FORD MOTOR CO. SINGLE ANCHOR

Ford Motor Co.

NOTE — For reference purposes in this article only, Light Duty will refer to E-100 and 150, F-100, 150 and 250 (up to 6900 GVW), and U-100 (Bronco). Heavy Duty will refer to all remaining models equipped with this type of drum brake system.

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.

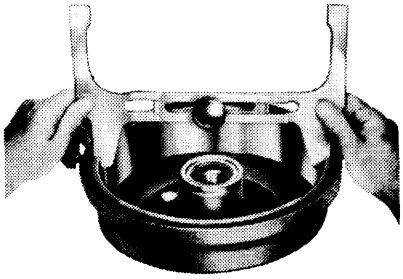

Fig. 1 Measuring Brake Drum Diameter

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.

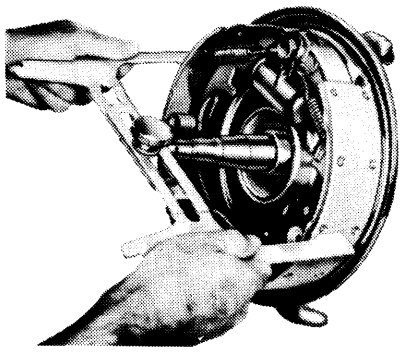

Fig. 2 Measuring Brake Shoe Diameter

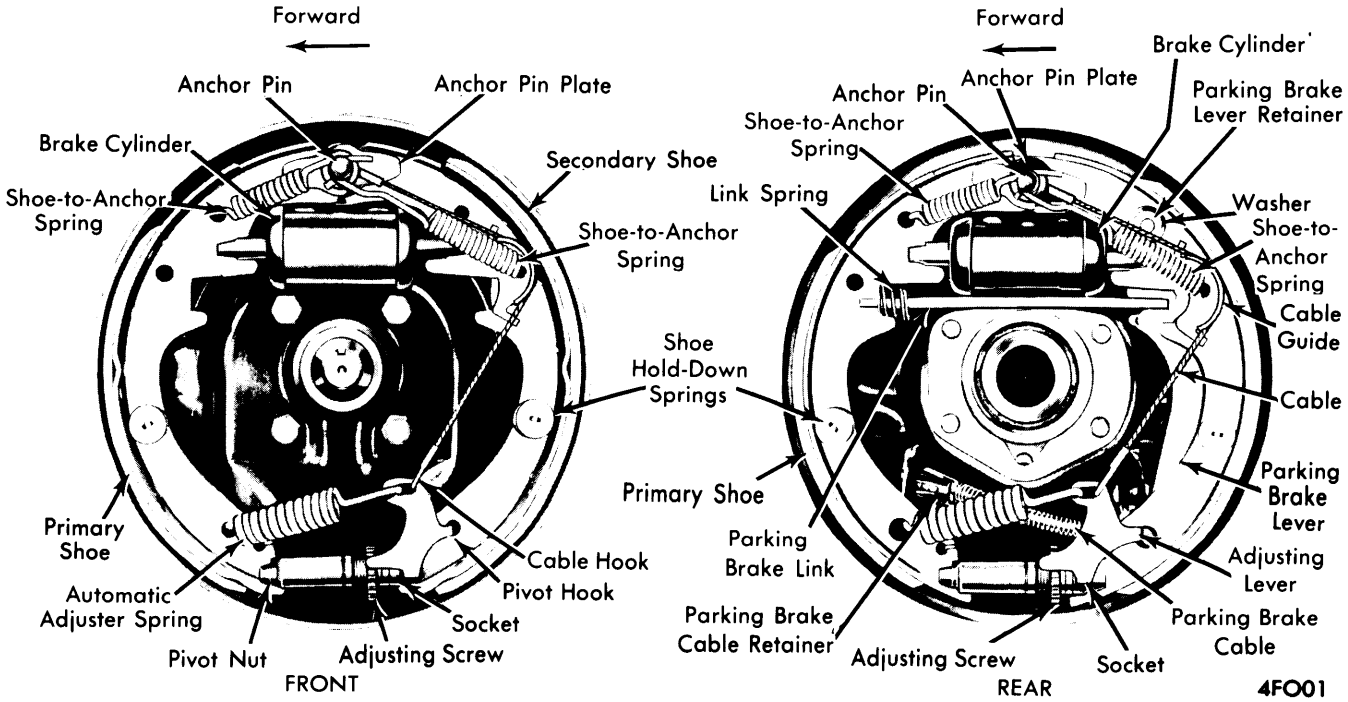

Fig. 3 Sectional View of Automatic Adjuster Brake Assembly (Light Duty Vehicles)

FORD MOTOR CO. SINGLE ANCHOR (Cont.)

PARKING BRAKE ADJUSTMENT

Cable Actuated Rear Wheel Type – Depress parking brake pedal two notches. Attach a tension gauge (S62F-1158) to the left cable. Now adjust cable until tension registered on gauge is 250 lbs. Now back off nut until tension gauge registers zero. Adjust cable until specified tension is registered on gauge.

Brake Cable Tension

Application	Tension
All "F" Models	100 Lbs.
All "E" Models	96 Lbs.
"U" Models	130 Lbs.

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.

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

Removal (Light Duty Models) – 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. *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. 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.

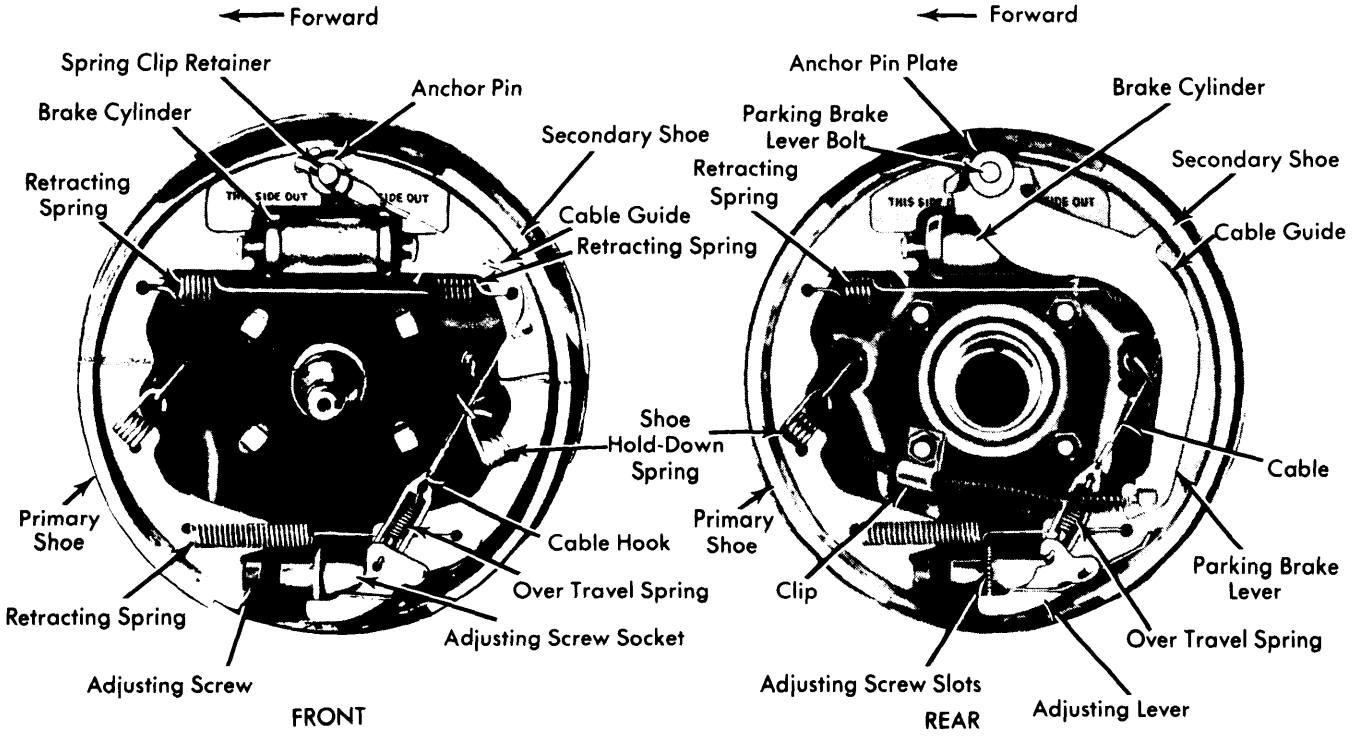

Fig. 4 Sectional View of Automatic Adjuster Brake Assembly (Heavy Duty Vehicles)

FORD MOTOR CO. SINGLE ANCHOR (Cont.)

Removal (Heavy Duty Models) – 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, disassembly of 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. Remove brake cylinder retaining bolts and remove cylinder from backing plate. To install, reverse removal procedure. Adjust brakes and bleed hydraulic system.

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.
Front Backing Plate-to-Spindle	
7/16"-14	30-50
1/2"-13	55-70
1/2"-20	55-75
Rear Backing Plate-to-Axle	
7/16"-14	35-45
1/2"-13	75-105
1/2"-20	50-70
Hydraulic Tube Nuts	
3/8"-24	10-15
All Others	10-17

BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder Diameter
		Front	Rear	
U-100 (Bronco)	11"	①	15/16"	1"
E-100 & 150	11"	①	15/16"	1"
E-250	11"	①	1"	1 1/4"
E-350	12"	①	1 1/16"	1 1/4"
F-100 & 150 (4x2)	11 1/32"	①	15/16"	1"
F-100 & 150 (4x4)	11"	①	15/16"	1"
F-250 (4x2 Up To 6900 GVW)	12 1/8"	①	15/16"	④1"
F-250 (4x2 Over 6900 GVW)	12"	①	1"	④1"
F-250 (4x4)	12 1/8"	①	1"	④1"
F-350	12 1/8"	①	1 1/16"	1 1/4"
P-350	②12 1/8"	1 1/8"	③15/16"	1 1/8"

① – Front disc brakes are standard equipment.
② – Rear drum is 12".
③ – 1 1/16" for optional heavy duty brakes.
④ – 1 1/4" for models equipped with dual piston front calipers.