



HSE Bulletin (Ref.3in2014)

**Correct Use of Movement Limiting Devices fitted to 360 degree excavator Road-Rail Vehicles**

Date of issue: 06 March 2014  
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Support Directorates

COOAP

COO Stations and Trains

CPD

**Background**

360 degree excavator Road Rail Vehicles (RRVs) may be fitted with one of a range of different Movement Limiting Devices (MLDs) which may be used as part of a safe system of work in order to prevent the RRVs from fouling adjacent lines that are open to traffic or from moving too close to the electrified overhead lines of an adjacent railway.

Some MLDs are mechanical in nature (figure 1) whilst others are electronic and incorporated into the Rated Capacity Indicator (RCI) (figure 2).



fig1



fig2



fig3

MLDs may also be used to prevent RRVs from striking the infrastructure. However, in some cases where it is necessary for the working parts of an RRV to operate very closely to sensitive infrastructure, the MLD may not provide a sufficiently fine control of the movements and additional precautions may be required to avoid unintentional contact with the infrastructure.

MLDs approved by London Underground for use on 360 degree RRV excavators are specifically designed so that the MLD can be locked in the operational mode in order to prevent accidental or unauthorised de-activation or re-configuration of the device. For safety reasons the MLD locking mechanism installed on each RRV is operated by a key that is unique to that machine and only one key is available for use by the operating team.

MLDs must be correctly set and locked in their operational mode where this is required by the documented safe system of work. When the MLD is locked, the key must be removed from the device immediately after its correct setting has been confirmed and held by the Machine/ Crane Controller or placed in a suitable key safe/box (fig 3) located in an approved position on the RRV.

## Instruction

### Planners&DeliveryEngineers

Those responsible for the ways in which 360 degree RRVs will work on specific sites must determine whether the operation of the RRVs requires the use of MLDs. Where the use of MLDs is determined to be necessary, Planners and Delivery Engineers must ensure that this requirement is incorporated in the documented safe system of work and that the correct Plant is specified for the works.

The documented safe system of work must make reference to the procedures to be used for the correct setting and locking of the MLD and must require the key to be removed once correct setting has been confirmed and held by the Machine/Crane Controller or locked in an approved key safe fitted to the RRV.

### MachineOperatorsMachine/CraneControllers

The Machine Operator must confirm that the MLD has been setup in accordance with the documented safe system of work and must test the proper operation of the MLD. Where possible, this should be done in a safe environment prior to on-tracking of the RRV.

The Machine/Crane Controller must witness the setting and testing of the MLD and check that the MLD is locked and that the key is removed and retained by them or stored in the approved key safe on the RRV.

Any subsequent adjustment of the MLD must be authorised by the Machine/Crane Controller and the correct setting and operation and locking of the device confirmed and the locking key removed prior to the further use of the excavator.

**Method Statements and written safe systems of work should be checked to ensure that adequate segregation between plant / equipment and people is maintained.**

*Note:*

*Details of the RRVs fitted with MLDs approved by LU can be found on the Approved Plant Register under machine description. The Approved Plant Register is available via the internet as **plantandcranesforlul.com** and a username of **Readonlyuser** and password **Plant**.*

**Please communicate this alert to your teams, projects and suppliers as appropriate**

Incident reference	N/A
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