

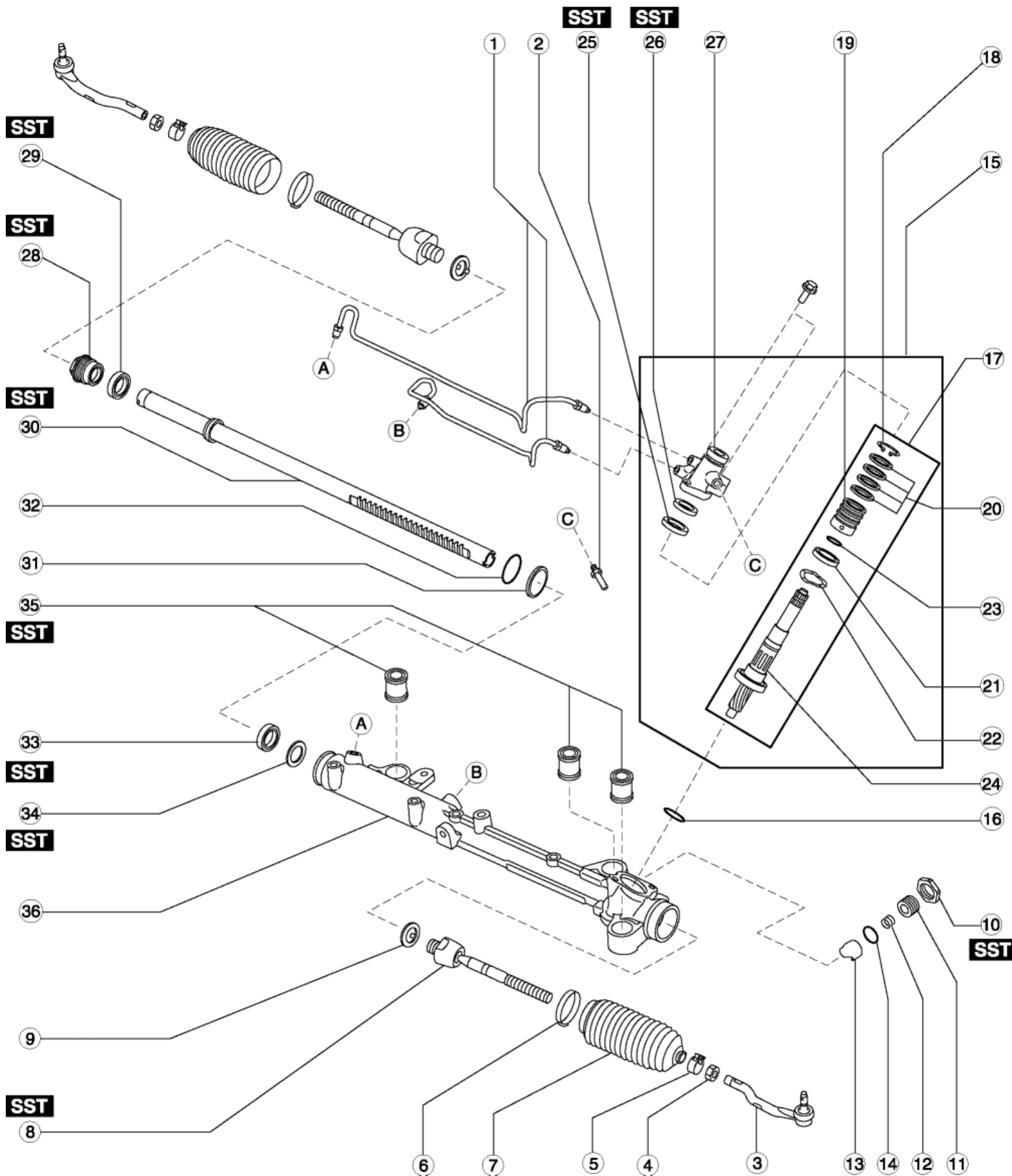
[< Previous](#) [Next >](#)

2012 - Mazda6 - Steering

STEERING GEAR AND LINKAGE DISASSEMBLY

CAUTION:

- To prevent damage to the steering gear when securing it in a vice, always secure it using aluminum plates and clean rags.
1. Disassemble in the order indicated in the figure.

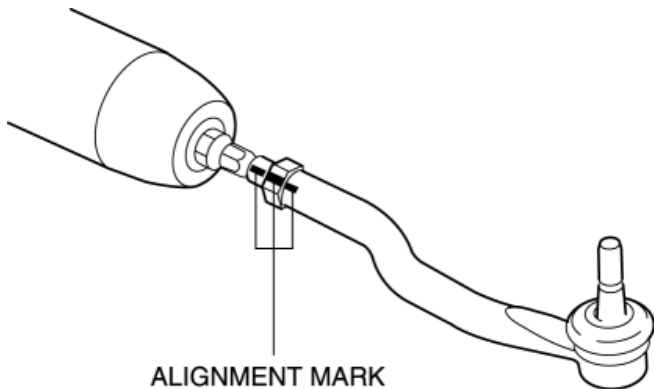


2	Return pipe
3	Tie-rod end (See Tie-rod End Disassembly Note.)
4	Locknut
5	Boot clamp
6	Boot band
7	Boot
8	Tie rod (See Tie rod, Tie-rod Lock Washer Disassembly Note.)
9	Tie-rod lock washer (See Tie rod, Tie-rod Lock Washer Disassembly Note.)
10	Locknut (adjusting cover) (See Locknut (adjusting cover), Adjusting Cover Disassembly Note.)
11	Adjusting cover (See Locknut (adjusting cover), Adjusting Cover Disassembly Note.)
12	Yoke spring
13	Support yoke
14	O-ring
15	Valve housing component
16	O-ring
17	Pinion shaft component (See Pinion Shaft Component Disassembly Note.)
18	Clip
19	Sleeve
20	Seal ring (See Seal Ring Disassembly Note.)
21	Oil seal
22	Wave washer
23	O-ring
24	Pinion shaft

25	Bush (See Bush, Oil Seal Disassembly Note.)
26	Oil seal (See Bush, Oil Seal Disassembly Note.)
27	Valve housing
28	Cylinder end (See Cylinder End Disassembly Note.)
29	Oil seal (cylinder end side) (See Oil Seal (cylinder end side), Steering Rack Disassembly Note.)
30	Steering rack (See Oil Seal (cylinder end side), Steering Rack Disassembly Note.)
31	Seal ring (See Seal Ring, O-ring Disassembly Note.)
32	O-ring (See Seal Ring, O-ring Disassembly Note.)
33	Oil seal (pinion shaft side) (See Oil Seal (pinion shaft side), Back-up Cylinder Ring Disassembly Note.)
34	Back-up cylinder ring (See Oil Seal (pinion shaft side), Back-up Cylinder Ring Disassembly Note.)
35	Mounting rubber (See Mounting Rubber Disassembly Note.)
36	Gear housing

Tie-rod End Disassembly Note

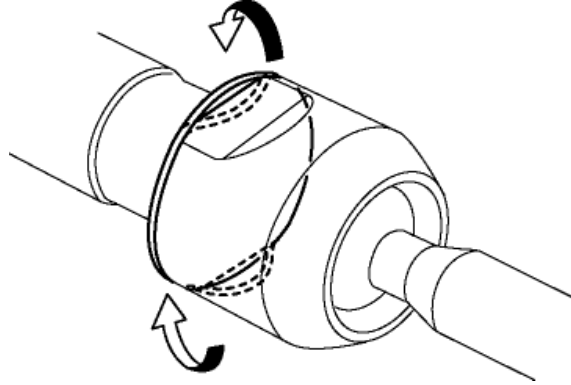
- 1. Place alignment marks as shown in the figure for proper installation.



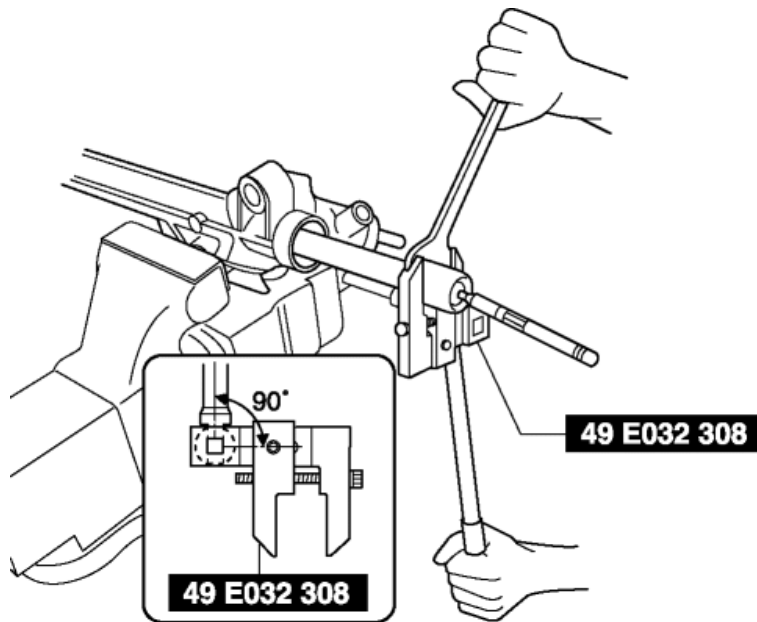
- 2. Remove the tie-rod end.

Tie rod, Tie-rod Lock Washer Disassembly Note

1. Unclamp the tie-rod lock washer tabs using a flathead screwdriver.



2. Install the **SST** to the flat surface of the tie rod, a wrench to the flat surface of the steering rack as shown in the figure and remove tie rod.



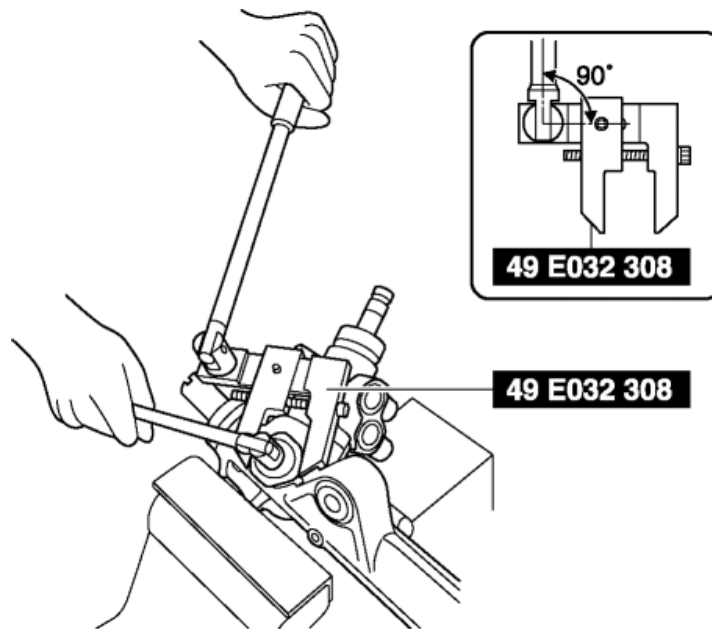
CAUTION:

- If a tool is installed to the SST (49 E032 308), install the tool so that it is perpendicular to the SST as shown in the figure. If the tool is not installed as instructed, the SST can separate from the tie rod easily which could cause damage to the tie rod while doing the work.

3. Remove the tie-rod lock washer.

Locknut (adjusting cover), Adjusting Cover Disassembly Note

1. Remove the locknut (adjusting cover) from the gear housing using the **SST**.



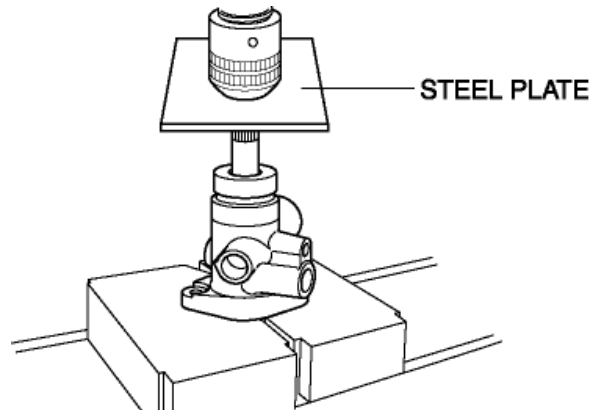
CAUTION:

- If a tool is installed to the SST (49 E032 308), install the tool so that it is perpendicular to the SST as shown in the figure. If the tool is not installed as instructed, the SST can separate from the locknut easily which could cause damage to the locknut while doing the work.

2. Remove the adjusting cover from the gear housing.

Pinion Shaft Component Disassembly Note

1. Remove the pinion shaft component from the valve housing using a press and steel plate.



Seal Ring Disassembly Note

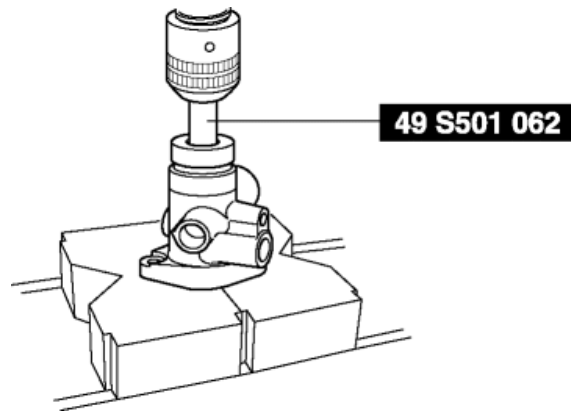
1. Cut off the seal rings using a utility knife and remove them from the sleeve.

CAUTION:

- Be careful not to damage the sleeve and seal ring groove when cutting off the seal ring. Otherwise, the power steering system may not operate normally.

Bush, Oil Seal Disassembly Note

1. Remove the bush and oil seal from the valve housing using the **SST** and a press.



Substitution SST

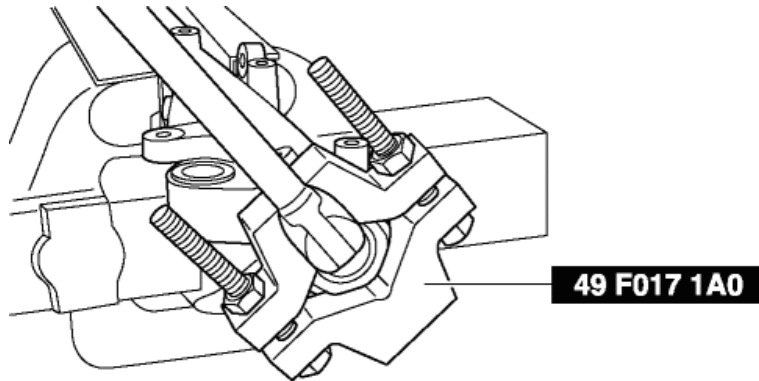
- **49 S501 062**

Outer diameter: 22 mm {0.87 in}

Height: 55 mm {2.2 in} or more

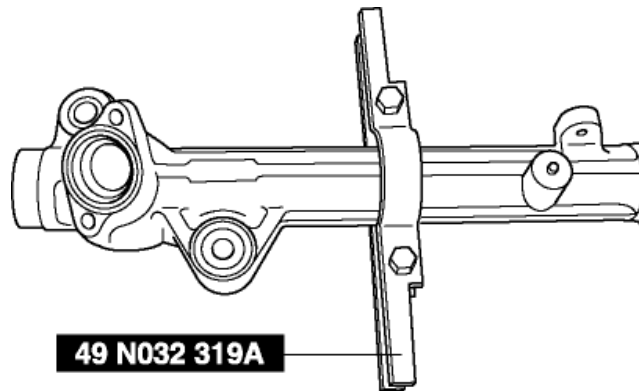
Cylinder End Disassembly Note

1. Remove the cylinder end from the gear housing using the **SST**.

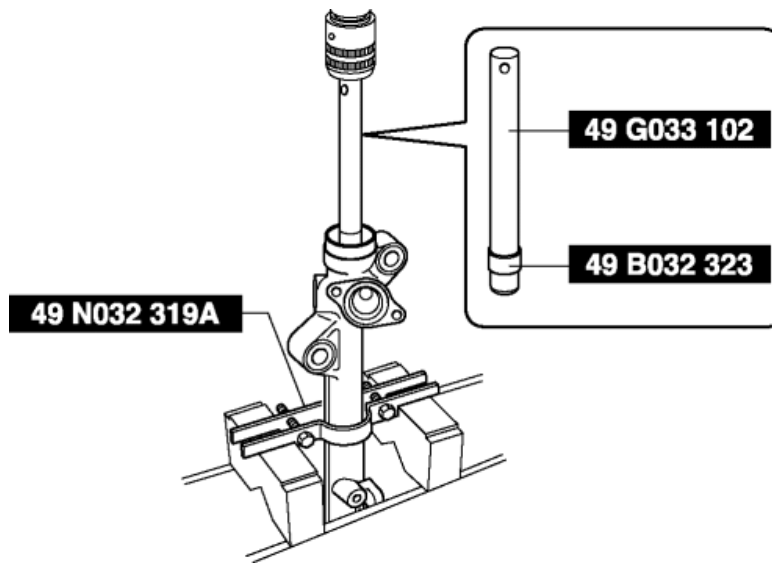


Oil Seal (cylinder end side), Steering Rack Disassembly Note

1. Set the SST to the gear housing as shown in the figure.



2. Move the steering rack towards the oil seal (cylinder end side) until it stops.
3. Remove the oil seal (cylinder end side) and the steering rack from the gear housing using the **SSTs** and a press.



CAUTION:

- If the oil seal (cylinder end side) drops off, the steering rack could also fall off and be damaged. Put a mat under the steering rack to protect it from being damaged.

Seal Ring, O-ring Disassembly Note

1. Cut off the seal rings using a utility knife and remove them from the steering rack.

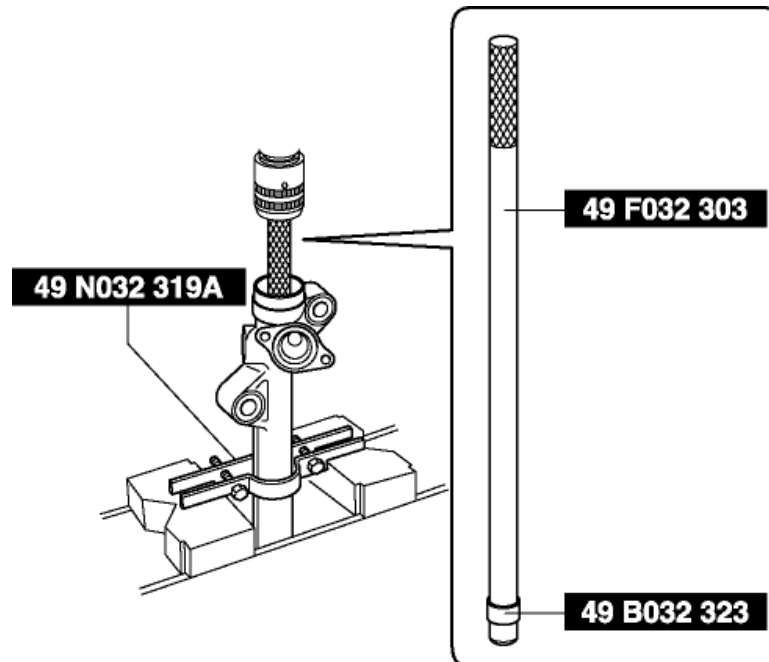
CAUTION:

- Be careful not to damage the steering rack and seal ring groove in the piston when cutting off the seal ring. Otherwise, the power steering system may not operate normally.

2. Remove the O-ring from the steering rack.

Oil Seal (pinion shaft side), Back-up Cylinder Ring Disassembly Note

1. Remove the oil seal (pinion shaft side) and the back-up cylinder ring from the gear housing using the **SSTs** and a press.



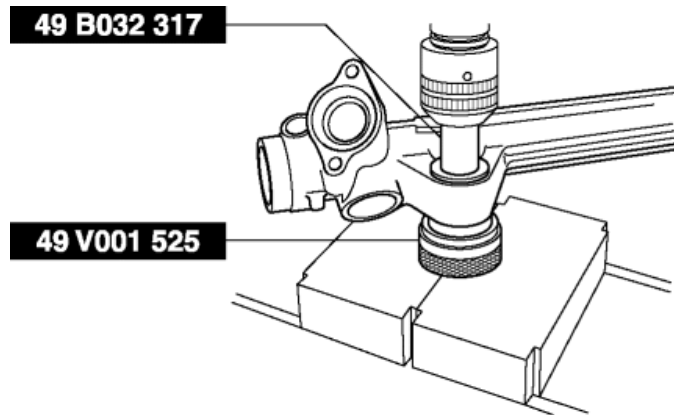
NOTE:

- If they cannot be removed using only the **SSTs**, set an appropriate rod to the upper part of the **SSTs** to

perform the work.

Mounting Rubber Disassembly Note

1. Remove the mounting rubber from the gear housing using the **SSTs** and a press.



Substitution SST

- **49 B032 317**
Outer diameter: 20.0—24.5 mm {0.79—0.96 in}
Height: 40 mm {1.6 in} or more
- **49 V001 525**
Inner diameter: 34 mm {1.3 in} or more
Outer diameter: 36—39 mm {1.42—1.53 in}
Plate thickness: 1 mm {0.04 in} or more
Height: 40 mm {1.6 in} or more

[< Previous](#) [Next >](#)

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[Back to Top](#)

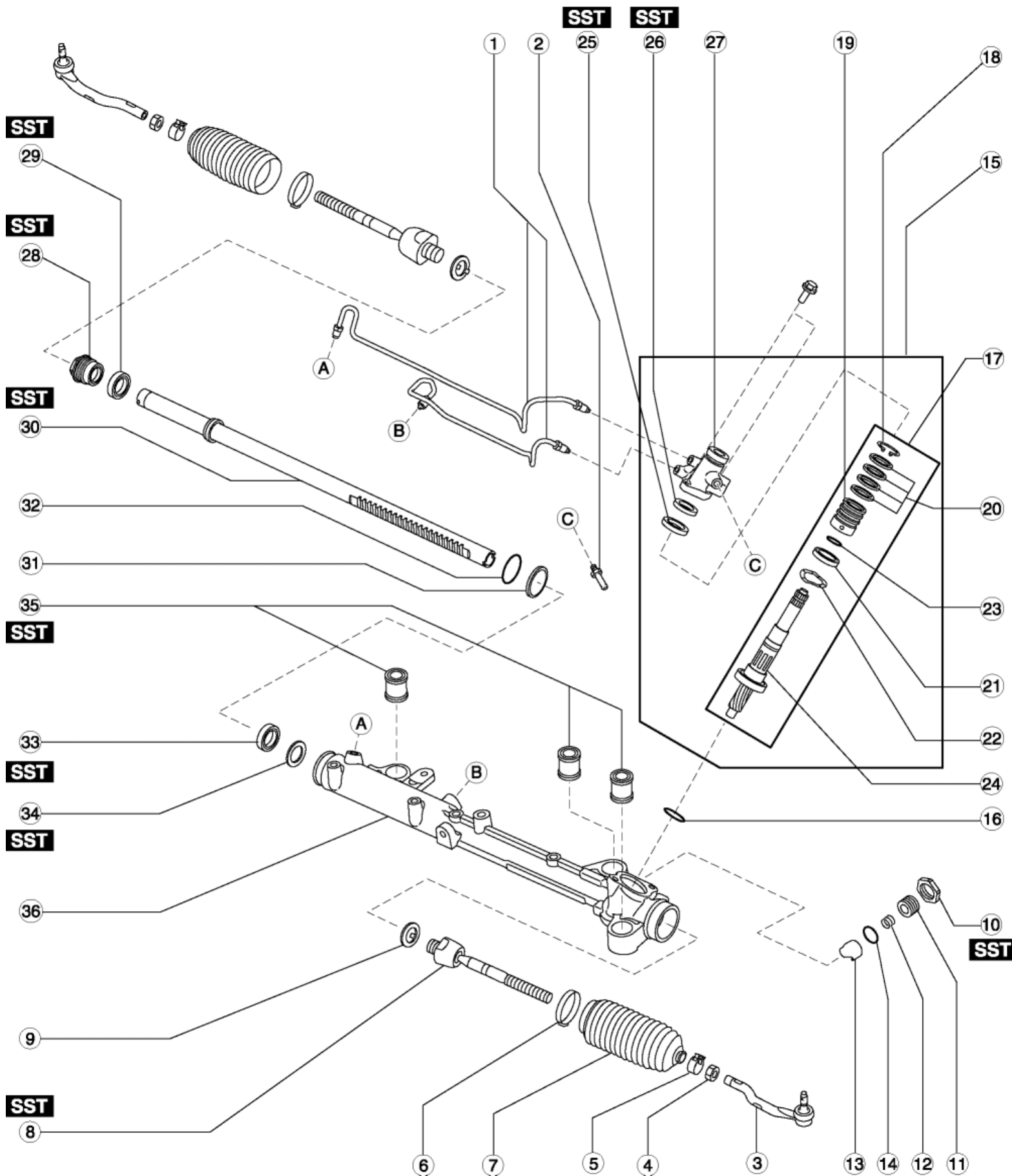
[< Previous](#) [Next >](#)

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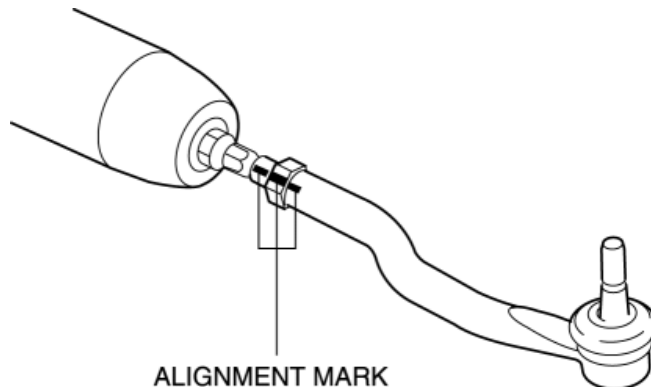


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Tie-rod End Disassembly Note

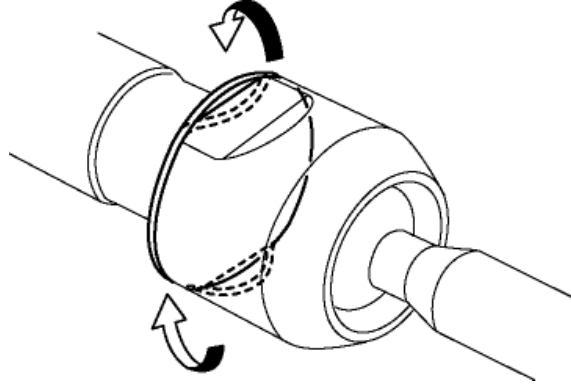
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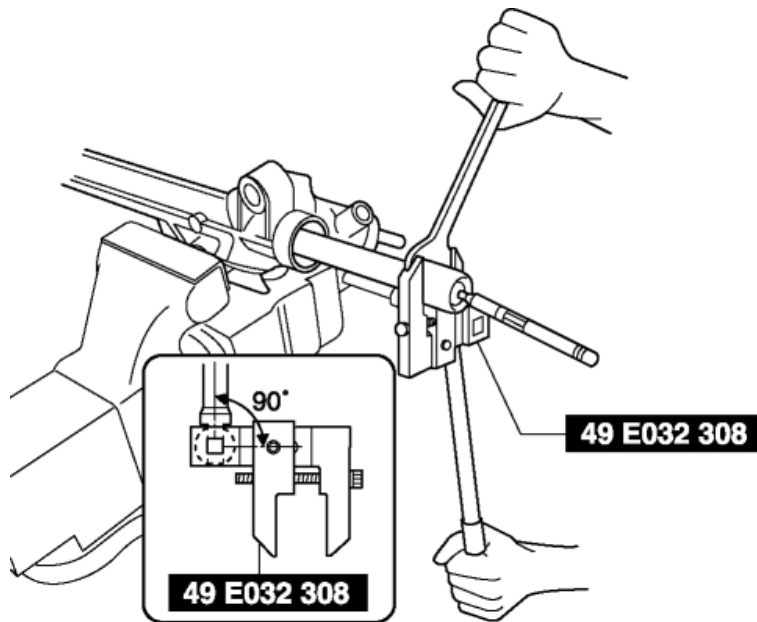
2. Remove the tie-rod end.

Tie rod, Tie-rod Lock Washer Disassembly Note

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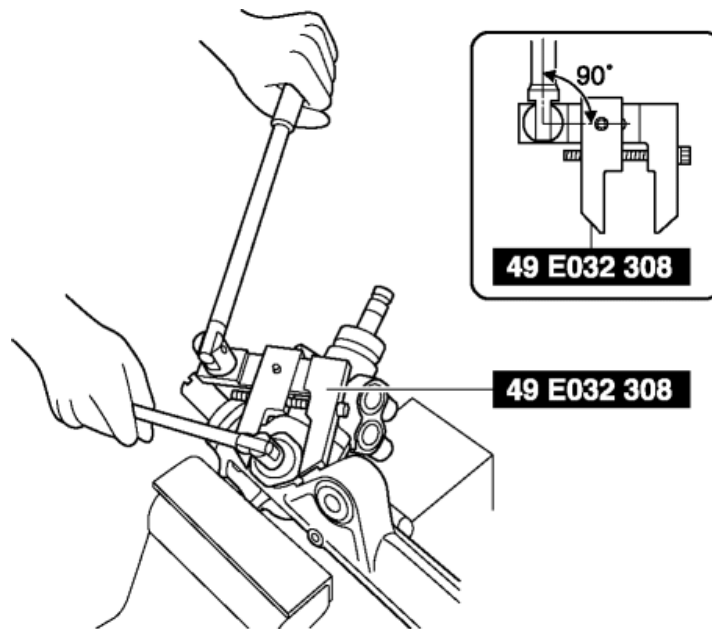
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3. Remove the tie-rod lock washer.

Locknut (adjusting cover), Adjusting Cover Disassembly Note

1. Remove the locknut (adjusting cover) from the gear housing using the **SST**.



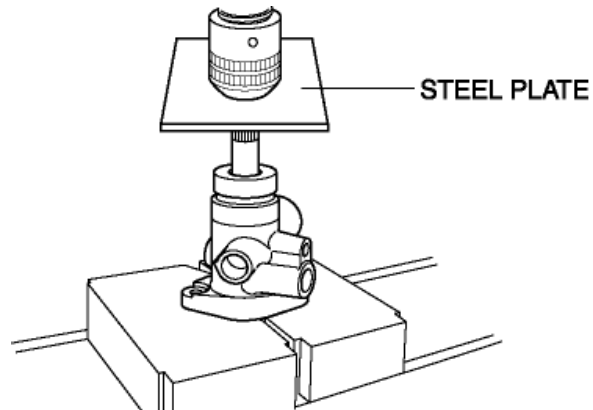
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Pinion Shaft Component Disassembly Note

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Seal Ring Disassembly Note

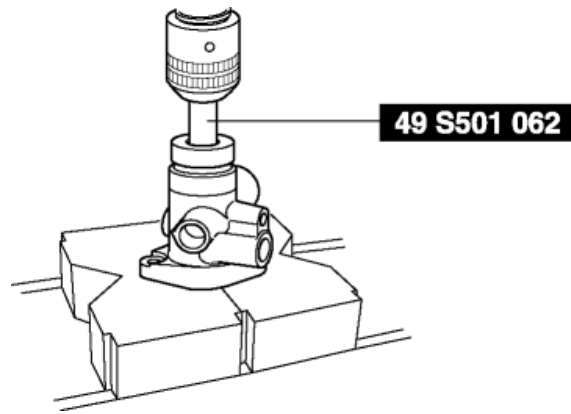
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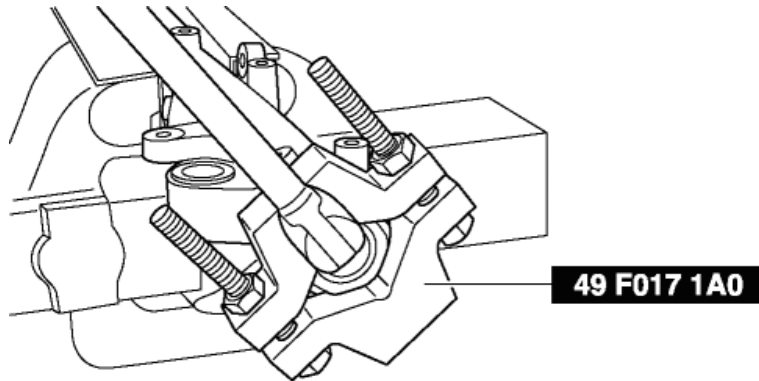
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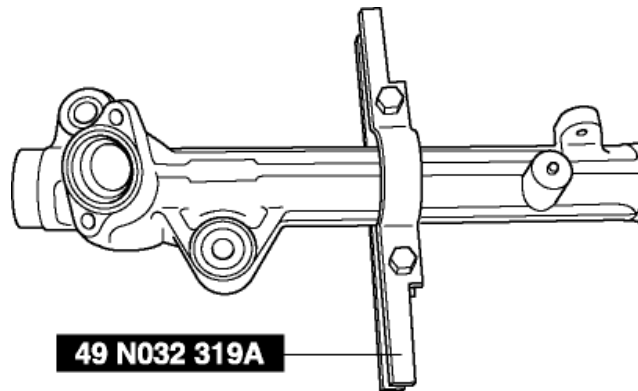
Cylinder End Disassembly Note

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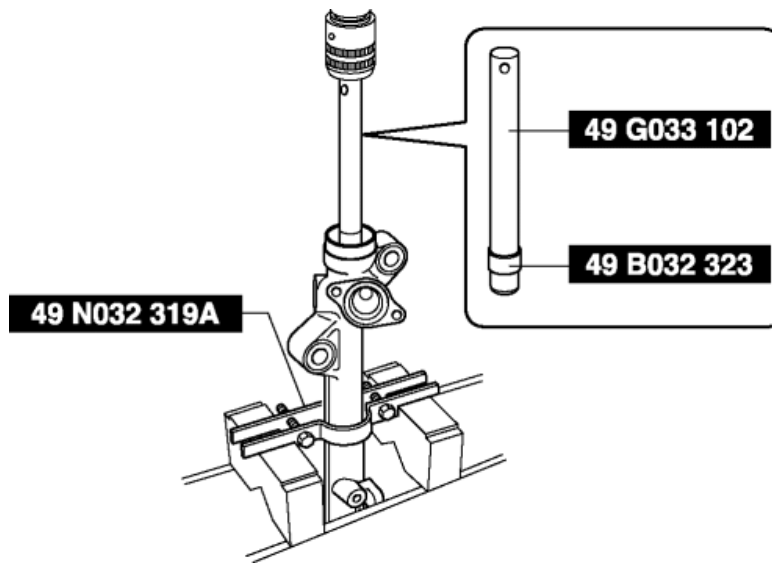


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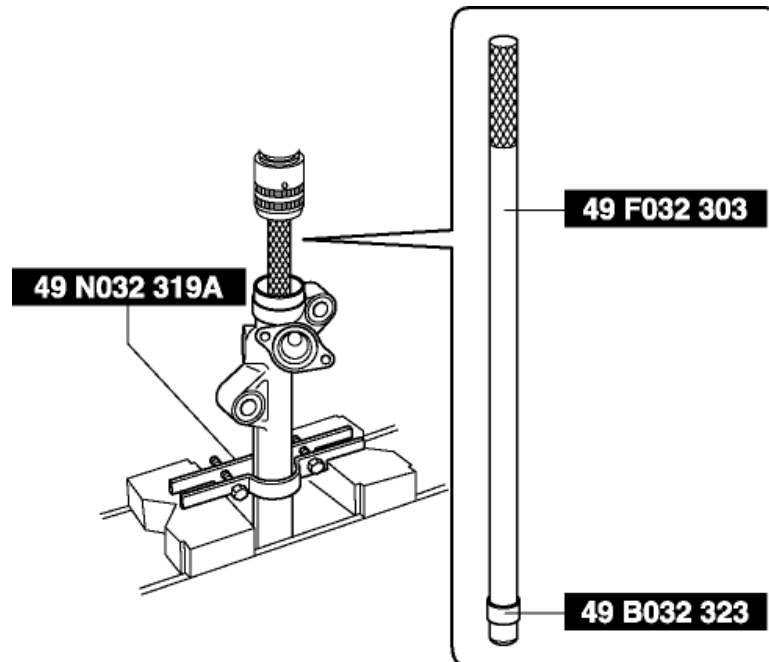
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1. Remove the oil seal (pinion shaft side) and the back-up cylinder ring from the gear housing using the **SSTs** and a press.



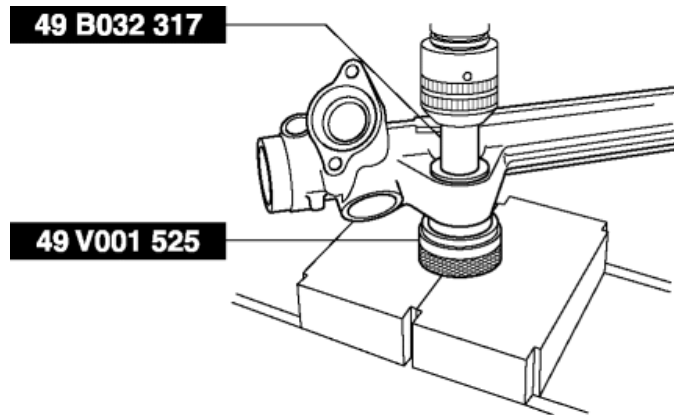
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