

## ENGINEERING REPORT

ER98

1st Revision

DISCUSSION PAPER  
RANDOM INSPECTIONS - TIME SINCE  
LAST ROUTINE INSPECTION

INTRODUCTION

Following discussions within the HVIS Consultative Committee, investigations have been conducted into the results of random MID inspections of vehicles which have also undergone a routine HVIS inspection. The intention was to determine whether there is correlation between the major defect rate (% of vehicles with serious, safety-related defects) and the time since a routine inspection.

RESULTS

A search of inspection records revealed 2102 cases of random MID inspections with a preceding HVIS routine inspection. The time between the inspections was calculated and divided into four-week periods up to 48 weeks. The following results were obtained:

Time between inspections (weeks)	Total Number	% with defects	% with major defects
0 - 4	223	17	4
5 - 8	243	27	3
9 - 12	246	33	1.2
13 - 16	238	31	5
17 - 20	215	39	6
21 - 24	206	42	7
25 - 28	178	53	12
29 - 32	172	50	6
33 - 36	162	55	7
37 - 40	100	53	9
41 - 44	77	53	5
45 - 48	42	52	12

It is evident that the major defect rate is highly variable, possibly due to the small sample size. However, a low major defect rate is typical of the first twelve weeks after a routine inspection.

The overall defect rate climbs steadily from 17% to 53% over the first twenty four weeks and then remains steady at about 53%.

The reason for the drop in the sample size beyond 37 weeks is likely to be due to the periodic culling of inspection records (culled records are archived and were not covered by this survey). For random MID inspection performed, say, twelve months ago, it is likely that any routine inspection records more than six months earlier would have been culled.

CONCLUSION

The survey is not statistically conclusive, in respect of major defects, due to the small sample size but there is evidence of a low major defect rate for random inspections conducted within twelve weeks of a routine HVIS inspection. It is therefore considered that when MID teams select vehicles for random roadside inspection (given a choice of vehicles to inspect) they should select vehicles with more than three months indicated on the inspection label - provided there are no obvious serious defects on the more recently inspected vehicle.

Note that this selection procedure will affect the overall random inspection statistics because the teams will be targeting vehicles which are more likely to be defective.

Prepared by: ..... ~~\_\_\_\_\_~~ 4/2/88  
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HVIS = Heavy Vehicle Inspection Scheme (trucks  
over 5t unladen and all buses)

MID = Mobile Inspection Division ("random"  
roadside inspections)

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# RANDOM INSPECTION RESULTS

