

## memorandum

To: Mr. Rauff From: Mr. Just Date: June 5, 1942

Re: Changes for special vehicles now in service and for those now being built

Since December 1941, ninety-seven thousand have been processed by the three vehicles in service, with no major incidents. In the light of observations made so far, however, the following technical changes are needed:

- 1. The vans' normal load is usually nine per square yard. In Saurer vehicles, which are very spacious, maximum use of space is impossible, not because of any possible overload, but because loading to full capacity would affect the vehicle's stability. So reduction of the load space seems necessary. It must absolutely be reduced by a yard, instead of trying to solve the problem, as hitherto, by reducing the number of pieces loaded. Besides, this extends the operating time, as the empty void must be filled with carbon monoxide. On the other hand, if the load space is reduced, and the vehicle is packed solid, the operating time can be considerably shortened. The manufacturers told us during a discussion that reducing the size of the van's rear would throw it badly off balance. The front axle, they claim, would be overloaded. In fact, the balance is automatically restored, because the merchandise aboard displays during the operation a natural tendency to rush to the rear doors, and is mainly found lying there at the end of the operation. So the front axle is not overloaded.
- 2. The lighting must be better protected than now. The lamps must be enclosed in a steel grid to prevent their being damaged. Lights could be eliminated, since they apparently are never used. However, it has been observed that when the doors are shut, the load always presses hard against them [the doors] as soon as darkness sets in. This is because the load naturally rushes toward the light when darkness sets in, which makes closing the doors difficult. Also, because of the alarming nature of darkness, screaming always occurs when the doors are closed. It would therefore be useful to light the lamp before and during the first moments of the operation.
- 3. For easy cleaning of the vehicle, there must be a sealed drain in the middle of the floor. The drainage hole's cover, eight to twelve inches in diameter, would be equipped with a slanting trap, so that fluid liquids can drain off during the operation. During cleaning, the drain can be used to evacuate large pieces of dirt.

The aforementioned technical changes are to be made to vehicles in service only when they come in for repairs. As for the ten vehicles ordered from Saurer, they must be equipped with all innovations and changes shown by use and experience to be necessary.