

1970 Trans Am Mustang Front Disk brake instructions

1. The installation of this kit follows the standard procedures described in the 1970 Ford Car Shop Manual, Volume One, Chassis. It is strongly recommended that a Shop Manual be obtained and followed. Special required operations and precautions will be described as necessary.
2. Make sure you have the required production Ford parts listed on the last page.
3. You will need access to the following special Ford tools or equivalent tools:
 - Tool - 3290-C Tie Rod Ball End Remover
 - Tool - T57P-3006-A Ball Joint Assembly Remover Press
 - Tool - T62F-3006-A Ball Joint Press Adapter Screw
 - Tubing Flaring Tool - double lap
4. Remove the production disc brake spindles as described in the Manual in the Front Suspension Section 14-02-12.
5. Remove the production front caliper and hose per the Shop Manual Disc Brake Section 12-03-04.
6. Install the new drum brake spindles per the Manual Section 14-02-12.
- 6a. The spindles should be magna-fluxed before installation. Optionally, for improved strength and durability; you can smooth and shot-peen the spindles except on the bearing journals, threads and holes.
7. Do not install the caliper splash shield or gasket.
8. Install the new special caliper brackets provided in the kit to the spindle using the 3/8-16 bolts, nuts and lock washers listed. (The long bolts at the steering arm position, the bracket mounts the caliper to the front)

HUB AND ROTOR REWORK AND ASSEMBLY

1. Press existing wheel hub bolts out of the C8AZ-1102-A hub and rotor assembly.
2. Qualify rotor mounting face per *Figure 1*.

HUB AND ROTOR REWORK AND ASSEMBLY (Cont'd.)

3. Press existing wheel hub bolts out of the D00Z-1102-B hub assembly.

Note: Both cast and forged hubs are sold under the D00Z-1102-B part number. It is recommended that the forged hubs be utilized for heavy duty work. The cast hub differs from the forged unit in that the cast hub has five distinct mounting lugs for the brake rotor as opposed to a continuous mounting surface.

4. Qualify back face of D00Z-1102-B hub per Figure 2.
5. Press D0ZX-1107-A wheel hub bolts into rotor and hub as shown in Figure 3
6. Runout of the rotor surface of the hub and rotor assembly when mounted on the spindle should be less than .002 inches. Standard Ford rotor refinishing procedure (see Shop Manual, Disc Brake Section 12-03-12) should be utilized for rotor runouts exceeding .002 inches.
9. Install the new special hub-rotor unit as described in Section 12-03-06 using the standard 1970 Mustang front wheel bearings.
10. Rotate the installed hub-rotor for several revolutions to check for possible contact with the cast surfaces of the caliper bracket - grind metal away as required.

LINCOLN CALIPER REWORK

1. Remove caliper transfer tube, and bridge bolts (see Figure 5). Mark caliper halves to insure reassembly of the matching pieces.
2. Rework caliper mounting tabs per Figure 4.
3. Reassemble caliper housings. Caliper tie bolt tightening torque should be 90 to 105 ft-lbs. Remove standard dust seals.
11. Install the caliper over the rotor (it may be necessary to push the caliper pistons inward to obtain sufficient clearance for the caliper to slide onto the rotor). Fasten the caliper and the hose bracket to the caliper bracket using the 9/16-12 bolts and washers provided.

11. (Continued)

Torque the bolts to 100-140 lb-ft. The caliper mounts on the front of the spindle with the bleeder screw upward.

12. Check to insure that the rotor runs squarely and centrally between the two halves of the caliper. There should be approximately 0.090-0.120 inch clearance between the caliper and the rotor outside diameter. Shim the caliper to center it on the rotor if required.

13. Safety wire the mounting bolts.

14. Install the brake pads into the calipers if not installed when received. Be sure that the tabs on the shoe flanges seat fully against the caliper bridges.

15. Install the pad retainer clips, if not already installed. The clips should contact the ends of the pad flanges.

16. Description and service procedure of the 1969 Lincoln calipers are covered in the 1969 Ford Car Shop Manual, Volume One, Chassis Section 02-02-04.

17. Fabricate and install the steel tube from the hose connector to the caliper fittings. Using 3/16 steel tubing and inverted flare nuts.

18. Connect the inner hose end to the existing steel brake tube. It may be necessary to relocate the brake tube support bracket to properly route and locate the brake hose.

19. Periodically clean and lubricate the wheel stud threads with spray-moly or spray-graphite to prevent stud galling and subsequent breakage.

MASTER CYLINDER.

1. The installation of the listed master cylinder is required to provide additional fluid capacity.

2. Remove the production power brake/master cylinder assembly and the production pressure differential valve assembly. Manual Section 12-03-09.

MASTER CYLINDER (Cont'd.)

3. Remove the power brake pedal, Section 12-03-10.
4. While the pedal support bracket is out of the vehicle, reinforce it in the necked down portion.
5. Install the manual brake pedal. Section 12-03-11.
6. For a front and rear disc brake installation, remove the front port check valve as described below. For a front disc/rear drum installation leave the master cylinder as received.
- 6b. Remove the check valve under the front outlet port seat (to the rear brakes) Figure 16, Section 12-02-13 or 1970 Truck Manual Volume One, Chassis, Figure 11, Section 12-03-09. Be very careful when removing the tube seat so as to not distort the tapered seating surface. The seat can be removed by threading a spare brake line tube nut into the outlet port. Place a flat washer on a 1-inch long no. 8-32 self-tapping screw and thread the screw into the tube seat insert in the port. While holding the screw from turning, back out the tube nut with a wrench. Inspect and dress the removed tube seat to insure a good sealing surface. Place the seat into the same port. Be sure it is not cocked. Thread a spare tube nut into the port to force the seat down until it bottoms out in the port. Remove the tube nut.
7. Install the reworked master cylinder and fabricate a sheet metal panel to cover the hole in the fire wall.
8. Make sure the cylinder has sufficient travel and that it bottoms out before the pedal hits the floor.
9. The existing hydraulic lines can be reconnected to the master cylinder by using the following parts:
 - 1 - Inverted flare tee - 3/16 tube size
 - 1 - Inverted flare union - 3/16 tube size
 - 5 - Nut - 3/16 inverted flare (3/8 hex)
 - 1 - Nut brake (9/16 hex) (remove from the original brake line)
 - 1 - pc. 3/16 steel line x 15" long

MASTER CYLINDER (Cont'd.)

10. Install the separate brake proportioning valve at a convenient location in the main line leading to the rear brakes. Position with the valve ports upward.
11. Fill the system with Ford Extra H.D. Brake Fluid.
12. Bleed the brake system using a pressure bleeder if available.
13. Depress the brake pedal several times to check for fluid leaks and to seat the pads against the rotors.

BRAKE SERVICE HINTS

1. Recheck front wheel bearing adjustment and runout after brakes, hubs, and bearings are at operating temperature.
2. Adjust the separate brake proportioner valve if rear wheel lockup occurs on hard braking - turn the screw outward to reduce the pressure to the rear brakes, and rear brake lockup.
3. Be sure to use Ford Extra Heavy Duty Brake Fluid.
4. Make sure all brake lines and hoses are properly routed and secured with clamps. There should be no line loops that may trap air. Lines should not touch any hot metal brake components or exhaust pipes.
5. Tap calipers with a soft hammer while bleeding to dislodge any air bubbles.

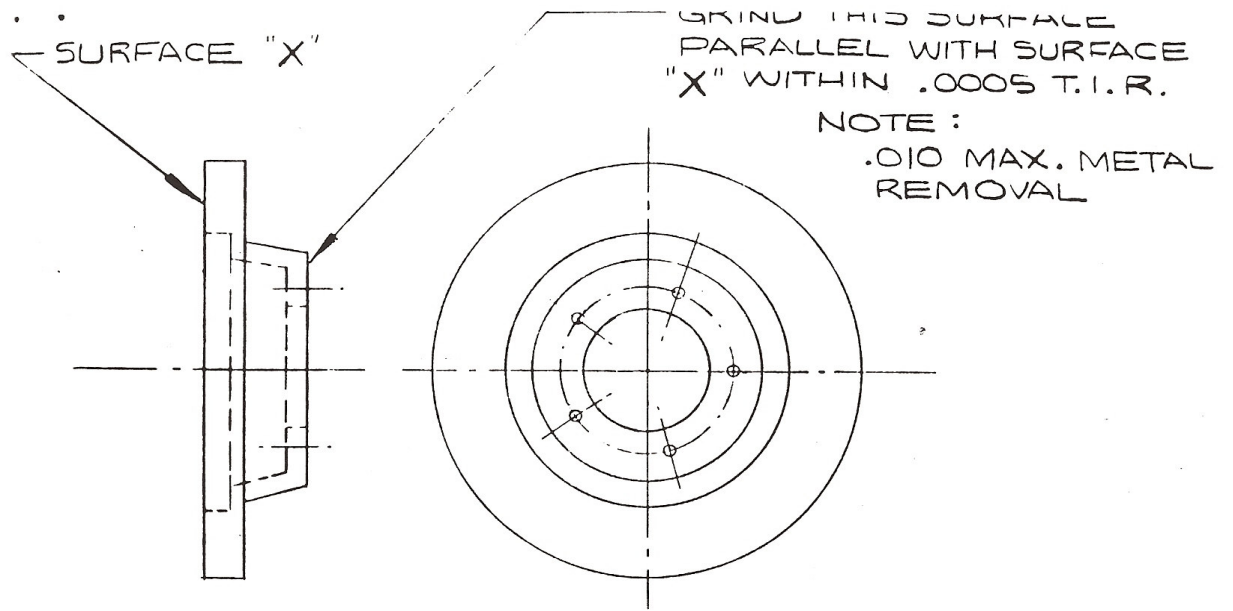


FIGURE 1

FORD ROTOR MODIFICATION
FRONT WHEEL

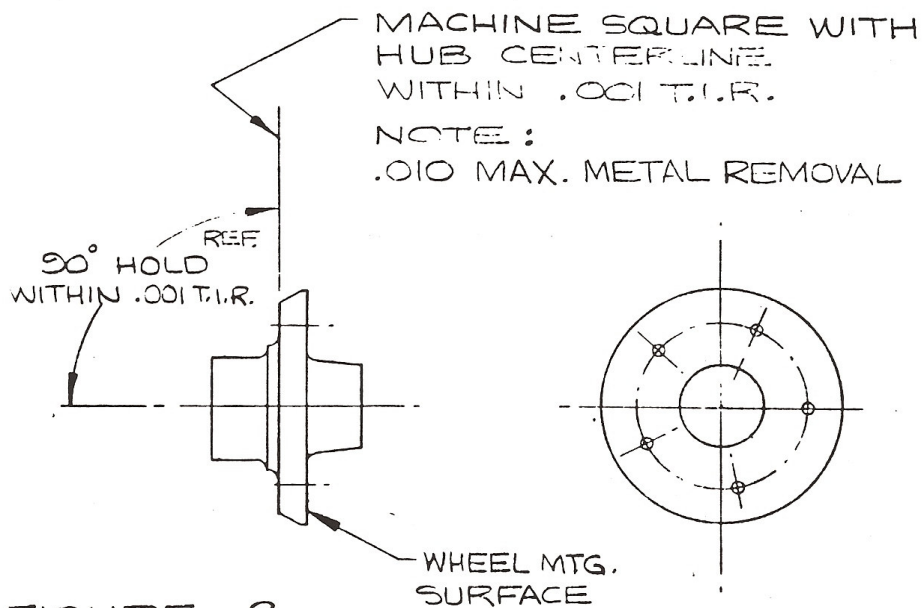


FIGURE 2

MUSTANG HUB MODIFICATION

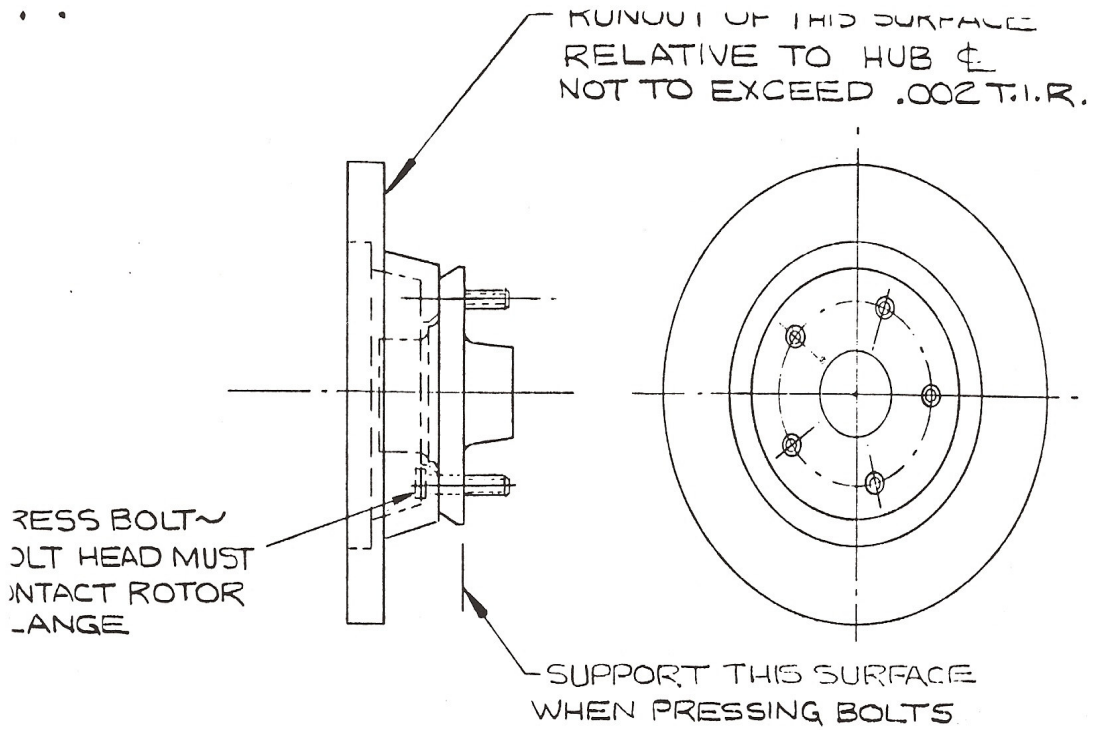


FIGURE 3

ROTOR & HUB ASSEMBLY

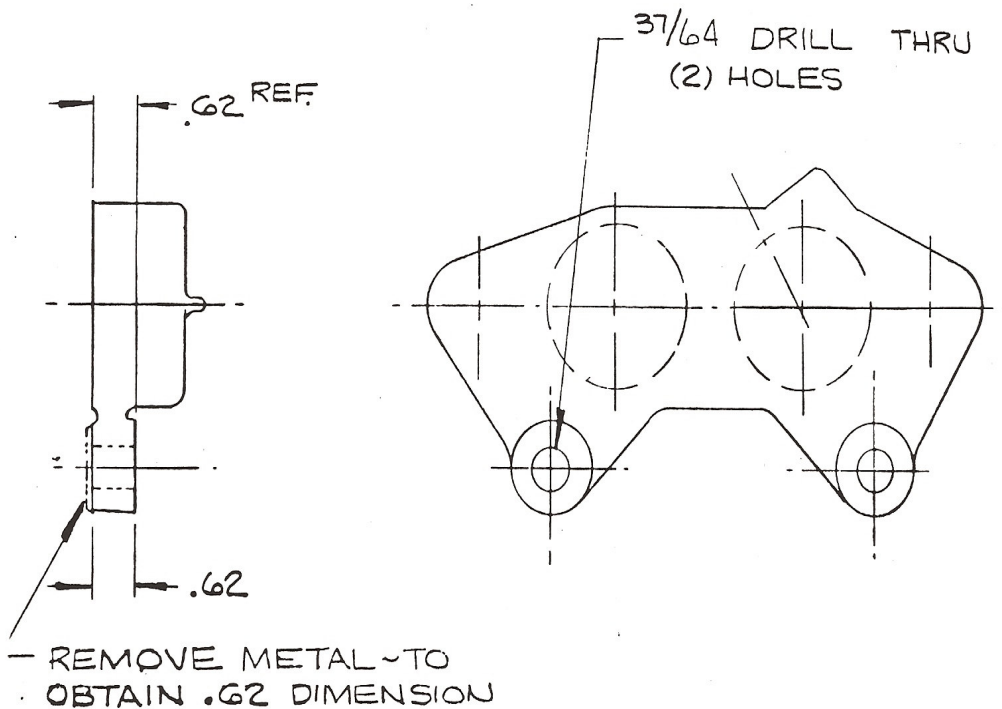
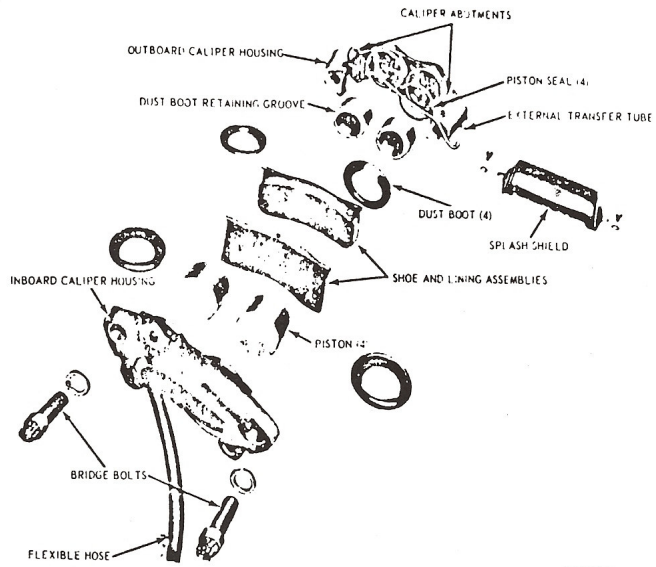


FIGURE 4

CALIPER MODIFICATION



H1367-B

FIGURE 5. LINCOLN CALIPER ASSEMBLY

PARTS LIST

<u>QUANTITY</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>
	<u>Hub and Rotor Assemblies:</u>	
1 pr.	Hub and Rotor Assemblies	DOOZ-1102-D
1 pr.	Hub and Rotor Assemblies	C8AZ-1102-A
10	Studs, Wheel (same as rear)	DOZX-1107-A
	<u>Caliper Assemblies:</u>	
1 Pr.	Front Brake Caliper Assembly	RH C7SZ-2B120-A LH C7SZ-2B121-A
1 Pr.	Brackets - Front Caliper (with/mounting bolts & nuts)	RH DOZX-2B134-B LH DOZX-2B135-B
4 ea.	Bolt 9/16-2 x 1.38 long (caliper to bracket)	352344-5100
4 ea.	Washer, Lock 9/16 (caliper to bracket)	34810-87
6 ea.	Bolt 3/8-16 x 1.25 long (bracket to spindle)	58635-S2
2 ea.	Bolt 3/8-16 x 2.50 long (bracket to spindle @ steering arm)	58640-S2
8 ea.	Washer Lock 3/8 (bracket to spindle)	34807-28
8 ea.	Nut 3/8-16 (bracket to spindle)	377605-38
1 ea.	Front Brake Hose, Right	C7VY-2078-D
1 ea.	Front Brake Hose, Left	C7VY-2078-D
15"	3/16 Steel Tubing (to make tube to connect hose assembly to caliper)	
4 ea.	Tube Nut 3/16 Inverted Flare (to make tube to connect hose assembly to caliper)	382967-S100
2 ea.	Connector - 3/8-24, Tubing to Caliper	357444-s
2 ea.	Gasket - Connector to Caliper	8M-2149
1 set	Pads - Brake, Racing	DOZX-2001-B
	<u>Spindle Assemblies:</u>	
1 ea.	Front Spindle, Right	DOOZ-3105-D
1 ea.	Front Spindle, Left	DOOZ-3106-D

PARTS LIST

<u>QUANTITY</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>
	<u>Spindle Assemblies</u> (Cont'd.)	
2 ea.	Front Wheel Bearing - Cone and Roller Assembly - Inner	DOAZ-1201-A
2 ea.	Front Wheel Bearing - Cone and Roller Assembly - Outer	DOAZ-1216-A
2 ea.	Retainer - Grease, Front Wheel Bearing	C8AZ-1190-A
2	Cotter Pin - Spindle Nut	
2	Cotter Pin - Tie Rod End	
4	Cotter Pin - Ball Stud	
2	Washer - Front Wheel Bearing Outer	DOAZ-1195-A
2	Nut - Front Wheel Bearing	383840-8100
2	Lock - Front Wheel Bearing	383841-S
	<u>Master Cylinder, Miscellaneous:</u>	
1	Master Cylinder	DOAZ-2140-C
	Kit - Master Cylinder Rebuild (to obtain push rod)	C9AZ-2004-A
1 ea.	Tee - 3/16 Inverted Flare (master cylinder hook-up)	
2 ea.	Union - 3/16 inverted Flare (master cylinder hook-up)	
5 ea.	Nut - 3/16 Inverted Flare (master cylinder hook-up)	
1 ea.	Pedal - Manual Brake	C9ZZ-2455-B
1 ea.	Proportioner - Brake	C5ZZ-20091-B
	Drake Fluid - Extra Heavy Duty	C6AZ-19542-A