

4. Set the rotor on the backside of the billet hub. Line up the bolt circles on the hub with those on the rotor. Place a 5/16 high collar lockwasher over the 5/16-18 x 7/8 socket head Allen. Add a drop of Loctite™ to the threads and insert the studs through the hub into the rotor. Insert all eight studs and tighten from the front side of the assembly. You're ready to install the inner wheel bearing and seal.

5. The bearing races are pressed in the billet hub from the factory. You must pack the wheel bearing before installing it. Use a wheel-bearing packer to do this. If you do not have one available, hand packing the bearing is okay. If you are unsure how to pack the bearing, refer to an auto repair manual for assistance.

6. After the bearing is packed, drop it in the bearing race. The inner wheel bearing seal is then positioned on the hub. Place the hub on a wood surface before installing the seal.

7. Using a hammer and seal installer, drive the seal into the hub making sure it's fully seated.

8. Install the caliper bracket. Slide the caliper bracket over the spindle so the caliper will be behind the axle centerline and the part number on the bracket is toward you. There are two bolt patterns in the bracket one for early Pinto spindles and the other for late Pinto and Mustang II spindles, use the bolt pattern that matches your spindle. Install the three 3/8-16 x 3/4 button head Allens through the caliper bracket and into the spindle. Use Loctite™ to secure it in place, tighten these before installing the hub assembly.

9. With the inner bearing and seal in place, slide the hub and rotor assembly onto the correct spindle (remember, the slotted rotors are directional).

10. Pack the outer wheel bearing as you did the inner one. Slide the bearing into the race.

11. Slide the washer, provided in your brake kit, over the spindle shaft and install the original castle nut.

12. To fully seat the bearings, tighten the castle nut to 12 ft. lbs. while turning the rotor assembly forward by hand. This will remove any grease that could cause excessive wheel bearing play. Back off the castle nut to the "just loose" position and then hand tighten. There will be .001 to .005 inches of endplay when the wheel bearings are properly adjusted.

13. After the wheel bearings are tight, insert the cotter pin through the castle nut and the hole in the end of the spindle shaft. Do not tighten the castle nut when aligning the cotter pin, only loosen it. Fold the cotter pin legs to secure the castle nut.

14. Apply anti-seize to the threads of the screw-on dust cap. Screw the dust cap onto the hub. It only needs to be hand tightened, the o-ring inside will keep it from coming loose.

15. Install the Wilwood brake calipers and pads. Start by inserting the brake pads into the caliper, one on each side of the rotor slot with the metal backing toward the pistons.

16. Slide the caliper with the pads installed over the rotor and the caliper bracket. Place the spacer washer #2169 between the caliper and the caliper bracket. Use the 3/8-24 x 1 3/8 hex cap screws, lockwashers, and flat washers provided in your brake kit to mount the calipers. The lockwasher goes against the head of the fastener.

17. Tighten the mounting bolts. Rotate the rotor assembly slowly to check for any clearance problems between the rotor and the caliper. Make sure the rotor does not drag on the brake pads. The caliper can be shimmed where it attaches to the caliper bracket to adjust the pad clearance in relation to the rotor.

18. Finally, bolt your wheel and tire on the hub and check again to be sure there is at least 1/4" clearance between the caliper and the wheel. There are differences in wheel manufacturer's tolerances. Make sure your wheel turns freely and does not rub on the caliper.

8326

**MEDIUM DUTY PINTO/MUSTANG II 71-80
DISC BRAKE; 11.75 x .35 ROTOR**

<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	1313	Front hub medium duty A front brake kit
2	2	1306-1	Cap for front hub silver anodized
3	2	3352	Bearing cup (race) 2.3280 OD inner race
4	2	3353	Bearing cone 1.3775 ID inner bearing
5	2	3354	Bearing cup (race) 1.7810 OD outer race
6	2	3355	Bearing cone .8656 ID Outer bearing
7	2	3537	O-ring hub cap
8	2	3631	Grease seal 2.5 x 1.94 x .250
9	10	3447	Wheel stud 12 point 1/2-20 x 3
10	10	3229	Aircraft washer 1/2 .062 thick
11	4	3253	Stainless 3/8 washer .406 x .812
12	16	3450	Socket head allen 5/16-18 x 3/4
13	16	3241	High collar lockwasher 5/16
14	1	3709	Caliper bracket assy M/D Pinto Mustang driver side
15	1	3710	Caliper bracket assy M/D Pinto Mustang pass. side
16	4	3141	Bolt 3/8-24 x 1-3/8 hex cap screw
17	4	3224	Lockwasher 3/8 medium
18	6	3459	Button head Allen 3/8-16 x 3/4
19	2	2057	Mustang II washer spindle 1-1/2 x 13/16 x .100 thick
20	4	2169	Spacer washer 1.25 x .380x .180 thick
21	2	3617	Cotter pin 5/32 x 1"
22	2	1509	Solid rotor .35x11.75" 8 on 6-3/4 bolt circle
23	2	WW 120-1051	Dynalite II 38 wide 1.75 piston
24	1	WW 15D-4331K	Pad Dynalite 4 piston polymatrix
25	2	1510 Optional	Slotted rotor .35x11.75" 8 on 6-3/4 bolt circle
26	2	WW 120-4993	Billet Dynalite .38 wide caliper black
Option	2	WW 120-4908-P	Billet Styled .38 wide caliper polished

1. The 11 3/4 x .38 inch slotted rotors are directional. There is an arrow on the rotor. The arrow points to the front of the car when the rotor is at 12 o'clock. If you have the solid rotors the driver and passenger sides are the same. These brakes require at least a 15" diameter wheel; however, even some 15" wheels may not clear. Verify you have at least 1/4" of wheel clearance from all brake components.

2. The billet aluminum hubs have threaded-stud-mounting holes for both 4 1/2 and 4 3/4 inch bolt circles. Choose the bolt circle that matches your wheels and chase the threads with a 1/2-20 tap. After chasing the threads, it is a good idea to blow them out with an air hose making sure no debris remains in the holes.

3. Slide a 1/2 aircraft washer over the 1/2-20 x 3" 12 point wheel stud, add a drop of Loctite™ to the threads, up near the head and insert the studs through the proper series of holes. Insert all the wheel studs and tighten them from the backside of the assembly.

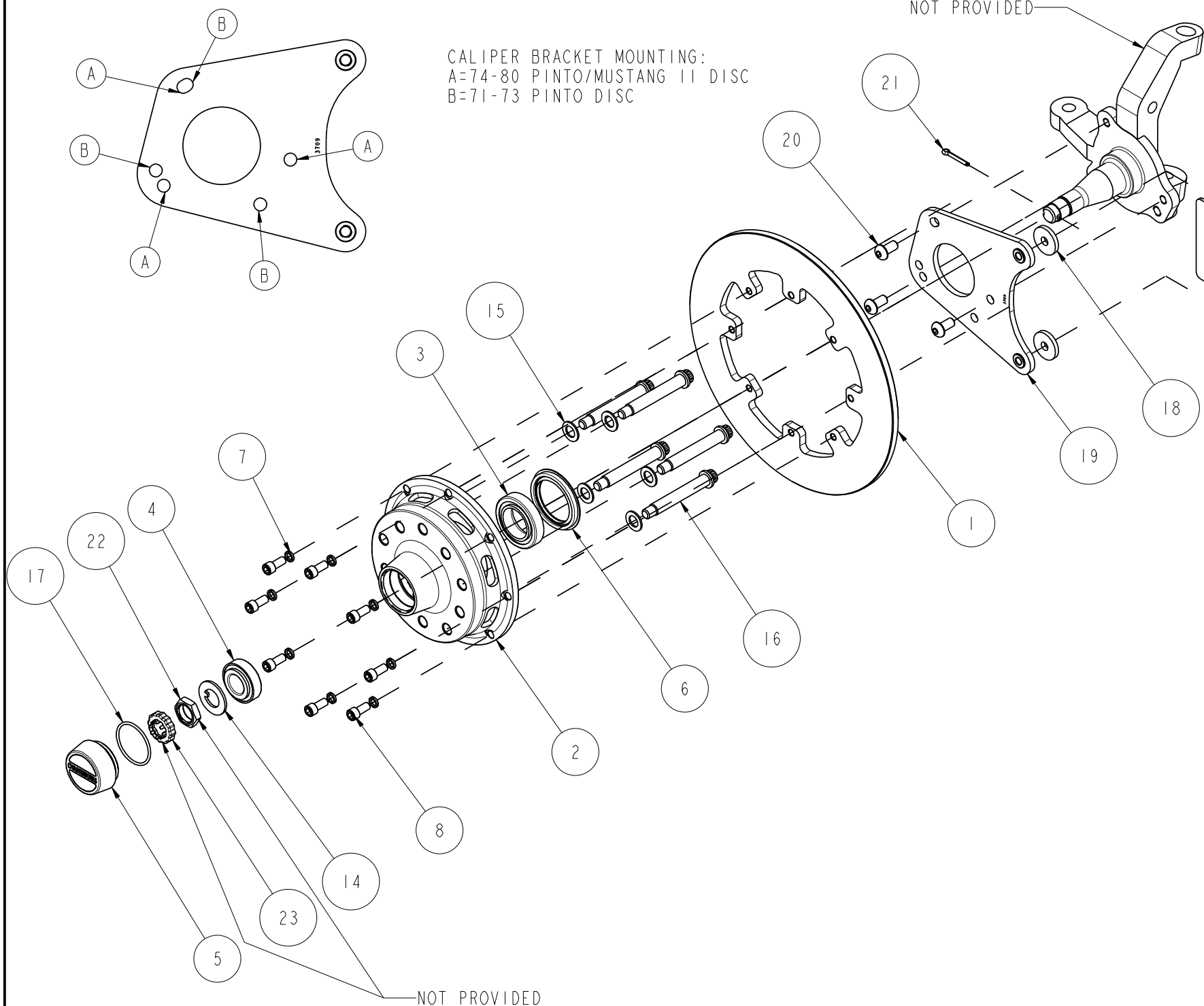
Revision Date: December 3, 2002

Chris Alston's
CHASSISWORKS, INC.

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REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
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ITEM	QTY	PART NO.	DESCRIPTION
1	1	1509	ROTOR, .38 x 11.75 8 ON 6.875 BC
2	1	1313	HUB WITH HAT, CHASSISWORKS SPINDLE, PLAIN
3	1	3352-3353	TIMKEN BEARING, CUP=L68110, CONE=L68149
4	1	3354-3355	TIMKEN BEARING, CUP=LMI2710, CONE=LMI2749
5	1	1306	FRONT HUB CAP
6	1	3631	SEAL, GREASE 2.500x1.940x.250
7	8	3241	HIGH COLLAR LOCKWASHER, 5/16 INCH 18-8 STAINLESS
8	8	3450	SOCKET HEAD ALLEN 5/16-18 x 3/4
9	1	WW 120-1051 LH	DYNALITE II .38 WIDE CALIPER, LEFT HAND, 1.75 PIST. DIA.
10	2	WW 15D-4331K	WILWOOD POLYMATRIX BRAKE PAD
11	2	3253	STAINLESS 3/8 WASHER, .406x.812x1/16
12	2	3224	LOCKWASHER 3/8 MEDIUM, PLATED
13	2	3141	BOLT, 3/8-24 x 1 3/8 HEX CAP
14	1	2057	SPINDLE WASHER Ø1 1/2 x Ø13/16 .100 THICK, .180 x .110 KEY TANG
15	5	3229	AIRCRAFT WASHER 1/2 x .062 THICK
16	5	3447	12 POINT BOLT 1/2-20 x 3
17	1	3537	O-RING, HUB CAP 1.943 x 1.737 x .103
18	2	2169	SPACER WASHER 1.25 x .500 x .180 THICK
19	1	3709	CALIPER BKT ASSY M/D, DRV PINTO/MUSTANG II, 71-80 DISC SPINDLE
20	3	3459	BUTTON HEAD ALLEN 3/8-16 x 3/4
21	1	3617	COTTER PIN, 5/32x1
22	1	3618	SPINDLE NUT MUSTANG II FORD NO. 383840-S100
23	1	3620	SPINDLE NUT RETAINER MUSTANG II FORD NO. 385630-S

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES FRACTIONS ±1/16 ANGLES ±0.5 DECIMAL ±0.05 ±0.005 ±0.001 ±0.005 ±0.0010	APPROVALS DRAWN BY: K. DAVIS CHECKED BY: CJA DWG RELEASE LEVEL: Released	DATE 10/14/02 12/02/02	DESCRIPTION MD BRAKES, 11.75 x .38 MUSTANG II SPINDLE, CAST DYNALITE II Chris Alston's CHASSISWORKS INC. 8661 YOUNGER CREEK DRIVE SACRAMENTO, CA 95828 (916) 388-0288 FAX 388-0295
	FINISH NONE MATERIAL ASSEMBLY	SIZE B	
SCALE: 3:16		DWG: 918326 REV: 0	SHEET 1 OF 1