

ANPR 743

Manually Operating Handthrow Electric Points

Applicability

NSW

SMS

Publication Requirement

External Only

Document Status

Issue/Revision #	Effective from
3.0	11 October 2015

Introduction

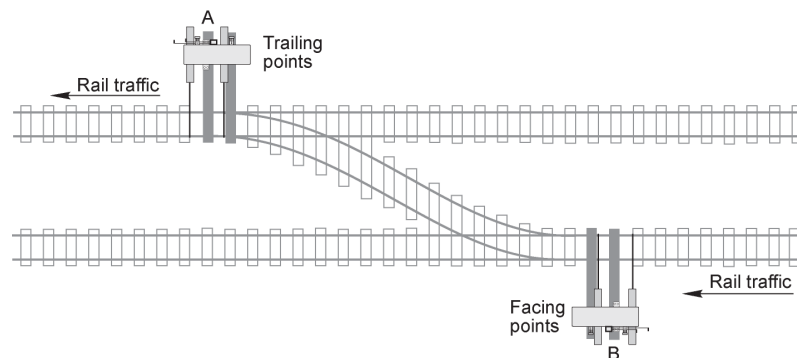
If the *Signaller* has given authority, handthrow electric *points* machines *may* be operated manually with handthrow levers.

Westinghouse and Vossloh Cogifer points machines have Emergency Operating Lock (EOL) cabinets at the points. These contain key switches for each machine.

Nippon points machines do not have cabinets with key switches.

Manually operating the points

Figure ANPR 743-1



Crossover operated by two electric points machines

Qualified Worker

Check the position of the points at each points machine. Make sure that your changes set the correct *route*.

NOTE

Operate points machines at *crossovers* in order from the trailing end to the facing end.

Switching to trackside control

Nippon points machines

A safety cutout latch:

- engages the manual operating handle, and
- breaks the motor drive circuit.

Qualified worker

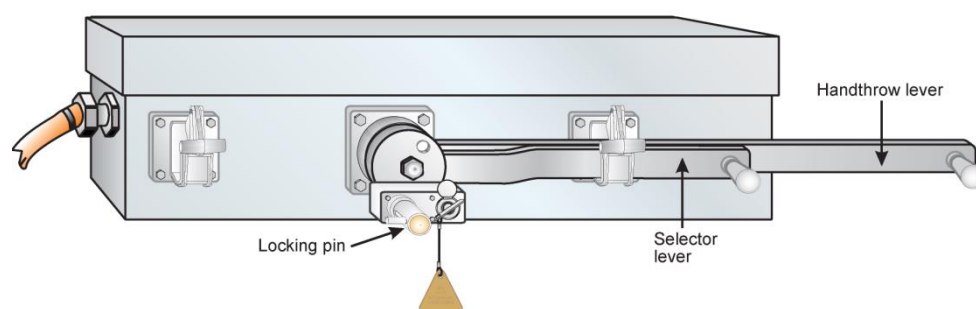
1. Undo and remove the SL lock securing the safety cutout latch.
2. Turn the safety cutout latch to vertical.
3. Turn the manual operating handle a full turn until the stop is reached. You may first have to 'feel' the operating handle into place to engage the gearing correctly.
4. Make sure that the switch rail is hard against the stock rail.
5. Get instructions from the Signaller.

Westinghouse points machines

Westinghouse points machines have:

- a long handthrow lever with NORMAL and REVERSE positions, and
- a short selector lever with HAND and MOTOR positions.

Figure ANPR 743-2



Westinghouse points machine

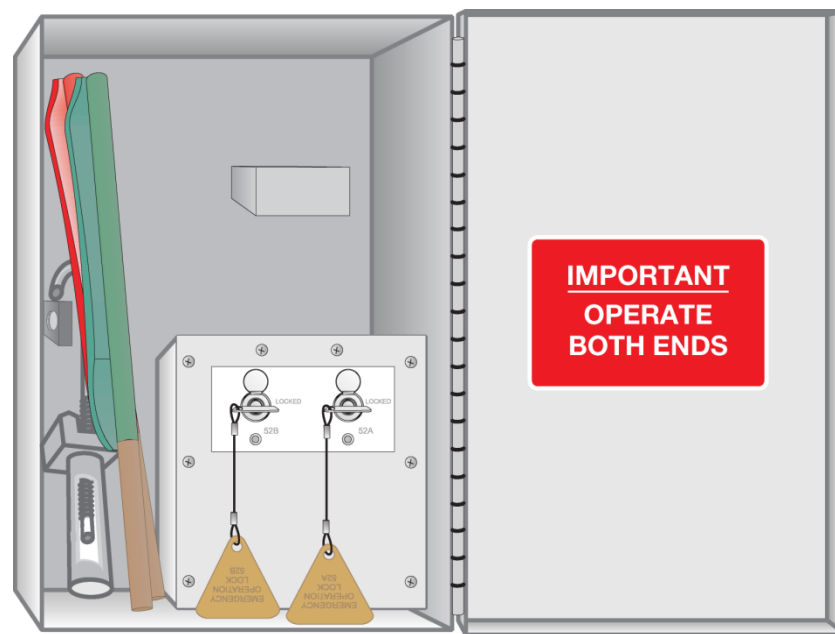
If the points machine is locked:

- the handthrow lever is at NORMAL, and
- the selector lever is at MOTOR.

Qualified worker

1. Find the correct EOL cabinet for the points.
2. Unlock the cabinet with an SL key.

Figure ANPR 743-3



EOL cabinet with keys for two handthrow electric points machines

3. If there are instructions in the cabinet to help you to operate the points, read and follow them.
4. Turn the EOL keys from LOCKED to UNLOCKED. Take them from the cabinet in the correct order. Removing them:
 - switches the points machines to trackside control, and
 - sets the protecting signals at STOP.
5. Check the key labels to make sure they are the correct keys.
6. Make sure that protecting signals are at STOP.
7. If the points machine has an SL lock, unlock it.
8. Turn the EOL key in the EOL lock on the points machine. The lock captures the key.
9. Pull out the locking pin to allow the levers to be moved.

10. Lift the catch holding the selector lever.
11. Move the selector lever from MOTOR to HAND. Keep the lever in place with the catch.
12. Lift the catch holding the handthrow lever.
13. Move the handthrow lever to move the points to the required position.
14. Make sure that the switch rail is hard against the stock rail.
15. Keep the handthrow lever in place with the catch. If it is not held by the catch when the switch rail is hard against the stock rail, tell the Signaller.
16. Get instructions from the Signaller.

Vossloh Cogifer points machines

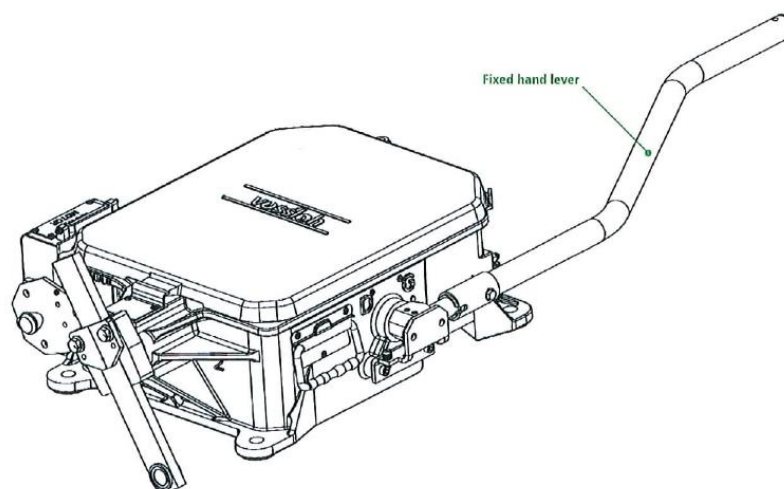
Vossloh Cogifer points machines have:

- a long handthrow lever to allow the points to be positioned in either NORMAL or REVERSE position.
- a selector switch with Motor and Hand positions.

If the points machine is locked:

- the handthrow lever is locked in EITHER POSITION, and
- the selector switch is at MOTOR.

Figure ANPR 743-4



Vossloh Cogifer points machines

Qualified worker

1. Find the correct EOL cabinet for the points.
2. Unlock the cabinet with an SL key.
3. If there are instructions in the cabinet to help you to operate the points, read and follow them.
4. Turn the EOL keys from LOCKED to UNLOCKED. Take them from the cabinet in the correct order. Removing them:
 - switches the points machines to trackside control, and
 - sets the protecting signals at STOP.
5. Check the key labels to make sure they are the correct keys.
6. Make sure that protecting signals are at STOP.
7. If the points machine has an SL lock, unlock it.
8. Turn the EOL key in the EOL lock on the points machine. The lock captures the key.
9. Pull out the locking pin to allow the motor / hand selector to be moved.
10. Move the selector up to switch to hand mode.
11. Unlock and remove the SL lock from the handthrow lever.
12. Move the handthrow lever to move the points to the required position.
13. Make sure that the switch rail is hard against the stock rail. If it is not held against the stock rail, tell the Signaller.
14. Get instructions from the Signaller.



Depending on the position of the points, the lever may need to be switched to the opposite side to engage the clutch to operate the points manually.

Returning to signal box control

Nippon points machines

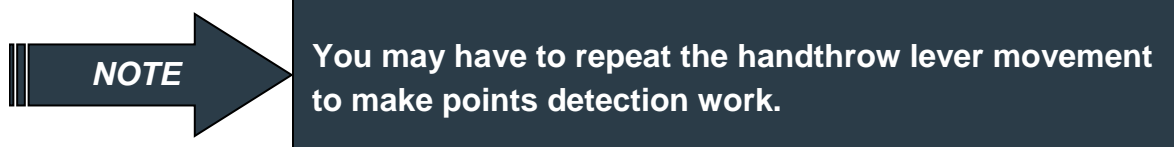
Qualified Worker

1. Turn the safety cutout latch to horizontal.
2. Replace the SL lock.
3. Ask the Signaller to test the points.
4. Confirm with the Signaller that the points operate correctly.
5. If the points do not operate correctly, get instructions from the Signaller.

Westinghouse points machines

Qualified Worker

1. Lift the catch holding the handthrow and selector levers.
2. Move:
 - the handthrow lever to NORMAL, and
 - the selector lever to MOTOR.



3. Push in the locking pin.
4. Remove the EOL key, and if necessary, replace the SL lock.
5. Return the EOL key to the correct cabinet.
6. Turn switches in the cabinet to LOCKED, in the correct order, and lock the cabinet.
7. Ask the Signaller to test the points.
8. Confirm with the Signaller that the points operate correctly.
9. If the points do not operate correctly, get instructions from the Signaller.

Vossloh Cogifer points machines

Qualified Worker

1. Replace the SL lock on the handthrow, and
2. Move the selector down to switch to motor (automatic) mode.
3. Push in the locking pin.
4. Remove the EOL key, and if necessary, replace the SL lock.
5. Return the EOL key to the correct cabinet.
6. Turn switches in the cabinet to LOCKED, in the correct order, and lock the cabinet.
7. Ask the Signaller to test the points.
8. Confirm with the Signaller that the points operate correctly.
9. If the points do not operate correctly, get instructions from the Signaller.

Related ARTC Network Procedures

ANPR 703	Working using controlled signal blocking
ANPR 707	Clipping points
ANPR 711	Lookouts
ANPR 721	Spoken and written communication
ANPR 740	Responding to faulty points

Effective Date

11 October 2015