

## BLEEDING : HYDRAULIC CLUTCH CONTROL

**URGENT** : Observe the safety and cleanliness recommendations ⓘ .

**CAUTION** : Use only clean fluid free from bubbles. Take care not to allow impurities to get into the hydraulic circuit.

There is more than one bleed system :

- Double-clip bleed system
- Screw bleed system

### 1. Preliminary operation

Put the vehicle on a hoist.

Remove components as necessary for bleeding the hydraulic clutch control.

**N.B.** : Use exclusively the hydraulic fluid(s) approved by the manufacturer.

**URGENT** : During the bleed operations, take care to maintain the level of brake fluid in the reservoir by topping it up (If necessary).

Before any operations :

- Mark the level of brake fluid in the reservoir
- Remove the brake fluid reservoir cap
- Fill the brake fluid reservoir to its maximum capacity

### 2. Bleeding : Hydraulic clutch control (Double-clip bleed system)

**CAUTION** : When coupling and uncoupling, maintain the hydraulic pipe in its axis and do not lever it, so as to prevent any rupture.

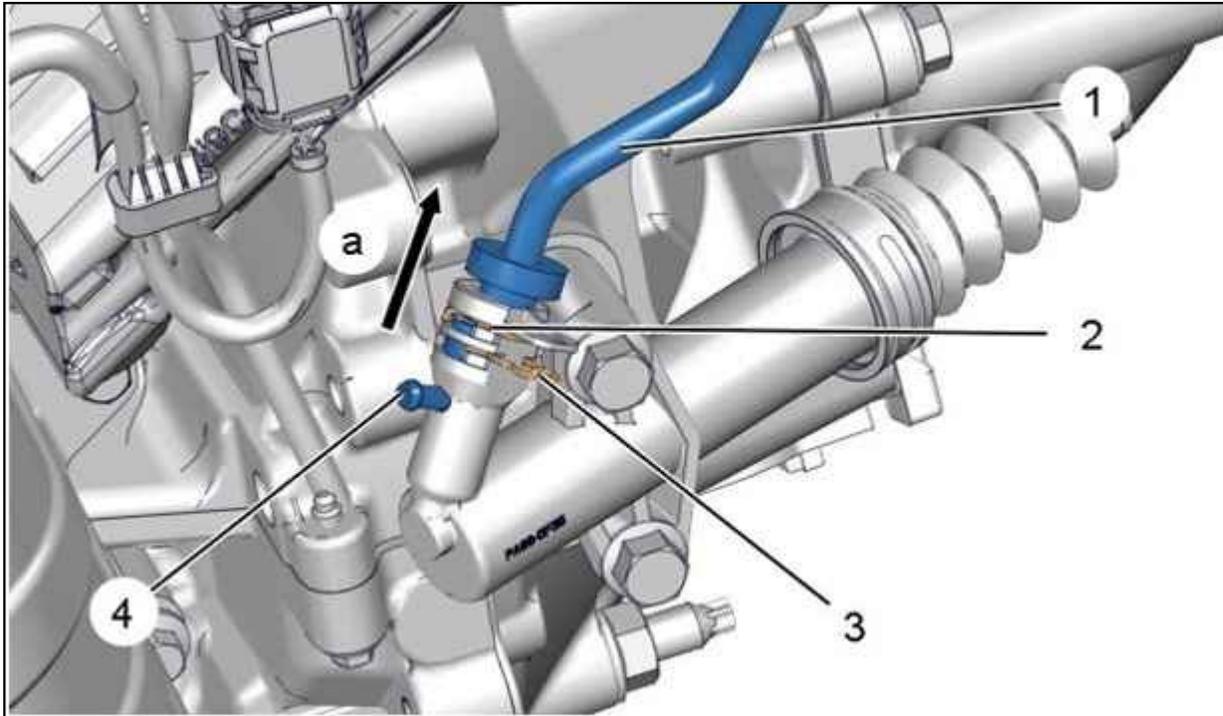


Figure : B2BG007D

Remove the protection cap from the bleed orifice (4).  
 Store the protection cap in a clean place.  
 Couple a transparent pipe onto the bleed orifice (4).

**CAUTION :** The end of the transparent pipe must be submerged into the brake fluid.

Clamp the clip (2).

**CAUTION :** The clip (2) must always remain clipped in position on the hydraulic clutch slave cylinder during the bleed.

Unclip the clip (3).  
 Pull on the hydraulic pipe (1) to free the bleed orifice (4) (Following the arrow "a").  
 Allow the brake fluid to flow out by gravity until there are no air bubbles.  
 Clamp the clip (3).  
 Push in the hydraulic pipe (1) to close the bleed orifice (4) (In the opposite direction to the arrow).  
 Fill the brake fluid reservoir to its maximum capacity.

**N.B. :** Two people are required to perform the following operation.

Unclip the clip (3).  
 Pull on the hydraulic pipe (1) to free the bleed orifice (4) (In the opposite direction to the arrow "a").  
 Press the clutch pedal slowly down to the floor.  
 Clamp the clip (3).  
 Push in the hydraulic pipe (1) to close the bleed orifice (4) (In the opposite direction to the arrow "a").  
 Unclip the clip (2).

**N.B. :** Manually refit the clutch pedal in its high position.

Repeat the operation until the fluid running out is clean and free from air bubbles (20 times minimum).  
 Top up the brake fluid to the level marked previously.  
 Refit the brake fluid reservoir cap .

Uncouple the transparent pipe.

Refit the protection cap on the bleed aperture (4).

Check the travel of the hydraulic clutch control slave cylinder (see corresponding chapter).

**CAUTION :** Check that the bleed opening (4) is correctly closed by operating the clutch pedal several times. Check there are no leaks or seeping (risk of vehicle fire in the event of a leak).

### 3. Bleeding : Hydraulic clutch control (Screw bleed system)

#### 3.1. Quarter turn system

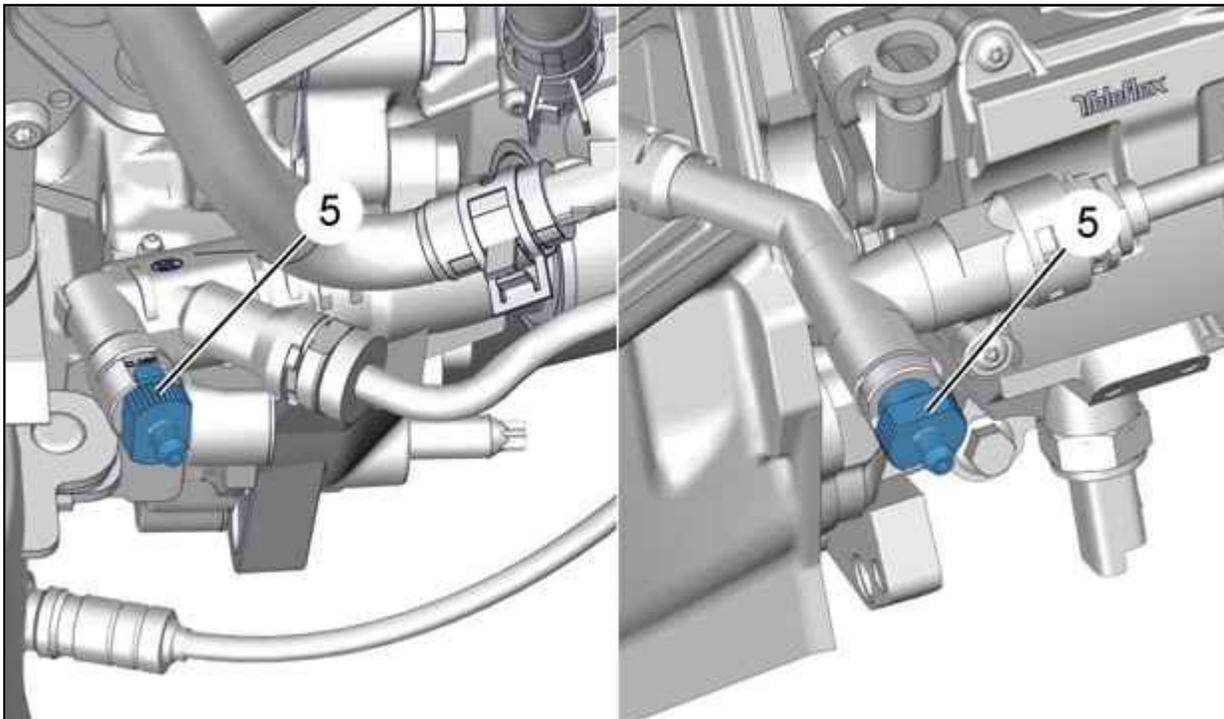


Figure : B2BI006D

Remove : The protection cap on the bleed screw (5).

Store the protection cap in a clean place.

Couple a transparent tube on the bleed screw (5).

**CAUTION :** The end of the transparent pipe must be submerged into the brake fluid.

**N.B. :** Two people are required to perform the following operation.

Retain the clutch pedal in the lowest position (end of travel).

Open the bleed screw (5) :

- A half-turn anti-clockwise for a hydraulic clutch control slave cylinder
- A half-turn anti-clockwise for a bleed union

Allow the brake fluid to flow out by gravity.

Close the bleed screw (5) :

- A half-turn clockwise for a hydraulic clutch control slave cylinder
- A half-turn clockwise for a bleed union

**N.B. :** Manually refit the clutch pedal in its high position.

Repeat the operation until the fluid running out is clean and free from air bubbles (20 times minimum).

Top up the brake fluid to the level marked previously.

Refit the brake fluid reservoir cap .

Disconnect the transparent pipe from the bleed screw (5).

Fit : The protection cap on the bleed screw (5).

Check the travel of the hydraulic clutch control slave cylinder (See paragraph 4).

**CAUTION :** Check there are no leaks or seeping (risk of vehicle fire in the event of a leak).

### 3.2. 6-sided screw system

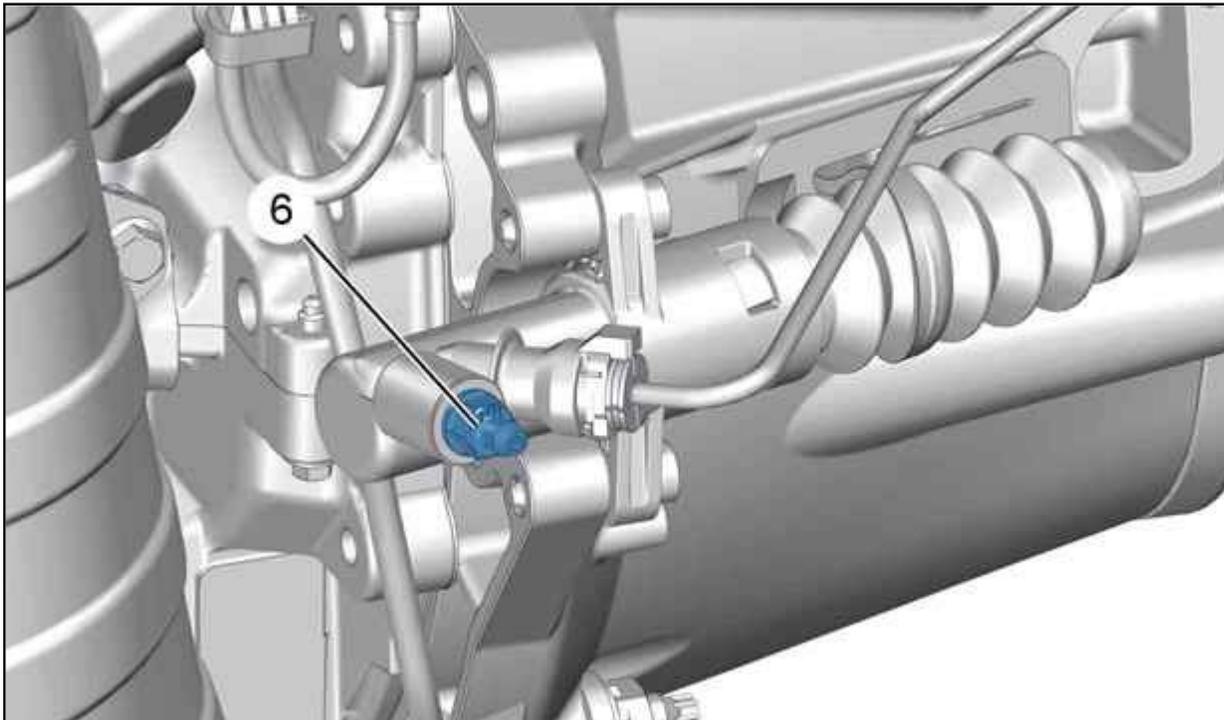


Figure : B2BI007D

Remove : The protection cap on the bleed screw (6).

Store the protection cap in a clean place.

Couple a transparent tube on the bleed screw (6).

**CAUTION :** The end of the transparent pipe must be submerged into the brake fluid.

**N.B. :** Two people are required to perform the following operation.

Retain the clutch pedal in the lowest position (end of travel).

Turn the bleed screw (6) (Anti-clockwise).

Allow the brake fluid to flow out by gravity.

Close the bleed screw (6) (Clockwise).

**N.B. :** Manually refit the clutch pedal in its high position.

Repeat the operation until the fluid running out is clean and free from air bubbles (20 times minimum).

Top up the brake fluid to the level marked previously.

Refit the brake fluid reservoir cap .  
Uncouple the transparent pipe.  
Refit the protection cap on the bleed screw (6).  
Check the travel of the hydraulic clutch control slave cylinder (See paragraph 4).

**CAUTION** : Check there are no leaks or seeping (risk of vehicle fire in the event of a leak).

#### 4. Checking : Travel of the hydraulic clutch control slave cylinder

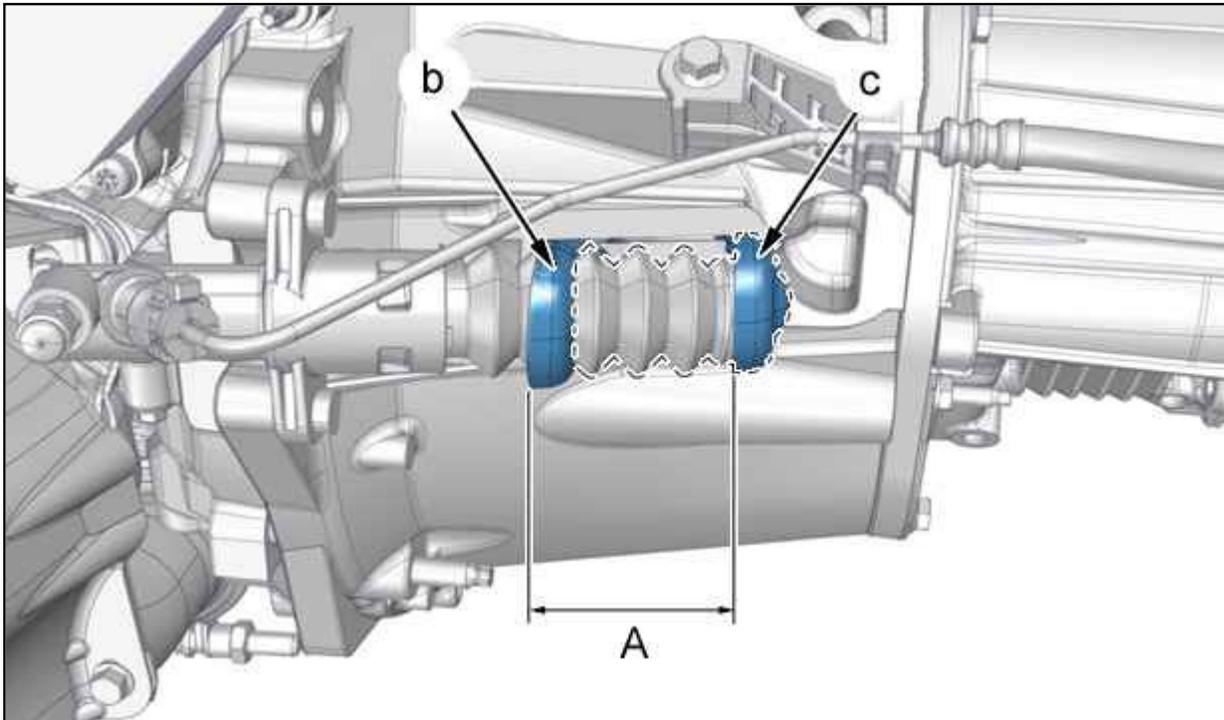


Figure : B2CI008D

Measure the travel "A", from the clutched position "b" to the declutched position "c".  
The travel "A" should be between 18 and 22 mm.  
If the value is incorrect : Repeat the bleed operations.