

# COBRA/GT 12"/13" 79-93 MUSTANG WITH STOCK SPINDLES

Product: COBRA/GT 12"/13" 79-93 MUSTANG

Instruction Revision: REVISION A
Revision Date: 3 APRIL, 2023

Years: 79-93 WITH STOCK SPINDLES

Vehicle Make: FORD

Model: MUSTANG



# **READ THIS BEFORE STARTING**

Returns will not be accepted for ANY installed PART or ASSEMBLY. Use great care in preventing cosmetic damage when performing wheel fit check.

# Items included in this brake kit:

- •(x6) 1/2-13 x 1.25 bolts
- •(x4) 1/2-13 x 2.25 bolts
  - •(x10) 1/2" washers
- •(x2) -3AN to 3/8-24 adapter fittings
- •(x2) 16" hoses with -3AN end and 10mm banjo end
  - •(x2) Directional front calipers with pads
    - •(x2) Steel caliper mounting brackets
      - •(x2) Wheel hub assemblies
      - •(x4) Copper crush washers
      - •(x2) M10-1.0 banjo bolts
        - •(x2) Vinyl Caps
        - •(x2) Hose locks
- •(x2) Directional, slotted, drilled, and zinc plated rotors

# 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 BEFORE BEGINNING INSTALLATION OF ANY BRAKE SYSTEM OR "UPSIZED" ROTOR UPGRADE! In addition to checking wheel fitment of this system with the wheel fitment template, always place the actual corner assembly or a combination of the caliper assembly on the rotor, and into the actual wheel with great care to prevent cosmetic damage. 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 of brake components.** Wheel fitment should be verified before installation using a wheel fitment template.
- •When installing new rotors, be sure to follow the direction of rotation indicated on the rotor hat area with either an arrow, an "L" for left, or an "R" for right, or both. "L" always indicates the rotor for the driver side of US spec vehicles.
- •A professional wheel alignment is required for any system requiring the replacement of the front spindles or tie rod ends. Follow factory prescribed procedures and specifications unless otherwise indicated.
- •Note: It is recommended to take photos of the brake system before disassembly and during each step of the disassembly process. Photos may allow technical support to better assist given any necessary troubleshooting.



#### **BRAKE DISASSEMBLY INSTRUCTIONS**

- Engage the vehicle park brake (if applicable). If not applicable, place wheel chocks behind the rear wheels before continuing.
- 2. Lift the front end of the vehicle with a properly rated floor jack.
- 3. Place properly rated jack stands under the front end of the vehicle to support the vehicle weight during installation.
- 4. Remove the left front (driver's side) wheel from the vehicle.
- 5. Disconnect the stock rubber flex hose from the steel hardline at the inner fender.
- 6. Unbolt and remove the existing brake caliper.
- 7. Remove the factory dust cap from the brake rotor.
- 8. Pull the cotter pin and spindle nut retainer from the spindle pin.
- 9. Unbolt the castellated nut and remove the stock, unicast rotor/hub unit from the spindle.

**SPINDLE MODIFICATION:** Factory spindles **must** follow the modification steps detailed below. A modification kit (P/N 6801349), containing components to streamline this process is available. Contact a FOXBODY BRAKES representative to order the modification kit if necessary.

#### SPINDLE CLEARANCE

- . Mark the areas to be removed for clearance of the new brake system. Refer to the photos below for the areas to be removed.
- 2. Carefully remove the marked areas with a Corded or cordless angle grinder/circular saw with a metal cutoff blade. Take care not to damage any areas surrounding the vehicle spindle.
- 3. Grind any sharp corners left from step 2 to prevent damaging the brake lines upon installation.



# MODIFYING THE SPINDLE DUST SHIELD MOUNTING HOLES

Carefully drill and tap the dust shield mounting holes for 1/2-13 fasteners. These holes will be used to mount the base bracket to the spindle. (RIGHT [PASSENGER] SIDE SPINDLE SHOWN IN PHOTO)





#### BASE BRACKET INSTALLATION

NOTE: The base brackets supplied with this system are left and right specific and are designed to mount the brake caliper **behind** the centerline of the spindle pin in the trailing position. The base bracket installs directly to the spindle via the modified dust shield mounting holes. Refer to the steps and photos below to install the base brackets for your application.

- 1. Install the base bracket to the spindle via the modified dust shield mounting holes with three (3) of the supplied 1/2-13 x 1.25 bolts and 1/2" washers. The base bracket mounts with the 1/2-13 pem nuts facing away from the center of the vehicle (left/driver's side spindle shown below).
- 2. Torque the three 1/2-13 x 1.25 bolts to 80 ft-lbs. to secure the base bracket to the spindle.



THE BASE BRACKETS SUPPLIED WITH THIS SYSTEM ARE LEFT AND RIGHT SPECIFIC AND ARE DESIGNED TO MOUNT THE BRAKE CALIPER BEHIND THE CENTERLINE OF THE SPINDLE PIN IN THE TRAILING POSITION. THE 1/2-13 PEM NUTS SHOULD FACE OUTBOARD, AWAY FROM THE CENTER OF THE VEHICLE. INSTALL THE CORRECT BASE BRACKET TO THE SPINDLE VIA THE MODIFIED DUST SHIELD MOUNTING HOLES WITH THE THREE SUPPLIED 1/2-13 X 1.25 BOLTS AND 1/2" WASHERS. TORQUE THE HARDWARE TO 80 FT-LBS. TO SECURE THE BASE BRACKET TO THE SPINDLE.

#### **HUB INSTALLATION**

The hubs supplied with this system are shipped pre-assembled with bearings packed with synthetic Redline high temperature grease.

1. Align the key of the spindle washer with the key slot on the spindle pin and slide the hub onto the spindle pin. Ensure the hub is fully seated on the spindle pin and cannot be pushed down further. (4-lug system hub shown below, this system is offered in either a 4-lug and 5-lug option).



ALIGN THE KEY OF THE SPINDLE WASHER WITH THE KEY SLOT ON THE SPINDLE PIN AND SLIDE THE HUB ONTO THE SPINDLE PIN. ENSURE THE HUB IS FULLY SEATED AND CANNOT BE PUSHED DOWN FURTHER.

2. Install the spindle nut supplied with this system to secure the hub to the spindle. Rotate the hub counter-clockwise while finger-tightening the nut to ensure it is fully seated on the spindle pin. Use a wrench to snug the bearing into place and then back the nut off 1/6 to 1/4 turn.



ROTATE THE HUB COUNTER-CLOCKWISE WHILE FINGER-TIGHTENING THE SPINDLE NUT TO ENSURE THE HUB IS FULLY SEATED ON THE SPINDLE PIN. USE A WRENCH TO SNUG THE BEARING INTO PLACE AND THEN BACK THE NUT OFF 1/6 TO 1/4 TURN.



# **HUB INSTALLATION CONTINUED**

3. Install the spindle nut retainer over the spindle nut, aligning the castle cutout in the retainer with the through hole in the spindle pin. A cotter pin will be installed in the through hole to secure the retainer in place.



INSTALL THE SPINDLE NUT RETAINER OVER THE SPINDLE NUT, ALIGNING THE CASTLE CUTOUT IN THE RETAINER WITH THE THROUGH HOLE IN THE SPINDLE PIN.

4. Install the cotter pin through the hole in the spindle pin. Ensure the cotter pin holds the spindle nut retainer in place.



ENSURE THE COTTER PIN HOLDS THE SPINDLE NUT RETAINER IN PLACE.

5. Bend the cotter pin around the spindle pin to secure it within the through hole of the spindle pin.



BEND THE COTTER PIN AROUND THE SPINDLE PIN TO SECURE IT IN PLACE.



#### **DUST CAP INSTALLATION**

1. Install the O-ring inside the groove of the dust cap. It is recommended to apply an assembly lubricant to the O-ring before installation. Ensure the O-ring is fully seated within the groove of the dust cap.



INSTALL THE O-RING INSIDE THE GROOVE OF THE DUST CAP, APPLY AN ASSEMBLY LUBRICANT TO THE O-RING BEFORE INSTALLATION. ENSURE THE O-RING IS FULLY SEATED WITHIN THE GROOVE OF THE DUST CAP.

2. Install the dust cap to the hub. Rotate the hub and listen to make sure the cotter pin does not scratch the inside of the dust cap.



INSTALL THE DUST CAP TO THE HUB. ROTATE THE HUB AND LISTEN TO MAKE SURE THE COTTER PIN DOES NOT SCRATCH THE INSIDE OF THE DUST CAP.

## ROTOR INSTALLATION

1. Install the correct side rotor (left [driver's side] rotor shown below). Temporarily secure the rotor to the spindle with two lug nuts and washers to prevent scratching the rotor hat.



INSTALL THE CORRECT SIDE ROTOR AND TEMPORARILY SECURE IT TO THE SPINDLE WITH TWO LUG NUTS AND WASHERS TO PREVENT SCRATCHING THE ROTOR HAT.



# **CALIPER ASSEMBLY**



INSTALL THE SUPPLIED 'S' CLIPS ONTO EACH PAD.



THE CLIP SHOULD INSTALL ON THE SIDE OF THE PAD WITH THE NOTCH FOR THE PIN.



MAKE SURE THE CLIP IS FACING AWAY FROM THE PAD MATERIAL.



LAY OUT THE CALIPER, ANCHOR, AND PADS AS SHOWN (LEFT CALIPER AND ANCHOR SHOWN).



### **CALIPER ASSEMBLY CONTINUED**



INSERT THE PAD INTO THE PISTONS AS SHOWN. THE 'S' CLIP INSTALLED PREVIOUSLY SHOULD BE OPPOSITE THE BLEEDER. INSTALL THE OUTSIDE PAD WITH THE 'S' CLIP OPPOSITE THE BLEEDER AS WELL.



LAY THE CALIPER WITH THE CORRESPONDING ANCHOR AS SHOWN.



HOOK THE CURVED INSIDE NOTCH ON THE ANCHOR AROUD THE PADS AS SHOWN.



PRESS THE ANCHOR DOWN INTO THE 'S' CLIPS INSTALLED IN THE CALIPER. YOU MAY HAVE TO COMPRESS THE 'S' CLIPS TO PRESS THE ANCHOR DOWN.



#### **CALIPER ASSEMBLY CONTINUED**



INSTALL THE PIN FROM THE BACKSIDE OF THE CALIPER INTO THE GROOVE BETWEEN THE ANCHOR AND PADS, WHERE THE 'S' CLIPS ARE.



PUSH THE PIN THROUGH THE OUTSIDE GROOVE BETWEEN THE ANCHOR AND PAD.



INSTALL THE E-CLIP INTO THE GROOVE ON THE END OF THE PIN STICKING THROUGH THE FRONT OF THE CALIPER AS SHOWN TO SECURE THE ANCHOR TO THE PADS. REPEAT THIS PROCESS FOR THE RIGHT CALIPER.



#### **CALIPER INSTALLATION**

1. Install the correct side caliper (bleeder screw pointing up) to the base bracket via the pem nuts with the provided 1/2-13x2.25" bolts and washers. Torque the hardware to 85 ft-lbs. to secure the caliper to the anchor bracket.



#### BLEEDER SCREW POINTING UP

INSTALL THE CORE
1/2-13X2.25 BOLTS

INSTALL THE CORRECT SIDE CALIPER WITH THE BLEEDER SCREW POINTING UP. TORQUE THE 1/2-13X2.25" HARDWARE TO 85 FT-LBS.

TO SECURE THE CALIPER TO THE BASE BRACKET.

INSTALL THE CORRECT SIDE CALIPER WITH THE PROVIDED 1/2-13X2.25 BOLTS AND WASHERS. TORQUE THE HARDWARE To 85 FT-LBS. To secure the Caliper to the Base Bracket.

#### BRAKE HOSE INSTALLATION

- 1. The hardline must be re-secured with the stainless-steel brake hoses supplied with this system.
- 2. Connect the new supplied stainless-steel braided brake hose to the caliper inlet with the supplied banjo bolt and new copper crush washers. Install one copper crush washer to each side of the banjo fitting on the hose. Finger-tighten the banjo bolt into the inlet of the caliper.
- 3. Position the brake hose to avoid interference with the wheel and suspension components through their entire range of motion.
- 4. Connect the opposite end of the hose with the adapter fitting to the hardline and install the hose lock.
- 5. Tighten the both adapter fitting at the hardline and the banjo bolt connected to the caliper to 15-20 ft-lbs.
- 6. Repeat steps 1-5 for the other side of the vehicle and re-check all attachment points and fittings.

#### ENSURE ALL FASTENERS HAVE BEEN TOROUED TO THE SPECIFIED VALUES BEFORE OPERATING THE VEHICLE.