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Middle-of-the-Night Inspiration Solves Engine Overheating Problem

- Road calls dropped from 10 a week to 3 a month

By RICH MORALLO

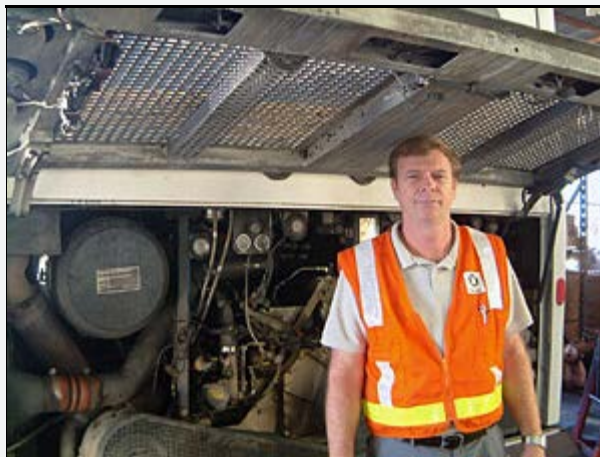
(Jan. 13, 2005) It was a puzzle for Poirot, a mystery for Sherlock, a maze for Monk. And a challenge for Tom Whitman, assistant maintenance manager at Carson Division 18.

Why and how was the wiring that runs the cooling fans inside bus engine compartments breaking? Unless the wiring is in place the cooling fan won't run and the engine can overheat.

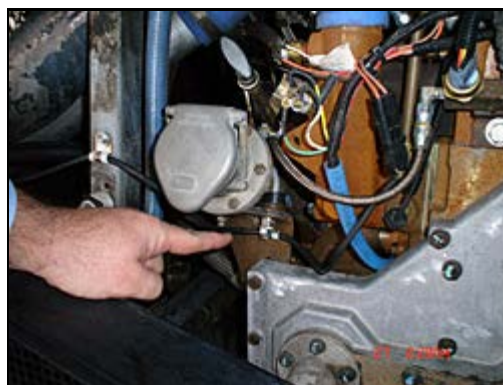
Whitman and other maintenance supervisors were mystified by reports that the foot-long wiring, which is wrapped in rubber, was coming loose from its connection.

"There was no reason for that particular wire to be torn from its location and dismantled," says Whitman.

The delicate wiring connection is located deep on the left side of the engine. The fan clutch wiring is typically clipped to an iron bar and is connected with other wires at its location.



Tom Whitman's mystery: Why and how was the wiring that runs the cooling fans inside bus engine compartments breaking?



The wiring for the engine cooling fan is now tucked away from the engine oil dipstick to avoid accidental disconnection.

Overheating a problem

Buses would arrive at the yard and be serviced in the evening. The next day, some buses – as many as 10 a week – would overheat and require assistance on the road.

Whitman and the maintenance supervisors mulled over the possibilities. They peered deep into the engines and tried to recreate how the wiring was being torn from its socket. No solution came immediately to mind.

Then, one night just before bedtime, the answer bolted out of nowhere to Whitman.

"The buses were being serviced at night when it's cold and dark, so it occurred to me that the attendants were wearing gloves as they serviced the engines," says Whitman. "It seemed to me that an attendant, with gloves on, could accidentally pull or displace the fan clutch wiring while servicing an engine."

Intuition proved correct

Sure enough, his middle-of-the-night intuition proved correct, and Whitman, an 11-year Metro veteran, had the solution.

Glove-wearing attendants were accidentally pulling the cooling fan wires – which are located adjacent to the engine oil dipstick – out of their sockets when they checked the engine oil.

As the buses came through for inspection, he had his mechanics reroute the wiring around the engine oil dipstick to avoid damaging the wiring.

"From getting 10 road calls a week for engine overheating," says Whitman, "our road calls immediately went down to maybe three a month."

Problem solved.

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