

Melbourne, 18th October 1916.

YOKE FRAMES FOR SUPPORTING LINE

PULLEYS IN TUNNEL

Mr. Watt's examination has included the examination of a fair number of pulleys on different routes, the examination being made by the pulley being removed from a yoke frame while the rope was in motion. Mr. Watt made no examination of the yoke frames, principally because it is dangerous work to do when the rope is running and, in addition, he would be incapable of getting through the small manholes to make the necessary close examination.

I thought it desirable that we should examine these yoke frames and arranged that Mr. Blackwell should do a few on the Southern side last Sunday week, and a few on the Northern side last Sunday.

The results of these examinations are summarized in the attached lists.

We are informed that it is important that the distance from the slot beams to the top of the frames should be 30", and gauges are in use by the officials for testing this from time to time. We are also informed that when this exceeds 31", the depth is considered excessive, and the frames require re-adjustment in height.

It will be noted that ^{in the Southern Section} 38.5% of the frames in good condition and these slightly worn, and in the Northern Section, 37%, require re-adjustment as regards height. The alteration in the height is due to the loosening of the bolts or the breaking off of the bolts which attach these frames to the yokes.

The general condition of the frames in the Southern Section compared with those in the Northern is very marked. The Southern Section had 27% of the frames badly worn, and 23% of the frames cracked, and both of these classes should be renewed. In the Northern Section, there was only one frame out of 39 examined, or 2.6%, which was badly worn, and none were found to be cracked.

Consideration should be given to the further steps to be taken in regard to this state of affairs.

It is a long and tedious operation making the examination and it could only be done at night time or on Sunday mornings.

There are approximately 4,700 of these Pulley Yoke Frames in the Southern Section and 8576 in the Northern Section.

It will be noted that many of these frames which were examined and condemned for being badly worn or cracked also exceed the 31" maximum height from the top of the slot beam which is permitted.

From the examination we have already made it would appear desirable that an examination of a fair percentage of all the frames should be made, particularly in the Southern area, so as to form a fair average in regard to the system as a whole.

(Sgd.) P. J. PRINGLE

LIST BEARING THE CAPTION OF PULLEY YOKE FRAMES IN THE SOUTHERN SECTION

Distance from top of slot beam to top of Yoke Frames is 30 inches. Approximately 25% examined

FRAMES IN GOOD CONDITION
Distances from top of slot beam to both ends of frame

FRAMES ALREADY WORN
Distance from top of slot beam to both ends of frame

31.75"	30.5"	30.25"	29.75"
30"	30.5"	30.5"	30"
30.5"	30.25"	30.75"	31"
30"	31"		
30"	30"		
31.25"	31.5"		
30.25"	30"		
31.05"	32"		
31.62"	32.5"		
31.5"	32.75"		
30 = 30.5"			

30.5" of A & B require adjustment for height

* requires adjustment for height.

18/10/16.

LIST SHOWING THE CONDITION OF PULLEY YOKE FRAMES IN COLLING STREET

LIST SHOWING THE CONDITION OF PULLEY YOKE FRAMES IN MADELINE & SWANSTON STREETS

Distance from top of Slot Beam to top of (SOUTHERN SECTION) frames. Approx. 25% examined.

Distance from top of Slot Beam to top of Yoke Frames is 30 inches.

FRAMES IN GOOD CONDITION
Approximately 25% examined

FRAMES SLIGHTLY WORN

FRAMES BADLY WORN
WORN HALF WAY & GREATER THROUGH

FRAMES
CRACKED

FRAMES IN GOOD CONDITION		FRAMES SLIGHTLY WORN		FRAMES BADLY WORN (WORN HALF WAY & GREATER THROUGH ONE SIDE OF L SECTION)		FRAMES CRACKED	
Distance from top of Slot beam to both ends of frame		Distance from top of slot beam to both ends of frame		Distance from top of slot beam to both ends of frame		Distance from top of slot beam to both ends of frame	
31.75"	30.5"	30.25"	29.75"	30.5"	31.5"	30.25"	30.25"
30"	30.5"	30.5"	30"	30.25"	30.25"	30"	30"
30.5"	30.25"	31.75"	31"	31"	34"	32.75"	29.75"
34"	31"	30.25"	31.5"	31.75"	34"	30"	30.25"
30"	30"			31.75"	34.5"	30.25"	30"
31.25"	31.5"			31.75"	33.37"	33"	32.5"
30.25"	30"			30.5"	31.5"		
31.25"	32"						
31.62"	32.5"						
31.5"	29.75"						

TOTAL-
26

10 = 38.5%

38.5% of A & B require adjustment for height

3 = 11.5%

7 = 27%

X = 16 = 23% have been repaired since the original construction & amount to 23% of total.

* = Requires adjustment for height.

Total - 39

31 = 79.5%

5% of A & B require adjustment for height

7 = 17.9%

1 = 2.6%

18/10/16.

LIST SHOWING THE CONDITION OF PULLEY YOKE FRAMES IN MADELINE & SWANSTON STREETS
(SOUTHERN SECTION)

Distance from top of Slot Beam to top of Yoke Frames is 30 inches.

Approximately 25% examined

<u>FRAMES IN GOOD CONDITION</u> Distance from top of Slot beam to both ends of frame		<u>FRAMES SLIGHTLY WORN</u> Distance from top of slot beam to both ends of frame		<u>FRAMES BADLY WORN</u> (WORN & WAY & GREATER THROUGH ONE SIDE OF L SECTION) Distance from top of slot beam to both ends of frame		<u>FRAMES CRACKED</u> Distance from top of slot beam to both ends of frame	
31.75"	30.5"	30.25"	29.75"	30.5"	31.5"	30.25"	30.25"
30"	30.5"	30.5"	30"	30.25"	§ 30.25"	30"	30"
30.5"	30.25"	31.75"	31" §	31"	34"	32.75"	29.75"
34"	31" §			31.75"	34"	30"	30.25"
30"	30"			31.75"	34.5"	30.25"	30"
31.25"	31.5" §			31.75"	33.37"	33"	32.5"
30.25"	30"			30.5"	31.5"		
31.25"	32" §						
31.62"	32.5" §						
31.5"	29.75"						

TOTAL-
26

10 = 38.5% 38.5% of A & B require adjustment for height 3 = 11.5% 7 = 27% 6 = 23%

§ = Requires adjustment for height.