REPORTER'S RECORD

VOLUME 7 OF 12 VOLUMES

COURT OF APPEALS NO. 13-24-00525-CV

TRIAL COURT CAUSE NO. DC-C202300105

NICHOLAS JOHNSON	)	IN THE DISTRICT COURT
	)	
VS.	)	JOHNSON COUNTY, TEXAS
	)	
ENGINEERED PERFORMANCE RACING, AND MITCHELL WILSON	)	413TH JUDICIAL DISTRICT

JURY TRIAL

On JUNE 6, 2024, the following proceedings came on to be heard in the above-entitled and numbered cause before the Honorable John E. Neill, Judge presiding, held in Cleburne, Johnson County, Texas:

Proceedings reported by Machine Shorthand.

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I N D E X

VOLUME 7

JURY TRIAL

EXHIBITS

PLAINTIFF'S EXHIBIT NO.	DESCRIPTION	OFFER	ADMIT	VOL.
16	Text Message Screenshot	186	186	7
17	Text Message Screenshot	194	197	7
18	Text Message Screenshot	201	201	7
19	Text Message Screenshot	217	217	7
20	Text Message Screenshot	223	223	7

DEFENDANT'S EXHIBIT NO.	DESCRIPTION	OFFER	ADMIT	VOL.
15	Motorsports Electronics Emails	167	168	7

P R O C E E D I N G

(Jury present.)

THE COURT: All right. Y'all can be seated. Good morning. We're going to continue this morning with our case, Cause No. C202300105, styled Nicholas Johnson, Plaintiff, versus Mitchell Wilson and Engineered Performance Racing, Defendants.

And is the Plaintiff ready to continue this morning?

MR. MATOUKA: Yes, Your Honor.

THE COURT: Defense as well?

MR. HURLEY: Yes, Your Honor.

THE COURT: All right. Go right ahead.

Still under oath, sir.

DYLAN BRADLEY,

Having been previously duly sworn, testified as follows:

DIRECT EXAMINATION (Continued)

BY MR. HURLEY:

Q. Good morning, Dylan.

A. Morning.

Q. When we left off yesterday, we were talking about this idea of the problem that was created by not having that long-term and short-term fuel data in the electronic computer of the engine. I want to make sure that we close the loop on that. So, ultimately, what is the problem

caused by not having that data?

A. So it's not necessarily the problem of not having the data; it's having it activated within the tune so that it can make fuel adjustments based on what the wide band sensors are reading, as far as a lean or rich condition within the engine.

Q. You heard some other testimony yesterday from Mr. Pool talking about oil squirters. Sounds like a funny term, but what is an oil squirter?

A. Probably the most direct name or description of a part inside of an engine as you can think of. It's something that's tapped into the main oil gallery of the engine so the main path at which the oil travels through the engine and it allows oil to be forced into the bottom of the pistons to keep them cool, but also to add extra oil to your oil control rings which are these ones right here on the bottom side and keep excess oil on the cylinder bores.

Q. And what you heard was they were removed off of the engine, right?

A. Uh-huh.

Q. Is that a big deal?

A. Not in this application, no. I remove them on anything that comes through my shop that has them.

Q. Why is it okay to remove them?

A. Especially in this case, because of the material in the pistons from the factory, you're using a cast or a hyper-eutectic aluminum which is a high silicone material that doesn't expand as much as what these ones do. So from the factory when they use that sort of material, you can run a really tight piston-to-wall clearance, which aids in letting -- having better fuel economy and tighter -- quieter engine operation. With a 2618 forging like these, it's a low silicone content so they expand a lot more, which means as you open up the bore, you open up the piston-to-wall clearance, so it has more room to expand. It's primarily you're going to use this with nitrous and supercharged, turbocharged applications.

With that, you also don't need to have piston squirters because you've opened up the bore so that you don't have to worry about piston-to-wall contact.

Q. Thanks. You also heard some testimony about the spark plugs. And they may still be up there.

A. They are not. They're in the box.

Q. Oh, okay. Did you get a chance to look at those spark plugs?

A. I did.

Q. Are the spark plugs relevant to this issue?

A. Not necessarily, just because of the fact that we don't have the proper tools to be able to diagnose them.

The proper way to read a plug would be using -- it looks like something you'd see in a doctor's office. It's a magnifying glass with a really high, high-end magnifying glass with a LED light so that you can shine it into the -- into the porcelain in the bore of the spark plug to be able to read for any kind of detonation or anything like that.

Secondly, that is -- The way that the plugs look is not the way a plug would look if it was pulled out immediately after a run. If you have idle time sitting at, you know, static idle, it's going to -- it's not going to burn off the fuel so they're going to look rich no matter what. So, generally, when you -- if your interest is to read the plug after a dyno pull or a run down a track, you would shut down at high RPM, let the engine coast down to a stop, let it cool off for a second and pull them off. Because that way you're getting an accurate reading of what the engine was doing at its most efficient highest power level, so on, so forth. If you pull it out at an idle, you get an obscure reading because it's all sooted up from a rich condition.

Q. Thank you. I realized I did something yesterday, that I kind of glossed over some of your experience, and I want go back and make sure we cover all your experience because I know that's relevant. You said you worked for a

shop, and what was the name of that shop?

A. Steve Morris Engines.

Q. And what is their claim to fame?

A. Primarily high horsepower boosted engines. Supercharge was the big one when I was there, but we really started doing a lot of high end turbo engines as well. We had our own engine platforms that we developed as well that were 100 percent proprietary to our company. There -- we developed a V16 hyper car engine for a client out of Dubai that is still in progress and 5,000 horsepower, you know. That was kind of a big deal at the time.

Q. And specifically what did you do there?

A. I did pretty much everything. I started out sweeping floors and disassembling engines like most people do in this industry. And I went into some sales and stuff like that as well.

But the big thing was, was after about a year of being employed, we started acquiring a lot more machines to machine engine blocks and cylinder heads and things like that. So we didn't have anybody in-house other than my boss, and that's very difficult when you're doing 50 engines a year to be the boss, sales, so and so forth, so he started training me on how to machine. And I machined for about another year and then started doing

assembly work, dyno operations and things like that. And then it just continued from there.

I worked under a guy named Tom Vigue for a lot of years -- or for a year. And he was a -- the chief engine tuner, engine designer for Dale Earnhardt Industries from 1988 until 2003 when he retired from that company. So any of the -- the championships that Dale Earnhardt and Dale Earnhardt, Jr. had during those times were because of his engine building skills and things like that.

Q. And that's Vigue?

A. Vigue, yes.

Q. How do you spell that?

A. V-I-G-U-E.

Q. And did he personally train you?

A. Yes. Yeah, I worked -- That was a really awesome part of my education, because as I'm sure you understand, when you're the boss, it's really hard to be hands on all the time, so I had a lot of my, my knowledge and stuff was gained by figuring things out on the job. Plus I have a light tool and dye background, so machining came naturally to me. But having somebody like Tom Vigue that worked at the absolute pinnacle of motorsports come in and be able to be hands on 24/7 -- I'd say for the year that I worked with him, I learned more than, you

know, I had in the few years prior to that. You know, it was absolutely wonderful. That guy has forgotten more things than I'll ever know when it comes to this kind of stuff.

Q. Back to Mr. Johnson's engine. Based on what you know and what you've seen, what would it take to fix it?

A. Um, it sounds like, you know, just as far as I can tell from looking at what we've got here, deglaze on the hone, rings and bearings. But as I don't have, you know, a block or anything like that in my hands, I can't tell you any more than that.

Q. And what does the term deglaze mean?

A. You just go in, and the crosshatch is what holds the oil. It looks like this. It's lines in the bore that holds oil in the cylinders to lubricate the pistons and rings. A crosshatch is put in by a cylinder hone, so it goes in and it just -- it puts a crosshatch back in. All you're doing is just putting a fresh crosshatch back in the engine and send it on its way. You're not taking any material out or anything like that. It's just putting a fresh crosshatch in.

Q. So based on your experience in the industry, how much would that fix cost?

A. I mean, whatever the cost, I don't know what

the cost of these bearings or rings are, but I would imagine as long as, you know, there's also the crankshaft, you know, you would have to do some -- I haven't seen pictures of the crankshaft so I don't know the damage of that, but whatever the cost to repair the crankshaft, put it all back together. I mean, if it was me doing it, it would probably cost in the neighborhood of 3500 bucks, 4 grand.

Q. So I want to go back and make sure we are very clear about your kind of ultimate opinion here. Based on your experience and your training and the things you've seen over that career that we just kind of talked about, what is your opinion as to the reason this engine failed when it was on the dyno run in England?

A. I still hold pretty aggressively to the data logs and the unknown when it comes to the, you know, the driving period and things like that, and even, you know, just not knowing enough about what's going on with what's inside the computer at the time, but I definitely hold my opinion that the tune-up was definitely not -- not correct and caused damage.

Q. And maybe stated inversely, if the car had been tuned correctly, would this failure have happened?

A. Not from what I can see, no.

MR. HURLEY: Thank you, Your Honor. I'll

pass the witness.

CROSS-EXAMINATION

BY MR. MATOUKA:

Q. Good morning, Mr. Bradley.

A. Morning, sir.

Q. So I want to just kind of start with something you were talking about today, and then, you know, we'll jump back into your testimony yesterday.

Based on the information you have, that's what your testimony here is?

A. Sure.

Q. And your opinion. Did you ever ask for anything else?

A. Um.

Q. Did you ask to see any parts of the engine?

A. I don't recall if I did or not.

Q. Is it important to inspect parts versus photographs?

A. Yeah, absolutely. That's why I was -- I was so thrilled that we had parts here to be able to look at. That's why my opinion changed slightly based on what I can see today and yesterday.

Q. Okay. You talked about the spark plugs, and you mentioned idling versus like run down from, you know, full bore or something?

A. Sure, yeah.

Q. Can you, I guess, elaborate on that a little bit?

A. Yeah. So you're sitting on the dyno, you make a run, you're at wide-open throttle, high RPM, you shut the car off. So it's at 7,000 RPM or whatever it is, then you shut it off. Right. You just stop it full stop. You hit the brake on the dyno, allow the car to come to a stop, then you pull the plug. That's going to give you the most accurate reading of what is actually going on inside the engine so -- And the only thing that you're using that for is to verify where timing is at on the strap. You can't read a plug without a magnifying glass. Can't read a plug without anything else. Can't just look at it and be like, "Oh, okay." Versus idling, the engine is not under load, it's not creating a ton of heat, so it doesn't burn the spark plugs off the same way it would at wide-open throttle making all the power in the world. So at idle, it's just going to soot. There's not a lot of timing and it's not going to be readable.

Q. Do you recall how this engine was shut off after the --

A. No, I don't, but that's why I'm saying I can't verify.

Q. So you really don't have any basis to form an opinion on that?

A. I have a basis based on expertise of what a spark plug looks like after a run, regardless if it's rich or lean. And that looks like something that was pulled out after idle time.

Q. And if the testimony was that the run was aborted immediately and the engine shut off, would that change your opinion?

A. Um, not necessarily, because I would need to see exactly when and where it was aborted at. If it was aborted at idle or if it was aborted during run-in, it's still going to give you an obscure reading.

MR. MATOUKA: May I approach, Your Honor?

THE COURT: You may.

MR. MATOUKA: I'm going to hand you Defendant's exhibit book, and then I've got to go back and identify which one we're looking at.

THE WITNESS: Sure, absolutely.

MR. MATOUKA: So we're going to be going to Exhibit 20.

I apologize to the jurors if this is not incredibly obvious what we're looking at.

Q. And what are we looking at in these photographs or these charts?

A. It looks like a air/fuel ratio reading and engine torque, and I'm assuming since it says Dynapack, it must

be something that was ran through the chassis dyno.

Q. Okay. So does this -- it says Abbey Motorsports on it?

A. Yes.

Q. So are these charts from the dyno runs?

A. Potentially, yeah.

Q. And if you can go to this page, I believe it's the last page of your Exhibit 20.

A. Okay.

Q. Okay. Does this appear to show what the last run was?

A. Um, I'm not seeing anywhere where it says that it is.

Q. Would it -- Okay. Can you explain what this purple line that starts up here, then comes down, and then immediately cuts itself off is?

A. It's a AFR reading.

Q. And what is that telling you?

A. That it was incredibly lean at 2,000 RPM, 2500 RPM, and, yeah, slowly richenned itself up.

Q. And then did it get turned off?

A. I can't tell you that.

Q. Well --

A. It -- it doesn't mean anything to me, the fact that it -- I mean, it could have been an unplugged sensor.

I don't know.

Q. What about over here on the torque side? This is the torque side, right?

A. Oh, I see what you're saying. Yeah. Yeah, that definitely could be a --

Q. Does it --

A. -- an -- an aborted run, sure.

Q. Okay. So is this what you're talking about, you know, you've run it up, then cut it off?

A. Yes, yeah, potentially, absolutely.

Q. Okay. So that was the last run?

A. Uh-huh.

Q. How would that change your view of the spark plugs?

A. I mean, it's still wildly under the torque curve at that time. As I don't know that they were pulled out at that time and it was never started up again, I can't change my opinion on that. I haven't said one way or another that this is finite what it was. I'm just saying I can't tell you based on the data that I've been given that they have been pulled out. I wasn't at Abbey Motorsports. I wasn't there to verify that they didn't start the car up and it idled for a few seconds afterwards or anything like that.

Q. But you've been here listening to testimony?

A. Sure.

Q. Since Tuesday, right? You've relied on that testimony, correct?

A. Absolutely.

Q. And you heard Mr. Johnson testify, after the aborted run, they tore the engine down, right?

A. Um, yeah. Yeah, I think so, but it wasn't right there at Abbey Motorsports.

Q. Right, right. But no one started it again?

A. I'm not there. I can't tell you that.

Q. Is there any evidence that shows that?

A. No. There's no evidence that shows they didn't start it either to move it off the dyno or to do anything else with it.

MR. MATOUKA: Okay. May I approach, Your Honor?

THE COURT: You may.

Q. I'm going to hand you the spark plugs. Now, assuming that those spark plugs were pulled out after that aborted dyno run, what can you tell me?

A. What I would be able to tell you right off the bat is that there's absolutely no timing in the engine. There is no mark on the strap to indicate that there is any timing whatsoever, which is 110 percent indicative of it not being pulled after a run, immediately after a run.

There is normally a little, fine line that goes across the strap here which is this curve that will tell you roughly where it's at for timing at idle, it will not show up.

Q. And but are those spark plugs, like, can you see variations in fuel?

A. Nothing of note, as at idle, it won't. There's, I mean, there's nothing burned off the porcelain which would normally be the sign. There's no indicator on the ring side that it was ran hard or before being shut down. Yeah, there's nothing that tells me that these were ran hard. These look like a spark plug that you would pull out of a normal car.

Q. And your estimate to fix it, I think you said 35 to -- hundred to $4,000?

A. Yeah, sure.

Q. Somewhere in that range?

A. Yeah.

Q. That's without knowing whether or not the main housing bores were improperly machined?

A. Absolutely, yeah. Like I said, I don't have the block in my hand so I can't tell you one way or another.

Q. Okay. Are those spark plugs melted at all?

A. No, no.

Q. So, and now I want to kind of go back. Your ultimate opinion, bad tuning here, right?

A. Uh-huh.

Q. And I think you testified, essentially, that the tune was so bad that it would have -- it could have ripped the engine apart?

A. Sure.

Q. Where is that damage demonstrated in anything you see, that type of force that you're talking about?

A. A lot of it is in the upper shell of these rod bearings where it shows that the coating, which isn't really, I mean, it's -- you could say it's a sacrificial layer, but the coating has been wiped off at -- right at the top of this arc here. So generally when that happens, that's because of whether it's detonation, over boost, oil-related issues and things like that, um, that tells me right there that power had been transferred, power as in, you know, excessive amounts of boost, pressure, cylinder pressure had been transferred directly into the top shell of this bearing as the crankshaft is going upward.

Q. You mentioned oil-related issues.

A. Yeah, oil contaminations, having --

Q. Insufficient oil clearance or insufficient oil?

A. No. That would -- that would show a swipe completely around on both sides of the bearing. It would not show more aggressively on one side or the other.

Q. But, no, I mean if there are other areas within

the engine where there was insufficient oil clearance causing effects downstream.

A. Well, I assume -- I can't assume. But if you have insufficient main bearing clearance, your main bearings are what feed your connecting rod bearings. If oil goes in through a gallery, it shoots down into the main housings. Main housings pump the oil into the connecting rods. So this is the last thing that's going to get oil. That's just how it works.

What I see here is not an insufficient amount of oil. What I see is detonation or potentially swiping from -- Trying to think of the word. Not contaminated oil, but oil that is not sufficient for the use of the vehicle.

Q. Could that include oil with debris in it?

A. No. I don't see so much oil debris related issues here. I mean, there's some, obviously. We know that the main bearings had failed, so potentially you get oil or debris in there, like you can see little -- they're little, like flakes is what it looks like; whereas this up through here is a swiping motion. That's usually smearing, I guess is probably a better deal where you have metal-to-metal contact and it is causing it to remove material coating and leave a witness mark on the bearing.

Q. But is there any damage to the tops of the

pistons?

A. Um, I really haven't looked in super hard. And this is the really hard thing about ceramic or anodized pistons is the whole purpose of it is to absorb detonation, heat, so on, so forth, so it doesn't degrade the material underneath. So --

Q. What about the cutouts?

A. The cut -- I'm sorry, valve pockets?

Q. Yeah, the valve pockets where it's bare aluminum.

A. What I see is a lot of carbon buildup in the valve pockets, which, coincidentally, also work as a really nice barrier for this kind of stuff. But, no, I mean, I don't see -- I do not see any kind of, like Mr. Pool had said, it looks like needle marks, you know, but this is also in an area where you typically wouldn't get that. It would be on the far leading edge of the piston.

Q. Is that there?

A. It is not. I thought I had seen one yesterday that I was looking at that had some excessive amounts of wear up here on the skirt. Let me see if I can't find that one. I don't remember which one it was. I know I had seen it in a picture, but maybe the picture was just bad. But, no, I don't see any aggressive evidence of prolonged detonation.

Q. But this engine was run in a condition that would have ripped it apart?

A. No. I said I have seen engines broken this way. I'm not saying this engine should have broken apart. I said that I have seen it and I'm surprised that it did not cause that problem.

Q. And anybody who was in the room should have been able to absolutely hear and recognize what this was?

A. I'm sorry. Can you rephrase that?

Q. Would anyone in the room when this was occurring, you know, while this dyno run was happening, this type of, you know, detonation --

A. Oh, okay.

Q. -- if they, you know, knew what detonation was, would they have heard it?

A. Um, at the RPM and the decibel at which most detonation happens at, it is not super easy to hear, especially on a performance vehicle that has louder turbos, louder exhaust, so on, so forth. You're measuring in, you know, 50 decibels, which is basically the sound of -- (demonstrating). It's very hard to hear that over the sound of a race engine or a louder engine. And it happens very fast, in a very short burst over milliseconds. So that's the whole point of a knock sensor to read that is it can pick up on that.

Q. I'm glad you mentioned the knock sensor. You didn't talk about it yesterday, did you?

A. Huh-uh, no.

Q. Why not?

A. I wasn't asked.

Q. Okay. You didn't think it was relevant to review as part of your opinion?

A. No, I did not.

Q. Why not?

A. Because as I don't have the actual calibration in my hand, knock sensors are enabled -- or are designed to be enabled or disabled in the tune depending on the vehicle that you're tuning on. A lot of vehicles that I tune on have very aggressive camshafts or they don't use a very -- a factory, rubber, isolated motor mount, so the knock sensors can pick up on any kind of extra harmonics that are there because of a bigger camshaft or the motor shaking in the frame just a little bit too much, and that can cause a lot of issues with tuning.

With the Haltech systems that I have tuned on, you can enable or disable the knock sensors and it will still show up on the data log based on the table that's given that there is -- that it is seeking for knock.

Seeing as every engine, performance or

otherwise, sees knock, and the fact that in the table on there where it shows the knock threshold is zero, tells me that I don't think the knock sensors were enabled.

Q. You just said the knock threshold was zero?

A. Yes. I might have used the improper term, but there's two different tables that the knock sensors are reading off of. You have one that is read off of a map, that you tell the knock sensor what to look for. And then you have another one that actually shows what it's actually seeing. It isn't a clear line. It's frequency like a -- like a heart monitor.

Q. And you're saying that both those were zero?

A. No. I said one of them that reads off of the table was there. That's the one that has to be enabled or disabled for the knock sensor.

Q. And was that data there?

A. Yeah, that data was there to show that there was a table in the tune.

Q. Okay. So as far as you're aware, the -- I mean, do you have any reason to believe that the knock sensor was not enabled?

A. Mainly because if the knock sensor was there, it would have picked up on a knock that happens no matter what. It would have picked up on any kind of frequency that the engine is seeing. If you data log a knock sensor

on your daily driver, it will have knock. They all do it. Every engine detonates at some point.

Q. What is a knock threshold?

A. I don't know how Haltech defines it, but there is -- in hallway terms or in your factory, your vehicle calibrations, they just define that as the amount of knock that it is actually seeing. Every company use a different bullet point term for it.

MR. MATOUKA: Okay. Well, my computer has decided that it wants to restart, so we'll get back to the knock sensor and the knock threshold in a moment.

Q. So how many Nissans have you tuned?

A. None.

Q. Have you ever worked on this type of engine?

A. No.

Q. Do you know what size turbos this engine had?

A. I do not.

Q. Does that matter?

A. Not to me.

Q. Why not?

A. Because everything still follows the laws of physics and needs to be operated in the same manner. The finite details of how the engine looks and how it's oriented is not a valuable thing to me.

Q. Do the size of the turbos, is there any

relationship between the size and when they start creating boost?

A. To a certain extent, yes, absolutely.

Q. Do smaller turbos create boost sooner on?

A. They can, yes.

Q. Would that be normal?

A. Would that be normal? I mean, that's the whole function of having a smaller turbo is for it to build boost sooner, absolutely.

Q. So you made determinations, because I think in your email you said it was building boost way too soon. You said that without knowing what size turbos were on?

A. Yes, but I also, at 3,000 RPM or whatever it was, to be able to make that much boost, pressure is pressure is pressure. Doesn't matter what size turbo it is. It's still a -- it is still a measurement of resistance, and it doesn't matter what size turbo they are.

Q. How many engines with small turbos have you tuned?

A. Oh plenty, yeah, tons.

Q. Do you often tune V6s?

A. I have tuned V6s. It's not very often, but I have tuned them, yes.

Q. Approximately?

A. Maybe a half dozen.

Q. Over your entire experience?
A. Yeah, yeah.
Q. Okay. Out of -- and you said the other day you tuned like 200 plus?
A. Oh, yeah, absolutely.
Q. And of those, a dozen were on a chassis dyno?
A. Yeah, I do approximately a dozen to two dozen depending on the year or depending on how busy it is that year on the chassis dyno.
Q. Okay. How much of your opinion is reliant on the air/fuel ratio?
A. It's definitely -- it's definitely 85 percent of my opinion.
Q. Okay. Even though you know that one of those sensors was not operating accurately?
A. That just solidified my opinion on it, yes.
Q. How did that -- how did that solidify your opinion?
A. The fact that it was still being used and not disabled.
Q. Well, was it being used as -- I guess, can you explain that a little bit further?
A. Yeah. I mean, we found out after Matt talked about it because we were told that there was a corruption in the calibration, and that Matt talked about how the

long-term and short-term fuel trims were not working and that had to be reenabled.

Q. Did Matt say it was reenabled or that it was fixed so that it would auto populate as opposed to functionality being enabled?

A. That's part of that. If you -- In the Haltech system, if you don't have them auto populate, then they're not working at all. You have them turned off and they're just there to measure like they were on the dyno.

Q. And can you have it auto populate but not adjust the air/fuel mixture?

A. I'm not certain on that, to be honest with you, on the Haltech. I just know with my experience on Haltechs is that either they're on or they're off. But I don't know if they had it set up for that.

Q. So you don't actually know if it was used at any point?

A. No, I don't. I don't have the calibration in front of me.

Q. Okay. So you have no -- you have no reason to base an opinion on that?

A. Um, just based off of what I was told by -- by Mr. Pool and looking at these air/fuel ratio charts on the Dynapack, still backs up my opinion that it was wildly underfueled.

Q. Even though one of those is incorrect?
A. The Dynapack? I didn't know that the Dynapack was plugged into the Haltech. That was something that was argued amongst yesterday.
Q. My apologies. I thought you were talking about the data log.
A. Right. I'm looking at Exhibit 20 there, what the Dynapack shows.
Q. And on Exhibit 20, what were the AFRs?
A. They're off the map in the beginning, so they're beyond 15-0, which is incredibly lean. And then they start to come in at about -- well, they start to come in where they should be at about 3500 RPM, and then it gets rich, and it comes back to where it -- where it realistically should be towards the end of the pull. It should be a pretty smooth line, not this -- (indicating).
Q. I'm going to switch gears for a moment. Do you know what the thickness of a King main bearing STDX is?
A. Um, there's hundreds of different kinds, so, no, I don't know.
Q. How would you find that information?
A. I would get into King's catalog and then look at what their allowable tolerances are, and then I would measure it myself with a ball micrometer.
Q. And is that something you could look at in this

catalog right now?

A. Yeah, I could do it. I did it yesterday on my phone, yes.

Q. Oh. And did you happen to see what the bearing thickness was?

A. They claim for -- I didn't get it for a Standard X. It was just for a Standard. That's all I had time to look at it, so I just looked it up on their website yesterday.

MR. MATOUKA: Your Honor, may I give him my computer so he can look up the Standard X?

THE COURT: That's fine, yeah.

(Off-the-record discussion.)

THE WITNESS: Sorry. It's taking a minute to load.

MR. MATOUKA: No, I apologize to the Jury for that as well.

Q. Is that like 800-plus pages?

A. Yeah. They have a nice, little search feature here once I get to it.

Q. And if it may help you, I'm going to give you what's been marked as Plaintiff's Exhibit 8, which should have the main bearing product or part number on it, I believe.

A. Oh, perfect. Thank you.

Q. Am I correct?
A. Yes.
Q. I know you're still looking, but just for the Jury, are we looking for this right here, the MB 4104 XP STDX?
A. Yes, sir.
Q. Okay.
A. So on their catalog, they do not show the extra clearance bearing on there. They only show the Standard clearance bearing, which would be thicker.
Q. Okay. And are you able to find -- You're not able to find the -- May I see?
A. Yeah, absolutely. Well, actually, let me try this real quick. Sometimes their catalog is kind of goofy.
(Off-the-record discussion.)
Q. Does that appear to be a King catalog?
A. Yes. I have the same one at home.
Q. And could you try and search through that?
A. Yeah, absolutely. Okay.
Q. And do you have a thickness there?
A. Yes, I do. It would be 1.829 millimeters or seventy-two-thousandths of an inch.
Q. I'm going -- we're going to go with inches here, so 0.0 --

A. 0. No. 0.072.

Q. Okay. 072. There we go. Now, how -- and I'm going to show Exhibit 17, which is the other build sheet produced by Defendants, and zoom in a little bit.

So can you explain once again how we get oil clearance from these, these measurements? Let's say we've got these measurements, right?

A. Uh-huh.

Q. And now we've got the bearings. Would that be correct to say it's housing bore minus journal minus two times the bearing thickness because there's two shells?

A. Yeah, absolutely.

Q. And that equals oil clearance?

A. Yep.

Q. So let me see if I've got this correct. So does that appear to be an accurate summary? And I apologize for my chicken scratch.

A. You're fine. Yeah. No, that's exactly right.

Q. Okay. So if we go back here, and I'm going with the main one, right. And it may be a little bit hard to see. And I can give you the physical copy. 2.6245 is the housing bore?

A. Yeah.

Q. 2.4787 is the journal, correct?

A. Yep.

Q. Okay. And then for the thickness of the bearing, you said 0.072?

A. Yep.

Q. Correct? And that's going to give us our oil clearance?

A. Uh-huh.

Q. Let me make sure I got all this on here so you guys can see. Okay. Now, I don't know if you want to do this in your head. I was going to do it on the calculator.

A. No, that's cool.

Q. So let's see, 2.6245 minus 2.4787 equals, right?

A. Yes.

Q. Okay. So I've got .1458, minus 2 times .072, correct?

A. Correct.

Q. Okay. So minus 2 times .072. That's the oil clearance?

A. That would be, if you go -- if you go off of this information, yes.

Q. How far off is that from Exhibit 17?

A. It's half the amount.

Q. Is that something you would expect, you know, given the tolerances?

A. Um, as I said yesterday, that's -- we're going

off of information from a catalog. That clearance, that bearing thickness is the absolute thickest that that bearing can be, according to King. They give a range for everything else, but they don't give a range for the bearing thickness.

Q. In your experience, how much -- how much play do you have there, I guess?

A. I, as I don't measure bearing thickness as my way to measure oil clearance, I can't tell you the range other than the fact that it's a range, I mean.

Q. I mean, it would have to be pretty significant to give you half the oil clearance, correct?

A. Correct, but I have never seen a -- a part of any nature measure exactly the way that it says it's going to measure in a catalog. That's just a catalog. That's not the actual, physical part.

Q. Right, but --

A. It's impossible for them to hit that number .072 with something like that every single time.

Q. But would this be consistent with, you know, the King Bearing report?

A. Um, I didn't take much stock in the King Bearing report.

Q. Why not?

A. Because it's a report of a company trying to

cover their butt, and I've dealt with King for many, many years, and have had similar related issues with them.

Q. Do you have any reason to believe that they cannot -- they could not make the measurements they said they made?

A. Oh, absolutely. If they don't have the physical bearings in a measurable state, then there's no way, or the exact same housing bore, there's no way for them to recreate the problem or whatever.

Q. Wouldn't they be able to measure crush height?

A. No, not without having the actual housing in their possession.

Q. Do you remember being deposed?

A. Yeah.

MR. MATOUKA: If you'll give me a moment, Your Honor.

May I approach, Your Honor?

THE COURT: You may.

Q. Does this appear to be something from your deposition?

A. Um.

Q. I can give you the entire thing if you want.

A. Yeah, I mean, it doesn't have my name on it or anything so I can't assume that it is, but, you know, it's familiar.

Q. I'm just going to give you a complete copy and then -- but you can use that to identify what page we're going for.

A. Sure.

Q. Does that --

A. Yeah, absolutely.

Q. -- appear to be your deposition?

A. Yeah.

Q. Okay. Could you go to page 42, please.

A. We talked for this long?

Q. Surprisingly, yes, and I do apologize for that. As the Jury is well aware, we tend to be a little --

THE WITNESS: Do you mind if I shut the lid on this?

MR. MATOUKA: Of course. Sorry. I forgot I left it up there.

Q. And on line 16, I asked you a question, correct, starting on line 16?

A. Yep.

Q. "Okay. So, I mean, is it your opinion that they have ability to determine crush height based on the condition of the bearings?"

And then you answered?

A. Do you want me to read it to you?

Q. Please.

A. Okay. I said, "No, that's not my opinion. I just have no idea with the data that's given how they would have determined that."

Q. So you don't know what their capabilities are?

A. Absolutely.

Q. So you have no reason to disbelieve that they could measure crush height?

A. Correct, but as I said, I don't know because we haven't been given all that data. So it's just -- it's a moot point either way whether or not they can do it because neither one of us have all the data.

Q. All what data?

A. The bearing manufacturer does not have the block in their hand to be able to measure what the housing bores are. They don't have the crankshaft to be able to measure what the journal size is. And they also -- I mean, that's mainly it right there. So unless they recreate all those things themselves in-house, which would be very expensive, how do they come up with that information.

Q. Isn't there some deformation, like specific deformation related to crush height when bearings are put into a main housing bore?

A. Um, yes. It's usually on the part, there will be rubbing or mushrooming of the -- and when you say insufficient crush height, I assume that they're -- I

don't want to assume. I wish you would tell me. Are they saying that it had too much crush because the bores were too small or did they have too little crush?

Q. And this has not been admitted as an exhibit, but if you'd like to review this, I believe you saw this.

MR. MATOUKA: I'll take my computer.

THE WITNESS: Yeah, absolutely.

(Pause in proceeding.)

A. Okay.

Q. Okay. So you were asking a question, you don't know what they were saying?

A. Uh-huh.

Q. Does that clarify it for you?

A. It's in line with what I remember from there, but I still -- it doesn't -- it doesn't change my opinion based on the fact of how they were able to test for it.

Q. But you don't know --

A. Right, because it doesn't say. It just says their opinion on it.

Q. But that's not your expertise, correct?

A. My expertise is building engines and seeing all different kinds of failures and fixing them.

Q. And King Bearing presumably would be experts in bearings?

A. I would think so, yeah, absolutely.

Q. Okay. I think you talked about Matt Pool and his measurements yesterday, right?

A. Yeah, I think he touched on that.

Q. And in the video that you saw, yeah, he was using one hand, right?

A. Yeah, sure.

Q. Okay. Did you hear him testify that he had measured multiple times prior to making the video using both hands?

A. Sure, yeah, absolutely. I would hope he did, yeah.

Q. So that discussion about how many hands he was using in the video was kind of irrelevant?

A. I don't think it was irrelevant, but it was the video that he used to prove his point, so that's the only true documentation we have to show that he did it. I can say anything I want, but is there proof.

Q. But you were -- you're under oath now and he was under oath then.

A. Sure.

Q. In your experience, is there any way that an engine failure in England can deform the housing bores of an engine in Texas?

A. Um, ooh.

MR. HURLEY: Objection, Your Honor, vague,

and I'm not sure --

MR. MATOUKA: I can lay some more foundation.

THE WITNESS: Yeah, I appreciate that. Thank you.

Q. (BY MR. MATOUKA) Okay. So, but the idea is that, you know, Mr. Johnson's engine was measured in England after the failure. I think you've indicated that that was due to, you know, all these forces from the wildly explosive tune, right? And then Mr. Pool testified that he measured two of his engines back here, both from EPR, one of them was concentric and accurate, and then the other one was not, in line with the measurements of Mr. Johnson's engine, right?

A. Uh-huh.

Q. Are you aware of how an engine failure in England could deform an engine in Texas in the same way?

A. How an engine in England could deform an engine in Texas in the same way. Well, Matt's measuring off of an engine that hasn't ran.

And he's also -- One thing I did want to point out was that yesterday, Matt testified that the good one, the good one, was measuring within tenths of where it was supposed to be while using a bore gauge that reads in half-thousandths, not in tenths. So I don't know how he can come up with this conclusion using a bore gauge that

doesn't read that way.

Q. And what bore gauge was he using?

A. A Fowler digital bore gauge, which pretty much nobody uses a digital bore gauge to measure bearings or housing bores in the engine industry because they don't measure in grades of tenths most of the time.

Q. Okay. But why -- Okay. So let's talk about that. If one of the engines was good and one of them was not, using the same bore gauge --

A. Uh-huh.

Q. -- what does that mean to you?

A. It doesn't mean anything to me because I didn't see him measure it. I didn't see him -- I did not see him measure it, the good one. And I saw a video of him measuring the bad one with a bore gauge that doesn't align with the measurements that he supposedly got from the good one.

Q. So, essentially, you're saying that you're not counting his testimony?

A. I'm not not counting it. I'm sure he measured them, but I wasn't there. I can't tell you how he set up the dial bore gauge or his micrometer to calibrate.

Q. Just like you weren't there in England when the engine was being tuned.

A. No, but I have data logs.

Q. Right.
A. That's something that can't be tampered with.
Q. And, but Mr. Johnson was there and he didn't hear the detonation you're talking about.
A. But he's not a tuner.
Q. But is detonation something that you can hear?
A. Potentially.
Q. Is detonation of the force that you're talking about something that you would be able to hear?
A. Um, I -- Yeah, potentially, I mean it depends on the environment. If we're dyno-ing in a room like this, yeah, you would not be able to hear it because it would be so loud. If it's an open dyno outside, yeah, potentially you could hear it because you're not in a giant room with an echo chamber.
Q. But you also -- you -- you're assuming that the knock sensor was not on?
A. Yeah, I'm assuming that it was not enabled because there was no -- there was -- You can't have an engine like this with absolutely no knock because it will pick up, it will pick up knock on a shift change when you shift the car, so you can't not have knock.
Q. But doesn't it only register in terms of the knock sensor when it exceeds that threshold?
A. Potentially. It depends on how the tune is set

up, and I don't have the calibration to be able to verify that. I just have the data log that shows zero decibels of knock.

Q. So you don't know?

A. No, I don't. That's, yeah, I don't know. I just have the data log and that information to go off of.

Q. And the pistons are reusable?

A. Absolutely.

Q. So no excessive detonation there?

A. I cannot see at this point that there is -- there is detonation on the crown, but in the rod bearings, it shows excessive amounts of -- of metal-to-metal contact with the crankshaft.

Q. And there's no way that could be due to failure of the main bearings and/or oil starvation?

A. It had 96 pounds of oil pressure at the top of the final run, so that's all I can go off was that the engine was supplied adequately with oil based on the data log.

Q. Do you know what the oil pressure in the previous ones was?

A. No, because we did not have those data logs.

Q. And if it was higher than, let's say, a hundred, and that was obviously the number they were going for, would that be cause for concern?

A. If it was higher than a hundred PSI?
Q. Yes.
A. No.
Q. Even if there is a more significant differential between the oil pressure in the last run and, you know, the oil pressure that they had been building in all the other runs?
A. The oil pressure in the final run did continue to build. It had a small dip at upper RPM limit, which is not unusual for a wet sump oil system to do that.
Q. Are there any circumstances where a wet -- where that wet sump oil system would not normally have that type of dip?
A. Um, I think I would be concerned if you were driving it around the road and it had a dip in oil pressure all of a sudden.
Q. But on the tune, on the dyno, is -- are there any systems -- You talked about a wet sump system.
A. Uh-huh.
Q. Are there any other systems that can be used? I think you mentioned scavenging?
A. Dry sump systems, the scavenging effect to bring oil back into the oil pumps faster, yes.
Q. Do you know if this was a wet sump system?
A. No, I do not. And that's why I had said I wasn't

sure what kind of a system it had on it so it wasn't anything to be concerned with either way because of the way that the -- the oil pressure looked.

Q. So is that just speculation as to, you know, you're kind of guessing, you know, "Well, if it had this and it didn't have a scavenging system, then that's not a problem"?

A. Um, I don't know that I said that. I think I had said both ways that it could be seen on both, both style oil lubrication systems. So, yeah, no, I wouldn't be concerned with a dry sump. I was just explaining that with a wet sump system that it's not uncommon to see, you know, a dip in oil pressure, but it's also not uncommon for a dry sump system to see that if you don't have enough oil in the oil supply tank.

Q. And do you have any evidence of that?

A. No.

Q. All right. This is the data log that we've been talking about?

A. Yep.

MR. MATOUKA: Remove some tracks. My apologies, everyone.

Your Honor, honestly, this may be -- if you wish, this may be a good time for a break while I --

THE COURT: Let's go till 10:30, go a little

longer.

MR. MATOUKA: Okay.

THE COURT: Hang on. We're going to continue till 10:30.

THE BAILIFF: Oh, I'm sorry, Your Honor.

THE COURT: That's all right.

THE BAILIFF: I thought you said come back at 10:30.

THE COURT: No, no. We've only been here about an hour.

(Pause in proceeding.)

Q. All right. So this is the knock threshold, correct?

A. Sure. Yep.

Q. And the -- and this is where it -- where the sensor thinks, okay, if the sound is above this threshold, right, it's engine knock?

A. Uh-huh.

Q. Okay.

A. No. I'm sorry. If you -- Yes. So when you look at that, that is showing what the table that you have created inside the calibration is going to be looking for knock at a certain specific point.

The knock level, knock sensor level right above it is what the knock sensor is actually reading.

Q. That's not whether or not there's knock?

A. It's reading decibels still because the engine is still making noise. It will overlap. It should overlap or overlay and still show that there is engine noise, it is picking up noise. That is how you tune, so that you can see that, okay, it might not be hitting the threshold yet but I still should figure out how to keep that down a little bit. Because knock isn't going to be in the same place at the same time every time that you drive the car. If it's really hot and humid out, you might have different kinds of knock. You might have knock in sixth gear that you won't have in second gear at 2,000 RPM. So you have to be able to overlay those tables and see both.

Q. You wouldn't want to just be able to go, oh, it's knocking at this RPM at this time?

A. No, because generally when it gets to that point, you could potentially have an issue. So you want to be able to see what the knock sensor is seeing at any given time.

Q. Aren't there other sensors just to determine the decibels coming off of the engine?

A. That's the knock sensor. It picks up noise. It's looking for engine noise, harmonics and things of that nature.

Q. How familiar are you with Haltech?

A. I've tuned quite a few vehicles on it.
Q. Recently?
A. Yeah, actually, a Mazda RX7, yes.
Q. Okay. And, but you don't know how this was set up?
A. I don't. I don't have the actual calibration. That was something that I was curious about, and we were not able to have that, so...
Q. Did you ask for it?
A. Not like in a legal sense. I was just like, "I'd be curious to see what the actual table looks like." So I had downloaded a table for a Nissan because they have tons of different ones that you can download online, and that table followed with what that -- what the knock threshold was saying. That is a premade table that goes into the tune.
Q. Okay. But you have no reason to believe, other than what you're saying here contrary to the testimony of Mr. Johnson, the knock sensor was installed and on?
A. It could have been installed and it could have been armed, but that doesn't mean it was actually working. And by the fact that I see zero decibel when an engine creates noise at any given time, it should still see some form of knock. And the fact that it was so lean, regardless if we -- if we don't look at the one sensor

that's way out to lunch, we look at the sensor that is semi-reasonable, it -- I have never in my entire life seen an engine not knock from that kind of event from being that lean while making positive manifold pressure.

Q. And which O2 sensor were you talking about?

A. Oh, I'm talking about -- So I think you have No. 1 --

Q. Uh-huh.

A. -- lit up right now. So if No. 1 is the one that -- or Bank No. 1. Sorry. If that one is supposedly not correct, you know, then we should disregard that, but the one below it still shows aggressively lean conditions, especially where the knock sensor is flatlined where it wouldn't expect to see any kind of knock. So that threshold of knock right there is quite low. It's searching for --

And this thing keeps flashing.

-- 30 decibels of noise, which is pretty quiet. So if you hammer down right there while it was super lean, it definitely should have picked up something.

Q. Wasn't this the time where the RPMs were being held steady by the eddy current brake?

A. Sure, yeah.

Q. So this was what, about 2000 RPMs?

A. Yeah, yeah. It will hold steady. And if we're

talking about a way that it would be dynoed, the way that I would have dynoed it, the way that most people dyno it would have been in a one-to-one gear ratio, which means on these cars, I understand, is fourth gear, and low RPM, trying to push through a lot of torque through that transmission, holding it to the floor while it's lean, and building positive manifold pressure, it would knock. I can go out in the parking lot and pick any car, put it in a tall gear and put it to the floor and have it not go anywhere and you will listen to that thing knock.

Q. And, but you don't know what gear this was in?

A. Nope, I don't. I just know proper tuning methods, and if it was done properly, then it would have been in fourth gear, one-to-one ratio. Or whatever gear was the one-to-one ratio, I should say.

Q. And so we did the -- Do you know what the factory clearance for a stock Nissan 300ZX is?

A. I don't. I remember Mr. Pool explaining that yesterday, but I don't recall what the tolerance was.

Q. Would .0018 seem about right?

A. I mean, for a stock vehicle, it wouldn't be out of the world, yeah, absolutely.

Q. So if Mr. Johnson was driving it as a daily driver or it was run on a dyno at 5500 RPMs, you know, 250 horsepower, a .0018 clearance wouldn't be a problem

necessarily?

A. Not necessarily, no.

Q. And then, but maybe if you brought that up to high performance --

A. Uh-huh.

Q. Could that cause a problem?

A. Potentially, yes, yeah.

Q. What problem would that cause?

A. I mean, it would just be an issue of having a sufficient oil wedge between the bearings and the crankshaft, absolutely.

Q. Could that cause main bearing failure?

A. Um, yeah, absolutely. And if we're speaking in hypotheticals, yes. I mean, the problem is that lots of vehicles run tolerances that tight. And there's lots of people out there making thousands of horsepower on tolerances that are that tight. It's just a, you know, it's just a gamble, I guess.

Q. Right. It's a gamble because it can cause engine failure?

A. Yeah, absolutely.

Q. And so you talked about the damage to these pistons, right?

A. Yeah.

Q. Could that be -- could some of that be the result

of debris?

A. There was one in particular that looked like it might have had a slight amount of --

Q. Perhaps No. 4?

A. This one here, for one, it definitely looks like something smeared more than it being an actual impact because that's what gives these little -- these witness marks is more of an impact against the wall, versus this looks more like something smeared, bearing material or something, yes.

Q. And so, you know, you talked about the damage on the side of the bearing, I think, beyond just -- because you're indicating a smear, but then I think you also talked about on the bearings or on the piston skirt there's also some other type of damage, some discoloration?

A. Yeah, we call them witness marks to show that there's something, whether it be rubbing or whatever, you know, yeah.

Q. And could that be the result of insufficient oil clearance or insufficient oil?

A. No. Well, okay. Yes, it could be on a stock application, absolutely. But with where it's hitting is not indicative of it being tight. This is actually -- this part here on the skirt is wider than what it is up

here. That's just how pistons are made. So if it was insufficient oil clearance or insufficient oil on the skirts, you would have much more pronounced wear here where the piston will actually rock as it goes through its motions.

Where it's hitting though up here is a side loading effect related to, you know, extreme forces inside the engine.

Q. I think you talked yesterday also about -- I mean, you had been talking about, well, insufficient or lean and rich, you know.

A. Uh-huh, sure.

Q. Did you look at the oil analysis?

A. I did not.

Q. Not during your deposition?

A. I don't recall, I should say. I thought you were asking yesterday. No, I do not recall if I did during the deposition.

MR. MATOUKA: May I approach, Your Honor?

THE COURT: You may.

Q. Hand you what's been premarked as Plaintiff's Exhibit No. 9. Have you seen that before?

A. Um, I -- I don't recall, but, yeah, I'm sure I did during our deposition. Actually, yes, I do remember that during the deposition now.

Q. And what does that show you?

A. Um, it's just your generic oil analysis looking for, you know, it separates the oil to see your additive package and all that kind of stuff and to see whether or not the oil was contaminated with debris or fuel or whatever else, yeah.

Q. Was the -- was the oil contaminated with fuel?

A. It does say "negative" on this.

Q. Does it appear that the oil was contaminated with any pieces of the pistons?

A. Um, I -- it shows that it has "in check" amounts of aluminum in it, but no, it doesn't show excessive amounts.

Q. Okay. Does it appear -- I mean, based on your experience, what does this tell you?

A. What I see is that it has excessive amounts of copper and lead, yeah, copper and lead.

Q. And what does that mean to you?

A. That indicates bearing failure, absolutely.

Q. Okay. And that bearing failure could be the result of insufficient oil clearance?

A. Um, I don't know about clearance. It just shows bearing failure. I'm not going to --

Q. Right. But a bearing failure can be the result of insufficient --

A. Oh, sure, absolutely. Yep.

Q. And the oil clearance that we calculated was not what was on the build sheet, correct?

A. But it also was not the measured bearings that were in the engine either, so it -- I don't see the point.

Q. Right. I mean, King could have been significantly off, right?

A. They could have been off by a half-a-thousandths, and that would have given you wildly sufficient bearing clearance.

It also only shows -- So here's the other thing that I dislike about this catalog situation is: An extra clearance bearing is one-thou thinner, so half-thou per shell thinner than a Standard clearance bearing.

They show in their catalog that their Standard, their Standard X, and their whatever other bearings are all 7 -- or .072 thick. That's not possible. Because you have to account, you have to add bearing clearance or subtract for bearing clearance with an undersized bearing.

What shows was in this engine was an extra clearance bearing. So their catalog shows that all the bearings are the same thickness. You can't have extra clearance if they're all the same thickness.

Q. But you indicated that that catalog is something

that you would rely on to --

A. To find parts.

Q. -- a starter point.

A. Mainly, the main reason why we use these catalogs is -- or why I use these catalogs is to know what the manufacturer's allowable tolerances for your main bore housing and your journal sizes and things like that.

Q. Did Mr. Wilson ever provide you with the measurements of the bearings?

A. No.

Q. Have you seen those anywhere?

A. Just a picture. Or, I'm sorry. I have not seen those measurements on the bearings, no.

Q. Do you know if they were ever made?

A. I don't.

Q. Would that be a problem?

A. No.

Q. Why not?

A. Because the only way to get -- The proper way to get main bearing clearance is with a bore gauge measuring a bearing that is in the housing against the journal size of the crankshaft. That is the only proper way to do it, for final sizes, I should say.

THE COURT: Counsel, let me interrupt. It is 10:30. Let's take a break, 15 minutes. We'll resume at

10:45. Have a good break. See you in 15 minutes.

(Recess taken.)

THE COURT: Are they all back?

THE BAILIFF: Yes, sir.

THE COURT: Bring them in, Deputy.

(Jury present.)

THE COURT: Thank you, Counsel. You can be seated.

Go ahead.

Q. (BY MR. MATOUKA) Mr. Bradley, I actually -- I've been looking at this table, and I wanted to come back to it and ask you some questions. This is the bearings that you were talking about having the same thickness, correct?

A. Sure.

Q. Does it appear that -- because I was looking at it, and it seems like those different versions have different sizes and then there are different bearings that have different thicknesses.

A. Um...

Q. If you scroll to the top of the page, it gives you a legend.

A. Yeah, absolutely.

THE WITNESS: Just a second. Whoops, I messed that all up. Sorry. Okay. Yeah, okay.

Q. So then, I mean, I guess, does that kind of

answer your question why all of that single, you know, MB4104, I think it is, has the same thickness --

A. Uh-huh.

Q. -- because they're different sizes?

A. No. It's -- I still hold the same opinion on it because all it is showing is the Standard size bearing. It's not showing the thickness of -- If you look down there, you have Standard X, you have .025 millimeter, smaller size and everything else. It doesn't show those thicknesses. And what was used was an extra clearance bearing, according to the build sheet.

Q. But the Standard X is listed there, correct?

A. It is listed but it is not listed as the one that is actually being measured.

Q. Does it have different dimensions than the Standard?

A. Yes. It would have different thicknesses.

Q. Does it have any other different dimensions based on what you've got there?

A. No.

MR. MATOUKA: May I approach?

THE COURT: You may.

THE WITNESS: I guess I should have asked in regards to which?

MR. MATOUKA: I believe there are, I think --

THE WITNESS: Oh, I see what you're saying. Those. Okay.

A. Yes. Yes, it has dimensions based for the housing bore and the -- the crankshaft journal size.

Q. So it's designed -- So those ones are designed for different housing bores and journal sizes, correct?

A. "Those ones". Sorry. Can you clarify?

Q. I guess the different versions are for different applications, right?

A. They're for different needs of the bearing to attain certain oil clearances.

Q. You have no reason to -- Do you have any reason to doubt the numbers there?

A. No, I totally believe that the Standard clearance bearing could potentially be that thick, absolutely. But what I'm saying is that an extra clearance, for it to have extra clearance, it would have to be a thinner bearing, so that size cannot possibly be used in this context because he used an extra clearance bearing. We don't have that measurement.

Q. What is the normal -- Do you -- You work with King bearings, right?

A. Yeah.

Q. Do you know what the kind of steps between Standard and Standard X are?

A. Yes.
Q. And approximately what is that?
A. It's roughly one-thousandths thinner, so it adds one-thousandths more clearance to your -- to your bearings, so half-thou per shell, generally.
Q. That would still not bring us to the number in the build sheet, correct?
A. Um, yeah, correct, as long as it actually measured that, but that number is also the absolute thickest that the bearing is allowed to be. It does not give a provision for the absolute thinnest that the bearing is allowed to be either.
Q. But in your experience, are these -- are the tolerances of these bearings, you know, how they're manufactured, are we talking tens of thousands or less?
A. According to King, I think they would claim less, absolutely.
Q. And is that your general experience?
A. No. My general experience is that -- that you jumble bearings around because you're not getting what they advertise they're supposed to be. And that's just, you know, that's just the way that it is with anything. Can I give an example of something that I just experienced last week while I was --
Q. I'm sure --

A. -- building an engine?
Q. I'm sure Mr. Hurley will allow that. You also -- And you can close that, if you wish.
You also testified that the damage on the side of the piston skirt, other than, you know, the smearing, I think you called it --
A. Uh-huh.
Q. -- could not be the result of insufficient oil, correct?
A. Correct, yes.
Q. Can you go to page 34 of your deposition. Then if you could kind of just -- I'll -- I'll put to you that I'm asking you about pictures of the pistons, but if you'd like to read that page to confirm.
A. Page 34?
Q. Yeah. And I mark an exhibit at line 15.
A. Okay. You want me to start reading from there? I'm sorry.
Q. And you don't have to do it out loud.
A. Okay.
Q. Have I shown you a picture of the piston?
A. Yeah. Okay. Okay.
Q. So, yes, I showed you a picture of the piston?
A. Yes. Yes. I apologize. Sorry I wasn't clear.
Q. And then can you go to page 35 and line 2. I

asked you, "And the circular wear, is that -- could that also be a result of oil starvation?"

Your answer?

A. I said, "It could be."

Q. Are you active in any forums, any builders forums online or anything?

A. No, no, I'm not.

Q. Do you know anything about Mitchell Wilson's reputation? Other than your own experience.

A. Yeah, I mean, I know him based on, you know, Instagram, things like that, and seen the work that he does and, but, yeah, that's about it, yeah.

Q. Do you know if he's had any issues with customers in the past?

A. I don't know that, no. I can say that if you're in this industry long enough, you're always going to have issues with the customers, whether it's warranted or not, so...

Q. So at the end of the day, you still think that this explosive detonation that could have ripped the engine apart is the cause of the failure?

A. I think that improper tune-up is a cause of it, yes. I don't think that detonation is exactly the only thing that caused any problems, but I definitely -- looking at the rings and everything else, it does not look

like it was tuned properly, absolutely.

Q. Is there anything else that can cause that ring, I think you said, relaxing?

A. Heat.

Q. What about the size of the -- what is it, the bore?

A. No, no.

Q. Even if it was too large?

A. If it was too large, then you would have a lot of different kind of wear and stuff like that, but that doesn't dictate how the rings wear. You would just have excess amounts of cylinder pressure escaping between them.

Q. Do you know when those -- how long those rings had been in the engine?

A. I don't, no, no.

Q. Is that -- is it possible that that was normal wear after a period of time?

A. Not after judging by what we've heard with the first time it came to the U.K. versus the two dynos and stuff like that, that's not normal wear for that short amount of time.

Q. For what short amount of time?

A. For whatever short amount of time this engine has been ran. This is something that you would expect to see after a season of hard running.

Q. You mentioned EGT yesterday, the exhaust gas threshold?
A. Temperatures, yes.
Q. Temperatures. Was there any measurement of that?
A. I'm not sure if there was on this car or not.
Q. But you didn't review any of that to come to that conclusion?
A. No, but it's a natural cause and effect of how -- of how turbochargers and tuning work.
Q. Even if done properly?
A. If done properly, then EGTs are your friend, but if done improperly, they are detrimental to the livelihood of the engine, absolutely.
Q. But you have no evidence of that?
A. No. It was just a cause and effect.
Q. Okay. And the -- the billet-ness that was extra strong, right, compared to normal?
A. I'm sorry, the what?
Q. And I'm trying to get my terms right, the billet for the main housing bores.
A. Oh, sure.
Q. Special thing built by EPR to be extra strong.
A. Sure, sure, yeah.
Q. Right. For that to be deformed, would it take like more force than normal for a normal billet?

A. Yeah, for a normal main cap, yeah, absolutely.
Q. And in terms of, let's say, detonation is the cause, like what else do we have in between that and the billet?
A. You have pistons, pins, connecting rods, connecting rod bearings, crankshaft, yeah.
Q. And to damage this, you know, super hard main billet, a lot of force would need to be transferred through all of that, right?
A. Sure.
Q. To deform it?
A. Yeah, absolutely.
Q. And do you see that evidence on those pistons?
A. I don't see that evidence on the pistons, but where I see it is on the connecting rod bearings.
Q. And that's because there's a little bit of smear?
A. It's not a little bit of smear; it's only hurt at the 12:00 location on some of these, and some of them there is where there's been clearly bearing material that is ran through it after, I'm assuming, the main bearing failure. But there are some of these that just have wear at exactly the 12:00 location where it would wear or where it would leave a witness mark because of detonation.
Q. And there's nothing else that can cause that witness mark?

A. Not at that exact location. It's very, very rare for it to have that -- that type of wear just on the upper shell.

Q. But it can happen?

A. Not in my experience.

MR. MATOUKA: Okay. Nothing further, Your Honor.

THE COURT: Thank you.

Redirect?

MR. HURLEY: Very briefly, Your Honor.

I don't need the screen so I'm going to stand here.

REDIRECT EXAMINATION

BY MR. HURLEY:

Q. Dylan, you talked about, with Mr. Matouka, the measurements done by Matt Pool, and the video that we watched and the equipment he used. And to be clear, what was wrong with the way Matt Pool did that measurement on the video we saw?

A. For me, it was more the twisting of the dial bore gauge in the housing; it will cause you to have a tight reading no matter which way. So if he had zeroed it out where he thought it was tight and rolled it the other way, it would have shown tight.

And I also didn't really think it was

appropriate the way that the tool was oriented. Typically, what you want to have is the probe and the anvil facing -- the anvil facing up and the probe facing down and holding it with two hands. You just -- you can't get an accurate reading when it's hanging off the side or just being twisted around and things like that, and then, yeah.

Q. So that was really my next question. If you don't use the tool correctly, can it lead to false readings?

A. Oh, absolutely, yeah.

Q. What kind of false readings could it lead to?

A. Primarily, when you twist it, it reads tight. It will read tight in clearance, but, yeah, that's about it.

Q. Mr. Pool testified that he could teach any one of us to use that tool in 30 seconds. Do you agree with that?

A. He could definitely teach you or tell you how to use it in 30 seconds, absolutely, but there's a level of finesse that you learn over time of measuring hundreds of thousands of different bearings and bores and stuff like that, you know, and how to properly use the dial caliper -- or, I'm sorry, the micrometer to be able to achieve a zero reading.

Q. You also talked with Mr. Matouka about the idea

of kind of the mathematical formula that you went through. Is that the right way to determine oil clearance?

A. No. Measuring it in its physical form is the only way. It's gospel. Doing it mathematically only gets you a baseline, like anything else. You have to actually physically do it to get the clearances that you want.

Q. And we talked -- you talked a lot about the actual measurement of the bearing, the King bearings and going off this catalog that y'all were looking at.

A. Um-hum.

Q. In your experience, how much variance have you seen in those King bearings?

A. A lot. That's one of the things -- I use King bearings for the V10 stuff because it's the only bearings that I can get for them. They're the only manufacturer for them. But I have to be very careful with how I use them because of the variations that I've experienced. I can have a perfect housing bore and a perfect crankshaft round and still get a fluctuation between one and one-and-a-half-thousandths' worth of clearance. And so that's why we juggle bearings. You have an extra clearance and a standard clearance to tighten it up, or you have extra-extra, you know what I mean, just to be able to get the clearances that you want throughout the

whole engine.

Q. One-thousandths seems very small. Why is that one-thousandths, why is it material?

A. It's the -- it's, you know, it's half of a normal human hair, but it's the difference between being too tight or too loose.

Q. And you mentioned earlier you had a recent experience with this. What was that?

A. Oh, yeah. So I'm rebuilding these engines, and these are stock. These are not high performance. These are stock marine engines.

We set the housing bore to the absolute median, which is the middle of the allowable bore size for the crankshaft. We measured. We cut it to that size. The crankshaft was actually on the upper limit, so it was a little bit thicker than what they normally are, so I had expected to have to put two different size bearings in there to achieve my clearance. I put a Standard in there first, just to be able to get a baseline, and I had over five-thousandths' worth of clearance. And typically you want to have two-and-a-half to three on something like this. So we had to go back through and redo the bore to be able to get it to come to size. It's a real pain in the butt.

Q. And now that you had a chance to review some of

the physical pieces of the engine, you've heard the testimony you heard, has there been anything else about any of that that materially altered your final conclusion that this was a tuning problem that had nothing to do with oil clearances?

A. I'm sorry. Can you just repeat that one more time? I'm sorry.

Q. You got to physically inspect. You heard the testimony of Matt Pool.

A. Yep, yep.

Q. Anything about that change your ultimate conclusion that this was a tuning problem and not an oil clearance problem?

A. Just the information that I had been given or that had been revealed that it was a long-term and short-term fuel trim related issue that was the corrupted file that we had heard about early on and that those were put back in to the ECU.

Q. And what did that -- Did that confirm your opinion or did it change it?

A. It -- it more solidified it, but it kind of put me on two sides of the spectrum as the problem with the tune, yeah.

MR. HURLEY: Thank you, Your Honor. Nothing further.

RECROSS-EXAMINATION

BY MR. MATOUKA:

Q. Did Mr. Johnson ever say that the long-term, short-term functionality was activated?

A. No, he just said it was a corrupted file.

Q. Okay. Were both the top and bottom shells bearings the Standard X in this engine?

A. Um, with the information that I've been given, it just says main bearings is a Standard X. That's all I know. I don't know if the lower had a standard and the one had an X. I don't know.

Q. Could you review the King report?

A. Um, yeah. I buried it in here somewhere on accident. Oh, there it is.

Yeah. It says a Standard X.

Q. Okay. So do you think if -- and I'm referring to Defendant's Exhibit 17 at this point, which is the -- the updated build sheet provided by Defendants. So we did the math for the first one.

A. Yeah.

Q. And you said, okay, maybe some variances can come into play. What do you think happens if we do the math for the rest of them?

A. For the rest of these? Well, the only variation looks like is the journal for No. 2 is smaller so it would

have more clearance on No. 2 main than the rest of them. Oh, is that a "4" or a "7" for No. 4?

Q. No. 4? Oh, boy.

A. I think if it's a "4", then it's even smaller yet and it will be even looser than what it was for the first one. The first one that we measured is actually the thickest, so that would have the least amount of clearance.

Q. And, but do you think if we did the math using that .072 number that we'd get something in the area of .0018 to .0020 as the clearance?

A. Yeah, if you do the long math, absolutely, off of what the --

Q. For all of these?

A. Yeah, I mean, it would, the -- like I said, the tightest one would be .0018, and these ones are, you know, two-tenths smaller, that one's three-tenths smaller, so you'd get between .0018 and .0021.

Q. So that would mean that every single -- for this to be some issue with the bearing, you know, discrepancy, every single one of those bearings would have to be, you know, would have to deviate from that .072 in the same exact way, correct?

A. Um.

Q. Well, to --

A. If you do it just off of hard, long math, yes. But not off of actual measurements with tools. Yes, you are correct.

Q. Is that the type of variation that you see there are all wrong in the same exact way?

A. "All wrong in the same exact way." You're talking about the clearances that we get math-wise versus --

Q. Yes.

A. -- what we have here?

Q. Yes.

A. Yeah, I mean, they're -- I don't know what you mean by "all wrong in the same way." Sorry.

Q. That may be a bad question on my part. But you've talked about variation in, essentially, manufacturing, like they're not going to spit out every single one the same, right?

A. Yeah.

Q. But to get these numbers, they would also -- they would all have to have deviations from their normal in the same exact direction in approximately the same amount, correct?

A. Um...

Q. Roughly.

A. Sure, I guess. I mean, it's just -- it's a

really loaded, loaded question, I feel like, because like we've talked about, we're talking about things in tenths, ten-thousandths of an inch, you know. I mean, it's a very, very, very small amount, you know.

Q. And these are built for that though, correct?

A. Well, absolutely. And if we're -- since we're talking hypotheticals, we're talking about a bearing that we haven't actually measured, based off of a catalog, and if we use it for an actual standard or extra clearance bearing, you would have more than adequate enough oil clearance than what we're calculating longhand right now because it would be one-thousandths bigger than --

Q. That's not what the catalog says though.

A. No, but we're also not measuring -- given the measurement of the actual bearings that were used.

Q. Was there a measurement next to this type of bearing in the catalog?

A. Not to a Standard X. It was just a Standard.

Q. Well, there was multiple measurements, correct?

A. There was, but there was only for the upper and the lower shells and the thrust washer or thrust bearing. So there's three different types of bearings that are in this main housing. And it has a measurement for all three of those bearings at a Standard size, not at a Standard X, one under 2500, so on, so forth.

Q. And, but you have -- These measurements are not recorded anywhere for you?

A. No. That's why it's just all hypothetical to me. I can't give you, other than what we have as a baseline from King's catalog.

Q. And, you know, once again, Mr. Hurley brought up the video. But that wasn't the only time that Mr. Pool had measured, right?

A. As he testified.

Q. Yeah. And these issues you were talking about, you know, turning it one way, turning it the other, you know, if he measured the same way on both of those engines, would you expect the same problem of it being too tight when he turned it?

A. Oh, absolutely. But we don't have the video of him measuring both those engines. We have him measuring one engine.

Q. Is video the only evidence that's relevant here?

A. I would think so. I mean, it's the only thing we can see him actually doing.

Q. What's your testimony?

A. It's my testimony. Testimony is based on data logs and what I can see in front of me.

Q. Okay. And things you've seen and done, your experience?

A. Oh, absolutely, yeah.

Q. You just talked about your experience with another engine.

A. Uh-huh.

Q. So is that relevant?

A. No. No. It was just more or less to give an example of something that shows that there is variance in what they claim -- a manufacturer can claim as is a, you know, their product or whatever, you know. Just an example.

Q. But you, and I -- presumably, everyone takes their oath seriously, correct?

A. Uh-huh, absolutely.

Q. And so you have no reason to doubt that he actually made those measurements?

A. I don't. I don't. I absolutely am not accusing him of perjury or whatever you want to call it. I'm just saying that I don't have 12 different videos in front of me to show that he measured them all the same way.

MR. MATOUKA: Nothing further, Your Honor.

MR. HURLEY: Nothing further, Your Honor.

THE COURT: All right. Thank you, sir. You can step down.

MR. HURLEY: Your Honor.

THE COURT: Yes.

MR. HURLEY: May Mr. Bradley be released? He needs to catch a flight.

THE COURT: Absolutely. Any objection to that?

MR. MATOUKA: No, Your Honor.

THE COURT: Take care.

MR. HURLEY: Thank you, Your Honor.

THE COURT: Next witness.

MR. HURLEY: Your Honor, the Defendants call Mitchell Wilson.

THE COURT: Good morning. If you'll raise your right hand.

(Witness sworn.)

THE COURT: Have a seat for me, please, sir. Once you get settled in, I'm going to ask you to pull that microphone in.

THE WITNESS: This is pushed forward.

THE COURT: Huh?

THE WITNESS: I said this is pushed forward. All right. I'll make do.

THE COURT: Pull up as close to that microphone as you can.

THE WITNESS: Okay.

THE COURT: And state your full name. Spell both your first and last name for me.

THE WITNESS: Mitchell Wilson.
M-I-T-C-H-E-L-L, W-I-L-S-O-N.
THE COURT: Thank you.
Go ahead, Counsel.

MITCHELL WILSON,

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. HURLEY:

Q. Good morning, Mitchell.
A. Good morning.
Q. I want to go through a little background with you before we get to the hot topic here.
A. Sure.
Q. How old a man are you?
A. How old am I?
Q. Yes.
A. 43.
Q. And are you married?
A. Yes.
Q. Where do you live?
A. Burleson, Texas.
Q. You run a business called Engineered -- is it Engineered or Engineering Performance Racing?
A. Engineered Performance.
Q. How long have you run that business?

A. That business has been in the State of Texas, started in 2008.

Q. And, generally, what is the business of -- Can I call it EPR?

A. Sure, sure.

Q. What is the business of EPR?

A. We are a race engine machine shop that specializes in bespoke engines for a lot of higher-end platforms. We do everything from injector servicing to vapor honing clean, full machining in-house to crankshaft balancing to full engine assembly.

Q. And before you started EPR, where did you work?

A. Going back just from when I moved here the State of Texas or --

Q. Yes.

A. Okay. So I moved here in 2006. Shortly after moving here, I was hired for a position at RayMac Racing in Fort Worth.

Q. What does RayMac Racing do?

A. RayMac Racing builds high performance engines for drag and dirt track racing.

Q. Presumably, you learned some of it at RayMac, but otherwise, how did you learn how to do all this?

A. It first started me actually buying a Nissan 300ZX when I lived in New Jersey. And I learned to work

on the car. We weren't really getting involved too much in the engine build side of things till I got a little older, but primarily the bulk of what I was doing was -- My interest in it happened before I actually got into working at RayMac. I actually spent approximately nine, ten months working at Lincoln Tech trying to get just any type of more enthusiasm, more information, getting more hands on, everything I was trying to do because I wanted to work in that sector of engines and so forth.

Q. At EPR --

A. Yes.

Q. -- how many people work there?

A. At what time?

Q. Right now.

A. Right now, there are, technically, three people.

Q. Back when these events that we've been talking about from roughly '19 to '22 --

A. Yes, sir.

Q. -- how many people were there?

A. Two.

Q. Who were they?

A. Myself and my business partner.

Q. Who is your business partner?

A. William Head.

Q. That good looking gentleman sitting over there?

A. Sure is.

Q. What -- I understand that generally it's about, you know, building performance engines. Can you walk me through a typical process of when someone comes to you and says, "Mitchell, I want you to do work on my engine," what is that process?

A. Well, first, when you classify what are they bringing, are they bringing the entire engine or parts for us to work on, are we supplying those parts, tell me --

Q. So if they just bring you a box of parts and say, "I want a new -- I want a new high performance engine."

A. They want us to build basically what they've got?

Q. Right.

A. If they're bringing us parts, we'll inspect them to make sure that there's no cracks. So we'll do maybe a mag particle inspection or a zygo inspection for aluminum parts. We'll go through the process of vat cleaning to get all the soil and debris off those parts. We begin to transfer that to a sonic cleaner. And what that will do is get a lot of the impurities, dirt, oil, and debris out of the pore of the material so we can actually check to make sure we don't have any cracks or deficiencies at this point.

Q. So going back to those kind of categories you just mentioned, what if somebody comes to you and says,

"I'm going to give you some parts, I want you to supply others," what do you do then?

A. We'll still take those parts that are given to us, we'll go through an inspection process as best as we can. The parts that we would end up supplying if he was needing to purchase those, those parts still go through the same process, depending on what type of block or crank or cylinder head, et cetera, that would go through.

Q. Do you buy those parts or do you make those parts or is it some of both?

A. The parts that we would supply?

Q. Yes.

A. Depends. If it's a brand new part, something we would have to purchase or supply to the customer for that, if it was something we had in stock --

(Clarification by Court Reporter.)

THE WITNESS: I do speak fast. I'm sorry.

A. If it is something that we -- that they're purchasing from us as a core, whether it be a block or a crankshaft or could be a set of rods that we've got in stock that might work with the application, then we'll supply that to them, but we also check those things prior to going into a serviceable item.

Q. In the past, did you specialize in any type of car engine?

A. In the past?
Q. In the last several years, did you tend to work on one kind of engine more than others?
A. No, no.
Q. This is a Nissan 300 car, correct?
A. Correct.
Q. Do you have experience with Nissan 300 engines?
A. Yes, I do.
Q. How did you come about getting into that area of motorsport?
A. When I lived in New Jersey, I got lucky and had a stepfather that was -- he liked cars a lot. He had had a '66 Nova. And I explained to him, I said, "I really like this car. I want to buy it." He actually went and looked at it and took a test drive and pretty -- surprised me, because my father then stuck it in a neutral position and then basically dropped the hammer and did a burnout in front of me. And I was like, whoa, this side of my dad I've never seen before. Cool. And he liked the car, and he bought it for me. And at that point, it started snowballing into really enjoying the vehicle, liking the engine, and so it progressed my...
Q. How many Nissan Z car engines would you say you have worked on?
A. Since when, 2008 when we started --

Q. Since you started EPR.
A. -- EPR. 50, 60 or more.
Q. Is there anything unique about the Nissan Z engine as opposed to other engines we might know about?
A. Not particularly, other than the fact that it's -- it's manufactured in Japan versus other ones might be manufactured in Germany, but it's still a piston driven engine, so it has pistons, rods, crank. It still has camshafts, valves, valve springs, et cetera.
Q. Other than the Nissan cars, what kind of car engines have you worked on?
A. Anywhere from Ferrari 458 V12s to an old Ferrari 330 from 1964 to we have an application in our shop right now that's from 1936. It's a Packard V12.
Q. So let's talk about your shop for a minute.
A. Sure.
Q. Where is it located?
A. It -- right now it's located in Alvarado.
Q. And what street is it on?
A. 917.
Q. FM 917?
A. Yes, sir.
Q. We use the term "shop" kind of loosely. Can you describe what your shop looks like?
A. Oh, it's kind of deceptive on the outside. So

we're actually part of a three-block system, so the shop that we have is in there. The first company that owns the building, the whole lot that we're in right now, they have one section set up for a paint booth because they do auto body work. The next section, what would be Suite B in that instance, is an auto mechanic shop. He does installs, maintenance, et cetera. And I'm on the very end, and my shop right now is 3,000 square feet.

Q. What kind of machinery do you have in the shop?

A. We have everything from boring machines, seat and guide machines, cylinder honing machines, crankshaft balancers. We have three lathes. We have a mill. We have two rod hones, two valve grinders, two block and head surfacers, an ultrasonic cleaner, a flywheel grinder, tool and dye grinder. We have a vapor hone. We have a rotoblast machine. We have sandblast equipment. We have a lot of equipment in our facility.

Q. And do you consider yourself a machinist?

A. I do.

Q. What -- Define what that means.

A. We are able to take a piece of material or critical item that exists to work in a particular criteria or dimension, and we're able to modify it to work in whatever dimension it needs to be put in so that it works as intended.

Q. When you say "modify it", like how do you modify it?

A. So if we're to say we need to -- For instance, this rod bolt, and sometimes they're not exactly to length, and we might need to change the length of this bolt. We would be able to take this and put it in a fixture that we have in our lathe, and I can physically machine that part within a tenth of an inch, barely make a cut on it to get it to work specifically in a very tight tolerance condition.

Q. So it is truly physical alteration of parts?

A. That is correct.

Q. We've heard a lot about honing and boring in this case. Define for us what "hone" or "bore" is.

A. As far as a machine process or as far as what it's considered?

Q. The machine process, and then we'll talk about what it's considered.

A. Sure. So boring a block or cylinder head, so on and so forth, is the function of actually cutting away material so that you can get close to a finite size that you're looking for. So if we're trying to bore something out that it has to go to a 3-inch size, we are able to bore that hole with specific tooling to get to that size.

Q. And so if when we refer to a boring, or the cylinder bore that we've been talking about, what is that? What portion of the engine is that?

A. The cylinder bore?

Q. Yes.

A. That is the cylinders where the piston and rods will actually be housed in.

Q. Okay. Is it -- Trying to draw a mental picture here. Does it kind of go through the very center of the engine, and is it the -- kind of the hole that you see in the front that goes all the way through to the back?

A. So you have a crankshaft hone which is where the crankshaft lies in the block. We also have a cylinder bore which is where the pistons work and operate within the engine itself. So if you were to look at an engine and it's just an engine block, typically if it's built, you would see pistons in these bores. Those are considered the cylinder bores.

Q. Okay. Let's talk specifically about the work you did for Mr. Johnson.

A. Sure.

Q. Do you recall how you two first got connected?

A. A long time ago, I know he's reached out several times for advice, questions on parts, you know, "Have you seen this before." And I would give my explanation,

"Yeah, we've ran into this before," or, you know, "Hey, you might consider doing this to help yourself along if you're having this type of problem." But it was always -- it was never right up front, "I'd like to get an engine build." It was always, "I've got a concern. I have a question. Is there something you can help me with," or, "I noticed you have a part that you make. Can you talk to me about it and..."

Q. Do you recall like the -- just the year that that kind of conversation started?

A. I don't.

Q. Did you ever sell him anything before the engine build that we're talking about today?

A. Yes.

Q. What did you sell him?

A. It was a solid adjustable timing belt tensioner.

Q. Did you know it was for his Nissan 300 Z car?

A. Yes, because in our conversation he was saying he was having issue with belt flutter due to the factory tensioner obviously wearing out over time. It's an automatic tensioner, so on the factory cars, they have what's called an automatic tensioner. You bolt this in to set your time, it pinches the timing belt, so during operation, there's not an excess of amount of clearance on that belt and it keeps tension to the belt so the belt

doesn't slip off during operation.

Our product replaces that automatic tensioner with a solid fixed state, meaning that I'm able to bolt that product on, I can set my exact line pressure I want to the timing belt, and it stays put. It doesn't move away trying to give clearance.

We add those features to those parts like that so that when you increase valve spring pressures and run the engine harder, you can keep your timing belt located in the fixture. That's the most important. Everything regarding what we're trying to do is trying to fixture and locate so that parts don't move under load.

Q. So as it relates to the issue we're talking about here, the engine build --

A. Yes, sir.

Q. -- what do you recall about what Mr. Johnson told you he wanted?

A. He was looking for an engine to support his goals and his wants. He wanted something that was over-engineered as he said. And a lot of the engines that we build are that, go in that direction where we're trying to build an engine that he is able to use for his intended purposes, but is always built a little more so we're not running into, hey, we're maxing this complete engine out, and if you go anything above what's there, you will

absolutely run into a risk of failure 100 percent.

So our goal was trying to build something that he could be in and be comfortable in. If he wanted to increase power at a later day, he had the ceiling or the head room to be able to move into that type of power goal.

Q. And so how did you kind of work through defining kind of what he expected and what he wanted versus what you could do? Was that just an ongoing conversation?

A. Him explaining what he wanted, and I understood what he was looking for. And at that point, I could -- I could pretty much map out in my mind at that point based on our conversations what he was looking to have built through us, and I would draft a proposal on those parts that were going to be needed, things that were going to be required, and I would send that quote to him to evaluate and think about what he wanted to do and make a decision on.

MR. HURLEY: And I'm trying to get it to come up here. I think it will in a minute.

Q. Did this -- did this process that you went through with him, was it a single meeting? Let me ask that. Did you ever physically meet with Mr. Johnson?

A. No, sir.

Q. So how was this -- And he was obviously in

England?

A. Yes, sir.

Q. And so how did you -- how did you communicate with him?

A. Mostly through, I believe, Facebook Messenger.

Q. And so was it a single kind of, "Here's what I want. Okay. Let's do it," or was it kind of a dialogue?

A. There was dialogue.

Q. I want to be clear about what you were hired to do. Were you hired to rebuild his engine or was it something different than that?

A. What do you mean?

Q. When -- when -- Did he say, "I want you to do other portions of the car or other systems" or was it just rebuilding the engine?

MR. MATOUKA: Objection, leading the witness.

THE COURT: Overruled.

A. It was only primarily to build the engine for him.

Q. (BY MR. HURLEY) And what did you understand he was going to send you?

A. During discussions at that time, the engine that he had had currently failed, or he had one that had failed, and he was shopping around trying to do his due diligence in trying to find out -- figure out who he is

going to use to build this engine. And as he stated, we had a rapport with me helping him and so forth. And he expressed to me that the engine and block, obviously being as heavy as it is, is not practical to ship all that, especially when I've got many of those exact same engines here. So to basically crate up what he had was an excessive amount of weight and very huge box to put all this stuff in. It would be very expensive to ship that over just for me to be able to rebuild it and ship it back to him when I had core parts here that he could purchase that were much more inexpensive than the freight cost would be to ship his.

Q. So knowing that, what -- Did he tell you what he was going to send you or did you tell him, "Here is what to send me"?

A. No. I, at that point, since he knew he was going to buy a crankshaft and block from me, at that point, he sent everything else that was going to be required. And he -- he knew about what those parts and I knew about what those parts would be, cylinder head, his timing back covers, things of that nature, so that I could actually -- going through the assembly process, those parts are available to me.

MR. HURLEY: Your Honor, may I approach?

THE COURT: You may.

MR. HURLEY: Mitchell, I'm going to hand you a notebook of our exhibits that have been preadmitted.

MR. MATOUKA: Is my computer still up there?

THE WITNESS: It is, sir.

MR. MATOUKA: May I?

THE WITNESS: Yeah.

MR. HURLEY: I'll hand it to him.

THE WITNESS: Yeah. any of this do you want?

MR. HURLEY: Leave it there.

THE WITNESS: Okay.

MR. MATOUKA: Thanks.

MR. HURLEY: I'm going to try to efficiently use some of these.

Q. (BY MR. HURLEY) So you said that you went back and forth and kind of came to a conclusion about what all was going to be in this build, right?

A. Yes.

Q. And how did you kind of get to the point where you were ready to proceed?

A. In terms of ready to start machining?

Q. Yes.

A. Well, there was discussions firsthand about -- I believe it was to the point before we even started getting into the whole build right before the decision was made that we were going to start this, I believe Mr. Johnson

had spoken to his wife about, you know, "Let me have a think-about with the wife to figure out, you know, is this something that I'm going to do."

And his wife had concerns, and one main question was: Does the engine come with warranty. And he approached me in Messenger and said, "Hey, that's a good question. Does your engine come with a warranty?" And I said, "It does against machining and assembly, however, you must be sure to use the prescribed oil that we use during that warranty period."

Q. So after you kind of got through those discussions --

A. Sure.

Q. -- and this is Plaintiff's Exhibit 1 in your notebook, and the number at the bottom is EPR00007, so you can turn to it.

A. 07?

Q. Yes.

A. Yes, sir. Okay.

Q. What is this?

A. That is a copy of the invoice that was approved for his engine build.

Q. And it goes into a lot of detail. Why did you do that?

A. Instead of blocking the invoice with quotes, I

try to do everything with a line item itemization. And so how I work it on my quotes so that the client understands not only what he's paying for, he's understanding exactly what processes he's paying for at those nominal values. So if you look at the sheet there, you have the first block which starts with "disassemble and inspect", and the very last one says, "assemble long block complete", that would have been all the block or long block labor that he would have been charged as an assembly.

Q. And the date on this is 11/26/18?

A. Yes.

Q. Is that about the time when y'all kind of came to your agreement?

A. I don't remember that time. I just -- That's the date, basically, when this invoice was created.

Q. And it goes on to a second page.

A. Yes.

Q. I want to ask you about a couple of things on this. Some of these are labor tasks and some of them are parts.

A. Correct.

Q. So on the parts, that was just the cost or the amount you were charging him for that specific part?

A. That's correct.

Q. Then the labor is based on what, an hourly rate?

A. No. When we would do these, unless it's a job that was, "Hey, I've got this part and I need you to fix it," and it's like that one particular part, we charge by the hour because it's not a job labor that we can say, "Well, yeah, we'll hone the block, a V6 block for X amount of dollars." If it's just a regular part that someone needs fixed and it's not something that we have, basically, a labor code for, then we just charge it by the hour as a shop labor rate.

Q. So after you got through this process where you kind of laid out what you proposed to do --

A. Yes.

Q. -- did Mr. Johnson approve it?

A. He did. He did.

Q. And did you ever promise Mr. Johnson a specific timeline for when this was going to be done?

A. I don't recall at all, no.

Q. How many different projects are you working on at any given time?

A. Like, for instance, right now, we have over 24 engines in the shop, all of them ranging from a Nissan V6 to a Lamborghini V8 -- or Ferrari V8. Sorry.

Q. For Mr. Johnson's project, were you the point person he dealt with at EPR or did he deal with anybody else?

A. Only me.

Q. So how do you get started on Mr. Johnson's project?

A. Obviously, you confirm the quote or the invoice. Most times when we start the project -- This is a sizable investment for anyone. I don't expect anyone to have 15, $20,000 in the account to spend all at once. I will typically have the client pay for all the parts, because most times the parts that are used are either custom or there's a little bit of a lead time because of production rates, so I say put money down for the parts so we can get those ordered in. During that time, we might start the cleaning process of the components that were either sent in or the ones that we have, so that when the parts finally do arrive, we're able to then work on them as a cohesive deal.

Q. What are the components that he sent you?

A. There was a crate of them, so I think the cylinder heads, we had timing cover, back covers, cam gears, thermostat pipe, valve covers. I believe there's a list that he sent me at some point saying, "Hey, this is the inventory what was sent in the crate; just verify, make it sure it's there." I did so. Everything was there, and we proceeded.

Q. Did you have any concern with any of those parts

he sent you?

A. After inspecting them, I did have concern regarding the cylinder heads. I did notice they were milled quite a bit more than normal.

Q. What is milling?

A. So on a cylinder head, you've got a deck surface, and that is basically what is in direct contact with the head gasket, and that is what seals the combustion chamber of the engine itself.

Q. So did you express that concern to Mr. Johnson?

A. I did.

Q. And what did he say?

A. He asked me, "Well, can you look at it and just verify with me?" And I did. And at that point, under conditions of these particular cylinder head worked previously on his engine, I took that as a prerequisite to say if it worked prior on this last engine build, these should be okay, but considering we're making a lot of different changes to this, this is going to be a 50/50.

And I took that gamble because if the cylinder heads weren't going to work, considering the castings that he had, they're quite expensive to replace. They're not exactly rare. They're just expensive to replace. And so typically you would have a standard turbo casting which would be a 40P. They're very, very common.

You can get them from between 1990 and '93. They made a lot of those vehicles during those -- that span of three or four years.

The later versions, the numbers started to dwindle about how many cars Nissan was making, in particular that model year of 1995. That '95 year came with a specific casting, a 48P.

So if you have a lower production value of cars that were built that use those heads, you would naturally have a lower production amount of cylinder heads being offered. Not to say that we can't find those; it's just that if you do, nine times out of ten, the average cost of those is about 15 to $2,000 for a set of heads.

Q. So it was a cost-saving measure?

A. It was. It was.

Q. And did it save Mr. Johnson money?

A. Yeah, it would have, absolutely, and it did because we didn't, at that point, look for another set of heads.

Q. So as the project progresses, are you the only person in the shop that works on it?

A. No.

Q. Who else worked on it?

A. My business partner.

Q. How did you kind of divide that labor?

A. So we've got a really good dynamic. If I'm honing an engine block and we need to have a set of heads surfaced or a crankshaft balanced and it's for the same project or another project, he'll work on those other criteria so we can move the project along, get the job through the shop at a amicable speed.

Q. And so does -- does this process take days, weeks, months? Like how long a process is it to finish a build like this?

A. It really depends on the severity of the build. I mean, we've got projects in there that will easily take over a year to build, some much more than that. It's just how complex the build is, how rare the build is trying to get parts made or trying to source those parts out of the country. I mean it's -- for instance, the '36 Packard that we have in the shop, you really can't buy bearings for that anymore, so we've got to come up with a way of producing that particular part so we can run that engine.

Q. Mr. Johnson's project --

A. Yes.

Q. -- how, on the scale of complication, how complicated was it?

A. For the things that we do, not too complicated.

Q. So walk me through a little bit of the process. After you've cleaned the parts and done the things you

described earlier, how do you actually kind of start the build process?

A. The first thing we'll do is we're going to -- we're going to figure out, you know, is this -- is this engine going to keep a factory girdle or are we going to go to a billet main cap. And the first thing we try to do is we're going to work on the block side of things first because it's a heavier piece of equipment, takes more time to set up, more time to actually machine, and it's a little more labor intensive.

Q. And so with Mr. Johnson's --

A. Uh-huh.

Q. -- did you use -- We've heard this term now many times. Did you use billet caps?

A. Yeah, we actually supplied our own billet main cap system for this engine.

Q. And you manufacture those?

A. We don't manufacture them. We develop and design them, and then I have another company that produces those for us.

Q. What's the purpose of the billet main cap?

A. So the billet main cap is there to strengthen the bottom end to fixture the crankshaft. If you have an engine that is running and it's making a considerable amount of power, the factory one-piece girdle is a part

that, being that it's cast and it's not part of the block when it's actually produced by Nissan, it's produced separately. They'll bolt that to the engine. Well, it has a shelf life of essentially about 550 horsepower, which is roughly about 700 at the crank. At that threshold, they become very weak, and you end up risking the issue of basically pushing the crankshaft out of the bottom of the block.

So the intent was to produce a product that not only fixtured the crank better in the block, but it also could withstand a lot more forces to keep the crankshaft alive in the assembly.

Q. So talking about the actual process, so once you do the work on the -- is it the long block first?

A. It's the short block, just the engine block itself.

Q. So once you do the work on the short block, what is the next step?

A. Well, there's a lot of work that goes on with the short block, so you want to talk about putting main caps on that block or honing or decking?

Q. So you've used the term "honing" that we've heard now.

A. Correct.

Q. What do you hone on the short block?

A. So if we're going to put billet main caps on, we'll line bore those caps first, and then we'll line hone it. And once that is done --

Q. So let me stop and ask you, because this is always confusing.

A. I understand.

Q. What is line boring versus line honing?

A. Line boring is actually taking a boring arc with a setup fixture so that it will bore excess material out of the billet caps, because when the caps are made, they're made undersized. You never want to buy a cap that is the exact size because you can't guarantee that when it torques up and gets bolted into the engine block that it will be the size that it needs to be. So you leave them undersized so that you can make your own adjustments to get them into the criteria that you are trying to achieve.

Q. Then what is honing?

A. Honing that, so once you've bored it, you always bore it undersized, so typically our caps come in about 50-thousandths small from size.

Q. 50-thousandths?

A. 50-thousandths smaller.

Q. Which is obviously --

A. Yeah, so half a tenth of an inch, basically.

Q. Okay.

A. At that point, we bore it to within about -- about 3 to 5-thousandths from size. And then we'll -- we will remove the line bore equipment and then we will go into a honing procedure where we have what's called a line hone mandrel. It looks like a long tube that's got a series of what's called shoes. They're basically spacers that are on there to adjust the line hone mandrel to the crank tunnel that's in the block. On the other side of that tube are what's called stones. And those stones is the abrasive that when we're actually running it through the crank tunnel to adjust the size, it's removing that material.

Q. So this is incredibly precise and fine-tuned?

A. Extremely, extremely.

Q. In the end, what is the line hone? How much material does the line honing take out?

A. Depends how much pressure you're applying to the mandrel. It's also a feel, but you can take as little as a couple of tenths to 4, 5, 6, 7, 8-thousandths.

Q. So this seems like a pretty technical and exacting process.

A. It is.

Q. How do you know you're doing it right?

A. As we're line honing, we'll set up our fixture to line hone, we'll do what's called a few strokes, because

it's connected to a power drill, and I think it's about a one horsepower drill, because the line hone mandrel is -- I'm 6'1", and it stands up almost to here on me. So you've got to think this is a pretty long piece of equipment. It's put into the engine block after we set it manually to get the right sizing how we need to do, and then we proceed to line hone this, right. And so as we're line honing, we will make three or four strokes with the line hone mandrel, and then pull the mandrel out. Then I'll take my valve bore gauge that I've set up to the size that I'm trying to hit, and I will periodically, as we're honing, if we remove the line hone mandrel, we go in and check those bores to see have we gone outside of our parameter that we're trying to hit or are we still under our parameter. And if we're under, we will then put the line hone mandrel back in the block and continue our work.

Q. You use the term "our". Are you and Mr. Head doing this together or are you working --

A. It is a tandem project for both of us.

Q. Why is it tandem?

A. Because you have one operator that is operating the line hone mandrel, then you have another individual, myself, that will apply oil so we're actually cutting the material that we're trying to hone out. And I'm also in

charge of running the dial bore gauge. At those times as I'm measuring, I will say, "I want you to check this now. I want you to read this to make sure I'm getting the right reading as well as you are."

Q. So that's just a quality control process?

A. That is a process that we do.

Q. So that boring and honing you just talked about --

A. Right.

Q. -- is that on the part that we are here talking about today?

A. That is correct.

Q. So after you do that, briefly, don't go into too much detail, what is the rest of it to get the engine ready to be -- to go to a customer to be put in the car?

A. So to put it in as quick as terms as we can, after it's been line honed, we will then put the block in the cylinder hone to hone the cylinder bores like we discussed. Once that is completed, we will take the block out of the hone after it is -- all the oil has drained out of the block itself, and we will put that on what's called the block surfacer. And what that does is it will skim the deck surface of the block to make sure it's flat.

Q. So we talked a lot about bearings. When in this process do you install those main bearings?

A. The main bearings go in as we're starting the assembly process.

Q. So that's a good dichotomy. Everything we've talked about up to this point is not the assembly of the engine, it is the machining of the engine.

A. That's correct.

Q. So when do you -- when do you stop machining and start assembly? What's kind of the sign that you're ready to assemble?

A. As we're machining, we're measuring. Once we have machined and hit our target criteria, what we're doing, we go through our other processes of decking, deburring, pulling oil plugs. We pull oil galleys out. We go through and make sure that everything that we have done is satisfactory to how we would perform every other engine block.

Q. I've heard this term "deburr".

A. Deburring.

Q. What does that mean?

A. So that's a common thing we do in the aerospace industry as well as the race engine machine industry, that parts, when they're being manufactured, when they're being machined, have very sharp edges on them. And so I don't like getting my hands cut just like anybody else. It's pretty painful, especially when you're dealing with

aluminum and steel. If you rake your hand over something like that, you immediately cut your hand, and sometimes those pieces actually get lodged in your skin, so...

Q. So what is -- how do you -- how do you get rid of those?

A. We actually will have carbide pencil burrers or carbide burrers on a air grinder, and we will go through and remove those sharp edges off the parts.

Q. So back to bearings, you don't manufacture those bearings?

A. No, sir.

Q. It's a part you have to order?

A. That's correct.

Q. How do you know what bearings to order?

A. If we're trying to hit a target size for a housing bore and we've measured the crankshaft to verify that it's still in standard specifications, because factory crankshafts, factory parts with the factory service manual give you a tolerance, a low to high size limit that you're allowed. We will verify that information by measuring the crankshaft to ensure that this crank hasn't been touched before or ground before, therefore, we can run a standard bearing. Or if it has been ground 10-thousandths, we would order a 10 under bearing or a 20 or a 20 over, which would be a 20 under

bearing.

Q. What kind of bearings went into Mr. Johnson's engine?

A. They were a King XP MB 4104 Standard X bearing.

Q. What does Standard X mean?

A. Standard X, as you've heard throughout other testimonies, there is a standard nominal bearing, so if your engine or your crankshaft has a nominal factory size crankshaft, based on its tolerances that they're given to you, you would order a standard bearing.

If you are running an engine where you're trying to make more horsepower, you need more oil clearance, you would go to an extra clearance bearing to provide more oil clearance.

Q. And so this sounds silly, but can you just, with your hand, show us how big a bearing like this would be?

THE WITNESS: Well, can I pull my billfold out?

THE COURT: Absolutely.

A. Okay. A main bearing of an engine would typically be about as long or wide as your credit card.

Q. Okay.

A. Roughly. So it's not a very large part.

Q. Does it -- is it just a single circle or does it come in pieces?

A. It's two pieces. You have an upper and a lower shell.

Q. But it, ultimately, when put together, makes a circle?

A. That's correct.

Q. So how many -- how many main bearings went into this engine?

A. Eight.

Q. And this has always confused me. It's a six cylinder engine but it takes eight bearings. Why is that?

A. Well, there's, again, there's a upper and a lower. And the V6 crankshaft has a four-main crank. So you have a No. 1 journal, a No. 2, a No. 3, and the very end would be 4 where your thrust bearing would be.

Q. Times two because it's upper and lower?

A. Correct.

Q. So again, those bearings, they're put in during assembly?

A. Correct.

Q. We have heard something about the idea of the bolts that have been used.

A. Correct.

Q. Explain that process when you use the -- the old bolts versus the specialized bolts. Why do you use the old bolts at one point and use the specialized bolts

later?

A. In what criteria?

Q. When you're doing -- There was an allegation made that there was something wrong with using two different kinds of bolts, but I want to understand why you use two different kinds of bolts.

A. I'm assuming you're referring to when we're actually machining the billet main caps to the block.

Q. Yes.

A. So we have what's called a box fixture. We have end plates that bolt to front and rear of the engine block itself. And that is a fixture that we have that my partner actually made for us in the shop. We bolt these plates to the block itself so that we can put the block on the mill table, right, so this is now a boxed fixture that we can clamp to the mill table.

From that point on, we have a tube that we have developed that lays into the block that houses the boring bar that holds the cutter. I believe there's an image you have. I don't remember.

Q. Yeah, we'll find that in a minute.

A. And so our first thing to do as we're doing that is, you know, we'll adjust the caps as needed based on the register widths to make sure the caps fit into the block, and then there are pucks that we have developed that hold

the boring bar in the center line of the housing that we're boring. Okay. And at that point, those caps that are being bored, they're not -- they don't need to be in a stressed environment to actually machine those, because remember, we're going to bore, basically, a bulk of material out, but not all the way to the final size that we're going to run. So boring the material out with using the factory bolts has no bearing on the size of the crank tunnel when it's going to be done because after we've line bored it using the factory bolts, they're only there just to hold the cap on. That's all they're there for. They have no bearing on whether or not the final dimension size when we're done line honing is -- becomes an issue because after we've line bored with factory bolts, we pull -- with the factory bolts in place, we pull those factory bolts out once we have all the caps bored how we want them. The factory bolts come out. The fasteners that we're going to use to build the engine go in and they are torqued with a prescribed setup that we do with a specific type of lubricant.

Q. So the specialized bolts --

A. Yes.

Q. -- are only used upon final assembly?

A. That's correct.

Q. So back to the assembly process --

A. Uh-huh.
Q. -- you put in the bearings, and then you talked about torquing down bolts. Is there two pieces that come together after you put the bearings in?
A. So you have the main cap, which is the part that we've been discussing that will house a main bearing. And then there's the crank saddle, which is in the main portion of the block where the upper side of the shell is housed.
Q. So it's an upper and a lower, basically, that comes together?
A. That's correct.
Q. And then it's held together by bolts?
A. The studs that we use on final, yes.
Q. Does that have a specific torque to those bolts?
A. Yes.
Q. And how do you make sure that torque is correct?
A. Well, the question is open-ended, how we make sure that it's torqued.
Q. Well, what's the process?
A. The process that we use, so we'll apply the specific lubricant that we use to the threads of the stud that go into the block.
Q. Why is lubricant important?
A. It also -- it allows us to make sure we don't hit

a specific sheer point too early on. So torque rating is required so you actually get the right fastener stretch in order to receive that proper stretch, so we have a clamp to keep the cap bolted to the block. You have to have a specific lubricant there to be able to aid those fasteners to torque up to the correct torque figure.

Q. So we've talked a lot about, obviously, boring clearance.

A. Correct.

Q. When is it that you do your measurement for boring for -- Am I using that term correctly, boring clearance?

A. Your -- when do we measure the housing bore?

Q. Yes.

A. Are you saying while we're boring the block or as on final?

Q. How many times do you do it?

A. We will -- we will measure the housing bores in the blocks on at least -- when I say measure, that means I'm going to go from one cap to the next or one housing bore in the block, because there's four. We will go through measuring each one of those housing bores a minimum of 15, 20 -- to 20 times before it actually goes to a final assembly.

Q. So we had a very long discussion with Dylan about

the idea of -- of this document, which is -- if you want to turn to it there, it's Defendant's Exhibit 17.

A. Is this in the --

Q. In the notebook, yes.

A. Okay. Tab 17 or?

Q. Yes, yes. That, yes.

A. Tab 17. Okay.

Q. There it is at the bottom. Are you there?

A. Yeah, Exhibit 17. Okay.

Q. So what we talked about at length with Dylan was this bottom chart.

A. Okay.

Q. So what you were just describing, the measurements --

A. Uh-huh.

Q. -- explain to us what housing bore and journal is.

A. So the housing bore is, essentially, what it is. It's the housing. It is the area in which the main bearings are housed in the engine block.

Q. So what is the journal?

A. The journal is actually the size of the journal, the crankshaft to which is actually placed in the housing bore once main bearings are present.

Q. So I want to get right to this point. There's a

lot of talk about the fact that the original sheet like this that you sent to Mr. Johnson had errors in it. Is that true?

A. It had a typographical error in it. When I go through and do my build books, everything is handwritten. And as you can tell, it looks about like what a doctor would typically write that's writing a scrip. It's pretty -- If you guys build engines or work with that, you know, engine builders go, "Yeah, yeah, yeah, we do this, do this." They know their own writing. They understand what they're writing.

So the verbiage that I have put on here looks -- it's my writing for sure because I'm pretty fast at writing when I do this, but it's got the information that's on there. And you're question was what again to that?

Q. So when did you write down these measurements that we see here in Defendant's Exhibit No. 17?

A. The measurements that are present on this build book here would have been when I'm actually in the assembly room putting this unit together.

Q. Why didn't you send this handwritten version to Mr. Johnson?

A. Because I don't want there to be a discrepancy with someone reading my handwriting and not understanding

what they're reading.

Q. And so the mistake on the one that we've seen previously was just a transcription error?

A. Correct.

Q. When did you find out there was a transcription error?

A. When Mr. Johnson brought it to my attention.

Q. So to be clear, you did not create this document after Mr. Johnson contacted you with that question?

A. No, sir. No, sir.

Q. When exactly did you create this document?

A. This -- during the time when this engine was originally built.

Q. When it was still in your possession?

A. That's correct.

Q. And are there final measurements that you make? Is it like a, you know, last thing you do before you send the engine off kind of thing?

A. No, because once the engine is assembled, I can't go back in there and measure once all the parts are present in the assembly.

Q. So when do you think the measurements were taken for this particular -- for this particular --

A. Those main housing bores, we will check that as we're machining, and just before I actually put main

bearings in, I double verify that before I put the bearings back in the block to make sure we haven't had any other anomalies go through the parts itself before we actually go to a final assembly stage.

Q. So same thing with the journal numbers?

A. The main journals?

Q. Yes.

A. Yeah. So what we'll do is after we final clean and polish, we'll make all those measurements of the crankshaft and record that on the build book.

Q. So here is the $64,000 question: The oil clearances, is that a measurement or is that a mathematical calculation?

A. That's a measurement.

Q. How do you measure it?

A. We will take the -- our micrometer that we use and we'll measure those main rod journals. We take that -- from that number, you notice there's different ones there. So one -- top one says 2.4787 and 4785, 4787, and 4784, I believe. Out of those numbers, with an engine builder, they will not pick whatever number they want. They will look at those numbers based on what they measured and grab the average, right, because it's the closest between high and low. We take that nominal number, we put that set to our dial bore gauge, and then

we begin measuring.

Q. So it's a instrument-based measurement to get to the oil clearance number?

A. That is correct.

MR. HURLEY: Your Honor, I know I am done with this topic, so I didn't know if you want to go ahead and break for lunch.

THE COURT: Good time. All right. Let's go ahead and take a break for lunch. We'll break for about an hour-and-a-half, maybe a little bit longer. We'll resume at 1:30 this afternoon. Please don't discuss this matter with anyone including each other. Y'all have a good lunch. We'll see you back here at 1:30.

(Recess taken.)

(Jury present.)

THE COURT: Thank you. You can be seated.

Go ahead, Mr. Hurley.

MR. HURLEY: Thank you, Your Honor.

Q. (BY MR. HURLEY) Mitchell, when we left off, we were talking about the build of the engine. And we talked about the entire process that you go through machining and then assembly. I want you to look, if you would, at a picture. I hope it'll come up here in a minute. And this is in Defendant's Exhibit No. 2 in front of you. It's the second page with the number EPR 19 at the bottom.

A. One more time.
Q. EPR 19 at the bottom of Exhibit 2. It's probably sideways in your book, No. 2.
A. Tab?
Q. Tab 2, EPR 19.
A. 19.
Q. Should be the second page.
A. Yes, sir.
Q. Is this a picture of the engine?
A. Yes.
Q. Is this your shop or somebody else's shop?
A. This is in my old shop before we moved.
Q. Is this complete?
A. That was, yeah, complete, ready to go for the most part on the engine dyno, uh-huh.
Q. And this is, obviously, before it goes into the crate?
A. Well, this particular -- this particular point on this in this image, I had just finished making the fluid lines for turbochargers. We were going to then transport this to Reher-Morrison to go on the engine dyno.
Q. No, this is the first time, before it went the first time.
A. Oh, no, this picture here is after the engine came back for the repair.

Q. Okay. Let's talk about the first time. Before you sent it to England to Mr. Johnson the first time, what did you do to test it before it left?

A. The only really test to them is to throw it through a dynamic process, the engine dyno. And that wasn't done. It wasn't asked of us to do. So it was merely the engine was purchased, we built the assembly, we shipped it.

Q. When you sent it, was it fully assembled?

A. It was fully assembled.

Q. What did Mr. Johnson have to do once he got it?

A. At that point, I don't know if you have images of the engine from the very first time, but all Mr. Johnson had to do was actually -- When we shipped the engine, I believe it was with down pipes that were coated and the turbine housings that were coated that were bolted up to the engine. He would have had to install the other half of his turbochargers onto the turbine housing and hook up the rest of the ancillary system, alternator, power steering, air conditioning, et cetera.

Q. Let's go back to during the process, how did you keep Mr. Johnson updated on the process as you were building, machining and building the engine?

A. Most of it, pictures that we would post on Instagram would be shared to him as well as, I believe,

Facebook Messenger or WhatsApp.

Q. How often would you communicate with him on this process?

A. Daily, if not weekly.

Q. And just, "Hey, here's what we did today" kind of stuff?

A. For instance, parts came in, I'd open them up, inspect them and then take a few pictures, send directly to him or push them on social media outlets and tag him in those.

Q. Any -- any questions or complaints from Mr. Johnson during this first build process?

A. Only questions of, you know, like, "How do they feel? They look really nice. What do you think about them?" You know, things of that nature. Wasn't anything about "This looks bad. What are you going to do?" None of that ever.

Q. So when you ship it, you include with it a pack of documentation, correct?

A. Correct.

Q. What we've got up here on the screen is Plaintiff's Exhibit No. 7. This is the warranty you sent, right?

A. That is correct.

Q. Does this go --

THE WITNESS: Is this something I can look at?

MR. HURLEY: It's a loose document, actually. Your Honor, may I approach?

THE COURT: You may.

MR. HURLEY: It think it's up here on the shelf.

THE WITNESS: Thank you, sir.

MR. HURLEY: Sure.

Q. Is this a document you include with every engine you ship out?

A. Every engine we ship out receives this document.

Q. What is your purpose in sending this document?

A. This is for, basically, a full disclaimer to the client about what he's entitled to based on the warranty conditions that we offer.

Q. How long have you been using this warranty?

A. Since we started building engines through our shop, so...

Q. You -- This is on EPR letterhead obviously, right?

A. Yeah. Up at the top has our logo and everything on it.

Q. And I'm trying to think of the right way to put this politely. This is written in very plain English,

right?

A. Yes.

Q. Is that -- Why is that?

A. If I was as technical as we are to explain things today, even in a more -- in more technical concepts of that, I think that this packet of information would be probably two or three times the size of this. So we sort of need to -- I use the word dumb it down, not -- that's not geared towards anyone's ability to comprehend. It's just that if I was to continue to write and write and write, no one would read this because it would be way too much to interpret.

Q. And is that your intent is that people read this when they get it?

A. Absolutely.

Q. So in the actual shipping container, how is this included?

A. It will go into a -- you would call it manila folder. I would call it a sleeve. Something you would put a docket in or just a file form. It -- this packet of information, the warranty disclosure as well as the build book all get included in one file, one folder.

Q. Without reading all the way through it, what is this document intended to warrant in terms of what you're willing to do?

A. Covers what we will accept, what we will not accept and the conditions if the customer is not maintaining things properly based upon our outline.

Q. So what are you promising to do?

A. I'm promising to build the engine as intended. I'm telling in this document that, you know, anything that we're -- that we consider we're liable for, we will take care of.

Q. So I'm going to go down to the very bottom.

A. What page?

Q. So they're not numbered, unfortunately.

A. Just where it says "guarantee warranty exclusions" or --

Q. The one where it says "completion date and time". I think this is maybe the --

A. Yes, I see here. I'm here.

Q. So it says, "There is no guarantee or certainty on dates or times as when exactly an engine will be completed. Custom built engines require much more time to machine, clearance, port, balance, and complete than stock." Why do you include this section?

A. Just for the simple nature of a lot of the parts that we're dealing with are very specialized, and sometimes they take a considerable amount of time if there's something that has to be ordered that's special.

So we'll cover that in this paragraph that's there because not every engine is going to run the same parts. Some of those parts, like I said, are custom and they take sometimes months before they're -- before they arrive.

Q. On the same page if you go down, it says, "Engine and car performance".

A. Yes.

Q. And you say, "High performance engines do not run and perform like a factory built stock engine. Additional parts may be required to get the full potential out of a high performance or racing engine, including lower end gears, higher stall torque converters, a modified and/or stronger suspension." And then it goes on to describe other things. Why did you include this section?

A. High performance engines are notoriously put through rigorous amounts of strain, and so they will, in some instances, never, you know, perform like a factory assembly will. You have different clearances, different tolerances, different materials that are being introduced into the engine as far as parts are concerned, so there's a lot of variables and a lot of variances in what's going on.

Q. If you'll turn over to the next page, I won't read this one. It just says, "Estimated power output." And you basically say you will not guarantee these X power

output." Why do you say that?

A. We don't tune engines. We don't claim to tune engines. That is not part of our curriculum that we offer through our business. And quite frankly, I have no time to learn how to tune. I have enough on my plate maintaining operations, machining, and building.

Q. So the kind of the summary that starts in the paragraph that says, "The bottom line in plain English," I'm going to read it and then ask you something.

"It's pretty simple. If an engine fails as a direct result of something we did as far as workmanship, fit, finish, machining, or assembly, directly performed by Engineered Performance, then we will fix it as stated, within the guidelines previously stated in this warranty."

Is that basically a summary of what you intended by this warranty?

A. Absolutely.

Q. Do you recall if Mr. Johnson ever had any questions about this warranty when he received it?

A. Not that I can recall off the top of my head, no.

Q. So after you ship the engine the first time --

A. Yes, sir.

Q. -- and it gets to England, did you stay in communication with Mr. Johnson?

A. Absolutely.

Q. What was the conversation like?

A. Making sure, obviously, the engine arrived, you know, via freight company. Was it damaged during shipment. Because a lot of times freight companies will process a shipment, deliver it, and no one says anything to the contrary of what happened during transit. So it's something that needs to be questioned upon receiving. Was anything dropped on the box, was the box opened, things of that nature, because you've got a pretty significant investment inside a crated box there, and it's anyone's guess what could happen during transit.

Q. Let's talk about the break-in of the engine. Why is the break-in important?

A. When you're machining an engine and you go to assemble it and you've gone through all your preliminary checks in its final assemble, you have finishes and on particular piston rings, right, so your honing surface of the cylinder bores, they are there to hold engine oil to lubricate the rings. You heard that earlier today. The biggest benefit or actually the most important criteria is that -- is that this ring has to conform to the cylinder bore so that you create a correct seal. And part of that seal is with the engine oil itself to lubricate the ring. But the ring has to conform to that cylinder bore in order to create that perfect seal. You also have conditions

where the rod bearings need to be completely worn in and seated because you need that dynamic of heat and everything to make sure that all this is running properly.

Q. So that's the break-in process?

A. The process is how we outlined in our break-in procedure. The importance of it is because we're trying to ensure we have all the mating surfaces and all the machine surfaces are running correctly.

Q. And what happens if you don't break it in properly?

A. There could be a lot of issues. We've seen in the past where customers have gone and tried to break in their engine using synthetic oil right from the start, and the engine fails within five minutes because you have to have certain additives and conditions with minerals to help condition those seals and those bearings. If you run a synthetic oil, nine times out of ten doesn't have that additive in there.

MR. HURLEY: If you still have that Plaintiff's Exhibit 7 in front of you, if you'll go to the very last page of it. And I think we agreed that the pages are reversed at the end, so the last --

No, Plaintiff's Exhibit 7, the loose leaf one.

THE WITNESS: Oh, this one. Yeah.
MR. HURLEY: The very last page.
THE WITNESS: Yes.
MR. HURLEY: Looks like this. Very last page. No, no.
THE WITNESS: Oh, this one?
MR. HURLEY: Yeah.
Q. Is this your engine break-in procedure sheet that you also included in the exhibits?
A. That is correct. Correct.
Q. Is it included in the same place the warranty is included?
A. That's correct.
Q. Did you -- is this something from -- Well, let me ask it this way. Did you draft this?
A. Yes.
Q. Why did you put this on paper for all of your customers?
A. I want them to abide by a regimen that I prescribe so that I can ensure that if I put a regimen there -- It's like a recipe card. Very similar to you baking a cake. You've got a, basically, a punch list of what you're supposed to include in the cake as well as how you're supposed to mix and/or bake it. This is pretty much the same thing. It's a recipe card. You have to do

this at these intervals to basically ensure that what I've built for you is the same because if I have questions pertinent of this, it reflects this.

Q. So the first -- in the first -- No, I'm sorry, about the third line down, it says "important" in all caps. And it says, "Check for leaks upon starting engine. If any are found, shut engine off and remedy, then continue."

A. On the very first page of it?

Q. No, on the very first line.

A. Yeah, of the front here.

Q. It should look like that.

A. Yes.

Q. Did you -- do you see where I just read?

A. Yes. "Check for leaks upon starting engine. If any are found, shut engine off and remedy, then continue."

Q. Why did you put that there?

A. Well, you never want to start an engine with oil leaking out of it, for one, because you -- if you're in the car and you're starting it, you can't see where the leak is at. Right. You also want to make sure that all the fluids you put in stay in.

Q. So my question is: Shouldn't you be the one that before it leaves your shop are sure that there's no leaks?

A. We do our best to ensure that, but when the engine is ran and you start it up, you've got heat, vibration and movement occurring. All of those things will -- will and can loosen plugs, make gaskets sometimes leak, and that is something that I can't check unless we ourselves put it through a dynamic state.

Q. Okay. If you'll go down to about the middle of the page in great big, huge letters and underlined in caps, it says, "No synthetic oil".

A. Correct.

Q. Why is that?

A. Break-in oil is prescribed to have a lot of what's called ZDDP additives, that is for high zinc content, to ensure that your wear marks as far as your rings and bearings are conditioned properly upon break-in.

Q. And it says, "Use Valvoline, Castrol, or similar 15W-50 slash 20W-50 --" then underlined, "-- petroleum oil for at least two full days of driving or 800 to a thousand miles of street driving after you have used the required break-in oil."

A. Correct.

Q. Why is that oil important?

A. Using the break-in oil that we prescribed from our standpoint since we understand those two brands of oil

for break-in, we've used those pretty religiously, once that break-in period is done using the prescribed oil, we keep the petroleum product in there to make sure we have conditioned the engine correctly 100 percent entirely before you move to a synthetic oil.

Q. So below all that, again, in all caps with underlines and stars around it, it says, "Only use Motul --" Am I saying that right?

A. Motul.

Q. "Motul or Maxima break-in oil".

A. Correct.

Q. Why is -- why are those the two oils you chose?

A. Through the years that we've been building engines, those two oils have shown us the best results with an engine break-in.

Q. So again if you'll turn back one page, that's actually the last page of this, but just out of order. Do you see where at the top of the page on the very last page it says, "Use of any other break-in oil will void your warranty"?

A. Correct.

Q. Why did you say that?

A. Because any other oil that is not prescribed in our outline will deem not acceptable because, one, we don't use that oil, we don't know the regimen that the

manufacturer basically puts in that oil. I'm sure we can look at it online, but we -- if we've never used it, I can't basically comment on it, so I only use and tell the customers use these two oils because that is what we're familiar with.

Q. Then I'm not going to read all this, but down below it kind of has a five-step process for what appears to be steps.

A. Yes.

Q. Where you fill it, run it for a period, drain it, fill it. Why is it those steps?

A. So we have multiple fill-and-drain intervals on this, and the basis for this is that during the engine machining process, after we final clean all our parts, there are still some material in the crosshatch of the cylinder bores. We do as much as we can to get that out. Shavings, filings, stuff like that, you're never going to get all of it out. It is impossible. So the whole point of the multiple fill and drain is to flush the engine out of any and all contaminants as much as possible.

Q. Okay. So this is a document that was included with the warranty document in the manila folder that you mentioned, right?

A. That is correct.

Q. So let's talk about the first warranty claim that

we've been discussing a little bit. When did you first get notice that after you shipped the engine the first time that there might have been an issue?

A. I don't remember the exact date or time. I was just either called or messaged and said, "Hey, we've got a problem." I said okay. That's --

Q. Do you -- do you remember how that problem was discovered?

A. The vehicle, I think, went into what they call -- I think it's M.O.T., and maybe Mr. Johnson can clear what that stands for. I'm not sure. But, essentially, it's a, from what I understand, it's a road legal evaluation to make sure that your road car is safe enough to travel on the local roads there.

Q. And what was -- what was the description of the problem?

A. First it was, when I was told about it, it was we're not getting any compression on the engine. I thought that was very strange. I didn't understand because we had tested that, in essence, by being able to not have spark plugs in the cylinder head, we actually put plugs where the spark plugs go, and then we'll actually rotate the engine over to build compression in the engine. If those plugs do not pop, we're not building compression. All those plugs did pop out of the engine, and it's just a

quick reference, quick check. It's not a finite answer. It's a "go" or "no go" scenario.

Q. Okay. And so after he described the problem to you, what did you offer to do?

A. My first thing was, "Hey, make sure for any given reason the timing belt didn't slip. Can you double check a few things for me before we go down this road." He was happy to have that checked. They checked the cam degree, I think whatever company was, was Lloyd Specialties, I think it was, yeah, I think that was the company. They performed a compression check. I think they also did a leak-down check. They first checked the cam degree of everything. It was within one degree of what we timed the engine at.

Q. And Mr. Johnson said you paid for that work?

A. I did.

Q. Why?

A. Well, I felt -- I felt a little bad because, you know, I got a brand new engine I just delivered to an international country, you know, we spent a lot of money and time on this to get this produced. And right out of the gate, he's having a problem that I couldn't replicate here in the states. So I'm like, "I'll take care of you. We'll absolutely pay this. Just send me the invoice."

Q. So after those tests were done, what did you

offer to do?

A. I said I apologize for this, you know, this is not normal. I honestly never even ran into this issue. And I said, "Have that car pulled back." I said, "Pull the engine out, put it back on the cradle, put it back in the crate. Call me when it's ready. I'll pay the shipping from England to United States." And that's what I did.

Q. So the engine came back to you?

A. That's correct.

Q. And what did you do to repair it at that point?

A. First, looked over the engine, tore everything down and pulled the heads off, and, yeah, there were bent valves. They weren't bent in essence like normally when you say, "Oh, I bent the valves," and you think if this is a valve, you know, the valve is cocked over like this and it's completely bent over. The valve had just barely kissed the radius in these valve release here. You can see there's an eyebrow mark on each side for the four valves that are in the cylinder head. The valves came in and just touched just enough in that radius that it bent the valves roughly about 3 to 5-thousandths. It was just enough to unseat the valve to create a pathway for air to get through without being sealed.

Q. So what did you do to repair it?

A. I pulled all the valves out. I verified how much those valves were out in our valve grinder. They were all bent. I asked him, verified what brand those valves were, and I replaced them at our cost.

Q. There was some discussion about a couple of other issues. I'm trying to remember if this was the first time you sent it or the second time you sent it. The dipstick issue, when was that?

A. I believe the first time. So we have an 8-quart pan that we developed, and it comes with a new pick-up tube. It's for a wet sump system. It's not a dry sump system. I know we were talking about that earlier. But there is a dipstick guide tube on the factory oil pan that is more of a square notch. In ours that we had on our engine -- or our oil pan assembly, runs a solid, one-piece tube. There was a relief cutout in the girdle to allow this dipstick to actually go through to enter into that tube which was to hold the dipstick in to the pan so it's not contacting the crankshaft or the rods during operation.

When Mr. Johnson went to go pull that dipstick out, the backside edge of the metal that was --

Nissan solders their end. It's not a one-piece steel ribbon like most other dipsticks are.

When he did that, he pulled the entire cable

out of the back end of that soldered metal tip that was on there. First I've ever heard of it because we've sold probably 50 or 60 of these pans and no one has contacted us saying I've had a dipstick come apart in the pan.

And so I was like, man, what are we -- what are we really up against. And he had messaged me about that. I said, "Man. Okay. That's not good. Okay."

He says, "Can I open the pan up to fix this and look at it?"

I said, "Absolutely." And I explained to him, "Hey, be sure you study how I've installed this pan, loosen everything up, pull the pan off."

And he came back to me and said, "I can't get the pan off. Is there a trick to get the pan off?"

I said, "Yes. You have to -- because that pan is kind of obtuse in nature, so you have to put it on in a specific manner and remove it in a specific manner." I explained that to him. He was able to remove the oil pan.

Q. So there was a dipstick issue. Then there was obviously this issue that you said that you were going to fix when it came back here to America?

A. Correct.

Q. You heard Mr. Johnson say he was upset about how long it took you to make that fix.

A. Yes.

Q. What was the -- what caused that delay?

A. So you asked earlier about, you know, how many other engines we work on, and typically we've got minimum anywhere between 15, 25 engines rotating through the shop during various stages. All of our engine stands were taken up at that time. And some of them were to the point where we were so close to having an engine finished that I wasn't going to get to the point where I was going to pull that finished engine off immediately to put another one on so I could just tear it down. I had to finish that so we can get that engine gone. I don't want to have it still sit around the shop risking the potential of something falling over and hitting it or us tripping over it and causing more damage throughout the shop or that client's engine.

Q. What year was this when this was all happening?

A. I can't remember. It's been years ago.

Q. What else was going on in the world at that time?

A. We had a massive issue with COVID at that point. It stalemated us for months actually.

Q. Why?

A. Couldn't get any parts in. I couldn't get any parts in at all. I mean, the things that typically would take -- If I was to order a custom set of pistons would

take literally four to six weeks; I'm waiting 20 to 22 weeks on, and I -- I can't do anything.

Q. So I think Mr. Johnson testified he got that engine back after you repaired it in November of 2020.

A. I believe so. I don't remember.

Q. What was the -- besides fixing the issue, did you do additional things to the engine when it came back?

A. Did I do additional things to that one. I don't recall, honestly. That doesn't come to mind.

Q. Did you do a dyno run?

A. We did. He did ask us while the engine was there, could we put it on the engine dyno. I said, "Yeah, that's a possibility. We've got the access to be able to do that, yes."

Q. Where did you -- where did you -- who did you contact about doing that dyno run?

A. So my business partner, Mr. Head, he was a veteran of working there for over 22 years and so --

Q. Where is that?

A. Reher-Morrison in Arlington just up the street from us. And during that time, he basically had what we call theft rights. Basically it's a term we use to sort of float around. He's able to go in there and use some of their equipment or borrow some of their equipment, and he still has very good relations with the owner there. And

he made a quick call and spoke to Mister -- or Mr. Morrison, said -- or Mr. Reher. I'm sorry. And said, "Hey, you know, we've got an engine we'd like to put on the dyno. You have any free time that we could, you know, possibly use your facility?"

He goes, "Yeah, yeah, no problem."

Q. So did you manage that dyno run?

A. Manage it in what terms?

Q. In charge of getting it set up and the car or the engine hooked up to the dyno for the purposes of the run.

A. Yes. So our main responsibility for that was to provide all the necessary equipment to be able to adapt this Nissan engine onto a super flow engine dyno.

Q. And who was in charge of the wire?

A. That would be Matt Pool.

Q. And why didn't you do that?

A. Because I don't tune engines. I'm not an electrical individual.

Q. I want to show you a couple of pictures. This in the notebook in front of you is Defendant's Exhibit No. 4. I'm trying to reduce this down so it's --

A. Tab 4, first picture?

Q. Yes.

A. Okay.

Q. What is this?

A. That is a front mount intercooler.
Q. And why was it needed?
A. These engines, the engine in particular that we're discussing was turbocharged, and the intercooler is basically a heat exchanger. As turbochargers create air pressure, that air pressure is heated under -- this pressure is heat. This effectively is basically like an air radiator. It is there to cool the incoming air to the engine.
Q. Was it needed specifically for the dyno run or just in general?
A. Needed for the dyno run.
Q. Why is it needed specifically for the dyno run?
A. Because I have to replicate everything as much as I can to the scenario that this engine is going to be in in the vehicle.
Q. Did you build this?
A. No. I purchased the intercooler kit itself.
Q. When you say you purchased it --
A. Correct.
Q. -- did you charge Mr. Johnson for that?
A. No, sir.
Q. Why not?
A. Well, when we started, when he approached and asked us about putting on the engine dyno, I said, "Yeah,

that is a possibility we can," I said, "but it's going to get expensive because there's a lot of equipment that we're going to have to acquire and/or make, and this is going to get in excess of, you know, 10, $15,000 because some of the stuff we're going to have to make, some of the stuff we're going to have to purchase."

He felt that he shouldn't have to do that, and I questioned why. And he says, "Well, you know, if you do all this work for the engine dyno, you'll be able to use this later on for other engines."

And I said, "You're right. We absolutely could." But that's a very big hypothetical, and I have no guarantee from him or anyone else in the world that I'm going to be able to use this on another customer's engine that we build for this intended purpose.

Q. So in the end, what did you decide to do?

A. In the very end, I sort of, you know, swallowed the pill no one wants to swallow and, you know, let's just get it done. I want to get the engine done. I want to get fire in it. I want to get it broke in. I want to do the things that he's wanting to do so that I can make sure he's taken care of, so I invested the money.

Q. I'm going to scroll down and look at a couple of other photos here in Exhibit 4.

A. Okay.

Q. Is that the same piece of equipment just put on the front of the engine?

A. That is the same intercooler, yes. While we were at Reher-Morrison setting all this up on the dyno, we actually -- Mike and myself had made that intercooler bracket stand so that we could actually have it bolted in front of the engine.

Q. Okay. One more. What are those golden tubes right here?

A. The -- those are the factory intake pipes that Nick provided that were -- that come off of his chassis, and they were used to connect his throttle bodies to the inlets and outlets of the intercooler.

Q. So all in, how much did you spend getting this car ready to have the dyno run?

MR. MATOUKA: Objection, Your Honor, relevance. How much he spent is not an issue in this case.

THE COURT: I'm going to allow it. Go ahead.

A. Nearly $30,000.

Q. Then once it was ready to be taken to the dyno run, what was Matt Pool's role?

A. Matt's only role there was to ensure the electrical system was put in place and to tune this engine on the engine dyno.

Q. Who actual -- who actually was in charge of the dyno run?

A. The dyno run itself, the individual actually in charge of the throttle mechanism was an employee of Reher-Morrison.

Q. Okay. So what was your role?

A. My role was strictly to produce the -- the apparatuses to bolt to the engine so we could actually put it on the dyno and then get it fixtured to the dyno. That's it.

Q. So did you spend multiple days at Reher-Morrison with this?

A. We did. We did.

Q. Why was that?

A. Well, it took -- it took just a day in itself, actually a little bit more, just to get the engine on the dyno and get everything else fabricated while we were at Reher-Morrison so that we could get everything set up correctly on the dyno so that this would be a functioning system when it was ready to go.

Q. Did you have to do additional work on the engine at one point to make it dyno ready?

A. To the engine itself during this first -- what we did here the first time?

Q. Yes.

A. Not that I recall, I don't think.

Q. So ultimately when the dyno run at Reher-Morrison happened, what was the outcome?

A. Well, we step back. At which time? Because this went on the dyno two separate times.

Q. First time.

A. First time. We had -- Repeat your question so I can make sure.

Q. What was the outcome of the first dyno run at Reher-Morrison?

A. We were trying -- Matt was trying to get the electronics to work correctly. I believe on this system it was his first time using -- I don't know for certain. This engine, we had developed a crank trigger kit to work along with a cam sync kit that was purchased after market from a company in Australia. So there were certain wiring needed to be done and there were certain criterias within the ECU that had to be modified or set up to allow these electrical systems to work properly. And that was Matt's job at that point because he's part of the tune and the electrical side of things. He spent several hours going through setting up everything on the dyno, wiring it and everything, and this is using a wiring harness that Nick had provided that he shipped to us because it's the only way we can physically run this engine is with a wire loom

or ECU harness. So we used his old '95 harness that was there that was provided. He hooked everything up.

For that entire day, multiple times, he was trying to get it started and couldn't. During this whole process that was going on of trying to start it multiple times, trying to figure out why it couldn't provide a spark to the engine, it's introducing fuel into the engine continuously. Because if the engine is in the car and you're trying to test this out, you can pull the fuel pump relay and basically cut all electricity to the fuel pump so no fuel is being introduced into the engine. You can check this as a dry static state.

Q. So let me stop you.

A. Sure.

Q. Let's fast-forward to: What was the outcome?

A. The outcome of what happened is that the -- we could not get the engine started.

Q. Why was that?

A. We ran into issues with fuel-ladened oil. It became extremely diluted because we had an excess of fuel being dumped in the engine, and the electronics were not working correctly.

Q. So what did you do?

A. We then -- we had explained what we were finding to Mr. Johnson. I think I had a conversation with him.

He mentioned, "Hey, go ahead and pull the plugs and do a compression check."

No problem. We'll do that certainly. Because throughout this time that Matt is trying to get the engine started, from the first time we're doing it, you can hear this engine trying to pump. You can hear it has resistance because it's having to create. So what ends up happening is throughout that time, it ends up being bore washed.

Q. So what did you do?

A. So what we ended up doing after we compression-tested, we pulled the engine off, brought it back to our shop, completely tore it down.

Q. For what purpose?

A. To verify what my -- what I thought was happening.

Q. And what was happening?

A. It was bore washed.

Q. And so what did you have to do to fix that?

A. Engine had to come completely apart, put the engine block back in the cylinder hone. We did what's called a puff hone. It's a quick, rough in on the cylinder bores, just to get the rough again. I purchased all new piston rings, re-ringed the entire engine, put everything back together as new again.

Q. Did you charge Mr. Johnson for those rings?
A. No, sir.
Q. So after you did that, was there a second dyno run at Reher-Morrison?
A. There was.
Q. What happened at that dyno run?
A. We started getting to the same issue. He can't get the engine started. So I immediately said, "Cut the fuel off. If you're going to try this, try to do it without fuel trying to be introduced. Try to figure out if the electronics are going to work first before we move forward."

We did that. Still had problems. Still had problems. Still had problems. He spent several hours on the phone with Haltech to the point I'm overhearing conversations of, "Do you have enough grounds hooked up on the system."

Q. So let me stop you. So the engine wouldn't start in the second dyno run?
A. Correct.
Q. So eventually it did though, right?
A. It did. It did.
Q. How did you get that?
A. Finally, Matt got tired of having to deal with trying to figure out the cam sync and crank trigger

system. He asked, "Do you have a factory cam angle sensor there that we can install on the engine? And I can run this like a normal Haltech where I don't have to try to go through and try to figure all this stuff out and we can basically try to get this thing lit and running."

Q. Did you do that?

A. I stopped what I was doing. I drove 45 minutes to my shop, picked up the cam angle sensor, drove 45 minutes back. Yeah.

Q. So after you did that, did you get the engine started?

A. Matt finally got the engine started.

Q. And then what happened?

A. We got to the point where we started running the engine a little bit, putting some heat in it. And then he felt that it was time to make a pull. And when they made the first pull --

Q. Let me stop you. What does it mean to make a pull?

A. So making a pull, so the engine started, you will then take the throttle lever and push it to max effort. That will then basically start the water break on the dyno, so we load the engine down. And then when he hits the button to start the dyno run, it releases the water break, allows the engine to rev fully, and then the dyno

run is done and then the data is recorded.

Q. So what did those -- what did those pulls show you?

A. It didn't show much because we couldn't get the engine to rev all the way.

Q. And how high did they get it to rev?

A. From my recollection, about 5,000 RPM.

Q. So did you -- did Matt and the people at Reher-Morrison and you try to rectify that?

A. Again, I'm not a tuner, so I can't speak on that aspect because I just -- That's Matt's specialty. I was completely out of that.

Q. What was the final decision then?

A. After multiple attempts trying to figure out what's going on, I said, "Look, we're eating up time. Reher-Morrison has to run their own engines on the dyno. They have two that need to go on immediately, so we need to just call it." I said, "At best, we've at least put enough heat in the engine, we've at least run this thing to where the piston rings should have primarily seated. This should be good to go to be able to ship for him to get in the car."

Q. What was the total amount of time that the engine was running on the dyno that day?

A. If you were to add the exact time of the engine

running?

Q. Yes.

A. Probably a maximum of about -- I'd give it on the high side 7, 8 minutes.

Q. And how long was the engine running total that day?

A. 7, 8 minutes.

Q. So that was the entirety?

A. That's it.

Q. Okay. Was Mr. Johnson included in the decision to abort the dyno run and move on?

A. I believe there was conversation between three of us trying to figure out.

Q. Do you remember what he said?

A. He was upset that, you know, he couldn't get what he was wanting, essentially, the engine to be fully dyno-tuned, not just a run-in or a break-in.

Q. So when you say it was a break-in, does that mean that the dyno tune took the place of that list of things that we saw earlier that you called for in the way to use the break-in oil?

A. So it's a little different on the engine dyno. The reason being is that we're running this on a open cell, essentially, and if I need to make changes to it, if we're given enough time, if we're doing enough dyno pulls

and runs, I then can do the exact same thing but it's not going to be in the same time interval as far as mileage is concerned.

Q. So, again, my question: Does that dyno run take the place of that process?

A. Yes.

Q. So he did not need to break in the engine once he got it?

A. He would need to run it a little bit more. That's the reason why I explained to him, "Hey, the engine is ran, but for good measure, I want you to do another oil change on this."

MR. HURLEY: Your Honor, may I approach?

THE COURT: You may.

Q. I'm going to hand you a document that this is Plaintiff's Exhibit No. 14.

A. Uh-huh.

Q. I'll pull it up real quick. Is this the communication you just described?

A. Yes, sir.

Q. Can you read for everybody what you said to him?

A. So Nick is Mr. Johnson located in blue on this. And he says, "The engine is now running, correct, question mark. So do I need to run that Fuchs oil I have or can I go synthetic?"

And I replied, "I'd do at least one run -- one more break-in oil or conventional. Then you can go synthetic."

And he gives me a thumbs up.

Q. I want to make sure we understand what you mean by that. This is the email you just read, right?

A. That's correct.

Q. What do you mean by "one more break-in"?

A. Meaning run one more oil change at break-in oil.

Q. Which is what kind?

A. The Motul or Maxima.

Q. And then it says, "Then you can go to --" You say S-Y-N, what does that mean?

A. Synthetic.

Q. And why does it need to go to synthetic at that point?

A. After that last break-in oil change and you've run the break-in oil or conventional oil, he had the option to run either/or, they were prescribed in the break-in procedure, he then could go to the synthetic oil that we have prescribed in that break-in procedure.

Q. And he specifically asked about Fuchs oil there?

A. Correct, correct.

Q. What is Fuchs oil?

A. I have no idea. It's not even available in the

United States.

Q. What did you later learn Mr. Johnson did once he got the car?

A. He put that Fuchs oil in the engine.

Q. He has suggested in his testimony that there was synthetic oil left in it when he got the engine. Did you leave that synthetic oil in the engine?

MR. MATOUKA: Objection, mischaracterizes prior testimony.

THE COURT: The Jury will recall the testimony. Go ahead and ask the question.

Q. (BY MR. HURLEY) Did you leave any synth -- I mean break-in oil in it when you shipped it the second time?

A. There would have been residual oil left because I can't ship an engine overseas with any type of fluids in it. So any -- any oil that would have been left in there would have been what was excess of what we drained down from the top of the engine down to the oil pan.

Q. So when you say that, what are we talking about? How much oil?

A. Well --

Q. A trace amount?

A. No, I mean, that oil pan holds eight quarts of oil. And when you drain it all out, a lot of it is still

left up in the cylinder heads and the oil drain-backs and everything else within the engine itself, and so it takes time for all that to finally drip all the way down into the sump of the oil pan. And before I ship it, I would drain everything out of it, pull the oil filter off, make sure that all that is out, because if that engine was to ship with fluids in it and it leaks, there's a high possibility that the engine would be flagged and then he would have had an excessive delay in receiving it, to the point that either myself or he would be fined.

Q. So what should Mr. Johnson have done, when he received the engine in England, to the oil?

A. To which oil, to the --

Q. To -- what does he do for engine oil when he gets it? Can he run it on the residual oil or does he need to add oil to it?

A. He'll need to add oil to it.

Q. And you said -- What did he do when he got it, to your knowledge?

A. I would assume that he would have put in his oil that he was going to run.

Q. Which is what?

A. The Fuchs oil, because he mentioned he purchased quite a bit of it.

Q. Okay. So let's go back to after it came off the

dyno at Reher-Morrison, who made the decision that it was ready to send back to Mr. Johnson?

A. I did.

Q. Up to the 5500 RPM level that you got to, were there any problems with the engine operation?

A. Operating on that dyno, I didn't hear or see of any operational issues, no.

Q. Did anyone from Reher-Morrison suggest there were problems?

A. I don't recall them saying, "Hey, you need to probably check this," no.

Q. Did Mr. Pool identify any problems?

A. He did identify that we've got an electrical issue somewhere.

Q. Which was the limit to 5500?

A. Correct.

Q. Other than that, did he identify any problems?

A. No, not that I recall.

Q. So again, process to send it back, what did you do?

A. Pulled the engine off the dyno. We hauled it back to our shop. I got it on the engine cradle. I put that cradle and assembly on the pallet for the crate. I then removed the oil filter. I cut the oil filter open. I inspected the oil filter to insure there was no FOD or

debris inside that filter. All checked out. If there was debris, I would have made the assessment then to call Mr. Johnson and inform him, "Hey, we've got an additional issue and that I'm going to have to put this engine on the stand and open it up to verify."

Q. Was that the case?

A. No, it was not.

Q. Okay. So then what happened?

A. I then tidied up the engine, cleaned up the wiring that was existingly on there for his cam sync kit, tried to just do some last minute fit and finish to make sure that this was as tidy as possible before it left.

Q. Then did you ship it?

A. I did.

Q. Did you have ongoing communications with Mr. Johnson once he received the engine for the second time?

A. I did.

Q. What did he tell you he did with the engine once he received it?

A. He received it. I do remember him saying, he said, "Hey, you know, this plug is missing. I've got coolant on the floor." And I looked, I said, "Oh, yeah, I drained the coolant out before shipping. I forgot to put the plug back in." It's a honest mistake. I mean, I was

trying to do my job into emptying that engine before it left. It was just -- I forgot the plug to put in.

Q. What did you understand though once he got that issue resolved, what did he do with the engine?

A. Put it in the car. I remember him saying that, "Hey, I did a cold compression and leak-down check, and I've got a hundred-sixty, hundred-sixty-five compression across the board." I think it was like 3 percent leak-down, which is extremely good.

Q. Okay. And then what did you understand happened with the engine?

A. He got it running. He did mention he had a couple of leaks and he was worried about that at one point. And I said, "Man, I'm sorry." I said, "We actually put sealant on those plugs to try to make sure that no oil gets past it. He had to fix that real quick, tighten those plugs up a little bit. Mind you, we did have it on the engine dyno at that point. I didn't see any external leaks coming from those areas, so it could be a combination of anything that happened on the dyno as well as when he got the engine in the car and ran. It could be any of those.

Q. Did you understand he then drove the car with the engine?

A. He did.

Q. Did he ever express to you there were any problems when he was doing the driving of the car with the engine in it?

A. No, I believe -- I asked him, I said, "How is everything going? He said, "Oh, it's going good." And I received a video of him actually driving the car. It was a in-car video that he was taking. You could hear the turbo spool. He got up to 5, 6,000 RPM in the car. It sounded really, really good, like it was a very strong, smooth operating assembly.

Q. Did you -- When did you first learn that there was going to be another dyno run in England?

A. He mentioned that when the engine came back he was going to schedule a tuning session with a company out in the U.K.

Q. Did you have anything to do with that?

A. No, sir.

Q. Why not?

A. I don't reside in England. I have no control where he brings that vehicle.

Q. What was the next thing you heard from Mr. Johnson?

A. After we had -- he sent me the video of the car running, there was a couple of other messages of the car idling outside the shop he was renting, a few pictures of

the car, just how nice it looked and how shiny it was. It was a beautiful car. I mean, he spent heaps amount of time on it. It's one of the cleanest Z-32s I've seen in all black in an extremely long time. And he was going to the dyno, and he went to the dyno, and something happened and I was notified.

Q. Were you called from the dyno, do you remember?

A. I don't remember if it was at the dyno. I can't recall that.

Q. What did he tell you when he called you?

A. He said, "Hey, we've experienced a problem," something of that nature, "and we had like a 10 PSI oil drop."

I said, "Oh, that's -- it's a little concerning, you know, depending on where it's coming from, essentially. Where? You know, is it right there at idle we got a 10 PSI drop? Is it right at peak of the run? Are we dropping steadily as we're running the engine? I need more information than it's just got a 10 PSI drop."

Q. Did he send you some pictures at that point?

A. Sent me a video of the car on the dyno running, yeah, and I watched -- I watched it, and I was like, that seems like the engine is struggling a bit. Doesn't sound fluid like it's supposed to be running. It sounded

nothing like it was when he was driving the car those few months that he had sent me video.

Q. Did you understand -- What did you suggest to Mr. Johnson that he do at that point?

A. I said, "Well, you've got an oil pressure drop." And he had mentioned about a rattle. And I said, "Are you sure that's not --" I think we had a discussion about his VTC. I said, "Is it a VTC rattle? Is it a solenoid, something like that?"

He said, "Yeah, we checked that, you know, it was the VTC. We disengaged that and that noise went away."

I said, "Okay." I said --

Q. What else did you suggest he do?

A. I said, "Well, if you stop, I want you to cut the oil filter open because if there's -- if you're concerned about a 10 PSI drop as I was, if there's any damage, it's going to show in the oil filter.

Q. Okay. Let me -- if you'll turn to Exhibit 11 in the notebook.

A. Okay.

Q. Did he send you some -- did he send you these photos after he tore the engine down?

A. He sent me these photos after the oil filter was cut opened and investigated.

Q. So the -- on that first page, what are we looking at there?

A. Looks like a rag or a paper towel to what I would assume to be is used as a filter to drain the oil through to catch any debris.

Q. Do you see debris in that photo?

A. It's hard to tell from there.

Q. Let me show you. Is that debris?

A. Yes.

Q. In your experience, is that large debris, small debris, normal debris?

A. That's large debris.

Q. What does that indicate to you?

A. Well, my first thought was, well, we have a bearing failure. For some reason, we have a bearing failure.

Q. And what did you expect that debris to be?

A. Typically, if you have any kind of bearing failure, the material, the FOD, the foreign object debris that's in there is very, very refined. It's almost like glitter. It's not in chunks like what we're seeing here.

Q. And then this next picture is of a person's hand with -- is that the debris as well?

A. That's more debris, correct.

Q. Again, is that large, in your opinion, or is that

normal?

A. That's --

MR. MATOUKA: Objection. He's calling for expert testimony from someone who has not been designated as an expert.

MR. HURLEY: Actually, he has been designated as an expert.

THE COURT: I'm going to allow the testimony.

Q. (BY MR. HURLEY) Is this considered large, small?

A. That's large.

Q. So when you got these pictures, what did you do with them?

A. I immediately said, "That's not normal." Bearings don't peel away like this unless there's a problem with the bearing itself. It didn't make any sense to me, considering how we built the engine and how well everything did prior to going to the dyno, so I was a little concerned. And he had mentioned, "I'm going to open the engine up and take a look." I said, "Okay. Go ahead."

Q. At any point did he send you any of the data that was generated by the dyno run?

A. No.

Q. Did you ever get the data logs?

A. I did.

Q. How did you get the data logs?

A. I requested them, only -- only after I saw other images beyond these.

Q. Who did you request the data log from?

A. From Mr. Johnson.

Q. What did you do with that data log?

A. I then took that data -- Again, I'm not a tuner. I don't pretend to be. I don't honestly care to be a tuner. It's, honestly, a little nerve-wracking for me. But there were individuals I have dealt with in the past that have tuned some of our race engines that we have built, and they are very, very sought after individuals and businesses. And I sent these -- this data log to, at first, two different entities. Those are unbiased, have no skin in this game.

Q. Who are they?

A. The first one was Roman, I don't remember his last name, but he's the owner of Art of Assembly in Grapevine.

Q. Okay.

A. Or Grand Prairie. I'm sorry. Grand Prairie.

Q. Who is the other one?

A. It's Tim Woodridge.

MR. HURLEY: May I approach, Your Honor?

THE COURT: You may.

Q. I'm going to hand you what's been marked as Defendant's Exhibit 15. I know this is very small print. If you turn over, the larger version of this is in the back of it. I don't want you to read from it yet. I just want to ask you a couple of questions about it.

A. Sure.

Q. Is this the email and response you got from Tim Woodridge?

A. That is correct.

Q. What did you send to Mr. Woodridge that resulted in this email response?

A. I sent the specific data log that I was sent from Mr. Johnson to him.

Q. And I know you have to read emails from beginning, but on the last page of that, which is EPR 263, is that your email to him?

A. Please see attached --

Q. Hold on. Please don't read it.

A. Okay.

Q. Is that your email to him?

A. Yes, yes.

Q. And the previous two pages, is that his response?

A. Yes.

MR. HURLEY: Your Honor, this was not agreed to as admission, but this was also subject of our business

records affidavit previously filed, so we move for admission of Defendant's Exhibit 15.

THE COURT: What date was it filed?

MR. HURLEY: March 27th, 2024.

THE COURT: So more than two months ago?

MR. HURLEY: Yes.

THE COURT: Any objection?

MR. MATOUKA: Same objection I made to the last one, Your Honor.

THE COURT: Remind me what that was.

MR. MATOUKA: That these aren't records kept in the normal course of business despite what the affidavit says.

THE COURT: Okay. Objection is overruled. It's admitted. What number is it?

MR. HURLEY: 15, Defendant's Exhibit 15.

THE COURT: 15 is admitted.

(Defendant's Exhibit No. 15 admitted.)

Q. (BY MR. HURLEY) So if you will turn to the substantive email he sent you back. And this is from -- Actually, his name is not on it. Motorsports Electronics?

A. Correct.

Q. What is the name of the person?

A. Tim Woodridge.

Q. Why did you send this to Mr. Woodridge?

A. Mr. Woodridge actually tuned the GTP engine assembly we built for a 1991 Group C Prototype car that races in IMSA.

Q. Had he -- does he have a reputation of being someone who knows what he's doing with tuning engines through the dyno process?

A. Highly reputable.

Q. Mr. Woodridge says, "So there isn't a ton of data here to go off. I would really like to see knock sensor data here to confirm, but to me, this is an irresponsible dyno pull." He goes on to say, "I would have pulled out of this immediately seeing the lambda go lean, plus I don't know how they didn't hear it. It would have been -- it had to have been missing. It took 3-and-a-half seconds of full throttle to pull away from a 2,000 RPM. Either the engine was breaking up and having a hard time or the dyno was holding it there. Either way, max load at 2,000 RPM for 3.5 seconds is asking for trouble."

If you can, explain to us plain English what that means.

MR. MATOUKA: Objection. He's already testified that he's not an expert on calibration and tuning.

MR. HURLEY: And I really just want an explanation of the terminology used, Your Honor, not his

opinion on it.

THE COURT: Go ahead.

A. I mean, he goes over the dyno pull being irresponsible. He basically is discussing things, same things the other individuals here have been discussing in regards to the tune.

Q. (BY MR. HURLEY) Let me ask you specifically. It says, "Seeing the lambdas go lean," what does that mean? What is that in reference to?

A. From my recollection would be wide band sensors.

Q. You go on down this email, there's some bullet points, and he just starts off with, "So, multiple things here. Started pull at 2,000 RPM. Too low. I normally use 3,000 or 3500 to start from. This is the same as lugging a car and too high gear on a hill."

Do you understand what the term "lugging" means?

A. Yes, sir.

Q. Can you give us a layman's definition of that?

A. Best, easiest way I can explain it is if someone was standing in front of me and I told them just to stand squarely in front of me and I'm to place their hands on their shoulders and I slowly start to apply pressure to their shoulders. Their natural resistance, they start to tense up. Right. You can predict, you can control how to

resist this load that's being applied upon you.

If then I said, "Please sit down for me," and I say nothing, and I drop 500 pounds onto his shoulders as he's trying to get up, and he flops back in the seat, and I drop another 500 pounds on him, he hits his seat, hits his seat, hits his seat. Eventually, the multiple times of 500 pounds resting and hitting his shoulders, he's going to end up on the floor because he can't control how much weight is being pushed upon him.

Q. So transfer that to what happens in a car when it is lugging.

A. So in this instance, when it's referred to lugging, you've got an engine that is not revving enough. It doesn't have enough inertia load. The engine is not at a high enough RPM to overcome the forces that are being imposed on it.

Q. So give us like a everyday example when we're all driving in our cars, what is an example of when we might experience lugging?

A. You're driving your truck. You're going uphill. You have the entire trailer in the back loaded. It is at max capacity, and you're going up a hill and you're running a -- We're going to use the same example as Mr. Johnson's car. It's a 5-speed, so it's a manual transmission. And you're going uphill with a full load.

You're in fifth gear and you're punching the gas pedal as hard as you can. First thing you hear, turbocharger immediately starts to whine out as hard as it can. It's trying to -- it's trying to push as much air pressure into the engine to get the RPMs up, but it can't because the inertia load of the engine is not high enough to withstand the load that is constantly beating down on it. And all that while, it's pulling 9,000 pounds behind it and it can't -- it cannot survive.

Q. So what does that do to the engine?

A. It will absolutely destroy it.

Q. When you say "destroy it," what do you mean?

A. You will start -- you can and it will eventually break wrist pins, buckle rods, hammer main bearings, hammer rod bearings, stretch rod bolt threads, to the point some of them are stretched on these rods here today.

Q. So let's go down to the last or next to the last paragraph in his email. It says, "I don't know what the failure is on this engine, but I bet it's detonation damage one bank 2."

What does that mean, detonation damming on -- damination (sic) -- detonation damage on bank 2?

A. So the lugging characteristic is going to be another form of detonation. When that happens, it's --

you're going to have absolutely damaged, physical damage to your parts internal on the engine.

Q. If you go on down to, I guess, two sentences down, says, "Oil pressure looked really good. The whole time 21 PSI at idol, 1,000 RPM, and 97 PSI at peak RPM."

So you said it concerned you that it dropped --

A. Right.

Q. -- the PSI?

A. Right.

Q. Why did it concern you? But let me ask it this way: Did you have expertise in reading that oil PSI chart?

A. No. I don't -- I don't tune so I'm -- The only reason why I knew that had a 10 PSI drop was because it was told to me.

Q. Were you surprised when Mr. Woodward -- Woodard (sic) said the oil pressure was good the entire time?

A. I was, actually, because I was concerned that if the -- there was a 10 PSI drop, where else, what could it have dropped, was it not reading or did it not have enough pressure throughout the run.

Q. So during this time when you're out seeking this input from people -- And let me stop. Other than the two people you just described, did you seek input from anyone

else at that point?
A. I did.
Q. Who was that?
A. Mr. Dylan Bradley.
Q. You heard us read Mr. Bradley's email before --
A. Correct.
Q. -- during his testimony. Was that email around the same time as this email?
A. Pretty well in line, if not right parallel with it.
Q. No, I'm talking about timing-wise.
A. Oh, timing-wise, as far as when I sent the emails?
Q. Yeah.
A. I think it was a little further down the road than when I sent Mr. Woodridge this email, if I recall.
Q. So during this time, were you still communicating with Mr. Johnson?
A. No, I was not.
Q. Why not?
A. I was going through an unforeseen situation regarding my business.
Q. And so what was that?
A. We were forced to move from our location because the landlord sold the complex and said nothing to any of

its tenants.

Q. So you had to move your entire shop?

A. My entire company had to be completely gutted and moved to a new facility.

Q. Did you eventually suggest to Mr. Johnson that whatever happened to the engine wasn't your fault?

A. No.

Q. Did you ever have a discussion with him saying, "I don't think this was a machining error"?

A. I don't believe so. I think at that point in time the first prognosis what come to my mind was based upon the only images I was sent was of main bearings, and I said, "I know I built this engine correctly with what we do. It's -- I find it very hard to believe that how we built this engine would cause a main bearing failure."

Q. At the same time, did you have these opinions from outside sources?

A. I didn't have these until a little after.

Q. What was the first time you heard that Mr. Johnson thought it was oil clearance was the issue?

A. I remember there was a email that was sent to me saying that he went through and had a lot of dimensions verified and checked, and I read them, but that was along the lines of -- or at the time we were going through a move, so not that I was trying to ignore anyone, I had a

pressing matter of I had, at that point in time, given -- was given 30 days to move an entire machine shop, which is unrealistic to anyone's standards. I was then given 60 days, but...

Q. So did your initial opinion that it was a problem with the bearings change over time?

A. At first, I thought it was a delaminated bearing. And then based on the only images I was given, which was of main bearings, and then Nick provided additional images that I don't -- I don't remember if I ever asked for them, but he asked me, "Hey, there's some weird damage to the pistons. Can you look at this." And he sent me pictures of the pistons that we have before you today or before us today, and there were also additional images of the cylinder bores. And at that point, I requested to have the data log sent over.

Q. And then that -- that data log you received is what you sent to these individuals we're talking about?

A. That is correct.

Q. And then ultimately, what was your conclusion about what the cause of the problem with the engine was?

A. Based on the additional images that I was sent, and then I finally got information back from both Mr. Woodridge and from Mr. Bradley, it confirmed my suspension of what had happened.

Q. Which was what?

A. That this engine had experienced a catastrophic failure due to, essentially, a tuning issue.

Q. And we've used the term "detonation". We've had that described to us. In your opinion, would detonation -- would -- could detonation be caused by a bad tune?

A. Absolutely.

Q. The lugging that you just described earlier, do you believe the engine -- this engine we're talking about, was it lugging on the dyno?

A. From me hearing the car on the dyno for -- in the essence of listening how the engine was operating through the RPM range, it sounded very, very delayed, meaning that it seemed like this dyno run -- Dyno runs typically run, even on an engine dyno, only last a few seconds. I mean, when I say a few seconds, I'm saying from literally getting it up to RPM to start the run to the very end, we're talking 3 to 5 seconds.

Q. So -- so did you hear lugging on the video you heard?

A. I didn't hear it because I'm only limited to a video.

Q. How did you come to the conclusion that it was lugging on the dyno?

A. Just by the simple fact that this engine is taking a considerable amount of time to run through the RPM range.

Q. Okay. And so ultimately, in your discussions with Mr. Johnson, did you express to him that you believe that the failure wasn't your fault?

A. Yes, if I remember, yes.

Q. Did Mr. Johnson ever offer to you to fix this engine the second time?

A. No. If I remember correctly, it was: He didn't want to go forward with another warranty claim, basically because, one, he would feel it'd probably take too much time, and, two, it was a cost analysis issue.

Q. So what did he offer to you?

A. Essentially, buy the warranty out and give him X amount of dollars. I don't remember the value of what he was requesting.

Q. Did you ever offer anything other than money to him when this discussion was going on?

A. I offered to, based on the input that he gave me about the crankshaft being bent that he informed me of, the block and the main caps and so forth, I said, "You know, I'd be -- I'd entertain fixing these issues for you if you will send me those parts, and I will remachine everything for you." Because at that time, I still did

not feel I was responsible, but I figured I would meet him halfway and remachine those items for him and send them back to him. He seemed competent enough that he could probably put the engine together had I basically had everything set up for him. It would be a simple assembly job at that point.

Q. What was his response to that?

A. He didn't want that.

Q. Did he tell you why?

A. I don't recall why.

Q. So why weren't you willing to give him money at that point?

A. I didn't feel I was responsible.

Q. Did anything Mr. Johnson showed you at that time or subsequent to that time ever change your opinion about your feeling of responsibility?

A. No, sir.

Q. Why do you feel confident that it wasn't your responsibility?

A. Because I can't build an engine to run into a lean or lugging condition.

Q. I know you're sitting in front of some of the parts today. Since the last time you had the engine before you shipped it back, is this the first time you've seen these parts?

A. In person, yes.
Q. Anything about physically inspecting these parts that changes any of your opinions?
A. No.
Q. Anything you see that's unique about these parts other than what you saw in photos?
A. Me inspecting the rod bolts, that was one of the telltale signs.
Q. What did you find when you inspected those rod bolts?
A. Some of them, not all of them, but some of them have stretched threads in the thread region of the rod bolt.
Q. And what does that indicate to you?
A. That you've got excessive strain on the rod itself. And the rod bolt is the most commonly replaced item on a connecting rod. It's the only thing keeping the rod connected to the crankshaft.
Q. I want to go back and ask you this question again and pull up the document again. When was the last time you measured the oil clearance on this engine?
A. Last time I measured the oil clearance from which time?
Q. Ever on this engine.
A. Ever. During assembly.

Q. During assembly. And did you measure those with what kind of device?

A. A Sunnen dial bore gauge.

Q. And did you write those numbers down in the column here that says "oil clearance"?

A. That is correct.

Q. Were they -- were those numbers derived at all from a mathematical equation?

A. No, no. We don't do any -- any arithmetic to configure our oil clearances on any engine.

Q. So is it your belief that the last time the engine left your hands, the oil clearance on this engine was as listed here in the oil clearance column?

A. That is correct, yes, sir.

MR. HURLEY: We'll pass the witness, Your Honor.

THE COURT: Counsel.

CROSS-EXAMINATION

BY MR. MATOUKA:

Q. Afternoon.

A. How are you?

Q. Doing all right. Been a long week.

A. It has.

Q. One of the first things I want to ask you is do you recall getting a letter from my office or an email

informing of a demand letter?

A. If I recall, yeah, I think there was something like that.

Q. Would that have been in the Fall of 2022?

A. That, I don't recall.

Q. Okay. When was that email, I believe it's Plaintiff -- or Defendant's Exhibit 15, when did you -- when was that email from?

A. Which one are we looking at?

Q. When was this email from?

A. Looks like October 25th of 2022.

Q. So that's over a year after the engine failed?

A. I would assume so. I don't have the exact date.

Q. Okay. I mean, the testimony here you've heard this week, failure was August 30th, 2021, correct?

A. Failure was when?

Q. August 30th, 2021.

A. Okay.

Q. Okay. So this is from a year later?

A. Yes.

Q. Okay. How many mistakes did you make throughout building this engine?

A. The -- From my recollection for what mistakes we have made on this assembly, stuff that I have apologized to Mr. Johnson for, I have not made excuses in anything in

doing so, was about -- I think we call it three, three, maybe four.

Q. And what were those?

A. As outlined, the No. 1, bent valves. The other one was the valve spring retainer. I think there was a spring seat shim. There was that one.

Q. And can you -- I don't think we've talked about that, or you've talked about that. Can you explain what that was?

A. Which?

Q. The valve seat spring or valve spring seat. My apologies.

A. Valve spring seat. Essentially, it is a circular shim that sits on the valve guide boss that prevents the valve spring from fretting the aluminum in the cylinder head.

Q. Okay. What else?

A. Mistakes that caused issue.

Q. Just any problems.

A. Trying to think. Bent valves. There was the spring seat shim, retainer was damaged on that. That's as far as I think I can remember.

Q. Were there any issues with, I don't know, roughness of any surfaces?

A. Roughness?

Q. Yes.
A. Not that I would consider anything any issue.
Q. Were there any allegations as to improper machining in the roughness of any surfaces?
A. Not improper machining. I think there was concern, questioning.
Q. Okay. What was that about?
A. Questioned about the roughness of the deck surface of the block.
Q. And what about any burrs that you left?
A. I believe there was one burr that was on a valve guide, but it didn't break off, it didn't cause any damage to the engine, and it didn't have any validity towards any type of damage caused in this engine.
Q. What about leaving the plugs in with the turbos?
A. It's an oversight. Actually happens a lot more than you would think in the industry. There's a lot of people, a lot of hands that touch engines that go on and off the dyno, on and off the car, et cetera, and there are things that happen. Plugs get in things. But I will say the reason the plug was in there is because during transport, I didn't want any debris running up inside those tubes and fear that if I -- if it's in a tube and I can't see it, then I don't know it's there. So the best thing to do would be put a plug in it to make sure nothing

does get inside.

Q. Absolutely. But these are oversights, correct?

A. It was a mishap, unfortunately.

Q. What about the coolant plug?

A. Coolant plug, I mean, we pulled the plugs out to make sure we drain the coolant. Part of responsibility I feel that if the engine gets back to the client, you go over everything one last time before they're to put the engine in the car.

Q. And are you sure that was the second time and not the first time you sent that to him?

A. The coolant issue on there, I believe would have been, if I recall, I think it was the second time after it came off the dyno at the end.

Q. Okay. Anything else that you can remember?

A. No, sir.

Q. So let's talk about EPR for a moment. That's your company, right?

A. Correct.

Q. Is -- Who at the -- You recently hired another employee?

A. Just under a year ago, yes, sir.

Q. Prior that, who was working?

A. Myself and my partner.

Q. And were -- was -- does -- did your partner

always work there?

A. Yes.

Q. He never quit?

A. He did quit at some point, I believe. I think he got burned out with some other things going on in his life that didn't have anything to do with what we were doing at the shop.

Q. My apologies. I've got to find...

So it wasn't because he was tired of rushing?

A. Tired of rushing?

Q. Yeah.

A. We did have a project that was in the shop for a cylinder head, but it wasn't because of that situation. There were a lot of other underlying circumstances as to why he was in the state that he was in and it had nothing to do really with a particular job we were doing in the shop.

MR. MATOUKA: May I approach, Your Honor?

THE COURT: You may.

Q. Have you ever seen that text message before?

A. I recall this snippet, yes.

MR. MATOUKA: Okay. Your Honor, I'd like to move to admit this text into evidence as -- I think that would be Plaintiff's 16.

MR. HURLEY: No objection, Your Honor.

THE COURT: 16 is admitted.

(Plaintiff's Exhibit No. 16 admitted.)

Q. (BY MR. MATOUKA) And you just testified that your partner did not quit because he was tired of rushing, correct?

A. Tired of rushing. I think it was essentially for other things that were going on in his life as well. Had nothing to do in particular with what was going on in the shop.

Q. I apologize. The one I have on my computer is a little bit more, so I will try to zoom in to only what you have.

And so the blue would be Mr. Johnson, correct?

A. It appears so, yes.

Q. Can you read me your text under Mr. Johnson saying no?

A. "Told me he was tired of rushing, and I'm over here like don't see how that's possible when we get anything done on time. He's been gone a month but I've been muscling it. Friend is helping out around the shop."

Q. So in your shop, you've talked about having, what, 15 to 20 engines at any one time, correct?

A. Yes.

Q. You're pretty busy, especially with just two

people, right?

A. Extremely busy.

Q. Were there ever times where your partner wasn't there and you're rushing to try and get everything done by yourself?

A. Not rushing, because the type of work that is being performed there, you can't rush. Now, is it time consuming? Absolutely. Especially for a one-man show.

MR. MATOUKA: All right. May I approach, Your Honor?

THE COURT: You may. Let's take a break. It's almost 3:00.

MR. MATOUKA: All right.

THE COURT: 3:00. We'll resume about 3:15. Y'all have a good break. We'll see you back here in about 15, 20 minutes.

(Recess taken.)

(Jury present.)

THE COURT: All right. You can be seated. Go ahead, Counsel.

Q. (BY MR. MATOUKA) Mr. Wilson, we were talking about EPR, your business, before the break, correct?

A. Yes, sir.

Q. And so kind of I want to inquire into workloads, how busy you were. So prior to hiring another person,

your partner was there with you all the time?

A. Majority of the time, yes.

Q. Okay. And were -- was that enough for you guys to get everything you needed done?

A. Well, in terms of what?

Q. You know, finishing your contracts, getting engines built, parts, that type of thing.

A. Was it enough hands on, hands on to --

Q. Yes.

A. It was, considering the size of shop we had. The size of the building that we had was considerably small and we were pretty crammed in there. There was a lot of work in there. Don't get me wrong, but I think if we added any more work hands in there, we would run into each other all the time.

MR. MATOUKA: May I approach, Your Honor?

THE COURT: You may.

MR. MATOUKA: Hand you what's been premarked Plaintiff's Exhibit No. 4. I'm going to try to flip to the page that we're going to be discussing. You don't have to find it if I can. Sorry. Stand here for a second. Take this binder clip off if you want.

(Off-the-record discussion.)

Q. (BY MR. MATOUKA) All right. Have you seen this message before?

A. I don't recall. It's been a long time ago.
Q. Okay. But can you read through it by yourself real quick?
A. Where would you like me to begin?
Q. At the top.
A. Part of it is cut off, out.
Q. Yeah, the part underneath, start with the part underneath that.
A. "So, long story short, girlfriend --"
Q. No, no, to yourself. I want to ask you about it.
A. Oh, okay. Okay.
Q. Is this you complaining that you guys aren't getting enough done?
A. I think that there basically gets to the point where, not that it's getting enough done, it's that we're being interrupted.
Q. Okay.
A. That's basically about it.
Q. Now I would like you to read, can you start at the first full text and read that out loud. And I'll read the blue. I'll read the stuff on the right if you read the stuff on the left.
A. Okay. "This happens weekly nearly."
Q. No, no. Starting above that.
A. "Long story short, girlfriend constantly moans

about nerve pain, not taking her antibiotics."

Q. Can you read it exactly?

A. Okay. "Well, long story short. His girlfriend constantly moans about nerve pain all the time, not taking antibiotics to keep infection and nerve pain down, rather help herself healthy make -- she lets go, calls him and mental state goes out the window, and drops everything at the drop of a call and drives three hours away."

Q. And how often does that happen, according to your next message?

A. During that time period, she was experiencing a lot of issues.

Q. Just --

A. Happens, happens weekly nearly.

Q. And --

A. It upset me.

Q. Okay.

A. It upset me because -- It upset me because --

Q. And then Nick responds. And your next message after Nick's response is?

A. "That's a tough one."

Q. No, no. Read the entire message after next response.

A. I'm not.

Q. I'll read it for you.

A. Yeah.

Q. "The cunt simply won't do what she needs to, but the second she's in pain, she's right on the phone crying. Can't help someone who doesn't help themselves. And he knows and he keeps talking we need to get these jobs done," and then, you know, in all caps, "fucking don't I know it but you're never here. He's gone more than he's here."

Then Nick replies, "Very true."

And then you go down and start talking about, "We aren't doing caps till we make progress on this flat head assembly. Oh, you mean the assembly we aren't getting paid on and one where you must be here because I won't fuck with that shit. Mind you, I've got people asking how their blocks are coming. You're in line with the rest to getting caps fitted. I can't tell them nope, nothing, because my partner wants to work in this pile of shit but can't because he's not here so I'm forced to do all this myself. No problem. Just takes longer."

And then Nick asked about hiring someone else.

"The fuck is the point of having a partner if the fucker ain't here. Yeah, if that third pair knew what to do. I can't afford down time to train, but it's okay,

I'll just suck it up like always."

And then you say, "When I told you about the current state of your parts, he was the one that was supposed to be doing it all so I could get the rest of your stuff lined up and ready."

So were you ever having issues with completing Mr. Johnson's build because your partner wasn't there?

A. Not in essence. Basically, it was we were sharing a lot of the workload in conjunction with the other workload that we had going on at the time, and I think that I misspoke, and it was my fault, my burden to carry when it comes to that because I was extremely frustrated at the time. But not only the amount of workload we had, but also frustrated with the fact that I have to stop, take care of other things to make sure that the business can move forward. And in that essence, I spoke based on irrational, frustration, trying to complete jobs, using bad language, bad characteristics, and it's just something that I 100 percent own as far as the derogatory remarks.

Q. Do you -- do you have a habit online of going after people who talk about your work?

MR. HURLEY: Objection, Your Honor, relevance.

MR. MATOUKA: Goes to his reputation.

THE COURT: I'm going to allow it. Go ahead.

A. Like seeking after people?

Q. (BY MR. MATOUKA) Yes.

A. I don't think I literally hunt people down.

Q. Not hunting them down, but do you follow and try to identify who is talking about you?

A. I'll make inquiries, sure.

Q. And are there a lot of people who talk negatively about EPR?

A. I don't know. I'm not really part of any groups that are anything that would be part of something.

MR. MATOUKA: May I approach, Your Honor?

THE COURT: You may.

Q. Hand you what's Plaintiff's proposed exhibit No. 17. Have you seen that text message before?

A. Don't recall.

Q. Can you read through it?

(Witness complied.)

A. Okay.

Q. Does that bring anything to mind?

A. I know the gentleman's name. I don't recall.

Q. Let me ask you this. You see that little symbol on the left side? I assume this is a Facebook message, yes?

A. Yes.
Q. Is that the symbol used for EPR?
A. Yeah, it's our business logo.
Q. So this is an EPR Facebook chat?
A. Yeah, off the business page, yeah.
Q. So who would manage that?
A. I would.
Q. Okay. So this is your message?
A. Correct.
MR. MATOUKA: Okay. Move to admit.
MR. HURLEY: I don't think it's been given a number yet.
MR. MATOUKA: No. 17, Your Honor.
MR. HURLEY: Your Honor, again, I object on the basis of relevance and also 403(b). I believe its prejudicial value outweighs any type of probative value it has.
MR. MATOUKA: I can lay a little bit more foundation if you'd like, Your Honor.
THE COURT: If you would, please.
Q. (BY MR. MATOUKA) Are you talking -- is this -- are you complaining to Mr. Johnson about what people in the engine community are saying about you and EPR?
A. It would appear on this one it would be one particular individual.

Q. Okay. Are they in the, you know, engine and car community?

A. This one was an engine community for -- I believe it was cigarette butts.

Q. And do they build engines?

A. I don't know if they do now. I think back at that time. I don't even know if he's still employed there, so I can't answer that.

Q. At that time?

A. I think so.

Q. Okay. So people talking about engine building and the engine building community, correct?

A. This is pertaining to one individual about another individual, not a community.

Q. Right, but are you talking about posts made into the community?

A. Posts made about billet main caps. I don't know where the post is referring to where it's at, but it's saying it's a post.

Q. Right.

A. Well, I don't know where it's being posted at.

Q. Is he -- are you saying that this person is implying that EPR does poor business?

MR. HURLEY: Your Honor, this is not foundation. This is just basically reading the document

before it's been admitted.

THE COURT: Sustain.

MR. MATOUKA: Your Honor, move to admit.

MR. HURLEY: Same objection, Your Honor. I believe this is neither relevant and I believe it has a 403(b) problem.

THE COURT: Tell me the relevance, Counsel.

MR. MATOUKA: Your Honor, we're -- In Plaintiff's opening, he talked extensively about Defendant's reputation in the community. That was one of his -- where he hung his hat. We've heard about the reputation of EPR and Mr. Wilson previously. Now, A, I think that rules permit reputation as to a business to come in, and B, I think I'm allowed to rebut the implications that he has a stellar reputation within the community.

THE COURT: Okay.

MR. HURLEY: The problem, Your Honor, is this isn't other people's comments about his reputation. This is a discussion that he's having with Mr. Johnson that has -- that doesn't even actually talk about what this other person is really saying. It's not -- There's not a quote from it that actually says here's what other people are saying. This is just a private conversation.

THE COURT: I left my glasses in my office so

I'm going to have to --

(Pause in proceeding.)

THE COURT: 17 is admitted. Objection is overruled.

(Plaintiff's Exhibit No. 17 admitted.)

Q. (BY MR. MATOUKA) So is this you talking to Mr. Johnson about one individual calling EPR a scammer?

A. Ask the question again.

Q. Is this you talking to Mr. Johnson about an individual calling EPR a scammer?

A. It's my interpretation of it, yes.

Q. Is this type of issue in the engine community common for you?

A. This issue, well, of someone labeling us a scammer?

Q. Or having complaints that EPR doesn't do the work that they say they do.

A. I think every machine shop or engine builder in the country is going to experience this because you're dealing with a multitude of people.

Q. I didn't ask about other machine shops. I'm asking about EPR.

A. Okay. Do I think that what again?

Q. Is this common? Are there a number of people or a lot of people out there saying that EPR isn't doing the

work that it says it does?

A. I don't think there's a lot of people at all that go through that.

MR. MATOUKA: May I approach, Your Honor?

THE COURT: You may.

Q. Plaintiff's proposed 18. You can read through that for me.

A. A lot of this I can't read.

Q. Oh, the photographs, like those images, I'm not specifically asking about that.

A. None of the verbiage on this either? Just this right here?

Q. I'm asking this.

A. Right here?

Q. Yeah.

A. Okay.

Q. Yeah. Is that you talking about the community?

MR. HURLEY: Your Honor, may we approach?

THE COURT: You may come on up.

(Whispering at the bench.)

THE COURT: Do you want a record?

MR. HURLEY: Yes, please. This is the fourth exhibit --

MR. MATOUKA: These are all his own words.

MR. HURLEY: Hold on. This is the fourth

exhibit they did not have listed on the exhibits list, so this is trial by ambush. He's simply -- these things he thinks are salacious he's going to drop on us, didn't give any fair warning on the exhibit list.

THE COURT: I didn't know that when I admitted the other one. Go ahead.

MR. MATOUKA: He says he's got a great reputation. He says he doesn't think that anyone out there is saying anything about him. That's -- this is also impeachment. This is not only impeachment through his own words, but it is, second, contrary directly to what you argued in your opening extensively. So it comes in through impeachment, and it's also valid to attack his reputation, which you opened the door to, and is also permissible under the rules.

THE COURT: I'm going to allow it, but let's move on.

MR. MATOUKA: This will be the last one.

THE COURT: I want to get through by 4:30 today.

(In open court.)

THE COURT: Go ahead, Counsel.

Q. (BY MR. MATOUKA) Mr. Wilson, as I was saying, that's about the community, correct?

A. Which community?

Q. Well, I was actually going to ask you. Does that message refer to the community?

A. And, again, I asked which community?

Q. Is that your text?

A. That's my text there, yes.

Q. Okay. Are you the one who says "the community"?

A. I say community, but I'm asking what community are you referring to?

Q. How many communities are you a part of, Mr. Wilson?

A. There's a Z32 community. There's a Z31 community. There is a -- there's a lot of different ones that we've got that we're part of.

Q. Okay. Are you a part of those because you're an engine builder and these people come to you for your work?

A. This, if I recall, when I'm referring to community is part of the Z31 community. This is in regards to -- looks like parts.

Q. Okay. And you sell parts and you sold Mr. Johnson parts?

A. Correct.

Q. And you say you've got a good reputation in the community, right?

A. I feel that I do.

Q. Okay. And is this you talking about it?
A. It appears so. I don't see our business logo or anything on there so I can't speculate, but I would assume it would be.
MR. MATOUKA: Move to admit 18.
MR. HURLEY: Same objections as before, Your Honor.
THE COURT: 18 is admitted.
(Plaintiff's Exhibit 18 admitted.)
MR. MATOUKA: Thank you.
Q. (BY MR. MATOUKA) Is that you saying the entire community is rigged against you?
A. Yes, that's what it says here.
Q. And why? Why would you say that?
A. There are a lot of things that we either develop, pioneer or produce that the community, in reference what I believe in this one, are constantly -- how can I put it -- would say "doesn't work, not proven, it's impossible, you can't do this, this doesn't make any sense." So rather than talk to us, try to get informed, try to understand, maybe be educated about what we're trying to do, they make automatic assumptions. And I've seen that several times.
Q. Okay. Now, let's move on to just how EPR functions as a company. Who makes the decisions on what

contracts to take?

A. I do, ultimately.

Q. Okay. How are -- how are revenue -- how is revenue divided?

A. Explain.

Q. How do people get paid?

A. Pay them through whether it be wire transfer or --

Q. Your employees and your business partner?

A. Correct, be an ACH deposit.

Q. Okay. So all the money goes to you?

A. All the money goes to the account.

Q. And that's your account?

A. It's my account.

Q. Okay. And you don't have any other accounts?

A. No, sir.

Q. Okay. So all of EPR's money and your money are in the same account?

A. That is correct.

Q. Okay. You -- I think earlier you talked about how often, like, you check stuff before you send it out, right?

A. Correct.

Q. So how did you send out an engine missing coolant, the coolant plug? Well, strike that.

Was there an issue with the pulley in the first -- the first time you sent it to Mr. Johnson?

A. With the pulley, we machined one for a crank trigger kit. We had to modify the pulley, yes.

Q. Was there any issue with alignment?

A. I believe so, yeah. There wasn't an issue, but at that time we didn't have the other corresponding pulley to make sure that we could fully line that up.

Q. And that's not something you could have figured out?

A. I don't have the other pieces of equipment that were provided to me.

Q. They were provided to you?

A. They were not provided to me.

Q. Okay. During the dyno run that you and Matt Pool worked on, right, did -- You worked on it with him, right, like setting it up and all that stuff?

A. We hooked up the engine to the dyno, correct.

Q. And you were talking with him as this process was going on, whether or not you were calibrating?

A. I wasn't bothering Matt while he was calibrating.

Q. Right, but when an issue would arise, would you talk to him?

A. I asked questions, "How we looking? What's going on?"

Q. Was there any issue with the air/fuel ratios?
A. I have no idea.
Q. You talked about air/fuel ratios earlier.
A. Based on something that was submitted here that I was reading.
Q. So you don't know anything --
A. I'm not a tuner. I said that several times during this, too.
Q. Okay. What do you know about O2 sensors?
A. Electrical device that measures O2 ratings. That's about it.
Q. Did you ever have a conversation with Matt during that time whether one of the O2 sensors was accurate or inaccurate?
A. Not that I recall.
Q. Okay. So, and you were here during his testimony, correct?
A. Yes.
Q. Where he talked about swapping the O2 sensors from one side of the engine to the other with you?
A. I did not swap any O2 sensors on any engine during the dyno.
Q. Were you there the entire time?
A. I was at Reher-Morrison the entire time, yes.
Q. But you don't remember if there was any --

A. If there was a swap, it was done out of sight, out of mind, because there were other things I was trying to take care of as well to facilitate getting things on the dyno.

Q. Okay. After the -- after that dyno run, was the engine broken in?

A. Which run?

Q. The one that actually worked at Reher-Morrison?

A. I believe that it was almost broke in to the point that I think he could put it in the car and get it running, but I remember telling him that he needed to do one last oil change to make sure that he has covered himself.

Q. Can you go to page 90 of your deposition.

Oh, I'm sorry. Page 69. Sorry.

So starting at line 7, I asked a question, "Was he supposed to do a break-in period with the engine?"

And you answer?

A. Yeah, I mean, that's what's stated there, yes.

Q. And the next line is?

A. "We already broke the engine in."

Q. Can you read it accurately?

A. "We already broke the engine in."

Q. What's the first word?

A. "Was it supposed to do -- was he supposed to do a

break-in engine period in the engine." "No, we already broke the engine in."

Q. Okay. And then the next question, line 9, "How long did you run it on the dyno?"

And your answer on line 10?

A. "For the entire day almost."

Q. Can you read it accurately, please?

A. "It was for the entire day almost."

Q. And then line 13, another question from me, "And that's all you need for a break-in?"

And line 14, your answer?

A. "You only need a few minutes to break in -- break in an engine."

Q. And then if you go to page 70. And then line 3 is my question: "Did you ever have any indication that Mr. Johnson was baiting the engine or running it at less than, you know, performance, you know, speeds?"

And your answer starting on line 6?

A. "No, because the engine was already broke in. He could have baited it all he wanted or he could have ran it hard. It would have also made no difference. The reason I know that is because when -- when he received the engine back from us, we had it on the engine dyno here, he reported to me that he had 2 percent leak down."

Q. And that testimony was under oath, correct?

A. Yes.

Q. Okay. So Mr. Johnson's engine was broken in when you sent it back to him?

A. From my standpoint, I mentioned that, as I said there, but I also wanted to cover myself and to ensure that he was -- did one more oil change to ensure that we could validate and ensure that what was done was solidified.

Q. And that's in that text message that you talked about with Mr. Hurley about the Fuchs oil, and you said something to the effect of -- I'm paraphrasing here -- "No, you should do one more run on break-in or conventional and then you can go syn, synthetic"?

A. Yes.

Q. Do you know anything about Fuchs?

A. Know nothing. It's a brand that's not even available here.

Q. Have you ever seen it?

A. No, not until he brought it up or it was sent to us with the first repair.

Q. So you received some of this oil?

A. Correct.

Q. Okay. And it's conventional?

A. I don't remember.

Q. Okay. So you don't remember?

A. No.
Q. Okay. So if it's conventional, then he did everything he needed?
A. It specifically said in the warranty that you've got to use a specific conventional, not Fuchs.
MR. MATOUKA: If I may approach, Your Honor?
THE COURT: You may.
MR. MATOUKA: Do you already have the warranty stuff in front of you?
THE WITNESS: Asking me? Sorry.
MR. MATOUKA: Yeah. I think it may have been one of the exhibits.
THE WITNESS: I think it's in here somewhere. Hold on.
MR. MATOUKA: It's right here, I think.
THE WITNESS: Yeah, right here. I got it right here.
MR. MATOUKA: And, sorry, I'm working to find my copy.
Q. Can you tell me what it says about what type of conventional oil you're supposed to use?
A. Use Valvoline, Castrol.
Q. Can you read that full sentence?
A. Use Valvoline, Castrol, similar 1550, 2050 petroleum oil.

Q. Or similar, correct?
A. Uh-huh.
Q. Okay. Do you have Exhibit 9, Plaintiff's Exhibit 9 before you? It's the oil analysis.
A. Okay.
Q. Does this oil analysis -- And this is from after the failure, correct?
A. This report?
Q. Yes.
A. I believe so.
Q. Okay. Does it indicate what type of oil is being used?
A. I don't see anything listed here about what type of oil.
Q. Under sample information, the third cell down.
A. Okay. Oil brand, Fuchs, yeah.
Q. Okay. What is the viscosity grade?
A. 1550.
Q. And is that consistent with what your --
A. The weight is, yes.
Q. Okay. So or similar 15w50 oil?
A. Oil. Okay.
Q. So did Mr. Johnson comply with the requirements of the break-in instructions?
A. I would -- I think that the context of what I

wrote this in was to use something similar based upon Valvoline and Castrol for U.S. brand oil we offer or he can buy locally.

Q. You drafted that break-in instruction?

A. Correct.

Q. So your -- what do you mean by "similar"?

A. Well, Valvoline, Castrol is a global brand. I mean you can buy that pretty much anywhere around the world. And if I mention those, as there, that would be the type of oil I would suggest or would want to have in similar fashion.

Q. But it says "or similar", correct?

A. It does.

Q. So it's not limited to just those two brands?

A. If you want to, in the context, I guess you could -- suppose you could say that.

Q. Okay. So did he comply with what was required?

A. For that particular, I suppose so.

Q. Thank you. So we've talked about measuring the housing, main housing bore, the journal, and then coming to the oil clearance multiple times, correct?

A. Yes.

Q. And can you describe how you go about that again?

A. How I go about measuring oil clearance on assembly?

Q. Yeah.
A. What would you like to know?
Q. Just -- because you indicated that you don't use any math in doing that.
A. Correct.
Q. Okay. When the engine is assembled, how -- you can measure inside in between the main housing bore, the bearing and then the journal?
A. Well, when you say "engine assembled", that would mean I have a crankshaft in, rods and pistons. I cannot measure anything once that's assembled.
Q. Okay. But that's the only way to get an exact measurement of what the oil clearance is, correct?
A. You mean as a mockup?
Q. Yes.
A. Yes.
Q. So do you use any math to come to that oil clearance?
A. No.
Q. So how do you work the journal diameter in there?
A. How do I work the journal diameter to find the oil clearance?
Q. Well, my understanding is the journal diameter is the diameter of the crankshaft. I could be wrong here.
A. Diameter of the journal?

Q. What is the journal?
A. The journal is the round portion that is on the crankshaft that sits inside the engine.
Q. Okay. Okay. So for you to not use math, you'd have to measure while the crankshaft is installed?
A. No, you measure the crankshaft out of the engine.
Q. And then you do math to get the oil clearance?
A. No. You take a measurement with a mic of the crankshaft.
Q. Okay.
A. You transfer that dimension to a dial bore gauge. Then you would measure.
Q. Okay. So it -- but there -- you're not actually just measuring exactly what's going on?
A. Literally just said I'm measuring the crank and I transfer that measurement, that dimension to a dial bore gauge.
Q. Okay. And do you ever write down the thickness of the bearings or anything?
A. I do, I do.
Q. Where is that?
A. It's in our document end.
Q. It's on your documents?
A. Correct.
Q. Do you remember responding to any discovery

requests in this matter?

MR. HURLEY: Your Honor, may we approach?

THE COURT: Yes, sir.

(The following occurred at the bench, whispering outside the presence of the Jury.)

MR. HURLEY: This violates the express provision of the Motion in Limine that says that discovery disputes are --

THE COURT: Hold on. Let me pull it up. Do you know which one?

MR. HURLEY: Hold on.

MR. MATOUKA: This isn't -- this isn't --

THE COURT: Hang on, Counsel. I've got the motion and order in front of me. I just need to know which provision you're talking about.

MR. HURLEY: Yes, sir. 27.

THE COURT: Okay. Response.

MR. MATOUKA: Your Honor, I understand that's been entered, but at this point, we had several Motions to Compel. I filed several motions. They consistently told me we had everything. I believed it. That's why I went with that. Now we're learning even though he was under oath and he testified under oath during the deposition that they produced everything, they did not, and so --

MR. HURLEY: Your Honor.

MR. MATOUKA: -- at this point, this is five discovery abuses down the road.

MR. HURLEY: Your Honor, every one of those Motions to Compel were denied. He had his opportunity. He came before the Court. Those were denied. That's what this exact remedy is about. If he has discovery issues, he should have brought them up before.

MR. MATOUKA: Because Counsel for Defense lied to the Judge --

THE COURT: Let's not go there.

MR. MATOUKA: -- and told --

THE COURT: The objection is sustained. Let's move on, Counsel.

(In open court.)

Q. (BY MR. MATOUKA) Do you recall what those measurements were?

A. No, I don't recall. Been a long time ago.

Q. What type of quality control do you implement in your shop?

A. What type?

Q. Yeah. How do you ensure that everything that goes out is as it should be?

A. We do multiple dimensional checks on everything before it leaves.

Q. And that's it?

A. Can you expound about what you're wanting to know?

Q. Well, I mean do you check the roughness? Do you go over and make sure that, you know, plugs are where they should be or not?

A. As far as surface finish on a roughness average, is that what you're asking? No, I don't check that because we've never had a head gasket failure.

Q. Okay. So it doesn't really matter to you unless there's a failure?

A. No, that's not what I said. What I said is that we don't have the failure. So if I'm not having failures, why would I need to constantly keep checking something.

Q. Have you ever had any other failures?

A. To my knowledge of something that we did, no.

Q. Has anyone else alleged that you've caused it to fail?

A. That, I don't know. If they have, it wasn't brought to me that I can recall.

MR. MATOUKA: May I approach?

THE COURT: Yes, sir, your may.

Q. Have you seen that message before, Mr. Wilson?

A. I vaguely remember this, yes.

Q. Is it talking about someone alleging that your work caused a failure?

MR. HURLEY: Your Honor, he's asking about a document that hasn't been admitted into evidence yet.

MR. MATOUKA: I'm trying to lay a foundation.

THE COURT: If you want to rephrase your question, I'll allow it, but you need to rephrase your question.

Q. (BY MR. MATOUKA) Are you talking about statements someone else has made in this regarding your work?

A. Yeah, someone's alleging, uh-huh.

MR. MATOUKA: Okay. Plaintiff moves to admit Exhibit 19.

MR. HURLEY: Your Honor, again, we'd object on relevance and 403(b) grounds.

MR. MATOUKA: This is direct impeachment.

THE COURT: What number?

MR. MATOUKA: 19.

THE COURT: 19 is admitted.

(Plaintiff's Exhibit No. 19 admitted.)

MR. MATOUKA: Can I borrow yours again. Sorry.

Q. (BY MR. MATOUKA) You just indicated you don't remember anyone ever alleging that you caused an engine failure?

A. I didn't recall till you bring this to my

attention, no.

Q. Can you describe what happened here that you're talking about in this message?

A. This is regards to, I believe, a woman named Melissa Miller.

Q. And did EPR produce an entire YouTube video in response to that?

A. Multiple ones, actually.

Q. And you didn't recall that?

A. Didn't recall -- She didn't come to me saying, "Hey, you know, you messed up my engine."

Q. For someone to allege that you messed up an engine, do they have to come to you?

A. I would assume that they would probably try to come to me first before making accusations publicly.

Q. Was that my question?

A. Was what your question?

Q. Whether they -- whether they're going to come to you first to make an allegation.

A. Well, you would typically go to the individual that worked on your engine first before going online and making an assumption. I would think that someone would come to you if they had a problem with you or a problem that you did prior to going online making a public statement that wasn't factual.

Q. Are there any other allegations that you didn't remember?

MR. HURLEY: Objection, Your Honor. The question makes no sense.

THE COURT: Sustain.

Q. (BY MR. MATOUKA) Are there any other allegations about engine failures that you've caused?

A. I don't recall off the top of my head, no.

Q. Was there any reasoning for the dyno run that you and Mr. Pool did to ensure that you hadn't messed up again?

A. Ask the question one more time.

Q. Was any part of the reason for doing the dyno run that you and Mr. Pool did to ensure that you hadn't messed up again?

A. No, the dyno run was solely for the request by Mr. Johnson.

Q. So let's skip forward to the -- after the engine failure. Mister -- you tell Mr. Johnson to cut open the oil filter, correct?

A. You need to back up a little bit and explain to me which failure you're referring to.

Q. The August 2021 failure.

A. What failure was that?

Q. The terminal failure, the one that has led us

here?

A. Okay. So your question was?

Q. You instructed Mr. Johnson to have the oil filter cut open?

A. Correct.

Q. Did -- and then at some point, did you tell him that you thought it was a part issue?

A. I did.

Q. And was that after he tried to make a warranty claim?

A. I don't believe it was that. I believe it was basically going into what would cause this. And I said, "I don't know," I said, "but it looks like a delamination issue."

Q. Okay. And did Mr. Johnson tell you that he thought it was a warranty issue?

A. I don't recall at that time because we had several discussions regarding that, and I found several instances of people using King bearings that had numerous failures with their main bearings delaminating under load.

Q. Is that part of the reason why Mr. Johnson went to King bearing to have them review the bearings in question?

A. I would assume so.

Q. And did he provide you with that report?
A. He did send me a report, yes.
Q. Do you recall about when you got it?
A. No, I don't.
Q. Was it before November of 2022?
A. Don't recall.
Q. Okay. But you didn't believe the contents of that report?
A. I didn't at the time, no.
Q. Okay. Did Mr. Johnson talk to you about the measurements that were being made?
A. I think he brought it up at some point, yes.
Q. Did you see any videos?
A. I believe I saw one. I think it was the one where he had -- I think it was in a car being checked, something like -- might have been that video there. I don't recall. It's been many years ago.
Q. Did he tell you he had multiple shops measure it?
A. At that time, I believe it was only just the one.
Q. Did he ever tell you he ever had multiple shops measure it?
A. I don't recall if it was multiple ones.
Q. But you didn't believe that either?
A. No, no, I didn't.
Q. Let's talk about the damage to the engine that

made you think that this was a tuning issue. What was that exactly?

A. The damage?

Q. Yeah. What damage made you think it was a tuning issue?

A. Well, when it first came, you know, it was the main bearings. That's all I was looking at, try to focus my attention to that until other evidence was showed to us regarding the pistons and cylinder bore, and that's when I requested the data log. And so at that point, I questioned even more because it reaffirmed my thoughts that it's not our fault. First time me thinking it was a manufacturer part fault. Second time was we've got a lot more going on here. This needs to be investigated. I still thought at that point that this is not something we were responsible for.

Q. Did you ever think it was an oil issue?

A. As far as what?

Q. Like using the wrong oil caused the failure?

A. I don't think the oil would have caused this issue, no.

Q. Okay. Did you have any other theories in between when the failure happened and today that you came up with this?

A. No. Judging by what I was seeing from the other

pieces of evidence that I was given, outside the data log, because I don't understand tuning, that's not my forte, just looking at the overall evidence what I was seeing, I still have the same decision.

Q. Then when did you come to the conclusion that it was a tuning issue?

A. Simply because I saw images of the upper rod bearing shells that were -- that were damaged and wiped with the localized damage in the upper rod bearing shell and the damage to the piston skirts and to include the detonation witness marks that were in the cylinder bore.

Q. You mentioned the rod bearings?

A. Correct.

MR. MATOUKA: Okay. May I approach?

THE COURT: You may.

Q. Plaintiff's proposed Exhibit 20. Do you recall that message?

A. No, I don't.

Q. Does it appear to be a message between you and Mr. Johnson?

A. Yeah, my name is up at the top.

Q. Okay. Does this concern the rod bearings?

A. Yeah, looks like it's rod bearings.

MR. MATOUKA: Move to admit 20.

MR. HURLEY: No objection, Your Honor.

THE COURT: 20 is admitted.

(Plaintiff's Exhibit No. 20 admitted.)

Q. (BY MR. MATOUKA) Okay. When does it indicate this message is from?

A. September of '21.

Q. So this is shortly after the failure, correct?

A. August, September, yeah, I guess, what is it, a month.

Q. Okay.

A. Right at a month.

Q. And you're talking about the rod bearings, correct?

A. That's what's being shown, yes.

Q. And you say they're not that bad?

A. That one that he's showing me there is not that bad.

Q. Okay.

A. I don't have all the other images. That's only, like, one of them.

Q. So, but this didn't to you say detonation?

A. No, because the first time we had it, it was just looking at the main bearings. Like a horse with a blinder on, I can only see what's in front of me.

Q. But these are the rod bearings, correct?

A. Right. And remember, I did say when I saw the

first main bearings, we questioned it, I thought it was a delamination issue. We hadn't even discussed about tuning at this point.

Q. But if there was severe detonation, especially to the extent that your experts testified, would you expect these bearings to be in, what you say, not bad condition.

A. For that particular one.

Q. Your attorney has elicited testimony concerning how much you've put into this, right?

A. Uh-huh.

Q. At any point did you think, "Man, I just can't lose any more on this engine that I keep messing up"?

A. "Can't keep losing any money that I keep messing up." Well, it comes to a point of this: I was trying to do all I can to make sure the client was taken care of. At that point, as far as messing up, I think I rectified every issue that I had with that particular engine with the client.

Q. Did it ever concern you that someone else had found the exact same type of machining error in their engine?

A. No, because this was post failure, this engine, and the other one was something that someone measured before it even ran.

Q. So, but if the other engine had that failure, is

it not possible -- or had that problem, is it not possible that this engine also had that problem?

A. No, because I didn't believe that Mr. Pool was doing his job correctly in measuring.

Q. But didn't Mr. Pool indicate that another engine that you had manufactured was perfect?

A. Okay. He did state that, yes.

Q. Right. So you accept that measurement but not the other one?

A. Well, I didn't see anything being measured outside of the only one that we saw here during this trial.

Q. But you heard him testify about it?

A. Sure.

Q. He sent you videos, didn't he?

A. Of the one that he measured.

Q. Yeah.

A. Sure.

Q. And he told you that he had already measured it multiple times.

A. That one, but again, if I don't have it sitting there in front of me to view all those times he measured to make sure he's doing it correctly, I can't take it for what it's worth.

Q. So then wasn't it important that you measure

Mr. Johnson's engine, you look at some of the parts?

A. We measure and look at all the parts before they go together on final.

Q. But is it possible that any of your measurements are wrong?

A. No.

Q. Do you keep track of errors that you make in your shop?

A. No.

Q. Why not?

A. It's not something you document. You -- If there's a problem that happens and it becomes an issue and you rectify it, it's pretty easy to remember that, hey, we don't go down this road anymore. If your father told you not put a penny in the light socket and you did anyways, I'm pretty certain you're not going to put a penny in the light socket anymore.

Q. So you've never made the same mistake twice?

A. No, not when building an engine, no.

Q. But you -- how -- so you filed the business record affidavit saying that the emails that were admitted from Mr. Bradley and that other tuner, those are normal business records, you regularly keep those, correct?

A. The emails?

Q. Yes.

A. Up unto the point email storage becomes too full and we get rid of those emails.

Q. So it's not something that you intentionally keep?

A. Emails?

Q. The specifically ones where you've asked these experts the cause of an engine failure.

A. For this particular purpose we have, yeah, it was kept on record for myself to retrieve if I was asked about them from my lawyer.

Q. Is that something that's common?

MR. HURLEY: Your Honor, he's asking him about a business records affidavit that's been admitted and documents have been admitted through it. So the idea of attacking it at this point makes no sense because the issue had already been ruled upon by the Court.

MR. MATOUKA: Your Honor, I'm trying to figure how often this happens. He says it's a regularly conducted activity. I'm trying to figure out how many failures he has emails about.

THE COURT: I'm going to sustain the objection. If you want to ask a different question to that direct direction, I don't oppose it. It seems like we're getting kind of far afield.

Q. (BY MR. MATOUKA) How many times have you had to

send these emails asking someone why one of your engines failed?

A. Not very often at all.

Q. Did you send any of your experts that King report?

A. No.

Q. Why not?

A. I didn't think it was relevant.

Q. Did you send them the videos of the measurements?

A. No.

Q. Why not?

A. Didn't feel it was relevant.

Q. Did you tell any of them that one of the O2 sensors was off?

A. Nope.

Q. Why not?

A. Didn't think it was relevant because I'm not a tuner. I don't decide on those issues.

Q. In the second, the dyno run that you and Matt did, was there ever an issue with the valves?

A. No.

Q. Did you replace the heads?

A. I did.

Q. Why?

A. During that time, Mr. Johnson was in a lot of

time constraint, and I had theorized that we might have had a problem with the valves again, so instead of trying to spend more time and effort to try to track that down, I simply put the heads aside, grabbed another set of heads that were already CNC ported, had a setup for even larger valves, and I put those on to basically step away from the problem child for what I thought that it was.

Q. How long does it take you to diagnosis whether valves are bent?

A. Doesn't take too long once you get the head disassembled.

Q. And so you would have had to do that to replace the head anyway?

A. Yeah, but I would have to go through every single valve and check everything.

Q. Did you ever measure the piston to valve clearance?

A. When machining, absolutely.

Q. Which time?

A. When we were machining it, all the times.

Q. So the first time?

A. Yep.

Q. First time that had bent valves?

A. First time that we built the engine and it bent the valves --

Q. Yes.
A. -- we measured the piston to oil clearance as we were machining it.
Q. And that measurement was wrong?
A. The piston to wall clearance?
Q. Valve.
A. Piston to valve clearance.
Q. Yes.
A. When we built the engine and checked all that, everything was in its -- in working order, yes, it was -- it cleared for what we were doing.
Q. But it didn't work.
A. Yes, and the reason why is because the engine used hydraulic lifters that were rebuilt and they were not completely pumped up even though they were soaked in oil, and you can't check a hydraulic lifter that is not fully pumped up until the engine is put into a dynamic state because the lifter has to pump up full of oil.
Q. So there's no way for you to calculate that?
A. We can check just by simple setting the timing, degreeing the cams, physical, is there an interference fit for anything, and there was not at that time.
Q. Was there ever an issue with the viscous fan?
A. From recollection, Mr. Johnson said that he had a light rubbing or scuffing of the fan due to the -- I think

it was the belt.

Q. And that was the belt you installed?

A. No, I didn't install any belts.

Q. You supplied?

A. Didn't supply any belts.

Q. Was it related to any work you did?

A. To the pulley from the ACI damper that we modified.

MR. MATOUKA: So, Mr. Wilson, if you can turn to -- Oh, boy. It will be easier if I help you find it. Text messages.

My apologies, Your Honor. May I approach?

THE COURT: Yes, sir. Go ahead.

MR. MATOUKA: Where it starts getting into the WhatsApp messages.

THE WITNESS: Where is this at?

MR. MATOUKA: These two, I think, were the ones that were just introduced. So it's Plaintiff's 4. I don't know if that's it because I'm reading upside down.

(Off-the-record discussion.)

MR. MATOUKA: Okay. That's it.

Q. And, Mr. Wilson, is this from the second time you had the engine -- Well, I guess this is from the first warranty claim where you --

A. Correct. Correct.

Q. Can you read that first text message for me?
A. "So beyond the valve issue, this thing glazed the ever living shit out of the bores."
Q. Did you give him a new set of valves?
A. For which heads?
Q. All of them.
A. Yes.
Q. Can you read the message about halfway down at 22:58:08?
A. "All exhaust valve pockets should contact in radius."
Q. What does that mean?
A. The valves would have contacted the pistons.
Q. And would that have bent the valves?
A. Possibly. There actually are instances where you can have a valve touch a piston and it not bend anything.
Q. Would that be another example of insufficient piston to valve clearance?
A. I think in this regard, we had looked at the shadowing of that, but after further investigation of those valves, they were determined they were not bent. So this was all in pre-assumption that I was explaining to him.

MR. MATOUKA: Nothing further.

THE COURT: Redirect?

MR. HURLEY: Very briefly, Your Honor.

REDIRECT EXAMINATION

BY MR. HURLEY:

Q. Mitchell, you were talking about Mike, your partner. During the entire time you were building Mr. Johnson's engine, was Mike actively working at your shop?

A. He was.

Q. Did he actively work on Mr. Johnson's engine?

A. Yes.

Q. Again, what did he do on the engine?

A. He worked with me on putting the billet main caps on, balancing the crankshaft, modifying the crankshaft. I can't remember other facets of that off the top of my head.

Q. During the time that you were building Mr. Johnson's engine, did you ever cut any corners because you were busy?

A. No.

Q. If you wanted to cut corners, could you?

A. No.

Q. Why is that?

A. It would open us up to a slew of issues.

Q. And when you are doing these task that you were describing with me earlier, is some of them, they are what

they are, right? You cannot cut corners?

A. Right.

Q. You were talking about the thickness of the bearings.

A. Correct.

Q. What happens to the bearings once they get seated in?

A. What happens to bearings once they get -- What do you mean?

Q. When they're put under pressure and the -- once you install the bearings and you torque them in --

A. Right.

Q. -- what happens to them?

A. Bearings conform to the housing bore.

Q. What does that mean?

A. Basically, you put the bearing in on both the block and the billet main cap, and then you go to torque that together. The pressure at the part line for those bearings on the end-to-end force the bearing into the housing bore, flexing it to conform concentricity.

Q. So measuring that bearing before it goes in, is that an accurate measure of that bearing once it's in?

A. Measuring the bearing prior it goes in is only simply taking a measurement of the thickness of the bearing. That does not tell you or dictate the oil

clearance it will actually become.

Q. Why is that?

A. Because the bearing conforms to the housing bore.

Q. So that clearance changes once it conforms to the bore?

A. Absolutely.

Q. So what is the only accurate way to measure that oil clearance?

A. To measure it.

Q. And I got a little confused, so I want you to go back and explain it for us. Explain the exact process you used to measure that oil clearance.

A. You would put your main bearings into the main cap as well as the block. You would torque that main cap down to the prescribed method that we have outlined for ourselves. You would then mic the -- or measure the main journal, and then transfer that main journal dimension to the dial bore gauge, then dial bore --

Q. Let me stop you there. So you say "transfer to the dial bore gauge". What literally does that mean?

A. I'm going to take a micrometer and measure the journal. Just say, for instance, I would measure the diameter of this piston with a micrometer. I take that micrometer off while it's to the measurement of what I'm measuring, I pull it off and I transfer it to the dial

bore gauge.

Q. How do you transfer it to the dial bore gauge?

A. You would take the post that is provided through Sunnen. They come in multiple sizes based on range, what you're trying to measure. You would screw in the post. You would then calibrate or set that post to the desired length from the body of the dial -- of the dial bore gauge, and you would set that with a preload to the zero mark on the gauge. That will signify the dial bore gauge is set or calibrated to what the mic is reading.

Q. And then what do you do?

A. I will then take that dial bore gauge, proceed to put it into the block to measure my oil clearance.

Q. What's the proper process for using that dial bore gauge?

A. So you would have the -- what's called the top end or the post end which has the indicator itself, and you would support the tail end of the dial bore gauge into the housing bore to check, or basically where the two bearings are, and support that dial bore gauge so that you get the proper clearance in the proper weight of the gauge itself.

Q. Is that the exact process you used for Mr. Johnson's engine?

A. That is correct.

Q. When was the last time you measured the oil clearance of Mr. Johnson's engine?

A. On that -- the third time we rebuilt the engine, based off the second, the first run time from the engine dyno.

Q. So it was the -- it was the last time you had the engine before you sent it to England?

A. Correct.

Q. You talk a little bit about what your initial suspicion was when you first got pictures from Mr. Johnson. Why was that your suspicion?

A. We've never had any main bearing failures in any of the engines we've ever produced.

Q. So what about the pictures made you think that was the cause?

A. Based on the look of the bearing, the type of debris or FOD that was coming off of the bearing, it was not indicative of anything that we would have ever done.

Q. But why did you think that was a main bearing failure from those pictures?

A. Oh, the bearing itself was collapsed. It was down to the copper and flattened.

Q. And so what did that tell you?

A. Tells me that we had an excessive amount of

pressure within the engine itself because it is extremely hard, when I say this, to what we call "beat the main bearings out of an engine".

Q. So is there any question, no matter what theory you choose to believe, that the bearings did degrade and throw off little chunks as part of this process?

A. From -- from it being damaged?

Q. Yes.

A. Absolutely.

Q. So you're not denying that the bearing pieces were in the oil, right?

A. No.

Q. Just the question is simply what caused that, correct?

A. Correct.

Q. Why did you ultimately think it was an oil clearance that caused that?

A. Multiple reasons. One, based on our measurements, how we set everything up; two, we do a lot of checks on the rotating assembly while we're building the engine, in particular, how we set up our engines. I'm able to take with a simple index finger and my thumb, I'm able to spin that crankshaft while the crankshaft is torqued and fixture it in the block with just two fingers.

Q. You also had a discussion with Mr. Matouka about the rod bearings.

A. Correct.

Q. You said the picture in the text message did not show any damage on that rod bearing, but you said that's only one.

A. Correct.

Q. What did you mean by that?

A. There was only -- That picture only depicted one set of rod bearings on a particular cylinder. It didn't showcase any of the other rod bearings that were available on a V6 engine.

Q. So how many rod bearings are there?

A. 12.

Q. And so that was one of 12?

A. That was two of 12 for one rod.

Q. And the ones you have before you, what do you see on those?

A. There's a significant amount of damage on multiple of these on the 12 o'clock position in the upper rod shell, to the point I'll say that when I pull the rod bearing out and I felt it, there is a light depression in some of those.

Q. And that 12 o'clock damage that you just described was not in the one that was in the picture that

we saw?
A. It was not.
Q. Why would that be?
A. I can't answer that. I don't know.
Q. What is the -- the damage you just described to the rod bearings, what is that indicative of?
A. Detonation, lugging, it's excessive on the upper rod bearing shells. One of them is to the point where, I mean, almost the entire thing is completely wiped. There's no black from the coating on it whatsoever.
Q. Some of the discussions that you went over, the texts or Facebook messages that Mr. Matouka showed you, you were having conversations with Mr. Johnson, correct?
A. Correct.
Q. Why were you having conversations with Mr. Johnson about things that didn't relate to his project?
A. Um, I'm not too sure. I think maybe I was venting, maybe I was -- I'm not sure.
Q. Did you consider him a friend at that point?
A. I think possibly, yeah, it was more cordial, you know. We had developed a pretty cordial rapport with each other.
Q. Did y'all talk about a lot of things other than

the project?

A. Sure, I think we did, multiple things.

Q. Did you share things with him that you thought were maybe private and even personal?

A. Absolutely.

Q. There's been a bit of an allegation raised in your testimony that suggests maybe you did your measurements wrong. Why are you so sure that you did your measurements right?

A. The reason I feel that we've done no wrong and my measurements are right is because there are a lot of engines, almost all of them that we've got out there running that if it was a direct issue of what we have done, we would have a lot of failures come back. Rod bearing failure is a common problem with these engines.

Q. So you talked about the measurements that were done by third parties after the catastrophic event. But you did not trust those?

A. I did not.

Q. Why?

A. I don't think they were done accurately enough, not to mention they were done post catastrophic failure.

Q. So what could that catastrophic failure have done that changed those measurements?

A. Well, they'll deform housing bores considerably.
Q. What will deform the housing bores?
A. The detonation or lugging condition this engine experienced.
Q. So what would that do to the housing bore?
A. It will distort them. It will get to -- it will go from a round, concentric hole to more of an egg shape.
Q. And does that change the measurements?
A. Absolutely.

MR. HURLEY: No further questions, Your Honor.

THE COURT: How much more do you have, Counsel?

MR. MATOUKA: Hopefully, not too much.

THE COURT: Give me an estimate.

MR. MATOUKA: 10 minutes.

THE COURT: Let's break for the day. It's 4:30.

I'm trying my best to get these guys to finish up to get you the case so you can make the decision for us. Can everybody be here at 8:00 tomorrow? If you can't, tell me now. It's not a -- Okay. All right. We'll start at 8:00 tomorrow. I'll work on them, see if we can get them to finish up a little quicker, and then

we'll proceed, hopefully get you the case tomorrow for you to decide. Until that time, don't discuss it amongst yourselves. Don't discuss it with anybody else. Y'all have a good evening. We'll see you tomorrow at 8:00.

(Court adjourned.)

THE STATE OF TEXAS)

COUNTY OF JOHNSON)

I, Pamela K. Waits, Official Court Reporter in and for the 413th District Court of Johnson County, State of Texas, do hereby certify that the foregoing contains a true and correct transcription of all portions of evidence and other proceedings requested in writing by counsel for the parties to be included in the volume of the Reporter's Record, in the above-styled and numbered cause, all of which occurred in open court or in chambers and were reported by me.

I further certify that this Reporter's Record of the proceedings truly and correctly reflects the exhibits, if any, admitted, tendered in an offer of proof or offered into evidence.

WITNESS MY OFFICIAL HAND this the 25th day of November, 2024.

/s/ Pamela Waits

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