

I apologize if I led you astray with my previous post. From the comments received from those with direct experience, the marks on the cylinder walls are somewhat common. By themselves, they are not indicative of a problem.

This morning, I went back to the performance charts you posted in the beginning. Three cylinders appeared to be performing below par, one cylinder especially.

Running a compression test on all cylinders would help in confirming the physical health of each bore. If they test well, great. Nothing had to be disassembled further. If one or more test poorly, I'd be interested if those correlate to the performance chart.

If a compression test is done, using the borescope again, I'd like to know what the valve areas look like, what the piston tops look like. Large amounts of oil deposits could lead them to one or more cylinders contributing to the mis-fire.

To simplify things as much as possible, I'd ask them what's going on with the one cylinder that's performing the worst in the charts given. Compression test, bore scope, swap coil pack, check wiring, etc., of that one cylinder. What would those tests show? What would that lead them to?

(1) Based on the initial photos, there is scoring, however, it does not look excessive enough to say the engine needs to be replaced.

I agree. Those who regularly work on these engines have confirmed they can be somewhat common.

(2) The scoring is not a good sign, but (as VMS racing said) most engines he has looked at has minor scoring.

It seems by themselves it's not an "ah ha" moment. If the engine is otherwise working correctly, note them and press on.

The scoring most likely is not what caused the misfire codes. Seems like most are saying the mechanic jumped the gun and this would be far down the list of checks to address my issue.

- But that being said, is this a good thing that we saw the scores? Or is this just a scare that was unnecessary as most cars have this?

I think it's good we have the data we do. But we can also set that aside and ask for more tests.

- Does this mean the engine is a ticking time bomb?

No. I don't feel there's enough data to determine that. You're getting a re-occurring wrench light. Why is that happening?

- This in particular is making me feel conflicted. Seems like some are saying the engine is trash — consider selling the car after. Others seem to say it's not a big deal so long as it is not excessive or deep scoring.

I was wrong before. The scoring by itself can be somewhat common. Setting those photos aside, I think it's best to return to the re-occurring wrench light and the performance graphs shown in your initial posts. Why does the code continue? The three cylinders were highlighted? How far from spec are they operating? What could cause that?

- If Ford can somehow get the insurance/warranty to approve a new engine at \$0 to me, would that be worth it? After watching the videos that VMS provided, it seems like it's a combination of the excessive wear / if it passes the following tests

a. Check for piston slap

b. Abnormal oil consumption

c. Smoke on start up

d. Soot in the tail pipe

If A-D are not showing, that's good. Even more reason to discount the scoring and return to the codes being received.

(3) best course of action would be to wait for the Ford report and if they did not address these issues, have them do the following...

a. Compression and leak down test

b. Have oil filter cut open and oil examined.

c. Piston slap, oil consumption, smoke on start up, and soot in tail pipe check

Compression test: Yes. While at it, borescope cylinder head/valve area and top of piston. Spark plugs. What do those look like? Is one or more cylinder showing signs the others aren't?

Oil Filter: I'm not sure that's an issue? If A-D earlier are not showing tells, I'm not sure you'd glean any data from that. It's a simple job. But if A-D are OK, maybe put this aside until you see other physical damage.

Oil consumption and smoke would take some more time. The tests are worthwhile. Maybe do compression and other tests, save the data, t-shoot the wrench light, the do consumption, smoke and soot when the car is returned. Ford's procedure involves marking the stick and checking oil levels until one quart is consumed; that could take a while or never happen.

(4) This dealership is very unresponsive / difficult to work with. Any form of real response has been from me walking in person -- To be fair, the rep has been telling me this could take over a week so I feel that I should not be bombarding him with a lot of questions before they even release the official statement.

- With that being said, I have found an independent shop near the dealership called "PK Auto Design" that was recommended in this forum. They specialize in the S550 platform for tunes/wheels and tires.

I'd stick with the dealer for now. With the phone, you never know what's going on in the other end. Mondays, Fridays and days preceding holidays can be very busy. Taking a seat or standing in their area, they know your interested and you're not going anywhere until things move forward.

Ford work is divided into two groups: general techs and specialists. The specialists can be backed up. They are few. The work they do can be time-consuming. When considering engine replacement and warranty, a specialist would be used.

(5) I will consider taking the car to PK Auto Design if this gets dragged out for more than a week with no concrete answers.

This could be helpful. It depends on environment, how well things are going. I'd be careful though. Ford could use it as an avenue to wash their hands of any warranty support. If you go to PK, I'd ask them to do non-destructive diagnostic work only. Ford will still want to do their own tests.

(6) Can anyone opine is this holds any weight or relevance to the situation -> My car was sitting in the parking lot the last two visits to the dealership. The car was not on a lift or even in the service shop. Not sure if they are trying to look for an angle to use my warranty or if they are just backed up and not putting my car on high priority.

They could be waiting on the specialists. We've had some threads previously where people were waiting weeks for someone. It depends on the dealer. It's unfortunate.

(7) Last bit of detail. Car was driving fine for 800 miles. First check engine light came on, P0300, and cleared itself. Drove the car the next day, and after stepping on it or flooring the gas pedal, and there was strange noise coming from the mid section or exhaust of the car. It sounded like a piece of plastic was flapping in the rear. Almost sounded like exhaust burbles or backfires but not in a good way. This was what I initially heard inside the cabin with the windows rolled

up. After that, I decided not to drive the car hard and shortly after, another flashing check engine light came on - which then turned into a solid check light which is on the dash now.

Given the sounds, the area of the sounds and the light, I can think of several things. Poorly-fitting exhaust, catalytic converter problem, O2 sensor or wiring, etc. It's another tell something isn't right. If you haven't documented that event with the dealer, do that. And then ask them for a physical inspection of the exhaust; it might offer clues as they t-shoot.