Electrical Locking Equipment Overhaul – 7 Yearly Activity

Applicable to all types of Electrical Locking Equipment detailed within NR/SMS/LV21, NR/SMS/LV31 and NR/SMS/LV41.

Safety First

Network Rail competent and qualified locking staff familiar with the type of equipment shall carry out this work.

This work requires a method statement.

Testing shall be carried out in accordance with Signal Maintenance Testing procedures.

The tester shall be able to read and understand diagrams and fully comprehend the complexity of the work.

Overhaul Requirements

1. Overhaul of a Combined Lever Lock / Controller

1.1 Disconnect the Following
- Operational power supplies
- Drive Rod or Drive Pin

1.2 Remove Lever Lock / Controller from base Lay aside taking care to avoid operating controller, damaging wires etc

Lock Blade

1.3 Remove Lock Slide from base casting

1.4 Clean and examine lock slide check throw down studs are not loose or worn, check there is no damage to the controller drive slot or gear.(replace or File as necessary)

1.5 Clean and Examine drive rod and pins for any wear (Replace as necessary)

1.6 Clean and examine base for any cracks or damage

1.7 Check that the base is securely fitted to the controller table

1.8 Lightly oil lock blade and re fit. (Check the blade runs freely and that over-stroke pins or blocks are not fowling at either end of the travel)

1.9 Check new split pins are fitted to drive pins and opened to 45 degrees.

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Lock Assembly

2. Remove clean and examine lock dog ramp for wear burr's etc, File off rough edges renew dogs where necessary

2.1 Check lock adjusting screw and lock pivoting pins for wear or distortion.

2.2 Check that dowel pins are fitted to either the lock or the base (Mostly Westinghouse D and L type Models)

2.2 Check that armature piece is securely fixed to armature arm

2.3 Check pivot pins and bearing holes of the armature and laminations for any excessive play

2.4 Check nylon roller at lock end of armature arm (L Type Only)

2.5 Lock proving contacts should be clean and undamaged and provide good tension to ensure a good contact, spring pressures are based on experience

2.6 On completion of the lock checks before the lock is rewired, an insulation resistance test should be carried out between all terminals and base frame work not less than 5 Megohms

2.7 When lock proving is provided each lock proving contact should be tested to the frame with the lock in the de energised position

2.8 Test coils for resistance

DC & AC Operational Coils

Westinghouse D4/D6 (De Coil)		Westinghouse D4/D6 (Coil)		Westinghouse L Type	
Volts	Ohms	Volts	Ohms	Volts	Ohms
10	10	110 50hz	2.8	1/17/6 12v dc	10
20-24	50	110 75hz	1.8	1/1 24v dc 7/8	55
50	109	110 50hz old pattern	6	1/17/9 50v dc	270
Xxxxxx	Xxxx	110 50hz old pattern	3	2/9/2 110v AC 2/9/12 12v dc	4

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