

Operating instructions for the HESTAL-LiftMaster 770
 (Version from April 2006)

Contents	Page
General.....	1
Technical description.....	1
Regulations.....	2
Important instructions.....	2
Lifting and lowering the vehicle roof.....	2
Adjusting the lift arrest (only 6.810.069.00 or 6.810.078.00).....	3
Maintenance.....	3
Operating instructions.....	4

General (intended use)

The HESTAL-LiftMaster 770 is a mechanical device for lifting and lowering the roof of commercial vehicles to make the full volume of the cargo area useable and to facilitate the loading or unloading process. The HESTAL-LiftMaster 770 is available with lift arrest (6.810.069/078.00) for drive mode with different roof positions, or with permanent lowering activation (6.810.068.00) for smaller bodies with a light roof.

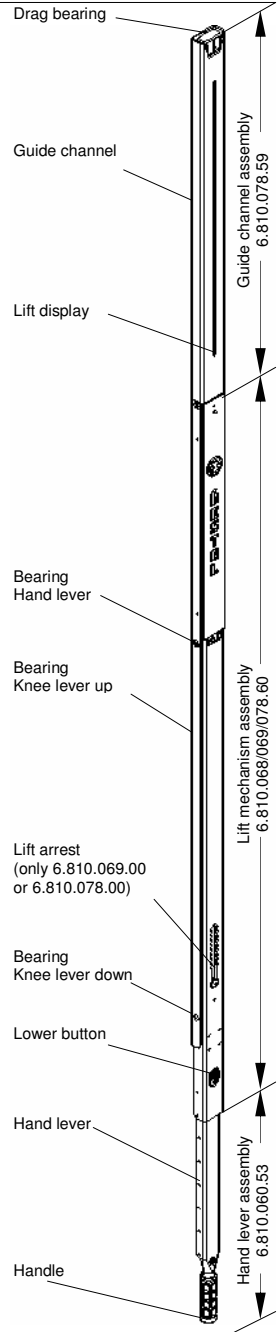
Technical description

The HESTAL-LiftMaster 770 is used to variably lift the roof of a commercial vehicle 400 to 500 mm on each corner via a knee-lever mechanism. Drive is executed through hand power via a swing-out hand lever in multiple single strokes with up to 50 mm of roof lift per single stroke.

In this process the raised roof is secured in each lift position by a blocking element. In addition, in the version with lift arrest (6.810.069/078.00) drive mode is permitted with a vehicle roof that has been raised up to 120 mm. **However maximum permissible total vehicle height of 4 m should not be exceeded in this process. (see StVZO §32 Section 2)**

The roof is lowered via a lowering button, and the lowering speed can be metered with the activation force. Depending on the version activation of the lowering process can be either temporarily (6.810.069/078.00) executed, or permanently executed (6.810.068.00).

In drive mode the completely lowered roof rests flush on the guide channel of the HESTAL-LiftMaster 770 thus the knee-lever mechanism is offloaded. In addition the hand lever is secured against unintentional swing-out by a spring element.



Regulations

The following regulations and directives must be complied with:


- Liability Insurance Association (BG) regulation "General Regulations" (BGV A1)
- BG regulation "Vehicles" (BGV D 29)
- BG principles "The testing of vehicles by drivers" (BGG 915)
- BG rules "Vehicle repair and maintenance" (BGR 157)
- Operating instructions for the HESTAL-*LiftMaster 770*
- StVO, StVZO

Important instructions

 **If there are changes to the HESTAL-*LiftMaster 770* or deviations from the operating instructions any type of liability claim is rendered null and void!**

Trouble-free function of the HESTAL-*LiftMaster 770* is ensured if the operating instructions are complied with.

For reasons of operational safety, road safety, as well as operational health and safety, you must not combine any components other than the HESTAL components shown here.


 **Drive mode with raised roof is only permissible with version 6.810.069/078.00 or 6.810.069/078.60 (lift mechanism assembly), and only with a maximum lift of 120 mm, with temporary lowering activation and bracing via the arrest saddle!**

Lifting and lowering the vehicle roof


Lifting: Grasp the handle on the hand lever (see page 1) and pull the lever out of the securing mechanism against the spring pressure. As soon as the hand lever is completely swung out of the securing mechanism you can start lifting the roof.

Pull the hand lever towards you, the vehicle roof will lift. A single stroke is a max of 50 mm, however the stroke can be interrupted at anytime! Then swing back the hand lever and again pull it toward you. This process can be repeated until the desired roof position or the maximum roof lift of approximately 400 to 500mm is reached (see the lift the display).

After reaching the maximum roof lift the mechanism is protected against overload by a free-wheel mechanism, i.e. additional hand lever swing movements do not lift the vehicle roof any further.

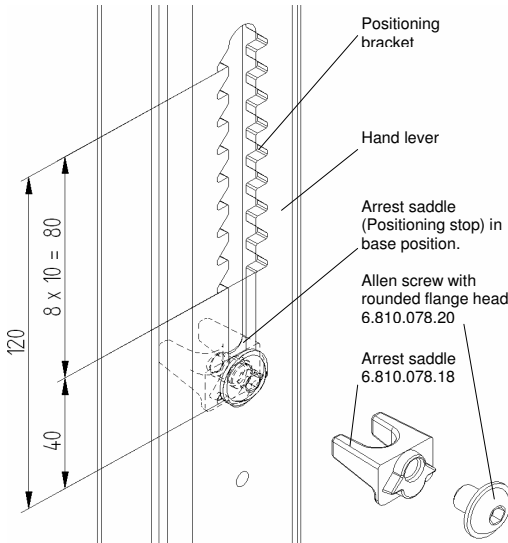
 **After the lift process is concluded the hand lever must be swung back and locked into the secured end position!**

Lowering: Press the lowering button (see page 1); the vehicle roof will lower. The lowering speed can be metered with the lowering button, i.e. the further the lowering button is pressed in, the faster the roof will be lowered. The lowering process can be interrupted at any time by releasing the lowering button.

 **If the lift mechanism is equipped with permanent lowering (6.810.068.60), the lowering process can only be stopped after the lowering button is engaged, by opening the hand lever!**

Adjusting the lift arrest (only HESTAL-LiftMaster 770 - 6.810.069.00 or 6.810.078.00)

Use the lift arrest to pre-select the lowered position of the vehicle and thus enlarge the clear interior height of the cargo area by 40mm to a max 120mm (10mm grid). A wrench (SW5) is required for the adjustment. Adjustment of the arrest saddle (positioning stop) should be executed as described below:



1. Open the hand lever and lift the vehicle roof by a min of 150 mm.
2. Loosen the Allen screw with rounded flange head with the opened hand lever with the wrench (SW 5) and unscrew it 4 - 5 mm.
3. Pull the arrest saddle out of the positioning bracket to the inside (screw flange is again on the surface).
4. Slide the arrest saddle into the desired position within the bracket and from inside press it into the positioning bracket of the hand lever.
5. Hand tighten the Allen screw with rounded flange head.
6. Swing back the hand lever and close until it engages.
7. Press the lower button and lower the vehicle roof to the stop on the arrest saddle.
8. Tighten the Allen screw with rounded flange head with a socket wrench.

⚠ ATTENTION! Do not exceed the maximum permissible total vehicle height of 4 m. (see StVZO §32 Section 2)

Maintenance

The HESTAL-LiftMaster 770 must be serviced periodically depending on use and time, however it must be serviced at least once a year (lubrication and possible replacement of wear parts). Only original HESTAL parts should be used for this. See also BG regulation "Vehicles" BGV D 29 §§ 56 and 57 as well as BG rules "Vehicle maintenance" BGR 157.

For the normal scope of maintenance it suffices to lubricate the bearing points of the hand lever, the lowering activation, and the knee lever (see page 1) with a few drops of off-the-shelf lubricating oil.

If this product should fail, in spite of careful manufacturing and inspection processes, only have the repair executed by the body manufacturer, or by a specialized company authorized by the body manufacturer and trained specialists!

Note: If the vehicle roof can no longer be raised, or if the vehicle roof does not stay in the lifted position, the lift mechanism assembly 6.810.068/069/078.60 is defective. This wear part must always be completely replaced! Replacement of this assembly is described on page 5 of the installation manual for the HESTAL-LiftMaster 770 (Have the replacement executed only by the body manufacturer or an authorized specialized company).

⚠ Defective or worn components must be replaced immediately with original HESTAL parts!



Operating instructions

Only instructed personnel should operate the HESTAL-LiftMaster 770! (See BG regulation "Vehicles" BGV D29 §34)

When working in moving traffic, wear a suitable warning vest.

Rear doors and front doors must be open!

The tarp latches must be open!

The side tarps should only be pushed together after lifting, and the side tarps should be spread out before lowering!

Center stanchions with telescope should be locked into the intended fastening points on the vehicle frame, center stanchions without telescope must be unlocked (opened) before lifting the roof!

Supplemental loads such as snow, ice, etc. must be removed prior to operation due to the danger of slipping.

A free area of at least 0.5 m must be available above the vehicle body!

When activating the HESTAL-LiftMaster 770, and when the vehicle roof is raised, the cargo area and the opposite side of the vehicle are danger zones! Ensure that no one is positioned in these areas! (See BG regulation "Vehicles" BGV D29 §38)

The hand lever must be closed after concluding the lift process! The lower button should not be activated during the lift process and must be completely visible!

Attention: Do not operate the lowering button whilst the hand lever is in the open position!

Lower the vehicle roof immediately after a load or unload process!

Do not operate the HESTAL-LiftMaster 770 with defective or changed components!

Do not use external auxiliary materials (fork lift, crane, etc.) to lift the vehicle roof!

Do not lift external loads using the HESTAL-LiftMaster 770!

Cargo height should not exceed the clear interior height of the cargo area, if this is not the case the roof cannot be completely lowered!

Before starting each trip ensure that...

- ✓ the vehicle roof is completely lowered and is flush (see lift display)!
- ✓ the hand levers are completely closed and locked in place!
- ✓ the center stanchions are locked in the intended fastening points!
- ✓ the tarp latches are properly locked!

Drive mode with raised roof is only permissible with version 6.810.069/078.00 or 6.810.069/078.60 (lift mechanism assembly), and only with a maximum lift of 120 mm, with temporary lowering activation and bracing via the arrest saddle! Do not exceed the maximum permissible total vehicle height of 4 m! (see StVZO §32 Section 2)