How "Bootleg" Gas Ruins a Car

Gus Tells Why You Can’t Save Money by Buying Cheap Fuel
and How You Can Guard Against Roadside “Gyps”

By MARTIN BUNN

HERE'S another long distance flyer down with a busted oil pipe!” exclaimed Joe Clark in the noon hour as he sat with the morning paper in one hand and a huge piece of chocolate cake in the other.

"Those airplane motor manufacturers must be awful dumb if they can’t even fit the oil pipes so they’ll stay put," Gus Wilson, veteran automobile mechanic and Joe’s partner in the Model Garage, smiled sarcastically.

"Wake up, Joe!" he jeered. "Don’t you know the poor old oil pipe always gets the blame when anything happens to an airplane motor? Of course the oil pipe can break, but lots of times it’s just a phoney excuse to cover up a broken part in the motor—"

Gus was interrupted by the persistent honking of a most peculiar motor horn. "I’ll bet you two cents that’s Bill Craddock with another of his contraptions," he grumbled as he snapped the lid on his lunch box and started out.

Joe grinned, "Tell Bill if he puts much more junk on that bus there won’t be any room for passengers," he called after Gus.

"How’s that for a warning signal?" Craddock shouted in greeting. "Sounds like a cow or something, eh? It’s only a tin flap over the horn, and when I pull the wire the flap lifts up."

"But," he continued, "that isn’t what I came here for. I nearly didn’t get here at all. The gasoline pipe busts on me and I had to tie it up with an old rag.

And the battery nearly quit before the motor started again. The supply pipe from the main gasoline tank had broken off short where it entered the connection on the vacuum tank.

"Runs all right, now, it seems," said Gus as he fingered the rag winding.

THAT’S the funny part of it," agreed Craddock. "I just wound the rag on because I didn’t have anything else handy. I expected it would leak gasoline all over the place, but it’s not even dripping. What made the pipe break in the first place, and how in tophat can gasoline flow through there without running out through the rag?"

"Gasoline pipes—and sometimes oil pipes," Gus explained with a meaning glance at Joe, who had joined them, "break because the metal gets tired. In other words it crystallizes. A complete break like this one is rather rare. Lots of cars go all the way from the factory to the junk yard without breaking an oil or gas pipe. I’m not counting leaks due to loose connections, bum soldered joints, and so on. You can’t blame them on the pipe.

"And," he went on, "the reason gasoline didn’t leak out is because it only goes through when it’s sucked along by the vacuum tank. In fact, the rag served to keep air from leaking into the pipe fast enough to spoil the vacuum, not to keep the gasoline from getting out. If that had been the pipe from the vacuum tank to the carburetor, you’d have had a steady stream of gasoline running out."

"Then it’s a good thing that pipe didn’t bust," said Craddock. "Seems as though you can’t carry enough tools and accessories to fix everything."

"No one could do that," Gus said. "Might be a good idea to put a package of chewing gum or a cake of laundry soap in the tool box, though. You can make a good temporary repair on a broken gas or oil pipe with a thick layer of gum or soap, bound with a rag or friction tape. A roll of friction tape and a spool of iron or brass wire ought to be in every tool kit," he finished as he set to work to fix the pipe.

"What made it start so hard after I got the pipe tied up?" Craddock questioned.

"The motor started hard because the vacuum tank was empty," explained Gus. "Of course, air leaking through the rag kept the tank from filling as fast as it otherwise would, but it takes quite a little cranking to get the tank full even when there’s no leak. You could have saved the wear on your battery by priming the vacuum tank."

THAT’S one on me," confessed Craddock. "And I know the right way to prime it, too. Just take off the pipe from the vacuum tank to the manifold and suck on it till the tank fills up. Isn’t that the best way?"

"A few years ago I’d have said yes, but now I’d say no," Gus replied. "There’s always a chance that you might draw some of the gasoline into your mouth if the tank is on the bum, and you get the fumes in your lungs anyway. These new special fuels are fine food for motors, but some of ‘em are poison for men, so it isn’t wise to take a chance. If you haven’t a spare can of gasoline handy, you can syphon off some from the main tank by dropping a length of rubber hose in the tank, pressing your thumb over the end, and pulling it out and down into the small can.

"None of that fancy stuff for me," Craddock snorted. "I buy plain, ordinary gasoline. And I get it just as cheap as I can. Gasoline is just gasoline and that’s all there is to it!"

DON’T you believe it!" Gus exclaimed. "There’s real good gasoline, ordinary gasoline, and rotten gasoline. Cut-price gasoline is almost sure to be rotten. And you can get stung even when you pay the full price."

"That’s the bunk!" jeered Craddock. "You can’t fool me. There’s cheap gasoline in that tank and yet the motor is running about the same as usual. It doesn’t knock any more than it ought to, considering it’s full of carbon. I’m going to clean it out next week and then it won’t even knock."

"It’s your car," admitted Gus patiently, "and you can (Continued on page 118)"
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run it on anything you want. But just remember that there’s no such thing as “pure gasoline.” All gasolines are mixtures—of liquids that are chemically different. Some kinds of gas are made up of liquids that evaporate real quick, and your motor works slowly then. You have to burn so well. And into indoor gasoline goes a lot of heavy, cheap, hard-burning oils. A good part of it never burns, but gets down in the crank case and dilutes the lubricating oil. The explosions have no snap, so you have to open the throttle fairly wide to get ordinary driving speed. Also, the heavy compounds turn into carbon and gumming deposits.

“You get less mileage with bootleg gasoline.”

Gas continued, “so the cheaper price doesn’t mean anything. The car starts harder, especially in cold weather, and you get more wear on the starter motor and the battery. The excessive crank case dilution means you either have to clean up your oil often or you wear out the moving parts faster, and to top it all, the cheap, bootleg gasoline probably contains sulphur. This turns into acid when burned in the cylinder and causes corrosion and extra wear, especially on the cylinder walls, piston rings, pistons, and valves.”

“Why should they want to substitute the heavier liquids if they don’t burn well?” asked Craddock.

“And it ought to be easy enough to filter out the sulphur.”

“ar the heavier oils down to kerosene and even below that—the kind you’d use in an oil burner—are used to dilute the mixture and make it cheaper. And you can’t just filter the sulphur out because it can’t be drained out. The lubricating oil is made of liquid, and proved but little thicker than kerosene.”

Gus recommended, “Jim Barrows, who has a filling station out near your place, is as square as a die. He’ll give you what you pay for. Then if you have to buy gas on the road, find a filling station that runs by a well station. Whatever you do, stay away from those pumps stuck in front of candy stores and dog stations.”

“Every type, high test gasoline and ethyl gas that cut the knocking save wear on your motor, especially on the connecting rod and wrist pin bearings, and you actually get more mileage. You don’t need to have the carbon scraped off the fuel and you’ll be able to go farther on the same gas and uphill.”

“By cracker, it ought to give new life to this bus if it will do all that,” Craddock observed enthusiastically.

It does, if the motor is in good mechanical condition agreed Gus. “But no gasoline is going to cure leaky valves, bun compression, and bad ignition. You can’t cure brooked bones with medicine, you know.”

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