

Review Article

The Study of Design & Dynamic Equilibrium on Vehicle Design

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Abstract: The vehicle design is an significant work for modern advanced one so the design has dynamic equilibrium which can be defined as modeling virtual reality in this paper. It may provide more reality to modeling in order to promote the product properties and cost down. That is because the properties are predicted and promote the properties using the correct match, size and power. Therefore it may save cost and acquire best benefit for company. It decreases cost in terms of the regulation and promotion in advance that may decline the cost largely.

Keywords: Vehicle design; dynamic equilibrium; study; cost down.

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1 INTRODUCTION

The vehicle design as an important work has significant role. For example the new car be needed to regulate which fits to the demand of purchase from customer. Therein the main parameters are the key of the designing vehicle. In terms of the demand the whole design may be proceeded with modeling in advance. Furthermore the connecting with the fact will become more and more significant now. Not only this may decrease the design time but also it may cause the reality effect. Through the modeling it could be seen preforming effect, meantime the defect could be observed. It is our destination [1-6]. The defect wants to be found in advance. It could be detected by program for us to mend fitly so it is very important work for us.

So the modeling of new design have been established for the cost down and decreasing the leisure time. In special the new function vehicle is the new construction product. It is needed that the match parameters may be proposed so as to the convenient design. Therein the dynamic equilibrium is a new way to design the new car which can connect with virtual reality. Only the dynamic equilibrium could promote and improve our product properties more completely in final.

Overview the new car has been designed through its modeling which is established by our

professor and engineer. So the parameter has been thought and best constants are found in regard to design which must be the best conditions.

2 MODELING AND DISCUSSIONS

The motor design is manufacture key. It need to be evaluated in advance. The dynamic balance may provide the better design effect. It includes the motor life improvement and impact resistance. The former results in good effect of bearing gap to endure the dynamic force to movement together whilst the later may cause spring strength and bearing decreasing load. It is concluded that fit dynamic status will have a certain effect to resist the force impact. This is the application to bridge.

The modeling of vehicle has been established in terms of the principle and theory on car. For example the car mass, power and tire diameter etc. Other conditions are the normal road, slope one and turning one. So the strength is first then fatigue is second according to my knowing. The method has many ways so it is in terms of individual demand. We can use program to proceed according to the parameter which is solved from relation theory so the result can be gained immediately. And then do sample car to provide the customer with specification which includes the car's properties and conditions. Certainly the haven program

can be used for convenience, if not the program want to be established rapidly for using in parameter result.

It can improve the automobile life under the state of moderate dynamic equilibrium. It's a graph of quantity versus cost. The relationship between them is dynamic rather than fixed. Increase costs when volume is high and do not or only slightly increase costs when volume is low. This is dynamic equilibrium. And the large dynamic is not controllable, not as a cost analysis. The proper balance is the control, which is the purpose of our study.

If the acceleration of the car is included in the primary position, the engine load power should be designed. If stability is the first column, the bottom bridge spring should be redesigned and the weight should be adjusted. If space and comfort are a priority, the wheelbase, wheelbase and interior should be improved. Furthermore all of them have individual manufacture feature so according to the feature like difficult manufacture the prior turn need to arrange. We do in terms of the prior turn just.

1. The appointment of engineers enables the creation of enterprise products to be implemented. Grasp the primary purpose of not put can achieve the purpose of product function update, launch new products to meet the needs of the main social sales level of consumers. Reduce the time to propose new products, increase the design cycle. At a certain point in the first design the second design began to come out. The third and fourth models will be launched periodically to maintain the continuity of product design.
2. Write articles on the main performance aspects, follow up the aspects that can be improved, and make articles. This improves performance, stands out from the crowd, and increases sales. Other aspects need to reduce the design time, so as to do a good job in the primary aspect, secondary step up through, to ensure that the primary purpose of the smooth. Play with personality to improve the main function of the product. The thing has urgent and important one on the other side has inferior. We insist in the clue of former firstly and then later secondly. Only if the former is solved the later is lately. In order to guarantee the car properties and demand it is the time to proceed like former. It may decrease cost.
3. Some minor aspects can be decided later, and the main design can be strengthened and promote. The key aspects of car design are comfort and safety and loads and speed and acceleration and so on. We put comfort and safety first, and by focusing on making them right, we can reduce costs and improve quality. The main one has been construct while the minor is flesh so that they are distinguished is an important thing.
4. Work on the simulation before deciding what needs to be changed and improved to make the car better

and cheaper. The simulation has to be linked to the practice, the dynamic balance, and in the case of car safety you have to model the practice. The balance is dependent on the precise of modeling therein the parameters may produce side effect. If we choose the big deviation value it may affect big side effect. So the parameters will happen to severe side effect which may produce a certain deviation. Even the formula has been wrong defining to limitation of component acceleration and velocity. Therefore the modeling course has been checked carefully to use to the part that is included as well in this study.

5. Dynamic equilibrium is combined with what actually happens. Such as vibration and noise need to be reduced to meet the requirements of modern cities. Therefore, we can first establish the vibration model, find out the key problem, and modify and improve. Only in this way can we first solve the timely changes in the design and avoid the economic losses caused by it. Therefore, dynamic balance is an advanced design idea. The method has been established which applies to this modeling with dynamic balance, but it is known that whether the fitting capability is? So the creation need to be discussed after the modeling for the sake of its application zone. Maybe the multibody is the complicated mechanism so when the Lagrange formula has been wanted whether the establishment equation is correct or not. This is all the problem. So only correct one is available but it is difficult. We have many other methods to apply so that the evaluation is needed currently.
6. Comprehensive theoretical simulation should be carried out considering the actual situation and actual problems of automobile and other products. The simulation is as close to reality as possible to avoid the pitfalls that may occur if the simulation is not well thought out. There needs to be interaction between simulation and reality. If the vibration of the actual product can be measured during operation, and then compared with the theory or empirical formula, the defect point can be found, so as to timely change the size of the parts to achieve the product without defect. When the performance test found that some parts did not meet the performance standard, the problem should be found around the problem point, and redesigned and installed to reach OPPM. If you find the problem early, you don't have to wait until the prototype is built to find the problem. It should have happened in the model, so the job of dynamic balance is to find the defect and correct it. For example, the mechanical process when the car is driving on the normal road, on the slope and turning can be found to be the problem of driving optimization. Its performance can be decided according to the need, such as car power and weight and tire diameter are its driving factors. The integration of these elements can delineate the

specific scope of the car, so that it has excellent function of each road section.

In short, the design idea of dynamic balance is to establish a model to be used later and adjust the parameters to establish the best practical model. And actively carry out their differences, and strive to build quality first, the highest level of the model library. In this way, the same model or product can be designed through the model, and supplemented by parameter setting, to see whether there are some defects in the car series under this condition, know in advance the size of its defects to seize the main redistribution, can predict its performance and life, reduce the cost.

3. CONCLUSIONS

Dynamic balance is an important work to test its actual performance in automobile design. There is still some gap between the model and the actual automobile performance debugging. Therefore, its dynamic balance is the combination of model and practice, making it closer to practice is the purpose and key of future car design. Therefore, the model base

needs to be established and improved to meet the needs of design and production.

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