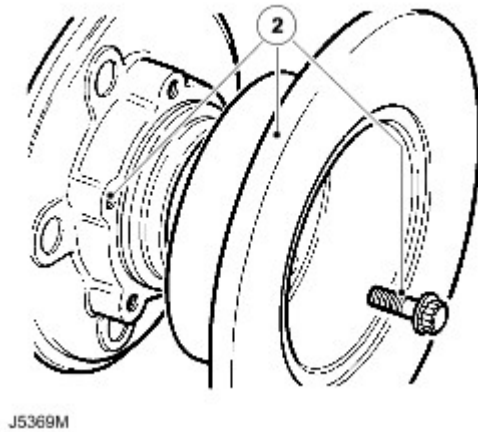


## Brake Disc (70.12.10)

### Removal

- 1 . Remove hub assembly.  
For additional information, refer to [Front Wheel Bearing and Wheel Hub \(60.25.14\)](#)
- 2 . Remove 5 hub to disc bolts.



- 3 . **NOTE:**  
On 110/130 vehicles ventilated discs are fitted as standard.  
  
Tap disc to separate from hub.

### Installation

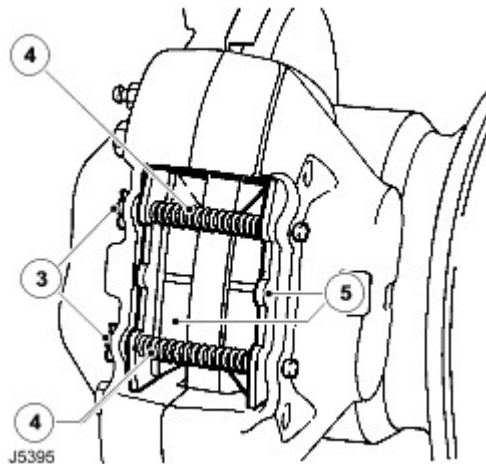
- 1 . Locate disc to hub.
- 2 . Apply Loctite 270 to disc bolts and tighten to 73 Nm (54 lbf.ft).
- 3 . Check total disc runout with a dial indicator, this must not exceed 0,15 mm, 0.006 in. If necessary reposition disc.
- 4 . Instal hub assembly.  
For additional information, refer to [Front Wheel Bearing and Wheel Hub \(60.25.14\)](#)
- 5 . Disc reclamation
- 6 . **NOTE:**  
The disc **MUST BE** renewed if the minimum running thickness stamped on the disc is recorded.

Check disc thickness. This dimension may be machined to minimum thickness of 12 mm (0.47 in.) - solid discs, 22 mm (0.90 in) - ventilated discs. Machine equal amount off each face.

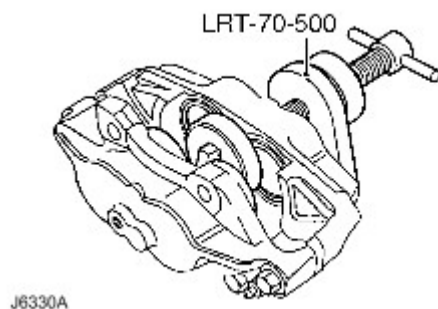
## Brake Pads (70.40.02)

### Removal

- 1 . Remove front road wheels.
- 2 . Clean exterior of calipers.
- 3 . Remove split pin from retaining pins.
- 4 . Remove pad retaining pins and anti-rattle springs.
- 5 . Remove brake pads.



- 6 . Clean exposed parts of pistons, using new brake fluid. Wipe away excess with a lint free cloth.
- 7 . Using piston clamp LRT-70-500 press each piston back into its bore. Ensure that displaced brake fluid does not overflow from reservoir.



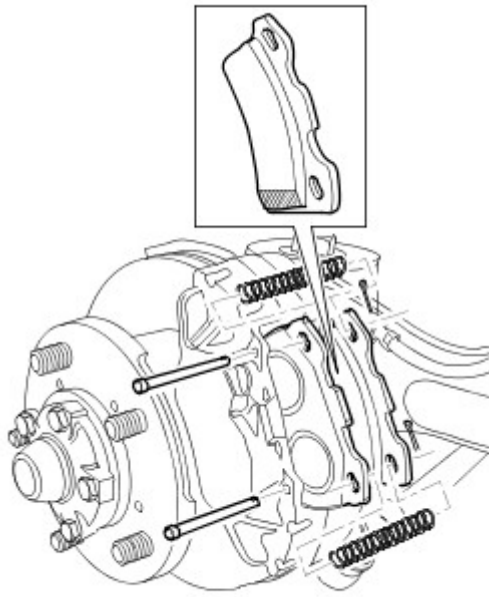
### Installation

- 1 . Instal brake pads.

#### NOTE:

Ensure pads are correctly fitted, with leading edge chamfer fitted as shown.

- 2 . Instal pad retaining pins and anti-rattle springs. Secure with new split pins.



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- 3 . Apply brake pedal several times to locate pads.
- 4 . Instal road wheels, remove chassis stands and jack. Tighten wheel nuts to 130 Nm (96 lbf.ft).
- 5 . Check fluid reservoir. Top up if necessary, using correct grade of fluid.

For additional information, refer to

## Brake Caliper (70.55.24)

### Removal

1 . Loosen front road wheel nuts.

2 .  **WARNING: Support on safety stands.**

Raise front of vehicle.

3 . Remove road wheel.

4 . Remove split pins from pad retaining pins.

5 . Remove brake pad retainers and springs.

6 . Remove brake pads and shim if fitted.

7 . Pull back brake hose shield.

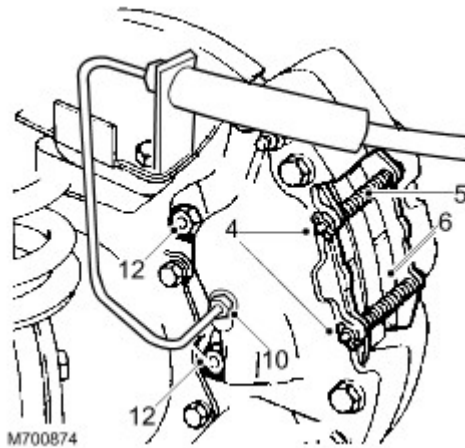
8 . Clamp brake hose using a suitable clamp.

9 . Position container beneath brake caliper to collect spillage.

10 . Loosen brake pipe union and disconnect from caliper.

11 . Plug brake pipe and caliper connections.

12 . Remove 2 bolts securing caliper.



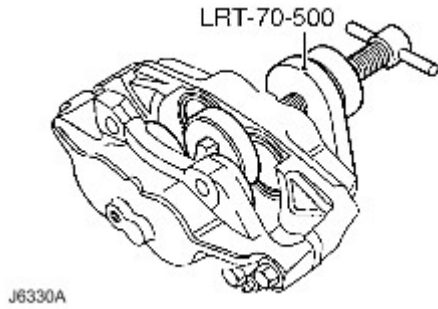
13 . Remove brake caliper.

 **WARNING: Do not separate caliper halves**

14 . Clean outer surfaces of caliper using aerosol brake cleaner.

15 . Using special tool LRT-70-500, clamp pistons in inboard half of caliper. Gently, keeping fingers clear, and with CAUTION , apply air pressure to fluid inlet port to expel pistons. It is unlikely that pistons will expel at

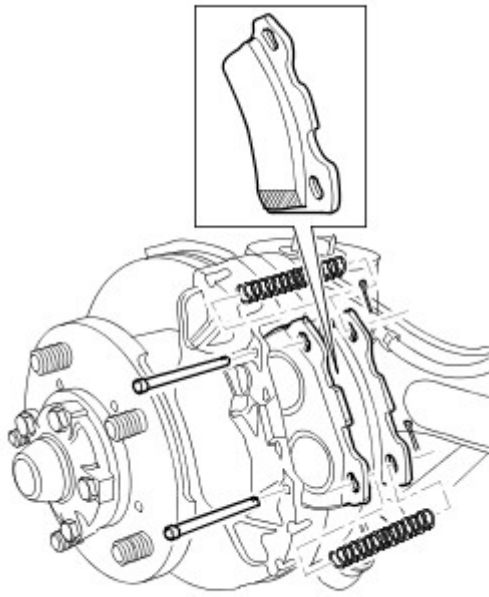
same time, regulate rate with a suitable piece of wood between appropriate piston and caliper.



- 16 . Finally remove pistons, identifying them with their respective bores.
- 17 . Remove wiper seal retainer by inserting a blunt screwdriver between retainer and seal. Pry retainer carefully from mouth of bore.
- 18 . Taking care not to damage seal grooves, extract wiper seal and fluid seal.
- 19 . Clean bores, pistons and seal grooves using clean brake fluid only. If caliper or pistons are corroded, or their condition is not perfect, new parts must be fitted.
- 20 . Coat new fluid seal with brake fluid. Ease seal into groove in bore using only fingers, ensuring it is properly seated. Fluid seal and groove are not same in section, so when seal is seated it feels raised to touch at edge furthest away from mouth of bore.
- 21 . Coat appropriate piston with brake fluid. Insert it squarely into bore by hand only. Do not tilt piston during insertion, leave approximately 8mm projecting from bore.
- 22 . Coat new wiper seal with brake fluid and fit to new seal retainer. Slide assembly, seal first, over protruding piston and into bore recess. Use piston clamp to press home seal retainer and piston.
- 23 . Clamp outboard pistons and carry out same procedure for removing and fitting outboard pistons and seals.

## Installation

- 1 . Clean caliper to hub mating faces.
- 2 . Position caliper to hub, install bolts and tighten to 82 Nm (60 lbf.ft).
- 3 . Remove plugs from pipe to caliper connections and wipe.
- 4 . Connect pipe to caliper, tighten union to 15 Nm (11 lbf.ft).
- 5 . Apply a light film of grease to rear of brake pads.
- 6 . Install pads to calipers. From 02MY, ensure pads are correctly fitted, with leading edge chamfer fitted as shown.



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- 7 . Install pad retainers and springs.
- 8 . Install split pins to retainers.
- 9 . Remove brake hose clamp.
- 10 . Bleed brakes.  
For additional information, refer to [Brake System Bleeding \(70.25.02\)](#)
- 11 . Depress brake pedal to seat pads onto discs.
- 12 . Install road wheels, remove axle stands and tighten nuts to 130 Nm (96 lbf.ft).