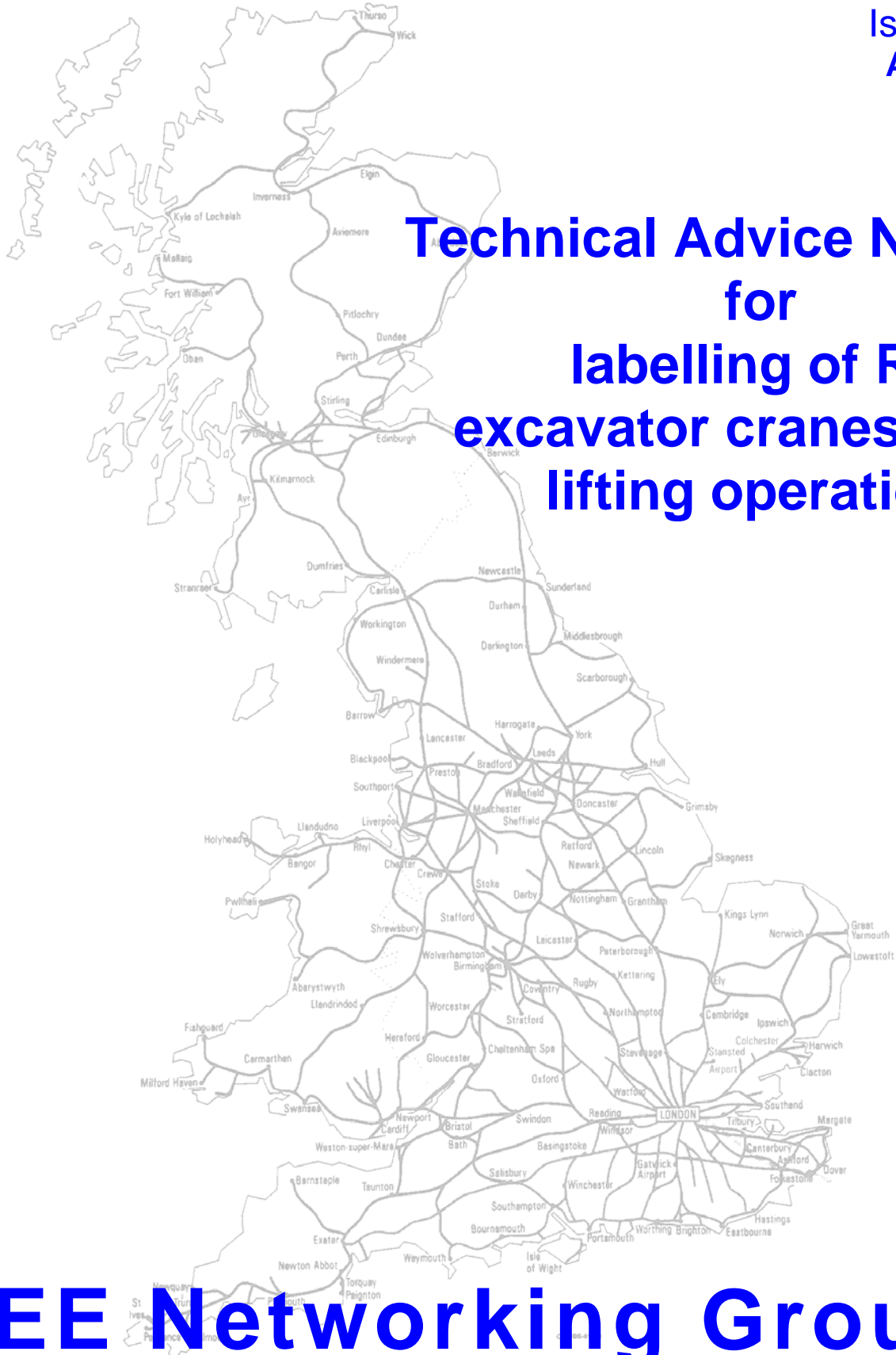


**TAN0002**

Issue 1  
Apr 08



**Technical Advice Note  
for  
labelling of RRV  
excavator cranes for  
lifting operations**

**M&EE Networking Group**

## Document revision history

Issue	Date	Reason for change
1	Apr 08	First issue

## Background

A meeting of the plant RRV rail industry members in 2004 decided that, following the discovery of an error in the original Prolec RCI configuration (RCI's are Rated Capacity Indicators – previously known as Safe Load Indicators). The machines were to be limited in their lift and carry duties until modified. The status of the machine was to be shown by a label on the side.

A sub-group of the M & EE Networking Group has looked at the current arrangements and this TAN is provided by the M&EE Networking Group to remind industry of the position regarding labelling for lifting with RRV excavator cranes.

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## Sign off

The M & EE Networking Group agreed and signed off this Code of Practice on 21 April 2008

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## NIR 1682

The original concluding NIR1682 stated:

"Since the last update of this NIR (issued 18/12/03), work has continued to investigate the fault and potential solutions. A cross industry working group was mandated to provide proposals for the way forward, this concluding report details these proposals. The proposals have been agreed by a pan-industry seminar held in Derby.

The Prolec RCI software programme provided prior to November 2003 has potential to give safe working loads in excess of those required for stability as defined by GM/RT1300 issue 4.

Investigation has identified that vehicles used as cranes statically (axle locked) with the RCI on can be used with no fear of the machine turning over. With the float axle un-locked ie in lift and carry duties, there is a danger of a wheel becoming unloaded, hence a potential derailment. The amended Prolec RCI has proven to give the required 66% safety margin in all duties.

The proposals of the working group are:

1. Machines fitted with amended Prolec RCI can lift unrestricted in all duties.
2. Existing machines can lift unrestricted statically, but lift and carry duties are restricted to an arc over the fixed axle (140 - 220 degrees) and if the transit pin is engaged, can lift and carry over float axle (0 degree). Additionally thimbling is permitted in a greater arc from fixed axle (105-130 & 230-255 degrees).
3. Labels to be fitted to sides of machines to identify which RCI is fitted.

To prevent derailments the working group recommend that all owners of RRVs that can be used as cranes fit the orange label to their machine by 06/09/2004. Prolec will arrange for a pair of green labels to be individually provided to each machine that has amended RCI fitted. Machines without any label after 06/09/2004 should not be used."

## Current labelling of RRV excavator cranes

To act as a reminder, and simplifier, the status of the Prolec RCI is determined by one of the following four options:

1. Excavator crane has a datapanel, see fig 1
2. Excavator crane fitted with green label, see fig 2
3. Excavator crane fitted with orange label, see fig 3
4. Excavator crane has none of the above options

## Meaning of RRV excavator cranes labels

- 1) If fitted with datapanel (fig 1) it is permissible to use for all lifting operations as allowed by RCI. The datapanel is only fitted when the excavator crane is completely accepted to RIS-1530-PLT.
- 2) If fitted with green label (fig 2) it is permissible to use for all lifting operations as allowed by RCI. The machine is fitted with a modified Prolec RCI
- 3) If fitted with orange label (fig 3) it can be used for static lifting as allowed by RCI. However the lift and carry duty is restricted to a 40° arc either side of the centre line over the fixed axle and at a fixed 0° over the floating axle (with the slew lock travel pin fitted in place). Additionally there is an allowance for **thimbling only** at between 50° and 75° either side of the centre line from the fixed axle. The machine should be clearly marked where required so that the operator can establish the rotational position the excavator is in.
- 4) If the Excavator crane does not have a datapanel, green label or orange label then it must not be used for any lifting operation.

<b>99709 908011 -8</b>			
Manufacturer		Owner	
Philquote GmbH	012 345 6789	Hydmee Trackside	01357 246890
Maximum travelling speed	20 mph	Maximum on/off track gradient	1:30
Maximum working speed	5 mph	Maximum on/off track cant	180 mm
Maximum travelling speed through S&C	5 mph	May be used under LIVE overhead lines	YES
Maximum travelling speed through raised checkrails	1 mph	May travel on LIVE 3 or 4 rail lines	NO
Maximum working cant	180 mm	May be used on ISOLATED 3 or 4 rail lines	YES
Maximum working gradient	1:30	May be used adjacent to running line	YES
Minimum travelling radius	120 m	Minimum 1300 mm height clearance on out of gauge tail swing	YES
Minimum working radius	100 m		
Maximum non service braked towed load	20 t	This vehicle does NOT have a travelling mode. <b>NOT PERMITTED OUTSIDE A WORKSITE</b>	
Maximum service braked towed load	120 t		

Fig 1 Datapanel

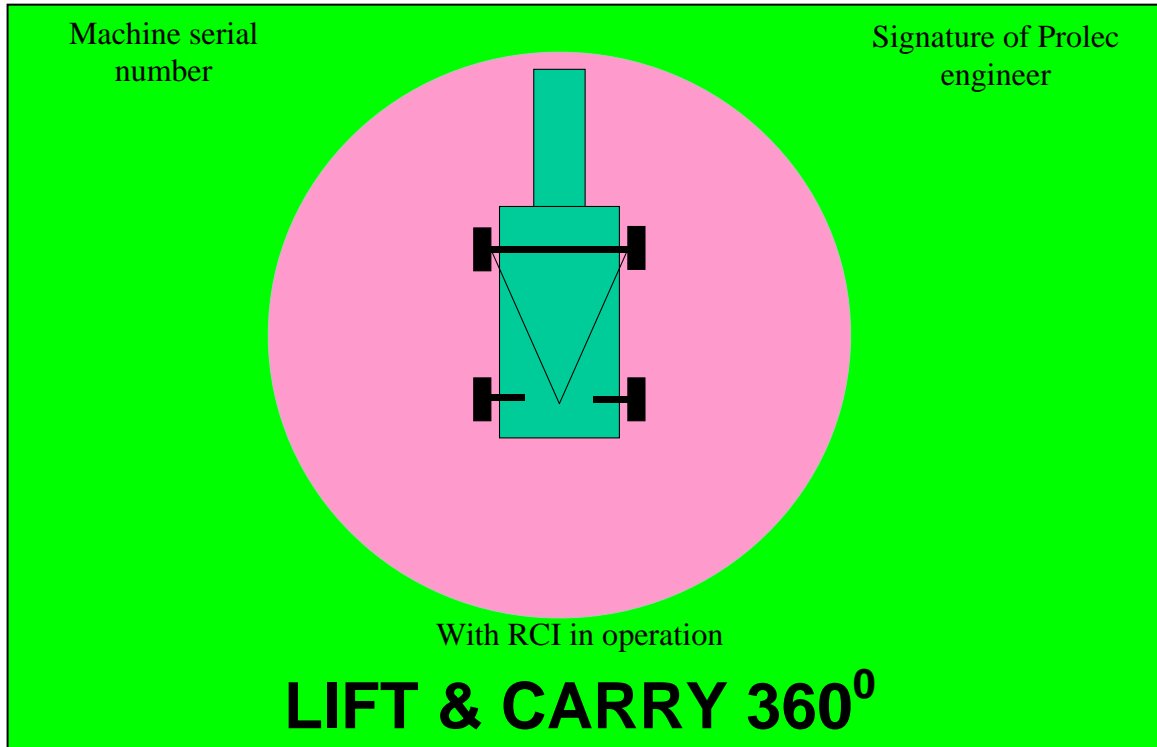


Fig 2 Green label

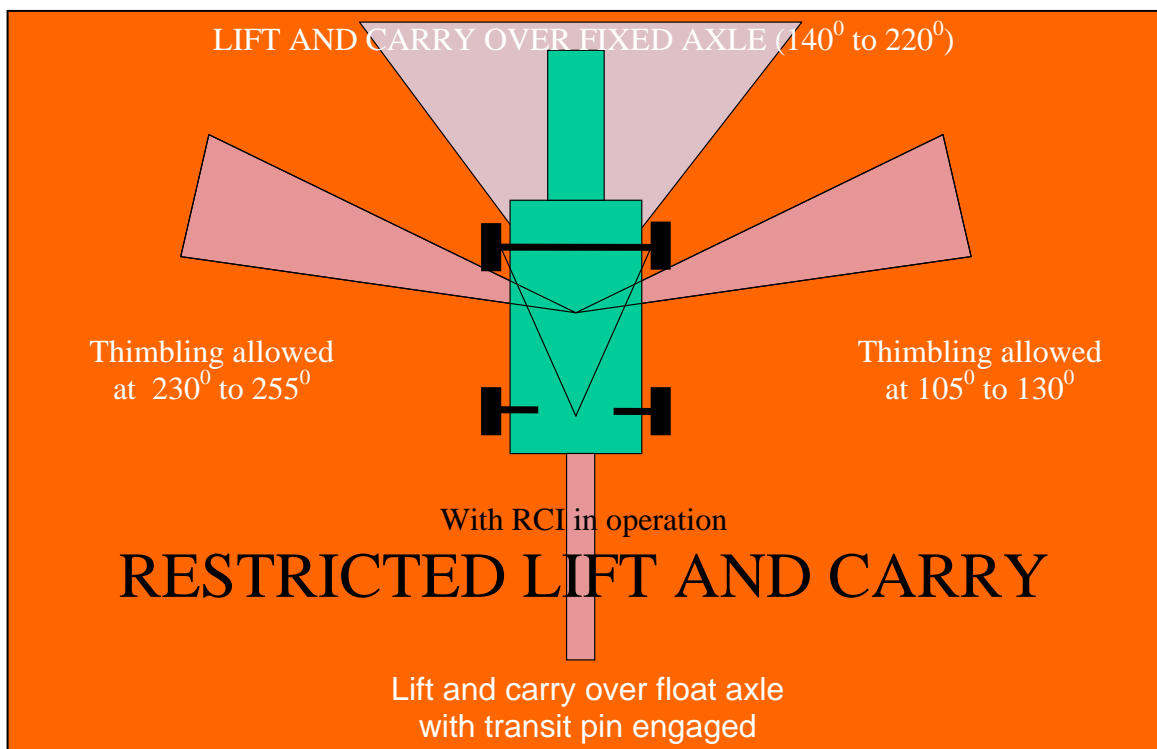


Fig 3 Orange label