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**2001 Mercedes Benz Truck ML 320 (163.154) V6-3.2L (112.942)**[Vehicle Level](#) → [Steering and Suspension](#) → [Technical Service Bulletins](#) → [All Technical Service Bulletins](#) → [Steering - Squealing/Squeaking Noise When Turning](#) ←

## Steering - Squealing/Squeaking Noise When Turning

### HONKING/SQUEAKING NOISE FROM AREA OF CONTROL HEAD STEERING SYSTEM WHEN STEERING

Topic Number      LI46.20-P-047170

Version             1

Design Group      46.20 Steering gear

Date                06-23-2009

Validity            Model 163/168, all,  
Model 203/209/211 conditional implementation,  
Model 220/230 without ABC, conditional implementation

Reason for change Steering system numbers updated

Reason for block

Complaint:

Squealing/squeaking noise when steering in both directions.

The noise can mainly be heard with the engine running and warm.

Cause:

**Insufficient lubrication at radial shaft sealing ring in the control head may result in squeaking/rubbing noise**

Remedy:

Add the additive Lubrizol 6178 to the [power steering fluid](#).**NOTE:**

- The additive Lubrizol 6178 may only be used for specific steering system number (refer to list below)!

No more than 50 ml may be added!

The additive can only be used once in the steering system!

**- If the additive is added to a steering system that comes after the quoted steering system number, the steering system may be damaged!**

1. Model 163: Without restriction
2. Model 168: Without restriction
3. Model 203/209: Lubrizol may be used in part.
  - A203 460 11 00 -> up to steering system 2034601100 040785519
  - A203 460 13 00 -> up to steering system 2034601300 050522024
  - A203 460 25 00 -> up to steering system 2034602500 040570429
  - A203 460 27 00 -> Lubrizol 6178 may not be used
  - A203 460 32 00 -> up to steering system 2034603200 041100078
  - A203 460 33 00 -> up to steering system 2034603300 041280110
  - A203 460 34 00 -> up to steering system 2034603400 041540162
  - A203 460 35 00 -> Lubrizol 6178 may not be used
  - A203 460 36 00 -> Lubrizol 6178 may not be used
  - A203 460 41 00 -> up to steering system 2034604100 041530055
  - A203 460 52 00 -> Lubrizol 6178 may not be used
  - A203 460 53 00 -> Lubrizol 6178 may not be used
4. Model 211: Lubrizol may be used in part:
  - A211 460 18 00 -> up to steering system 2114601800 041630344
  - A211 460 19 00 -> up to steering system 2114601900 041570017
  - A211 460 20 00 -> without restriction
  - A211 460 21 00 -> up to steering system 2114602100 041670091
  - A211 460 32 00 -> up to steering system 2114603200 041630524
  - A211 460 35 00 -> Lubrizol 6178 may not be used
  - A211 460 41 00 -> Lubrizol 6178 may not be used
  - A211 460 43 00 -> Lubrizol 6178 may not be used
  - A211 460 44 00 -> Lubrizol 6178 may not be used
  - A211 460 24 00 -> up to steering system 2114602400 041670215
  - A219 460 10 00 -> Lubrizol 6178 may not be used

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- A219 460 11 00 -> Lubrizol 6178 may not be used
- 5. Model 220 without ABC: Lubrizol may be used in part.
- A220 460 03 00 -> without restriction
- A220 460 05 00 -> without restriction
- A220 460 06 00 -> without restriction
- A220 460 07 00 -> without restriction
- A220 460 08 00 -> up to steering system 2204600800 040101236
- A220 460 09 00 -> without restriction
- A220 460 15 00 -> up to steering system 2204601500 040770063
- A220 460 21 00 -> up to steering system 2204602100 032652055
- A220 460 25 00 -> up to steering system 2204602500 041451471
- A220 460 26 00 -> up to steering system 2204602600 041332135
- 6. Model 220 with ABC: Lubrizol may NOT be used.
- 7. Model 230 without ABC: Lubrizol may be used in part:
- A230 460 08 00 -> up to steering system 2304600800 041403188
- A230 460 09 00 -> up to steering system 2304600900 041147404
- 8. Model 230 with ABC: Lubrizol may NOT be used.

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The list above shows models/steering systems or the steering system number with which the additive may be used.

#### Procedure

1. Check whether Lubrizol has already been added, this can be seen by a yellow dot on the steering system and power steering pump (see picture in attachment).

2. Bring steering system to operating temperature (approx. 80°C)

3. Suction off 50 ml of steering oil.

4. Add 50 ml of Lubrizol 6178

#### NOTE:

Shake bottle well before pouring in

5. Start engine, increase [idle speed](#) to approx. 1200 rpm, turn steering to limit stop, hold there for approx. 1-2 seconds and then suddenly turn steering out of the limit stop. This procedure must be performed at both limit stops until the noise can no longer be heard.

6. On the reservoir housing on the power steering pump and on the steering system, use a yellow touch-up paint pen to make a dot, as shown in the picture (picture, refer to attachment, clean area before hand).

#### NOTE:

This mark is used for subsequent work on the steering system as an indication that the additive lubrizol 6178 has already been added once and may not be added again.

Attachments	
File	Designation
Kennzeichnung gelber Punkt.pdf	Picture for identification of steering system components and power steering pump with yellow dot after adding Lubrizol 6178.

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## Attachments

Symptoms
Chassis / suspension / Steering system / Steering noise / Tooting sound
Chassis / suspension / Steering system / Steering noise / Dragging/squealing

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## Symptoms

Parts					
Part number	Designation	Quantity	Note	EPC net	Non-EPC
A0019896103	Lubrizol 6178	1	Only one bottle of Lubrizol (50 ml) may be added to the hydraulic steering system. A larger quantity can damage individual components of the steering system.	X	

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## Parts

Work units				
Op. no.	Operation text	Time	Damage code	Note
			46483 36	

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## Work Units

Validity					
Vehicle	Engine	Transmission	Major assembly 1	Major assembly 2	Major assembly 3
A-Class 168	*	*	*	*	*
C-Class 203	*	*	*	*	*
CLK 209	*	*	*	*	*
E-Class 211	*	*	*	*	*
M-Class 163	*	*	*	*	*
S-Class 220	*	*	*	*	*

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SL 230	*	*	*	*	*
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## Validity

**NOTE:**

The following allowable labor operations should be used when submitting a warranty claim for this repair. This information has been generated on June 23, 2009. Please refer to Netstar --> Star TekInfo --> Star Time for the most current labor time allowance.

<b>Operation:</b> Marking – steering ear and reservoir, check (46-0000) Power steering fluid level, correct (00-6083) Engine compartment panel, bottom – front part, R&R (61-1071) Engine compartment trim at bottom remove / install (61-1105) Power steering gear box/steering rack, replace (46-3610) Wheel alignment, perform (40-6500) Front wheel toe angle adjust (with vehicle alignment check) (40-4064) Bringing power steering temperature to 80°C and adding Lubrizol, perform (46-0000)			
Damage Code	Operation Number	Time (hrs.)	Model Indicator (s)
46483 36	46 0000	0.2 hrs. *	J1, J2, J3, K1, K2, K3, K4, K5, M1, M2, M6, M7, M8, M9, 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, S9, SA, SB, SC, T1, T2, T3, T4, T5, T6, T7, T8, T9, TA, TB, TC, U1, U3, U4, U5, U6, U7, U8
If Necessary	00 6083	0.1 hrs.	J1, J2, J3, K1, K2, K3, K4, K5, M1, M2, M6, M7, M8, M9, 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, S9, SA, SB, SC, T1, T2, T3, T4, T5, T6, T7, T8, T9, TA, TB, TC, U1, U3, U4, U5, U6, U7, U8
If Necessary	61-1105	0.3 hrs	K1, K2, K3, K4, K5
	61-1071	0.2 hrs	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, S9, SA, SB, SC, T1, T2, T3, T4, T5, T6, T7, T8, T9, TA, TB, TC, U1, U2, U3, U4, U5, U6, U7, U8
		0.3 hrs.	J1, J2, J3, M1, M2, M3, M4, M5, M6, M7, M8, M9
If Lubrizol 6178 has been added	46 3610	1.7 hrs.	T1, T2, T3, T6, T7, T9, TB, TC, U1, U2, U5, U6, U8
		2.6 hrs.	T4, T5, T8, TA, U3, U4, U7
		2.8 hrs.	S1, S2, S3, S4, S5, S6, S7, S8, S9, SA, SB, SC
		3.3 hrs.	P1, P2, P3, P4, P5, P6, P7, P8, P9, Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, QA
		3.7 hrs.	J1, J2, J3, M1, M2, M3, M4, M5, M6, M7, M8, M9
		5.3 hrs.	K1, K2, K3, K4, K5

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	40 6500	0.7 hrs.	S1, S2, S3, S4, S5, S6, S7, S8, S9, SA, SB, SC, T1, T2, T3, T4, T5, T6, T7, T8, T9, TA, TB, TC, U1, U2, U3, U4, U5, U6, U7, U8,
		0.8 hrs.	J1, J2, J3, K1, K2, K3, K4, K5, M1, M2, M3, M4, M5, M6, M7, M8, M9, P1, P2, P3, P4, P5, P6, P7, P8, P9, Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, QA
	40 4064	0.1 hrs.	J1, J2, J3, K1, K2, K3, K4, K5, M1, M2, M3, M4, M5, M6, M7, M8, M9, 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, S9, SA, SB, SC, T1, T2, T3, T4, T5, T6, T7, T8, T9, TA, TB, TC, U1, U2, U3, U4, U5, U6, U7, U8
	OR		
Adding Lubrizol 6178	46 0000	0.4 hrs. *	J1, J2, J3, K1, K2, K3, K4, K5, M1, M2, M3, M4, M5, M6, M7, M8, M9, 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, S9, SA, SB, SC, T1, T2, T3, T4, T5, T6, T7, T8, T9, TA, TB, TC, U1, U2, U3, U4, U5, U6, U7, U8

\* - Maximum allowable time with a separate time punch

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In case of Warranty, use the table above.