PROCEDURES

1981 DIY
MUST. CAPRI-FAIR/ZEPHYR
GRANADA/COUGAR

REAR DRUM BRAKE INSPECTION

1 Raise the car after first removing the rear wheel cover and slightly loosening each tire lug nut with the tire lug wrench. Place wheel chock in position before raising car. Do not set parking brake.

2 With car in raised position, place safety stand in position on the frame and lower jack so that vehicle weight is on the stand. See Section 1

3 Remove the lug nuts and dismount the tire and wheel assembly. Remove the retaining spring clips (if used) from the tire and wheel mounting studs

WARNING

Brake lining dust can be harmful to your health. Use extra caution to avoid breathing this dust. Use a breathing mask.

4 The rear wheel, hub and drum can now be removed by pulling straight out. (Parking brake must be in off position.)

WARNING

If the brake light goes on with the parking brake released, this is an indication of a malfunction in the brake system. Immediate attention is necessary. Do not drive the vehicle.

5. Inspect the rear brake lining and drum metal braking surfaces for possible service needs (Dealer Service recommended, if needed) Brake linings that are worn to within 1/32" of the lining rivet heads must be replaced.

WARNING

Do not contaminate either brake lining surfaces or wheel hub or wheel disc surfaces by wiping with oily or greasy rag.

6. Inspect the cylinder which activates the brake mechanism for leaks.

7. When inspection is completed, replace rear wheel hub and drum, so that it is fully seated. Replace retaining spring clips. Remount tire and wheel.

8 Repeat inspection at other rear wheel follow the above procedure

FRONT DISC BRAKE INSPECTION

NOTE

When tires and wheels are to be removed from a vehicle, first remove the wheel cover and slightly loosen the wheel lugs before the vehicle is raised with the jack.

1 With vehicle raised and with safety stand in position, remove the wheel and tire.

WARNING

Brake lining dust can be harmful to your health. Use extra caution to avoid breathing this dust. Use a breathing mask.

2. Inspect the rotor for uneven wear or grooving. Rotate the rotor by hand as your inspection continues. Examine both sides of the rotor.

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4. Apply a small quantity of high temperature grease C0AZ-19553 A or equivalent to the points where the shoes contact the backing plate, being careful not to get the lubricant on the linings.
5. Install the drums. Install the drum retaining nuts and tighten securely.
6. Install the wheels on the drums and tighten the nuts to specification.
7. Complete the adjustment by applying the brakes several times with a minimum of 50 lbs pressure on the pedal (non-power brakes) or 25 lbs pressure (power brakes) while backing the vehicle. After each stop, the vehicle must be moved forward.
8. After the brake shoes have been properly adjusted, check the operation of the brakes by making several stops from varying forward speeds.

REMOVAL AND INSTALLATION

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BRAKE DRUMS

Removal—Rear

1. Raise the vehicle so that the tire is clear of the floor.
2. Remove the wheel cover and wheel.
3. Remove the three drum retainer nuts and remove the brake drum.

WARNING: Under no circumstances should compressed air blow-off be used to cleanse brakes, brake drums, clutches, and associated components.

If the drum will not come off, pry the rubber plug from the backing plate. Insert a narrow screwdriver through the hole in the backing plate, and disengage the adjusting lever from the adjusting screw (Fig. 4).

While holding the adjustment lever away from the screw, back off the adjusting screw with the brake adjusting tool (Fig. 4).

Be very careful not to burr, chip, or damage the notches in the adjusting screw; otherwise the self-adjusting mechanism will not function properly.

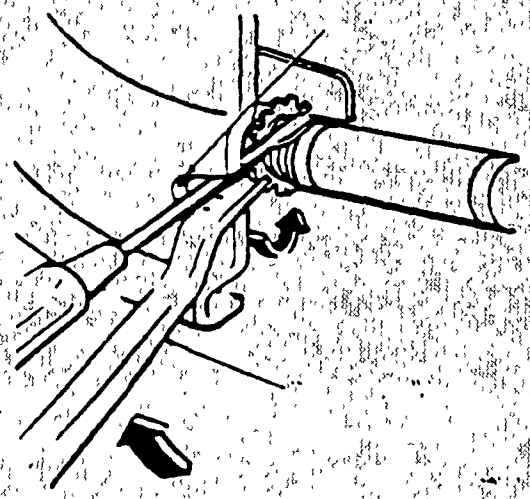


FIG. 4 Backing Off Brake Adjustment

Installation—Rear

1. Remove the protective coating from a new drum with carburetor degreaser. Sand drum lightly and wipe with a cloth soaked with denatured alcohol.
2. Adjust the brakes as outlined under Brake Shoe Adjustments. Place the drum over the brake assembly and into position.
3. Install the three drum retainer nuts and tighten securely. Install the wheel on the axle shaft flange studs against the drum, and tighten the attaching nuts to specification. Install wheel cover.

BRAKE SHOES

Removal

1. With the wheel and drum removed, install a clamp over the ends of the brake cylinder as shown in Fig. 5.

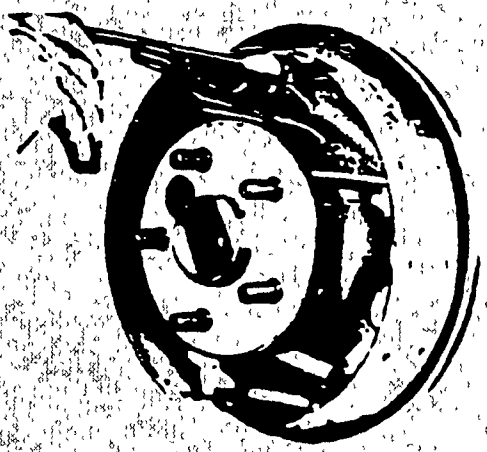
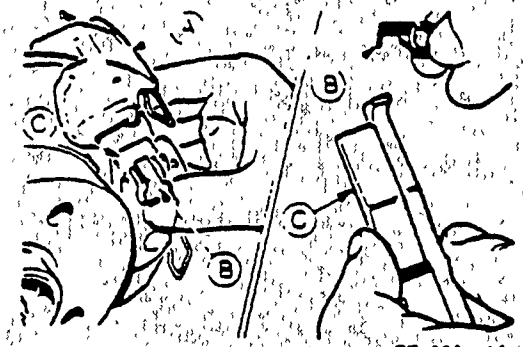


FIG. 5 Retracting Spring Removal

2. Remove the shoe to anchor springs with the tool shown in Fig. 5 and unhook the lower shoe from the anchor pin.
3. Remove the shoe guide washer and spring [illegible] and 21.
4. Remove the shoe to cylinder retainer springs, retaining cups and pins from the lower end of the shoes and remove the shoes.

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FF1228—1A

A—Pad Housing C—Brake Pad
B—Antirattle Clip

FIG. 26 Fitting Antirattle Clips

CALIPER PISTON—REMOVE AND INSTALL (PISTON HOUSING REMOVED)

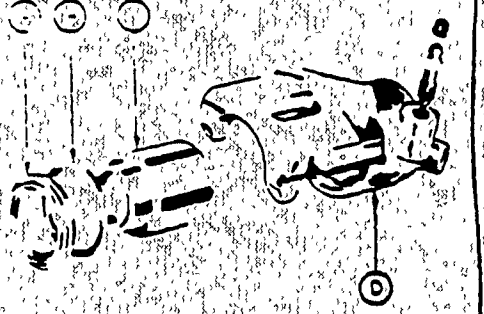
To Remove

NOTE: When replacing a piston (Fig. 27), always replace seal and bellows at the same time.

1 Remove piston rubber bellows (Fig. 27).
2 Apply air pressure or low hydraulic pressure to the piston through the brake fluid inlet port. Remove piston.
3 Remove piston seal from its annular groove in the piston housing.

To Install

1 Wash piston and piston bore in commercial alcohol, methylated spirit or approved brake fluid. Do not use a mineral base fluid such as gasoline and kerosene. Be sure that piston and its bore are free of score marks.
2 Assemble a piston seal in its annular groove in piston housing.



FF1229—1A

A—Rubber Bellows C—Piston
B—Seal D—Piston Housing

FIG. 27 Removing Rubber Bellows

[illegible] piston with [illegible] out this operation of the piston may damage piston seal.
4 Install piston rubber bellows between piston housing and piston.

REAR BRAKE SHOES—REMOVE AND INSTALL (ONE SIDE)

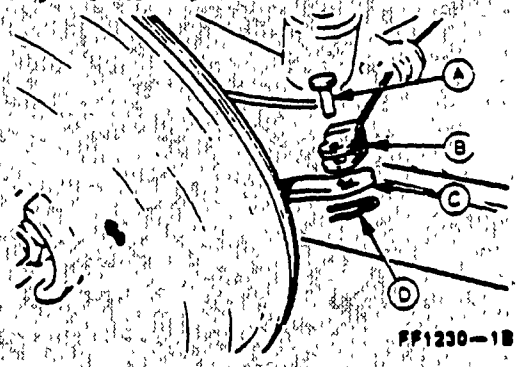
WARNING: Never inhale dust from brake linings. Asbestos dust when inhaled can be injurious to health. Do not blow out dust with an air line. A vacuum cleaner equipped for this purpose, brush or rag should be carefully used to remove any dust. Any dust should be contained in a sealed bag for disposal.

NOTE: Use the Retunde Brake Vacuum, Model [illegible], or the Retunde Brake Pone washer, Model 650016, or equivalent, to remove dust.

NOTE: Brake pads and shoes should always be replaced in sets of four. On no account should only one or a pair of brake pads or shoes be replaced.

To Remove

1 Loosen wheel bolts, jack up the car and install jack stands. Remove rear wheel and tire assemblies.
2 Be sure that handbrake is fully released. Disconnect handbrake cable from brake assembly by removing spring clip and withdrawing clevis pin (Fig. 28). Remove handbrake operating lever rubber dust cover from brake carrier plate.
3 Remove spindle and bearing dust cap, cotter pin, adjusting nut retainer, adjusting nut, washer and outer bearing. Slide drum/hub assembly clear of spindle.
4 Remove shoe hold-down spring from secondary shoe (Fig. 29) by depressing and turning washer 90 degrees. Remove spring and washer and withdraw pin from carrier plate.



FF1230—1B

A—Clevis Pin C—Handbrake Actuating Lever
B—Handbrake Cable D—Spring Clip

FIG. 28 Disconnecting Handbrake Cable

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should have 0.127-0.64mm (0.005-0.025 inch) end play after overcoming the load of the parking brake link anti-rattle spring.

To adjust the brake shoes

1. Determine the inside diameter of the drum braking surface using Rotunda Tool 11-0001 or equivalent (Fig. 2).
2. Adjust the brake shoe diameter to fit the gauge (Fig. 2). Hold the automatic adjusting lever out of engagement while rotating the adjusting screw to prevent burring the screw slots. Make sure the adjusting screw rotates freely. If necessary, lubricate the screw threads with a thin, uniform coating of lubricant C1AZ-19590-B or equivalent.

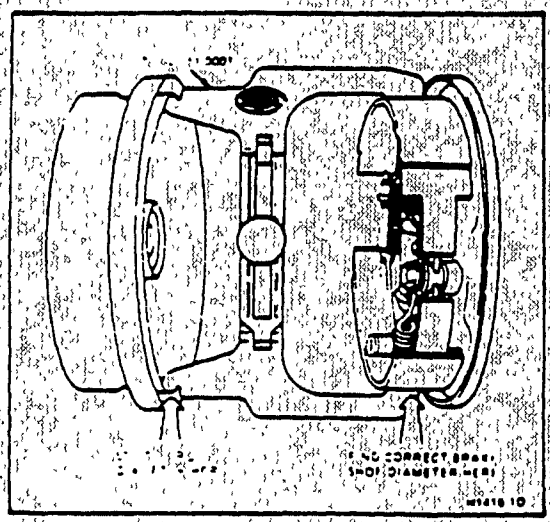


FIG. 2 Adjusting Brake Shoes

3. Rotate Rotunda Tool 11-0001 or equivalent around the brake shoes to be sure of the setting.
4. Apply a small quantity of high temperature grease D7AZ-19590-A or equivalent to the points where the shoes contact the backing plate, being careful not to get the lubricant on the linings.
5. Install the drums. Install the drum retaining nuts, and tighten securely.
6. Install the wheels on the drums, and tighten the nuts to specification.

Complete the adjustment by applying the brakes several times with a minimum of 222N (50 lbs) pressure on the pedal (non-power brakes) or 111N (25 lbs) pressure (power brakes) while backing the vehicle. After each stop, the vehicle must be moved forward.

8. After the brake shoes have been properly adjusted, check the operation of the brakes by making several stops from varying forward speeds.

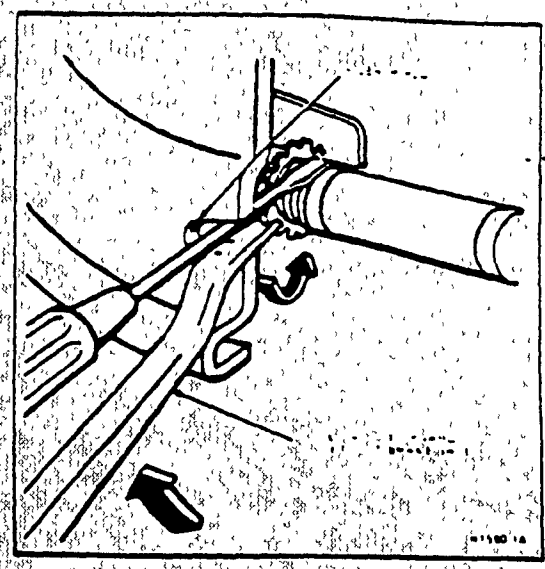


FIG. 3 Backing Off Brake Adjustment

REMOVAL AND INSTALLATION

Brake Drums 1980 BODY/CHASSIS ELECTRICAL

REAR

Removal

1. Raise the vehicle so that the tire is clear of the floor.
2. Remove the wheel cover and wheel.
3. Remove the drum retainer nuts, and remove the brake drum.

WARNING: Under no circumstances should compressed air blow-off be used to cleanse brakes, brake drums, clutches, and associated components.

If the drum will not come off, pry the rubber plug from the backing plate. Insert a narrow screwdriver through the hole in the backing plate and disengage the adjusting lever from the adjusting screw (Fig. 3).

While holding the adjustment lever away from the screw, back off the adjusting screw with the brake adjusting tool (Fig. 3).

Be very careful not to burr, chip, or damage the notches in the adjusting screw, otherwise the self-adjusting mechanism will not function properly.

Installation

1. Remove the protective coating from a new drum with carburetor degreaser. Sand drum lightly and wipe with a cloth soaked with denatured alcohol.
2. Adjust the brakes as outlined under Brake Shoe Adjustments. Place the drum over the brake assembly and into position.

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DESCRIPTION

Rear Drum Brakes

Refer to Figs. 1, 2 and 3.

Rear drum brakes are non-servo leading-trailing shoe design in place of the duo servo design used on current U.S. built Ford products. Operation of this brake is similar to Fiesta vehicles where the leading shoe does the majority of work, stopping forward motion. The trailing shoe works in the same way for rearward motion. Two different rear brake assemblies are used, each having different internal components particularly in the parking brake and automatic adjustment assembly.

Three-Door models use 180 mm (7-inch) diameter brake assemblies and 4-Door models use 203 mm (8-inch) diameter brake assemblies. The automatic adjustment of the 180 mm (7-inch) brake uses a one shot adjuster that makes a single adjustment each time the designed wear gap between the lining and drum is reached. 203 mm (8 inch) drum assemblies use an incremental adjuster system similar to current duo-servo brakes where the adjustments are made during braking whenever a wear gap appears sufficient to activate the adjuster wheel. Brake adjustment occurs in forward and rearward braking.

WARNING: Never inhale dust from brake linings. Asbestos dust when inhaled can be injurious to health. Do not blow out dust with an air line. A vacuum cleaner equipped for this purpose, brush or rag should be carefully used to remove any dust. Any dust should be contained in a sealed bag for disposal.

The rear brake drums for both 7 inch and 8 inch brake assemblies incorporate a hub and drum assembly similar to front drum brakes on previous year Ford products such as Maverick/Comet. The drums are attached to the rear axle spindle by a wheel bearing nut requiring adjustment similar to current front disc brake wheel bearings on rear wheel drive models. Wheel studs are located in the hub/drum for attaching the rear wheels.

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