

these fatalities accounted for 76% of all grade-crossing fatalities involving motor vehicles. Considering that the average service life of a diesel locomotive is 20 years,^{3/} these fatality figures show that an average of nine fatalities will occur for every 10 head-end locomotives placed in service. There will also be almost two train-strikes-vehicle accidents for each head-end locomotive.

It is estimated that there are approximately 25,000 head-end locomotives^{4/} in service at any one time throughout the United States, whereas grade crossings number over 220,000 and motor vehicles about 97,000,000. These figures indicate that the front impacting surfaces of locomotives would provide a very favorable focal point for an efficient use of research funds to reduce grade-crossing fatalities.

The National Transportation Safety Board recommends:

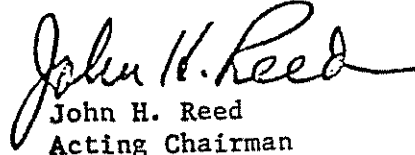
- (1) That the Secretary of Transportation consider the establishment of a Task Force to study and determine the feasibility of a device, apparatus or structure for application to the front ends of locomotives to cushion and deflect motor vehicles in the types of collision impact experienced in a majority of grade-crossing accidents.
- (2) That research organizations and industries working in the field of impact reduction and cushioning or injury prevention, and the railroad industry itself, be encouraged to participate in this effort by supplying technical assistance, advice, information, and proposals to the Department during the progress of the study.

^{3/} Based on 5% annual straight line depreciation of locomotives typically allowed by Bureau of Accounts, Interstate Commerce Commission in 1964, 1965, and 1966.

^{4/} From Yearbook of Railroad Facts, 1967 Edition, Association of American Railroads. This figure is modified by removing the number of "B" units based on Interstate Commerce Commission statistics.

The Safety Board will be pleased to have further consultation with your Department concerning these recommendations.

Sincerely yours,


John H. Reed
Acting Chairman

Enclosures