Mercedes W123 Basic Diesel Blow-by Test Technique

One way to quickly test the health of a W123 diesel engine is to do a very basic blow-by test. Whether you're looking to buy it, or checking the health of your own occasionally, learn to do it now and you'll be ready!

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INTRODUCTION

Over many decades of service a W123 diesel engine is put through a lot. Over time the piston rings and cylinder walls will not seal against each other quite as well. It's inevitable. However, how much compression blow-by you get in to your engine's crank case depends a lot on how well the engine was maintained over its lifetime.

One quick and simple test for this is to check the engine for blow by while it's running by following the steps in this guide.

If you find that the engine has substantial blow by, don't necessarily fret over it! You'll want to follow up with a full compression test as that's the only scientific way to confirm the health of your engine. This is just a starting point.
Step 1 — Mercedes W123 Basic Diesel Blow-by Test Technique

- Open the hood.
- Remove the oil cap.

Step 2

- With the cap removed, start the engine.
Step 3

- Now watch as the engine runs. Check for smoke coming out of the oil fill hole.
  - The video here shows little to no smoke; this indicates low blow-by.
  - Wisping or small puffs of smoke indicate normal blow-by for a higher mileage engine.
  - If it's puffing like a steam locomotive, you'll want to investigate further!

- Then, as the video shows, set the oil cap back on without tightening it.
  - If it just wiggles a bit, you're in pretty good shape.
  - If it dances around, and hops up and down, there's some blow-by but probably nothing to get excited about.
  - If it is hard to keep it on, for risk of taking off a finger, there's an issue!!

If you find a lot of blow by, follow this up with 1) a valve adjustment and then 2) a compression test to verify the health of the engine.