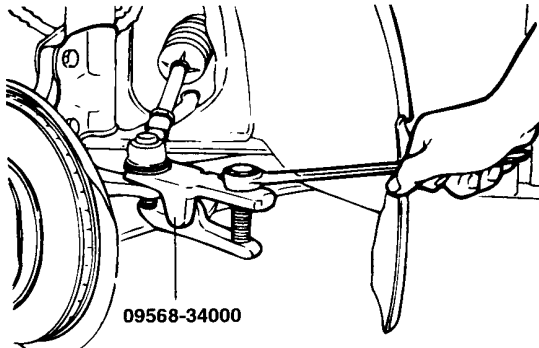
LOWER ARM

COMPONENTS E45E4AAEF



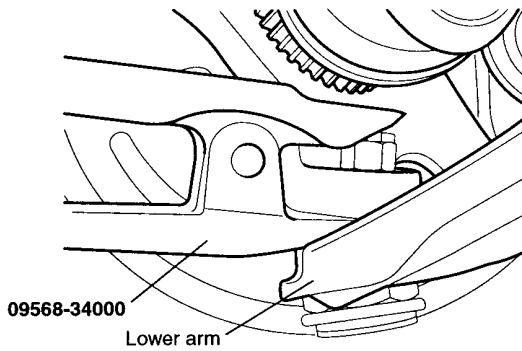
REMOVAL E4308815A

1. Remove the front wheel and tire.
2. Using the special tool (09568-34000), disconnect the tie rod end ball joint.



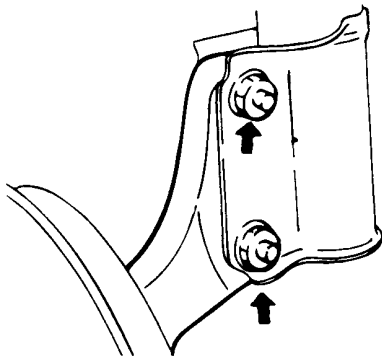
EIDA401A

3. Using the Special Tool (09568 - 34000), disconnect the lower arm ball joint from the lower arm.



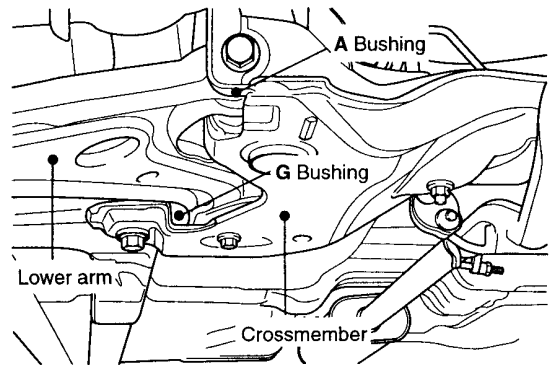
ETBSS06A

4. Remove the strut lower mounting bolts(2).



S5SS012B

5. Remove the lower arm bushing (A) and bushing (G) mounting bolts(2).



ETBSS07A

6. Remove the lower arm assembly.

INSTALLATION E41A1AC3B

Installation is the reverse of removal.

NOTE

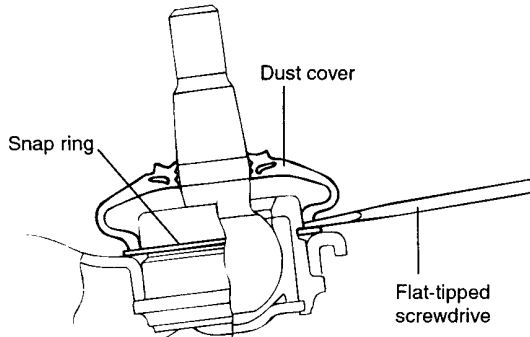
Tighten the components below to the specified torque as follows.

Items	Torque Nm (kgfcm, lbft)
Wheel nut	90~110 (900~1100, 67~82)
Lower arm ball joint nut	60~72 (600~720, 43~52)
Lower arm bushing (A)	95~120 (950~1200, 70~88)
Lower arm bushing (G)	130~150 (1300~1500, 96~111)
Stabilizer link nut	35~45 (350~450, 26~33)

REPLACEMENT E46047565

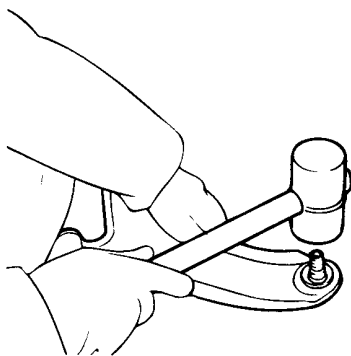
BALL JOINT AND DUST COVER

- Using a flat-tipped screwdriver, remove the dust cover from the lower arm ball joint.



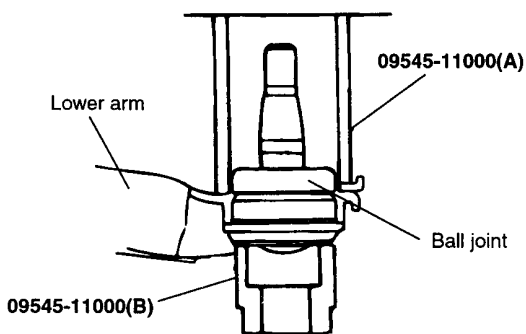
EHDA253D

- Remove the snap ring.
- Using a plastic hammer, tap the ball joint out of the lower arm.



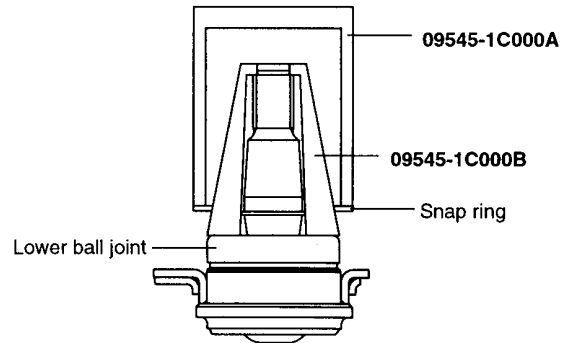
EHDA253A

- Using the Special Tools (09545-11000 A/B), press-fit the ball joint into the lower arm assembly.



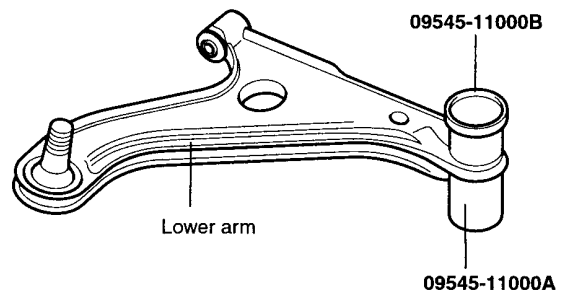
ETBSS09A

- Using the special tools (09545-1C000 A/B) install the snap ring.



ETBSS10A

- Using the Special Tool (09545-11000 A/B), install the dust cover.

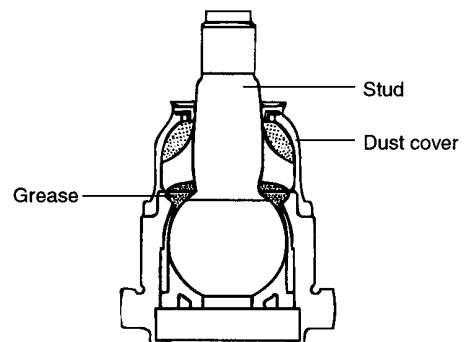


ETBSS11A

NOTE

Apply Recommended grease to the dust cover inner side and stud.

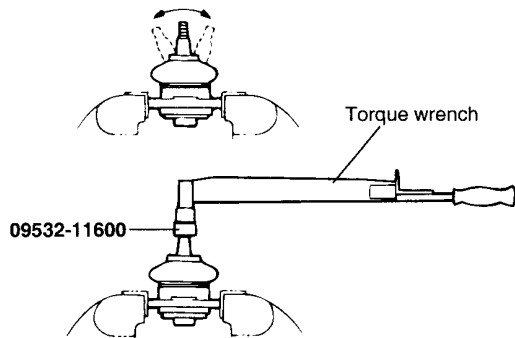
Recommended grease :
Variant R-2 grease or poly lub gly 801K



EHPSS10A

INSPECTION E4469B102

1. Check the bushing for wear and deterioration.
2. Check the lower arm for bending or breakage.
3. Check the ball joint dust cover for cracks and damage.
4. Check all bolts for damage and deformation.
5. Check the lower arm ball joint for rotating torque.



EXDSS85A

- If there is a crack in the dust cover, replace the ball joint assembly.
- Shake the ball joint stud several times.
- Measure the ball joint rotating torque.

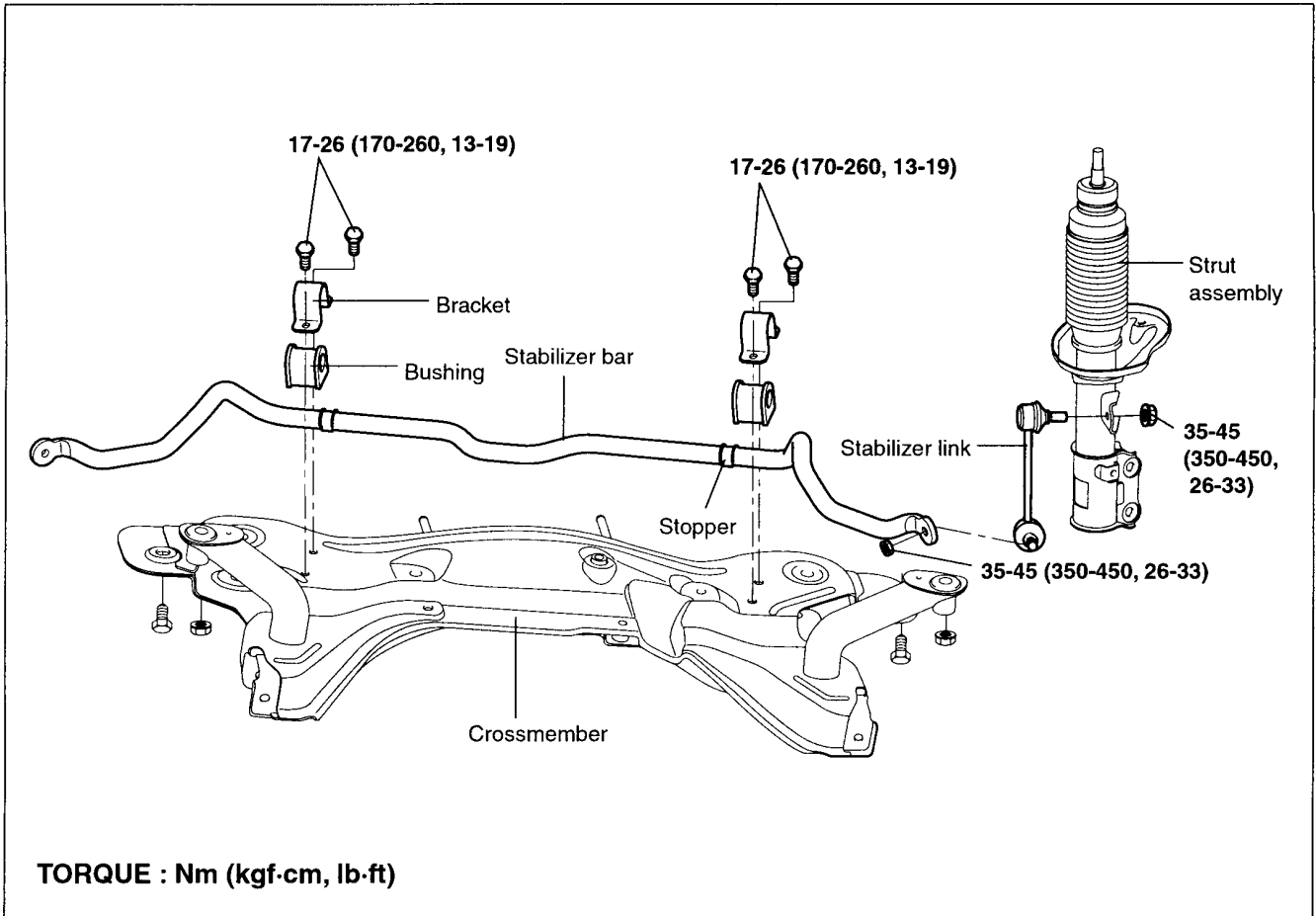
Standard value

3.5~10 Nm (35~100 kgf·cm, 2.6~7.4 lb·in)

- If the rotating torque is above the upper limit of the standard value, replace the ball joint assembly.
- Even if the rotating torque is below the lower limit of the standard value, the ball joint may be reused unless it has drag and excessive play.

FRONT STABILIZER BAR

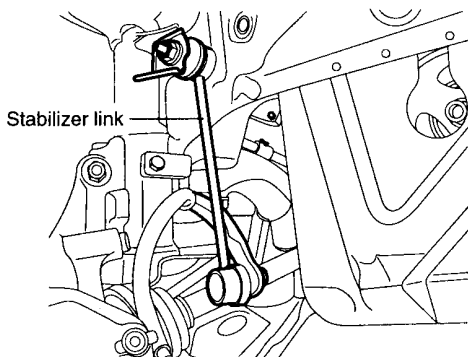
COMPONENTS E4CD42418



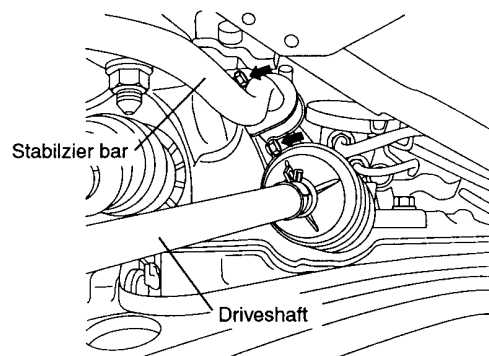
ETBSS12A

REMOVAL E4CA18F9B

1. Remove the front wheel and tire.
2. Remove the stabilizer link assembly.
3. Remove the stabilizer bracket mounting bolts.



ETBSS08A

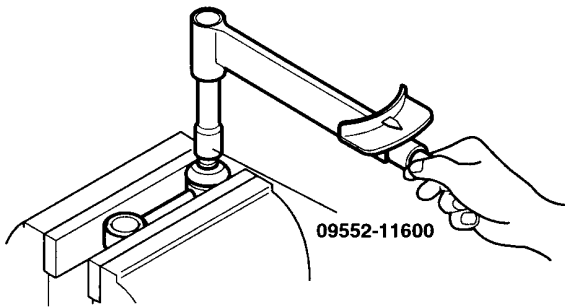


ETBSS13A

4. Remove the stabilizer bar.

INSPECTION E4BFD402C

1. Check the stabilizer bar for deterioration and damage.
2. Check all bolts for damage and deformation.
3. Check the stabilizer link dust cover for cracks or damage.
4. Check the stabilizer link ball joint for rotating torque.



KGX6036A

- If there is a crack in the dust cover, replace it and add grease.
- Shake the stabilizer link ball joint stud several times.
- Mount the self-locking nut on the ball joint, and then measure the ball joint rotating torque.

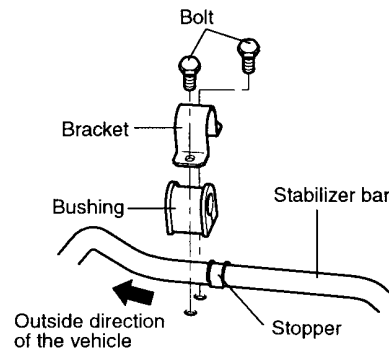
Standard value

0.7~2 Nm (7~20 kgf·cm, 6~18 lb·in)

- If the rotating torque is higher than the upper limit of the standard value, replace the stabilizer link.
- If the rotating torque is below the lower limit of the standard value, the ball joint may be reused unless it has drag and excessive play.

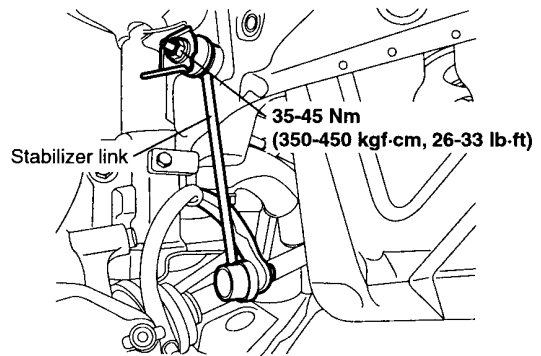
INSTALLATION E4F064588

1. When installing the bushing on the front stabilizer bar, install it in the outside direction of stopper on the stabilizer bar.



ETBSS14A

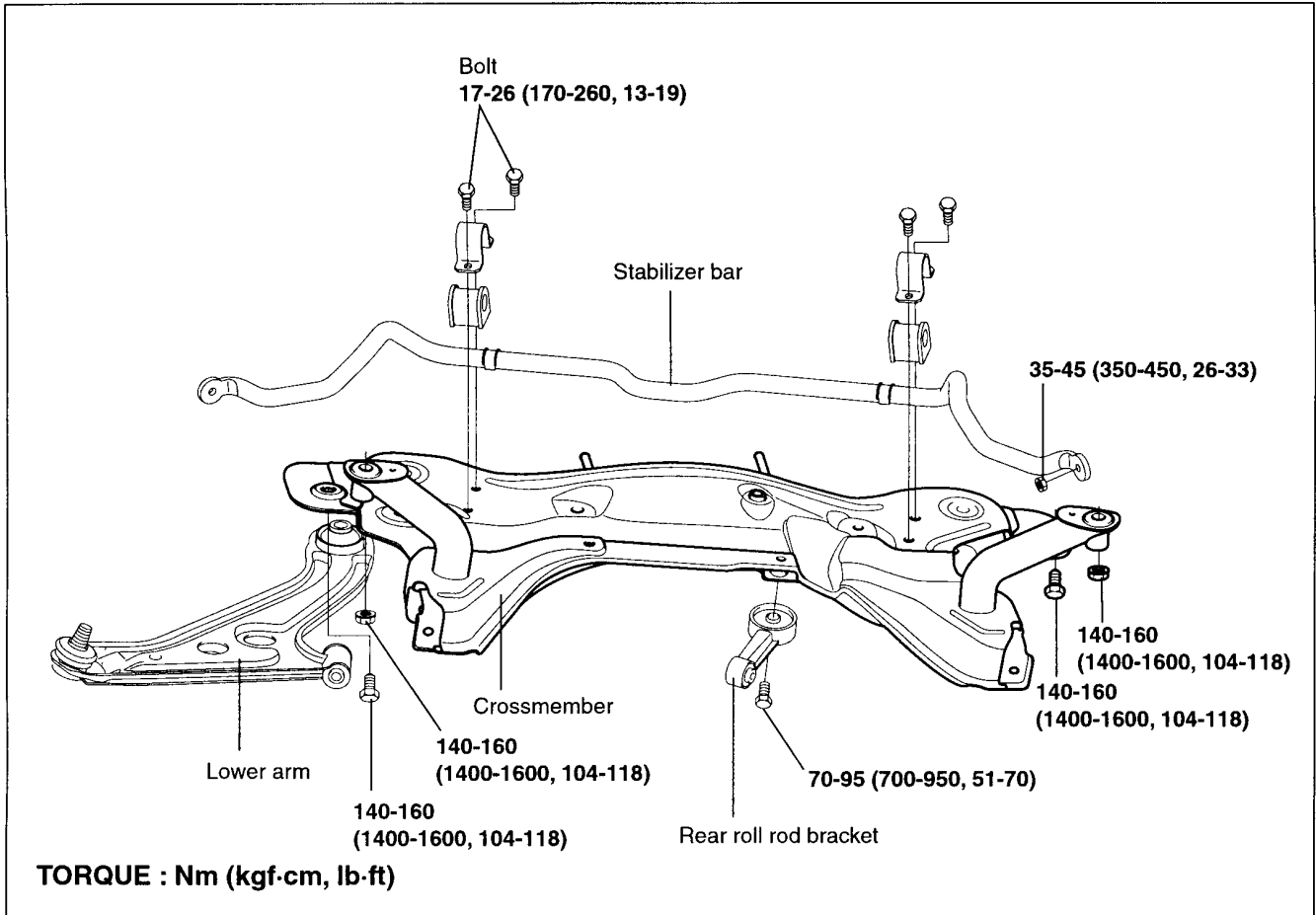
2. Install the bracket on the bushing.
3. After tightening the bolts of the bushing bracket temporarily, install the bushing bracket on the opposite side.
4. Install the stabilizer link.



ETBSS08B

CROSS MEMBER

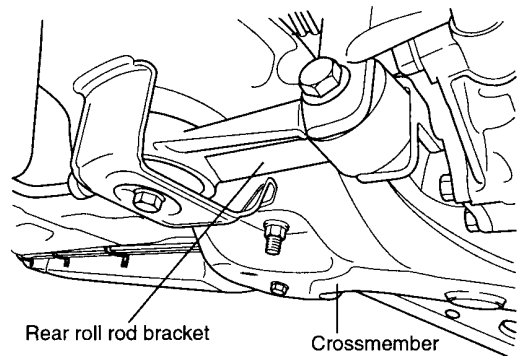
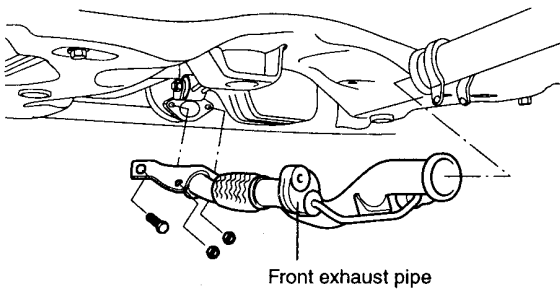
COMPONENTS E4692D33A



ETBSS15A

REMOVAL E4417A820

1. Remove the lower arm bushing mounting bolts.
2. Remove the front exhaust pipe.



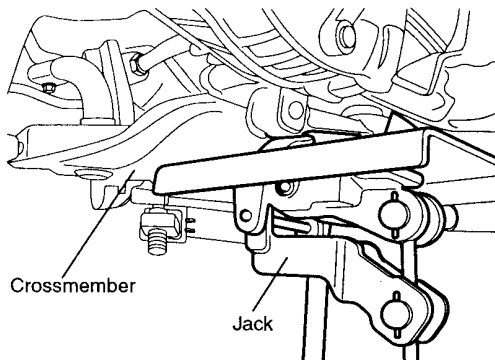
ETBSS16A

4. To make it easier to remove the crossmember, remove steering gear box mounting bolts and stabilizer link mounting nuts and then support the steering gear and linkage on the vehicle.

EHPD365D

3. Remove the rear roll rod bracket.

5. After support the center of the crossmember assembly with a jack, remove the crossmember mounting bolts to the body. Remove the crossmember.



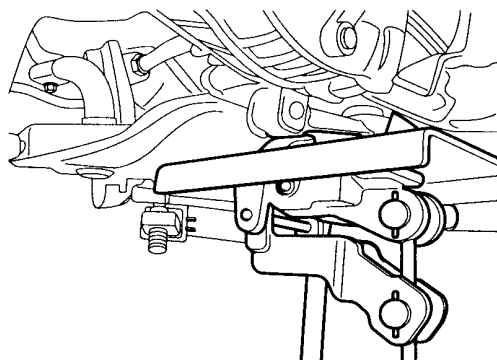
EHPD090C

INSPECTION E46546AD5

1. Check the crossmember for cracks or deformation.
2. Check each insulator and bushing for cracks or deterioration.

INSTALLATION E438A4F0A

1. Install the crossmember while supporting it with a jack.

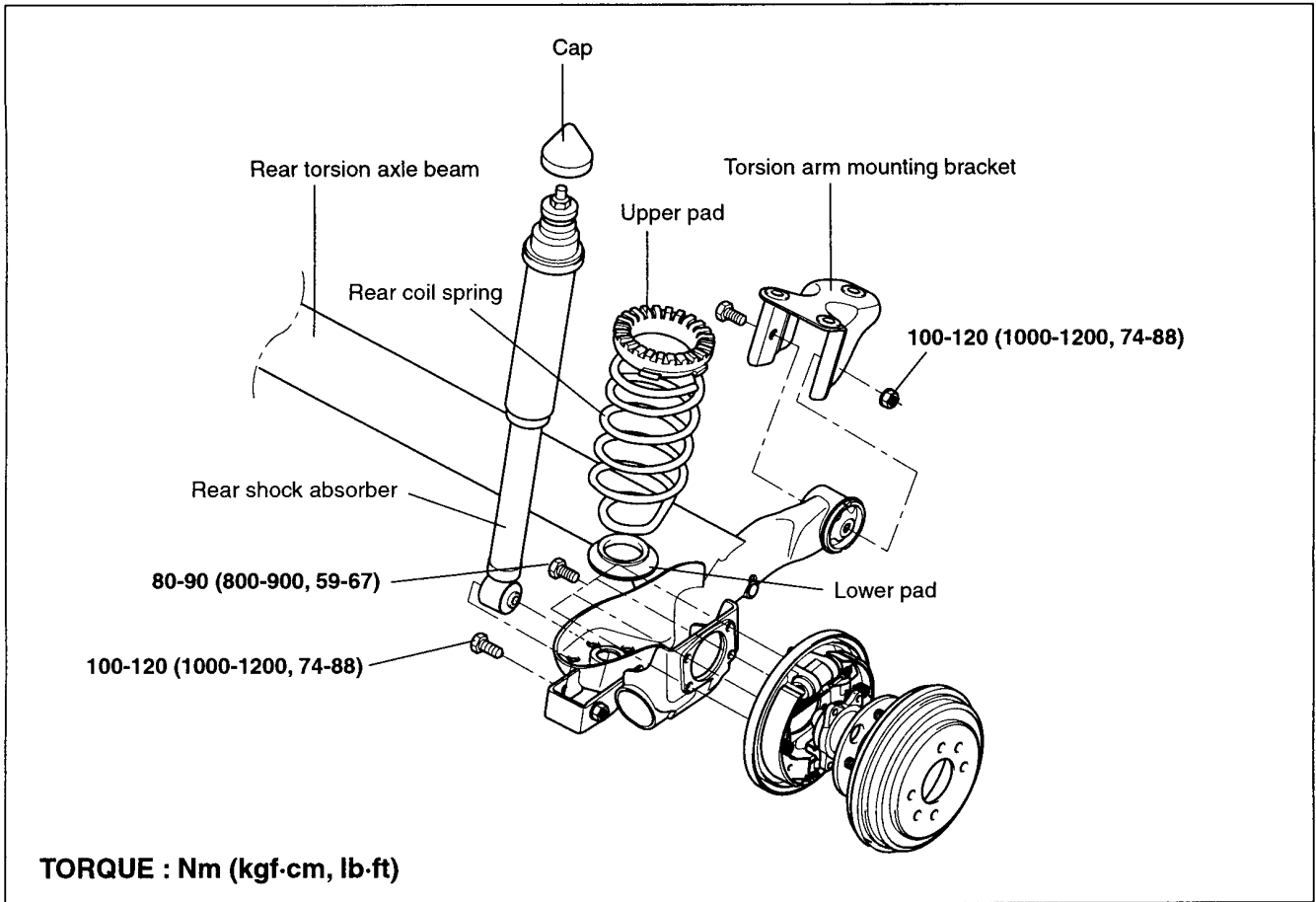


ETBSS17A

2. Install steering gear box assembly and stabilizer bar link to the vehicle.
3. Install lower arm bushing mounting bolts and nuts.
4. Install the rear roll rod bracket.
5. Install the front exhaust pipe.

REAR SUSPENSION SYSTEM

COMPONENTS E468AE60E

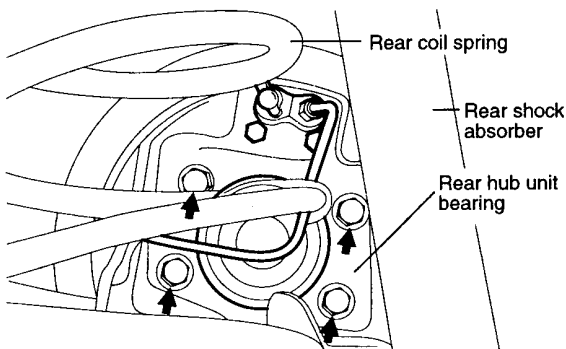


ETBSS18A

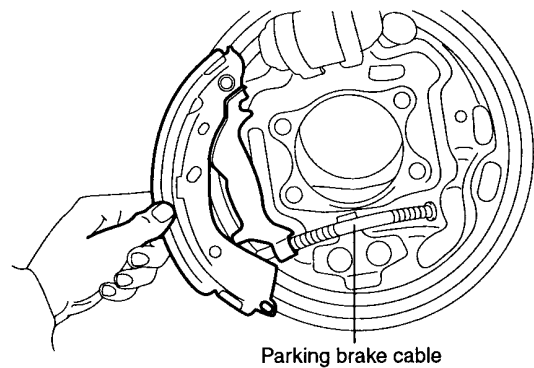
REMOVAL E45D3C735

1. Remove the wheel and tire.
2. Remove the rear hub unit bearing.

3. Remove the parking brake cable.

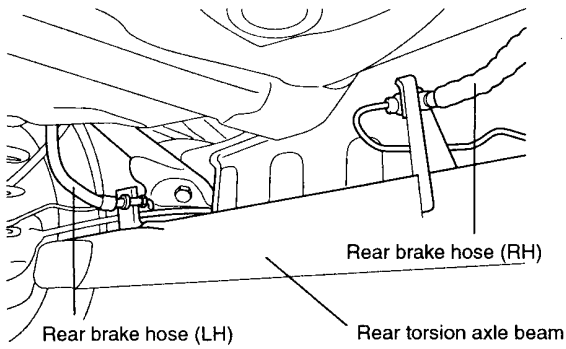


ETBDS81A



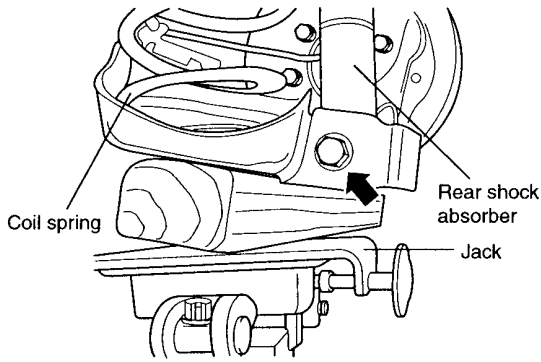
EHPD365C

- Remove the rear brake hose and brake tube.



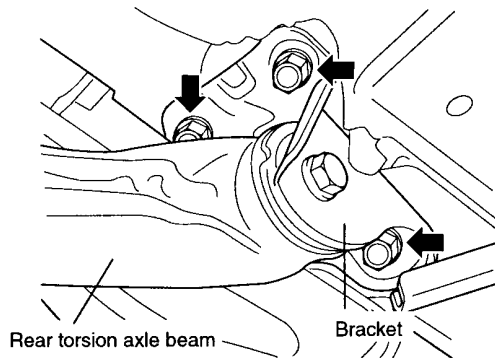
ETBSS19A

- After supporting the bottom of the rear torsion axle beam with a jack, remove the rear shock absorber lower mounting bolt.



EHPD090D

- Remove the rear coil spring, lowering the jack slowly.
- Remove the rear torsion axle beam bracket mounting bolts to the body.



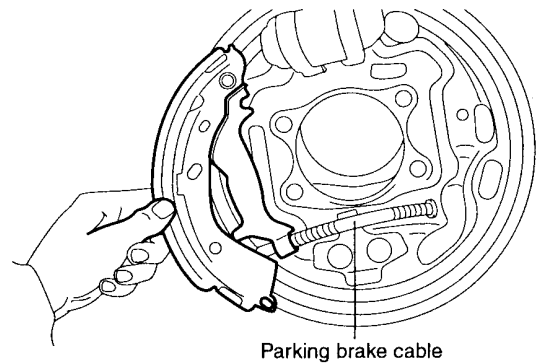
ETBSS21A

INSTALLATION E498413CF

- Installation is the reverse of removal.
- Tighten the components below to the specified torque as follows.

Items	Torque Nm (kgfcm, lbft)
Rear hub unit bearing mounting bolt	80~90 (800~900, 59~67)
Rear shock absorber lower mounting	100~120 (1000~1200, 74~88)
Rear torsion axle beam mounting bolt	100~120 (1000~1200, 74~88)
Rear torsion axle beam bracket	100~120 (1000~1200, 74~88)

- Install the parking brake cable.



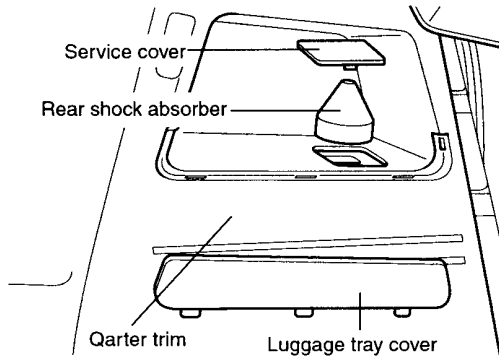
EHPD365C

- Bleed the brake line system (Refer to the adjustment procedure in the Brake system).

SHOCK ABSORBER

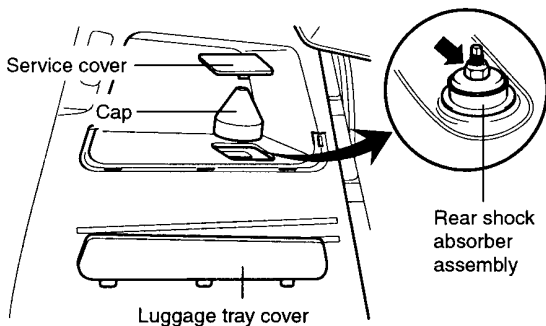
REMOVAL E4154EA63

1. Remove the wheel and tire.
2. Remove the luggage tray cover from the quarter trim and pry the service cover loose with a (-) screwdriver.



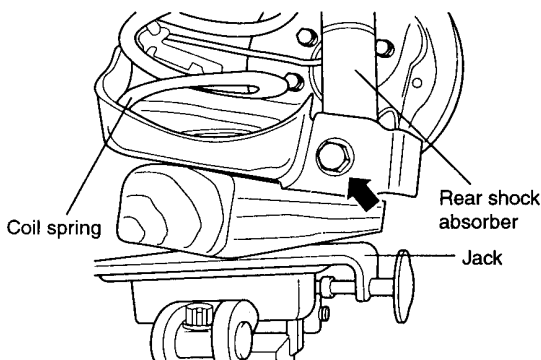
ETBSS23A

3. Remove the rear shock absorber upper mounting nut.



ETBSS24A

4. After supporting the rear torsion axle beam with a jack, remove the rear shock absorber lower mounting bolt.

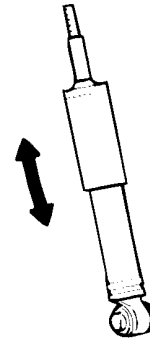


EHPD090D

5. Remove the rear shock absorber.

INSPECTION E4ECD6004

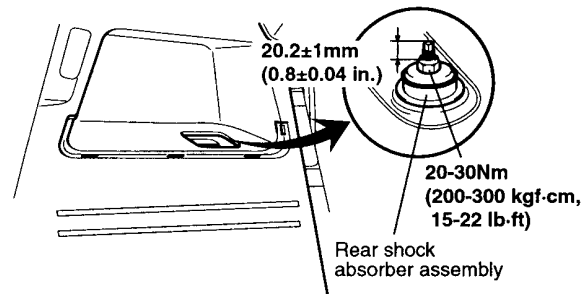
1. Check the shock absorber for wear or damage.
2. Check rubber parts for damage or deterioration.
3. Check the shock absorber for abnormal resistance or unusual sound.



KHPSS03A

INSTALLATION E43E2E05A

1. Tighten the rear shock absorber upper mounting bolt to the specified torque as follows.



ETBSS95A

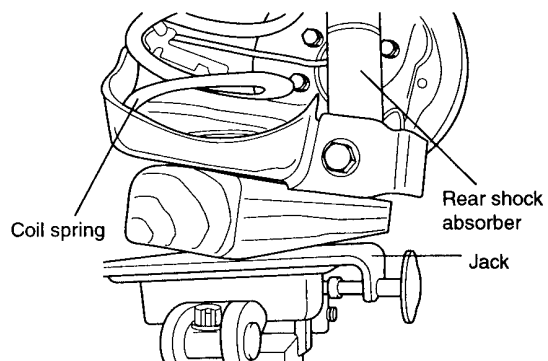
2. After placing a jack at the bottom of the rear torsion axle beam and jacking up the vehicle to the proper location, tighten the rear shock absorber lower mounting bolt.

Specified torque

100~120 Nm (1000~1200 kgf-cm, 74~88 lb-ft)

⚠ CAUTION

Check that the rear coil spring is located in the proper position.

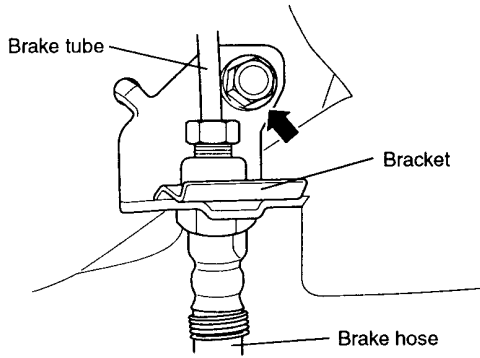


ETBSS20A

COIL SPRING

REMOVAL KBBA9665

1. Remove the wheel and tire.
2. Remove the brake hose fixing bracket.

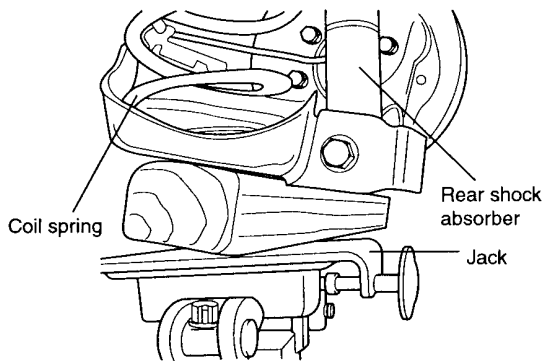


ETBSS25A

NOTE

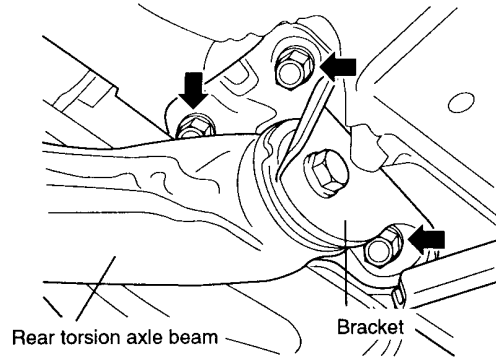
The brake hose should not expand when the rear torsion axle beam is hanged down from the body.

3. After placing a jack at the bottom of the rear torsion axle beam, remove the rear shock absorber lower mounting bolt.



ETBSS20A

4. Remove the rear torsion axle beam and three body fixing bracket bolts.



ETBSS21A

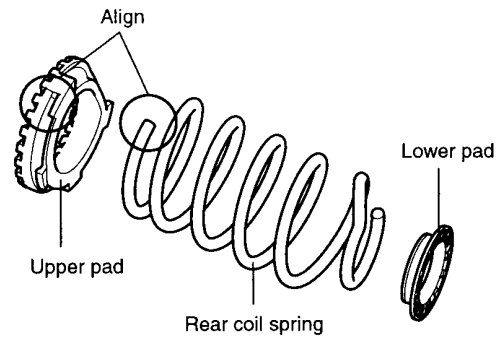
5. Remove the rear coil spring.

INSPECTION KFC29D38

1. Check the coil spring for crack and deformation.
2. Check the coil spring pad for damage and deformation.

INSTALLATION KE31CCE0

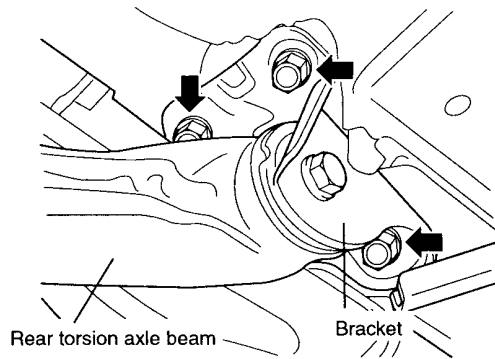
1. The end of the rear coil spring should be inserted into the groove of the coil spring upper pad.



ETBSS26B

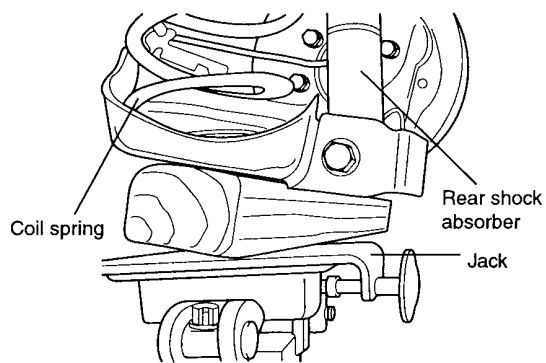
2. Insert the lower pad into the coil spring.

3. Fix the rear torsion axle beam bracket on the body, after placing the coil spring at its previous location and lifting the vehicle with a jack.



ETBSS21A

4. Fix the rear shock absorber.



ETBSS20A

TIRES / WHEELS

TIRE

FRONT WHEEL ALIGNMENT E4399E6C2

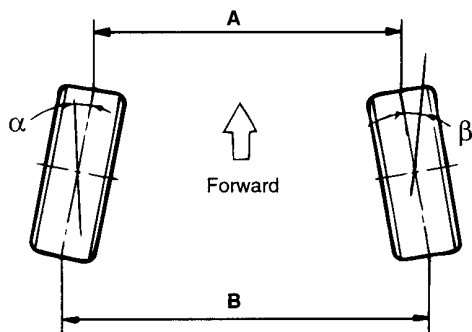
When using commercially-available computerized four wheel alignment equipment (caster, camber, toe and turning angle) to inspect the front wheel alignment, always position the car on a level surface with the front wheels facing straight ahead. Prior to inspection, make sure that the front suspension and steering system are in normal operating condition and that the wheels and tires face straight ahead and the tires are inflated to the specified pressure.

TOE-IN

Toe-in ($B-A$ or angle $\alpha+\beta$) is adjusted by turning the tie rod turnbuckles. Toe-in on the left front wheel can be reduced by turning the tie rod toward the of the car. Toe-in change is adjusted by turning the tie rods for the right and left wheels at the same amount as follows :

Standard value

Toe-in (B-A) mm (in.) : $0 \pm 2\text{mm}$ (0 ± 0.08 in.)



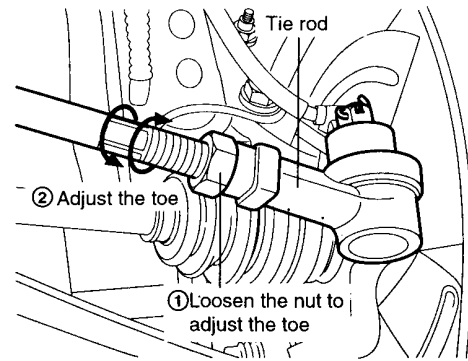
EHH4850A

NOTE

- Toe-in adjustment should be made by turning the right and left tie rods at the same amount.
- When adjusting toe-in, loosen the outer bellows clip to prevent twisting the bellows.
- After the adjustment, tighten the tie rod end lock nuts firmly and reinstall the bellows clip.
- Adjust each toe-in to be the range of ± 1.5 mm.

Tightening torque

Tie rod end lock nuts :
 $50\sim 55$ Nm ($500\sim 550$ kgf-cm, $37\sim 41$ lb-ft)



ETBSS50A

CAMBER

The steering knuckle which is installed with the strut assembly is pre-set to the specified camber at the factory and doesn't need to be adjusted.

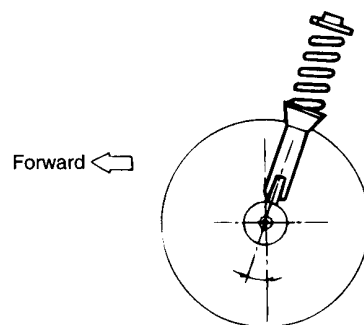
Camber : $0^\circ \pm 30'$

CASTER

Caster is pre-set at the factory and doesn't need to be adjusted. If the caster is not within the standard value, replace the bent or damaged parts.

	Power steering	Manual steering
General area	$2^\circ 24' \pm 30'$	$1^\circ 54' \pm 30'$
Europe / Australia	$2^\circ 18' \pm 30'$	$1^\circ 40' \pm 30'$

(Max. difference between LH and RH : $0^\circ 30'$)



EHH4850C

 **NOTE**

1. Replace the worn loose or damaged parts of the front suspension assembly prior to measuring front wheel alignment
2. Use commercially-available computerized four wheel alignment equipment to measure the wheel alignment.
3. Camber and caster are pre-set to the specified value at the factory and don't need to be adjusted
4. If the camber and caster are not within specifications, replace the bent or damaged parts.
5. The difference between the left and right wheels of the camber and the caster must be within the range of $0 \pm 30'$.

REAR WHEEL ALIGNMENT

TOE-IN

Toe-in is pre-set at the factory and doesn't need to be adjusted.

Standard value

Rear toe-in : $2 \pm 2\text{mm}$ (0.08 ± 0.08 in.)

(difference between LH/RH : within 2mm (0.08 in.))

Rear camber : $-1^\circ \pm 30'$

(difference between LH/RH : within $45'$)

TIRE WEAR

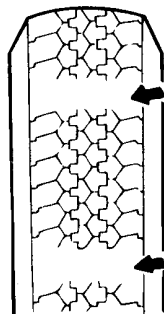
1. Measure the tread depth of the tires.

Tread depth of tire [Limit] : 1.6mm (0.06 in.)

2. If the remaining tread depth is less than the limit, replace the tire.

 **NOTE**

When the tread depth of the tires is less than 1.6 mm (0.06 in.) the wear indicators will appear.

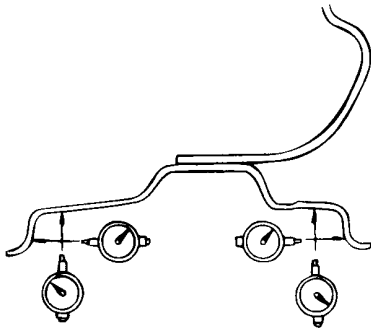


EHA9850E

WHEEL

WHEEL RUNOUT E44683277

1. Jack up the vehicle and support it with jack stands.
2. Measure the wheel runout with a dial indicator as illustrated.



EHDA852B

3. Replace the wheel if the wheel runout exceeds the limit.

Wheel runout [Limit]

Steel wheel

- Radial: 0.6mm (0.028 in.) : Average of LH & RH)
- Axial : 1.0mm (0.039 in.)

Aluminum wheel

- Radial : 0.3mm (0.012 in.)
- Axial : 0.3mm (0.012 in.)

TIGHTENING WHEEL NUT

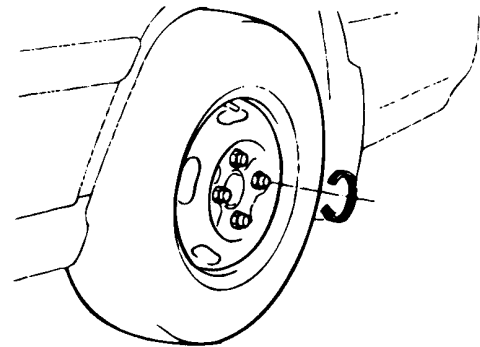
1. Tightening torque
Steel and aluminum alloy wheel.

Specified torque

90~110 Nm (900~1,100 kgf·cm, 65~80 lb·ft)

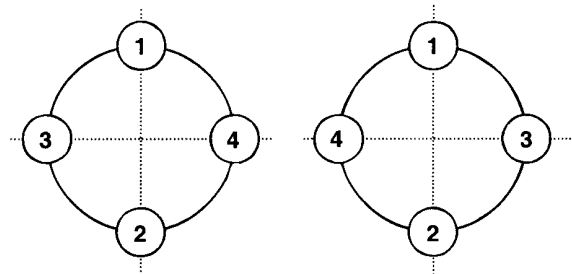
! CAUTION

When using an impact gun, final tightening torque should be checked using a torque wrench.



EHDA853A

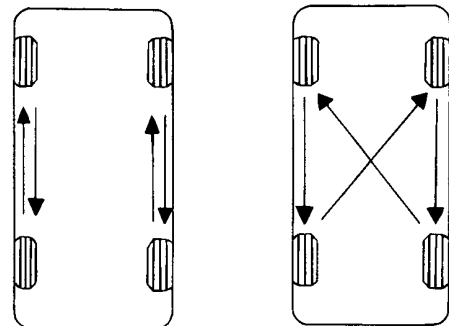
2. Tightening order
Check the torque again after tightening the wheel nuts diagonally.



KXDSS51A

WHEEL ROTATION

Rotate the tires in the pattern illustrated.

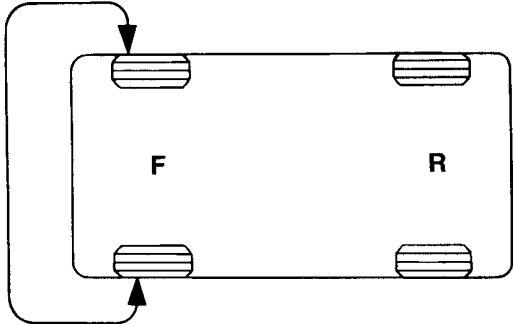


EHDA854A

CHECKING FOR PULL AND WANDER

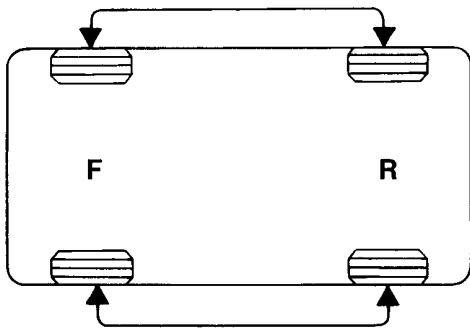
If the steering pulls to one side, rotate the tires according to the following wheel rotation procedure.

- 1. Rotate the front right and front left tires, and perform a road test in order to confirm vehicle stability.



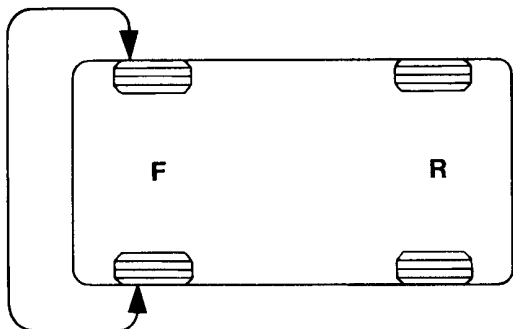
EHDA854B

- 2. If the steering pulls to the opposite side, rotate the front and rear tires, and perform a road test again.



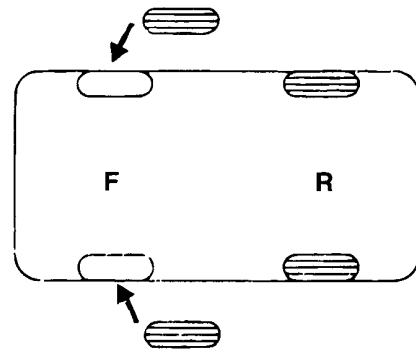
EHDA854C

- 3. If the steering continues to pull to one side, rotate the front right and left tires again, and perform a road test.



EHDA854B

- 4. If the steering continues to pull to the opposite side, replace the front wheels with new ones.



EHDA854D