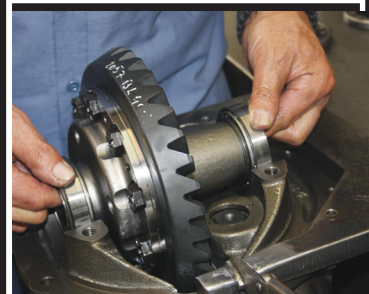


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BRAKES

New Binders

MAKING OUR MAV A ROLLER WITH AEROSPACE

With the coil overs hung in the wheelwells, we still couldn't make the Mav a roller without brakes.



Most Fox Body Mustang fanatics are familiar with this setup, it's Aerospace's famous AC-220 front brake kit. It turns out this setup is also what you need for those running AJE's k-member and suspension conversion.

Written by Jake Amatisto
Behind the Lens: The Author

the 411

► The **dust caps** feature a screw-on, o-ringed design that every racer loves for some reason. It's simply a cool feature and it looks good sticking through a set of lightweight race wheels.

► The **discs** in the AC-220 kit are drilled for heat dissipation and are of a single layer steel design. Because they are designed for racing, they are fairly thin compared to street-type rotor, they can warp if you drive them a lot in stop and go traffic. To ensure long life of the whole setup, it is not recommended to use these on the street simply due to the potential warpage that can occur with these thin, lightweight brake discs.

A couple months ago we covered an install of AJE Engineering's suspension system on our 1970 Maverick. Overkill Fabrications out of West Covina, California handled the task, where they were able to adapt the kit under our car, cut out a lot of unnecessary metal (dropping over 100 lbs.), and opened up the shock towers so we could finally install some large-tube headers. It eliminated the stock front suspension configuration and basically bolted in where the stock components go, replacing the shock/coil spring/upper control arm assembly with racing coil over struts. In the place of our lame, sloppy steering box, now sits a Flaming River Pinto-style steering rack.

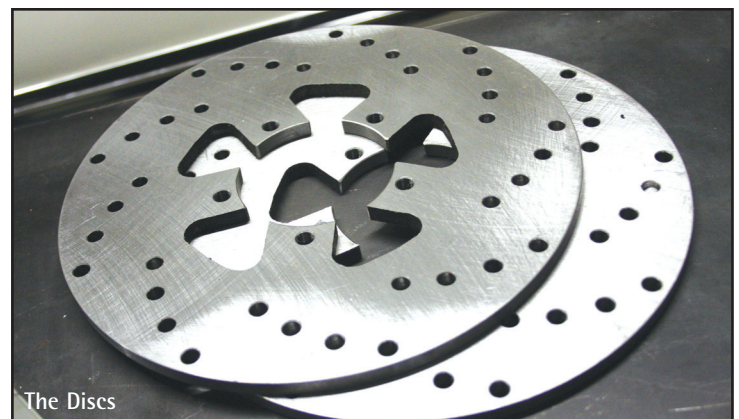


Hawk Brake Pads

One thing we thought was cool when we started looking into the Aerospace kit was the pads that are included. In most Aerospace' kits you can find Hawk Performance brake pads. We have heard great things from racers that use these and it's a nice addition to the whole racing package.



Dust Caps



The Discs

BRAKES

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And after you lock up a drum going 120 plus, you'll never want to run front drums again.

With the coil overs hung in the wheelwells, we still couldn't make the Mav a roller without brakes—of course. Luckily for us, finding the perfect setup for our car was easy. A couple years ago we sent our factory Maverick spindle to Aerospace Components and they were able to provide the necessary wheel bearings needed to adapt some of their lightweight race brakes to the project. Since then, we decided to use the aforementioned strut assembly, which

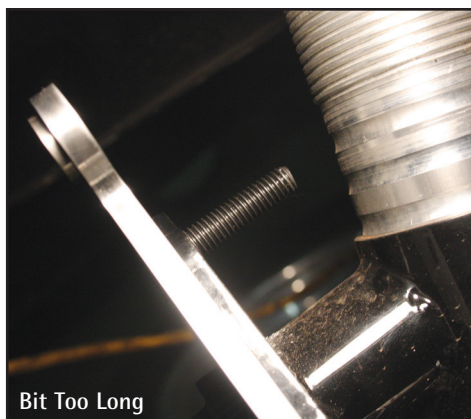
the 411

► The **calipers** are carved billet aluminum for great looks with low mass, and have a 4-piston design.

► We noticed the bolts that come in the Aerospace kit were a **bit too long** for our AJE spindle. This is because the factory fox spindle is thicker in that area. After tapping the bracket, using red Loctite, and finally securing the caliper bracket with a nylock nut, we trimmed the excess.

► The first step in getting the brakes on the Mav was threading in the **lug studs**, which were included in the kit. We had to make sure that we threaded them into the right holes, as the aluminum hubs feature a large and small pattern. We'll be honest, we actually didn't pay attention to this on the first side we installed (with red Loctite!) and we almost "burst into flames of anger and cursing" when we went to put on the wheel and it wouldn't fit. Lesson learned.

► Speaking of **red Loctite**, once the hubs were threaded we made sure to use the red stuff on all the bolts to make sure the setup will never vibrate loose.



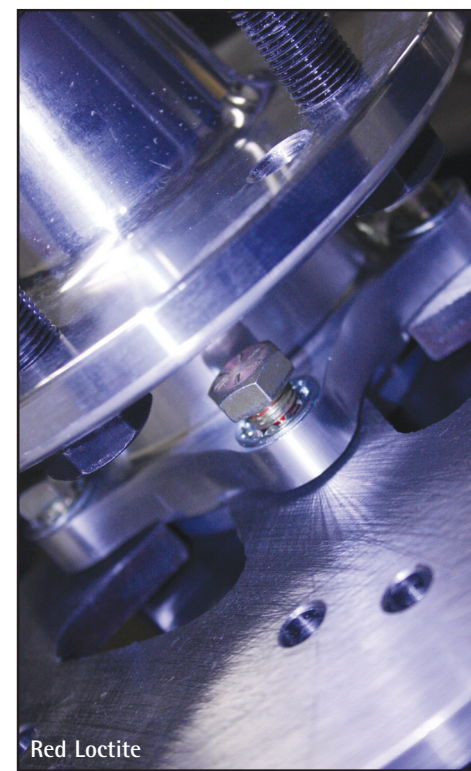
Drums vs Discs

We were able to use ProMedia's shipping scale to weigh both the stock rear drums and the new discs from Aerospace and were able to score around ten pounds per side. As you can see, the stock drums (for an early 70s Ford) weigh about 21-pounds, whereas the Aerospace pieces only weigh in at 12-pounds. The rotors from the brake kit are only 0.32 thick, this means that they are designed for quick stops after a quarter-mile blast, not stop-and-go traffic. If you do drive with these on the street, expect to be replacing warped rotors and pads often. Like the fronts, the rears feature a billet, 4-piston caliper setup that is a definite improvement over stock disc or drum assemblies. These also shine nicely from behind a set of drag wheels, however, street driving with these is not recommended.

featured a fox body style spindle—a different setup than what we were previously running. So we found ourselves on the hunt for a brake system once again that would not only be as lightweight as possible, but also be able to effectively stop our potential 8-second project car.

Since we have had such great luck with Aerospace brakes over the last ten years in terms of installation ease and customer service, and since we were running a rear set of Aerospace discs on the rear of the project already, it made sense to match it. After speaking with Aerospace's shop manager Scott Meals, we decided to run their famous fox body front brake kit, PN# AC-220. Some of the key features include: great looking billet aluminum 4-piston calipers, billet hubs with screw-in dust caps that have an o-ring seal—10-1/4 diameter, 5/16 thick drilled rotors, Grade 8 hardware, 1/2 x 3-inch long screw in wheel studs to accommodate NHRA's wheel stud rule, wheel bearings, grease seals, and some nifty Hawk Performance brake pads that feature a cool design that makes changing them super easy.

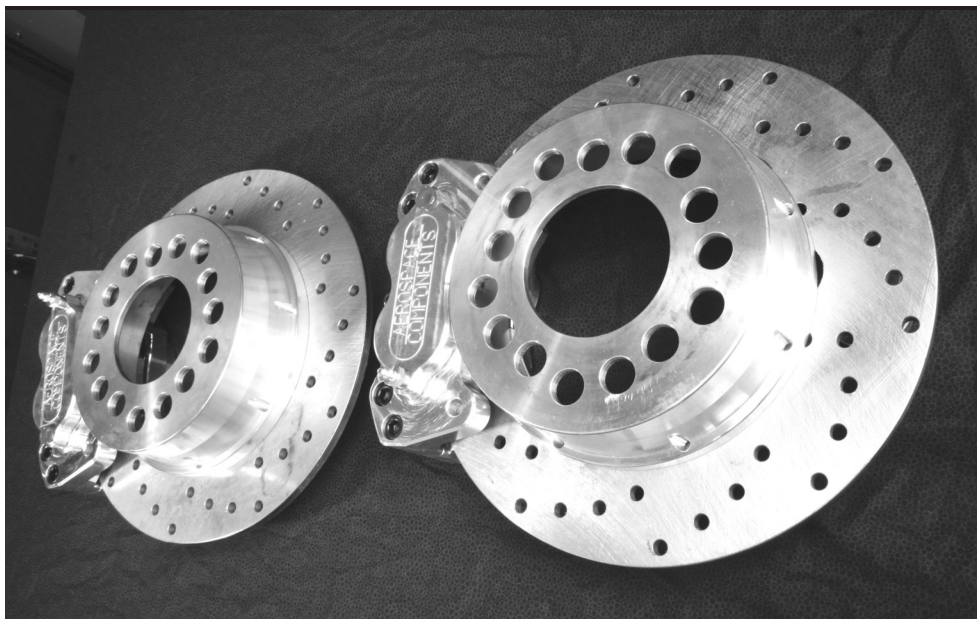
For the installation we headed down to where the project is currently hibernating, at Fast Motor Sports,



BRAKES

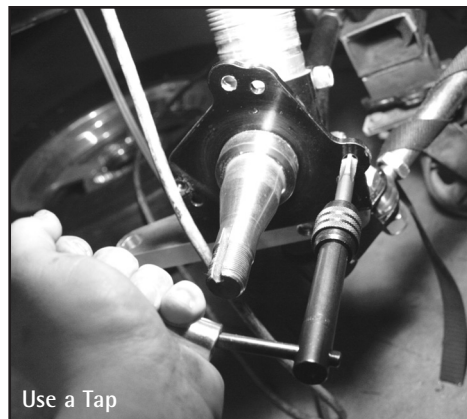
New Binders

MAKING OUR MAV A ROLLER WITH AEROSPACE

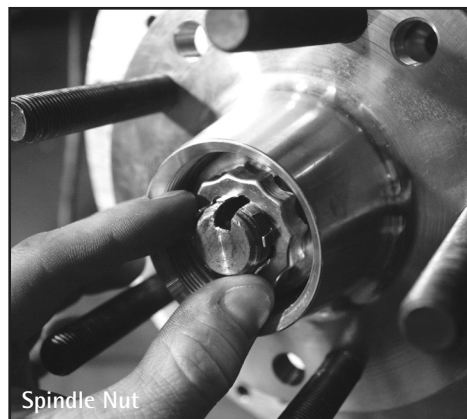


Rear Discs

We also opted to run a set of Aerospace's rear brakes on our Ford Maverick project. After upgrading to an 8.8 rearend with 9-inch ends, Aerospace had the right setup to adorn the ends of our axle. Notice the brake hats have multiple patterns, this is not only to save weight, but also to fit various applications.



Use a Tap



Spindle Nut

the 411

► In order to fasten the caliper bracket to the spindle correctly, it is recommended that you **use a tap** to cut threads into the spindle before you bolt it together. This was the most tedious out of all the steps—patience is a much-needed attribute when doing this.

So we found ourselves on the hunt for a brake system once again.

in Gardena, California. The operation is run by PSCA Limited Street racer Craig Williams and engine builder Chris Pack. After the Maverick had some chassis work and the AJE suspension installed at Overkill, Pack towed the car to their shop where we could mock up the engine, and work on some various things, one of which included setting up the brakes. There, we were able to use Williams' tools to install the Aerospace brakes and make our Super Smaverick a roller once again.

► We're a fan of new hardware, but the AC-220 kit doesn't come with the **spindle nut** or retainer, and neither does the AJE kit, so we picked up some new pieces from the local auto parts store and were pleasantly surprised when we saw they were zinc coated. These are typically all greasy, and when you can get some new ones for ten bucks, why use the old stuff?

When we started tinkering with this project a few years ago, we were running some terribly stock (and fading) drums at all four corners. This was something that we were very anxious to get rid of since it was the stock front drum brakes that locked up and caused our original Maverick (which we built in Race Pages throughout '04-06) to go into a 360-degree spin-out at California Speedway—a crash that ended up being the last hoorah for that car. Ever since we locked up the drum and piled the "Super Smaverick v1.0" into the wall, the braking system has been the first thing on the list of upgrades when we do a project. Now, we're not saying that you can't race and stop effectively with drum brakes, because we know guys still do, but why run something that is so susceptible to fading and wear? And after you lock up a drum going 120 plus, you'll never want to run

► Before installing the grease seal, we made sure to check the **caliper-to-rotor clearance**, making sure the caliper was centered. Included are some thin washers that allow you to adjust the position, if necessary. In this photo, we were showing a friend how easy it is to drop in the Hawk brake pads.

► Peeking from behind our Mickey Thompson race wheels you can see the cool **Aerospace caliper**. Yes we know the wheels need a good polish job.



Caliper-to-Rotor Clearance



Aerospace Caliper

BRAKES

New Binders

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We have had such great luck with Aerospace brakes over the last ten years in terms of install ease and customer service.

the
411

► When you feel confident that the caliper has the right clearance, and after liberally greasing up the wheel bearings, install the **grease seal**—a rubber mallet will suffice without damaging the seal.

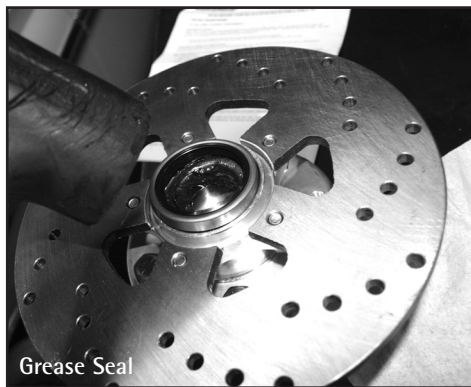
► If you were wondering, we are running a set of **Speed Doctor Racing Components'** 12-point front lug nuts on this project. We originally had some red anodized spacers (which you can also see in this story), but we eventually went with good ol' black.

► In just a few hours we were able to install the **Aerospace brake kit** on our Maverick and it was so easy, we couldn't be more satisfied. We will also now feel confidence of having four piston calipers under our foot when we mash the "whoa pedal."

front drums again. Rear drum brakes are a more common thing in drag racing, but when you can adapt a setup like the one from Aerospace to just about any rear axle, why would you? You are taking a chance with drum brakes, take it from us—invest in some discs.

We also opted for the rear disc brake setup for our Mav. After removing the stock 8-inch rearend from under the car in '08, we went with the road less-traveled and built-up an 8.8 rear from a 1990 Ford Mustang. Race Cars & Stuff hacked off the factory control arm brackets, welded on the leaf perches, and added some additional bracing to strengthen the whole housing. At each end, we hung Aerospace's 4-piston brakes and were able to drop a total of 22 lbs. compared to the stock rear drums.

If you have a Maverick or another early Ford with drums all around, expect to drop about 60 lbs. by going with Aerospace discs at all four corners. Not



Grease Seal



Aerospace Brake Kit



Rollin'...

With the Aerospace discs hung on all four corners and the project on the ground once again, they next time you read about this fiendish Maverick we'll hopefully be dropping in the freshly-dyno'd small-block. Wheels up action and hasty stops are on the horizon for this beast.

only is this a great way to shed some weight, but also, the increased stopping power is a must, and another thing to think about is the potential for better quarter-mile times due to less rotational mass. That is something that we rarely see addressed in race brake articles. Because the discs and hubs rotate, this reduction in rotating mass is much more effective than static weight. Reducing un-sprung, rotational weight is exponentially more effective than reducing

non-rotational; in other words, a few ounces of rotating mass has a greater effect on your car's performances. Even if very slim, this reduction in mass is worth something to the hardcore drag racer.

In the photo above is an image of the Maverick on the ground, in all its menacing glory. With the Aerospace discs tucked behind the Mickey Thompson wheels, this means that it won't be long until we have some shots of this killer project in action. ■



Speed Doctor Racing

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