



DTB

Date: February 4, 2009
Order No.: S-B-46.50/34a
Supersedes: P-B-46.50/34 dated March 27, 2006
Group: 46

Revision History

Revision	Date	Purpose
a	2/4/09	Applicable Models Updated. Content Revised, Parts and Warranty Info. Updated
-	3/27/06	Initial issue

SUBJECT: Models 164, 171, 203, 209, 211, 215, 216, 219, 220, 221, 230, 251 with code 213 (Speed Sensitive Power Steering – Parameter Steering)
Speed Sensitive Power Steering (Parameter Steering) Malfunction

If you receive customer reports in the above model vehicles of malfunctioning Speed Sensitive Power Steering (Parameter Steering), this may be due to the following causes.

1. Speed sensitive power steering valve, electrical malfunction.
2. Electrical connection on speed sensitive power steering valve damaged or broken.

As a result, the following fault codes may be stored in the ESP control unit:

- C1014 Y10 (SPS [PML] solenoid valve) electrical fault
- C1501 Y10 (SPS [PML] solenoid valve) line has discontinuity or short-circuit
- C16EF Y10 (SPS [PML] solenoid valve)


To resolve issues, replace the speed sensitive power steering valve with a new part as per the below procedure.



Note: It is not necessary to replace the entire rack-and-pinion steering system.

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.

1. Remove steering gear as per respective WIS document listed below
 Model 164 - AR46.20-P-0600GZ
 Model 171 - AR46.20-P-0600V
 Model 203 (except 4Matic) and 209 - AR46.20-P-0600P
 Model 203 4Matic - AR46.20-P-0600PW
 Model 211 - AR46.20-P-0600T
 Model 219 - AR46.20-P-0600TX
 Model 215/220 - AR46.20-P-0600I
 Model 216/221 - AR46.20-P-0600SX
 Model 230 - AR46.20-P-0600R
 Model 251 - AR46.20-P-0600RT
2. Remove loose dirt from steering gear and clean area around speed sensitive power steering valve. Do not use any cleaning agents!

 **Important!** Ensure that the utmost cleanliness is maintained at the work area during the following steps!

3. Unscrew bolts (Figure 1, 2) attaching speed sensitive power steering valve (Figure 1, 1).

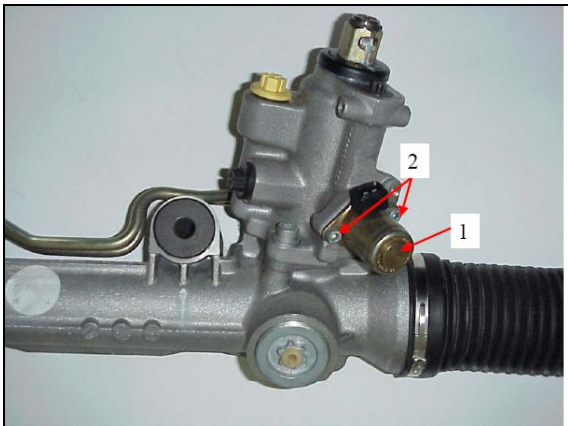



Figure 1 P-B-46.50/34

4. Replace the speed sensitive power steering valve (Figure 1, 1). Ensure that the new sealing ring is seated properly. Attach speed sensitive power steering valve (Figure 1, 1) by screwing in bolts (Figure 1, 2), observe torque (5Nm +/-0.3 Nm).
5. Install steering gear, refer to the respective WIS document as stated in Step 1

 **Note:** There are two versions of power steering high pressure lines that must be detached when removing steering gear. The earlier version has a slotted support ring, which can be replaced individually. The new version does not have a slotted support ring. In this case, the complete power steering high pressure line must be replaced (see parts list).

6. Check steering for leaks.
7. Check speed sensitive - parameter function using the DAS, read out fault memory and erase if necessary.

A toe adjustment after removing/installing the steering gear is no longer necessary according to the latest findings (refer to the latest version of the DTB P-B-46.20/28).



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

Parts Information

Qty.	Part Name	Part Number
1	Pentosin – power steering fluid	BQ132 0001 ¹
1	Support ring (not valid for 215/220) Required in addition for connection of high pressure line to steering gear for: Model 171 up to serial no. F117329 Model 203 up to serial no. A 832192 or F740620 Model 209 up to serial no. F172872 / T058173 Model 211 up to serial no. A939965 or X203560 Model 219.372/375/376 Model 230 up to serial no. F118818 If the support ring is damaged as of the above VIN, only the complete high pressure line can be replaced. The support ring can no longer be replaced individually.	A005 997 76 40
1	Support ring Model 219.377	A000 992 16 80
1	SPS valve repair kit The valve, O-rings and two mounting screws of the valve are included in the SPS valve repair kit and they must be replaced at a time of repair.	A211 460 09 84



Note: The following allowable labor operations should be used when submitting a warranty claim for this repair. This information has been generated on February 4, 2009. Please refer to Netstar → Star TekInfo → Star Time for the most current labor time allowance.

In Case of Warranty

Operation: Short test, perform (54-1011)
Power steering gear box/steering rack, R&R (46-3400)
Speed sensitive power steering P-valve, repl. (power steering gear box removed) (46-5178)
Speed sensitive power steering P-valve, repl. (power steering gear box removed) (46-0000)

Damage Code	Operation Number	Time (hrs.)	Model Indicator (s)
46438 73	54 1011	0.3 hrs.	AA, BA, BE, BF, DA, DB, DC, DD, DE, EA, EB, EC, ED, J2, M1, M4, M5, M6, M7, M8, M9, N1, N2, N3, N4, N5, P1, P2, P4, P5, P6, P7, P8, P9, Q1, Q2, R1, R2, R3, R8, S1, S2, S3, S4, S6, T1, T2, T6, U1, X1, X2, X3, X4, Y1, Y2, Z1, Z2, Z3, Z4, Z5, Z6,

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46 3400	1.6 hrs.	T1, T2, T6, U1, Y1, Y2
	2.1hrs	BE
	2.4 hrs.	AA
	2.5 hrs.	X1
	2.6 hrs.	DA, DB, DC, DD, DE, S1, S2, S3, S4, S6
	2.8 hrs.	P6, P7, P8, P9
	2.9 hrs.	M8, N4, R1, R2
	3.0 hrs.	M6, M7, R3
	3.2 hrs.	P1, P2, P4, P5, Q1, Q2
	3.4 hrs.	BA, BB, BC, EA, EC, J2, M1, M4, M5, M9, N1, N2, N3, N5, Z1, Z2, Z4, Z5, Z6
	3.5 hrs.	Z3
	3.6 hrs.	BD, BF
	3.7 hrs.	EB, ED
46-0000	0.2hrs *	BA, BB, BC, BD, BE, BF, EA, EB, EC, ED, Z1, Z2, Z3, Z4, Z5, Z6
46 5178	0.2 hrs.	AA, DA, DB, DC, DD, DE, J2, M1, M4, M5, M6, M7, M8, M9, N1, N2, N3, N4, N5, P1, P2, P4, P5, P6, P7, P8, P9, Q1, Q2, R1, R2, R3, S1, S2, S3, S4, S6, T1, T2, T6, U1, X1, Y1, Y2

* Maximum time allowed with a separate time punch. Ensure that punches are labeled as NON time.