Chrysler Motor Company Correspondence

To: R. Chapman, Engineering  
From: R. T. Stabellon, Engineering  
Date: July 22, 1966  
Subject: Conventional Cab Frame Mounted Fuel Tank

Conclusions:
1. A frame mounted fuel tank mounted on the outside of the frame rail is not acceptable.

Recommendation:
All efforts should be concentrated on locating the fuel tank between the frame rails and utilizing steel as a fuel tank material.

Discussion:
After reviewing a preliminary concept drawing concerning the mounting of a fuel tank on the outside of the left frame rail of Conventional model Dodge Trucks, . . . [we do] not recommend further consideration of this proposal for the following reasons.

1. A frame mounted fuel tank mounted anywhere outside the frame rails would be in a very questionable area due to the new Federal Standards requiring 15 MPH side impacts for all vehicles. . . . Any side impact would automatically encroach on this area and the probability of tank leakage would be extremely high.
Subject: CONVENTIONAL CAB FRAME MOUNTED FUEL TANK - CONCEPT STUDY

Conclusions:
1. A frame mounted fuel tank mounted on the outside of the frame rail is not acceptable.
2. The Fuel Systems Laboratory does not recommend the use of a plastic fuel tank at this time.

Recommendation: All efforts should be concentrated on locating the fuel tank between the frame rails and utilizing steel as a fuel tank material.

Discussion: After reviewing a preliminary concept drawing, NPN, concerning the mounting of a fuel tank on the outside of the left frame rail of Conventional model Dodge Trucks, with both the Fuel Systems Laboratory and the Structures Laboratory-Safety Group, the Truck Experimental Development Department does not recommend further consideration of this proposal for the following reasons.

1. A frame mounted fuel tank mounted anywhere outside the frame rails would be in a very questionable area due to the new Federal Standards requiring 15 MPH side impacts for all vehicles. This concept proposal places the fuel tank between the cab side sill and the frame rail with a minimum of clearance. Any side impact would automatically encroach on this area and the probability of tank leakage would be extremely high.

2. It is understood that some consideration has been given to the release of a plastic fuel tank. The Fuel Systems Laboratory does not recommend the use of plastic as a fuel tank material. There are several characteristics with plastic fuel tanks which have not been fully explored such as retention of electrostatic charge as well as material structure, etc.
The Truck Experimental Development Department does not recommend further consideration of a fuel tank mounted to the outside of the frame rail or plastic as a fuel tank material. Department 8060 recommends that every effort should be concentrated on placing a steel fuel tank between the frame rails and recommends the area aft of the rear axle (i.e., D20, 10 models) as being the most logical area considering the impact directions and speeds required to satisfy GSA Federal Standards.

R. T. Stebelton

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