

## **DIRECTORATE GENERAL BORDER ROADS**

### **GENERAL MAINTENANCE INSTRUCTION NO 49** **ON** **SELF RECOVERY OF VEHICLES IN THE DESERT TERRAIN**

There will be many occasions when operational groups will have to recover vehicles bogged down, without the help of recovery vehicles. It is, therefore, necessary to train the drivers in self-recovery of vehicles techniques.

1. Owing to paucity of natural anchors in the form of trees and ineffectiveness of deadman anchors because metallic pins and spines work loose in sand, recovery of vehicles by break downs based on similar chassis, poses certain problems.

2. New types of recovery vehicles are based on TMB chassis (medium breakdown) and NISSAN 1 ton chassis (Light breakdown). There is every chance that in an area with loose sand, the breakdown, while going to recover a casualty vehicle on similar chassis may itself bog down in sand. Moreover, owing to dispersion of troops and frequent bogging down of vehicles, it might take some time for a breakdown to attend on a casualty vehicle at a distant location.

3. The self-recovery technique is a method of recovering a bogged down vehicle with the help of a rope using the vehicle's own power to pull it out. The driver digs a pit into which he buries an item of equipment which acts as an artificial anchor i.e. spare wheel or tarpaulin. One end of the rope is tied in between the two twin tyres in the rear of the casualty vehicle. The other end is passed through the artificial anchor and tied in a similar way to the other set of rear twin wheels. As soon as the vehicle starts, both the rear twin wheels act as winches, the rope at both ends winds around the twin tyres and the vehicle pulls itself up to the anchorage. The depth of the anchor depends on the weight of the sand over it, and is directly proportional to its own cross sectional area. When using a spare wheel, the depth should be about 60 centimeters. Digging in sand is not difficult.

4. The above method of utilizing an artificial anchor is to be used only when no other vehicle is around. In case an anchor vehicle is available, it can itself be used as anchor for the casualty vehicle and digging is not required.

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**HQ DGBR GMI NO 49 DATED 9 NOV 71**