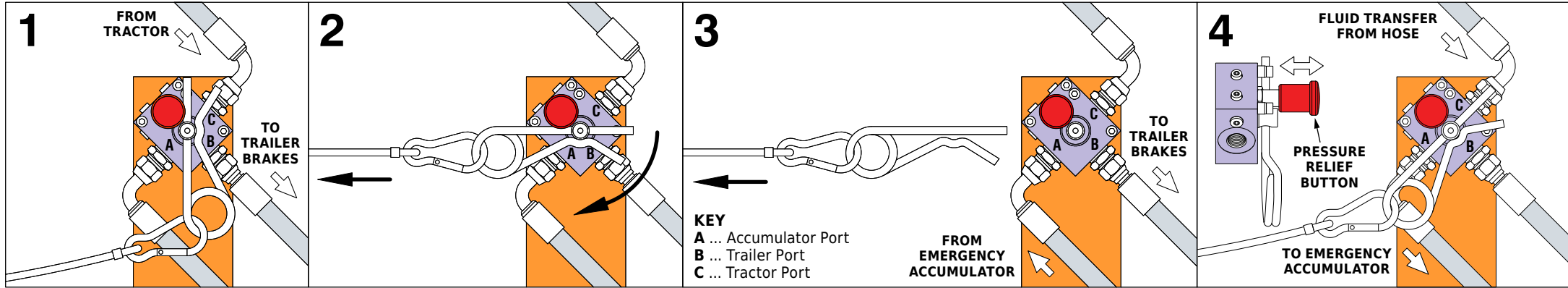


EMERGENCY TRAILER BRAKING SYSTEM

INSTANTLY APPLIES THE TRAILER'S HYDRAULIC BRAKES IF TRAILER BREAKAWAY OCCURS

Part No.
ETK 001



NORMAL OPERATING POSITION

With the spindle and clip in this position, tractor port C is connected to trailer port B. Accumulator port A is closed. Normal braking control from tractor.

IF THE TRAILER BREAKS AWAY...

The tractor pulls the cable and clip which then rotates the valve spindle on the brake valve into the emergency position. This closes the tractor inlet port C on the valve...

...and connects the accumulator port A to trailer port B, allowing pressurised hydraulic fluid from the accumulator to apply the trailer brakes. Further cable tension withdraws the clip.

RELIEVING RESIDUAL PRESSURE

Rotate the valve spindle to intermediate position as shown. This connects port C to port A. Then pump the pressure-relief button several times to transfer fluid from the trailer hose back to the accumulator.

THE ETK 001 EMERGENCY BRAKING SYSTEM is

designed to apply a trailer's hydraulic brakes instantly if the normal braking connection between a tractor and trailer is lost for any reason, for instance during a breakaway. It will fit any drawbar trailer with hydraulic brakes.

An Emergency Accumulator, containing pressurised hydraulic fluid, and an Emergency Brake Valve, are both fitted to the trailer. If a breakaway occurs, pressurised fluid in the emergency accumulator is used to apply the trailer's hydraulic brakes instantly.

The emergency brake valve is fitted to the trailer's drawbar and is operated by a steel cable connected to the back of the tractor. This cable is normally slack, but if the tractor and trailer separate, the sudden tension in the cable rotates the valve spindle to its emergency position and applies the trailer brakes.

The emergency brake valve has three ports, connecting the tractor supply, the trailer brakes and the emergency accumulator, and the valve distributes the hydraulic fluid in different ways depending on the position of the valve spindle.

Under normal circumstances the emergency brake valve allows hydraulic fluid to flow directly from the tractor supply to the trailer brakes (see fig. 1).

In an emergency however, the valve spindle is rotated to its "emergency" position by the tension in the cable. (See fig. 2) This action cuts off the fluid supply from the tractor and connects the trailer braking system to the pressurised supply in the accumulator. This applies the trailer brakes. The cable is connected to the valve spindle by means of a special clip which has two functions. Firstly, it acts as a lever to rotate the spindle to its emergency position when pulled by the cable under tension. Secondly, it acts as a quick-release mechanism. Since the cable is still connected to the tractor at its other end it must now be released from the valve to prevent damage, and the design of the clip allows it to be pulled clear as the tractor and trailer separate (see fig. 3).

When the tractor and trailer are re-coupled and the emergency brake valve reset to its normal running position (see fig. 1), the accumulator will be re-charged after the tractor's engine is started and the brakes have been applied a few times.

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RELIEVING THE RESIDUAL PRESSURE IN THE TRAILER BRAKE HOSE

In normal service, a build-up of pressure may be apparent in the trailer's brake hose when attempting to recouple to the tractor after the trailer has been disconnected for some time. The high pressure in the emergency accumulator can cause seepage of fluid through the emergency brake valve and into the trailer brake hose, via port C. Manufacturing tolerances are such that it is impossible to prevent this happening. After some time, this residual pressure can make recoupling more difficult, and it is advisable to relieve this pressure before attempting to couple up to the tractor again, especially if the trailer has been standing for more than a few days.

To relieve the residual pressure in the hose, rotate the valve spindle to the intermediate position (see fig. 4) and then pump the pressure-relief button several times. This will transfer fluid from the hose back into the accumulator through a non-return valve, lowering the residual pressure in the hose and allowing it to be recoupled to the tractor more easily.

Note:

This is an emergency braking device only, and must not be used as a parking brake.