

I finally broke down and decided to buy a header for my car. After spending a bit of time researching different models, I decided on Ricks.

Here was some of the reasoning behind my choice: I wanted the best balance of weight reduction, quality of build, performance increase - and of course price. You're not going to gain a lot of HP from a header no matter who makes it (10-12 hp is the most I've seen claimed), so weight reduction (while not sacrificing quality of build) and price were two of the major determining factors in my decision.

There are a couple of headers available that are ~2 lbs lighter than Ricks (Amuse) but use thinner material in the flange and in other structural areas that can develop cracks. That's fine if your car is a track queen and you're more concerned with shaving 0.01 of your track time than longevity, but not such a wise choice if you run your car on some of the not so well prepared real world surfaces out there that can encourage cracks. Amuse also will offer a titanium header later this year - but it runs ~\$2600 - the stainless Amuse R1 runs ~\$1600. Another option was the Toda header. The lowest price I could find for a Toda header (new) was around \$1200. There have been claims on this site of cracking and other quality issues with Toda - so coupled with the fact it weighs only slightly less than Ricks and claims only a marginal HP gain, that was a no go as well. I also couldn't justify putting garbage on my car either - so I never considered any of the other name-brand, low-quality headers out there either. Ricks was the best overall compromise for me.

Another reason I went with Ricks header is I've dealt with Rick in the past and have bought a number of products from him. I've been satisfied with all but one to date, and Rick took care of that item promptly. To silence those looking for a conspiracy - there's none here. I didn't receive a price break from him on the header (or any other item for that matter). The header was already discounted to \$599 from its original \$750 release price tag. There's no bias in my opinion here.

The performance claims for Ricks header are midrange gains of around 6hp (around 6000 RPM) with the power rolling off just before redline (according to Rick). While I didn't dyno the car before and after with a real dyno (I used a G-tech - which only gives peak HP), the VTEC hump is noticeably smoothed-out and power delivery seemed to be smother over all RPMs. The butt dyno doesn't contradict the HP claims at this point, in fact - it strongly agrees with them. Peak HP was consistently 2 hp higher on the G-tech given nearly identical conditions. This doesn't mean a whole lot except that my car hasn't lost anything on the top end. In fact, my car would typically run out of wind above 8800 RPM, and it now seems to hold power all the way to the blinking red light. All-in-all my car averaged 0.1 sec quicker 0-60 with Ricks header (average of 6 runs). This is in no way scientific - but all this anecdotal evidence points to increased performance with only the header being replaced. My car now tends to lose traction a lot more in second gear now than it used to - and something it never did before, it chirps the tires in third. Once again, nothing more than anecdotal evidence - but convincing enough on the road.

My first impression out of the box was good. The weld quality is very good and the design is well planned. It felt quite light - so the next course of business was to weigh the header. For note: I had the header coated by HPC/Jet Hot - not that it would add considerable weight. I chose their Extreme Sterling coating, and had it coated inside and out. Rick's header weighed in at 12.6 lbs on my Weight Watchers digital scale (I weighed it alone 3 times and then while holding it 3 times to compare - and it came out to 12.6 lbs on the nose every time). The OEM header quickly came off the car and weighed in (without the heat shields of course) at 18.7 lbs using the same scale and method. The weight savings came out to 6.1 lbs - not bad.



All the header heat shields weighed in at 3.9 lbs. Considering the header is completely coated I theoretically could have opted to not install them - however, heat is the big enemy under the hood of the S2000 - and I felt the added weight of the heat shields was worth even a marginal improvement in the heat reduction effort.

Ricks claims his header is very similar to Mugen's design. After comparing pictures of the Mugen to Ricks - I would have to disagree with that claim. Ricks header looks to be more of a highly refined version of the

OEM header. It doesn't have any of the wild bends incorporated on the Mugen or Amuse headers. It matters not though - the product is first-class in quality and well worth the \$599 price tag in my book. In fact, I think it was well worth the ~\$830 total after coating and shipping.

The price tag for the HPC coating was on the high side at ~\$220 (including shipping from HPC in OKC to Pensacola). However, all the experts in the field stated that it's worth the extra cost - I got a lot of "trust me on this" from people I trust - so I went with it. I've seen about a 10-25F reduction in under-hood temps to date (depending on the outside air temp). While that may not seem like much - it's actually quite considerable. Additionally, the header cools down much more quickly than before - which helps prevent heat soaking and the subsequent increase in underhood temps after shutdown (which can really hurt the car's performance when making a number of stops for shopping or whatnot - and under stop-and-go conditions). The header was down to 115F after ~5 minutes vs. the CAT which was still at 315F (on the surface of the CAT next to the O2 bung). The OEM header was still 215-255F (depending on the outside temp) after 5 minutes (all done with an IR touchless surface temp gauge). That's a pretty big difference. So I'll agree with the experts that the coating was worth the extra cash. The folks at HPC/Jet Hot were great.

The follow-on purchase is also now on the car - the Berk CAT + HPC coating (outside only of course). Test pipes are fine for track use - but NOT worth the heat they can get you in if you're caught running your car on the street without a CAT. The ~\$200 extra for the CAT (after coating) is a lot cheaper than the fines associated with not running a CAT. Brian at Berk claims the CAT flows about 80% as well as the test pipe - and my initial impressions tells me that's probably right in the ball park. A couple cars tested at Berk (super-charged) showed only 2 WHP losses with the high flow CAT vs. the test pipe. Additionally, the externally coated CAT cools down to ~185F in about five minutes as well. That's significantly less than the 315F the OEM CAT was showing. The High flow cat is significantly lighter than the OEM CAT as well. OEM weighs in at ~12.7 lbs and the Berk high flow CAT weighs ~4.6 lbs (with the outside coating). That's even more of a weight savings than the header at 8.1 lbs. (picture pending - my iPhone was the only available camera).

The butt dyno tells me the Berk High Flow CAT had a bigger impact than Rick's header alone. I don't have the time to swap out and measure the combination of OEM and Berk vs. Ricks and Berk etc, but my experience tells me the combo of Rick's header and the Berk High Flow CAT are an impressive synergistic match. Prior to the header and CAT my car already had a Comptech intake and CAT back exhaust. The entire collection works very well together and saved a total of nearly 40lbs. That nearly offsets the total weight of my hard top.

Here's the Ricks header and Berk Technologies CAT DIY - it's pretty straight forward.

Parts: New header (exhaust manifold) gasket, new header donut gasket, new header self locking retaining nuts, new heat shield bolts, any other nuts or bolts that may be corroded or need replacing, CAT to CAT back gasket (if you replace the CAT - comes with the Berk HF CAT)

You can get all the misc nuts, bolts, and gaskets through the HardTop Guy, or any of the other OEM Honda online parts suppliers (Majestic Honda).

Tools: 10mm (ratcheting combo wrench), 12mm (socket and combo), 14mm (socket and combo), universal joint 12mm socket (or u-joint short extension), torque wrench, tall jack stands (the taller the better), low profile - high lift jack (the higher the lift the better), micro fiber towels (better than a fender cover), a clean fender.

Materials: your favorite spray lube/penetrant: WD40, Sea Foam penetrant, PB Blaster etc.

The install:

Make sure the engine and exhaust are completely cold. Remove the vertical heat shield that protects the battery and fuse area. A 10mm ratcheting combo wrench works well in the tight spots. Removing the battery is not a bad idea.

Shoot each of the header retaining nuts and upper header heat shield bolts with a shot of your favorite spray lube and let sit for about 15-20 minutes or so. Remove the upper header heat shield (12mm socket). Carefully loosen and remove the header nuts. A thin wall 12mm deep socket is ideal for this job - but won't work during the installation of Rick's header (that's where the U-joint 12mm socket comes in).

Jack up the car and put it up on jack stands - the higher the better. You'll need as much clearance as possible to remove the header from below (the only way to remove it from what I've read).

Now get under the car and loosen and remove the header O2 sensor. In most cases it shouldn't be necessary to unplug the sensor harness and retaining clips, but be careful not to break any of the leads if you decide not to disconnect it - the O2 replacement is not cheap.

Unbolt the side tab attachment for the header. This bolt has a tendency to strip and it's a "special" bolt - so

be prepared to replace this "special" \$8.00 bolt.

Loosen and remove the CAT to header bolts, and carefully begin to maneuver the OEM header for removal. Maneuver it free of the exhaust studs and then allow the CAT end of the header to tilt down.



Next, begin to tilt/rotate the CAT end of the header sideways and upward toward the driver's side of the floor as you maneuver and lower the upper end of the header downward and aft. It slides out quite easily in fact.





Sometime around this stage would be the easiest time to remove the old CAT and replace it with a high flow CAT or test pipe (for the track). Simply apply some of your favorite spray lube to the CAT O2 sensor threads and to the three bolts at the back of the CAT, let sit for a few minutes and unscrew. The CAT O2 sensor has a retaining clip on the transmission cross-member that should be detached to facilitate unscrewing of the sensor. Unbolt and remove the old CAT, and install the new CAT to the exhaust (making sure to replace the CAT to CAT back gasket of course). Install the O2 sensor and reattach the retaining clip for the harness and the CAT replacement is done.

Remove and replace the header (exhaust manifold) gasket, noting the position of the original gasket prior to removal. Remove the lower heat shields from the OEM header and transplant (as desired) to Rick's header. Rick's header slides up nearly as easily as the OEM header came out. Position the header onto the header exhaust studs and loosely place at least two to three of the new retaining nuts to keep the header from sliding back off the studs (I loosely spun on all the nuts). Install a new header exhaust donut gasket on the header. One thing I noticed is the flange on Rick's header is not as thick as stock - and the donut will be loose. I plan on talking to Rick about this because I may be experiencing a very slight leak due to this fact at the header to CAT junction. There was definitely a leak when I re-used the old gasket (waiting on the high flow CAT). There still may be a very tiny inaudible leak now (very small but noticeable carbon blow-by on the header at the junction). More on that later. If there is a leak, it's extremely small and currently inaudible.

Loosely attach the CAT to the header with the sprung bolts.

Work the header retaining nuts down until they're snug, and then begin to progressively tighten them down to the torque spec of 23 ft lbs. The Helms manual does not specify a torque sequence, so I simply torqued them down in a criss-cross pattern of my own design. I used a Craftsman 12mm universal joint socket to get to some of the snug areas. There's a little less space in-between runners on Rick's header than the OEM header.

Re-attach the side tab support, finish tightening the remaining bolts on the CAT (CAT to header), install the O2 sensor (wind the harness in the opposite direction prior to threading the O2 sensor to prevent the harness from being wound up as you install it), reinstall the two heat shields in the engine bay (top header heat shield and the battery area shield), take the car off jack stands and you done.