

Maintenance of Handpoints

Scope

Includes:
Excludes:

Preparation

Tools, equipment and plant items required but not limited to:

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Work planning considerations:

- Electrification requirements

Method



2 – Way Spring Lever Box



2 – Way Spring Lever Box with obstructionless handle

1. Remove any litter/rubbish through the moving part of the switches. (This activity should also be carried out as part of the routine track inspections)
2. Look for any obstructions to the movement of either the switch rails or lever box mechanism.
3. Lubricate the slide baseplates/slide chairs.
4. Lubricate the mechanism of the lever box and the pins in the linkage.
5. Check that the split pins on the underside of the pins are in good order and in place.
6. Operate the lever box several times. The lever box should operate smoothly to close and hold the switch tongue firmly against the stock rail in the desired direction.
7. Checking the Set Up of a Spring Lever box
8. Operate the lever box so that the toggle mechanism is in the 'dead centre' position with the spring in line with the lever box body.

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9. With the lever box in this position the switches should be in mid-throw with approximately 50mm (2") between each switch rail and its respective stock rail. If this is not the case then the lever box requires adjustment.
10. If the lever box is fitted with an adjustable connecting rod then release the lock nut, adjust the connecting rod length to bring the switches and lever box into mid-throw together (see 9 above) then retighten the lock nut and check the operation.

If the lever box is not fitted with an adjustable connecting rod then the lever box will have to be repositioned or an adjustable connecting rod provided.
(See

11. Setting Up a 1-Way Lever Box below).

Setting Up a 2-Way Lever box

12. Decide where the lever box is to go, which side of the line and how far from the track. Check that this is clear of the structure gauge, does not obstruct a walkway and is a safe place for the shunter to stand.
13. Measure the length of the connecting rod from eye to eye (dimension "A" – as shown in Linkage Details below) and record it. If it is of the adjustable type make sure the adjustment is not set right to one end of its travel before doing so.
14. Set the switches to mid-throw with an equal distance between each switch tongue and its respective stock rail.
15. Measure dimension A from the centreline of the hole in the drive lug on the front stretcher bar towards where the lever box is to be positioned. This will be the location of the centreline of the hole in the bellcrank of the lever box in mid throw. For a normal 2-way spring lever box (e.g. "The 2-Way Treble") this will also be the centreline of the lever box body.
16. Offer up the lever box and mark and drill the fixing holes, making sure that the connecting rod will be at approximately right angles to the straight track of the turnout. It may well be necessary to 'notch' timbers to receive the body of the lever box to achieve this.
17. Fit the connecting rod to the lever box remembering to use a new split pin through the pin.
18. Fit the other end of the connecting rod to the drive lug on the stretcher bar. It will be necessary to pull on the lever box until the holes line up. Insert the pin and secure it with a new split pin on the underside of the assembly.
19. Carry out a check on operation as in Setting Up a 2-Way Lever box above.
20. With the spring lever boxes the spring pressure may be altered, to give a greater pressure to hold the switches in place, by adjusting the nut retaining