

ODI RESUME

INVESTIGATION: EA92-041

DATE OPENED: 8-Dec-92

SUBJECT: Fuel System Integrity

PROMPTED BY: Petition DP92-016

PRINCIPAL INVESTIGATOR: J. Robert Young *J. Young*

DID INVESTIGATOR: John Abbott *J. Abbott*

MFR: General Motors MODEL(S): Please refer to the attached list.

MODEL YR: 1970 thru 1991 SUBJECT POPULATION: 4.7 Mil. (Approx)

SYNOPSIS: Outside the frame rail fuel tanks (saddle tanks) may be unduly susceptible to rupture in a crash and vulnerable to fuel-fed fire.

FAILURE REPORT SUMMARY

An analysis of data contained in the Fatal Accident Reporting System (FARS) prepared for GM (and submitted to ODI on November 25, 1992) by Failure Analysis Associates (FaAA) found that there were 778 full-size 1973 through 1987 GM pickup trucks involved in an accident where at least one truck occupant was killed and a fire occurred from 1975 through 1990. This number represents the total for frontal, rear, and side impacts. By comparison, 1973 through 1987 Ford F-series pickup trucks were involved in 449 fatal fire accidents over the same period.

ODI is continuing to review both this and other real-world data and the file will be updated as new information is developed.

ACTION: Open this EA.

BRCH CHF

Richard P. Boyd

DIV CHF

Louis Brown

OFC DIR

[Signature]

12/8/92

DATE

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DATE

SUMMARY: In 1970 GM (or its dealers) began installing fuel tanks mounted outside the frame rail(s) of its full-size pickup trucks. This investigation will seek to determine whether such a design poses an unreasonable risk to highway safety.

NHTSA will conduct a 3-pronged approach to resolving this question. First, additional analyses of real world accident information will be conducted. Second, the agency will seek to resolve questions regarding GM's policy and procedures when certifying that the subject vehicles complied with Federal Motor Vehicle Safety Standard (FMVSS) 301. Third, the agency will examine whether the fuel tanks and related components on the trucks are unduly affected by corrosion that could make them more likely to be involved in a fire, should a crash occur.

The following lists the vehicles included in the investigation. Note, some vehicle model designations were carried over into the 1988-1993 model year at which time the fuel tank was moved inside the frame rail.

Beginning with the 1987 model year, only those vehicles with a "R" or "V" prefix are within the scope of this investigation.

Chevrolet:

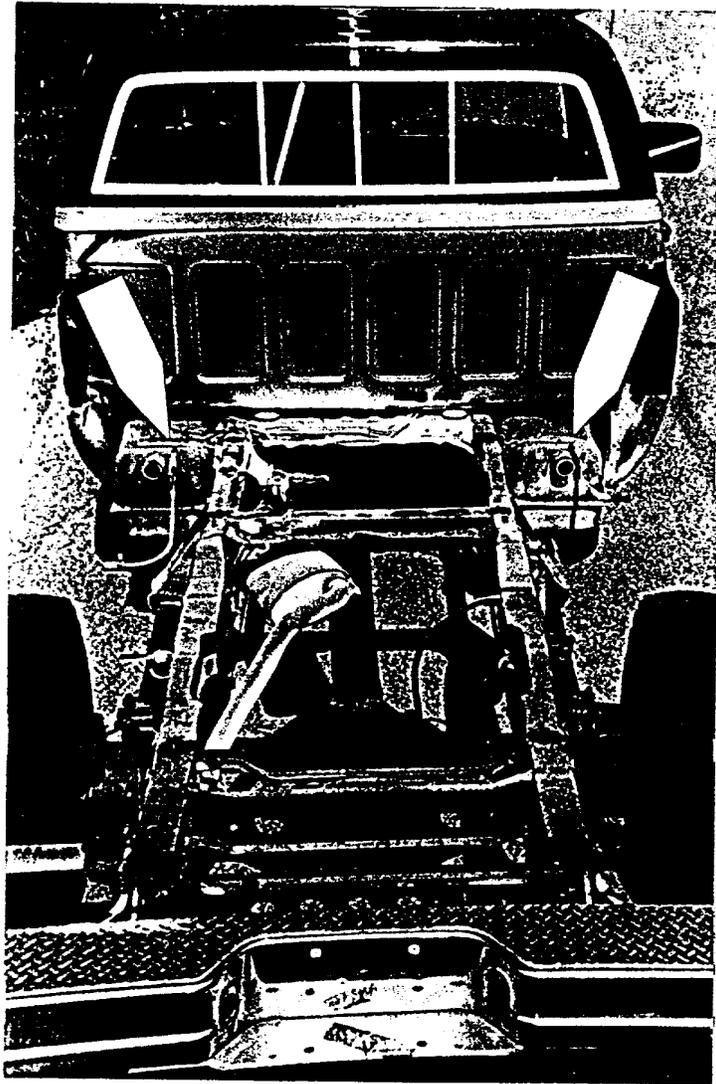
C10 PICKUP
K10 PICKUP 4X4
C20 PICKUP
K20 PICKUP 4X4
C30 PICKUP
K30 PICKUP 4X4
C10 BIG TEN PICKUP
K30 CREW CAB PICKUP 4X4
C30 CREW CAB PICKUP
C20 CREW CAB PICKUP
V30 PICKUP 4X4
V30 CREW CAB PICKUP 4X4
R30 PICKUP
R30 CREW CAB PICKUP
V20 PICKUP 4X4
R20 PICKUP
R20 CREW CAB PICKUP
V10 PICKUP 4X4
R10 PICKUP
K30 CREW CAB/CHASSIS 4X4
K30 CAB/CHASSIS 4X4
C30 CREW CAB/CHASSIS
C30 CAB/CHASSIS
C20 CAB/CHASSIS
C10 BIG TEN CAB/CHASSIS
C30 STAKE OR RACK
C20 STAKE OR RACK
V3500 CREW CAB PICKUP 4X4
V3500 CREW CAB/CHASSIS 4X4
R3500 CREW CAB PICKUP
R3500 CREW CAB/CHASSIS
R3500 CAB/CHASSIS

GMC:

C3500 PICKUP
K2500 PICKUP 4X4
C2500 PICKUP
K1500 PICKUP 4X4
C1500 PICKUP
K3500 PICKUP 4X4
C1500 BIG TEN PICKUP
K3500 CREW CAB PICKUP 4X4
C3500 CREW CAB PICKUP 4X4
C2500 CREW CAB PICKUP
V3500 PICKUP 4X4
V3500 CREW CAB PICKUP 4X4
R3500 PICKUP
R3500 CREW CAB PICKUP
V2500 PICKUP 4X4
R2500 PICKUP
R2500 CREW CAB PICKUP
V1500 PICKUP 4X4
R1500 PICKUP
V3500 CREW CAB/CHASSIS 4X4
V3500 CAB/CHASSIS 4X4
R3500 CREW CAB/CHASSIS
R3500 CAB/CHASSIS
R2500 CAB/CHASSIS
C1500 BIG TEN CAB/CHASSIS
C3500 STAKE OR RACK
C2500 STAKE OR RACK

Location of GM Full-Size Pickup Fuel Tanks

Within the scope of EA92-041



"Saddle" tanks located at arrows