

# INSTRUCTIONS

## 11" BRAKE KIT FOR '49-'54 CHEVY SPINDLE

**910-31953 4<sup>3</sup>/<sub>4</sub>" BC**  
COMPLETE BRAKE KIT

**910-31954 4<sup>1</sup>/<sub>2</sub>" BC**  
COMPLETE BRAKE KIT

**916-31916\***  
BRACKET KIT ONLY\*

Speedway Motors, Inc. March ©2007

### **THESE KITS REQUIRE SPINDLE MODIFICATION!**

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

The GM kit installs '73-'77 intermediate rotors while the Ford kit installs '75-'80 Ford Granada rotors. Both kits use the '69-'77 GM midsize calipers on modified '49-'54 Chevy passenger car spindles. You can purchase spindles from Speedway and eliminate having to find spindles or having yours machined, or you can send your OEM spindles to Speedway and we will do all the machine work for you.

**916-32100 NEW '49-'54 Chevy modified forged steel spindles.**

**916-32101 Machining of your '49-'54 Chevy spindles.**

**NOTE:** This brake kit is designed to be used on street rod tube or I-team axles only. Commonly 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. The parts list below is shared by both the Chevy and Ford kits. Separate part numbers are listed where noted for bearing cups, cones and rotors.

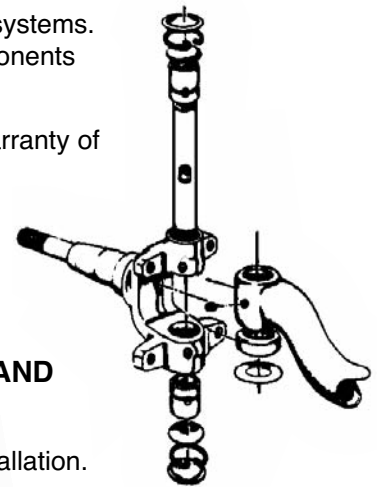
### Parts List

Index No.	Description	Part Number	Quantity
*	Hardware kit	916-31916-2	1
1*	Bushing spacer	910-09300	2
2*	Caliper mounting bracket	916-31916-1	2
3	7/16"-20 x 1 1/2" GR 8 bolt	in hardware kit	2
4	7/16"-20 x 1 3/4" GR 8 bolt	in hardware kit	2
5	7/16"-20 locking nut	in hardware kit	4
<b>CHEVY KIT ONLY 910-31953</b>			
6	Inner bearing cup	supplied in rotor	2
7	Inner bearing cone	912-TLM67048	2
8	Seal	912-S18562	2
9	'73-'77GM intermediate rotor	910-31063	2
10	Outer bearing cup	supplied in rotor	2
11	Outer bearing cone	912-TLM11949	2
<b>FORD KIT ONLY 910-31954</b>			
6 & 7	Inner bearing cup, cone	912-TS6	2
8	Seal	912-S18565	2
9	11" Ford Granada rotor	910-31066	2
10	Outer bearing cup	912-TLM11910	2
11	Outer bearing cone	912-TLM11949	2
**	Spindle nut kit	910-616005	1
12	Spindle washer	in spindle nut kit	2
13	Spindle nut	in spindle nut kit	2
14	Cotter pin	in spindle nut kit	2
15 **	Grease cap	550-2486	1
16	Brake pad (set)	919-3382	1
17	'69-'77 G.M. Midsize calipers (left)	910-31035-L	1
17	'69-'77 GM Midsize calipers (right)	910-31035-R	1
18	Caliper bolts	835-2300542	4
<b>Other parts needed:</b>			
19	'49-'54 Chevy Modified spindle (pr)	916-32100	1
	16" Stainless steel brake line kit	617-8562	1
* Bracket kit parts only			
** Not included in kit			

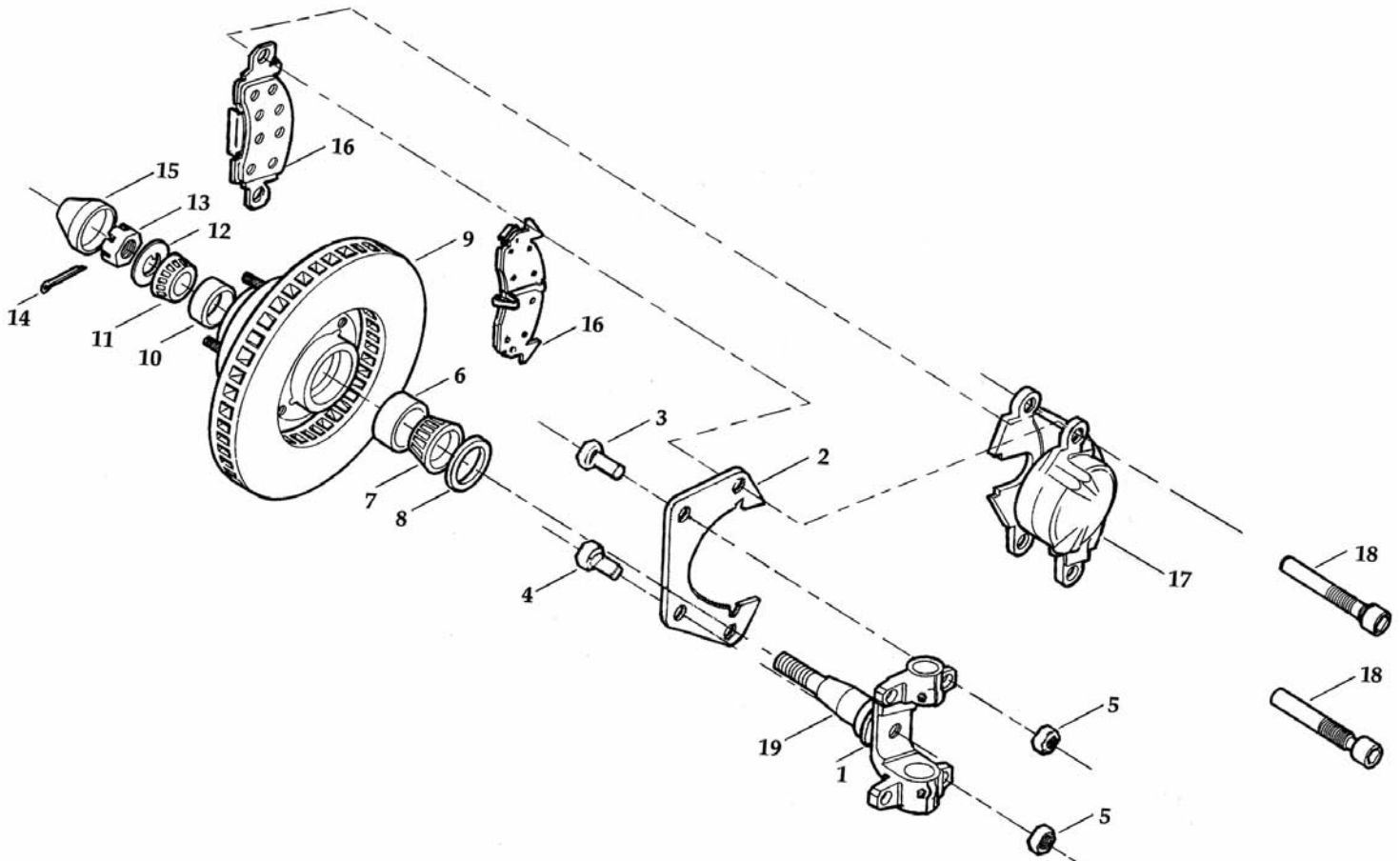
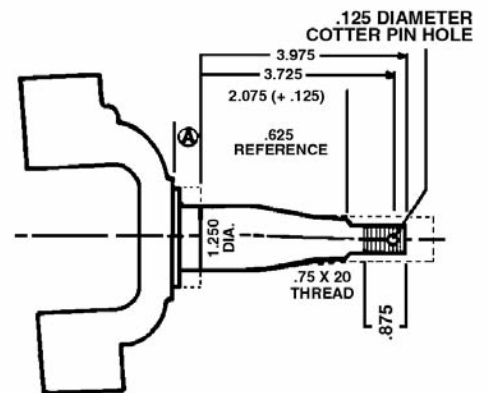
**BRAKE INSTALLATION ALERT:** The selection and installation of brake components should only be done by personnel experienced in the proper installation and operation of braking systems. The installer must use his/her own discretion to determine the suitability of the brake components and brake kits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



- If you purchased Speedway spindles #916-32101, you can skip down to the brake kit installation.
1. Using the parts list provided, 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 space/seal area in place at location "A". Eliminate all excess weld. Use tig welding to ensure a clean, precision weld if possible. Make sure the seal area 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 3/4"-20 die per drawing. Cut keyway to accommodate washer.
  9. Cut spindle length down to 3.975" as shown in drawing.



## **BRAKE KIT INSTALLATION FOR CHEVY ROTORS: 910-31953**

10. Install the inner bearing (#7), rotor (#9), outer bearing (#11), washer (#12) and spindle nut (#13) onto the spindle. Do not pack the wheel bearings at this time.
11. Adjust the bearing preload as normal. Mark spindle for location of cotter pin. Disassemble and drill a 5/32" hole in the spindle for cotter pin. Thoroughly clean pieces to remove any metal shavings.
12. Assemble the spindles onto the axle.
13. The caliper brackets (#2) can be installed behind or in front of the axle depending on your steering arm location. The left and right caliper brackets are identical. The end of the bracket that has two mounting holes right next to each other goes down. Install the caliper brackets on the wheel side of the spindle using the 7/16-20 x 1½" bolts (#3) and the 7/16" locking nuts (#5) supplied. Install the bolts from the bracket side. The longer 1¾" bolts (#4) are used where the steering arms mount to the spindle. Torque the bolts to 25-37 ft. lbs. making sure you use thread locker on the threads. **NOTE:** The caliper brackets may need some grinding to clear the axle bosses. Do not grind any more than required for clearance. Some applications may require longer bolts for the steering/tie rod arms, since they now have to bolt through the caliper brackets also.
14. Pack and install the inner bearings (#7) with fresh disc brake bearing grease, and install the grease seals #8. Seals must be installed straight. A seal installation tool works well for this.
15. Install the rotor (#9) on to the spindle, pack and install the outer bearing (#11). Install the spindle washer (#12) and spindle nut (#13). Adjust the bearing preload as normal. Install the cotter pin (#14) and dust cap (#15).
16. Install the brake pads (#16) into the calipers and install the calipers (#17) on to the mounting brackets (#2) with the bleeders pointing up. Only use the correct GM mounting bolts (#18).
17. Install new brake lines, making sure the lines have clearance through the entire suspension travel and turning radius. Bleed the system as normal.
18. 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.

### **SPEEDWAY'S BOLT-ON STEERING ARMS WORK WELL ON THIS BRAKE KIT**

**916-32031 '49-'54 Chevy, plain steering arms**  
**916-32030 '49-'54 Chevy, chrome steering arms**

## **BRAKE KIT INSTALLATION FOR FORD ROTORS: 910-31954**

10. Remove the stock Ford inner and outer bearing races from the rotors and replace them with the inner bearing race (#6) and outer bearing race (#10) supplied.  
**NOTE:** The stock bearing races that came in the rotor **WILL NOT WORK** in this kit, they must be replaced with the bearing races supplied. Make sure races are fully seated.  
**NOTE:** If you machined your own spindles, proceed to step #12. If you purchased new spindles or had Speedway machine your spindles, proceed to step #14.
11. Install the inner bearing (#7), rotor (#9), outer bearing (#11), washer (#12) and spindle nut (#13). 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 5/32" hole in the spindle for cotter pin. Thoroughly clean pieces to remove any metal shavings.
13. Assemble the spindles onto the axle.
14. Install the caliper brackets (#2) onto the spindle. The caliper brackets can be installed behind or in front of the axle depending on your steering arm location. The left and right caliper brackets are identical. The end of the bracket that has two mounting holes right next to each other goes down. Install the caliper brackets on the wheel side of the spindle using the 7/16-20x1½" bolts (#3) and the 7/16" locking nuts (#5) supplied. Install the bolts from the bracket side. The longer 1¾" bolts (#4) are used where the steering arms mount. Torque the bolts to 25-37 ft. lbs. making sure you use thread locker on the threads.

**NOTE:** The caliper brackets may need some grinding to clear the axle bosses. Do not grind any more than required for clearance. Some applications may require longer bolts for the steering/tie rod arms since they now have to bolt through the caliper brackets also

15. Pack and install the inner bearings (#7) with fresh disc brake bearing grease and install the grease seals (#8). Seals must be installed straight. A seal installation tool works well for this.
16. Install the rotor (#9) on to the spindle (#19). Pack and install the outer bearing (#11). Install the washer (#12) and spindle nut (#13). Adjust the bearing preload as normal. Install the cotter pin (#14) and dust cap (#15).
17. Install the brake pads (#16) into the calipers and install the calipers (#17) on to the mounting brackets (#2) with the bleeders pointing up. Only use the correct GM mounting bolts (#18).
18. Install new brake lines, making sure the lines have clearance through the entire suspension travel and turning radius. Bleed the system as normal.
19. 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.

## **SPEEDWAY'S BOLT ON STEERING ARMS WORK WELL ON THIS BRAKE KIT**

**916-32031 '49-'54 Chevy, plain steering arms**

**916-32030 '49-'54 Chevy, chrome steering arms**

# IMPORTANT

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**\*\*Some items are not legal for sale or use in California on pollution controlled motor vehicles. These items are legal in California for racing vehicles only which may never be used upon a highway.**



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