

POPULAR SCIENCE

MONTHLY
MECHANICS AND HANDICRAFT

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Gus Warms Up a Road Racer



A little English sports car with a bee under its bonnet breaks up Gus's quiet Sunday morning.

By Martin Bunn

THE knocking on the door sounded far away, coming from some remote corner of a dream. Gus Wilson rolled over and buried his head in the pillow, but the knocks came again, insistent and louder. Gus struggled to a sitting position and squinted at the old alarm clock by his bed. It was seven a.m. and Sunday.



"Please help us!" the girl pleaded.

"My brother, he's been hurt—"

"Come back this afternoon!" he called out. "It's urgent."

Gus groaned. "Okay, okay. Just a second."

He muttered his way into a beat-up bathrobe, slid his feet into slippers and scuffed to the door. A big man with a fiery red mustache stood in the hallway.

Race Driver Tells Tale of Woe

"I say, I'm terribly sorry to disturb you at this beastly hour, Mr. Wilson, but I'm in a bit of a fix!"

Gus blinked, and wondered foggily what an Englishman was doing at his door.

"C'mon in." He motioned him to a chair and plugged in the hot plate.

"Coffee?"

"Thank you, no. C.T.V. Pinkerton is my name. Everyone I spoke to in town recommended your work. You see, the sports-car races up at Wicker Creek Road start in just two hours, and my MG is acting strangely. Mr. Wilson, money is no consideration. I'll

pay whatever you ask. I just jolly well don't want to miss that race!"

Gus was feeling a little better as he sipped a cup of coffee. "Well, let me get my clothes on and we'll have a look. What time did you say the race starts?"

"The race itself begins at 10. But qualifying trials start at nine, and they're part of the entry requirements."

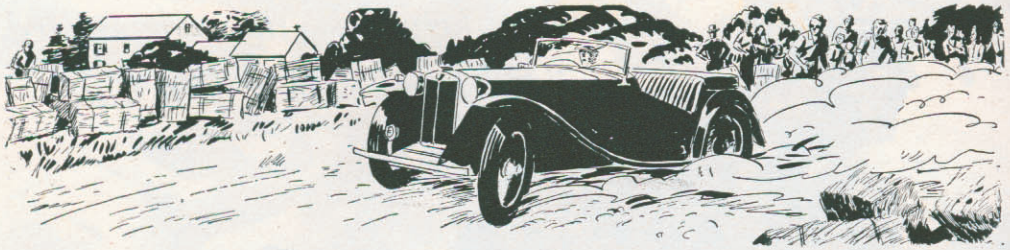
Not quite two hours, and Wicker Creek Road was 15 miles north of town. Gus dressed hurriedly and they went downstairs.

Gus Admires a Rakish Roadster

The brilliant red MG squatted low at the curb. It was an older model, a TC, and its jaunty length of hood, spoke wheels and continental flavor were something to admire. Gus lifted one side of the hood.

"What seems to be wrong, Mr. Pinkerton?"

"Well, while I was driving slowly through a small town south of here, she started spitting and missing. The beggar acted cold, and actually was running warm!" Pinkerton



started the engine, and the exhaust rumbled smoothly.

"Now listen to that, will you? She runs fine now. That's the way it's been going. Good one moment, bad the next."

Gus checked the plug leads, the distributor connections and didn't find anything loose. On the other side, he studied the twin carburetors.

"All I've found so far is a small radiator-hose leak. When was the last time you had the carbs cleaned and adjusted?"

"Just the day before yesterday. Tried a spare set of plugs, too. No improvement."

"Okay. Let's take her down to the shop."

Mr. Pinkerton Steps On the Gas

They drove to the Model Garage and before long Gus was reading dials on the engine tester. There was nothing abnormal.

"Look at that. The vacuum gauge shows 21 inches of mercury. That's good in any language. So, with time short, all we can do now is take her out on the road. Just drive as you did last night."

"Righto!"

At the edge of town, Pinkerton began stepping hard on the accelerator. Gus watched the needle slide up until it hung on the upper lip of 80.

"How fast do you turn a racing course, Mr. Pinkerton?"

"Depends. I understand it's a two-and-a-half-mile course at Wicker Creek. I should judge about two minutes or so. The hotter machines, Jaguars and Allards, for example, do it in much less."

Gus pictured the narrow twisting little road that circled the picnic grounds.

"That fast?"

"Oh yes. These beggars hang on in the corners like footprints in soft asphalt. Allow me to demonstrate."

Gus grabbed his seat and tried not to believe the turn he saw cutting sharply to the right.

Pinkerton twisted the wheel, the tires began to scream and the car leaned slightly.

Gus waited for the inevitable loss of control, the spin—but the MG hung on and stayed with it like Grandma LuLu Belle out for a 15-mile-an-hour drive in her Teaboiler Eight.

Gus Hangs On for Dear Life

The Englishman's luxuriant mustache blew about wildly in the windstream as he turned to observe Gus's reaction. "See?"

Gus didn't attempt a reply. He kept a deathlike grip on the seat as they sped through several more turns. The engine didn't change a note.

"It's making a blinking liar out of me!"

The road led steeply down to another turn before rising over the next hill. Off the road, beyond the sharpness of the turn, was another MG, wrapped around a tree. . .

"I say!" Pinkerton squealed to a stop.

A girl was trying to move the driver from behind the wheel, crying as she tugged at the unconscious man. Then she caught sight of them and ran toward the car. "Please help us!" she pleaded. "My brother, he's been hurt—"

Aid for a Damsel in Distress

Pinkerton lent a hand, and when they got him on the grass, looked him over carefully.

"Nasty rap on the head. We should get him to a hospital right away."

"How'd it happen?" Gus asked the girl.

"Some fool forced us off the road. Wish I had his number. Bob tried to avoid him and—" She broke down again.

"Look, miss, get in my car. In the center on the drive shaft. We'll carry your brother over, put him in the seat, and you hold him as steady as you can."

"Hold on," Gus put in. "I'm not so sure we should move this man at all. We'd better go get a doctor and an ambulance."

With an obvious effort at control, the girl turned to Gus. "Please, please," she begged. "Let's not waste time—let's get him to a hospital as fast as we can."

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Gus Warms Up a Road Racer

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"I'll drive carefully, old boy," Pinkerton added. "And the delay might be dangerous too, you know."

Against his better judgment, Gus gave in.

They eased the injured man into the car. Gus unsnapped the cover over the luggage deck and knelt sideways in the narrow space. Pinkerton turned the car around and started back toward town.

Gus Gets an Idea

"You were on your way to compete in the races?" Pinkerton asked the girl.

"Yes. We were headed there when the accident happened. My name is Lindy Walton. . . Can't we hurry?"

Pinkerton let it out gradually to 60 and held it there. Gus leaned low over the back of the seat and concentrated on the instrument panel. Oil pressure, 30 pounds. Temperature, 174°. Oil pressure, temperature. . . . All of a sudden he had an idea.

The familiar brick walls of the hospital came into view. Pinkerton rolled to a stop at the emergency entrance and they carried the injured man inside.

The nurse checked the pupils of his eyes and his pulse while Lindy explained what had happened. Then two attendants wheeled him down the hall.

Nurse's Report Comforts Lindy

"Dr. Barton will look him over right away." The nurse put a reassuring hand on the girl's arm. "I'm pretty sure he's not seriously hurt. We'd better have the doctor check you over too, young lady. Meanwhile, try to relax. It won't be long."

Gus and Pinkerton sat with Lindy in tense silence as the wall clock measured the slow minutes. Then footsteps along the corridor, and Dr. Barton, white-haired and brisk, walked in. "He's all right—just shaken up. Better leave him here for a few days." He smiled at Lindy. "Your brother has come around and he seems quite concerned about something—you'll probably understand. He said, 'Tell Lindy to let me know who wins.'"

Lindy laughed in sudden relief. "Oh, yes, yes, I know what he meant. And thank you so much, Doctor." She turned to Gus and the Englishman. "You've both been wonderful. I can't tell you how much I—"

Pinkerton harrumphed politely and Gus said they were glad they had come along

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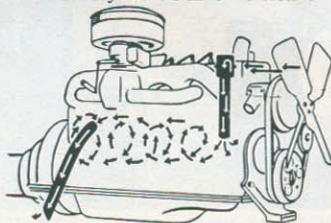


Care and Feeding of Engines

BY S. P. CORP

VACATION FUN INSURANCE

To insure *maximum* fun on your vacation motor trip, take time out to insure *minimum* car trouble. Have your engine tuned up. Get a thorough chassis lubrication job. Don't forget front and rear wheel bearings—they are not part of a regular chassis lube job, and can easily be overlooked too long. Change engine oil and be sure your oil filter is clean.



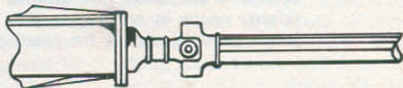
Clean the gauze filter element in the top of your oil filler cap by washing it in kerosene, so the crankcase can breathe. Choked-up breathing

here can cause crankcase dilution and poor oil mileage.

At the right rear of your engine, sometimes connected to the valve cover plate, you will find a one-inch air-outlet pipe. Check tapered lower end, which should open to the rear, to make sure it is not bent or damaged. If bent, straighten it, as the vacuum created by this taper is an important factor in proper crankcase breathing. If this pipe has a gauze filter at the top, clean it with kerosene.

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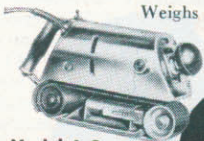
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Gus Warms Up a Road Racer

(Continued from page 219)

when they did. "I'll let you know about the race," he grinned, "just as soon as I can."

When they got back to the car, Gus checked his watch. Eight-thirty.

"I thought of something when we were on the road. Let's get back to the garage."

MG Starts Doing a Rumba

Pinkerton tugged at the starter pull. The engine caught, rose to idling speed and then fell into a rumba-like hit-and-miss rhythm. "I never thought I'd be glad to hear *that*."

Gus lifted the hood and listened. "What's normal oil pressure in this car?"

"Around 60. This type of oil filter doesn't have a by-pass to keep pressure up when it becomes congested. Mine is overdue to be changed. The dealer in Long Island was out of them, but he said 30 pounds was safe enough for the race."

Gus cocked his ear at one carburetor and then the other. "Listen to the rear one."

Pinkerton leaned down and put his ear close. "Slight whistling noise."

"That's your trouble. Right behind the carburetor. It's your intake manifold. Come on, we'll get you in that race yet."

Gus Diagnoses the Ailment

Pinkerton rapped it through town while Gus explained.

"Back on the road, I got to thinking about overheating in engines. The fact that your oil filter needs changing, plus that small hose leak, has made your engine run warmer than it normally should. Every time you get caught in slow-moving traffic, or do any hilly driving in low gear, the temperature is naturally going to go up. It rises sharply when you turn the motor off, because the water and oil that cool the engine aren't moving. Now, overheating doesn't necessarily do any harm, and there's always heat expansion in most parts of a motor. But in this case, the soft metal of your intake manifold didn't expand uniformly. It warped slightly and started sucking air. That weakens your mixture in that carburetor, throwing it out of tune with the other, and the engine runs rough."

"Why doesn't it run rough all the time then?"

"Well, the thing isn't badly warped yet, and the gasket takes care of it as long as the engine is running at a fairly cool tem-

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Gus Warms Up a Road Racer

(Continued from page 222)

perature. But when it warms up a little, the metal expands more, and that opening is enlarged. The gasket fails to function, and you have an air leak."

"My word!" was all Pinkerton said.

Englishman Beats the Deadline

Back at the Model Garage, Gus filed the intake facing smooth, and they drove like a four-wheel stampede to Wicker Creek Road, reaching the races just in time to run a qualifying lap. Then Gus settled back and watched Pinkerton roll onto the starting grid.

There was a short, electric silence . . . then the sharp crack of the starting gun. A thundering roar of unmuffled engines rose to the treetops, and the race was on. The cars howled to the first turn with tire-screaming acceleration and vanished from sight.

Gus listened to the whine of high r.p.m. as the cars hit the far side of the course. He crossed his fingers.

The cars rounded the hairpin at the beginning of the main straightaway and left rubber on the road as they went through the gears. The bigger roadsters shot by, an Allard, two Jaguars, and an Italian Ferrari fighting their separate battle. The road was clear for a few seconds . . . and then a red MG came out of the corner in a four-wheel slide! It was Pinkerton, leading his class. The next MG followed 20 seconds behind.

Gus Gets the Jitters

Lap after lap, Pinkerton held the lead, and Gus began to worry. It was stiff punishment for both car and driver. And there was that oil filter—only 30 pounds' pressure for a thirsty, straining engine.

The air began to vibrate with excitement, something was going on, but his vision was blocked by a sudden shift in the straining crowd. Before he could squeeze to the ropes, the race was over.

After a few minutes, he found Pinkerton in his pit, calmly downing a bottle of pop.

"Oh, there you are, Mr. Wilson. How'd you like the race?"

"Fine. But that oil filter—how did it—"

"It held up. Now what are you so jittery about, old chap? The Allard and I shared the laurels! Thanks to you, I won!" END

Next Month: Gus goes fishing and gets hooked.