Engineering Alert

Title of Alert:	**Testing, Inspection and Use of Insulated Hand Tools (IHT)**
Target Audience:	⇨ All Network Rail Supervisors, Engineers, Line managers, Safety and Track Engineering professionals and RISQS registered contractors. ⇨ All Network Rail Plant System Managers, Operators, Line manager and safety professionals and industry representatives.
Date Issued:	16th Oct 2026

Background

In accordance with NR/L2/RSE/100/05 (How to decide what needs product acceptance) and NR/L3/MTC/EP0152 [Issue: 5] (Working on or adjacent to conductor rail) all IHT are required to go through the Product approval Process and as such be tested to BS8020:2011 (Tools for live working. Specification for insulating hand tools for work on or near conductor rail systems operating at voltages up to 1000 V a.c. or 1500 V d.c.).

What is the Issue?

It has been bought to the attention of Safety Technical & Engineering that IHT are being used without the full testing requirements associated with BS8020:2011. Furthermore, tools that have not been adequately tested are becoming fatigued making them unfit for use. The following issues have been identified:

- Solid resin bond (figure 1) must be in place to stop water/moisture ingress at the top and bottom of the overguard, a soft silicon or missing seal does not meet the required standard (figures 2, 3 & 4).
- Every IHT shall be legibly and permanently marked with the following information (figure 5):
  - manufacturer's name, trade mark or other identification;
  - year of manufacture or traceability mark;
  - double triangle symbol with rated working voltage (1 000 V) in accordance with IEC 60417-5216 (DB:2002-10);
  - the number and date of this British Standard, i.e. BS8020:2011;
  - The durability of the marking shall remain legible to a person with normal or corrected vision when tested in accordance with BS8020:2011.
- For each different IHT, written instructions shall be provided concerning its intended use and maintenance requirements.
- Due to abrasion the white underguard becomes visible through the orange outer material.

Figure 2









Figure 4



Immediate Actions

- A visual inspection of the IHT should be undertaken to check for signs of damage likely to affect its safety in use. Where there is any doubt about the safety of the user when using the IHT, it should be withdrawn from service, examined and retesting if necessary. For example, in the case of IHT, if any part of the white underguard is visible the insulated tool should be withdrawn from use and discarded.
- IHT deemed to have a soft silicon seal or a missing resin bond at the top and bottom of the overguard shall be withdrawn from service.
- IHT shall be inspected for correct markings as identified above or in BS8020:2011. Any tools that do not have the markings as indicated above or where markings are indecipherable shall be withdrawn from service, examined and retesting if necessary.
- Principal contractors shall ensure that all contractors engaged in completing works using on Network Rail Managed Infrastructure use IHT that meet the required standard and are fit for purpose.

IMPORTANT: Extract from NR/L3/MTC/EP0152 (Working on or adjacent to conductor rail)

Ref:	**NR/L3/MTC/EP0152**
Issue:	5
Date:	03 December 2011
Compliance date:	01 March 2014

5.5 Delivery of work

Prior to carrying out the task, the Team Leader shall

a) brief the team on the necessary controls

b) confirm that all tools and shields are fit for purpose and

c) check that all controls are suitable, implemented and maintained throughout the course of the work.

6 Insulated tools and shields

NOTE This section mandates the purchase and management of insulated tools

6.1 Selection of insulated tools and shields

Only Network Rail approved tools constructed to BS 8020 'Tools for live working. Insulating hand tools for work on or near conductor rail systems operating at voltages up to 1000 V a.c. or 1500 V d.c.' shall be selected.

Only approved conductor rail shields shall be selected.