Tech Talk

NEW TO OLD
Part One
By Ian Bowman

When it comes to modern powerplants, it's easy to see why most people choose the LS platform: The power is smooth and seamless, almost like driving your grandmother's Buick until your foot's in the throttle. The fuel mileage is simply unparalleled. And if that wasn't enough, they're as low maintenance as they come, for dang near as many miles as you could care to put on one.

Unfortunately, when it comes to swapping them into something as stylish and timeless as a Tri Five, there's simply no way around it....it's...kinda ugly. Well, maybe we should refrain from ugly, so lets go with a more PC term...."modern." Plastic intake manifolds are the norm, exposed coil packs, elaborate accessory drive setups, and miles on miles of exposed wiring leave a LOT to be desired in the looks department. Even most aftermarket items for dress-up still keep a very "new" look. And unfortunately, this leaves a lot of builders seeking power from inferior sources, simply to keep the look. But the folks as Lokar LS Classic Series have come to the rescue with a way to keep the classic style, but reap the benefits of modern power.

Lokar LS Classic Series provided one of their '57 Fuelie intake setups, a pair of script valve covers, their awesome "functional" distributor setup, and minimalized front drive setup for the 2020 Danchuk Tri Five Nationals Golden Star giveaway car. And if it's any testament to the look this setup obtains, when the car was at the Detroit Autorama for its unveiling, I had to field multiple questions of "how do you get the valvetrain under those short valve covers?" and "Who makes that intake? I have a 350 i want to use that on!" Sure, there are tells that an educated eye will spot sooner than later, but they'll have to take a look or three to catch them, and that's the point.

We're going to split this up into two separate parts, since the kit we were supplied is quite expansive, and we want to show you all as much as we can. So, let's move on to install, part one!

VALLEY PAN:

With the finned aluminum script valve covers to be used, you lose your oil fill provision. Lokar LS Classic Series took this opportunity to make a valley pan with a functional fill tube, just as your small blocks of yore would've used. So, not only functional, but adds to the illusion of a classic drivetrain instead of the modern LS.

Our first look at the powerplant in question. Ed Rinke Performance, the exclusive provider of powertrain for the Golden Star Giveaway car sent a 480hp LS3 crate engine along for 2020. A great engine, but looking a touch out of place on the '57 150 at hand.

That aforementioned ugly plastic intake is first on the chopping block. We'll use multiple parts from this intake (including the already-removed drive-by-wire throttle body), so don't send this one to the swap meet yet!

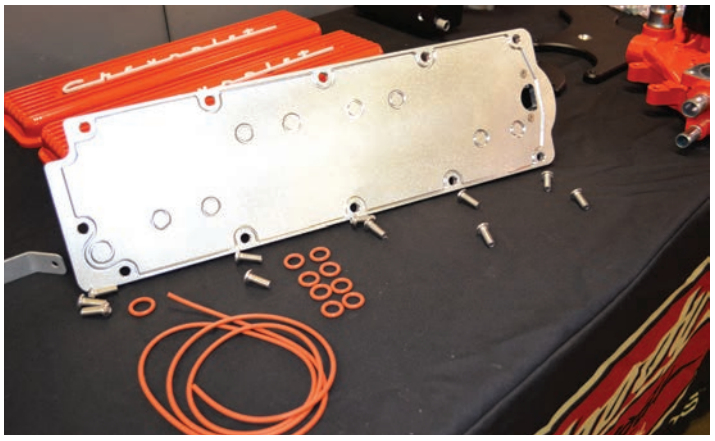
With the intake out of the way, the valley pan is easily removed. No sealant or anything to scrape off, you'll find most all gaskets on the LS series engines are o-ring style.

A neat, billet aluminum adapter is provided, and will replace the blockoff plate on whichever oil pan you'll be using.

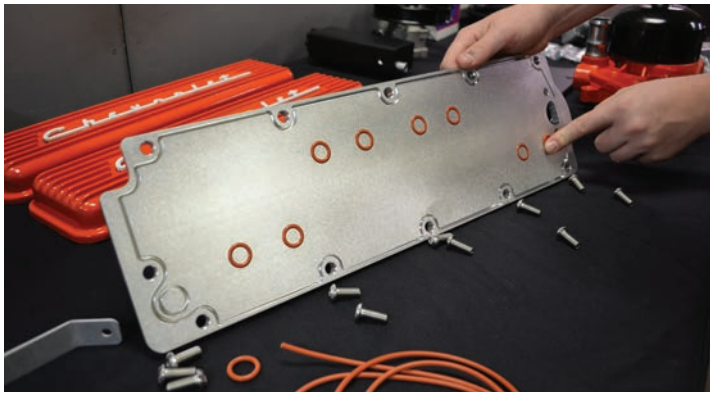
The LS Classic valley pan also relocates the oil pressure sender down to the oil pan, so removal is required.

Even though the sending unit has a gasket, a dab of PTFE thread sealant is never a bad idea.

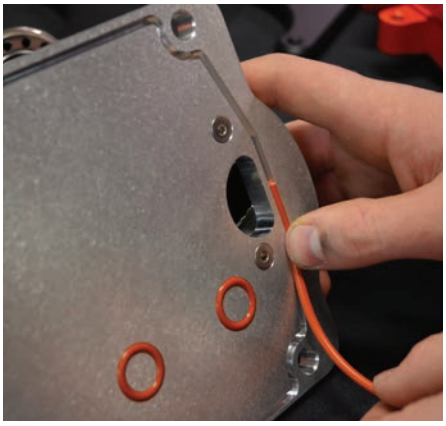
Once screwed together, you can install the adapter on your pan. Depending on your harness, some unwrapping or extending may be required to reach.



Our new valley pan has CNC machined oil blockoff provisions, as well as the gasket seal.

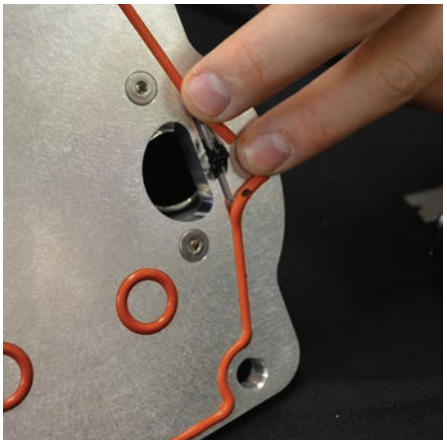


The oil galley blockoff seals should fit snugly in place. The machining on the valley pan truly is impressive.



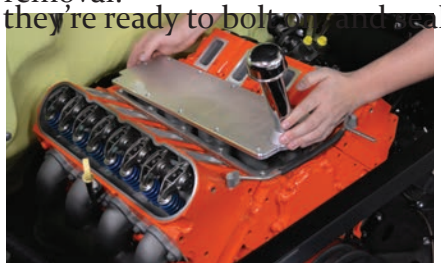
The outer seal will need to be cut to length, but have no fear, it's easily done. Just feed it all into place.

When you get to the end, simply use a razor blade to cut the seal to length, and apply a small dab of silicone into the channel, as this will ensure a solid seal. Give it a few minutes to set up before attempting to install to ensure your seal stays put.

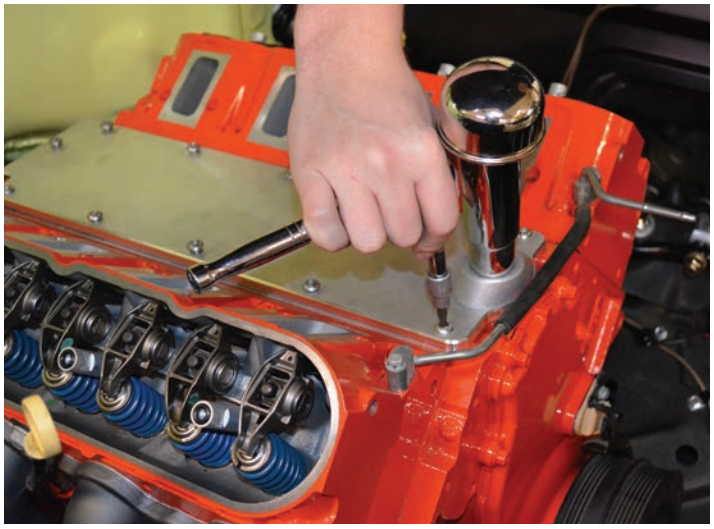


removal.

And just like that, they're ready to bolt on, and seal up leak free!

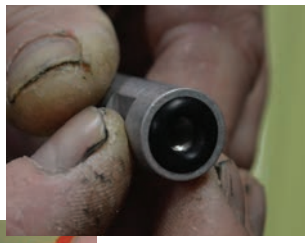


Stainless button-head allen bolts are provided for installation. Any time steel fasteners are used against aluminum, a dab of anti-seize compound is always a good idea to prevent thread galling.



Once bolted down, we have a way to fool the masses, as well as a way to put oil in our LS3!

The valve covers themselves mount using the four factory bolts. Only variance will lie within the spacer to install in the head.



The spacers provided utilize an o-ring, to keep the oil in and off the valve covers.

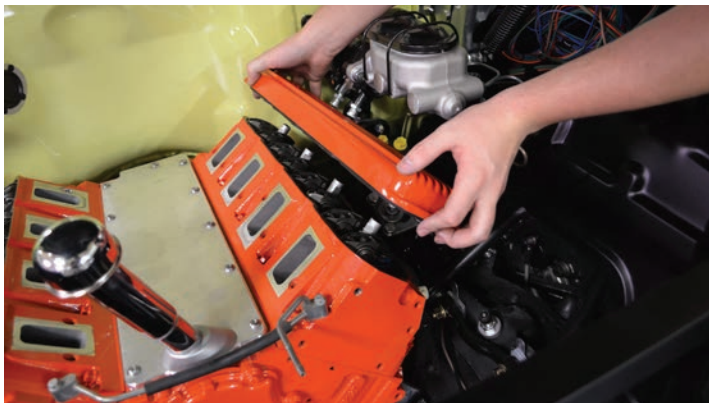
The spacers are studded on the bottom, and install right to the factory bolt holes, in order to utilize a short, taper head allen screw to accommodate the scripts.

Just as the factory valve covers do, the Lokar LS Classic Series pieces utilize stock gaskets. They can be trick to feed in, as they appear longer than they should be. Have no fear, they'll compress as you feed them into place.

VALVE COVERS:

While more straightforward than our other upgrades, the valve covers are a crucial part of completing the look. The Lokar LS Classic Series finned covers use no adapters like some other aftermarket pieces; what you see is ACTUALLY the valve cover itself, so the look is very sleek and subtle. We choice to paint the entire cover orange, and letting in white, to keep with our stocker look.

And just like that, they're ready to bolt on, and seal up leak free!



With the spacers in place, including the all-important o-rings, installation will simply be reversal of removal.

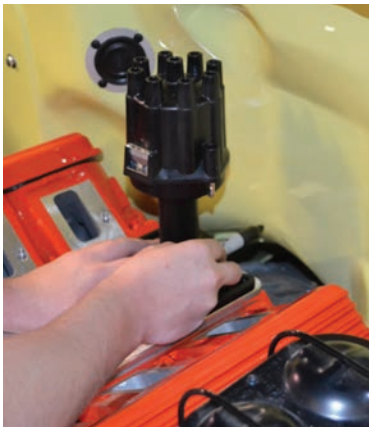
We chose to paint our hold-down bolts, in order to be as stealthy as possible. This won't be required if you're leaving the covers in the natural state ala Corvette style.

The scripts are held on by tiny allens, making for a near invisible installation!

DISTRIBUTOR

So, with our valley pan installed, and our valve covers completed, we're on to our next component: The distributor. The coilpack-style ignition system is a dead giveaway to our mill being an LS, especially when left on the valve covers. The guys at Lokar LS Classic Series have just the ticket for that with their distributor setup. I don't like calling this setup "fake," even though it doesn't function in the traditional sense of the piece it replicates. The plug wires, however, are real and functional, so how "fake" can it be? The trick lies in the fact the "distributor" is actually hollow, and the plug wires simply pass through it to get to the coil packs, which we relocate inside the car. Lets see how its done....

As you can see here, the "shaft" is actually hollow, and oversized so it can accommodate all wires passing through it. The mounting tabs bolt through the two rearward valley pan bolts.

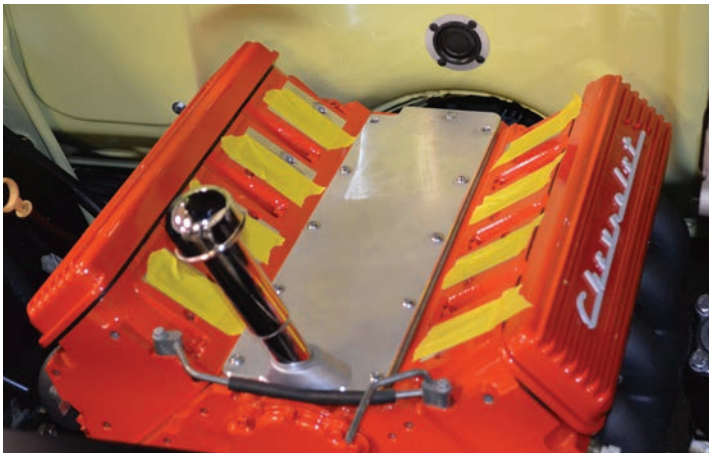


Since our ignition coils are inside the car, we need to put a hole in the firewall for the plug wires to pass through. So, we mock everything up, and mark the firewall directly behind the distributor to keep everything as hidden as possible. Remember, we've got an illusion to uphold here!

A 2.5" hole saw will be the weapon of choice for cutting the firewall. A uniform hole is key when using the type of grommet we have planned.

It's no place in France, but there's definitely a hole in the wall! We'll clean up the rough edges before moving along to install the grommet.

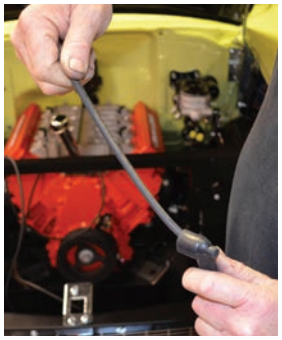
These screw-on grommets are a staple around the shop. They come in a multitude of sizes, are aesthetically pleasing, and can be trimmed to fit however much we need to run through them. In this case, a bunch of plug wires.



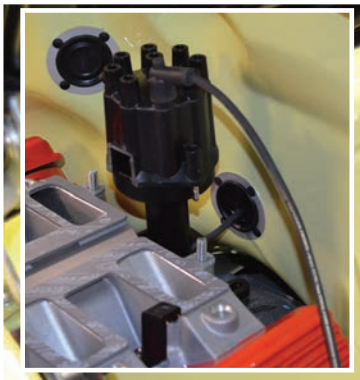
The finished product, ready for trimming. Note the use of masking tape over the intake ports. Don't want anything getting down in there while you're drilling, just remember to take them off before mounting the intake. Ask me how I know....

You'll notice in other pictures, our distributor had the sliding window, mimicking the one a factory dual-point unit would have for adjusting the points. Unfortunately, it wouldn't clear our Fuelie intake with how far we had the engine slid back on the adjustable mounts. So, slight modification was required, and you won't see this once the intake is installed anyways.

Part of the grand illusion involves having an actual boot at the distributor to complete the look. These guys really go all out!



The plug wires come with the sparkplug end of the wire pre-assembled, so you'll be working from the plug-back. The fake boot is slipped on over the wire, which is sent through the distributor, into the car, where the coil end is crimped on.



With the wire sent through, the boot can be slid on, completing the look.

Repeat 7 more times, and you've got an LS that's going to have most anyone scratching their head, at least for a minute! ATF