

1882.
 VICTORIA.

WOODS' CONTINUOUS BRAKE.

RETURN to an Order of the *Legislative Assembly*,
 Dated 16th August 1882, for—

A RETURN showing—

- (1.) How long the Woods' Continuous Brake has been fitted to rolling-stock on the Victorian lines.
- (2.) How many vehicles is it applied to.
- (3.) Approximately how many times has it been applied to trains in motion.
- (4.) How many failures are recorded of it refusing to go on or release when required to do so.
- (5.) What has been the cost per vehicle for repairs, and what the cost per vehicle for renewals, since the brake has been applied.
- (6.) What amount of money, if any, has been expended in experiments on the mechanism of the brake.

(*Mr. Zox.*)

Ordered by the Legislative Assembly to be printed, 14th December 1882.

WOODS' CONTINUOUS BRAKE.

- (1.) How long the Woods' Continuous Brake has been fitted to rolling-stock on the Victorian lines?
 Five years.
- (2.) How many vehicles is it applied to?
 118 carriages and vans.
 94 guards' vans, horse boxes, carriage trucks, and mail vans, with pipe connection only.
 10 goods wagons.
 4 ditto, pipe connection only.
 32 engines.

 258
- (3.) Approximately, how many times has it been applied to trains in motion?
 1,400,000 times.
- (4.) How many failures are recorded of it refusing to go on or release when required to do so?
 Exact returns of failures or delays in the working of trains caused by continuous brake were not kept until the beginning of the present year. All details of same since that date are given on attached sheet. Mileage run during this period, 1st January to 30th June, 241,752 train miles.
- (5.) What has been the cost per vehicle for repairs, and what the cost per vehicle for renewals, since the brake has been applied?
 The total cost of maintenance and renewals for all vehicles for six months has been £96.
- (6.) What amount of money, if any, has been expended in experiments on the mechanism of the brake?
 None beyond the first two carriages, which are still running.

S. MIRLS, Loco. Supt.
 12/10/82.

[*Approximate Cost of Return.*—Preparation, £3; Printing (760 copies), £2 4s. 6d.; total, £5 4s. 6d.]

4. RETURN FOR SIX MONTHS ENDING 30TH JUNE 1882, OF FAILURES OF WOODS' AUTOMATIC HYDRAULIC BRAKE IN REFUSING TO GO ON OR RELEASE WHEN REQUIRED TO DO SO.

1. *Failure or partial failure to act when required in case of an accident to a train, or a collision between trains being imminent?*

Nil.

2. *Failure or partial failure to act under ordinary circumstances to stop a train when required?*

29th March 1882.—8.20 a.m. down Brighton train. Valve stuck. Overran Richmond platform two carriage lengths.

17th May 1882.—5.40 p.m. down Brighton train. Overran Richmond platform. Joint of valve blew out (ordinary wear). Plug of shut-off cock put in wrongly.

3. *Delay in the working of trains in consequence of defects in or improper action of the brake?*

2nd January 1882.—12.15 p.m. down, main line train. Valve on a carriage stuck and prevented brake being released from other carriages. Brake acted on driver re-charging accumulator.

3rd January 1882.—5.5 p.m. up Essendon train. Leakage of valve under second-class carriage, caused by piece of grit. Brake righted itself.

4th January 1882.—Main line up train. Brake failed to act twice through valve sticking. On application of increased pressure worked effectively. No delay.

6th January 1882.—12 noon main line up train. Leakage in valve on carriage, causing brake to remain on some time after release-valve was opened.

10th January 1882.—12 noon main line up train. Hose-pipe on carriage would not allow water to flow through defect in pipe. No delay.

13th January 1882.—7.20 p.m. main line up train. Leakage in valve on carriage. Prevented brake being used until carriage was disconnected.

14th January 1882.—12.15 p.m. main down train. Leakage in valve on carriage. Hose uncoupled and brake used on three carriages next to engine only. Three minutes delay.

18th January 1882.—12.15 main line down train. Valve on carriage stuck. Hose connection had to be uncoupled.

6th February 1882.—2 p.m. Williamstown down train. Hose-pipe disconnected. Train came to a standstill by automatic action of brake between North Melbourne and Footscray. No delay. Cause, not properly coupled up.

5th March 1882.—1 p.m. Williamstown down train. Failed to act at North Melbourne. Defect in hose-pipe. No delay.

7th April 1882.—6.40 a.m. Ballarat down train. Hose-pipe disconnected between Elaine and Meredith. Train came to a standstill. Not properly coupled up. No delay.

19th May 1882.—8.5 a.m. Williamstown up train. Had to disconnect brake at Footscray station. Two pieces of tin solder in valve chest. Eight minutes delay.

19th May 1882.—Brighton train. Broken hose-pipe connection. No delay.

24th May 1882.—12 noon main line up train. Brake would not come off the wheels of carriage at Castlemaine. Hose-pipe defective.

1st June 1882.—4.25 p.m. Williamstown down train. Injector valve on engine stuck, allowing hot water to rush through accumulator, destroying india-rubber diaphragm of valve on one carriage.

3rd June 1882.—6.45 a.m. main line down train. Blocks would not come well of wheels. Water leaked out of accumulator. Bad driving.

3rd June 1882.—12 noon main line up train. Pipe defective. Brake had to be disconnected shortly after leaving Melbourne.

29th June 1882.—6.45 main line up train. Would not act on a carriage; cause unknown.

S. MIRLS, Loco. Supt.
12/10/82.