

## 79-93 MUSTANG 2 PISTON FLOATER FRONT BRAKE KIT INSTRUCTIONS

FOR ANY QUESTIONS PLEASE CALL US @ (727) 347-9915  
M-F 8:00 AM - 8:00 PM EST

### **YOU WILL NEED TO MODIFY YOUR SPINDLE.**

#### Preparing the Spindle

Note: Some models of disc brake spindles have “ears” where the OEM caliper was mounted and these “ears” will interfere with your Aerospace Components brake kit. When removing these ears, remove as little as possible. The original dust cover bolt holes will be used to mount your new brake kit but will need to be re-drilled.

1. Remove all stock braking components from the spindle.
2. Drill and tap your existing dust cover bolt holes by using a 5/16 drill bit followed by a 3/8-16 tap. Take care to keep drill centered with the original holes.

#### Hub assembly:

1. Place hub on bench nose cap side down then set rotor down onto the register area of the hub, make sure counter bores in rotor are facing up .
2. Clean 5/16-18 low head screws with acetone and install them with red loc-tite and torque to 25 ft lbs.

#### Dry fit-do not- grease bearings at this step:

1. Use the 3/8-16 flat head bolts to attach the bracket to the spindle. The bracket should be oriented so the brake caliper will bolt on opposite the steering arm.
2. Place inner bearing into hub and slide onto spindle snout then place outer bearing and spindle nut on.
3. Check spacing between rotor and bracket. The rotor to bracket spacing needs to be .050”-.080” this can be attained by using shim washers between the spindle and bracket.

**Final installation:**

1. Clean bracket bolts and the spindle holes with acetone and re-install bolts using red loc-tite and torque to 50 ft lbs
2. Pack the wheel bearings with grease and lube the seal lip. Place inner bearing in hub and then the grease seal with the spring side facing in towards the hub.
3. Mount the hub assembly and tighten the spindle nut until the bearings are fully seated and the slightest resistance is felt when spinning the hub.
4. Install cotter pin .If necessary back off spindle nut till cotter pin lines up with slot in castle nut. Tighten nose cap.
5. Install the caliper making sure bleeder screw is above the intake port on the caliper. Tighten bolts to 35 ft lbs.
6. Drop the brake pads into the caliper and slide the retaining bolt through the caliper and pads. Secure the bolt with the nylock nut and be sure threads of bolt protrude through the locking feature of the nut.
7. Make sure the rotor spins freely and only the brake pads contact the rotor.

The caliper *must be parallel* to the rotor. A different number of shims may be required to achieve this for one caliper.

**Final Check:**

1. Make sure all fasteners are tightly loctited in place.
2. Make sure all fittings are tight
3. Check for wheel clearance between brakes and wheels as well as brake lines and wheels/tires.

**Brake Lines:**

The intake port on the brake caliper is 1/8-27 pipe thread (1/8 npt). Banjo style bolts and fittings will not work with this kit. Wrap the pipe fitting with a couple turns of Teflon tape before installing in the caliper. The fitting should screw in about 2 turns by hand then use a wrench to finish tightening it up. When installing the brake lines make sure they are positioned where they will not contact any moving parts. Check that the brake lines are long enough by jacking the front end of the car up and turn the steering from wheel lock to wheel lock making sure that the lines are not being pulled on at any time. If there is tension on the brake line at any time a longer line will be required.

**Brake Fluid:**

Dot 3 or Dot 4 fluids are recommended for best results, DO NOT use DOT 5 or any fluid that contains silicone. Many Dot 5 fluids contain silicone which will cause damage to the piston O-rings and will also damage most master cylinders. Chose a good brand fluid, we have always had good luck with Valvoline and Castrol brands.

**Master Cylinder:**

The master cylinder requirements vary depending on front/rear brake combination. If you are using 4 piston calipers on the front and rear it will require a master cylinder with a minimum bore size of 1 1/32. Call 727-347-9915 if you have any questions about your current setup.

**Bleeding the System:**

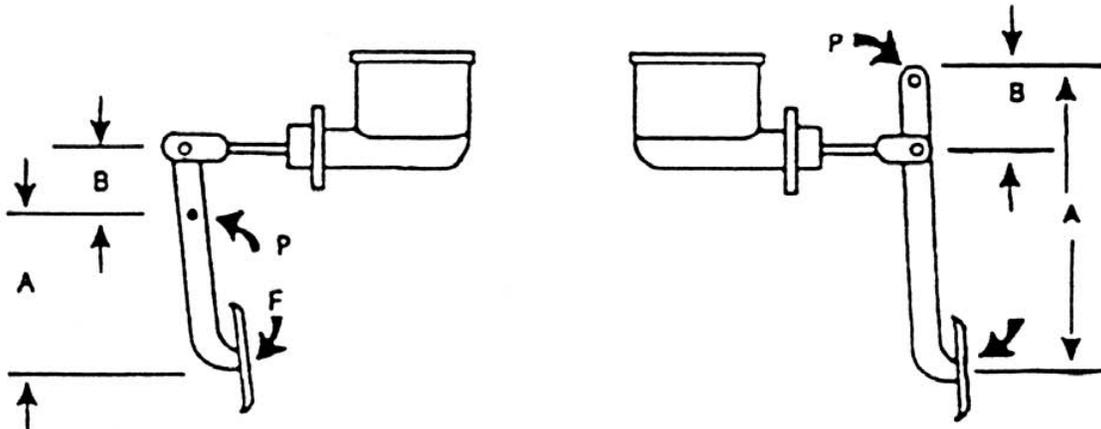
An initial gravity bleeding is recommended to remove most of the air in the system. This is accomplished by filling the master cylinder with fresh fluid and opening the bleed ports. Leave the top off the master cylinder. Fluid will flow into and fill the calipers. Be sure to keep fluid in the reservoir to keep air out of the system. This process will take some time. A final bleeding is accomplished by firmly pressing the brake pedal and having someone open the bleed port until the pedal goes to the floor, closing the bleed port before the pedal is lifted. Do not pump the pedal while bleeding. This only foams the fluid and prevents proper bleeding. Repeat this process for all brakes until pedal is high and firm. Be sure no air bubbles come from the calipers.

**Brake pad bedding:**

New brake pads require a bedding process. This bedding procedure starts by pumping your brakes at a very low speed to ensure proper brake operation. Make a series of hard stops at progressively higher speeds. Continue this process until brake fade is felt. Park the car and give the pads a chance to cool completely. Improper pad bedding results in glazed pads diminishing stopping ability. Brake pads should be checked regularly. If pads are wearing evenly, they can be used almost down to the packing plate.

**Getting the right ratio:**

In order to get the correct ratio for your Aerospace Components braking system, a few measurements must be taken. First, remove the old master cylinder. Measure from the center line of the pivot point "P" of the brake arm to the pivot point of the master cylinder rod to get length "B". Next, measure from the pivot point of the master cylinder rod to the center of the footpad to get length "A". Finally, divide length "A" by length "B". This will give you your pedal ratio. The recommended ratio should be 7:1. For example, if length "A" was 14 " and length "B" was 2", then  $14/2=7$ .



# WARNING:

ALL AEROSPACE PRODUCTS ARE FOR OFFROAD USE ONLY AND ARE NOT INTENDED FOR STREET USE!

SAFETY IS A REQUIREMENT!! TO ENSURE SAFETY A PARACHUTE, ROLL CAGE, 5 POINT HARNESS, D.O.T. OR SNELL APPROVED HELMET, FIRESUIT AND ALL OTHER NHRA OR IHRA REQUIRED SAFETY DEVICES SHOULD BE UTILIZED AND KEPT UP TO DATE. ALL RACERS SHOULD HOLD A VALID LICENSE FOR THE CLASS IN WHICH THE VEHICLE IS DESIGNED TO RUN. PROPER INSTALLATION OF COMPONENTS IS OF THE UPMOST IMPORTANCE. MAKE SURE THE PERSON INSTALLING ANY COMPONENT ON YOUR RACE CAR IS FAMILIAR WITH THE PROPER INSTALLATION OF THAT COMPONENT. Aerospace Components is not liable for any damages or injuries that may occur due to incorrect installation of parts or components!

*Please remember, racing pushes all components that make up a vehicle to their max stress levels. When any part or component is pushed to the max its chances of failure rise dramatically. This is why race parts and components carry no warranty. This is also the same reason why safety gear should be used at all times and why fastener and part inspections should be performed regularly. By installing any Aerospace Components parts you agree that Aerospace components can not be held liable for any damages or injuries resulting from part or component failure. Remember this is racing.... parts break, systems may fail so be prepared mentally before a race. Know where the chute handle is, know where the kill switch is, make sure your safety restraints are tight and have a plan in mind for when things go wrong. Never place the transmission into park, reverse or use the transmission brake to stop a moving race car; if you try YOU WILL CRASH! The best way to stop a runaway race car is to release the parachute and kill the ignition. Please be safe at all times and hope for the best but plan for the worst.*

**MOTORSPORTS ARE EXTREMELY DANGEROUS  
AND MAY RESULT IN SEVERE INJURY OR EVEN DEATH.  
RACE AT YOUR OWN RISK!**