SEA

Springfield Euro Auto EXAMPLE SHOP

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TECHNICIAN WORKSHEET · N52
RA-N52-123456-20261027

2009 BMW 328i · E90 3 Series sedan · RWD

WBAPH7C549A123456

ODOMETER IN	DOOR-JAMB BUILD (MM/YY)	RO #	TECHNICIAN / DATE
112,000			

A · RECALLS AND CAMPAIGNS TO VERIFY (DEALER PRINTOUT OR NHTSA.GOV)

22V-119 · PCV valve heater (fire risk)	☐ Open ☐ Done ☐ N/A
24V-513 · Air bags · frontal · driver inflator	☐ Open ☐ Done ☐ N/A
20V-017 · Air bags · frontal · driver inflator	☐ Open ☐ Done ☐ N/A
19V-472 · Electrical system · wiring · fuses	☐ Open ☐ Done ☐ N/A
17V-683 · Emission control · crankcase (PCV)	☐ Open ☐ Done ☐ N/A
17V-676 · Electrical system · wiring	☐ Open ☐ Done ☐ N/A
13V-044 · Electrical system	☐ Open ☐ Done ☐ N/A

14V-176 (VANOS housing bolts): not listed by NHTSA for MY2009. Confirm on the dealer printout.

23V-707 (VANOS bolts, 2023 follow-up): not listed by NHTSA for MY2009. Confirm on the dealer printout.

B · INSPECTION POINTS, IN PLAN ORDER

1. PCV valve heater recall

Recall · Listed for this model and year: check by VIN

Dealer campaign history for 22V-119 ☐ OK ☐ Watch ☐ Fix

Parts (E90): Ask your parts supplier for the OE number for this VIN.

2. VANOS bolt recalls + solenoids

Recall · Not listed for MY2009: confirm by VIN

Dealer campaign history for 14V-176 / 23V-707 ☐ OK ☐ Watch ☐ Fix

Cold-start rattle from front of engine ☐ OK ☐ Watch ☐ Fix

Scan for: Cam-timing / VANOS codes

Parts (E90): Ask your parts supplier for the OE number for this VIN.

3. Oil filter housing gasket + belt kit

Now · Past the range (60k–100k)

Oil at filter housing / oil cooler ☐ OK ☐ Watch ☐ Fix

Oil on belt; belt glazed, swollen, frayed ☐ OK ☐ Watch ☐ Fix

Leak: dry / damp / wet

Parts (E90): Ask your parts supplier for the OE number for this VIN.

4. Electric water pump + thermostat

Now · Past the range (~70k–110k)

Pump and thermostat original? Invoice or date stamp ☐ OK ☐ Watch ☐ Fix

Coolant level and condition; overheat history ☐ OK ☐ Watch ☐ Fix

Pump: original / replaced at ____ mi

Scan for: Coolant pump codes (2E81–2E85 family)

Parts (E90): N52 pump part numbers differ by chassis and year. Ask your parts supplier for the OE pump and thermostat for this VIN.

5. Spark plugs & ignition coils

Now · Inside the range (Every 30k–60k)

Plug age / last service record ☐ OK ☐ Watch ☐ Fix

Coils original? ☐ OK ☐ Watch ☐ Fix

Plugs last done at ____ mi

Scan for: Misfire codes, any cylinder

Parts (E90): Ask your parts supplier for the OE number for this VIN.

6. Valve cover gasket / crankcase vent — Watch · Inside the range (70k–129k)

Seep at cover gasket, exhaust side; cracks ☐ OK ☐ Watch ☐ Fix

PCV whistle / rough idle ☐ OK ☐ Watch ☐ Fix

Leak: dry / damp / wet

Parts (E90): Ask your supplier whether the original cover can be resealed or needs replacing (cracked covers are common), and for the OE number for this VIN.

FACTORY MAINTENANCE DUE BY 142,000 MI (ASK FOR RECORDS)

Brake fluid · every 2 years · $149 ☐ Done (records) ☐ Due ☐ Quoted

C · ALSO REPORTED FOR THE N52, QUICK CHECKS

- **Air bags** (1820 complaints): Driver air-bag inflator recalls (20V-017, 24V-513 and others) on these model years. A recall item, not an engine weak point: it's at the top of the summary when NHTSA lists it for the car's model year.
- **Fire / smoke (all causes)** (290 complaints): All causes. The engine-related paths we can source are the PCV valve heater (recall 22V-119) and oil reaching the exhaust from the valve cover, both covered above.

WHAT TO SAY AT THE COUNTER (ADVISOR)

1. Oil filter housing gasket + belt kit
The housing and oil-cooler gaskets harden and seep. At 112,000 mi your car is past the usual range, so if the original part is still fitted it is worth checking. Our price is $850, before tax and shop supplies. Left until it fails, published repair bills run $2,500–$8,000.
Ask: have you noticed oil around the filter housing and down the front of the engine, or burning-oil smell?

2. Electric water pump + thermostat
The electric, engine-computer-controlled pump fails, often with little warning, and the engine overheats. At 112,000 mi your car is past the usual range, so if the original part is still fitted it is worth checking. Our price is $1,150, before tax and shop supplies. Left until it fails, published repair bills run $1,500–$5,000.
Ask: have you noticed overheat or coolant-temperature warning, or radiator fan running at full speed?

3. Spark plugs & ignition coils
Plugs wear and coils fail, causing misfires and rough idle that can mimic a VANOS fault. At 112,000 mi it is due, unless the records show it done. Our price is $560, before tax and shop supplies. Left until it fails, published repair bills run $800–$2,500.
Ask: have you noticed misfire, rough idle, or hard cold starts?

Adjust after the inspection. The report is not a diagnosis or a guarantee, so say what the technician found, not what the report predicts.

NOTES FOR THE ADVISOR

Record findings here (OK / Watch / Fix and measurements); the advisor adjusts the quote before the handout is printed or sent.

Reference only. Follow BMW repair procedures and your shop's judgment.