

The Research on the Test Technology of Ammunition-feed System Based on the Integration of Shooting Simulation and Driving Simulation

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Introduction and test method of traditional AFS

1) Introduction

On the one hand, the consumption of research, development and test of special vehicles has increased rapidly. The cost and time of AFS test account for more and more in the whole development process.

On the other hand, the traditional test methods for the performance of AFS can no longer fully meet the increasingly improved reliability and other performance requirements.

2) test method of traditional AFS

(1) problems of traditional AFS: Platform test is usually carried out indoor, before assembly ; Real vehicle tests must be carried out the vehicle's off-road driving and live firing.

(2) The embodiment of real vehicle test problems: High test cost; Long test cycle; Difficult in performance evaluation.

Simulated Shooting Test Technology

- 1) Launch and recoil;
- 2) Basic concepts of simulated shooting test technology;
- 3) Research Status of Simulated Shooting Test Technology;
- 4) Types and working principle of simulated shooting test equipment;
- 5) Basic functions of the simulated shooting test device.

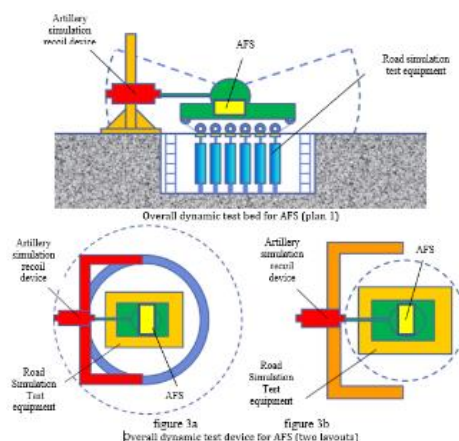


figure 2 Plan 1

Conclusion

From what has been discussed above, through the simulation and road simulation test and form of the combination of AFS dynamic test technology, it can be widely used in special vehicle for AFS overall performance evaluation and assessment, broad application space. It can achieve significant military, economic and social benefits, so it is necessary to further research and application.

Application

1) Specific implementation plan

Plan1 : figure2;

plan 2 : figure3.

2) Effect analysis of technology application

Technical characteristics : time saving; cost saving; comprehensive assessment; convenient test; easy to expand; extensive application.

military benefits: it can more comprehensively and accurately assess the working performance of the newly developed AFS, and provide sufficient, reliable and scientific basis for the overall scheme optimization and the optimization of several schemes.

3) economic benefits

shorten the development period and reduce a lot of development cost.

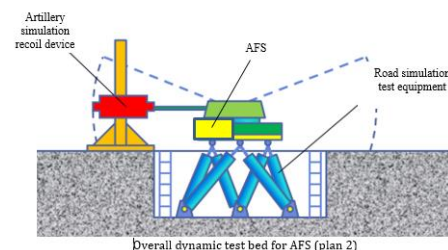


figure 3 Plan 2

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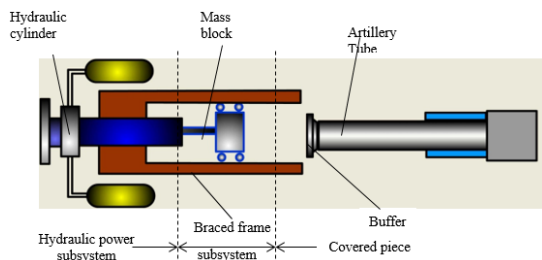


figure 1 Hydraulic analog test device