



A thermostat housing viewed from the radiator side. Hot coolant from the heads via the external bypass hose emerges from the hole in the centre.

ABOVE LEFT TO RIGHT: The difference is in what lies under the bonnet — a great big 460. Note how scrawny the standard six-cylinder two-core radiator looks. MIDDLE: The air-conditioning is not connected. When it is, Wayne will probably have to get a bigger radiator. The engine-driven fan has been removed and low-speed cooling is taken care of by a single electric unit. ABOVE RIGHT: This is the position of the DFC in the top hose. Ideally, it should be a bit closer to the block. The external bypass hose emerging from the underside of the DFC is connected to the thermostat housing. Wayne has fitted a permanent pressure gauge to the system.

YOUR

WORDS AND PHOTOS
BY PAUL LUZZON

THIS SUMMER

First, there's a restriction, called the DFC (directional flow controller). The DFC is cut into the top hose of the radiator. It serves to create a constant restriction against which the pump can work. This means the coolant in the engine is under constant pressure which keeps the boiling point above 100 degrees Celsius. The DFC also directs the coolant coming from the engine outlet at the top of the hose in a stream which partially de-aerates it. These features are important because they allow the bypass hose (which comes out the bottom of the DFC)

to pick up a clean, steam-free supply of hot water which is then directed down into the thermostat housing with a significant reduction in the amount passing through the radiator. John says a thermostat doesn't provide enough restriction to do the same job.

The thermostat housing is cut into the bottom hose from the radiator. This is a more logical position for it because here it controls the temperature of the coolant entering the

engine rather than that leaving it. So hot coolant from the heads is fed, via the bypass hose from the DFC, into the thermostat housing where it can return directly to the engine. This raises the temperature of the coolant entering the engine and helps even out the temperature difference between the top and bottom, and front and rear of the engine. Warming up the lower sections of the bores like this results in more efficient and

RIGHT: a) This is the thermostat housing mounted in the bottom hose just before the pump. You can see connection point for the bypass hose from the underside of the DFC. b) The modified pump. Notice there's no engine-driven fan. The smaller hose is the external bypass from the DFC.

