

W-2

INSTRUCTIONS
in
TIME CHECKING
TRANSFERS

THE TIME CHECK
IS MOST IMPORTANT



CHICAGO SURFACE LINES

Transportation Department

April, 1938

INSTRUCTIONS IN TIME CHECKING TRANSFERS

The ability to read and check the validity of transfers quickly and accurately is an essential requirement of your duty. A cash fare or a valid transfer is good for a ride; consequently, a transfer before being accepted must be checked. In order to be fair to the public and to yourself, the fraudulent use of a transfer must not be allowed. Accepting an invalid transfer amounts to discrimination against the legitimate transfer rider and results in a loss of revenue. If only one transfer in a hundred is found wrong and a new fare is collected it will increase the revenue \$1000 per day.

A survey of transfer handling shows a need for more care and instruction. A man must be as efficient in this matter as in any other duty.

The Time Check Is the First and Most Important of All Transfer Checks.

This booklet has been especially prepared to make certain that all conductors and operators have a clear understanding of the proper methods of time checking transfers. Some men now have this information well in mind but, even to them, a short review of the fundamentals will be worthwhile. There are, however, many others who seem to have no simple or workable method, and to such men this instruction is especially necessary.

Soon after this booklet is distributed all conductors and operators will be checked on their procedure in time checking and other important phases of transfer handling.

The illustrations shown are based upon a design of transfer dial somewhat different from that now in effect on most lines. This new type will be used on all white transfers in the near future.

Of all invalid transfers offered for fare, 78% are late. Most of this fraudulent use is by passengers who make stopovers, and it actually amounts to an attempt to make two or more trips for the price of one.

TRANSFERS, LIKE CASH FARES, MUST BE CHECKED

READING THE TRANSFER CLOCK

The most common device for indicating time is the clock or watch with long and short hands on a circular dial. This dial is so simple and its use so general that all of us quickly and accurately read time by observing the positions of the hands on the face. Although most watch and clock dials have 12 equally spaced symbols or figures, we do not require these figures in reading time. We use them only as guides to determine accurately the positions of the hands.

In the same way the transfer clock indicates time not by individual minutes but by 5 minute periods. The punchmark nearer the clock center takes the place of the shorter, or hour, hand; and the outer punchmark represents the longer, or minute, hand. Time is quickly and easily read by considering merely the positions of these punchmarks on the dial.

The following illustrations show that time is read in the same way from a transfer clock as from a watch. The numbers have been omitted from both dials, but the time is easily read from the positions of hands on the watch and punchmarks on the transfer clock.

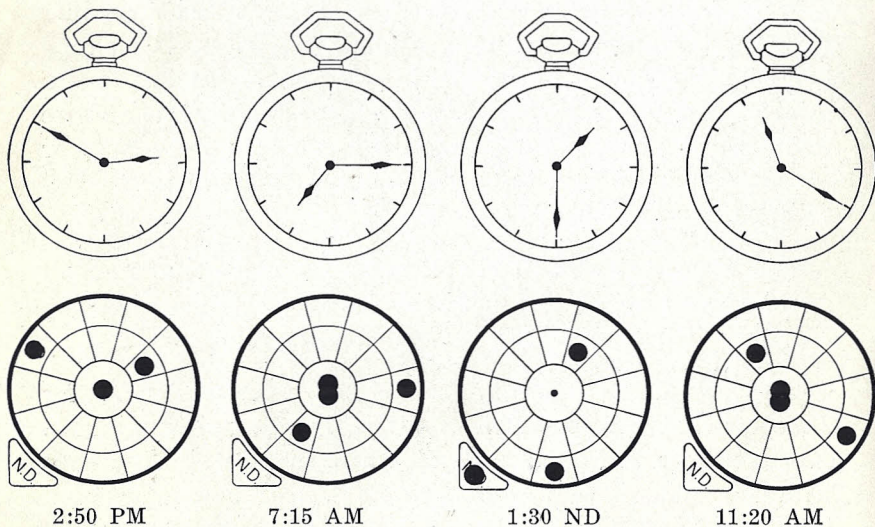


FIGURE 1

For checking transfers, the correct way to read time is to read the hour first and the minutes second, as 2:50, 7:15, 1:30, 11:20, etc., and not 10 minutes to 3, a quarter after 7,

half past one, 20 after 11, etc. The adding of time for zone allowances is also easier with this method of reading time as will be shown later.

The A.M. or P.M. period of the day is indicated by punchmarks in the circle at the center of the dial. One punchmark denotes "P.M.," and two punchmarks denote "A.M." The "P.M." punchmark should be centered on the dot printed in the center of the clock, while the "A.M." punchmarks should always be placed one above the other and slightly overlapping as shown in the illustrations. Conductors on runs out after midnight will omit the punchmark in the center of the clock, but they will punch the "N.D." (next day) space outside the clock.

All Conductors and Operators should be able to read the transfer clock and check the period of the day at a rate of 50 or more transfers per minute.

FIGURING THE TIME

To figure the time on a transfer between the time punched and the time when the transfer is presented, the method described as follows is suggested.

When a transfer is received at 1:48 P.M. the nearest five minute period will be 1:50 P.M.

Fix these points (indicated by light lines on Fig. II) in your mind.

Now, note the time punched on the received transfer (1:10 P.M.). Then, starting with the minute punchmark (see Fig. III), count in ten minute intervals around the clock until you reach 1:50.

In this illustration use even numbered segments as guides in making the count, since the transfer is punchmarked (1:10) on an even numbered segment.

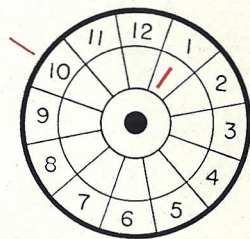


FIGURE II

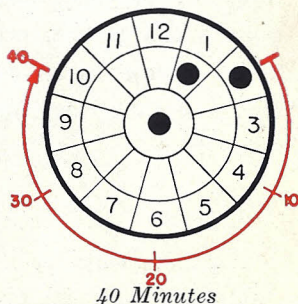


FIGURE III

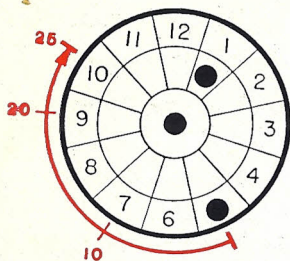
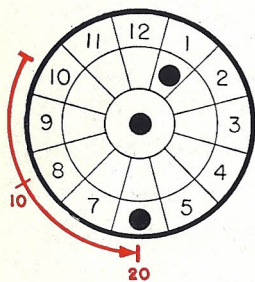


FIGURE IV

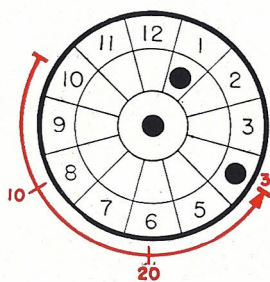
In the illustration in Fig. IV use odd numbered segments as guides since the transfer is punchmarked (1:25) on an odd numbered segment.

Since most transfers are received within an hour of the time punchmarked, this count of minutes will usually give the total traveling time. If more than an hour has passed, the hour punchmarked will show this.

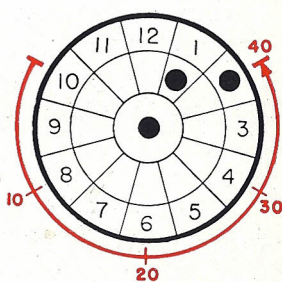
For some it may be easier to count around the clock in the other direction. See Fig. V.



20 Minutes



30 Minutes



40 Minutes

FIGURE V

In these illustrations, starting at the 50 mark, count in 10 minute intervals around the clock until you reach the minute punchmark of the received transfer. Here use the even numbered segments as guides since the starting point is on an even numbered segment. (See Appendix for shortcuts in figuring time.)

Generally, the actual time from the watch is used to the nearest 5 minutes, i. e., use 3:50 for 3:48; 4:05 for 4:03; 8:00 for 8:02. In checking a transfer that is less than 5 minutes late, the conductor will, of course, check his watch to

the nearest minute instead of the nearest 5 minutes. These transfers should be questioned, but, if the conductor is convinced that the passenger is not attempting an illegitimate ride, may be accepted.

COMPUTING THE TIME ALLOWANCE

A 10 minute allowance is made for all zones on the system with two exceptions. In these exceptions 15 minutes per zone are allowed.

First: The central business district zone bounded by Madison, 1500 W., 1500 N., and State, shown on the transfer by heavy lines.

Second: Zones in which the passenger presents a transfer for a third ride in one zone. Such a transfer may have two punchmarks in the zone in which presented, or one in this zone and another in a different zone.

Since a 10 minute traveling allowance is made for each zone and a 10 minute allowance also is made for the time needed in transferring, it is clear that if one adds 10 minutes for each zone, including the first zone, where the passenger boards, this will make the correct amount of time allowed to travel the number of zones crossed or partially traversed by the passenger.

If the passenger has traveled between the two points marked on the transfers Fig. VI and VII, the quickest method of counting the zones should be to count as if the trip were made by the north and south and east and west lines instead of following along the diagonal route, even though a diagonal route may have been used. For example, if counting the number of zones,

count 1, 2, 3, 4, and 5 as on Fig. VI. If counting by minutes, the time needed for the trip, then count 10, 20, 30, 40, and 50 as on Fig. VII. This is the quickest method and it will nearly always produce the same answer as if one could follow the exact route used by the rider.

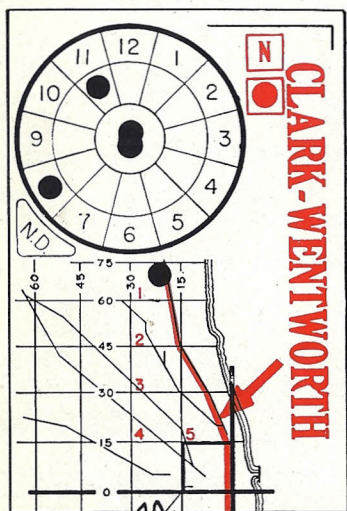


FIGURE VI

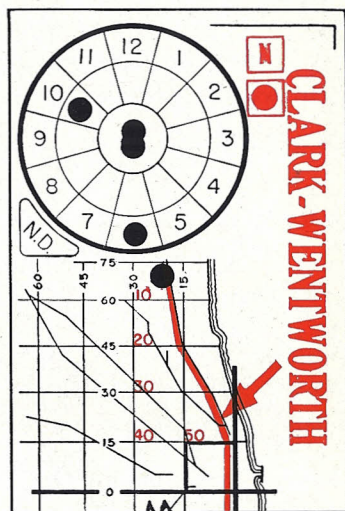


FIGURE VII

CHECKING THE TRANSFER FOR TIME

CHECKS OF THE TYPE DESCRIBED HERE CAN BE MADE IN AN AVERAGE OF 2 SECONDS. USE ONE OR THE OTHER OF THESE METHODS FOR SPEEDY CHECKING.

Assume that the transfer shown in Fig. VIII is handed to the conductor on a Western Avenue car at Madison Street at the place marked by the heavy arrow.

The conductor knows the time he arrives at each car line intersection. In this instance he would know that his car arrived at Madison Street at 3:47 P.M.

METHOD 1

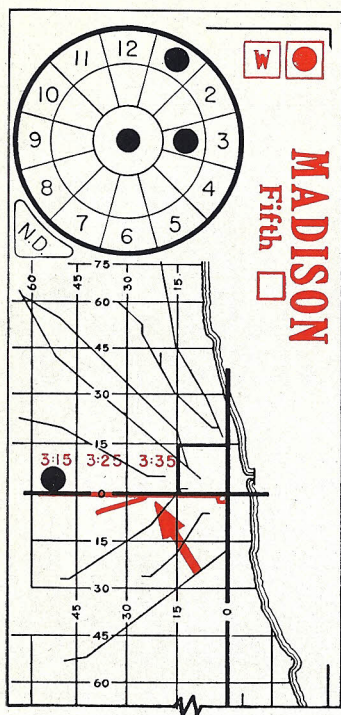


FIGURE VIII

1st—Read the time punched,
3:05 P.M.

2nd—Add allowed traveling time by counting zones at 10 minutes each from passenger's starting zone to zone where it is now presented for a ride, 3:15, 3:25, 3:35.

3rd—If transfer is presented after 3:35 P.M. it is late. Since this transfer was presented at 3:47 P.M. it is 12 minutes late.

METHOD 2

The conductor reads the number of minutes that have passed since the time punched, which, in this case, would be the difference between 3:45 and 3:05, or 40 minutes.*

He knows, then, that the number of zones that have been ridden should be four or more. He observes the number of zones between the point of receiving the transfer and the punchmark which shows the origin of the transfer, counting both the beginning and ending zones.

As this number of zones is only three, the transfer is late.

*If the time punched is no more than 10 minutes earlier than the actual time when the transfer is presented, no further time checking is necessary.

W. A. Hall
Superintendent of Transportation

APPENDIX

Certain short-cuts are possible in figuring the time on a transfer between the time punched and the time when the transfer is presented.

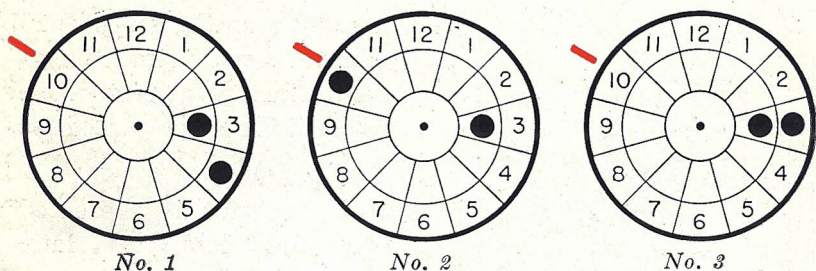


FIGURE IX

For transfer No. 1 (Fig. IX) presented at 3:48, one can quickly figure the number of minutes that have passed since the time punched on the transfer. By placing a finger at 3:50 on the clock and noticing that this point is directly across the dial from the minute punched on the transfer, he can instantly see that 30 minutes of time have passed since the time punched. This means that the passenger should have ridden in 3 zones or more.

In illustration No. 2, when the conductor places his finger at the 3:50 mark, he finds that he is directly at the minute mark punched, so the transfer was punched for the same time or one or more hours earlier, and he must look at the hour mark to find which is correct. Then, the rider should have ridden a very short distance or, if it is one or more hours away, a distance of at least 6 zones.

For the third illustration, when he places his finger at 3:50, he sees instantly that the minute punched on the transfer is one space more than half-way around the clock, which would be 35 minutes.

These illustrations show a mark at the place where the conductor would place his finger to show the time when checking the transfer. With a little practice, he does not need to place the finger; he only needs to look to see where the finger would be placed and then immediately knows the number of spaces more or less than 30 minutes, or more or less than an hour, so that he can quickly read the number of minutes without counting.

LATE TRANSFERS ARE USUALLY FRAUDULENT.

