## FIAT 124 & X19

**124 Sedan**
**124 Station Wagon**
**124 Sport Coupe**
**124 Spider**
**X1/9**

## DESCRIPTION

Brake system is hydraulically actuated, using a tandem master cylinder and a Master-Vac power brake unit. Single piston sliding caliper disc brakes are used on all four wheels. A rear brake pressure regulator is used to provide a pressure differential between front and rear brake systems, enabling balanced braking. Parking brake is mechanical, operated by lever and cables, and acting on disc pads of rear brake assemblies. *NOTE — Model X1/9 is not equipped with power brake unit or rear brake pressure regulator.*

## ADJUSTMENT

### DISC BRAKE PADS

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

### PARKING BRAKE

Fully release parking brake lever, then pull up two notches. Loosen lock nut and tighten adjusting nut at equalizer until cable is tight. *NOTE — An opening is provided in floor pan under body for access to equalizer on X1/9 models.* Tighten lock nut. Cable is properly adjusted when rear brakes are locked as lever is pulled to third ratchet stop. Release parking brake lever and ensure rear wheels turn freely.

### BRAKE PRESSURE REGULATOR

**All Models (Exc. X1/9)** — See illustration and perform the following: Bring distance from rubber buffer resting surface to end of torsion bar (E) to specifications (see following table). Lift dust boot (C) and rotate regulator on screws (A & B) until opposite end of torsion bar (E) is in light contact with piston (D) projecting from regulator. Holding regulator in this position, tighten screws (A & B). Apply rubber lube to torsion bar (E) where piston (D) and pin (F) meet; replace dust boot (C). Connect link to regulator torsion bar and lug on axle housing. *NOTE — Fluid inlet from master cylinder must be connected to lower union (R), and fluid line to rear brakes must be connected to upper union (S).*

**Pressure Regulator Adjustment**

| Application | ① Inches (mm) |
|---|---|
| 124 Sedan | 5.78 (147) |
| 124 Station Wagon | 5.00 (127) |
| 124 Sport Coupe | 5.78 (147) |
| 124 Spider | 3.74 (95) |

① — ±.196" (5 mm).

### HYDRAULIC SYSTEM BLEEDING

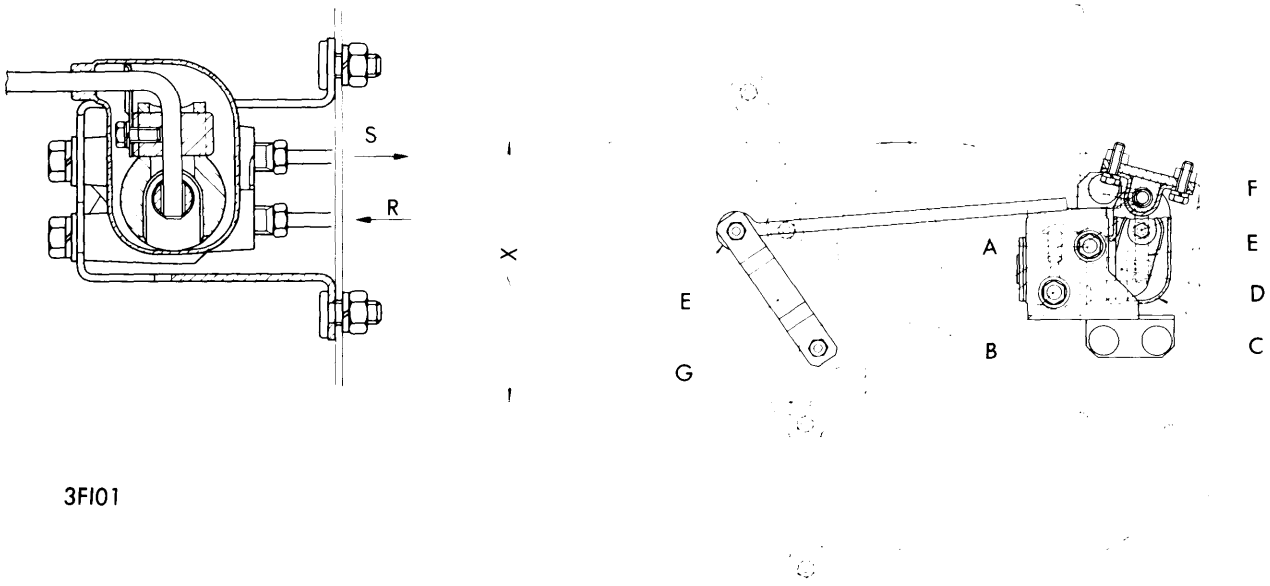
Attach a bleed tube to caliper bleeder screw, and immerse opposite end of tube into container partially filled with brake fluid. Open bleeder screw, press pedal down quickly, and allow to return slowly. Continue operation until air bubbles are no longer seen in discharged fluid. Tighten bleeder screw on a down stroke of pedal. Repeat procedure on remaining brake lines until all air is bled from system.

## REMOVAL & INSTALLATION

### BRAKE CALIPER

**Removal** — Plug master cylinder outlet port. Disconnect brake line from caliper. Remove cotter key and locking blocks. Remove caliper flat springs, friction pads and springs. *NOTE — On rear wheels handbrake cable must be disconnected.*

**Installation** — Fit friction pad locking spring and friction pads to caliper bracket. Fit flat spring and caliper to caliper bracket. Install locking blocks and cotter pins. Connect brake line to caliper. *NOTE — On rear wheels connect handbrake.*




3FI01

**BRAKE REGULATOR ADJUSTMENT**

## FIAT 124 & X1/9 (Cont.)

### DISC PADS

Disc pads may be inspected and/or replaced when caliper is removed. *NOTE — Inside and outside pads are different.* When installing pads to calipers, distance between inner surfaces must not be less than .413". *NOTE — Two kinds of disc pads are available, one has an orange stripe other a black one; do not mix colors.*

### BRAKE ROTOR

**Removal** — With caliper removed, remove caliper support bracket from support plate (front) or from axle housing (rear). Remove bolts attaching rotor to wheel hub, remove hub plate, then remove rotor using a drift.

**Installation** — Install rotor and hub plate to wheel hub, install attaching bolts, and tighten securely.

### MASTER CYLINDER

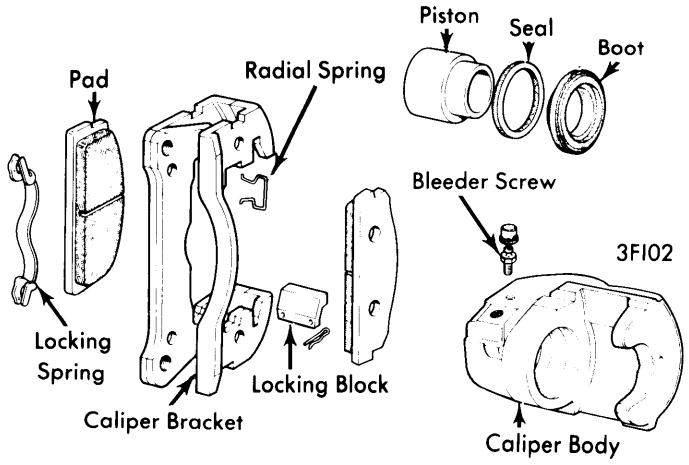
**Removal (Exc. X1/9)** — Remove reservoir cover and plug fluid outlet ports. Disconnect fluid supply lines from reservoir at cylinder, and disconnect pressure lines. Remove bolts attaching master cylinder to power unit and remove master cylinder.

**Installation (Exc. X1/9)** — Reverse removal procedure and bleed hydraulic system.

## OVERHAUL

### BRAKE CALIPER

**Disassembly** — With front caliper on bench, remove dust boot. Force compressed air into fluid inlet union to remove piston. Remove piston seal. On rear caliper, remove dust boot. Using a suitable tool (screwdriver), disconnect piston from handbrake lever. Remove cam lever pivot pin and lever. Lift out self-adjusting plunger, plunger seal, disc spring and spring thrust washer.



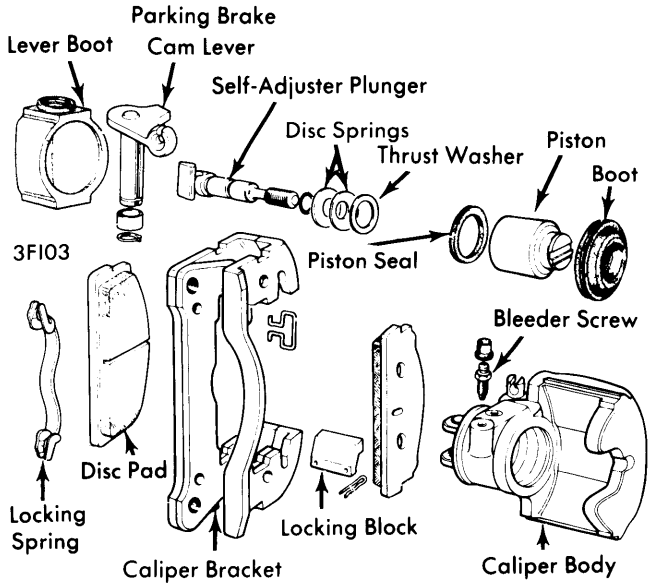

**FRONT CALIPER ASSEMBLY**

**Cleaning & Inspecting** — Clean all parts in suitable solvent, (Fiat LDC detergent). *NOTE — When piston is removed from caliper, piston seals must be replaced.*

**Reassembly** — On front caliper, fit piston seal in caliper. Insert piston to far end of cylinder bore. Position dust boot on caliper body. On rear caliper, fit self-adjusting plunger complete. Fit seal, disc spring and body. Install rubber boot on rear brake caliper body. *NOTE — Reference mark on rear brake caliper piston must be on side of bleed connector.*

### MASTER CYLINDER

**Disassembly** — Disconnect fluid inlet union from cylinder. Remove stop screw and end plug, and remove piston return springs, cups, seal rings, and spacers.




**REAR CALIPER ASSEMBLY**

**Cleaning & Inspection** — Clean all components in Fiat LDC fluid and check for wear or damage; replace parts as necessary. Small imperfections in cylinder bore may be removed by honing.

**Reassembly** — Coat all parts with rubber lube and reverse disassembly procedure. *NOTE — Manufacturer recommends replacing seal rings whenever master cylinder has been disassembled.*

### TIGHTENING SPECIFICATIONS

| Application | Ft. Lbs. (mkg) |
|---|---|
| Caliper Support Plate | |
| Front | 36 (5) |
| Rear | |
| Exc. X1/9 | 40 (5.5) |
| X1/9 | 36 (5) |
| Hydraulic Lines | |
| Front | 22 (3) |
| Rear | 14 (2) |
| Pressure Regulator | |
| Mounting (Exc. X1/9) | 14 (2) |
| Wheel Nuts | 51 (7) |

## FIAT 124 & X1/9 (Cont.)

| BRAKE SYSTEM SPECIFICATIONS | | | | |
|---|---|---|---|---|
| Application | Drum Diam. In. (mm) | Wheel Cylinder Diameter | | Master Cylinder |
| | | Front In. (mm) | Rear In. (mm) | Diameter In. (mm) |
| All Models | 8.94 (227) | 1.889 (48) | 1.339 (34) | .750 (19.05) |

| 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) |
| All Models | 8.94 (227) | .0059 (.15) | .... | .392-.400 (9.95-10.15) | .368 (9.4) | .354 (9) |