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HESTAL LiftMaster 09/2018



HESTAL LIFTMASTER

ROOF HEIGHT ADJUSTMENT SYSTEMS

HESTAL – THE BRAND OF F. HESTERBERG & SÖHNE GMBH & CO. KG

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Scope of application

Hesterberg provides the commercial vehicle industry with numerous roof height adjustment systems under the name HESTAL *LiftMaster*. These are mainly used in curtainsider vehicles (trucks, trailers and swap bodies).

The *LiftMaster* is basically used for two reasons:

- › Firstly, to lift the vehicle roof for loading and unloading operations and to lower it afterwards. By this the entire cargo space can be used right up to the roof, because the required loading height is ensured by the lifted roof.
- › Secondly, to adjust the height of the vehicle roof to the required loading volume. On the one hand, the roof can be lifted and pegged for more space during transportation (under consideration of the total permitted vehicle height) or, on the other hand, lowered completely for efficient fuel consumption.



Advantages

- › Optimal use of cargo space due to maximum loading
- › Permanent height pegging allows to drive with a lifted or lowered roof (under consideration of the total permitted vehicle height)
- › Suitable for roof weights (including pillars, tarpaulin, etc.) up to 1,600kg
- › Possible to lift the roof up to 580mm
- › Easy operation
- › Compact installation dimensions
- › High degree of corrosion protection due to KTL coating or galvanisation
- › Extensive product range for a large number of applications
- › Use of identical roof connection and hole patterns (guiding channel) for easy exchange of the different *LiftMaster* types

Product types

The HESTAL *LiftMaster* range consists of four different types which are interchangeable due to a modular design.

The following table gives an overview of the essential characteristics of these *LiftMaster* types to provide guidance for choosing an appropriate system.

<i>LiftMaster</i> type	750N	770N	771N	855N
Figure				
Principle	mechanism		hydraulics	
Drive type	knee lever single lift mechanism	knee lever push rod	compact hydraulics	hydropneumatics
Operation	manual	manual	manual	automatic
Roof weight [kg]	0 – 800	400 – 1,000	200 – 1,200	300 – 1,600
Roof lift [mm]	defined 300	variable up to max. 500	variable up to max. 550	variable up to max. 580
Max. pegging heights [mm]	50/100 (defined)	120/170 (in steps of 10) 300 (in steps of 50)	250 (in steps of 50)	450 (custom)
Min. installation length [mm]	2,747	2,451	2,477	1,641
Special features	for lighter roofs, very quick and simple, robust mechanics	broad range of applica- tions, quick and convenient, proven system	for heavy roofs, many pegging options, reliable hydraulics	for very frequent lifting of very heavy roofs, very convenient solution

HESTAL LiftMaster 750N

The *LiftMaster 750N* is driven by a knee lever single lift mechanism which is supported by a gas spring. The integrated fall brake prevents the hand lever from being shifted suddenly especially in case of an accident. This ensures a high level of safety for the user.

The *LiftMaster 750N* is especially suited to vehicles with light roofs, because in addition to the complete lifting of the vehicle roof with just one stroke, the roof can also be actively pulled downwards and thus securely locked. This type is also popularly used for intercompany transportation with many loading and

unloading operations because the roof can be opened and closed very easy.

The *LiftMaster 750N* offers a defined roof height of 300mm and enables permanent pegging at heights of 50 or 100mm so that driving with a lifted or lowered roof (under consumption of the total permitted vehicle height) is possible. Different gas springs are available for roof weights (including pillars, tarpaulin, etc.) up to 800kg. Upon request, the *LiftMaster 750N* can be fitted very easily with a customer logo on the hand lever.

Advantages

- › Suitable for roof weights (including pillars, tarpaulin, etc.) up to 800kg (different gas springs necessary)
- › Defined lifting of the roof by 300mm
- › Roof pegging to 50 or 100mm height possible
- › Very quick and easy opening and closing of the roof
- › Robust, compact and very secure design
- › Durable due to galvanised surfaces
- › Simple attaching of customer logos onto the hand lever
- › Certified by the German Social Accident Insurance (DGUV -Deutsche Gesetzliche Unfallversicherung)



Standard product versions

<i>LiftMaster 750N</i>	Hesterberg article number	BPW article number	
Basic module (without gas spring)	6.810.202.00	92.0000.7542	
Roof weight (including pillars, tarpaulin, etc.) [kg]	Nominal gas spring force [N]	Gas spring Hesterberg article number	Gas spring BPW article number
Up to 330	600	6.810.202.84	92.0000.7547
330 – 480	900	6.810.202.60	92.0000.7543
480 – 600	1,300	6.810.202.68	92.0000.7544
600 – 700	1,400	6.810.202.72	92.0000.7545
700 – 800	1,600	6.810.202.76	92.0000.7546

In addition to the basic module a gas spring is needed for a functional *LiftMaster 750N*. The appropriate gas spring for the roof weight needs to be ordered separately.

HESTAL LiftMaster 770N

The proven *LiftMaster 770N* uses a knee lever mechanism patented by Hesterberg to lift the vehicle roof. This *LiftMaster* type is characterised by a very high level of user convenience, because the principle of operation employed enables a very easy, quick and variable roof lift. In addition, optimal adjustment to the vehicle is possible by shortening the hand lever.

Synthetic bearings have recently been integrated into the *LiftMaster 770N* in order to improve the service life and the ease of use even more. The connection between the lifting mechanism and the guiding channel

has been optimised for an easy and convenient assembly from the outside.

The *LiftMaster 770N* is suitable for roof weights (including pillars, tarpaulin, etc.) up to 1,000kg and enables a variable roof lift of up to 500mm. Depending on the version, the roof can be pegged at a maximum height of 120, 170 or 300mm, so that driving with a lifted or lowered roof (under consumption of the total permitted vehicle height) is possible. Thus the *LiftMaster 770N* covers a wide spectrum of applications.

Advantages

- › For roof weights (including pillars, tarpaulin, etc.) up to 1,000kg
- › Variable lifting of the roof up to 500mm possible
- › Roof pegging up to 120, 170 or 300mm (with steps of 10 or 50mm possible)
- › Proven and reliable system for a broad spectrum of applications
- › Improved service life due to synthetic bearings
- › Ergonomic, easy and very quick operation
- › Assembly from outside possible
- › Adaptable to vehicle and user by shortening the hand lever
- › Certified by the German Social Accident Insurance (DGUV -Deutsche Gesetzliche Unfallversicherung)



Standard product versions

Max. lifting height [mm]	300	400	500		
Max. pegging height [mm]	120 (in steps of 10)	120 (in steps of 10)	120 (in steps of 10)	170 (in steps of 10)	300 (in steps of 50)
Complete system Hesterberg article number	6.810.179.00	6.810.168.00	6.810.169.00	6.810.183.00	6.810.199.00
Complete system BPW article number	92.0000.5330	95.0000.0030	95.0000.0031	92.0000.7419	92.0000.5791

Special versions possible upon request.

HESTAL *LiftMaster* 771N

New to the series is the *LiftMaster* 771N which uses a compact hydraulic system that has already been proven in large-scale production. Thanks to the optimised hydraulics and the telescopic hand lever, this *LiftMaster* type is characterised by a very ergonomic and easy operation.

The *LiftMaster* 771N can be used for roof weights (including pillars, tarpaulin, etc.) up to 1,200kg. The roof can be lifted incrementally up to 550mm and pegged at heights of 50, 100, 150, 200 and 250mm without

tools, so that driving with a lifted or lowered roof (under consumption of the total permitted vehicle height) is possible.

The *LiftMaster* 771N is characterised by a high-quality and robust two-pipe design. The integrated overload safeguard protects against incorrect operation. A long service life is thus ensured. The roof connection is part of the *LiftMaster* modular system, whereby an easy conversion to this version is possible.

Advantages

- › For roof weights (including pillars, tarpaulin, etc.) up to 1,200kg
- › Variable lifting of the roof up to 550mm possible
- › Adjustment of the roof pegging without tools (in steps of 50mm) possible up to a maximum height of 250mm
- › Highly reliable system proven in large-scale production
- › Robust and high-quality two-pipe design
- › Optimised power transmission of the hydraulics
- › Ergonomic and easy operation due to the telescopic hand lever
- › Integrated overload protection for the prevention of damage to the hydraulics in the event of incorrect operation



Standard product version

<i>LiftMaster</i> 771N	Hesterberg article number	BPW article number
Complete system	6.810.221.00	92.0000.7548

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HESTAL *LiftMaster* 855N

The hydropneumatic *LiftMaster* 855N is offered as a tailored solution. The *LiftMaster* roof height adjustment units are connected individually with pre-filled and customised hydraulic hoses to the central hydraulic unit.

The *LiftMaster* 855N is especially well-suited for frequent lifting of very heavy roofs up to a maximum weight of 1,600kg, which can be lifted either unilaterally or completely. The roof can be lifted automatically with this *LiftMaster* type up to 580mm and pegged

to a maximum height of 450mm, whereby the pegging height needs to be defined and introduced by the customer.

The automatic operation of the *LiftMaster* 855N is secured by a dead man's switch. In default, the roof can also be lifted with the integrated hand pump. The quick-release couplings of the hydraulic hoses do not only enable a simple initial installation but also an easy exchange in case of damage.

Advantages

- › For roof weights (including pillars, tarpaulin, etc.) up to 1,600kg
- › Variable lifting of the roof up to 580mm possible
- › Pegging heights up to a maximum height of 450mm possible, to be defined and introduced by the customer
- › Convenient and easy operation
- › Robust and reliable system, even for high frequency usage and heavy roofs
- › Quick roof lifting due to central control by the hydraulic unit
- › In case of default lifting with hand pump possible
- › Integrated overload protection for the prevention of damage to the hydraulics in the event of incorrect operation



Standard product version

<i>LiftMaster</i> 855N	Hesterberg article number	BPW article number
System without hoses	6.810.090.00	95.0000.0034

Please ask Hesterberg directly about hydraulic hoses which match your vehicle superstructure.

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