# The Oil Report

### "Oil the News That's Fit to Print!"

# Spotlight on...

## Oil Change Intervals

by Jim Stark & Kristin Huff

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Hiya. Sam Slade here. Yeah, yeah, I know, it's been a while. Last time you heard from me I puked the engine in my Packard because of an oil scam. But I just had to tell you about the latest.

I had the most awful dream last night. You'd think a long-time crime-solving detective like me wouldn't have nightmares, but you'd be wrong. Dead bodies, gun fights, and gore are my nightly fare. But this dream was different.

There I was, working on the buttons of Bonnie Lynn's pink and gray striped dress when this ugly hag poked her warty face into the scene. Man, this broad had been whupped with an ugly stick. She had wiry, white hair sticking straight out of her head. She had blood-shot eyes. Her teeth were few and far between. "Change yer oil sonny!" she screeched. "Change yer oil!" She cackled and ran off. It was an unwelcome intrusion from my efforts with Bonnie Lynn, that's for sure.

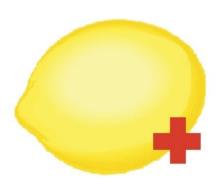
I woke up when the first rays of dawn stabbed through the blinds. My first thought was the shrill witch, but soon enough Bonnie Lynn's smile came to mind and reminded me I had a more important mission this morning.

I'm a crime fighter, and a good one. Crime, however, had taken a brief vacation in my area and no \$1,000 retainers had been dropped on my desk lately. People hire me when the cops can't help them, which is most of the time. Frustrated, they pick up their phones and dial Anthony 45920—that's me, if you're looking for a private eye.

Anyway, my mission this morning wasn't to figure out who had fed some millionaire's beloved poodle Fifi a cyanide hamburger. I was primed to visit the sweet Bonnie Lynn, an innocent-looking brunette beauty. After a shower and a shave, I headed to my car. Maybeline was a '38 Packard convertible that had served as my trusty steed since the untimely demise of my last ride. I'd left the top down, so I vaulted over the door and fired up the old straight eight. Bonnie Lynn awaits!

I was making good time as the morning air blew through my hair.





## LemonAide:

Coming Soon!

We get lots of samples from people who have just bought a new car or truck, and they want to see what shape the engine is in. The problem is, they have already bought it! If we find an antifreeze problem or another issue, it's too late -- that lemon is yours, baby.

Enter LemonAide! This is a new service we're offering for anyone interested in buying a used vehicle, so you can see what condition the engine is in *before* you buy it.

Suddenly, the engine started knocking like a dozen bowling balls in an empty cement mixer drum! Dang Maybeline, I thought. Don't fail me now! The knocking was so severe and constant that it sounded like the rods were gonna fly out.

I let her coast for a while and then realized the old Slade good luck was still with me. Pete Boyle's Pump and Run station came into sight. I coasted in and slid to a stop by the first bay door. Pete's business was way off since the price of gas had gone up to more than a quarter a gallon, so when I rang the bell it probably woke him

When Pete came out of the glass door he was wearing the same greasy undershirt he wore last time I saw him. That cigar stub in the corner of his mouth could have been the same cigar too. He was hairy all over his fat body, but the most pronounced hair grew straight out of his nose.

"Hey Sam," Pete drawled. "Why'd ya come flying into my lot like that?"

"She's rattling bad, Pete," I replied. "I think maybe I need a little oil."

"A little oil!" he exclaimed. "Lemme take a look."

When Pete popped the hood he was greeted with a gush of hot steam that nearly dropped him to his knees. "Damn, Sam!" he raged, red-faced. "When you gonna get that pin-hole fixed in the radiator?"

"Soon as crime quits. But that isn't what's causing all the ruckus. I may be low on oil."

Sam wrapped a towel around the dipstick and pulled it out. "Low, nothing! You ain't got no oil at all."

"Then I guess I need an oil change," I snapped. "I'm in a hurry. Can you do it fast?"

As Pete turned to pull the overhead door up he couldn't resist a shot. "Pull her right in, if you think she'll run that far." He smirked and ambled in.

I settled into Pete's smelly "lounge" and started browsing a June '47 issue of *Popular Mechanics*. Greasy fingerprints tracked the way to the most popular articles. Pete popped his head in the door. "Sam, there ain't *no oil* running out the plug. Just black glop that looks like molasses."

"Pour a gallon of kerosene in it," I directed. "Then start her up and run it for a minute. She'll drain okay." Sheesh, you'd think a guy like Pete could do a simple oil change without needing instructions. I turned back to my magazine.

But Pete didn't like my attitude. His already bad temper worsened and if I hadn't seen the scowl, the red face would have given his mood away. "Don't you ever change the oil in this wreck?"

"My daddy always said to change the oil every 3,000 miles," I told him, leaning away from the man in case he blew his stack.

Pete threw up his hands in frustration. "That's for a normal motor! The way you drive, you run it too hot, too often. Any oil in there that doesn't leak out gets hot and turns to sludge You city guys don't deserve a nice engine like this Silver Streak 8. You're

The kit contains a pump, a prepaid sample kit (or two), and a prepaid overnight return envelope so we can get you the results the next day. It's mainly for people who are not familiar with oil analysis (because if you already have our kits and a pump, you have most of the ingredients of the kit). But if you know someone who's planning on buying a used vehicle, tell them about LemonAide! It will be available soon, and it just might keep a sweet deal from turning sour.

ruining it!" Pete stomped off in a huff.

I was glad to see him go. Was he really saying my daddy told me wrong? That's a serious accusation. I decided to put my detective skills to work in figuring out this one—how often do I *really*need to change the oil? Fortunately, I knew just the people who could help: Blackstone Laboratories, the same outfit that helped me uncover an oil scam a while back.

I called up Blackstone, and sure enough, they thought Pete was right. They said there's a long list of things that determine how long you can run the oil, and the "3000 miles or 3 months" is a thing of the past. They mentioned an "oil change light," which I personally have never seen. But apparently many people wonder if they can trust this light, and Blackstone says...maybe. A lot hinges on how you drive, what engine you have, and the conditions you drive in. A hot rodder like myself with an image to uphold—well, apparently I put my engine through a lot more work than my old grampa, who drove only to church and back. They said my oil changes should happen more frequently than other people's. But many people, they said, can go longer than 3000 miles. Some people, on the other hand, put too much faith in the exaggerated claims of the oil blenders. Like me, those people may run their oil too long and end up with the sort of black gunk you'd expect to see between Pete's teeth, not in your oil pan.

In the end, I sent Blackstone a few samples from the Packard and they helped me find the best oil change interval. I missed my appointment with Bonnie Lynn that day, and she ended up finding another guy whose ride wasn't quite as fickle as my Maybeline. Or maybe the other fellow knew when to change his oil. In any case, I'm off women and back on crime, my true mistress. Maybeline just hasn't been the same since I ran her out of oil, so I'm thinking of trading her in for a Studebaker or one of those sleek new Hudsons. Handsome guy needs a handsome ride, after all.

### **Report of the Month**

This month's report of the month is a little different -- it's not a problem to solve but a comparison of two similar engines. See the caption below to learn more about these two 7.3L Power Stroke engines.

(To learn where the various elements might be coming from, click here.)

MI/HR ON OIL	12,693	UNIVERSAL AVERAGES
MI/HR ON UNIT	83,320	
SAMPLE DATE	7/18/05	
ALUMINUM	3	2
CHROMIUM	2	1
IRON	32	17
COPPER	3	4
LEAD	4	4
TIN	0	1

	MI/HR ON OIL	14,229	UNIVERSAL AVERAGES
	MI/HR ON UNIT	43,382	
	SAMPLE DATE	3/4/06	
	ALUMINUM	2	2
	CHROMIUM	1	1
on	IRON	99	17
Elements in Parts Per Million	COPPER	44	4
>	LEAD	8	4
Pe	TIN	1	1
ts.	MOLYBDENUM	3	20
ā	NICKEL	1	1
Ξ	POTASSIUM	2	1
2	BORON	1	4
en	SILICON	10	10
Е	SODIUM	1	3
Ē	CALCIUM	3743	3202
	MAGNESIUM	28	75
	PHOSPHORUS	1139	1119
	ZINC	1237	1440
	BARIUM	0	1

	MOLYBDENUM	3	20
	NICKEL	1	1
	POTASSIUM	2	1
	BORON	4	4
	SILICON	8	10
	SODIUM	2	3
_	CALCIUM	3410	3202
.0	MAGNESIUM	12	75
>	PHOSPHORUS	1201	1119
E .	ZINC	1341	1287
ď	BARIUM	0	1
Elements in Parts Per Million			
ment			
Ele			

These are both 7.3L Power Stroke engines, and both owners are running a lot of miles on the oil. The difference in analysis between these two samples is huge. Total miles on the engine isn't making a difference -- the one that has more miles on it is actually wearing better.

The high iron, copper, and lead in the sample on the left indicate excessive bearing wear. We doubt the engine actually has a problem, because it has relatively few miles on it and a random bearing problem would be very rare to find. Instead, the owner is probably doing something that's causing extra wear on the bearings, such as towing, driving in the mountains, or other hard operation. We would not recommend long oil changes for him. The engine on the right, however, looks just fine after more than 12,000 miles on the oil, and we would recommend running even more miles on his next fill of oil.

Oil brand does not necessarily make a difference. The oil guys might claim you can run tens of thousands of miles on the oil, but if you're doing something operationally that's causing excessive wear, we recommend changing the oil sooner because the extra metals make the oil abrasive and may, in the end, shorten the life of the engine.

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