

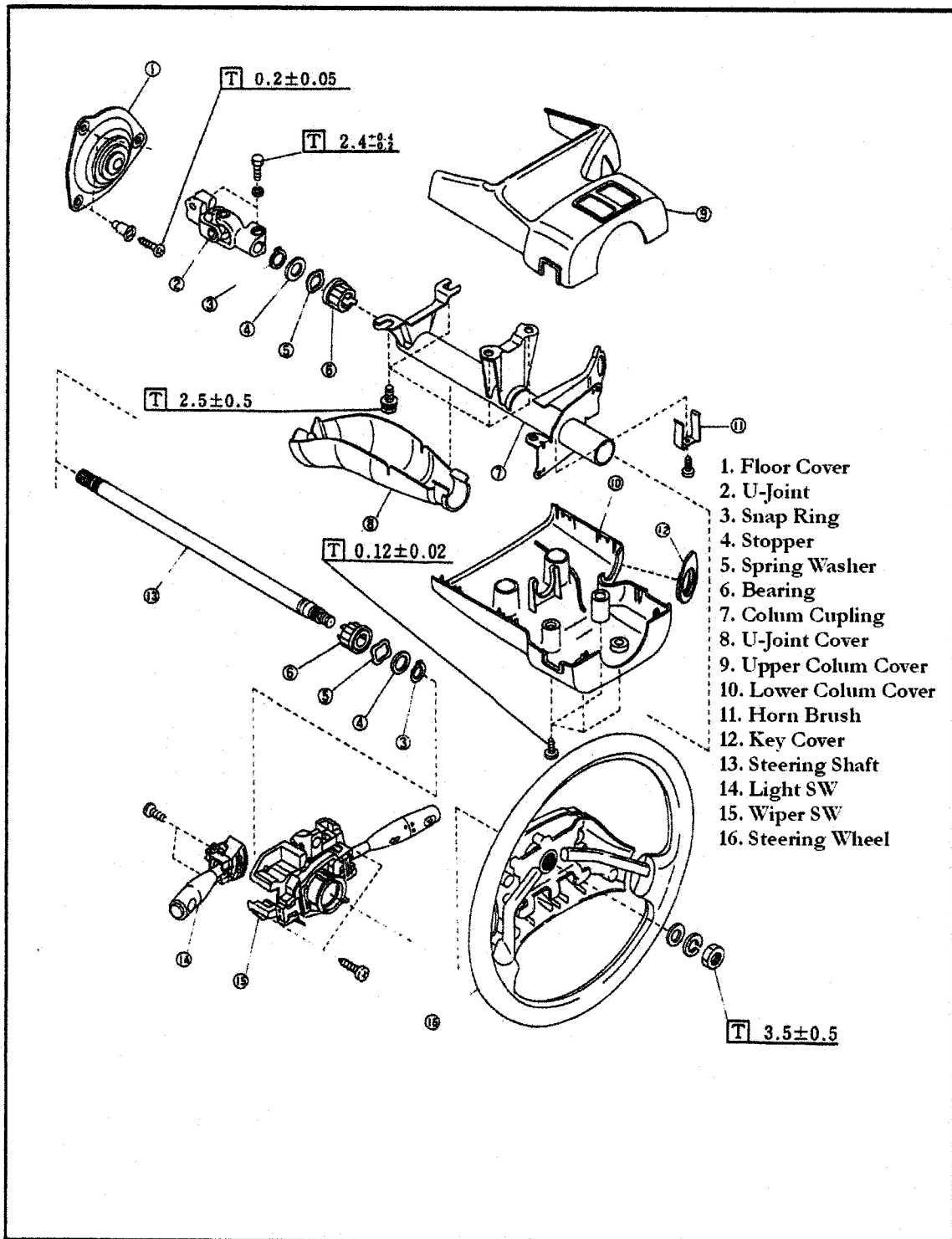
Chapter 4

Steering

- 8. Specifications and Diagram**
- 9. Exploded Component View (Steering Column)**
- 10. Exploded Component View (Rack & Pinion)**
- 11. Steering Column Removal/Disassembly/Assemble/Install**
- 12. Steering Gear Box**
- 13. Rack & Pinion Overhaul**
- 14. Tie Rods**

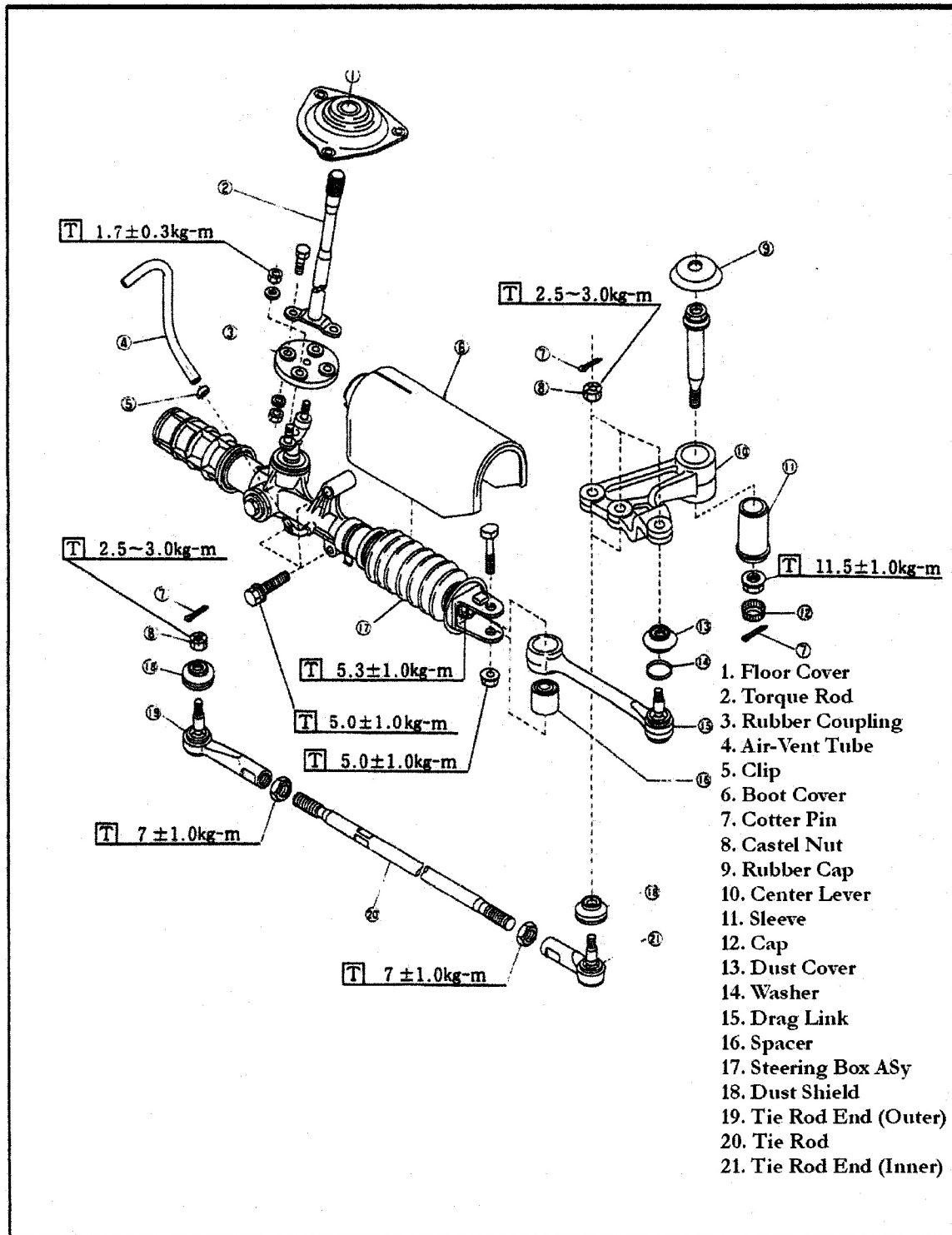
Steering

Exploded View



Steering

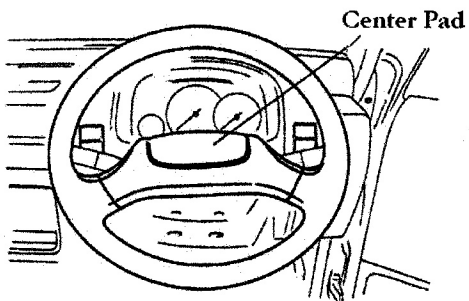
Exploded View (Rack & Pinion)



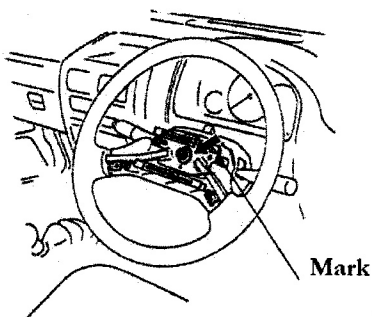
Steering

Steering Column Removal

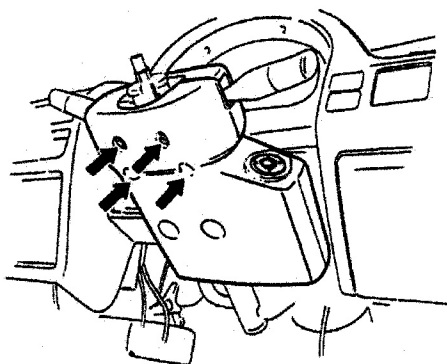
1. Disconnect (-) Battery Connection
2. Remove Steering Wheel Center Pad



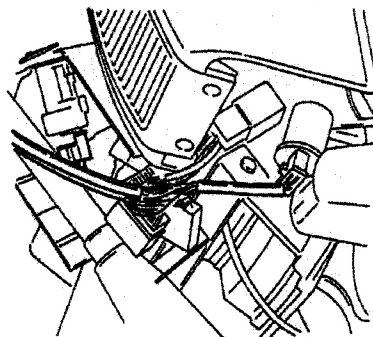
3. Center the Wheel and Remove Hold Down Nut.
Note: Make Note of Alignment Marks



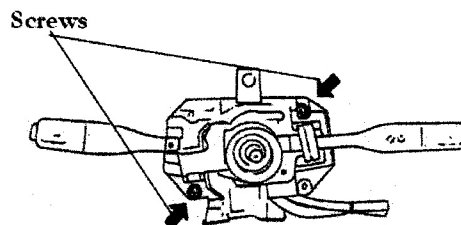
4. Remove Wheel and Then Remove Column Cover Attachment Screws



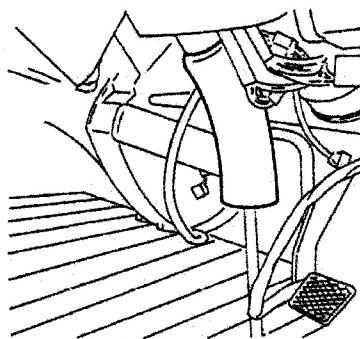
5. Disconnect Combination SW Electrical Connectors
6. (ECTV Vehicle)
Remove AT key Interlock Solenoid Electrical Connector



7. Remove SW Assemblies



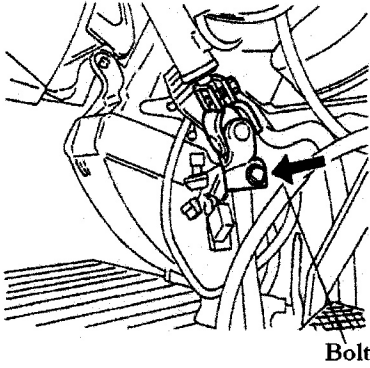
8. Remove U-Joint Cover



Steering

Steering Column Removal (Continued)

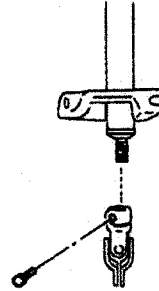
9. Remove U-Joint Lower Bolt



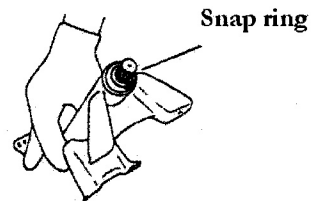
10. Remove Upper Column Attachment Bolts and Remove Column

Shaft Removal

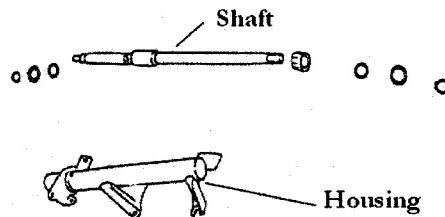
1. Remove U-Joint Attachment Bolt



2. Remove Snap Ring and Separate Parts



3. Separate Parts, Clean and Inspect

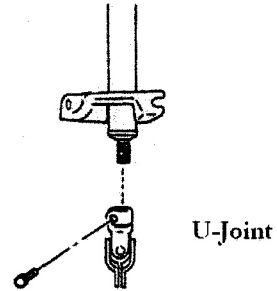


Steering

Assembly

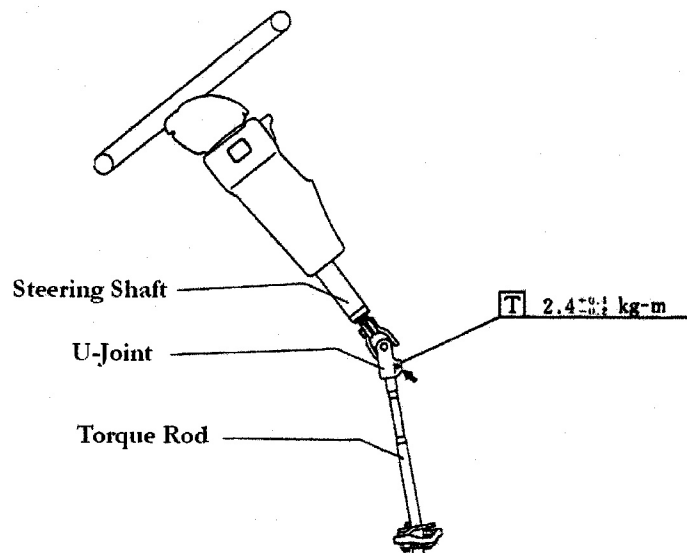
Note: Assemble in Reverse Order
Use Torque Guild as Listed

Assembly Grease: Lithium or Bearing Grease



T 2.4 \pm 0.1 kg-m

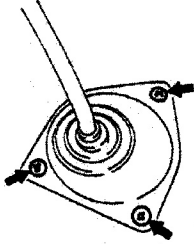
Steering Assembly



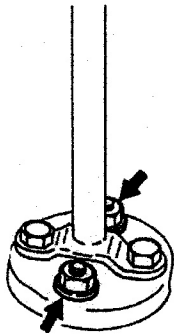
Steering

Steering Gear Box

1. Remove Floor Cover (3) Screws

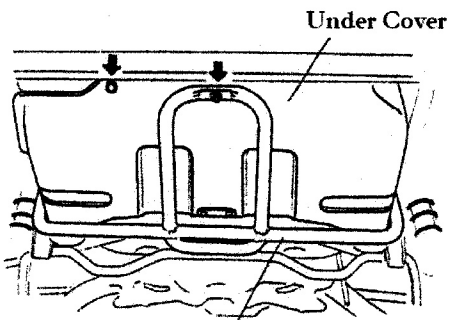


2. Remove Rubber Coupling Nuts



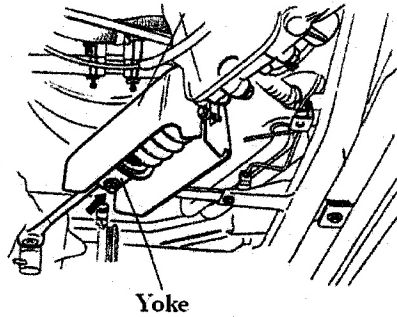
3. Raise Vehicle

4. Remove Under Cover



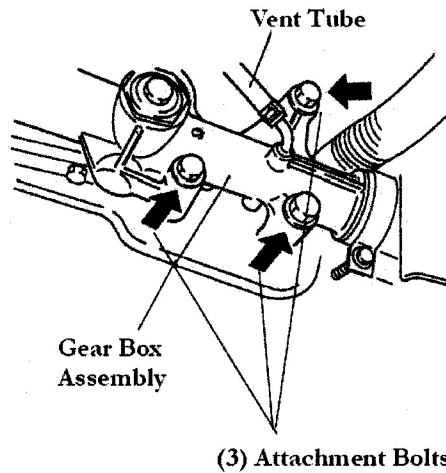
Removal

5. Remove Drag Link From Yoke



6. Remove Air-Vent Tube From GearBox Nipple

7. Remove Gear Box Attachment Bolts and Take Out Gear Box

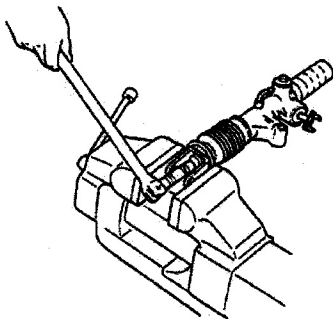


Steering

Rack & Pinion Rebuild

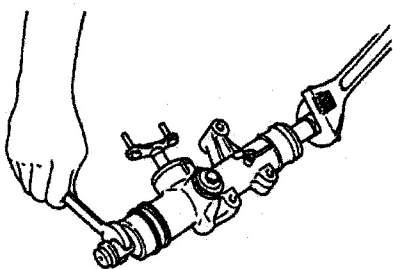
Note: Use Paint to Mark Pinion Location

1. Carefully Place Unit in a Vise and Pinch Yoke. Remove Yoke.

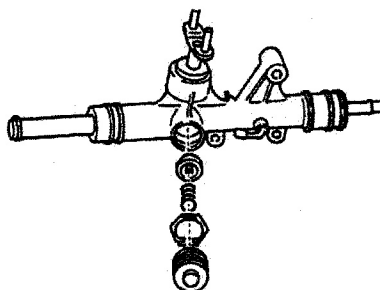


2. Remove Boot Cover and Discard
Note: Always Replace Boot With New Parts

3. Remove Stopper

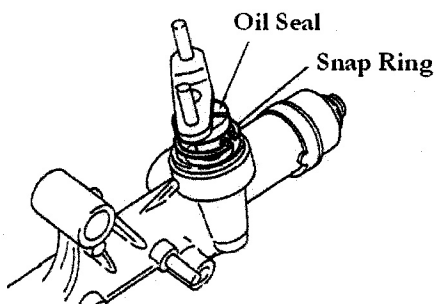


4. Slowly Back Out Adjustment Screw and Remove Parts. Place in Cleaning Tray



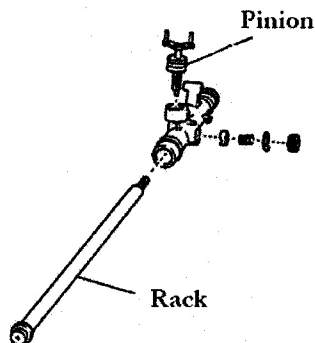
5. Remove Oil Seal

6. Remove Snap Ring



7. Slowly Pull Out Pinion Assembly

8. Remove Rack From housing

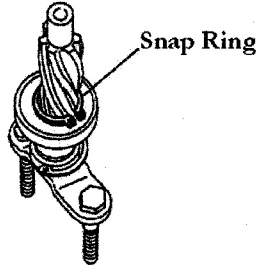


Steering

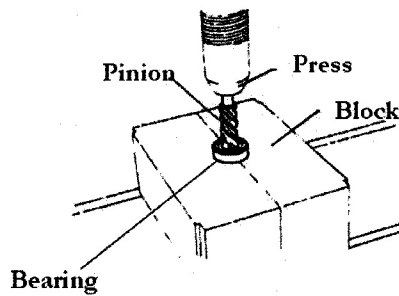
Rack & Pinion (Continued)

Pinion Bearing

9. Remove Snap Ring



10. Using a Press, Press Out Pinion From Bearing, Discard Bearing, Use Only New Bearing for Assembly



Note: Do Not Re-Use Snap Rings, Oil Seals, or Bearings.

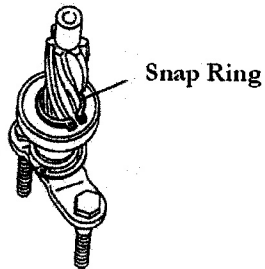
Steering

Rake & Pinion (Assembly)

1. Press On New Bearing

Note: Use Only New Bearings and Rubber Seals

2. Cover Unit in Light Bearing Grease. Place Snap Ring in Place.

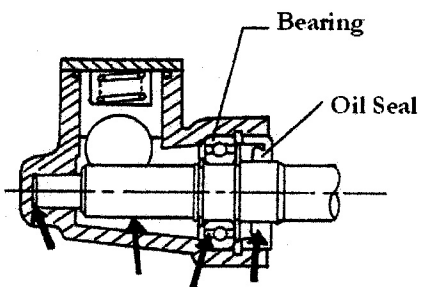


3. Grease Up the Gear Box Inside Before Assembling Parts

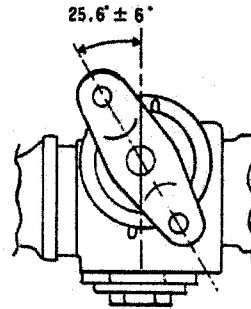
4. Grease Rack Unit and Slide Into Place

5. Take Care Not to Damage Pinion Gear Teeth While Assembling.

Assemble Unit and Check For any Binding Issues. Make Sure Unit is Dirt Free and All Surfaces Covered With Fresh Bearing Grease



6. Take Caution When Assembling Pinion Unit. Pay Attention to Alignment Marks.

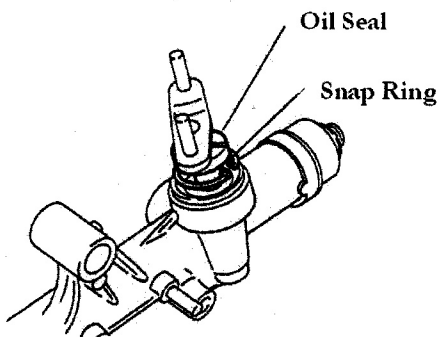


Steering

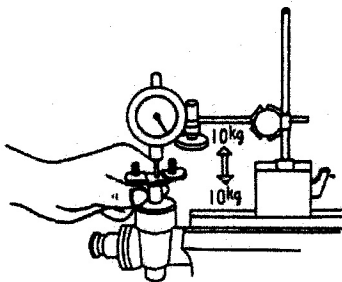
Rack and Pinion Assembly

9. Attach New Oil Seal and Snap Ring

Note: Do Not Re-Use Oil Seal & Snap Ring

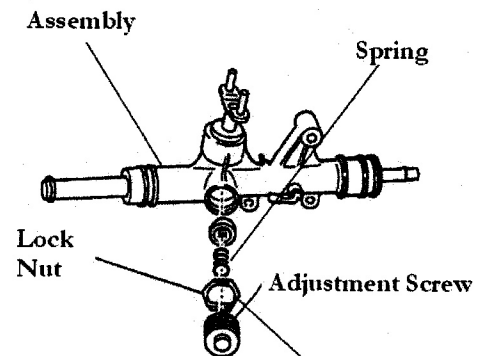


10. Use a Dial Gage and Check for Free Travel. Allowance: 10 Kilograms=0.3mm



Limit	0.3mm
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11. Assemble Unit and Set Initial Back Lash to within: 0.083 (mm)



Lock Nut Torque \boxed{T} 3.0~5.0kg-m

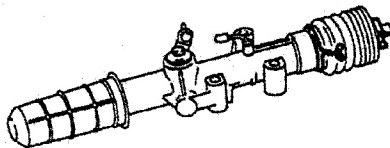
Steering

Assembly

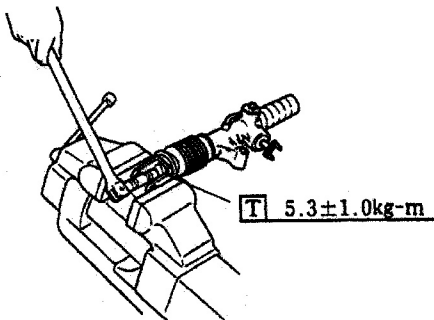
Final Assembly

Note: Never Re-Use Boots or Other Rubber Seals

Attach New Boots and Clean Unit For Installation

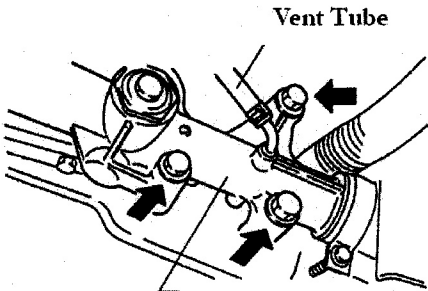


Place In a Vise and Install Yoke

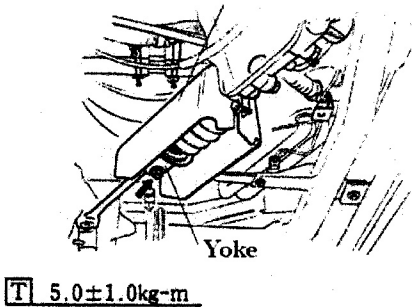


Attach Unit Assembly and Torque To Spec Listed Below

Attach Vent Tube



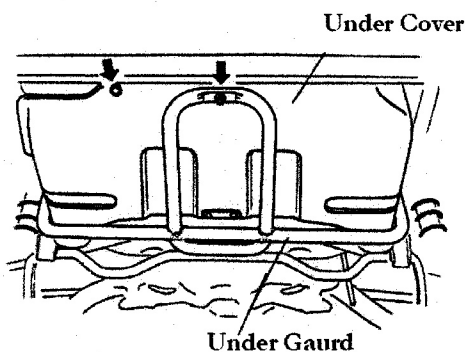
Attach Drag Link And Yoke, Torque to Spec.



Steering

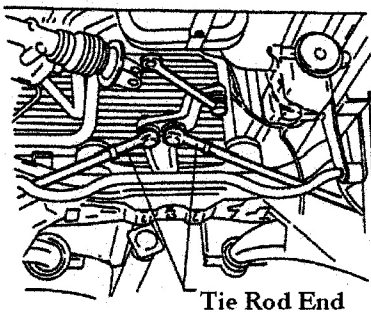
Tie Rod Ends

1. Lift Front of Vehicle and Remove Tires
2. Remove Under Cover and Guard

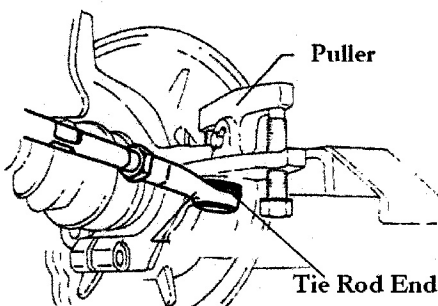


3. Remove Inner Tie Rod Cotter Pin and Castle Nut.

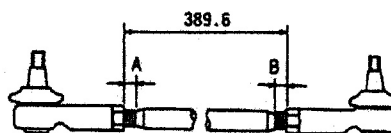
Note: Cotter Pin Can Not Be Re-Used



4. Use a Puller or Similar Tie Rod Removal Tool to Remove Tie Rod End



Note: Tie Rod Maximum Measurment as in Diagram Below is 389.6mm



Note: After any Modifications and or Repairs to Front End Components Will Require Front End Alignment Check

Note: Tie Rod Ends do Not Have Grease Nipples. Maintenance Free