CEN/TC 98/WG 3 N0037

Proposal for test method for arm locking device

5.9.5 Locking system for carrying arms

Carrying arms shall be equipped……of the load carrying device
If this locking system…… of the pick up plate
The total play at the fully….the carriage locked)
It shall not….300mm of travel.

Arm locking system shall be designed with reference to a force of 4,5% of the rated load ~~capacity~~ of the lift (or in any case not less than 1500N) acting horizontally at the load carrying point, in the ~~most unfavourable~~ orthogonal direction, with the arm fully extended.
The locking system shall resist to a proof test according with annex xx

Annex xx

Arm locking device proof test procedure
Apply at end of the arm fully extended a load F equal to 6.75% of the rated load ~~capacity~~ of the lift in the direction orthogonal to the arm itself, keeping the application of the load for at least 5 min
The test is passed if the device still fulfill correctly its function after removing the force.

5.9.6 Roll off safety device

Each track…..of the track
Roll off….0,1m

It shall not be possible that a wheel with diameter as in Table 4 of a rolling vehicle can cause the out of function of the device itself

Each end stop shall be designed with reference with a force of 10% of the rated load of the lift, applied at the top of the device in horizontal plane and in longitudinal direction.
The roll off safety device shall resist to a proof test according with annex yy.

Annex yy

Roll off safety device proof test procedure
Apply at the top of the device a load F equal to 10% of the rated load of the lift in in horizontal plane and in longitudinal direction keeping the application of the load for at least 5 min.
The test is passed if the device still fulfill correctly its original function.

5.4 Control
Control devices shall be designed and arranged so that the operator is not jeopardized by the lift or by the load and can keep watching the dangerous area to avoid jeopardize of eventual bystanders

If the conditions are so that the hazardous area cannot be completely viewed from the operating position suitable countermeasures must be provided **(see annex B)**

- Risk of jeopardize bystander not visible to the operator in starting lifting movement.in light duty lift
  - Audible/visual warning signal alert the bystander that the lift is going to move
    - As soon as the lifting button is pressed an acoustic warning signal is activated but the lift do not move. After 5 sec the lifting movement start and the warning signal stop
- Risk of jeopardize bystander not visible to the operator in lifting movement.in heavy duty lift or in railbound lift
  - Audible/visual warning signal alert the bystander that the lift is going to move
    - These warning signals musty be distributed for the all lenght of the lift
  - Use of remote control (wireless or wired)
    - The remote control allows the operator move to be in the condition to watch the whole hazardous area
      - For vehicle lift where is forbidden to stay under the lift during movement a consensus button placed outside the hazardous area must be actionated by the operator (note: sinchronized commands) to allow the movement
      - For vehicle lift where is allowed to stay under the lift during movement the above consensus button can be avoided but the requirements of par xxx must be fulfilled
  - Use of mirrors or cameras
  - One or more additional release switch located so that a second (or more) operator pushing it complete the view of the whole hzardous area
    - For vehicle lift where is forbidden to stay under the lift during movement the additional release switch must be placed outside the hazardous area.
    - For vehicle lift where is allowed to stay under the lift during movement the above consensus button can be avoided but the requirements of par xxx must be fulfilled

Remote control systems (wireless or wired) are acceptable if they do not create additional hazard (see annex B)

- Related to the use of the remote control countermeasures has to be taken in order to prevent possible not correct foreseable use
  - Use limited to handle the positioning of support of the load respect vehicle (es positioning the column of inground piston lifts for trucks)
    - The remote control can work only for a limited lifting stroke from the ground level, sufficient to reach the correct positioning of the load support
    - The remote control is automatically switched off as soon as the load support take the load
      - In case of wireless remote control the requirements of annex F can be lighter
  - The remote control is used to let the operator comand the lift from a position that can allow him to keep well monitored the hazardous area
    - The comand is active for the complete stroke (lifting and lowering)
      - In order to avoid that the operator can go under the vehicle an additional release switch must be prevented outside the hazardous area to be actionated by the operator.
      - The second operator is not needed and the requirements of 5.22 do not need to be fulfilled
  - You want to use the remote control to be able to operate under the lift (for example to put the vehicle on stands or to dismount part of the vehicle using the movement of the lift)
    - No need of additional relase switch
    - No need of second operator
    - The requirements of 5.22 must be fulfilled

Note: in other words: if any further device/feature is present (additional release switch, limited stroke,…) the comand through the remote control must automatically switch the lift according with the special condition required by 5.22

Wireless control systems, if active for the complete stroke shall be conform to Annex F

When more than one vehicle lift is installed…. Shall expire every 15 minutes

This applies to the operation of both multiple and single lifting devices

Where is possible to control the lift from more than one control station, there shall be measures to enable the function of only one control station at the time.

In case of mobile vehicle lift the operator shsll be in the condition to observe the space in front of the vehicle lift