

[Select Vehicle](#) | [New TSBs](#) | [Technician's Reference](#)

 Component Search:
 [Conversion Calculator](#)
2000 Mercedes Benz S 500 (220.175) V8-5.0L (113.960)
[Vehicle Level](#) → [Technical Service Bulletins](#) → [Customer Interest](#) → [Steering - Squealing Noises When Turning](#) ←

Steering - Squealing Noises When Turning

[Notes](#)

Date: July 19, 2006

Order No.: P-B-46.20/33a

Supersedes: P-B-46.20/33 dated March 27, 2006

Group: 46

Revision	Date	Purpose
a	7/19/06	Damage Code Revised
-	3/27/06	Initial issue

Revision History

SUBJECT:

 Model 203.040/052/054/056/061/064/065/076/081/084/087/092/261/264/281/284/740/
 747/764

Model 209.356/365/375/376/456/465/475/476

Model 211.026/056/065/070/076/082/083/087/256/265/276/282/283/287

Model 220.067/170/175/179/183/184 Without ABC

Squealing / Squeaking Noises From Area of Rack-And-Pinion When Steering in Both Directions

If you receive customer reports in the above model vehicles of squealing or squeaking noises when steering in both directions when the engine is warm, the cause may be due to insufficient lubrication at the radial shaft sealing ring in the control head.

Model 203 / 209 – Steering Gear Part No.

A203 460 11 00	up to steering gear number	203 460 11 00 040 785 519
A203 460 13 00	up to steering gear number	203 460 13 00 050 522 024

Model 203 / 209 – Steering Gear Part No. (continued)

A203 460 32 00	up to steering gear number	203 460 32 00 041 100 078
A203 460 33 00	up to steering gear number	203 460 33 00 041 280 110
A203 460 35 00	Lubrizol 6178 must NOT be used	
A203 460 41 00	up to steering gear number	203 460 41 00 041 530 055

Model 211 – Steering Gear Part No.

A211 460 18 00	up to steering gear number	211 460 18 00 041 630 344
A211 460 20 00	all steering gears	
A211 460 24 00	up to steering gear number	211 460 24 00 041 670 215
A211 460 32 00	up to steering gear number	211 460 32 00 041 670 091
A211 460 35 00	Lubrizol 6178 must NOT be used	

Model 220 without ABC – Steering Gear Part No.

A220 460 08 00	up to steering gear number	220 460 08 00 040 101 236
A220 460 15 00	up to steering gear number	220 460 15 00 040 770 063
A220 460 25 00	up to steering gear number	220 460 25 00 041 451 471

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Note :The additive Lubrizol 6178 must only used up to a certain steering gear serial number (see list). This restriction applies to models 203120912111220 without ABC. The additive must no longer be used as of steering gear serial number stated below. If the additive Lubrizol 6178 is poured into a steering gear after the steering gear serial number stated below, damage to the steering gear is possible.

For vehicles (except Model 211) with later steering gear serial numbers from those stated below, repair per DTB P-B-46.20/25a dated March 27, 2006. For Model 211 with later steering gear serial numbers from those stated below, replace the steering gear per WIS Document AR46.20-P-0600T or AR46.20-P-0600IT.

Lubrizol 6178 must only be used once in the steering system. No more than 50 ml of Lubrizol 6178 maybe added.

Follow below steps to add additive Lubrizol 6178 into steering oil:

1. Check whether Lubrizol has already been added. This can be verified by a yellow dot on the steering gear and power steering pump housings.
2. If Lubrizol has already been added, repair the vehicle per DTB P-B-46.20/25a dated March 27, 2006.
3. Ensure steering system is brought up to operating temperature (approx. 80 deg C).
4. Suction off 50 ml of steering oil.

5. Pour in 50 ml of Lubrizol 6178 (**NOTE** : Shake bottle before pouring in).
6. Turn steering wheel to a limit stop with the engine running. Then hold steering wheel in this position for 1-2 seconds and quickly (in jerking motion) turn the steering wheel out of the limit stop while increasing the engine speed from idle to approximately 1200 rpm. Repeat this procedure at both limit stops until the noise is no longer audible.

Note : It is possible to repeat this procedure up to 20 times before the noise is no longer audible.

7. Apply a dot with yellow touch-up paint on both the reservoir and steering gear housings. These markings serve as an identifier that additive Lubrizol 6178 has already been added to this vehicle and must not be added again.

Qty.	Part Name	Part Number
1	Lubrizol 6178 (in 50 ml container)	A001 989 61 03 **

**Parts are in a critical supply situation and will be limited, please see the PAC weekly status report on parts availability status and delivery expectations. This report is located on the PAC website.

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Parts Information

Note :The following allowable labor operations should be used when submitting a warranty claim for this repair.

Damage Code	Operation Number	Time (hrs.)	Model Indicator (s)
Operation: Marking – steering ear and reservoir, check (46-0000) Power steering fluid level, correct (00-6083)			
46481 36	46 0000	0.2 hrs. *	J2, J3, M1, M2, M6, M7, P1, P2, P3, P4, P5, P6, P7, P8, P9, Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, QA, S1, S2, S3, S4, S5, S6, S7, S8, T1, T2, T3, T4, T5, T6, T7, T8, U1, U3, U4, U5, U6, U7
If Necessary	00 6083	0.1 hrs.	J2, J3, M1, M2, M6, M7, P1, P2, P3, P4, P5, P6, P7, P8, P9, Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, QA, S1, S2, S3, S4, S5, S6, S7, S8, T1, T2, T3, T4, T5, T6, T7, T8, U1, U3, U4, U5, U6, U7

* - Maximum allowable time with a separate time punch

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In Case of Warranty

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