

INSTALLATION - SERVICE INSTRUCTIONS

765 South Pierce Avenue Louisville, Colorado 80127

303-665-6901 303-665-7021 fax www.markwilliams.com



Bulletin #70 page 1 of 2

Front Brake Kits

Sept 2013

PART NUMBERS:

DESCRIPTION

75750.....'79 Mustang four piston front disc brake kit (disc brake spindle).

PARTS INCLUDED:

2 - 75001.....Front hub/brake hat w/bearings, races and dust covers.

2 - 75002.....Dust Caps

2 - 75005.....Front brake rotor.

2 - 81100.....Brake caliper.

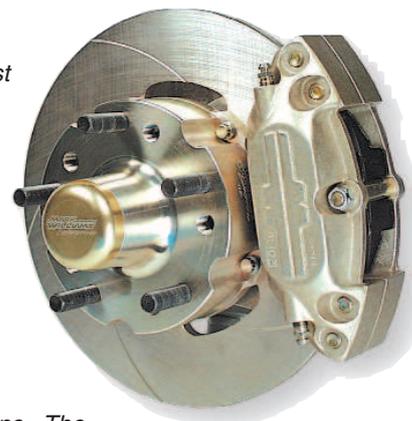
4 - 81130.....Brake pad.

1 - 75751.....Right hand caliper bracket.

1 - 75752.....Left hand caliper bracket.

2 - 19221.....Oil seal

1 - 51250.....1/2-20 x 2" long wheel studs set (10 All necessary mounting hardware



PRIMARY APPLICATIONS:

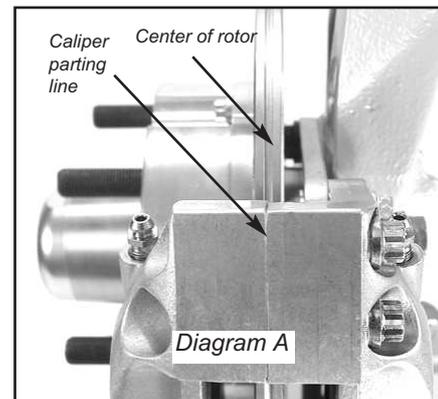
The front brake kits with the integral hub and adaptor are designed for Drag Race applications. The main advantage is the reduction of weight compared to the stock braking system they replace. Several considerations must be taken into account when installing these kits. When the dual piston caliper (81100) kit is used with drum brakes on the rear, **a pressure reducing valve must be installed for front pressure control.** Because of the small front tire contact area compared to the rear large slick contact area, the rear brakes must absorb more of the stopping energy than the front (contrary to a normal street car). A starting point would be 70% of the rear line pressure to the front brakes. This is especially important when using drum brakes on the rear. With discs on both the front and rear the percentage could be higher depending on the weight distribution and tire size **but should still use the pressure reducing valve.** We have a pressure reducing valve, P/N 260-2200, and we recommend its installation with front brakes. The pressure bias should be adjusted with gauges in the front and rear to confirm the pressure differential and then do a stop test. When doing a stop test, for a Drag race car, the front tires should skid equally or slightly after the rear tires.

INSTALLATION OVERVIEW:

- 1) Remove stock brake and backing plate assembly from spindles.
- 2) Remove spindles and modify per sheet #2.
- 3) Re-install spindles. Install caliper mounting brackets with supplied 7/16-20 flat head allen bolts with Loc-Tite, torque to 50 ft/lbs..
- 4) If necessary bolt brake rotors to hubs with supplied 5/16 12 point bolts and drivers (Loctite #620 retaining compound required) and torque to 25 ft/lbs. Normally these are pre assembled before shipping.
- 5) Pack bearings with grease. Set inner bearing in race and install seal in hub.
- 6) Install 1/2-20 wheel studs in the desired bolt pattern (4 1/2" or 4 3/4") in the hub, must have washers under heads of stud to avoid damage to threads in hub.
- 7) Slide hub onto spindle shaft. Install outer bearing. Install spindle nut and tighten, (there should be a slight amount of drag on the hub when rotated) place nut cap on spindle nut so it aligns with cotter pin hole in spindle shaft. Install cotter pin. Screw on dust cap and tighten (use MW #75099 dust cap socket to avoid marring cap). **NOTE:** Check clearance between mounting bolt heads and the ears on the inside of the rotor.
- 8) Slide caliper over rotor and bolt to bracket with supplied AN bolts and hard washers and torque to 35 ft/lbs. Check caliper alignment. Parting line of caliper halves should be directly over center of rotor (see diagram A).
- 9) Install brake pads. Remove bridge bolt and bushing, slide pads into caliper then re-install bushing and bolt and tighten.
- 10) Attach brake lines to calipers (fittings required are not included with kit) and bleed system starting with bleeder furthest from master cylinder. Stainless teflon braided brake lines are recommended to attach to caliper, long runs use solid tubing.

TORQUE SPECS:

- Rotor attachment bolts (5/16-18 12 point bolts) 25 ft/lbs. with Locktite)
Caliper bracket bolts to spindle (1/2-13 flat head socket cap screws) 60-70 ft/lbs.
Caliper mounting bolts (3/8-24 AN bolts) 35 ft/lbs.
Wheel stud in hub 60 ft/lbs, with thread lock compound



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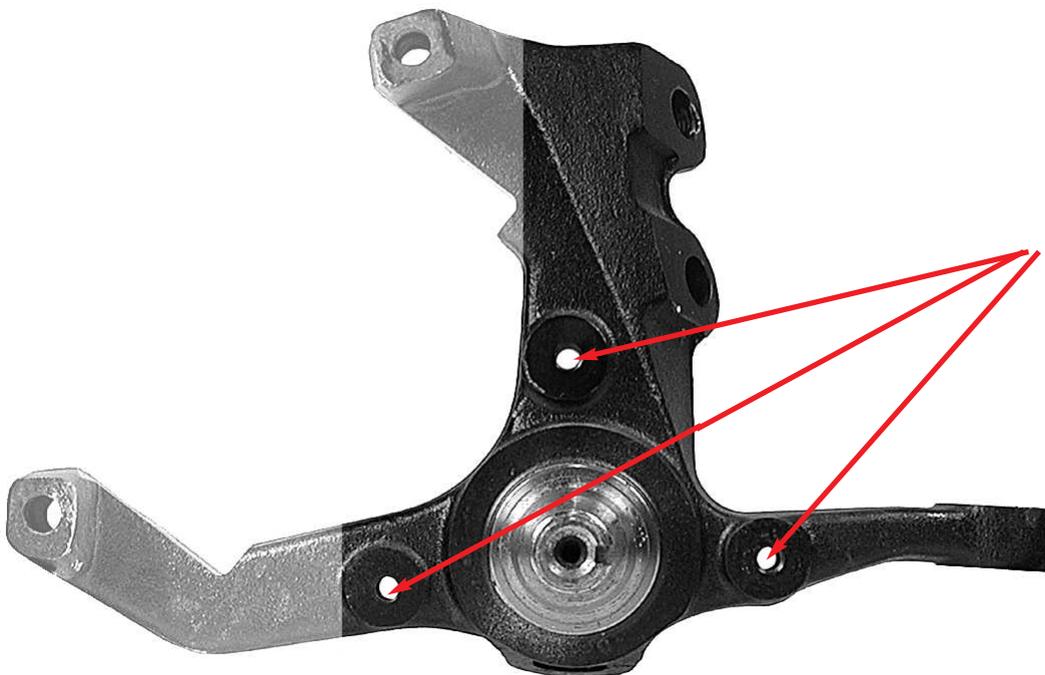
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MAINTENANCE REQUIREMENTS:

DISC CONDITION Periodic check of rotor warping due to excessive heat (metal smearing). Check the rotor run out with a dial indicator for maximum of .008" for used rotors (.005" new rotor run-out.). Disc thickness can be measured with a micrometer and should be parallel within .002". Check the rotor with a straight edge, it should be flat within .010" Any condition in excess of these values requires disc replacement. We do not recommend re-surfacing the discs.

FASTENER Check and torque the disc mounting bolts (25-28 ft/lbs with #620 Green Hi-temperature locking compound applied to clean parts), and caliper mounting bolts (35 ft/lbs no locking compound). Tighten other fasteners to recommended torques. If disc replacement becomes necessary the mounting bolts and d-drive nuts will also need to be replaced. It is normal that the 12 point bolt disc mount bolt will twist off when removing the disc.

PAD & CALIPER CONDITION Periodically check brake pads for wear and tapered condition. Do not install new pads on rotors that are warped (saucer shaped), if you do you will not have satisfactory pedal feel and can break the caliper. Pads should be changed when the friction material is down to approx. .200". If you try to run the pads too thin they lose the ability to insulate heat and can cause brake fluid to boil after a run, requiring re-bleeding the system. When pads are changed the entire caliper should be thoroughly cleaned, especially the pistons before they are pushed back into the bores. Calipers should be disassembled periodically and overhauled as per the instructions on service bulletin #44. Racing calipers are susceptible to the dust generated by brake pads and need to be frequently disassembled and cleaned to prevent piston sticking.



All 3 existing holes in spindle must be opened up to 7/16-20 thread with a .437 diameter counterbore .125 deep.

The spindle modifications required for the 75750 brake kit are shown above. The faintly displayed material should be removed. Spindles can also be sent to Mark Williams Enterprises to have these modifications performed. If you have any questions call 303-665-6901, fax 303-665-7021 or e-mail to info@markwilliams.com