

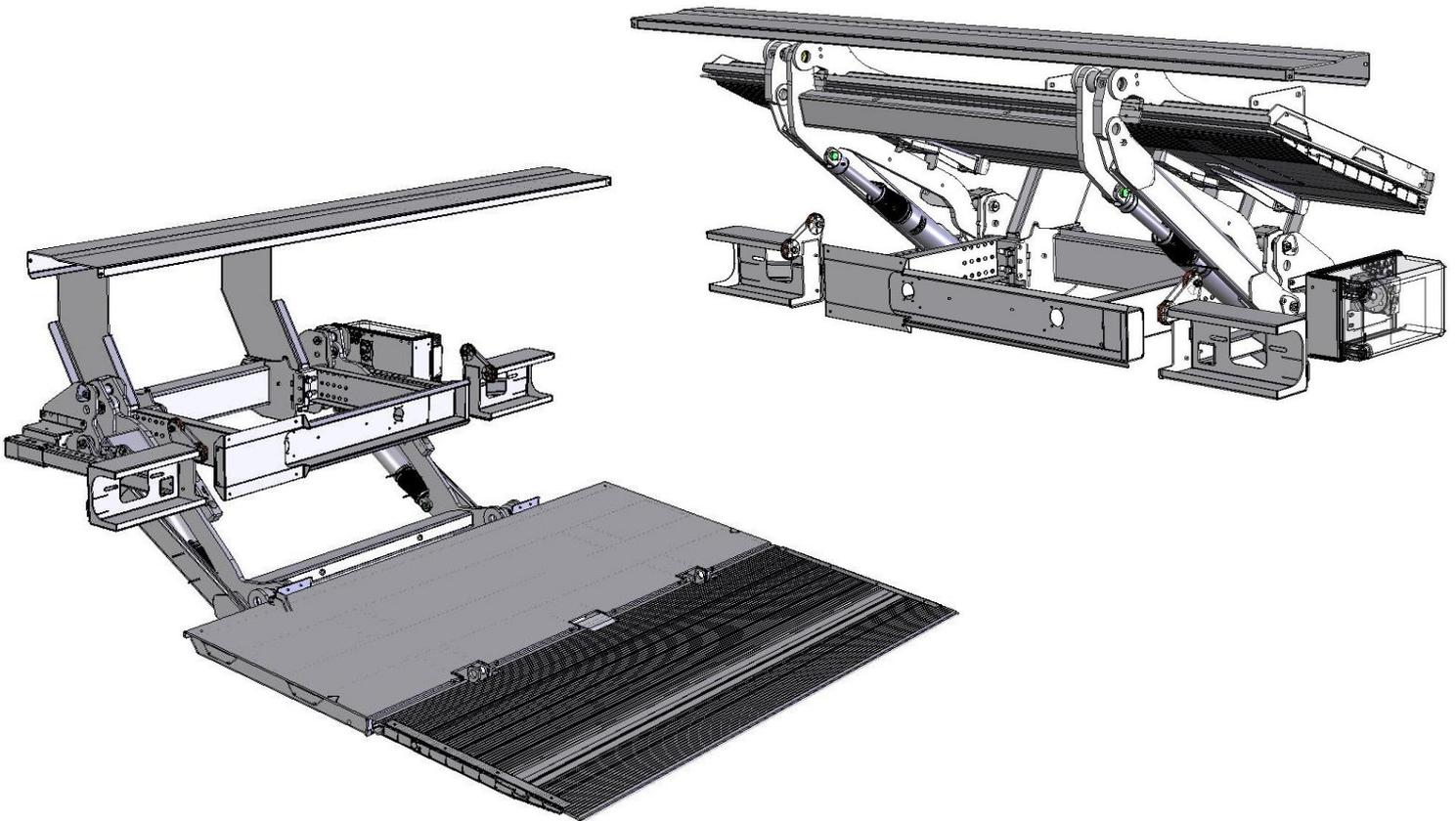


CE
UK
CA

DHOLLANDIA

DH-R* fold-away lifts

OPERATION MANUAL



Manufacturer:

DHOLLANDIA N.V. Zoomstraat 9 9160 LOKEREN (Belgium)

Tel : +32 (0)9 349 06 92 Fax : +32 (0)9 349 09 77

e-mail : info@dhollandia.be

website : www.dhollandia.com



Read the manual in its entirety before operating the tail lift

Keep this manual in the vehicle cab, as reference for the driver and tail lift operator

TABLE OF CONTENTS

| | | |
|-----|---|----|
| 1 | UNDERSTANDING SAFETY AND WARNING SIGNS | 2 |
| 2 | CONTACT INFORMATION AND DISCLAIMERS | 3 |
| 3 | GENERAL INTRODUCTION | 4 |
| 4 | INTENDED USE | 4 |
| 5 | IDENTIFICATION..... | 5 |
| 6 | DESCRIPTION AND TAIL LIFT TERMINOLOGY..... | 5 |
| 6.1 | General | 5 |
| 6.2 | Safety devices | 8 |
| 7 | SAFETY INSTRUCTIONS FOR USING THE TAIL LIFT | 11 |
| 7.1 | DO NOT use tail lift without adequate safety and operator training..... | 11 |
| 7.2 | General safety instructions | 11 |
| 7.3 | Danger zones, risk of crush and shear injury | 16 |
| 7.4 | Safe operator position | 18 |
| 7.5 | Instructions for working at loading docks | 21 |
| 7.6 | Recommended daily pre-trip inspection | 22 |
| 7.7 | Importance of preventative maintenance | 23 |
| 8 | LOAD CHARTS AND CORRECT LOADING PROCEDURES | 24 |
| 9 | OPERATING INSTRUCTIONS - PRINCIPLES AND PROCEDURES | 27 |
| 9.1 | Platform ride..... | 27 |
| 9.2 | Main external control boxes | 29 |
| 9.3 | Most popular auxiliary controls..... | 31 |
| 9.4 | Switching the main power ON / OFF | 32 |
| 9.5 | Operation | 33 |
| 9.6 | The use of roll stops..... | 36 |
| 10 | DECALS..... | 38 |
| 11 | MEANING OF SAFETY AND WARNING SIGNS | 41 |
| 12 | END NOTE | 43 |

1 UNDERSTANDING SAFETY AND WARNING SIGNS

Many safety signs and symbols used in this manual are based on international standards, others refer to specific situations or actions.

Consult section 11 page 41 for an overview of signs and symbols used in DHOLLANDIA manuals, and their meaning.

Please take special notice of the following signs used in the manual. They indicate the likelihood and severity of a potential injury if a person fails to follow the instructions presented on the safety sign.



DANGER: indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury. [white letters on red background]



WARNING: indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury. [black letters on orange background]



CAUTION: indicates a potentially hazardous situation, which, if not avoided, could result in minor or moderate injury. [black letters on yellow background]



NOTICE: is used to address practices not related to physical injury. [white letters on blue background]



SAFETY INSTRUCTIONS: indicate general instructions relative to safe work practices, reminders of proper safety procedures, or the location of safety equipment. [white letters on green background]



SAFETY ALERT SYMBOL: is used to alert the user to potential hazards. All safety messages that accompany this sign shall be obeyed to avoid possible harm. [free-standing, or on back-ground colours red, orange, yellow or black]



- Failure to understand and to follow the instructions in this manual can put the operator and any bystanders at great risk of serious bodily injury and death.
- Prior to operating the tail lift, make sure you understand the safety and warning signs used, and read them in conjunction with the instructions in this manual.
- If in doubt, DO NOT operate the tail lift. Contact your national DHOLLANDIA distributor. See page 3 for contact info.

2 CONTACT INFORMATION AND DISCLAIMERS

- DHOLLANDIA tail lifts are regularly being adapted to new vehicle and chassis developments, and specialized customer requirements. Therefore, DHOLLANDIA reserves the right to alter product specifications without prior notice; and potentially modifications or new developments might not have been taken into account at the time of printing.

NOTICE

Please confirm you have reviewed the most up-to-date version of this manual prior to operation of the associated DHOLLANDIA tail lift. See below for instructions to download the latest version of the manual.

- Contact your national DHOLLANDIA distributor if you have any questions regarding the installation, operation, repair and maintenance of DHOLLANDIA tail lifts, to obtain replacement copies of manuals or decals, or to learn about available equipment options for DHOLLANDIA tail lifts.



If in doubt where to find your national DHOLLANDIA distributor, visit the official DHOLLANDIA website:

www.dhollandia.com → **Country & language selection** → **Distributors & service**



The latest version of all manuals can also be downloaded from the DHOLLANDIA website:

www.dhollandia.com → **Country & language selection** → **Downloads** → **Operation manuals** →
... **select required manual**

- Take notice of following important disclaimers:

DISCLAIMERS

- DHOLLANDIA disclaims liability for any personal injury, death, or property damage that results from **operating a tail lift that has been modified from the original design**, without explicit written approval from the manufacturer.
- DHOLLANDIA disclaims liability for any personal injury, death, or property damage that results from **use of aftermarket or non-OEM replacement parts for service or repair of the tail lift**.
- DHOLLANDIA disclaims liability for any personal injury, death, or property damage that results from **improper use of the tail lift**.
- DHOLLANDIA disclaims liability for any personal injury, death, or property damage that results from **overloading or improperly loading the platform**, disregard of the maximum rated lift capacity and the applicable load charts.
- There are no warranties, express or implied, including the warranty of merchantability or a warranty of fitness for a particular purpose extending beyond that set forth in this manual.

3 GENERAL INTRODUCTION

- This OPERATION MANUAL explains how the DHOLLANDIA tail lift is manufactured; what safety devices are incorporated in its design; and how to use the tail lift in a correct manner, that preserves the integrity of the machine over the intended lifetime and helps maximize the safety of the operator and any bystanders.
- The MAINTENANCE AND REPAIR MANUAL (separate) explains how to maintain and service the tail lift in the appropriate manner, maximizing the safety of the operator and any bystanders, and ensuring the reliability of the tail lift over the intended lifetime.
- The CE / UKCA IDENTIFICATION AND INSPECTION LOGBOOK (separate) contains the serial number identification, the CE / UKCA Declaration of Conformity, the Fitting Declaration to be filled out by the installer of the tail lift, and an overview of the owner's legal obligations in terms of periodic testing and certification.
- The manuals must be kept with the tail lift at all times, as a reference book for the operators and technical service personnel.

WARNING

- Improper use of the tail lift will put the operator and other parties at great risk of serious bodily injury and death. Therefore, the use of the tail lift is restricted to skilled operators only; who have been properly trained, and who know and understand the full contents of this manual.
- Unauthorized modifications to the tail lift can put the operator and other parties at great risk of serious bodily injury and death. Therefore it is strictly forbidden to modify the tail lift and its safety devices in any way.
- Use of aftermarket or non-OEM replacement parts to repair or maintain the tail lift is strictly prohibited and may result in serious bodily injury or death to the operator or any bystanders.

4 INTENDED USE

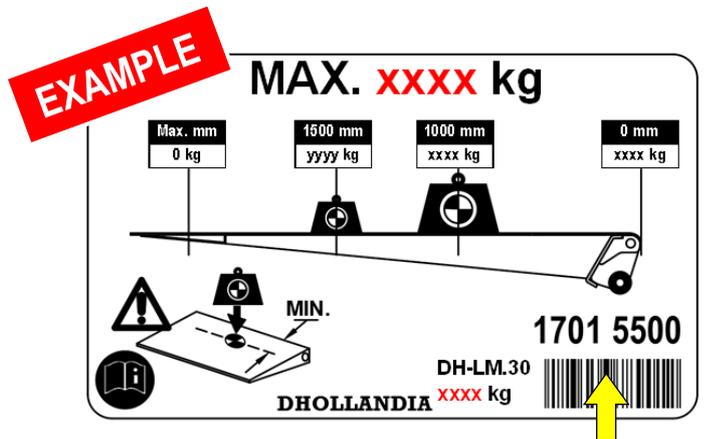
DHOLLANDIA tail lifts are designed to be fitted to commercial vehicles (commercial trucks, trailers and semi-trailers), and shall be used exclusively to load and unload the goods transported on the vehicle they are fitted to, within the limits of the load chart, in compliance with the operator instructions and safety instructions described in this manual.

WARNING

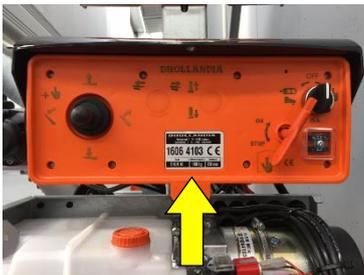
- Improper use of the tail lift will put the operator and bystanders at great risk of serious bodily injury and death. Therefore, it is strictly forbidden to use the tail lift in a different way, or for different purposes than described in the operation manual.
- The tail lift must NEVER be used as an elevated work platform, to push loads, or to carry people.
- The tail lift must NEVER be used as a wheelchair lift.
- DHOLLANDIA disclaims liability for any personal injury and / or property damage that results from improper use.

5 IDENTIFICATION

- Every DHOLLANDIA tail lift is identified by and labelled with a **unique 8-digit serial number** (with or without a space between the first and last 4 digits). Use this number for any inquiry on a particular tail lift, or when ordering replacement parts.
- In addition to the tail lift type and serial number, the various serial number labels provide additional information, such as the maximum rated lift capacity and load chart, the bumper certificate number, the date of manufacture, etc...
- These labels are usually affixed to the vehicle body and various tail lift components, and can be found in following locations (the yellow arrows point to the serial numbers):



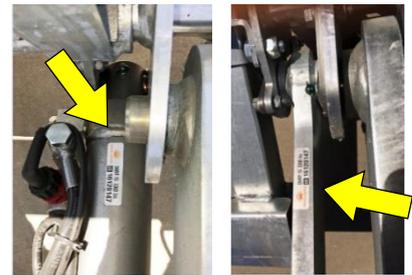
Affixed to the side of the vehicle body, or on the platform



On the main external control box



On the lift frame



On the lift cylinder and parallel



On the platform



On the pump unit

6 DESCRIPTION AND TAIL LIFT TERMINOLOGY

6.1 GENERAL

- DHOLLANDIA tail lifts are developed and manufactured using state-of-the-art technology, high quality materials and components and highly skilled workmanship. They comply with the European CE and UKCA safety regulations mentioned in the Declaration of Conformity issued with each lift (unless agreed otherwise for tail lifts exported outside of CE / UKCA region).
- The DH-R... series comprises of a range of fold-away lifts, designed for a wide variety of trucks, trailers and semi-trailers, and is available with lift capacities ranging from 600 to 2,500 kg.
- In its travel position, the foldable platform of the tail lift is safely stowed underneath the vehicle body. To deploy the tail lift, the platform and lifting mechanism are lowered to the ground by means of the electric controls. Then the platform main section and flip-over point are unfolded manually.
- Main details and terminology: see below

TAIL LIFT TERMINOLOGY

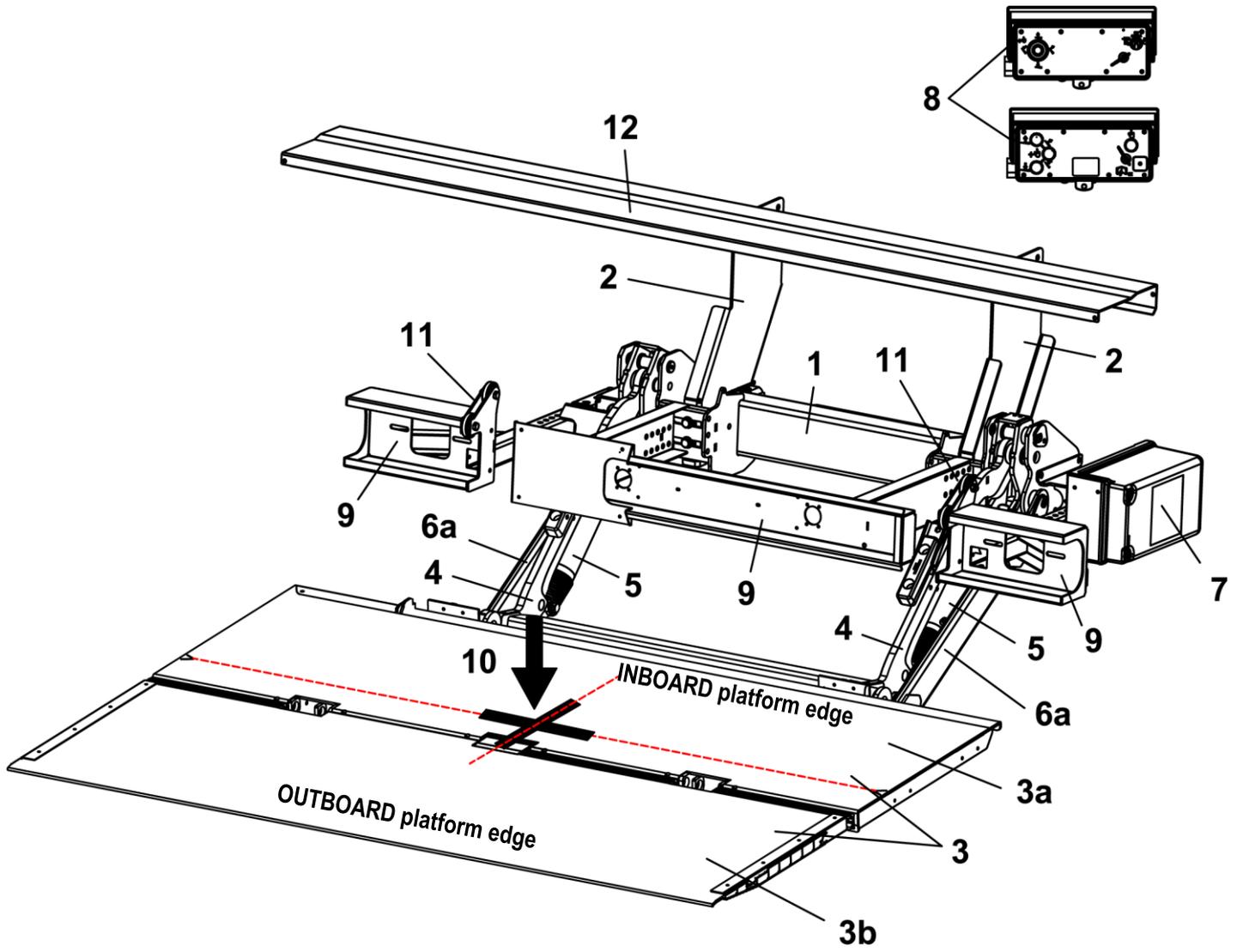
See figure on the next page for parts corresponding to numbers in this table

| # | Description |
|----|---|
| 1 | Lift frame: mounted in a fixed position under the vehicle chassis. It bears the platform and its load via connection to the lift arms and hydraulic cylinders. |
| 2 | Mounting plates: used to mount the lift frame to the vehicle chassis. |
| 3 | Foldable platform: carries the load during loading / unloading, lifting / lowering. Consists of a platform main section and a flip-over point. |
| 3a | Platform main section: inboard section of the foldable platform. Manufactured from steel or lightweight aluminium, with a permanent non-slip working surface. |
| 3b | Flip-over point: foldable, outboard section of the platform. Manufactured from lightweight aluminium. |
| 4 | Lift arms L+R: actuated by the hydraulic lift cylinders, used to LIFT / LOWER the platform and its load. |
| 5 | Lift cylinders L+R: 1 or 2 hydraulic cylinders used to LIFT / LOWER the lift arms, the platform and its load. |
| 6a | Parallel arms L+R: 2 parallel arms, supporting the platform while it travels up and down. |
| 6b | Tilt cylinders L+R (optional): 2 hydraulic cylinders used to TILT the platform UP / DOWN, and to change its orientation when opened in work position. |
| 7 | Hydraulic pump unit: contains the electric motor driving the hydraulic pump, the oil tank, and the control valves. |
| 8 | Main external control box: mounted in a fixed position at the side of the vehicle, under the body. Contains the electrical switches allowing the operator to execute all tail lift functions TILT UP - LOWER - LIFT - TILT DOWN. |
| 9 | Bumper bar: under run protection device, certified conformance to CE legislation. |
| 10 | Center point of maximum load: point up to which the maximum rated capacity of the tail lift is valid. Beyond that point, the maximum safe working load diminishes according to the applicable load charts. |
| 11 | Platform opener: arm with roller(s) mounted on the lift frame, assisting the deployment of the platform from its travel position to the work position, then back to its travel position. |
| 12 | Floor plate: heavy-duty steel profile usually integrated at the end of the vehicle floor, used for correct stowage of the platform. |

Note - clarification on terminology

On fold-away lifts:

- The platform is raised or lowered by the lift cylinders, when the operator activates the functions LIFT or LOWER.
- If equipped with optional tilt cylinders, the orientation of the platform can be adjusted to the slope of the ground. The platform can be tilted up or down by the tilt cylinders. Press CLOSE to TILT the platform UP, press OPEN to TILT the platform DOWN.



6.2 SAFETY DEVICES

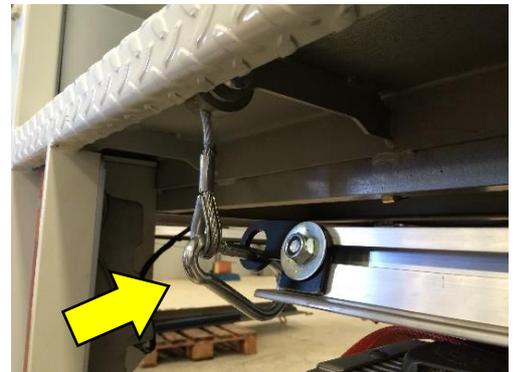
DHOLLANDIA tail lifts are equipped with multiple safety devices in order to ensure that goods can be loaded and unloaded with maximum safety for the operator, any incidental bystanders, and the load itself. The following safety devices are incorporated or recommended on most tail lifts:

- **Electrical safety valves mounted on all cylinders** [standard]. The safety valves lock the oil inside the hydraulic cylinders as long as they are not energized via the electrical controls. The purpose is to secure the platform in its travel position while driving, or in any other fixed position, in case of accidental failure of a hydraulic pipe (as soon as the electrical controls are released).

DHOLLANDIA safety valves are equipped with a manual emergency control, allowing the operator or repair agent to open the valve manually in case of electrical failure (see MAINTENANCE AND REPAIR MANUAL).

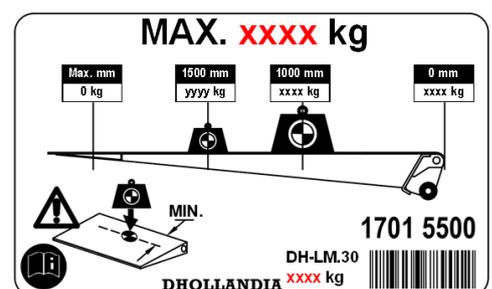


- **Mechanical platform lock(s)** [optional]. DHOLLANDIA offers (a) mechanical platform lock(s) as an option, to further secure the platform in its travel position in case of accidental loss of hydraulic pressure.



- **Pressure relief valve** [standard]. Safety device integrated into the pump unit, enabling the manufacturer and the installer of the tail lift to limit the real lift capacity to the maximum rated capacity of the tail lift sold, and to protect it against overload while LIFTING.
- **Pressure compensating flow valves** [standard]. Flow valves are integrated in the hydraulic circuits to ensure the platform lowers at a safe speed, both when empty as when fully loaded.

- **Marking of the center point of maximum load** [standard]. Tail lifts are not designed to LIFT and LOWER weights corresponding to their maximum rated capacity over the entire surface of the platform. The maximum rated capacity is only valid at a specified distance or “center point of maximum load” behind the vehicle body. Behind that point marked on the platform, the maximum safe working load diminishes according to the load diagrams supplied with the tail lift. See also section 8 on page 24 on load charts and correct loading procedures.



- **2-hand external control box** [standard]. On the external control box mounted in fixed position at the side of the vehicle body, all functions are actuated by means of a control switch and a safety switch. The compulsory use of 2 hands to actuate the various lift functions, protects the operator from crushing their head, limbs or upper body between the LIFTING or CLOSING platform and the rear frame of the vehicle body.



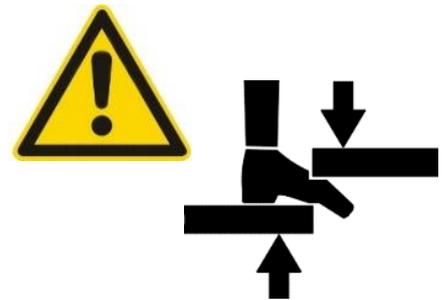
- **Tail lift on/off switch** [min. 1 compulsory]. Depending on configuration, the electrical power to the tail lift is switched on / off by means of:

1. A **cabin switch** (provided by the truck manufacturer or DHOLLANDIA [option OAE503.1]). This switch enables the operator to switch the control power to the main external control box on / off. If equipped with a position sensor [option OAE205] and a dual function cabin switch option OAE503.2, the system also provides a signal if the platform is stowed in its travel position or left open.
2. A **main battery disconnect switch** integrated in the external control box [optional]. This switch enables the operator to switch the main battery power to the tail lift on / off. If available, the operator **MUST** switch off the main battery disconnect switch after each use of the tail lift.
3. A combination of both



- **Fuses** [standard]. A 15A fuse for the electrical control circuit comes mounted in the pump unit and in the main external control box (for most types). A 150 – 250A fuse for the electrical main battery circuit is supplied by the truck manufacturer or by DHOLLANDIA. Both fuses protect the electrical circuits against short-circuits and amperage peaks.

- **Protection of toes and feet against crushing and sheering** [1 min. compulsory]. The tail lift standard EN1756-1 and DHOLLANDIA's fitting manuals provide a number of solutions to prevent the operator from crushing their toes or feet between the inboard platform edge of the rising platform and the rear cross member of the vehicle floor. At least 1 solution, ordered from DHOLLANDIA, or released during installation, must be foreseen. Consult the installation manual FIT-ELEC-OPTION in its latest version. In case of doubt, contact DHOLLANDIA. See page 3 for contact information.



- **Foot controls** [optional]. See also previous point. Platform mounted foot controls (2 buttons or 4 buttons) immobilise the feet of the operator in a safe position on the platform and protect him / her from crushing their toes or feet between the inboard platform edge of the rising platform and the rear cross member of the vehicle floor.



- **Roll stops** [optional]. If a platform is aimed at LIFTING and LOWERING loads that cannot be braked or secured by their design or their method of transportation, the platform **MUST** be equipped with roll stops that prevent the load from accidentally rolling off the platform and hitting the operator or any bystanders. DHOLLANDIA offers a variety of roll stops that can be fitted near the outboard platform edge, or at intermediate distances.



- **Visibility of the deployed platform** [min. 1 compulsory]. Any platform protruding beyond the extremities of the vehicle **MUST** be clearly visible from all approachable sides in daylight and at night. Check any applicable national or local regulations, as these can be very strict on the application, size and type of means used. The visibility of the platform can be optimized by:

1. **Reflective marking tape** applied to the sides of the platform [standard] applied during installation
2. **Platform flags** [option OAT020 – 023], mounted to the underside of the platform, near the outboard platform edge
3. Bi-directional **flashing platform lights** [option OAE200], mounted on the platform surface, near the outboard platform edge
4. **Warning cones** (2 or 4) [widely available] placed around the work area of the platform
5. A combination of 2 or more of the above. The various means above have variable efficiency depending on the direction of approach and the light conditions (e.g. bright sunlight versus night darkness). DHOLLANDIA strongly recommends a combination of 2 or 3 means to cover all circumstances



- **Guard rails** [optional]. Guard rails **MUST** be fitted in all applications where a significant risk exists that the operator could fall off the platform and suffer bodily injury. They are compulsory above 2m lifting height.

Guard rails may be purchased along with your tail lift at the initial order, or may be purchased and retrofitted to your tail lift later. They are available in a wide range of different executions to suit the particular needs of many applications. Contact your local DHOLLANDIA dealer for further information. See page 3 for contact info.



- **Decals** [standard]. The tail lifts are supplied with a number of operation decals, load diagrams and safety decals, most of them to be applied to the vehicle body during installation. These decals must always be kept clean and legible and replaced whenever required.



7 SAFETY INSTRUCTIONS FOR USING THE TAIL LIFT

7.1 DO NOT USE TAIL LIFT WITHOUT ADEQUATE SAFETY AND OPERATOR TRAINING

- DHOLLANDIA tail lifts shall be exclusively used to load and unload the goods transported on the carrying vehicle, within the limits of the applicable load chart, and in compliance with the operator instructions and safety instructions in this manual.

WARNING

- Improper use of the tail lift will put the operator and other parties at great risk of serious bodily injury and death.
 - To reduce the risk of serious bodily injury to the operator and any bystanders, the use of the tail lift is restricted to skilled operators, who have been properly trained, and who know and understand the full contents of this manual.
 - To reduce the risk of serious bodily injury or death, THE OPERATOR MUST COMPLY WITH ALL SAFETY INSTRUCTIONS AND WARNING LABELS IN THIS SECTION AND THE ENTIRE MANUAL before and while operating the tail lift.
- The operator should follow all other policies and procedures applicable to the job situation including health & safety regulations, road and traffic regulations, as well as company procedures. The operator should not use the tail lift if he/she cannot use it in accordance with all applicable regulations and instructions.
 - The operator must be at least 18 years of age.

7.2 GENERAL SAFETY INSTRUCTIONS

WARNING

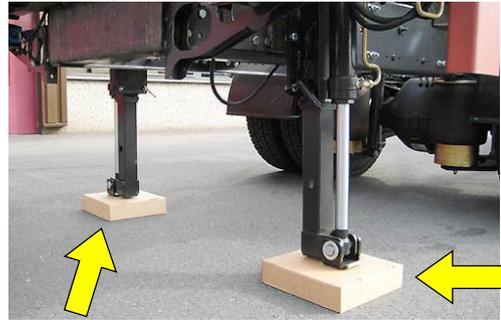
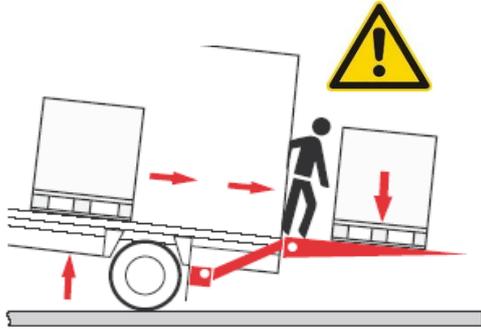
- To avoid serious bodily injury or death, the operator must use appropriate work clothes. NEVER wear loose-fitting clothes that may be trapped in the moving parts of the tail lift. ALWAYS wear professional safety-toe shoes, protective gloves, and eye protection. Use of hardhat is recommended.



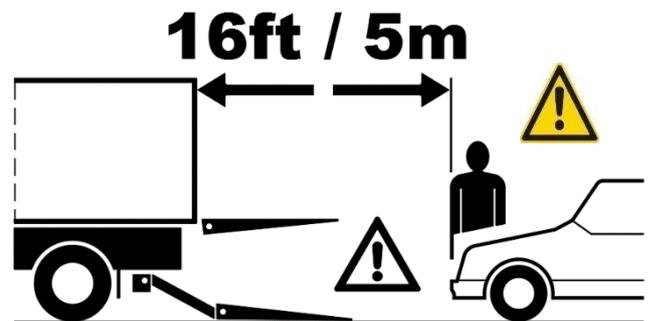
- Slipping (and falling) can result in serious bodily injury and death. To prevent injury by slipping:
 - ALWAYS wear professional safety-toe shoes with a good non-slip sole.
 - DO NOT use the tail lift if it is covered with snow, mud, dirt, debris, liquids or other substances.
 - DO NOT run on the platform.
- Tripping (and falling) can result in serious bodily injury and death. To prevent injury by tripping:
 - DO NOT use tail lift platform as a step. NEVER leave the tail lift unattended in partially deployed position.
 - Pay attention to protruding items on the platform surface at all times (ex. platform lights, roll stops and their levers, foreign objects, etc...).
 - DO NOT run on the platform.
- Falling from the platform can result in serious bodily injury and death. To prevent injury by falling:
 - Make sure your footing is solid and you maintain 3 points of contact. See 7.4 from page 18 onwards.
 - Use guard rails where available. See 7.4 from page 18 onwards.
 - NEVER move the vehicle while a person is standing on the platform or inside the vehicle body.
 - NEVER use the platform as an elevated working platform.

WARNING

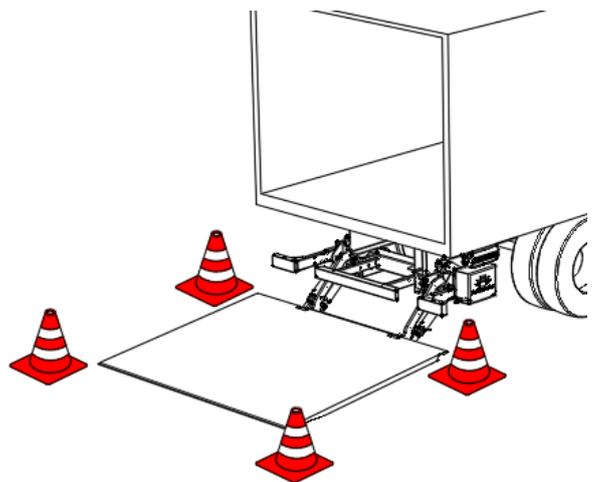
- Prior to operating the tail lift, the vehicle must be safely parked on level and solid ground, the parking brake applied, and the engine must be switched off. Lock open the rear doors and secure all other moving parts of the vehicle body. Failure to abide by these instructions can result in serious bodily injury or death to the operator or bystanders.
- Ensure that the vehicle cannot tip-over when putting heavy weight on the platform. If the vehicle or the tail lift are equipped with mechanical or hydraulic stabilizing legs, deploy these before opening the platform. Ensure that the stabilizing legs are positioned on solid even ground. In case of soft terrain (sand, gravel,...), solid support blocks must be used under the stabilizing legs. Failure to abide by these instructions can result in serious bodily injury or death to the operator or bystanders.



- To reduce the risk of serious bodily injury or death, which may result from other vehicles when parked, ALWAYS make sure a safety distance of 16 ft or 5 m is kept between the back of the truck and the following vehicle.



- To reduce the risk of serious bodily injury or death, ALWAYS make sure the platform is clearly visible to other persons from all approach directions. DHOLLANDIA recommends the use of 4 warning cones, placed around the work area of the platform. [See notice below].
- To reduce the risk of serious bodily injury or death, make sure the working zone is sufficiently lighted.

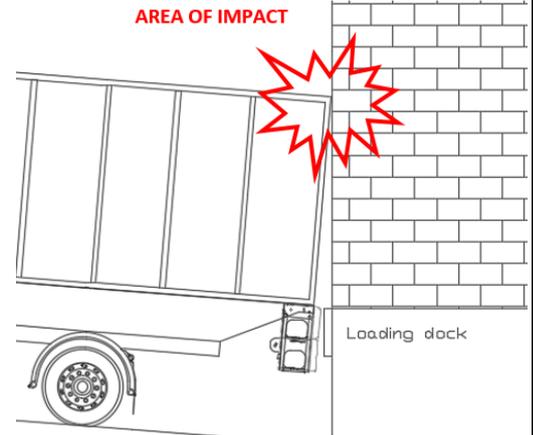


NOTICE

DHOLLANDIA offers optional platform mounted flashing lights and flags to make the platform more visible to other people. Please visit www.dhollandia.com or contact the national DHOLLANDIA distributor for more information. See page 3 for contact info.

! WARNING

- When loading or unloading at a loading dock. Make sure to not hit the wall with the body/tail lift. Failure to abide by these instructions can result in material damage and serious bodily injury to the operator or bystanders.
- Prior to releasing the mechanical platform lock (if so equipped) and using the tail lift, check if the tail lift can be used safely. Take precautions to ensure your own safety, and the safety of bystanders or other parties in traffic. Clear the working area of any objects that could potentially impede movement of the tail lift. Failure to abide by these instructions can result in serious bodily injury or death to the operator or bystanders.
- Inspect the tail lift prior to each use. If any unsafe condition exists or unusual noises or movements are noticed, DO NOT use the tail lift and contact an authorized DHOLLANDIA service agent for repair. Please see 'pre-trip inspection' procedures from 7.6 page 22 onwards.
- Read and comply with all warning decals, pictograms and instructions affixed to the tail lift. Failure to abide by warnings and instructions may result in serious bodily injury or death.
- The tail lift must not be used if the operator is intoxicated, impaired or distracted in any way. NEVER use a phone or mobile device when operating the tail lift.
- The tail lift shall be used by means of original control units only. Operating the tail lift with unauthorized control units will increase risk of serious bodily injury or death to the operator or any bystanders.
- Limit the operation of the tail lift to one single operator. Operation of the tail lift by more than one operator at a time may cause confusion and increase the risk of serious bodily injury or death.
- To prevent people from being hit by the platform, by objects falling off the platform or being caught in pinch points or being pinched by the moving parts of the tail lift:



→ Keep visual control over the entire working area of the tail lift and its platform at all times, including the area DIRECTLY BEHIND and UNDER the platform.



→ DO NOT allow any other person, to stand in the proximity of the tail lift and its platform. ENSURE AT ALL TIMES THAT NOBODY STANDS UNDER OR WITHIN REACH OF THE MOVING PLATFORM.



- Depending on your physical condition and on the maintenance of the tail lift, the manual deployment and stowage of the platform can put serious strain on the operator's back. To prevent a back injury, seek 3 points of support to fold and unfold the platform. Place your free hand on the top side or outside of the floor plate to support your upper body.



- While doing so, prevent crushing or shearing. Keep your hands clear from the pinch point between the rotating platform and the underside of the floor plate or vehicle body. See also 7.3 from page 16 onwards.



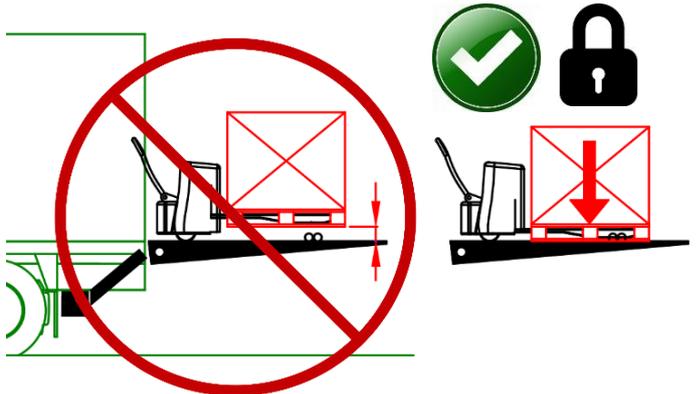
WARNING

- When unloading from the vehicle body to the platform, ALWAYS push the load out, to prevent the load from hitting you. NEVER pull the load from the vehicle onto the platform. Pulling the load from the vehicle can result in a fall from the platform causing serious injury or death.



- If pushed out too far, the load can fall off the platform, and cause serious bodily injury or death to other people. Deploy the roll stops before pushing out the load. If not available, push the load slowly while checking the outboard platform edges.

- The load must ALWAYS be secured when raising or lowering on the tail lift, to prevent it from shifting position and rolling off the platform edges. Failure to properly secure the load will increase the risk of serious bodily injury or death to the operator or any bystanders.



- When using a pallet jack, lower and rest the pallet or load upon the platform surface before operating the tail lift.

- For loads on wheels, engage wheel brakes of carts, trolleys and machinery (if available) before operating the tail lift.

- For loads that could slip, the use of original DHOLLANDIA roll stops or an appropriate alternative securement device (ex. ratchet straps) is required. The load must not be able to move during movement of the platform. See 9.6 from page onwards for correct use of original DHOLLANDIA roll stops.

- NEVER leave the tail lift unattended in open position. Before leaving the vehicle unattended, close the doors of the vehicle, stow the platform in its travel position and switch OFF the main battery disconnect switch in the external control box (if so equipped), or the cab switch. Leaving the tail lift in open position unattended can result in serious bodily injury or death to unaware bystanders. See 9.5 on page 33 for instructions on properly stowing platform into its travel position.

- Unless this instruction could cause other important risks, NEVER move the vehicle with the tail lift in the open position. ALWAYS close and secure the doors of the vehicle, stow the tail lift in its travel position and switch OFF the main battery disconnect switch in the external control box (if so equipped), or the cab switch, before moving the vehicle. If so equipped, close the mechanical platform lock after stowing the platform in its travel position. Failure to properly stow the tail lift in its travel position prior to moving the vehicle may result in serious bodily injury or death.

- Use of the tail lift near vehicular traffic may result in serious bodily injury or death from being struck by another vehicle. When operating the tail lift on or near a street or parking lot, be sure to stay clear of vehicular traffic. ALWAYS be sure to clearly identify to other drivers that the tail lift is in use. DHOLLANDIA recommends use of warning cones to clearly identify to drivers that the tail lift is being operated. When the tail lift is operated near vehicular traffic, wear working clothes in high-visibility colours and a retro-reflective safety vest.

- DO NOT raise the tail lift with the rear doors partially open. Doing so may damage the doors or the tail lift platform and may also result in serious bodily injury or death to the operator or any bystanders.

- Above all, USE GOOD COMMON SENSE when operating the tail lift. DO NOT operate the tail lift until the contents of this manual have been read and fully understood. Improper use of the tail lift increases the risk of serious bodily injury or death to the operator and any bystanders.

NOTICE

- The most important safety and operation instructions are summarized in a product video that can be viewed online at:

1. Fold-away lifts DH-RC* / DH-RM* with level ride and automatic tilt at ground level

<http://www.dhollandia.com/uservideo/RM-US-2017-01>

2. Fold-away lifts DH-RP* with standard ramping ride

<http://www.dhollandia.com/uservideo/RP-US>

- Make sure you review these instructions prior to operation of the associated DHOLLANDIA tail lift.

1



2



NOTICE

- The safety instructions in this manual are drawn up with an average, common use of the tail lift in mind.
- For specific applications or work conditions, other instructions might be appropriate to reach a higher level of safety. If contra-indications exist, a formal risk analysis must be performed by the client's health and safety management and safe work procedures for the drivers and operators must be issued.

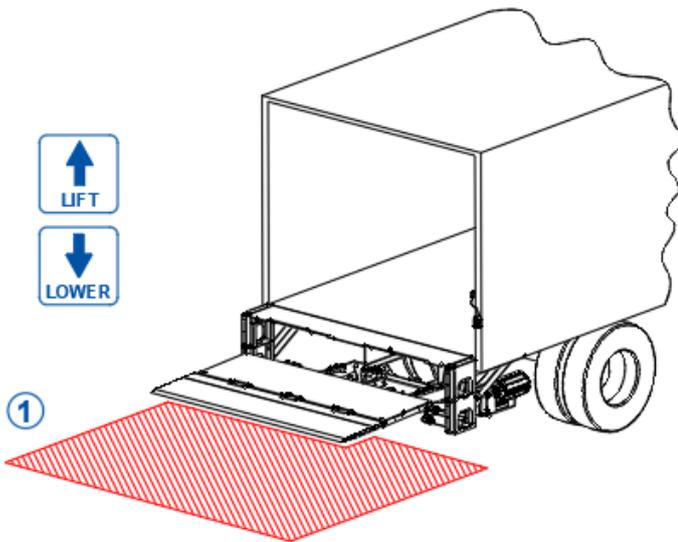
7.3 DANGER ZONES, RISK OF CRUSH AND SHEAR INJURY

- There are 4 main danger zones on and around the platform, that can be hazardous to the operator and any other persons nearby:

-  Correct operator position
-  Danger zone



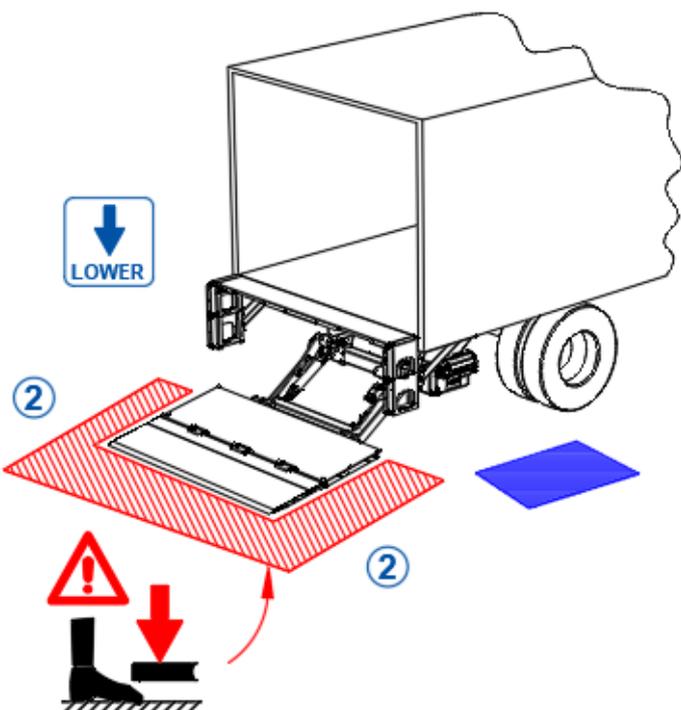
1. ALWAYS stay clear of the range of motion of the platform



| ! WARNING | |
|---|---|
|  | <p>Impact by the platform or the moving parts of the tail lift will result in serious bodily injury or death. To prevent people from being hit by the platform, by objects falling off the platform or being caught in pinch points or being pinched by the moving parts of the tail lift:</p> <ul style="list-style-type: none"> → Keep visual control over the entire working area of the tail lift at all times, including the area directly behind and under the platform; → DO NOT allow any person to stand near the tail lift and its platform. Ensure at all times that nobody stands under, or within reach of the moving platform and its load. |



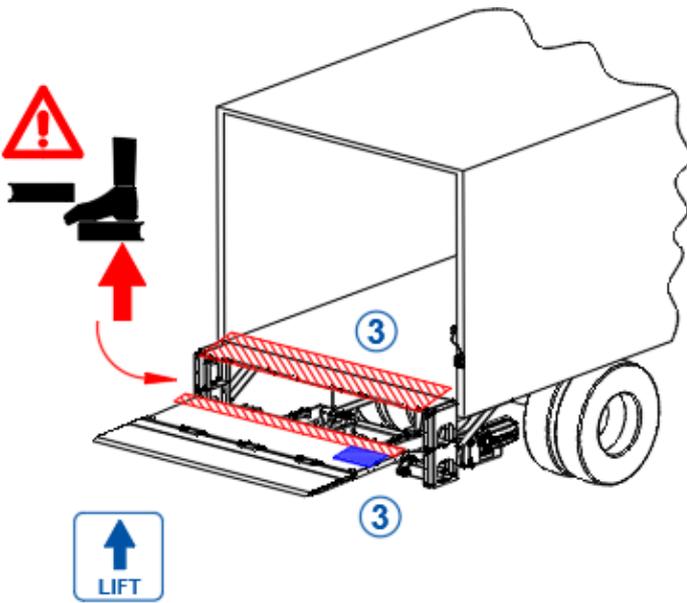
2. Beware of crushing zone between lowering platform and ground



| ! WARNING | |
|---|---|
|  | <p>Lowering an empty or fully loaded platform on one's feet may result in serious bodily injury. To prevent people from having their feet crushed or sheared by the lowering platform:</p> <ul style="list-style-type: none"> → Keep visual control over the entire working area of the tail lift at all times, including the area directly behind and under the platform; → When operating the tail lift from a position on the ground, ALWAYS stand at the side of vehicle body, at a safe distance of minimum 50 cm away from the moving platform. |



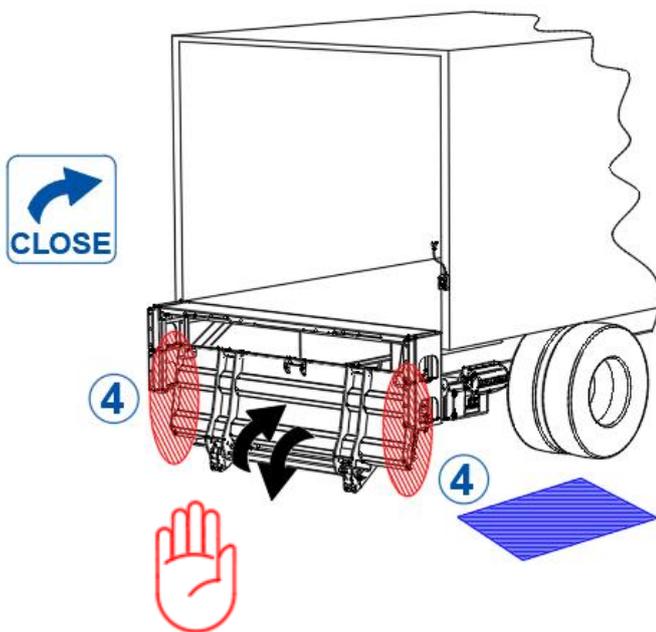
3. Beware of the crushing zone between rising platform and vehicle floor



| ! WARNING | |
|------------------|--|
| | <ul style="list-style-type: none"> • If the operator on the platform stands too close to the inboard platform edge, protruding toes might be crushed or sheared between the rising platform and the vehicle floor. This can cause serious bodily injury. • Therefore, when operating the tail lift from a position on the platform, ALWAYS stand at a safe distance of min. 25 cm from the inboard platform edge. • NEVER reach over or through the platform and the moving parts of the tail lift while trying to operate the lift. ALWAYS keep your head, limbs and body clear of the moving platform and other pinch points. |

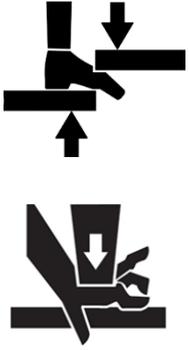


4. Beware of the crushing zone between closing platform and rear frame of vehicle body



| ! WARNING | |
|------------------|---|
| | <ul style="list-style-type: none"> • If the operator enters the zone between the closing platform and the rear frame of the vehicle body with his head, upper body or limbs, protruding body parts may be hit, crushed or sheared by the closing platform. This will cause serious bodily injury or death. • Therefore, while stowing the platform in its travel position, ALWAYS stand with both feet on the ground on a free-standing, safe operator position at the side of the body and ALWAYS keep head, limbs and upper body clear of hazardous space between the platform and the rear frame of the vehicle body. • NEVER reach over or through the platform and the moving parts of the tail lift while trying to operate the lift. ALWAYS keep your head, limbs and body clear of the moving platform and other pinch points. |

⚠ WARNING

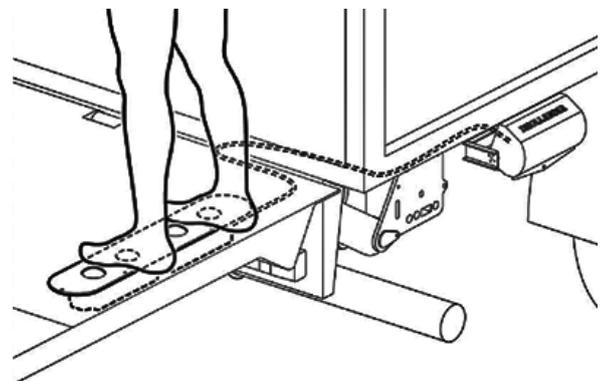
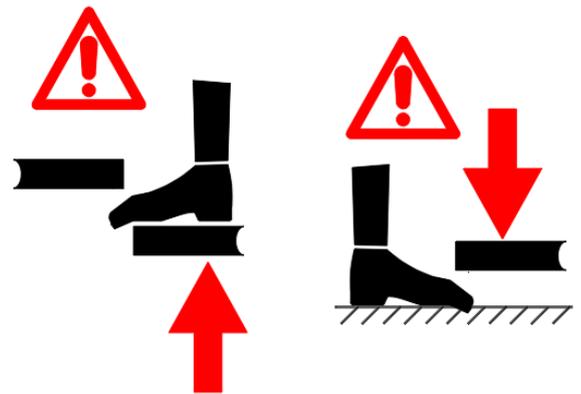
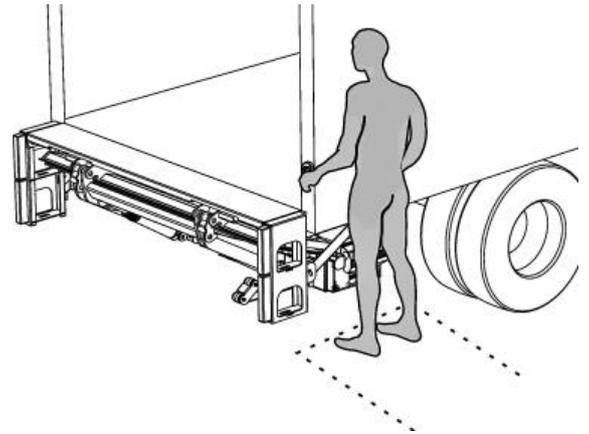


The operator or other persons approaching too close to these danger zones risk serious bodily injury or death by pinching, crushing or shearing of limbs, upper body or head. To prevent these hazards:

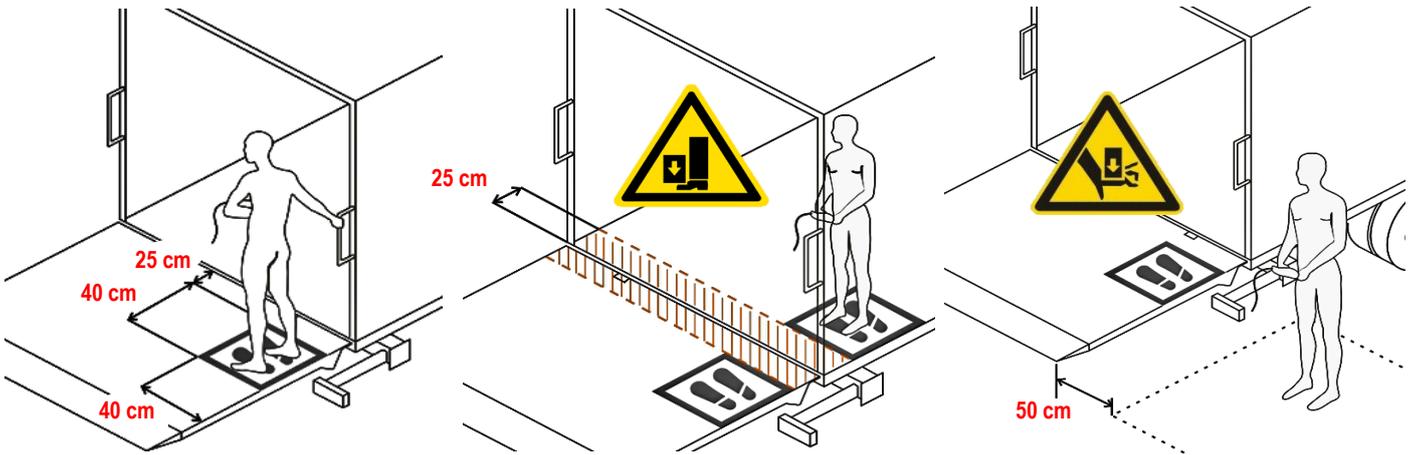
- ALWAYS stand clear of the range of motion of the platform and moving parts of the tail lift;
- Keep hands, feet and upper body clear of pinch points and moving parts of the tail lift;
- DO NOT allow any other person to stand near the tail lift and its platform.

7.4 SAFE OPERATOR POSITION

- The instructions on safe operator position aim to enforce that the operator stands in a safe position before and while operating the tail lift and protect him/her against the risks of crushing and shearing as described in section 7.3 from page 16 onwards.
- **Main external control box:** the zone just in front of the side-mounted external control box, equipped with mandatory 2-hand operation, is the safest position from where the operator can LOWER and unfold the platform into the work position; LIFT and LOWER, TILT UP and TILT DOWN the platform to load and unload; or to fold and LIFT the platform back in its travel position.
- **Auxiliary controls:** the operator may also LOWER and LIFT the platform through use of the auxiliary controls. The operator must use **extreme caution** when lowering or lifting the platform with the auxiliary controls and must ensure it is done from a safe position. Use of auxiliary controls from an improper position greatly increases the operator's risk of crushing or shearing of toes, limbs, head, and upper body as well as death.
- The operator may also LOWER and LIFT the platform through the use of the platform mounted foot controls (optional) which fix both operator's feet to a predetermined position on the platform. The operator must use **extreme caution** when using platform mounted foot controls to avoid falling from the platform. ALWAYS maintain 3 points of contact (see below).



- Handheld auxiliary controls with a spiral cable should only be used under the following conditions (1):



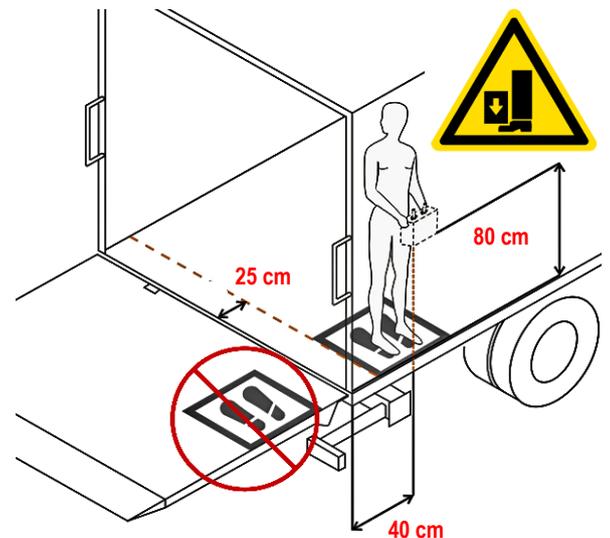
On the platform, from a safe operator position of minimum 40 cm x 40 cm square, clearly and permanently marked at minimum 25 cm distance from the hazard zone between the platform and the rear of the vehicle floor. Maintain 3 points of contact (below).

Inside the vehicle body, from a safe operator position of minimum 40 cm x 40 cm square, clearly and permanently marked at minimum 25 cm distance from the hazard zone between the platform and the rear of the vehicle floor.

On the ground, from a safe operator position minimum 50 cm away from the side edge of the platform.

(1) Remark: The CE standard EN1756-1 suggests a number of other, less usual solutions providing sufficient protection against crushing and sheering of the toes and feet, such as a hinged foot protector or cut-out switch. Consult the latest edition of DHOLLANDIA's fitting instructions FIT-ELEC-OPTION or contact your national DHOLLANDIA dealer for more information. See page 3 for contact info.

- A fixed internal control should only be used inside the vehicle body from a safe operator position that is a minimum 40 cm x 40 cm square, clearly and permanently marked at a minimum of 25 cm from the hazard zone between the platform and the rear of the vehicle floor (see 3 in 7.3 from page 16 onwards). A fixed internal control should NEVER be used from a position on the platform.
- The marked operator positions on the platform must be kept clear at all times. It is prohibited to place a load on these dedicated areas.
- The power to any auxiliary controls (hand held controls or platform mounted foot controls) must be connected to and dependent upon the safety switch in the main external control box. Activation of the auxiliary controls must deactivate the functions of the external control box.
- It is prohibited to bypass or modify any of the safety features of the tail lift. If connection of the power to the external control box does not deactivate auxiliary controls, stop using the tail lift, and contact an authorized DHOLLANDIA agent to rectify.



WARNING

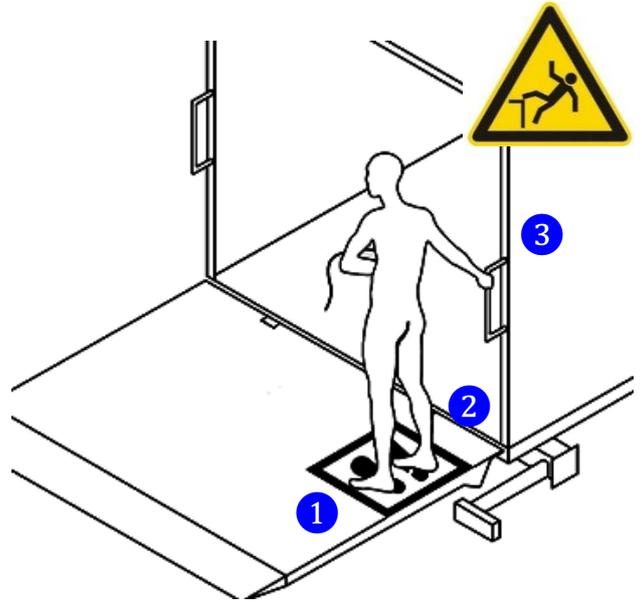
- When operating the tail lift, DO NOT stand in front or behind the load. Doing so puts the operator at risk of being pushed off the platform or being crushed between the moving load and the rear frame of the vehicle body, resulting in serious bodily injury or death.
- To prevent this hazard, ALWAYS stand on the side of the load, NEVER in front or behind.

! WARNING

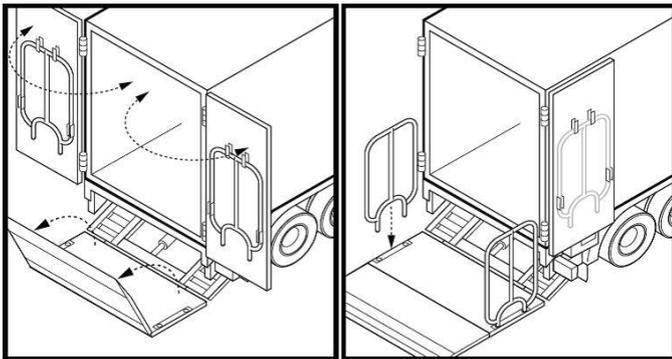


- If not standing solidly, an operator on the platform risks serious injury or death by falling off.
- While riding on the platform, ALWAYS make sure your footing is solid, and ALWAYS maintain 3 points of contact, as shown in the picture to the right.

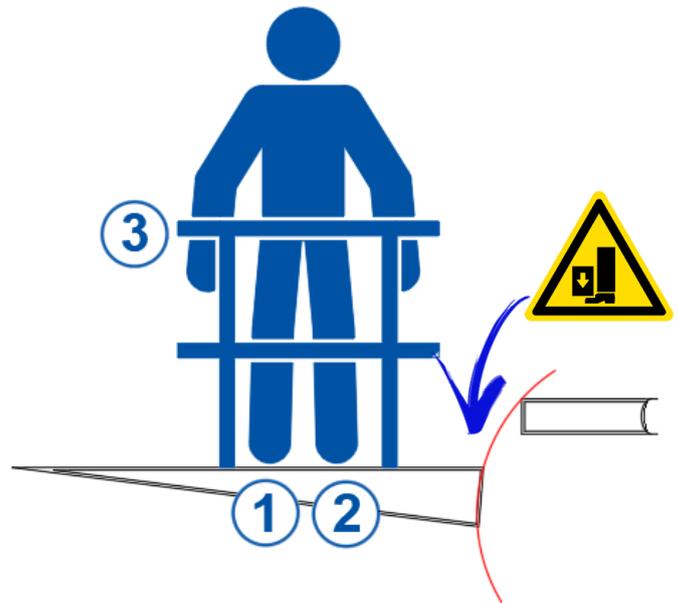
- Note: these 3 points of contact usually include the 2 feet positioned solidly on the platform, and a handgrip mounted to the rear frame of the vehicle body.



- To reduce the risk of serious bodily injury or death from falling, DHOLLANDIA recommends the use of guard rails along the exposed edges of the tail lift platform. Guard rails may be purchased along with your tail lift at the initial order or may be purchased and retrofitted to your tail lift later. Please see www.dhollandia.com for further information or contact your national DHOLLANDIA distributor. See page 3 for contact info.



Example: demountable guard rails

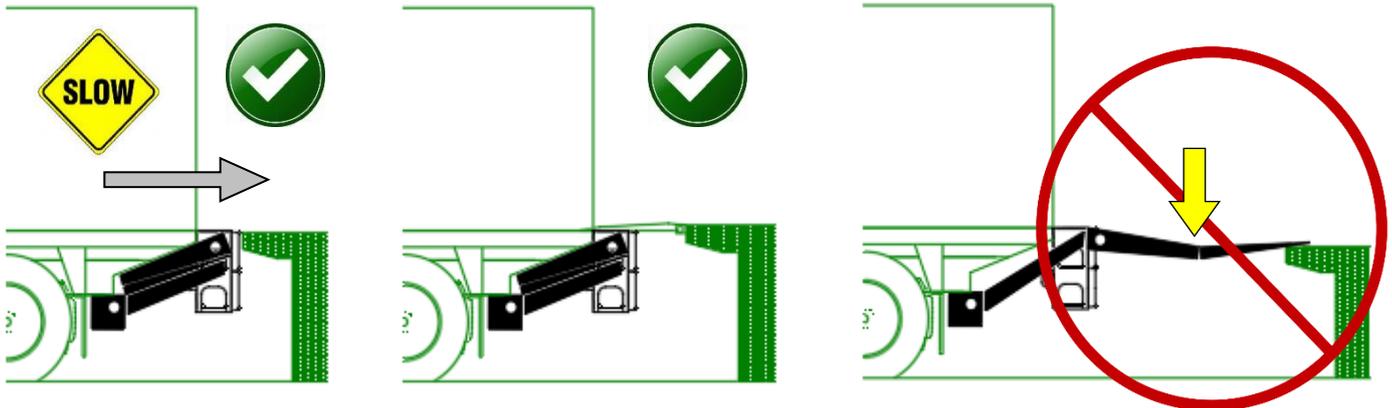


7.5 INSTRUCTIONS FOR WORKING AT LOADING DOCKS

- When using the tail lift platform as a bridge plate between the loading floor of the vehicle and the loading dock, follow the instructions below:

WARNING

- Improper use of the tail lift may result in damage, premature wear or failure of the tail lift, and will increase the risk of serious injury or death to the operator and other persons nearby.
- In order to maximize the durability, ensure long-term reliability of the tail lift, and protect operators and bystanders from serious bodily injury or death, the operator must comply with the loading instructions and safe working procedures below.



- When working at a loading dock, keep the platform securely stowed in its travel position to avoid damage. Drive the load directly from the dock onto the vehicle floor (or vice versa).
- Make sure you reverse slowly, to avoid heavy impact of the tail lift against the loading dock. Failure to do so can cause severe damage to the tail lift, extension plate, dock bumpers, and the vehicle body.
- It is forbidden to use a foldable platform as a bridge plate between the vehicle floor and a loading dock. Keep the platform securely stowed in its travel position to avoid damage.

NOTICE

- When reversing a vehicle with tail lift into a loading dock, ALWAYS make sure there is sufficient ground clearance between the lowest part of the tail lift and the ground.
- ALWAYS reverse slowly, and avoid hard dock impact on the tail lift.
- Reversing with insufficient ground clearance, or with too hard dock impact may result in severe damage to the tail lift.

7.6 RECOMMENDED DAILY PRE-TRIP INSPECTION

WARNING

- Using a tail lift that is damaged or improperly serviced can put the operator and bystanders at great risk of serious bodily injury and death.
- To avoid this risk, inspect the tail lift prior to the first use of each day. Ensure that all safety systems and all functions operate correctly, and that no maintenance or repair is required.
- If any unsafe condition exists or unusual noises or movements are noticed, DO NOT use the tail lift, and contact an authorized DHOLLANDIA agent. [see Notice below].
- DO NOT cover up any accidents or damage; it can be dangerous to you, your co-workers, and other persons.

NOTICE

Authorized DHOLLANDIA service agents may be found at www.dhollandia.com or by calling your regional DHOLLANDIA distributor. See page 3 for contact info.

Before operating the tail lift, the operator must conduct the following daily pre-trip inspection. Use caution: stay clear of the area directly behind the platform while conducting the daily pre-trip inspection.

- Replace missing, worn or illegible warning decals immediately. See page 3 for contact info.
- Make sure the cabin switch and / or main battery disconnect switch in the control box switch on and off accordingly.
- Make sure the battery is fully charged, the main fuse is in good condition, and battery terminal connections are corrosion-free and tight.
- Check the overall condition of the main external control box and its switches. Confirm that all switches (except the ON / OFF cabin switch) swiftly return to the neutral position after releasing them.
- Check the overall condition of the cables entering the various control units, and of the cables to the pump unit. Make sure cables are not chafed, loose or damaged.
- Ensure the cover of the pump unit is properly installed and secured.
- Check the pump unit for visible oil leaks.

Follow the instructions in section 9 from page 27 onwards to open and lower the platform to the ground, and continue the checks:

- Visually inspect the general condition of the lift frame, lift arms, and mounting plates to the vehicle chassis. Look for cracks or deformation in the material and welds. Make sure the bolts of the mounting plates to the chassis are tightened.
- Make sure all pivot pins and retainer bolts are properly locked and secured.
- Visually inspect the general condition of the platform. Look for cracks or deformation in the material and welds. If so equipped, make sure the platform-mounted options function correctly (roll stops, foot controls, flashing warning lights).
- Visually inspect the condition of the bed extension or floor plate, the side steps, their support angles and diagonal braces (if applicable). Look for cracks or deformation in the material and welds.
- Visually inspect the general condition of the springs used to assist in platform deployment and stowage. Verify if the platform can be unfolded and folded with reasonable effort (the spring tension is adequate). Look for damage or deformation.
- Check the overall condition of the auxiliary controls and their switches. Confirm that all switches swiftly return to the neutral position after releasing them. In case of a handheld control with spiral cable, inspect the spiral cable for wear or damage.
- Make sure safe operator position and center point of maximum load are clearly marked on the platform.
- Make sure the platform surface is clean and can be accessed safely. Remove any snow, mud, dirt, debris, or slippery liquids. Make sure you wear safety-toe shoes with a good non-slip sole.

- Check the lift and tilt cylinders, their safety valves and fittings for visible oil leaks. Follow the hydraulic pipes and fittings to the pump unit. Make sure all wires and hydraulic pipes are undamaged, not pinched or chafed anywhere, and adequately secured with cable ties. Check for visible oil leaks.

Perform all movements with an unloaded platform several times with all available control units. Use the operation manual for guidance.

- Make sure all movements occur smoothly and quietly, without jerking motion or unusual noises. During LIFT, CLOSE, and TILT UP functions, only the sound of the electric motor in the pump unit should be audible.

Remember: if any part of the pre-trip inspection reveals a need for service or repair



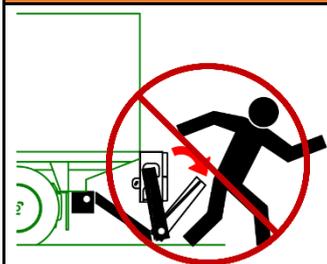
- **DO NOT use the tail lift until it has been serviced or repaired by a qualified service technician.**
- **Switch OFF power at the main battery disconnect switch or cabin switch [see 9.4 on page 32].**

7.7 IMPORTANCE OF PREVENTATIVE MAINTENANCE

NOTICE

- Competent and regular preventative maintenance is essential to the operational reliability of the tail lift as well as the safety of the operator and all bystanders.
- All maintenance and repair work must be performed by authorized DHOLLANDIA service agents and using original DHOLLANDIA replacement parts only.
- Please consult the separate MAINTENANCE AND REPAIR MANUAL for specific instructions regarding periodic maintenance.
- If a tail lift cannot be repaired immediately in case of breakdown, it must be put out of operation and secured against unauthorized use.
- A tail lift put into its travel position with the help of external devices (forklift, gantry crane, etc.), is not supported by its hydraulic cylinders. After releasing the mechanical platform lock, the platform and lifting mechanism will drop in free fall, without any possibility to stop the fall by means of the regular controls.

WARNING



Impact by a falling platform will result in serious bodily injury or death. To reduce the risk of injury:

- Close the platform lock (if available) and apply additional means to immobilize the platform [see Note below].
- Attach a clear and highly visible warning to the platform and the external control box.
- Warn your supervisor and have the vehicle put out of service.
- Contact an authorized DHOLLANDIA service agent to repair the tail lift prior to any further use.

- Note: examples of additional means are additional securing of the platform lock (if available), or securing the platform by means of ratchet straps, hoists, etc.
- To re-open the tail lift, use again an external device (forklift, gantry crane, etc.) for additional support, or repair the breakdown first, bring the hydraulic system under pressure, and release the platform locks after satisfactory testing of the hydraulic integrity. Follow the MAINTENANCE MANUAL for all maintenance and repair works.

8 LOAD CHARTS AND CORRECT LOADING PROCEDURES

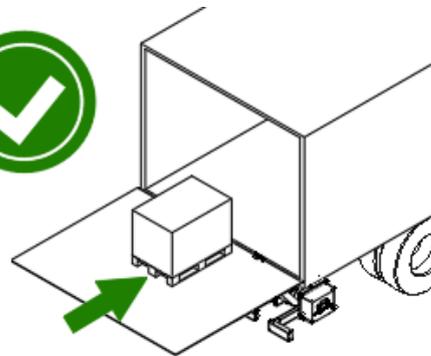
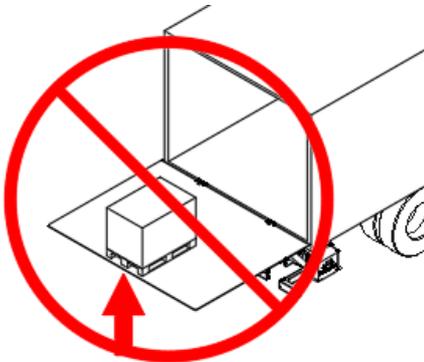
NOTICE

- Tail lifts are NOT designed to LIFT / LOWER weights corresponding to their **maximum rated capacity** over the **entire** surface of the platform. The maximum rated capacity is valid at a certain distance or **center point of maximum load** behind the vehicle body. Behind that point marked on the platform, the maximum safe working load diminishes according to the load charts below.
- When LIFTING, the tail lift is normally protected against overload by the pressure relief valve in the hydraulic circuit. Most of overload events and resulting damage happen when LOWERING loads.

⚠ WARNING

- Overloading and improper loading and unloading of the tail lift will put the operator and bystanders at great risk of serious bodily injury or death. Such conditions will also cause premature wear and damage to the tail lift, or failure of the tail lift.
- Therefore, it is essential that the operator respects the maximum rated capacity and follows the loading instructions and the load chart with great care.
- DHOLLANDIA disclaims liability for all personal bodily injury and / or property damage that results from overloading practices.
- The **maximum rated capacity** is the maximum weight that the tail lift can carry under the following best possible circumstances:
 - The center of gravity of the **load** stands no further than the designated center point of maximum load of the **tail lift**, marked on the platform surface.
 - The load stands mid-point between the lift arms and is at equal distance from both platform sides.

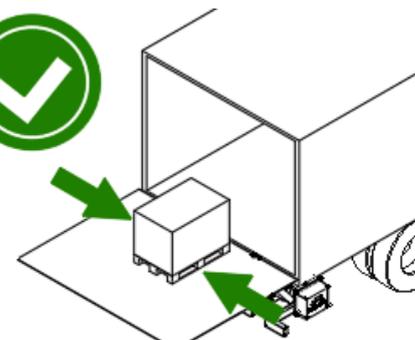
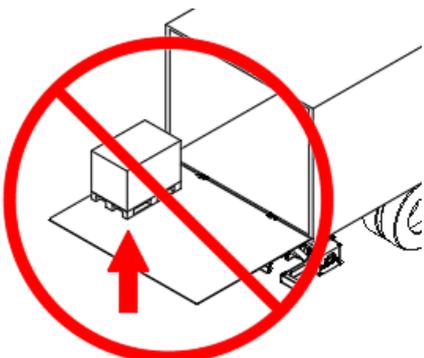
NOT OK
NEVER
position the
load at the
outboard
platform edge.



OK
ALWAYS
position the
load as close as
possible to the
rear of the
vehicle, near the
inboard
platform edge.



NOT OK
NEVER load on
one side of the
platform only.
Or limit load to
50% of
maximum
rated capacity.



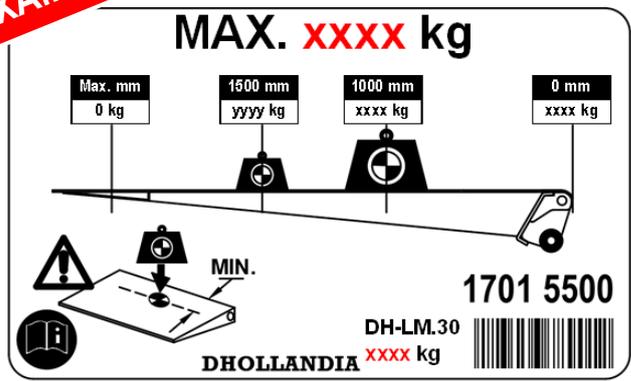
OK
ALWAYS
position the load
mid-point
between the lift
arms.

- The maximum **safe working load** GOES DOWN according to the load charts. The following type of load chart decals are supplied with the tail lift and must be duly observed.

EXAMPLE



EXAMPLE



PLATFORM LOADING INSTRUCTIONS

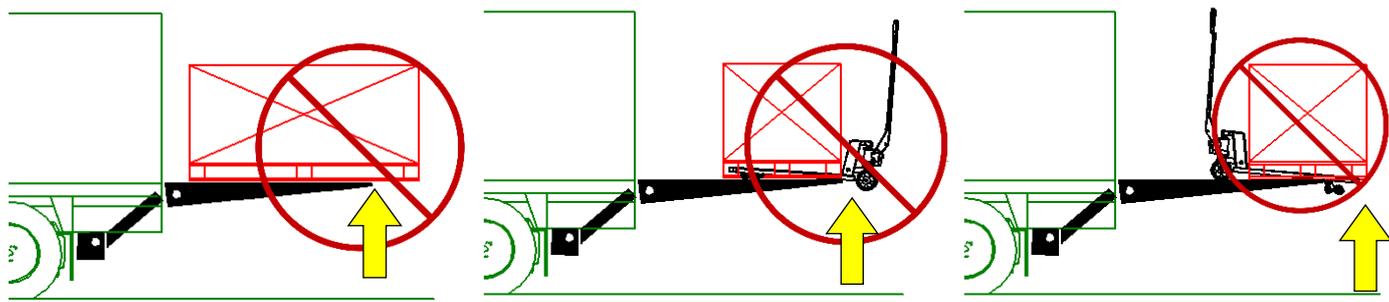
- Position load as close as possible to inboard platform edge.
- Position load in middle line of platform. Avoid loading on 1 side only.
- Operator should stand on side of load, well clear of inboard platform edge to avoid crushing feet.

Read and understand the user's manual, all instructions and warnings before use.

DHOLLANDIA EP0564-EN

! WARNING

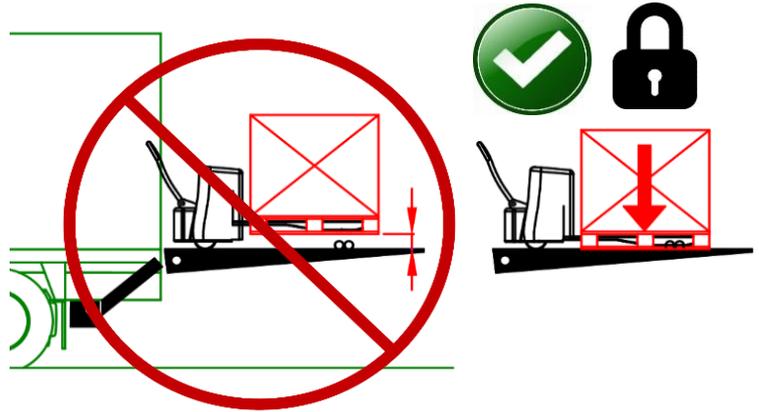
- Overloading and improper loading and unloading of the tail lift will put the operator and bystanders at great risk of serious bodily injury or death. Such conditions will also cause premature wear and damage to the tail lift, or failure of the tail lift.
- Pay attention to avoid concealed overload situations as shown in examples below. Serious bodily injury or death may result from failure to abide by these warnings.



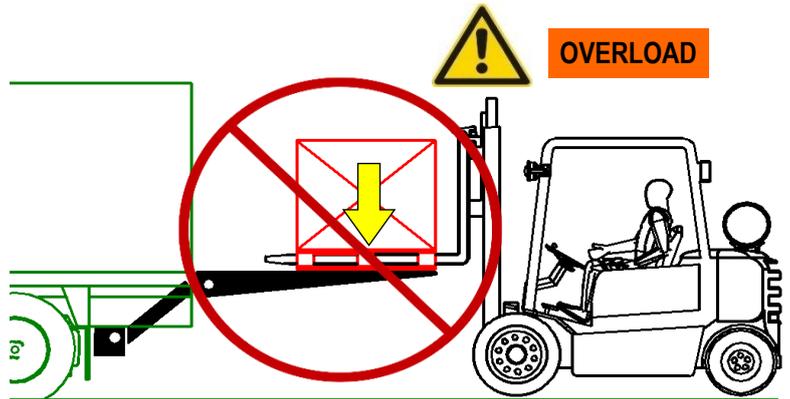
- NEVER let the load extend beyond the outboard edge or side edges of the platform.
- NEVER let the wheels of a pallet jack extend or drop down beyond the outboard or side edges of the platform. Keep the pallet jack and its load on the platform surface, as close as possible to the inboard platform edge. Lower and rest the pallet or load on the platform surface to prevent it from shifting position while lifting and lowering.

⚠ WARNING

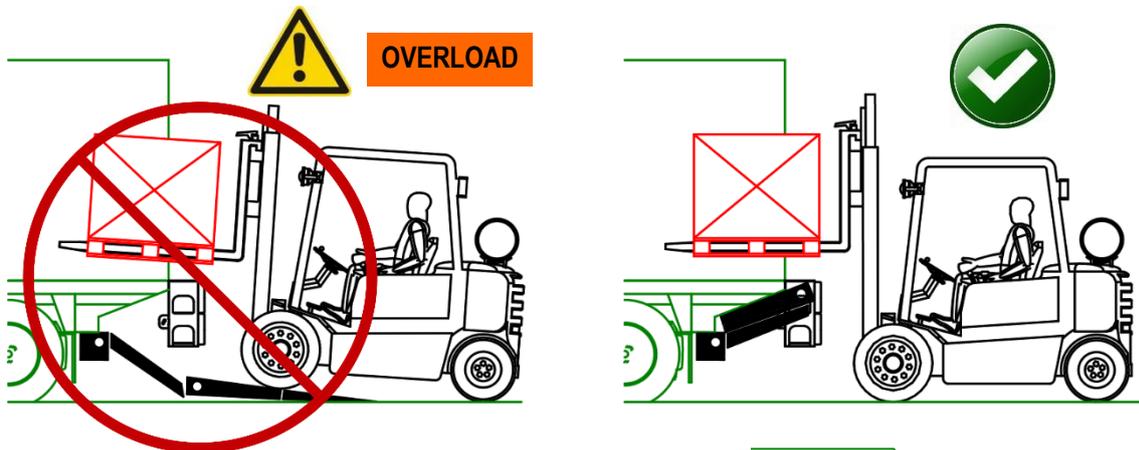
- Lower and rest the pallet or load on the platform surface to prevent it from shifting position while lifting and lowering.



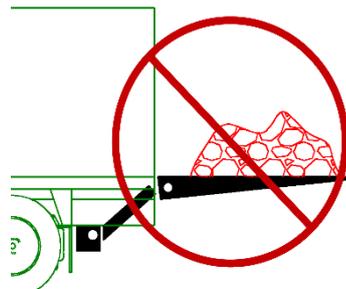
- NEVER drop any load on the platform (ex. by means of a forklift, gantry crane, etc...). The impact of dropping a load is far greater than the nominal weight of the load and can cause severe damage to the tail lift.



- NEVER drive a forklift onto the platform. Driving a forklift onto the platform can cause severe structural damage, potentially invisible to the operator at first glance. Further use of an overloaded or damaged platform can put the operator and bystanders at great risk of serious bodily injury and death.



- NEVER try to scoop loose material (ex. sand, gravel, rocks, etc...) from the ground, to attempt to move it by means of the platform, or to lift / lower it on the platform.
- NEVER use the platform to level the ground surface, or to push or pull loads or material by means of the platform. NEVER use the platform to move snow or other debris.

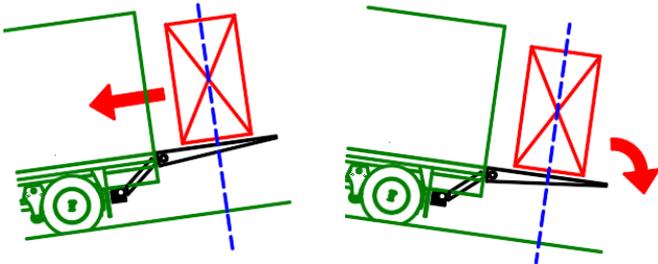


9 OPERATING INSTRUCTIONS - PRINCIPLES AND PROCEDURES

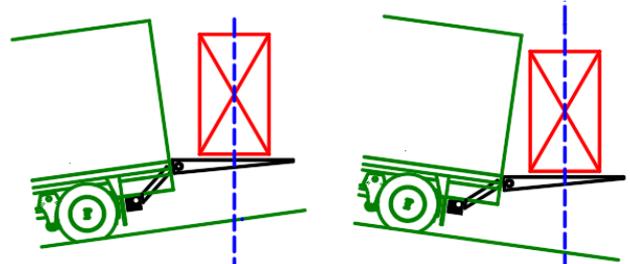
9.1 PLATFORM RIDE

- All DH-RP* lifts and most DH-RC* / DH-RM* lifts are equipped with fixed stabilisers, the orientation of the platform cannot be changed by the operator while using the tail lift.
- The level ride DH-RC* / DH-RM* lifts can be equipped with hydraulic tilt cylinders as an option [OAH036]. If so equipped, upon platform deployment, these enable the operator to adjust the orientation of the platform to the slope of the ground.

Tail lift without tilt cylinders



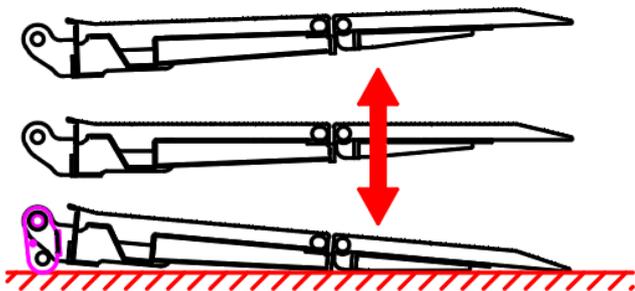
Tail lift with tilt cylinders



- The ride of a tail lift describes the movement that its platform goes through when lifting and lowering. DHOLLANDIA offers 2 different types of ride on the DH-R* fold-away tail lifts.

Standard ramping ride

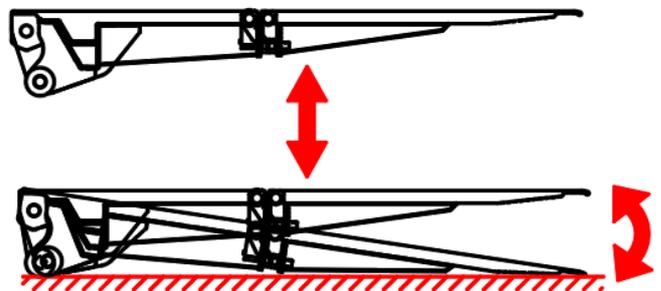
Used on: DH-RP.06 / DH-RP.10 / DH-RP.15



Wedge platform

Level ride + automatic tilt at ground level

Used on: DH-RC.10 / DH-RC.15 / DH-RM.20 / DH-RM.25



| | |
|------------------|---|
| LOWER | When lowering, the platform progressively tilts down from a level position at the vehicle floor to a declined position at the ground. |
| LIFT | When lifting, the platform progressively tilts up from a declined position at the ground to a level position at the vehicle floor. |

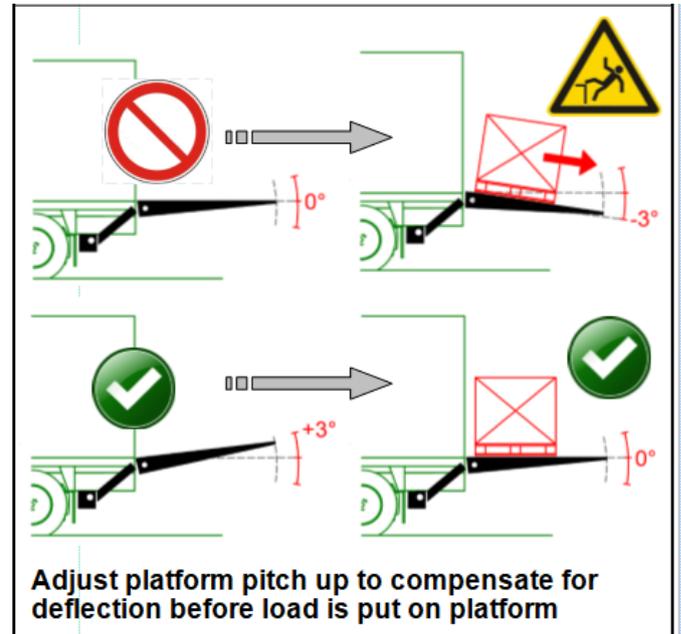
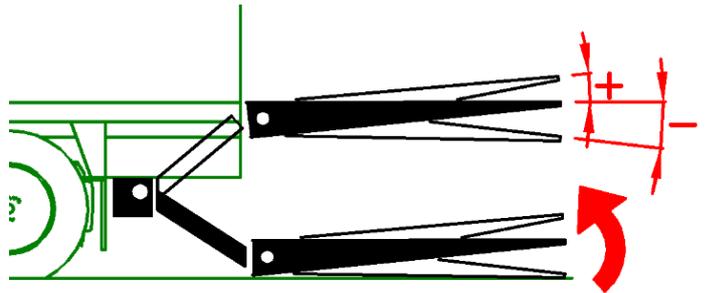
| | |
|------------------|---|
| LOWER | When lowering, the platform remains level from the vehicle floor down, until the platform makes contact with the ground. Next, the platform will tilt down automatically to a declined position that allows loading and unloading, as LOWER button(s) are held. |
| LIFT | When pressing the LIFT button(s) to lift the platform off the ground, it will first tilt up from its declined position at the ground to the horizontal position, then continue a level ride to the vehicle floor. |

- The tilt at ground level does NOT require the activation of an additional tilt button, as is required on various competing products.

⚠ WARNING

- It is important for both types of tail lifts that loads on wheels, or loads that could easily shift position and fall from the platform, are properly secured on the platform surface prior to operating the tail lift. See also 9.6 from page 36 onwards.
- But because of the progressive change in platform orientation on standard ramping ride platforms, it is **ESSENTIAL** for those lifts that the operator ensures that roll stops are deployed (if available), wheel stops or brakes are activated, or the load is secured on the platform in a different way prior to operating the tail lift.
- Improperly secured loads could fall off the platform and put the operator and bystanders at great risk of serious bodily injury and death.

- For tail lifts equipped with the optional tilt cylinders [option OAH036], the automatic tilt incorporates a “memory”: the orientation of the platform (set by the operator upon opening the platform) is automatically repeated upon every new LIFT cycle off the ground. This orientation is repeated or “memorized”.
- When the platform is loaded, the platform orientation can be few degrees lower than when the platform is empty, due to the compression of the vehicle suspension, some deflection of the vehicle chassis, and tolerances in the tail lift itself.



DHOLLANDIA • EF0581.EN

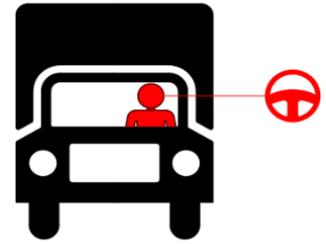
⚠ WARNING

- Platform deflection can cause instability of the load on the platform, followed by a fall of the load from the platform. This can put the operator and any bystanders at great risk of serious bodily injury and death.
- Therefore, anticipate platform deflection as much as possible.
- Whenever the platform is equipped with optional tilt cylinders, compensate for platform deflection by setting the platform orientation a few degrees higher than the intended orientation [note], when opening the platform.

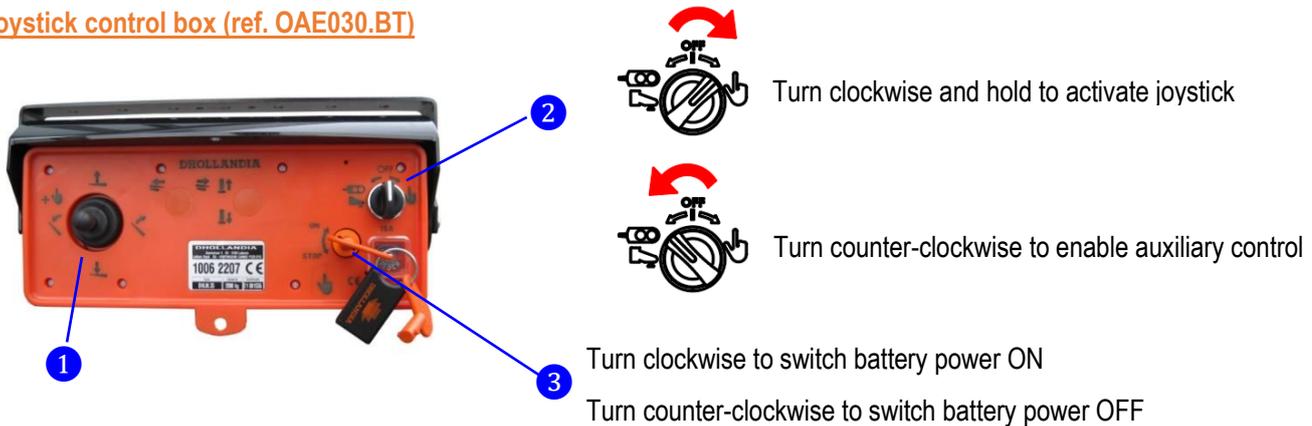
Note: the intended orientation is not always horizontal, it may depend on the slope of the ground.

9.2 MAIN EXTERNAL CONTROL BOXES

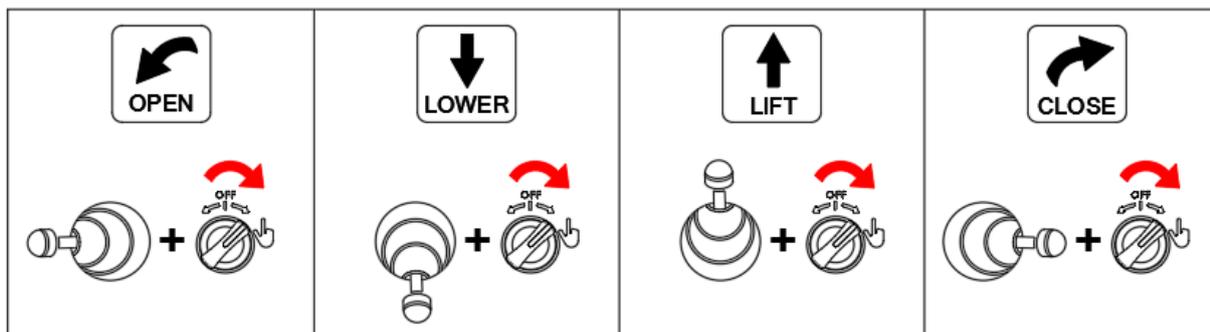
- All images, pictograms and decals in this manual represent the version for left hand drive vehicles, with the main external control box mounted on the right hand side of the vehicle.
- DHOLLANDIA offers various control boxes, delivered to customer specification. Contact your national DHOLLANDIA dealer for more information, prior to ordering your tail lift. See contact info on page 3.
- For CE-marked countries, DHOLLANDIA strongly recommends control boxes with mandatory 2-hand operation. This mandatory 2-hand operation has 2 benefits:
 - It prevents the operator from standing behind the platform when deploying it, which could result in serious injury.
 - It prevents the operator from crushing his / her limbs or upper body between the platform and the floor plate mounted at the rear end of the vehicle floor, when lifting and stowing the platform.
- In various non-CE marked countries, also various 1-hand control boxes are being used.
- The most popular configurations are outlined below. Contact your national DHOLLANDIA distributor for operation instructions on other models, or models with different options, prior to operating the tail lift. See contact info on page 3.



Joystick control box (ref. OAE030.BT)



| | |
|---|--|
| 1 | Joystick operating the functions LOWER - LIFT, and also CLOSE (= TILT UP) - OPEN (= TILT DOWN) if tail lift is equipped with optional tilt cylinders. |
| 2 | Rotary safety switch to activate the joystick, or to switch over to the auxiliary control |
| 3 | Main battery disconnect switch (optional) to switch the main power from the battery to the pump unit of the tail lift on / off. <ul style="list-style-type: none"> Will stop the tail lift in case of emergency involving hazard to operator or bystander. Will stop the tail lift and reduce the risk of a pump unit burn-out if the motor solenoid is stuck and the motor runs continuously (control button or contact damaged, motor solenoid short circuited by low voltage.) |

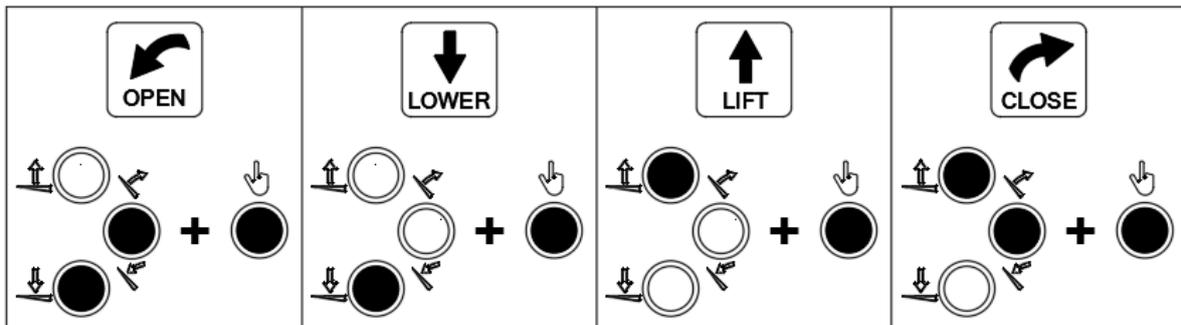


Arctic control box (ref. OAE041.BP)



- 2 Push and hold to activate push buttons of main external control box
Release to enable auxiliary control
- 3 Turn clockwise to switch battery power ON
Turn counter-clockwise to switch battery power OFF

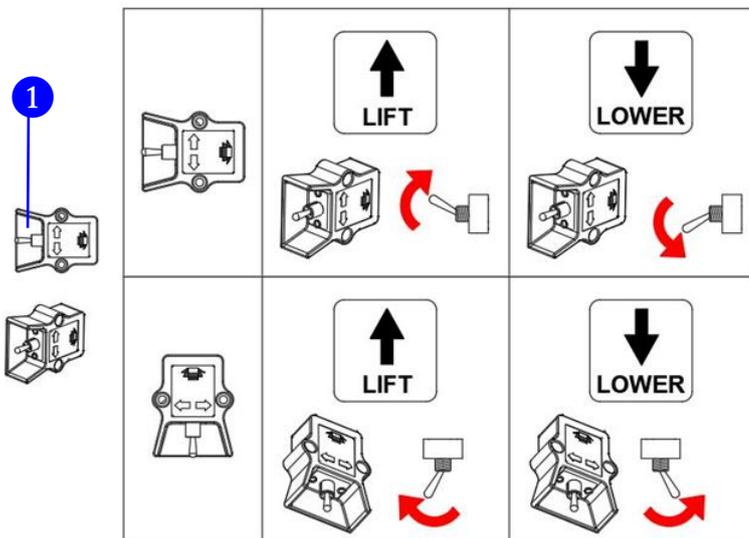
| | |
|---|--|
| 1 | Push buttons operating the functions LOWER - LIFT, and also CLOSE (= TILT UP) - OPEN (= TILT DOWN) if tail lift is equipped with optional tilt cylinders. |
| 2 | Safety switch to enable the push buttons, or to switch over to the auxiliary control |
| 3 | Main battery disconnect switch (optional) to switch the main power from the battery to the pump unit of the tail lift on / off. <ul style="list-style-type: none"> • Will stop the tail lift in case of emergency involving hazard to operator or bystander. • Will stop the tail lift and reduce the risk of a pump unit burn-out if the motor solenoid is stuck and the motor runs continuously (control button or contact damaged, motor solenoid short circuited by low voltage.) |



Toggle-switch controls (ref. OAE015.PR)

- For CE-marked countries, DHOLLANDIA strongly recommends control boxes with mandatory 2-hand operation.
- OAE015.PR can be used to LIFT / LOWER only, it cannot be used on tail lifts with optional hydraulic tilt cylinders.

| | |
|---|--|
| 1 | Toggle-switch controls operating the functions LOWER - LIFT |
|---|--|



⚠ WARNING

- While operating the tail lift, ALWAYS bear in mind the warnings on Danger zones, risk of crush and shear injury in 7.3 from page 16 onwards, and the instructions on Safe operator position in 7.4 from page 18 onwards.
- The use of the controls from an unsafe position can put the operator at great risk of serious bodily injury and death.

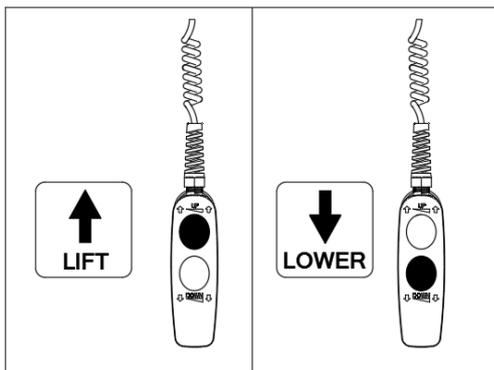
9.3 MOST POPULAR AUXILIARY CONTROLS

- DHOLLANDIA offers various types of auxiliary controls, delivered to customer specification. Contact your national DHOLLANDIA distributor for more information, prior to ordering your tail lift. See contact info on page 3.
- The most popular options are outlined below. Contact your national DHOLLANDIA distributor for operation instructions on other models, or models with deviating configurations, prior to operating the tail lift. See contact info on page 3.

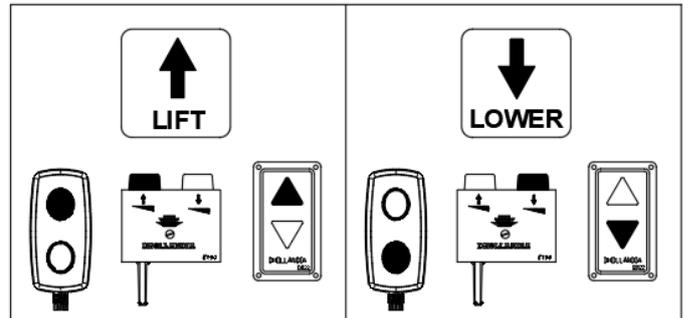
⚠ WARNING

- To reduce the risk of injury to the operator or any bystanders, the auxiliary controls must only be used from a safe operator position on or beside the platform, conforming with the safety precautions described in section 7.4 from page 18 onwards.
- Any operator on the platform must stand clear of the crushing zone between the lifting platform and the rear of the vehicle floor.
- Any operator on the ground must stand clear of the crushing zone between the lowering platform and the ground.
- Keep head, hands and feet clear of pinch points and moving parts. Beware of hand, foot and head traps at all times.
- NEVER wear loose fitting clothing when operating or standing near the tail lift as it increases the risk of serious bodily injury and death.
- ALWAYS be aware of vehicular traffic when using controls to operate the tail lift.
- Failure to abide by these warnings may result in serious bodily injury or death to the operator or any bystanders.

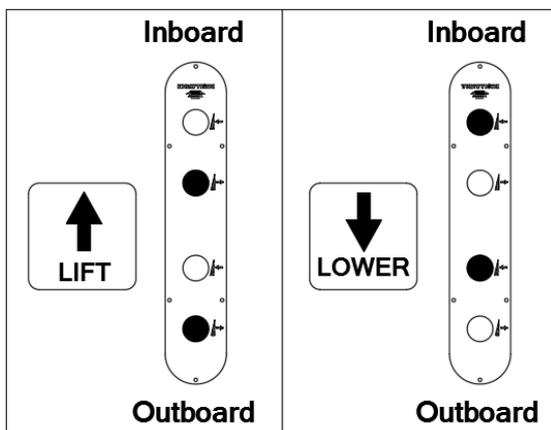
2-button handheld control with spiral cable (ref. OAE001)



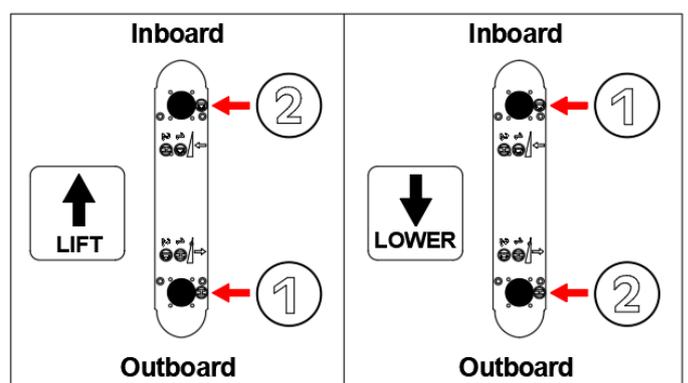
2-button internal control (ref. OAE003 / OAE005 / OAE012)



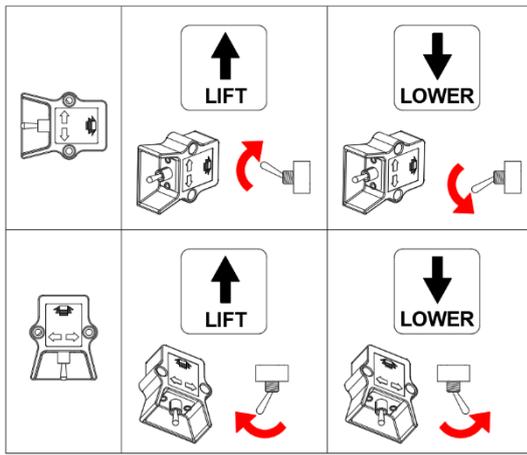
4-button foot controls on platform (ref. OAE060 / OAE064)



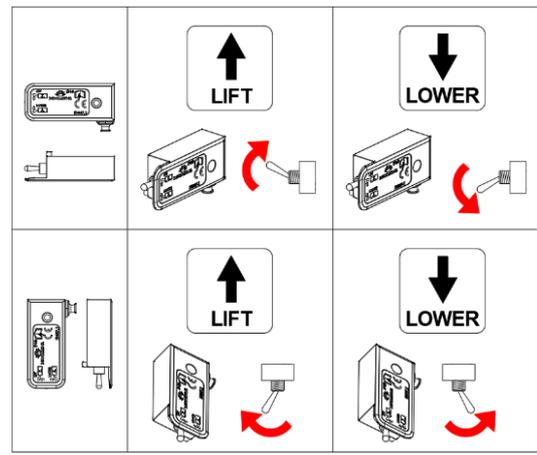
2-button foot controls on platform (ref. OAE067)



Toggle-switch controls (ref. OAE015.O)



Toggle-switch controls (ref. OAE015.B.O)



NOTICE

The fold-away lifts are equipped with automatic tilt at ground level (see 9.1 on page 27), operated from the functions LOWER and LIFT of the controls shown in this section. Handheld 3-button controls are NOT needed to tilt the platform at the ground.

9.4 SWITCHING THE MAIN POWER ON / OFF

- Depending on configuration, the power to the tail lift can be switched ON / OFF by means of a cabin switch, a main battery disconnect switch, or a combination of both.

Cabin switch

example



Main battery disconnect switch



Turn clockwise to switch battery power ON

Turn counter-clockwise to switch battery power OFF



If equipped with option OAE503.1:

Push button to switch tail lift power ON (indicator light on)

Push button to switch tail lift power OFF (indicator light off)

If the tail lift is equipped with a platform position switch OAE205 and option OAE503.2, the indicator light can be configured to switch on if the platform is not closed in its travel position.

NOTICE

In case of combined system, (main battery disconnect and cabin switch) both must be switched on to activate the tail lift. Switching off only one of two will deactivate the tail lift, but it is strongly recommended to switch-off both. NEVER leave the main battery disconnect switch on while tail lift is not is use.

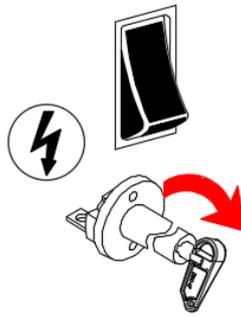
9.5 OPERATION

- 9.2 - 9.3 from page 29 onwards explain how each of the functions LOWER - LIFT are activated via the various types of controls. This section explains in which sequence the DH-R* must be operated, and which steps must be followed.
- The images shown, refer to instruction decal ref. EF0618.EN, usually affixed to the side of the vehicle body. See also section 10 from page 38 onwards.

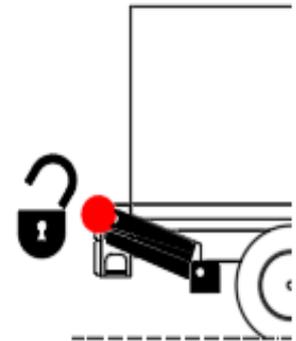
Deploying the platform



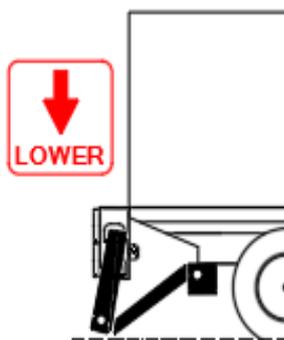
Consult the operation manual before getting started. Follow **ALL** safety and operation instructions.



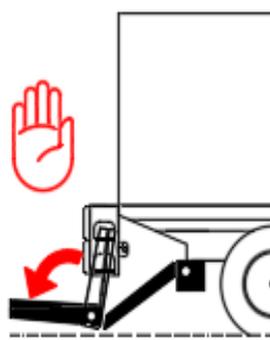
Switch on the electrical power to the tail lift (cabin switch or main battery disconnect switch in the external control box, or both if both are available).



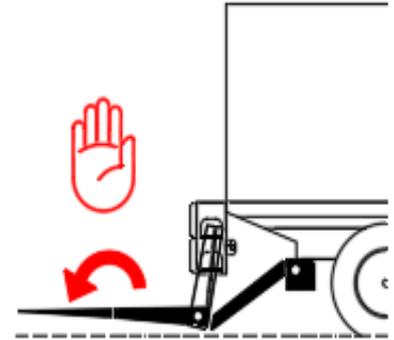
Observe all safety instructions and open the platform lock (if so equipped).



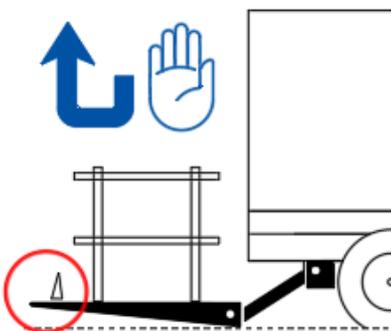
LOWER the platform to the ground. The platform opener will rotate the platform to almost vertical position, to make the manual unfolding easier.



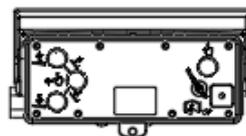
Pull back the complete, folded platform into horizontal position. Stand **ON THE SIDE** of the platform (not behind) and keep hands clear from the inside faces of the extension plate and side steps.



Unfold the flip-over point to transform the platform into one single, flat load surface.



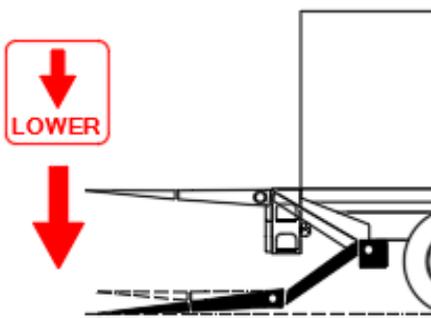
LOWER the platform to get easy access. If so equipped, deploy the roll stops and guard rails.



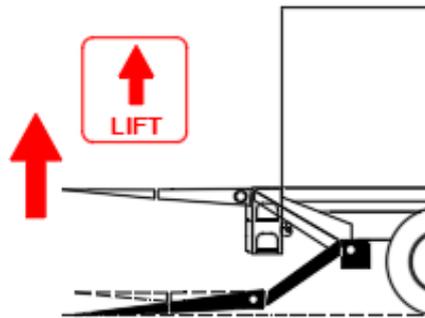
Select between main external control box or auxiliary control to continue [see 9.2-9.3 from page 29 onwards].

This is an operation to be executed manually (as opposed to an electrical function controlled by means of one of the control units).

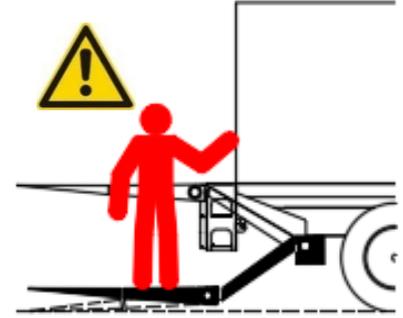
Loading and unloading



LOWER the platform to the ground. If tail lift is level-ride, allow the automatic tilt to reach ground level.



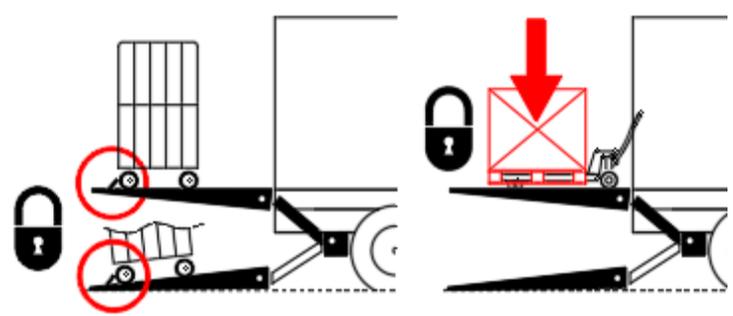
LIFT the platform off the ground. If tail lift is level-ride, allow the automatic tilt to return the platform to level orientation.



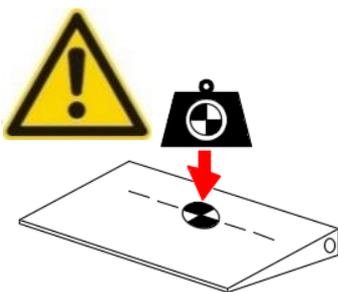
When riding on the platform, make sure you stand min. 25 cm away from the inboard platform edge, make sure your footing is solid, and ALWAYS maintain 3 points of contact. [see 7.4 from page 18 onwards].



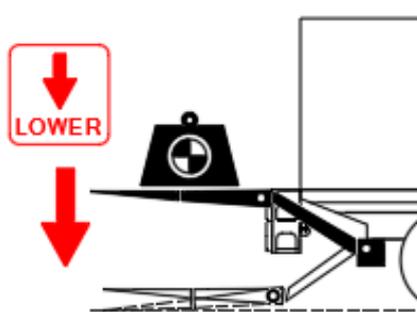
NEVER pull the load from the vehicle onto the platform. ALWAYS push it out. Pulling the load from the vehicle can result in a fall from the platform and cause serious injury or death.



Before lifting or lowering loads, make sure the loads are secured on the platform surface. Deploy the platform roll stops (if so equipped), lower loads on a pallet jack down on the platform surface or immobilise the load via equivalent securement device.

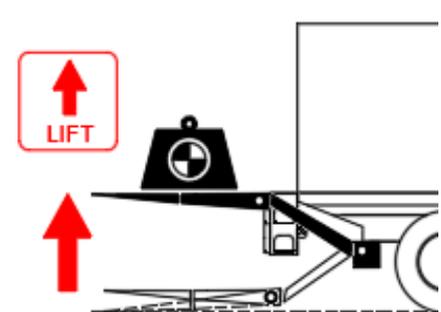


Make sure you comply with load charts and instructions at all times



LOWER the platform to the ground.

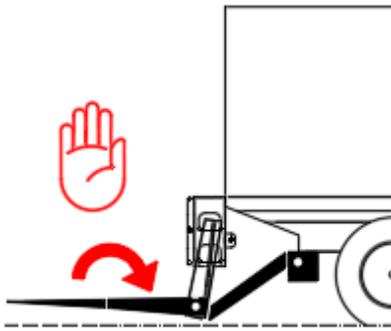
- If tail lift is level-ride, the AUTOMATIC TILT will decline the platform to the ground while you hold the LOWER buttons
- If tail lift is standard ramping ride, the platform will tilt down progressively as it is LOWERED.



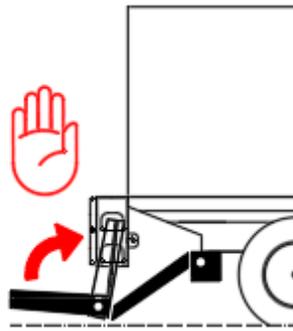
LIFT the platform off the ground.

- If tail lift is level-ride, the AUTOMATIC TILT will return the platform to level orientation while you push the LIFT buttons
- If tail lift is standard ramping ride, the platform will tilt up progressively as it is LIFTED.

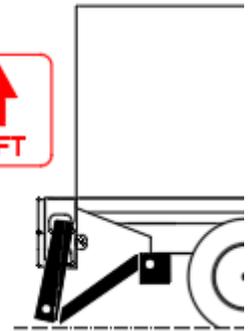
Folding and stowing in travel position



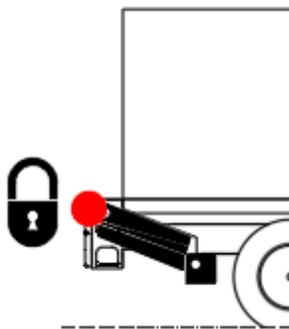
While platform is just above the ground, fold the flip-over point back onto the platform main section.



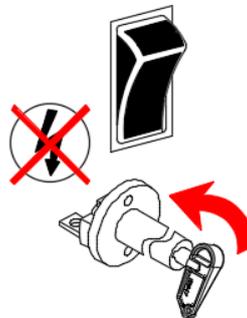
Rotate the folded platform into a vertical position against the platform opener. Stand **ON THE SIDE** of the platform and keep hands clear of the inside faces of the extension plate and side steps.



LIFT the platform up against the extension plate until you hear the hydraulics turn in over-pressure. The platform opener will rotate the platform to its travel position while you LIFT the platform.



If so equipped, engage the platform lock.



Switch off the electrical power to the tail lift (cabin switch or main battery disconnect switch in the external control box, or both if both are available). Close the cover of the control box.



- At any time during the operation, release the activated button(s) to stop the platform from moving. Additionally, turning the main battery disconnect switch, (if so equipped), counter-clockwise will switch off electrical power to the tail lift.



- Consult the DHOLLANDIA website to view the operation video on the DH-R* fold-away lift, or scan the QR code on the decal affixed above the control box.

- Fold-away lifts DH-RC* / DH-RM* with level ride and automatic tilt at ground level

<http://www.dhollandia.com/uservideo/RM-US-2017-01>

- Fold-away lifts DH-RP* with standard ramping ride

<http://www.dhollandia.com/uservideo/RP-US>

WARNING

- DO NOT use this liftgate without adequate safety and operator training. RP RM
- View safety and operation video prior to use. Use this QR-code to connect.
- Review operation manual prior to use. Manuals can be obtained from your DHOLLANDIA distributor, or downloaded from: www.dhollandia.com
- Improper use of the liftgate will put the operator and other parties at great risk of bodily injury and death.
- In case of doubt, contact DHOLLANDIA toll free:

RM VIDEO



RP VIDEO



US West: 855 856 8225 US East: 855 894 1888 CAN: 888 750 5438

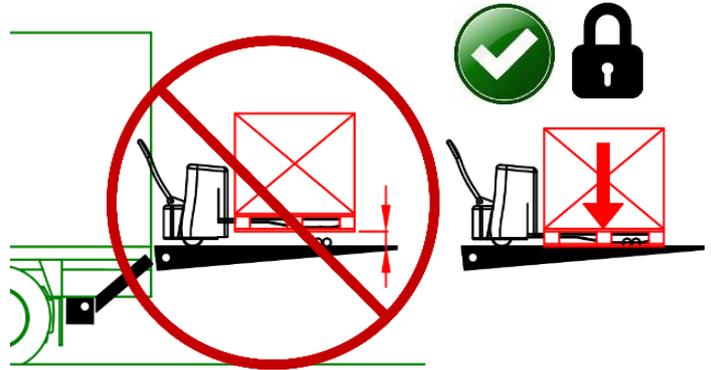
DHOLLANDIA • EF0583.DHR.EN

9.6 THE USE OF ROLL STOPS

WARNING

- If the load is not properly secured on the platform while lifting or lowering, it could shift position, destabilize the operator riding on the platform, and cause him / her to fall. Or the load could fall off the edge and hit the operator or bystanders.
- Improperly secured cargo can put the operator and any bystanders at great risk of serious bodily injury and death.
- Therefore, all cargo must be properly secured on the platform, before lifting or lowering.

- Before lifting or lowering loads, ALWAYS apply all brakes or stops available to secure the load. Engage the wheel brakes of carts, trolleys or machinery (if available). When using pallet jacks, lower and rest the pallet or load onto the platform surface.
- DHOLLANDIA offers various roll stop options, delivered to customer specification. Contact your regional DHOLLANDIA distributor for more information, prior to ordering your tail lift. See page 3 for contact info.



- The most popular roll stop models are discussed below. Contact your regional DHOLLANDIA distributor for operational instructions on other models or models with different options, prior to operating the tail lift. See page 3 for contact info.

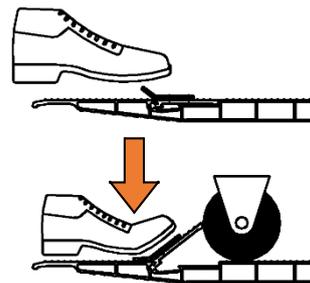


- Consult the DHOLLANDIA website to view operation videos on the various types of roll stop systems

<http://dhollandia.com/GB/en/101/Movies#/cat/0>

www.dhollandia.com → Country & language selection → Videos → General → Roll-stop systems

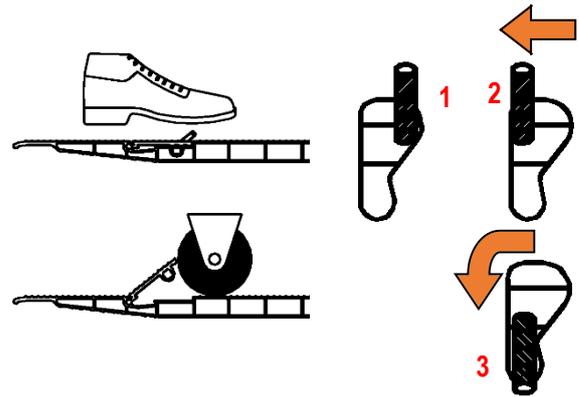
| | |
|--|---|
| OAP100.M = Manual roll stops, operated by springs | |
| OPEN | Press the lever on the side of the roll stop flap. |
| CLOSE | Step on the roll stop flap. When driving a load from the ground onto the platform, the roll stop will automatically close. |



OAP100.A = Automatic roll stops, operated by springs.

Roll stop flap opens to 40°.

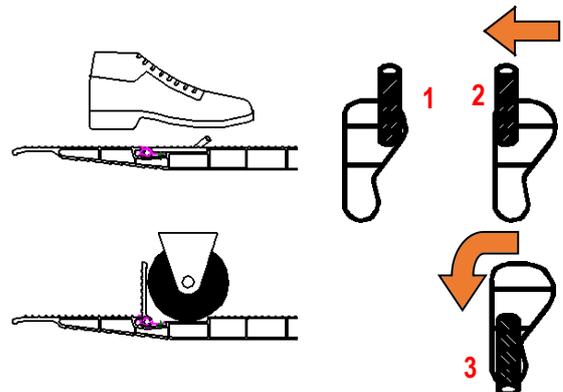
| | |
|------------------------|---|
| OPEN MANUAL MODE | Kick the lever on the side of the roll stop flap sideways from position 1 to position 2. The roll stop will now function as a manual roll stop OAP100.M. When stepping on the roll stop flap, or when driving a load from the ground onto the platform, the roll stop will automatically close. |
| OPEN AUTOMATIC MODE | Kick the lever on the side of the roll stop flap sideways + rearward, from position 1 to position 3. System will now function as automatic roll stop. When stepping on the roll stop flap, or when driving a load from the ground onto the platform, the flap automatically jumps back to the open position after releasing it, or when the load is passed over it. |
| CLOSE | Kick the lever into position 1. Step on the roll stop flap. |



OAP100.VA = Vertical roll stops, operated by springs.

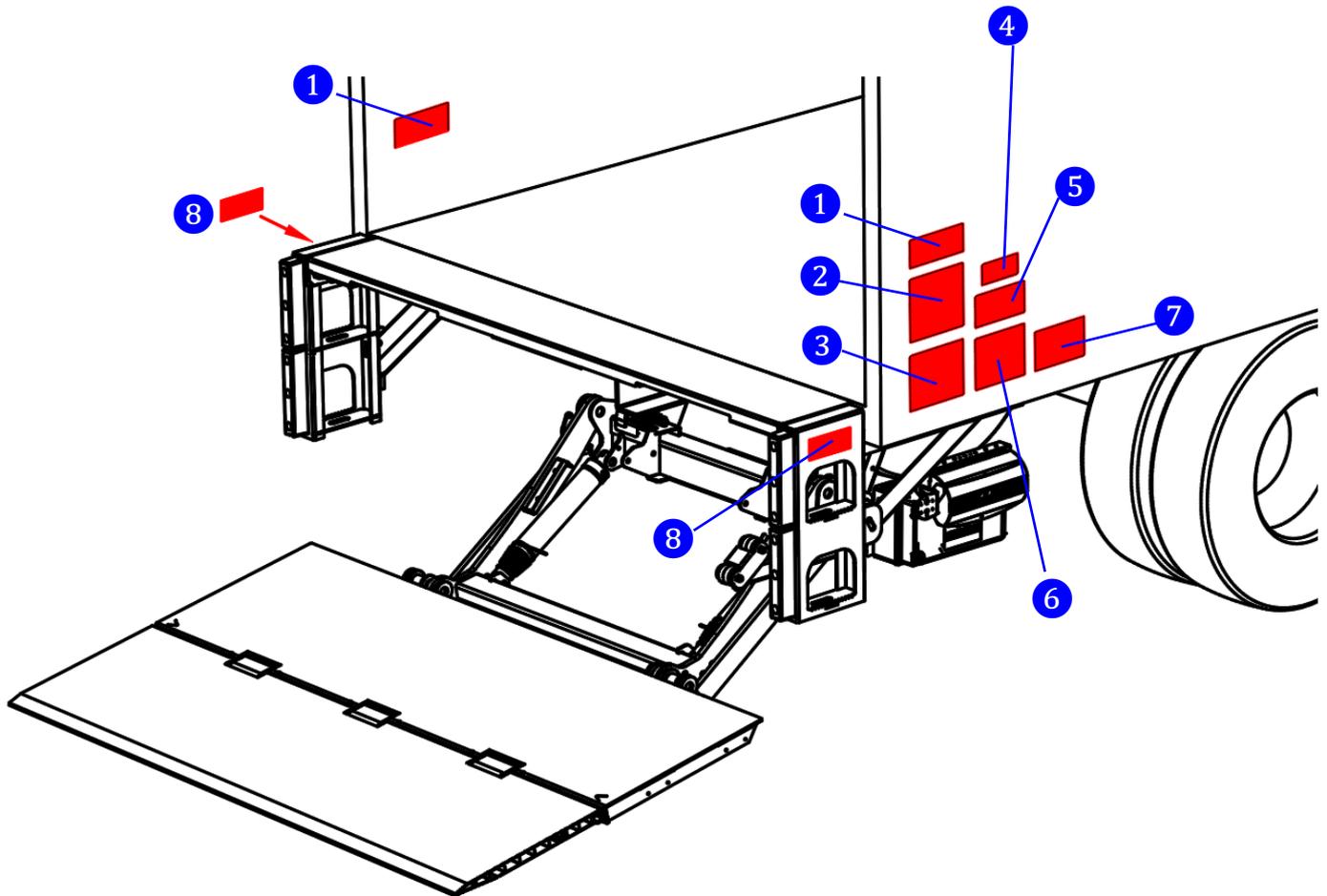
Roll stop flap opens to 90°.

| | |
|------------------------|---|
| OPEN MANUAL MODE | Kick the lever on the side of the roll stop flap sideways from position 1 to position 2. The roll stop will now function as a manual roll stop OAP100.M. When stepping on the roll stop flap, or when driving load from the ground onto the platform, the roll stop will automatically close. |
| OPEN AUTOMATIC MODE | Kick the lever on the side of the roll stop flap sideways + rearward, from position 1 to position 3. System will now function as automatic roll stop. When stepping on the roll stop flap, or when driving a load from the ground onto the platform, the flap automatically jumps back to the open position after releasing it, or when the load is passed over it. |
| CLOSE | Kick the lever into position 1. Step on the roll stop flap. |



10 DECALS

- The following decals are supplied with each new tail lift and should be affixed to the vehicle body during installation in the manner set forth in the adjacent drawings.
- NEVER remove or paint over any decal. Missing, worn or illegible warning decals must be immediately replaced. Get free replacement decals from DHOLLANDIA. Contact your regional DHOLLANDIA distributor. See page 3 for contact info.
- The operator should comply with all affixed safety and instructions decals. Be aware that the decals merely summarize the main points, and that the operator must know, understand, and comply with the full contents of the operation manual.
- Note: the decals marked as "EXAMPLE" can vary in function of the maximum rated capacity of the tail lift, or the chosen type of external control box.



1

EF0583.DHR.EN

WARNING

- DO NOT use this liftgate without adequate safety and operator training.
- View safety and operation video prior to use. Use this QR-code to connect.
- Review operation manual prior to use. Manuals can be obtained from your DHOLLANDIA distributor, or downloaded from: www.dhollandia.com
- Improper use of the liftgate will put the operator and other parties at great risk of bodily injury and death.
- In case of doubt, contact DHOLLANDIA toll free:

RM VIDEO



RP VIDEO



US West: 855 856 8225 US East: 855 894 1888 CAN: 888 750 5438

DHOLLANDIA • EF0583.DHR.EN

2

EF0565.EN

WARNING - SAFETY INSTRUCTIONS

 Read and understand the user's manual, all instructions and warnings before use.

Carelessness or ignorance will put the operator and third parties at great risk of serious injury and death.

- Do not use liftgate unless you have been properly trained and instructed, you have read and you understand the full operating instructions.
- Wear appropriate working clothes, incl. footwear with steel toe caps and a good non-slip sole, and wear protective gloves.
- Ensure the vehicle is safely parked and braked before using the liftgate.
- Where applicable, refer to the site's specific risk assessment, and follow the local work & safety instructions.
- Always inspect the lift gate before using it. DO NOT use liftgate if there are signs of bad maintenance, subnormal wear or damage, or if the platform surface is slippery. DO NOT attempt to repair liftgate yourself, unless you have been trained and authorized to do so.
- Do not overload. Observe the maximum rated capacity and load charts.
- Do not stand behind or within reach of the platform.
- Make sure that platform area, including the area in which loads may fall from platform, is clear of obstacles and other people at all times.
- Make sure you can see and keep visual control over the whole working area of the liftgate, the platform and its load at all times.
- Beware of finger and toe traps at all times. When riding platform, stand at safe distance of minimum 10" from the inboard edge of the platform adjacent to the rear sill of the vehicle body.
- It is prohibited for anyone other than the operator to travel on the platform.
- Liftgate is intended for loading and unloading cargo only. Do not use liftgate for anything else but its intended use.
- Make sure platform is clearly visible from all approach directions (by means of flashing platform lights, platform flags, traffic cones, etc...) and that the working zone is sufficiently illuminated.

3

EF0618.EN

OPERATION INSTRUCTIONS

Read and understand the operation manual and all safety decals before operating this liftgate. Improper use can put the operator and other parties at great risk!



DHOLLANDIA • EF0618

4

EF0570.CAP

MAX. xxxx kg

EF0570.00600

5

EF0585

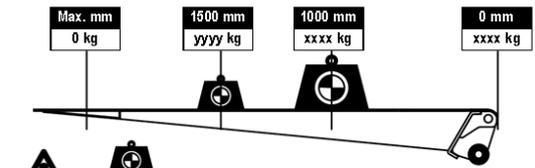
MAX. xxxx kg

Max. mm
0 kg

1500 mm
yyyy kg

1000 mm
xxxx kg

0 mm
xxxx kg



MIN.

1701 5500

DHOLLANDIA xxxx kg

DHOLLANDIA • EF0585

6

EF0563.EN

WARNING



Liftgate hazards can result in crushing or falling.

Keep hands and feet clear of pinch points.

If riding liftgate, make sure load is stable and footing is solid.

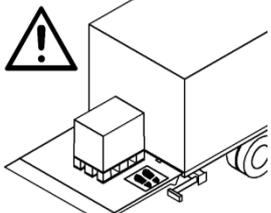
 Read and understand the user's manual, all instructions and warnings before use.

DHOLLANDIA • EF0563.EN

7

EF0564.EN

PLATFORM LOADING INSTRUCTIONS



Position load as close as possible to inboard platform edge. Position load in middle line of platform. Avoid loading on 1 side only. Operator should stand on side of load, well clear of inboard platform edge to avoid crushing feet.

Read and understand the user's manual, all instructions and warnings before use.

DHOLLANDIA • EF0564.EN

8

EF0562.EN

WARNING

Always stand clear of platform area.

DHOLLANDIA • EF0562.EN

- Tail lift decals used and affixed in areas, other than the rear of the vehicle:



Cabin switch in driver's cabin to switch electrical power to tail lift on / off (if so equipped).

11 MEANING OF SAFETY AND WARNING SIGNS

| WARNING signs | | MANDATORY ACTION signs | |
|---|--|---|---|
|  | Overview and keep visual control over the working area of the tail lift at all times. |  | Contact your regional DHOLLANDIA distributor. |
|  | General warning sign used to alert the user to potential hazards. All messages that follow this sign shall be obeyed to avoid possible harm. |  | Consult the DHOLLANDIA website. Download from DHOLLANDIA website. |
|  | Entrapment hazard. Keep hands, limbs, loose clothes and long hair away from moving parts. |  | Read the manual or instructions. |
|  | Crushing & shearing hazard. Keep hands away from moving parts. |  | Hold onto guard rail. Protect yourself from falling off the platform, or vehicle floor. |
|  | Crushing & shearing hazard. Keep feet away from moving parts. |  | Wear safety gloves. |
|  | Slipping hazard. |  | Wear safety-toe shoes. |
|  | Tripping hazard. |  | Wear appropriate work clothes, avoid loose-fitting clothes that might be trapped in the moving parts of the lift. |
|  | Hazard caused by tilting objects. |  | Wear safety protection, eye protection and a safety hard hat. |
|  | Hazard of falling from heights. |  | Use a safety shield. |
|  | Crushing and entrapment hazard. Keep head, upper body and limbs away from moving parts | | |

| PROHIBITION signs | | | |
|---|---------------------------------|---|---|
|  | General prohibition. DO NOT do! |  | DO NOT use machine by more than 1 operator! |
|  | General prohibition. DO NOT do! |  | DO NOT step or stand here! |

| Other frequently used signs | |
|---|--|
|  | Yes do this way. Correct work procedure. |
|  | Yes do this way. Correct work procedure. |
|  | No, DO NOT do this way. -Incorrect work procedure. |
|  | Position the load at the applicable center of gravity or load center. - Follow the load instructions. |
|  | Emergency stop. Will cause an immediate stop of the tail lift. |
|  | Emergency exit. Provision (lever, valve) creating an emergency exit. |
|  | Unlock. Disengage the mechanical locking system. |
|  | Lock. Engage the mechanical locking system. |
|  | Switch ON the electrical power. |
|  | Switch ON the electrical power to the tail lift via the main battery disconnect switch and / or cabin switch. |
|  | Switch OFF the electrical power. |
|  | Switch OFF the electrical power to the tail lift via the main battery disconnect switch and / or cabin switch. |
|  | This is an operation to be executed manually (as opposed to an electrical function controlled by means of one of the control units). |

NOTICE

- The most important safety and operation instructions are summarized in a product video that can be viewed online at:

1. Fold-away lifts DH-RC* / DH-RM* with level ride and automatic tilt at ground level

<http://www.dhollandia.com/uservideo/RM-US-2017-01>

2. Fold-away lifts DH-RP* with standard ramping ride

<http://www.dhollandia.com/uservideo/RP-US>

- Make sure you review these instructions prior to operation of the associated DHOLLANDIA tail lift.

1



2



NOTICE

- Competent and regular preventative maintenance is essential to the operational reliability, and the safety of the operator and bystanders.



- The latest update of our check-list for preventative maintenance & inspection can be downloaded from:

www.dhollandia.com → **Country & language selection** → **Downloads** → **Checklists** → ... **select required manual**

- All maintenance and repair work should be performed by authorized DHOLLANDIA service agents and using only authorized OEM DHOLLANDIA replacement parts.
- Consult the separate MAINTENANCE AND REPAIR MANUAL for safety instructions, maintenance guidelines, and troubleshooting support.
- Lubricate the tail lift on a regular basis to maximize its durability and operational reliability. this is at least 3 times per year in a single shift operation; more frequently in case of very intensive use (multiple shift, 24h operation, etc.) or use in hostile environment conditions (frequent high pressure cleaning with strong detergents, etc.).



- The latest version of the MAINTENANCE AND REPAIR MANUAL can be downloaded from the DHOLLANDIA website:

www.dhollandia.com → **Country & language selection** → **Downloads** → **Operation manuals** → ... **select required manual**