Speed Limit Signs

conversion to Metric

(Kilometres per hour)

Various possible methods

of signing to indicate the changeover

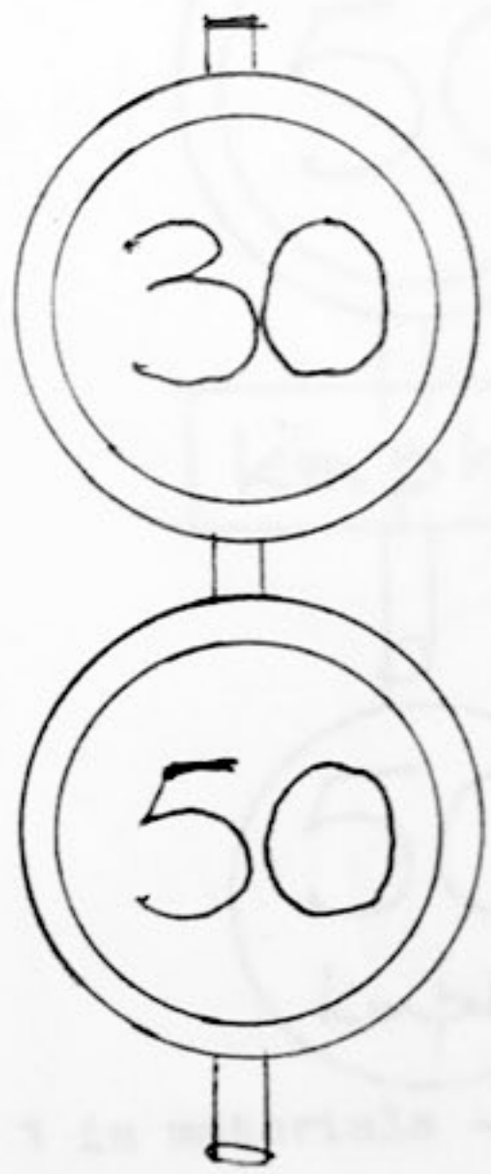
The changeover period must of necessity be fairly prolonged because of the inability of manufacturers to produce signs in quantity and the strain on the resources of local authorities staff in getting signs erected.

Therefore during the changeover period motorists must be under no misapprehension - they must know that the signs indicate miles per hour or kilometres per hour according to whether or not they have been altered.

Method 1

A separate new sign modelled on existing signs and indicating the k.p.h. figure only (i.e. without the letters k.p.h.) could be mounted below the existing m.p.h. plate.

This method would be applicable to both terminal and repeater signs. After a suitable period of time had elapsed the 30 (say) sign could be dismounted and removed for scrap and the 50 sign moved up into position.



/Advantages

Advantages

1. During the changeover period it would be clear that where one sign only was displayed it meant m.p.h. and where two were displayed the metric equivalent was shown below.

2. No other additional plates would be required.

3. Symbols would be very legible being the same height.

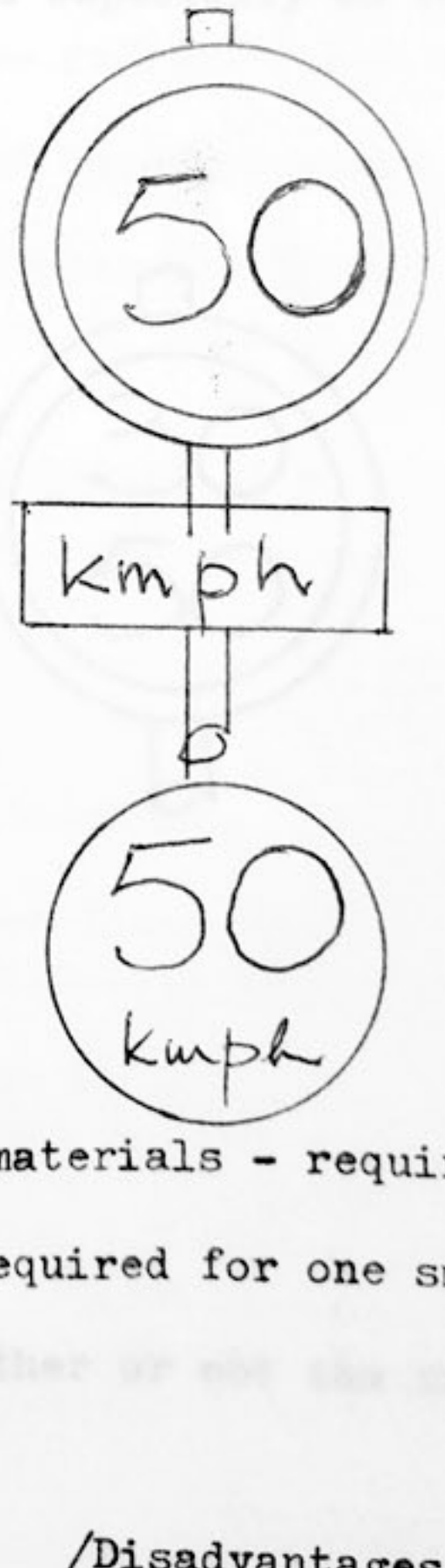
Disadvantages

1. Very expensive because all new signs would be required and the only credit would be the scrap value of existing signs - some of which may be fairly new.

2. At least three operations at the site of each sign would be required i.e. (a) mount 50 sign below 30 (b) remove the 30 and (c) shift 50 to new position.

Method 2(A)

An insert could be made to fit existing signs showing new 50. A plate would be required below showing k.p.h. to let motorists know the sign had been altered. Repeater signs could be treated in the same way.



Method 2(B)

The insert would also bear the letters k.p.h.

Advantages of 2(A) cheaper than method 1 in materials - requires a smaller, lighter disc and fittings would be required for one small plate only.

/Disadvantages

Disadvantages

(i) three operations for each sign i.e.

(a) fit new figure insert

(b) fit a supplementary plate

(c) remove supplementary plate.

(ii) the cost of the supplementary plate is a complete loss except subsequent value for scrap.

Advantages of 2(B)

(i) cheaper than method 1 or 2(A)

(ii) only two operations

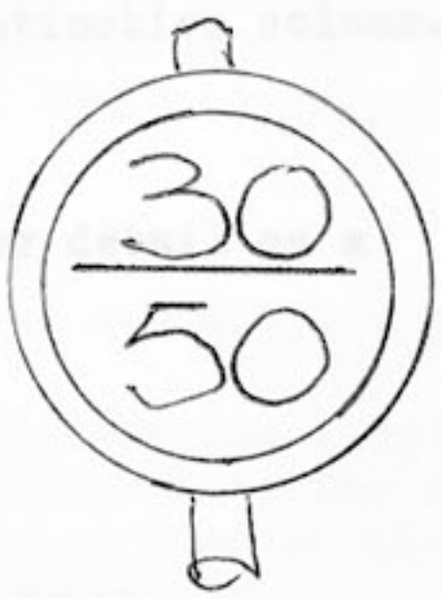
(a) to fit the figure insert and

(b) subsequently to delete or remove k.p.h.

Disadvantage k.p.h. on plate might not be completely legible and might fail to indicate that the sign had been changed especially on repeaters.

Method 3

An insert could be fitted to existing signs bearing the two figures - top-miles per hour, bottom-kilometres per hour (this of course could be reversed but signs are read top to bottom and this is the chronological order of events "was 30 m.p.h. is now 50 k.p.h.") subsequently this plate could be salvaged and fitted with a new sign face indicating 50 only.



Advantage there should be no doubt at all whether or not the sign has been altered.

Disadvantages

(i) the figures are smaller than normal

(ii) slightly dearer than method 2(B)

/(iii)

(iii) the method will not be really applicable to repeaters because the figure sizes in that case would be too small. Method 1 or 2 would need to be adopted for repeaters

(iv) involves three operations

(a) fitting new 30/50 plate

(b) removing 30/50 plate

(c) fitting new 50 plate

Summary

All methods will involve considerable expense in labour but some are far more expensive in materials than others.

Method 2(B) will undoubtedly be cheapest in each respect and the doubt I have about indicating that the sign has been changed could be met by allowing k.p.h. to fill all the available space - even overlapping the red surround - or if that is not practicable or permissible, the face below the figures could be reflectorised in a distinctive colour or alternatively the whole of the background within the red border could be reflectorised in a distinctive colour.

Recommendation

To investigate method 2(B) in much greater detail as a firm basis for future action.

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HE 15/5/021

Speed Limit Signs - conversion to Metric
Further observations on the attached paper dated December 1966

1. The 'insert' referred to in the earlier paper was {thought of as} a metal plate having a diameter slightly smaller than the white background of the existing sign. This insert would be attached to the existing sign by means of nuts and bolts through holes drilled in the two plates. The holes in the new plate could be drilled during manufacture. The new plate would then be used as a jig for drilling holes in the existing sign on site.

2. This metal plate insert method was thought to be the only satisfactory method by which a really permanent conversion could be achieved.

3. It is now understood that self-adhesive stickers, applied using hand pressure only, can be virtually permanent, provided that a coat of clear varnish is applied to protect the sticker from the effects of the weather and provided that the existing sign is properly cleaned before the sticker is applied.

4. Nevertheless it seems likely that some authorities may prefer to use the metal plate method especially on the larger signs and both the sticker and plate methods should be borne in mind.

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5. The principle behind method 2(A) previously advocated for use in connection with the conversion of speed limit signs, might be applied to all other signs requiring conversion i.e. the existing imperial distances, dimensions etc. could be permanently concealed by a plate or sticker bearing the equivalent metric indications. In many cases it will be necessary to state the units involved, but if a suitable colour code arrangement could be adopted having the significance - "This sign has been converted to metric units" the units indication could be dispensed with. This applies to Speed Limit, Direction and Route Confirmatory signs.

6. The colour code arrangement could take several forms:-

(i) A reflectorised panel upon which the metric figures are displayed.

(ii) A separate plate or disc in a distinctive colour or bearing a symbol denoting "metricated" which could be separately attached to the sign post. This latter method, of course, would put the plate or disc at the mercy of vandals and would add to cost both in labour and materials.

(iii) The new figures indicating metric distances on speed limit, Route Confirmatory and Direction signs could be in a distinctive "metric"colour ..

7. If no suitable colour scheme could be devised applicable to all signs (and there could be difficulty in amending the Regulations to permit coloured backgrounds) reliance will have to be placed upon the inclusion of the metric unit in the legend to denote that the sign has been changed. This will necessitate a redesign of those signs which do not designate the units (especially speed limit signs) when the size of numerals formerly used will have to be decreased. Another point to bear in mind is that speed limit signs hitherto have had at most to accommodate 2 numerals.

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In the future they will have to accommodate 3 numerals - question will future designs be based on the use of 3 numerals throughout? or will letter sizes be reduced when limits are higher and visibility, coupled with legibility, is more important?

Other points to be considered

8. Is this the right time to adopt the 24 hour clock notation on waiting restriction plates?

9. At what point ~~shall~~ level we change from metres to kilometres?

10. Will 'm' for metres be confusing bearing in mind that we now use 'm' for miles?

11. If units have to be designated are the correct abbreviations km for kilometre and hence km.p.h.?

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