

speaker the loader could hold conversation with the checker from any location in the car.

We also use a light-indicating system whereby the checker in the office can always tell when the loader

has connected up his loudspeaker. And, if for some reason the checker does not have the circuit connected to his loudspeaker, the loader can always call him by flashing the signal lamp.

being carried out to the signal locations, and may remain in the signal housings for a number of months before being actually placed in service. A test made before carrying them out to the signal location would not necessarily be of much benefit, and there is no time to make such test when they are actually required to be placed in service.

Our records of lamp life indicate that there would be little, if anything, gained by attempting to make a test by burning them for some time before actually placing them in the signals.

## Signal Lamp Test

*Do you test signal lamps by burning them a certain number of hours before placing them in service? Why or why not? Please give reasons.*

### Do Not Pre-Burn

By F. YOUNGWERTH  
Assistant General Superintendent  
Communications & Signals  
Erie  
Cleveland, Ohio

On the Erie, we do not make any preliminary burning time test of signal lamps prior to placing lamp in service. We have found that lamps that are subjected to a burning time test do not stand the jarring which they subsequently receive in shipment to field. Having once been burned, the filament is now susceptible to distortion. Lamps that are not pre-burned appear to stand rougher handling, which they are bound to receive regardless of precautions that are taken.

We do, after lamps are installed, burn them for several minutes. Any unusual conditions such as burning excessively bright, discoloration of bulb, warping of filament, etc., is noted and the lamp is removed from service.

### Did Test Before Don't Now

By M. R. ROBERTS  
Principal Assistant  
Signal Engineer  
Chicago, Burlington & Quincy  
Chicago, Ill.

A few years ago rather extensive tests on signal lamps were made on Burlington Lines, to determine if, by some means, a reduction in the number of lamps failures could be brought about. One phase of this test included pre-burning of lamps, which was done at full rated voltage for ten days on 50 lamps, none of which failed at this time. After this, these 50 lamps were placed in service, and at approximately the same time 50 lamps, which were not pre-burned, were placed in service.

A very close check on the life of these lamps developed that there was approximately no difference in the

hours of service before failure of the lamps which were pre-burned and those which were not pre-burned. From this test, and for the reason that lamps must be handled before being placed in service which may, in some cases cause some damage to the filament, a decision was made that pre-burning of lamps was not warranted as there is not sufficient benefit derived from such practice.

### No Pre-Burning

By G. K. THOMAS  
Signal Engineer, System  
Atchison, Topeka & Santa Fe  
Topeka, Kan.

When electric lamps are replaced in signals they are, of course, checked to see that they light up properly. The lamps are not previously tested by burning for a certain number of hours or days, because experience has not indicated the need for such a test, and it would be difficult to carry out satisfactorily.

The lamps are distributed from storehouse to signal maintainers, who place them in instrument cases or other housings at the individual signals so that they will be available when needed for replacement in the signals themselves. They are subject to a certain amount of vibration in

### Momentary Test in the Field

By K. CHAMBERLAIN  
Signal Engineer  
Chicago & North Western  
Chicago, Ill.

We do not subject signal lamps to a prolonged test prior to placing them in service. In our experience, there is little to be gained from such a test. A certain percentage of the lamps will fail during such a test, and the percentage of lamp failures will increase as the duration of the test is extended. The test in itself, however, in our opinion, adds nothing to the service life of the lamps, nor could results obtained from such a test be used to determine the remaining hours of service left in the lamp.

It is, of course, only good common sense to subject lamps to a momentary test to determine their general condition before placing them in service, and this test is performed on our road by our signal maintainers in the field.

---

## To Be Answered in a Later Issue

- (1) *What, in your opinion, is the most suitable way in which to connect ground wires to metal cable sheaths?*
- (2) *How do you inspect stranded cable plug-type bonds to determine whether some of the strands are broken?*
- (3) *What is the best method to be used by one man alone when making temporary or permanent repairs of line wire breaks?*
- (4) *What has been your experience with the use of graphite or ready mixed lubricants including graphite, for use on slide plates under points of power-operated switches in interlockings or CTC?*
- (5) *If a hole rusted out in an air line at an electro-pneumatic interlocking, how could the defect be remedied quickly?*
- (6) *What kind of an arrangement is most practicable to mount on a track motor car ahead of the wheels for the purpose of knocking stones and other obstructions off the rail?*

If you will send us answers to any of the above questions, we will pay for them upon publication. Answers should be addressed to "What's the Answer?", Railway Signaling and Communications, 79 West Monroe Street, Chicago 3, Ill. Send us questions which you wish to have discussed or answered.

---