1973 AUDI FOX

Fox (1973)

DESCRIPTION

Brake system is hydraulically operated, utilizing a tandem master cylinder and a Teves power brake unit. Front disc brakes consist of rotors attached to wheel hubs, and single piston floating caliper assemblies attached to steering knuckles. Disc calipers are equipped with wear sensors attached to cross springs, which will break when contact is made with pad plates, interrupting control circuit and causing indicator light on instrument panel to be activated. Rear brakes are leading-trailing shoe/drum type, using a dual piston wheel cylinder. Parking brake is cable actuated, operating secondary shoes of rear brake assemblies.

ADJUSTMENT

FRONT DISC BRAKE PADS

Front disc brakes are self-adjusting, therefore, no adjustment in service is required.

REAR DRUM BRAKE SHOES

Raise and support rear of vehicle and release parking brake. Using a 17mm wrench, tighten eccentrics on rear of backing plates until wheel can no longer be turned by hand. Loosen eccentrics until wheels are just free to turn.

HYDRAULIC SYSTEM BLEEDING

Fill master cylinder reservoir with brake fluid and maintain level throughout bleeding operation. Attach a hose to bleeder screw, and immerse opposite end in a container partially full of brake fluid. Open bleeder screw approximately one-half turn, depress brake pedal, close bleeder screw, and slowly return pedal. Continue operation until air bubbles are no longer seen in discharged fluid. Bleeding sequence is right-rear, left-rear, right-front, left-front.

REMOVAL & INSTALLATION

FRONT DISC BRAKE PADS

Removal – Raise and support front of vehicle and remove wheel and tire assembly. Pull spring locks out of retaining pins, drive retaining pins out toward outside of vehicle, and remove cross spring and wear sensor element. Using a suitable tool (P 86), remove inboard disc pad. Pull mounting frame and brake cylinder outwards until outboard disc pad can be removed.

Installation – Press piston to bottom of travel in cylinder and floating frame. *NOTE – Level in master cylinder reservoir will rise. Siphon off sufficient fluid to prevent overflowing.* Ensure machined portion of piston face makes a 20° angle to lower caliper wall. Install disc pads by reversing removal procedure.

FRONT DISC BRAKE CALIPER

Removal – With wheel and tire assembly, disc pads and wear sensor removed, disconnect hydraulic line from caliper. Remove bolts securing caliper to steering knuckle and disconnect caliper.

Installation – Reverse removal procedure and bleed hydraulic system.

FRONT DISC BRAKE ROTOR

Removal – With wheel and tire assembly removed, remove caliper. *NOTE – Do not disconnect hydraulic line unless necessary.* Remove screw securing rotor to wheel hub and withdraw rotor.

Installation – Reverse removal procedure and bleed hydraulic system if necessary.

REAR BRAKE DRUM

Removal – Pry off grease cap. Remove cotter pin, castle nut, hex nut, and washer. Pull off brake drum making sure that inner race of outer bearing is not lost.

Installation – Reverse removal procedure, adjust brake shoes, and adjust wheel bearings. *See Wheel Bearing Adjustment in WHEEL ALIGNMENT Section.*

REAR BRAKE SHOES

Removal – With brake drum removed, disconnect lower spring by removing from primary shoe. Remove shoe vibration cups, springs, and pins. Remove primary shoe from backing plate, disconnect parking brake cable from lever, and remove secondary shoe and parking brake lever assembly.

Installation – Reverse removal procedure and note the following: Before installing secondary brake shoe, make sure that rear wheel cylinder piston is positioned so that web faces outward and opening inward. Adjust brakes and bleed hydraulic system if necessary.

REAR BRAKE WHEEL CYLINDER

Removal – Depress brake pedal approximately 1.2" to close compensator bore in master cylinder, and hold in position using a suitable pedal support. Disconnect hydraulic line from cylinder and plug with rubber cap from bleeder screw. Remove bolts attaching wheel cylinder to backing plate. Remove cylinder by maneuvering out of backing plate.

Installation – Reverse removal procedure and note the following: Make sure that rear piston is installed in wheel cylinder so that web faces outward and opening inward. Bleed hydraulic system.

MASTER CYLINDER

Removal – Siphon brake fluid from master cylinder reservoir. Disconnect hydraulic lines at cylinder, remove nuts attaching master cylinder to power unit, and remove master cylinder.

Installation – Reverse removal procedure and note the following: Make sure "O" ring is installed between master cylinder and power unit. After installing master cylinder, bleed hydraulic system.

OVERHAUL

FRONT DISC BRAKE CALIPER

Disassembly – Remove disc pads and pry mounting frame and piston assembly off floating frame. Remove brake cylinder and guide spring from floating frame. Remove clamp and dust cap from brake cylinder, then withdraw piston. *NOTE – If necessary, apply compressed air to fluid inlet.* Remove seal from cylinder.

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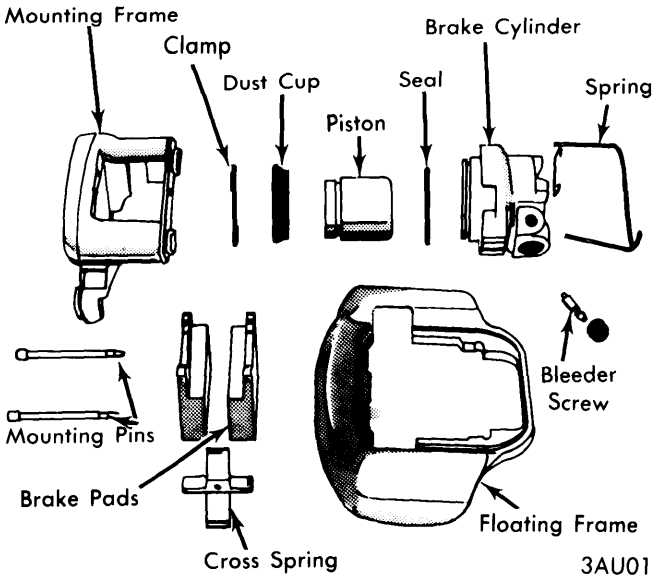


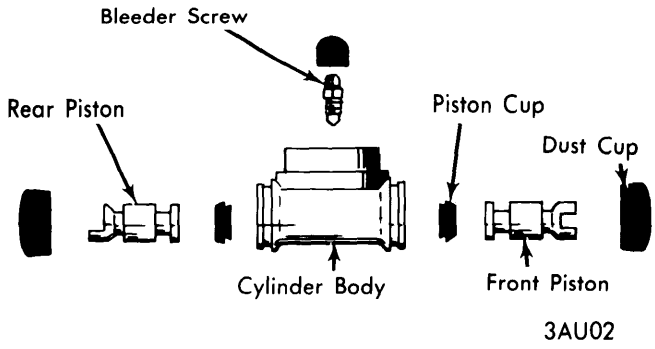
DISC BRAKE CALIPER ASSEMBLY

Cleaning & Inspection – Thoroughly clean all parts in alcohol. Check all parts for rust, corrosion, or other damage; replace parts as necessary. *NOTE – Manufacturer recommends replacing rubber parts whenever caliper has been disassembled.*

Reassembly – Apply a thin coat of ATE brake cylinder paste (or equivalent) to cylinder, piston and seal, and reassemble. Place guide spring in groove of brake cylinder, then drive cylinder on floating frame with a brass mandrel. Place mounting frame in guide spring, then slide it on floating frame.

REAR BRAKE WHEEL CYLINDER

Disassembly – Remove rubber dust caps, then withdraw front and rear piston and seal assemblies. Remove seals from pistons. Remove bleeder screw and dust cap.



REAR WHEEL CYLINDER ASSEMBLY

Cleaning & Inspection – Thoroughly clean all components in alcohol. Inspect cylinder and pistons for rust, corrosion, or scoring; replace parts as necessary. *NOTE – Manufacturer recommends replacing all rubber parts whenever cylinder has been disassembled.*

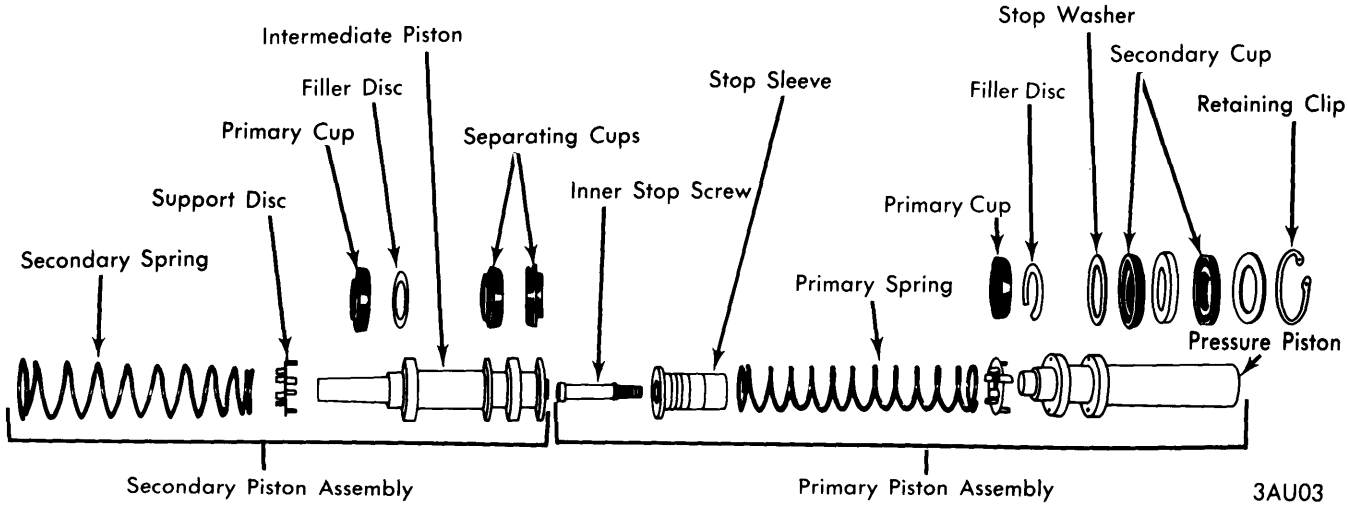
Reassembly – Reverse disassembly procedure and note the following: Pistons are not interchangeable. Install notched piston in front of cylinder so that it will engage primary shoe when installed on backing plate.

MASTER CYLINDER

Disassembly – Remove "O" ring from master cylinder housing. Remove retaining ring and loosen piston stop screw, then remove both pistons from housing. Remove pressure valves and reservoir from master cylinder housing. Disassemble piston assemblies as necessary.

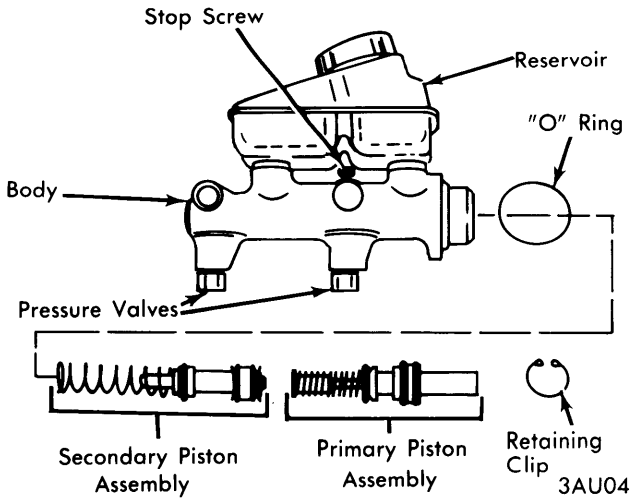
Cleaning & Inspection – Clean all parts in alcohol and check for rust, corrosion, or other damage; replace parts as necessary. Make sure compensating and filler holes are not plugged.

Reassembly – Reverse disassembly procedure and note the following: Make sure pressure and intermediate piston cups are installed correctly (see illustration). Use a new "O" ring on master cylinder between cylinder and power unit.



MASTER CYLINDER PISTON ASSEMBLIES

1973 AUDI FOX (Cont.)



MASTER CLYINDER ASSEMBLY

POWER BRAKE UNIT

NOTE — Manufacturer does not recommend overhaul of power brake unit. Assembly is serviced by replacement only.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Power Unit-To-Adapter	15 (2.1)
Adapter-To-Firewall	15 (2.1)
Caliper-To-Steering Knuckle	44 (6.1)
Splash Guard-To-Steering Knuckle	7 (1.0)
Rotor-To-Hub Screw	5 (.07)
Hydraulic Line-To-Master Cylinder	8 (1.1)
Hydraulic Line-To-Caliper	9 (1.3)
Hydraulic Line-To-Wheel Cylinder	9 (1.3)

BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam. In. (mm)	Wheel Cylinder Diameter		Master Cylinder Diameter In. (mm)
		Front In. (mm)	Rear In. (mm)	
Audi Fox	7.87 (200.0)	1.73 (43.98)	.....	.813 (20.7)

DISC BRAKE ROTOR SPECIFICATIONS

Application	Disc Diameter In. (mm)	Lateral Runout In. (mm)	Parallelism In. (mm)	Original Thickness In. (mm)	Minimum Refinish Thickness In. (mm)	Discard Thickness In. (mm)
Front	9.40 (239.0)	.0023 (0.05)	.0008 (.02)	.470 (11.9)	.433 (11.0)	.410 (10.5)

BRAKE DRUM SPECIFICATIONS

Application	Drum Diameter In. (mm)	Original Diameter In. (mm)	Maximum Refinish Diameter In. (mm)	Discard Diameter In. (mm)
Rear	7.87 (200.0)	7.87 (200.0)	7.90 (200.5)	7.91 (201.0)