This is a **DRAG RACE BRAKE SYSTEM**

The drag race brake systems are designed for heavy, fast cars.

IMPORTANT ⇨ Due to the application this brake system is built for, Baer supplies a more aggressive, high friction pad. This pad can be used on the street but can be dusty and noisy compared to typical street pads. If these pads are changed out to a street version, it is highly recommended that the race pads be put back in the system for race applications. Street pads in competition will fade, outgas, and taper badly which could lead to other braking issues. Always keep in mind there is not one pad that works well in all driving situations.

Installation Instructions

Product: **SS4 Plus Drag Spec**

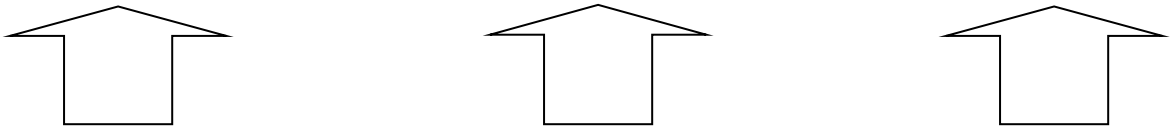
Instruction Part Number: **6000502**

Vehicle

Make: **Ford**
Model: **Fox Mustang**
Year(s): **79-93**

Revision Date: **27 September 2016**

ATTENTION: ***Read this before going any farther! Returns will not be accepted for ANY installed PART or ASSEMBLY. Use great care to prevent cosmetic damage when performing wheel fit check. In the event that a product must be returned, please contact Baer Customer Service for a RMA Number.***



Notices – Read and Follow BEFORE ATTEMPTING INSTALLATION

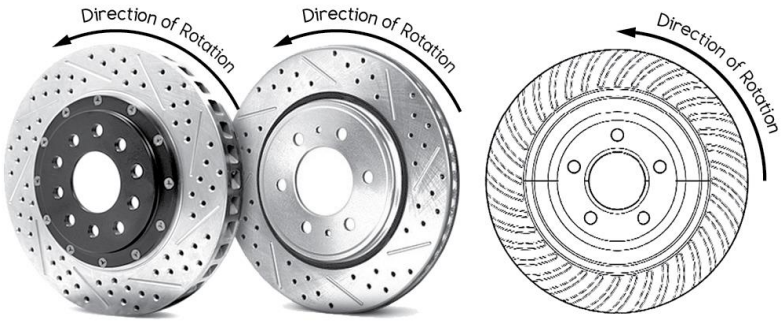
- All installations require proper safety procedures and protective eyewear.
- All installations assume basic mechanical skill and a factory service manual for the vehicle on which the installation is to be performed.
- All references to the “left” side of the vehicle correlate to the driver’s side of the vehicle.
- Any installation requiring you to remove a wheel or gain access under the vehicle requires use of jack stands appropriate to the weight of the vehicle. In all cases, jack stands rated for a minimum of 2-tons is recommended.

- A selection of hand tools sufficient to engage in the installation of these products is assumed, and is the responsibility of the installer to have in his/her possession prior to beginning this installation. All installations, which require removal of hydraulic hoses and/or bleeding of the brakes, require appropriate fitting/line wrenches, safety catch can, and protective eyewear. Other than these items, if unique or special tools are required they will be stated appropriately in the installation step.

- ALWAYS CONFIRM WHEEL FIT PRIOR TO BEGINNING INSTALLATION OF ANY BRAKE SYSTEM OR "UPSIZED" ROTOR UPGRADE! In addition to checking wheel fitment (available online at www.baer.com), always place the actual corner assembly or a combination of the caliper assembly onto the rotor, and into the actual wheel. This procedure will reconfirm proper clearance between the caliper and the wheel before proceeding with the actual installation.

- Returns will **not** be accepted for systems that have been partially or completely installed. Use extreme care when checking wheel fitment to prevent any cosmetic damage.

- When installing new Baer rotors, be sure to follow the direction of rotation indicated on the rotor hat area with either an arrow, or an "L" for left, or an "R" for right, or both. "L" or left always indicates the driver's side of US spec vehicles. Images shown are "L" left rotors:



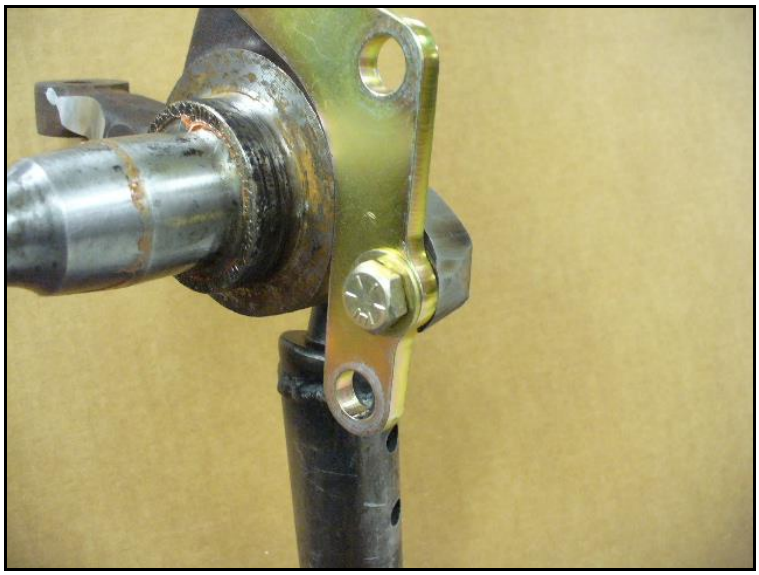
- A proper professional wheel alignment is required for any system requiring replacement of the front spindles, or tie rod ends. Follow factory prescribed procedures and specifications unless otherwise indicated.

- At any point, stop the installation if anything is unclear, or the parts require force to install. Consult directly with Baer Technical Staff in such instances to confirm details. Please have these instructions, as well as the part number of the component (part numbers are machined into the brackets) that is proving difficult to install, as well as the make, model, and year (date of vehicle production is preferred) of your vehicle available when you call. Baer's Technical Staff is available from 8:30a.m. - 5:00p.m. Mountain Standard Time (Arizona does not observe Daylight Savings Time) by phone: (602)-233-1411 Monday through Friday.

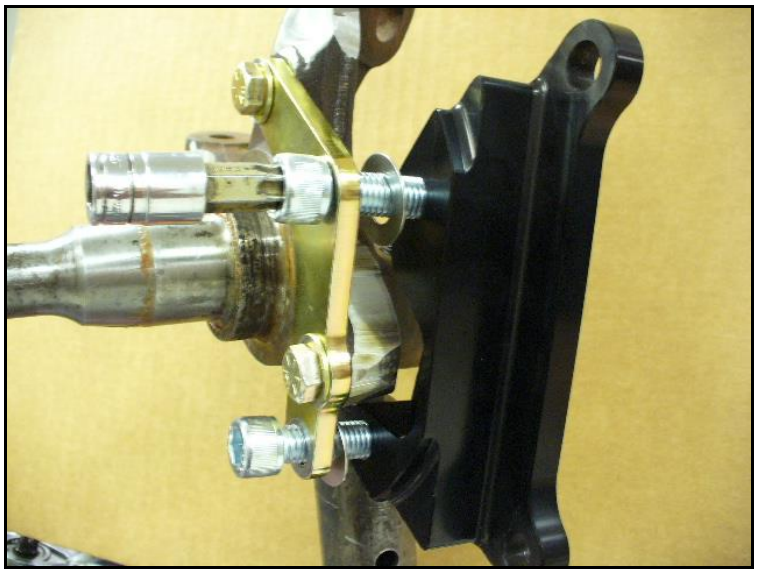
INSTALLATION:

The spindle modifications must be performed before starting on the system installation. See instruction number 6000503 to make modifications to the spindles.

1. Install the gold-colored intermediate bracket onto the spindle. The bolts are 3/8”-16, the top bolt is 1.25” long, the lower bolt is 1.0” long. Torque to 45 ft-lbs. See the photo below for reference.



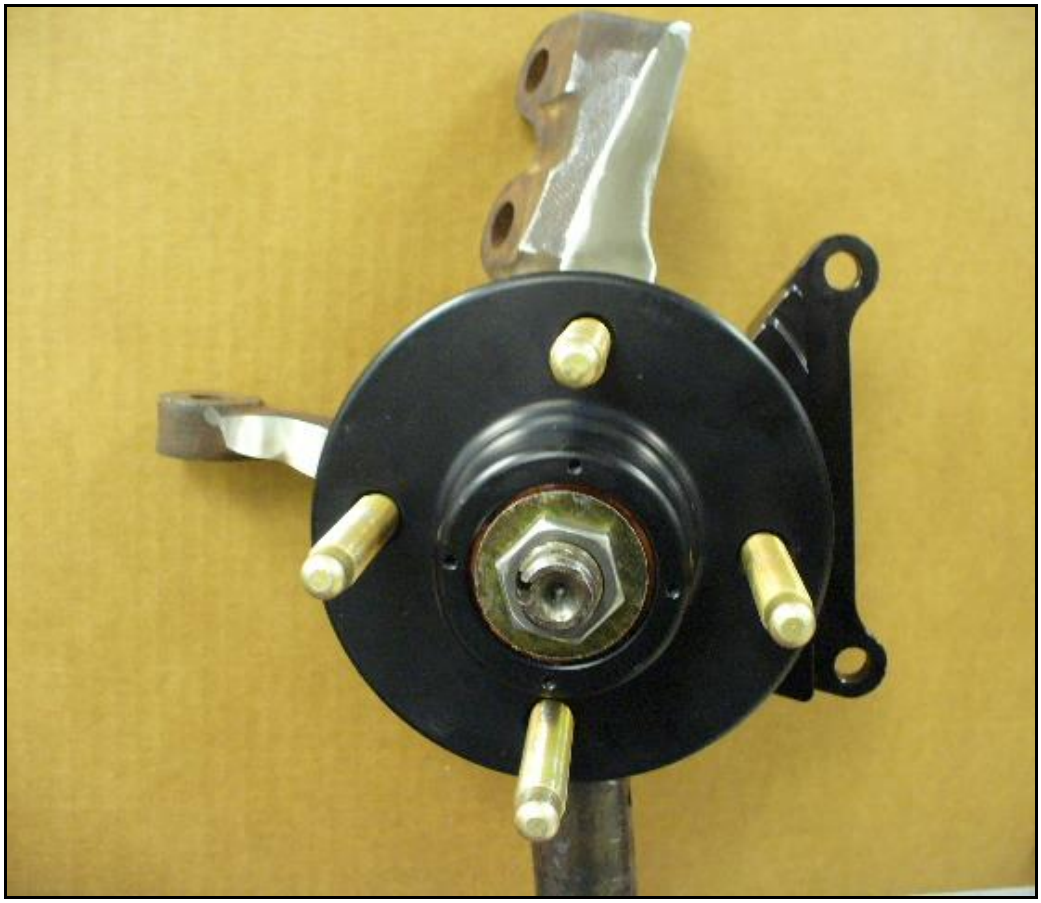
Intermediate bracket installed (short bolt in this location)



Caliper bracket with shim location shown.

A shim set is provided to center the caliper over the rotor. The shims will be in the location seen above. Start with a 0.030” shim to begin the procedure. Just snug the bolts for measurement.

2. Install the new Baer billet aluminum hub. The new Timken bearings are pre-packed with Red Line synthetic grease. Do not add more grease. Apply a small amount of grease to the hub seal surface and install the hub. Tighten the nut to 5-10 ft-lbs and spin the hub to seat the bearings. Loosen and re-tighten the nut while spinning the hub several times. Loosen the nut, tighten to remove all play, tighten approximately 1/16th turn to give a small amount of pre-load. Install nut retainer, cotter pin and dust cap.



Hub installed with both brackets in place.

3. Install the correct side rotor and secure with 2 lug nuts and washers for the 4 lug systems, use 3 lug nuts and washers for 5 lug systems.

4. With the pads removed, install one caliper on the bracket and install the 12mm x 30mm bolts and washers to begin the shimming procedure. Snug the bolts, but do not torque them yet. This will be done after shimming procedure is complete.

Shimming Procedure

Measure the gap from the rotor to caliper body at 4 points, top inside and outside, bottom inside and outside. Write down all measurements. Subtract the top inside measurement from top outside. This will require a shim at the top bracket bolt equal to half of this difference to center the caliper. For instance, inside measurement of .865", outside of .905" has a difference of .040 which would require a .020" shim installed to center. Do the same with the bottom measurements to center this also. Getting these gaps as close as possible within .005" will keep the possibility of excessive noise to a minimum. This may require different thickness shims top and bottom. ******Note: The purpose for shimming is due to the machining processes that were once performed in the past. Dimensioning tolerances weren't as necessary as today's standards, which caused variances in spindles.

Procedure

1. Select the required shims from the kit provided
2. Remove the caliper, rotor, and hub for access to the caliper bracket bolts.
3. Loosen the bolts connecting the intermediate bracket to the base bracket.
4. Install the appropriate shims (between both brackets), removing one bolt at a time, and snug the same bolts for fit check
5. Reinstall the hub, rotor and caliper and recheck gap measurements
6. When the correct shims have been selected and confirmed, remove the caliper, the rotor and the hub and torque the bracket to caliper mount bolts to 85 ft-lbs. Reinstall the hub following the procedure specified in instruction #2 on page 3. Install the cotter pin and dust cap. Install the rotor and secure with 1 lug nut and a washer to keep it in place for calilper installation.

If you do not have access to a dial caliper, these measurements can be made with pads installed using a feeler gauge between the rotor and pad. Take measurements from top inside and outside, then bottom inside and outside. Minimum clearance is .010" between pad and rotor, but equal gaps at all four locations is best.

5. Install the pads in the caliper, making sure the stainless-steel abutment pads are in place. Install the caliper over the rotor and secure with the 12mm x 30mm hex bolts. Torque to 85 ft-lbs.

6. Finger tighten the factory banjo hose end with one copper washer on each side of the banjo fitting into the rear of the caliper. ****IMPORTANT: Position the hose to avoid interference with the wheel and suspension components through the entire range of motion.** Tighten banjo bolt to 15-20 ft·lbs. See Figure 4 for reference. Stainless-steel braided brake hoses are available for purchase from https://baer.com/Hoses-Hard-Lines/ if you do not choose to use factory hoses.

7. Repeat these steps for the opposite side of the vehicle and be sure to double check all attachment points and fittings.

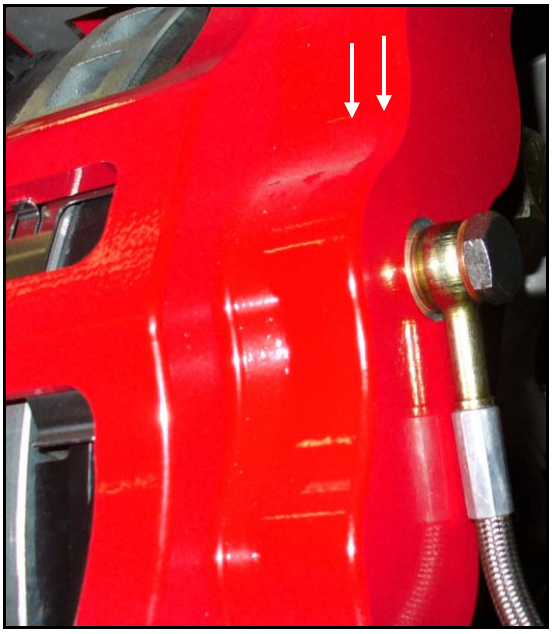


Figure 4: Installation of hose and washers
Photo shown as reference only

Refer to Bleeding, Pad Bedding and Rotor Seasoning Procedures contained on a separate sheet, or on www.baer.com

For service components and replacement parts contact your Baer Brake Systems Tech Representative.