

**DTB**

Date: February 27, 2009
 Order No.: P-B-46.20/16e
 Supersedes: P-B-46.20/16d dated Nov. 10, 2008;
 P-B-46.20/10c dated Dec. 19, 2007
 Group: 46

Revision History

Revision	Date	Purpose
e	2/27/09	Applicable Models and Parts Information Updated / Technical Content Combined
d	11/10/08	Applicable Models, Parts and Warranty Information Updated
c	2/22/08	Applicable Models Updated
b	3/6/06	Applicable Models / Technical Process / Parts and Warranty Information Updated
a	4/13/05	Applicable Models and Technical Process Updated
-	4/7/04	Initial issue

SUBJECT: Models 171, 203, 204, 209, 211, 215, 216, 219, 220, 221, 230
Leaks at the Steering Gear Control Head Connection to High or Low Pressure Lines or
Leaks at Internal Steering Lines of the Control Head Connection to Steering Gear
Housing

If you receive customer reports in the above model vehicles of leakage at the steering gear control head connection of high and low pressure lines or from the internal steering lines at the connection between the control head and the steering housing, this may be caused by damage to a respective O-ring at the control head or steering housing. Follow the below to resolve.



Note: It is not necessary to replace the entire rack-and-pinion steering system. The O-rings are now available as separate parts or as part of repair kits.

Repair A (Model 171, 203, 204, 209, 211, 215, 216, 219, 220, 221 and 230) – To replace the O-rings of the affected connections at the steering gear control head to the high or low pressure steering lines, it is necessary to seal both lines at the same time, due to the common retaining plate for both lines. Proceed as follows.

- Loosen line connection on steering gear. Refer to applicable WIS documents:
 Model 171 - AR46.25-P-3015VF, AR46.25-P-3015VTD or AR46.25-P-3015VTF

This bulletin has been created and maintained in accordance with MBUSA-SLP S423QH001, Document and Data Control, and MBUSA-SLP S424HH001, Control of Quality Records.

Model 204	-	AR46.25-P-3015CX
Model 211	-	AR46.25-P-3015TSB
Model 219	-	AR46.25-P-3015TZB
Model 216/221	-	AR46.25-P-3015SXA, ..SXB, ..SXC
Model 230 with P99 Code (AMG Black Series)	-	AR46.25-P-3015RBS

i **Note:** If necessary, loosen line supporting brackets.

2. Replace sealing rings and support ring.

i **Note:** Ensure that sealing rings and supporting ring are properly seated. Supporting ring only present on high pressure line.

i **Note:** There are two versions of power steering high-pressure lines. The preceding version has a slotted support ring which can be replaced individually. The new version has a support ring which is not slotted and which cannot be replaced individually; in this case the complete power steering high pressure hose must be replaced (refer to EPC to specify correct high pressure hose).

3. Fasten line connection on steering gear with retaining plate. Fasten any loosened line supporting brackets and reinstall any removed panellings.

i **Note:** Observe torque values for screw connection. Refer to WIS documents for specifications.

4. Bleed steering system and check for leaks. Refer to the DTB S-B-46.30/40b (or latest version).

Repair B (Model 203, 204, 209, 211, 215, 219 and 220): To remedy leaks at the connections of internal lines between the steering gear head and the steering housing individually, replace the short or long internal oil lines and respective seals. Proceed as follows.

1. Remove the steering gear from the vehicle as described in the following WIS documents.

Model 203 4-Matic	-	AR46.20-P-0600PW
Model 203 other variants, 209	-	AR46.20-P-0600P
Model 204	-	AR46.20-P-0600CW
Model 211	-	AR46.20-P-0600T
Model 219	-	AR46.20-P-0600TX
Model 215, 220	-	AR46.20-P-0600I

2. Replace internal pipelines from control head to steering gear housing. Refer to applicable WIS document

Model 171, 203, 209	-	AR46.20-P-3500P
Model 204 (except 20.987)	-	AR46.20-P-3501CW
Model 211, 219 and 220	-	AR46.20-P-3501T
Model 216 and 221	-	AR46.20-P-3501SX

3. Reinstall the power steering gear as described in the WIS documents listed under step 1 based on the respective model.

4. Toe adjustment after removal/reinstallation of the steering gear is NOT necessary. (Refer to latest version of DTB P-B-46.20/28

i **Note:** Always refer to EPC for the latest information on parts.

Parts Information

Qty.	Part Name	Part Number
1	Support Ring - Required in addition for connection of high pressure line to steering gear for: 171 up to serial no. F121183 203 up to serial no. A832192 209 (except 209.377/477) up to serial no. F168787 or T058173. 211 (except 211.077) 219 (except 219.377) 230.476/477/479 up to serial no. F122820	A005 997 76 40
1	Support Ring – Required in addition for connection of high pressure line to steering gear. Ring cannot be replaced individually. Complete power steering high pressure line must be replaced. 171 as of serial no. F121183 203 as of serial no. A832192 209 (except 209.377/477) as of serial no. F168788 or T058174 211.077; 219.377 216, 221 230 as of F122821 (except 230.470)	A000 992 16 80
2	Seal Ring High Pressure Hose Pump to Steering Control Head and Hose Steering Control Head to Cooler 171 203 up to serial no. A832192 or F740620 209 (except 209.377/477) up to serial no. F168787 or T058173 211 (except 211.077) 219 (except 219.377) 230 up to F122820 (except 230.470)	A027 997 95 48
1	Seal Ring High Pressure Hose Pump to Steering Control Head 203 as of serial no. A832193 204, 216, 221 209 (except 209.377/477) as of serial no. F168788 or T058174 211.077; 219.377 230 as of F109966	A015 997 22 45
2	Seal Ring High Pressure Hose Pump to Steering Control Head and Hose Steering Control Head to Cooler (215, 220)	A028 997 32 48
1	Sealing ring repair kit for internal steering oil lines (203 except 4Matic and 209)	A203 460 42 00
1	Sealing ring repair kit for internal steering oil lines (203 4Matic)	A203 460 57 00
1	Sealing ring repair kit for internal steering oil lines (204 - except 204.081/987)	A017 997 59 45
1	Sealing ring repair kit for internal steering oil lines (204.081/987)	A204 460 75 00
1	Sealing ring repair kit for internal steering oil lines for short oil line (211 - except 4matic)	A211 460 49 00
1	Sealing ring repair kit for internal steering oil lines for long oil line (211 - except 4matic)	A211 460 51 00
1	Sealing ring repair kit for internal steering oil lines for long oil line (211 4Matic)	A211 460 06 51
1	Sealing ring repair kit for internal steering oil lines for short oil line (211 4Matic)	A211 460 07 51
1	Sealing ring repair kit for internal steering long oil line (219)	A211 460 04 51
1	Sealing ring repair kit for internal steering short oil line (219)	A211 460 02 51
1	Sealing ring repair kit for internal steering lines - Kit contains long oil line and seals (215 and 220, except 4Matic)	A220 460 01 51
1	Sealing ring repair kit for internal steering lines - Kit contains short oil line and seals (215 and 220, except 4Matic)	A220 460 05 51

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Parts Information

Qty.	Part Name	Part Number
1	Sealing ring repair kit for internal steering lines - Kit contains long oil line and seals (220 4Matic)	A220 460 03 51
1	Sealing ring repair kit for internal steering lines - Kit contains short oil line and seals (220 4Matic)	A220 460 07 51
1	Repair kit for short oil line (220 armored code Z04/Z07)	A220 460 07 51
1	Repair kit for long oil line (220 armored code Z04/Z07)	A220 460 03 51
1 L	Pentosin Hydraulic Fluid	BQ132 0001



Note: The following allowable labor operations should be used when submitting a warranty claim for this repair. This information has been generated on February 27, 2009. Please refer to Netstar → Star TekInfo → Star Time for the most current labor time allowance.

In Case of Warranty

Operation: Seal High Pressure and Low Pressure (Return) Line (After Check) (46-5915)
 Power steering gear box/steering rack, R&R (46-3400)
 Line – (both) control head to steering gear housing, seal/replace, if required (46-6001)
 Line – (one) control head to steering gear housing, seal/replace if required (steering rack removed) (46-6000)

Damage Code	Operation Number	Time (hrs.)	Model Indicator (s)
Repair A: 46531 04	46 5915	0.6 hrs.	CA, CB, CC, CD, XA
		0.8 hrs.	X3
		0.9 hrs.	S1, S2, S3, S4, S5, S6, S7, S8, S9, SA, SB, SC X2
		1.0 hrs.	T1, T2, T3, T4, T5, T6, T7, T8, T9, TA, TB, TC, U1, U2, U3, U4, U5, U6, U7, U8, X1 X4 Y1, Y2, Y3, Y4
		1.1 hrs.	P1, P2, P3, P4, P5, P6, P7, P8, P9, Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, QA R1, R2, R3, R4, R5, R6, R7, R8
		1.2 hrs.	AA, AB, AC, AD, AE, DA, DB, DC, DD, DE J1, J2, J3, M1, M2, M3, M4, M5, M6, M7, M8, M9, N1, N2, N3, N4, N5, N6

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In Case of Warranty

Damage Code	Operation Number	Time (hrs.)	Model Indicator (s)
Repair B: 46482 04	46 3400	1.5 hrs.	CA, CB
		1.6 hrs.	T1, T2, T3, T6, T7, T9, U1, U2, U5, U6, U8, Y1, Y2, Y3, Y4
		1.7 hrs.	CC
		1.8 hrs.	CD
		2.0 hrs.	XA
		2.5 hrs.	T4, T5, T8, U3, U4, U7
		2.6 hrs.	S1, S2, S3, S4, S5, S6, S7, S8, S9, SA, SB, SC
		2.8 hrs.	P6, P7, P8, P9, Q8, Q9, QA
		2.9 hrs.	J3, M8, N4, N6
		3.0 hrs.	J1, M6, M7
		3.2 hrs.	P1, P2, P3, P4, P5, Q1, Q2, Q3, Q4, Q5, Q6, Q7
		3.4 hrs.	J2, M1, M2, M3, M4, M5, M9, N1, N2, N3, N5
	46 6000	0.4 hrs.	CA, CB, CC, CD, 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, Y1, Y2, Y3, Y4, XA
		0.5 hrs.	J1, J2, J3, M1, M2, M3, M4, M5, M6, M7, M8, M9 N1, N2, N3, N4, N5, N6,
OR	46 6001	0.4hrs	CA, CB, CC, CD, XA
		0.5 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, Y1, Y2, Y3, Y4
		0.6 hrs.	J1, J2, J3, M1, M2, M3, M4, M5, M6, M7, M8, M9, N1, N2, N3, N4, N5, N6, P1, P2, P3, P4, P5, P6, P7, P8, P9, Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, QA