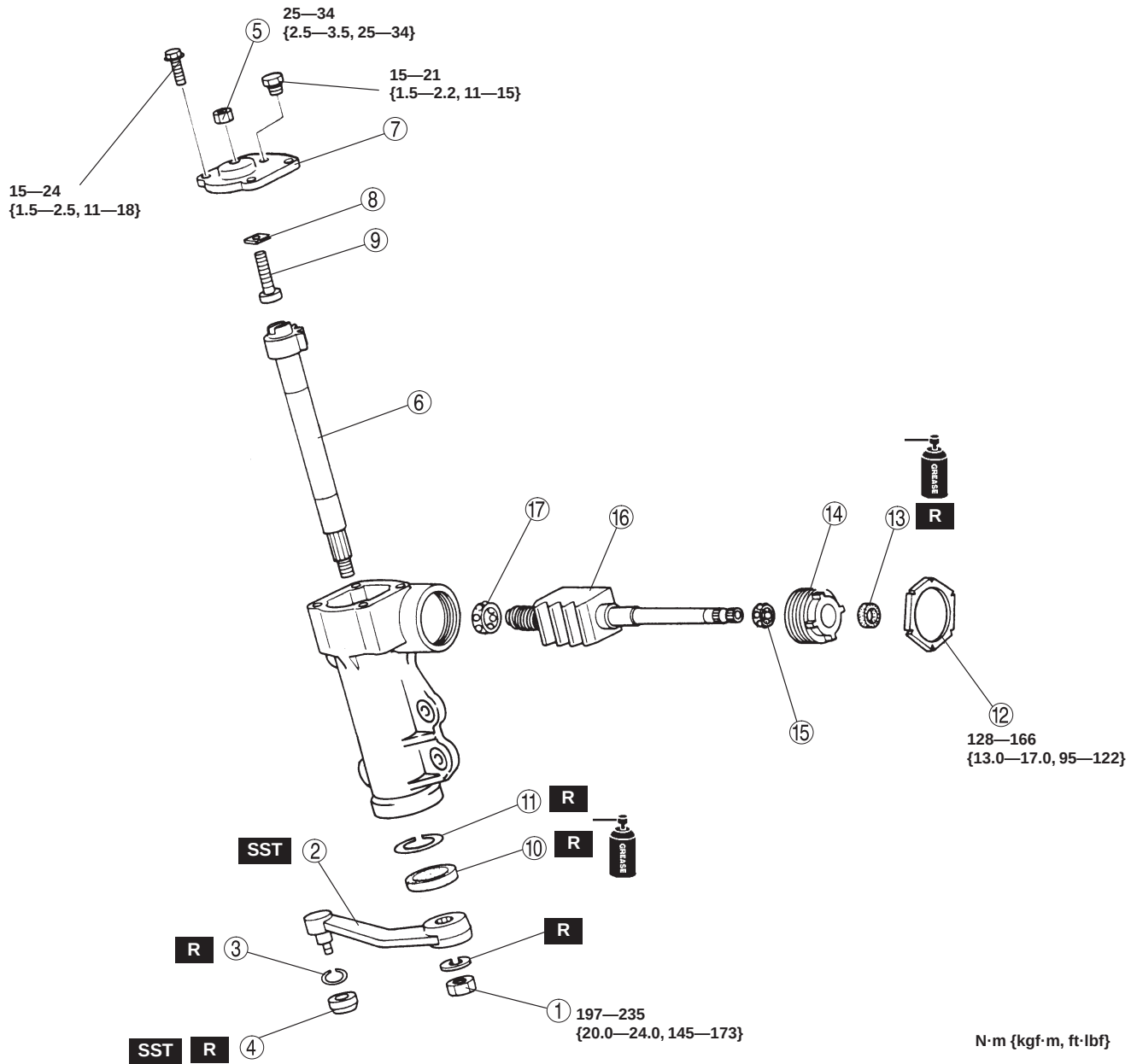


MANUAL STEERING

STEERING GEAR AND LINKAGE DISASSEMBLY/ASSEMBLY

1. Disassemble in the order indicated in the table.
2. Assemble in the reverse order of disassembly.



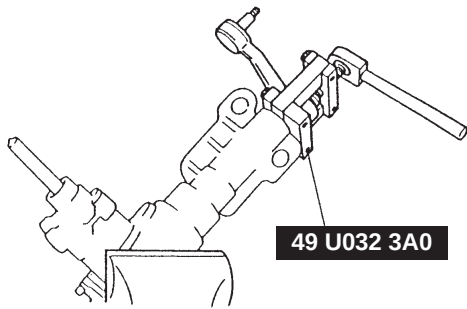
1	Nut
2	Pitman arm + Disassembly Note
3	Clip
4	Dust boot + Assembly Note
5	Locknut (side cover) + Disassembly Note
6	Sector shaft + Disassembly Note + Assembly Note
7	Side cover
8	Adjusting shim

9	Adjusting screw
10	Oil seal
11	Retaining ring
12	Locknut + Disassembly Note
13	Oil seal
14	Adjusting nut + Disassembly Note
15	Bearing
16	Worm ball nut + Assembly Note
17	Bearing

MANUAL STEERING

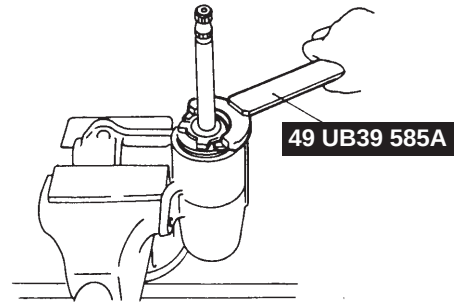
Pitman Arm Disassembly Note

- Separate the pitman arm from the steering gear using the SST.



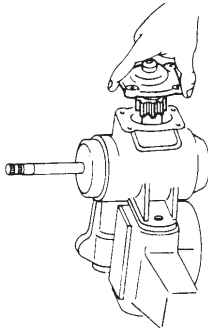
Adjusting Nut Disassembly Note

- Remove the adjusting nut using the SST.



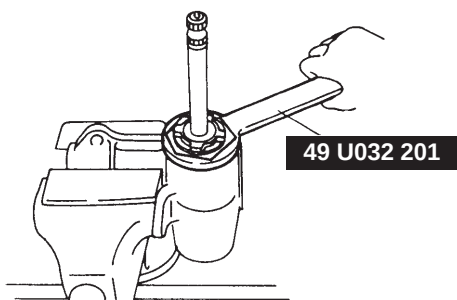
Locknut (Side Cover), Sector Shaft Disassembly Note

1. Loosen the locknut.
2. Remove the side cover attaching bolts.
3. Set the sector shaft in the middle position.
4. Tap the sector shaft lower end using a plastic hammer to loosen the sector shaft.
5. Lift and remove the sector shaft with the locknut and the side cover from the gear housing.



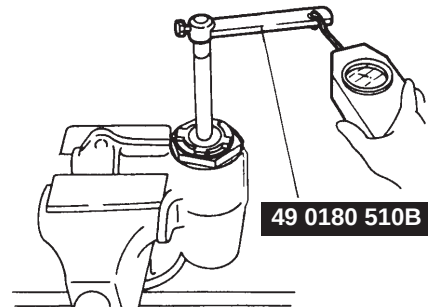
Locknut Disassembly Note

- Remove the locknut using the SST.



Worm Ball Nut Assembly Note

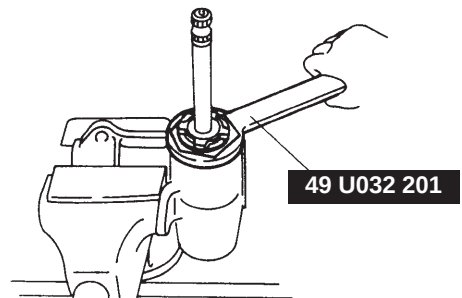
1. Inspect the worm ball nut preload using the SST.



Worm ball nut preload

1.0—1.3 N·m {10—14 kgf·cm, 8.7—12.1 in·lbf}
[Without the sector shaft]

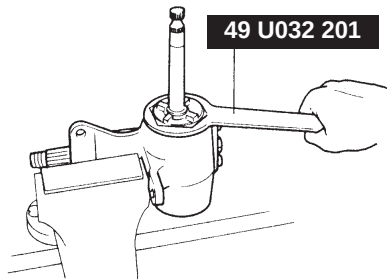
2. If not as specified, adjust the preload.
 - (1) Loosen the locknut and turn the adjusting screw using the SST.



- (2) Tighten the locknut to the specified torque using the **SST**.

Tightening torque

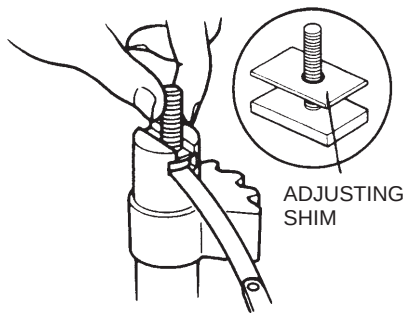
128—166 N·m {13—17 kgf·m, 95—122 ft·lbf}



- (3) Inspect the worm ball nut preload again.

Sector Shaft Assembly Note

1. Set the adjusting screw and shim, in the "T" groove.
2. Measure the clearance in the axial direction.



3. Adjust the clearance to the specified value if the clearance is more than the specified value.

Clearance

0—0.1 mm (0—0.004 in)

Adjusting shim thickness

1.97 mm {0.077 in}	2.00 mm {0.079 in}
2.03 mm {0.079 in}	2.06 mm {0.081 in}
2.09 mm {0.082 in}	

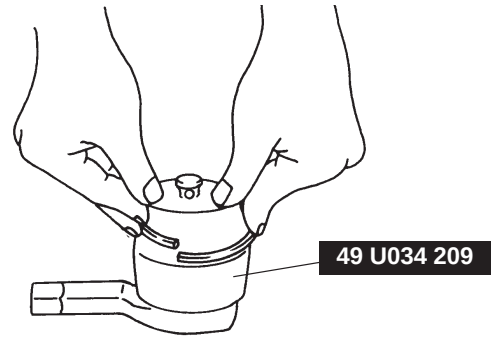
Caution

- Be careful not to damage the oil seal and bearing.

4. Assemble the sector shaft in such a way that the teeth of the sector shaft mesh with the center part of the teeth of the worm ball nut.

Dust Boot Assembly Note

1. Wipe the grease off the ball joint.
2. Put a small amount of lithium-based grease into a new dust boot.
3. Install the dust boot onto the ball joint.
4. Set the **SST** over the boot and install a new clip.



5. Wipe away excessive grease.

STEERING GEAR AND LINKAGE INSPECTION

Steering Gear Backlash Adjustment

Caution

- Adjust the backlash while keeping the steering gear in the center position. Otherwise, the backlash becomes excessively small and gears may be damaged.
- Turn the adjusting screw to adjust steering gear backlash.

Backlash

0 mm

