

# White Arrow: Music to My Ears

Carol's, a composer of contemporary music, beloved Polar White Volvo 2004 V70 with 125K miles overheated while being driven in the Blue Ridge Mountains. Carol was somewhat inattentive as she drove whilst seduced by the fragrance of fresh cut grass wafting through the sunroof while mentally composing her newest piece.

The dashboard display redirected her concentration as it lit up like a cheap sign in the window of a Vape emporium. She immediately cut the engine, pulled to the side of the road and summoned a tow truck. The intercooler and radiator had been penetrated by road debris tossed up by a passing vehicle. A roadside shop replaced the radiator and intercooler, whereupon the Volvo was towed to the nearest Volvo dealer for further evaluation.

A day or two later, the dealership presented a \$9500 repair estimate, which included a new engine. As a comprehensive road hazard insurance claim, her insurance adjuster negotiated the cost to \$6500 for a used motor. The repair estimates exceeded the cash value of the vehicle and were intended to persuade Carol to trade for a newer

model. Carol REALLLLLY likes her Volvo, "White Arrow," as it imparts confidence and security as she drives; hence she absolutely did NOT want to toss White Arrow to the scrap heap. What to do?

The dealership experience was a clash of dissonant chords, whereupon she turned to Mr. Google and discovered the Blue Ridge Chapter of VCOA website and repair stories written by Bob Sepe, the chapter co-chair. Carol contacted Bob who put her in touch with David West, co-chair (West Brothers Garage in Murphy, NC) who determined her car could be driven and he agreed to perform an engine swap or cost effective rebuild in September. With instructions from Bob, she proceeded to the dealer's impound lot armed with head gasket sealer and 2 gallons of water to free "White Arrow".

To the chagrin of the service writer, she poured head sealer and water into the coolant reservoir, fired up White Arrow and drove home without incident.

A week later, Bob was visiting George, a BR-Volvo chapter member as he'd agreed to help George swap the motor in his 1995 red 850 wagon. It seems a local "trusted" independent mechanic, who has since disappeared, injected water into the intake manifold of a running motor resulting in hydro-lock and a broken piston rod and would not accept responsibility for the disaster.

Following a short phone call, Carol agreed to drive White Arrow the short distance to George's mountain home. Subsequent inspection revealed immediate shut down following coolant loss resulted in minimal engine damage. The head gasket appeared not to be compromised, but the excess heat did toast the #3 ignition coil as it fires intermittently throwing misfire codes and related emission codes.

Carol was delighted to learn White Arrow was not gravely injured. The following week George replaced White Arrow's #3 ignition coil. Carol was advised that #3 cylinder in the 5 cylinder motor, being in the

middle, its electronics suffer the most damage in an overheat situation.

A failed coil-over-plug (COP) ignition coil is not unexpected. COPs on cylinders #2 and #4 suffer less heat stress, but may fail later and should be replaced as failure occurs because there is no point spending \$75+ each (\$300+) "just because". Yet, replacing 5 heat stressed spark plugs is a prudent decision.

Back to George: I digress, before installing the 110K mile 5 cylinder replacement salvage yard motor in the 850, we agreed that despite its alleged low mileage, it is prudent to check the cylinder pressures. Why? Installing a motor to later learn it is no-good is cause for serious depression. A starter motor was rigged to the donor motor with considerable ingenuity. The results: cylinder #1 = 90 psi, #2 = 125 psi,

#3=65 psi, #4= 165psi and #5= 170psi. Bummer! The engine swap was immediately halted as the swap became a motor rebuild project. The good news: with two motors, there are sufficient parts to build a good one.

The rebuild will commence when Bob returns from Seattle. He is attending his granddaughter's high school graduation and escaping the lowland summer heat.

Meanwhile, George and Carol will change the spark plugs in White Arrow and perform a cylinder pressure check to determine whether the cylinder head gasket was compromised. George and I are hopeful Carol will eventually turn a wrench.

Carol has since joined the BR-VCOA Chapter. Perhaps she'll compose a White Arrow ditty. The saga continues....

Bob lives in Cary, NC and is co-  
chairman of the Blue Ridge  
Chapter of VCOA. Repair questions  
and DYI advice; ask Bob at:

rfsepe@gmail.com or/ 919-417-  
5019.

For other tips, check out the Blue  
Ridge Chapter website.

<http://blueridgevolvonc.org/>

