PART 2
IMMORTAL D

WE CONTINUE OUR SUBIE KILLER D-SERIES BUILD WITH SKUNK 2 TOP END PARTS.

Words & Photography: Drü Barrios

Last month we started the D-series engine build to end all D-series builds. To recap, we're building a 400 wheel hp D-series motor to show one of our fellow editors at another magazine that: (a) we can, and (b) that we can school his sorry-ass Subaru when we're done.

Porting the head seemed like the most natural way to kick off the project, but it was also necessary. This motor is completely custom, and we needed to have the combustion chambers finished before the pistons could be made, the pistons before the sleeves, and so on.

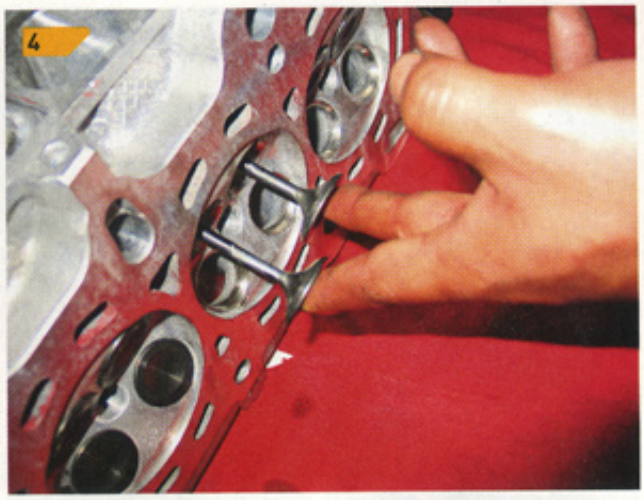
In this month's installment, we return to Industrial Performance to have Ricky Ortiz finish the head by installing our Skunk2 top end package.

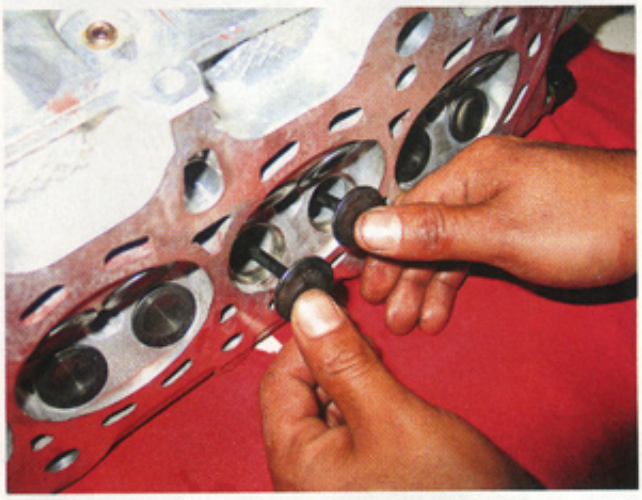
The Skunk parts include a cam, .5mm oversized standard compression valves, valve springs, titanium retainers and a Pro Series intake manifold. With a port job as beautiful as this one and a top end parts package to match, we're well on our way to our 400 wheel hp goal. And by pulling out a few other stops, we may even end up going bigger than that.

This is the head as we left it since the last installment. The porting is finished, but the head is still bare.

Ricky starts by pressing the valve seals on by hand.

Once the seals are on snug by hand, Ortiz will use "Ricky's Special Tool" to press them on the rest of the way.

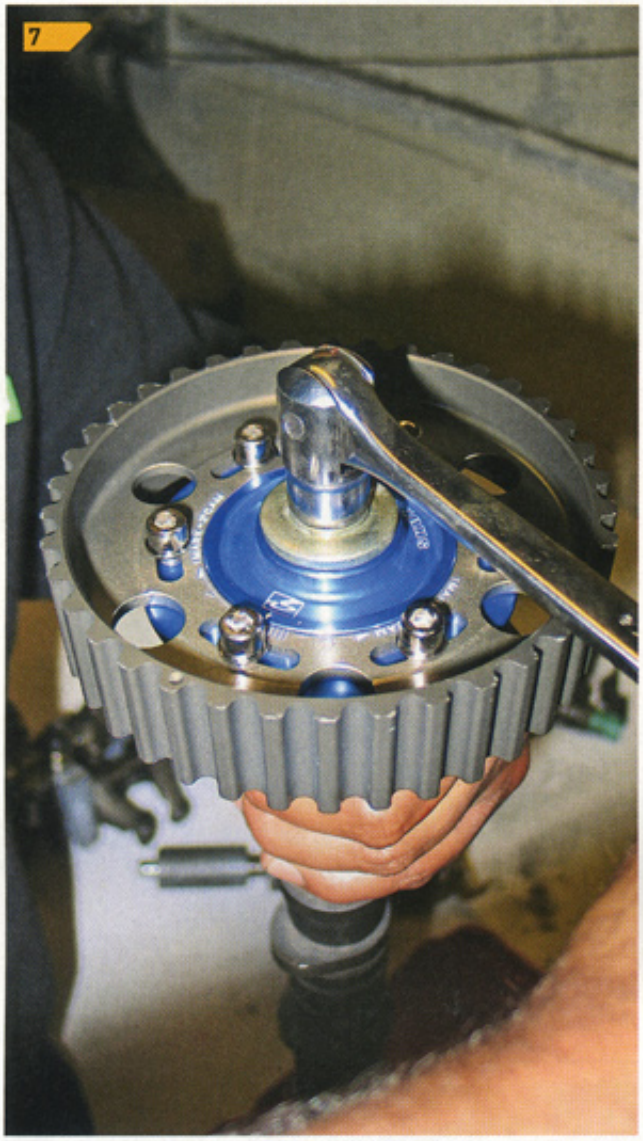




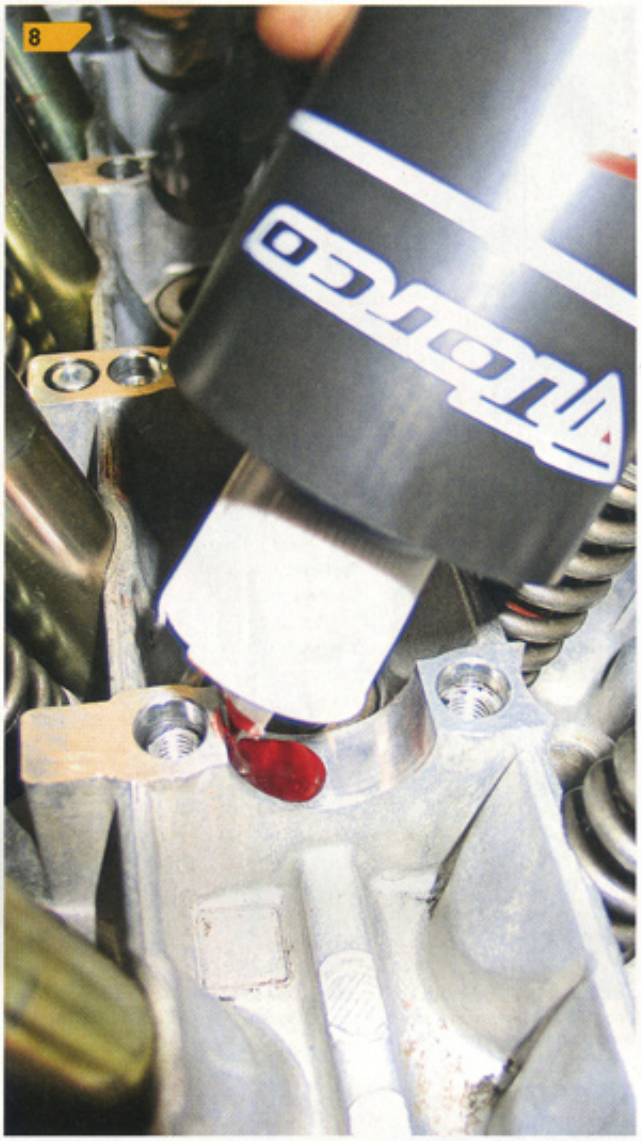
Then he slides in the intake and exhaust valves respectively.

Using a foam pad to hold up the valves from beneath the combustion chamber, Ricky sets the valve springs and titanium retainers into place.

Like a true baller, Ortiz uses a proper keeper installation tool. We usually use a magnetic screwdriver and a spring compressor since we're poor.

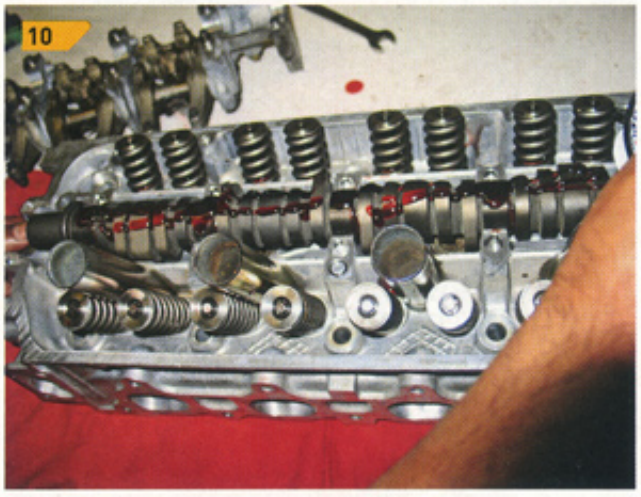


The Skunk2 cam gear gets tightened onto the camshaft.

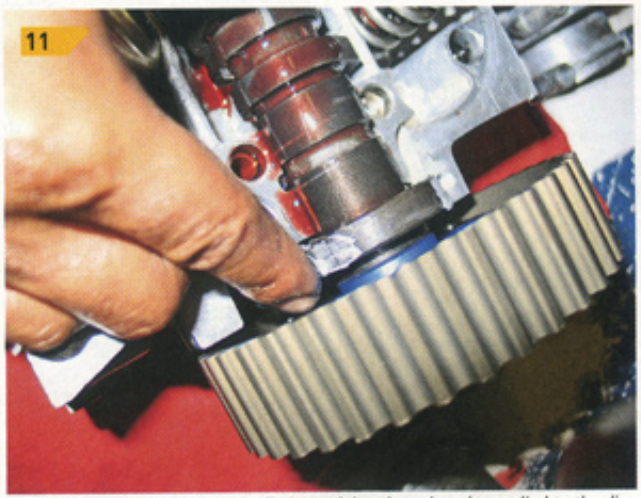


Ricky exclusively uses Torco assembly lubricant for everything. Here, he is lubing the cam journals before setting in the cam.

Now that the journals are good and lubed, Ricky drops the cam in.

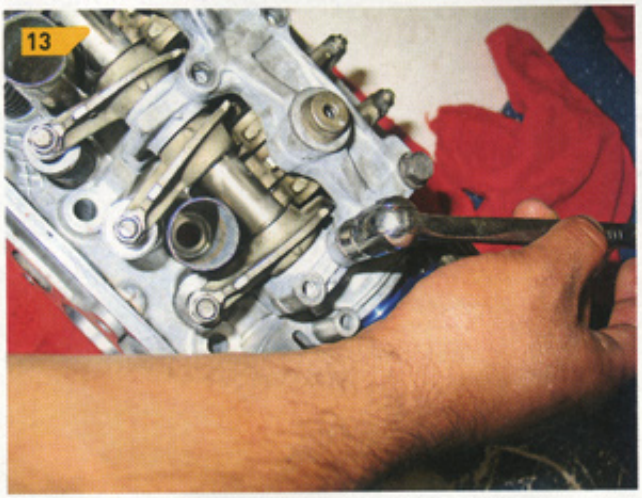


Ricky says that you can never have too much lube. We agree.

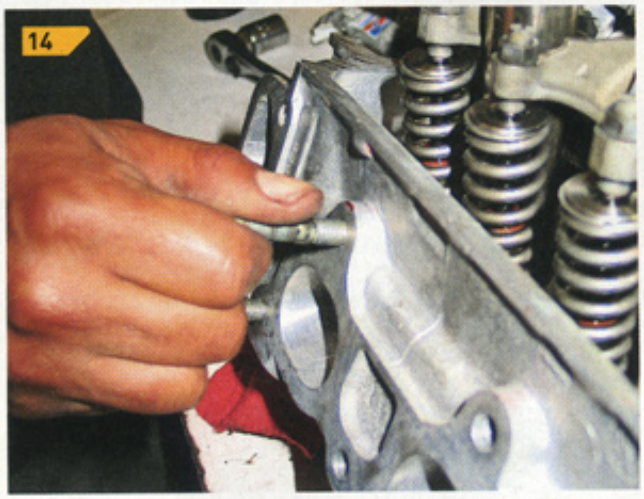


Before the cam caps can be installed, Hondabond needs to be applied to the distributor seal and cam seal.

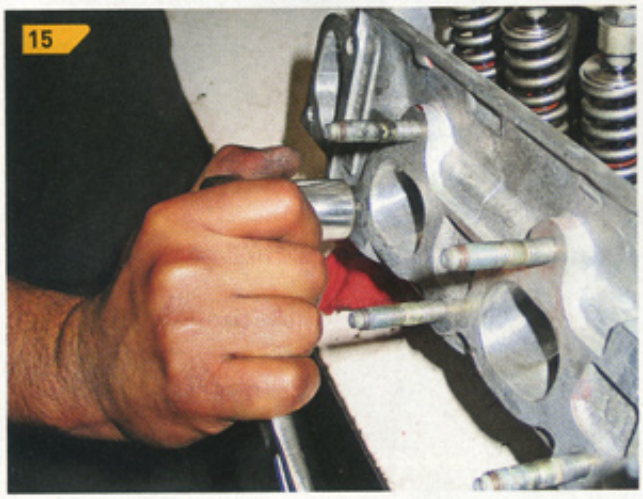
Ortiz drops the cam caps in place making sure not to take out the mounting bolts. Not only do these bolts hold the cam caps to the head, they keep the whole rocker assembly together.



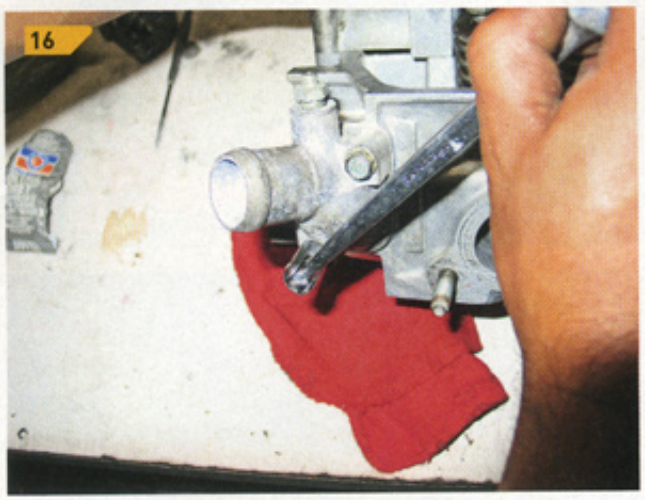
It's OK to use a normal ratchet and socket to thread the cam cap bolts, but make sure to use a torque wrench to tighten them down.



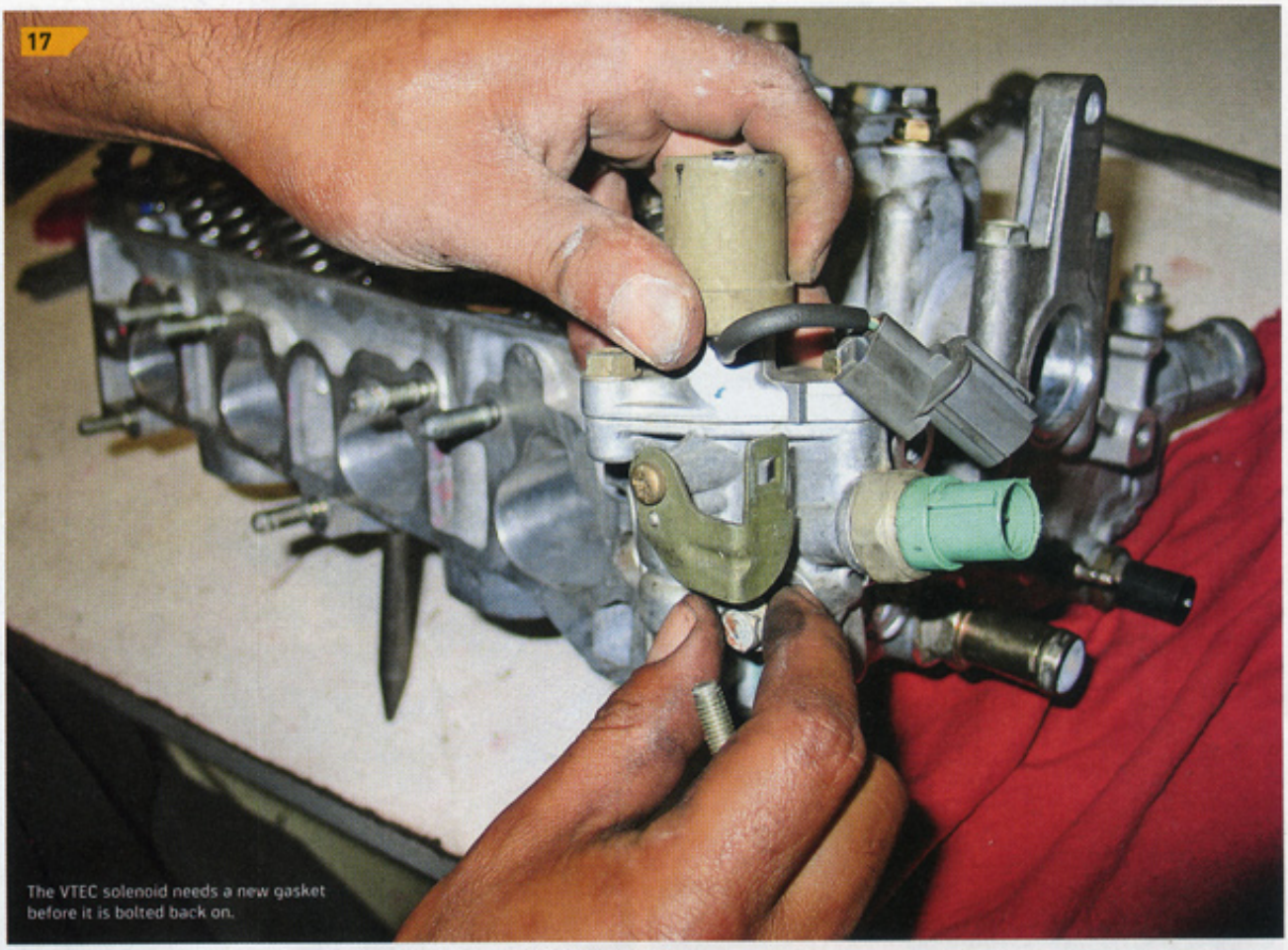
The manifold studs were removed because they get in the way while porting the head. After the head has been assembled, they can be reinstalled.



Ricky uses a stud tool to get the manifold studs completely threaded.

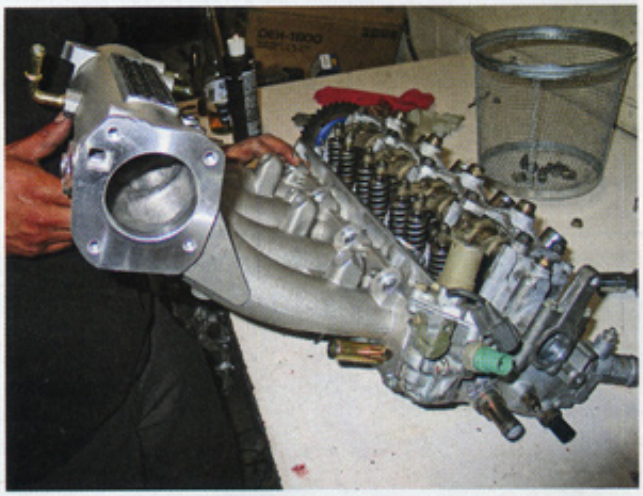


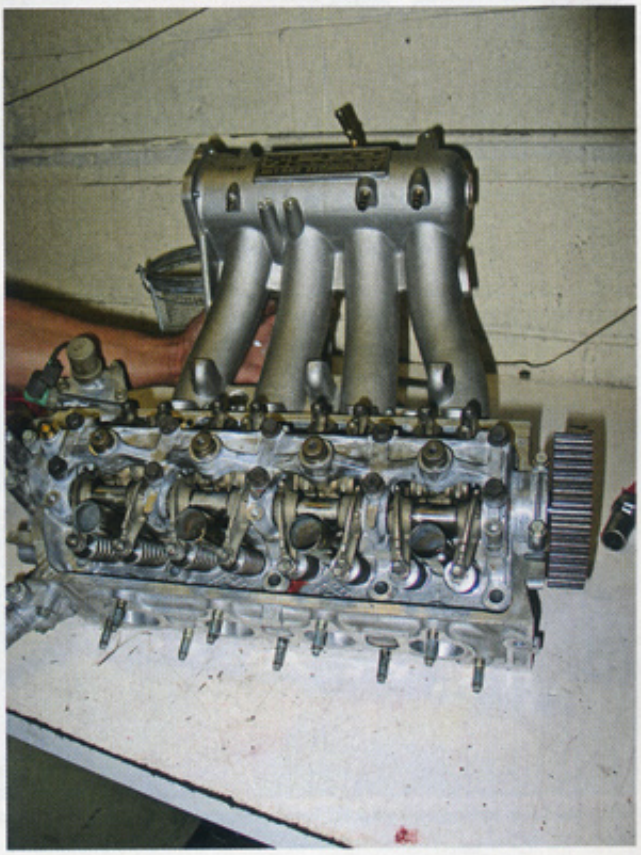
Hondabond is applied to the waterneck before it is reinstalled.



The VTEC solenoid needs a new gasket before it is bolted back on.

Next up is the Skunk2 Pro Series intake manifold. All we need now is a bottom end and a big ol' turbo.





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