



HGV BRAKE CONTROL VALVE

Réf : ANA-REF



This teaching kit covers a complete overview of an EBS-type HGV brake control valve (pneumatic brake). It is particularly well suited to teaching functional and structural analysis, mechanical and technological aspects and to practical exercises. It is widely used in BAC and BTS courses (French National Education).

Presentation :

The kit comprises:

A console including:

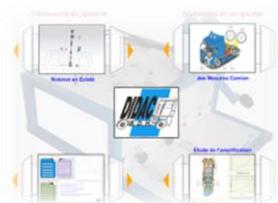
- An HGV type valve with an EBS type brake pedal.
- Two internal brake receivers.
- Screen prints that illustrate the situation on a diagram of real components.
- Brake lights.
- Devices used to adjust the play of the brakes.
- Devices to produce faults (in the pressure source and the brake receivers).

A discreet and totally integrated measurement system comprising:

- Sensors (effort, pressures, travel).
- An acquisition PCB inside the console and connected to a PC by a USB cable.

Teaching software, with:

- A section to discover the system (2D and 3D)
- A section used to **animate** the 2D images of the mechanism on the screen **in real time**.
- A section used to take measurements during the various operating phases.
- A replay function of the measurements that animates each of the studied parts (front and rear stages).



Teaching activities:

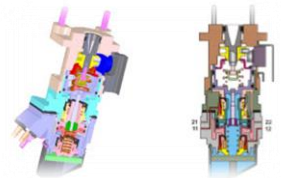
After completing these activities, trainees will be able to:

- Locate the components on the vehicle.
- Locate and identify the various components of a pneumatic brake valve.
- Analyze the workings of the valve and demonstrate the relation between the travel, effort and pressure.
- Analyze the pressure regulation of each valve.
- Analyze the malfunctions (lack of pressure, leaks on one of the stages).



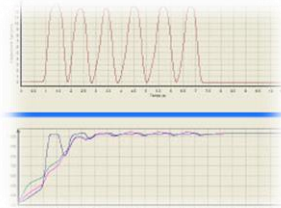
The real components associated with the measurements and high-quality animations (quality of the images and technological quality) allow the console to be used to good effect.

Analysis of a brake valve using 3D images and real-time 2D animations while actuating the brake pedal.



Acquisition and use of the graphs to fine tune the study of the valve by, for example, studying the pressure regulation (increase, stabilization and decrease of the pressure).

Graph of the input/output law of the valve in normal and fault modes.



General characteristics

Energy (V) and (bar):

Electric, 220
50Hz single-phase
pneumatic 7

Dimensions (mm) :

Length= 600
Width= 700
Height= 600

Weight (Kg) :

30

Software and documentation supplied on USB key

Options :

- Protective bag

CAP

BAC PRO

BTS

SUP

POIDS LOURDS - AGRICOLE