28-303 Testing front axle drive train (AV) and center differential lock (ZS) pistons for leaks

Preceding work: Center differential lock (ZS) piston removed (28-300, section B). Front axle drive train (AV) pistons removed (28-300, section D). Transfer case detached (28-300. section E).



Note

The leakage test of the front axle drive train (AV) piston is shown in the illustration. The leakage test for the center differential lock (ZS) piston is carried out in the same way.

Leakage test of front axle drive train (AV) piston

Stop screws (018a) 124 589 02 14 02	Screw into the assembly fixture (018) 124 589 02 14 01.
Leak tester 124 589 13 21 00	Connect to front axle drive train (AV) connection.
Reservoir (C)	Fill approx. one-third full with hydraulic oil.
Valve "A"	Close. Open valve "D".
Vent valves of front axle drive train and center differential lock	Open or close, operate hand pump until hydraulic oil escapes without any bubbles.

Using hand pump (F) 4 times	Build up a pressure of 32 bar. To reduce pressure open and close valve "A". Build up a pressure of 32 bar again, close valve "D" and note pressure drop.
	Note
	The pressure of 32 bar should fall by a maximum
	of 3 bar within 60 s.
In accordance with test procedure	Open valve "A", wait until the pointer is in position

Open valve "A", wait until the pointer is in position 0. Disconnect tester.

Special tools



Note

The leakage of the center differential lock (ZS) and front axle drive train (AV) piston must be checked immediately after installing the pistons.

If the pressure drop is more than 3 bar within 60 s, the sealing lips on the piston tested must be replaced.

If the sealing lips on the piston of the multi-disk clutches are defective, hydraulic oil can collect in the transfer case.

This can be recognized for example by the continuous lowering of the hydraulic oil in the reservoir in the front left of the components compartment, without external leakage being evident or if oil is expelled from the breather on the adapter housing.