



GOODWINCH LIMITED

East Foldhay, Zeal Monachorum, Crediton, Devon, EX17 6DH, England

Telephone: (01363) 82666 Fax: (01363) 82782

International Tel: + 44 1363 82666 Fax: +44 1363 82782

Website: www.goodwinch.com E-Mail: sales@goodwinch.com

**Importers, Exporters, Wholesale Distributors and Retailers of
Winches and Accessories**

Distributors of Dyneema® Bowrope 12 strand synthetic fibre winch rope

Manufacturers of commercial Portable Petrol Twin Capstan Winches

European Distributors of Kingone Winches

Worldwide distributor of Bowmotors

Company Registration No. 4392946
VAT No. 540 4303 88

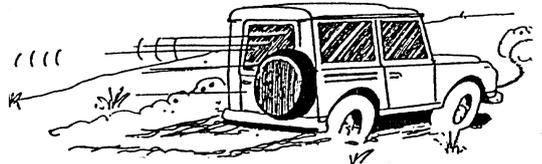
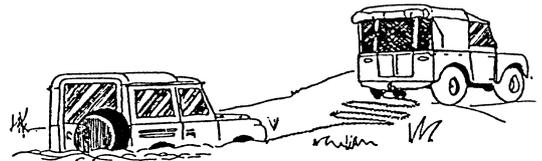
RECOVERLINE RECOVERY ROPES

The 'Kinetic Energy Recovery Rope' (KERR) was developed in conjunction with the British Army to provide a fast and effective method of vehicle recovery. No rope could have a better pedigree! The design of Recoverline is based on this revolutionary concept.

The non-rotating special eight plait construction was chosen after exhaustive trials to avoid the inherent problems such as kinking and hocking associated with conventional 3 strand rope.

HOW TO USE RECOVERLINE

1. The towing vehicle reverses as close as possible to the bogged vehicle. The rope is connected and snaked to allow tangle free deployment.
2. The towing vehicle accelerates up to its maximum permitted speed and snatches the rope at that speed. At this point the bogged vehicle should be in gear using 4 wheel drive to assist recovery.
3. The towing vehicle may be slowed or even halted, it's Kinetic Energy is converted into potential energy of the stretched rope, the energy is transferred by the rope to the bogged vehicle.
4. After a slight pause, the bogged vehicle is recovered. If the vehicle is not recovered by the first attempt, repeat the process. Once free, continued towing by Recoverline is possible.



HAZARDS

All recovery procedures are potentially dangerous. Two possible reasons for recovery failure are given below:

1. A rope failure - this should not occur with Recoverline until it has increased its length by 40%. Unlike steel wire rope, if the rope breaks it travels back along its axis. But the very energy which Recoverline need to recover a vehicle is potentially lethal if the towing attachment breaks for any reason.

2. A towing eye / rope attachment point failure. This is more dangerous and more likely to occur than rope failure. The possibility is that part of the towing eye might be catapulted by the recoiling rope.

SAFETY PRECAUTIONS

1. To reduce the possibility of a single attachment point failure, Bridles should be attached to form an apex and distribute the load.
2. Passengers should not be carried during recovery operations.
3. Do not exceed maximum speeds set out in the table below.
4. Spectators should stand clear of recovery operations. Attention is drawn to the release of energy should the nylon rope part whilst under tension. This results in an instantaneous lash - back and can be very dangerous to persons in the area close to the line of the rope.

MAINTENANCE AND INSPECTION

Nylon must be kept clear of heat and acid. Consequently, Recoverline should be kept clear of exhaust systems and battery acids. It is also important to avoid chaffing. A simple method of checking the condition of the rope, and one which ensures that it has not been severely overloaded, can be carried out by lifting one pair of strands clear of another passing underneath. Should these strands be fused together, this would indicate that the rope has been severely overloaded and should be rejected. This check, combined with visual inspection along the ropes length to ensure that there are no severe cuts to any of the rope strands, acts as a satisfactory assessment of the ropes condition.

WARNING

The greatest care has been taken to ensure that Recoverline when new has a more than adequate safety factor for the envisaged vehicle recovery. It should be understood, however, that the user must ensure that the attachment points are also adequate for the recovery.

NB: - Loads of up to 7.5 tonnes could be induced on each vehicle in the most extreme circumstances, i.e. bogged vehicle with a dead engine situation, towing vehicle driving at maximum permitted speeds (see table below).

MAXIMUM PERMITTED SPEEDS (Towing Vehicle)

Table 1 (For 8 metre Recoverline)

Vehicle Weights (Tonnes)	Speed MPH
Up to 1.5	15
1.5 - 2.0	13
2.0 - 2.5	12
2.5 - 3.0	11
3.0 - 3.5	10

Goodwinch Limited, or any of their agents, disclaims all responsibility for injury or damage, however caused during recovery operations.