## INSTRUCTIONS

# MUSTANG II ROTORS AND CALIPERS TO EARLY '49-'54 CHEVY SPINDLES

910-31947 COMPLETE KIT 5 ON 4.5" BP 910-31948 COMPLETE KIT 5 ON 4.75" BP 916-31905 BRACKET KIT ONLY

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### PLEASE READ INSTRUCTIONS COMPLETELY BEFORE STARTING YOUR INSTALLATION!

This kit installs '74-'78 Mustang II or '74-'80 Pinto/Bobcat rotors and calipers on modified '49-'54 Chevy passenger car spindles. You can purchase spindles already modified from Speedway and eliminate having to find spindles and having yours machined. Or can send your OEM spindles to Speedway and we will do all the machine work for you.

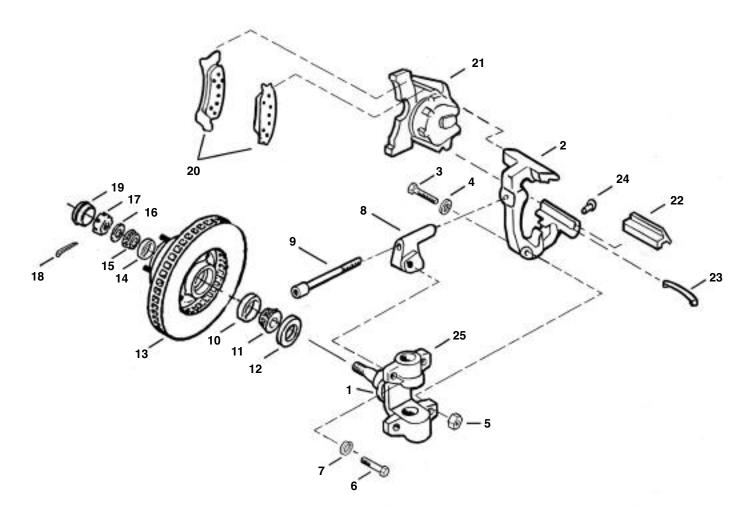
NOTE: This brake kit is designed to be used on street rod tube or I-beam axles only. Commnly used on Model 'T' and Model 'A' to 1936 Ford front ends. THIS KIT WILL NOT WORK WITH STOCK STEERING ARMS AND IS NOT DESIGNED TO BE INSTALLED ON STOCK '49-'54 CHEVY VEHICLE FRONT ENDS.

916-32100 NEW 49-54 Chevy modified forged steel spindles 916-32101 machining of your 49-54 Chevy spindles

Index	No. Description	Part Number	Quantit
*	Hardware kit	916-31950-3	1
1	Bearing Adaptor	910-09300	2
2	Mustang II caliper bracket (left)	910-34306-L	1
2	Mustang II caliper bracket (right)	910-34306-R	1
3	7/16-20 x 2 1/2" GR 8 hex bolts	Hardware kit	2
4	7/16 Hardened flat washers	Hardware kit	2
5	7/16-20 Locking nuts	Hardware kit	2
6	7/16-20 x 1 3/4" GR 8 hex bolts	Hardware kit	2
7	7/16-20 lock washers	Hardware kit	2
8 *	Caliper adaptor brackets	916-31905-2	2
9	1/2-13 x 4.5 Allen head bolts	Hardware kit	2
10-11	Inner cup & cone	912-TS6	2
12	Seal	912-S18565	2
13	Mustang II rotor 4.5"BP	910-31001	2
13	Mustang II rotor 4.3/4" BP	910-31002	2
14	Outer cup	912-TLM19910	2
15	Outer cone	912-TLM11949	2
16	Spindle washer	Spindle nut kit	2
17	Spindle nut	Spindle nut kit	2
18	Cotter pin	Spindle nut kit	2
19 **	Dust cap	910-31071	2
20	Brake pads (set)	919-3389	1
21	Mustang II Caliper (left)	910-31005-L	1
21	Mustang II Caliper (right)	910-31005-R	1
22	Retaining key	with calipers	2
23	Support spring	with calipers	2
24	Retaining screw	with calipers	2
25 **	'49-'54 Chevy Spindle (pr)	910-32100	1
**	Complete spindle nut kit	910-616005	1
**	Stainless steel brake line kit (7/16x 24 threads)	617-8565	1

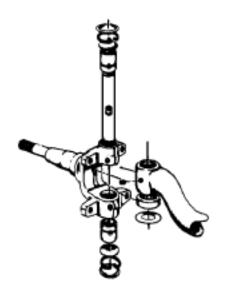
**WARNING:** The selection and installation of brake components should only be done by personnel experienced in the proper installation and operation of braking systems. The installer must use his/her own discretion to determine the suitability of the brake components and brake kits for every particular application.

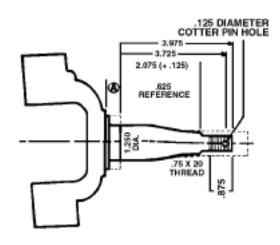
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#### INSTRUCTIONS FOR MACHINING YOUR OEM SPINDLES - SPINDLES PURCHASED FROM SPEEDWAY MOTORS, INC. COME ALREADY MODIFIED AND DO NOT REQUIRE ANY MACHINING.

- 1. Using the parts list supplied, double check that you have received all the parts in the kit. If there are any missing parts, please contact our customer service department.
- 2. Acquire necessary '49-'54 Chevy passenger spindles. Check to make sure that they are not cracked or damaged and that the spindle snout is not bent.
- 3. Take the Chevy spindle and slide the spacer/seal race on the spindle. Check that the spindle face is even and free from excessive wear and damage.
- 4. Weld the spacer/seal race in place at location "A". Eliminate all excess weld. Use tig welding to ensure a clean, precision weld if possible. Make sure the seal/race remains smooth and clean.
- 5. Place the spindle in the lathe and mount between centers.
- 6. Turn the spindle inner bearing race to 1.250" diameter as shown in drawing.
- 7. Turn the spindle outer bearing race down to .750" as shown in the drawing.
- 8. Remove the spindle and check bearing fit. Thread with a ¾"-20 die per drawing. Cut keyway to accommodate washer
- Cut spindle length down to 3.975" as shown in drawing.





#### Brake kit installation:

- 10. Remove the stock Mustang II inner and outer bearing cups from the rotors and replace them with the bearing cups (#1) and (#2) supplied in the kit. NOTE: the stock bearing cups that came in the rotor will not work in this kit; they must be replaced with the bearing cups supplied. Make sure the cups are fully seated.
- 11.. Install the inner bearing (#3), rotor (#5), outer bearing (#6), washer (#7) and spindle nut (#8). Do not pack the bearings at this time.
- 12. Adjust the bearing preload as normal. Mark spindle for location of cotter pin. Disassemble and drill a .125" hole in the spindle for cotter the pin. Thoroughly clean pieces to remove any metal shavings. **NOTE**: If using Speedway spindles, the cotter pin hole will not need to be drilled.
- 13. Install the 7/16-20 x 2½" bolt (#9) and flat washer (#10) through the caliper bracket (#11) and spindle (#12) from the rotor side and attach with the 7/16-20 locking nut (#13). Do not tighten. NOTE: The casting numbers on the caliper bracket may interfere with the spindle when bolted up. Grind off the casting numbers where needed for clearance. Do not grind any more than required. Install the 7/16-20 x 1¾" GR 8 bolt (#14) and 7/16" lock washer (#15) through the upper spindle hole from the axle side and thread it into the aluminum adapter bracket (#16), do not tighten at this time. Install the ½"-13 x 4½" Allen head bolt (#17) through the aluminum Speedway bracket (#16) and thread into the Mustang II caliper bracket (#11). If you have original OEM spindles the bracket will Interfere with the spindle casting on the back side of the spindle. The spindle must be ground for clearance.
  - **NOTE:** Only grind the spindle enough to install the  $\frac{1}{2}$ -13x  $4\frac{1}{2}$ " bolt into the Mustang II caliper bracket without any interference. Do not grind any more than required.
- 14. Install the spindle onto the axle.
- 15. Reassemble the bracket on to the spindle and torque the 7/16-20 bolts to 25-37 ft-lb. Make sure you use thread locker on the threads of the ½-13 x 4½" Allen head bolts and torque them to 38-57 ft.
- 16. Pack and install the inner bearing cones (#1) with fresh disc brake bearing grease, and install the grease seals (#4). Seals must be installed straight. A seal installation tool works well for this.
- 17. Install the rotor (#5) on to the spindle, pack and install the outer bearing cones (#2). Install the spindle washer (#7) and spindle nut (#8). Adjust the bearing preload as normal and install the cotter pin (#18) and dust cap (#19).
- 18. Install the brake pads (#20) into the calipers (#21) and install the calipers into the caliper brackets (#11) making sure the bleeder points up. Slide the retaining key (#22) and support spring (#23) into the opening between the lower end of the caliper bracket and the caliper until the semicircular slot is centered over the threads for the retaining screw. Install the retaining screw (#24). Make sure you use thread locker on the threads and torque to 12-16 ft- lbs.
- 19. Install new brake lines making sure you check that the lines have clearance through the entire suspension travel and turning radius. Bleed the system as normal.
- 20. Before operating the vehicle, test the brakes under controlled conditions. Make several stops in a safe area from low speeds and gradually work up to operating speeds.

## **IMPORTANT**

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