

## FORD MOTOR CO. SINGLE ANCHOR AUTOMATIC ADJUSTER

Ford Motor Co. (1965-74)

### DESCRIPTION

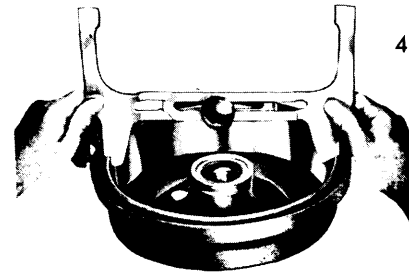
Single anchor duo servo type brake assemblies consist of a support plate, two brake shoes, return springs, automatic adjuster components and a wheel cylinder. Automatic adjusters consists of a cable (with hook and anchor fitting), cable guide, adjusting lever, adjusting screw, pivot nut, socket and spring. Adjuster uses movement of secondary shoe during reverse brake application to turn brake adjusting screw and maintain proper lining-to-drum clearance.

### ADJUSTMENT & SERVICING

#### BRAKE SHOE ADJUSTMENT

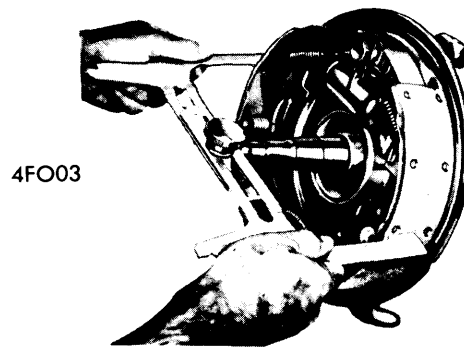
1) With brake drums at room temperature and parking brake cable(s) properly adjusted, remove brake drum. Using suitable tool (Rotunda HRE 8650), measure inside diameter of brake drum. Hold automatic adjusting lever away from adjusting screw and turn screw until outside diameter of brake shoe surfaces, on a line parallel to vehicle and through center of axle, is equal to drum diameter.

2) Apply a small amount of lubricant at shoe-to-backing plate contact points. Install brake drum and wheel. Complete adjustment by applying brakes several times while driving vehicle in reverse. Check brake operation by making several stops while driving forward.



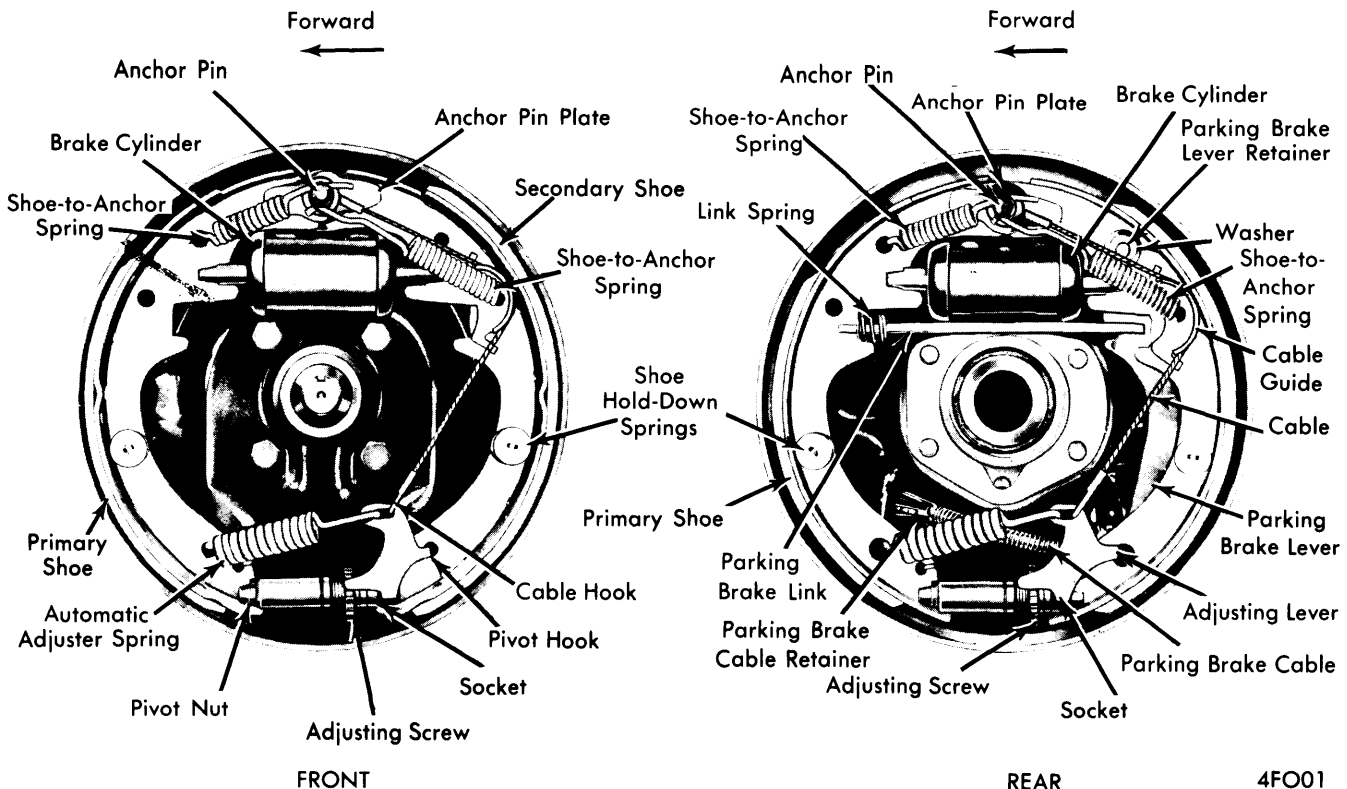
4FO02

MEASURING BRAKE DRUM



4FO03

MEASURING BRAKE SHOES



4FO01

AUTOMATIC ADJUSTER BRAKE ASSEMBLY

## FORD MOTOR CO. SINGLE ANCHOR AUTOMATIC ADJUSTER (Cont.)

### PARKING BRAKE ADJUSTMENT

**Cable Actuated Rear Wheel Type (1965-69)** — Loosen lock nut on equalizer rod and turn nut in front of equalizer several turns forward. Turn lock nut forward against equalizer until cables are just tight enough to remove slack. **NOTE** — Excessive tightening may pull brake shoes off their anchors. With cables properly adjusted, tighten both nuts against equalizer.

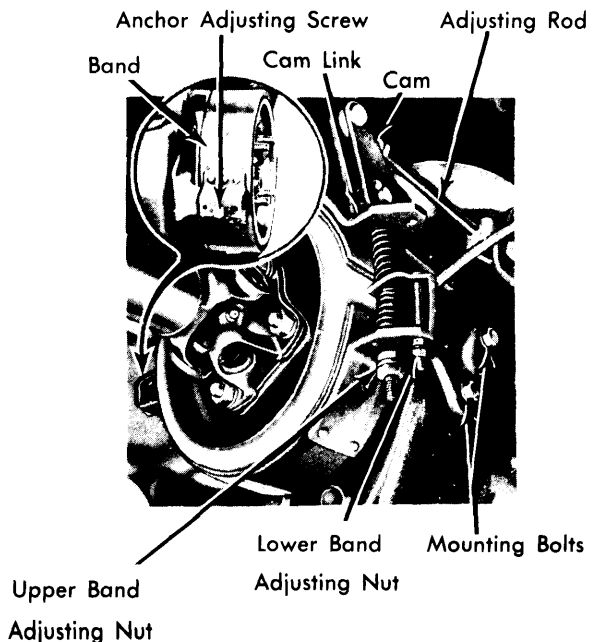
**Cable Actuated Rear Wheel Type (1970-74)** — With parking brake control handle set at two notches in applied direction (fully applied on "P" and "E" series), attach brake cable tension gauge to brake cables behind equalizer. Tighten adjusting nut against equalizer until proper tension is obtained. **NOTE** — Cable tension must be taken on both rear cables of "E" series vehicles. Tension is measured on left rear cable only on all others. With cables properly adjusted, tighten lock nut against equalizer.

#### Brake Cable Tension

Application	①New	②Used
F100, F250 (4x2).....	160-200 lbs.	115-200 lbs.
F250 (4x4), F350.....	80-120 lbs.	65-120 lbs.
E100-200.....	285-325 lbs.	275-325 lbs.
E-300.....	210-250 lbs.	200-250 lbs.
U-100.....	130-170 lbs.	115-155 lbs.

- ① — With new linings and/or new cables.
- ② — Whenever adjustment is required.

**Transmission Mounted — External Band Type — 1)** With parking brake lever fully released, check position of flat portion of brake cam. If cam is not flat on bracket, remove clevis pin from upper part of cam and adjust clevis rod until flat portion of cam rests on brake band bracket. Install clevis pin and cotter pin.



### EXTERNAL BAND ADJUSTMENT

2) Remove lock wire from anchor adjusting screw and turn adjusting screw clockwise to obtain clearance of .010" between brake lining and brake drum at anchor bracket. Install new lock wire in anchor adjusting screw.

3) Loosen lock nut on adjusting screw for lower half of brake band and adjust screw to obtain .010" clearance between brake drum and lower half of brake lining. Tighten lock nut. Turn upper band adjusting rod to obtain clearance of .010" between drum and upper half of brake lining.

### BLEEDING SYSTEM

See *Hydraulic Brake Bleeding in this Section.*

## REMOVAL & INSTALLATION

### BRAKE SHOES

**1965 (All Models), 1966-74 (Light Duty) Removal — 1)** Remove wheel and drum and install clamp over ends of wheel cylinder. Disengage adjusting lever from adjusting screw by pulling backward on lever. Move outboard side of adjusting screw up and back off pivot nut as far as possible. Pull adjusting lever, cable and automatic adjuster spring down and toward rear to unhook pivot hook from large hole in secondary shoe web. **CAUTION** — Do not pry pivot hook from hole.

2) Remove automatic adjuster spring and adjusting lever. Remove shoe-to-anchor springs, cable anchor and anchor pin plate. Remove cable guide, shoe hold-down springs, shoes, adjusting screw, pivot nut and socket.

3) On rear brakes, remove parking brake link and spring. Disconnect parking brake cable from lever, remove secondary shoe and disassemble parking brake lever from shoe by removing retaining clip and spring washer.

**Installation** — To install, reverse removal procedure, making sure: Adjusting cable is in groove of cable guide, cable does not bind on anchor pin and adjusting screw is mounted on correct side. If adjusting screw is mounted on wrong side, automatic adjuster will operate incorrectly.

**1966-74 (Heavy Duty) Removal** — Remove wheel and brake drum. On front wheel, remove spring retainer holding adjusting cable to anchor pin. On rear wheel, remove parking brake lever assembly. **NOTE** — From this point on, disassemble both front and rear brakes is the same. Remove adjusting cable assembly from anchor pin, cable guide and adjusting lever. Remove brake shoe retracting springs, hold-down springs and brake shoes. Remove and disassemble adjusting screw assembly.

**Installation** — Apply a light coat of high temperature grease to contact points of brake assembly and reverse removal procedure.

### WHEEL CYLINDER

**Removal & Installation** — Remove wheel, drum and brake shoes. Remove cylinder connecting links and disconnect hydraulic brake line from cylinder. **CAUTION** — On vehicle equipped with vacuum booster, be sure engine is off and there is no vacuum in system before disconnecting hydraulic lines. Remove brake cylinder retaining bolts and remove cylinder from backing plate. To install, reverse removal procedure.

# Brake Systems

## FORD MOTOR CO. SINGLE ANCHOR AUTOMATIC ADJUSTER (Cont.)

### OVERHAUL

#### WHEEL CYLINDERS

**Disassembly** — With wheel cylinder removed from vehicle, remove rubber boots from ends of cylinders. Remove piston return spring, cylinder cups and piston from cylinder. Remove bleeder screw and inspect cylinder bore for damage.

**Reassembly** — If bore of cylinder is lightly pitted or scratched, hone or replace as necessary. Soak all parts in suitable brake fluid or assembly lubricant and reverse disassembly procedure. Clamp brake cylinder pistons against ends of cylinder.

#### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Wheel Attaching Nuts .....	58-72
Backing Plate-to-Spindle Nuts .....	40-45
Parking Brake Drum-to-Flange .....	45-55
Hydraulic Tube Nuts	
$\frac{3}{8}$ -24 .....	8-15
$\frac{7}{16}$ -24 .....	12-17
$\frac{1}{2}$ -20 .....	12-17
$\frac{9}{16}$ -18 .....	15-25

### 1965 BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder Diameter
		Front	Rear	
F-100	11"	1 $\frac{1}{16}$ "	$\frac{7}{8}$ "	1 $\frac{1}{16}$ "
F-250	12 $\frac{1}{8}$ "	1 $\frac{1}{8}$ "	1 $\frac{1}{8}$ "	1 $\frac{1}{4}$ "
F, P-350	ⓐ13"	1 $\frac{1}{8}$ "	1 $\frac{1}{4}$ "	1 $\frac{1}{4}$ "
E-100	10"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"

ⓐ — Front drum diameter is 12 $\frac{1}{8}$ ".

### 1966 BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder Diameter
		Front	Rear	
F-100	11"	ⓐ1 $\frac{1}{16}$ "	$\frac{7}{8}$ "	1"
F-250	12 $\frac{1}{8}$ "	1 $\frac{1}{16}$ "	1 $\frac{1}{16}$ "	1 $\frac{1}{8}$ "
F, P-350	ⓑ13"	1 $\frac{1}{8}$ "	1 $\frac{1}{4}$ "	1 $\frac{1}{4}$ "
U-100	10"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-100	10"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"

ⓐ — 4-Wheel Drive unit uses 1 $\frac{1}{8}$ ".

ⓑ — Front drum diameter is 12 $\frac{1}{8}$ ".

### 1967 BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder Diameter
		Front	Rear	
F-100	11"	ⓐ1 $\frac{1}{16}$ "	$\frac{7}{8}$ "	1"
F-250	12 $\frac{1}{8}$ "	1 $\frac{1}{16}$ "	1 $\frac{5}{16}$ "	1"
F, P-350	ⓑ12"	1 $\frac{1}{8}$ "	1 $\frac{1}{4}$ "	ⓓ1 $\frac{1}{4}$ "
U-100	11"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-100	10"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"

ⓐ — 4-Wheel Drive unit uses 1 $\frac{1}{8}$ ".

ⓑ — Front drum diameter is 12 $\frac{1}{8}$ ".

ⓓ — P-Series uses 1 $\frac{1}{16}$ " diameter.

# Brake Systems

## FORD MOTOR CO. SINGLE ANCHOR AUTOMATIC ADJUSTER (Cont.)

1968 BRAKE SYSTEM SPECIFICATIONS				
Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
F-100	11"	1 1/8"	⓪ 15/16"	1"
F-250	12 1/8"	1 1/16"	15/16"	1"
F, P-350	12"	1 1/16"	1"	1 1/4"
U-100	11"	1 1/8"	13/16"	1"
E-100	10"	1 1/8"	13/16"	1"
E-200	11 1/32"	1 1/8"	13/16"	1"
E-300	12"	1 1/8"	7/8"	1"

⓪ — 4-Wheel Drive unit uses 7/8".

1969 BRAKE SYSTEM SPECIFICATIONS				
Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
F-100	11 1/32"	1 1/8"	⓪ 15/16"	1"
F-250	12 1/8"	1 1/16"	15/16"	1"
F, P-350	12"	1 1/16"	1"	1 1/4"
U-100	11"	1 1/8"	13/16"	1"
E-100	10"	1 1/8"	13/16"	1"
E-200	11 1/32"	1 1/8"	13/16"	1"
E-300	12"	1 1/8"	7/8"	1"

⓪ — 4-Wheel Drive unit uses 7/8".

1970 BRAKE SYSTEM SPECIFICATIONS				
Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
F-100	11 1/32"	1 1/8"	7/8"	1"
F-250	12 1/8"	1 1/16"	15/16"	1"
F-350	12"	1 1/16"	1 1/16"	1 1/8"
P-350	⓪ 12 1/8"	1 1/8"	15/16"	1 1/8"
U-100	11"	1 1/8"	13/16"	1"
E-100	10"	1 1/8"	13/16"	1"
E-200	11 1/32"	1 1/8"	13/16"	1"
E-300	12"	1 1/8"	7/8"	1"

⓪ — Rear drum diameter is 12".

# Brake Systems

## FORD MOTOR CO. SINGLE ANCHOR AUTOMATIC ADJUSTER (Cont.)

1971 BRAKE SYSTEM SPECIFICATIONS				
Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder Diameter
		Front	Rear	
F-100	11 $\frac{1}{32}$ "	1 $\frac{1}{8}$ "	$\frac{7}{8}$ "	1"
F-250	12 $\frac{1}{8}$ "	1 $\frac{1}{16}$ "	1 $\frac{5}{16}$ "	1"
F-350	12"	1 $\frac{1}{16}$ "	1 $\frac{1}{16}$ "	1 $\frac{1}{8}$ "
P-350	⓪ 12 $\frac{1}{8}$ "	1 $\frac{1}{8}$ "	1 $\frac{5}{16}$ "	1 $\frac{1}{8}$ "
U-100	11"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-100	10"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-200	11 $\frac{1}{32}$ "	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-300	12"	1 $\frac{1}{8}$ "	$\frac{7}{8}$ "	1"

⓪ — Rear drum diameter is 12".

1972 BRAKE SYSTEM SPECIFICATIONS				
Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder Diameter
		Front	Rear	
F-100	11 $\frac{1}{32}$ "	1 $\frac{1}{8}$ "	$\frac{7}{8}$ "	1"
F-250	12 $\frac{1}{8}$ "	1 $\frac{1}{16}$ "	1 $\frac{5}{16}$ "	1"
F-350	12"	1 $\frac{1}{16}$ "	1 $\frac{1}{16}$ "	1 $\frac{1}{8}$ "
P-350	⓪ 12 $\frac{1}{8}$ "	1 $\frac{1}{8}$ "	1 $\frac{5}{16}$ "	1 $\frac{1}{8}$ "
U-100	11"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-100	10"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-200	11 $\frac{1}{32}$ "	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-300	12"	1 $\frac{1}{8}$ "	$\frac{7}{8}$ "	1"

⓪ — Rear drum diameter is 12".

1973 BRAKE SYSTEM SPECIFICATIONS				
Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder Diameter
		Front	Rear	
F-100	11 $\frac{1}{32}$ "	⓪	$\frac{7}{8}$ "	1"
F-250 (4x2)	12 $\frac{1}{8}$ "	⓪	1 $\frac{5}{16}$ "	1"
F-250 (4x4)	⓪ 12"	1 $\frac{1}{16}$ "	1 $\frac{5}{16}$ "	1"
F-350	12"	⓪	1 $\frac{1}{16}$ "	1 $\frac{1}{8}$ "
P-350	⓪ 12"	1 $\frac{1}{8}$ "	1 $\frac{5}{16}$ "	1 $\frac{1}{8}$ "
U-100	11"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-100	10"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-200	11 $\frac{1}{32}$ "	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-300	12"	1 $\frac{1}{8}$ "	$\frac{7}{8}$ "	1"

⓪ — Front disc brakes are standard equipment.

⓪ — Front drum diameter is 12 $\frac{1}{8}$ ".

# Brake Systems

## FORD MOTOR CO. SINGLE ANCHOR AUTOMATIC ADJUSTER (Cont.)

1974 BRAKE SYSTEM SPECIFICATIONS				
Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder Diameter
		Front	Rear	
F-100 (4x2)	11 $\frac{1}{32}$ "	①	$\frac{7}{8}$ "	1"
F-100 (4x4)	② 11"	1 $\frac{1}{16}$ "	$\frac{7}{8}$ "	1"
F-250 (4x2)	12 $\frac{1}{8}$ "	①	$\frac{7}{8}$ "	1"
F-250 (4x4)	③ 12"	1 $\frac{1}{16}$ "	1 $\frac{5}{16}$ "	1"
F-350	12"	①	1 $\frac{1}{16}$ "	1 $\frac{1}{8}$ "
P-350	③ 12"	1 $\frac{1}{8}$ "	1 $\frac{5}{16}$ "	1 $\frac{1}{8}$ "
U-100	11"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-100	10"	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-200	11 $\frac{1}{32}$ "	1 $\frac{1}{8}$ "	1 $\frac{3}{16}$ "	1"
E-300	12"	1 $\frac{1}{8}$ "	$\frac{7}{8}$ "	1"

- ① — Front disc brakes are standard equipment.
- ② — Rear drum diameter is 11 $\frac{1}{32}$ ".
- ③ — Front drum diameter is 12 $\frac{1}{8}$ ".