

HYDRAULIC LINEAR LOCK POINTS MACHINE

The Hydraulic MkII (electro-hydraulic) linear lock points machine was designed to provide positive locking of the switchblades through Rail Mounted Clamp Locks. ACTOM Signalling manufactures the machine in South Africa.

Recent years have seen an increase in axle loading of freight trains and a general increase in the speed of trains. The requirement for more positive locking of the point's switchblades was identified. Trailability was also needed to prevent damage to the points layout, as well as the points machine, during a run through.

Major components

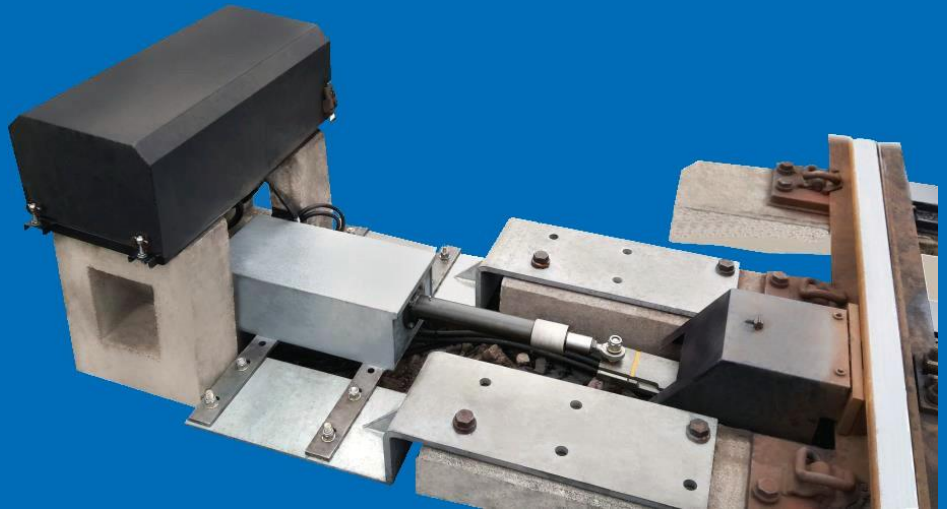
The major components of the Hydraulic MkII linear lock points machine are:

- Electric motor driven hydraulic pump.
- Hydraulic motor driven ball screw.
- Control valves.
- Linear drive lock.
- Rail mounted points locks.
- Detection limit switches.
- Drive slide, lock and detection.
- Housing and covers.
- Telescopic back stretcher(s).

Operation sequence

The points operating sequence is:

- Linear drive lock releases.
- Closed blade unlocks.
- Detection contacts break.
- Points operate to opposite setting.
- Closed blade locks.
- Detection contacts made.
- Linear drive locks. (The drive slide is positively held in position through the linear drive and brake unit.)
- The operation can be interrupted or reversed at any time.



The Manual operation

The machine may be manually operated by means of a standard crank handle. The handle couples directly to the electric motor shaft, allowing manual rotation of the motor. The direction of rotation determines the direction of throw of the points.

Applications

The HLL MkII can be used to operate the following points sets:

- Single slip, standard and tangential.
- Double slips.
- 1:20 turnouts.
- Derailers.

The Clamp Locks can be used in conjunction with self-normalising points, hand tumblers and points indicators.

Technical Data

Motor Voltage	- 380 V 3# AC 50Hz
	- 1 0 V DC
	- 220 V AC 50Hz
Throwing Force	- 3.3kN to 8.8kN
Trailing Resistance	- 7kN
Stroke	- STD 250mm
Operating time	- 2.3 seconds
Running Current	- 380 V ~ 2.2 amps
	- 1 0 V = 10.2 amps
	- 220 V ~ 3.2 amps
Weight	- Hydraulic Unit 45Kg
	- Clamp Lock 35Kg ea

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