

Brake system diagnostics and repair procedure

1. Introduction

The braking system is a key component for safety

Vehicle. The following procedure specifies the diagnostic and repair steps for the system in accordance with the manufacturer's standards.

2. List of required tools

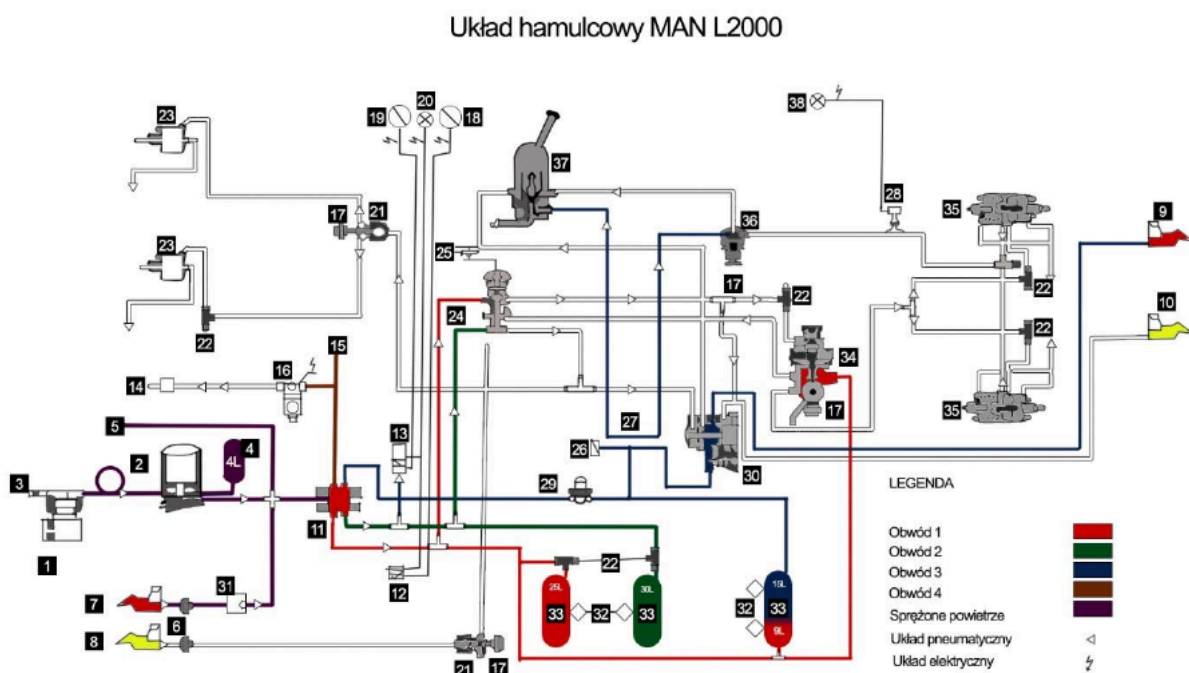
- o Torque wrench
- o Disc and pad thickness measurement sensor
- o Brake fluid pressure tester
- o Diagnostic PC with OEM software
- o Hydraulic Jack

3. Diagnostic procedure

a) Visual inspection – checking the condition of brake pads, discs and brake lines for wear and leakage.

(b) Measurement of pad and disc thickness – use of a measuring sensor to determine the degree of wear. c) System pressure test – connection of the pressure tester to the brake hoses and comparing the values with the manufacturer's recommendations. d)

Computer diagnostics – connecting a diagnostic computer in order to reading possible errors related to ABS/ESP.



4. Repair procedure

a) Replacement of brake pads and discs – if the thickness of the elements is below standards shall be replaced with new ones in accordance with the manufacturer's procedure. b) Bleeding system – removing air from the brake system in order to ensure proper operation. c) Brake fluid check – checking the level and changing the fluid according to the schedule inspections. d) System calibration – adaptation of ABS and ESP sensors after replacing components.

5. Final test

After completing the work, perform a braking test on the test bench and a road test to verify the correct operation of the system.

6. Component thickness standards The following table shows the minimum Permissible values of the thickness of key elements of the braking system:

Component	Minimum Thickness (mm)	Maximum thickness Consumption (mm)	Recommended replacement (mileage km)
Brake pads Front	2	10	30 000 - 50 000
Brake pads Rear	2	8	40 000 - 60 000
Brakes Front	20	28	60 000 - 80 000
Brakes Rear	20	26	80 000 - 100 000
Cables Brake	No damage	-	Every 5 years
Brake fluid	-	-	Every 2 years

7. Summary

Each repair should be documented in the service system, and the vehicle released for use only after successfully passing diagnostic tests.

