DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Denial of Petition for a Defect Investigation

This notice sets forth the reasons for the denial of a petition submitted to NHTSA pursuant to section 124 of the National Traffic and Motor Vehicle Safety Act of 1966, as amended (Act), 15 U.S.C. §1381 et seq.

On June 25, 1990, the Institute for Injury Reduction, Public Citizen, and the Center for Auto Safety, petitioned NHTSA to undertake a defect investigation of Jeep CJ-5 and CJ-7 utility vehicles manufactured by American Motors Corporation (AMC), or to re-open prior NHTSA investigations. The petition requested NHTSA to investigate the alleged "undue, unnecessary, and defective propensity of the CJ vehicles to roll over," AMC's knowledge of an alleged "suspension system defect, i.e., a failure-prone shackle pin;" and the adequacy of the rollbar assembly on the vehicles.

NHTSA has decided to deny the petition. After an extensive inquiry -- involving the expenditure of far more agency resources and effort than in most formal investigations -- the agency has concluded that there is no reasonable possibility that further investigation would lead to a determination of the existence of a safety-related defect with respect to any of the allegations referred to in the petition and that it would be inappropriate to expend further agency resources on these allegations.

NHTSA's Office of Defects Investigation has prepared a full report that describes in detail the alleged defects, the agency's analysis of those allegations, and the basis for its decision to deny the petition. Interested persons may obtain copies of that report by contacting the Technical Reference Division, NAD-52, Room 5108, 400 7th Street, SW, Washington, DC 20590, (202) 366-2768. A brief summary of that report is set forth in this notice.

Background Information

There were 609,356 CJ-5 and CJ-7 vehicles sold from 1972 through 1986 (281,253 1972 through 1983 CJ-5 vehicles and 328,103 1976 through 1986 CJ-7 vehicles). NHTSA estimates that approximately 420,000 CJs are still registered for highway use. The CJ-7 is similar to the CJ-5, but it has a 10 inch longer wheelbase to accommodate an automatic transmission.

The agency considered the rollover propensity of the CJ-5 during 1980 and 1981 in response to two separate petitions for a defect investigation alleging an unreasonably high off-road (DP80-002) and on-road (DP81-018) rollover propensity in those vehicles. The petitions were denied because there was no evidence of a safety defect in the vehicles that would cause them to roll over.

Analysis of Rollover Propensity

NHTSA's National Center for Statistics and Analysis (NCSA) evaluated the rollover experience of the CJ vehicles relative to other light utility vehicles using data from four states (Maryland, Utah, New Mexico, and Michigan) that had the most accurate and usable data. NCSA used logistic regression, focussing primarily on a comparison of the ratio for each vehicle of single vehicle, first-event rollovers to all single vehicle accidents. (A "first-event rollover" is an incident in which the first harmful event was a rollover.) This analysis was selected because it normalizes the rollover involvement for the vehicles in terms of vehicle population and inherently minimizes driver influences. The data was adjusted to eliminate the effects of environmental and demographic factors, such as the location of the crash (rural vs. urban; straight road versus curved road) and driver characteristics, such as age and sex. While the CJs' rollover frequency is at the high end of the range, they do not stand out significantly when compared to many other similar vehicles.

The CJ fleet was divided into "early" (pre-1981) and "late" (1981 and later) fleets. This was done to reflect the fact that AMC made two changes in the early 1980s -- making stabilizer bars standard equipment for all CJs and widening the track width of the CJ-7 -- that would be expected to reduce the likelihood of rollover. While the later model CJs had a somewhat lower likelihood of rollover than the earlier versions, the data demonstrates that neither group stood out from the other similar vehicles to an extent that would justify further investigation by the agency.

This conclusion is supported by a recent ODI survey of utility vehicles that revealed that CJs have been modified by their owners far more frequently than other light utility vehicles. Indeed, over 65% of CJ5s and over 50% of CJ7s have been modified significantly. In many cases, these modifications, such as larger tires and wheels and higher suspensions than those furnished by AMC, would increase the rollover propensity of the vehicle. Thus, even if the accident data had indicated that CJs were significantly more likely to experience a rollover than other utility vehicles, the fact that they have been modified far more than their peers would cast doubt as to whether that data indicated the existence of a safety-related defect that could be attributed to the vehicle as it was manufactured by AMC.

Shackle Pins

Shackle pins connect one end of the vehicle's springs to the body. The petition alleges that the shackle pins used in early CJs, prior to a design change implemented by AMC in mid-1982, would break in a side impact, with a

resultant rollover. In support of this allegation, the petition pointed to incidents where shackle pins broke on two assembly lines due to over-torquing and during side impact tests of pre-production model year 1982 CJ7s, which were equipped with new, longer axles.

NHTSA's review of all available information, including accident reports, testing, laboratory investigations, and design changes, does not indicate the existence of a safety-related defect. For example, NCSA analyzed the state accident data to see if CJs equipped with the original shackle pin have rolled over more frequently than other comparable vehicles after being struck in the side by another vehicle. Although there is much less relevant data available, that data indicates that there is no basis to believe that any shackle pins are breaking in use or that the vehicles equipped with the original shackle pins are more likely to roll over after being struck in the side than other, similar vehicles.

Rollbar

NHTSA has previously conducted an extensive investigation of the adequacy of the rollbar in 1973-1978 CJs. That investigation (EA78-072) was closed because the information and evidence available to the agency did not warrant a determination of a safety-related defect. Although the petitioners did not submit any additional information on this issue with their petition, we have reviewed updated information supplied by Chrysler Corporation in response to our current inquiry. This additional data does not suggest the existence of a defect, and there is still no basis for the agency to open a defect investigation regarding the CJ's rollbar.

Conclusion

The decision to deny the petition for a defect investigation should not be read as a determination by this agency that CJs are "safe" or that drivers of CJs need not be concerned about the possibility of rollover. All light utility vehicles are much more likely to roll over than passenger cars. For this reason, NHTSA requires manufacturers of these vehicles to permanently attach a conspicuous sticker to the vehicle to alert the driver that its handling and maneuvering characteristics require him or her to exercise special care to avoid a rollover or other loss of control. In addition, the data demonstrates that, within this class of vehicles, the CJ rollover propensity is higher than average, particularly when equipped with certain common modifications. These facts, however, while they are properly of concern to drivers and owners of CJs, could not in themselves support a determination by NHTSA of a safety-related defect under the Safety Act. Therefore, the agency has no basis on which to grant the petition for an additional investigation.

Authority: Sec. 124, Pub. L. 93-492; 88 Stat. 1470 (15 U.S.C. 1410a); delegations of authority at 49 CFR 1.50 and 501.8

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Acting Associate Administrator
for Enforcement

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