SAVVA Technical Tip 126 – Corroded cylinder heads

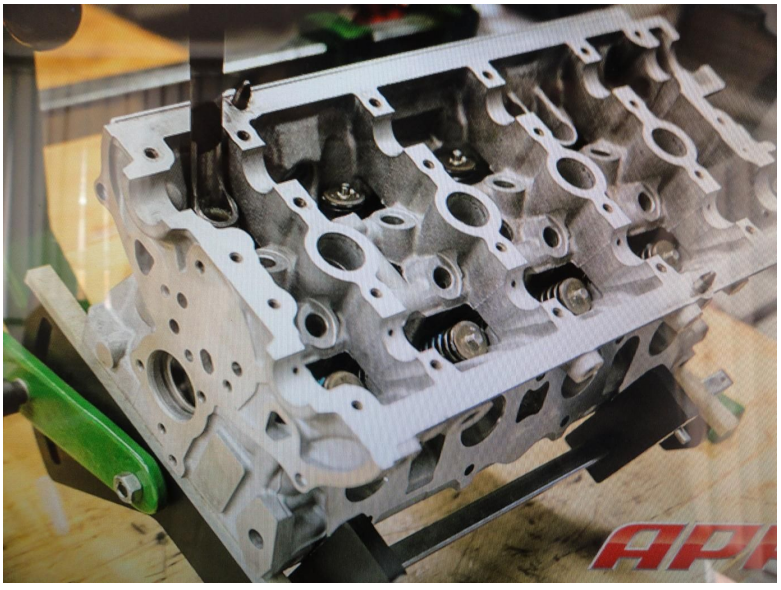
Years ago most cylinder heads were made of good old cast iron and lasted for the life of the car. However, with the passing of time and the manufacturers' quest for lighter weight and increased efficiency, more and more are made of aluminium or aluminium composed types of material.

Aluminium heads aren't that new and go back many years. I've had cars like a '34 Ford and a '31 De Soto fitted with them but, unfortunately, they didn't last because of corrosion and had to replaced with cast iron ones.

We are told aluminium heads are far superior to cast iron, which is obviously true, as they warm up and dissipate heat quicker. Unfortunately, the quality of the aluminium used 40 or 50 years ago wasn't up to the standard of today, in fact, many English cars of the '60s - because of a shortage of product - used a considerable amount of recycled aluminium. Having owned numerous Sunbeam Alpines over the years I can attest to this as the ali heads are the weakest component of these great cars. The earlier models used cast iron and rarely gave trouble – can't say that for the later ones.

To make matters worse, in the '60s when aluminium became the "in thing", good anti-corrosive radiator products that are freely available today were virtually unknown resulting in premature head failures. The question is how do we preserve the life left in the heads on our 40 and 50 year old cars? And don't believe expensive cars don't suffer from the same fate as I have had both Mercedes and Rolls Royce with "terminal" corrosion problems.

The answer: Use one of the best anti corrosive additives one can buy. Expensive, yes, but considering the price of a head replacement or repairs – still cheap at the price. Additives used by manufacturers such as Mercedes, BMW, Volvo, Toyota, Audi, Nissan etc, are of a very high standard and worth paying the extra premium for. The cheaper products may boast all kinds of magical ingredients to combat freezing, overheating and this and that but their anti–corrosive qualities could be questionable and that's what we do not need in our older cars.



Typical modern double overhead cam head – very complex