

FRONT SUSPENSION

CONTENTS

FRONT AXLE HUB	9	SPECIAL TOOLS	6
FRONT CROSSMEMBER	26	SPECIFICATIONS	4
GENERAL INFORMATION	2	General Specifications	4
Adjustable Shock Absorber	3	Lubricants	5
LOWER ARM AND KNUCKLE ARM	20	Service Specifications	4
SERVICE ADJUSTMENT PROCEDURES	7	Torque Specifications	5
Front Wheel Alignment	7	STABILIZER BAR AND STRUT BAR	24
Wheel Bearing Adjustment	7	STRUT ASSEMBLY	13

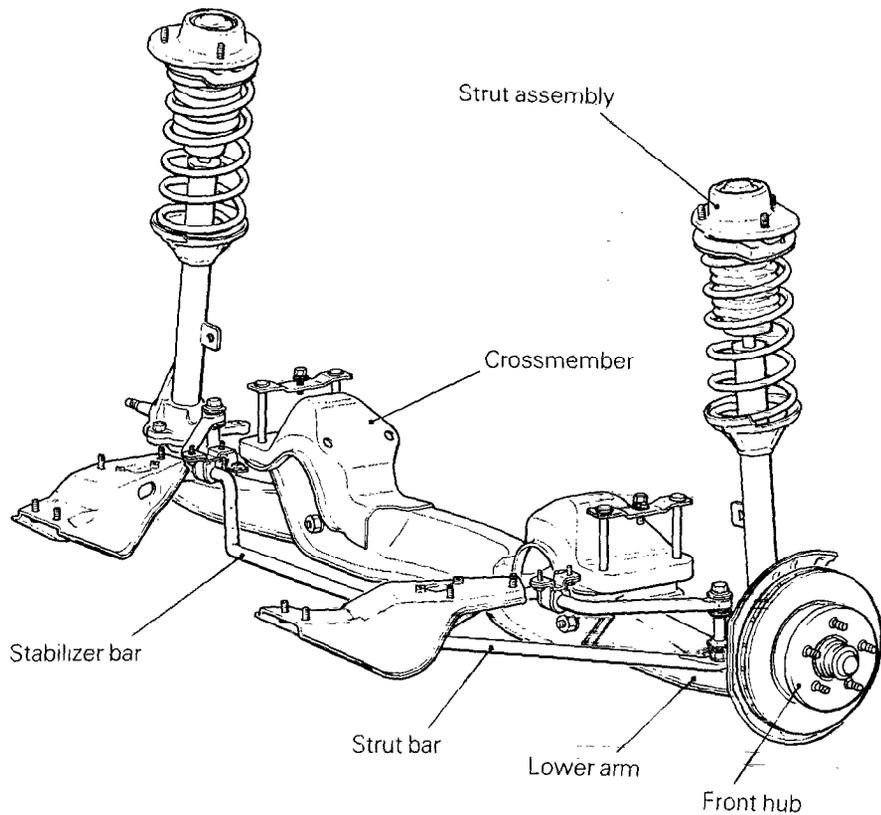
FRONT SUSPENSION – General Information

GENERAL INFORMATION

N02BAAB

The front suspension is McPherson strut type independent suspension that is simple in construction and light in unsprung weight.

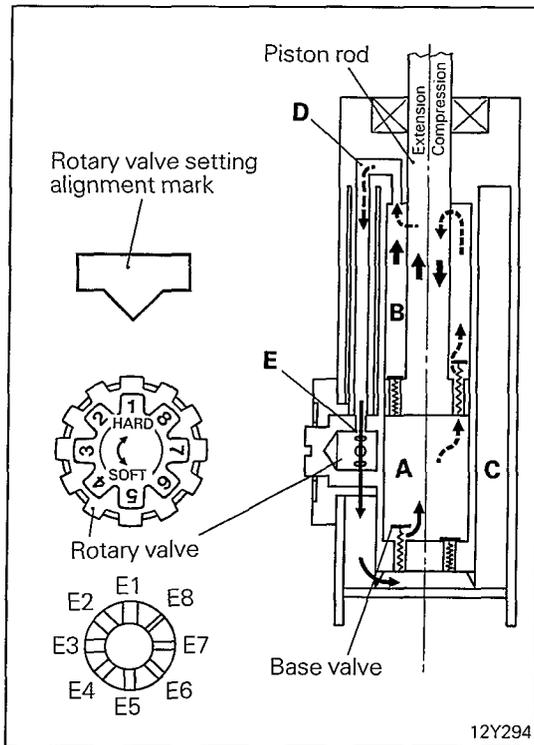
The top end of the strut is supported in the wheel house via an insulator and the bottom end is supported by the lower arm via knuckle arm and ball joint.



12Y732

ADJUSTABLE SHOCK ABSORBER (8 LEVELS)

The adjustable shock absorber can have its damping force adjusted manually to any of eight levels according to the road surface condition and driving condition. Rotary valve 1 gives the lowest (softest) damping force and 2, 3, 4, 5, 6, 7 and 8 give increasingly higher (harder) damping force, thus allowing adjustment of the shock absorber damping force according to the driving condition.

**CONSTRUCTION AND FUNCTION**

The rotary valve has eight orifices "E" (E1 to E8) of different sizes that give different levels of resistance to fluid flow. By changing the orifices, therefore, the damping force of the shock absorber can be changed.

OPERATION (FLUID FLOW WHEN EXTENDED)

The fluid in chamber B is pressurized and flows to chamber D. In chamber D, a damping force develops as the fluid flows through variable orifice E, and this force adds to the damping force that is generated as the fluid flows to chamber A. Therefore, by changing the size of orifice E, the damping force can be changed.

OPERATION (FLUID FLOW WHEN CONTRACTED)

Fluid in chamber A is pressurized and flows to chamber B; the amount of fluid corresponding to the volume displaced by the piston rod flows to chamber C. As the base valve is closed, this same volume flows to chamber D, flowing through variable orifice E and thus changing the damping force in the same way as when the shock absorber extended.

Handling Precautions

- Set both right and left damping forces at the same level. Setting them at different levels adversely affects steering stability.
- If set midway between numbers, the damper operates at the hardest level (8).

SPECIFICATIONS

N02CA-

GENERAL SPECIFICATIONS

Items	A187AM	A187AM (Option)
Suspension system	McPherson strut type	McPherson strut type
Coil spring		
Wire dia. x O.D. x free length mm (in.)	12.8 x 142.8 x 346 (.50 x 5.62 x 13.62)	12.5 x 142.8 x 327 (.49 x 5.62 x 12.87)
Shock absorber		
Type	Hydraulic, cylindrical, double-acting type	Gas damper type (Adjustable shock absorber)
Max. length mm (in.)	620 (24.4)	620 (24.4)
Stroke mm (in.)	155 (6.1)	155 (6.1)
Stabilizer bar		
Outside diameter mm (in.)	21 (.83)	21 (.83)
Front axle hub bearing		
Type	Taper roller bearing	Taper roller bearing
Dimensions (O.D. x I.D.) mm (in.)		
Inner	59.1 x 31.8 (2.33 x 1.25)	59.1 x 31.8 (2.33 x 1.25)
Outer	45.2 x 19.1 (1.78 x .75)	45.2 x 19.1 (1.78 x .75)

SERVICE SPECIFICATIONS

N02CB-

Items	Specifications
Standard value	
Toe-in mm (in.)	0
Recommended setting	5 (.2) toe-in to 5 (.2) toe-out
Acceptable range	
Camber	-0°30' ± 30' Difference between left and right wheels: within 30'
Caster	5°50' ± 30' Difference between left and right wheels: within 30'
Protruding length of stabilizer bar installation bolt mm (in.)	15 – 17 (.59 – .67)
Ball joint starting torque Ncm (in.lbs.)	500 – 800 (43 – 69)
Limit	
Piston rod O.D. mm (in.)	21.95 (.8642)

TORQUE SPECIFICATIONS

N02CC-

Items	Nm	ft.lbs.
Tie rod end to knuckle arm	35 – 45	25 – 33
Disk cover to strut assembly	8 – 12	6 – 9
Strut assembly to brake assembly	80 – 100	58 – 72
Engine mount bracket to crossmember	30 – 40	22 – 29
Strut insulator to body	25 – 35	18 – 25
Shock absorber ring nut	140 – 150	101 – 108
Strut top end nut	60 – 70	43 – 51
Strut bar bracket to frame	35 – 45	25 – 33
Stabilizer bar bracket	8 – 12	6 – 9
Stabilizer bar to lower control arm	10 – 20	7 – 14
Strut bar to strut bar bracket	75 – 85	54 – 61
Strut bar to lower control arm	60 – 70	43 – 51
Lower arm shaft (bolt)	80 – 95	58 – 69
Knuckle arm to ball joint	60 – 72	43 – 52
Knuckle arm to McPherson strut assembly	80 – 100	58 – 72
Lower arm to ball joint	60 – 70	43 – 51
Crossmember to body	60 – 80	43 – 58

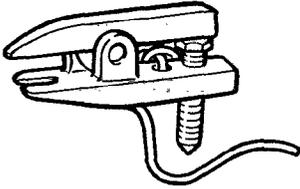
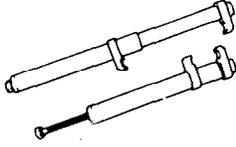
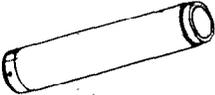
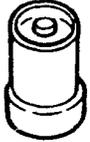
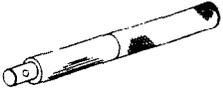
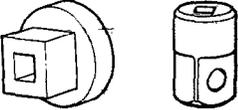
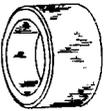
LUBRICANTS

N02CD-

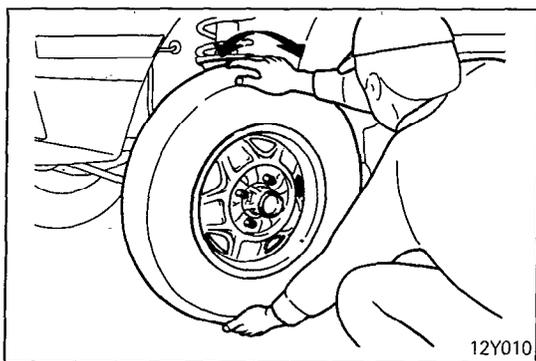
Items	Specified lubricant	Quantity
Front hub and ball joint	MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent	As required
Front hub inner bearing	MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent	As required
Front hub outer bearing	MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent	As required
Oil seal lip	MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent	As required
Strut insulator	MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent	As required
Shock absorber fluid	Repair kit fluid	440 cc (26.85 cu.in.)

SPECIAL TOOLS

N02DA-

Tool (Number and name)	Use	Tool (Number and name)	Use
<p>MB991113 Steering linkage puller</p> 	<p>Disconnection of the tie rod Removal of the knuckle arm</p>	<p>L4514 Spring compressor</p> 	<p>Compression of the front coil spring</p>
<p>MB990799 Ball joint remover and installer A</p> 	<p>Installation of the dust cover and lower control arm bushing</p>	<p>C-3717 Sleeve</p> 	<p>Press-fitting of the hub bearing outer races</p>
<p>MB990828 Lower control arm bushing remover and installer</p> 	<p>Removal and installation of the ball joints and the lower control arm bushing</p>	<p>C-4171 Drive handle</p> 	<p>Press-fitting of the hub bearing outer races</p>
<p>MB990885 Support ring</p> 	<p>Press-fitting of the hub oil seal</p>	<p>CT146 or MB990326 Preload socket</p> <p>(CT146) (MB990326)</p> 	<p>Measurement of the ball joint starting torque</p>
<p>L-4446 Installer</p> 	<p>Press-fitting of the hub bearing outer races</p>		

ProCarManuals.com

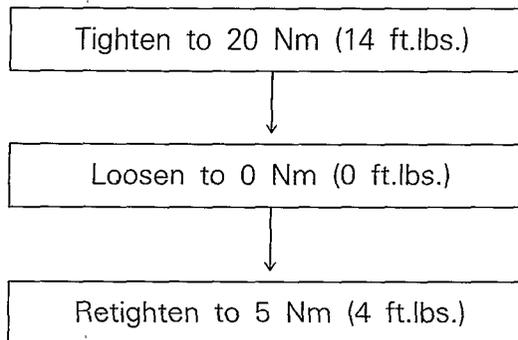


SERVICE ADJUSTMENT PROCEDURES

N02FCAC

WHEEL BEARING ADJUSTMENT

- (1) Inspect the play of the bearings while the vehicle is jacked up and resting on jack stands.
- (2) If there is any play, remove the hub cap, cotter pin, and lock cap, and then loosen the nut.
- (3) Tighten the nut by the following procedure.



- (4) Install the lock cap and cotter pin. If the position of the cotter pin is not matched with the holes of the lock cap, reposition the lock cap so that the holes align. If this cannot be accomplished, back off the nut by not more than 15°, align lock cap and install cotter pin.

FRONT WHEEL ALIGNMENT

N02FBAGa

NOTE

The front suspension assembly must be free of worn, loose or damaged parts prior to measurement of front wheel alignment.

CAMBER

Camber is pre-set at the factory and cannot be adjusted.

NOTE

If camber is not within specifications, replace bent or damaged parts.

Standard value: $-0^{\circ}30' \pm 30'$

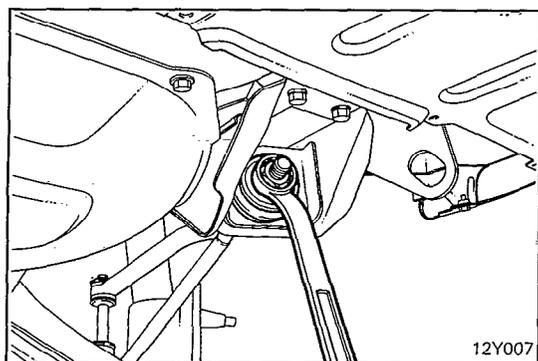
Difference between left and right wheels shall be within 30'

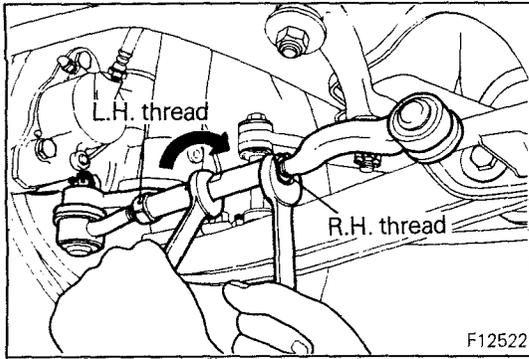
CASTER

Caster, as a rule, requires no adjustment, although it is slightly adjustable by means of the threaded end of the strut bar.

Standard value: $5^{\circ}50' \pm 30'$

Difference between left and right wheels shall be within 30'



**TOE-IN**

If the toe-in is not within the standard value, make adjustment of the toe-in by using the turnbuckle of the left tie rod. Toe-in increases when the turnbuckle is turned in the direction of the arrow in the illustration. The difference in the length between right and left tie rods should not exceed 5 mm (.2 in.). If the difference exceeds 5 mm (.2 in.), remove the right tie rod from the knuckle and adjust its length so that the difference is within 5 mm (.2 in.).

Then make adjustment of toe-in. Toe-in changes by about 15 mm (.59 in.) when the turnbuckle of the left tie rod is turned once.

Standard value:

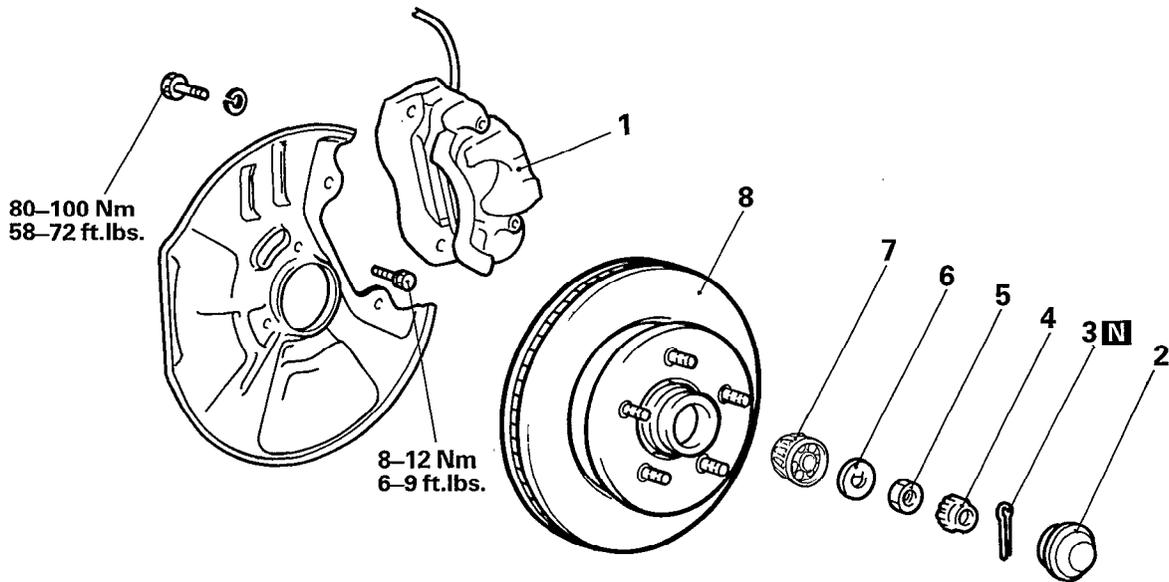
Recommended setting 0 mm (0 in.)

Acceptable range

5 mm (.2 in.) toe-in – 5 mm (.2 in.) toe-out

**FRONT AXLE HUB
REMOVAL AND INSTALLATION**

ProCarManuals.com



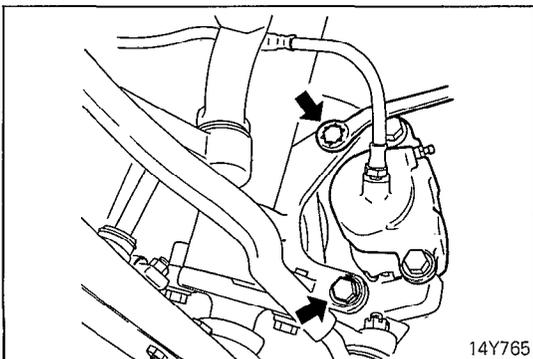
Removal steps

- ◄► 1. Front brake assembly
- 2. Hub cap
- 3. Cotter pin
- ◄◄ 4. Lock cap
- ◄◄ 5. Adjustment of wheel bearing
- 5. Nut
- 6. Washer
- 7. Outer bearing
- 8. Front axle hub assembly

12Y729

NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ◄◄: Refer to "Service Points of Removal".
- (3) ◄◄: Refer to "Service Points of Installation".
- (4) **N**: Non-reusable parts



SERVICE POINT OF REMOVAL

N02KBAB

1. REMOVAL OF FRONT BRAKE ASSEMBLY

Remove the front brake assembly with the brake hose connected.

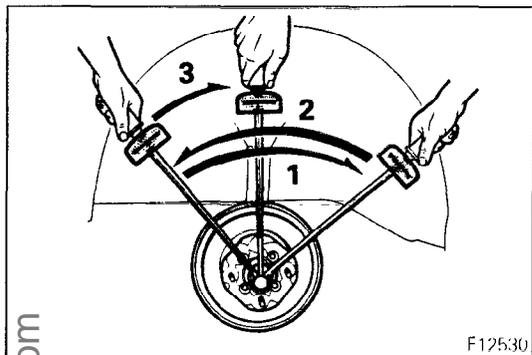
NOTE

To prevent the brake hose from being twisted, suspend the brake assembly with wires.

INSPECTION

N02KCAB

- Check the oil seals for crack and damage.
- Check the bearings for seizure, discolouration and roughened raceway surface.
- Check the front axle hub for cracks.

**SERVICE POINTS OF INSTALLATION**

N02KDAC

- **ADJUSTMENT OF WHEEL BEARING**

Tighten the nut by the following procedure.

(1) Tighten to 20 Nm (14 ft.lbs.)

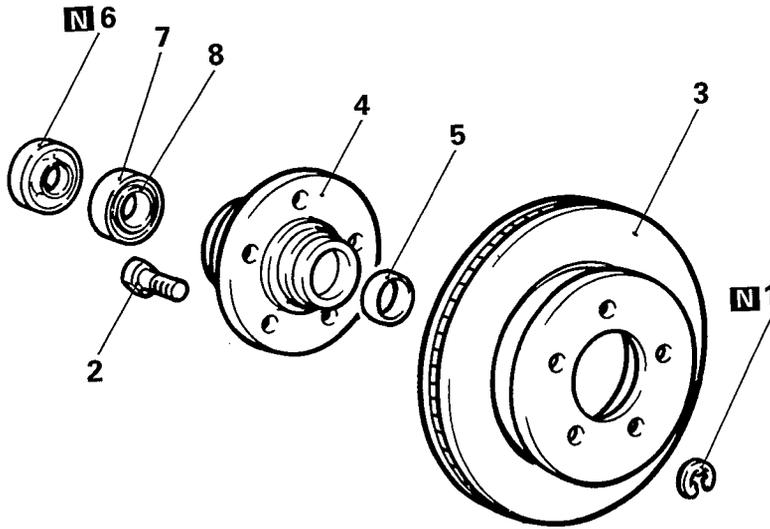
(2) Loosen to 0 Nm (0 ft.lbs.)

(3) Retighten to 5 Nm (4 ft.lbs.)

4. **INSTALLATION OF LOCK CAP**

Install the lock cap and cotter pin. If the position of the cotter pin is not matched with the holes of the lock cap, reposition the lock cap so that the holes align. If this cannot be accomplished, back off the nut not more than 15°. Align lock cap and install cotter pin.

DISASSEMBLY AND REASSEMBLY



12Y728

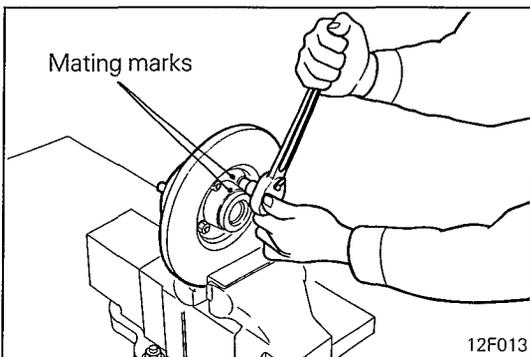
Disassembly steps

- 1. Snap ring
- 2. Hub bolts
- ◄◄ 3. Brake disc
- 4. Front axle hub
- 5. Outer bearing inner race
- ◄◄ 6. Oil seal
- 7. Inner bearing
- 8. Inner bearing inner race

NOTE

- (1) Reverse the disassembly procedures to reassemble.
- (2) ◄◄: Refer to "Service Points of Disassembly".
- (3) ◄◄: Refer to "Service Points of Reassembly".
- (4) **N**: Non-reusable parts

ProCarManuals.com

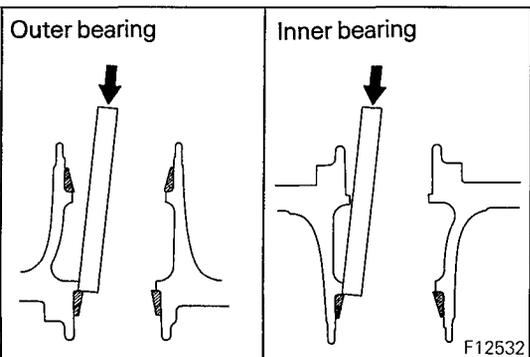


SERVICE POINT OF DISASSEMBLY

N02HBAB

3. REMOVAL OF BRAKE DISC

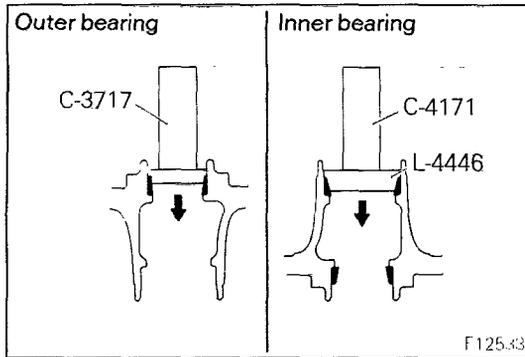
Make the mating marks on the brake disc and front hub, and then separate the front axle hub and brake disc, if necessary.



REPLACEMENT OF BEARING

N02HDAE

- (1) Remove the oil seal and inner bearing.
- (2) Drive out the bearing outer races by tapping them uniformly.

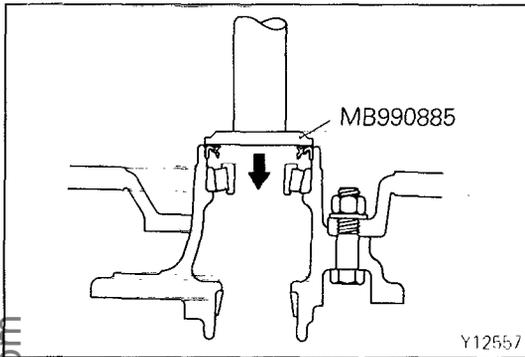


- (3) Press-fit the bearing outer races with the special tools.
- (4) Properly pack the bearing with specified grease and install into hub.

Specified grease: MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent

NOTE

The bearing and outer race must be replaced as an assembly.



SERVICE POINT OF REASSEMBLY

N02HEAE

6. INSTALLATION OF OIL SEAL

- (1) Apply the specified grease to the oil seal lip and inside surface of the front axle hub.

Specified grease: MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent

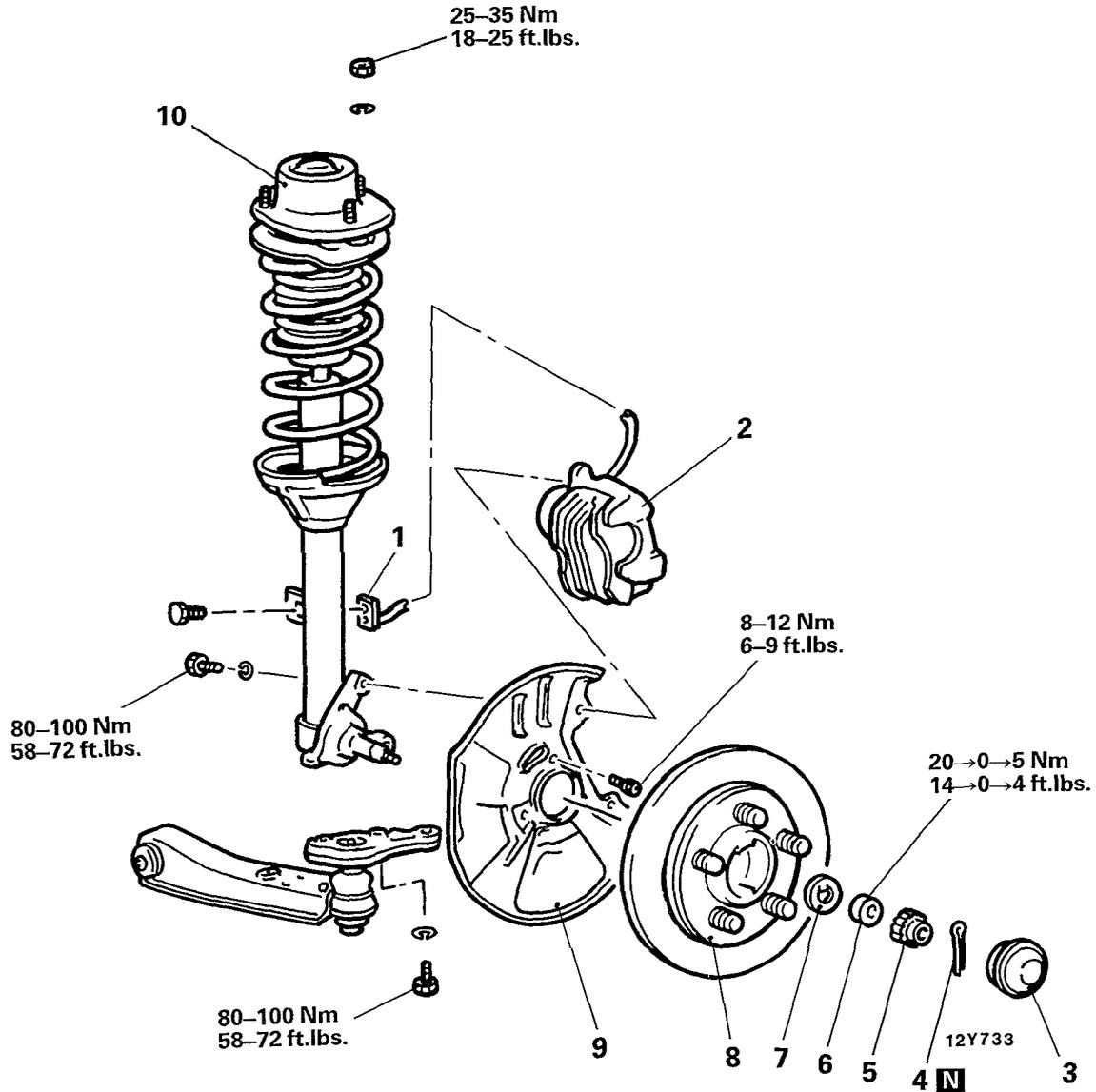
- (2) Apply the specified grease to the inner bearing inner race and install the inner race into the front axle hub.

Specified grease: MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent

- (3) Press-fit the new oil seal into the front axle hub by using the special tools, until it is flush with the front axle hub end face.

**STRUT ASSEMBLY
REMOVAL AND INSTALLATION**

ProCarManuals.com

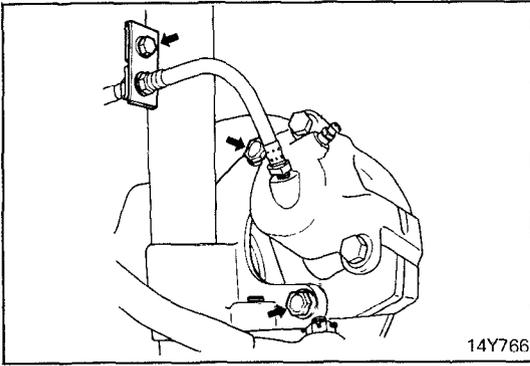


Removal steps

- ◆◆ 1. Brake plate
- ◆◆ 2. Front brake assembly
- ◆◆ 3. Hub cap
- ◆◆ 4. Cotter pin
- ◆◆ 5. Lock cap
- ◆◆ 6. Nut
- ◆◆ 7. Washer
- ◆◆ 8. Front axle hub assembly
- ◆◆ 9. Dust cover
- ◆◆ 10. Strut assembly

NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆: Refer to "Service Points of Removal".
- (3) ◆◆: Refer to "Service Points of Installation".
- (4) **N**: Non-reusable parts

**SERVICE POINTS OF REMOVAL**

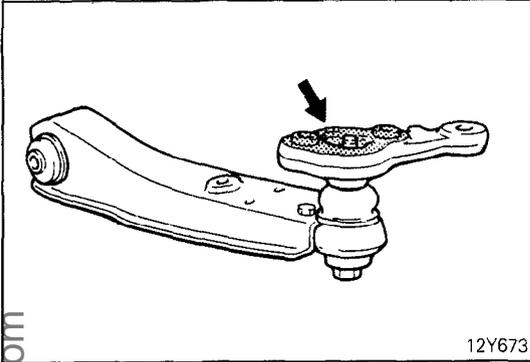
N02LBAD

1. REMOVAL OF BRAKE PLATE / 2. FRONT BRAKE ASSEMBLY

Remove the brake plate from the strut and then remove brake attaching bolts. Raise the brake assembly and hold it in raised position using wires, etc.

Caution

Do not pull or kink the brake hose firmly.

**SERVICE POINT OF INSTALLATION**

N02LDAD

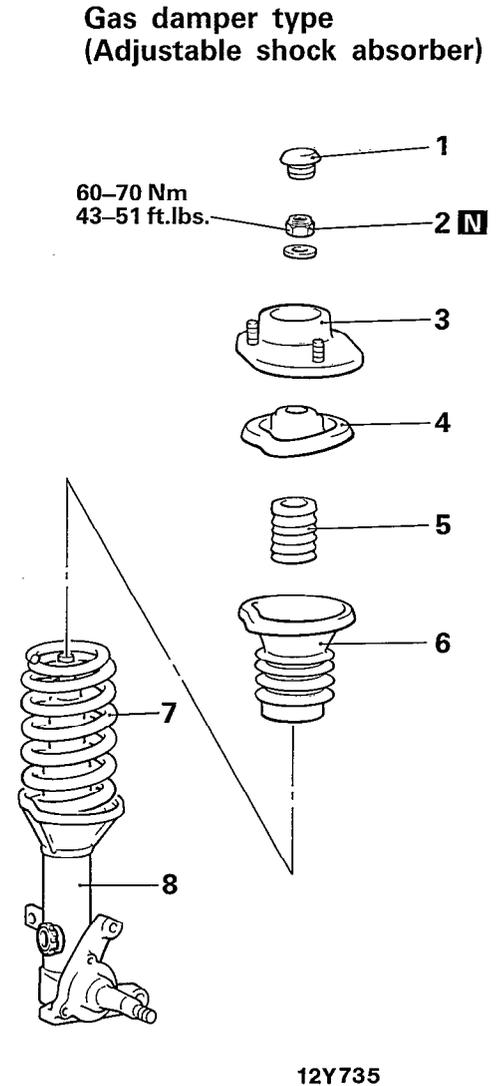
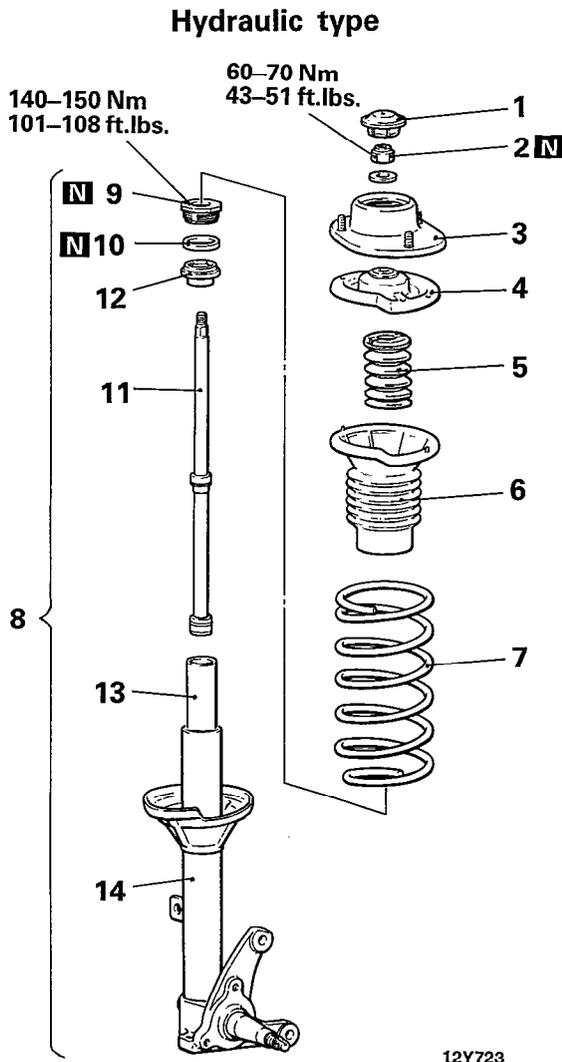
10. INSTALLATION OF STRUT ASSEMBLY

When the knuckle arm is installed to the strut, apply semi-drying sealant to the flange of the knuckle arm.

DISASSEMBLY AND REASSEMBLY

N02LE--

ProCarManuals.com



Disassembly steps

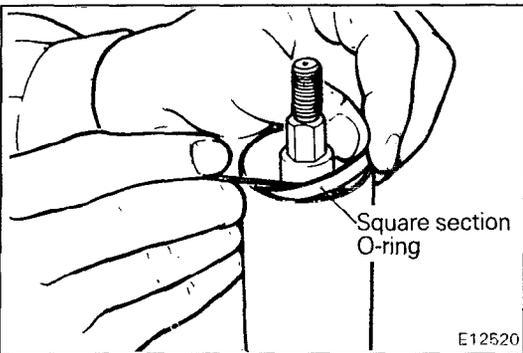
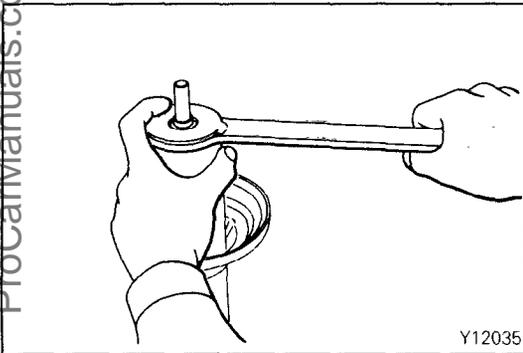
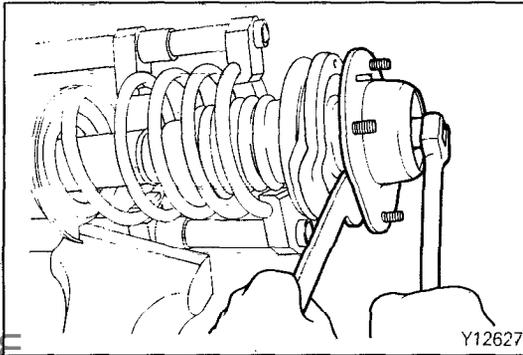
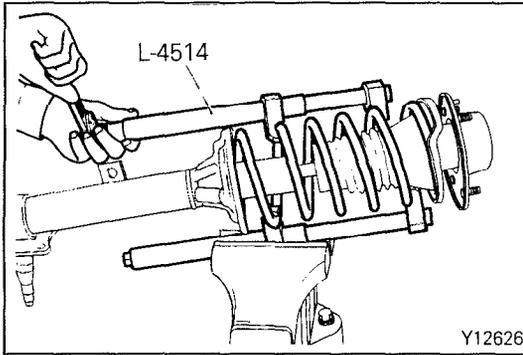
- ↔ 1. Insulator cap
- ↔ 2. Top end nut (Self-locking nut)
- 3. Insulator
- 4. Spring seat
- 5. Rubber helper
- 6. Dust cover
- 7. Coil spring
- 8. Strut assembly
- ↔ 9. Oil seal assembly
- ↔ 10. Square section O-ring
- ↔ 11. Piston
- 12. Piston guide
- 13. Cylinder
- 14. Outer shell

Reassembly steps

- ↔ 14. Outer shell
- ↔ 13. Cylinder
- ↔ 11. Piston
- ↔ 12. Piston guide
- ↔ 10. Square section O-ring
- ↔ 9. Oil seal assembly
- 8. Strut assembly
- 7. Coil spring
- 6. Dust cover
- 5. Rubber helper
- ↔ 4. Spring seat
- ↔ 3. Insulator
- ↔ 2. Top end nut (Self-locking nut)
- 1. Insulator cap

NOTE

- (1) ↔: Refer to "Service Points of Disassembly".
- (2) ↔: Refer to "Service Points of Reassembly".
- (3) **N**: Non-reusable parts



SERVICE POINTS OF DISASSEMBLY

N02LFAH

2. REMOVAL OF TOP END NUT

- (1) Compress the coil spring with the special tool.
- (2) Remove the insulator cap from the insulator.

- (3) Using power tool, remove the top end nut.

9. REMOVAL OF OIL SEAL ASSEMBLY

- (1) To prevent entry of foreign material into the cylinder, shock absorber fluid, etc. during disassembly, thoroughly clean the external surface of the strut before disassembly.
- (2) Lightly hold the strut upright in a vice, hanging down the piston rod to the bottom.

NOTE

When securing the strut in the vice, close the vice on the knuckle part, not the outer shell.

- (3) Remove the oil seal assembly.

10. REMOVAL OF SQUARE SECTION O-RING

Remove the square section O-ring.

11. REMOVAL OF PISTON

- (1) Slowly withdraw the piston rod from the cylinder together with the piston guide.

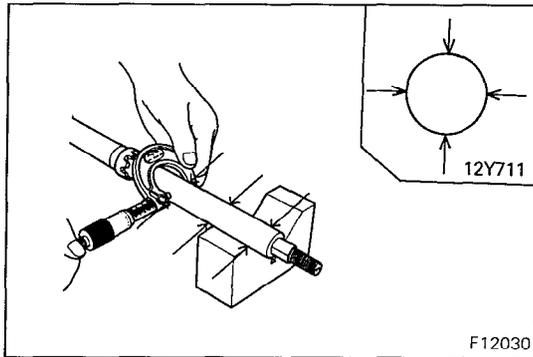
Caution

Because the piston rod has a highly precise surface, handle it carefully.

- (2) Drain the shock absorber fluid.
- (3) Remove the piston guide from the piston rod.
- (4) Remove the cylinder from the strut outer shell.

NOTE

The gas damper type shock absorber (adjustable shock absorber) cannot be disassembled. When replacement is necessary, replace the strut assembly.



INSPECTION

N02LGAC

- Check that the piston outer diameter has not been reduced to specified limit.

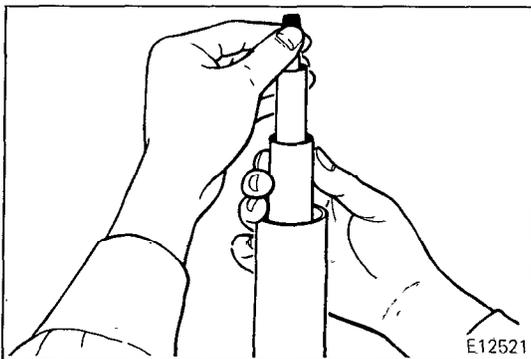
Limit: 21.95 mm (.8642 in.)

NOTE

Measure at six points illustrated.

If the value is below the limit at any of these points, replace the shock absorber assembly.

- Check the insulator for wear, crack and peeling.
- Check the rubber helper, dust cover and rubber helper seat for crack and damage.
- Check the coil springs for crack, damage and weakness.

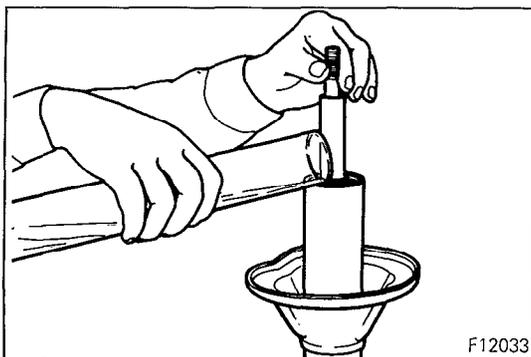


SERVICE POINTS OF REASSEMBLY

N02LHAI

14. INSTALLATION OF OUTER SHELL / 13. CYLINDER / 11. PISTON

- (1) Install the cylinder and piston assembly into the strut outer shell.

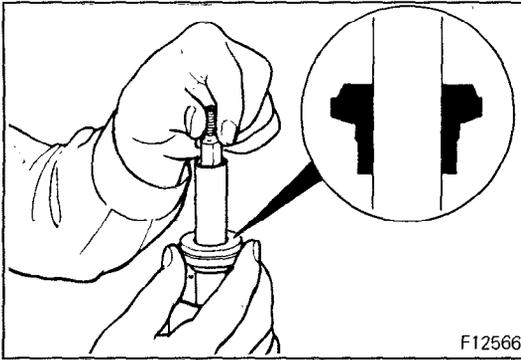


- (2) Gradually pour specified shock absorber fluid into the cylinder while slowly moving the piston up and down.

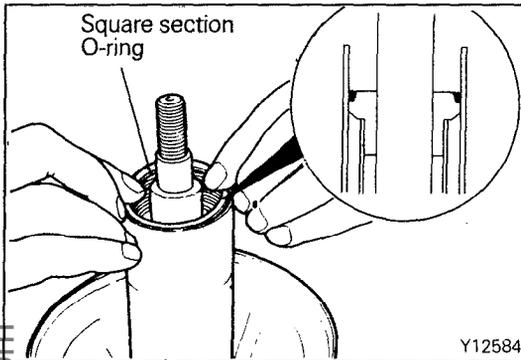
NOTE

The above quantities are the capacities when the cylinder, piston and outer shell are completely dry. Be sure to take the amount of fluid adhering to the walls into consideration.

**Specified fluid: Repair kit fluid
440 cc (26.85 cu.in.)**

**12. INSTALLATION OF PISTON GUIDE**

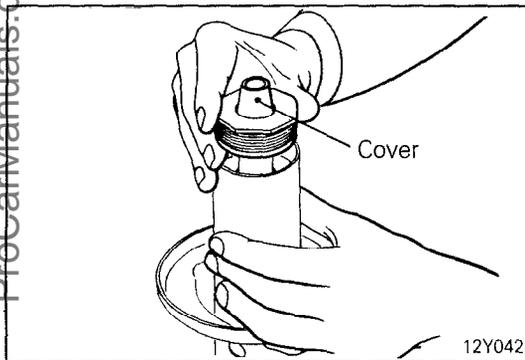
With the flange of the piston guide facing upward, insert the piston guide to the piston rod until it contacts the cylinder end.

**10. INSTALLATION OF SQUARE SECTION O-RING**

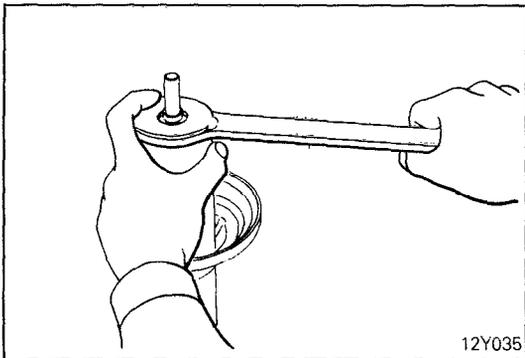
Install the new square section O-ring to the piston guide.

NOTE

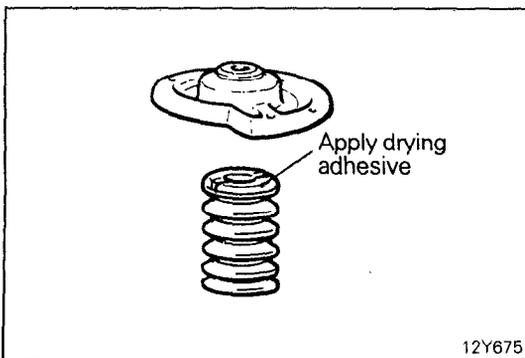
When the O-ring is set on the periphery of the piston guide, press the O-ring down evenly, taking care to prevent inclination and doubling.

**9. INSTALLATION OF OIL SEAL ASSEMBLY**

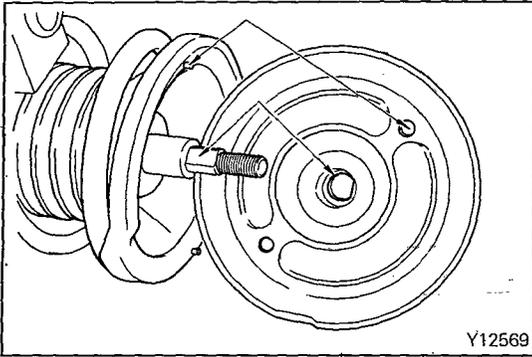
- (1) Attach the cover to the piston rod end.
- (2) Apply shock absorber fluid to the cover and install the oil seal assembly.



- (3) Tighten the oil seal assembly until its edge contacts the strut outer cylinder.

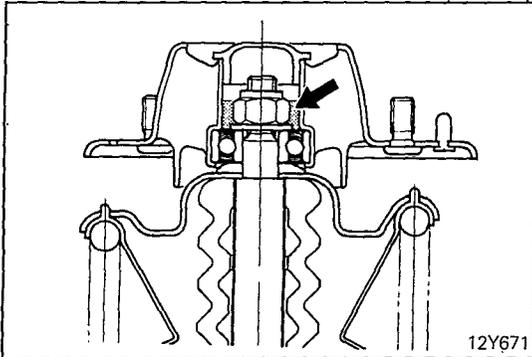
**5. APPLICATION OF ADHESIVE TO RUBBER HELPER**

Bond the spring seat to the rubber helper with a drying adhesive.



4. INSTALLATION OF SPRING SEAT

Align the D-shaped hole in the spring seat with the flat on the piston rod. Align the projections on the dust cover with the holes in the spring seat.



3. APPLICATION OF GREASE TO INSULATOR

Pack the specified grease in the strut insulator and install the cap.

Specified grease: MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent

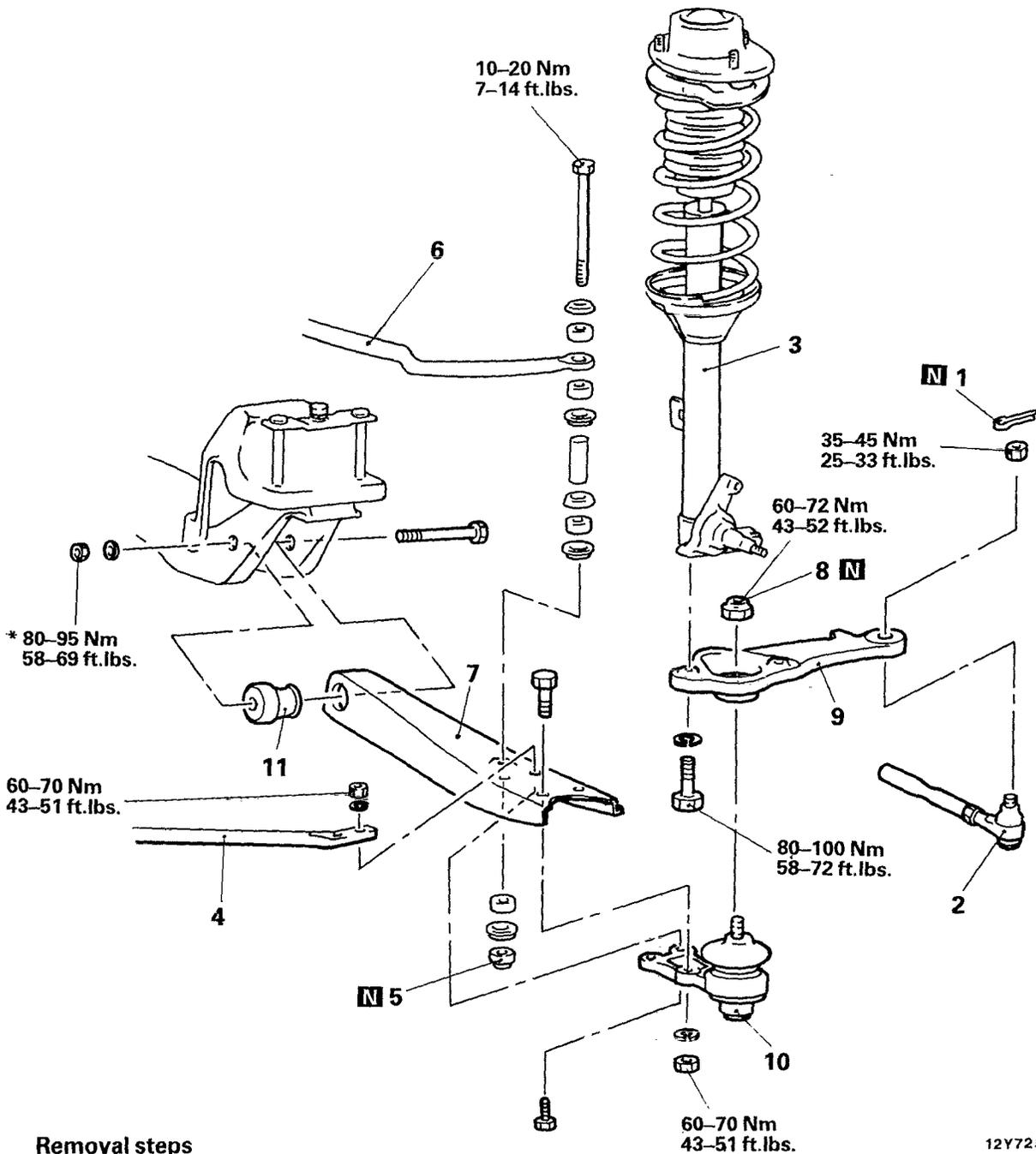
NOTE

Do not apply grease to the rubber parts.

LOWER ARM AND KNUCKLE ARM

N02NA--

REMOVAL AND INSTALLATION



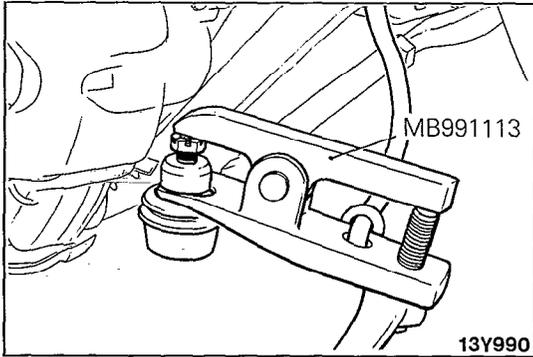
Removal steps

- 1. Cotter pin
- ↔ 2. Tie rod end assembly connection
- ↔ 3. Strut assembly connection
- ↔ 4. Strut bar connection
- ↔ 5. Stabilizer bar mounting nut (Self-locking nut)
- 6. Stabilizer bar connection
- ↔ 7. Lower arm
- ↔ 8. Self locking nut
- ↔ 9. Knuckle arm
- 10. Ball joint
- 11. Lower arm shaft bushing

NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ↔: Refer to "Service Points of Removal".
- (3) ↔: Refer to "Service Points of Installation".
- (4) N: Non-reusable parts
- (5) *: Must be tightened while vehicle is unladen.

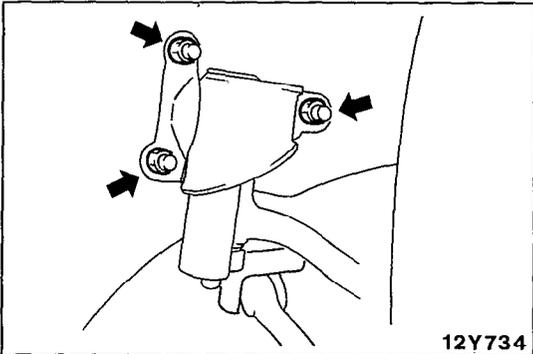
12Y725

**SERVICE POINTS OF REMOVAL**

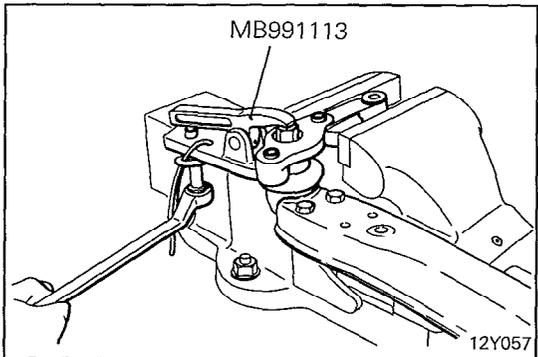
N02NBAE

2. DISCONNECTION OF ROD END ASSEMBLY

Disconnect the tie rod end assembly from the knuckle arm using the special tool.

**7. REMOVAL OF LOWER ARM**

Remove the idler arm attaching bolts, slide the steering linkage backward and remove the lower arm shaft (bolts). Then, remove the lower arm.

**9. REMOVAL OF KNUCKLE ARM**

Remove the knuckle arm from the lower arm ball joint by using the special tool.

INSPECTION

N02NCAC

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

CHECKING OF BALL JOINT STARTING TORQUE

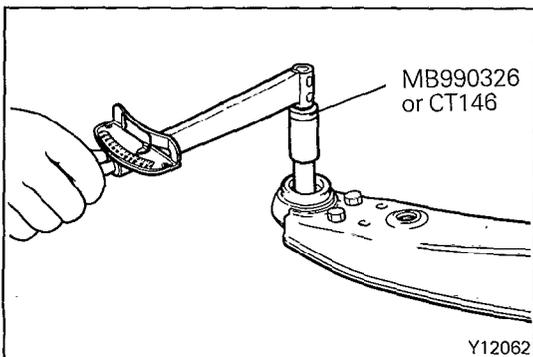
Measure the starting torque of the ball joint.

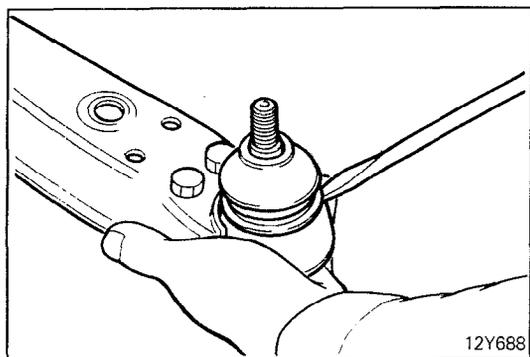
Standard value: 500 – 800 Ncm (43 – 69 in.lbs.)

NOTE

If ball joint starting torque exceeds the upper limit of standard value, replace the ball joint.

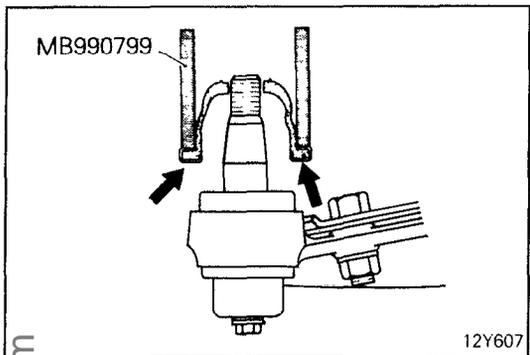
Even if ball joint starting torque is below the lower limit of standard value, the ball joint may be reused unless it has excessive play or a drag is felt.



**BALL JOINT DUST COVER REPLACEMENT**

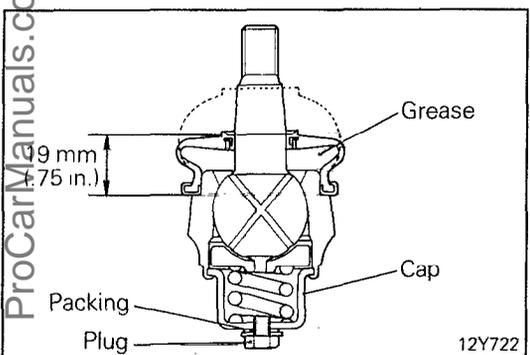
N02NEAC

(1) Remove the dust cover.



(2) Apply semi-drying sealant to the metal ring part of the new dust cover.

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

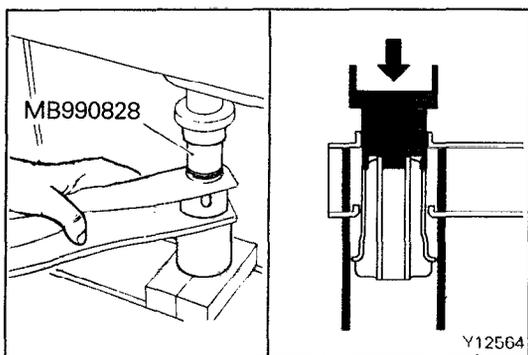


(4) Exchange the ball joint plug with a grease nipple.

(5) Shape the dust cover to dimensions shown and pack with specified grease until it takes the form as indicated by broken line.

Specified grease: MOPAR Multi-mileage Lubricant Part No. 2525035 or equivalent

(6) Apply semi-drying sealant to plug and reinstall plug.

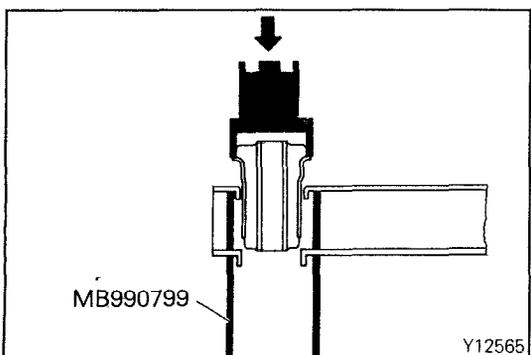
**LOWER ARM BUSHING REPLACEMENT**

N02NDAB

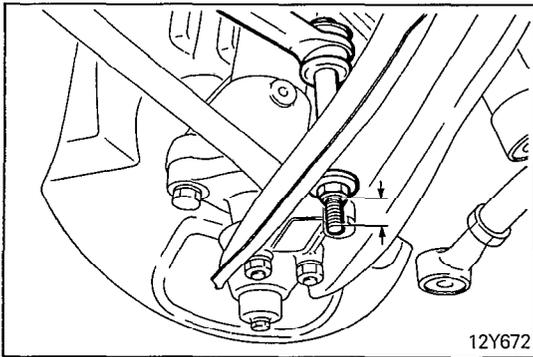
Caution

Do not remove the lower arm bushing unless absolutely necessary.

(1) Press out the lower arm bushing with the special tool.



(2) Press-fit the new lower arm bushing with the special tool until it is fully seated in the lower arm.



12Y672

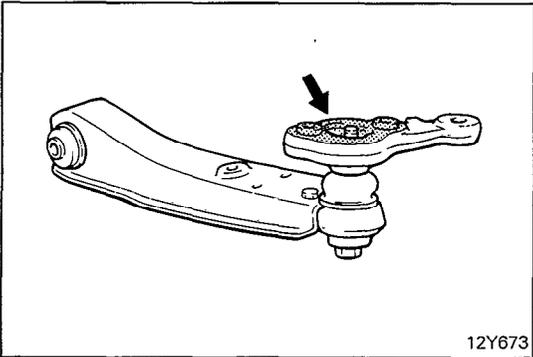
SERVICE POINTS OF INSTALLATION

N02NFAF

5. INSTALLATION OF STABILIZER BAR MOUNTING NUT

Tighten the nut on the stabilizer bar bolt to the specified distance.

Standard value: 15 – 17 mm (.59 – .67 in.)



12Y673

3. INSTALLATION OF STRUT ASSEMBLY

When the knuckle arm is installed to the strut, apply semi-drying sealant to the flange of the knuckle arm.

STABILIZER BAR AND STRUT BAR

N02TA

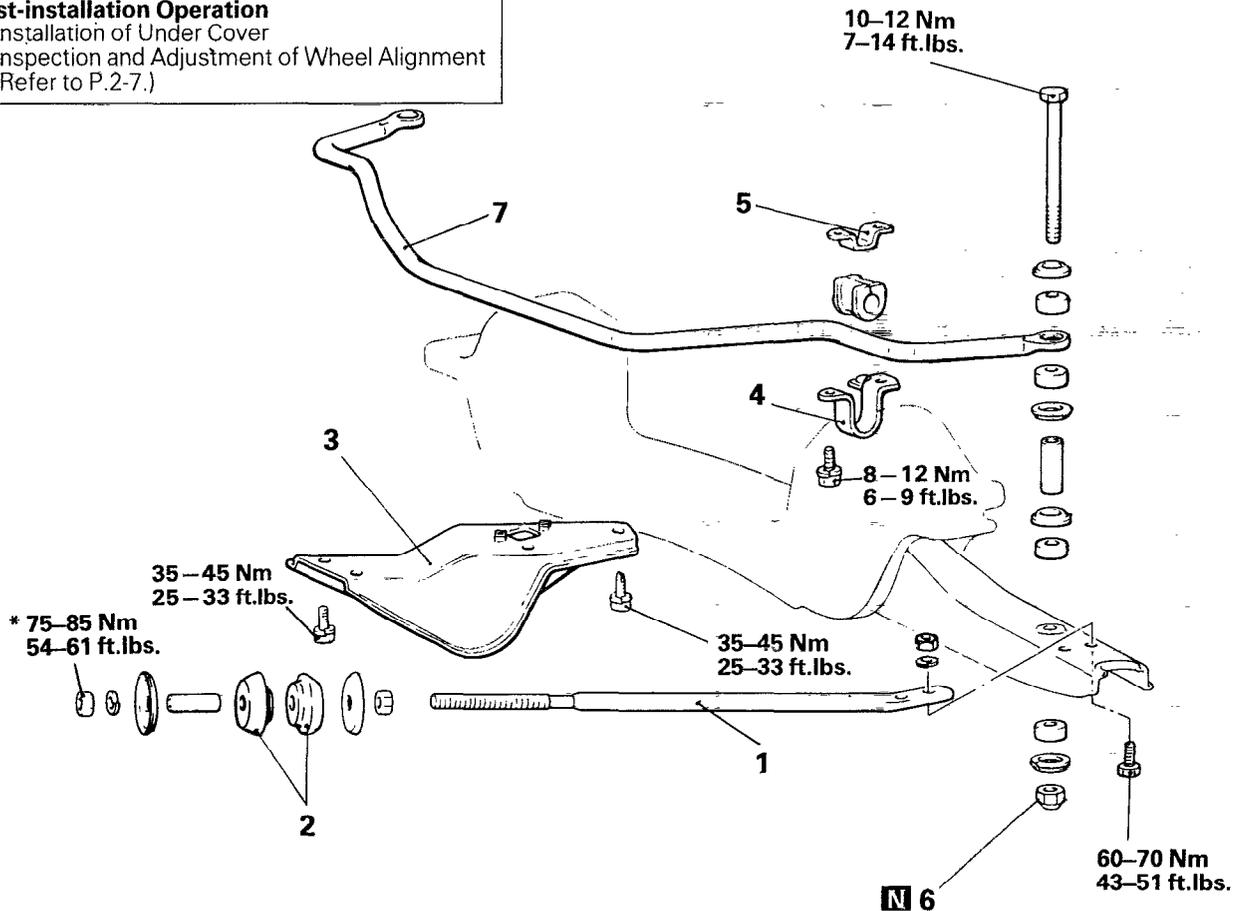
REMOVAL AND INSTALLATION

Pre-removal Operation

- Removal of Under Cover

Post-installation Operation

- Installation of Under Cover
- Inspection and Adjustment of Wheel Alignment (Refer to P.2-7.)

**Strut bar removal steps**

1. Strut bar
2. Bushing
3. Strut bar bracket

Stabilizer bar removal steps

4. Lower fixture
5. Upper fixture
6. Stabilizer bar mounting nut (Self-locking nut)
7. Stabilizer bar

NOTE

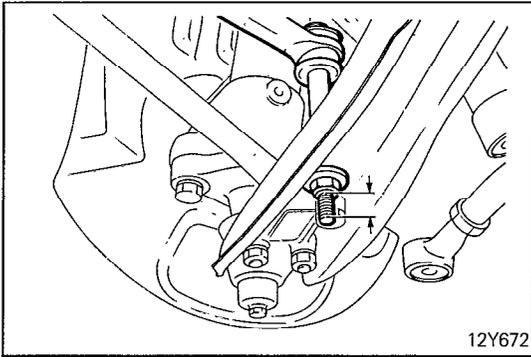
- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆: Refer to "Service Points of Installation"
- (3) N: Non-reusable parts
- (4) *: Must be tightened while vehicle is unladen.

12Y668

INSPECTION

N02CAB

- Check the stabilizer bar for deformation or weakness.
- Check the rubber bushing for cracks and damage.
- Check the strut bar for cracks or bend.
- Check the strut bar bracket for deformation or damage.
- Check the bushing for cracks or damage.



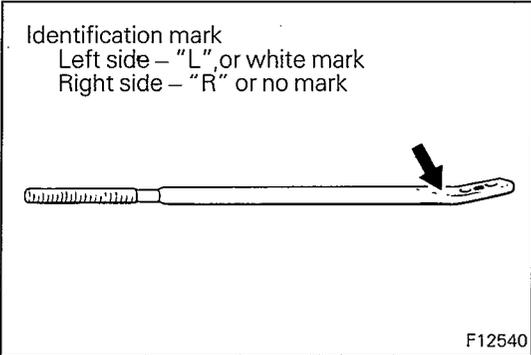
SERVICE POINTS OF INSTALLATION

N02TDAD

6. INSTALLATION OF STABILIZER BAR MOUNTING NUT

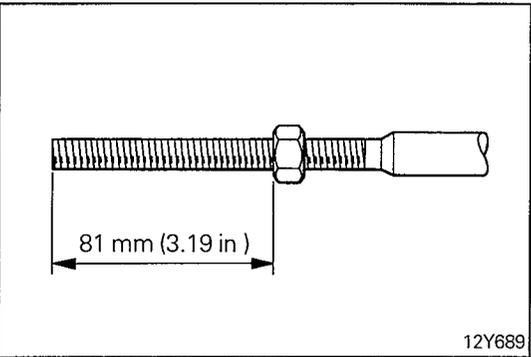
Tighten the nut on the stabilizer bar bolt to the specified distance.

Standard value: 15 – 17 mm (.59 – .67 in.)

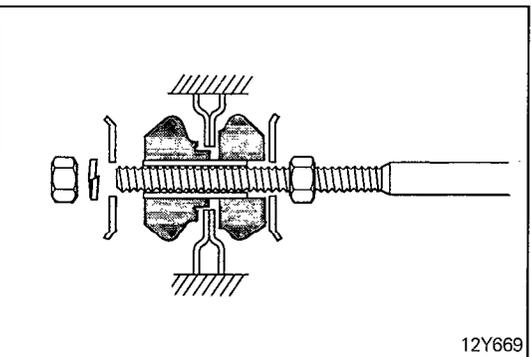


1. INSTALLATION OF STRUT BAR

(1) When installing the strut bar, verify the identification mark stamped on it.



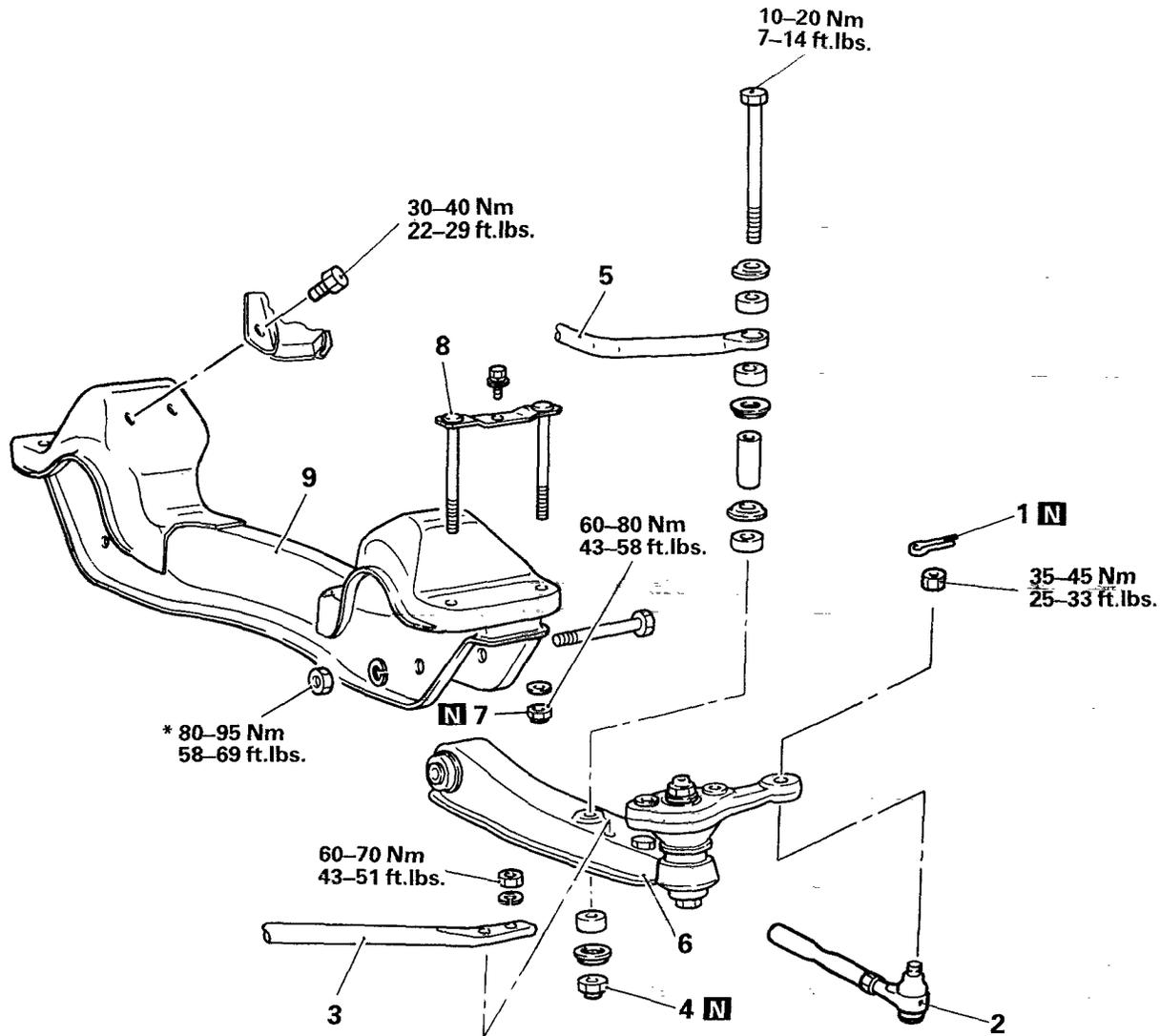
(2) Tighten the nut on the strut bar so that the distance between the end of the strut bar and the front surface of the lock nut has the dimension shown in the illustration.



(3) The front and rear strut bar bushings are different in shape. Install them as shown in the illustration.
 (4) The top end nut should be torqued with the vehicle lowered to the ground and unloaded. After installing the strut bars, measure the caster.

FRONT CROSSMEMBER REMOVAL AND INSTALLATION

N02YA-



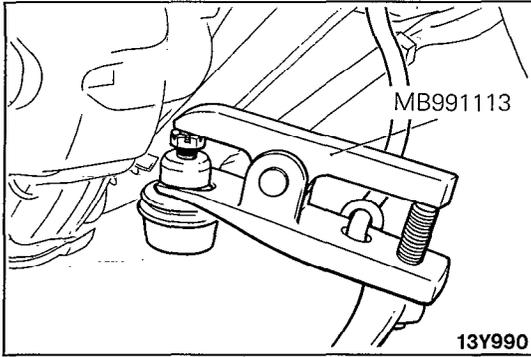
12Y726

Removal steps

- ◆◆ 1. Cotter pin
- ◆◆ 2. Tie rod end assembly connection
- ◆◆ 3. Strut bar connection
- ◆◆ 4. Stabilizer bar mounting nut (Self-locking nut)
- ◆◆ 5. Stabilizer bar connection
- ◆◆ 6. Lower arm connection
- ◆◆ 7. Front crossmember mounting nuts (Self-locking nut)
- 8. Bolt assembly
- 9. Front crossmember

NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆: Refer to "Service Points of Removal".
- (3) ◆◆: Refer to "Service Points of Installation".
- (4) **N**: Non-reusable parts
- (5) *: Must be tightened while vehicle is unladen.

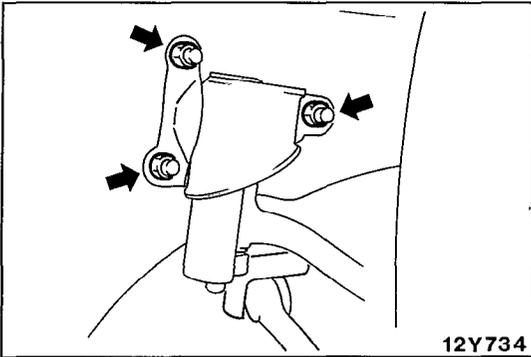


SERVICE POINTS OF INSTALLATION

N02YBAB

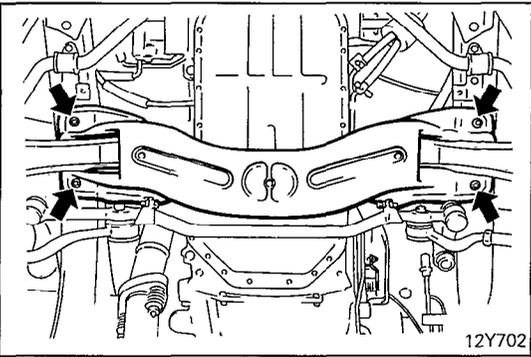
2. DISCONNECTION OF TIE ROD END ASSEMBLY

Disconnect the tie rod end assembly from the knuckle arm using the special tool.



6. DISCONNECTION OF LOWER ARM

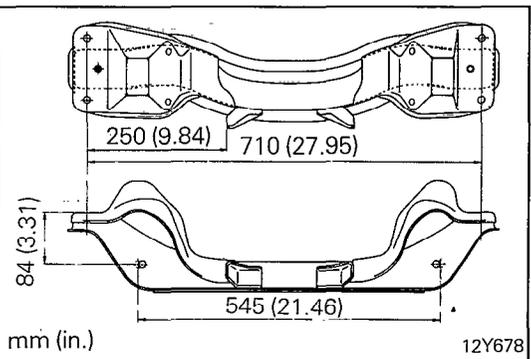
- (1) Remove the idler arm attaching bolts, slide the steering linkage backward and remove the lower arm shaft (bolts).
- (2) Remove the lower arm from the front crossmember.



7. REMOVAL OF FRONT CROSSMEMBER MOUNTING NUT

- (1) Support the engine to such a degree that the engine load does not act on the engine mounting.
- (2) Remove the engine mounting-to-front crossmember attaching bolts.
- (3) Remove the front crossmember mounting nuts.

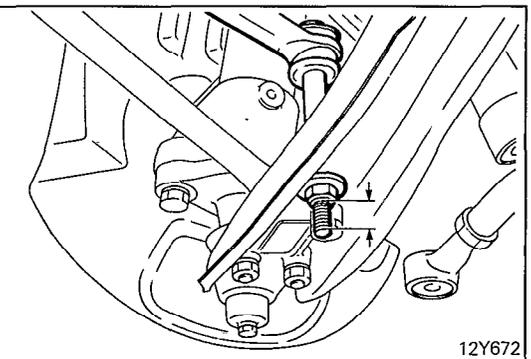
ProCarManuals.com



INSPECTION

N02YCAB

- Check the crossmember for cracks or damage.
- Check the crossmember for dimension.



SERVICE POINT OF INSTALLATION

N02YEAB

4. INSTALLATION OF STABILIZER BAR MOUNTING NUT

Tighten the nut on the stabilizer bar bolt to the specified distance.

Standard value: 15 – 17 mm (.59 – .67 in.)

