

## **Notes on the Certification of Hi-Railed Elevating Work Platforms (EWP) and Cranes.**

These notes supplement OM94001 Issue 1, "*Hi-Rail Vehicles for use on the Controlled Network*" pending updating of that code and provide basic requirements for hi-railed EWP and cranes.

Note that the Dept of Labour have an *Approved Code of Practice for Power-Operated Elevating Work Platforms (ACOP)*) and an *Approved Code of Practice for Cranes*.

The following notes are written in the context of EWP but the principles apply to cranes with substitution of the *ACoP for Cranes* rather than EWP.

1. The hi-rail equipment itself must be designed in accordance with the ACOP for EWP's, which in turn calls up the appropriate AS for stability etc. (The hi-rail equipment provides "legs" for the EWP and hence must be designed to the same standard.)
2. The hi-rail equipment must be part of the EWP certification.
3. Certification must specifically take into account operation of the EWP while hi-railed, canted track (70mm + 26 tolerance = 96mm), track defects, and windy conditions.
4. The rating plate must clearly state that the machine is rated for operation while hi-railed and on canted track. (Must also be included in the Operator's Manual. The Operator's Manual must include all restrictions on operation – including wind.)
5. If the hi-railed rating differs from the on-road rating then separate ratings are acceptable.
6. If the EWP is not able to meet its full capacity while hi-railed then over-reaching its limits must be automatically prevented e.g. reach restricted by the likes of limit switches.
7. The use of an inclinometer or other devices to prevent use of the EWP on cant beyond its rating is acceptable assuming that the device is fail safe.
8. If the machine must be rail clamped on rail some or all of the time then this should be interlocked with the EWP controls to limit use if not correctly set up. Planning for the machine must consider the viability of rail clamp operation e.g. quality of fasteners, use on ballasted floor bridges and requirements clearly displayed on the machine and in the Operator's Manual.
9. If there is an intention to operate a machine off-rail on a bridge or other railway track then appropriate operating instructions are required as to the conditions necessary before doing so.
10. The EWP must meet the stability, control and functional requirements of the ACOP. Hose burst protection is required.

11. The EWP must be controllable from the work platform.
12. Inspection.
  - a. The entire machine should be load tested and inspected 6 monthly [by a CBIP EWP Level 1 or 2 Inspector]
  - b. A Major Inspection is required after 10 years and 5 yearly thereafter
  - ~~c. It must be controllable from the work platform.~~
  - c. Note that routine inspections of the EWP must also include the hi-rail equipment.
  - d. Ongoing inspection and certification requirements are to be documented in the operating manual.
13. A hazard assessment is required of new equipment before acceptance (including any rail clamp aspects etc).
14. Note - certification of new equipment. At present the Crane ACOP requires CPEng certification while the EWP ACOP does not. However, indications are that Dept of Labour intends to go to CPEng for EWP too. Certification for KiwiRail Network is to be by a CPEng unless there is good reason to use someone not so qualified.
15. Any exemptions to these requirements, including continued use of pre-existing equipment, must be signed off by the KiwiRail Network Manager Mechanical Engineering.

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